

AI Network Video Recorder
User Manual

Version 1.0.1.

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Welcome

Thank you for purchasing an Amcrest AI NVR!

This user's manual is designed as a reference tool only and is applicable to all Amcrest AI Series model NVRs. Please note, some features and options may vary model to model. For more information on AI NVR's please visit https://amcrest.com/support

Important Safeguards and Warnings

Electrical Safety

Installation and operation should conform to your local electrical safety codes. The product must be grounded to reduce the risk of electric shock. We assume no liability or responsibility for any fires or electric shock caused by improper handling or installation.

Transportation Security

Heavy stress, violent vibrations, and moisture are not allowed during transportation, storage, or installation.

Installation

Always keep the device upright and handle with care. Do not apply power to the device before completing the installation. Do not place objects on the NVR.

Qualified Engineers Needed

All examinations and repair work should be done by qualified service engineers. We are not liable for any problems caused by unauthorized modifications or attempted repairs to the device.

Environment

The device should be installed in a cool, dry place away from direct sunlight, flammable materials, explosive substances, etc. This series product should be transported, stored, and used in the specified environments:

The function of the ITE with concerns to IEC 60950-1 is considered now likely to require a connection to an Ethernet network with an outside power source, including campus environments.

If applicable, the installation instructions clearly state that the ITE is to be connected only to designated POE networks without routing to an outside power source.

Accessories

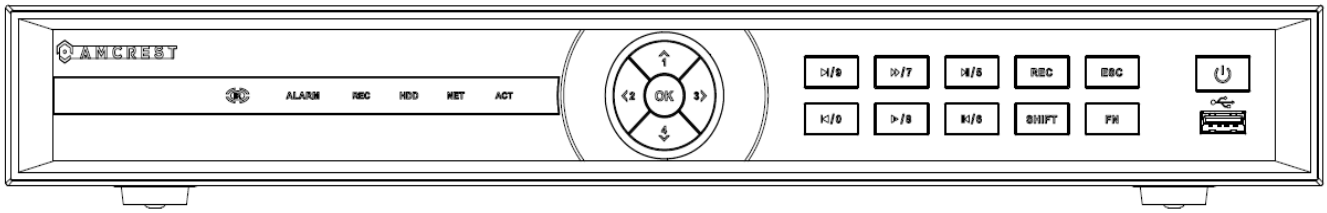
Be sure to use only the accessories recommended by the manufacturer. Before installing, please open the package and check that all proper components are included. Contact your local retailer if something is broken or missing in your package.

Before operating, please read the following instructions carefully.

Keep away from extremely hot places and sources of heat.
Avoid direct sunlight.
Keep away from extremely humid places.
Avoid any violent vibrations.
Do not put other devices on the top of the device.
Install in a well-ventilated place; do not black the vents.

Front Panel

Applicable for Amcrest 42XX-AI Series NVRs



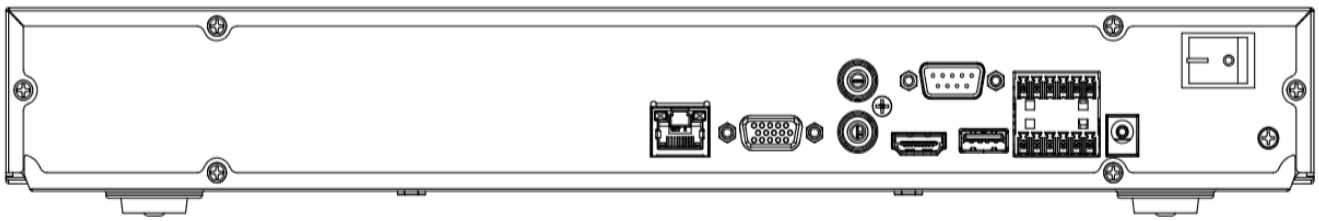
Button	Icon	Description
Power Button		Press and hold this button for five seconds to shut off or power on the NVR. Use the switch on the back of the NVR to initially power the device.
USB		Front panel USB 2.0 Port.
Up/1, Down/4	▲、▼	Activate current control, modify setup, move up and down in a menu Increase/decrease numeric functions. Tilt camera up and down using PTZ menu (if applicable).
Left/2, Right/3	◀、▶	Move left or right in a menu. When viewing playback, use these buttons to scan forwards or backwards.
Enter	OK	Confirm a current operation Go to default button Go to menu
Escape	ESC	Go to previous menu or cancel a current operation. When using playback, used to restore real-time monitor mode.
Record	REC	Manually stop/start a recording. Use the directional keys or numeric keys to select the recording channel.
Shift	SHIFT	In a textbox, click this button to switch between numeric characters or provide capitalization to a word, etc.
Play/Pause/5	▶ II	Click this button to pause or resume playback. In text mode, input number 5.

Reverse Playback/ Pause/6		During playback or pause mode, click this button to reverse playback. In reverse playback, click this button to pause. In text mode, input number 6.
Fast Forward/7		Various fast speeds and normal playback. In text mode, input number 7
Slow Motion/8		Multiple slow play speeds or normal playback. In text mode, input number 8.
Next/9		In playback mode, press to playback the next video. In menu setup, go downward in a dropdown list. In text mode, input number 9.
Previous/0		In playback mode, press this button to playback the previous video. In text mode, input number 0.
Function	FN	One-window monitor mode, click this button to display assistant function: PTZ control and image color. Backspace function: in numeric control or text control, press and hold for 2 seconds to delete the previous character before the cursor. In motion detection setup, working with FN and direction keys to realize setup. In text mode, press this button to switch between numeric, capitalization, etc.

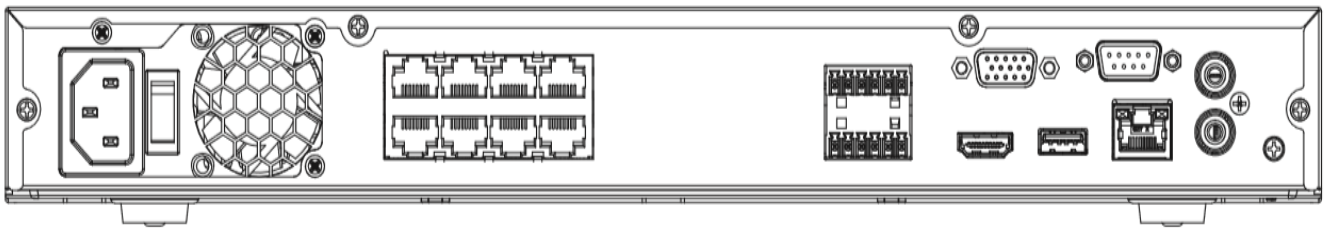
Rear Panel

The rear panel of the NVR may differ model to model. Below is a representation of the rear panel for the NV42XX-AI Series.

NV42XX-AI-Series without PoE ports



NV42-AIXX-Series with POE ports is shown below.



	USB 2.0 port	USB 2.0 port. Connect a mouse, USB storage device, etc.
	Network port	10M/100Mbps self-adaptive Ethernet port.
HDMI	HDMI Output	High definition audio and video signal output port.
VGA	VGA video output port	VGA video output port. Outputs analog video signal. This connects to the monitor to view analog video.
	GND	Ground end
	Power Port	DC12V, DC48V Depending on model.
MIC IN	Audio input port	Bidirectional talk input port. This is used to receive the analog audio signal from the device such as a microphone.
MIC Out	Audio output port	Audio output port. This is used to output the analog audio signal to devices such as an external RCA speaker. Bidirectional talk output. Audio output on 1-window video monitoring. Audio output on 1-window video playback.
PoE Ports	PoE ports	Built-in switch on certain compatible devices. For PoE series products, you can use this port to provide power to a PoE camera.

Hardware Setup

A hard drive allows you to store recordings and events from the NVR, this includes playing back previously recorded footage and AI events.

Note: This section *only* applies to NVRs purchased without a hard drive already preinstalled. Most 'kits' or 'bundles will come with a pre-installed hard drive.
The NVR has connections for only 1 hard drive inside the case and the hard drive must be no larger than 8TB (Terabytes).

To install your hard drive, the following is needed:

A medium sized (regular) Phillips-head screwdriver - *not included*
A hard drive - *not included (unless you purchased a 'kit' that **does** have one included)*
Four hard drive fastening screws – *included*

Note: Before installing the hard drive, make sure the NVR is powered off and completely disconnected from power.

		
1. Loosen the screws on the upper cover and side panel.	2. Attach four screws on the HDD (Do not fully tighten, only tighten about 3 times).	3. Place the HDD in accordance with the four holes on the bottom of the casing.
		
4. Turn the NVR upside down and place the screws in firmly.	5. Tighten the HDD screws firmly to the bottom of the NVR.	6. Connect the HDD cable and power cables to the motherboard.

	
7. Put the cover back onto the NVR in accordance with the clip and then place the upper cover back onto the device.	8. Secure the screws on the rear and side panels.

Setting Up the Cables

The following instructions will show you how to set up the cables for the NVR, cameras (PoE and Wi-Fi), as well as a monitor or TV screen.

To set up the cable connections, there are 5 major steps:

1. Connect a monitor or TV screen to your NVR. The NVR is compatible with any monitor or screen that uses a VGA or HDMI connection. For purposes of this guide, we will use a VGA connection. Take a VGA

cable, and connect one end to the VGA port on your monitor/screen and the other end to the VGA port on the back panel of your NVR.

2. Connect an Ethernet cable to your router.

   Then, connect the other end of the cable to the Ethernet port on the back of the NVR.

3. Connect the cameras to power.

   For PoE NVRs/cameras: connect an Ethernet cable to the Ethernet port attached to the camera.

   Then, connect the other end of the Ethernet cable to a PoE port on the NVR.

   Note: PoE cameras can either be powered with a PoE connection or with a standard power adapter (sold separately). If the NVR does not have PoE ports, connect the PoE camera to a PoE compatible router or switch that is on the same network as the NVR.

   For non-PoE NVRs/cameras: Connect the power adapter to the power port attached to the camera.

   Then, plug the adapter into a wall outlet or power strip.

4. Connect the NVR's power adapter into the power port on the back of the NVR.

   Note: If your NVR has a 3-prong power cord, connect the input of the cord into the power input of the NVR.

5. Finally, connect the other end of the power cable into a wall outlet or power strip to turn on the NVR. Some models may feature a power switch on the back which may need to be turned on to power the device.

Alarm Connection

Alarm Port

The alarm port is shown as below. See Figure 2-6. The following figure is based on the 78 series.

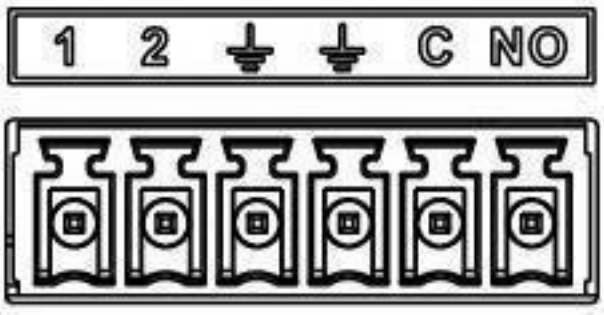


Figure 2-6

Icon	Function
1, 2	ALARM1, ALARM2. The alarm becomes activated in the low level.
NO C	NO activation output. (On-off button).
＋12V	Rated current output. Current is 500mA.
⏚	Ground

Note

Different models support different alarm input ports. Please refer to the specifications sheet for detailed information.

Slight differences may be found on the alarm port layout.

Alarm input port

Connect the positive end (+) of the alarm input device to the alarm input port (ALARM IN 1~2) of the NVR.

Connect the negative end (-) of the alarm input device to the ground end (⏚) of the NVR.

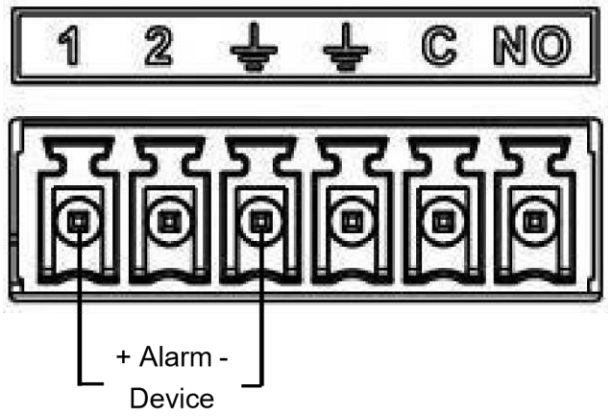


Figure 2-7

Note

When connecting the ground port of the alarm device to the NVR, you can use any of the GND ports (⏚).

When there is peripheral power supplying the alarm device, ensure it is grounded on the NVR.

Alarm input and output port

There is peripheral power supplying to the external alarm device.

An overload may result in NVR damage. Please refer to the following relay specifications for detailed information.

Alarm relay specifications

Contact Material	Silver	
Rating (Resistance Load)	Rated switch capacity	30VDC 2A, 125VAC 1A
	Maximum switch power	125VA 160W
	Maximum switch voltage	250VAC, 220VDC
	Maximum switch current	1A
Insulation	Between contacts with same polarity	1000VAC 1minute
	Between contacts with different polarity	1000VAC 1minute
	Between contacts and winding	1000VAC 1minute
Surge voltage	Between contacts with same polarity	1500V (10×160us)
Length of open time	3ms max	
Length of close time	3ms max	
Longevity	Mechanical	50×106 MIN (3Hz)
	Electrical	200×103 MIN (0.5Hz)
Temperature	-40ºC ~+70ºC	

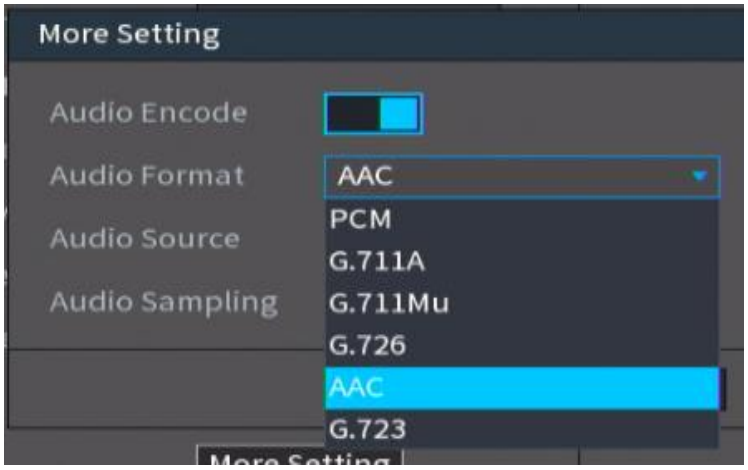
Audio Ports

Device-end to PC-end

Device Connection

Connect an RCA microphone to the "Audio In" port on the back of the device. If using an audio out device, such as an RCA speaker, plug the speaker into the "Audio Out" port on the back of the device.

Most audio codecs will use ACC as a default audio codec. To adjust audio settings, log into your NVR and access the Encode menu for the specific device and click on "**More Setting**" (Camera > Encode > More Setting). Verify the codec and settings are correct and click **Save** to save the audio settings.



Mouse Operation

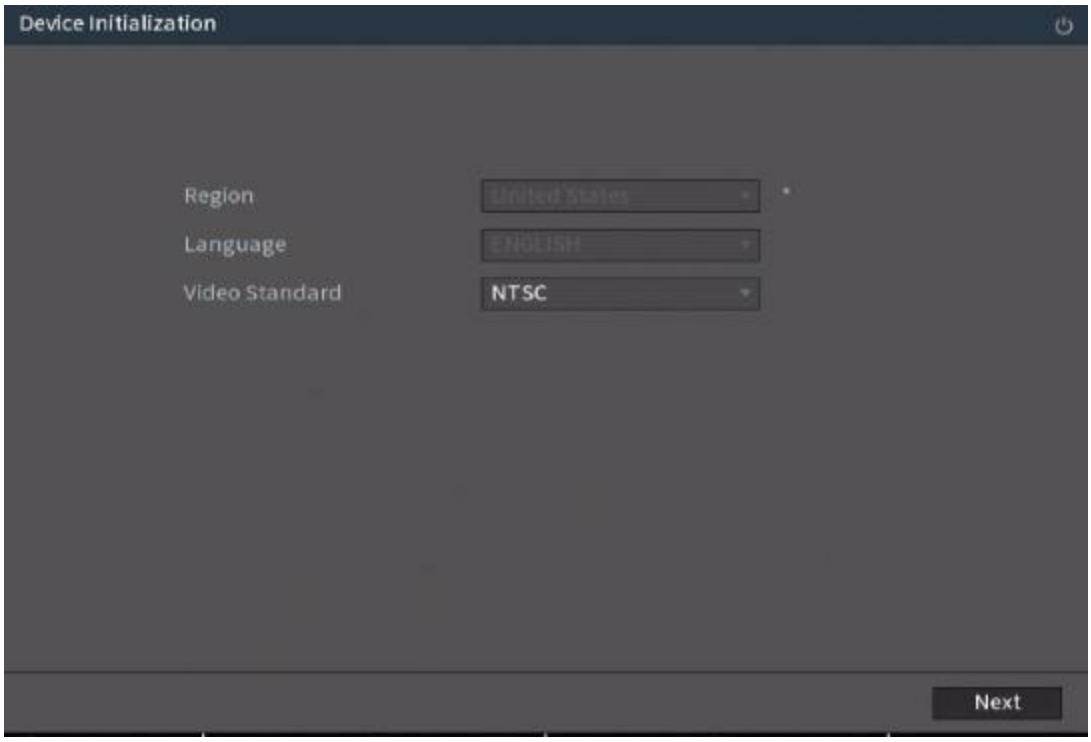
Please refer to the following sheet for mouse operation instructions.

Left mouse click		When you have selected one menu item, left mouse click to view the menu content.
		Modify a checkbox or motion detection status.
		Click a combo box to show the dropdown list
		In an input box, you can select different input methods. Left click the corresponding button on the panel to input a numeral/English character (small/capitalized). Here ← stands for backspace. __ stands for space. In English input mode: _ stands for inputting a space icon and ← stands for deleting the previous character.  In numeral input mode: _ stands for clear and ← stands for deleting the previous numeral.
Double left mouse click		Implement special control operations such as double click one item in the file list to playback the video.
		In multiple-window mode, double left click one channel to view in full-screen. Double left click the current video again to go back to previous multiple-window mode.
Right click mouse		In real-time monitor mode, this pops up a shortcut menu.
		Exit the current menu without saving any modifications.
Scroll middle button		In a numeral input box: Increase or decrease the numeral value.
		Switch the items in the check box.
		Page up or page down
Move mouse		Select current control or move control
Drag mouse		Select the motion detection zone
		Select the privacy mask zone

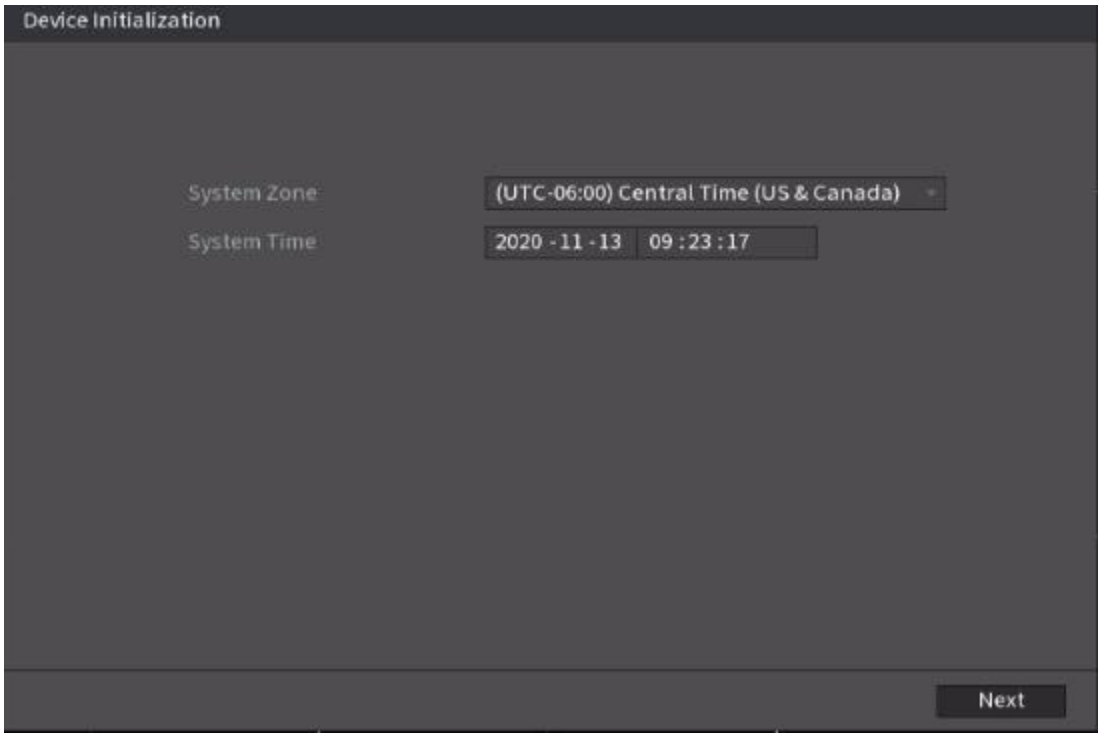
Device Installation

After turning the system on allow the device to boot. The default video wall will display along with a device initialization screen. Follow the on-screen prompts to complete initialization.

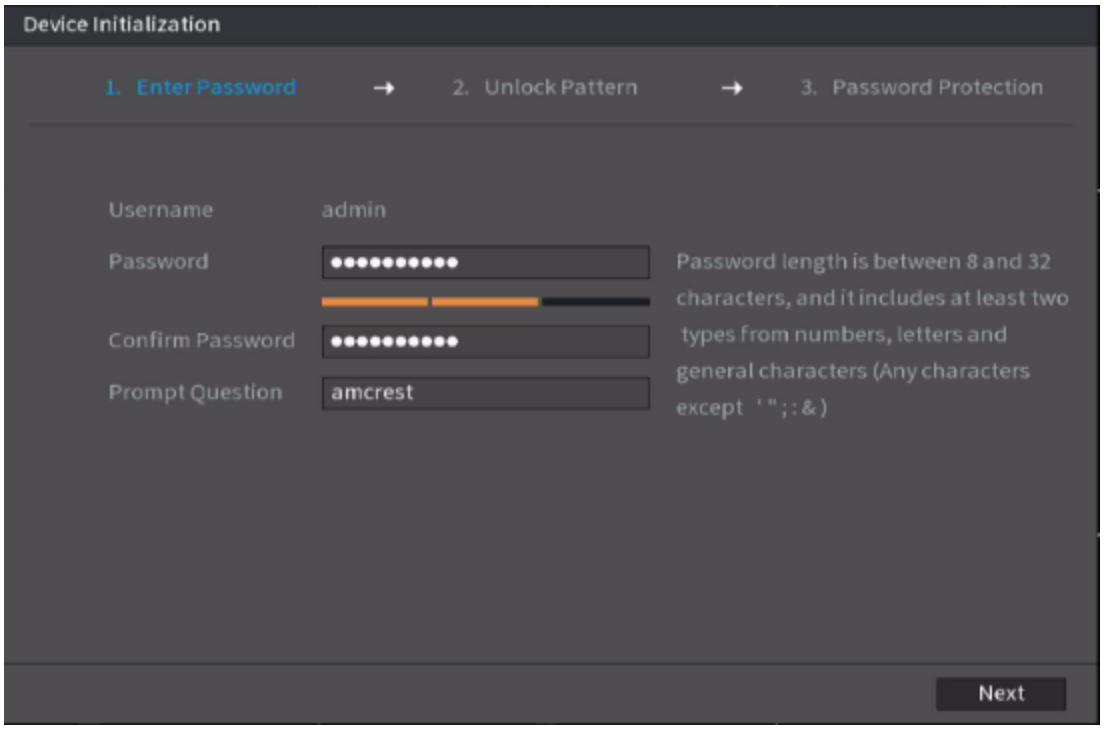
1. Set a Region, Language, and Video Standard



2. Set a Time Zone and System Time



3. Enter Password



Create a new admin password for your device. The password for your device should be between 8 and 32 characters with a combination of letters, numbers, and symbols.

Note: Please do not use special symbols like ‘“; : &

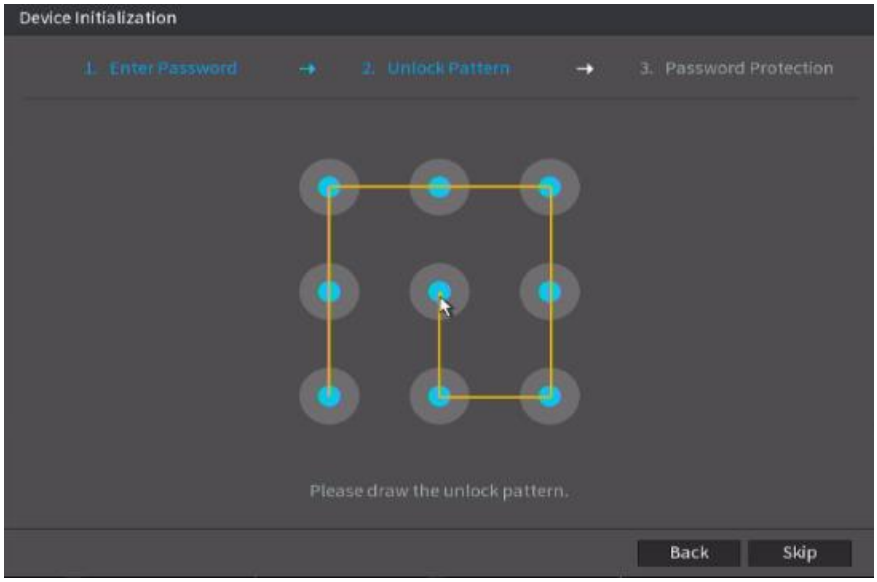
Once you have entered a new password for your device, confirm the password in the next field.

Lastly, you will be asked to enter a prompt question for your account. This is useful if you have forgotten your password and would like an easier means of recovering your password. Please use a prompt question that will help you remember the password for your device.

After you have completed this section, click **Next** to continue.

4. Unlock Pattern

This is an optional security measure for your device. You can also assign an unlock pattern for your admin account. To set an unlock pattern, using your mouse, draw a design which you will remember to access your device. **If you do not wish to assign an unlock pattern, you can click “Skip” to skip this process.**

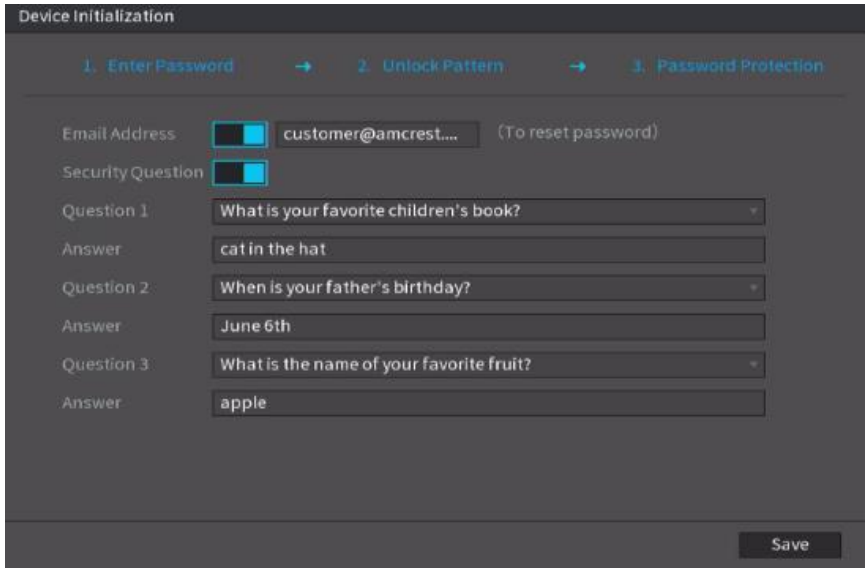


If you have assigned an unlock pattern, you will need to draw the pattern again to confirm.

5. Password Protection

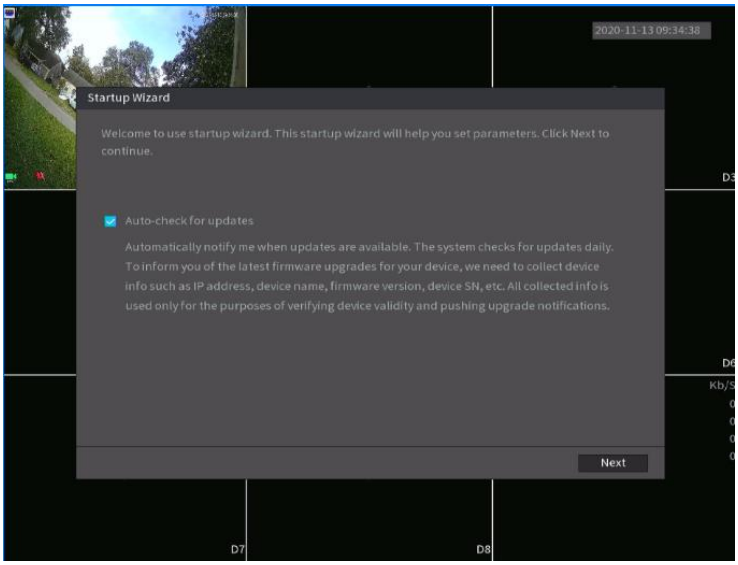
An Additional means of password protection and retrieval can be set up in this menu. If you would like to reset your password via email, toggle the **Reserved Email** toggle switch to the on position and enter a valid email address in the **Reserved Email** field. The email address will be retained in the system.

If you do not wish to use an email address, you can enter security questions. To enable security questions, click the toggle switch to the on position in the **Security Question** field. Select a question from the drop-down menus for **Question 1, Question 2,** and **Question 3** and enter the answers to those questions in the **Answer** fields.



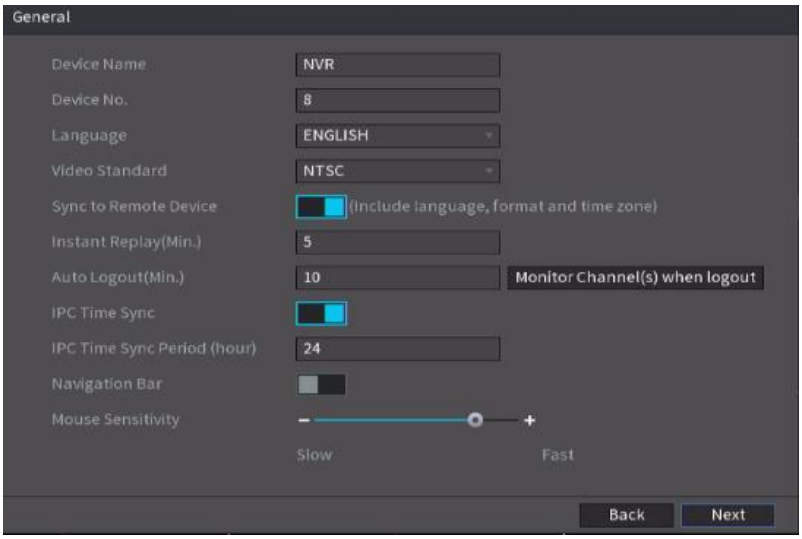
Once this section is complete, click on the **Save** button to save your information to the device. Please note, some devices may have this displayed as OK or Next, in this case, click the OK or the Next button to save your information and continue.

This will take you to a startup wizard which will guide you through the rest of the setup process. Please note, if your NVR has PoE ports on the back and a PoE camera is directly connected to a PoE port, the live view of the camera will be displayed on in the video wall. Please read the information provided on this screen and click **Next** to continue.



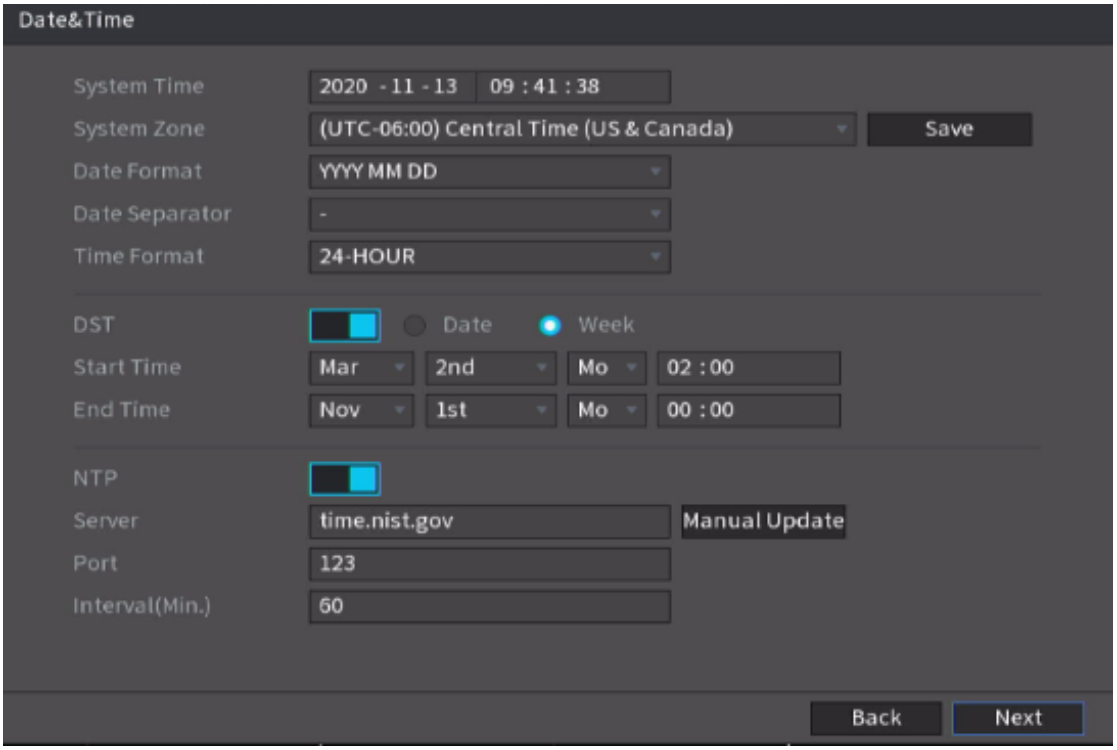
6. General

The next screen is the **General** settings screen, this may also be called the basic screen in some models. This screen allows you to set a language, video standard and other basic settings for the NVR. Once you are satisfied with the settings on this screen, click the **Next** button at the bottom of the screen.



7. Date & Time

This menu allows you to set the date and time for the NVR. If you wish to utilize daylight savings time, toggle the **DST** toggle switch to the on position. Once you have selected the proper date and time for your device, click the **Next** button to continue.

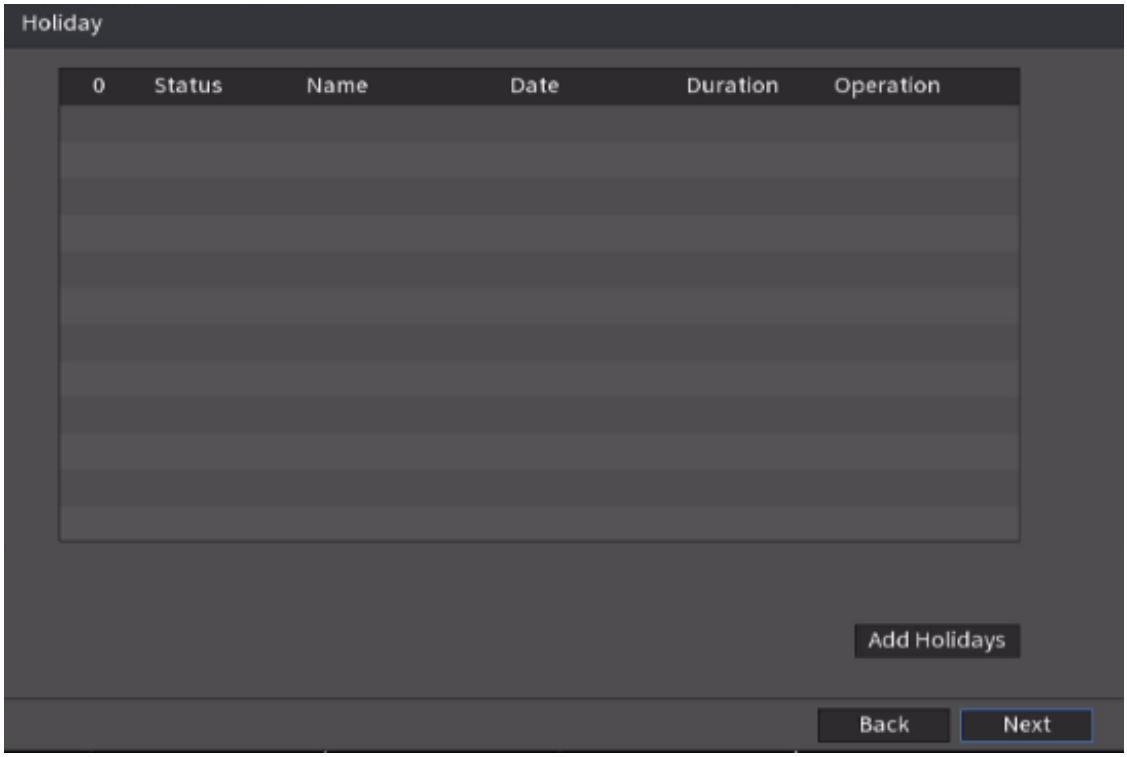


Note: Make sure to toggle the **NTP** toggle switch to the off position if you do not want to sync your device to the NTP server.

8. Holiday

This screen allows the user to set and modify holiday settings which allows the NVR to record or send snapshots based on specific schedules set by the user. Please note, the holiday record/snapshot setup has the higher priority than an ordinary date record/snapshot setup plan.

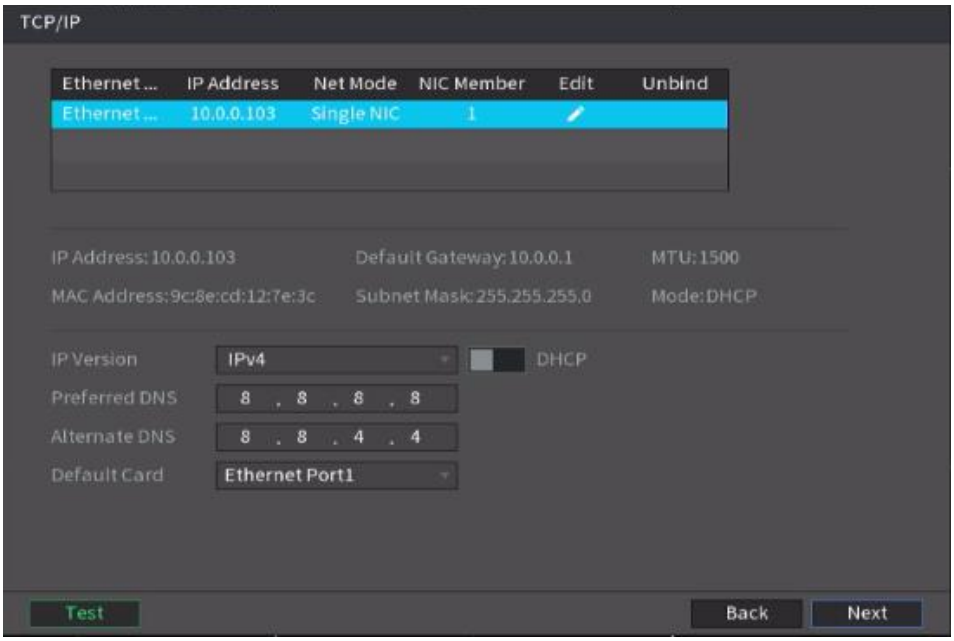
Below is a screenshot of the **Holiday** settings screen:



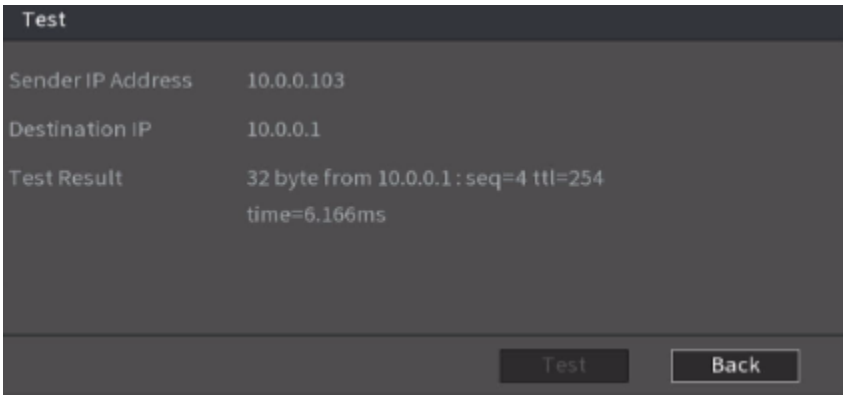
To add a holiday schedule to your NVR, click on the **Add Holidays** button. This will take you to an "Add Holidays" screen. Name the holiday you would like to add and select a mode, range, start time, and end time. If you would like to add more holidays, click on the **Add More** toggle switch, and repeat the process. Click **Add** to add the holiday(s). Click **Next** to continue.

9. Network (TCP/IP)

In this screen you can configure basic network settings. Please note, it is highly recommended to have a static IP to ensure the device has a more stable connection with your network, as well as provide a more efficient means of accessing your device remotely. Toggle the **DHCP** toggle switch to the off position.



