Network Video Recorders
User Manual

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

CAUTION!

The default password is intended only for your first login. We strongly recommend you set a strong password to ensure account security.

- Strong: contains at least 8 characters from at least three of the four types: upper-case letter, lower-case letter, special character, digit.
- Medium: contains at least 8 characters from two of the four types: upper-case letter, lower-case letter, special character, digit.
- Weak: contains less than 8 characters from only one of the four types: upper-case letter, lower-case letter, special character, digit.

- To the maximum extent permitted by applicable law, the product described, with its hardware, software, firmware and documents, is provided on an "as is" basis.

- Best effort has been made to verify the integrity and correctness of the contents in this manual, but no statement, information, or recommendation in this manual shall constitute formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical errors in this manual. The contents of this manual are subject to change without prior notice. Update will be added to the new version of this manual.

- Use of this manual and the product and the subsequent result shall be entirely on the user's own responsibility. In no event shall we be liable for any special, consequential, incidental, or indirect damages, including, among others, damages for loss of business profits, business interruption, or loss of data or documentation, or

product malfunction or information leakage caused by cyber attack, hacking or virus in connection with the use of this product.

- Video and audio surveillance can be regulated by laws that vary from country to country. Check the law in your local region before using this product for surveillance purposes. We shall not be held responsible for any consequences resulting from illegal operations of the device.

- 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.

- This manual is a guide for multiple product models and so it is not intended for any specific product.

- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.

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

Contents

Preface

This manual describes how to use your NVR locally or on the Web interface.

In this manual, the terms IP camera and IPC refer to the same thing: network camera, which requires a connection to the network. And the IP device mentioned in this manual refers to an IP camera (also known as network camera) or a Digital Video Server (DVS).

Part I Local Operations

An NVR supports two types of operations: local operations and web-based remote operations. With local operations you connect a monitor and a mouse to the NVR and use the mouse to operate. If your NVR has buttons on the front panel or is delivered with a remote control, you may also control your NVR by pressing the front panel buttons or using the remote control.

The NVR has an embedded web server and allows web-based operations. To do this, you need a PC that has a network connection to the NVR and is installed with a web browser. You just need to navigate to the NVR's IP address and log in to the Web interface like you log in to the system locally.

This section describes local operations.

1 Before You Begin

Please be aware that the parameters that are grayed out on the system user interface (UI) cannot be modified. The parameters and values displayed may vary with device model, and the figures in this manual are for illustration purpose only.

Login

Use the default username **admin** and password **123456** for your first login.

(i) **CAUTION!**

The default password is intended only for the first login and should be changed to a strong one containing at least eight characters including uppercase and lowercase letters, digits and symbols after your first login to ensure security.

1. Right-click anywhere in the window and then choose **Menu**. The login dialog box is displayed.
2. Select the username from the drop-down list, enter your password, and then click **Login**.

Local Operations

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. See Mouse Operations for details.

Mouse Operations

Table 1-1 Mouse Operations

Name	Action	Description
Left button	Click	• Select or confirm an item. • Select to edit digits, symbols, upper-case or lower-case letters in a field.
	Double-click	Enter or exit full screen mode in live view.
	Drag	Draw or move a rectangle on the screen, for example, a motion detection area.

| Name	Action	Description
Right button	Click	● Show the shortcut menu. ● Exit zoom. ● Exit the current window when **Cancel** or **Exit** is displayed.
Wheel	Scroll up or down	Scroll up or down a list or a window; or zoom in or out on a playback progress bar.

2 Initial Configuration

Preparation

- Make sure that at least one monitor is correctly connected to the VGA or HDMI interface on the rear panel of the NVR.
- Verify that the hard disk(s) are correctly installed. For detailed steps to install a hard disk, please refer to the quick guide shipped with your NVR.
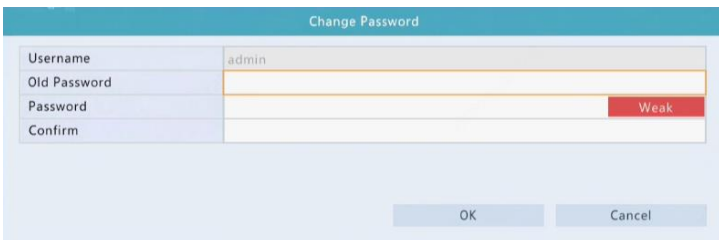
Login

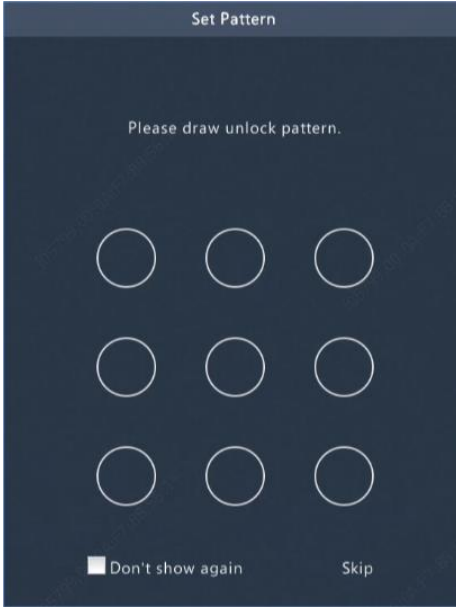The login page appears after the NVR starts up.
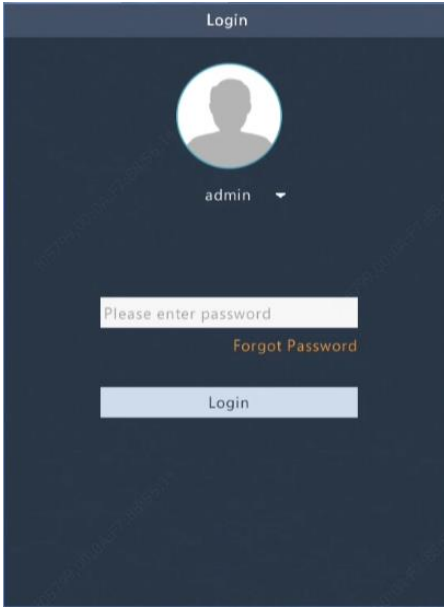
1. Enter the default admin password 123456, click **Login**, and click **Yes** in the pop-up window.

2. Set a strong password, and then click **OK**.

3. Set the unlock pattern.

Note:

Unlock pattern can be enabled/disabled at **System** > **User**. See User Configuration for details**.**

Wizard

The wizard can guide you to complete the most basic setup.

The following page appears after the NVR starts up:

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

2. Select your time zone, set date and time formats, set the system
   time, and then click **Next**.

3. Complete network configuration, and then click **OK**.

3 Live View

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
⚠	Tampering alarm
👥	Motion detection alarm
🎬	Recording
🔊	Turn on audio

Normally, live video is displayed, but other situations are also possible.

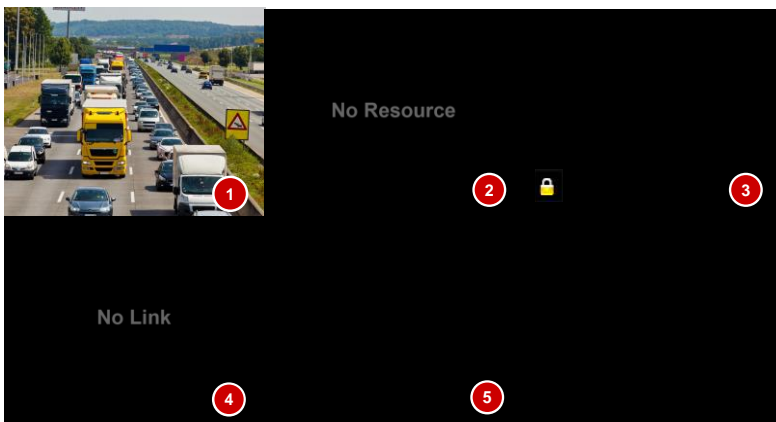| No.	Description
1	The IP device is online, and live video is playing.
2	The IP device is online, but the NVR has insufficient capacity to decode streams from the IP device.
3	No permission to view live video from the IP device.
4	The IP device is offline.
5	No IP device is linked to the window.

Window Toolbar

Icon	Description
⟨◎⟩	Available for PTZ cameras only. Click to display the PTZ control window.
▣	Record live video in the window to the hard disk. Clicking ▢ stops recording.
▶	Click to play video recorded during the past 5 minutes and 30 seconds.
⊕	Zoom in on an area of interest.
☀	Click to edit image settings.
OSD	Click to set OSD.

Icon	Description
📄	Rest your mouse pointer on the icon to view bitrate info; click this button to view the camera ID and IP address or to change the username and password used to connect the camera.
🔇	Click to turn on audio. Clicking 🔊 turns off audio. The sound volume is adjustable. **Note**: When you turn on audio in the current window, audio of the previous window is turned off.
⏏	Exit

Screen Toolbar

Icon	Description
🏠	Click to access the main menu.
▭ / ⊞ / ▦	Select the screen layout.
◁ / ▷	Previous or next screen.
📷 / 📷	Start or stop sequence.
🎞	Playback.
📄	Rest the mouse pointer on this icon to view encoding information including frame rate, bit rate, and resolution; or click to view camera status.
⚠	Click to view device alarm status and camera status.
🖥	Rest the mouse pointer on it to view NIC card information. Or click this icon to edit basic network settings.
13:56	Rest the mouse pointer on it to view the date. Or click this icon to edit time settings.
🔒	Click to automatically hide the toolbar, or click 🔓 to lock.

Shortcut Menu

A shortcut menu as shown below appears when you right-click in a window. Some menu items are described in Shortcut Menu Description.

Table 3-2 Shortcut Menu
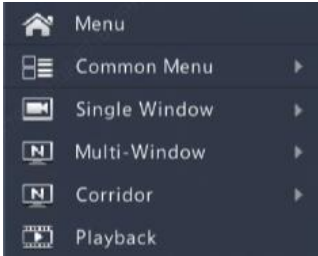
Table 3-3 Shortcut Menu Description

Menu	Description
Menu	Access the main menu. Most of operations described in this manual are performed start from the main menu; for example, click **Camera** > **Camera** (with **Menu >** omitted).
Common Menu	Click this button to open the **Camera**, **Network** and **Backup** pages.
Corridor	Choose a corridor mode. Corridor mode can also be set in the **Default Layout** drop-down list under **System** > **Preview**. To display images in corridor mode, the camera must be installed correctly (rotated 90° clockwise or counterclockwise), and then use the **Image Rotation** parameter under **Camera** > **Image** to rotate images accordingly.
Playback	Play the current day's recording for the camera linked to the current window.

Sequence Operation

The sequence operation requires you to configure the screen layout, windows, linked cameras, and the sequence interval.

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

1. Click **4 Windows** on the screen toolbar.

2. Click **Start Sequence** on the screen toolbar. Sequence starts by displaying four windows on the first screen and then the fifth on the second at the set interval.

> **NOTE!**
>
> - The default sequence interval is eight seconds and can be set under **System** > **Preview**.
> - You may drag video to an intended window on the screen.

Zoom

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

1. Click the window and then click 🔍 on the window toolbar.

2. In the small window in the lower right corner, click and drag your mouse to specify the area to zoom in on. The image in the main window zooms in. The following shows an example.

Image Configuration

Adjust image settings to get optimal images from a camera.

1. Click the window and then click 🔅 on the window toolbar.

2. Select a mode from the drop-down list according to the surveillance scenario, and then adjust contrast, hue, saturation and brightness as needed. The settings available may vary with device model.

3. Click **OK** to save the settings and exit.

Preview Configuration

Normally, live view (video) is available after you complete the basic setup by following the wizard. You can click **System** > **Preview** and edit preview setting as needed, including video output, image resolution, default layout, and sequence interval. The video output and the number of windows supported may vary with NVR model.

Preview Configuration

Each preview window (window for short) links to a camera. By default, window 1 links to camera D1, window 2 links to camera D2, and so on. You may want to change the link to display live video from a camera in

another specified window. The following example describes how to link window 1 to camera D2 and link window 2 to camera D1.

