

Hybrid Digiatl Video Recorder

HYU-CC-RH2112002

User quick guide



- Please read this manual carefully before using the product you purchase and keep it well for future use.
- Please note that images and sketch maps in this manual may be different from the actual product.

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Aboutthis Manual

Copyright Statement

Thank you for purchasing our product. Contact your local dealer if you have any questions or feedback. No part of this manual may be copied, reproduced, translated, or distributed in any form or by any means without prior consent in writing from our company.

Disclaimer

Due to such reasons as product version upgrade or regulatory requirement of relevant regions, this manual will be periodically updated.

This manual is only for informational purpose, and all statements, information, and recommendations in this manual are presented without warranty.

The illustrations in this manual are for reference only and may vary depending on the version or model. The screenshots in this manual may have been customized to meet specific requirements and user preferences. As a result, some of the examples and functions featured may differ from those displayed on your monitor.

Safety Symbols

The symbols in the following table may be found in this manual. Carefully follow the instructions indicated by the symbols to avoid hazardous situations and use the product properly.

Symbol	Description
™ NOTE!	Indicates useful or supplemental information about the use of product.
(CAUTION!	Indicates a situation which, if not avoided, could result in damage, data loss or malfunction to product.
↑ WARNING!	Indicates a hazardous situation which, if not avoided, could result in bodily injury or death.

1LocalOperations

This chapter introduces operation methods and matters needing attention on the local interface.

You can refer to Initial Configuration and complete a quick configuration.



Note: Unless otherwise specified, all operations described in this manual are performed with a mouse by the right hand.

Before You Begin

- Please be aware that functions may vary with DVR model.
- The figures in this manual are for illustration purpose only and may vary with DVR model.
- The parameters that are grayed out on the local interface cannot be edited. The parameters and values displayed may vary with DVR model and version.

2InitialConfiguration

This chapter describes the initial configuration of the DVR.

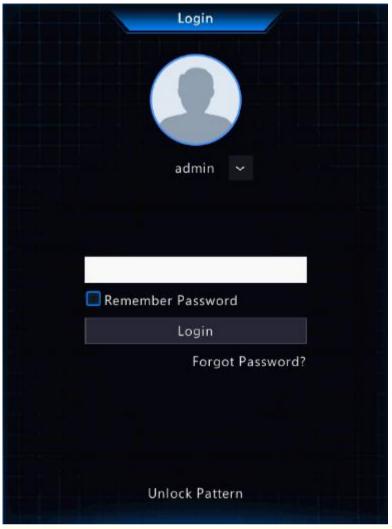
2.1 Preparation

- Make sure that at least one monitor is correctly connected to the VGA or HDMI interface on the rear panel of the DVR, otherwise, you cannot view the local interface.
 - Note: If no images are displayed after the DVR is powered on, it may be because the monitor does not support the current output resolution of the DVR. Please press and hold the scroll wheel of the mouse to restore to the lowest resolution.
- Make sure that the hard disk(s) are correctly installed. For detailed installation steps, please refer to the quick guide shipped with the DVR.

2.2 Login

Device Login

1. The login page appears after the DVR starts up. Select the default username and enter the password (admin/123456), and then click Login.

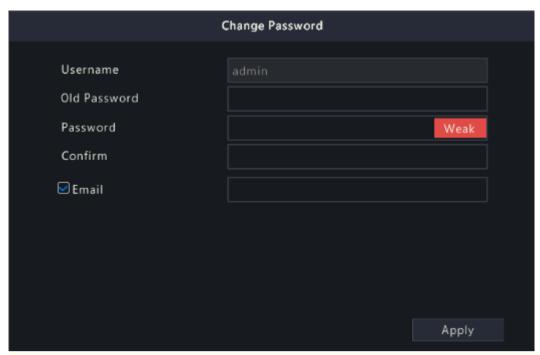


Note: If you enable **Remember Password**, the username and password will be automatically filled in the next time.

2. Click **Yes** in the pop-up window to change the password into a strong one.

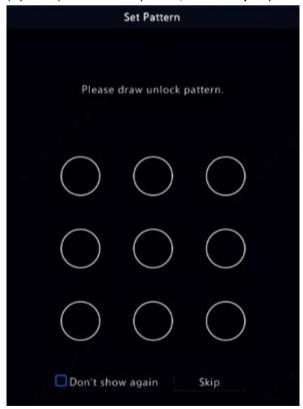


3. In the **Change Password** page, enter the old password, new password, and confirm the new password. You may check **Email** to enter your email address, and then click **OK**.



Note:

- Use the default username and password (admin/123456) to log in for the first time. After login, you have to change the password, and use the new password to log in the next time.
- For security, you are strongly recommended to set a strong password with at least 9 characters including all three elements: letter, digit, and special character.
- It is recommended to enter your email address in case you need to reset the password. You may also enter it when you need to retrieve the password. See Reset Password for details.
- 4. (Optional) Set an unlock pattern, or click **Skip** to proceed.

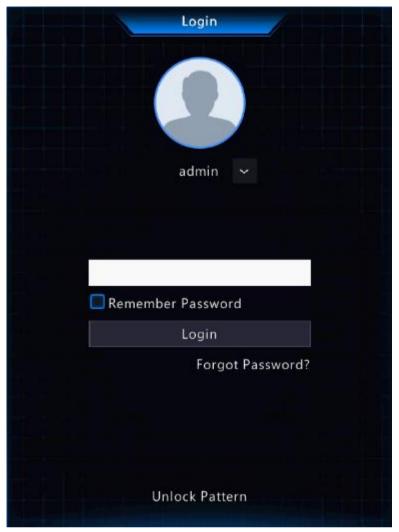


Note:

- You can set the unlock pattern later at anytime or disable it under Menu > System > User.
- If an unlock pattern is set, it will replace the password at login.

Reset Password

1. If you forgot the admin password or want to reset the password, click **Forgot Password** in the login page.



2. (Skip this step if you have already entered your email address) Enter your email address so as to receive the security code, that is, the temporary password.

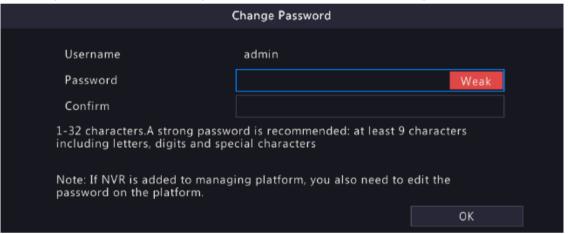


3. Follow the instructions on the screen to obtain the security code.



Note: The app may vary with DVR model.

- 4. Enter the security code received from the email address, and click **OK**.
- 5. Enter the password, and confirm the password, and then click **OK** to reset the password.



6. Use the new password to log in again.

2.3 Wizard

The wizard page appears after you login. Follow the wizard to complete the most basic setup, or click **Exit** to skip this step.

Note: You can also go to Menu > System > Basic to set the basic parameters.

1. Enable or disable the wizard as needed and then click **Next** or click **2**.



2. Set the time parameters, including time zone, date format, time format, and system time, and then click Next.



3. Configure TCP/IP. Select the working mode and NIC. Check **Enable DHCP** to automatically obtain the IP address, subnet mask and IP default gateway. You can also enter the information manually.



4. Click OK.

3LiveView

This chapter introduces the live view page, including window toolbar, screen toolbar, shortcut menu, digital zoom, sequence operation, etc.



Note: The operations may vary with DVR model.

3.1 Live View Status

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

Table 3-1: Live View Window Icons

Icon	Description	Icon	Description
<u>^</u>	Tampering alarm	0))))	Recording
3	Motion detection alarm	.	Two-way audio

3.2 Window Toolbar

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

Table 3-2: Window Toolbar

Button	Name	Description
<ô>	PTZ Control	 Available for PTZ cameras only. Click to display the PTZ control window. You can also configure PTZ under Menu > Camera > PTZ. See PTZ Configuration for details.
P	Fisheye Mode	Set mount mode and display mode for fisheye cameras. This button appears only for fisheye cameras.
6	Local Recording	Record live video in the window to the hard disk. Click to stop recording.
		Note: Similar to manual recording, local recording is a scheduled recording and has a priority over other video recording schedules. You can play the local recording in normal mode.
©	Instant Playback	Click to play the video recorded during the past 5 minutes.
1	Digital Zoom	Zoom in on an area of interest in the window. See Digital zoom for details.
•	Image Settings	 Click to set the image mode and parameters so as to get optimal images in the window. You can also edit image settings under Menu > Camera > Image > Image Settings. See Image Settings for details.
	Take Snapshot	Click to take a snapshot. The window borders will flash white. You may view and back up snapshots under Menu > Backup > Image .
OSD	OSD	 Click to set OSD. You can also set OSD under Menu > Camera > OSD. See OSD Configuration for details.
₽	Two-way Audio	Start two-way audio with the camera. The sound volume is adjustable. Click to stop.
		Note: Correct audio input and output (AUDIO IN/OUT) connections between DVR and IPC are required.

Button	Name	Description
Ľĺ×	Turn Audio On	Click to turn on audio. The sound volume is adjustable. Click to turn off audio. Note: When you turn on audio in the current window, audio of the previous window is turned off.
	Camera Info	Hover over the button to view the bit rate of the current window; click the button to modify the camera information.

Digital zoom

Zoom in on an area of images in a window for details.

1. In the preview page, click the window, and then click on the window toolbar.



2. Move your mouse to the area you want to zoom in on, then use your scroll wheel to zoom in. The enlarged image is as follows.



3. Right-click to exit zoom.

3.3 Screen Toolbar

Move your mouse to the bottom of the preview page to display the screen toolbar. Click of to lock the toolbar.

Table 3-3: Screen Toolbar

Button	Description
A	Click to select menu, playback, logout, restart, shutdown.
	Select the screen layout, including single window and 4/6/8/9 windows.
/ >	Previous or next screen.
18	Start or stop sequence. See Sequence for details.
⑤	Click to go to the Playback page.
<u>ම</u> ම	Switch to multi-sensor preview mode.
3	Note: This function is only available for dual-channel cameras.
	Click to view camera information, including camera status and alarm status.
\triangle	Click to view DVR alarm and camera alarm.
型	Hover over the button to view the NIC information; Click to edit network settings.
20:31	Show device time. Hover over the button to view the date; Click to edit time settings.
/⊕	Lock/hide the screen toolbar.

Sequence

Use sequence when you want to view live videos from different cameras at the same time and ensure the image clarity. The function requires you to configure the screen layout, windows, linked cameras, and the sequence interval.

The following example describes how to configure sequence for five cameras based on a 4-window screen layout.

1. In the preview page, right-click and select **Multi-Window > 4 Windows**.



Note: The number of windows that can be displayed may vary with DVR model.

2. Click on the screen toolbar to start sequence.

The system starts to display images of four cameras in four windows on the first screen, and then display the fifth camera' image on the second screen after the set interval.

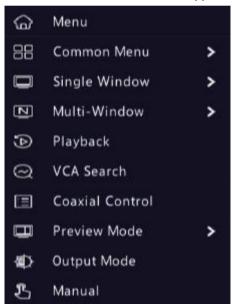


Note: The default sequence interval is 8 seconds. You can set it under Menu > System > Preview. See Preview Configuration for details.

3. Click to stop sequence.

3.4 Shortcut Menu

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



Shortcut Menu

Table 3-4: Shortcut Menu

Item	Description
Menu	Display the main menu.
Common Menu	Go to the Camera, Network, and Recording page.
Single Window	Switch to single window.
Multi-Window	Select the screen layout, including 4/6/8/9 windows.
Playback	Play the video of the current day for the camera linked to the current window. You can also choose to play videos from other days as needed.
Preview Mode	Switch between Normal Mode and Smart . The default is Normal mode.
VCA Search	Search the VCA snapshots and recordings in the Behavior Search page. See Behavior Search for details.

Item	Description
Coaxial Control	Go to the OSD Menu Control Page.
Output Mode	Choose a video output mode, including standard, soft, bright, vivid, and custom. Brightness, saturation, and other parameters are also configurable.
Manual	Manual settings include manual recording, manual snapshot, and manual alarm, buzzer, let through manually. See Manual Operations for details.

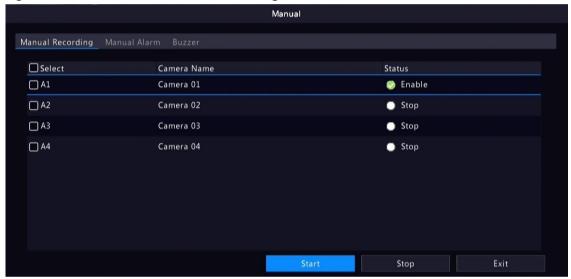
Manual Operations

Manual operations include manual recording, manual alarm and buzzer.

Manual Recording

Note: Similar to local recording on the screen toolbar, manual recording is a scheduled recording and has higher priority over other recording schedules. You can play manual recordings in normal mode.

1. Right-click and select Manual > Manual Recording.



- 2. Start or stop manual recording.
 - Start recording: Select the desired camera(s) and then click Start.
 - Stop recording: Select the camera(s) being recorded and then click **Stop**.

Manual Alarm

Right-click and select **Manual > Manual Alarm**. You can trigger or clear an alarm output manually. See Manual Alarm for details.

Buzzer

Right-click and select Manual > Buzzer. You can stop the buzzer manually. See Buzzer for details.

4ChannelConfiguration

Configure IPC, encoding, audio, OSD, image and PTZ parameters.

Note: The IP devices mentioned in this manual mainly refer to IP cameras (or network cameras).

4.1 Channel Management

Add and manage IP cameras.



- Before you start, make sure the IP cameras are connected to your DVR via network.
- An IP camera should be connected to one DVR only. An IP camera managed by multiple DVRs may cause unwanted issues.

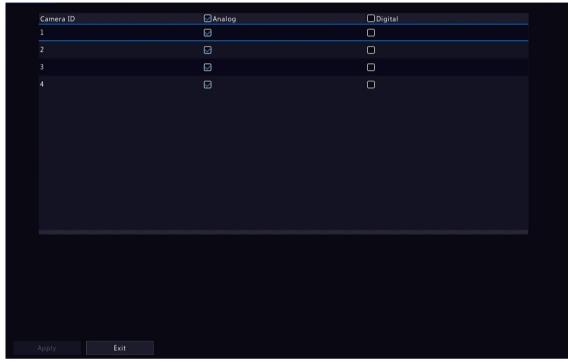
4.1.1 Camera Type

You can change the channel type to analog or digital. This function is only available for DVRs.

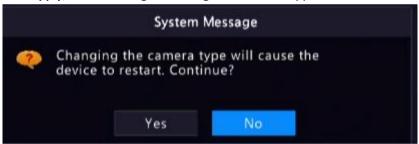
Change Channel Type

Change channel type to analog or digital.

1. Go to Menu > Camera > Camera > Camera Type.



- 2. Select the channel you want to change and choose the desired type.
- 3. Click **Apply**, then a message indicating device restart appears.



4. Click **Yes**. The channel type will be changed after the DVR restarts.

Add Analog Camera

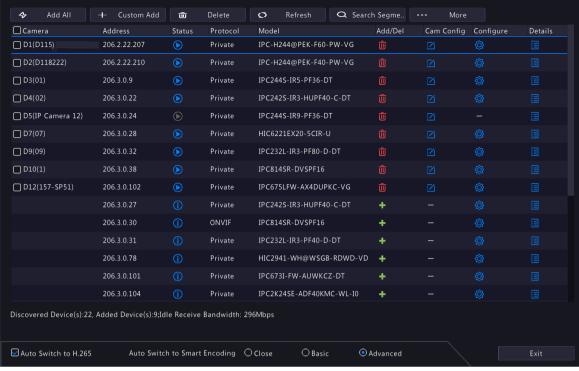
Analog cameras can be added to DVRs only.

- 1. Connect the camera to the video output interface of the DVR via a coaxial cable, and connect the camera to power. The camera will be added to the DVR.
- 2. Check the camera status in the preview page.

4.1.2 IPC Configuration

Add and manage IP cameras.

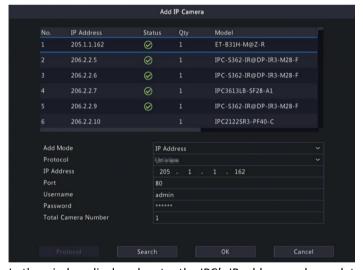
Go to Menu > Camera > Camera > Camera.



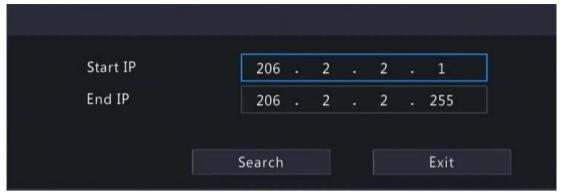
Add IPC

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: Custom Add
 - 1. Click Custom Add.



- 2. In the window displayed, enter the IPC's IP address and complete other settings, then click **OK**. You may check the camera's status.
 - Camera online.
 - (a): Camera offline. Point to the icon to view the failure information.
 - The camera is added to another DVR.
- 3. Repeat the above steps to add other IPCs.
- Option 2: Search Segment
 - Click Search Segment. Enter the start and end IP addresses, click Search. The discovered IP devices are listed.



- 2. Select the desired camera, click 👫 to add it to the DVR.
- Option 3: Add All

Click Add All to add all the discovered IPCs (if not exceeding the upper limit).

Option 4: Click

Click **t** o add the camera directly.

Option 5: Add from the Preview Window

Note: This option is not applicable to DVRs with PoE ports. Some DVRs have PoE ports and non-PoE ports, and some have PoE ports only. All these DVRs do not support this option.

- 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: Connect via Cable
 - 1. Connect an IP camera to a PoE port or a switching port of the DVR with a network cable. The connected camera will be added to the DVR automatically.
 - 2. Check the camera status under Menu > Camera > Camera > Camera.

Note:

- This option is only applicable to DVRs with PoE ports, and the added camera cannot be deleted.
- If you want to add an IPC that is not connected to the DVR's with a network cable, click , change **Plug-and-Play** to **Manual**, and complete other parameters.
- For DVR with PoE ports only, appears under **Status** if the power output from a PoE port is below or above the rated power of the connected camera.
- Option 7: Add From Another Network

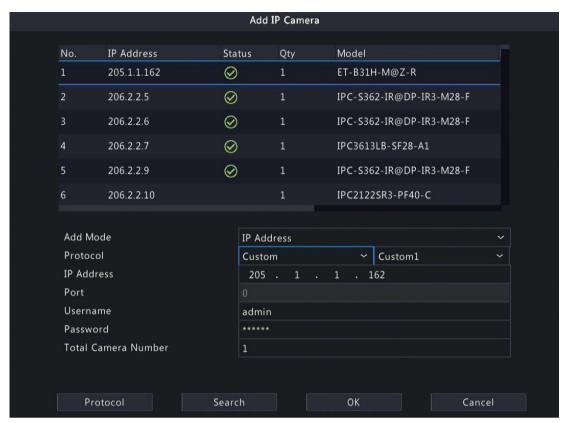
Use this option when the DVR and the IP camera are connected to different router. Make sure the DVR can access the camera via the camera's public IP address and mapped port number.

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

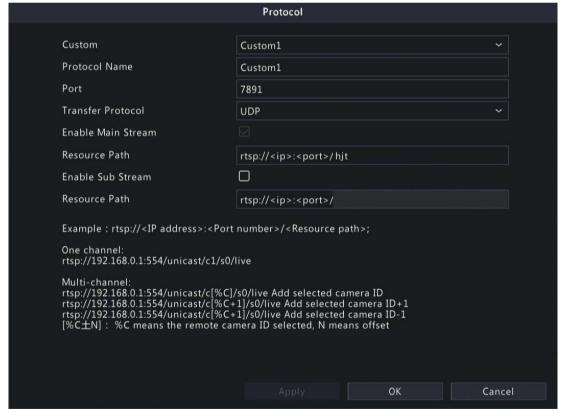
• Option 8: Use Custom Protocol

Note:

- Use this option when the IP camera supports the standard RTSP.
- Only live and recorded video streams are available from the camera added in this way. Configuration
 operations are not supported.
- 1. Go to Menu > Camera > Camera > Camera.
- 2. Click **Custom Add**. Select **Custom** from the **Protocol** drop-down list.



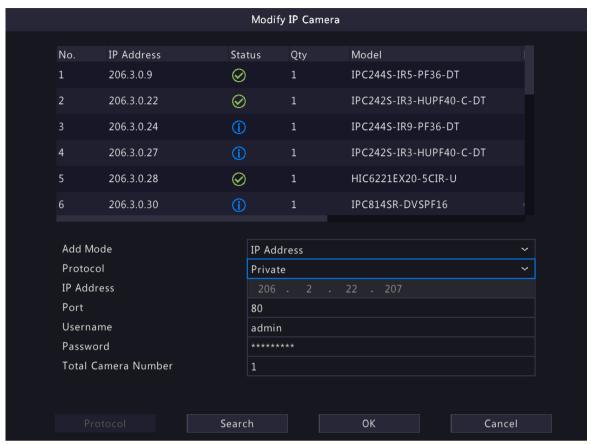
3. Click Protocol.



- 4. Set the protocol name, enter the RTSP port number, transmission protocol, resource paths, etc., and then click **OK**.
 - **Note:** Contact the camera manufacturer for resource paths of main stream and sub stream.
- 5. Enter the IP address, username, and password, and then click **OK**. Check status in the camera list.

Edit IP Camera

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





- 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.
- The configuration items may vary with IPC model.

Delete IP Camera

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

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

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

Change Window Position

Use this function to change window position of channels in the preview page, without changing the channel ID, IP address, and display order in the channel list. Choose a way to change window position.

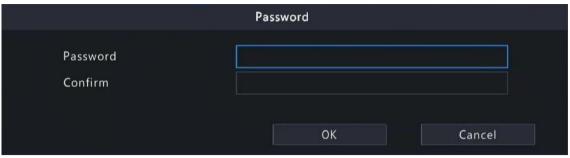
- In the multi-window preview page, drag a window to another window to swap their positions.
- In the **Preview Configuration** page under **Menu** > **System** > **Preview**, change window positions in the preview page. See Screen Configuration for details.

Batch Change Password

When multiple IPCs are not added successfully due to incorrect password, and if the login passwords of these cameras are the same, use this function to change the passwords in batches.

Note:

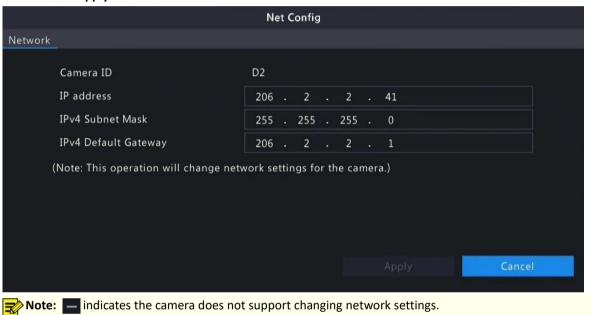
- This function only changes the password used to add cameras. It does not change the cameras' login password.
- This function is only applicable for IPCs with the same login password. If one of the cameras still fails to be added after you change the password, it means the camera's login password is different, and you need to change the password separately.
- 1. Select the cameras with the same password. Click ... More , and select Batch Edit Password.



- 2. Enter the new password and confirm the password.
- 3. Click OK.

Network Configuration

Select the camera, click ounder **Configure**. Edit the IP address, IPv4 subnet mask, IPv4 default gateway for the camera. Click **Apply**.



More Info

Select the channel, click under **Details** to view the detailed information, including remote camera ID, manufacturer, and port number.



Other Operations

Item	Description	
Auto Switch to H.265	When enabled, the DVR automatically chooses H.265 for a newly added camera.	
	 Note: Every time a camera is added to the DVR, it is considered a newly added camera. This function is not effective to cameras that are already added or added cameras that go back online after being offline. This function is enabled by default on some DVR models. 	
Auto Switch to Smart Encoding	Select Basic Mode or Advanced Mode , then the DVR automatically chooses basic Smart Encoding or advanced Smart Encoding mode for a newly added camera.	

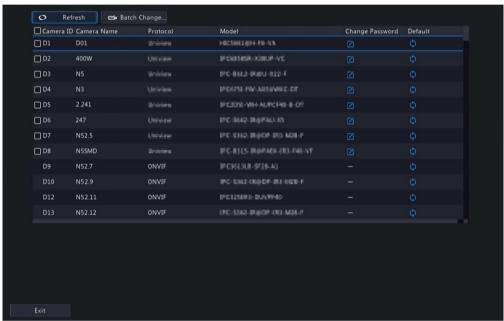
Item	Description	
	 Note: Every time a camera is added to the DVR, it is considered a newly added camera. This function is not effective to cameras that are already added or added cameras that go back online after being offline. This function is enabled by default on some DVR models. 	
Refresh	Click Refresh to check the camera status.	
Live View	Click to play live video of the camera.	

4.1.3 Advanced Functions

Change the password of online IP cameras or restore factory default settings for cameras.

Note: Changing camera password is available for cameras connected via the private protocol.

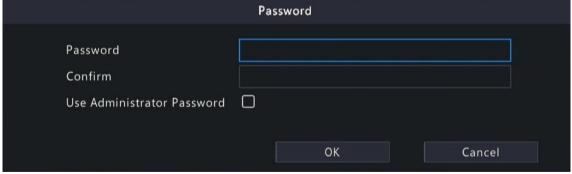
Go to Menu > Camera > Camera > Advanced.



Change Camera Password

You can change password of camera(s) one by one or in batches.

1. Select a camera and click // or select the target cameras and click Batch Change Password.



2. Enter the new password and confirm the password.

Note: Select **Use Admin Password**, the camera's password is changed to the admin password of the DVR, and cannot be edited.

3. Click **OK**. Check if the password is successfully changed.

Restore Default Settings

Select the camera, click . A message indicating camera restart appears, click **OK** and then the camera's default settings will be restored.

4.1.4 Fisheye Configuration

Set the mounting mode and display mode for fisheye cameras. Fisheye configuration is supported only by certain fisheye cameras.

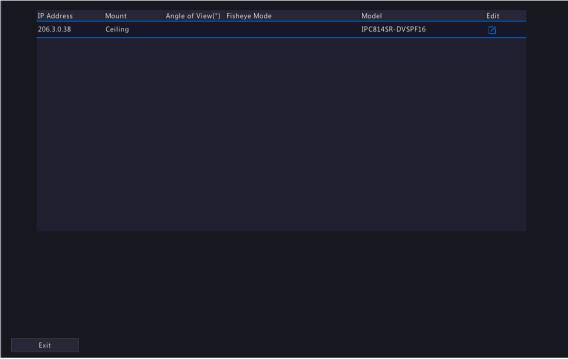


Note: Before using this function, make sure that a fisheye camera has been mounted and that the camera has been added to your DVR.