Note: To test the connectivity of the device to your network, click on the **Test** button. The device will return a network status. To return to the previous menu, click the **Back** button.



Click **Next** to continue.

10. P2P

This option will be enabled by default. It is highly recommended to keep this enabled if you want to use, the Amcrest View Pro mobile app or AmcrestView.com to view your cameras remotely using a P2P connection. Use the provided QR codes to download the mobile app and access the device's serial number.

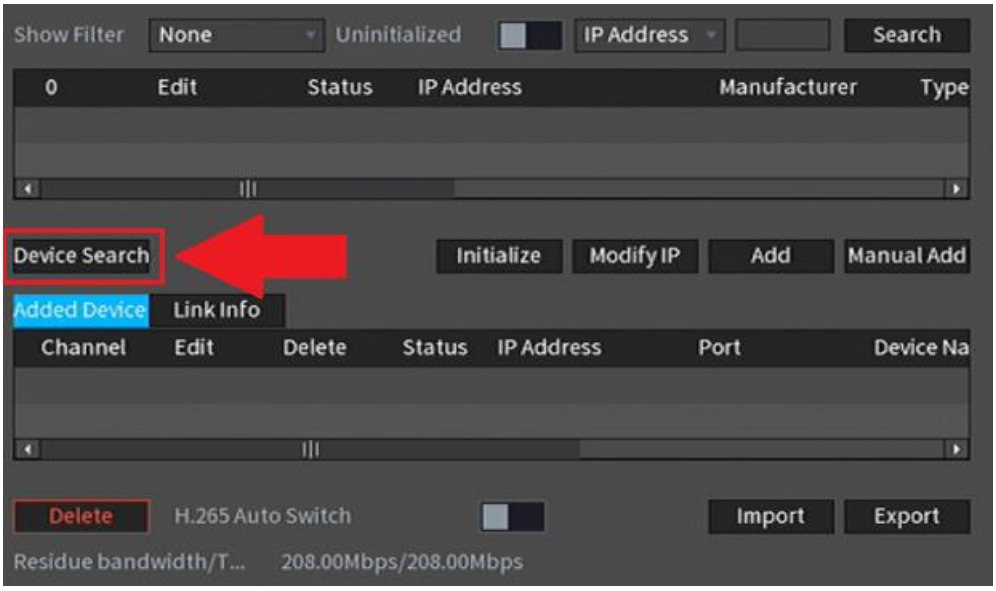


Click **Next** to continue.

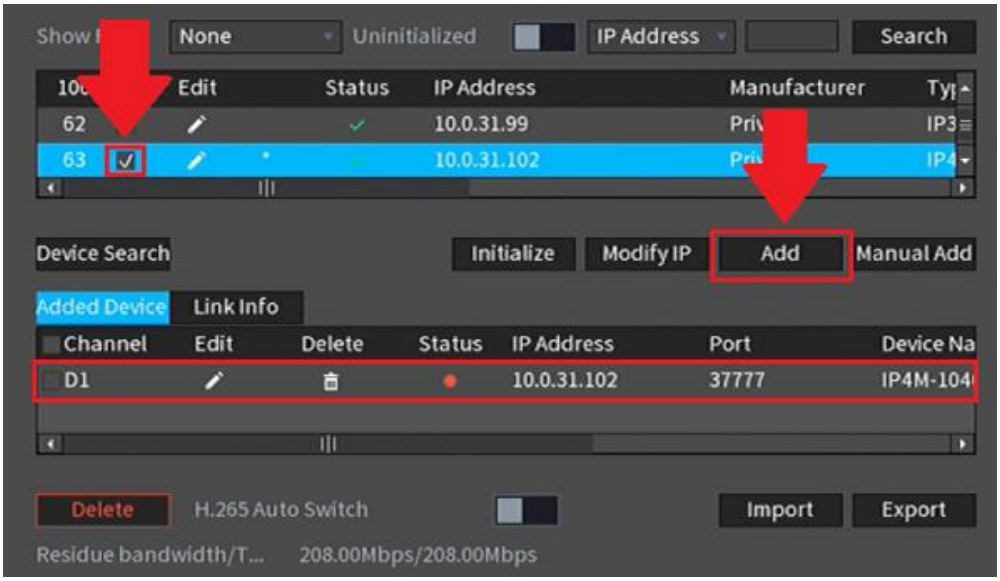
11. Registration

The next screen that appears is the camera **Registration** screen. This is where you can begin adding cameras to the NVR. If the cameras are not directly connected to the back of the NVR, please make sure they are active and on the same network as the NVR before proceeding.

To begin adding a device, click on **Device Search** to allow the NVR to scan for connected devices on your network.

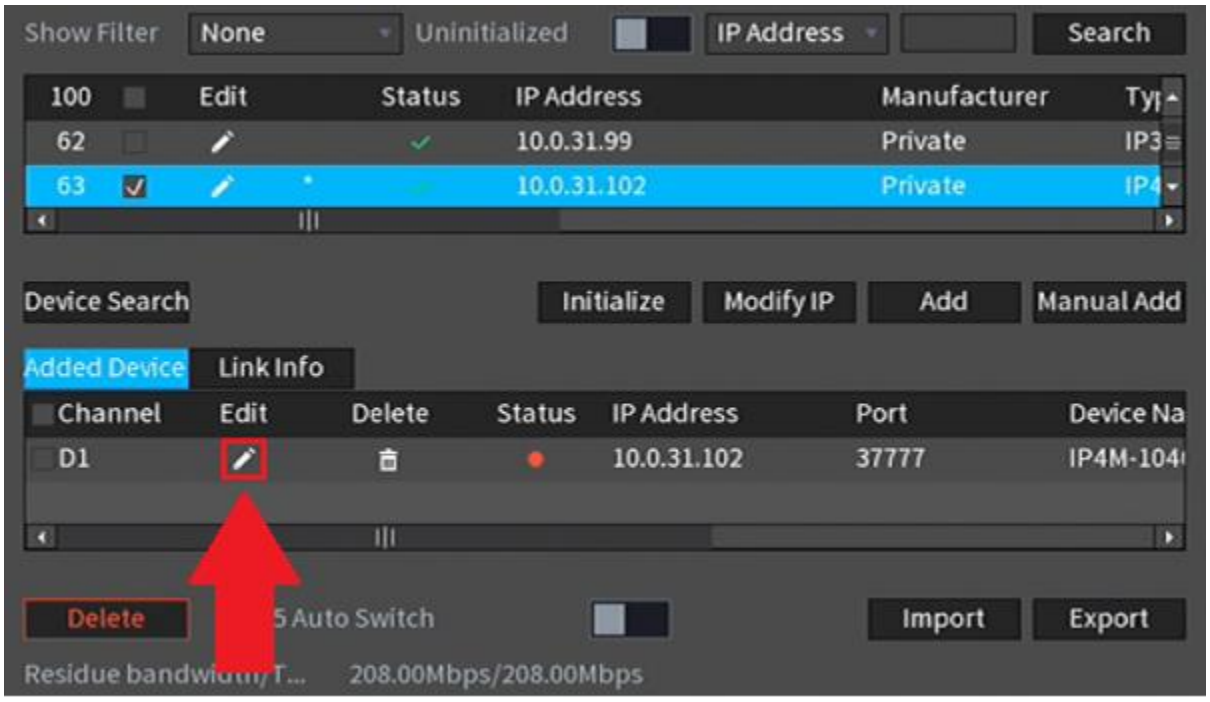


A list of applicable connected devices will show on the screen. Select your devices by click on the checkbox next to the device and click **Add** to add the device into the **Added Devices** menu.

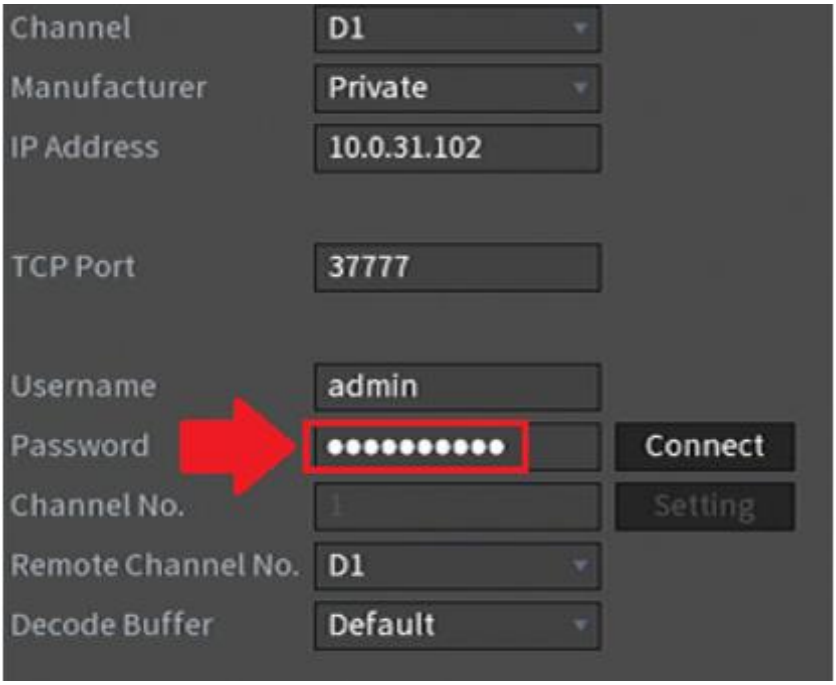


If the status of your camera is red, it indicates the camera is not properly connected to the NVR. This could be because the password for the camera is not entered properly in the system.

To modify the password for your camera, click on the edit icon (pencil) located in the **Edit** column in the **Added Device** menu.

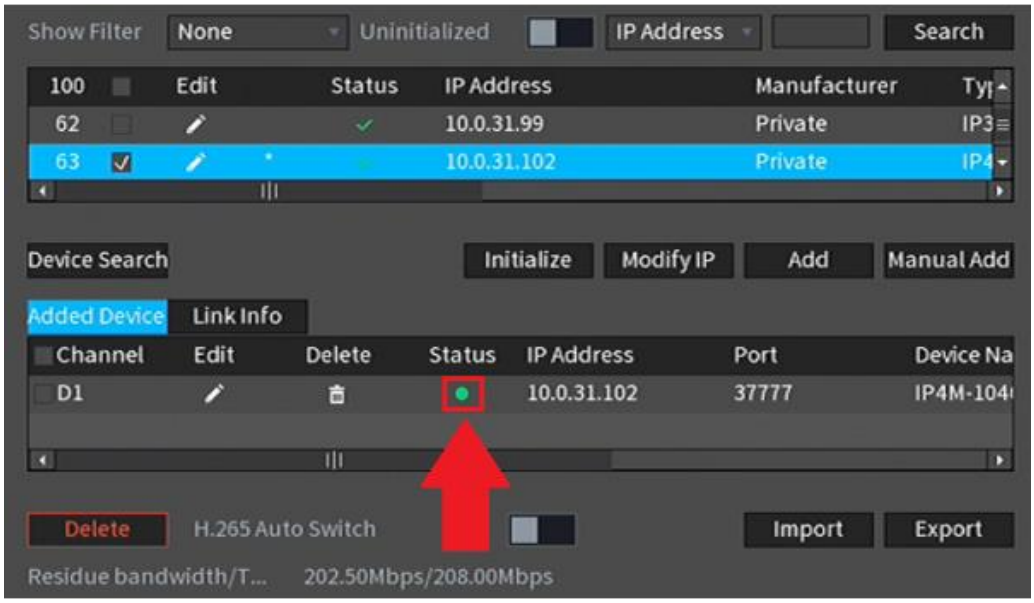


Select the **Password** field and use the onscreen keyboard to enter the password for your camera. Once the password has been entered, click **Connect** then click **Save** to continue.

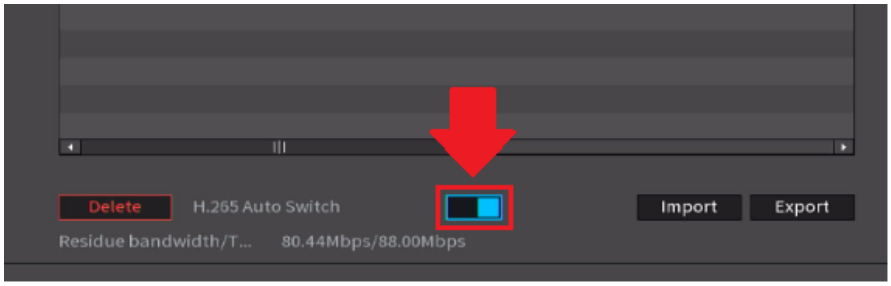


Note: If this is a new device and a password has not been added the password will be **admin.**

Once the password has been properly set the **Status** indicator will turn green indicating the camera has been properly added.



Note: For maximum compatibility when accessing your camera in a web browser or third party applications, our H.265 compatible products will be **factory defaulted to H.264** but for increased performance, the camera's settings can be upgraded to H.265 compression. H.265 provides a more advanced technology than H.264 and allows the device to reduce file size which ultimately helps to reduce required bandwidth without sacrificing frames per second or resolution. To activate H.265 compression, click on the **H.265 Auto Switch** to switch the camera to H.265 compression.



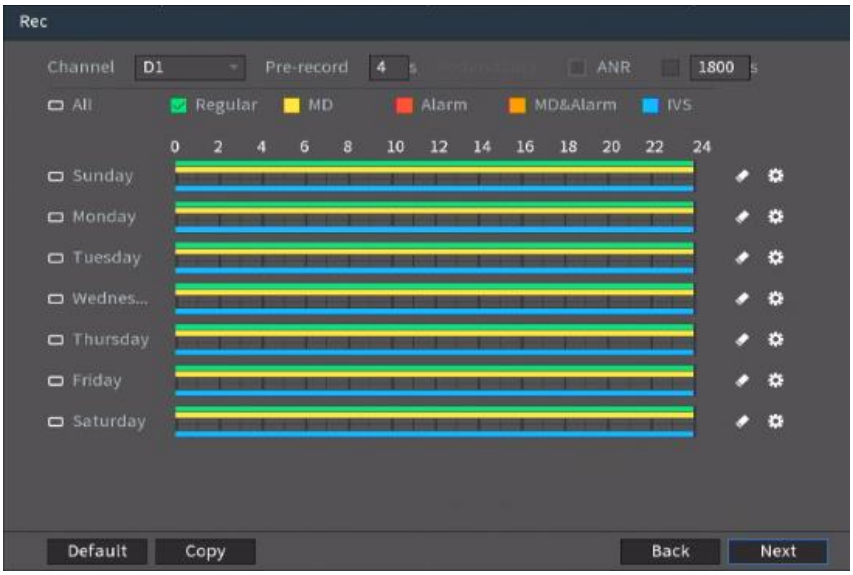
For more information on H.265 compression, please refer to section, *"How to Provide Optimal Performance Using H.265 and Bitrate"*

Please note, H.265 compression is only compatible with 4000 series and above NVRs and may not be applicable to certain devices such as 2000 series or below NVRs.

Click on **Next** to proceed.

Schedule (Rec)

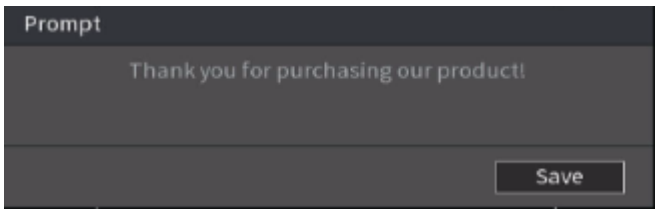
The next screen you will see is the **Rec** screen which allows you to set recording schedules for regular (24/7 continuous recordings), motion detection, alarm, motion & alarm, and IVS recording types. For more information on setting a recording schedule, please see section, "*Setting Up Recording Schedules*".



Click **Next** to continue.

This will take you to the **Snapshot** settings for scheduled recordings. This screen is used similarly to the Rec menu only it pertains only to snapshot events. Once you have scheduled your events, click on the **OK** button to continue.

Once the setup process is finished you should see a dialog box indicating the startup wizard is has finished. Click **Save** to continue.



The next screen you will see will be the video wall screen which will display all connected devices.

Video Wall

Please note the displayed window amount may vary depending on how many channels your NVR can support. The following figure is for reference only.



Please note, the video wall menu will also provide a separate portion that will display the current bit rate of each channel. The bitrate for each device is measured in Kb/S. For more details on bitrate and its relation to the NVR, please refer to the section

1		Recording status	**3**		Direct PoE Connection
2		Motion detection	**4**		Camera lock

Preview Control Interface

Move the mouse to the top center of the video of the current channel, and the system pops up the preview control interface. If your mouse stays in this area for more than 6 seconds and preforms no operation, the control bar automatically hides.



Instant Playback

Click this button to instantly playback any previous motion detection events that were captured by the camera. Please note, a hard drive must be installed in the device to playback any recorded events or snapshots.

Digital Zoom

This option allows you to digitally zoom in on a specific area on the live view interface. To use digital zoom, click the digital zoom button and click an area on the live view screen. Drag the mouse to select a zone and release. The live view will zoom in on the set area. To exit digital zoom, right click on the live view screen to return to its original view.

Manual Record

This option allows you to manually record video. Please note, the NVR can only record videos of a single channel at a time, if multiple channels are enabled, no footage will be retained. To manually record video, insert a USB flash drive into a USB port on the NVR and click on the manual record button. Click on the manual record button again to stop recording. The recording will be saved to the USB flash drive.

Manual Snapshot

Like the manual record button, this option allows you to manually snapshots. To manually take a snapshot, insert a USB flash drive into a USB port on the NVR and click on the manual snapshot button. The snapshot will be saved to the USB flash drive.

Audio talk

This option allows for bidirectional talk. Please note, an external microphone and speaker will need to be applied to the audio in and audio out ports on the back of the NVR for this to function. To activate, click on the audio talk button and use an external RCA microphone and speaker to talk. To disable this function, click on the audio talk button again.

Switch Stream

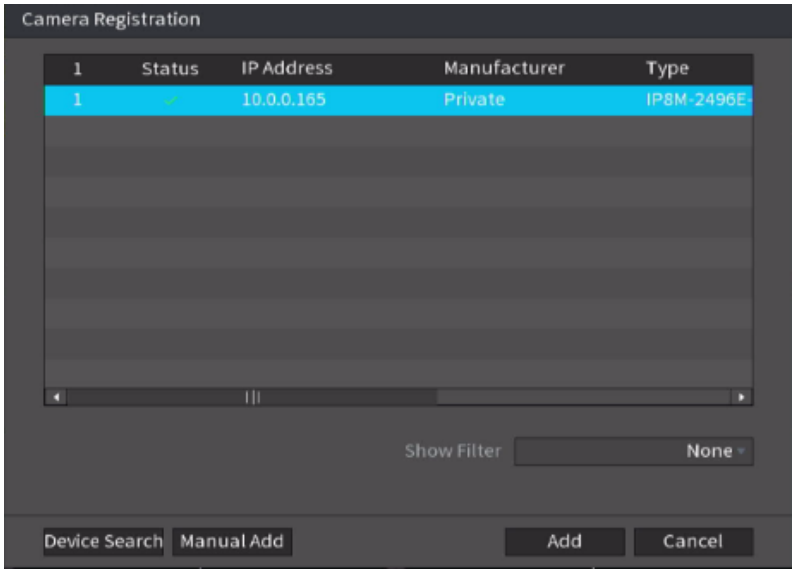
This option allows the device to switch between main stream and sub stream feeds. Please note, switching to a sub stream feed will provide less quality than a main stream feed.

Adding Additional Devices

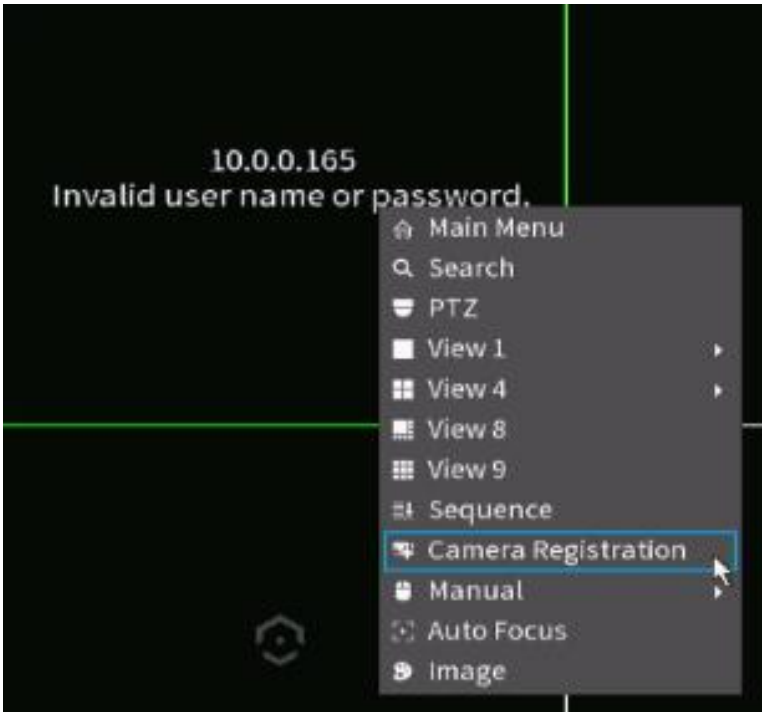
To add multiple devices from the video wall interface. Hover the mouse over the channel you would like to select and click the (+) icon.



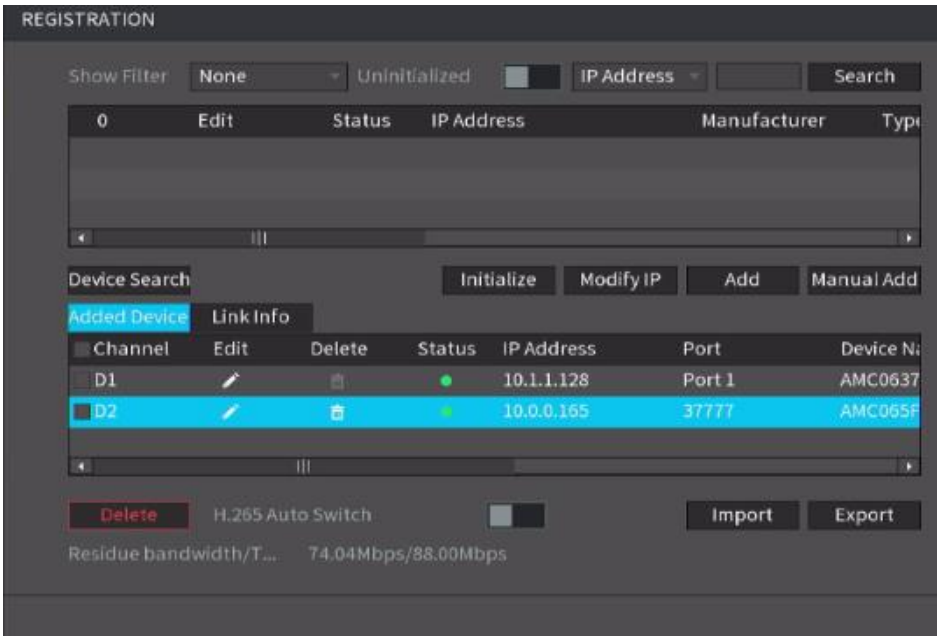
This will take you to a camera registration screen. Click on **Device Search** or **Manual Add** to begin adding the device. If using Device Search, please make sure the camera is on the same network as the NVR before searching. Once the camera has been detected, click on the device to highlight it, and click **Add**.



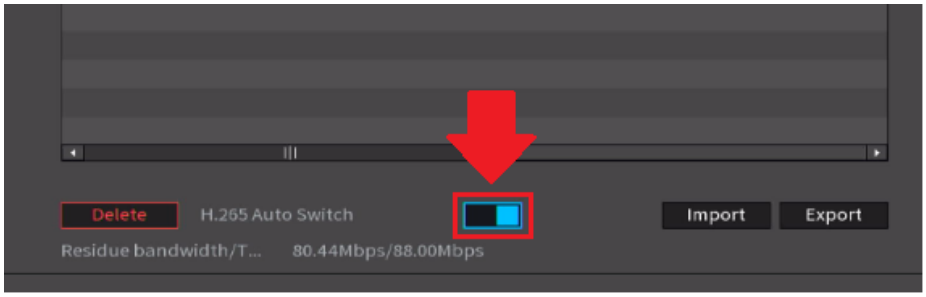
Please note, if the device is not registering to the device, the username or password may need to be updated for the camera. This can be resolved by right clicking on the screen and choosing **Camera Registration**.



In the registration screen, click on the **Edit** icon (pencil) and ensure the username and password are correct and click **Connect**. Once this is verified click **Save**. The status indicator for the camera should turn green, indicating the camera has been added successfully.



Note: For maximum compatibility when accessing your camera in a web browser or third party applications, our H.265 compatible products will be **factory defaulted to H.264** but for increased performance, the camera's settings can be upgraded to H.265 compression. H.265 provides a more advanced technology than H.264 and allows the device to reduce file size which ultimately helps to reduce required bandwidth without sacrificing frames per second or resolution. To activate H.265 compression, click on the **H.265 Auto Switch** to switch the camera to H.265 compression.



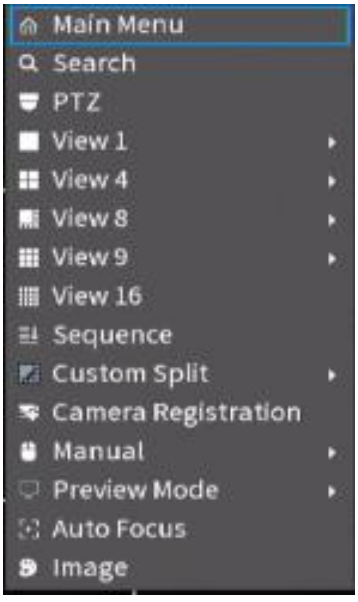
For more information on H.265 compression, please visit: amcrest.com/support

Please note, H.265 compression is only compatible with 4000 series and above NVRs and may not be applicable to certain devices such as 2000 series or below NVRs.

To exit the registration menu, right click on the video wall to display the connected devices. The process can be repeated to add additional cameras if needed. To add the device manually, click **Manual Add** and enter the information for your camera into the interface. Click **Save** to activate the camera.

Shortcut Menu

To access the shortcut menu for the device, right click on the video wall screen to access the shortcut options menu.



Main Menu: Click this option to exit the video wall and access the main menu options the NVR.
Search: Click this option to access the playback interface.
PTZ: Click this option to access the pan/tilt/zoom interface. Please note, this option is only applicable if a PTZ device is connected to the NVR. PTZ allows you to control the PTZ direction, speed, zoom, focus, iris, preset, tour, scan, pattern, aux function, light and wiper, rotation, etc.

Full Screen: Click the full screen option to display a selected feed in full screen.
Speed: Controls the PTZ movement speed. Its values can range from 1, being the slowest, and 8 being the fastest.
Zoom: Use the "+" and "-"icons to zoom in or zoom out on the interface.
Focus: Use the "+" and "-"icons to focus the image.
Iris: Use the "+" and "-" icons to control the iris behavior of the camera.
PTZ Trace: Provides the ability to store a sequence of camera movements as a preset.



In the middle of the eight direction arrows, there is a 3D intelligent positioning key. Please make sure your protocol supports this function and you need to use the mouse to control it. Click this key and the system goes back to the single screen mode. Drag the mouse in the screen to adjust the section size. The dragged zone supports 4X to 16X speeds. The smaller zone you dragged, the higher the speed.

Name	Function key	Function	Function key	Function
Zoom	-	Out	+	In
Focus	-	Near	+	Far
Iris	-	Close	+	Open

Click the ">" icon to open the menu. You can set preset, tour, pattern, scan, etc.



Refer to the following sheet for detailed information.

Please note the above interface may vary due to different protocols. The button is grey and cannot be selected if the current function is null.

Right mouse click or click the ESC button on the front panel to go back

Icon	Function	Icon	Function
	Preset		Auto Pan
	Tour		Flip
	Pattern		Reset
	Auto Scan		PTZ Settings

Call PTZ Function

Preset

Input the Preset value and then click to call a preset. Click again to stop the call.

Call Tour

Input the Tour value and then click to call a tour. Click again to the stop call.

Call Pattern

Input the Pattern value and then click to call a pattern. Click again to stop the call.

Call Scan

Input the Scan value and then click to call a scan. Click again to stop the call.

Auto Pan

Click to enable the camera to enable any auto pan presets set in the device. Click again to disable this preset.

Flip

Click to enable the camera to flip its image.

Reset

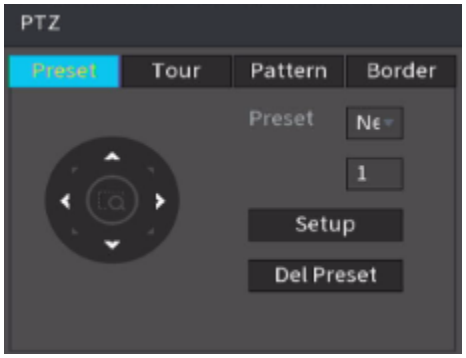
Click to return to exit the current PTZ operation.

PTZ Function Setup

Click to go to the following interface to set preset, tour, pattern, and scan.

Preset Setup

Click the Preset button and use the eight direction arrows to adjust camera to the proper position.
Click the box next to Preset and then input the preset number. Click the Set button to save the current preset.

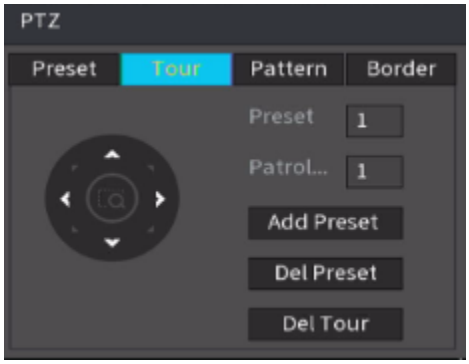


Tour Setup

Click the **Tour** tab. Input tour value and preset No. Click the Add preset button to add the current preset to the tour.

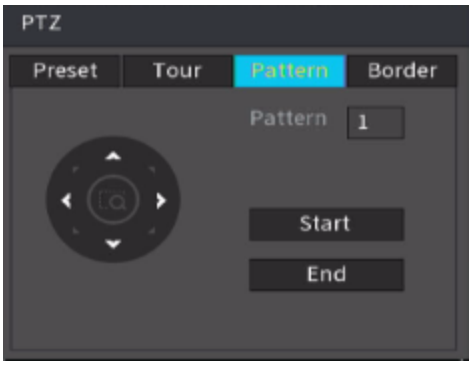
Tips

Repeat the above steps to add more presets to the tour. Click the Del preset button to remove it from the tour. Please note some protocols do not support the delete preset function.



Pattern Setup

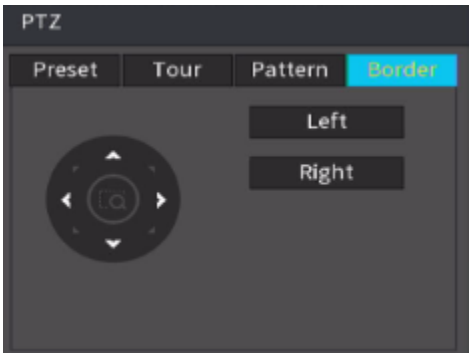
Click the **Pattern** button and input pattern number.
Click the **Begin** button to start the direction operation. Or you can go back to the screen below to operate zoom/focus/iris/direction operation.
Click the **End** button.



Scan Setup

Click the **Scan** button.

Use the direction buttons to set the camera's left limit and then click the **Left** button. Use the direction buttons to set the camera's right limit and then click the **Right** button. Now the scan setup process is complete.



View 1: View a single device in the video wall

View 4: View 4 simultaneous devices in the video wall. The same concept will apply to any other View (Window Split) options in this menu.

Sequence: Allows the user to display in which sequence the cameras will be displayed in the video wall.

Custom Split: Allows the user to customize how the splits will be arranged on the video wall.

Camera Registration: This option allows the user to register additional devices to the NVR.

Manual: Allows the user to access record and alarm output options.

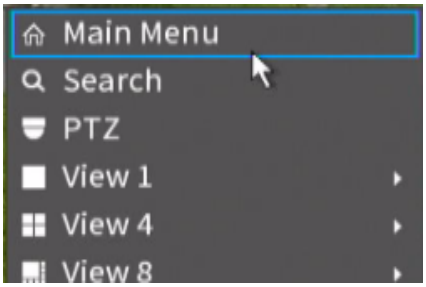
Preview Mode: Allows the user to switch between a general mode and AI mode (applicable only to AI connected cameras.

Auto Focus: Click this option to auto focus the selected device.

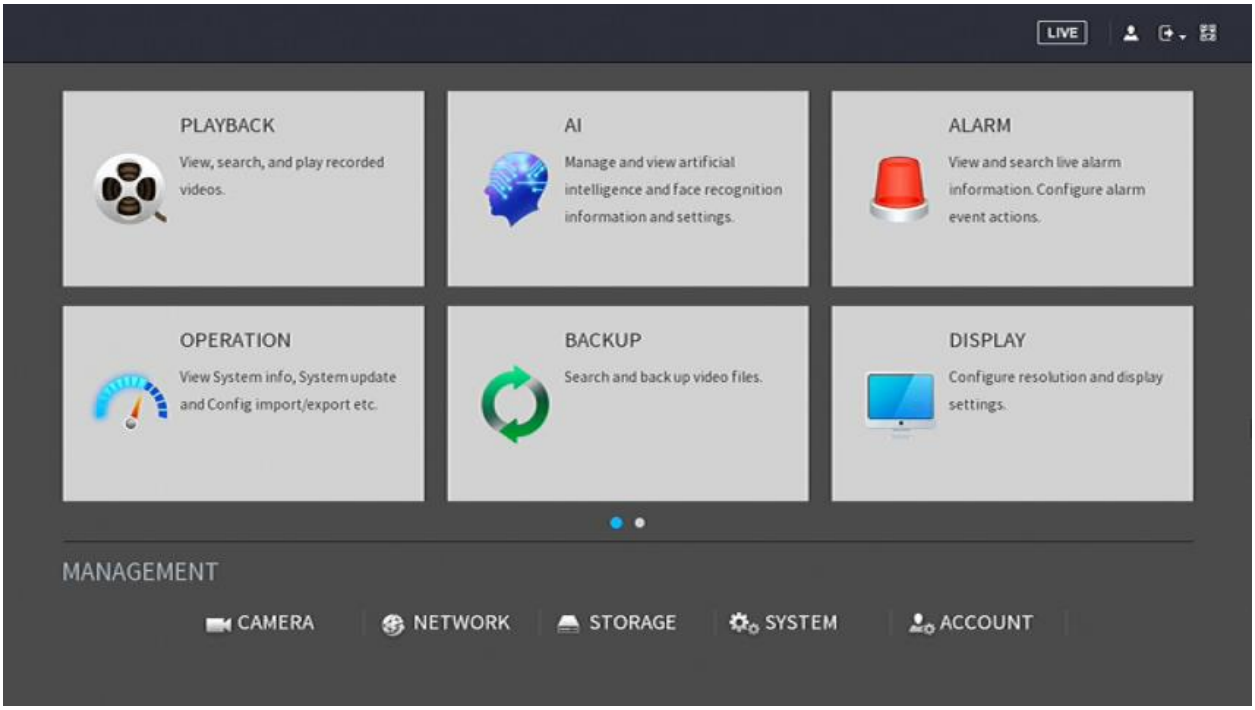
Image:

Main Menu

The main menu for the system can be accessed via the right click menu on located on the video wall interface. Right click on the video wall interface and select **Main Menu**.



The screenshot below is the main menu screen for the Amcrest NVR console interface:



Below are short descriptions for each of the menu items on the main menu:

PLAYBACK: View, search, and play recorded videos.
AI: Manage and view artificial intelligence and face recognition information and settings.
ALARM: View and search live alarm information. Configure alarm event actions.
OPERATION: View system information, system updates. Import/export configuration files, etc.
BACKUP: Search and backup files using a USB flash drive.
DISPLAY: Configure resolution and display settings.
AUDIO: Configure audio announcements and import audio files.

Management

CAMERA: Add, search, review or edit settings for each camera, including video settings (e.g. quality, bit rate, color, etc.).

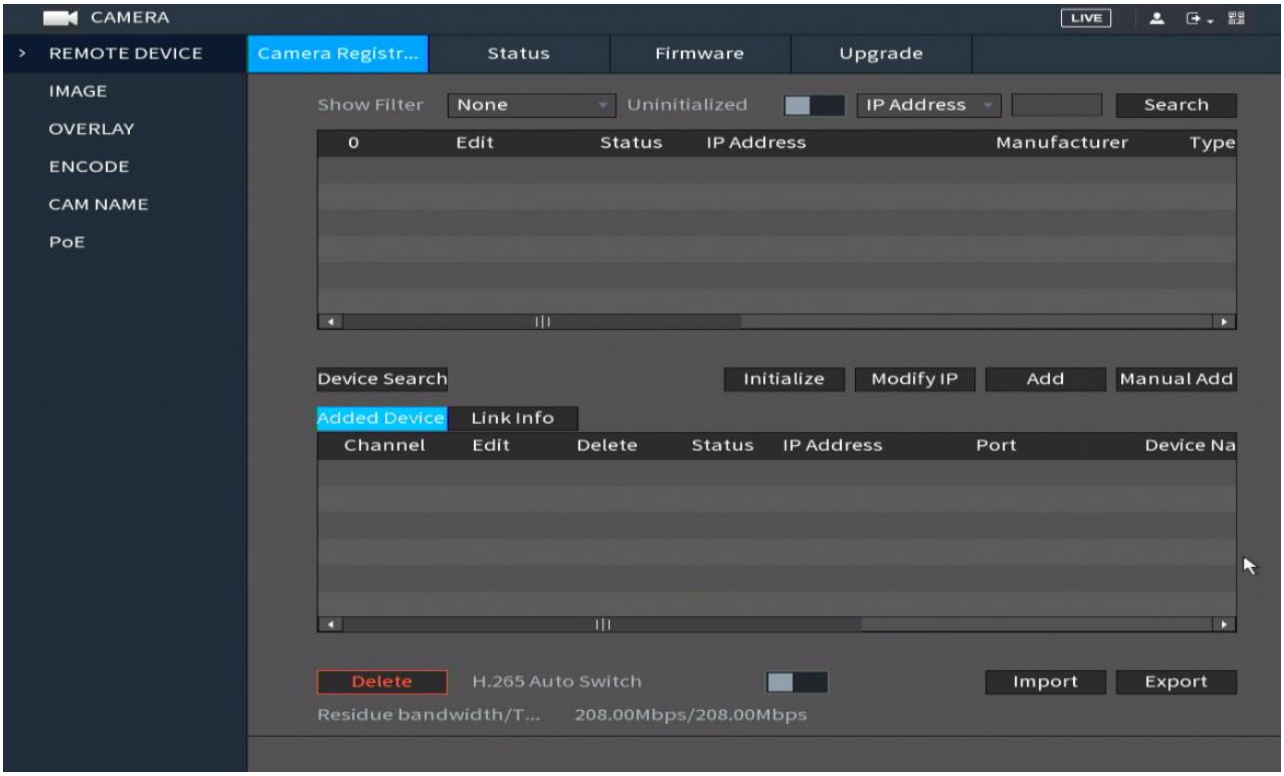
NETWORK: Review and edit TCP/IP, connection, DDNS, Email settings, etc (e.g. P2P, UPnP, Multicast, etc.)
STORAGE: Set motion detection IVS schedules, as well as access the hard drive management interface, FTP, etc.
SYSTEM: Review and edit general system settings such as, video standards, date & time, as well as adjust firewall settings.
ACCOUNT: Add or remove shared user settings, groups, as well as ONVIF users. Reset security questions and update reset password email.

Camera

Remote Device

This section can also be labeled as **Camera** in some models. To access the Remote (camera) section, click on the main menu and in the Settings menu click on Camera.

