Honeywell

Honeywell 35 Series

Network Video Recorder

HN35040100
HN35040101
HN35040102
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HN35080100N
HN35160200N

User Guide

Recommended

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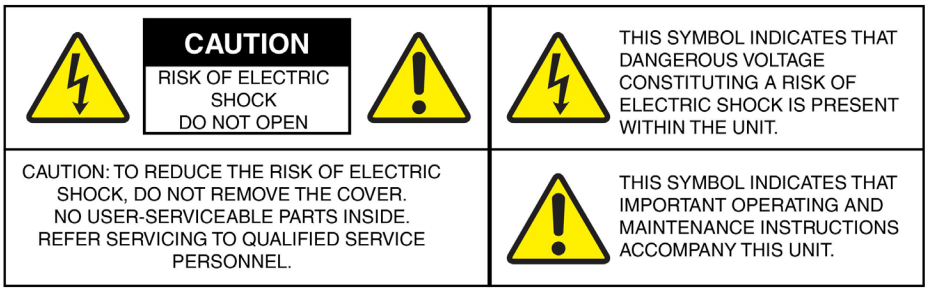
Revision

Issue	Date	Revisions
A	05/2022	New document.

Cautions and Warnings



Warning: **Installation and servicing should be performed only by qualified and experienced technicians to conform to all local codes and to maintain your warranty.**

Warning: **Use only with the supplied power cable.**
Power output: HN350401xx for 45W and HN350802xx/ HN351602xx for 130W, PoE 802.3at/af in total.

Caution: **The Honeywell product uses a 3.3V CR2032 lithium battery as the power supply for its internal real-time clock (RTC). Low battery power affects the operation of the RTC, causing it to reset at every power-up.**
Risk of explosion if the battery is incorrectly replaced.
Dispose of used batteries according to local regulations or the battery manufacturer's instructions.
Make sure the product is power-down before removal. Then carefully remove the battery.
Replace only with an identical battery or a battery which is recommended by Honeywell.

Regulatory Statements

FCC Compliance Statement

Information to the User: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio

communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This Class A digital apparatus complies with Canadian ICES-003.

Manufacturer's Declaration of Conformance

North America

The equipment supplied with this guide conforms to UL 62368-1 and CSA C22.2 No. 62368-1.

Europe

The manufacturer declares that the equipment supplied is compliant with the European Parliament and Council Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (2015/863/EU), the Low Voltage Directive (2014/35/EU) and the essential requirements of the EMC directive (2014/30/EU),conforming to the requirements of standards EN 55032/EN61000-3-2/EN 61000-3-3/EN 61000-6-4 for emissions, EN 50130-4/EN 55024/EN 55035 for immunity, and EN 62368-1 for electrical equipment safety.

CAUTION This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Waste Electrical and Electronic Equipment (WEEE)

Correct Disposal of this Product (applicable in the European Union and other European countries with separate collection systems).

This product should be disposed of, at the end of its useful life, as per applicable local laws, regulations, and procedures.

Check Local Waste Guidelines

Components of this product require separate waste collection. Check local waste guidelines for sorting rules.

General Data Protection Regulation

Please be aware that this product can store personal data.

Personal data is protected by the General Data Protection Regulation (2016/679) in Europe and therefore the owners of personal data have obtained certain rights thanks to this regulation.

We strongly advise you to be fully aware of these owner ("data subjects") rights as well as which limitations you have to obey regarding the use and distribution of this data.

Further details can be found on the GDPR website of the EU: https://ec.europa.eu/commission/priorities/justice-and-fundamental-rights/data-protection/2018-reform-eu-data-protection-rules_en

Safety Instructions

Before installing or operating the unit, read and follow all instructions. After installation, retain the safety and operating instructions for future reference.

HEED WARNINGS - Adhere to all warnings on the unit and in the operating instructions.

INSTALLATION

- Install in accordance with the manufacturer's instructions.
- Installation and servicing should be performed only by qualified and experienced technicians to conform to all local codes and to maintain your warranty.
- Any wall or ceiling mounting of the product should follow the manufacturer's instructions and use a mounting kit approved or recommended by the manufacturer.

OPERATION REQUIREMENT

- Install the PoE front-end device indoors.
- The device does not support wall mount.
- Do not place and install the device in an area exposed to direct sunlight or near heat generating device.
- Do not install the device in a humid, dusty or fuliginous area.
- Keep its horizontal installation, or install it at stable places, and prevent it from falling.
- Do not drip or splash liquids onto the device; do not put on the device anything filled with liquids, to prevent liquids from flowing into the device.
- Install the device at well-ventilated places; do not block its ventilation opening.

- Use the device only within rated input and output range.
- Do not dismantle the device arbitrarily.
- Transport, use and store the device within allowed humidity and temperature range.

POWER SOURCES - This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your facility, consult your product dealer or local power company.

MOUNTING SYSTEM - Use only with a mounting system recommended by the manufacturer, or sold with the product.

ATTACHMENTS/ACCESSORIES - Do not use attachments/accessories not recommended by the product manufacturer as they may result in the risk of fire, electric shock, or injury to persons.

CLEANING - Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

SERVICING - Do not attempt to service this unit yourself. Refer all servicing to qualified service personnel.

REPLACEMENT PARTS - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards. Using replacement parts or accessories other than the original manufacturers may invalidate the warranty.

WASTE- Components of this product require separate waste collection. Check local waste guidelines for sorting rules.

Warranty and Service

Subject to the terms and conditions listed on the product warranty, during the warranty period Honeywell will repair or replace, at its sole option, free of charge, any defective products returned prepaid.

In the event you have a problem with any Honeywell product, please call Customer Service at 1.800.323.4576 for assistance or to request a **Return Merchandise Authorization (RMA)** number.

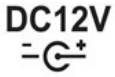
Be sure to have the model number, serial number, and the nature of the problem available for the technical service representative.

Prior authorization must be obtained for all returns, exchanges, or credits. **Items shipped to Honeywell without a clearly identified Return Merchandise Authorization (RMA) number may be refused.**

List of Symbols

The following is a list of symbols that might appear on the NVR.

Table 1 List of Symbols

Symbol	Explanation
	The WEEE symbol. This symbol indicates that when the end-user wishes to discard this product, it must be sent to separate collection facilities for recovery and recycling. By separating this product from other household-type waste, the volume of waste sent to incinerators or landfills will be reduced, and thus natural resources will be conserved.
	The UL compliance logo. This logo indicates that the product has been tested and is listed by UL (formerly Underwriters Laboratories).
	The FCC compliance logo. This logo indicates that the product conforms to Federal Communications Commission compliance standards.
	The direct current symbol. This symbol indicates that the power input/output for the product is direct current.
	The alternating current symbol. This symbol indicates that the power input/output for the product is alternating current.
	The LDPE symbol. This symbol indicates that this product is made of Low-Density Polyethylene (LDPE).
	The Direct Current symbol. This symbol indicates that the product operates from a 12 V direct current.
	The Lead-free symbol. This symbol indicates that the product does not contain lead (Pb).
	The CCC compliance logo. This logo indicates that the product conforms with the China Compulsory Certification guidelines.
	The Environment Friendly Use-period symbol. This symbol indicates the length of time that this electronic product can used without harming the environment.
	The RCM Compliance symbol. This symbol indicates that the product conforms with the Australian RCM guidelines.

	The TVU Lab symbol. This symbol indicates that the product has been safety tested by the TUV Lab.
	The Direct Current symbol. This Direct Current symbol indicates that the product operates direct current.
	This symbol indicates that the product is to be used indoors.
	The CE Compliance logo. This logo indicates that the product conforms to the relevant guidelines/standards for the European Union harmonization legislation.
	The Protective Earth symbol. This symbol indicates that the marked terminal is intended for connection to the protective earth/grounding conductor.
	This symbol is used to direct attention to important information.
	This symbol warns that the corresponding action could result in an electric shock.
	This symbol indicates On/Standby functionality of the corresponding control/button/switch.

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ABOUT THIS DOCUMENT

This document introduces the Honeywell 35 Series Network Video Recorder. It explains how to install and operate the 35 Series Network Video Recorder.

This document is intended for installers and users.

Overview of Contents

This document contains the following chapters and appendixes:

Chapter 1 Introduction, describes the front and rear panel layout of the NVR.

Chapter 2 Getting Started, describes how to connect the NVR and log on to its user interface.

Chapter 3 Local Basic Operation, describes the NVR's local operations.

Chapter 4 Web Operation, describes how to configure the web operations.

Chapter 5 FAQ, describes Q&A for resolving issues that you may encounter when operating the NVR.

CHAPTER

1 INTRODUCTION

Overview

This series NVR is a high-performance network video recorder. This series product supports local live view, multiple-window display, recorded file local storage, remote control and mouse shortcut menu operation, and remote management and control function.

This series product supports center storage, front-end recording and client-end recording. The monitor zone in the front-end can be set in anywhere. Working with other front-end devices such as IPC, NVR, this series product can establish a strong surveillance network through the HSV. In the network system, there is only one network cable from the monitor center to the monitor zone in the whole network. There is no audio/video cable from the monitor center to the monitor zone. The whole project is featured by simple connection, low-cost, low maintenance work.

This series NVR can be widely used in areas such as public security, water conservancy, transportation and education.

Key Features

Real-Time Surveillance

- VGA, HDMI port: Connect to monitor to realize real-time surveillance. Support VGA/HDMI output at the same time.
- Shortcut menu for preview.
- Support multiple popular PTZ decoder control protocols. Support preset and patrol.

Playback

- Support independent real-time recording for each channel. At the same time, it supports functions such as network monitor, record search and download.
- Support various playback modes: slow play, fast play, backward play and frame-by-frame play.

- Support time title overlay so that you can view the event accurate occurred time.
- Support specified zone enlargement.

User Management

Users can be added to user groups for management. Each group has a set of permissions that can be individually edited.

Storage

- With corresponding settings (such as alarm settings and schedule settings), you can back up related audio/video data in the network video recorder.
- You can take records via the web and the record files are saved on the PC in which the client locates.

Alarm

- Respond to external alarm simultaneously (within 200 ms). Based on user's pre-defined relay settings, the system can process the alarm input correctly and sends user screen or voice prompts (supporting pre-recorded audio).
- Support settings of the central alarm server, so that the system can automatically notify users of the alarm information. Alarm input can be derived from various connected peripheral devices.
- Alert you of alarm information via email.

Network Surveillance

- Send audio/video data compressed by IPC or HSV to client-ends through the network, and then the data will be decompressed and displayed.
- Transmit audio/video data by protocols such as HTTP, TCP, UDP, MULTICAST and RTP/RTCP.
- Transmit some alarm data or alarm info by SNMP.
- Support web access in WAN/LAN.

Window Split

Adopt video compression and digital processing to display several windows in one monitor. Support 1/4/8/9/16 window split in preview and 1/4/9/16 window split in playback.

Record

Support schedule record, manual record and event record. Save the recorded files in the HDD, USB device, client-end PC or network storage server and you can search or playback the saved files at the local-end or via the Web/USB devices.

Backup

Support network backup and USB record backup. You can back up the record files in devices such as network storage server, peripheral USB2.0 device and USB 3.0 device.

Network Management

- Supervise NVR configuration and control power via Ethernet.
- Support web management.

Peripheral Equipment Management

- Support peripheral device control and you can freely set the control protocol and connection port.

Auxiliary

- Support real-time display of system resources information and running status.
- Support log record.
- Local GUI output. Shortcut menu operation with the mouse.
- Support to play the video/audio files from remote IPC.

Network Video Recorder Components

Front Panel and Rear Panel

Note: The following front panel and rear panel figures are for reference only. The actual product shall prevail.

HN350401xx

Figure 1 Front Panel (HN350401xx)

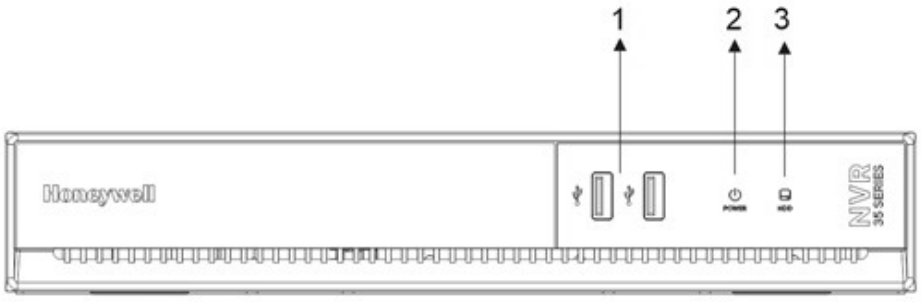


Table 2 NVR Front Panel Description (HN350401xx)

No.	Name	Description
1	USB port	Connect to peripheral USB 2.0 storage device, mouse and etc.
2	POWER	The light is on when the power connection is OK.

No.	Name	Description
3	HDD	The green light is flash when the device is recording, if the disk is not working, light is always bright. The light is off without disk.

Figure 2 Rear Panel (HN350401xx)

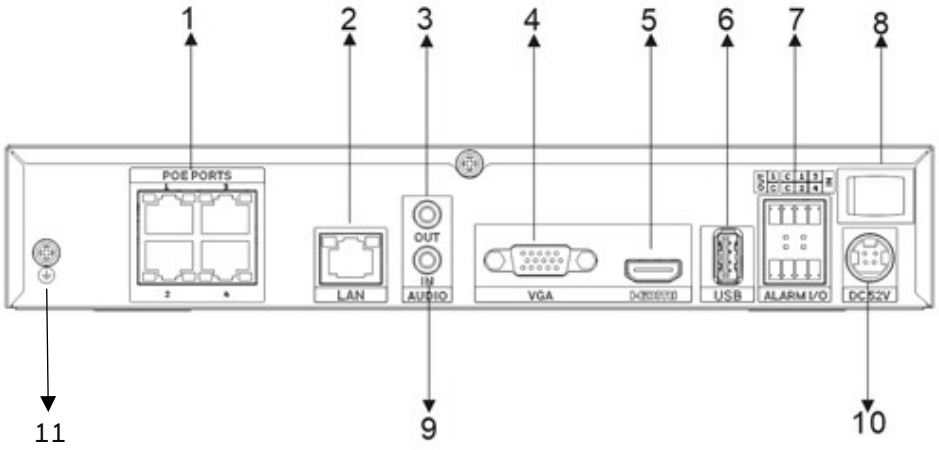


Table 3 NVR Rear Panel Description (HN350401xx)

No.	Name	Description
1	PoE port	Built-in switch. Support PoE function. For PoE series product, you can use this port to provide power to the network camera.
2	Network port	10M/100Mbps self-adaptive Ethernet port. Connect to the network cable.
3	AUDIO OUT	Audio output port. It is to output the analog audio signal to the devices such as the sound box. • Bidirectional talk output. • Audio output on 1-window video monitor. Audio output on 1-window video playback.
4	VGA	VGA video output port. Output analog video signal. It can connect to the monitor to view analog video.
5	HDMI	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device. HDMI version is 1.4.
6	USB port	USB port. Connect to mouse, USB storage device and etc.
7	ALARM I/O	They receive signals from external alarm source. C is COM port. There is one channel of alarm in; there are four channels of alarm out. • When your alarm input device is using external power, make sure the device and the NVR have the same GND.
8	Power switch	Power on/off button.

No.	Name	Description
9	AUDIO IN	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.
10	Power input port	Power socket.
11	⏚	GND

HN35040100N & HN35080100N

Figure 3 Front Panel (HN35040100N & HN35080100N)

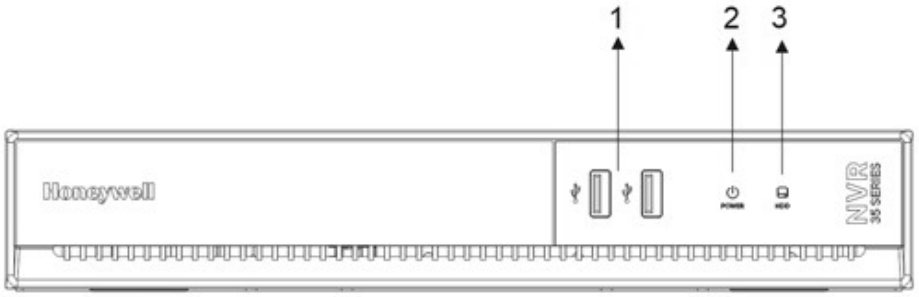


Table 4 NVR Front Panel Description (HN35040100N & HN35080100N)

No.	Name	Description
1	USB port	Connect to peripheral USB 2.0 storage device, mouse and etc.
2	POWER	The light is on when the power connection is OK.
3	HDD	The green light is flash when the device is recording, if the disk is not working, light is always bright. The light is off without disk.

Figure 4 Rear Panel (HN35040100N & HN35080100N)

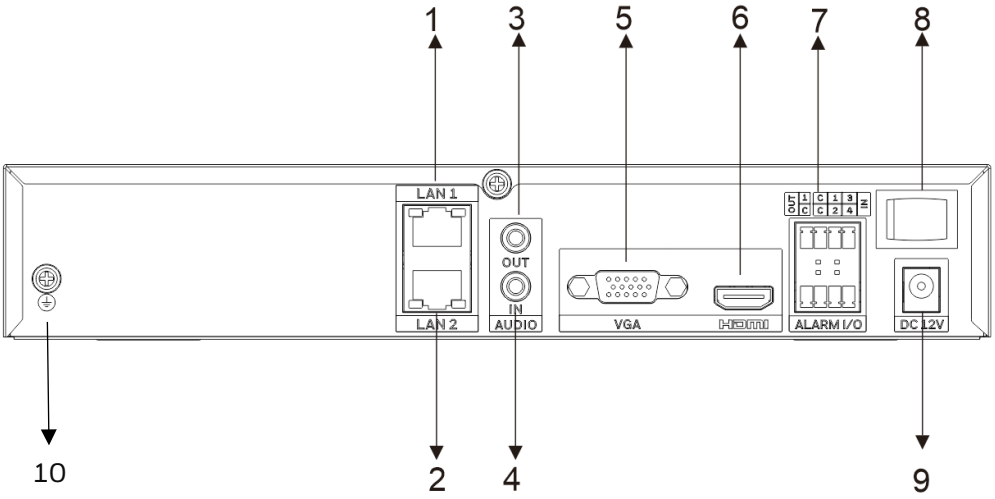


Table 5 NVR Rear Panel Description (HN35040100N & HN35080100N)

No.	Name	Description
1	LAN1	Network port. 10M/100Mbps self-adaptive Ethernet port. Connect to the network cable.
2	LAN2	Connect to the network cable, LAN2 port is only allowed to connect cameras, cannot to connect to Internet.
3	AUDIO OUT	Audio output port. It is to output the analog audio signal to the devices such as the sound box. • Bidirectional talk output. • Audio output on 1-window video monitor. Audio output on 1-window video playback.
4	AUDIO IN	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.
5	VGA	VGA video output port. Output analog video signal. It can connect to the monitor to view analog video.
6	HDMI	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device. HDMI version is 1.4.
7	ALARM I/O	They receive signals from external alarm source. C is COM port. There is one channel of alarm in; There are four channels of alarm out. When your alarm input device is using external power, make sure the device and the NVR have the same GND.
8	Power switch	Power on/off button.
9	Power input port	Power socket.
10	⏚	GND

Figure 5 Front Panel (HN350802xx)

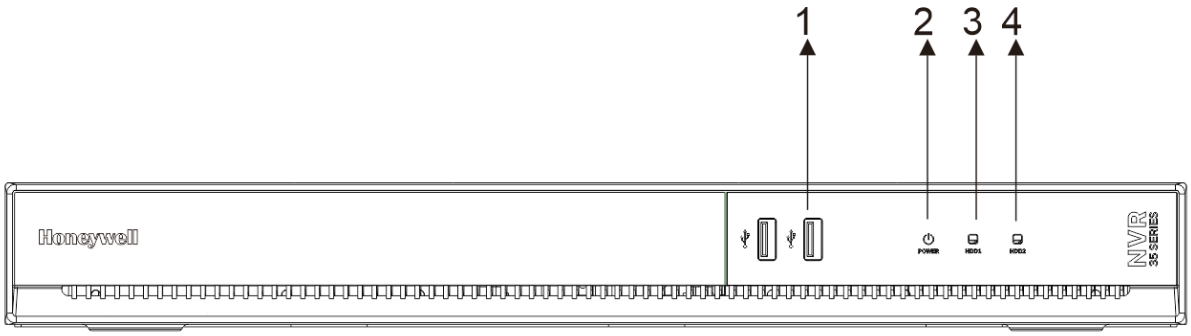


Table 6 NVR Front Panel Description (HN350802xx)

No.	Name	Description
1	USB port	Connect to peripheral USB 2.0 storage device, mouse and etc.
2	POWER	The light is on when the power connection is OK.
3-4	HDD1/HDD2	The green light is flash when the device is recording, if the disk is not working, light is always bright. The light is off without disk.

Figure 6 Rear Panel (HN350802xx)

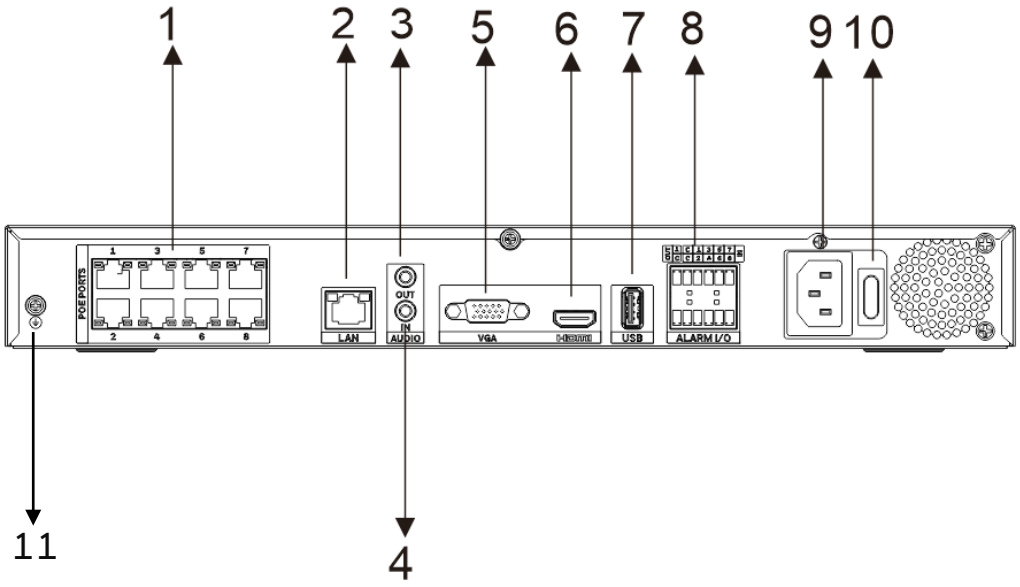


Table 7 NVR Rear Panel Description (HN350802xx)

No.	Name	Description
1	PoE port	Built-in switch. Support PoE function. For PoE series product, you can use this port to provide power to the network camera.

No.	Name	Description
2	Network port	10M/100Mbps self-adaptive Ethernet port. Connect to the network cable.
3	AUDIO OUT	Audio output port. It is to output the analog audio signal to the devices such as the sound box. • Bidirectional talk output. • Audio output on 1-window video monitor. Audio output on 1-window video playback.
4	AUDIO IN	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.
5	VGA	VGA video output port. Output analog video signal. It can connect to the monitor to view analog video.
6	HDMI	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device. HDMI version is 1.4.
7	USB port	USB port. Connect to mouse, USB storage device and etc.
8	ALARM I/O	They receive signals from external alarm source. C is COM port. There is one channel of alarm in; There are eight channels of alarm out. When your alarm input device is using external power, make sure the device and the NVR have the same GND.
9	Power input port	Power socket.
10	Power switch	Power on/off button.
11	⏚	GND

HN351602xx

Figure 7 Front Panel (HN351602xx)

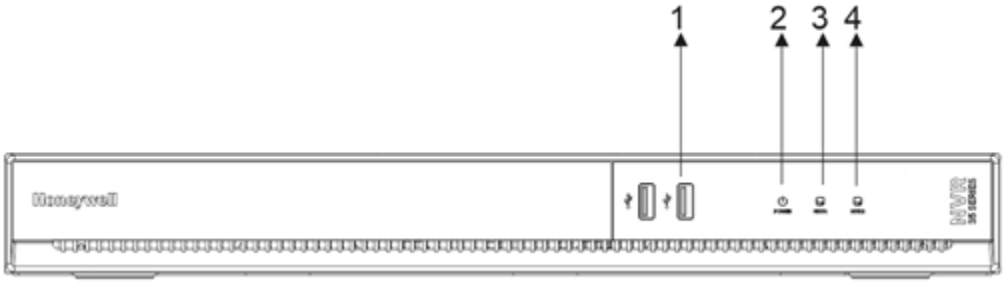


Table 8 NVR Front Panel Description (HN351602xx)

No.	Name	Description
1	USB port	Connect to peripheral USB 2.0 storage device, mouse and etc.
2	POWER	The light is on when the power connection is OK.
3-4	HDD1/HDD2	The green light is flash when the device is recording, if the disk is not working, light is always bright. The light is off without disk.

Figure 8 Rear Panel (HN351602xx)

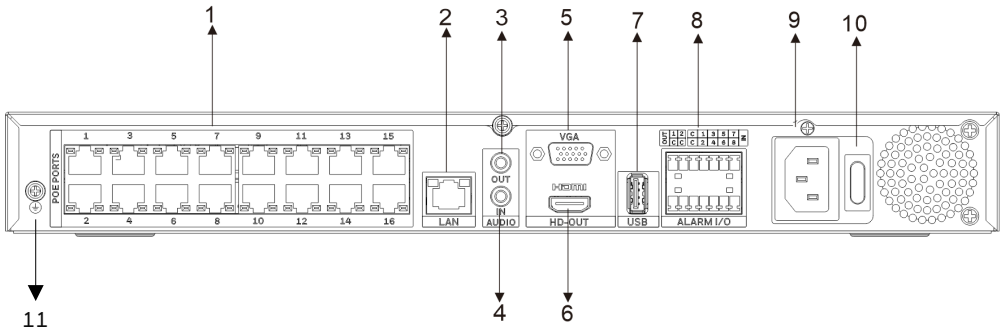


Table 9 NVR Rear Panel Description (HN351602xx)

No.	Name	Description
1	PoE port	Built-in switch. Support PoE function. For PoE series product, you can use this port to provide power to the network camera.
2	Network port	100M/1000Mbps self-adaptive Ethernet port. Connect to the network cable.
3	AUDIO OUT	Audio output port. It is to output the analog audio signal to the devices such as the sound box. • Bidirectional talk output. • Audio output on 1-window video monitor. Audio output on 1-window video playback.
4	AUDIO IN	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.
5	VGA	VGA video output port. Output analog video signal. It can connect to the monitor to view analog video.
6	HDMI	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device. HDMI version is 1.4.
7	USB port	USB port. Connect to mouse, USB storage device and etc.
8	ALARM I/O	They receive signals from external alarm source. C is COM port. There is one channel of alarm in; There are eight channels of alarm out. When your alarm input device is using external power, make sure the device and the NVR have the same GND.
9	Power input port	Power socket.
10	Power switch	Power on/off button.
11	⏚	GND

Figure 9 Front Panel (HN35160200N)

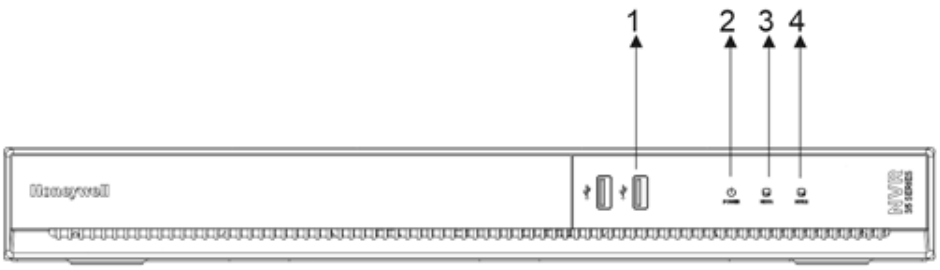


Table 10 NVR Front Panel Description (HN35160200N)

No.	Name	Description
1	USB port	Connect to peripheral USB 2.0 storage device, mouse and so on.
2	POWER	The light is on when the power connection is OK.
3-4	HDD1/HDD2	The green light is flash when the device is recording, if the disks are not working, lights are always bright. The light is off without disk.

Figure 10 Rear Panel (HN35160200N)

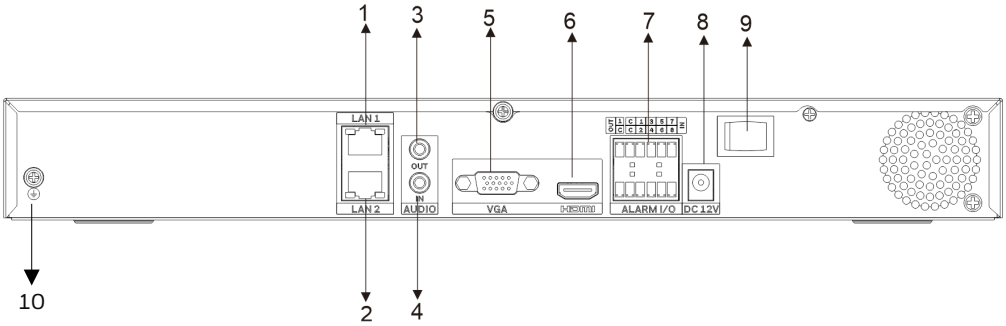


Table 11 NVR Rear Panel Description (HN35160200N)

No.	Name	Description
1	LAN1	Network port. 10M/100Mbps self-adaptive Ethernet port. Connect to the network cable.
2	LAN2	Connect to the network cable, LAN2 port is only allowed to connect cameras, cannot to connect to Internet.
3	AUDIO OUT	Audio output port. It is to output the analog audio signal to the devices such as the sound box. • Bidirectional talk output. • Audio output on 1-window video monitor. Audio output on 1-window video playback.

No.	Name	Description
4	AUDIO IN	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.
5	VGA	VGA video output port. Output analog video signal. It can connect to the monitor to view analog video.
6	HDMI	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device. HDMI version is 1.4.
7	ALARM I/O	They receive signals from external alarm source. C is COM port. There is one channel of alarm in; There are eight channels of alarm out. When your alarm input device is using external power, make sure the device and the NVR have the same GND.
8	Power input port	Power socket.
9	Power switch	Power on/off button.
10	⏚	GND

Mouse Operation

Refer to the following sheet for mouse operation instruction.

Table 12 Mouse Operation Instruction

Operation	Description
Left click mouse	When you have selected one menu item, left click mouse to view menu content.
	Modify checkbox or motion detection status.
	Click combo box to pop up drop-down list

	In input box, you can select input methods. Left click the corresponding button on the panel you can input numeral/English character (lower case/upper case). ␣ stands for space button, ← stands for deleting the previous character. ⇪ switch the case and special character, as shown in figure.
	 
	`1 2 3 4 5 6 7 8 9 0 ←`
	`q w e r t y u i o p [ ]`
	`a s d f g h j k l ; ' \`
	`– z x c v b n m , . / =`
	`⇪ ␣ ↵`
	`~ ! @ # $ % ^ & * ( ) ←`
	`Q W E R T Y U I O P { }`
	`A S D F G H J K L : " |`
	`_ Z X C V B N M < > ? +`
	`⇪ ␣ ↵`

Double left click mouse	Implement special control operation such as double click one item in the file list to playback the video.

Operation	Description
	In multiple-window mode, double left clicks one channel to view in full-window. Double left clicks current video again to go back to previous multiple-window mode.
Right click mouse	In real-time monitor mode, goes back to home menu.
	Exit current menu without saving the modification.
Slide middle button	Switch the items in the check box, such as switch languages.
	Page up or page down, such as add cameras.
Move mouse	Select current control or move control.
Drag mouse	Select motion detection zone/ intelligent analysis zone.
	Select schedule manually.
	Select privacy mask zone.

CHAPTER

2 GETTING STARTED

This chapter contains the following sections:

Unpacking the NVR

Before you set up the NVR, make sure that you have received the following items:

- Quick Installation Guide
- Quick Certificate Installation Guide
- Mouse
- Power adapter and cable
- Terminal block connectors (The actual product shall prevail.)
- Screws

If any of the items listed above are missing or damaged, contact your Honeywell dealer immediately.

Connecting External Devices

1. Connect the cameras

Connect the network cables from the cameras to the PoE port (The NVR need to support PoE port) or router.

Note: *The router cannot be directly connected to the PoE port.*

2. Connect the monitor

Connect a VGA cable (not supplied) to the VGA interface and/or an HDMI cable (not supplied) to the HDMI interface. Connect the other end to a monitor (do not use a TV). Simultaneous VGA and HDMI output is supported.

3. Connect the mouse

Connect the supplied USB mouse to the USB 2.0 interface.

4. Connect the Ethernet cable

Connect the supplied CAT5e Ethernet cable to the network port. Connect the other end to a router on your network.

5. Connect audio devices (if applicable)

To record audio, connect the audio sources to the AUDIO IN connectors. To play audio, connect an audio output device (low-impedance headphones, speaker, or amplifier) to the AUDIO OUT connector.

6. Connect alarm devices (if applicable)

Connect alarm devices to the alarm in/out interface. If the alarm inputs use external power, the device must have the same ground as the NVR.

7. Connect a PTZ camera (if applicable)

Your embedded NVR communicates with PTZ cameras through the Network. Ensure that your camera is correctly connected to the Network.

8. Connect the power cable

Connect the supplied 12 V DC (Depend on models, DC12V(3A) /DC 52V /AC 220V please refer to actual product) power adapter to the power input. Use of an uninterruptible power supply (UPS) is strongly recommended.