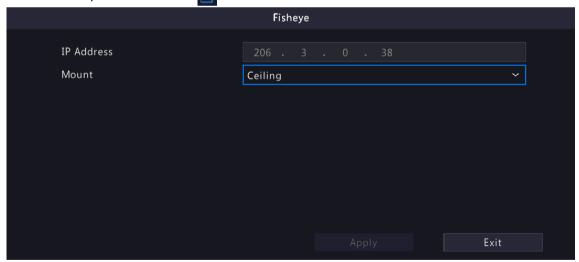
Configuration

Configure the following parameters after the fisheye camera is installed.

1. Go to Menu > Camera > Camera > Fisheye.



2. Select the fisheye camera and click



3. Set the parameters as needed.

Item	Description
Mount	Select the mounting mode, including ceiling mount, wall mount, and desktop mount. If you change how the fisheye camera is installed, change its mounting mode so as to display proper images.
Angle of View (°)	Set the viewing angle of the fisheye camera.
Fisheye Mode	The display mode of the current camera in the live view window. Set it as needed.

4. Click Apply.

Dewarping

Fisheye cameras provide large wide-angle views, but the image captured is distorted. You may adjust the output image by correcting the shooting angle of the fisheye.

Note: Dewarping is available in live view and playback (in normal and corridor playback modes). The operations are similar. The following describes dewarping in live view.

1. In the preview page, click on the window. The figure as shown below appears.

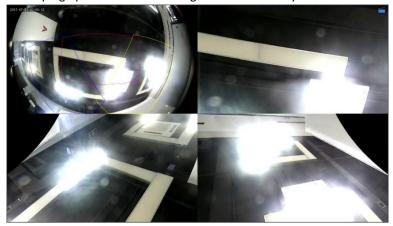


2. Set the mounting mode and display mode.

Mount	Display Mode	Description
Ceiling Mount		360° panoramic original image
Desktop Mount		360° panoramic + 1PTZ
		180° panoramic
	C	Fisheye+3PTZ
	Q	Fisheye+4PTZ
		360° panoramic + 6PTZ
	C	Fisheye+8PTZ
Wall Mount		360° panoramic original image
	22	Panoramic
	00	Panoramic + 3PTZ
	DC E	Panoramic + 4PTZ

Mount	Display Mode	Description
	00	Panoramic + 8PTZ

3. Dewarping operations: Take Ceiling Mount and Fisheye+3PTZ as an example.



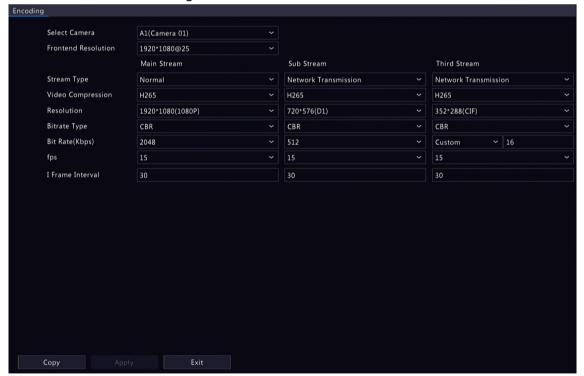
• Drag the mouse to rotate the image or use the scroll wheel to zoom in or out on a PTZ image. A box appears on the fisheye image as the image rotates, and as you drag the box or move the scroll wheel on the fisheye image, the corresponding PTZ image rotates or zooms in or out as well.

4.2 Encoding Settings

Configure stream type, resolution, etc.



- The configuration items may vary with IPC models or versions.
- Some functions may be unavailable if the IPC version is too low. In this case, you need to upgrade the IPC first.
- 1. Go to Menu > Camera > Encoding.



- 2. Select the camera from the drop-down list.
- 3. Set the frontend resolution, that is, combinations of resolution and frame rate. This parameter is configurable only when the camera is connected to the DVR via the private protocol.
- 4. Set the encoding parameters for different streams.

Item	Description
Stream Type	 Main stream: Set encoding parameters for normal recordings. Sub stream: Set encoding parameters for low resolution video intended for network transmission.
Video Compression	Choose H264 or H265. The supported video compression may vary with IPC models.
Resolution	The number of pixels in a frame.
Bitrate Type	 VBR: Variable Bit Rate (VBR) is used to keep the quality of video streams as constant as possible by varying the bit rate. CBR: Constant Bit Rate (CBR) is used to keep a specific bit rate by varying the quality of video streams.
Bit Rate(Kbps)	The number of bits transferred per second. Select a value from the drop-down list, or select Custom to set a value as needed.
I Frame Interval	The number of frames between two adjacent I frames.
Smart Encoding	Select the Smart Encoding mode, including basic mode and advanced mode. You can also close the Smart Encoding. The advanced mode achieves higher compression ratios.

5. (Optional) To apply the settings to other camera(s), click **Copy** and select the desired parameter(s) and camera(s), and then click **OK**.



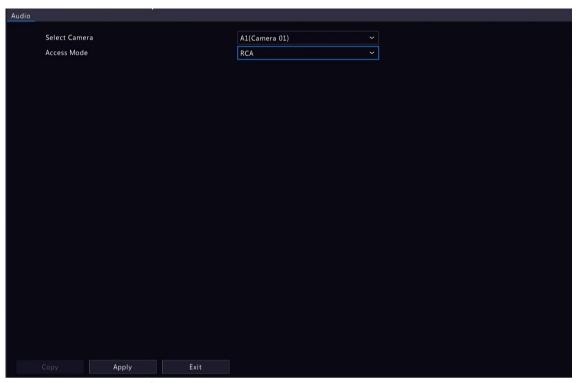
Note: When you copy Video Compression to other camera(s), Bit Rate will be selected automatically because video compression adjusts bit rate automatically.

6. Click Apply.

4.3 Audio Configuration

Configure audio input and audio output of the IPCs.

1. Go to Menu > Camera > Audio.

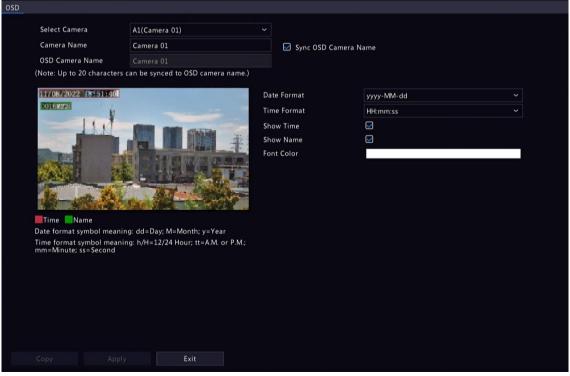


- 2. Select the desired camera from the drop-down list.
- 3. Select the access mode according to the IPC's audio interface, including Coaxial and RCA.
- 4. (Optional) To apply the audio settings to other camera(s), click **Copy** and select the desired parameter(s) and camera(s), and then click **OK**.
- 5. Click Apply.

4.4 OSD Configuration

Configure the characters overlaid on the preview (live view) window. On Screen Display (OSD) are characters displayed with video images, for example, channel/camera name, date and time, and people counting statistics.

1. Go to Menu > Camera > OSD.



- 2. Select the desired camera from the drop-down list.
- 3. Set the OSD parameters.

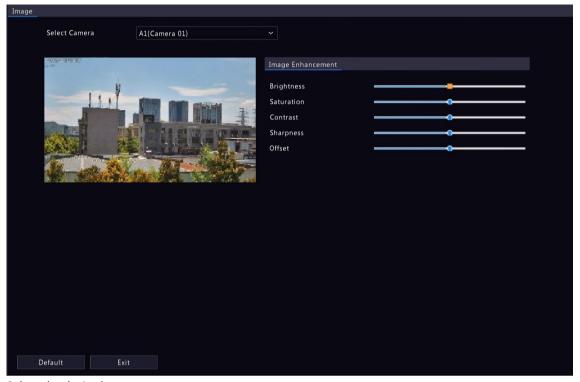
Item	Description		
Camera Name	The name of the selected camera. You may customize the camera name as needed.		
Sync OSD Camera Name	Sync OSD Camera Name is enabled by default, thus the OSD camera name is synchronized with the camera name automatically.		
	 Note: Up to 20 characters can be synced to OSD camera name. If camera name exceeds 20 characters, only the first 20 characters will be displayed. If Sync OSD Camera Name is disabled, after the camera name is changed, the new name will not be synced to OSD camera name. 		
OSD Camera Name	The camera name displayed on the video image. OSD camera name is same as the camera name by default. You can customize the OSD camera name after disabling Sync OSD Camera Name . Up to 20 characters are allowed.		
Date Format	Select the date format from the drop-down list.		
Time Format	Select the time format from the drop-down list.		
Show Time	When enabled, the camera time is displayed on the left side of video image.		
Show Name	When enabled, the OSD camera name is displayed on the video image.		
Font Color	Select the front color from the drop-down list.		

- 4. (Optional) To apply the same OSD settings to other cameras, click **Copy** and select the desired camera(s).
- 5. Click Apply.

4.5 Image Settings

Adjust image settings to get optimal images.

1. Go to Menu > Camera > Image > Image.



- 2. Select the desired camera.
- 3. Configure the parameters under the **Image Enhancement** tabs in this page.

Item	Description
Brightness	The overall lightness or darkness of the image.
Saturation	The intensity or vividness of colors in the image.
Contrast	The difference between the lightest and darkest tones in the image.
Sharpness	The contrast between the edges of an object in the image.
Offset	Adjust the image to the left or right.



- The default settings are scene-adaptive. Use default settings unless modification is necessary. To restore default settings, click **Default** in the lower left corner.
- Image settings apply to both live and recorded videos.

4.6 PTZ Configuration

Configure and control PTZ cameras.

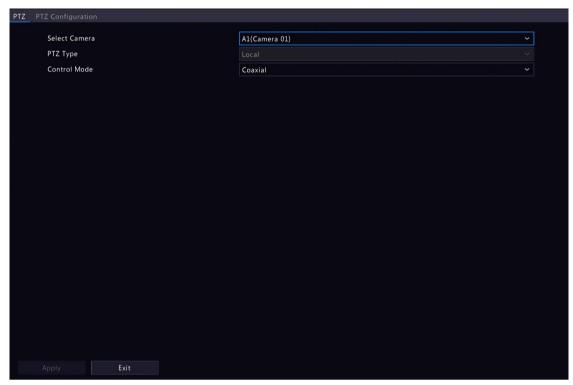


- This function is only available for PTZ cameras or cameras installed on PT mounts.
- The PTZ parameters may vary with IPC model.
- PTZ (pan, tilt and zoom) control is applicable to PTZ cameras only and may vary depending on the functions and protocols supported by the PTZ cameras. Refer to PTZ camera specifications for details.

PTZ Control Mode

DVRs support two control modes, including **Coaxial** or **Serial Port**. Choose the control mode before using PTZ function.

1. Go to Menu > Camera > PTZ > PTZ.

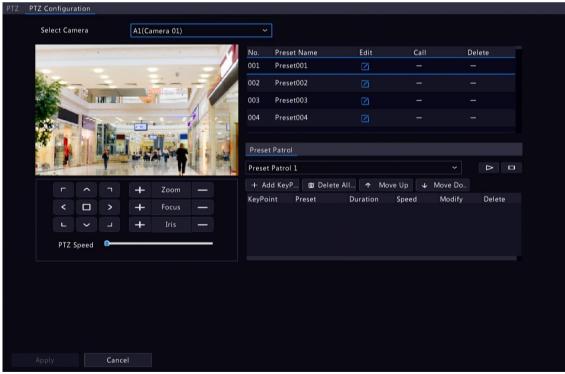


2. Choose a control mode according to camera connection method, and complete other settings.

Configure PTZ

Option 1: Enter Menu

- 1. Go to Menu > Camera > PTZ > PTZ Configuration.
- 2. Select the target PTZ camera.



3. Set the parameters. See below for details.

Option 2: Use PTZ Toolbar

1. In the preview page, select the target window, click on the window toolbar.



- 2. The PTZ control window appears. You can control the PTZ camera as needed.
- 3. Click PTZ Configuration, and set the parameters.

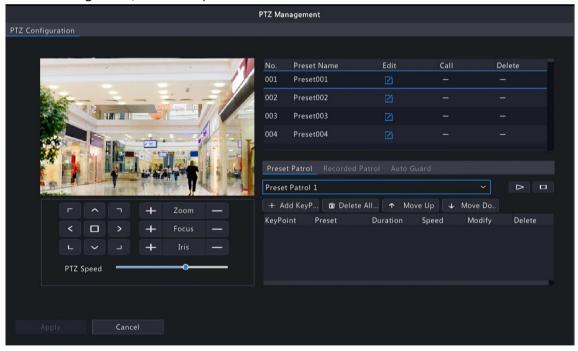


Table 4-1: PTZ Control Window Buttons

Button		Description	
	^	7	Control the rotation direction of the PTZ camera; release PTZ control.
<		>	
L	~	٦	

Button	Description
+ Zoom - + Focus - + Iris -	 Zoom in or out on images. Note: You can also zoom in or out using the scroll wheel on your mouse. Focus far or near for clear images. Increase or reduce the amount of light that enters the lens of the camera.
PTZ Speed ———	Control the rotation speed of the camera. 1-9 are available. 1 means the slowest, and 9 means the fastest.
PTZ Configuration	Click to display the PTZ Configuration page.
	 Turn on/off the light. Turn on/off the wiper. Turn on 3D positioning. Turn on/off the heater. Turn on/off the snow removal. Turn on/off PTZ shortcut operations. Note: Make sure that the 3D positioning, heater and snow removal functions are supported by the camera before using. Use 3D positioning to zoom in or out. Dragging from top down zooms in. Dragging the other way zooms out.
Preset/ Preset Patrol/Recorded Patrol/ Auto Guard	For detailed information, see Preset, Preset Patrol, Recorded Patrol and Auto Guard respectively.
	 Call a preset: Click , the PTZ camera goes to the preset position. Delete a preset: Click to delete the preset. Note: and are displayed for saved presets only.
D	Start or stop preset patrol.

OSD Menu

Configure analog cameras on DVRs. This function is only available for DVRs.

- 1. In the preview window of an analog camera, click �� on the window toolbar.
- 2. Click OSD Menu Control.
- 3. Click or to open camera settings window, and set the parameters.
- 4. Click to save the settings, and then choose **Exit** button to close the window.

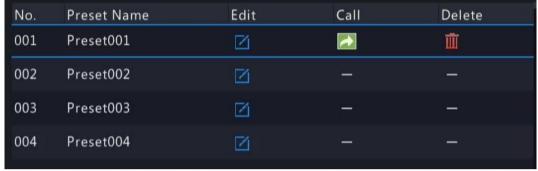
Preset

A preset position (preset for short) is a saved view used to quickly steer the PTZ camera to a specific position.

- Add a Preset
 - 1. Use the PTZ direction buttons to steer the PTZ camera to the desired position.
 - 2. Select a preset number not in use, and click 🗹 to edit the preset name.



3. Click **OK** to save. Repeat the above steps to add all the presets.

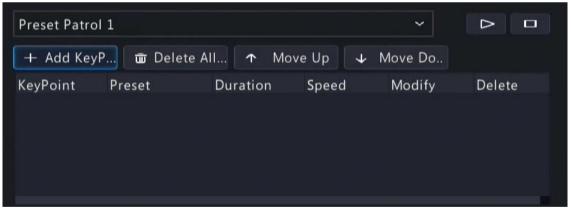


- Call a Preset
 In the preset list, select the preset to call and click . Then the camera rotates to the preset position.
- Delete a Preset
 In the preset list, select the preset to delete, and then click

Preset Patrol

Set a preset patrol route so the PTZ camera can patrol by presets (go from one preset to the next in specified order).

- Add Preset Route
 - 1. Click **Preset Patrol**, and select a patrol route.



2. Click + Add KeyP....... The figure as shown below appears.



3. Complete the parameters, and click **OK**.

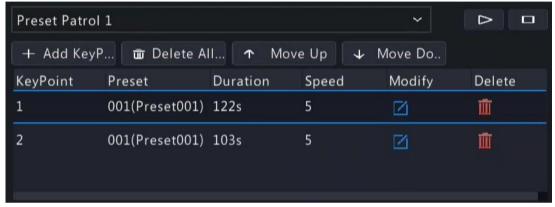
Item	Description
Preset	Set the length of time the camera stays at the preset after performing the patrol. See Preset for setting preset.
Duration(s)	Set the time the camera stays at the preset after the patrol is performed. The valid range is from 120 to 1800 seconds. The default is 10s.
Speed	Set the rotation speed. 1 means the slowest, 9 means the fastest. The default is 5.

4. Repeat the above steps to add more routes.

Note: Up to 4 patrol routes are allowed for each PTZ camera. Up to 8 presets (keypoints) are allowed for each patrol route.

Call a Preset

Select a preset patrol in the list, click to start the preset patrol. To stop, click

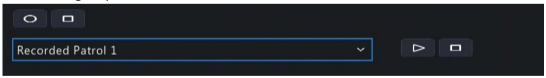


- Other Operations
 - Edit: Click do to edit the preset patrol parameters.
 - Delete: Click iii to delete a keypoint; Click iii Delete All... to delete all keypoints.
 - Move Up/Move Down: Click ↑ Move Up / ↓ Move Do.. to adjust the sequence of these presets.

Recorded Patrol

Record a patrol route so the PTZ camera can patrol according to the recorded patrol.

- Add a Recorded Patrol
 - 1. In the **Recorded Patrol** tab, select a patrol route.
 - 2. Click to start recording. Steer the camera to the desired directions, adjust the zoom, focus, iris as needed during the process.

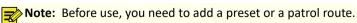


- 3. Click to stop recording.
- 4. Click Apply.
- Call a Recorded Patrol

Click to start the recorded patrol. Click to stop the recorded patrol.

Auto Guard

Configure auto guard so the PTZ camera automatically performs the specified action (e.g., going to a preset or starting a patrol) after being idle (no user operation) for a certain length of time.



- 1. In the Auto Guard tab, select the Enable check box to enable auto guard.
- 2. Set the parameters.

Item	Description
Idle State(s)	Set the idle duration for the camera to start auto guard. 1 to 3600 seconds are available. The default is 60s.
Mode	Select preset or patrol route.
Preset/Patrol	Select a preset number or patrol route number.

3. Click Apply.

5VCA

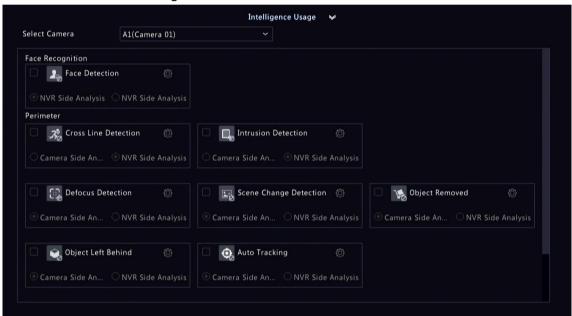
Configure VCA (Video Content Analysis), and VCA search.

5.1 VCA Configuration

VCA includes face recognition, perimeter protection, and people counting. You can monitor people flow, roads and moving objects by configuring VCA. The VCA functions and parameters may vary with DVR model.

Note: VCA functions are not available if there is no disk in slot 1.

1. Go to Menu > VCA > VCA Config.



- 2. Select a camera.
- 3. Select the check box of the VCA function to be enabled, and choose whether to implement this function on the camera side or the NVR side.
 - Camera Side Analysis: The VCA function is implemented by the camera.
 - NVR Side Analysis: The VCA function is implemented by the NVR.

Note:

- The parameters of some VCA functions supported on the camera side are more than that supported on the NVR side.
- Before you enable camera side analysis, make sure the camera is connected via private protocol.
- VCA functions that are not supported by the camera or NVR are grayed out.
- 4. Click to configure the function.

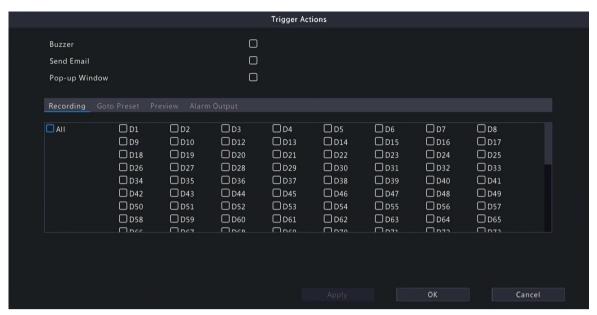
5.1.1 Alarm-triggered Actions

Configure actions to be triggered when an alarm occurs to alert you to deal with it in time.

Click right to Trigger Actions, set the actions, and then click OK.

Note: The actions supported may vary with DVR model and VCA function.

Some actions are detailed below.



Buzzer

The DVR makes a buzzing sound when an alarm occurs.

Send Email

The DVR sends an email with alarm information to the specified email address(es) when an alarm occurs.

Pop-up Window

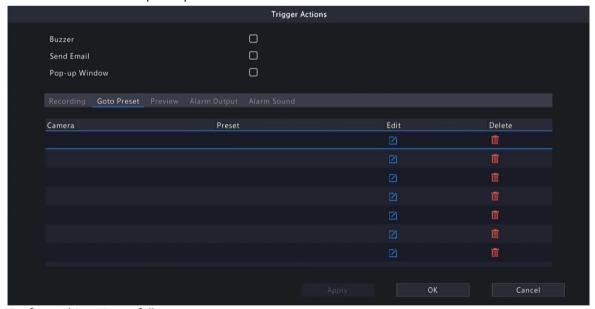
An alarm message pops up when an alarm occurs.

Recording

The DVR records video from the selected camera when an alarm occurs.

Goto Preset

A PTZ camera moves to a preset position when an alarm occurs.



Configure this action as follows:

1. Click



2. Select the camera to perform this action and select the preset you want the camera to go to when an alarm occurs.

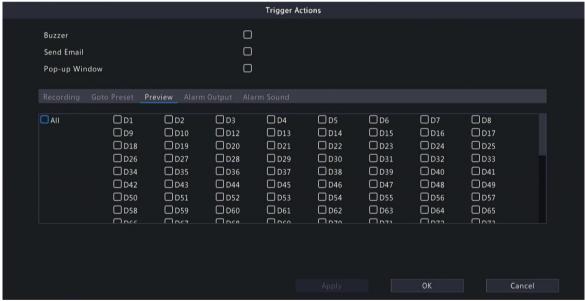
Note: Before use, you need to configure presets on the PTZ camera. See *Network Camera User Manual* for details.

3. Click OK.

Note: To delete or unlink a preset, click

Preview

The DVR plays the live video of the specified camera(s) when an alarm occurs. To perform this action, you need to configure Max. Alarm-Triggered Live View Windows (1/4/9 available) under Menu > System > Preview.



The live view page displayed in the event of alarms varies depending on the number of linked cameras and the number of alarm-triggered live view windows. When an alarm occurs, the live view page shows the live video from the linked camera(s) with a red frame; when the alarm ends, the live view page returns to the original state.

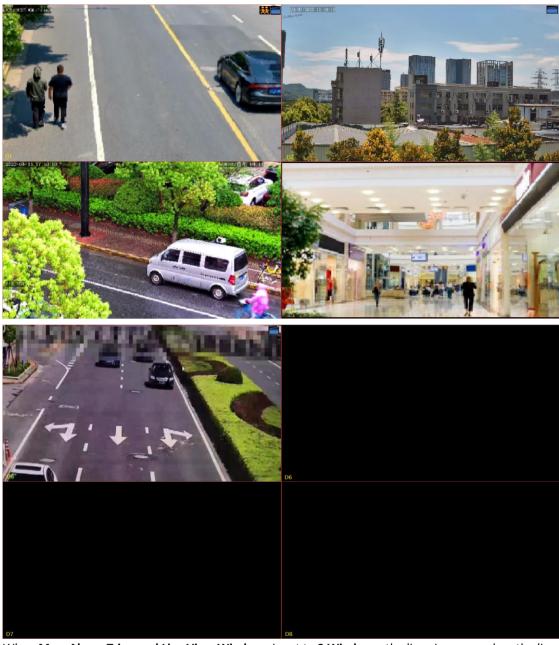
• When Max. Alarm-Triggered Live View Windows is set to 1 Window, the live view page plays live video in one window. If more than one camera is linked, the live video switches at 5s.



• When Max. Alarm-Triggered Live View Windows is set to 4 Windows, the live view page plays the live video of each camera in 4-split mode. If more than 4 cameras are linked, the live video switches at 5s. Live view page with 3 cameras linked:



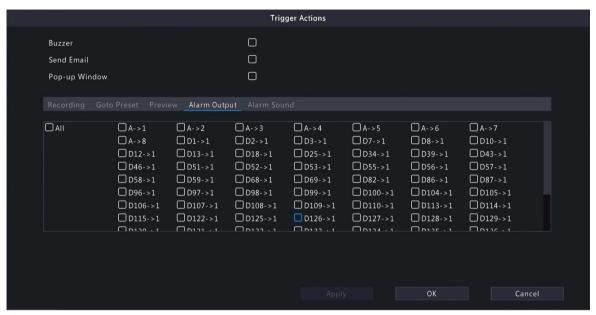
Live view page with 5 cameras linked:



• When Max. Alarm-Triggered Live View Windows is set to 9 Windows, the live view page plays the live video of each camera in 9-split mode. If more than 9 cameras are linked, the live video switches at 5s.

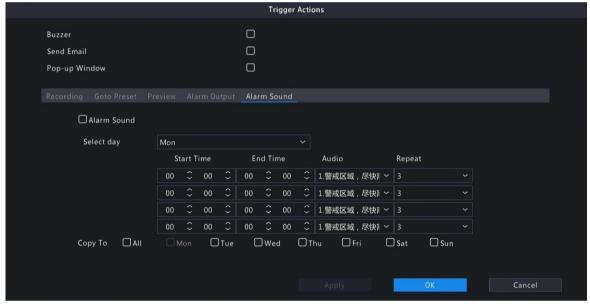
Alarm Output

A third-party device is triggered to raise an alarm when it receives an alarm output by the DVR.



Alarm Sound

The selected camera plays an audio alarm when an alarm occurs. This action is only available to cameras that support alarm sound.