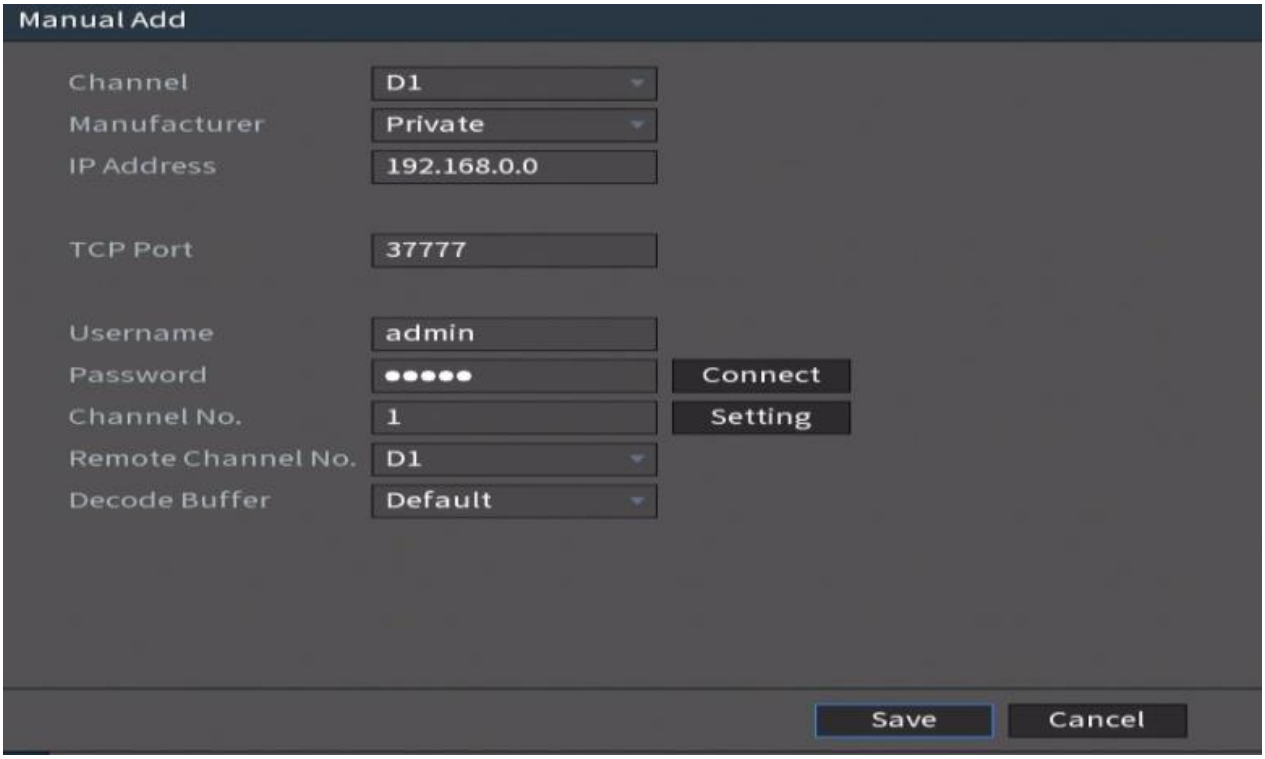
The first tab will be the remote tab. In this menu you can search or manually start adding cameras to the NVR. Below is a screenshot of this tab:



In this menu you can view the device status, firmware version, as well to update firmware for your remote device. To begin adding a device, click the **Device Search** button, and you can view the searched IP addresses at the top pane of the interface. Double click an IP address or check one IP address and then click the Add button to add the current device to the bottom pane of the interface. The system supports batch adding.

Click the **Manual Add** button to add a device directly. Here you can set TCP/UPD/auto connection mode. The default setup is TCP.

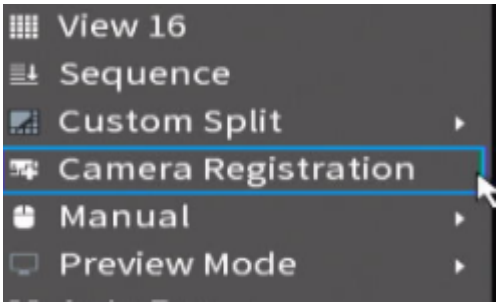
IMPORTANT
Please note if you are adding a camera to your NVR it is highly recommended to set your camera with a **static** IP address prior to adding it to the system. A static IP address can only be set in the camera's web user interface on a computer. For more information on how to set a static IP for your camera visit: amcrest.com/staticIP



Additionally, in some model NVRs there will also be an IMPORT and an EXPORT option. This allows the user to import or export specific device configurations from an external USB storage device.

Shortcut Menu

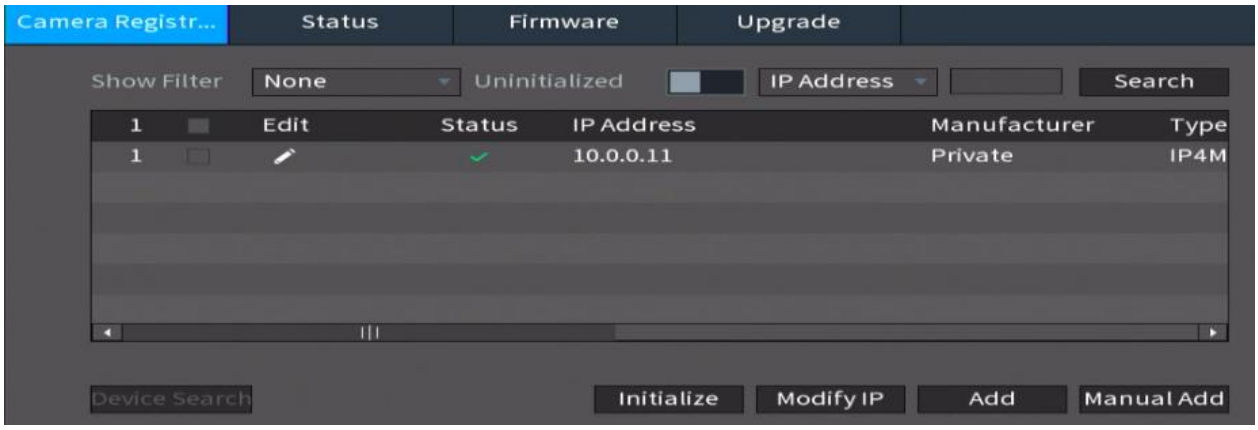
The Remote Device menu can also be accessed via the video wall menu using the right click menu.



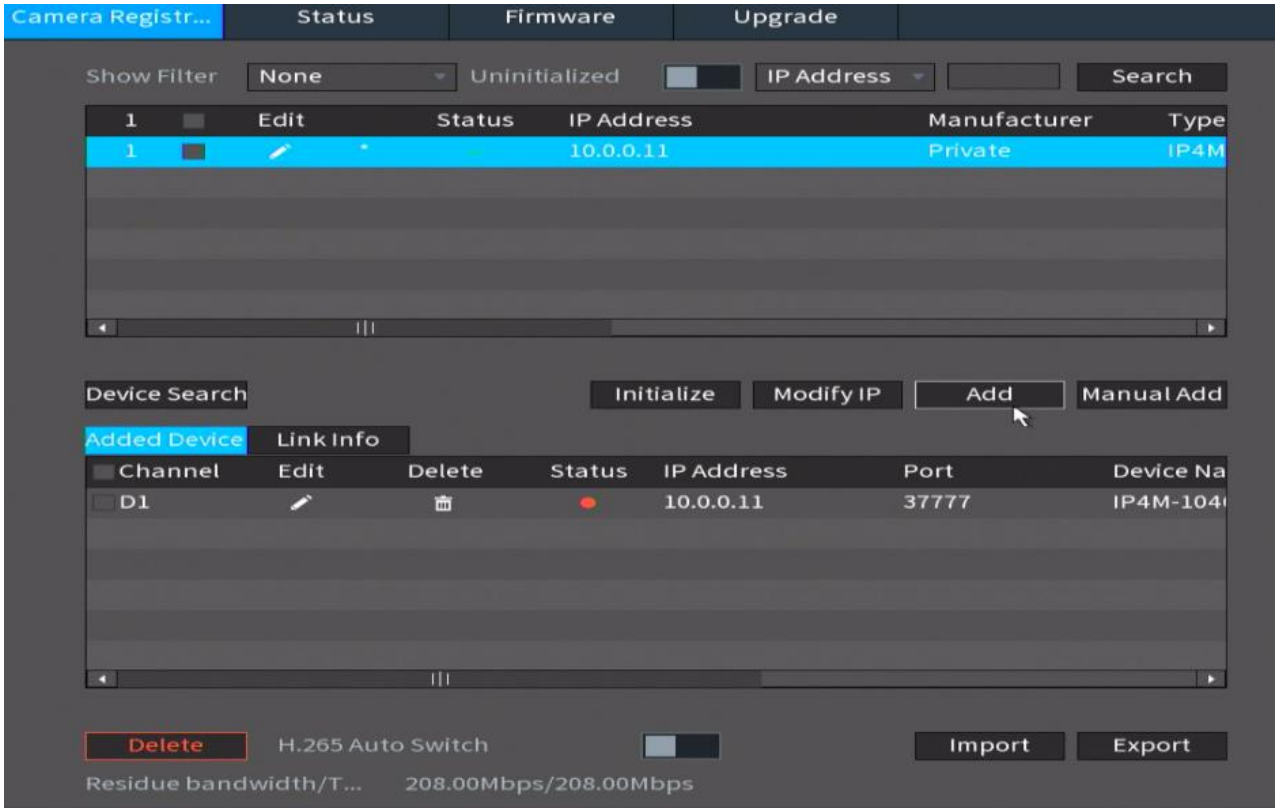
Camera Registration

Please ensure the camera is on the same network segment as the device when registering a camera. Please note, if a camera is plugged directly to a PoE port on the back of your device the camera will be automatically registered. However, please ensure the password for the camera is registered properly in the system to function. The default password for most Amcrest IP cameras is “admin.

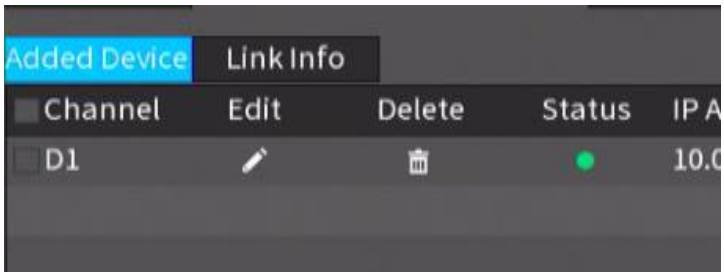
To begin registering a camera, click on **Device Search** once the camera has been connected to the network.



Select the device from the interface and click **Add** to add it into the system.

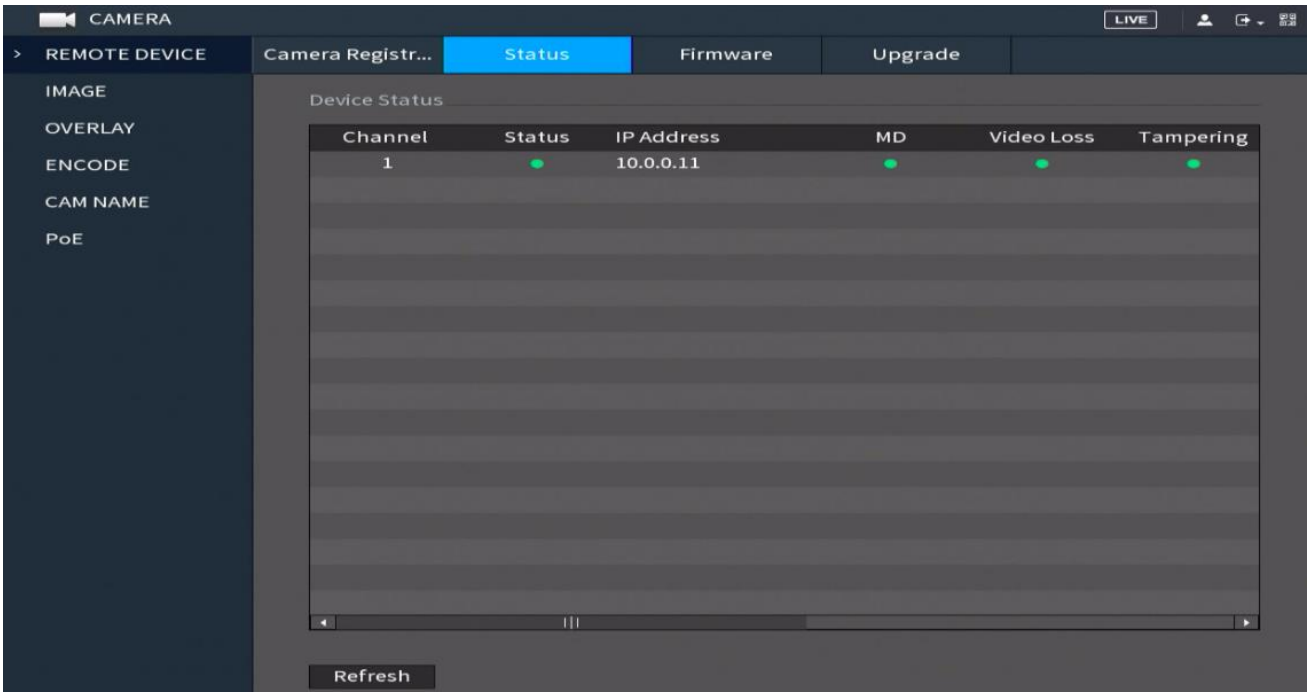


Once the camera has been added into the system, click on Edit. This menu allows you to edit camera related information and verify the camera has the proper password for initialization. Once the camera has been added properly into the system, the status field will read “green” indicating the camera is properly connected.



Status

This tab allows the user to view the status of a connected device to the NVR. Below is a screenshot of this menu:



Below is an explanation of the fields listed in this menu:

Channel: Indicates the channel number of the camera being monitored.
Status: Indicates the connection status of the camera. It can be either green, for good connection, or red, for possible connection issue.
IP Address: Indicates the IP address of the connected camera.
MD: Indicates the current motion detect settings are active on the camera.
Video Loss: Indicates the current video loss settings are active on the camera.

Tampering: Indicates the current tampering settings are active on the camera.
Refresh: Allows the user to refresh settings currently applied in this menu.

: Understanding device status icons:

: Front-end is not supported

 : Front-end is supported

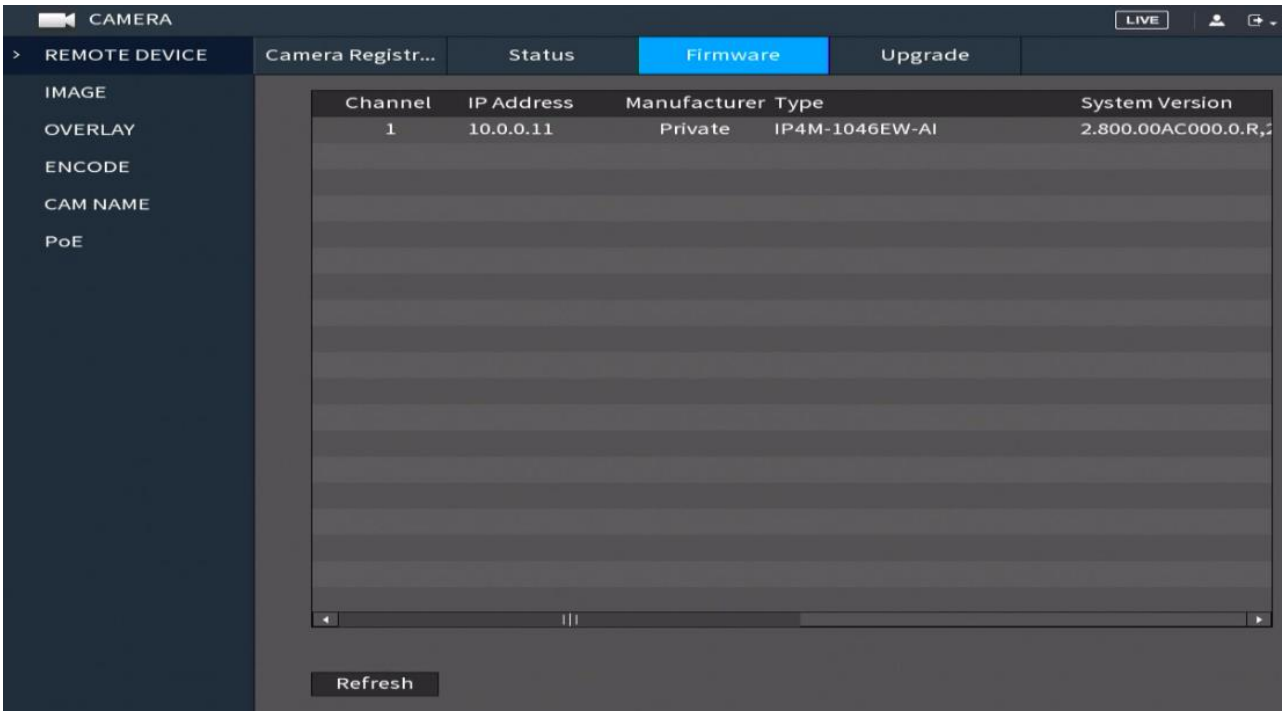
: There is an alarm event from the current front-end

: Connection succeeded

: Connection failed

Firmware

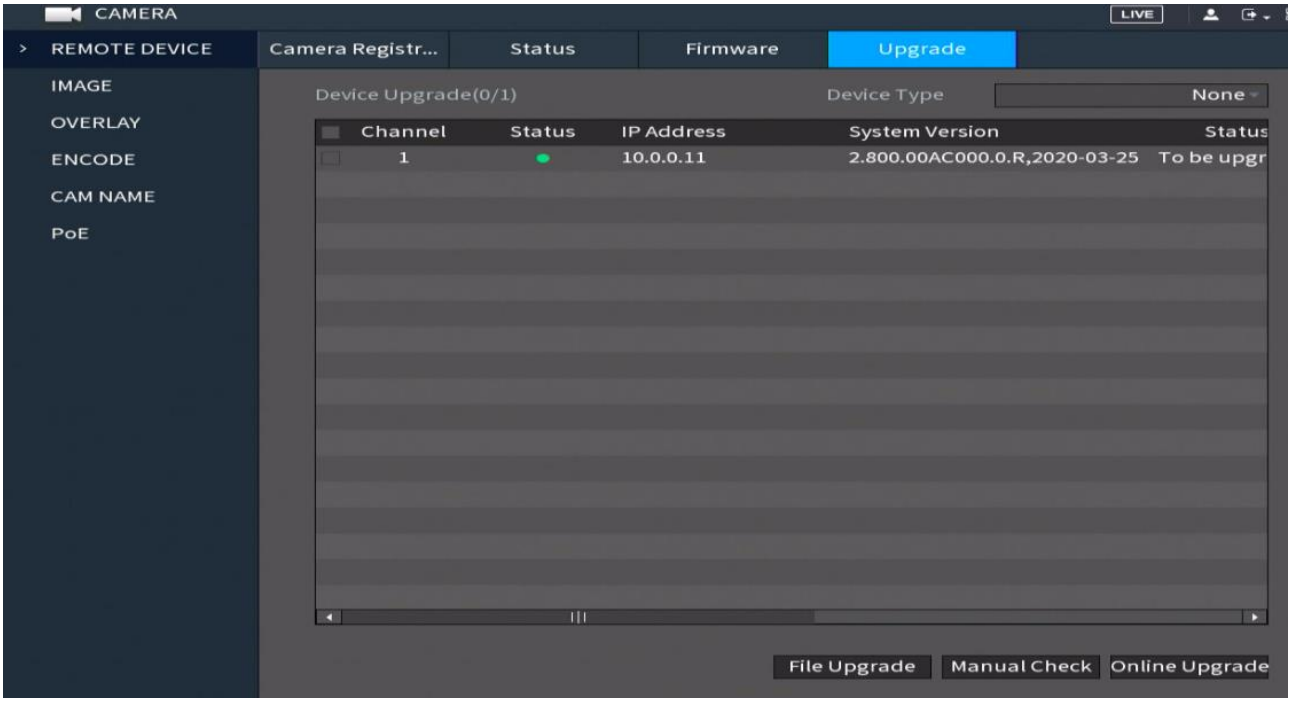
This tab allows the user to view the firmware status of a connected device to the NVR. Below is a screenshot of this menu:



Below is an explanation of the fields listed in this menu:

Channel: Indicates the channel number of the camera being monitored.
IP Address: Indicates the IP address of the connected camera.
Manufacturer: Indicates the current protocol that the camera is connecting to the NVR with.
Type: Indicates the model of the camera being connected to the NVR.
System Version: Indicates what firmware version the camera is running on.
Serial No.: Shows the serial number of the camera that is connected to the NVR.

Video Input: Indicates which video input the camera relates to.
Audio Input: Indicates which audio input the camera is relates to.
Alarm In: Shows the stats for any external alarms associated with the camera.
Refresh: Allows the user to refresh settings currently applied in this menu.
Update
This tab allows the user to upgrade the firmware for their camera directly from the NVR. Below is a screenshot of this menu:

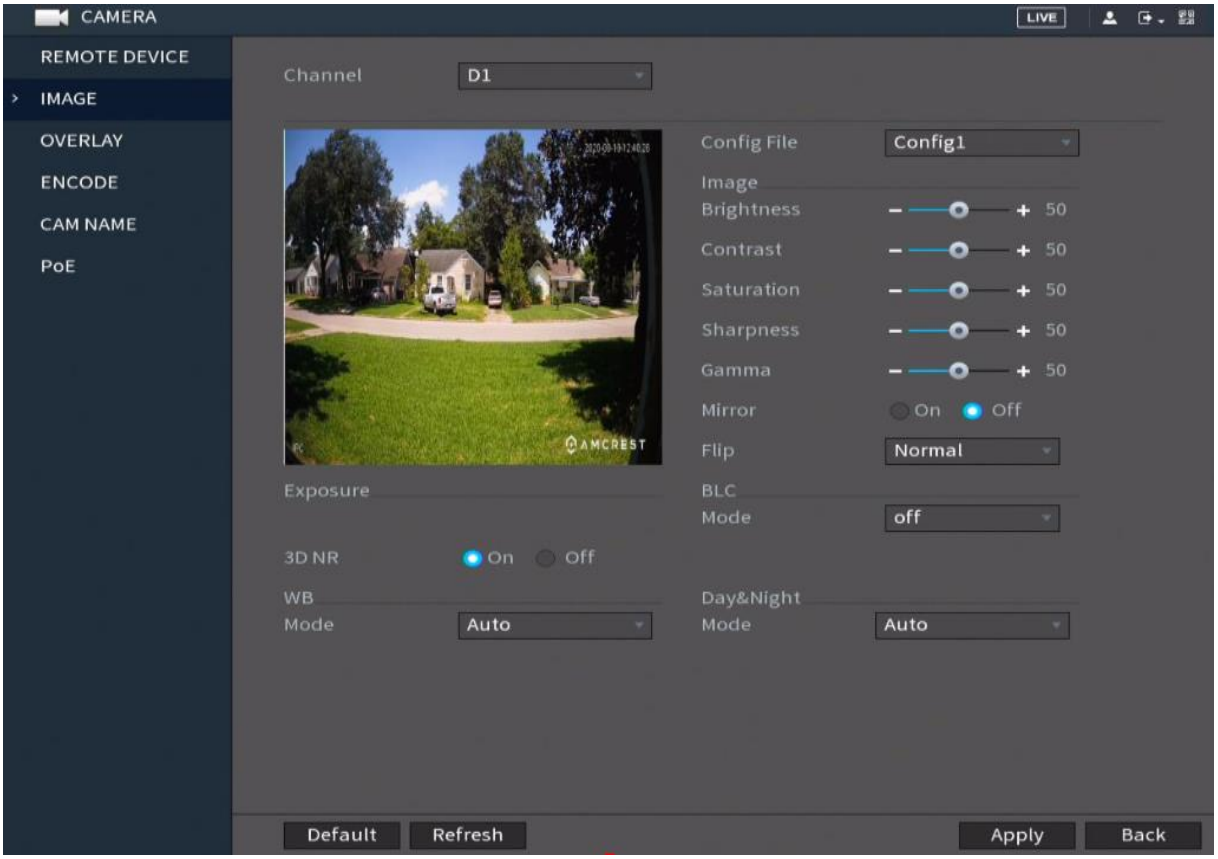


Below is an explanation of the fields listed in this menu:

Channel: Indicates the channel number of the camera being monitored.
Status: Indicates the connection status of the camera. It can be either green, for good connection, or red, for possible connection issue.
IP Address: Indicates the IP address of the connected camera.
Port: Shows which port number the camera is connected to.
Manufacturer: Indicates the current protocol that the camera is connecting to the NVR with.
Device Type: Indicates the model of the camera being connected to the NVR.
System Version: Indicates what firmware version the camera is running on.
Update Status: Allows the user to see if the firmware needs to be updated. If the firmware for the camera needs to be updated the system will say, "**To be upgraded"**.

Image

The **Image** tab allows the user to adjust image settings such as, saturation, brightness, contrast, sharpness, gamma, as well as flip and mirror the image. Below is a screenshot of this menu:



The following options will vary depending on camera model and manufacturer

Channel: Select a connected device from the channel dropdown list.
Config File: This dropdown menu allows the user to set a config file for image settings.
Image Brightness: This is to adjust monitor window brightness. The value ranges from 0 to 100. The default value is 50. The larger the number, the brighter the video. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The recommended value ranges from 40 to 60.
Contrast: This is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50. The larger the number, the higher the contrast. You can use this function when the whole video brightness is OK, but the contrast is not correct. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may overexpose. The recommended value ranges from 40 to 60.
Saturation: This is to adjust the monitor window saturation. The value ranges from 0 to 100. The default value is 50. The larger the number, the stronger the color. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For the grey part of the video, distortion may occur if the white balance is not accurate. Please note the video may not be attractive if the value is too low. The recommended value ranges from 40 to 60.

Sharpness: The value here is to adjust the edge of the video. The larger the value is, the clear the edge is and vice versa. Please note there is noise if the value here is too high. The value ranges from 0 to 100. The recommended value ranges from 40 to 60. The default value is 50.
Gamma: This threshold value changes image brightness via nonlinear method and improves dynamic display range. The higher this value, the brighter image will be and vice versa. The value ranges from 0 to 100. The recommended value ranges from 40 to 60. The default value is 50.
Mirror: This is to flip the video horizontally (as if looking in a mirror). This function is disabled by default.
Flip: This is to flip the video upside down. This function is disabled by default.
BLC Mode: This is to compensate for the backlight and includes several options: High/Low/Stop.

Off: This is to disable backlight compensation. Please note this function is disabled by default.
Scene Self-Adaption: Allows the system to auto compensate the color temperature to make sure the image color is optimal.
BLC: Allows the system to automatically adjust exposure according to the environments situation so that the darkest area of the video is cleared.
WDR: This option helps balance washed out video that has a large dynamic range.
HLC: This option allows the device to lower the brightness of the brightest section according to the HLC control level. It can reduce the area of the halo and lower the brightness of the whole video.

3D NR: This reduces the noise in the video which helps to enhance the quality of the image.
WB Mode: This dropdown menu allows the user to set white balance modes. White balance (WB) is the process of removing unrealistic color casts, so that objects which appear white in person are rendered white in the image.

Auto: The auto white balance is on. System can auto compensate the color temperature to make sure the vide color is proper.
Outdoor: Allows the device to compensate in outdoor environments.
Natural: Allows the device to balance natural light to prevent a washed-out image.
Street Lamp: Allows device to compensate white balance during night time/street lamp conditions.
Manual: Allows the white balance of the device to be manually adjusted by the user.
Customized Zone: You can set the gain of the red/blue channel. The value reneges from 0 to 100.

Day & Night Mode: This is to set the device to output color or B/W video. The default setup is auto.

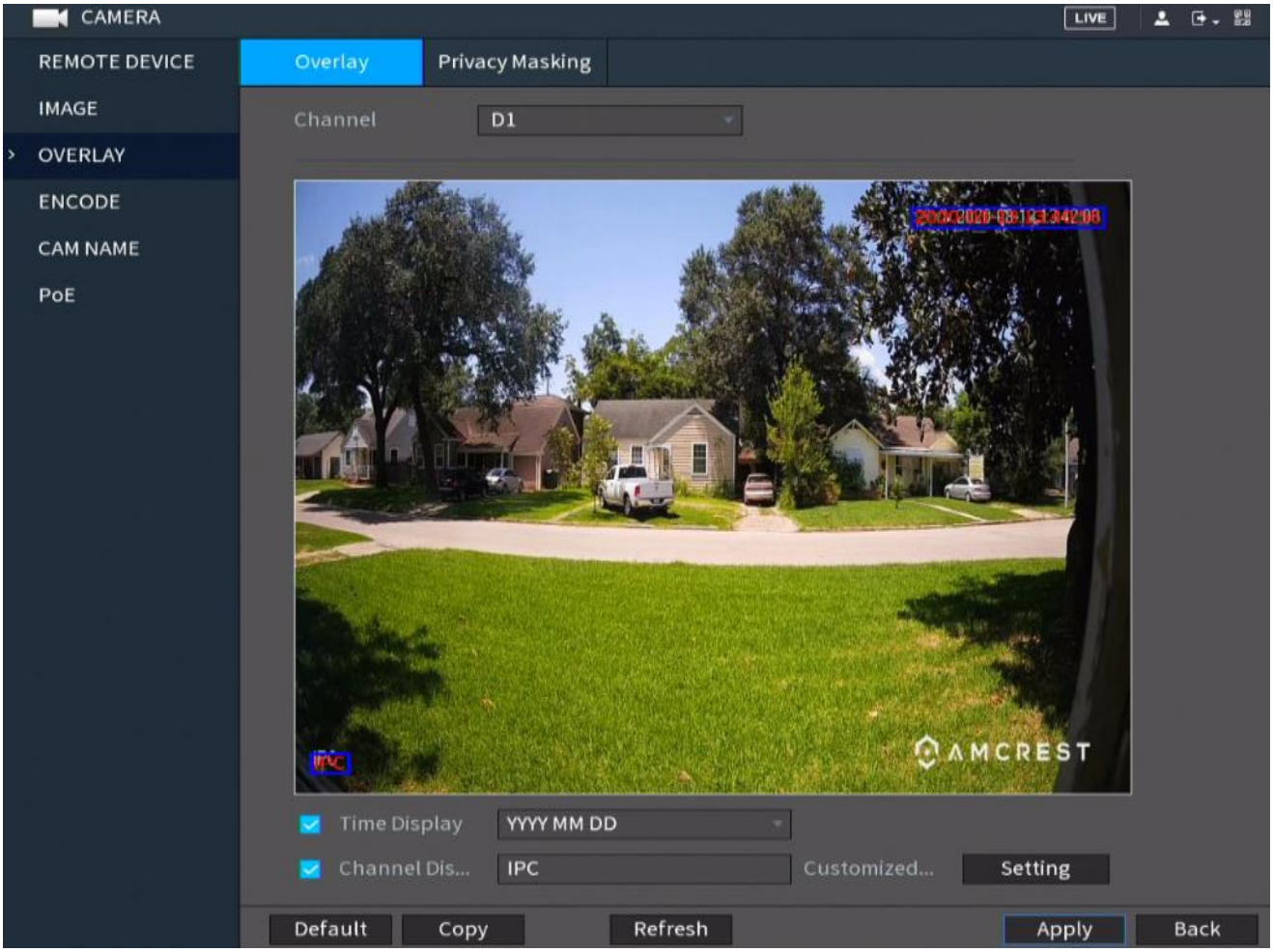
Auto: The device auto selects to output color or B/W video according to the device feature (The general brightness of the video or if there is IR lights or not.)
Color: The device outputs color video.
Black/White: The device outputs the black and white video.

To revert to default settings, click the **Default** button near the bottom left hand corner. Press the Refresh button to refresh the interface. To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Overlay

The overlay tab allows the user to change overlay settings for each channel. By default, there is a time display, channel display, and a privacy mask tab which allows the user to customize privacy mask blocks on the interface.

Below is a screenshot of the overlay tab:



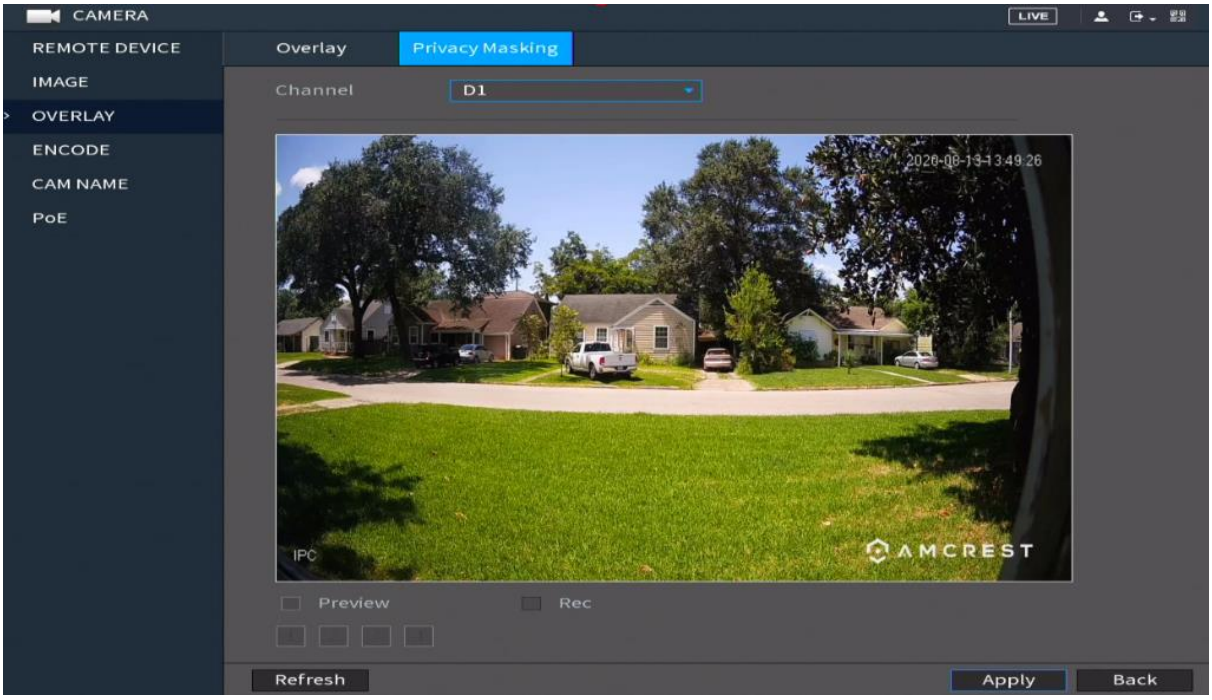
Below is an explanation of fields that can be modified on the overlay settings screen:

- **Channel:** This dropdown box allows the user to select a channel from the dropdown list to modify.
- **Time Display:** This button allows the user to select whether the system displays time on playback video. Clicking the set button and allows the user to drag the timestamp to the desired position on the screen.
- **Channel Display:** This button allows the user to select whether the system displays channel number on playback video. Clicking the set button allows the user to drag the title to the corresponding position on the screen.

To revert to default settings, click the **Default** button near the bottom left hand corner. Press the Refresh button to refresh the interface. To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

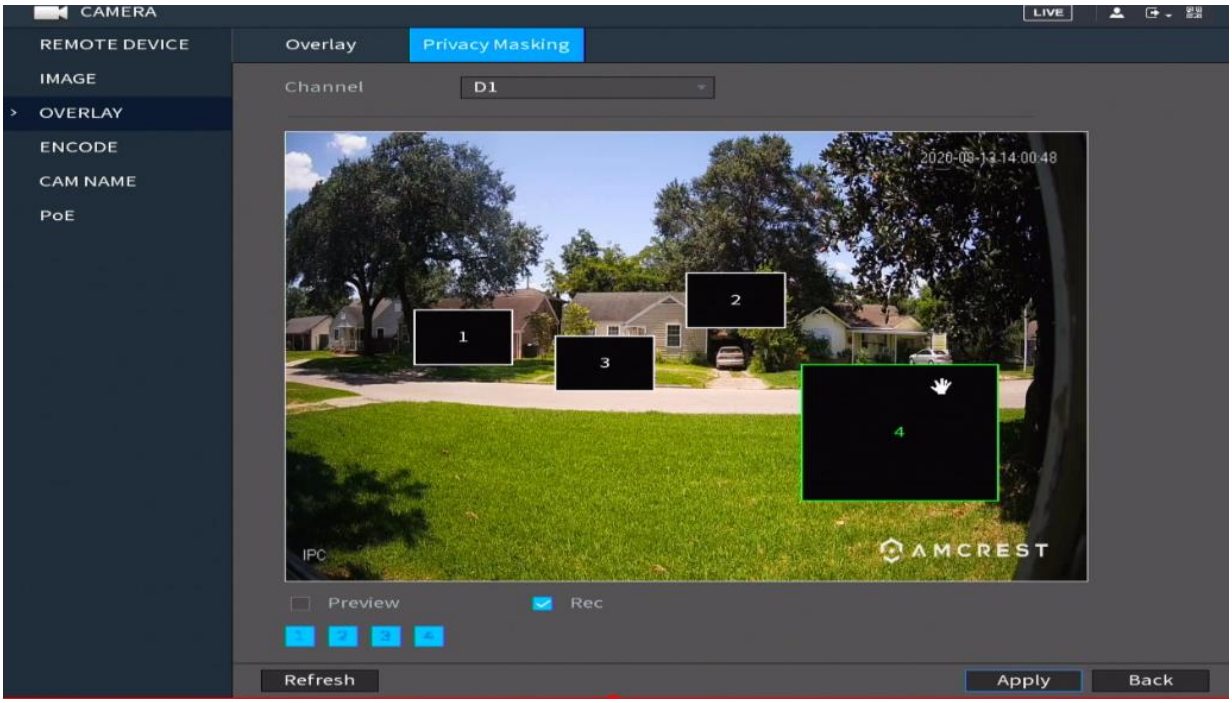
Privacy Masking

The privacy masking allows the user to customize privacy mask blocks on the interface.



Channel: This dropdown box allows the user to select a channel from the dropdown list to modify.
Preview: The privacy mask zone cannot be viewed by the user when the system is in preview status.
Rec: The "Rec" button enables the privacy mask interface to be enabled. Use the privacy mask blocks (1, 2, 3, 4) to apply the privacy masking blocks to the interface.

To customize a privacy mask block, click on the block and use the mouse to move the blocks up or down or increase the size of the privacy mask block.

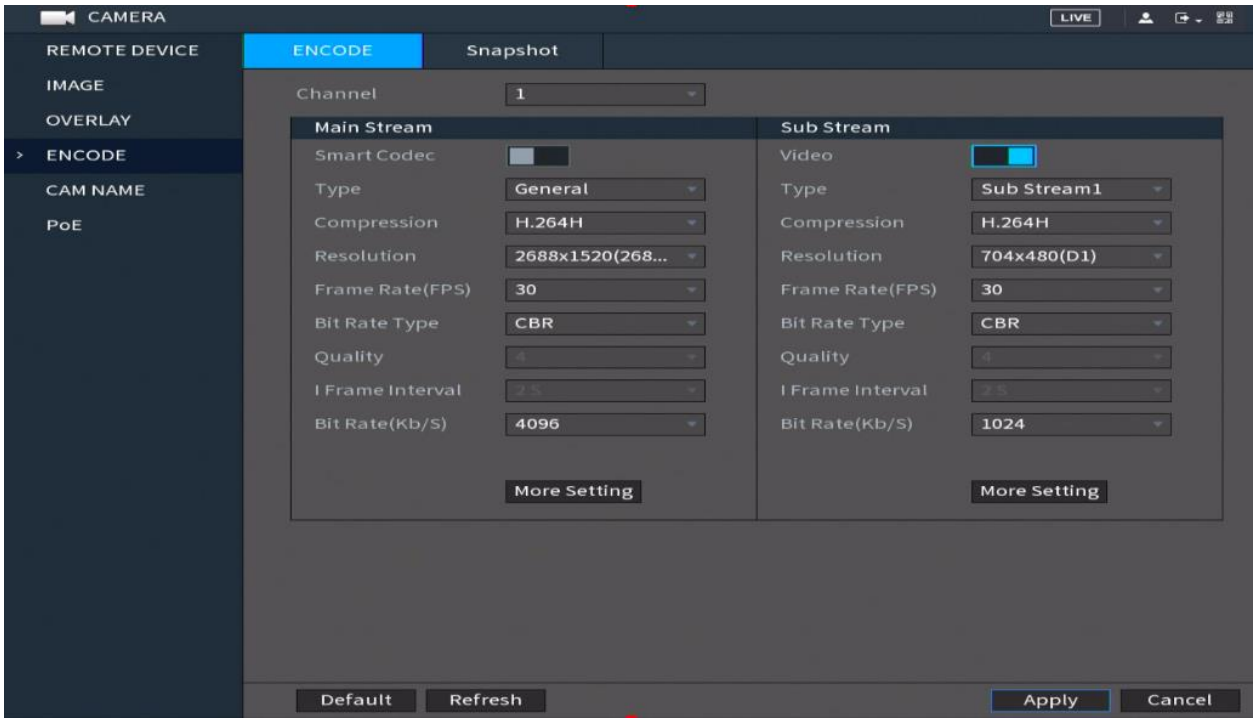


Press the **Refresh** button to refresh the interface. To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Encode

This tab is used to set the audio/video encoding settings for each channel. The interface will display each stream (Main Stream and Sub Stream) depending on the capabilities of the connected device.

See below for a screenshot of the tab:



Below is an explanation of the fields on the Encode settings screen:

Channel: This dropdown box allows the user to select a channel from the dropdown list to modify.
Smart Codec is a function in most Amcrest cameras which aim to reduce bandwidth consumption without losing visible image quality by intelligently increasing compression where it will not make a visible difference in the scene.
Type: This dropdown box allows the user to select one of 3 channel types: regular, MD (Motion Detection), and alarm. Various encode parameters can be for different record types.
Compression: This dropdown box allows the user to select a compression protocol. Most Amcrest NVRs supports H.264, H.264B, H.264H, and H.265 compression protocols. For more information on H.265 compression, please refer to section *"How to Provide Optimal Performance Using H.265 and Bitrate".*
Resolution: This dropdown box allows the user to set the resolution. The system supports various resolutions and they can be selected from this dropdown list.
Frame Rate (FPS): This dropdown box allows the user to select a frame rate. Frame rate settings range from 1f/s to 25f/s in NTSC mode and 1f/s to 30f/s in PAL mode.

Bit Rate Type: This dropdown box allows the user to select a bit rate type. The system supports two-bit rate types: CBR and VBR. In VBR mode, video quality can be set.
Quality: This dropdown menu allows the user to set a quality level for a connected device. The quality can be adjusted based on the capabilities of a connected device.
I Frame Interval: The interval of time between every two I frames.
Bit Rate (Kb/S): Represents how much data is packed into every data packet per second.
More Setting: This checkbox allows the user to enable or disable audio encode and codec settings.

