Full Manual

IN Series Recorder

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CONTENT

ABOUT THIS DOCUMENT

In this document you will find a comprehensive description of a specific series of units, which has been prepared with great care and accuracy to give you a detailed insight into the general functions and features that characterise this series of units.

Please note, however, that the detailed characterisation in this document refers to the general product line. The individual scope of functions of individual models or versions within this series may vary depending on the configuration.

These variations may be reflected in an extended or restricted range of functions and features, so that the actual specifications of individual products may differ in some respects from the designs presented in this document.

For this reason, it is strongly recommended to carefully read the specific data sheet for the respective product. The data sheet contains specific and detailed information tailored to the particular model. It is the primary reference document that provides the most authentic and accurate information about the individual functions and features of each specific product in our appliance series.

We thank you for your understanding and willingness to invest time to gain accurate knowledge about your selected product of our appliance series. Please do not hesitate to contact us if you have any further questions or require additional information.

INTRODUCTION

- In this manual, the term 'IP camera' refers to network cameras.
- A click means that you click with the left mouse button.
- A double click means that you click twice with the left mouse button.
- The default IP address of an IP camera is 192.168.1.168.
- When using the IP camera for the first time, you must set the password as instructed. You can log in with admin (lowercase) as the username and set the password as described in „4.1 – Password".
- The web port number is 80 by default. The ONVIF port number is the same as the web port number. The media port number is 9000 by default.

Note

Some information in this manual may differ from the actual product. If you encounter any problems that cannot be resolved using this manual, please contact our technical support or an authorised representative.

This manual is subject to change without notice due to firmware updates or other reasons.

Notes within the document are presented as follows:

Warning!

Here is a warning notice.

Note!

Here is some information.

Example

Here is an example.

OPEN SOURCE SOFTWARE LICENSE INFORMATION

The software components provided with eneo products may contain copyrighted software that is licensed under various open source software licenses.

For detailed information about the contained open source software packages, the used package versions, license information and complete license terms, please refer to…

- the open source information included in your products user interface,
- the product detail pages on the eneo website (**www.eneo-security.com**),
- the eneo download portal (**https://datacloud.videor.com/s/eneodownloadportal**). In case that previous link is broken, the latest link to the eneo download portal can be found on the respective eneo product page at **www.eneo-security.com**.
- the download package of your firmware. The complete open source software license information of your product is included in the corresponding software download package that can be found in our download portal.

If you are missing any information, please contact **opensource@eneo-security.com**, we will of course be happy to provide you with the missing information and will also make the missing information available to the public.

If you want to get access to the open source components (source codes) used in our products, please contact **opensource@eneo-security.com**.

SAFETY INSTRUCTIONS

Read the safety instructions and operating instructions carefully before installing the product.

Depending on the product type, some points may not apply.

Warnings, data protection & legal notices

- Make sure visitors are aware that they are being recorded by displaying clearly visible notices.
- If necessary, point out any rules of conduct.
- Ensure that the cameras are positioned in such a way that privacy is not violated, e.g. by recording neighbours or public areas.
- Observe local laws and regulations on video surveillance and data protection (GDPR).

Security

- Use strong passwords for all cameras and devices to prevent unauthorised access.
- Keep the firmware of the devices up to date to minimise security vulnerabilities.
- Protect (remote) access to the devices using secure methods such as encrypted connections or VPN.

Mounting & installation

- Ensure that the intended mounting location is suitable for the respective product (e.g. in terms of weight).
- Secure the products at the locations and surfaces recommended by the manufacturer to ensure stability and safety.
- Ensure that the products are weatherproof if they are installed outdoors and protect cameras, for example, from direct sunlight or extreme temperatures.
- Ensure that any ventilation slots are not blocked to ensure adequate air circulation and cooling.
- Ensure that cameras, switches, etc. are installed at a safe distance from flammable materials, power sources, running water, etc.
- Installation, commissioning and maintenance must only be carried out by authorised personnel in accordance with the relevant standards and guidelines.

Power supply & cabling

- To ensure a safe power supply, only use power supplies and cables recommended by the manufacturer.
- Ensure that the cables are laid correctly and protected against tampering and damage (e.g. kinking) to prevent power failures or short circuits (e.g. due to moisture ingress).
- Ensure that cables are not routed through doors, windows or other moving parts to prevent damage and trip hazards.
- To disconnect the system from the power supply, pull the cable only by the plug and never directly by the cable.
- Wire end ferrules must be used when shortening flexible connection cables.

Operation

- The devices must only be operated within the temperature and humidity ranges specified in the data sheet.
- Adequate ventilation must be provided to prevent overheating. This applies in particular to devices such as recorders and switches that can generate heat.
- Ensure that no sight lines are blocked and that accessories do not cover areas used by other devices or persons.
- Ensure that cameras are positioned so that they provide a clear view of the desired area without compromising the privacy of individuals.

Cleaning & maintenance

- Clean the camera lenses and housings regularly to ensure a clear view.
- Keep the ventilation slots clean and free of dust to ensure efficient cooling.
- Use a mild cleaning agent for cleaning. Harsh cleaning agents such as thinners or petrol can permanently damage the surface.
- Check the product regularly for damage and signs of wear.
- Only use original spare parts (e.g. connection cables) or accessories from VIDEOR E. Hartig GmbH.
- Any warranty claims will be void if the product is tampered with by unauthorised persons.
- Disconnect the power supply before opening the housing.

1 – PRODUCT OVERVIEW

1.1 – Front Panel

Item	Status	Description
Power Status Indicator	Solid on	The device is operating properly.
	Not lit	The device is shut down or not powered on.
LAN interface status indicator	Solid on	The device is connected to the network properly.
	Not lit	The device is disconnected from the network.
WAN interface status indicator	Solid on	The device is connected to the network properly.
	Not lit	The device is disconnected from the network.
Hard disk status indicator	Lit green	The hard disk is operating properly and no data is read or written.
	Flashing green	The hard disk is operating properly and there is data read or written.
	Not lit	The hard disk cannot be detected or the hard disk is faulty.
Standby button		It is used to power on/off the system when the device has a constant power supply. You can press and hold the button for three seconds to shut down the device, and you can press and hold the key for 10 seconds to forcedly restart the device.
USB interface		Connected to a mobile USB device or a mouse.

1.2 – Back Panel

Item	Description
Audio Input / Output	Connection for analog audio input/output devices
eSATA interface	Connection for external storage. 1 HDD maximum
USB interface	Connection for USB devices, eg. a mouse
RS485 interface	Connection for RS485 devices, e.g. a keyboard
RS232 interface	For debugging and maintaining the device
LAN1/2	Gigabit network interface
HDMI-1	Primary output interface, supports 8K resolution
HDMI-2	Secondary output interface, supports 4K resolution

Item	Description
HDMI-3	Secondary output interface, supports 4K resolution
HDMI-4	Secondary output interface, supports 1080P resolution
Alarm input interface	Connection for alarm input devices
Alarm output interface	Connection for alarm output devices
Reset button	Restore factory settings by pressing and holding the button for 10 seconds. The buzzer will ring four times.
Power switch	Power on/off the device.
Grounding terminal	Connection for the grounding cable.

1.3 – Remote Control

Button	Function
0-9	Numeric keys. Press number 1 to 9 to display channel 1 to 9 directly. Press combination of numbers quickly to display the channel lager than 9.
ALL	Press to switch the channel display layout among multiple display modes
MENU	Press to display the Task Bar while in live view. Exit and back to previous page while in system menu.
MUTE	Mute or activate the audio output volume
SUBMENU	First press to display the Taskbar while in live view. Second press to display the Camera Quick Toolbar.
▲▼	Move upward or downward. Turn up or turn down the audio volume
◄►	Move left or right. Decrease or increase the parameter value in system setting menu
SEL	To confirm the choice or setup
◄◄	Rewind button. Press to play video fast rewind in different speed
►►	Forward button. Press to play video fast forward in different speed
►	Play button. Enter search menu
●	Manual record button
■	Stop manual record or stop the video playback. Press and hold 3 seconds to reset the VGA/HDMI output resolution to default value.
▌▌	Press to pause video play

2 – INSTALLATION

2.1 – HDD Installation

Warning!

Do NOT install or uninstall the HDD while the NVR is powered on!

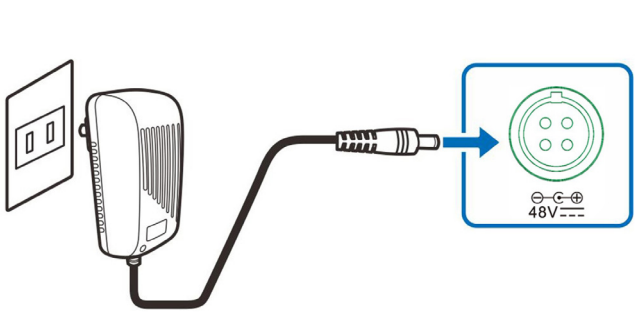
Note!

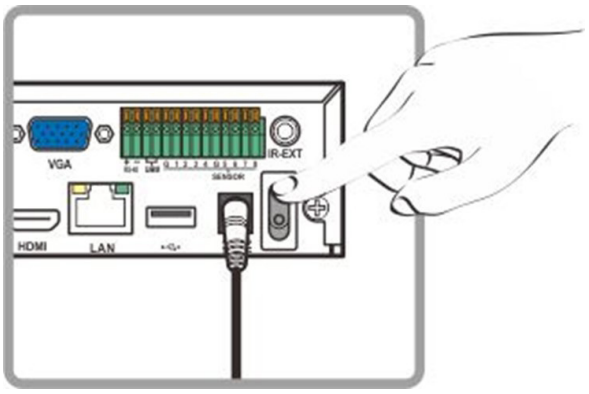
Make sure the unit is disconnected from the power supply before installation.
Wear anti-static gloves or a wrist strap during installation.

1. Install the ejector lever of the hard disk.
   Use screws to fix the hard disk on the ejector lever. Distinguish between the left side and right side in accordance with the indicators on the ejector lever.
2. Open the front panel.
   Press the buckles on the two sides on the upper part of the front panel and then pull the front panel outwards.
3. Insert the hard disk.
   Align the hard disk slot and then insert the hard disk gently and smoothly.
4. Buckle up the hard disk and close the front panel.
   Push in the hard disk until you hear a click. After the hard disk is installed, close the front panel

2.2 – Power Supply Connection

You may need to press the power switch to turn on the NVR if there is a power switch on the rear panel of your NVR.



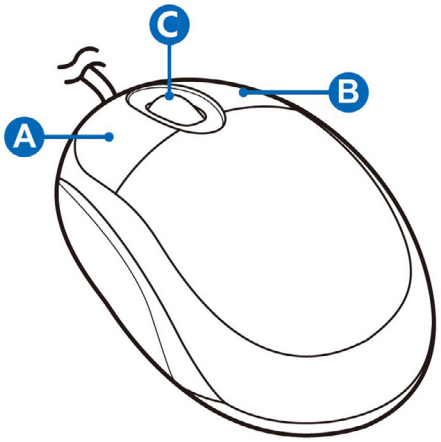


3 – OPERATION

3.1 – Using a mouse

A - Left Button

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



B - Right Button

- Click once to open the Taskbar on the Live Viewing screen.

C - 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

You will see the virtual keyboard automatically on the screen when you need to enter data, such as enter password, camera title, etc.

4 – INITIAL SETUP

4.1 – Password

The first time you run the NVR, you will be prompted to set your own password to protect your privacy. Please make sure you record your username and password and save them in a safe place.

Language: Choose an available OSD language

Device ID: Input the device ID in the parentheses. Default ID is 000000.

New Admin Password: The password must be a combination of 8 to 16 characters, which is combined with at least 2 kinds of different characters from uppercase letters, lowercase letters, digit numbers and special symbols.

Confirm Password: Enter the admin password again.

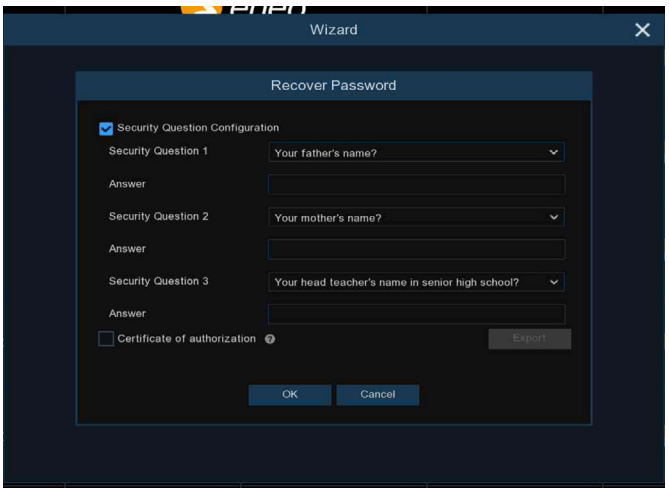
Unlock Pattern: Select Enable to draw your pattern lock. Draw a pattern and confirm it twice to set the pattern password successfully.

Camera Activation Password: This password will be used to activate an inactivated camera that is connected to the NVR. When Same as recorder's password is unchecked, user-defined camera activation passwords are supported. When Same as recorder's password is checked. The device's login password will be automatically applied as the camera activation password.

Click Apply to confirm your settings. The system will require to set the password recovery questions in case you forget the password. If you click the Cancel button without checking any reset method, the password reset function will not be enabled.

Security Question Configuration: To change the user password by question verification, check the Security Question Configuration, select three questions among 15 questions, and set the answers at a maximum length of 64 characters to retrieve your password.

Certificate of authorization: To change the user password by using a certificate, check the Certificate of authorization, and click Export to download the certificate.txt file.



Enter the login screen when the system is locked. Enter the device login password and click Login to unlock access to the NVR system.

When the system is locked, tap Pattern to access the Pattern Password Unlock screen to unlock the device.

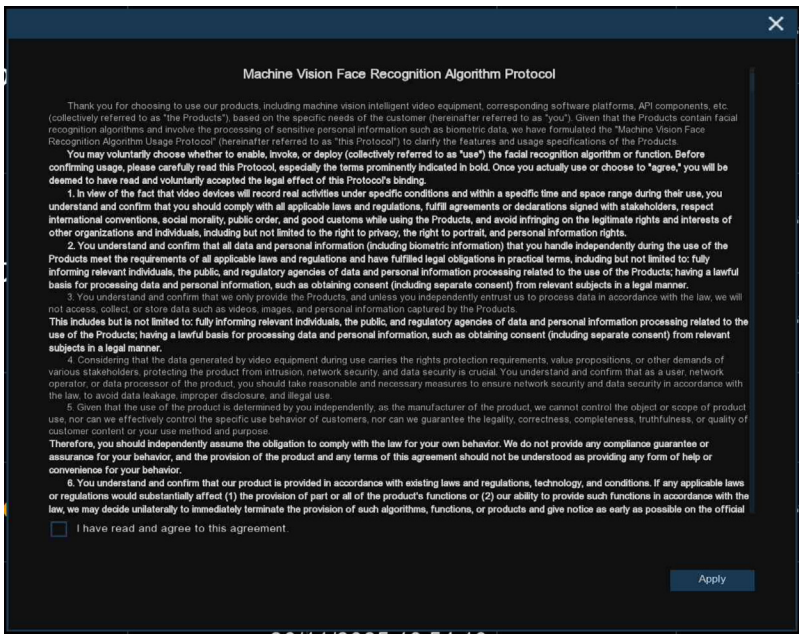
If you forget your password while the system is locked, you can click Forgot Password to reset it.

Note!

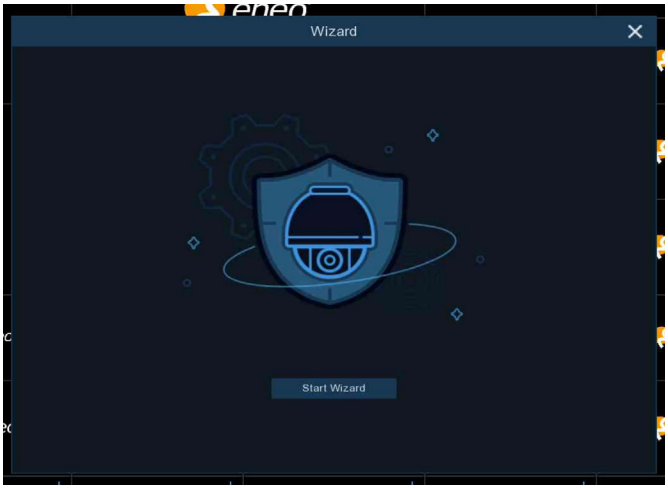
The system interface will be locked for 3 minutes after 5 consecutive logins with incorrect passwords.

4.2 – Start Wizard

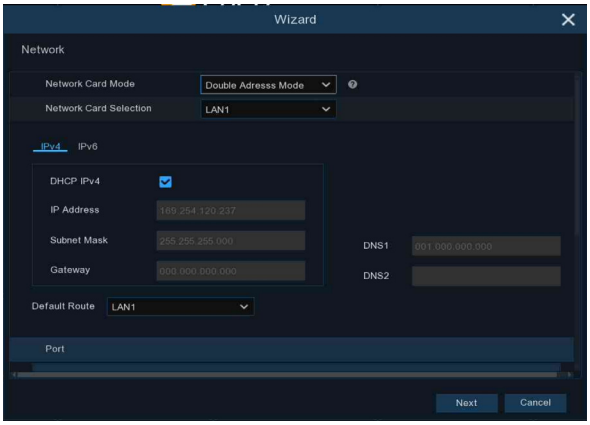
This applies to models that support the face recognition function. When you first enter the system, the Machine Vision Face Recognition Algorithm Agreement will pop up. Select 'I have read and agree to this agreement' and save it. Once the device is connected to an AI camera that supports face recognition, you can enable the function. Otherwise, the function will not be enabled.

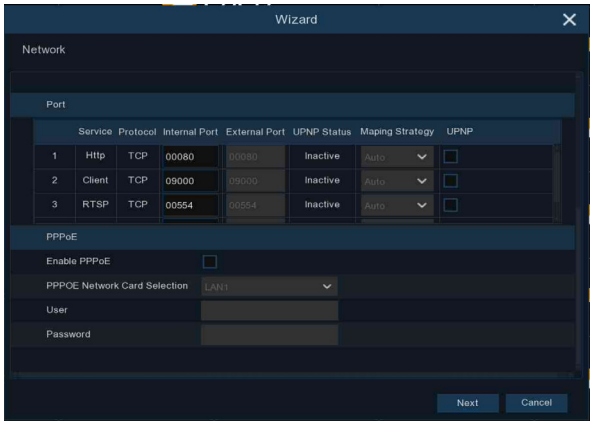


Log in the system and click the Start Wizard to proceed to the next step.



4.2.1 – Network Configuration





Network Card Mode: switch Single Address Mode or Double Address Mode, NVR will reboot after successful switching.

Single Address Mode: Binds both ports to a single IP address. Selecting this mode can increase the bandwidth and form a redundant array of network cards for load sharing. If one of the network ports fails, the other network port will immediately take over the load and the service will not be interrupted.

Double Address Mode: The two network ports are configured with different IP addresses and gateways, and operate independently of each other. The LAN port that accesses the external network should be set as the default route.

Note!

Only models with POE support double address mode.

Network Card Select: This option toggles the display of network parameter information for LAN1 or LAN2. It is greyed out and unavailable in single NIC mode.

DHCP IPv4: If you connect to a router that supports DHCP, select this option. The router will then automatically configure all the network parameters for the IPv4 protocol. After deselecting this option, the IP address, subnet mask, gateway and DNS will automatically revert to the parameters set when this option was last deselected.

Note!

Currently DHCP IPv6 is not supported.

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

Subnet Mask: A subnet mask is a network parameter that defines the range of IP addresses available for use within a network. If an IP address is like the street on which you live, then a subnet mask is like the neighbourhood in which that street is located. A subnet address consists of four groups of numbers separated by periods. For example, '255.255.0.0'.

Gateway: This is the IP address of the network on which the device is located. The default is: 192.168.0.1.

DNS1/DNS2: DNS1 is the primary DNS server, while DNS2 acts as a backup.

IPv6 Address: Enter the IPv6 address provided by your ISP. This will consist of eight groups of numbers between 0 and FFFF, separated by colons.
For example, "ABCD:EF01:2345:6789:ABCD:EF01:2345:6789"

Subnet Prefix Length: The length of the subnet prefix.

IPv6 Gateway: The IP address of the IPv6 gateway of the network where the device is located.

Default Route: In dual-address mode, configure the LAN port that connects to the external network as the default route.

Note!

In Single Address Mode, this option is unavailable.

http/https/rtsp: This is the port that you will use to log in remotely to the NVR (e.g. using the web client) or to allow the NVR to transmit real-time streaming to another device (e.g. using a streaming media player). ONVIF also uses the same port.
If the default port 80 is already in use by another application, please change it.

Client: This is the port that the NVR will use to send information (e.g. via the mobile app). If port 9000 is already in use by other applications, please change it.

UPNP: If you want to log in remotely to the NVR using the web client via a different router or LAN, you will need to set up port forwarding on your router. Enable this option if your router supports UPnP. If so, you will not need to configure port forwarding manually on your router. If your router does not support UPNP, complete the port forwarding manually on your router.

Mapping Strategy: If you want the router's UPnP server to distribute the port randomly, choose 'Auto'. If you want to forward the port manually, select Manual.

PPPoE: This protocol enables the NVR to connect directly to the network via a DSL modem.

Enable PPPOE: The NVR will reboot to activate this setting.

PPPOE Network Card Select: Select the LAN port to enable dial-up access.

Note!

This option is not shown in single NIC mode)

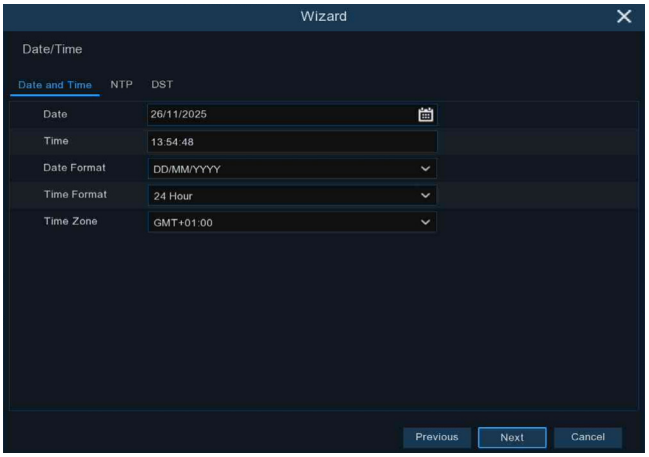
User: PPPOE username

Password: PPPOE password

4.2.2 – Date and Time

This menu allows you to configure the date and time, as well as the date and time formats, time zone, NTP and DST.

4.2.2.1 – Date / Time



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

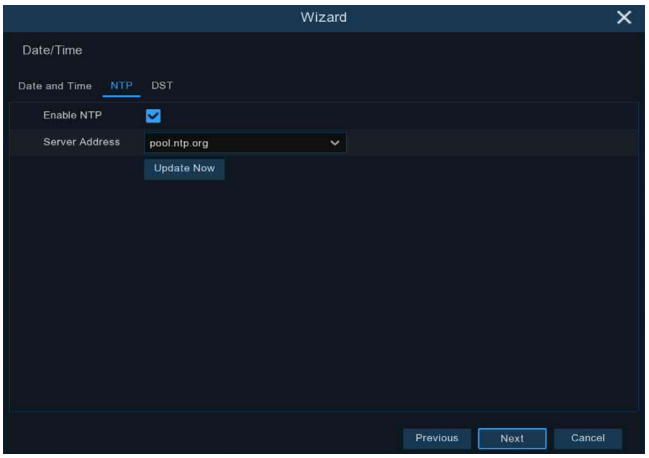
Time: Edit the system time.

Date format: Select the preferred date format from the dropdown menu.

Time format: Select the time format between 24-hour and 12-hour.

Time Zone: Select your time zone.

4.2.2.2 – NTP



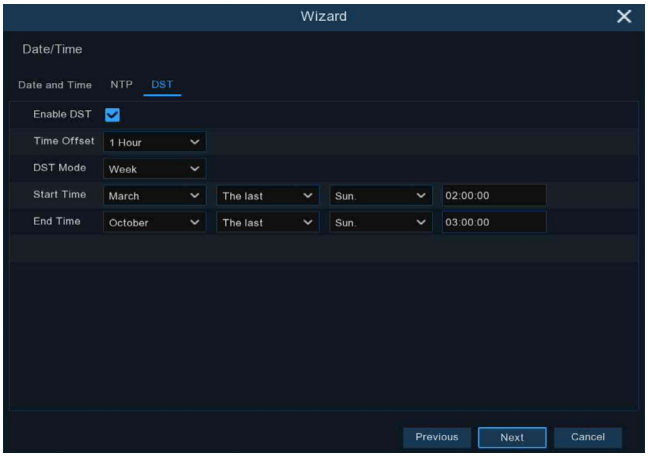
NTP stands for Network Time Protocol. This feature allows you to automatically synchronise the date and time on the NVR via the Internet. Therefore, the NVR needs to be connected to the internet.

Tick the ‚Enable NTP' box and then select the NTP server.

Note!

The default time zone is GMT. NTP is enabled by default and the server address is pool.ntp.org.

4.2.2.3 – DST



DST stands for‚Daylight Saving Time'.

Enable DST: Tick this box if Daylight Saving Time (DST) is observed in your region.

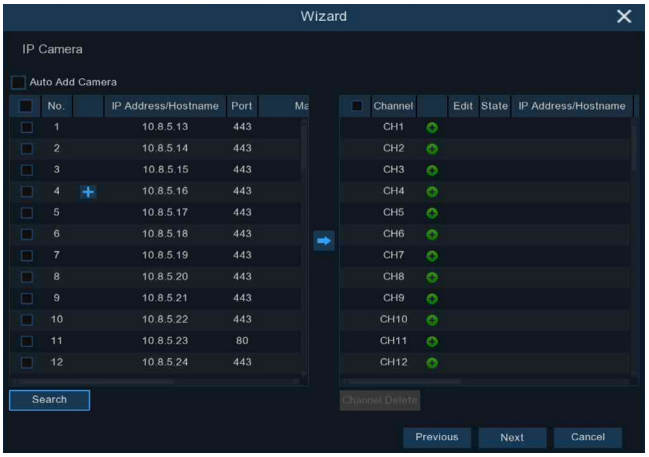
Time offset: Select the amount of time to offset for DST.

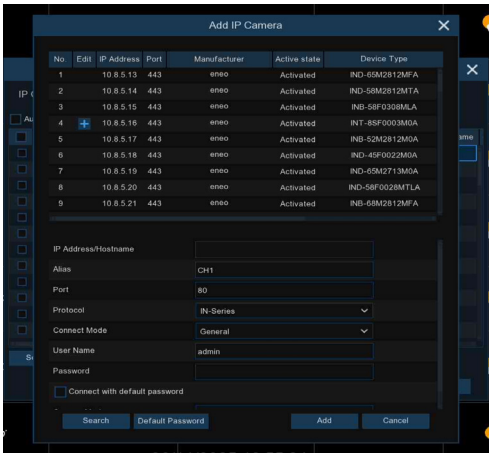
DST mode: Choose whether to set daylight saving time in weeks or days.

Start Time/End Time: Set the start and end times for daylight saving.

4.2.3 – IP Camera

Click 'Search' to search for IP cameras on the same network. Select the cameras you want to add and click the arrow icon. Enter the username and password for the camera to add it.





IP address/domain: The IP address or domain name of the IP camera.

Alias: Name of the IP camera

Port: The port of the IP camera.

Protocol: Select the protocol to be used for the add-in.

User name: The username of the IP camera.

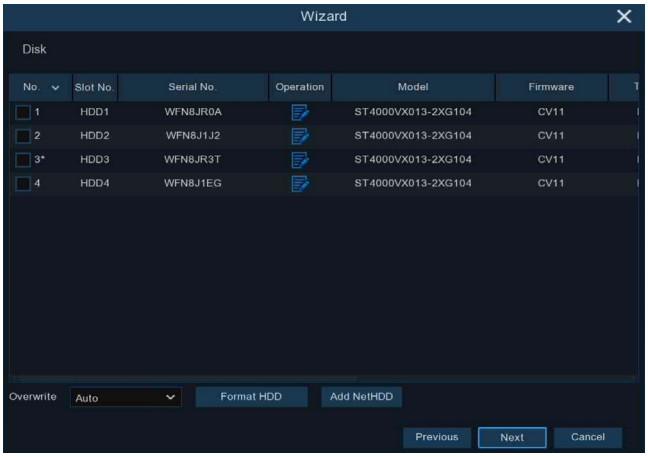
Password: Password of the IP camera.

Connect with default password: When this option is enabled, the camera will connect using the set default password.

Channel binding: Select to add to the specified channel.

Camera mode: Select the IP camera mode from the drop-down menu.

4.2.3.1 – Disk



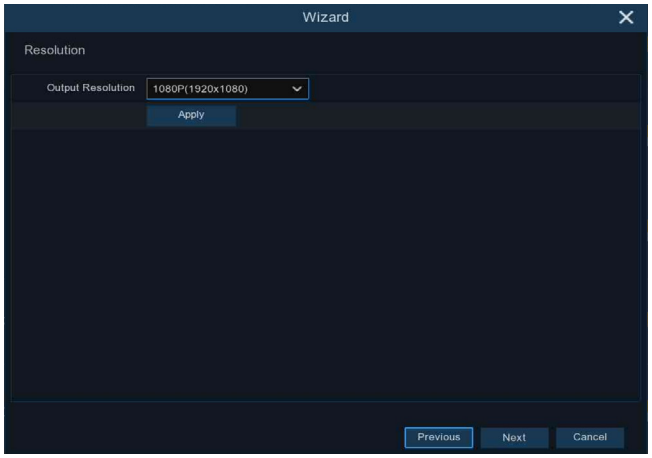
Overwrite: This tells your NVR to overwrite the oldest video files when the hard drive is full. You can also select the number of days that recordings should be kept before they are overwritten. For example, if you select 7 days, only recordings from the last 7 days are kept on the HDD.
To prevent any old recordings from being overwritten, select ‚OFF'. If you have disabled this feature, please check the HDD status regularly to ensure that the HDD is not full. Recording will stop if the HDD is full.
We recommend leaving the ‚Auto' setting, as this prevents your NVR from running out of storage space.

Add NAS HDD: To add a NAS HDD, select ‚Add NAS HDD'.

Record On e-SATA: Enable ‚Record on e-SATA' if your NVR has an e-SATA port on the rear panel to record video to an e-SATA HDD. This function is only available when the e-SATA HDD is already connected to the NVR.

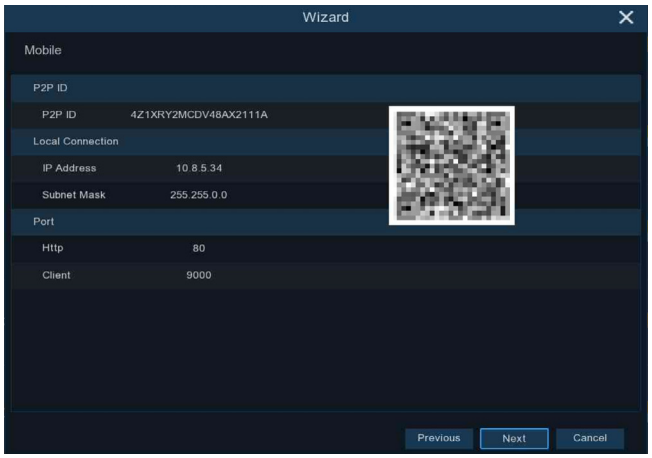
4.2.4 – Resolution

Select an output resolution that matches your monitor. The NVR automatically adjusts the output resolution to match your monitor's optimal resolution when the system starts up. If you connect to a 4K HDMI monitor, you can select the maximum resolution: 4K (3840 x 2160) resolution. If you connect a VGA monitor, do not select a resolution larger than 1080p (1920 x 1080).



4.2.4.1 – Mobile

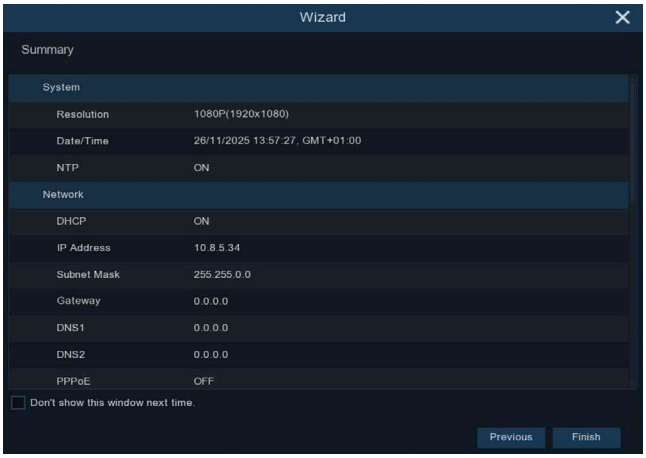
If your NVR comes with a P2P ID, you can use the mobile app to scan the QR code and view the NVR remotely.



4.2.4.2 – Summary

You can select the system summary information that you set in the Start Wizard and then finish the wizard.

Select ‚Don't show the Start Wizard on next startup' if you do not want the Start Wizard to be displayed after the system has started up.



Click the ‚Finish' button to save and exit.

4.3 – Live View Screen Overview

Status Icons	
	The camera is currently recording.
	A motion alarm is active
	An intelligent or AI alarm is active
	The external I/O alarm is active
PIR	The PIR alarm is activated.

HDD Error Icons	
	HDD is uninstalled or in error
	HDD is unformatted
	HDD is full
	HDD is read-only

Off-line: The analog camera is disconnected.

No Camera: No camera has been added to the channel.

Decoding Failed: This IP camera compression standard is not supported by NVR. Please switch to the H.264 compression standard instead.

Resource Not Enough: The decoding resources required to preview the IP channel exceed the decoding specification limit. Alternatively, if the IP channel uses the MJPEG encoding type, it can only preview one IP channel; the other IP channels indicate insufficient resources.

Band Not Enough: There is not enough bandwidth; the channel cannot go online.

Failed to connect to camera: IPC connection failed.

Click + to open the Quick Add menu and add an IP camera.

Click to edit the current channel parameters.

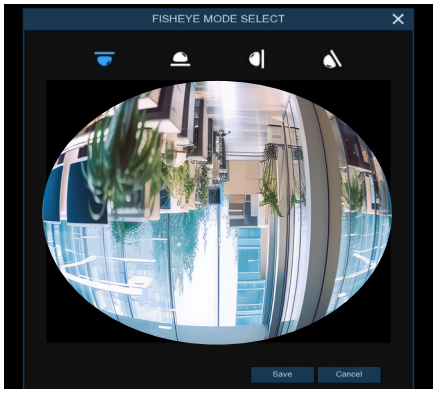
4.3.1 – Camera Quick Toolbar

To display the Camera Quick Toolbar in live viewing, click the left mouse button on a connected camera.

Toolbar Icons	
	Click to start manually recording the channel immediately. If manual recording is in progress, the icon will turn red. Click again to stop the manual recording.
	Click to save a snapshot of the current camera image. This feature requires Manual Capture to be enabled. See the section on enabling Manual Capture for details.
	Click to play the latest five-minute recording of this channel.
	Click to access the PTZ control panel. Click to adjust the zoom and focus of the motorised varifocal lens.
	Click to zoom in on the channel. Use the scroll wheel on your mouse to zoom in and out of the image.
	Click to adjust the colour of the channel image.
HD SD	Switch the live view video stream between HD and SD. HD shows the mainstream, while SD shows the substream.
	If your camera has white LED lights, click this button to turn them on or off.
	If your camera has a built-in speaker, press this button to activate or deactivate the alarm sound.
	If your camera has LED warning lights, press this button to turn them on or off.
	Click to initiate two-way voice communication.
	Tag button. It enables you to perform a quick search by adding a tag in live view.
AI	AI statistics. When the AI function is activated in your NVR, hover the mouse over the icon to view AI statistics.
	Click this button to enter Fisheye Mode. This button requires device support and a fisheye camera must be connected first. Please note that only some NVR models support fisheye mode.

4.3.1.1 – Fisheye mode

Once a fisheye camera has been added to the device and it has gone online, the fisheye operation icon will be displayed in the shortcut menu of the preview channel area and the playback menu. Click the button described above to open the fisheye mode operation page.



On the fisheye mode operation page, click the button on the toolbar at the bottom to open the menu for setting the fisheye camera installation mode. Select the correct mode and save the setting to apply it.

Once the fisheye installation mode has been selected, the supported viewing modes are displayed on the toolbar at the bottom. You can switch between these modes as needed, as well as drag and zoom the screen.

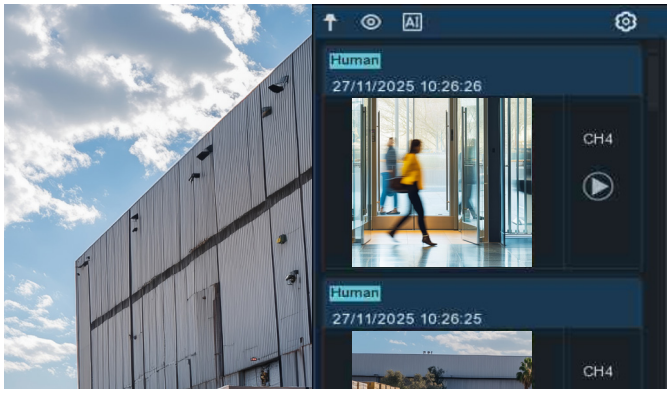
4.3.2 – Taskbar

Toolbar Icons	
	Click to open the Start menu.
	Click to display the 4, 9, 12 or 16 channels in the Live View screen.
	Click to select additional display layouts on the Live View screen.
	Click to start viewing channels in a sequence.
	Quick Playback: Play back all channels from the beginning of the day. You can also click on the triangle at the bottom right to select playback from the last 5 seconds, 10 seconds, 30 seconds, 1 minute or 5 minutes.
	Click to adjust the audio output volume.
	Click to switch the live view image resolution for all channels from 'Mainstream' to 'Substream'.
	Click to switch the scale of the image for all channels between 'Original' and 'Stretch'.
	Click to switch between real-time, balanced and smooth views. This will affect the quality of the live view video by changing the bitrate and frame rate.
	Click this button to restore the scrambled channel positions.

Toolbar Icons	
	The network is disconnected.
	The network is connected, but offline.
	The network is well connected.
	NVR in Arming state
	NVR in Disarm state
	The fan is working normally.
	The fan is not working normally.
	All white light LEDs and alarm sounds for available cameras can be turned on or off.
	Operate the manual record and relay alarm outputs.
	View system information, channel information, recording information and the network state.
	The device is successfully connected via USB_WIFI. It can access the internet via Wi-Fi.
	Click this button to switch the mouse between the primary and secondary screens. Device support is required to use this button.

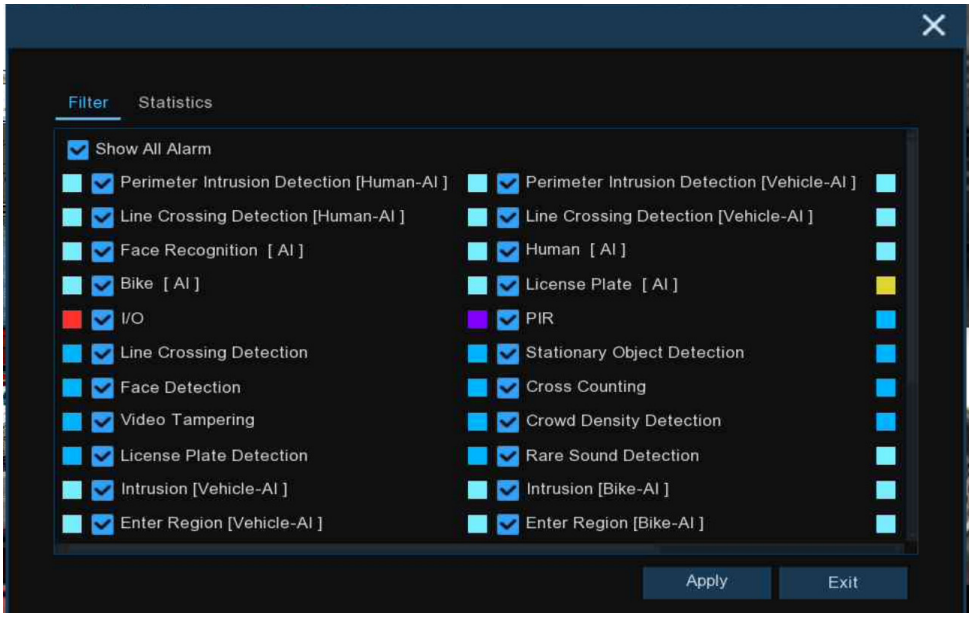
4.3.3 – Alarm Popup

The Alarm Notification Panel shows thumbnails of the alarm events that have occurred. Events are colour-coded according to type. Use the mouse scroll wheel to scroll up and down (first place the mouse cursor over the notification panel). Click the play button next to or over the relevant thumbnail to play the event.



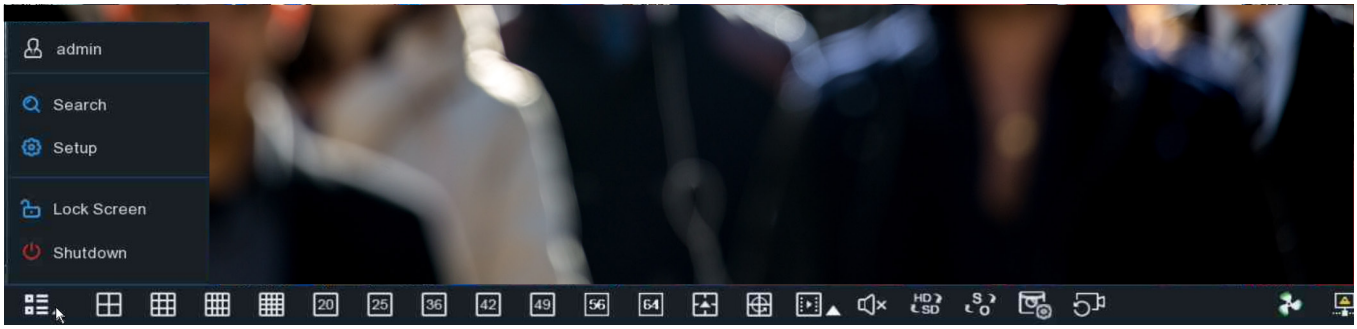
1. Click to display the notification panel at all times.
2. Click to hide the notification panel.
3. Click to reveal AI statistics information.
4. Click to reveal the ‚Filter' and ‚Statistics' functions (shown below).

Use the Filter function to customize which alerts and which camera will appear in the notification panel. You can also customize the time duration and channels you want to display in AI statistics.



4.3.4 – Start Menu

The Start menu allows you to switch users, search and play back, enter the system setup menu, lock and unlock the screen, and shut down, reboot or log out of the system.



4.3.4.1 – Lock and Unlock Screen

If the NVR is not used for an extended period of time, the screen will lock to secure the system.

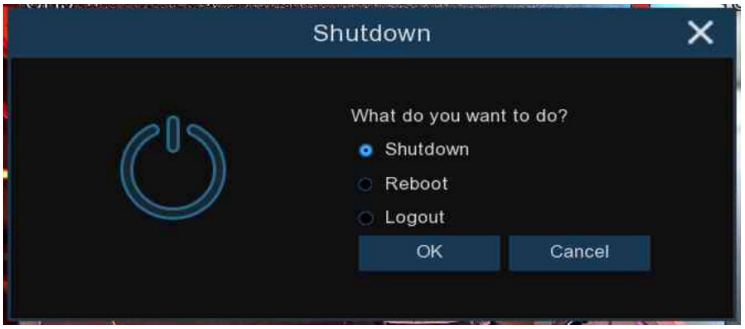
While in the unlocked state, click the lock screen icon to lock the system immediately.

If the system is locked, click the icon to unlock it for further operation.

4.3.4.2 – Shutdown

From the Start Menu, click the Shutdown button to shut down, reboot or log out of the NVR. Click the OK button and the system will prompt you to enter your user password for authentication.

Selecting Logout will prevent you from viewing the screen in real time. You will then need to log in to the system before proceeding.

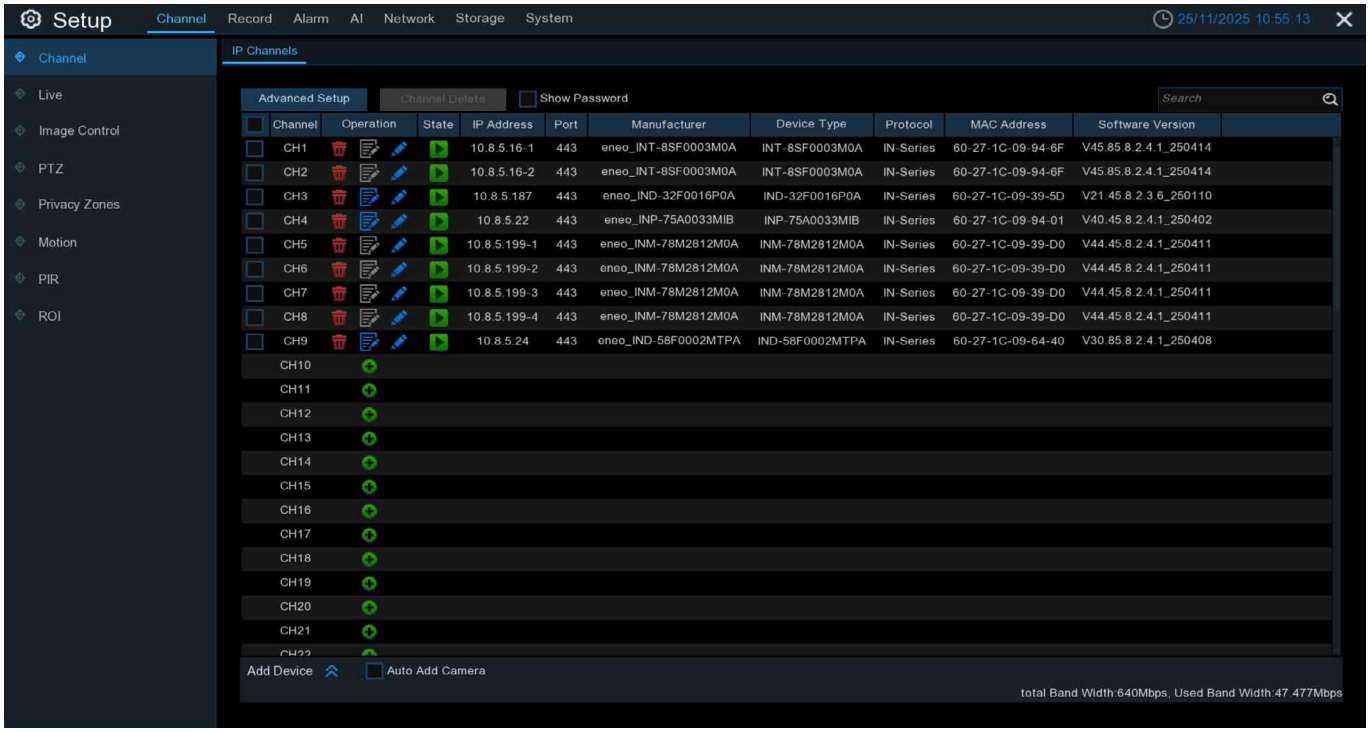


5 – SYSTEM SETUP

From the Start menu, you can configure the NVR for channel, record, alarm, network, device, system and AI settings, as well as AI scenarios.

5.1 – Channel

This section allows you to manage the camera connection, live view display, camera image, PTZ setup, video coverage and motion setup.



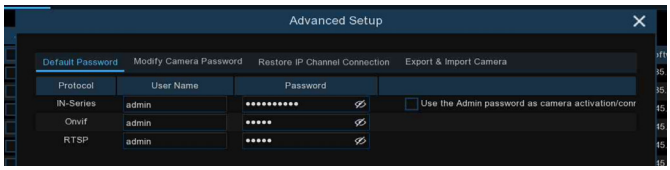
5.1.1 – Kanal

5.1.1.1 – IP Channels

1. Click ‚Add Device' to expand or collapse the device search window.

- Click the Search button to display devices on the same LAN. Based on the search results, select one or more devices and click ‚Add' to enter the relevant information and complete the process.
- You can select multiple devices based on the search result, click Batch IP Modification and set the correct information to perform a batch IP modification for the selected cameras.
- Selecting the ‚Automatic Camera Addition' option will automatically add cameras to channels where cameras have not been added.

2. Click the ‚Advanced Setup' button and enter the device's password to open the ‚Advanced Setup' page. Here, you can perform the following actions:

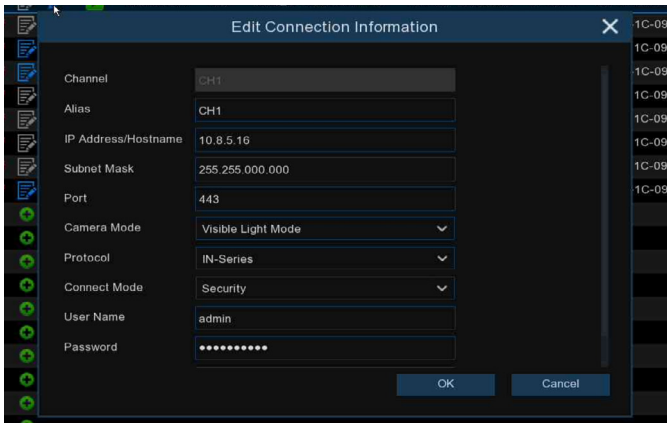


- Default password: This is used to connect to the camera via the Private/Onvif/RTSP protocol. The default password for the Private protocol can be used to activate an unactivated connected camera. When ‚Use the admin password as camera activation/connection password' is selected, the private protocol will use the device administrator password to activate/connect to the accessed camera.
- Modify camera password: You can change the password for the online camera.
- Priority of PoE Channels (only supported by PoE NVR):
  - Enable the PoE channel priority. This is necessary if the channel has been added manually. Continue to access the camera via the PoE port corresponding to the channel. The manually added camera will be replaced with the camera accessed via PoE. (If the ‚Remember My Selection' box is unchecked, the change will only take effect once.)
  - Enable ‚Manual Add Priority'. If a camera has been added manually to a channel, it can continue to be accessed on the corresponding PoE port of the channel and will not be replaced by a PoE-accessed camera. (Remember My Selection is unchecked and takes effect only once).
  - If you do not enable any priority items, the following will happen: Cameras have been manually added to the current channel. Continue to access the camera via the corresponding PoE port on the channel, and a pop-up window will appear prompting you to confirm whether you want to replace the existing camera.
- Restore IP Channel Connection: Use this option when the device has forgotten the password and has been reset to its factory settings. Click ‚Restore IP Channel Connection' to restore the channel connection parameters before restoring the factory settings and add the original online camera with one click.

- Export & Import Camera: You can export the added IPC information as a backup. This can then be used to import the information back into the device or into other devices after the device has been restored to factory settings (please note that the exported information does not contain the connection password).

3. Select the camera that has been added to the device and click the ‚Delete Camera' button.
4. Tick the ‚Show Password' box and enter the device password to verify that the camera has been added to the device. The connection password can then be displayed.

   Click the 'Search' icon to search for online cameras on your local area network (LAN). Select the camera you want to add and enter the correct information.



Alias: This is the name of the IP camera.

Protocol: Select the IP camera protocol from the drop-down menu: Private, ONVIF or RTSP.

Connect mode: This option will appear when you select the ONVIF protocol and choose either ‚General' or ‚Security' from the drop-down menu. Selecting ‚General' will use the HTTP port to connect to ONVIF, while selecting ‚Security' will use the HTTPS port.

Mainstream URL: When you select the RTSP protocol, this item will appear and you will need to enter the address of the main stream that you want to connect to.

Substream URL: When the RTSP protocol is selected, this item will appear and you will need to enter the address of the substream to which you want to connect the IPC.

Click the ‚Mode' drop-down box to select ‚Auto' or ‚ePoE' mode.

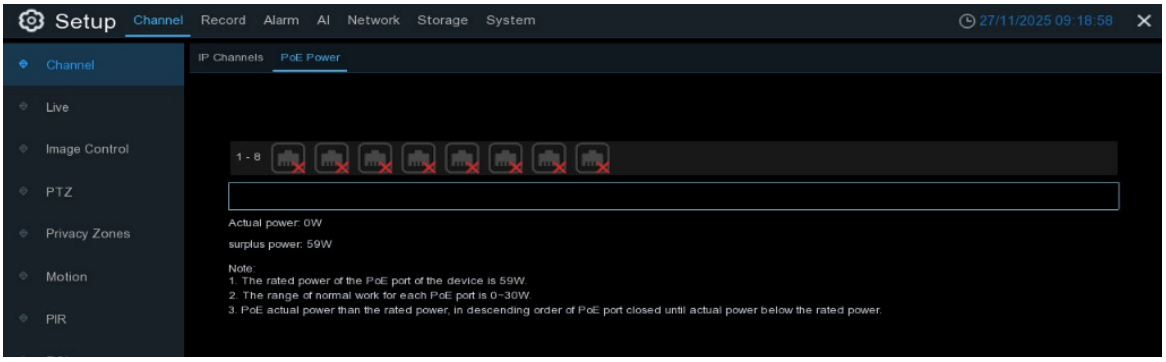
Note!

If the camera does not support the HTTPS method, it will automatically switch to the HTTP port.

Note!

The auto transmission bandwidth of 100 Mbps has a max transmission distance of about 120 metres.
In EPOE mode, the bandwidth is limited to 10 Mbps, extending the distance to about 230 metres.
Ensure transmission stability with Cat5e or Cat6 cable.

5.1.1.2 – PoE Power



On this page, you can see the real-time power consumption of each PoE port, as well as the total actual and rated power.

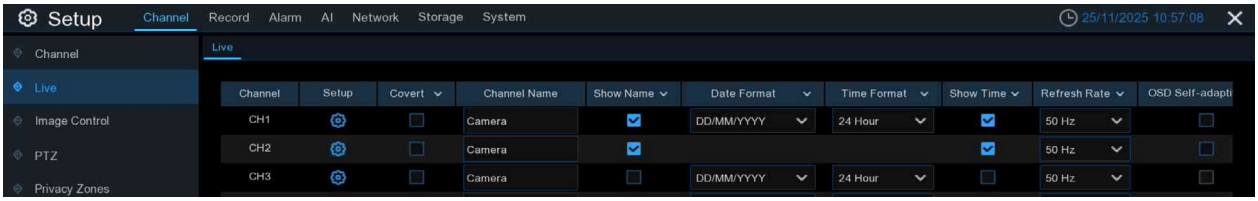
Actual power usage: Used power

Surplus power usage: remaining power

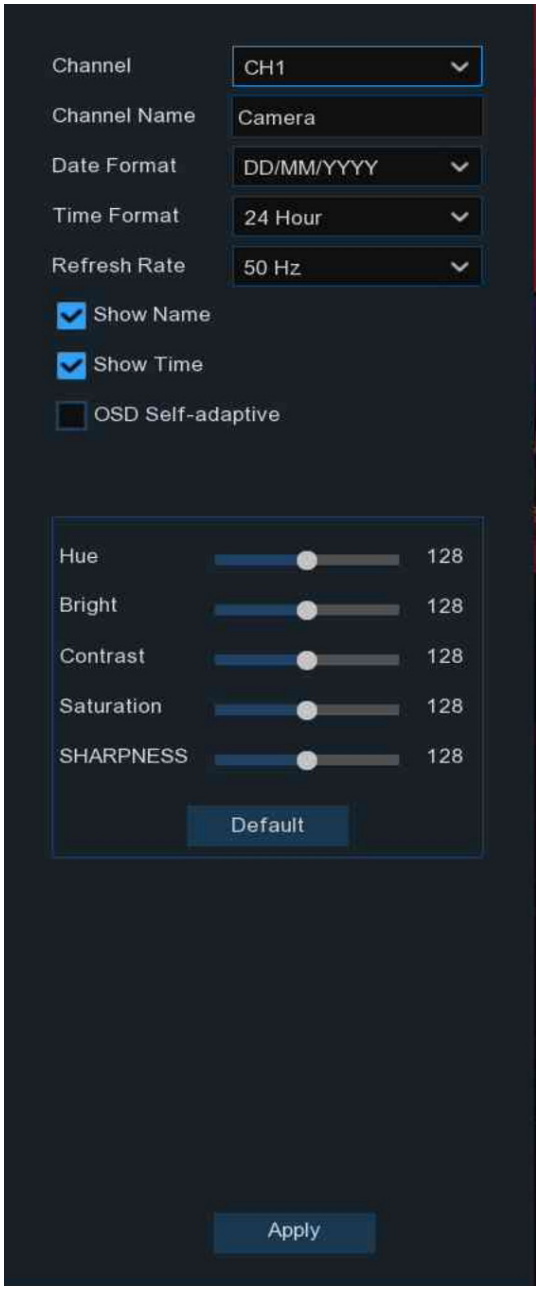
Note!

1. *The maximum total rated power of the device's POE interface is 159W. (Note that the total rated power of the POE interface varies between different models of NVR.)*
2. *The normal operating range of each PoE port is 0–30 W.*
3. *If the actual power of the POE port exceeds the rated power, the POE port will close in order until the actual power is lower than the rated power.*

5.1.2 – Live



You can configure the camera parameters, including the channel name, colour, date and time format, refresh rate, etc.



Covert: Hide the camera images in live view.

Setup: Click the icon for more settings.

Channel name: Set the channel name.

Date format: Set the date format displayed by the IP camera's OSD.

Time format: Set the time format displayed by the IP camera's OSD.

Refresh rate: Set the refresh rate of the camera.

Show name: Preview the name of the camera channel.

Show time: Preview the camera time.

OSD self-adaptive: Set the OSD font colour to adapt to the background colour of the screen for optimal display clarity.

Hue: Adjust the colour tone of the image.

Brightness: Adjust the brightness of the image.

Contrast: Adjust the image contrast.

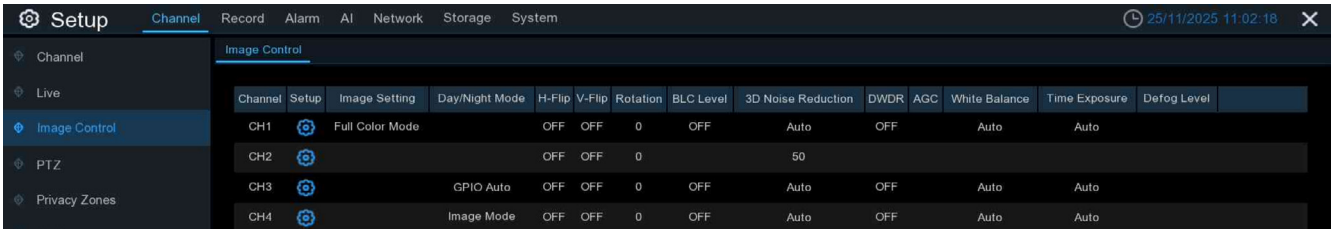
Saturation: Adjust the image saturation.

Sharpness: Adjust the sharpness of the image.

Default: Restore the image parameters to their original settings.

5.1.3 – Image Control

This menu allows you to adjust the image settings for supported IP cameras. If the camera is connected to the NVR via the Onvif protocol, it may not be possible to configure it.



Channel: Channel name

Setup: Click on the icon to access the setup page.

Channel: Select a channel to configure.

Image mode: This lets you select how the camera handles colour and transitions between daytime and night-time.

Full Colour Mode: The camera operates in full colour mode. Fill light comes on when ambient illumination is low.

Day/Night Mode: The camera operates in Day/Night mode. When ambient illumination is insufficient, the infrared lamp lights up to provide additional light. When there is sufficient ambient illumination, the infrared lamp turns off.

Smart Illumination: When the alarm is triggered in this mode, the camera in night mode is linked to a warm light to provide additional illumination. The image turns to colour. When the alarm ends, the camera reverts to night mode.

White Light: This is used to adjust the intensity of the white light in Full Colour Mode. There are four mode options.

Automatic mode: In this mode, the camera automatically adjusts the intensity of the fill-in light according to the ambient light levels.

Manual: In this mode, the fill-in light is applied to the environment with a fixed brightness value.

Schedule: In this mode, the white light is switched on and off automatically for fill-in lighting at scheduled times.

OFF: Used to turn off the white light.

Sensitivity: 0–3. This is the degree to which the camera is sensitive to ambient light. The higher the value, the higher the sensitivity.

Light Distance: This ranges from 0 to 100 and is used to adjust the brightness of the fill-in light. The higher the value, the brighter the light.

IR-CUT Mode: This is used to set the day/night switching mode of the camera. There are five options.

Auto/GPIO Auto: It is used to automatically control the switching mode. The colour-to-black-and-white conversion is judged by images, while the black-and-white-to-colour conversion is judged by light sensitivity to ambient light.

Day/Color Mode: The Forced Colour mode will not switch to black and white.

Night/Black White Mode: The forced black-and-white mode will not switch to colour.

Image File(s)/Image Control: Similar to Auto Mode, colour-to-black and black-to-colour transitions are judged using images (for non-photosensitive models).

Schedule/B/W Schedule: This function is used to switch between black and white and colour as scheduled. If this function is enabled, the start and end times for night vision must be set.

IR-LED Control: This is used to adjust the fill-in light effect of the infrared light for night vision. There are three mode options.

Smart IR: It is used to control the intensity of the fill-in light emitted by the IR light intelligently, according to the focal length and overexposure conditions.

Manual: In Manual Mode, the fill-in light is applied at a set brightness level for the IR light.

OFF: No fill-in light is applied to any of the lights.

Low Beam Light: You can manually adjust the brightness of the first set of IR lamps here (from 0 to 100; 0 indicates that the IR light is off, while 100 indicates the highest brightness).

High Beam Light: You can manually adjust the brightness of the second group of IR lamps (camera support required) from 0 to 100. 0 indicates that the IR light is off, and 100 indicates the highest brightness.

Vertical Flip: Invert the image horizontally.

Horizontal Flip: Invert the image's horizontal orientation.

Corridor Mode: This optimises the camera's vertical angle for an improved view of long, narrow scenes. Enable this setting if your camera is facing a narrow corridor.

Angle Trad: Setting the flip angle

Exposure Compensation: Set the exposure compensation. There are four modes.

WDR: The wide dynamic range ensures a uniform balance in the picture based on the settings, enabling both light and dark areas to be clearly distinguished. (DWDR is available for some models.)

HLC: Highlight compensation makes objects in the highlighted area clearer in the picture (applicable for some models). (Applicable to some models only.)

Back Light: Backlight compensation makes objects in dark areas clearer.

Disable: The backlight must be turned off to optimise the image.

3D Noise Reduction: This is used to reduce noise in an image to make it clearer. There are three mode options.

Automatic mode: In this mode, the camera automatically selects the noise reduction effect according to pre-set algorithms.

OFF: The noise reduction function has been disabled.

Manual: In this mode, the amount of image noise reduction is determined by the manually configured noise reduction coefficient.

White Balance: This is used to set the white balance. There are two mode options.

Automatic mode: In this mode, the white light is adjusted using the default settings.

Manual: In this mode, you can manually adjust the intensity of the red, green and blue components of the synthetic white light.

Shutter: This is used to set the shutter exposure time. There are two mode options.

Automatic mode: In this mode, the correct exposure time is selected automatically according to the configured Time Exposure setting.

Manual: This mode uses the configured time exposure value.

Time Exposure: This parameter is used to set the camera's exposure time. It is used alongside the shutter parameter.

AGC: It is used to set the automatic gain control (AGC). (This feature is supported by some models.)

Defog Mode: This is used to set the defog mode, which optimises the display effect on foggy days. There are three mode options.

OFF: The defogging function has been disabled.

Automatic mode: In this mode, the camera automatically determines the required defogging effect.

Manual: In this mode, defogging is carried out according to the manually configured setting.

Default: Restore the default image parameter settings by clicking this button.

5.1.3.1 – Thermal Channel Image Control

This menu is only accessible if a thermal camera is connected to the recorder.

2D Noise Reduction: Reduces noise in the thermal channel screen according to manually set parameters. The larger the parameter value, the clearer the image and the more obvious the noise reduction effect.

3D Noise Reduction: Reduce noise in the thermal channel according to the manually set noise reduction parameters. The larger the parameter value, the clearer the image and the more obvious the noise reduction effect.

Detail Enhancement: Enhance the detail performance effect in the thermal channel screen. According to the manually set parameters, the larger the value, the clearer the image and the more obvious the enhancement effect.

Palette: This sets the colour pseudo-colour mode of the thermal imaging channel, indicating temperature differences using different colours.

Fusion: You can choose whether to combine the optical and thermal imaging channel screens.

Normal: The optical and thermal imaging channels are displayed independently and are not fused.

Details Overlay: It fuses the optical and thermal channels, enabling the thermal channel to display more details of the optical image.

Image Fusion Ratio: This is the ratio between the optical channel image and the thermal imaging channel image. The larger the parameter value, the larger the optical channel image ratio and the closer the fused image effect is to the optical channel image effect. Conversely, the closer the parameter value is to zero, the closer the fused image effect is to the image effect of the thermal imaging channel before fusion.

