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SAFETY INSTRUCTIONS

Please carefully read the following safety instructions to avoid personal injuries and to prevent damage to the equipment and other connected devices.

1. **Power sources (note: please use the included power supply or one specified by the manufacturer)**
   Never operate the equipment by using an unspecified power supply.

2. **Never push objects of any kind through the openings of the NVR**
   Never push objects of any kind through the openings of the NVR to avoid electric shock or other accidents.

3. **Do not put the equipment in a dusty field**
   Do not put the equipment in a dusty field.

4. **Do not place the equipment under rain or in a humid environment**
   Do not place the equipment in a humid environment like a basement. If the equipment accidentally comes into contact with water, please unplug the power cable and immediately contact your local dealer.

5. **Keep the surface of the equipment clean and dry**
   Use a soft damp cloth to clean the outer case of the NVR (do not use liquid aerosol cleaners)

6. **Do not operate if any problems are found**
   If there are any strange smells or sounds coming from the NVR, unplug the power cable and contact the authorized dealer or service center.

7. **Do not try to remove the upper cover**
   **Warning:** Do not remove the cap of the NVR to avoid electric shock.

8. **Handle with care**
   If the NVR does not work because of an impact with a hard object, please contact the authorized dealer for repair or replacement.

9. **Use a standard lithium battery (Note: Use the included batteries or one specified by the manufacturer)**
   If the system clock still does not work after cutting off the power supply, please replace the standard 3V lithium battery on the main board.
   **Warning:** Turn off NVR before replacing the battery, or you may suffer from a serious electric shock. Please properly dispose of the used battery.

10. **Put the equipment in a place with good ventilation**
    The NVR system includes HDD, which produces large amounts of heat during operation. To ensure the system is able to properly cool while in use do not block the vents located on the top, bottom, either side, and back of the unit. Install or put the equipment in a place with good ventilation.

11. **The attached power adapter can only be used with 1 NVR. Do not connect more equipment, or the NVR may repeatedly restart because of insufficient power.**

12. **Prevent water from dropping or splashing on the equipment. Do not place objects containing water on the equipment.**
### Chapter 1 Product Overview

#### 1.1 Rear Panel

<table>
<thead>
<tr>
<th>Item</th>
<th>Physical Port</th>
<th>Connection Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Switch</td>
<td>Startup and shutdown</td>
</tr>
<tr>
<td>2</td>
<td>Power Port</td>
<td>Connect the included power supply</td>
</tr>
<tr>
<td>3</td>
<td>USB Port</td>
<td>Connect USB devices, such as USB mouse and USB flash drive.</td>
</tr>
<tr>
<td>4</td>
<td>Sensor/Alarm</td>
<td>Connect to sensors or alarming devices</td>
</tr>
<tr>
<td>5</td>
<td>HDMI Port</td>
<td>HDMI high definition port</td>
</tr>
<tr>
<td>6</td>
<td>VGA Port</td>
<td>Connect to VGA monitor, such as PC monitor</td>
</tr>
<tr>
<td>7</td>
<td>LINE IN</td>
<td>Intercom voice input</td>
</tr>
<tr>
<td>8</td>
<td>AUDIO OUTPUT</td>
<td>Audio signal output, RCA interface</td>
</tr>
<tr>
<td>9</td>
<td>WAN Port</td>
<td>Network input interface of the router/Connect to IP camera.</td>
</tr>
<tr>
<td>10</td>
<td>LAN Port</td>
<td>LAN network interface, support POE, can supply power to the camera.</td>
</tr>
<tr>
<td>11</td>
<td>E-SATA</td>
<td>Optional. Connect to e-SATA HDD for recording &amp; backup</td>
</tr>
</tbody>
</table>
1.2 Remote Controller (For Reference Only)

<table>
<thead>
<tr>
<th>No.</th>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1   | 1-8  | Numeric keys  
        Press to display channel 1~8 |
| 2   | 9, 0 | Numeric keys |
| 3   | ALL | Press to display all channels  
        Multiple display mode |
| 4   | Menu | Press to enter or exit the Main Menu |
| 5   | Mute | Mute On/off |
| 6   | Submenu | Go to submenu |
| 7   | ▲ | Up arrow key; Volume increase |
| 8   | SEL | Press to enter the selected menu item and edit the setting |
| 9   | ◀▶ | Left/Right key; Decrease/increase parameter value of control bar. |
| 10  | ▼ | Down arrow key; Volume decrease |
| 11  | ◀▶ | Press to rewind during video playback |
| 12  | ◀▶ | Press to fast forward during video playback |
| 13  | ▶ | Press to play recorded video or enter the recording search menu |
| 14  | ● | Press to start manual recording |
| 15  | ■ | Press to stop manual recording or stop the video playback |
| 16  | | Press to pause the video playback or enter frame-playback mode |
Chapter 2 NVR Installation & Connection

2.1 Hard Drive Disk (HDD) Installation

This NVR supports two 3.5” or 2.5” SATA hard disk drives.

**CAUTION:** DO NOT install or remove the HDD while the device is powered ON

HDD Installation:

- a) Connect the data and power cables to the two HDDs and place the HDDs on the NVR case.
- b) Carefully flip the NVR case and secure the HDDs to the NVR with the eight (8) included screws

*Note:* The above procedures are for reference only. The actual installation may be different depending on the NVR you purchased.
2.2 Connection Diagram

Note: The above diagram is for reference only. The actual connection may be different depending on the NVR you purchased.

2.3 Power Supply Connection

Caution: Use only the included power adapter that came with the NVR

Connect one end of the power adapter to the power connector on the back of the NVR. Plug the other end of the power adapter into the wall outlet.

For some specific models, you may need to press the Power switch to turn on the power.
Chapter 3 NVR Common Operations

3.1 Using the Supplied Mouse

1. Left Button:
   - Click to select menu options.
   - During live viewing in split-screen mode, double-click on a channel to view it in full-screen. Double-click the channel again to return to split-screen mode.
   - Click on a channel in Live Viewing to open the Camera Quick Toolbar.
   - Click and hold to drag sliders and scales on menu mode.

2. Right Button:
   - Click once to open the Taskbar in Live Viewing. View more on Taskbar in 4.2.2 Taskbar.
   - In menus, click to go back / close menus.

3. Scroll Wheel:
   - In menus, scroll to move up / down through the menu content.
   - While hovering over the volume control wheel, scroll to turn system volume up / down.

3.2 Using the Virtual Keyboard

The virtual keyboard will automatically appear on screen when you need to enter data.

Click to toggle the keyboard to
   upper case and more punctuation

Click to delete a character

Click to complete the enter

Move the cursor to the right

Move the cursor to the left
3.3 Password

When you first run the NVR, you are required to immediately set your own password in order to protect your privacy. Please be sure to keep your username and password in a secure place.

**Language**: Choose an OSD language

**Device ID**: Input the device ID in the parentheses. The default ID is 000000. View more about Device ID in 5.6.1 General.

**New Admin name**: Set your own administrator name.

**New Admin Password**: Set your own password. The password must be 8 characters long.

**Confirm Password**: Enter your own password again.

**Unlock Pattern Enable**: Enable or disable unlock pattern. Set a pattern as an alternate password to more quickly unlock your NVR.
Click **Apply** to confirm your settings and go to the login interface. Enter your user name & password to **Login** to the NVR system.

**NOTE:** If you forget your password, you will be unable to login to the system, please contact your reseller to reset the password.
Chapter 4 NVR Starting up

4.1 Start Wizard

The Startup Wizard will help you configure your system and get your NVR working quickly.

4.1.1 Start Wizard

Click the Start Wizard to proceed to the next step

4.1.2 Network Configuration

If your connected router allows the use of DHCP, please check the DHCP box. The router will automatically assign all the network parameters for your NVR. If you would like to manually assign the network you can do so under the Parameters tab:

**IP Address:** The IP address identifies the NVR in the network. It consists of four groups of numbers between 0 to 255, separated by periods. For example, "192.168.001.100".

**Subnet Mask:** The Subnet Mask is a network parameter which defines a range of IP addresses that can be used in a network. If IP address is like a street where you live then the subnet mask is like a neighborhood. The subnet address also consists of four groups of numbers, separated by periods. For example, "255.255.000.000".
**Gateway**: This address allows the NVR to access the Internet. The format of the **Gateway** address is the same as the **IP Address**. For example, “192.168.001.001”.

**DNS1/DNS2**: DNS1 is the primary DNS server and DNS2 is a backup DNS server. It is usually enough to enter just the DNS1 server address.

**Port**

<table>
<thead>
<tr>
<th>Port</th>
<th>Service</th>
<th>Protocol</th>
<th>Internal Port</th>
<th>External Port</th>
<th>UPnP Status</th>
<th>UPnP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Web</td>
<td>TCP</td>
<td>80000</td>
<td>80000</td>
<td>Inactive</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Client</td>
<td>TCP</td>
<td>90000</td>
<td>90000</td>
<td>Inactive</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>RTSP</td>
<td>TCP</td>
<td>80554</td>
<td>80554</td>
<td>Inactive</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>HTTPS</td>
<td>TCP</td>
<td>80443</td>
<td>80443</td>
<td>Inactive</td>
<td></td>
</tr>
</tbody>
</table>

**Web Port**: This is the port that you will use to log in remotely into the NVR (e.g. using the Web Client). If the default port 80 is already taken by another application, please change it.