Devices Connection

The following diagram shows a typical NVR connection:

Figure 11 Devices Connection (HN350401xx)

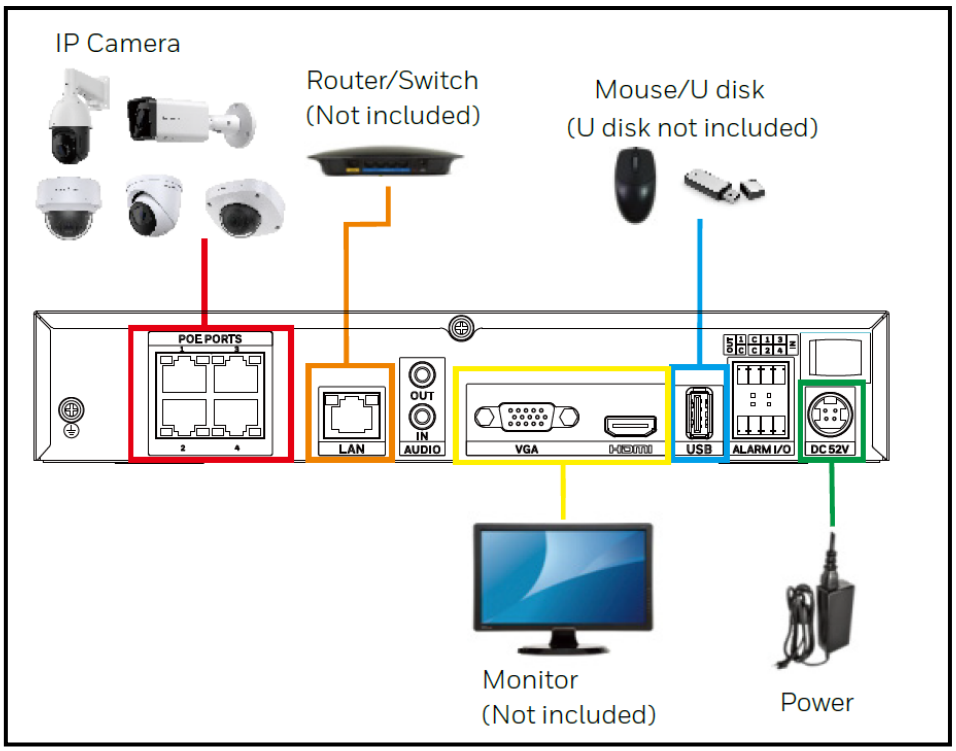


Figure 12 Devices Connection (HN35040100N/HN35080100N)

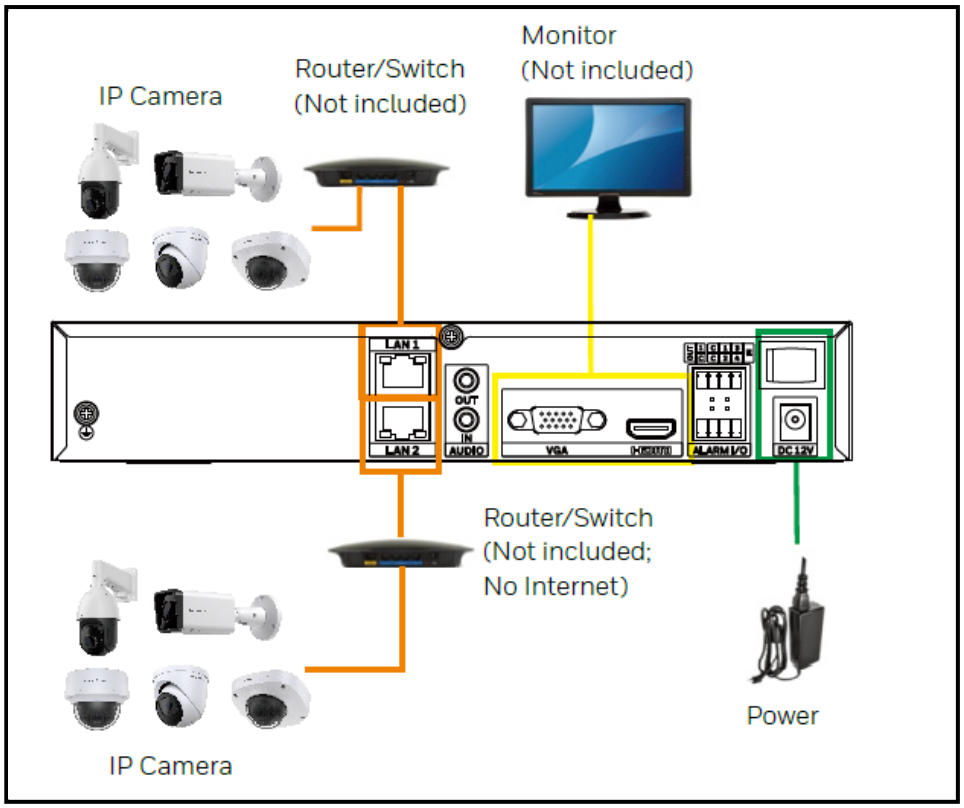


Figure 13 Devices Connection (HN350802xx)

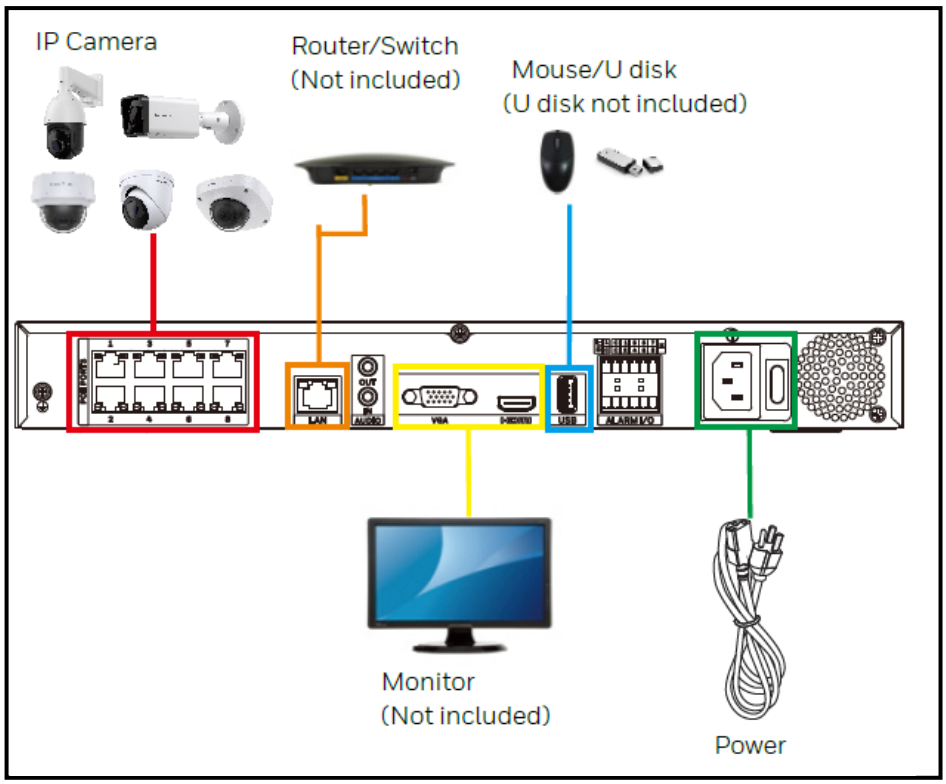


Figure 14 Devices Connection (HN351602xx)

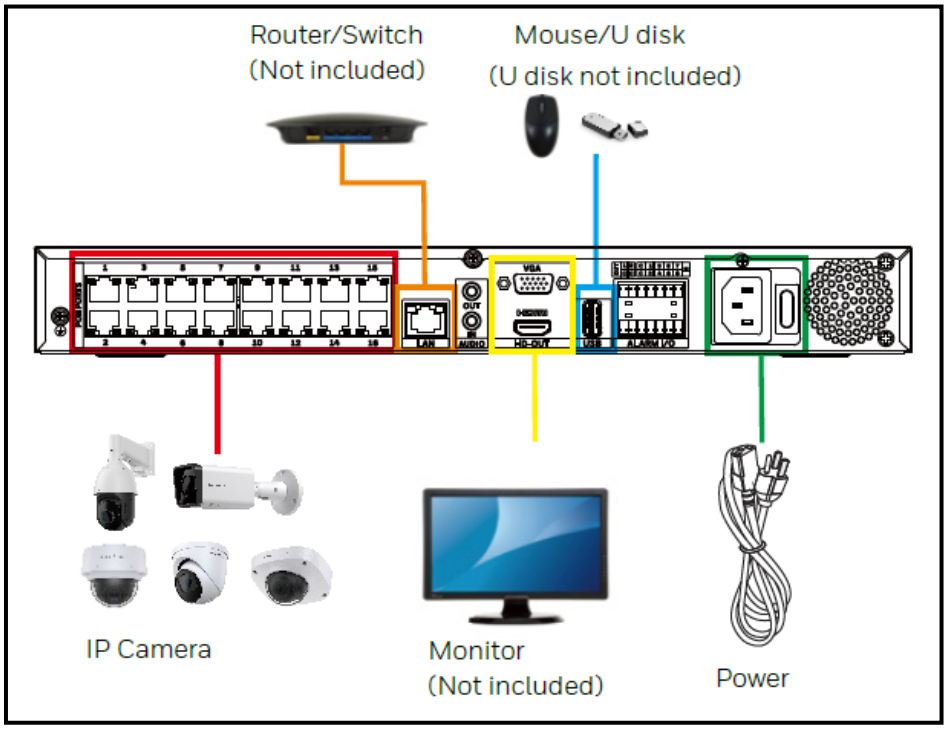
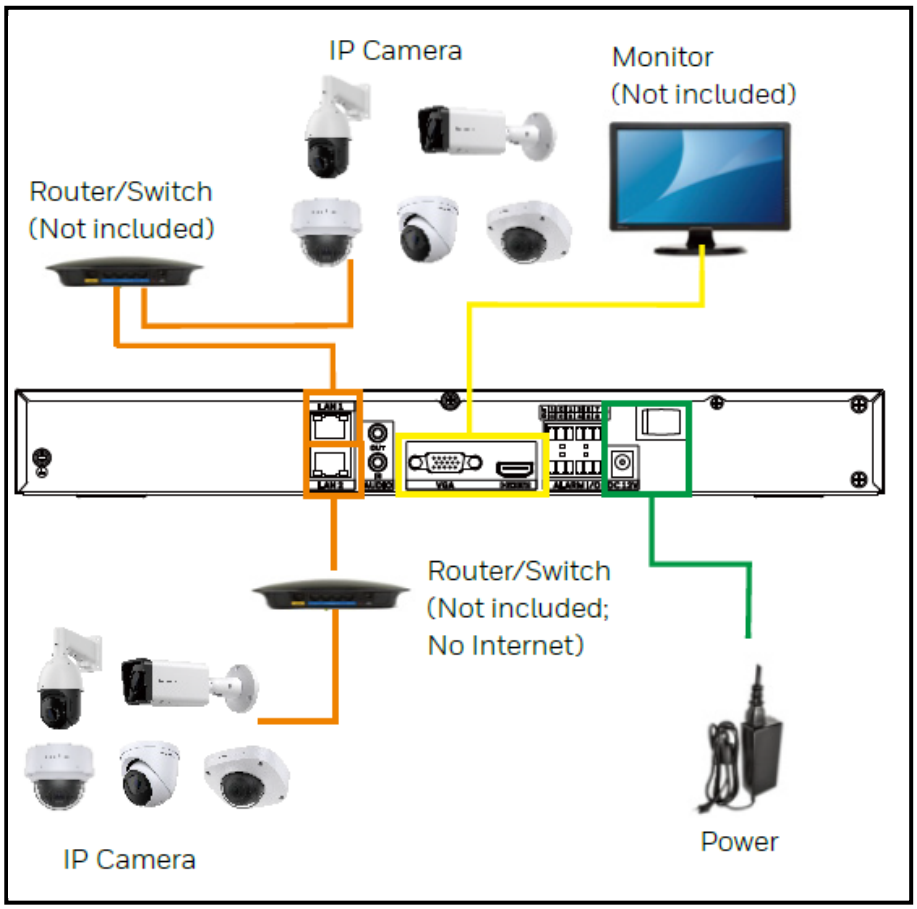


Figure 15 Devices Connection (HN35160200N)



Starting and Shutting Down the NVR

Starting the NVR

1. Make sure that the NVR is connected to an appropriate power source.
2. Turn on the power switch on the rear panel to start the NVR.

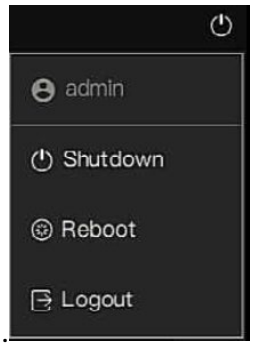
Note: The beep at startup is normal.

Shutting Down the NVR

Note: To shut down the NVR, you must be logged in as the admin user or have shutdown privileges assigned to you.

To prevent damage to the hard drive, follow these steps to shut down the NVR:

1. In live view mode, right-click anywhere on the screen to display Main Menu. Or click home menu icon at bottom of live view page to enter the Main Menu page.
2. Go to Main Menu > System > Maintenance, click Shutdown. Or click  in the upper right corner and click Shutdown.



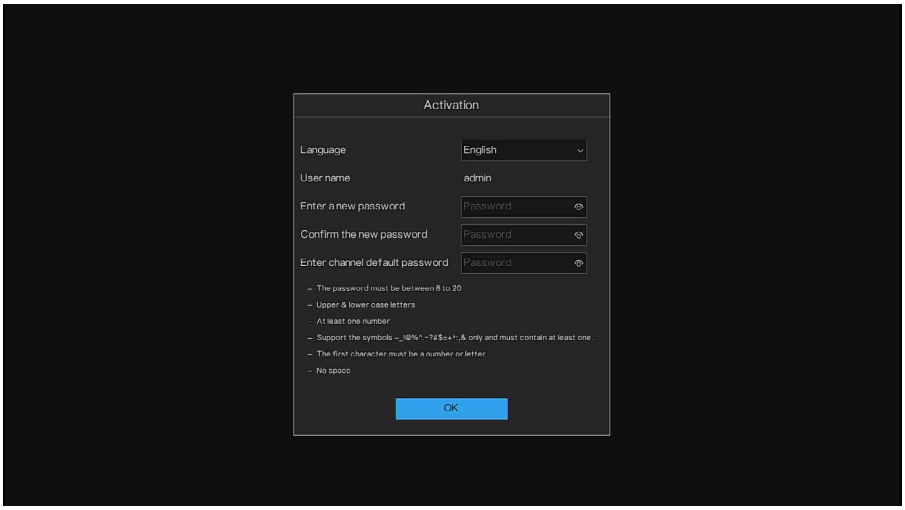
3. In the Shutdown window, click OK.

Device Initialization

- If it is your first time to use the device, set a login password of admin (system default user) and a channel default password. You can select to use unlock pattern to login as needed.
- Input the ask to recovery the password, there are many questions you can choose three questions to ask.
- For your device safety, keep your login password of admin well after the initialization steps, and change the password regularly.

1. Activate NVR.

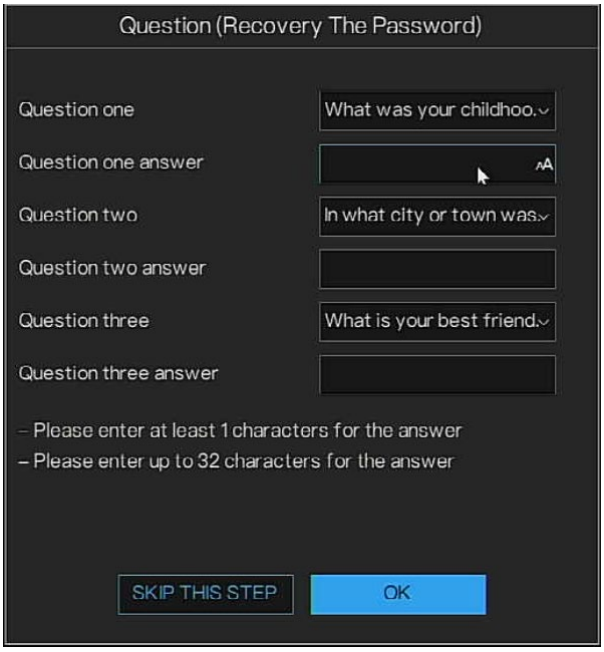
Figure 16 Device Activation



2. Answer question to recover password. When you forget the password, answer the setting question to enter the password resetting page.

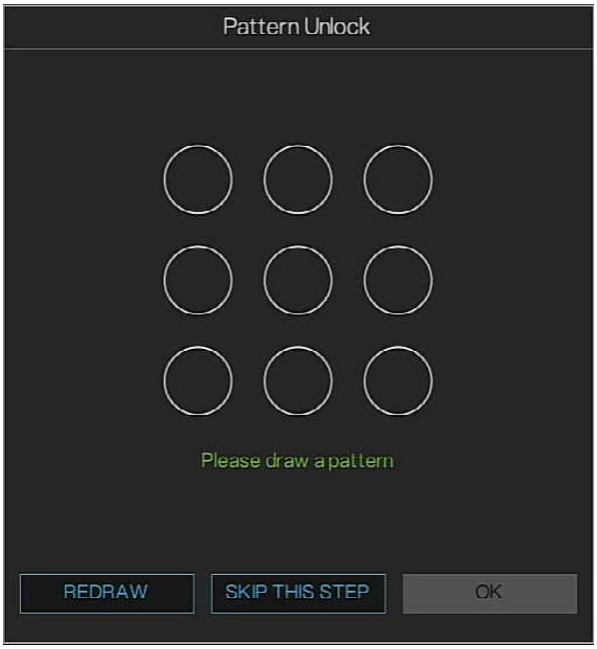
Note: *If you don't want to set the question, you can skip the steps and the login window will not show the Forget password button. Honeywell recommends user to set the questions in case you forget the password.*

Figure 17 Question (Recovery the Password)



3. Set the pattern unlock.

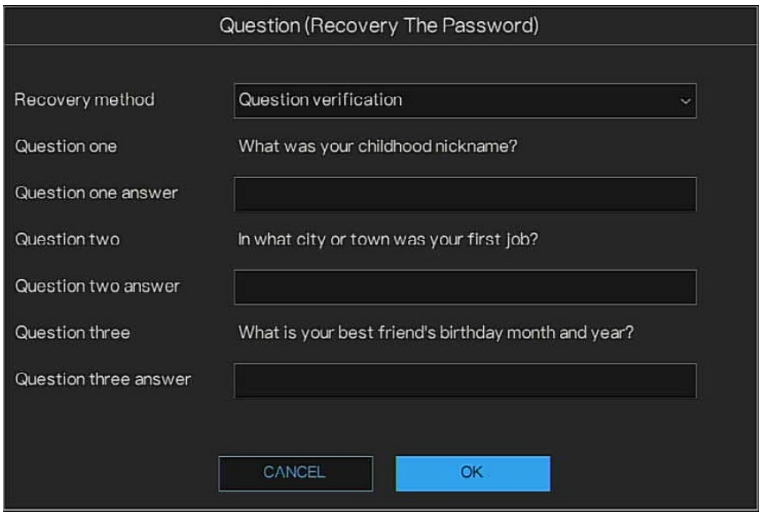
Figure 18 Set Pattern Unlock



After setting **Question (Recovery Password)**, the **Pattern Unlock** interface is displayed

- If you do not want to configure the unlock pattern, click **SKIP THIS STEP**.
- Once you have configured the unlock pattern, the system will require the unlock pattern as the default login method. If you skip this setting, enter the password for login.

Figure 19 Recover the Password



After answering three questions correctly, you can enter the reset password window.

Device Wizard

After the device initialization, the **Setup Wizard** opens.

Figure 20 Startup Wizard

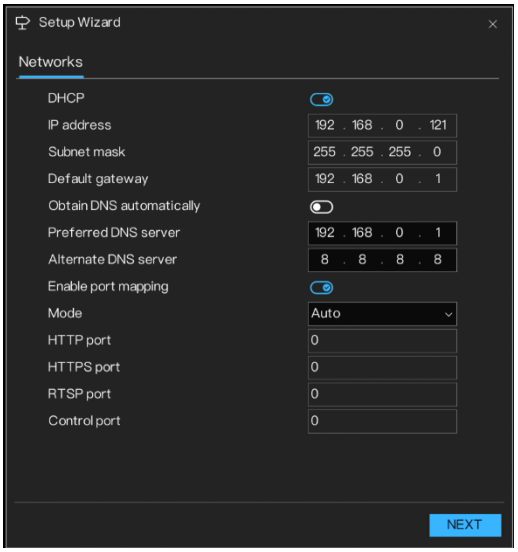
Using the wizard, you can:

- Configure the network settings

- Configure date and time, time zone DST
- Configure P2P
- Search for and add IP cameras
- Configure Disk Manager
- Set resolution

1. Click SETUP WIZARD in the Setup Wizard window. Set Network according to the actual environment on the Network page, and then click Next.

Figure 21 Network



2. Set Date and Time, Time Zone, DST according to actual environment, and then click Next.

Figure 22 Setup Wizard – Date and Time

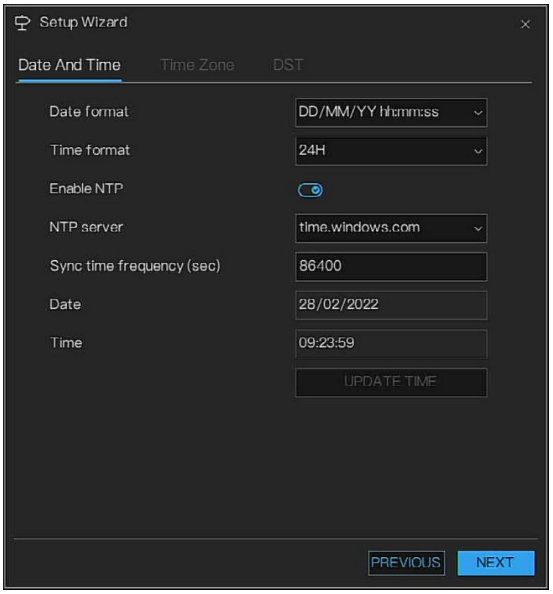


Figure 23 Setup Wizard –Time Zone

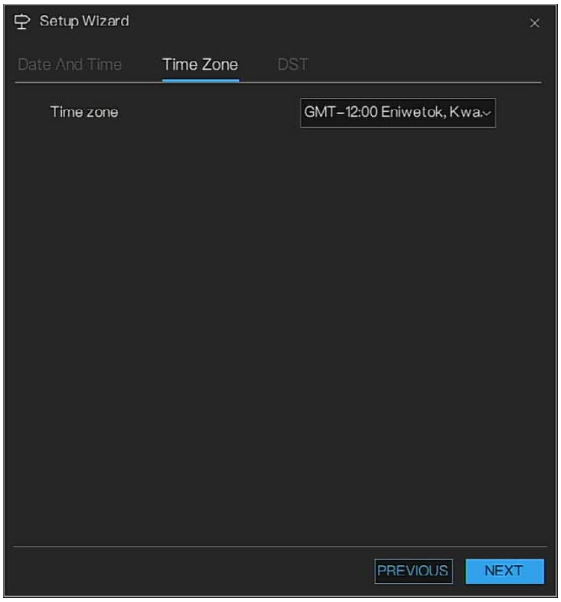
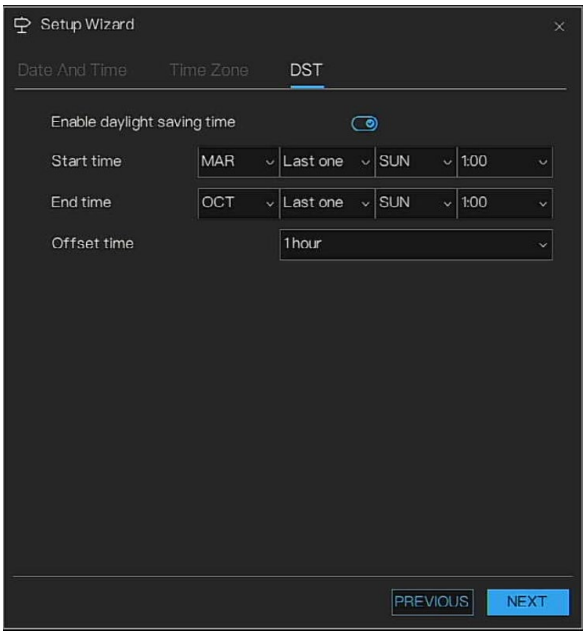
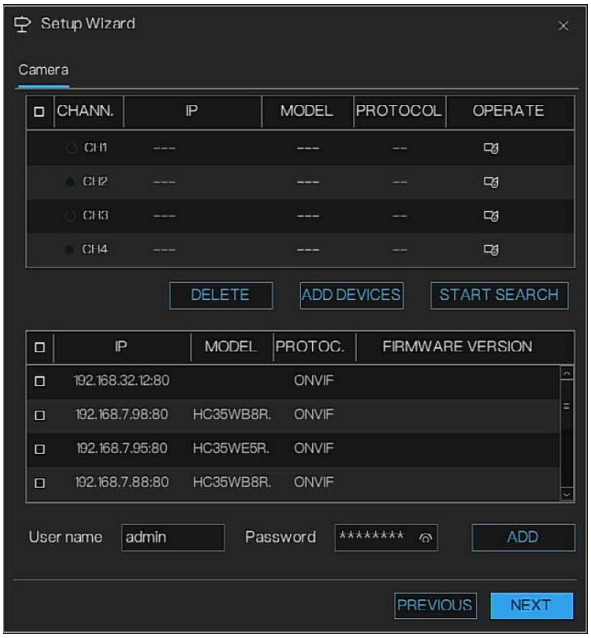


Figure 24 Setup Wizard –DST



3. Set Camera information.

Figure 25 Setup Wizard –Camera

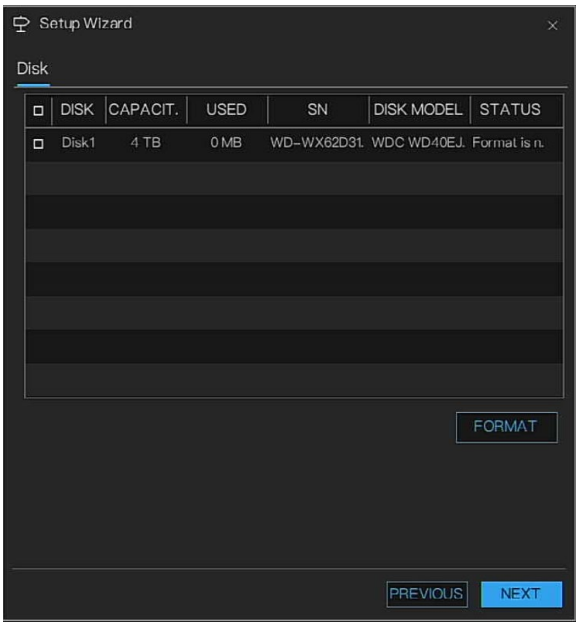


Click **NEXT** directly if camera is connected to NVR with plug and play.

Or click **STRAT SEARCH** to search cameras. Select the searched cameras and enter the user name and password to add cameras. Click **NEXT**.

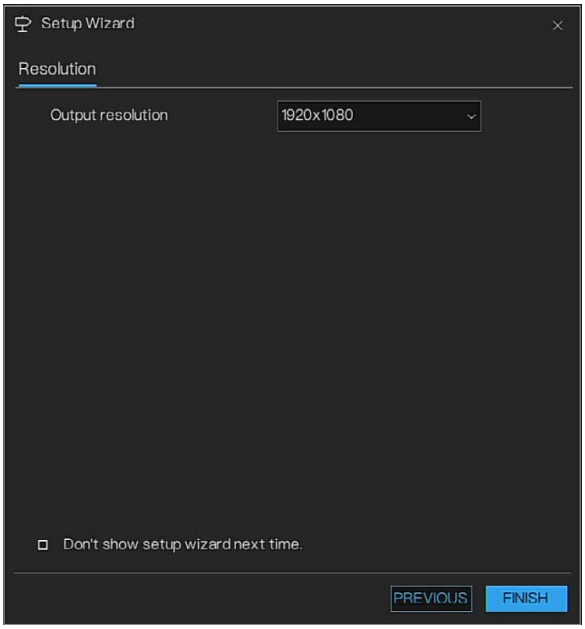
4. Format the disk.

Figure 26 Setup Wizard – Disk



5. Click NEXT. View the P2P information, if the NVR is online, you can add the NVR to HSV by scanning the P2P UUID.
6. Click NEXT. Set Resolution.

Figure 27 Setup Wizard – Resolution



Note: *Check the checkbox for Don't show setup wizard next time, when users turn on the NVR enter Live view interface directly.*

7. Click FINISH to save settings.

Resetting Password

If you forgot the admin password, you can reset the password by answering the security questions.

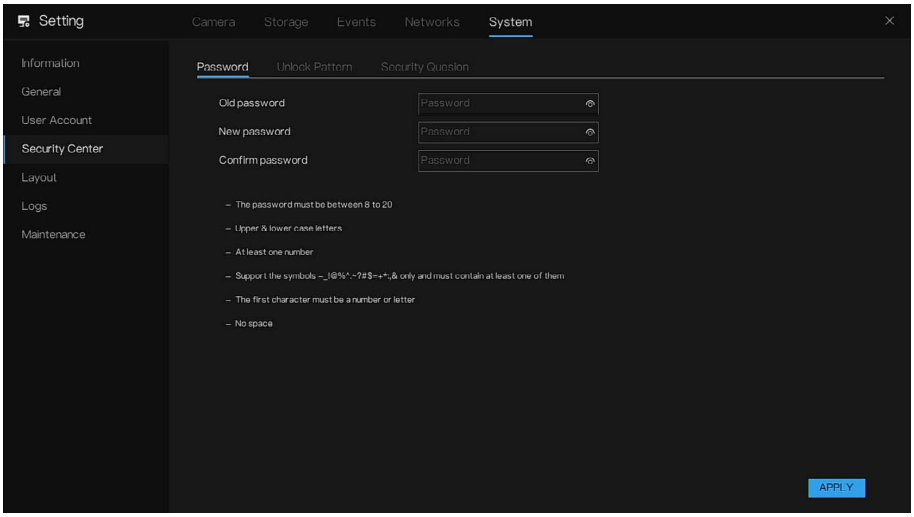
Note: *To reset password by answering the security questions, you need configure this password resetting function in advance. Refer to Device Initialization or Security Question.*

Enabling Password Reset Function

1. Go to Main Menu > System > Security Center > Password.

   The password reset interface is displayed.

Figure 28 Reset Password



2. Input the old password, and create a new password and confirm it.
3. Click APPLY to set settings.

Resetting Password on Local Interface

1. Enter the Login interface.

- If you have configured unlock pattern, the unlock pattern login interface is displayed. Click **Password**, the password login interface is displayed.
- If you did not configure unlock pattern, the password login interface is displayed.

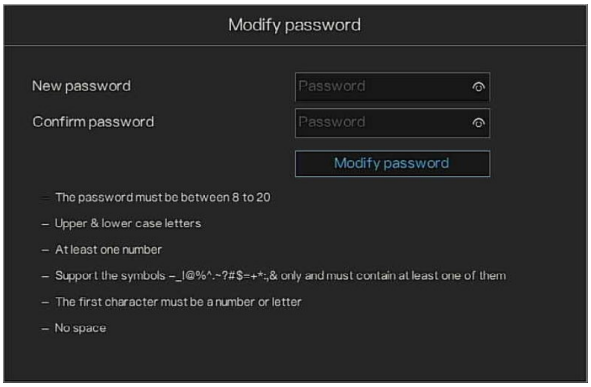
2. Click Forgot Password. Set the parameters according to the instruction on the pages.

Figure 29 Password Reset 1

3. Set new password.

   In the New Password box, enter the new password and enter it again in the Confirm Password box.

Figure 30 Password Reset 2

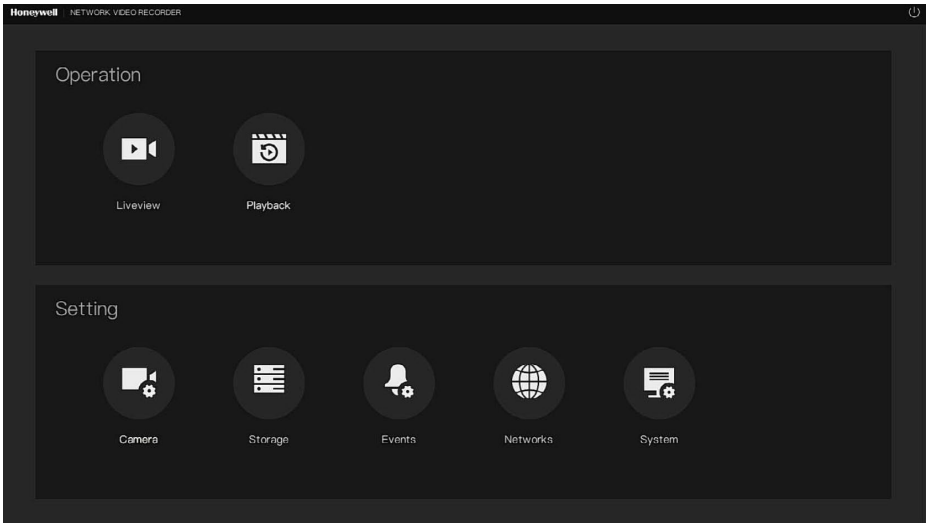


4. Click Modify password. The password resetting is complete.

Home Page

On live page, click  to enter home page, or right-click to enter home page directly.

Figure 31 Alarm Status



Two-way Talk

Device-end to IPC

Please connect the speaker or the pickup to the first audio input port on the device rear panel. Then connect the earphone or the sound box to the audio output port in the IPC.

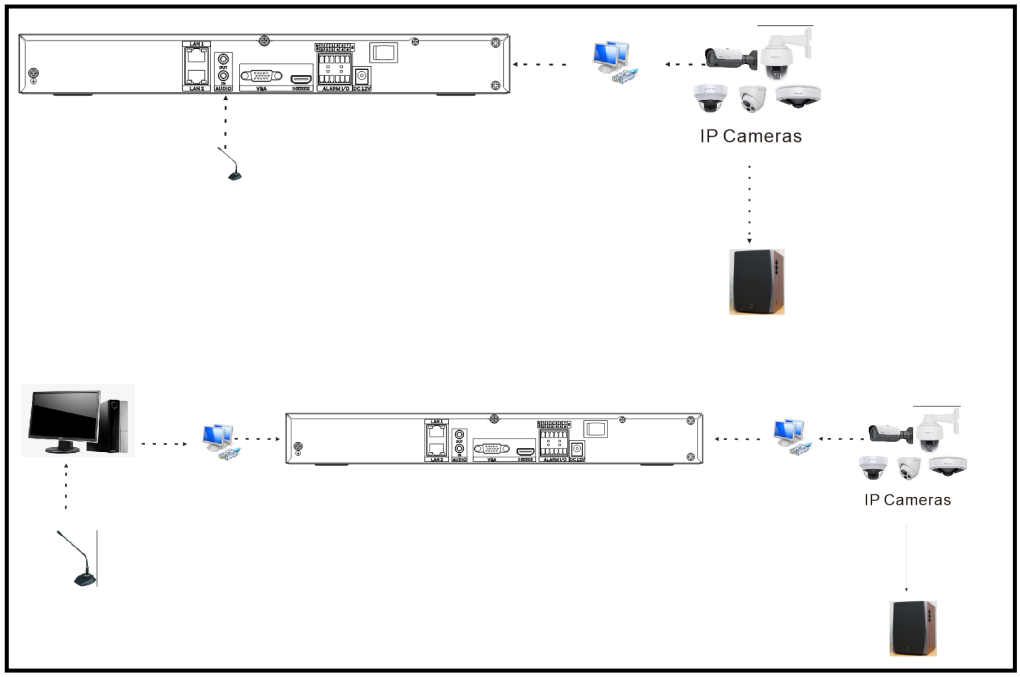
Click-left on live video, quick menu shows.