Step 1: Click window 1 on the right, and then click **D2** under **Camera** on the left. Now **D2** appears in window 1, and **None** appears in window 2. Meanwhile, ○ is cleared for camera D1, meaning D1 is not linked to any window.
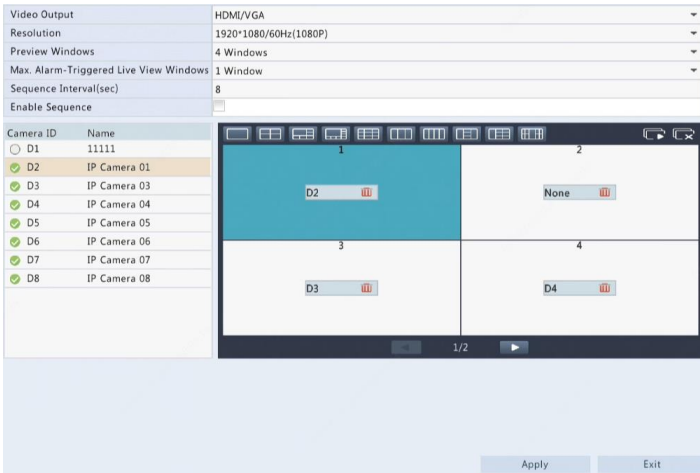
Step 2: Click window 2 on the right, and then click **D1** under **Camera** on the left. Now **D1** appears in window 2. Click **Apply** to save the settings.
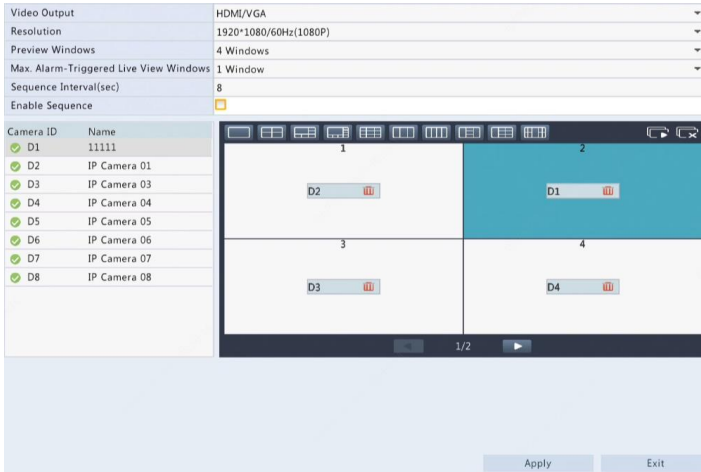
Advanced Configuration

Click the **Advanced** tab and then select **Sub Stream First** so the NVR uses the sub stream to establish live video from multiple cameras simultaneously. This function is disabled by default.

4 Channel Configuration

Channel Management

This chapter describes how to add and manage IP devices in your NVR. The IP devices mentioned in this manual mainly refer to IP camera (or network camera); sometimes they can also be Digital Video Server (DVS). Before you start, make sure the IP devices are connected to your NVR via network.

> **CAUTION!**
>
> An IP device should be connected to one NVR only. An IP device managed by multiple NVRs may cause unexpected issues.

Adding an IP Device

This section provides multiple options to add an IP device. Some options are only applicable to certain NVR models. Choose one as appropriate.

Option 1

1. Click **Camera** > **Camera** > **Camera**. The system automatically searches for IP devices and lists the discovered.

Camera	Status	IP Address	Net Config	Cam Config	Model	Protocol
D1(11111)	⊙	206.3.0.28	⚙	⚙	HIC6221EX20-5CIR-U	Uniview
D2(IP Camera 01)	⊙	206.3.0.22	⚙	⚙	IPC242S-IR3-HUPF40-C-DT	Uniview
D3(IP Camera 03)	⊙	206.3.0.89	⚙	⚙	IPC331E-IR3-PF60-DT	Uniview
D4(IP Camera 04)	⊙	206.3.0.29	⚙	⚙	IPC-B612-IR@U-X22-F	Uniview
D5(IP Camera 05)	⊙	172.16.0.6	–	⚙		ONVIF
D6(IP Camera 06)	⊙	172.16.0.7	–	⚙		ONVIF
D7(IP Camera 07)	⊙	172.16.0.8	–	⚙		ONVIF
D8(IP Camera 08)	⊙	172.16.0.9	–	⚙		ONVIF
–		206.3.0.6	⚙	–	IPC2122SR3-PF120	Uniview
–		206.3.0.7	⚙	–	HIC2101ES-F60IR	Uniview
–		206.3.0.11	⚙	–	IPC3614SR3-DPF36M	Uniview
–		206.3.0.13	⚙	–	IPC3612ER3-PF28M	Uniview
–		206.3.0.21	⚙	–	IPC242S-IR3-HUPF40-C-DT	Uniview
–		206.3.0.27	⚙	–	IPC744SR5-PF40-32G	Uniview
–		206.3.0.30	⚙	–	IPC814SR-DVSPF16	ONVIF
–		206.3.0.31	⚙	–	IPC814SR-DVSPF16	ONVIF
–		206.3.0.31	⚙	–	IPC814SR-DVSPF16	Uniview
–		206.3.0.32	⚙	–	IPC814SR-DVSPF16	Uniview

Auto Switch to H.265 (Effective when fir... ✔
Auto Switch to U-Code (Effective when f... Advanced Mode

Idle Receive Bandwidth: 33Mbps

Refresh   Search Segment   Custom Add   Exit

2. (Optional) To search a specified network segment, click **Search Segment** and then set the address range.
3. Click + for the IP device to add. Or, you may also

- Click **Add All** to add all the discovered IP devices allowed (depending on channels supported by the NVR).
- Click **Custom Add**. In the window displayed, enter the IP address and complete other settings, and then click **Add**. You may also click **Search** and add discovered cameras in the list.

Option 2

This option is not applicable to NVRs with PoE ports or switching ports.

1. Click ➕ in a window.
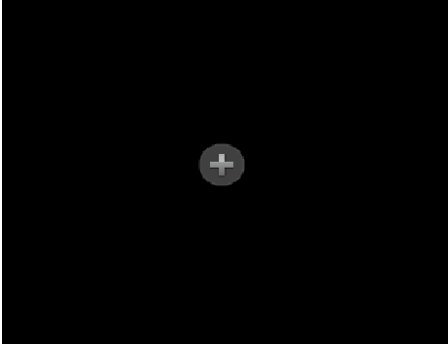
2. Select the desired IP device and then click **Add**.

Option 3

This option is only applicable to NVRs with PoE ports or switching ports. Connect an IP camera to a PoE port or a switching port with a network cable. The connected camera will be added to the NVR automatically. Check status under **Camera** > **Camera** > **Camera**. ◐ means live video from the camera is available. Click ◐ to view live video.

If the camera is connected via a network switch, click ⚙ under **Cam Config**. In the window displayed, set **Add Mode** to **Manual** and then complete the settings correctly.

NOTE!

📹 appears under **Status** if the power output from a PoE port is below or above the rated power of the connected camera.

Option 4

Use this option only when the IP device to add supports the standard RTSP, and all you can do is live view and playback. IP devices added in this way cannot be configured from the NVR.

1. Click **Camera** > **Camera**.

2. Click **Custom Add**.

3. Click to select a camera in the list, select **Custom** from the **Protocol** drop-down list, and then click the **Protocol** button.

No.	IP Address	Status	Model	Protocol
1	206.3.0.6		IPC2122SR3-PF120	Uniview
2	206.3.0.7		HIC2101ES-F60IR	Uniview
3	206.3.0.11		IPC3614SR3-DPF36M	Uniview
4	206.3.0.13		IPC3612ER3-PF28M	Uniview
5	206.3.0.21		IPC242S-IR3-HUPF40-C-DT	Uniview
6	206.3.0.22	Added	IPC242S-IR3-HUPF40-C-DT	Uniview
7	206.3.0.27		IPC744SR5-PF40-32G	Uniview
8	206.3.0.28	Added	HIC6221EX20-5CIR-U	Uniview

Protocol	Uniview
IP Address	206 . 3 . 0 . 6
Port	80
Username	admin
Password	*****
Total Camera Number	1

Protocol | Search | OK | Cancel

📝 **NOTE!**

To add cameras to channels corresponding to PoE ports via custom protocol, click 🔵 under **Cam Config**, set **Add Mode** to **Manual** and **Protocol** to **Custom**, and then complete the settings.

---

4. In the **Protocol** window, name the protocol, enter the RTSP port number, select a transmission protocol, input the resource paths, and then click **Apply**.

📝 **NOTE!**

Contact the camera manufacturer for resource paths.

Protocol	
Custom	Custom1 ▾
Protocol Name	Custom1
Port	554
Transmission Protocol	UDP ▾
Enable Main Stream	☑
Resource Path	rtsp://<ip>:<port>/
Enable Sub Stream	✓
Resource Path	rtsp://<ip>:<port>/

| Apply | OK | Cancel |

5. Edit settings in the **Add/Modify** window as needed, including the IP address, username and password, and then click **Add**. Check status in the camera list.

Managing an IP Device

Manage IP devices under **Camera** > **Camera** > **Camera**.

- Click ⚙ to edit settings including the protocol, IP address, port number, username and password. The **Camera IP** field displays the IP address that the current channel links to, and you may change the address so the channel links to another device. The username and password must be consistent with that of the IP camera.

No.	IP Address	Status	Model	Protocol	▲
1	206.3.0.6		IPC2122SR3-PF120	Uniview	
2	206.3.0.7		HIC2101ES-F60IR	Uniview	
3	206.3.0.11		IPC3614SR3-DPF36M	Uniview	
4	206.3.0.13		IPC3612ER3-PF28M	Uniview	
5	206.3.0.21		IPC242S-IR3-HUPF40-C-DT	Uniview	
6	206.3.0.22	Added	IPC242S-IR3-HUPF40-C-DT	Uniview	
7	206.3.0.27		IPC744SR5-PF40-32G	Uniview	
8	206.3.0.28	Added	HIC6221EX20-5CIR-U	Uniview	▼

Add Mode	Manual	▼
Protocol	Uniview	▼
IP Address	206 . 3 . 0 . 28	
Port	80	
Username	admin	
Password	********	
Total Camera Number	1	
Extended Transmission	☐	

| Protocol | Search | OK | Cancel |

- Click 🗑 to delete an IP device, or select multiple IP devices and then click **Delete**. Channels corresponding to PoE ports or switching ports cannot be deleted.

- Click ⚙ to change the IP address of an IP camera and the default gateway. A DVS' IP address cannot be editted from the NVR. ‒ means this function is not available.

Sort Cameras

Sort cameras to display in the desired order.

> **NOTE!**
>
> This function is unavailable to NVRs with PoE ports or switching ports.

For example, to switch channel 1 with channel 2, click **Sort Camera**, and then follow the steps below:

1. Drag channel 1 to channel 2.
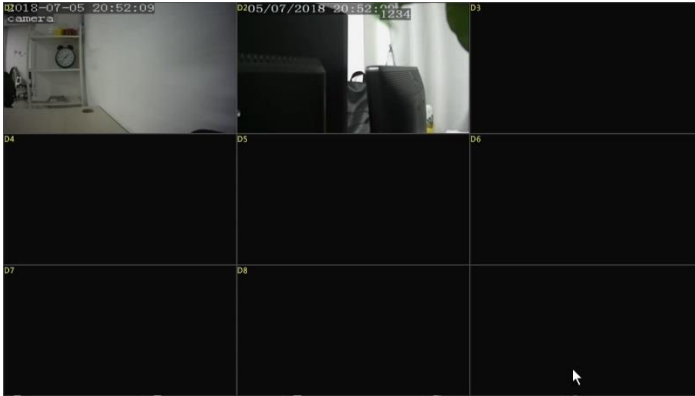
2. Right-click, then click **Yes** in the pop-up window.

3. Click **Yes.**

Upgrading IP Cameras

Click **Check** to see if the version of the connected IP camera is up to date.

You may upgrade cameras by cloud ( ) or by disk ( ) one by one, or select multiple cameras and then click **By Cloud** or **By Disk** to upgrade cameras in batches.

OSD Configuration

On Screen Display (OSD) are characters displayed with video images on the screen, for example, camera name, date and time.

1. Click **Camera** > **OSD**; or click on the preview window toolbar.

2. Select the desired camera and then enter a camera name you want to display on the screen.

3. Select date and time formats. Choose to display time and camera name as needed.

4. Set font size and color as needed.

5. Drag the OSD to the desired position in the preview window on the left.

(Optional) Click **Copy** to apply the same settings to other cameras.
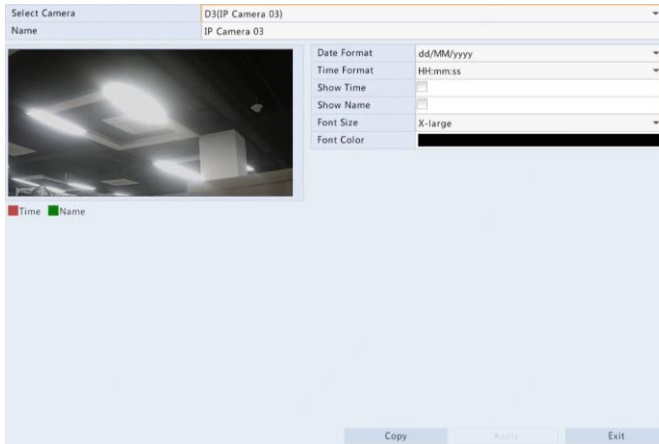
6. Click **Apply** to save the settings.

Image Configuration

1. Click **Camera** > **Image**.

2. Select the desired camera and scene.
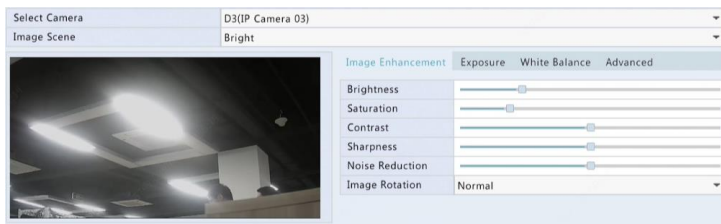
3. Adjust settings on the tabs as needed to achieve optimal images. See the following sections for detailed information.

