

# **DIVERSITY** Network Video Recorder

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## **NVR USER MANUAL Built-in PoE Models**

Please read this manual carefully for correct use of the product.

Please preserve this manual for reference purposes.



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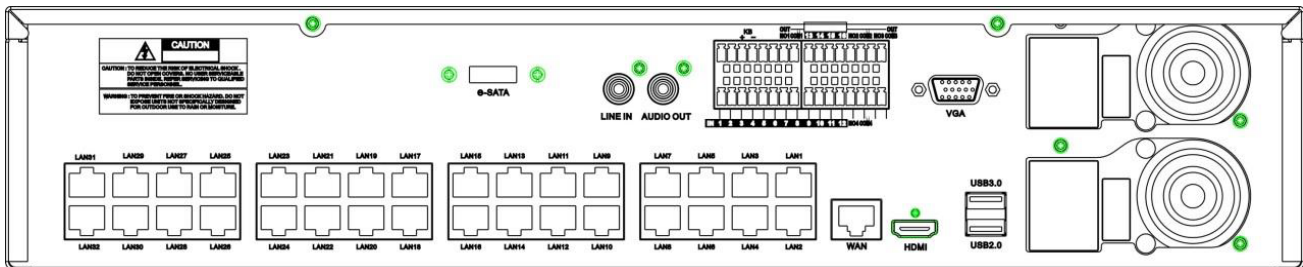
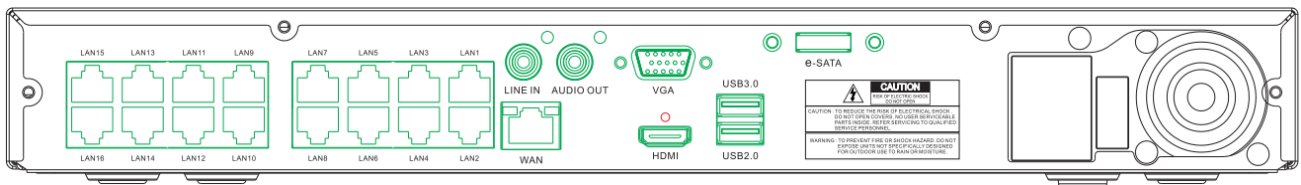
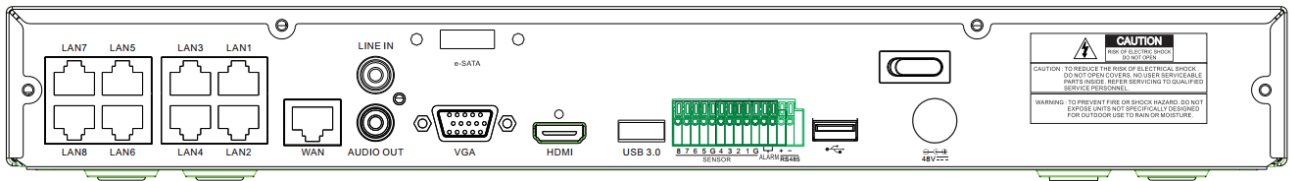
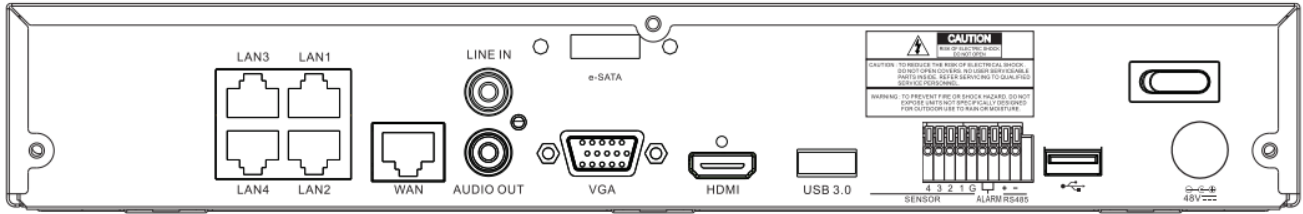
## SAFETY INSTRUCTIONS

Please carefully read the following safety instructions so as to avoid personal injuries and prevent the equipment and other connected devices from being damaged.

- 1. Power sources (note: please use the power supply attached or specified by the manufacturer.)**  
Never operate the equipment by using an unspecified power supply.
- 2. Never push objects of any kind through the openings of the NVR**  
Never push objects of any kind through the openings of the NVR to avoid electric shock or any other accidents.
- 3. Do not put the equipment in a dusty area.**
- 4. Do not place the equipment in rain or humid environments.**  
Do not place the equipment under humid environment (e.g basement). If the equipment makes contact with water, please unplug the power cable and immediately contact your local dealer.
- 5. Keep the surface of the equipment clean and dry.**  
Use a soft damp cloth to clean the outer case of the NVR (do not use liquid aerosol cleaners)
- 6. Do not operate if any problems are found.**  
If there are any strange smells or sounds coming from the NVR, unplug the power cable and contact the authorized dealer or service center.
- 7. Do not try to remove the upper cover.**  
**Warning:** Do not remove the cap of the NVR to avoid electric shock.
- 8. Handle with care.** If the  
NVR does not properly function because of any hard impacts to the device, please contact the authorized dealer for repairs or a replacement.
- 9. Use the standard lithium battery (Note: Use the batteries attached or specified by the manufacturer).**  
After cutting off the power supply, if the system clock does not continue to work, please replace the standard 3V lithium battery on the main board.  
**Warning:** Turn off the NVR before replacing the batteries, or you may suffer from a serious electric shock. Please properly dispose of the used batteries.
- 10. Put the equipment in a place with proper ventilation.**  
The NVR system includes an HDD, which produces a large amount of heat during operation. As a result, do not block any ventilation openings (on the top, bottom, both sides and the reverse side) for cooling the system during operation. Install or put the equipment in a place with proper ventilation.
- 11. The attached power adapter can only be used for 1 set of NVR, Do not connect more equipment, or the NVR may restart repeatedly due to insufficient power.**
- 12. Prevent the equipment from getting into contact with water or any form of splashing. Do not place objects containing water on the equipment (e.g flower vase filled with water).**

# Chapter 1 Product Overview

## 1.1 Rear Panel



Item	Physical Port	Connection Method
1	Power Switch	Startup and shutdown.
2	Power Port	Connect the attached power supply.
3	USB Port	Connect USB devices, such as USB mouse and USB flash disk.
4	Sensor/Alarm	Connect to sensor or alarming device.
5	HDMI Port	HDMI high definition port.
6	VGA Port	Connect to VGA monitor, such as PC monitor.
7	LINE IN	Intercom voice input.
8	AUDIO OUTPUT	Audio signal output, RCA interface.
9	WAN Port	Network input interface of the router/Connect to IP camera.
10	LAN Port	LAN network interface, support POE, can supply power to the camera.
11	E-SATA	Optional. Connect to e-SATA HDD for recording & backup.

## Chapter 2 NVR Installation & Connection

### 2.1 HDD Installation

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

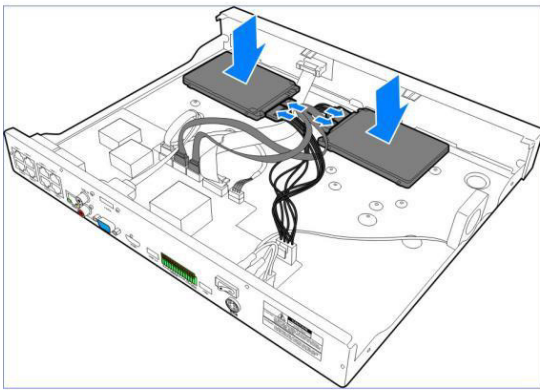
**CAUTION:** DO NOT install or remove the hard disk drive while the device power is turned ON.

HDD Installation:

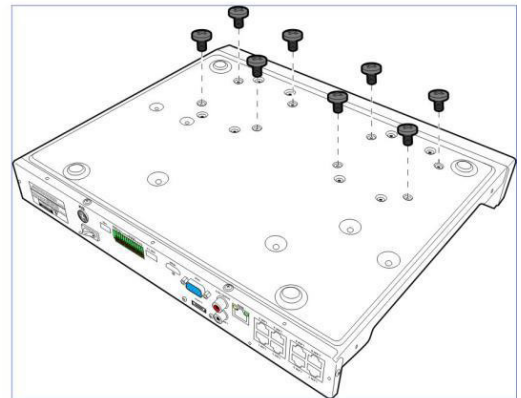
a) Connect the data and power cables to the hard disk drives and place the hard disk drives on the NVR case.

b) Carefully flip the NVR case and secure the hard disk drives to the NVR with the eight (8) screws.

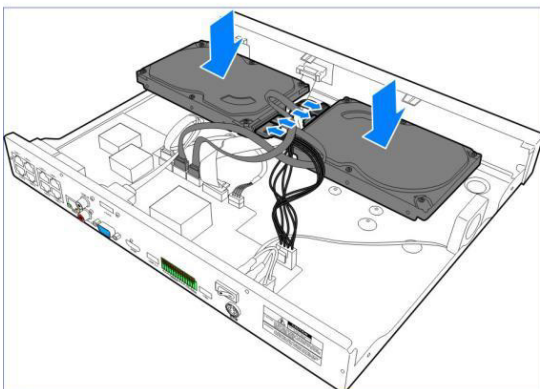
**2.5" HDD**



**2.5" HDD**



**3.5" HDD**



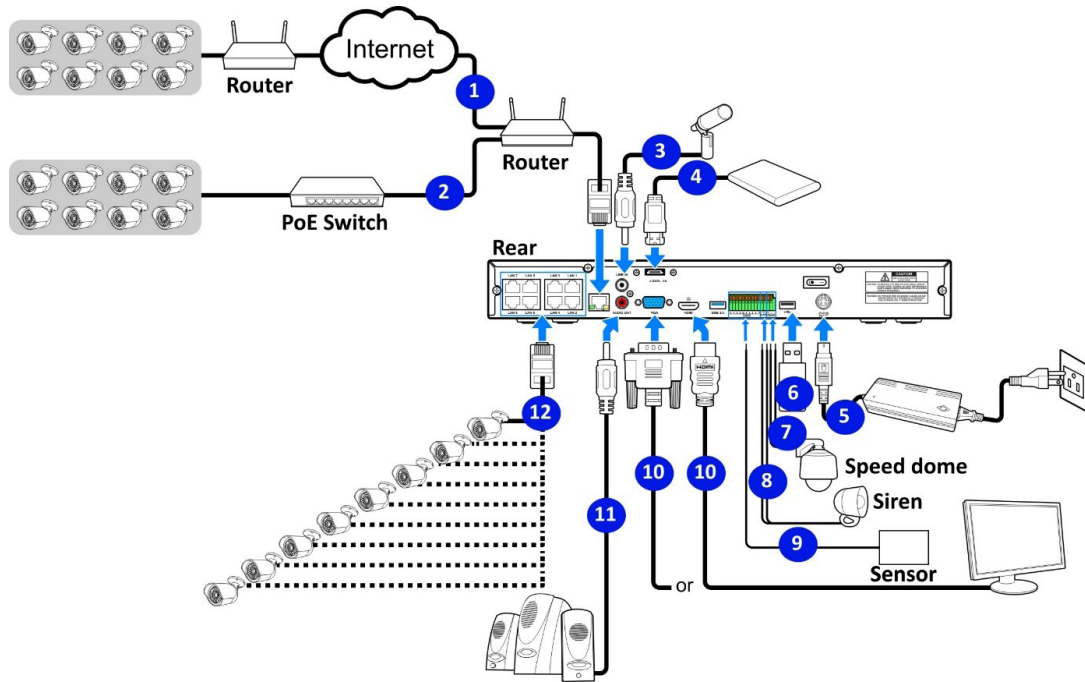
**3.5" HDD**



**Note:**

The above procedures are for reference only. The practical operation may be different depending on the NVR you purchased.

### 2.2 Connection Diagram

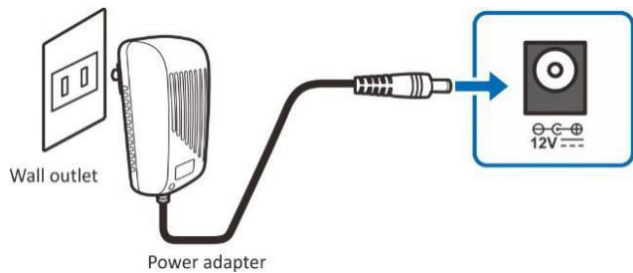


**Note:**  
 The above diagram is for reference only. The practical connection may be different depending on the NVR you purchased.

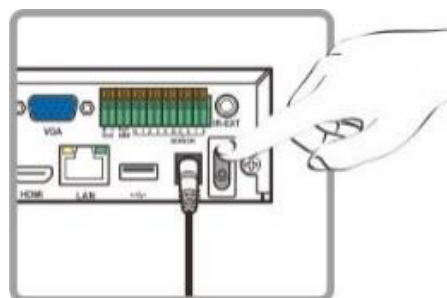
### 2.3 Power Supply Connection

*Caution:* Use only the supplied power adapter that came with the NVR.

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



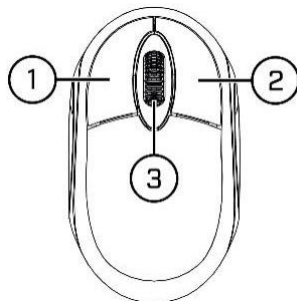
For some specific models; you may need to press the Power switch to turn on the power.





## Chapter 3 NVR Common Operations

### 3.1 Using the Supplied Mouse



#### 1. Left Button:

- Click to select menu options.
- During live viewing in split-screen 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 the Live Viewing screen to open Camera Quick Toolbar.
- Click and hold to drag sliders and scales on menu mode.

#### 2. Right Button:

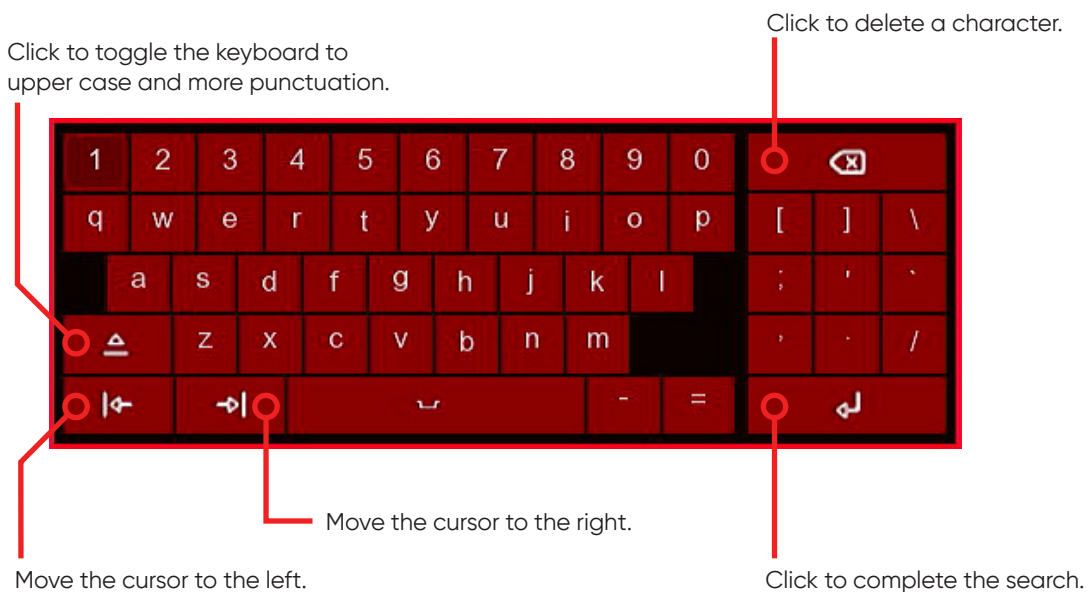
- Click once to open the Taskbar on the Live Viewing screen. View Taskbar on [4.2.2 Taskbar](#)
- In menus, click to go back / close menus.

#### 3. Scroll Wheel:

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

### 3.2 Using the Virtual Keyboard

You will see the virtual keyboard automatically on the screen when you need to enter data.



### 3.3 Password

For the first time when you run the NVR, you are required to set your own password immediately in order to protect your privacy. Please be sure to record your username and password and save them in a secure place.

Language: ENGLISH

New Admin Name: admin

Password Strength: [ ] [ ] [ ]

New Admin Password: [ ]  Show Password

Confirm Password: [ ]  Show Password

Unlock Pattern Enable: Disabled

Apply

**Language:** Choose an OSD language

**Device ID:** Input the device ID in the parentheses. Default ID is 000000. View more about Device ID on [5.6.1 General](#). ==X

**New Admin Name:** To set your own administrator name.

**New Admin Password:** To set your own password. The password must be a combination of 8 characters.

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

**Unlock Pattern Enable:** To set your own lock pattern.

Click **Apply** to confirm your settings and to go to the login interface. Enter your user name & password to **Login** to the NVR system.

Language: ENGLISH

New Admin Name: admin

Password Strength: [Red] [Yellow] [Green] High

New Admin Password: [••••••••]  Show Password

Confirm Password: [••••••••]  Show Password

Unlock Pattern Enable: Disabled

Apply

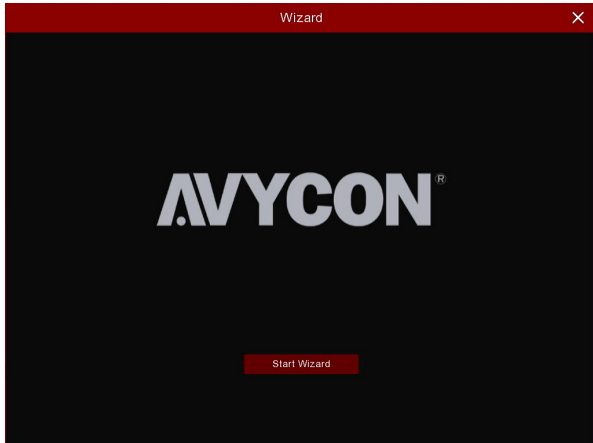
**NOTE:** If you forget your password, you will be unable to login the system, please contact your reseller to reset the password.

## Chapter 4 NVR Starting Up

### 4.1 Start Wizard

Startup Wizard configures the system and gets the NVR working promptly.

#### 4.1.1 Start Wizard



Click the **Start Wizard** to proceed to the next step.

#### 4.1.2 Network Configuration

If you connect to a router that allows the use of DHCP, please check the **DHCP** box. The router will assign automatically all the network parameters for your NVR, unless the network is manually addressed to the parameters below:

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

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

**Gateway:** This address allows the NVR to access the internet. The format of the Gateway address is the same as the **IP Address**. For example, "192.168.001.001".

**DNS1/DNS2:** DNS1 is the primary DNS server and DNS2 is a backup DNS server. Usually it should be enough just to enter the DNS1 server address.

**Local Connection**

DHCP

IP Address: 192.168.100.059

Subnet Mask: 255.255.255.000

Gateway: 192.168.100.001

IPv6 Address: fe80::2a36:13ff:fe00:d54 / 64

IPv6 Gateway: fe80::64

**DNS**

DNS1: 001.001.001.001

DNS2: 008.008.008.008

**Port**

	Service	Protocol	Internal Port	External Port	UPNP Status	Mapping Type	UPNP
1	Web	TCP	00080	00080	Inactive	Auto	<input type="checkbox"/>
2	Client	TCP	09000	09000	Inactive	Auto	<input type="checkbox"/>
3	RTSP	TCP	00554	00554	Inactive	Auto	<input type="checkbox"/>
4	Https	TCP	00443	00443	Inactive	Auto	<input type="checkbox"/>

**PPPoE**

Enable PPPoE

User:

Password:   Show Password

Next No

## 4.1.3 Port

Wizard

Network

DNS2 008.008.008.008

Port

	Service	Protocol	Internal Port	External Port	UPNP Status	Map
1	Http/Https/RTSP	TCP	00080	00080	Inactive	Auto
2	Client	TCP	09000	09000	Inactive	Auto

PPPoE

Enable PPPOE

User

Password

Next No

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

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

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

**Https:** This is the port that you will use to log in remotely to the NVR by browsers with https protocol.

**Internal Port:** Used for LAN connection.

**External Port:** Used for WAN / Internet connection.

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

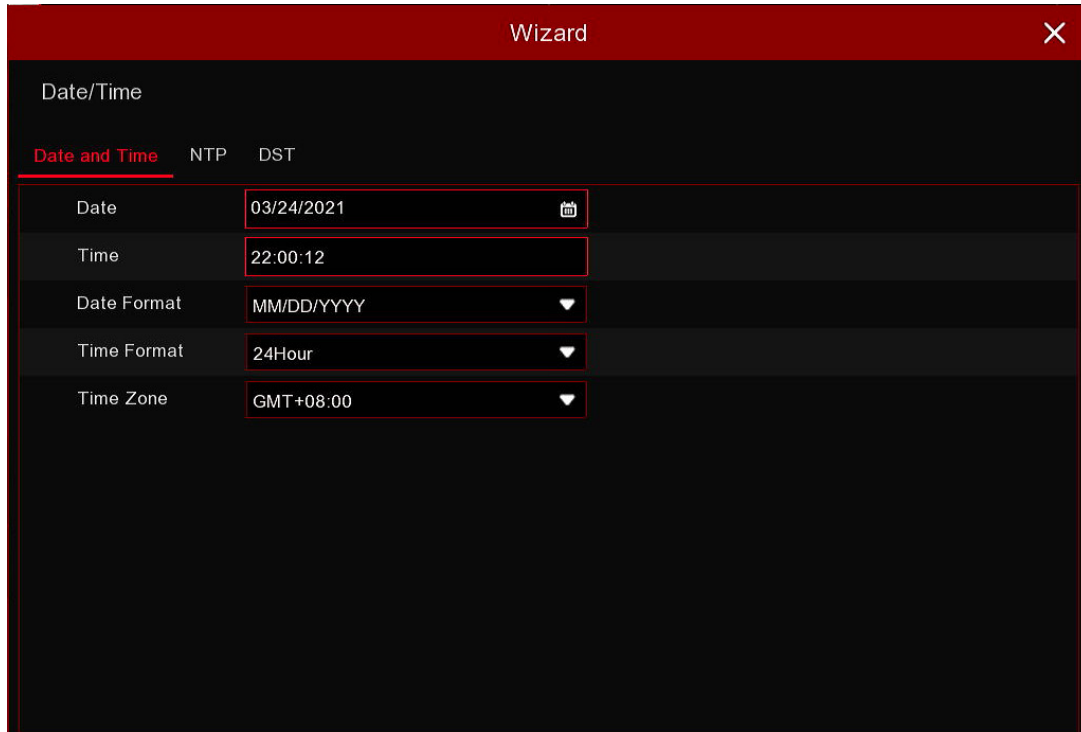
**Mapping Strategy:** If you want the port randomly distributed by the router UPNP server, choose **"Auto"**; If you want to manually forwarded the port, choose **"Manual"**.

#### 4.1.4 Date/Time

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

### Date and Time

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



The screenshot shows a 'Wizard' window titled 'Date/Time'. It has three tabs: 'Date and Time' (selected), 'NTP', and 'DST'. Under the 'Date and Time' tab, there are five rows of configuration options:

Field	Value	Icon
Date	03/24/2021	Calendar icon
Time	22:00:12	
Date Format	MM/DD/YYYY	Dropdown arrow
Time Format	24Hour	Dropdown arrow
Time Zone	GMT+08:00	Dropdown arrow

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

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

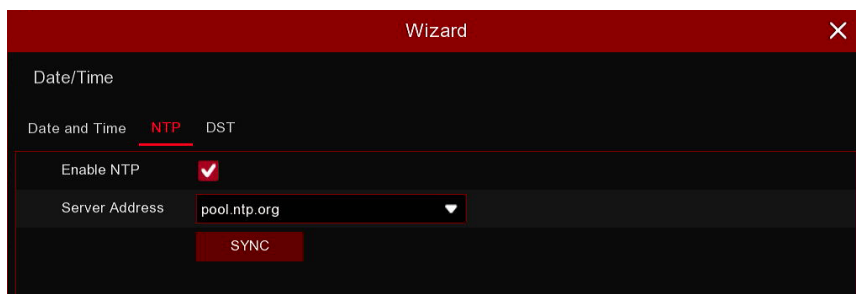
**Date Format:** Choose from the dropdown menu to set preferred date format.

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

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

### NTP

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



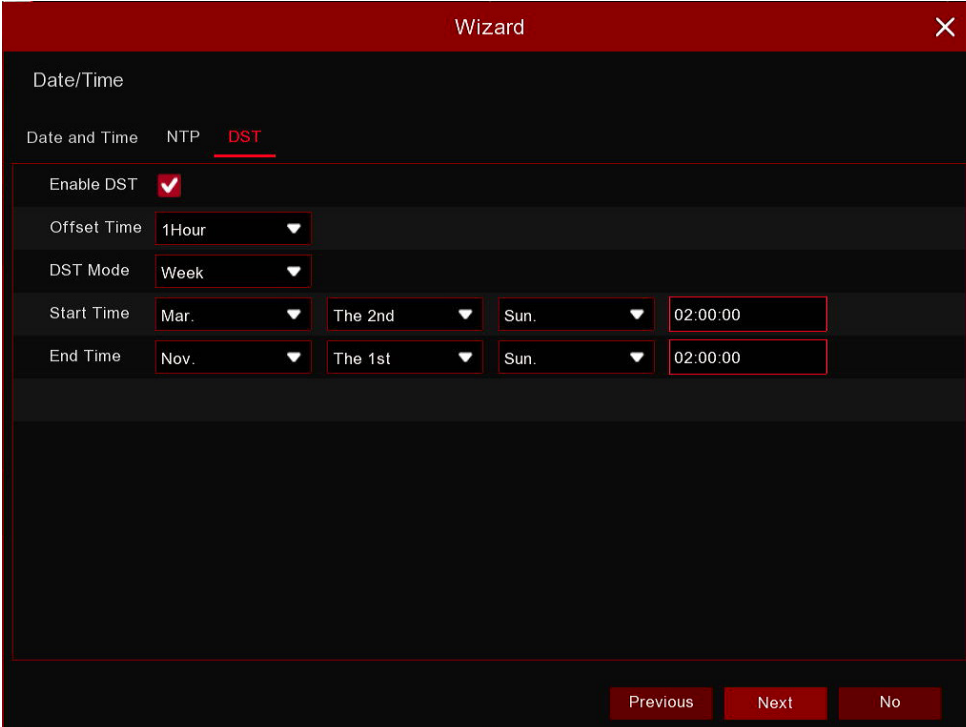
The screenshot shows a 'Wizard' window titled 'Date/Time'. It has three tabs: 'Date and Time', 'NTP' (selected), and 'DST'. Under the 'NTP' tab, there are two rows of configuration options:

Enable NTP	<input checked="" type="checkbox"/>
Server Address	pool.ntp.org

Below the 'Server Address' field is a red button labeled 'SYNC'.

Check the **"NTP"** box, and select the NTP server.

**DST:** DST stands for Daylight Savings Time.



The screenshot shows a 'Wizard' window with a dark background and red accents. The title bar is red with the text 'Wizard' and a close button. Below the title bar, the 'Date/Time' section is active, with 'Date and Time', 'NTP', and 'DST' tabs. The 'DST' tab is selected. The configuration options are as follows:

Field	Value
Enable DST	<input checked="" type="checkbox"/>
Offset Time	1Hour
DST Mode	Week
Start Time	Mar. The 2nd Sun. 02:00:00
End Time	Nov. The 1st Sun. 02:00:00

At the bottom of the window, there are three buttons: 'Previous', 'Next', and 'No'.

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

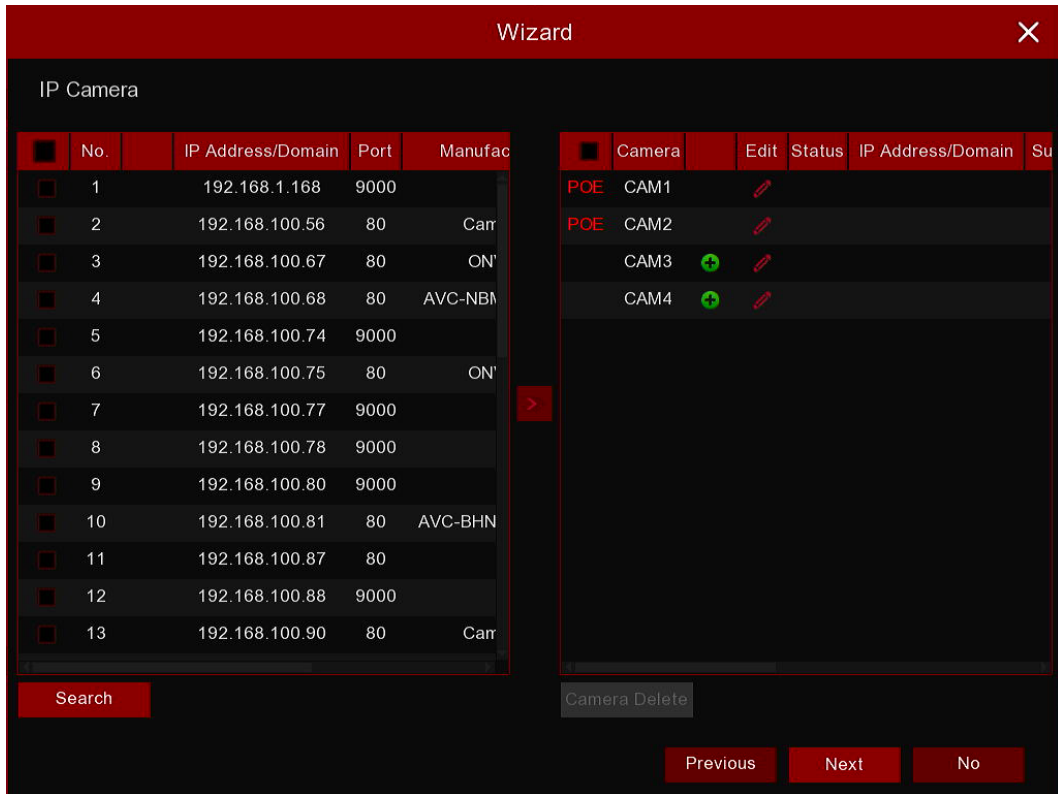
**Time Offset:** Select the amount of time to offset for DST

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

**Start Time/End Time:** Set the start time and end time for daylight savings.

### 4.1.5 IP Camera

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



For PoE NVR, the IP camera will connect online automatically if the IP camera is connected to the PoE port on the NVR's rear panel.

For Non-PoE NVR, you need to add the IP cameras from LAN and/or Internet manually

Click **Search** to search IP cameras in the same network. Choose the IP camera(s) you want to add, then click the ➤ icon to add to the NVR.

Port: 80  Auto

Protocol: Onvif  Auto

User Name: admin

Password:   Show Password

Add No

Enter the camera's user name & password to add the camera(s).

You can also click the  button to add an individual IP camera to a single channel.

✕
Add IP Camera

No.	IP Address/Domain	Port	Manufacturer	Device Name	MAC Address	Soft
1	192.168.100.56	80	Camera		1C-C3-16-24-91-F8	
2	192.168.100.67	80	ONVIF		00-18-AE-BF-A5-53	
3	192.168.100.68	80	AVC-NBM81F180		00-18-AE-A2-12-12	
4	192.168.100.74	9000		AVC-NB51M	00-23-63-86-A0-82	V14
5	192.168.100.75	80	ONVIF		00-18-AE-AD-D9-1F	
6	192.168.100.77	9000		IP CAMERA	00-23-63-AD-D8-AD	V20
7	192.168.100.78	9000		IP CAMERA	00-23-63-78-C1-66	V14
8	192.168.100.80	9000		IP CAMERA	00-23-63-81-4F-52	V14
9	192.168.100.81	80	AVC-BHN41FT/2.8		00-18-AE-C2-FA-38	
10	192.168.100.87	80			00-18-AE-A6-03-7D	
11	192.168.100.88	9000		IP CAMERA	00-23-63-81-4F-52	V14

IP Address/Domain

Camera Name

Port

Protocol

User Name

Password   Show Password

Search
Default Password
Add
No

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

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

**Camera Name:** Name of the IP camera.

**Port:** Port of the IP camera.

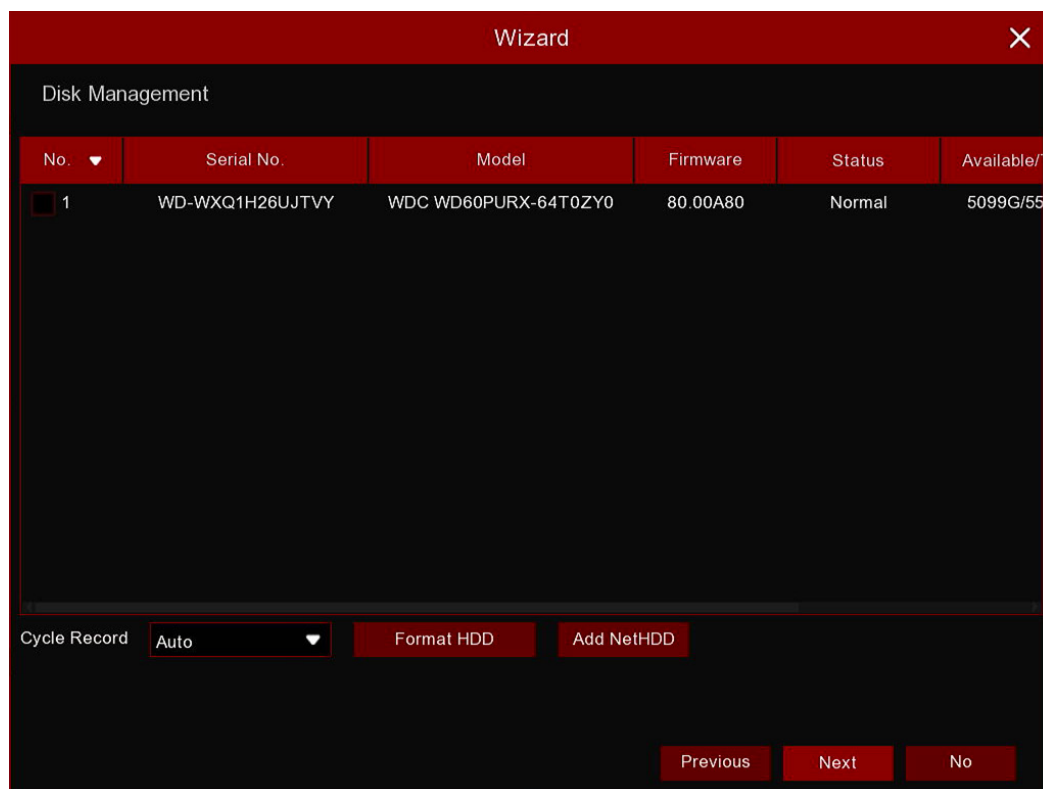
**Protocol:** Choose the protocol of the IP camera from the dropdown menu.

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

**Password:** Password of the IP camera.



### 4.1.6 Disk



If an HDD is installed into the NVR for the first time, it must be formatted. Select the HDD and then click the **Format HDD** button to format the HDD.

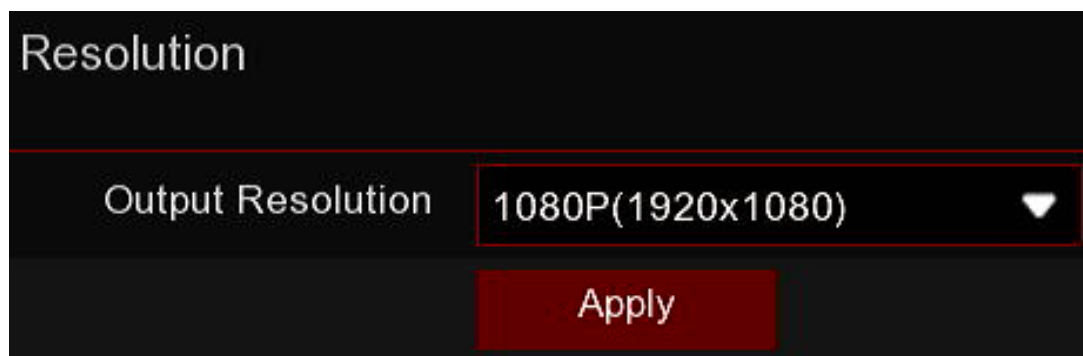
**Cycle Record:** Use this option to overwrite old recordings on the HDD when the HDD is full. For example, if you choose the option, "7 days," then only the last 7 days of recording are kept on the HDD. To prevent overwriting any old recordings, select Disable. If you have disabled this function, please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

**Add NetHDD:** To add your NAS storage.

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

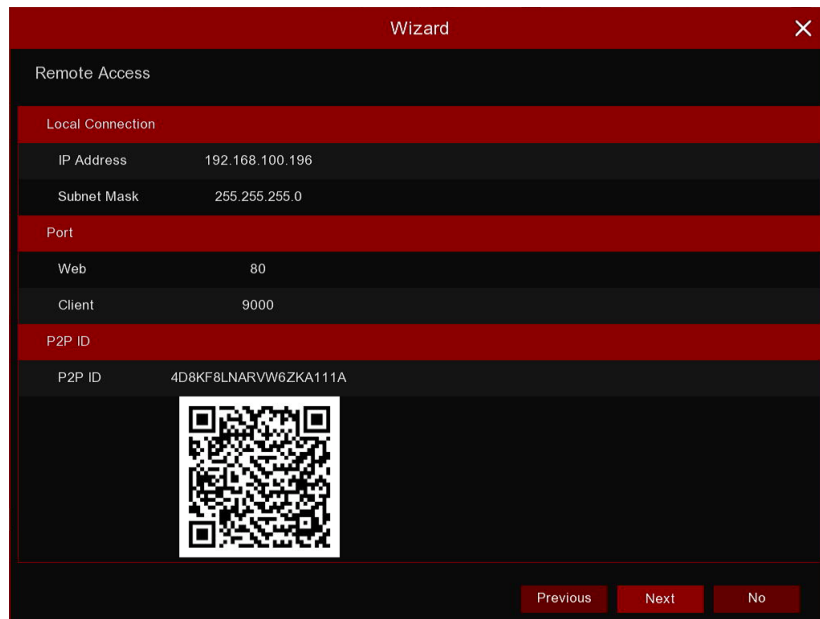
### 4.1.7 Resolution

Choose an output resolution that matches to your monitor. The NVR supports adjusting the output resolution automatically to match the best resolution of your monitor when the system is starting up.



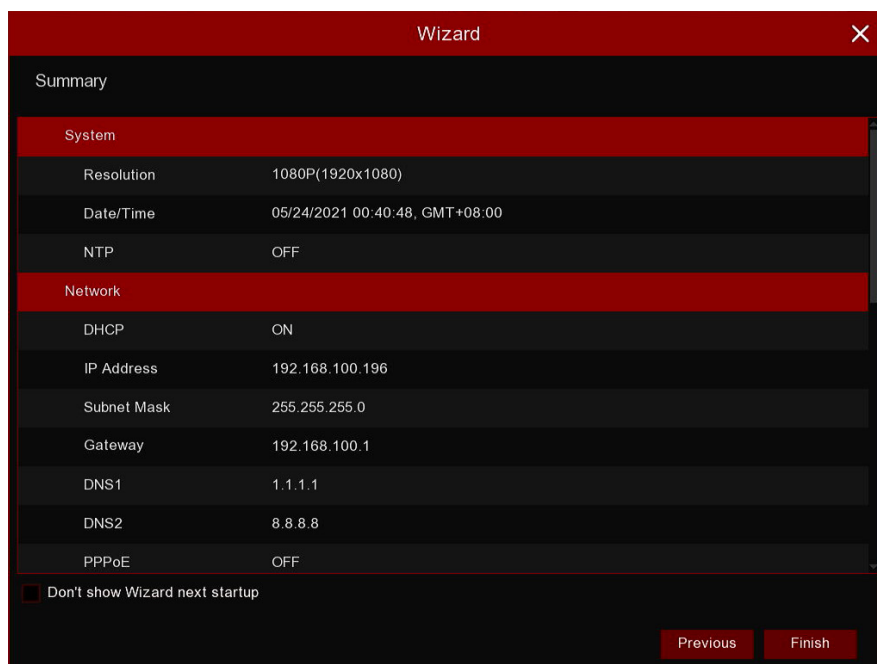
### 4.1.8 Mobile

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

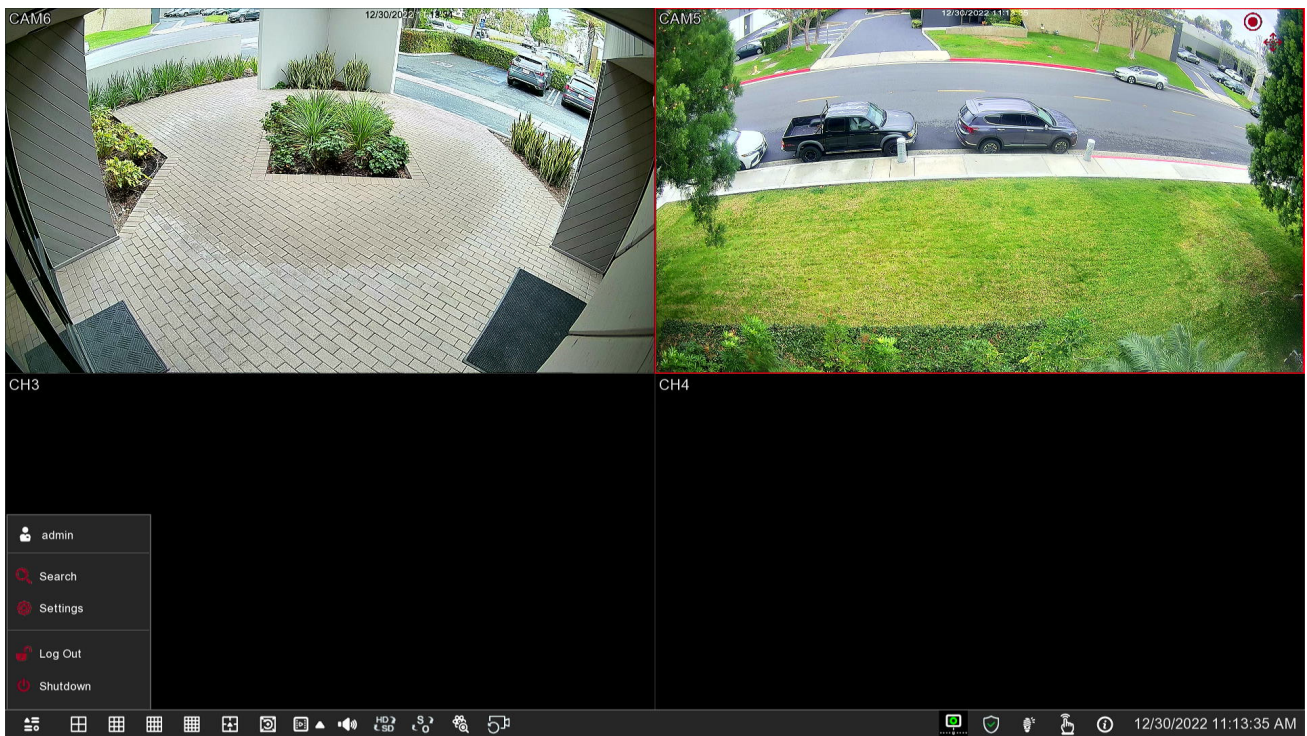


### 4.1.9 Summary

You can check the system summary information you had set in the start wizard and finish the wizard. Check **"Don't show this window next time,"** if you don't want to display the Start Wizard when the system reboots the next time. Click the **Finish** button to save & exit.



## 4.2 Live View Screen Overview



### Status Icons



This icon indicates that the NVR is currently recording.



This icon appears when the camera has detected motion.



This icon indicates that the external I/O alarm device is triggered.



This icon indicates that the HDD is not working due to an error.



This icon indicates that the HDD is unformatted.



This icon indicates that the HDD is full.



This icon indicates that the HDD is read-only.

**VIDEO LOSS:** The analog camera is disconnected.

**No-Camera:** IP camera is disconnected.

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



Click to open the **Quick Add** menu to add IP camera.













Click to edit the current IP camera.

### 4.2.1 Camera Quick Toolbar

In live viewing, click the left button of your mouse on a connected camera to display the Camera Quick Toolbar.



-  Click to manually record the channel immediately. If the manual recording is in process, the icon will be a red color. Click one more time to stop manual record.
-  Click to save a snapshot of the current camera image. Manual Capture must be enabled to use this feature. For details on enabling Manual Capture, see [5.2.3.1 Capture](#).
-  Click to play the most recent 5 minutes of recording of this channel.
-  Click to enter the PTZ control panel.
-  Click to zoom-in the channel. When the  icon appears, press and hold the left button of your mouse to drag the area you want to zoom in.
-  Click to adjust the image color of the channel. You can adjust the HUE, BRIGHT, CONTRAST, & SATURATION of the image.
-  Click to switch between the HD & SD live view video stream. HD is mainstream live view, SD is substream live view.
-  Click to add customize tag. It supports to fast search by adding a tag in live view. See more on 6.6 Tag Search.
-  **Smart Analytics.** Hover the mouse upon the icon to view Smart Analytics when the AI function is activated in your NVR.

### 4.2.2 Taskbar



Click to open the Start Menu.



Click to choose a different layout for live view.



Click to choose more layouts for live view.



Click to start viewing channels in a sequence.



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



Click to adjust audio volume.



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



Click to switch among real-time, balanced, or smooth view. The view effect modes affect on the live view video quality by bitrate and frame rate. They do not affect the recording quality.



To start or stop Manual Record and Manual Alarm.



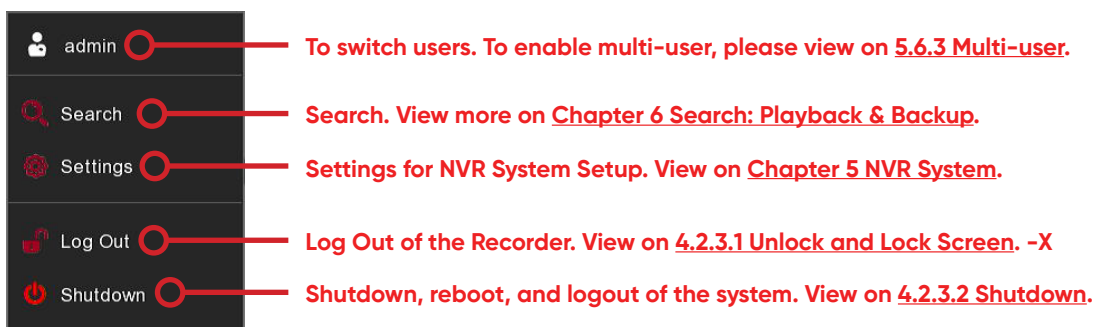
To view the system information, channel information, record info, and network state.



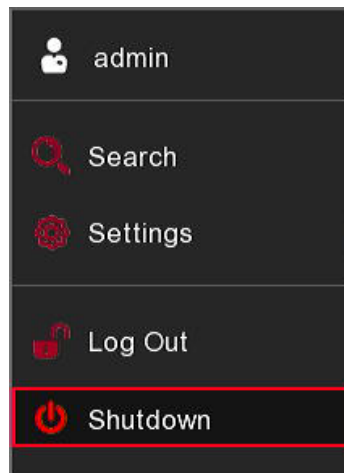
This icon will appear if the network is disconnected.

### 4.2.3 Start Menu

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



## 4.2.3.1 Shutdown

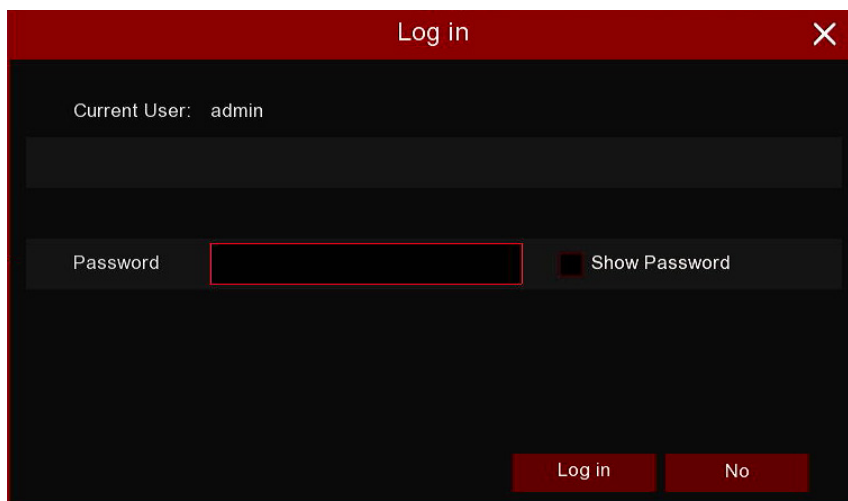


Click the **Shutdown** button from the Start Menu, then check the further action you want to take.

Click the **OK** button. The system will require you to input the Admin password to authenticate.

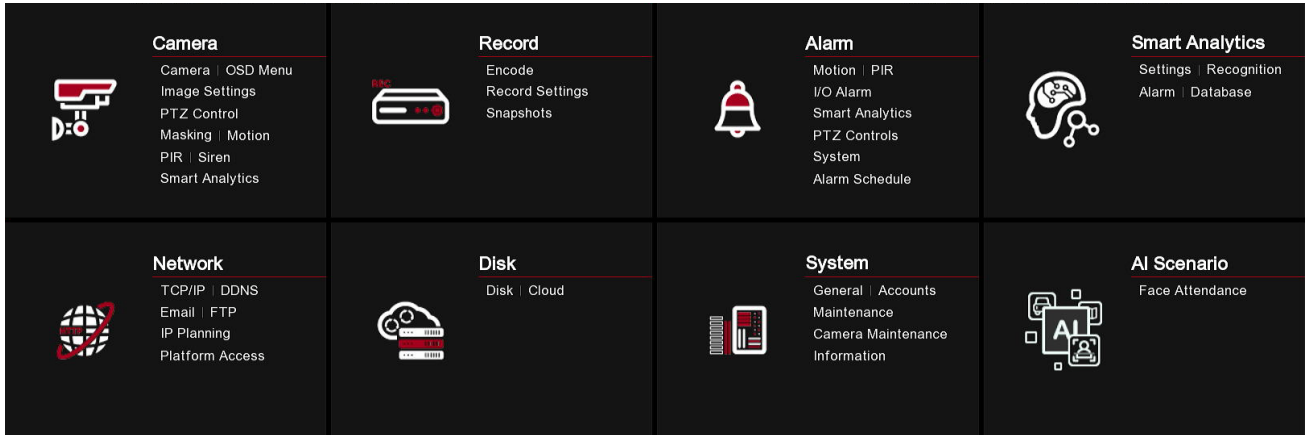


If you choose Logout, the live viewing screen will disappear. You will need to login to the system for further operations.



# Chapter 5 NVR System Setup

You are able to configure the NVR for Camera, Record, Alarm, Network, Disk, System from **Start Menu > Setup**.



## 5.1 Camera

In this section, you are allowed to configure the camera, live view display, manage IP cameras, adjust IP camera's image, PTZ setup, Masking, Motion, and more.

### 5.1.1 IP Cameras

The screenshot shows the 'Settings' menu with 'Camera' selected. The 'IP Cameras' tab is active, displaying a table of 10 cameras. Below the table are buttons for 'Search', 'Add', and 'Add All'. A second table provides a summary of camera configurations.

No.	Edit/Activate	IP Address/Hostname	Port	Channel Count	Manufacturer	Active state	Device Name	MAC Address	Software Version
1	[Edit]	192.168.1.78	9000	16		None	AVR-HSV16E2N	28-36-13-D0-0D-92	V8.1.0-20220222
2	[Edit]	192.168.1.168	9000	1		None	IP CAMERA	00-23-63-8F-46-D0	V26.34.7.1_220125
3	[Edit]	192.168.100.2	80	1	ONVIF	None	00-18-AE-B9-8E-E6		
4	[Edit]	192.168.100.53	80	1		None	00-18-AE-C2-FA-38		
5	[Edit]	192.168.100.54	80	1	AVC-NBM81F180	None	00-18-AE-A2-12-12		
6	[Edit]	192.168.100.57	80	1	AVC-BHN81AVT/V2	None	00-18-AE-C3-95-23		
7	[Edit]	192.168.100.58	80	1		None	00-18-AE-A6-03-7D		
8	[Edit]	192.168.100.59	80	1		None	00-18-AE-AE-2E-EC		
9	[Edit]	192.168.100.60	80	1	ONVIF	None	00-18-AE-AD-C9-C3		
10	[Edit]	192.168.100.61	80	1	AVC-VHN81FLT/2.8	None	00-18-AE-C3-CE-A3		

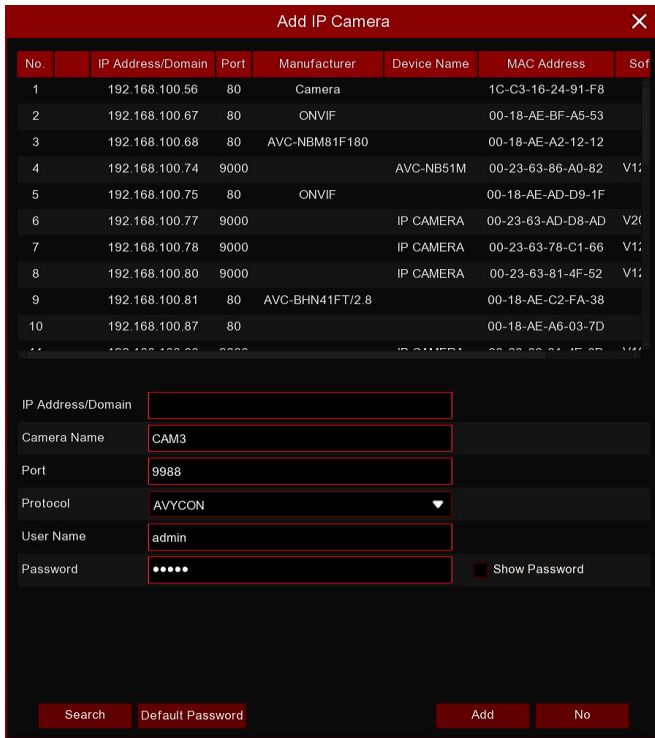
  

Camera	Switch Mode	POE Mode	Edit	Status	IP Address/Hostname	Subnet Mask	Port	Manufacturer	Device Name	Protocol	MAC Address	Softwa
CAM1	Manual	Auto	[Edit]	[Status]	10.10.25.151	255.255.0.0	9000		AVC-NSE81F28	AVYCON	28-36-13-D0-3A-CD	V21.4
CAM2	Manual	Auto	[Edit]	[Status]								
CAM3	Manual	Auto	[Edit]	[Status]								
CAM4	Manual	Auto	[Edit]	[Status]								
CAM5	Manual	Auto	[Edit]	[Status]								
CAM6	Manual	Auto	[Edit]	[Status]								
CAM7	Manual	Auto	[Edit]	[Status]								
CAM8	Manual	Auto	[Edit]	[Status]								
CAM9	Manual	Auto	[Edit]	[Status]								
CAM10	Manual	Auto	[Edit]	[Status]								

Auto Assign IP to Camera(s)   Camera Delete   Default Password   Show Password

Total BandWidth:112Mbps, Used BandWidth:10.589Mbps

Click **Search** to search IP cameras from the local network, click **Add** to add an individual IP camera, click **Add all** to add all IP cameras.



Click the **Search** button to search IP cameras, then click one of the IP cameras in the device list.

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

**Camera Name:** Name of the IP camera.

**Port:** Port of the IP camera.

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

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

**Password:** Password of the IP camera.

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

**Camera Delete:** Choose one or more added IP cameras, and click this button to delete.

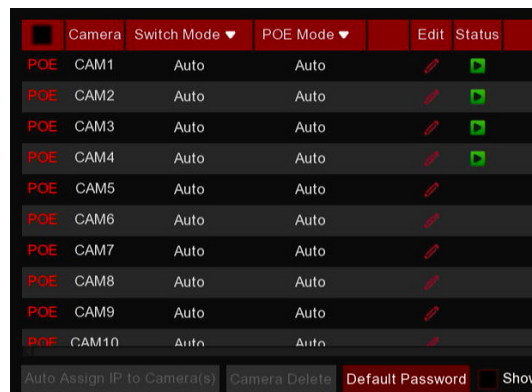
### 5.1.1.1 PoE NVR Connection

For the PoE NVR, it is allowed to connect the IP cameras via the internal PoE ports and/or external LAN(WAN) port.

**Note:**

*It is not recommended to connect more than 1 camera via switch or router to the PoE port. One PoE port is allowed to connect one IP camera only.*

*PoE not only provides power over ethernet but only supports plug & play connection for IP cameras.*





**Switch Mode:** Auto mode supports Plug & Play connection via PoE port. If you want to add camera(s) manually then change the mode to Manual.

**Switch Mode:** Auto mode limits the maximum bandwidth to 100Mbps, EPOE mode limits the maximum bandwidth to 10Mbps. If you have a connection problem with Auto mode when the IP camera is powered by PoE via a RJ45 cable longer than 100 meters, then change to EPOE mode for a stable connection.

**Edit:** To edit the Switch mode, PoE mode, network parameters, user name and password for individual camera.

Field	Value
Camera	CAM1
Switch Mode	Manual
POE Mode	Auto
Camera Name	CAM1
IP Address/Hostname	10.10.25.151
Subnet Mask	255.255.000.000
Port	80
Protocol	Onvif
Connect Mode	General
User Name	admin
Password	••••••••

**Default Password:** To configure the default user name and password of Private, Onvif and RTSP protocol connection. Default password is *"admin"*.

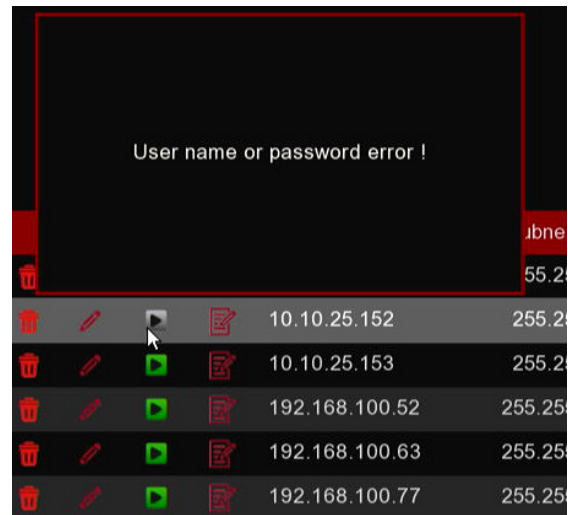
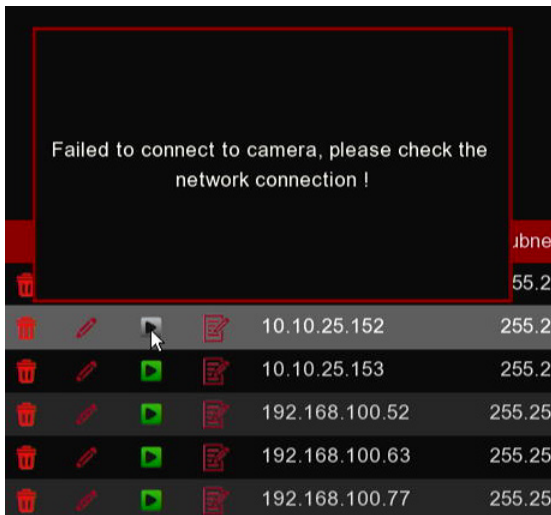
Protocol	User Name	Password
AVYCON	admin	••••••••
Onvif	admin	••••
RTSP	admin	••••

**State:** Show the connection status of the camera.

Search	Add	Add All		Camera	Switch Mode ▼	POE Mode ▼	Edit	Status	IP Address/Hostname	Subn	
			<input type="checkbox"/>	CAM1	Manual	Auto				10.10.25.151	255.2
			<input type="checkbox"/>	CAM2	Manual	Auto				10.10.25.152	255
			<input type="checkbox"/>	CAM3	Manual	Auto				10.10.25.153	255
			<input type="checkbox"/>	CAM4	Manual	Auto				192.168.100.52	255.2

Icon with green background color: camera is well-connected.




Icon with green grey color: failed to connect camera. Click the icon to show the failure reason.

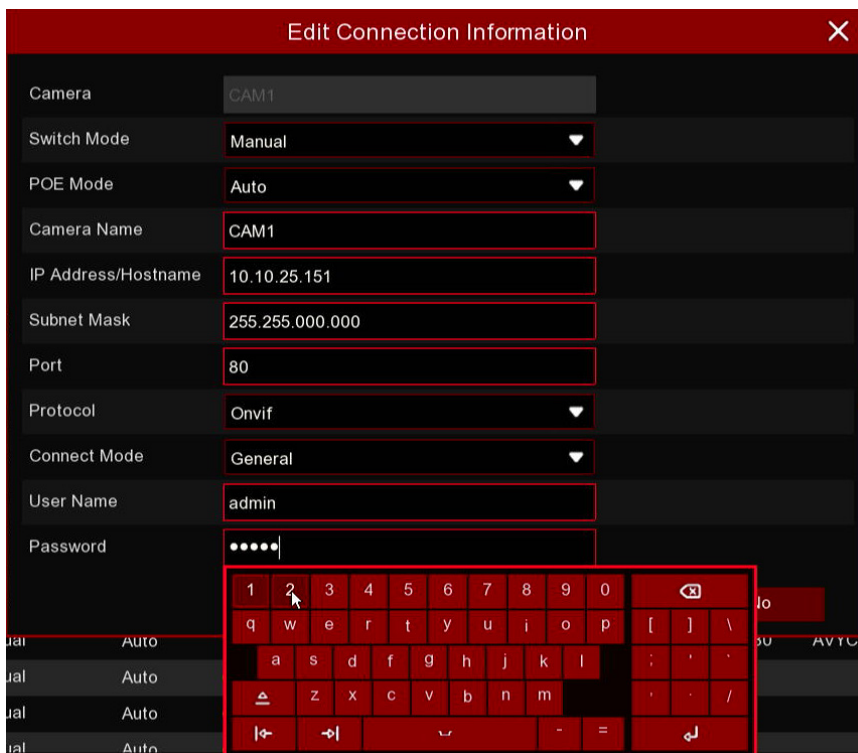


If the failure reason is "User name or password error", it means the camera user name and password is different from the default user name and password.

If the failure reason is "Failed to connect to camera, please check the network connection", it means the network parameter might be incorrect or incompatible Onvif protocol.

### 5.1.1.2 Steps to Connect Plug & Play PoE Cameras

- 1.Keep the default settings.
- 2.Change the default user name and password to be same with the cameras.
- 3.Make sure your IP camera is set to DHCP IP address already. If your camera is set to static IP address which is different from the IP address segment inside the PoE router, your IP camera will be unable to get online. Check more in 5.5.1.1 Network --> General.
- 4.Connect your IP camera into the PoE port on the rear panel.
- 5.Camera will be online and displayed in the camera list after its startup.
6. Check the connection status: if the icon is  then the camera is well-connected; if the icon is  then the camera is failed to connect. Click the icon to check the failure reason. If the reason is "User name or password error", that means the default user name and password is not same with the camera's. Click the edit icon  to modify the user name and password which is same with the camera's.



The screenshot shows the 'Edit Connection Information' dialog box. The fields are as follows:

Field	Value
Camera	CAM1
Switch Mode	Manual
POE Mode	Auto
Camera Name	CAM1
IP Address/Hostname	10.10.25.151
Subnet Mask	255.255.000.000
Port	80
Protocol	Onvif
Connect Mode	General
User Name	admin
Password	•••••

### 5.1.1.3 Steps to Connect External Cameras in the LAN

If you want to connect to an IP camera from LAN, please make sure your NVR is well-connected to the LAN and the IP camera you want to add is in the same network segment with your NVR.

If you want to all channels manually, click the drop-down arrow next to Switch Mode, and then select "Manual".

Camera	Switch Mode	POE Mode
POE CAM1	Auto	Auto
POE CAM2	Auto	Manual
POE CAM3	Auto	Auto

If you want to add an individual channel manually, click the edit icon in the channel list, and then click the drop-down arrow next to Switch Mode to select "Manual" and click OK to save.

### Edit Connection Information

Camera: CAM5

Switch Mode: Auto

POE Mode: Auto

Manual

Camera Name:

#### 5.1.1.4 Add Individual Camera in the LAN

1. Click Search button, all available cameras in the LAN will be displayed.

No.	Edit/Activate	IP Address/Hostname	Port	Channel Count	Manufacturer	Active state	Device Name	MAC Address	Software Version
1		172.16.1.15	7001	1		None	IP CAMERA	00-23-63-79-20-DD	V4.41.5.2_191105
2		192.168.1.78	9000	10		None	AVR-HSV16E2N	28-36-13-D0-0D-92	V8.1.0-20220222
3		192.168.100.2	80	1	ONVIF	None		00-18-AE-B9-8E-E6	
4		192.168.100.53	80	1		None		00-18-AE-C2-FA-38	
5		192.168.100.54	80	1	AVC-NBM81F180	None		00-18-AE-A2-12-12	
6		192.168.100.57	80	1	AVC-BHN81AVT/V2	None		00-18-AE-C3-95-23	
7		192.168.100.56	80	1		None		00-18-AE-A6-03-7D	
8		192.168.100.59	80	1		None		00-18-AE-AE-2E-EC	
9		192.168.100.60	80	1	ONVIF	None		00-18-AE-AD-C9-C3	

Or click the Add icon in the channel list to add a camera to an individual channel. Click Search button, all available cameras in the LAN will be displayed.

Camera	Switch Mode	POE Mode	Edit	Status
CAM1	Manual	Auto		
CAM2	Manual	Auto		

2. Select the camera you want to connect and then click Add button. Input the user name and password of the camera and then click Add button.

Add IP Camera
✕

No.	IP Address/Hostname	Port	Manufacturer	Active state	Device Name	MAC A
1	172.16.1.15	7001		None	IP CAMERA	00-23-6
2	192.168.1.78	9000		None	AVR-HSV16E2N	28-36-1
3	192.168.100.2	80	ONVIF	None		00-18-A
4	192.168.100.53	80		None		00-18-A
5	192.168.100.54	80	AVC-NBM81F180	None		00-18-A
6	192.168.100.57	80	AVC-BHN81AVT/V2	None		00-18-A
7	192.168.100.58	80		None		00-18-A
8	192.168.100.59	80		None		00-18-A
9	192.168.100.60	80	ONVIF	None		00-18-A
10	192.168.100.61	80	AVC-VHN81FLT/2.8	None		00-18-A
11	192.168.100.62	80	ONVIF	None		00-18-A

IP Address/Hostname:

Camera Name:

Port:

Protocol:

Connect Mode:

User Name:

**Alias:** To define the camera ID you want to display in the live view screen.

**Port:** Camera communication port. Do not change the number if you're not a professional.

**Protocol:** To select the connection protocol.

**Bind channel:** To determine which channel you want to add the camera.

3. The added camera will be displayed in the channel list.

Camera	Switch Mode ▼	POE Mode ▼	Edit	Status	IP Address/Hostname	Subnet Mask	Port	Manufactur
CAM1	Manual	Auto			192.168.100.99	255.255.255.0	80	AVYCON
CAM2	Manual	Auto						
CAM3	Manual	Auto						

### 5.1.1.5 Add Multiplex Cameras in the LAN

1. Click Search button, all available cameras in the LAN will be displayed.

No.	Edit/Activate	IP Address/Hostname	Port	Channel Count	Manufacturer	Active state	Device Name
1		10.10.25.151	80	1	AVC-NBL21M-L1	None	
2		10.10.25.152	80	1	AVYCON	Activated	AVC-NPB51F28
3		10.10.25.153	80	1	AVYCON	Activated	AVC-NSE81F28
4		192.168.1.78	9000	16		None	AVR-HSV16E2N
5		192.168.100.54	80	1	AVC-NBM81F180	None	
6		192.168.100.57	80	1	AVC-BHN81AVT/V2	None	
7		192.168.100.58	80	1		None	
8		192.168.100.59	80	1		None	
9		192.168.100.60	80	1	ONVIF	None	
10		192.168.100.62	80	1	ONVIF	None	

Search Add Add All

Or click Add All button, the NVR will search & add all available cameras in the LAN.

2. Select the cameras from the search result, and then click "Add". You would need to input the user name and password of the cameras. Please make sure all the cameras you want to add use the same user name and password. Otherwise, the cameras with different user name and password will be unable to get connected.

No.	Edit/Activate	IP Address/Hostname	Port	Channel Count	Manufacturer	Active state	Device Name
<input checked="" type="checkbox"/>		10.10.25.151	80	1	AVC-NBL21M-L1	None	
<input checked="" type="checkbox"/>		10.10.25.152	80	1	AVYCON	Activated	AVC-NPB51F28
<input checked="" type="checkbox"/>		10.10.25.153	80	1	AVYCON	Activated	AVC-NSE81F28
<input type="checkbox"/>							
<input type="checkbox"/>							
<input type="checkbox"/>							
<input type="checkbox"/>							
<input type="checkbox"/>							
<input type="checkbox"/>							
<input type="checkbox"/>							

Search Add

**Add IP Camera** ✕

Port: 80  Auto

Protocol: Onvif  Auto

User Name:

Password:

Add No

Camera	Switch M
<input type="checkbox"/> CAM1	Man
<input type="checkbox"/> CAM2	Man
<input type="checkbox"/> CAM3	Man
<input type="checkbox"/> CAM4	Man
<input type="checkbox"/> CAM5	Man



3. The added camera will be displayed in the channel list.

Search		Add		Add All					
<input type="checkbox"/>	Camera	Switch Mode ▼	POE Mode ▼	<input type="checkbox"/>	Edit	Status	<input type="checkbox"/>	IP Address/Hostname	Subnet Mask
<input type="checkbox"/>	CAM1	Manual	Auto	<input type="checkbox"/>			<input type="checkbox"/>	10.10.25.151	0.0.0.0
<input type="checkbox"/>	CAM2	Manual	Auto	<input type="checkbox"/>			<input type="checkbox"/>	10.10.25.152	255.255.0.0
<input type="checkbox"/>	CAM3	Manual	Auto	<input type="checkbox"/>			<input type="checkbox"/>	10.10.25.153	255.255.0.0
<input type="checkbox"/>	CAM4	Manual	Auto	<input type="checkbox"/>			<input type="checkbox"/>	192.168.100.52	255.255.255.0
<input type="checkbox"/>	CAM5	Manual	Auto	<input type="checkbox"/>			<input type="checkbox"/>	192.168.100.63	255.255.255.0
<input type="checkbox"/>	CAM6	Manual	Auto	<input type="checkbox"/>			<input type="checkbox"/>	192.168.100.77	255.255.255.0
<input type="checkbox"/>	CAM7	Manual	Auto	<input type="checkbox"/>			<input type="checkbox"/>	192.168.100.156	255.255.255.0
<input type="checkbox"/>	CAM8	Manual	Auto	<input type="checkbox"/>			<input type="checkbox"/>		
<input type="checkbox"/>	CAM9	Manual	Auto	<input type="checkbox"/>			<input type="checkbox"/>		
<input type="checkbox"/>	CAM10	Manual	Auto	<input type="checkbox"/>			<input type="checkbox"/>		

Auto Assign IP to Camera(s)  Camera Delete  Default Password  Show Password

### 5.1.1.6 Add Cameras from other NVR in the LAN

The NVR allows to add cameras from other NVR in the local network.