Figure 32 Enable Two-way Talk

Please refer to the following interface to enable two-way talk.

At the device end, speak by the speaker or the pickup, and then you can get the audio from the earphone or sound box at the IPC-end.

Figure 33 Device to IPC



IPC-end to the Device-end

Device Connection

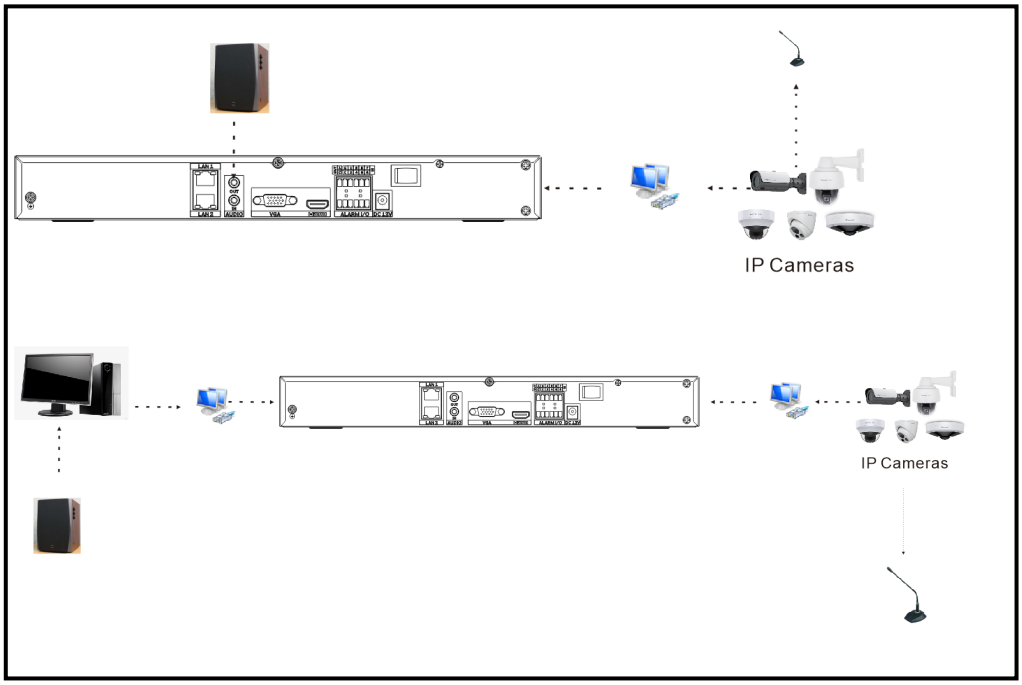
Connect the speaker or the pickup to the audio output port in the IPC and then connect the earphone or the sound box to the first audio input port in the device rear panel.

Login the Web and then enable the corresponding channel real-time monitor.

Listening Operation

At the IPC-end, speak by the speaker or the pickup, and then you can get the audio from the earphone or sound box at the device-end.

Figure 34 IPC to Device



CHAPTER

3 LOCAL BASIC OPERATION

Note: Slight difference may be found on the user interface. The following figures are for reference only.

This chapter contains the following sections:

Configuring Camera

Camera

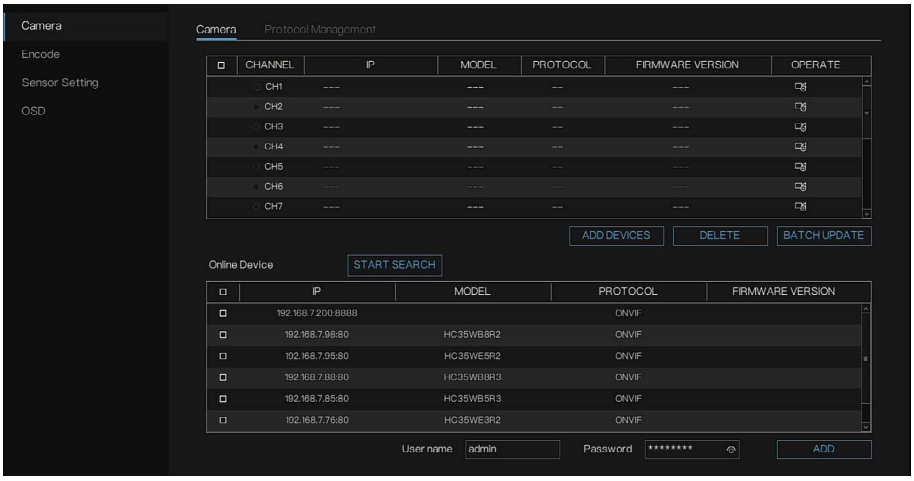
Adding Camera

When you connect a camera to the NVR via PoE port, NVR automatically initializes the camera. The NVR can activate and create new passwords for new cameras, the password is the same as the created channel password (Figure 16 Device Activation

By adding remote devices to the NVR, you can view the video on the NVR, and manage and storage the video file. Different series products support different remote device amount.

1. Go to Main Menu > Camera > Camera.

Figure 35 Add Camera



2. Add cameras.
   a. Click START SEARCH.

      The devices found are displayed at the upper pane. Devices already added do not show in the searched results.

   b. Click ADD DEVICES to register cameras on the online device list directly.

Note: The number of adding cameras should meet the captivity of NVR. When the cameras exceed the captivity, the channels will not be added. The 30/60 series IP cameras cannot be connected to PoE port directly, you should set the password at IP cameras' web interface, and the password should be same as channel password of NVR.
Once the PoE cameras are added, they cannot be deleted manually at NVR UI interface. You can unplug the PoE network cables to delete.

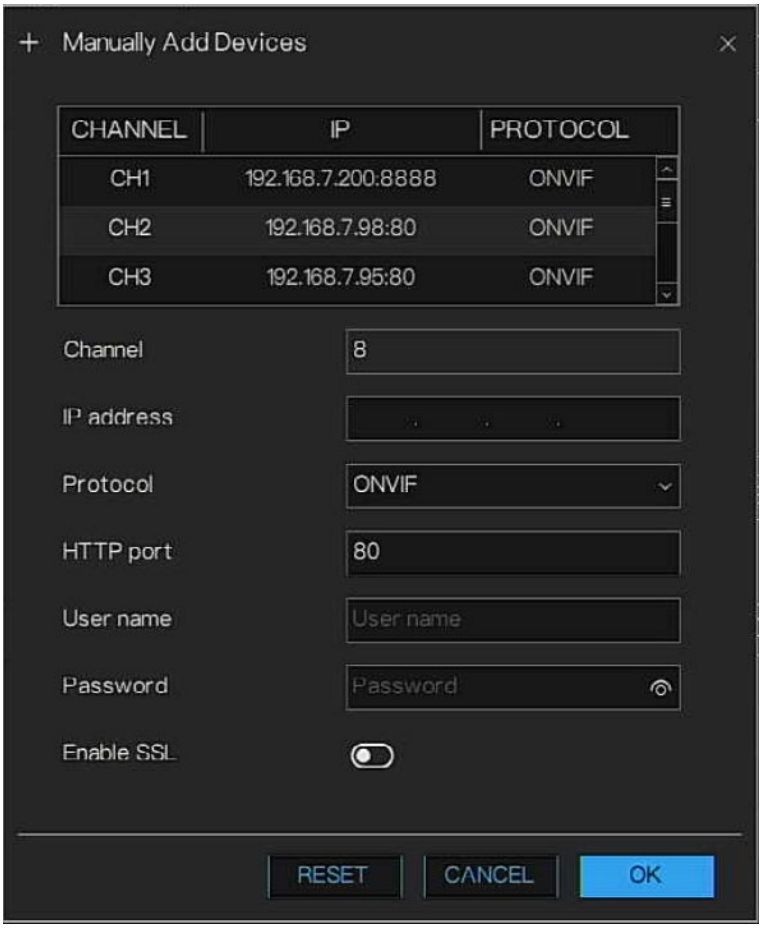
   c. Select the cameras and then click Add to add to Channel list.

Manually Add Devices

   a. On the Channel list, click  .

      The Manually Add Devices interface is displayed.

Figure 36 Manually Add Devices



b. Configure parameters.

Table 13 Remote Channel Parameters

Parameter	Description
Channel	-
IP address	In the **IP address** box, enter the IP address of the remote device. The user can click the added channel to copy the channel information and then modify information, such as the remote channel.
Protocol	ONVIF /RTSP1-16
RTSP Port	The default value setting is 554. You can select the value according to your actual situation.
HTTP Port	The default value setting is 80. You can enter the value according to your actual situation. If you enter other value, for example 70, you should enter 70 after the IP address when logging in the device by browser.
User name	Enter the user name of the remote device.
Password	Enter the password of the user for the remote device.
Remote CH No.	Enter the remote channel number of the remote device that you want to add.

Parameter	Description
Enable SSL	If the remote device is added through Onvif protocol, selecting the **SSL** check box will provide encryption protection to the datatr ansmitted. To use this function, the HTTPS function should be enabled for the remote IP camera.

Note: Choose the protocol from the drop-down list, the protocol is set at protocol management interface. The cameras should be confirmed to the protocols.

c. Click OK.

The remote device information is displayed on the **Added Device** list.

You can click to change the remote device information. Click to delete remote device.

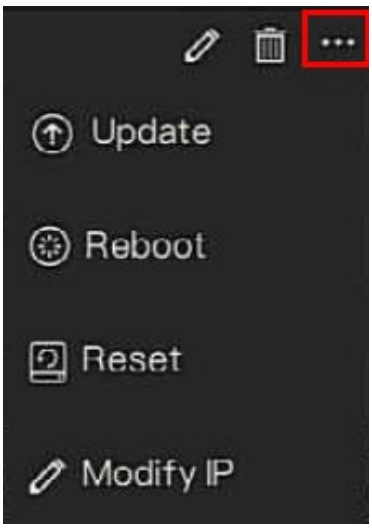
You can also add cameras on the live view interface by clicking on the channel window.

UI local Update

You can upgrade the connected network camera firmware.

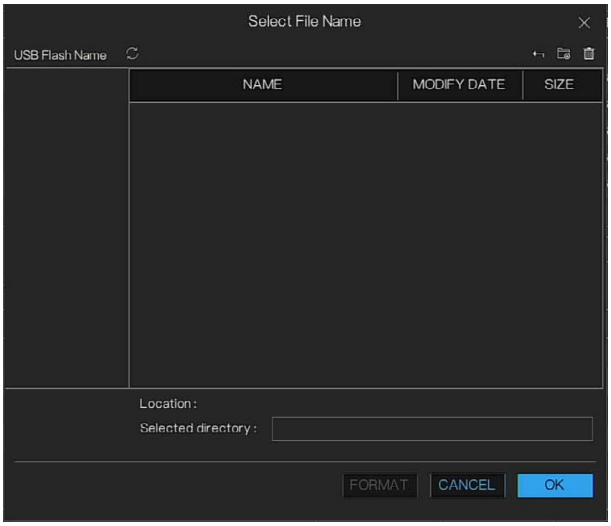
1. Plug in USB disk with the camera firmware.
2. Go to Main Menu > Camera > Camera. When the camera is online, click .

Figure 37 Update Interface



3. Update the firmware of the connected cameras.
   a. Select update file on the pop-up interface.

Figure 38 Select File



b. Select the update file and then click OK.

After successful operation, system prompts update successful dialogue box.

If there are too many same model cameras, select the cameras as needed, and click **BATCH UPDATE**. Choose firmware file in the pop-up interface.

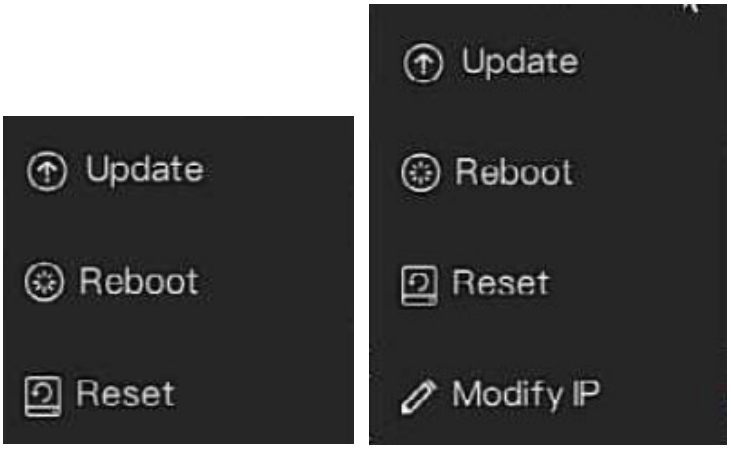
If you want to update the cameras remotely and the NVR can be accessed by Web, you can update cameras at remote port.

For cameras connected with NVR by non-PoE port, select the camera(s) on channel list and click **DELETE** to delete cameras in batch. Or click  to delete the selected cameras. Cameras added by PoE port of NVR cannot be delete here.

Operating online channel

1. Go to Main Menu > Camera > Camera. When the camera is online, click  .
2. Click Update/Reboot/Reset to configure the cameras. For remote network added cameras, you can click Modify IP to set the IP information.

Figure 39 Operating online channel



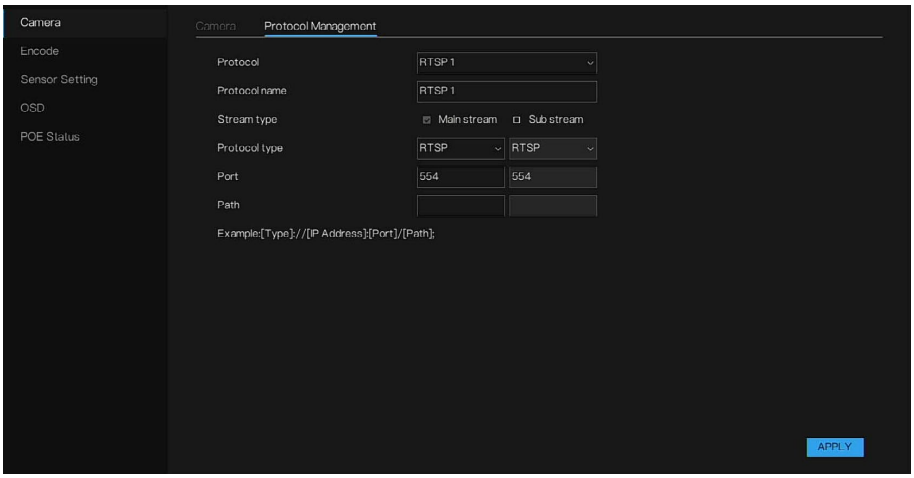
- Click Update to update the camera information.
- Click Reboot. In the pop-up window “Are you sure reboot”, click OK to reboot the camera.
- Click Reset. Enable or disable Reserve IP address. Click OK to reboot the camera.
- Click Modify IP. Enter the IP address and Subnet mask Click OK.

Protocol Management

If the user wants to add the different protocol cameras to NVR, you can set the protocol management, and add cameras one by one.

1. Go to Main Menu > Camera > Camera > Protocol Management. The Protocol Management interface is displayed.

Figure 40 Protocol Management



2. Choose the custom protocol from the drop-down list.
3. Input the protocol name.
4. Select main stream and sub stream. The main stream shows image on full screen live video. The sub stream shows image on split screen. If you only select main stream, the channel will not show image on split screen.

5. Choose the type of protocol. The default value is RTSP. Input the port which depends on the IP camera.
6. Input the path, it depends on the manufacturer of cameras.
7. Click APPLY to save the settings.

Encode

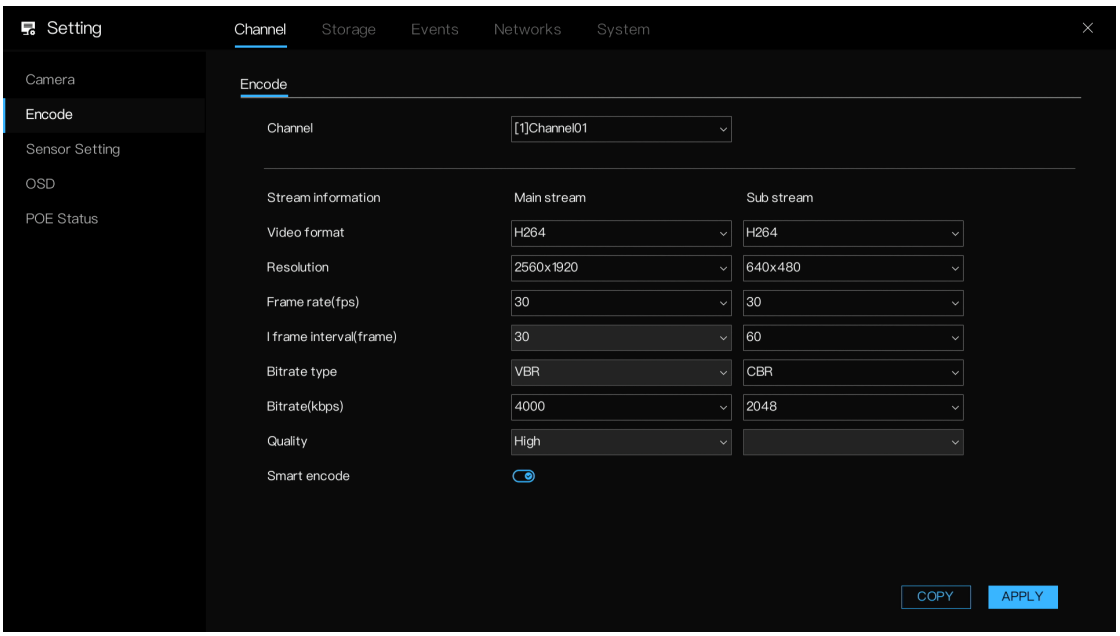
You can set video bit stream parameters such as video format, resolution, frame rate(fps), and so on.

Note: Some series products support three streams: main stream, sub stream 1, sub stream 2. The sub stream maximally supports 1080p.

1. Go to Main Menu > Camera > Encode.

   The Encode interface is displayed.

Figure 41 Encode



2. Configure parameters.

Table 14 Audio/Video Parameters

Parameter	Description
Channel	In the **Channel** list, select the channel that you want to configure the settings for.
Smart encode	Enable the smart encode function to reduce the video bit stream for non-important recorded video to maximize the storage space.
Video format	In the **Compression** list, select the encode mode. H.265: Main profile encoding. This setting is recommended. H.264: Main profile encoding.
Resolution	In the Resolution list, select resolution for the video. The maximum video resolution might be different dependent on your device model.

Parameter	Description
Frame rate (fps)	Configure the frames per second for the video. The higher the value is, the clearer and smoother the image will become. Frame rate changes along with the resolution. Generally, in PAL format, you can select the value from 1 through 25; in NTSC format, you can select the value from 1 through 30. However, the actual range of frame rate that you can select depends on the capability of the device. The NVR supports up to 30 fps, if the adding cameras' capability are over 30 fps, the NVR will degrade them to 30 fps.
I frame interval(frame)	The interval between two reference frames.
Bitrate type	In the **Bit Rate Type** list, select **CBR** (Constant Bit Rate) or **VBR** (Variable Bit Rate). If you select **CBR**, the image quality cannot be configured; if you select **VBR**, the image quality can be configured.
Bitrate(kbps)	Indicates the maximum value of the bit rate. You can input the value which can't be bigger than the biggest value from drop-down list), otherwise the value is invalid. Or you can choose value from drop-down list.
Quality	This function is available if you select **VBR** in the **Bit Rate** List. The bigger the value is, the better the image will become.

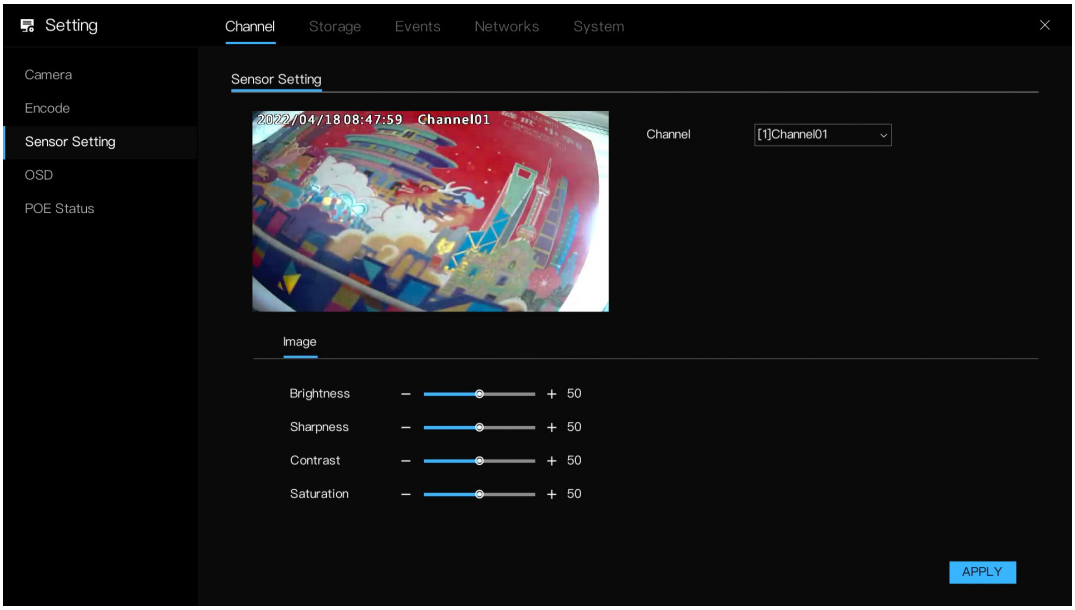
3. Click APPLY to complete settings.

Sensor Setting

1. Go to Main Menu > Camera > Sensor Setting.

The **Sensor Setting** interface is displayed

Figure 42 Image



2. Configure parameters.

Note: Different series network camera displays different parameters. The actual product shall prevail.

Table 15 Image Parameters

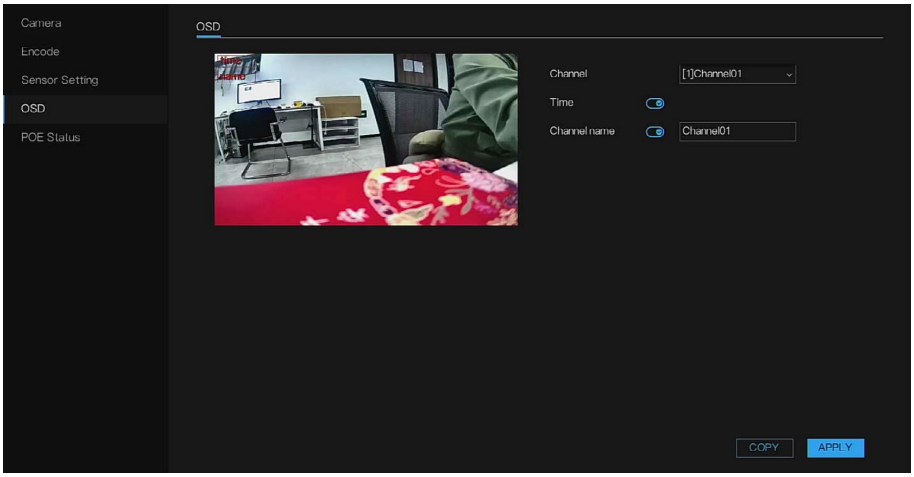
Parameter	Description
Channel	In the Channel list, select the channel that you want to configure.
Brightness	Adjusts the brightness according to actual environment.
Sharpness	Adjusts the sharpness according to actual environment.
Contrast	Adjusts the contrast according to actual environment.
Saturation	Adjusts the color shades. The bigger the value, the lighter the color will become. Adjusts the saturation according to actual environment.

3. Click APPLY.

OSD

1. Go to Main Menu > Camera > OSD. The OSD interface is displayed.

Figure 43 OSD



2. In the Channel list, select a channel to set OSD.
3. Enable Time to display. Enable Channel name to display and input the channel name to distinguish different locations' cameras.

   The display box is displaying at top left of screen. Click and drag display box of time(channel) to move to a specified location.

Note: To modify the format of displaying time, go to Main Menu > SYSTEM > General > Date And Time to set. Refer to Date And Time for detailed information.
The channel name supports up to 32 characters

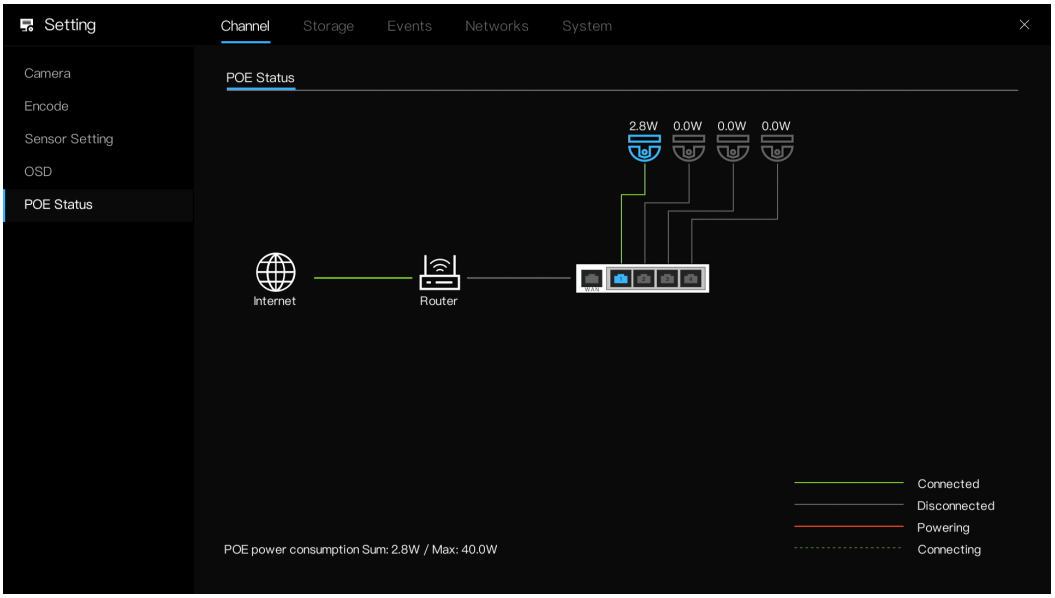
4. Click APPLY to complete settings.

POE Status

This function is only applicable for the PoE NVR.

1. Go to Main Menu > Camera > POE Status.
2. Check the status of POE. The POE Status interface is displayed.

Figure 44 PoE Status



Configuring Storage Settings

You can manage the storage resources (such as storage mode) and storage space. So that it is easy for you to use and enhance storage space usage.

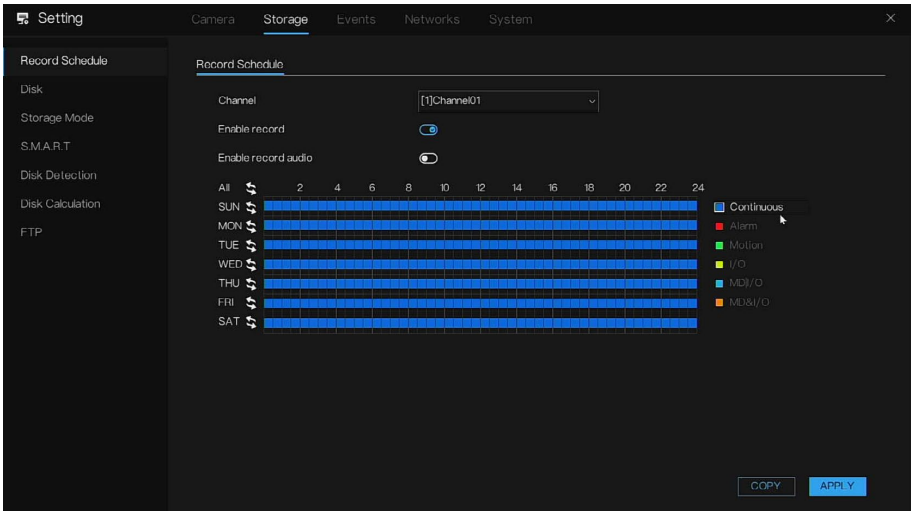
Record Schedule

After set schedule record, device can record video file according to the period you set here. For example, the alarm record period is from 6:00–18:00 Monday, device can record alarm video files during 6:00–18:00.

All channels are record continuously by default. You can set customized record period and record type.

1. Go to Main Menu > Storage > Record Schedule.

Figure 45 Record Schedule



2. Select a channel from the drop-down list, you can set different record plans for different channels. Select COPY to copy settings for other channels.
3. Enable record and record audio. Set the schedule of recording.

Figure 46 Record Type

Define the period by drawing.

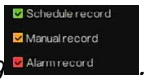
a. Select a corresponding date to set.

b. On the timeline, left click mouse and then drag to define a period.

   There are six periods in one day, the Device starts recoding the selected event type in the defined period. In Set Period by Drawing, the different color bars stand for different record types.

   - Blue stands for continuous record.
   - Red stands for alarm record.
   - Green stands for Motion record.
   - Yellow stands for I/O alarm record.
   - Light blue stands for MD||/O (motion detection or I/O alarm) record.

- Orange stands for MD&I/O (motion detection and I/O alarm) record.
- Select a record type and then left-click to set or click to set all day or all week, but left-click again to clear the corresponding period.

Note: The color schedule is only for view, the recording of disk cannot show these colors; There are only three types of recording 

.

Figure 47 Set Period by Drawing

Method 1: Hold down the left mouse button, drag and release mouse to select the arming time within 00:00-24:00 from Monday to Sunday.

Method 2: Click in the record schedule page to select the whole day or whole week.

Deleting record schedule: Click again or inverse selection to delete the selected record schedule.

- When you select time by dragging the cursor, the cursor cannot move out of the time area. Otherwise, no time would be selected.
- The selected area is blue. The default is all week.
- User can choose alarm type to record, if the chosen alarm is happening at the setting time, it will record. So that it will using the disk effectively to avoid repeating useless recording.
- The ANR function can be used only for the cameras with supplementary recording function.
- User can set different alarms to record.

4. Click APPLY to complete the settings.
Enable auto record function so that the record plan can become activated. Refer to Storage for detailed information.

Disk

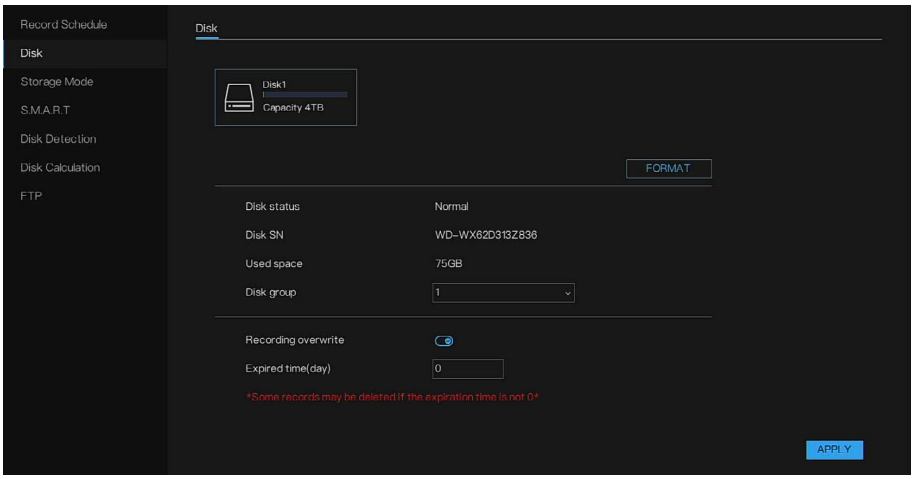
You can view and set HDD properties, format HDD and view current HDD type, status, capacity and etc. The operation includes format HDD, and change HDD property (read and write/read-only/redundancy).

To backup recorded video file, you can set HDD as redundant HDD.

1. Go to Main Menu > Storage > Disk.

   The Disk interface is displayed.

Figure 48 Disk Interface



2. Select an HDD and then select disk group the drop-down list.
3. (Optional) Format an HDD.
   a. Select an HDD and then click FORMAT.

Note: This operation will erase all data in the HDD. Proceed with caution. If you format the HDD, the data will be lost.

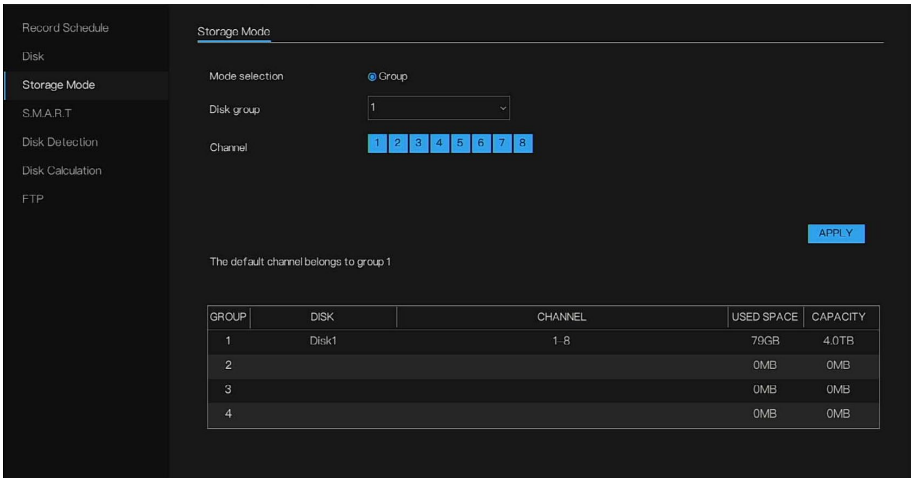
   b. Click OK.
   4. Enable Recording overwrite, when the disk is full, it will overwrite.
5. Set Expired time(day), the expired time is not 0, the records will be deleted when the time is over the setting value.
6. Click APPLY to complete the setup.

Storage Mode

When the NVR is installed several HDDs, you can configure the HDDS in different groups, and the different HDDS can record the different channels, so that users can access HDDS quickly and use the HDDs efficient.

