About This Document

Purpose

This document describes the network video recorder (NVR) in terms of product features, hardware installation, network access, network configuration, routine maintenance, and common fault analysis.

Intended Audience

This document is intended for:

- Technical Support Engineers
- Maintenance Engineers
- Network Video Manager System operators

Symbol Conventions

The symbols may be found in this document, which are defined as follows:

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="DANGER" /></td>
<td>Alerts you to a high risk hazard that could, if not avoided.</td>
</tr>
<tr>
<td><img src="image" alt="WARNING" /></td>
<td>Alerts you to a medium or low risk hazard that could, if not avoided, result in moderate or minor injury.</td>
</tr>
<tr>
<td><img src="image" alt="CAUTION" /></td>
<td>Alerts you to a potentially hazardous situation that could, if not avoided, result in equipment damage, data loss, performance deterioration, or unanticipated results.</td>
</tr>
<tr>
<td><img src="image" alt="TIP" /></td>
<td>Provides a tip that may help you solve a problem or save time.</td>
</tr>
<tr>
<td><img src="image" alt="NOTE" /></td>
<td>Provides additional information to emphasize or supplement important points in the main text.</td>
</tr>
</tbody>
</table>
Important Statement

Users are required to enable and maintain the lawful interception (LI) interfaces of video surveillance products in strict compliance with relevant laws and regulations. Installation of surveillance devices in an office area by an enterprise or individual to monitor employee behavior and working efficiency outside the permitted scope of the local law and use of video surveillance devices for eavesdropping of illegal purposes constitute behaviors of unlawful interception.
## About This Document

### Contents

**About This Document** ........................................................................................................... ii

**Contents** ................................................................................................................................. iv

**1 Preface** ................................................................................................................................. 1

1.1 Important Notes ................................................................................................................... 1

1.2 About This User Manual..................................................................................................... 1

1.3 Installation Environment and Precautions ....................................................................... 1

**2 Basic Operations** ............................................................................................................... 3

2.1 Power on the Device............................................................................................................ 3

2.2 Activation ........................................................................................................................... 4

2.3 Power off the Device .......................................................................................................... 8

2.4 Login to the System .......................................................................................................... 8

2.4 Add Cameras ...................................................................................................................... 9

**3 Wizard** ............................................................................................................................... 13

**4 Quick Navigation** ............................................................................................................ 21

4.1 Real Time Video Bar ......................................................................................................... 23

4.2 Playback ............................................................................................................................. 25

4.2.1 Time Search .................................................................................................................. 28

4.2.2 Picture Grid .................................................................................................................. 29

4.2.3 Event ........................................................................................................................... 30

4.2.4 Backup ......................................................................................................................... 31

4.3 Main Menu ........................................................................................................................ 32

**5 Channel Management** ...................................................................................................... 33

5.1 Camera ............................................................................................................................... 33

5.1.1 Add Camera Automatically ......................................................................................... 34

5.1.2 Add Camera Manually ............................................................................................... 34

5.1.3 Delete Camera ............................................................................................................. 35

5.1.4 Operate Camera .......................................................................................................... 36

5.2 Encode Parameter ............................................................................................................ 37

5.3 Image Parameter ............................................................................................................... 38
5.4 OSD Settings ................................................................. 40
5.5 Privacy Zone ............................................................. 41

### 6 Record Setting ......................................................... 43
  6.1 Record Schedule ...................................................... 43
  6.2 Disk ........................................................................ 44

### 7 Alarm Management .................................................. 46
  7.1 General ..................................................................... 46
  7.2 Motion Detection ........................................................ 47
  7.3 Video Loss .............................................................. 49
  7.4 Intelligent Analysis ................................................... 50
  7.5 Alarm In ................................................................. 51
  7.6 Abnormal Alarm ...................................................... 53

### 8 Network Management ................................................ 54
  8.1 Network .................................................................... 54
     8.1.1 IP .................................................................... 55
     8.1.2 Port .................................................................. 55
     8.1.3 POE .................................................................. 56
  8.2 802.1X ..................................................................... 57
  8.3 DDNS ....................................................................... 58
  8.4 E-mail ....................................................................... 59
  8.5 UPnP ........................................................................ 60
  8.6 P2P .......................................................................... 61
  8.7 IP Filter ..................................................................... 62
  8.8 SNMP ....................................................................... 64

### 9 System Management .................................................. 66
  9.1 Information ............................................................. 66
  9.2 General .................................................................... 67
     9.2.1 System ............................................................. 67
     9.2.2 Date and Time ................................................... 68
     9.2.3 Time Zone ......................................................... 69
     9.2.4 DST .................................................................. 70
  9.3 User ......................................................................... 71
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.3.1 User</td>
<td>71</td>
</tr>
<tr>
<td>9.3.2 Advance Setting</td>
<td>73</td>
</tr>
<tr>
<td>9.4 Password</td>
<td>74</td>
</tr>
<tr>
<td>9.5 Auto Sequence</td>
<td>75</td>
</tr>
<tr>
<td>9.6 Logs</td>
<td>76</td>
</tr>
<tr>
<td>9.7 Maintenance</td>
<td>77</td>
</tr>
<tr>
<td>9.8 Auto Restart</td>
<td>79</td>
</tr>
</tbody>
</table>
1 Preface

1.1 Important Notes

Thank you for choosing the NVR. Please read the user manual carefully before using this product.