Image enhancement

1. Click the Image Enhancement tab.

2. Adjust the settings as needed. Some important parameters are described in the table below.

Parameter	Description
Brightness	The greater the value, the brighter the images appear.
Saturation	The amount of color in a specified hue.
Contrast	The degree of difference between the lightest (white) and darkest (black) parts of an image. Setting a greater value increases contrast.
Hue	Purity of colors in an image.
Sharpness	Contrast of boundaries of objects in an image.
Noise Reduction	Reduce noises in images to improve image quality.
Image Rotation	• Normal: Displays images without rotation. • Flip Vertical: Displays images flipped vertically. • Flip Horizontal: Displays images flipped horizontally. • 180°: Displays images flipped vertically and horizontally. • 90° CW and 90° CCW: Display images in corridor format. The camera must be installed correctly (rotated 90° clockwise or counterclockwise).

Exposure

1. Click the **Exposure** tab.
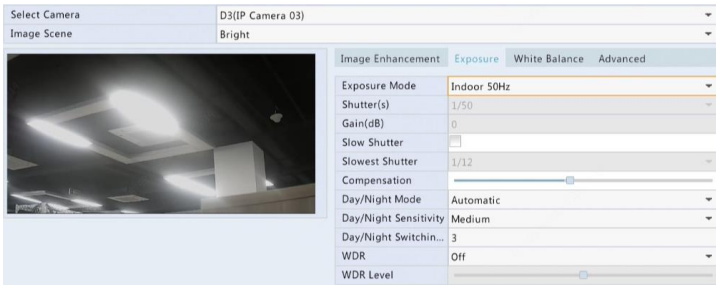
2. Adjust the settings as needed. Some important parameters are described in the table below.

Parameter	Description
Exposure Mode	Select the correct exposure mode to achieve the desired exposure effect.
Shutter(s)	Shutter is used to control the light that comes into the lens. A fast shutter speed is ideal for scenes in quick motion. A slow shutter speed is ideal for scenes that change slowly.
Gain(dB)	Control image signals so that the camera can output standard video signals in different light conditions.
Iris	Adjust iris opening of the lens to control the amount of incoming light.
Slow Shutter	Improves image brightness in low light conditions.
Slowest Shutter	Set the slowest shutter speed for the camera during exposure.
Compensation	Adjust the compensation value as required to achieve the desired image effects.

Parameter	Description
Day/Night Mode	• Automatic: In this mode, the camera can automatically switch between night mode and day mode according to the ambient lighting condition to output optimum images. • Night: The camera outputs high-quality black and white images according to the ambient lighting condition. • Day: The camera outputs high-quality color images according to the ambient lighting condition.
Day/Night Sensitivity	Light threshold for switching between day mode and night mode. A higher sensitivity value means that the camera is more sensitive to the change of light and is therefore more easily to switch between day mode and night mode.
Day/Night Switching(s)	Set the length of time before the camera switches between day mode and night mode after the switching conditions are met.
WDR	Enable WDR to ensure clear images in high contrast conditions.
WDR Level	After enabling WDR, you can improve image quality by adjusting the WDR level.

White balance

1. Click the **White Balance** tab.
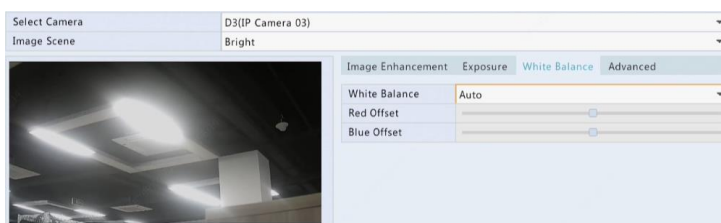
2. Adjust the settings on this tab. Some important parameters are described in the table below.

Parameter	Description
White Balance	Adjust the red or blue offset of the image: ● Auto: The camera adjusts the red or blue offset automatically according to the lighting condition (the color tends to be blue). ● Finetune: Allow you to adjust the red or blue offset manually.
Red Offset	Adjust the red offset manually.
Blue Offset	Adjust the blue offset manually.

Advanced settings

1. Click the **Advanced** tab.

2. Use defog to improve image quality in foggy days.
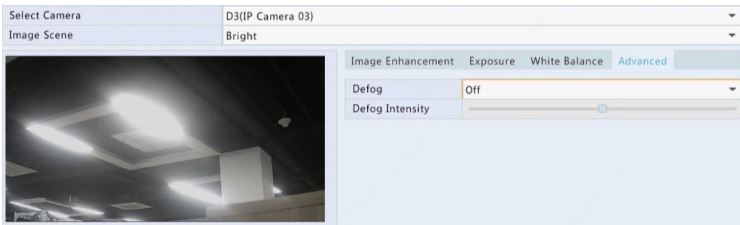
Privacy Mask Configuration

A privacy mask is an area of solid color covering certain parts of the monitored area. Privacy mask protects specified areas of images from being viewed and recorded. Multiple mask areas are allowed.

1. Click **Camera** > **Privacy Mask**.

2. Select the desired camera, select **Enable Privacy Mask**, click **Add Area** and then use the mouse to specify areas to mask. Up to four areas are allowed. The areas are differentiated by different colors.

(Note: Up to 4 area(s) allowed.)

3. (Optional) To clear a mask area, click 🔟 .

4. Click **Apply** to save the settings.

5 PTZ Control

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 more details.

PTZ Control Window and PTZ Management Window
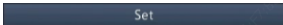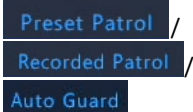
1. Click ⊕ on the window toolbar. The **PTZ Control** window appears. See PTZ Control Window Buttons for detailed descriptions.

2. Click the **Set** button. The **PTZ Management** window appears (can also be opened by clicking **Camera** > **PTZ**).

Table 5-1 PTZ Control Window Buttons

Button	Description
	Control the rotation direction of the PTZ camera or stop rotation.
	Adjust the zoom, focus, and iris of the PTZ camera. **Note**: You can also zoom in or out using the scroll wheel on your mouse.

Button	Description
Speed ▬▬▬■▬▬▬	Control the rotation speed of the camera. 1 means the slowest, and 9 means the fastest.
Set	Click to display the **PTZ Management** window.
🔘 🔘 🔘 🔘 🔘 🔘	● Turn on/off the light. ● Turn on/off the wiper. ● Use 3D positioning. ● Turn on/off the heater. ● Turn on/off the function to remove snow. ● Turn on/off PTZ shortcut operations. **Note:** ● Check 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 button.
💾 ➡ 🗑	● Save the current position and status of the camera as a preset. ● Call a preset so the PTZ camera goes to the preset position. ● Delete a preset. **Note:** ➡ and 🗑 are displayed for saved presets only.
Preset Patrol / Recorded Patrol / Auto Guard	Preset patrol, recorded patrol and auto guard. For detailed information, see Setting a Preset Patrol, Setting a Recorded Patrol, and Setting Auto Guard.
▶ ■	Start or stop.

Setting and Calling a Preset

A preset position (preset for short), is a saved view used to quickly steer the PTZ camera to a specific position. A preset consists of the following settings: pan and tilt positions, zoom, focus, and iris.

1. Access the **PTZ Management** window. For the detailed steps, see PTZ Control Window and PTZ Management Window.
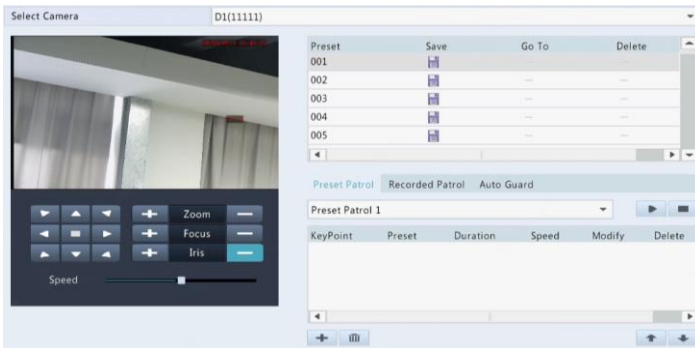
2. Add presets.

   a. Click the directional buttons to steer the PTZ camera to the desired position.

   b. Adjust the zoom, focus, and iris as needed.

   c. Select a preset number not in use, and then click 💾 under **Save**.

   d. Repeat the above steps to add all the presets.

3. To call a preset, click 🔄 for the corresponding number. The camera rotates to the preset position.

Setting a Preset Patrol
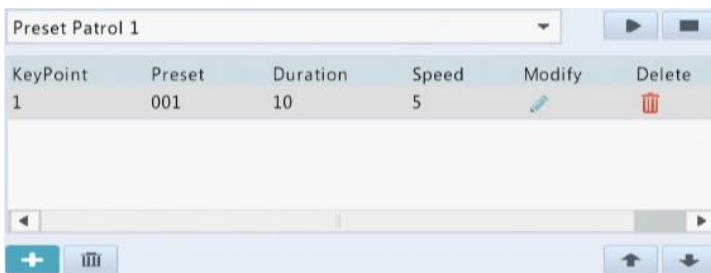
Set the PTZ camera to patrol by presets (go from one preset to the next in specified order). You need to set presets first and then select some as keypoints. Up to four patrol routes (Preset Patrol 1, 2, 3 and 4) are allowed for each PTZ camera, and each patrol route can have up to eight presets (keypoints). After setting presets, follow the steps to set a preset patrol. The following takes preset patrol 1 as an example.

1. In the **PTZ Management** window, click ➕ . A window is displayed as follows.

Preset Configuration	
Preset	001 ▼
Duration	10
Speed	5 ▼
	OK Cancel

2. Select a preset from the drop-down list, set the duration (time the camera stays at the preset, unit: second), and then set the rotation speed (1: slowest, 9: fastest). Click **OK** to save the settings. The preset is added as a keypoint, as shown in the figure below.

Preset Patrol 1				▼ ▶ ■	
KeyPoint	Preset	Duration	Speed	Modify	Delete
1	001	10	5	✎	🗑

➕ 🗑   ⬆ ⬇

3. Repeat the above steps to add all presets (keypoints), and adjust the sequence of these presets by clicking ⬆ or ⬇. Modify or delete a preset by clicking ✎ or 🗑. Clicking 🗑 will delete all the added keypoints.

4. After completing the configuration, click **Apply** to save the settings. Now keypoints for preset patrol 1 is complete.

5. Click ▶ right to the drop-down list to start preset patrol 1. To stop, click ■.

NOTE!

The duration ranges from 0 to 1800 seconds (default: 10). The rotation speed ranges from 1 to 9 levels (default: 5).

Setting a Recorded Patrol

This function requires the camera's support. The drop-down list and the buttons on the right are hidden if this function is not supported by the camera. Currently only one recorded patrol route is allowed.

Record a patrol, including the patrol route, the time that the camera stays at a certain direction, rotation speed, zoom, focus and iris.

1. Click ● to start recording. Steer the camera to the desired directions, adjust the zoom, focus, iris as needed during the process.
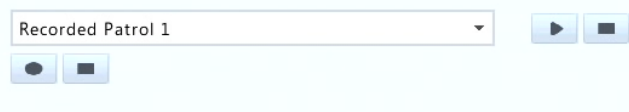
2. Click ■ to stop recording. All the patrol actions have been recorded.

3. To start the recorded patrol, click ▶. Click ■ to stop.

Setting Auto Guard

Use auto guard so the PTZ camera automatically operates as configured if no operation is performed by any user during a certain time period.

Auto guard avoids situations where the camera is left to monitor incorrect scenes by user's negligence.

This function requires the camera's support. The **Auto Guard** tab is hidden if it is not supported.

1. Click **Auto Guard** and then select **Enable**.

2. Select the desired mode from the drop-down list and then complete other settings accordingly. Click **Apply** to save the settings.

Enable	☑
Idle State(s)	60
Mode	Preset Patrol ▾
Route	Preset Patrol 1 ▾

6 Recording

Video recording has different levels of priority, which from high to low is: event recording, manual recording, and scheduled recording.

Encoding Settings

Recording

The parameters and options displayed may vary with camera model and version. Some functions may be unavailable if the camera version is too low. In this case, you need to upgrade the camera first.