1. Go to Main Menu > Storage > Storage Mode.

Figure 49 Storage Mode

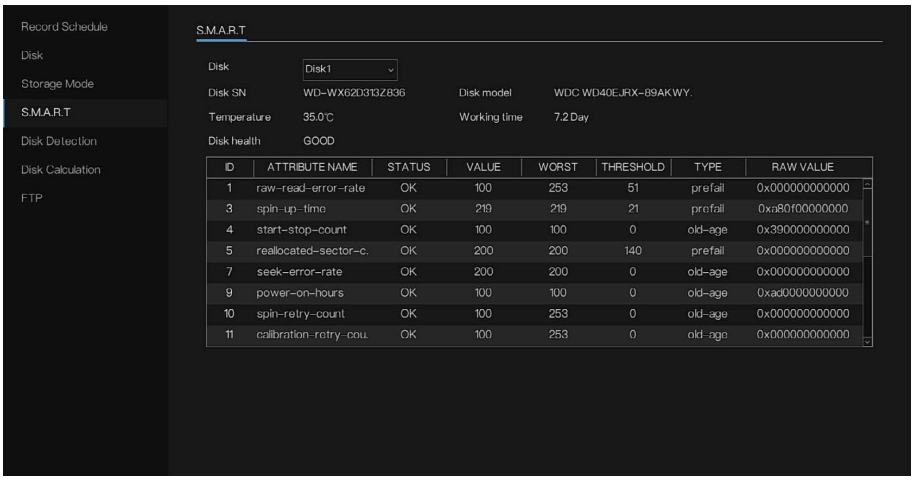


2. Choose the Disk group and Channels, the details of configuration are shown in list.
3. Click APPLY to complete settings.

S.M.A.R.T

S.M.A.R.T is Self-Monitoring Analysis and Reporting Technology with which user can view corresponding information. Replace the malfunction HDD in case there is data loss

Figure 50 S.M.A.R.T Interface



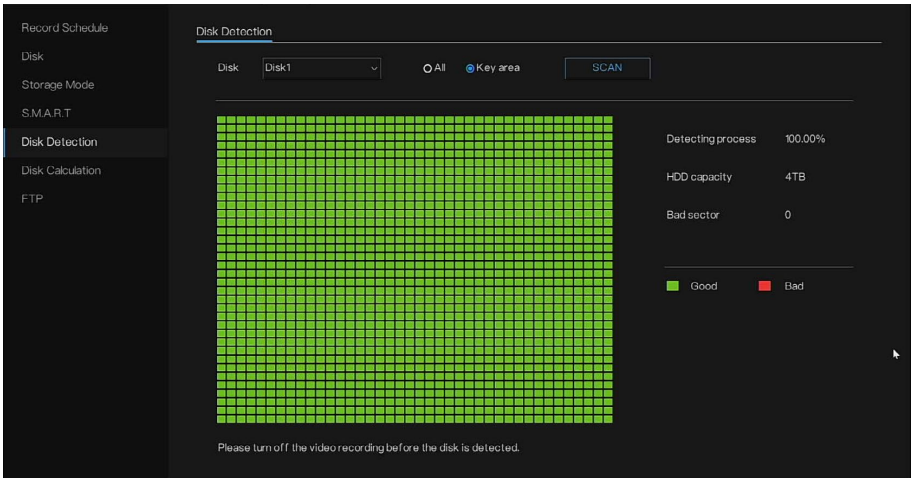
Disk Detection

HDD detect function can detect HDD current status to clearly understand the HDD performance and replace the malfunction HDD.

1. Go to Main Menu > Storage > Disk Detection.

   The Disk Detection interface is displayed.

Figure 51 Disk Detection Interface



2. Choose Disk that you want to detect. Select All or Key area. Detecting All needs some time because it detects carefully and comprehensively; Detecting key section may need a few minutes.
3. Click SCAN.

   The system starts detecting the HDD and displays the detection information.

   - The green block means good, the red block means bad, if the red blocks are too much or at key section, please change the disk immediately
   - Please turn off the video recording before the disk is detected, otherwise the recording of video maybe lost.

Note: When the system is detecting HDD, click CANCEL to stop current detection. When pop-up window shows "Would you like to stop disk detection?", click OK to end detecting.

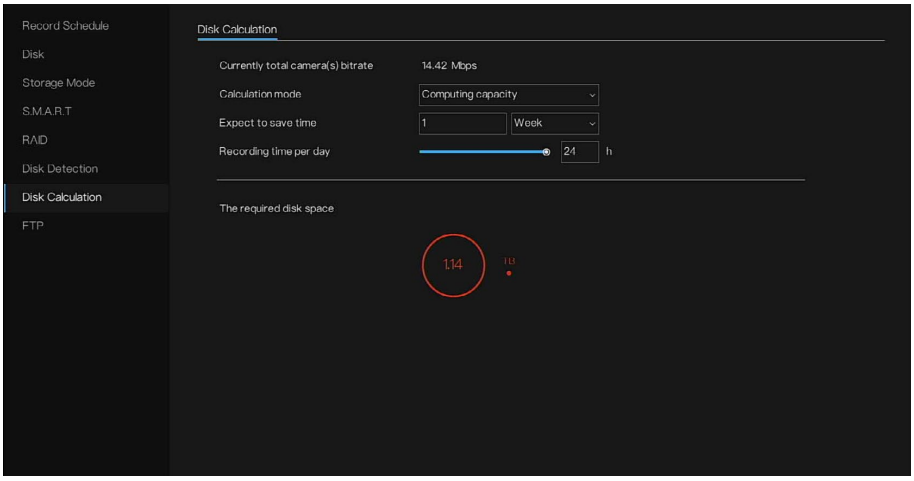
Disk Calculation

Record estimate function can calculate how long you can record video according to the HDD capacity, and calculate the required HDD capacity according to the record period.

1. Go to Main Menu > Storage > Disk Calculation.

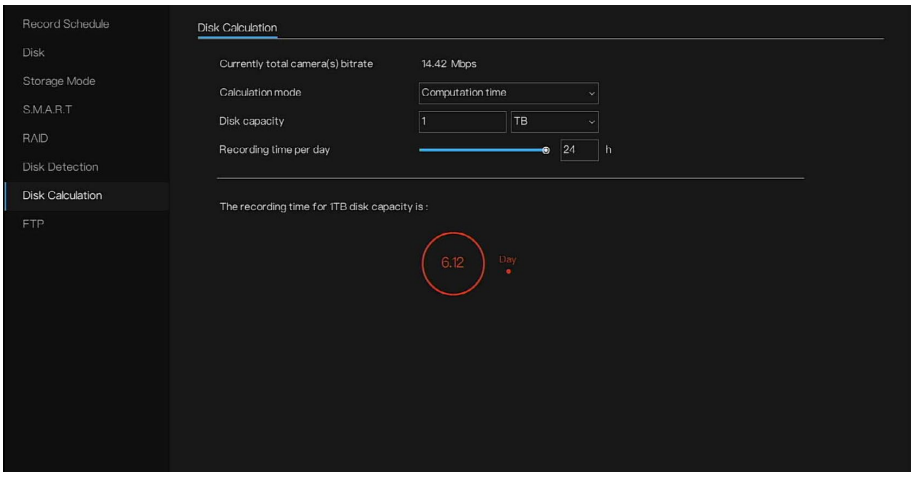
   The Disk Calculation interface is displayed.

Figure 52 Disk Calculation



2. Choose the calculation mode for Computing capacity or Computation time.
3. Input value for Expect to save time.
4. Set the Recording time per day, the result is shown in figure.

Figure 53 Computation time



Note: The computation is based on the currently online cameras bitrate (includes main stream and sub stream).

FTP

You can store and view the recorded videos and snapshots on the FTP server.

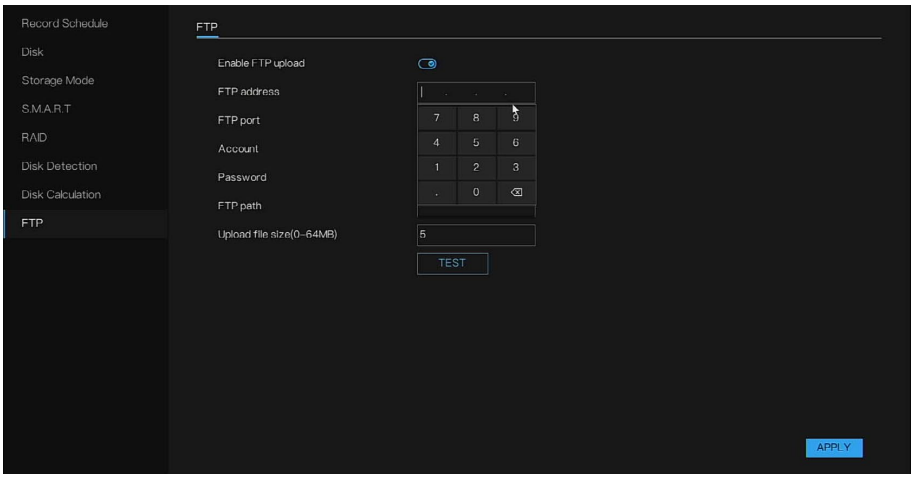
Purchase or download an FTP (File Transfer Protocol) server and install it on your PC.

Note: For the created FTP user, you need to set the write permission; otherwise the uploading for recorded videos and snapshots will be failed.

1. Go to Main Menu > Storage > FTP.

   The FTP interface is displayed.

Figure 54 FTP



2. Configure the settings for the FTP settings parameters.

Table 16 FTP Parameters

Parameter	Description
Enable FTP upload	Enable the FTP upload function.
FTP address	IP address of FTP server.
FTP Port	The default is 21.
Account	Enter the account and password to log in to the FTP server.
Password	
FTP path	Create folder on FTP server. • If you do not enter the name of remote directory, system automatically creates the folders according to the IP and time. • If you enter the name of remote directory, the system creates the folder with the entered name under the FTP root directory first, and then automatically creates the folders according to the IP and time.
Upload file size(0-64MB)	Enter the length of the uploaded recorded video. • If the entered length is less than the recorded video length, only a section of the recorded video can be uploaded. • If the entered length is more than the recorded video length, the whole recorded video can be uploaded. • If the entered length is 0, the whole recorded video will be uploaded.

3. Click TEST.

   The system pops up a message to indicate success or failure. If failed, check the network connection or configurations.

4. Click APPLY to complete the settings.

Configuring Events Settings

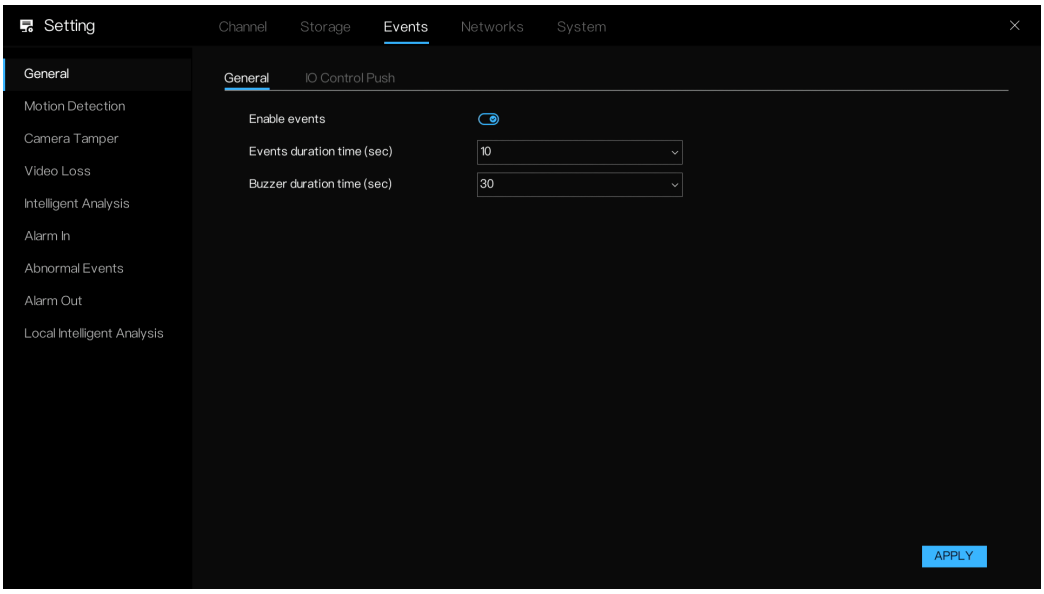
General

You can enable General alarm and IO Control Push.

1. Go to Main Menu > Event > General > General.

   The General interface is displayed.

Figure 55 General Page



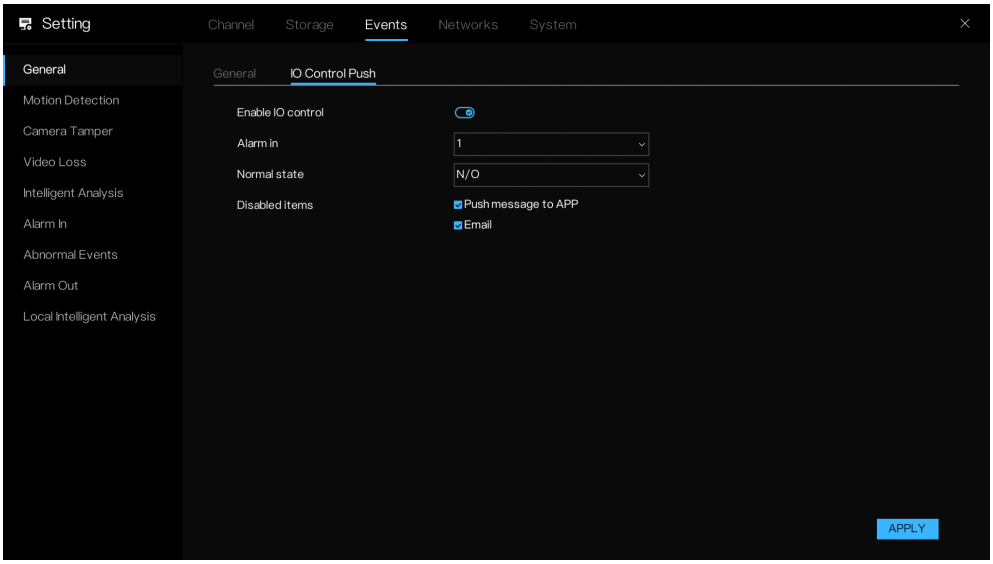
2. Enable alarm, set Alarm duration time(sec) and Buzzer duration time(sec).
3. Click APPLY to save the settings.

IO Control Push

1. Go to Main Menu > Event > General > IO Control Push.

   The IO Control Push interface is displayed.

Figure 56 IO Control Push



2. Enable IO Control Push, choose the Alarm in from drop-down list.
3. Choose Normal state from drop-down list (N/C or N/O).
4. Select Disable items (Push message to APP and Email)

Note: If you select normally open and select the disabled items, the alarm input 1 will not push message in the normally open state. Only when the alarm in 1 is in the normally closed, it can push alarm message.

5. Click APPLY to save the settings.

Motion Detection

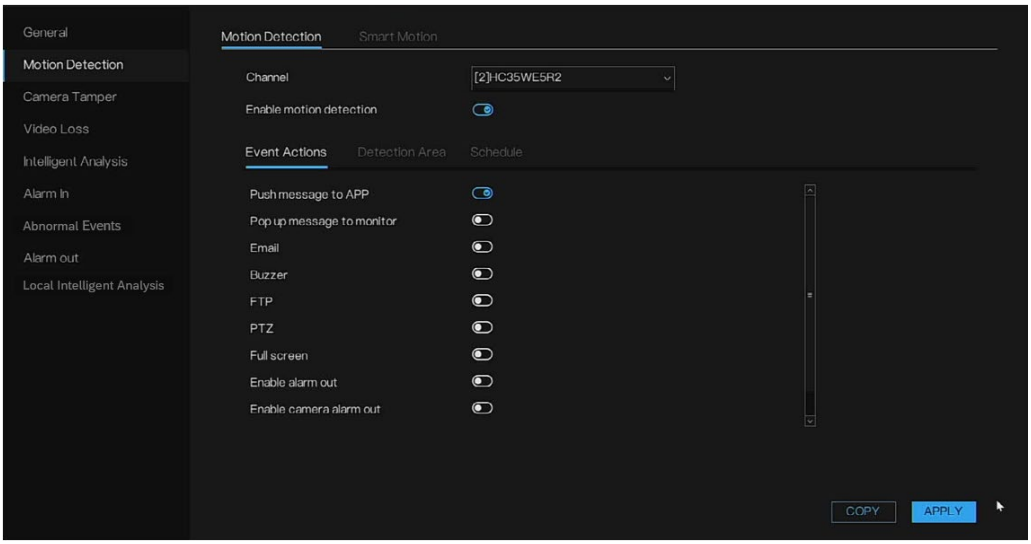
Motion Detection Settings

When the moving object appears and moves fast enough to reach the preset sensitivity value, the system activates the alarm.

1. Go to Main Menu > Event >Motion Detection.

   The Motion Detection interface is displayed.

Figure 57 Motion Detection



2. Configure the settings for the motion detection parameters.

Table 17 Motion Detection Parameters

Parameter	Description
Channel	In the Channel list, select a channel to set the motion detection.
Enable	Enable or disable the motion detection function. When enable the function, the NVR is modified and the result can be synced to camera.
Event Actions	**Push message to APP**: enable a pop-up message to App which is managing the NVR **Pop up message to monitor**: enable a pop-up message in your UI monitor. **Email**: When an alarm occurs, the NVR device sends an email to the set mailbox to notify the user. You need to set the email first. For details, refer to Email. **Buzzer**: activate the buzzer when an alarm occurs. The duration is set in **Event > General**. **FTP**: enable it to send snapshot to FTP path. Set FTP in **Storage > FTP** interface. **PTZ**: enable it and select the **Channel** and **Preset**. When an alarm occurs, the NVR device associates the channel to perform the corresponding PTZ action. For example, activate the PTZ in channel one to turn to the preset point X. •Tripwire alarm supports to activate PTZ preset point only. •You need to set the corresponding PTZ actions first, see PTZ Control. **Full Screen**: enable to show the live video of channel by full screen when alarming. **Enable alarm out**: enable to linkage alarm out, the parameters should be set in **Event > Alarm out** interface. The alarm device (such as lights, sirens, etc.) is connected to the alarm output port. When an alarm occurs, the NVR device transmits the alarm information to the alarm device. **Enable camera alarm out**: enable to linkage the alarm out port of camera. **Enable event recording:** enable to record when the alarm is occur.

Parameter	Description
Detection Area	After a motion detection area is selected, double-click it to delete the selected area. **Sensitivity**: there are four level can be chosen, **Low**/**Medium**/**High**/**Highest**, it is not consistent with IPC. The highest the chosen is, the easier the alarms can be activated.
Schedule	Define a period during which the motion detection is active.

3. Click APPLY to save the settings.

   Click COPY. In the Copy dialog box, select the additional channel(s) that you want to copy the motion detection settings to, and then click APPLY.

Figure 58 Copy dialog box

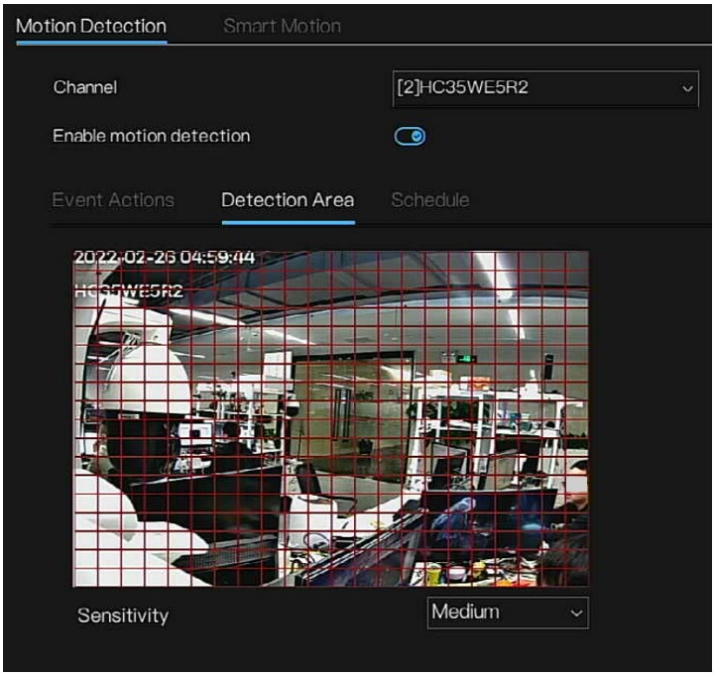
Setting the Motion Detection Area

1. On the live video screen, draw areas to arm.

   You can configure four regions. Hold down and drag the left mouse button to draw a motion detection area, the default area is full screen.

Note: Drag on the screen to select the region that you want to detect. When anyone of the four regions activates motion detect alarm, the channel where this region belongs to will activate motion detect alarm.
The NVR is modified, the result can be synced to camera.

Figure 59 Region Setting

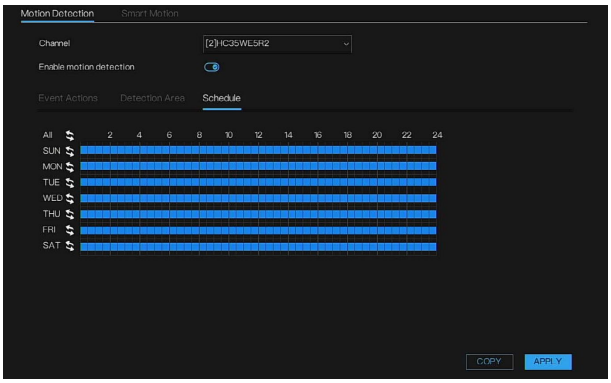


2. Click APPLY to complete the settings.

Setting Schedule

Note: *The system only activates the alarm in the defined period.*

Figure 60 Schedule Setting



1. Set Schedule.

- Hold down the left mouse button, drag and release mouse to select the arming time within 00:00-24:00 from Monday to Sunday.
- Click  in the record schedule page to select the whole day or whole week.
- click the time grids to choose one by one.

Click  again or inverse selection to delete the selected record schedule.

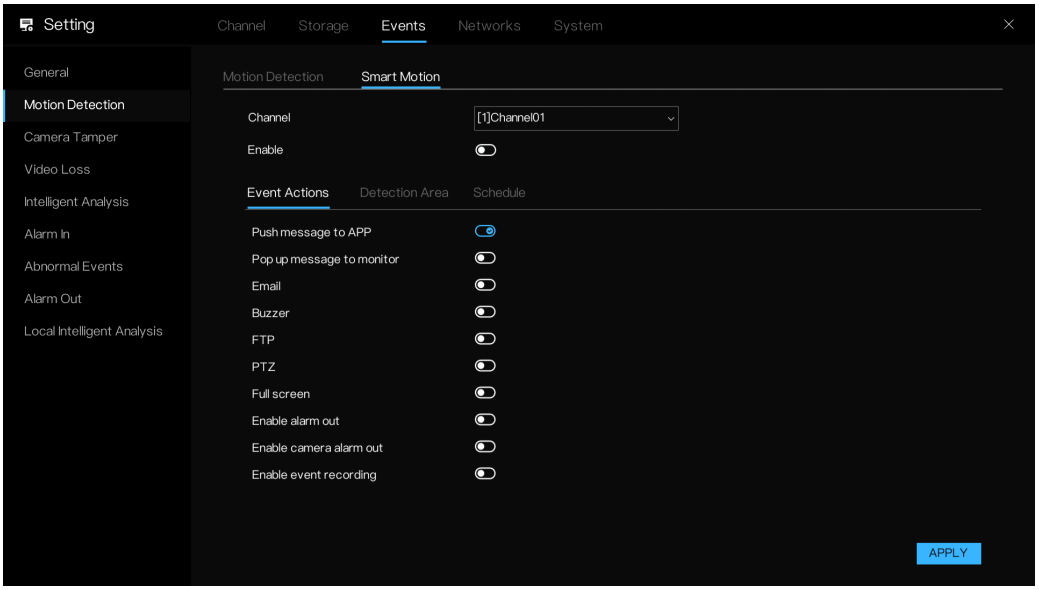
2. Click APPLY to complete the settings.

Smart Motion

For some cameras can detect person or car, you can set the smart motion parameter in NVR that manage convenient the cameras.

Go to **Main Menu > Event > Motion Detection > Smart Motion**, the **Smart Motion** interface is displayed.

Figure 61 Smart Motion



To configure the linkage event actions of smart motion's, see Table 17 Motion Detection Parameters

Setting Smart Motion Area

Move the cursor to the drawing interface and click to generate a point. Move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing.

Click **REMOVRE ALL** to remove detection area.

Figure 62 Smart Motion – Detection Area

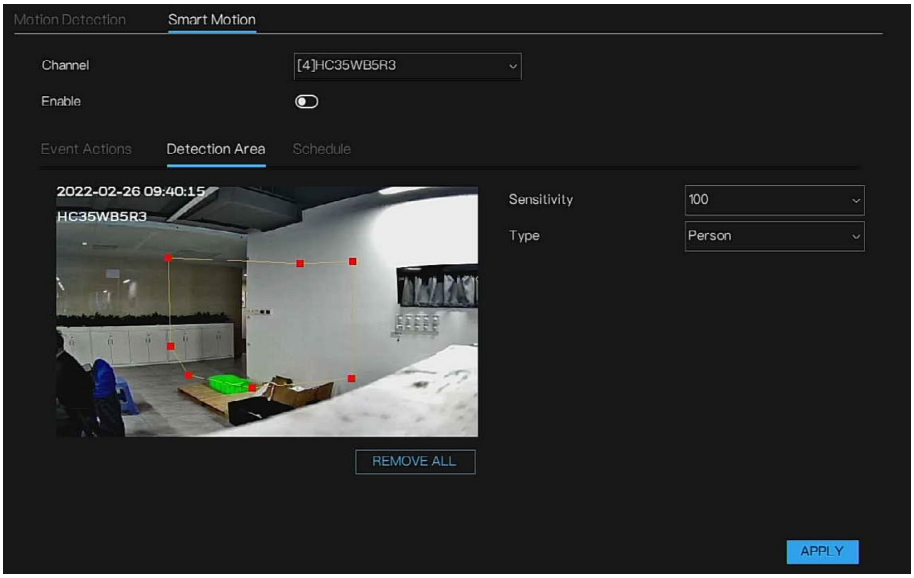


Table 18 Detection Area Setting Parameters

Parameter	Description
Sensitivity	Every region of every channel has an individual sensitivity value. The range is 0-100.The bigger the value is, the easier the alarms can be activated.
Type	Person: only detects people Car: only detects cars Person or car: detects person and car at the same time

Setting Smart Motion Schedule

To configure the schedule of smart motion's, refer to Setting Schedule.

Figure 63 Smart Motion – Schedule

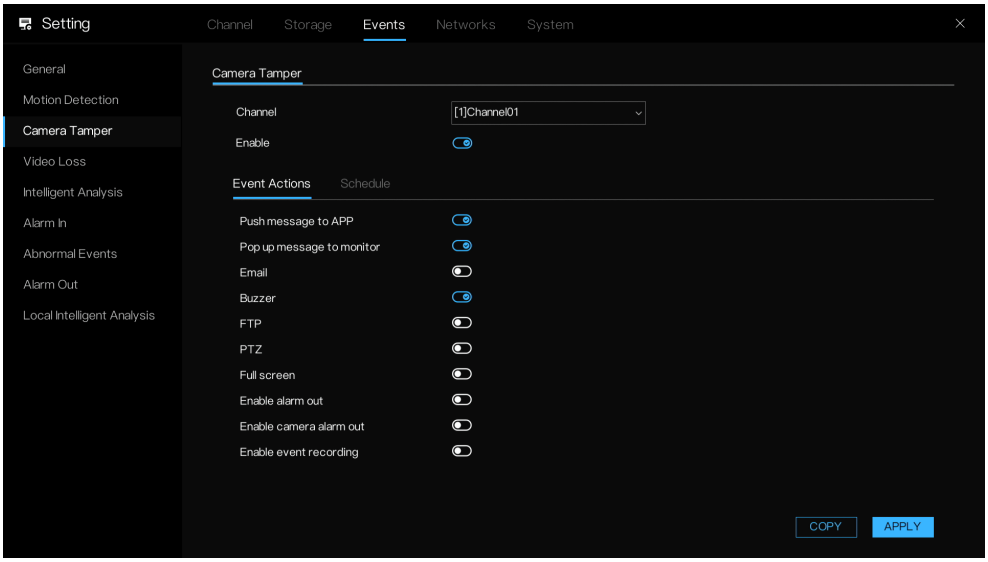
Camera Tampering

When the camera lens is covered, or the video is displayed in a single color because of sunlight status, the monitoring cannot be continued normally. To avoid such situations, you can configure the tamper alarm settings.

1. Go to Main Menu > Event > Camera Tamper.

   The Camera Tamper interface is displayed.

Figure 64 Camera Tamper



2. To configure the settings for the tampering detection parameters, refer to Motion Detection.

Note: The Tampering function does not have detection area and sensitivity items.

3. Click APPLY to complete the settings.

   Click COPY, in the Copy to dialog box, select the additional channel(s) that you want to copy the motion detection settings to, and then click OK.

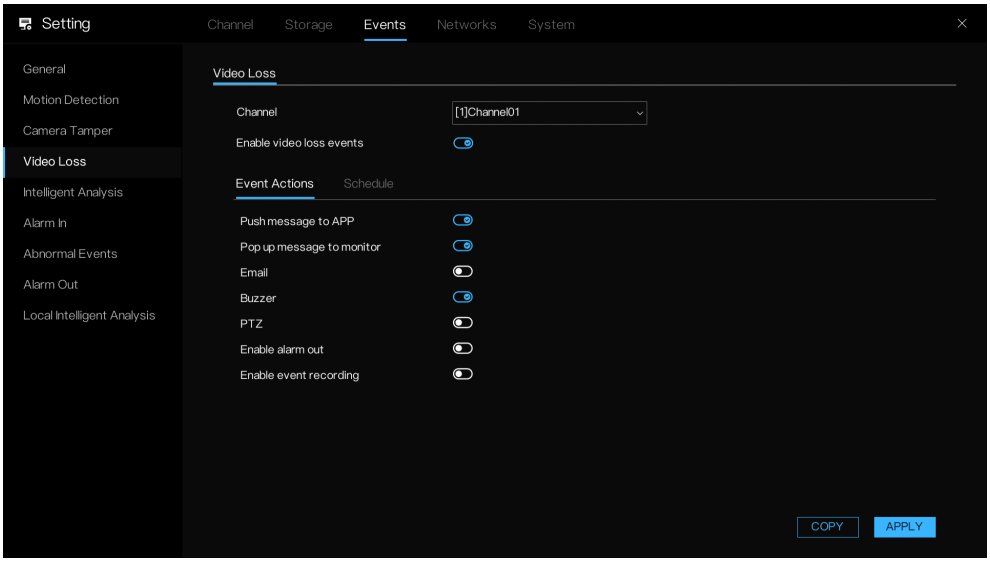
Video Loss

When the video loss occurs, the system activates the alarm.

1. Go to Main Menu > Event > Video Loss.

   The Video Loss interface is displayed.

Figure 65 Video Loss



2. To configure the settings for the video loss detection parameters, refer to Motion Detection.

   The video loss function does not have detection area and sensitivity items.

3. Click APPLY to complete the settings.

   Click COPY, in the Copy to dialog box, select the additional channel(s) that you want to copy the motion detection settings to, and then click OK.

Intelligent Analysis

Intelligent analysis includes Intrusion, Multi Loitering and Crowd Detection.

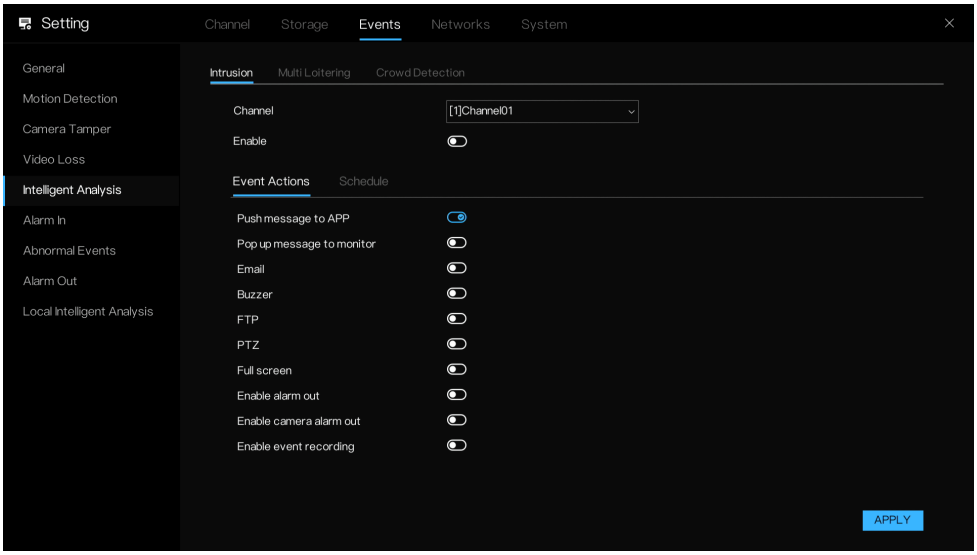
Intrusion

When channel camera is capture someone intrude to the setting area, it will trigger the intelligent analysis intrusion alarm of NVR

1. Go to Main Menu > Event > Intelligent Analysis > Intrusion.

   The Intrusion interface is displayed.

Figure 66 Intrusion



2. To configure the settings for the intrusion parameters, see Motion Detection.

   The intrusion function does not have detection area and sensitivity items. The detection area is configured in cameras interface, so the parameter can be copied.

3. Click APPLY to complete the settings.

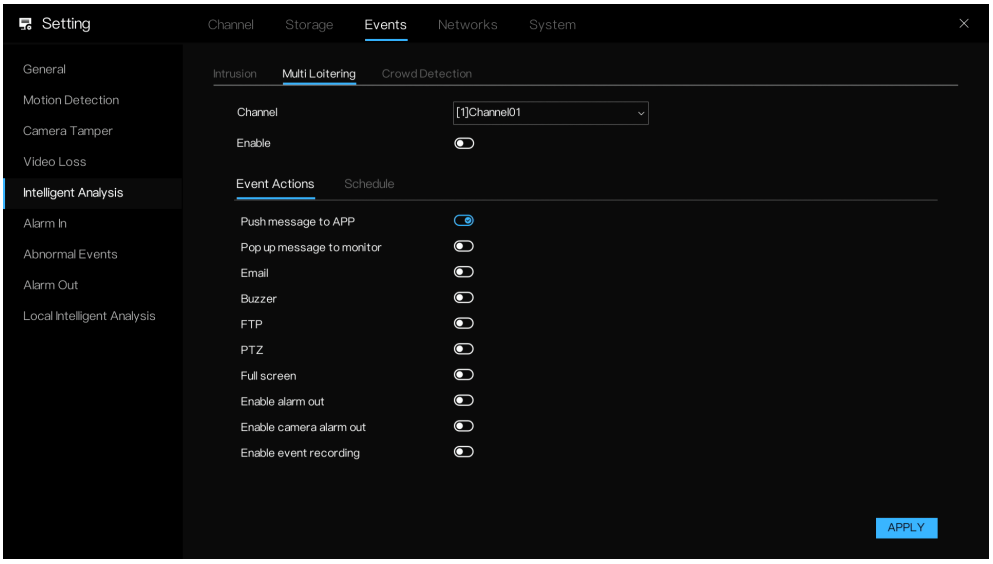
Multi Loitering

When channel camera is capture someone stay in the setting area, it will trigger the intelligent analysis multi loitering alarm of NVR

1. Go to Main Menu > Event > Intelligent Analysis > Multi Loitering.

   The Multi Loitering interface is displayed.