Configure this action as follows:

1. Select the Alarm Sound check box, select the alarm mode, and configure other parameters as needed.

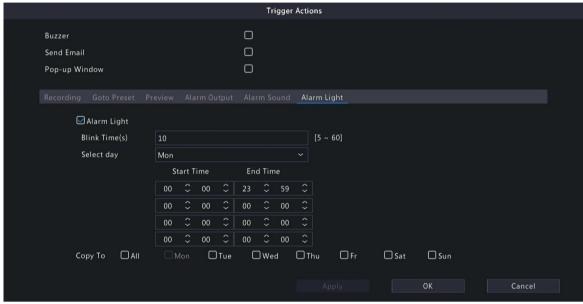
Mode	Description
Day/Night Mode	Select the day and time (day/night) in which alarm sound is enabled.
	Note: The camera automatically switches to day or night mode according to the ambient brightness. See Network Camera User Manual for details.
Custom Mode	Select the day and time (start/end time) in which alarm sound is enabled.
	Note: Up to 4 time periods are allowed per day, and the time periods cannot overlap.
Audio	Select the audio file to be played by the camera when an alarm occurs. By default, 13 audio files are available. You can configure the audio files on the camera's Web interface.
	Note: The number of built-in audio files varies depending on the camera model, and up to 5 audio files are allowed on certain models.

Mode	Description
Repeat	Set the number of times the audio file to be played when an alarm occurs. Range: 1 to 50.

- 2. (Optional) To apply the same settings to other days, select the desired day(s) after Copy To.
- 3. Click OK.

Alarm Light

The illuminator of the selected camera flashes for a certain period of time when an alarm occurs. This action is only available to cameras that support alarm light.



Configure this action as follows:

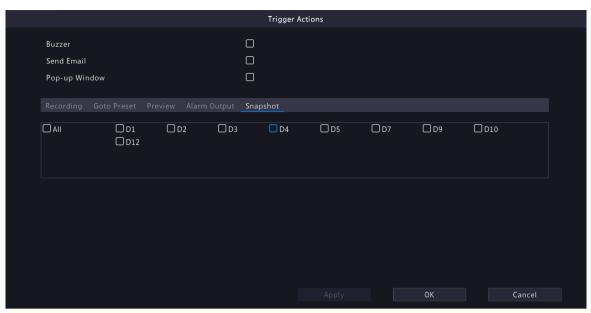
1. Select the Alarm Light check box, select the alarm mode, and configure other parameters as needed.

Mode	Description
Day/Night Mode	Select the day and time (day/night) in which alarm light is enabled.
	Note: The camera automatically switches to day or night mode according to the ambient brightness. See Network Camera User Manual for details.
Custom Mode	Select the day and time (start/end time) in which alarm light is enabled.
	Note: Up to 4 time periods are allowed per day, and the time periods cannot overlap.
Blink Time(s)	Set the duration that the illuminator flashes when an alarm occurs.

- 2. (Optional) To apply the same settings to other days, select the desired day(s) after **Copy To**.
- 3. Click OK.

Snapshot

The DVR takes a snapshot from a specified camera when an alarm occurs.

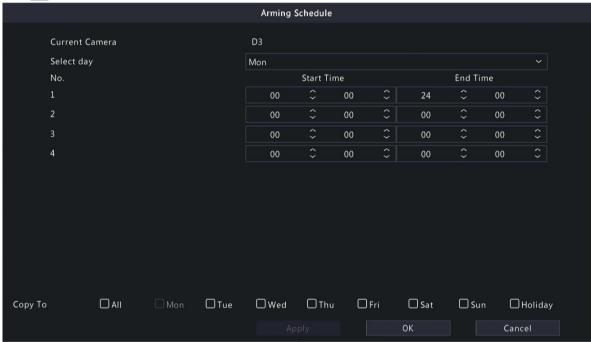


Note: This action is only available to certain alarm functions such as motion detection and human body detection, and is not available to VCA functions.

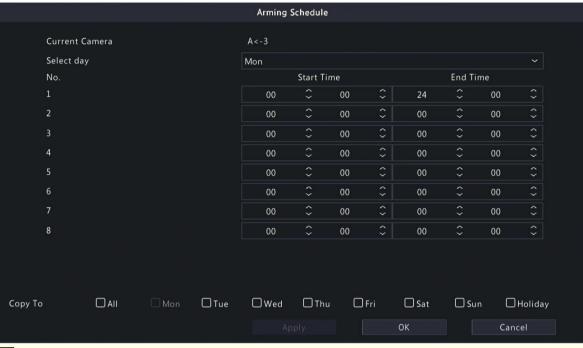
5.1.2 Arming Schedule

Configure an arming schedule to determine when the DVR receives alarms and performs predefined alarm-triggered actions.

Click right to Arming Schedule, configure the schedule as needed, and then click OK.



On certain DVRs, the **Arming Schedule** page shows as follows:



Note:

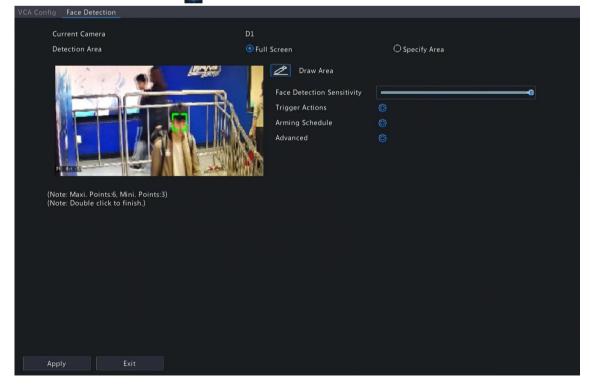
- Up to 4 or 8 time periods are allowed per day, and the time periods cannot overlap.
- (Optional) To apply the same schedule to other days, select the desired day(s) after Copy To.
- The number of arming time periods available varies by function.
- If a SIP camera is connected to the DVR and configured with camera side analysis of **Intrusion Detection**, **Cross Line Detection**, **Enter Area**, or **Leave Area**, the arming schedule configured for these functions on the DVR will be synchronized to the camera.

5.1.3 Face Detection

Face detection detects and captures faces in a specified detection area.

Note: The functions and parameters supported by camera side analysis and DVR side analysis are different.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **Face Detection** and click to configure it.



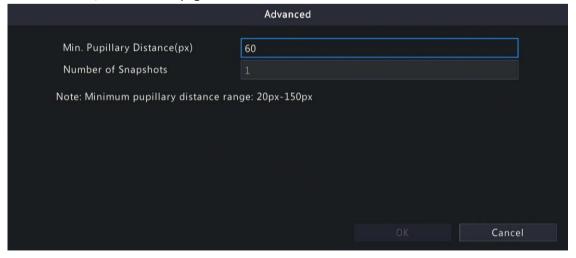
- 4. Set the detection area. Only 1 detection area is allowed.
 - Full Screen: Detects all faces in the live video.
 - Specify Area: Detects faces in a specified area of the live video. Select Specify Area and click ______, then a
 detection box appears in the left preview window. You can adjust the position of the area or draw an area
 as needed.



- Adjust the position of the area. Point to a border of the area and drag it to the desired position.
- Draw an area. Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed.
- 5. Set the face detection sensitivity by dragging the slider. The higher the sensitivity, the more likely a face will be detected. The lower the sensitivity, the less likely a side face or blurring face will be detected.
- 6. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 7. Click night to Advanced, configure the parameters as needed, and then click OK.



On certain DVRs, the **Advanced** page shows as follows:



Parameter	Description
Min. Pupillary Distance(px)	The minimum distance (measured in pixels) between two pupils. Faces with pupillary distance smaller than the value will not be captured.
	Note: The default value varies by image resolution, and the valid range varies by DVR model.
Number of Snapshots	The number of snapshots to be captured when the detection rule is triggered. Range: 1 to 30. Default: 5.
Enable Face Selection	Select whether to select face snapshots to report.
Face Selection Mode	 Effect Priority: Set the Number of Selected Photos, then the DVR selects the specified number of snapshots with the best quality from all the snapshots captured when a face is detected to report. Speed Priority: Set the Number of Selected Photos and Selection Timeout, then the DVR selects the specified number of snapshots from the moment that a face is detected till Selection Timeout is up to report. Range: 1 to 1800. Face Selection Mode
Number of Selected Photos	The number of face snapshots to be selected. Range: 1 to 3. This parameter is set to 1 by default and cannot be modified on certain models.
Max/Min Face Width(px)	The DVR only captures faces within Min. Face Width and Max Face Width . Range: 20 to 500.

8. Click Apply.

5.1.4 Cross Line Detection

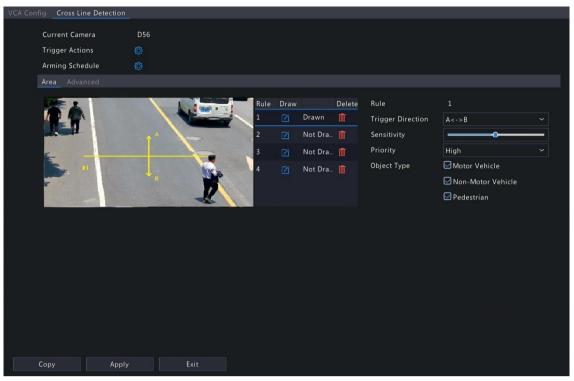
Cross line detection detects objects crossing a user-specified virtual line in a specified direction. The DVR takes snapshots and reports an alarm when the detection rule is triggered.



- Before you use camera side analysis, make sure an intelligent server with **Platform Communication Type** set to **LAPI** is enabled on the camera.
- The functions and parameters supported by camera side analysis and DVR side analysis are different.
- To perform this function on the camera side, enable Intelligent Mark under Menu > System > Basic.

Configure Cross Line Detection

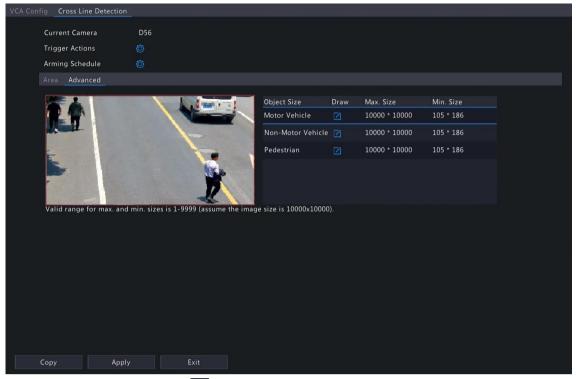
- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Cross Line Detection and click to configure it.



4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description
Detection Line	Select Rule 1, click , then click on the left image and drag to draw a detection line. The line defaults to A<->B direction. You can modify it as needed.
Trigger Direction	 Select the direction from which the object crosses the line to trigger an alarm. A->B: A cross line alarm occurs when an object crossing the line from A to B is detected. B->A: A cross line alarm occurs when an object crossing the line from B to A is detected. A<->B (default): A cross line alarm occurs when an object crossing the line from A to B or from B to A is detected.
Sensitivity	Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely cross line behaviors will be detected, but the false alarm rate will increase.
Priority	Select the priority of the detection rule, including High , Medium , and Low . The DVR detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the DVR detects the rule with higher priority.
Object Type	Select the object(s) to be detected, including Motor Vehicle , Non-Motor Vehicle , and Pedestrian .

5. Under the **Advanced** tab, you can filter objects by size. For example, if you have selected **Motor Vehicle** as a detection object, after you set the **Max. Size** and **Min. Size** for it, motor vehicles larger than the max. size and smaller than the min. size will not be detected.



- (1) Select an object type and click . A Max. Size box and a Min. Size box appear in the left preview window.
- (2) Modify the max./min. size by adjusting the size of the box as follows: Point to a handle of the box and drag to resize it.

Note:

- The Max. Size and Min. Size settings take effect after you select the object as a detection object.
- The width and height of the maximum size must be greater than that of the minimum size.
- 6. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 7. (Optional) To apply the same settings to other cameras, click **Copy**, select the desired setting(s) and camera(s), and then click **OK**.
- 8. Click Apply.

View Real-time Snapshots

- 1. Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time snapshots are shown on the right.
- 2. Click a snapshot to view detailed information. See Perimeter for details.

5.1.5 Intrusion Detection

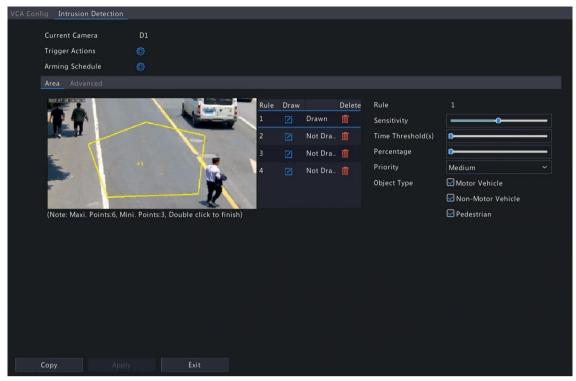
Intrusion detection detects objects entering a user-specified area and staying for a preset time. The DVR takes snapshots and reports an alarm when the detection rule is triggered.

Note:

- Before you use camera side analysis, make sure an intelligent server with **Platform Communication Type** set to **LAPI** is enabled on the camera.
- The functions and parameters supported by camera side analysis and DVR side analysis are different.
- To perform this function on the camera side, enable Intelligent Mark under Menu > System > Basic.

Configure Intrusion Detection

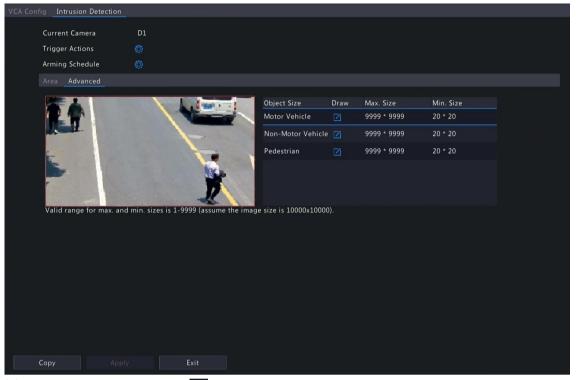
- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Intrusion Detection and click to configure it.



4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description
Detection Area	Select Rule 1, click , and then draw a detection area in the left preview window. Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed.
	Note: For a rule in Drawn state, you can click to redraw a detection area. To delete a detection area, click
Sensitivity	Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely intrusion behaviors will be detected, but the false alarm rate will increase.
Time Threshold(s)	Set the time threshold by dragging the slider. If an object stays in the detection area for the set time, an intrusion alarm will be triggered.
Percentage	Set the percentage by dragging the slider. If the proportion of the object size to the detection area size reaches the set value, an intrusion alarm will be triggered.
Priority	Select the priority of the detection rule, including High , Medium , and Low . The DVR detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the DVR detects the rule with higher priority.
Object Type	Select the object(s) to be detected, including Motor Vehicle , Non-Motor Vehicle , and Pedestrian .

5. Under the **Advanced** tab, you can filter objects by size. For example, if you have selected **Motor Vehicle** as a detection object, after you set the **Max. Size** and **Min. Size** for it, motor vehicles larger than the max. size and smaller than the min. size will not be detected.



- (1) Select an object type and click . A Max. Size box and a Min. Size box appear in the left preview window.
- (2) Modify the max./min. size by adjusting the size of the box as follows: Point to a handle of the box and drag to resize it.

Note:

- The Max. Size and Min. Size settings take effect after you select the object as a detection object.
- The width and height of the maximum size must be greater than that of the minimum size.
- 6. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 7. (Optional) To apply the same settings to other cameras, click **Copy**, select the desired setting(s) and camera(s), and then click **OK**.
- 8. Click Apply.

View Real-time Snapshots

- 1. Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time snapshots are shown on the right.
- 2. Click a snapshot to view detailed information. See Perimeter for details.

5.1.6 Enter Area Detection

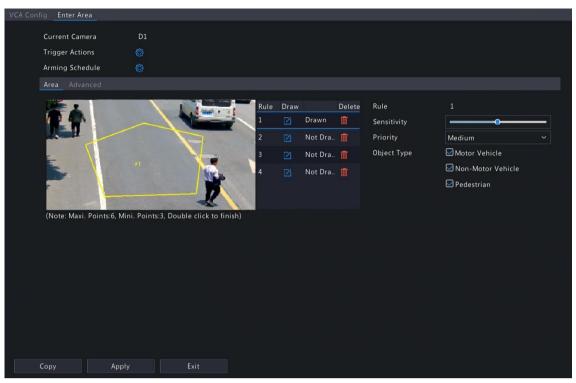
Enter area detection detects objects entering a user-specified area. The DVR takes snapshots and reports an alarm when the detection rule is triggered.

Note:

- Before you use camera side analysis, make sure an intelligent server with **Platform Communication Type** set to **LAPI** is enabled on the camera.
- The functions and parameters supported by camera side analysis and NVR side analysis are different.
- To perform this function on the camera side, enable Intelligent Mark under Menu > System > Basic.

Configure Enter Area Detection

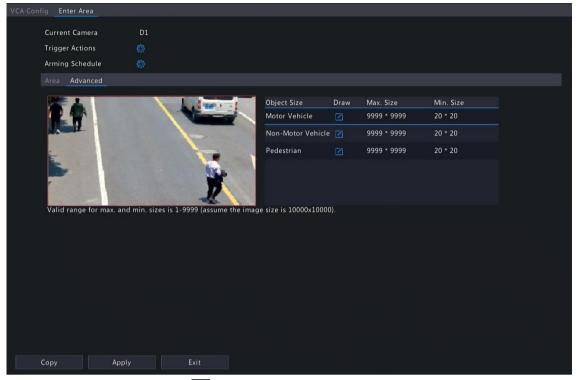
- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select Enter Area and click to configure it.



4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description
Detection Area	Select Rule 1, click , and then draw a detection area in the left preview window. Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed.
	Note: For a rule in Drawn state, you can click to redraw a detection area. To delete a detection area, click
Sensitivity	Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely entry behaviors will be detected, but the false alarm rate will increase.
Priority	Select the priority of the detection rule, including High , Medium , and Low . The DVR detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the DVR detects the rule with higher priority.
Object Type	Select the object(s) to be detected, including Motor Vehicle , Non-Motor Vehicle , and Pedestrian .

5. Under the **Advanced** tab, you can filter objects by size. For example, if you have selected **Motor Vehicle** as a detection object, after you set the **Max. Size** and **Min. Size** for it, motor vehicles larger than the max. size and smaller than the min. size will not be detected.



- (1) Select an object type and click . A Max. Size box and a Min. Size box appear in the left preview window.
- (2) Modify the max./min. size by adjusting the size of the box as follows: Point to a handle of the box and drag to resize it.

Note:

- The Max. Size and Min. Size settings take effect after you select the object as a detection object.
- The width and height of the maximum size must be greater than that of the minimum size.
- 6. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 7. (Optional) To apply the same settings to other cameras, click **Copy**, select the desired setting(s) and camera(s), and then click **OK**.
- 8. Click Apply.

View Real-time Snapshots

- 1. Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time snapshots are shown on the right.
- 2. Click a snapshot to view detailed information. See Perimeter for details.

5.1.7 Leave Area Detection

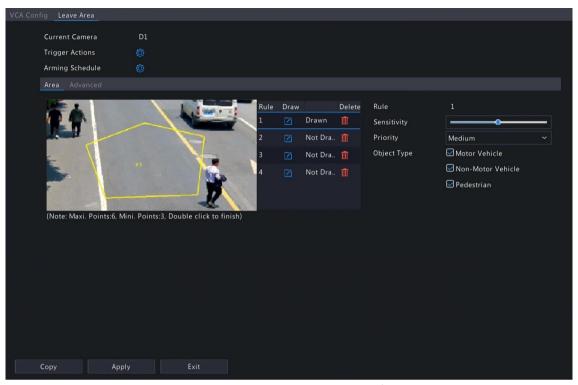
Leave area detection detects objects leaving a user-specified area. The DVR takes snapshots and reports an alarm when the detection rule is triggered.

Note:

- Before you use camera side analysis, make sure an intelligent server with Platform Communication Type set to LAPI is enabled on the camera.
- The functions and parameters supported by camera side analysis and NVR side analysis are different.
- To perform this function on the camera side, enable Intelligent Mark under Menu > System > Basic.

Configure Leave Area Detection

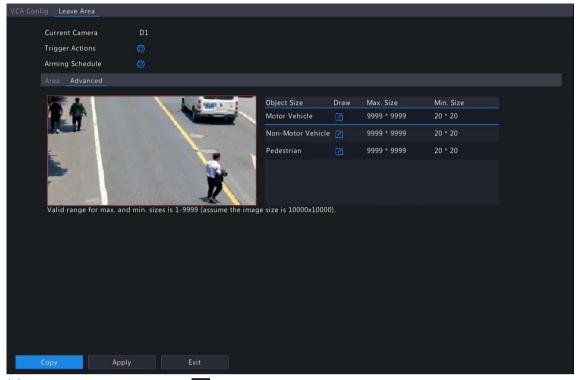
- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **Leave Area** and click to configure it.



4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description
Detection Area	Select Rule 1, click , and then draw a detection area in the left preview window. Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed.
	Note: For a rule in Drawn state, you can click to redraw a detection area. To delete a detection area, click
Sensitivity	Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely leaving behaviors will be detected, but the false alarm rate will increase.
Priority	Select the priority of the detection rule, including High , Medium , and Low . The DVR detects the rule that is triggered first by default. If multiple rules are triggered at the same time, the DVR detects the rule with higher priority.
Object Type	Select the object(s) to be detected, including Motor Vehicle , Non-Motor Vehicle , and Pedestrian .

5. Under the **Advanced** tab, you can filter objects by size. For example, if you have selected **Motor Vehicle** as a detection object, after you set the **Max. Size** and **Min. Size** for it, motor vehicles larger than the max. size and smaller than the min. size will not be detected.



- (1) Select an object type and click . A Max. Size box and a Min. Size box appear in the left preview window.
- (2) Modify the max./min. size by adjusting the size of the box as follows: Point to a handle of the box and drag to resize it.

Note:

- The Max. Size and Min. Size settings take effect after you select the object as a detection object.
- The width and height of the maximum size must be greater than that of the minimum size.
- 6. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 7. (Optional) To apply the same settings to other cameras, click **Copy**, select the desired setting(s) and camera(s), and then click **OK**.
- 8. Click Apply.

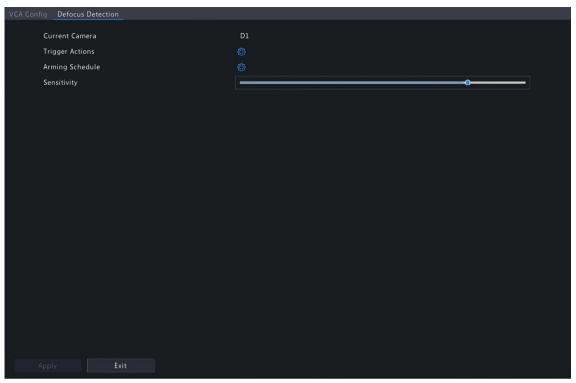
View Real-time Snapshots

- 1. Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time snapshots are shown on the right.
- 2. Click a snapshot to view detailed information. See Perimeter for details.

5.1.8 Defocus Detection

Defocus detection detects lens defocus. The DVR takes snapshots and reports an alarm when the detection rule is triggered.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **Defocus Detection** and click to configure it.

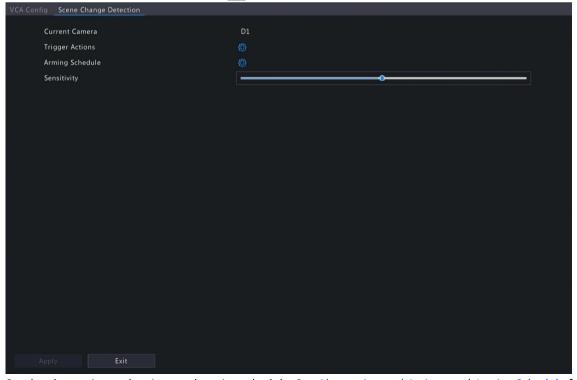


- 4. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 5. Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely defocus will be detected, but the false alarm rate will increase.
- 6. Click Apply.

5.1.9 Scene Change Detection

Scene change detection detects the change of surveillance scene caused by external factors such as intentional camera movement. The DVR takes snapshots and reports an alarm when the detection rule is triggered.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **Scene Change Detection** and click to configure it.



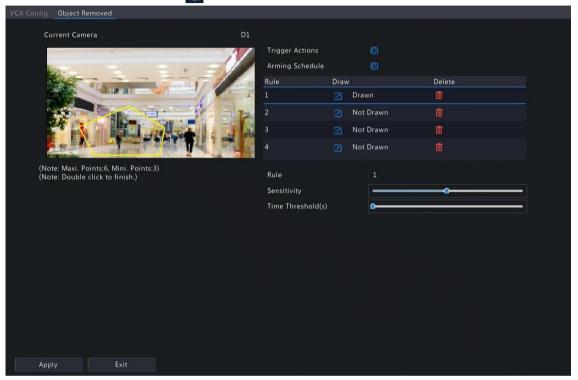
4. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.

- 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. Click Apply.

5.1.10 Object Removed Detection

Object removed detection detects objects removed from a user-specified area for a preset time. The DVR takes snapshots and reports an alarm when the detection rule is triggered.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **Object Removed** and click to configure it.



4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

Parameter	Description
Detection Area	Select Rule 1, click, and then draw a detection area in the left preview window. Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed.
	Note: For a rule in Drawn state, you can click to redraw a detection area. To delete a detection area, click
Sensitivity	Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely object removal behaviors will be detected, but the false alarm rate will increase.
Time Threshold(s)	Set the time threshold by dragging the slider. If an object is removed from the detection area for the set time, an alarm will be triggered.

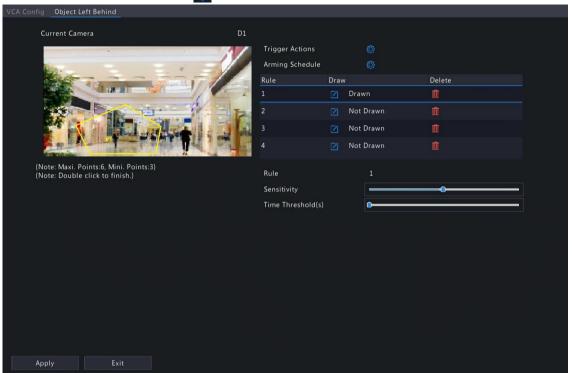
- 5. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 6. Click Apply.

5.1.11 Object Left Behind Detection

Object left behind detection detects objects left behind in a user-specified area for a preset time. The DVR takes snapshots and reports an alarm when the detection rule is triggered.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.