1. Click Search button, all available devices in the LAN will be displayed. There is an edit icon if the device is an NVR.

<input type="checkbox"/>	No.	Edit/Activate	Address/Hostname ▲	Port	Channel Count	Manufacturer	Active state	Device Name	MAC Address	Software Version
<input type="checkbox"/>	1		192.168.1.78	9000	16		None	AVR-HSV16E2N	28-36-13-D0-0D-92	V8.1.0-20220222
<input type="checkbox"/>	2		192.168.100.54	80	1	AVC-NBM81F180	None		00-18-AE-A2-12-12	
<input type="checkbox"/>	3		192.168.100.57	80	1	AVC-BHN81AVT/V2	None		00-18-AE-C3-95-23	

2. Click the edit icon and select the camera channels one by one or check the box  to select all cameras. Click icon to go back to search list.

Edit/Activate

<input type="checkbox"/>	1	2	3	4	5	6	7	8
	9	10	11	12	13	14	15	16

3. Select the NVR in the search list, and then click Add button.

No.	Edit/Activate	IP Address/Hostname	Port	Channel Count	Manufacturer	Active state	Dev
1	<input checked="" type="checkbox"/>	192.168.1.78	9000	16		None	AVR-P
2	<input type="checkbox"/>	192.168.100.53	80	1		None	
3	<input type="checkbox"/>	192.168.100.54	80	1	AVC-NBM81F180	None	
4	<input type="checkbox"/>	192.168.100.57	80	1	AVC-BHN81AVT/V2	None	
5	<input type="checkbox"/>	192.168.100.58	80	1		None	
6	<input type="checkbox"/>	192.168.100.59	80	1		None	
7	<input type="checkbox"/>	192.168.100.60	80	1	ONVIF	None	
8	<input type="checkbox"/>	192.168.100.62	80	1	ONVIF	None	
9	<input type="checkbox"/>	192.168.100.70	80	1	IPC	None	
10	<input type="checkbox"/>	192.168.100.81	9000	1		None	IP C

Buttons: Search, Add, Add All

4. Input the user name and password of the NVR and then click Add button.

The 'Add IP Camera' dialog box is open, showing the following configuration:

- Port: 9000
- Protocol: AVYCON
- User Name: admin
- Password: [Masked]

5. The added cameras will be displayed in the channel list.

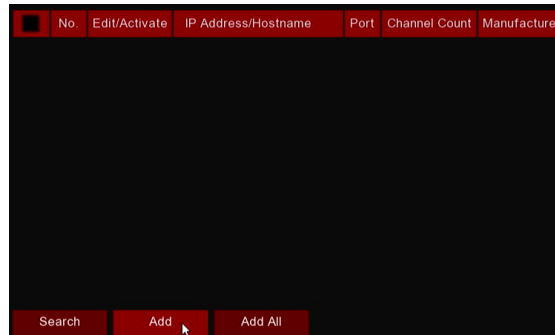
Camera	Switch Mode	POE Mode	Edit	Status	IP Address/Hostname	Subnet Mask	Port
CAM1	Manual	Auto			192.168.100.195-1	255.255.255.0	80
CAM2	Manual	Auto			192.168.100.195-2	255.255.255.0	80
CAM3	Manual	Auto			192.168.100.195-3	255.255.255.0	80



### 5.1.1.7 Add Cameras from Internet

If your NVR is connected to internet, you're able to add cameras from internet with WAN IP address.

1. Click Add button in the search page.



2. Input the IP address or domain name, port, protocol, user name & password of the IP camera. Click Add button to add the camera.

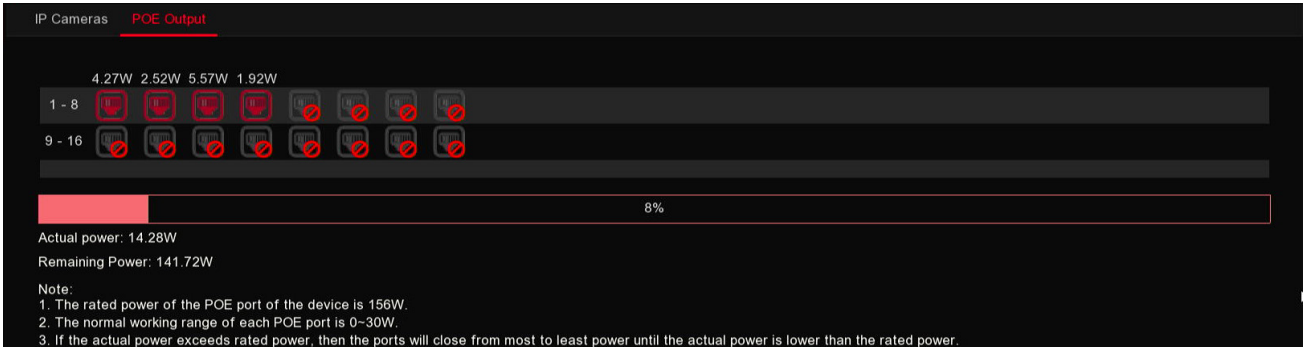
The screenshot shows a dialog box titled "Add IP Camera" with a close button (X) in the top right corner. Below the title is a table with columns: No., IP Address/Hostname, Port, Manufacturer, Active state, Device Name, MAC Address, and Softw. Below the table are several input fields:

- IP Address/Hostname: 192.168.100.999
- Camera Name: CAM8
- Port: 9000
- Protocol: AVYCON (dropdown menu)
- User Name: admin
- Password: masked with dots
- Bind channel: CAM8 (dropdown menu)

At the bottom of the dialog, there are four buttons: Search, Default Password, Add, and No. The 'Add' button is highlighted.

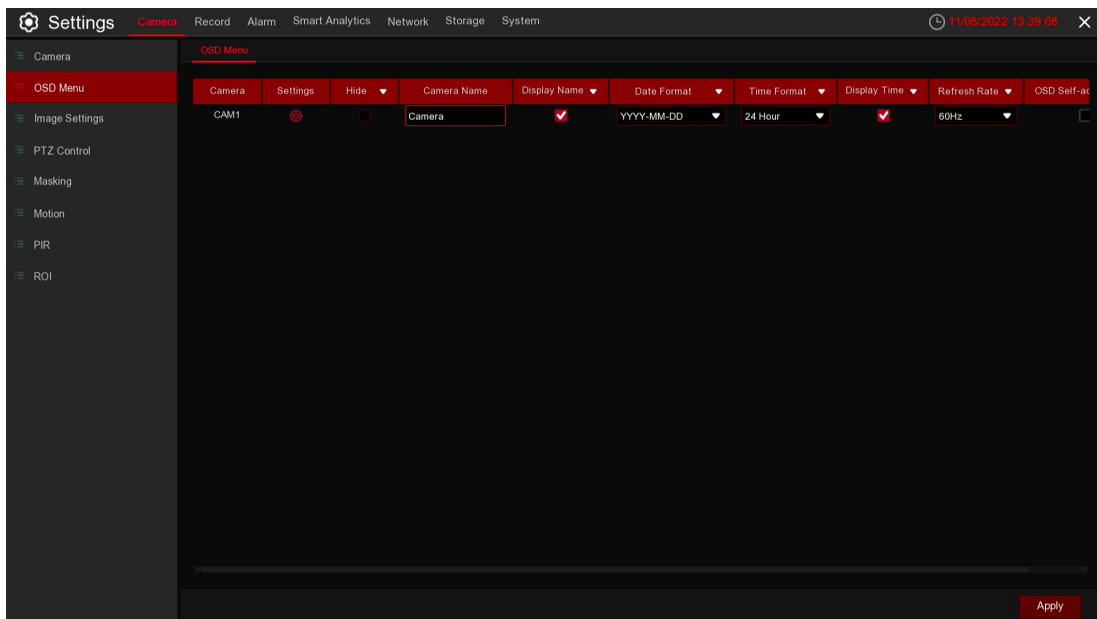
### 5.1.1.8 POE Power

In this page, you will find the real-time power consumption of each PoE port, total actual power & rated power.



### 5.1.2 OSD Menu

To configure camera parameters, including camera name, color, date & time format, refresh rate, etc.



**Hide:** To hide the camera images in live view. If the hide feature is checked, only the live view images will be hidden. Recording image won't be affected.

**Camera Name:** Give a name to the camera.

**Display Name:** To display the camera name in the images or not. It affects both live view & recording images.

**Date Format:** To choose a date format.

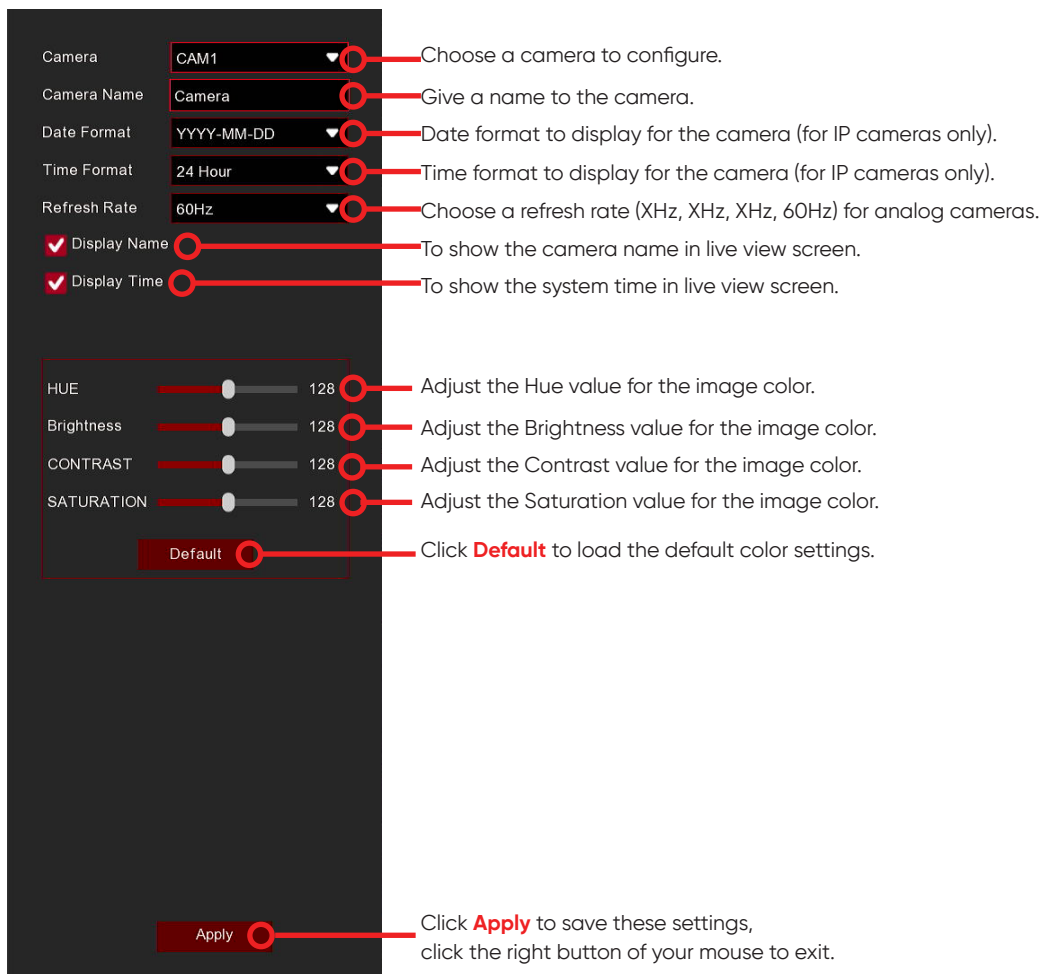
**Time Format:** To choose a time format.

**Display Time:** To display date and time in the images or not. It affects both live view & recording images.

**Refresh Rate:** Choose the right value according to the monitor's frequency rate.

**Settings:** Click the  icon into the setup page.

**Camera:** Display channel name.



The screenshot shows a dark-themed settings window for a camera. The settings are as follows:

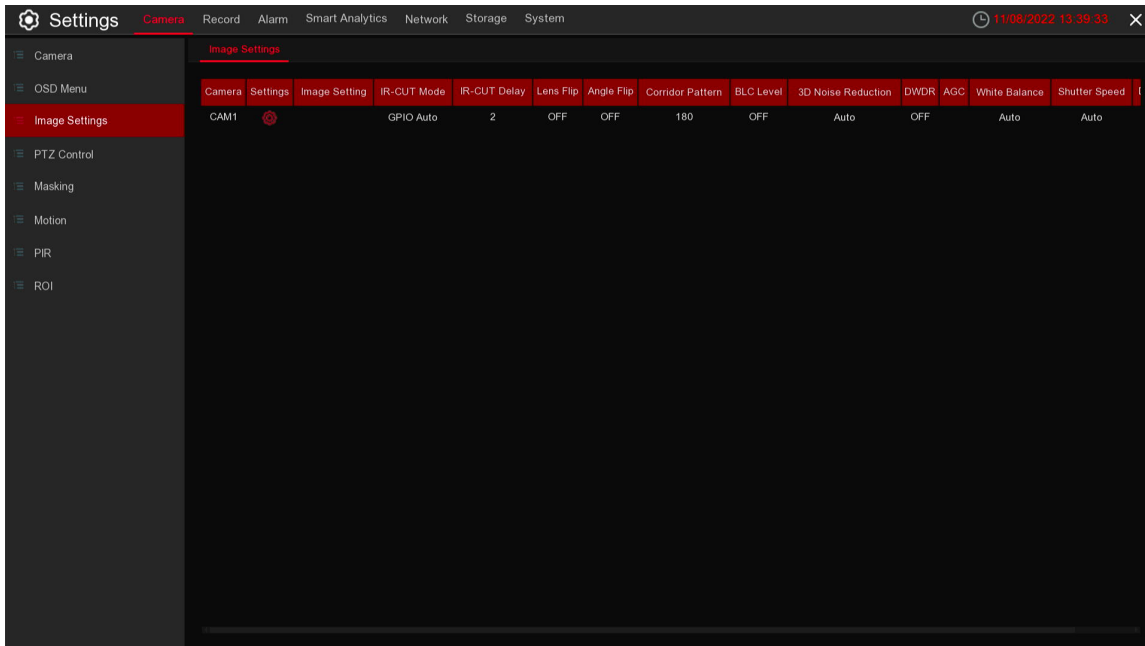
- Camera:** CAM1 (dropdown menu)
- Camera Name:** Camera (text input)
- Date Format:** YYYY-MM-DD (dropdown menu)
- Time Format:** 24 Hour (dropdown menu)
- Refresh Rate:** 60Hz (dropdown menu)
- Display Name:**  (checkbox)
- Display Time:**  (checkbox)
- HUE:** Slider set to 128
- Brightness:** Slider set to 128
- CONTRAST:** Slider set to 128
- SATURATION:** Slider set to 128
- Default:** Button
- Apply:** Button

Red callouts with lines pointing to each field provide the following explanations:

- Choose a camera to configure.
- Give a name to the camera.
- Date format to display for the camera (for IP cameras only).
- Time format to display for the camera (for IP cameras only).
- Choose a refresh rate (XHz, XHz, XHz, 60Hz) for analog cameras.
- To show the camera name in live view screen.
- To show the system time in live view screen.
- Adjust the Hue value for the image color.
- Adjust the Brightness value for the image color.
- Adjust the Contrast value for the image color.
- Adjust the Saturation value for the image color.
- Click **Default** to load the default color settings.
- Click **Apply** to save these settings, click the right button of your mouse to exit.

### 5.1.3 Image Control

This menu allows you to control image settings for supported IP cameras. It may not support IP cameras connected with ONVIF protocol.



**Setup:** Click the  icon into the setup page.

Camera	CAM1	Choose a camera to configure.
IR-CUT Mode	GPIO Auto	Selected the desired built-in IR cut filter mode to ensure the camera works properly both in the day and night.
IR-CUT Delay	2	Set the delay time of IR-CUT switching.
IR-LED	Manual	Set the IR LED / Supplement lights on/off
Low Beam Light	100	Set the IR LED level
Lens Flip	<input type="checkbox"/>	Flip vertical
Angle Flip	<input type="checkbox"/>	Flip horizontal
Corridor Pattern	180	To enable the corridor mode
Back Light	Disabled	To enable or disable Backlight compensation.
3D Noise Reduction	Auto	Set the 3D noise reduction level.
WDR	Disabled	Set the WDR level.
HLC	Disabled	To enable or disable the high light compensation
White Balance	Auto	Configure white balance.
Shutter	Auto	Set the shutter mode.
Sutter Speed	1/8	Choose the exposure time of the camera.
Defog Mode	Disabled	Use in foggy environments to improve the video quality.

**Default**

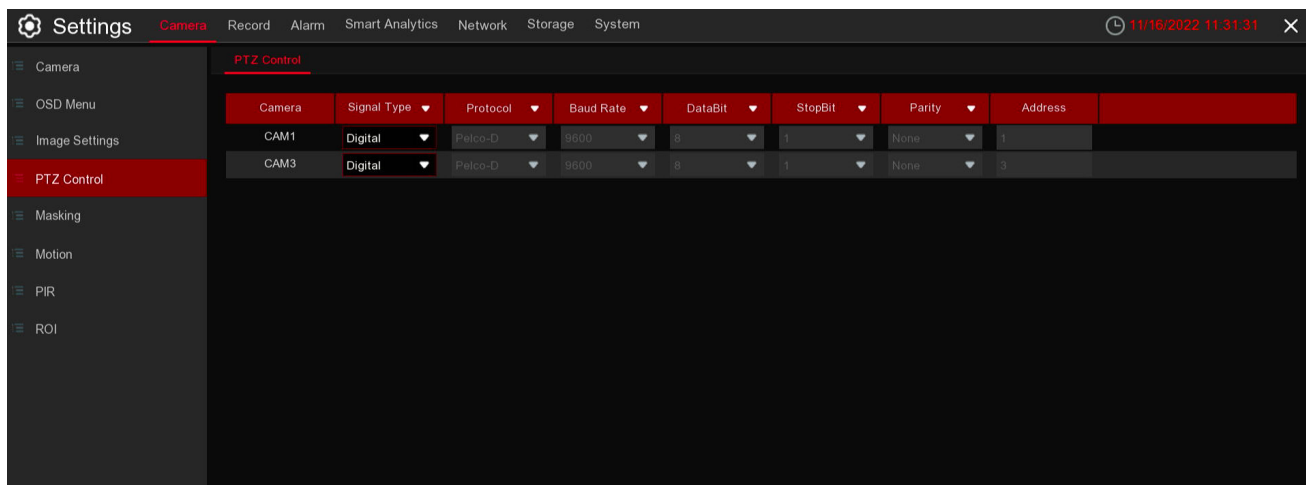
**IR-CUT Mode:** If you want the camera to switch the image between colorful and black & white automatically, then choose "GPIO Auto"; If you want the camera to record colorful images all the time, then choose "Color Mode"; If you want the camera to record black & white images all the time, then choose "Black White Mode"; If you want the camera to record black & white images in a certain period, then choose "Schedule(B/W)", and then set the start and end time.

**WDR/DWDR:** Enable to allow automatically adjust the brightness and contrast of the video when shooting in the darkness with bright light sources.

**IR-LED / Supplement Light:** Set the IR/Supplement lights on/off.

### 5.1.4 PTZ

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



**Camera:** Camera name

**Signal Type:** If your PTZ camera is connected to the RS485 port, then choose "Analog", otherwise choose "Digital"

Below items need to be set for Analog PTZ only.

**Protocol:** Choose the communication protocol between the camera with PTZ capability and NVR. If your camera supports the UTC (Up the Coax) function, you can choose COAX1 or COAX2 to display your camera OSD menu or control the UTC PTZ function.

**Baudrate:** The speed of the information sent from the NVR to the PTZ camera. Make sure it matches the compatibility level of your PTZ camera.

**DataBit / StopBit:** The information between the NVR and PTZ camera is sent in individual packages.

The **DataBit** indicates the number of bits sent, while the **EndBit** indicates the end of the package and the beginning of the next (information) package. The available parameters for **DataBit** are: 8, 7, 6, or 5.

The available parameters for the **StopBit** are 1 or 2.


**Parity:** For error checking. See the documentation of your PTZ camera, to configure this setting.

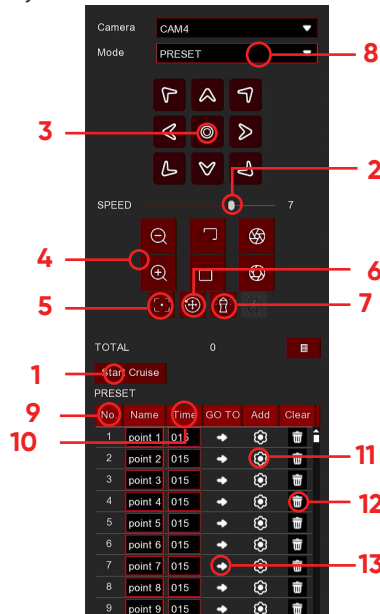
**Cruise:** Enable to use the Cruise mode. In order to use Cruise mode, you need to set a number of preset points. (This isn't on there) -X










**Address:** Set the command address of the PTZ system. Please note that each PTZ camera needs a unique address to function properly.

5.1.4.1 PTZ control

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

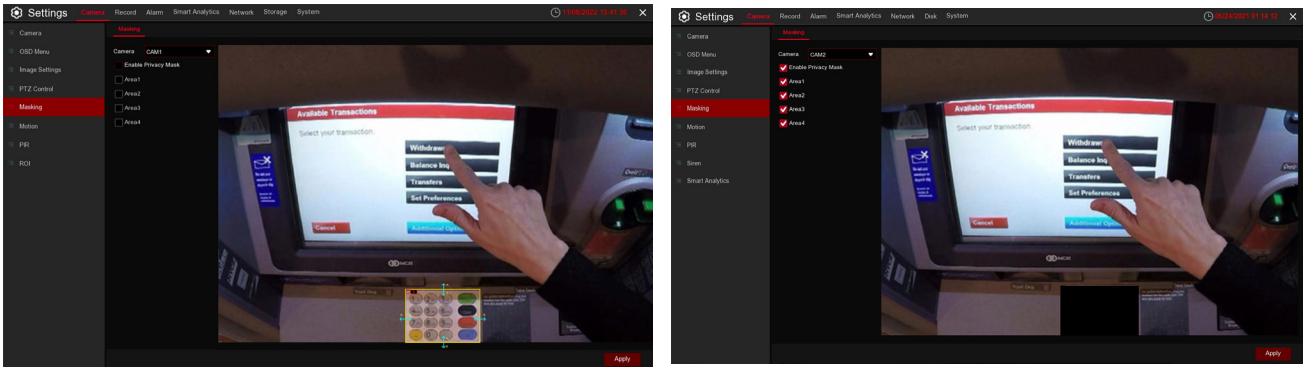
1. Click the left mouse button on a channel on the Live Viewing screen to open the Camera Quick Toolbar, then click the PTZ control icon .
2. The PTZ control panel will be displayed.



No.	Icon	Item	Description
1		Cruise	Start / stop PTZ cruise by preset points. Make sure you enabled the Cruise function for this channel in <b>5.1.4 PTZ</b> .
2	Speed	Speed	Adjust the PTZ speed.
3		Pointer Panel	A. Click the Direction arrow to select the direction of the PTZ camera B. Click up/down/left/right arrow to move cursor in UTC OSD menu. C. Click  to switch to auto pan mode.
4	- ZOOM + - FOCUS + - IRIS +	Zoom Focus Iris	Click to zoom in/out. Click to adjust the focus. Click to adjust the iris setting.
5		Auto Focus	Click to adjust the camera lens to focus automatically.
6		PTZ Reset	Resets all the PTZ preset created and saved.
7		Watch Mode	Click to constantly scan around the camera.
8	PRESET	PRESET	To display or hide the preset point panel.
9	No.	No.	Number of preset points.
10	Time	Time	Set the time of how long the camera will stay in the preset point.
11		Set	Enter the number of specific preset points, click this button to move your PTZ camera to the preset point.
12		Delete	Click to delete the selected preset point.
13		Go to	Click to set a specific preset point on a PTZ camera. You can add up to 255 present points for the NVR.

### 5.1.5 Masking

This menu allows you to create privacy zone(s) if you want to partially cover some certain part of the image. You can create up to 4 privacy zones in any size and location on the camera image. Enable the Privacy Zone, and choose how many zones you need. The zone(s) appear as a "red box". Click the edge of the red box and drag it to any size to create a privacy zone.

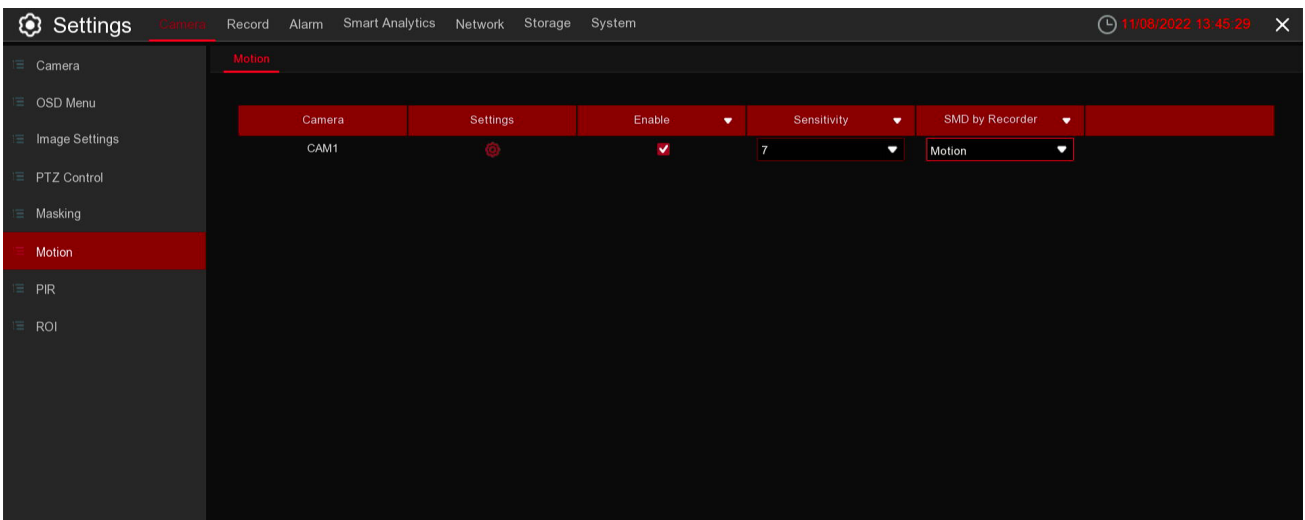


*Note:*

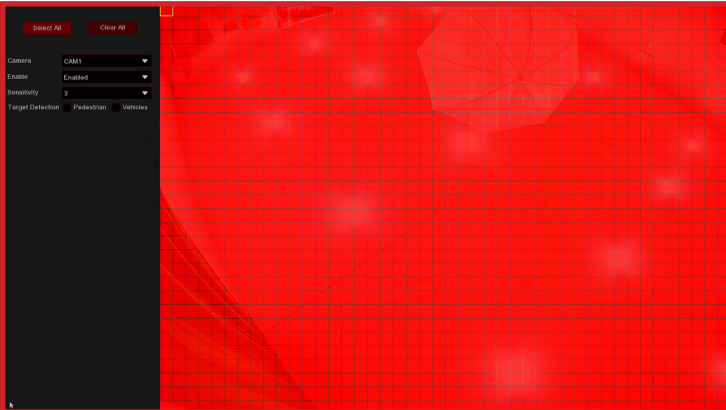
*The area of privacy zones you have set will be invisible in both live view & recording video.*

### 5.1.6 Motion

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



**Setup:** Click the  icon into the setup page.



**Motion Detection Area:**  
The whole screen is marked for motion detection (red blocks) as default. If you want to disable the motion detection on a certain area, click the grid cursor and then drag the mouse to highlight the scope to unmark the area into transparent blocks. After the setting is complete, click the right button of your mouse to return. Click **Save** to make the area setup effective.

**Camera:** Select the camera you want to set motion detection.

**Enable:** Enable or disable motion detection.

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

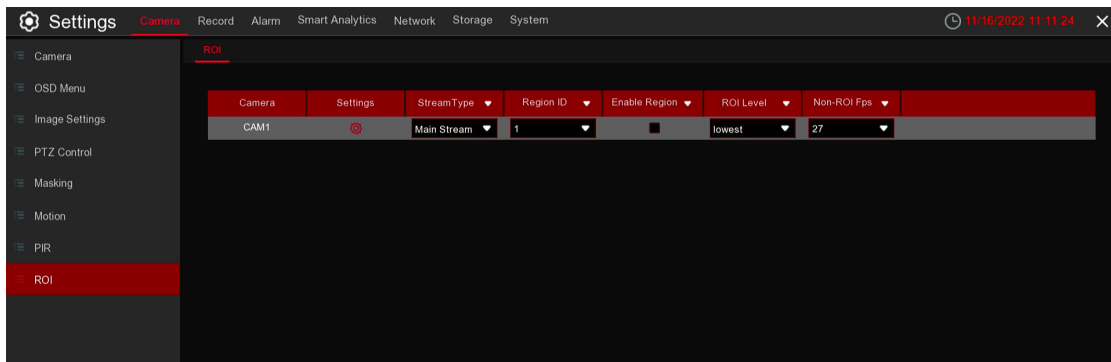
**SMD by Recorder:** Select the target type for motion detection.


### 5.1.7 Region of Interest (ROI)

ROI(sensitive area) is a focus area selected from the video area. This area can be set to a different frame rate and definition than the unselected area.

**Note:**

*Supported by some IP cameras, this function is mutually exclusive with H.264+ and H.265+ encoding types and cannot be enabled at the same time*



Camera	Settings	StreamType	Region ID	Enable Region	ROI Level	Non-ROI Fps
CAM1		Main Stream	1	<input type="checkbox"/>	lowest	27



**Stream Type:** Select the stream type to be set.

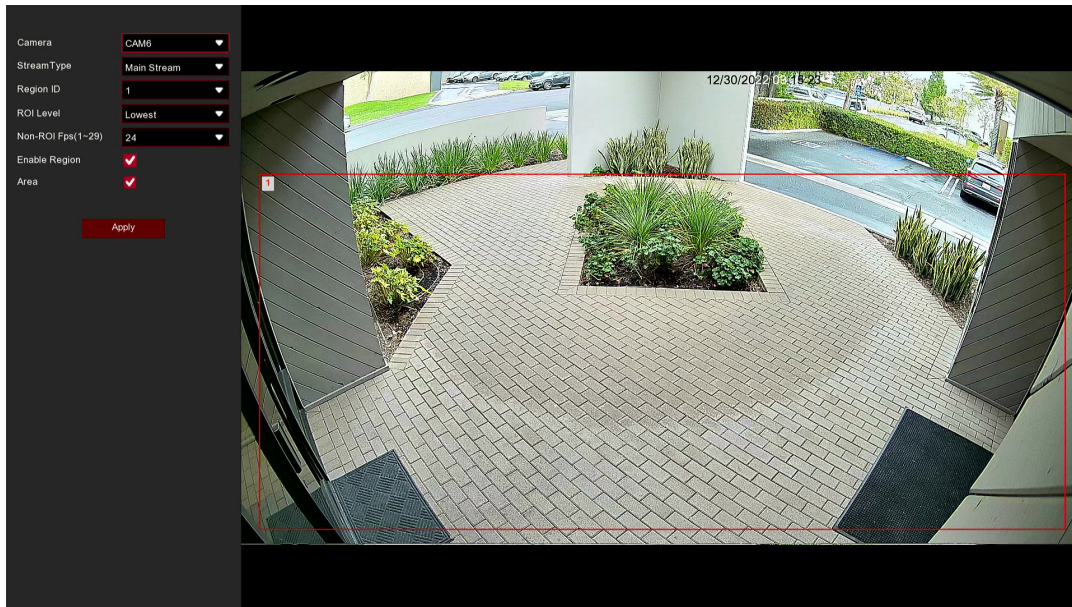
**Region ID:** Select the area number, up to eight areas can be set.

**Enable Region:** Enable the setting region, the Region ID and Enable Region of each region are independent and need to be turned on, off or set separately.

**ROI Level:** Set the image quality in the selected area, the higher the quality, the clearer and smoother the image will be.

**Non-ROI Fps:** Sets the frame rate outside the ROI area.

**Settings:** Click  to enter the setting page.



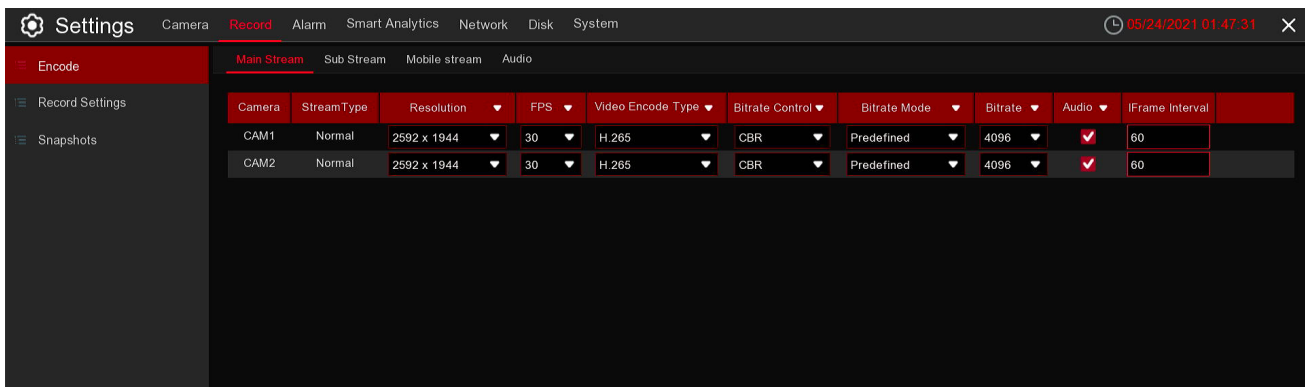
**Area:** Enable the switch to set ROI area

## 5.2 Record

This menu allows you to configure the recording parameters.

### 5.2.1 Encode

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



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

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

**Video Encode Type:** H.264/H.265. Some cameras might be supported MJPEG.

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

**Video Quality:** Available for VBR only.

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

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

**Audio:** enable or disable audio encode.

**I Frame interval:** configure the I frame interval of camera. Keep it default if you're not a professional.

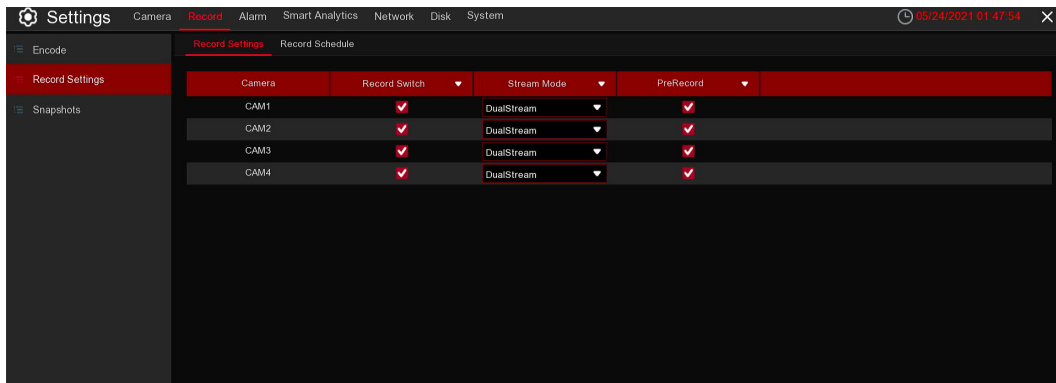
**ETR:** setting different streams for normal and alarm recording.

In the **Audio** section, you can define the input/output volume, and encode type of the audio.

### 5.2.2 Record

This menu allows you to configure the channel recording parameters.

### 5.2.2.1 Record Settings



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

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

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

### 5.2.2.2 Record Schedule

This menu allows you to specify when the NVR records video and defines the recording mode for each channel. The recording schedule lets you set up a schedule like, daily and hourly by normal (continuous) recording, motion recording, I/O alarm recording, and PIR recording (if your NVR supports it). To set the recording mode, click on the mode radio button (Normal, Motion, IO, PIR), then drag the cursor to mark the slots. The recording schedule is valid only for one channel. If you want to use the same recording schedule for other channels, use the **Copy** function.



**Camera:** Select the channel to set its recording parameters.

**Normal:** When the time slot is marked green, this indicates the channel performs normal recording for that time slot.

**Motion:** When the time slot is marked yellow, this indicates the channel records only when a motion is detected during that time slot.

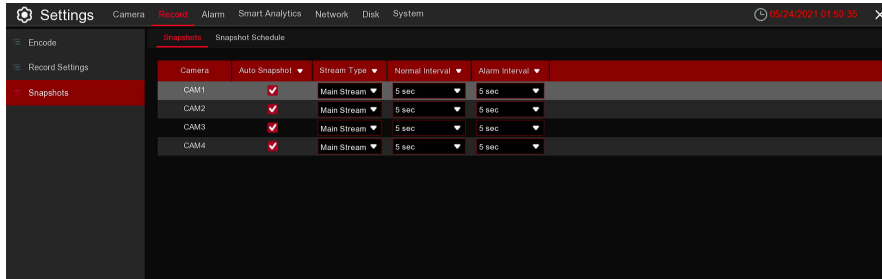
**IO:** When the time slot is marked red, this indicates the channel records only when the sensor is triggered during that time slot.

**No Record:** A time slot marked black means that there is no recording scheduled for the time slot. Click **Apply** to save your settings.

### 5.2.3 Snapshots

This menu allows to configure the image snapshot function.

#### 5.2.3.1 Snapshots



**Auto Snapshot:** Enable or disable automatic capturing on the camera.

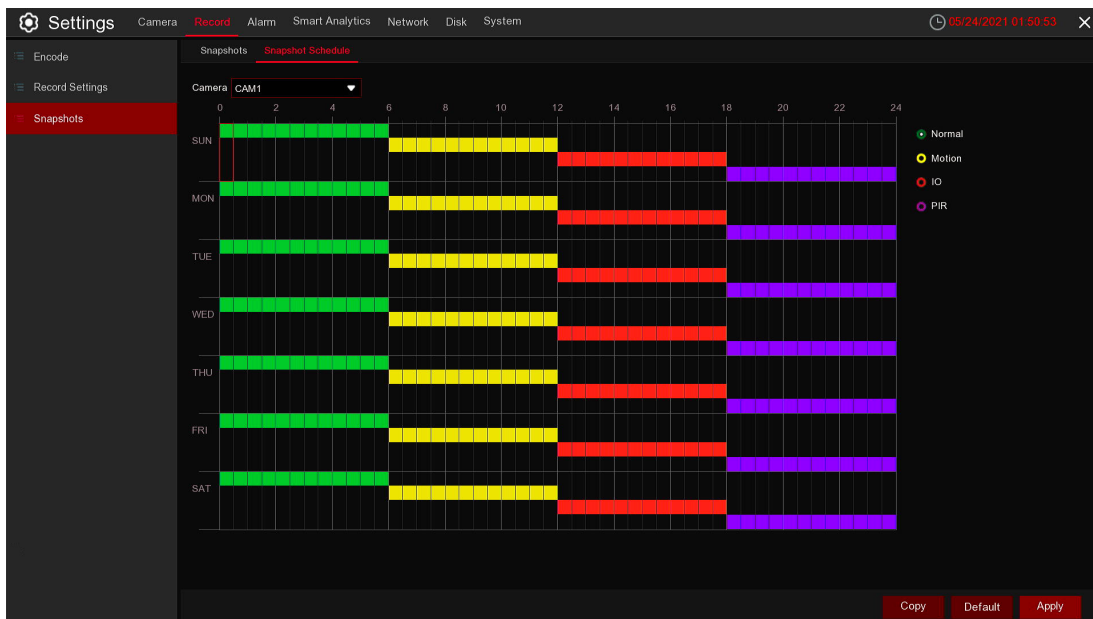
**Stream Type:** Select the image resolution by mainstream or substream.

**Normal Interval:** Time interval to capture an image in normal recording.

**Alarm Interval:** Time interval to capture an image when motion, IO alarm, or PIR is triggered.

**Manual Capture:** Enable or disable manual capture in the channel.

#### 5.2.3.2 Snapshots Schedule



**Camera:** Select the camera to set its capture parameters.

**Normal:** When the time slot is marked green, this indicates the channel performs normal capture for that time slot.

**Motion:** When the time slot is marked yellow, this indicates the channel captures images only when a motion is detected during that time slot.

**IO:** When the time slot is marked red, this indicates the channel captures images only when the sensor is triggered during that time slot.

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

## 5.3 Alarm

In these sections, you can configure the alarm actions when alert occurs.

### 5.3.1 Motion

Camera	Buzzer	Alarm Out	Delay	Record	Duration	Show Message	Send Email	FTP Picture Upload
CAM1	OFF		10 sec	ON	30 sec	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CAM2	OFF		10 sec	ON	30 sec	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CAM3	OFF		10 sec	ON	30 sec	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CAM4	OFF		10 sec	ON	30 sec	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

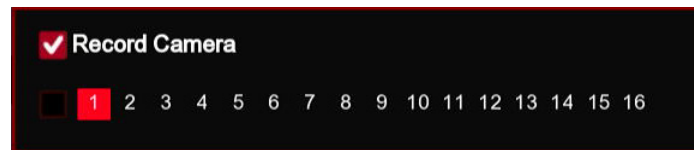
**Channel:** Channel name

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

**Alarm Out:** Optional function. If your NVR support to connect to external alarm device, you can set to emit an alarm tone.

**Delay:** To configure the external alarm time when motion is detected.

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



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

**Show Message:** Check the box to display icon on the live view screen when an alarm is triggered.

**Send Email:** You can let the NVR to send you an auto-email when an alarm is triggered.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view.

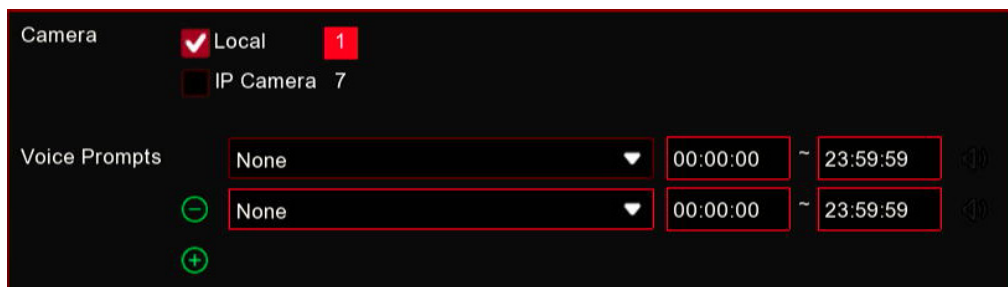
**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.6.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.6.2 Cloud.

**Full Screen:** If this function is enabled and an alarm is triggered in a channel, you will see its full screen images in live view.

**Voice Prompts:** If your NVR or IP camera connects with a speaker, you can select an customized alert voice when the alarm happens for different time period. See how to add customized alert voice on 5.3.7 Voice Prompts



5.3.2 I/O

This is an optional function, it will appear if your NVR supports sensor I/O, and you connect external sensor I/O alarm devices to work with the NVR.

Alarm In	Alarm Type	Buzzer	Alarm Out	Delay	Camera	Duration	Show Message	Send Email	FTP Picture Upload
Local-1	Normally-Open	Disabled	<input checked="" type="checkbox"/>	10 sec	<input checked="" type="checkbox"/>	30 sec	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Local-2	Normally-Open	Disabled	<input checked="" type="checkbox"/>	10 sec	<input checked="" type="checkbox"/>	30 sec	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Local-3	Normally-Open	Disabled	<input checked="" type="checkbox"/>	10 sec	<input checked="" type="checkbox"/>	30 sec	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Local-4	Normally-Open	Disabled	<input checked="" type="checkbox"/>	10 sec	<input checked="" type="checkbox"/>	30 sec	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Local-5	Normally-Open	Disabled	<input checked="" type="checkbox"/>	10 sec	<input checked="" type="checkbox"/>	30 sec	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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

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

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

**Alarm out:** Tick to enable external alarm device to emit an alarm tone when an alarm is triggered.

**Delay :** you can set how long the buzzer will sound when external sensor is triggered (10s, 20s, 40s, and 60s).

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



**Duration:** You can set how long alarm record will last when alarm ends (30s, 1minutes, 2minutes, 5minutes).

**Show Message:** Check the box to display "I" letter icon on the screen when an alarm is triggered.

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

**Full Screen:** When sensor is triggered, the corresponding channel will be switched to the full screen mode.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

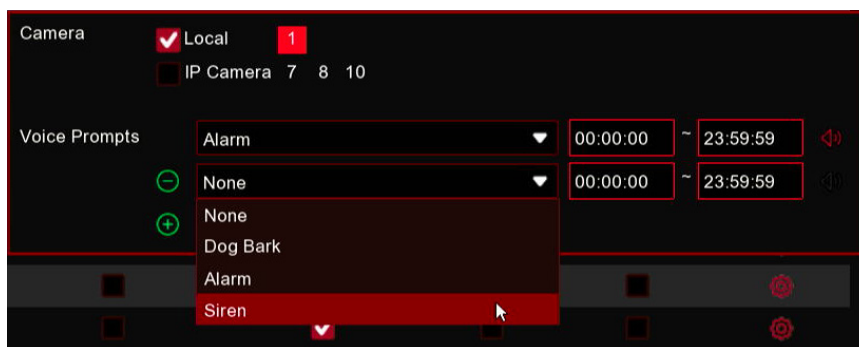
**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this function is enabled and an alarm is triggered in a channel, you will see its full screen images in live view.

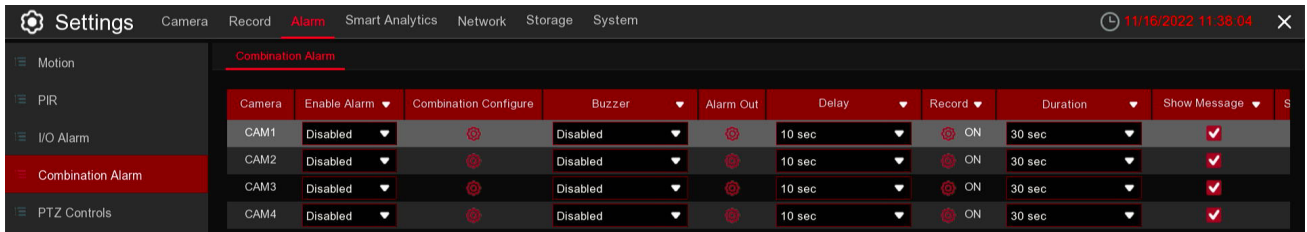
**Voice Prompts:** If your NVR or IP camera connects with a speaker, you can select an customized alert voice when the alarm happens for different time period. See how to add customized alert voice on 5.3.7 Voice Prompts.





### 5.3.3 Combination Alarm

You can configure the ID / TD/ PD&VD / SOD / FD / Rare Sound Detection / Video Tampering alarm function here.



Camera	Enable Alarm	Combination Configure	Buzzer	Alarm Out	Delay	Record	Duration	Show Message	S
CAM1	Disabled		Disabled		10 sec	ON	30 sec	<input checked="" type="checkbox"/>	
CAM2	Disabled		Disabled		10 sec	ON	30 sec	<input checked="" type="checkbox"/>	
CAM3	Disabled		Disabled		10 sec	ON	30 sec	<input checked="" type="checkbox"/>	
CAM4	Disabled		Disabled		10 sec	ON	30 sec	<input checked="" type="checkbox"/>	

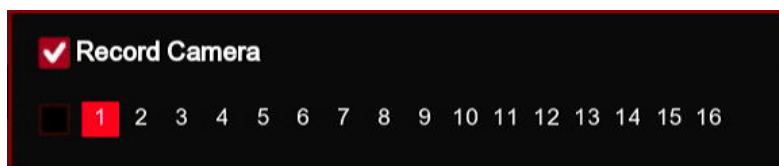
**Camera:** Camera name

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

**Alarm Out:** Optional function. If your NVR support to connect to external alarm device, you can set to emit an alarm tone.

**Delay:** To configure the external alarm time when an alarm is triggered.

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



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

**Show Message:** Check the box to display "S" icon on the live view screen when an alarm is triggered.

**Send Email:** You can let the NVR to send you an auto-email when an alarm is triggered.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

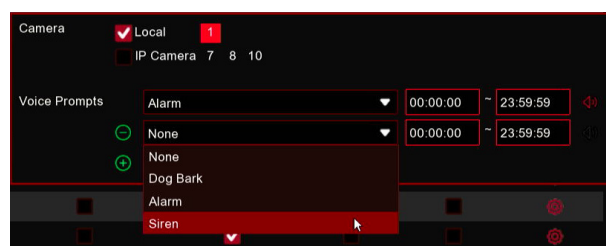
**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this function is enabled and an alarm is triggered in a channel, you will see its full screen images in live view.  
view 5.4.4 FTP.

**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

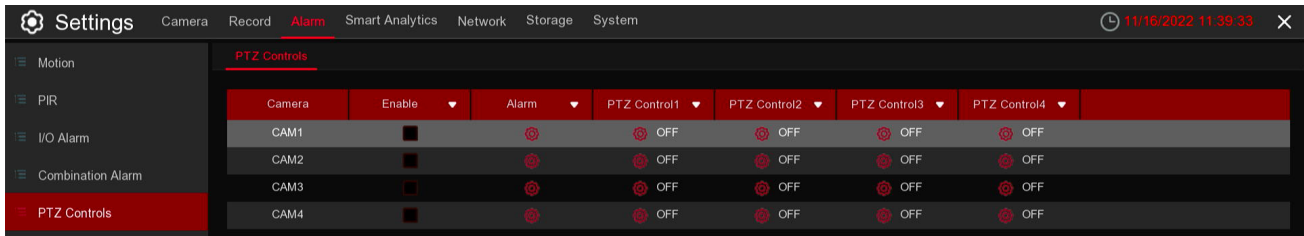
**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this function is enabled and an alarm is triggered in a channel, you will see its full screen images in live view.



### 5.3.4 PTZ Controls

If you had connected the PTZ cameras, you can set the linkage between PTZ cameras and Motion Alarm and/or external I/O sensor alarm and/or PIR alarm. With the linkage function, you can turn your PTZ cameras focus to the preset point when a motion, I/O alarm and or PIR alarm happens.



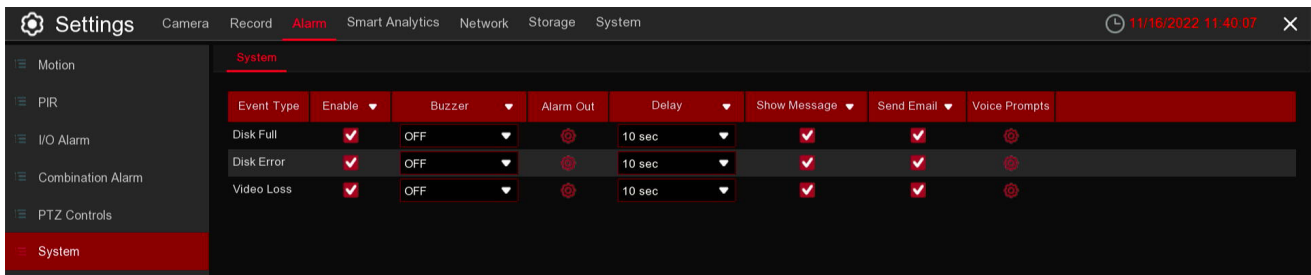
**Enable:** Enable or disable the PTZ Controls function.

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

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

### 5.3.5 System

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



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

- Disk Full: When an HDD is full.
- Disk Error: If the HDD is not detected properly.
- Video Loss: If a camera is not connected properly.

**Enable:** Check the box to enable the monitoring of the event.

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

**Delay:** This is an optional function. Determine how long the external alarm device to sound (10s, 20s, 40s, 60s) if your NVR support to connect external alarm device.

**Alarm Out:** This is an optional function. Click to enable the external alarm device to sound. This is an optional function.

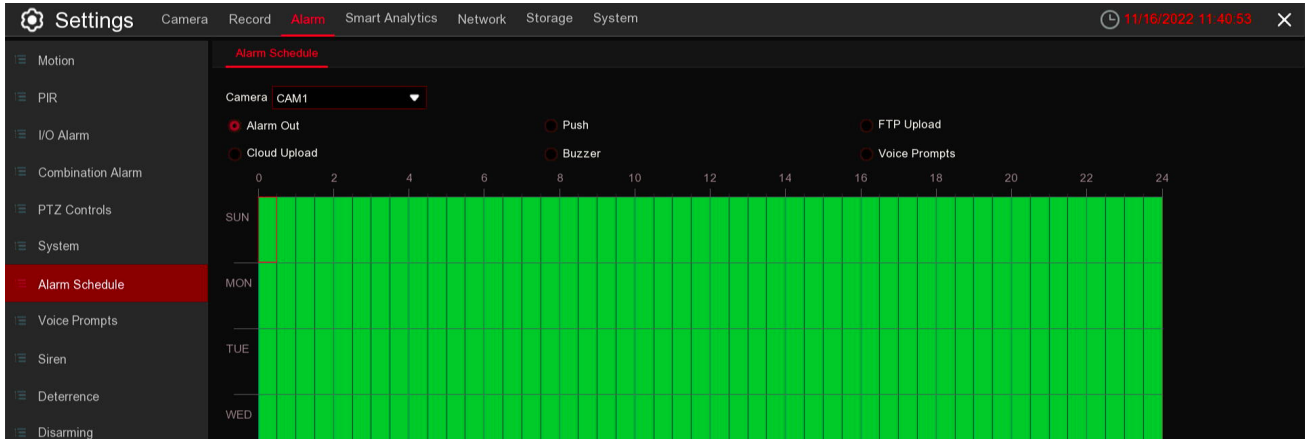
**Show Message:** Check the box to display a message on the screen when No Space on Disk, Disk Error, or Video Loss event happens.

**Send Email:** Let the NVR to send you an auto-email when an event occurs.



### 5.3.6 Alarm Schedule

In this menu, you can set several schedules, including Alarm out, Push, FTP Upload, Cloud Upload and Buzzer.

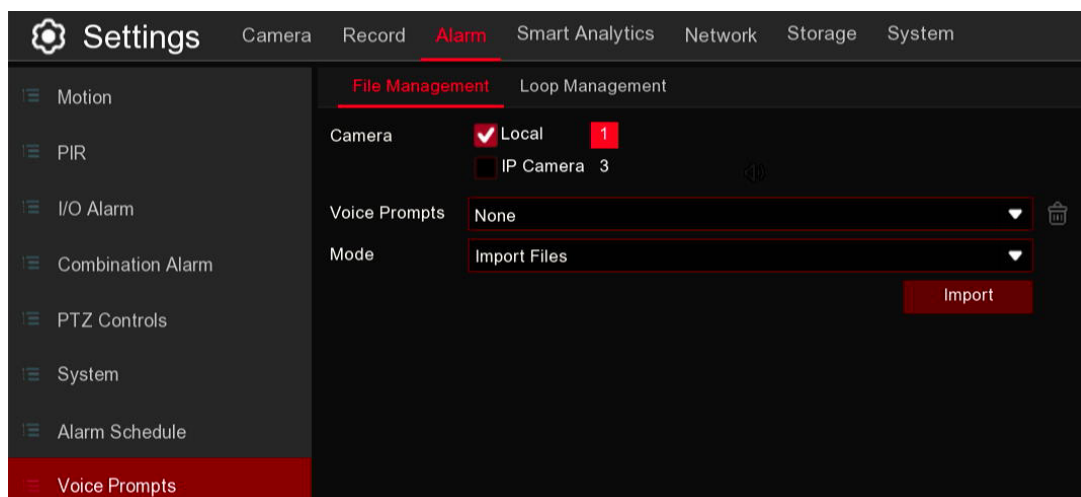


**Camera:** Select the camera to set its capture parameters.

To set the schedule, choose one camera and one of the alarm types then drag the cursor to mark the slots. The green blocks in the time slots will be active for alarm. The schedule is valid only for the selected channel each time when you set. If you want to use the same schedule for other channels, use Copy function. Click Save to save your settings.

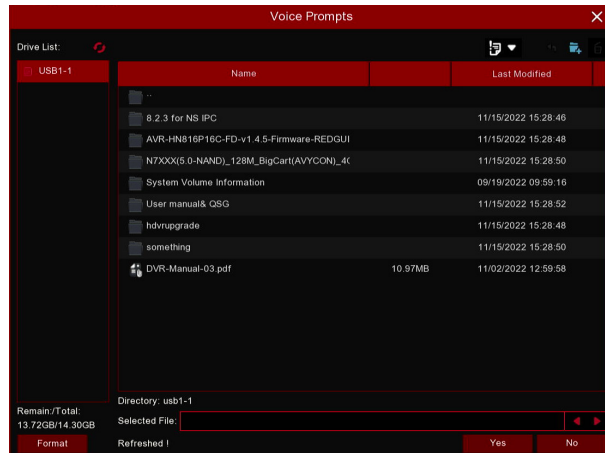
### 5.3.7 Voice Prompts

If your NVR or IP camera connects with a speaker, you can select an customized alert voice when the alarm happens. In the page, you're able to manage your customized voice files.

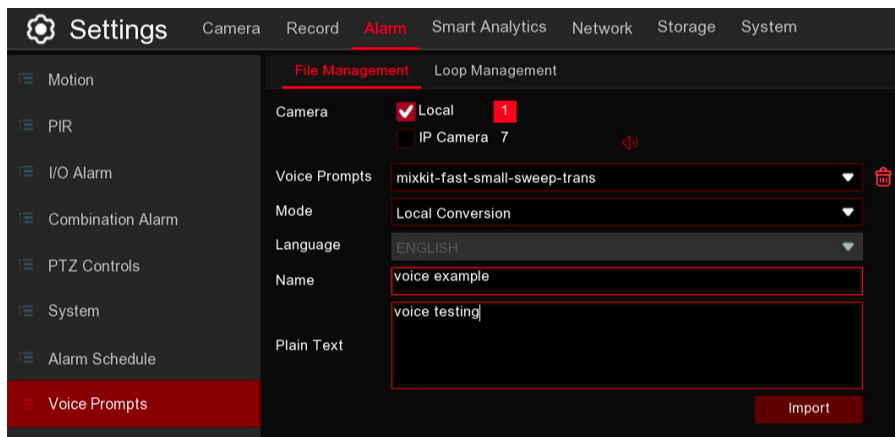


The system provides 3 different methods to create customized voices: *Import Files, Local Conversion and Internet Server Conversion.*

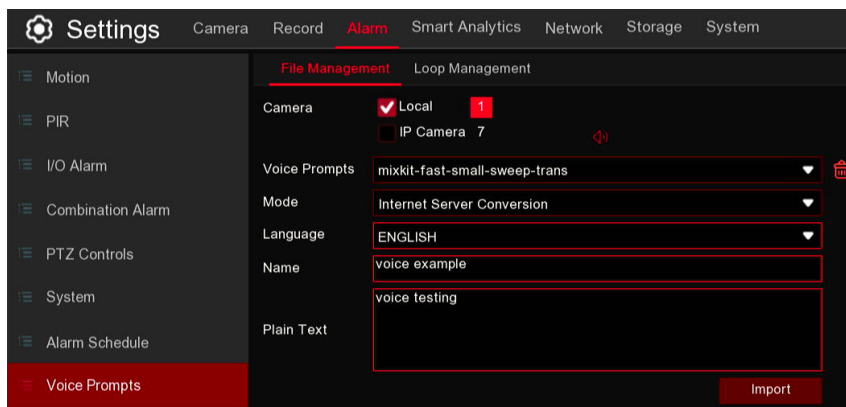
**Import Files:** Supports to import MP3, WMA and WAV files from USB memory and/or web page. Choose Import Files Models, and then click the Import button, and choose the audio file from your USB memory. It is allowed to add only 1 file at a time. You can add multiple files at a time in the web page.



**Local Conversion:** The system supports to convert your plain text into audio file by local algorithm. Choose Local Conversion Models, and then input the name of the file & plain text. Click Import button, the system will convert the text you input into a voice file and save to the NVR storage.



**Internet Server Conversion:** The system supports to convert your plain text into multi-language audio file by internet server. Choose Local Conversion Models and language you want to speak, and then input the name of the file & plain text. Click Import button, the system will convert the text you input into a voice file and save to the NVR storage.



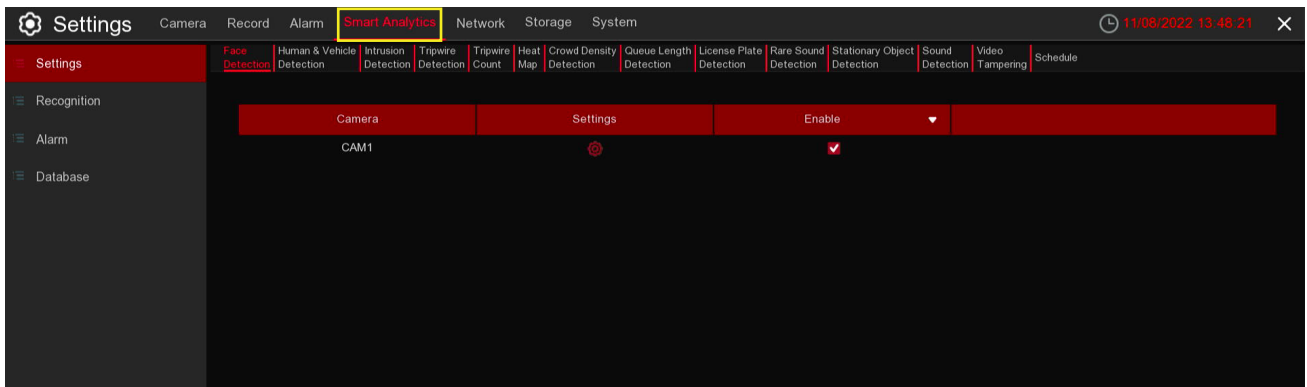
It is recommended to operate with webpage for multi-language input except for English.

## 5.4 Smart Analytics

In these sections, you can configure the Smart Analytic features for your cameras.

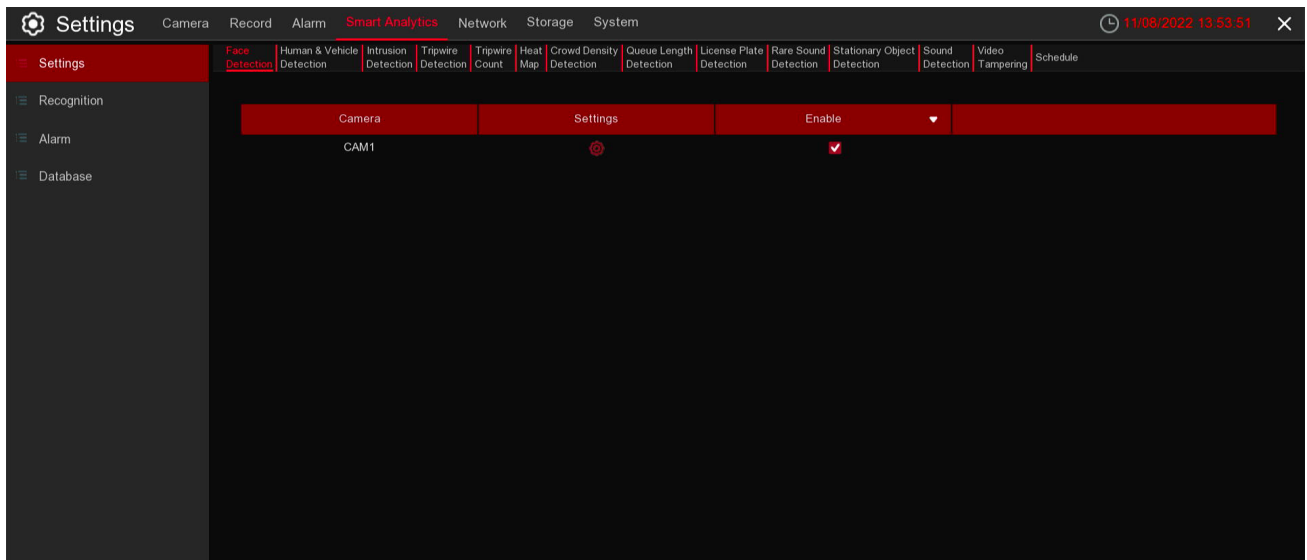
### 5.4.1 Smart Analytics Settings

You will see this feature if your NVR supports Smart Analytics. The NVR will support Smart Analytic features including FD (Face Detection), PD & VD (Human & Vehicle Detection), ID (Intrusion Detection), TD (Tripwire Detection), TC (Tripwire Count), HM (Heat Map), CD (Crowd Density Detection), QD (Queue Length Detection), LPD (License Plate Detection), RSD (Rare Sound Detection), SOD (Stationary Object Detection), and Video Tampering with AI powered IP cameras.



#### 5.4.1.1 FD (Face Detection)

The Face Detection function detects the faces of moving people appearing in a pre-defined region. A series of actions can be taken when the alarm is triggered.



**Enable:** To enable or disable the FD function.  
Click **[Settings]** to draw a virtual region in the camera picture.



**Camera:** Select the camera you want to configure.

**Snap Mode:** There are "**Optimal Mode**" (automatically select & push the best image from all face images of the same person whose faces were captured during his/her duration of stay), "**Realtime Mode**" (push the first captured face image and push again the last captured face image from the same person), and "**Interval Mode**" (customized the capture time and interval).

**Apply Mode:** Set the face detection angle, including "**Frontal View**", "**Multi Angle**", and "**Customize**" mode.

**X Range:** Set the range of face rotation under the customize mode.

**Y Range:** Set the range of face pitch under the customize mode.

**Z Range:** Set the range of face horizontal flipping under the customize mode.

**Min Pixel:** Set the minimum detection pixel box. The face can be recognized only when it is larger than the pixel box.

**Max Pixel:** Set the maximum detection pixel box. The face can be recognized only when it is smaller than the pixel box.

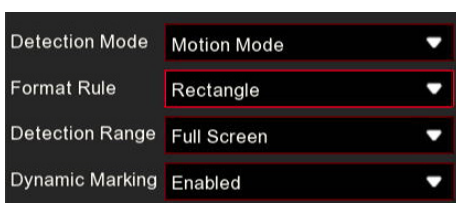
**Face Enhance:** Face enhancement makes it easier to recognize the moving faces, but it may lower the whole picture quality.

**Face Attribute:** Enable this function to detect mask, glasses, and facial expression.

**Detection Mode:** Motion Mode will detect moving faces. Static Mode will detect both moving faces and still faces.

**Format Rule:** Set the rule format as **Rect** (rectangular) or **Line** (line).

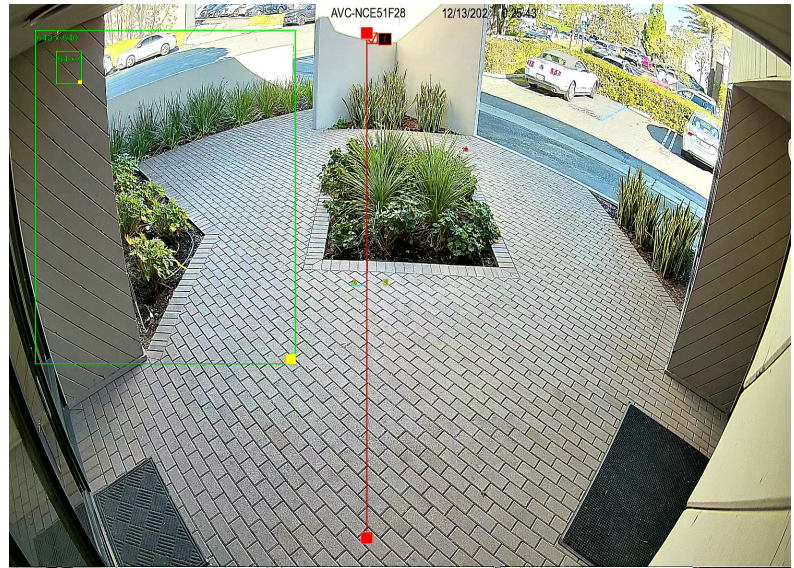
If you choose **Rect** mode, you can choose "**Full Screen**" or "**Customize**" to adjust the shape of rectangular detection zone in the camera image. Faces appear in this zone will be detected and captured.





If you choose **Line** mode, you need to adjust the position, length of the line, and choose the detectin direction from **B → A** or **A → B**

Detection Mode	Motion Mode
Format Rule	Line
Rule Type	B->A
Dynamic Marking	Enabled



**Dynamic Marking:** If you enable this option, a capture box will be displayed upon the face image in both live view images and recording files.