Figure 67 Multi Loitering



2. To configure the settings for the multi loitering parameters, see

Motion Detection.

The multi loitering function does not have detection area and sensitivity items. The detection area is configured in cameras interface, so the parameters can be copied.

3. Click APPLY to complete the settings.

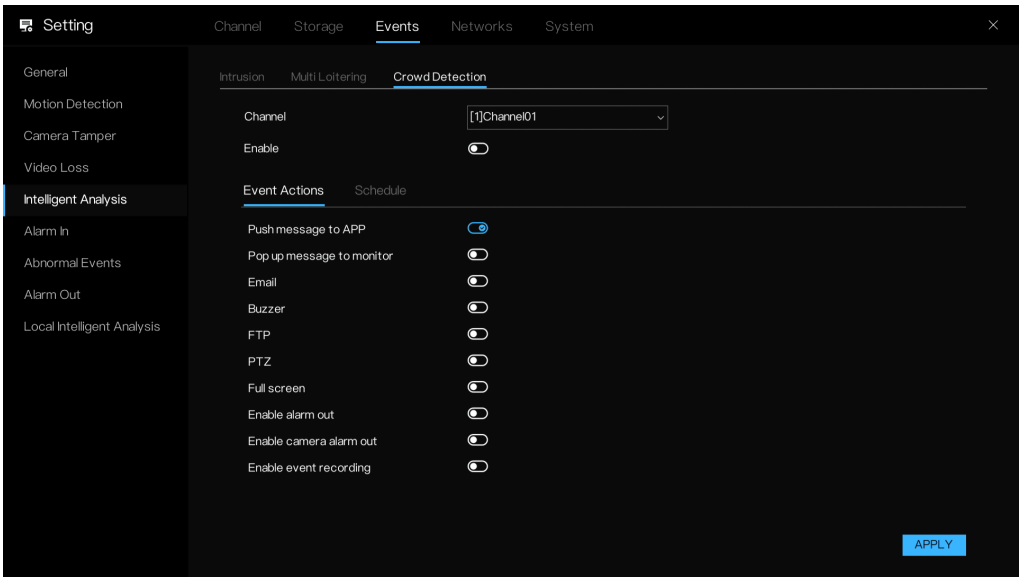
Crowd Detection

When channel camera is counting personnel in the setting area, it will trigger the intelligent analysis personnel count alarm of NVR

1. Go to Main Menu > Event > Intelligent Analysis > Crowd Detection.

   The Crowd Detection interface is displayed.

Figure 68 Crowd Detection



2. To configure the settings for the Crowd Detection parameters, see Motion Detection.

   The Crowd Detection function does not have detection area and sensitivity items. The detection area is configured in cameras interface, so the parameters can be copied.

3. Click APPLY to complete the settings.

Alarm In

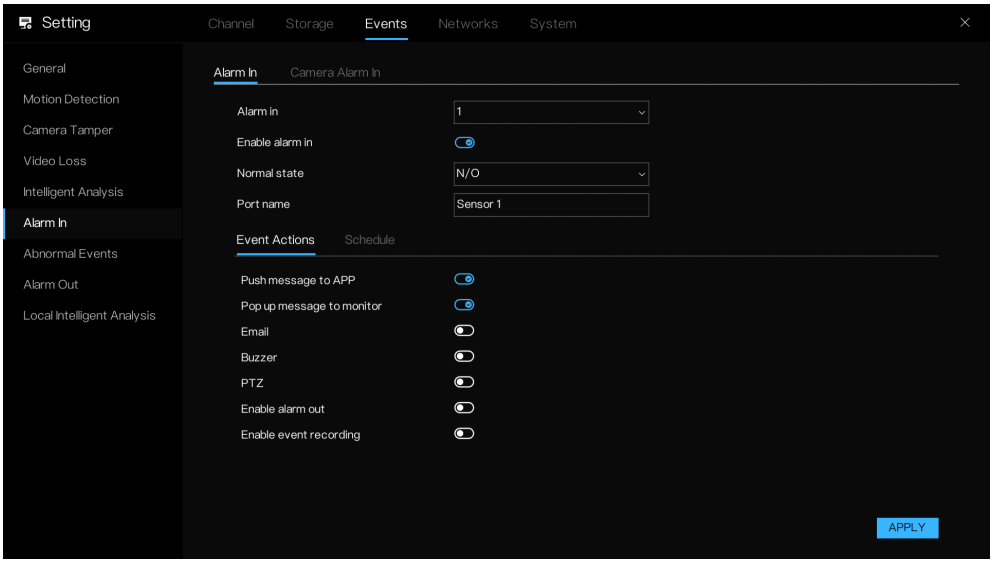
Alarm In Settings

After connecting the alarm device to the NVR alarm input port, system can trigger the corresponding alarm operations when there is alarm signal from the alarm input port to the NVR.

1. Go to Main menu > Event > Alarm In.

The Alarm In interface is displayed.

Figure 69 Alarm In



2. Set Alarm-in Port channel number and then select the enable check box to enable the function.
3. Configure parameters.

Table 19 Alarm-in Port Parameters

Parameter	Description
Alarm in	Select a port to set alarm, the alarm device is also connected to the correspond port.
Enable alarm in	Check the box  to enable the function.
Normal state	**N/O** (normal open) or **N/C** (normal close).
Port name	Input the port name, the name will show on the alarm information message.
Event Actions	Refer to Table 17
Schedule	Define a period during which the alarm is active. For details, see Motion Detection.

4. Click APPLY.

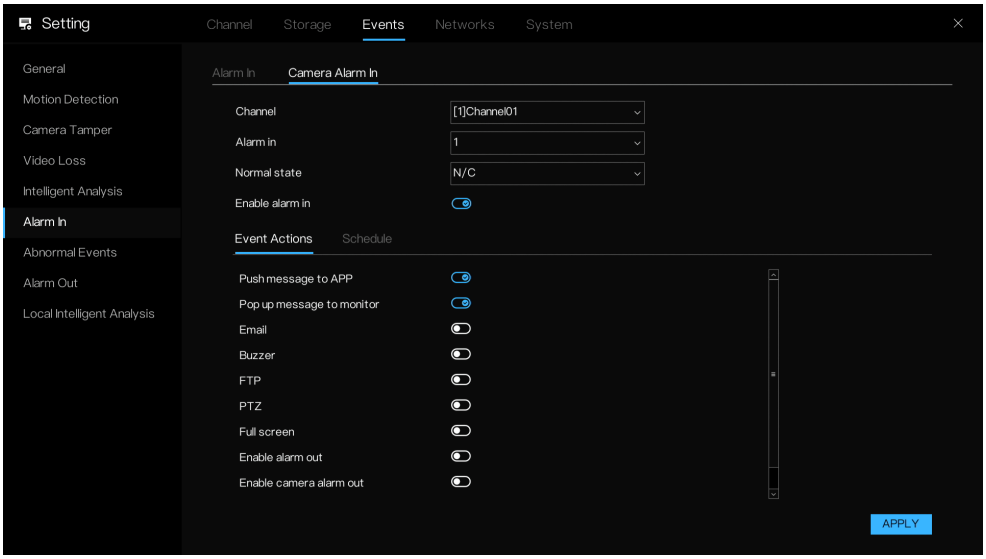
Camera Alarm In

After connecting the alarm device to the channel camera alarm input port, system can trigger the corresponding alarm operations when there is alarm signal from the alarm input port of camera.

1. Go to Main Menu > Event > Alarm In > Camera Alarm In.

   The Camera Alarm In interface is displayed.

Figure 70 Camera Alarm in Port



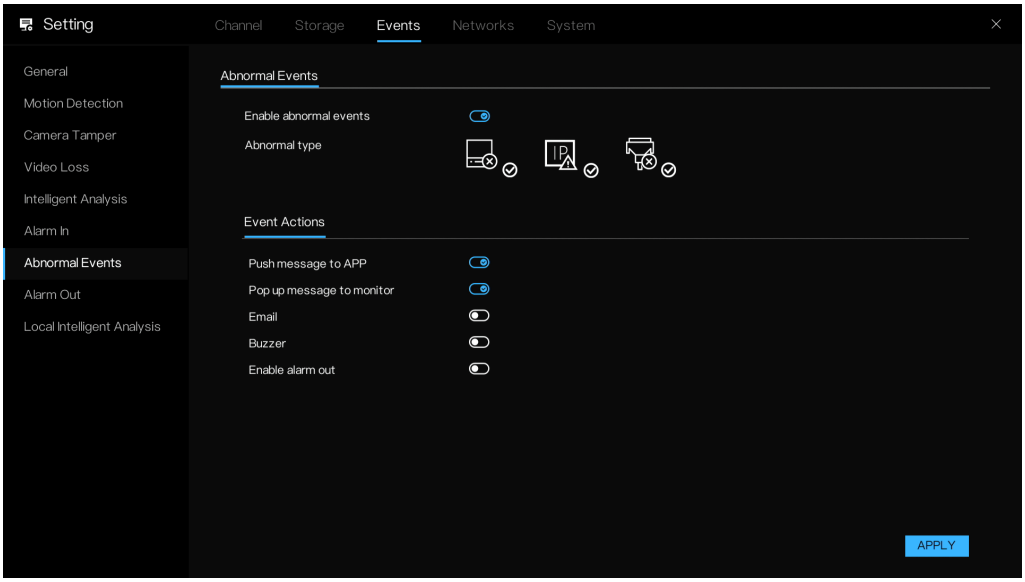
2. Select the Channel/Alarm in/Normal state.
3. Enable to open camera alarm in port. The following operations are same as Alarm In Settings.
4. Click APPLY.

Abnormal Events

1. Go to Main Menu > Event > Abnormal events.

   The Abnormal events interface is displayed.

Figure 71 Abnormal events



2. Configure parameters.

Table 20 Abnormal Alarm Parameters

Parameter	Description
Enable abnormal events	Check the box  to enable the function.
Abnormal type	Disk alarm, IP address conflict, network disconnect
Event actions	Enable different event actions

1. Click APPLY to complete settings.

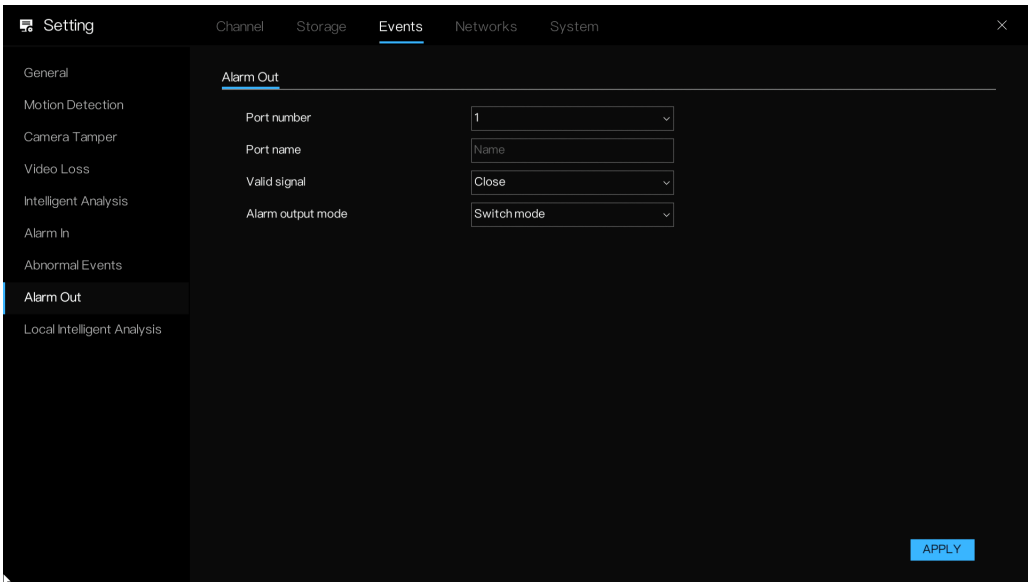
Alarm Out

The external alarm device is connected to the alarm out port.

1. Go to Main Menu > Event > Alarm out.

   The Alarm Out interface is displayed.

Figure 72 Alarm Out



2. Configure parameters.

Table 21 Alarm Out Parameters

Parameter	Description
Port number	Correspond to real panel I/O port OUT 1
Port name	Input the port name. The name will show on the alarm information message.
Valid signal	**Close**: An alarm is generated when an external alarm signal is received. **Open**: An alarm is generated when no external alarm signal is received.
Alarm output mode	When the device receives I/O alarm signals, the device sends the alarm information to an external alarm device

3. Click APPLY to complete settings.

Local Intelligent Analysis

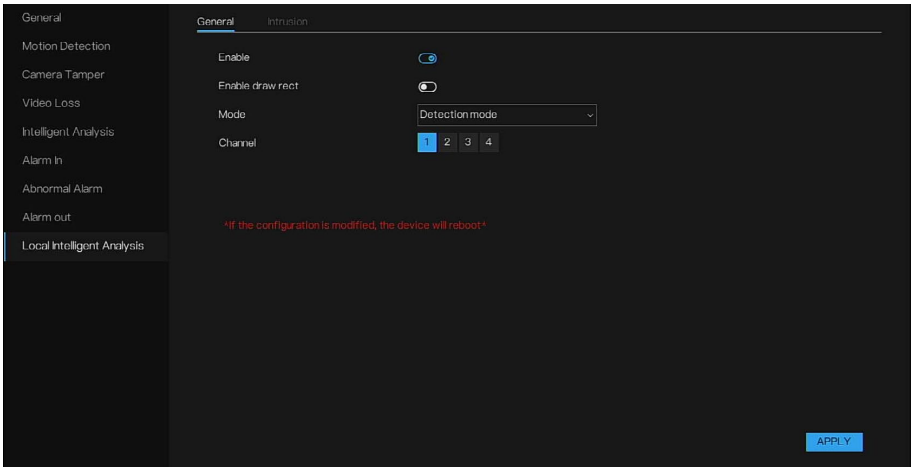
Note: This function is applicable for PoE NVRs only. It is not applicable for non-PoE NVRs.

The local intelligent analysis is for NVR to manage the local intrusion alarm.

1. Go to Main Menu > Event > Local Intelligent Analysis.

   The Local Intelligent Analysis interface is displayed.

Figure 73 Local Intelligent Analysis



2. Configure parameters.

Table 22 Local Intelligent Analysis Parameters

Parameter	Description
Enable	Enable this function and then you can set the parameter of alarm.
Enable draw rect	Enable draw rectangle, the detection rectangle will be showed on the live video of intrusion.
Mode	Choose detection mode.
Channel	Choose the channels Up to 4 channels to be chosen.

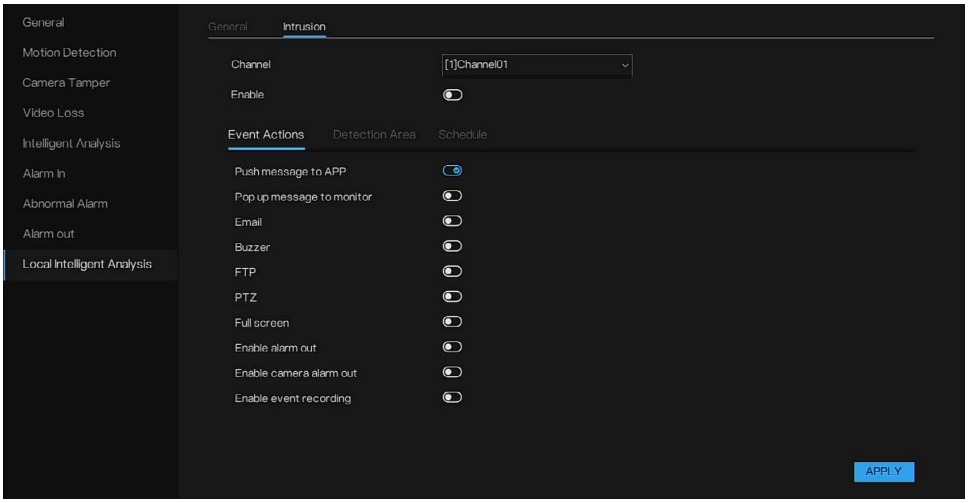
3. Click APPLY to complete settings.

Note: If you enable or disable the intrusion and modify the channels, the device will be reboot.

Intrusion

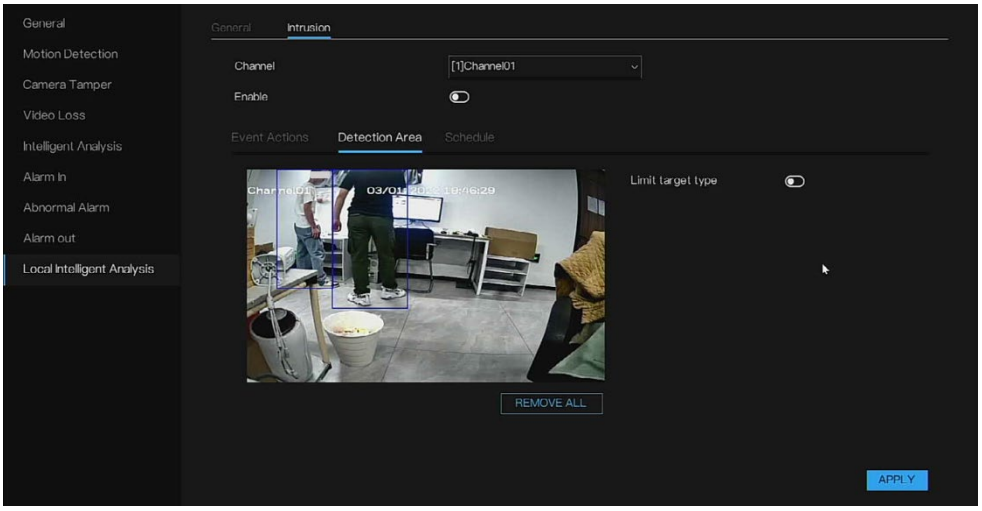
The intrusion refers to that an alarm is generated when the targets of specified types (such as person, car, and both person and car) enter the deployment area.

Figure 74 Intrusion Event Actions



The event actions, detection area, and schedule are set refer to Motion Detection.

Figure 75 Detection Area



To configure the settings for intrusion detection area, refer to Setting Smart Motion Area

Move the cursor to the drawing interface and click to generate a point. Move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing.

Click **REMOVRE ALL** to remove detection area.

Configuring Network Settings

You can set NVR network parameters so that the NVR can communicate with devices in the same LAN.

Network

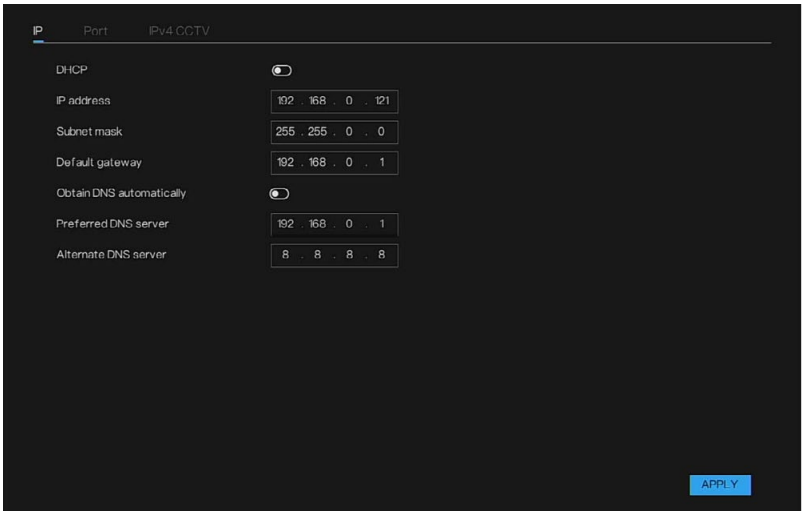
IP

User can input the IP address in browser address bar, so that you can remote access the NVR through Web page.

1. Go to Main Menu > Networks > Networks > IP.

   The Network interface is displayed.

Figure 76 Networks - IP



2. Enable DHCP and the router can distribute the IP automatically.

   Disable DHCP, you can modify the parameters manually.

3. Set parameters.

Table 23 IP Parameters

Parameter	Description
DHCP	Enable the DHCP function. The IP address, subnet mask and default gateway are not available for configuration once DHCP is enabled. • If DHCP is effective, the obtained information will display in the **IP Address** box, **Subnet Mask** box and **Default Gateway** box. • If you want to manually configure the IP information, disable the DHCP function first. If PPPoE connection is successful, the IP address, subnet mask, default gateway, and DHCP are not available for configuration.
IP Address	Enter the IP address and configure the corresponding subnet mask and default gateway. **IP address and default gateway must be in the same network segment.**
Subnet Mask	
Default Gateway	
Obtain DNS automatically	Enable the function to get the DNS address automatically.

Parameter	Description
	If you learn about the local DNS server IP, you can input the preferred DNS server and alternate DNS server manually.
Preferred DNS	In the **Preferred DNS** box, enter the IP address of DNS.
Alternate DNS	In the **Alternate DNS** box, enter the IP address of alternate DNS.

4. Click APPLY.

Configuring Router

1. Log in to the router to set the WAN port to enable the IP address to connect into the WAN.
2. Enable the UPnP function on the router.
3. Connect the Device with the LAN port on the router to connect into the LAN.
4. Go to Main Menu > Network > Network, configure the IP address into the router IP address range, or enable the DHCP function to obtain an IP address automatically.

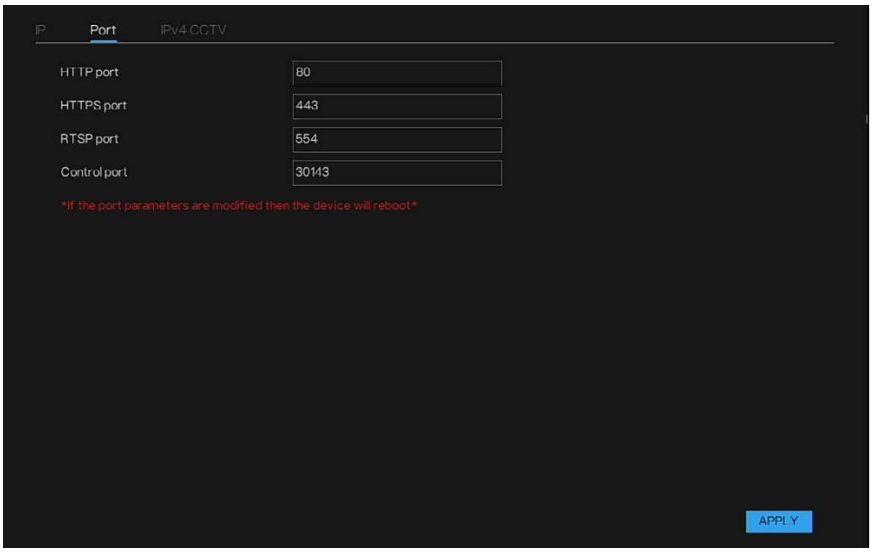
Port

You can remote access the NVR Web through IP different ports.

1. Go to Main Menu > Networks > Networks > Port.

   The Port interface is displayed.

Figure 77 Port Interface



2. Configure the settings for the connection parameters.

Note: If the port parameters are modified, then the device will be restarted.

Table 24 Port Parameters

Parameter	Description
HTTP Port	The default value setting is 80. You can enter the value according to your actual situation. If you enter other value, for example 70, you should enter 70 after the IP address when logging in the Device by browser.
HTTPS Port	HTTPS communication port. The default value setting is 443. You can enter the value according to your actual situation.
RTSP Port	The default value setting is 554. You can enter the value according to your actual situation.
Control port	The default value setting is 30413. You can enter the value according to your actual situation.

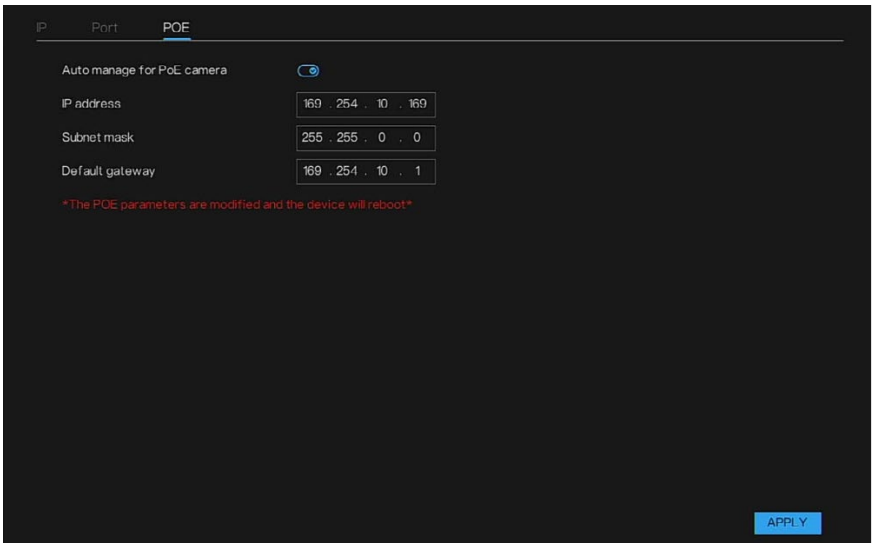
3. Click APPLY to complete the settings.

POE

This function is only applicable for PoE NVR.

1. Go to Main Menu > Networks > Networks > POE.

Figure 78 POE



2. The default Auto manage for PoE camera is open. Users can set the PoE camera IP parameters manually.
3. Click APPLY to complete the settings.

Note: When the camera via POE, and the auto manage for POE camera is enabling, icon  *can be shown in channel list.*
The PoE parameters are modified and the device will reboot.

IPv4CCTV

This function is used for No PoE NVR that has two LANs. The IPv4CCTV is for LAN2. LAN2 is only for adding cameras, cannot access the external network.

Note: This function is supported on select models.

1. Go to Main Menu > Networks > Networks > IPv4CCTV.

Figure 79 IPv4CCTV

2. Set the LAN2's IP address parameters.

Note: LAN1 and LAN2 cannot be set the same network segment. You can add the cameras through LAN2 access to local network, but you must plug LAN1 in Internet to remote access.

3. Click APPLY to complete the settings.

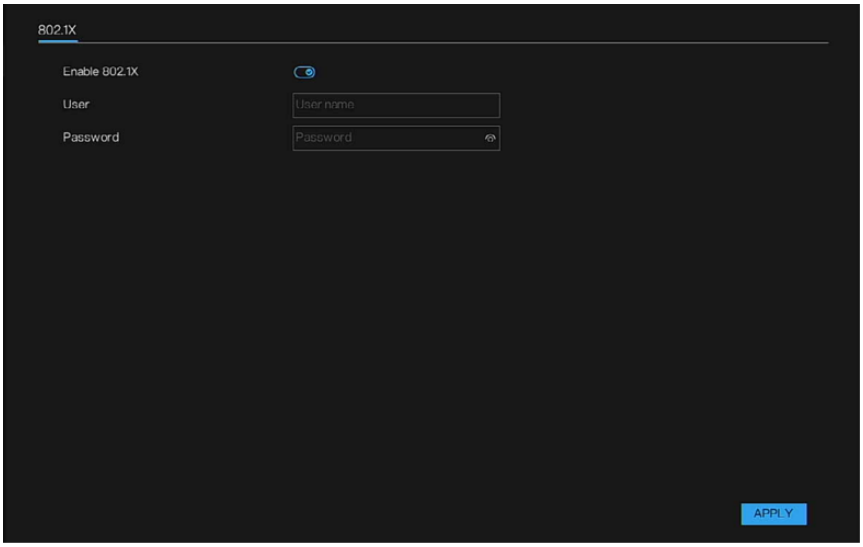
802.1X

The 802.1x protocol is an access control and authentication protocol based on Client/Server. It can restrict unauthorized users/devices from accessing LAN/WLAN through the access port. User can access the NVR through 802.1X account.

1. Go to Main Menu > Networks > 802.1X.

   The 802.1X interface is displayed.

Figure 80 802.1X Interface



2. Enable function, enter the 802.1X account user name and password.
3. Click APPLY to complete the settings.

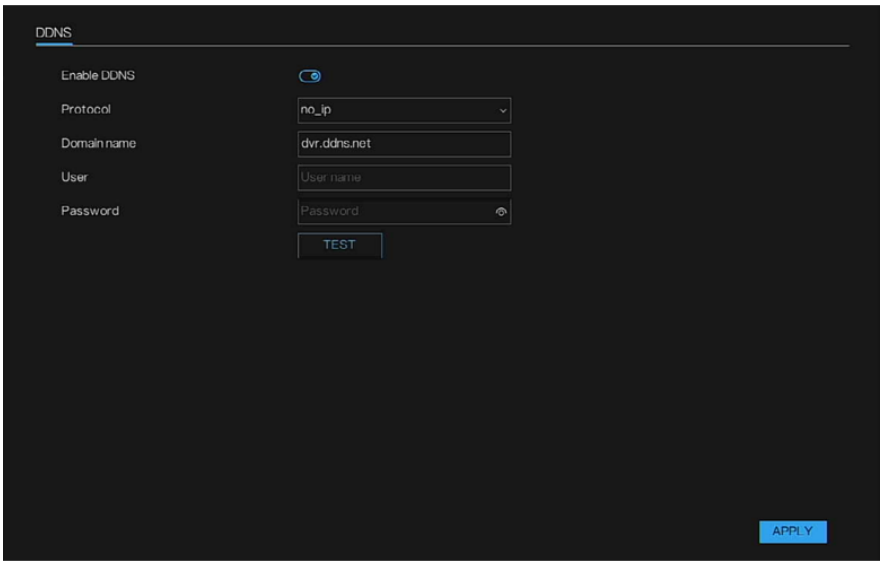
DDNS

DDNS (Dynamic Domain Name Server, dynamic domain name service). User can use the DDNS account to access the NVR.

1. Go to Main Menu > Networks > DDNS.

   The DDNS interface is displayed.

Figure 81 DDNS Interface



2. Enable function, choose the protocol from drop-down list, no_ip / autodns / dyndns / 3322.
3. Enter the domain name.
4. Enter the DDNS account user name and password.

5. Click APPLY to complete the settings.

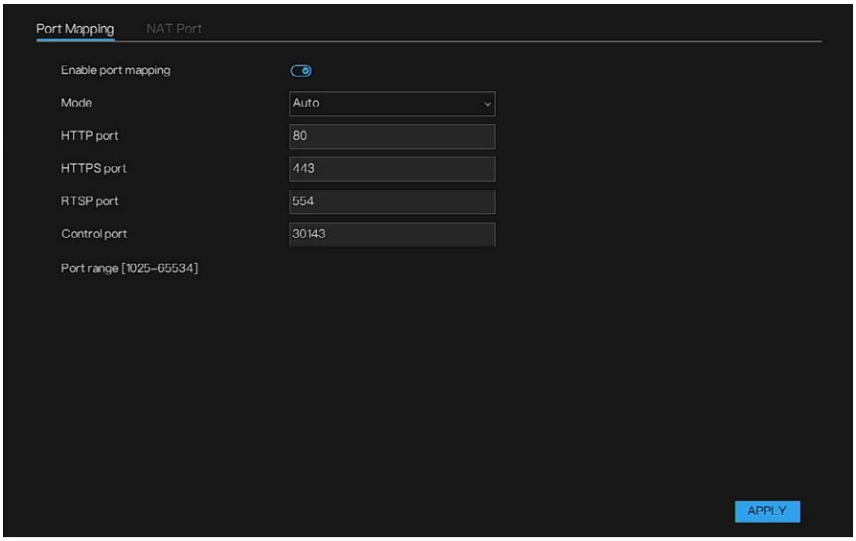
Port Mapping

You can map the relationship between the LAN and the WAN to access the Device on the LAN through the IP address on the WAN.

1. Go to Main Menu > Networks > Port Mapping.

   The Port Mapping interface is displayed.

Figure 82 Port Mapping Interface



2. Enable the function to start set the parameters.
3. You can choose auto or manual mode to set.
4. Configure the settings for the manual port parameters.

Table 25 Port Mapping Parameters

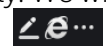
Parameter	Description
HTTP Port	The default value setting is 80. You can enter the value according to your actual situation. If you enter other value, for example, 70, and then you should enter 70 after the IP address when logging in the Device by browser.
HTTPS Port	HTTPS communication port. The default value setting is 443. You can enter the value according to your actual situation.
RTSP Port	The default value setting is 554. You can enter the value according to your actual situation.
Control port	The default value setting is 30413. You can enter the value according to your actual situation.

Note: The manual port range should be 1025-66534

5. Click APPLY to complete the settings.

   In the browser, enter http:// IP: HTTP port. You can visit the LAN Device.

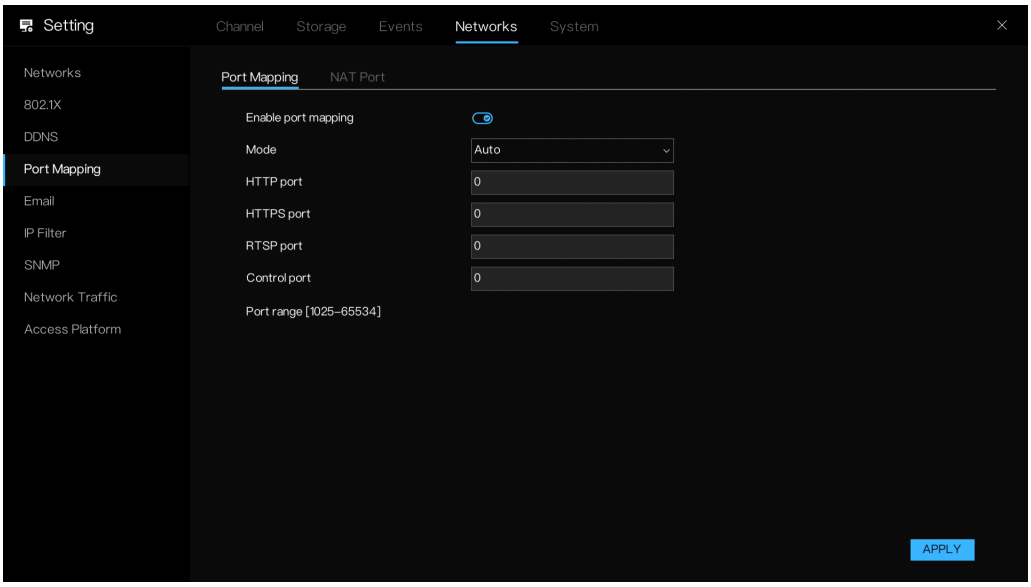
NAT Port

NAT port (network address translation) user can through NAT port to access the channels of NVR. User can set the start port, and it will generate the end port automatically. We will view the NAT port when we access the channel through clicking  icon at Web interface.