3. Select **Object Left Behind** and click to configure it.



4. Set detection rules. The 4 detection rules shall be set separately. The following takes Rule 1 as an example.

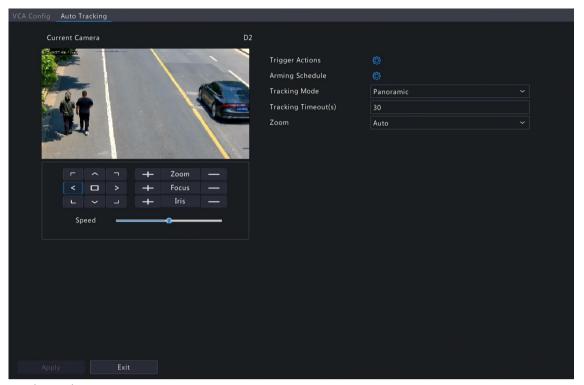
Parameter	Description
Detection Area	Select Rule 1, click , and then draw a detection area in the left preview window. Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed. Note: For a rule in Drawn state, you can click to redraw a detection area. To delete a detection area, click.
Sensitivity	Set the sensitivity by dragging the slider. The higher the sensitivity, the more likely object left behind behaviors will be detected, but the false alarm rate will increase.
Time Threshold(s)	Set the time threshold by dragging the slider. If an object is left behind in the detection area for the set time, an alarm will be triggered.

- 5. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 6. Click Apply.

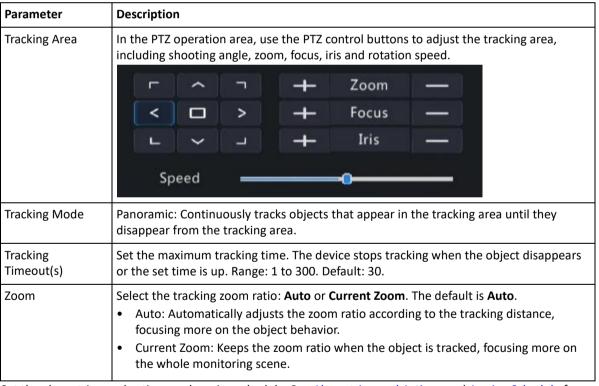
5.1.12 Auto Tracking

Auto tracking detects moving objects in the live video and tracks the first object detected.

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **Auto Tracking** and click to configure it.



4. Set the tracking parameters.



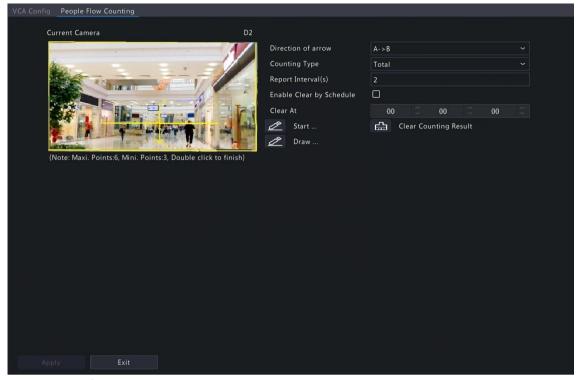
- 5. Set the alarm-triggered actions and arming schedule. See Alarm-triggered Actions and Arming Schedule for details.
- 6. Click Apply.

5.1.13 People Flow Counting

People flow counting counts people passing a specified tripwire in a user-defined area.

Configure People Flow Counting

- 1. Go to Menu > VCA > VCA Config.
- 2. Select a camera.
- 3. Select **People Flow Counting** and click to configure it.



4. Set the people flow counting rule.

Parameter	Description
Draw Area	Click and draw a detection area in the left preview window. Click on the image and drag to draw a line. Repeat the action to draw more lines to form an enclosed shape as needed. Up to 6 lines are allowed.
Draw Tripwire	Click and draw a tripwire in the left preview window. Only 1 tripwire is allowed.
Direction of arrow	Set the entry direction. • A->B: A to B is entry, B to A is exit. • B->A: B to A is entry, A to B is exit.
Counting Type	 Select the counting type: Total, People Entered, or People Exited. Total is the default counting type. Total: Displays the number of people entering and leaving the detection area. People Entered: Displays the number of people entering the detection area. An entry is counted as a person crosses the tripwire in the direction of the arrow and passes through the detection area. People Exited: Displays the number of people leaving the detection area. An exit is counted as an object crosses the tripwire in the opposite direction of the arrow and passes through the detection area.
	 Note: Before use, you need to enable people counting OSD under Menu > Camera > OSD. People that loiter in the detection area, cross the tripwire only, or cross the detection area only are not counted.
Report Interval(s)	Set the time interval for reporting people flow statistics. Default: 60. Range: 1 to 60. The DVR reports people flow statistics to the uplink platform at set intervals. The uplink platform must subscribe to the function to receive the statistics.
Enable Clear by Schedule	Select the Enable Clear by Schedule check box and set the time to clear people counting statistics.

Parameter	Description
Clear At	The clearing time defaults to 00:00:00. You can modify it as needed. The DVR will clear people counting statistics on the OSD at the set time everyday. This operation does not affect statistics and data reporting.
Clear Counting Result	Click to clear people counting statistics displayed on the live video immediately. This operation only affect the people counting OSD and does not affect statistics and data reporting.

- 5. To be alerted when the number of people in the detection area exceeds a certain number, you can enable and configure People Present Alarm under Menu > Alarm > People Present Alarm. See People Present Alarm for details.
- 6. Click Apply.

View Real-time Statistics

Right-click on the live view page and select **Preview Mode** > **Smart**, then the real-time people statistics are shown on the right. See People Flow Counting for details.

5.2 VCA Search

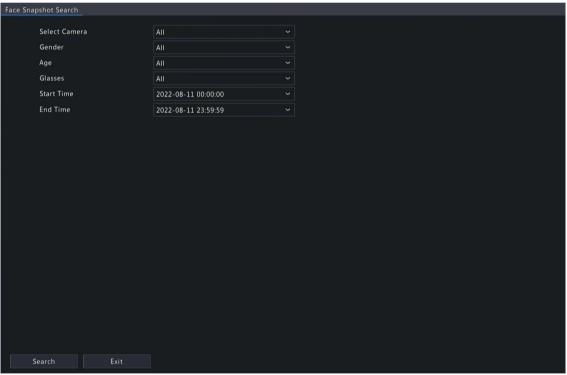
Search for face snapshots, VCA event snapshots and people counting statistics.

5.2.1 Face Snapshot Search

Search for face snapshots.

Search Face Snapshots

1. Go to Menu > VCA > VCA Search > Face Snapshot Search.



2. Set search conditions.

Parameter	Description
Select Camera	Select the camera(s) to search.
Gender	Select the gender: All, Male or Female.
Age	Select the age: All, Childhood, Teenager, Youth, Middle Age, or Senior.
Glasses	Select the glasses status: All, No Glasses, or With Glasses.
Start/End Time	Specify the time period to search for face snapshots.

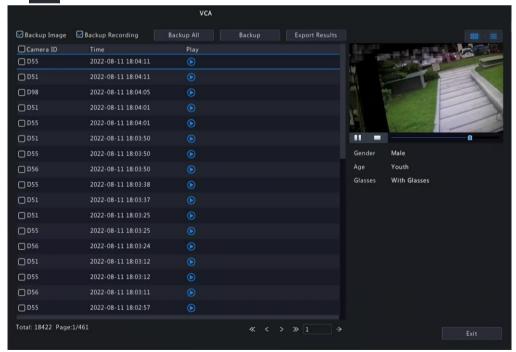
Parameter	Description
	Note: A search range smaller than five months is recommended, because earlier snapshots and recordings may have been overwritten due to full storage.

- 3. Click **Search**. The search results are shown in tile mode by default. You may click to switch to list mode.
 - Tile



Note:

- By default, a 10s video (5s before and 5s after the first image) and the detailed information about the first image are displayed on the right.
- You can click any image to view the 10s video and detailed information about it.
- List



- By default, a 10s video (5s before and 5s after the first item) and the detailed information about the first item are displayed on the right.
- You can click any item and click or to view the 10s video and detailed information about it.

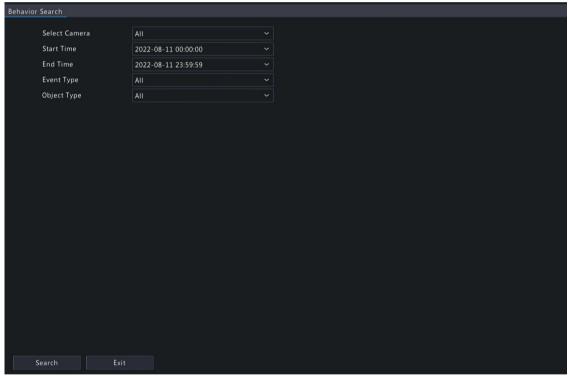
Other Operations

Operation	Description
Backup/Backup All	Enable Backup Image or/and Backup Recording as needed. By default, they are both enabled.
	Backup Image: Back up the selected image(s) to an external device.
	Backup Recording: Back up the 10s video of the selected image(s) to an external device.
	2. Select Backup or Backup All.
	 Backup: Back up specified search results. Select the search result(s) you want to back up and click Backup.
	Backup All: Back up all search results. Click Backup All.
Export Results	 Enable Backup Image or/and Backup Recording as needed, and click Export Results. Select the export partition and click Export Results to export the search results to an external storage device.

5.2.2 Behavior Search

Search for images based on VCA behaviors including cross line detection, enter area detection, leave area detection, smart motion detection, etc. Behaviors supported for search may vary with DVR model.

1. Go to Menu > VCA > VCA Search > Behavior Search.



2. Set search conditions.

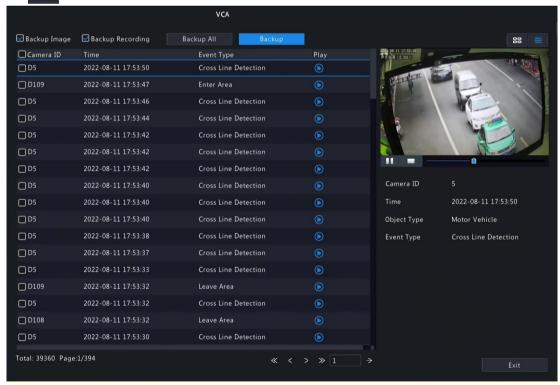
Parameter	Description
Select Camera	Select the camera(s) to search.
Start/End Time	Specify the time period to search.
	Note: A search range smaller than five months is recommended, because earlier snapshots and recordings may have been overwritten due to full storage.
Event Type	Select the event type to search.
Object Type	Select the object type to search: All, Pedestrian, Non-Motor Vehicle, or Motor Vehicle.

- 3. Click **Search**. The search results are shown in tile mode by default. You may click to switch to list mode.
 - Tile 🍔



Note:

- By default, a 10s video (5s before and 5s after the first image) and the detailed information about the first image are displayed on the right.
- You can click any image to view the 10s video and detailed information about it.
- List =



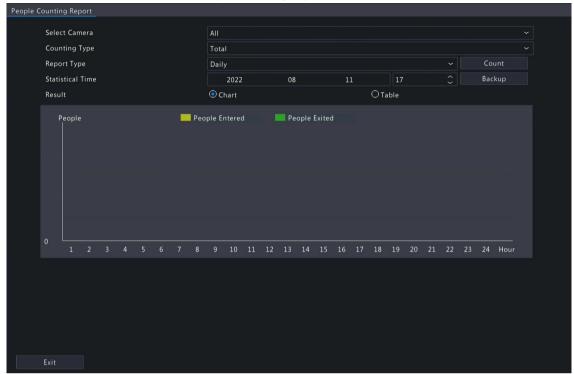
Note:

- By default, a 10s video (5s before and 5s after the first item) and the detailed information about the first item are displayed on the right.
- You can click any item and click or to view the 10s video and detailed information about it.
- 4. Back up search results. See Back up search results for details.

5.2.3 People Counting Report

Search for people counting data. You can view daily/weekly/monthly/yearly people counting reports-the number of people entering and/or leaving a certain area during a specified time period.

1. Go to Menu > VCA > VCA Search > People Counting Report.



2. Set search conditions.

Parameter	Description
Select Camera	Select the camera(s) to search.
Counting Type	Select the counting type to search: Total , People Entered , or People Exited .
Report Type	Select the report type to view: Hourly , Daily , Weekly , Monthly , or Yearly .
Statistical Time	Select the time to count.

- 3. Select to create the report as a chart or a table.
 - Chart



Table



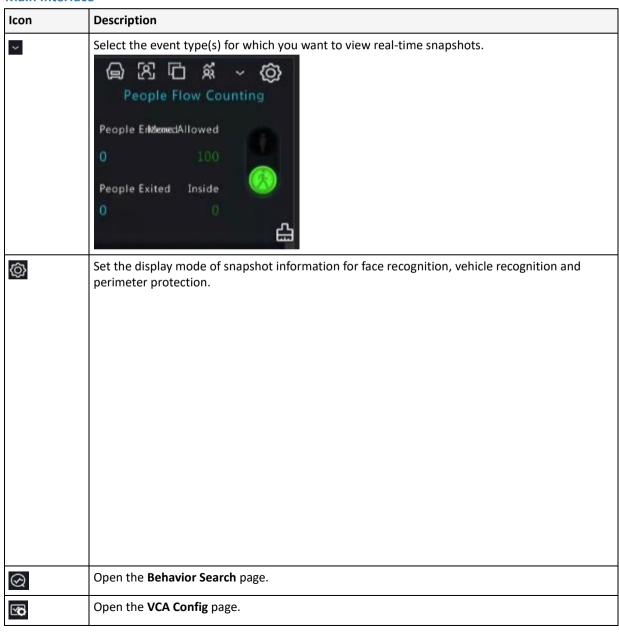
4. Click **Backup** to export the report to an external storage device as a .CSV file. The content of the file exported from a report in chart or table format is the same.

5.3 Smart Preview

View real-time snapshots and statistics of four major categories of VCA functions on the live view page, including vehicle, face, perimeter and people counting.

Right-click on the live view page and select **Preview Mode > Smart**, then the real-time snapshots are displayed on the right.

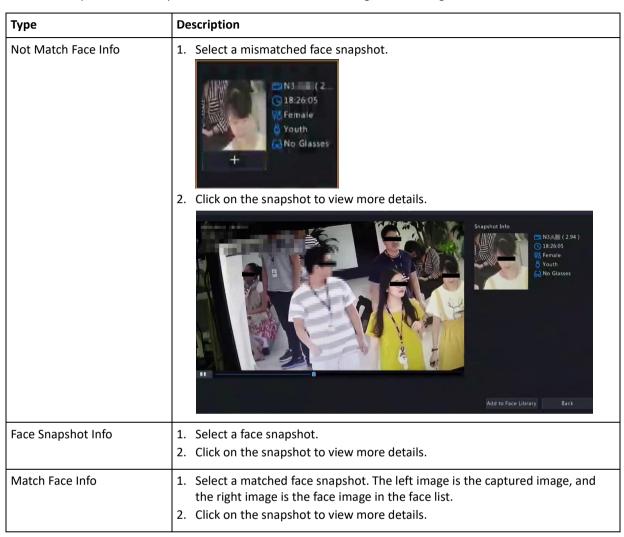
Main Interface



Icon	Description
a	Clear real-time snapshots displayed on the live view page. Search records and statistics are not affected.

Face

View face snapshots, face snapshot information, and face matching/mismatching information.



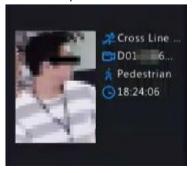
Note:

- In the **View Details** dialog box, a 10s video (5s before and 5s after the snapshot) is automatically played on the left, and the snapshot and its detailed information are displayed on the right.
- You can click + under a face snapshot or click **Add to Face Library** in the details page of a face snapshot to add the snapshot to the face list, and click to search face images in face lists by this snapshot.

Perimeter

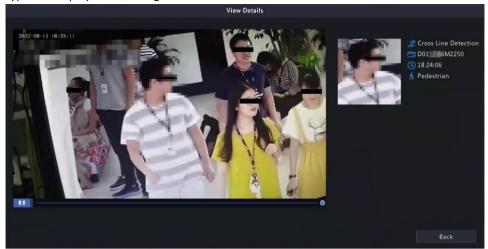
View real-time snapshots of perimeter protection functions including cross line detection, intrusion detection, enter area detection and leave area detection.

1. Select a snapshot.



2. Click on the snapshot to view more details.

In the **View Details** dialog box, a 10s video (5s before and 5s after the snapshot) is automatically played on the left, and the snapshot and its detailed information including event type, camera name, time, and object type are displayed on the right.



People Flow Counting

View real-time people flow statistics including the number of people entering/leaving/currently allowed/present.



- The number of people present in the detection area does not exceed the set threshold. The number of people present in the detection area exceeds the set threshold.
- Clear the people counting statistics on the current page. This operation does not affect statistics and data reporting.

6NetworkConfiguration

Configure the network parameters of the DVR, such as IP address.

Note: The default IP address of network interface 1 is 192.168.1.30, and that of network interface 2 is 192.168.2.30.

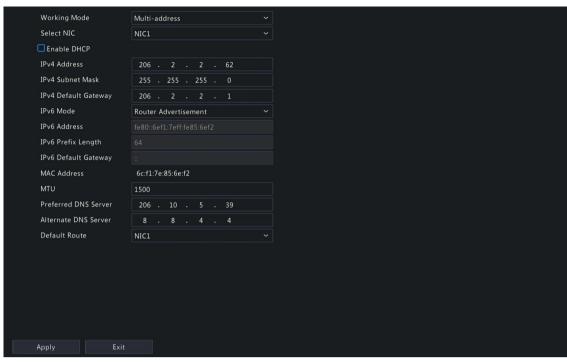
6.1 Basic Configuration

Configure the network, mobile app, DDNS, email, etc.

6.1.1 Network Configuration

Configure IP address and other network parameters of the DVR.

1. Go to Menu > Network > Basic > Network.



2. Choose a working mode. Only multi-NIC DVRs support these three working modes.

Working Mode	Description
Multi-address	Two NICs work independently. You need to configure the NICs separately.
Load Balance	Two NICs use the same IP address and work together to share the sending and receiving bandwidth.
Net Fault-tolerance	Two NICs use the same IP address, and if the primary NIC fails, the standby NIC takes over seamlessly to ensure uninterrupted network connection.

3. Configure the network parameters according to the actual network environment.

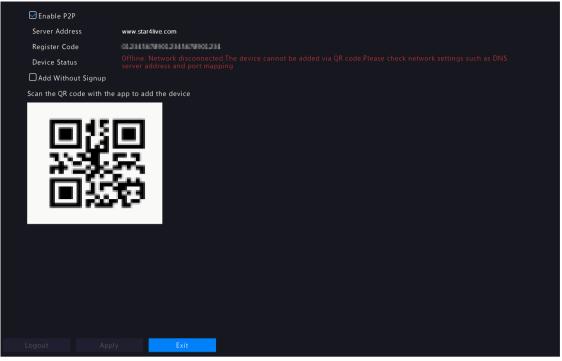
Note:

- For a multi-NIC DVR, you can choose an NIC as the default route. When the DVR connects to an external network, data will be forwarded via the default route.
- For a DVR with PoE ports, you can configure an IPv4 address for the internal NIC.
- The MTU must be in the range of [576-1500]. To use IPv6, you must set MTU within [1280-1500], and make sure the IPv6 addresses of the DVR and PC are connected. To use functions such as live view, playback, make sure IPv4 addresses of the DVR and PC are also connected.
- 4. Click Apply.

6.1.2 P2P

With P2P you can manage and operate the DVR remotely on a mobile phone.

1. Go to Menu > Network > Basic > P2P. P2P is enabled by default.



- 2. Choose a way to add the DVR to cloud:
 - App: Download and install the Guard Viewer app, and then scan the QR code using the app to add the DVR.
 - Website: Go to star4live.com and follow instructions to add the DVR.
- 3. Click Apply.
- 4. Check the deviec status. If online, the current username will be displayed. If offline, the common cause will be displayed, and troubleshoot accordingly.

Note: You may also check the device status on the cloud website (star4live.com).

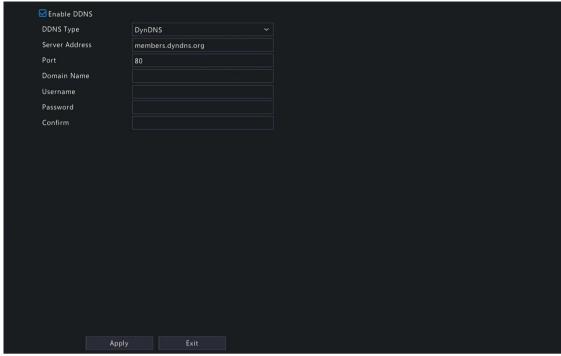
5. (Optional) To delete the DVR from cloud, click **Delete**.

6.1.3 DDNS

Configure DDNS so you can access the DVR on the LAN from the Internet by visiting a fixed domain name instead of the changing IP addresses.

Note: You can open the DVR's Web page by visiting http://server address/DVR's domain name using a Web browser.

1. Go to Menu > Network > Basic > DDNS.



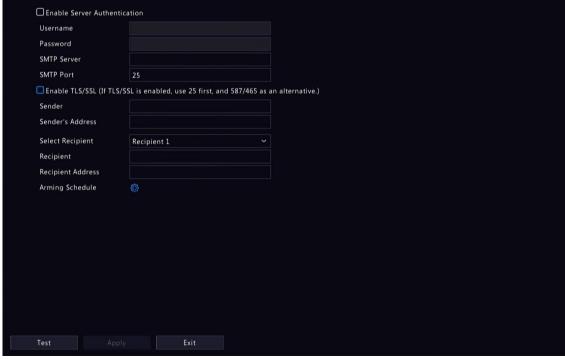
- 2. Select **Enable DDNS**, choose a DDNS type, and configure the parameters.
 - DynDNS/No-IP: Third-party DDNS service provider. Enter the domain name and username/password that you acquired from your DDNS service provider.
 - Domain name: Domain name assigned by your DDNS service provider.
 - Username and password: The corresponding username/password for your DDNS account.
 - MyDDNS: Enter a domain name, and then click Test to check its validity.
- 3. Click Apply.

6.1.4 Email

Configure email so the DVR 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.

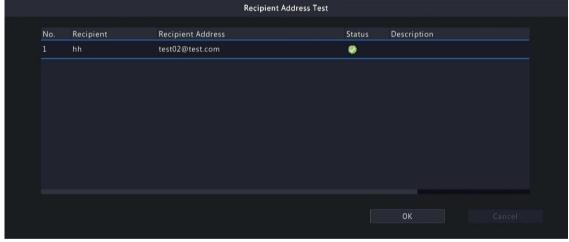
1. Go to Menu > Network > Basic > Email.



2. Configure the parameters.

Parameter	Description
Enable Server Authentication	SMTP server authentication, when enabled, can enhance email security. This feature is disabled by default. To enable it, you need to enter the correct username and password.
Username/Password	Username and password of the SMTP server. Usually it is the username and password of the email box.
SMTP Server	SMTP server address.
SMTP Port	Default: 25. Range: [1-65535].
Enable TLS/SSL	When enabled, communication security will be improved by encrypting emails via TLS or SSL. This feature requires the SMTP server to support TLS/SSL.
	Note: After TLS/SSL is enabled, if email sending via port 25 failed, try 587 or 465.
Sender	Sender's name.
Sender's Address	Sender's email address, which can the same as the recipient's address.
Select Recipient	Choose a recipient from the list and then complete the recipient information. Up to 6 recipients are allowed.
Recipient	Recipient's name.
Recipient Address	Recipient's email address.
Arming Schedule	Click to configure an arming schedule. See Arming Schedule.

3. Click **Test**. The system will check the recipient address by sending it a test email. in the **Status** column means the test succeeded and the email address is valid.



4. Click Apply.

6.2 Platform Configuration

Configure an upper platform for the DVR.

6.2.1 Alarm Service

Configure an upper server to receive alarms and images from the $\ensuremath{\mathsf{DVR}}.$

1. Go to Menu > Network > Platform > Alarm Service.



- 2. Select Enable Alarm Service.
- 3. Configure the parameters.

Parameter	Description
Server Address	Upper server's IP address.
Server Port	Upper server's port number.

Note: This configuration only enables the sending of alarm-related packets to the alarm host. The specific alarm methods on the alarm host need to be configured separately.

4. Click Apply.

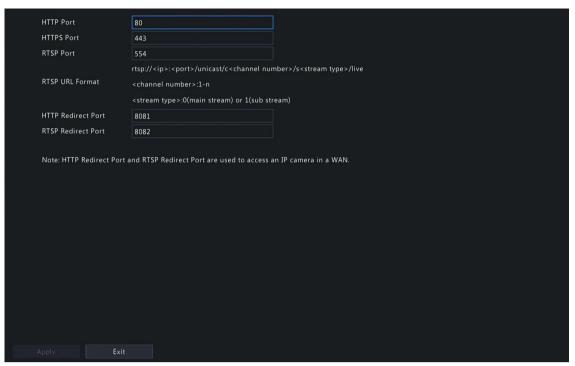
6.3 Advanced Configuration

Configure ports, port mapping, and multicast.

6.3.1 Port

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

1. Go to Menu > Network > Advanced > Port.



2. Configure the ports.



- The port range is 1-65535, among which, ports 21, 23, 2000, 3702 and 60000 are reserved for other purposes. Duplicate ports are not allowed.
- The upper platform can access the live video of a camera using the displayed RTSP URL.
- 3. Click Apply.

6.3.2 Port Mapping

Configure port mapping so client computers can access the DVR on the LAN across the Internet.

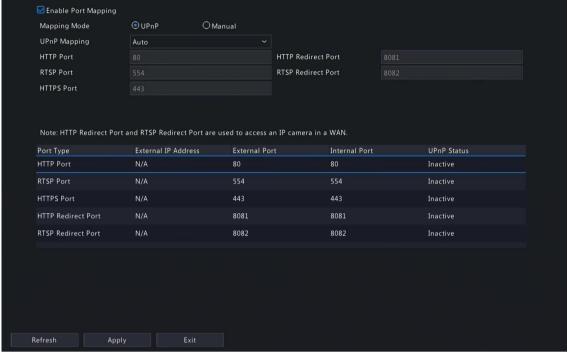
- 1. Go to Menu > Network > Advanced > Port Mapping.
- 2. Port mapping is enabled by default. You can choose a mapping mode, UPnP or manual port mapping.

UPnP

UPnP is short for Universal Plug and Play. UPnP-enabled network address translation (NAT) can perform automatic port mapping to enable client computers to access the DVR on the LAN from the Internet.