**Client Port**: This is the port that the NVR will use to send information (e.g. using the mobile app). If the default port 9000 is already taken by another application, please change it.

**RTSP Port**: This is the port that the NVR will use to transmit real-time streaming to other devices (e.g. using a streaming Media player.).

**UPNP**: If you want to log into the NVR remotely using Web Client, you need to complete the port forwarding in your router. Enable this option if your router supports the UPnP; if it does, you do not need to manually configure port forwarding on your router. If your router does not support UPnP, make sure the port forwarding is completed manually in your router.

**PPPoE**
4.1.3 Date/Time

This menu allows you to configure the Date, Time, Date Format, Time Format, Time Zone, NTP and DST.

**Date and Time**

Click on the calendar icon to set the current system date.

![Wizard Screenshot](image)

**Date:** Click on the calendar icon to set the system date.

**Time:** Click to set the system time.

**Date Format:** Choose from the dropdown menu to set preferred date format.

**Time Format:** Choose a time format between 24Hour and 12Hour.

**Time Zone:** Set the correct time zone.
**NTP**

NTP stands for Network Time Protocol. This feature allows you to synchronize the date and time automatically on the NVR over Internet. Therefore, the NVR needs to be connected to the Internet.

Check the “NTP” box, and select the NTP server.

**DST**

DST stands for Daylight Savings Time.

**DST**: Enable if Daylight Savings Time (DST) is observed in your region

**Time Offset**: Select the amount of time to offset for DST

**Time Mode**: Choose to set the daylight savings time in weeks or in days

**Start Time/End Time**: Set the start time and end time for daylight savings
4.1.4 IP Camera

This menu allows you to add IP cameras to the NVR.

Click **Search** to search for IP cameras in the same network. Choose the IP camera(s) you want to add, and then click arrow icon to add to the NVR, also to use Manual Mode to search for and add IP cameras.
Enter the camera’s user name & password to add the camera(s), you can also click button to add an individual IP camera to a single channel.

Click **Search** to search for IP cameras, and then click one of the IP cameras on the device list.

**IP Address/Domain:** IP address or domain name of the IP camera

**Alias:** Name of the IP camera

**Position:** Position of the camera’s name displayed on the screen.

**Port:** Port of the IP camera

**Protocol:** Choose the protocol of the IP camera from the dropdown menu

**User Name:** User Name of the IP camera

**Password:** Password of the IP camera

**Bind channel:** Channel on the NVR you want to attach the camera to
4.1.5 Disk

If the HDD is installed in the NVR for the first time, it must be formatted. Select the HDD and then click Format HDD to do so.

**Overwrite**: Use this option to overwrite the old recordings on the HDD when the HDD is full. For example, if you choose the option 7 Days then only the last 7 days' recordings are kept on the HDD. To prevent overwriting any old recordings, select Disable. If you have disabled this function, please check the HDD status regularly, to make sure the HDD is not full.

**Record On ESATA**: If your NVR comes with an e-SATA port on the rear panel, you can enable it to record video to the e-SATA HDD.
4.1.6 Resolution

Choose an output resolution that matches your monitor’s. When the system is starting up, the NVR automatically adjusts the output resolution to best match the resolution of your monitor.

4.1.7 Mobile

If your NVR comes with a P2P ID, you can scan the QR code with your mobile app to view the NVR remotely.

4.1.8 Summary

You can check the system summary information you set in the Start Wizard and finish the wizard.
Tick "Don't show this window next time" if you don't want to display the Start Wizard when the system reboots. Click Finish to save & exit.
4.2 Live View Screen Overview

Camera Title

Status Icons

Camera Quick Toolbar

Start Menu

Task Menu Bar

System Date & Time
Camera Title
To display the camera title
A: This indicates that the connected camera is an AHD camera
T: This indicates that the connected camera is a TVI camera
C: This indicates that the connected camera is a CVI camera
IP: This indicates that the connected camera is an IP camera

Status Icons
- This icon indicates that the NVR is currently recording.
- This icon indicates that the camera has detected motion.
- This icon indicates that the external I/O alarm device is triggered
- The icon appears when the camera has Intelligent detected motion
- This icon indicates that there is an error in the HDD
- This icon indicates the HDD is unformatted
- This icon indicates the HDD is full.
- This icon indicates the HDD is read-only.

No Camera: IP camera is disconnected.

Decoding Failed: The NVR doesn’t support this kind of IP camera compression standard, please change to H.264 compression standard.

Click to open Quick Add menu to add IP cameras
Click to edit current IP camera

4.2.1 Camera Quick Toolbar
In Live Viewing, left-click on a connected camera to display the Camera Quick Toolbar.

Click to immediately manually record the channel. If manual recording is in process, the icon will appear red. Click again to stop manual recording.

Click to save a snapshot of the currently displayed image. Manual Capture must be enabled to use this feature. For details on enabling Manual Capture, see 5.2.3.1 Capture.

Click to play the last 5 minutes recorded on this channel

Enter PTZ control panel
Click to zoom-in on the channel. When the icon appears, left-click and drag over the area you want enlarged.

Click to adjust the color of image on the channel. You can adjust the HUE, BRIGHT, CONTRAST & SATURATION of the image.

To switch the live view video stream between HD & SD. HD is mainstream live view, SD is substream live view.

Click to set white light parameter

Click to set Siren parameter (it is disabled by default). When you select Enable “Notice” information will be displayed; select “OK” to arm the siren.

Move your mouse to any live channel and right-click to view the tool bar, then click Tag icon Add Customized Tag.

4.2.2 Taskbar

Click to open the Start Menu

Click to choose the layout for live view

Click to choose more layouts for live view

Click to start viewing channels in a sequence

Quick playback. You can choose to play the recordings for all channels from the beginning of the day, or you can choose to playback the latest 5s, 10s, 30s, 1Min, 5Min.

Click to adjust audio volume

Click to switch all IP channels between mainstream and substream (for live view resolution)

Click to switch between real-time, balanced, or smooth view. The view effect modes affect only the live view video quality (bitrate and frame rate) but do not affect the recording quality.

This icon will appear if the network is disconnected.

Enable or Disable Light & Siren

To start or stop Manual Record and Manual Alarm.

To view system information, channel information, Record Info and Network State.
4.2.3 Start Menu

With the start menu, you can switch between users, search & playback, enter the system setup menu, lock & unlock the screen, shut down, reboot & log out of the system.

To switch the user. To enable multi-user, please view in 5.6.3 Multi-user.

Search & Playback. View more in Chapter 6 Search, Playback & Backup

NVR System Setup. View in Chapter 5 NVR System

Lock & unlock screen. View in 4.2.3.1 Unlock and Lock Screen.

Shutdown, reboot & log out of the system. View on 4.2.3.2 Shutdown.

4.2.3.1 Unlock and Lock Screen

The screen will lock after 1 minute without use to protect against unauthorized OSD operation.

If necessary, you can also lock the screen manually. To do so, go to the Start Menu, and click the Lock Screen icon  to lock the system.

If the system is locked, you can click the Unlock icon  to unlock the system for further operation.

4.2.3.2 Shutdown
Click **Shutdown** from the Star Menu, and check the action you want to continue with. Click **OK**, the system will then ask you to input your Admin password to authenticate.

If you choose **Logout**, the live viewing screen will disappear. You will need to login for further use.
Chapter 5 NVR System Setup

In the Start Menu, click setup to configure your channels, recordings, alarms, network, devices, and system for your NVR.

5.1 Channel

In this section, you can configure the camera’s live view display, manage IP cameras, adjust IP camera’s image, PTZ setup, motion setup, convert mode, and more.

5.1.1 IP Channels
Click **Search** to search for IP cameras on your local network. Click **Add** to add individual IP cameras. Click **Add All** to add all IP cameras.

Click **Search** to search for IP cameras, and click on one of the IP cameras on the device list.

**IP Address/Domain:** IP address or domain name of the IP camera

**Alias:** Name of the IP camera

**Position:** Display position on screen of the camera’s name.

**Port:** Port of the IP camera

**Protocol:** Choose the protocol of the IP camera from the dropdown menu

**User Name:** User Name of the IP camera

**Password:** Password of the IP camera

**Bind channel:** Choose a channel you want to attach the camera to

**Auto Assign IP to Camera(s):** The added IP camera will not be able to connect if its IP address is not in the same network segment as the NVR. This function reassigns the IP address of all added IP cameras.

**Channel Delete:** Choose one or more added IP cameras, and click this button to delete.
5.1.2 Protocol Manage

With Protocol Manage, you can edit your own RTSP protocol for IP camera connections.

**Custom Protocol:** The system allows a max of 10 custom protocol options.

**Protocol Name:** To give a name to your custom protocol.

**Enable Substream:** Check the box if you want to enable sub-stream.

**Type:** Only RTSP is available now.

**Port:** Input the RTSP port of your IP camera.

**Resources Path:** Input the RTSP address of your IP camera.
5.1.2 Live

To configure camera parameters.