To revert to default settings, click the **Default** button near the bottom left hand corner. Press the Refresh button to refresh the interface. To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

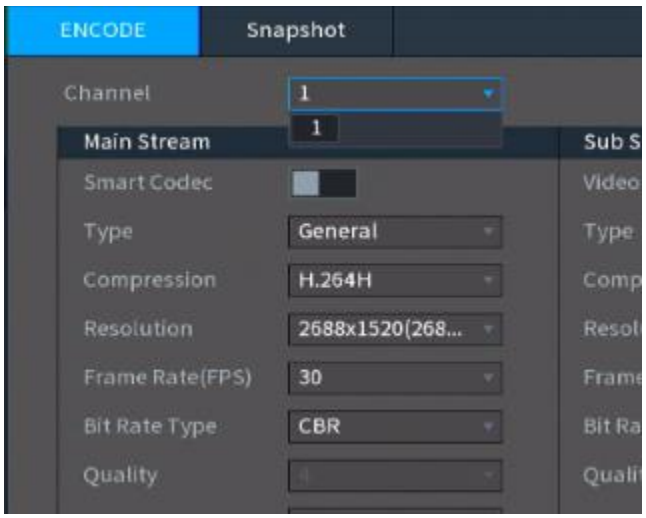
How to Provide Optimal Performance Using H.265 and Bitrate

H.265 provides a more advanced technology than H.264 and allows the device to reduce file size which helps to reduce required bandwidth without sacrificing frames per second or resolution. Most Amcrest products, such as, our NVRs, are H.265 compatible however, please note, H.265 compression is only an available on 4000 series and above NVRs and may not be applicable to any NVRs 2000 series or below.

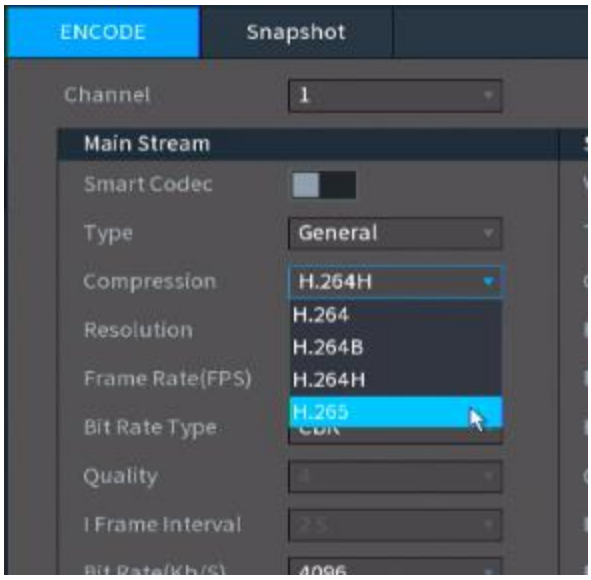
However, for maximum compatibility when accessing your device in a web browser or third-party applications, our H.265 compatible products will be **factory defaulted to H.264.** But for increased performance, the device's settings can be upgraded to H.265 compression if needed. For more information on H.265 compression please visit: amcrest.com/support

Note: The bitrate for the device can also be adjusted as well if needed to increase performance. This section will also provide instructions on some recommendations for adjusting the bitrate if needed.

To switch to H.265 compression, in the **Encode** menu, choose a connected device from the **Channel** list.



Locate the **Compression** dropdown menu and select **H.265**.



Step 4: Click **Save** to save your settings.

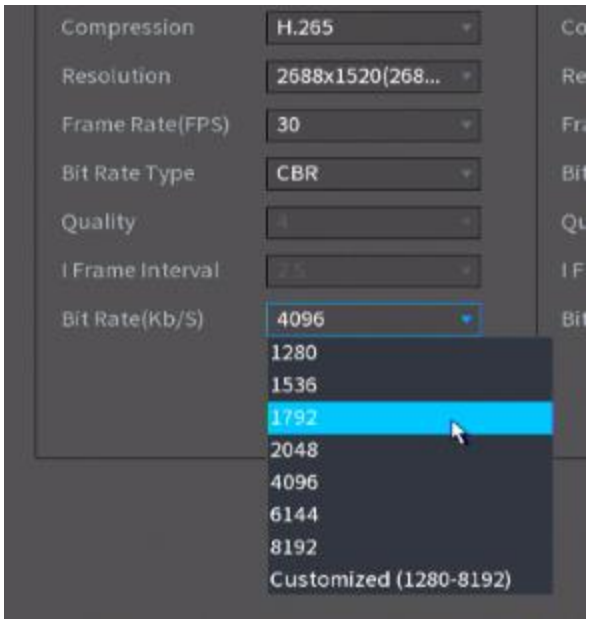
Please note, if you are using a camera with a built-in microphone the microphone may be disabled by default. This is due to specific guidelines which regulate built-in microphones to be enabled by default in certain areas and may need to be enabled manually to function. For more information on how to enable the built-in microphone on your device, please refer to section *"How to Enable Audio for an IP Camera Using an NVR"*

Adjusting Bit Rate
Bit rate values create a tradeoff between bandwidth and image quality. The bitrate is the number of bits that are processed per unit time. Since H.265 compression uses roughly 30% less resources than H.264, the NVR will typically default the bitrate to a sufficient bitrate, depending on the resolution or model camera that is currently being accessed on the NVR.
For instance, when switching to H.265 on a 4K camera, the bitrate may be defaulted to 6144 Kb/S, however, adjusting the bitrate to a lower value may help to increase the overall efficiency while viewing playback or watching live view. When using a 4K camera, it is recommended to keep the bitrate around 1792 Kb/S, however, different values may be applicable depending on your specific network environment.

Note: Adjusting the bitrate to anything lower than the recommended bitrate may result in degradation to recordings or live view. For best results, if you are adjusting multiple cameras, it is highly recommended to adjust each camera **individually** when adjusting bitrates.

For more information on how to adjust the bit rate, please refer to the information provided below.

In the **Encode** menu, click on the **Bit Rate** dropdown menu, and select a bit rate.



Note: A customized bitrate may also be applicable in most cases. This may be a trial and error process since most network environments are unique and may vary, however, the reference bitrate can range between 1792-2048 Kb/S if using a 4K camera. An optimal customized bitrate should be around 1825 Kb/S.

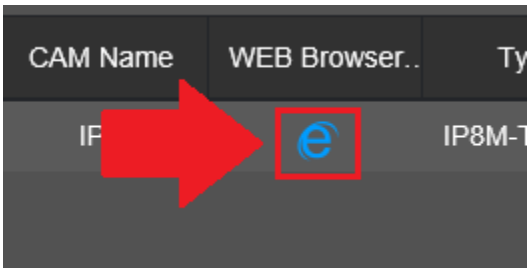
Click **Save** to save the adjusted bitrate settings.

How to Enable Audio for an IP Camera Using an NVR

Due to specific regulations most IP cameras sold by Amcrest that feature a built-in microphone will have the microphone disabled by default. These options however can be enabled manually by using the IP camera's and NVR's web user interfaces (web UIs) using a common web browser. For more information on how to enable audio for an IP camera using an NVR, please refer to the information provided below.

Log into your NVR's web UI using a web browser and ensure that the IP camera is properly registered to your NVR. For more information on how to access the web UI for your NVR, please refer to section *"Web Operation"*.

Once the camera is confirmed to be registered properly, locate the **Web Browser** column, and click on the "**e**" icon to load the web UI for your camera.

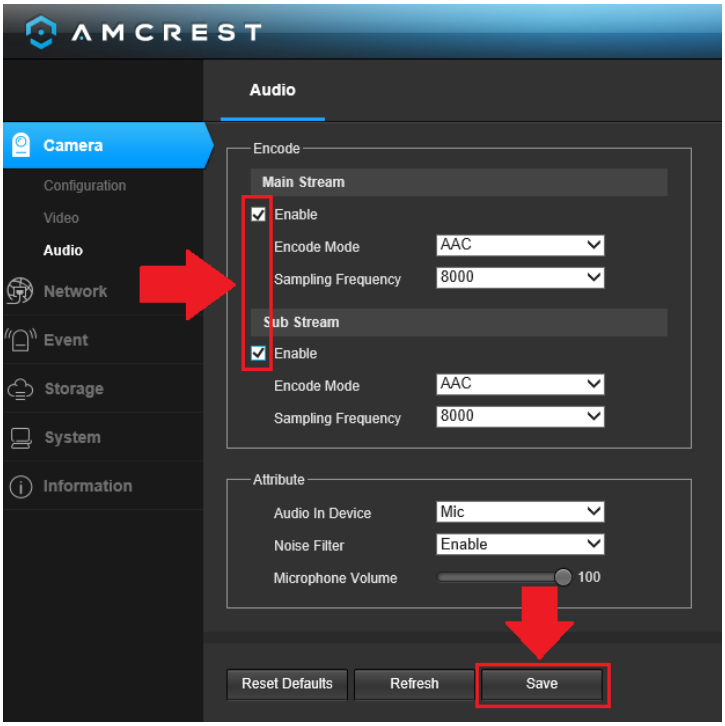


The web UI for your connected camera will be displayed. Enter the password for your **camera** and click **Login** to access the interface.

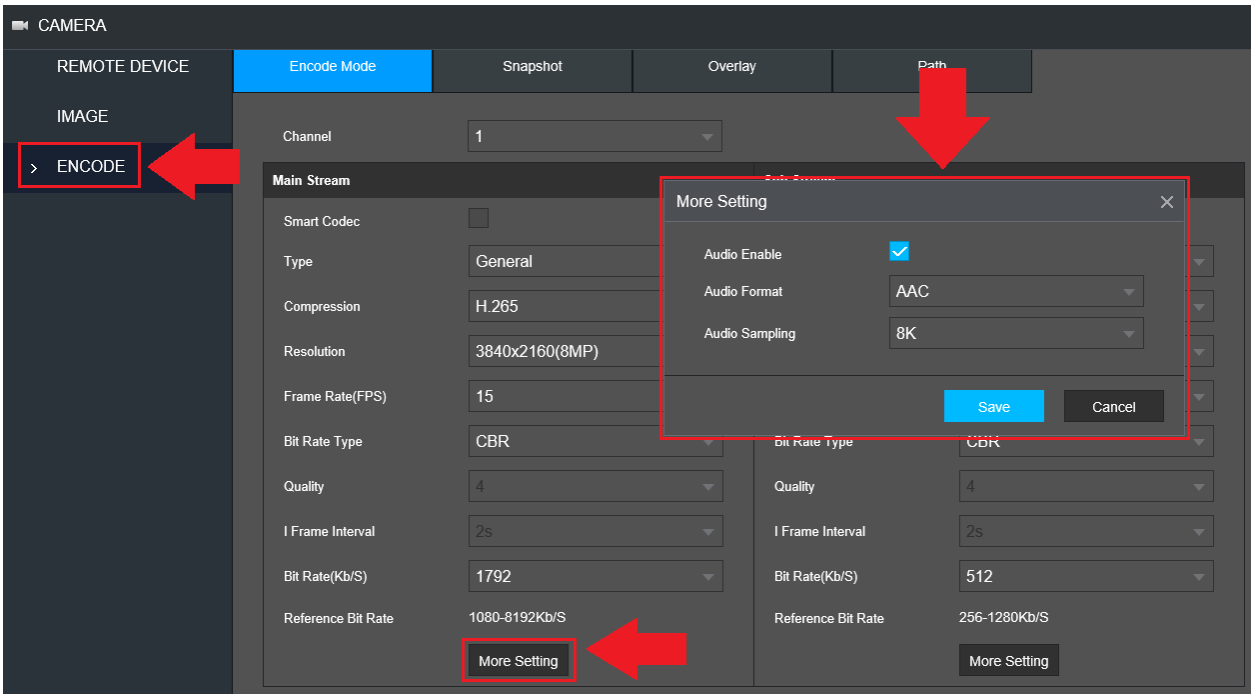


Please note, if your camera is not supported in the web browser you are using, please try another main stream browser such as Google Chrome, etc. to access the interface.

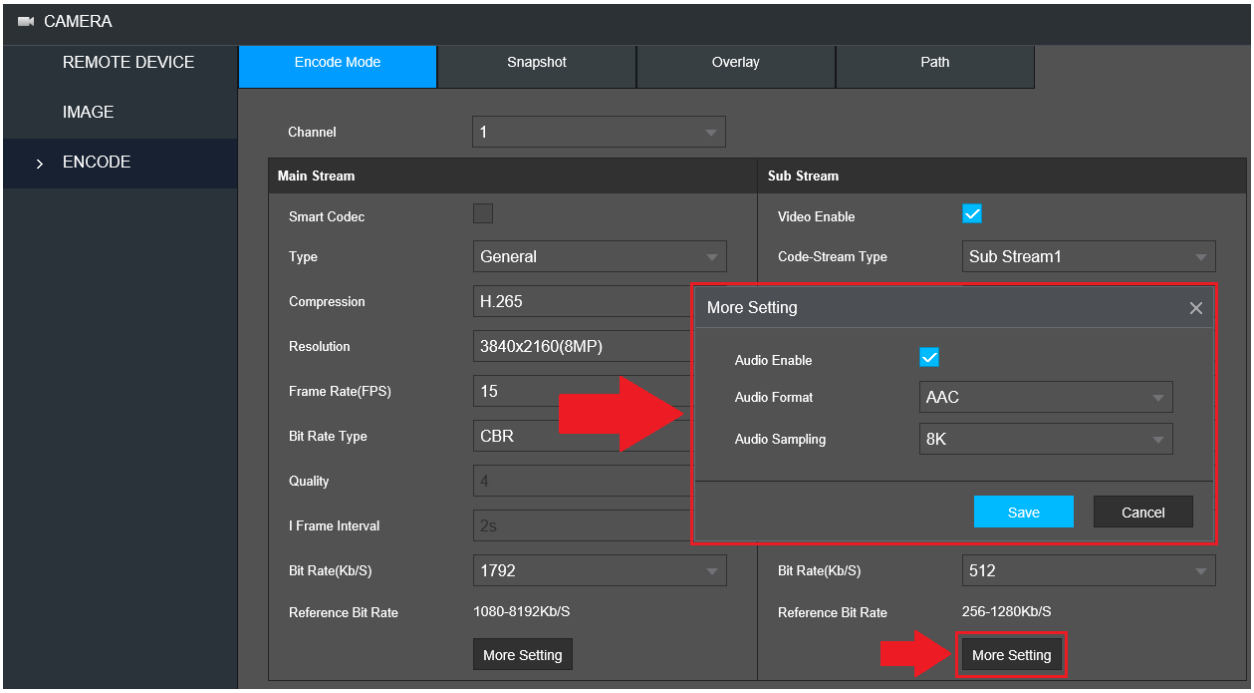
In the camera's web UI, click on **Setup>>Camera>>Audio** and ensure the audio settings on both the main stream and sub stream are enabled on the camera. Click **Save**.



Navigate back to the web UI for your NVR and click on **Encode**. Ensure the proper channel is selected in the interface and click on the **More Setting** button in the **Main Stream** column to access audio options. Ensure the **Audio Enable** checkbox is enabled and click **Save**.

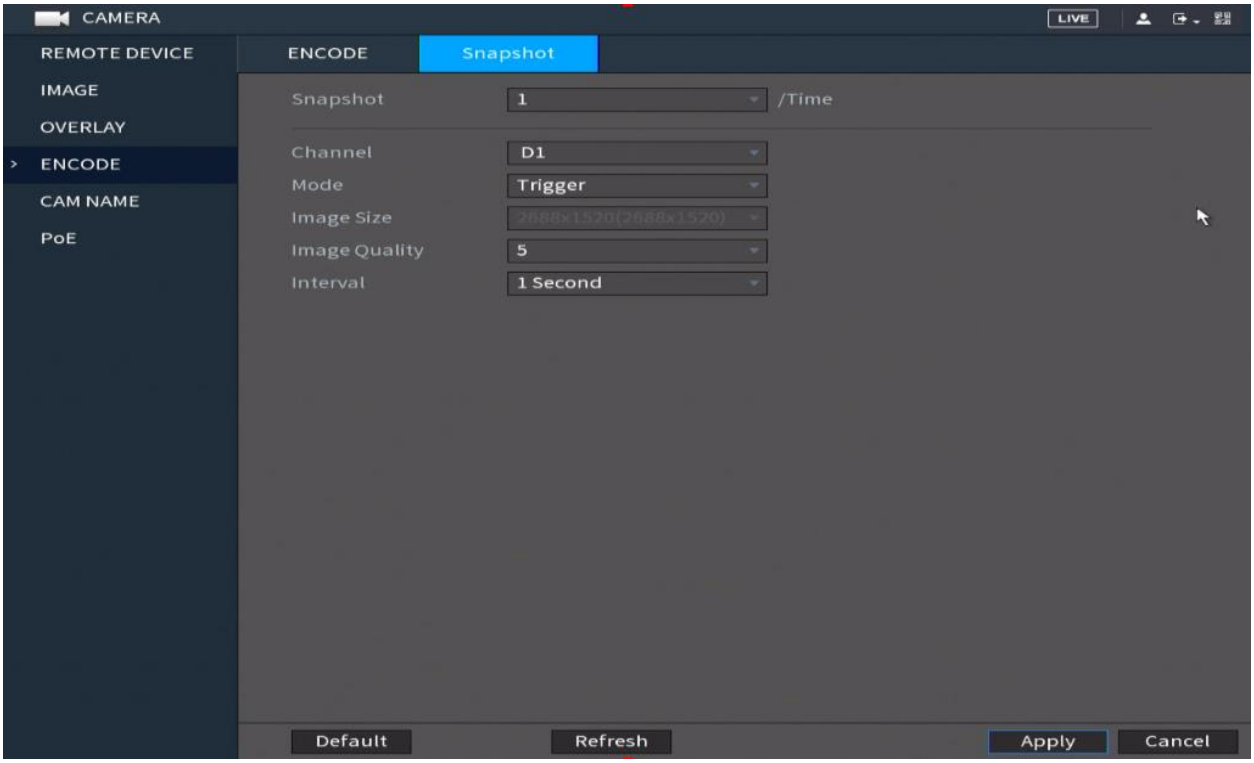


Ensure the same settings are enabled for the sub stream side as well. This is to ensure if you are viewing a sub stream feed the audio is still being produced by the camera.



Snapshot

This tab allows for the selection of snapshot settings. See below for a screenshot of the Snapshot tab:



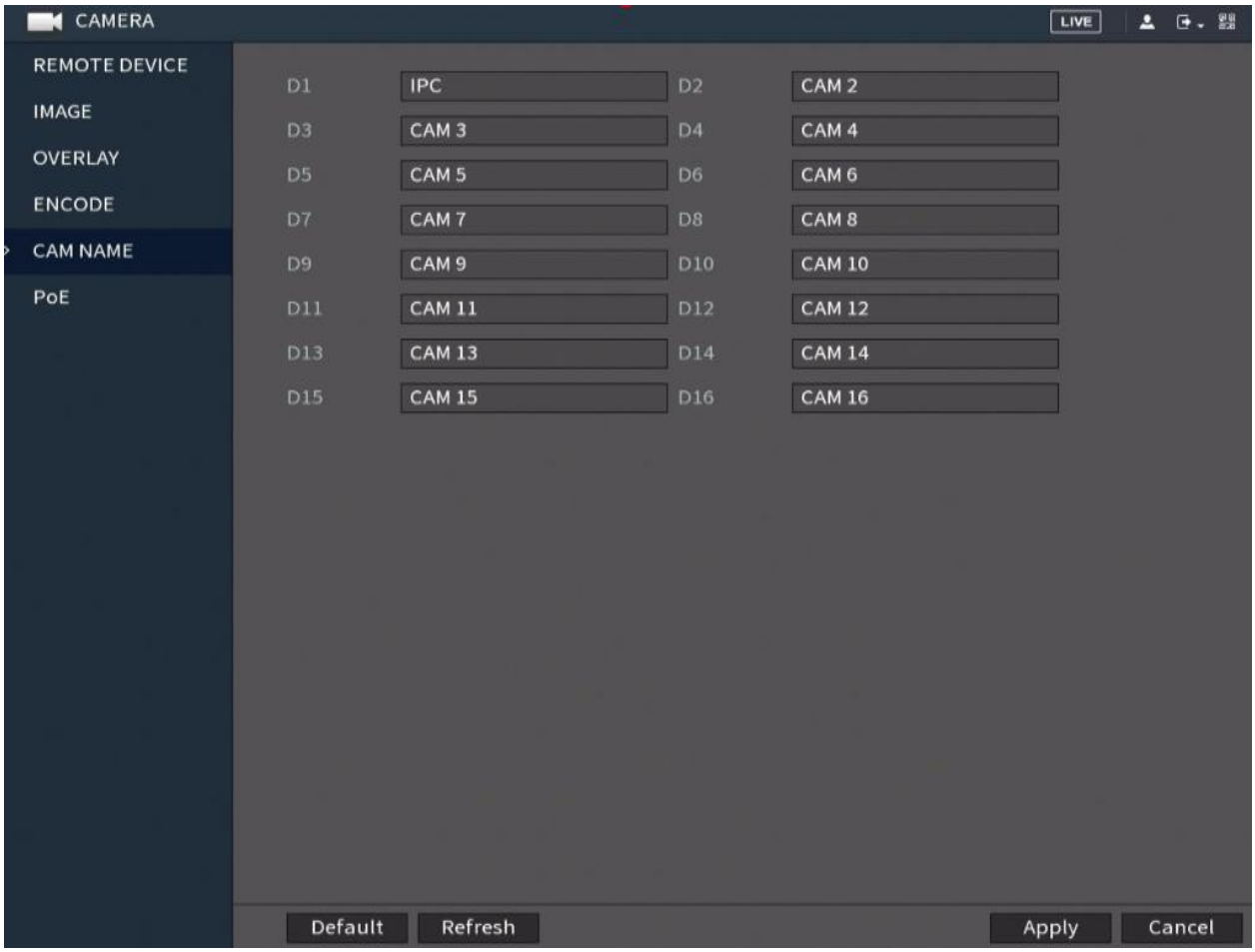
Below is a list of snapshot settings that can be modified on this screen:

Snapshot: This dropdown box allows the user to select a snapshot mode. There are two snapshots
Mode: There are 2 snapshot modes, regular and trigger. Regular will allow the feature to retain snapshots continuously, trigger mode will allow a snapshot to be retained when an event occurs.
Image Size: This dropdown box allows the user to select an image size. This may be unavailable (grayed out) on certain models.
Image Quality: This dropdown box allows the user to select image quality. Quality is adjusted on a scale between 1, being the lowest quality and 6 being the highest quality.
Interval: This dropdown allows the user to select the snapshot interval. The value ranges from 1 to 7 seconds. The maximum setting for a customized interval is 3600s/picture.

To revert to default settings, click the **Default** button near the bottom left hand corner. Press the Refresh button to refresh the interface. To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Cam Name

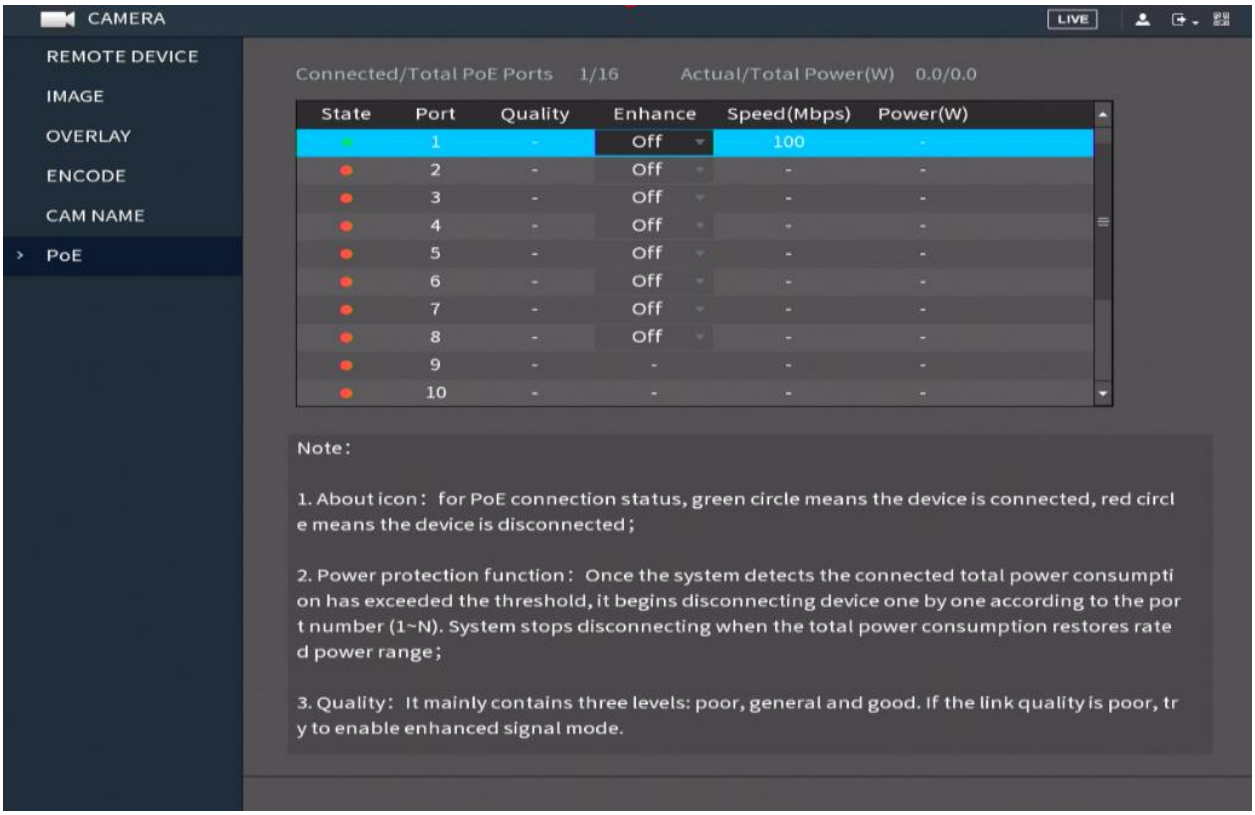
This screen is used to modify the channel names for a connected device. Each field supports a maximum of 31 characters.



To revert to default settings, click the **Default** button near the bottom left hand corner. Press the Refresh button to refresh the interface. To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

PoE

This screen allows the user to view the status of a directly connected PoE device. For more information on the features provided in this menu, please review the contents provided below.



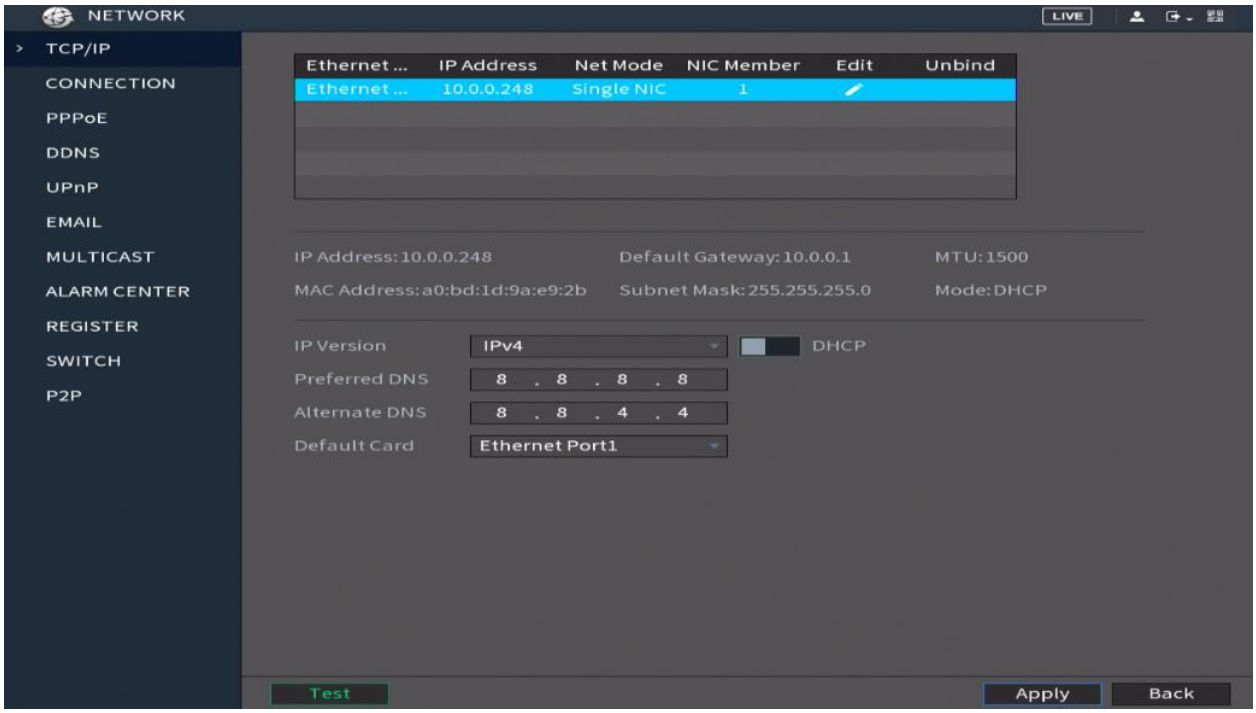
State: Indicated the connectivity of a PoE device to the NVR. The green dot means the device is properly connected; the red dot means the device is disconnected.
Port: The port number the device is active on.
Quality: The overall quality of the PoE connection. This may be displayed without information if this option is not available in the specific model device.
Enhance: This is used to enhance the performance of the PoE connection. The enhance feature will be off by default, however, can be enabled in the interface.
Speed (Mbps): The current connection speed (Mbps) of the connected device.
Power (W): The amount, in watts, in which the PoE port is consuming. This may be displayed without information if this option is not available in the specific model device.

Network

This menu controls all network related functions for the NVR and governs how the NVR interacts with a connected network.

TCP/IP

TCP/IP stands for Transmission Control Protocol/Internet Protocol and it is the language/protocol that allows communication between internet connected devices, whether on a local network, or a on the Internet at large. This screen allows for TCP/IP settings to be modified for the NVR to establish connection to the network.
Below is a screenshot of the TCP/IP settings screen:



Below is an explanation of the fields on the TCP/IP settings screen:

IP Address: This field allows the user to enter a custom IP address.
Default Gateway: This field allows the user to enter the default gateway for the network. The default gateway should be on the same IP subnet as the NVR's IP. The specified length of the subnet prefix should have the same string. For example, if the IP address is 192.168.0.25, the default gateway should start with 192.168.0.X. The default gateway is usually the IP address of the router.
MTU: MTU stands for Maximum Transmission Unit. This field allows the user to set the MTU value of the network adapter. The value ranges from 1280-7200 bytes. The default value is 1500 bytes. Please note MTU modification may result in network adapter reboot and the network turning off. MTU modification can affect the current network service. The system may pop up a dialog box to confirm setup when the MTU value is changed. Click the OK button to confirm current value and reboot or can click the Cancel button to terminate the current modification. Before the modification, you can check the MTU of the gateway; the MTU of the NVR should be the same or lower than the MTU of the gateway. This way, packets can be reduced, and the network transmission efficiency be enhanced. The following MTU values are for reference only.

1500: Ethernet information packet maximum value and it is also the default value. It is the typical setup when there is no PPPoE or VPN. It is the default setup of some routers, switches, and network adapters.
1492: Recommend value for PPPoE
1468: Recommend value for DHCP.

MAC address: This field shows the NVR's MAC address, which is unique to this device. This number is read-only and is used to access a local area network (LAN).
Subnet Mask: This field allows the user to enter a custom subnet mask. The default subnet mask is 255.255.255.0. This number is used to determine which subnetwork the IP address belongs to.

Mode: The current protocol that is being used on the device. This can be either static or DHCP.

Static vs DHCP: This check box allows the user to choose between a static IP address, and a dynamic IP address. DHCP stands for Dynamic Host Configuration Protocol, and this enables the NVR to automatically obtain an IP address from another network device such as a server or more commonly, a router. When the DHCP function is enabled, the user cannot modify the IP address, Subnet Mask, or Gateway, as these values are obtained from the DHCP function. To view the current IP address, DHCP needs to be disabled.

Note: When PPPoE is enabled, modification of IP Address, Subnet Mask, and Gateway becomes prohibited.

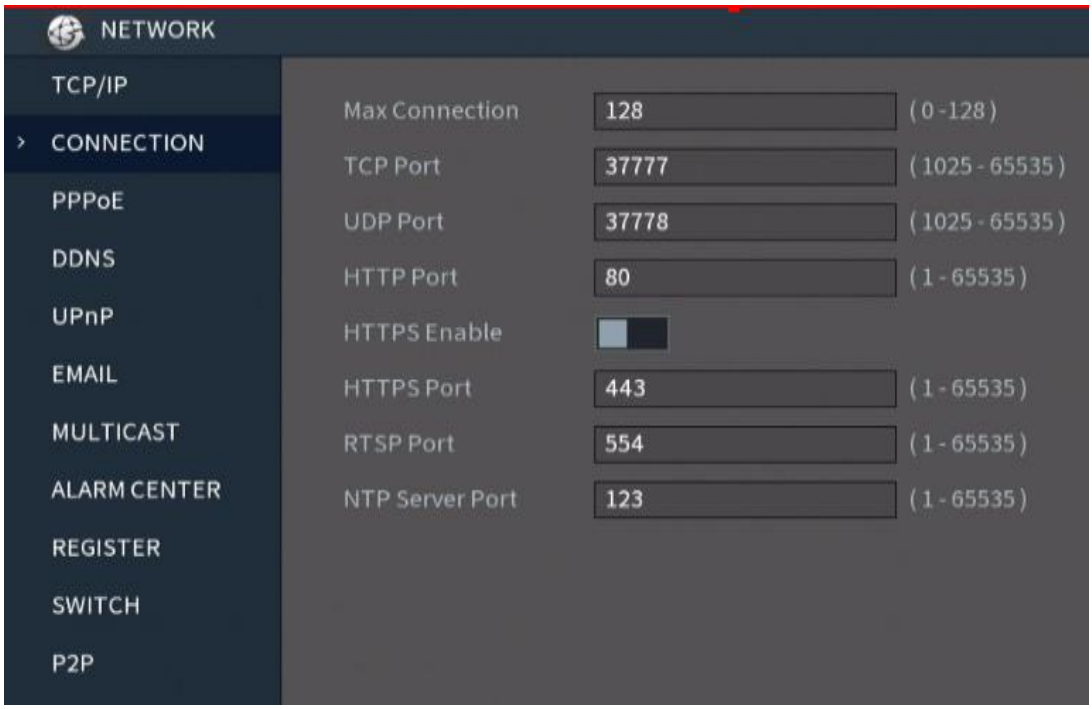
IP Version: This dropdown allows the user to select the IP version. The two options are IPV4 and IPV6.
Preferred DNS server: This field allows the user to enter the DNS server IP address.
Alternate DNS server: This field allows the user to enter the Alternate DNS server IP address.
Default Card: The current Ethernet card being used in the system.

To revert to default settings, click the **Default** button near the bottom left hand corner. Press the Refresh button to refresh the interface. To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Connection

This screen allows users to configure port connections. It is important that the system is rebooted if any changes are made to the settings on this screen. Also, ensure that port values do not conflict.

Below is a screenshot of the connection screen:



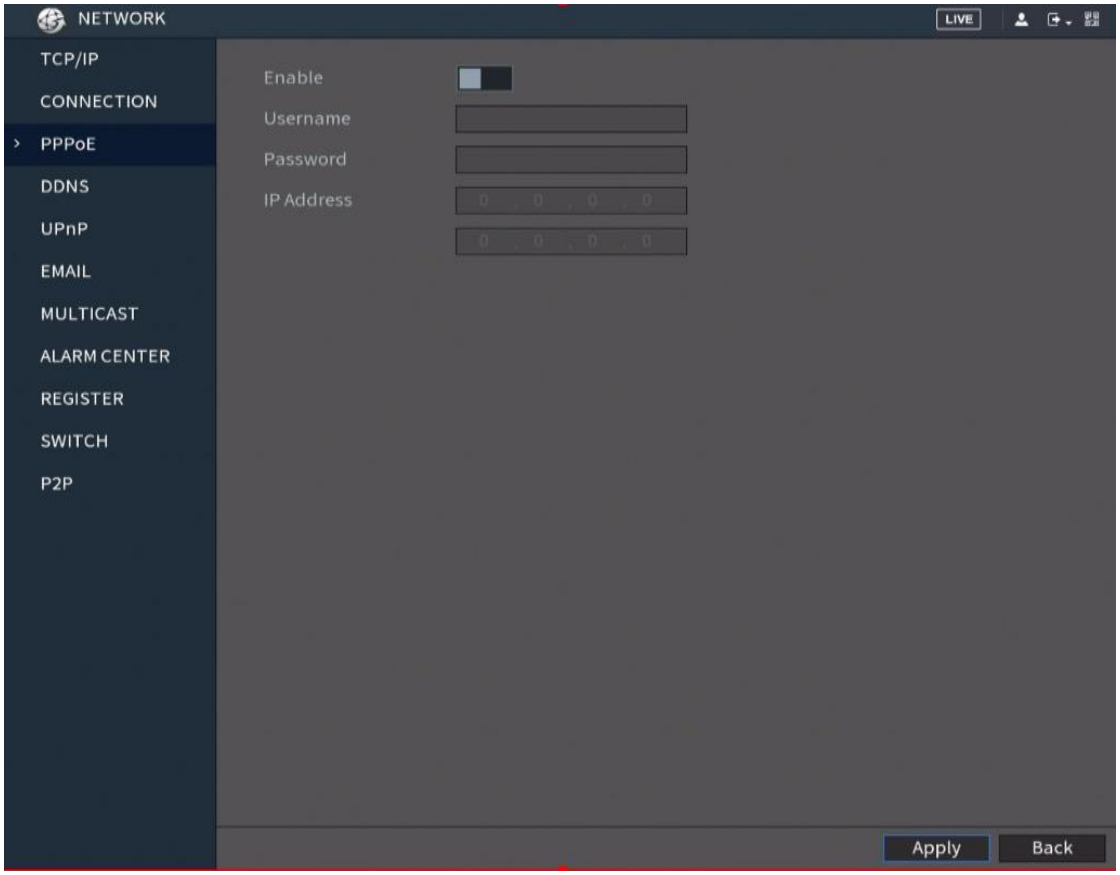
Below is an explanation of the fields on the Connection settings screen:

Maximum Connection: This field represents the maximum number of users that can be connected to the NVR at the same time. The maximum number of users the NVR can support at one time is 128.
TCP Port: This field designates the Transmission Control Protocol (TCP) port number. The default value is 37777.
UDP Port: This field designates the User Datagram Protocol (UDP) port number. The default value is 37778.
HTTP Port: This field designates the Hypertext Transfer Protocol (HTTP) port number. The default value is 80.
HTTPS Port: This field designates the Hypertext Transfer Protocol Secure (HTTPS) port number. The default value is 443.
RTSP Port: This field designates the Real Time Streaming Protocol (RTSP) port number. The default value is 554.

To revert to default settings, click the **Default** button near the bottom left hand corner. Press the Refresh button to refresh the interface. To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

PPPoE

PPPoE stands for Point-to-Point Protocol over Ethernet. This screen allows users to configure PPPoE connections. Below is a screenshot of the PPPoE screen:



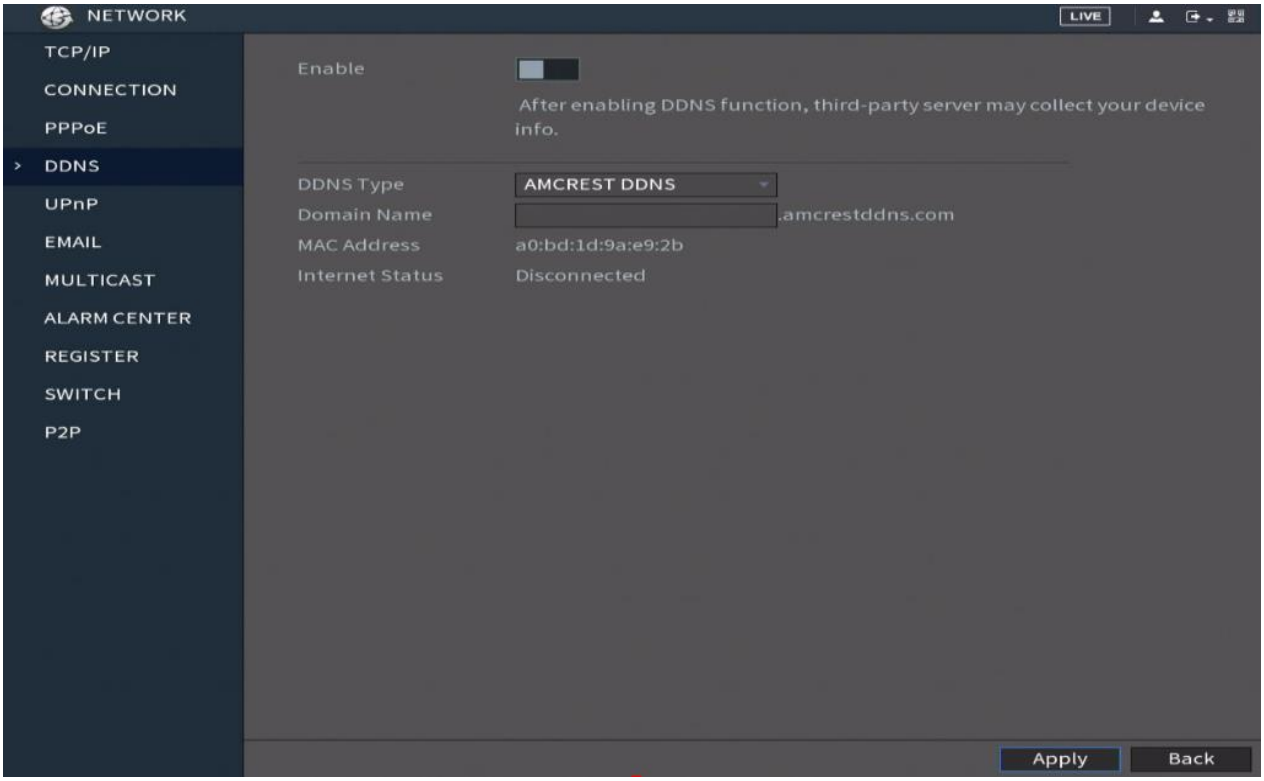
Enable: Used to enable the PPPoE function.
Username: The username used for a PPPoE connection.
Password: The password used for a PPPoE connection.
IP Address: The IP address used for a PPPoE connection.