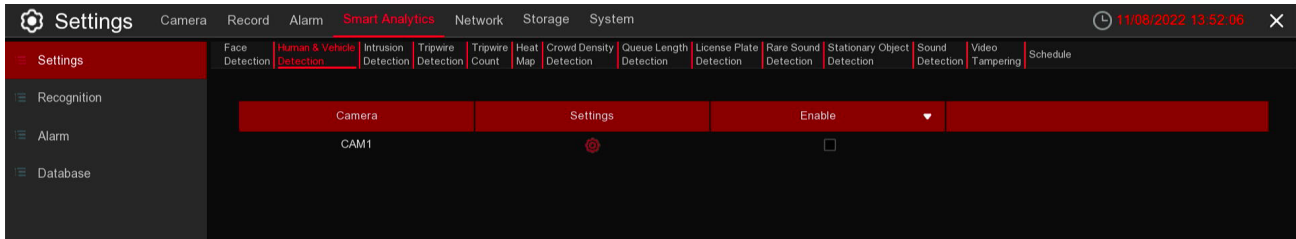
**Notice:**

1. The region for detection can not be in the area that people cannot reach.
2. The region should include the complete front face.




### 5.4.1.2 PD & VD (Pedestrian & Vehicle Detection)

The Pedestrian & Vehicle Detection function detects moving people and vehicles in a pre-defined region. A series of actions can be taken when the alarm is triggered..



**Enable:** To enable or disable the PD function.

Click **[Settings]**  to draw a virtual region in the camera picture.



**Camera:** Select the camera you want to configure.

**Snap Mode:** There are "**Optimal Mode**" (automatically select & push the best image from all captured images of the same vehicle during its duration of stay), "**Realtime Mode**" (push the first captured image and push again the last captured image from the same vehicle) and "**Interval Mode**" (customized the capture time and interval).

**Min Pixel:** Set the minimum detection pixel box. The target objects can be recognized only when it is larger than the pixel box.

**Max Pixel:** Set the maximum detection pixel box. The target objects can be recognized only when it is smaller than the pixel box.

**Sensitivity:** Set the sensitivity level. Level 1 the lowest sensitivity level while level 100 is the highest sensitivity level.

**Detection Type:** Choose the detection target objects.

**Detection Mode:** Motion Mode will detect moving objects. Static Mode will detect both moving faces and still objects.

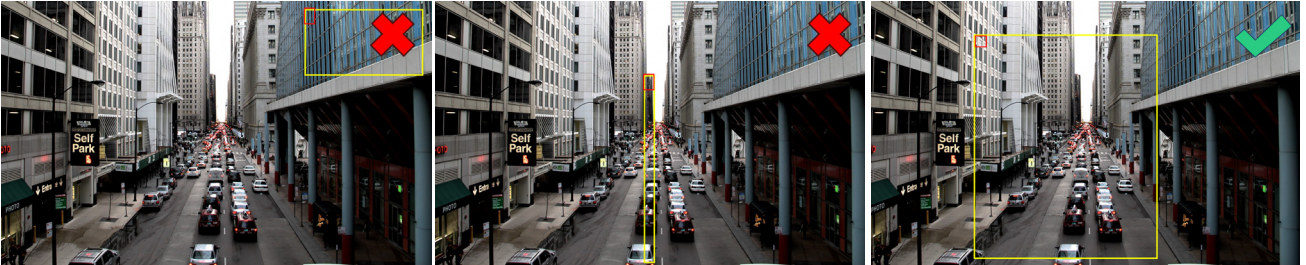
**Detection Range:** Set the detection zone. You can choose "**Full Screen**" or "**Customize**" to adjust the shape of rectangular detection zone in the camera image. Target objects appear in this zone will be detected and captured.

**Dynamic Marking:** If you enable this option, a capture box will be displayed upon the detected objects in both live view images and recording files.



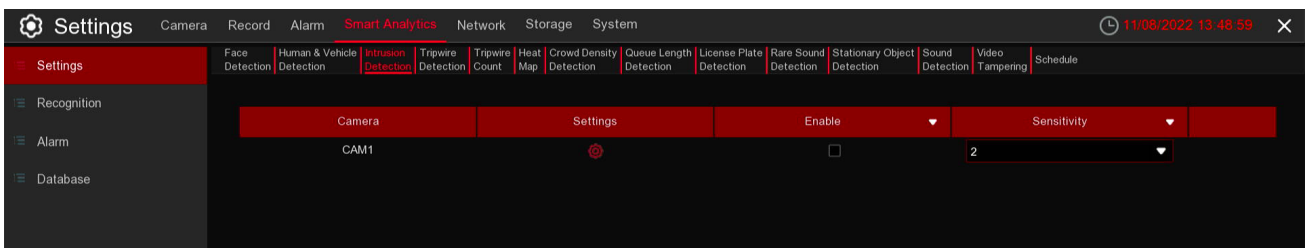
**Notice:**

1. The region for detection can not be in an area people cannot reach.
2. The detected people should be completely surround in the region.



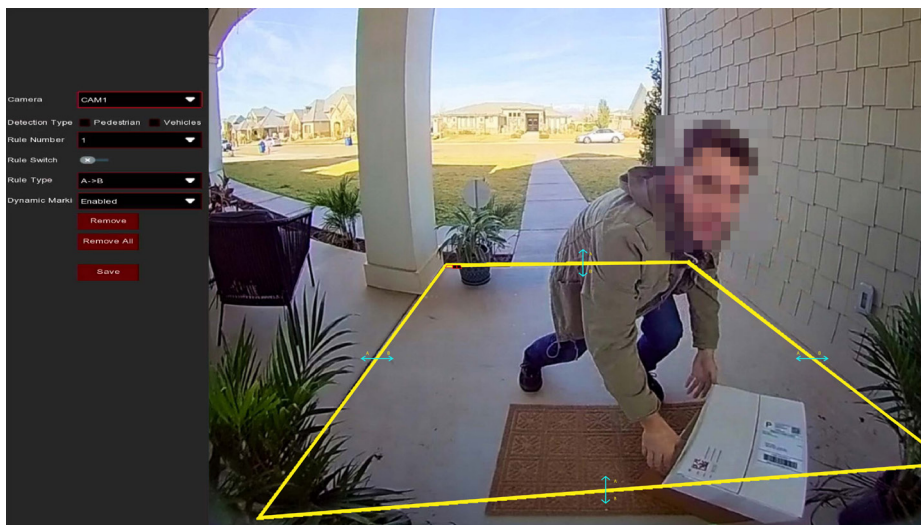
**5.4.1.3 ID (Intrusion Detection)**

The Intrusion Detection function detects people, vehicles, or other objects which enter and loiter in a pre-defined virtual region, and some certain actions can be taken when the alarm is triggered.



**Enable:** Enable or disable the ID function.

**Sensitivity:** The sensitivity level is from 1 to 4. Higher sensitivity will trigger the detection easier. Click **[Settings]** to draw a virtual region in the camera picture.



**Camera:** Select the camera you want to configure.

**Detection Type:** Choose the detection target objects.

**Rule Number:** Max. 4 rules available.

**Rule Switch:** Activate or inactivate the rule.

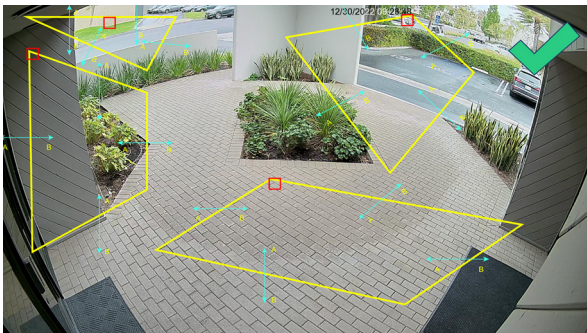
**Rule type:** Detection direction from **B**  $\longrightarrow$  **A** or **A**  $\longleftrightarrow$  **B**.

**Dynamic Marking:** If you enable this option, a capture box will be displayed upon the detected objects in both live view images and recording files.

1. Choose one of the **Rule Number**. It is the number of TD lines. You can draw a maximum of 4 lines.
2. Choose the detection target type.
3. To enable the detection in **Rule Switch**.
4. Choose a **Rule type**.
  - A  $\longrightarrow$  B:** NVR will only detect the action from side A to side B;
  - B  $\longrightarrow$  A:** NVR will only detect the action from side B to side A;
  - A  $\longleftrightarrow$  B:** NVR will detect the action from either side B to side A or side A to side B.
5. Use your mouse to click 4 points in the camera picture to draw a virtual line. The shape of the region should be a convex polygon. Concave polygon will not be able to save.
6. Click Save to save your settings.
7. If you want to modify the position or shape of region, click the red box in the region, the borders of the region will be changed to red color. Click and hold the left button of your mouse to move the position of the region, or drag the corners to resize the region.
8. If you want to remove one of the regions from the camera picture, click the red box in the region and then click the **Remove** button. Clicking **Remove All** will delete all regions.

*Notice:*

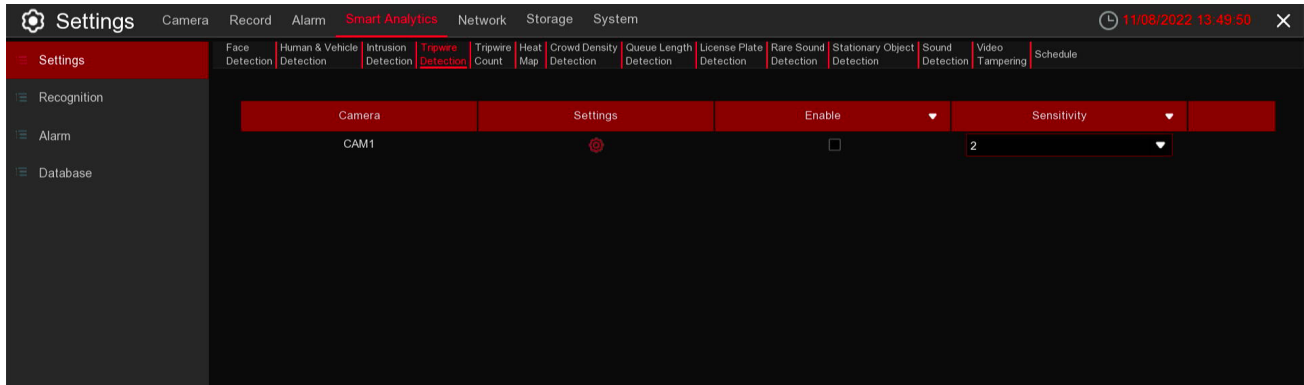
1. *The perimeter can not be too close to the edges/corners of the camera picture, this will fail to trigger the detection when the target passes through the edges/corners.*
2. *The shape of the regions can not be too narrow/small, this will fail to trigger the detection when the target passes outside the perimeter.*





### 5.4.1.4 TD (Tripwire Detection)

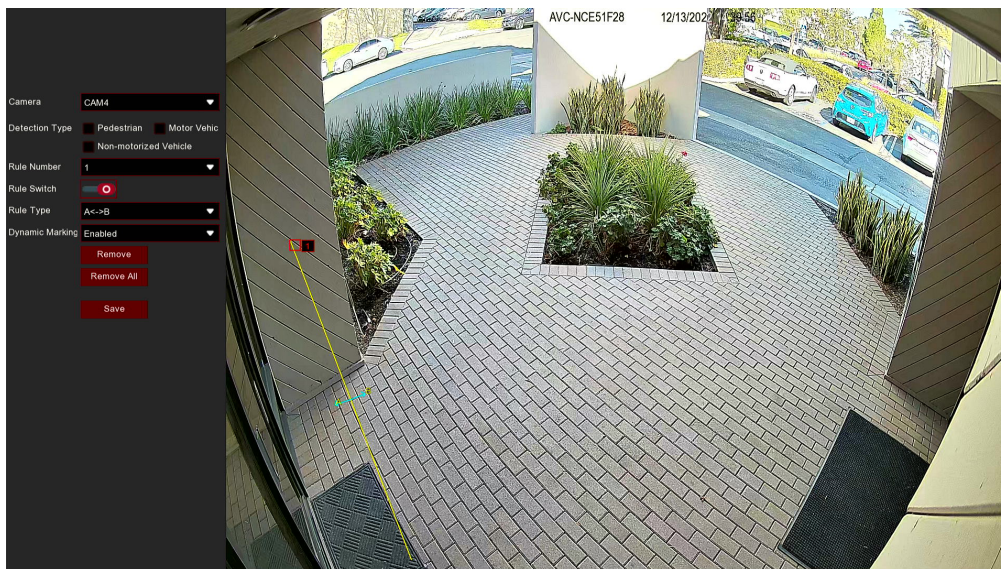
The Tripwire Detection function detects people, vehicles, or other objects that crosses a pre-defined virtual line, and some certain actions can be taken when the alarm is triggered.



**Enable:** Enable or disable the TD function.

**Sensitivity:** The sensitivity level is from 1 to 4. Higher sensitivity will trigger the detection more easily.

Click **[Settings]** to draw a virtual region in the camera picture.



**Camera:** Select the camera you want to configure.

**Detection Type:** Choose the detection target objects.

**Rule Number:** Max. 4 rules available.

**Rule Switch:** Activate or inactivate the rule.

**Rule type:** Detection direction from **A → B**, **B → A**, or **A ↔ B**.

**Dynamic Marking:** If you enable this option, a capture box will be displayed upon the detected objects in both live view images and recording files.

1. Choose one of the **Rule Numbers**. It is the number of TD lines. You can draw a maximum of 4 lines.
2. To enable the detection in **Rule Switch**.
3. Choose a **Rule Type**.
  - A → B**: NVR will only detect the action from side A to side B;
  - B → A**: NVR will only detect the action from side B to side A;
  - A ↔ B**: NVR will detect the action from either side B to side A or side A to side B.
4. Use your mouse to click 2 points in the camera picture to draw a virtual line.
5. Click Save to save your settings.
6. If you want to modify the position or length of the line, click the red box in the line, the color of the line will change to a red color. Long press the left button of your mouse to move the line, or drag the terminals to modify the length or position of the line.
7. If you want to remove one of the lines from the camera picture, click the red box in the line and then click the **Remove** button. Clicking **Remove All** will delete all lines.

*Notice:*

1. The lines can not be too close to the edges of the camera picture, this is to avoid any failure of triggering the alarm when the target cross through it.
2. The lines can not be set too short, this is to avoid any failure of triggering the alarm when the target passes outside it.




5.4.1.5 TC (Tripwire Count)

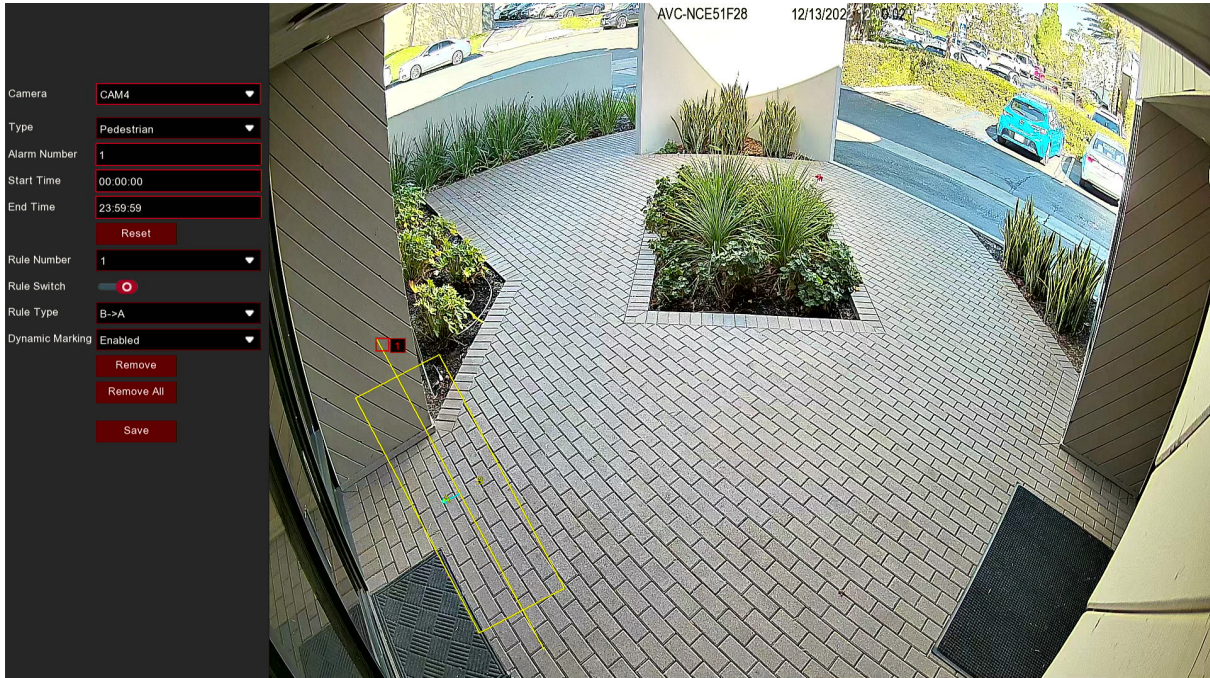
The Tripwire Count function counts how many times for moving objects or people crossed the virtual lines.

Settings	Camera	Settings	Enable	Sensitivity
	CAM4		<input type="checkbox"/>	4
	CAM5		<input type="checkbox"/>	4
	CAM6		<input type="checkbox"/>	2
	CAM7		<input type="checkbox"/>	4
	CAM8		<input checked="" type="checkbox"/>	2



**Enable:** Enable or disable the TC function.

**Sensitivity:** The sensitivity level is from 1 to 4. Higher sensitivity will trigger the detection more easily. Click **[Settings]**  to draw a virtual region in the camera picture.



**Camera:** Select the camera you want to configure.

**Type:** Choose the detection target objects. **Motion** will detect all moving objects, **Person** will detect human beings only, and **Vehicle** will detect vehicles only.

**Alarm Number:** The NVR will send an alert if the number of entries minus the number of exits exceeds the alarm number. E.g., the number of entries is 601 while the number of exits is 400, and the alarm number you set is 200,  $601-400 > 200$ , then the NVR will send an alert.

**Start Time:** Set the detection start time.

**End Time:** Set the detection end time

**Reset Count:** Clear the counting number.

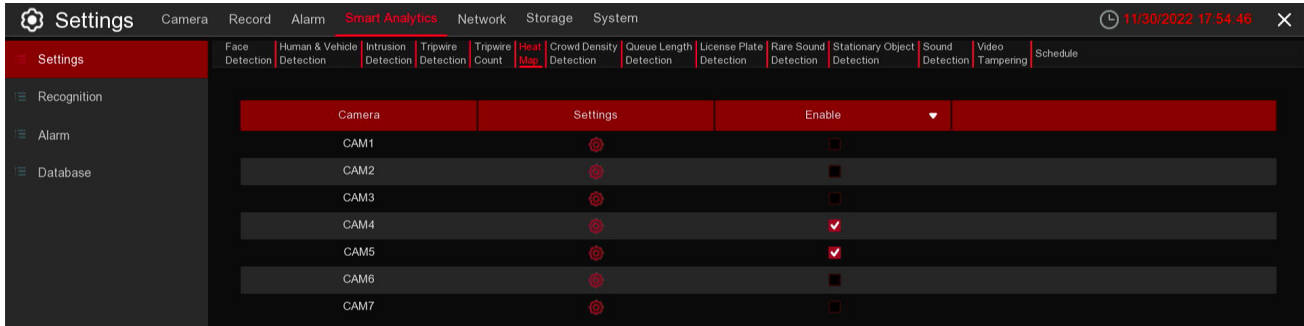
**Rule Number:** Only 1 rule available.

**Rule Switch:** Activate or deactivate the rule.

1. Choose the detection target type.
2. Set the **Alarm Number**, **Start Time**, and **End Time**.
3. To enable the detection in **Rule Switch**.
4. Choose a **Rule Type**.
  - A → B:** If a target object is detected moving from side A to side B, the system will count 1 to enter number; if a target object is detected moving from side B to side A, the system will count 1 to exit number.
  - B → A:** If a target object is detected moving from side B to side A, the system will count 1 to enter number; if a target object is detected moving from side A to side B, the system will count 1 to exit number.
5. Use your mouse to click 2 points in the camera picture to draw a virtual line.
6. Click **Save** to save your settings.
7. If you want to modify the position or length of the line, click the red box in the line, the color of the line will be changed to red color. Click and hold the left button of your mouse to move the line, or drag the terminals to modify the length or position of the line.
8. If you want to remove one of the lines from the camera picture, click the red box in the line and then click the **Remove** button. Clicking **Remove All** will delete all lines.

### 5.4.1.6 HM (Heat Map)

Automatically regular detect and count the movement of objects in the monitoring area. The frequency of people flows will be identified by different colors.



**Enable:** Check the box to enable TD function.  
Click **Settings** icon to configure the detection conditions.

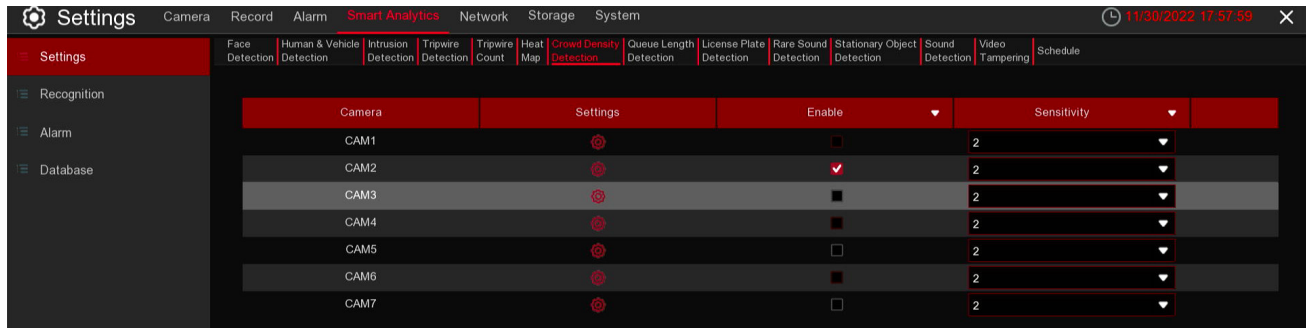


1. To enable the detection in **Rule Switch**.
2. Use your mouse to click 4 points in the camera picture to draw a virtual region. The sharp of the region should be a convex polygon. Concave polygon will be not able to save.
3. Click Save to save your settings.
4. If you want to modify the position or sharp of region, click the red box in the region, the borders of the region will be changed to red color. Click and hold the left button of your mouse to move the position of the region, or drag the corners to resize the region.
5. If you want to remove one of the regions from the camera picture, click the red box in the region and then click **Remove** button. Click **Remove All** will delete all regions.



### 5.4.1.7 CD (Crowd Density Detection)

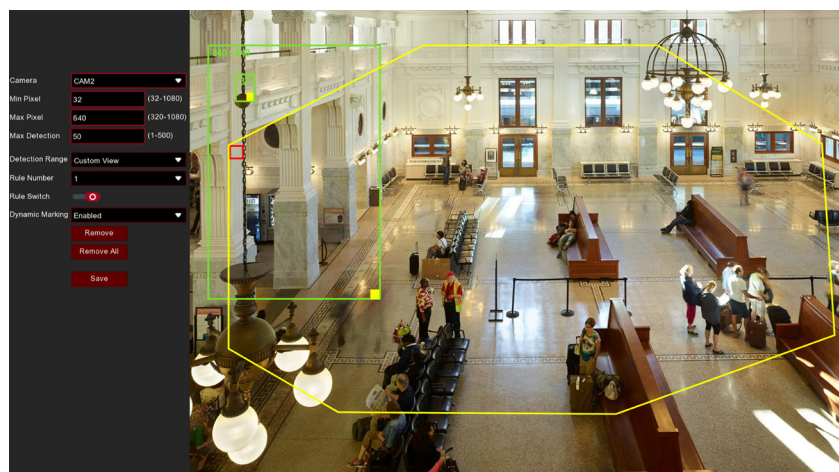
Crowd density detection is used to detect crowd gathering to maintain a controllable order in certain area.



**Enable:** Check the box to enable the CD function.

**Sensitivity:** Set the sensitivity level. Level 1 the lowest sensitivity level while level 4 is the highest sensitivity level.

Click **Settings** icon to configure the detection conditions.



**Min Pixel:** Set the minimum detection pixel box. The people can be recognized only when he/she is larger than the pixel box.

**Max Pixel:** Set the maximum detection pixel box. The people can be recognized only when he/she is smaller than the pixel box.

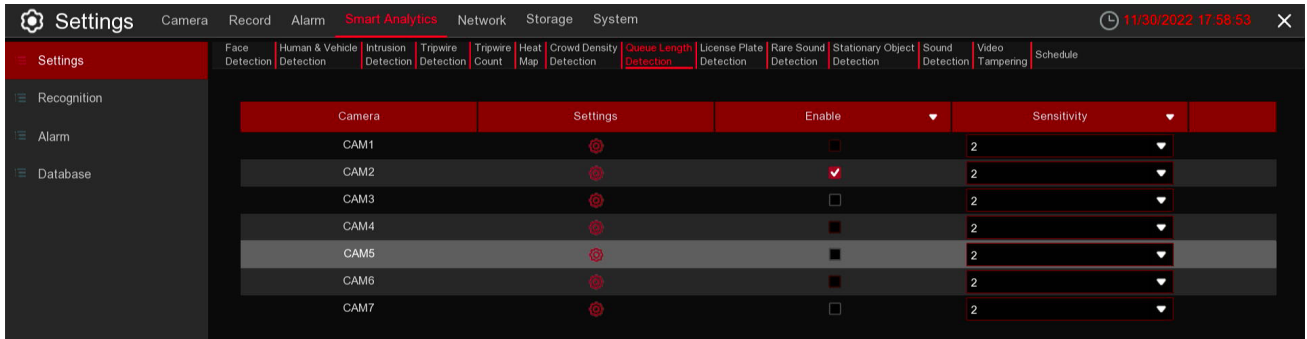
**Max Detection:** The NVR will send an alert if the number of people inside the detection area exceeds the Max Detection number.

**Dynamic Marking:** If you enable this option, the border of the detection zone will be displayed in both live view images and recording files.

1. Set the min. pixel and max. pixel.
2. Set the limitation number in Max. Detection.
3. To enable the detection in Rule Switch.
4. Set the Detection Range to be full screen or customize.
5. If you choose customized detection range, you will need to use your mouse to click 8 points in the camera picture to draw a virtual region.
6. Click Save to save your settings.
7. If you want to modify the position or sharp of region, click the red box in the region, the borders of the region will be changed to red color. Click and hold the left button of your mouse to move the position of the region, or drag the corners to resize the region.
8. If you want to remove one of the regions from the camera picture, click the red box in the region and then click Remove button. Click Remove All will delete all regions

### 5.4.1.8 QD (Queue Length Detection)

Queue length detection is used to detect the status of a queue, including its length and stagnation time.



**Enable:** Check the box to enable the QD function.

**Sensitivity:** Set the sensitivity level. Level 1 the lowest sensitivity level while level 4 is the highest sensitivity level.

Click **Setup** icon  to configure the detection conditions.



**Min Pixel:** Set the minimum detection pixel box. The people can be recognized only when he/she is larger than the pixel box.

**Max Pixel:** Set the maximum detection pixel box. The people can be recognized only when he/she is smaller than the pixel box.

**Max Detection:** The NVR will send an alert if the number of crowds in the line inside the detection area exceeds the Max Detection number.

**Max. Pro Time:** The NVR will send an alert if the stagnation time of the queue is longer than the given processing time.

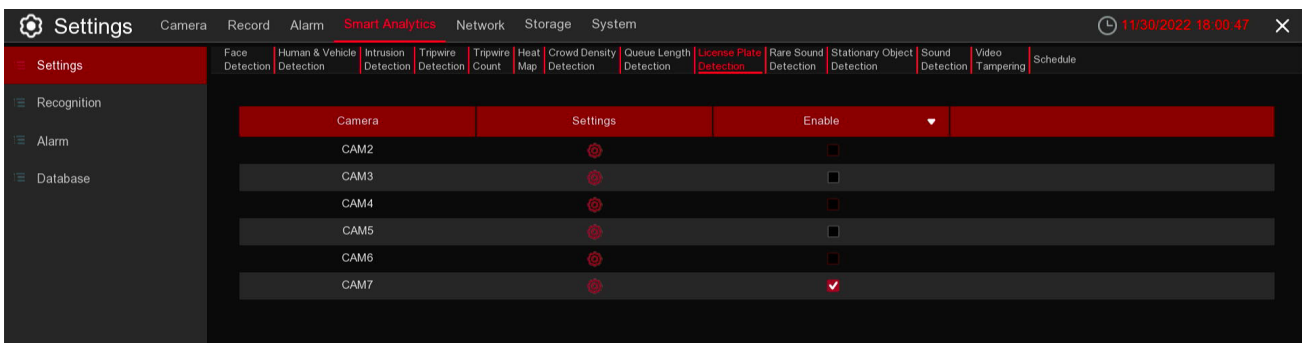
**Dynamic Marking:** If you enable this option, the border of the detection zone will be displayed in both live view images and recording files.

1. Set the min. pixel and max. pixel.
2. Set the limitation number in Max. Detection.
3. Set the limitation number in Max. Pro Time, the unit is second.
4. To enable the detection in Rule Switch.
5. Set the Detection Range to be full screen or customize.
6. If you choose customized detection range, you will need to use your mouse to click 8 points in the camera picture to draw a virtual region.
7. Click Save to save your settings.
8. If you want to modify the position or sharp of region, click the red box in the region, the borders of the region will be changed to red color. Click and hold the left button of your mouse to move the position of the region, or drag the corners to resize the region.
9. If you want to remove one of the regions from the camera picture, click the red box in the region and then click Remove button. Click Remove All will delete all regions.

#### 5.4.1.9 LPD (License Plate Detection)

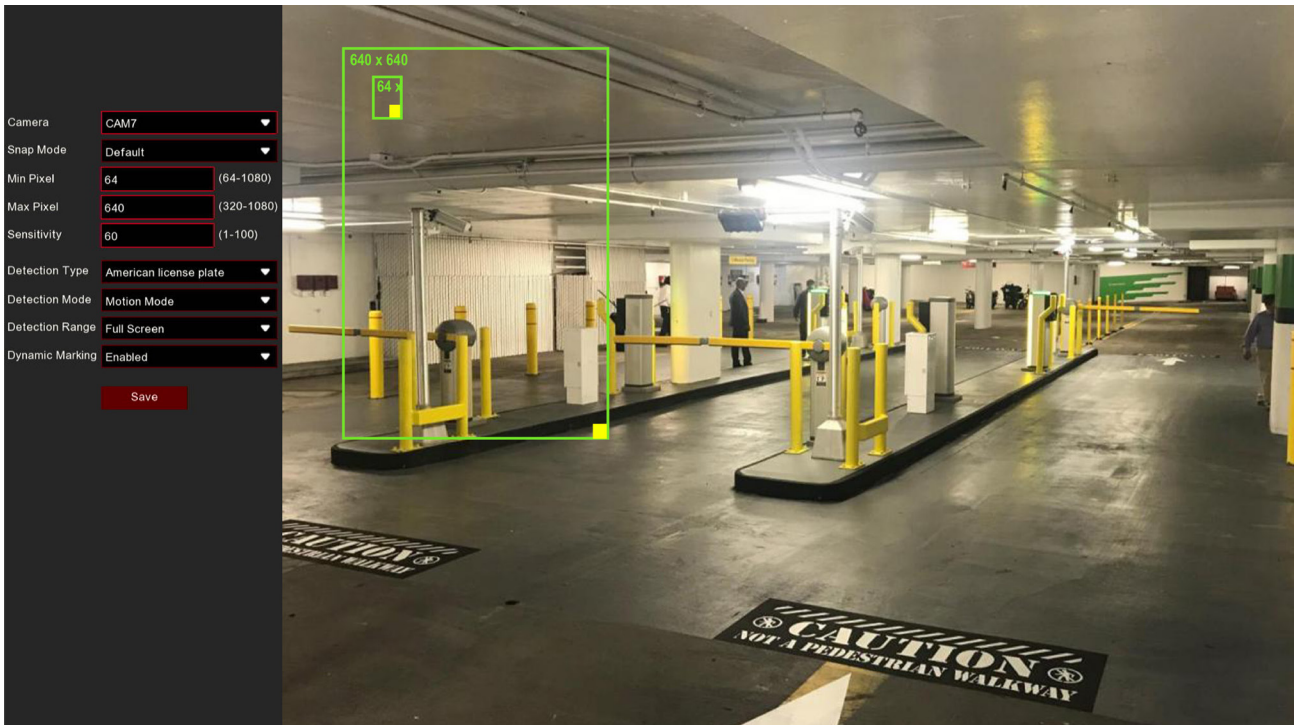
License Plate Detection, detects a moving vehicle's license plate and enters the license plate information into the database. At the same time. It can be also back up the unfamiliar vehicle license plate information to the database, or retrieve the license plate detection and alarm information on playback. License plate detection currently only supports two regions license-Europe and America.

In this menu, you can set the relevant parameters of the license plate detection.



**Settings:** Click to enter setup page.

**Enable:** Enable or disable LPD function.



**Camera:** Select the camera you want to configure.

**Snap Mode:** Snap mode, there are optimal mode <select the best quality picture push during the period from vehicle license plate appears>, real-time mode <push once when license plate appears, push once again when disappears> and interval mode <customized number of push sheets and time interval>.

**Min pixel:** Minimum recognition pixel box, the license plate must be greater than the set minimum pixel to be recognized.

**Max pixel:** Maximum recognition pixel box, the license plate should be less than the set maximum pixel to be recognized.

**Sensitivity:** Sensitivity, the larger the value, the easier to detect the target.

**Detection Type:** Detect type, there are two kinds of license plate.

**European license plate:** the European license plate,

**American license plate:** American license plate.

**Detection Mode:** License plate detection mode, there are two modes.

**Static Mode:** Check the static license plate in the picture

**Motion Mode:** Filter out the stationary vehicles and their license plates to detect only the license plates in the dynamic process.

**Detection Range:** There are two areas for license plate detection as follows.

**Full Screen:** Full-screen detection,

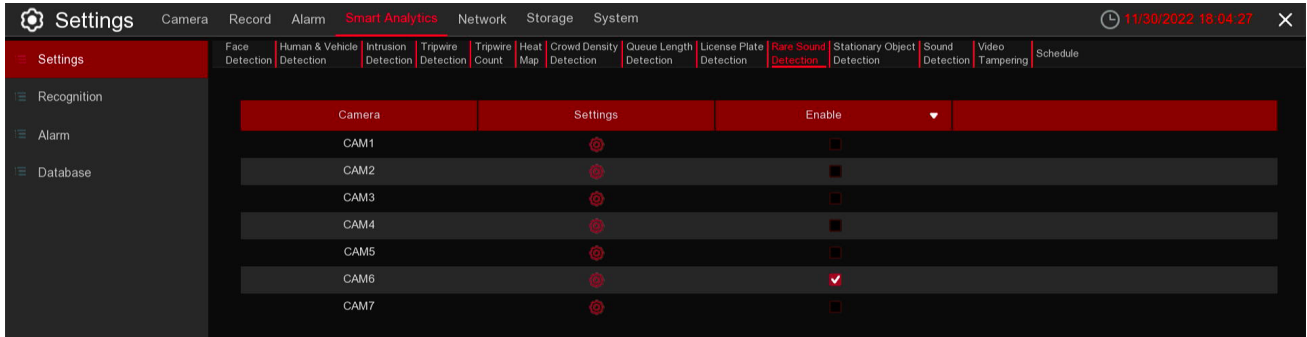
**Customize:** Custom detection area.

**Dynamic Marking:** Tracking box.



### 5.4.1.10 RSD (Rare Sound Detection)

Rare Sound Detection function only detects specific rare sounds such as baby crying, gun shots, and dog barking. A series of actions can be taken when the alarm is triggered.



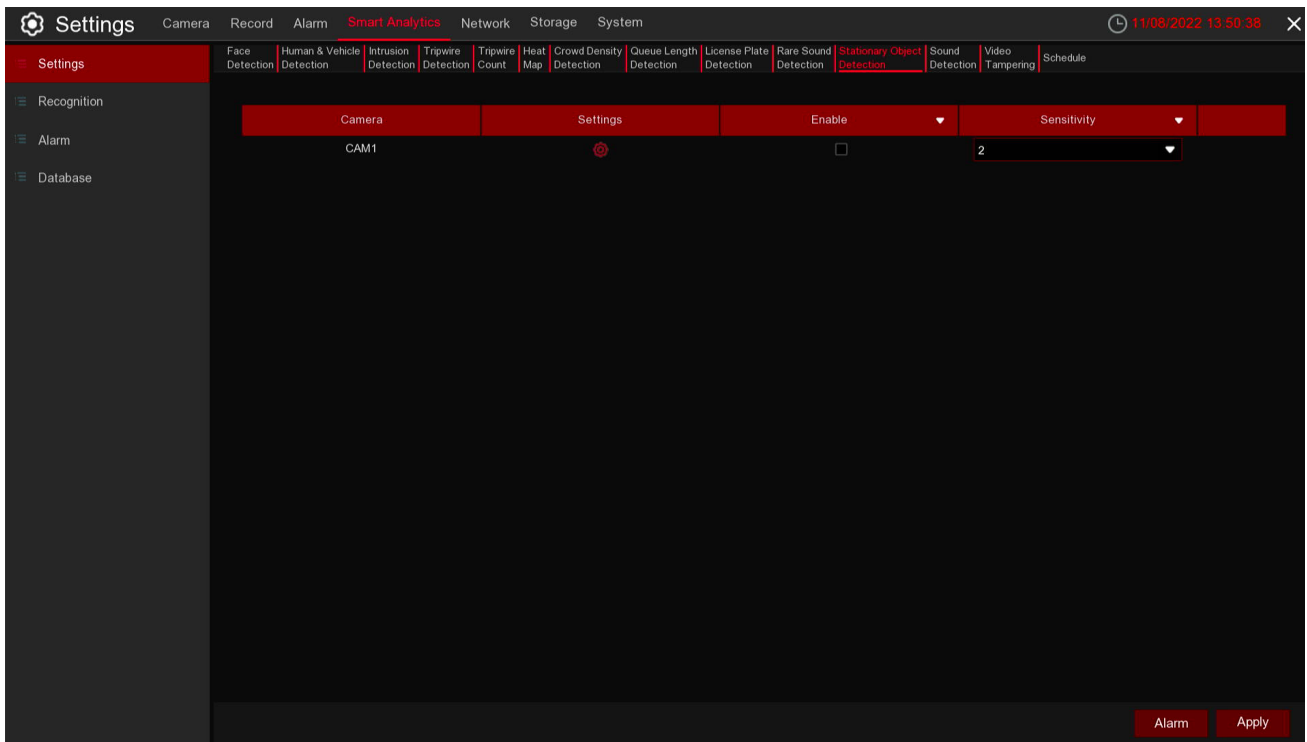
**Settings:** Click to enter setup page.  
**Enable:** Enable or disable RSD function.



**Camera:** Camera selection  
**Sensitivity:** Sensitivity, 1 is the minimum, 100 is the maximum.  
**Detection Type:**  
**Baby Crying Sound:** Click to check baby crying.  
**Dog Barking:** Click to check barking sound.  
**Gunshot:** Click to check gunshot sound.

### 5.4.1.11 SOD (Stationary Object Detection)

The Stationary Object Detection function detects the objects left over or lost in the pre-defined region such as baggage, purses, dangerous materials, etc. A series of actions can be taken when the alarm is triggered.



**Enable:** To enable or disable the SOD function.

**Sensitive:** The sensitivity level is from 1 to 4, with a default value of 2. Higher sensitivity triggers the detection more easily.

Click **Settings** icon to configure the detection conditions.



**Camera:** Select the camera you want to configure.

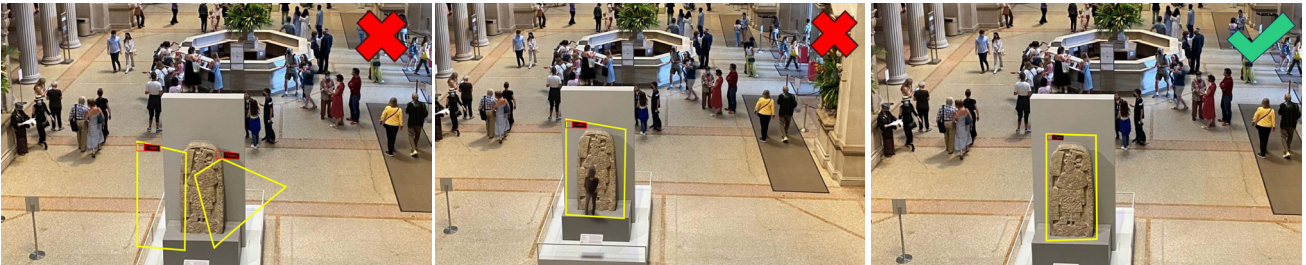
**Rule Number:** Max. 4 rules available.

**Rule Switch:** Activate or deactivate the rule.

1. Choose one of the **Rule Numbers**. It is the number of SOD areas. You can set a maximum of 4 areas for the SOD function.
2. To enable the detection in **Rule Switch**.
3. Choose a **Rule Type**.
  - Legacy:** NVR will only detect the left-over objects;
  - Lost:** NVR will only detect the lost objects;
  - Legacy & Lost:** NVR will detect both left-over & lost objects.
4. Use your mouse to click 4 points in the camera picture to draw a virtual region. The shape of the region should be a convex polygon. Concave polygons will not save.
5. Click **Save** to save your settings.
6. If you want to adjust the size of the region, click the red box in the region, the borders of the region will be change to a red color. Long press the left button of your mouse to move the whole region, or drag the corners to resize the region.
7. If you want to remove one of the regions from the camera picture, click the red box in the region and then click the **Remove** button. Clicking **Remove All** will delete all regions.

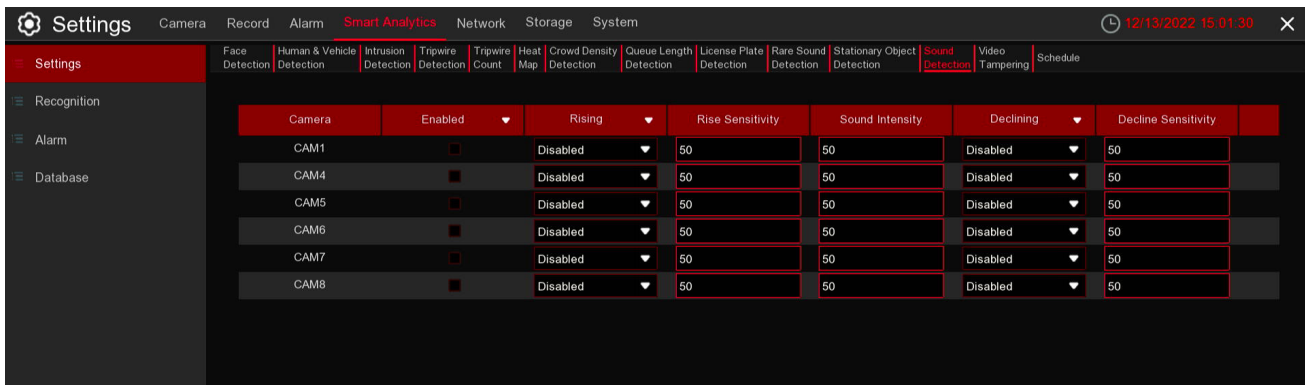
*Notice:*

1. *The area for detection must be greater than or equal to the size of the detected object, such as the detection of the light stand.*
2. *The detected object cannot be covered.*



### 5.4.1.12 SD (Sound Detection)

With the Sound Detection, it can trigger an alarm while detecting the sound rise or decline, and some certain actions can be taken when the alarm is triggered.



**Enable:** Enable or disable the SD function.

**Rising:** Enable or disable sound rise detection.

**Rising Sensitivity:** Set the sensitivity level. Level 1 is the lowest sensitivity level while level 100 is the highest sensitivity level.

**Sound Intensity:** Set a threshold of sound intensity. Lowering this value will result in more sensitivity

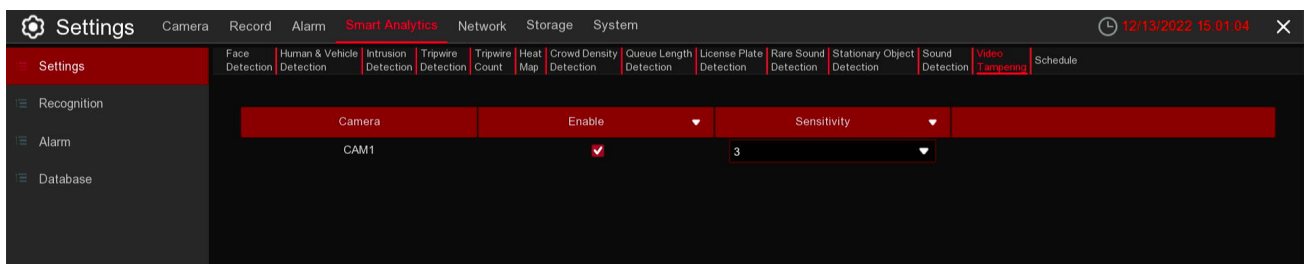
**Decline:** Enable or disable sound decline detection

**Decline Sensitivity:** Set the sensitivity level. Level 1 is the lowest sensitivity level while level 100 is the highest sensitivity level.

For Alarm setup, please refer to 5.1.9.1.1 Alarm Setup

### 5.4.1.13 VD (Video Tampering Detection)

Video Tampering detects the occlusion of the live view screen, and some certain actions can be taken when the alarm is triggered.



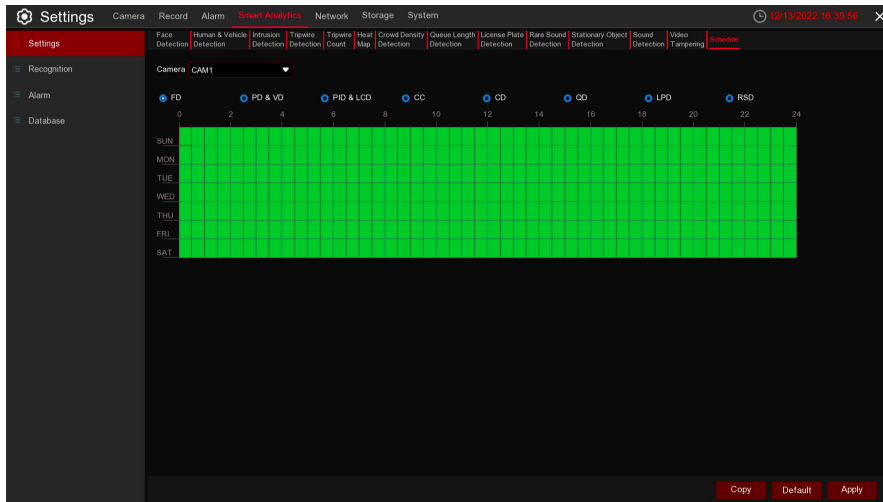
**Enable:** Enable or disable the VD function.

**Sensitivity:** The sensitivity level is from 1 to 6, with a default value of 3. Higher sensitivity will be easier to trigger the detection.

For Alarm setup, please refer to 5.1.9.1.1 Alarm Setup



### 5.4.1.14 Schedule



In order to activate the Smart Analytics function, you need to configure the schedule. The schedule will be active in 24 hours x 7 days.

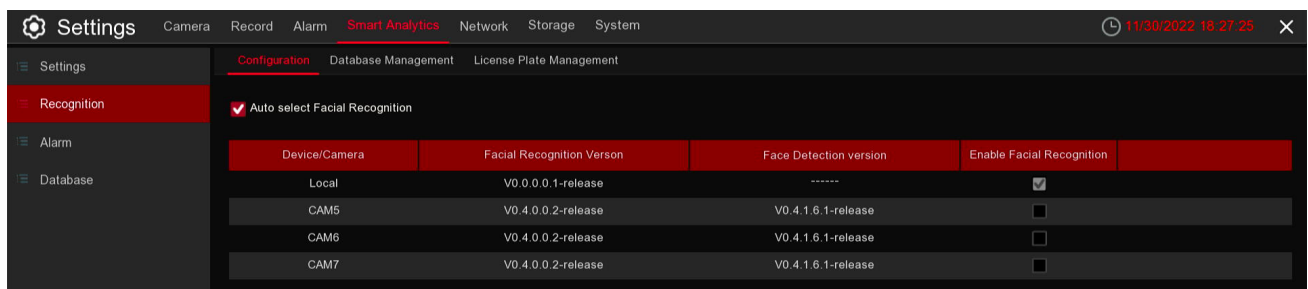
To set the schedule, choose one camera then click on one of the detection items on the top side of the time bar, then drag the cursor to mark the slots. The schedule is valid only for the selected camera each time when you set. If you want to use the same schedule for other cameras, use **Copy** function. Click **Save** to save your settings.

### 5.4.2 Recognition

The system supports recognition for Face and License Plate, you will need to configure the recognition algorithm model and database.

#### 5.4.2.1 Model Configuration

To choose the face algorithm model. Auto select recognition model is recommended.



### 5.4.2.2 Database Management

You're able to create the face database to classify different faces.



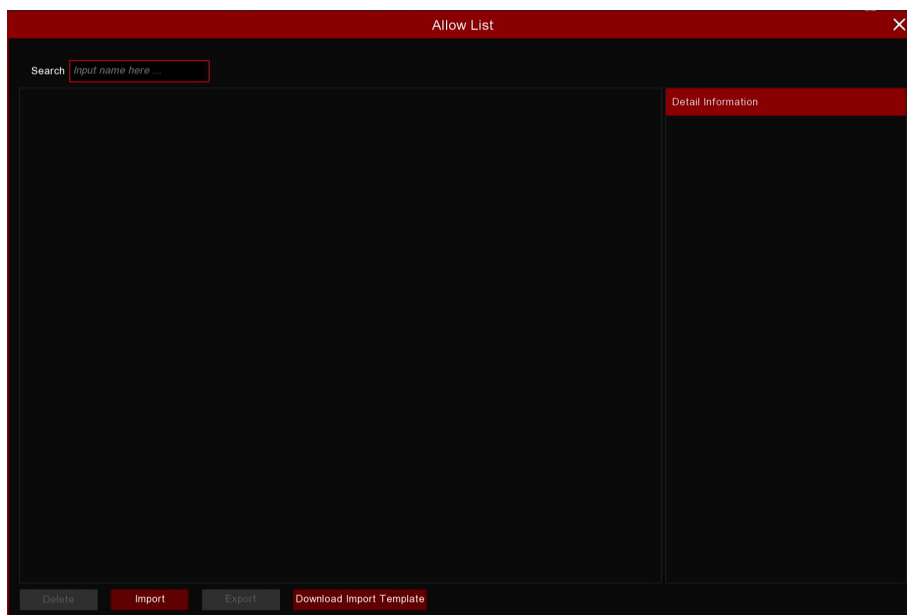
**There are 3 default groups:** Allow List, Block List and Stranger. You can use add icon and delete icon to add or delete customized groups.

**Import Database:** Import database from USB memory.

**Backup Database:** Export database to USB memory.

**Enable:** Check to enable the group.

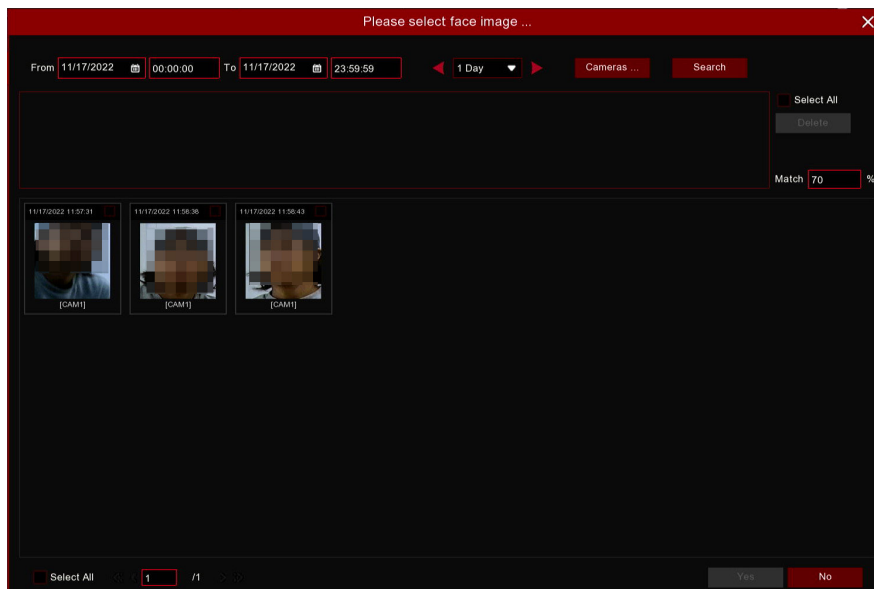
**Edit:** Click edit icon to edit the group.



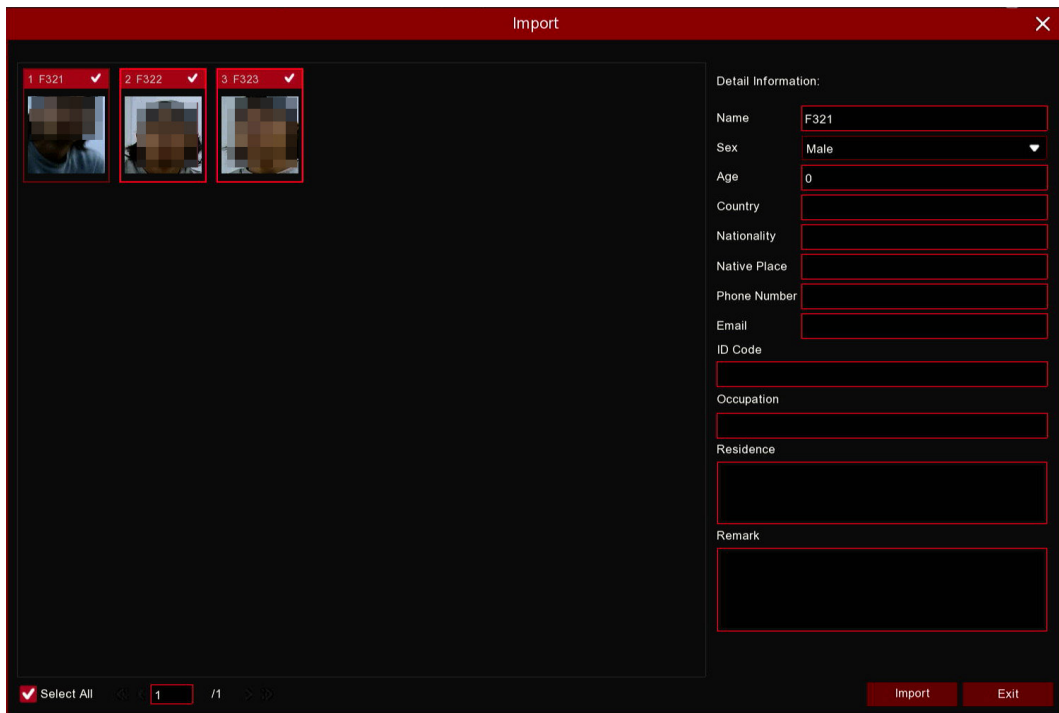
**Import:** Click the Import button to import face images. You're able to import files from NVR local storage and/or external storage.



Click Local Storage Device to import face images which were captured and saved in the NVR local HDD storage.



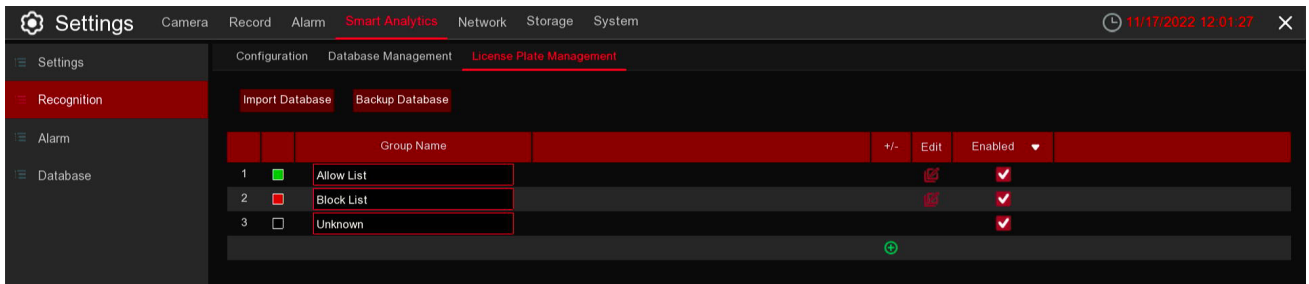
1. Choose the start time and end time manually. Or you can select the time interval from 1 day, 2 days, 3 days, 4 days, 5 days, 6 days, 1 week and 1 month, and then click the ◀ or ▶ button to move to left or right period.
2. Choose the channels you want to search.
3. Click **Search** button.
4. The result will be displayed in the bottom window.
5. Check the box upon the face images you want to add, or click **Select All** to add all images.
6. If you want to narrow the search result, you can choose one or multiplex images in the bottom window as target face(s), and then set the **Similarity** value. Click **Search** again, the system will search and display the faces which are similar with your target face(s).
7. Click **OK** to add images. You can edit the personal information for the faces you want to import.
8. Click **Import** button to import the face images.



Use the same method to add face images from external USB storage devices.

### 5.4.2.3 License Plate Management

This menu provides a license plate information database for comparing the detected license plate information.







**Import Database:** import the exported packet data into the device.

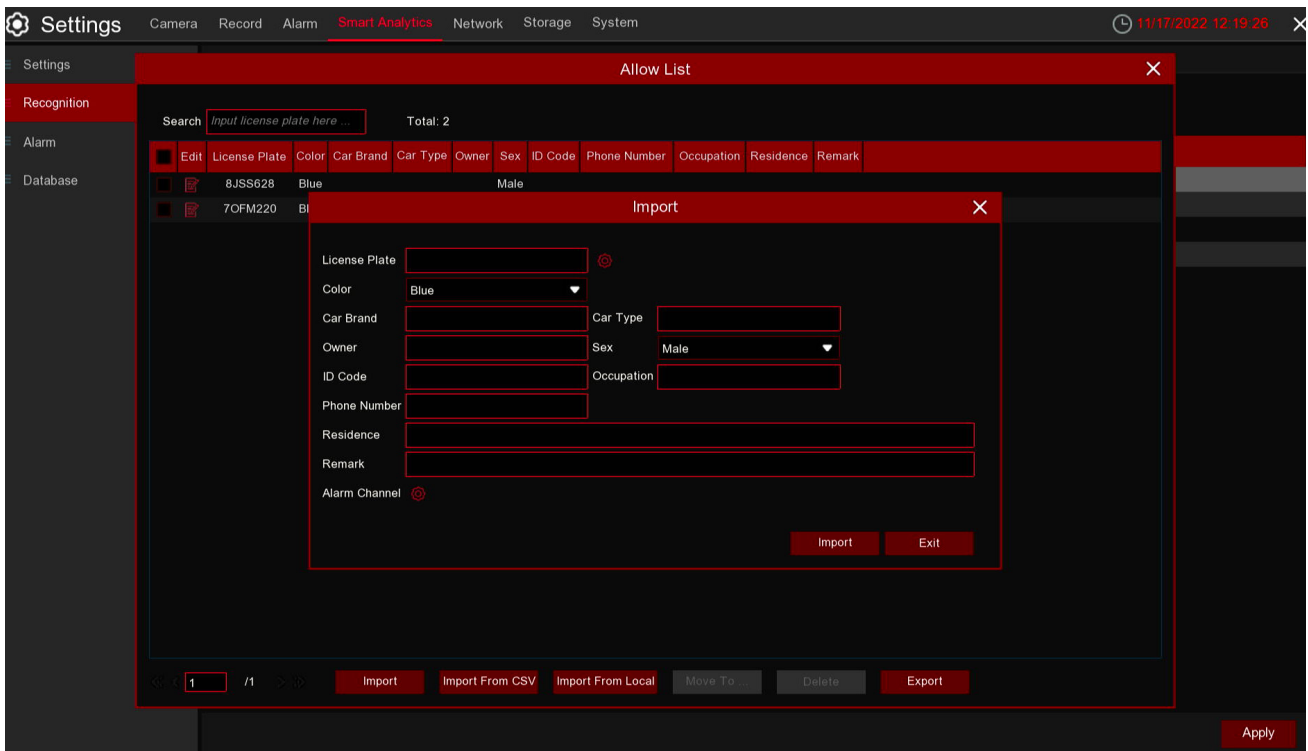
**Backup Database:** export all the groups to a U disk.

**Group Name:** The name of the database group, allow list, black list, stranger group, you can add up to 61 custom groups, a total of 64 groups, one group can accommodate up to 5000 license plate information, the whole database can accommodate 10000 license plate information.

**Click  / :** To add a new license plate group or delete an existing license plate group. (The default first three license plate groups can not be deleted)


**Edit:** Click Edit to enter the edit license plate group interface.

**Enable:** enable or disable LPD.



**Search:** filtering license according to keywords.

**Total:** Total number of license plate data in this group.

Click  to modify the corresponding license plate data information.

**There are three ways to add license plate information:** Import (manually added), Import From CSV (CSV table import), and Import From Local (local import).

Click **Import** button to manually add a single license plate information,

Click **Export** to export the entire group information to the external U disk.

**Alarm Channel:** Set the channel to alarm after the license plate is detected and successfully aligned.

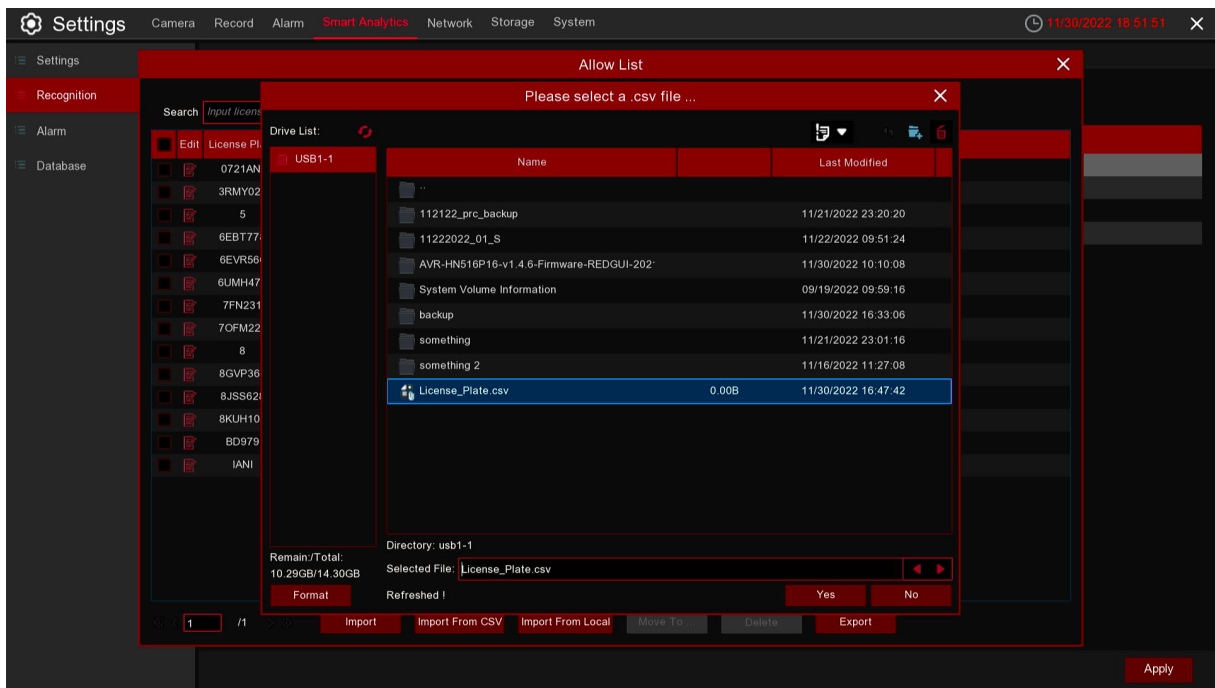
**Move to...:** Check the re-check box of the license plate information and Click it again to transfer the license plate information to another group.

**Delete:** Check the re-check box of the license plate information and then Click this button to delete the license plate information.

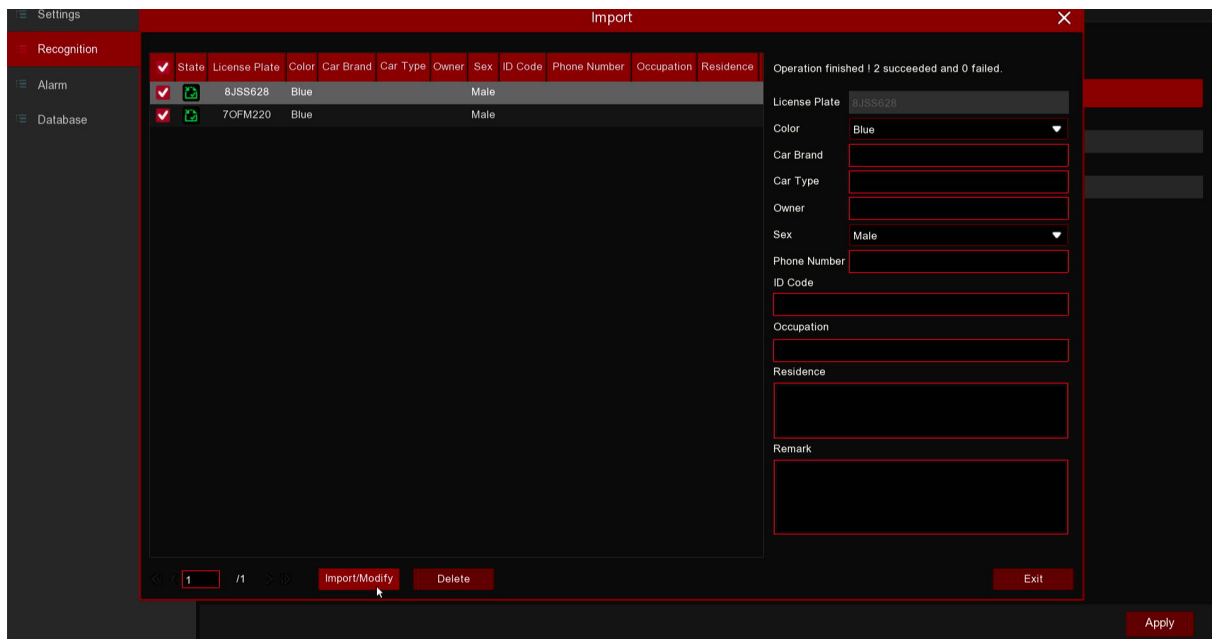
Click **Import From CSV** button to import one or more CSV pieces of data.

The format of the CVS table is shown below:

License Plate	Car Brand	Car Type	Owner	Sex	Id Code	Phone	Occupation	Address	...
0721AN	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
3RMY02	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
6EBT77	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
6EVR56	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
6UMH47	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
7FN231	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
7OFM22	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
8	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
8GVP36	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
8JSS62	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
8KHU10	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
BD979	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...
IANI	BMW	Passenger	male	2022	211211	2022	male	PPPPPP	...

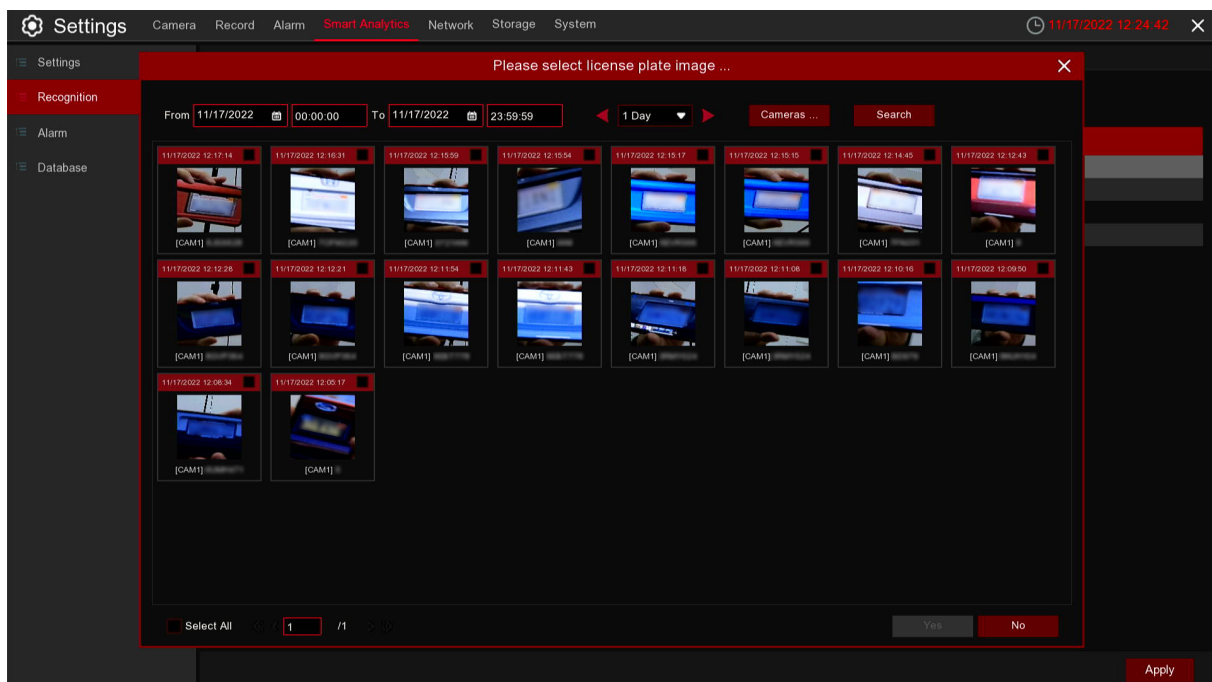


Click **Import From CSV** button to pop up the above interface, select the CSV license plate file to be imported, and Click the OK button. Pop up the following below:



Click **Import/Modify** button to add a batch, and you can also modify one license plate information. When more than 5000 data are added, the message box with the content of "Add data has reached the upper limit of the group" will popup.