<table>
<thead>
<tr>
<th>Channel</th>
<th>Setup</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH1</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>CH2</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>CH3</td>
<td></td>
<td>Ch1</td>
</tr>
<tr>
<td>CH5</td>
<td></td>
<td>Camera2</td>
</tr>
<tr>
<td>Q117</td>
<td></td>
<td>Q117</td>
</tr>
<tr>
<td>Q118</td>
<td></td>
<td>Ch1</td>
</tr>
<tr>
<td>Q119</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>Q120</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>Q121</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>Q122</td>
<td></td>
<td>Ch12</td>
</tr>
<tr>
<td>Q123</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>Q124</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>Q125</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>Q126</td>
<td></td>
<td>PersonCam 1</td>
</tr>
<tr>
<td>Q127</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>Q128</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>Q129</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>Q130</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>Q131</td>
<td></td>
<td>Camera</td>
</tr>
<tr>
<td>Q132</td>
<td></td>
<td>PCamera</td>
</tr>
</tbody>
</table>

**Channel**: Display channel name.

**Setup**: Click icon to enter the setup page.
Choose a channel to configure
Name the camera
Date format to display on the camera
Time format to display on the camera (for IP camera only)
Refresh Rate of the camera (for IP camera only)
To show the camera name in live view
To show the system time in live view
Adjust the Hue value for the image color
Adjust the Bright value for the image color
Adjust the Contrast value for the image color
Adjust the Saturation value for the image color
Click Default to load default settings, click Apply to save settings, right-click to exit.
5.1.3 Image Control

This menu allows you to control the image settings for supported IP cameras.

Channel: Channel name.

Setup: Click icon to enter the setup page.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel</td>
<td>CH5</td>
<td>Choose a channel to configure</td>
</tr>
<tr>
<td>IR-CUT Mode</td>
<td>GPIO Auto</td>
<td>Select the desired built-in IR-cut filter mode to ensure the camera works properly both in the day and night.</td>
</tr>
<tr>
<td>IR-CUT Delay</td>
<td>2</td>
<td>Set the delay time of IR-CUT switching</td>
</tr>
<tr>
<td>IR-LED</td>
<td>Auto</td>
<td></td>
</tr>
<tr>
<td>Lens Flip</td>
<td></td>
<td>Vertical Flipped Picture</td>
</tr>
<tr>
<td>Angle Flip</td>
<td></td>
<td>Horizontal Flipped Picture</td>
</tr>
<tr>
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</tr>
<tr>
<td>Default</td>
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</tbody>
</table>
5.1.4 PTZ

This menu allows you to configure the PTZ (Pan-Tilt-Zoom) settings for the dome camera.

- **Channel**: Channel name.
- **Signal Type**: Analog & Digital for IP channels.
- **Protocol**: Choose the communication protocol between the PTZ capable camera and the NVR. If your camera supports the UTC (Up the Coax) function, you can choose COAX1 or COAX2 to display the camera’s OSD menu or control the UTC PTZ function.
- **Baudrate**: The speed at which information is sent from the NVR to the PTZ-capable camera. Make sure it matches the compatibility level of your PTZ-capable camera.
- **DataBit / StopBit**: The information between the NVR and PTZ-capable camera is sent in individual packages. The DataBit indicates the number of bits sent, while the EndBit indicates the end of the package and the beginning of the next (information) package. The available parameters for DataBit are: 8, 7, 6, 5. The available parameters for the StopBit are 1 or 2.
- **Parity**: Checks for errors. See the documentation of your PTZ-capable camera, to configure this setting.
- **Cruise**: Enable to use Cruise mode. In order to use Cruise mode, you need to set a number of preset points.
- **Address**: Set the command address of the PTZ system. Please be noted that each PTZ-capable camera needs a unique address to function properly.
5.1.4.1 PTZ control

After finishing the PTZ setup, you can use the PTZ function to control your PTZ camera.

1) Left-click on a channel in Live Viewing to open the Camera Quick Toolbar, and choose the PTZ control icon 📺.

2) The PTZ control panel will be displayed.

<table>
<thead>
<tr>
<th>No.</th>
<th>Icon</th>
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<th>Description</th>
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<tr>
<td>1</td>
<td>![Channel Icon]</td>
<td>Channel</td>
<td>Select the channel of the PTZ camera.</td>
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<td>Cruise</td>
<td>The PTZ setup menu for this channel is shown in 5.1.4 PTZ.</td>
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<tr>
<td>3</td>
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<td>Adjust the PTZ speed, can be set to 1/5/20</td>
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<tr>
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<td>- ZOOM +</td>
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<td>Auto Focus</td>
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<tr>
<td>7</td>
<td>![Restore Icon]</td>
<td>Restore</td>
<td>Restore to factory setting</td>
</tr>
</tbody>
</table>
5.1.5 Video Cover

This menu allows you to create privacy zone(s) if you want to cover certain parts of the image. You can create up to 4 privacy zones of any size and in any location on the image. Enable Privacy Zone, and choose the number of zones you need. The zone(s) appear as a “red box”. Click the edge of the red box and drag it to the desired size to create a privacy zone.

Note: The area covered by the privacy zones will be invisible in both live view & recorded video. This menu allows you to configure motion parameters.
5.1.6 Motion

This menu allows you to configure motion parameters. When motion has been detected by one or more cameras, your NVR will alert you to a potential threat at your home by sending you an email alert with an attached image from the camera to use as a reference (if this option is enabled) and/or by sending push notifications via the mobile app.

Setup: Click icon to enter the setup page.

Motion Detection Area:
The whole screen is marked for motion detection (red blocks) by default. You can set motion detection for a desired area by clicking on the grid cursor and drag it over the area you would like to cover. Once it is set, right-click to return and click Save to make the setup effective.

Switch: Enable or disable motion detection.

Sensitivity: Set the sensitivity level. 1 the lowest sensitivity level while 8 is the highest sensitivity level.
Click **Alarm** to configure the motion detection alarm function:

![Setup](image)

**Channel**: Channel name

**Buzzer**: The NVR can use its internal buzzer to emit an alarm tone. You can set the buzzer’s duration in seconds when motion is detected.

**Alarm Out**: Optional function. If your NVR supports a connection to an external alarm device, you can set the channel emit an alarm.

**Latch Time**: Set the external alarm’s duration when motion is detected.

**Record**: Click ![icon] and choose which channel(s) you want to record when the motion detection is triggered.

**Post Recording**: You can set how long the NVR will continue to record after an event has occurred. The recommended recording length is 30 seconds but it can be set up to 5 minutes.

**Show Message**: Check the box to display ![icon] icon on the live view screen when motion is detected.

**Send Email**: You can set the NVR to send an auto-email when motion is detected.

**Full Screen**: If this function is enabled and motion is detected in a channel, you will see that channel in full screen.

**FTP Upload**: To upload alarm images to an FTP server when motion is detected. To enable FTP, please view [5.4.4 FTP](#).
5.1.7 PIR

This is an optional function. If your camera has the PIR function, you can configure the PIR recording here.

**Switch**: Enable or disable PIR recording.

**Sensitivity**: Set the sensitivity level. 1 is the lowest sensitivity level while 8 is the highest sensitivity level.

**Setup**: Click icon to enter the setup page.

**PIR Detection Area**: 
Click **Select All** to set the whole screen as a PIR detection area. Click **Delete All** to clear the area. You can also set a specific area for PIR detection by drawing a pentagon on the screen. If you want to edit the size of the area, please check the box and change the position. After you finish setting this, right-click to return and click **Save** to make the area setup effective.
Click **Alarm** to configure the PIR detection alarm function:

**Buzzer**: The DVR can use its internal buzzer to emit an alarm tone. You can set the buzzer’s duration in seconds when PIR detection is triggered.

**Alarm Out**: Optional function. If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

**Latch Time**: Set the external alarm’s duration when PIR detection is triggered.

**Record**: Click icon and choose which channel(s) you want to record when the PIR detection is triggered.

**Post Recording**: You can set how long the DVR will continue to record after an event has occurred. The recommended recording length is 30 seconds but it can be set up to 5 minutes.

**Show Message**: Check the box to display PIR on the live view screen when the PIR detection is triggered.

**Send Email**: You can set the DVR to send an auto-email when PIR detection is triggered.

**Full Screen**: If this function is enabled and PIR detection is triggered in a channel, you will see that channel in full screen.
5.1.8 Deterrence

Click Deterrence to enter the Deterrence setup page

**Notice:** The Camera must have the White light and Siren deterrence function to set and use this parameter.

**Sensitivity:** Set sensitivity from 1-8, the default is 4

**Light Duration:** Set the duration of the White Light; it can be set from 30s-180s; the default is 30s.

**Light Level:** Set the intensity level of the white light; it may be set to Low, Middle or High

**Light Deterrence Area Setup:** Click to set the Light deterrence area, you can use the default setting.

**Light Schedule:** Click to set the Light Schedule, you can use the default setting.

**Mode:** Can be set to Light Warning or Light Strobe

**Strobe Frequency:** Set the Strobe Frequency of the white light, you may set it to Low, Middle or High
**Siren Level:** Set the Siren volume: Low, Middle or High

**Siren Duration:** To set the Siren’s duration time, from 10s-180s, the default is 10s.

Deterrence tools button: Click on a channel with a camera that has the White Light and Siren function.