1. Click **Camera** > **Encoding**.

Select Camera	D1(11111)	
Storage Mode	Main Stream	
Capture Mode	1080P@25	
Stream Type	Normal	Sub Stream
Video Compression	H265	H265
Resolution	1920*1080(1080P)	720*576(D1)
Bitrate Type	VBR	VBR
Bit Rate(Kbps)	1024	512
Range	128~16384(Kbps)	128~16384(Kbps)
Frame Rate(fps)	25	25
Image Quality	level9	level5
I Frame Interval	50	50
I Frame Range	5~250	5~250
Smoothing		
Audio Stream	✔	✔
U-Code	Advanced Mode	Advanced Mode

2.   Select the camera and then edit settings as needed. Some
     parameters are described in the table below.

Table 6-1 Encoding Settings

Parameter	Description
Storage Mode	● Main Stream ● Sub Stream By default, the main stream is used for storage.
Capture Mode	Combinations of resolutions and frame rates. **Note:** This parameter is effective only when the camera is connected to the NVR via the private protocol.
Stream Type	● Normal: main stream that is intended for scheduled recording. ● Event: main stream that is intended for recording triggered by events such as alarm inputs or motion detection alarms. ● Sub Stream: low resolution video that is intended for local or remote real-time monitoring.
Video Compression	Video compression standard, for example, H.264, H.265. The listed options depend on the standards supported by the camera.
Resolution	Image resolution.
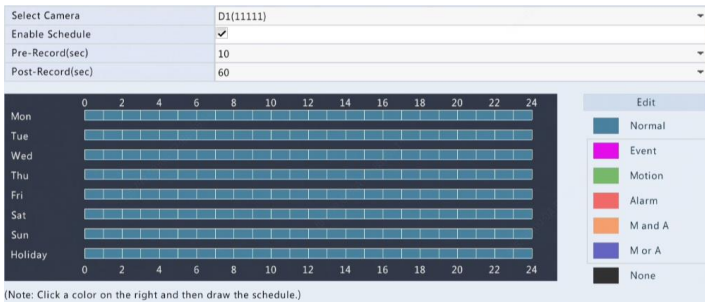
Parameter	Description
Bitrate Type	• CBR: Constant Bit Rate (CBR) is used to maintain a specific bit rate by varying the quality of video streams. CBR is preferred when limited bandwidth is available. The disadvantage is that video quality will vary and may decrease significantly with increased motion in the scene. • VBR: When using Variable Bit Rate (VBR), video quality is kept as constant as possible, at the cost of a varying bit rate, and regardless of whether or not there is motion in the image. VBR is ideal when high quality is a requirement, especially when there is motion in the picture.
Bit Rate(Kbps)	Number of bits transferred per second. Select a value or select **Custom** and then set a value as needed.
Range	Bit rate range. Currently the range is fixed.
Frame Rate(fps)	Number of frames per second.
Image Quality	This parameter is effective only when **Bitrate Type** is set to **VBR**. 9 levels are provided.
I Frame Interval	Number of frames between two adjacent I frames.
I Frame Range	Range of I frames. Currently the range is fixed.
Smoothing	Use the slider to control the sudden increase of bit rate.
Audio Stream	Enable or disable audio stream.
U-Code	The advanced mode achieves higher compression ratios.

3. (Optional) Click **Copy** to apply some current settings such as bit rate and frame rate to other cameras.

4. Click **Apply** to save the settings.

Draw or Edit a Schedule

Make a recording schedule by drawing (pressing and dragging) or by editing (using the **Edit** button).

1. Click **Storage** > **Recording**.

2. Select the camera from the list. Schedule is enabled by default. If it is disabled, select to enable it.

3. Set **Pre-Record** and **Post-Record** as needed.

4. (Applicable to some NVR models) To save a redundant copy of recordings, select **Enable Redundant Recording** and configure a redundant hard disk (see Disk Management for details).

(Note: Click a color on the right and then draw the schedule.)

5. Click a color icon on the right under the **Edit** button and then draw a schedule on the left. You may also click **Edit** and set schedule details in the **Edit** window.

> **NOTE!**
>
> When editing a schedule, you may clear the **All Day** check box and set up to eight different periods for each day. To apply the settings to other day(s), select the day(s) right to **Copy To**.

6. Click **Apply**.

7. (Optional) Click **Copy** to apply the same settings to other cameras.

Scheduled Recording

Scheduled Recording

Scheduled recording records video according to the set schedule and it is different from manual recording and alarm-triggered recording. A 24×7 recording schedule is enabled by default and may be edited as needed to record video in specified periods only.

See <u>Draw or Edit a Schedule</u> for the detailed steps. Make sure the schedule type is **Normal**. The set schedule appears in blue, which stands for scheduled recording.

Motion Detection Recording

When enabled, a motion detection alarm occurs if an object inside the detection area moves to a certain extent (see <u>Motion Detection</u> for more details).

1. Click **Alarm** > **Motion**.
2. Select the camera from the list, and then select the check box to enable motion detection.

NOTE!

- Motion detection is enabled on the NVR by default. Unless modified, the detection area covers the full screen, and recording is triggered only for the current camera. The settings remain if you disable motion detection and then enable it.
- An alarm icon appears in the upper right corner when motion is detected.

---

3. In the preview window on the left side, click and drag your mouse to specify a motion detection area (red grid). Use the sliders to adjust detection sensitivity.
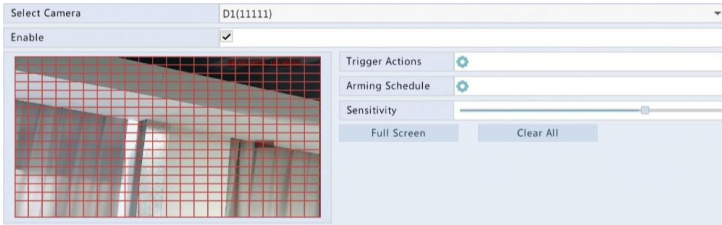
4. Configure motion detection recording: click ⚙ right to **Trigger Actions**, click the **Recording** tab, select the desired camera, and then click **OK**.

5. (Optional) Configure an arming schedule (time when actions will be triggered): click ⚙ right to **Arming Schedule** and then set time periods as needed.

6. Set a recording schedule under **Storage** > **Recording**. For the detailed steps, see Draw or Edit a Schedule. Make sure the schedule type is **Motion**. The set schedule appears in green, which stands for motion detection recording. The following figure shows an example.
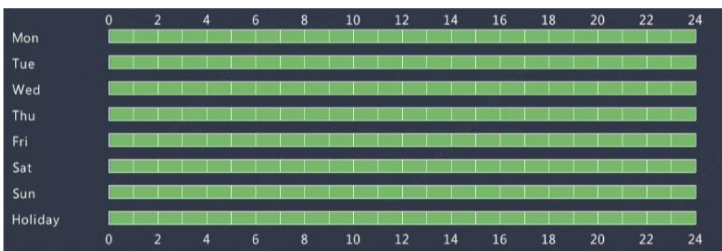
Alarm Triggered Recording

Set input alarms to trigger recording. See Alarm Input and Output for more details.

1. Click **Alarm > Input/Output** > **Alarm Input**.

2. Set alarm input: click ✎ for the desired camera. In the window displayed, select **Enable**, select N.O. (normally open) or N.C. (normally closed) trigger mode, and then click **OK**.

Alarm Input	
Alarm Input	☑ Enable
Alarm Type	N.O. ▾

	OK	Cancel

📝 **NOTE!**

To apply the same settings to other camera(s), click **Copy** and then select the desired camera(s).

3. Set alarm triggered recording: click 🔘 under **Trigger Actions**. In the window displayed, click the **Recording** tab, select the desired camera, and then click **OK**.

4. Set a schedule under **Storage** > **Recording.** For the detailed steps, see Draw or Edit a Schedule. Make sure the schedule type is **Alarm**. The set schedule appears in red, which stands for alarm-triggered recording. The following shows an example.
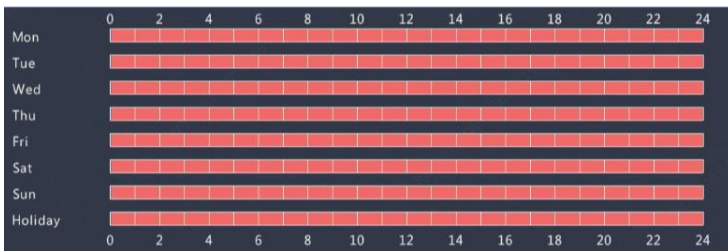
Manual Recording

Record video manually by clicking 🔘 on the window toolbar. Alternatively, click **Manual** > **Recording**, select the desired camera and then click **Start**. To stop manual recording, click 🔘 on the window

toolbar, or select the camera and then click **Stop** under **Manual** > **Recording**.

Select	Camera	Status
D1	11111	⊘ Started
D2	IP Camera 01	○ Stopped
D3	IP Camera 03	○ Stopped
D4	IP Camera 04	○ Stopped

Holiday Recording

Holiday recording allows you to specify certain time periods as holidays for scheduled recording. First you specify certain date(s) as holidays, and then configure recording schedules on these days.

Holiday Recording

1. Click **System** > **Holiday**.
2. Click the **Add** button in the lower right corner. The **Holiday** window is displayed. Complete the settings including the holiday name, start and end dates. By default a holiday is enabled when added and does not repeat.

Holiday Name		
Status	✓ Enable	Disable
Repeat	✓ No	Yes
Mode	✓ By Day	By Week
Start Time	2019 ▾ 05 ▾ 08 ▾	
End Time	2019 ▾ 05 ▾ 08 ▾	

3. Click **OK**. The holiday appears in the list.
4. Click **Storage** > **Recording** and then set a recording schedule as described in <u>Draw or Edit a Schedule</u>. Make sure **Holiday** is selected in the **Select Day** drop-down list. In the following example, motion detection recording is enabled on the set holiday.
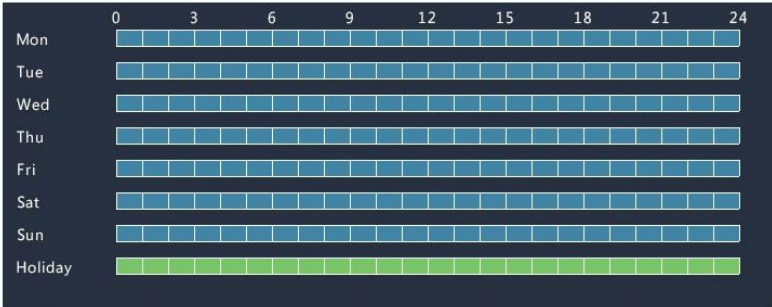
Other Recording Types

Other recording types:

- Event: Including the types below. Any of these types will trigger event recording.

- Motion detection AND alarm triggered (M and A for short): recording is triggered only when a motion detection alarm AND an input alarm occur simultaneously.

- Motion detection OR alarm triggered (M or A for short): recording is triggered when a motion detection alarm OR an input alarm occurs.

When you choose an Event type of recording, make sure you have enabled the corresponding alarm function and configured alarm-triggered recording. The configuration steps are similar. See Motion Detection Recording for more details.

7 Playback

Instant Playback

Instant playback plays the video recorded during the last 5 minutes and 30 seconds. If no recording is found, it means there is no recording during this period.

1. Click the desired window, and then click on the toolbar to start instant playback.

2. You may drag the slider to control the progress. Pause and resume as needed.

Playback Toolbar

Table 7-1 Playback Toolbar Buttons

Button	Description
00:00:15	Show playback progress. **Note**: ● A small window displaying video of the selected window is displayed as you drag the slider, helping locate the part of the video you want to view. ● The first progress bar indicates playback progress of the video playing in the highlighted window. The second indicates the overall playback progress for all the selected cameras.
0 1 2	Timeline.
← → / → ←	Zoom in or out on the timeline. **Note**: Alternatively, scroll your mouse wheel.
▷ / ❚❚ / ☐ / ◁	Play, pause, stop, and reverse.
⏮ / ⏭	Rewind or forward 30 seconds.
◀◀ / ▶▶	Slow down or speed up. **Note**: Click ▶▶ to restore the normal playback speed after clicking ◀◀, and vice versa.
▶	Forward by frame.
✂ / ✂❚❚	Start or stop clipping video.
🔒	Lock.
🏷 / 🏷	Add a default or custom tag.
💾	Manage files (clips, locked files, tags).
🔍	Zoom in on images. For more details, see Zoom.
🔊 / 🔇	Turn off/on audio.
▬▬■▬▬	Adjust sound volume for the current window.

Playback by Camera and Date

Use this method to play recordings found by camera and date.

1. Right-click the mouse and then choose **Playback**.

2. Select the desired camera. By clicking **Max. Cameras** in the upper right corner you will select the maximum number of cameras allowed.

📝 **NOTE!**

You can select multiple cameras for synchronous playback. Clicking **Max. Camera** selects the maximum number of cameras allowed, and clicking **Close All** stops playback for all cameras. The performance varies with NVR model.

3. Select the desired date on the calendar and then click [▶] to start playback. Double-clicking the date will start playback directly.
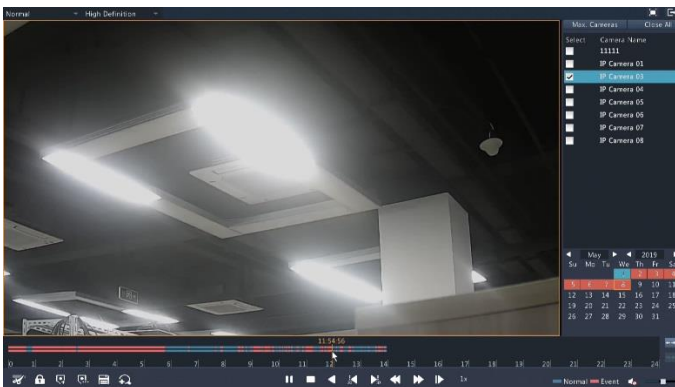
NOTE!

- The calendar uses different colors to indicate different recording types. No color means no recording. Blue means normal recording. Red means event-triggered recording.
- In the drop-down list right to playback mode in the upper left corner: **High Definition** means video recorded with the main or sub stream; **Standard Definition** means video recorded with the third stream.

Playback in Corridor Mode

Play recordings in corridor mode in multiple windows.

1.   In the playback window, select **Corridor** from the drop-down list in the upper left corner.

2.   Select cameras and then double-click the desired date to start playback.

Playback by Tag

Add tags named with keywords such as event name and location to a recording and use tags to quickly locate the part of the video you need during playback.