Edge Fusion Ratio: The larger the value of the parameter, the clearer the fused image will be. Conversely, the image will be blurrier.

Fusion Distance: The distance between the optical and thermal imaging channels.

Horizontal Trim: Adjusts the horizontal position of the optical channel screen relative to the thermal imaging channel screen within the fusion screen.

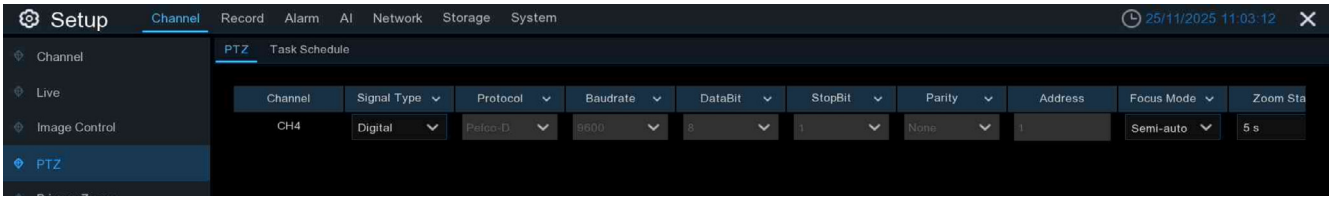
Vertical trim: This adjusts the vertical position of the image from the optical channel relative to the image from the thermal imaging channel in the fusion screen.

Background Correction: Optimises the effect of the thermal imaging channel image. Set up a uniform temperature barrier in front of the lens. For example, use a uniform blocker made of foam or cardboard that completely blocks the thermal imaging lens. The device then optimises the image using this as a criterion.

Shutter Correction: Optimise the effect of the image on the thermal imaging channel screen.

5.1.4 – PTZ

This menu is used to configure the speed dome cameras' PTZ (pan/tilt/zoom) settings.



Channel: Channel name

Signal Type: If your PTZ camera is connected to the RS485 port, select 'Analogue'. Otherwise, select 'Digital'.

Note!

The following items are only available for analogue PTZ.

Protocol: Select the communication protocol for the PTZ-capable camera and the NVR.

Baudrate: This refers to the speed at which information is sent from the NVR to the PTZ-capable camera. Ensure that this matches the compatibility level of your camera.

DataBit / StopBit: Information between the NVR and PTZ-capable camera is sent in individual packets. The DataBit indicates the number of bits sent, while the StopBit marks the end of one package and the start of the next. The available parameters for the DataBit are: 8, 7, 6 and 5, and the available parameters for StopBit are 1 or 2.

Parity: For an error check. Refer to the documentation for your PTZ camera to configure this setting.

Address: Set the command address for the PTZ system. Please note that each PTZ-capable camera requires a unique address in order to function properly.

Focus mode:

Auto: Focus automatically adjusts according to scene changes.

Semi-auto: Focus once after operating the camera or zoom to achieve a clear focus. It will not refocus, even if the scene changes. The default setting is semi-auto.

Manual: Users can manually focus using the focus button on the preview interface. The gimbal, zoom and scene changes do not trigger the focus action.

Zoom Status: The magnification of the dome lens is shown in the bottom left corner of the preview screen. You can choose whether or not to display this information, and for how long.

Pan & Tilt Status: The horizontal and vertical azimuth of the camera will be displayed in the lower left corner of the preview screen. You can choose whether or not to display this information, and for how long.

Preset Status: The number of the preset point called by the ball bar will be shown in the lower left corner of the preview screen. You can choose whether or not to display this information, and for how long.

Min. Focus Distance: When the distance between the scene object and the lens is less than the minimum focus distance, the lens will not adjust its focus. Priority will be given to objects larger than the "Min. Focus Distance' parameter. For example, if the minimum focus distance is set to 6 m. , you can set up a blocking plate 1.5 m away to partially obstruct the lens's field of view, with half obstructing the distant view and half the near view. After 6m, the camera will prioritise focusing on the distant view.

5.1.4.1 – PTZ Control

Once you have completed the PTZ settings, you can use the PTZ function to control the IP speed dome camera. Click the left mouse button on the channel on the Live View screen and click the icon in the toolbar at the bottom of the channel to access the PTZ control panel.

Channel: Select channel

Mode: PTZ, Preset, Line Scan, Watch Mode, Tour and Pattern Scan.

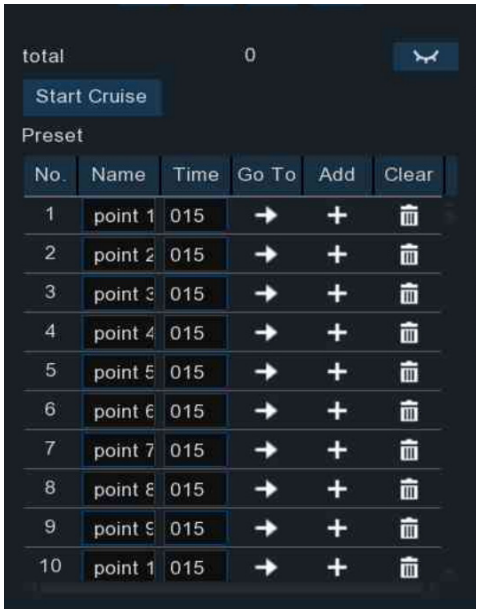
You can use the **direction buttons** to pan and tilt the device horizontally and vertically.

By clicking in the **center**, you can rotate the camera horizontally. Clicking again stops the rotation and the icon turns dark blue again.

The **speed** of the pan/tilt movement can be adjusted using a slider on a scale of 10 levels, with higher values representing higher speeds.

Icon	Description
	"Zoom In" and "Zoom Out" Press and hold the lower button to retract the lens and enlarge the scene. Press and hold the upper button to extend the lens and reduce the scene.
	"Focus -" and "Focus +" Press and hold the upper button to focus the lens on the near side. The nearby object becomes sharp, while distant objects gradually become blurred. Press and hold the lower button to bring distant objects into focus, while nearby objects gradually become blurred.
	"IRIS -" and "IRIS +" If the screen content is relatively dark, you can press and hold the lower button to increase the aperture. Otherwise, you can press and hold the upper button to decrease the aperture.
	You can activate or deactivate this function by pressing the button for 3D position. The function is activated when the button has a light blue background. The following options are available: 1. Click anywhere on the preview screen. The camera will focus on that point as the center of the video. 2. Drag a rectangular area from left to right (up or down) with the mouse, and the camera will focus on that area and zoom in. 3. Drag a rectangular area from right to left (up or down) with the mouse, and the camera will focus on that area and zoom out.
	Press this button to auto-focus the smart dome.
	Press this button to perform a one-key reset. This will clear the preset points and the cruise path of the smart dome.
	One-key watch: click to activate. This function depends on the model; please refer to the actual interface.
	Manual tracking: Turn the manual tracking function on or off. When the Human and Vehicle functions are off, this button will be greyed out.

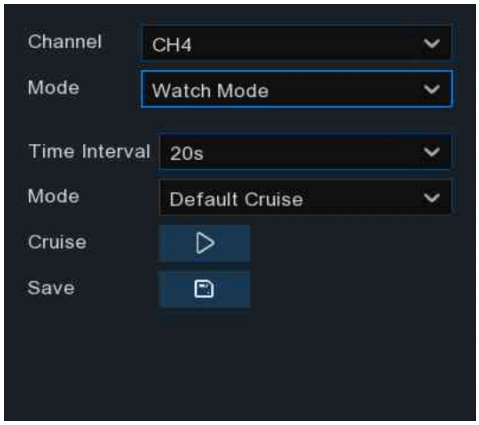
Preset



A preset refers to a predefined image position. You can create a tour using several preset positions.

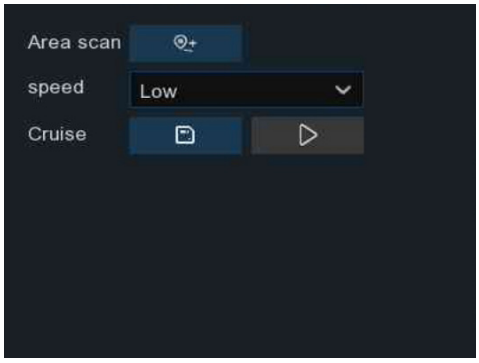
1. Use the PTZ control buttons to move the lens to the desired position.
2. Click on the gear icon (Add Preset) to define a position (maximum 255).
3. Click on point 1 to edit the name of the position.
4. Click on the arrow (Go to) to call up the position. The camera will move to this position.
5. Click on the X to delete the position.

Watch Mode



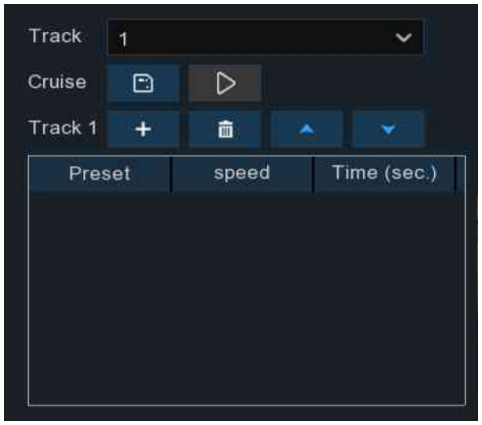
1. Select the observation mode (only one mode can be selected at a time).
2. Select the desired time interval between 15 s and 240 s.
3. Then select the mode. The options available are Standard Tour, Set Observation Point, Line Scan, Tour and Pattern Scan.
4. Clicking on the corresponding mode starts the tour. If Standard Tour is selected, the camera starts a 360° tour counterclockwise at a constant speed.

Line Scan



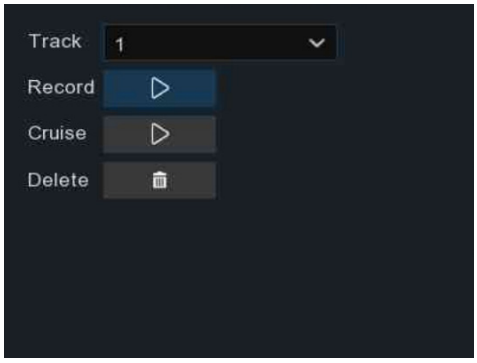
1. Use the direction buttons to align the device.
2. Click the Start button to set the starting position.
3. Use the direction buttons to align the device.
4. Click the End button to set the end position.
5. Click Start Tour. The camera moves back and forth between the start and end positions at a constant speed.

Tour



1. Select the course. You can set up to 32 presets for up to four courses.
2. Set the time interval for each preset.
3. Use the course functions to add, delete or change the order of presets.
4. Click Start tour. The camera will follow the set sequence of presets at the set time intervals.

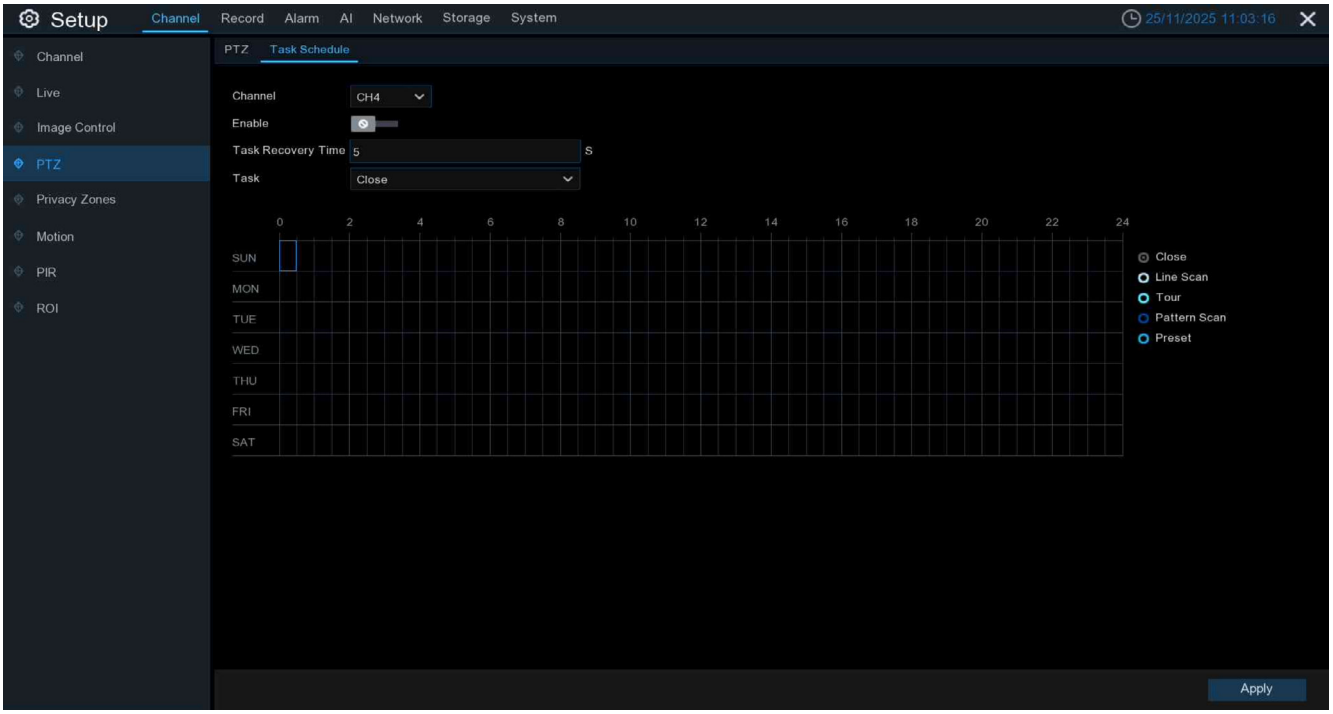
Pattern scan



1. Select the course. You can set up to four courses.
2. Click Record to start recording the search pattern.
3. During recording, you can perform any PTZ operations.
4. Click Record again to stop recording.
5. Click Start Tour to start the recorded search pattern. The camera will follow the recorded search pattern.

5.1.4.2 – Task Schedule

Click the 'Scheduled Tasks' tab to set the schedule. The settings interface is shown in the figure below. Users can set the ball machine to perform various tasks automatically at different times.



Enable: Enable or disable the ball machine task scheduling function. If the ball machine reaches its cruise limit, a prompt will appear on the right of the switch.

Tasks Recovery Times: Tasks Recovery Times. When the ball machine is executing tasks according to the schedule, manual operation will interrupt the cruising task. After the recovery time for the task, the ball bar will automatically resume the corresponding cruise task in the schedule.

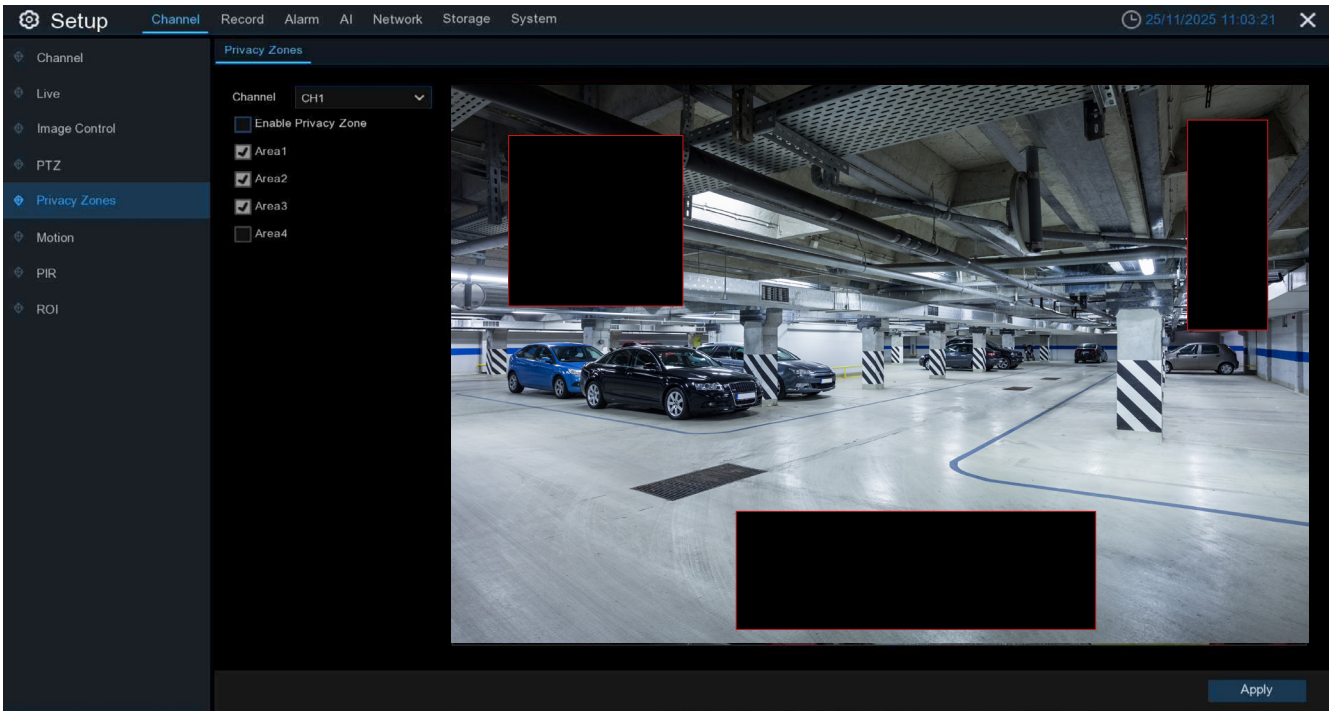
Task type: The ball machine's schedule task types are Off, Linear Scan, Track Cruise, Pattern Scan and Preset Point. Four different paths can be set for Track Cruise and Pattern Scan, and the Preset Point task can set preset points numbered from 1 to 8.

Note!

The task schedule has a higher priority than the watch mode.

5.1.5 – Privacy Zone

This function allows you to obscure all or part of your image for privacy purposes. You can create up to four privacy masks per camera. Any areas obscured by a mask will not be visible in the live view or recorded.



Channel: Select the camera you want to edit.

Enable Privacy Zone: Tick this box to activate the function.

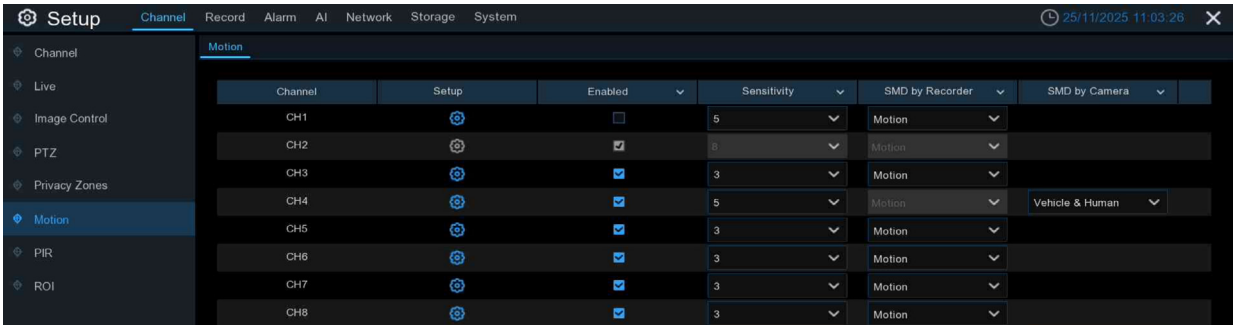
Area: You can set up to four private areas on the screen. All four areas can be moved and stretched. Click 'Apply' to save and activate the changes.

Note!

Once the privacy area has been set, the area covered by it will no longer be visible on the preview or playback screens.

5.1.6 – Motion Detection

This page allows users to configure parameters related to motion detection. When the camera detects movement within the frame, the NVR will trigger the motion detection alarm.



Enabled: Use this option to enable or disable motion detection.

Sensitivity: Use this option to adjust the sensitivity level. The higher the number, the more sensitive your NVR will be to motion detection.

SMD by recorder: Used for cameras that do not support intelligent motion detection, with four detection types to choose from: Motion, Pedestrian, Vehicle and Vehicle & Pedestrian.

SMD by Camera: Used for IP cameras that support intelligent motion detection, with four detection types to choose from: Motion, Pedestrian, Vehicle and Vehicle & Pedestrian.

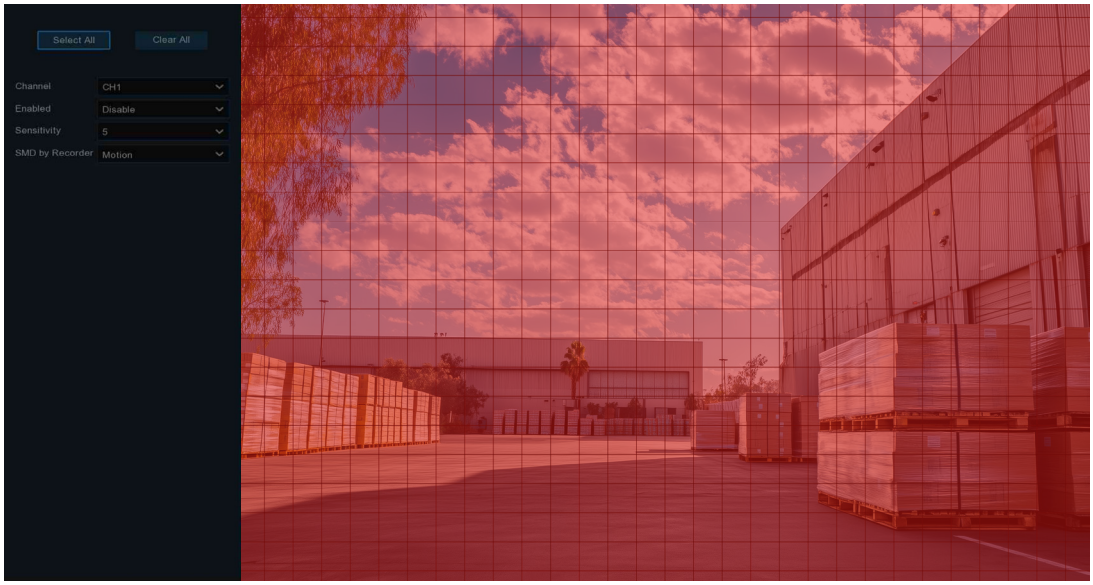
Note!

This function is supported by some IP camera models. After connecting to this model, the SMD by Recorder function will be greyed out and unavailable.

Note!

SMD = Simple Motion Detection

5.1.6.1 – Motion detection area



Click 'Select All' to set the entire camera screen as the motion detection area.

Click Clear All to clear the entire area.

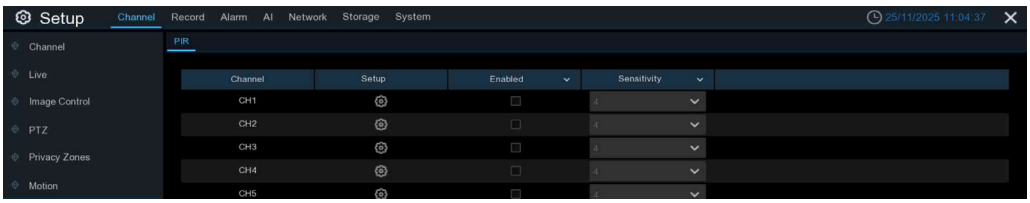
To edit the size of the area, check the box and adjust the position.

Once you have finished making the settings, click the right mouse button to return, and then click 'Apply' to activate the area settings.

To return to the main interface, click the 'Alarm' button to configure the motion detection alarm function.

5.1.7 – PIR

This menu allows you to configure the parameters of your PIR (passive infrared motion detector). When a PIR alarm is detected by one or more cameras, your NVR will alert you to a potential threat. This will be done by sending you an email with an attached image from the camera for reference (if this option is enabled) and/or by sending push notifications via the mobile app.



Enabled: Enable or disable PIR detection.

Sensitivity: This option allows you to change the sensitivity level. The higher the number, the more sensitive your NVR will be when detecting PIR.

5.1.7.1 – PIR detection area

Set the whole screen as the PIR detection area by clicking 'Select All'. Clear the whole area by clicking 'Clear All'.

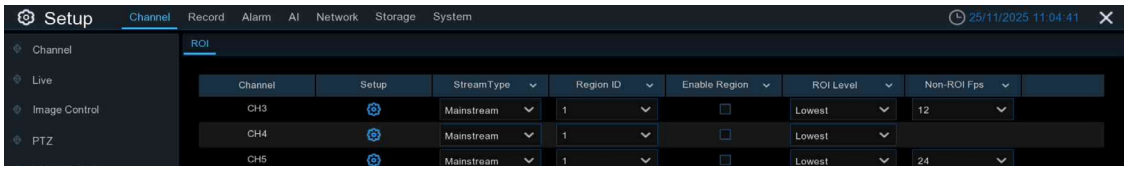
Tick the box and adjust the size/position.

Once you have finished making the settings, click the right mouse button to return, and then click Apply to save the area settings.

Return to the main screen and click the 'Alarm' button to configure the PIR alarm function.

5.1.8 – ROI

Regions of interest (ROIs) are areas of the video that require special attention. This function aims to improve the encoding quality of the selected regions and reduce it outside the selected regions, ensuring the sharpness of the selected regions under the condition of a constant bitrate.



Stream type: Select the desired stream type.

Region ID: Select the region ID to be set. You can set a maximum of eight region IDs.

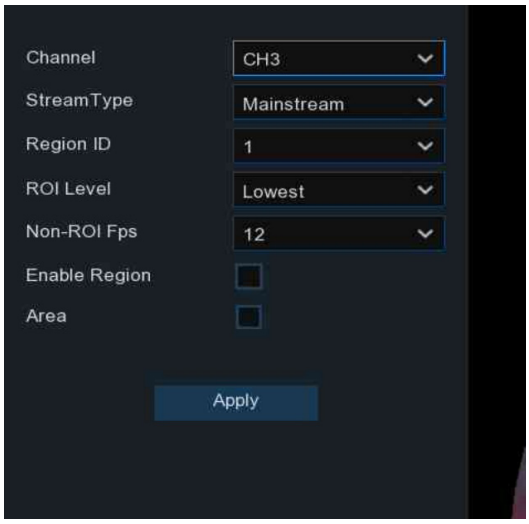
Enable region: Click to enable or disable the region setting.

ROI video quality: Set the image quality for the ROI. The higher the quality, the clearer and smoother the image.

ROI Frames: Set the frame rate for the non-ROI area.

Setup: Click to open the settings page.

Area: Enable the switch to set the ROI area.



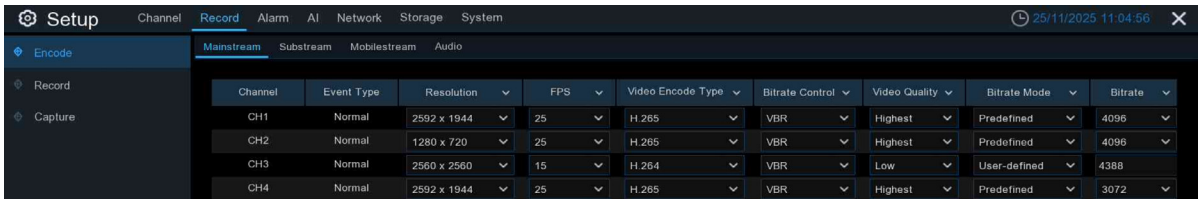
5.2 – Record

This menu allows users to configure system encoding, recording and capture parameters, as well as other related settings.

5.2.1 – Encode

This menu allows you to adjust the quality of the video or network transmission recording. Generally, Mainstream defines the quality of the video that will be saved to the HDD. Substream defines the video quality viewed via remote access, e.g. via a web client or CMS/VMS. 'Mobile Stream' defines the video quality viewed via remote access on mobile devices.

5.2.1.1 – Mainstream



Event type: Set up a normal video stream recording type. When the ETR option is enabled, the channel will record normal and alarm videos simultaneously, and users can set different FPS for normal and alarm videos.

Resolution: Set the resolution of the main stream video.

FPS: Set the frame rate of the main stream video.

Video encode type: Select the encoding type for the channel. The options are h.264, h.265, h.264+ and h.265+.

Bitrate control: For simple scenes, such as a grey wall, constant bit rate (CBR) is appropriate. For more complex scenes, such as busy streets, variable bit rate (VBR) is more suitable.

Video quality: When VBR is selected as the encoding mode, the available image qualities are Lowest, Lower, Low, Medium, Higher and Highest.

Bitrate mode: Preset and custom modes are available. In preset mode, select the bitrate from the drop-down list. In custom mode, input the bitrate manually.

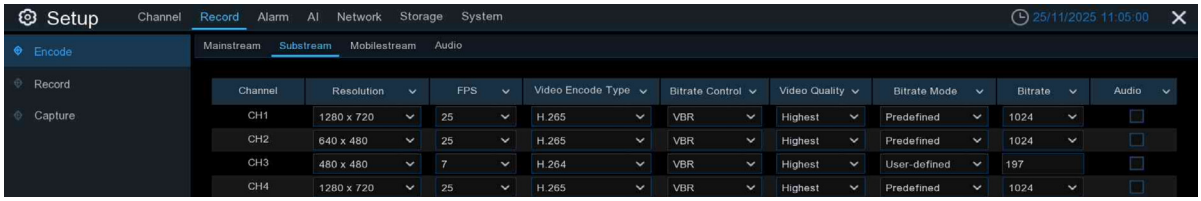
Bitrate: This parameter corresponds to the bitrate used by the device to record video. The higher the bitrate, the better the image quality.

When accessing a camera that supports audio, enable audio to record audio alongside the video.

I Frame Interval: Set the I frame interval of the IP camera.

ETR: Use different code stream parameters for recording when an alarm occurs versus when no alarm occurs.

5.2.1.2 – Substream



Resolution: Set the resolution of the sub-stream video.

FPS: Set the frame rate of the sub-stream video.

Video encode type: Select the channel encoding type. Options include h.264, h.265, h.264+, h.265+ and MJPEG. Note that when an IP camera enables MJPEG encoding, other IP cameras will report insufficient resources in the preview.

Bitrate control: Select the bitrate level. For simple scenes, e.g. a grey wall, constant bitrate (CBR) is suitable. For more complex scenes, such as busy streets, variable bit rate (VBR) is more suitable.

Video quality: When VBR is selected as the encoding mode, the available image qualities are Lowest, Lower, Low, Medium, Higher and Highest.

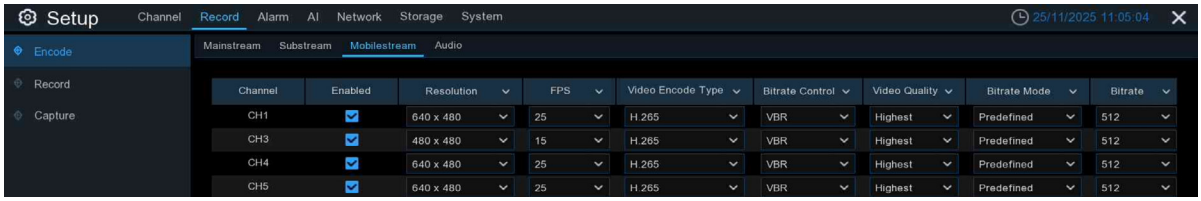
Bitrate mode: Preset and custom modes are available. In preset mode, select the bitrate from the drop-down list. In custom mode, input the bitrate manually.

Bitrate: This parameter corresponds to the bitrate used by the device to record video. The higher the bitrate, the better the image quality.

Audio: To record audio and video simultaneously, access the camera with the audio function and enable this option.

I Frame Interval: Set the I frame interval of the IP camera.

5.2.1.3 – Mobile Stream



Enable: Enable or disable mobile streaming.

Resolution: Set the resolution of the phone's streaming video.

FPS: Set the frame rate of the phone's streaming video.

Video encode type: Select the channel encoding type (h.264, h.265, h.264+, h.265+).

Bitrate control: Select the bitrate level. For simple scenes, such as a grey wall, a constant bit rate (CBR) is appropriate. For more complex scenes, such as busy streets, variable bit rate (VBR) is more suitable.

Video quality: When VBR is selected as the encoding mode, the available image qualities are Lowest, Lower, Low, Medium, Higher and Highest.

Bitrate mode: Preset and custom modes are available. In preset mode, select the bitrate from the drop-down menu. In custom mode, enter the bitrate manually.

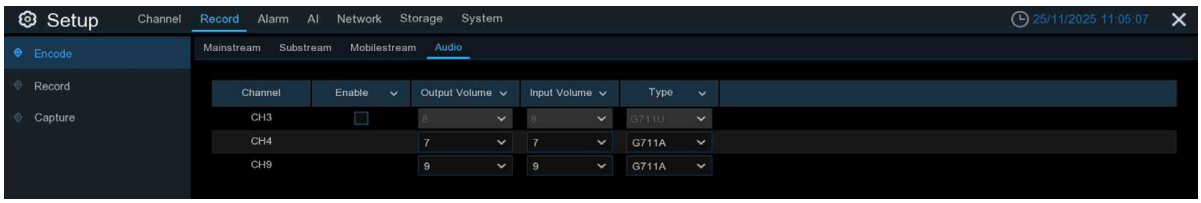
Bitrate: This parameter corresponds to the data transfer rate used by the NVR to record video. Higher bitrate videos will have better quality.

Audio: To record audio and video simultaneously, access the camera with the audio function and enable this option.

I Frame Interval: Set the I frame interval of the IP camera.

5.2.1.4 – Audio

Set the IP camera's audio-related parameters (camera support required).



Output volume: Choose an output volume value between 0 and 9.

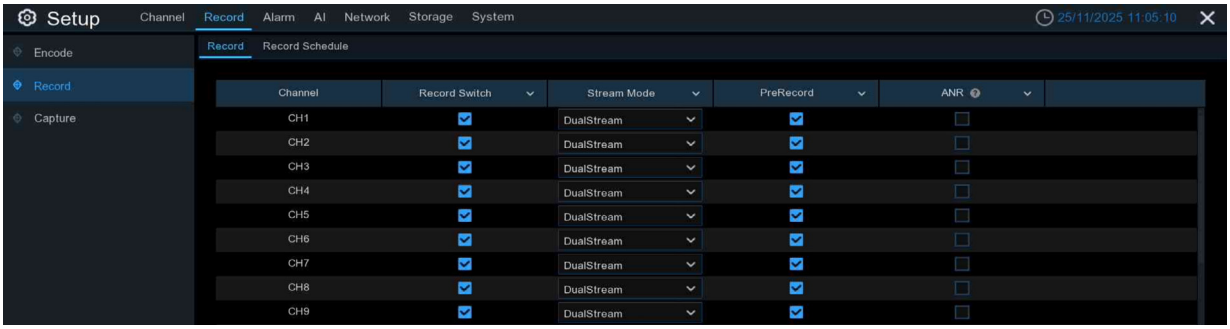
Input volume: Select the audio input volume using the 0–9 values.

Type: Select the audio encoding code. This includes the G711A and G711U codecs.

5.2.2 – Record

This menu allows you to configure the recording parameters for each channel.

5.2.2.1 – Recording Configuration



Enable: Tick this box to enable recording on this channel.

Stream mode: By default, your NVR will record both mainstream and substream video (known as dual stream). Mainstream video (high quality) is used for local playback, and Substream video (reduced quality) is used for remote playback on a mobile device. If remote playback is not required, select 'Mainstream recording only' to save storage space.

Prerecord: This allows your NVR to record for several seconds before an event occurs. It is recommended that you leave this enabled.

ANR (Automatic Network Replenishment): Generally, videos are stored in the NVR when the network connection between the NVR and cameras is normal. With the ANR function, if the connection is lost, the camera will start continuous recording and store videos on the SD card instead. Once the network is restored, the video recordings will be sent back to the NVR's storage. If your camera supports this function, it is recommended to enable ANR.

5.2.2.2 – Record Schedule

This menu lets you specify when the NVR should record video and define the recording mode for each channel. The recording schedule lets you set up a daily or hourly schedule for normal (continuous) recording, motion recording, I/O alarm recording and PIR recording (if your camera supports it).
By default, the NVR is set to record continuously, 24 hours a day, 7 days a week. This can be changed to suit your needs, and a different schedule can be set for each camera if required. The schedule is colour-coded to represent the event type.

Channel: Select a channel and sets its recording parameters.

Normal: When the area is marked in green, it means that the channel is recording normally for that time period.

Motion: When the area is marked in yellow, it means that the channel is recording motion detection for the corresponding time period.

IO: When this area is marked in red, it means that the channel is recording an IO alarm for this time period.

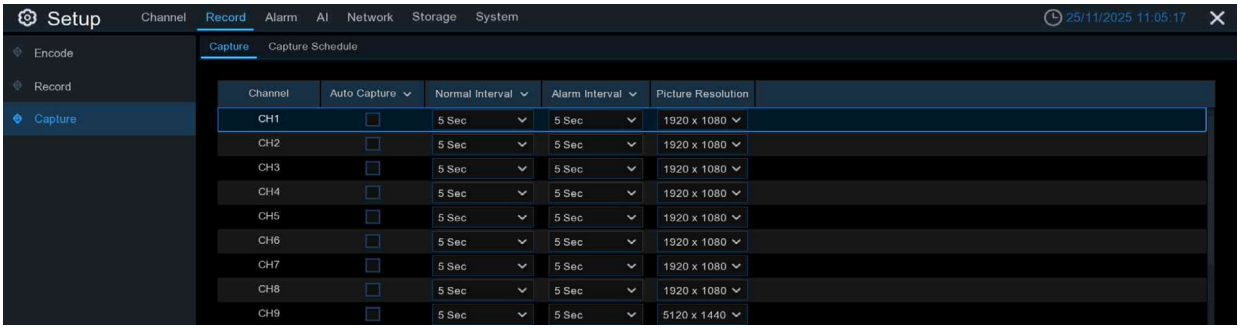
PIR: When the area is purple, the channel will record a PIR alarm for the corresponding time.

No record: A black marking on the time zone indicates that no recording is scheduled for that time.

5.2.3 – Capture Images

This menu allows you to configure the parameters related to the Auto Capture function.

5.2.3.1 – Capture



Auto Capture: Enable or disable auto-snap on the channel.

Normal Interval: The time interval between grabs in regular recording.

Alarm Interval: Grab interval when motion detection, IO alarm or PIR is triggered.

5.2.3.2 – Capture Schedule

Channel: Select a channel to set its capture parameters.

Normal: When the area is marked in green, it means that the channel is performing normal captures for the corresponding time period.

Motion: When the area is marked in yellow, the channel will perform motion detection in that area at that time.

IO: When this area is marked in red, it means that the channel will capture the IO alarm for this area at the corresponding time.

PIR: When the area is purple, the channel will capture the PIR alarm at that time.

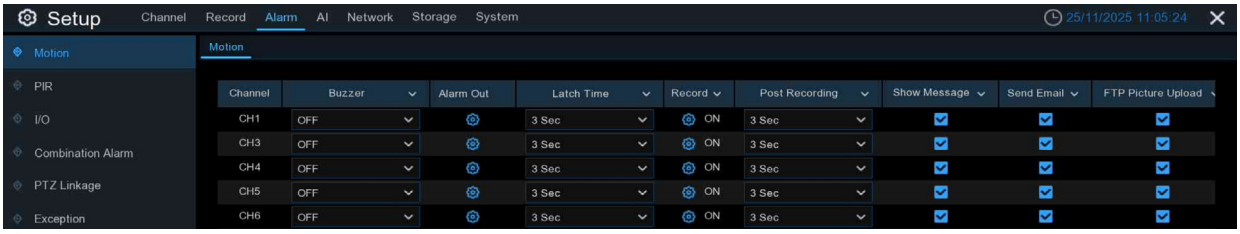
No Capture: Black indicates that no capture is scheduled for that time period.

5.3 – Alarm

In this section, you can configure the alarm actions when event occurs.

5.3.1 – Motion

This menu allows you to configure the parameters related to motion alarms.



Channel: The name of the channel.

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration in seconds for when motion is detected.

Alarm Out: Optional feature. If the NVR supports connection to an external alarm device, you can configure it.

Latch time: Configure the external alarm trigger time (10 seconds, 20 seconds, 40 seconds or 1 minute) when motion is detected.

Record: Click the icon to select the channel to record when motion detection is triggered.

Post Recording: Set the length of time that the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be set to a maximum of five minutes.

Show Message: When motion is detected, the alarm icon will appear on the screen.

Send Email: An email alert will be sent when an alarm event is detected. Tick the checkbox if you want to disable this feature.

FTP Picture Upload: An alarm picture will be uploaded to an FTP server after an alarm is triggered.

FTP video upload: Uploads an alarm video to an FTP server when the alarm is triggered.

Picture to Cloud: Uploads an alarm picture to cloud storage when the alarm is triggered.

Video to Cloud: Uploads an alert video to cloud storage after an alert is triggered.

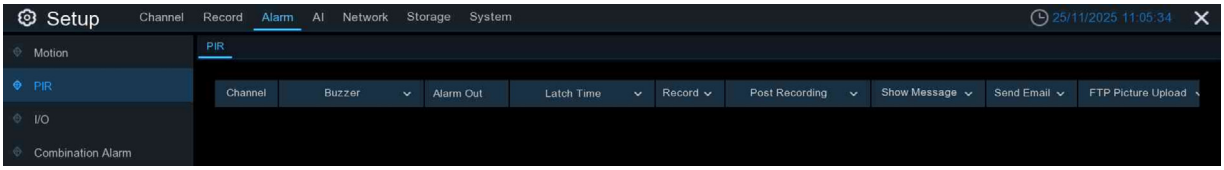
Full Screen: Tick the box to view the camera in full-screen mode in Live View when the detection is triggered.

HTTP Listening: Ticking this box means that this type of message will be sent to the client when an alarm is triggered.

Voice prompts: Select the audio file into which the voice prompt will be imported when this alarm is triggered (IPC support for voice prompts required).

5.3.2 – PIR

This menu allows you to configure the parameters related to PIR alarms.



Channel: The name of the channel.

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration in seconds for when motion is detected.

Alarm Out: Optional feature. If the NVR supports connection to an external alarm device, you can configure it.

Latch time: Configure the external alarm trigger time (10 seconds, 20 seconds, 40 seconds or 1 minute) when the passive infrared sensor (PIR) is triggered.

Record: Click the icon to select the channel to record when PIR detection is triggered.

Post Recording: Set the length of time that the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be set to a maximum of five minutes.

Show Message: When the PIR is triggered, the alarm icon will appear on the screen.

Send Email: An email alert will be sent when the PIR alarm is triggered. Tick the checkbox if you want to disable this feature.

FTP Picture Upload: An alarm picture will be uploaded to an FTP server after an alarm is triggered.

FTP video upload: Uploads an alarm video to an FTP server when the alarm is triggered.

Picture to Cloud: Uploads an alarm picture to cloud storage when the alarm is triggered.

Video to Cloud: Uploads an alert video to cloud storage after an alert is triggered.

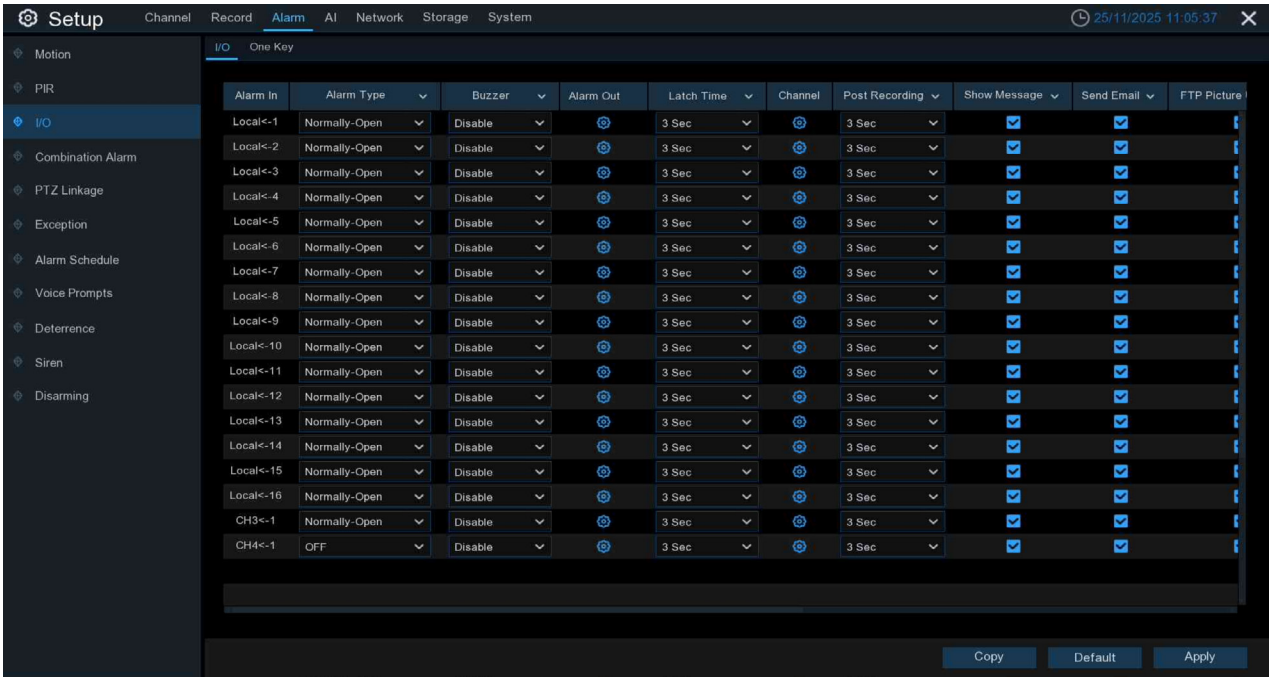
Full Screen: Tick the box to view the camera in full-screen mode in Live View when the detection is triggered.

HTTP Listening: Ticking this box means that this type of message will be sent to the client when an alarm is triggered.

Voice prompts: Select the audio file into which the voice prompt will be imported when this alarm is triggered (IPC support for voice prompts required).

5.3.3 – I/O

If your NVR or the connected camera has alarm input function, you will need to configure the settings to make the connected sensor works probably.



Alarm In: Alarm input channel

Alarm type: Three types can be selected: Normally Open, Normally Closed and Off. The selection must be consistent with the type of sensor being accessed. Selecting 'Off' means that the I/O will not be triggered.

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration in seconds when an I/O alarm is detected.

Alarm Out: Optional feature. If the NVR supports connection to an external alarm device, you can configure it.

Latch time: Configure the external alarm trigger time (10 seconds, 20 seconds, 40 seconds or 1 minute) when the passive infrared sensor (PIR) is triggered.

Channel: Click the icon to select the channel to record when the I/O alarm is triggered.

Post Recording: Set the length of time that the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be set to a maximum of five minutes.

Show Message: When the PIR is triggered, the alarm icon will appear on the screen.

Send Message: An email alert will be sent when the alarm I/O is triggered. Tick the checkbox if you want to disable this feature.

FTP Picture Upload: Upload an alarm picture to an FTP server after an alarm is triggered.

FTP video upload: Upload an alarm video to an FTP server when the alarm is triggered.

Picture to Cloud: Upload an alarm picture to cloud storage when the alarm is triggered.

Video to Cloud: Upload an alert video to cloud storage after an alert has been triggered.

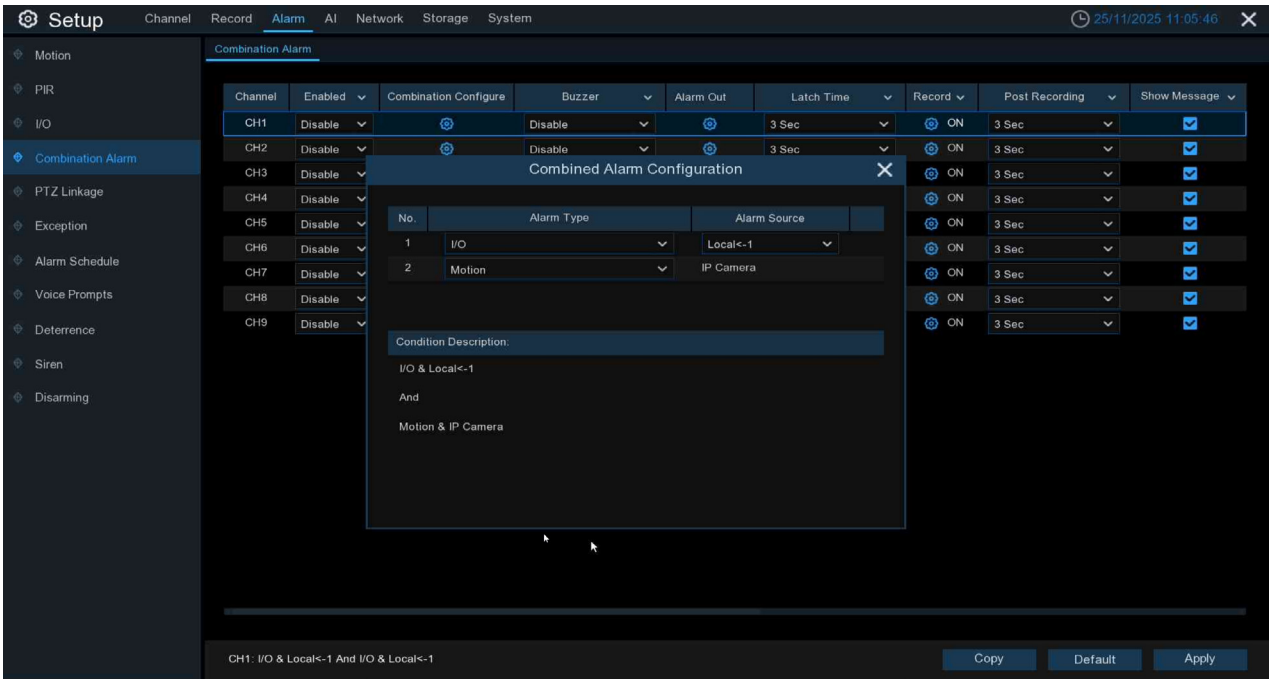
Full Screen: Tick the box to view the camera in full-screen mode in Live View when the I/O alarm is triggered.

HTTP Listening: Ticking this box means that this type of message will be sent to the client when an alarm is triggered.

Voice prompts: Select the audio file into which the voice prompt will be imported when this alarm is triggered (IPC support for voice prompts required).

5.3.4 – Combination Alarm

The combination alarm function allows you to set a combination of two alarm types. The NVR will only alert when both types of alarm in the combination are triggered at the same time. This helps to minimise the false alarm rate.



Enabled: Use this option to enable or disable the combination alarm for the selected channel. 'Enable' enables the combination alarm. Disable does not enable the combination alarm.

Combination configure: Set whether to enable the combination alarm for the selected channel. Select 'Enable Combination Alarm' or 'Disable Combination Alarm'. If either alarm type is triggered alone, it will not trigger the other.

Note!

Enabling a combination alarm does not affect the normal use of other alarm types.

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration in seconds when an I/O alarm is detected.

Alarm Out: Optional feature. If the NVR supports connection to an external alarm device, you can configure it.

Latch time: Set the time for the external alarm to trigger when the PIR is activated (10 seconds, 20 seconds, 40 seconds or 1 minute).

Record: Click the icon to select the channel to record when the I/O alarm is triggered.

Post Recording: Set the length of time that the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be set to a maximum of five minutes.

Show message: Tick this box to display the corresponding alarm icon on the live display when a combination of alarms is detected. For example, if the motion and PID alarms are triggered, show the icons.

Send Email: The NVR will send an automated email to the specified email address when it detects an alarm.

FTP Picture Upload: An alarm picture is uploaded to an FTP server after an alarm is triggered.

FTP video upload: Uploads an alarm video to an FTP server when the alarm is triggered.

Picture to Cloud: Uploads an alarm picture to cloud storage when the alarm is triggered.

Video to Cloud: Uploads an alert video to cloud storage after an alert is triggered.

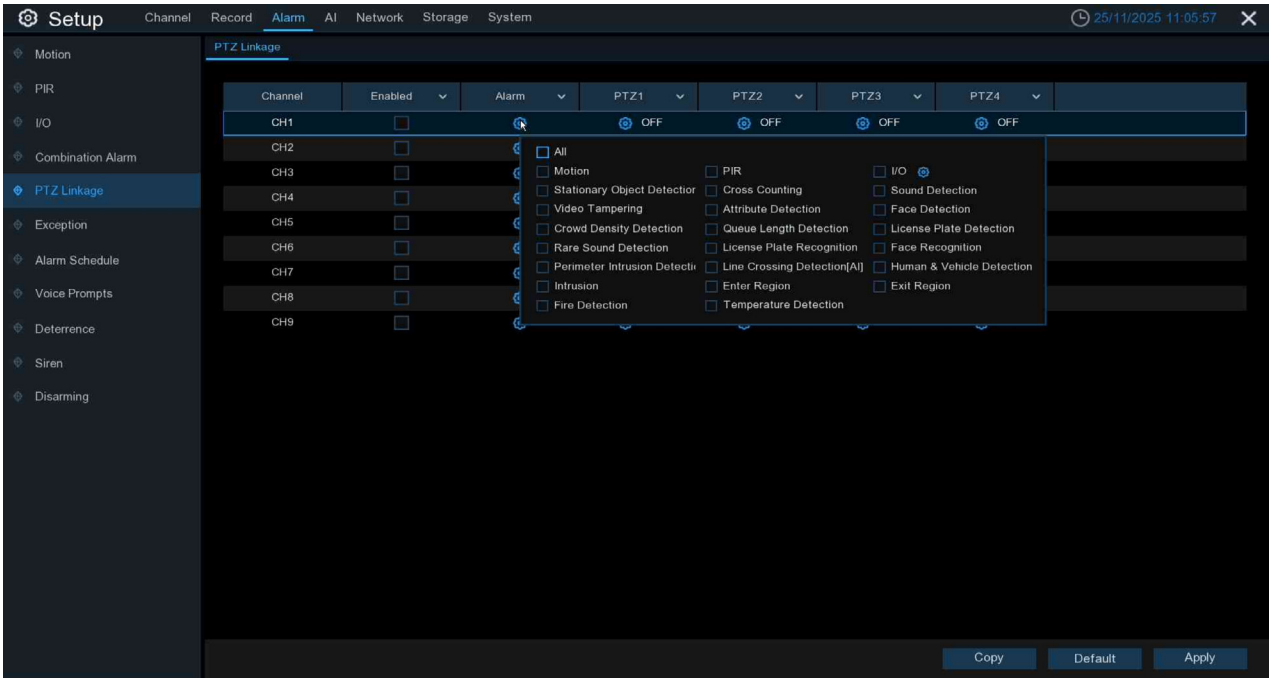
Full Screen: Tick the box to view the camera in full-screen mode in Live View when the alarm is triggered.

HTTP Listening: Ticking this box means that this type of message will be sent to the client when an alarm is triggered.

Voice prompts: Select the audio file into which the voice prompt will be imported when this alarm is triggered (IPC support for voice prompts required).

5.3.5 – PTZ Linkage

If you have a PTZ camera connected, you can set up a linkage between it and an alarm. This allows you to focus the camera on a preset point when any of the alarm types are triggered.



Enabled: Enable or disable the PTZ linkage function.

Alarm: Click the icon to set the alarm type associated with PTZ.

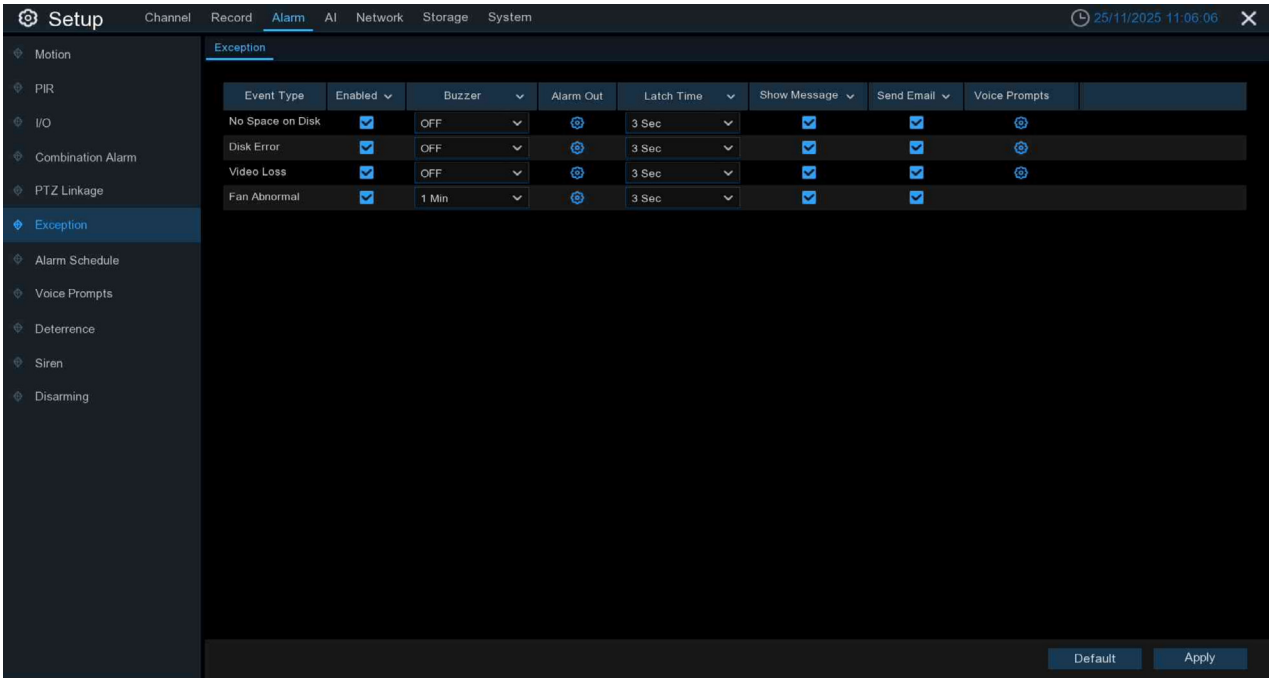
Note!

This table shows the alarm types supported by the NVR, not the alarm types supported by the channel (except for I/O).

PTZ: Click the icon to associate the PTZ with camera preset points.

5.3.6 – Exception

The system allows to set the abnormal events that you want the NVR to inform you.



Event type: Your NVR will detect three event types as exceptions.

'No Space on Disk': there is no space left on the hard drive.

Disk Error: a hard drive error has occurred.

Video loss: one or more channels have lost the connection.

Fan Abnormal: An alarm will sound if the fan is malfunctioning, spinning at a low speed or has stopped. (Supported by some models).

Enabled: Check to enable event alerts.

Buzzer: Set the buzzer duration when an event occurs (OFF / 10 seconds / 20 seconds / 40 seconds / 1 minute). To disable the buzzer, select 'OFF'.

Alarm Out: Select this option to enable the external alarm device to be triggered when an abnormal alarm occurs.

Latch Time: Set the latch time to trigger the external alarm device (10 seconds, 20 seconds, 40 seconds or 1 minute).

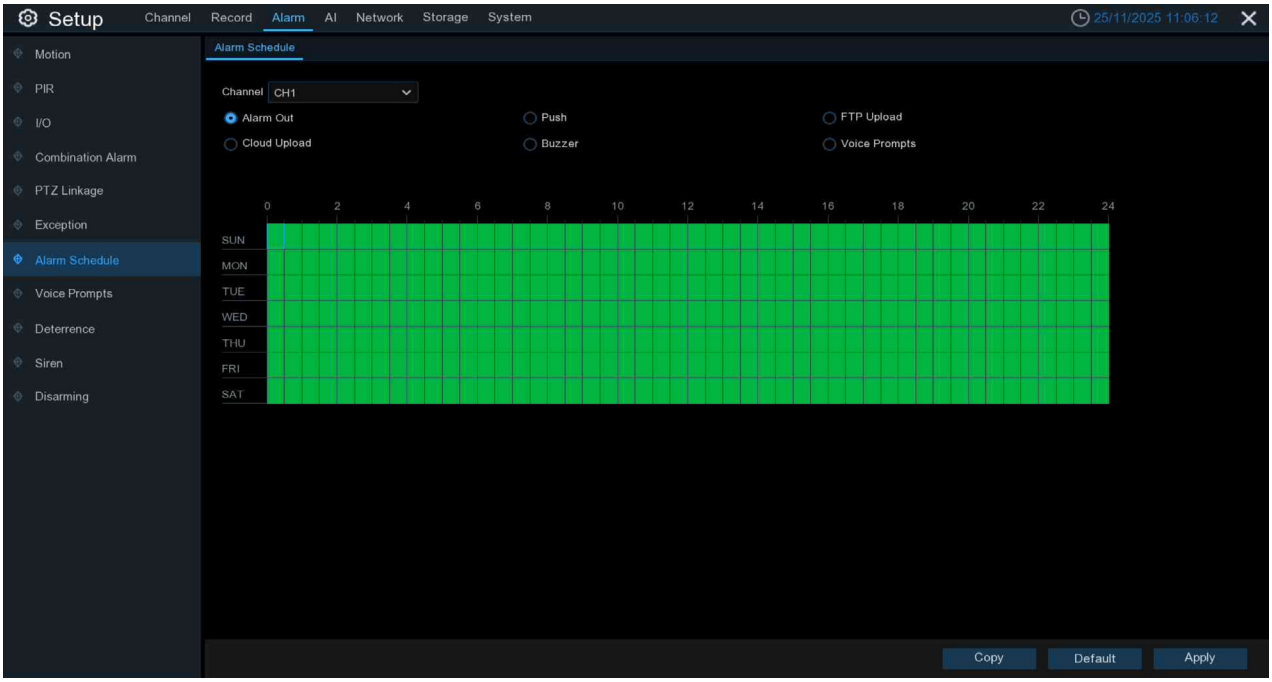
Show Message: Tick this box to display a message on the screen when a No Space on Disk, Disk Error or Video Loss event occurs.

Send Email: Click the box to enable your NVR to send an email alert when a detection event is triggered.

Voice Prompts: Select the audio file into which the voice prompt is imported when this alarm is triggered (IPC support for voice prompts required).

5.3.7 – Alarm Schedule

In this menu, users can set the time period for external alarm output devices, push, FTP upload, cloud upload, buzzer and other alarm response types to work through the schedule.



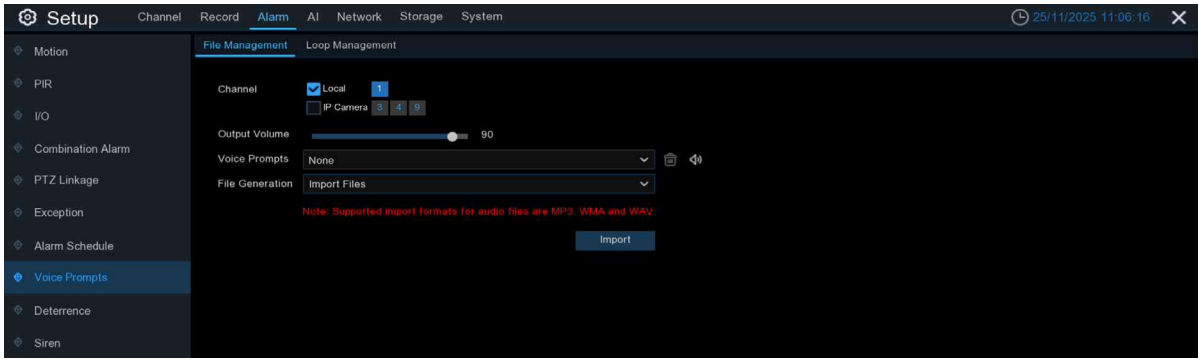
Channel: Select a channel and set its capture parameters.

When a time slot is marked in green, it means that the channel is working for that time slot.

5.3.8 – Voice Prompts

This function is used when an alarm occurs. The system receives the alarm signal and activates the voice broadcasting equipment, either automatically or manually, to play the associated audio in response to the "invasion" behaviour on the scene.

5.3.8.1 – File Management



Click Import to import broadcast audio. There are two methods of importing audio: Import External File and Text-to-Speech (Internet).

Import External File: local import (supports MP3, WMA and WAV audio file formats).

Internet Server Conversion: Web server translation (by inputting the text content to be translated locally). The text is sent to the network server for translation into audio files. These are then automatically saved to the local hard disk for storage.
The maximum input length of the text input box is 200 bytes.

Import file: import an audio file. The allowed file size for the face and licence plate library is 1–500 KB, and the allowed file size for the non-face and licence plate library is 1–5 MB.
After importing the audio file, it can be selected in the 'Voice Prompts' menu.

Voice Prompts: Supports two kinds of prompts, respectively: Local and IPC channel.

Output Volume: You can adjust the volume of local broadcasts.

Local broadcasting: when selecting this option, the device needs to be connected to an audio output device.

IP camera: IP camera broadcasting (to select this broadcasting method, the camera programme must have the voice broadcasting function and the camera must support audio output).

Voice broadcast settings by time period: An alarm type can support the setting of up to 12 time periods of voice broadcast, the start and end time of any time period, there can be no conflicts

Face recognition-based voice broadcast settings: This function realises face recognition. The system collects the alarm signal and links with the voice broadcasting equipment to automatically play the associated audio to the 'invasion' object on the scene.