The NVR is a complex system-based device. To avoid misoperations and malfunctions caused by environmental factors and human factors during installation, commissioning, and application, note the following points when installing and using this product:

- Read the user manual carefully before installing and using this product.
- Use Monitoring dedicated hard disks as the storage devices of the NVR with high stability and competitive price/performance ratios (the quality of hard disks sold on markets varies greatly with different brands and models).
- Do not open the enclosure of this product unless performed by a professional person to avoid damage and electric shock.
- We are not liable for any video data loss caused by improper installation, configuration, operation, and hard disk errors.
- All images in the document are for reference only, please subject to the actual products.

1.2 About This User Manual

Please note the following points before using this user manual:

- This user manual is intended for persons who operate and use the NVR.
- The information in this user manual applies to the full series NVR, here uses 4ch, 1HDD, NVR as an example for description.
- Read this user manual carefully before using the NVR and follow the methods described in this manual when using the NVR.
- If you have any doubts when using the NVR, contact your product seller.
- In the case of product upgrade, the information in this document is subject to change without notice.

1.3 Installation Environment and Precautions

Installation environment

Table 4-1 defines the installation environment of the NVR.
Table 4-1 Installation environment

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electromagnetism</td>
<td>The NVR conform to national standards of electromagnetic radiation and does not cause harm to the human body.</td>
</tr>
<tr>
<td>Temperature</td>
<td>–10°C to +45°C</td>
</tr>
<tr>
<td>Humidity</td>
<td>20% to 80%</td>
</tr>
<tr>
<td>Atmospheric pressure</td>
<td>86 Kpa to 106 Kpa</td>
</tr>
<tr>
<td>Power supply</td>
<td>DC 48V 2A(1 HDD) or AC 220V 4A(2 HDDs or more), please refer to actual product.</td>
</tr>
<tr>
<td>Power consumption</td>
<td>&lt;15W (excluding the hard disk)</td>
</tr>
</tbody>
</table>

**Installation precautions**

Note the following points when installing and operating the NVR:

- The power adapter of the NVR uses DC48V ± 20% input. Do not use the NVR when voltage is too high or too low.
- Install the NVR horizontally.
- Avoid direct sunlight on the NVR and keep away from any heat sources and hot environments.
- Connect the NVR to other devices correctly during installation.
- User can install one or more hard disks when using the NVR for the first time.
- The NVR identifies hard disk capacity automatically and supports mainstream hard disk models. User should use good brands of hard disk so that the NVR can operate stably and reliably.

**Other precautions**

- Clean the NVR with a piece of soft and dry cloth. Do not use chemical solvents.
- Do not place objects on the NVR.

The NVR meets the national standards of electromagnetic radiation and does not cause electromagnetic radiation to the human body.
2.1 Power on the Device

⚠️ CAUTION

- Ensure that the NVR is correctly connected to a power supply, and a display is correctly connected to the high definition multimedia interface (HD-OUT) or video graphics array (VGA) port of the NVR before power-on.
- In some environments, abnormal power supply may cause the failure of the NVR to work properly and even damage the NVR in severe cases. It is recommended to use a regulated power supply to power the NVR in such environments.

After the NVR is connected to a power supply, the power indicator is steadily on. Start the NVR. The real-time video screen is displaying, as shown in Figure 2-1.

Figure 2-1 Real-time video screen
The hard disk is strictly detected during device startup. If the detection result failed, the possible causes are as follows.

- The hard disk is new and is not formatted. Login to the system and format the hard disk.
- The hard disk is formatted, but the file system is inconsistent with the file system supported by the NVR. Format the hard disk.
- The hard disk is damaged.

2.2 Activation

When the user login the device at first time, or reset the NVR, you need to activate the device and set login and channel default password, as shown in Figure 2-2.

Figure 2-2 Activation
### Table 2-1 Description of activation

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Username</td>
<td>The default username is admin, and “admin” is super administrator.</td>
</tr>
<tr>
<td>Password</td>
<td>Valid password range 6-32 characters.</td>
</tr>
<tr>
<td>Confirm password</td>
<td>At least 2 kinds of numbers, lower case, upper case or special characters contained. Only these special characters are supported !@#$*+=-%&amp;” Channel default password limit is not empty.</td>
</tr>
<tr>
<td>Channel password</td>
<td>The NVR channel connection password is the camera login password.</td>
</tr>
</tbody>
</table>

User can set the pattern unlock to login the device, as shown in Figure 2-3.

**Figure 2-3 Set pattern unlock**

![Pattern Unlock](image)

#### NOTE

After the pattern is unlocked, the system defaults to the pattern unlock login. If the pattern unlock is not set, you will need to input the password to login.

If you don't need to set the pattern to unlock, click "Skip this step".
Set the Email to receive the verification code if user forget the initial password to create new password, as shown in Figure 2-4.

![Figure 2-4 Set Email](image)

**NOTE**

Set the email address, if you forget the password, you can though the email address to receive the verification, and reset the password.

If the email address is not set, you can reply to the secure question or send the QR code to the seller to give the temporary password to login to the device.

If you don't need to set the email, click "Skip this step".

Set the secure question, if user forgot the password can through the secure questions to create new password to login the device.
The user can set three questions, and if they forget the password, they can answer the question and enter the reset password interface.

Question one can be set: Your favorite animal
  - Company name of your first job
  - The name of the first boy/girl you like
  - The worst security question you have ever seen
  - The most funning/worst design you have ever seen

Question 2: Your favorite team

Question 3: Your favorite city

The three question options cannot be set to the same issue.

The answer requires a minimum of four characters and a maximum of 32 characters.

If you do not want to set a password question, you can click Skip this step.
2.3 Power off the Device

Click the main menu and choose **System > Maintenance**, the maintenance setting page is displaying, click **Shutdown** to power off the NVR. If there is a power switch on the rear panel of the NVR, you can turn off the power switch to disconnect the NVR from the power supply.