To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

DDNS

DDNS stands for Dynamic Domain Name Server. This technology is used to automatically update name servers in real time to help the NVR maintain a persistent address despite changes in location or configuration. What this means is that even when the NVR is restarted, moved, or reconfigured, it can keep the same IP address, thus allowing remote users uninterrupted access to the NVR, rather than having to request a new IP address to use for remote access anytime a change is made.

To use this feature, users will need to setup an account with a DDNS service. The NVR supports a variety of DDNS services such as AmcrestDDNS, NO-IP DDNS, CN99 DDNS, Dyndns DDNS, and private DDNS services. Based on which service is selected, different options may show on this screen. For purposes of this guide, AmcrestDDNS will be used. To use AmcrestDDNS, go to http://www.AmcrestDDNS.com and register for an account. If the account is inactive for a year, AmcrestDDNS may take back the domain name, but an email will be sent beforehand as a warning.
Below is a screenshot of the DDNS settings screen, configured to AmcrestDDNS:



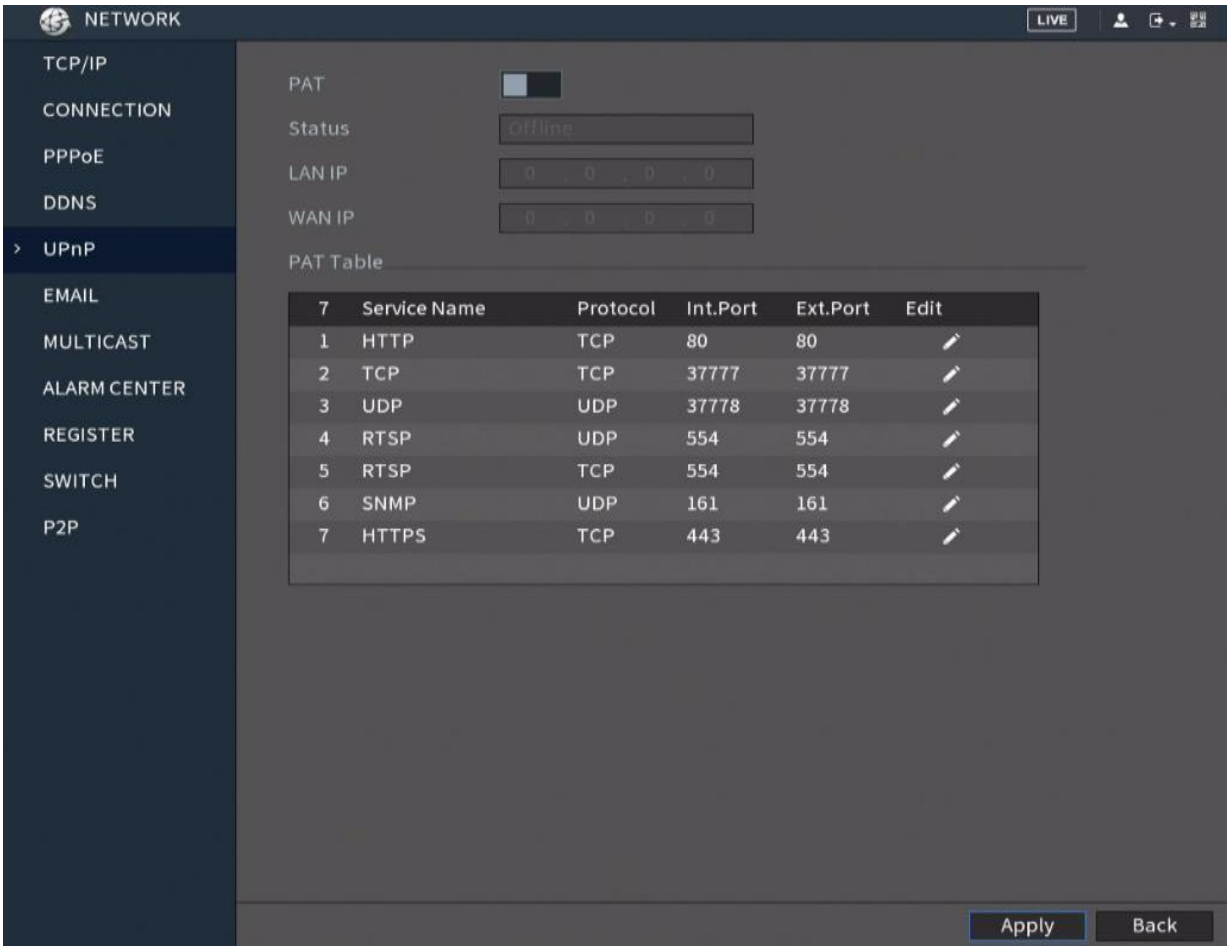
Below is an explanation of the fields that can be configured on DDNS settings screen when set to AmcrestDDNS type. Fields with a '*' next to them appear when AmcrestDDNS is selected:

Enable: This option allows the user to enable DDNS on the NVR.
DDNS Type: This dropdown box allows the user to select which DDNS service is being used on the NVR.
Domain Name: This field allows the user to enter the domain name from the AmcrestDDNS service.
MAC address: This field shows the NVR's MAC address, which is unique to this device. This number is read-only and is used to access a local area network (LAN).
Internet Status: The DDNS connection status.

To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

UPNP

UPnP stands for Universal Plug and Play, and it is a protocol used to easily connect devices to the internet. In the case of this NVR, it allows the NVR to connect to the router in an easy manner to quickly allow for remote connection. Below is a screenshot of the UPnP settings screen:



Below is an explanation of the fields in the UPnP settings screen:

PAT: PAT stands for Port Address Translation, and it is something that the UPnP protocol handles. This checkbox allows the user to enable UPnP on the device.
Status: This field shows the UPnP status and has two options:

Offline: This means that UPnP is offline.

Successful: This means that UPnP is working.

LAN IP: This field allows the user to enter the IP address of the router that the NVR is trying to connect.
WAN IP: This field is where the NVR Wide Area Network (WAN) IP is populated. This IP address is what is used to remotely access the NVR through web access.
PAT Table: This table is used to show how the ports for each protocol listed below have been remapped by the UPnP protocol.

The first column shows the order of the services.

The second column shows the name of the services. To edit this, double click on the service line item.

The third column shows the name of the protocol used by that service. To edit this, double click on the service line item.

The fourth column shows the Internal Port used by that service. To edit this, double click on the service line item.

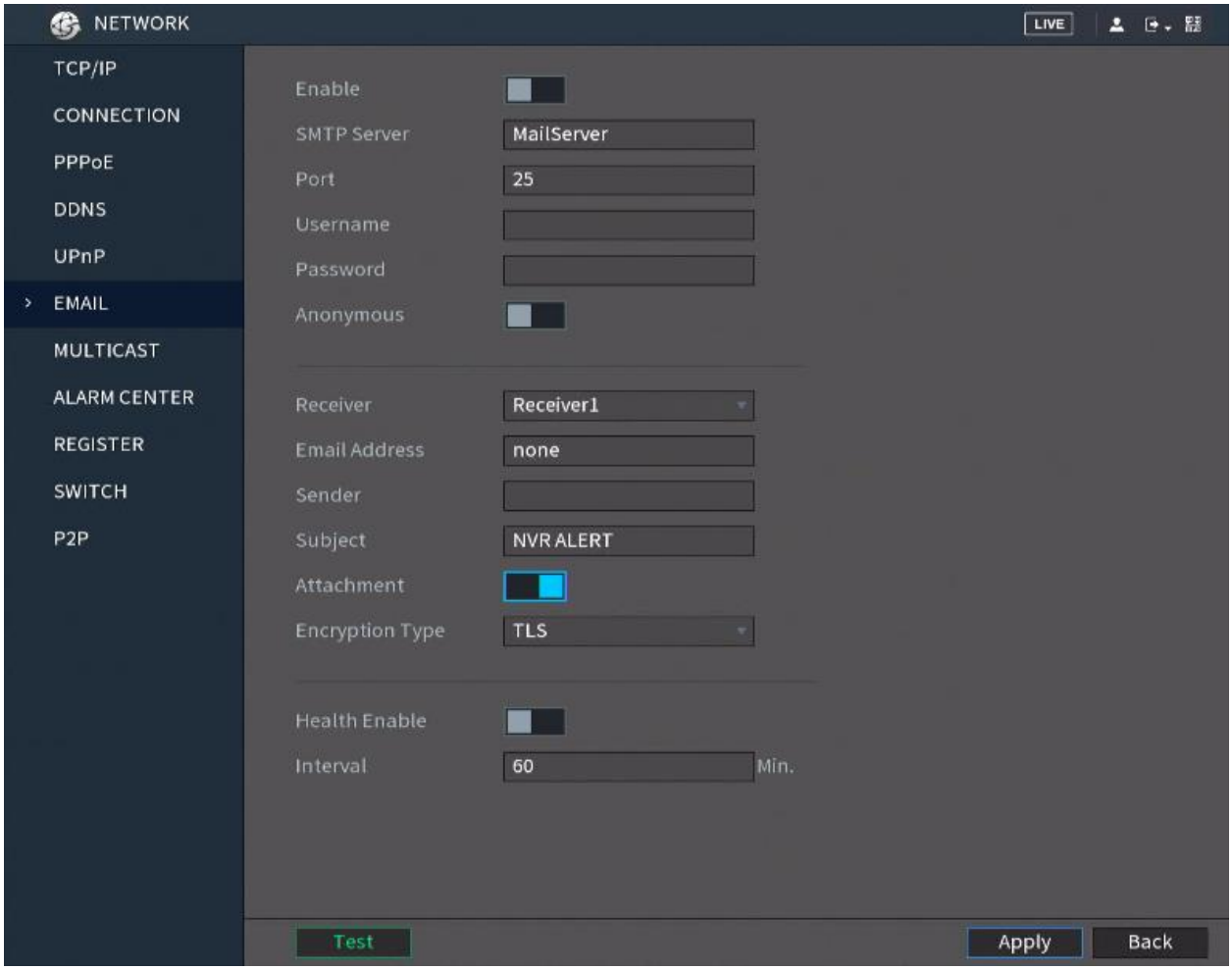
The fifth column shows the External Port used by that service. To edit this, double click on the service line item.

To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Email

This screen allows for the configuring of email settings to permit the NVR to send emails when the connected cameras or alarms are triggered.

Below is a screenshot of the email settings screen:



Below is an explanation of the fields on the Email settings screen:

Enable: This option allows the user to enable the email feature.
SMTP Server: SMTP stands for Simple Mail Transfer Protocol. This field allows the user to enter the SMTP server used by the email service.
Port: This field allows the user to enter the port that corresponds to the selected SMTP server.
Username: This field allows the user to enter the username used to login to the selected SMTP server.
Password: This field allows the user to enter the password associated with the SMTP username.
Anonymous: This option is used to allow the event to be sent anonymously.
Receiver: This field allows the user to enter the receiver email address. These email addresses are the ones that will receive any emails pertaining to alert and alarm emails sent by the NVR. Up to 3 email addresses can be entered in this field.
Email Address: This field allows the user to enter an email address in which the email will be sent.
Sender: This field allows the user to enter the sender email address. This email address will be the one that sends out all emails pertaining to the alerts and alarm emails sent by the NVR.
Subject: This field allows the user to define the subject line of the email that is sent to the receivers.
Attachment: This checkbox allows the user to enable the attachment of screenshots with emails.

Encrypt Type: This dropdown box allows the user to select an encryption type. There are two types of email encryption that are available.

SSL: Secure Socket Layer

TLS: Transport Layer Security

Health Enable: This checkbox allows the user to enable the function that causes the system to send out a test email to ensure if the connection is OK or not.

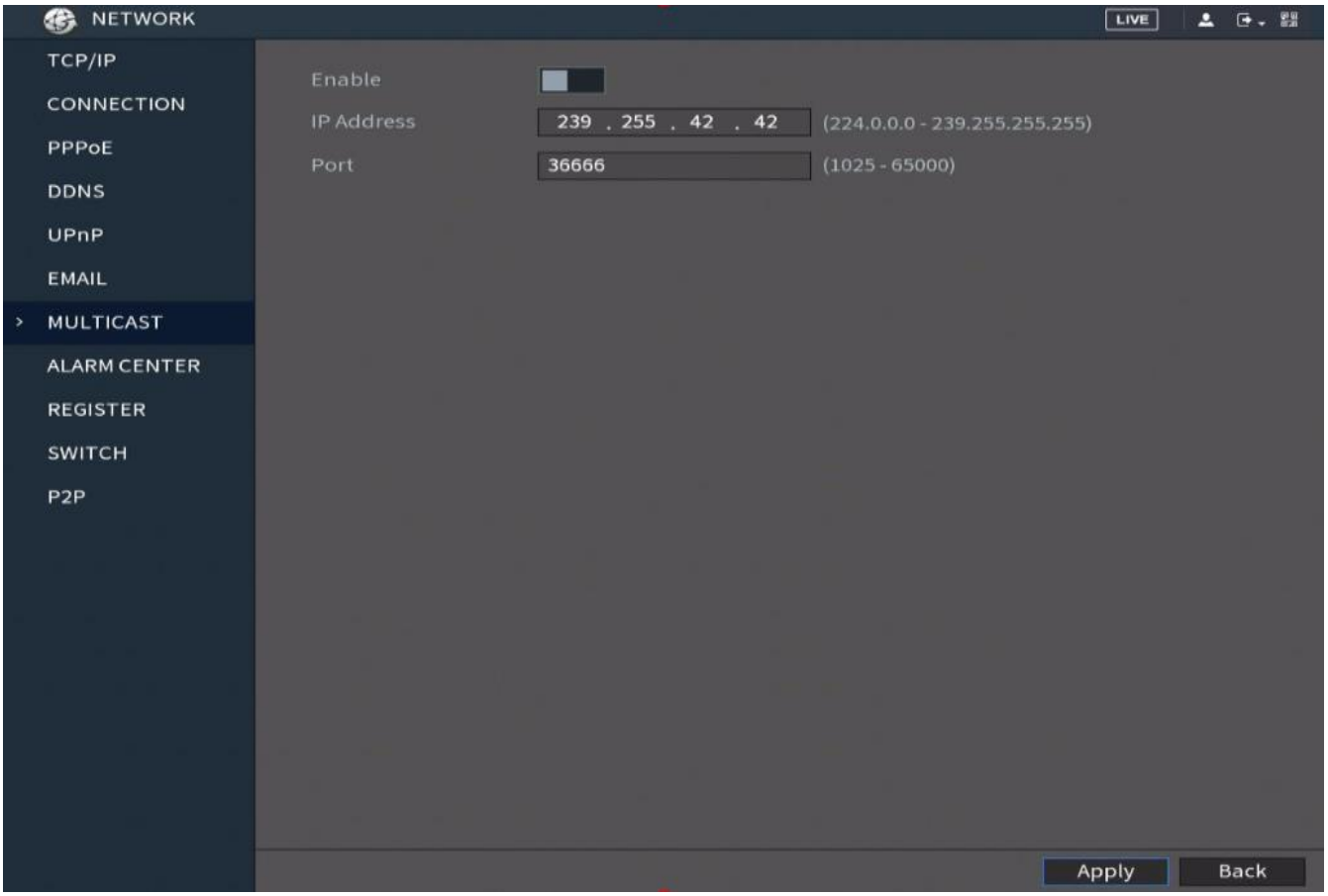
Interval: This field allows the user to define, in minutes, how often emails can be sent by the system. This helps to curb heavy load on the email server when multiple events are occurring.

For more information on how to setup Email Alerts, please visit amcrest.com/support

Click on the **Test** button to test the connection. To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Multicast

Multicast is a feature that enables the NVR to broadcast its live view to multiple computers on the same network. Below is a screenshot of the multicast screen:



Below is an explanation of the fields in the Multicast settings screen:

Enable: This checkbox allows the user to enable the Multicast feature for the NVR.
IP Address: This field allows the user to enter the multicast IP address.
Port: This field allows the user to enter the port number for the multicast IP address.
For more information on how to configure multicast, see the information below.

Multicast IP Address Range (IPV4): 224.0.0.0 through 239.255.255.255

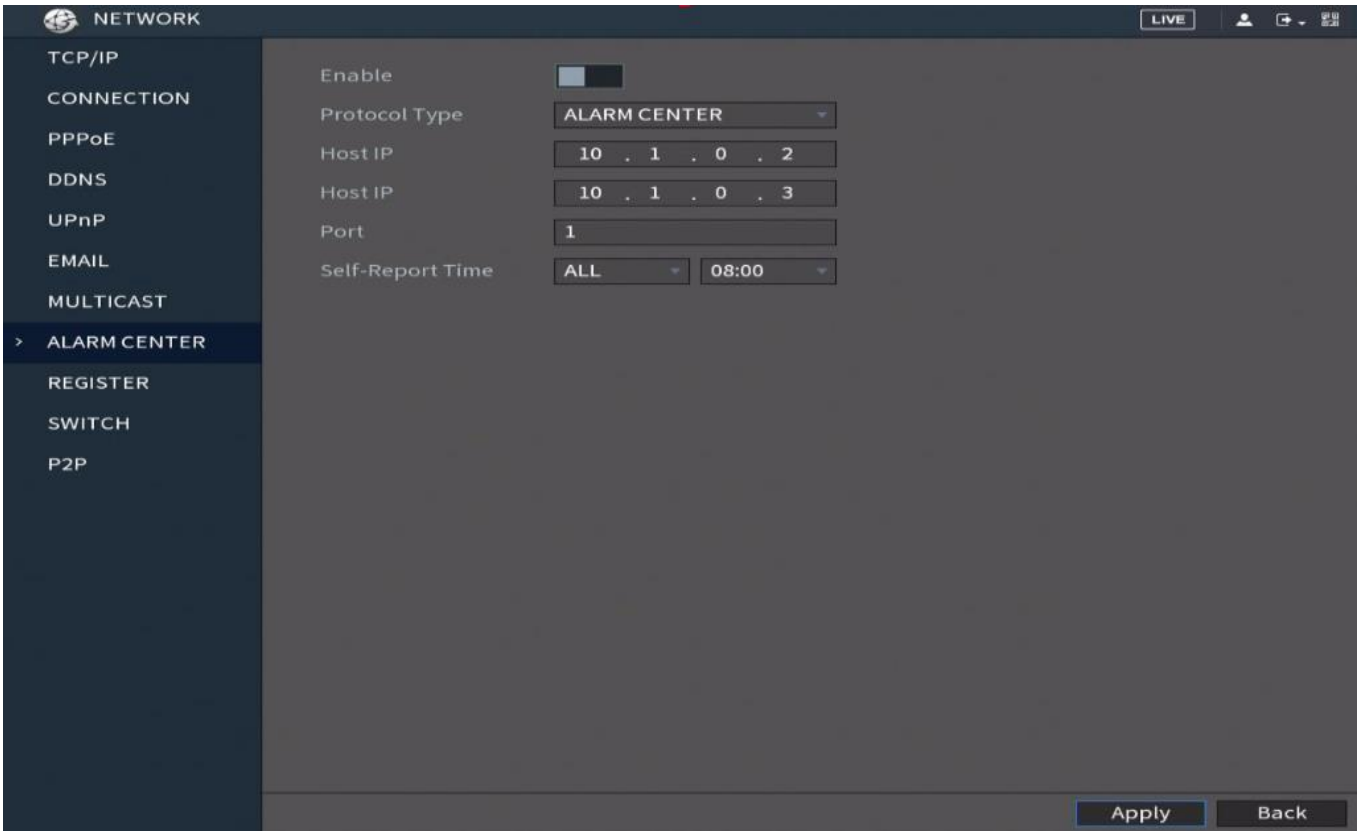
Well-known IPv6 multicast addresses	
Address	**Description**
ff02::1	All nodes on the local network segment
ff02::2	All routers on the local network segment
ff02::5	OSPFv3 All SPF routers
ff02::6	OSPFv3 All DR routers
ff02::8	IS-IS for IPv6 routers
ff02::9	RIP routers
ff02::a	EIGRP routers
ff02::d	PIM routers
ff02::16	MLDv2 reports (defined in RFC 3810)
ff02::1:2	All DHCP servers and relay agents on the local network segment (defined in RFC 3315)
ff02::1:3	All LLMNR hosts on the local network segment (defined in RFC 4795)
ff05::1:3	All DHCP servers on the local network site (defined in RFC 3315)
ff0x::c	Simple Service Discovery Protocol
ff0x::fb	Multicast DNS
ff0x::101	Network Time Protocol
ff0x::108	Network Information Service
ff0x::181	Precision Time Protocol (PTP) version 2 messages (Sync, Announce, etc.) except peer delay measurement
ff02::6b	Precision Time Protocol (PTP) version 2 peer delay measurement messages
ff0x::114	Used for experiments

To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Alarm Center

The alarm center feature is used to allow users to connect the NVR to their alarm server, so the server can receive a notice when certain events happen. One common use for the alarm center is to send daily reports on the status of the NVR's connection to the network.

Below is a screenshot of the Alarm Center settings screen:



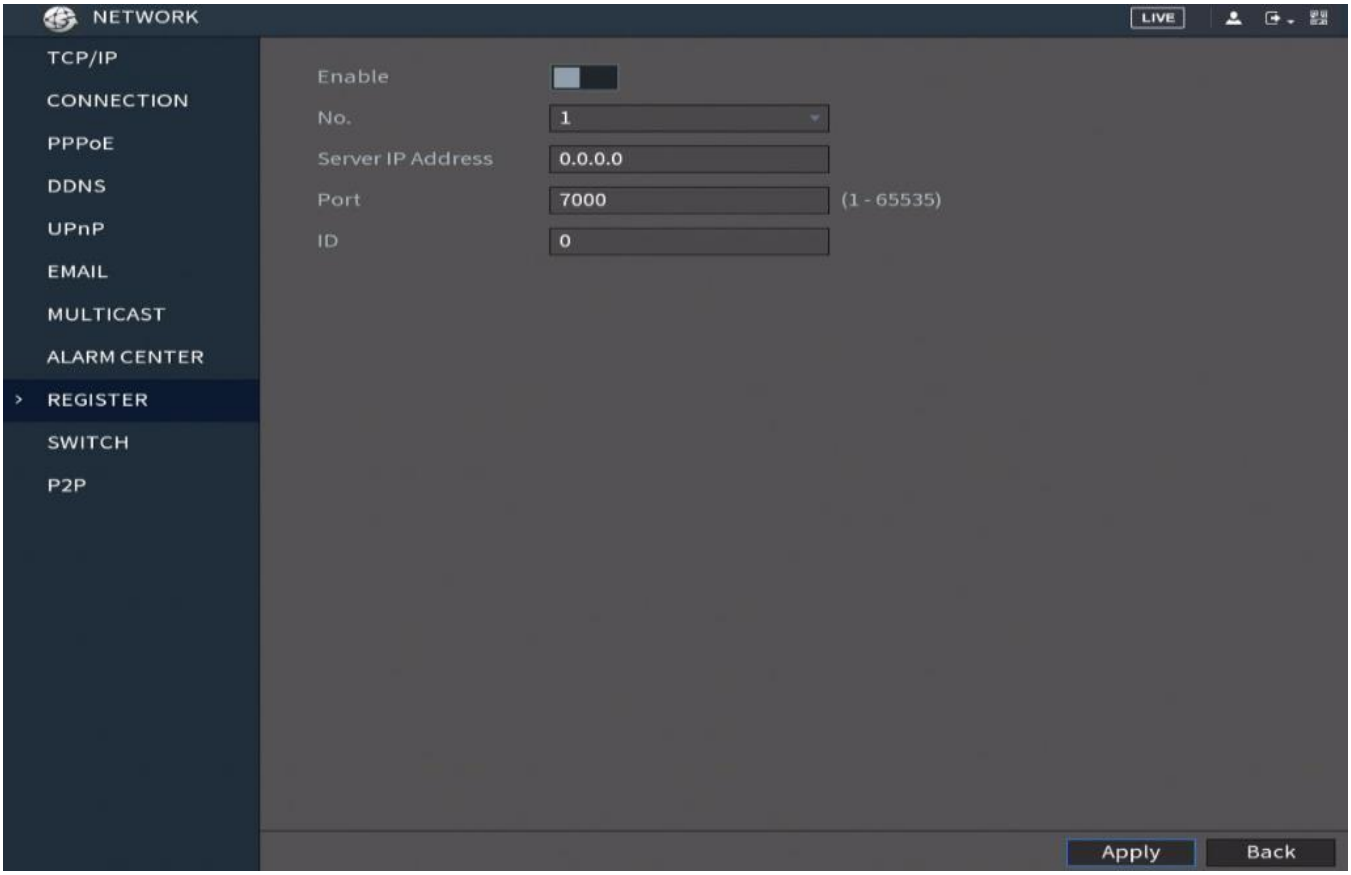
Enable: This option is used to enable the alarm feature.
Protocol Type: The default protocol type will be Alarm Center
Host IP: The IP address of the device.
Host IP: The IP address of the connected alarm device.
Port: The port number used of the connected alarm device.
Self-Report Time: These dropdown menus are used to set a date and time for the alarm to be triggered.

To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Register

The Register menu allows the user to register to a proxy to the system which allows the user to access the NVR via a specified proxy. Please note, this section only supports, IPv4 server IP addresses.

Below is a screenshot of the Register menu:



Enable: This option is used to enable the register function.
No: The number applied to the proxy in the system.
Port: The port number used when setting up the proxy address.
ID: The ID number that is applicable to the proxy address.

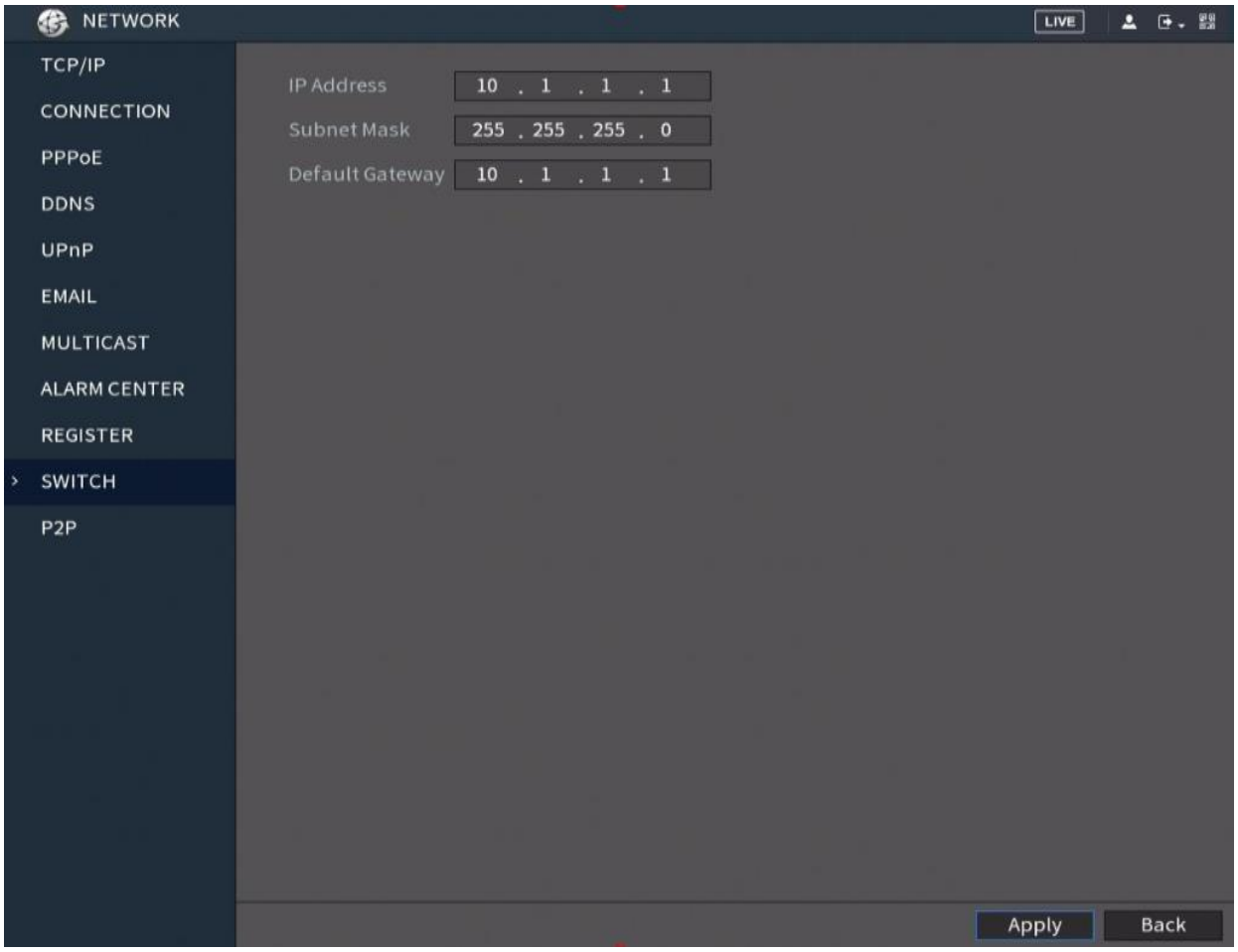
To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Switch

The Switch menu is used to automatically allocate the IP address according to the specified IP segment. The network camera can automatically register to the NVR. It is for you to set IP address, subnet mask, gateway etc. of the switch

Note: This function is for PoE products only. Do not connect a physical switch to the PoE ports of the NVR as it may cause damage to the unit. The Switch function of the NVR is enabled by default. The IP segment is 10.1.1.1. Usually we recommend using just the default setup method.

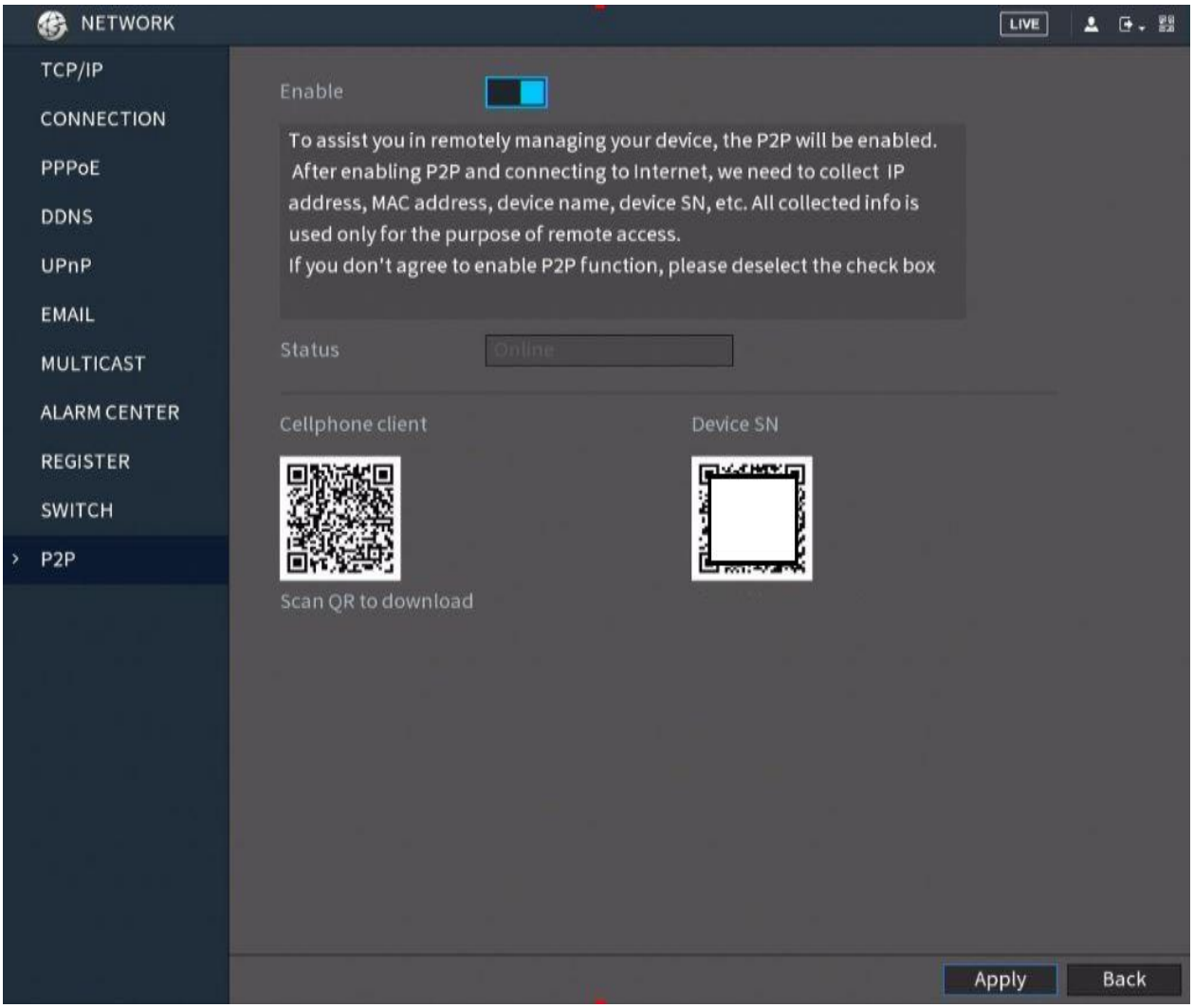
Below is a screenshot of the Switch menu:



IP Address: The default IP segment of the device.
Subnet Mask: The current default subnet mask of the device.
Default Gateway: The current default gateway of the device.
To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

P2P

The P2P screen allows users to access a QR code to connect their smartphone or tablet to the NVR. The device uses an app called Amcrest View Pro, and it is available on both iOS and Android. Below is a screenshot of the P2P settings screen:



Enable: This checkbox allows the user to enable the P2P feature for the NVR.
Status: This field shows the status of the P2P connection. Once connected using the app, this field should display the word Online.
Cell Phone Client: This is the unique QR code is used as a quick reference point for downloading the Amcrest View Pro app onto your mobile device.
Device SN: This is the unique QR Code associated with your NVR's serial number. Use this as a quick reference point when setting up your NVR on the Amcrest View Pro app.

To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Amcrest View Pro Setup

The Amcrest View Pro app allows instant access to all live camera streams from any location. The app supports a multitude of features and includes both a plug-and-play setup as well as a manual network

setup. **Please note, AI features provided by the NVR can only be modified using the local or web UIs and cannot be adjusted using the Amcrest View Pro app.**

The Amcrest View Pro app can be downloaded in both the App Store and Play Store.

Before the NVR can be accessed through the app using the easy plug-and-play method (P2P Setup), **P2P must be enabled on the NVR**.

Enabling P2P

P2P should be enabled on your device by default, however, to check if P2P is enabled, please follow the information provided below.

Log into your NVR and access the Main Menu.
In the **Management** section, click on **Network** then click on **P2P**. Ensure the Enable toggle switch is enabled and the P2P status says "Online". This indicates the P2P option is enabled.

Amcrest View Pro Setup

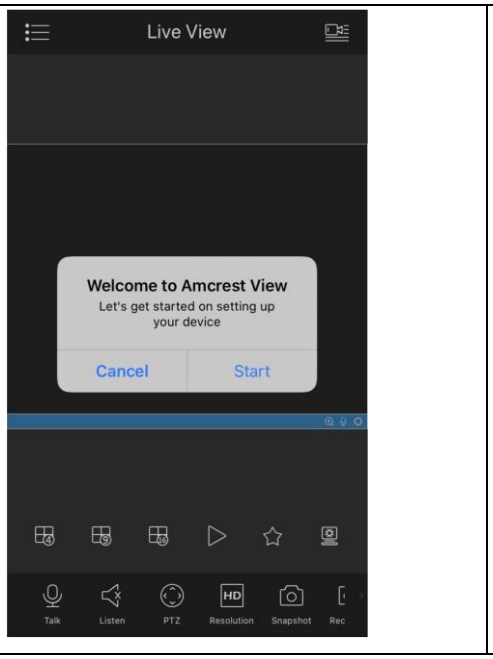
The following steps will continue the app setup process for an Android phone and, though the iPhone version of the app has slightly different steps, most of this process is identical and easy.

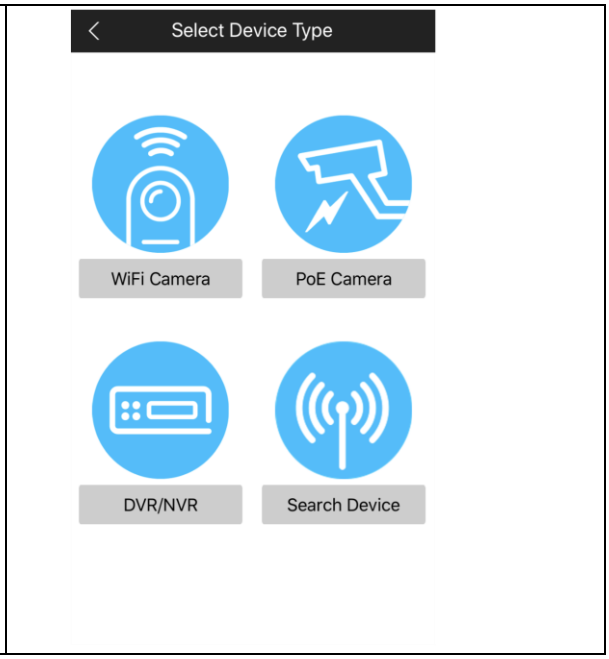
Download and install the Amcrest View Pro app for the App Store or Google Play Store.

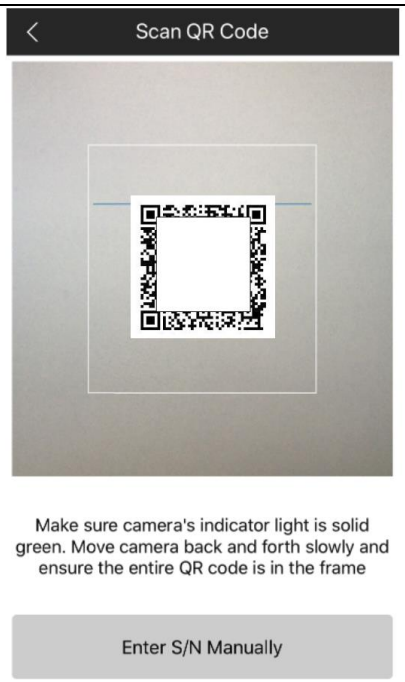
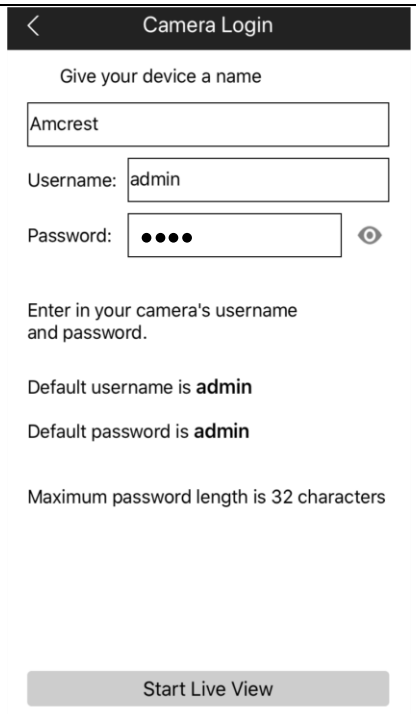
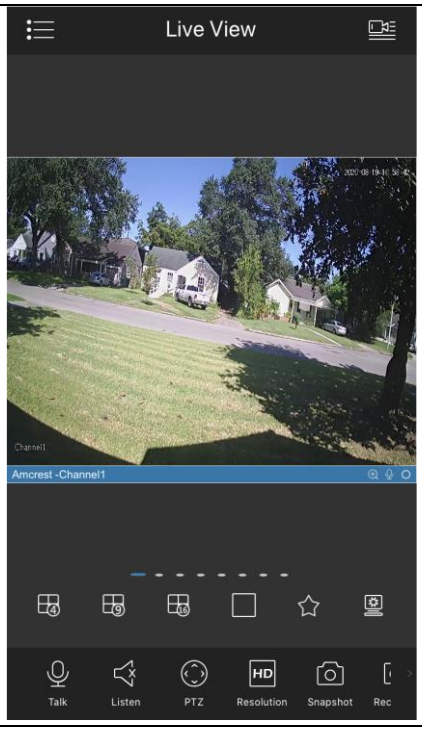




Open the app on your mobile device and allow the app to load.