1. Go to Main Menu > Networks > Port Mapping > NAT Port.

   The NAT Port interface is displayed.

Figure 83 NAT Port Interface



2. Enable the function to set port.
3. Click APPLY to complete the settings

Email

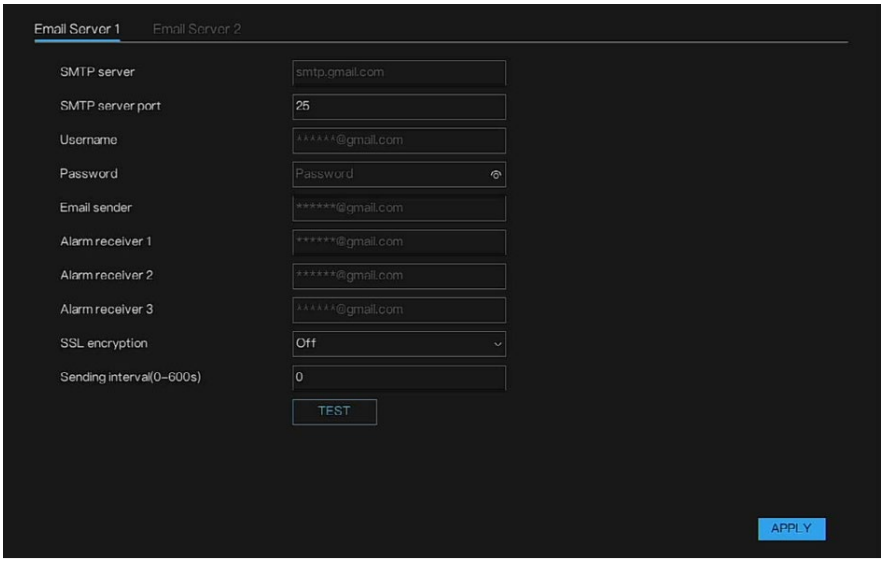
If the simple mail transfer protocol (SMTP) function is enabling, the device automatically sends alarm information to specified email addresses when an alarm is generated. User can use two mailboxes to send information.

You can configure the email settings to enable the system to send the email as a notification when there is an alarm event occurs.

1. Go to Main Menu > Networks > Email.

   The Email interface is displayed.

Figure 84 Email Interface



2. Configure the settings for the email parameters.

Table 26 Email Parameters

Parameter	Description
SMTP server	Enter the address of SMTP server of sender's email account.
SMTP server port	Enter the port value of SMTP server. The default value setting is 25. You can enter the value according to your actual situation.
Username	Enter the username and password of sender's email account.
Password	
Email sender	Enter the email address of mail receiver(s).
Alarm Receivers	Enter the emails of receivers that you want to receive the notification. The Device supports up to three mail receivers.
SSL encryption	Select the encryption type: **Off**, **SSL**, or **Starttls**. For SMTP server, the default encryption type is **OFF**.
Sending Interval(0-600s)	This is the interval that the system sends an email for the same type of alarm event, which means, the system does not send emails caused by frequent alarm events. The value ranges from 0 to 600. 0 means that there is no interval.
TEST	Click **TEST** to test the email sending function. If the configuration is correct, the receiver's email account will receive the email. Before testing, click **Apply** to save the settings.

3. Click APPLY to complete the settings.

P2P

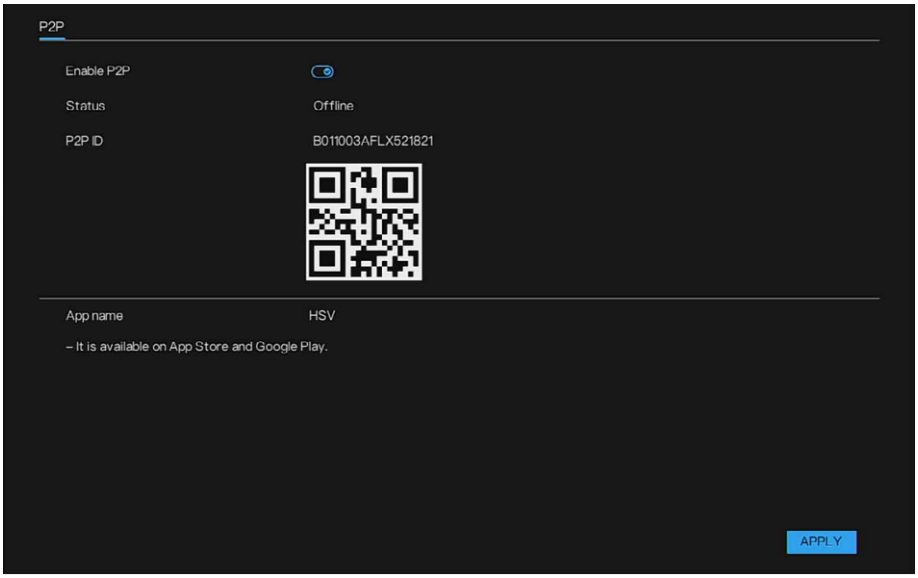
P2P is a kind of convenient private network penetration technology. You do not need to apply for dynamic domain name, doing port mapping or deploying transit server. You can add NVR devices through the below way to achieve the purpose of managing multiple NVR devices at the same time.

Note: Connect the NVR device to the Internet, otherwise P2P cannot run properly.

1. Go to Main Menu > Networks > P2P.

   The P2P interface is displayed.

Figure 85 P2P Interface



2. Enable the P2P function.

   After the P2P function is enabled and connected to the Internet, the system will collect your information for remote access, and the information includes but not limited to MAC address and device serial number.

   You can start adding the device.

   - Cell Phone Client: Use your mobile phone to scan the QR code to add the device into the Cell Phone Client, and then you can start accessing the Device.
   - Platform: The current version doesn't support adding NVR through P2P. If the later versions support this feature, we will provide introduction in future version user guide.

Mobile APP Operation

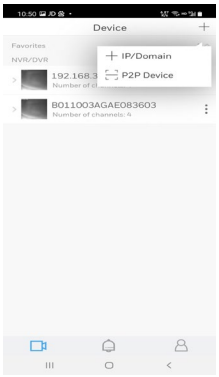
The following content is introduced in the example of mobile App.

Register device in the mobile App:

1. Tap + to enter the Add Device interface.

   Mobile App supports device initialization.

Figure 86 P2P Operation



2. Tap P2P to enter the P2P interface.
3. Enter the name of your device in Name column.
4. Tap the QR code icon behind the SN to enter the QR code scan interface.
5. Scan the device label or scan the SN QR code got by selecting Main Menu > Networks > P2P. When the scan is successful, the device SN will be displayed in the SN item.
6. Enter Username and Password.
7. After device registration on mobile App, tap Play to see the monitor screen.

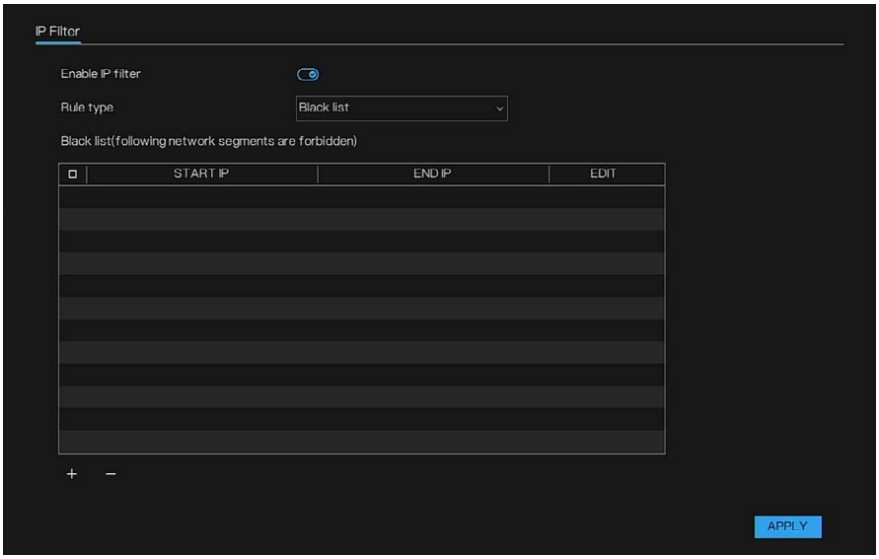
IP Filter

You can set whitelist which are allowed the IP address to access the NVR, or set blacklist which are forbidden the IP address to access the NVR.

1. Go to Main Menu > Networks > IP Filter.

The **IP Filter** interface is displayed.

Figure 87 P2P Operation



2. Enable the function, choose the rule type (blacklist or whitelist).

   Black list: IP address in specified network segment to prohibit access.

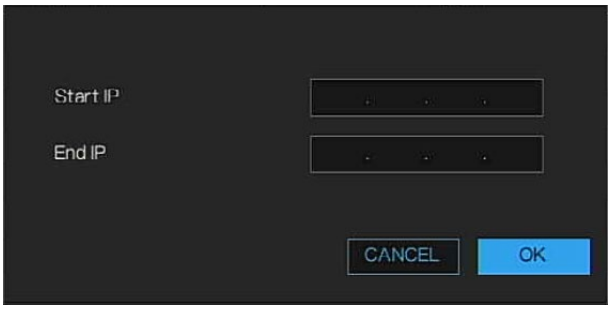
   White list: IP address in specified network segment to allow access

   Select a name in the list and click Delete to delete the name from the list.

   Select a name in the list and click Edit to edit the name in the list.

   Only one rule type is available, and the last rule type set is efficient.

Figure 88 Add IP to Filter



3. Click OK to save the IP filer.
4. Select the setting IP, click – to delete the IP segments.
5. Click APPLY to complete the settings.

SNMP

You can connect the device with some software such as MIB Builder and MG-SOFT MIB Browser to manage and control the Device from the software.

- Install the software that can manage and control the SNMP, such as MIB Builder and MG-SOFT MIB Browser
- Obtain the MIB files that correspond to the current version from the technical support.

Note: This function is for some series only.

1. Go to Main Menu > Networks > SNMP.

   The SNMP interface is displayed.

Figure 89 SNMPv1/2

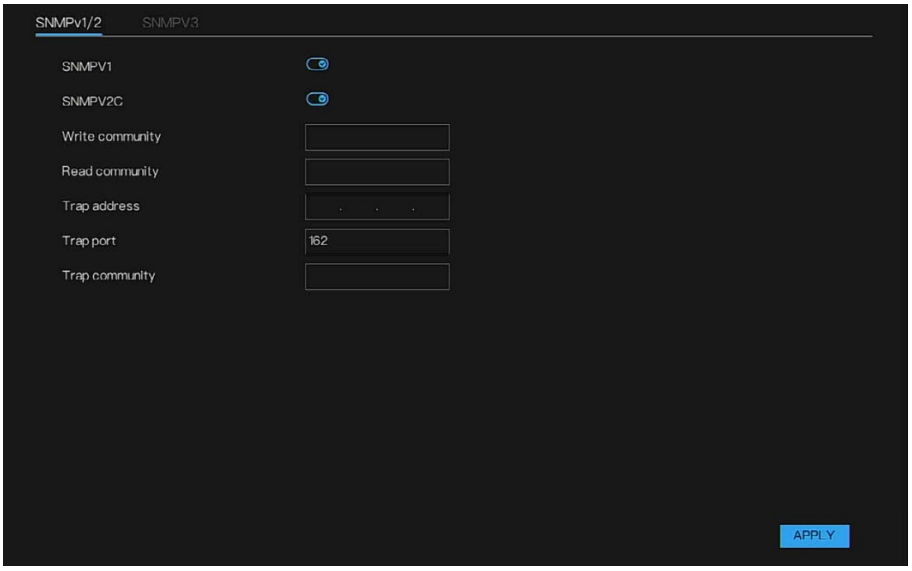
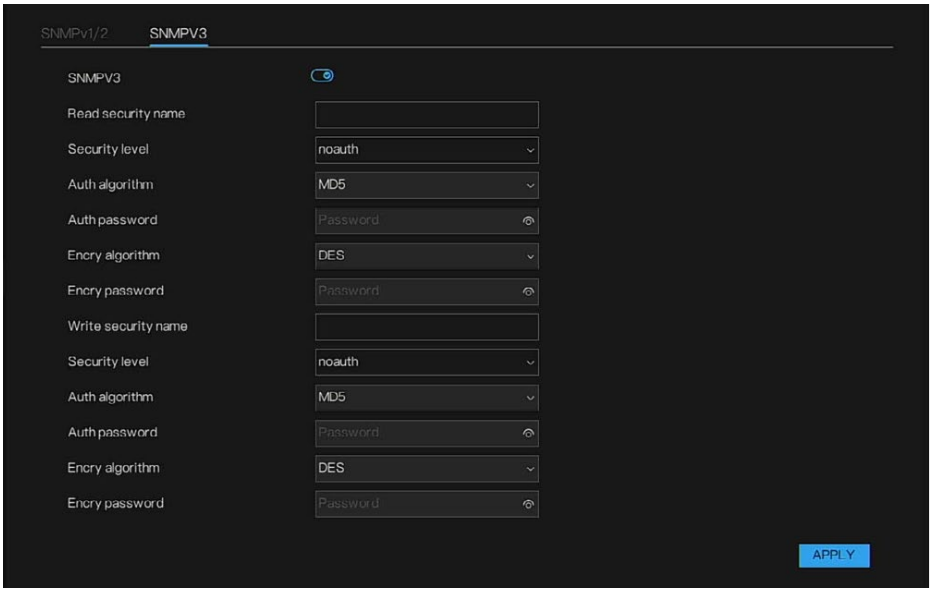


Figure 90 SNMPV3



2. Configure the settings for the SNMP parameters and click APPLY.

Table 27 SNMP Parameters

Parameter	Description
SNMPV1	Version of SNMP. SNMPV1 and SNMPV2C use communities to establish trust between managers and agents. Agents support three community names, write community, read community and trap
SNMPV2C	
Write community	Name of write community.
Read community	The write community only can modify data.
Trap address	Name of read community.

Parameter	Description
Trap port	The write community only can read data.
Trap community	IP address of the trap.
SNMPV3	Management port of accepting message from trap.
Read security name	community string of trap.
Write security name	The trap community string allows the manager to receive asynchronous information from the agent.
Security level	Version of SNMP.
Auth algorithm	SNMPv3 uses community strings, but allows for secure authentication and communication between SNMP manager and agent.
Auth password	Name of read security.
Encry algorithm	Name of write security.
Encry password	Security Level between SNMP manager and agent, includes three levels:

3. Compile the two MIB files by MIB Builder.
4. Run MG-SOFT MIB Browser to load in the module from compilation.
5. On the MG-SOFT MIB Browser, enter the Device IP that you want to manage, and then select the version number to query.
6. On the MG-SOFT MIB Browser, unfold the tree-structured directory to obtain the configurations of the Device, such as the channels quantity and software version.

Network Traffic

At the **Network Traffic** interface, you can view the send rate and receive rate. The status of LAN(S) are shown in list.

Go to **Main Menu > Networks > Network Traffic**. The Network Traffic interface is displayed.

Figure 91 Network Traffic Interface

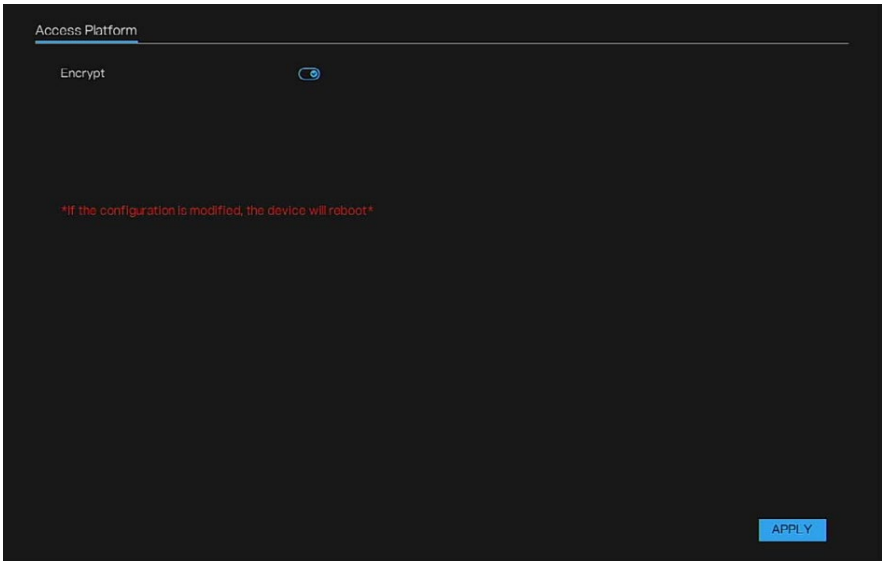
Access Platform

The NVR can access to HSV platform, enable to encrypt the connection.

1. Go to Main Menu > Networks > Access Platform.

   The Access Platform interface is displayed.

Figure 92 Access Platform Interface



2. Encrypt the device, when you add the NVR to HSV platform, choose the private protocol(encrypt).
3. Click APPLY to save the settings.

Configuring System Settings

Information

Basic Information

Go to **Main Menu > System > Information**. You can check device basic information such as **System, Network, Channel, Disk, and Alarm**.

Figure 93 Network Status

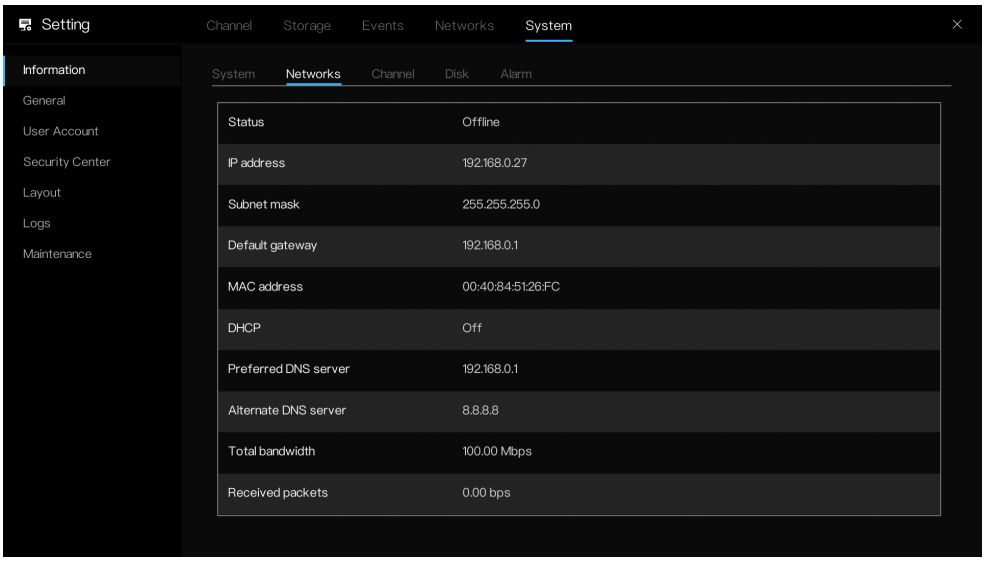


Figure 94 System Status

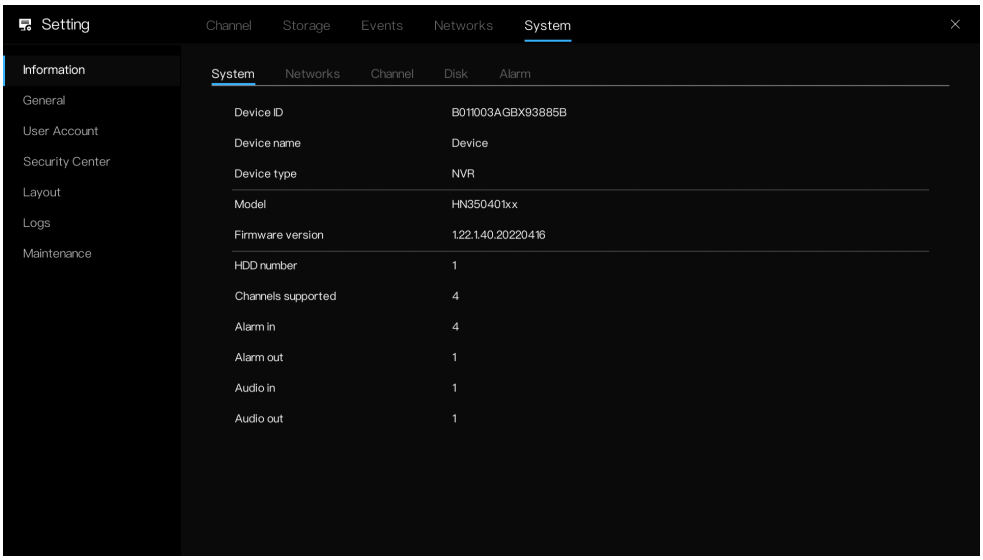


Figure 95 Channel Status

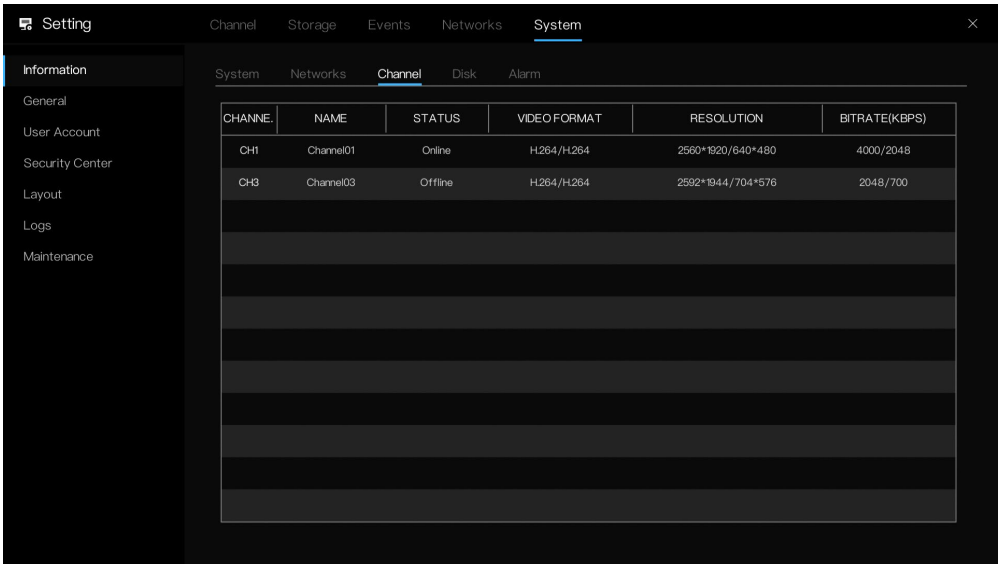


Figure 96 Disk Usage

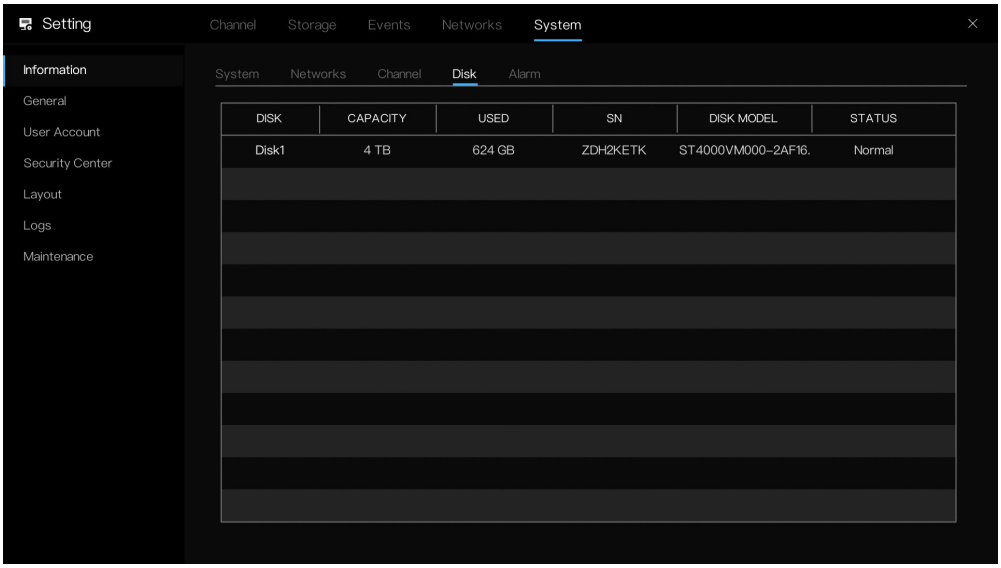
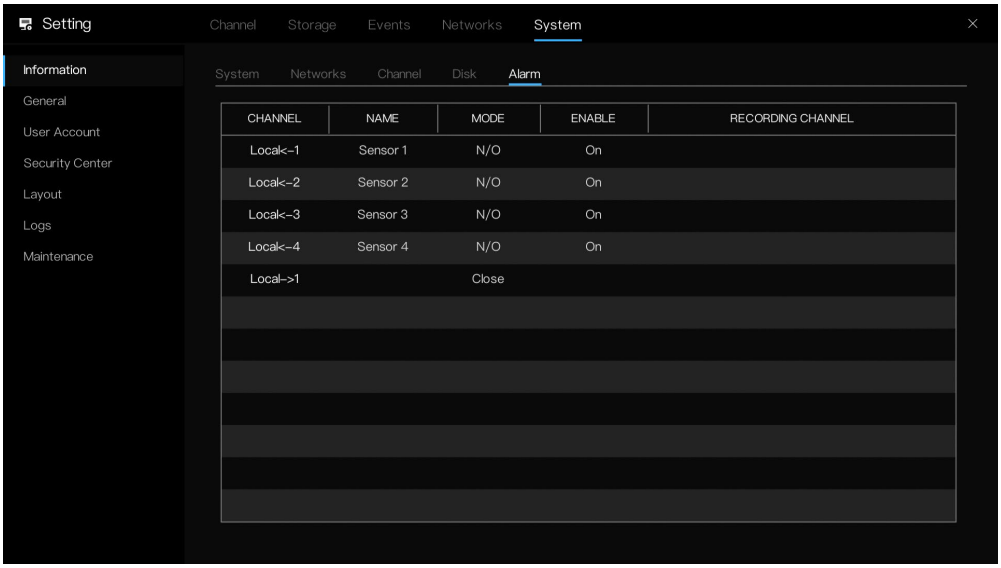


Figure 97 Alarm Status

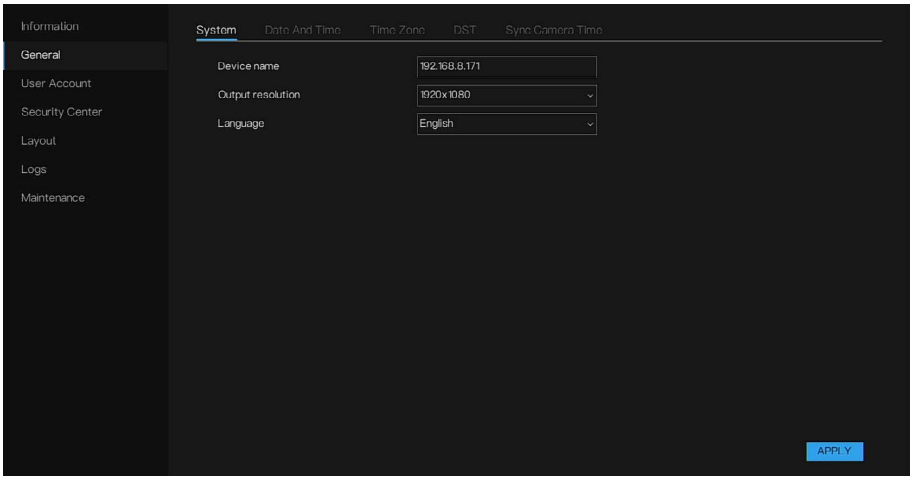


General

System

1. Go to Main Menu > System > General > System.

Figure 98 System



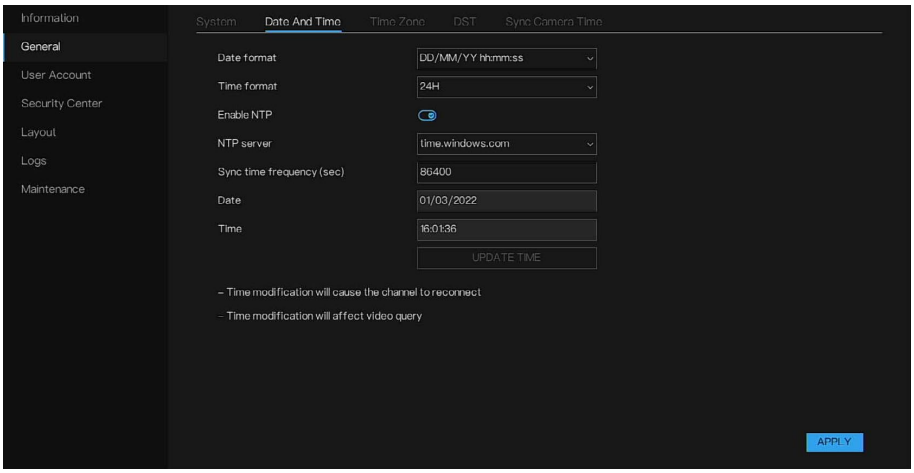
2. Input the device name.
3. Choose the output resolution and language.
4. Click APPLY to complete the settings.

Note: Modify the output resolution device will restart.

Date And Time

1. Go to Main Menu > System > General > Date And Time.

Figure 99 Date and Time



2. Configure the settings for date and time parameters.

Table 28 Data and Time Parameters

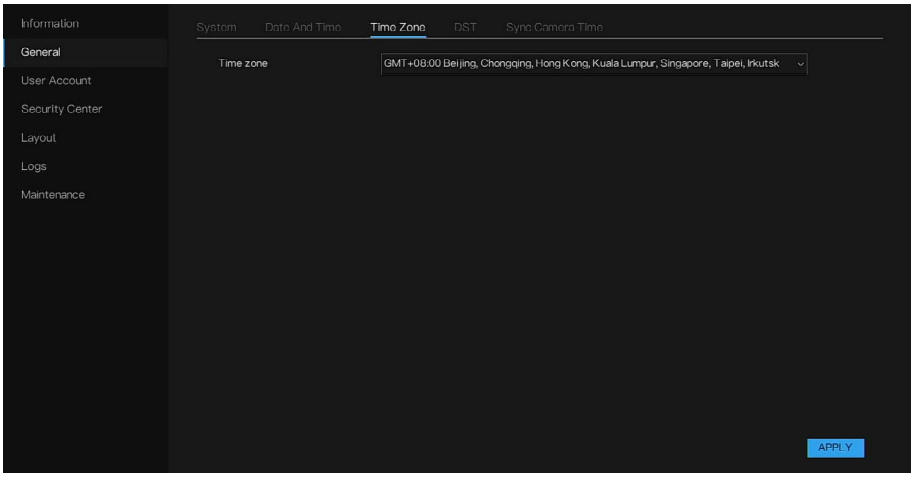
Parameter	Description
Date format	Select a date format for the system.
Time format	Select **12H** or **24H** for the time display style.
Enable NTP	Enable the NTP function to sync the Device time with the NTP server. **If NTP is enabled, device time will be automatically synchronized with server.**
NTP server	Choose the NTP server to synchronize.
Sync time frequency (sec)	Sync the NTP server for the setting time. **Do not change the system time randomly; otherwise the recorded video cannot be searched. It is recommended to avoid the recording period or stop recording first before you change the system time.**
Date (Time)	If user don't enable the sync time, you can modify the Date (Time) manually.

3. Click APPLY to save settings.

Time Zone

1. Go to Main Menu > System > General > Time zone.

Figure 100 Time zone

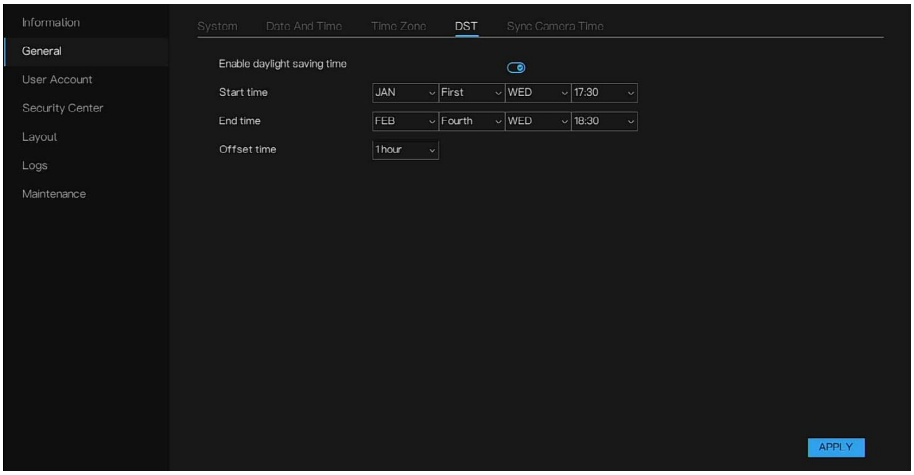


2. Choose time zone from the drop-down list.
3. Click APPLY to save settings.

DST

1. Go to Main Menu > System > General > DST.
2. Enable the daylight saving time function.

Figure 101 DST



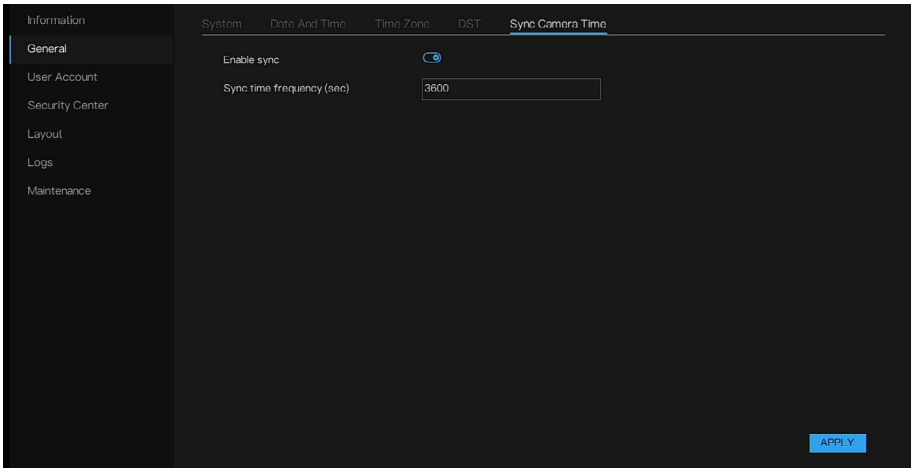
3. Configure the start time and end time for the DST. For the start time, the time will delay one hour (or half hours, it depends on the local rules).
4. Click APPLY to save settings.

Note: The DST setting will affect the recording time, the start time will null one hour (half hours). The end time will have two parts recording.