2.4 Login to the System

Login to the Device

Step 1. On the NVR login page, select the language, as shown in Figure 2-6.

Figure 2-6 Login page

Step 2. Input the username and password.

**NOTE**

- The default username and password are both **admin**. The password incorrect more than 3 times, please login again after 5 minutes. You can also power off, and power on to start on the device, input the correct password to avoid waiting five minutes.
- If user forget password, click **Forgot password**. User can choose a way to retrieve his password:
  1. Scan the QR code and send the QR code to your seller.
  2. Click **Send Password to you E-mail**. A password retrieval email will be sent to your E-mail address (for details, see chapter 8.4). Then, you can retrieve password by following operations described in the E-mail.
Step 3. Click Login to access the main User Interface (UI).

Step 4. Modify the default password, as shown in Figure 2-7. For system security, it’s forced to change password when you login the system at the first time.

Figure 2-7 Modify default password

----End

2.4 Add Cameras

This NVR can connect IP camera. The NVR can directly connect to cameras through POE.

Figure 2-8 shows the topology of the NVR.
Figure 2-8 Network topology of NVR

4 POE port panel
8 POE port panel
Non-PoE

A free network includes other network devices in addition to IP cameras and NVRs. The topology of a free network can organize freely so long as NVRs and IP cameras can communicate with each other smoothly.

When a free network is used, the user needs to manually search for and add IP cameras. For details, see chapter 5 channel management.

Figure 2-9 shows the topology of a free network.

Figure 2-9 Topology of a free network

LAN 1 is deployed default gateway and used for external network, and LAN 2 is used for internal network.

----End
Login the NVR, the wizard is showing on live video, click **Start Wizard**, the pop-up window will show as Figure 3-1.

Figure 3-1 Wizard
Step 1 Set the parameter, the details please refer to Table 3-1.

Table 3-1 Network parameter

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHCP</td>
<td>Enable DHCP, the device will obtain the IP address from the DHCP server.</td>
<td>[Setting method] Enable</td>
</tr>
<tr>
<td>IP Address</td>
<td>Set the IP of device when DHCP is disable</td>
<td>[Setting method] Manual</td>
</tr>
<tr>
<td>Subnet Mask</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gateway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtain DNS Automatically</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DNS1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DNS2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPnP Enable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Configuration</td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------------------------------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>Subnet mask</td>
<td>Set the subnet mask of device</td>
<td>[Setting method] Manual</td>
</tr>
<tr>
<td>Gateway</td>
<td>If the user wants to access device, he must set that</td>
<td>[Setting method] Manual</td>
</tr>
<tr>
<td>Obtain DNS</td>
<td>N/A</td>
<td>[Setting method] Enable</td>
</tr>
<tr>
<td>automatically</td>
<td></td>
<td></td>
</tr>
<tr>
<td>UPnP</td>
<td>Auto: device to obtain Web port, data port and client port.</td>
<td>[Setting method] Choose type from drop-down list [Default value] Auto</td>
</tr>
<tr>
<td></td>
<td>Manual: user set the port manually.</td>
<td></td>
</tr>
<tr>
<td>Web Port</td>
<td>N/A</td>
<td>[Setting method]</td>
</tr>
<tr>
<td>Data Port</td>
<td>N/A</td>
<td>When UPnP is manual, you need to set these.</td>
</tr>
<tr>
<td>Client</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>
Step 2 Click **Next** to view the basic information about device, as shown in Figure 3-3.

![Figure 3-3 Wizard of date and time](image)

Choose date format and time format from drop-down list.

Click **to synchrony time from network.**

Disable the NTP-Sync, set time manually.

Roll the mouse to choose year, month and day when clicking the date.

Roll the mouse to choose hour, minute and second when clicking the date.

Click **Modify Time** to save the time.

Step 3 Click **Time Zone**, choose the current time zone from drop-down list, as shown in Figure 3-4.
Step 4 Click **DST**, enable the DST, set start and end time. Select offset time from drop-down list.

Step 5 Click **Next** to enter the adding camera wizard, as shown in Figure 3-5.
The details of adding camera please refer to *chapter 7.3.*

Step 6 Click **Next** to enter wizard of disk, as shown in Figure 3-6.

---

**Figure 3-5 Wizard of adding camera**

**Figure 5-6 Wizard of disk**
You can view the general information of disk. You can also format the disk.

Step 7 Click Next to enter wizard of P2P, as shown in Figure 3-7

![Figure 3-7 P2P](image)

Step 8 Enable the P2P, user can use mobile devices to manage the NVR by scanning the P2P ID, if the mobile phone has loaded the W Box VMS 1 (search the APP at App Store or Google Play).

Step 9 Click Next to enter the wizard of resolution, as shown in Figure 5-8. Choose resolution from drop-down list.
Step 10 Click \( \text{Finish} \) to end the wizard, tick the **Not show this window next time**, wizard would not show at next time. Reopen wizard at **system >user >advance setting**.
4 Quick Navigation

After the NVR operation screen is displaying, move the cursor to the down most position of the NVR screen. The NVR floating menu bar is displaying.

Click in the left of NVR floating menu bar. The quick home menu is showing. The quick home menu provides Playback, Search, Setting and Power (Shutdown, Reboot and Logout) as shown in Figure 4-1.

Figure 4-1 Quick home menu

In the middle of NVR floating menu bar, the video tool bar provides video window switching, auto SEQ, volume, playback, as shown in Figure 4-2.