3. Tap **"Start".**	4. Tap **"DVR/NVR".**
	
5. Tap **"P2P Connection".** **Note:** IP/Domain/DDNS can be used to establish a DDNS connection. For more information on how to setup a DDNS connection, visit amcrest.com/support	6. Scan the QR code. The QR code can be found on the serial tag along with a scannable barcode.
	

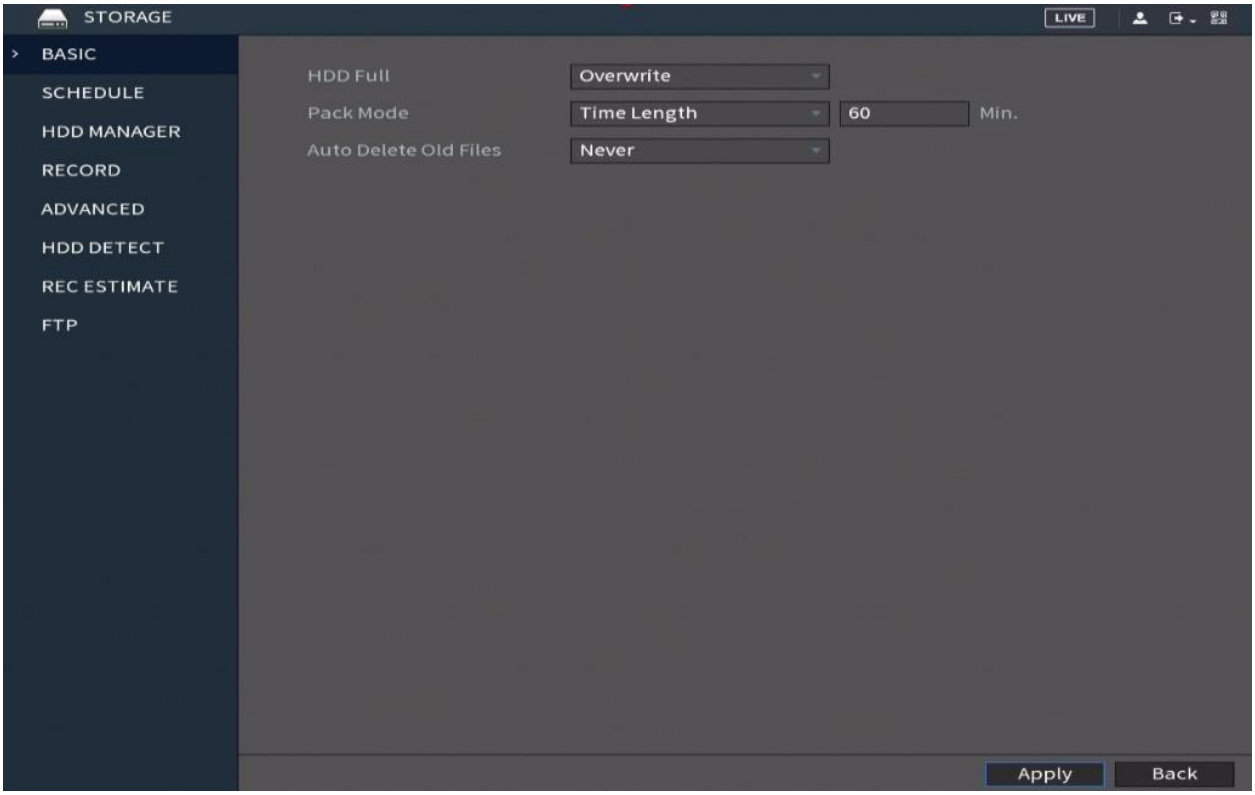
7. Create a name for the device and enter a username and password. The default username and password will be admin. Tap **"Start Live View".**	8. Update the default password for the device and tap **"Start Live View"** to view the device.

Storage

This menu allows the user to update, modify, and manage device storage settings within the NVR. For more details on this menu please refer to the sections below.

Basic

This menu allows the user to set hard drive (HDD) overwrite permissions for the system. Below is a screen shot of this menu.



Below is a description of the features listed in this menu:

HDD Full – Allows the user to set a overwrite mode for their recordings. This option can be set to overwrite, which automatically overwrites old recordings once the hard drive is full, or to stop recording, which means the recordings will stop once the hard drive is full.

Pack Duration – Specifies the recording duration of the overwrite. The values range from 1 to 120 minutes. Default value is 60 minutes.
Auto-Delete Old Files – Allows the user to automatically delete or customize a delete schedule. The customized field will be denoted in how many days you would like to retain information on the HDD.

Note: This feature may not be available in all models and may be applicable to only certain model NVRs.

To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Schedule

This menu allows the user to set recording schedules for their device. For more information on this feature, refer to the sections provided below.

Rec

This screen is used to specify the recording schedule for both recorded video and snapshots.



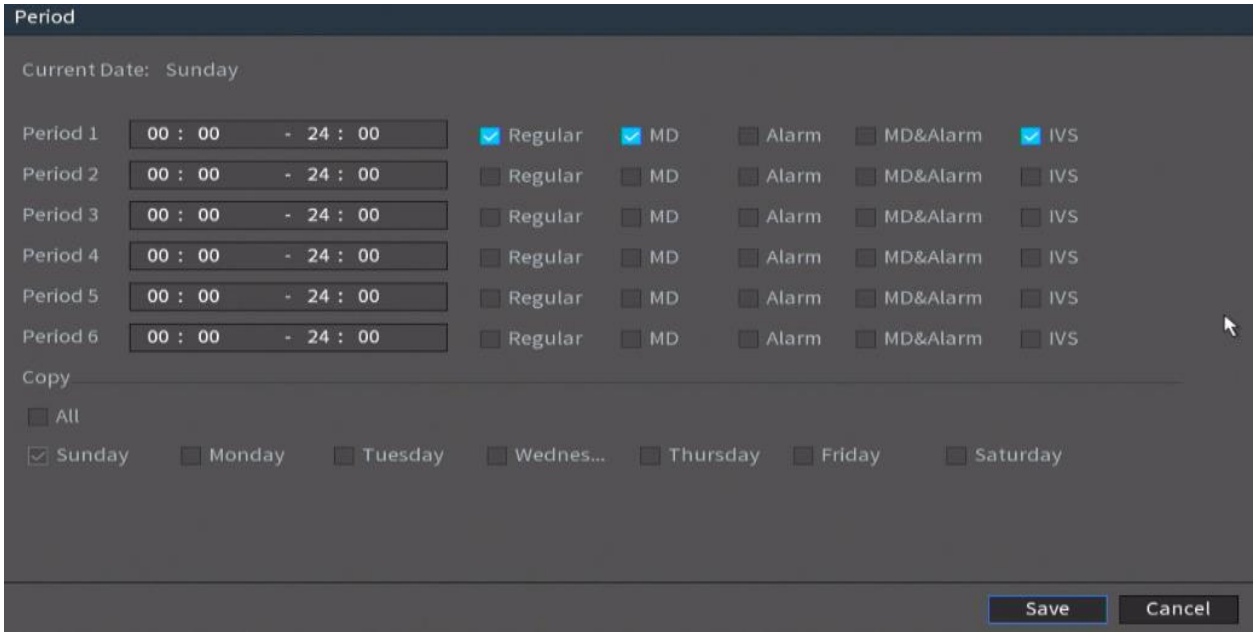
Below is an explanation of the fields on the Record settings screen:

Channel: This dropdown box allows the user to pick which channel they would like to change video recording settings for.
Prerecord: This field allows the user to capture extra video that occurs before an event. Up to 30 seconds of video prior to a recording event can be captured to provide context to a recording.
ANR: This option is used to allow the device to save video to the SD card of the network camera in case the network connection fails.
All: Link all days of the week to a selected recording type schedule.

Record Types: There are 5 types of recordings:

Regular: Regular recording means that the NVR captures all footage for the specified time period. Regular recording is represented by green.
MD: Motion Detection recording means that the NVR captures only footage when the motion detection alarm is activated. MD recording is represented by yellow.
Alarm: Alarm recording means that the NVR captures only footage when an alarm is activated. Alarm recording is represented by the color red.
MD & Alarm: This type of recording is a combination of motion detection and alarm footage, and records when either a motion detection alarm or general alarm is activated. MD & Alarm recording is represented by the color white.
IVS: This type of recording means that the NVR will capture only footage when an IVS rule is triggered. IVS events will be represented as a blue color.

To set a recording schedule for your device, click on the **Settings** icon ( ) option located on the right of the day you wish to set the schedule. The system allows for the configuration of up to 6 different time periods.



Click the text next to each period to edit the time you wish to set for that specific period. Next, choose which record type you would like to set for each period. You will also need to select the days you wish to apply these settings. To select all days, select all options to apply the settings to all days of the week. Click **Save** to save this schedule to the system.

To revert to default settings, click the **Default** button near the bottom left hand corner. To copy settings to another channel, click **Copy** near the bottom left hand corner. To confirm settings, click the **Apply** button near the bottom right hand corner. To exit the interface, click the **Back** button.

Snapshot

This tab is where snapshot recording settings are configured. Below is a screenshot of the Snapshot settings screen:

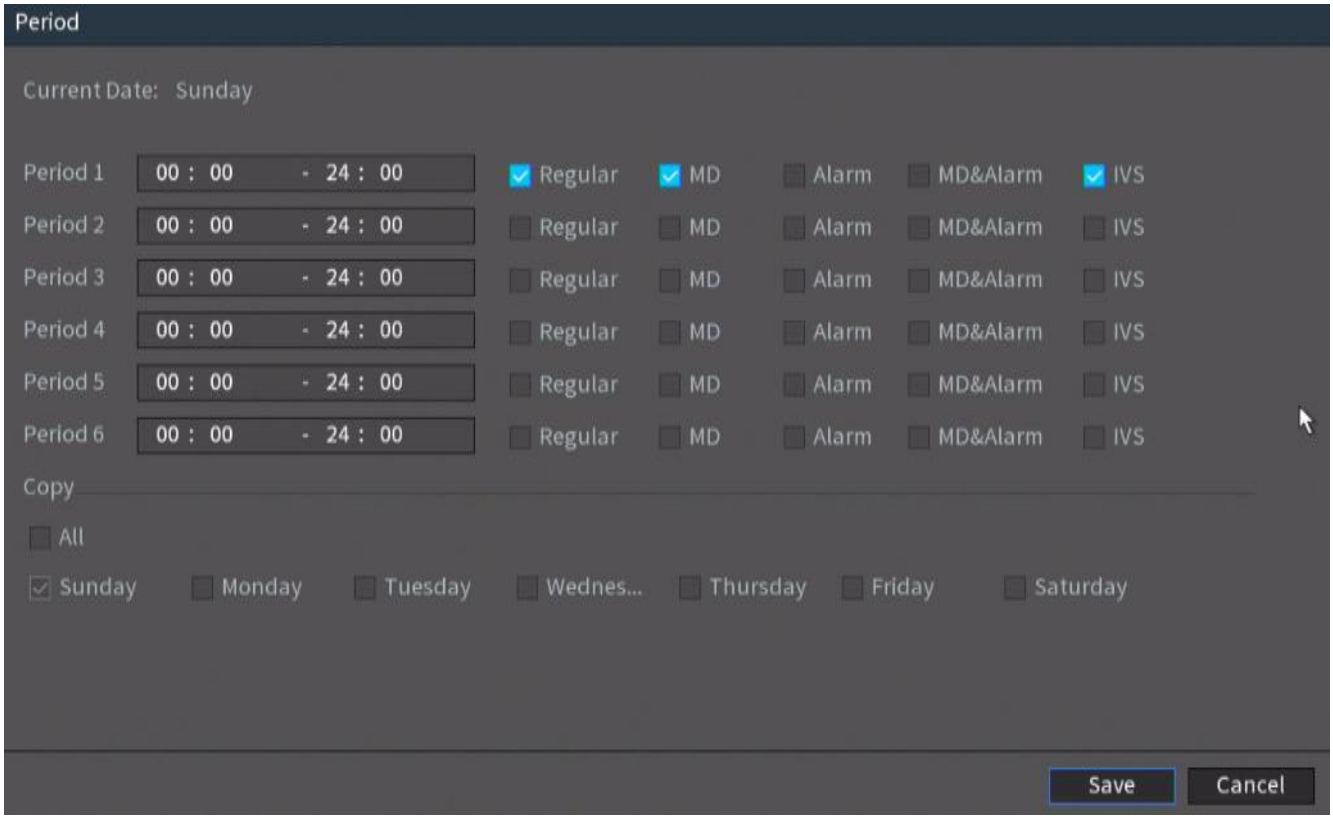


Below is an explanation of the fields on the **Snapshot** settings screen:

Channel: This dropdown box allows the user to pick which channel they would like to change video recording settings for
All: Link all days of the week to a selected recording type schedule.
Record Types: There are 5 types of recordings:

Regular: Regular recording means that the NVR captures all snapshots for the specified time period. Regular recording is represented by green.
MD: Motion Detection recording means that the NVR captures only footage when the motion detection alarm is activated. MD recording is represented by yellow.
Alarm: Alarm recording means that the NVR captures only footage when an alarm is activated. Alarm recording is represented by the color red.
MD & Alarm: This type of recording is a combination of motion detection and alarm footage, and records when either a motion detection alarm or general alarm is activated. MD & Alarm recording is represented by the color white.
IVS: This type of recording means that the NVR will capture only footage when an IVS rule is triggered. IVS events will be represented as a blue color.

To set a recording schedule for your device, click on the **Settings** icon ( ) option located on the right of the day you wish to set the schedule. The system allows for the configuration of up to 6 different time periods.



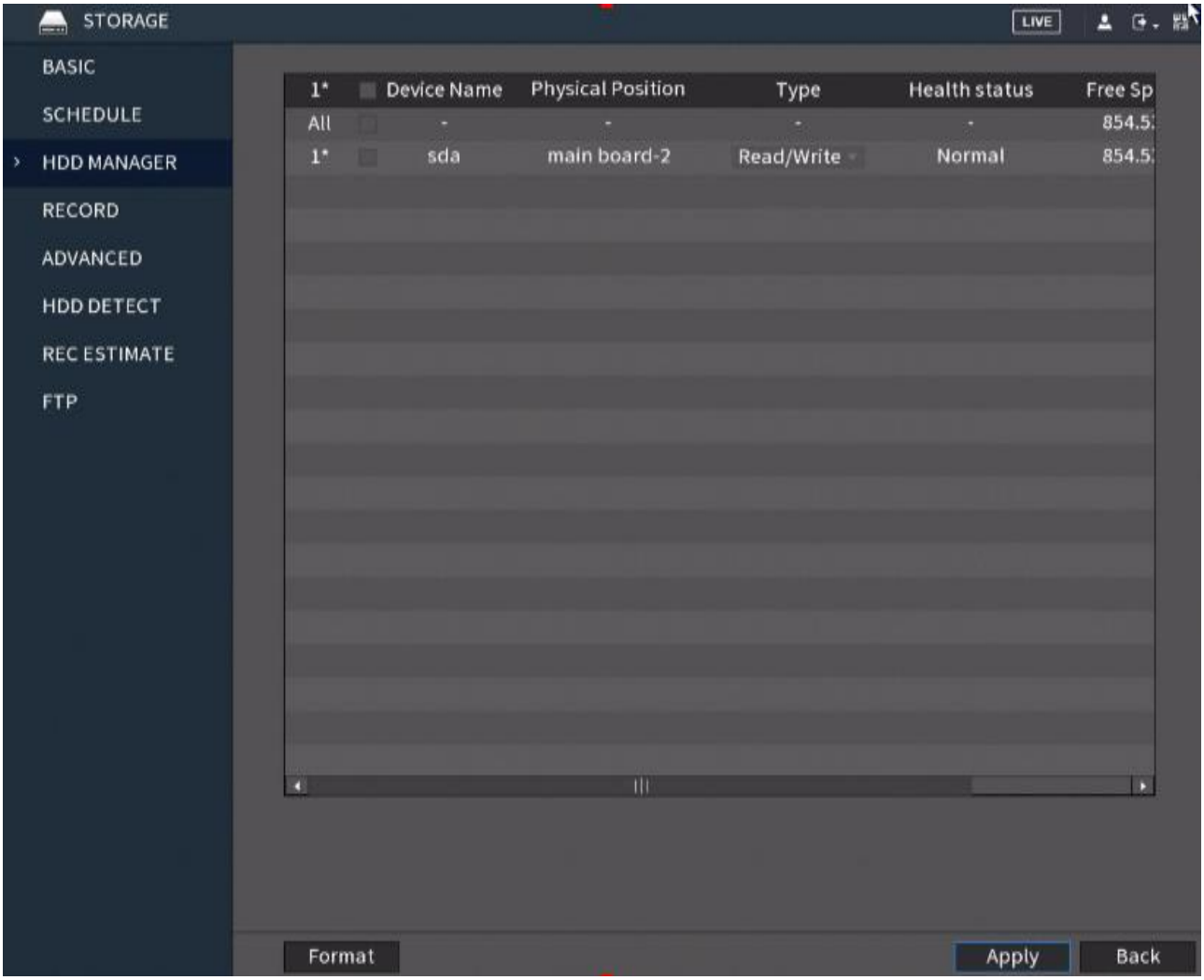
Click the text next to each period to edit the time you wish to set for that specific period. Next, choose which record type you would like to set for each period. You will also need to select the days you wish to apply these settings. To select all days, select all options to apply the settings to all days of the week. Click **Save** to save this schedule to the system.

To revert to default settings, click the **Default** button near the bottom left hand corner. To copy settings to another channel, click **Copy** near the bottom left hand corner. To confirm settings, click the **Apply** button near the bottom right hand corner. To exit the interface, click the **Back** button.

HDD Manager

This screen is used to help the user monitor the NVR's hard drives. Using this screen, the user can see the current HDD type, status, and capacity. The user can also use this screen to format hard drives and change hard drive properties.

Below is a screenshot of the HDD Manager settings screen:



Below is an explanation of the fields on the **HDD Manager** settings screen:

1*: Displays how many HDDs the system is supported.
All: Select all HDDs detected by the system.

0 means that the current HDD is functioning normally.
X means there is an error with the hard drive connection, or that there is no connected hard drive.
? means that the hard drive is damaged and should be replaced.

Device Name: This column shows the names of the connected hard disk drives (HDD).
Physical Position: The location in which the HDD is connected on the device.
Type: This column shows the type of access the NVR has to the hard drive. To change a hard drive's type, click the downward arrow next to the HDD's type and select the desired type. There are 3 possible settings:

Read-Only: This allows the NVR to read the data, but not modify it in anyway.
Write-Only: This allows the NVR to write data to the HDD, but not read any data from it.
Read/Write: This allows the NVR to both read and write data on the HDD.

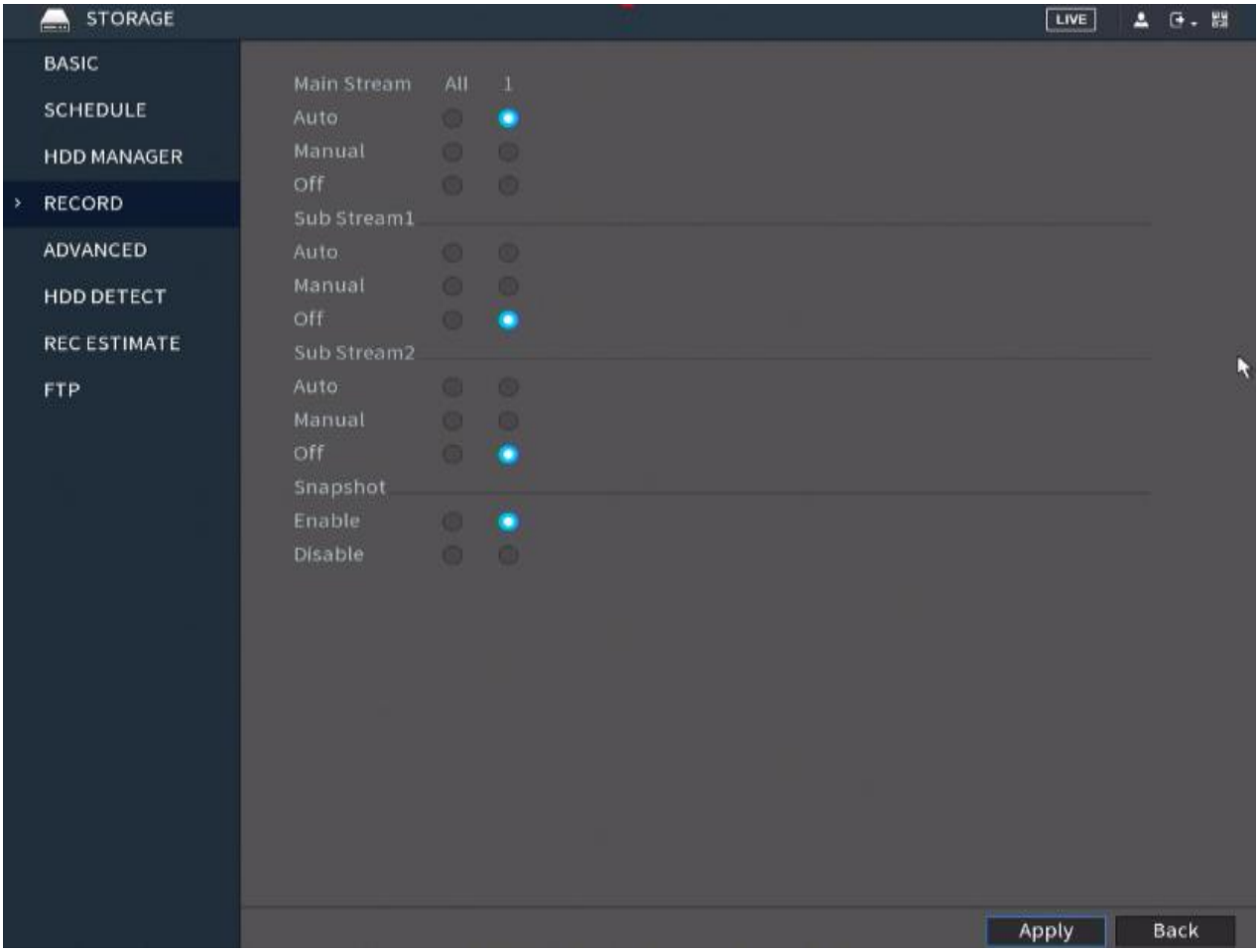
Health Status: This column shows the status of the connected hard drive. There are 3 statuses:

Normal: This means the hard drive is operating normally.
Error: This means the NVR is experiencing an error when attempting to access the hard drive.
Disconnected: This means that the HDD has disconnected from the NVR.

Free Space/Total Space: This field shows the free space on the hard drive compared to its total capacity.
Format: This option allows the user to format a connected HDD. This will erase all information from the HDD. To format the HDD, click the **Format** button, then click **Save** to complete the format.
To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Record

This screen allows the user to specify which channels can record and take snapshots. The settings on this screen supersede all others when it comes to allowing channels the ability to record information. Below is a screenshot of the Record screen:



Below is an explanation of all the fields on the Record settings page:

Main Stream: The main stream is the stream through which the channels transmit data by default. There are 3 settings that can be used for the mainstream.

Auto: Channels will record as they have been scheduled, and not in any other capacity.
Manual: Channels will support all recording type. This includes scheduled recording.
Off: Channels will not record in any capacity. This includes scheduled and manual recording.

Sub Stream 1: These options allow the user to enable or disable sub stream recording types. There are 3 settings that can be used for sub stream 1.

Auto: Channels will record as they have been scheduled, and not in any other capacity.
Manual: Channels will support all recording type. This includes scheduled recording.
Off: Channels will not record in any capacity. This includes scheduled and manual recording.

Sub Stream 2: These options allow the user to enable or disable a third stream of data if applicable. There are 3 settings that can be used for sub stream 2.

Auto: Channels will record as they have been scheduled, and not in any other capacity.
Manual: Channels will support all recording type. This includes scheduled recording.
Off: Channels will not record in any capacity. This includes scheduled and manual recording

Snapshot: This set of options can either enable or disable the snapshot functionality for specific channels.

Enable: Enable snapshots to be recorded or sent from the system.

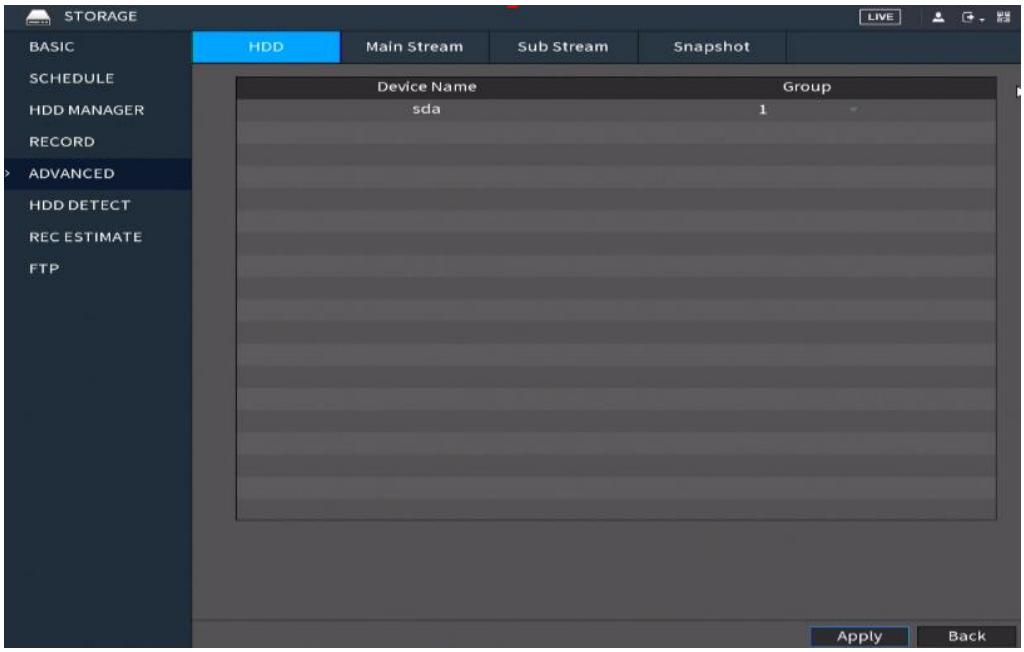
Disable: Disable snapshots from being recorded or sent from the system.

To confirm settings, click the **Apply** button near the bottom right hand corner. Click the **Back** button to exit the interface.

Advanced

This screen allows the user to set and group corresponding HDD and image settings.

Below is a screenshot of the channel menu:



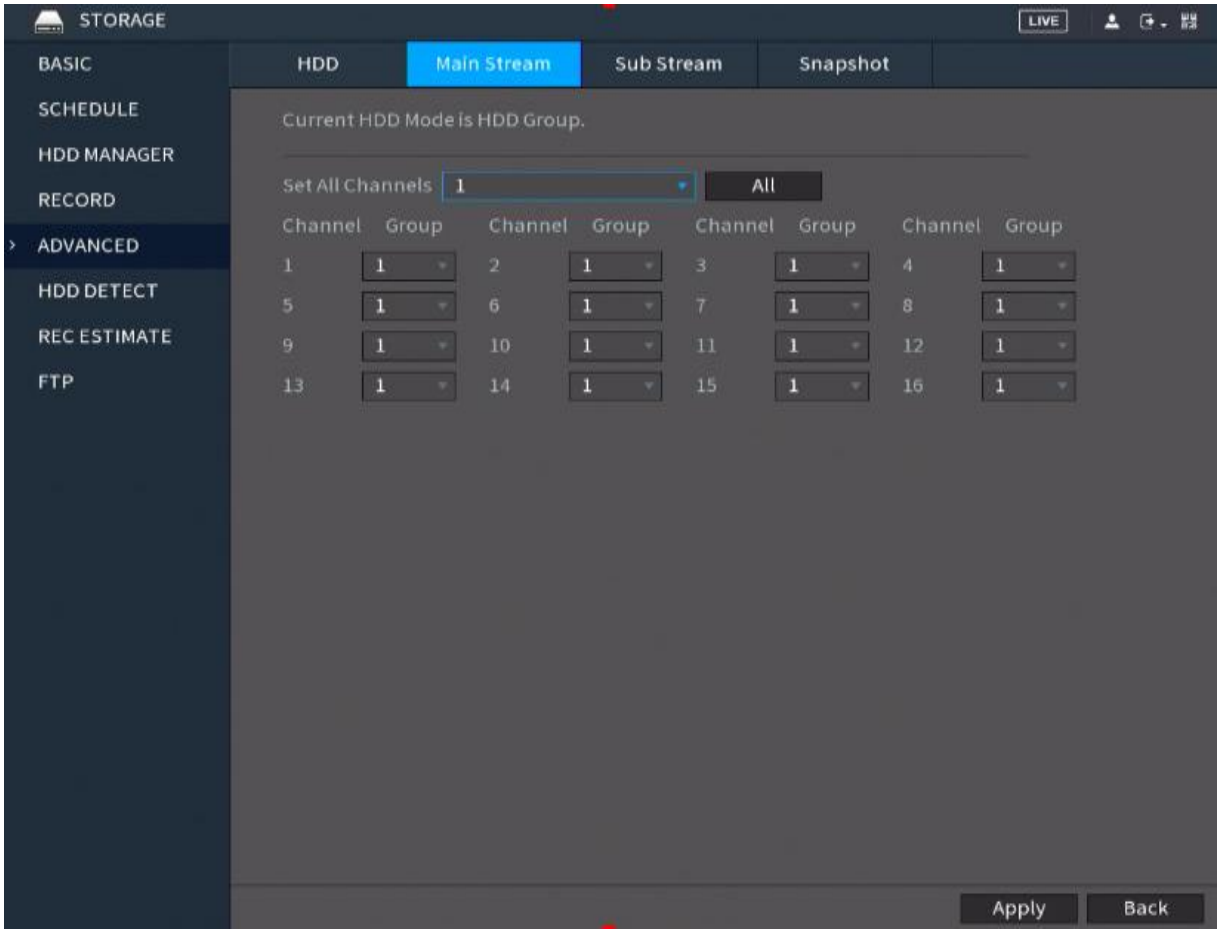
HDD

This tab allows the user to set HDD groups and setup operations for mainstream, sub stream, and snapshot operations.

Note: This feature may not be available in all models and may be applicable to only certain model NVRs

Main Stream

The Mainstream interface allows the user set corresponding HDD group to save to the mainstream configuration of a connected device. Below is a screenshot of the mainstream channel interface:

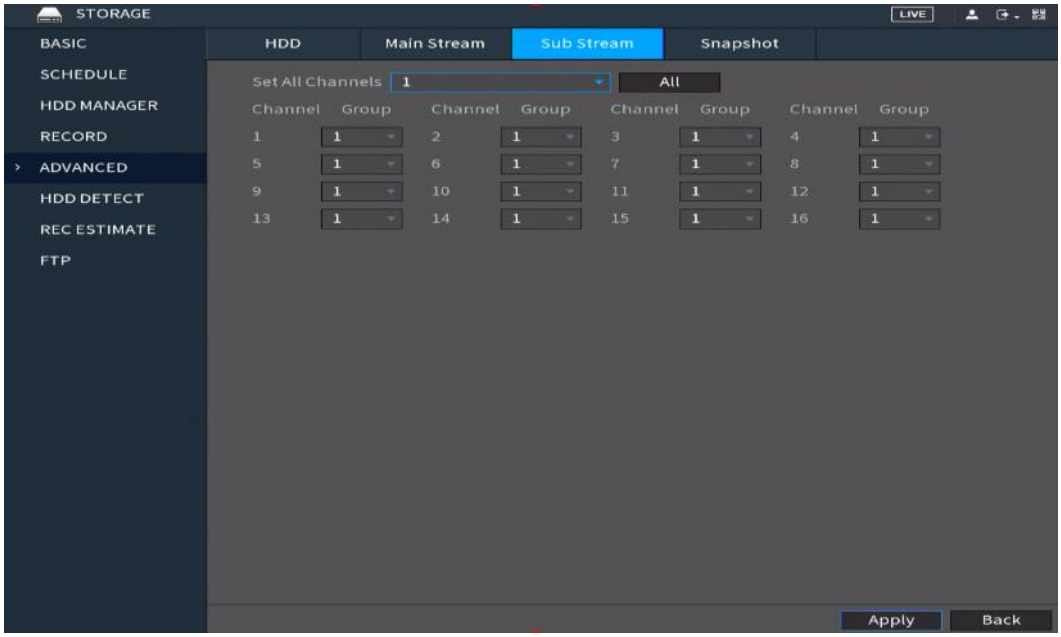


Use the **Set All Channels** dropdown menu to set all the channels to a specific HDD group. To apply all channels, click **All**. To save the settings to the device click on **Apply.**

Sub Stream

The sub stream interface allows the user set corresponding HDD group to save to the sub stream configuration of a connected device.

Below is a screenshot of the sub stream channel interface:

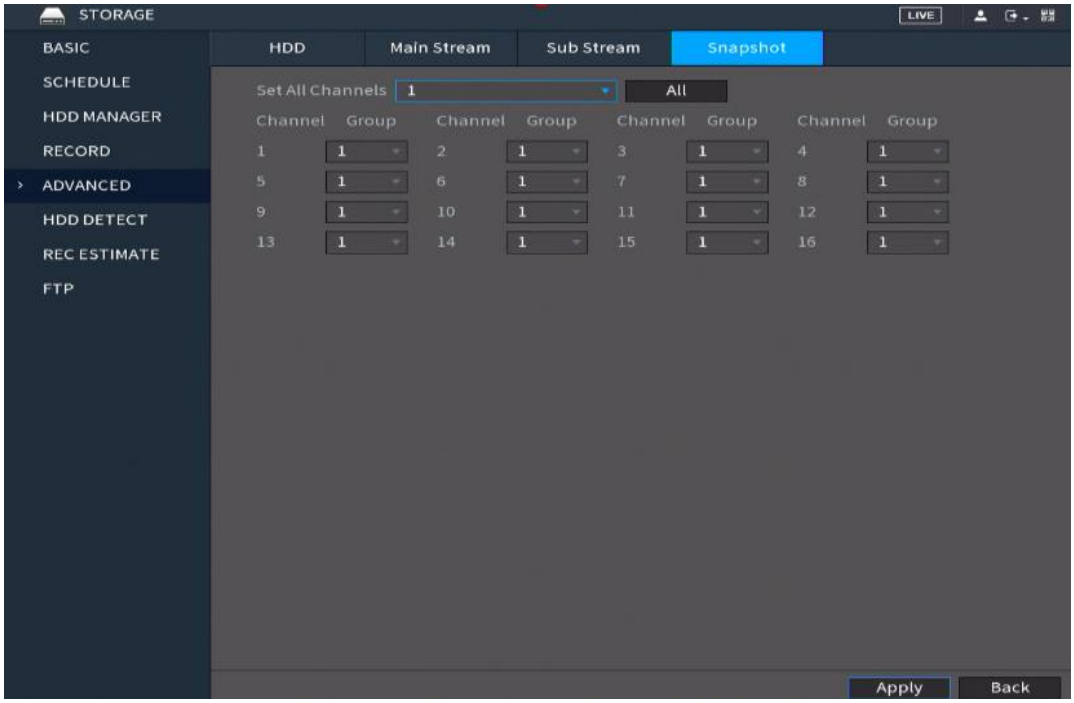


Use the **Set All Channels** dropdown menu to set all the channels to a specific HDD group. To apply all channels, click **All**. To save the settings to the device click on **Apply.**

Snapshot

The Snapshot interface allows the user set corresponding HDD group to save snapshot settings of a connected device.

Below is a screenshot of the image storage channel interface:



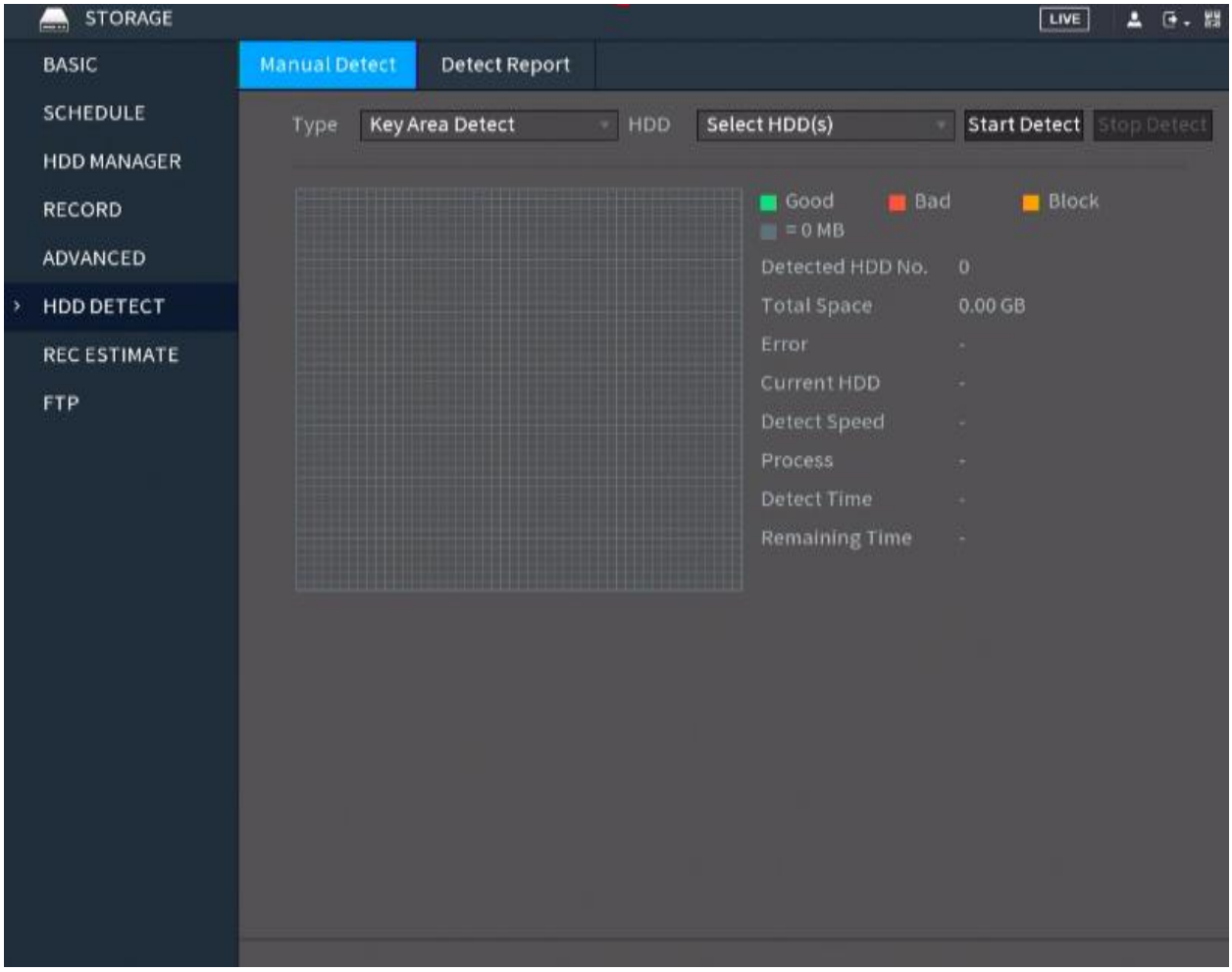
Use the **Set All Channels** dropdown menu to set all the channels to a specific HDD group. To apply all channels, click **All**. To save the settings to the device click on **Apply.**

HDD Detect

This tab allows the user to quickly detect errors on an installed hard drive (HDD) that is applied to the NVR. Please note, this feature may not be available in all models and may be applicable to only certain model NVRs

Manual Detect

This menu allows users to scan their HDDs for any internal errors that may be present on the HDD. Below is a screenshot of this menu:

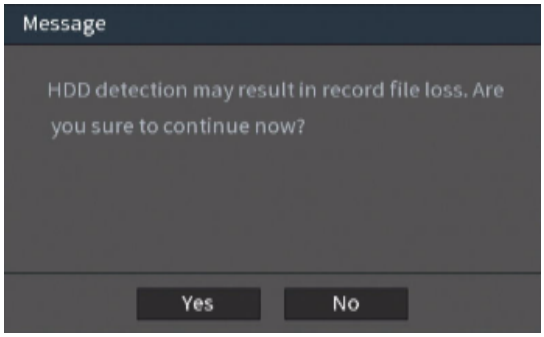


Below is a description of the features listed in this menu:

Type – This dropdown allows the user to select which detection type they would like to use for HDD detection. This can be a quick detect which provides a brief detection of your HDD or a Full Detect which provides a full overview of the detect process.

Note: Using full detect may result in the loss of file data on the HDD.
HDD – Allows the user to select which HDD is being detected.
Start Detect – Starts the HDD detect process.
Stop Detect - Stops the HDD detect process.