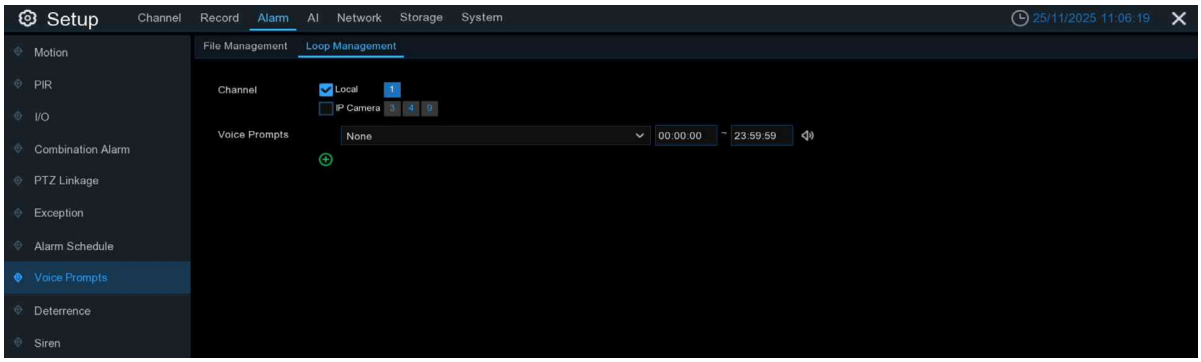
When face detection is triggered, voice announcement prompts will be activated.

Note!

Audio imported based on black-and-white pictures can only be used with those pictures.

5.3.8.2 – Loop Management

The system allows to play a continuous loop of the voices in a certain period of time.



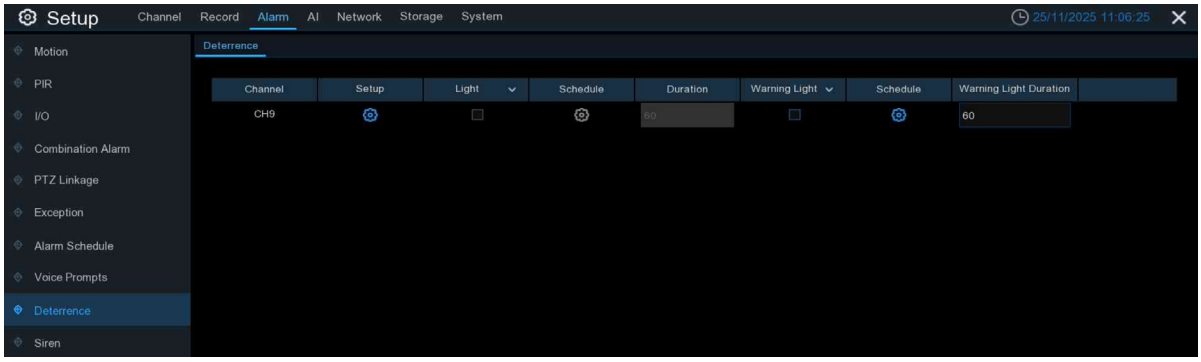
Voice prompts: select the audio file. Once a time period has been set, the selected audio file will play on a loop for that time period when there is no voice announcement or audition audio file for the alarm. Up to 12 time slots are supported.

Local broadcasting: select this option if you want to broadcast locally (the device needs to be connected to the audio output device).

IP Camera: IP camera announcement (to select this type of announcement, the camera programme must be equipped with the voice announcement function and the camera must support audio output).

5.3.9 – Deterrence

This menu allows you to configure the built-in white lights (also known as 'spotlights') and the speaker of the deterrence cameras to perform an action when an alarm event is detected.



Channel: Channel name.

Setup: Click button to enter configuration page.

Channel: Channel name

Light: Enable or disable the white light.

Duration: White light duration.

Deterrence mode: Set the white light mode. There are constant mode (Warning Light) and flashing mode (Strobe Light).

Strobe frequency: The flashing frequency of the white light. There are three options: high, medium and low.

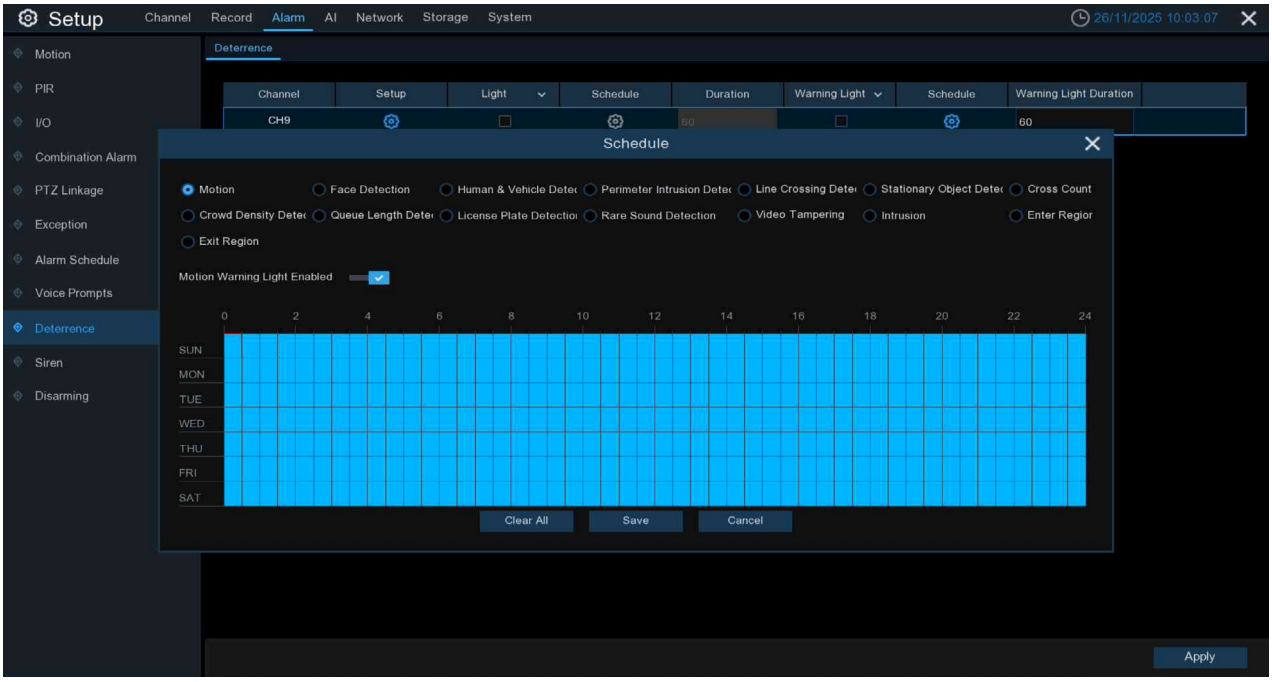
Warning light: Turn the red and blue warning lights on and off.

Warning light duration: The duration of the red and blue lights.

Schedule: Click on the icon to open the settings page.

Note!

Turning on the Deterrence switch in the Motion or PIR settings will trigger the white, red and blue lights when motion or PIR is detected.



When this schedule is highlighted in light blue, it means that the channel can activate a white light deterrent alarm during this time slot.

Default: Restore the default setting.

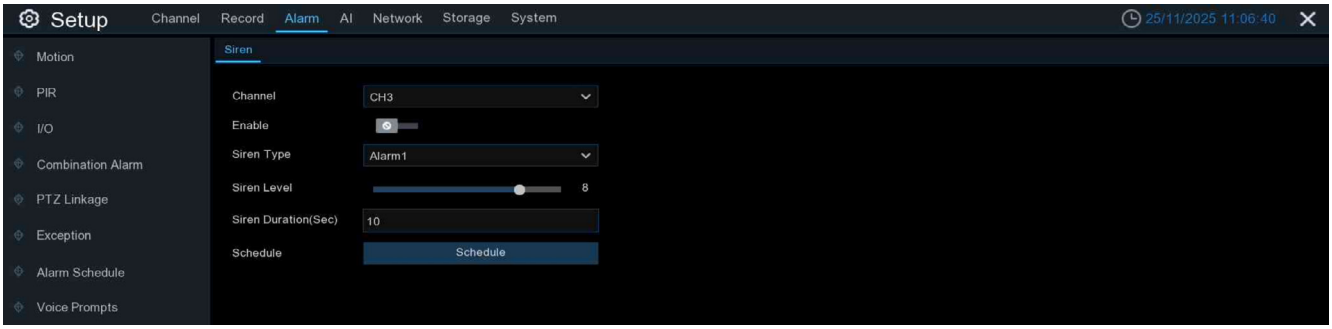
When the IPC accesses the NVR via the HTTP port, the setup page is displayed as shown in the picture below.

Select the relevant function and switch. Set the linkage alarm and the effective time.

Clear all: Clear the light blue mark on all sub-pages.

5.3.10 – Siren

You can set the siren-related parameters in this module if the camera connected to the device has a built-in speaker.



Channel: Select the switch channel.

Enable: Used to set whether to enable the siren function.

Siren Type: Used to select the siren audio file. By default, two audio files are provided. You can also import three customized audio files (of PCM format or WAV format). The audio sample rate of the imported file cannot exceed 8000 Hz, and the file size cannot exceed 256 KB. After you select a customized audio file to be imported, a Delete button appears on the right of the file, and you can click the Delete button to delete the audio file. (Note: This function is supported by some IP cameras only.)

File Name: If you select User-defined for Siren Type, you can enter the file name and click the Import button on the right to import the customized audio file from a USB flash disk.

Siren Level: Used to set the siren volume level, which ranges from 1 to 10. The higher the level is, the louder the volume is.

Siren Duration(s): Used to set the siren duration. You can adjust the value between 5 to 180 seconds.

Schedule: If the IP camera is connected to the NVR via the HTTP port, you can click the Schedule button to open the setting page.

If a channel is selected in the schedule, it indicates that the channel can trigger siren alarms during the corresponding period.

You can set the siren linkage alarm and effective time of a function by selecting the corresponding function sub-tab and switch.

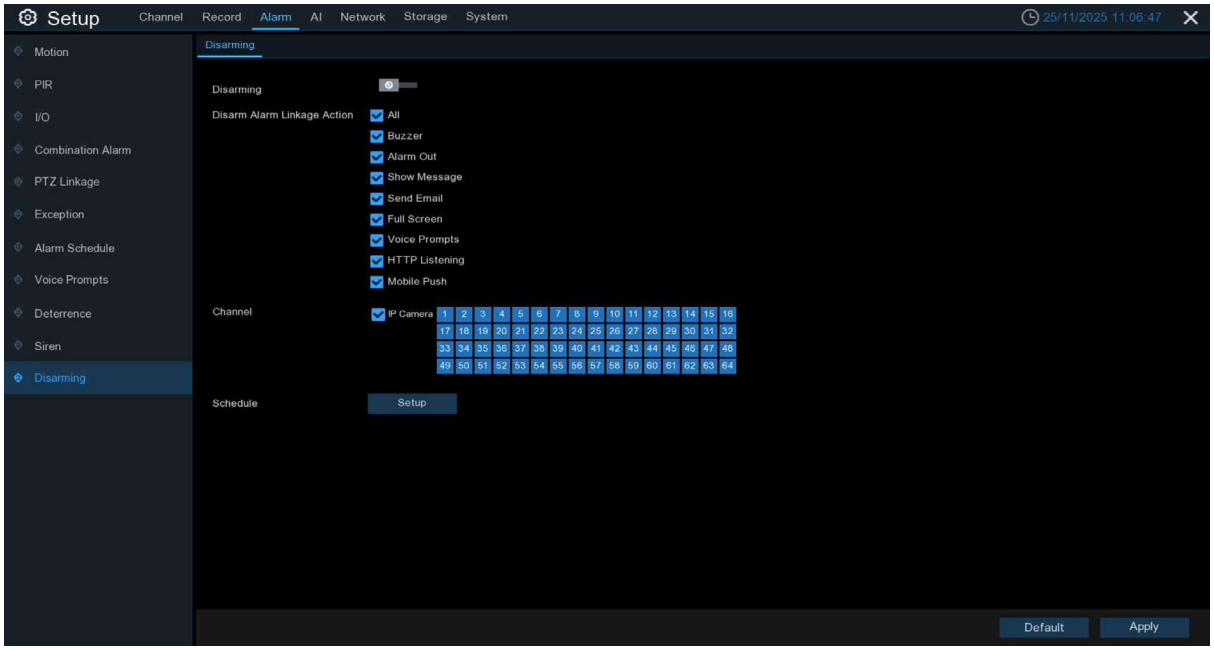
Clear All: Click this button to clear the selected status on all sub-tabs.

5.3.11 – Disarming

Once the one-click alarm disarm function has been enabled, the device will no longer respond to various alarms. This page allows you to set the relevant parameters, including the disarming switch, channel, type and schedule.

Note!

One-click disarming does not control the Exception system alarms.



Disarm: Used to enable or disable the one-click disarming function.

Disarm alarm action: Used to set the types of alarm linkage to be disarmed.

'All': Select or clear all types.

Buzzer: Used to set whether to enable the buzzer. When the one-click disarming function is enabled, select this option to disable the buzzer.

Alarm Out: Used to set whether to enable the external alarm output. When the one-click disarming function is enabled, selecting this option will disable the external alarm device when an alarm is triggered.

Show Message: Used to set whether messages are displayed. When the one-click disarming function is enabled, selecting this option will prevent alarm messages from being displayed when motion is detected on the preview page.

Send Email: Used to set whether emails are sent. When the one-click disarming function is enabled, select this option to prevent the NVR from automatically sending an email when an alarm is triggered.

Full Screen: Used to set whether to display in full-screen mode. When the one-click disarming function is enabled, selecting this option will prevent the channel configured with full-screen mode from entering full-screen mode on the preview screen when the channel triggers an alarm.

Voice prompts: Used to enable or disable voice prompts. When the one-click disarming function is enabled, this option can be selected to disable voice prompts when an alarm is triggered by a configured channel.

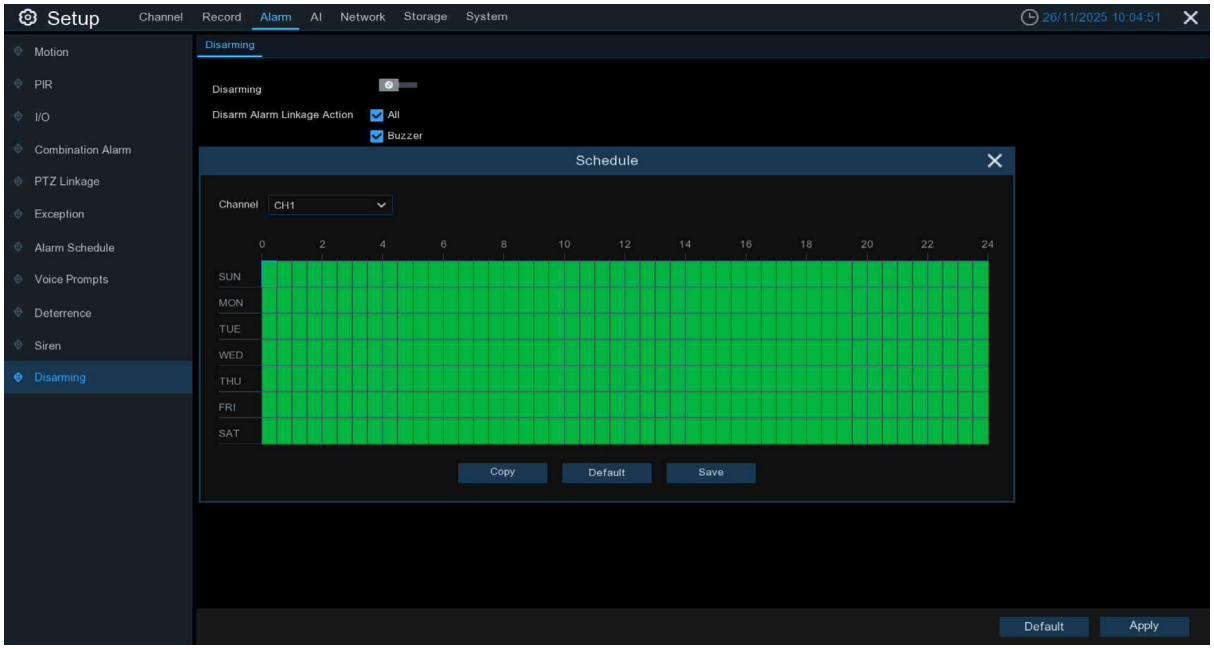
HTTP Listening: When the alarm is triggered, the device will not send the alarm information to a third-party platform.

Mobile Push: When the one-key disarming function is open, select the 'Mobile Push' option. When an alarm is triggered, the device will not send the alarm information to the app.

Channel: Select the channels to be disarmed.

Schedule: Click the Setup button to access the Schedule Setup page.

A checked schedule indicates that the channel is disarmed during the corresponding time period.



5.4 – AI

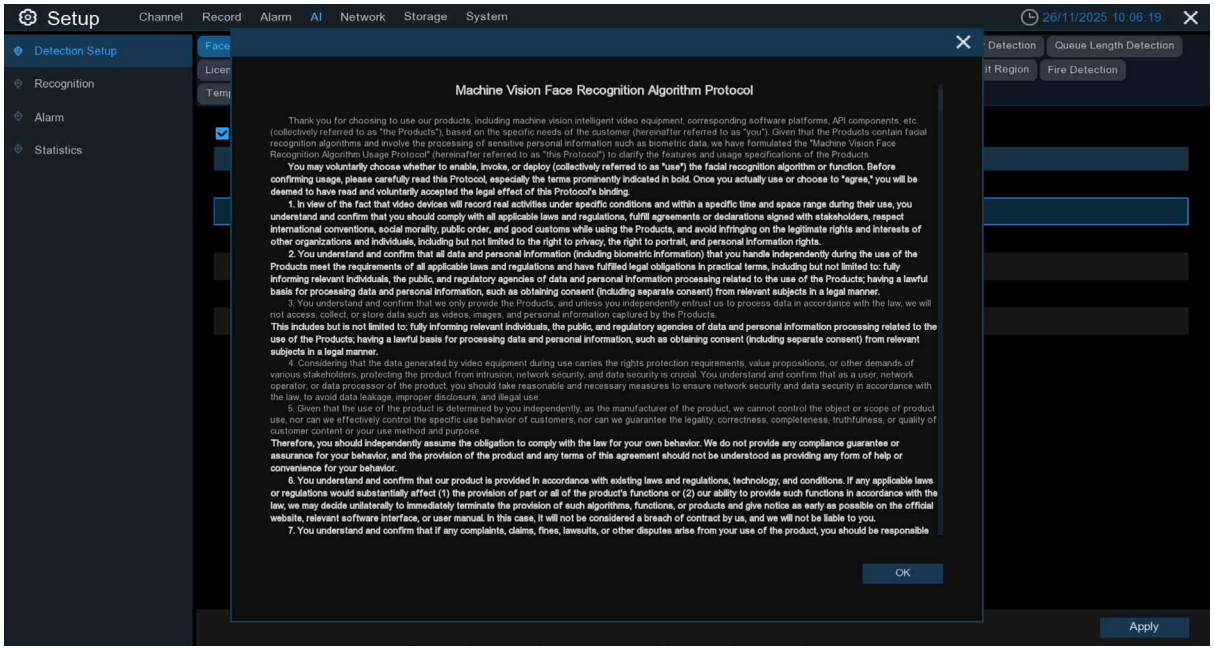
5.4.1 – Detection Setup

5.4.1.1 – Face Detection

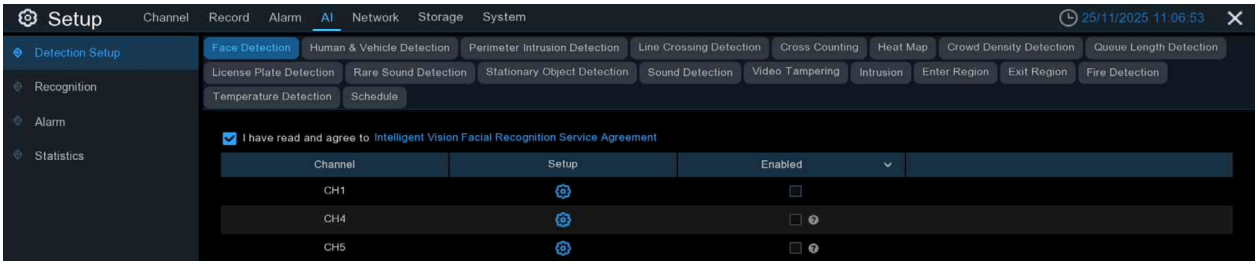
This menu enables you to adjust the face detection parameters.

Note!

To enable the channel's face detection function, you must read and agree to the Face Recognition Service Agreement.



Enable: Tick the box to enable face detection.



Setup: Click the Setup button for further settings.

Channel: Select the channel that you want to configure.

Snap mode: There is a default mode (select the highest quality picture to display from when the face appears to when it disappears).
There is also a real-time mode (push once when the face appears and again when it disappears) and an interval mode (customise the time and interval of the push).

Snap Num: In Interval Mode, set the number of snapshots for face detection.

Snap frequency: Set the frequency of face pushes in interval mode.

Apply mode: Set the snapshot angle. This contains front view, multi-angle and customisation modes.

Min. Pixels: Set the minimum pixel frame to be recognised. The face must be larger than the set number of pixels in order to be recognised.

Max. Pixels: Set the maximum pixel frame. Pixels: This sets the maximum pixel frame that a face must be smaller than in order to be recognised.

Face Angle: Set the detection angle. There is a positive face mode, a multi-angle mode and a custom angle mode.

Roll angle: Set the range of face rotation within the customised angle.

Pitch Angle: Set the pitch range of the face within the customised angle.

Yaw Angle: Set the horizontal flip range of the face within the customised angle.

Frontal view/multi-angle: Reset the angle settings to the default Frontal and Multi-angle settings.

Picture quality: Set the picture quality; 1 is the lowest and 100 is the highest.

Face Enhance: Face enhancement makes moving faces easier to recognise, but it may lower the overall picture quality.

Face Attribute: Enable this function to detect gender, age, whether the subject is wearing a mask or glasses, and their facial expression.

Detection mode: There are two detection modes: Hybrid and Motion.

Hybrid mode: Both static and moving targets are detected. Setting Motion Mode can reduce false alarms.

Motion mode: Only moving targets within the frame are detected.

Rule type: Rule type: There are rectangle and line rules.

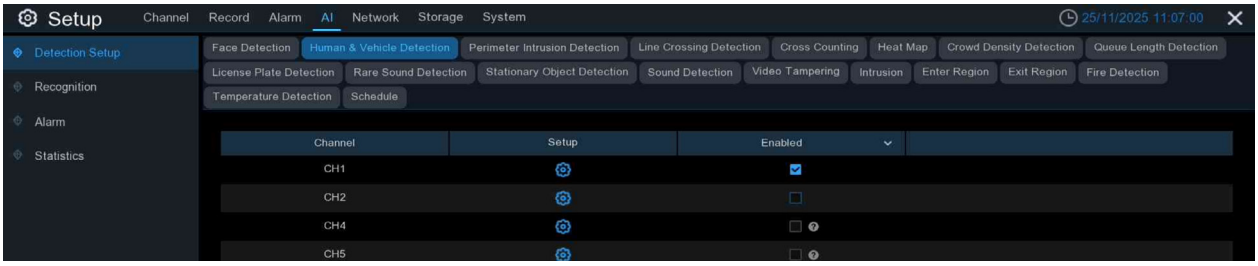
Rectangle: Under the rectangle rule, set the detection area. Use the full screen area by default.

Line: Under the 'Line' rule, set the rule for line crossing. Draw a line inside the right preview. When the face crosses the line according to the set rule A->B or B->A, it will be detected.

Dynamic Marking: When enabled, the target detection box is displayed on the live screen.

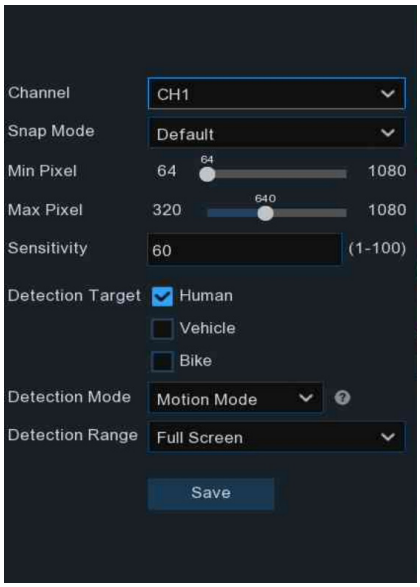
5.4.1.2 – Human & Vehicle Detection

Your NVR will activate recording and send an alarm when pedestrian beings and/or vehicles are detected.



Enable: Enable or disable the function.

Setup: Click the Setup button for further settings.



Channel: Select the channel that you want to configure.

Snap mode: Capture mode. There is a default mode, which is the time between the appearance and disappearance of a human or vehicle. Select a picture of the best quality to be pushed out during the time from when the face appears to when it disappears. There is also a real-time mode (push once when the face appears and again when it disappears) and an interval mode (customise the time and interval of the push).

Snapshot Num: In Interval Mode, set the number of snapshots for human and vehicle detection.

Snap frequency: In interval mode. Set the frequency of the human and vehicle push.

Min. Pixels: Set the minimum pixel frame required for recognition. The human or vehicle must be larger than the set number of pixels to be recognised.

Max. Pixels: Set the maximum pixel frame. Humans and vehicles must be smaller than the set number of pixels to be recognised.

Sensitivity: Set the sensitivity; the range is 1–100. The larger the value, the easier it is to trigger.

Detection target: Select the detection target: human, vehicle or bike.

Detection mode: There are two detection modes: Hybrid and Motion.

Hybrid mode: Both static and moving targets are detected. Setting Motion Mode can reduce false alarms.

Motion mode: Only moving targets within the frame are detected.

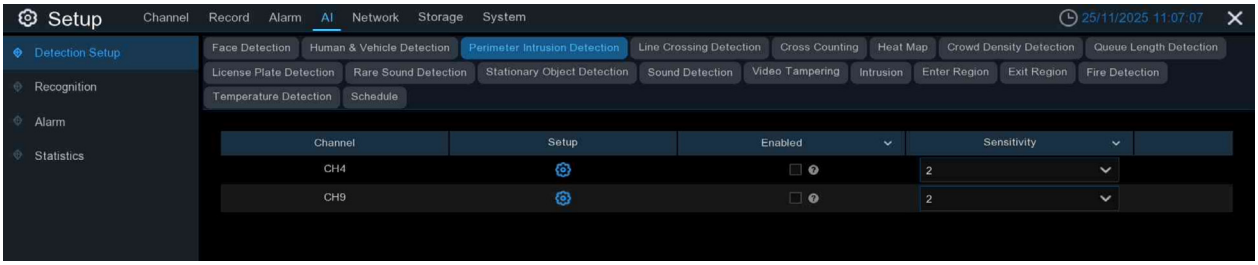
Detection area: Under the 'Rectangle' rule, set the detection area. The user-default full-screen area.

Dynamic Marking: When enabled, the target detection box is displayed on the live screen.

Auto PTZ Tracking: Auto tracking switch (supported by some PTZ models).

5.4.1.3 – Perimeter Intrusion Detection

The Perimeter Intrusion Detection feature detects when people, vehicles or other objects enter or exit a predefined virtual area, and activates specific measures when an alarm is triggered.



Enable: Enable or disable the function.

Sensitivity: Sensitivity levels range from 1 to 4; higher sensitivity will trigger detection more easily.

Setup: Click to configure the detection conditions.

Channel: Select the channel that you want to configure.

Detection target: Detection types:

Human: Trigger an alarm when a pedestrian enters the perimeter.
Vehicle: Alarm triggered by a motorised vehicle.
Bike: Alarm triggered by a non-motorised vehicle.

Rule number: This is the number of the perimeter intrusion area. You can set a maximum of four areas for the perimeter intrusion function.

Rule switch: enable the detection in the rule switch.

Rule type:

A ► B: The camera will only detect action from side A to side B.

B ► A: The camera will only detect action from side B to side A.

A ◄► B: The camera will detect action from either side B to side A or side A to side B.

Use your mouse to click four points in the camera image to draw a virtual region. The region should be a convex polygon. Concave polygons cannot be saved.
Click 'Save' to save your settings.

If you want to modify the position or range of the rule, click 'Modify'. Click the red box in the line to change its colour to red. Press and hold the left mouse button to move the line, or drag the endpoints to modify its length or position.
To delete a rule from the camera picture, click on the red box in the line and then click on the 'Remove' button. Click on the red box in the line, then click on the 'Remove' button. Clicking on 'Remove All' will delete all the lines.

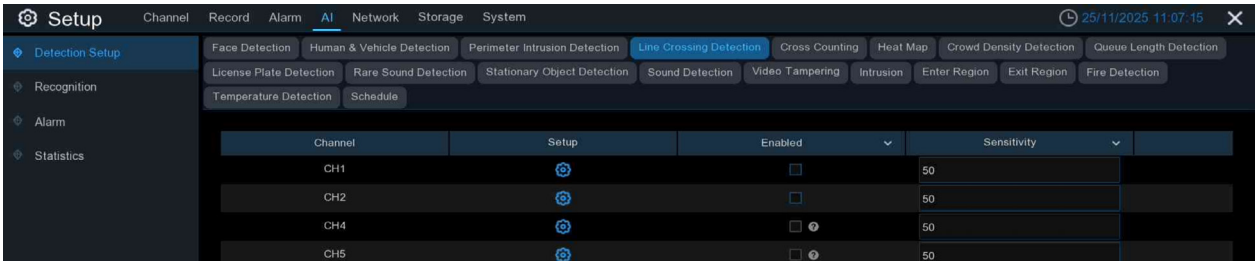
Dynamic Marking: When enabled, the target detection box is displayed on the live screen.

Note!

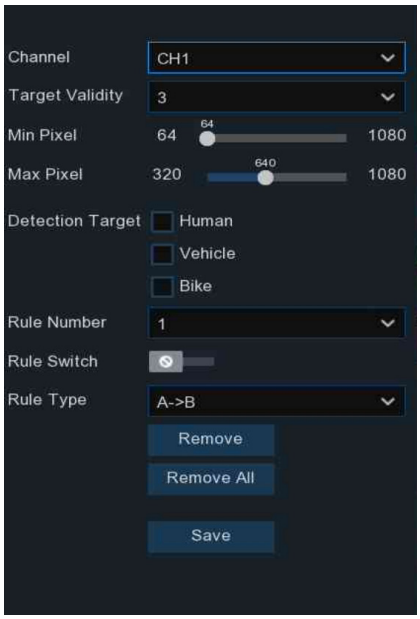
1. *The perimeter should not be positioned too close to the edges or corners of the camera image, as this may prevent detection when a target passes through them.*
2. *The area should not be too narrow or small, as this may prevent detection when a large target passes through the perimeter.*

5.4.1.4 – Line Crossing Detection

The Line Crossing Detection feature detects when people, vehicles or other objects cross a predefined virtual line, and activates specific measures when an alarm is triggered.



Enable: Enable or disable the function.



Sensitivity: Sensitivity levels range from 1 to 4; higher sensitivity will trigger detection more easily.

Setup: Click to configure the detection conditions.

Channel: Select the channel that you want to configure.

Target validity: Set up the target similarity level. There are four levels (1, 2, 3 and 4). The higher the level, the easier the target will be to detect.

Min. Pixels: Set the minimum pixel frame required for recognition. The human and vehicle must be larger than the set number of pixels to be recognised.

Max. Pixels: Set the maximum pixel frame. The human and vehicle must be smaller than the set number of pixels to be recognised.

Detection target: Detection type.

Human: Trigger an alarm when a pedestrian enters the perimeter.
Vehicle: Alarm triggered by motorised vehicle.
Bike: Alarm triggered by a non-motorised vehicle.

Rule number: This is the number of the perimeter intrusion area. You can set a maximum of four areas for the perimeter intrusion function.

Rule Switch: Enable detection in the Rule Switch.

Rule type:

A ► B: The camera will only detect action from side A to side B.

B ► A: The camera will only detect action from side B to side A.

A ◄► B: The camera will detect action from either side B to side A or side A to side B.

Use your mouse to click four points in the camera image to draw a virtual region. The region should be a convex polygon. Concave polygons cannot be saved.
Click 'Save' to save your settings.
If you want to modify the position or range of the rule, click 'Modify'. Click the red box in the line to change its colour to red. Press and hold the left mouse button to move the line, or drag the endpoints to modify its length or position.
To delete a rule from the camera picture, click on the red box in the line and then click on the 'Remove' button. Click on the red box in the line, then click on the 'Remove' button. Clicking on 'Remove All' will delete all the lines.

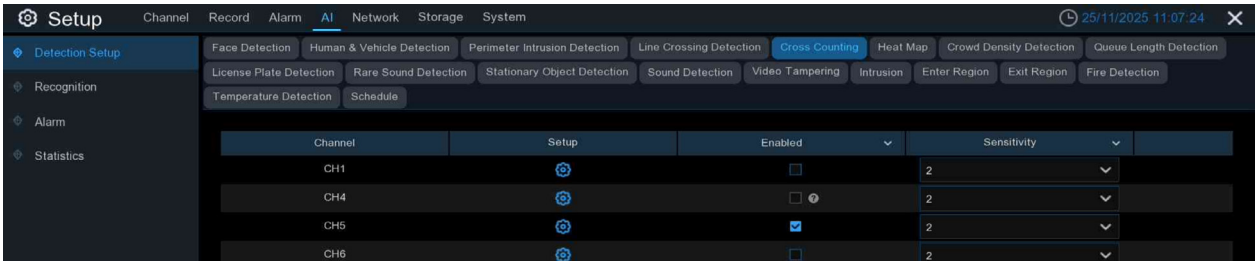
Dynamic Marking: When enabled, the target detection box is displayed on the live screen.

Note!

1. *The perimeter should not be positioned too close to the edges or corners of the camera image, as this may prevent detection when a target passes through them.*
2. *The area should not be too narrow or small, as this may prevent detection when a large target passes through the perimeter.*

5.4.1.5 – Cross Counting

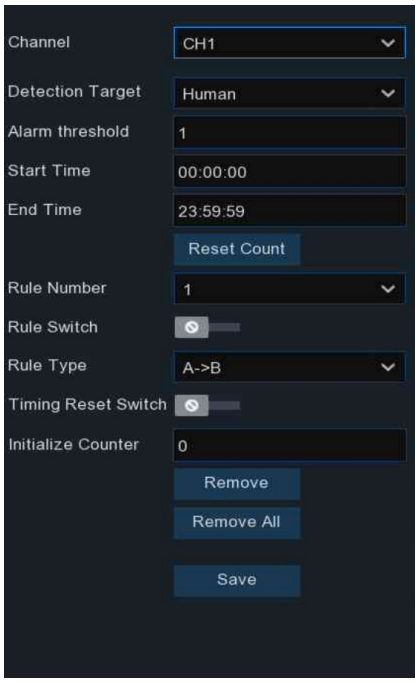
The Cross Counting function counts the number of people, vehicles, bikes or other moving objects that cross the virtual line.



Enable: Enable or disable the function.

Sensitivity: Sensitivity levels range from 1 to 4; higher sensitivity will trigger detection more easily.

Setup: Click to configure the detection conditions.



Channel: Select the channel that you want to configure.

Detection Target:

Motion: All moving subjects will be Counting by the system
Human: Only human beings will be Counting
Vehicle: Only motor Vehicle beings will be Counting
Bike: Only Non-motorized vehicles will be Counting.

Alarm threshold: Set the number of alarms. alarm threshold = (number of cross in) - (number of cross out).

E.g. the number of entries is 601 while the number of exits is 400, and the alarm number you set is 200, 601-400=201>200, then the NVR will send an alert.

Start Time: Set the counting start time.

End Time: Set the end time of counting.

Reset Count: Clear the count to zero and recount.

Rule Number: Select the rule number. The number of virtual lines on which Crossing count can be drawn. Maximum 1 line.

Rule Switch: Enable the detection rule in the rule switch.

Rule type:

A ► B: The NVR will only detect people or objects from side A to side B.

B ► A: The NVR will only detect people or objects from side B to side A.

Use your mouse to click four points in the camera image to draw a virtual region. The region should be a convex polygon. Concave polygons cannot be saved.
Click 'Save' to save your settings.
If you want to modify the position or range of the rule, click 'Modify'. Click the red box in the line to change its colour to red. Press and hold the left mouse button to move the line, or drag the endpoints to modify its length or position.
To delete a rule from the camera picture, click on the red box in the line and then click on the 'Remove' button. Click on the red box in the line, then click on the 'Remove' button. Clicking on 'Remove All' will delete all the lines.

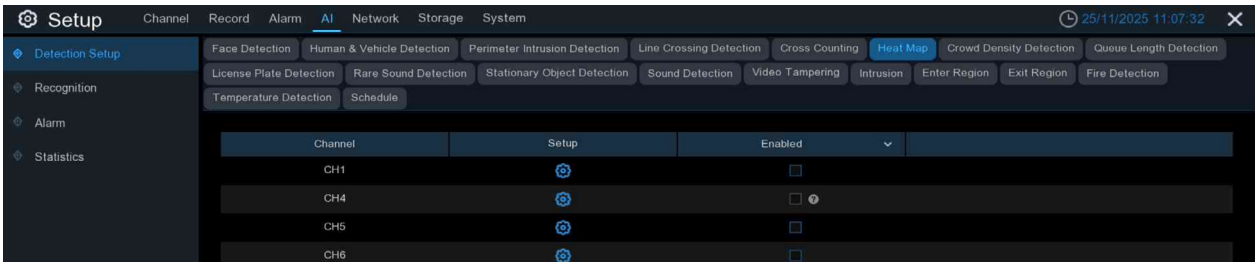
Dynamic Marking: When enabled, the target detection box is displayed on the live screen.

Note!

1. *The rule line should not be positioned too close to the edge of the camera's field of vision, to ensure that an alarm is triggered if the target crosses the line.*
2. *The rule line should be located in an area that is accessible to the detected object.*
3. *The rule line should not be set too short, otherwise the alarm will be triggered when the target crosses the line.*

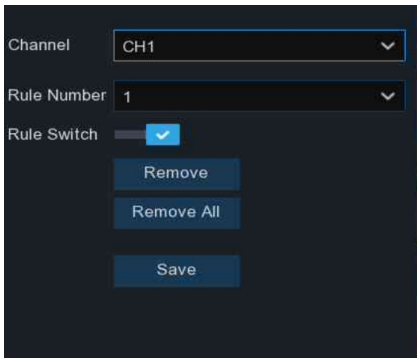
5.4.1.6 – Heat Map

The heat map is a graphical representation of the areas of the page that visitors are passionate about, as well as the geographic areas where they are located. It is presented in a specially highlighted format and shows which areas of the screen are attracting the majority of visitors.



Enable: Enable or disable the function.

Setup: Click to configure the detection.



Channel: Select the channel that you want to configure.

Rule number: Select the rule number. The heat map function can only be set for one area.

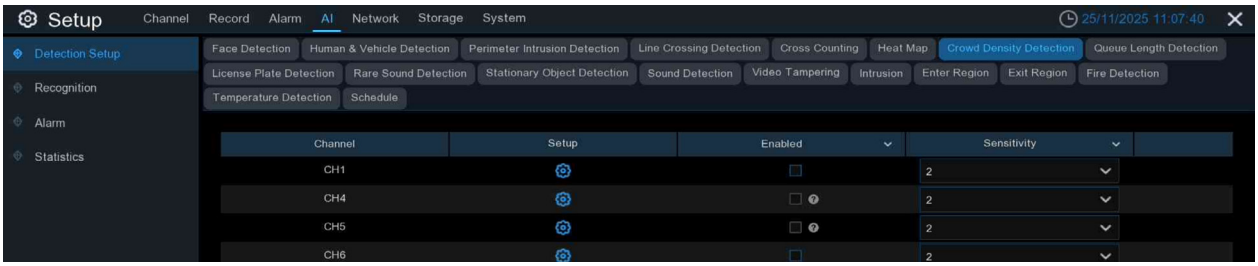
Rule Switch: Enable detection in the 'Rule Switch'.

Remove: Tick the detection area box and click Remove to delete it.

Remove All: Click 'Remove All' to remove the detection box.

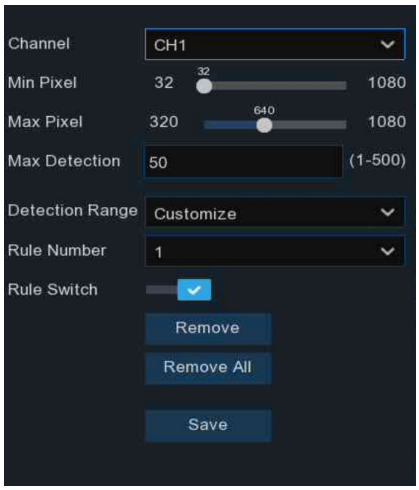
5.4.1.7 – Crowd Density Detection

Crowd density detection is based on face detection technology, which is used to identify areas where crowds are gathering in order to maintain controllable order. When the total number of people detected in an area exceeds the permitted number, the system will send an alert.



Enable: Enable or disable the function.

Sensitivity: Sensitivity levels range from 1 to 4; higher sensitivity will trigger detection more easily.



Setup: Click to configure the detection.

Channel: Select the channel that you want to configure.

Min. Pixel: Set the minimum recognised pixel size. The pedestrian must be larger than this to be recognised.

Max. Pixel: Set the maximum pixel frame to be recognised. The pedestrian must be smaller than the set pixel to be recognised.

Max detection: If the number of people in the detection area exceeds the maximum capacity, the NVR will sound an alarm.

Detection range: Set to Full Screen or User-defined.

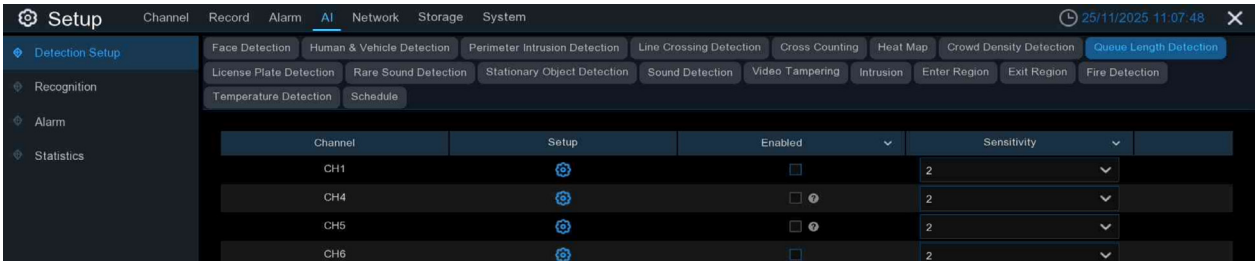
If you select 'User-defined', , you will need to click on eight points in the camera image with the mouse to draw a virtual area.

Rule number: Select the rule number. The Crowd Density function can only be set for one area.

Rule Switch: Enable detection in Rule Switch.
Click Save to save the settings.
Click the red box to change the position or sharpness. Hold down the left mouse button to move the region, or drag the corner points to resize.
To remove a region from the camera picture, click the red box in the region and then click Remove.
Clicking 'Remove All' will remove all areas.

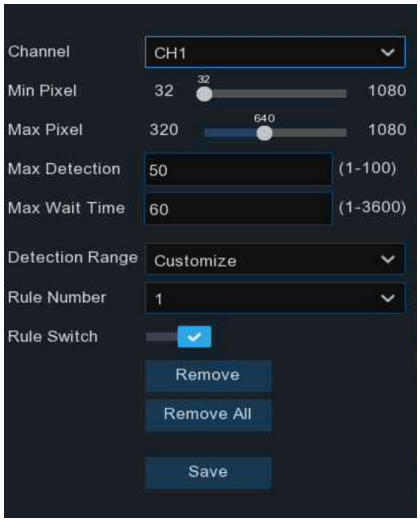
5.4.1.8 – Queue Length Detection

Queue length detection is used to determine the status of the queue, including its length and how long it has been stalled for.



Enable: Enable or disable the function.

Sensitivity: Sensitivity levels range from 1 to 4; higher sensitivity will trigger detection more easily.



Setup: Click to configure the detection.

Channel: Select the channel that you want to configure.

Min. Pixel: Set the minimum recognised pixel frame. The pedestrian must be larger than this to be recognised.

Max. Pixel: Set the maximum pixel frame to be recognised. The pedestrian must be smaller than the set pixel size to be recognised.

Max detection: If the number of people in the queue in the detection area exceeds the maximum number of detectors, the NVR will trigger an alarm.

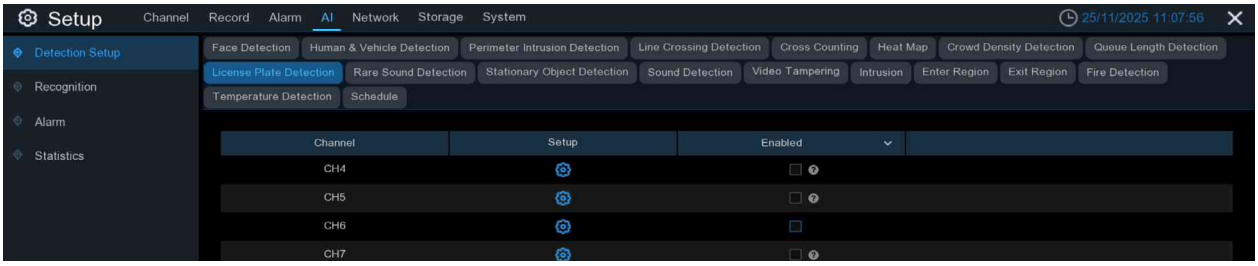
Detection range: Set the detection range to Full Screen or User-defined.
If you select 'User-defined', , you will need to click on eight points in the camera image with the mouse to draw a virtual area.

Rule number: Select the rule number. The Queue Length function can only be set for one area.
Click Save to save the settings.

Rule Switch: Enable detection in Rule Switch.
Click the red box to change the position or sharpness. Hold down the left mouse button to move the region, or drag the corner points to resize.
To remove a region from the camera picture, click the red box in the region and then click Remove.
Clicking 'Remove All' will remove all areas.

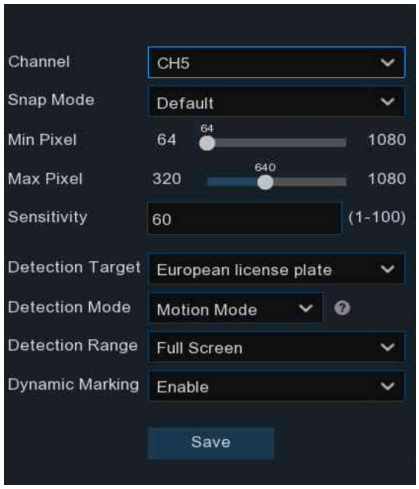
5.4.1.9 – License Plate Detection

The licence plate detection function detects the licence plates of passing vehicles. It identifies whether the vehicle is unfamiliar or has been entered into the database. It can also back up unfamiliar vehicle licence plate information to the database and provide access to licence plate detection alarm information for video playback. Currently, licence plate detection only supports European and American licence plates.



Enable: Enable or disable the function.

Setup: Click to configure the detection.



Snapshot mode: There is a default mode which selects the best quality image from the moment the vehicle's licence plate appears until it disappears. There is also a real-time mode (push once when the licence plate appears and again when it disappears) and an interval mode (customise the number of captures and the time interval between them).

Snap Num: In Interval Mode, set the number of licence plate captures to be pushed.

Snapshot frequency: In Interval mode, set the frequency of licence plate snapshots.

Min pixel: The licence plate must be larger than the set minimum pixel size to be recognised.

Max pixel: Maximum pixel frame: the licence plate must be smaller than the set maximum pixel size in order to be recognised.

Sensitivity: The larger the value, the easier it is to detect the target.

Detection target: The type of licence plate to be detected. There are two types, as shown below:

European licence plate: European licence plate.

American licence plate: American licence plate.

Detection mode: Licence plate detection mode. There are two types, as described below.

Static mode: Detects static licence plates and moving vehicles on the screen.

Motion Mode: Only detects licence plates during motion.

Detection area: Set the area for licence plate detection. There are two types:

Full screen: full screen detection.

User-defined: customise the detection area.

Licence Plate Enhance: Enable or disable licence plate enhancement.

Day level: Apply to full colour scenes. The higher the value, the brighter the screen; the lower the value, the darker the screen. The value can be set from 0 to 255.

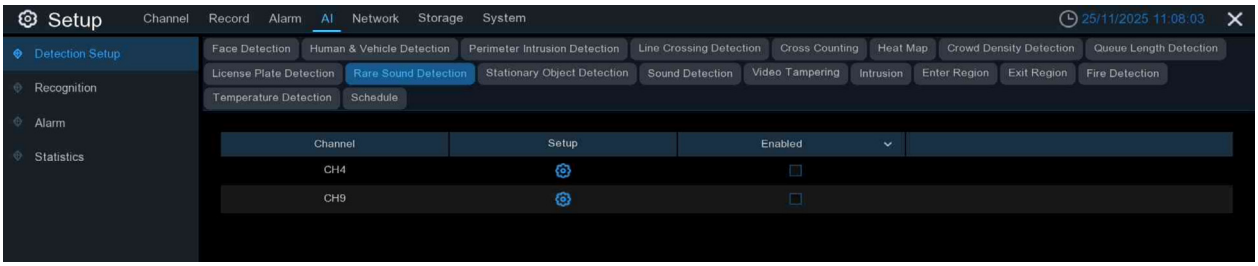
Night level: Apply to black and white scenes. The higher the value, the brighter the picture; the lower the value, the darker the picture. The value can be set in the range of 0-255.

Note!

When the LPD function is enabled and License Plate Enhance is also enabled, the brightness of the camera image can be adjusted in accordance with the configured level value. Meanwhile, the device automatically adjusts its daytime or nighttime level according to whether the camera is enabled with IR mode. The two application scenarios are independent of each other.
To use the licence plate enhancement feature, set Exposure Compensation to Disable and set Shutter to Auto on the image control page. Once License Plate Enhance is enabled, Time Exposure cannot be modified.

5.4.1.10 – Rare Sound Detection

The Rare Sound Detection function will alert you when your NVR detects unusual sounds, such as a baby crying, a dog barking or a gunshot. You can then take certain actions when the alarm is triggered.



Enable: Enable or disable the function.

Setup: Click to configure the detection.

Channel: Select an available channel to configure.

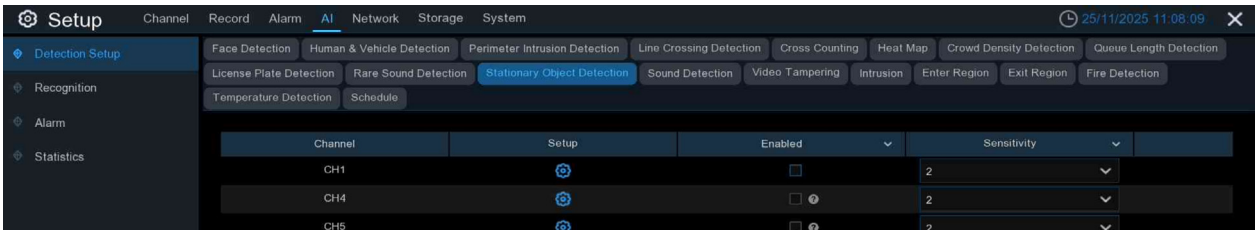
Sensitivity: The minimum and maximum default values are 1 and 100, respectively.

Detection target:

Baby Crying: Tick the box to detect the sound of a baby crying.
Dog Barking: Check the box to detect dog barking.
Gunshot: Check the box to detect gunshots.

5.4.1.11 – Stationary Object Detection

The Stationary Object function detects objects that have been left or lost in a predefined area. These objects could be baggage, purses or dangerous materials. A series of actions can be taken when an alarm is triggered.



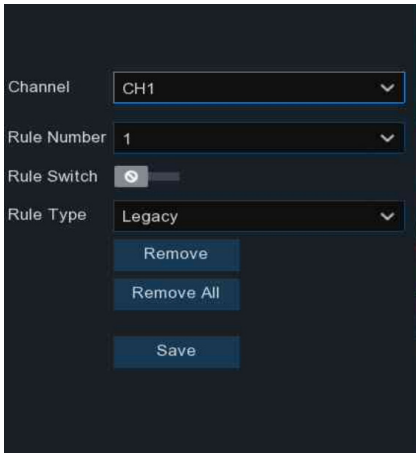
Enable: Enable or disable the function.

Sensitivity: The parameter range is 1–4, with a default value of 2. A higher sensitivity will trigger detection more easily. However, the more false detections there are, the more leakage there will be, so it is recommended to keep the default value.

Setup: Click to configure the detection.

Channel: Select an available channel to configure.

Rule number: You can set up to four rules. Draw the rule area on the map and tap the first rule. The rule switch and rule type of each rule are independent and need to be turned on, off or set separately.



Rule switch: Enable detection in the Rule Switch.

Rule Type: Select the rule type.

Legacy: The NVR will only detect items that are left behind.

Lost: The NVR will only detect lost items.

'Lost and legacy': the NVR will detect both lost and legacy items.

Click on the four points in the camera picture with the mouse to draw a virtual region. These areas should form convex polygons. Concave polygons will not be saved.

Dynamic Marking: When enabled, the target detection box is displayed on the live screen.
Click 'Save' to save your settings.
Click the red box to change the position or sharpness. Hold down the left mouse button to move the region, or drag the corner points to resize.

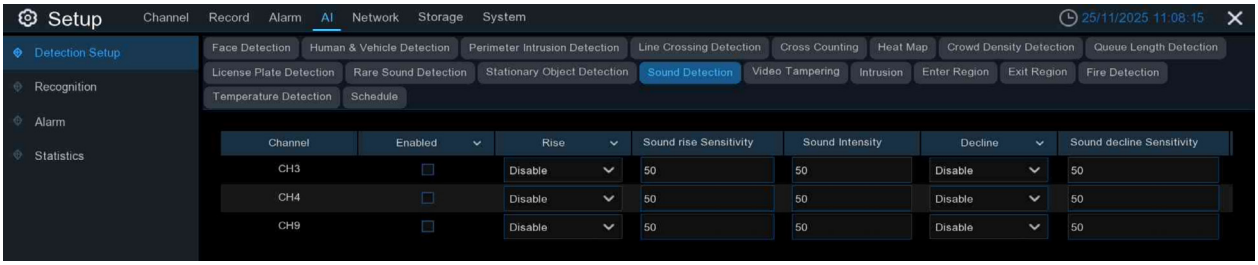
To remove a region from the camera image, click the red box in the region and then click the Remove button. Click 'Remove All' to delete all regions.

Note!

1. *The detection area should be the same size as, or larger than, the object being detected, e.g. a blue bottle.*
2. *The object being detected should not be obscured.*

5.4.1.12 – Sound Detection

The alarm can be triggered by an increase or decrease in sound level, and certain actions are performed when the alarm is triggered.



Enabled: Enable or disable sound detection.

Rise: Enable or disable sound rise detection.

Sound Rise Sensitivity: Set the sensitivity of the sound rise. Sensitivity can be set to a value between 1 and 100; the larger the value, the higher the sensitivity of the sound rise.

Volume intensity: Set the intensity of the triggered sound alarm from 1 to 100.

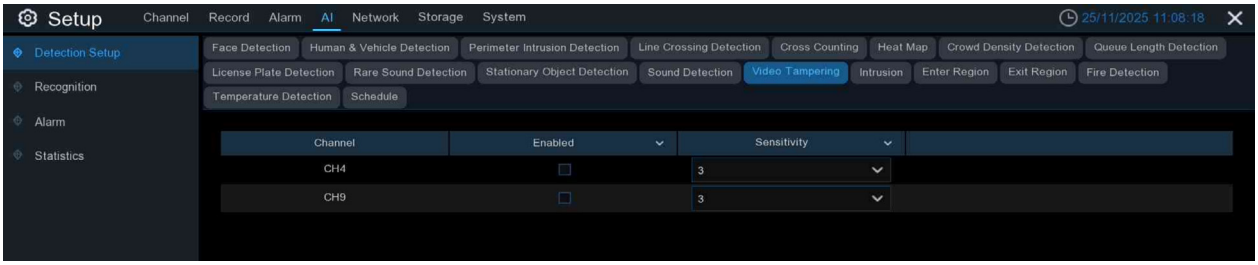
Sound intensity: Enable or disable sound intensity.

Sound decline sensitivity: Set the sensitivity of the sound decline. The sensitivity can be set from 1-100; the larger the value, the higher the sensitivity of the sound decline.

Schedule: Set the time schedule for sound detection. The default is to have it on all the time, but the user can customise the time period for the sound alarm.
Click the 'Alarm' button to configure the sound alarm function.

5.4.1.13 – Video Tampering

Video tampering detects when camera images are obstructed, and certain actions can be taken when the alarm is triggered.

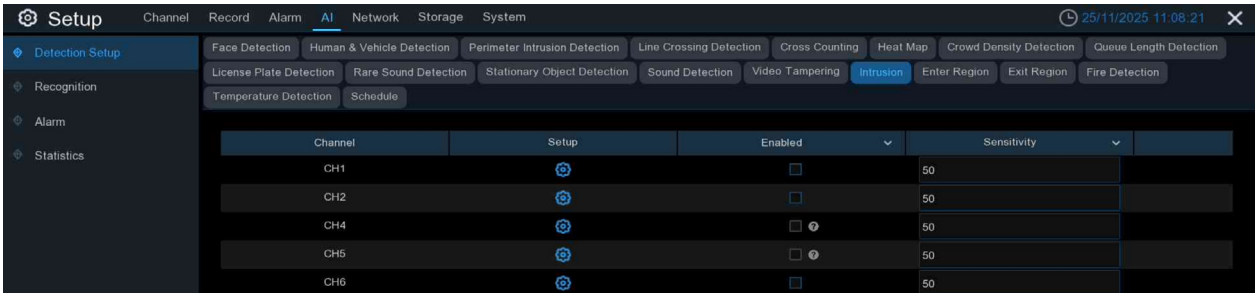


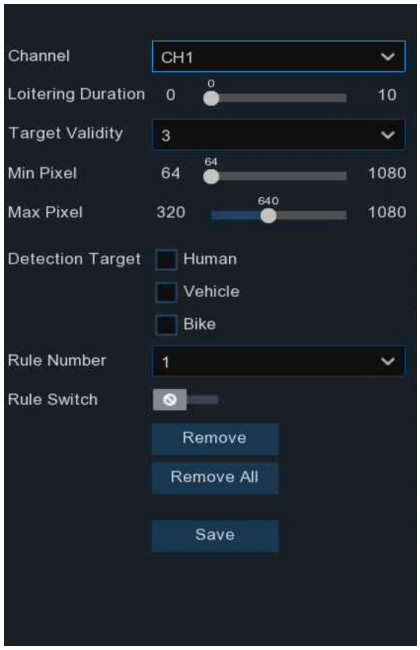
Enable: Enable or disable the function.

Sensitivity: The sensitivity level ranges from 1 to 6, with a default value of 4; higher sensitivity makes it easier to trigger detection.
Click the 'Alarm' button to configure the video tampering function.

5.4.1.14 – Intrusion

Intrusion detection can identify objects in the video that invade the restricted area. The linkage alarm is triggered according to the judgement result.





Loitering duration: This indicates that the target has entered the alert area and is staying there for a period of time before an alarm is triggered. For example, if it is set to 5 seconds, the alarm will be triggered immediately after the target enters the area for 5 seconds, and the maximum duration can be set to 10 seconds.

Target validity: The degree of similarity between the detected target and the set detection type. The alarm is triggered only when the set similarity level is reached or exceeded. The higher the setting level, the higher the similarity requirement and the more obvious the desired target characteristics, resulting in higher alarm accuracy. Levels can be set from 1 to 4:

- 1 represents a similarity of 80% or more
- 2 represents a similarity of 60% or more
- 3 represents a similarity of 40% or more
- 4 represents a similarity of 20% or more

Min. Pixel: This sets the minimum recognised pixel. The target must be larger than the set pixel size to be recognised.

Max. Pixel: Sets the maximum recognised pixel. The target must be smaller than the set pixels to be recognised.

Sensitivity: This is the sensitivity setting for triggering area intrusion detection; the higher the setting, the easier it is to trigger the alarm.

Detection target: Setting the detection type.

Human: Only intruding pedestrians are detected.
Vehicle: Only intruding motorised vehicles are detected.
Bike: Only non-motorised vehicles are detected.

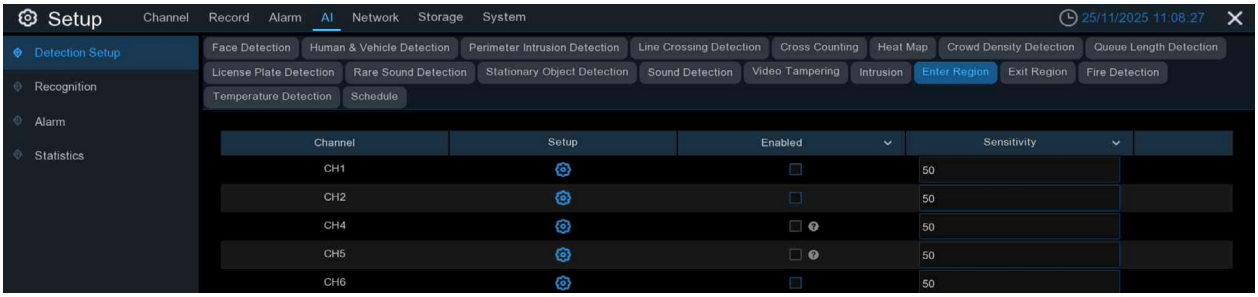
Rule number: Select the rule number and click the left mouse button on the right-hand preview screen to draw the detection area connected to the first and last endpoints. Then click 'Save' to complete the area drawing. To clear the warning area, click 'Remove' to delete the selected area or 'Remove All' to delete all areas.

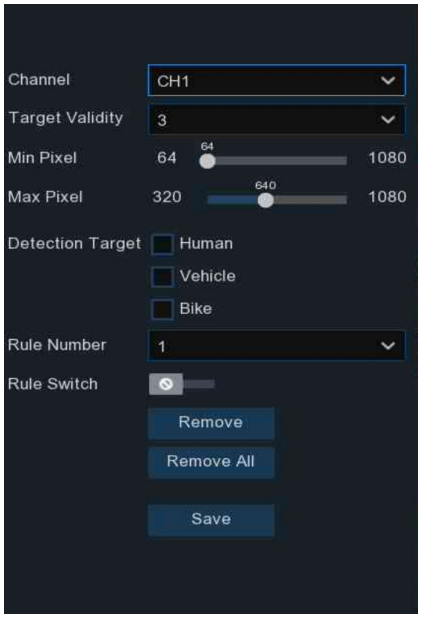
Rule Switch: Enable detection in Rule Switch.

Dynamic Marking: When enabled, the target detection box is displayed on the live screen.

5.4.1.15 – Enter Region

The Enter Region function can detect when an object enters the set warning area and trigger an alarm based on the judgement result. The specific setting steps are shown in the picture below.





Target validity: The degree of similarity between the detection target and the specified detection type. An alarm is triggered only when the set similarity level is reached or exceeded. The higher the setting level, the higher the similarity requirement and the more obvious the desired target characteristics, resulting in higher alarm accuracy. Levels can be set from 1 to 4:

- 1 represents a similarity of 80% or more
- 2 represents a similarity of 60% or more
- 3 represents a similarity of 40% or more
- 4 represents a similarity of 20% or more

Min. Pixel: This sets the minimum recognised pixel. The target must be larger than the set pixel size in order to be recognised.

Max. Pixel: Sets the maximum recognised pixel. The target must be smaller than the set pixels to be recognised.

Sensitivity: This is the sensitivity setting for triggering area enter region detection. The higher the sensitivity setting, the easier it is to trigger the alarm.

Detection target: Setting the detection type.

Human: Only enter region pedestrians are detected.
Vehicle: Only motorised vehicles entering the region are detected.
Bike: Only non-motorised vehicles entering the region are detected.

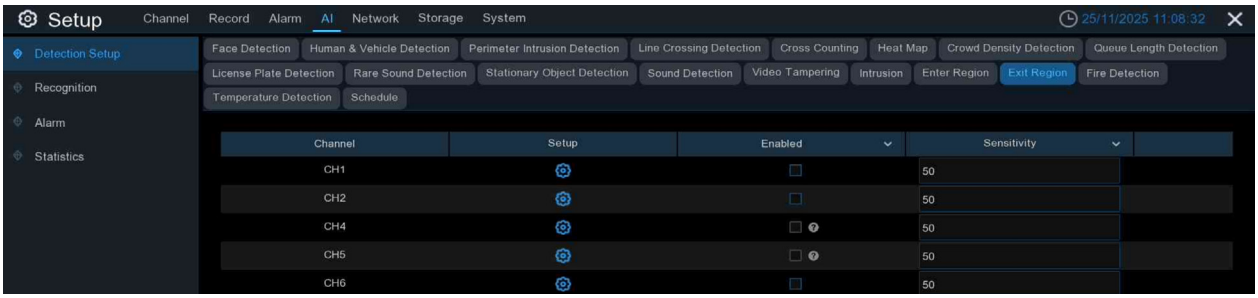
Rule number: Select the rule number and click the left mouse button on the right-hand preview screen to draw the detection area connected to the first and last endpoints. Then click 'Save' to complete the area drawing. To clear the warning area, click 'Remove' to delete the selected area or 'Remove All' to delete all areas.