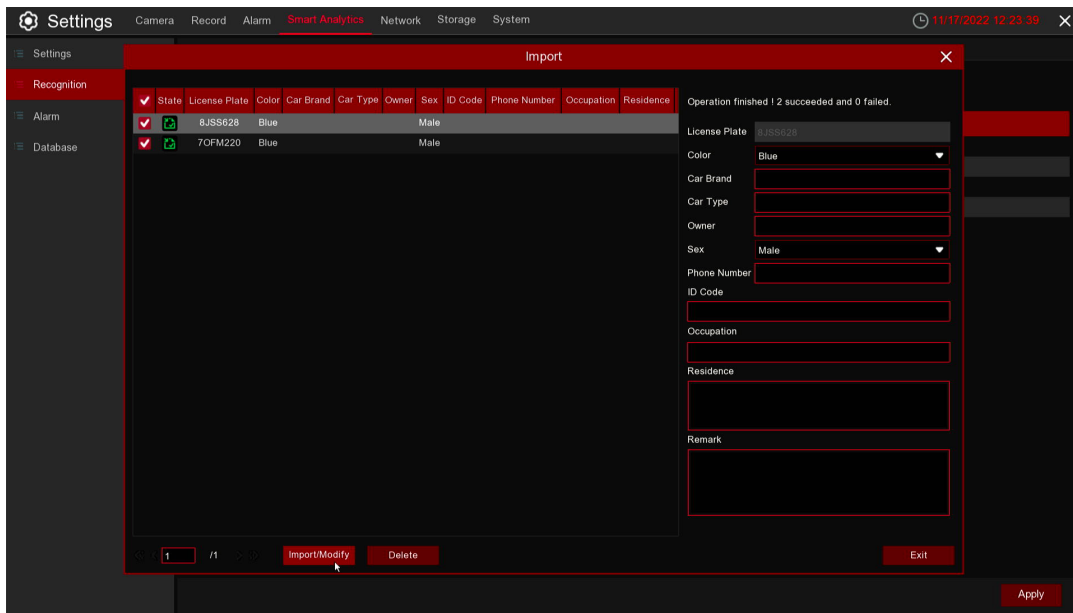
Click **Import From Local** button to import the license plate information locally to the database.



Select date,duration and channels then Click **Search** to search license plates saved by all devices during this time.

**Cameras:** License plate detection events triggered by each camera.

**Select All:** Select all the license plate information.

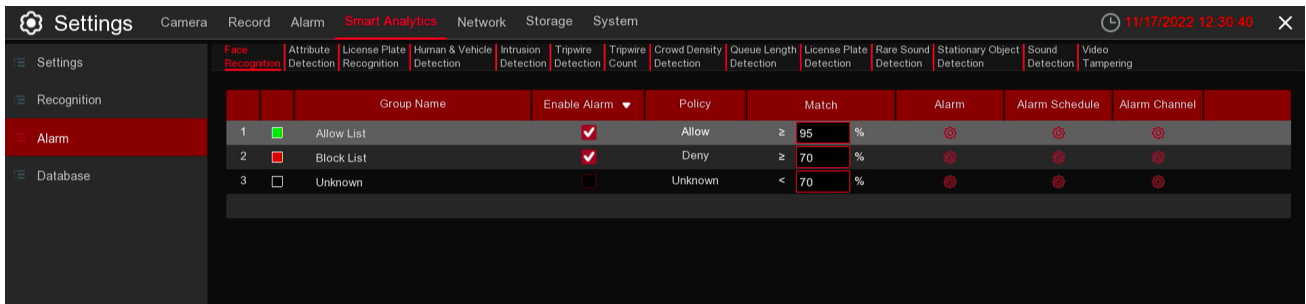



Click one of data to edit the license plate information and Click **Import/Modify** button to modify, if the modification is successful  will become .

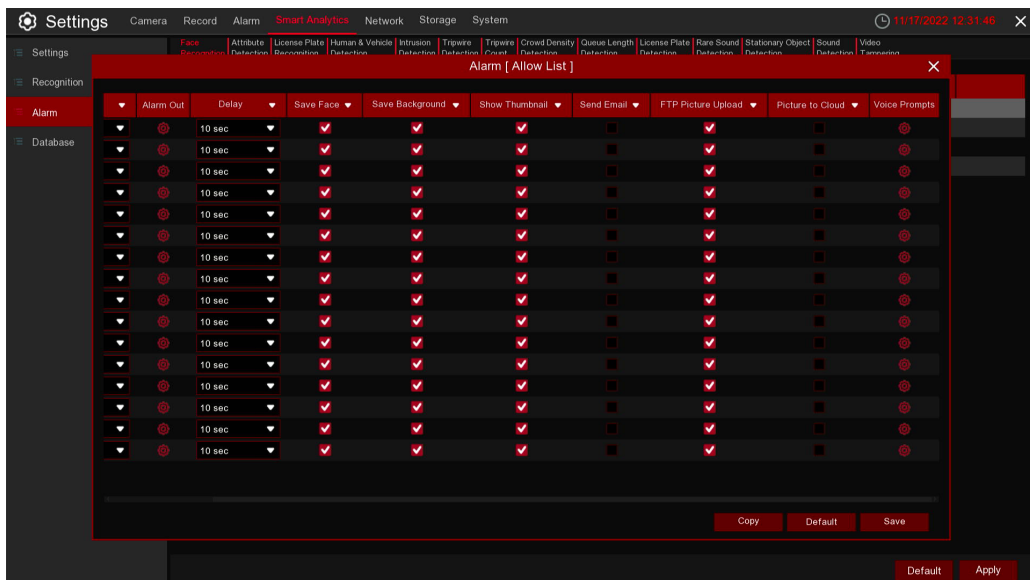
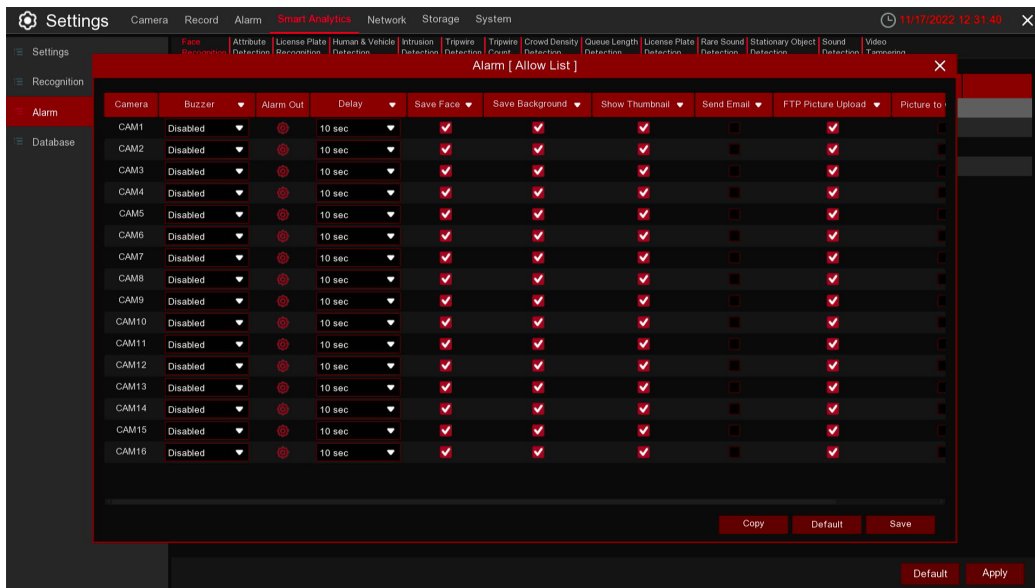
### 5.4.3 Smart Analytics Alarm

#### 5.4.3.1 Face Recognition

When faces added in the group were detected, it'll be a series of alarm settings.



- Enable alarm:** enable or disable face detection
- Policy:** set up face group alarm countermeasures
- Similarity:** similarity settings
- Alarm:** Click  to enter alarm setting interface.



**Alarm Out:** optional function. If your NVR/DVR supports connecting to an external alert device, you can set up an external alert device.

**Delay:** Set up the external alarm time when the face is detected.

**Save Face:** The face is saved when the face is detected.

**Save Background:** When FD is detected, the entire preview image is saved.

**Show Thumbnail:** When FD is detected, a thumbnail prompt pops up on the preview.

**Send Email:** When FD is detected, the picture is sent to the set mailbox.

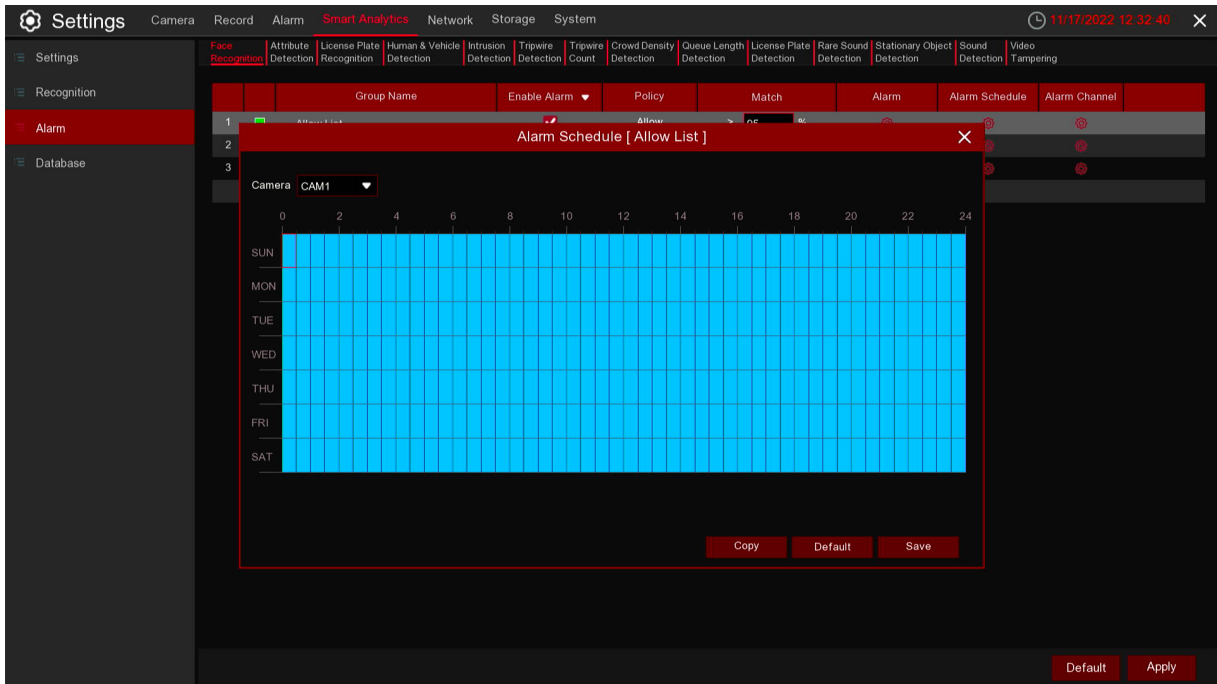
**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

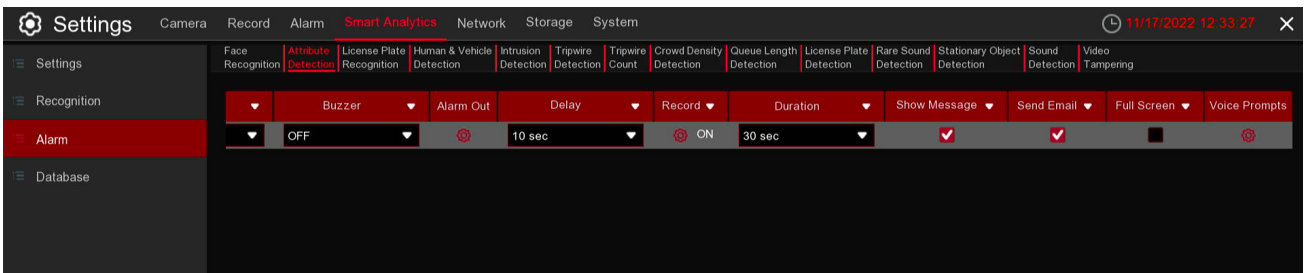
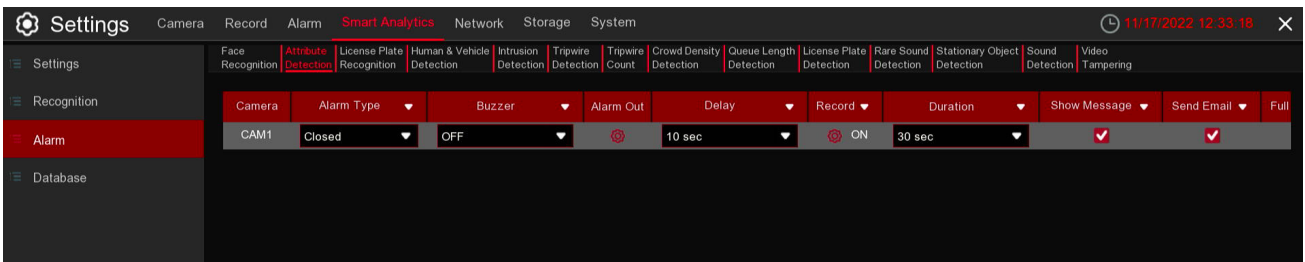
**Alarm Schedule:** Click  to enter schedule setting interface.



Check the time period Exit and Apply, Copy copy the current setting the other channels.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view 5.3.7 Voice Prompts

### 5.4.3.2 AD (Attribute Detection)



Configure the face attribute alarm function here.


**Camera:** Camera name

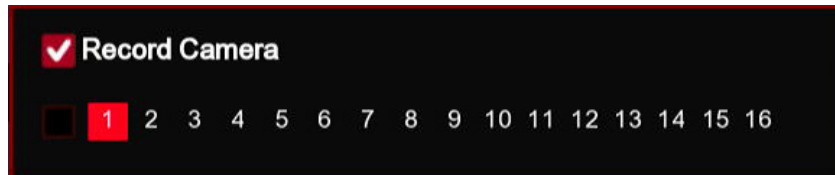
**Alarm Type:** Set up face attribute detection type, there are three kinds of detection type. Close, No Mask, Wear Mask.

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a face attributes alarm.

**Alarm out:** Check the external alarm device when the pedestrian and vehicle alarm is triggered.

**Delay:** set the duration of triggering the external alert devices (10s, 20s, 40s, and 60s).

**Record:** Click , select the channel to record when triggering pedestrian and vehicle alarms.



**Duration:** set the duration of continuous NVR/DVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show icon when face attendance alarms are detected.

**Send Email:** DVR send an automatic email when face attendance alarms are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this feature is enabled and face attendance are detected in the channel, you will see the channel in full-screen mode.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts

### 5.4.3.3 License Plate Recognition

When license plate added in the group were detected, it'll be a series of alarm settings.

Group Name	Enable Alarm	Policy	Fault-tolerant	Alarm	Alarm Schedule	Alarm Channel
1 Allow List	<input checked="" type="checkbox"/>	Allow	≤ 1 character(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2 Block List	<input checked="" type="checkbox"/>	Deny	≤ 1 character(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3 Unknown	<input checked="" type="checkbox"/>	Unknown	> 1 character(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



**Group Name:** group name.

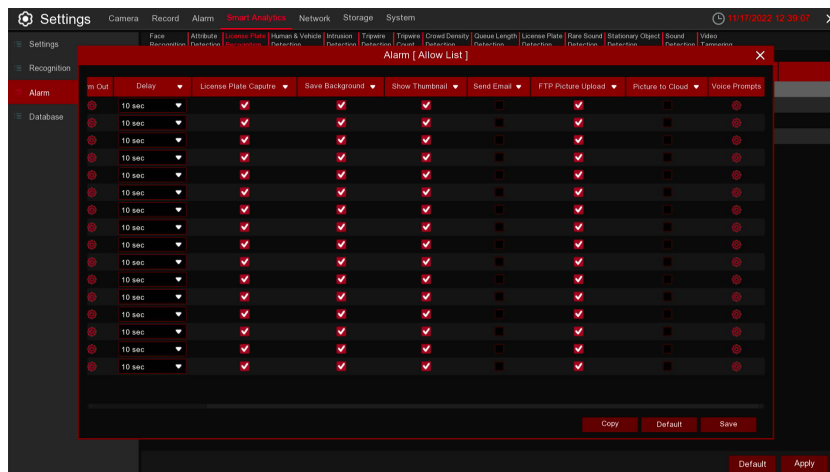
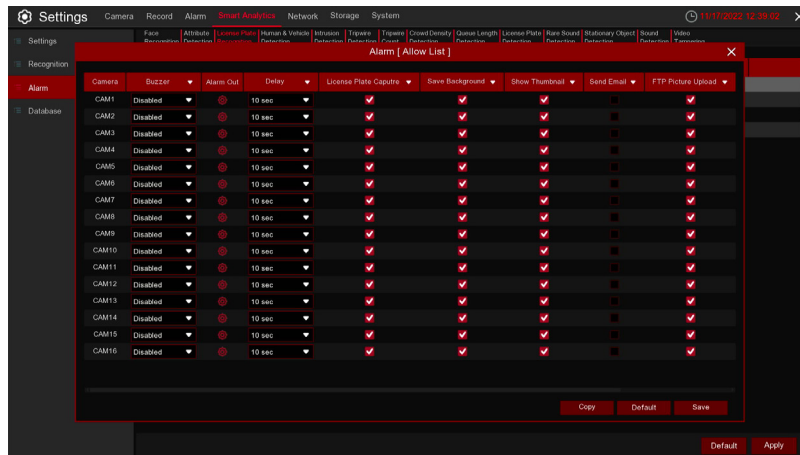
**Enable alarm:** Enable or disable license plate detection.

**Policy:** Set up license plate group alarm countermeasures.

**Fault-tolerant:** Fault tolerance rate, for example, when set to three characters, the white list in the group is B594SB, and also triggers alarms when a license B734KB enters the monitoring area. That is, the detection license plate number has 0~3 characters and the database license plate number is different will alarm.

**Alarm Channel:** Set the alarm channel after the license plate is detected and successfully aligned.

**Alarm:** Click  to enter the settings interface.



**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a license plate alarm.

**License Plate Capture:** License plate number picture capture.

**Save Background:** save the background.

**Show Thumbnail:** show the little thumbnails.

**Send Email:** When the license plate is detected, the picture is sent to the mailbox.

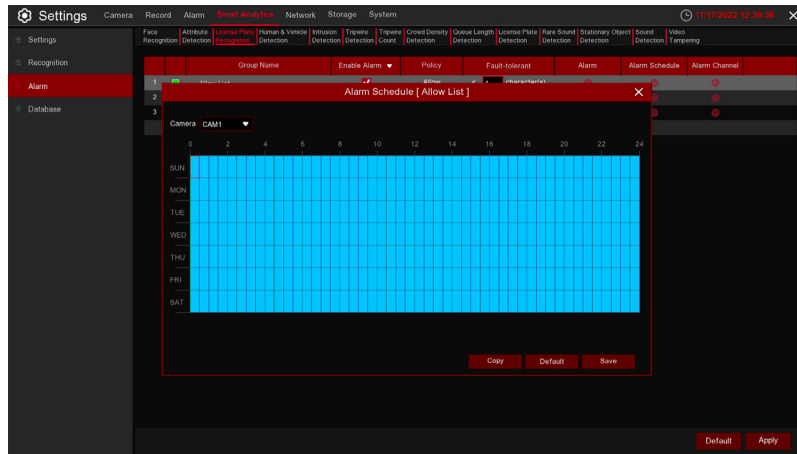
**FTP Picture Upload:** When the license plate is detected, the picture is sent to the FTP.

**Picture to Cloud:** When the license plate is detected, the picture is sent to the Cloud.

**Voice Prompts:** When the alarm is triggered, good audio files will be imported through voice prompts.

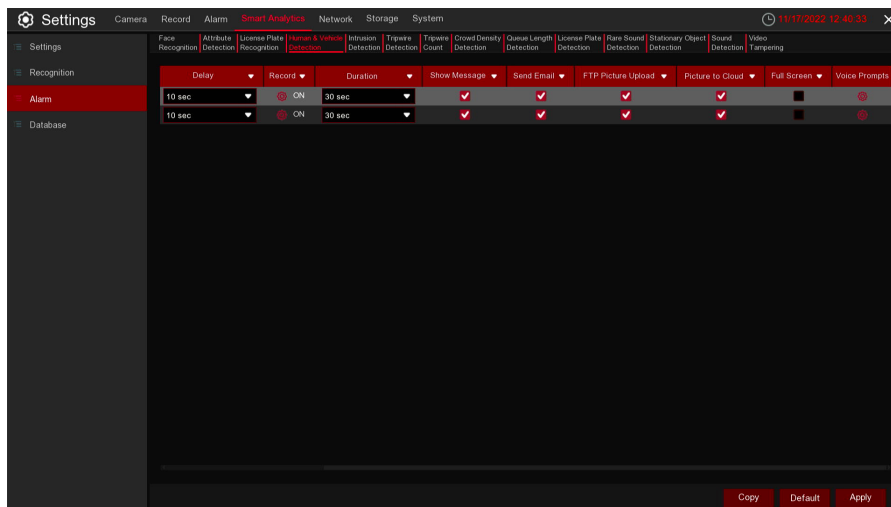
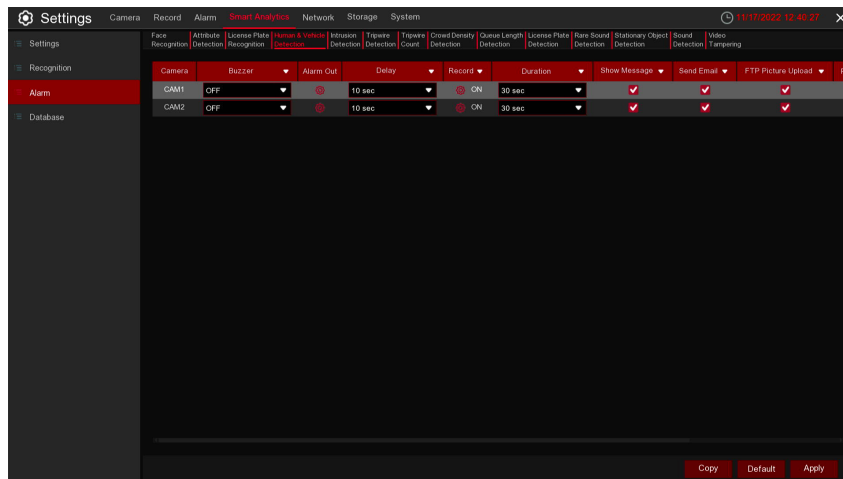
**Alarm Schedule:** Click  to enter schedule interface.





Check the time period that you want to alarm, Click Apply to save. Click Copy to copy the current channel parameters to other channels.

#### 5.4.3.4 PD & VD (Human & Vehicle Detection)




Configure the pedestrian and vehicle alarm function

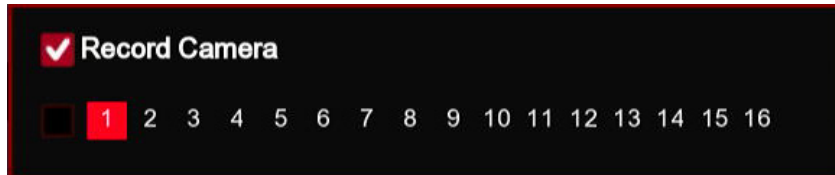
**Camera:** Camera name

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a pedestrian and vehicle alarm.

**Alarm out:** Check the external alarm device when the pedestrian and vehicle alarm is triggered.

**Delay:** Set the duration of triggering the external alert devices (10s, 20s, 40s, and 1Min).

**Record:** Click  icon to set channels that pedestrian and vehicle alarms.



**Duration:** set the duration of continuous NVR/DVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show icon when pedestrian and vehicle alarms are detected.

**Send Email:** DVR send an automatic email when pedestrian and vehicle alarms are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

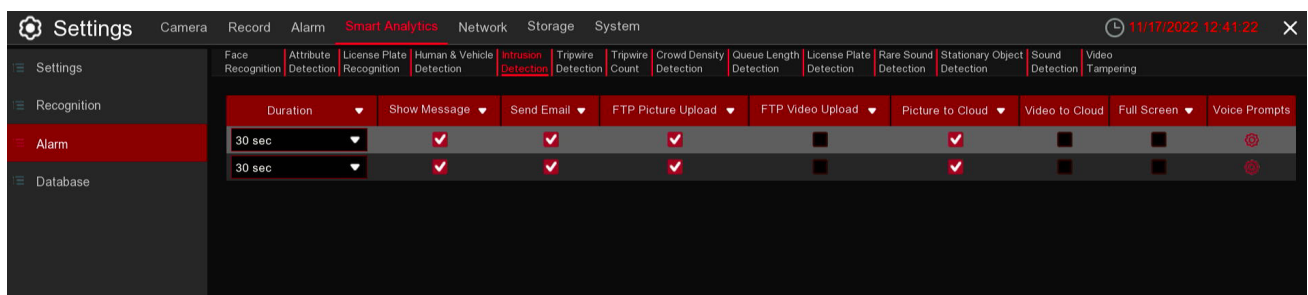
**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

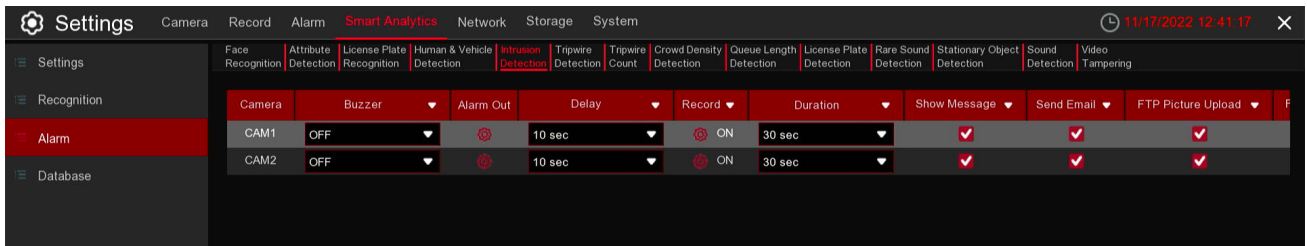
**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this feature is enabled and the pedestrian and vehicle alarms are detected in the channel, you will see the channel in full-screen mode.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts

5.4.3.5 ID (Intrusion Detection)





### Configure the perimeter intrusion alarm function

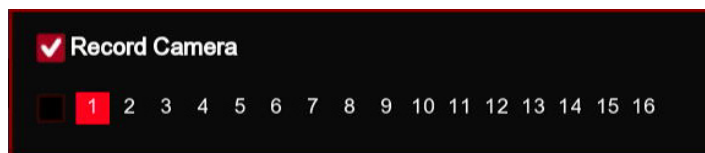
**Camera:** Camera name

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a perimeter intrusion alarm.

**Alarm out:** Check the external alarm device when perimeter intrusion alarm is triggered.

**Delay:** Set the duration of triggering the external alert devices (10s, 20s, 40s, and 1 Min).

**Record:** Click icon to set channels that pedestrian and vehicle alarms.



**Duration:** set the duration of continuous NVR/DVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show icon when perimeter intrusion alarm are detected.

**Send Email:** DVR send an automatic email when perimeter intrusion alarm are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

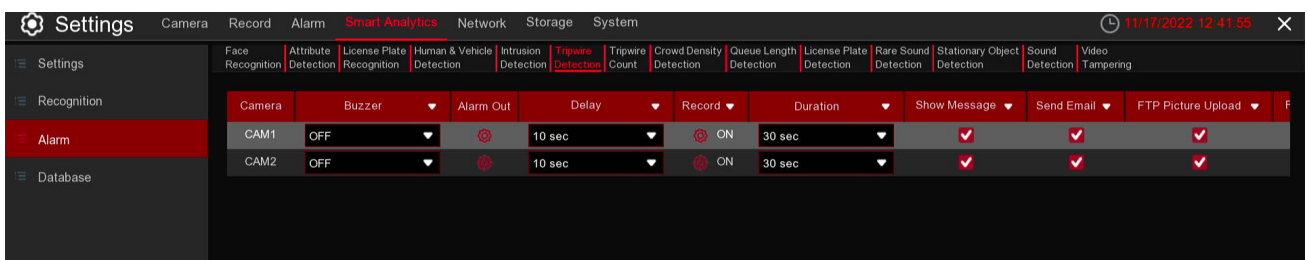
**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this feature is enabled and the perimeter intrusion alarm are detected in the channel, you will see the channel in full-screen mode.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts

#### 5.4.3.6 Tripwire Detection




Configure the Tripwire detection alarm function.

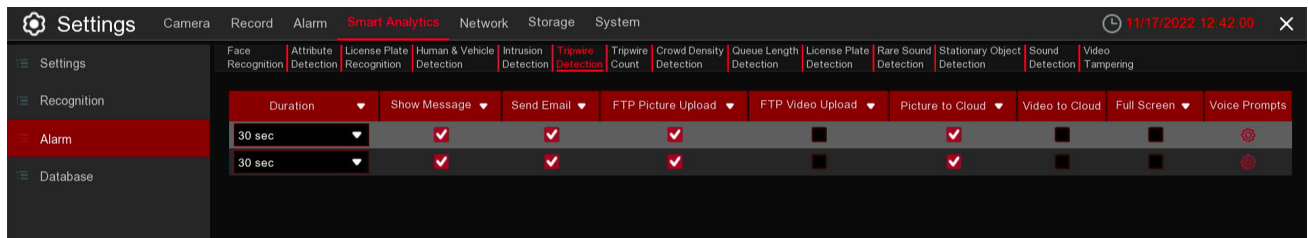
**Camera:** Camera name

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a Line Cross detection alarm.

**Alarm out:** Check the external alarm device when Line cross alarm is triggered.

**Delay:** Set the duration of triggering the external alert devices (10s, 20s, 40s, and 1 Min).

**Record:** Click  icon to set channels that pedestrian and vehicle alarms.



**Duration:** set the duration of continuous DVR/NVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show  icon when LCD alarm are detected.

**Send Email:** NVR send an automatic email when LCD alarm are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

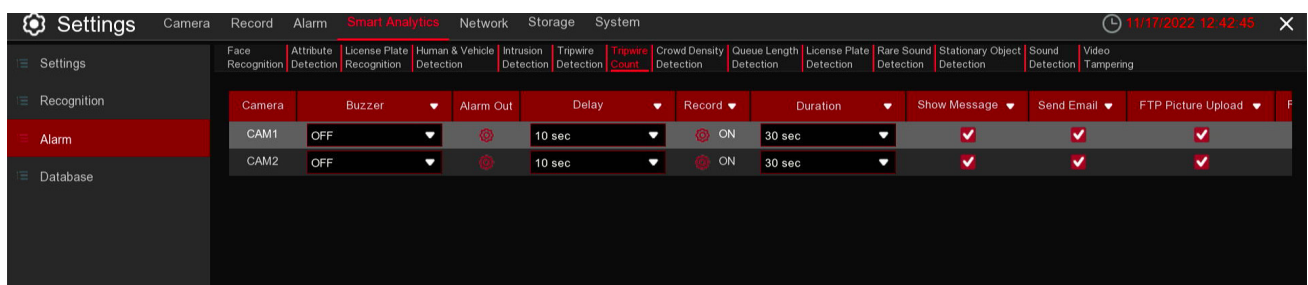
**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

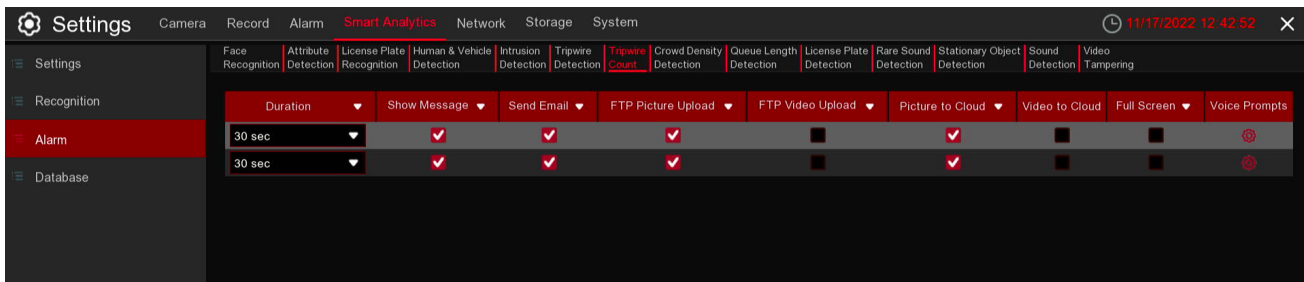
**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this feature is enabled and the LCD alarm are detected in the channel, you will see the channel in full-screen mode.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts

### 5.4.3.7 Tripwire Count






Configure Cross-Counting function in this interface.

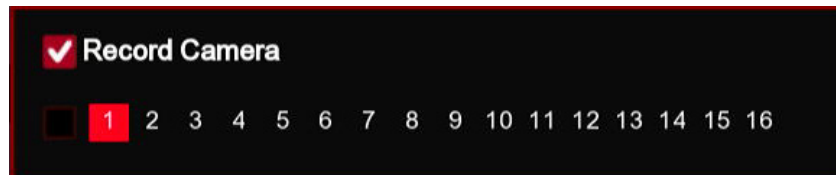
**Camera:** Camera name

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a Cross-Counting alarm.

**Alarm out:** Check the external alarm device when Cross-Counting is triggered.

**Delay:** Set the duration of triggering the external alert devices (10s, 20s, 40s, and 1Min).

**Record:** Click  icon to set channels that pedestrian and vehicle alarms.



**Duration:** set the duration of continuous DVR/NVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show icon when CC alarm are detected.

**Send Email:** DVR/NVR send an automatic email when CC alarm are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

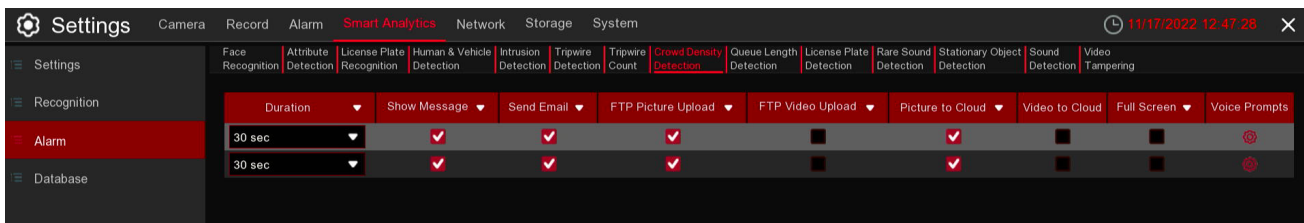
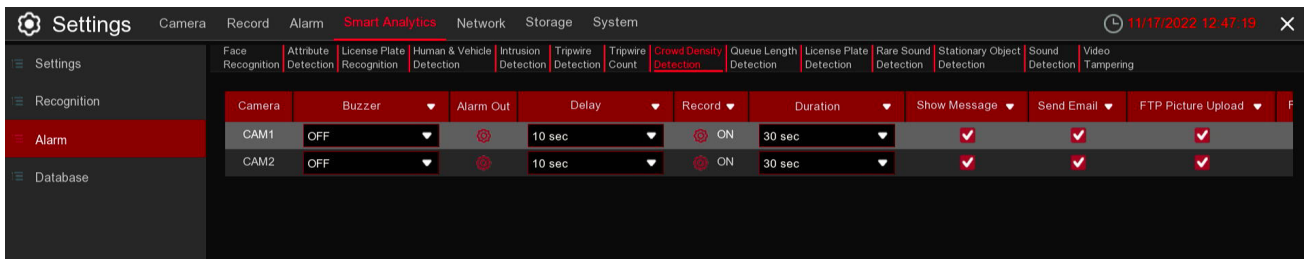
**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this feature is enabled and the CC alarm are detected in the channel, you will see the channel in full-screen mode.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts

## 5.4.3.8 CD (Crowd Density Detection)




Configure Crowd Density Detection in this interface.

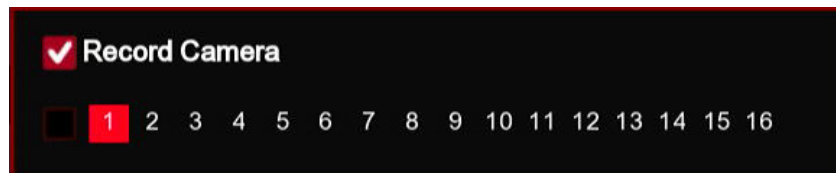
**Camera:** Camera name

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a Crowd Density alarm.

**Alarm out:** Check the external alarm device when Crowd Density alarm is triggered.

**Delay:** Set the duration of triggering the external alert devices (10s, 20s, 40s, and 1Min).

**Record:** Click  icon to set channels that pedestrian and vehicle alarms.



**Duration:** set the duration of continuous DVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show  icon when CD alarm are detected.

**Send Email:** NVR/DVR send an automatic email when CD alarm are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

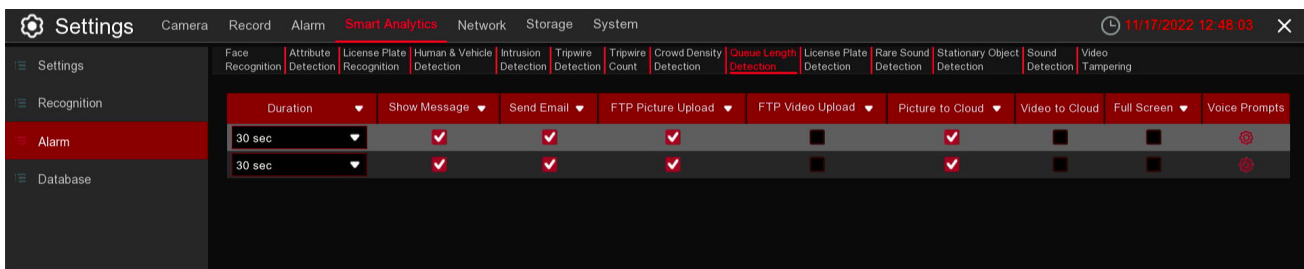
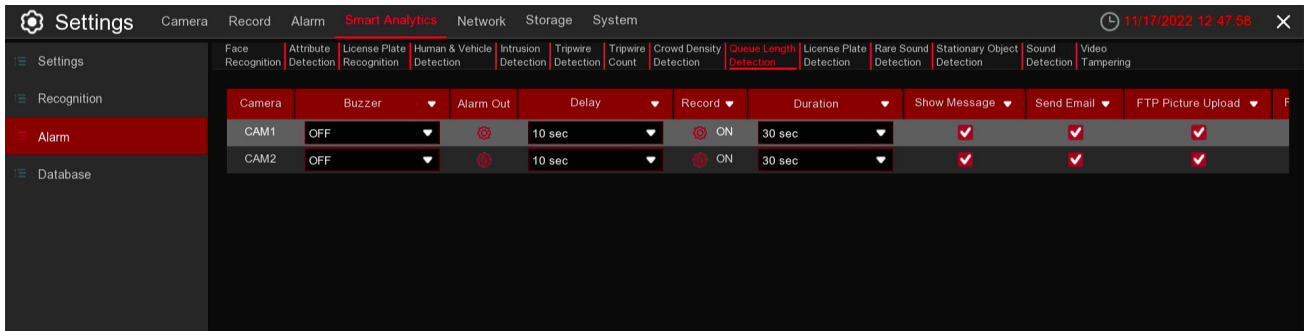
**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this feature is enabled and the CD alarm are detected in the channel, you will see the channel in full-screen mode.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts

## 5.4.3.9 QD (Queue Length Detection)



Configure Queue Length detection in this interface.

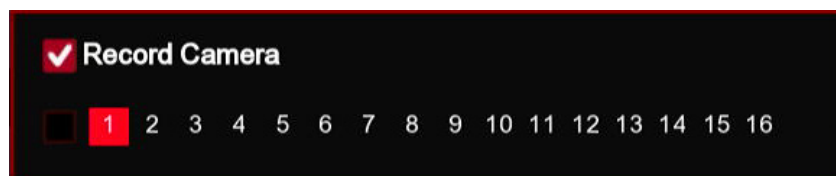
**Camera:** Camera name

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a Queue Length alarm.

**Alarm out:** Check the external alarm device when Queue Length alarm is triggered.

**Delay:** Set the duration of triggering the external alert devices (10s, 20s, 40s, and 1Min).

**Record:** Click  icon to set channels that pedestrian and vehicle alarms.



**Duration:** set the duration of continuous DVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show icon when QD alarm are detected.

**Send Email:** NVR/DVR send an automatic email when QD alarm are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

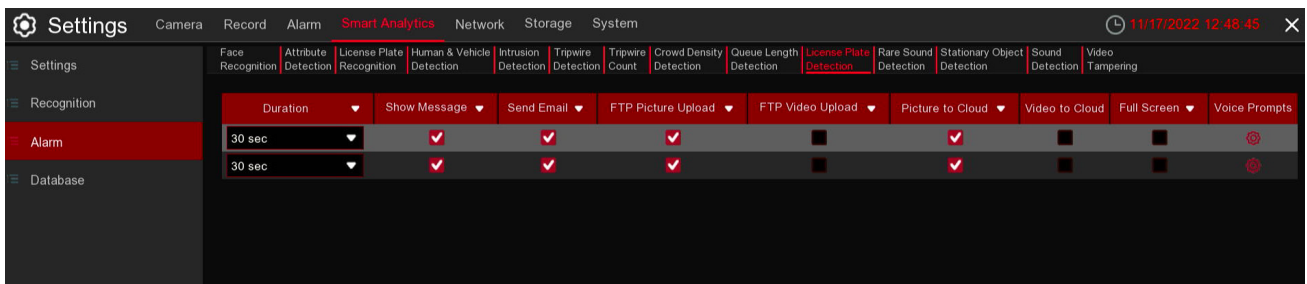
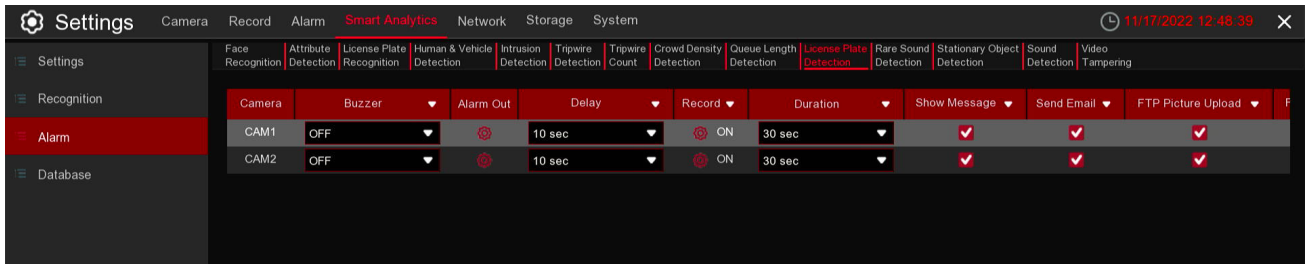
**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this feature is enabled and the QD alarm are detected in the channel, you will see the channel in full-screen mode.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts



## 5.4.3.10 LPD (License Plate Detection)




Configure the License Plate detection alarm function.

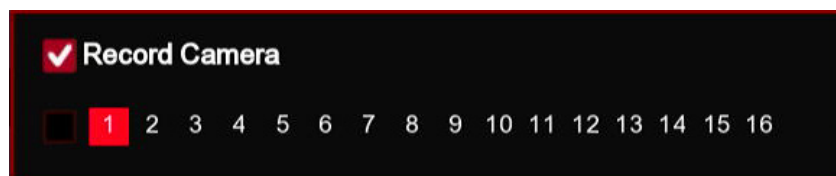
**Camera:** Camera name

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a License plate detection.

**Alarm out:** Check the external alarm device when License plate detection is triggered.

**Delay:** Set the duration of triggering the external alert devices (10s, 20s, 40s, and 1Min).

**Record:** Click  icon to set channels that License plate detection alarms.



**Duration:** set the duration of continuous DVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show icon when LPD alarm are detected.

**Send Email:** NVR/DVR send an automatic email when LPD alarm are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

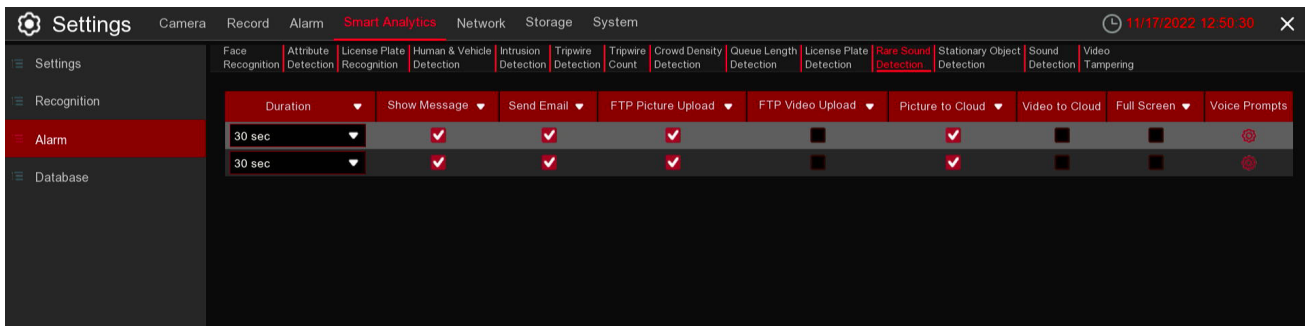
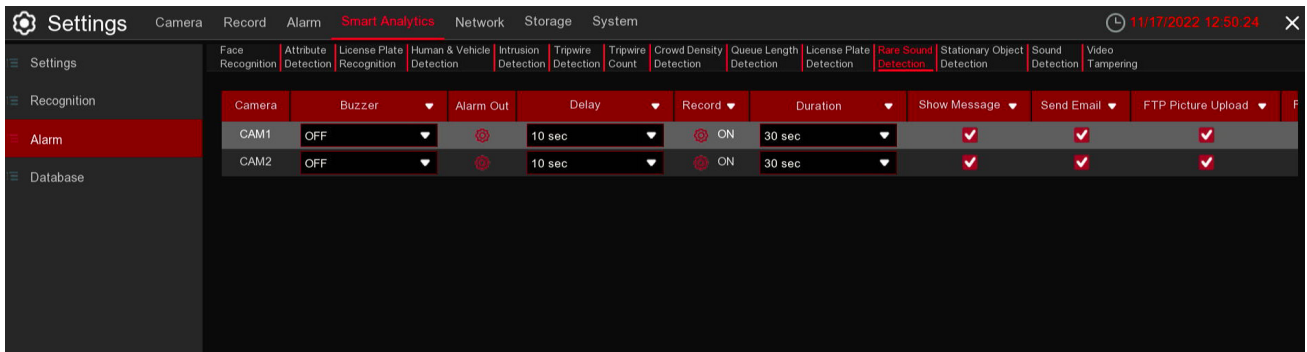
**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this feature is enabled and the LPD alarm are detected in the channel, you will see the channel in full-screen mode.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts.

## 5.4.3.11 RSD (Rare Sound Detection)




Configure the Rare Sound Detection in this interface.

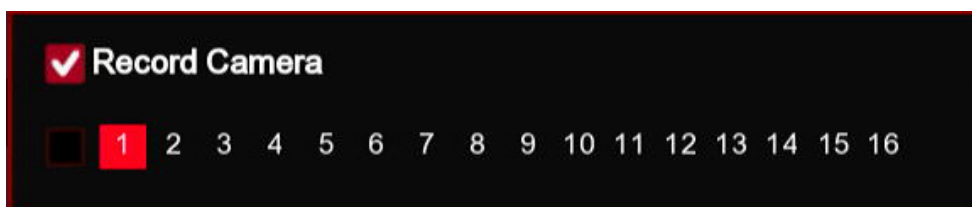
**Camera:** Camera name

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a Rare Sound Detection.

**Alarm out:** Check the external alarm device when Rare Sound Detection is triggered.

**Delay:** Set the duration of triggering the external alert devices (10s, 20s, 40s, and 1Min).

**Record:** Click  to set channels that Rare Sound Detection alarms.



**Duration:** set the duration of continuous DVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show icon when RSD alarm are detected.

**Send Email:** NVR/DVR send an automatic email when RSD alarm are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

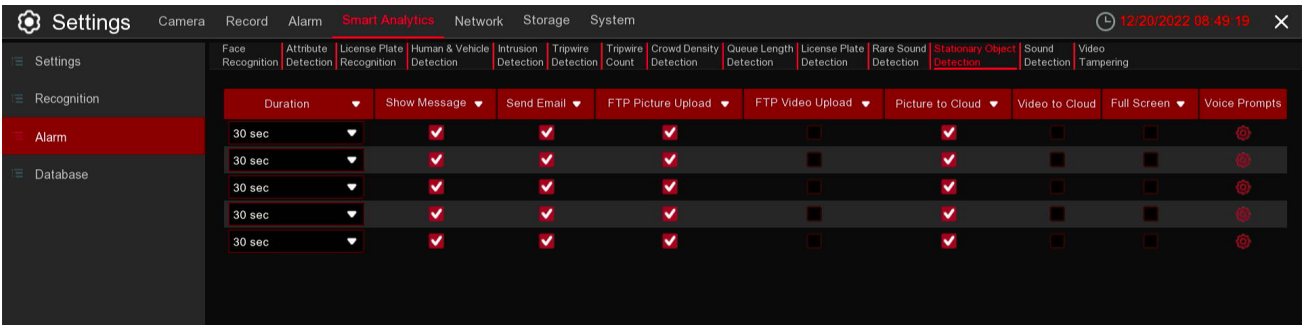
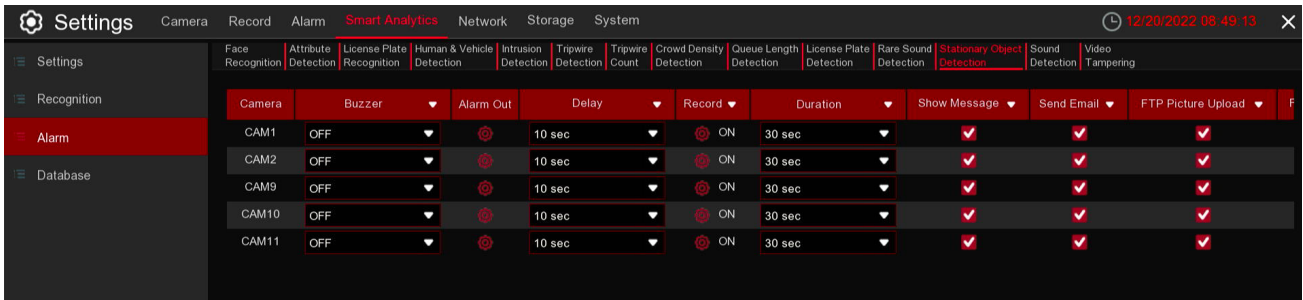
**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

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

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts

### 5.4.3.12 SOD (Stationary Object Detection)



Configure Stationary Object Detection in this interface.

**Camera:** Camera name

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a Queue Length alarm.

**Alarm out:** Check the external alarm device when Queue Length alarm is triggered.

**Delay:** Set the duration of triggering the external alert devices (10s, 20s, 40s, and 1Min).

**Record:** Click  icon to set channels that pedestrian and vehicle alarms.



**Duration:** set the duration of continuous DVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show icon when QD alarm are detected.

**Send Email:** NVR/DVR send an automatic email when QD alarm are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

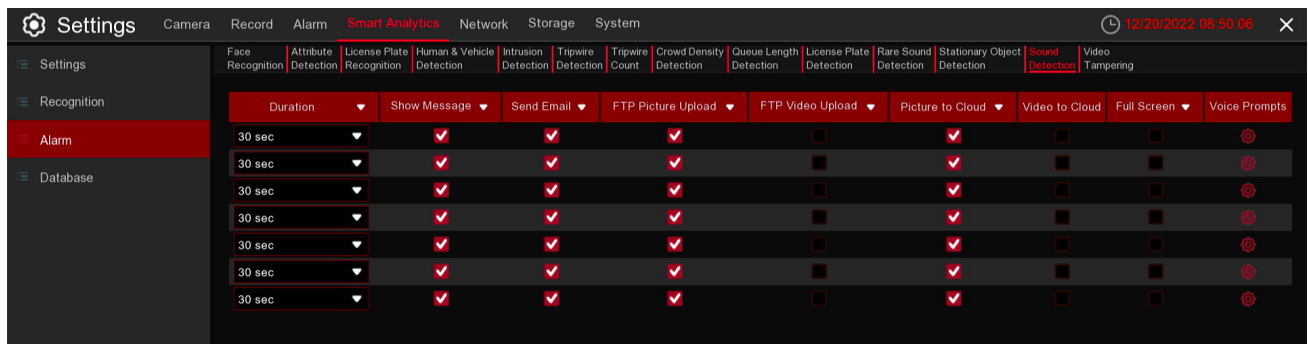
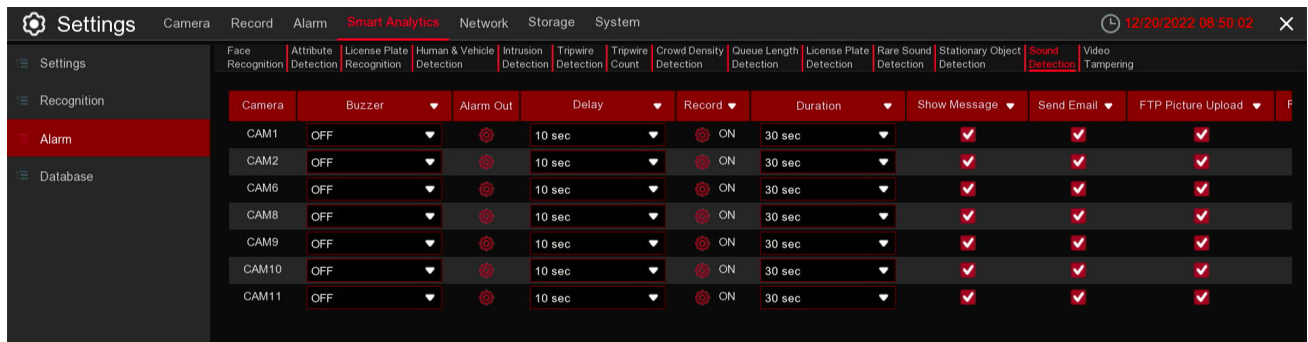
**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this feature is enabled and the QD alarm are detected in the channel, you will see the channel in full-screen mode.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts

### 5.4.3.13 SD (Sound Detection)



Configure Sound Detection in this interface.

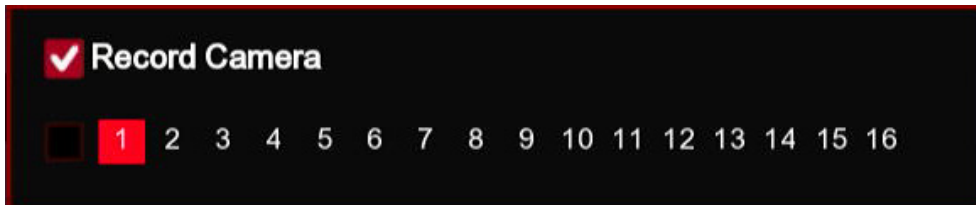
**Camera:** Camera name

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a Queue Length alarm.

**Alarm out:** Check the external alarm device when Queue Length alarm is triggered.

**Delay:** Set the duration of triggering the external alert devices (10s, 20s, 40s, and 1Min).

**Record:** Click  icon to set channels that pedestrian and vehicle alarms.



**Duration:** set the duration of continuous DVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show icon when QD alarm are detected.

**Send Email:** NVR/DVR send an automatic email when QD alarm are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

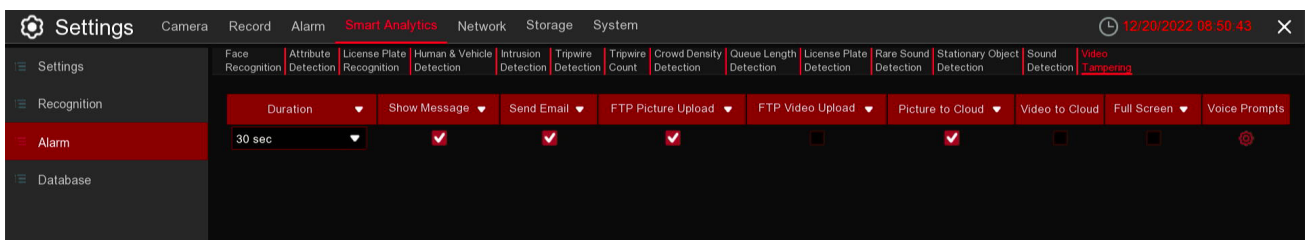
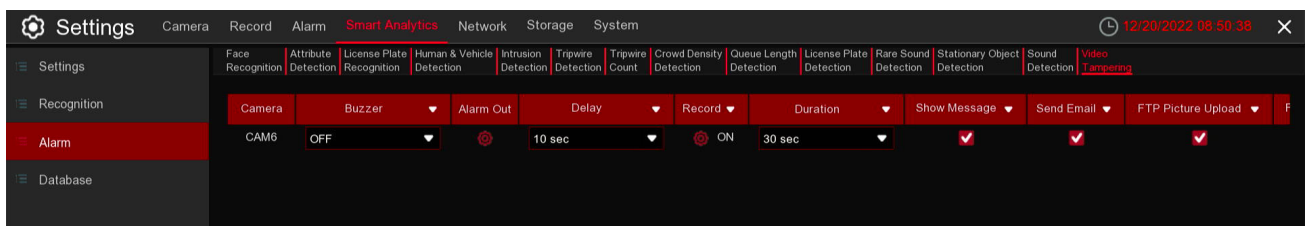
**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this feature is enabled and the QD alarm are detected in the channel, you will see the channel in full-screen mode.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts

### 5.4.3.14 VD (Video Tampering)



Configure Video Tampering detection in this interface.

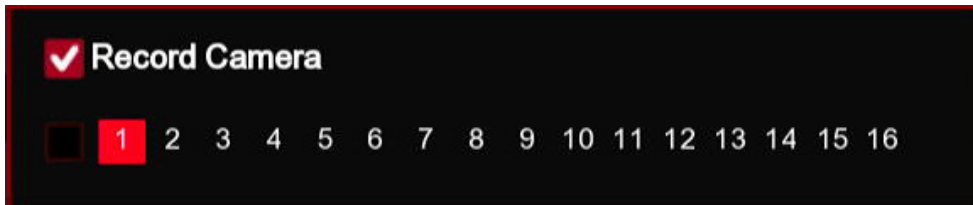
**Camera:** Camera name

**Buzzer:** NVR/DVR internal buzzer. You can set the buzzer duration time (in seconds) for triggering a Queue Length alarm.

**Alarm out:** Check the external alarm device when Queue Length alarm is triggered.

**Delay:** Set the duration of triggering the external alert devices (10s, 20s, 40s, and 1Min).

**Record:** Click  icon to set channels that pedestrian and vehicle alarms.



**Duration:** set the duration of continuous DVR recording after the event occurs. The suggested recording time is 30 seconds, but can be set to up to 5 minutes.

**Show Message:** Select this box to show icon when QD alarm are detected.

**Send Email:** NVR/DVR send an automatic email when QD alarm are detected.

**FTP Picture Upload:** To upload alarm images to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**FTP Video Upload:** To upload alarm video to FTP server when an alarm is triggered. To enable FTP, please view 5.4.4 FTP.

**Picture to Cloud:** To upload alarm images to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Video to Cloud:** To upload alarm video to Cloud server when an alarm is triggered. To enable Cloud, please view 5.5.2 Cloud.

**Full Screen:** If this feature is enabled and the QD alarm are detected in the channel, you will see the channel in full-screen mode.

**Voice Prompts:** Voice prompt, when the alarm is triggered, the audio file is imported by the voice prompt (the IPC needs to support the voice prompt function), Please view in 5.3.7 Voice Prompts

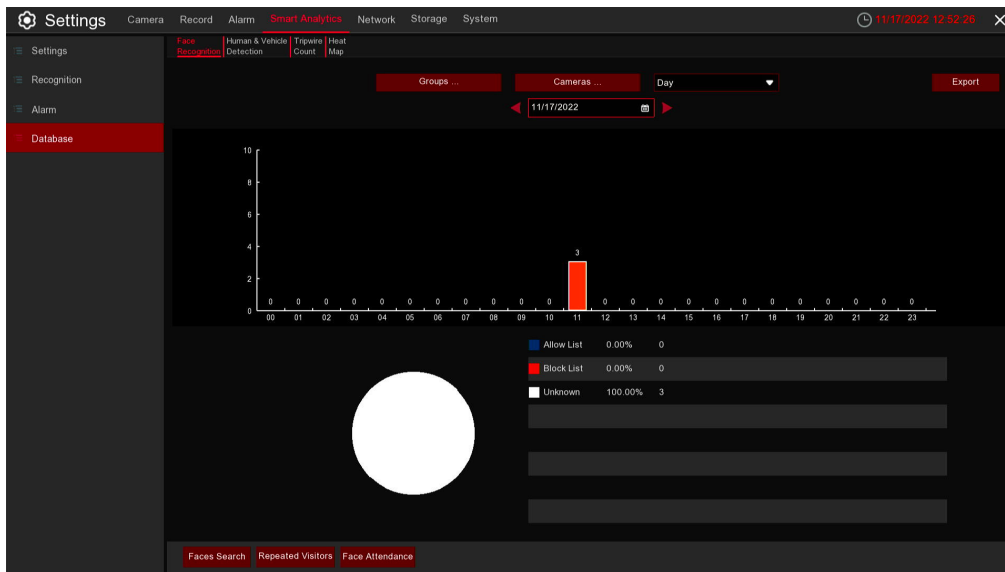
#### 5.4.4 Statistics

You are able to check and manage the statistics of AI functions in this section.

##### 5.4.4.1 FD (Face Recognition)

You can check the face recognition statistics in a certain period.

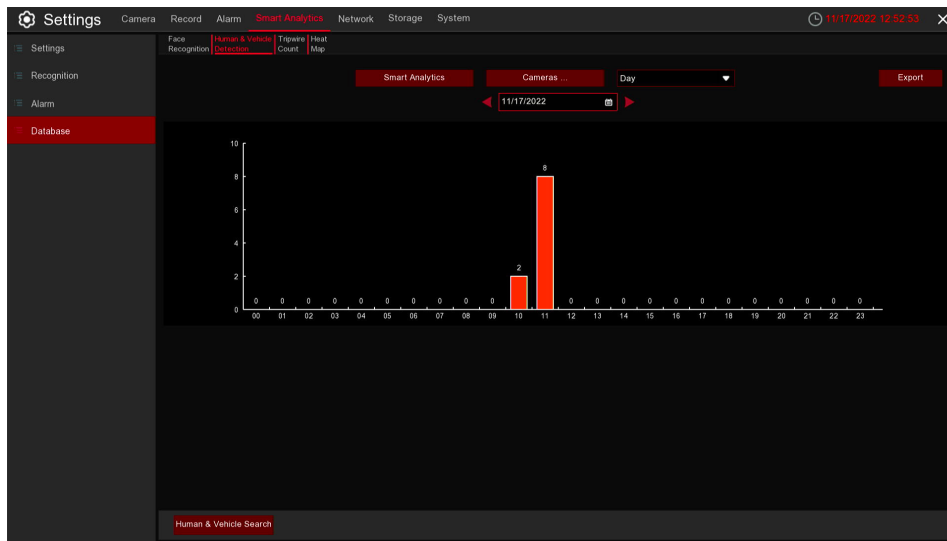




1. Choose the group(s) and camera(s).
2. Select the period from day, week, month, quarter and year.
3. Click the calendar icon to choose the date, and click ◀ or ▶ button to move to last or next period.
4. The statistics will be displayed in pie chart and column chart.
5. Click Export button if you want to export the data to USB memory.

### 5.4.4.2 PD & VD (Human & Vehicle Detection)

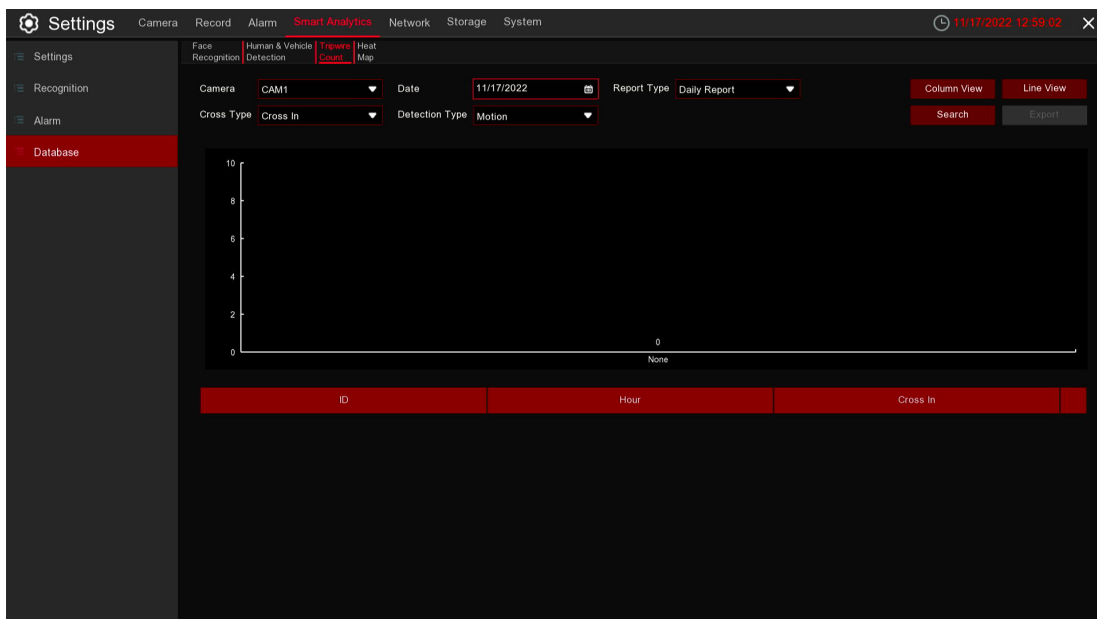
You can check the face recognition statistics in a certain period.



1. Choose the detection type in **Intelligent**.
2. Choose the channel(s).
3. Select the period from day, week, month, quarter and year.
4. Click the calendar icon to choose the date, and click ◀ or ▶ button to move to last or next period. The statistics will be displayed in pie chart and column chart.
5. Click **Export** button if you want to export the data to USB memory.

### 5.4.4.3 TC (Tripwire Counting)

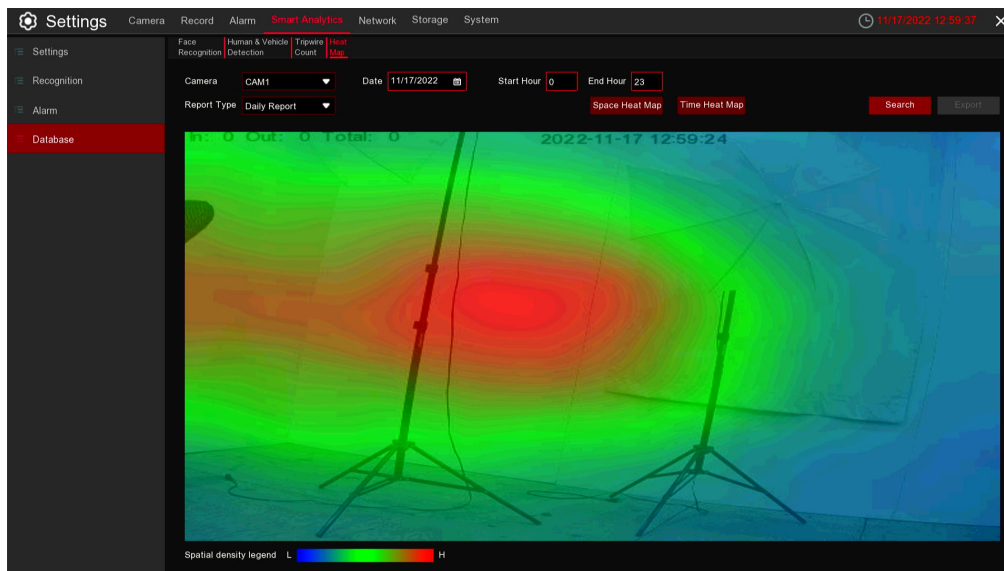
You can check the tripwire counting statistics in a certain period.



1. Choose the camera & date.
2. **Choose the Report Type:** Daily, Weekly, Monthly or Annually.
3. **Choose the Cross Type:** Cross In or Cross Out.
4. **Choose the Detection Type:** Motion, Person or Vehicle.
5. Click Search button, the result will be displayed in either Column Chart or Line Chart.
6. Click Export button if you want to export the data to USB memory.

#### 5.4.4.4 HM (Heat Map Statistics)

You can check the heat map statistics in a certain period.



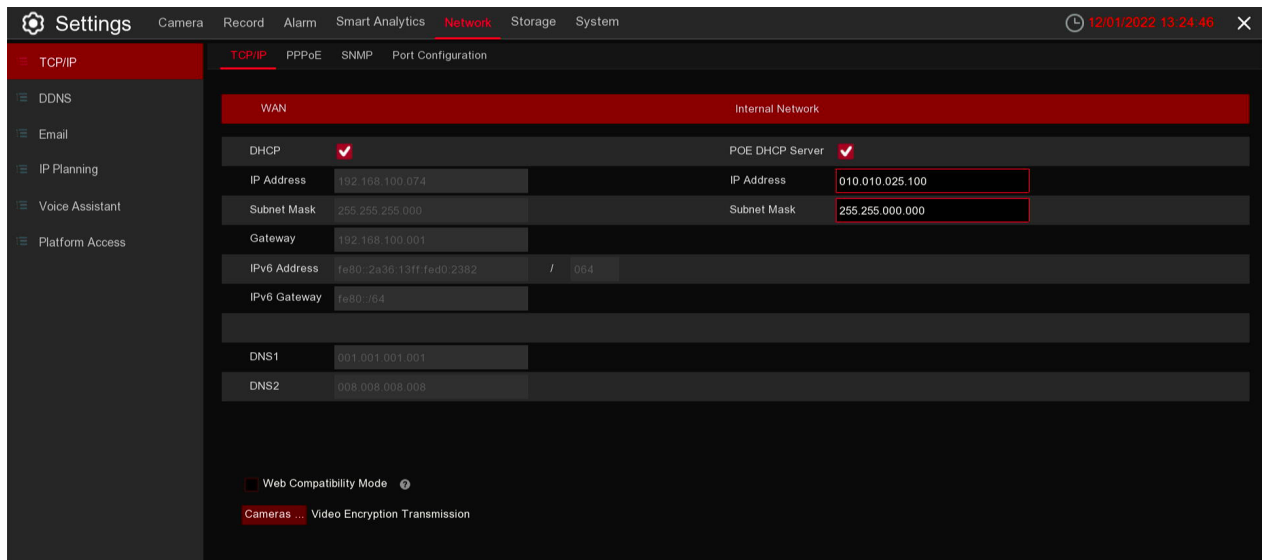
1. Choose the camera & date.
2. **Choose the Report Type:** Daily, Weekly, Monthly or Annually.
3. **Choose the Cross Type:** Cross In or Cross Out.
4. Click Search button, the result will be displayed in either Column Chart or Line Chart.
5. The result can be displayed by Space & Time

## 5.5 Network

This menu allows you to configure network parameters, such as PPPoE and DHCP. The most common types are DHCP. Most probably your network type is DHCP, unless the network is manually addressed. If you need an authentication user name and password to the Internet, then choose PPPoE.