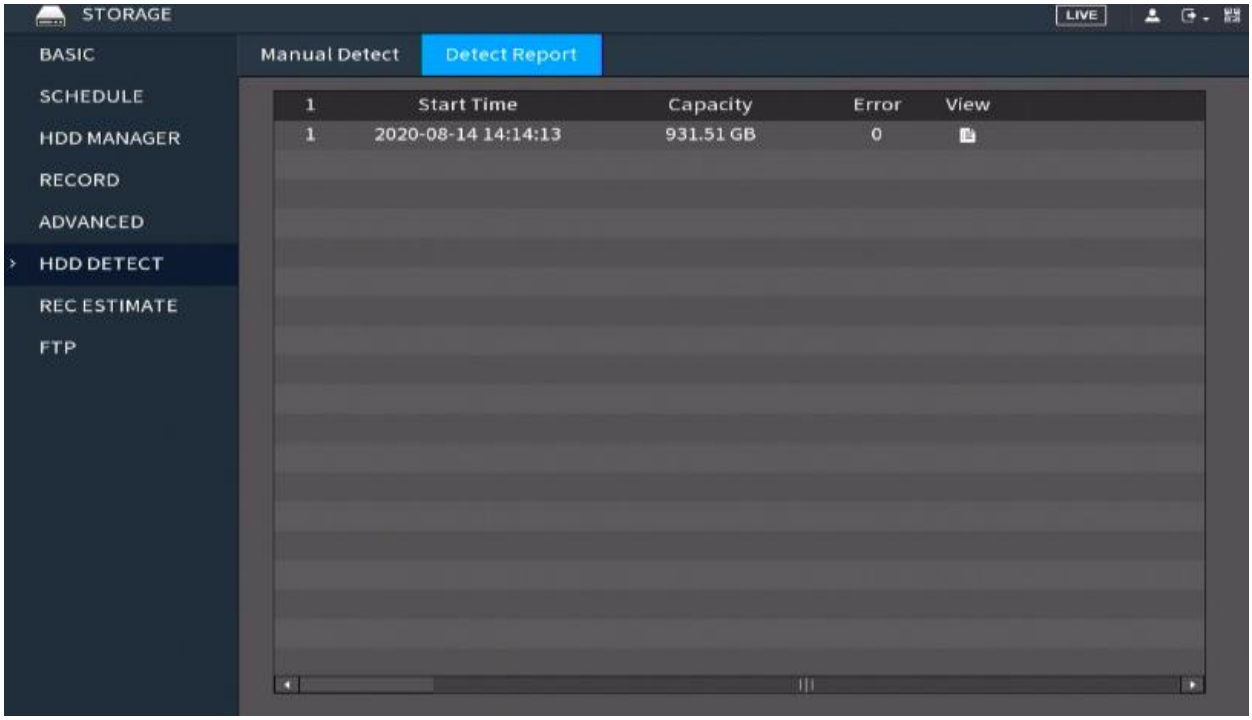
To use the HDD detect feature, select a connected hard drive from the HDD dropdown menu. Once the HDD has been selected, click **Start Detect** to begin the process. Please note, the HDD detection may result in record file loss. Click **Yes** to continue.



Once the scan is complete you can get a quick view of the results below, or you can get a full detect report in the **Detect Report** tab.

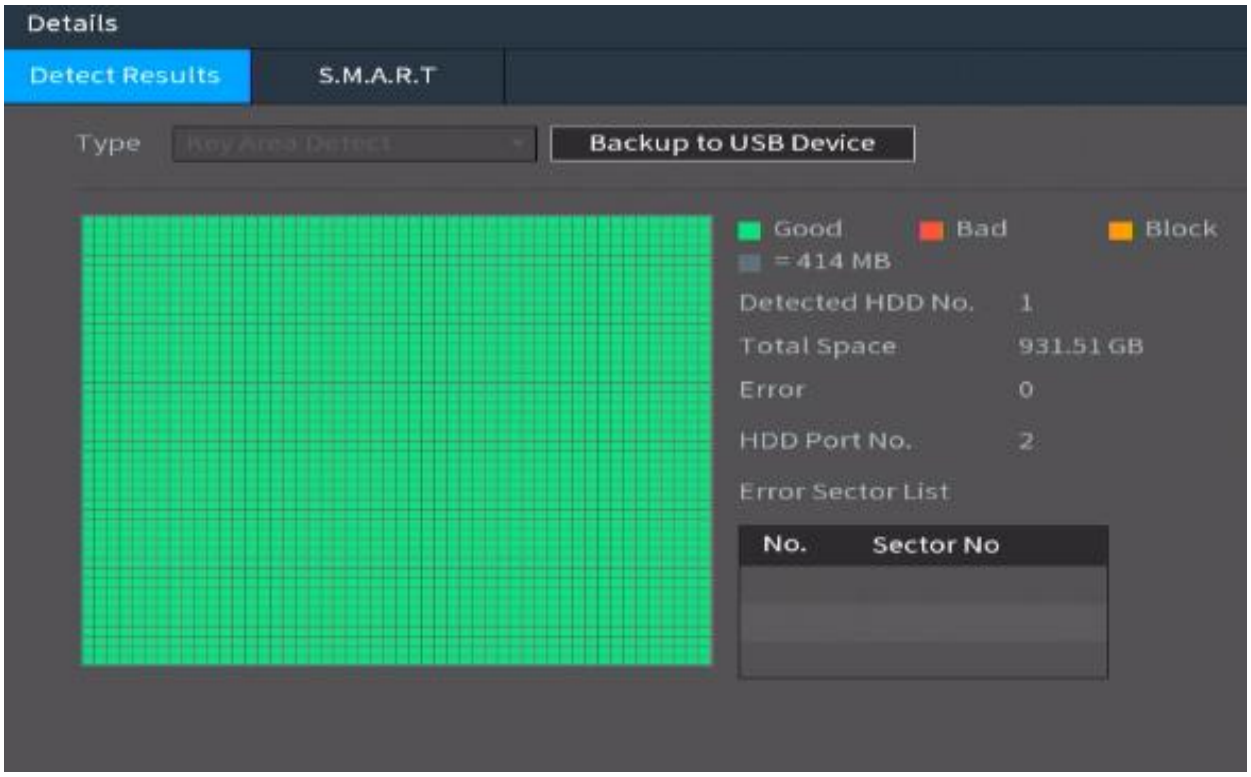
Detect Report

This menu allows the user to view results of their HDD detection scan. To view the detect report click on **View.**



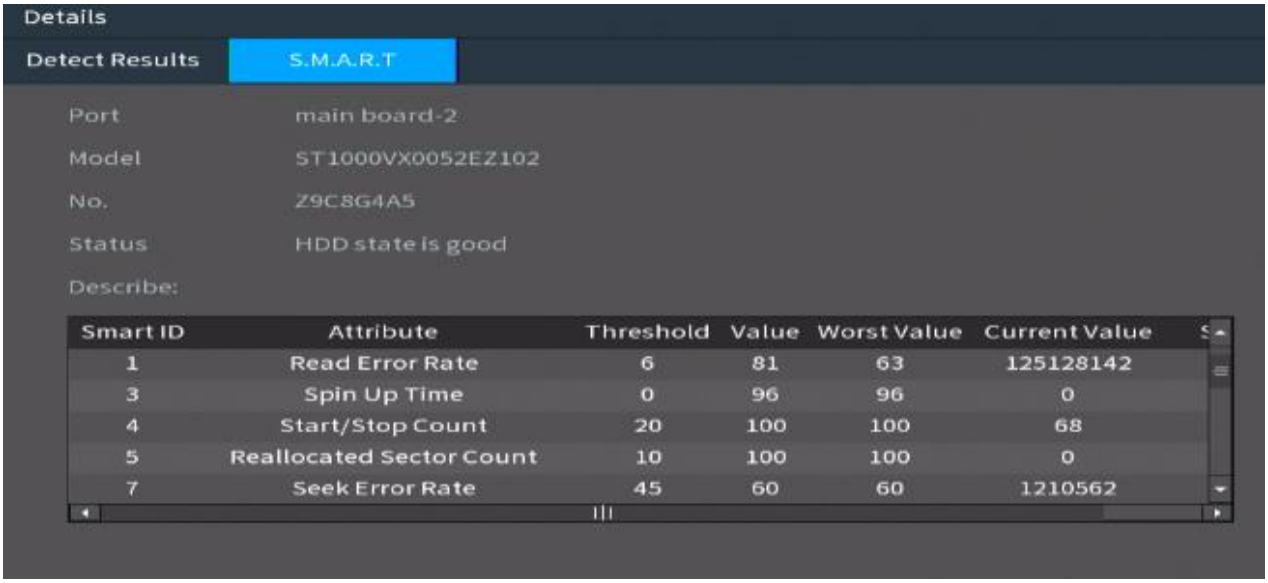
Detect Results

In this menu the user can view and backup the results of the scan onto a backup USB storage device. To store the results to the storage device, insert a USB storage device into a USB slot of the NVR and click "**Backup to USB Device**".



S.M.A.R.T.

The S.M.A.R.T interface is shown in the image below:

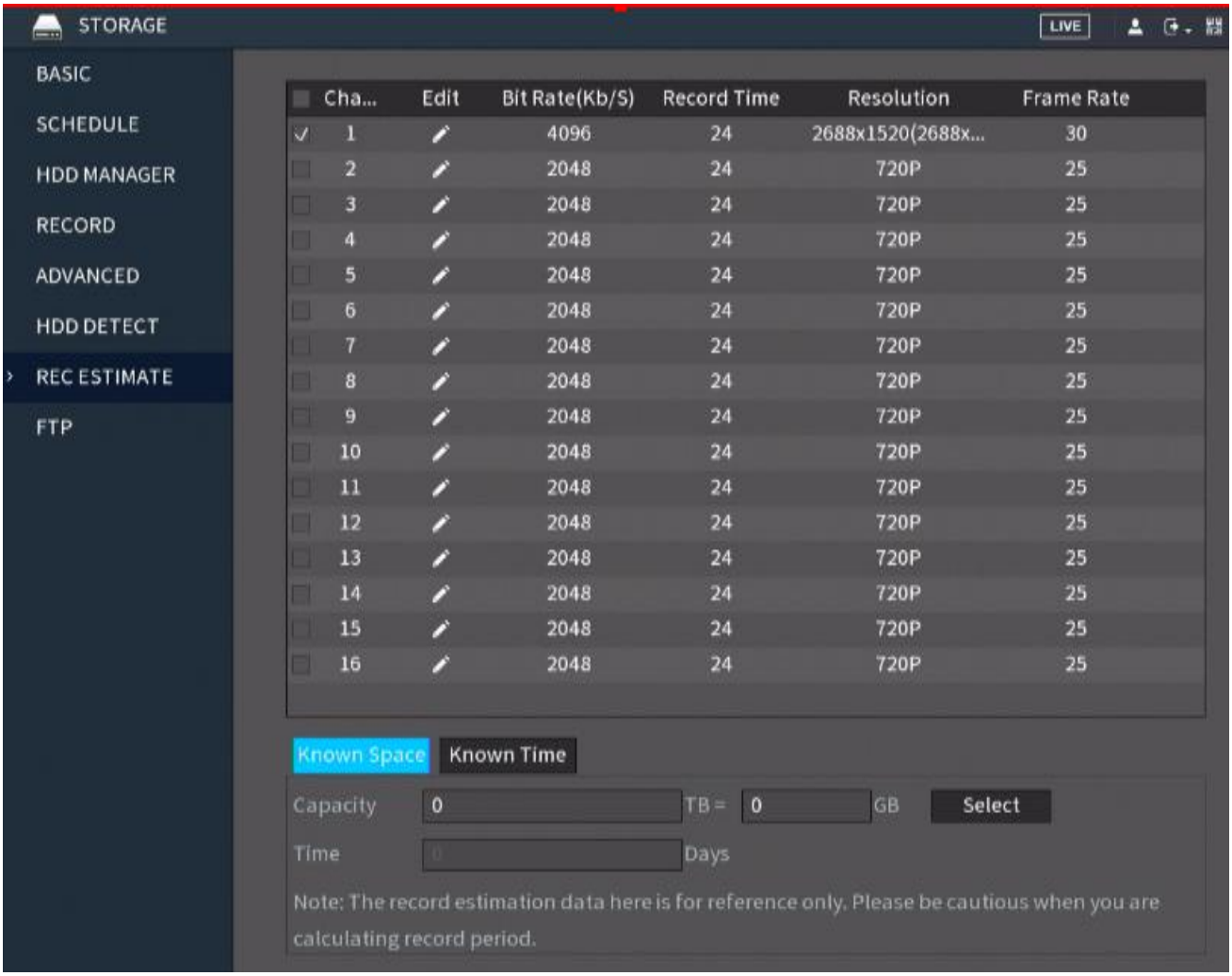


S.M.A.R.T. stands for, “Self-Monitoring, Analysis, and reporting technology. The S.M.A.R.T. report provides a detailed description of the results taken from the initial HDD detect process. This report is designed to provide insight into the health of your HDD and its interaction with your system.

Rec Estimate

The Rec Estimate can calculate how long the device can record video according to the HDD capacity, and calculate the required HDD capacity according to the record period.

Below is a screenshot of the Rec Estimate menu:



Below is a description of the information provided in this menu:

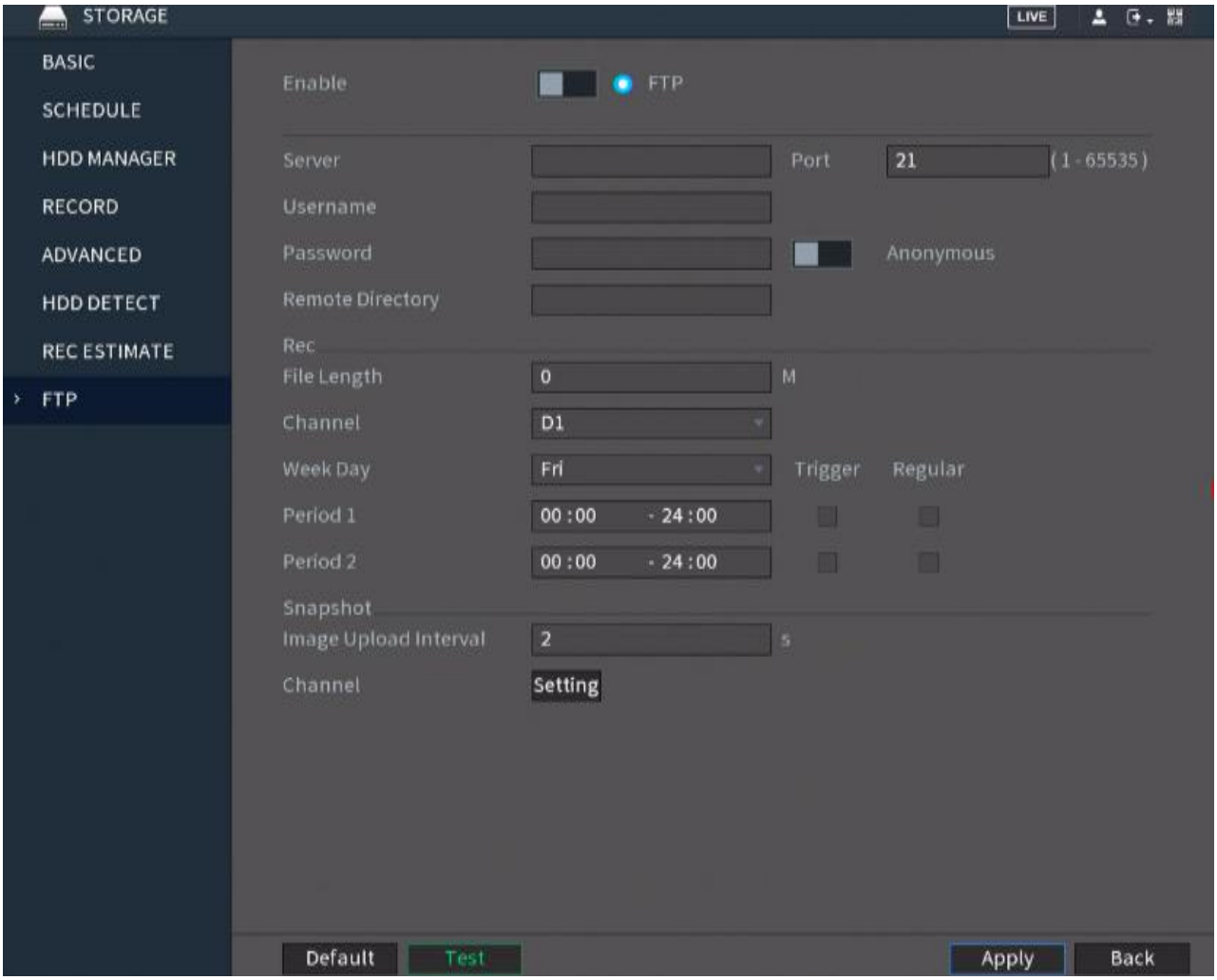
Channel: The channel which
Edit: Used to configure the resolution, frame rate, bit rate and record time for the selected channel.
Bit Rate (Kb/s): The bit rate currently used per channel.
Record Time: Represents a measure of time in which a channel is recording to the HDD.

Resolution: The current resolution of a connected device. If a device is not connected, the channel will read as 720P.
Frame Rate: The current frame rate of the connected device. If a device is not connected, the channel will read as 25 frames per second.
Known Space: Allows the user to calculate a record estimated based on the capacity, number of terabytes/gigabytes (TB/GB) and time (in days). Enter this information into the interface and click "Select" to run an estimation.
Known Time: Allows the user to calculate a record estimation based on a time (in days) and the capacity of the HDD. Enter this information into the interface and click "Select" to run the estimation.

FTP

FTP stands for File Transfer Protocol. This protocol allows for remote uploading of files to a server. This feature requires the use of an FTP tool on a computer to enable the use of FTP features on the NVR.

Once an FTP tool has been acquired, installed, and configured to allow read, write, append, and delete access, then the NVR can be configured to use FTP. Below is a screenshot of the FTP menu screen:



Below is an explanation of the fields on the FTP settings screen:

Enable: This checkbox allows the user to enable the FTP feature for the NVR.
Server: This field allows the user to enter the FTP server IP address and port.
Port: The port number of the FTP server. The default port number is 21.
Username: This field allows the user to enter the FTP username.
Password: This field allows the user to enter the FTP server password. The checkbox next to this field enables anonymous access to the FTP.
Remote Directory: This field allows the user to designate which folder the NVR will upload files to.
File Length: This field allows the user to dictate how large upload files can be.
Channel: This field allows the user to pick a channel to set FTP settings for.
Week Day: This field allows the user to pick a day of the week to set FTP settings for.
Period 1: This field allows the user to specify a time period and what types of files to upload (Alarm, Motion, Regular).
Period 2: This field allows the user to specify a time period and what types of files to upload (Alarm, Motion, Regular).
Image Upload Interval: This field allows the user to define, in seconds, how often images can be uploaded to the FTP server.
Channel: This settings button allows the user to select a channel in which the FTP will apply.

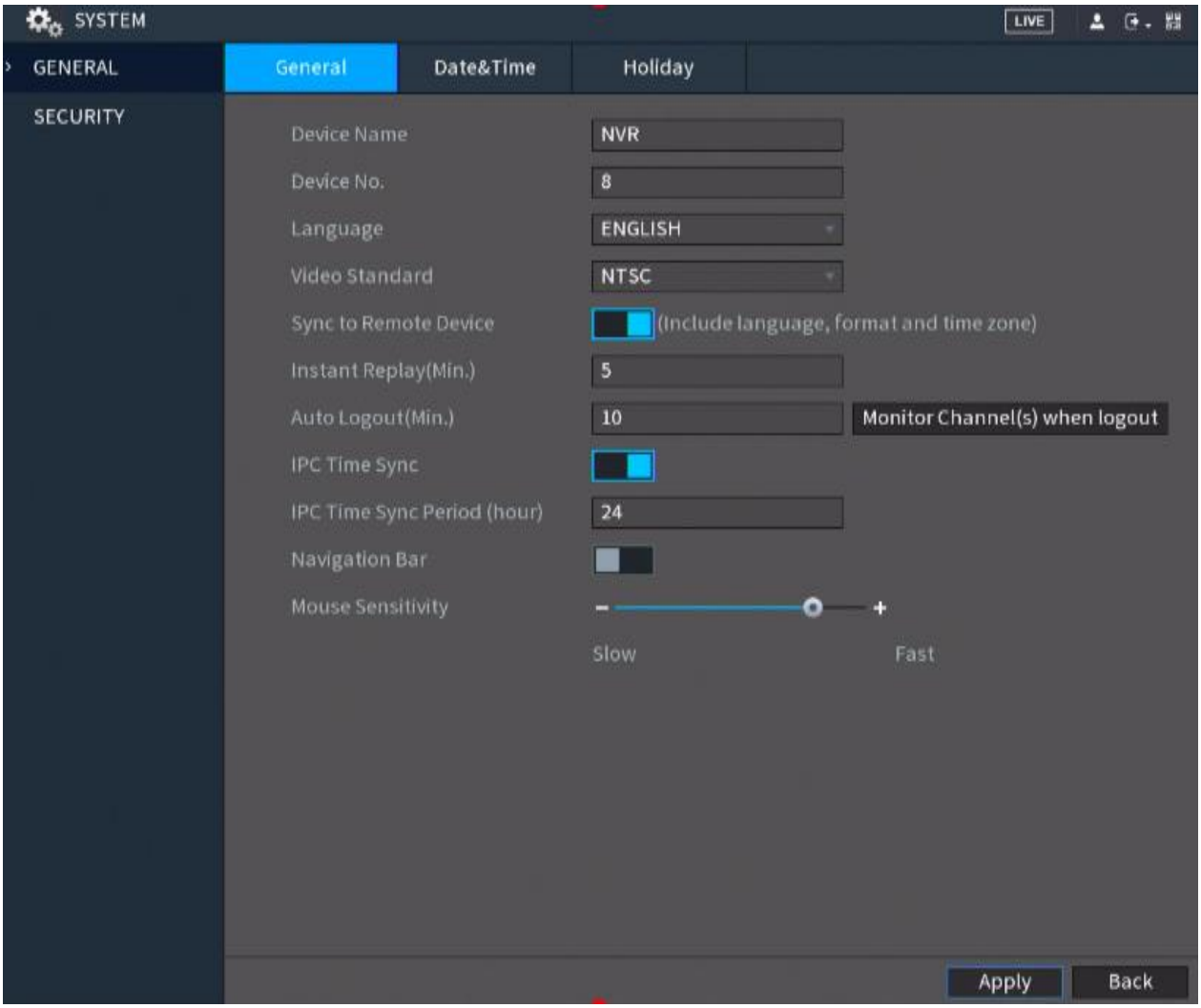
For more information how to setup FTP settings, please visit amcrest.com/support

To revert to default settings, click the **Default** button near the bottom left hand corner. To test the current settings, click **Test** near the bottom left hand corner. To confirm settings, click the A**pply** button. To exit the interface, click on the **Back** button.

System

General

This screen displays general settings for the NVR. Below is a screenshot of the general settings screen:



Below is an explanation of the fields on the **General** settings screen:

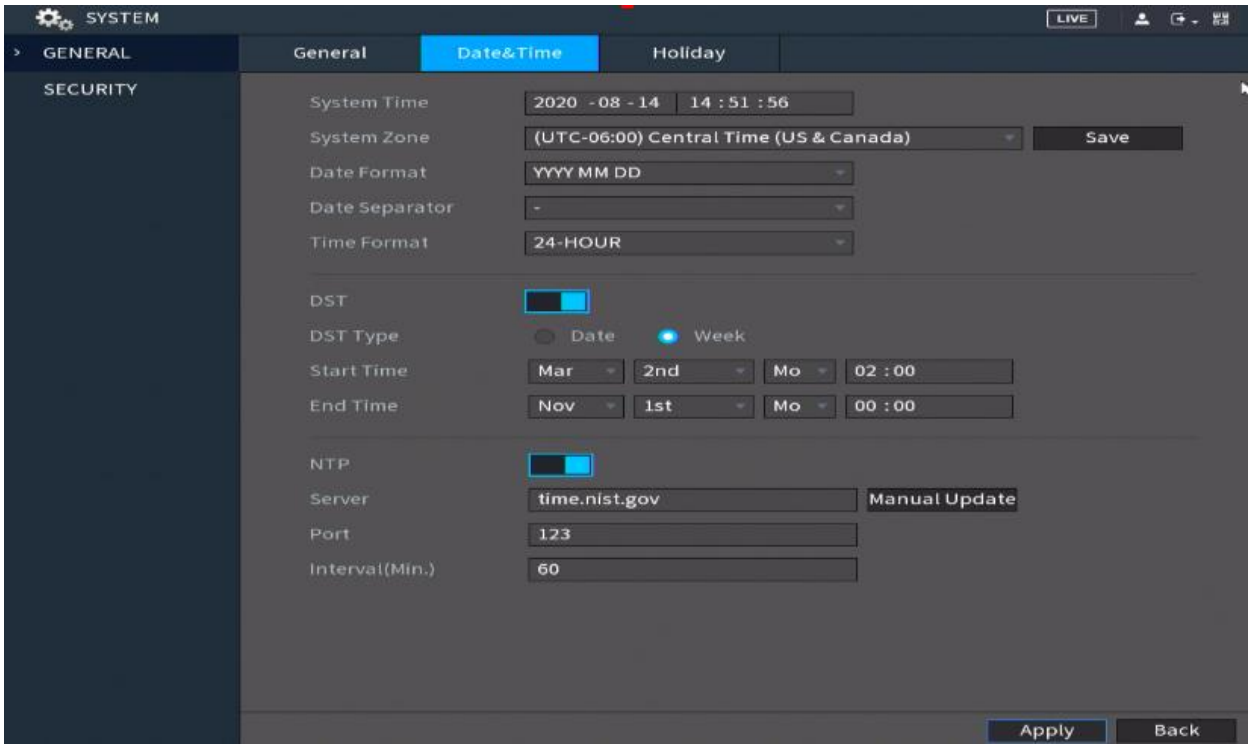
Device Name: This field allows the user to customize the name of the NVR.
Device No: This field allows the user to customize the device's number.
Language: This dropdown box allows the user to select a language for the NVR. Options include English, Simplified Chinese, Traditional Chinese, Italian, Japanese, French, and Spanish.
Video Standard: This dropdown box allows the user to select a video standard. The options are between PAL and NTSC.
Sync to Remote Device: This option allows device settings, including language, format, and time zone, to sync to a remotely connected device.
Instant Replay (Min): This field allows the user to set the playback time frame that is viewed in the preview interface. This value can range from 5 to 60 minutes.
Auto Logout (Min): This field allows the user to define in minutes how long the system can stay idle before a user is logged out. The value can range from 0 to 60 minutes.
IPC Time Sync: This field allows the user to define in hours how long a camera can stay idle before it is logged out. The values can range from 0 – 24 hours.

Navigation Bar: This option allows the user to enable the navigation bar that shows on the main screen.
Mouse Sensitivity: This sliding scale allows the user to increase the movement and double click speed of the mouse.

To confirm settings, click the A**pply** button. To exit the interface, click on the **Back** button.

Date and Time

This screen displays date and time settings for the NVR. Below is a screenshot of the Date & Time settings screen:



Below is an explanation of the fields on the Date & Time settings screen:

System Time: This field allows the user to set the system time and time zone. Click Save to save the system time as it is shown in the display.
System Zone: This dropdown box allows the user to specify a time zone for the NVR to use.
Date Format: This dropdown box allows the user to specify a date and time format for the NVR to use. There are 3 options.

YYYY MM DD: Year, Month, Day.
MM DD YYYY: Month, Day, Year.
DD MM YYYY: Day, Month, Year.

Date Separator: This dropdown box allows the user to specify a date separator. There are 3 options:

– Dash
/ Forward Slash
_ Underscore

Time Format: This dropdown box allows the user to specify a time format for the NVR to use. There are two options.

24 Hour
12 Hour

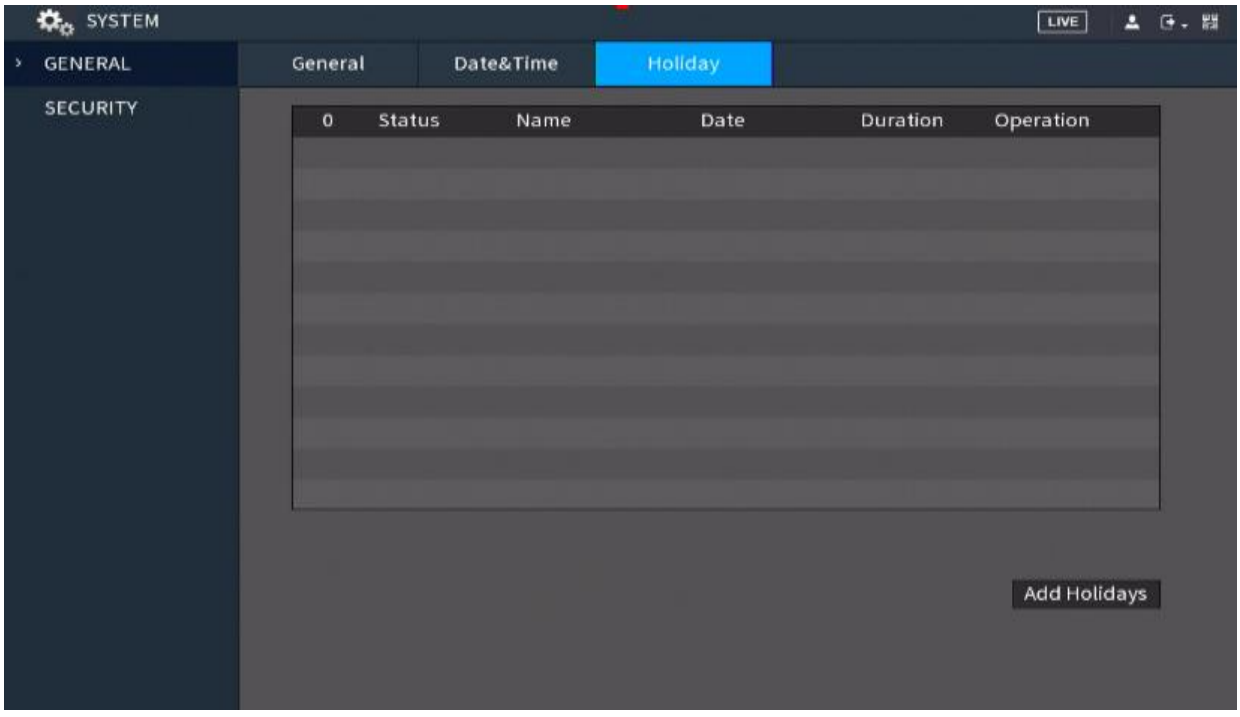
DST: This option allows the user to activate DST for the system.
DST Type: This field allows the user to pick whether DST starts on a specific day of the week, or on a specified.
Start Time: This field allows the user to enter a start date and time for DST to begin.
End Time: This field allows the user to enter an end date and time for DST to end on.
NTP: NTP stands for Network Time Protocol. This checkbox allows the user to enable the use of an NST server to synchronize the date and time settings on the NVR.
Server: This field allows the user to set the NTP server IP address. Clicking the Manual Update button pulls a time update from the server.
Port: This field allows the user to set the NTP server port number.
Interval (Min.): This field allows the user to set the NTP synchronization interval. This number determines how often the NVR queries the NTP server to get accurate date and time information. This value can be between 0 and 60 minutes.

To confirm settings, click the A**pply** button. To exit the interface, click on the **Back** button.

Holiday

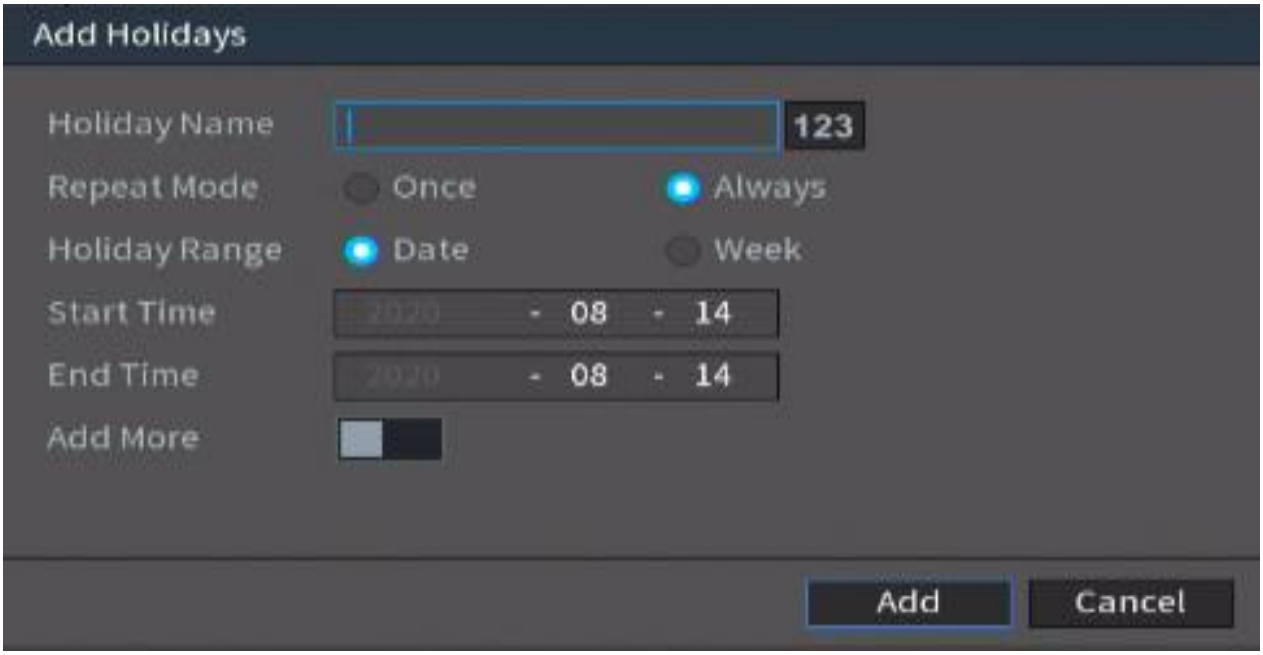
This screen displays the holiday settings for the NVR. Holiday settings are used to allow the device to recognized holidays in the system which are set by the user.

Below is a screenshot of the Holiday settings screen:



Below is an explanation of the fields on the Holiday settings screen:

0: This number indicates how many holidays are in the system. Each line item has a number to signify its place in the list.
Status: This dropdown box indicates the status of the holiday. There are two options:
Open: The holiday is active, and the NVR will stop recording for that holiday period.
Stop: The holiday is inactive, and the NVR will continue normal operation for that holiday period.
Name: This column is where the name of the holiday is displayed.
Date: This column shows the date that the holiday occurs on.
Duration: This column shows the range in which the holiday occurs.
Operation: This column allows the user to edit or delete the holiday.
Edit ( ): This column has a button that allows for the editing of the holiday.
Delete ( ): This column has a button that allows for the deletion of the holiday.
Add Holidays: This button allows the user to add a holiday. Below is screenshot of the Add New Holidays screen.

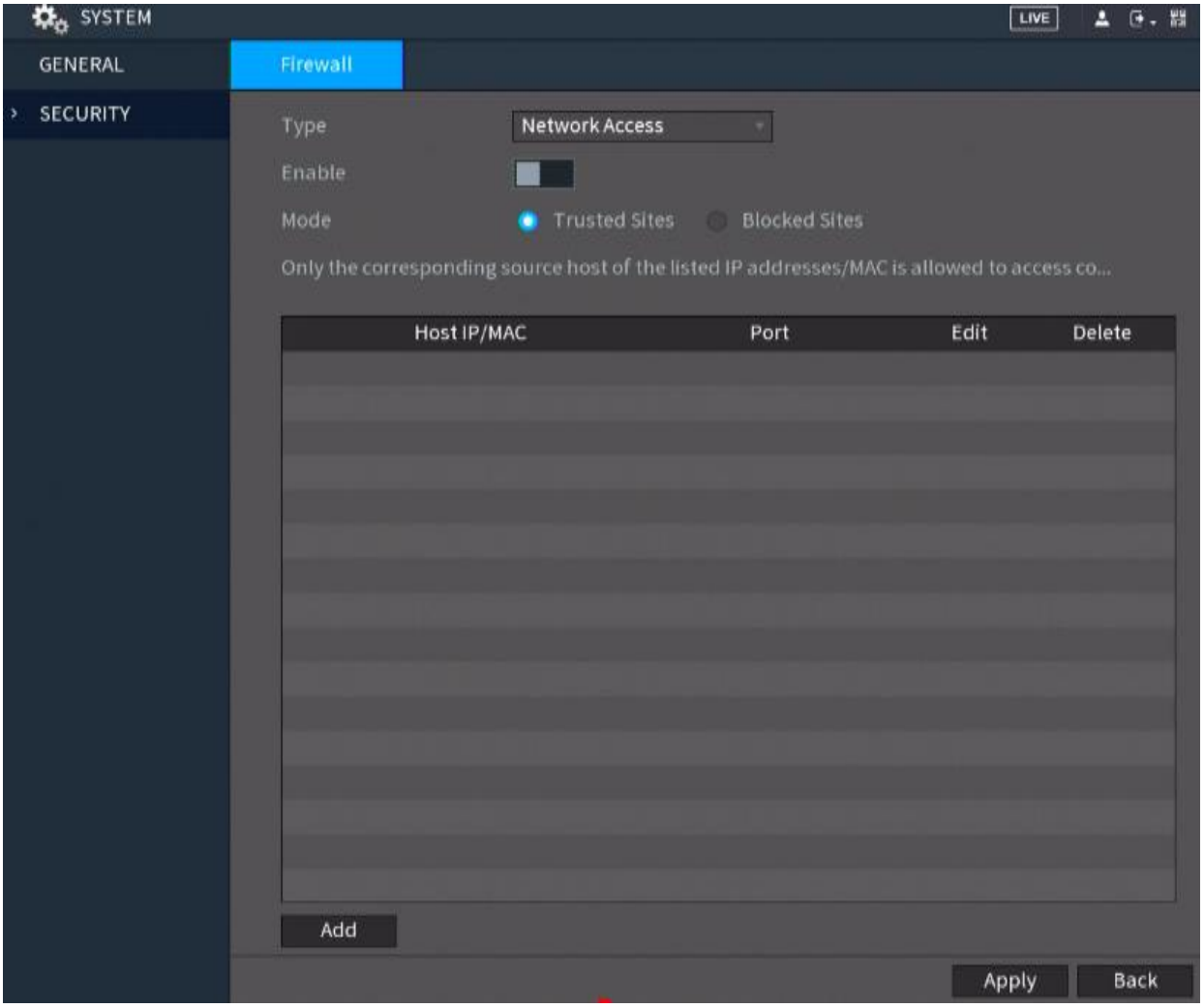


Note: Holidays take precedence over the scheduled setup. Holidays do not roll over based on their inherent date. Meaning, if a holiday is set for October 30th, then the system will treat every October 30th as a holiday.

Security

The Security menu allows the user to decide which IP addresses can be whitelisted or blacklisted in the system.

Below is a screenshot of the **Security** menu:



Below is a description of the fields in the security settings screen:

Type: This dropdown menu allows the user to select which type of firewall will be included. There are 3 types of firewall settings.

Network Access: Prevents a set IP address from network access.

Ping Prohibited: Prevents the device from pinging a set IP address.

Anti-Half Connection: Prevents the device from partial connection to a set IP address.

Enable: This option allows the user to enable the firewall feature.

Mode: Allows the user to choose which sites will be trusted (whitelisted) or blocked (blacklisted.

Host IP/Mac: The host IP/Mac address of the applied IP address.

Port: The port number of the whitelisted or blacklisted IP address.

Edit: Allows the user to edit an IP or port number of a whitelisted or blacklisted IP address.

Delete: Delete an added whitelisted or blacklisted IP address

Add: Click this button to add a trusted or blocked site into the system.

To confirm settings, click the A**pply** button. To exit the interface, click on the **Back** button.

Account

This menu is used to manage user accounts, user account passwords, and user groups. Below are a few considerations to keep in mind when editing this information:

The NVR comes with 2 usernames by default:

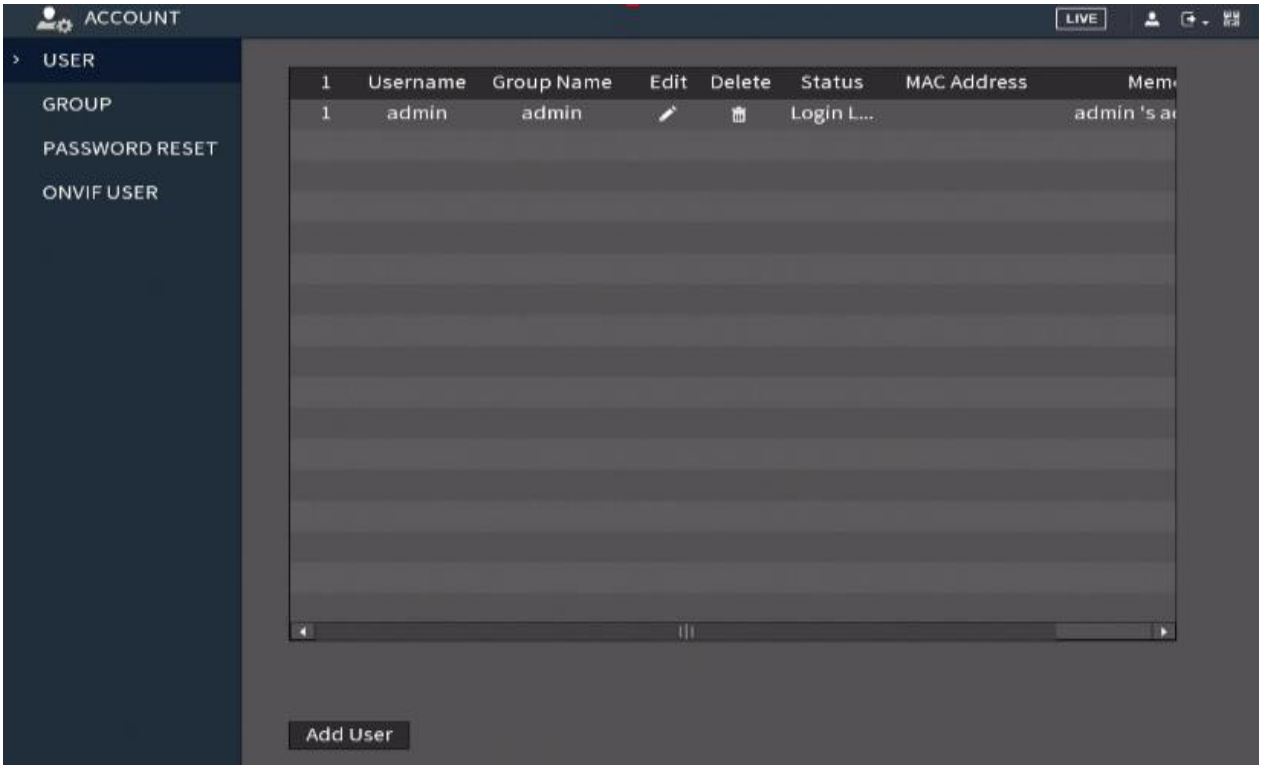
Username: admin **Password:** admin
Username: default **Password:** default

It is highly recommended to change the passwords for the admin and default accounts.
Each Username and user group name can only contain letters, numbers, underline marks, dashes, or dots. No empty spaces are allowed.