Figure 4-2 Real-time video toolbar

The real-time video toolbar is described as follows:
Layout. Click the icon, the real-time video window switch between the single-screen mode and multi-screen mode. Click on the right of screen splitting format and choose the channels to view the video.

Auto SEQ. click icon, the layout dwell on screen is enabled, for how to set the dwell on, please see chapter 9.5.

Audio. Click icon, the audio setting screen is displaying, which you can choose the channel and adjust the volume.

A main menu quick toolbar is display on the right of NVR floating menu bar. The main menu quick toolbar provides manual alarm, alarm information, clean alarm information and time, as shown in Figure 4-3.

Manual alarm, click the icon, the window shows in Figure 4-4.

Alarm message, click icon would show pop-up message window, as shown in Figure 4-5.
Figure 4-5 Alarm message

![Alarm message table]

![Alarm message icons]

: Clean alarm, click icon and clean the current alarm actions like voice and external alarm out.

: Information, click icon and the general information would show, like network, system, channel, and disk.

4.1 Real Time Video Bar

Click realtime image, the quick setting will show as figure.

![Real time video bar]

Record: click the icon and start to record video. Click again to end record.

Instant playback: click the icon, the window will play previous five minutes record video. is the time bar of playback.

Audio: open or close the audio.

PTZ: This function only is useful for speed dome cameras. You can adjust every parameter as shown in Figure 4-6.
Figure 4-6 PTZ adjust screen

![PTZ adjust screen](image)

- User adjust direction of camera.

- At this part, user can set **Advanced**, **Scan** and **Tour** settings.

- Zoom in, click zoom in, roll the mouse wheel to zoom in and zoom out. Right-click to exit the zooming.

- Image, click the icon , as shown in Figure 4-7. Select scene, and drag cursor to adjust value of brightness, sharpness, contrast and saturation.

  Figure 4-7 Camera picture parameter

  ![Camera picture parameter](image)

- Two way audio. The NVR and carmera can talk to each other.
Modify device parameters, as shown in Figure 4-8.

Figure 4-8 Modify device parameter

4.2 Playback

Playback refers to playing back a video.

Click in the quick navigation bar to access the playback screen, as shown in Figure 4-9.
The toolbar at the bottom of the playback screen is described as follows:

- Layout.
- Reversed, pause/play, stop.
- 30s backward, 30s forward.
- Triple speed, it supports up to 32 times to playback.
- Zoom.
- Audio.
Start and end backup. Click the icon, the video backup starts, select the video and click the icon again.

The backup type shows, click **save**, then saving the file pop-up windows would show as Figure 4-10. Click **OK** to save.

This function is available after a USB disk is plugging in the device.

**Figure 4-10  Select directory**

Batch backup, click the icon to backup multi-channels, as shown in Figure 4-11.

Choose the folder to save, select the stream information from drop-down list, set the start time and end time, select the channels, Click **OK** to backup.
4.2.1 Time Search

Search refers to searching for a video by date and time.

Operation Description

Click in the quick navigation bar to access the search screen, as shown in Figure 4-12.
Operation Steps

Step 1. Select a camera in the camera list on the left side of the search screen. The video view of the selected camera is displaying in the play window.

Step 2. Select a date in the calendar on the light-down side of the search screen.

Step 3. Choose record type, and search the video quickly.

Step 4. Choose proper button to adjust video.

----End

4.2.2 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.

Click  on the quick navigation bar to access the picture grid screen, as shown in Figure 4-13.
Operation Steps

Step 1. 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.

Step 2. Select a day from calendar.

Step 3. A day are dividend to 12 grids, two hours is one grid.

Step 4. Select a required thumbnail, double-click it or right-click it and choose Play from the shortcut menu to play the video.

----End

4.2.3 Event

Click 🐠 on the quick navigation bar; choose event at title to access the alarm event screen, as shown in Figure 4-14
Operation Steps

Step 1. Select a camera in the camera list on the left.

Step 2. Set start and end time.

Step 3. Tick the alarm type, such as alarm in, motion alarm, block alarm, video loss and intelligent analysis.

Step 4. Click to query the event, the result would show at window.

Step 5. Double click to play video about event. It will play recording video.

----End

4.2.4 Backup

Click on the quick navigation bar, choose at title to access the backup screen, as shown in Figure 4-15.
Figure 4-15 Backup screen

You can view the detail information of backup. Click delete button to quit the download.

---End

4.3 Main Menu

Right-click on UI screen, the main menu as shown in Figure 4-16. The main menu includes Channel, Record, Network, Alarm and System.

Figure 4-16 NVR main menu

---End
5 Channel Management

IP cameras can directly connect to input channels of the NVR by plugging in POE port. When IP cameras are insufficient, the NVR can automatically searches for and adds IP cameras or manually add cameras in the same Local Area Network (LAN).

Channel management includes add or delete Camera, Encode, Image, OSD and Privacy Zone.

5.1 Camera

Operation Description

Click Channel in the main menu to access the camera management screen, as shown in Figure 5-1.

Figure 5-1 Channel management screen
5.1.1 Add Camera Automatically
The NVR can add automatically cameras to the camera list.

Operation Methods

Method 1: Click [button], the cameras these are the same local area network with NVR will show in list, input username and password (the default value both are admin )click , the cameras in the list would be added to channels directly.

Method 2: Select the cameras you wanted to add, and click , the selected cameras would be added to the camera list.

Tick the online non-onvif channels at list and click to access the directory of software; it would to update the channels at once.

📖 NOTE
- On the camera management screen, check the status of channel in the camera list. If the status of a channel is , this camera is online. If the status of a channel is , this camera is offline.
- The added cameras should be the same network segment as NVR.