Note: This function requires router support. You need to enable UPnP on the router before starting configuration on the DVR.

1. Choose the **UPnP** mapping mode.



- 2. Choose a mode from the **UPnP Mapping** list:
 - Auto: The DVR automatically assigns external port numbers, which are usually the same as the internal port numbers.
 - Specify ports: User specifies ports within the range of [1-65535].



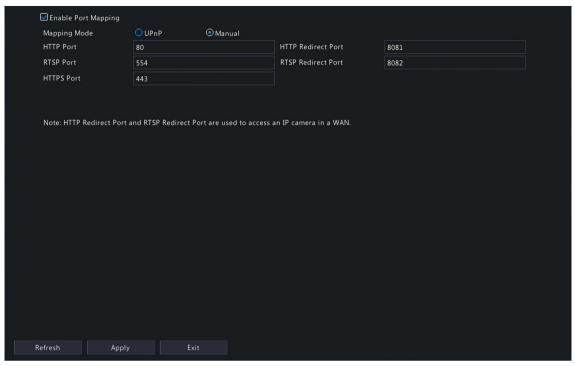
- · Auto is recommended. Port conflict may occur when external ports are specified manually.
- For a multi-NIC DVR, port mapping shall be performed on the NIC that is configured as the default route.
- 3. Click **Refresh**, and check whether **Active** is displayed in the **UPnP Status** column.
- 4. Click Apply.

Manual

If the router does not support UPnP, you have to configure internal and external ports manually.



- Make sure the ports configured on the DVR are consistent with that configured on the router.
- For some routers, the DVR's external and internal ports must be the same, and they also must be the same as the ports on the router.
- 1. Choose the **Manual** mapping mode.



- 2. Set the external ports manually.
- 3. Click Apply.



After port mapping is configured, you can open the Web interface using the following address: *Router's WAN IP:external HTTP port*. For example, the router's external IP address is 10.2.2.10, and the external HTTP port is 82, then enter http://10.2.2.10:82 in the Web browser's address bar.

6.3.3 Multicast

When the number of users accessing the Web client has reached the upper limit and live video is unavailable, you can use multicast to solve this issue.

1. Go to Menu > Network > Advanced > Multicast.



- 2. Select **Enable Multicast**, enter the multicast IP address and port number.
- 3. Click Apply.
- 4. Log in to the Web interface, go to **Setup > Client**, set **Live View Protocol** to **Multicast**. Now live view is available through multicast.

Default Live Stream	Sub Stream
Display Ratio	Full
Video Mode	Fluency Priority
Video File Size	1 GB V
Save File To	C:\\Begin{array}{cccccccccccccccccccccccccccccccccccc
Live View Protocol	TCP
Intelligent Mark	Multicast ○ On ● Off
Note: Local recording	s, snapshots, and downloaded recordings are saved in the Record, Snap, Download folders.

Note:

- IP multicast addresses are class-D addresses. 224.0.1.0 238.255.255.255 can be used on the Internet.
- In the range of 224.0.0.0 239.255.255.255, some are reserved for special uses, for example, 224.0.0.0 244.0.0.255 can only be used on the LAN, where packets with these addresses will not be forwarded by a router; 224.0.0.1 is used by all the hosts on the subnet; 224.0.0.2 is used by all the routers on the subnet; 224.0.0.5 is used by OSPF routers; 224.0.0.13 is used by PIMv2 routers; and 239.0.0.0 239.255.255.255 are private addresses (e.g., 192.168.x.x).

7SystemConfiguration

This chapter describes how to configure the system parameters.

7.1 Basic Configuration

Configure the basic information of the system.

1. Go to Menu > System > Basic Setup.



2. Configure the basic parameters.

Parameter	Description
Device Name	The default name is the DVR model. You can change it as needed.
Device ID	Used to distinguish devices if you have more than one device. You can change it as needed.

Parameter	Description
Device Language	Choose the system language. The system will restart after you change the system language.
	Note: Not all devices can switch the language.
Auto Logout(min)	If you are not on the live view page and don't perform any operation, you will log out automatically when the set time is over, and the live view page will be displayed.
	Default: 5 minutes. You can change it as needed.
Instant Playback (min)	Set the instant playback time. Default: 5 minutes.
Mouse Pointer Speed	Drag the slider to adjust the speed (left to right: slow to fast).
Enable Password Protection	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.
	Note: Only admin can change the setting.
Enable Startup Wizard	Startup wizard appears when the DVR starts up for the first time. If the checkbox is selected, the startup wizard appears every time the device starts up. You may click Wizard to set wizard on the Menu page.
Intelligent Mark	When enabled, smart detection rules will be displayed on the live video, or smart detection objects will be marked, and the corresponding smart data will be displayed. Smart rules are yellow detection boxes or detection lines. Detection boxes have two colors with different meaning as described below: • Green: Data have changed but didn't trigger the rules.
	Red: Data in the area have triggered the rules configured for the VCA alarm and a VCA alarm has occurred.
Click Amulu	Note: Some smart functions do not support this feature.

3. Click Apply.

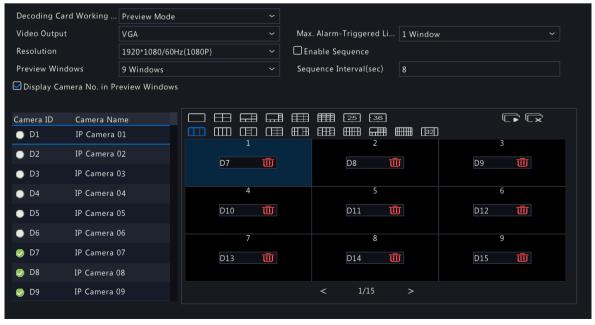
7.2 Preview Configuration

Configure the screen display and preferred stream type for preview.

7.2.1 Preview Configuration

Configure the basic preview parameters and display mode.

Go to Menu > System > Preview.



Basic Preview Configuration

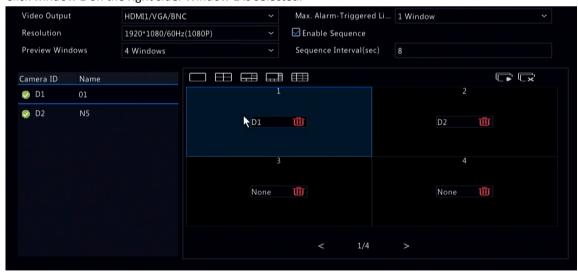
Parameter	Description
Video Output	Outputs the system display to an external display device. Choose an output port.
	Note: The DVR provides three output ports (VGA, HDMI1/HDMI2, BNC) and can output the system display to three displays simultaneously for independent operations. The actual port types available may vary with device.
Resolution	The resolution includes the display format and refresh rate. The display format refers to the number of pixels that can be displayed on the screen, for example, 1920x1080, 1280x720, 1280x1024, etc. More pixels displayed means higher image quality. The refresh rate can be 60Hz, 50Hz, 25Hz, etc. Choose an option that best fits your needs.
Preview Windows	Displays images in the desired window layout. Choose an option from the list, or click an icon to choose the layout.
Max. Alarm-Triggered Live View Windows	Three options: 1/4/9 windows. See Preview for more information.
Enable Sequence	Select the Enable Sequence checkbox. See Sequence for more information.
Sequence Interval(sec)	Set the sequence interval time. Default: 8 seconds.
Display Camera No. in Preview Windows	When enabled, camera IDs will be displayed in live view windows. This feature is enabled by default.

Screen Configuration

By default, camera IDs correspond to live view windows: D1 to window 1, D2 to window 2, and so on. You can change the correspondence relationship as follows. The example below shows how to switch D1 and D2.

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 Configure permission, and it cannot switch windows that are not on the same screen.

1. Click window 1 on the right side. Window 1 is selected.

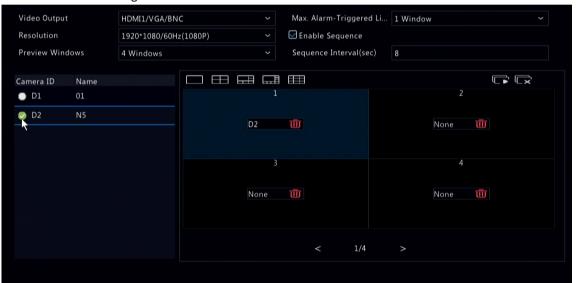


2. Click D2 on the left-side channel list. Now window 1 shows D2, and window 2 shows None.



Note: On the left-side channel list, is empty for D1, which means the channel is not bound to any window.

3. Click window 2 on the right side. Window 2 is selected.



4. Click D1 on the left-side channel list. Now window 2 shows D1, which means D1 and D2 have switched windows with each other.



5. Click Apply.

7.2.2 Advanced Configuration

1. Go to Menu > System > Preview > Advanced.



- 2. Select **Sub Stream First**.
- 3. Click Apply.

7.3 Time Configuration

Configure the time display mode, time synchronization mode, and holidays.

7.3.1 Time Configuration

Configure the time format and update method.

Configure Time Format

1. Go to Menu > System > Time > Time.



- 2. Choose the time zone, date, and time format.
- 3. Set the system time.

Enable Auto Update

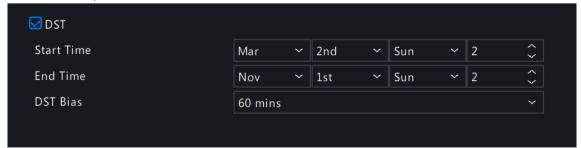
When enabled, the system syncs time with the NTP server.

- 1. Select Auto Update.
- 2. Enter the NTP server address and port number.
- 3. Choose an update interval.

7.3.2 DST

Configure DST.

1. Go to Menu > System > Time > DST.



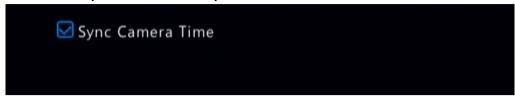
- 2. Select DST.
- 3. Configure the parameters.
- 4. Click Apply.

7.3.3 Camera Time Synchronization

When **Sync Camera Time** is enabled, the DVR syncs time to the connected cameras regularly. This feature is enabled by default.



- Time sync occurs when a camera goes online for the first time.
- If Sync Camera Time is enabled, time sync occurs every 30 minutes.
- 1. Go to Menu > System > Time > Time Sync.

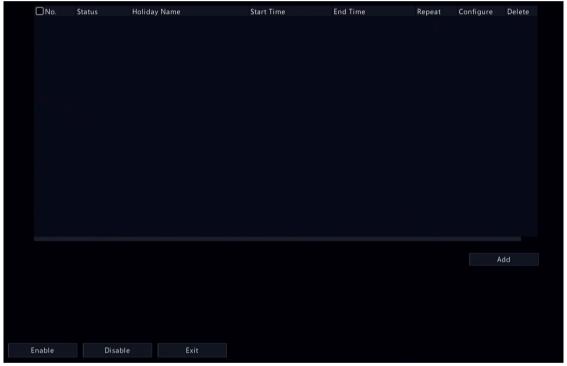


- 2. Enable/disable this feature as needed.
- 3. Click Apply.

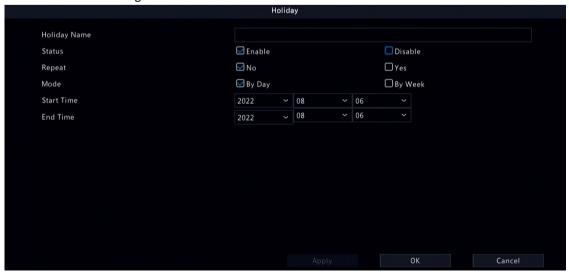
7.3.4 Holiday Configuration

Configure special time periods as holidays for use in recording schedules.

1. Go to Menu > System > Time > Holiday.



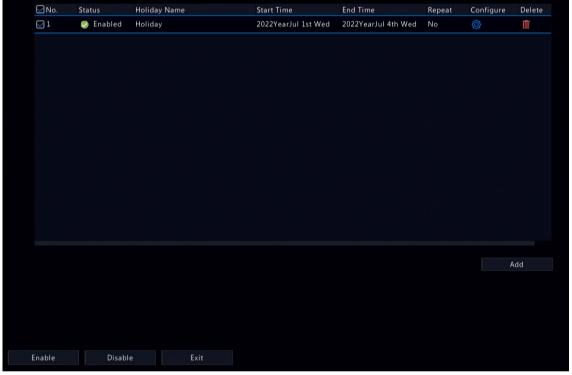
2. Click **Add** in the lower-right corner.



3. Configure the parameters.

Parameter	Description
Holiday Name	Set a meaningful and easy-to-remember holiday name.
Status	The new holiday is enabled by default. If you want to disable it, select Disable .
Repeat	 No: The holiday is effective once only in the specified year. Specify a year for the holiday. Yes: The holiday is effective every year.
Mode	 By Day: Set the holiday in the specified format: year/month/day. By Week: Set the holiday in the specified format: year/month/week/day of the week.
Start Time/End Time	Set according to the specified format.

- 4. Click Apply.
- 5. Click OK.



- Click to edit the current holiday.
- Click to delete a holiday. Deleting a holiday will not delete the relevant recordings.
- Click **Disable** to disable the holiday.

7.4 Serial Port Configuration

Configure serial port parameters to connect a keyboard. The serial port settings configured on the DVR must match the serial port settings on the keyboard.

1. Go to Menu > System > Serial.



2. Configure the parameters.

Parameter	Description
No.	Choose the serial port ID. The number of serial ports available may vary with device.
Serial Type	Currently only RS485 is available.
Baud Rate	Data transmission speed (unit: bits per second). The greater the value, the faster the transmission speed, and the shorter the transmission distance. Usually the default value is used.
Data Bit	The actual number of data bits in a data packet. Usually the default value is used.
Stop Bit	Indicates the end of a unit of transmission. Usually the default value is used.
Check Bit	Used to check whether the received data bits are erroneous. Choose Odd, Even, or None (default) as needed.
Port Usage	Keyboard or Control PTZ.

3. Click Apply.

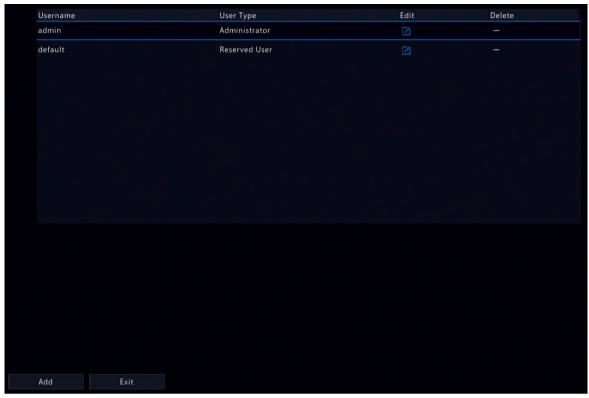
7.5 User Configuration

Users are entities that manage and operate the system. A user type is a set of operation permissions. After a user type is assigned to a user, the user has all the permissions defined in the type.

The system supports four user types:

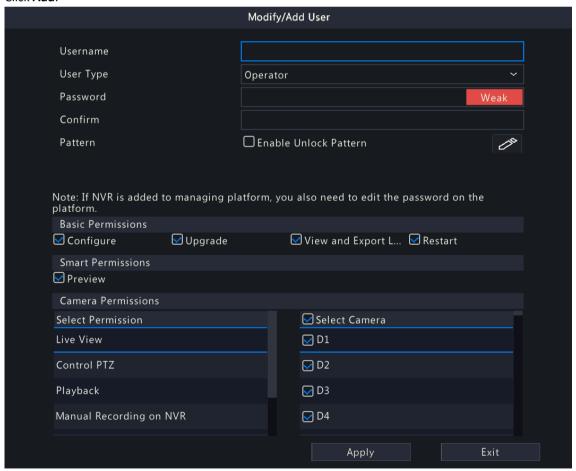
User Type	Description
admin	The default super administrator, which has the maximum permissions. The initial password is 123456 .
	Note: Only admin can add or delete users and edit other users' permissions.
default	The default reserved user, which cannot be added or deleted, only has live view and two-way audio permissions by default, and can be configured by admin only.
	Note: If the default user is forbidden to use live view and two-way audio on a camera, the camera will be locked when no user is logged in, and is displayed in the corresponding window.
Operator	By default, an operator has basic permissions and camera permissions.
Guest	By default, a guest only has camera permissions.

Go to Menu > System > User.



Add User

1. Click Add.



2. Configure the parameters. Enter the username, password, choose a user type, enable/disable unlock pattern, and choose permissions.

Item	Description
Username	Set a username as you need. Cannot be empty or include Chinese characters.

Item	Description
Password/Confirm	Set a strong password.
Pattern	To enable the unlock pattern, select the checkbox. Click on-screen instructions to set a pattern.
Basic Permissions/Smart Permissions	Select the permissions you want to assign to the user.

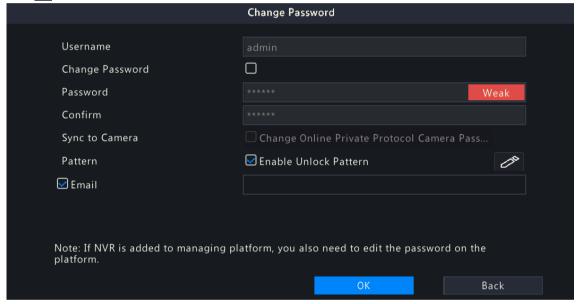
3. Click OK.

Delete User

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

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 OK.

7.6 Security Configuration

Security configuration includes IP address filtering, Onvif authentication, and watermark.

7.6.1 IP Address Filtering

IP address filtering can ensure only certain source IP addresses can be used to access the DVR's web interface.

1. Go to Menu > System > Security > IP Address Filtering.



2. Select Enable IP Address Filtering.

3. Configure the parameters.

Parameter	Description
Control Type	 Blocklist: Access is forbidden if the IP is on the blocklist. Allowlist: Access is allowed only when the IP is on the allowlist. If Allowlist is selected but is empty, remote access will be forbidden.
Start IP/End IP	Enter the start and end IP addresses. If you want to add only one IP address, enter it in the Start IP field.

4. Click Add.

7.6.2 ONVIF Authentication

When Onvif authentication is enabled, a username and password will be required to access the DVR via Onvif. This feature is enabled by default. Go to **Menu** > **System** > **Security** > **ONVIF Auth**.

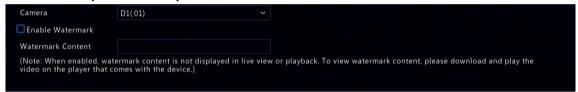
🗹 Enable Authentication

Note: If enabled, a username and password will be required for access by ONVIF.

7.6.3 Watermark

Use the watermark function to encrypt custom information into video contents to prevent video tampering.

1. Go to Menu > System > Security > Watermark.



- 2. Choose the channel, and select **Enable Watermark**.
- 3. Enter the watermark contents.
- 4. Click Apply.

8Backup

This chapter introduces recording backup and image backup.

8.1 Recording Backup

Recording backup refers to backing up videos stored on the DVR's hard disk to a USB storage device. It has the following conditions:

- The USB storage device has been formatted to FAT32 or NTFS.
- Backup permission is required.
- The recording to back up is stored on a hard disk of the DVR.
- The storage device is connected correctly to the DVR.

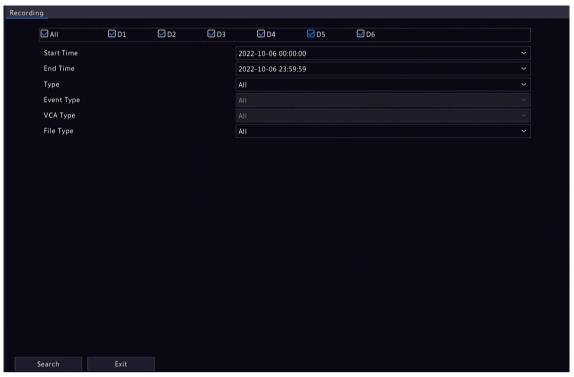
Note

- Recordings are backed up as .mp4 files by default.
- You can back up recordings in HD or SD mode.

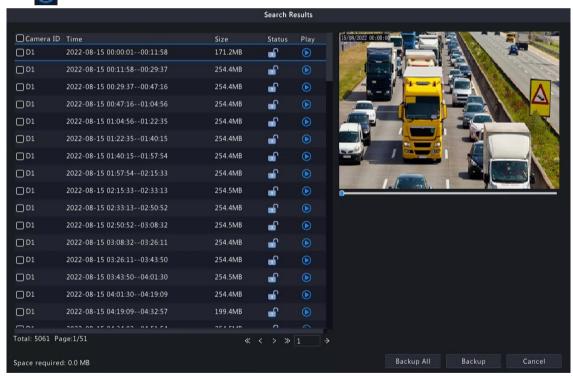
Normal Video Backup

Refers to backing up scheduled recording, manual recording, and event-triggered recording.

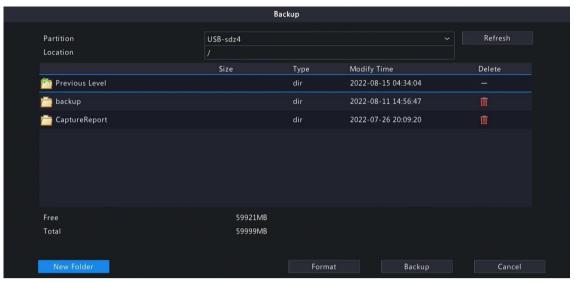
- 1. Go to Menu > Backup > Recording > Recording.
- 2. Select the desired camera(s). All cameras are selected by default.



- 3. Set search conditions, including the start time, end time, recording type, event type, VCA type, and file type.
- 4. Click **Search**. Search results are displayed. The image from the first search result is displayed on the right side. 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 **Backup**.
 - Or click **Backup 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**.

Note:

- Click Format to format the USB device. A USB device with more than 2TB capacity can only be
 formatted to NTFS, with 2TB or less capacity can be formatted to NTFS or FAT32. Only certain DVRs
 can format a USB device with more than 2TB capacity.
- During backup, a progress bar is displayed to indicate the progress (e.g., Exporting X/Y), where X indicates the current number being backed up, and Y indicates the total number of recordings. To stop the backup, click **Cancel**.
- A backup file is named in this format: Camera ID_S recording start time_E recording end time.file
 extension. For example, D1-S20220823000400_E20220823003148.mp4, where S means the start
 time, and E means the end time.

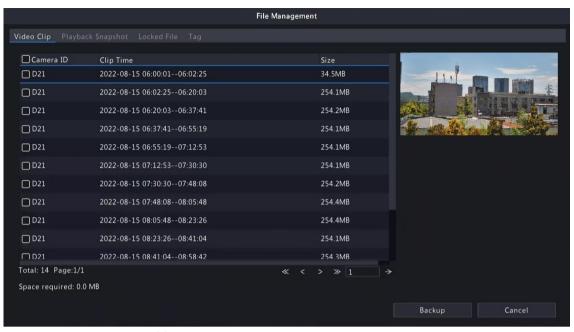
Video Clip Backup

Refers to clipping a recording and saving it to a USB storage device.

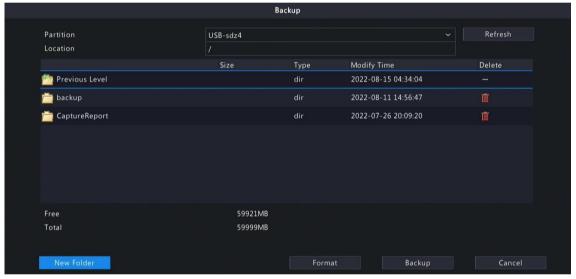
1. Right-click and select Playback to go to the Playback page.



- 2. Click https://doi.or.in.
- 3. Select the desired camera to play the recorded video. Click to clip the video during playback. Click to save the video clip.
- 4. Click to view the video clip in the Video Clip tab.



5. Select the desired video clip(s) and then click **Backup**.



6. Select the partition and storage path, click **Backup**. Then the recordings are saved to the specified path on the storage device. You can also create a new folder for the recording(s) by clicking **New Folder**.

8.2 Image Backup

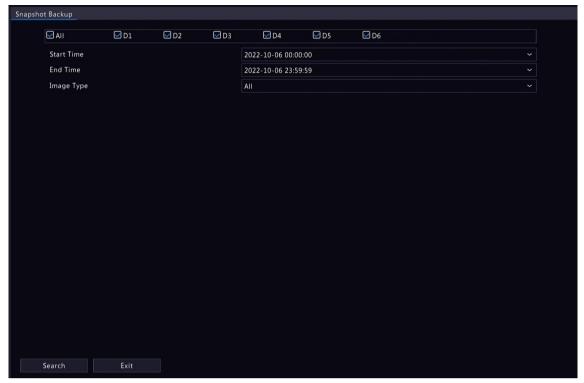
Image backup refers to backing up images stored on the DVR's hard disk to a USB storage device.

Note: The default format of image backup is *.JPG.

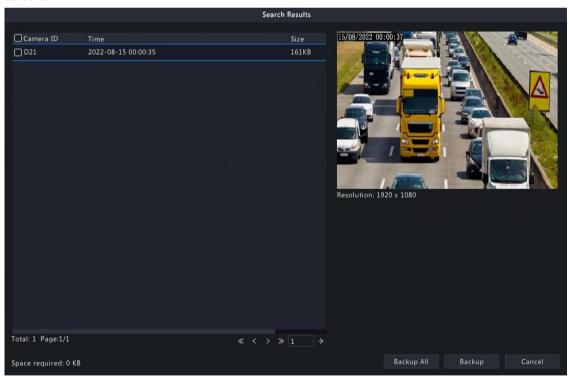
Normal Snapshot Backup

Refers to backing up scheduled snapshot, manual snapshot, and event-triggered snapshot.

1. Go to Menu > Backup > Image > Snapshot Backup.



- 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**. Search results are displayed. The image displayed on the right is from the first result in the list by default.



Note: The image resolution depends on the resolution from the output interface and the number of windows displayed when the snapshot is taken.

- 5. Choose one way to back up image(s) as needed.
 - To back up one or more images, select the desired image(s), and then click **Backup**.
 - To back up all the images in the list, click Backup All.
- 6. Select the partition and storage path, click **Backup**. Then the images are backed up to the specified path on the storage device. You can also create a new folder for the image(s) by clicking **New Folder**.