Sync Camera Time

1. Go to Main Menu > System > General > Sync Camera Time.
2. Enable the sync camera time function.

Figure 102 Sync Camera Time



3. Input the sync time frequency.
4. Click APPLY to save settings.

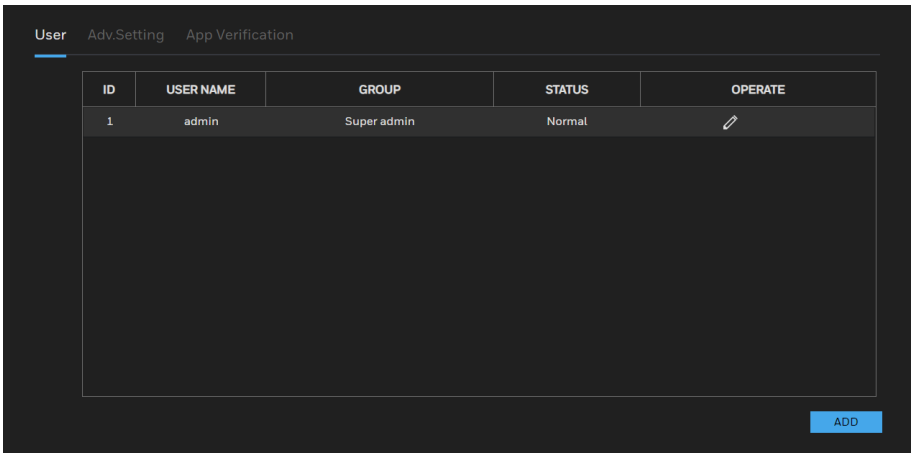
User Account

User

In User interface, you can edit the current account and create new users accounts.

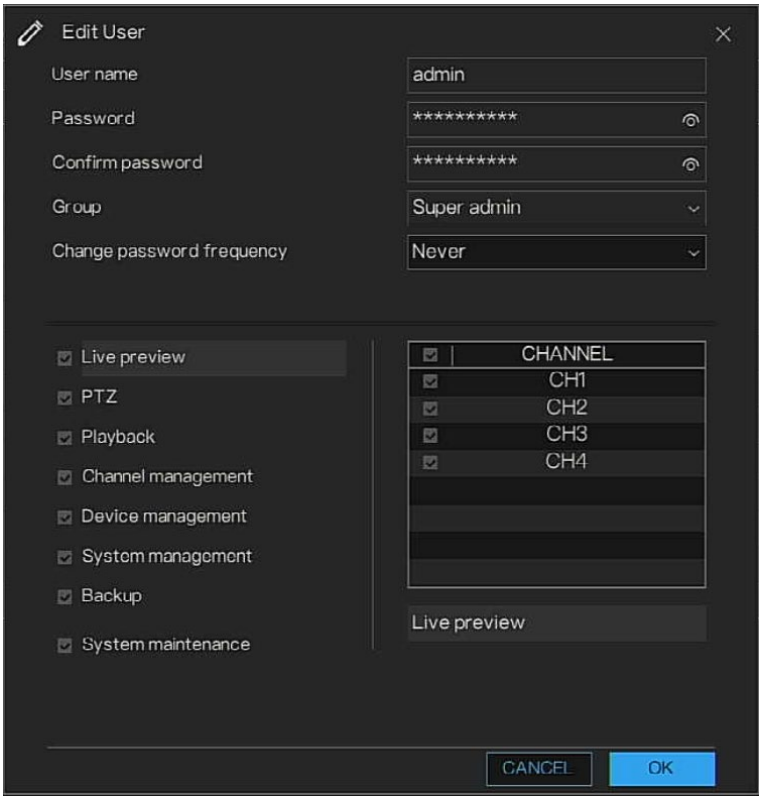
1. Go to Main Menu > System > User Account > User.

Figure 103 User



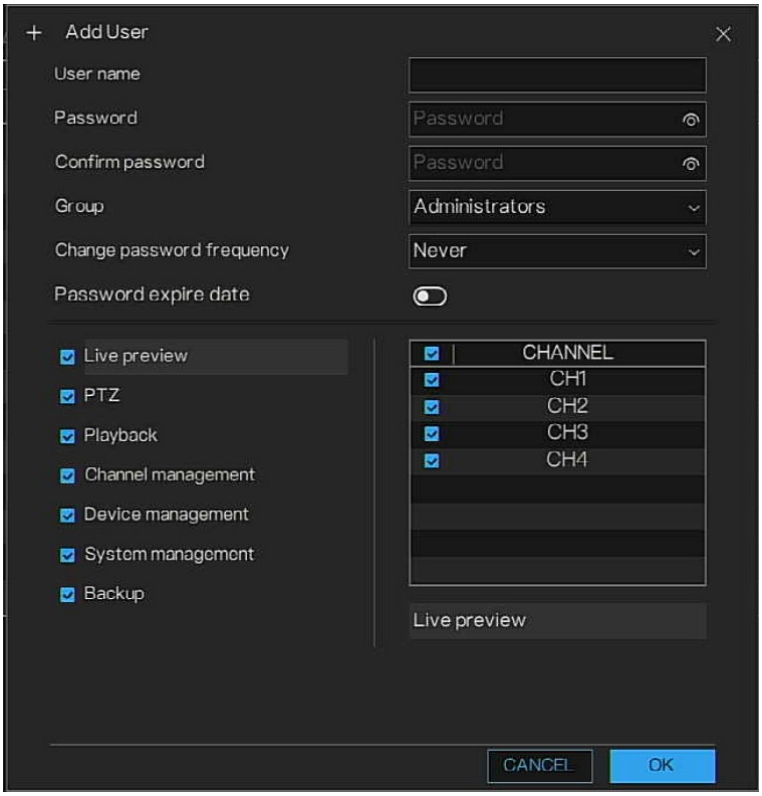
2. Click  to modify account information, click OK to save the setting.

Figure 104 Edit User



3. Click ADD to add new account.

Figure 105 Add User



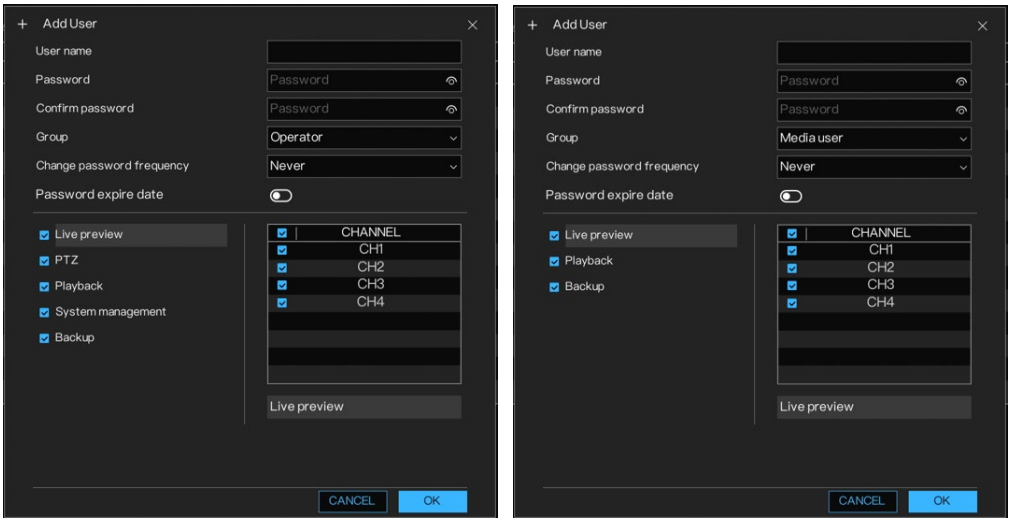
4. Enter the user name, password, select the group it belongs to from the drop-down list, set the change password frequency. Then you can

check the corresponding rights for current user.

Table 29 Add Interface Parameters

Parameter	Description
User Name	Enter a user name and password for the account.
Password	For user name should meet the rules: only these special characters are supported !@#$*+-=%&"` ().,/'.:;<>?^\|~[] Password requirement; -The password must be between 8 to 20 -Upper & lower case letters -At least on number -Support the symbol -_@%^.~?#$=+":,& only and must contain at least one of them -The first character must be a number or letter -No space
Confirm password	Re-enter the password.
Group	Select a group for the account, there are three groups, administer/ operator /media user. The user rights must be within the group permission.
Change password frequency	To keep safety of device to modify the password regularly.
Password expire date	Enable to set the duration of user account.

Figure 106 Permission



5. Click OK.

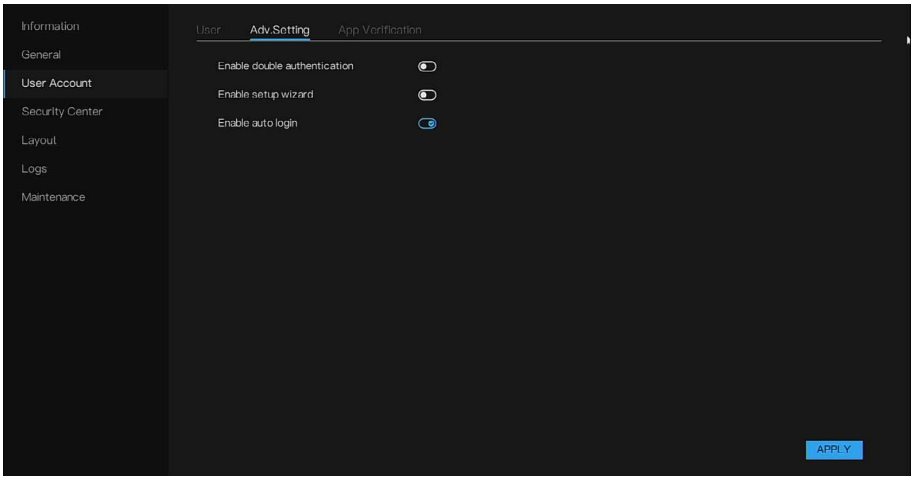
   Click to modify the corresponding user information, click to delete the user.

Adv. Setting

1. Go to Main Menu > System > User Account > Adv. Setting.

   The Adv. Setting interface is displayed.

Figure 107 Advance Setting



2. Enable Double Authorization, need two account to login.
3. Enable Setup Wizard and the wizard will be showing when device power on.
4. Enable Auto login and the device is always login. Else the device will auto logout after setting time.

App Verification

You can add whitelist so that this device can be managed by App. Enable App verification and only with the users' security code in whitelist, the NVR can be added successfully to App.

Figure 108 Advance Setting

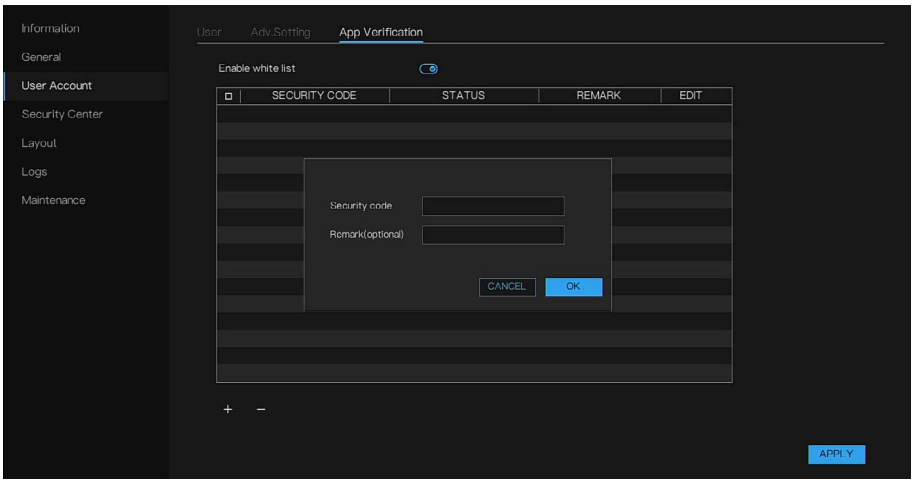
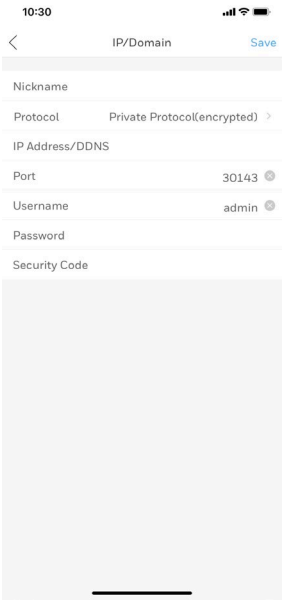


Figure 109 Input Security Code on App



Note: You can only add up to 20 security codes to device and can modify the remarks of them.
It is up to 8 clients manage the NVR, includes UI, Web, App, platform.

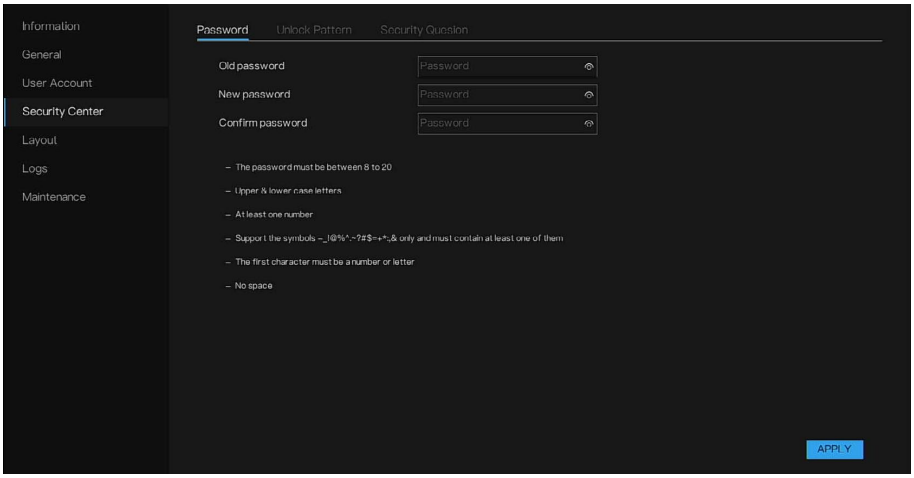
Security Center

Note: This function is for admin user only.

Password

1. Go to Main Menu > System > Security Center > Password.
   The Password interface is displayed.

Figure 110 Password



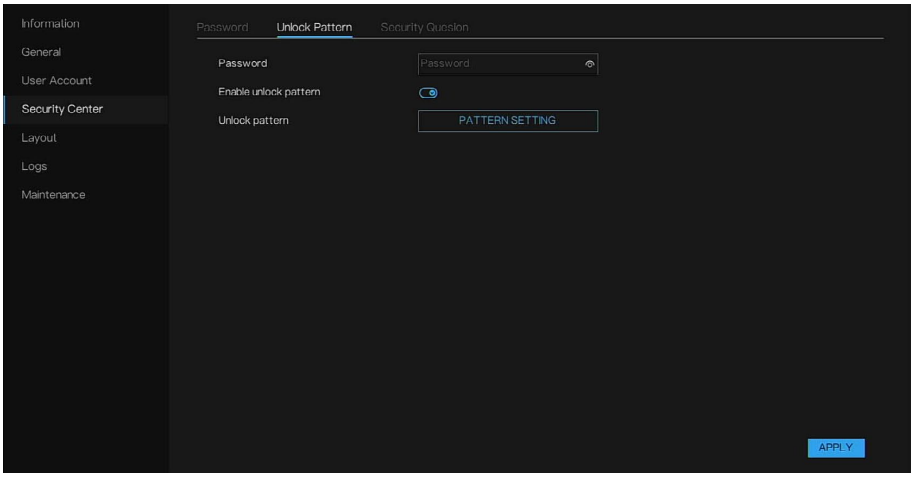
2. Enter the old password, new password and confirm new password.
3. Click APPLY to save the settings.

Pattern Unlock

1. Go to Main Menu > System > Security Center > Pattern Unlock.

   The Pattern Unlock interface is displayed.

Figure 111 Security Question



2. Input password, and enable pattern unlock so that user login device by drawing pattern.
3. Click PATTERN SETTING to set pattern.
4. Click APPLY to save the setting.

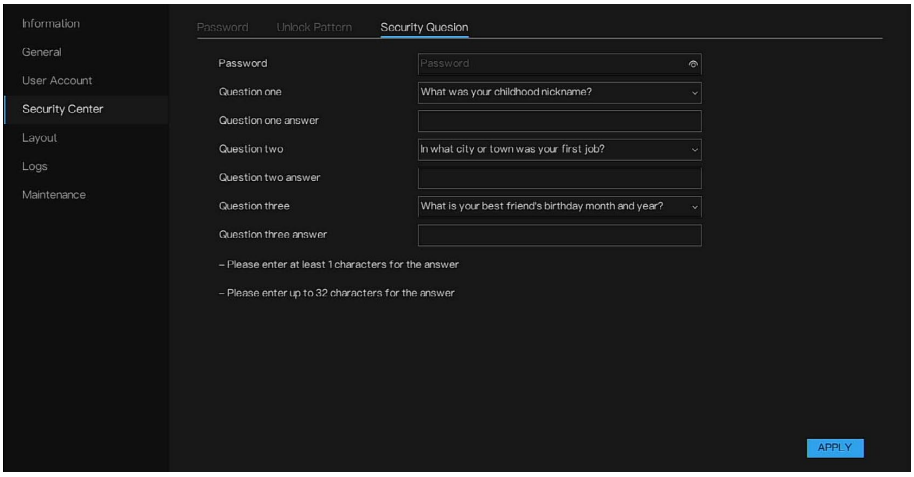
Security Question

You can set security questions and answers. After you successfully answered security questions, you can reset admin account password.

1. Go to Main Menu > System > Security Center > Security Question.

The Security Question interface is displayed.

Figure 112 Security Question



2. Input the password.
3. Input proper security questions and answers.
4. Click APPLY.

   After you successfully set security questions, you can answer the security questions to reset admin password.

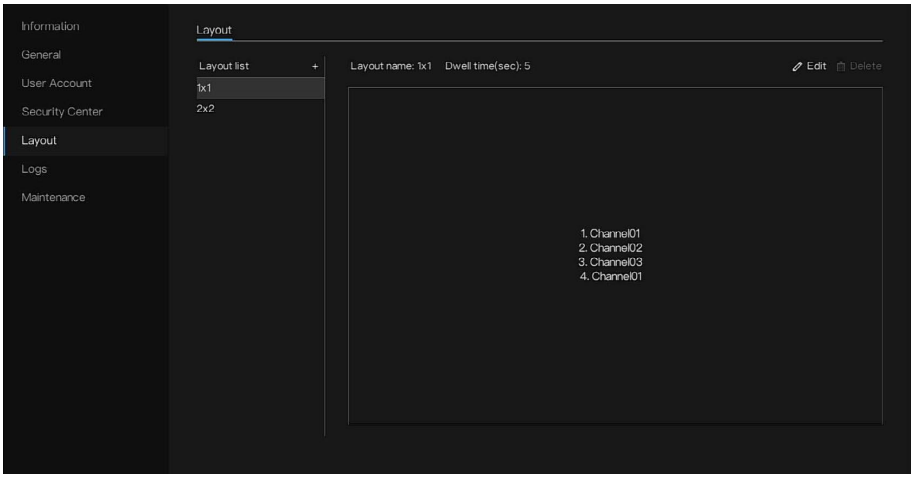
Layout

Set viewing video mode, dwell time in display screen. The layout is set multiple pages to auto sequence.

1. Go to Main Menu > System > Layout.

   The Layout interface is displayed.

Figure 113 Layout



2. Click + to add a new layout. The default layout is one splitting screen.
3. Input the layout name, select dwell time from the SEQ Dwell time drop-down list (the display screen will loop play the real time video according to setting time).

4. Choose the mode of splitting screen at the page bottom; set the display mode of channels by dragging channel to the specific location, or choose the location first, then click the channels to place. One splitting screen can play several channels, the auto sequence is playing as the set pages, for example the first split screen is set two pages (channel 1 and 2), the second split screen is set one page (channel 3), when enable to auto sequence, the showing is channel 1 and channel 3, then show channel 2 and channel 3.
5. Click APPLY to save the setting.

Note: User can add up to 16 layouts.

Logs

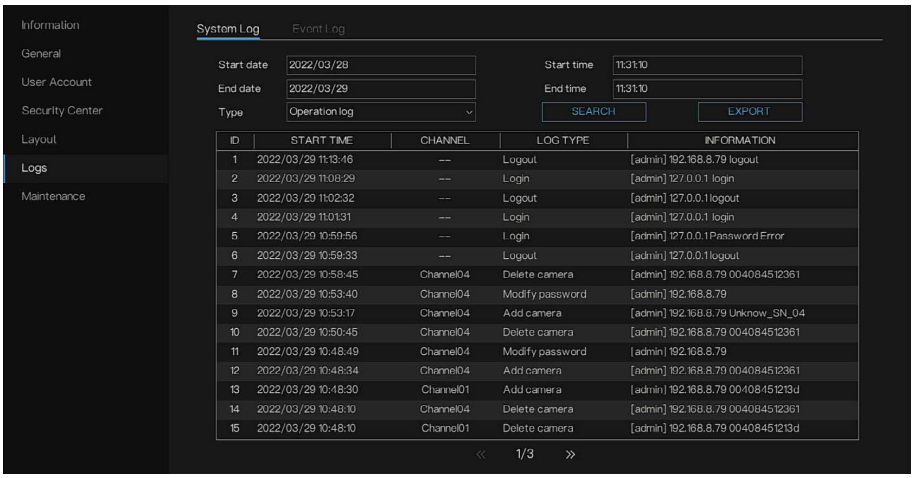
You can view and search the log information, or backup log to the USB device.

System Log

1. Go to Main Menu > System > Logs > System Log.

   The System Logs interface is displayed.

Figure 114 Logs -System log



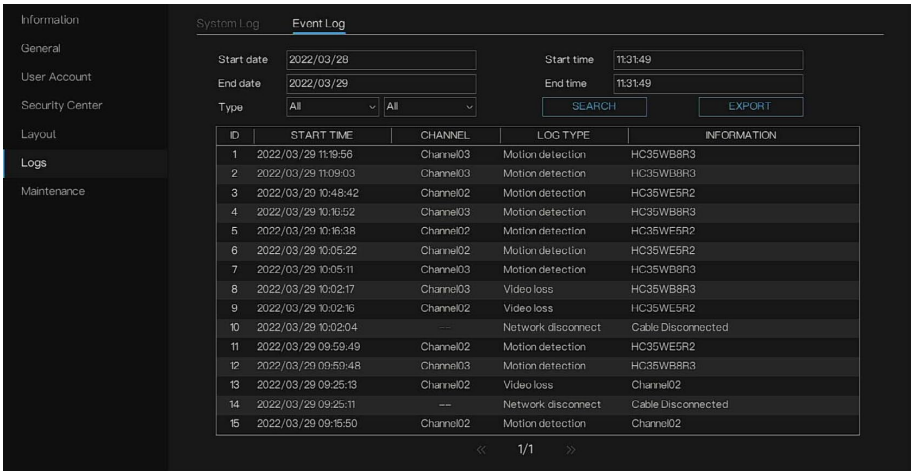
2. In the Start Time box and End Time box, enter the time period to search.
3. In the Type list, select the log type that you want to view and click SEARCH.
4. The search results are showing, click EXPORT to back up the result to USB disk.

Event Log

1. Go to Main Menu > System > Logs > Event Log.

   The Event Logs interface is displayed.

Figure 115 Event Log interface



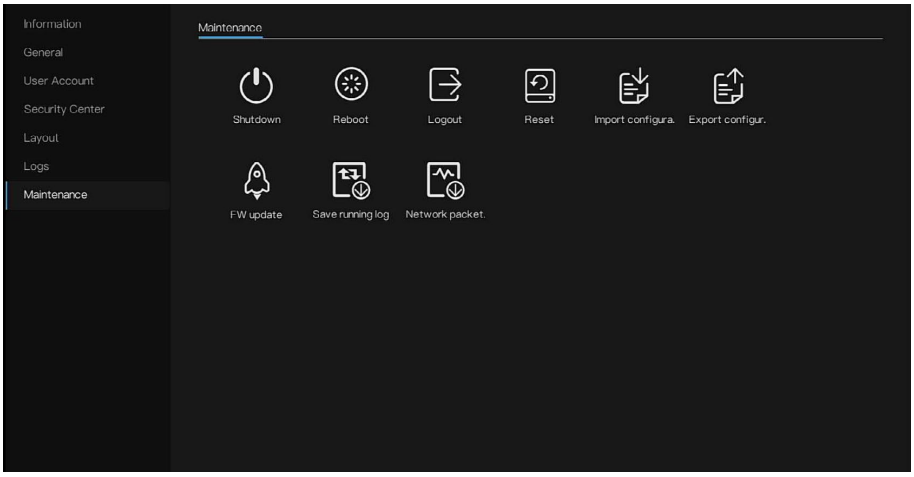
2. In the Start Time box and End Time box, enter the time period to search.
3. In the Type list, select the log type that you want to view and click SEARCH.
4. The search results are showing, click EXPORT to back up the result to USB disk.

Maintenance

1. Go to Main Menu > System > Maintenance.

   The Maintenance interface is displayed.

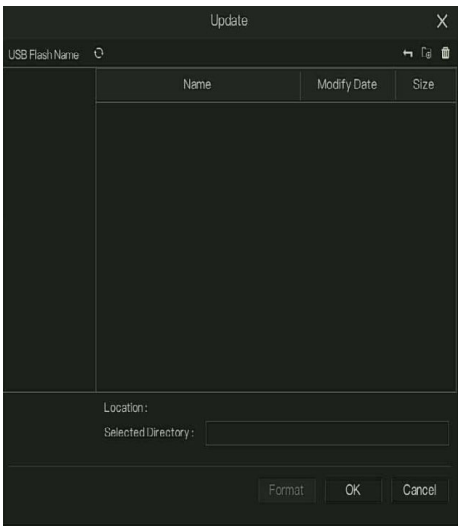
Figure 116 Maintenance interface



2. Click Shutdown/Reboot/Logout/Reset or update to operate NVR if you need.

3. Click FW Update to update the firmware.

Figure 117 Maintenance interface



4. Import and export configuration.

Note: Make sure the USB storage device is inserted; otherwise the upgrading cannot be performed.
When starting the Device, the system automatically checks whether there is a USB storage device connected and any U-boot upgrade file. If yes and the check result of the upgrade file is correct, the system will upgrade automatically.

Exporting System Settings

You can export or import the device system settings if there are several devices that require the same setup.

Note: The Import/Export interface cannot be opened if the backup operation is ongoing on the other interfaces.
When you open the Import/Export interface, the system refreshes the devices and sets the current directory as the first root directory.
Click Format to format the USB storage device.

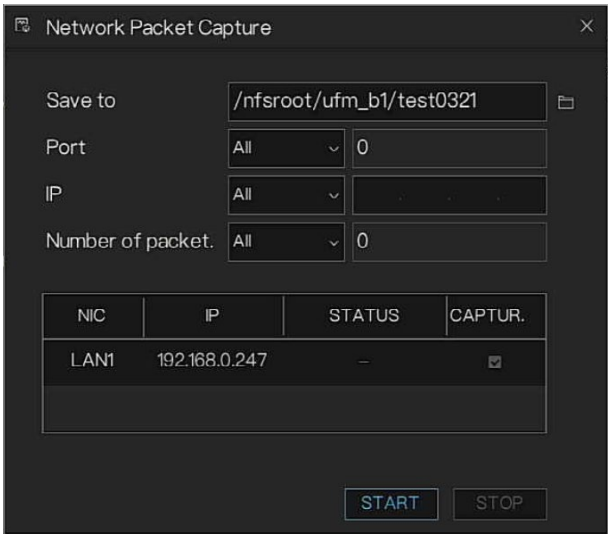
1. Go to Main Menu > Information > Maintenance > Import/Export Configuration.
2. Insert a USB storage device into one of the USB ports on the device.
3. Click Import Configuration / Export Configuration to refresh the interface.

Network Packet Capture

Note: If the NVR is plugged with the USB disk, click the network packet capture and set the relevant parameters of the packet capture. The captured data can be downloaded and used for device problem analysis.

1. Go to Main Menu > Information > Maintenance > Network Packet Capture.
2. Click Network Packet Capture to enter.

Figure 118 Network Packet Capture interface



3. Choose the USB path to save the file.
4. Set the port, IP, number of packets captured. The default settings are All, you can choose custom to set.
5. Click START to capture. Click STOP to end capturing. You can analysis the file.

Configuring Live View Settings

After you logged in, the system goes to main menu, click Live view. You can view the monitor video of each channel.

The displayed window amount may vary. The actual product shall prevail.

Live View

On the live view interface, you can view the monitor video of each channel. The corresponding channel displays date, time, and channel name after you overlay the corresponding information. Refer to the following table for detailed information.

Figure 119 Live view interface

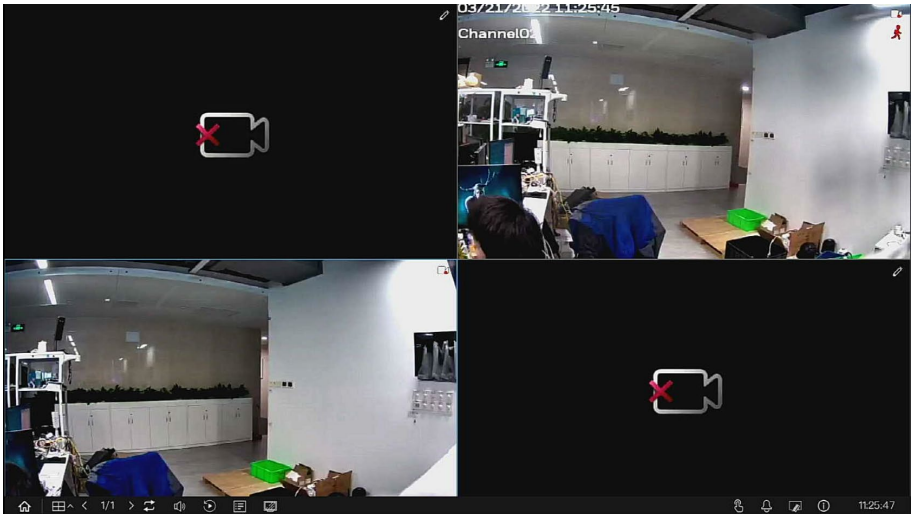


Table 30 Navigation Bar Icons

Icon	Description
	Main menu
	Layout, choose or set the layout to display live view.
1/1	Switch to next page of layout.
	Auto sequence, click to play the live view automatically by layout screen.
	Volume, adjust the volume of Audio Out.
	Playback, click icon to enter the playback interface. The detail please refer to Playback
	Channel information, select to show channel No. or Stream information. Choose the channel, and the information can be showing on live view.
	Live view strategy, there are three modes, fluency / balanced / real -time.
	Manual alarm, click to enter manual alarm pop-up window. Operate manually the NVR IO alarm input port and channel cameras alarm in ports.
	Event list, show real-time alarm messages.
	Clear alarm.
	Information, network, system, channel, disk, alarm information.
19:25:29	The time of NVR.
	The current channel is recording.
	Alarm, the current channel has motion detection alarm.

Figure 120 Manual Alarm

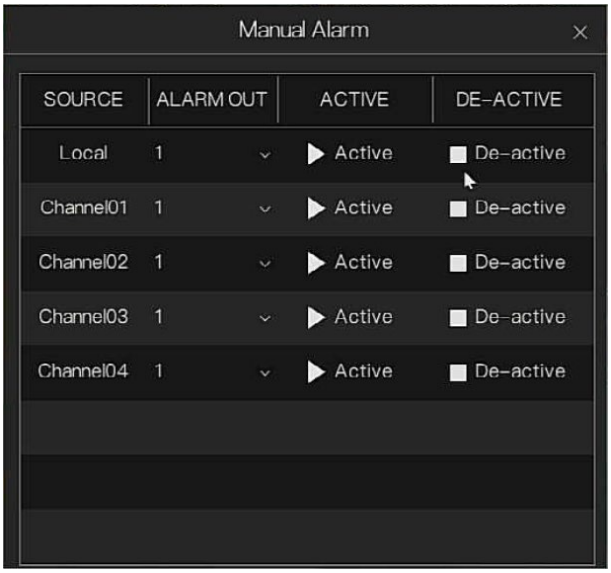
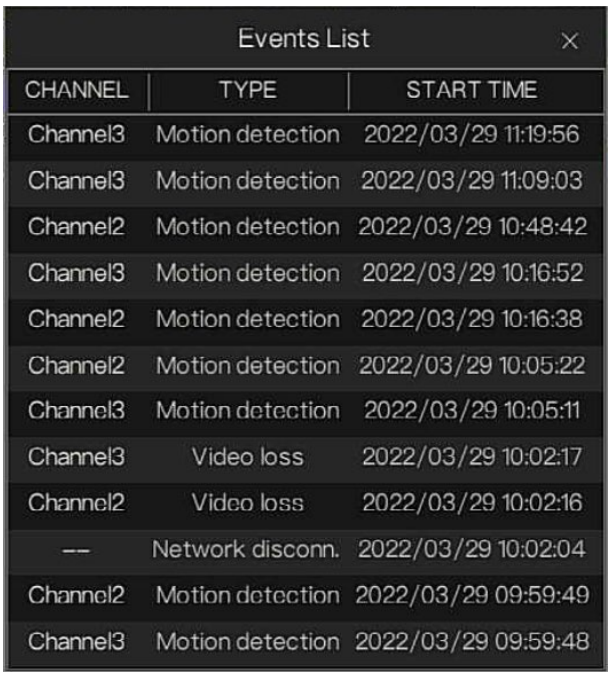


Figure 121 Event List Pop-up Window



Live View Control Interface

Move your mouse to the video of current channel and left-click mouse; you can see system pops up the live view control interface.

Right-click mouse on live view interface, the control bar hides.

Note:
- *Disable the navigation bar if it is displayed on the interface before using this function.*
- *The live view control interface is different depending on the model, and the actual interface shall prevail.*

Figure 122 Live view Control Bar

Table 31 Live view Control Icons

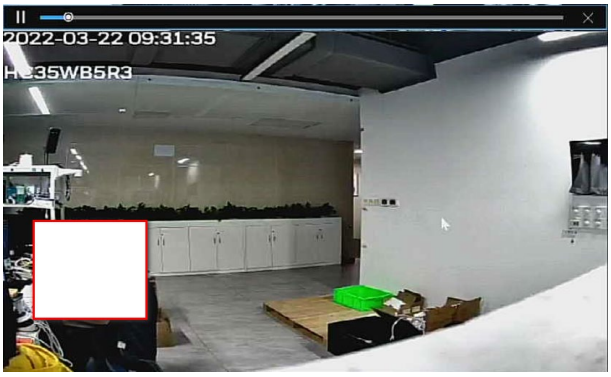
Icon	Description
	Record: manual record The playback time bar shows as yellow
	Instant playback Click to replay instantly. Refer to Instant Playback.
	Audio Open or close the channel audio
	PTZ It uses for monitored and PTZ cameras, click icon to enter PTZ interface, more detail please refer to PTZ Control
	Digital zoom
	Image For the detail information, refer to Sensor Setting
	Two-way audio Refer to Two-way Talk.
	Snapshot Refer to Manual Snapshot.