Adding a Tag

1. Right-click and then click choose **Playback**.

2. Click ![icon] to add a default tag named TAG. To add a custom tag, click

   ![icon] and then set the tag name, for example, tag1.

3. To manage the added tags, click ![icon], and then rename or delete

   tags as needed.

			File Management			
Video Clip	Locked File	Tag				
Camera	Name		Time		Edit	Delete
D1	TAG		2019-05-08 13:46:52		✏	🗑
D3	TAG		2019-05-08 13:46:52		✏	🗑

Total: 2 Page: 1/1
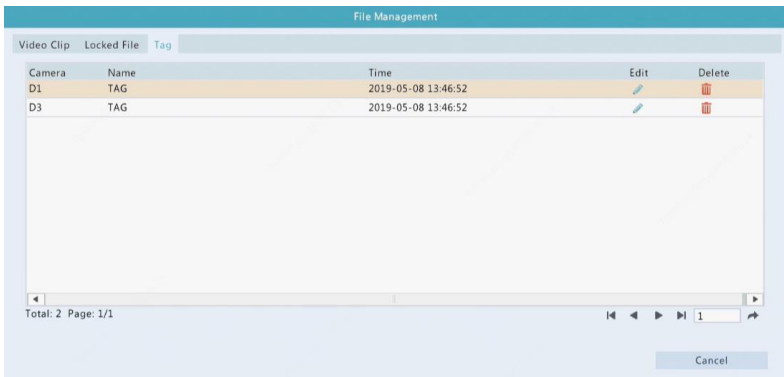
Playback by Tag

1. In the playback window, select **Tag** from the drop-down list in the upper left corner.
2. Select cameras, set the time period, enter keywords, and then click **Search**. Search results, if there are any, are displayed with names of cameras and tags.
3. Click ![icon] for the desired tag to start playback. You may use the **Start Before** and **Stop After** drop-down lists to set when the tagged video starts and ends.
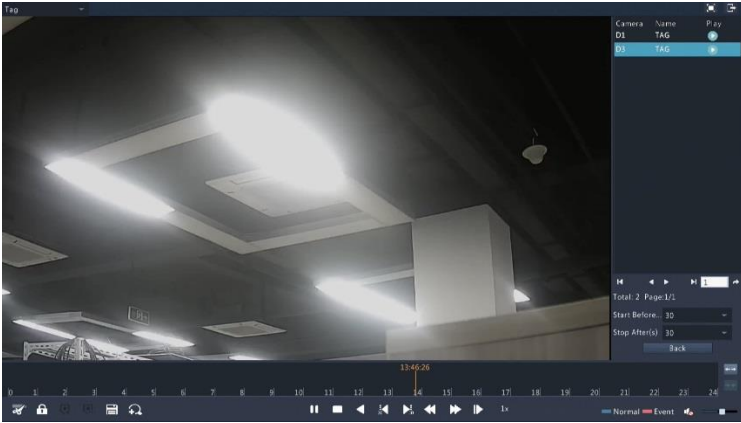
Playback by Event

Specify an event type and search for and play videos recorded for one or more cameras during a specified time period.

1. In the playback window, select **Event** from the drop-down list in the upper left corner.

2. Select the desired event type, for example, motion.

3. Select the desired camera, set the time period, and then click **Search**.

4. Click for the desired recording to start playback.
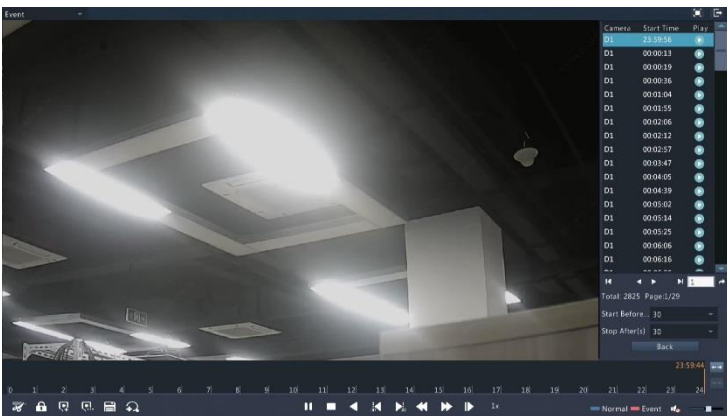
Playback by External File

Use this function to play recordings stored in an external storage device, for example, a USB drive or a portable USB hard drive.

1. In the playback window, select **External File** from the drop-down list in the upper left corner.
2. Click **Refresh** and then wait for the NVR to read the external storage device.
3. Select the desired recording file and then click ▶ to start playback.

File Management

File management allows you to manage video clips, tags, and lock or unlock files.

1. Click 🔒 for the recording you want to lock in the playback window. Locked files will not be overwritten when storage is used up.

2. Click 🗄 and then click the **Locked File** tab to view the locked file. To unlock a file, click 🔒, and the icon changes to 🔓. To back up a file, select the file and then click **Backup**.

8 Recording Backup

Backup, also known as recording backup, is the process of searching for video stored on a hard disk of the NVR and then saving it to a USB storage device. Make sure the USB storage device has been formatted into FAT32 or NTFS format and is connected to the NVR. The default backup format is .mp4.

Normal Backup

1. Click **Backup > Recording**. All cameras are selected by default.

2. Set search conditions and then click **Search**. Search results are displayed.

3. Select the desired recording(s) and then click **Backup**.

4. Select a partition.

5. Set the destination in the USB storage device and then click **Backup**. The recording(s) will be saved to the specified directory.

Video Clip Backup

A recording can be clipped and saved to a USB storage device.

1. Open the playback window. For the detailed steps, see Playback.

2. After playback starts, click and on the playback toolbar to clip videos.

3. Click and then click the **Video Clip** tab to view video clips.

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

5. Select a destination in the USB storage device and then click **Backup**.
   The selected video clips are saved to the specified directory.

9 Alarm

Alarm Input and Output

Alarm Input
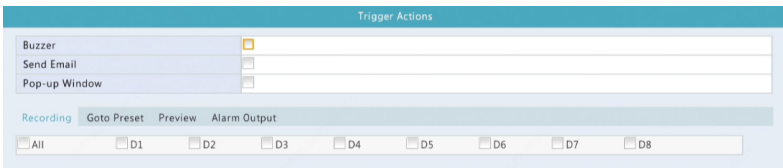
1. Click **Alarm** > **Input/Output > Alarm Input**.

2. Click ✎ for the desired camera. In the **Alarm Input** window, select
   Enable to enable alarm input.

3. Select the normally open (N.O.) or normally closed (N.C.) trigger
   mode, and then click **OK**.

4. Click ⚙ under **Trigger Actions** and then set action(s) to trigger. For
   more details, see Alarm-Triggered Actions.

5. Click ⚙ under **Arming Schedule** and then set the time when actions will be triggered.

Alarm Output

1. Click **Alarm** > **Input/Output** > **Alarm Output**.

2. Click ✎ under **Edit** for the desired camera, and then set the default status and duration. After you have completed the settings, click **OK**.

3. Click ⚙ under **Arming Schedule** and then set the time when actions will be triggered.

📝 **NOTE!**

To apply the same settings to other cameras, click **Copy**, select cameras, and then click **OK**.

Motion Detection

When enabled, a motion detection alarm occurs if an object inside the detection area moves to certain extent, and an alarm icon appears in the upper right corner.

Motion detection is enabled on the NVR by default. Unless modified, the detection area covers the full screen, and recording is triggered only for the current camera. The settings remain if you disable motion detection and then enable it.

1. Click **Alarm** > **Motion**.

2. Select the desired camera and then select **Enable** to enable motion detection.

3. Use the mouse to draw a detection area, and drag the slider to set detection sensitivity. The higher the sensitivity, the more likely a moving object will be detected.

4. Click ⚙ right to **Trigger Actions** and set action(s) to trigger. For more details, see <u>Alarm-Triggered Actions</u>.

5. (Optional) Click ⚙ right to **Arming Schedule** and then set the time when actions will be triggered.

6. Click **Apply** to save the settings.

7. (Optional) Click **Copy** to apply the same settings to other cameras.

Tampering Detection

A tampering detection alarm occurs when the camera lens is covered.

1. Click **Alarm** > **Tampering**.

2. Select the desired camera and then select **Enable** to enable tampering detection.
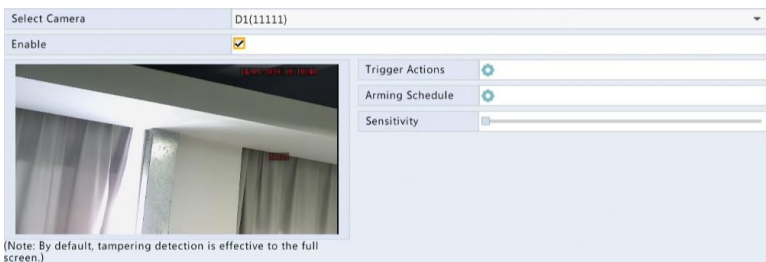
3. Click ☼ right to **Trigger Actions** and set action(s) to trigger. For more details, see [Alarm-Triggered Actions](#).

4. (Optional) Click ☼ right to **Arming Schedule** and then set the time when actions will be triggered.

5. (Optional) Click **Copy** to apply the same settings to other cameras.

6. Click **Apply** to save the settings.

Video Loss

A video loss alarm occurs when the NVR loses video signals from a camera. Video loss alarm is enabled by default.

1. Click **Alarm** > **Video Loss**. To disable video loss alarm for a channel, click ✅, which then changes to ○.

2. Click ☼ under **Trigger Actions** and set action(s) to trigger. For more details, see [Alarm-Triggered Actions](#).

> **NOTE!**
>
> Video loss alarm cannot trigger recording, preset and preview (live view) actions for the current camera.

3. Click ☼ under **Arming Schedule** and then set the time when actions will be triggered.

4. (Optional) Click **Copy** to apply the same settings to other cameras.

Alert

The NVR reports an alert when an event occurs in the system. The following are some alerts and their definitions in the system.

-   **Running Out of Space**: Less than 10% of disk space remains.

-   **Space Used Up**: No disk space.

-   **Disk Offline**: A disk is not properly connected or is damaged.

-   **Disk Abnormal**: A disk can be detected but cannot be accessed.

- **Illegal Access**: A failed login attempt for a username that does not exist or a password that is incorrect.

- **Network Disconnected**: Network connection is lost.

- **IP Conflict**: Devices on the network use the same IP address.

- **Recording Abnormal**: Storage resource cannot be found, for example, when all hard disks are removed.

Perform the following steps to configure an alert:

1. Click **Alarm** > **Alert**.

2. Select an alert type, select the desired actions, and then select the camera(s) for which you want to enable alarm output.

Alert Type	IP Conflict	
Buzzer		
Send Email		
Pop-up Window		
Trigger Alarm Output	All	
Select		Alarm Output No.
		D1->1
		D4->1

3. Click **Apply** to save the settings.

Buzzer

The buzzer can be triggered by alarms to alert the user. Follow the steps to set how long the buzzer will buzz after it is triggered.

1. Click **Alarm** > **Buzzer**.

Alarm Duration	Maximum	Custom
Custom Duration(sec)	30	

2. Set the duration as needed. The range is from 1 to 600 seconds.

3. Click **Apply** to save the settings.

Alarm-Triggered Actions

An alarm can trigger actions, for example, buzzer, recording, and preview. The supported actions may vary with NVR model.

Alarm-Triggered Buzzer

The NVR makes a buzzing sound when an alarm occurs.

Alarm-Triggered E-mail

The NVR e-mails an alarm message to a specified email address when an alarm occurs.

Alarm-Triggered Pop-up Window

A window pops up when an alarm occurs.

Alarm-Triggered Recording

The NVR records video from a specified camera when an alarm occurs.

Alarm-Triggered Preset

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

Alarm-Triggered Preview

The NVR plays live video in full screen when an alarm occurs.

Alarm-Triggered Alarm Output

The NVR outputs an alarm to trigger actions by a third-party device when an alarm occurs.

Manual Alarm

Manual Alarm Output

Follow the steps to trigger or clear an alarm output manually.

1. Click **Manual** > **Alarm** > **Manual Alarm**.

2. To trigger an alarm output manually, select the desired channel and then click **Trigger**. To clear an alarm output manually, select the desired channel and then click **Clear**.

Manual Buzzer

Follow the steps to stop the buzzer manually.

1. Click **Manual** > **Alarm** > **Buzzer**.

2. Select the buzzer (in Started status) and then click **Stop**.

10 Network Configuration

Network configuration is required if your NVR operates in a network.

> **NOTE!**
>
> The default IP address is 192.168.1.30 for NIC 1 and 192.168.2.30 for NIC 2, and likewise.

TCP/IP

1. Click **System** > **Network > Basic**.

2. Set the network parameters as needed. DHCP is enabled by default.

You can choose a working mode if your NVR has two NICs:

- Multi-address mode: The two NICs work independently and can be configured separately. Either NIC can be chosen as the default route, and data will be forwarded through this NIC when the NVR connects to the extranet.

- Load balance mode: The two NICs are bound to the same IP address and work together to share network traffic.