## 5.5.1 General

### 5.5.1.1 TCP/IP



If you connect to a router that allows the use of DHCP, please check the **DHCP** box. The router will automatically assign all the network parameters for your NVR, unless the network manually addresses the parameters below:

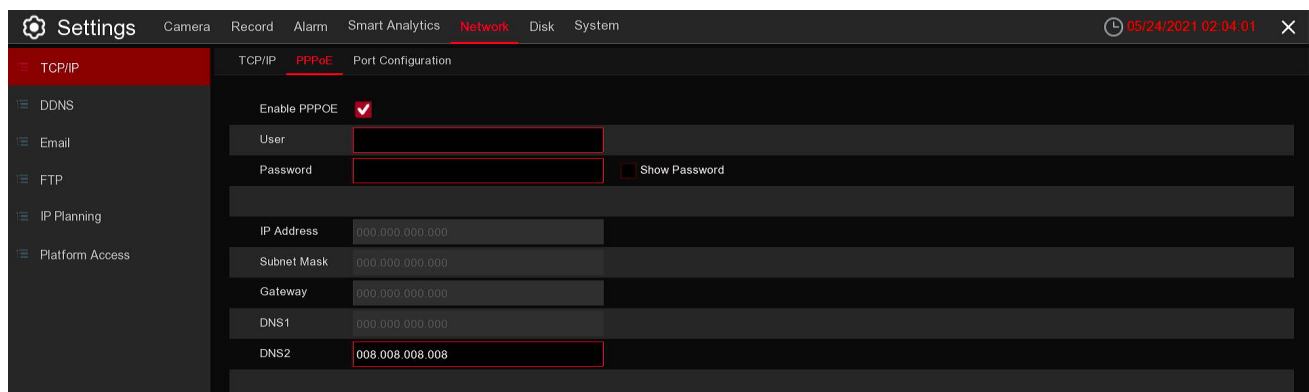
**IP Address:** The IP address identifies the NVR in the network. It consists of four groups of numbers between 0 to 255, separated by periods. For example, "192.168.001.100".

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

**Gateway:** This address allows the NVR to access the Internet. The format of the **Gateway** address is the same as the **IP Address**. For example, "192.168.001.001".

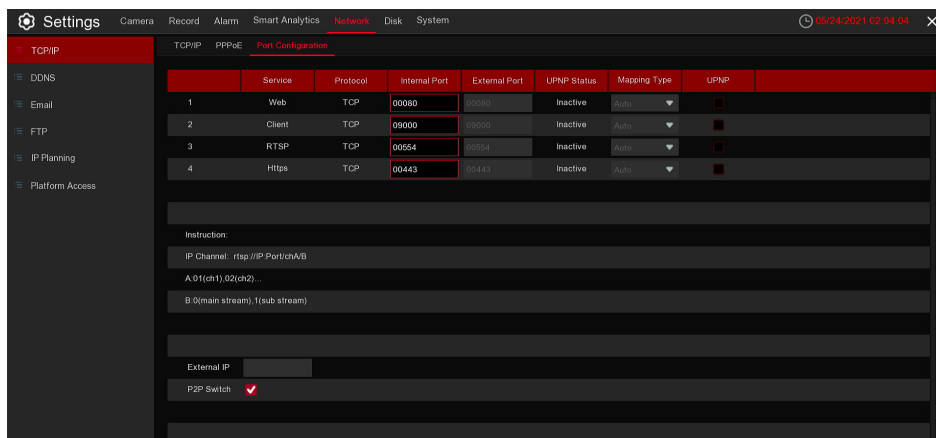
**DNS1/DNS2:** DNS1 is the primary DNS server and DNS2 is a backup DNS server. Just entering the DNS1 server address should be enough.

### 5.5.1.2 PPPoE



This is an advanced protocol that allows the NVR to connect to the network more directly via DSL modem. Check the "Enable PPPoE" box, and then enter the User name and Password of the PPPoE. Click **Apply** to save. The system will reboot to activate the PPPoE setting.

### 5.5.1.3 Port Configuration



**Web Port:** This is the port that you will use to log in remotely to the NVR (e.g. using the Web Client).

If the default port 80 is already taken by other applications, please change it.

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

**RTSP Port:** Default is 554, if the default port 554 is already taken by other applications, please change it.

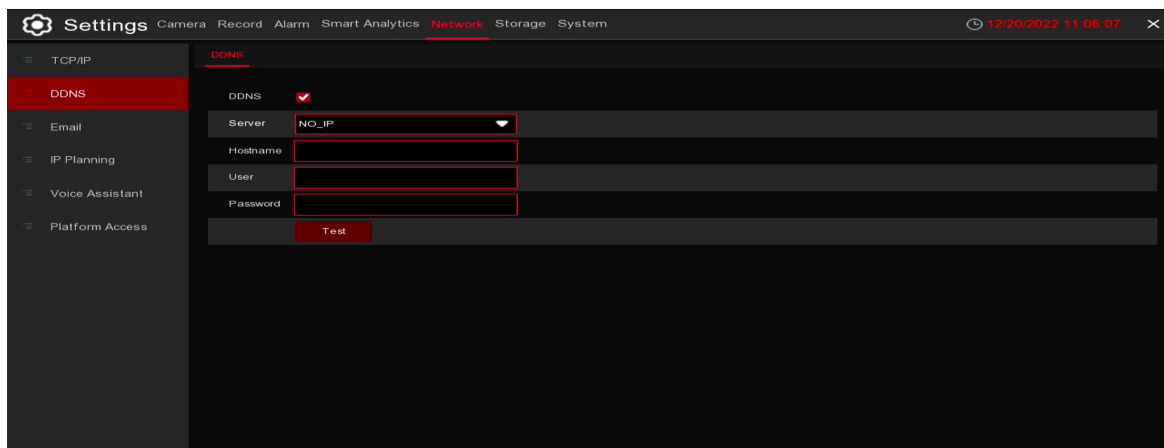
**Https Port:**

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

**Mapping Type:** Setting up manual mode, it could be manually set up **External Port**

### 5.5.2 DDNS

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



**DDNS:** Check to enable DDNS.

**Server:** Select the preferred DDNS server (DDNS\_3322, DYNDNS, NO\_IP, CHANGEIP, DNSEXIT).

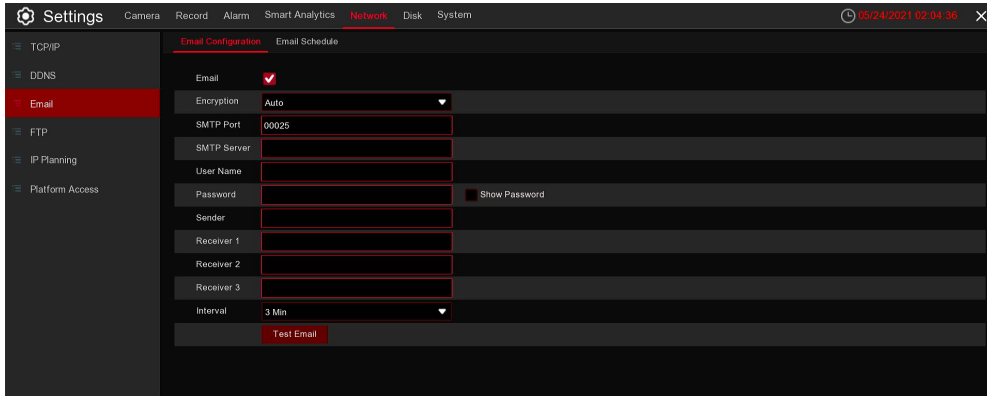
**Domain:** Enter the domain name you created on the DDNS service provider's web page. This will be the address you type in the URL box when you want to connect remotely to the NVR via PC.  
For example: NVR.no-ip.org.

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

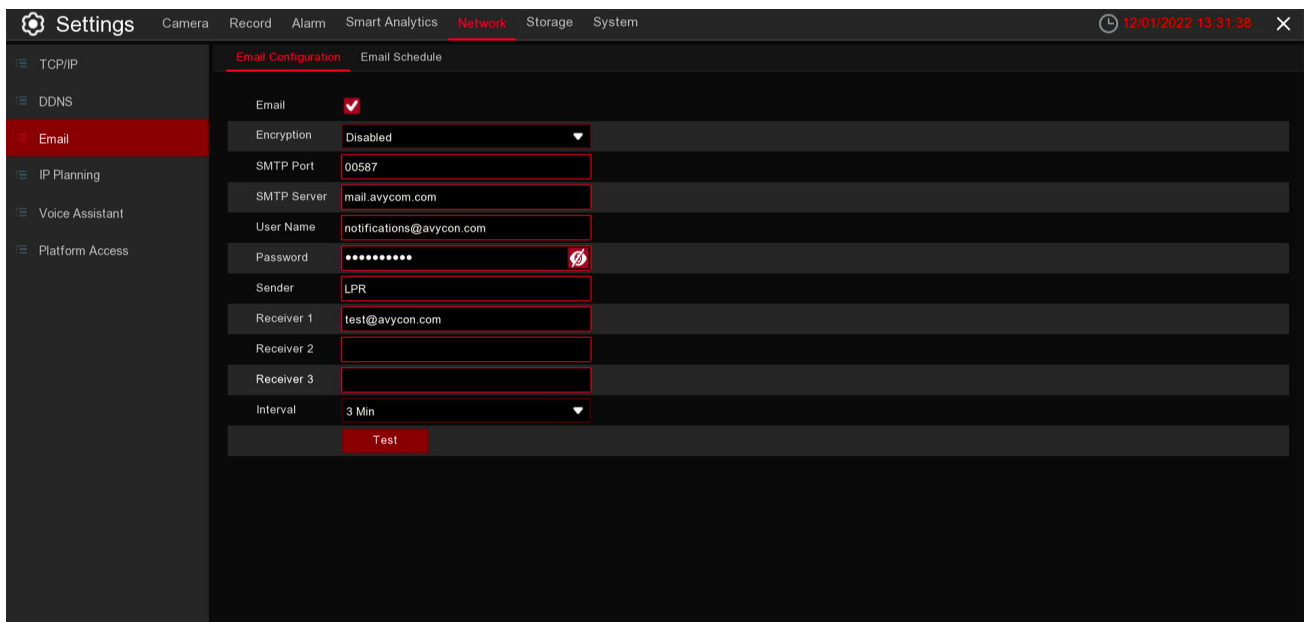
After all parameters are entered, click **Test DDNS** to test the DDNS settings. If the test result is "Network is unreachable or DNS is incorrect", please check whether the network is working, or if the DDNS information is correct.

### 5.5.3 Email

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



#### 5.5.3.1 Email Configuration





**Email:** Check to enable.

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

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

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

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

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

Sender:

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

**Interval:** Configure the length of the time interval between the notification emails from the NVR.

To make sure all settings are correct, click Test Email. The system sends an automated email message to your inbox. If you receive the test email, the configuration parameters are correct.

### 5.5.3.2 Email Schedule

You need to configure the schedule to fully implement the Email notification.



The color codes on email schedule have the following meanings:

**Green:** Slot for Motion detection.

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

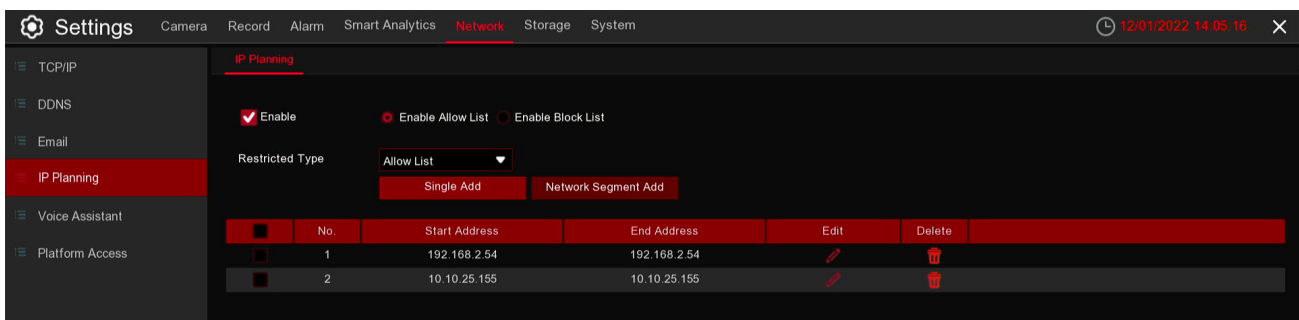
**Red:** Slot for Exception (HDD Full, HDD error, or Video Loss)



**Blue:** Slot for Intelligent Analysis detection.

**Purple:** Slot for PIR -X

### 5.5.4 IP Planning

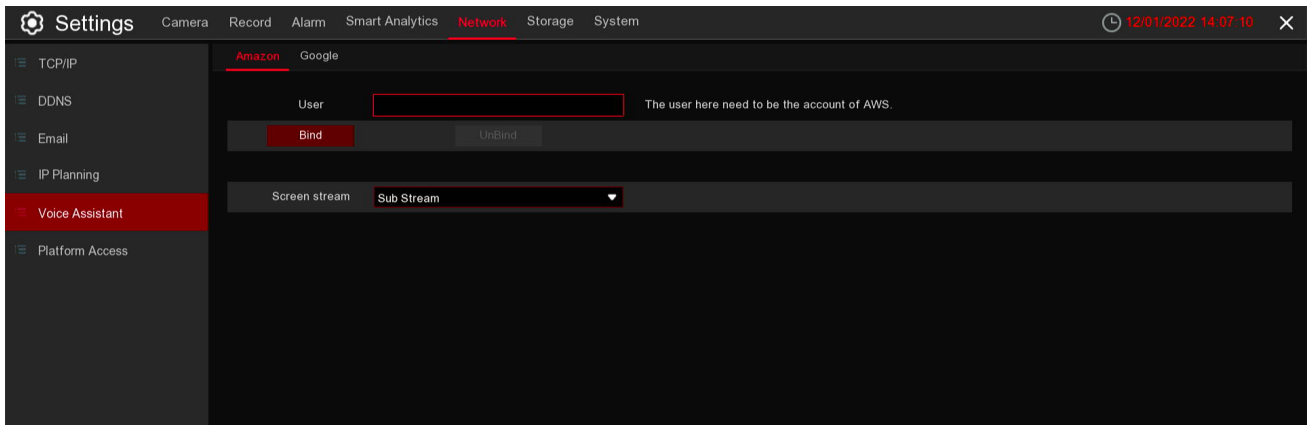
IP planning helps to control the remote login devices by using Allow List and Block List to filter the IP address.



1. If you want to activate this function, check the Enable box.
2. Choose either Enable Allow List or Enable Block List. Allow List will only allow those IP address in the list to visit the NVR. Block List will block those IP address in the list to visit the NVR.
3. Choose one of the Restricted Types you want to set.
4. Set the Start IP address and End IP Address.
5. Click Single Add to add individual IP address.
6. Click Network Segment Add to add the IP range from the start IP address to the end IP address.
7. Click Edit  icon to edit the IP address.
8. Click Delete icon  to delete the IP address. Choose multiple IP address, and click Remove IP to delete multiple IP address at one time.

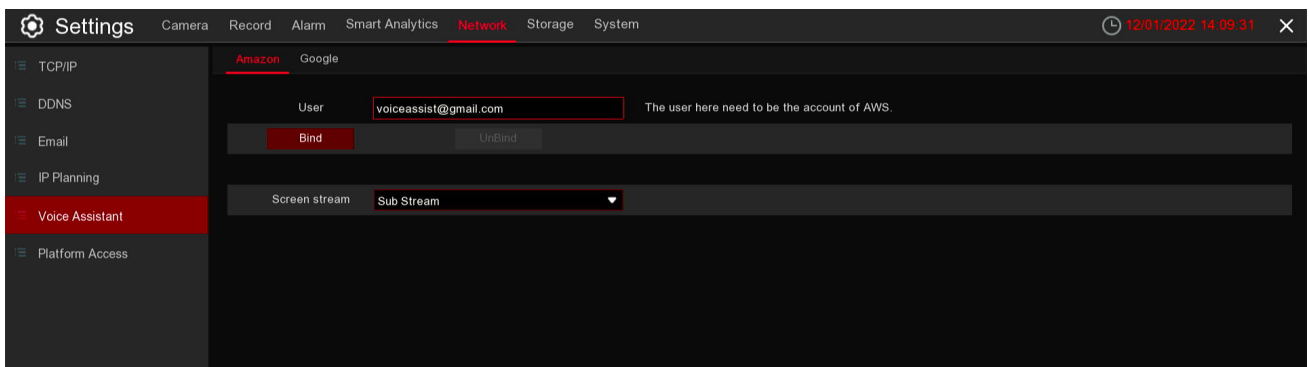
### 5.5.5 Voice Assistant

The voice assistant function allows to connect your NVR to your GoogleCast or Amazon Fire TV Stick, and cast the real-time surveillance images to your TV monitor by voice control.

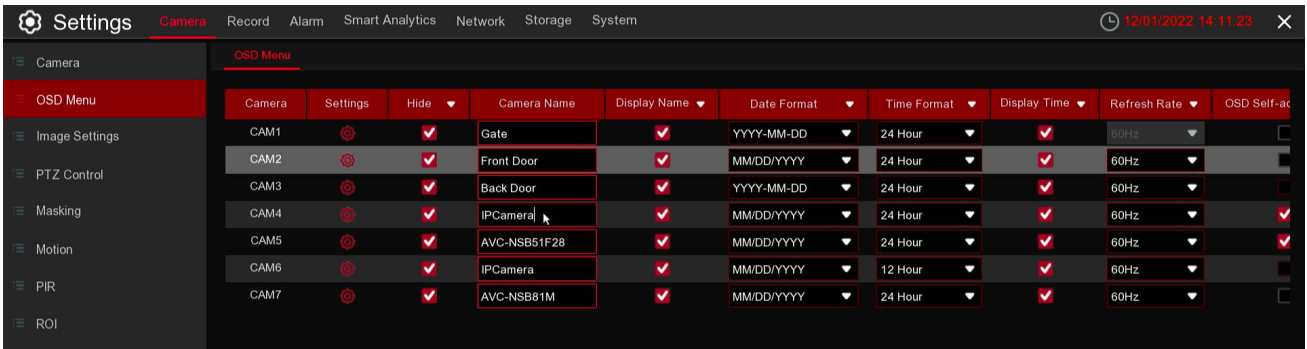


#### 5.5.5.1 Voice Assistant with Amazon Fire TV Stick

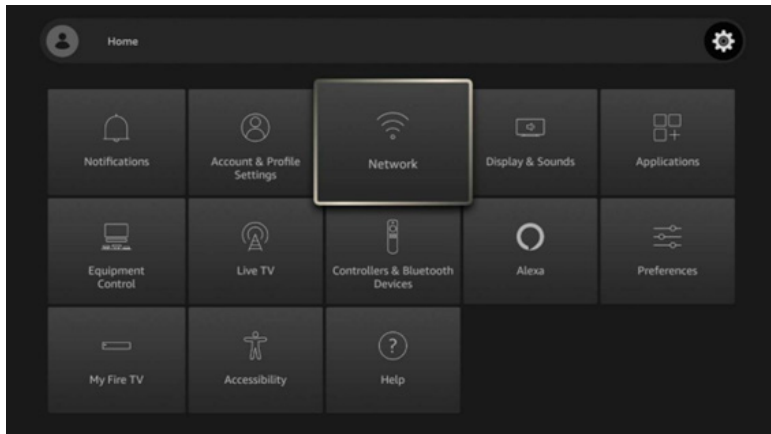
1. Input your Amazon account, and the click Bind button to connect to bind your Amazon account. To choose the video stream you want to cast to your TV monitor.



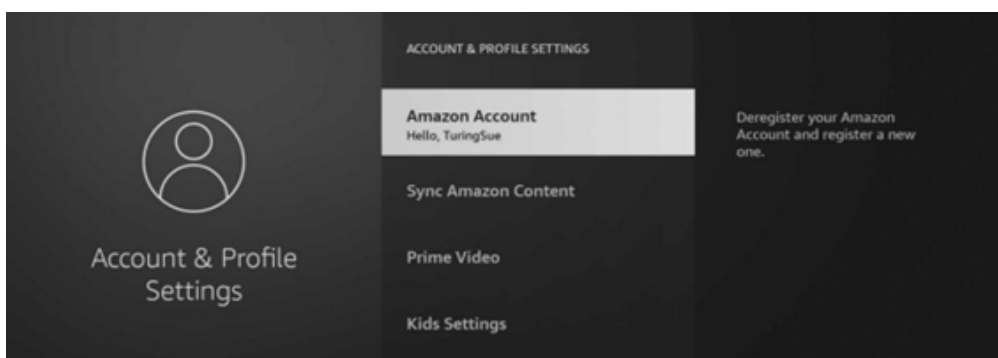
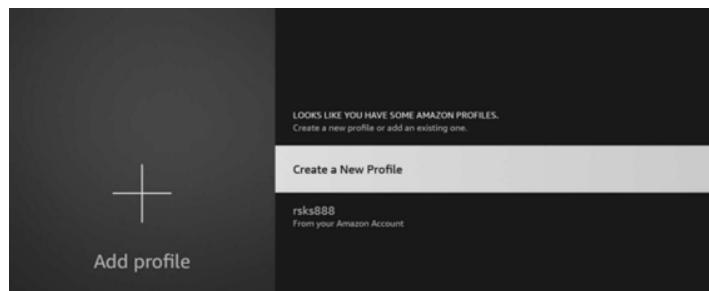
2. Go to Channel – Live menu, and give a Channel Name which is easy to call to the channel(s) you want to cast to your TV monitor.



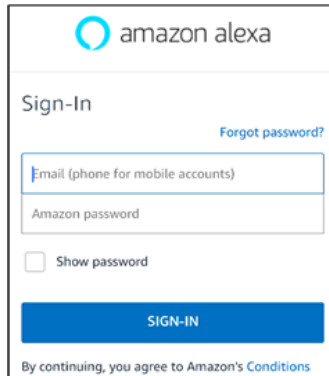
3. Connect the Fire TV Stick to your TV monitor, and power on it. Connect the Fire TV Stick to the Wi-Fi which is in the same LAN with your NVR.



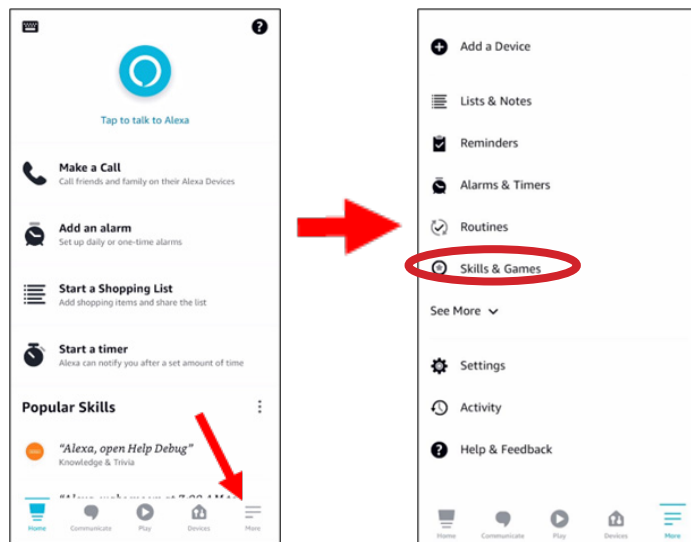
4. To use your existing profile or add a new profile and login your Amazon account which is same as the one you bind to the NVR.



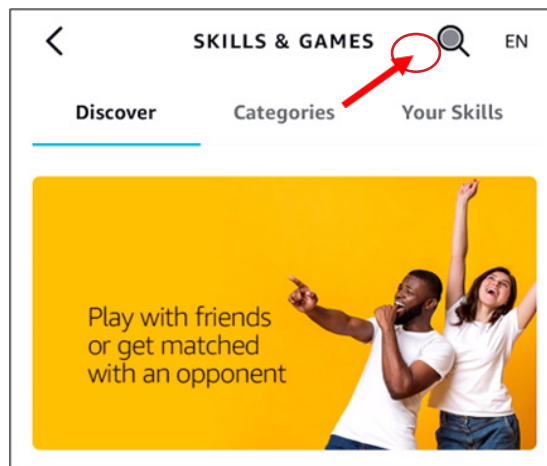
5. Search and install Amazon Alexa to your mobile phone from app store, and then login with the Amazon account which is same as the one you bind to the NVR.



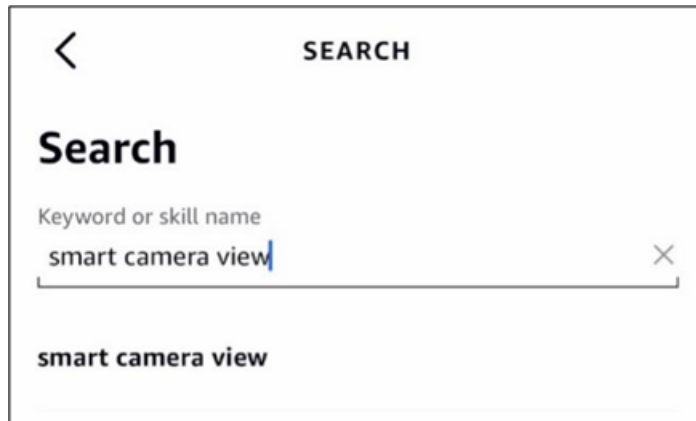
6. Touch "More", and then touch "Skills & Games".



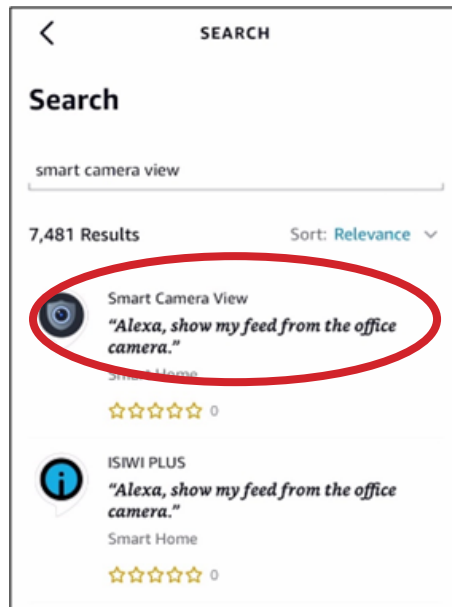
7. Touch the search icon on the right top corner.



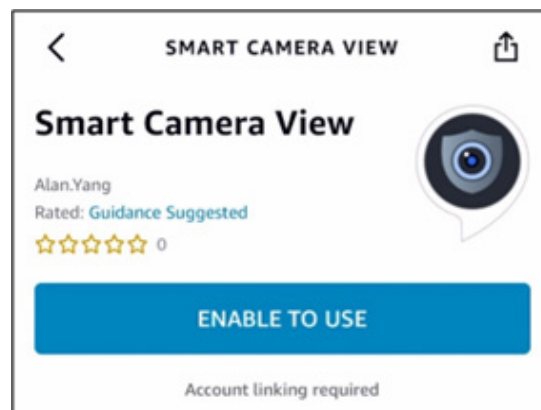
8. Input the keyword: smart camera view, and search.



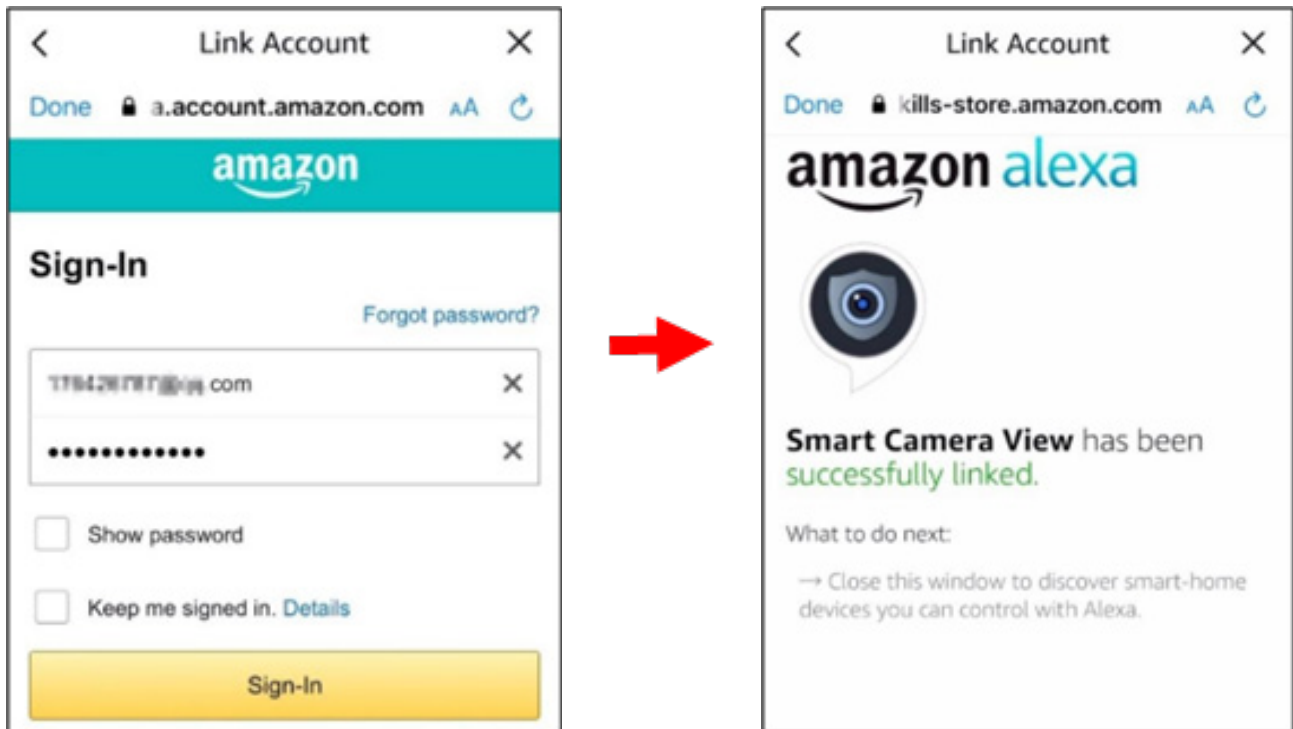
Touch the *"Smart Camera View"* in the search result list.



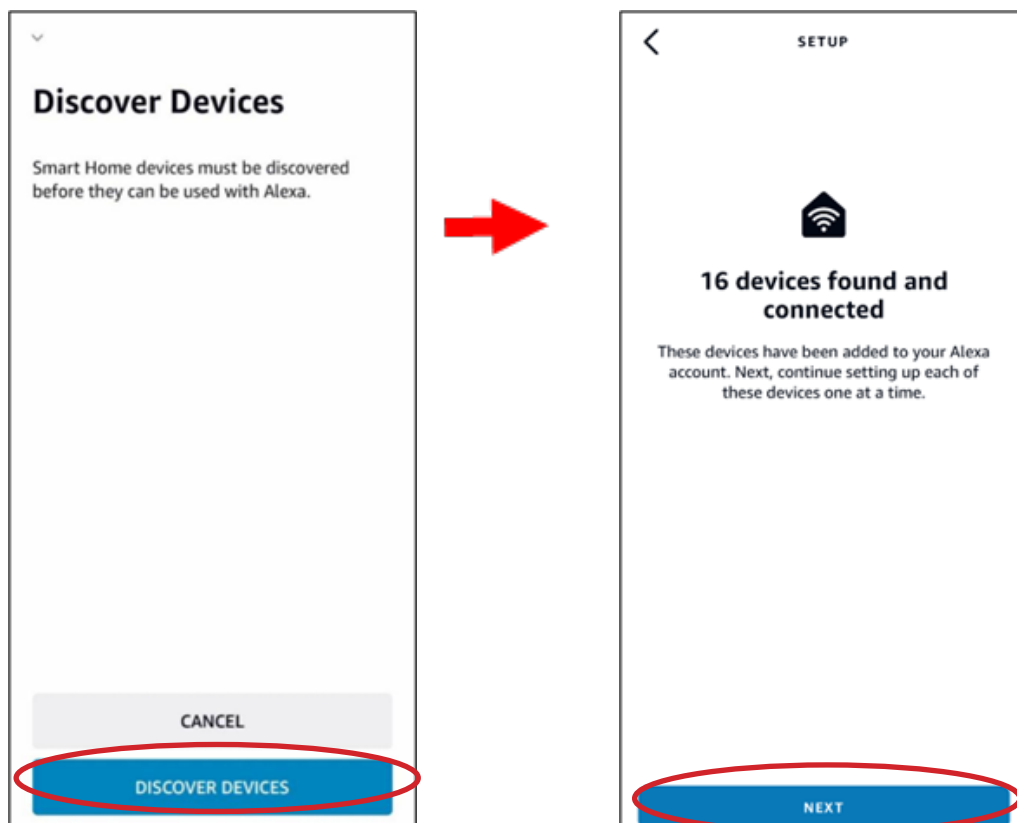
Touch *"ENABLE TO USE"*.



9. You would need to link your Amazon account. Sign in the Amazon account which is same as the one you bind to the NVR. Touch **"Done"** after the skill is successfully linked.

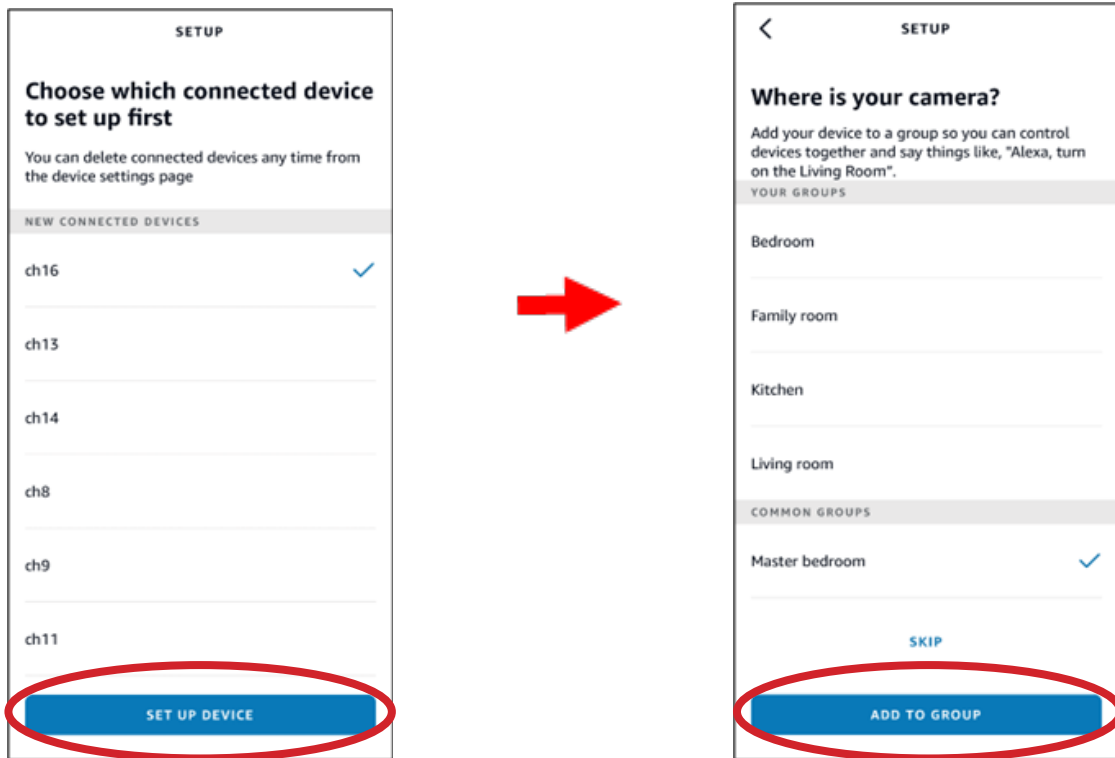


10. Touch **"DISCOVER DEVICES"** and wait a moment for the app to search the cameras. Touch Next when the devices were found and connected.

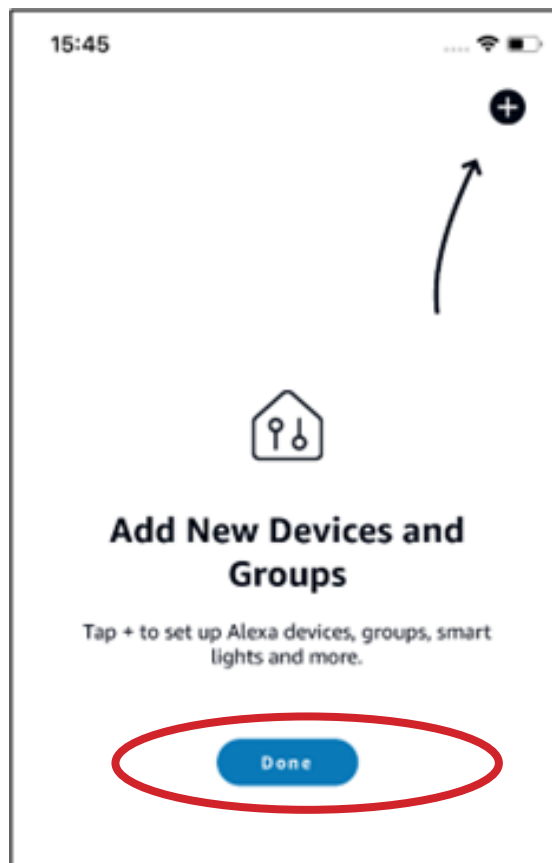




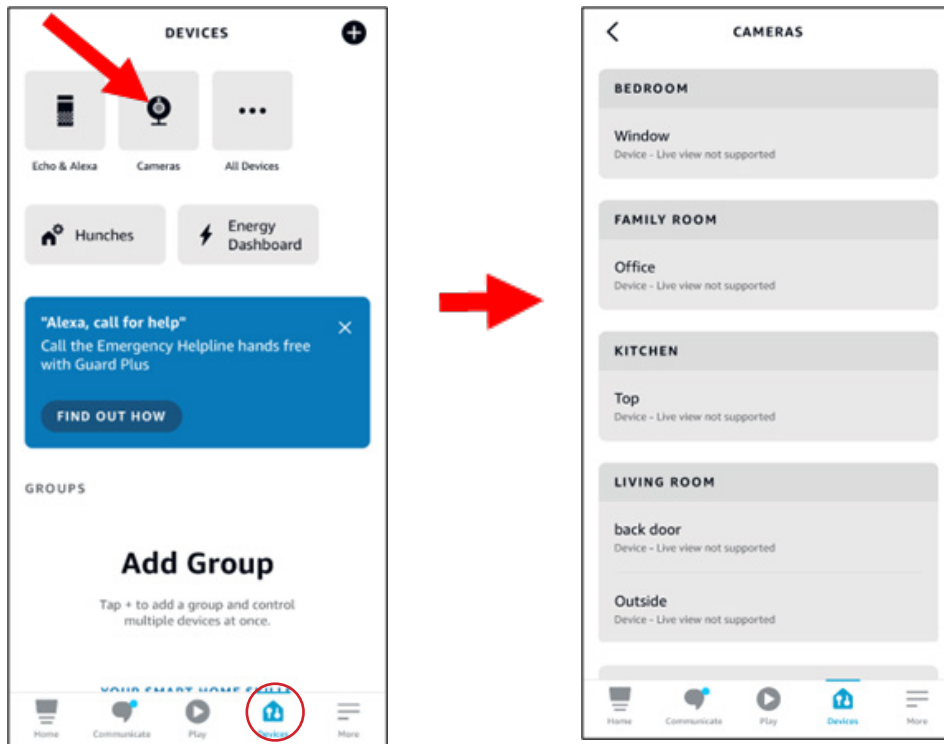
11. Choose one of the devices and then touch "**SET UP DEVICE**". You can add the camera to a group or skip.



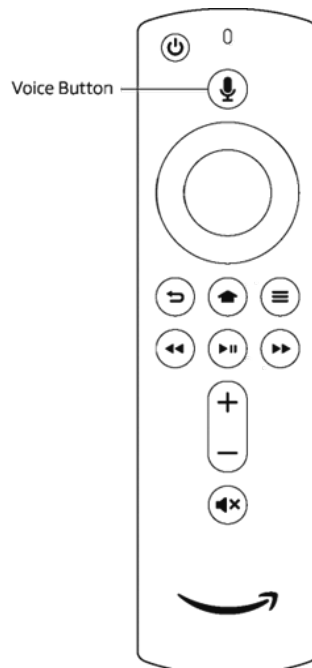
12. Repeat setup 11 to add all cameras and then touch Done to finish.



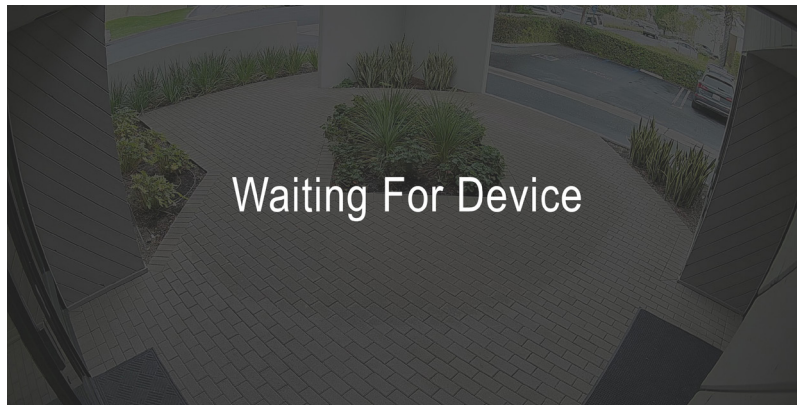
13. All added cameras will be listed in the Devices. Touch the Cameras icon to check all added cameras.



14. Press and hold on the voice button on the remote controller of the fire TV stick, and speak the command clearly. The command could be like: Show the XXX camera / Show XXX. XXX is the camera channel name. For example, if the channel name is "Office", you could speak "Show my office camera".



15. Wait for a while, you will see the real time images from the Office camera in your TV monitor.

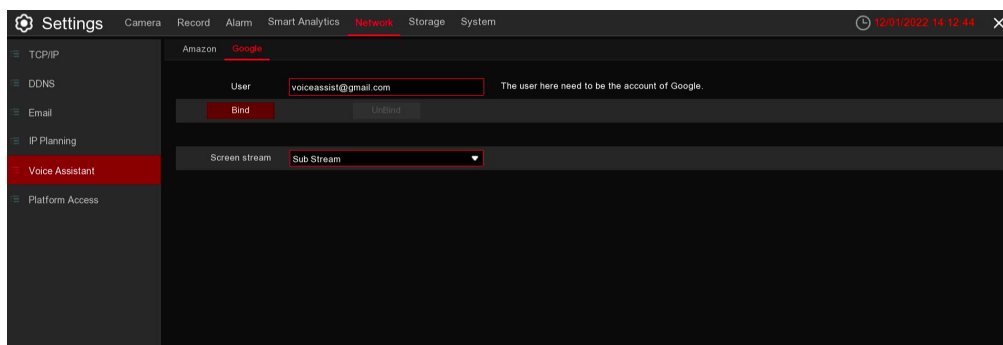


16. If you want to quit the camera live view, speak **"Stop"**.

17. If you have changed the channel name, you would need to discover and add the camera again.

### 5.5.5.2 Voice Assistant with Google Chromecast

1. Input your Google account, and the click Bind button to connect to bind your Google account. To choose the video stream you want to cast to your TV monitor.

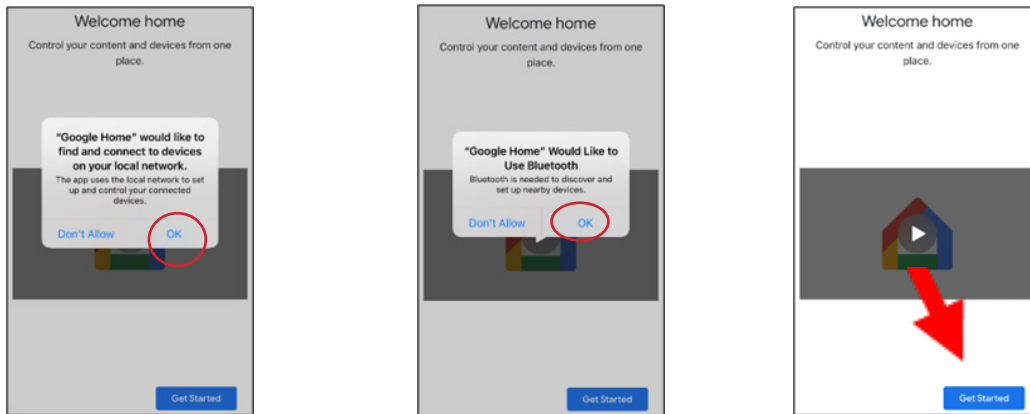


2. Go to Channel – Live menu, and give a Channel Name which is easy to call to the channel(s) you want to cast to your TV monitor.

Camera	Settings	Hide	Camera Name	Display Name	Date Format	Time Format
CAM1		<input type="checkbox"/>	Front Door	<input checked="" type="checkbox"/>	YYYY-MM-DD	24 Hour
CAM2		<input type="checkbox"/>	Office	<input type="checkbox"/>	MM/DD/YYYY	24 Hour
CAM3		<input type="checkbox"/>	Car Gate	<input type="checkbox"/>	YYYY-MM-DD	24 Hour
CAM4		<input type="checkbox"/>	AVC-NCE51F28	<input checked="" type="checkbox"/>	MM/DD/YYYY	24 Hour

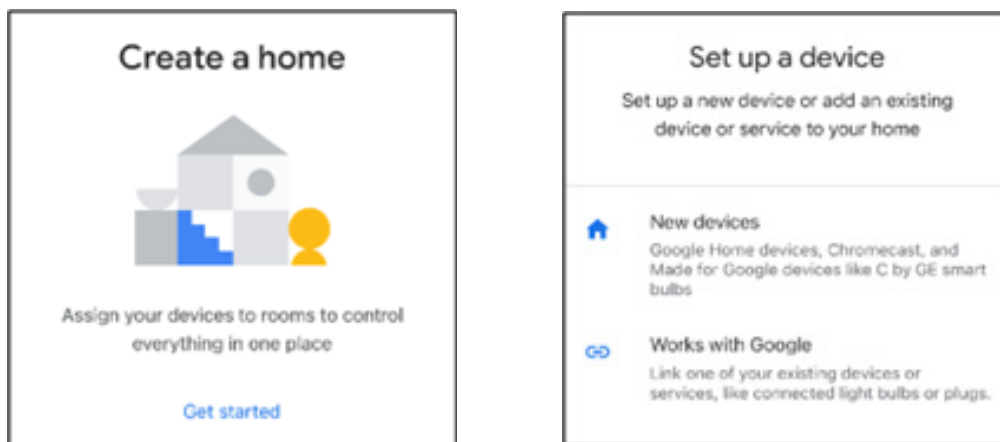
3. Connect the ChromeCast to your TV monitor, and power on it.

4. Search and install Google Home app to your mobile phone from app store. Run the installed Google Home app, touch OK to allow the app to use your local network and Bluetooth and then touch Get Started.

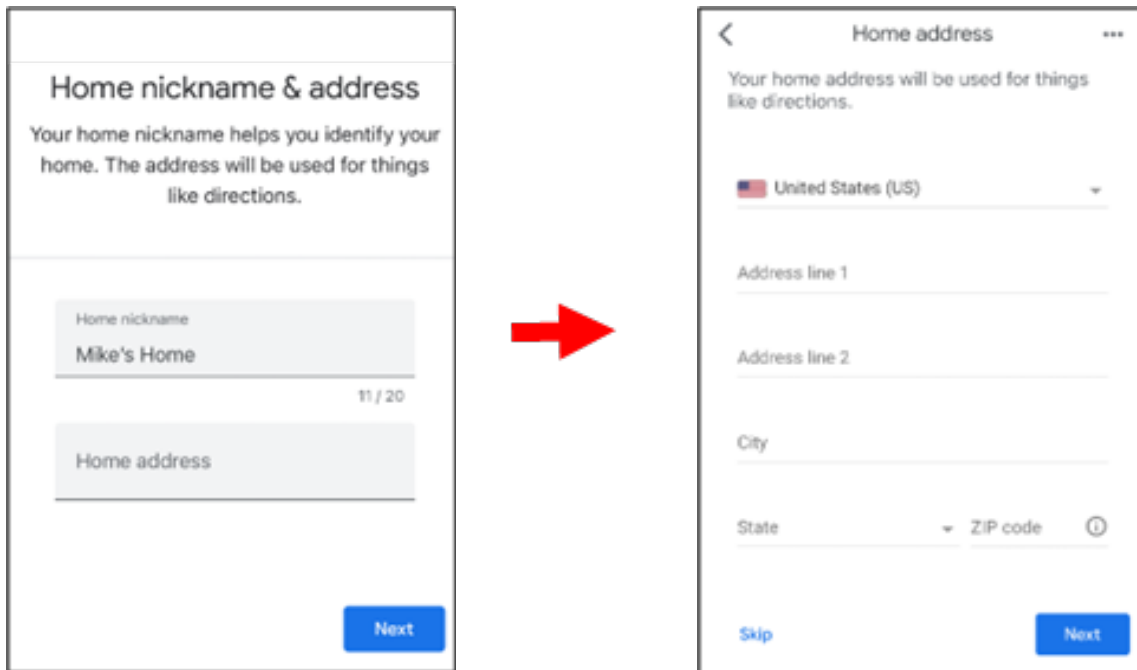


5. To login your Google account which is same as the one you bind to the NVR.

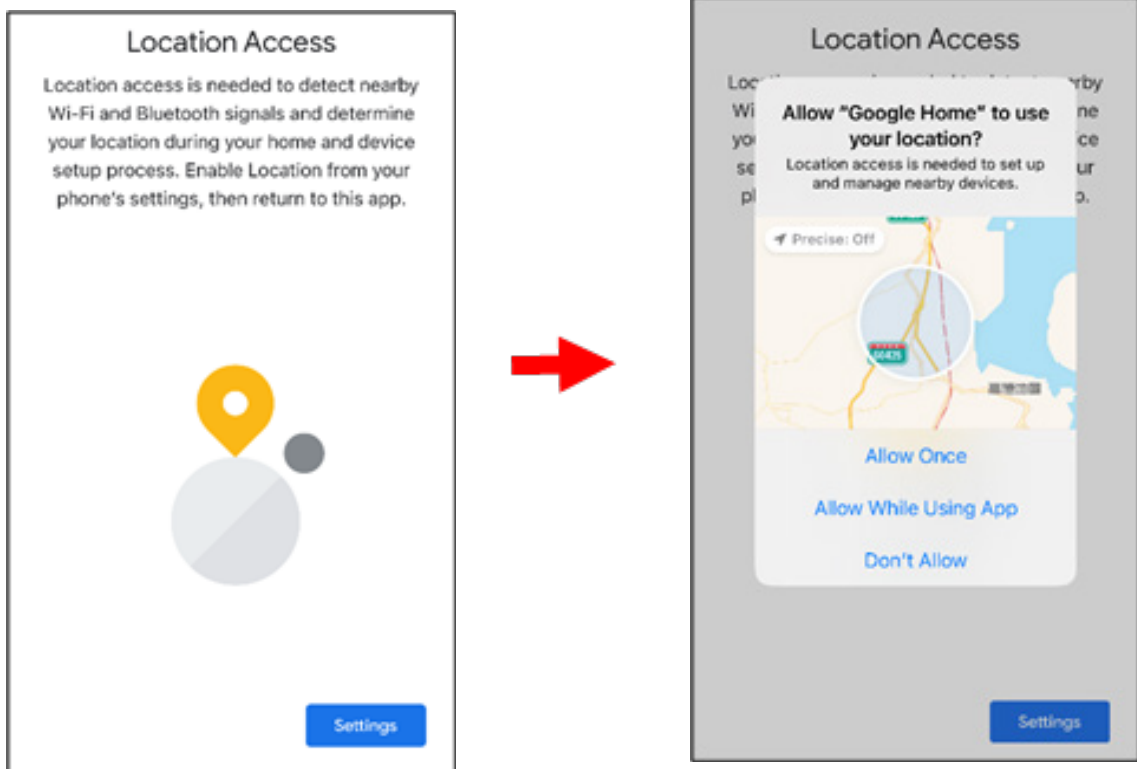
6. Touch **"Get Started"** to create a home, and then touch **"New devices"**.



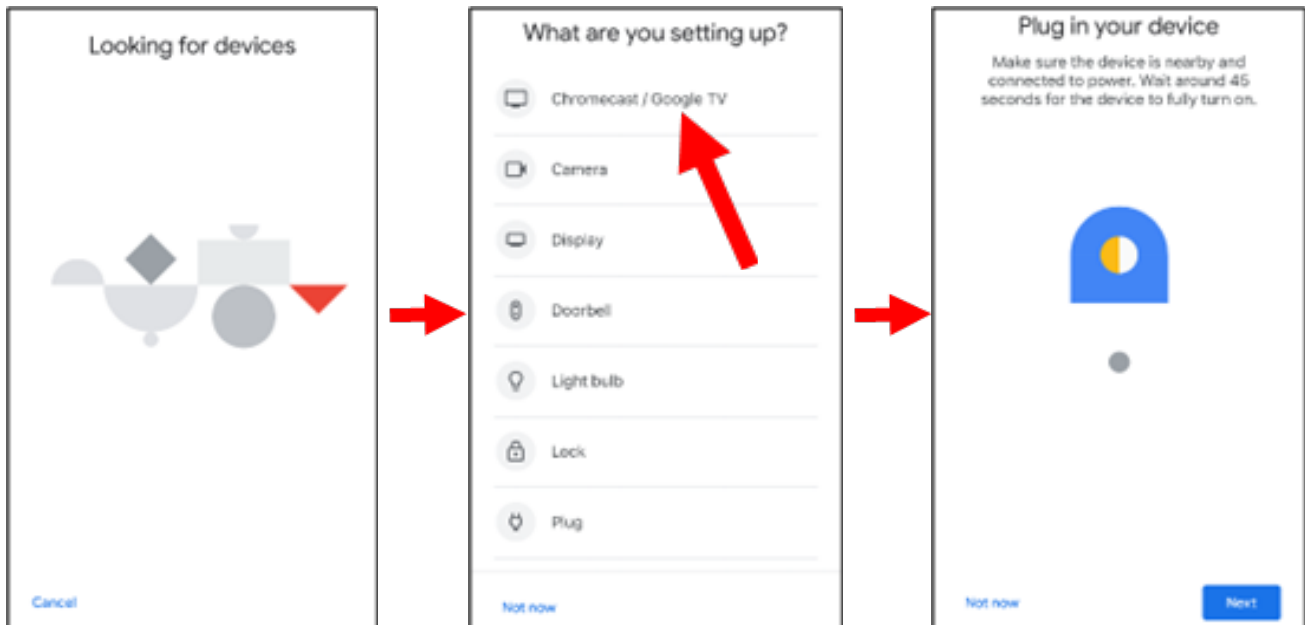
Input the Home nickname and address and then touch "Next".



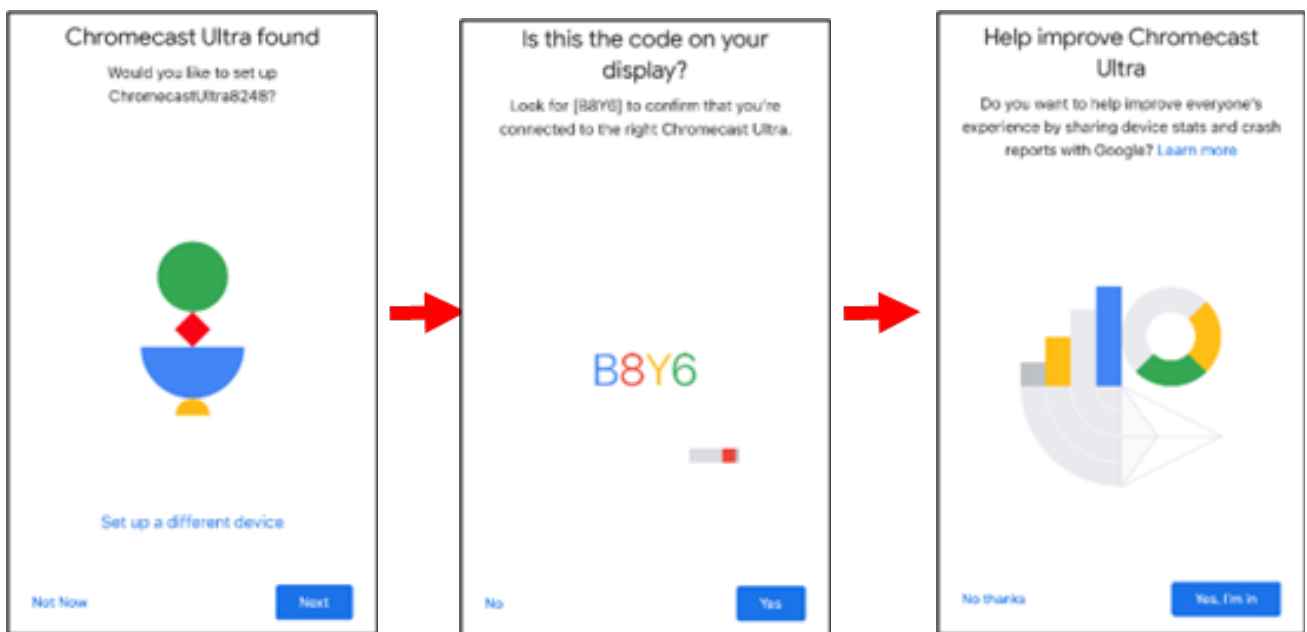
To allow location access for the app.



7. The app will automatically try to search devices from your local network. Choose Chromecast / Google TV. Make sure your Chromecast is turned on already, then touch Next.

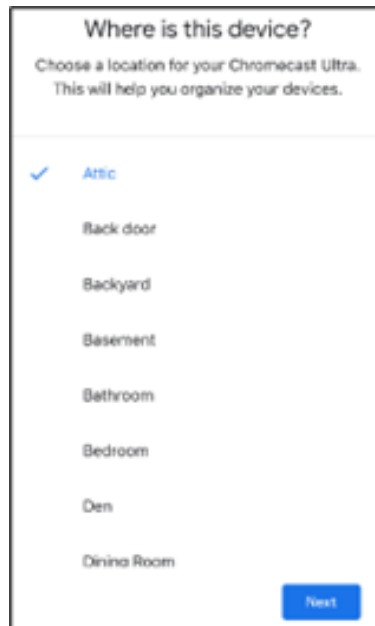


8. Your Chromecast will be found. Touch Next to connect. Confirm the code by touching Yes.





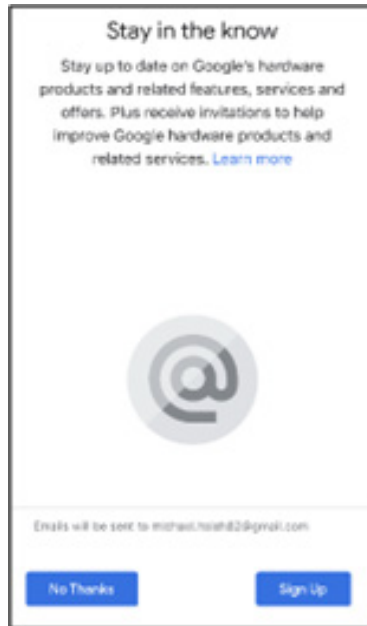
9. Choose a location for your Chromecast, then touch Next.



10. Choose the Wi-Fi network for your Chromecast and input the Wi-Fi password to connect. Make sure the Wi-Fi you choose is the same one with your mobile phone and is in the same local network with your NVR. Touch Continue to next step.



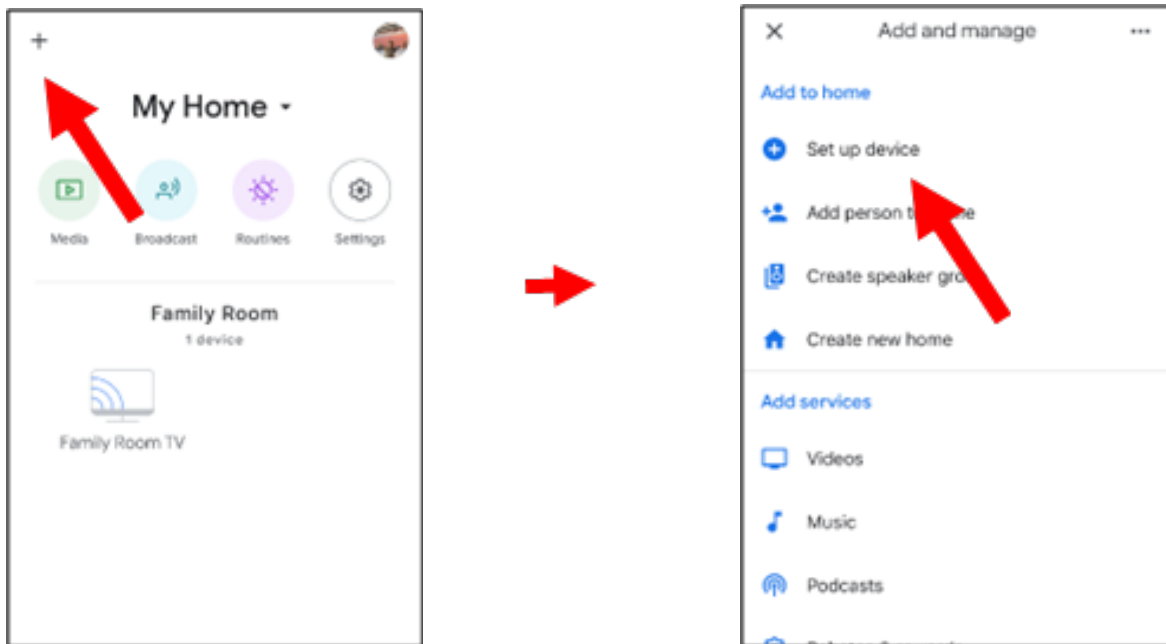
11. Touch No Thanks or Sign Up to login your google account.



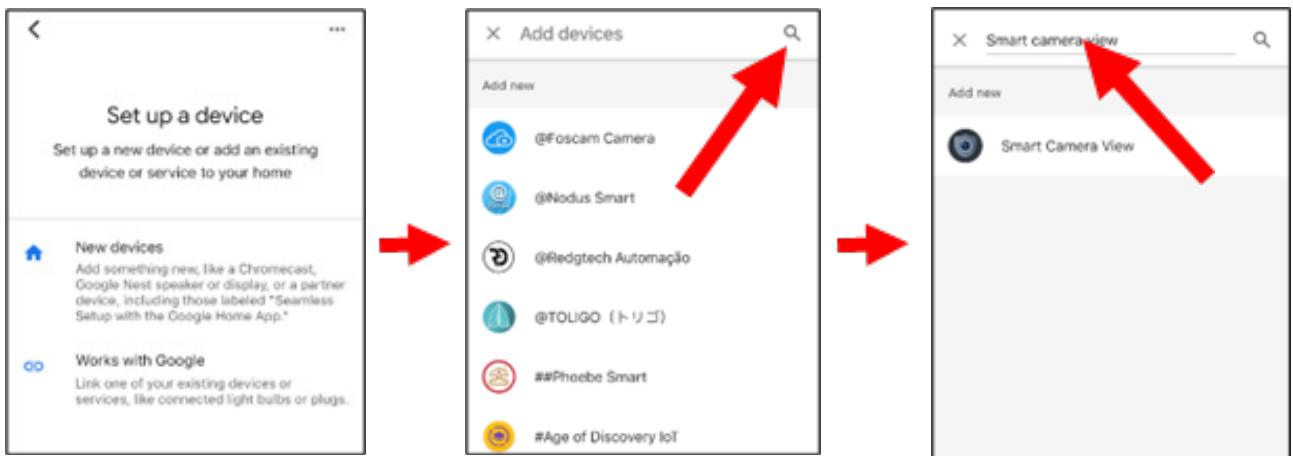
Touch Next and Skip and finish the tutorial.



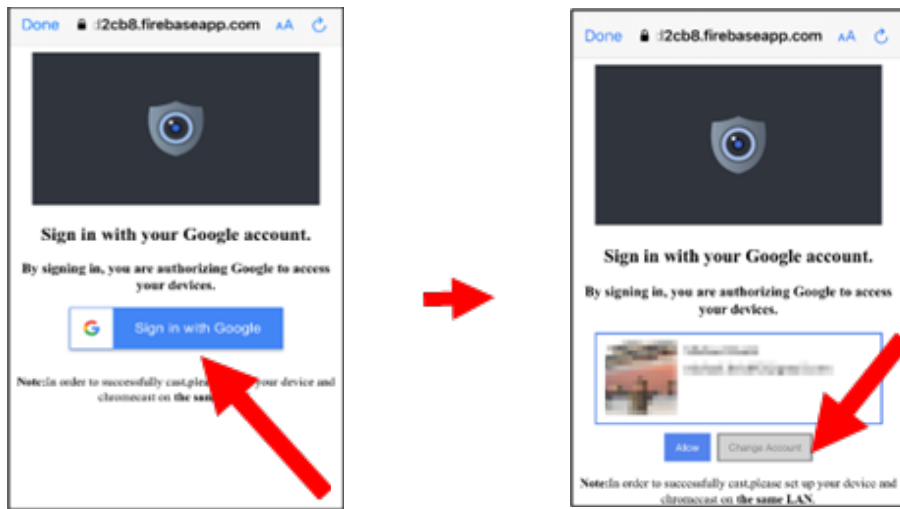
12. Now the Chromecast has been added to your Google Home. Touch the + icon on the left top corner. Indoor, then choose Set up device.



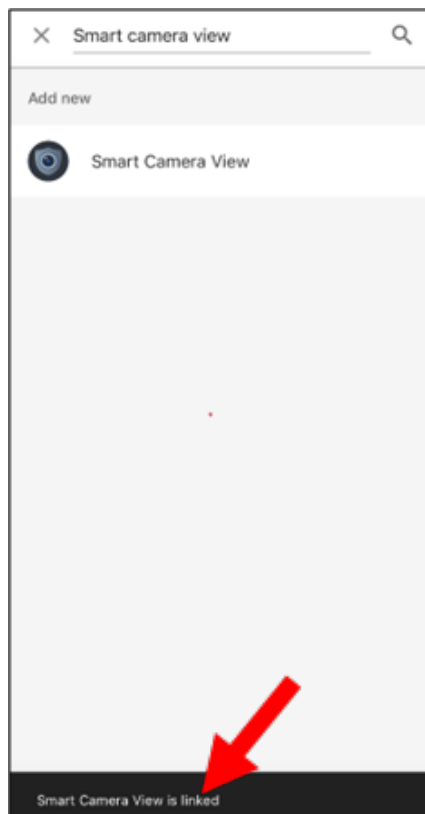
Choose *Work with Google*, touch the search icon on the right top corner and then input *smart camera view*.



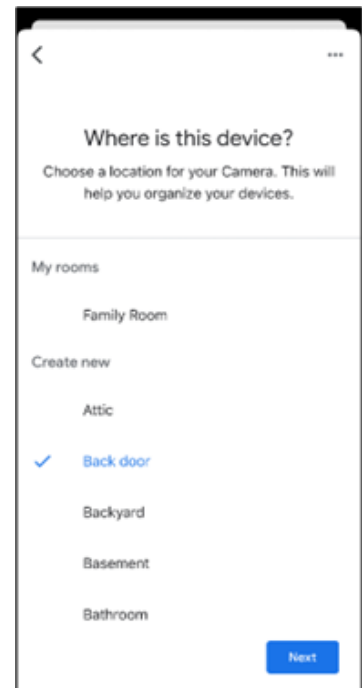
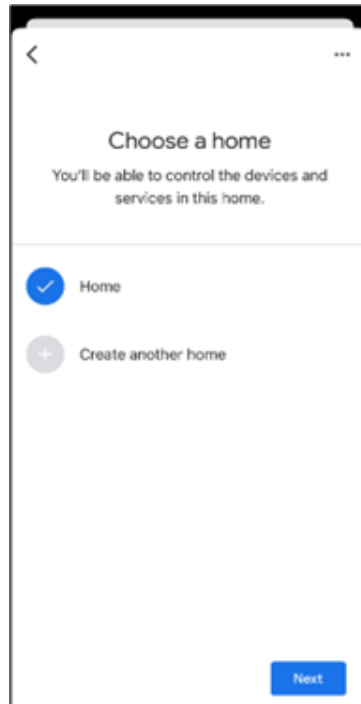
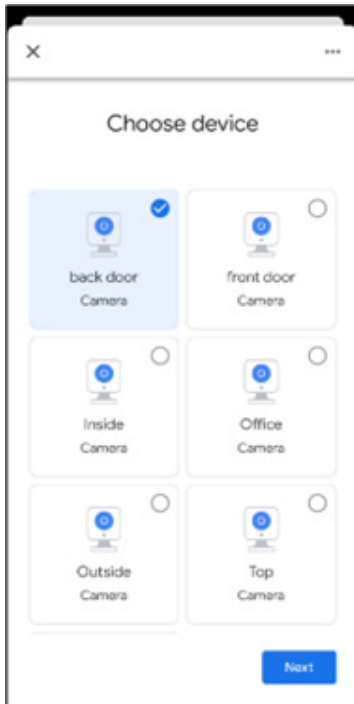
Touch on "Smart Camera View" in the search result. You would need to sign in your google account and allow the Google to access to your device.