Instant Playback

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

Click to go to the instant replay interface.

Figure 123 Instant Replay Interface



Instant replay is to playback the previous 5 minutes record of current channel.

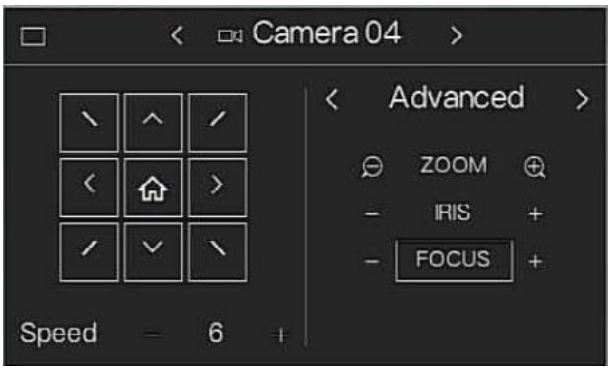
- Move the slider to choose the time you want to start playing.
- Play, pause and close playback.
- The information such as channel name and recording status icon are shielded during instant playback and will not display until exited.
- During playback, screen split layout switch is not allowed.

PTZ Control

PTZ control panel performs the operations such as directing camera in eight directions, adjusting zoom, focus and iris settings, and quick positioning.

Left-click on the live view screen and then select PTZ. The PTZ control panel is displayed.

Figure 124 PTZ Control Panel



Note:
- *The gray button means system does not support current function.*
- *For some series products, the PTZ function is valid in one-window mode.*

Table 32 PTZ Control Panel Parameters

Parameter	Description
Speed	Controls the movement speed. The bigger the value is, the faster the movement will be.
Zoom	: Zoom out : Zoom in
Focus	: Focus far : Focus near
Iris	: Image darker : Image brighter
PTZ movement	Supports eight directions

Parameter	Description
Preset	Move the PTZ camera to the point location, choose the ID, click SAVE to add to preset; Choose one ID and click GO TO, then the PTZ camera go to preset location directly. There are 255 preset points at NVR, but PTZ cameras can be set 400 preset points; The NVR can only adjust the 1 to 255 preset points of cameras.
Patrol	The NVR set the patrols to adjust serval preset.

Figure 125 Add Tour Panel

Choose ID (There are four tour can be added), click **EDIT** to start set;

Click + to add preset to tour and set the duration of staying, repeat these steps for many times to add more presets to tour.

Note: *The added preset cannot be deleted. It can only be overwritten.*

Click SAVE to save tour; Click REMOVE ALL to clear preset.

Digital Zoom

You can zoom in specified zone of current channel so that you can view the details. It supports zoom in function of multiple-channel. It includes the following two ways:

- Click  , the icon switches to  . Move the mouse to enlarge, it up to enlarge to 400%. the left mouse button is released digital zoom.
- Point to the center that you want to enlarge, rotate the wheel button to enlarge the area.

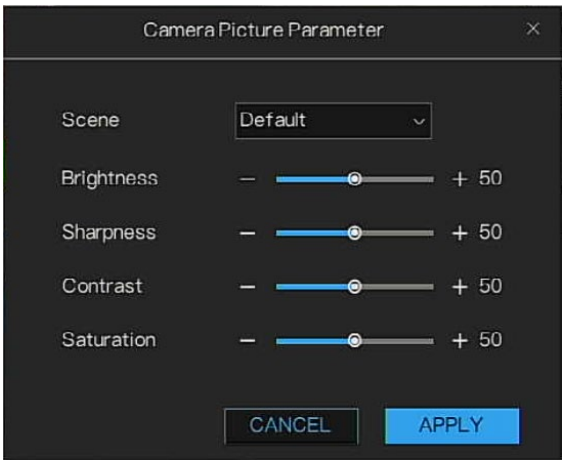
The digital zoom interface is shown as Figure 126. When the image is in the enlarged status, you can drag the image toward any direction to view the other enlarged areas. Right click mouse to cancel zoom and go back to the original interface.

Figure 126 Digital Zoom Interface

Image

You can set the camera picture parameter, such as scene, brightness, sharpness, contrast, saturation.

Figure 127 Camera Picture Parameter Interface



Two-way Talk

You can perform the voice interaction between the Device and the remote device to improve efficiency of emergency.

1. Click to start two-way talk function the icon now is shown as . Now the rest two-way talk buttons of digital channel become null too.
2. Click again, you can cancel two-way talk.

Manual Snapshot

You can take one to five snapshots of the video and save into a USB storage device.

By clicking , you can take snapshots. The snapshots are automatically saved into the connected USB storage device. You can view the snapshots on your PC.

Note: To change the quantity of snapshots, go to Main Menu > Camera > Encode > Snapshot, in the Manual Snapshot list, select the snapshot quantity.

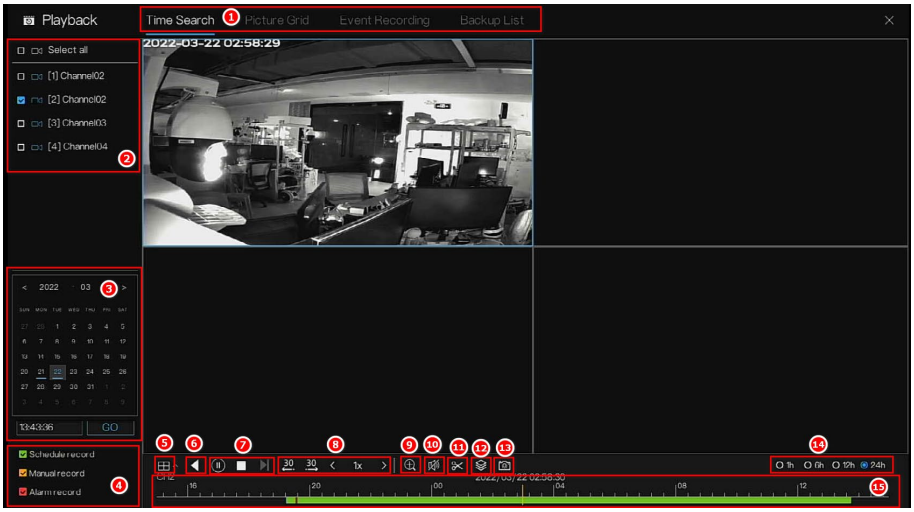
Playback

Time Interface

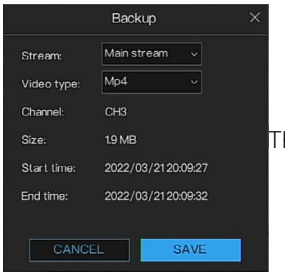
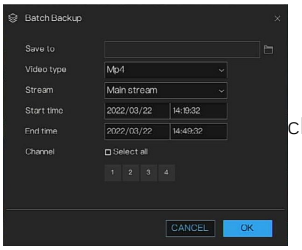
You can search and playback the recorded files on the NVR.

Go to **Main Menu > Playback**, or click  on live view button navigation bar, the playback interface is displayed.

Figure 128 Playback



No. / Icon	Description
1	Choose the playback type, **Time Search/Picture Grid/Event Recording/Backup List**.
2	Channel list Blue icon  have recording video White icon  have no recording video.
3	Calendar The marked blue dates indicates there's recording video (it means some channels have recording, but not for all channels at some time). Or set the detail time to go the recording video.
4	Different record, select schedule record (green), manual record (yellow), or alarm record(red). The colors are showing the time tar.  : Sync/async. You can set the different channels to play synchronously or asynchronous. Sync mode indicates the selected channels play video synchronously. Async mode indicates user play different time period record  : Backup.  : Batch backup.
5	 : Split screen, display the searched recorded video or picture. It supports playing in single-channel, 4-channel, 9-channel, and 16-channel simultaneously, the actual interface shall prevail.

No. / Icon	Description
6	: Reversed, it plays the key frame.
7	: Pause / Stop / Next frame, click it to switch between play/pause. User can operate the record as same as live video.
8	: 30s backward / 30s forward / triple speed- / triple speed +
9	: Digital Zoom, click icon to enter one screen to digital zoom channel.
10	Audio, open or close the channel audio
11	: click to start backup, click again to end backup and the pop-up window shows, click SAVE to save the record to USB disk which is mounting on NVR.  The stream and video type can be chosen.
12	: Batch backup, click icon to enter the pop-up window set the batch backup.  choose the path to save, video type (MP4 or AVI), stream (Main stream or sub stream); Set the start time and end time; choose channels; click OK to download. The result shows at Backup List interface.
13	: Snapshot, snapshot the current image.
14	 Time bar, show the time of record.
15	Display the type and time period of the current recorded video. • Only one-time bar is displayed. • Click on the colored area to start manual record or alarm record. • Time bar colors: Green indicates schedule record; Red indicates alarm record; Yellow indicates manual record. • Click and hold the time bar, then you can drag to view the playback of the target time. • the vertical yellow line is centered, double click the detail time it will be showing on yellow line location.

Note:

- *The video recording will lose an hour while DST start, because the DST working.*
- *The NVR time had to back to last hour while the DST STOP working, so there will be twice video recording at DST end time.*
- *When you play DST END TIME video recording, the NVR will always play first video recording, you can't choose the second video recording to play. If you want to play second video recording, you need to wait the first video recording play over and then the NVR will continue play second video recording.*
- *If you want to download DST END TIME video recording, you need to choose the period of video recording more than the DST END TIME, then the DST END TIME video recording (the twice videos) will download.*

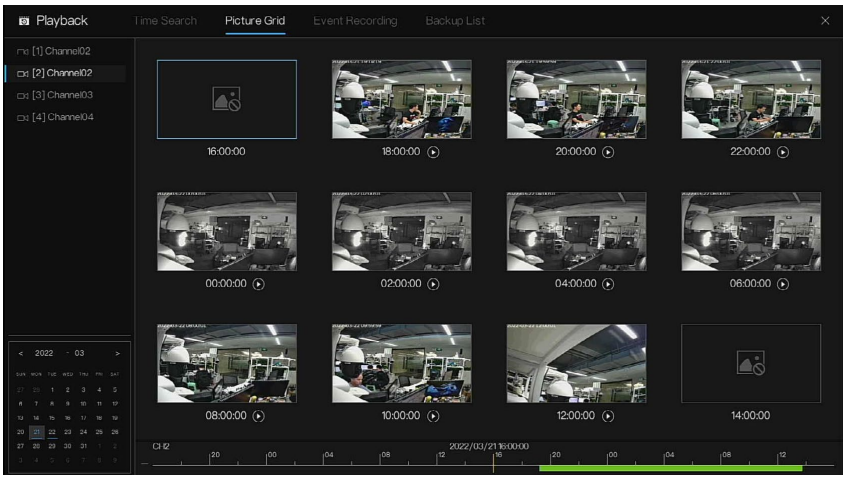
Picture Grid

Picture grid refers to evenly dividing the video of a channel by time range and searching for a video based on thumbnails divided by time range.

1. Go to Main Menu > Playback > Picture Grid.

   The Picture Grid interface is displayed.

Figure 129 Picture Grid Interface



2. Select a camera in the camera list on the left side of the picture grid screen. Videos shot by the camera in the earliest time range on the current day are displayed as thumbnails in the window on the right side.
3. Select a day from calendar.
4. A day are dividend to 12 grids, two hours is one grid. double-click the image to dividend to 12 grids again. The minimum grid interval is one minute. Right – click to enlarge grid interval
5. Select a required thumbnail, click  to play the video.

Figure 130 Replay Interface

: Full screen to replay.

Event Recording

Note: Recording limitation: Only support 2 channel main stream and channel number +1 channel sub stream playback at the same time. Both local and remote share the limitation.

Figure 131 Event Recording page

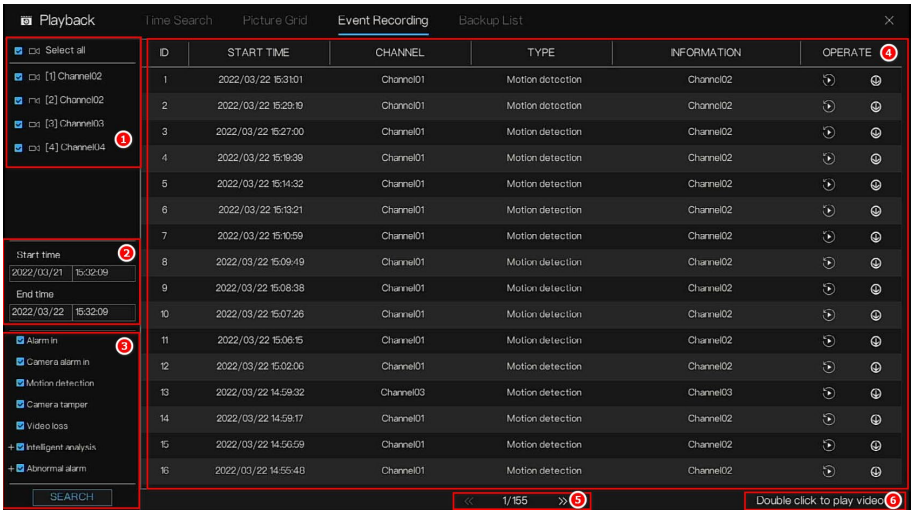


Table 33 Event Recording Parameters Description

No. / Icon	Description
1	Channel list, select to search channels event recording.
2	Set the start time and end time to search.
3	Select the alarm types, Alarm in / Camera alarm in /Motion detection /Camera tamper / Video loss / Intelligent analysis / Abnormal alarm.

No. / Icon	Description
4	Result of searching, operate the result. : Play the recording video. : Download, download the event recording.
5	Interface display, the number of searching result, switch to next page.
6	Double click to play video, move the mouse to one ID and double click to replay video.

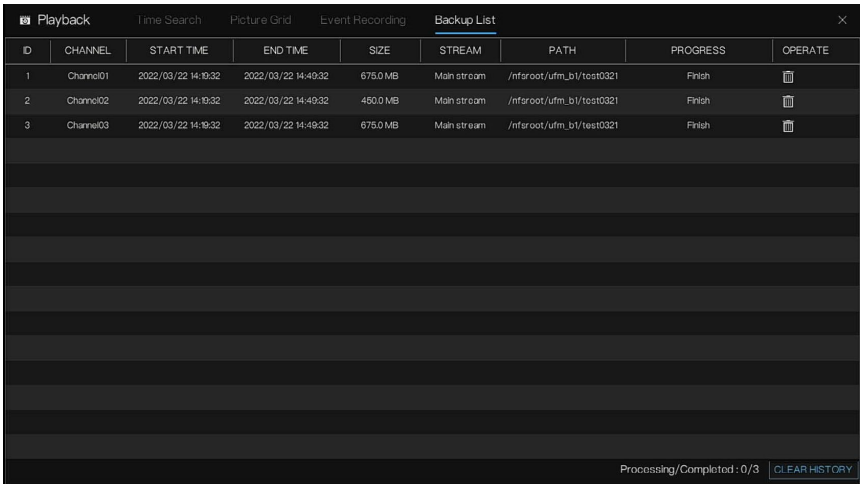
Backup List

You can search and back up the video files to external storage device such as USB storage device. All backup history shows on list.

Go to **Main Menu > Playback > Backup**.

The **Backup** interface is displayed.

Figure 132 Backup Interface



You can clear all history by clicking **CLEAR HISTORY.**

CHAPTER

4 WEB OPERATION

This chapter is intended for remote users of the NVRs. It describes how to access Honeywell's 35 Series Network Video Recorder remotely using a browser-based web client.

This chapter contains the following sections:

Note:
- *The interfaces in the Manual are used for introducing the operations and only for reference. The actual interface might be different dependent on the model you purchased. If there is inconsistency between the Manual and the actual product, the actual product shall govern.*
- *Besides Web, you can use our HDCS to login the device. For detailed information, refer to HDCS user guide.*

Network Connection

Ensure that the following conditions are met:

- Ensure that the network connection is good.
- Ensure that the NVR and PC network setup is correct. See the network setup: **Main Menu > Network > Network**.
- Ping to ensure that the network connection is good. Ping *** *** *** *** (where *** *** *** *** is the NVR's IP address). The return TTL should be less than 225.

Web Login

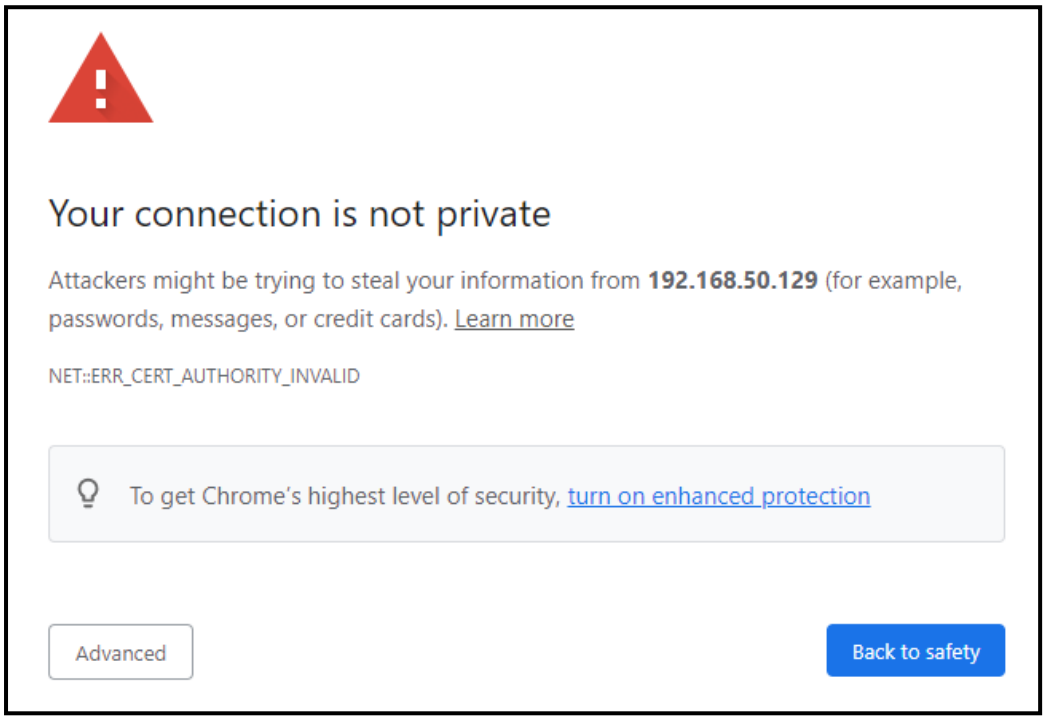
Note: *The factory default IP of the Device is 192.168.0.121.*
The Device supports monitoring on Chrome and Microsoft Edge to perform the functions.

1. Open a Web browser window. Enter the NVR IP address in the address field.

   For example, if your NVR's IP address is 192.168.50.129, then enter http:// 192.168.50.129 in the address field.

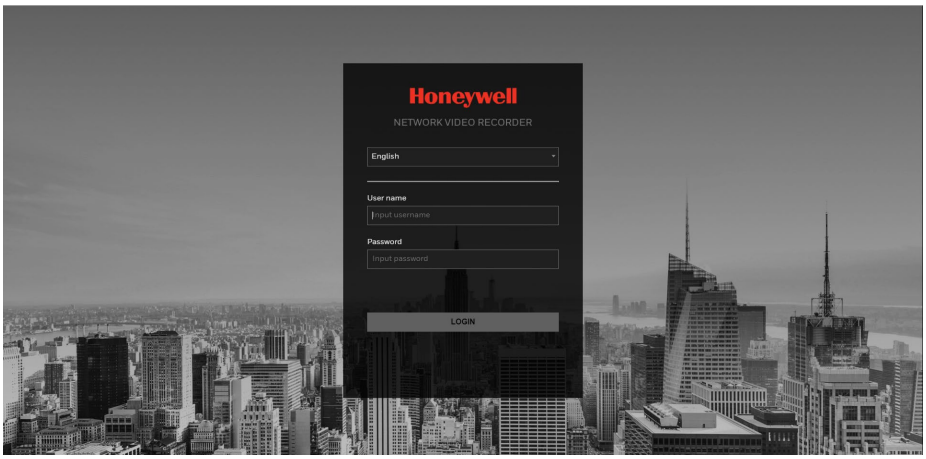
2. Press Enter on the keyboard and the following window is displayed. Click Advanced.

Figure 133 Security Problem



3. Click Proceed to 192.168.50.129 (unsafe). The following window is displayed.

Figure 134 Login



4. Enter the User name and Password.

The default administrator account is admin. The password is the one that was configured during initial settings.

5. Click Login.

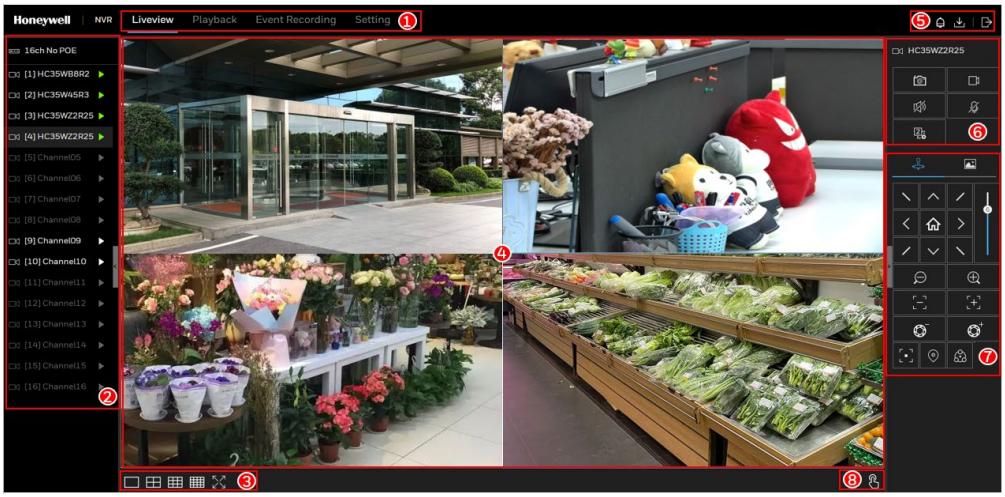
Web Main Menu

Live View

After you have logged in the Web, the main menu is displayed.

For detailed operations, refer to Local Basic Operation.

Figure 135 Liveview Page



There are four sections on the page: **Liveview, Playback, Event Recording** and **Setting**.

Table 34 Liveview Icons & Parameters

No. / Icon	Description
1	Click to switch functions: **Live Video**, **Playback**, **Event Recording** and **Setting**.
2	Channel list with online status: • high light for online • gray for offline
3	 Single screen and 4/9/16 split screens  Full screen, click **ESC** key to exit the full screen.
4	Play live video
5	 Event list Click to show pop-up window for detailed alarm information. Click the icon again to unfold pop-up window.  Download list Click to show backup downloading task list.  Logout the current user.
6	 Snapshot, capture the current live video scene.  Recording, record the video to local folder.  Audio, enable or disable audio  Two-way audio, be connected to external speaker and louder for intercom.  Switch 2 (Sub) stream or 1 (main)stream.
7	PTZ keyboard (refer to PTZ Control) and image parameters (refer to Sensor Setting)
8	 Manual alarm, click to trigger alarm manually.

Playback

Click **Playback** to play the recording video if you install disk and enable the recording function.

Figure 136 Playback page

Table 35 Playback Icons & Parameters

No. / Icon	Description
1	Channel list Device has recording video Device doesn't have recording video Selected device Unselected device
2	Calendar Set the detail time to precisely search recording video.
3	Select different record: **Schedule record**, **Manual record**, or **Event record**.
4	Reversed Play/pause Triple speed Single screen/4 split screens : Sync/async You can set the different channels to play synchronously or asynchronous. Sync mode indicates the selected channels play video synchronously. Async mode indicates user play different time period record. Backup Batch backup
5	Types of time bar
6	Time bar, show the time of record
7	Record operation, refer to the same icons in Table 34.

Event Recording

Search the event recording through the setting condition.

Figure 137 Event Recording page

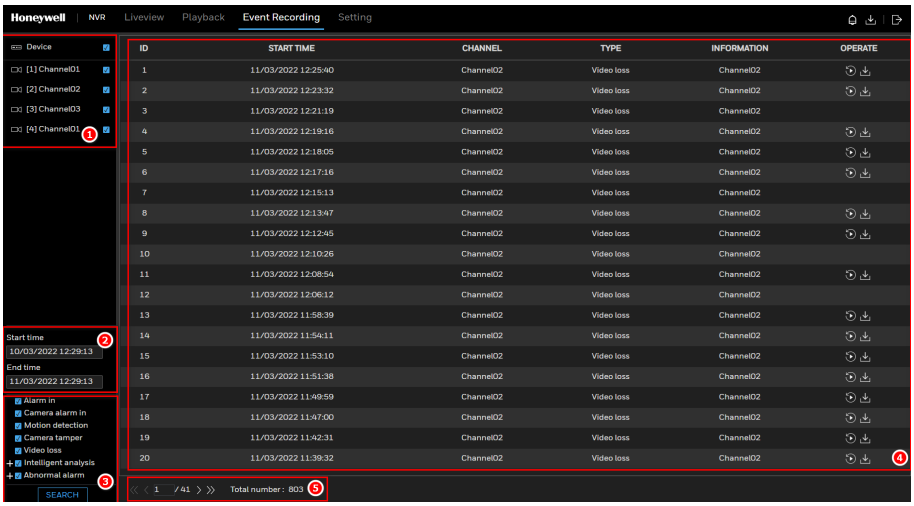


Table 36 Event Recording Icons & Parameters

No. / Icon	Description
1	Channel list Select to search channels event recording.
2	Set the start time and end time to search.
3	Select the alarm types.
4	Searching result Play the recording video Download the event recording
5	• Shows the number of searching result. • Switch the page

Setting

The **Setting** operation is the same as the local operation. Please refer to Local Basic Operation

Figure 138 Setting page

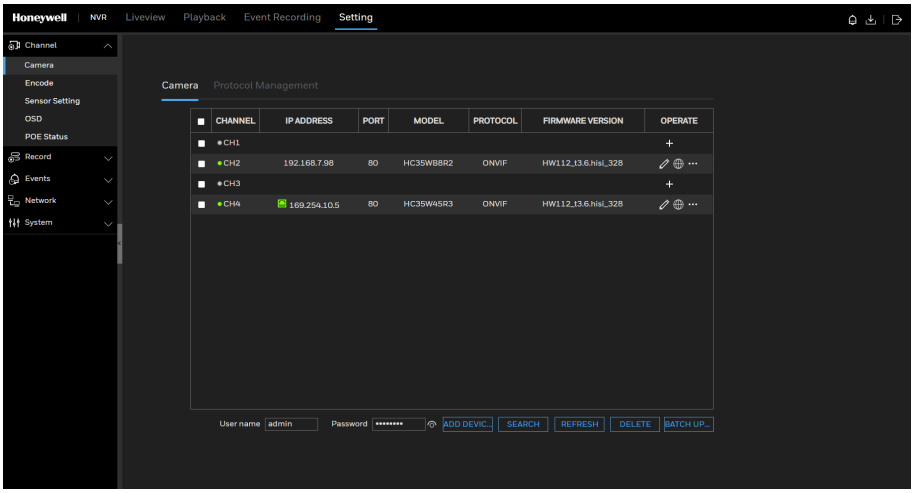
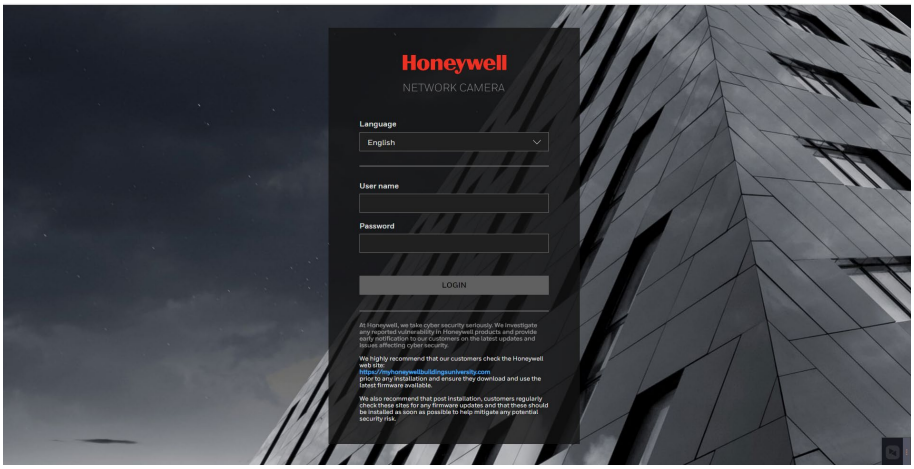


Table 37 Setting Symbols

Icon	Description
	Perform **Channel** operation such as camera/encode/OSD configuration, sensor setting and PoE status checking. For detailed operations, refer to Configuring Camera.
	You can manage the **Record** resources (such as storage mode) and storage space. For detailed operations, refer to Configuring Storage Settings.
	Search for **Event** information and perform event operation such as alarm input/output setting. For detailed operations, refer to Configuring Events Settings.
	Set **Network** functions, such as **DDNS**, **Email** and **P2P**. For detailed operations, refer to Configuring Network Settings.
	Configure basic **System** information. For detailed operations, refer to Configuring System Settings.

To visit the camera web page, go to **Setting > Channel > Camera > Camera**, click on the camera list. Please enable NTA port in advance.

Figure 139 IPC login page



Input the **User name** and **Password** of camera to enter the IPC web main page.

CHAPTER

5 FAQ

Questions	Solutions
NVR cannot boot up properly.	• Input power is not correct. • Power connection is not correct. • Power switch button is damaged. • Program upgrade is wrong. • HDD malfunction or something wrong with HDD ribbon. • Front panel error. • Main board is damaged.
NVR often automatically shuts down or stops running.	• Input voltage is not stable or it is too low. • HDD malfunction or something wrong with the ribbon. • Front video signal is not stable. • Working environment is too harsh, too much dust. • Hardware malfunction.
System cannot detect hard disk.	• HDD is broken. • HDD ribbon is damaged. • HDD cable connection is loose. • Main board SATA port is broken.
There is no video output whether it is one-channel, multiple-channel or all-channel output.	• Program is not compatible. Upgrade to the latest version. • Brightness is 0. Restore factory default setup. • Check your screen saver. • NVR hardware malfunctions.
I cannot search local records.	• HDD ribbon is damaged. • HDD is broken. • Upgraded program is not compatible. • The recorded file has been overwritten. • Record function has been disabled.
Video is distorted when searching local records.	• Video quality setup is too low. • Program read error, bit data is too small. There is mosaic in the full screen. Restart the NVR to solve this problem. • HDD data ribbon error. • HDD malfunction. • NVR hardware malfunctions.
Time display is not correct.	• Setup is not correct. • Battery contact is not correct or voltage is too low.

Questions	Solutions
NVR cannot control PTZ.	• Front panel PTZ error • PTZ decoder setup, connection or installation is not correct. • Cable connection is not correct. • PTZ setup is not correct. • The distance is too far.
I cannot log in client-end or web.	• Use Windows 2007 or higher vision to view the web interface. • Upgrade display card driver. • Network connection error. • Network setup error. • Password or user name is invalid. • Client-end is not compatible with NVR program. • The browser should choose Google Chrome, Microsoft Edge and upgrade to the latest version
There is only mosaic no video when preview or playback video file remotely.	• Network fluency is not good. • Client-end resources are limit. • Current user has no right to monitor.
Network connection is not stable.	• Network is not stable. • IP address conflict. • MAC address conflict. • PC or device network card is not good.
Burn error /USB back error.	• Burner and NVR are in the same data cable. • System uses too much CPU resources. Stop record first and then begin backup. • Data amount exceeds backup device capacity. It may result in burner error. • Backup device is not compatible. • Backup device is damaged.
Alarm signal cannot be disarmed.	• Alarm setup is not correct. • Alarm output has been open manually. • Input device error or connection is not correct. • Some program versions may have this problem. Upgrade your system.
Alarm function is null.	• Alarm setup is not correct. • Alarm cable connection is not correct. • Alarm input signal is not correct. • There are two loops connect to one alarm device.
Record storage period is not enough.	• HDD capacity is not enough. • HDD is damaged.
Cannot playback the downloaded file.	• There is no media player, the file support VLC player to play. • The downloaded file is error.
The Movies & TV player of Windows cannot play the downloaded recording.	The recording video format is H265 encode type (MP4), we recommend to use VLC to play.
Forgot local menu operation password or network password	Contact your local technical support for help. We can guide you to solve this problem.

Questions	Solutions
There is no video. The screen is in black.	• IPC IP address is not right. • IPC port number is not right. • IPC account (user name/password) is not right. • IPC is offline.
The displayed video is not full in the monitor.	Check current resolution setup. If the current setup is 1920*1080, then you need to set the monitor resolution as 1920*1080.
There is no HDMI output.	• Displayer is not in HDMI mode. • HDMI cable connection is not right.
The video is not fluent when I view in multiple-channel mode from the client-end.	• The network bandwidth is not sufficient. The multiple-channel monitor operation needs at least 100M or higher. • Your PC resources are not sufficient. For 16-ch remote monitor operation, the PC shall have the following environment: Quad Core, 2G or higher memory, independent displayer, display card memory 256M or higher.
I cannot connect to the IPC	• Make sure that the IPC has booted up. • IPC network connection is right and it is online • IPC IP is in the blocklist. • The device has connected to the too many IPC. It cannot transmit the video. • Check the IPC port value and the time zone are the same as the NVR. • Make sure current network environment is stable.
After I reset the NVR resolution, my monitor cannot display.	• The default resolution is 1920*1080, if you set higher resolution, you should make sure the monitor support that resolution, otherwise you should login to Web interface to switch the default resolution.
After I login the Web, I cannot find the remote interface to add the IPC.	Clear the Web controls and load again.
There is IP and gateway, I can access the internet via the router. But I cannot access the internet after I reboot the NVR.	Use command PING to check you can connect to the gateway or not. Use telnet to access and then use command "ifconfig–a" to check device IP address. If you see the subnet mask and the gateway has changed after the reboot. Upgrade the applications and set again.

Daily Maintenance

- Use the brush to clean the board, socket connector and the chassis regularly.
- The device shall be soundly earthed in case there is audio/video disturbance. Keep the device away from the static voltage or induced voltage.
- Unplug the power cable before you remove the audio/video signal cable.
- Always shut down the device properly. Use the shutdown function in the menu, or you can press the power button in the rear pane to shut down the device. Otherwise it may result in HDD malfunction.
- Make sure the device is away from the direct sunlight or other heating sources. Keep the sound ventilation.
- Check and maintain the device regularly

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Document 800- 27009 Rev A – 05/2022