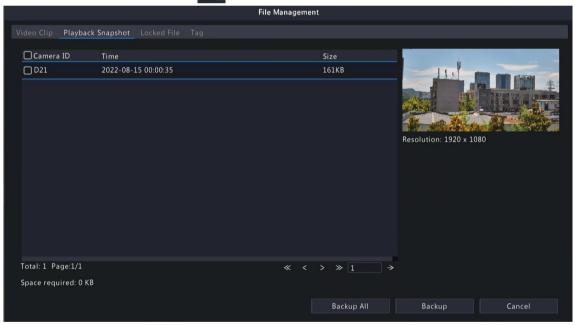
Playback Snapshot Backup

Refers to backing up snapshots that are taken during playback to a USB storage device.

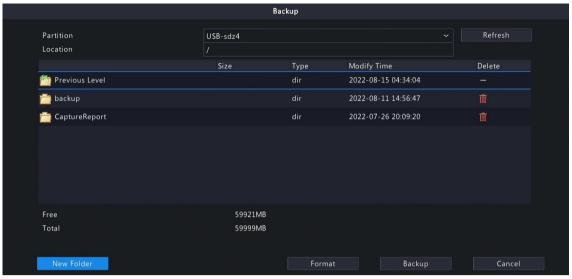
1. Go to the Playback page.



- 2. Click to select HD or SD on the playback toolbar. The default is HD.
- 3. Select the desired camera to play the recorded video. Click o to take a snapshot during the playback.
- 4. To view the saved snapshot(s), click



5. Select the desired snapshot(s) and then click **Backup**.



6. Select the partition and storage path, and then click **Backup**. The snapshots are saved in the specified path on the storage device. You can also create a new folder for the snapshot(s) by clicking **New Folder**.

9Storage

Configure disk storage parameters.

Note: You can configure the storage mode under Menu > Camera > Encoding.

9.1 Recording Schedule

Make a recording schedule.

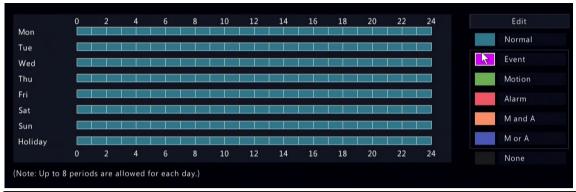
A 24/7 normal recording schedule is enabled by default. You can modify the schedule by drawing or editing as needed.

Go to **Menu** > **Storage** > **Recording Schedule**. Select the camera for which you want to make a recording schedule.



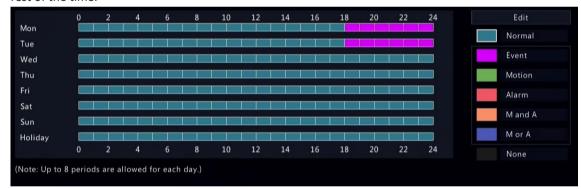
Draw a Schedule

1. Select a recording type.



Recording Type	Description
Normal	Records video during specified time periods.
Event	Records video in the event of an event-triggered alarm.
Motion	Records video in the event of motion.
Alarm	Records video in the event of alarm input. Configure Alarm Input first before making an alarm schedule.
M and A	Records video when motion and alarm input occur simultaneously.
M or A	Records video when motion or alarm input occurs.
None	No recording schedule.

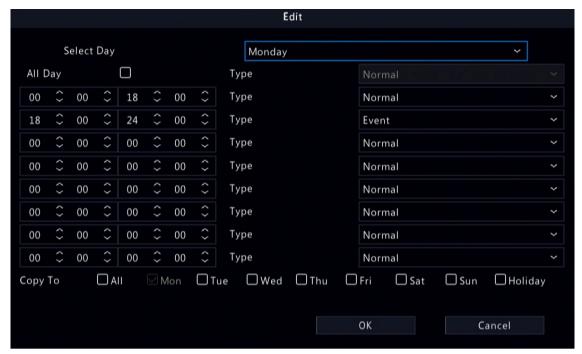
2. Drag on the time schedule to specify time periods for the recording type. The figure below shows a recording schedule with event recording from 18:00 to 24:00 on Monday and Tuesday, and normal recording during the rest of the time.



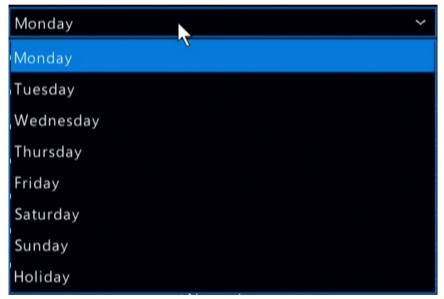
3. Click Apply.

Edit a Schedule

1. Click Edit.



2. Select a day.

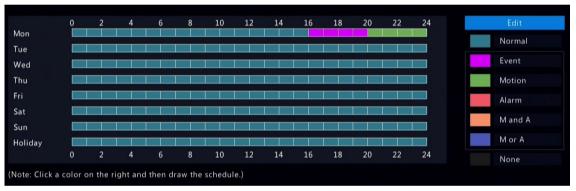


Note: Before you select Holiday, go to System > Time > Holiday and complete the holiday settings.

- 3. Clear the **All Day** check box. As a 24/7 normal recording schedule is enabled by default, you cannot modify the schedule unless **All Day** is unchecked.
- 4. Set time periods and the corresponding recording types.



- 5. To apply the same settings to other days, select the desired day(s) after Copy To.
- 6. Click OK.



7. Click Apply.

Other Settings

Item	Description
Pre-Record	The duration of video to be recorded before an alarm. The default value is 10s.
Post-Record	The duration of video to be recorded after an alarm. The default value is 60s.
Audio Storage	Set whether to record audio. Audio is not recorded by default.

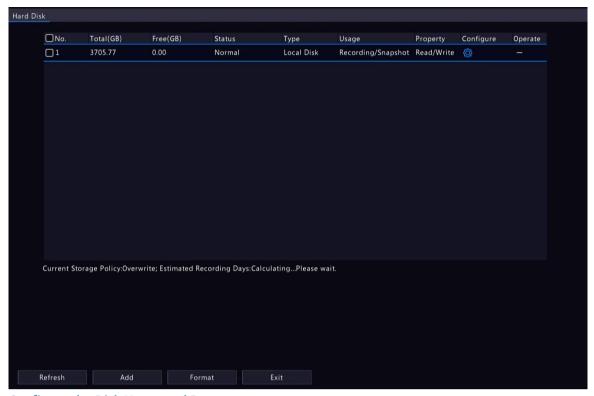
9.2 Disk Management

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



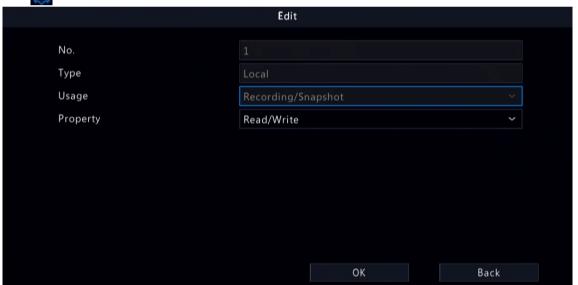
- Before you start, make sure all disks are installed properly.
- Only admin can format disks and configure the disk property.

Go to Menu > Storage > Hard Disk.



Configure the Disk Usage and Property

1. Click for the disk to edit.



2. Select the usage and property. You can only configure the usage of NAS and eSATA.

Usage	Description
Recording/Snapshot	Used to automatically store recordings or snapshots.

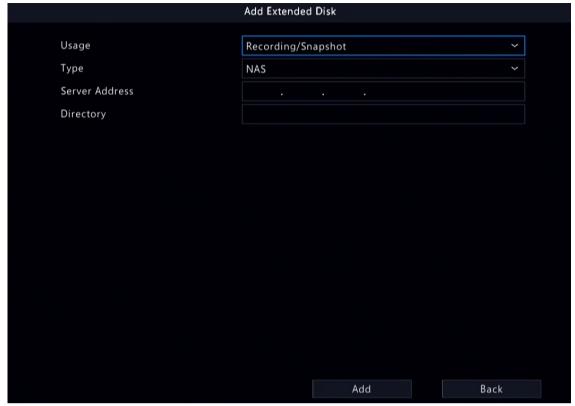
Property	Description
Read/Write	The disk supports recording/snapshot storage, recording playback and snapshot retrieval.
Read Only	The disk only supports recording playback and snapshot retrieval, and does not support recording/snapshot storage.

3. Click OK.

Add an External Disk

You can add external disks to the device, including NAS, eSATA, and disk enclosure. eSATA disks and disk enclosures are automatically added when connected to the device. The following describes how to add a NAS.

1. Click Add.



- 2. Enter the NAS server address and directory.
- 3. Click Add.

Format a Disk

Formatting a disk will erase all data stored on it. Please handle with caution.

- 1. Select the disk you want to format.
- 2. Click Format.
- 3. A confirmation message appears.
 - Local disk: Click Yes.
 - External disk: Select the files you want to format.

Other Operations

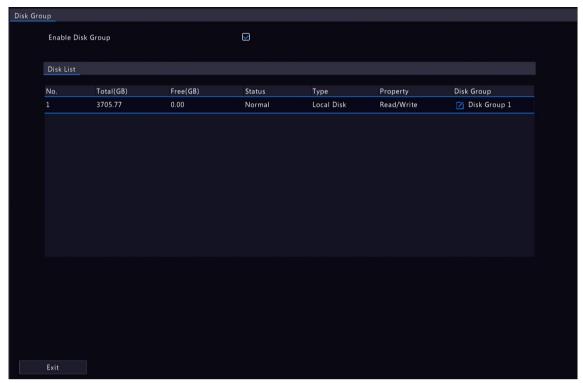
Click __/_ to unmount/mount an eSATA disk.

9.3 Disk Group

You can group disks and allocate a disk group for videos and images from a specified camera to meet the different storage duration requirements of cameras. Different arrays can be assigned to different disk groups. See Space Allocation for details.



- Redundant disks cannot be assigned to any disk group.
- Disk group information will be initialized if any disk in the group is formatted.
- 1. Go to Menu > Storage > Disk Group.
- 2. Select the **Enable Disk Group** check box.



3. Click .

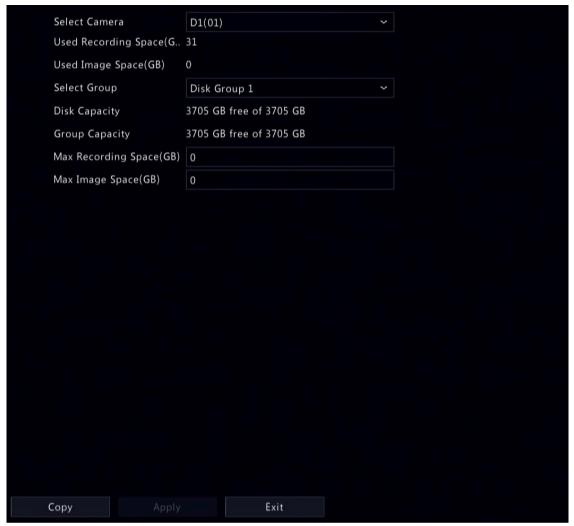


- 4. Select a disk group for the disk.
- 5. Click Apply.

9.4 Space Allocation

Allocate storage space for videos and images from a specified camera.

1. Go to Menu > Storage > Allocate Space.



2. Select a camera, select a disk group for storage by the camera, and allocate storage space for videos and images from this camera on the disk group.

Space Type	Description
Recording Space	Used to store first stream videos, smart snapshots, POS data, people flow data, and heat map images.
Image Space	Used to store common snapshots, such as snapshots captured by schedule or manually.

- 3. Click Apply.
- 4. (Optional) Click **Copy** to apply the same settings to other camera(s).

9.5 Advanced Settings

Configure the storage policy when the storage is full.

1. Go to Menu > Storage > Advanced.



2. Select whether to overwrite the existing data or stop storage when the storage is full.

When HDD Full	Description
Overwrite	The disk space is divided into allocated space and remaining space according to whether the disk is used for storage by cameras. • If a camera is not allocated storage space, it will use the remaining disk
	space, and its oldest data will be overwritten when the remaining space is used up.
	Note: As the remaining disk space is variable and older recordings may be overwritten due to insufficient storage space, please allocate storage space with caution. For example, on a device with 20G disk capacity and two cameras, if camera 1 is allocated 10G, camera 2 will use the remaining 10G if it is not allocated storage space. In this case, you can view the last 5 days of recordings from camera 2. However, if you add a new camera to the device, there will be less storage space available to camera 2, and fewer days of recordings can be viewed.
	If a camera is allocated storage space, its oldest data will be overwritten when the allocated space is used up.
Stop	This option is only effective to cameras that have been allocated storage space. When enabled, if the allocated space of a camera is used up, new recordings/snapshots will not be saved.

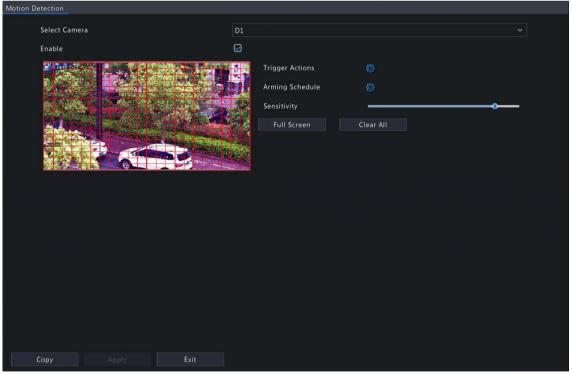
10AlarmConfiguration

Set alarm rules and alarm-triggered actions so as to alert users when an alarm occurs.

10.1 Motion Detection

Motion detection detects motions in specified grids on the image. An alarm is reported when detection rules are triggered. icon appears in the upper right corner of the preview page when the alarm occurs.

1. Go to Menu > Alarm > Motion Detection.



- 2. Select the desired camera, and click Enable.
- 3. Set the detection area. The default is the full screen. You can adjust grid detection areas as needed.
 - To erase grids, click or drag on grid areas.
 - To redraw grids, click Clear All, and then click or drag on blank areas to draw grids.
 - To detect the full screen, click Full Screen.

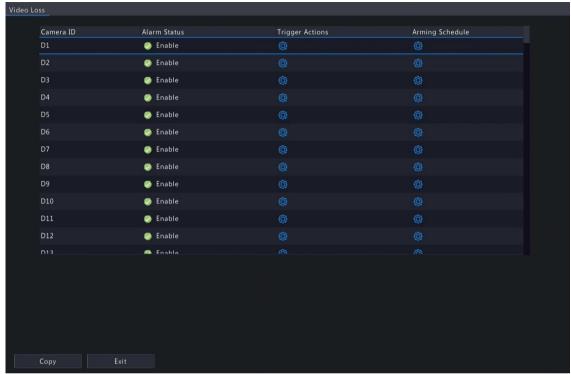
Note: When a moving object is detected, the grids where the object appears on the left-side image are filled by

- 4. Drag the slider to adjust detection sensitivity. The higher the sensitivity, the more likely small motions will be detected, and the more likely false alarms will occur. Set based on the scene and your actual needs.
- 5. Set the alarm-triggered actions and arming schedule. Click the corresponding to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 6. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s).
- 7. Click Apply.

10.2 Video Loss

A video loss alarm is reported when the DVR loses video signals from a camera.

1. Go to Menu > Alarm > Video Loss.



- 2. Video loss alarm is enabled by default. To disable video loss alarm for a channel, click , which then changes to .
- 3. Set the alarm-triggered actions and arming schedule. Click the corresponding to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 4. (Optional) To apply the same settings to other cameras, click **Copy** and select the desired parameter(s) and camera(s), and then click **OK**.

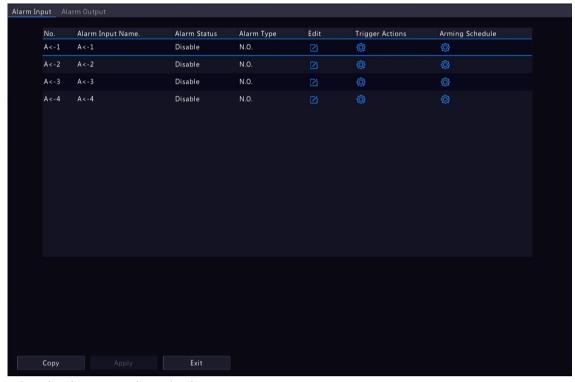
10.3 Alarm Input and Output

Configure alarm input and alarm output.

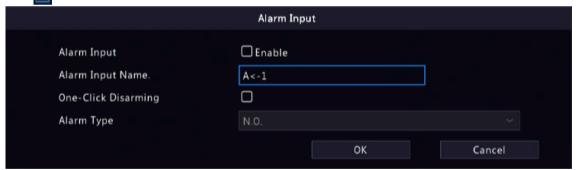
10.3.1 Alarm Input

Configure the alarm mode, arming schedule, and alarm-triggered actions for external alarm input devices. The external alarm input devices include devices connected to the ALARM IN interfaces on the DVR and the ALARM IN interfaces on the cameras. For example, access control devices.

1. Go to Menu > Alarm > Input/Output > Alarm Input.



- 2. Select the alarm input channel to be set.
 - A<-1: A refers to the ALARM IN interfaces on the DVR, 1 means the first ALARM IN interface. Likewise, A
 -2 means the second ALARM IN interface on the DVR. The number of ALARM IN interfaces may vary with DVR model. See the device datasheet for specifications.
 - D <-1: D refers to channels, the number means channel ID. D<-1 means the alarm input device is connected to the ALARM IN interface of the camera whose channel ID is 1. Likewise, D <-2 means the alarm input device is connected to the ALARM IN interface of the camera whose channel ID is 2. The number is not displayed if the camera has no ALARM IN interface.
- 3. Click to configure alarm input parameters. After configuration, click **OK**.



Item	Description
Alarm Input	Select Enable to enable the alarm input.
Alarm Input Name	The default name is the alarm input number. You may rename it as needed.
One-Click Disarming	Select Enable to enable the one-click disarming. When enabled, the configured actions will not be triggered when A<-1 reports alarms.
Alarm Type	 This item is applicable when Alarm Input is enabled. The default is N.O.: N.O.: Choose this option if the alarm input device is normally closed. The device opens the circuit to input an alarm, triggers the DVR to open the alarm circuit and report an alarm. N.C.: Choose this option if the alarm input device is normally opened. The device closes the circuit to input an alarm, triggers the DVR to close the alarm circuit and report an alarm.

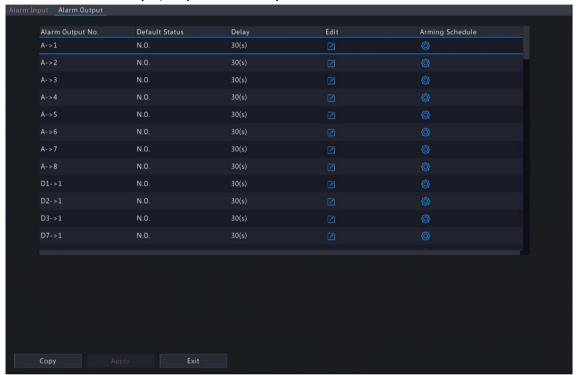
- 4. Set the alarm-triggered actions and arming schedule. Click the corresponding to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 5. (Optional) To apply the alarm input parameters to other cameras, click **Copy**, and select the desired channel(s) or **Copy To**, and then click **OK**.
- 6. Click Apply.

10.3.2 Alarm Output

Configure the alarm mode and arming schedule for external alarm output devices.

The external alarm output devices include devices connected to the ALARM OUT interfaces on the DVR and the ALARM OUT interfaces on the cameras, such as alarm light and alarm bell.

1. Go to Menu > Alarm > Input/Output > Alarm Output.



- 2. Select the alarm output channel to be set.
 - A>-1: A refers to the ALARM OUT interfaces on the DVR, 1 means the first ALARM OUT interface. A <-2
 means the second ALARM OUT interface on the DVR, and so on. The number of ALARM OUT interfaces
 may vary with DVR model. See the device datasheet for specifications.
 - D >-1: D refers to channels, the number means channel ID. D->1 means the alarm output device is connected to the ALARM OUT interface of the camera whose channel ID is 1. Likewise, D->2 means the alarm output device is connected to the ALARM OUT interface of the camera whose channel ID is 2. The number is not displayed if the camera has no ALARM OUT interface.
- 3. Click to configure alarm output parameters. After configuration, Click **OK**.



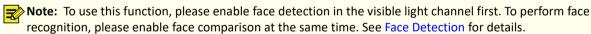
Item	Description
Default Status	 Select the default status from the drop-down list. The default is N.O N.O.: Choose this option if the external device is normally open. N.C.: Choose this option if the external device is normally closed.

Item	Description
Alarm Duration/Delay(s)	Set the alarm duration, that is, the length of time that an output alarm lasts after the alarm is ended.
	• Custom: When enabled, you can set the length of time as needed. After an alarm is cleared on the DVR, the third-party alarm device continues alarm till the end of the set duration.
	Note: The delay period supported by channels may vary. For most channels, the valid range is 5 to 3600s. For certain channels, the valid range is 1 to 3600s.
	Maximum: When enabled, you cannot set the delay period. The third-party alarm device continues alarm until you clear it manually.
Relay Mode	Set the relay mode, including monostable and bistable. The default is bistable.
	Note: Set relay mode to better adapt to third-party alarm devices such as alarm lights. Please set the relay mode according to the trigger mode of the third-party alarm device.
	 Monostable: The circuit can only remain in one stable state. When a trigger pulse is applied, the circuit switches to another state, and then automatically switches back to the original stable state. The circuit will repeat the same actions when the next trigger pulse arrives. Bistable: The circuit can remain in two stable states. When a trigger pulse is applied, the circuit switches to another state, and remains in this state after the trigger pulse is removed. When the next trigger pulse is applied, the circuit switches back to the other stable state and remains in that state.

- 4. Set the alarm-triggered actions and arming schedule. Click the corresponding to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 5. (Optional) To apply the alarm output parameters to other cameras, click **Copy**, and select the desired channel(s) or **Copy To**, and then click **OK**.
- 6. Click Apply.

10.4 Thermal Imaging

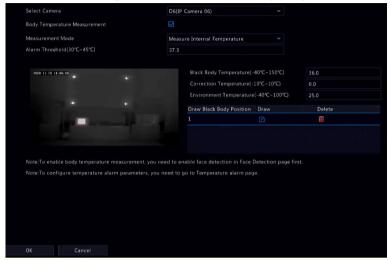
This function measures body temperature based on infrared imaging, and is suitable for high traffic areas such as hospitals, stations, and shopping malls.



- 1. Add a thermal imaging camera.
 - (1) Go to Menu > Camera > Camera > Camera.
 - (2) Click Custom Add to go to the Add IP Camera page.



- (3) Set the add mode to **IP Address**, select a protocol (Uniview or Private), enter the IP address, port, username, and password. There are 2 channels in total, including a visible light channel and an infrared light channel.
- 2. Configure thermal imaging parameters.
 - (1) Go to Menu > Alarm > Thermal Imaging > Body Temperature Measurement.
 - (2) Select the infrared light channel, and enable Body Temperature Measurement.



Note: To use this function, please enable face detection first. See Face Detection for details.

- (3) Set the black body position. Click , drag to draw a bounding box on the left-side image.
 - **Note:** The size of the box should be the same as that of the highlighted part of the black body, otherwise measurement results may be affected.
- (4) Set the relevant parameters.

Item	Description
Measurement Mode	 Measure Internal Temperature: Calculated from the measured body surface temperature by formulas. Measure Body Surface Temperature: Measured directly by the thermal imaging camera.
Alarm Threshold (30°C~45°C)	An alarm occurs when the measured temperature exceeds the threshold. The default is the normal body temperature of 37.3 °C.
Black Body Temperature (-40°C~150°C)	Set the same temperature as the black body temperature. 36 °C is recommended. For more information, refer to the camera's site survey and commissioning guide.
Correction Temperature (-10°C~10°C)	Correct temperature measurement errors. Devices have been calibrated before leaving the factory. You do not need to set the correction temperature. If in harsh conditions, such as high or low temperature, you may configure it according to the camera's site survey and commissioning guide.
Environment Temperature (-40°C~100°C)	The environment temperature of the camera will affect the temperature measurement results. The higher the environment temperature, the higher the measurement result. The system can calculate the actual temperature automatically based on the entered environment temperature. 25°C is recommended.

- (5) Set alarm-triggered actions in the **Temperature Alarm** page. See **Temperature Alarm** for details.
- (6) Click OK.
- 3. View temperature measurement results.

In the preview page, click on the screen toolbar to go to the **Epidemic Control** page. Then you can view the detailed information, including counting statistics, live video, realtime data, and history data.

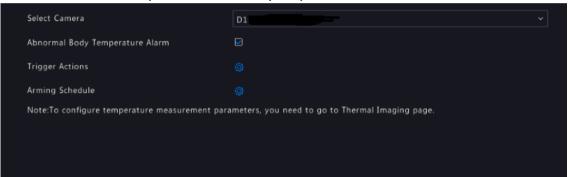


10.5 Temperature Alarm

An alarm occurs when the abnormal body temperature is detected.

Note:

- This function is only available for thermal imaging cameras.
- Before using this function, please enable body temperature measurement in the Temperature
 Measurement page first. See Thermal Imaging for details.
- 1. Go to Menu > Alarm > Temperature Alarm > Body Temperature Alarm.

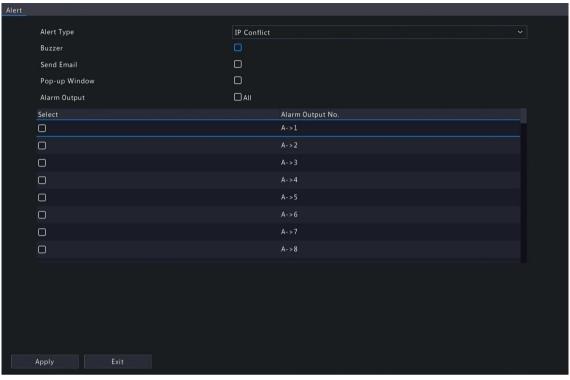


- 2. Select the infrared light channel, and enable **Abnormal Body Temperature Alarm**.
- 3. Set the alarm-triggered actions and arming schedule. Click the corresponding to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 4. Click OK.

10.6 Alert

Configure alert actions for device abnormal events. The DVR reports an alarm when an event occurs.