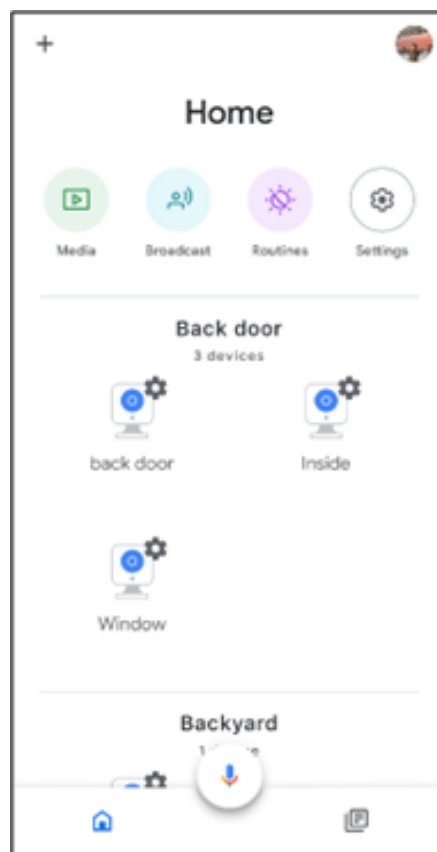
Wait for a while, the Smart Camera View application will be linked to the Google Home.



13. Now the available cameras in your NVR will be displayed. Choose one of the cameras and then touch Next button. Choose a home & location for the cameras step by step.

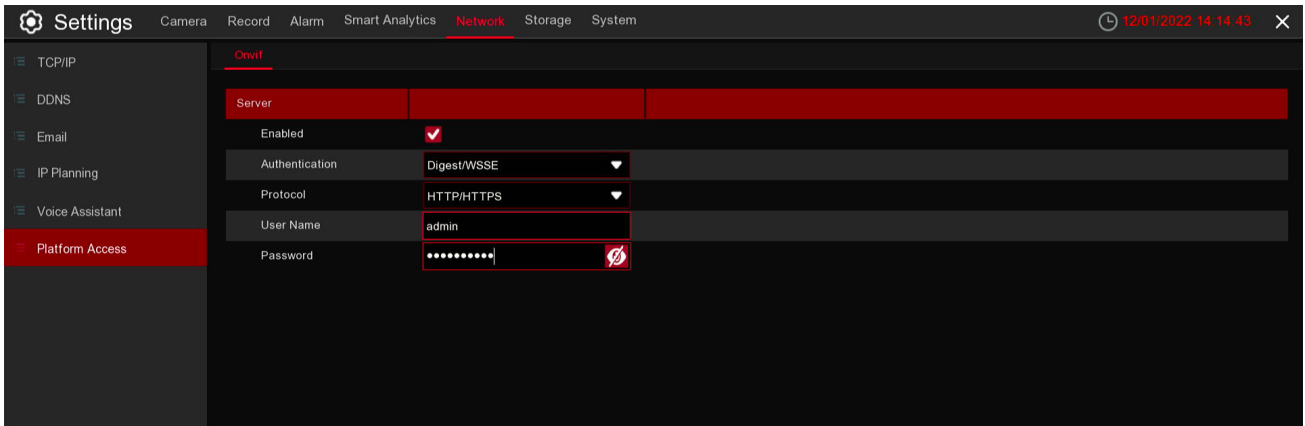


14. Repeat step 13 to add all cameras.



## 5.5.6 Platform Access

This function is mainly used to connect 3rd party platform, like ECMS/NVMS via Onvif protocol.



**Enable:** Check to enable this function.

**Authentication:** Login authentication type, options including Digest\_sha256, Digest, Digest/WSSE, WSSE and None. Choose one of them to match to your 3rd party platform.

**Protocol:** Choose http, https or both of them.

**User Name:** To set a user name for platform connection.

**Password:** To set a password for platform connection.

**Note:**

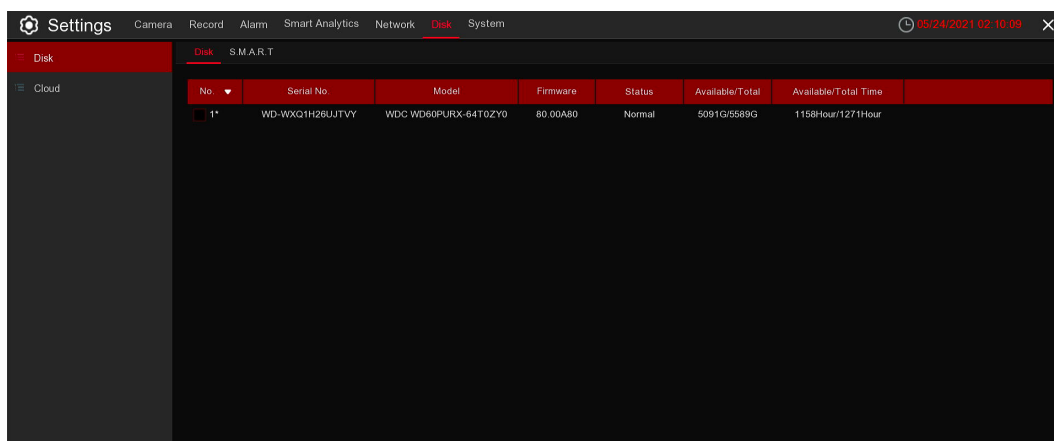
Only data from channel 1 can be transferred to the 3rd party.

## 5.6 Storage

In this section, you can configure the storage devices, including the internal HDD storage and external NAS storage & cloud storage.

### 5.6.1 Disk

This menu allows you to check & configure the internal HDD(s). You need to format the HDD only on the first startup and when replacing an HDD.




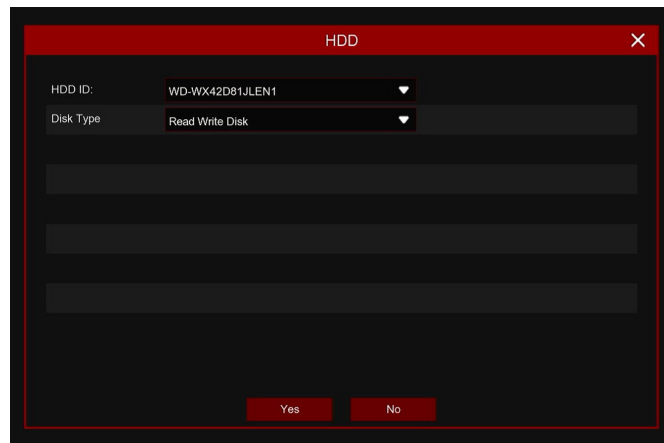


**Format HDD:** Select the HDD you want to format and then click Format HDD. To start formatting, you need to enter your user name and password, then click OK to continue formatting.  
Add NetHDD: -X

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

**Record on ESATA:** This menu only displays when your NVR comes with an e-SATA port on the rear panel. It will allow video recordings to be stored to the external e-SATA HDD to expand your HDD capacity. If the e-SATA recording function is enabled, the e-SATA backup function will be disabled.-X

If your NVR supports installation of multiple HDDs, the edit icon  appears in your system, you can click it to edit the HDD as below:



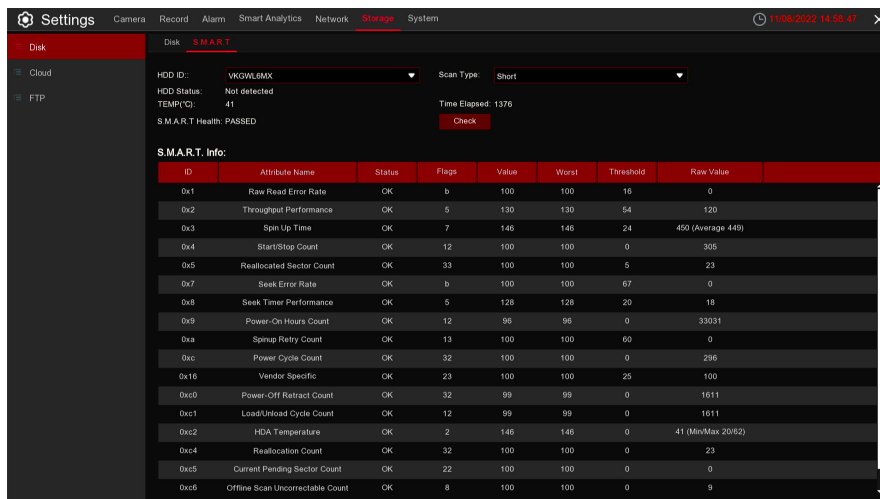
**Disk Type:** Read-write, read-only, and redundant.

Read-write mode is the normal status for an HDD to save recording or search recording to play. To prevent important video data from being overwritten during cyclic recording, the HDD can be set as **Read-only** mode. New recording will not be able to save into this read-only HDD. You can still search recording from this read-only HDD to play.

A Redundant HDD can be used to automatically backup video footage on the recording (read-write) hard drive. When a redundant HDD is set, the system can be set to record cameras in parallel to both the recording hard drive and the redundant hard drive in case of hard drive failure.

### 5.6.1.2 S.M.A.R.T

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



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

**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.

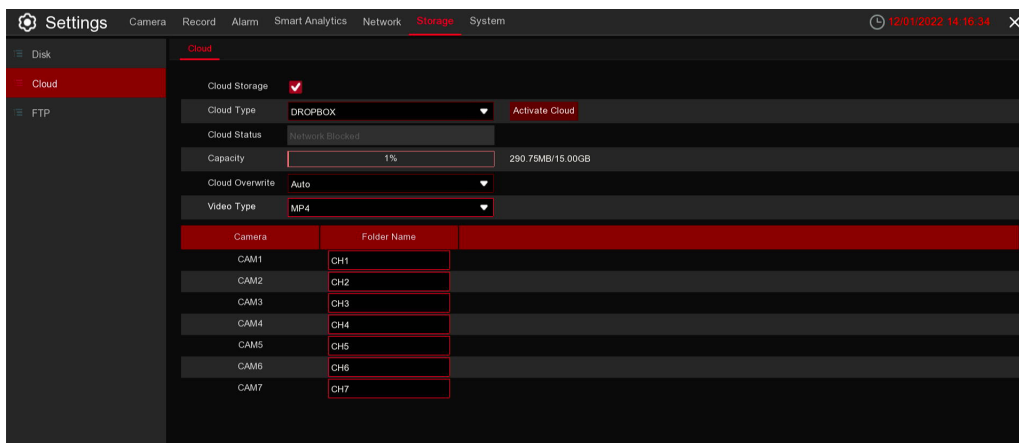
**Conveyance:** This is a quick test that verifies if the mechanical parts of the hard drive are working..

**Note:**

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

### 5.6.2 Cloud

Cloud function allows to upload pictures and videos to your cloud storage. It supports Dropbox and Google Drive storage now.



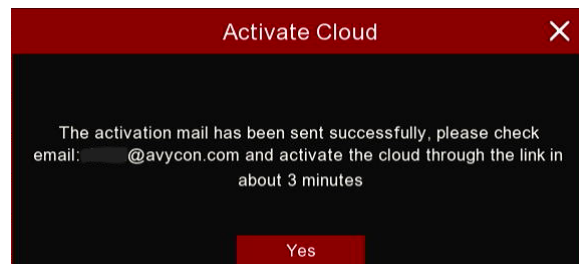
**Cloud Type:** To choose Dropbox or Google Drive.

**Cloud Overwrite:** Use this option to overwrite the old recordings on the storage when it is full. For example, if you choose the option 7 days then only the last 7 days recordings are kept on the storage. To prevent overwriting any old recordings, select OFF. If you have disabled this function, please check the cloud storage status regularly, to make sure the capacity is not full. Recording will be stopped if the space is full.

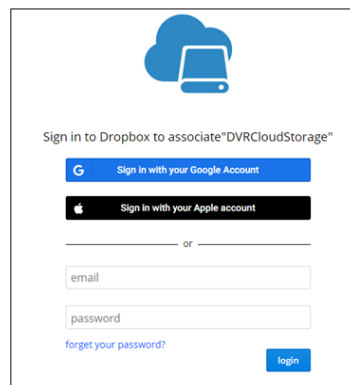
**Video Type:** To choose the video format you want to upload.

*Take Dropbox as example:*

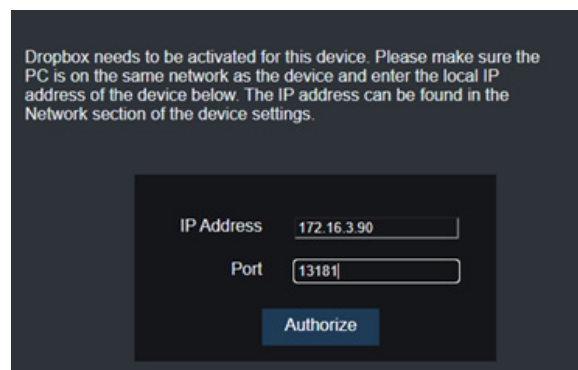
1. Check Cloud Storage to enable the function.
2. Choose Dropbox from Cloud Type.
3. Set the Overwrite.
4. Choose the Video Type.
5. Define the folder name for each channel.
6. Click the Activate Cloud button, the system will send an activation letter to your receiver email box which you have set in the Email Setup page.



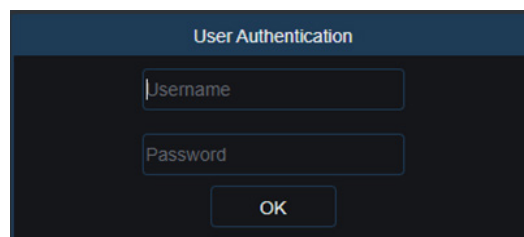
7. Login your email box and click the link in the email content. It will turn to the cloud server authorization login page. Input your Dropbox account name and password to login.



8. Input the DVR local IP address and web port, and then click Authorize.



9. Input the DVR user name and password and then click OK.



10. Authorization finished; the webpage will turn to your Dropbox.

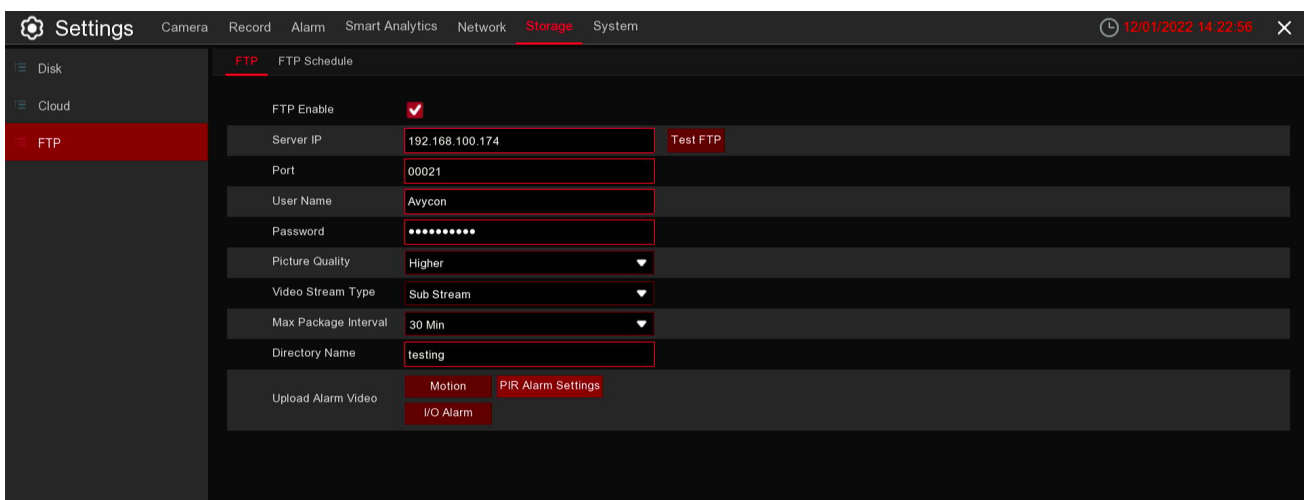
Authorization succeeded! Return Dropbox  
It will automatically jump in 1 seconds!

11. The Cloud has completed the setup if you find a new folder named by your NVR device name and MAC address in the Dropbox storage. Your alarm pictures and videos will be upload to this folder.



### 5.6.3 FTP

This menu allows you to enable FTP function to view and load captured snapshots from the NVR to your storage device over FTP.



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

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

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

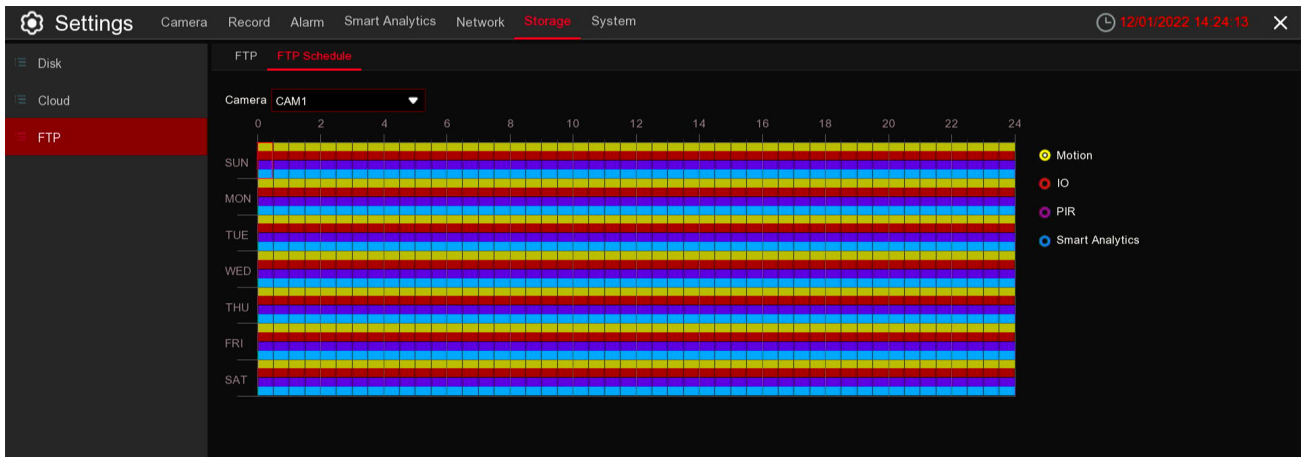
**User Name/Password:** Enter your FTP server user name and password.

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

Upload Alarm Video: -X

**Test FTP:** Click to test the FTP settings.

**FTP Schedule:**



The color codes on email schedule have the following meanings:

**Yellow:** Slot for Motion detection.

**Red:** Slot for I/O Alarm (optional).

**Purple:** Slot for PIR.

**Blue:** Slot for Smart Analytics detection.

## 5.7 System

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

### 5.7.1 General

#### 5.7.1.1 General

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

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

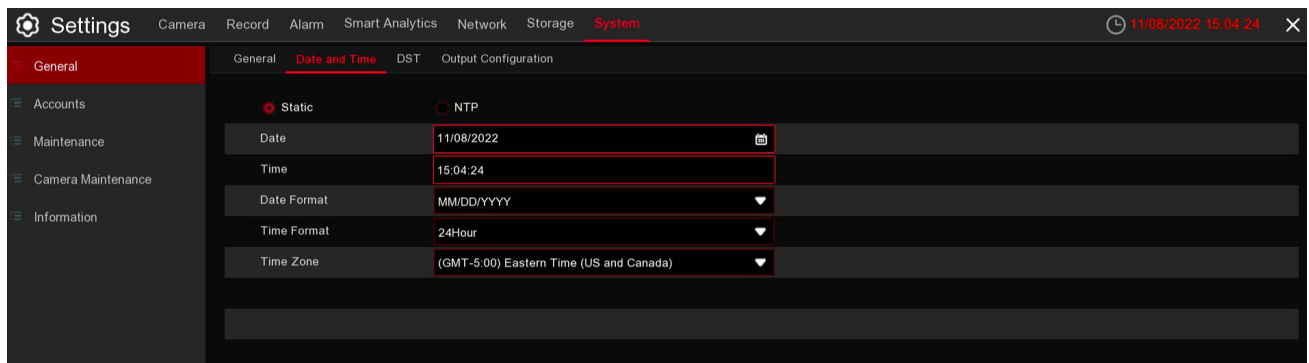
**Language:** Select a language you would like the system menus to be displayed in. Multiple languages are available.

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

**Auto Log-out:** Click the drop-down menu to select the time your NVR will exit the Main Menu when idle. You can also disable this by selecting "OFF" (password protection will be temporarily disabled).  
Web Session Timeout (min): -X

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

### 5.7.1.2 Date and Time



#### Date & Time

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

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

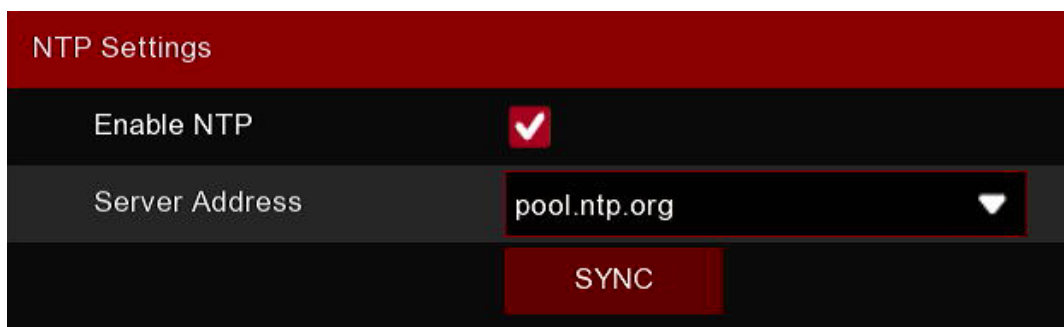
**Date Format:** Select the preferred date format.

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

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

### 5.7.1.3 NTP Settings

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





Check to enable the **NTP**, and select a **Server Address**, click Update Now to manually sync the date & time.

Click **Apply** to save your settings.

When the NTP function is enabled, system will update the system time at 00:07:50 per day, or every time the system starts up.

#### 5.7.1.4 DST Settings

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

DST Settings				
Enable DST	<input checked="" type="checkbox"/>			
Offset Time	1Hour			
DST Mode	Week			
Start Time	Mar.	The 2nd	Sun.	02:00:00
End Time	Nov.	The 1st	Sun.	02:00:00

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

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

**DST Mode:** You can select how Daylight Saving starts and ends:

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

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

**Start Time / End Time:** Set the start time and end time for Daylight Saving.

#### 5.7.1.5 Output Configuration

This menu allows you to configure video output parameters.

The screenshot shows the 'Settings' application with the 'System' menu selected. The 'Output Configuration' tab is active, displaying the following settings:

- Video Output: LIVE-OUT
- Layout Mode: Layout1
- Layout Dwell Time: 5 s
- VGA/HDMI Resolution: 4K(3840x2160) with 'Automatically Detect' checked.
- Scale And Offset: Settings
- Hide Cursor After: 5sec
- Cursor Speed: A slider set to 5.
- Transparency: A slider set to 0.

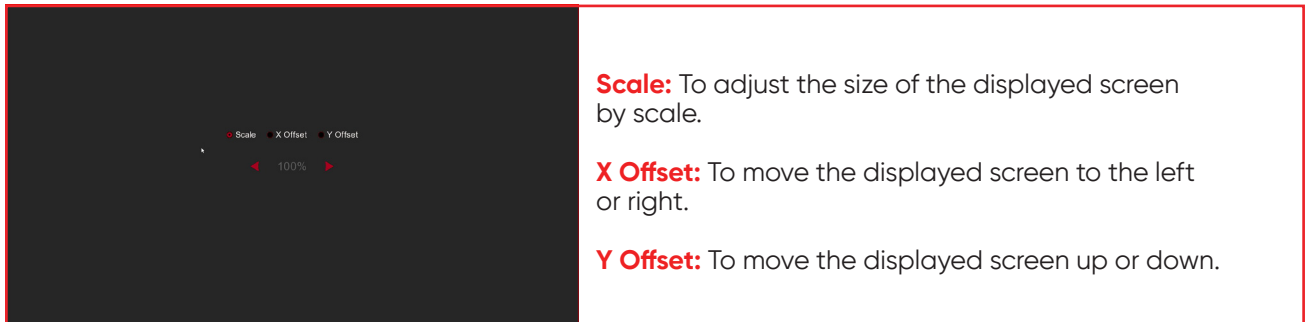
**Video Output:** To choose the output options:

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

**Layout Dwell Time:** Enter in seconds the maximum length of time you would like to display a video channel in sequence mode before displaying the next video channel (300 seconds is the maximum).

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

**Scale and Offset:** The NVR supports adjusting the size and position of the display screen to match your monitor or TV. Click the Setup button to adjust.



Click once or long press the left button of your mouse on the arrow to adjust the size and position, or you can scroll the wheel of the mouse to adjust. Click the right button of your mouse to exit, and click **Apply** to save your modifications.

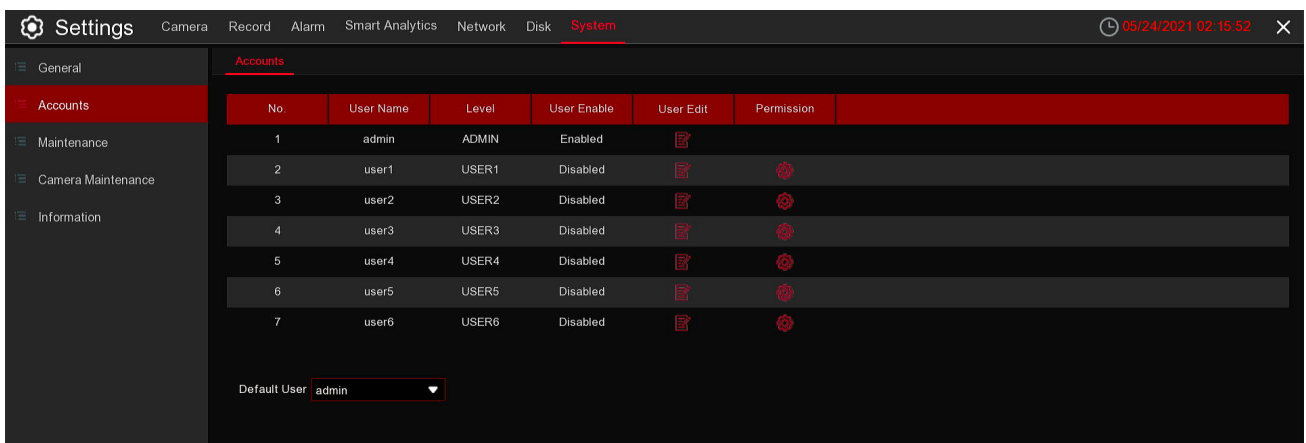
**Hide Cursor After:** Click the drop-down menu to select the time your NVR will hide the mouse cursor when idle. You can also disable this by selecting "OFF" (password protection will be temporarily disabled).

**Cursor Speed:** To adjust the movement speed of the mouse cursor.

**Transparency:** Click and hold the slider left or right to change how transparent the Menu Bar and Main Menu will appear on-screen. Adjust accordingly.

## 5.7.2 Accounts


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

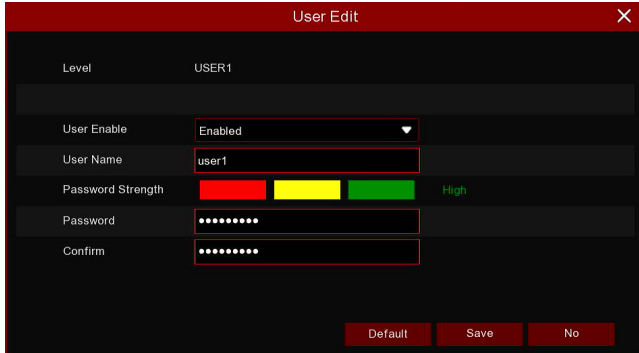


The system supports the following account types:

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

### 5.7.2.1 Changing Password

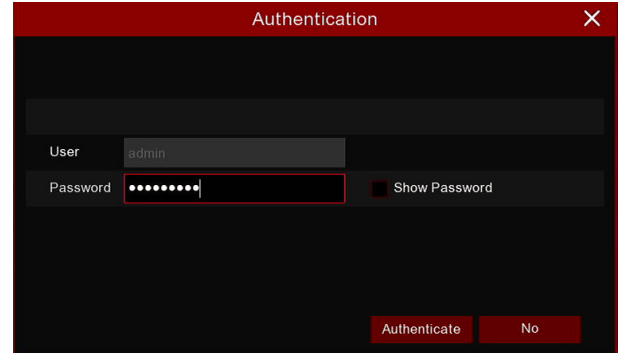
To change the password for the administrator or user accounts, click the User Edit icon . The password has to be a minimum of 8 characters and can contain a mixture of numbers and letters. Enter your new password again to confirm, and then click **Save** to save your new password. You will be required to input your old password to authenticate.



The 'User Edit' dialog box shows the following fields:

- Level: USER1
- User Enable: Enabled (dropdown)
- User Name: user1 (text input)
- Password Strength: High (indicated by a green bar)
- Password: [Redacted]
- Confirm: [Redacted]

Buttons at the bottom: Default, Save, No.



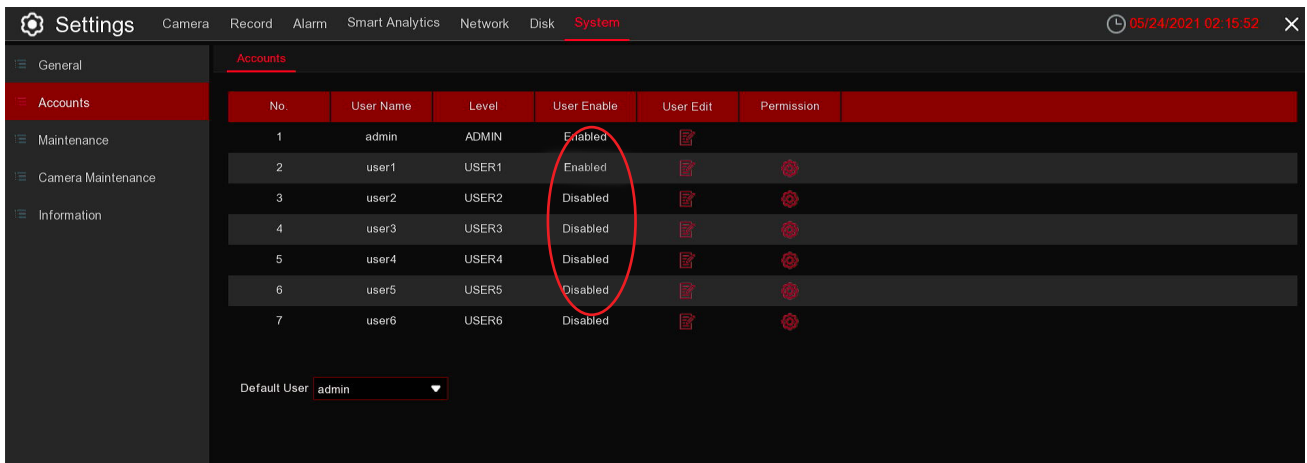
The 'Authentication' dialog box shows the following fields:














- User: admin (text input)
- Password: [Redacted]
- Show Password:

Buttons at the bottom: Authenticate, No.


**Password Enable:** It's strongly recommended to enable the password to protect your privacy. If you want to disable the password protection, please ensure your NVR is placed in a secure place. -X

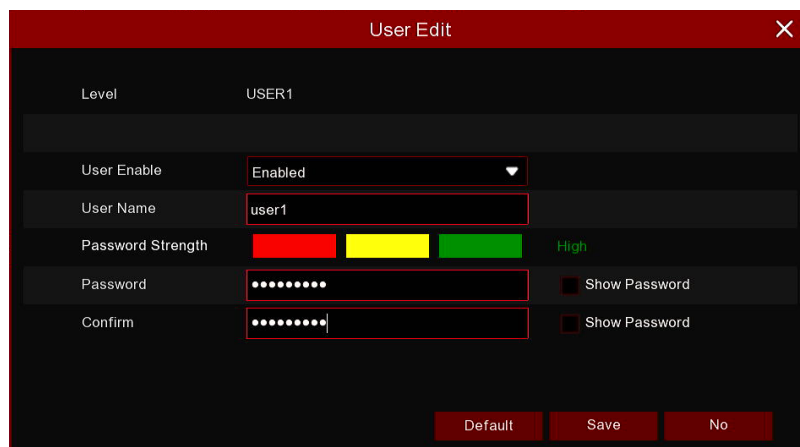
### 5.7.2.2 Add New Users



No.	User Name	Level	User Enable	User Edit	Permission
1	admin	ADMIN	Enabled		
2	user1	USER1	Enabled		
3	user2	USER2	Disabled		
4	user3	USER3	Disabled		
5	user4	USER4	Disabled		
6	user5	USER5	Disabled		
7	user6	USER6	Disabled		

Default User: admin (dropdown)

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



The 'User Edit' dialog box shows the following fields:

- Level: USER1
- User Enable: Enabled (dropdown)
- User Name: user1 (text input)
- Password Strength: High (indicated by a green bar)
- Password: [Redacted]
- Confirm: [Redacted]
- Show Password:  (for both Password and Confirm)

Buttons at the bottom: Default, Save, No.

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

### 5.7.2.3 Setting User Permissions

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

No.	User Name	Level	User Enable	User Edit	Permission
1	admin	ADMIN	Enabled		
2	user1	USER1	Enabled		
3	user2	USER2	Disabled		
4	user3	USER3	Disabled		
5	user4	USER4	Disabled		
6	user5	USER5	Disabled		
7	user6	USER6	Disabled		

Default User: admin

1. Click the edit icon under Permission tab.

User Name: user1

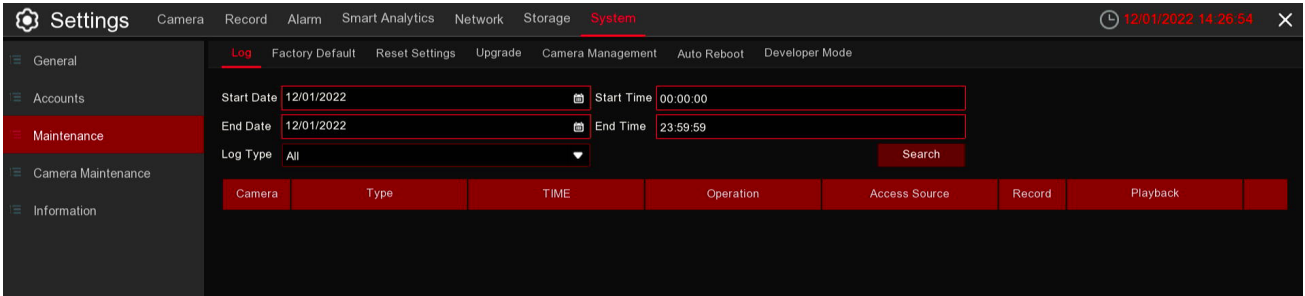
- Log Search
- Parameter
- Auto Reboot
- Manual Record
- Disk
- Remote Login
- Layout Control
- Snapshot
- Audio
- Database Management
- Backup
- IP Camera  1  2  3  4
- OSD Menu
- IP Camera  1  2  3  4
- Playback
- IP Camera  1  2  3  4
- PTZ Control
- IP Camera  1  2  3  4

Buttons: All, Clear, Save, No

1. Check the boxes next to any system menus or capabilities you would like the user to access. Click **All** to check all boxes. Click **Clear** to check none of the boxes.
2. Click **Save** to save your modifications.

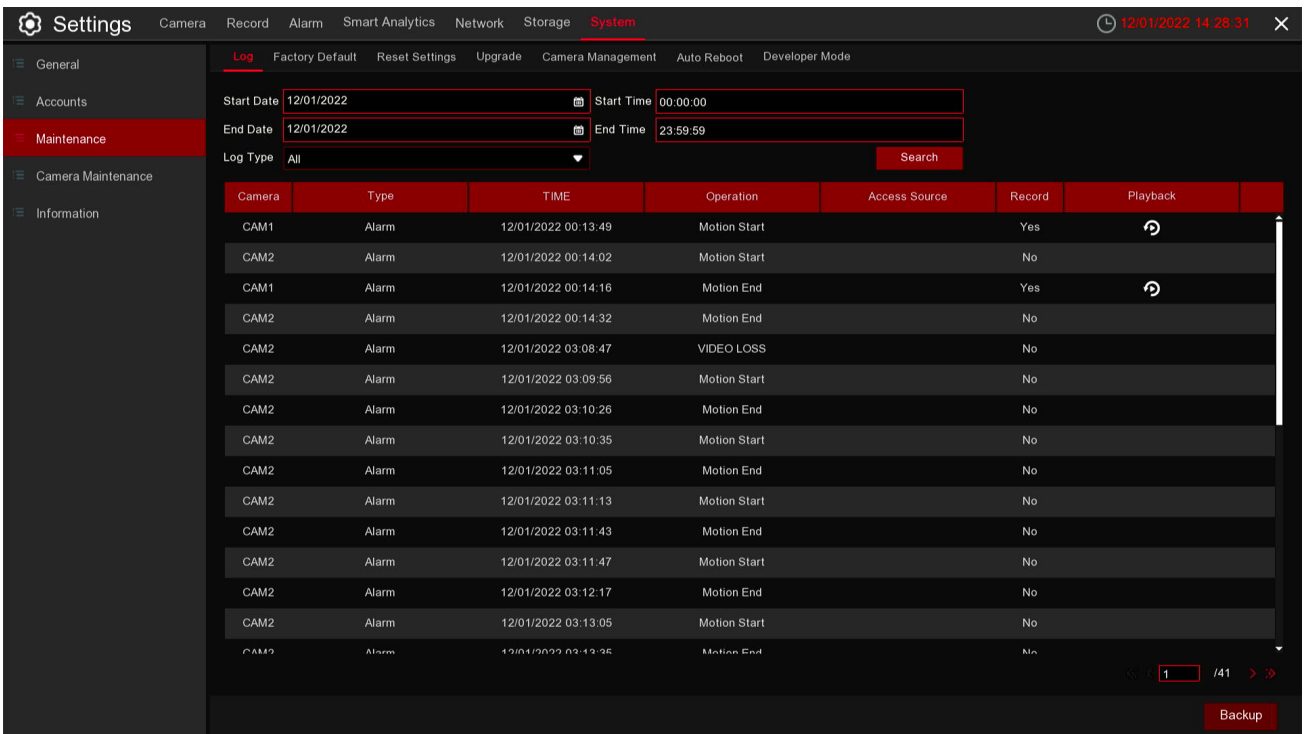
### 5.7.3 Maintenance

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



#### 5.7.3.1 Log

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

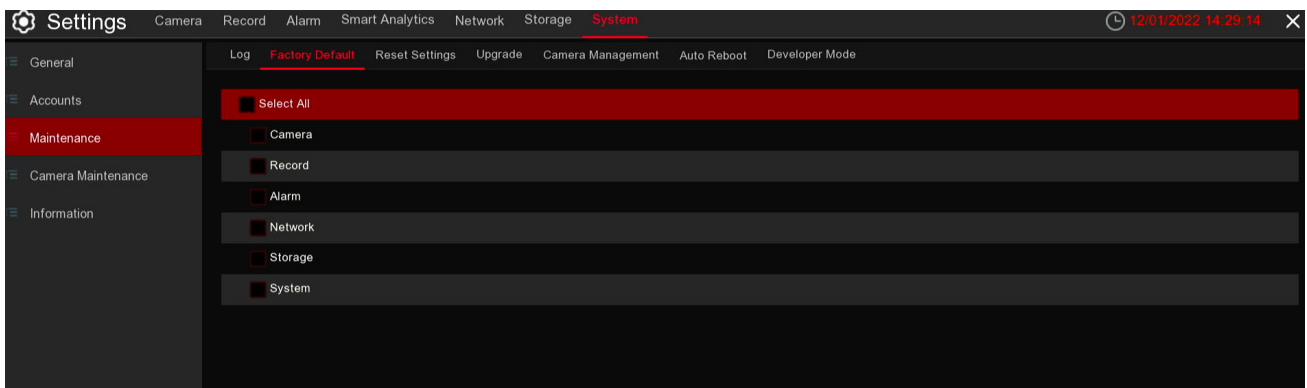


### Log Searching and Backing Up:

1. Click the field next to **Start Date** and **Start Time** to choose the starting date & time for your search from the on-screen calendar.
2. Click the field next to **End Date** and **End Time** to choose the end date & time for your search from the on-screen calendar.
3. Select the type of events you would like to search for from the dropdown next to **Log Type**, or select **All** to see the entire system log for the selected time period.
4. Click **Search**.
5. Browse system log events from your search period.
  - Video events can be played back instantly by clicking in the **Playback** button. Right-click to return to your search results.
  - Use the « < / > » buttons in the bottom-right corner of the menu to move between pages of system log events.
6. Click **Backup** to create a backup of the system log for your search period. Please make sure your flash drive has been connected to the NVR's USB port.
7. The backup drive menu appears. Navigate to the folder you want the backup file to be saved in, then click **OK** to begin.

#### 5.7.3.2 Load Default

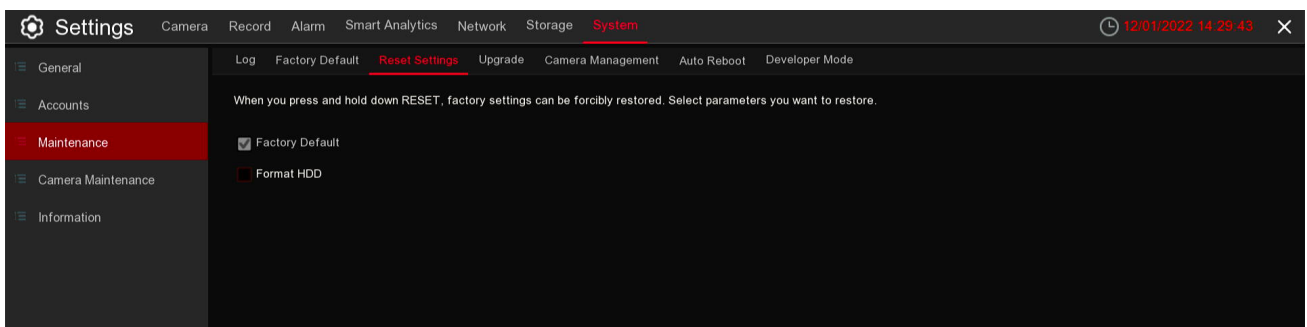
Reset the NVR settings to its out-of-box state. You can choose to reset all settings at once, or just settings on specific menus. Restoring default settings will not delete recordings and snapshots saved to the hard drive.



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

#### 5.7.3.3 Reset Settings

If your NVR supports reset button on the rear panel, you can press and hold down the button to forcibly reset to factory settings. You can select parameters you want to restore..



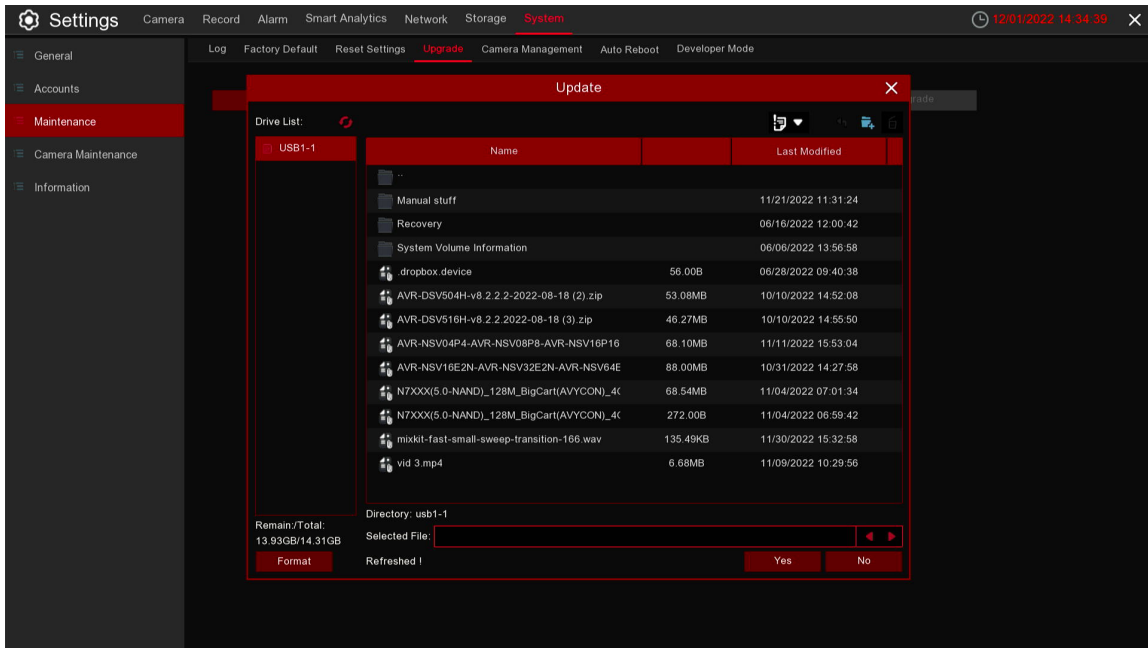
**Factory Default:** Checking this parameter will only factory reset the NVR.

**Format HDD:** Checking this parameter will only format HDD.

**Note:**

Checking both Factory Default and Format HDD will factory reset for both when the reset button is hold down.

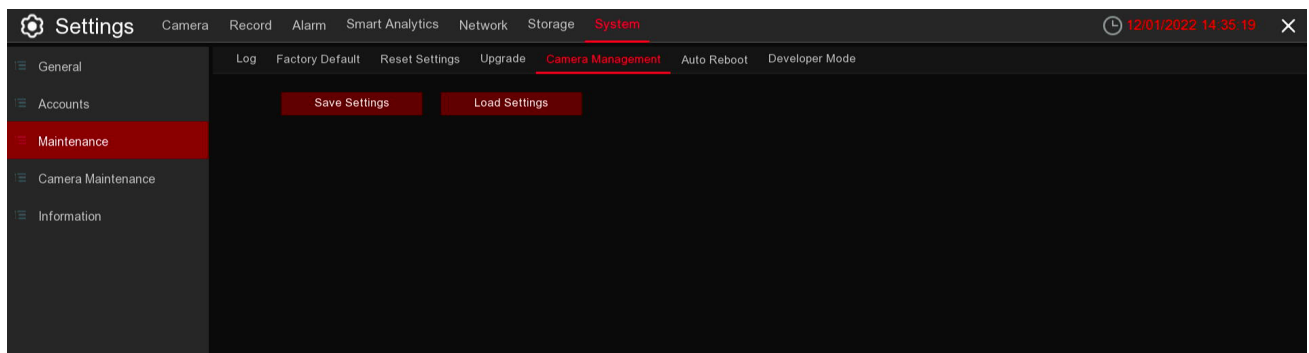
### 5.7.3.4 Upgrade



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

### 5.7.3.5 Camera Management

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



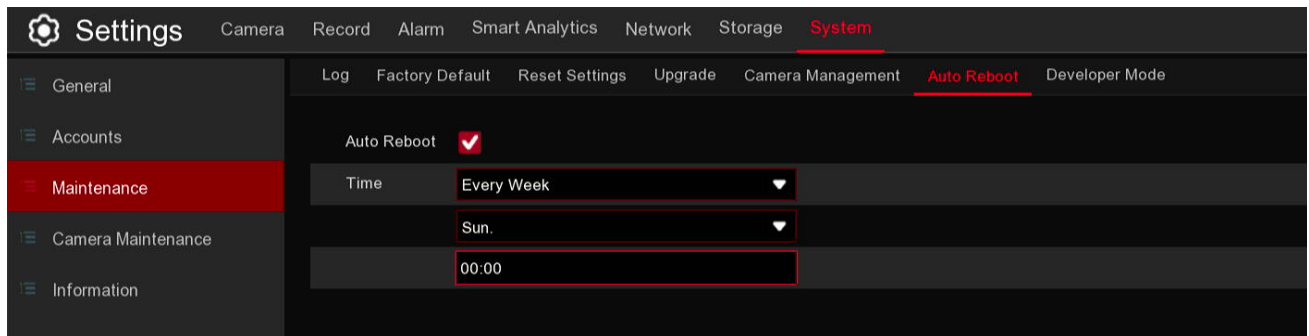


**Save Settings:** Click to save the NVR current system settings to the USB device. You will be required to input the Admin password to authenticate.

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

### 5.7.3.6 Auto Reboot

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

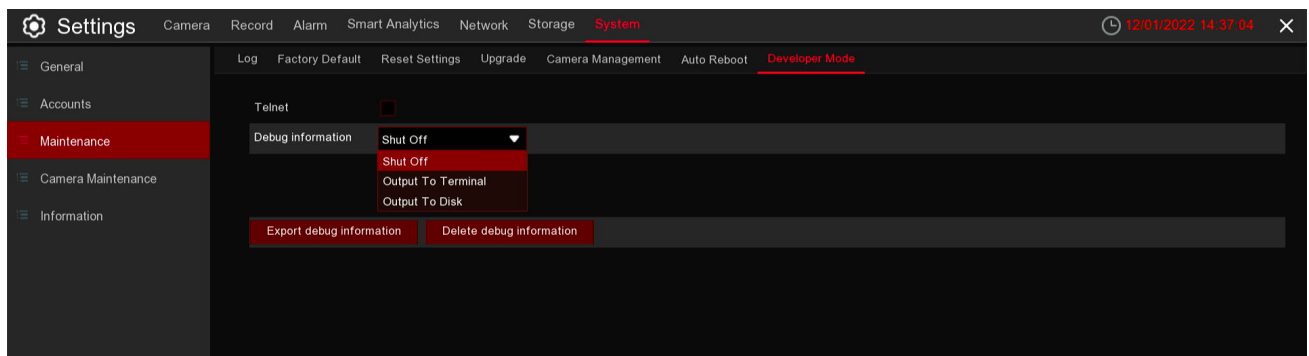


**Auto Reboot:** Check to enable.

**Time:** You can set the NVR to reboot by day, week, or month.

### 5.7.3.7 Developer Mode

This menu will allow to collect some debug information for professionals to analyze the system situation.



**Telnet:** Only enable it when the after sales professionals require to do.

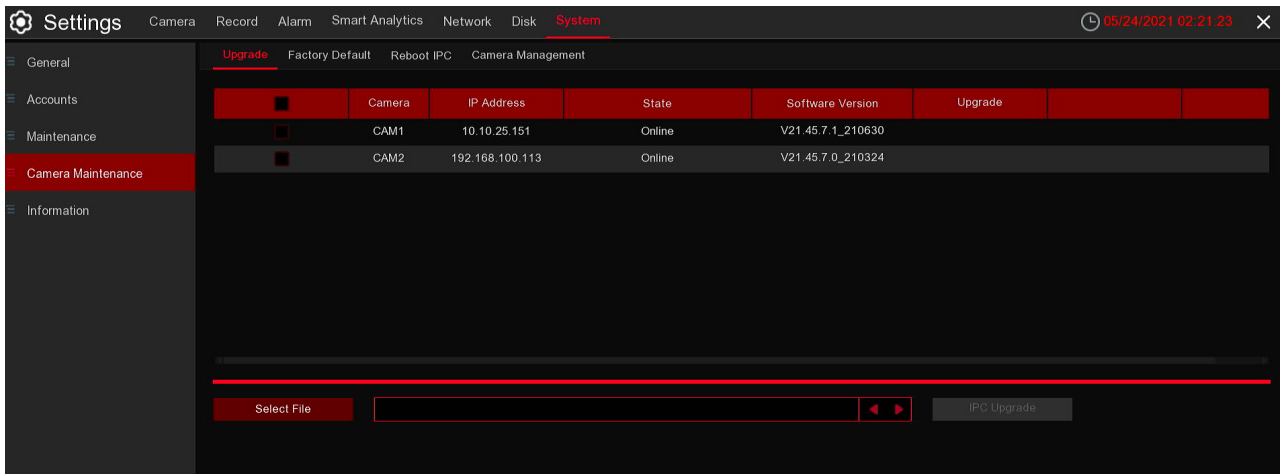
**Collect logs:** Only enable it when the after sales professionals require to do.

**Export Log:** To export the system logs to your USB memory.

**Delete Log:** Delete the saved system logs.

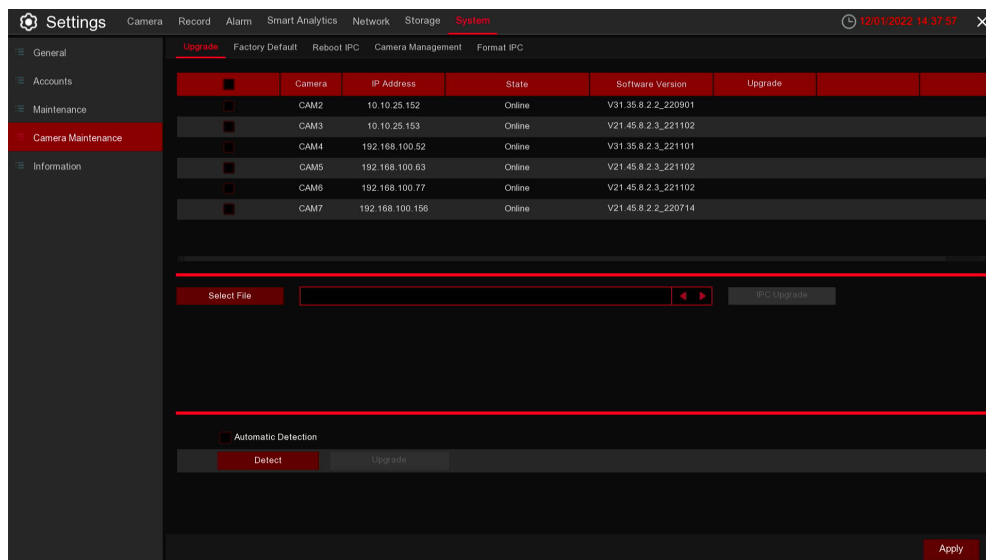
## 5.7.4 IP Camera Maintenance

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



### 5.7.4.1 Upgrade IP Camera

This menu allows you to upgrade the IP camera's firmware.



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

### 5.7.4.2 Load Default Settings for IP Camera

The screenshot shows the 'Settings' application with the 'System' tab selected. Under the 'Camera Maintenance' section, the 'Factory Default' option is highlighted. Below this, a table lists the IP addresses and software versions for seven cameras (CAM1 to CAM7).

Camera	IP Address	State	Software Version
CAM1	10.10.25.151	Online	5.0
CAM2	10.10.25.152	Online	V31.35.8.2.2_220901
CAM3	10.10.25.153	Online	V21.45.8.2.3_221102
CAM4	192.168.100.52	Online	V31.35.8.2.3_221101
CAM5	192.168.100.63	Online	V21.45.8.2.3_221102
CAM6	192.168.100.77	Online	V21.45.8.2.3_221102
CAM7	192.168.100.156	Online	V21.45.8.2.2_220714

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

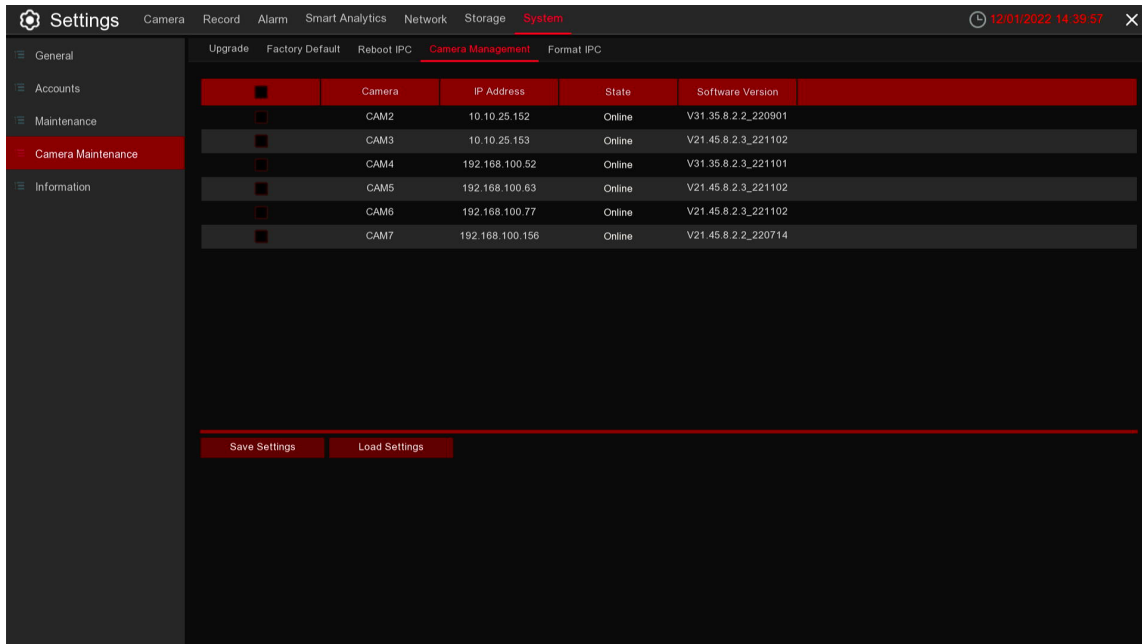
### 5.7.4.3 Reboot IPC

The screenshot shows the 'Settings' application with the 'System' tab selected. Under the 'Camera Maintenance' section, the 'Reboot IPC' option is highlighted. Below this, a table lists the IP addresses and software versions for seven cameras (CAM1 to CAM7).

Camera	IP Address	State	Software Version
CAM1	10.10.25.151	Online	5.0
CAM2	10.10.25.152	Online	V31.35.8.2.2_220901
CAM3	10.10.25.153	Online	V21.45.8.2.3_221102
CAM4	192.168.100.52	Online	V31.35.8.2.3_221101
CAM5	192.168.100.63	Online	V21.45.8.2.3_221102
CAM6	192.168.100.77	Online	V21.45.8.2.3_221102
CAM7	192.168.100.156	Online	V21.45.8.2.2_220714

Select the IP camera you wish to reboot.

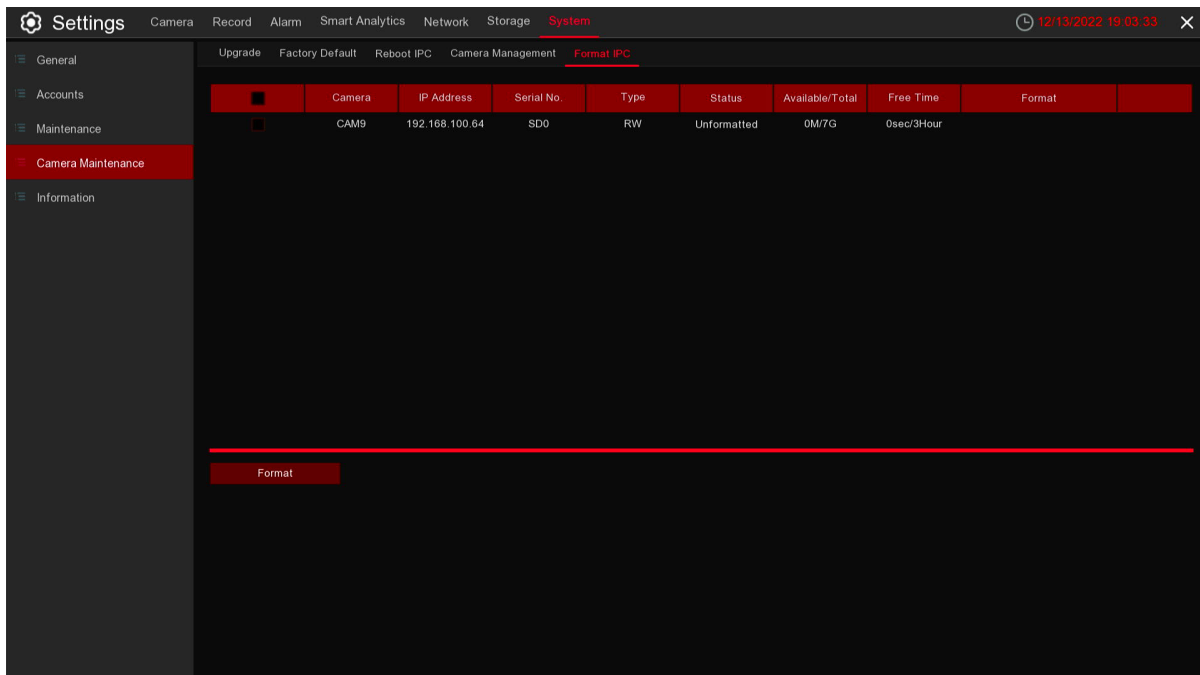
### 5.7.4.4 Parameter Management



Select the IP camera, click Save Settings to export its setting values to your USB memory. Select the IP camera, click Load Settings to import setting values from your USB memory.

### 5.7.4.5 Format IPC

This menu allows to format the SD card installed inside your IP camera.



1. Choose the IP camera's SD card you wish to format.
2. Click Format to format your settings. You will be required to input the Admin password to authenticate.

## 5.7.5 System Information

This menu allows you to view the system information, channel information, record information, and network status.

### 5.7.5.1 Information

View system information such as device ID, device model name, IP address, MAC address, firmware version, and more.

System Name	N7604
Device Name	AVR-NSV04P4
Hardware Version	DM-447
Software Version	V8.1.0-20210707
IE Client Version	V1.0.0.121
Video Format	NTSC
HDD Volume	5589G
IP Address	192.168.100.196
IPv6 Address	fe80::2a36:13ff:fed0:308 / 64
Web	80,80
Client	9000,9000
MAC Address	28-36-13-D0-03-08
Network Status	Connected
P2P ID	4D8KF8LNARVW6ZKA111A

If your NVR supports the P2P function, you will find the P2P ID & P2P QR code in the information page. You can scan this QR code with the mobile app to remote view the NVR.

### 5.7.5.2 Camera Information

Camera	Camera Name	Status	Main Stream	Sub Stream	Mobile stream	Motion Detection	Privacy Zone
CAM1	CAM1	Online	2592x1944, 30Fps, 4Mbps	640x 480, 30Fps, 1024Kbps	640x 480, 30Fps, 256Kbps	Supported	Supported
CAM2	CAM2	Online	2592x1944, 30Fps, 4Mbps	640x 480, 30Fps, 1024Kbps	640x 480, 30Fps, 256Kbps	Supported	Supported

View camera information for each connected camera such as alias, mainstream and substream recording specifications, motion detection status, and privacy zone.

### 5.7.5.3 Record Information

Information	Camera Information	Record Info	Network Status			
Camera	Recording State	Record Switch	Stream Type	Resolution	FPS	Bitrate
CAM1	ON	Enabled	DualStream	2592x1944   640x480	30Fps   30Fps	4Mbps   1024Kbps
CAM2	ON	Enabled	DualStream	2592x1944   640x480	30Fps   30Fps	4Mbps   1024Kbps

View recording information for each connected camera such as bitrate, stream type, recording resolution, and frame rate (FPS).

### 5.7.5.4 Network Status

Information	Camera Information	Record Info	Network Status
Attribute	Value		
WAN			
IP Address	192.168.100.196		
Subnet Mask	255.255.255.0		
Gateway	192.168.100.1		
MAC Address	28-36-13-D0-03-08		
IPv6 Address	fe80::2a36:13ff:fed0:308 / 64		
IPv6 Gateway	fe80::/64		
DHCP	Enabled		
Internal Network			
IP Address	10.10.25.100		
Subnet Mask	255.255.0.0		
DNS1	1.1.1.1		
DNS2	8.8.8.8		
PPPoE	Disabled		
Port			
Web	80,80,Inactive,Disabled		
Client	9000,9000,Inactive,Disabled		
RTSP	554,554,Inactive,Disabled		
Https	443,443,Inactive,Disabled		
Total BandWidth:	50Mbps		
Used BandWidth:	10.5Mbps		

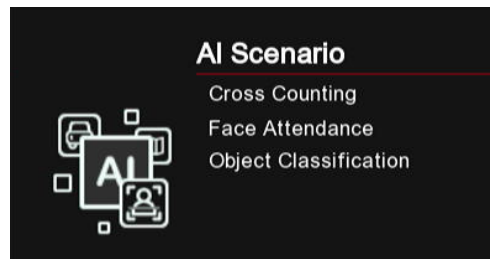
View network information.

**Total Bandwidth:** It shows the NVR's total input band width for IP cameras.

**Used Bandwidth:** It shows the used bandwidth of IP cameras.

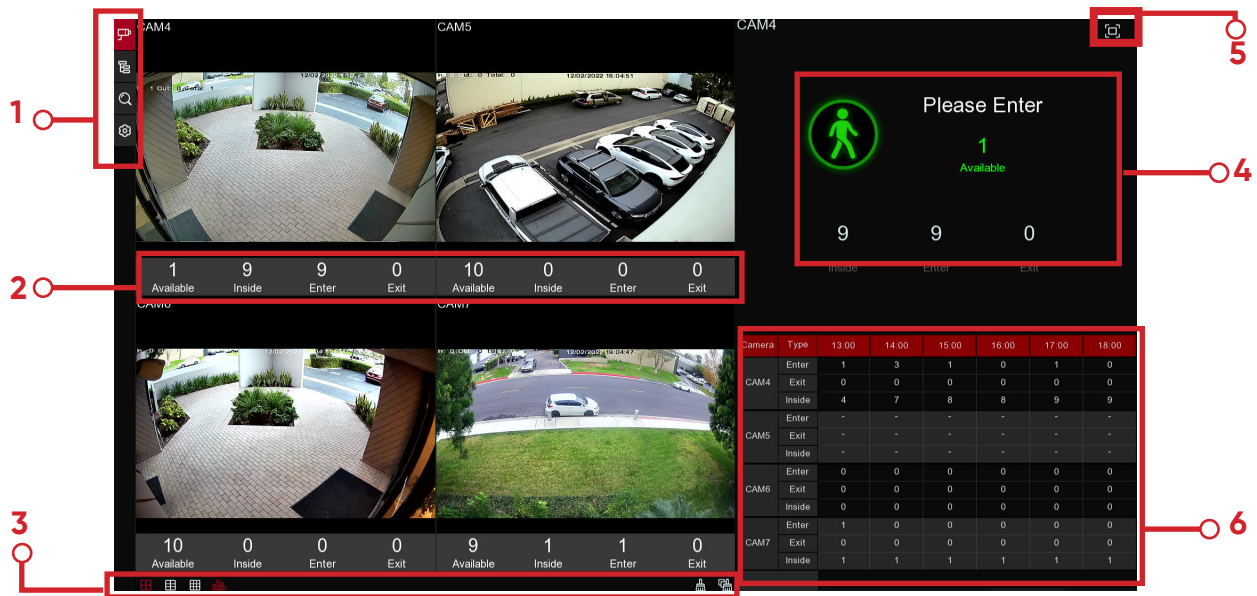
### 5.8 AI Scenario

AI Scenario function provides AI applications for different specific scenarios. Click the submenu title in the main setup page to get into the individual function setup page.





#### 5.8.1 Cross Counting


This is an AI application based on cross counting function, which helps to control the attendance number of customers/visitors/vehicles in public places, like restaurants, parks, zoos, theaters, museums, car parks, etc.




#### 1. Navigation bar on the left side:

- 

**Camera View Mode:** To count and view the real-time result by individual camera(s). Mostly used for small place with single entrance & exit.
- 

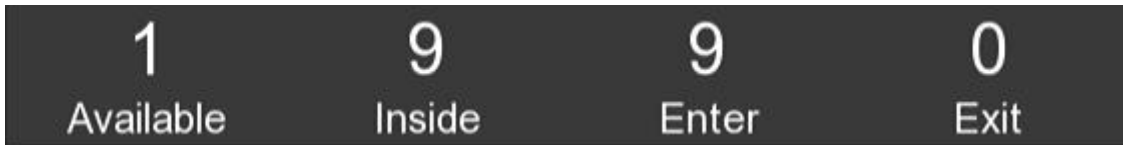
**Group View Mode:** To count and view the real-time result by group(s). Mostly used for big place with multiplex entrances & exits which are monitored by multiplex cameras.
- 

**Data Search:** To search the counting data
- 

**Configuration:** To configure the settings



## 2. Real-time data display:



**Available:** Remaining allowed attendance number

**Inside:** Current attendance number inside the control area


**Enter:** Recorded number of total entrants

**Exit:** Recorded number of total leaving attendance.


## 3. Real-time counting data display:



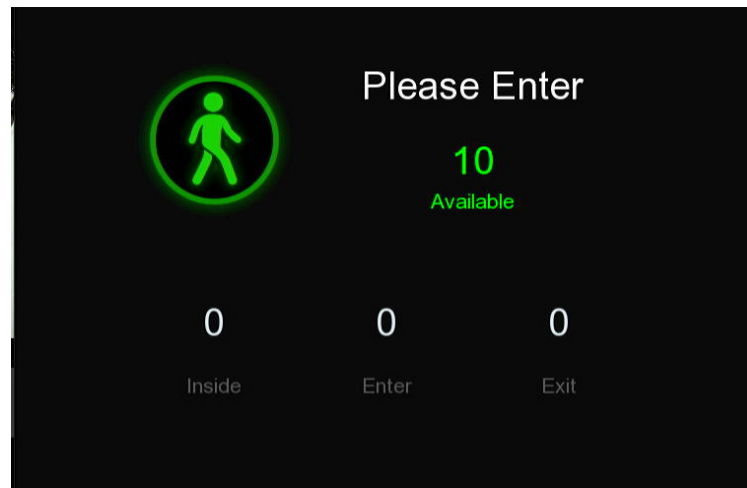
   Screen display layout of 4/6/9 channels.

 To show or hide the real-time data display.

 Clear counting data for the selected channel

 Clear counting data for all channels

## 4. Real-time counting data information bar



This bar will display the real-time counting data for the selected channel.

**Available:** Remaining allowed attendance number

**Inside:** Current attendance number inside the control area

**Enter:** Recorded number of the total entrants

**Exit:** Recorded number of the total leaving attendance.



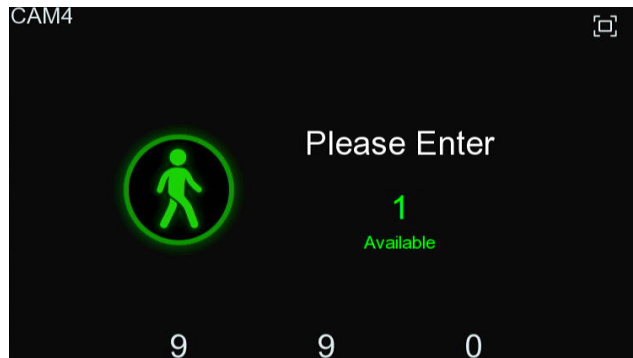
If the available number is more than 0, the carton figure will be in green color.