- Net fault-tolerance mode: The two NICs are bound to the same IP address. In cases where one NIC fails, the other takes over service seamlessly from the faulty one to ensure network connectivity.

Select NIC	NIC1 ▾
Enable DHCP	☐
IPv4 Address	206 . 3 . 0 . 86
IPv4 Subnet Mask	255 . 255 . 255 . 0
IPv4 Default Gateway	206 . 3 . 0 . 1
IPv6 Mode	Router Advertisement ▾
IPv6 Address	fe80::4aea:63ff:fe81:4d97
IPv6 Prefix Length	64
IPv6 Default Gateway	::
MAC Address	48:ea:63:81:4d:97
MTU(Bytes)	1500
Preferred DNS Server	8 . 8 . 8 . 8
Alternate DNS Server	8 . 8 . 4 . 4
Internal NIC IPv4 Addr.	172 . 16 . 0 . 1

3. Click **Apply** to save the settings.

> **NOTE!**
> - For an NVR with multiple NICs, you can configure the NICs and choose a default route (currently NIC1).
> - If your NVR has a PoE port or a switching port, you can configure an internal NIC IPv4 address.

> **CAUTION!**
> - If you switch the working mode, the enabled ARP protection will be disabled automatically.
> - The valid MTU ranges from 576 to 1500 (1280-1500 for IPv6). To use IPv6, make sure the NVR and PC can connect to each other using IPv6 addresses. To view live or recorded videos, make sure the IPv4 addresses are also connectable.

PPPoE

The NVR allows access through Point-to-Point over Ethernet (PPPoE).

1. Click **System** > **Network** > **PPPoE**.

2. Enable PPPoE by selecting the check box.

3. Enter the username and password provided by your Internet Service Provider (ISP). Network information including IP address appears when dial-up succeeds.

> 📝 **NOTE!**
>
> If your NVR has multiple NICs, PPPoE dial-up will be implemented through the NIC specified as the default route.

4. Click **Apply** to save the settings.

Uniarch

The NVR allows access from the cloud website (en-uniarch.uniview.com) or from Uniarch mobile client. You need to sign up for a cloud account at en-uniarch.uniview.com first. Make sure the NVR is connected to the Internet.

1. Click **System** > **Network** > **Uniarch**.

2. Uniarch is enabled by default.

3. To add the NVR to cloud at the cloud website: log in to your account at en-uniarch.uniview.com and then add the NVR by entering the register code and device name.

4. To add the NVR to cloud using the app: scan the QR code using your mobile phone to download the app. Install the app and then log in with your cloud account. Scan the QR code to add the NVR to cloud.

Enable Uniarch	☑
Server Address	en-uniarch.uniview.com
Register Code	01234567890123456789901234
Device Status	Offline: The device is unreachable. Please make sure network settings (such as DNS server address ...
Add Without Signup	☑

Add Without Signup: No cloud account is needed, you can scan the QR code with the app to add the NVR. This requires you to enable Uniarch a...

5. Click **Apply** to save the settings.

DDNS

If your NVR is connected to the Internet through PPPoE, the IP address of the network changes every time it connects to the ISP server without your awareness. This is inconvenient when you remotely access your NVR with an IP address. To avoid this issue, you can register with an DDNS server to obtain a domain name for your NVR and then access your NVR by visiting the domain name instead of an IP address (http://*DDNS server address*/*NVR's domain name*) using a web browser.

1. Click **System** > **Network** > **DDNS**.

2. Enable DDNS, select a DDNS type, and then complete other settings.

- If the DDNS type is **DynDNS** or **No-IP**, enter the domain name, username and password. The domain name is the one that you have successfully registered at a domain name registration website (e.g., DynDNS). The username and password are those of the account you have registered at the domain name registration website (e.g., DynDNS).

Enable DDNS	☑
DDNS Type	DynDNS
Server Address	members.dyndns.org
Port	80
Domain Name	
Username	
Password	
Confirm	

- If the DDNS type is **EZDDNS**, enter a valid domain name for your NVR and then click **Test** to see if the domain name is available.

Enable DDNS	✔
DDNS Type	EZDDNS
Server Address	en-uniarch.uniview.com
Port	80
Domain Name	
Device Status	Offline
Device Address	en-uniarch.uniview.com/

3. Click **Apply** to save the settings.

Port

Normally the default port numbers need no modification. This function is mainly used together with the port mapping function. See Port Mapping for more details.

1. Click **System** > **Network** > **Port**.

2. Configure ports as planned. Each port number must be unique.

HTTP Port	80
RTSP Port	554
HTTPS Port	443
RTSP URL Format	rtsp://<ip>:<port>/unicast/c<channel number>/s<stream type>/live
	<channel number>: 1-n
	<stream type>: 0(main stream) or 1(sub stream)

> **NOTE!**
> - A valid port number ranges from 1 to 65535, among which 21, 23, 2000, 3702 and 60000 are reserved.
> - An RTSP URL can be used to view live video of a channel of the current NVR from another NVR. See Option 4 in Adding an IP Device for more information.

3. Click **Apply** to save the settings.

Port Mapping

Configure internal and external ports manually.

1. Click **System** > **Network** > **Port Mapping**.
2. Select **Manual** for **Mapping Mode**, and then set external ports manually.
3. Click **Apply** to save the settings.

Email

After Email is enabled as a triggered action (in Trigger Actions windows) and configured properly, the NVR sends an email notification to specified email address(es) if an alarm occurs within the time period(s) set in the arming schedule. The email contains basic alarm information such as alarm type, alarm time, camera ID, and camera name, etc.

Before using this function, make sure the NVR has a functional connection to an SMTP server with which you have a valid email account. Depending on the intended recipients, a connection to the Internet may be required. Only certain NVR models support this function.

1. Click **System** > **Network** > **Email**.

2. Configure the related parameters. If server authentication is required, you need to enter the correct username and password. Click **Test** to send a test email.

Enable Server Authentication	☐
Username	
Password	
SMTP Server	
SMTP Port	25
TLS/SSL	☐ If TLS/SSL is enabled, use 25 first, and 587/465 as an alternative.
Sender Name	
Sender Address	
Select Recipient	Recipient 1 ▾
Recipient Name	
Recipient Address	
Arming Schedule	⚙

> 📝 **NOTE!**
> - Enter a valid SMTP server address and port number, and then enable TLS/SSL by selecting the check box if required.
> - Only certain NVR models support image attachment. You may click **Test** to check whether the email can be sent successfully.

3. Click **Apply** to save the settings.

Multicast

Multicast can be used to realize live view when the number of connecting Web clients exceeds the limit the NVR can accommodate.

1. Click **System** > **Network** > **Multicast**.

2. Select the check box to enable multicast, and then enter the multicast IP and port number.

Enable Multicast	☑
Multicast IP	. . .
Port	0

3. Click **Apply** to save the settings.

4. Log in to the Web client and set **Live View Protocol** to **Multicast** under **Setup** > **Client**.

Set the multicast IP correctly. Multicast address is class D address with the range 224.0.0.0 through 239.255.255.255; some are for special use:

- 224.0.1.0--238.255.255.255 can be used on the Internet.
- 224.0.0.0-244.0.0.255: only for use on LAN.
- 224.0.0.1: all-hosts group address, which refers to all the multicast-capable hosts and routers on a physical network.
- 224.0.0.2: for all routers on this subnet.
- 224.0.0.5: for all OSPF routers.
- 224.0.0.13: for all PIMv2 routers.
- 239.0.0.0--239.255.255.255 are for private use like 192.168.x.x.

11 Disk Configuration

Disk Management

View disk information, including total and free disk space, disk status, disk type, disk usage, and disk property. Admin users can format disks and edit disk property.

1. Click **Storage** > **Hard Disk**.

No.	Total(GB)	Free(GB)	Status	Type	Usage	Property	Configure
1	3726.02	1518.75	Normal	Local	Recording/Snapshot	Read/Write	⚙

2. To add a disk, click **Add**. In the dialog box displayed, select disk usage (recording or backup) and disk type (currently NAS only), enter the

server address and directory, and then click **Add**. Up to eight NAS disks are allowed.

3. To edit disk property, click ⚙ , and then modify disk usage (recording or backup) and disk property (**Read/Write**, **Read Only** or **Redundant**) as needed.

NOTE!
- Disk property can be edited if the disk is used for recording.
- **Backup** usage and **Redundant** property are available to certain NVR models.

4. To format a disk, select the disk and then click **Format**. A confirmation message appears. Click **Yes**.

NOTE!
- Local disks will be formatted automatically when installed. Extended disks will not.
- Format a disk with caution. All data will be removed.

Space Allocation

Allocate space to store videos of a specified camera.

1. Click **Storage** > **Allocate Space**.

Select Camera	D1(11111)	▾
Used Recording Space(GB)	424	
Disk Capacity	3726 GB free of 3726 GB	
Max Recording Space(GB)	0	

2. Select the desired camera and then set the maximum recording space. For more information, see Advanced Configuration.
3. Click **Apply** to save the settings.
4. (Optional) Click **Copy** to apply the same settings to other camera(s).

Advanced Configuration

Set whether to overwrite recordings when storage is full.

1. Click **Storage** > **Advanced**.

HDD Full	● Overwrite	○ Stop

2. Choose an option.

Option	Allocated Space	Description
Overwrite	0	The camera shares unallocated space, and its oldest recordings will be overwritten when the space is used up.
	Other values	The camera's oldest recordings will be overwritten when its allocated space is used up.
Stop	0	The camera shares unallocated space, and its oldest recordings will still be overwritten when the space is used up.
	Other values	The camera's new recordings will not be saved when its allocated space is used up.

3. Click **Apply** to save the settings.

Hard Disk Detection

S.M.A.R.T. Test

Click **Maintain** > **HDD** > **S.M.A.R.T. Test** to do S.M.A.R.T. test.

S.M.A.R.T. (enabled by default) checks the head, platter, motor, and circuit of hard disks to evaluate their health status. The overall evaluation results include **Healthy**, **Failure**, and **Bad Sectors**. It is recommended to replace the disk immediately if the status is **Failure**.

☐ Continue to use the disk when it fails to pass evaluation.	
Select Disk	Slot1
Test Type	Short
Test Status	Not tested
Vendor	SEAGATE
Model	ST4000VX000-1F4168
Firmware Version	CV14
Disk Temperature(℃)	50
Operation Time(day)	260
Self-Evaluation	Pass
Overall Evaluation	Healthy

ID	Attribute Name	Status	Flag	Threshold	Value	Worst	Raw Value
1	Raw_Read_Error_Rate	Healthy	0x000f	6	118	99	179255496
3	Spin_Up_Time	Healthy	0x0003	0	91	89	0
4	Start_Stop_Count	Healthy	0x0032	20	100	100	95
5	Reallocated_Sector_Count	Healthy	0x0033	10	100	100	0
7	Seek_Error_Rate	Healthy	0x000f	30	76	60	124414830
9	Power_On_Hours	Healthy	0x0032	0	93	93	6244
10	Spin_Retry_Count	Healthy	0x0013	97	100	100	0

NOTE!

- Some hard disks only support some of the test items.
- The system provides three test types: Short, Extended, and Conveyance. Extended tests detect more thoroughly and thus take longer time than Short tests. Conveyance tests mainly detect data transmission problems.

CAUTION!

Using a faulty disk is risky. Faulty disks should be replaced immediately. Contact your local dealer for information about hard disks.

Bad Sector Detection

Bad sector detection checks for bad sectors in hard disks.

1. Click **Maintain** > **HDD** > **Bad Sector Detect**.

2. Select the desired disk and detection type, and then click **Detect** to start detection. Click **Stop** if you want to stop.
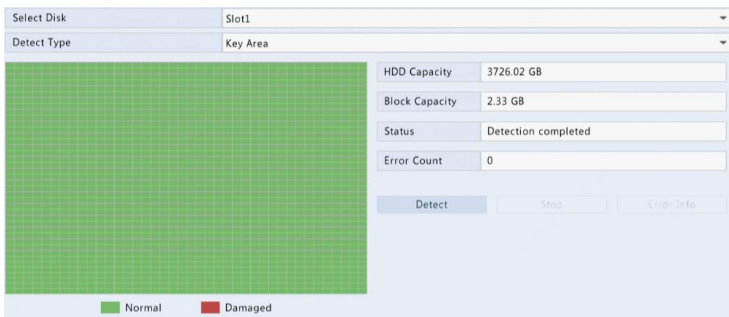
(i) **CAUTION!**

The detection stops automatically when the error count reaches 100.

12 System Configuration

Basic Configuration

1. Click **System** > **Basic**.

2. Configure the parameters.

3. Click **Apply** to save the settings.

Time Configuration

Time

1. Click **System** > **Time > Time**.
2. Select the correct time zone, and then set date and time formats and the system time. The following shows an example.

3. To use Network Time Protocol (NTP), enable auto update, set the address and port number of the NTP server, and the update interval.

4. Click **Apply** to save the settings.

DST

1. Click **System** > **Time** > **DST**.

2. Enable DST by selecting the check box, and then set the start time, end time, and DST bias correctly. The following shows an example.