- 1. Go to Menu > Alarm > Alert.
- 2. Select an alert type from the drop-down list.
 - IP Conflict: IP cameras use the same IP address on the network.
 - Network Disconnected: An IP camera is offline.
 - Disk Offline: No disk or a disk is not properly connected.
 - HDD Abnormal: A disk is in position but cannot work normally.
 - Illegal Access: Incorrect username/password.
 - Hard Disk Space Low: The disk space is about to use up.
 - Hard Disk Full: The disk space has been used up.
 - Recording/Snapshot Abnormal: Videos/snapshots cannot be stored normally because the disk is offline or abnormal.
- 3. Set the alert actions, including buzzer, sending email, and pop-up window. See Alarm-triggered Actions for details.
- 4. Set the alarm output channel(s). You may select All, or select specified alarm output channel(s).

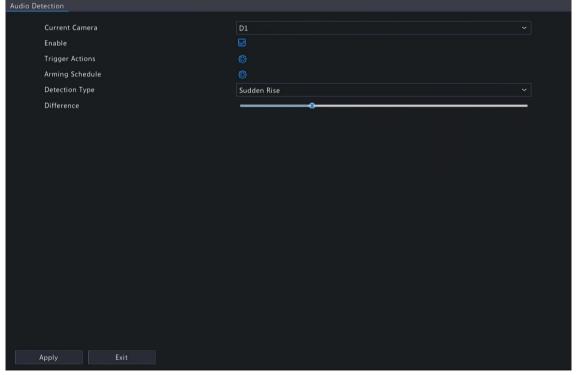


- 5. Click Apply.
- 6. Repeat the above operations to configure alert actions for other events.

10.7 Audio Detection

Audio detection detects input audio signals. An alarm is reported when an exception is detected. Make sure an audio collection device (e.g. sound pickup) is connected, and audio detection is enabled. See Audio Configuration for details.

1. Go to Menu > Alarm > Audio Detection.



- 2. Select the desired camera, and click **Enable**.
- 3. Set the alarm-triggered actions and arming schedule. Click the corresponding to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 4. Set audio detection rules.

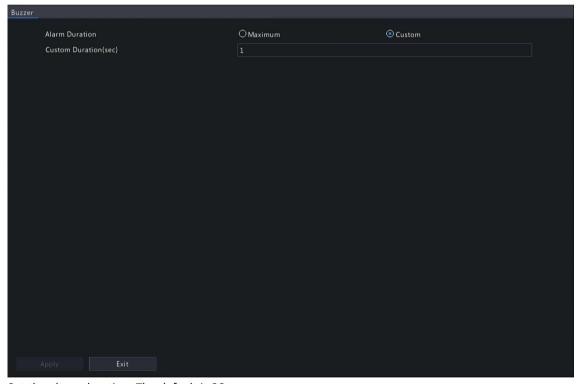
Item	Description
Detection Type	 Select an audio detection type from the drop-down list. Sudden Rise: An alarm occurs when the rise of volume exceeds the set value. Sudden Fall: An alarm occurs when the fall of volume exceeds the set value. Sudden Change: An alarm occurs when the rise or fall of volume exceeds the set value. Threshold: An alarm occurs when the volume exceeds the set threshold.
Difference/Threshold	 Drag the slider to adjust the difference and threshold. The difference between two sound volumes. An alarm occurs when the rise or fall of volume exceeds the difference (range: 0-400). This item is applicable when the detection type is Sudden Rise, Sudden Fall, or Sudden Change. Threshold: The limit value of volume. An alarm occurs when the detected
	volume exceeds the set value (range: 0-400). This item is applicable when the detection type is Threshold .

5. Click Apply.

10.8 Buzzer

Configure the alarm duration of the buzzer on the DVR.

1. Go to Menu > Alarm > Buzzer.



- 2. Set the alarm duration. The default is 30s.
 - Maximum: When enabled, you cannot set the alarm duration. When an alarm occurs, the buzzer will alarm continuously until the alarm ends.
 - Custom: When enabled, you can set how long the buzzer will alarm after it is triggered. The valid range is from 1 to 600(s). When an alarm occurs, the buzzer will alarm continuously within the alarm duration, and stop automatically if the alarm ends first within the duration.

Note: To stop a buzzer alarm manually, right-click in the preview window, select Manual > Buzzer. See Buzzer for details.

3. Click Apply.

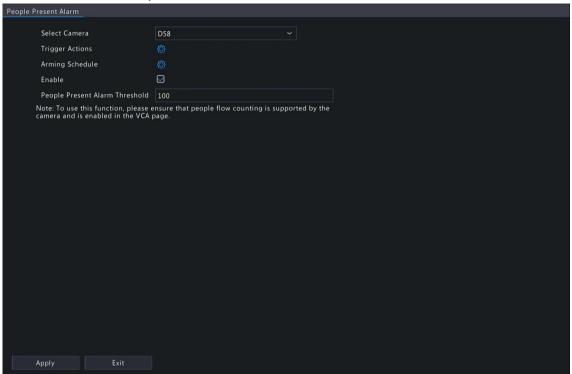
10.9 People Present Alarm

An alarm occurs when the number of people present in a specified area exceeds the set threshold.

Note: To use this function, make sure that people flow counting is supported by the camera and is enabled in the **VCA** page. See People Flow Counting for details.

Configure People Present Alarm

1. Go to Menu > Alarm > People Present Alarm.



- 2. Select the desired camera, and click Enable.
- 3. Set the alarm-triggered actions and arming schedule. Click the corresponding to go to the **Trigger Actions** page and **Arming Schedule** page respectively. See Alarm-triggered Actions and Arming Schedule for details.
- 4. Set the people present alarm threshold, which is the maximum number of people allowed in the monitored area. An alarm occurs when the number of people present exceeds the threshold. The valid range is from 1 to 100,000.
- 5. Click Apply.

View Data

In the preview page, select **People Flow Counting** from the drop-down list in the upper right corner, then you can view the number of people entered, left, and present.

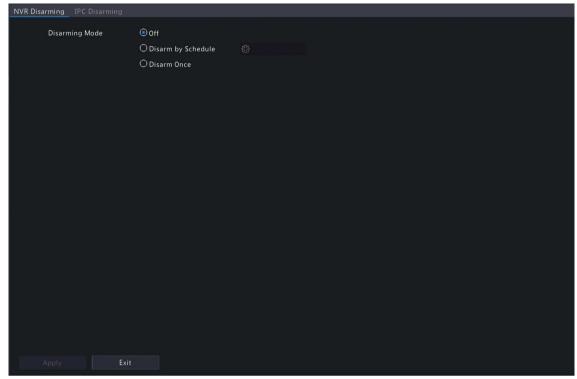


10.10 One-Key Disarming

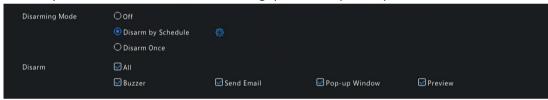
Cancel alarm-triggered actions of DVRs or IPCs with one click.

NVR Disarming

1. Go to Menu > Alarm > One-Key Disarming > NVR Disarming.



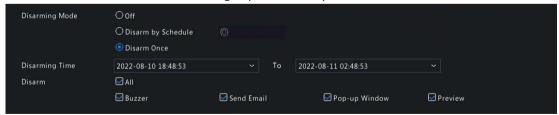
- 2. Select a disarming mode and configure parameters.
 - Off: Disarming is disabled on the DVR.
 - Disarm by Schedule: The DVR is disarmed during specific time periods per week.



(1) Click right to **Disarm by Schedule**, and set the disarming periods. Click **OK** to return to the **NVR Disarming** page.

Note:

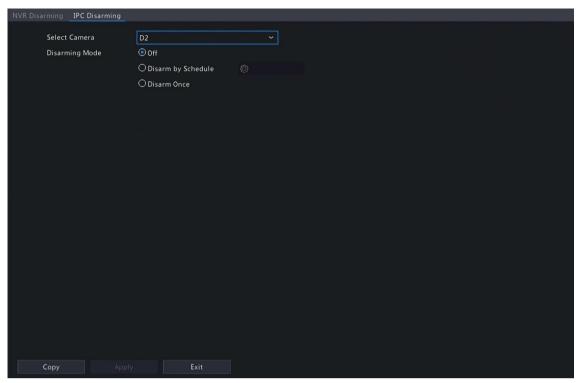
- Up to 4 disarming periods during one day are allowed.
- To apply the same disarming schedule to other days, select All or the intended day(s), and click OK.
- (2) Select actions to be disarmed. The default is all actions. See Alarm-triggered Actions for details.
- Disarm Once: The DVR is disarmed during a specified time period.



- (1) Select **Disarm Once**, and set the disarming start time and end time.
- (2) Select actions to be disarmed. The default is all actions. See Alarm-triggered Actions for details.
- 3. Click Apply.

IPC Disarming

1. Go to Menu > Alarm > One-Key Disarming > IPC Disarming.



- 2. Select the desired camera.
- 3. Select a disarming mode and configure parameters.
 - Off: Disarming is disabled on the IPC.
 - Disarm by Schedule: The IPC is disarmed during specific time periods per week.



Click right to **Disarm by Schedule**, and set the disarming periods. Click **OK** to return to the **IPC Disarming** page.

Note:

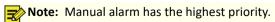
- Up to 4 disarming periods during one day are allowed.
- To apply the same disarming schedule to other days, select All or the intended day(s), and click OK.
- Disarming by schedule will cancel all the actions configured on the IPC's web interface by default. You can modify the settings on the IPC's web interface.
- Disarm Once: The IPC is disarmed during a specified time period. Select **Disarm Once**, and set the disarming start time and end time.



- 4. (Optional) To apply the same settings to other cameras, click Copy and select the desired camera(s).
- 5. Click Apply.

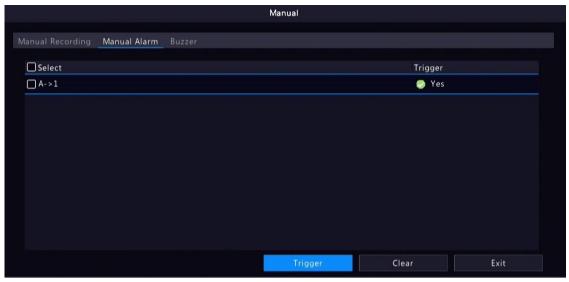
10.11 Manual Alarm

Trigger or clear an alarm output manually.



Manual Alarm

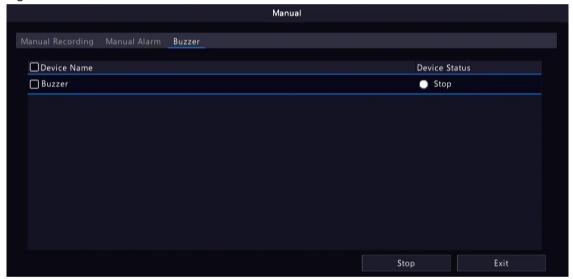
1. Right click and select Manual > Manual Alarm.



- 2. Trigger or clear alarm(s) manually.
 - Trigger: Select the channel(s) to be triggered and click Trigger, and then changes to ...
 - Clear: Select the channel(s) to be cleared and click Clear, and then of changes to ...

Buzzer

1. Right click and select Manual > Buzzer.



2. To stop the buzzer, select the buzzer (in Started status) and then click **Stop**.

11SystemMaintenance

View system operation status to ensure stable system operation.

11.1 System Info

View the basic information and operation status of the device.

11.1.1 Basic Info

View the basic information of the device, including DVR model, firmware version, build date, etc.

1. Go to Menu > Maintenance > System Info > Basic Info. View the basic information of the device.



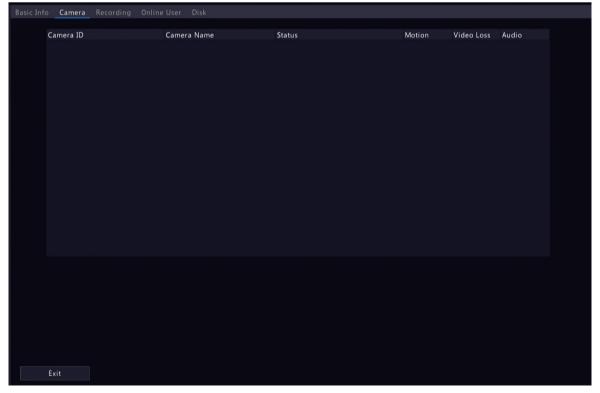
Parameter	Description
Model	DVR model.
Serial No.	Serial number.
Firmware Version	Firmware version of the DVR.
Build Date	Release date of the current firmware version.
Operation Time	Length of time the DVR has been operating since the latest startup.

2. Scan the QR code to download the app and manage the DVR on a mobile phone.

11.1.2 Camera Status

View camera status information.

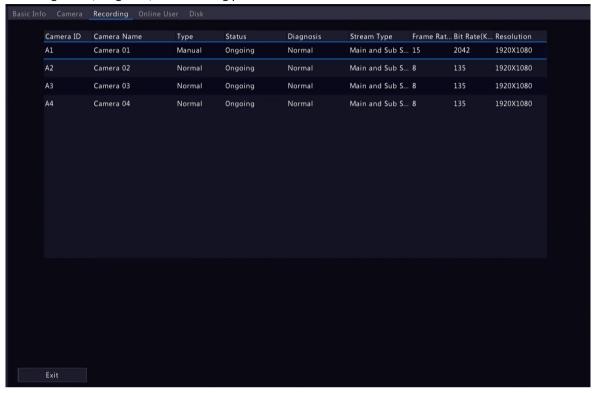
Go to **Menu** > **Maintenance** > **System Info** > **Camera**. View camera information including name, online/offline status, event type and status.



11.1.3 Recording Status

View the recording status and encoding parameters of the connected cameras.

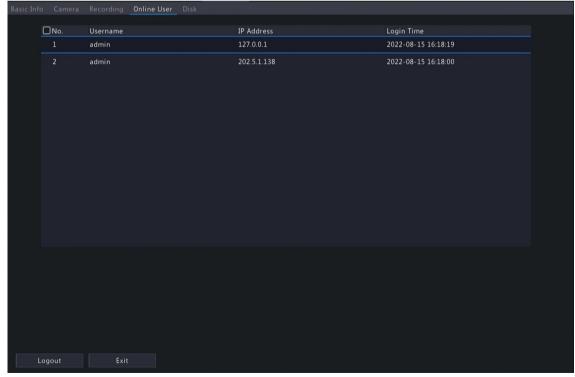
Go to **Menu** > **Maintenance** > **System Info** > **Recording**. View recording information including recording type, recording status, diagnosis, and encoding parameters.



11.1.4 Online User

View the logged-in users, and force non-admin users to log out of the DVR when necessary.

1. Go to Menu > Maintenance > System Info > Online User.



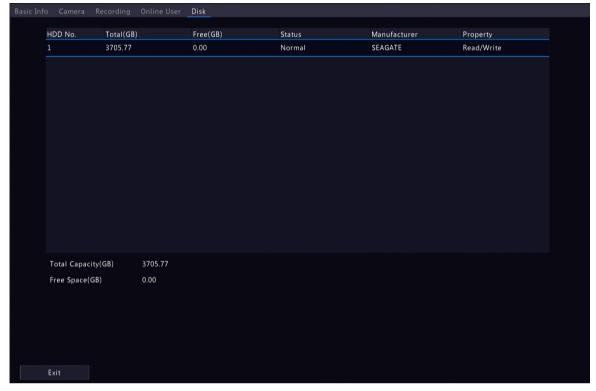
2. Choose a non-admin user and then click **Logout**.

Note: Only admin can manage user permissions.

11.1.5 HDD Status

View the status and property of HDDs on the DVR.

Go to **Menu** > **Maintenance** > **System Info** > **Disk**. View hard disk information including the total capacity, free space, status, manufacturer, and property.



11.2 Network Information

View network information including network traffic, network statistics and network status.

11.2.1 Network Traffic

View network interface card (NIC) information including connection status, physical address, MTU, NIC type, and real-time traffic.

1. Go to Menu > Maintenance > Network Info > Network Traffic.

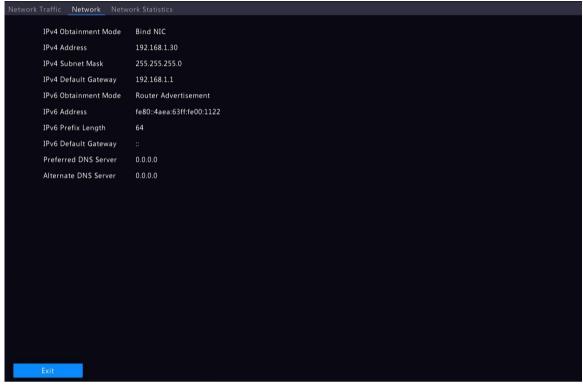


2. Choose an NIC to view the real-time network traffic.

11.2.2 Network Status

View network parameters of an NIC.

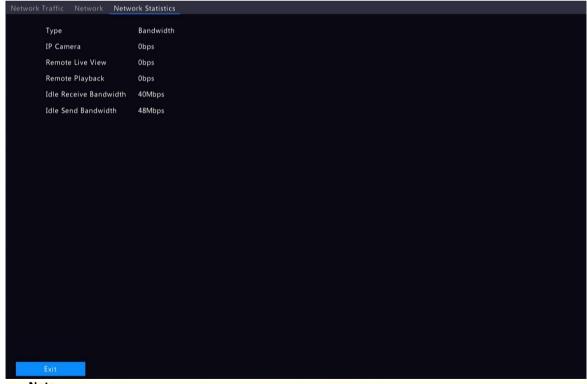
Go to Menu > Maintenance > Network Info > Network. Choose an NIC to view its network parameters.



11.2.3 Network Statistics

View bandwidth usage.

Go to Menu > Maintenance > Network Info > Network Statistics. Bandwidth usage is displayed.



Note:

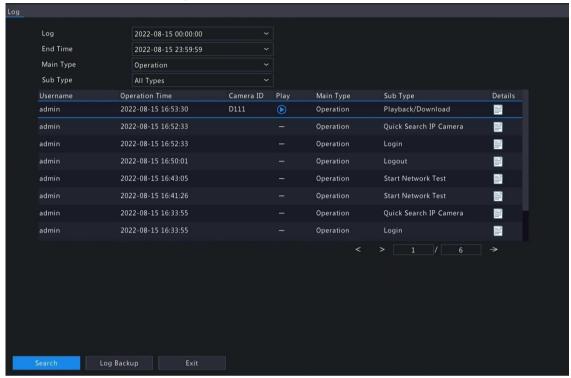
- When idle receive bandwidth is low, cameras cannot get online.
- When idle send bandwidth is low, live view, playback, and recording download will fail.

11.3 Log Search

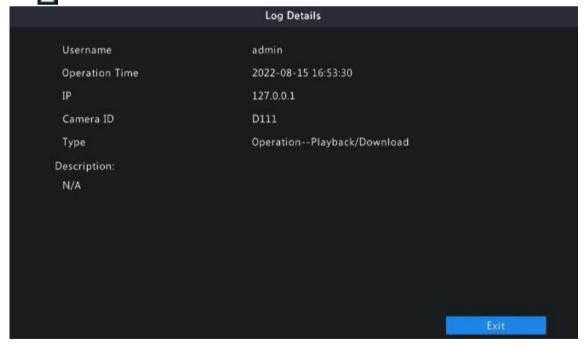
Logs contain information about user operation and device status. You can use logs to keep track of device operation status and view detailed alarm information.

Log Search

1. Go to Menu > Maintenance > Log.



- 2. Set the start time, end time, main type and sub type.
- 3. Click Search.
- 4. Click to view log details.



Playback

Click to view the video recorded at the current log time.



Note:

- This feature is not available to certain log types.
- The video is 11 minutes long (1m before and 10m after alarm).

Log Backup

Click **Backup**. The **Backup** page appears. Choose the destination path, click **Backup** to save the logs to the external storage device.

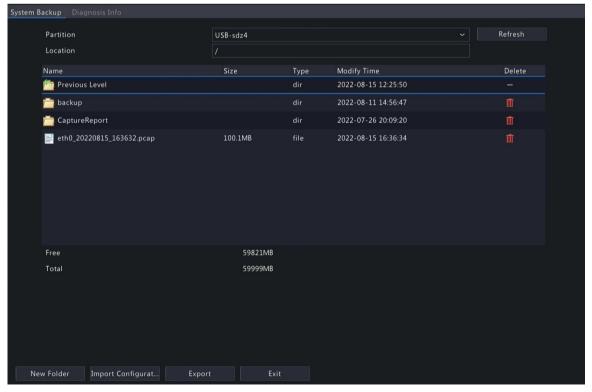
11.4 System Backup

Back up system configuration and device diagnosis information.

11.4.1 System Backup

Import, export, and delete system configurations.

Go to Menu > Maintenance > Backup > System Backup.



Perform the following operations as needed:

- Import configurations: Choose the *.xml file in the directory list, click **Import Configuration**, and then confirm to import the configuration file.
- Export configurations: Choose the destination in the directory list, click **Export Configuration**. Then a *.xml file containing the exported configurations is generated in the specified folder later.

Note 🄀

- Caution: The device will restart after you import configurations. If power is disconnected during the process, the system will be unusable.
- Only admin can import or export configurations.
- Delete: Choose the folder or file to be deleted, click iii. means the folder or file cannot be deleted.
 - Note: Caution: Deleted files cannot be recovered.
- Create folder: Choose the destination path in the directory list, click New Folder, enter a folder name to create the folder.
- Refresh: Click the **Refresh** button to refresh the list.

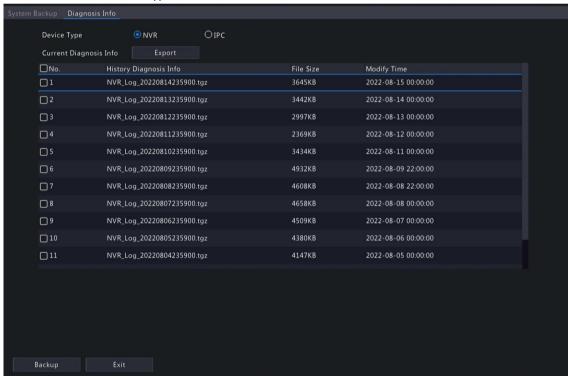
11.4.2 Diagnosis Info

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

Go to Menu > Maintenance > Backup > Diagnosis Info.

NVR Diagnosis Info

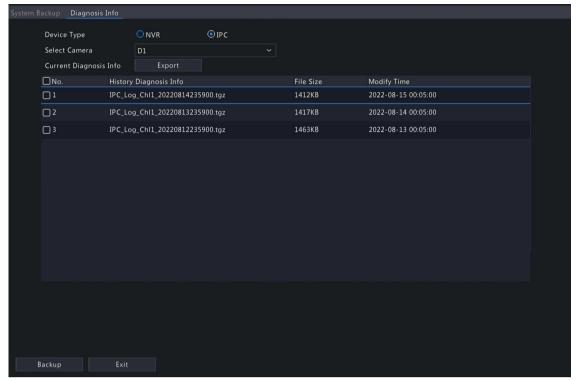
1. Choose NVR as the device type.



- 2. Export NVR diagnosis information.
 - Current Diagnosis Info: Diagnosis information since the latest startup. Click Export to export diagnosis
 information to the external storage device.
 - History Diagnosis Info: All the history diagnosis information in the list. Select the desired item(s), click
 Backup. On the Backup page, choose the destination path, click Backup.

Camera Diagnosis Info

1. Choose **IPC** as the device type.



- 2. Choose the desired camera from the list.
- 3. Export diagnosis information of the selected camera.
 - Current Diagnosis Info: Diagnosis information since the latest startup. Click **Export** to export diagnosis information to the external storage device.
 - History Diagnosis Info: All the history diagnosis information in the list. Select the desired item(s), click **Backup**. On the **Backup** page, choose the destination path, click **Backup**.

11.5 Restore System

Restore default system settings.

1. Go to Menu > Maintenance > Restore.



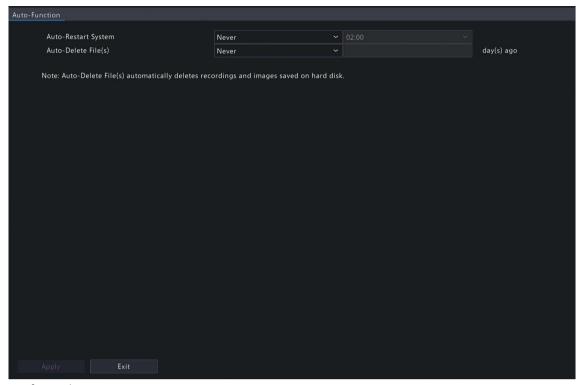
- 2. Choose **Default** or **Factory Default** as needed. A message appears. The DVR will restart and restore the default settings after you confirm. Choose a method according to your actual needs:
 - Restore: Restore default settings except network settings, user settings, and time settings.
 - Factory Default: Restore all default settings.

Note: Either option will not delete the recorded videos and operation logs.

11.6 Auto-Function

The device can restart or delete files automatically at the preset time. Only admin can perform this operation.

1. Go to Menu > Maintenance > Auto-Function.



- 2. Configure the parameters.
 - Auto-Restart System: The system restarts automatically at the set time.
 - Auto-Delete File(s): The system automatically deletes videos and images saved on the hard disk. Range: 1-240.
- 3. Click Apply.

11.7 System Upgrade

Upgrade the firmware of the NVR and the connected cameras.

Two upgrade methods are available. The device will restart after the upgrade is completed.

- Cloud upgrade: Upgrade through the cloud server.
- Local upgrade: Upgrade using the upgrade files saved in a USB storage device.

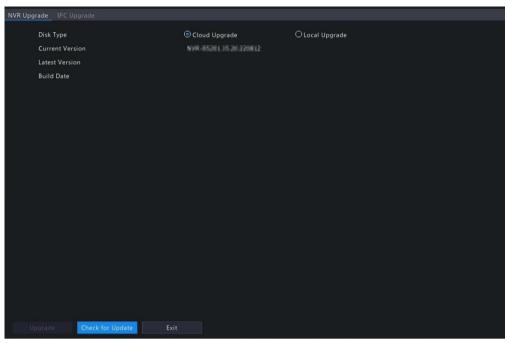
Note:

- Make sure the device is always connected to power and network during the upgrade. Use an Uninterrupted Power Supplies (UPS) if necessary.
- Before you start a cloud upgrade, make sure the DNS server is functional. Go to Menu > Network > Basic
 Network. See Network Configuration for detailed information.
- The cloud upgrade speed is limited by the network transmission speed.

11.7.1 NVR Upgrade

Upgrade the firmware of the NVR.