Click to set the white light parameter, it is enabled by default, you may select disable if you do not need the light.

Click to set Siren parameter, Disable is the default. If you select Enable “Notice” information will be displayed. Select “OK” to arm the Siren.
5.1.9 Intelligent


**Channel**: Select the channel you want to configure

**Switch**: Enable or disable the PID function

**Sensitive**: Can be set from 1 to 4. A higher sensitivity level will more easily trigger the detection.

**Scene**: Scene setting includes Indoor and Outdoor. Please choose the scene that matches the place your camera is installed.

**Setup**: Click **Setup** to draw a virtual region in the picture.
1. Rule Number is the number of PID areas. You can set a max of 4 areas for the PID function.
2. **Rule Switch** enables or disables the function.
3. Choose a **Rule Type**.
   - **A $\rightarrow$ B**: DVR will only detect actions from side A to side B;
   - **B $\rightarrow$ A**: DVR will only detect actions from side B to side A;
   - **A $\leftrightarrow$ B**: DVR will detect actions from both side B to A and side A to B.
4. Click 4 points on the picture to draw a virtual region. The shape of the region should be a convex polygon. A concave polygon will not be saved.
5. Click **Save** to save your settings.
6. If you want to modify the position or shape of region, click the red box in the region; the borders will become red. Click and hold to move the position of the region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the picture, click the red box in the region and then click **Remove**. Click **Remove All** to delete all regions.

**Notice:**

1) The perimeter should not be too close to the edges/corners of the picture, since it may cause the trigger to fail when the target pass through the edges/corners.
2) The regions should not be too narrow/small, since it may fail to trigger the detection when the target passes through the perimeter.
5.1.9.1 PID (Perimeter Intrusion Detection)

The Perimeter Intrusion Detection function detects people, vehicle or other objects that enter and loiter in a pre-defined virtual region, and certain actions can be taken when the alarm is triggered; Click **Alarm** to enter the parameter settings of PID:

- **Channel**: Select the channel you want to configure
- **Switch**: Enable or disable the PID function
- **Buzzer**: Disable or enable the DVR’s buzzer. It can emit an alarm tone for 10, 20, 40 or 60 seconds when the detection is triggered
- **Alarm Out**: If your NVR supports a connection to an external alarm device, you can set it to emit an alarm tone.
- **Latch Time**: Configure the external alarm’s duration when the detection is triggered.
- **Record Channel**: Select the channel(s) you want to record when a detection is triggered.
- **Post Recording**: You can set how long the NVR will continue to record after an event has occurred.
- **Show Message**: A letter “S” will be displayed on the screen when the PID function is triggered.
- **Send Email**: If an alarm is triggered, an Email will be sent to your preset email account.
- **Full Screen**: When the detection is triggered, the channel will be enlarged to full screen.
- **FTP Picture Upload**: If an alarm is triggered, a Picture will be sent to your preset FTP account.
- **FTP Video Upload**: If an alarm is triggered, a Video will be sent to your preset FTP account.
- **Picture to Cloud**: If an alarm is triggered, a Picture will be sent to your preset Cloud account.
- **Video to Cloud**: If an alarm is triggered, a Video will be sent to your preset Cloud account.
5.1.9.2 LCD (Line Crossing Detection)

The Line Crossing Detection function detects people, vehicle or other objects that cross a pre-defined virtual line, and certain actions can be taken when the alarm is triggered.

- **Channel**: Select the channel you want to configure
- **Switch**: Enable or disable the PID function
- **Sensitive**: Can be set from 1 to 4. A higher sensitivity will more easily trigger the detection.
- **Scene**: Scene setting includes Indoor and Outdoor. Please choose the scene that matches with the place your camera is installed.
- **Setup**: Click Setup to draw a virtual region in the picture.
1. Rule Number is the number of LCD lines. You can draw a max of 4 lines.
2. **Rule Switch** enables or disables the detection.
3. Choose a **Rule Type**.
   - \( A \rightarrow B \): NVR will only detect an action from side A to B;
   - \( B \rightarrow A \): NVR will only detect an action from side B to A;
   - \( A \leftrightarrow B \): NVR will detect an action from both side B to A and side A to B.
4. Click 2 points in the picture to draw a virtual line.
5. Click **Save** to save your settings.
6. If you want to modify the position or length of the line, click the red box next to the line, the line will become red. Press and hold to move the line, or drag the terminals to modify the length or position of the line.
7. If you want to remove one of the lines from the picture, click the red box next to the line and click **Remove**. Click **Remove All** to delete all lines.

**Notice:**

1) The lines should not be too close to the edges of the picture, or the LCD function may fail to trigger the alarm when a target crosses it.
2) The lines should not be too short, or the LCD function may fail to trigger the alarm when a target crosses it.
**Alarm**: Click **Alarm** to enter the parameter settings of LCD:

![User Interface Screenshot]

**Channel**: Select the channel you want to configure

**Switch**: Enable or disable the PID function

**Buzzer**: Disable or enable the buzzer’s alarm tone. Can be set to 10, 20, 40 or 60 seconds when the detection is triggered

**Alarm Out**: If your NVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

**Latch Time**: Configure the duration of the external alarm when the detection is triggered.

**Record Channel**: Select the channel(s) you want to record when the detection is triggered.

**Post Recording**: You can set how long the NVR will continue to record after an event has occurred.

**Show Message**: A letter “S” will be displayed on the screen when the PID function is triggered.

**Send Email**: If an alarm is triggered, an Email will be sent to your preset email account.

**Full Screen**: When the detection is triggered, the channel will enlarge to full screen.

**FTP Picture Upload**: If an alarm is triggered, a Picture will be sent to your preset FTP account.

**FTP Video Upload**: If an alarm is triggered, a Video will be sent to your preset FTP account.

**Picture to Cloud**: If an alarm is triggered, a Picture will be sent to your preset Cloud account.

**Video to Cloud**: If an alarm is triggered, a Video will be sent to your preset Cloud account.
5.1.9.3 SOD (Stationary Object Detection)

The Stationary Object Detection function detects any objects left behind in or missing from a pre-defined region such as baggage, purses, dangerous materials, etc., and certain actions can be taken when the alarm is triggered.

Channel: Select the channel you want to configure
Switch: Enable or disable the SOD function
Buzzer: Disable or enable the buzzer's alarm tone. It can be set to 10, 20, 40 or 60 seconds when the detection is triggered
Sensitive: Set the sensitivity level from 1 to 4; the default is 2. A higher sensitivity will more easily trigger the detection.
Scene: Scene setting includes Indoor and Outdoor. Please choose the scene that matches the place your camera is installed.
**Area:** Click [Setup] to draw a virtual region in the picture.

1. The Rule Number is the number of SOD areas. You can set a max of 4 areas for the SOD function.
2. **Rule Switch** enables or disables the function.
3. Choose a **Rule Type**.
   - **Legacy:** The NVR will only detect objects left behind; **Lost:** The NVR will only detect missing objects;
   - **Legacy & Lost:** The NVR will detect both missing objects and objects left behind.
4. Click 4 points in the picture to draw a virtual region. The shape of the region should be a convex polygon. A concave polygon will not be saved.
5. Click **Save** to save your settings.
6. If you want to adjust the size of the region, click the red box in the region, the borders of the region will become red. Press and hold with your mouse to move the whole region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the camera picture, click the red box in the region and click **Remove**. Click **Remove All** to delete all regions.

**Notice:**

1) The area for detection should be greater than or equal to the size of the detected object, such as the detection of the white bottle shown below.

2) The detected object cannot be covered.
Alarm: Click to enter the parameter settings of SOD:

Channel: Select the channel you want to configure

Buzzer: Disable or enable the buzzer’s alarm tone. Can be set to 10, 20, 40 or 60 seconds when the detection is triggered

Alarm Out: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

Latch Time: Set the duration for the external alarm when the detection is triggered.

Record: Select the channel(s) you want to record when the detection is triggered.

Post Recording: You can set how long the DVR will continue to record after an event has occurred.

Show Message: A letter "S" will be displayed on the screen when the intelligent detection is triggered.

Send Email: If an alarm is triggered, an Email will be sent to your preset email account.

Full Screen: When the detection is triggered, the channel will enlarge to full screen.

FTP Picture Upload: If an alarm is triggered, a Picture will be sent to your preset FTP account.

FTP Video Upload: If an alarm is triggered, a Video will be sent to your preset FTP account.

Picture to Cloud: If an alarm is triggered, a Picture will be sent to your preset Cloud account.

Video to Cloud: If an alarm is triggered, a Video will be sent to your preset Cloud account.
5.1.9.4 PD (Pedestrian Detection)

The Pedestrian Detection function detects moving people in a pre-defined region, and certain actions can be taken when the alarm is triggered.

**Channel:** Select the channel you want to configure

**Switch:** Enable or disable the PD function

**Level:** Can be set to Low, Middle, High. Low is recommended for detecting objects from long distances. High is recommended for detecting objects from short distances.

**Scene:** Scene setting includes Indoor and Outdoor. Please choose the scene that matches the place your camera is installed.