Enable DST	☐				
From	Mar	2nd	Sun	2	
To	Nov	1st	Sun	2	
DST Bias	60 Minutes				

3. Click **Apply** to save the settings.

Time Synchronization

Use this function to synchronize camera time with the NVR. Time sync is enabled by default, and cameras will synchronize time with the NVR after getting online, and then synchronize once every 30 minutes.

1. Click **System** > **Time** > **Time Sync**.

2. Select **Sync Camera Time** and then click **Apply**.

CAUTION!

Use this function with caution if you have more than one NVR on the network. An IP camera synchronizing time with multiple NVRs at the same time will cause chaotic recordings.

User Configuration

Add, delete users or edit user permissions. Only admin can perform these operations.

A user type is a set of permissions in the system. When a user type is assigned to a user, this user has all the permissions specified for the user type.
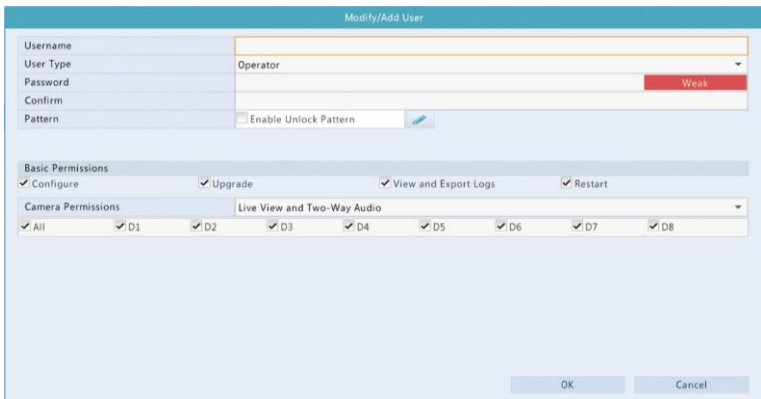
There are four user types in the system:

- Admin: Default super administrator in the system, has full system access. Its initial password is **123456**.

- Default: Default user reserved in the system, cannot be created or deleted, and only has access to live view. If the default user is denied access, the corresponding channel is locked when no user is logged in, and 🔒 appears in the window.

- Operator: Has basic permissions and access to cameras.

- Guest: Only has access to cameras by default.

1. Click **System** > **User**.

Username	User Type	Edit	Delete
admin	Administrator	✏	—
default	Reserved User	✏	—

2. To add a user, click **Add**, and then set the username, user type, password and permissions as needed.

3. (Optional) Set the unlock pattern, then click **OK**.

4. To edit or delete a user, click ✏ or 🗑 as needed. If you change the password for a user, the new password takes effect at the user's next login.

Security Configuration

IP Control

Use this function to enhance security by allowing or forbidding access to the NVR from specified IP addresses.

1. Click **System** > **Security** > **IP Control**.

2. Select **Enable IP Control**, select **Blacklist** or **Whitelist** from the drop-down list, set the start and end IP addresses, and then click **Add**.

> 📝 **NOTE!**
>
> - If **Blacklist** is selected, the NVR denies remote access from the IP address(es) on the list.
> - If **Whitelist** is selected, the NVR only allows remote access from the IP address(es) on the list. However, if **Whitelist** is selected with no IP address specified, remote access to the NVR will be denied.

3. Click **Apply** to save the settings.

ONVIF Authentication

Enable ONVIF authentication under **System** > **Security** > **ONVIF Auth** so a username and password will be required for ONVIF-based device access. Select the check box and then click **Apply**.

ARP Protection

ARP protocol is used to associate an IP address to a hardware MAC address. ARP attacks mainly occur on LAN, in which attackers use forged IP and MAC addresses. APR protection prevents this kind of attacks by verifying the gateway's MAC address in all access requests.

Note that changing the NIC working mode will disable ARP protection automatically.

1.   Click **System** > **Security** > **ARP Protection**.

Select NIC	NIC1	▼
Enable ARP Protection	☐	
Gateway	206 . 3 . 0 . 1	
Gateway MAC Address	Custom ▼	00:00:00:00:00:00

2.   Select the desired NIC and then select **Enable ARP Protection**.

3.   Obtain the gateway's MAC address automatically, or select **Custom** and input the MAC address.

4.   Click **Apply** to save the settings.

Video Watermark

Encrypt custom information in videos to prevent unauthorized alteration.

1.   Click **System** > **Security**.

Camera	D1(11111)	▼
Enable Watermark	✔	
Watermark Content	1111	

2.   Select the desired camera and then select **Enable Watermark**.

3.   Enter watermark content.

4.   Click **Apply** to save the settings.

Secure Password

Secure password specifies the permission of strong or weak password in different modes: friendly password and enhanced password.

1.   Click **System** > **Security > Secure Password**.

Password Mode	● Friendly Password	○ Enhanced Password

Friendly Password: You must log in with a strong password except in the same network segment or three private network segments (10.0.0.0/8, 172.16.0.0/12, 192.168.0.0/24).
Enhanced Password: You must log in with a strong password.

2. Once **Enable** is selected, the option will be hidden, and by default friendly password is enabled. You may enable **Enhanced Password** as needed.

● Friendly Password

If this option is selected, a strong password must be used except when login from the same network segment or one of the three private network segments (10.0.0.0/8, 172.16.0.0/12, 192.168.0.0/24).

● Enhanced Password

If this option is selected, a prompt for a strong password will appear when a weak password is detected. Also, only strong passwords are allowed for new users.

NOTE!

Only admin can configure secure password.

3. Click **Apply** to save the settings.

13 System Maintenance

System Information

Click **Maintain** > **System Info** to view the basic NVR information for maintenance purpose.

System Info

View the basic information such as the device model, serial number, firmware version, build date and operation time.

Basic Info	
Model	NVR-108LB-P8
Serial No.	210235C3290320228468
Firmware Version	NVR-B3701.1.1.190429
Build Date	2019-04-29
Operation Time	7 Day(s) 22 Hour(s) 24 Minute(s)

Camera status

Click the **Camera** tab to view camera status (online or offline with possible offline cause) and status of alarm functions such as motion detection,and tampering, video loss. Off means disabled, and on means enabled.

Camera ID	Name	Status	Motion	Tampering
D1	11111	Online	On	Off
D2	IP Camera 01	Online	On	Off
D3	IP Camera 03	Online	On	Off
D4	IP Camera 04	Online	Triggered	Off
D5	IP Camera 05	Offline(Network Disconnected)	On	Off
D6	IP Camera 06	Offline(Network Disconnected)	On	Off
D7	IP Camera 07	Offline(Network Disconnected)	On	Off
D8	IP Camera 08	Offline(Network Disconnected)	On	Off

Recording status

Click the **Recording** tab to view recording status and stream settings.

Camera ID	Name	Type	Status	Diagnosis	Stream Type	fps
D1	11111	Manual	Ongoing	Normal	Main Stream	25
D2	IP Camera 01	Event	Ongoing	Normal	Main Stream	25
D3	IP Camera 03	Event	Ongoing	Normal	Main Stream	25
D4	IP Camera 04	Event	Ongoing	Normal	Main Stream	25
D5	IP Camera 05	None	No Recording	Camera Offline	None	0
D6	IP Camera 06	None	No Recording	Camera Offline	None	0
D7	IP Camera 07	None	No Recording	Camera Offline	None	0
D8	IP Camera 08	None	No Recording	Camera Offline	None	0

Online user

Click the **Online User** tab for information about users who are currently logged in.

No.	Username	IP Address	Login Time
1	admin	127.0.0.1	2019-05-14 09:18:58

Disk status

Click the **Disk** tab to view the hard disk status and disk properties.

Disk No.	Total(GB)	Free(GB)	Status	Vendor	Property
1	3726.02	1518.75	Normal	SEAGATE	Read/Write

Total Capacity(GB)	3726.02
Free Space(GB)	1518.75

Network Information

Traffic

Click **Maintain** > **Network Info** > **Traffic** to view network traffic information.

NIC	Status	MAC Address	MTU	NIC Type
NIC1	✓ Connected	48:ea:63:81:4d:97	1500	100M Full-Duplex
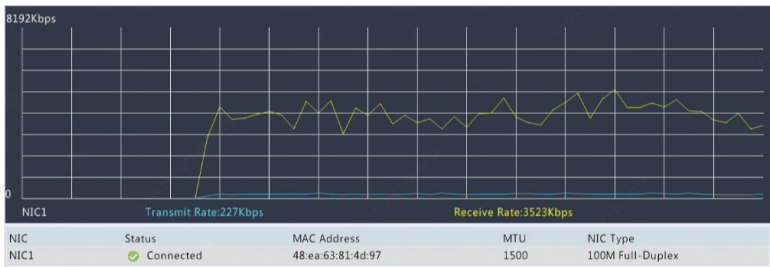
Network Detection

Click **Maintain** > **Network Info** > **Net Detect**.

To test network delay and packet loss rate, enter the test address and then click **Test**.

📝 **NOTE!**

The test packet size is 3000 bytes by default and can be changed as needed.

Network Delay and Packet Loss Test				
Test Address				Test
Ping Packet Size(Bytes)	3000			
Test Result				
Network Packet Export				
Device Name			▾	Refresh
Select Port	● All	○ Specify	○ Filter	
Select IP	● All	○ Specify	○ Filter	
	. . .			
Packet Size(Bytes)	8192			
NIC	IP Address	Export		Open
NIC1	206.3.0.86	📂		
NIC2	172.16.0.1	📂		
Loopback Port	127.0.0.1	📂		

Note: Packets are exported to the root directory of the storage device.

To capture and save packets, select the USB storage device, specify the port number and IP address, and then click 📂 right to the desired NIC. The captured packets are saved as a backup file in the root directory of the USB storage device. You may click **Open** to view the file.

📝 **NOTE!**

- The packet size is 1520 bytes by default and can be changed as needed.
- The backup file of the captured packets is named in *NIC name_time*.pcap format.
- Packets cannot be captured if it is already started on the Web interface.
- If you use PPPoE, a virtual NIC will appear in the list after the dial-up succeeds, and you may capture packets sent to and from this NIC.

Network Settings

Click **Maintain** > **Network Info** > **Network** to view network settings.

PoE/Network Port Status

Only certain NVR models support this function.

Click **System** > **Network Info** to view port status. In the figure below, the blue port is in use. For PoE models, power information will be displayed.

Network Statistics

Click **Maintain** > **Network Info** > **Network Statistics**. Bandwidth usage statistics are displayed.

Type	Bandwidth
IP Camera	7040Kbps
Remote Live View	0bps
Remote Playback	0bps
Idle Receive Bandwidth	33Mbps
Idle Send Bandwidth	40Mbps

> **NOTE!**
> - Insufficient receiving bandwidth (**Idle Receive Bandwidth**) may cause the connected cameras to be offline.
> - When the sending bandwidth (**Idle Send Bandwidth**) is insufficient, remote live view, playback or download may fail on the NVR.

Log Query

Logs contain information about user-performed operations and device status. By analyzing logs, you can keep track of device operation status and view detailed alarm information.

1. Click **Maintain** > **Log**.

2. Set query conditions, including the start and end times, main type and sub type.

3. Click **Query**.

Start Time		2019	-	05	-	14		00	:	00	:	00	
End Time		2019	-	05	-	14		23	:	59	:	59	
Main Type		All											
Sub Type		All Types											

Username	Operation Time	Camera	Play	Main Type	Sub Type	De
	2019-05-14 09:47:38	D3	⊙	Alarm	Motion Detection Ended	📄
	2019-05-14 09:47:18	D3	⊙	Alarm	Motion Detection Started	📄
	2019-05-14 09:47:17	D3	⊙	Alarm	Motion Detection Ended	📄
	2019-05-14 09:46:58	D3	⊙	Alarm	Motion Detection Started	📄
	2019-05-14 09:46:37	D2	⊙	Alarm	Motion Detection Ended	📄
	2019-05-14 09:46:34	D3	⊙	Alarm	Motion Detection Ended	📄
	2019-05-14 09:46:32	D2	⊙	Alarm	Motion Detection Started	📄
	2019-05-14 09:46:14	D3	⊙	Alarm	Motion Detection Started	📄
	2019-05-14 09:46:11	D3	⊙	Alarm	Motion Detection Ended	📄
	2019-05-14 09:45:55	D1	⊙	Alarm	Motion Detection Ended	📄

◄ | ► | 1 / 12 →

4. If ⊙ is displayed under **Play**, you may click ⊙ to view the recording that started one minute before the alarm time and ended ten minutes after the alarm time. ▬ means this function is not available.

5. To export logs to an external storage device, click **Export**, set the export destination and format, and then click **Backup**.

Import/Export

System Import/Export

Configurations and diagnosis information can be exported to a storage device and saved as files for backup. A configuration file can also be imported to the NVR to restore configurations. The configuration file of an NVR can be imported to multiple NVRs of the same model if you want them to have the same settings. If the imported configuration file contains camera information, the related camera will be added to all the NVRs.

Only admin can perform these operations.

1. Click **Maintain** > **Backup** > **Import/Export**.

2. To export device configurations, specify the destination directory and then click **Export**. A .xml file will be created in the specified directory when export is completed.

3. To export diagnosis information, specify the destination directory and then click **Export Diagnosis Info**. A .tgz file will be created in the specified directory when export is completed.

4. To import device configurations, double-click the target folder containing the .xml file, select the file, and then click **Import**.