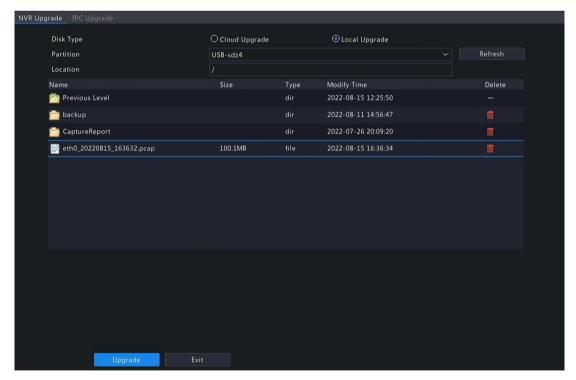
1. Go to Menu > Maintenance > Upgrade > NVR Upgrade.



- 2. Choose Cloud Upgrade or Local Upgrade.
 - Cloud Upgrade
 - Click Check for Update. The system checks for updates.
 - If updates are available, the new version number and its build date are displayed. Click **Upgrade** to start.
 - If no updates are available, the system indicates that the current version is already the latest.
 - Local Upgrade

Select the upgrade file in the USB storage device, click **Upgrade** to start.

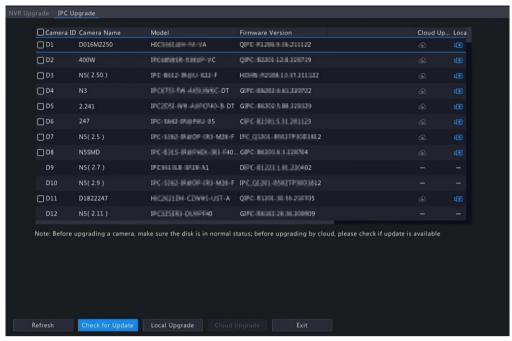
Note: If the upgrade failed, the failure cause will be displayed, and the device will restart automatically. Fix the problem and then try again.



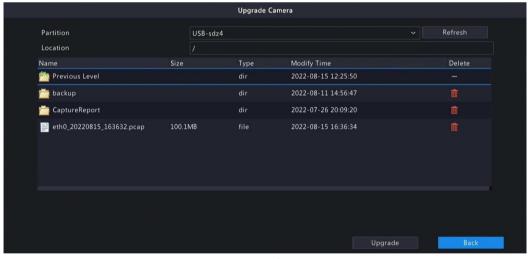
11.7.2 IPC Upgrade

Upgrade the firmware of the IPC. This function is only applicable to cameras connected via the Private protocol.

1. Go to Menu > Maintenance > Upgrade > IPC Upgrade.



- 2. Choose Cloud Upgrade or Local Upgrade.
 - Cloud Upgrade
 - Click Check for Update. The system checks for updates.
 - If updates are available, the new version number and its build date are displayed. Click to upgrade a camera, or select multiple cameras and then click **Upgrade** to upgrade in batches.
 - If no updates are available, the system indicates that the current version is already the latest.
 - · Local Upgrade
 - (1) Click 1 to upgrade a camera, or select multiple cameras and then click Local Upgrade.



(2) On the **Upgrade Camera** page, select the upgrade file in the USB storage device, and then click **Upgrade**.

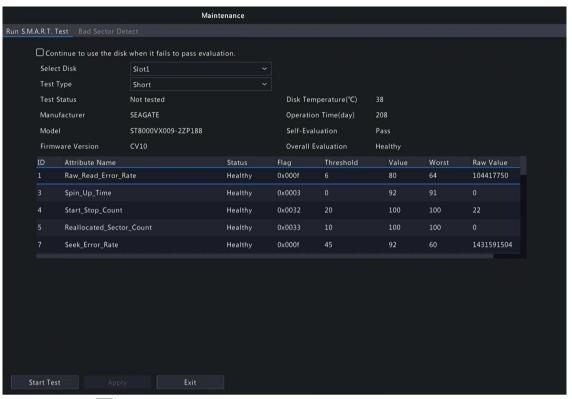
11.8 HDD Check

Perform S.M.A.R.T. test and bad sector detection. The actual functions available may vary with device.

11.8.1 Run S.M.A.R.T. Test

S.M.A.R.T. tests the hard disk including its head, platter, motor, circuit, etc. and evaluates the disk health status.

1. Go to Menu > Maintenance > HDD > S.M.A.R.T. Test.



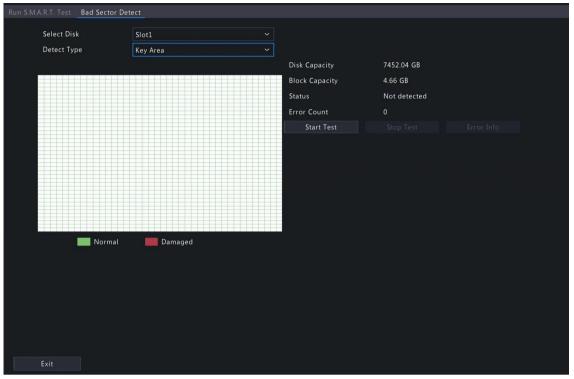
- 2. (Optional) Select, so the device can continue using the hard disk even if the disk fails in the self-assessment. However, this may incur great risks. Please choose carefully.
- 3. Choose the disk slot and test type.
 - Short: Less test contents, faster speed.
 - Extended: More comprehensive and thorough, longer time.
 - Conveyance: Detects problems in data transmission.
- 4. Click **Start Test**. The **Test Status** column shows the real-time progress, for example, Testing: 10%. View test results after the test is completed.

The overall evaluation provides three kind of status: Healthy, Failure, Bad Sectors. It is recommended to replace faulty disks immediately. Contact our technical support for more information.

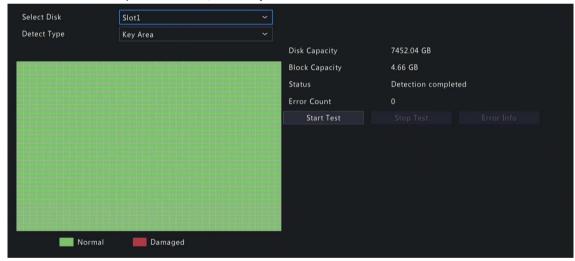
11.8.2 Bad Sector Detection

The device system detects bad sectors in hard disks in a read-only manner.

1. Go to Menu > Maintenance > HDD > Bad Sector Detect.



- 2. Choose the disk slot and detection type.
- 3. Click **Start Test**. To stop the detection, click **Stop Test**.

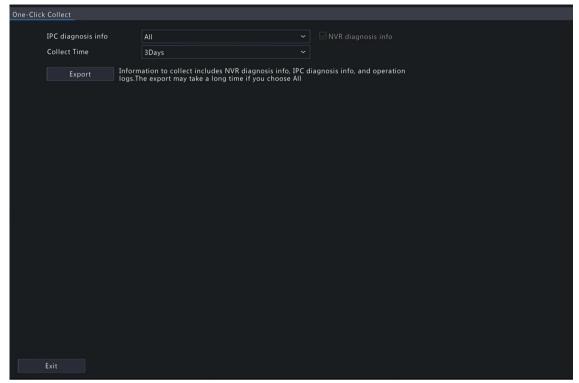


- means the detected area is in good condition.
- means the detected area is damaged. The detection stops automatically when the error count reaches 100.

11.9 One-Click Collection

Collect NVR and camera diagnosis information.

1. Go to Menu > Maintenance > One-Click Collect.



- 2. Choose the camera and select a number of days of diagnosis information to be collected. NVR diagnosis information is always collected.
- 3. Click Export to collect camera diagnosis information, NVR diagnosis info, and operation logs.

Note: Choose the days according to the actual requirements. The export process may take a long time if you choose **All**.

12Playback

12.1 Instant Playback

Instant playback plays the video recorded during the last 5 minutes.

Make sure that the video is recorded during the last 5 minutes. Instant playback does not work if there's no recording during this time.

1. In the preview page, select the target window, and click on the window toolbar.

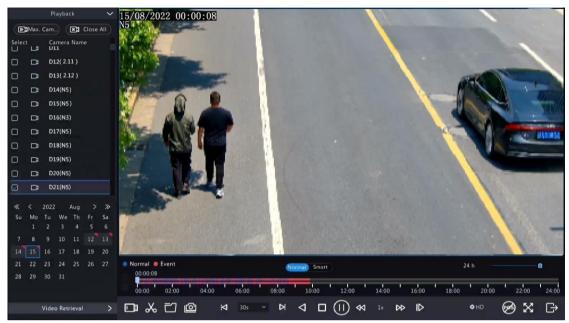


- 2. Drag the slider on the progress bar to fast forward; Click 11 to pause.
- 3. Click to exit the playback.

12.2 Normal Playback

Normal playback plays all recordings of the selected camera(s).

- 1. In the preview page, right-click the desired window and select **Playback**. The system plays the video of the selected camera. You can also choose other cameras to play videos in this page.
 - You can choose multiple cameras for synchronous playback.
 - Click Max. Cameras to select the maximum number of cameras allowed. The performance may vary with DVR model.
 - Click Close All to stop playback for all cameras.



- 2. Double-click the desired date, or select the date and then click to start playback. By default, the system plays the video of the current day.
 - **Note:** The calendar uses different flags to indicate different recording types: blue for normal recording, red for event-triggered recording, and no flag for none.
- 3. The DVR plays HD videos by default. You can switch to SD mode if SD videos are stored. The supported video clarity depends on the storage mode, and HD videos are supported by all the storage mode. To store SD videos, go to Menu > Camera > Encoding to set the storage mode. See Encoding Settings for details.



- If no images are displayed in the preview page in SD mode, it indicates SD videos are not stored.
- If SD video is available in SD playback mode, SD video is played by default; it switches to HD video automatically when you double-click the window to maximize it in a multi-window layout.

Table 12-1: Playback Toolbar

Button	Description	
00:09:36	Show playback progress. Note: Indicates 4 cameras are selected. indicates the playback progress in the first window. indicates the playback progress in the second window, and so on. Different colors on the progress bar mean different recording types: blue for normal recording, red for event-triggered recording, green for smart event recording.	
00:00 02:00 04:00	Timeline. Note: In normal playback mode, hover over the timeline to view a thumbnail image to quickly pinpoint an event.	
24 h	Zoom in or out on the timeline. Alternatively, click on the timeline and use the scroll wheel to zoom in or out.	

Button	Description
	File saved on a USB storage device.
/ ×	Start/stop clipping video.
	Manage files (clips, snapshots, locked files, tags); indicates there is a newly saved file.
	Take a snapshot. The window borders will flash white.
∶ 30s ~	Rewind/forward 30s, or choose from the drop-down list.
4	Reverse.
	Stop playback and return to the start point.
(U)	Play/pause.
	Slow down/speed up. Note: Click to restore the normal playback speed after clicking , and vice versa.
ID	Forward by frame.
♦ HD	Set the video clarity, including HD or SD.
∞	Enable/disable POS. When enabled, POS OSD appears on the screen, and some toolbar buttons are deactivated. Note: This function is available for certain DVRs. The button only appears in normal playback mode and POS playback mode. In normal playback mode, POS OSD is displayed for 5s. In POS playback mode, the time is configurable.
\bowtie	Full screen.
⊖	Exit the playback screen.
© ♥ A ♥ 🙃	Click a playback window to show the window toolbar.
©	Take a snapshot.
\bigcirc	Add a tag at the current time point.
Q	Digital zoom. See Digital zoom for details.
/ c())	Turn on/off audio.
0	Adjust the sound volume.

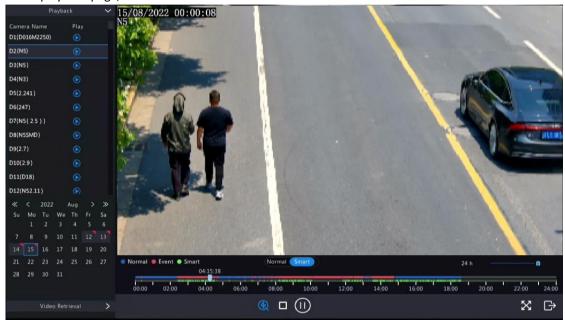
Button	Description
6	Lock.

12.3 Smart Playback

In smart playback mode, the system searches smart events in the recording and adjusts the playback speed accordingly. If smart results are detected such as motions, the video plays at normal speed; otherwise, the video plays at 16x speed to save time.

Note:

- This function is available for cameras that support smart functions.
- By default the system searches motion in video.
- Only one camera can be selected for smart playback.
- 1. In the playback page, select **Smart**.



- 2. Select the desired camera.
- 3. Double-click the date you want to play, or select the date and then click or to start playback.
- 4. Set smart search rules. The default smart search area is the full screen. To specify a smart search area, follow the steps below.
 - (1) Click to go to the **Smart** page.



(2) Click to clear the existing areas, then click and drag on the image to specify an area.

Table 12-2: Smart Search Buttons

Button	Description	Button	Description
\approx	Motion detection: Full screen.	ľ	Clear the specified areas.
0	Start search smart playback of the specified areas.	÷	Exit the Smart page.
Sensitivity ——	Adjust detection sensitivity.		

12.4 External File Playback

This function allows you to play recordings stored in an external storage devices such as USB drive or portable hard drive.

- 1. In the playback page, click on the screen toolbar.
- 2. Click **Refresh** and then wait for the DVR to read the external storage device.
- 3. Double-click the desired recording file, or select the file and then click or to start playback.

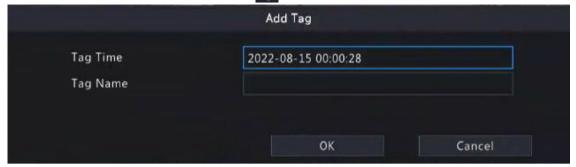


12.5 Tag Playback

Use tags to mark specific events in the video for quick location and playback.

Add Tag

- 1. In the playback page, select the desired camera and date, and click to start playback.
- 2. Click anywhere on the image, and then select in the pop-up toolbar.

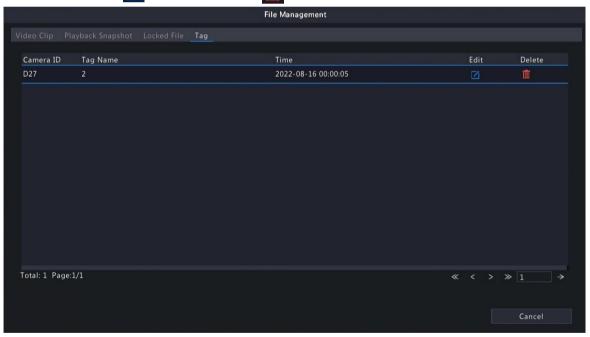


- 3. Enter the tag name. Tag time cannot be edited, which is the time when the tag was added.
- 4. Click **OK** to save the settings.

Tag Management

The added tags are saved to **File Management**. To view the newly added tag, click on the screen toolbar.

To rename a tag, click . To delete a tag, click

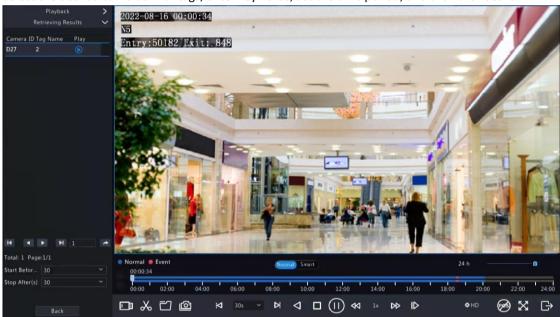


Playback by Tag

1. In the playback page, click Video Retrieval, select Tag Search from the drop-down list in the upper left corner.



2. Select the desired cameras with tags, enter keywords, set the time period, and then click Search.



3. Double-click the tag you want to play, or select the tag and then click or to start playback.

12.6 Playback by Search

This function allows you to search and play recordings by an event type, such as motion detection, alarm input, video loss, VCA, tag, and people present alarm.

Note: Before playback, make sure that the alarm and alarm-triggered storage for the event are enabled.

1. In the preview window, right-click and select Playback.

2. In the playback page, click **Video Retrieval**, select the type and sub type, and enter keywords.



- 3. Select the desired camera(s) and time period, and then click **Search**.
- 4. Double-click the result you want to play, or select the result and then click or to start playback.

12.7 File Management

File management allows you to manage video clips, tags, snapshots taken during playback, and lock/unlock files.

Video Clip

You may clip and back up videos during playback. See Video Clip Backup for details.

Playback Snapshot

You may take a snapshot during playback and then back up the snapshot. See Playback Snapshot Backup for details.

Locked File

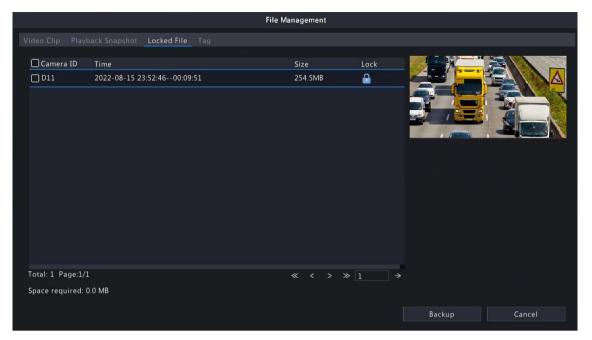
You may lock, unlock, and back up a recording file.

- 1. In the playback page, select the desired camera and date, and click to start playback.
- 2. Drag the slider to play the desired part of the video, click on the image to display the toolbar, and then select ...

Locking a recording file will prevent all the files stored in the same disk partition (254.4MB in size) from being overwritten.

- 3. Click on the screen toolbar to view the locked file in the **Locked File** tab.

 - To back up a file, select the file and then click Backup.



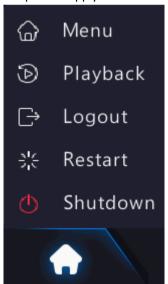
Tag

You may view, edit, or delete tags as needed. See Tag Management for details.

13Shutdown

This chapter describes device shutdown, logout, and restart.

Shutdown refers to turn off the operating system of the device with power supply connected. Please disconnect the power supply if the device will be shut down for a long time.



- To shut down the DVR, long press the power button on the front panel (if available) for more than 3 seconds till an on-screen message appears, and then click **Yes**.
- To shut down, log out, or restart the DVR, hover the mouse at the bottom of the preview page to display the screen toolbar, click and then select shut down, log out, or restart as needed.

Note: Unsaved settings will be lost if the DVR is shut down unexpectedly, for example, due to a power failure. A shutdown during a system upgrade may cause startup failures.

14Web-BasedOperations

You may access and manage the DVR remotely using a web browser on your PC (through the Web interface).

14.1 Preparation

Check the following before you begin:

- Access will be authenticated during login, and operation permissions will be required.
- The DVR 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 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.

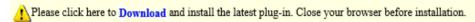
Note:

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

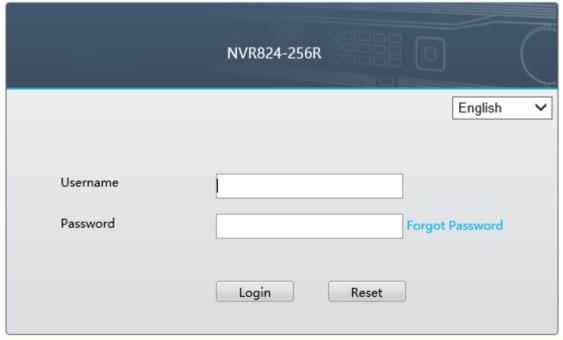
14.2 Login

Follow these steps to log in to the Web interface (take IE10 browser as an example).

- 1. Open a Web browser on your PC, enter the IP address of the DVR in the address bar (192.168.1.30 by default), and then press Enter.
- 2. Install the plug-in.
 - You need to install the plug-in as prompted at your first login, which is mainly used for processing media streams. Close all the Web browsers when the installation starts. Follow the on-screen instructions to complete the installation and then open the browser again to log in.



- You may also find the plug-in manually by entering HTTP://IP address/ActiveX/Setup.exe in the address bar, and press Enter.
- 3. In the login page, enter the default username and password (admin/123456) and then click Login.

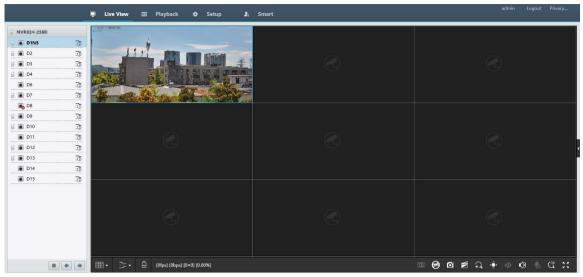


Note: The default password is intended only for your first login. You are strongly recommended to set a strong password to ensure account security.

- Strong password: At least 9 characters including all three elements: letter, special character, and digit.
- Weak password: Less than 9 characters including two or less of the three elements: letter, special character, and digit.

14.3 Live View

The **Live View** page is displayed when you are logged in. Select the desired channel on the left, and view the live video.



The operations may vary with DVR model.

Table 14-1: Live View Window Control Buttons

Button	Description	Button	Description
	Two-way audio	ॐ/ॐ/ॐ	Main/sub/third stream
	Start/stop live video in all windows	4 / •	Previous/next screen
₩.	Switch screen layout	!	Select stream type
	Enable/disable intelligent mark	[25fps] [2.56Mbps] [1920×1088] [H.264] [0.59%]	Frame rate/bit rate/ resolution/packet loss
⟨⊕̂ >	Open/close the control panel	Ø	Take a snapshot
-11:	Local recording	A	Digital zoom
(1) (C)	Turn on/off audio	₾ / &	Start/stop two-way audio
අ	3D positioning	K 7 2 3	Full screen
च्य	Multi-sensor preview	≫	Fisheye mode

Note:

- right to device name means two-way audio with the DVR. right to channel name means two-way audio with the camera.
- Only the main stream 🚠 is displayed when the camera is offline or it supports only one stream.
- Snapshots are saved in a snapshot file folder named with the IP address, and snapshot files are named
 in Camera ID_ time format and saved in this directory: \Snap\IP\Camera ID_time. The time is in
 YYYYMMDDHHMMSSMS format.
- Local recordings are saved in a recording file folder named with the IP address, and recording files are
 named in Camera ID_S recording start time_E recording end time format and saved in this directory:
 \Record\IP\Camera ID_S recording start time_E recording end time. The recording start and end times are
 in YYYYMMDDHHMMSSMS format.

14.4 Playback

Click **Playback** to go to the **Playback** page. You can select the playback type, clarity, and camera to view recorded videos.

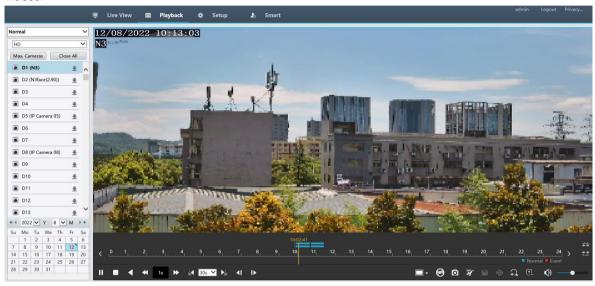
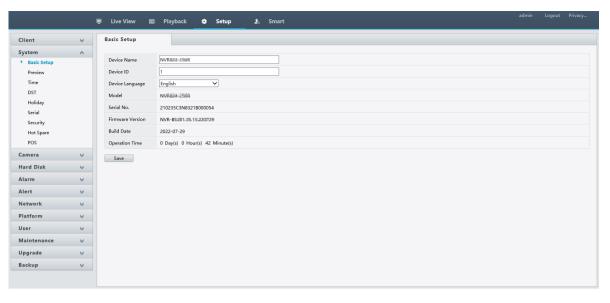


Table 14-2: Playback Control Buttons

Button	Description	Button	Description
▶ /II	Play/pause		Stop
•	Reverse	/ ₩	Slow down/speed up
/ ▶30	Rewind/forward 30s. You can change the time as needed.	/ I	Rewind/forward by frame
-	Set the display ratio, including full or original	Ø	Take a snapshot
/	Start/stop clipping video		Save video clip
/ 1 - <u>*</u>	Enable/disable digital zoom	<u></u>	Add a custom tag
++ / * *	Zoom in/out on the timeline	() —	Adjust sound volume; turn on/ off sound
/>	Previous/next period		

14.5 Configuration

Click **Setup** on the top, and set the relevant parameters.



14.6 Smart

Click **Smart** on the top, and configure the relevant parameters. See VCA Configuration for details.

15AppendixFAQ

Problem	Possible Cause and Solution
Forgot the login password.	Click Forgot Password in the login page as admin, then follow the on-screen instructions to retrieve password.
Cannot load the Web plugin.	 Close your web browsers when the installation starts. Disable the firewall and close the anti-virus program on your PC. Enable your Internet Explorer (IE) to check for newer versions of the stored pages every time you visit the webpage (Tools > Internet Options > General > Settings). Add your DVR's IP address to the trusted sites in your IE (Tools > Internet Options > Security). Add your DVR's IP address to the Compatibility View list in your IE (Tools > Compatibility View Settings). Clear your IE's cache.
No images are displayed in live view on the Web interface.	 Check if the bit rate is OMbps in the live view window. If yes, check if the firewall/anti-virus program is disabled on your PC. If not, check if the graphics card driver on your PC is working properly. Try installing the driver again.
A camera is offline, and No Link is displayed.	Click Menu > Maintenance > System Info. The cause is displayed under Status. Common causes include disconnected network, incorrect username or password, weak password, and insufficient bandwidth. Check network connection and other configuration. If it indicates incorrect username or password, check that the camera password set in the DVR is the one used to access the camera's Web interface. If it indicates denied access for weak password, log in to the camera's Web interface and set a strong password. If it indicates insufficient bandwidth, delete other online IP devices on the DVR.
The NVR displays live video for some cameras and No Resource for others.	 Set the camera to encode the sub stream, and decrease its resolution to D1. Set the DVR to use the sub stream first for live view.

Problem	Possible Cause and Solution
A camera goes online and offline repeatedly.	 Check if network connection is stable. Upgrade the software version of the camera and DVR. Contact your dealer for the latest versions.
Live view is normal, but the recording cannot be found.	 Check if a recording schedule is properly configured. Check if the time and time zone configured in the DVR are correct. Check if the hard disk storing the recording is damaged. Check if the desired recording has been overwritten.
Motion detection is not effective.	 Check that motion detection is enabled, and the motion detection area is properly configured. Check that detection sensitivity is properly set. Check that the arming schedule is properly configured.
A hard disk cannot be identified by the DVR.	 Use the power adapter delivered with the DVR. Disconnect the power supply of the DVR, and then mount the hard disk again. Try another disk slot. The disk is not compatible with your DVR. Contact your dealer for a list of compatible disk models.
The mouse does not work.	Use the mouse delivered with your DVR.Make sure no cable is extended.





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