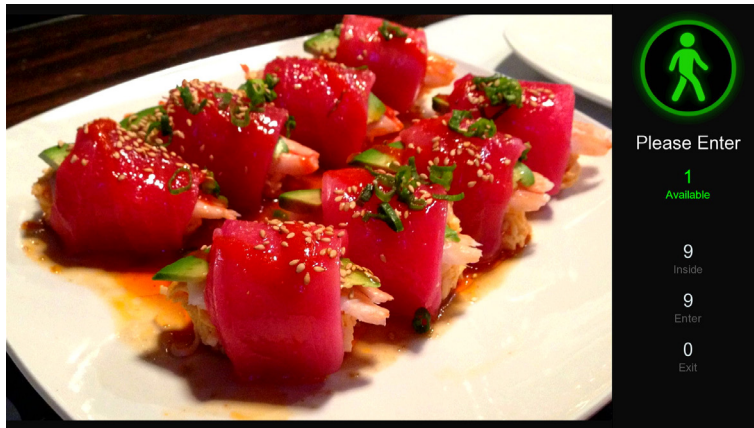
If the available number is 0, the carton figure will be in red color.

**5. Full Screen Button:**

Click the full screen icon  to display the real-time counting data for the selected channel(s) or group(s).



If you have enabled the Advertise Mode, your advertising pictures will be displayed with the real-time counting data together in the full screen mode. Learn more for Advertise Mode on 5.8.1.3 Advise Mode.



Right click your mouse to exit the full screen mode.

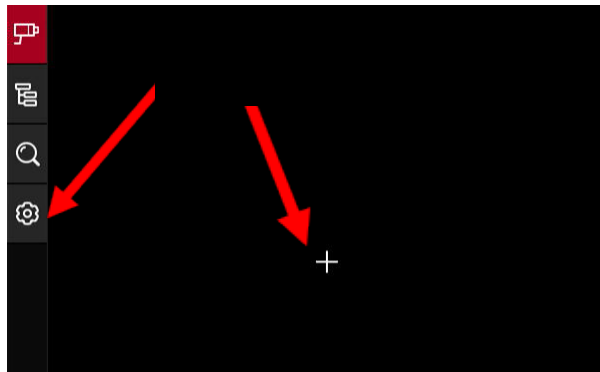
**6. Statistic data chart:**

Camera	Type	13:00	14:00	15:00	16:00	17:00	18:00
CAM4	Enter	1	3	1	0	1	0
	Exit	0	0	0	0	0	0
	Inside	4	7	8	8	9	9
CAM5	Enter	-	-	-	-	-	-
	Exit	-	-	-	-	-	-
	Inside	-	-	-	-	-	-
CAM6	Enter	0	0	0	0	0	0
	Exit	0	0	0	0	0	0
	Inside	0	0	0	0	0	0
CAM7	Enter	1	0	0	0	0	0
	Exit	0	0	0	0	0	0
	Inside	1	1	1	1	1	1

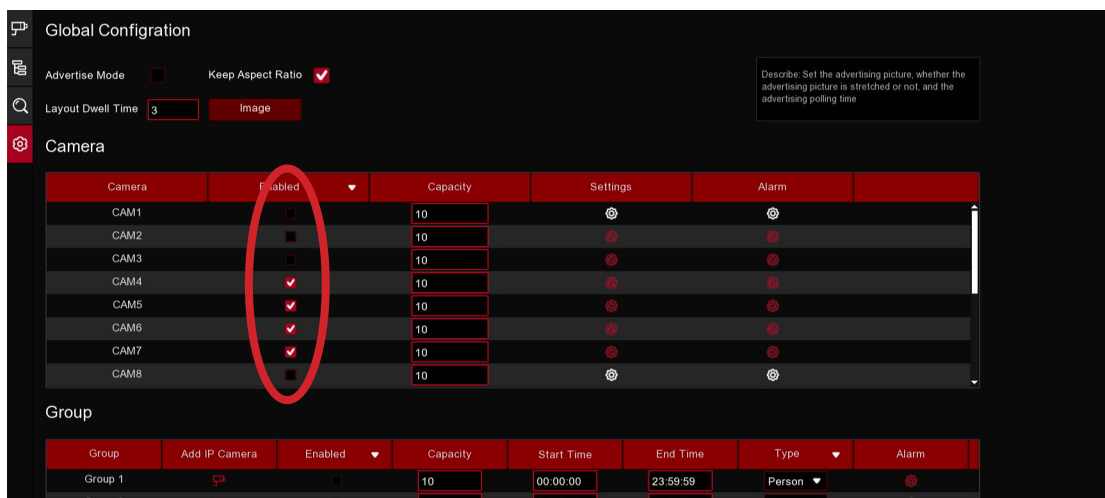
The all-day counting statistical data of all activated channels will be displayed here. Use the mouse wheel to move the timeline toward left or right.

### 5.8.1.1 Camera View Setup

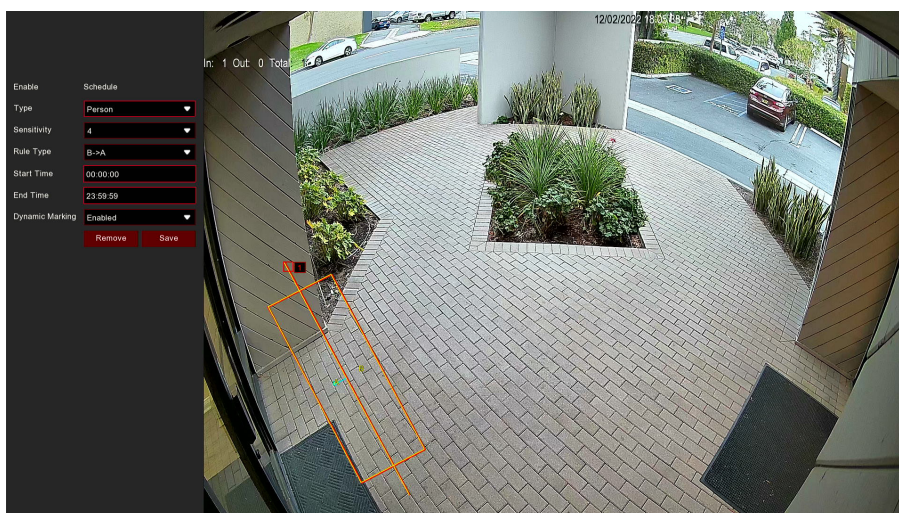
1. Click the add icon **+** or setup icon **⚙** to get to the configuration page.



2. To enable the channel(s) you want to realize the counting function in the **Camera** list. The Setup & Alarm icon **⚙** will be in blue color if the camera in that channel supports AI function; on the contrary if the camera doesn't support AI function, the icon **⚙** will be in grey color.



3. Set the **Capacity** number for each channel, which is the maximum limitation of the attendance.  
 4. Click one of the **Setup** icons **⚙** to configure the detection conditions.



**Switch:** Activate or inactivate the detection.

**Type:** Choose the detection target objects. Motion will detect all moving objects, Person will detect human beings only, Vehicle will detect vehicles only.

**Sensitivity:** Set the sensitivity level. Level 1 the lowest sensitivity level while level 4 is the highest sensitivity level.

**Rule Type:**

**A → B:** If a target object is detected moving from side A to side B, the system will count 1 to enter number; if a target object is detected moving from side B to side A, the system will count 1 to exit number.

**B → A:** If a target object is detected moving from side B to side A, the system will count 1 to enter number; if a target object is detected moving from side A to side B, the system will count 1 to exit number.

**Start Time:** Set the detection start time.


**End Time:** Set the detection end time.

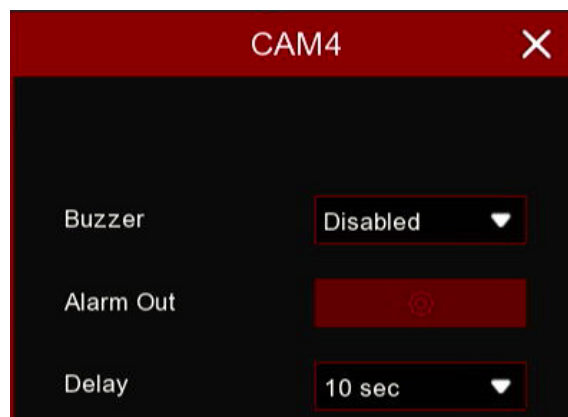
**Dynamic Marking:** If you enable this option, the border of the detection zone will be displayed in both live view images and recording files.

### Configuration Steps:

- i. Activate the **Switch**.
- ii. Choose the detection target type.
- iii. To set the **Sensitivity**.
- iv. Choose a **Rule Type**.
- v. Set the **Start Time** and **End Time**.
- vi. Use your mouse to click 2 points in the camera picture to draw a virtual line.
- vii. Click **Save** to save your settings.
- viii. If you want to modify the position or length of the line, click the red box in the line, the color of the line will be changed to red color. Click and hold the left button of your mouse to move the line, or drag the terminals to modify the length or position of the line.
- ix. If you want to remove one of the lines from the camera picture, click the red box in the line and then click **Remove** button.
- x. Right click your mouse to exit the setup page.

5. Repeat step 3 to finish the configuration for all channels you want to activate the function.

6. Click one of the **Alarm** icons  to configure the alarm actions when the Available number is 0.




**Buzzer:** Set the buzzer duration in seconds when the Available number is 0.

**Alarm Out:** If your NVR support to connect to external alarm device, you can set to emit an alarm tone.

**Delay:** To configure the external alarm time when the Available number is 0.


Right click your mouse to exit the alarm setup page, and then click Save button to save the settings.

















7. Click the **Camera View** icon  to view the live images & counting data of all activated channels.

### 5.8.1.2 Group View Setup

1. Click the add icon  or setup icon  to get to the configuration page.




2. Click the Add IP Camera icon  to add channel(s) to the group. Max. 8 groups can be set, but each one channel can be added to 1 group only. If a channel is enabled in the Channel View mode, it will be not allowed to add to any group.

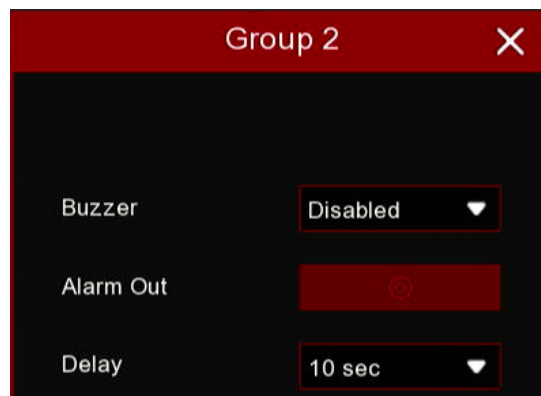
Group	Add IP Camera	Enabled	Capacity	Start Time	End Time	Type	Alarm
Group 1		<input checked="" type="checkbox"/>	10	00:00:00	23:59:59	Person	
Group 2		<input checked="" type="checkbox"/>	10	00:00:00	23:59:59	Person	
Group 3		<input checked="" type="checkbox"/>	10	00:00:00	23:59:59	Person	
Group 4		<input checked="" type="checkbox"/>	10	00:00:00	23:59:59	Person	
Group 5		<input type="checkbox"/>	10	00:00:00	23:59:59	Person	
Group 6		<input type="checkbox"/>	10	00:00:00	23:59:59	Person	
Group 7		<input type="checkbox"/>	10	00:00:00	23:59:59	Person	
Group 8		<input type="checkbox"/>	10	00:00:00	23:59:59	Person	

3. Check the Enable box to activate the group.

4. Set the **Capacity** number, **Start Time**, **End Time** of each group.

5. Choose the detection target **Type** from Person, Vehicle and Motion.

6. Click one of the **Alarm** icons  to configure the alarm actions when the Available number is 0.





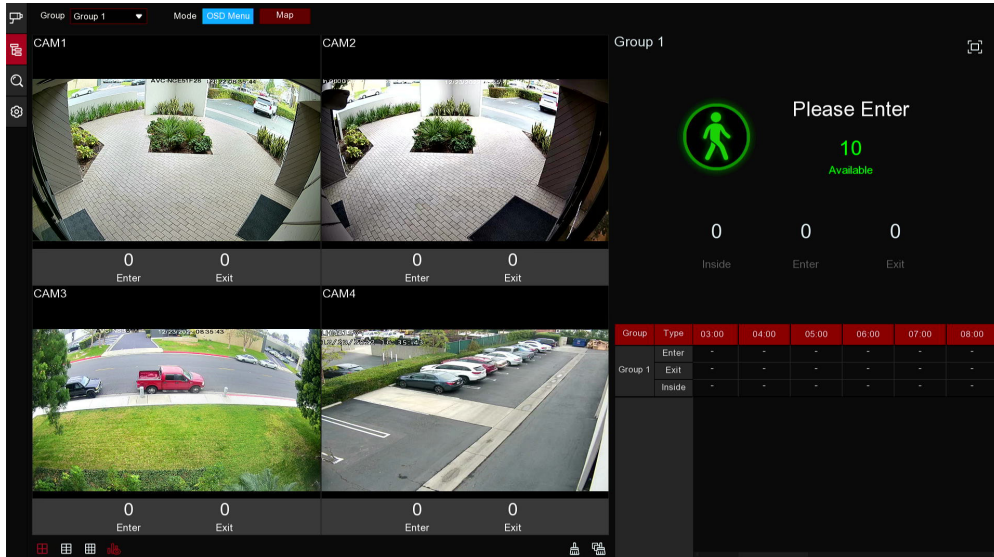
**Buzzer:** Set the buzzer duration in seconds when the Available number is 0.

**Alarm Out:** If your NVR support to connect to external alarm device, you can set to emit an alarm tone.

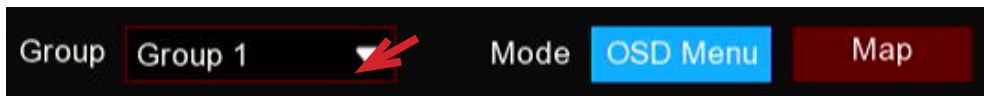
**Delay:** To configure the external alarm time when the Available number is 0.

7. Click the close icon or right click your mouse to go back to previous configuration page, and then click **Apply** button to save the settings.

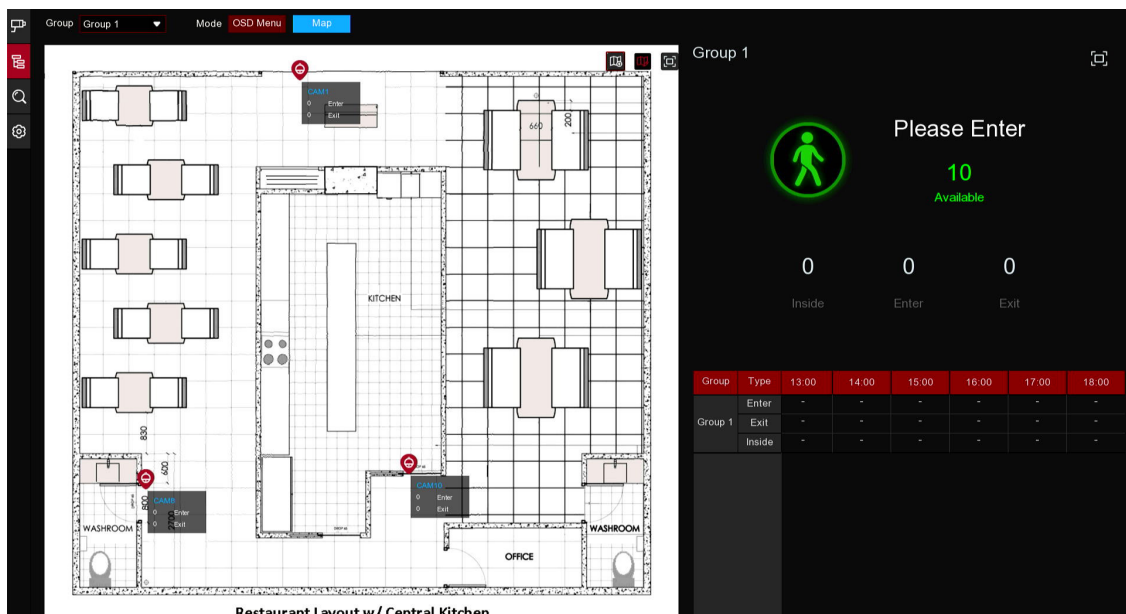
8. Click the **Group View** icon to view the live images & counting data of all activated groups.






9. You can choose which group you want to view the real-time live images and counting data.



10. Furthermore, it supports to display the counting data in Map mode. Click the Map button to configure the settings.



11. Click the  icon to add a map image from your USB memory.
12. Click icon  to adjust the site of the IP cameras. Click and hold the channel icon and move one by one to adjust the position of your IP cameras on the map. You can click  icon to display the map in full screen.

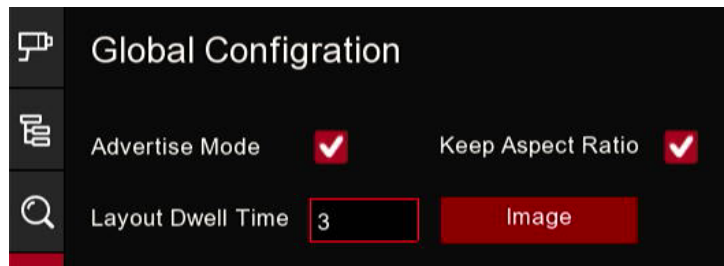
### 5.8.1.3 Advertise Mode




The system supports to demonstrate your advertising pictures with the Cross Counting functions.

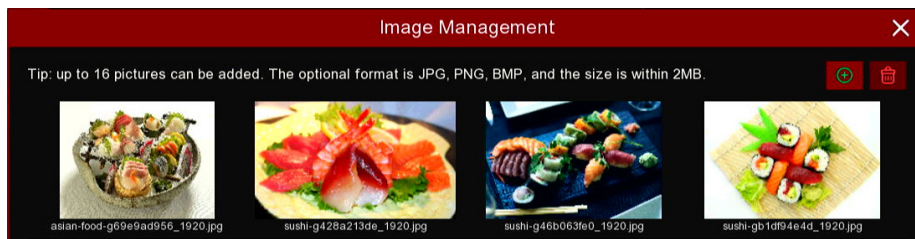
1. Click the **Configuration** icon  to in the Navigation bar to get to the configuration page.



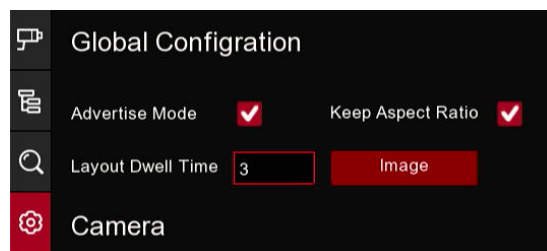
2. Check the Advertise mode in the



3. Click **Image** button to load advising pictures from your USB memory. It supports to add maximum 16 pictures with jpg, png and bmp format, and the maximum resolution should be no more than 2560x1600. Click  the add icon to add new picture(s) and click delete icon  to delete the added picture one by one. Click the close icon  or right click your mouse to go back to previous configuration page.



4. Check the **Keep Aspect Ratio** box if you want to display the images with their original aspect ratio. Uncheck the box if you want the pictures to be stretched and displayed full screen.



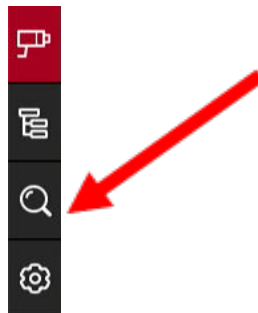



5. Set the SEQ Dwell Time in seconds which will decide how long each picture will stay in the screen.
6. Click **Apply** button to save your settings.
7. Go back to Channel View mode or Group View mode, click the full screen button on the right upper corner to display your advertising pictures and the real-time counting data for the selected channel(s) or group(s).



### 5.8.1.4 Search Counting Data

1. Click the **Search** icon  to search the counting data.

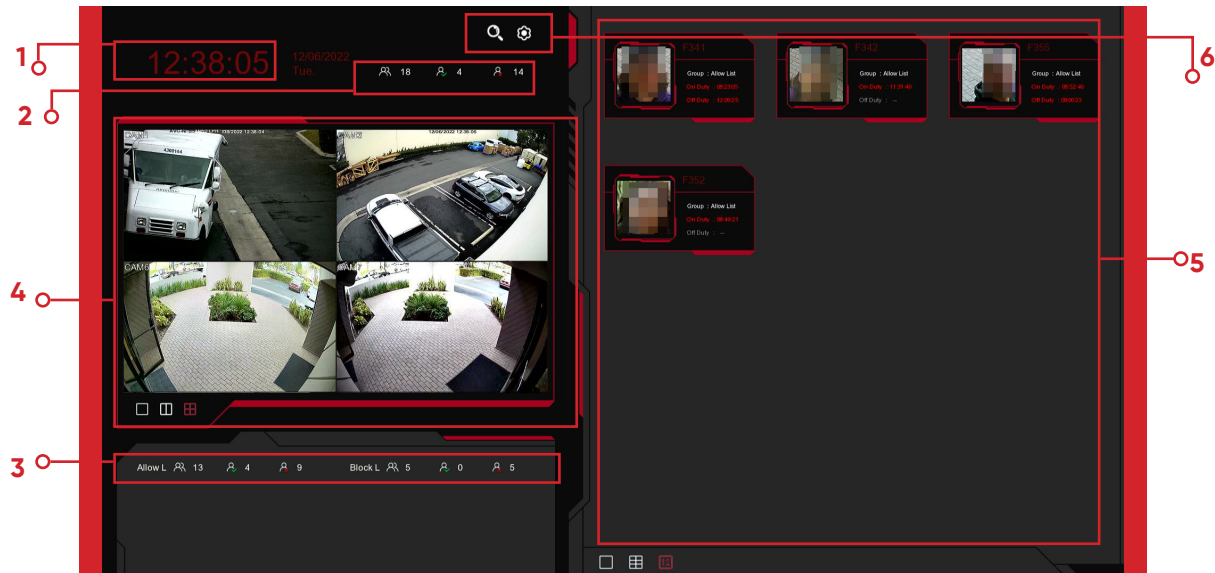


2. It is allowed to search separately for Channels and Groups. Choose the channel(s) or group(s) you want to search, set the search duration by day, by week, by month or by year and choose the target type you want to search. Click the search icon , the result will be displayed on the right side of the window.



### 5.8.2 Face Attendance

Face Attendance is an AI application based on Face Detection. You're able to view and check the real-time statistical data of attendance management visually.



1. Custom title.

2. Overall attendance statistical data of all selected groups.

3. Individual attendance statistical data of each selected group.

The total number of people who need to check attendance

The number of people who have checked attendance already

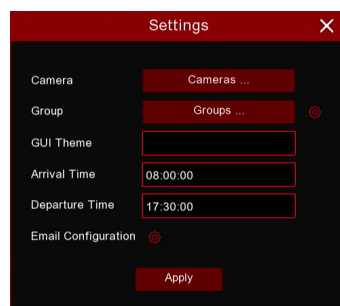
The number of people who haven't checked attendance.

4. **Live view screen:** to display the live camera images. Click the screen split icons to change the display layout.

5. Push notifications of latest persons who have checked the attendance, including the Name/ID of the person, captured face image, group, clock in time and clock out time. Normal clock in & clock out time will be displayed in green color. Abnormal clock in & clock out time will be displayed in red color. Click the screen split icons to change the display layout.

6. Click search icon to search the face attendance data. Check more on 6.10.5 Face Attendance.

Click Setting icon to configure the face attendance settings.



**Camera:** To choose the cameras for face detection

**Group:** To choose the attendance people group. If you want to edit the group database, click the icon to edit. Check more on 5.4.2.2 Database Management.

**GUI Theme:** To give a custom title to the face attendance.

**On Duty Time:** To set the on-duty time.

**Off Duty Time:** To set the off-duty time.

**Email Configuration:** To send the attendance statistical data by email. click the icon to edit the email configuration.

The screenshot shows the 'Email Configuration' window with the following settings:

- Enabled:**
- Send Email:** 08:30:00 (with a gear icon for settings)
- Mode:** Month (dropdown), 1 (dropdown)
- Scheduled Days:**
  - All
  - Sun.  Mon.  Tue.  Wed.
  - Thu.  Fri.  Sat.

Buttons at the bottom: Default, Apply

**Enable:** Check the box if you want to send the attendance statistical data by email.

**Send Email:** Set the preset time for sending the email.


**Mode:** Choose to send the email once in every Day, every Week, or every Month.

**Day:** Send the attendance statistical data of previous day once a day.

**Week:** Send the attendance statistical data of last 7 days once a week.

**Month:** Send the attendance statistical data of last month once a month.

**Working Days:** To select the working days. It will affect the attendance statistical data.

Click the setting  icon to configure your email configuration. Check more on 5.5.3.1 Email Configuration.

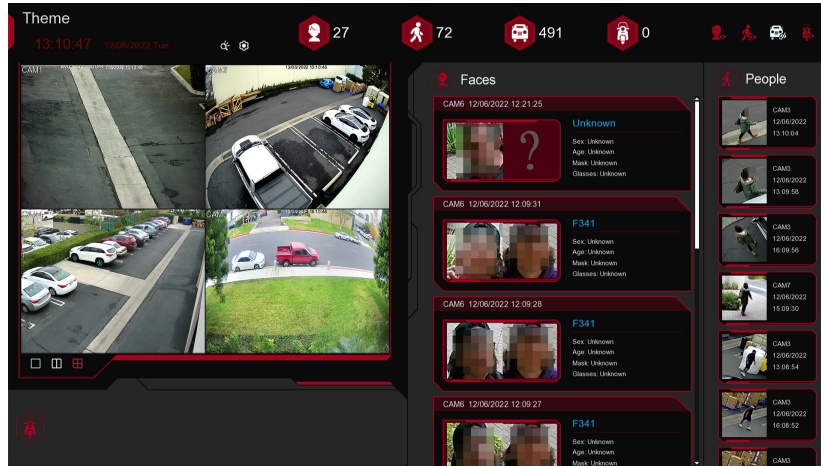
The screenshot shows the 'Email Configuration' window with the following SMTP settings:

- Email:**
- Encryption:** Auto (dropdown)
- SMTP Port:** 00587
- SMTP Server:** mail.avycon.com
- User Name:** test@avycon.com
- Password:** ••••••••
- Sender:** test
- Receiver 1:** test1@avycon.com
- Receiver 2:** test2@avycon.com
- Receiver 3:** (empty)
- Interval:** 3 Min (dropdown)

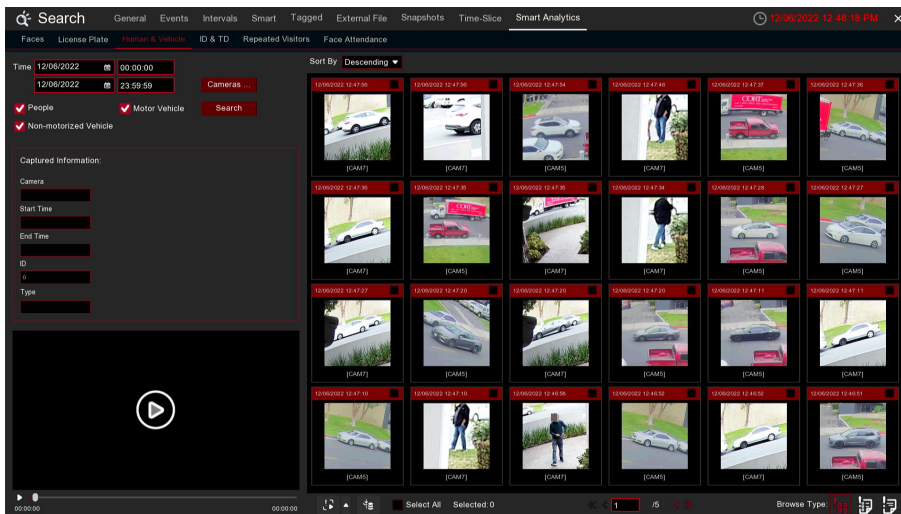
Buttons at the bottom: Test, Default, Apply

### 5.8.3 Object Classification

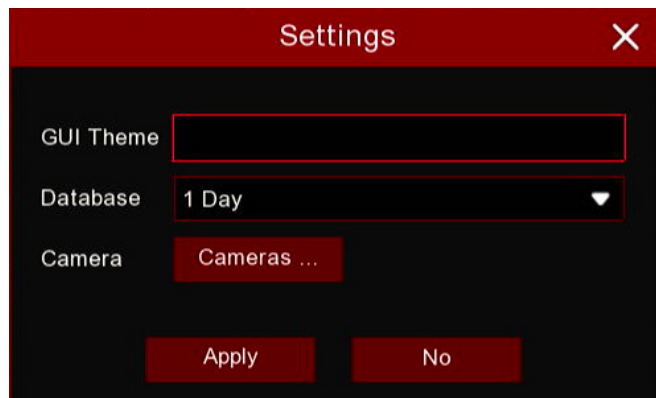
Full-screen display for the Face, Human Figure, Motor Vehicle, and Non-motor Vehicle Detection scene interface. The detection results can be viewed in real-time.



1. The interface theme of Object Classification statistics.
2. Click Enter the Human Figure/Vehicle search interface




3. Click Enter the setting interface.



**GUI Themes:** interface theme

**Database:** Statistics time, you can choose 1 day, 2 days, 3 days, 4 days, 5 days, 6 days, 7 days, week, month, year.

**Camera:** camera selection, you can choose the channel for statistics.

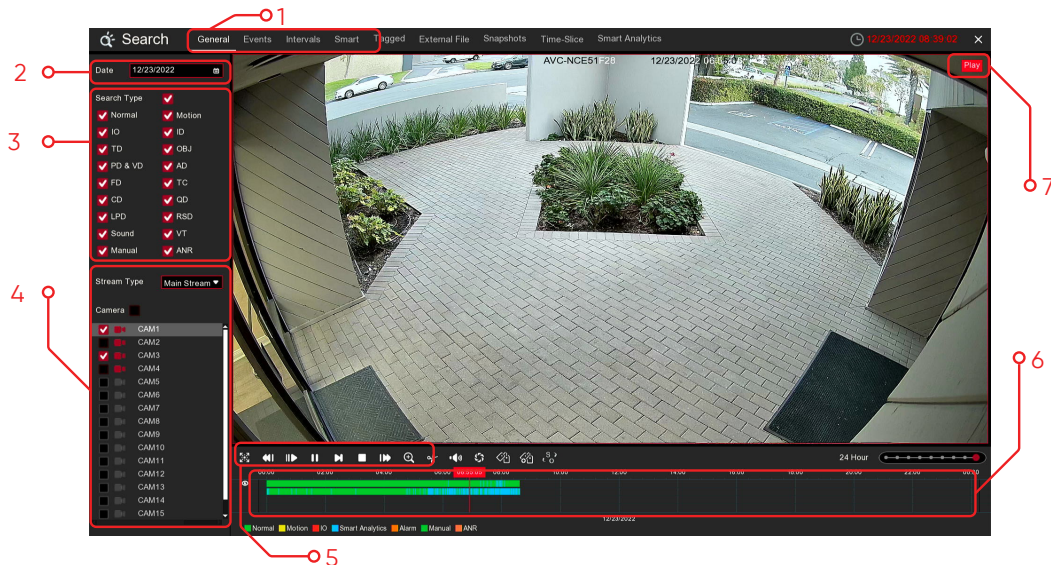
4. Display current date and time
5. Camera live view, available in  to select a camera to live view from Channels
6. Select the number of live view windows, there is one window , two windows  and four windows  live view.
7. Real-time push switch, click the icon to display/hide the real-time push of the corresponding detection results
8. Real-time push of Face Detection, displaying the detected face picture, name, and group name it comes from.
9. Real-time push of Human Figure Detection, displaying detected human figure pictures, detection channels, and detection time
10. Real-time push of Motor Vehicle Detection, displaying the detected motor vehicle pictures, detection channels, and detection time
11. Real-time push of non-motor vehicle detection, displaying detected non-motor vehicle pictures, detection channels, and detection time
12. Statistics on the number of snapshots of faces, human figures, vehicles, and non-motor vehicles.

## Chapter 6 Search, Playback & Backup

The Search function gives you the ability to search for and play previously recorded videos as well as snapshots that are stored on your NVR's hard drive. You have the choice of playing video that matches your recording schedule, manual recordings, or motion events only. The Backup function gives you the ability to save important events (both video and snapshots) to a USB flash drive.

### 6.1 Using Search Function


Click the  **Search** button in the Start Menu to enter the search section.




- 1. Search Options:** The system provides various search and playback methods: General, Events, Sub-periods, S.M.A.R.T, and Pictures.
- 2. Search Date:** Search by a date to play back.
- 3. Search Type:** The system provides different search types to narrow your search.
- 4. Camera Selection:** To choose the cameras you want to search and play.
- 5. Video Playback Controls:** To control the video playback.




 Enlarge the video playback to full screen.

 Rewind, x2, x4, x8, and x16.


 Slow Play, 1/2, 1/4, 1/8, and 1/16 speed.

 Play

 Pause

 Play frame by frame. Click once to play a frame of the video.

 Stop

 Fast Forward, x2, x4, x8, and x16.

 **Digital Zoom:** Click to zoom in then click-and-drag on a camera image during playback to zoom in on the selected area. Right click to return to regular playback.

 **Video Clip:** Quickly save a section of video to a USB flash drive. View more on [6.1.1.1 Video Clip Backup](#).







Save Video Clip.



Volume Control: scroll the slider bar to increase or decrease volume.



Snapshots: To capture a snapshot image to your USB flash drive. If the video playback is in split-screen view, move the cursor to the channel you want to capture, then click the  icon to save the snapshot.

6. **Timeline:** Continuous recordings are shown with colored bars to represent different types of recording (legend shown in the bottom-right corner of the display). Use the timeframe options () to view a smaller or larger time period.

#### Different types of recording shown in different colors:

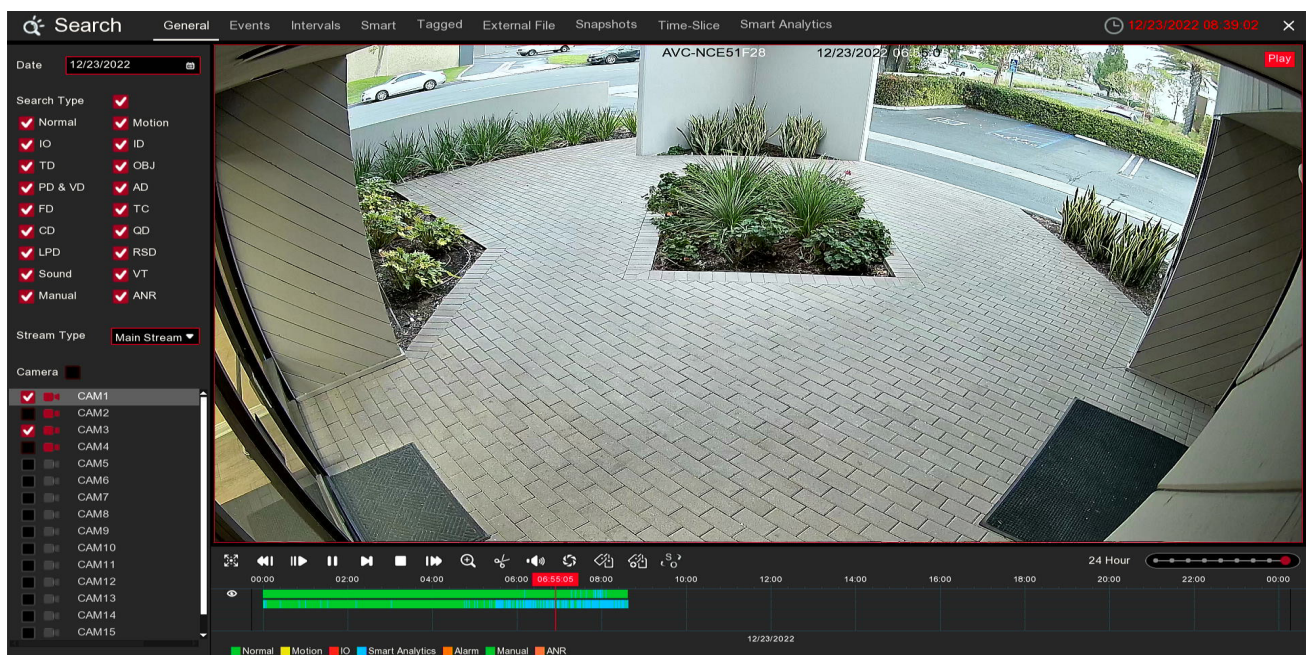





Normal Recording in **Green** color;  
 Motion Recording in **Yellow** color;  
 I/O Recording in **Red** color;  
 PIR Recording in **Purple** color;  
 Smart Analytics in **Blue** color;  
 Alarm in **Orange** color;  
 Manual in **Green** Color

7. **Playback Status:** Display the video play status.

### 6.1.1 Search & Play Video in General

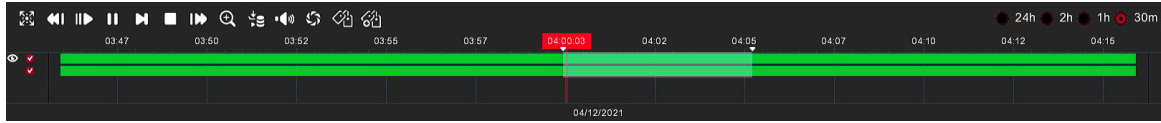
This menu gives an option to search and play recording for a selected date.







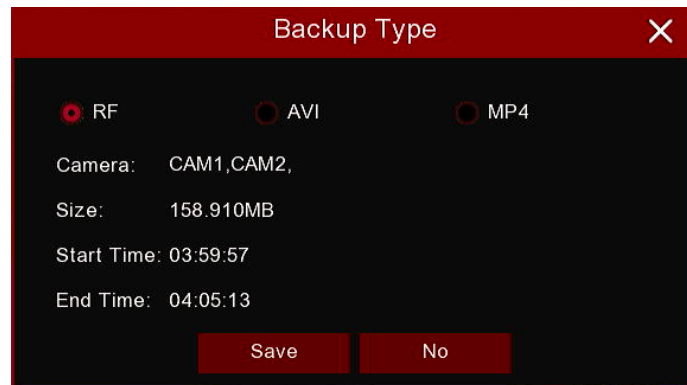
1. Select a date to search for video recording from the calendar.
2. Choose a search type.
3. Check cameras you would like to search, or check **Camera** to search all connected cameras.
4. The search result will display on the timeline from 00:00 to 24:00.
5. Click the  button to start playback.
6. Control the playback with buttons on **Video Playback Controls**.
7. Use the timeframe options () to view a smaller or large time period.
8. If you want to quickly save a section of video during play back to a USB flash drive, use the  **Video Clip** backup function.



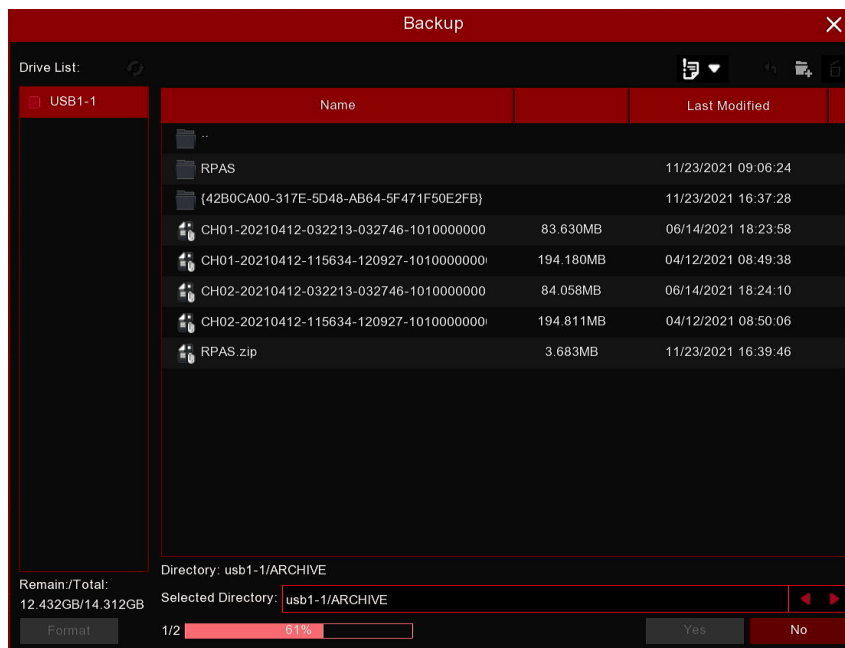
## 6.1.1.1 Video Clip Backup



1. Insert your USB flash drive to the NVR.
2. Start a video recording playback.
3. Click the  icon.
4. Check the camera(s) you want to make a video clip backup.
5. Move the mouse cursor to the timeline where you want to start the video clip.
6. Press and hold the left button of your mouse, and drag the cursor to the timeline where you want to end the video clip.
7. The  icon has been changed to a , click  to save the video clip.
8. Select a file type for your backup files, click the **Save** button to save the video clips. Please make sure your USB driver has enough space to save the video clips.

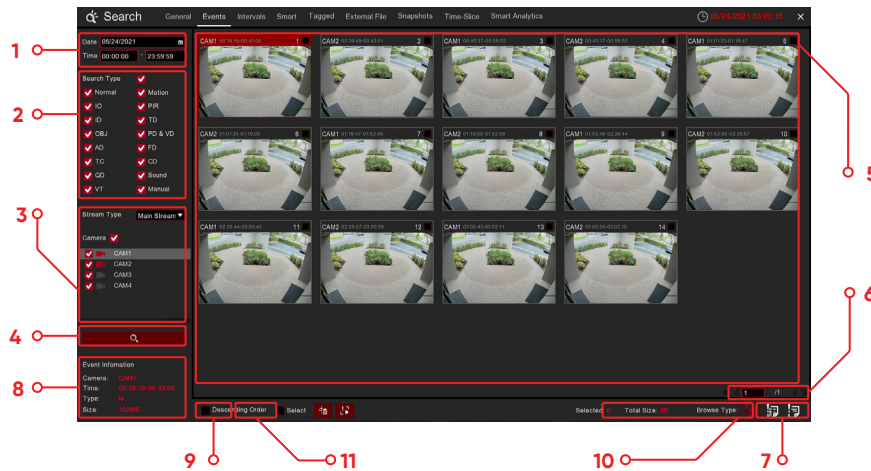


1. The backup drive menu appears. Navigate to the folder you want the backup files to save in.
2. Click **OK** to begin. The progress bar at the bottom of the window shows you the progress of the backup.



### 6.1.2 Event Search, Playback, & Backup

Event search lets you view a list of video recordings with the camera, start and end time, and recording type conveniently summarized. You can also quickly back up events to a USB flash drive.



To search, play, and back up for events:

1. Choose the date and time you want to search.
2. Check the recording types you want to search, or check Search Type to choose all.
3. Choose the cameras you want to search, or check Camera to choose all cameras.
4. Click the icon to start search.
5. Events fitting your search criteria are displayed in list form. You can double-click the left button of your mouse upon one of the events to play the video immediately.
6. Click icons in the bottom-right corner of the menu to browse between pages of events, or input the page you want to browse.
7. You can switch the view of the list form by clicking the icons below which is located at the bottom right corner of the screen:

**Thumbnails view.** You can view the snapshots of the events.

**List view.** The events will be displayed in a list.

1	CAM1	00:39:19	2	CAM2	00:39:49	3	CAM1	00:45:37	4	CAM2	00:45:37	5	CAM1	01:01:33	6	CAM2	01:01:33	7	CAM1	01:18:47	8	CAM2	01:19:00
9	CAM1	01:52:46	10	CAM2	01:52:59	11	CAM1	02:26:44	12	CAM2	02:26:57	13	CAM1	03:00:43	14	CAM2	03:00:56						

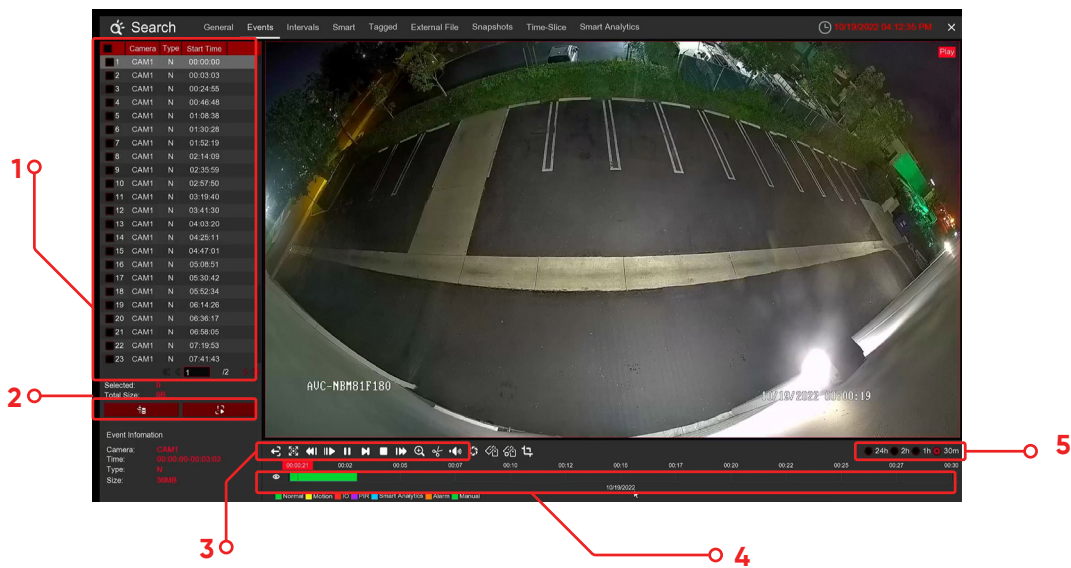
**Detailed view.** You can view the details of the events.








#	Camera	Type	Date	Start Time	End Time	Size	Playback	Lock
1	CAM1	N	05/24/2021	00:39:19	00:43:00	102MB		
2	CAM2	N	05/24/2021	00:39:49	00:43:01	96MB		
3	CAM1	N	05/24/2021	00:45:37	00:58:55	398MB		
4	CAM2	N	05/24/2021	00:45:37	00:58:55	393MB		
5	CAM1	N	05/24/2021	01:01:33	01:18:47	516MB		
6	CAM2	N	05/24/2021	01:01:33	01:19:00	522MB		
7	CAM1	N	05/24/2021	01:18:47	01:52:46	1018MB		
8	CAM2	N	05/24/2021	01:18:00	01:52:59	1018MB		
9	CAM1	N	05/24/2021	01:52:46	02:26:44	1018MB		
10	CAM2	N	05/24/2021	01:52:59	02:26:57	1018MB		
11	CAM1	N	05/24/2021	02:26:44	03:00:43	1018MB		
12	CAM2	N	05/24/2021	02:26:57	03:00:56	1018MB		
13	CAM1	N	05/24/2021	03:00:43	03:02:11	46MB		
14	CAM2	N	05/24/2021	03:00:56	03:02:10	38MB		

In the detailed view mode, you can lock the video events to keep events from being overwritten in the hard drive. Click the icon to lock or click the to unlock the events.

8. When you click the left button of your mouse on one of the events, the system will show the event information on the bottom left corner of the screen.
9. Check the box next to the number of the event to select files, or check the box next to Select to select all events in the page.
10. The number of selected files and total size information will be displayed at the bottom right of the screen.
11. After selecting the file(s), you can click the icon to save the video to a USB flash drive, or click the icon into the event playback control window to play the video.

## 6.1.2.1 Event Playback Control



1. Event List, you can select the events here.
2. Click the  icon to save your selected event videos to USB flash drive. Click  to play video.
3. Control the playback with buttons on the Video Playback Controls. You can click the  icon or right click on your mouse to exit the playback and return to the event search window.
4. The event you are playing now will be displayed on the timeline.
5. Use the timeframe options (     ) to view a smaller or larger time period.
6. Videos are being played in split-screens.
7. Click the left button of your mouse upon a particular split-screen, the time period of the video split-screen will be displayed on the timeline. The color bar on the top of the timeline indicates the time span of the video split-screen you have clicked. The color bar on the bottom of the timeline indicates the time span for the whole videos you have searched.

### 6.1.3 Sub-periods Playback

Sub-periods playback allows you to play multiple normal recordings and motion events simultaneously from a single camera. With normal and event recordings, the video is divided evenly depending on the split-screen mode that has been selected. For example, if the video is an hour long and you have selected Split-screens x 4, each split-screen will play for 15 minutes.

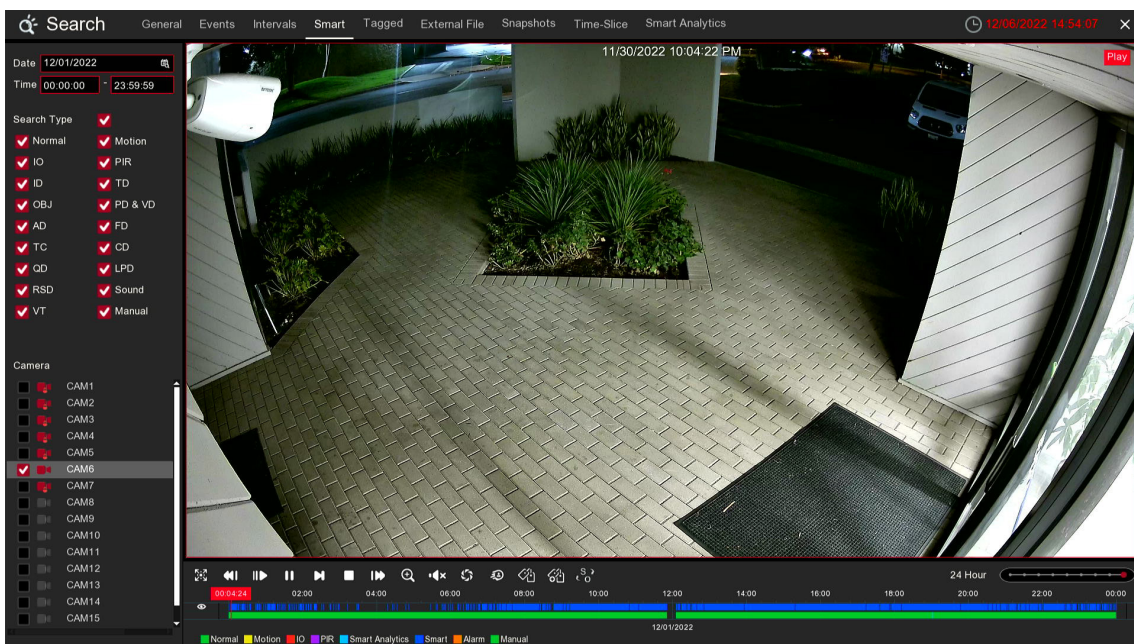


#### To Search & Play video in sub-periods:

1. Choose the date and time you want to search.
2. Choose the split-screens you want the videos to be played in.
3. Check the recording types you want to search, or check **Search Type** to choose all.
4. Choose the cameras you want to search. Please note that this function only supports Search & Play one camera at a time.
5. Click the play button ▶ to start playing. Control the playback with buttons on **Video Playback Controls**.

### 6.1.4 Smart Search

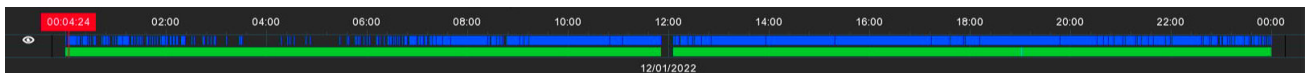
With Smart search function, you will be able to quickly search and play the motion recording videos which were triggered by human beings.



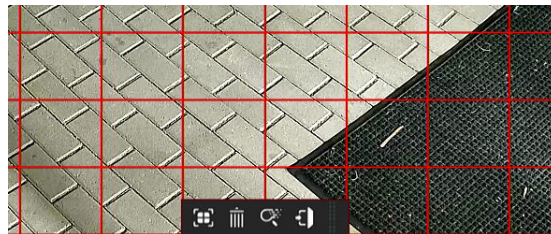


**To search & play video in Smart Search:**





1. Choose the date & time you want to search.
2. Check the recording types you want to search, or check Search Type to choose all.
3. Choose the camera you want to search. Smart Search supports to search & play one camera only at a time.
4. The Smart Search result will be displayed in the time slot in blue color.





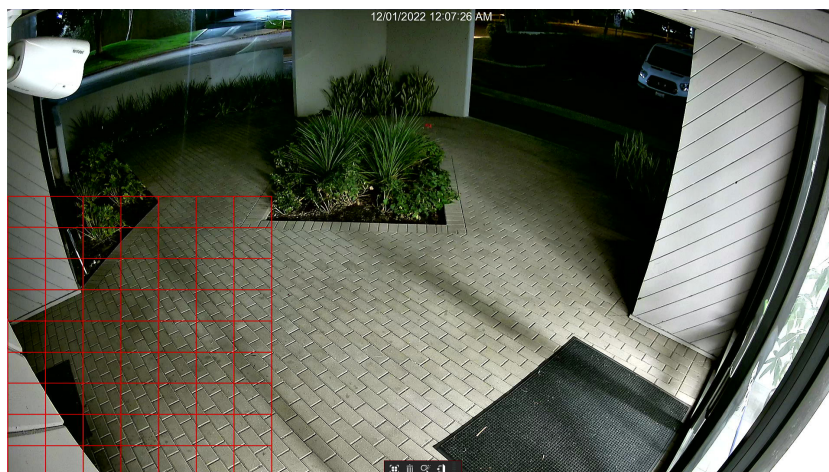
5. Click the play button to start playing. Control the playback with buttons on Playback Controls.
6. It supports to narrow the search by selecting a certain area in the images. Click the icon on the Playback Controls bar, the area selection page will be displayed.



The selected area will be marked with red grids.

-  : select whole image.
-  : clear your selection.
-  : go back to playback interface.
-  : search.

Click  button to clear all selection, and then use your mouse to select the certain areas you want to search in the image. Click  button, the system will search and display the smart search result for the selected areas.



### 6.1.5 Tag Search

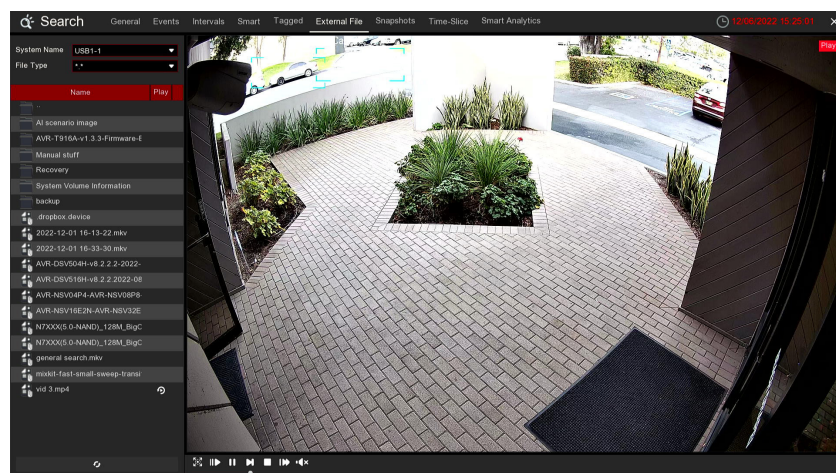
You can search, play and manage the contents with tags you added in live view and/or playback.

Events	Intervals	Smart	Tagged	External File	Snapshots	Time-Slice	Smart Analytics	12/06/2022 15:09:00	X
	Tags	Camera	Date	Time	Playback	Edit	Delete		
1	INTRUSION	CAM3	12/06/2022	14:55:43	🔍	✎	🗑️		
2	INTRUSION	CAM6	12/06/2022	15:06:55	🔍	✎	🗑️		
3	INTRUSION	CAM5	12/06/2022	15:07:18	🔍	✎	🗑️		
4	INTRUSION	CAM3	12/06/2022	15:07:37	🔍	✎	🗑️		
5	INTRUSION	CAM7	12/06/2022	15:07:55	🔍	✎	🗑️		
6	INTRUSION	CAM10	12/06/2022	15:08:16	🔍	✎	🗑️		

1. Select the start time and end time you want to search.
2. Select the camera(s) you want to search.
3. If you gave customized tag names to the tags, you can input the keyword to narrow your search.
4. Click 🔍 button to search. The tags will be displayed on the right window. Click the play button ▶️ to start playing.
5. If you want to modify the tag name, click ✎ button. Click 🗑️ button to delete the tag.

### 6.1.6 Play External File

The NVR supports to play the videos saved in the external USB memories.




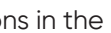
Insert your USB memory into the USB port, find out the folder where the video files are saved, and then click the play icon ▶️ to play the video.

## 6.1.7 Picture Search &amp; View


This function can be used to search, play, and copy snapshots to a USB flash drive.



To search, play, and back up pictures:

1. Choose the date and time you want to search.
2. Check the picture capture types you want to search, or check Search Type to choose all.
3. Choose the cameras you want to search, or check Camera to choose all cameras.
4. Click the  button to start search.
5. Pictures fitting your search criteria are displayed in list form. You can double-click one of the pictures to get a larger view.
6. Click the  icons in the bottom-right corner of the menu to browse between pages of pictures, or input the page you want to browse.
7. You can switch the view of list form in by clicking below icons which is show at the right bottom corner of the screen:

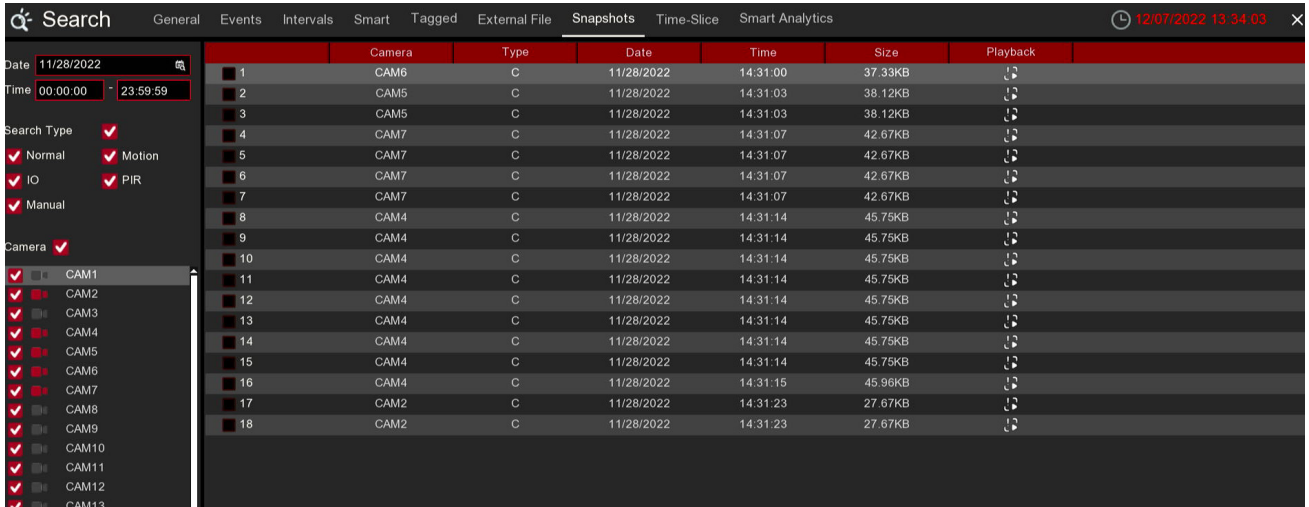
 **Thumbnails view:** You can view the snapshots of the events.



 **List view:** The events will be displayed in list.

1	CAM6 14:31:00	2	CAM5 14:31:03	3	CAM5 14:31:03	4	CAM7 14:31:07	5	CAM7 14:31:07	6	CAM7 14:31:07	7	CAM7 14:31:07	8	CAM4 14:31:14
9	CAM4 14:31:14	10	CAM4 14:31:14	11	CAM4 14:31:14	12	CAM4 14:31:14	13	CAM4 14:31:14	14	CAM4 14:31:14	15	CAM4 14:31:14	16	CAM4 14:31:14
17	CAM2 14:31:23	18	CAM2 14:31:23												













 Detailed view. You can view the details of the events.



8. When you click the left button of your mouse upon one of the pictures, system will show the picture information on the left bottom corner of the screen.
9. Check the box next the number of the event to select files, or check the box next Select to select all pictures in the page.
10. The number of selected files, total size information will be displayed at the right bottom of the screen.
11. After selecting file, you can click  button to save the pictures to USB flash drive. Or click  button to go into picture preview control window.

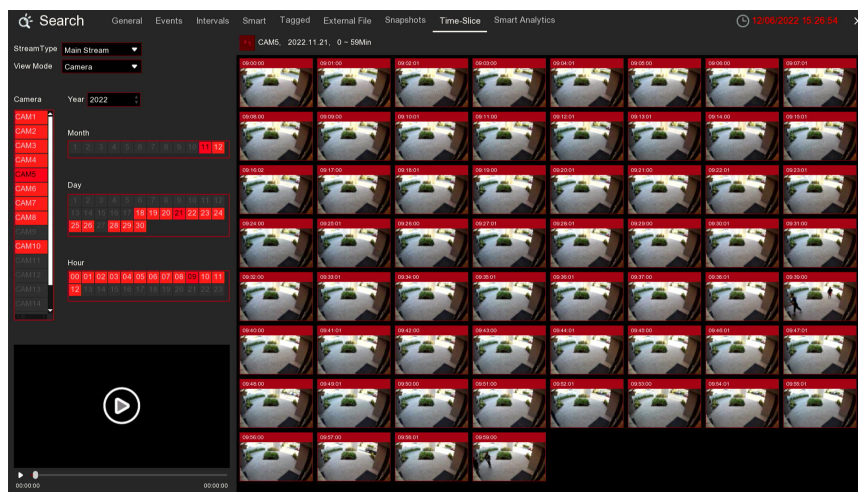
### 6.1.7.1 Picture Preview Control



1. Picture List, you can select the pictures here.
2. Click the  button to save your selected pictures to a USB flash drive. Click the  button to view the pictures in slideshow.
3. Press the  button to exit preview control window and go back to the picture search window. Press the  button to pause, press the  to resume the slideshow. Press the  button to display the previous snapshot or group of snapshots, press the  to display the next snapshot or group of snapshots. Click the  button to view a single snapshot at a time, click the  button to view four snapshots at a time, press the  button to view nine snapshots at a time.

### 6.1.8 Slice Search

This is a function to slice each hour's video into 60 fragments.

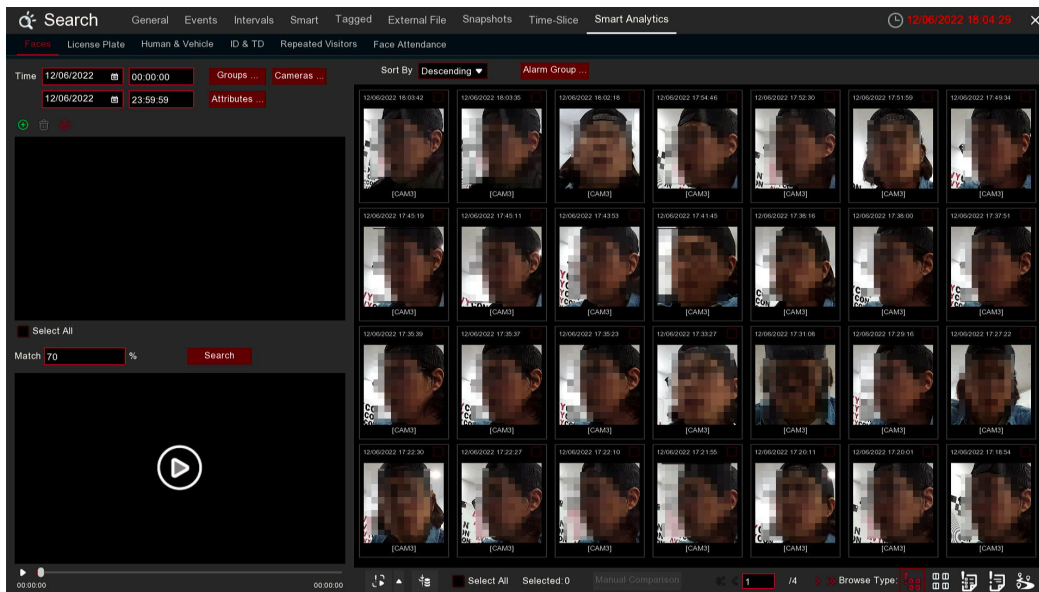




Choose the video stream type, camera, date and hour. The system will display 60 thumbnail images of each minute on the screen. Click on any one of the thumbnail images, the video will be played on the left bottom corner.

### 6.1.9 AI Search


#### 6.1.9.1 Face

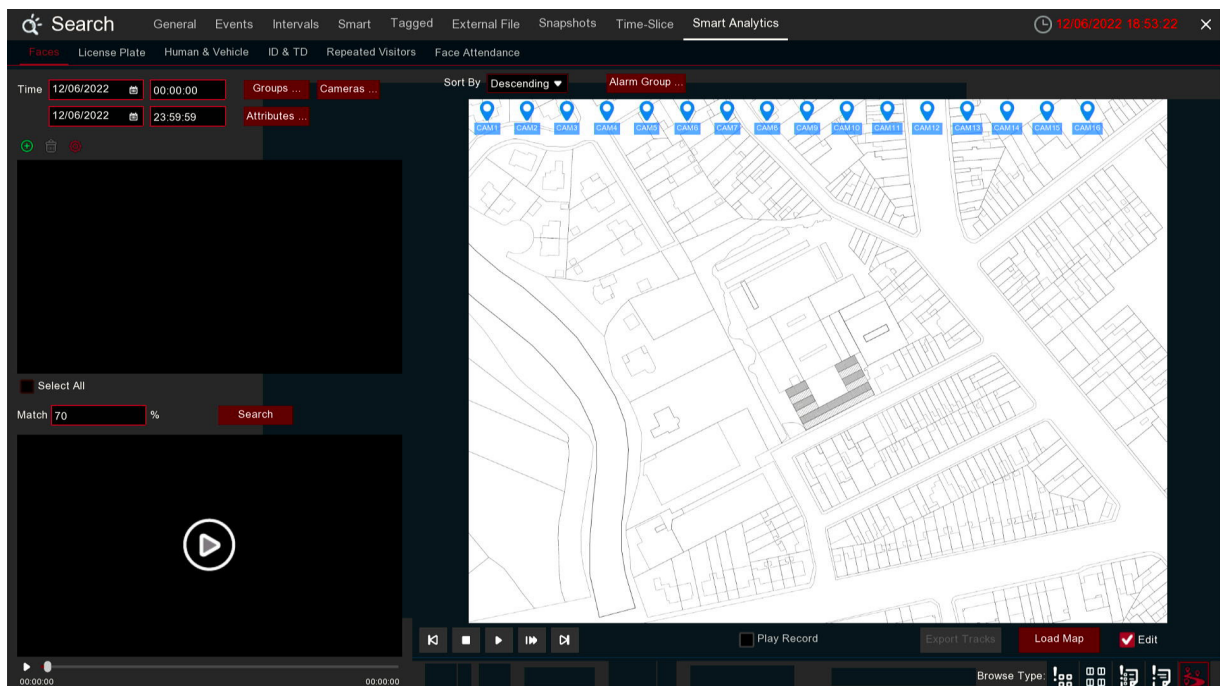
Choose date, time, channel, groups to search all captures faces.



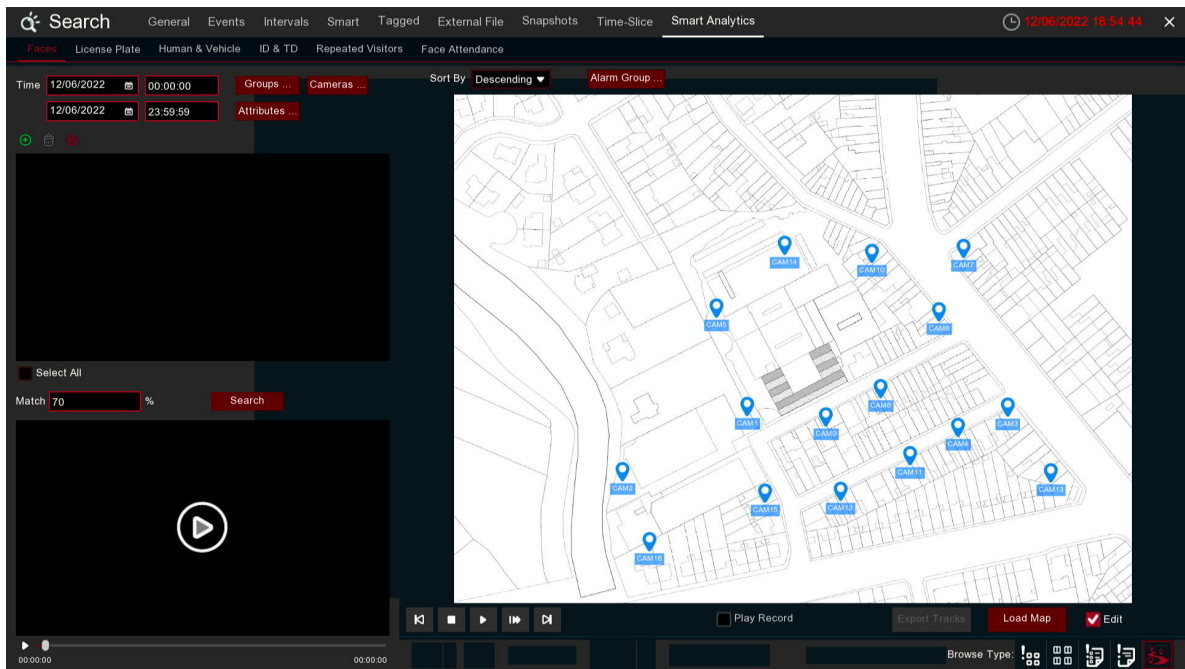
1. Click  icon to add customized faces.
2. Choose the **Cameras** you want to search.
3. You can also set search conditions of the front features in **Attributes**.
4. Choose the comparison group in **Alarm Groups**.
5. Click  icon to configure the AI settings.