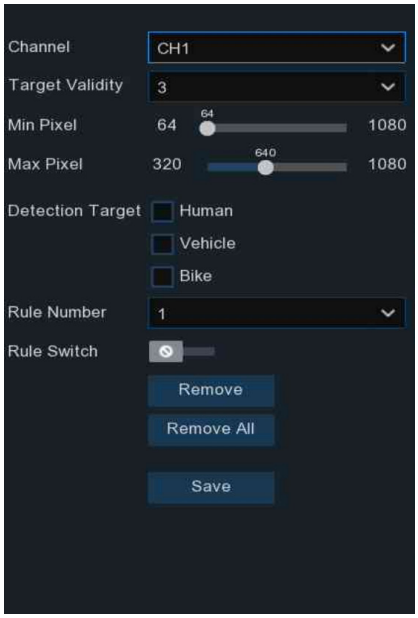
Rule Switch: Enable detection in Rule Switch.

Dynamic Marking: When enabled, the target detection box is displayed on the live screen.

5.4.1.16 – Exit Region

The leave area detection function determines whether an object has exited the designated warning area. According to the judgement result, the alarm is triggered. The specific setup steps are shown in the picture below.





Target validity: The degree of similarity between the detection target and the set detection type. An alarm is triggered only when the set similarity level is reached or exceeded. The higher the setting level, the higher the similarity requirement and the more obvious the desired target characteristics, resulting in higher alarm accuracy. Levels can be set from 1 to 4:

- 1 represents a similarity of 80% or more
- 2 represents a similarity of 60% or more
- 3 represents a similarity of 40% or more
- 4 represents a similarity of 20% or more

Min. Pixel: This sets the minimum recognised pixel. The target must be larger than the set pixel size in order to be recognised.

Max. Pixel: Sets the maximum recognised pixel. The target must be smaller than the set pixel to be recognised.

Sensitivity: The higher the sensitivity setting for triggering area exit region detection, the easier it is to trigger the alarm.

Detection target: Setting the detection type.

Human: Only pedestrians exiting the region are detected.
Vehicle: Only motorised vehicles exiting the region are detected.
Bike: Only non-motorised vehicles exiting the region are detected.

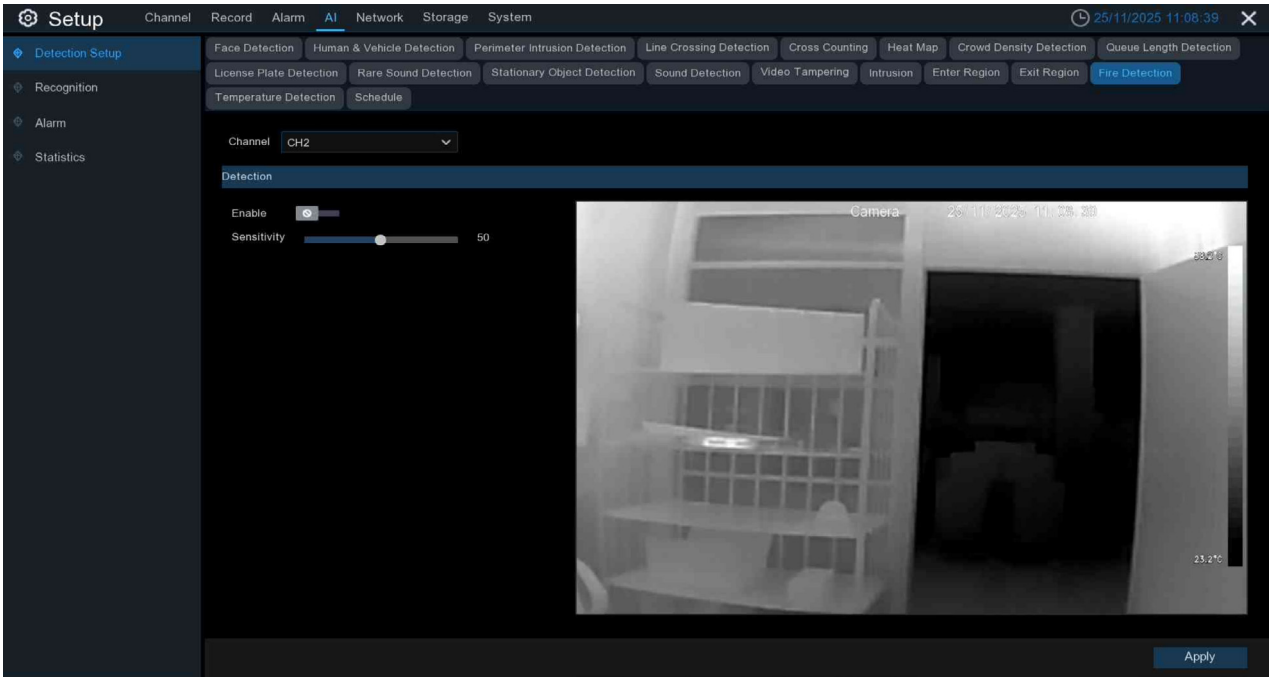
Rule number: Select the rule number and click the left mouse button on the right-hand preview screen to draw the detection area connected to the first and last endpoints. Then click 'Save' to complete the area drawing. To clear the warning area, click 'Remove' to delete the selected area or 'Remove All' to delete all areas.

Rule Switch: Enable detection in Rule Switch.

Dynamic Marking: When enabled, the target detection box is displayed on the live screen.

5.4.1.17 – Fire Detection

To minimise fire safety hazards, a fire detection function is provided in areas where such hazards may exist.



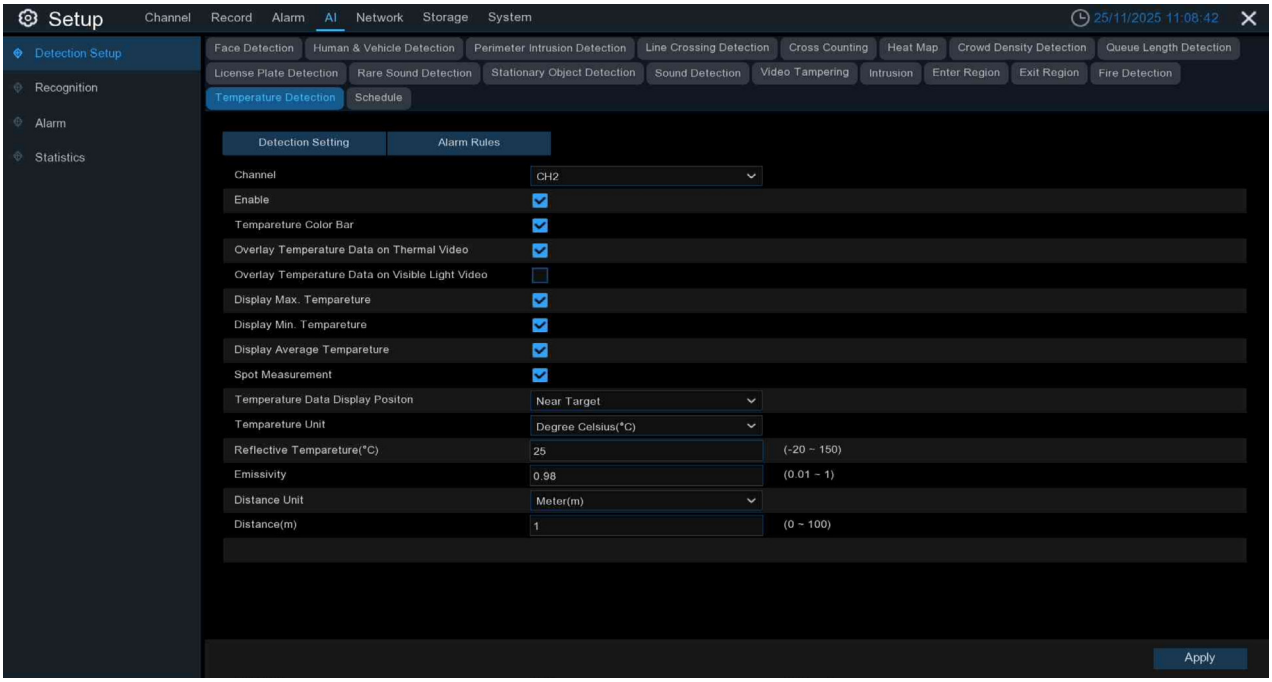
Enable: Enable or disable fire detection.

Sensitivity: Set the sensitivity of the fire detection system. The lower the sensitivity, the higher the temperature at which the fire alarm will be triggered. The higher the sensitivity, the lower the triggering temperature.

5.4.1.18 – Temperature Measurement

This is used for real-time temperature monitoring at the monitoring location. When the temperature exceeds the alarm threshold, the alarm is triggered and the linkage is executed.

Detection Setting



Enable: This enables or disables the temperature measurement function.

Temperature colour bar: When turned on. A colour bar representing the different temperatures will be displayed on the right side of the thermal imaging channel preview screen. The maximum and minimum temperatures are also displayed.

Display temperature info on stream: When turned on. This displays the temperature measurement area and the monitored temperature on the thermal channel preview screen.

Display temperature info on the optical channel: When this is turned on, the temperature measurement area and the monitored temperature will be synchronised on the optical channel preview screen.

Display max. Temperature: When this is turned on, the maximum monitored temperature is displayed on the preview screen. The switch needs to be turned on first to display temperature information.

Display Min. Temperature: When activated, the minimum monitored temperature is displayed on the preview screen. This displays the minimum monitored temperature on the preview screen. You need to turn on the switch for displaying temperature information first.

Display average temperature: When activated. It will display the monitored average temperature in the preview screen. You need to turn on the temperature information display switch first.

Note!

A temperature measurement area defined by a single point will only display the average temperature at that point. The maximum and minimum temperatures will not be displayed.

Spot measurement: when turned on. In the thermal imaging channel preview screen. Click on any area with the left mouse button to perform a single-point measurement.

Position of thermometry info: You can set the position of the temperature information displayed in the preview screen.

Near Target: Temperature information is displayed next to the rules for each monitoring area.

Top left: temperature information is displayed uniformly in the top left corner of the preview screen.

Temperature unit: Select the unit in which temperature information is displayed, including Celsius, Fahrenheit and Kelvin.

Reflective temperature: This sets the ambient temperature of the camera.

Note!

Reflected temperature is the ambient temperature that is reflected from the surface of an object. When thermal radiation is reflected from an object's surface, the ambient temperature affects it. The reflected temperature is the temperature of the reflected thermal radiation. Reflected temperature enables a thermal imaging camera to accurately measure the surface temperature of an object. In thermal radiation measurement, the infrared radiation received by the camera includes radiation emitted by the object itself and radiation reflected from the environment. By measuring the ambient temperature, it is possible to distinguish between the thermal radiation emitted by the object and that reflected from the environment. Consequently, the surface temperature of the object can be accurately calculated.

Emissivity: Each target has a corresponding emissivity. This value is fixed from rough to smooth surfaces. The emissivity is fixed from rough to smooth surfaces. Set the appropriate emissivity according to the type of temperature target to be measured. (Refer to the table of emissivities of common substances.)

Substance	Emissivity
Human skin	0.98
Cotton fabric	0.98
Water	0.96
Asphalt	0.96
Concrete	0.95
Brick	0.95
Rubber	0.95
Paint	0.93
Ceramics	0.92
Soil	0.92
Printed circuit board	0.91
Paper	0.90
Cardboard	0.90
Sand	0.90
Wood	0.85

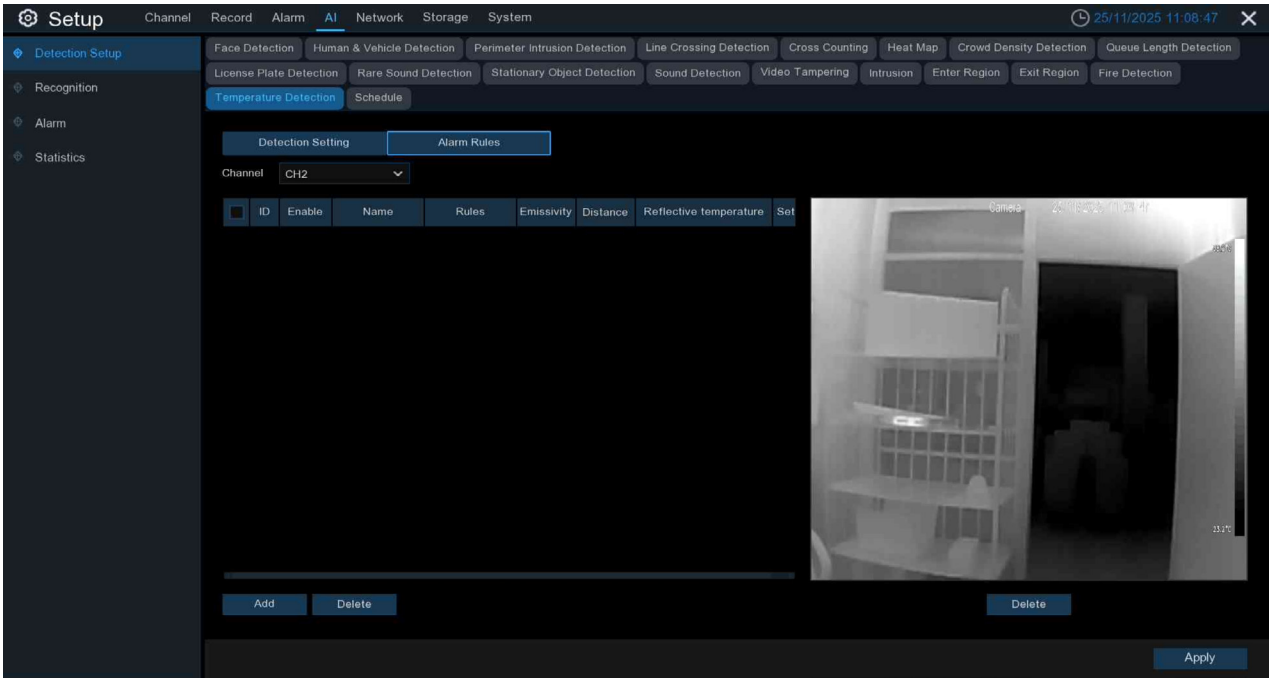
Note!

Emissivity is the ability of an object's surface to emit infrared radiation. It affects the accuracy with which a thermal imaging camera can measure the surface temperature of an object. Different emissivity means that objects reflect and absorb infrared radiation to different degrees, which can lead to measurement results being inaccurate.

Distance unit: Includes both metric and imperial options.

Distance: This indicates the straight-line distance between the target and the device. This should be set according to the actual situation.

Alarm Rules



ID: Click 'Add' to create a temperature rule. You can add a maximum of 20 rules.

Enable: Select a temperature rule and enable it by clicking 'Enable'.

Name: Customise the name of the rule.

Rules: Select the temperature rules. In the right configuration screen, draw the rules and determine the temperature measurement location, including points, lines and areas. Click 'Delete' to delete the drawn temperature measurement rules after checking them.

Point: Click anywhere on the right-hand screen. This indicates that the selected point will be measured for temperature. The preview screen will show the rule and the average temperature of the point.

Line: Click anywhere on the right-hand side of the configuration screen. Hold down the mouse button and drag to another location to draw a temperature measurement line. This indicates that the temperature will be measured at the location on the line where the line is drawn. Click on the rule line's checkbox to adjust its length, angle and position. The preview screen will show the rule and temperature information for the temperature measurement line segment.

Area: Click anywhere on the configuration screen on the right. Hold down the mouse button and drag to another location to draw a quadrilateral temperature measurement area. This indicates that the area is to be temperature-measured. Click the rule area's checkbox to adjust its size and position. The preview screen will then display the rule and temperature information for this temperature measurement region.

Emissivity: Set the emissivity according to the type of target being measured.

Distance: Set the distance between the target and the device.

Reflective temperature: Set the ambient temperature of the camera.

Setup: Click to access the Alarm Rule Setup page, where you can configure an alarm rule for each temperature measurement.
Check the temperature rule and click 'Delete' to remove it.

Alarm rules: There are several alarm rules:

Above (Maximum Temperature),
Below (Maximum Temperature),
Above (Minimum Temperature),
Below (Minimum Temperature),
Above (Average Temperature),
Below (Average Temperature),
Above (Temperature Difference),
Below (Temperature Difference).

The only alarm rules for the point temperature rule are above and below average temperature.

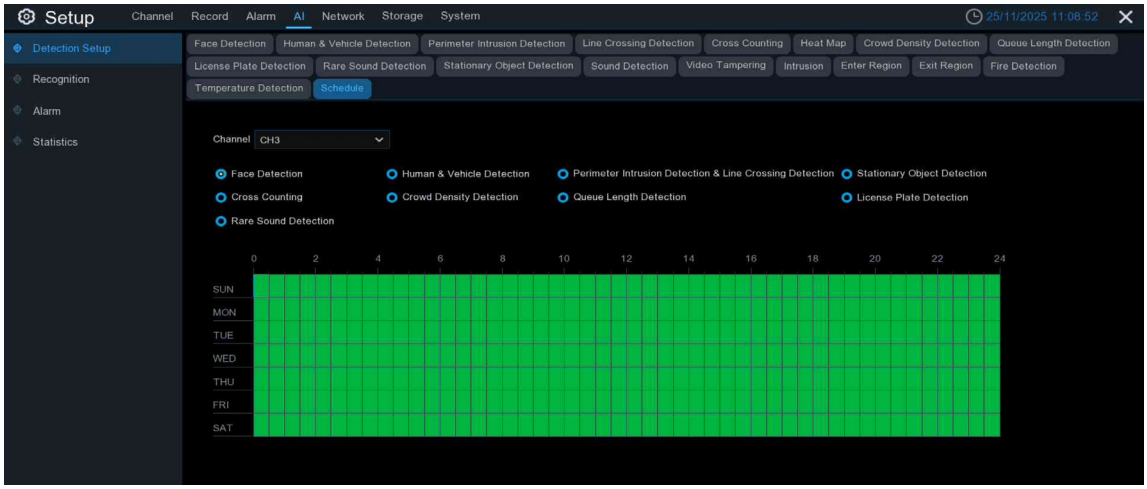
Alarm temperature: Set the temperature threshold for the alarm.

Duration Time: It indicates the time for which the temperature of the measured object exceeds the temperature threshold. If this time is exceeded, the alarm will be triggered.

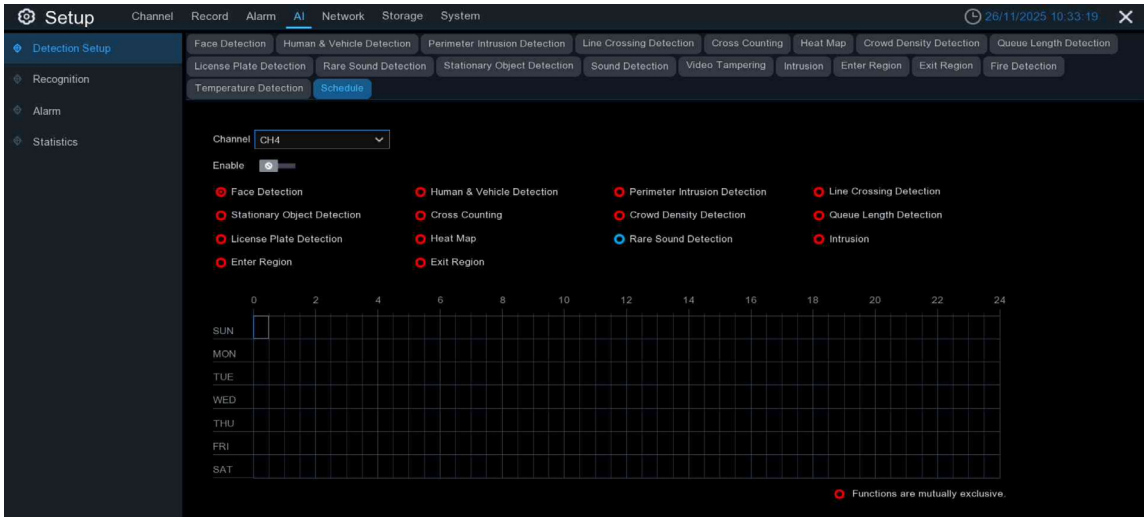
Tolerance Temperature: It prevents the temperature from oscillating back and forth, which could affect the alarm.
For example, the alarm rule selects an average temperature that is greater than the threshold. The alarm temperature is set to 40°C. The duration is set to 3 seconds and the tolerance temperature to 3°C. The duration is set to 3 seconds and the tolerance temperature to 3°C. The alarm is triggered when the average temperature of the monitored area exceeds 40°C for more than 3 seconds. The alarm is cancelled only when the average temperature of the monitored area is less than or equal to 37°C.

5.4.1.19 – Schedule

When the IPC is connected to the NVR via the media port, the schedule appears as shown in the picture below.



This sets the schedule for triggering alarms for each AI function. Ticking the box turns the alarm on and unticking it turns the alarm off.
When the IPC connects to the NVR via the HTTP port, the schedule is as follows:



Set the schedule for triggering alarms for each AI function to be turned on. Checked is on, unchecked is off, and grayed out is not settable.

Enable: When enabled, all of the channel's AI functions will be controlled by the schedule and the function switch will display 'Schedule'.

Functions are mutually exclusive: This shows functions that are mutually exclusive with the selected function.

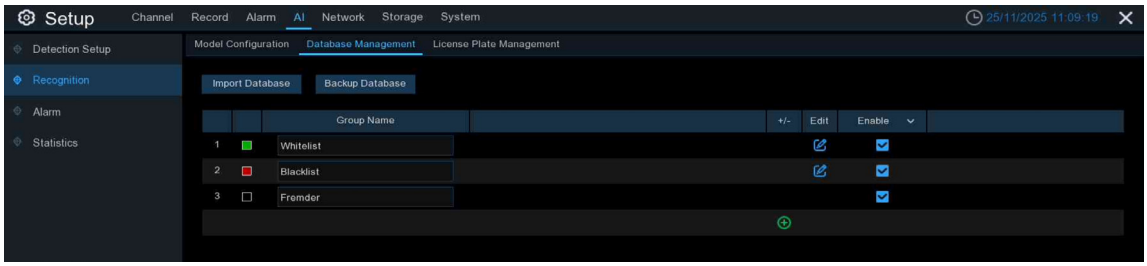
5.4.2 – AI Recognition

5.4.2.1 – Model Configuration

Select an algorithm model from this menu. There are local and IPC algorithm models. Some devices do not have a local algorithm model and therefore need to be connected to an IPC with an algorithm model in order to use the corresponding functions.

5.4.2.2 – Face Database Management

This menu is used to set up the database for face recognition comparisons.



Import database: This allows you to import exported face data to this device.

Backup Database: Exports the face database to a USB flash drive.

Update face features: When the IPC recognises a face after the face feature model has been switched or a face image or face library has been imported from an external file and detects that the face features of the face image in the face library are inconsistent with the currently selected face feature model, a prompt will pop up to update the face features. Click 'Update Face Features' and the above figure will be displayed.

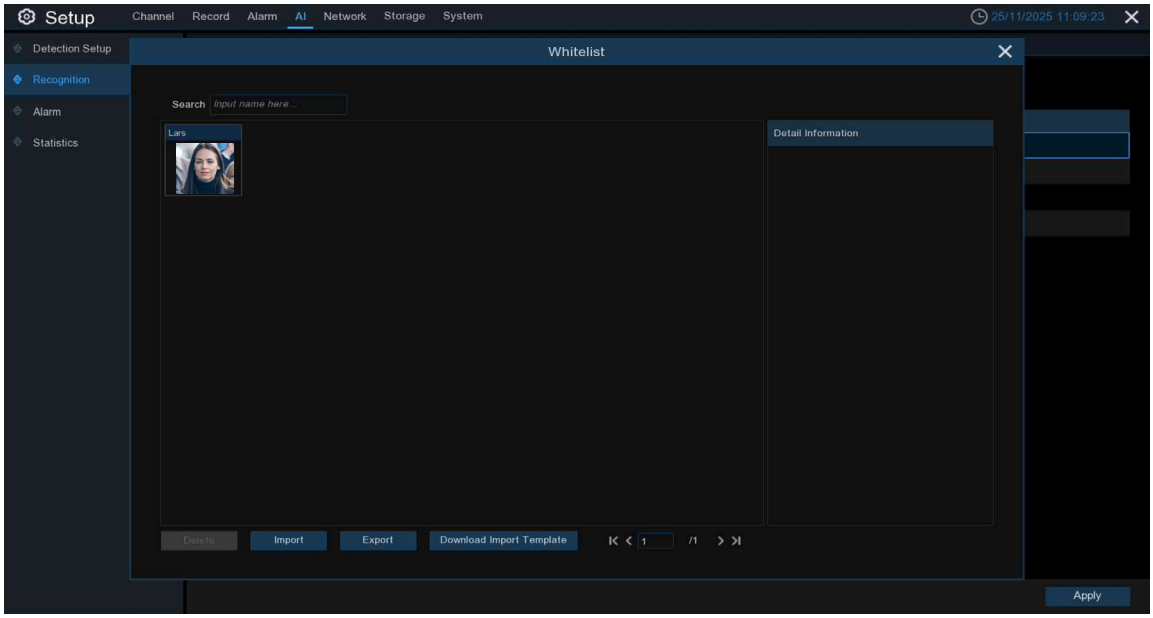
Clicking Cancel will prompt you to confirm whether to continue or abort the update. The next time you click on it, you will be able to update the remaining ones that have not been updated.

+/-: Click to add a new face group or delete an existing one. Note that the first three face groups cannot be deleted.

Enable: You can enable or disable a face group.

Edit: Click to enter the Edit Face Group interface.

Import: Click and select Local Storage Device to enter the Add Local Face screen.



Select the date and duration, then tap 'Search' to search through all the saved faces on the device within that time frame. Alternatively, if you select a face, set the similarity, and then tap Search, it will search for faces that match the selected face's similarity. Selecting a face in the search area and clicking 'Delete' will remove it from the search area. Select a face and click OK to access the face information interface.

You can edit the face information on the right. After editing, click 'Import' to finish importing or 'Exit' to exit the interface.

Click 'External Storage Device', then select the face picture you want to import from the external storage device. These steps are the same as for importing local faces.

Export: Export face pictures to external memory. If you do not click on a face group, click 'Export' to export all the faces in that group. If you click on a face in a face group, click 'Export' to export the selected faces.

Download Import Template: Export a template to external memory. This template can contain a form and instructions. You can fill in the information about the face picture in this form. Import this form to modify the information about several face pictures. It is convenient for modifying the information about face pictures.
Right-click and select the face image. Select Edit to enter the face image editing interface. Click Additional Face Image to import the face image in different situations.

5.4.2.3 – License Plate Management

This menu is used to set up the database for comparing detected licence plate information.

Import database: You can import exported group data to this device.

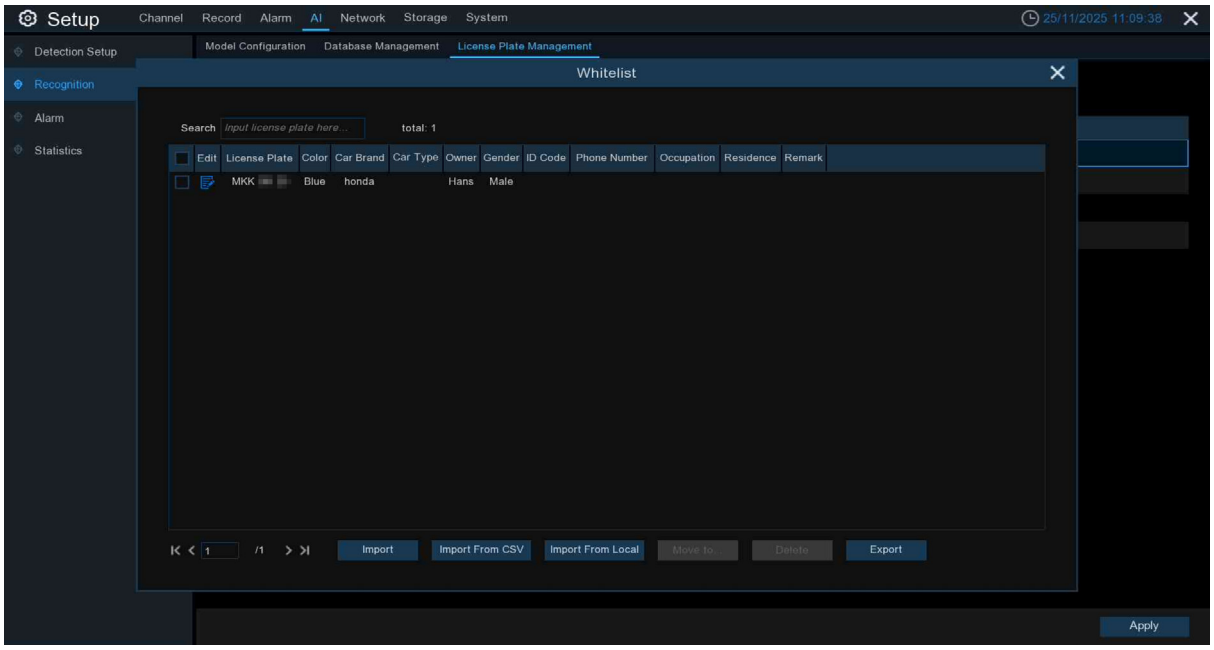
Back up database: All the groups can be exported to a USB flash drive.

Group Name: This is the name of the database group. It can mean white list, black list or strangers list. At the same time, you can add up to 61 customised groups, for a total of 64 groups. Each group can hold up to 5,000 licence plate details, and the whole database can hold 10,000 licence plate details.

+/-: Click to add a new licence plate group or delete an existing one. (The first three licence plate groups that come with the default cannot be deleted).

Edit: Click to enter the licence plate group editing interface.

Enable: Enable or disable the licence plate group.



Search: Filter licence plates by keyword.

Total: The total number of licence plate records in the group.

Click to modify the corresponding licence plate data. There are three ways to add licence plate information:

- Import (manual)
- Import from CSV (CSV table import)
- Import from Local (local import).

Click the Import button to add a single licence plate message manually.
Click the Export button to export the entire group of data to an external USB drive.

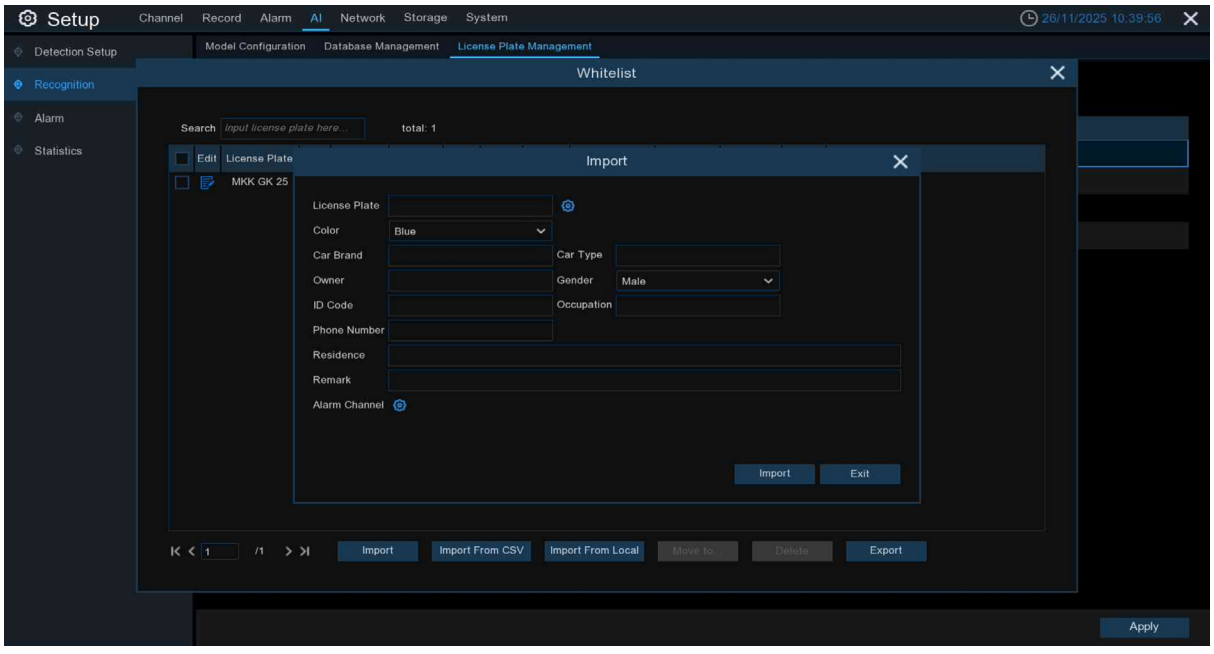
Alarm Channel: Set this channel to trigger an alarm when the licence plate is detected and verified.

Move to...: Tick the box next to the licence plate information and click the button to move the licence plate information to other groups.

Delete: Tick the box next to the licence plate information and click this button to delete it.

Click the Import From CSV button to import single or multiple data into the CSV table.

Click the 'Import from CSV' button to open the interface. Select the licence plate file that needs to be imported as a CSV file and click the 'OK' button. The following interface will then appear:



Click the Import/Modify button to add multiple licence plate details at once. You can also select a single licence plate to modify. When adding more than 5,000 records, a pop-up message box will appear saying 'The number of records added has reached the group's upper limit'.

Click the Import from Local button to import licence plate information from the local database.

Select the date, duration and channel, then tap 'Search'. This will search for all the licence plates saved by the device during this time.

Channels: You can search for licence plate detection events triggered by each channel.

Select 'All' to select all licence plate information.

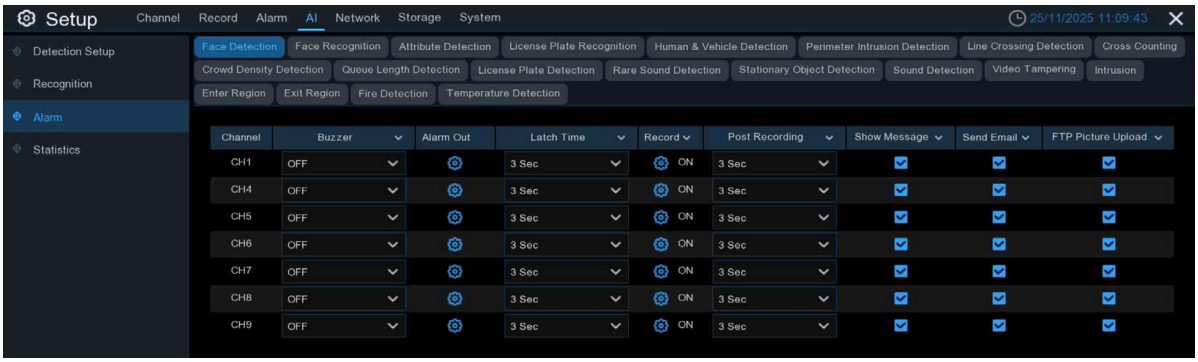
Click the 'Import from CSV' button to open the above interface. Select the licence plate file that needs to be imported as a CSV file and click the 'OK' button. The following interface will then appear:

Click on a piece of data to edit the licence plate information. After editing, click Import/Modify to modify it. If the modification is successful, "State" will change to a different icon.

5.4.3 – Alarm

5.4.3.1 – Face Detection

Configure alarm actions for different groups when faces are detected.



Channel: Select the available channels to configure.

Buzzer: The NVR can sound an alarm using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when an alarm is detected.

Record: Click on the AA icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be set to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is detected. The picture will be sent to the specified FTP server.

FTP video upload: When an alarm is detected, it will send the video to the set FTP server. The video will be sent to the set FTP server.

Picture to Cloud: When an alarm is detected, it will send the captured picture to the set cloud storage server. The captured picture will be sent to the set cloud storage server.

Video to Cloud: When an alarm is detected. Video to Cloud: Video will be sent to the set cloud storage server when an alarm is detected.

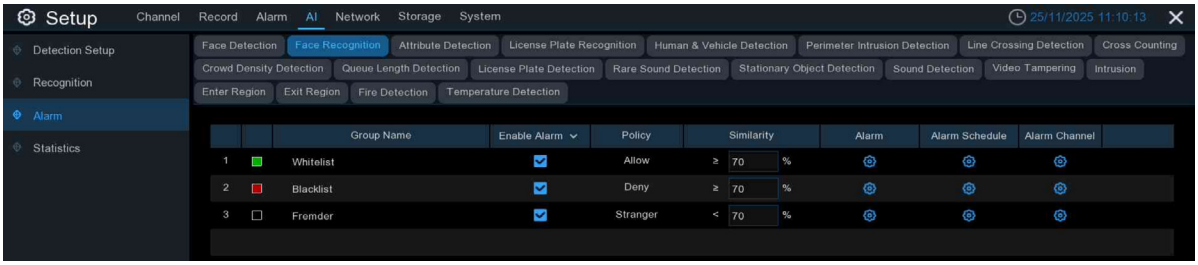
Full Screen: If this feature is enabled and an alarm is triggered in a channel, the channel will be previewed in full-screen mode.

HTTP listening: When an alarm is detected. An alarm message will be sent to the third-party platform that the device is connected to.

Voice prompts: The audio file into which the voice prompt is imported when this alarm is triggered (IPC support for voice prompts required).

5.4.3.2 – Face Recognition

The NVR sets off an alarm when a face is detected within a grouping.

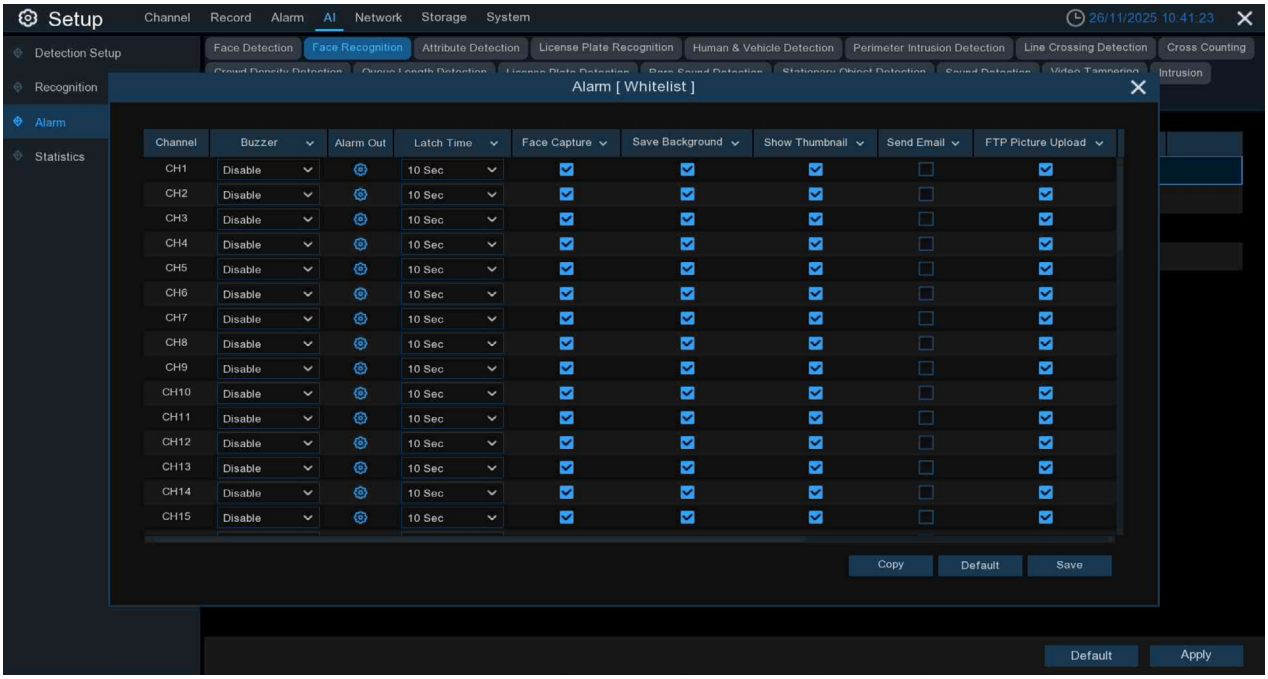


Enable the alarm: Enable or disable the face detection alarm.

Policy: Set the alarm policy for face grouping.

Similarity: Similarity setting

Alarm: Click to enter the settings interface.



Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This optional feature allows the NVR to be connected to an external alarm device, provided that the NVR supports this connection.

Latch time: Set the time for the external alarm when an alarm is detected.

Capture Face: When a face is detected, the image of the face will be captured and saved.

Save Background: When a face is detected, the entire preview image will be saved.

Show Thumbnail: A thumbnail pop-up alert will appear in the preview when a face is detected.

Send Email: When an alarm is triggered, the captured image will be sent to the set email address.

FTP Picture Upload: When an alarm is triggered, the image will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, an image will be sent to the designated cloud storage server.

HTTP Listening: When an alarm is triggered, an alarm message is sent to the third-party platform that the device is connected to.

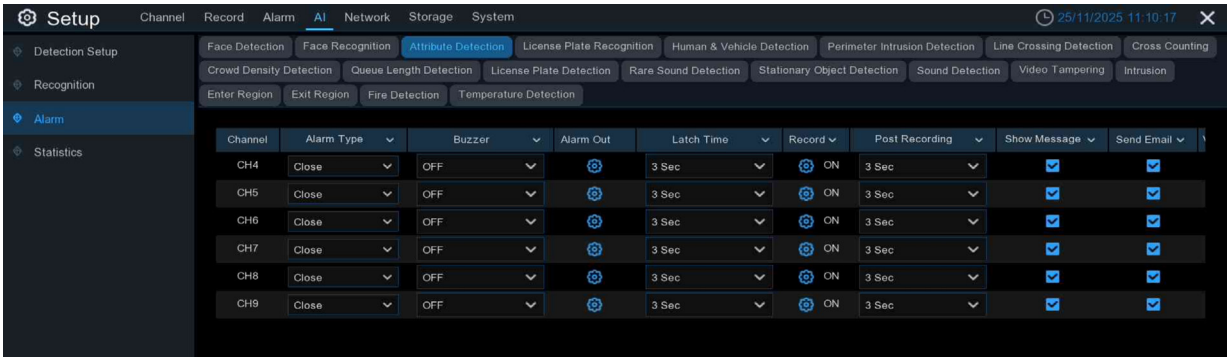
Voice prompts: The audio file into which the voice prompt is imported when this alarm is triggered (IPC support for voice prompts required).

Alarm schedule: Click to enter the Setup Schedule screen.

Select the time period for the alarm, then click Exit and Apply. This can be copied to other channels.

Alarm Channel: Set the channel for the alarm to sound when a face is detected and verified.

5.4.3.3 – Attribute Detection



Channel: Channel name

Alarm type: Set the alarm type for the face attribute. Supports Close, No Mask and Wear Mask.

Buzzer: The NVR can sound an alarm using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm out: This optional feature allows the NVR to be connected to an external alarm device, provided that the NVR supports this connection.

Latch time: Set the time for the external alarm when an alarm is detected.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set the length of time that the NVR will continue to record after an event. The recommended recording time is 30 seconds, with a maximum of 5 minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

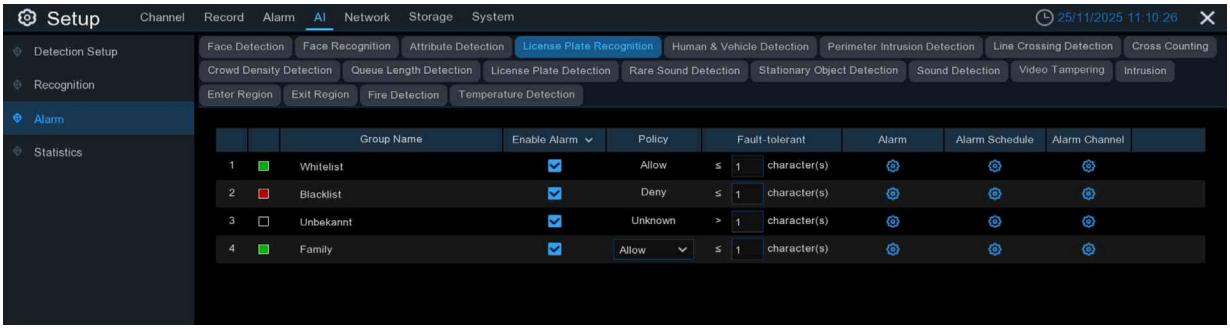
Full Screen: If this feature is enabled and an alarm is detected on a channel, the channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message will be sent to the third-party platform that the device is connected to.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.4 – License Plate Recognition

This is the alarm that the NVR sets off when it detects a licence plate in a group.



Group name: Group Name

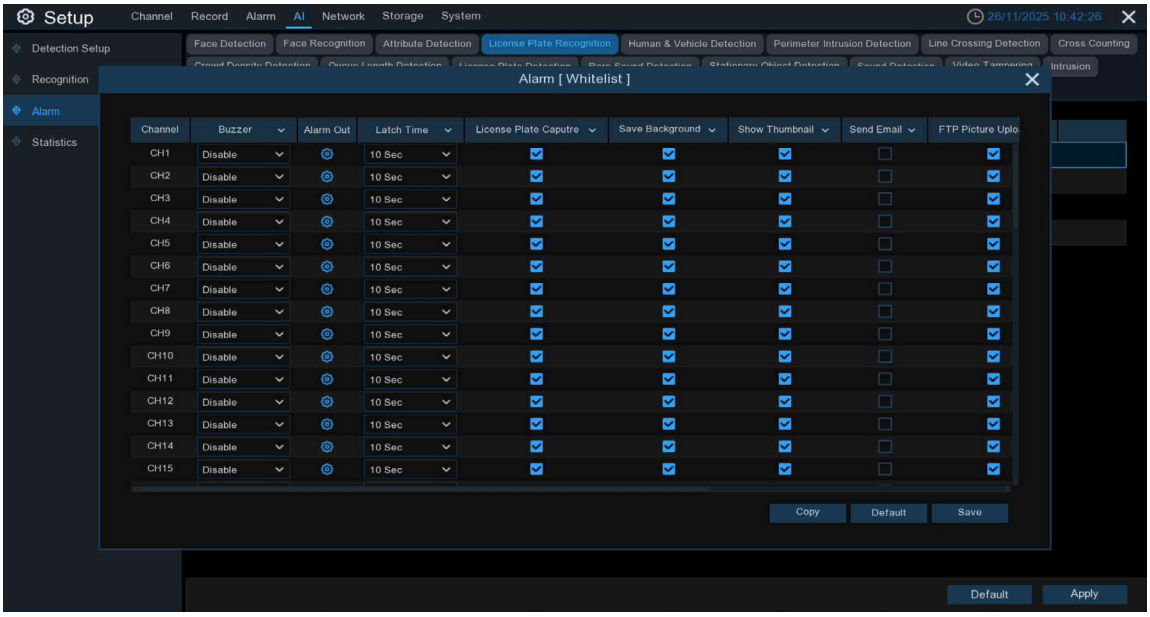
Enable alarm: Enable or disable the licence plate detection alarm.

Policy: Set the alarm policy for licence plate grouping.

Fault-tolerant: For example, if you set three characters and the whitelisted licence plate number in the group is B594SB, the alarm will be triggered when a licence plate number such as B734KB enters the monitoring area. In other words, if the detected licence plate number differs from the licence plate number in the database by 0–5 characters, the alarm will be triggered.

Alarm channel: Set the channel to trigger an alarm when a licence plate is detected and successfully compared.

Alarm: Click to enter the settings interface.



Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Capture licence plate: When a licence plate is detected, the captured image will be saved.

Save Background: When a licence plate is detected, the entire preview image will be saved.

Show Thumbnail: When a face is detected, a thumbnail alert will pop up in the preview.

Send Email: When an alarm is triggered, the captured image will be sent to the designated email address.

FTP picture upload: When an alarm is triggered, the picture will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, a picture will be sent to the designated cloud storage server.

HTTP Listening: When an alarm is triggered, an alarm message will be sent to the third-party platform that the device is connected to.

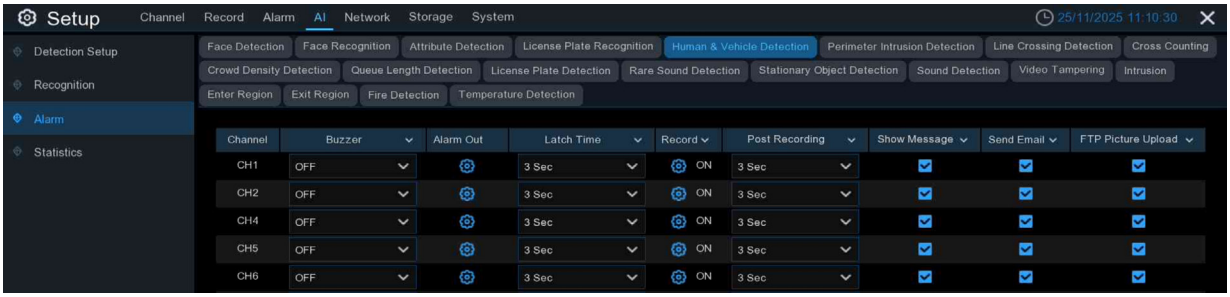
Voice prompts: The audio file into which the voice prompt is imported when this alarm is triggered (IPC support for voice prompts required).

Alarm schedule: Click to enter the scheduling interface.

Select the time period for which you want an alarm, then click 'Exit' and 'Apply'. This can be copied to other channels.

Alarm channel: Set this channel to trigger an alarm when a face is detected and matched successfully.

5.4.3.5 – Human & Vehicle Detection



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the AA icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the configured FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

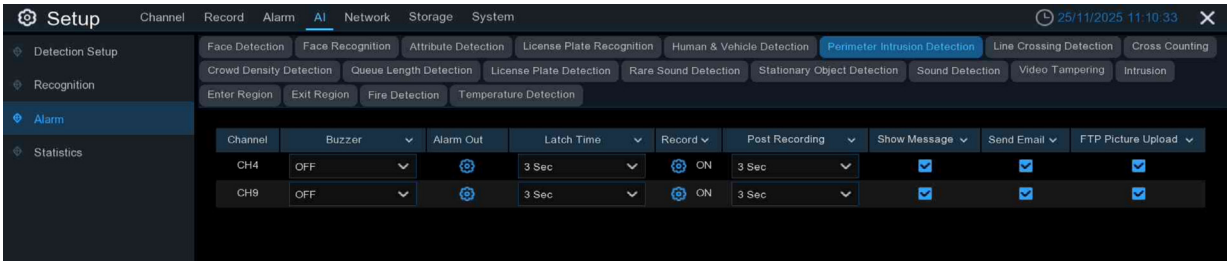
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform that the device is connected to.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.6 – Perimeter Intrusion Detection



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set the recording time for the NVR after an event. Recording time is recommended at 30 seconds, but can be set to a maximum of 5 minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

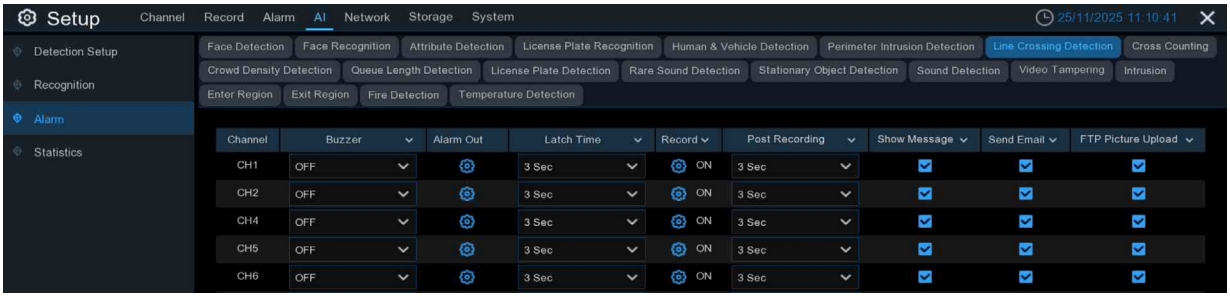
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform that the device is connected to.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.7 – Line Crossing Detection



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

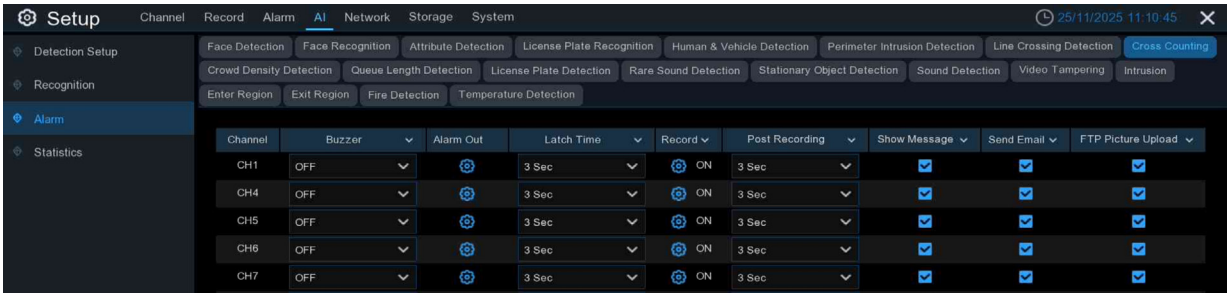
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.8 – Cross Counting



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

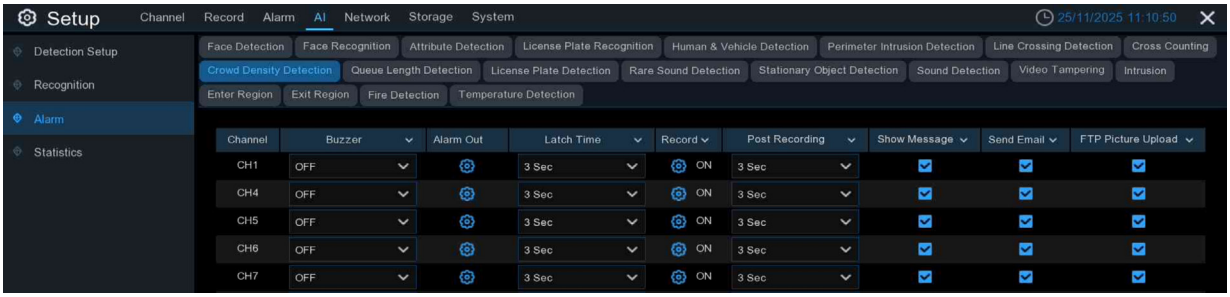
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.9 – Crowd Density Detection



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

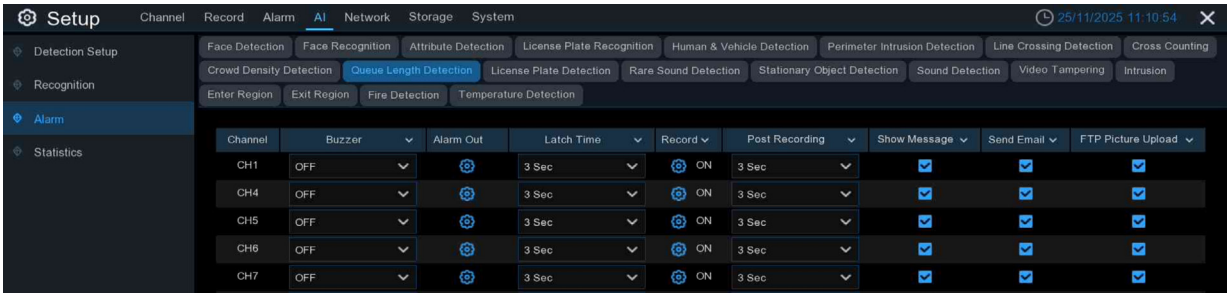
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.10 – Queue Length Detection



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

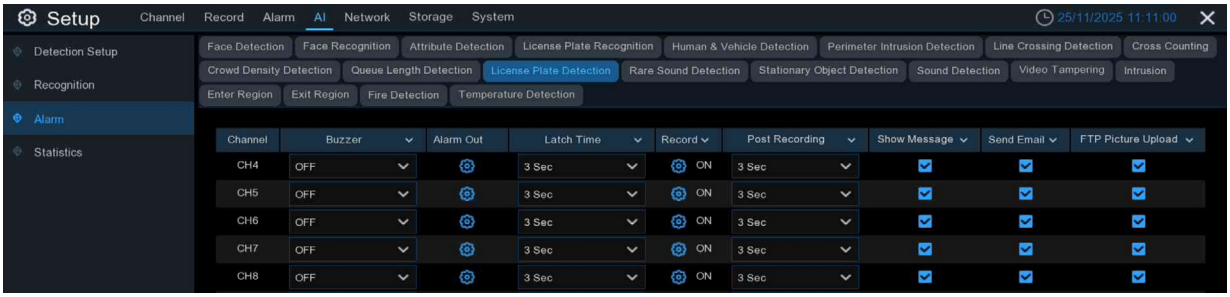
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.11 – License Plate Detection



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

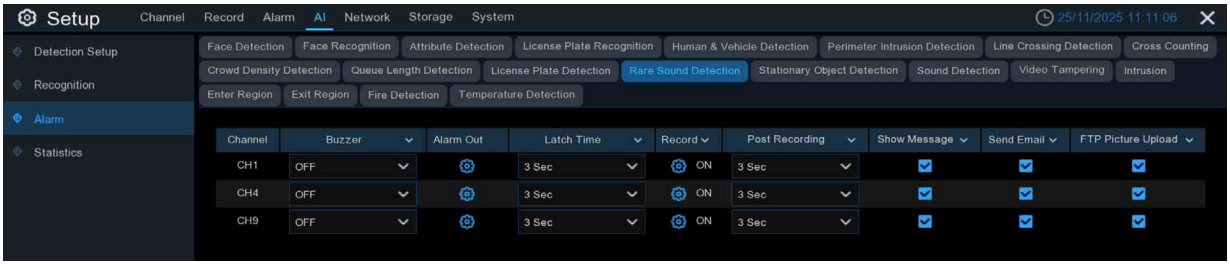
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.12 – Rare Sound Detection



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

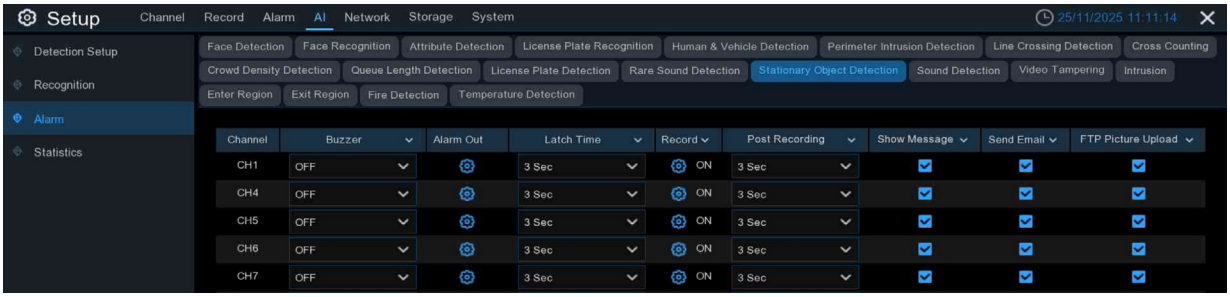
Video to Cloud: Send the video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.13 – Stationary Object Detection



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

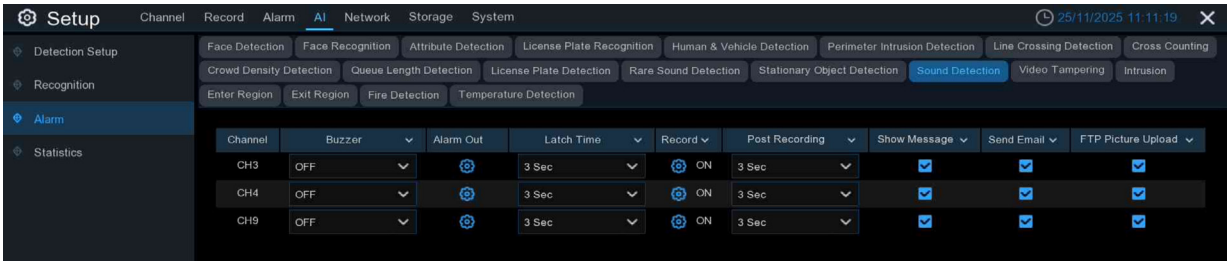
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.14 – Sound Detection



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

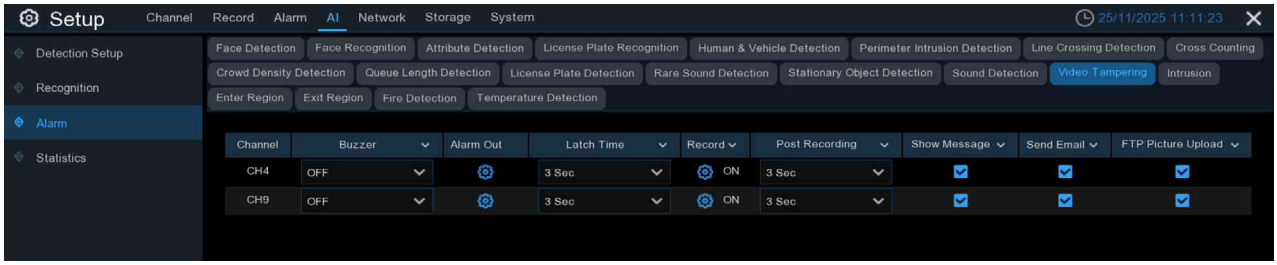
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.15 – Video Tampering



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

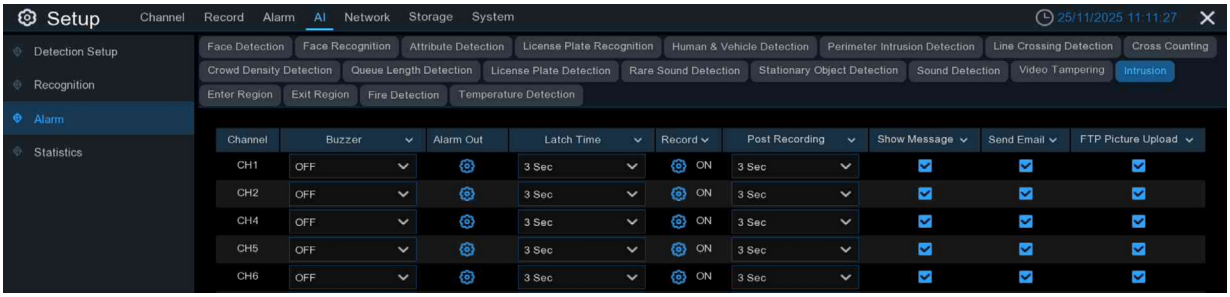
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.16 – Intrusion



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

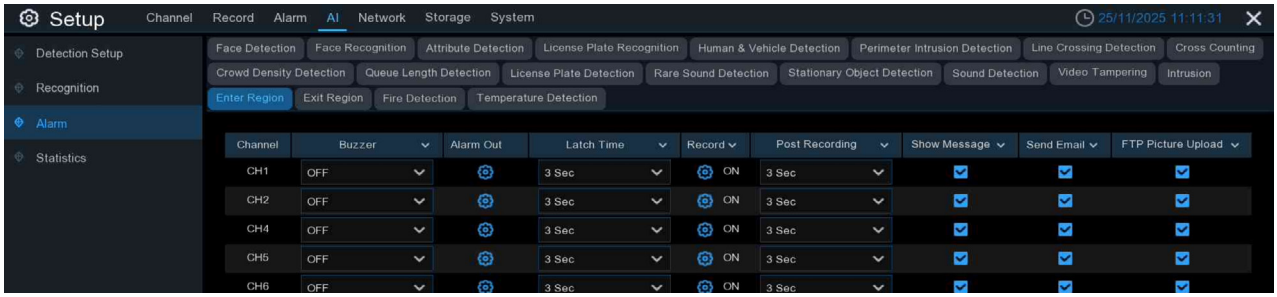
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.17 – Enter Region



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

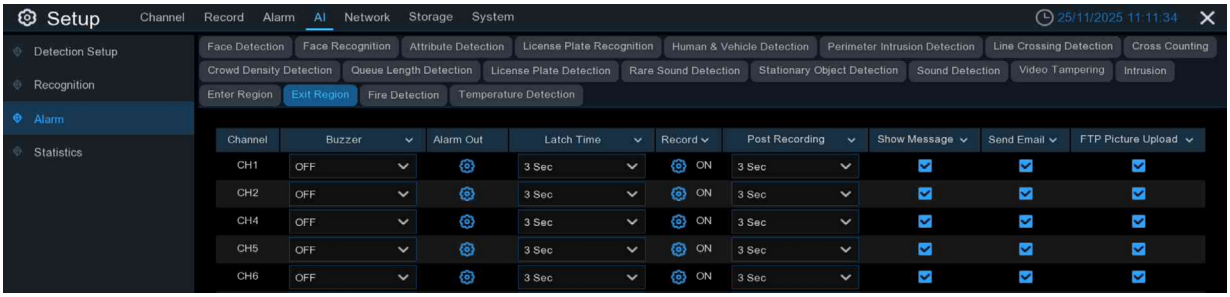
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.18 – Exit Region



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

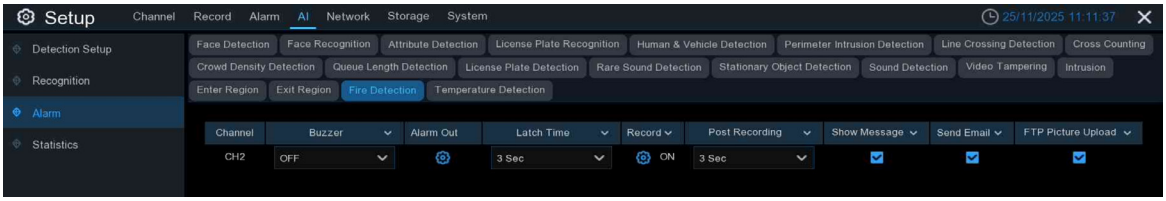
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.19 – Fire Detection



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

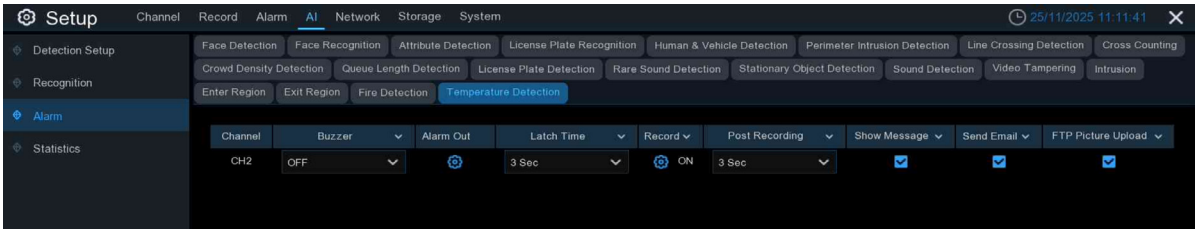
Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.3.20 – Temperature Detection



Channel: Channel name

Buzzer: The NVR can sound an alarm tone using its internal buzzer. Set the buzzer duration (in seconds) when the alarm is triggered.