**Setup:** Click Setup to draw a virtual region in the picture:
1. The Rule Number is the number of PD areas. You can set a max of 4 areas for the PD function.
2. **Rule Switch** enables or disables the function.
3. Choose a **Rule Type**; only Normal is available for this detection.
4. Click 4 points in the picture to draw a virtual region. The shape of the region should be a convex polygon. A concave polygon will not be saved.
5. Click **Save** to save your settings.
6. If you want to adjust the size of the region, click the red box in the region, the borders of the region will become red. Click and hold with your mouse to move the whole region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the camera picture, click the red box in the region and click **Remove**. Click **Remove All** to delete all regions.

**Notice:**

1) The region for detection should not be in an area that people cannot reach.
2) The detected people need to be completely within the region.
**Alarm**: Click to enter the parameter settings of PD:

**Channel**: Select the channel you want to configure

**Buzzer**: Disable or enable the buzzer’s alarm tone. Can be set to 10, 20, 40 or 60 seconds when the detection is triggered.

**Alarm Out**: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

**Latch Time**: set the duration of the external alarm when the detection is triggered.

**Record**: Select the channel(s) you want to record when the detection is triggered.

**Post Recording**: You can set how long the DVR will continue to record after an event has occurred.

**Show Message**: A letter "S" will be displayed on the screen when the intelligent detection is triggered.

**Send Email**: If an alarm is triggered, an Email will be sent to your preset email account.

**Full Screen**: When the detection is triggered, the channel will enlarge to full screen.

**FTP Picture Upload**: If an alarm is triggered, a Picture will be sent to your preset FTP account.

**FTP Video Upload**: If an alarm is triggered, a Video will be sent to your preset FTP account.

**Picture to Cloud**: If an alarm is triggered, a Picture will be sent to your preset Cloud account.

**Video to Cloud**: If an alarm is triggered, a Video will be sent to your preset Cloud account.
5.1.9.5 FD (Face Detection)

The Face Detection function detects the faces of moving people that appear in a pre-defined region, and certain actions can be taken when the alarm is triggered.

- **Channel**: to select the channel you want to configure
- **Switch**: Enable or disable the CC function
- **Setup**: Click **Setup** to draw a virtual region in the picture.
1. The Rule Number is the number of FD areas. You can set a max of 4 areas for FD function.
2. **Rule Switch** enables or disables the function.
3. Choose a **Rule Type**, only Normal is available for this detection.
4. Click 4 points in the picture to draw a virtual region. The shape of the region should be a convex polygon. A concave polygon will not be saved.
5. Click **Save** to save your settings.
6. If you want to adjust the size of the region, click the red box in the region, the borders will become red. Click and hold with your mouse to move the whole region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the picture, click the red box in the region and click **Remove**. Click **Remove All** to delete all regions.

**Notice:**

1) The region for detection should not be in an area that people cannot reach.
2) The region should include the face completely.

**Alarm:** Click **Alarm** to enter the parameter setting of FD:

**Channel:** Select the channel you want to configure

**Buzzer:** Disable or enable the buzzer’s alarm tone. Can be set to 10, 20, 40 or 60 seconds when the detection is triggered

**Alarm Out:** If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

**Latch Time:** Configure the duration of the external alarm when the detection is triggered.

**Record:** Select the channel(s) you want to record when a detection is triggered.

**Post Recording:** You can set how long the DVR will continue to record after an event has occurred.
**Show Message:** A letter “S” will be displayed on the screen when the intelligent detection is triggered.

**Send Email:** If the alarm is triggered, an Email will be sent to your preset email account.

**Full Screen:** When the detection is triggered, the channel will enlarge to full screen.

**FTP Picture Upload:** If an alarm is triggered, a Picture will be sent to your preset FTP account.

**FTP Video Upload:** If an alarm is triggered, a Video will be sent to your preset FTP account.

**Picture to Cloud:** If an alarm is triggered, a Picture will be sent to your preset Cloud account.

**Video to Cloud:** If an alarm is triggered, a Video will be sent to your preset Cloud account.

### 5.1.9.6 CC (Cross-Counting)

The Cross-Counting function counts the number of times moving objects or people cross a virtual line.

![CC Function Configuration](image)

**Channel:** Select the channel you want to configure

**Switch:** Enable or disable the CC function

**Sensitive:** Set the sensitivity level from 1 to 4; 2 is the default. A higher sensitivity will more easily trigger the detection.

**Scene:** Scene setting includes Indoor and Outdoor. Please choose the scene that matches the place your camera installed.

**Setup:** Click **Setup** to draw a virtual region in the picture.
1. The Rule Number is the number of virtual lines you can draw. Max 4 lines.

2. **Rule Switch** enables or disables the detection.

3. Choose a **Rule Type**
   - **Object**: Will only count moving objects.
   - **Pedestrian**: Will only count moving people.

4. Click 2 points anywhere in the picture to draw a virtual line. Objects/people moving from Side A to B are entering and from Side B to A they are exiting.

5. Click **Save** to save your settings.

6. If you want to modify the position or length of the line, click the red box next to the line, the line will become red. Click and hold with your mouse to move the line, or drag the terminals to modify the length or position of the line.

7. If you want to remove one of the lines from the picture, click the red box next to the line and click **Remove**. Click **Remove All** to delete all lines.
Notice:
1) The lines should not be too close to the edges of the picture or the detection may fail to trigger the alarm when a target cross through it.
2) The lines should be in an area that the detected object reach.
3) The lines should not be too short or the detection may fail to trigger the alarm when a target passes through it.

**Alarm:** Click **Alarm** for the parameter settings

**Channel:** Select the channel you want to configure
**Buzzer:** Disable or enable the buzzer’s alarm tone. Can be set to 10, 20, 40 or 60 seconds when the detection is triggered
**Alarm Out:** If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.
**Latch Time:** Set the duration of the external alarm when the detection is triggered.
**Record:** Select the channel(s) you want to record when the detection is triggered.
**Post Recording:** You can set how long the DVR will continue to record after an event has occurred.
**Show Message:** A letter “S” will be displayed on the screen when the intelligent detection is triggered.
**Send Email:** If an alarm is triggered, an Email will be sent to your preset email account.
**Full Screen:** When the detection is triggered, the channel will enlarge to full screen.
**FTP Picture Upload:** If an alarm is triggered, a Picture will be sent to your preset FTP account.
**FTP Video Upload:** If an alarm is triggered, a Video will be sent to your preset FTP account.
**Picture to Cloud:** If an alarm is triggered, a Picture will be sent to your preset Cloud account.
**Video to Cloud:** If an alarm is triggered, a Video will be sent to your preset Cloud account.
You are able to search & view the statistical result of cross counting in **5.1.8.7 Intelligent Analysis.**

### 5.1.9.7 Sound Detection

This function triggers an alarm when sound breaks out, rises or declines.

Click **Sound Detection** to enter the Sound Detection setup page:

**Channel:** Select the channel you want to configure

**Switch:** Enable or disable the Sound Detection function

**Rise:** Enable or disable the Sound Rise Detection function

**Rise Sensitivity:** The default sensitivity value is 50, but you may adjust the value. A higher sensitivity will more easily trigger the detection.

**Sound Intensity:** The default Sound Intensity value is 50, but you may adjust the value to change sound intensity.

**Decline:** Enable or disable the Sound Decline Detection function

**Decline Sensitivity:** The default sensitivity value is 50, but you may adjust the value. A higher sensitivity will more easily trigger the detection.
Alarm: Click to enter the parameter settings of Sound Detection:

**Channel**: Select the channel you want to configure

**Buzzer**: Disable or enable the buzzer's alarm tone. Can be set to 10, 20, 40 or 60 seconds when the detection is triggered

**Alarm Out**: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

**Latch Time**: Set the duration of the external alarm when the detection is triggered.

**Record**: Select the channel(s) you want to record when the detection is triggered.

**Post Recording**: You can set how long the DVR will continue to record after an event has occurred.

**Show Message**: A letter "S" will be displayed on the screen when the intelligent detection is triggered.

**Send Email**: If the alarm is triggered, an Email will be sent to your preset email account.

**Full Screen**: When the detection is triggered, the channel will enlarge to full screen.

**FTP Picture Upload**: If an alarm is triggered, a Picture will be sent to your preset FTP account.

**FTP Video Upload**: If an alarm is triggered, a Video will be sent to your preset FTP account.

**Picture to Cloud**: If an alarm is triggered, a Picture will be sent to your preset Cloud account.
5.1.9.8 Occlusion Detection

This function triggers an alarm when the camera lens is blocked.

Click **Occlusion Detection** to enter the Occlusion Detection setup page:

Channel: Select the channel you want to configure

Switch: Enable or disable the Occlusion Detection function

Sensitivity: The default sensitivity value is 3, but you may adjust the number value. A higher sensitivity value will more easily trigger the detection.

Alarm: Click **Alarm** to enter the parameter settings of Occlusion Detection:
Channel: Select the channel you want to configure

Buzzer: Disable or enable the buzzer’s alarm tone. Can be set to 10, 20, 40 or 60 seconds when the detection is triggered

Alarm Out: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

Latch Time: Set the duration of the external alarm when the detection is triggered.