5.1.2 Add Camera Manually

Operation Steps

Step 1. Click , the screen to add devices manually is displaying, as shown in Figure 5-2.
Step 2. Input IP address, port, user name and password of camera.
Step 3. Select a protocol from the drop-down list. Remote channel is only used for thermal imaging cameras.
Step 4. Click the camera is added successfully.

**NOTE**
- If all channels of the NVR are connected by cameras, please delete the cameras that you don’t need, so that you can add more cameras.
- If a IP camera is added manually, input the correct username and password of the camera below the online device list. The camera will be added successfully. If not the camera would be shown on list at offline.

### 5.1.3 Delete Camera

**Operation Steps**

Step 1. Select a camera to delete in the camera list and click the delete confirmation message screen is displaying, as shown in Figure 5-3.
Step 2. Click **OK**, the camera is deleted successfully.

### 5.1.4 Operate Camera

At camera list, click *** to operate camera as shown in Figure 5-4, user can update, reboot and reset the camera immediately.

Step 1. Click **Update**, pop-up window to select software, as shown in Figure 5-5.

Step 2. Set the directory click **OK** to update camera.

Step 3. Click **Reboot**, message “Are you sure to reboot? ” would show, click **OK** to reboot the camera.
Step 4. Click **Reset**, message “**Are you sure to reset?**” would show, user can enable the retain IP address function. click **OK** to reset the camera.

Step 5. Tick the cameras with non-onvif protocol and cameras are online, click **Update** to update all cameras at once.

**NOTE**
- Update need upload the software by flash driver.

### 5.2 Encode Parameter

The system allows setting the stream information, encoding type, resolution, frame rate, bitrate control, bitrate and quality for cameras in a channel in **Encode Parameter** screen.

**Operation Description**

Click **Encode** in the main menu or **Menu** of the channel management screen and choose **Encode** to access the **Encode** screen, as shown in Figure 5-6.

**Figure 5-6 Encode screen**

#### Operation Steps

Step 1. Select a channel from the drop-down list of channel.
Step 2. Select stream information.

Step 3. Select encode type, resolution, frame rate, bitrate type and bitrate size from the drop-down lists.

Step 4. Click Copy and select channels or tick all, then click OK to apply the parameter settings to cameras in selected channels, click Apply to save encode parameter settings.

---End

5.3 Image Parameter

Image parameters refer to basic attributes of pictures, it includes the brightness, sharpness, contrast and saturation. You can set picture parameters for each channel based on scene.

Operation Description

Click Image in the main menu or click menu of the channel management screen and choose Image to access the image screen, as shown in Figure 5-7.
The image parameters are as follows:

- **Brightness**: it indicates brightness or darkness of picture.
- **Sharpness**: it indicates picture’s clarity.
- **Contrast**: it refers to the brightest white and darkest black in an image.
- **Saturation**: it indicates brilliance of the picture color.

Other parameters are sensor settings of IP cameras, like scene, exposure, white balance, day-night, noise reduction, enhance image, zoom focus, etc.

- **Scene**: it includes indoor, outdoor, default. Mirror includes normal, horizontal, vertical, horizontal + vertical.
- **Exposure**: it includes mode, max shutter, meter area and max gain.
- **White balance**: it includes tungsten, fluorescent, daylight, shadow, manual, etc.
- **Day-night**: user can transit day to night, or switch mode.
- **Noise reduction**: it includes 2D NR and 3D NR.
- **Enhance image**: it includes WDR, HLC, BLC, defog and anti-shake.
- **Zoom focus**: user can zoom and focus.
Operation Steps

Step 1. Select a channel from the drop-down list of channel.

Step 2. Select scene from the drop-down list. The default values of picture parameters vary with scenarios.

Step 3. Set parameters.

Step 4. Click to reset to factory settings, click to save image settings.

5.4 OSD Settings

Click OSD in the main menu or menu of the channel management screen and choose OSD to access the OSD screen, as shown in Figure 5-8.

Figure 5-8 OSD setting screen

Operation Steps

Step 1. Select a channel from the drop-down list of channel.

Step 2. Click next to Time to enable or disable OSD time setting.

Step 3. Click next to Name to enable or disable OSD channel setting.

Step 4. Set the channel name.
Step 5. In the video window, click and drag time or channel to move to a location.

Step 6. Click and select channels, then click to apply the OSD settings to cameras in selected channels, click to save OSD settings.

----End

5.5 Privacy Zone

The system allows you to mask images in a specified zone and this zone is called privacy zone.

Operation Description

Click Privacy Zone in the main menu or menu of the channel management screen and choose privacy zone to access the Privacy Zone screen, as shown in Figure 5-9.

![Figure 5-9 Privacy zone screen](image)

Operation Steps

Step 1. Select a channel from the drop-down list of channel.

Step 2. In the video window, hold down and drag the left mouse button to draw a privacy area.
Step 3. Click Copy and select channels or tick all, then click OK to apply the privacy settings to cameras in selected channels, click Apply to save privacy settings.

Step 4. Double click privacy area to delete setting.

----End
6 Record Setting

Set the **Record Schedule** and view the disk capacity in record screen.

6.1 Record Schedule

Operation Description

Click **Record** in the main menu or click the record page of any function screen in the main menu to access the record schedule screen, as shown in Figure 6-1.

![Figure 6-1 Record management screen](image)

**Operation Steps**

Step 1. Select a channel from the drop-down list of channel.
Step 2. Enable the record enable.
Step 3. Enable the record audio.
Step 4. Set the record schedule. **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.
**NOTE**

- 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.

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

Step 5. Deleting record schedule: Click 💰 again or inverse selection to delete the selected record schedule.