Alarm Out: This is an optional function which allows you to connect an external alarm device to the NVR.

Latch time: Set the time for the external alarm when the alarm is triggered.

Record: Click the icon to select the channel to be recorded when the alarm is triggered.

Post Recording: Set how long the NVR will continue to record after an event. The recommended recording time is 30 seconds, but this can be increased to a maximum of five minutes.

Show Message: Tick this box to display the icon on the live display screen when an alarm is triggered.

Send Email: When an alarm is triggered, an image will be sent to the specified email address.

FTP Picture Upload: When an alarm is triggered, a picture will be sent to the designated FTP server.

FTP video upload: When an alarm is triggered, the video will be sent to the designated FTP server.

Picture to Cloud: When an alarm is triggered, the captured image will be sent to the designated cloud storage server.

Video to Cloud: Sends video to the set cloud storage server when an alarm is triggered.

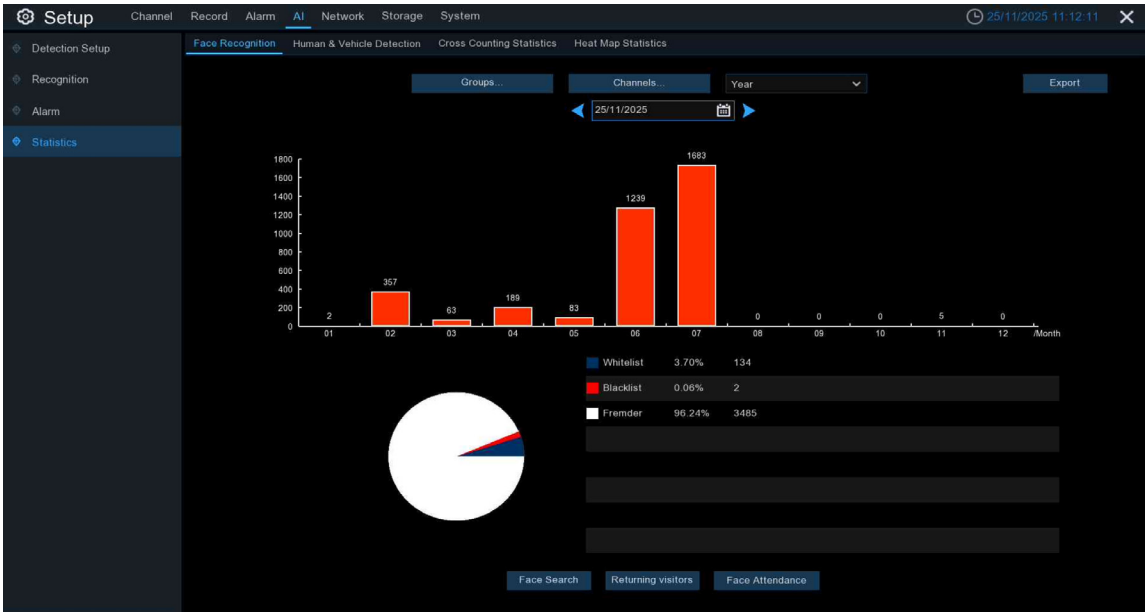
Full Screen: If this feature is enabled and an alarm is triggered on a channel, that channel will be previewed in full-screen mode.

HTTP Listening: When an alarm is triggered, an alert message is sent to the third-party platform to which the device is connected.

Voice prompts: This is the audio file into which the voice prompt is imported when the alarm is triggered (IPC support for voice prompts required).

5.4.4 – Statistics

5.4.4.1 – Face Recognition



After selecting 'Groups', 'Channels', 'Date' and 'Statistic Time', the statistical results will be displayed. Click Export to save the data to a USB flash drive.

Face Search: Click the Face Search button to go straight to the Smart Replay Face Search page.

Repeat Visitors: Click the Face Statistics button to go to the Smart Replay Repeat Visitors page directly.

Face Attendance: Click the Face Attendance button to go to the Smart Replay Face Attendance page.

5.4.4.2 – Human & Vehicle

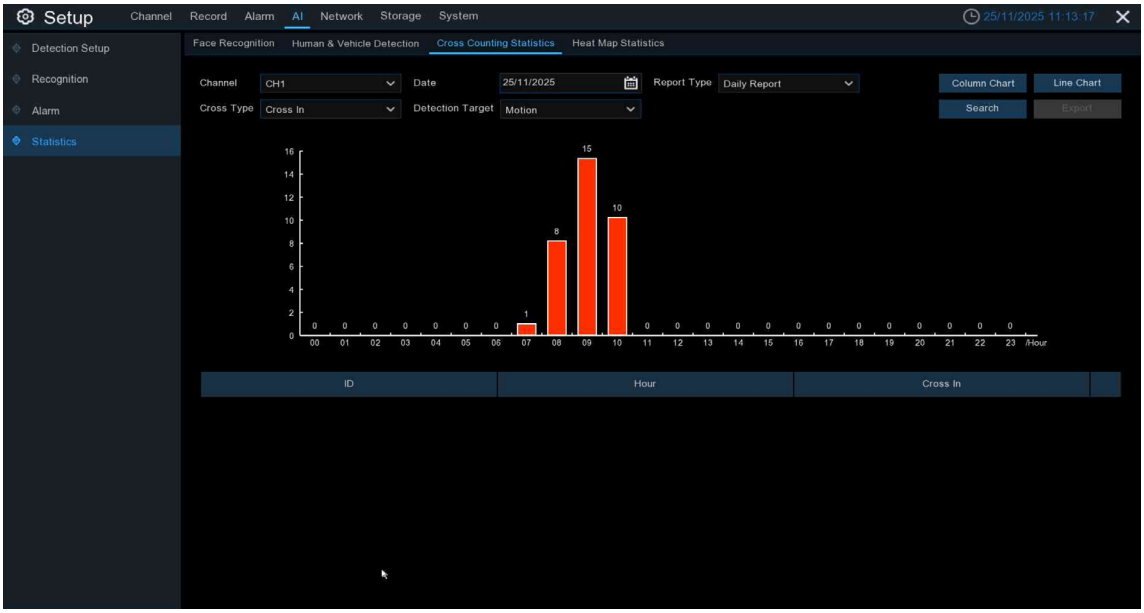
In the 'Human & Vehicle Statistics' section, you can count all the people and vehicles detected over a period of time and display the results in a statistical graph.

After selecting the type, channels, date and statistic time in AI, the statistical result will be produced immediately.

Pedestrian & Vehicle Search: Click the 'Pedestrian/Vehicle' button to go straight to the 'Intelligent Playback Pedestrian/Vehicle' page.

5.4.4.3 – Cross Counting

Cross Counting statistics allow you to count and represent the number of entries and exits over a period of time as a graph.



Channel: Select a channel to search.

Date: Select the date you want to search.

Report type: Select the report type. There are daily, weekly, monthly and annual reports.

Cross type: There are two types of cross type: Cross In and Cross Out.

Detection target: Select the type of detection that triggers the crossing statistics. There are four options: Motion, Person, Motor Vehicle and Non-Motorised Vehicle.

Click Search to search the data.

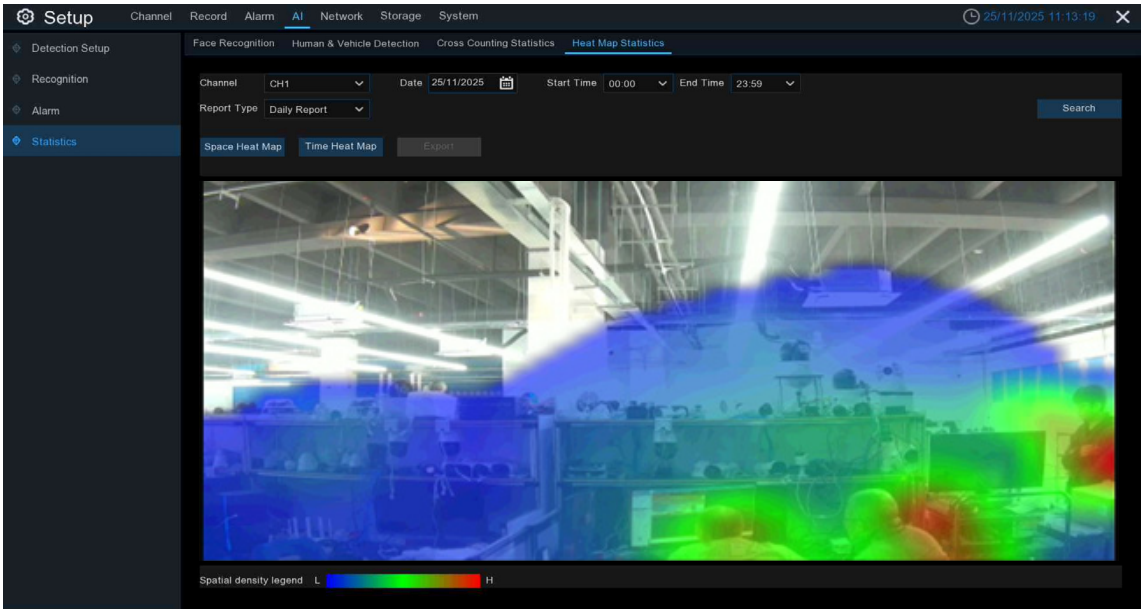
Export: Export the results to an external USB disk.

Column chart: Select 'Column Chart'.

Line chart: Select Line Chart to display.

5.4.4.4 – Heat Map

Heat map statistics allow you to count frequent activity in certain areas over a period of time and display the results as a statistical map.



Channel: Select a channel to search.

Date: Select the date to be searched.

Start hour: Select the start time.

End hour: Select the end time.

Report type: Select the report type. There are four types of report: Daily Report, Weekly Report, Monthly Report and Annual Report.
Click 'Search' to search for data.

Export: Export the results to an external USB disk.

Space Heat Map: Select the space distribution map to display.

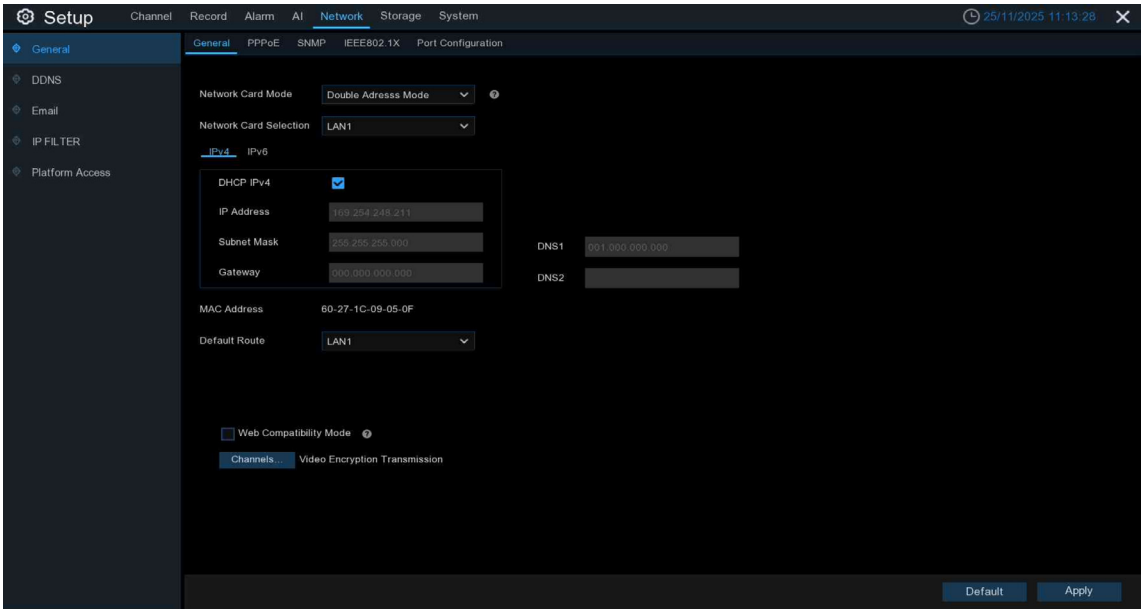
Time Heat Map: Select the time distribution map to display.
There is no start or end hour for selecting the time heat map.

Spatial density legend: Compares spatial density levels.

5.5 – Network

5.5.1 – General Settings

5.5.1.1 – General



Network card mode: Switch between single address mode and double address mode. The NVR will reboot after a successful switch. (Note: models with POE only support double address mode.)

Single Address Mode: Binds both ports to a single IP address. Selecting this mode can increase the bandwidth and form a redundant array of network cards for load sharing. If one of the network ports fails, the other network port will immediately take over the load and the service will not be interrupted.

Double Address Mode: The two network ports are set up with different IP addresses, gateways, etc., and work independently of each other. The LAN port accessing the external network should be set as the default route.

Network Card Select: This toggles the display of the LAN1 or LAN2 network parameter information. This option is greyed out and unavailable in single NIC mode.

DHCP IPv4: If you connect to a router that allows DHCP, check this box. The router will then automatically assign all IPv4 protocol network parameters to the NVR. After unchecking the box, the IP address, subnet mask, gateway and DNS will automatically revert to the parameters set the last time you unchecked the box (Note: Currently, the program does not support DHCP IPv6).

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

Subnet Mask: A subnet mask is a network parameter that defines the range of IP addresses available for use within a network. If an IP address is like the street on which you live, then a subnet mask is like the neighbourhood in which that street is located. A subnet address consists of four groups of numbers separated by periods. For example, '255.255.0.0'.

Gateway: The IP address of the gateway of the network where the device is located. The default is: 192.168.0.1.

DNS1/DNS2: DNS1 is the primary DNS server and DNS2 is the backup.

IPv6 address: Enter the IPv6 address provided by your ISP. This consists of eight groups of numbers between 0 and FFFF, separated by colons.
For example: 'ABCD:EF01:2345:6789:ABCD:EF01:2345:6789'.

IPv6 gateway: The IPv6 gateway IP address of the network where the device is located.

Default route: In dual-address mode, set the LAN port that accesses the external network as the default route. (Note: this option is greyed out in single address mode).

Web Compatibility Mode: If you cannot access the device through the web interface, you can select this option. (Note that insecure encryption is used when this option is turned on; please choose carefully.)

Channels: Click this button to set the channels for encrypting and transmitting video streams to clients.

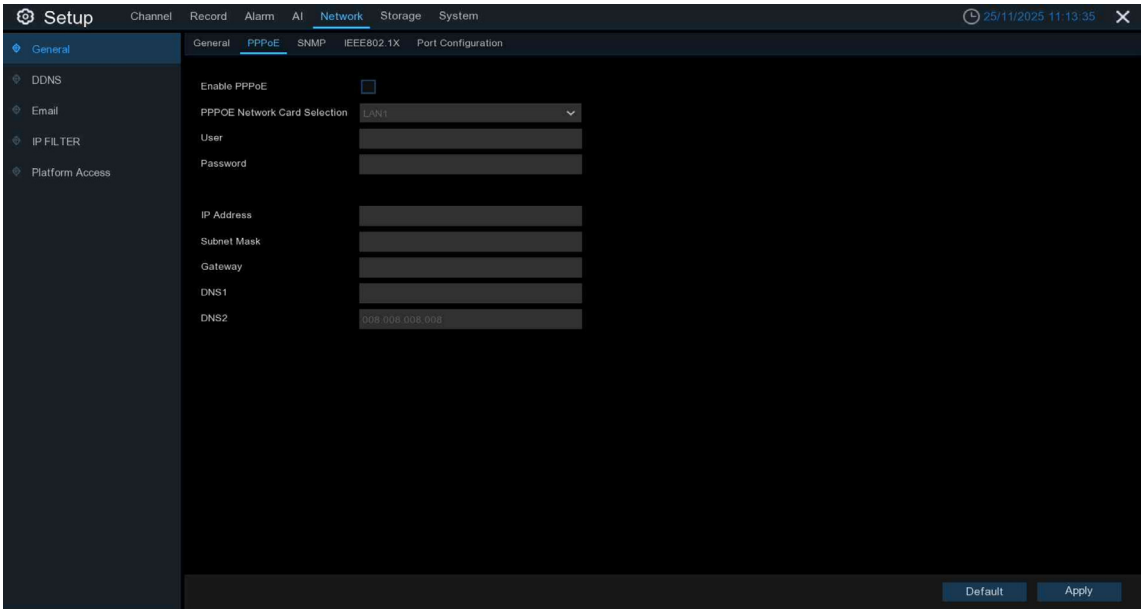
POE DHCP Server: This automatically assigns IP addresses to devices connected to the NVR via the POE port. (This function is only available on NVRs that support POE.)

Note!

1. *In Single Network Card Mode, the device can access the network via either LAN port. If both ports are connected to network cables, they must be connected to the same switch.*
2. *In Double Network Card Mode, the two LAN ports cannot be connected to the same switch.*

5.5.1.2 – PPPoE Settings

Enabling the PPPoE network allows the device to connect to the network via dial-up.



Enable PPPoE: When this is enabled, the NVR will reboot to activate the PPPoE settings.

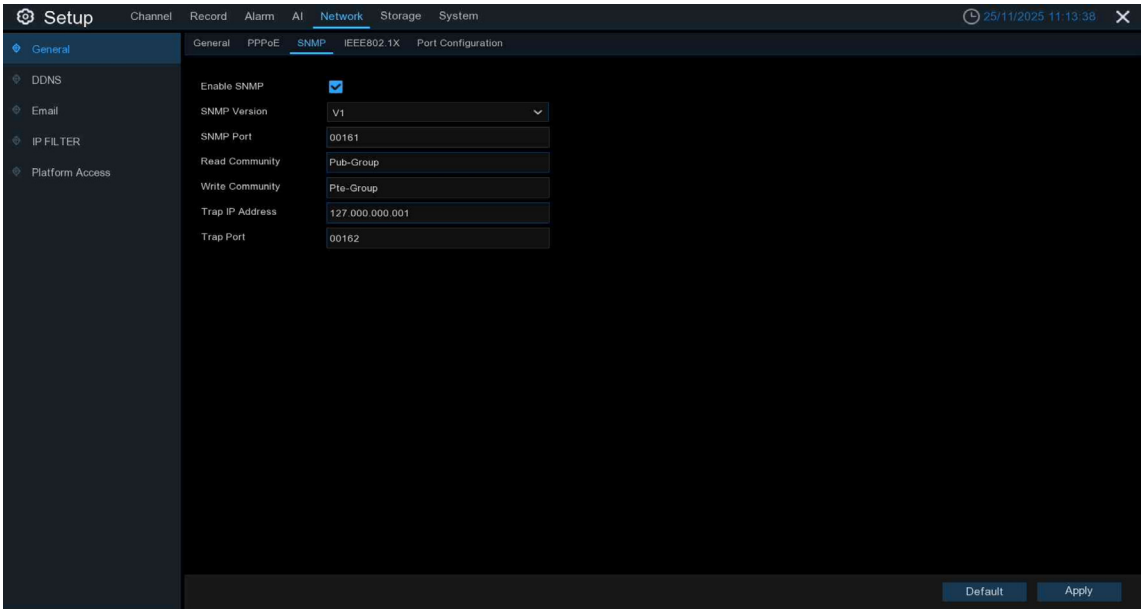
PPPoE network card selection: Select the LAN port for dial-up access. (Note: This option is not shown in single-address mode.)

User: PPPoE username.

Password: PPPoE password.

5.5.1.3 – SNMP

Device parameters are acquired and device alarms are received through the SNMP protocol.

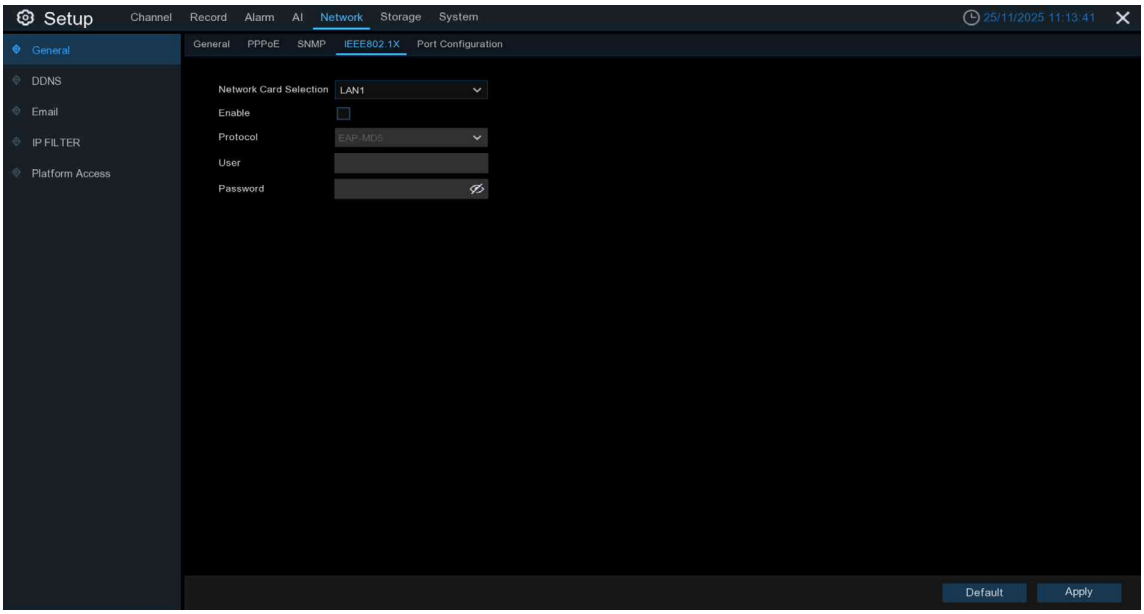


Note!

1. *Before setting the SNMP parameters, users need to download the SNMP software and use the SNMP port to receive information about the device, such as the software version number, device type, channel IP address, resolution and frame number.*
2. *Set the trap management address so that the device can send alarm and exception information to the management station.*

5.5.1.4 – IEEE802.1X

The 802.1x protocol is often used in Ethernet as an access control mechanism for LAN ports, primarily solving the problems of authentication and security in Ethernet. The 802.1x protocol is a port-based network access control protocol. "Port-based network access control" refers to the authentication and control of accessing user devices at the port level of the LAN access device. User devices connected to the port can access resources on the LAN if they pass authentication. If they fail authentication, they cannot access resources on the LAN.



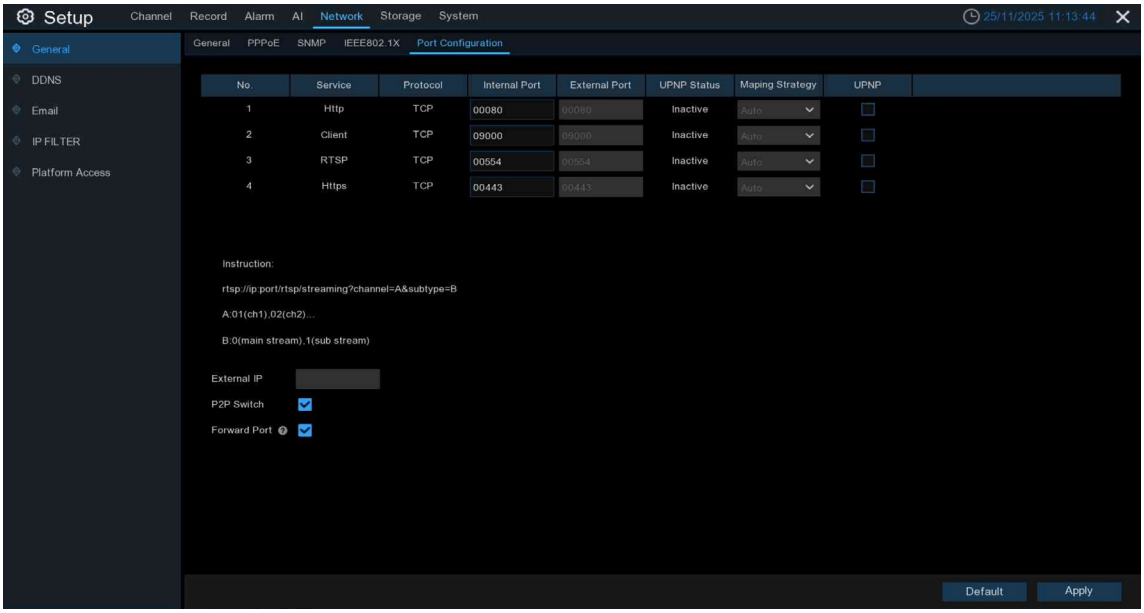
Enable: Enable or disable IEEE802.1X.

Protocol: Set the authentication methods for IEEE802.1X.

User: Set the user name for IEEE802.1X authentication.

Password: Set the password for IEEE802.1X authentication.

5.5.1.5 – Port Configuration



HTTP/HTTPS/RTSP: This port is mostly used to log into your NVR via a webpage or a third-party streaming player using the RTSP protocol.

Client: This port is mostly used to log into your NVR via a private protocol.

UPnP: If you want to log in remotely to the NVR using the web client via a different router/LAN, you need to complete port forwarding on your router. Enable this option if your router supports UPnP. In this case, you will not need to configure port forwarding manually on your router. If your router does not support UPNP, make sure you complete the port forwarding manually on your router.

Mapping strategy: Select 'Manual' for the mapping type. Users can then edit and set the external port (the port on the router). If 'Auto' is selected, a random external port (different from the internal port) will be mapped.

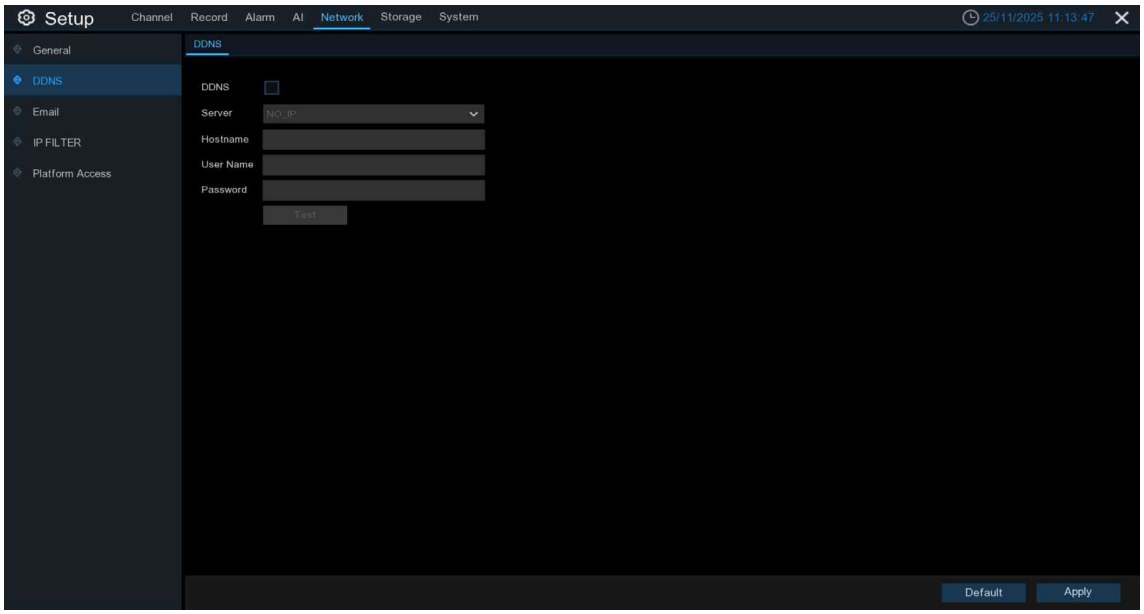
External IP: The device's external IP address.

P2P enabled: When the P2P switch is off, users will not be able to access the device with a P2P ID.

Direct camera web access: Enable to access the IPC's web page via the hyperlink on the NVR's web page.

5.5.2 – DDNS

This menu allows you to configure the DDNS settings. DDNS provides a static address to simplify remote connections to your NVR. In order to use DDNS, you first need to create an account on the DDNS service provider's website.



DDNS: Enable DDNS.

Server: Select your preferred DDNS server from the following options: DDNS_3322, DYNDNS, NO_IP, CHANGEIP or DNSEXIT.

Domain: Enter the domain name that you created on the DDNS service provider's website. This is the address that you will type into the URL box when connecting remotely to the NVR via PC.

User/Password: Enter the username and password obtained when creating an account on the DDNS service provider's website.

After entering all the parameters, click 'Test' to check the DDNS settings. If the result of the test is 'Network unreachable or DNS error', please check that the network is functioning correctly and that the DDNS information is correct.
Once you have applied for Dynamic Domain Name Service (DDNS), you can access the NVR remotely through the domain name using a browser in the form http://domain-name-applied-for:mapped-http-port-number. When using the DDNS domain name to access the NVR, ensure that the port and current IP address are available on the public network to allow a normal connection. The server address, host name, username, password and settings are the same as on the NVR side.

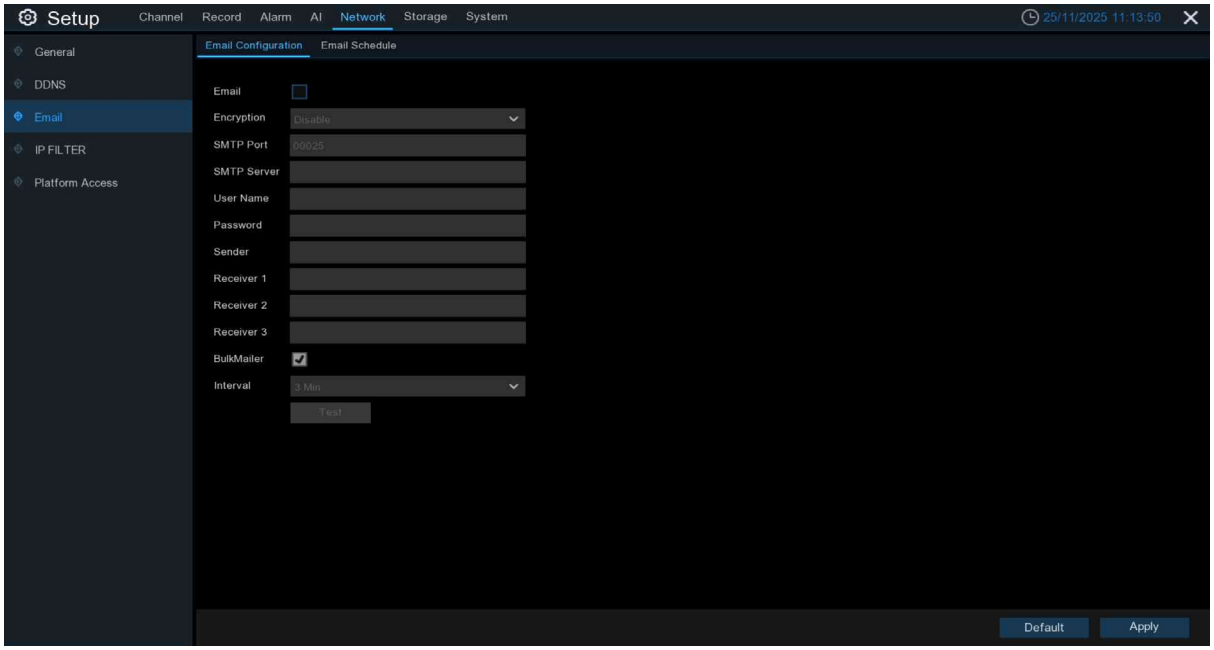
Note!

DNSEXIT domain name providers have updated their docking protocols. The new protocol no longer supports authentication by username and password. To log in to your original account and get the key, go to the official website. The old version is authenticated by password. If the device in use has an external IP change, the DNSEXIT domain name will not work. To get the key from the DNSEXIT website again and set the domain name to work normally, update to version 8.2.4.1.

5.5.3 – Email Settings

This menu allows you to configure email settings. Complete these settings if you want to receive alarm notifications from the system via email when an alarm is triggered.

5.5.3.1 – Email Configuration



Email: Click the box to enable encryption.

Encryption: Enable if your email server requires SSL or TLS verification. If you are not sure, select 'Auto'.

Enter the SMTP port of your email server.

SMTP server: Enter the address of your email's SMTP server.

User name: Enter your email address.

Password: Enter your email password.

Receiver 1–3: Enter the email address(es) to which you want to send email alerts.

Interval: This is the length of time that must elapse after your NVR sends an email alert before it will send another. Adjust accordingly.

To ensure all settings are correct, click 'Test Email'. The system will send an automated email to your inbox. If you receive the test email, this confirms that the configuration parameters are correct.

5.5.3.2 – Email Schedule

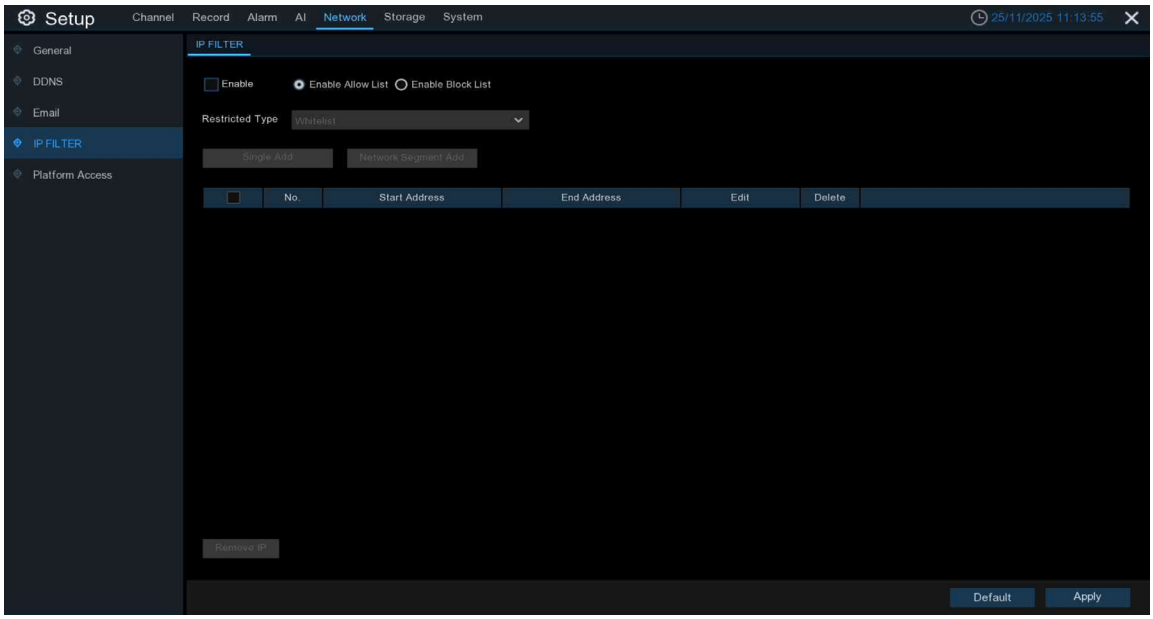
If you have enabled mailboxes, you will also need to set up a schedule for the types of alarm that will receive email notifications.

The colours in the email schedule have the following meanings:

- Green: Motion
- Yellow: IO
- Red: Exception
- Blue: AI
- Purple: PIR

5.5.4 – IP Filter

The IP filtering function enables you to create blacklists and whitelists. When the white list is enabled, only the IP addresses on the list will be allowed to access the device, and when the black list is enabled, the IP addresses on the list will not be allowed to access the device.



Enable: Turn the filtering function on or off. When enabled, you can choose to activate the blacklist or whitelist.

Restricted type: Select the list you want to set up (blacklist or whitelist).

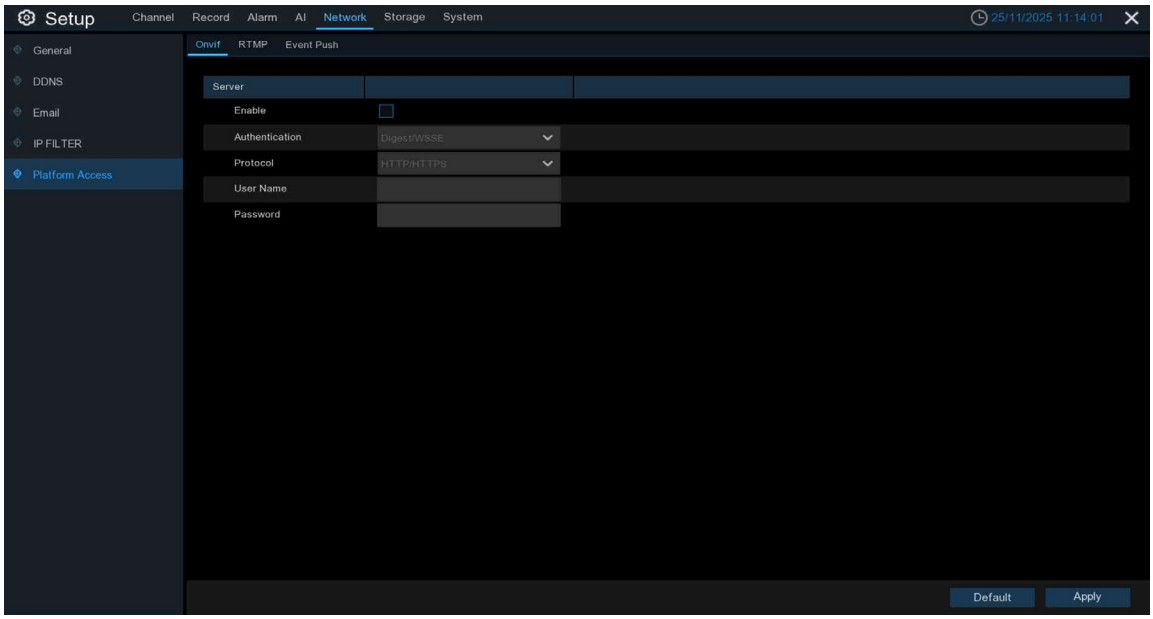
Start Address: Enter the start address.

End address: Enter the end address.

5.5.5 – Platform Access

5.5.5.1 – ONVIF

This function is primarily used for connecting to third-party platforms.



Enable: Switch on, check and save to enable the ONVIF service function of the device.

Authentication: Select the login authentication method. The device supports four methods: Digest_ SHA256, Digest, Digest/WSSE and WSSE.

Protocol: The connection protocols supported by the device are HTTP, HTTPS and HTTP.

User name: Set a username for the platform connection.

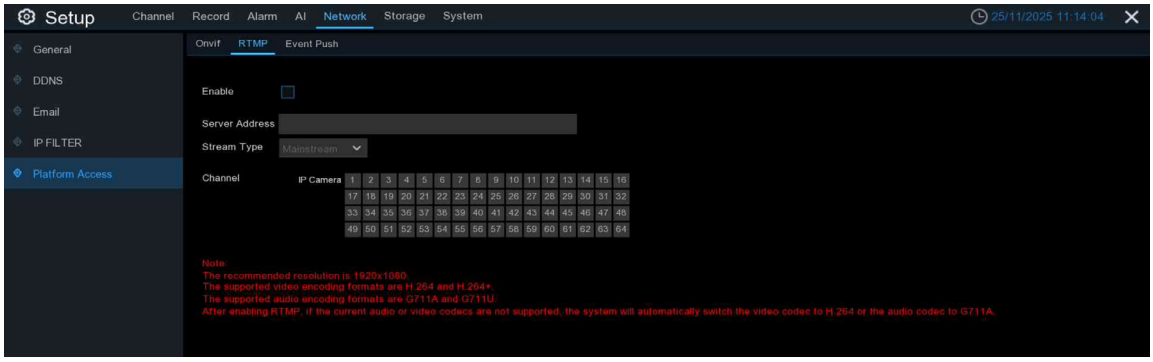
Password: To set a password for the platform connection.

Note!

The image connected via the ONVIF protocol to the NVR/DVR is from the first channel.

5.5.5.2 – RTMP

The audio and video streams of NVR channels can be sent to the YouTube website via RTMP for live broadcasting. To use this function, you need to complete the following steps: Register a YouTube account, create a live streaming studio and set its URL and live code, set the live server address bar for the device and enable and configure the code stream type and live broadcasting channels. Once you have saved the configuration, go to the YouTube live room and refresh the page to start watching the live broadcast.



Enable: Used to enable or disable the RTMP live broadcasting function.

Server address: Enter the live broadcasting address and code of the YouTube server.

Stream type: Select the type of stream for the live broadcasting channel. Both the main stream and sub-streams are supported.

Channel: Select the channel for live broadcasting. Only one channel can be selected.

Note!

'/' is used to separate the live broadcasting address from the live code of the YouTube server.

Note!

To ensure the live broadcasting effect, it is recommended that the stream resolution does not exceed 1920 x 1080.

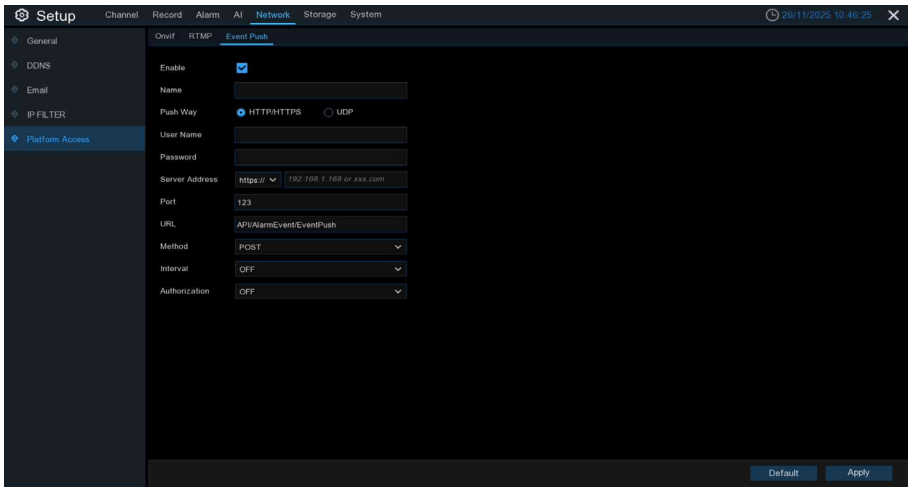
Live broadcasting is only possible for data streams using the H.264 video encoding format and the G711A/U audio encoding format.

A YouTube live code can only be set for one device and cannot be reused.

5.5.5.3 – Event Push Platform

This function is used to send alarm information from the device to the specified third-party platform. It is required to ensure that the third-party platform has completed docking debugging with the device. Event push is divided into HTTP and UDP push. HTTP uses POST and GET methods. UDP has unicast, multicast and broadcast methods.

HTTP/HTTPS



Enable: Enable or disable the event push function.

Name: Set the name of the device that will be used to send alert messages to the third-party platform.

Push method: Supports HTTP and UDP push methods. Select HTTP for the HTTP push method and UDP for the UDP push method.

User name: Enter the username of the third-party platform.

Password: Enter the password for the third-party platform.

Server address: Address of the third-party platform

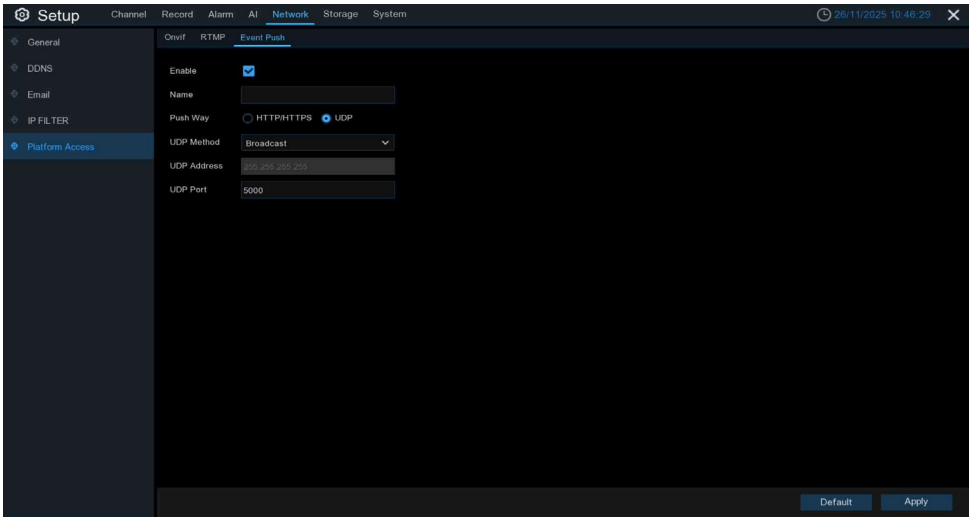
Port: Third-party platform server port (range 1–65535).

URL: Third-party platform server API interface

Method: HTTP push type. The POST and GET methods are supported. Only the HTTP-POST method supports push mapping; the others simply push messages without push mapping. The push mapping alarm type is consistent with the preview alarm bar on the web interface.

Interval: Keep-alive interval: according to the set time, the device will regularly send messages to the server. UDP has no keep-alive mechanism.

UDP



Enable: Enable or disable the event push function.

Name: Enter the name of the device that will send alert messages to the third-party platform.

Push method: Supports HTTP and UDP push methods. If the HTTP method is selected, the HTTP push method is used; if the UDP method is selected, the UDP push method is used.

UDP method: Supports unicast, multicast and broadcast.

Unicast: Enter the IP address and port of the client's UDP server to receive push messages; only this address can receive messages.

Multicast: Multiple client UDP servers on the same network segment with the same UDP address and port can receive the message; other non-UDP addresses will not.

Broadcast: All UDP servers on the same network segment can receive the message.
UDP Address: The UDP server address.

UDP port: The UDP server port (range 1–65535).

5.6 – Storage

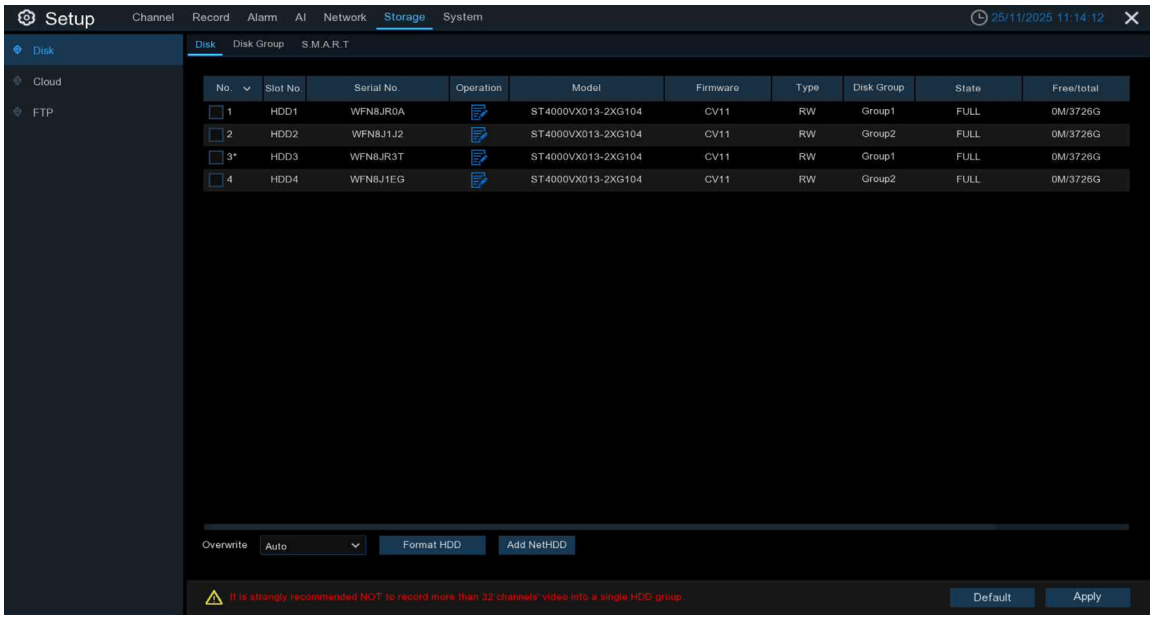
5.6.1 – Disk

5.6.1.1 – Disk

This page enables you to view the access device's hard disk model and recording status, as well as perform operations such as adding a network hard disk and formatting the hard disk.

Note!

Models supporting four or more hard disks will display the 'Slot.NO' column, where the information corresponds to the SATA hardware slot number.

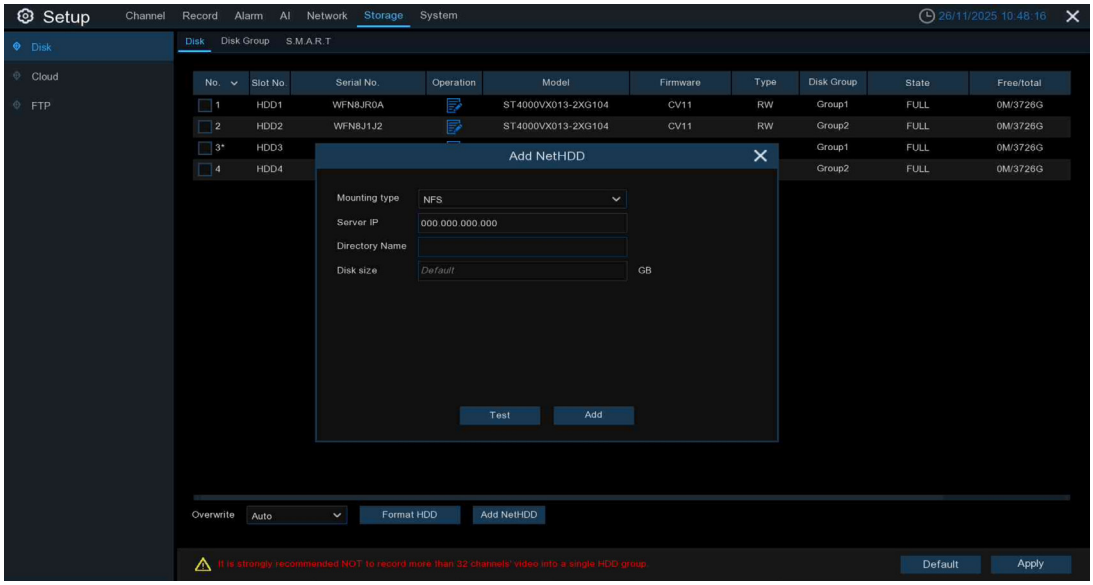


Format HDD: To format an HDD, select the HDD that needs to be formatted, click the 'Format' button and then format it after checking the password in the pop-up menu.

NAS HDD: This supports the configuration of a network hard disk for video and image storage. First, create a storage partition on the network hard disk, then connect it to the device successfully via the network.

Note!

The AI Face Database, the License Plate Database and the Voice Prompt files can only be saved to a local hard disk.



Mounting type: Choose from NFS or CIFS. If you choose CIFS, you will need to input the NAS account name and password.

User name: Enter the NAS account number (not available in NFS mode).

Password: Enter the password for the NAS (not available in NFS mode).

Server IP: Enter the IP address of the NAS storage.

Directory name: Enter the name of the directory in which you want to save your recording data.

Disk size: Set the capacity size of the NAS storage.

Test: Click to test the NAS storage connection.

Click 'Add NetHDD' to add a NAS HDD.

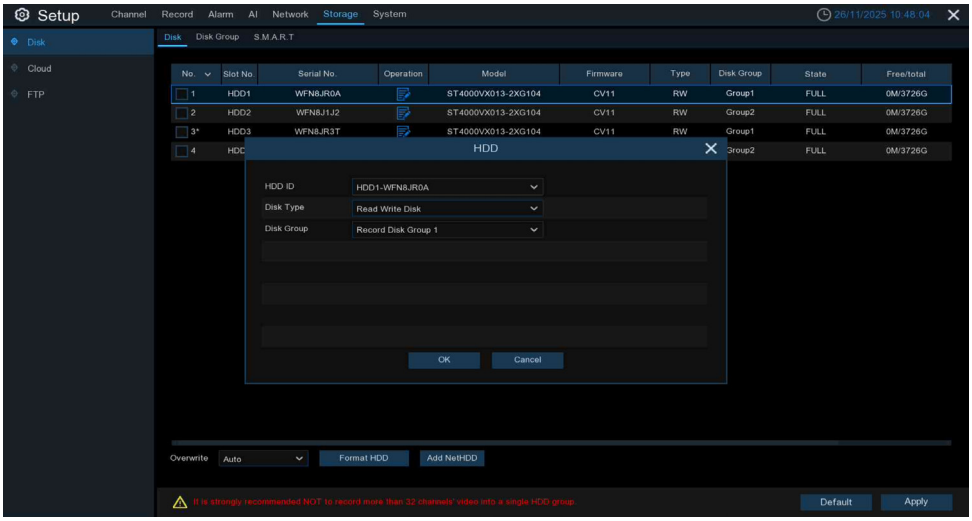
Overwrite: This instructs your NVR to overwrite the oldest video files as the hard drive fills up. You can also select the number of days that recordings should be kept before they are overwritten. For example, if you select 7 days, only the last 7 days' recordings will be kept on the HDD. Select 'Disable' if you do not want any old recordings to be overwritten. If you disable this feature, periodically check the status of your hard disk to ensure that it is not full.

Record on eSATA: If the NVR device supports an e-SATA interface, you can enable it to store video on an e-SATA hard disk; if not, the e-SATA will be connected to the device as a USB disk.

Note!

The E-SATA switch only appears when a hard disk is connected to the E-SATA port.

If your NVR supports the installation of multiple hard disks and you have installed more than one hard disk in your NVR, an 'Edit' button will appear in your system. You can click this to edit the HDD as shown below:



Disk type: Select whether the hard disk should be Read Write, Read Only or Redundant. (Read-write and read-only types only for more than 32 channels).

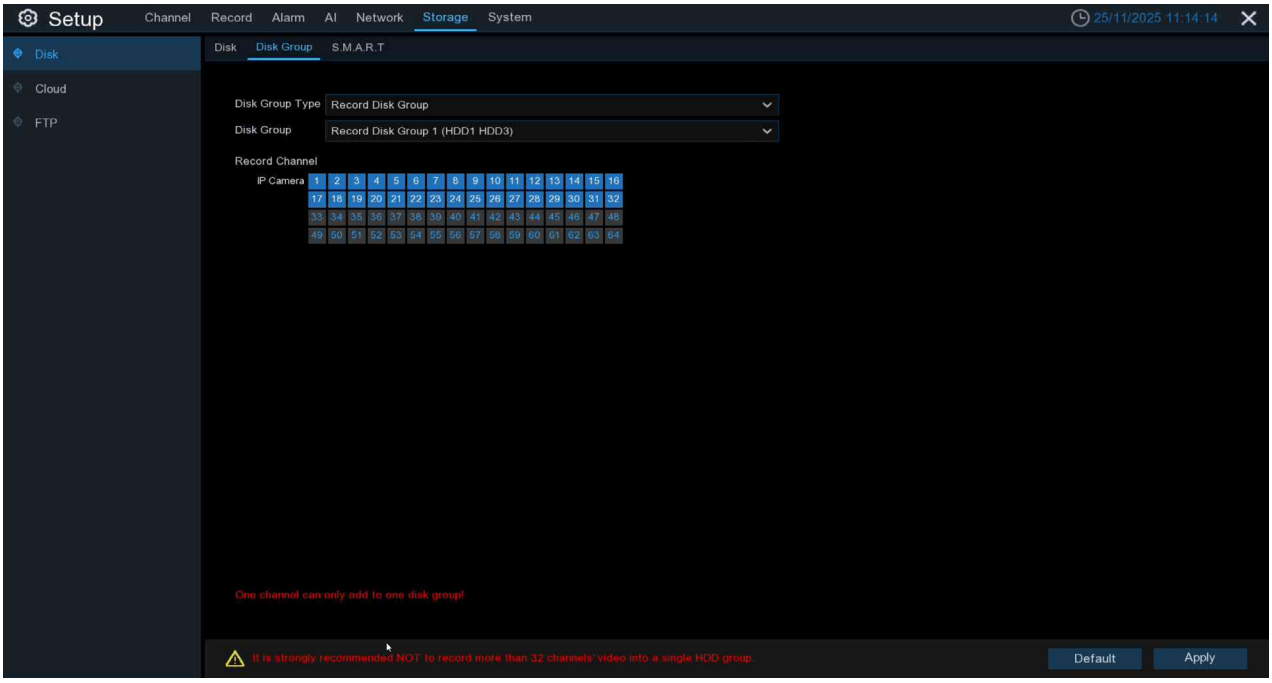
Read/Write Mode: This is the mode in which the hard disk normally reads and writes video.

To prevent important video data from being overwritten during auto rewrite, set the hard disk to Read Only mode. New video will not be saved to the Read Only disk, but you can still search for video to play back.

Redundancy mode: Configure important channels to the redundant disk. The system will then store the main stream data of these channels on the redundant disk. If the read/write disk fails, the data on the redundant disk is still available.

5.6.1.2 – Disk Group

The NVR supports the installation of multiple hard disks. By grouping these disks, you can specify which disk group each channel's video is written to. Disk groups can balance the recording workload across multiple hard drives. For example, you could record channels 1–16 to one disk group and channels 17–32 to another. This configuration reduces wear and tear on the hard disks and extends their life.



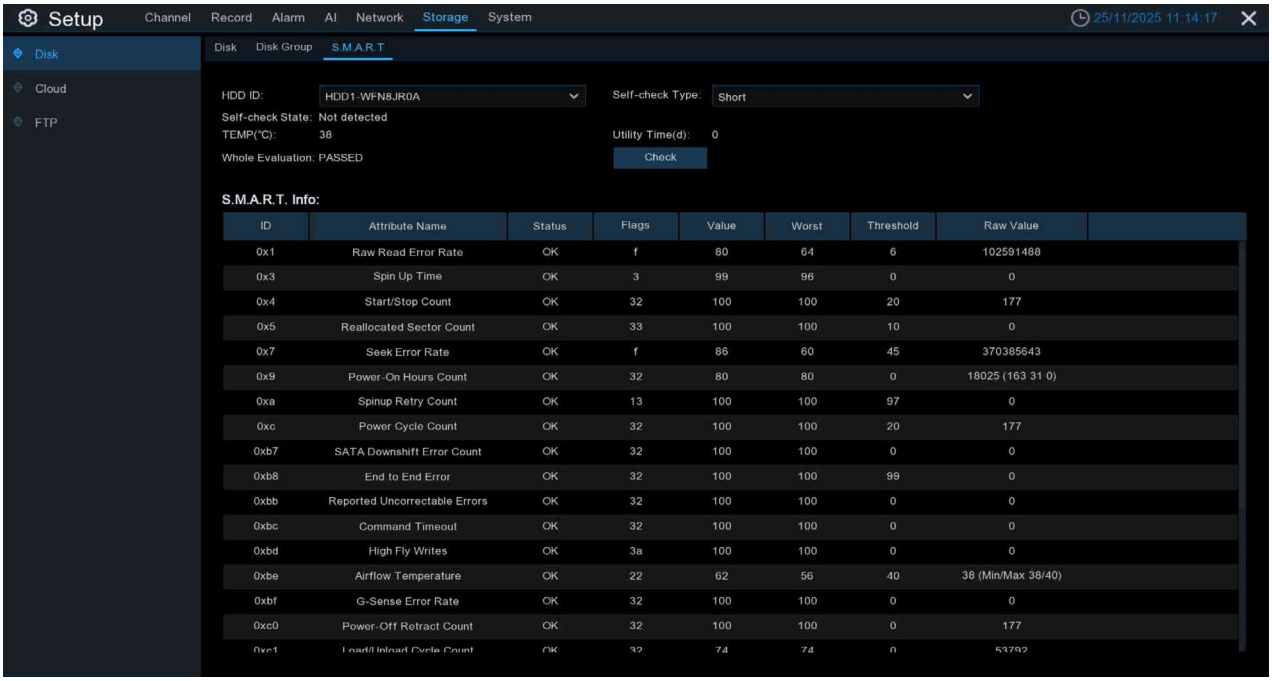
1. Select the type of disk group from the 'Disk Group Type' drop-down menu.
2. Select a group within the type using the Disk Group drop-down menu.
3. Select the channel to record to the disk in the selected group.
4. Click 'Apply' to save.

Note!

Models with more than 32 channels will prompt you. For a single disk group, it is recommended that you do not configure more than 32 video channels.

5.6.1.3 – S.M.A.R.T.

This function displays technical information about the hard drive installed in your NVR. You can also run a test to evaluate and detect potential drive errors; there are three types available.



ID	Attribute Name	Status	Flags	Value	Worst	Threshold	Raw Value
0x1	Raw Read Error Rate	OK	f	80	64	6	102591488
0x3	Spin Up Time	OK	3	99	96	0	0
0x4	Start/Stop Count	OK	32	100	100	20	177
0x5	Reallocated Sector Count	OK	33	100	100	10	0
0x7	Seek Error Rate	OK	f	86	60	45	370385643
0x9	Power-On Hours Count	OK	32	80	80	0	18025 (163 31 0)
0xa	Spinup Retry Count	OK	13	100	100	97	0
0xc	Power Cycle Count	OK	32	100	100	20	177
0xb7	SATA Downshift Error Count	OK	32	100	100	0	0
0xb8	End to End Error	OK	32	100	100	99	0
0xbb	Reported Uncorrectable Errors	OK	32	100	100	0	0
0xbc	Command Timeout	OK	32	100	100	0	0
0xbd	High Fly Writes	OK	3a	100	100	0	0
0xbe	Airflow Temperature	OK	22	62	56	40	38 (Min/Max 38/40)
0xbf	G-Sense Error Rate	OK	32	100	100	0	0
0xc0	Power-Off Retract Count	OK	32	100	100	0	177
0xc1	Load/Unload Cycle Count	OK	32	74	74	0	53792

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 performing a surface scan to reveal problematic areas (if any) and forces bad sector relocation.

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

Note!

If an HDD S.M.A.R.T. error is found, the HDD can continue to be used, but there is a risk of losing recording data. It is therefore recommended that you replace the HDD.

5.6.1.4 – RAID

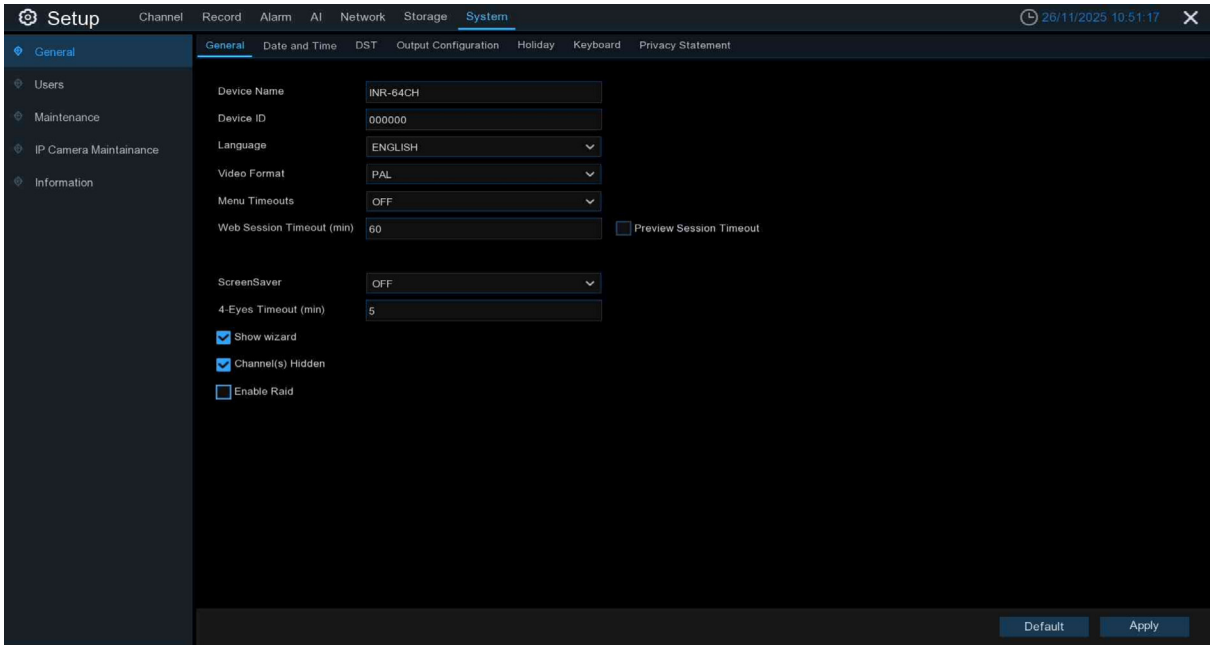
The RAID function requires high performance from hard disks. To ensure the long-term stability and reliability of the RAID system, it is recommended that enterprise-class hard disks are used for RAID creation and other configurations (including brand, model and capacity). Using surveillance-class or desktop-class hard disks may affect data security. The company shall not be liable for any data loss or damage caused as a result. Currently, only the 8-bay and 16-bay models support the RAID function.