### 6.1.9.2 E-Map

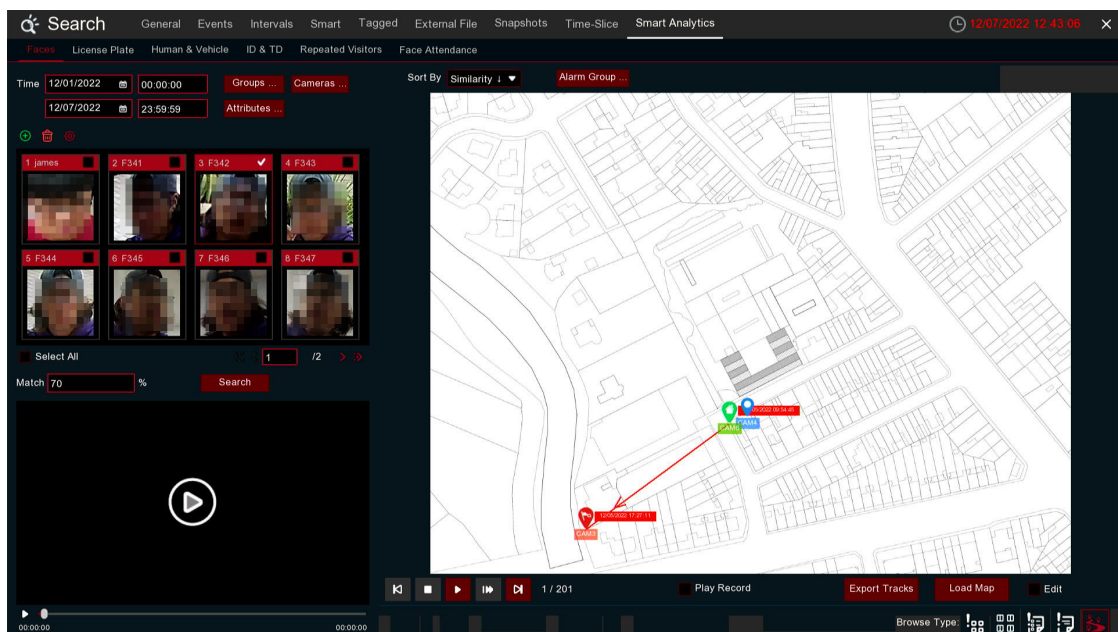
E-Map function helps to track a person's faces. Click the  icon to sets the E-Map function.



1. Click **Load Map** button to load a map image from your USB memory.
2. Check the **Edit** box. Click and hold the channel icon and move one by one to adjust the site of your IP cameras on the map. Uncheck the Edit box to quit the edition.

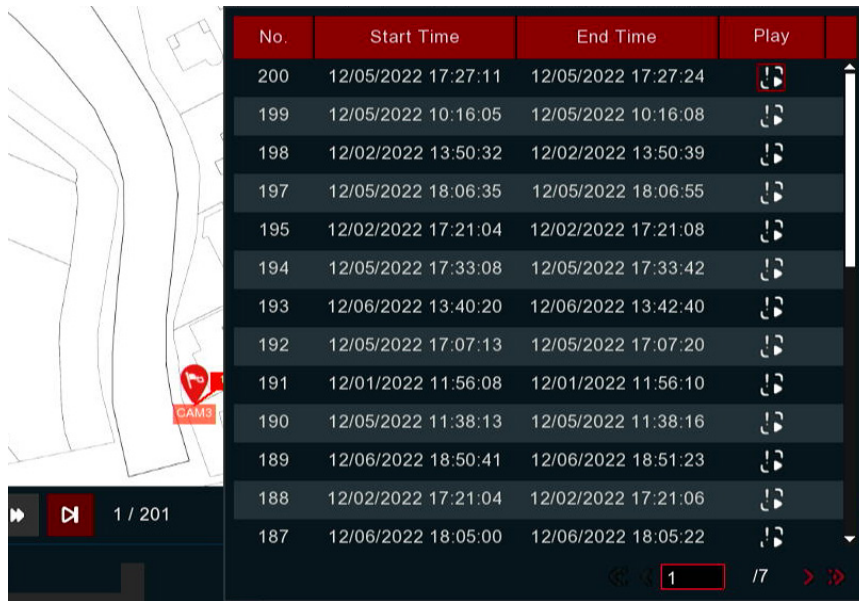


3. Click **+** icon to select one face image from local storage or external USB storage. Select date & time, group(s), channel(s), set the similarity rate, and then click Search button. The system will display the result on the e-map. If the person was captured by multiple cameras, the system will display his/her moving track on the map.





4. Click upon one of the sites, it will display the captured date & time. Click the Play button, the recorded video will be played on the left bottom corner.

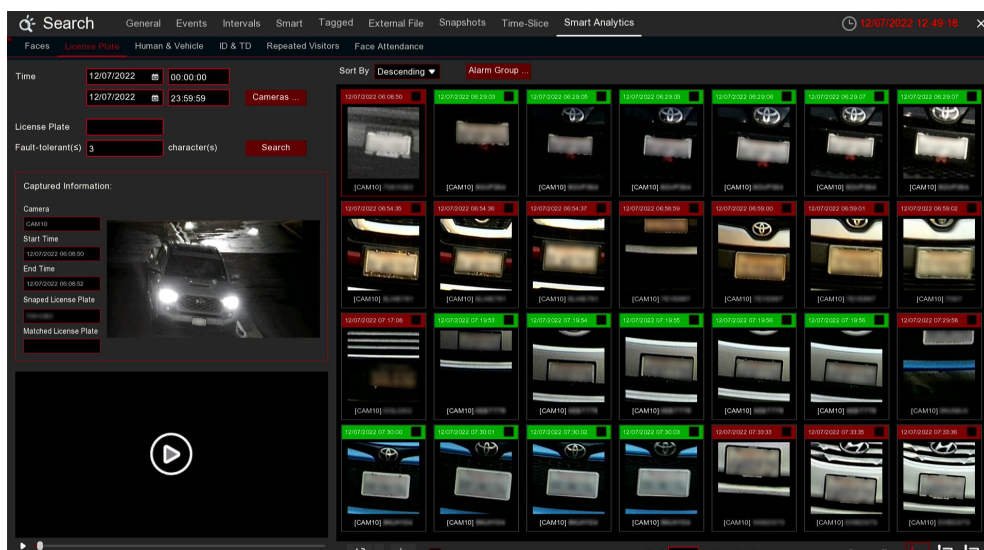


5. Click the play button on the play control, the system will automatically demonstrate the moving track. Check the Play Record box, recorded videos will be played meanwhile.

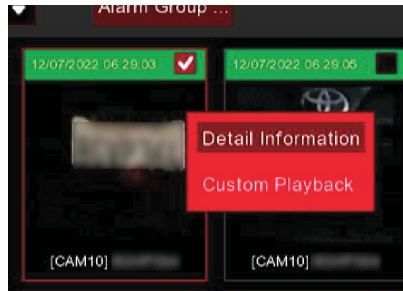





### 6.1.9.3 License Plate

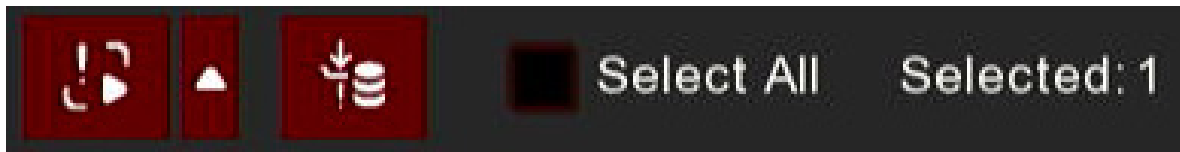
The system provides a quick search for human beings and vehicles.



1. Select the date & time, camera(s).
2. **Choose the detection type: *Human* and/or *Vehicle*.**
3. Click **Search**, the result will be displayed on the right side of the window.
4. Click one of the images, the system will show its basic information on the left side of the window, and the video will be played on the left bottom side.
5. Right click your mouse upon one of the images, you will have 2 options:
  - A. To view the file information.
  - B. To start playback of the file.

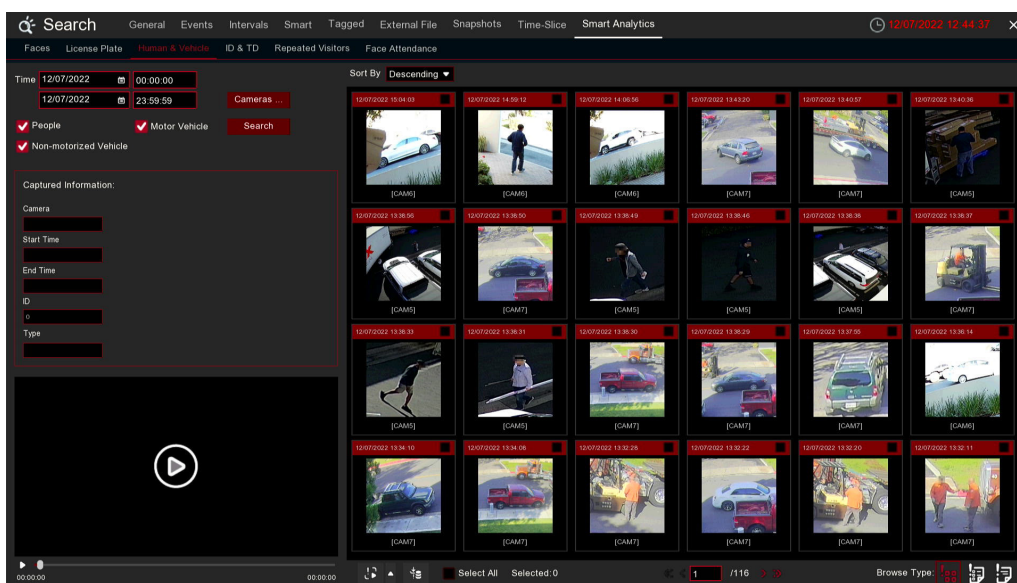


6. Choose one or more files, click the play button  the system will turn to the playback interface to play the selected file(s). Click the  icon to select the time duration you would like to play. Click  to save the selected file(s) to your USB memory.



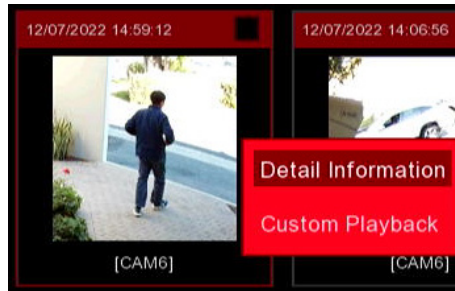
### 6.1.9.4 Human & Vehicle




The system provides a quick search for human beings and vehicles.

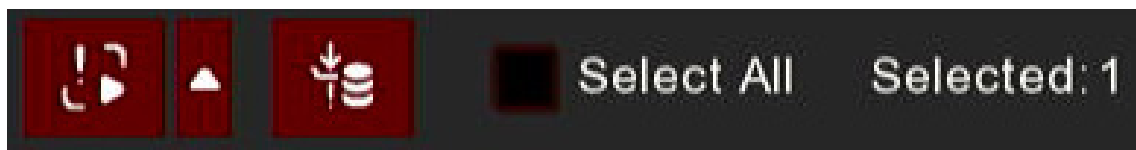




1. Select the date & time, camera(s).
2. **Choose the detection type: *Human* and/or *Vehicle*.**
3. Click **Search**, the result will be displayed on the right side of the window.
4. Click one of the images, the system will show its basic information on the left side of the window, and the video will be played on the left bottom side.
5. Right click your mouse upon one of the images, you will have 2 options:
  - A. To view the file information.
  - B. To start playback of the file.

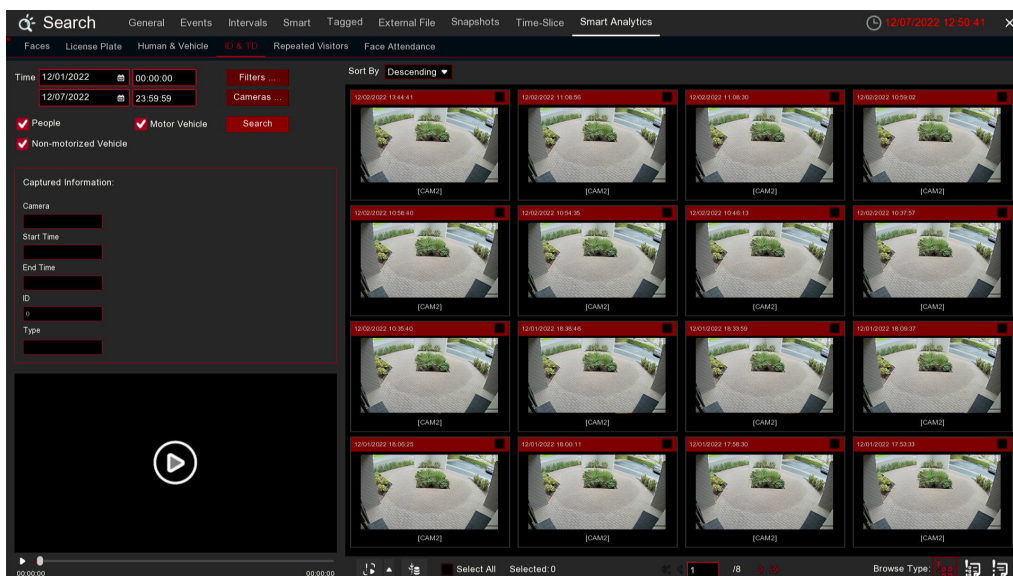


6. Choose one or more files, click the play button , the system will turn to the playback interface to play the selected file(s). Click the  icon to select the time duration you would like to play. Click  to save the selected file(s) to your USB memory.

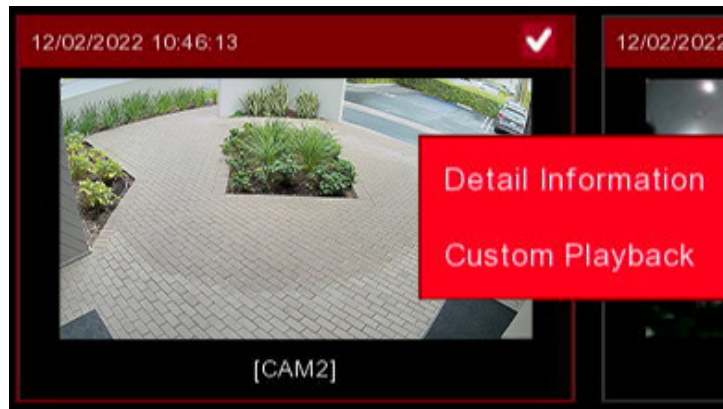





### 6.1.9.5 ID & TD

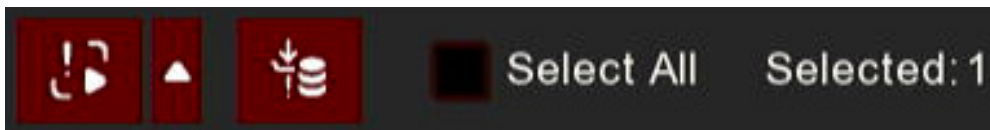
The system provides a quick search for ID & TD.



1. Select the date & time, camera(s).
2. Select ID and/or TD in *Vigilance*.
3. **Choose the detection type: Human and/or Vehicle.**
4. Click Search, the result will be displayed on the right side of the window.
5. Click one of the images, the system will show its basic information on the left side of the window, and the video will be played on the left bottom side.
6. Right click your mouse upon one of the images, you will have 2 options:
  - A. To view the file information.
  - B. To start playback of the file.

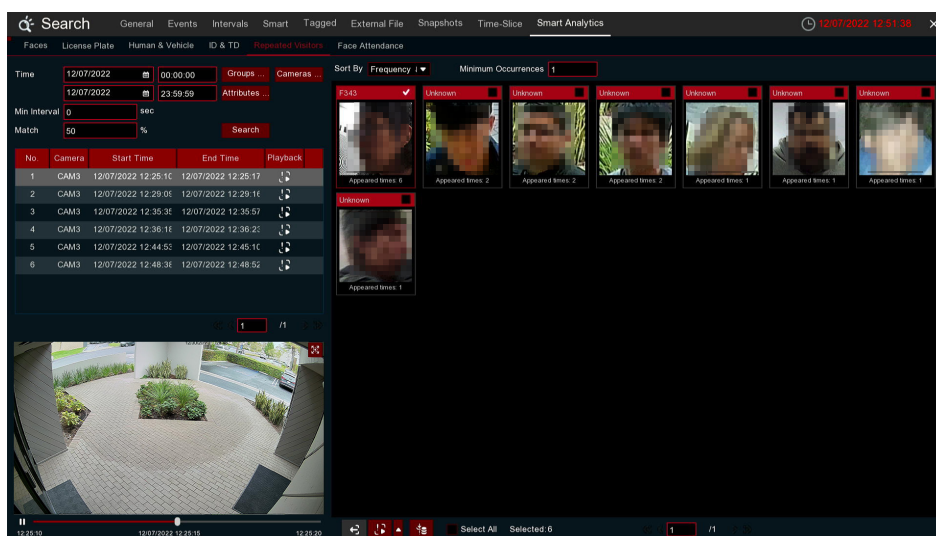


7. Choose one or more files, click the play button , the system will turn to the playback interface to play the selected file(s). Click the  icon to select the time duration you would like to play. Click  to save the selected file(s) to your USB memory.

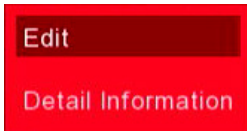


### 6.1.9.6 Repeat Visitors

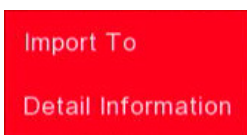
This is a function to fast search the frequency of occurrence of persons in a certain time period.



1. Select the date & time, group(s) & camera(s).
2. Set the **Attributes**.
3. Set the **Min. Interval** time (second).
4. Click **Search**, the result will be displayed on the right side of the window.
5. You can sort the result by **Time** and **Frequency**.
6. You can narrow the result by setting the **Minimum Occurrence** number.
7. Click one of the images, the system will show its relative information, including channel, captured start and end time on the left side of the window, and the video will be played on the left bottom side.
8. Right click your mouse upon one of the images, you will have 2 options:

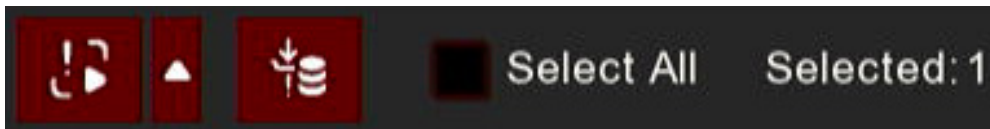


A. If the face exists in the face database, you are able to edit and check the face information.



B. If the face doesn't exist in the face database, you are able to add and check the face information.

9. Choose one or more files, click the play button , the system will turn to the playback interface to play the selected file(s). Click the icon to select the time duration you would like to play. Click to save the selected file(s) to your USB memory.

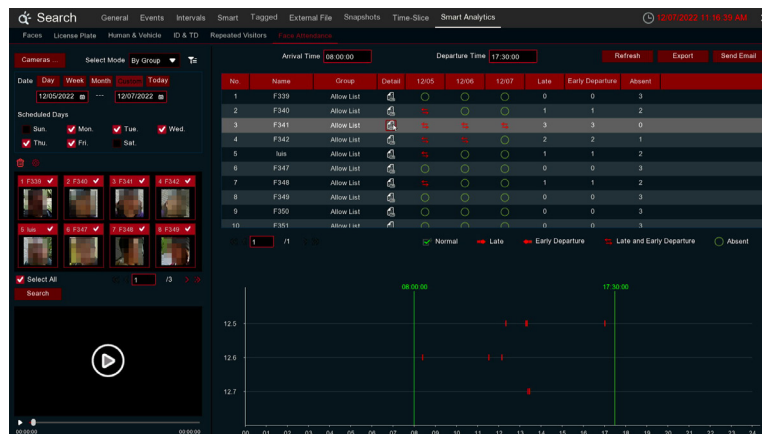




### 6.1.9.7 Face Attendance

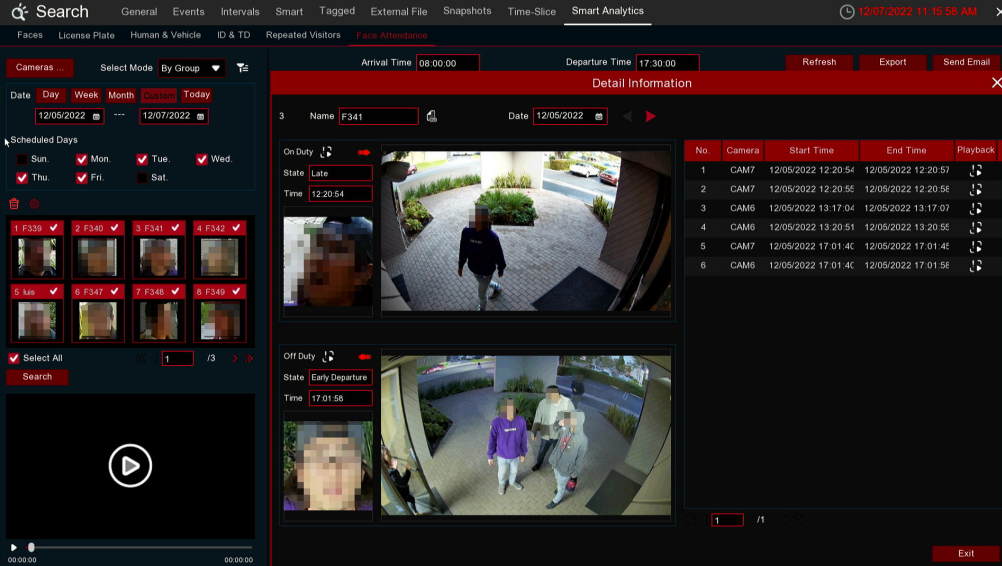
Face Attendance is used to assist in attendance checking by faces. It will help to analyze the absenteeism, coming late and leaving early.

**Note:**

*In case of failure, do NOT take the face attendance function as your only measure to check attendance.*



1. Select the camera(s).
2. **Select Mode** by Group or by Person. If you choose **By Group**, all the persons in the selected group(s) will be searched. If you choose **By Person**, only your selected person(s) will be searched. Click the filter icon to choose group(s) or person(s). Your selected person(s) will be displayed on the left middle side of the window.
3. Select the search date by individual day, week, month, current day or customized date.
4. Set the **Working Days**, **On Duty Time** and **Off Duty Time**.
5. Click **Search** button, the result will be displayed on the right side of the window.
6. You can export or email the data.
7. Click on the detail icon , you will see the captured images and videos of the first occurrence and the last occurrence of the person in the day. Click on the play button  to have a quick playback.



The screenshot displays the 'Search' interface with the following components:

- Search Bar:** Contains 'Search' and 'Smart Analytics' tabs, and a date/time selector showing '12/07/2022 11:15:36 AM'.
- Filters:** Includes 'Cameras', 'Select Mode' (By Group), 'Date' (12/05/2022), 'Scheduled Days' (Sun, Mon, Tue, Wed, Thu, Fri, Sat), and a 'Search' button.
- Search Results:** Shows a list of results for 'Name: F341' on 'Date: 12/05/2022'. The results table is as follows:
 

No.	Camera	Start Time	End Time	Playback
1	CAM7	12/05/2022 12:20:54	12/05/2022 12:20:57	
2	CAM7	12/05/2022 12:20:55	12/05/2022 12:20:56	
3	CAM6	12/05/2022 13:17:04	12/05/2022 13:17:07	
4	CAM6	12/05/2022 13:20:51	12/05/2022 13:20:56	
5	CAM7	12/05/2022 17:01:40	12/05/2022 17:01:45	
6	CAM6	12/05/2022 17:01:40	12/05/2022 17:01:56	
- Detail Information:** Shows 'On Duty' and 'Off Duty' sections with 'State' and 'Time' fields. The 'On Duty' section shows 'State: Late' and 'Time: 12:20:54'. The 'Off Duty' section shows 'State: Early Departure' and 'Time: 17:01:56'. Each section includes a video thumbnail and a play button.

## Chapter 7 Remote Access via Web Client

### 7.1 Basic System Environment Requirements

The minimum requirements for hardware and OS required to run the Web Client are given as below.

Item	Minimum	Recommended
CPU	Intel® Core™ i5 CPU	Intel® Core™ i5 CPU or higher
RAM	4GB or more	8GB or more
Hard Drive	500GB or more	1000GB or more
Display RAM	2GB or more	4GB or more
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	10/100/1000M Ethernet Adapter	
IE	Microsoft Internet Explorer (Ver. 11,10,9,8). It doesn't support Edge.	
Mozilla Firefox	V51 or below. It doesn't support V52 or above versions.	
Google Chrome	V44 or below. It doesn't support V45 or above versions.	
Mac Safari	5.1 or above	

### 7.2 Web Plugin Download and Installation

To access the Web Client, do the following:

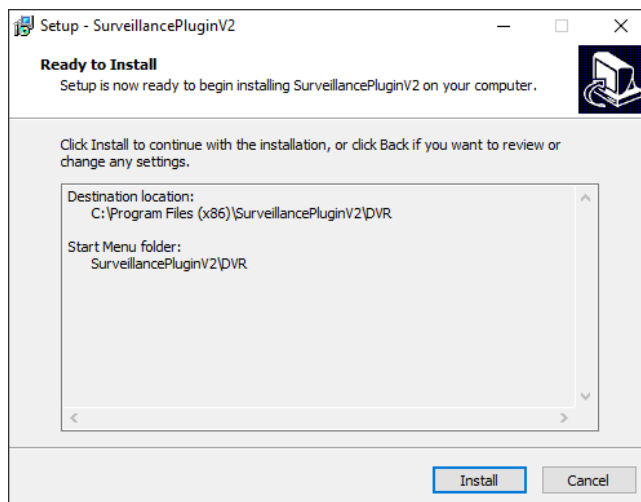
For IE/Chrome/Firefox:

1. Launch the explorer on your PC and enter the NVR IP address or DDNS domain name (Host Name) you have set on the NVR in the URL box.
2. For the first time you run the web client, the system will require you to install the web client plugin. Click download to download the plugin and install it to your computer.

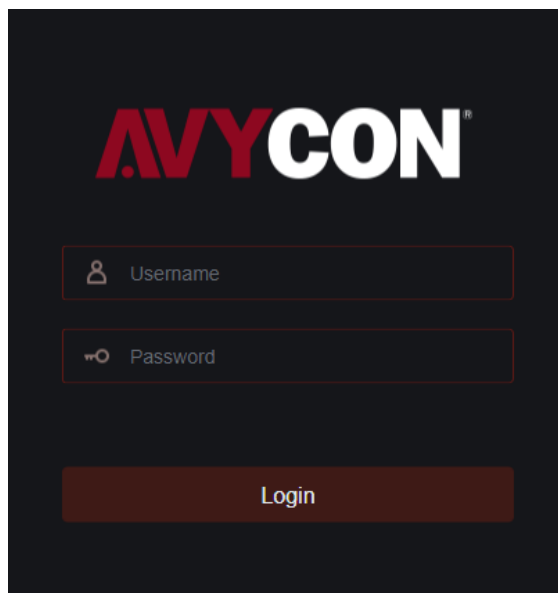
**You haven't installed the plugin or it is not the latest version.**

**Please click [download](#) to download the latest plugin.**

**Please close browser before plugin installation!!!**



3. After installing the plug-in, restart your browser and repeat step 1 to open the login page. Input your user name and password to login to the web client.

**Note:**

If you use Google Chrome, please use Version V41 or below. If you use V42 or above, you need to enable the NPAPI plugins. Please enter **chrome://flags/#enable-npapi** on the URL bar to find and enable NPAPI. It doesn't support V45 or above so far.

**For Mac Safari:**

1. Launch Safari on your Mac, and enter the NVR IP address or DDNS domain name (Host Name) you have set on the NVR in the URL box.



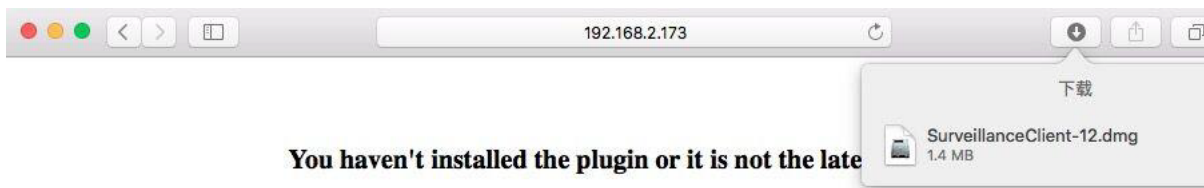
**You haven't installed the plugin or it is not the latest version.**

Please click [download](#) to download the latest plugin.

Please close browser before plugin installation.



- Download the plug-in "SurveillanceClient.dmg", locate the downloaded file, and double-click it.

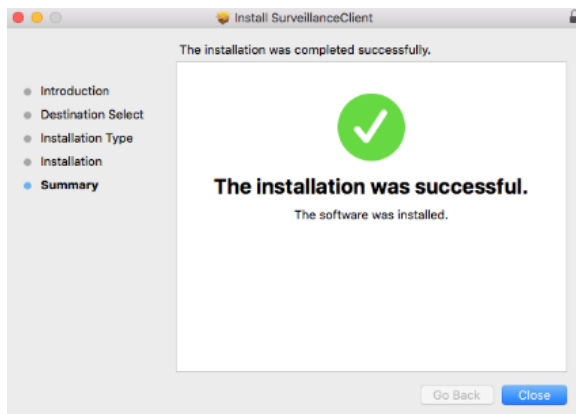
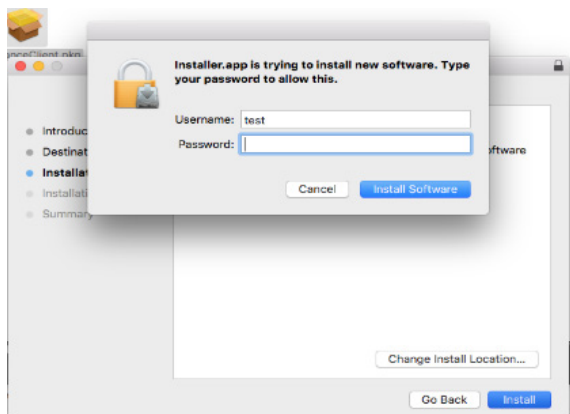
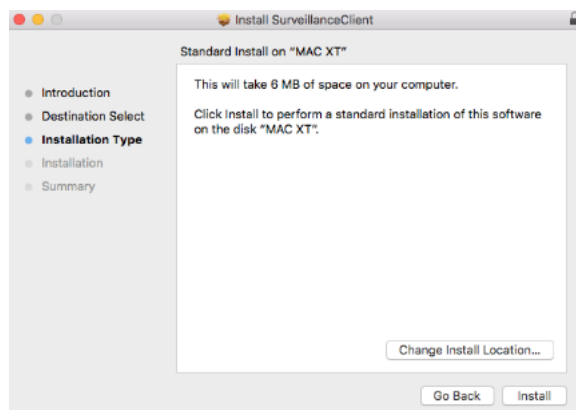
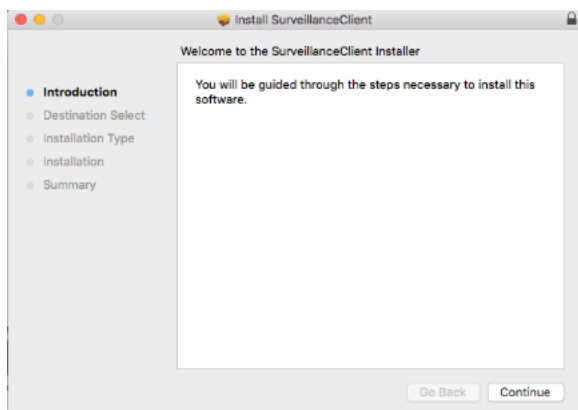


**You haven't installed the plugin or it is not the latest version.**

**Please click [download](#) to download the latest plugin.**

**Please close browser before plugin installation.**

- Click on "Continue" then "Install". Enter user name and password for Mac computer, Click on "Install Software" then "Close" to finish installation.



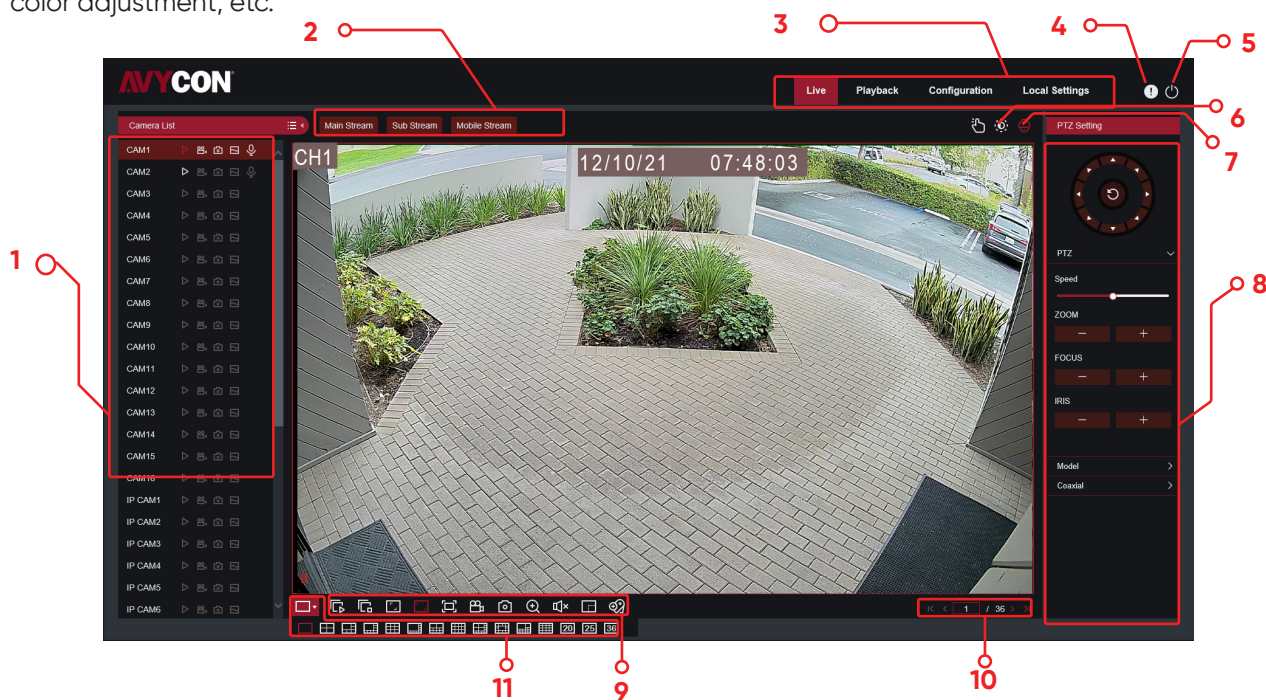
- Close Safari and open again to repeat step 1 to open the Web Client login page.

## 7.3 Web Client Manager

The web client supports full control of the NVR with an administrator account. Please make sure to protect your user name and password to prevent illegal login.

### 7.3.1 Live Interface

This is the first screen that opens after you have logged into the Web Client. Here you can open or close live preview, record video to local computer manually, take snapshots of the screens, PTZ control, color adjustment, etc.



#### 1. Camera List: Open the camera list for quick camera function:

Click button to display the Camera List.  
Click button to hide the Camera List.

Turn the Live video stream on/off. The button is blue if the live video stream is on.

Manual Recording buttons. Click to start manually recording live stream video. Click again to stop recording. Manual recordings are saved to your computer. While recording, the button is blue.

Manual snapshot button. Click to save a snapshot of the current live display to your computer.

Bitrate button. Set camera to use mainstream, substream, or mobile stream video settings. Mobile stream is available for IP channels only.

#### 2. Live Video Stream Options:

**Mainstream:** View all live videos using high-quality mainstream video settings.

**Substream:** View all live videos using middle-quality substream video settings.

**Mobile Stream:** View all live video using lower-quality mobile stream video settings to conserve bandwidth. Available for IP channels only.

#### 3. Main Menus:

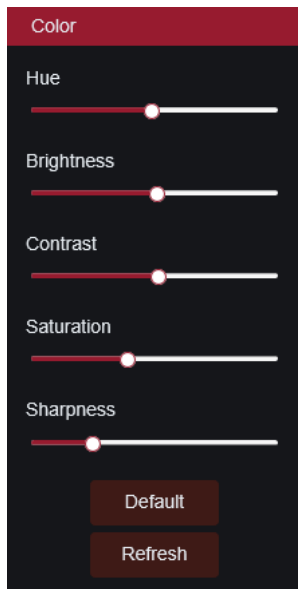
**Live:** View live video from cameras.

**Playback:** View recorded video which is saved in the NVR's HDD.

**Configuration:** Access functions of the NVR setting menus.

**Local Settings:** Set download locations for recordings and snapshots taken using Web Client, and choose file type for video files.

4. **Information:** Hover over to see system details.
5. **Exit.**
6. **Color Controls.** Click to display or hide the color controls.



7. **PTZ Controls:** Click to display or hide the PTZ controls for using PTZ cameras.

#### 8. PTZ Controls

**Directional Arrows:** Click to move the PTZ camera

**Automatic line scan**

**PTZ Speed:** Click to set the speed of the PTZ camera's movement

**Zoom:** Click -/+ to zoom in or out

**Focus:** Click -/+ to adjust focus

**Iris:** Click -/+ to adjust iris

**Model:** Add, remove, or go to preset point

**Cruise:** Start/stop PTZ cruise

## 9. Live View Control Buttons:



Open the images on the Live window.

Close all the Live cameras.

**Original Proportions:** Shows live video at the original proportions.

**Stretch:** Stretch live video to fit the full area for each camera on screen.

To enlarge the web client to full screen.

**Manual Recording:** Click to start manually recording for all displayed cameras. Click again to stop recording. Manual recordings are saved to your computer

**Snapshot:** Click to save snapshots of all current displayed cameras to your computer.

**Digital Zoom:** Click on a live image, then click-and-drag over an area of the live image to enlarge. Right-click to return to the normal display.

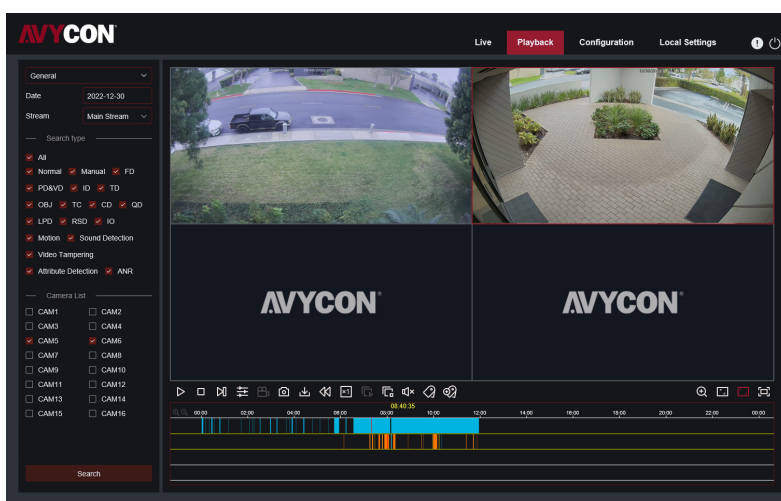
**Volume Control.** Volume is mute.

**10. Navigation:** Shows current page number for the cameras shown on screen. Use the arrow keys to switch between pages.

**11. Page View:** Click to select how many channels appear on screen at a time.

## 7.3.2 Playback

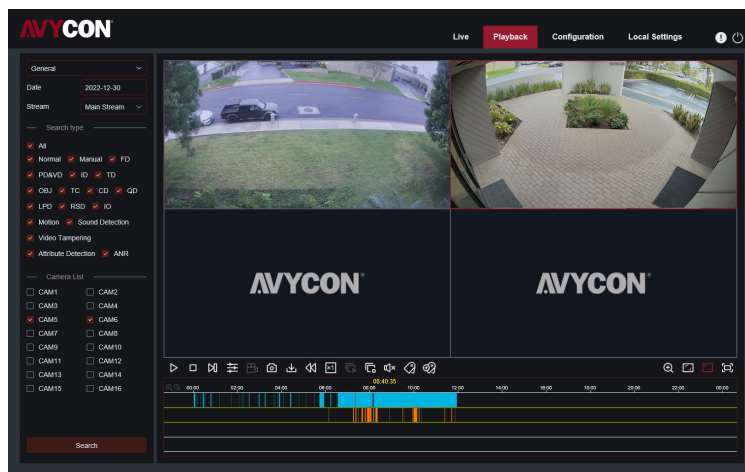
You can search and play recording videos stored in the HDD inside the NVR, and download the videos to your computer.



To search recordings:

1. Click **Playback** in the top-right corner of the window.
2. Select a day on the calendar to search for recordings from. Days with recordings appear with a red underline.
3. Select the recording type to search for from the dropdown next to **Type**, or select **All** to search for all recordings.
4. To choose the video stream you want to search & play. If you want to play Substream recordings, please make sure you had set the NVR to record with Dualstream at [5.2.2.1 Record](#).
5. Check the channels you would like to search for recordings from. Check **Synchronous playback** to play all channels at once.
6. Click **Search**.
7. Recordings that fit your search will be displayed in the timeline. Click a section of video where you would like to begin playback and click the play button.

## 7.3.2.1 Playback Control Buttons



**Play the recordings**

**Pause**

**Stop**

**Go Forward One Frame:** Move frame-by-frame through playback. Only available when the **Synchronous playback** option is not checked.

Click upon one of the cameras which is being played and then click the record button to record current video to your computer. Click again to stop recording.

Click upon one of the cameras which is being played and then click the capture button to take a snapshot and save to your computer.

Opens the Download menu, which allows you to download several video recordings at once.

		Start Time	End Time	Status	File Size
1	<input checked="" type="checkbox"/>	2021-04-12 00:00:01	2021-04-12 02:25:20	Completed	542.04M
2	<input checked="" type="checkbox"/>	2021-04-12 02:25:20	2021-04-12 06:56:59	81%	1015.49M
3	<input type="checkbox"/>	2021-04-12 06:56:59	2021-04-12 11:29:41	Not Downloaded	1015.48M
4	<input type="checkbox"/>	2021-04-12 11:29:41	2021-04-12 14:28:47	Not Downloaded	661.17M
5	<input type="checkbox"/>	2021-04-12 14:29:54	2021-04-12 16:05:38	Not Downloaded	354.29M
6	<input type="checkbox"/>	2021-04-12 16:05:38	2021-04-12 20:21:55	Not Downloaded	950.00M
7	<input type="checkbox"/>	2021-04-12 20:21:56	2021-04-12 20:21:56	Not Downloaded	0.13M

14 Row / Page 1 / 1Page

**Start Download** **Stop Download**

Choose the files you want to download, press the **Start Download** button to begin, you will see the download status. Press the **Stop Download** button to stop.

**Playback Speed:** Click to choose the playing speed.

**Play All Cameras:** Click to play all cameras you have chosen to search. Only available when the **Synchronous playback** option is not checked.

**Stop All Cameras:** Click to stop playing all cameras. Only available when the **Synchronous playback** option is not checked.

**Digital Zoom:** Click upon a playing video, then click-and-drag over an area of the video to enlarge. Right-click to return to the normal display.

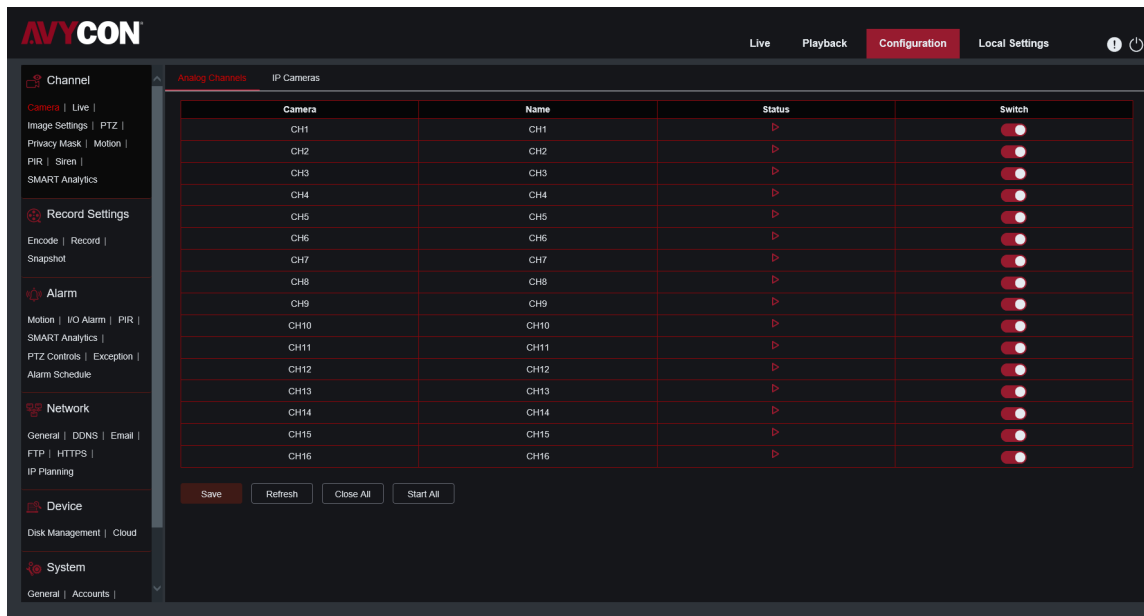
**Original Proportions:** Shows the playing video at the original proportions.

**Stretch:** Stretch the playing video to fit the full area for each channel on screen.

To enlarge the web client to full screen.

### 7.3.3 Remote Setting

Here you can remotely configure the settings of the NVR. Please see “[Chapter 5 NVR System Setup](#)” for more details on the NVR settings.



### 7.3.4 Local Setting

Set download locations for recordings and snapshots taken using Web Client, and choose file type for video files.

The screenshot shows the 'Path configuration' dialog box. It contains five fields: Record Path, Download Path, Snapshot Path, File type, and Capture Type. Each path field has a folder icon to its right. The File type and Capture Type fields are dropdown menus. A 'Save' button is located at the bottom.

Record Path	P:\Device\Record	📁
Download Path	P:\Device\Download	📁
Snapshot Path	P:\Device\Capture	📁
File type	MP4	▼
Capture Type	JPG	▼
Save		

**Record Path:** Click 📁 to browse for and select the folder where you would like the manual video recordings to be saved on your computer.

**Download Path:** Click 📁 to browse for and select the folder where you would like to save the downloaded video recordings to your computer.

**Snapshot Path:** Click 📁 to browse for and select the folder where you would like the manual capture snapshots to be saved on your computer.

**File Type:** Choose your preferred file type for manual recordings.

**Capture Type:**

**Save:** Click to save the modifications.



## Chapter 8 Viewing Backed Up Video on PC/Mac

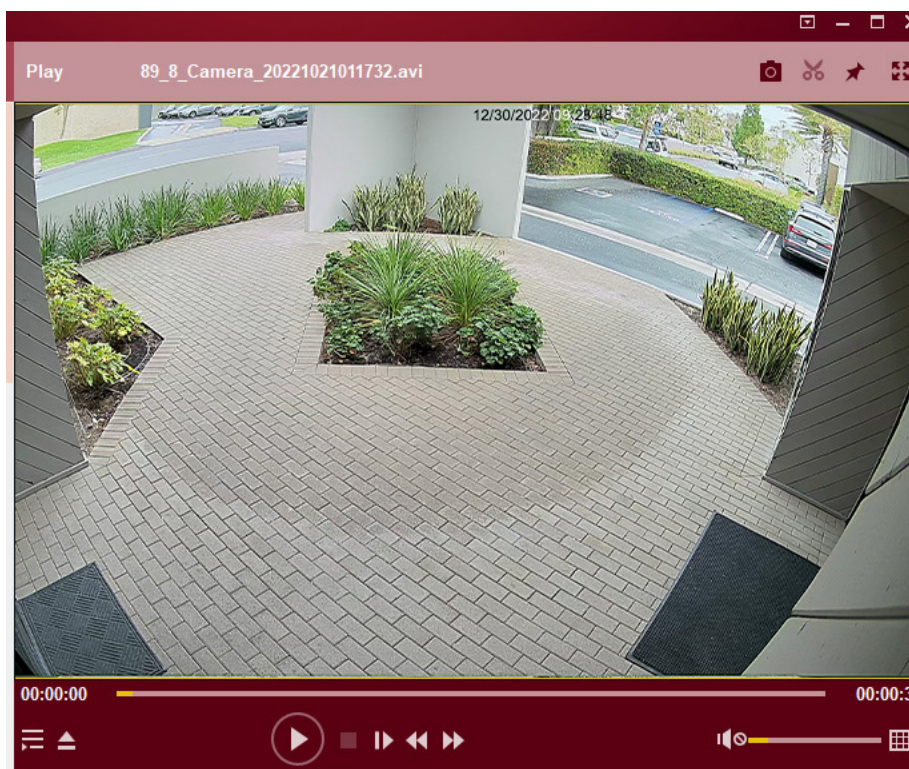
This section will help you to play the backup files with the powerful video player which is included in the CD. For Mac users, please install the app "VideoPlayer\_x.x.xx\_xxxx\_xx\_x.dmg", for example: VideoPlayer\_1.0.15\_2017\_01\_6.dmg.

For PC users, please install the software "VideoPlayer\_x.x.xx\_xxxx\_xx\_xx.exe", for example: VideoPlayer\_1.0.15\_2017\_01\_06.exe.

### Minimum System Requirements

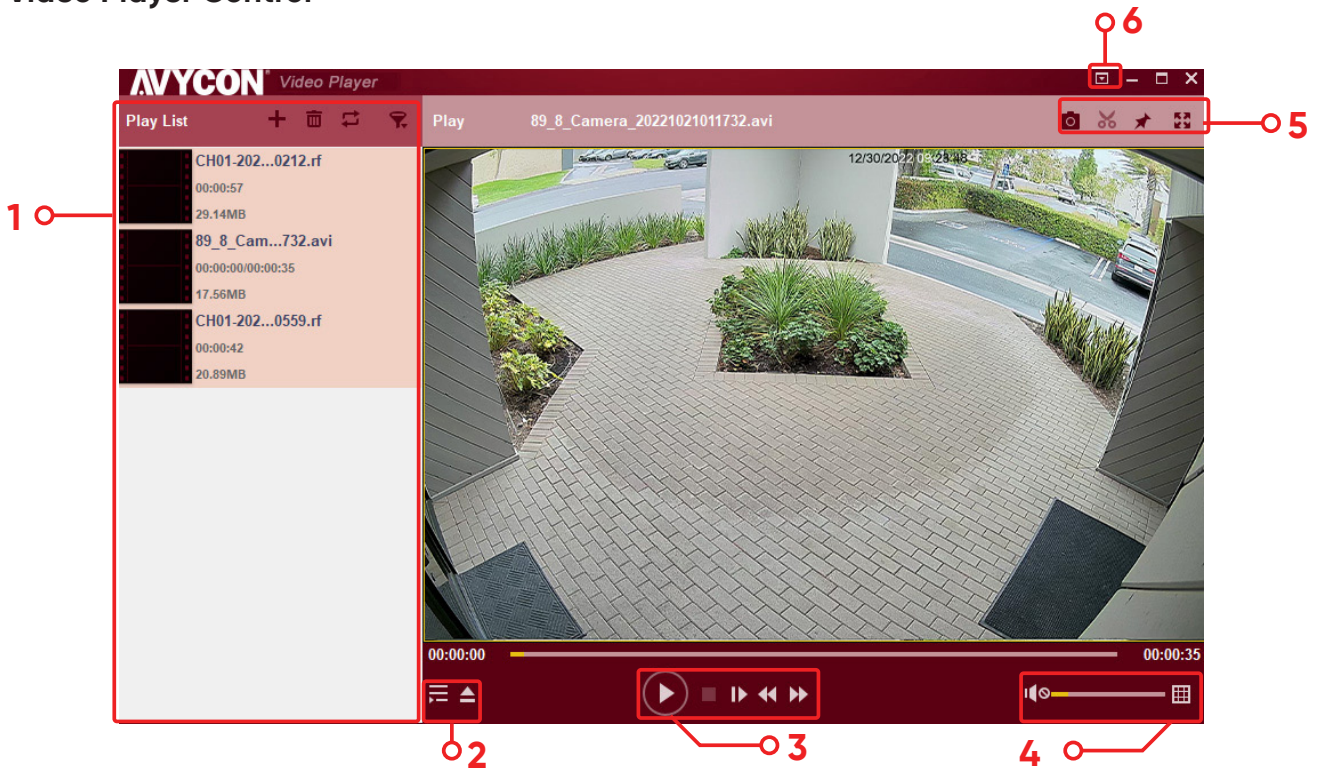
- Intel Pentium 4 or above
- Microsoft Windows XP / Vista / 7 / 8 / 10
- 256MB RAM
- 16MB video memory

1. Install the Video Player software in the CD and run.



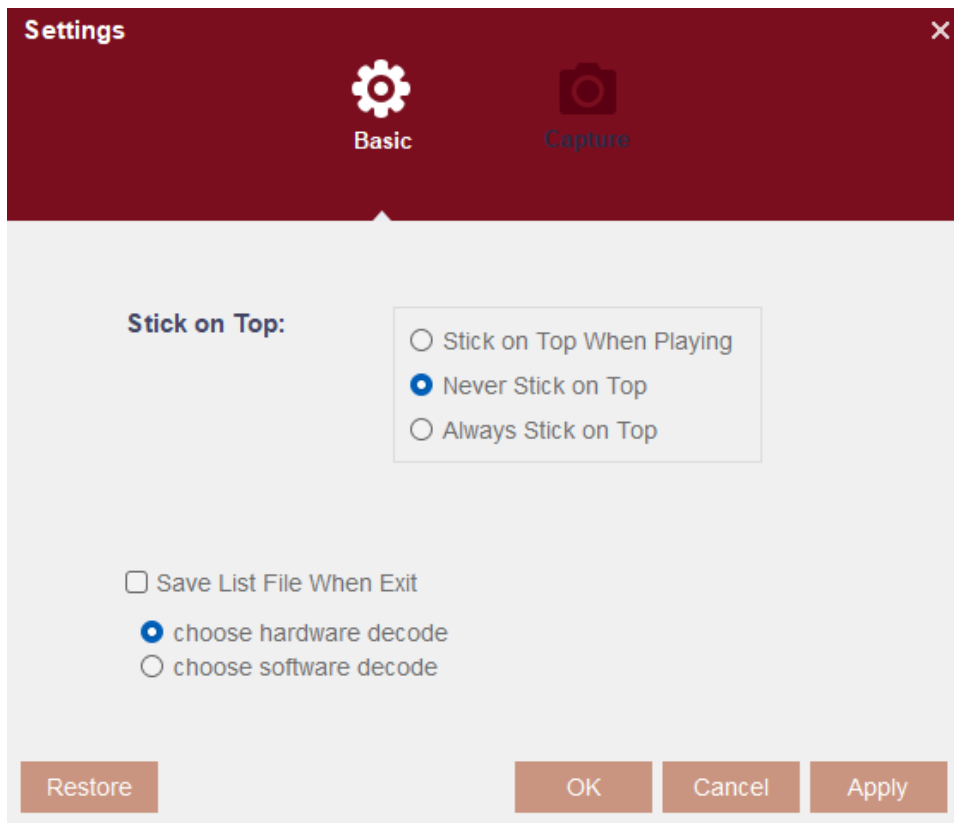
1. Copy the backup files to your computer.
2. Click the Open File button or click the + button on the Play List to load a single or multiple video files. It supports Add & Play for ".rf", ".avi", ".mp4", ".264", and ".265" files. Click the  button to load a folder with backed-up videos.

## Video Player Control

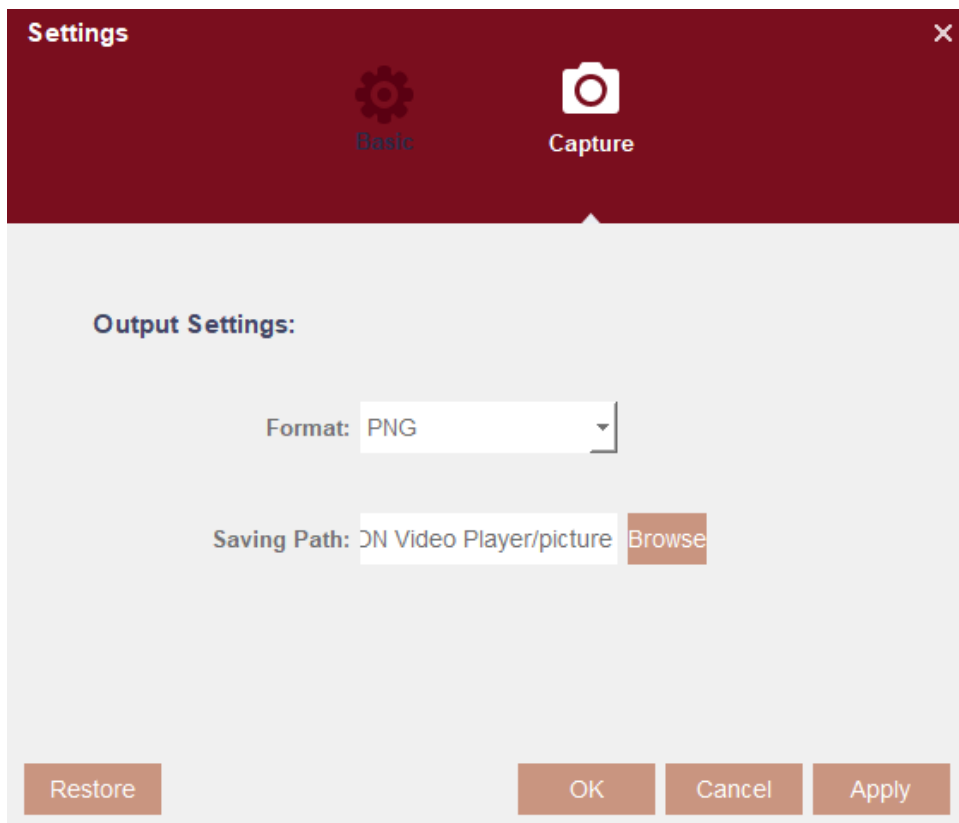


1. Play List
  - ➕ Add files
  - 🗑️ Remove files
  - 📁 To choose play mode: play a single file and stop; play all listed files by sequence; repeat one file; repeat all files.
  - 🔍 Filter by file name
2. 📄 Hide/Show Play List
  - 📁 Click to open files or load a folder.
3. Play Controls
  - ▶ Play
  - ⏸ Pause
  - Stop
  - ⏮ Play frame by frame. Click once to play a frame of the video.
  - ⏭ Slow Play, 1/2, 1/4, 1/8, 1/16 speed
  - ⏩ Fast Forward, x2, x4, x8, and x16
4. 🔊 Volume control
  - 🖥️ Multi-screen play. It allows multiple videos to play at a time. When you choose multi-screen, you can drag the video in Play List to the play screen.
5. 📷 Take snapshot
  - ✂️ To save a video clip to your computer. Press once to start, press again to end the video clip.
  - 📌 Keep the video player on top.
  - 🖥️ Enlarge the video play screen to full screen.

6. **Advanced Setup Menu** allows the choice of the OSD language for the video player, and configure the setting of the video player.



**Basic Settings:** Set on-top mode

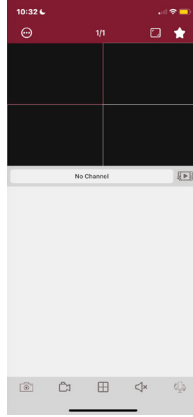



**Capture Settings:** Set the format and the path to save snapshots.

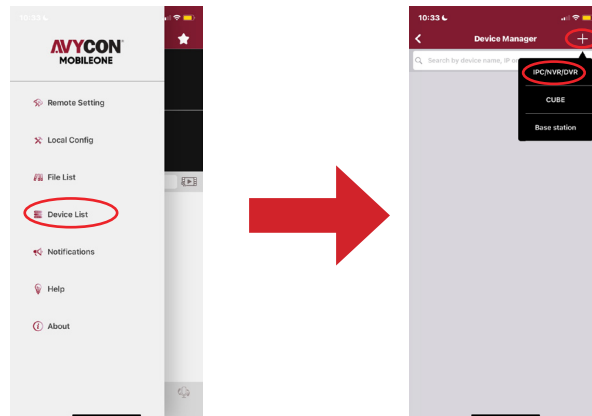
## Chapter 9 Remote Access via Mobile Devices

The NVR supports to remote access via mobile devices based on Android & iOS operating system.

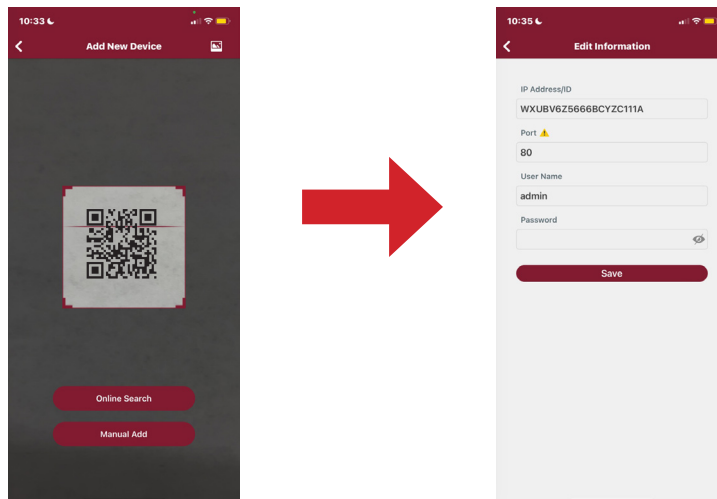
1. Search AVYCON ONE from Google Play Store for android devices or App Store for iOS devices and install.
2. Run the app, the GUI is displayed as below:



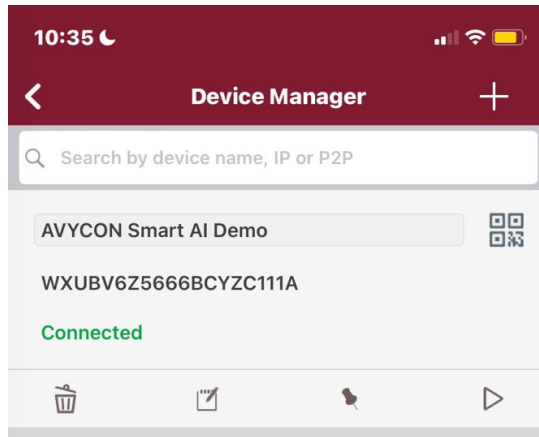
3. Touch the  icon on the left top corner and then choose Device List to turn to the Device Manager page. Touch the + icon on the right top corner and then select "IPC/NVR/DVR".



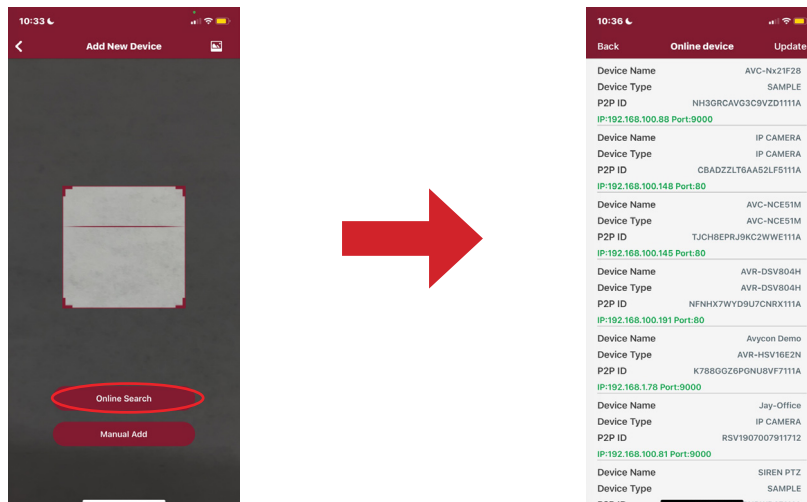
4. The app will open your phone camera to enter the scan mode. If your NVR supports P2P, scan the P2P ID QR code inside your system info page or on the top cover of your NVR. Input the media port, use name & password, and then click save.



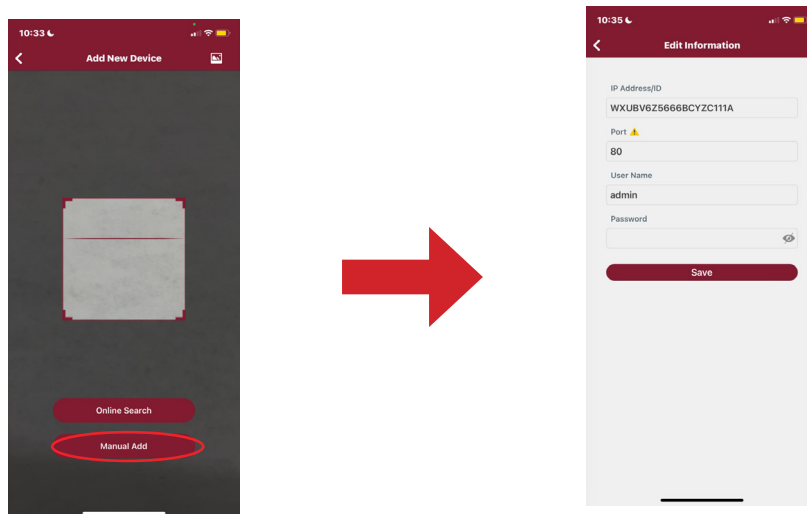
- The added NVR will be displayed in the Device Manager page. Touch the play button to start live view.



- If your mobile is connecting to the Wi-Fi which is in the same LAN with your NVR, you can choose to add the NVR by using Online Search. Touch on the device in the search result list, and then input the port, use name, password to add.



- If your NVR doesn't support P2P, you must add the device manually. Touch on the Manual Add button, and then input the IP address or DDNS domain name, port, user name & password, click Save to add the NVR.



For more operations about the app, please check on the Help menu in the app.

## Chapter 10 Appendix

### 10.1 Troubleshooting

**1. Q: What can I do if the system does not detect the HDD?**

A: Check if the power supply system is properly connected, data cord and power cables are securely connected, and if something is wrong with the HDD interface. Also, you may check if your HDD is supported by referring to the specifications or descriptions.

**2. Q: I have changed the password but forgot the new password, how can I access the system?**

A: If you forget your system password, please consult our technical personnel. We strongly suggest users to use a password that is easy to remember and relatively safe. If you have safety requirements, please do not setup a simple password, such as 0000000.

**3. Q: We see abnormal video signal or even no video signal by connecting the NVR and camera together. The power supply for both devices is OK. What is wrong?**

A: Check network cables on the NVR side to see if the cable is firmly connected and if it is worn out and needs to be replaced, or check if the NTSC or PAL is selected consistently

**4. Q: How do you prevent the NVR from being influenced by heat?**

A: The NVR needs to dissipate heat while it is running. Please place the NVR in a place with good air circulation and away from heat sources to ensure stability and life of the NVR.

**5. Q: The remote controller of the NVR doesn't work while the monitor screen is OK and panel keys are functional. Why?**

A: Operate again by aiming the remote controller at the IR receiver on the front panel. If it still doesn't work, please check if the batteries in the remote controller are dying. If not, check if the remote controller is broken.

**6. Q: I want to take out the HDD from my PC and install it in the NVR. Can it work?**

A: All HDDs supported by the system can be used. But remember, once the NVR runs, the data on your HDD will be lost.

**7. Q: Can I playback while recording?**

A: Yes. The system supports the function of playing while recording.

**8. Q: Can I clear some records on the HDD of the NVR?**

A: In consideration of the file security, you may not clear part of the records. If you want to remove all the records, you can format the HDD.

**9. Q: Why can't I log into the NVR client?**

A: Please check if the network connection settings are correct and the RJ-45 port is in good contact. Also check if your account and password are correctly input.

**10. Q: Why can't I find any records during playback?**

A: Please check if the data line connection for the HDD is OK and system time is properly adjusted. Try a few times and restart. If it still doesn't work, check if the HDD is broken.

**11. Q: Why can't the NVR control PTZ?**

A: Please check if:

- a) PTZ in the front side is malfunctioned.
- b) Setting, connection, and installation of the PTZ decoder are correct.
- c) PTZ setting of NVR is correct.
- d) Protocol of the PTZ decoder matches that of the NVR.
- e) Address of the PTZ decoder matches that of the NVR.
- f) If multiple decoders are connected, the farthest side of the AB line for the PTZ decoder should

have

- a) a 120Ω resistance for reflection suppression and impedance matching. Otherwise, the PTZ control will be unstable.

**12. Q: Why doesn't dynamic detection work?**

A: Please check if the motion detection time and motion detection regional settings are correct and if the sensitivity is set too low.



**13. Q: Why doesn't the alarm work?**

A: Please check if the alarm setting, alarm connection, and alarm input signals are correct.

**14. Q: Why does the buzzer keep alarming?**

A: Please check the alarm settings. check if the motion detection function is enabled, object motion is detected all time, and if the I/O alarm is set as Always Off. Otherwise, refer to the corresponding HDD alarm setting.

**15. Q: Why can't I stop recording by pressing the "STOP" button or clicking "Stop Recording" in the context menu?**

A: Pressing stop or Stop Recording can only stop manual recording. If you want to stop Scheduled recording at a certain time frame, please change the setting to No Record. To stop Startup recording, please change the record mode to scheduled recording or manual recording. Then you may stop recording by the prescribed methods. Another way of stopping the recording is setting the channel to the off status in record setting.

## 10.2 Usage Maintenance

1. To shut down the NVR, firstly, please shut down the system and then turn off the power. Do not turn off the power directly or the HDD data will be lost or damaged.
2. Please keep the NVR away from any heat sources or places.
3. Clean the internal dust regularly. Make sure the good ventilation of the NVR so as to ensure the good head dissipation.
4. Please do not hot plug audio and video cables, or cables connected to ports like RS-232 or RS-485. Otherwise the ports will be damaged.
5. Please check the HDD cable and data cable regularly to see if they are aging.
6. Please prevent the audio and video signals of NVR from being intervened by other electronic devices, and prevent the HDD from being damaged by static electricity and induced voltage. If the network cable is frequently plugged, it is recommended to replace connecting line regularly, or the input signal may become unstable.
7. This is a class A product. It may bring wireless interferences. Under this situation, it needs the user to make measures.

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**phone:** 949-752-7606  
**email:** [info@avycon.com](mailto:info@avycon.com)  
**social:** @avycon\_aivo  
**website:** [avycon.com](http://avycon.com)