Step 6. Click 💰 and select channels or tick all, then click 💰 to apply the record management settings to cameras in selected channels, click 💰 to save settings.

----End

### 6.2 Disk

View the total capacity of disk, disk status, disk SN code and storage space of disk. You can format the disk and set record expiration manner.

**Operation Description**

Click **Record** in the main menu or menu of the record screen and choose **Disk** to access the disk screen, as shown in Figure 6-2.
Figure 6-2 Disk screen

Step 1. Click **Format**. The message “Are you sure to format disk? Your data will be lost” is displaying.

Step 2. Click **OK**, and the disk would be formatted.

Step 3. Record expiration setting. Select record expiration days from the drop-down list of record expiration.

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

----End
7 Alarm Management

Set the General alarm information, Motion Detection, Video Loss, Intelligent Analysis, Alarm In and Abnormal Alarm in alarm management screen.

7.1 General

Operation Description

Click Alarm in the main menu (or click the alarm page of any function screen in the main menu) to access the alarm management screen, as shown in Figure 7-1.

![Figure 7-1 Alarm management screen](image)

Operation Steps

Step 1. Enable the Enable alarm button.

Step 2. Select a value from the drop-down list of duration time.

Step 3. Click Apply to save alarm settings.
7.2 Motion Detection

The NVR will send motion detection alarm while something moving in the specific view of camera.

Operation Description

Click **Motion Detection** in the main menu or menu of the alarm management screen and choose **Motion Detection** to access the Motion Detection screen, as shown in Figure 7-2.

![Figure 7-2 Motion detection screen](image)

Operation Steps

Step 1. Select a channel from the drop-down list of channel.

Step 2. Click ![ ] to enable motion detection.
Step 3. Enable the Event actions include: buzzer, alarm out, push message, pop up message, send E-mail and post recording.

Step 4. Click Area page to access the motion detection area setting, as shown in Figure 7-3.

**Figure 7-3 Motion detection area setting screen**

**Area:**

1. Hold down and drag the left mouse button to draw a motion detection area.
2. Select a value from the drop-down list next to **Sensitivity**.

Step 5. Click **Schedule** page to access the schedule screen. For details, please see *6.1 Record Schedule Step 4 Set the record schedule.*

Step 6. Click **Copy** and select channels or tick **all**, then click **OK** to apply the motion detection settings to cameras in selected channels, click **Apply** to save motion detection alarm settings.

**NOTE**

- After a motion detection area is selected, double-click it to delete the selected area.
- The default area is whole area.
- If you leave the page without applying, the tip “**Do you want to save?**” would show.

Click **save** to save the settings. Click **cancel** to quit the settings.

----End
7.3 Video Loss

If a camera is disconnected to NVR, it will trigger video loss alarm.

Operation Description

Click Video Loss in the main menu or menu of the alarm management screen and choose video Loss to access the video loss screen, as shown in Figure 7-4.

Figure 7-4 Video loss screen

Operation Steps

Step 1. Select a channel from the drop-down list of channel.
Step 2. Click to enable video loss alarm.
Step 3. Enable the Event actions include: buzzer, alarm out, push message, pop up message, send E-mail and post recording.
Step 4. Click Schedule page to access the schedule screen.
Step 5. For details, please see 6.1 Record Schedule Step 4 Set the record schedule.
Step 6. Click and select a channel, then click to apply the parameter settings to cameras in selected channels, click to save video loss settings.

----End

7.4 Intelligent Analysis

Operation Description

Step 1. Click Intelligent Analysis in the main menu or menu of the alarm management screen and choose Intelligent Analysis to access intelligent analysis screen, as shown in Figure 7-6.

Figure 7-5 Intelligent Analysis screen

Step 2. Select a channel from the drop-down list of channel.

Step 3. Click to enable intelligent analysis alarm.

Step 4. Enable the event actions include: buzzer, alarm out, push message, pop up message, send E-mail and post recording.

Step 5. Click Schedule page to access the schedule screen.

Step 6. For details, please see Step 4 Set the record schedule.
Step 7. Click and select a channel, then click to apply the parameter settings to cameras in selected channels, click to save video loss settings.

----End

7.5 Alarm In

Operation Description

Click Alarm in in the main menu or menu of the alarm management screen and choose Alarm in to access the alarm in screen, as shown in Figure 7-6.

Figure 7-6 Alarm in screen

Operation Steps

Step 1. Select a channel in alarm in.

Step 2. Click to enable or disable the functions.

Step 3. Select Alarm type from the drop-down list.
Step 4. Set **name**.

Step 5. Enable the event actions include: buzzer, alarm out, push message, pop up message, send E-mail and post recording.

Step 6. Click **Schedule** page to access the schedule screen. For details, please see 6.1 Record Schedule Step 4 Set the record schedule.

Step 7. Click **Apply** to save alarm in settings.

--- End
7.6 Abnormal Alarm

Camera tamper means that the NVR would send alarm notification while objects cover IP cameras.

Operation Description

Click **Abnormal Alarm** in the main menu or menu of the alarm management screen and choose **Abnormal Alarm** to access the abnormal alarm screen, as shown in Figure 7-7.

![Abnormal alarm screen](image)

**Figure 7-7 Abnormal alarm screen**

Operation Steps

Step 1. Tick the abnormal actions, such as disk alarm, illegal intrusion, IP conflict and cable disconnected.

Step 2. Enable the event actions include: buzzer, alarm out, push message, pop up message, send E-mail and post recording.

Step 3. Click **Apply** to save abnormal alarm settings.