Note!

Supported by 64 Channel Recorder

Enabling RAID

To open the general settings page, choose Main Menu > System > General. Select 'Enable RAID' to activate the RAID function, then save the configuration. This will take effect once the system has been restarted.



Note!

Once the RAID function has been enabled, the NVR will no longer support ESATA or NAS.

Creating RAID

RAID can be created either in one click or manually. RAID5 is created by default for one-click creation. RAID0, RAID1, RAID5, RAID6 and RAID10 are supported for manual creation. The type of RAID you can create depends on the number of hard disks you want to access.

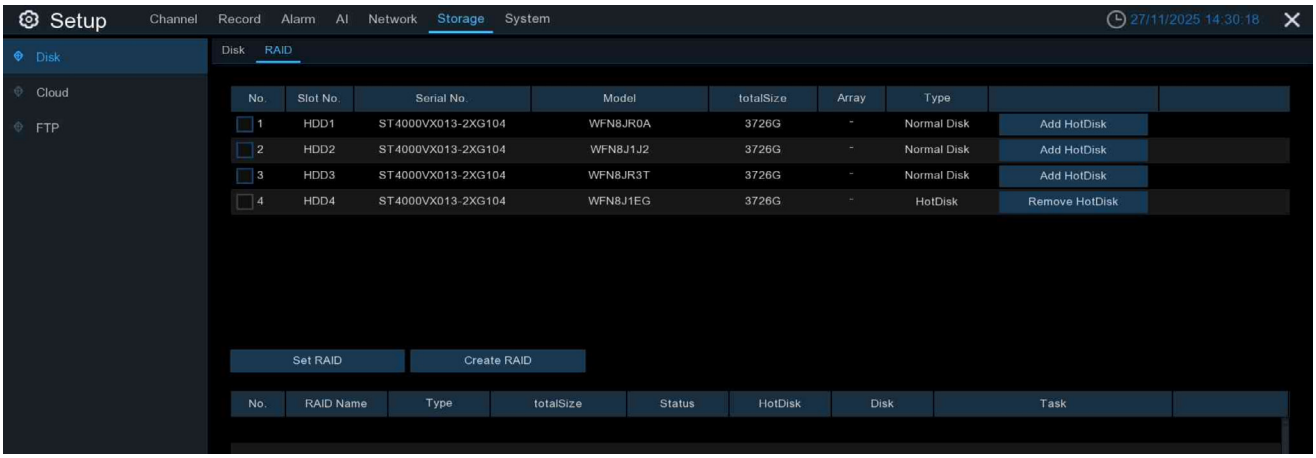
RAID Type	Hard Disk Quantity
RAID0	≥2
RAID1	2
RAID5	≥3
RAID6	≥4
RAID10	4 or 8

Note!

A single hard disk must have a capacity of at least 4 TB for RAID creation. A hard disk with a capacity of less than 4 TB cannot be selected for RAID creation.

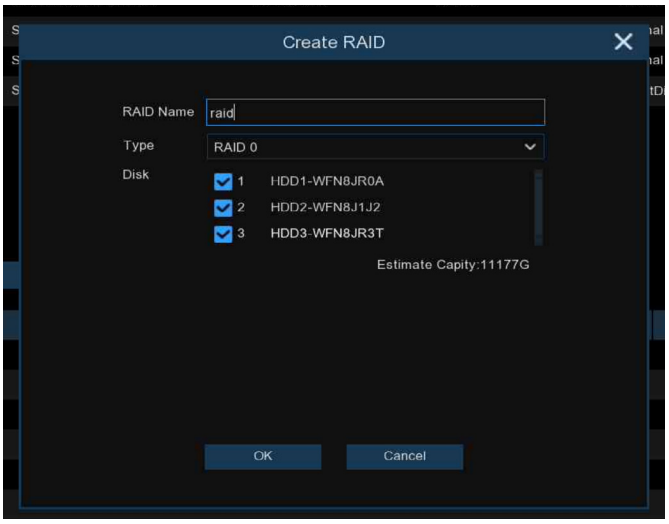
Automatic RAID Creation

The device can quickly create RAID and virtual disks through one-click configuration. RAID 5 is created by default using this method, for which at least four hard disks must be installed. To do this, click on "Set RAID" (left).



Manual RAID Creation

To create a RAID manually, click on “Create RAID” (on the right) to open the page of the same name. Enter a name for the RAID, select the RAID type and the hard disks, then click OK to create the RAID. Once the RAID has been created, format it.



In order to enable RAID for normal use, you first need to format it. Once formatting is complete, open the disk group configuration page, select the disk group and recording channels, and check that camera recording is working correctly.

Setting Hot Spare Disks

To ensure RAID security when the system is in a degraded state, RAID rebuilding can be carried out automatically. Therefore, it is recommended that hot spare disks are configured.
On the RAID configuration page, select an idle hard disk and click the 'Add Hot Disk' button to confirm the hot spare disk setting. (Note that hot spare disks are public disks and can be used by all created RAIDs.)

Rebuilding RAID

A RAID's operational status can be normal, degraded or offline. To make the most of the advantages of RAID and ensure the security and reliability of data storage, you should maintain the disks in a timely manner by viewing the RAID status. When there is no physical disk loss, a RAID is in a normal status; when the number of physical disks lost exceeds the threshold for the RAID type, a RAID is in an offline status; and when the situation falls between these two cases, a RAID is in a degraded status. A RAID in degraded status can be restored to normal status through RAID rebuilding.

Automatic RAID Rebuilding

Automatic RAID rebuilding requires the device to be configured with hot spare disks in advance, and the capacity of the hot spare disk should not be less than that of the smallest disk in the RAID array. If these conditions are met and a hard disk in a RAID fails, the hot spare disk is activated and considered a candidate for the RAID. The automatic rebuilding task then starts.

For example, a RAID 5 array consists of disks 1, 2 and 3, with disk 4 configured as a hot spare. If hard disk 2 fails and the system does not detect it, Therefore, RAID 5 is in a degraded state and hard disk 4 is immediately activated and considered a candidate disk. The rebuilding process then starts.

Note!

1. *Once the rebuild is complete, the RAID array will return to normal status.*
2. *Once the automatic rebuild process has finished, insert a normal hard disk and set it as a hot spare to ensure the process can start automatically the next time an exception occurs.*

Manual RAID Rebuilding

If a RAID has no hot spare disk and is in degraded status, automatic rebuilding cannot be implemented. You need to manually rebuild the RAID to restore it to normal status.

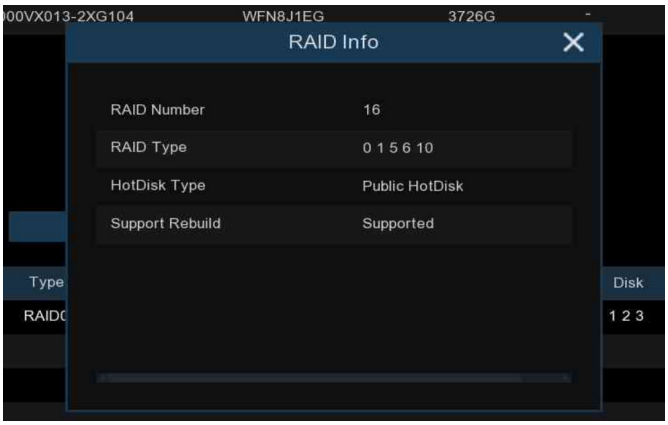
On the RAID configuration page, select an idle disk and click the 'Rebuild RAID' button. Verify the password and then start RAID rebuilding. Once the rebuild is complete, the RAID will be restored to normal status.

Deleting RAID

Select the RAID that you want to delete, click the 'Delete RAID' button, enter the administrator password and click 'OK' to confirm the deletion.

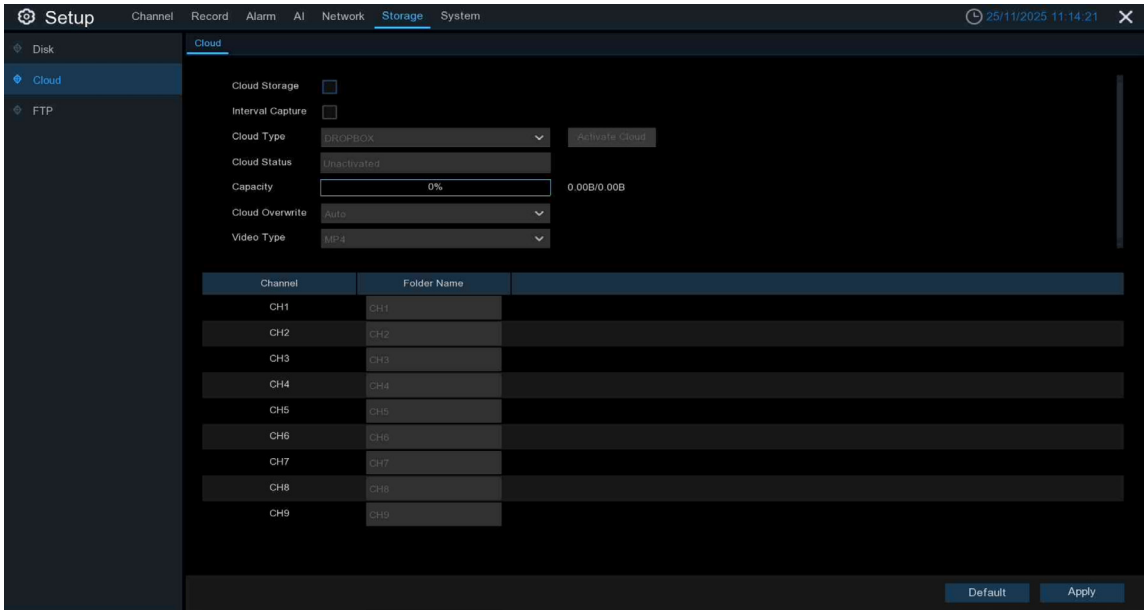
Viewing RAID Information

Click the RAID Info button to open the RAID Info page to view the RAID function information.



5.6.2 – Cloud Storage

The device uploads alarm images and video clips to the cloud for storage. Dropbox and Google Drive both offer free cloud storage services.



Before you can enable the cloud storage service, you need to create a Dropbox account using an email address and password. Once you have done so, log in to Dropbox.com by entering your email address and password. Then, agree to the terms and click the 'Login' button.

Cloud Storage: Enable the feature.

Cloud Server: Select the type of cloud storage; there are Dropbox and Google Drive options.

Cloud status: This shows the activation status of cloud storage: inactivated or activated.

Capacity: Displays the remaining/total capacity.

Overwrite storage: Set the cloud storage overwrite mode.

Video format: Select the format for uploaded videos. Supports RF, MP4 and AVI.

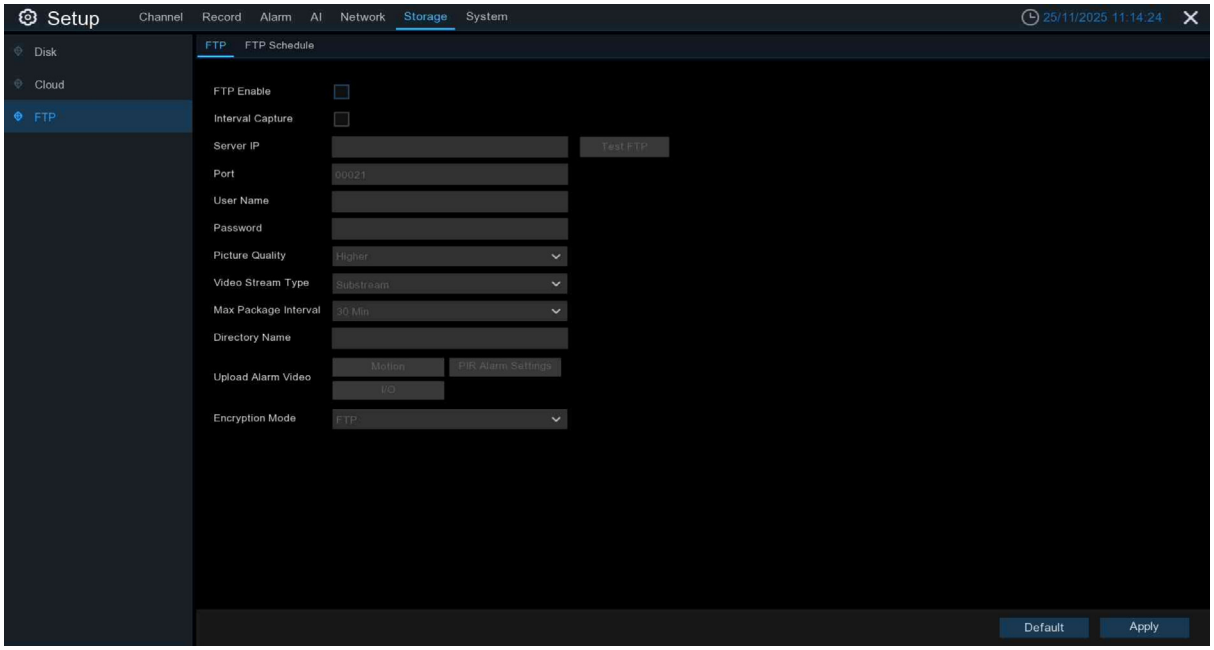
Folder name: Set the folder name for storing channel videos and pictures.

Activate cloud storage: Click to activate cloud storage. You will then see a message on the screen informing you that an activation link has been sent to your email address. Check your email and click the link to activate cloud storage.

5.6.3 – FTP

5.6.3.1 – Settings

This menu enables you to configure your FTP settings for uploading captured snapshots or videos to your FTP server.



Enable FTP: Click to activate the FTP function.

Interval capture: Automatically capture and upload pictures to FTP.

Server IP: Enter the IP address or domain name of the FTP server.

Enter the FTP service port.

Enter the username and password for the FTP server.

Picture quality: Set the picture quality for uploading to FTP. Options are: Highest, Higher, Medium, Low, Lower, Lowest.

Video stream type: Select the type of video stream to be uploaded to FTP. There are options for the main stream and the sub stream.

Maximum package interval: Set the maximum package interval, i.e. the maximum recording time for an event. If this time is exceeded, another video file will be created to continue recording.

Directory name: Enter the directory in which to save the uploaded files. When the NVR starts to upload files to the FTP server, it will automatically create a new directory on the server in which to store the files.

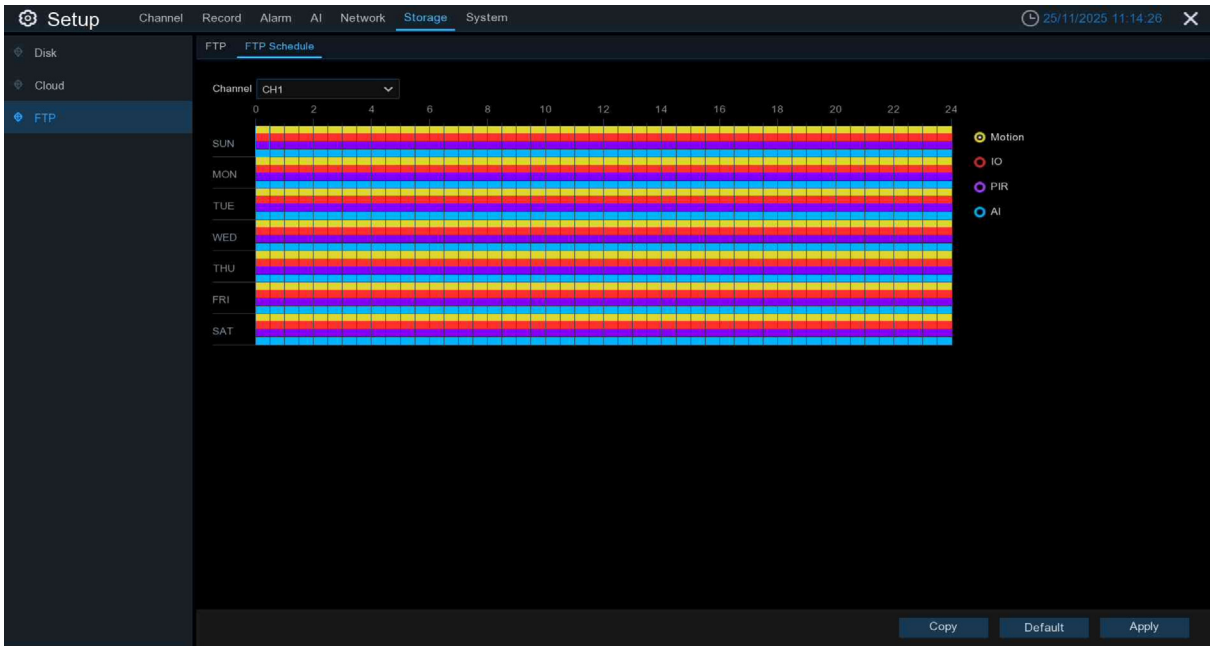
Upload alarm video: Set the warning type for uploading videos to FTP. Click the corresponding alarm type to enter the warning menu.

Test FTP: Click to test the FTP settings.

Encryption mode: Switch the encryption of the FTP or SFTP service.

5.6.3.2 – FTP Schedule

If FTP upload is enabled on your NVR, alarm images or videos will be uploaded 24 hours a day by default. However, you can change the schedule for uploading the alarm images or videos. For example, you may only want to receive alarm images or videos during the day, not in the evening. You can create an alternative schedule for each camera.



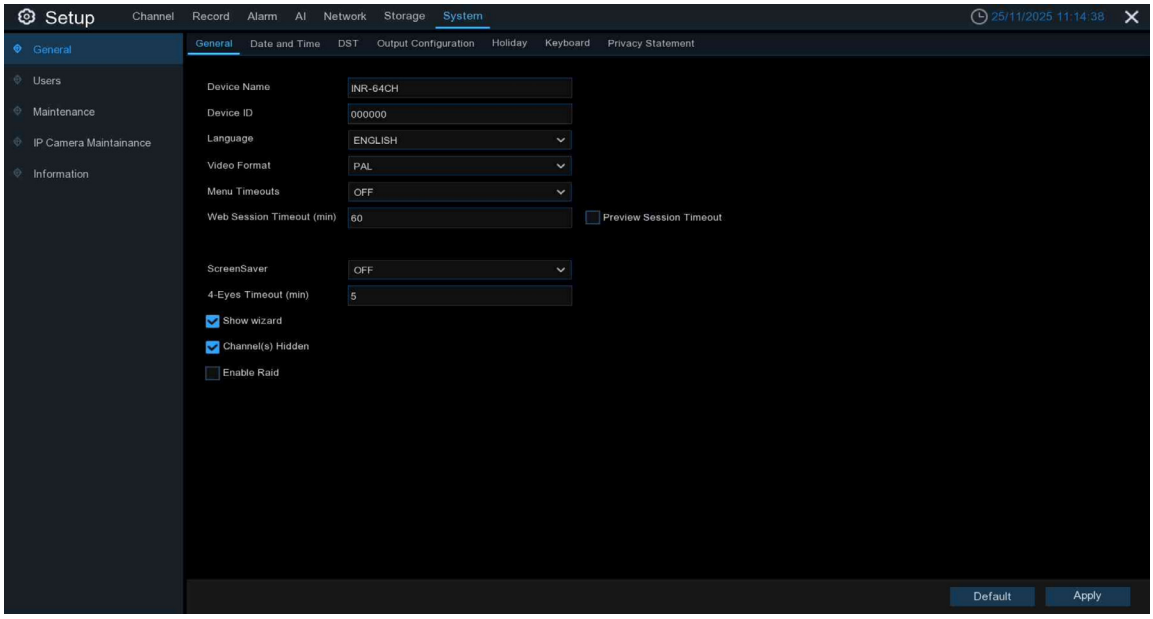
The colours on the FTP schedule have the following meanings:

- Yellow: Motion
- Rd: IO
- Purple: PIR
- Blue: AI

5.7 – System Configuration

5.7.1 – General

5.7.1.1 – General



Device name: Set the NVR name. The name can contain letters and numbers.

The device ID is used to identify the NVR and can only consist of numbers. For example, two NVRs may be installed in the same location. One has a device ID of 000000 and the other has a device ID of 111111. When operating the NVRs with the remote control, both NVRs may receive signals from the controller and act at the same time. To control only the NVR with ID 111111, enter this ID in the login page using the remote control.

Language: Select the language for the NVR system.

Video format: Set the video format to PAL or NTSC.

Idle lock time: Set the timeout for exiting the main menu and locking the system when there is no activity.

Web session timeout (min): Set the timeout for logging out when the web interface is idle.

Including Live View: Tick the box to apply the idle logout time to the web preview.

Show the startup wizard after system startup: Select this option if you want the startup wizard to appear every time you turn on the system.

5.7.1.2 – Date and Time

Static

Date: Click the calendar icon to change the date.

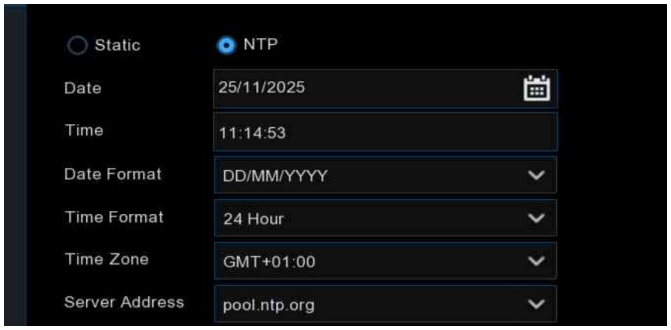
Time: Click the dialogue box to change the time.

Date format: Select your preferred date format.

Time format: Select the preferred time format.

Time zone: Select the relevant time zone for your region or city.

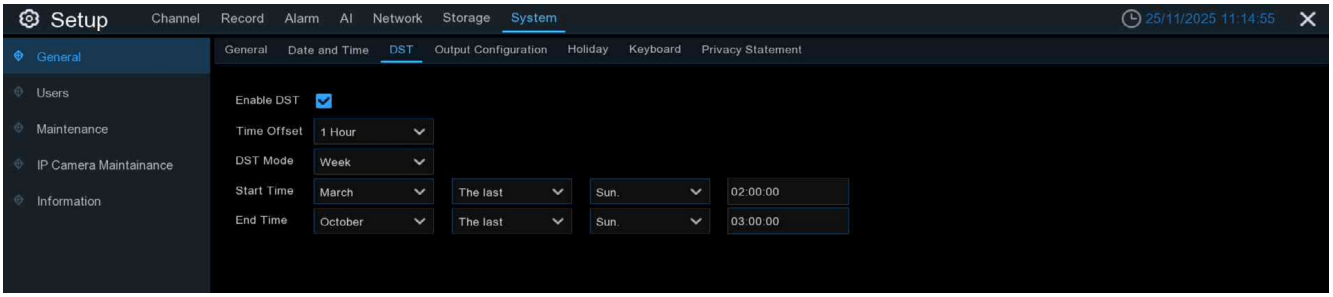
NTP



To enable NTP, select a server address or manually enter the address of a server that supports NTP calibration. Then click 'Update Now' to manually synchronise the date and time.
When the NTP function is enabled, the system will update the time at 00:07:50 every day or when the system starts up.
Click 'Apply' to save your settings.

5.7.1.3 – DST

If daylight saving time (DST) is practised in the user's region, you can set the relevant parameters and enable DST in this interface.



Enable DST: Enabling Daylight Saving Time

Time offset: This sets the length of the time offset for DST.

DST mode: Set the start and end mode of daylight saving time.

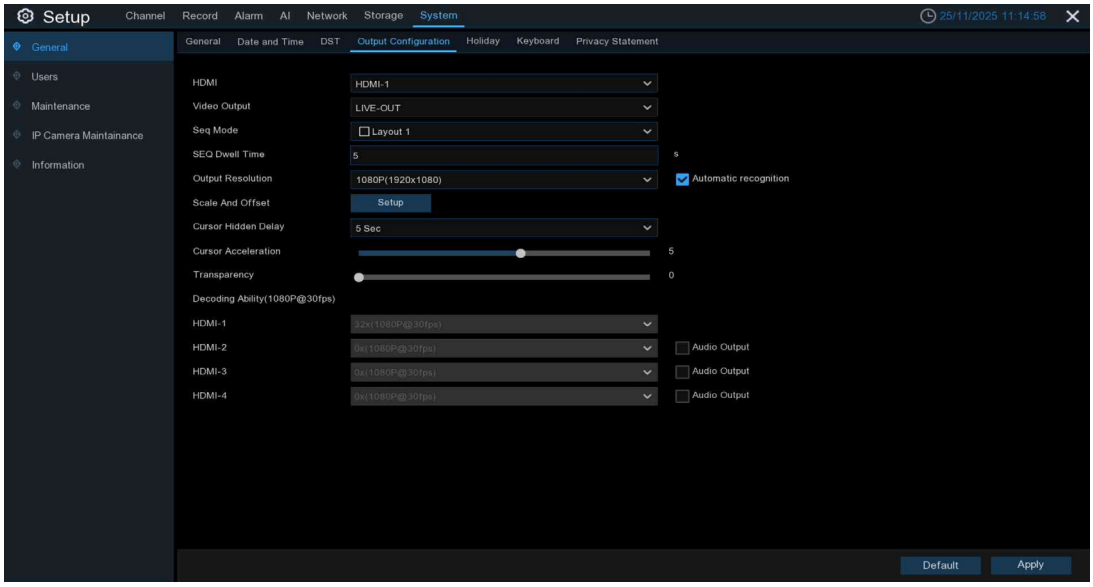
Day of Week: Select the month, day of the week and time at which DST starts and ends. For example, 02:00 on the first Sunday of a particular month.

Date: Select the start date (click on the calendar icon), the date and time when DST starts and ends.

Start time/end time: Set the start and end times of Daylight Saving Time.

5.7.1.4 – Output Configuration

This menu enables you to configure the parameters of the video output.



Select 'LIVE-OUT' mode from the 'Video Output' drop-down menu.

Cycle mode: Set the number of video channels to be displayed on the split screen when the NVR is in Cycle Mode.

Cycle dwell time: Set the cycle time in seconds.

Output resolution: Select the appropriate display resolution for your monitor.

Automatic recognition: The NVR will automatically recognise the resolution of the monitor. When enabled, the NVR detects when the system's resolution reaches the monitor's maximum supported resolution and prompts you to switch to the appropriate resolution.

Scale and offset: The NVR supports adjusting the size and position of the display to match the monitor. Click the Setup button to adjust.

Select LIVE-OUT mode in the Video Output drop-down menu.

Cycle mode: Set the number of video channels to be displayed on the split screen when the NVR is in cycle mode.

Cycle dwell time: Set the cycle time in seconds.

Output resolution: Select the appropriate display resolution for your monitor.

Scale: Scales the size of the displayed screen.

X offset: Moves the screen left or right.

Y offset: Moves the screen up or down.

Click once or press and hold the left mouse button over the arrows to adjust the size and position. Alternatively, scroll the mouse wheel to adjust. Click the right mouse button to exit or click 'Apply' to save the changes.

Cursor Hidden Delay: Set the time for hiding the mouse cursor when the NVR is idle.

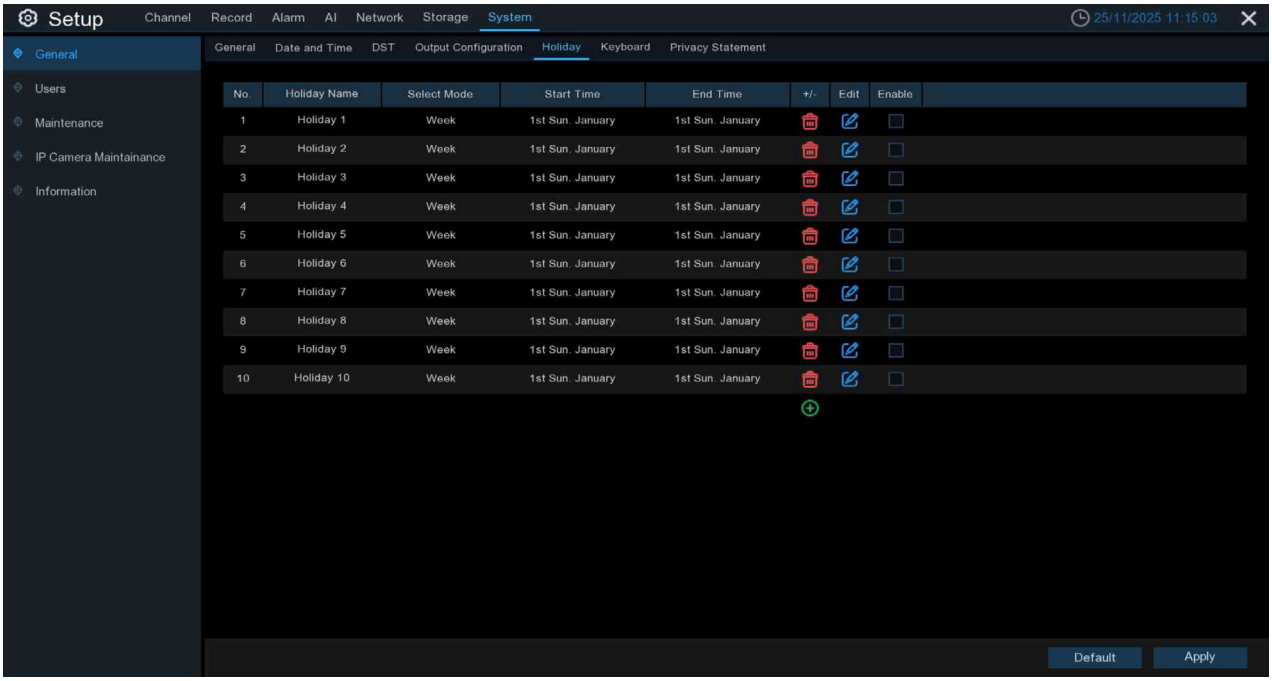
Cursor acceleration: Adjust the speed of cursor movement.

Transparency: Click and hold the left or right slider to adjust the transparency of the menu bar and main menu on the screen.

Note!

1. *When the output resolution of the device is set to 8K, the HDMI-2 output will be disabled and it will not be possible to output an image.*
2. *The device only supports an 8K output via HDMI-1.*

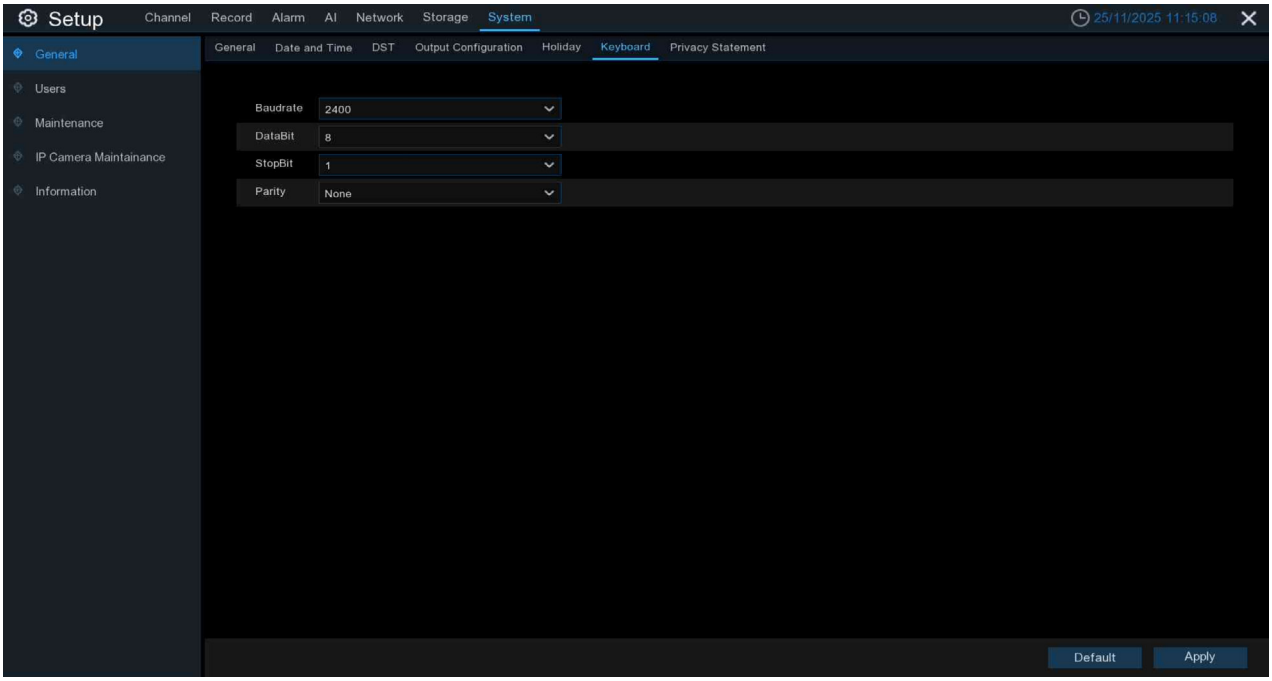
5.7.1.5 – Holiday



Note!

Some text is still missing here. We will add it shortly.

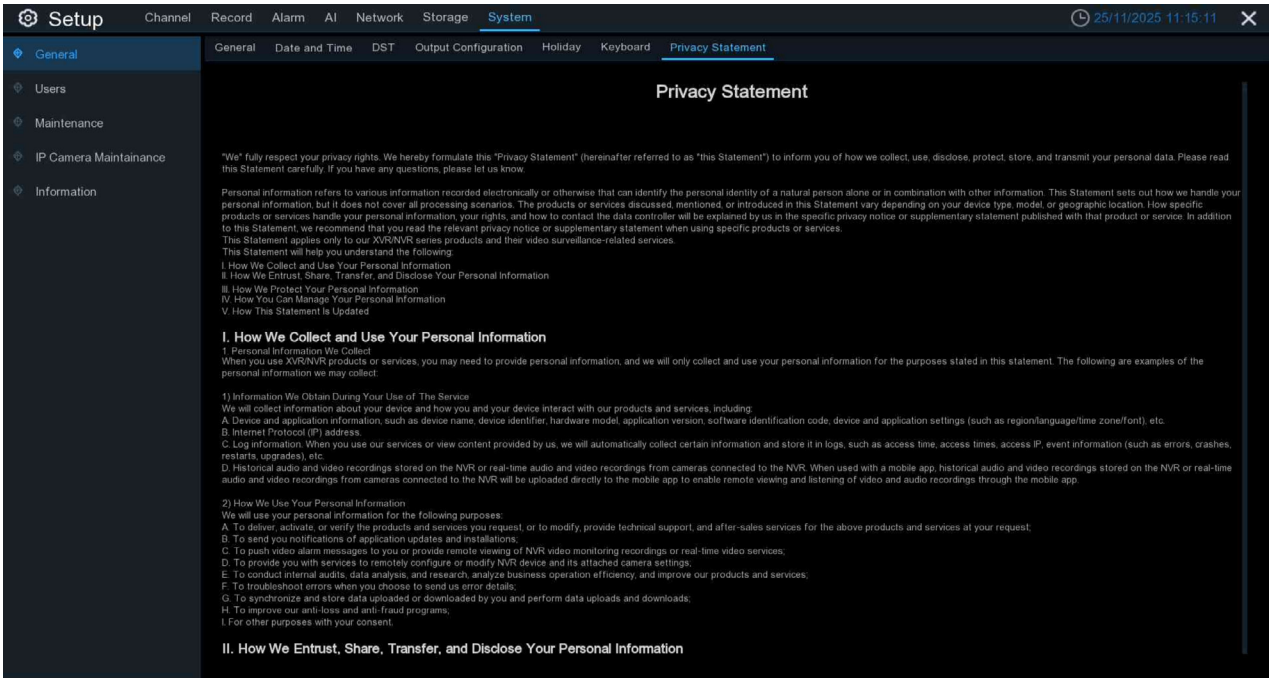
5.7.1.6 – Keyboard



Note!

Some text is still missing here. We will add it shortly.

5.7.1.7 – Privacy Statement

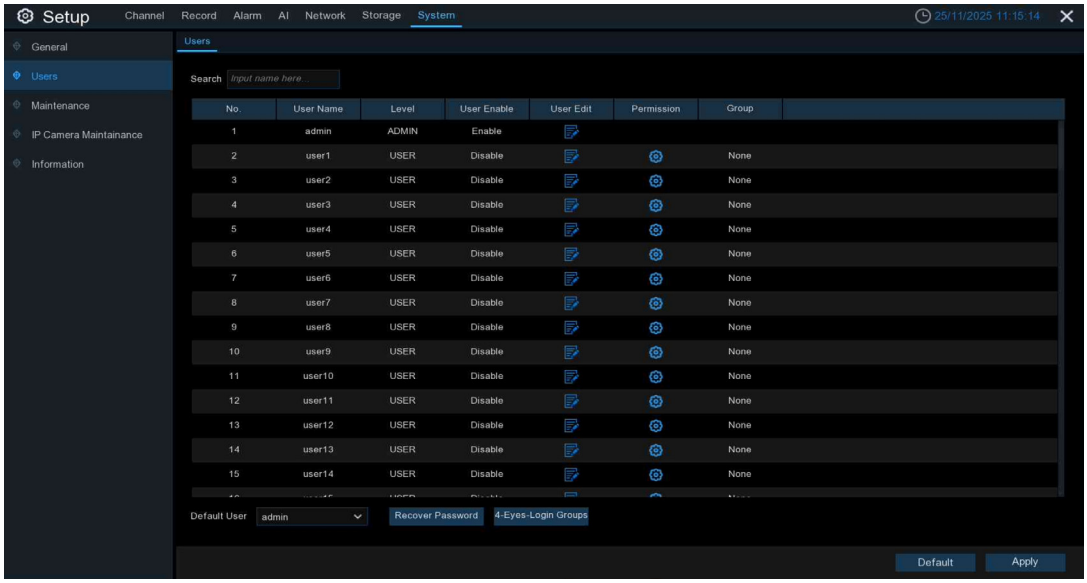


Note!

Some text is still missing here. We will add it shortly.

5.7.2 – Users

This menu enables you to configure user names, passwords and permissions.



The system supports the following account types:

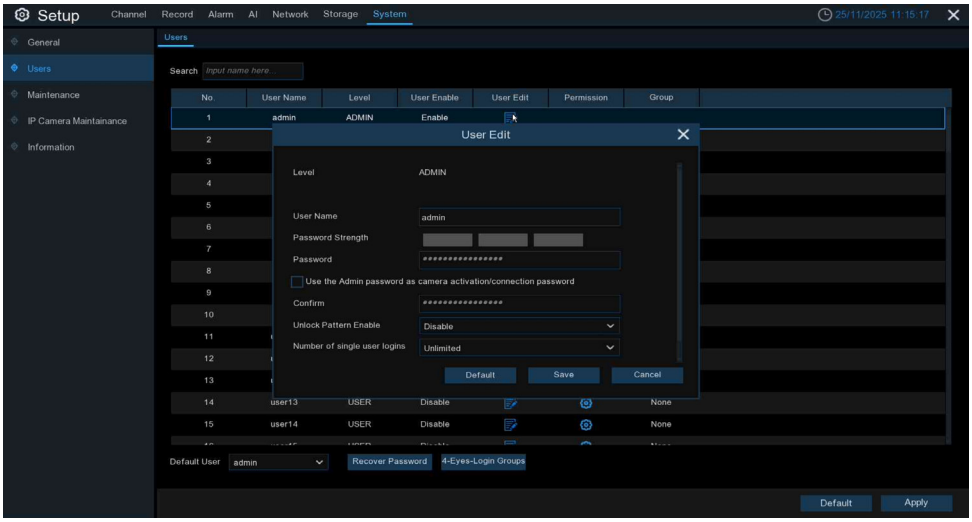
ADMIN: The system administrator has full control of the system and can change the passwords of both administrators and users, as well as enabling or disabling password protection.

'USER': Normal users only have access to live viewing, searching, playback and other functions. You can set up multiple user accounts with different levels of system access.

Default user: select this option to log in to the system automatically when it starts up.

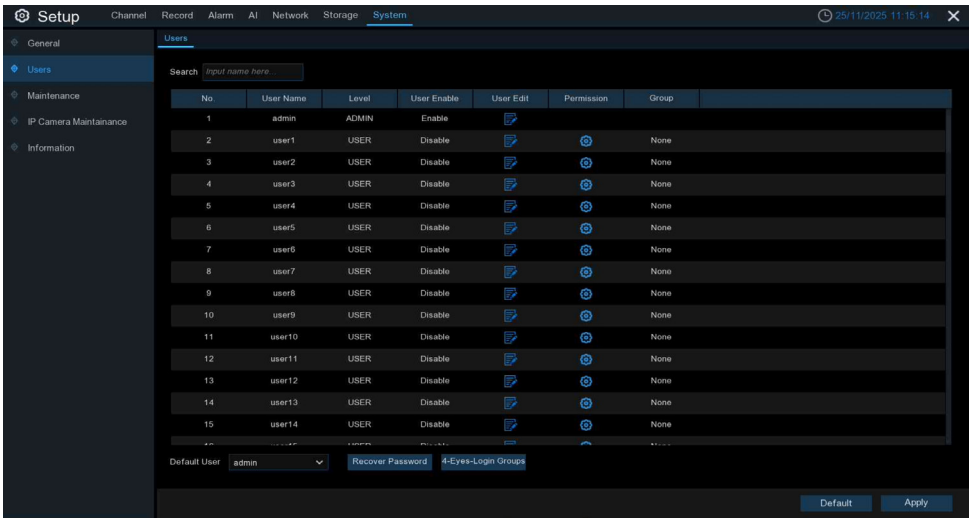
5.7.2.1 – Changing Passwords and Single-User logins

If you need to change the administrator or general user password, click the icon. The password must be between 8 and 16 characters long. It must not be the same as the user's name. It should contain at least two of the following: numbers, uppercase letters, lowercase letters, or special characters. The maximum number of users who can access the account is 1–20 or unlimited. Click Save to save the settings.



5.7.2.2 – Add New User

Choose an inactive user and click the 'User Edit' icon.



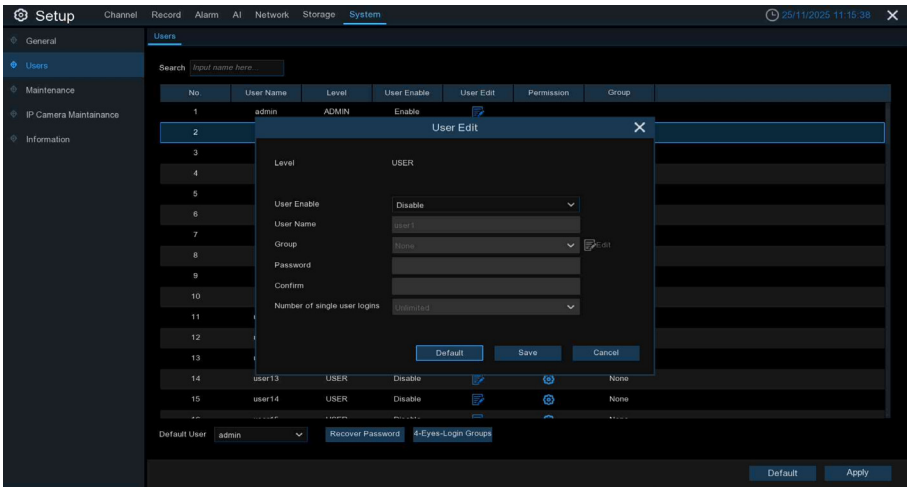
To enable a user, select 'Enable' from the 'User Enable' drop-down menu.

Click 'User Name' to edit the user's name.

To enable the user, select 'Password Enable' from the 'Enable Password' drop-down menu.

Enter the desired password in the Password field.

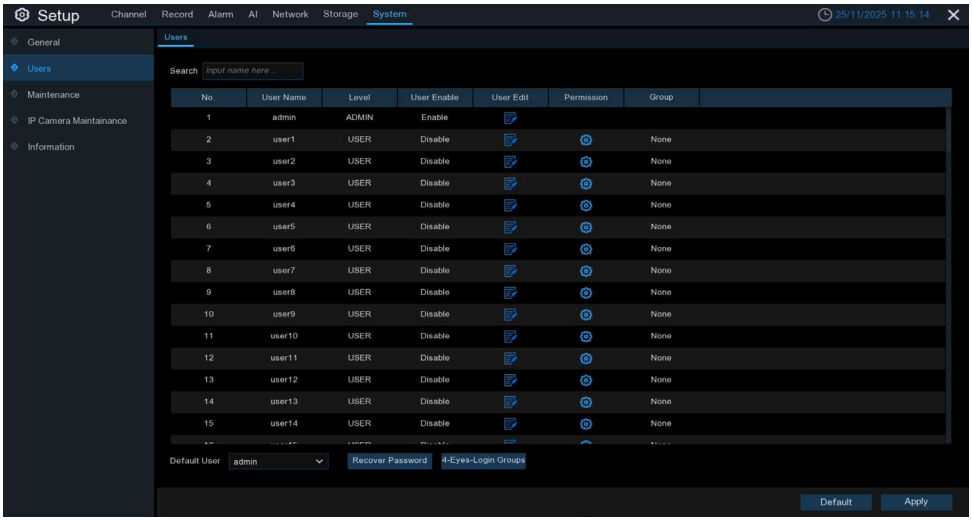
Click the 'Confirm' field to re-enter the password.



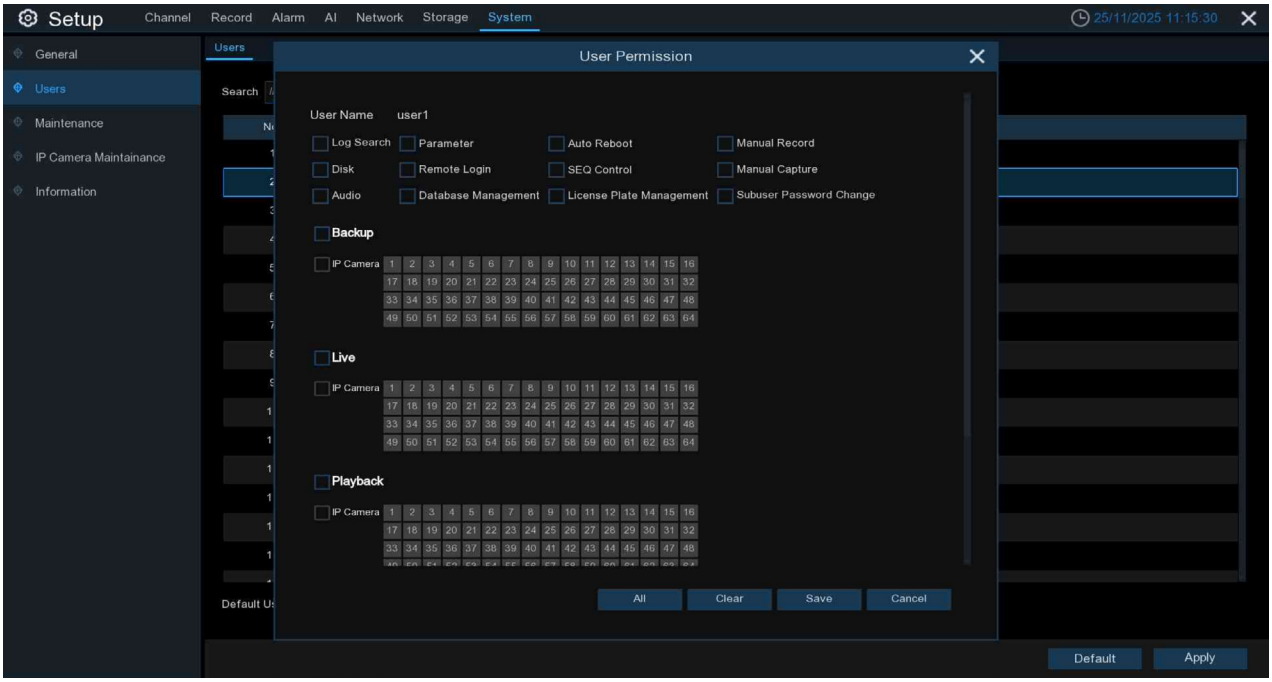
Click 'Max. Login Number to set the maximum number of users who can access the device.

5.7.2.3 – Edit User Permissions

The administrator account has full control of all system functions. You can enable or disable access to specific menus and functions for each user account.



Click on the 'Edit' icon under the 'Permissions' tab.



Set the user's permissions by ticking the boxes corresponding to each function. Click 'All' to select all boxes. Click Clear to uncheck all boxes.

Using the User Password Permission Setting, the administrator can select the permissions for general users as required.

The following permissions are available:

Log Search: You can view the logs of the alarm type.

Parameter Setting: You can set the parameters for all pages.

• Maintenance: You can perform system version upgrades, restore factory values, reboot and shut down devices, and perform other maintenance tasks.

Manual Recording: You can manually start and stop recording.

Hard disk management: You can manage and control the operation of the hard disk and USB drive.

Remote login: Check whether remote access to the NVR is permitted.

Polling control: Polling to view the real-time preview of all channels.

Manual capture: You can manually start capturing images.

Audio: You can control the channel audio modulation and intercom.

Database management: whether you can operate the face database.

License plate management: whether you can operate the license plate database.

Sub-user password modification: whether sub-users can modify their passwords when logged in.

Backup: After enabling the box in front of 'Backup' and selecting the channels to be backed up, ordinary users have the authority to back up the selected channels' video.

Preview: After enabling the preview function and selecting the channels for which previews are available, ordinary users can monitor the real-time preview of the selected channels.

Video playback: After enabling the box in front of 'Video Playback' and selecting the channels to be viewed, ordinary users can play back the videos of the selected channels.

PTZ: After enabling the "PTZ" box and selecting an operable channel, ordinary users have PTZ operating authority.

Click Save to save the changes.

5.7.3 – Maintenance

In this section, you can search and view the system log, load the default settings, upgrade the system, export and import system parameters, manage the system auto-reboot and perform other tasks.

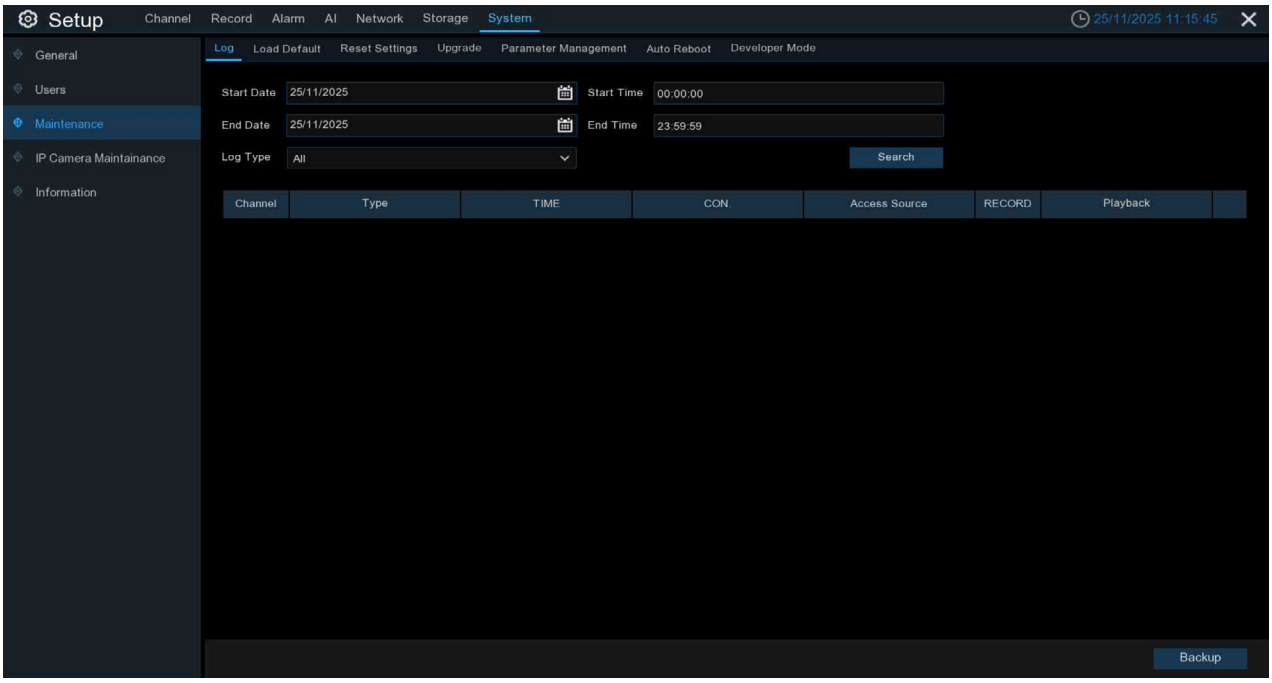
5.7.3.1 – System Log

The system log records relevant system events, such as various types of alarm and system operation logs.

Log Search and Backup.

Click on the Start Date and Start Time fields to select the start date and time of the search from the on-screen calendar.

Then click the area next to 'End Date' and 'End Time' to select the end date and time of the search from the on-screen calendar.



Select the log type of event to search for from the drop-down list next to 'Log Type', or select 'All' to view the entire system log for the selected time period.

System: Records information about system settings, reboots, auto-reboots, upgrades, time settings, and NTP calibration.

Configuration: Records IPC preview control, privacy area settings, recording mode settings, recording schedule settings, master stream settings, network settings, sub stream settings, email settings, colour settings, motion detection settings, hard disk settings, multi-user settings, NTP settings, image control settings, motion stream settings, RTSP settings, IP filtering settings, system restore factory settings, audio settings and video masking settings.

Alarm: Motion detection start and end, I/O alarm start and end, video tamper start and end, perimeter intrusion start and end, line crossing start and end, stationary object start and end.

Pedestrian and Vehicle, End of Pedestrian and Vehicle, Start of Face Detection, End of Face Detection, Start of Cross Counting, End of Cross Counting, Start of Crowd Density, End of Crowd Density, Start of Queue Length, End of Queue Length, Start of License Plate Detection, End of License Plate Detection, Start of Rare Sound, End of Rare Sound, Start of Sound Alarm, End of Sound Alarm, Start of Intrusion, End of Intrusion, Start of Region Entrance, End of Region Entrance, Start of Region Exiting, End of Region Exiting.

Account: Records of local and external visitors logging in and out.

Record: Logs of search, playback and backup operations.

Storage: Records information such as formatting the hard disk, the hard disk being full, and hard disk errors.

Click Search.

Browse system logs from the selected time period.

Events can be played back immediately by clicking 'Playback'.

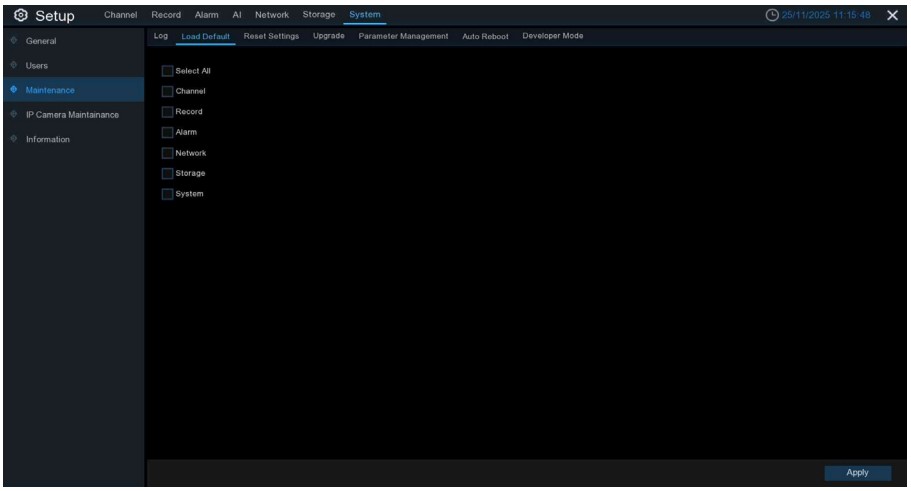
Use the button in the bottom right-hand corner of the menu to toggle between pages of system log events.

Click 'Backup' to create a backup of the system log. Ensure that an external storage device is connected to the USB port of the NVR.

The 'Backup Drive' menu will appear. Navigate to the folder where you want to save the backup file, then click OK to begin.

5.7.3.2 – Load Default

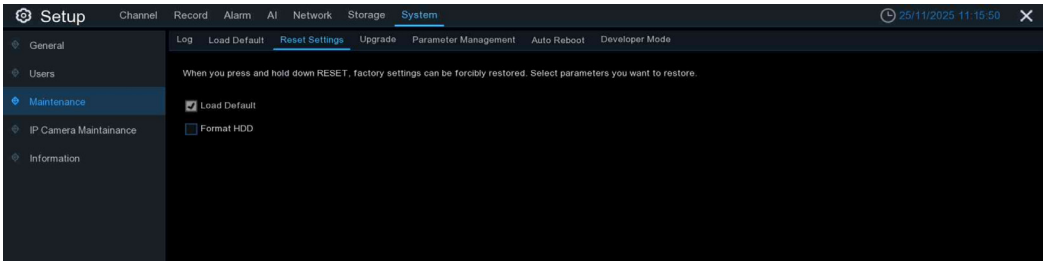
Reset the NVR settings to their original state. You can choose to reset all settings at once or just the settings in specific menus. Restoring the default settings will not delete any recordings or snapshots saved to the hard drive.



Tick the box next to the item(s) you want to restore, or select 'Select All' to choose all items. Click 'Apply' to load the default settings for your selected items.

5.7.3.3 – Reset Settings

Some models have a reset button on the rear panel that restores the factory settings. Press and hold this button for 10 seconds to activate it.



HDD formatting: You can choose to format the HDD when restoring the factory settings by pressing and holding the Reset button.

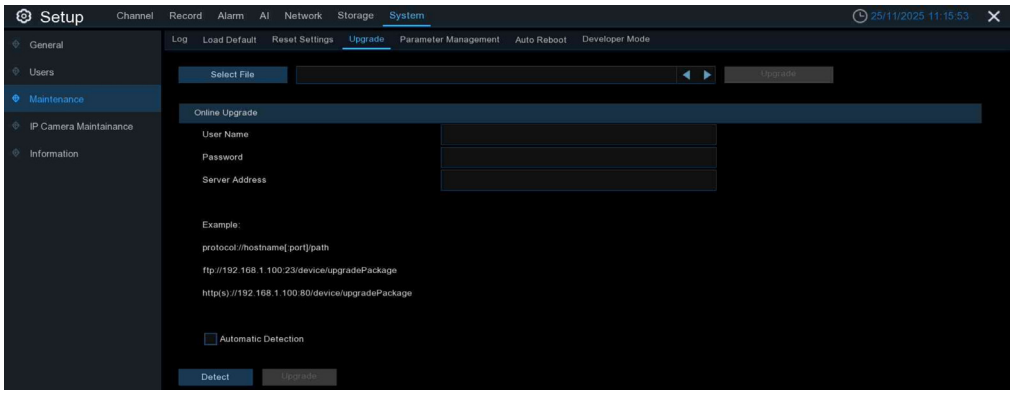
5.7.3.4 – Upgrade

Upgrade by USB Flash Drive

1. Copy the firmware file to your USB drive. The file will generally end in ".sw". Insert the USB flash drive into the NVR's USB port.
2. Click the 'Select File' button to choose the firmware file on your USB flash drive, then click 'OK'.
3. Click the 'Upgrade' button to start the firmware upgrade. The upgrade will take around 5–10 minutes. Do not power off the NVR or remove the USB drive during the upgrade.
4. The NVR will reboot once the upgrade is finished.

Online Upgrade

The device supports over-the-air upgrades. To use this function, you need to set up an upgrade server in advance and create a directory on the server to store files. You also need to upload the upgrade firmware.



Username: Set the server username. If the server has no user, leave this parameter blank.

Password: Set the server password; if the server has no password, leave this parameter blank.

Server address: Used to set the server address. You need to set the upgrade address to the directory where the upgrade files will be stored.

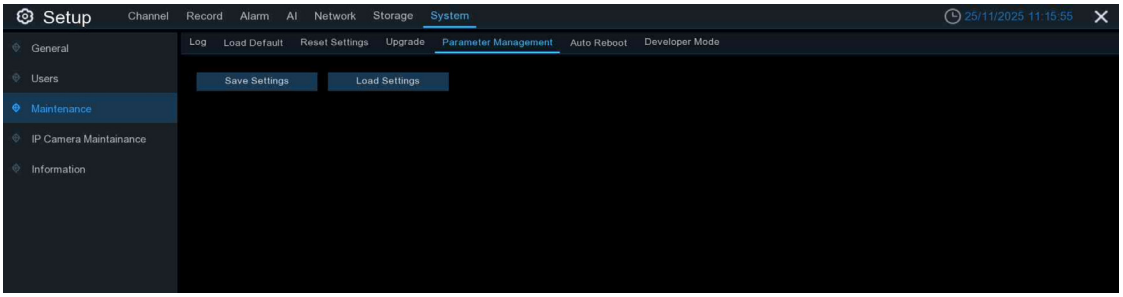
Automatic detection: If selected, the device will check for and upgrade the server firmware during startup and operation. If there is upgradeable firmware, a prompt will appear.

Detect: Click this button to manually check whether the server has upgradeable firmware.

The 'Upgrade' button will appear when it is detected that the server has upgradeable firmware. Click it to confirm the upgrade operation on the device.

5.7.3.5 – Parameter Management

You can export system settings to a USB flash drive or import a system settings file from a USB flash drive into the NVR.

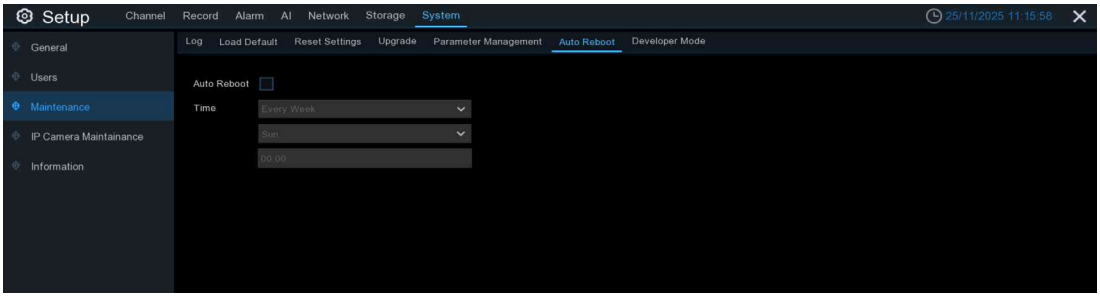


Save Settings: Saves the current device's system configuration parameters to the specified USB storage directory.

Load Settings: Imports the configuration parameters from the specified USB storage directory into the current device. The device will reboot automatically once the import is complete.

5.7.3.6 – Auto Reboot

This menu enables the system to reboot the NVR automatically at regular intervals.