Record: Select the channel(s) you want to record when a detection is triggered.

Post Recording: You can set how long the DVR will continue to record after an event has occurred.

Show Message: A letter “S” will be displayed on the screen when the intelligent detection is triggered.

Send Email: If an alarm is triggered, an Email will be sent to your preset email account.

Full Screen: When the detection is triggered, the channel will enlarge to full screen.

FTP Picture Upload: If an alarm is triggered, a Picture will be sent to your preset FTP account.

FTP Video Upload: If an alarm is triggered, a Video will be sent to your preset FTP account.

Picture to Cloud: If an alarm is triggered, a Picture will be sent to your preset Cloud account.
In order to activate the intelligent functions, you need to set a schedule. By default the schedule is set to be active 24/7.

To set your own schedule, choose a channel then drag the cursor to mark the slots. Blocks that are blue indicate the time slots that have Intelligent Detection active. The schedule you set is valid only for the selected channel. If you want to use the same schedule for other channels, use the Copy function. Click Save to save your settings.
5.9.9.10 Intelligent Analysis

Enter Intelligent Analysis on the Intelligent page, then click [Search] to show events list.

The statistical results of Cross In & Cross Out can be queried by Daily, Weekly, Monthly, or Annually.
5.2 Record

This menu allows you to configure the recording parameters.

5.2.1 Encode

This menu allows you to configure the recording video or network transmission picture quality. Generally, Mainstream defines the recording video quality that will be saved in the HDD; Substream defines the video quality that is viewed via remote access, for example web client & CMS; Mobilestream defines the video quality that is viewed via mobile devices.

Resolution: This parameter defines how large the recorded image will be.

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

Video Encode Type: Click to check the encode type the NVR supports (H.264, H.265, H.264+, H.265+ ...), click , to check the encode type the IP camera supports and choose the one you wish to record in.

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

Bitrate Mode: If you wish to set the bitrate yourself, then choose User-defined mode. If you wish to select a predefined bitrate, choose Predefined mode.

Bitrate: This refers to the data transfer speed that the NVR will use to record video. Recordings that are encoded at higher bitrates, will be of better quality.

Audio: Select this option if you want to record audio along with video and have a microphone connected to the DVR or are using a camera with audio capability.

I Frame Interval: Using the default number is OK.
**ETR**: If the ETR option is checked, this channel will record at the max frame rate & the max bitrate when an alarm (motion or I/O alarm) is triggered in this channel.

### 5.2.2 Record

This menu allows you to configure the channel recording parameters.

#### 5.2.2.1 Record

**Record Switch**: Check to enable recording in this channel.

**Stream Mode**: Choose the recording quality. If you choose Dualstream, the system will record in both Mainstream & Substream.

**PreRecord**: If this option is enabled, the NVR starts recording a few seconds before an alarm event occurs. Use this option if your primary recording type is motion or I/O alarm based.
5.2.2.2 Record Schedule

This menu allows you to specify when the NVR records video and define the recording mode for each channel. The recording schedule lets you set up a schedule by day and hour, normal (continuous) recording, motion recording, I/O alarm recording & PIR recording (if your NVR supports it). To set the recording mode, click the mode radio (Normal, Motion, IO, PIR), then drag the cursor to mark the slots. The recording schedule is valid only for the selected channel. If you want to use the same recording schedule for other channels, use the Copy function. Click Apply to save your settings.

Channel: Select the channel to set its recording parameters.

Normal: A time that is slot marked green indicates that the channel will record continuously (normal) for that time slot.

Motion: A time that is slot marked yellow indicates that the channel records only when motion is detected during that time slot.

IO: A time slot that is marked red indicates that the channel records only when a sensor is triggered during that time slot.

PIR: A time slot that is marked purple indicates that the channel records only when the PIR detection is triggered during that time slot.

No Record: A time slot that is marked black means that there is no recording scheduled for the time slot.
5.2.3 Capture

This menu allows you to configure the image capture function.

5.2.3.1 Capture

**Auto Capture**: Select **ON** or **OFF** to enable or disable automatic capturing on the selected channel.

**Stream Type**: Set the image resolution to mainstream or substream.

**Normal Interval**: Time interval for capturing images in normal recording.

**Alarm Interval**: Time interval for capturing images when motion, IO alarm or PIR detection is triggered.
5.2.3.2 Capture Schedule

Channel: Select the channel to set its capture parameters.

Normal: A time slot that is marked green indicates that the channel performs normal capture for that time slot.

Motion: A time slot that is marked yellow indicates that the channel only captures images when motion is detected during that time slot.

IO: A time slot that is marked red indicates that the channel only captures images when a sensor is triggered during that time slot.

PIR: A time slot that is marked purple indicates that the channel only captures images when the PIR detection is triggered during that time slot.

No Capture: A time slot that is marked black means that it won’t capture any images for that time slot, but you can manually capture images if you enable the manual capture function for that channel.

5.3 Alarm

In this section, you can configure the alarm parameters.

5.3.1 Motion

The operation is the same as 5.1.5 Motion
5.3.2 I/O

This is an optional function. It will appear if your NVR supports I/O sensors and works with your connected external I/O sensor alarm devices.

**Alarm In:** I/O channel.

**Alarm Type:** There are 3 types for your choice: Normally-Open, Normally-Close, and OFF. Choose the one that matches your sensor type, or choose OFF to disable the sensor trigger function.

**Buzzer:** The NVR can use its internal buzzer to emit an alarm tone. You can set the buzzer's duration in seconds when a sensor is triggered.

**Alarm out:** Enables an external alarm device to emit an alarm tone when a sensor is triggered.

**Latch Time:** Set how long the NVR's buzzer will sound when an external sensor is triggered (10s, 20s, 40s, and 60s).

**Record:** Click and choose which channel(s) you want to record when motion detection is triggered.

**Post Recording:** You can set how long recording will last after the alarm ends (30s, 1minutes, 2minutes, 5minutes).

**Show Message:** Display the alarm messages on the screen when sensor is triggered.

**Send Email:** Send an email to specified email when sensor is triggered.

**Full Screen:** When a sensor is triggered, the corresponding channel will enter full screen mode.

**FTP Picture Upload:** Upload alarm images to an FTP server when I/O alarm is triggered.

To enable FTP, please view 5.4.4 FTP.
FTP Video Upload: Upload alarm images to an FTP server when I/O alarm is triggered. To enable FTP, please view 5.4.4 FTP.

Picture to Cloud: Upload alarm images to a cloud server when I/O alarm is triggered.

Video to Cloud: Upload alarm images to a Cloud server when I/O alarm is triggered.

5.3.3 PTZ Linkage

If you have connected PTZ cameras, you can link the PTZ cameras and the Motion Alarm and/or the external I/O sensor alarm. With the linkage function, you can turn your PTZ cameras to focus on a preset point when motion happens or an I/O alarm is triggered.

**Switch:** Enable or disable the PTZ linkage function.

**Motion:** Motion detection alarm will trigger the PTZ linkage function if it is checked.

**IO:** IO alarm will trigger the PTZ linkage function if it is checked.

**PIR:** PIR alarm will trigger the PTZ linkage function if it is checked.

**PTZ:** Click icon to associate the PTZ cameras with preset points. View preset point in 5.1.4.1 PTZ control.
5.3.4 Exception

This menu allows you to select the type of events that you want the NVR to inform you of.

**Event Type**: Select the event type from options below:

- **No Space on Disk**: When an HDD is full.
- **Disk Error**: If the HDD is not detected properly.
- **Video Loss**: If a camera is not connected properly.

**Switch**: Enables the monitoring of the selected event.

**Buzzer**: Set the buzzer’s duration when the event occurs (Off/10s/20s/40s/60s). To disable the buzzer, select **OFF**.

**Alarm Out**: If your DVR supports a connection to an external alarm device, you can set it to emit an alarm tone.

**Latch Time**: Determine how long the external alarm device will sound (10s, 20s, 40s, 60s) if your DVR supports a connection to an external alarm device.

**Show Message**: Check the box to display a message on the screen when No Space on Disk, Disk Error, or Video Loss event happens.

**Send Email**: Let the DVR send you an auto-email when an event occurs.
5.4 Network

This menu allows you to configure network parameters, such as PPPoE and DHCP. The most common types of networks are DHCP, so your network is most likely DHCP unless the network is manually addressed. If you need to authenticate the user name and password for the Internet, then choose PPPoE.

5.4.1.1 General

If your connected router allows the use of DHCP, please check the DHCP box. The router will automatically assign all the network parameters for your NVR. If you network needs to be manually addressed you can do so under the Parameters tab:

**IP Address**: The IP address identifies the NVR in the network. It consists of four groups of numbers from 0 to 255, separated by periods. For example, “192.168.001.100”.

**Subnet Mask**: Subnet mask is a network parameter that defines a range of IP addresses that can be used in a network. If an IP address is like a street where you live then a subnet mask is like a neighborhood. The subnet address also consists of four groups of numbers, separated by periods. For example, “255.255.000.000”.