----End
8 Network Management

Set the **Network Parameter**, **802.1X**, **DDNS**, **E-mail**, **UPnP**, **P2P**, **IP Filter** and **SNMP** in the network management screen.

**Operation Description**

Click **Network** in the main menu (or click the network page of any function screen in the main menu) to access the network management screen, as shown in Figure 8-1.

---

**Figure 8-1 Network management screen**

---

### 8.1 Network

Set **DHCP** and **DNS** manually or automatically.
8.1.1 IP

Operation Steps

Step 1. Click next to DHCP to enable or disable the function of automatically getting an IP address. The function is enabled by default.

Step 2. If the function is disabled, click input boxes next to IP, Subnet mask, and Gateway to set the parameters as required.

Step 3. Click next to Obtain DNS Automatically to enable or disable the function of automatically getting a DNS address. The function is enabled by default.

Step 4. If the function is disabled, click input boxes next to DNS 1(default 192.168.0.1) and DNS 2(default 8.8.8.8), delete original address, and enter new address.

Step 5. Click to save IP settings.

---End

8.1.2 Port

Operation Steps

Step 1. Click Port page to access the port setting screen, as shown in Figure 8-2.
Step 2. Set the web port, data port and client port.

Step 3. Click `Apply` to save port settings.

----End

8.1.3 POE

Operation Steps

Step 1. Click `POE` page to access the POE setting screen, as shown in Figure 8-3.
Step 2. The NVR will deploy IP addresses to the cameras which connect POE immediately.

Step 3. Click ![Apply](image) to set POE camera IP address successfully.

---End

8.2 802.1 X

Operation Steps

Step 1. Click ![Enable](image) next to 802.1 X to enable or disable the function. The default is disabled.
Step 2. Input the user and password of 802.1X, the account is created by user.

Step 3. Click ![Apply](image) to save the settings. The visitor to view the NVR need to input account to certify.

### 8.3 DDNS

Please make sure of connecting the specified camera to the Internet, and obtain the user name and password for logging into the dynamic domain name system (DDNS) from the server.

**Operation Steps**

Step 1. Click **DDNS** in the main menu or menu of the network management screen and choose **DDNS** to access the DDNS screen.

Step 2. Click ![Enable](image) next to **Enable** to enable the DDNS function. It is disabled by default, as shown in Figure 8-5.
Step 3. Select a required value from the protocol drop-down list.

Step 4. Set domain name, input user and password.

Step 5. Click  to check the domain name.

Step 6. Click  to save DDNS network settings

**NOTE**

- An external network can access the NVR via an address that is set in the DDNS settings.

----End

### 8.4 E-mail

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.

Operation Steps

Step 1. Click **E-mail** in the main menu or menu of the network management screen and choose **E-mail** to access the E-mail screen, as shown in Figure 8-6.
Step 2. Set SMTP server and SMTP server port manually.

Step 3. Input E-mail sender, user name and password manually.

Step 4. Set E-mail for receive alarm. the message “Mail has been sent, please check” is displaying. Open the mail, if the verification code is received, that shows the E-mail is set successfully.

Step 5. Set E-mail for retrieve the password. the message “Mail has been sent, please check” is displaying. Open the mail, if the verification code is received, that shows the E-mail is set successfully.

Step 6. Set SSL encryption for encrypting mail or not.

Step 7. Click to save settings.

---End

8.5 UPnP

Operation Steps

Step 1. Click UPnP in the main menu or menu of the network management screen and choose UPnP to access the UPnP screen, as shown in Figure 8-7.
Step 2. Select UPnP enable type.


Step 4. Auto UPnP: device obtain the port automatically.

Step 5. Click \( \text{Apply} \) to save settings.

---End

8.6 P2P

Show the UUID code and set the P2P status of the device.

Operation Steps

Step 1. Click **P2P** in the main menu or menu of the network management screen and choose **P2P** to access the P2P screen, as shown in Figure 8-8.
Step 2. Click \( \text{on} \) to enable the P2P function.

Step 3. Click \( \text{Apply} \) to save P2P network settings or click \text{Cancel} to cancel settings.

Step 4. After the **W Box VMS 1** is installed in mobile phone, run the APP and scan the QR to add and access the NVR when the device is online.

----End

8.7 IP Filter

Set the IP address in specified network segment to allow or prohibit access.

Operation Steps

Step 1. Click **IP Filter** in the main menu or menu of the network management screen and choose **IP Filter** to access the IP filter screen, as shown in Figure 8-9.
Step 2. Click next to IP Filter to enable the function of IP Filter.
Step 3. Select black list or white list drop-down list.

Step 4. Click to set black & white list IP segment screen is displaying, as show in Figure 8-10.

Figure 8-10 IP Address Segment screen

Step 5. Enter value manually for start IP address, end IP address.

Step 6. Click OK. The system saves the settings. The black and white lists IP segment listed in the black (white) list.
8.8 SNMP

There are three versions of simple network management protocol at interface.

Operation Steps

Step 1. Click **IP Filter** in the main menu or menu of the network management screen and choose **IP Filter** to access the IP filter screen, as shown in Figure 8-11.

Step 2. Click **SNMPV 1** to enable the function. The interface is shown as Figure 8-12.
Step 3. Input the parameters of protocol.

Step 4. Click **Apply** to save settings or click **Cancel** to cancel settings.

----End
9 System Management

View the device **Information** and set **General** information, **User**, **Password**, **Display**, **Logs**, **Maintenance** and **Auto Restart** for the system setting.

**Operation Description**

Click **System** in the main menu (or click the system page of any function screen in the main menu) to access the system setting screen, as shown in Figure 9-1.