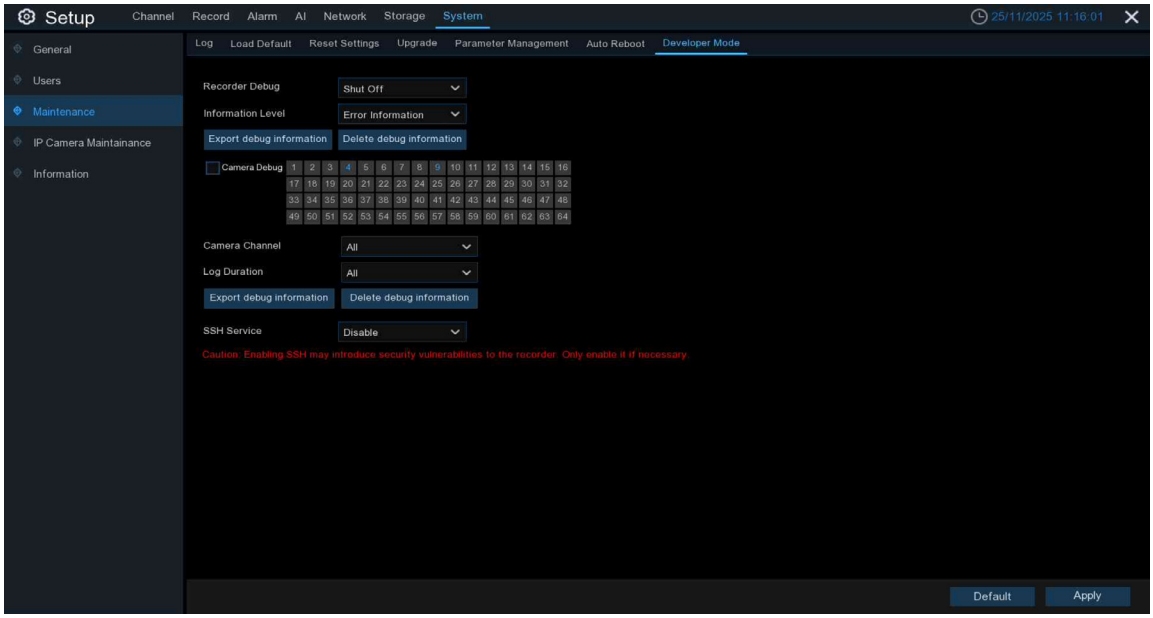


Auto Reboot: Tick to enable.

Time: Set the NVR to reboot by day, week or month.

5.7.3.7 – Developer Mode

This page enables developers to collect serial port log information when an exception occurs while the system is running.



Telnet: Enabling Telnet allows you to log in to the device.

Debug information: Select a location to save the serial port log.

Shut off: The debug log won't be saved.

Output to Terminal: The debug log will be outputted to the terminal port.

Output to disk: The debug log will be saved to the hard disk drive.

Information level: Used to set the printing level of serial port log information. To enable technical personnel to quickly locate problems, you can set the log output levels in accordance with the device's maintenance requirements.

System information: Only system-level logs (e.g. low-level drivers) and necessary information during program operation will be outputted.

Error information: In addition to system information, errors or exception information during program operation are included in the error log.

Running information: In addition to the error log, important information about the program's operation is output for the developer to analyse the program's running status.

Debug information: In addition to running information, any relevant information added by the developer in advance to assist with debugging and troubleshooting is also output. There is a lot of print information at this level, which may affect device operation. In general, it is recommended that this option is disabled.

Debug trace information: At this level, more detailed debug information is output to assist technical personnel in analysing and locating bugs in functional modules. This option is only enabled when technical personnel clearly require more detailed information.

Export debug log: Export the debug log file from the hard disk drive to your USB flash drive.

Delete debug log: Delete the debug file from the hard disk drive.

Camera debug: Select whether to record the camera's serial logs to the VCR and save the corresponding channel of the camera debug logs to transmit them to the VCR.

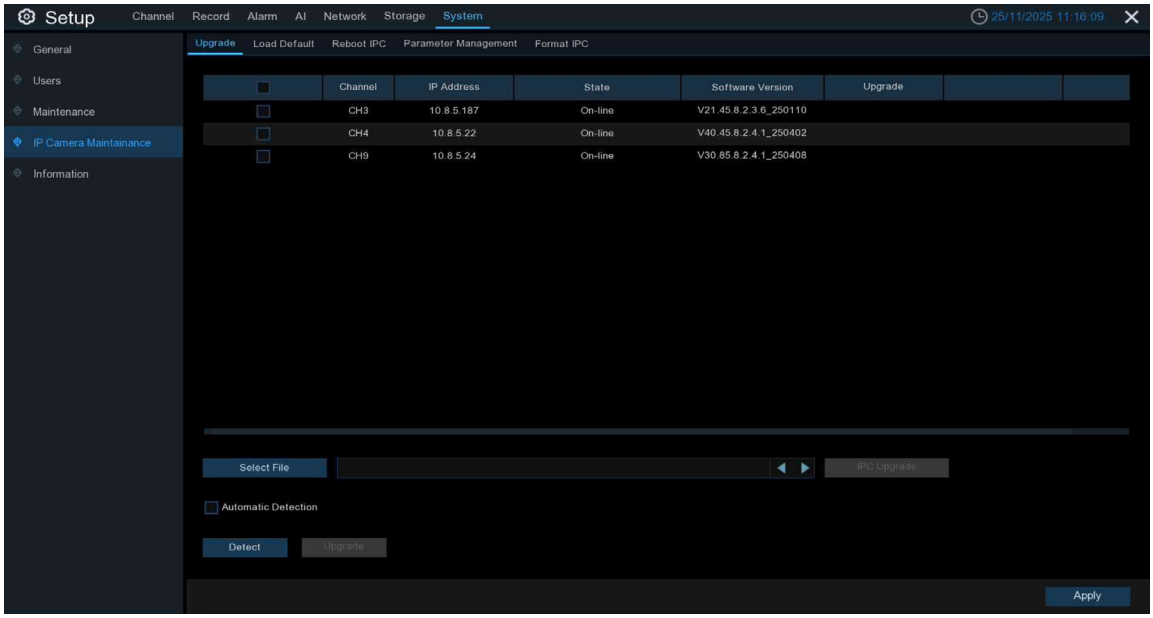
Download debug logs: Export the camera debug logs to a USB flash drive. This supports saving by channel and recording time.

Clear debug logs: Deletes the camera debug logs stored on the hard disk.

SSH Service: When enabled, you can use SSH to access the device.

5.7.4 – IP Camera Maintain

5.7.4.1 – Upgrade



Select the IP camera whose firmware you want to upgrade.

Click 'Select File', select the update file from your USB flash drive, then click 'OK'.

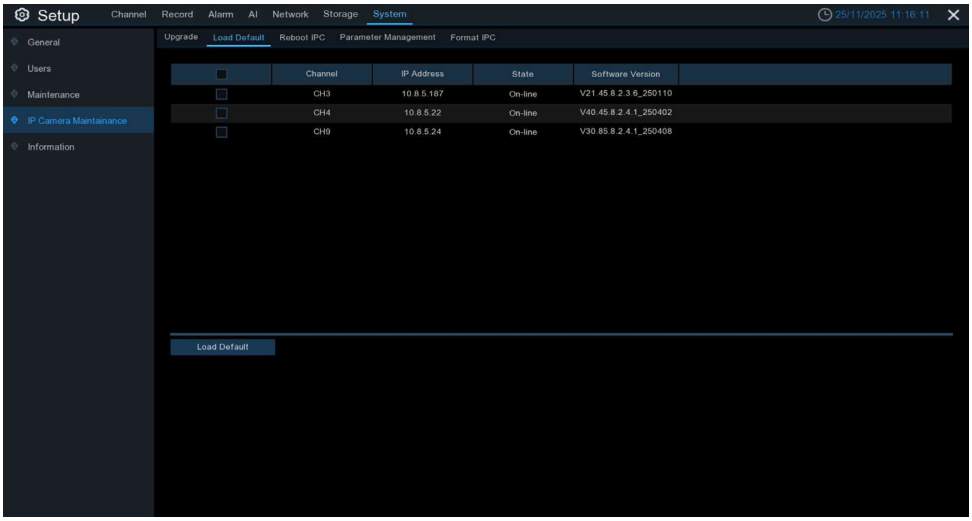
Click the 'IPC Upgrade' button to start the upgrade process. You will then be prompted to enter the administrator's password for authentication. Do not power off the NVR or IP camera or remove the USB during the upgrade process.

Automatic detection: When this feature is enabled, the device will check for the latest upgrade file on the server after it has been switched on and has been running for 24 hours. If it finds one, it will prompt you to confirm whether you want to upgrade.

Detect Now: Manually detect whether the latest upgrade file is available.

Upgrade: If the latest upgrade file is detected, you can click to upgrade.

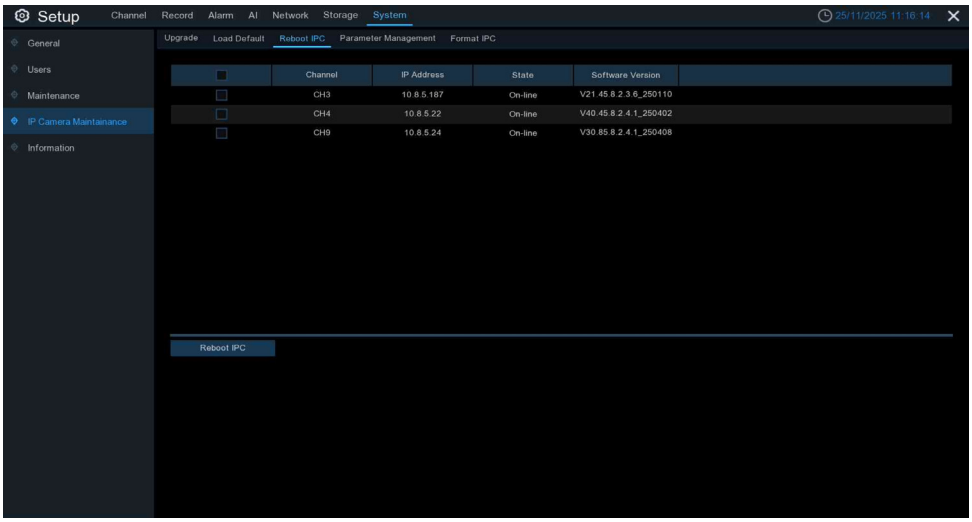
5.7.4.2 – Load Default



Select the IP camera(s) that you wish to restore.

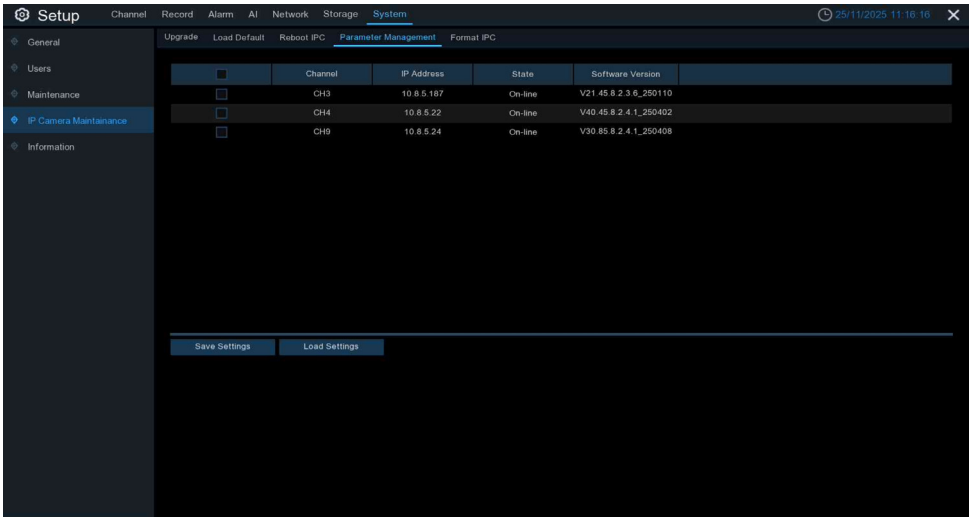
Click 'Load Default' to restore the settings. You will then be prompted to enter the administrator's password for authentication.

5.7.4.3 – Reboot IPC



If you encounter any issues, select the camera(s) and click the 'Reboot IPC' button to reboot the selected camera(s).

5.7.4.4 – Parameter Management

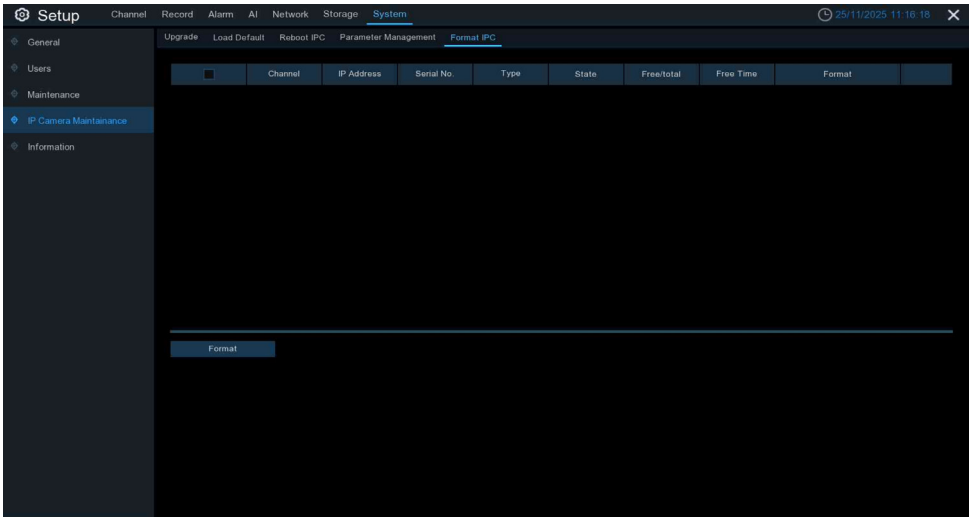


Select the camera(s) and then click "Save Settings" to export the configuration file with all your customized settings to your USB stick.

Load settings: Click this button to import a configuration file with all your customized settings and apply them to the selected camera(s).

5.7.4.5 – Format IPC

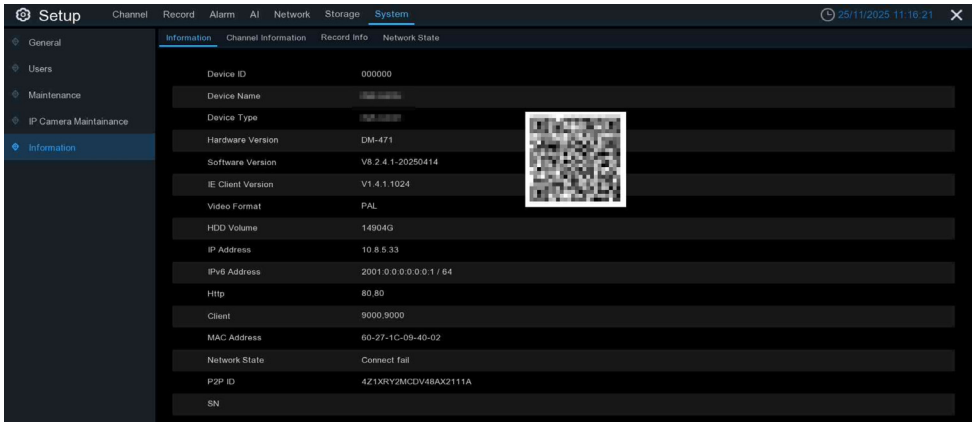
The system can detect network cameras connected via the HTTP port that have accessed the SD card. Select the SD card of the network camera and click "Format" to format it.



5.7.5 – Information

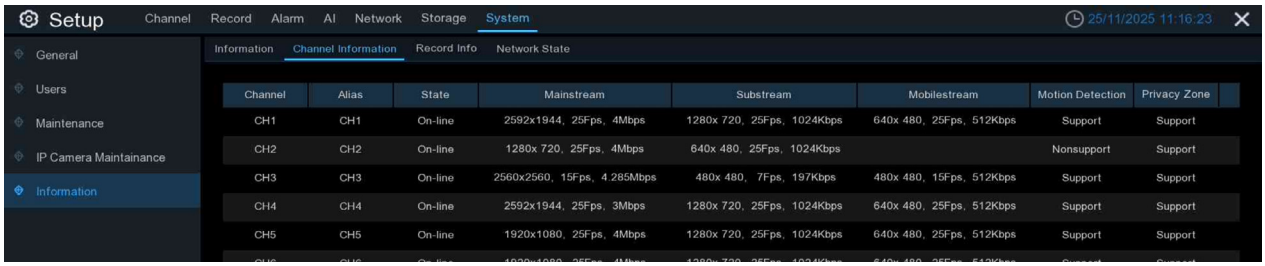
5.7.5.1 – Information

This tab displays technical information about your NVR, including the hardware and software versions, IP address, network ports and MAC address.



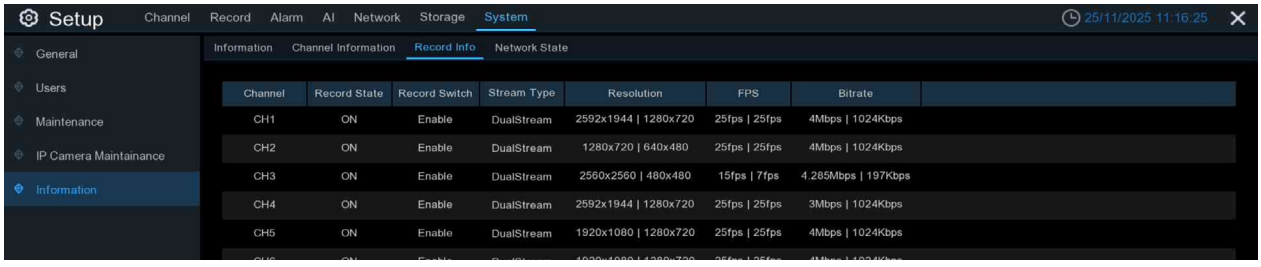
5.7.5.2 – Channel Information

View the channel information for each connected camera, including the alias, the mainstream and substream recording specifications, the motion detection status and the privacy zone.

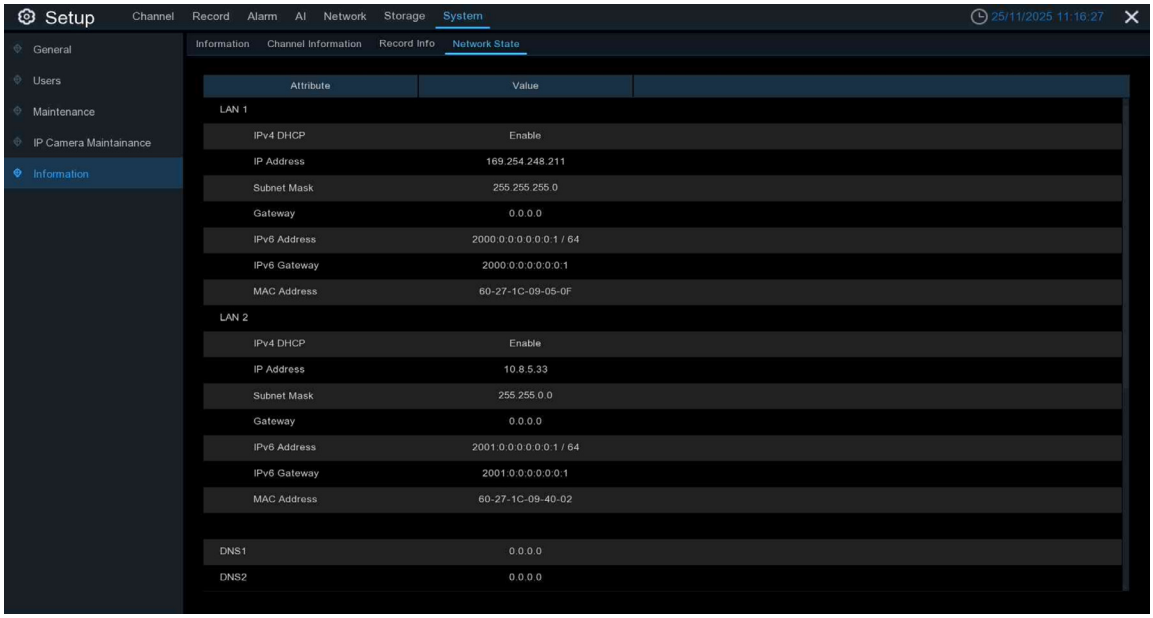


5.7.5.3 – Record Info

View the recording information for each connected camera, including bitrate, stream type, recording resolution, and frame rate (FPS).



5.7.5.4 – Network State



This displays the network settings used by your NVR.

'Total bandwidth': the total input bandwidth available for the NVR.

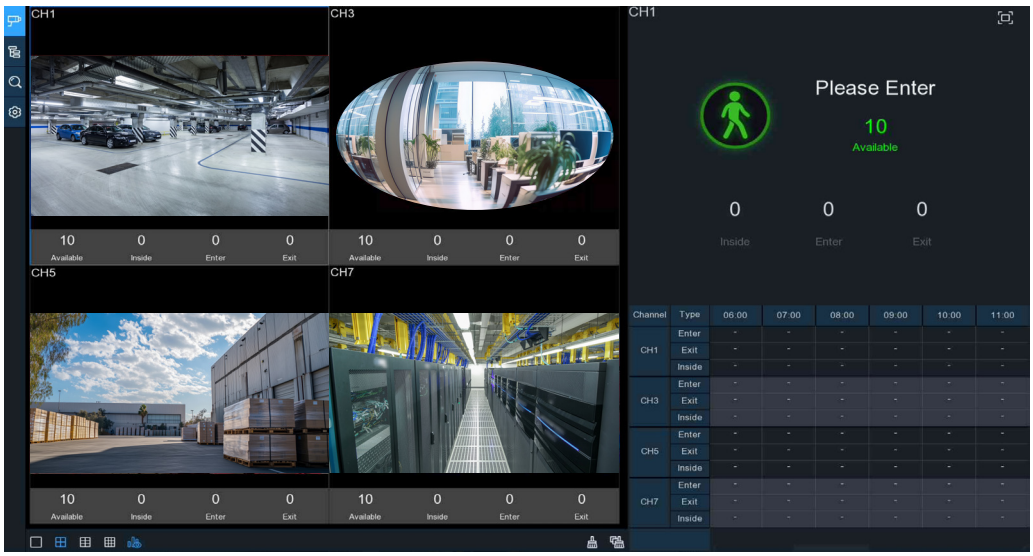
Used bandwidth: The amount of input bandwidth used.

5.8 – AI SCENARIO

5.8.1 – Cross Counting

This AI application is based on a cross-counting function that helps control the number of customers, visitors or vehicles in public places such as restaurants, parks, zoos, theatres, museums and car parks.

5.8.1.1 – Real-time Display & Controls



Channel out of the map and view real-time statistics over the line. This can be selected in the Channels settings.

Available: Remaining permitted attendance

Inside: Current number of people inside the control area.

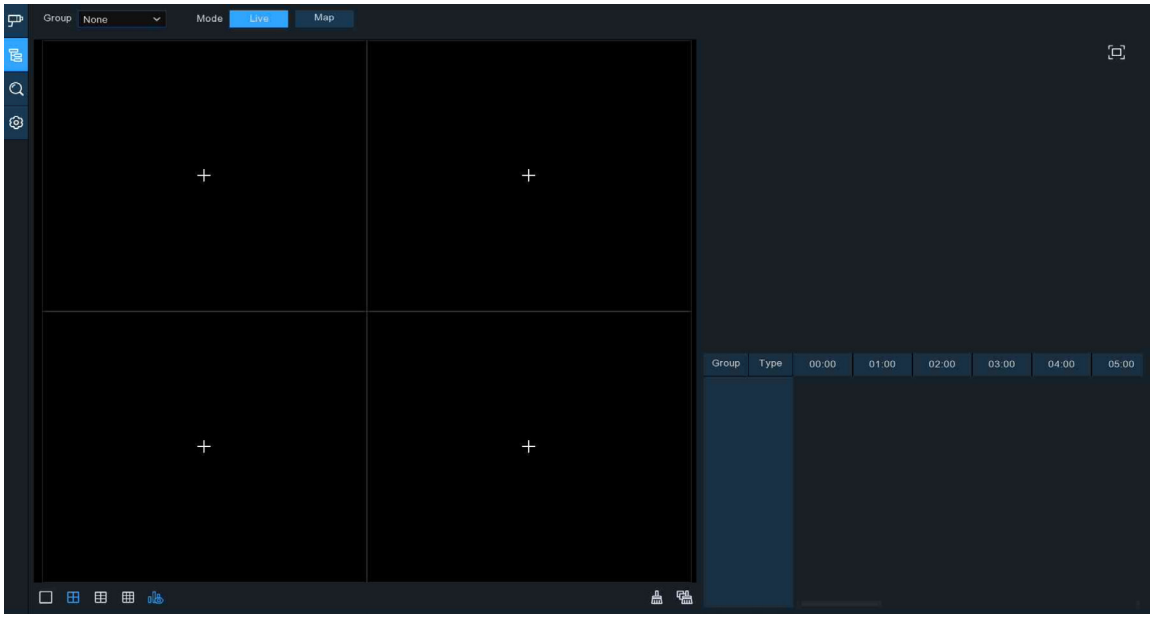
Enter: The recorded number of total entrants.

Exit: Recorded number of people leaving.

1. Select the number of chart windows. There are four, six or nine windows per chart. Click to show/hide the statistical data under the channel. Click to clear the statistical data of the currently selected channel, or click to clear all channel statistical data.
2. To view real-time counting data, click on the full-screen display of statistical totals.
3. Information on the input and output data for each time period for each channel.

5.8.1.2 – Settings of Channel View Mode

Count and view real-time results by group. This is mainly used in large places with multiple entrances and exits that are monitored by multiple cameras.

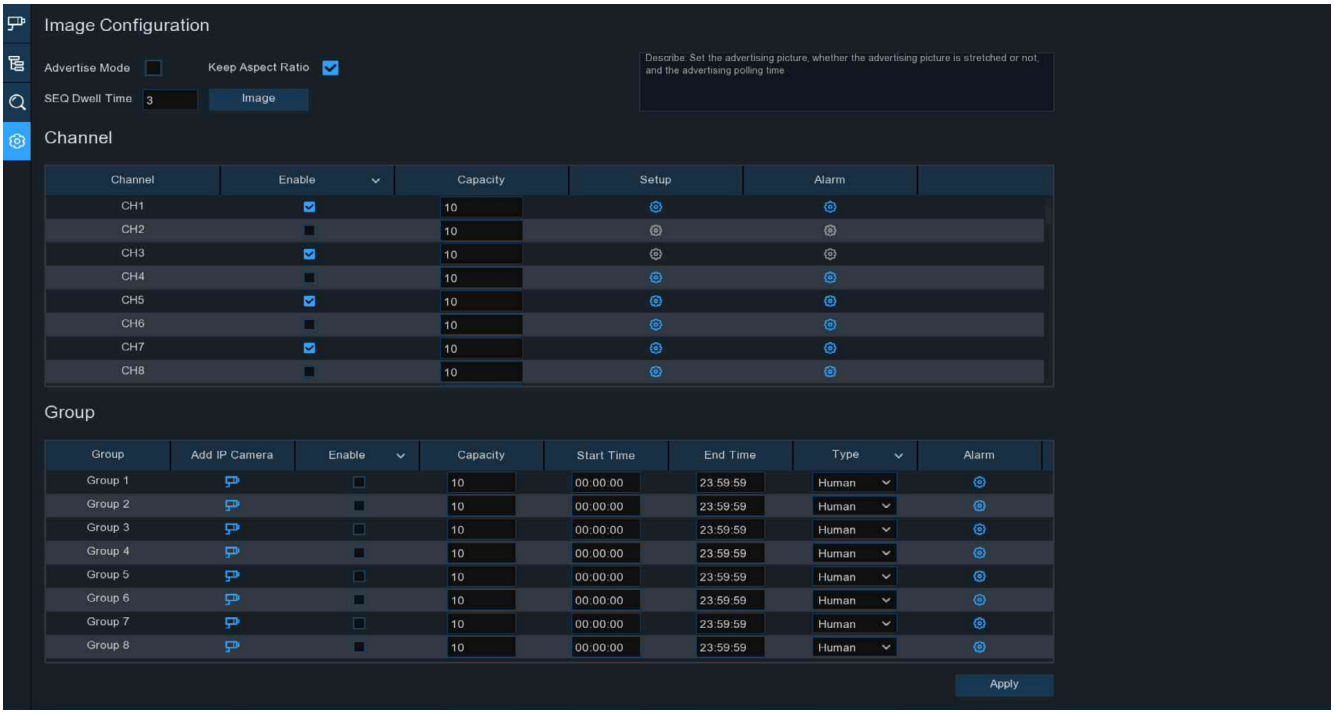


1. The group can select which group information is displayed. 'Live' shows the channel preview screen and statistical information, while 'Map' shows map information.
2. You can choose to display each group's channel outside the map and real-time statistics in the settings.
3. Select the number of chart windows. There are options for four, six or nine windows. Click to show or hide the statistical data under the channel. Click to clear the statistical data for the currently selected channel and click to clear all channel statistical data.
4. Real-time counting data information: click on it to display the full-screen statistical totals.
   Available: Remaining number of allowed presence
   Inside: the current number of people in the control area.
5. Information about the time periods that each group has been in and out of.
6. Map information configuration: click to add a map image; click to set the location of the IPC schematic on the map; click to display the map information and the current group's crossing statistics on the full screen.

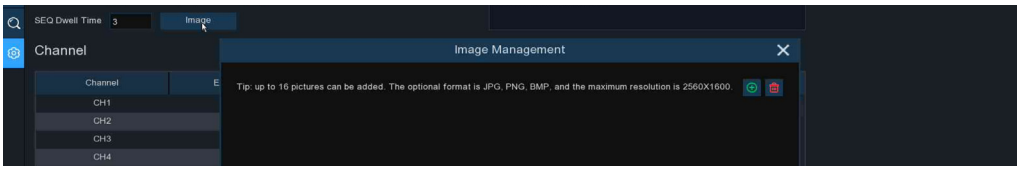
5.8.1.3 – Search

You can search channels and groups individually. First, select the channel or group you wish to search, then set the search duration by day, week, month or year. Finally, select the type of target you wish to search for. Click the search icon and the results will be displayed on the right-hand side of the window.

5.8.1.4 – Settings

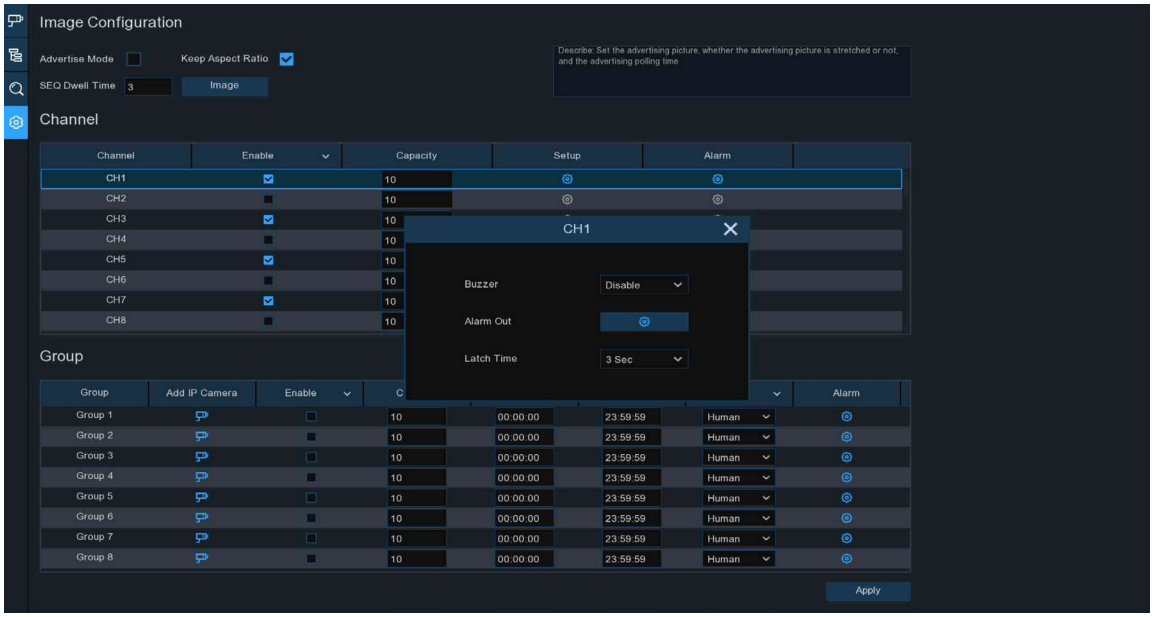


1. Tick the 'Advertise' box to activate this mode. Set the SEQ dwell time in seconds to determine how long each picture will stay on the screen. The default setting is 3 seconds. Click the 'Image' button to load the advertisement pictures from a USB memory stick. You can add up to 16 pictures in JPG, PNG or BMP format with a resolution of no more than 2560x1600.



   Click Add New Picture, then click Remove Added Pictures One by One.
   Tick the 'Keep Aspect Ratio' box if you want to display the image with its original aspect ratio; untick the box if you want the image to be stretched and displayed full screen. Return to Channel or Group View Mode and click the Full Screen button in the top right-hand corner to display the added ad images alongside live count data for the selected channel or group.

2. Selecting the Setup Enable box determines which channels are displayed on the Channels page. If the camera in the channel supports the AI function, the Setup and Alarm icons will be blue. On the contrary, if the camera doesn't support the AI function, the icons will be grey. Set the capacity of each channel, which is the maximum attendance limit. Click Setup to configure the detection conditions and click Alarm to configure the alarm action when the accessible number is 0.



Buzzer: Set the buzzer duration in seconds when the available number is 0.

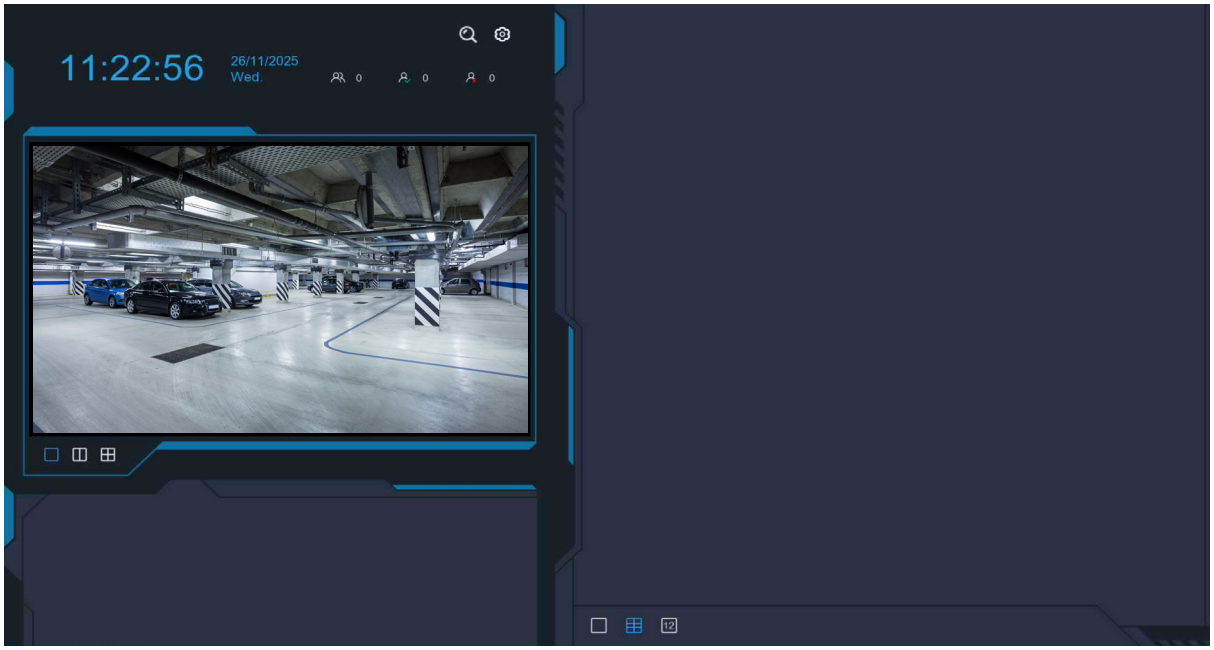
Alarm Out: If the NVR supports connecting to an external alarm device, set it to be triggered when the alarm is triggered.

Latch time: Configure the external alarm time when the available number is 0.

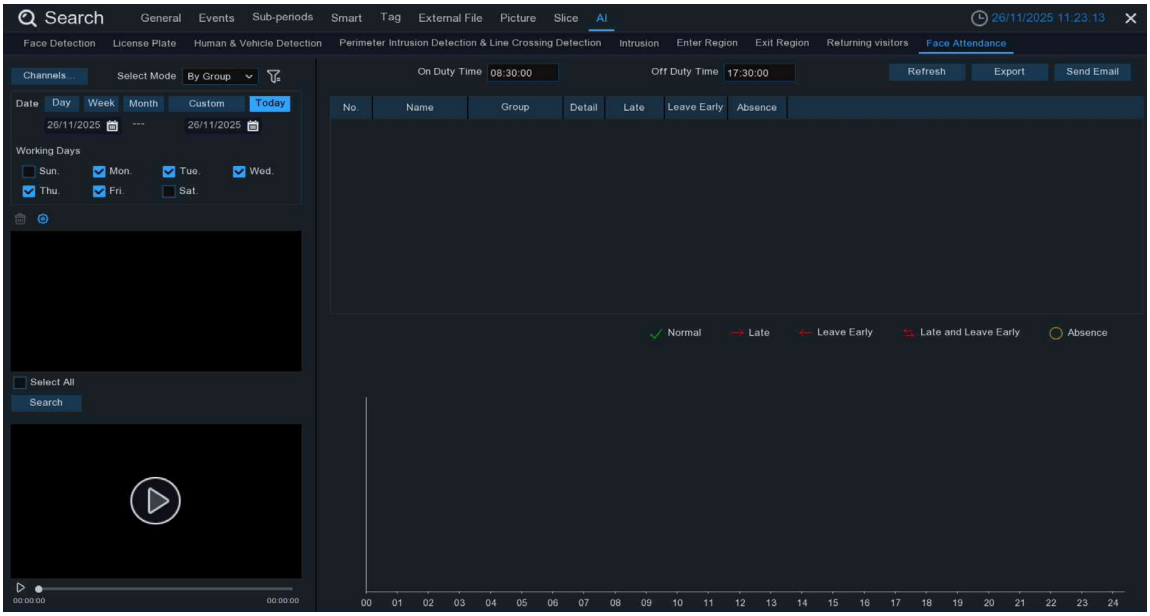
3. Click the 'Add IP Camera' icon to add channels to the group. Up to eight groups can be set up, but each channel can only be added to one group. If a channel is enabled in Channel View mode, it cannot be added to any group. Tick the 'Enable' box to activate the group. You can then set the capacity, start time, end time and detection type (person, vehicle or motion) for each group. Click on 'Alarm Configuration' to set the alarm action for when the count reaches 0.

5.8.2 – Face Attendance

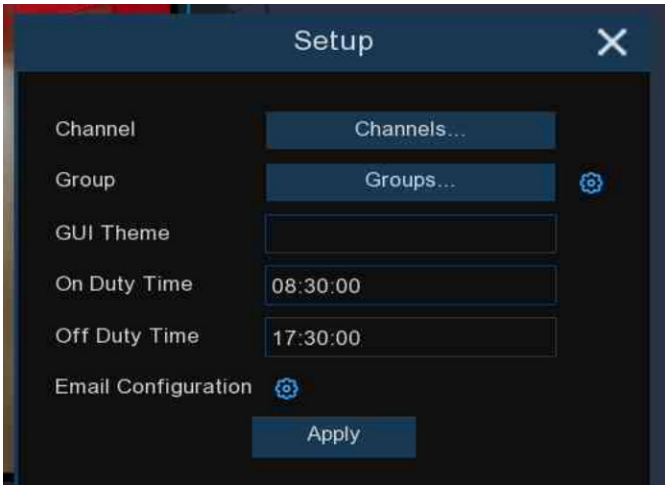
Face Attendance is an AI application that uses a face detection function. It allows you to view and check attendance management statistical data in real time.



1. Theme of face attendance interface
2. Click to enter the face attendance search interface. The face group is selected by default inside the face picture.

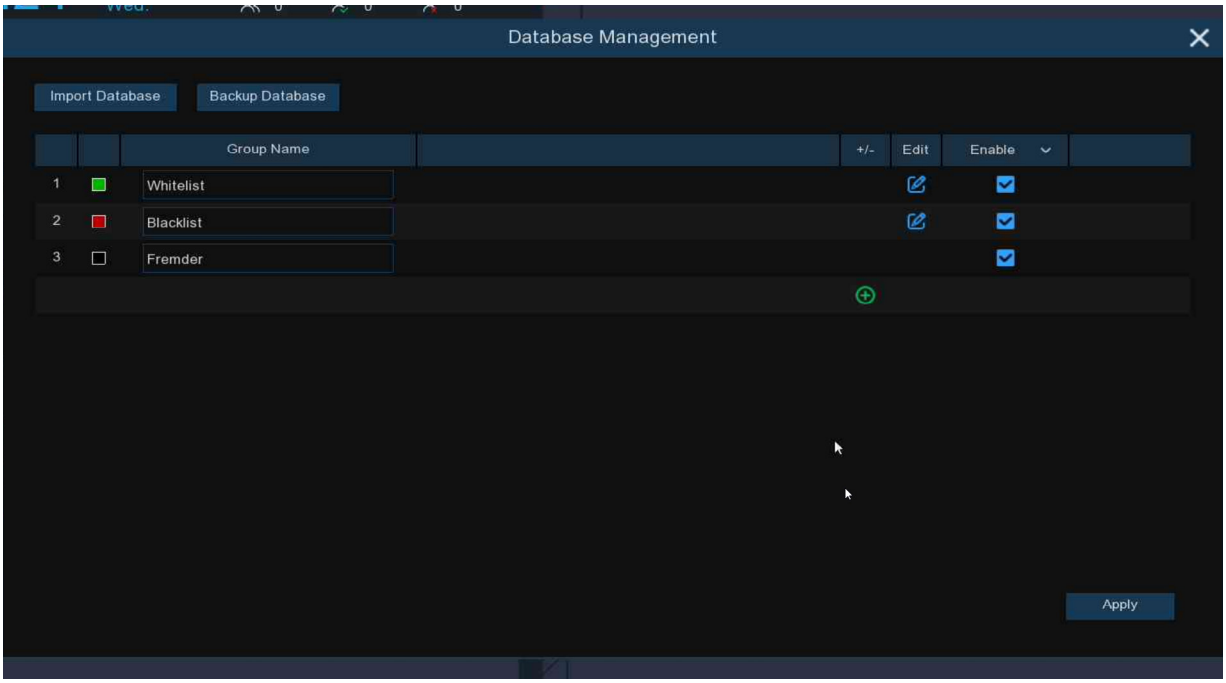


3. Click to enter the setting interface.



Channels: You can select the channels for attendance here.

Groups: Select the faces of the relevant groups in the face library for attendance. Click on the right-hand side to open the AI face library settings interface.

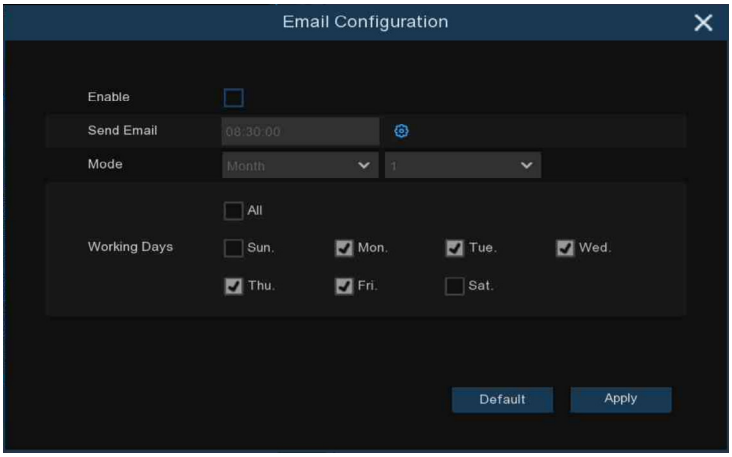


GUI theme: interface theme

On-Duty Time: Set the on-duty time.

Off-Duty Time: Set the off-duty time.

Email configuration: Configure the email address for sending face attendance results. Click to configure the email address.



Enable: Open the mailbox to send the face attendance result (this is a form file).

Send email: Set the time to send the email with the face attendance result. Click on the time to open the system email settings interface where you can configure the system email.

Mode: There are three modes for sending face attendance results: Day, Week and Month.

Day: sends yesterday's results once a day.

Week: You can choose the day of the week to send the attendance results. The email will be sent one week after the time of sending. For example:
If you send an email on Monday, the attendance record will be for the previous Monday to the previous Sunday.
If you send an email on Tuesday, the attendance record will cover the period from the previous Tuesday to the current Monday.

Monthly: sent once a month. You can choose the day of the month on which to send the attendance results for the previous month. For example:
If you send mail on the 10th of each month, the attendance record will be sent from the 10th of the previous month to the 9th of the current month.
For example, if an email is sent on 10 May, the attendance record will be sent from 10 April to 9 May.

Working days: Select working days or check 'All' to select every day as a working day.

Apply: Click Apply to save the settings.

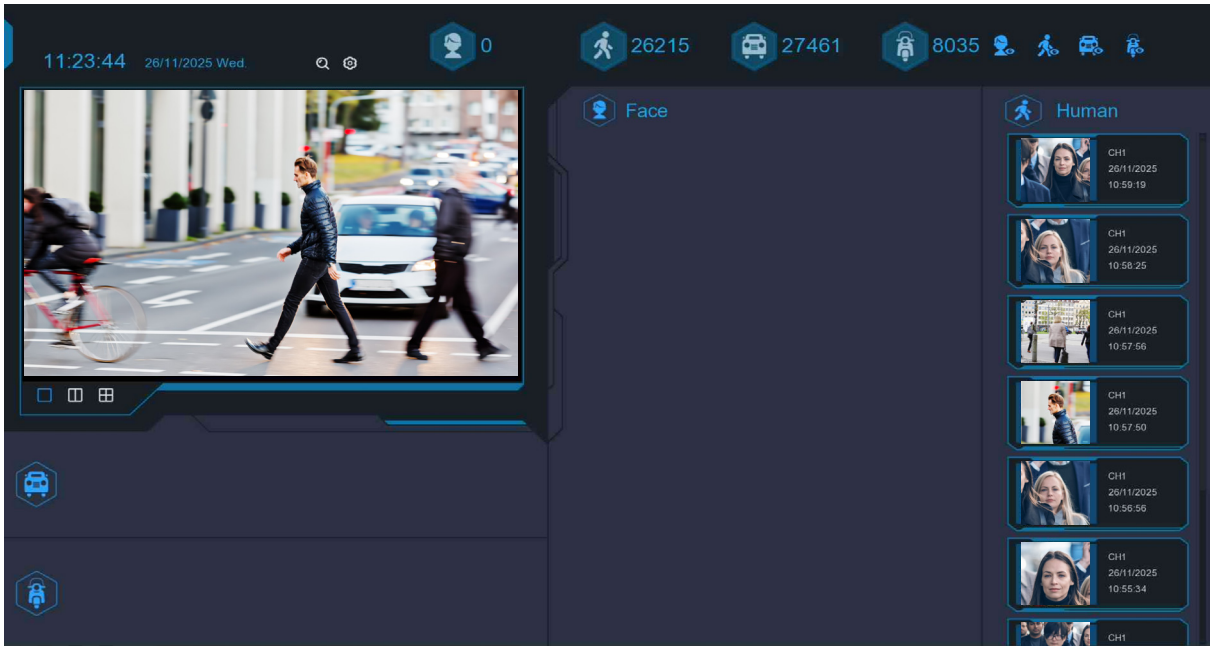
Default: Click 'Default' to send the attendance email and restore the default settings.

4. Display the current date and time.

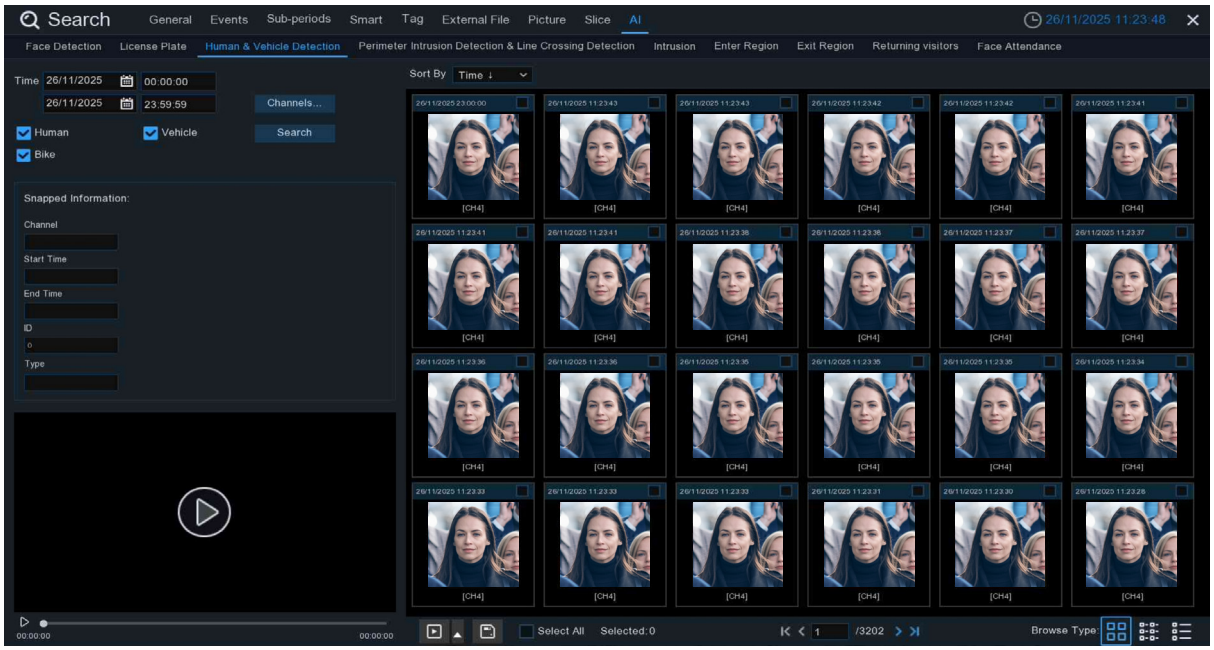
5. Current total number of attendees:
   - Total number of people who need to take attendance
   - Number of people who have taken attendance
   - Number of people who have not taken attendance
6. Attendance of each face-to-face group
7. Channel drawing: you can choose the drawing channel inside the channels.
8. Select the number of windows: one, two or four.
9. Real-time attendance push displays the face picture, name, group name, start time and end time of attendance.
10. The interface displays the maximum number of face attendance pushes at the same time: 1, 6 or 12.

5.8.3 – Object Classification

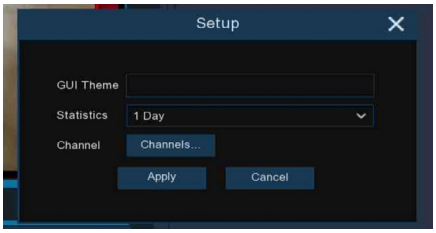
Object classification is an AI application based on face detection and the identification of humans and vehicles. It is used to count the number of faces, people and vehicles (both motorised and non-motorised) detected within a given time period.



1. The interface theme of 'Object Classification Statistics'.
2. Click to start playing the humanoid model search interface.



3. Click to enter the setting interface.



GUI theme: interface theme

Statistics: You can choose to display statistics for 1 day, 2 days, 3 days, 4 days, 5 days, 6 days, 7 days, a week, a month or a year.

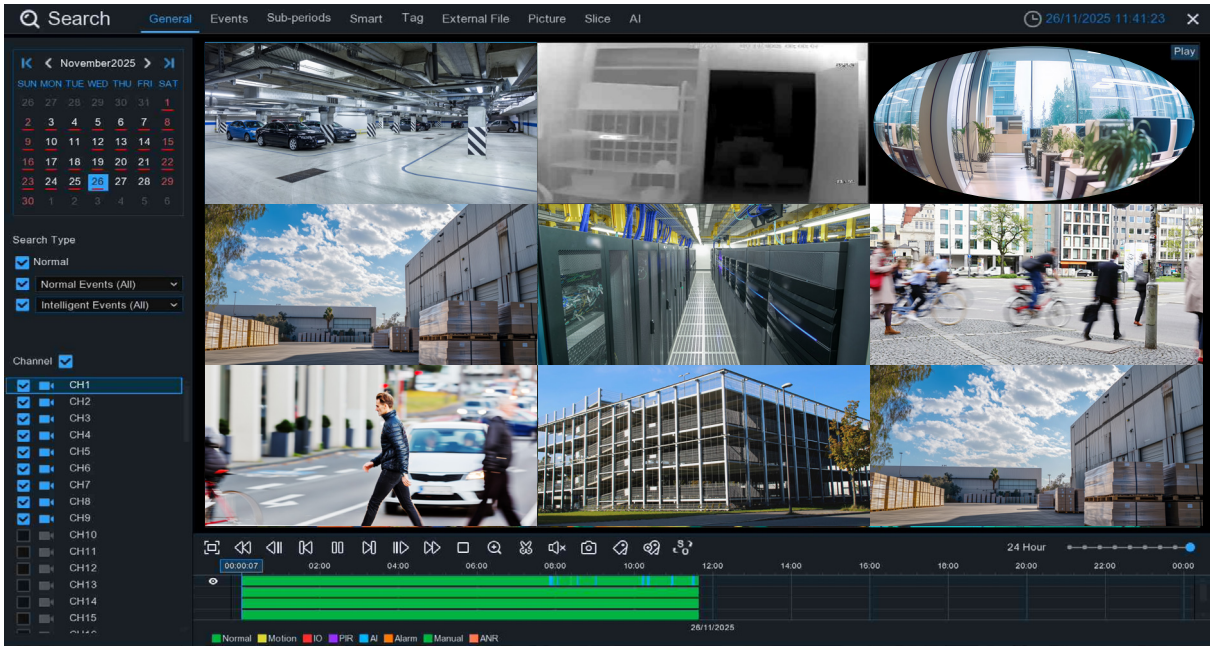
Channels: Channel selection. You can select the channel for the statistics.

4. Display the current date and time.
5. You can choose a channel outside the map in the channels inside.
6. Select the number of windows for charting. There is one, two or four windows available.
7. Real-time push display switch: click the icon to show or hide the corresponding detection results in real time.
8. Real-time face detection push display: shows the detected face picture, name and group name.
9. Real-time human shape detection push, displaying the detected human shape picture, detection channel and time.
10. Real-time push of motor vehicle detection, displaying the detected motor vehicle picture, detection channel and detection time.
11. Real-time push of non-motorised vehicle detection, displaying the detected non-motorised vehicle pictures, detection channels and detection time.
12. Captures statistics for face, human form, model and non-motorised vehicle.

6 – SEARCH, PLAYBACK & BACKUP

6.1 – General

Click the Search icon in the Start menu to open the Search screen.



1. Search options: The system offers a variety of search and playback methods: General, Event, Split Playback, Smart Playback, Tag Playback, External File Playback, Slice Playback, Picture Playback and AI Playback.
2. Search date: Search by date of playback.
3. Search type: The system provides different search types to help narrow down the results.
4. Channel selection: Select the channel to be searched and played.
5. Video playback control: Control video playback.

Icon	Function
	Enlarge the video playback to full screen
	Rewind Button, subsequent presses of the button will change the rewind speed
	Slow Play, subsequent presses of the button will change the play speed

Icon	Function
▷	Play in normal speed
⏸	Pause
⏯	Play frame by frame. Click once to play a frame of the video
□	Stop playing
⏩	Fast forward button, subsequent presses of the button will change the speed
🔍	Select a camera, click this button then use the scroll button on the mouse to zoom. Use the picture-in-picture screen to select a different area to view. Right-click to exit.
✂	This button allows you to edit the video by setting mark in and mark out points which you can then copy to a USB flash drive.
🔊	Click to adjust audio output volume
📷	Click to take a snapshot and save to your USB flash drive
🏷	Tagging allows you to record information such as a person or object within the video. Click on a camera to select, pause the video when you see a person or object to be tagged, then press this button (multiple tags can be created).
🏷	Same as above, but you can name the tag.
⇔	Click to switch the image scale for all playing cameras between original and stretch.
◯	Fisheye Mode. This button will be displayed when playing back the camera channels in fisheye, click the button to enter fisheye mode playback

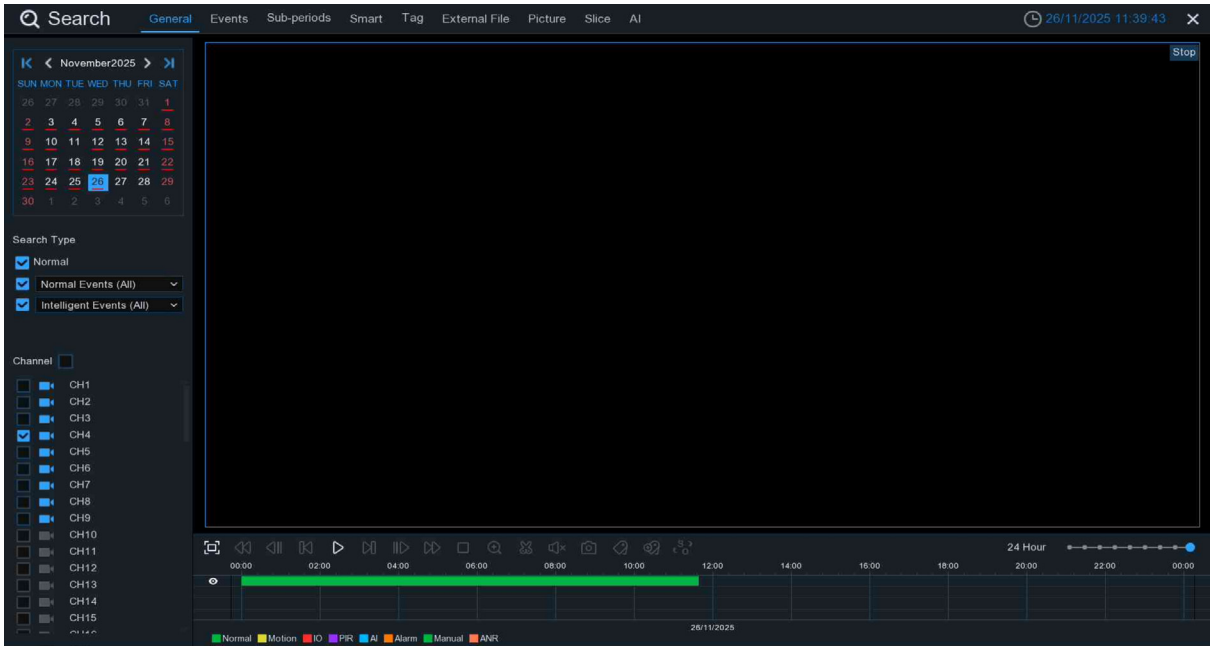
6. Timeline: Successive recordings are shown as coloured bars, with the legend for these colours shown in the bottom right corner of the display. Quickly locate the playback position by clicking on the timeline. You can zoom in or out of the timeline using the timeframe options for precise location.

Different types of video are displayed in different colours:

Green: Bormal video recording.
Yellow: motion detection video recording.
Red: IO alarm recording.
Purple: PIR alarm recording.
Blue: indicates intelligent alarm recording.
Orange: indicates multiple alarms triggered simultaneously.
Dark green: represents manual recording.
Dark orange: represents the disconnection of the supplementary video recording.

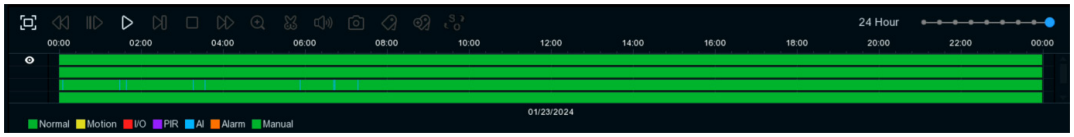
7. Playback status displays the playing status.

6.1.1 – Video Segment Backup



1. Select a date from the calendar to search.
2. Select the search type.
3. Select the channel to search for, or select 'All connected channels'.
4. The search results will be displayed on the timeline between 00:00 and 24:00.
5. Click the icon to start playback.
6. Use the icons on the video playback controls to control playback.
7. Use the mouse wheel or select an option to view smaller or larger time periods.
8. If you want to save a video quickly during playback, you can use the video clip backup function.
9. Use the new 'Add tags' function to mark the current time in the current channel. Click 'Add custom tags' or 'Add default tags'. After adding a tag, you can jump to it in the tag playback interface.

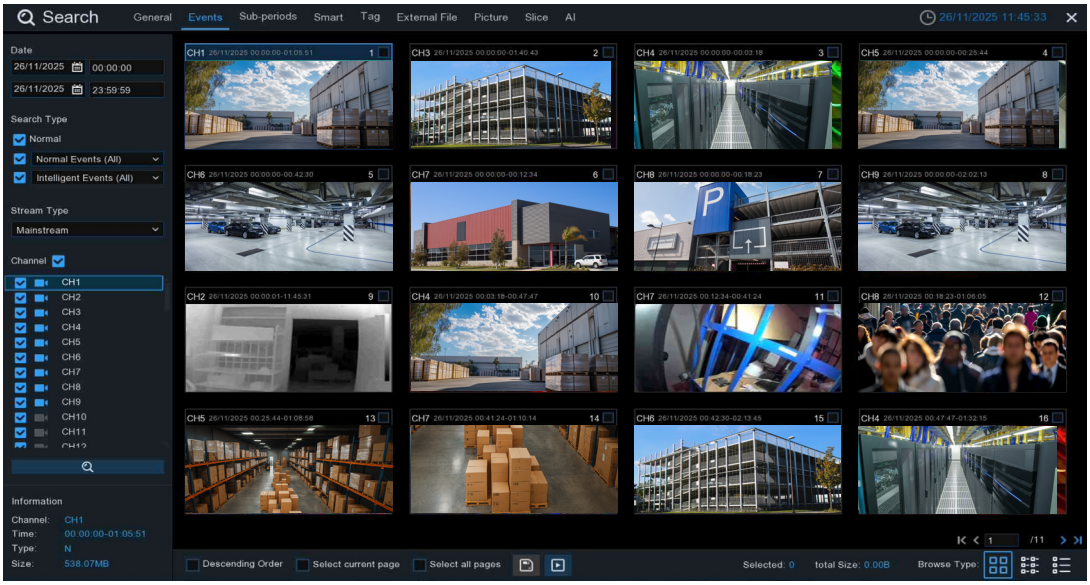
6.1.1.1 – Backup of video clips



1. Insert the USB disk into the NVR.
2. Start video playback.
3. Click the clip icon.
4. Select the channels that need to be backed up.
5. Move the mouse cursor to the point on the timeline where you want the video clip to start.
6. Hold down the left mouse button and drag to move the cursor to where you want the video clip to end.
7. When the icon changes to , click the icon to save the video clip.
8. Select the file type for the backup file, then click the 'Save' icon. Please ensure that the USB storage directory has enough space to save the video clip.
9. The backup menu page will appear. Select the directory in which you want to save the backup.
10. Click OK to start the backup. The progress bar at the bottom of the window shows the backup's progress.

6.2 – Events

The Event Search page provides a list of all event videos, detailing the channel, start and end time, memory size and event type.



Event search, playback and backup

1. Select the date and time you wish to search for.
2. Select the type of video you want to search for, or select 'All'.
3. Select the channels to search, or select 'All'.
4. Click the search icon.
5. Events that meet the search criteria will be displayed in a list. Double-click on one of the events with the left mouse button to play the video immediately.
6. Click the icon in the bottom right-hand corner of the menu to navigate between event pages, or enter the page you want to go to.
7. Toggle to list view by clicking the icon in the bottom right-hand corner of the screen.

Thumbnail view: View a snapshot of the event.

List View: Events will be displayed in a list.

Details View: View the details of the event.

In Detailed View mode, you can lock video events to prevent them from being overwritten by the hard disk. Click the icon to lock or click the icon to unlock the event.

1. When clicking the left mouse button on an event, the system will display the event information in the lower left corner of the screen.
2. Sort Descending: Sort the file list in descending order.
3. Select: Check the checkbox after "Event Number" to select "File", or check the checkbox after "Select" to select all events in the page.
4. The number of selected files, total size information will be displayed in the lower right corner of the screen.
5. After selecting 'File', click the icon to save the video to a USB flash drive or to open the event playback control window and play the video.

6.2.1 – Event Playback Control

1. Select the event you need to play from the event list.
2. Click the icon to save the selected event video to a USB flash drive. Click the icon to start playing the video.
3. Playback is controlled by the icons on the video playback controls.
4. The event being played will be displayed on the timeline.
5. Use the mouse wheel to select or slide to view smaller or larger time periods.

6.3 – Sub-periods

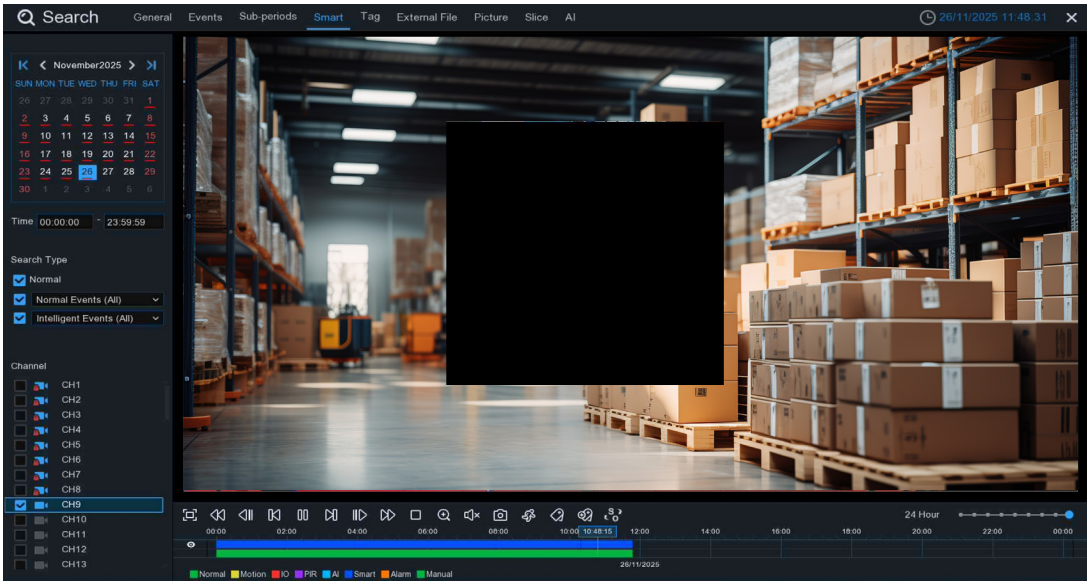
With Split Playback, a single channel can play back multiple time slots of event footage simultaneously. The selected split screen mode will split the searched video recording time period evenly. For example, if the duration of the searched event video is 60 minutes and the split screen is set to x4, 15 minutes will be played on each split screen.