**Gateway**: This address allows the NVR to access the Internet. The format of the Gateway address is the same as the IP Address. For example, “192.168.001.001”.
IPV6 Address/IPV6 Gateway: Users may choose to auto allot the IP of the router, but may change the IP according to their needs.

DNS1/DNS2: DNS1 is the primary DNS server and DNS2 is a backup DNS server. It is usually enough to enter just the DNS1 server address.

5.4.1.2 PPPoE

This is an advanced protocol that allows the NVR to connect directly to the network via a DSL modem.

Check the “Enable PPPOE” box, and then enter the User name & Password of the PPoE.

Click Apply to save, system will reboot to activate the PPoE setting.
5.4.1.3 SNMP

According to their needs users can select V1, V2 or V3, or choose the default setup.

5.4.1.4 Port Configuration
**Web Port:** This is the port that you will use to log in to the NVR remotely (e.g. using the Web Client). If the default port 80 is already taken by another application, please change it.

**Client Port:** This is the port that the NVR will use to send information. If the default port 9000 is already taken by another application, please change it.

**RTSP Port:** The default port is 554, if it is already taken by another application, please change it.

- **Https:** Using HTTPS requires you to register an SSL certificate

**UPnP:** If you want to remotely log into the NVR using Web Client, you need to complete the port forwarding. Enable this option if your router supports UPnP. You need to enable UPnP on both the NVR and the router. In this case, you do not need to manually configure port forwarding on for your router. If your router does not support UPnP, make sure the port forwarding is completed manually

### 5.4.2 DDNS

This menu allows you to configure DDNS settings. The DDNS provides a static address to simplify remote connections to your NVR. To use the DDNS, you first need to open an account on the DDNS service provider’s web page.

**DDNS:** Check to enable DDNS.

**Server:** Select the preferred DDNS server (DDNS_3322, DYNDNS, NO_IP, CHANGEIP, DNSEXIT).

**Domain:** Enter the domain name you created on the DDNS service provider’s web page. This will be the address you type in the URL box when you want to connect remotely to the DVR via PC. For example: dvr.no-ip.org.

**User/Password:** Enter the user name and password you obtained when creating the account on the DDNS service provider’s web page.
**User/Password**: Enter the user name and password you obtained when creating an account on the DDNS service provider’s web page.

After all parameters are entered, click **Test DDNS** to test the DDNS settings. If the test result is “Network is unreachable or DNS is incorrect”, please check that the network works fine and that the DDNS information is correct.

### 5.4.3 Email

This menu allows you to configure your email settings. Please complete these settings if you want to receive system notifications on your email when an alarm is triggered, HDD becomes full, there is an error in the HDD, or Video Loss occurs.

![Email Configuration](image)

**Email**: Check to enable.

**Encryption**: Enable if your email server requires a SSL or TLS verification. If you are not sure, set it to **Auto**.

**SMTP Port**: Enter the SMTP port of your email server.

**SMTP Server**: Enter the SMTP server address of your email.

**User Name**: Enter your email address.

**Password**: Enter the password of your email.

**Receiver 1~3**: Enter the email address where you want to receive event notifications from the NVR.

**Interval**: Set the time interval between notification emails from the NVR.
**NOTICE:** To make sure all settings are correct, click **Test Email**. The system will send an automated email to your inbox. If you received the test email, it means the configuration parameters are correct.

### 5.4.3.2 Email Schedule

You need to set a schedule to fully implement Email notifications.

Colors seen in the email schedule:

- **Green**: Motion detection.
- **Yellow**: I/O Alarm (optional).
- **Red**: Exception (HDD full, HDD error, or Video Loss).
- **Blue**: Intelligent Analysis detection.
- **Purple**: PIR (optional).
5.4.4 FTP

This menu allows you to enable the FTP function which loads captured snapshots from your NVR to your storage device over FTP for later viewing.

**FTP Enable**: Click to enable the FTP function.

**Server IP**: Enter your FTP server IP address or domain name.

**Port**: Enter the FTP port for file exchanges.

**Name/Password**: Enter your FTP server user name and password.

**Picture Resolution**: Select the resolution of uploaded pictures.

**Picture Quality**: Picture quality can be set to Good/Better/Best/Bad/Worse.

**Video Stream Type**: Select Substream or Mainstream.

**Max Package interval**: Set the max interval for hunt picture package of every time.

**Directory Name**: Enter the default directory name for the FTP file exchange.

**Test FTP**: Test the FTP settings.

**Upload Normal Video**: Open the option icon to enable all the channels you need

**Upload Alarm Video**: Select the types of alarms you wish to enable. You can enable all the channels that you need for FTP Picture Upload and FTP Video Upload. You can also the view more on this in [5.1.6 Motion](#) , [5.1.7 PIR](#) , [5.1.9 Intelligent](#) , [5.3.3 I/O](#)

**Notice**: You must have an FTP server to enter your FTP server IP address or domain name in the Server IP option of FTP setup page.
5.4.4.1 FTP Schedule

Colors seen on the FTP schedule:

**Green:** Motion detection.

**Yellow:** I/O Alarm (optional).

**Red:** Exception (HDD full, HDD error, or Video Loss).

**Blue:** Intelligent Analysis detection.

**Purple:** PIR (optional).
5.4.5 IP FILTER

You are able to configure the IP FILTER for your NVR.

Enable: Checking Enable allows you to setup the Whitelist and Blacklist.

Enable Whitelists: Whitelist is enabled by default, you must check Enable, before you can set up the Start Address and the End Address of the Whitelist.

Start Address: You can type in a start address then click Single Add, the Edit Address list is show below.

End Address: You can type in an end address then click Network Segment Add, the Edit Address list is show below.

Edit: Click to edit Start Address and End Address, you may edit a single address or a network segment address. You can also click to delete a single address or a network segment address.

Enable Blacklists: Blacklist is disabled by default. You must check Enable Blacklists before setting up your Blacklist. You may refer to your setup options for your Whitelist to edit the Blacklist.
5. 5 Device

In this section, you can configure the internal HDD function.

5. 5.1 Disk

This menu allows you to check & configure the internal HDD(s). The HDD(s) only need to be formatted on the DVR’s first startup or when a new HDD is installed.

Format HDD: Select the HDD you want to format and then click Format HDD. You will need to enter your user name and password to format the HDD. Click OK to confirm and continue formatting.

Overwrite: Use this option to overwrite the old recordings on the HDD when the HDD is full. For example, if you choose the option 7 days then only the last 7 days recordings are kept on the HDD. To prevent overwriting any old recordings, select OFF. If you disabled this function, please check the HDD status regularly to make sure the HDD is not full. Recording will stop if HDD is full.

Record on ESATA: This menu is only displayed when your NVR comes with an e-SATA port on the rear panel. It allows you to record video to external e-SATA HDD to enhance your HDD capacity. If the e-SATA recording function is enabled, the e-SATA backup function will be disabled.
If your NVR allows the installation of multiple HDDs, the edit icon 
appears in your system, you can click it to edit the HDD as shown below:

**Disk Type:** Read-write, read-only, and redundant.

**Read Write Disk:** Read Write mode is the way recordings are normally stored and searched for in a HDD.

**Redundance Disk:** Redundance mode can be used to automatically backup footage on the recording (read-write) hard drive. When a redundant HDD is installed, the system can be set to simultaneously record footage in both the recording hard drive and the redundant hard drive in case of hard drive failure.

**Read Only Disk:** To prevent important video data from being overwritten during cyclic recording, the HDD can be set to Read Only mode. New recordings will not be saved into a read-only HDD. You can still search for recordings in a read-only HDD to play.
5.5.1.1 Disk Group

If your NVR allows the installation of multiple HDDs, you can configure the HDDs to be in different groups. HDD groups allow you to balance recordings across multiple hard drives. For example, you can record channels 1~4 on one hard drive and 5~8 on a second hard drive. This can reduce the amount of wear on the hard drives and may extend the life of the hard drives.

1. Use the dropdown next to **Disk Group Type** to select the type of group to configure.
2. Use the dropdown next to **Disk Group** to select the specific group within the selected group type.
3. Click the numbered boxes representing channels to record those channels to the selected HDD in the group.
4. Click **Apply** to save.
5.5.1.2 S.M.A.R.T

This function can be used to display the technical information of the hard drive installed in your NVR. You can also perform a test (there are three types available) to evaluate and detect potential drive errors.

**Self-check Type:** There are three types available:

**Short:** This test verifies major components of the hard drive such as read/write heads, electronics and internal memory.

**Long:** This is a longer test that verifies the above as well as performs a surface scan to reveal problematic areas (if any) and forces bad sector relocation

**Conveyance:** This is a very quick test that verifies that the mechanical parts of the hard drive are working.

**Whole Evaluation not passed, continue to use the disk:** If for some reason the hard drive has a fault (such as one or more bad sectors), you can instruct your NVR to continue saving to the drive.

**Note:** When performing a test, your NVR will continue to work as normal. If an HDD S.M.A.R.T error is found, you can continue to use the HDD, but there will be a risk of losing recording data. It is recommended to replace with a new HDD.
5.5.2 Cloud

Your DVR has the ability to upload snapshots to a cloud service via Dropbox which is a free service that allows you to easily store and share snapshots and always have them on hand when you need them.