![Figure 9-1 System setting screen](image)

**9.1 Information**

View the device ID, device name, device type, model, firmware version, HDD volume, channel support, alarm in, and alarm out, audio in, audio out in **information** screen, as shown in Figure 9-2.
9.2 General

9.2.1 System

Operation Steps

Step 1. Click **General** in the main menu or menu of the system management screen and choose **General** to access the system screen, as shown in Figure 9-3.
Step 2. Enter device name for selected device.
Step 3. Select a proper resolution from the output resolution drop-down list.
Step 4. Select a required language from the Language drop-down list.
Step 5. Click **Apply** to save settings.

----End

9.2.2 Date and Time

Operation Steps

Step 1. Click **Date and Time** page to access the date and time setting screen, as shown in Figure 9-4.
Step 2. Select required format from the Date Format and time format drop-down list.

Step 3. Click next to NTP Sync to disable time synchronization. Time synchronization is enabled by default. Time is synchronized with the NTP.

Step 4. After NTP Sync is disabled, you can manually set the system time:

Click Date and scroll the mouse scroll wheel to select the year, month, and date.
Click Time and scroll the mouse scroll wheel to select the hour, minute, and second.
Click Modify Time to save the time settings.

Step 5. Click Apply to save settings.

----End

9.2.3 Time Zone

Operation Steps

Step 1. Click Time zone page to access the time zone setting screen, as shown in Figure 9-5.
Step 2. Select a required time zone from the Time Zone drop-down list.
Step 3. Click **Apply** to save settings.

----End

9.2.4 DST
When the DST start time arrives, the device time automatically goes forward one hour (offset
time). When the DST end time arrives, the device time automatically goes backward one hour.
The offset time can change if local rule is different.

Operation Steps
Step 1. Click **DST** page to access the DST setting screen, as shown in Figure 9-6.
Step 2. Click next to DST to enable DST.
Step 3. Select start time, end time, offset time from the drop-down list respectively, that basis on the local rules.
Step 4. Click to save settings.

9.3 User

Add, modify, and delete a user and privilege in user screen, admin user can dispose privilege to different user.

9.3.1 User

Operation Steps

Step 1. Click User in the main menu or menu of the system management screen and choose User to access the user screen, as shown in Figure 9-7.
Step 2. Add or delete a user.

- Add a user

  Click **Add**, the **Add User** dialog box appears, as shown in Figure 9-8.

  ![Figure 9-8 Add user screen](image)

  Input a username, password and confirm password.

  📘 **NOTE**
- The password should include letter, character and number, at least two types.
- The password should be 6–32 characters.

Step 3. Select a **Group** from the drop-down list box.

Step 4. Select a **Change password reminder** value from the drop-down list box.

Step 5. Select the operation privileges and channels in the list of the add user screen.

Step 6. Click **OK**. The user is set successfully.

**NOTE**
- The default user is **Administrator** and cannot be deleted or modified.
- Select a user from user list and click **** to edit, or click **** to delete a user.

-----End

9.3.2 Advance Setting

Operation Steps

Step 1. Click **User** in the main menu or menu of the system management screen and choose **Adv Setting** to access the user screen, as shown in Figure 9-8.
Step 2. Enable or disable Auto login, Password double authentication, Boot Wizard.

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

-----End

9.4 Password

The administrator can modify the old password.

Operation Steps

Step 1. Click **Password** in the main menu or menu of the system management screen and choose **Password** to access the modify password screen, as shown in Figure 9-10.
Step 2. Input the correct old password, new password, and confirm password.

**NOTE**
- The password should include at least two kinds of letter, character and number.
- The password should be 6~32 characters.
- Only special characters (!@#$*+=-) are supported.

Step 3. Click **Apply** to save modified password settings.

--- End

### 9.5 Auto Sequence

Set video mode, dwell time in display screen.

**Operation Steps**

Step 1. Click **Auto Sequence** in the main menu or menu of the system management screen and choose **Auto Sequence** to access the display screen, as shown in Figure 9-11.
Step 2. Set mode of display. Select a display mode from the SEQ drop-down list.

Step 3. 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).

Step 4. Click to save dwell settings.

--- End

9.6 Logs

Search for logs information and export the information.

Operation Steps

Step 1. Click Logs in the main menu or menu of the system management screen and choose Logs to access the log screen, as shown in Figure 9-12.
Step 2. Set the logs start date, end date, start time and end time on log screen.

Step 3. Select logs type from the drop-down list.

Step 4. Click to query logs.

Step 5. Click to export logs to USB storage.

----End

9.7 Maintenance

Operation Steps

Step 1. Click Maintenance in the main menu or menu of the system management screen and choose Maintenance to access the maintenance screen, as shown in Figure 9-13.
Step 2. Click Shutdown, Reboot, Logout, Exit system, Reset or update to operate NVR if you need.

Step 3. Click import configuration or export configuration to view the message “Are you sure to import the configuration?” user should make flash driver is working.

Step 4. The tip will show on screen, click ok to ensure choice.

Step 5. Click Import Config to import the configuration to flash drive.

Step 6. Import the configuration, the device would restart immediately.

Step 7. Click Export Config to export the configuration from flash drive.

**NOTE**
- When the NVR finishes updating, the device would restart

----End
9.8 Auto Restart

Operation Steps

Step 1. Click **Auto restart** in the main menu or menu of the system management screen and choose **Auto restart** to access the maintenance screen, as shown in Figure 9-13.

![Figure 9-14: Auto restart screen](image)

Step 2. Enable the function, restart time is showing as figure.
Step 3. Restart the NVR per day, week or month.
Step 4. Select the restart time from the drop-down list.

----End