Segmented search playback video:

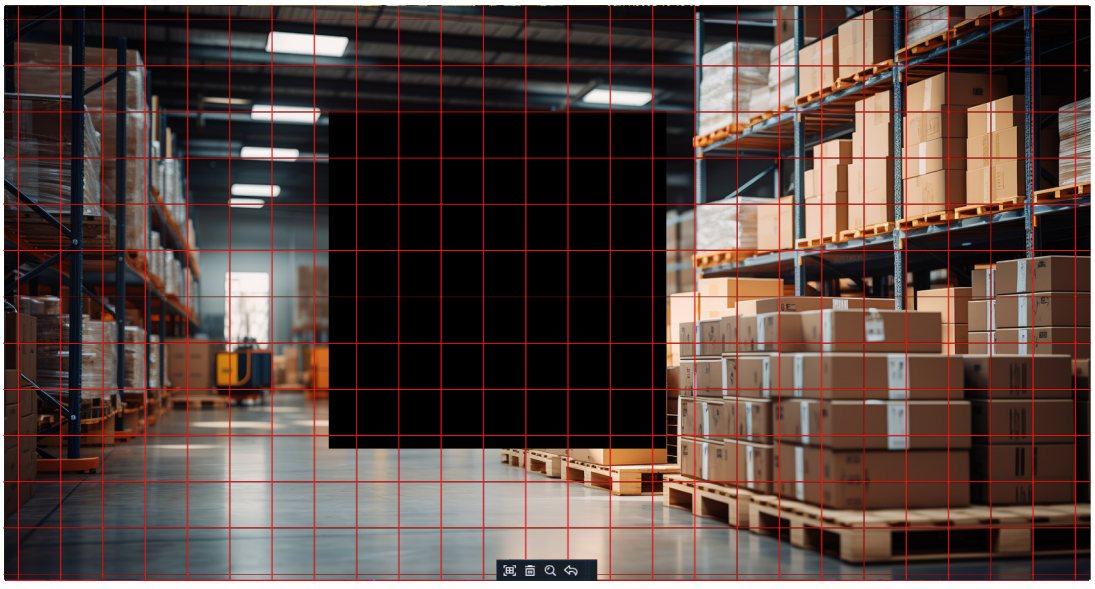
1. Select the date and time of the search.
2. Select the number of video channels to play back.
3. Select the type of video to be searched for, or select 'All'.
4. Select the stream type and the search channel (only one channel is supported).
5. Click the playback icon to start playing the video and use the icons on the video playback control to control playback.
6. Click the left mouse button on a specific split screen to display the time period of the split screen on the timeline. The colour bar at the top of the timeline indicates the time span of the selected split-screen video. The colour bar at the bottom of the timeline shows the time span of the entire video that has been searched.

7. Select or slide the mouse wheel to view smaller or larger time periods.

6.4 – Smart



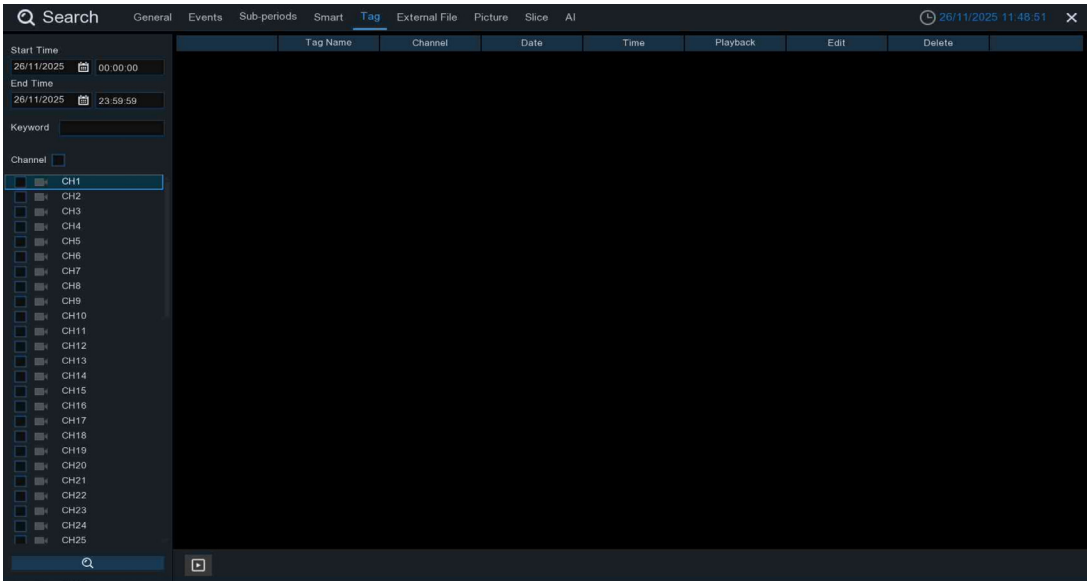
This function recognises whether motion has been triggered by a person and, if so, marks it in blue on the playback timeline below. Clicking on it will take you to the smart area settings screen.



The red grid is the selected area, if someone in the area triggers a MOTION, it will be searched for, with a blue color to mark the time bar.

6.5 – Tag

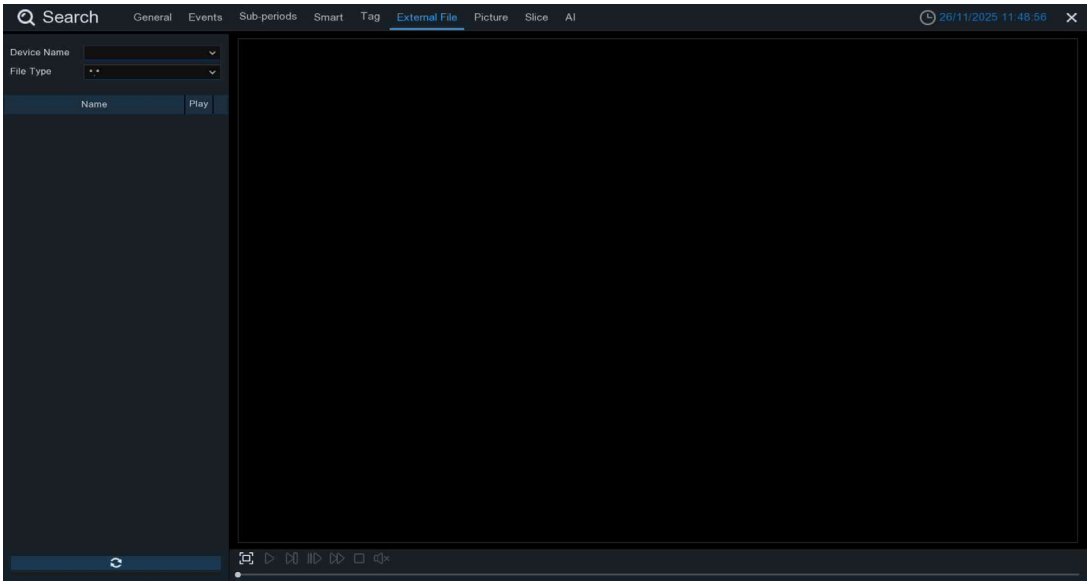
View all tags that have been added previously and edit, play back or delete them. Select the time and channel, then click to complete the search. Click on a tag to jump to its position for playback.



Keyword: Enter the keyword in the tag name here for a more precise search.

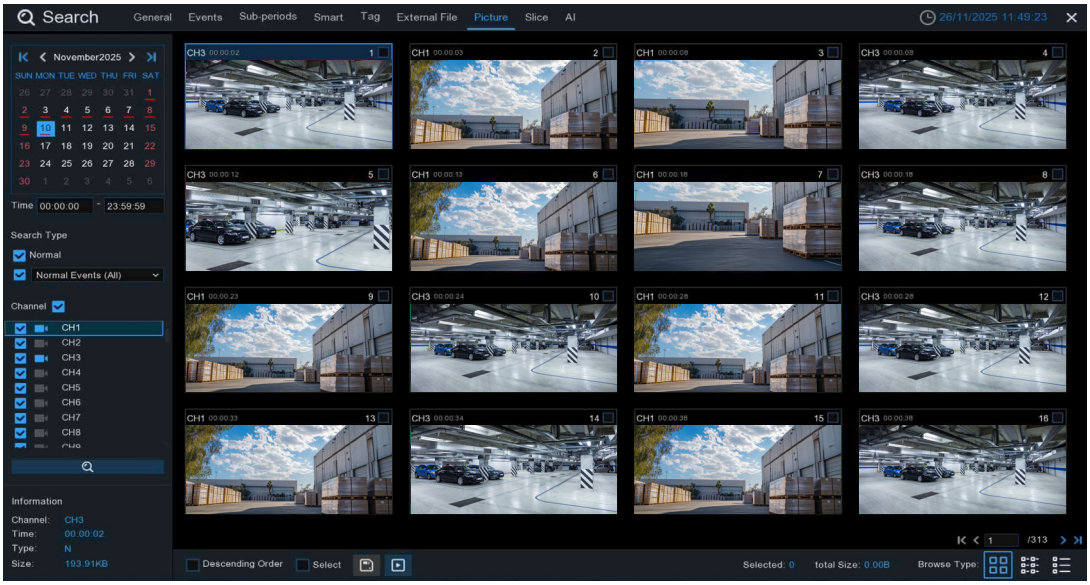
6.6 – External File

You can play videos from an external USB flash drive here. Simply select a file on the left to start playing it automatically.



6.7 – Picture

This page searches for all the images that have been saved to your hard disk.



Search, play and back up pictures.

1. Select the date and time to search by.
2. Select the type of picture to search for or select 'All' for 'Search Type'.
3. Select the channel to search.
4. Click the icon to start searching.
5. Pictures that meet the search criteria will be displayed in a list. Double-click a picture to view it.
6. Click the icon in the bottom right-hand corner of the menu to navigate between event pages, or enter the page you want to view.
7. Switch between list views by clicking on the icon in the bottom right-hand corner of the screen below:

Thumbnail view: View a snapshot of the event.

List View: Events will be displayed in a list.

Details View: View the details of the event.

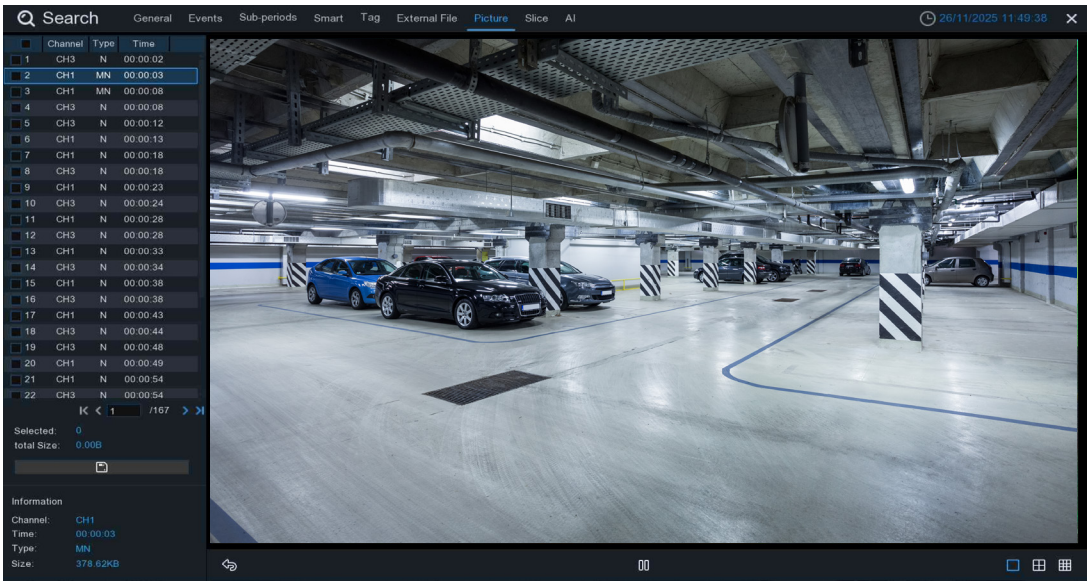
8. Clicking the left mouse button on one of the pictures displays the picture information in the bottom left corner of the screen.

9. Select a file by checking the box next to the event number, or select all pictures on the page by checking the box next to the event number.

10. The number of selected files and the total size will be displayed in the bottom right corner of the screen.

11. After selecting 'File', click the icon to save the picture to a USB flash drive.

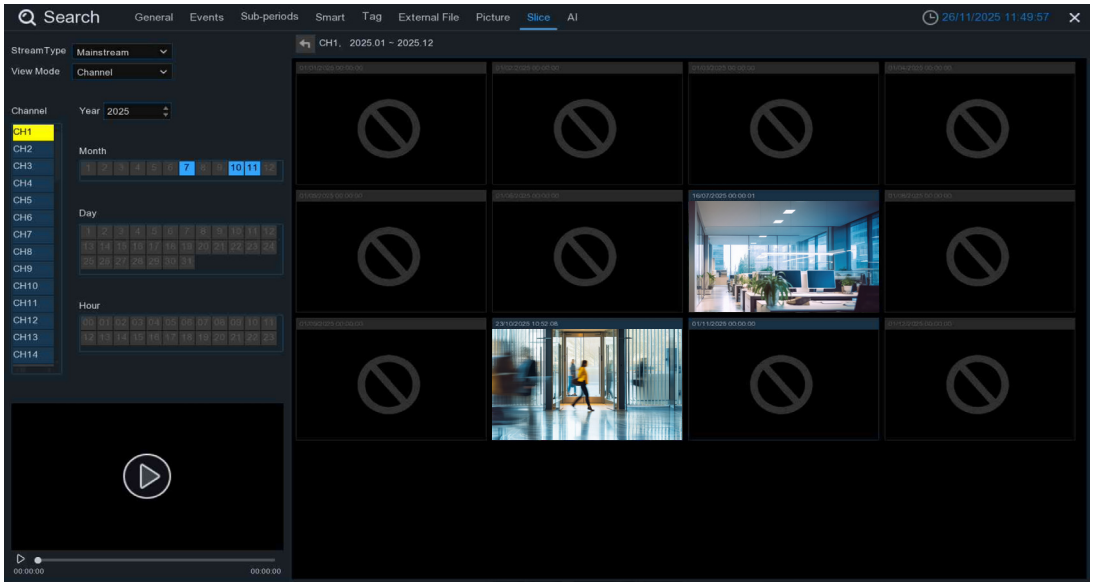
6.7.1 – Playing Slideshow



1. Picture list: select a picture to view.
2. Click on the icon to save the selected picture to a USB flash drive or to view the picture as a slideshow.
3. Click the Exit icon to close the preview control window and return to the picture search window.

6.8 – Slice

This function can slice the recordings into one-minute segments, helping you to quickly find what you want to see.

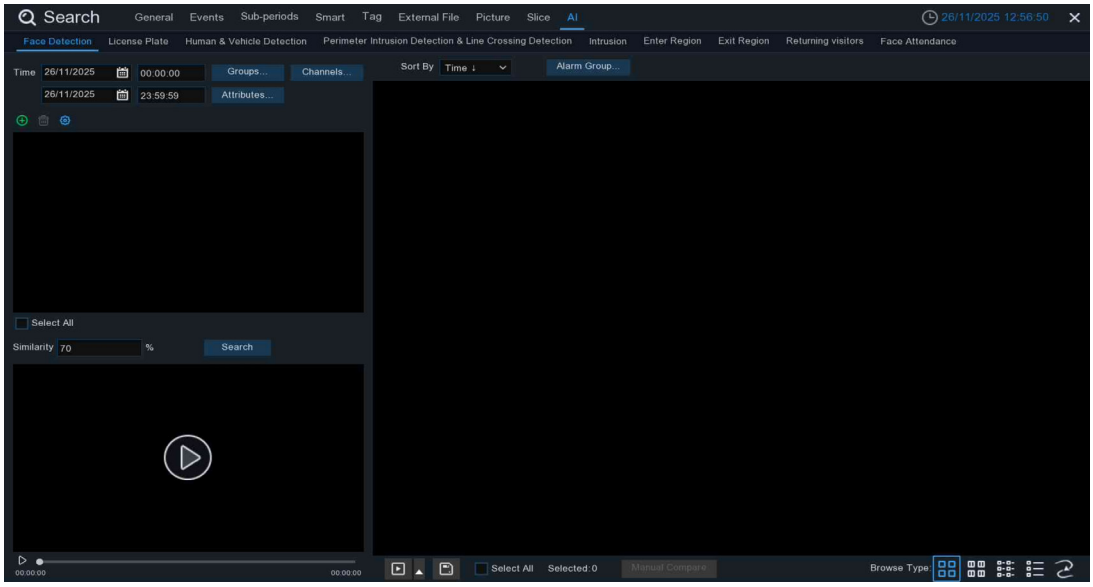


Select a stream, channel, month, day and hour in turn to display 60 videos from the current hour on the right, each lasting one minute. Click on the lower corner to start playing them back easily. Click to enter normal playback mode.

View mode: If you select 'Channel', you can only select the channel first. If you select 'Time', you can only select the time first.

6.9 – AI

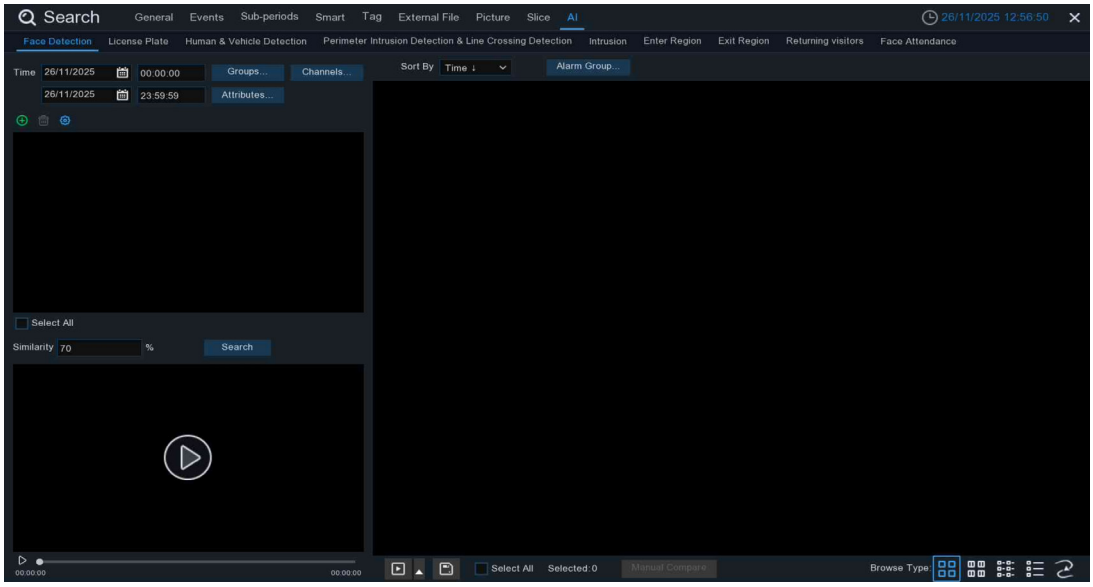
6.9.1 – Face Detection



1. Click to customise the search function for faces. Alternatively, select 'Groups' to select an entire group of faces in the face library for comparison and searching.
2. Click 'Channels' to select the channels for searching.
3. Click 'Attributes' to set the attribute conditions for the faces you are searching for. You can select 'Gender', 'Age', 'Mask', 'Glasses' and 'Expression'.
4. Select Alarm Groups to choose the group in which face comparisons will occur.
5. Select the image in the search area and click to delete it, or click to open the AI face library settings interface.
6. Right-click on the search result and select 'Import To' to import the image to the face library group.
7. Right-click on the search result and select 'Detail Information' to view the face's detailed information.
8. Click 'Custom Playback' to view the time when the face was detected.
9. Click to view the different options.

6.9.1.1 – Tracking Face

Click the tracking button to enter the operation page.

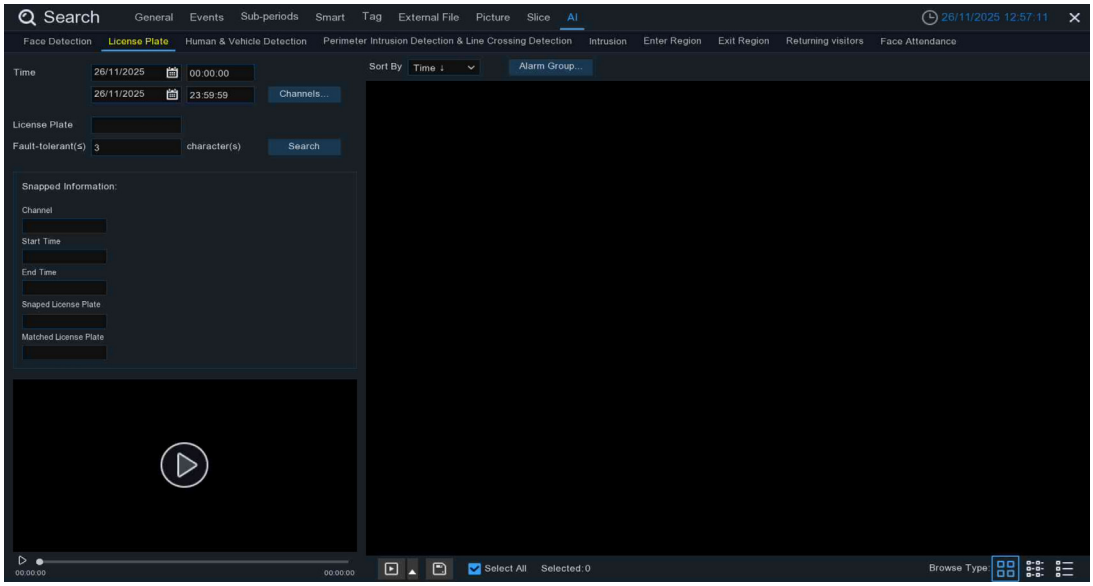


Click Load Map to bring up the USB flash drive, select Map to add. Check Edit to drag the IPC icon to the location you want to place, uncheck to exit edit mode. Then click , select the face from local face library or USB flash drive, click Search (only support one face search), it will search the IPC which has detected the face, and there will be a color mark on the map.

If you left click on an IPC icon and play it back, there will be a simple playback in the bottom right corner. If more than one IPC has detected the face, the tap to play is automatically determining the person's movement and leads to an arrow labeling.

6.9.2 – Search License Plate

If the camera triggers an alarm and activates the licence plate detection feature, you can view the video details in this interface or export the video.



Time: Select the time period for which you would like to query license plate detection events. The date can be set by clicking on the relevant date.

Licence plate: Filter the query based on licence plate information.

Fault-tolerant: For example, when set to three characters, if the whitelist licence plate number in the group is B594SB and a licence plate number B734KB enters the monitoring area, the alarm will be triggered. If the whitelist licence plate number in the group is B594SB, for example, the alarm will be triggered when a licence plate number such as B734KB enters the monitoring area.

Snapped information: Detailed information about the alarm event. There are five items as follows:

Channel: The video recording channel of the event.

Start time: the start time of the event.

End time: The end time of the event.

Snapped licence plate: The licence plate number that the camera captured by taking a photo of it.
Matched licence plate: The licence plate number from the database.

Sort by: Sort event videos by time.

Channels: Search for licence plate detection events triggered by each channel.

Search: Search according to the selected settings.

Alarm group: Select different groups in the database to compare and search the displayed results.

To select the event video, click the triangle icon in the bottom right corner. You can then choose the delay time for playing the video. The options are: 5 seconds, 10 seconds, 20 seconds, 30 seconds, 1 minute, 2 minutes, 5 minutes, 10 minutes and Custom Playback. If you choose 30 seconds, the video will be extended by 30 seconds at the beginning and end.
Videos can be backed up to a USB flash drive and the supported video formats are RF, AVI and MP4.
The number of videos selected is displayed, as well as the total number of videos.
Click to turn the page.
Click to select different viewing options.
Clicking on an event brings up two functions:

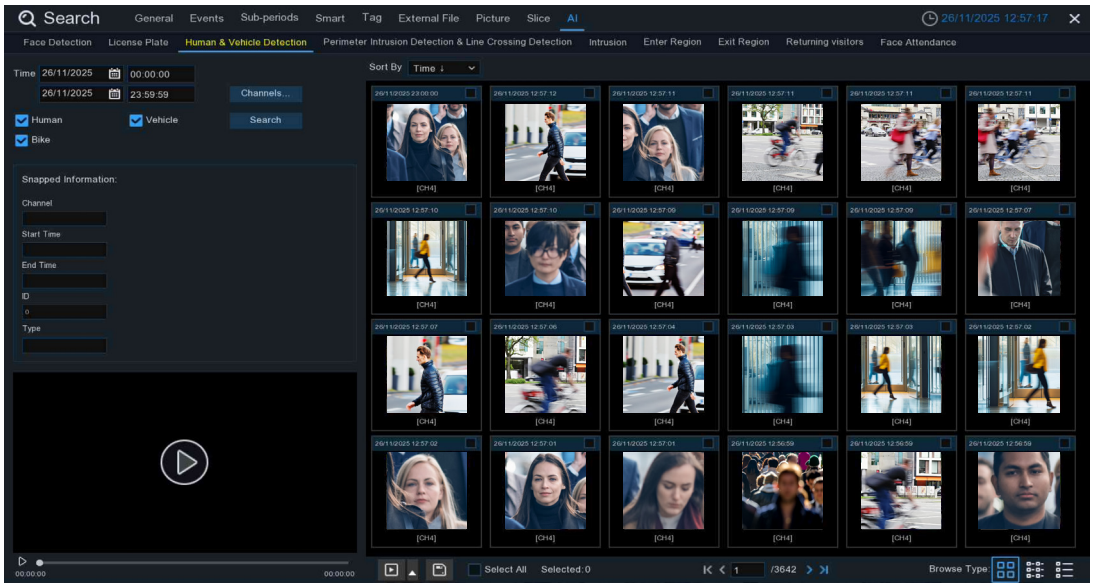
View event details: View event details.

Custom playback: Click on the playback setting to adjust the advance and delay times for the event. The maximum time is 10 minutes.

Double-click the event or drag it to the bottom left corner to play the video.

6.9.3 – Human & Vehicle

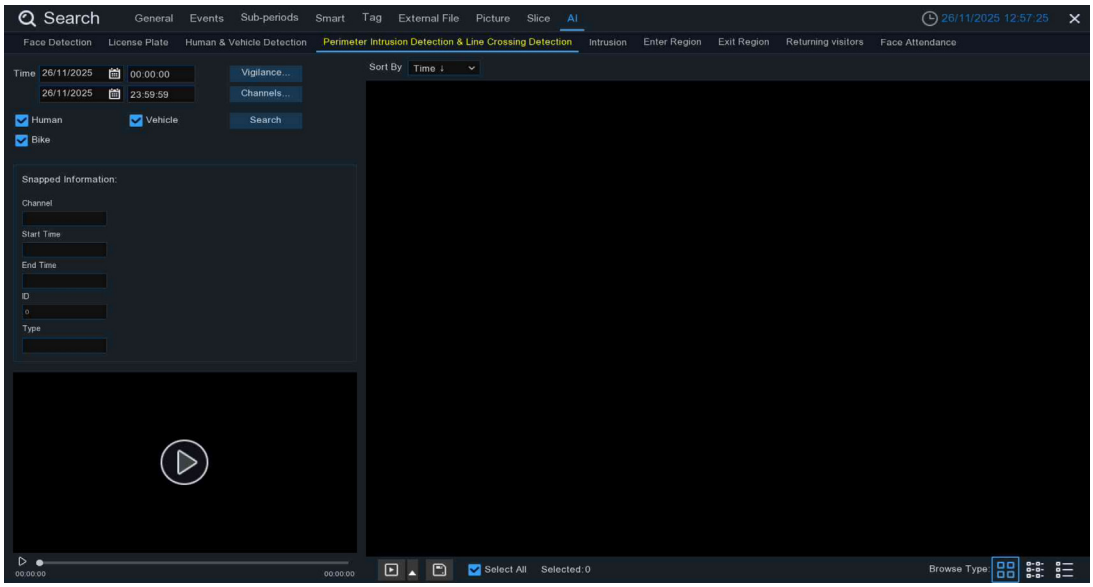
Click on the 'Human & Vehicle' tab to access the 'Human & Vehicle' search section. If you have enabled human and vehicle detection in your camera(s), you will see events captured by the camera(s) on the current day.



Clicking on the left side will display basic information. Clicking on the right side will allow you to customise the playback and view details. Click 'Play' in the bottom left-hand corner for easy playback. Double-click to zoom in and enter normal playback mode.

6.9.4 – Perimeter Intrusion & Line Crossing

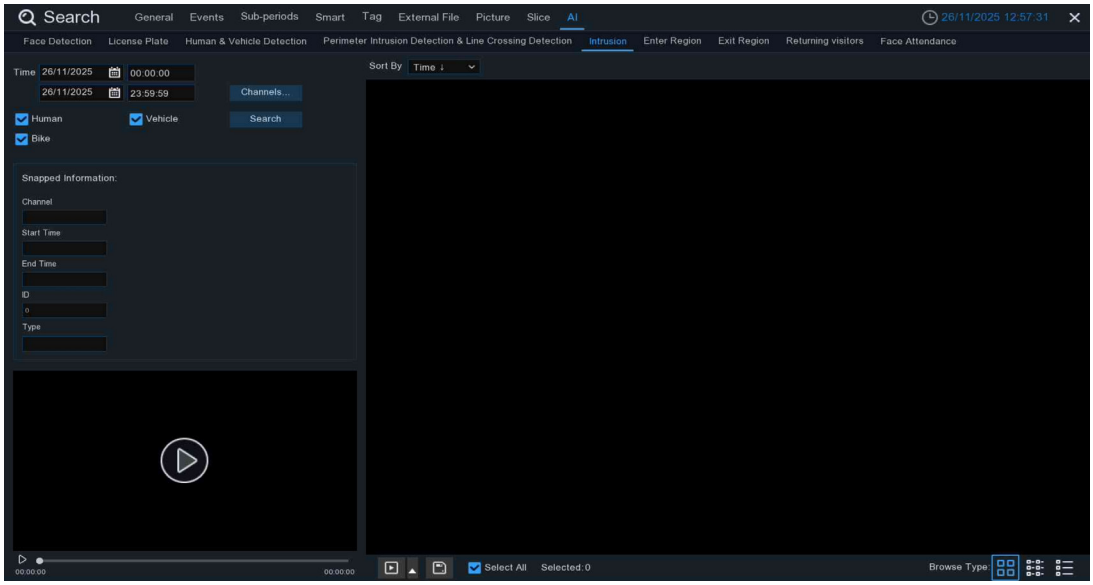
After selecting the date, time, channel, alarm type, type of person, and type of vehicle, and clicking 'Search', you can search for perimeter intrusion and line crossing detection alarms triggered by all persons and vehicles in this grouping during this time period.



Clicking on the left side will display basic information. Clicking on the right side will allow you to customise the playback and view details. Click 'Play' in the bottom left-hand corner for easy playback. Double-click to zoom in and enter normal playback mode.

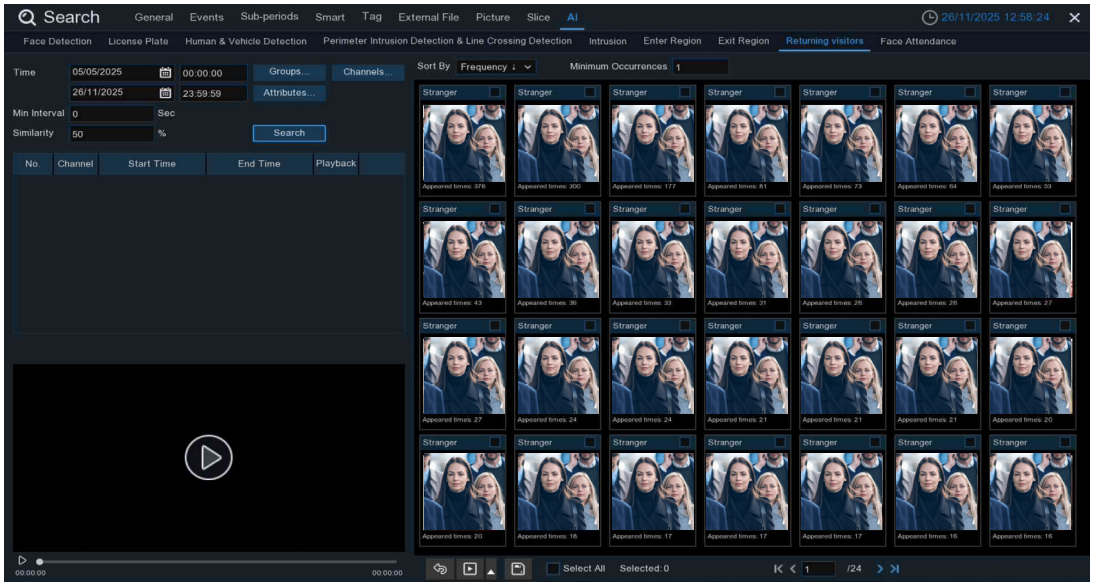
6.9.5 – Intrusion/Region Entrance/Region Exiting

Select the date, time and channel, then choose the detection target type. Click 'Search' to view the alarm events captured during the selected time period.



6.9.6 – Repeat Visitors

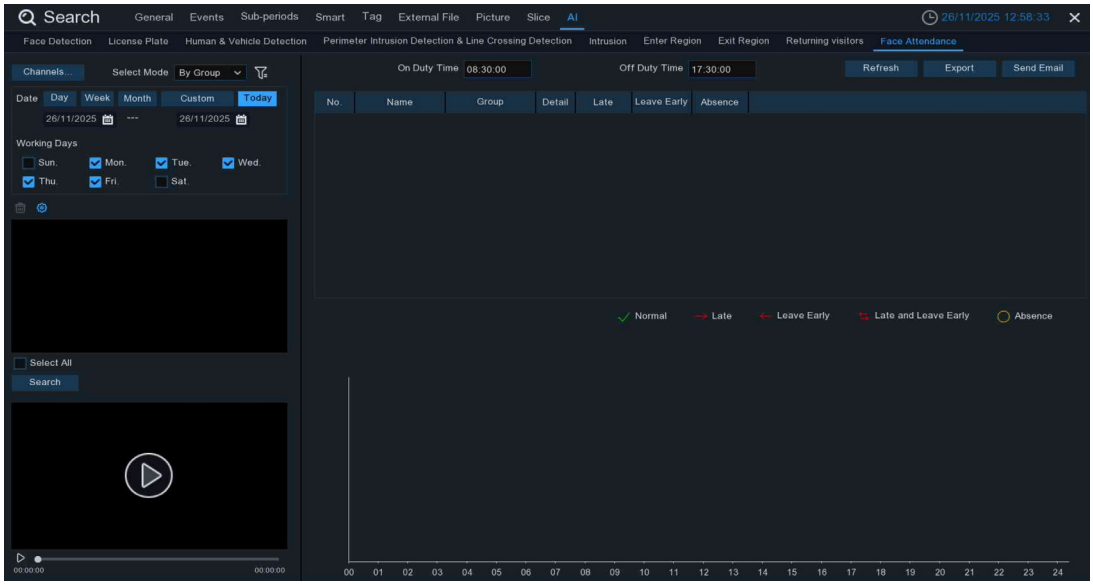
Count how many times the same face appears.



1. Select the date and time for your search.
2. Select the face library group that you want to compare; this is the default search group.
3. Select the channel to be searched.
4. Select the corresponding Face Attribute in the Face Attribute screen.
5. Enter the minimum interval in seconds.
6. Left-click on the search result to view detailed playback and information on the left. Right-click on the face library to import or edit the face library picture information and view details.
7. In 'Minimum Occurrences', enter the minimum number of occurrences of a face to filter.
8. Click 'Sort by' to sort by time or quantity.
9. View the search results, select all the results by clicking All, customise the playback by clicking the icon, or back up the pictures and videos to a USB flash drive by clicking .

6.9.7 – Face Attendance

Select the date, time and channel, then choose the detection target type. Click 'Search' to view the alarm events captured during the selected time period.



Channels: Select the channels for face-to-face attendance.

Select mode: Select the face pictures for attendance. There are two modes: By Group and By Person.

By Group: Select face pictures by face group, i.e. add all the face pictures of the reorganised group.

By Person: Select a face picture and click the right button of 'By Person' to open the interface for selecting a face picture from the face library.

Date: Select the search date. The default is the current date, and there are five selection modes:

- Day,
- Week,
- Month,
- Custom
- and Today.

Working days: select the working days.

On-Duty Time: Set the on-duty time.

Off-duty time: Set the off-duty time.

Click 'Search' to view the results.

Clicking on a result will display all the test records below. Click the 'Detail' icon to view the detailed information.

Here you can see the attendance details, including when it first and last appeared. Click on it to play it back easily in the bottom left corner.

Click Export to save the searched attendance file to a USB flash drive.

Click 'Send Email' to send the searched attendance information via email.

7 – REMOTE ACCESS

You can use the web client on a PC to access the device remotely at any time. However, before doing so, you need to ensure that the device's network is functioning correctly.

7.1 – Basic System Environment Requirements

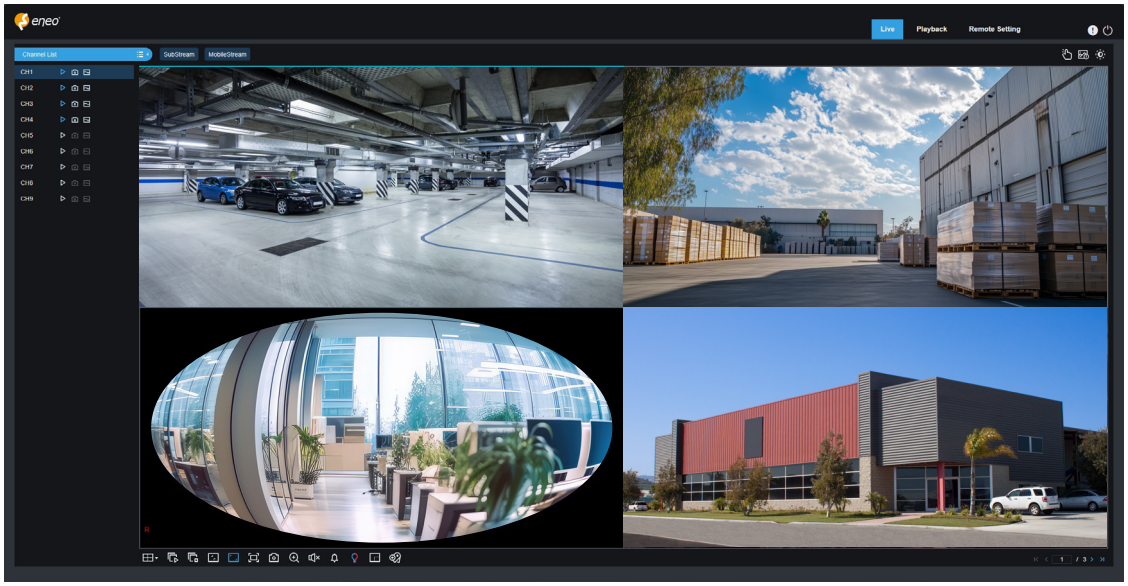
The minimum hardware and operating system requirements for running the web client are as follows:

Item	Minimum Value	Recommended Value
CPU	Intel® Core™ i5 CPU	Intel® Core™ i5 CPU or higher
RAM	≥ 4 GB	≥ 8 GB
Hard disk drive	≥ 500 GB	≥ 1000 GB
Video memory	≥ 2 GB	≥ 4 GB
Display resolution	1280*1024	1920*1080
OS	Windows 7 or above. Mac OS X® 10.9 or above	
DirectX	DirectX 11	
Direct3D	Acceleration Function	
Ethernet adapter	10/100/1000 M Ethernet adapter	
Firefox web browser	V52 or above	
Google Chrome web browser	V57 or above	
Apple Safari web browser	V12.1 or above	
Edge web browser	V79 or above (using the Chromium core)	

7.2 – Web Client Management

7.2.1 – Live View Page

Once the user's information has been verified on the web client, the live view page of the device will be displayed. From here, you can enable or disable live view, manually record video to your local computer and take a screenshot, as well as control the PTZ and adjust the colour.



1. Channel list:

Click this icon to display the channel list.

Click this icon to enable or disable live video streaming. When live video streaming is enabled, the icon turns blue.

Click this icon to start manually recording streaming video. Click the icon again to stop recording. The video recorded manually is stored on the computer. During recording, the icon is blue.

The manual snapshot icon is shown here. Click this icon to save a snapshot of what is currently displayed on the computer.

The bit rate icon. For cameras, the main stream, substream or mobile stream video settings can be used. The mobile stream setting is applicable to IP channels only.

2. Stream switching:

The web client automatically switches to main stream mode when videos are viewed in a single split screen, and to substream mode when videos are viewed in multiple split screens. You can select the most suitable stream mode for video viewing according to the network environment.

3. Main menu:

Live: Get live video streams of the device.

Playback: Remotely play videos stored on the device.

Remote Setting: Remotely set the device's parameters.

4.

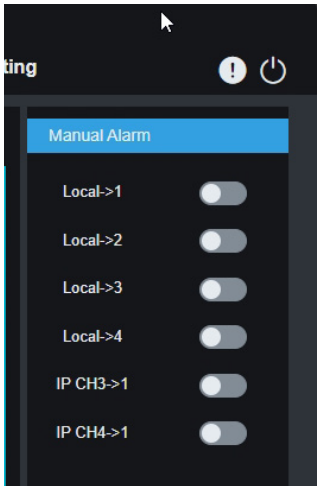
Hover the mouse to display system, user and web version information.

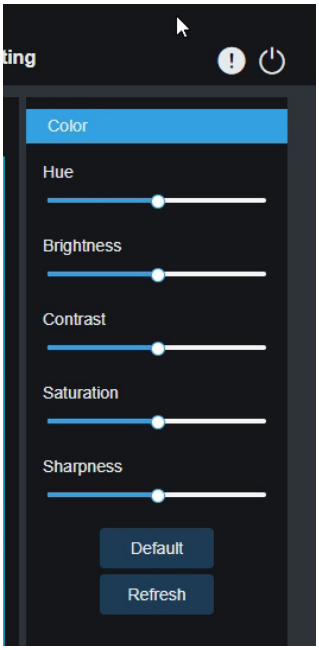
Exit the web client.

5. Manual Alarm

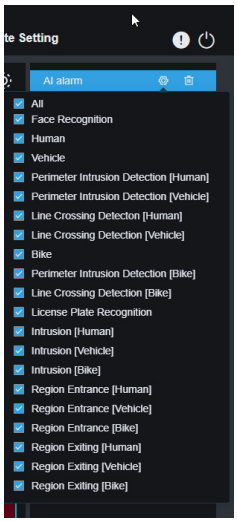
Manually enable or disable I/O alarms.

Color: Show or hide the color controls.

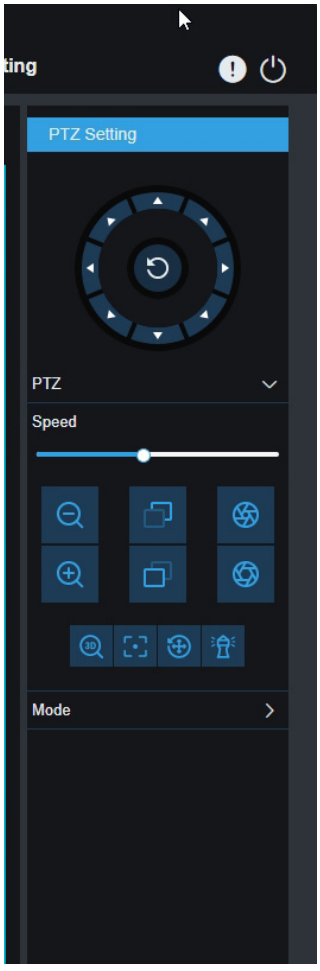




AI alarm: Push AI alarm events. Click to select the types of AI alarm event to be pushed. Click to clear the current push list.



PTZ Control



Note!

Further explanations can be found in Chapter **5.4.1 – PTZ Control.**

Arrow Keys: Click the arrow keys to rotate the PTZ Camera

Circling Arrow: Default cruise

Speed: Set the rotation speed of the PTZ Camera

Left: Zoom. Click -/+ to zoom in or out the image

Middle: Focus. Click -/+ to adjust the focus

Right: Iris. Adjust the iris size

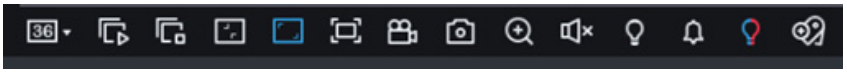
Functions:

3D PTZ, Automatic Focus, Preset Point reset, Watch Mode, Manual Tracking

Mode:

PTZ, Preset, Line Scan, Watch Mode, Tour, Pattern Scan

6. Live View Control Buttons



Toolbar Icons	
	Switch display mode in the channel area.
	Open all channel previews.
	Close all channel previews.
	Original proportions: The live video is displayed in the original proportions.
	Stretch: The live video is stretched to fit the entire area of each channel on the screen.
	The web client is enlarged to full screen.
	Manual recording: Click this icon to start manual recording of all displayed channels. Click this icon again to stop recording. The manually recorded video is stored on the computer.
	Manual capture: Click this icon to capture the images of all displayed channels and store them on the computer.
	Digital zoom: Click an active image, and drag and drop the mouse to get an area on the active image to zoom it in. Right-click the area to return to normal view.
	Volume control: Adjust the volume by adjusting the level value.
	Silence mode.
	Intercom: Click this icon to enable the intercom between the client and the device. Click this icon again to disable the intercom with the device. (Note: This function needs to be supported by the device.)
	White light control. White light deterrence can be enabled manually (camera support is required).
	Alarm bell control. Alarm bell can be enabled manually (camera support is required).
	Warning light control. Warning light alarm can be enabled manually (camera support is required).
	Click this icon to add a custom tag event.

7.2.2 – Playback Page

This page allows you to search for and play back videos stored on the device's hard disks, as well as download them to a PC.

Searching Videos:

1. Click 'Playback' in the top right-hand corner to open the 'Playback' page.
2. Select the date for your video query on the calendar. Days with video recordings are underlined in red.
3. In the 'Search type' area, select the recording types to be queried. You can also select 'All' to query all recording types.
4. Select the video streams to be searched and played.
5. In the 'Channel List' area, select the channels from which videos are to be played back. (You can search a maximum of four channels for video playback at the same time.)
6. Click the Search button to search for videos.
7. The searched videos will be displayed on the timeline. Click on a video clip to select it, then click to start playing the video.

7.2.2.1 – Playback Control Icons

Select the files you want to download and click the 'Start Download' button. The download status will then be displayed. Click the 'Stop Download' button to stop the download.

Toolbar Icons	
	Play a single video
	Pause a single video
	Stop playing the video of a single channel
	Play videos frame by frame. This involves moving the frames one by one through playback, i.e. moving forward by one frame. This option is only available when the synchronous playback option is not selected.
	Synchronous playback: Click this icon to play the videos of the selected channels simultaneously.
	Click on this icon to select the channel that is currently playing, and then click on the record icon to save the video to your computer. Click the icon again to stop recording.
	Select the channel that is currently playing and click this icon to take a screenshot and save it to your computer.
	Click this icon to open the download page, where you can select videos from specific time ranges on selected channels.

Toolbar Icons	
	Rewind videos. This option is only available when the synchronous playback option is not selected.
	Playback speed: Click this icon to select your preferred playback speed.
	Play all channels: Click this icon to play all channels of the selected search types. This option is only available when the synchronous playback option is not selected.
	To stop playing all channels, click this icon. Click this icon to do so. This option is only available when the synchronous playback option is not selected.
	Digital zoom: Click on a video while it is playing and drag the mouse to select an area of the video to zoom in on. Right-click to return to normal view.
	Original proportions: The video is displayed in its original aspect ratio.
	Stretch: The video is stretched to fill the entire screen area of each channel.
	Web client full screen.

7.2.2.2 – Image Playback

Once the capture function has been enabled for the device, you can search for the captured images on this page. You can search a maximum of 5,000 images at a time, and modify the time interval as needed.

Searching for images:

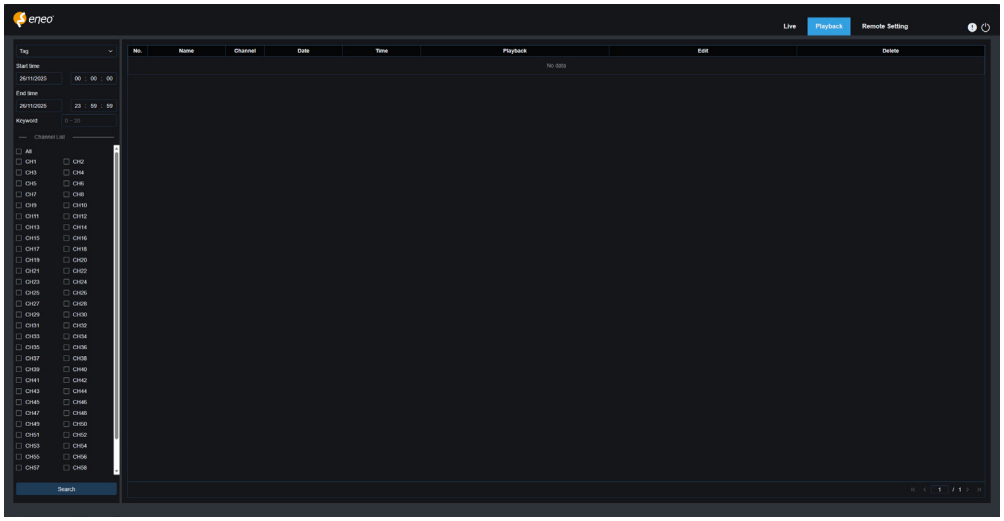
1. Click 'Playback' in the top right-hand corner of the page.
2. Select 'Picture' from the drop-down list in the top left-hand corner of the page.
3. Select the day to be searched for on the calendar. Dates with snapshots are underlined in red.
4. Select the image types to be searched for from the 'Search Type' menu, or select 'All' to search for all image types.
5. Select the channels for which videos are to be searched.
6. Click Search.
7. Images that meet the search criteria will be displayed in the right-hand pane. Double-clicking an image will play back the videos with the time periods before and after the image. Click here to return to the previous page.

7.2.2.3 – Smart

Once the motion detection function has been enabled for the device and motion detection alarms have been triggered, you can search the smart playback videos.

Click to display the smart setting area. Click to select all areas. Click to clear all selected areas.

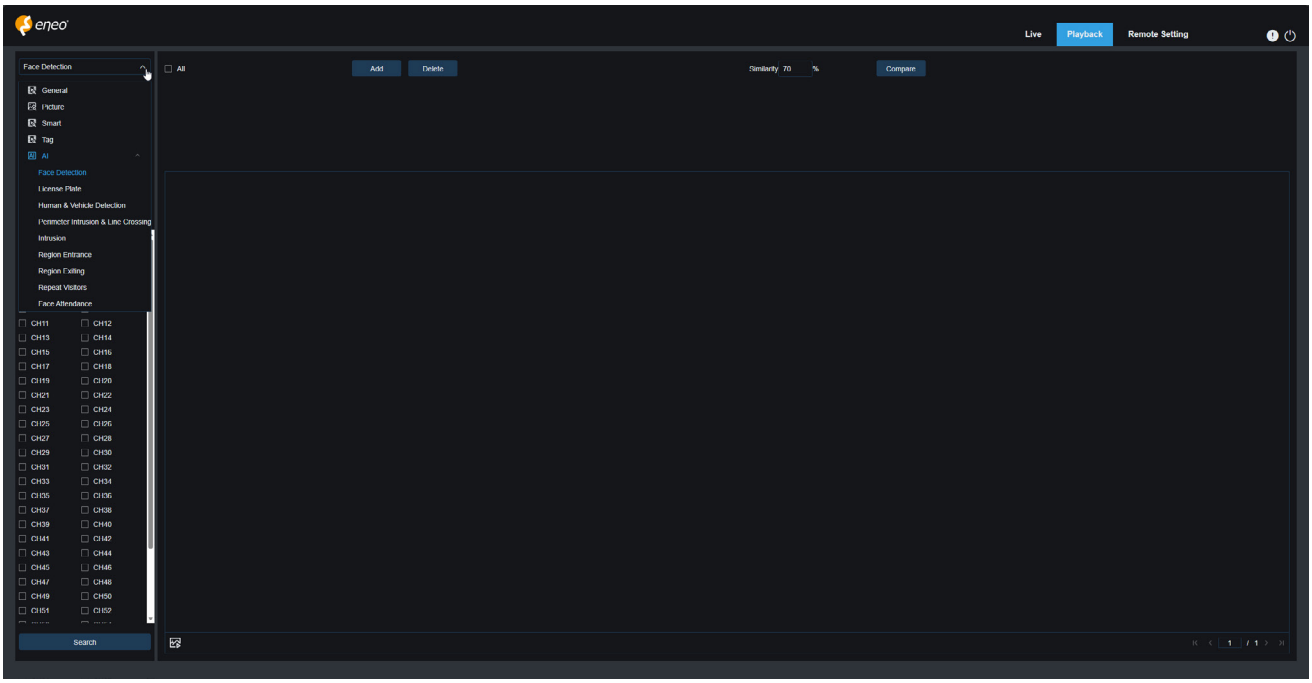
7.2.2.4 – Tag



On this page, you can search through all the added tags and edit, play back or delete them as required. Select the time and channels, then click to complete the search. Click the play button to jump to the position marked by the tag and play back the video.

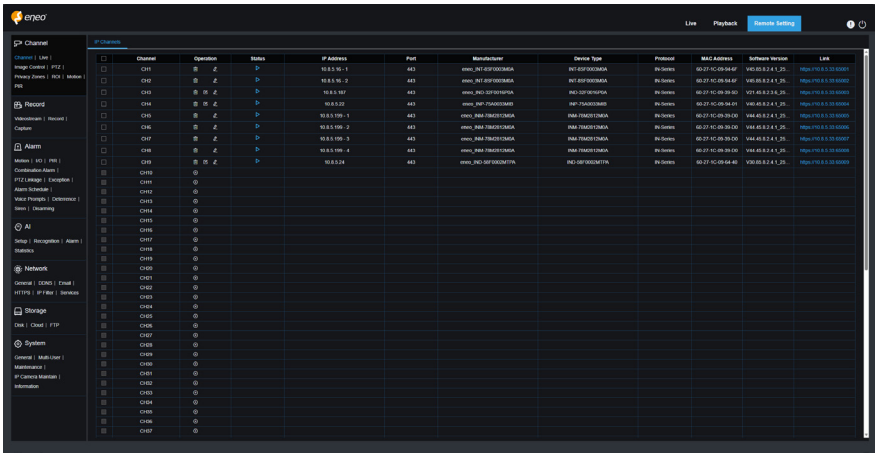
7.2.2.5 – AI

Once the AI alarm function has been enabled for the device, you can use this page to search for AI alarm events, including face detection, licence plate detection, pedestrian and vehicle detection, PID&LCD, repeat customer detection and face attendance events.



7.2.3 – Remote Setting

This page allows you to remotely adjust various device parameters, including those relating to channels, video, alarms, AI, the network, the device itself and the system.



7.2.4 – Local Setting

On this page, you can specify the location for downloading videos and snapshots taken through the web client, as well as select the file type for video files.

Record path: Click to select the folder where the videos recorded manually are stored on the computer.

Download path: Click to select the folder where downloaded videos are stored.

Snapshot Path: Click to select the folder where the manually captured snapshots are stored on the computer.

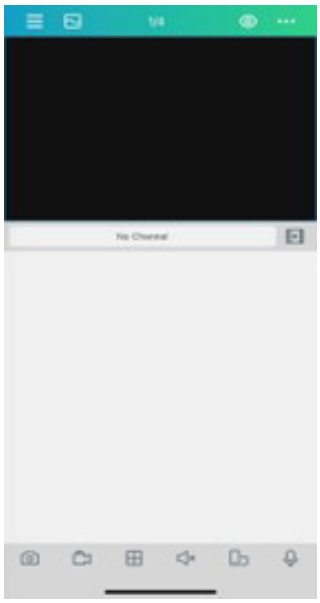
File type: Select the type of manually recorded video file.

Save: Click this button to save the changes.

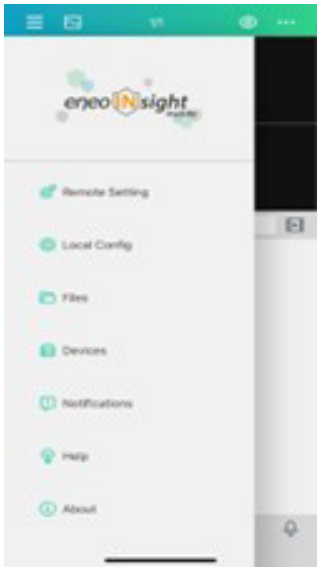
8 – REMOTE ACCESS THROUGH MOBILE DEVICES

The device supports remote access via mobile devices running Android or iOS operating systems. Users can obtain the Eneo Insight mobile software from the Google Store or Apple Store and then install it on their mobile devices.

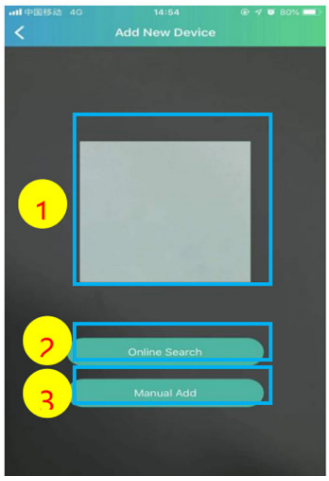
1. Install and run the App

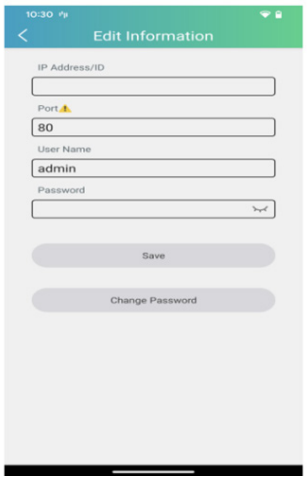


2. Click the icon to open the menu, select 'Device List' and then click '+' to add a device.



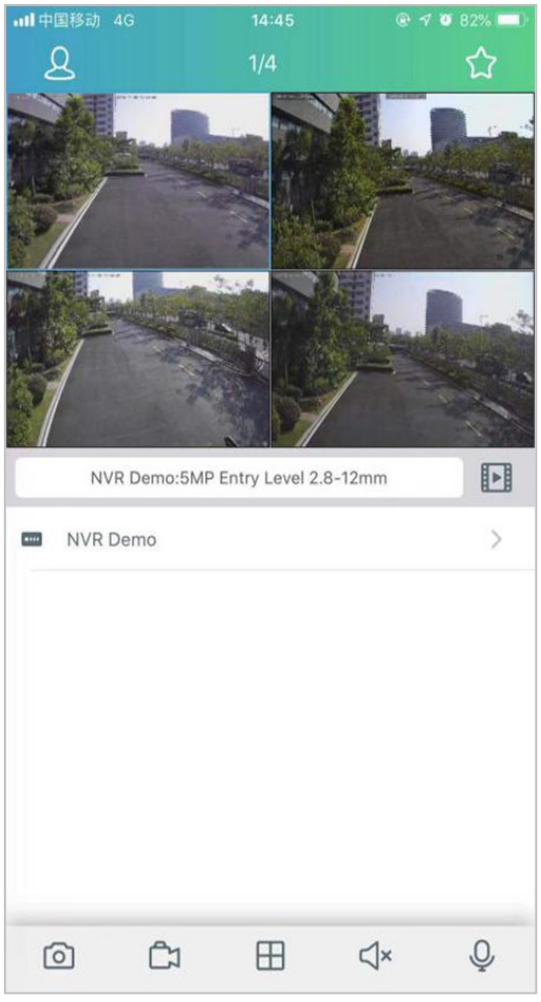
3. Click 'Manual Add' and enter the device information to add a new device.





- Scan the QR code. Scan the QR code to add a device.
- Online search: Search for and add a device on the same local area network (LAN) as the device.
- Manual add:
  Enter an IP address or a P2P ID.
  Port: Enter the device's port number.
  Enter the username and password of the device.

4. Once all the settings have been completed, click Save. If the device is connected properly, the app will switch to real-time display mode.



Icon	Function
	1-channel display
	4-channel display
	6-channel display
	8-channel display
	9-channel display
	16-channel display
	Capture: Take a screenshot of the selected channel and save it to the app's file list. You can then download these images to a mobile phone.
	Video recording: Select a channel to record and save the video in the app's file list. You can then download these videos to your mobile phone from the file list.
	Audio: Enable or disable the sound.
	Intercom: Intercom: a two-way communication device (requires device support).
	PTZ control (camera support required).
	Shut down the channel. This icon will appear at the top of the screen when you press and hold the video. You can then drag the video to the icon to close the video preview.

9 – APPENDIX

9.1 – FAQ

1. Q: What should I do if I cannot detect the hard disk?

A: If no hard disk is detected, you need to verify the following:

- That the data and power cables of the hard disk are properly connected.
- The ports on the main board to which the hard disk is connected are in good condition.
- The hard disk is supported as described in the specifications.

2. Q: What should I do if I forget the password after changing it?

A: If you forget your password, you can reset it using the password retrieval function or restore the device's factory settings using the physical reset button. It is recommended that you set a password that is easy to remember yet still secure.

3. Q: The device and cameras are connected and the power supply is normal on both ends, but there are no video signals or the output images are abnormal. Why?

A: Ensure that the network cable at the device end is properly connected and not damaged, and that the NTSC/PAL system configurations are the same at both ends.

4. Q: What effect does heat dissipation have on the device itself during operation?

A: Since a certain amount of heat is generated during operation, the device should be placed in a safe, well-ventilated environment to prevent long-term high temperatures, which may affect the system's stability and service life.

5. Q: Why can't the remote control operate the device while the monitoring screen is normal and the panel buttons can be used?

A: When performing check operations, align the remote control with the IR signal on the front panel of the device. If the remote control still fails to work, check that it has sufficient battery capacity. If so, check that the remote control is not damaged.

6. Q: Can I use the hard disk drive from my PC in this device?

A: For optimal stability, it is recommended that you use a hard disk dedicated to video surveillance.

7. Q: Can I play back videos while recording them?

A: Yes. This device allows you to record and play back videos simultaneously.

8. Q: Can I delete some video files from the hard disk?

A: For security reasons, it is not possible to delete individual video files. However, if you really need to delete all the video records, you can format the hard disk.

9. Q: Why can't I log in to the device client?

A: Check that the network connection configuration is correct and that the RJ-45 port is making good contact. If the network login password switch is enabled, check that the username and password you entered are correct.

10. Q: Why can't I find any recorded information when I play back videos?

A: Ensure that the hard disk's data cable is connected properly and that the system time has not been adjusted without authorisation. Try several times. If the problem persists after restarting, check that the hard disk is not damaged.

11. Q: Why can't the device control the PTZ?

A: This may be due to one of the following causes:

- The front-end PTZ is faulty.
- The PTZ decoder's settings, connection or installation are incorrect.
- The device's PTZ is not configured correctly.
- The PTZ decoder protocol does not match the device protocol.
- The address of the PTZ decoder does not match the address of the device.

12. Q: Why isn't dynamic detection working?

A: Check that the settings for motion detection time, motion detection area and sensitivity are correct.

13. Q: Why do the alarms fail?

A: Ensure that the alarm settings, connections and input signals are correct.

14. Q: Why does the buzzer keep ringing?

A: Check the following: the alarm settings; whether the motion detection function is enabled; whether moving objects are always being detected; and whether the I/O alarm is disabled. Check that the hard disk alarm settings are correct.

15. Q: Why does the device remain in recording status even when I click the Stop icon or select Stop Recording from the shortcut menu?

A: Clicking the Stop icon or selecting Stop Recording only stops manual recording. To stop scheduled recording, you need to change the recording status to 'Not Recording' within a certain period of time. To stop power-on recording, change the recording mode to scheduled or manual recording and then stop the recording as described above. Alternatively, you can set the channel status to disabled.

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