Before activating the cloud function, we recommend that you create a Dropbox account using the same email address and password used for your DVR. Go to www.dropbox.com, input your name, email address and password, agree to the terms & conditions then click the sign up button.

**Cloud Storage**: Check to enable the function.

**Cloud Type**: Only Dropbox is supported currently.

**Alarm Detection**: Enable if you want to upload snapshots to Dropbox when the camera detects motion or an I/O alarm is triggered.

**Drive Name**: Enter the cloud storage name for your DVR.

**Activate Cloud**: Click to activate the function. After a moment, you will see a message on-screen. An activation link has been sent to your email (the email address which you had set to receive email alerts in 5.4.3 Email). Check your email then click the link to activate. You will be taken to the Dropbox website. Click “Allow” to finalize the activation. Repeat these steps if you would like to enable cloud storage for the other cameras available.
5.6 System

Change general system information such as date, time and region, edit passwords and permissions, and more.

5.6.1 General

Device Name: Enter the desired name for your NVR. The name can include both letters and numbers.

Device ID: Enter the desired ID for your NVR. The device ID is used to identify the NVR, and can only be composed of numbers. For example, 2 NVRs are installed in the same place, the Device ID is 000000 for one of the NVRs, and 111111 for the other NVR. If you want to operate the NVR with a remote controller, both of the NVRs may receive the signal from the controller & act at the same time. If you want to control only the NVR with ID 111111, you can input the Device ID 11111 in the login page for the remote controller for further operations.

Language: Select a language you would like the system menus to be displayed in. Multiple languages are available.

Video Format: Select the correct video standard for your region.

Menu Timeouts: Click on the drop-down menu to select the time it will take your NVR to exit the Main Menu when idle. You can also disable this by selecting “OFF” (password protection will be temporarily disabled).

Show Wizard: Click the checkbox if you would like to display the Startup Wizard each time you turn on or reboot your NVR.
5.6.1.1 Date and Time

Date & Time

**Date:** Click the calendar icon to change the date.

**Time:** Click the box to change the time.

**Date Format:** Select the preferred date format.

**Time Format:** Select the preferred time format.

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

5.6.1.2 NTP Settings

The NTP (Network Time Protocol) function allows your NVR to automatically sync its clock with a time server. This ensures it will constantly have an accurate time setting (your NVR will automatically sync periodically).

Check **Enable NTP**, and select a **Server Address**, click **Update Now** to manually sync the date & time. Click **Apply** to save your settings.

When the NTP function is enabled, the system time will update at 00:07:50 daily or every time the system starts up. You can also manually update the system time by clicking **Update Now**.
5.6.1.3 DST Settings

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

Enable DST: If Daylight Saving applies to your time zone or region, check this option to enable it.

Time Offset: Select the amount of time that Daylight Saving has increased by in your time zone. This refers to the difference in minutes, between Coordinated Universal Time (UTC) and the local time.

Enable DST: You can select when Daylight Saving starts and ends:

Week: Select the month, a particular day and time when Daylight Saving starts and ends. For example, 2 a.m. on the first Sunday of a particular month.

Date: Select the start date (click the calendar icon), end date and time when Daylight Saving starts and ends.

Start Time / End Time: Set the start time and end time for Daylight Saving.
5.6.2 Output Configuration

This menu allows you to configure video output parameters.

**LIVE-OUT**: The Video Output default is LIVE-OUT.

**SEQ Mode**: Select how many video channels you would like to display when your NVR is in sequence mode.

**SEQ Dwell Time**: Enter (in seconds) the maximum time you would like a channel to be displayed in sequence mode before displaying the next video channel (300 seconds is the maximum).

**Output Resolution**: Select a display resolution that is suitable for your TV. 1920 x 1080 will suit most TVs. If your NVR supports 4K output resolution, you can select either 2K (2560 x 1440) or 4K (3840 x 2160) to take advantage of the higher resolution that your 4K TV provides.

**Scale and Offset**: The NVR allows you to adjust the size & position of the display screen to match your monitor or TV. Click **Setup** to adjust.
Scale: To adjust the size of the displayed screen by scale.
X Offset: To move the displayed screen to the left or right.
Y Offset: To move the displayed screen up or down.

Click once or click and hold on the arrow to adjust the size and position, or you can scroll the wheel of the mouse to adjust. Right-click to exit, and click Apply to save your modifications.

Cursor Hidden Delay: Click the drop-down menu to select the time your NVR will take to hide the mouse cursor when idle. You can also disable this by selecting “OFF” (password protection will be temporarily disabled).

Cursor Acceleration: To adjust the speed of the mouse cursor.

Transparency: Move the slider left or right to change how transparent the Menu Bar and Main Menu will appear on-screen. Adjust accordingly.
5.6.3 Multi-user

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

The system supports the following account types:

- **ADMIN — System Administrator**: The administrator has full control of the system, and can change both administrator and user passwords and enable/disable password protection.
- **USER — Normal User**: Users only have access to live viewing, search, playback, and other functions. You may set up multiple user accounts with varying levels of access to the system.

### 5.6.3.1 Changing Password

To change the password for the administrator or a user account, click the User Edit icon. The password has to be a minimum of 8 characters and can contain a mixture of numbers and letters. Enter your new password again to confirm, and then click **Save** to save your new password. You will be required to input your old password to authenticate.
Password Enable: It’s strongly recommended that you enable the password to protect your privacy. If you want to disable the password protection, please ensure your NVR is placed in a secure place.

5.6.3.2 Add New Users

Select one of the user accounts that is currently disabled, click the User Edit icon to edit user information.

1. Select Enable from the drop-down next to User Enable.
2. Click the field next to User Name to change the user name for the account.
3. Select Enable from the drop-down next to Password Enable.
4. Click the field next to Password to enter the desired password.
5. Click the field next to Confirm to reenter the password.
6. Click Save. You will be required to input your Admin password to authenticate.

5.6.3.3 Setting User Permissions

The administrator account is the only account that has full control of all system functions. You can enable or disable access to certain menus and functions for each user account.

1. Click the edit icon under the Permission tab, to enter the permission edit page.
2. Check the boxes next to any system menus or capabilities you would like the user to access. Click All to check all boxes. Click Clear to clear all of the checkboxes.

3. Click Save to save your modifications.

5.6.4 Maintenance

In this section, you will be able to search & view the system log, load default settings, upgrade the system, export & import system parameters and manager system auto reboot.

5.6.4.1 Log

The system log shows you important system events, such as motion, alarms, and system warnings. You can easily create a backup file of the system log for a selected time period to a USB flash drive.
Log Searching and Backing Up:

1. Click the field next to **Start Date & Start Time** to choose the starting date & time for your search from the on-screen calendar.

2. Click the field next to **End Date & End Time** to choose the end date & time for your search from the on-screen calendar.

3. Select the type of events you would like to search for from the dropdown next to **Log Type**, or select **All** to see the entire system log for the selected time period.

4. Click **Search**.

5. Browse system log events for your search period:
   - Video events can be played back instantly by clicking in the **Playback** column. Right-click to return to your search results.
   - Use the **< | > | / | > | ** buttons in the bottom-right corner of the menu to move between the pages of the system log events.

6. Click **Backup** to create a backup of the system log for your search period. Please make sure your flash drive has been connected to the NVR’s USB port.

7. The backup drive menu will appear. Navigate to the folder you want the backup file to be saved in, then click **OK** to begin.
5.6.4.2 Load Default

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

Check the items you want restore, or check **Select All** to choose all items. Click **Apply** to load the default settings of your chosen items.
5.6.4.3 Upgrade

1. Copy the firmware file (.sw file) to your USB drive, and insert the USB flash drive into the NVR’s USB port.
2. Click Select File to choose the firmware file in your USB flash drive, then Click OK.
3. Click Upgrade to start system upgrade. The system upgrade will last around 5-10 minutes, please do NOT power off the NVR or remove the USB from NVR during firmware upgrade.

5.6.4.4 Parameter Management

You can export the main menu settings you have configured to a USB flash drive, or import an exported setting file from a USB flash drive to the NVR.

**Save Settings**: Click to save the NVR’s current system settings to the USB device. You will be required to input the Admin password to authenticate.

**Load Settings**: Once you have created a system settings export, you can import the settings on another NVR. Click Load Settings to navigate to the system settings file you want to import from your USB flash driver. You will be required to input the Admin password to authenticate.
5.6.4.5 Auto Reboot

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

**Auto Reboot**: Check to enable.

**Time**: You can set the NVR to reboot daily, weekly or monthly.

5.6.5 IP Camera Maintain

This menu allows you to upgrade the IP camera’s firmware and restore default settings of the IP camera.

5.6.5.1 Upgrade IP Camera
1. Choose one of the IP cameras you want to upgrade the firmware.
2. Click **Select File** to select the update file from your USB flash drive, then click **OK**.
3. Click IPC Upgrade button to start upgrading. You will be required to input the Admin password to authenticate. Please do **NOT** power off the NVR or the IP camera or remove the USB during the upgrade.

5.6.5.2 Load Default Settings for IP Camera

1. Choose the IP cameras you want to restore.
2. Click **Load Default** to restore settings. You will be required to input the Admin password to authenticate.