ⓘ **CAUTION!**

Delete files with caution. Deleted files cannot be recovered.

History Diagnosis Info

The device can save diagnosis info for 14 days and will overwrite the oldest when space is full.

1. Click **Maintain** > **History Diagnosis Info**.

No.	Filename	File Size	Modify Time
1	20170906000000_log.tgz	187KB	2017-09-06 00:00:00
2	20170905000000_log.tgz	175KB	2017-09-05 00:00:00
3	20170904000000_log.tgz	149KB	2017-09-04 00:00:00
4	20170903000000_log.tgz	148KB	2017-09-03 00:00:00
5	20170902000000_log.tgz	147KB	2017-09-02 00:00:00
6	20170901000000_log.tgz	135KB	2017-09-01 00:00:00
7	20170831000000_log.tgz	95KB	2017-08-31 00:00:00
8	20170830000000_log.tgz	125KB	2017-08-30 00:00:00
9	20170829000000_log.tgz	168KB	2017-08-29 00:00:00
10	20170828000000_log.tgz	157KB	2017-08-28 00:00:00
11	20170827000000_log.tgz	159KB	2017-08-27 00:00:00
12	20170826000000_log.tgz	123KB	2017-08-26 00:00:00
13	20170825000000_log.tgz	161KB	2017-08-25 00:00:00
14	20170824000000_log.tgz	123KB	2017-08-24 00:00:00

Refresh	Export	Export All	Exit

2. Perform the following operations as needed:

- To export part of history diagnosis info, select the files to export and then click **Export**.

- To export all history diagnosis info, click **Export All**.

System Restoration

Use this function to restore some or all factory default settings. The NVR will restart automatically to complete this operation. Recordings and operation logs will not be deleted.

1. Click **Maintain** > **Restore**.

2. Click **Default** to restore factory default settings except network and user settings, or click **Factory Default** to restore all factory default settings.

Automatic Maintenance

Set the NVR to restart as scheduled and delete files (including recordings) as needed. Only admin can perform this operation.

1. Click **Maintain** > **Auto-Function**.

2. Set an auto-restart time, and choose a way to delete files automatically.

| Auto-Restart | Never | ▾ | 02:00 | ▾ | |
| Auto-Delete File(s) | Never | ▾ | | | day(s) ago |

> **ⓘ** **CAUTION!**
>
> Files deleted automatically cannot be recovered.

System Upgrade

Upgrade the NVR under **Maintain** > **Upgrade** locally (using an upgrade file saved in a USB storage device) or by cloud (through a cloud server).

To upgrade by cloud, ensure that the NVR is connected to a fully functional DNS server (configured under **System** > **Network** > **Basic**), and click **Check** to see whether a newer version is available. The time that a cloud upgrade takes is affected by network connection status.

> **ⓘ** **CAUTION!**
>
> - Make sure power is not interrupted during upgrade. A power failure during system upgrade may cause startup failure. Use an Uninterrupted Power Supply (UPS) if necessary.
> - Ensure network connectivity for a cloud upgrade.

14 Shutdown

Click **Shutdown** to log out, restart or shut down as needed. To shut down the NVR, you may also long-press the power button on the front panel (if available) for around three seconds till an on-screen message appears, and then click **Yes**.

(i) CAUTION!

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

Part II Web-Based Operations

1 Before You Begin

You may access and manage your NVR remotely using a web browser on a PC (through the Web interface). Check the following before you begin:

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

- The PC is operating properly and has a network connection to the NVR.

- The PC uses the Windows 7, Windows 8 or Windows 10 operating system.

- A Web browser has been installed on the PC. Microsoft Internet Explorer 8.0 or higher is recommended. Firefox, Chrome and Opera browsers are also supported.

- A 32-bit Web browser is still required even if you are using a 64-bit operating system.

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

2 Login

1. Open a Web browser on your PC and browse to the login page by entering the IP address (**192.168.1.30** by default) of your NVR.

   You may need to install a plug-in as prompted at your first login. Close the Web browser when the installation starts.

2. In the login dialog box, enter the correct username and password (**123456** for admin) and then click **Login**.

The default password is intended only for your first login. We strongly recommend you set a strong password to ensure account security.

- Strong: contains at least 8 characters from at least three of the four types: upper-case letter, lower-case letter, special character, digit.
- Medium: contains at least 8 characters from two of the four types: upper-case letter, lower-case letter, special character, digit.
- Weak: contains less than 8 characters from only one of the four types: upper-case letter, lower-case letter, special character, digit.

3 Live View

The **Live View** page is displayed when you are logged in. The following figure shows an example.
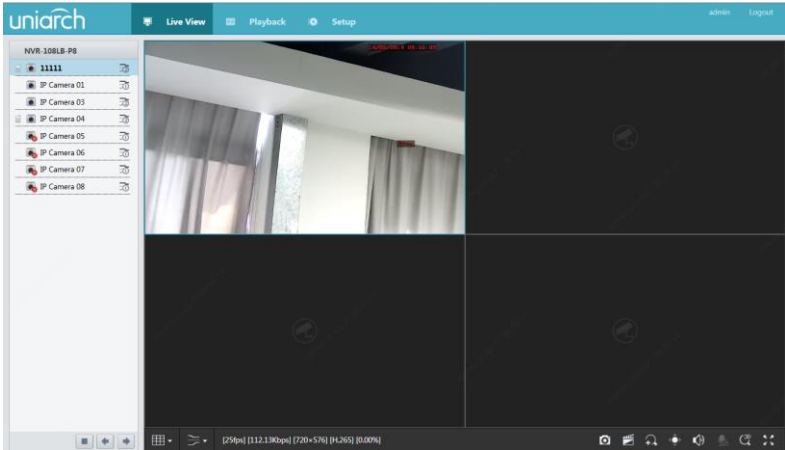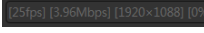
Table 3-1 Live View Window Control Buttons

Button	Description	Button	Description
🔟 / 🔞	Main/Sub stream	▶ / ■	Start or stop live view in all windows
← / →	Previous and next screen	▦ ▾	Switch screen layout
⛶	Full screen	≈ ▾	Select stream type
[25fps] [3.96Mbps] [1920×1088] [0%	Shows the current frame rate, bit rate, resolution, and packet loss rate	📷	Take a snapshot
🔍	Start zoom	🎬	Local recording
🔊 / 🔇	Turn on or off audio; adjust sound volume.	🎤 / 🎤	Adjust MIC volume

85

Button	Description	Button	Description
⚙	3D positioning	⊕ < / ⊕ >	Open or close the control panel

NOTE!

- Only the main stream 🔟 is displayed when the camera is offline or it supports only one stream.
- A snapshot file is named in this format: *IP_camera ID_snapshot time*. The snapshot time is in *YYYYMMDDHHMMSSMS* format.
- By default, snapshots are saved in this directory: C:\Users*username*\Surveillance\Snap*system date*. The system date is in *yyyy-mm-dd* format*.
- A local recording is named in this format: *IP_camera ID_S recording start time* E *recording end time*. The recording start and end times are in *hh-mm-ss* format.
- By default, local recordings are saved in this directory: C:\Users*username*\Surveillance\Record*system date*. The system date is in *yyyy-mm-dd* format.

---

4 Playback

Click **Playback** on the top to show the **Playback** page. The following figure shows an example.
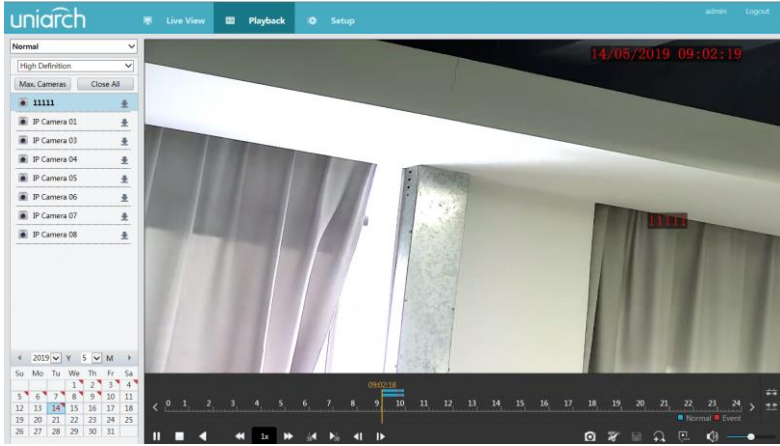
Table 4-1 Playback Control Buttons

Button	Description	Button	Description
/	Play/Pause		Stop
	Reverse	/	Slow down or speed up
/	Rewind or forward 30 seconds	/	Rewind or forward by frame
/	Previous or next period	/	Clip video/pause
	Save video clip		Take a snapshot
	Zoom		Adjust sound volume; turn on or off sound

5 Configuration

Click **Setup** on the top, and then click the menus on the left to configure parameters.
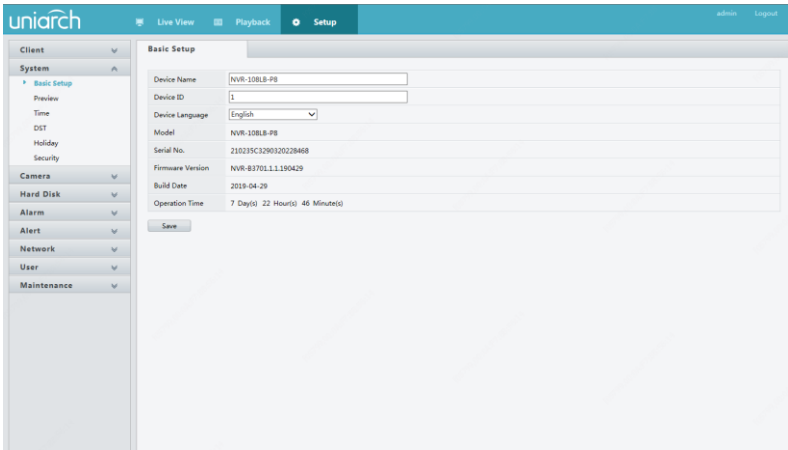
Appendix A Acronyms

Acronym	Description
CBR	Constant Bit Rate
DDNS	Dynamic Domain Name Service
DHCP	Dynamic Host Configuration Protocol
DST	Daylight Saving Time
DVS	Digital Video Server
FTP	File Transfer Protocol
HDMI	High Definition Multimedia Interface
HTTPS	Hypertext Transfer Protocol Over Secure Sockets Layer
IPC	IP Camera
JPEG	Joint Photographic Experts Group
MTU	Maximum Transfer Unit
NAT	Network Address Translation
NIC	Network Interface Card
NTP	Network Time Protocol
NVR	Network Video Recorder
ONVIF	Open Network Video Interface Forum

Acronym	Description
PoE	Power over Ethernet
PPPoE	Point-to-Point Protocol over Ethernet
PTZ	Pan, Tilt, Zoom
P2P	Peer-to-Peer
RAID	Redundant Arrays of Independent Disks
RTSP	Real-Time Streaming Protocol
SDK	Software Development Kit
S.M.A.R.T.	Self-Monitoring, Analysis and Reporting Technology
UPnP	Universal Plug-and-Play
USB	Universal Serial Bus
VGA	Video Graphics Array
VBR	Variable Bit Rate

Appendix B FAQs

Problem	Possible Cause and Solution
Forgot the login password	Click **Forgot Password** in the login dialog box as admin. A dialog box appears. • Note down the serial number and then contact your dealer for a temporary password. Log in with the temporary password and then reset your password. • Use your mobile surveillance app to scan the QR code (**Me** > **Tool** > **Forgot Device Password**).

Problem	Possible Cause and Solution
The Web plugin (ActiveX) cannot be loaded.	- Close your web browser when the installation starts. - Disable the firewall and close the anti-virus program on your computer. - 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 NVR's IP address to the trusted sites in your IE (**Tools** > **Internet Options** > **Security**). - Add your NVR'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 0Mbps in the live view window. - If yes, check if the firewall has been disabled, and the anti-virus program has been stopped on your computer. - If not, maybe it is because the graphics card driver on your computer is not working properly. Try installing the driver again.

Problem	Possible Cause and Solution
A camera is offline, and **No Link** is displayed.	Click **Maintain** > **System Info** > **Camera**. The cause is displayed under **Status**. Common causes include disconnected network, incorrect username or password, weak password, insufficient bandwidth. • Check network connection and network configurations. • If it indicates incorrect username or password, check that the camera password set in the NVR 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 in the NVR.
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 NVR to use the sub stream first for live view.
A camera goes online and offline repeatedly.	• Check if network connection is stable. • Upgrade the firmware for the camera and the NVR. Contact your dealer for the latest versions.
Live view is normal, but the recording cannot be found.	• Check that a recording schedule has been properly configured. • Check if the time and time zone configured in the NVR are correct. • Check if the hard disk storing the recording has been damaged. • Check if the desired recording has been overwritten.

Problem	Possible Cause and Solution
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 NVR.	• Use the power adapter delivered with your NVR. • Power down the NVR and then mount the hard disk again. • Try another disk slot. • The disk is not compatible with your NVR. Contact your dealer for a list of compatible disk models.
The mouse does not work.	• Use the mouse delivered with your NVR. • Make sure no cable is extended.