The maximum number of users is 64, and the maximum number of users that can be in one group is 20. There are two levels for user management: administrator and user. Administrator has more rights than a normal user and can modify key NVR settings. Each user can belong to only one group, and user rights cannot exceed group rights.

User

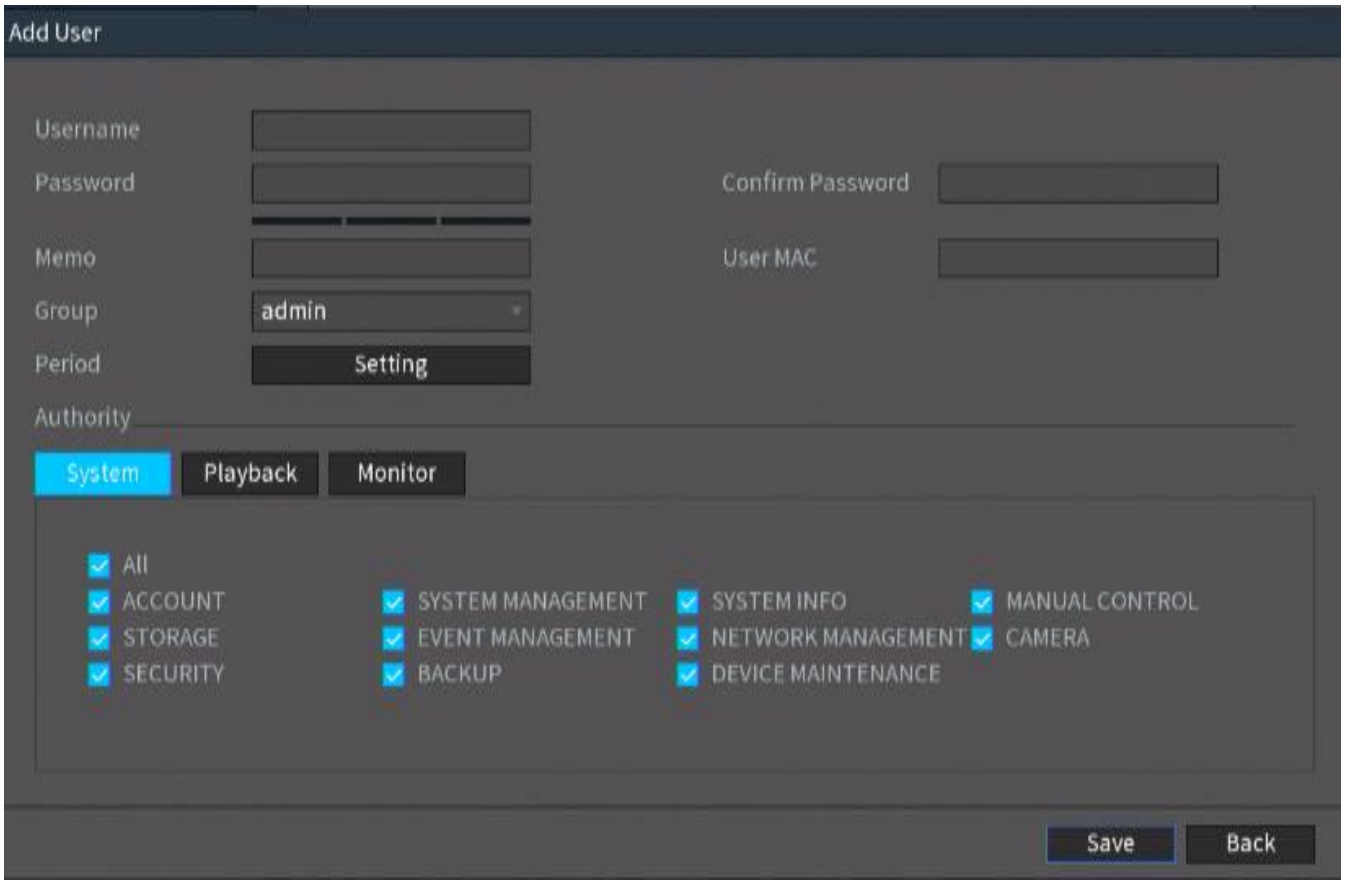
This screen is used to configure User Account settings. Below is a screenshot of the User Account settings screen:



Below is an explanation of the fields on the User screen:

Number: This number indicates how many users are in the system. Each line item has a number to signify its place in the list.
Username: This column indicates an account's username.
Group Name: This column shows which group the username belongs to.
Edit: This column has a button that allows for the account's properties to be edited.
Delete: This column has a button that allows for the account's properties to be deleted.
Status: The status of the user in the system.
MAC address: The MAC address in which the user's credentials are associated.
Memo: This column provides a brief description of the account's status in the NVR.
Add User: This button allows the user to add another user account.

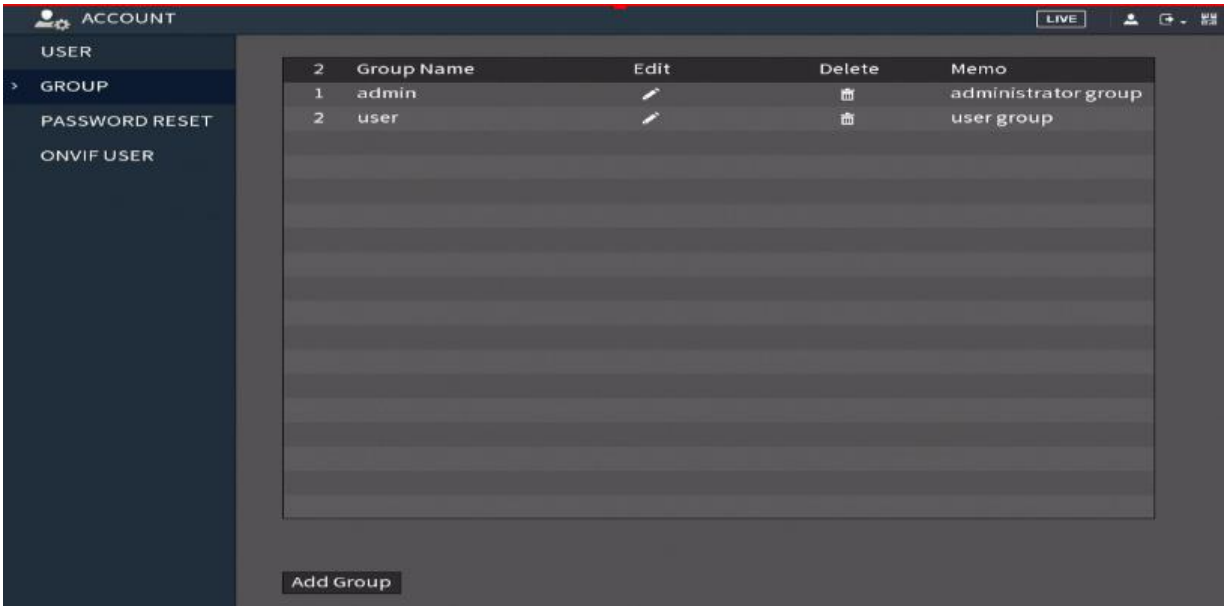
Below is a screenshot of the **Add User** screen.



Note: It is recommended to give the general user fewer rights than an administrative one. When a new user is created, a MAC address can be entered for the user. This can limit the user's ability to logon from another device. If left blank, the user can logon from any MAC address.

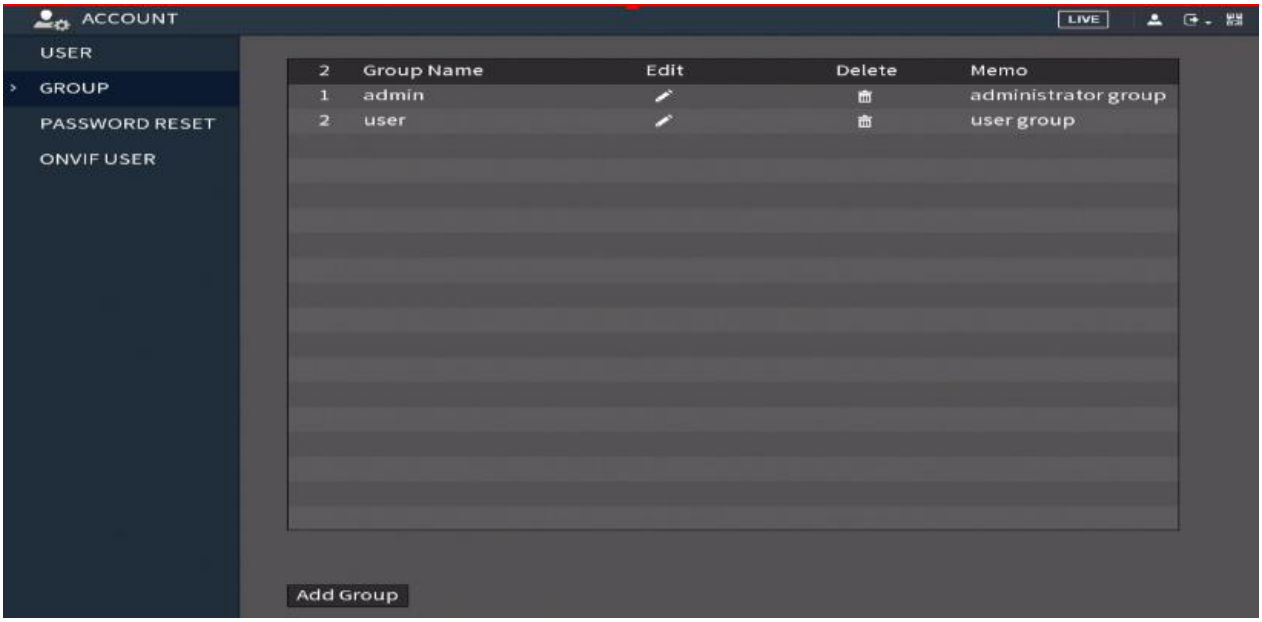
Group

This screen is used to configure Group account settings. Below is a screenshot of the Group Account settings screen:



Below is an explanation of the fields on the User Group settings screen:

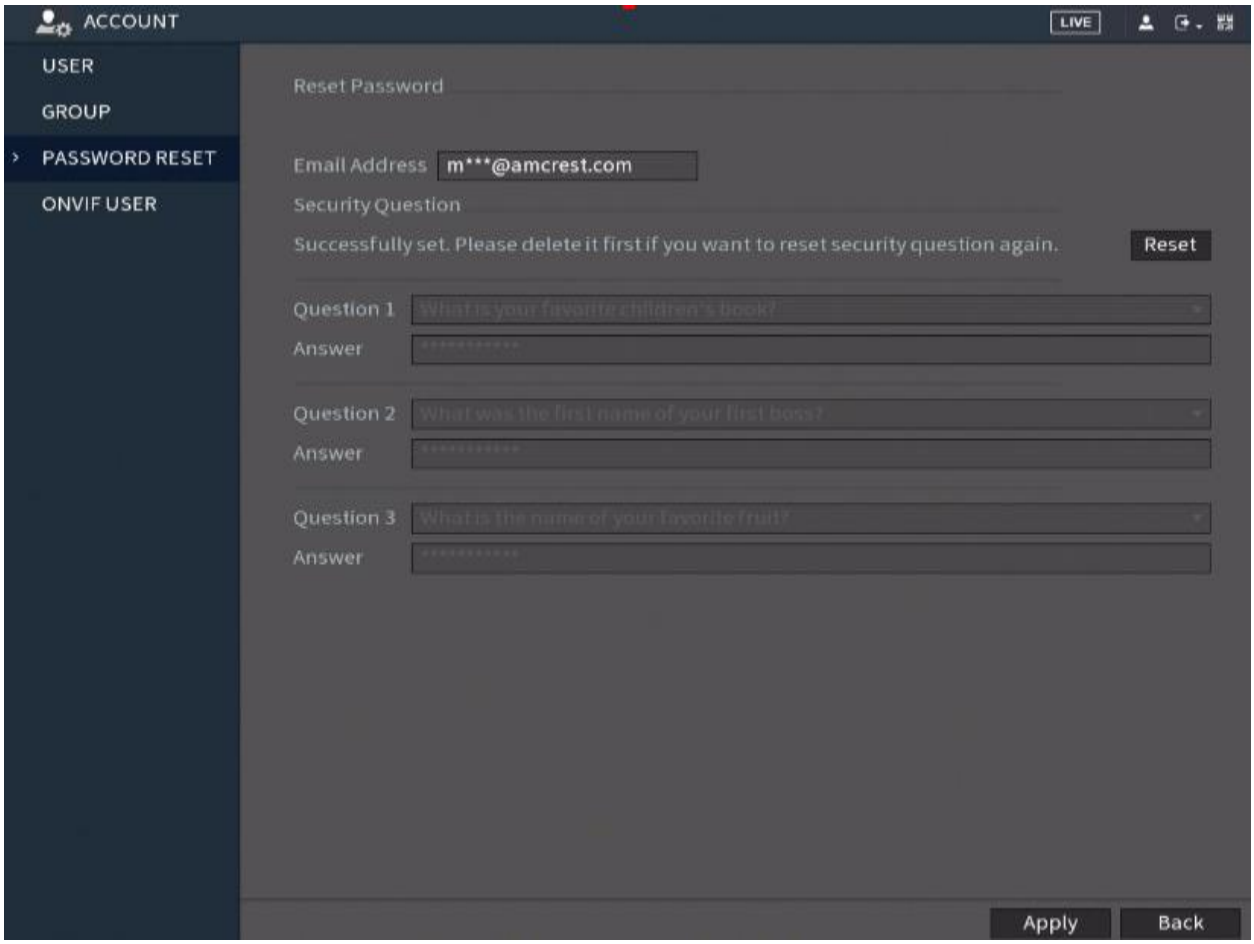
Number: This number indicates how many groups are in the system. Each line item has a number to signify its place in the list.
Group Name: This column indicates an account's username.
Edit: This column has a button that allows for the account's properties to be edited.
Delete: This column has a button that allows for the account's properties to be deleted.
Memo: This column indicates any notes about the user group.
Add Group: This button allows the user to add another user group. On the next page is a screenshot of the **Add Group** screen.



Note: It is recommended to give the general user fewer rights than an administrative one. There is a total of 98 rights that can be assigned to a user.

Password Reset

This screen is used to configure or modify security questions and email addresses used for password resets within the system. Below is a screenshot of this menu:



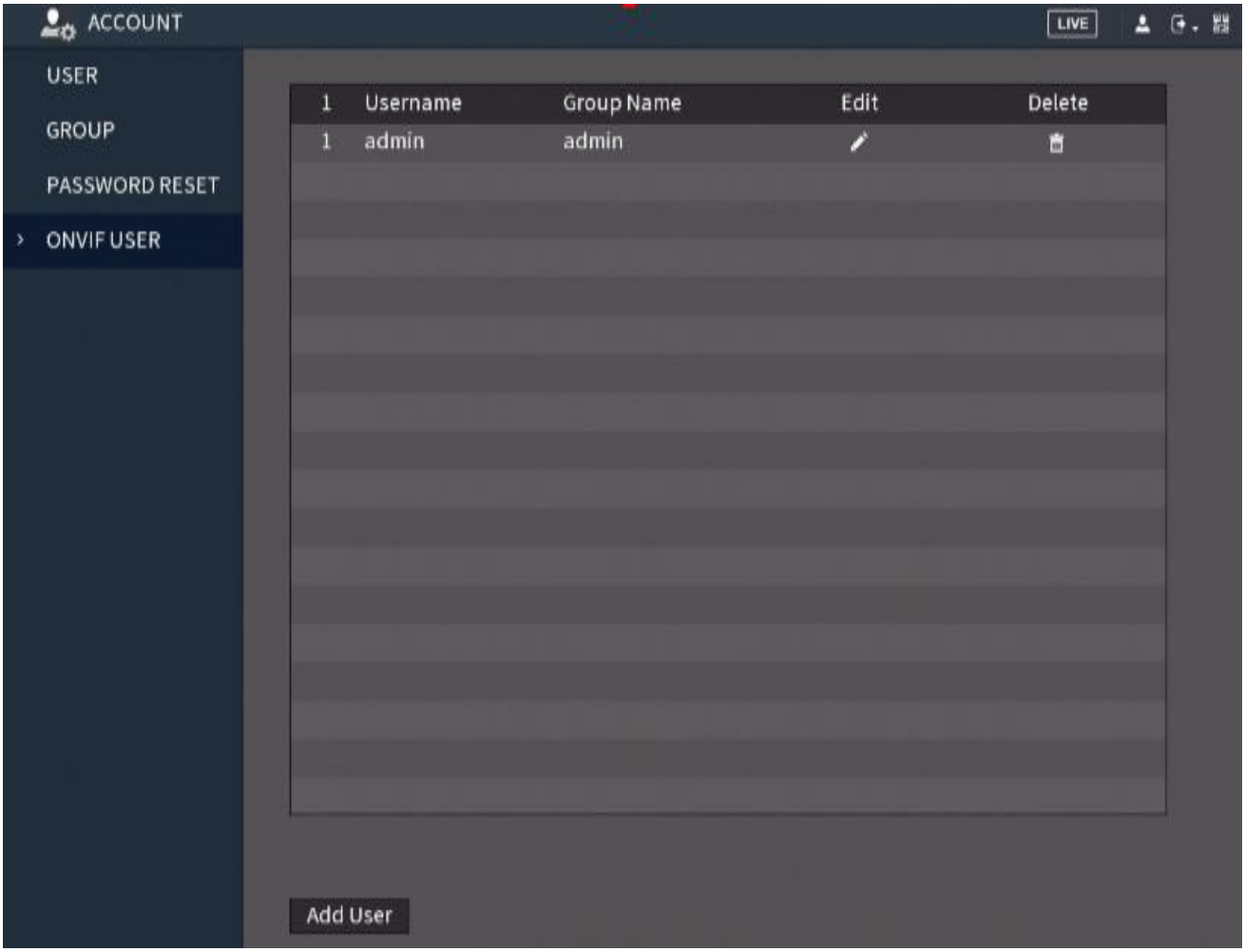
To update or modify a security questions from the dropdown menu choose a security question from the **Question 1** field. Then in the **Answer** field, place the answer to that question. Do the same for questions two. When you have finished creating your security questions, click on the **Set** button to set and apply the settings to your NVR. To delete a question, click on **Delete.**

To confirm settings, click the A**pply** button. To exit the interface, click on the **Back** button.

ONVIF User

This screen is used to configure or modify ONVIF users that are associated with your NVR.

Below is a screenshot of this menu:



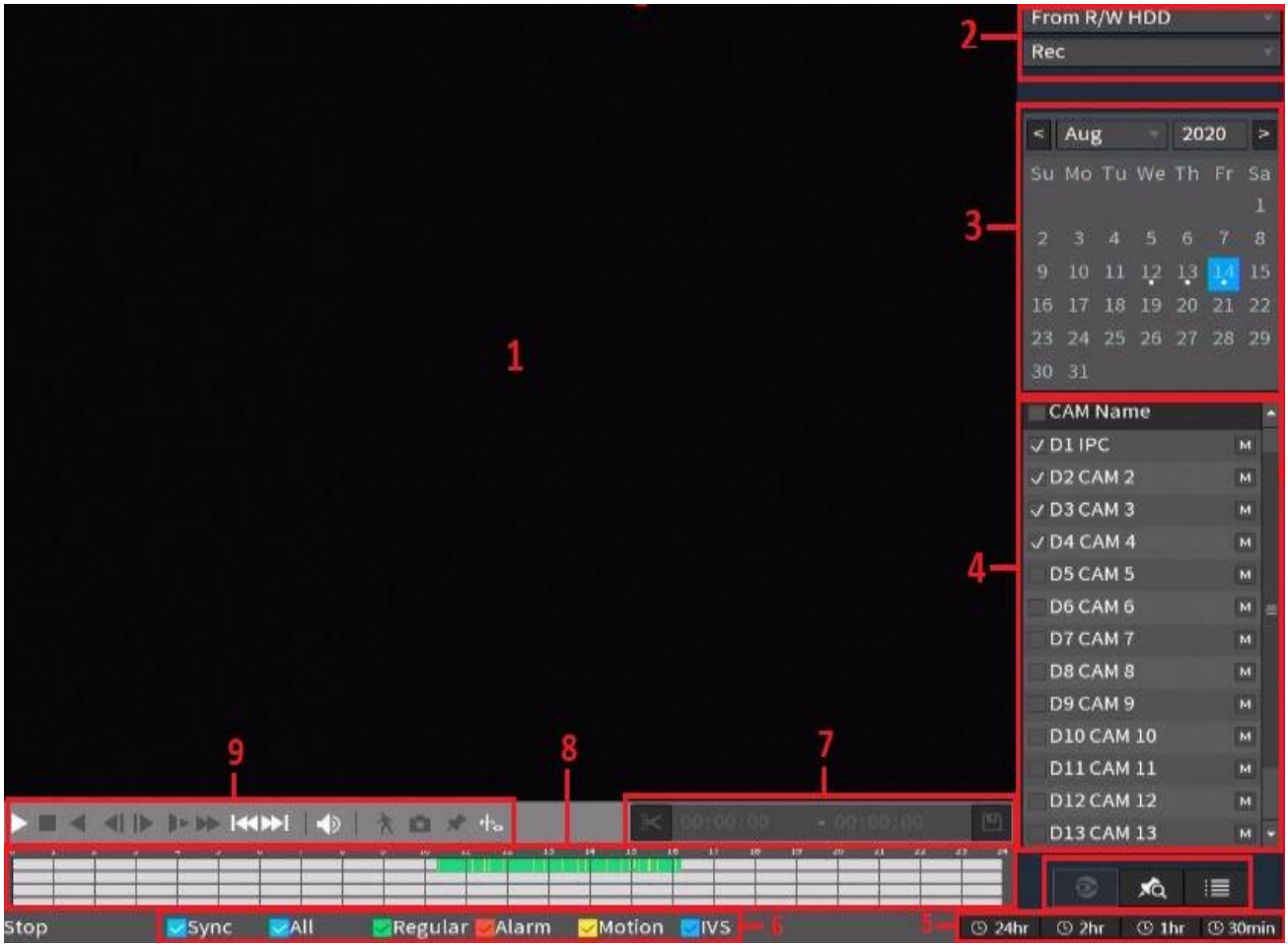
Below is a description of the fields listed in this menu:

Number: This number indicates how many users are in the system. Each line item has a number to signify its place in the list.
Username – The user account that is being modified.
Group Name – The group name of the account that is being modified.
Edit – Used to modify the settings associated with this menu.
Delete – Used to delete the user from this menu.
Add User – Used to add a new user into the system.

Note: This feature may not be available in all models and may be applicable to only certain model NVRs.

Playback

The **Playback** menu allows the user to view recorded data retained in the system. This includes recording types such as regular, motion detection, (MD), Alarm, and IVS. The system will need a hard drive installed to view recorded events.



Please refer to the following sheet for more information.

1. Playback Interface: The playback interface is where all searched video data will be displayed. The interface can support 1, 4, and 9 playback windows depending on the model.

2. Search Type: This area allows the user to display video or snapshot events. Events from a MicroSD card (if one is installed on the camera side) can also be selected.

From R/W HDD – Recordings or snapshots are pulled from the hard drive of the NVR.

From I/O Device – Recordings or snapshots are pulled from a MicroSD card on the camera side.

Rec – Video recordings will be pulled from either selection.

Pic – Snapshot recordings will be pulled from either selection.

Slice – Time sliced recordings can be pulled from the HDD.

Important

Redundancy HDD does not support the picture backup function, but it supports picture playback function. You can select to play from the redundancy HDD if there are pictures on the redundancy HDD.

3. Calendar – The calendar provides dates in which events have been retained in the system. If there are any events for a specific date the data will be represented with a dot. Users can use the left and right arrow keys to switch between months.

4. CAM Name – This section provides names of connected cameras on the device. If data is applied to any of these channels, a timeline of the events will be displayed in the time bar interface. Please note, the user can switch between mainstream and sub stream recording by clicking on the "M" (mainstream) and "S" sub stream icons.

5. Duration and Modes: This section allows the user to view 24-hour, 2 hr., 1hr, or 30min recording intervals. It also provides specific modes such as fisheye mode (), mark file lists, as well as a file list mode.

Fisheye: This option is used to view fisheye recordings if a fisheye event is retained in the NVR.

Mark File List: This option is used to access the mark file list interface which allows the user to view all marked information on a current channel. For more information on this feature, please refer to section, *"Mark File List".*

File List: This option is used to view a categorized list of all events found in the system. These are labeled by recording types such as, regular, motion events (MD), alarm, and IVS. Use the back icon () to exit the file list.

6. Recording Types: This banner allows the user to choose which recording types to view. Click the All option to view all recording types in the interface.

7. Recording Clipping/Saving – This option is used to clip and download/backup recordings onto a flash drive (if using locally) or on a computer (web UI). To use this feature, enter a start and end time for the event and click the scissors icon to clip it from the time bar. Once the file is clipped, click on the save button to download or backup the recording.

8. Time Bar – The time bar provides a linear representation of all events. The events are viewed based on the times they occurred and are color coded based on specific recording types; green (regular types), red (alarm types), yellow (motion detection types), and blue (IVS types).

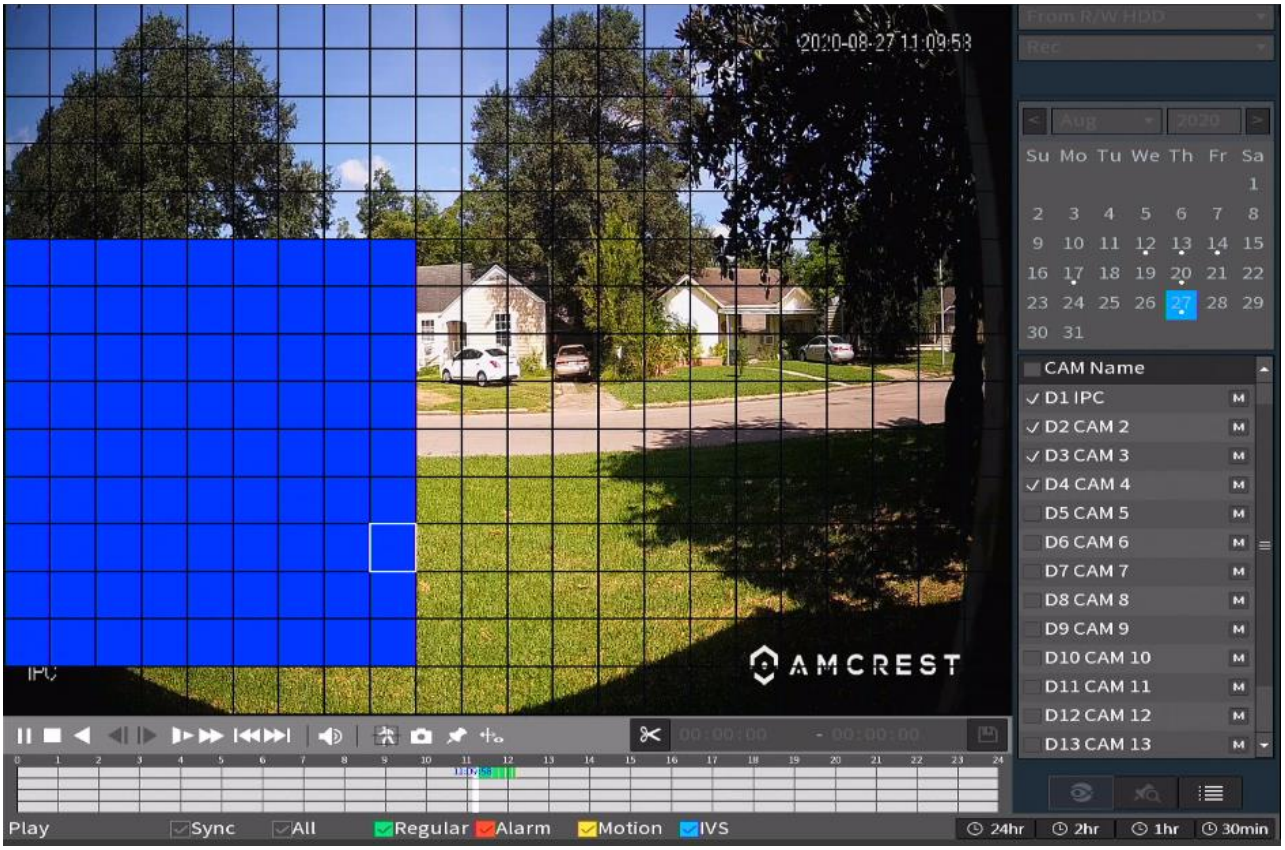
9. Playback options – Please refer to the table below:

Icon	Feature
▶ / II	**Play/Pause:** Play and pause the recording.
■	**Stop:** Stops the recording
◀	**Backward Play:** Rewinds the recording. Click the ▶ / II icon to resume play mode.
◀I	**Previous Frame:** Returns the recording to the previous frame in playback mode.
I▶	**Next Frame:** Moves the recording to the next frame while in playback mode.
▶	**Slow Play:** Plays the recording in slow motion modes.
▶▶	**Fast Forward:** Fast forwards the recording while in playback mode.
⏮	**Previous Day:** Moves the interface previous day recordings
⏭	**Next Day:** Moves the interface to the next day recordings.
🔊	**Volume:** Adjust the volume of the recording up or down using the volume slider.
	**Smart Search:** Provides motion grids on a recording while in playback mode.
	**Snapshot:** Takes a snapshot of the recording while in playback mode.
	**Mark Button:** Adds a mark into the time bar while in playback mode.
	**IVS Overlay Button:** Enable/Disable IVS overlays while in playback mode.

	Clip: Used to clip an event by entering a start and end time for the clip.
	Save: Used to save and download a created clip.
Time Bar	Provides a timeline of all recording types for a selected channel. Different recording will be displayed in different colors on the timeline. Use the recording type checkboxes to filter which recording types will be displayed in the playback timeline.
Digital Zoom	While in playback mode, select an area of the recording to digitally zoom in and out.

Smart Search

Smart search is used to create motion zones while in playback mode which helps to better define motion events. This option pertains only to motion detection events. While in full screen playback mode, click on the **Smart Search** icon to activate a motion detection zone grid and use your mouse to create a zone on the interface.



Once a motion detection zone grid has been created, click on the  icon to set a smart search. The interface will only display clips of motion events detected by the system.

To exit, click on the **Smart Search** option and select **Yes** to exit.

Accurate Playback by Time

Select records from one day, click the list, and you can go to the file list interface. You can input a time at the top right corner to search records by time.

For example, input time 11:00.00 and then click the Search button 

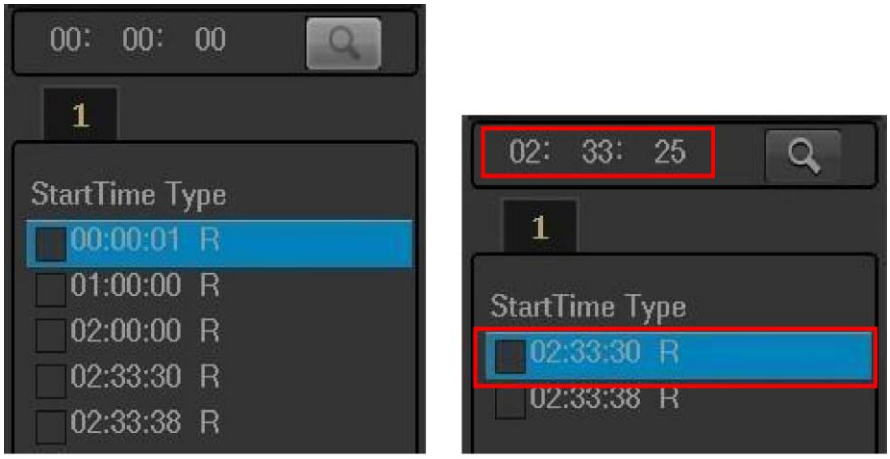
, and you can view all the record files after 11:00.00 (The records include the current time.). See image on the right side of the Figure 4-68 Double click a file name to playback.

Note

After you have searched files, the system implements accurate playback once you click Play for the first time.

The system does not support accurate playback for pictures.

The system supports synchronized playback and non-synchronous playback. The synchronized playback supports all channels and non-synchronous playback only supports accurate playback of the currently selected channel.



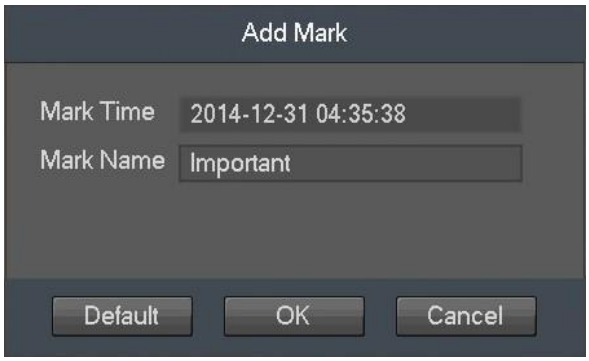
Mark Playback

Please make sure your purchased device supports this function. You can use this function only if you can see the mark playback icon on the Search interface.

When you are playing back a record, you can mark the record when there is important information. After playback, you can use the time, or the mark key words to search the corresponding record and then play. It is very easy for you to get to the important video information.

Add Mark

When system is in playback, click the Mark button  , and you can go to the following interface.



Playback Mark

During 1-window playback mode, click the mark file list button  and you can go to mark file list interface. Double click one-mark file, and you can begin playback from the mark time.

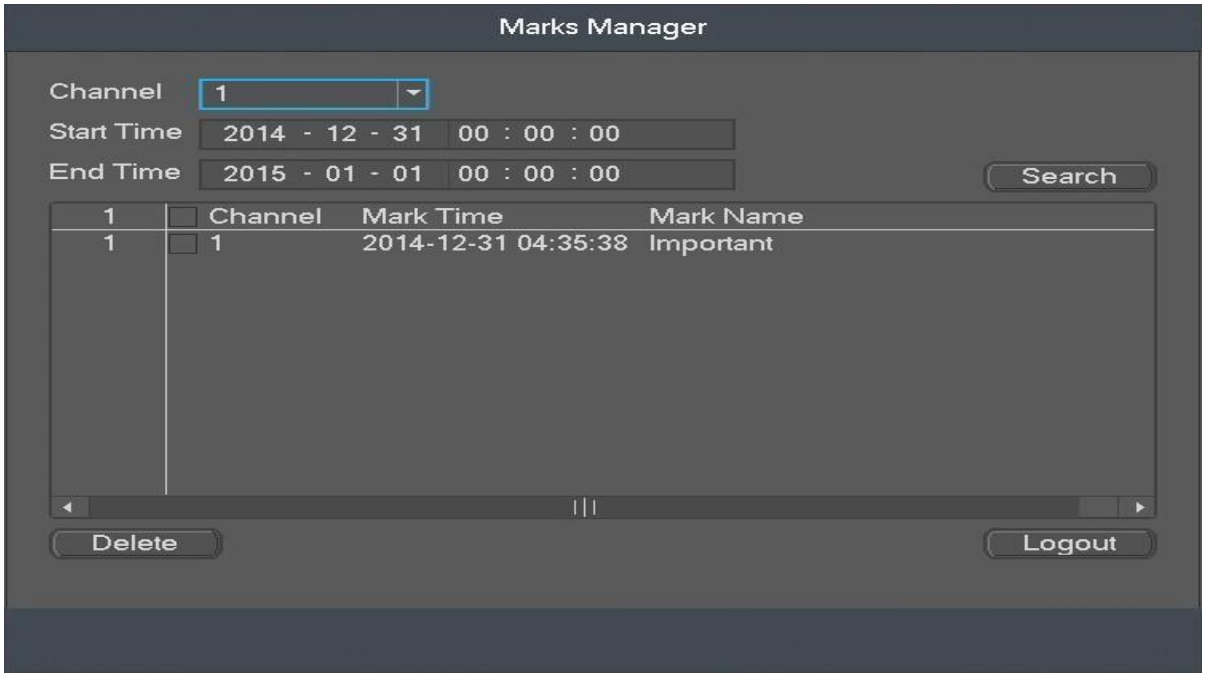
Play before mark time

Here you can set to begin playback from the previous N seconds of the mark time.

Note: Usually, the system can playback the previous N seconds of the record if there is a recording. Otherwise, the system playbacks from the previous X seconds when there is a recording.

Mark Manager

Click the mark manager button  on the Search interface; you can go to Mark Manager interface. The system can manage all the record mark information of the current channel by default. You can view all mark information of current channel by time.



Modify

Double click one-mark information item and you can see system pops up a dialogue box for you to change mark information. You can only change the mark name here.

Delete

Here you can check the mark information item you want to delete and then the Delete button to remove one-mark item.

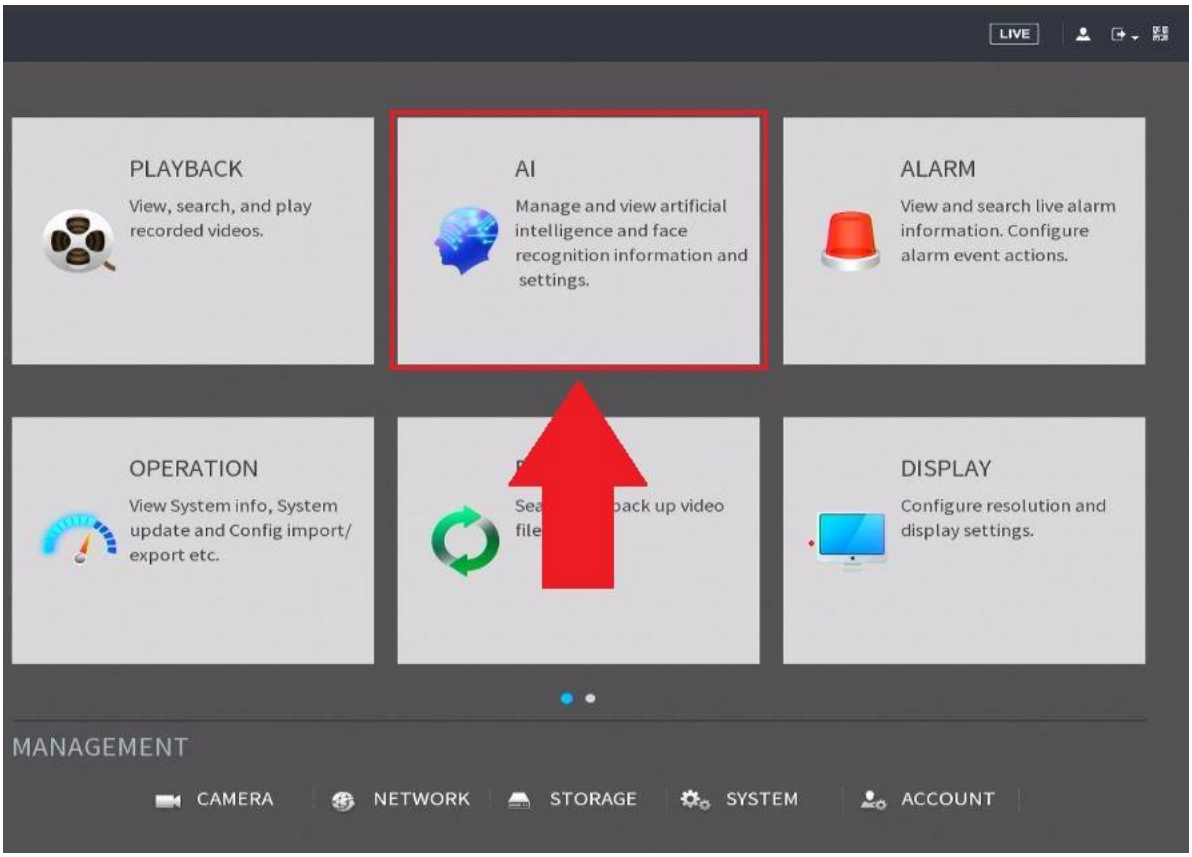
Note

After you go to the mark management interface the system needs to pause the current playback. The system resumes playback after you exit the mark management interface.

If the mark file you want to playback has been removed, the system begins playing back from the first file in the list.

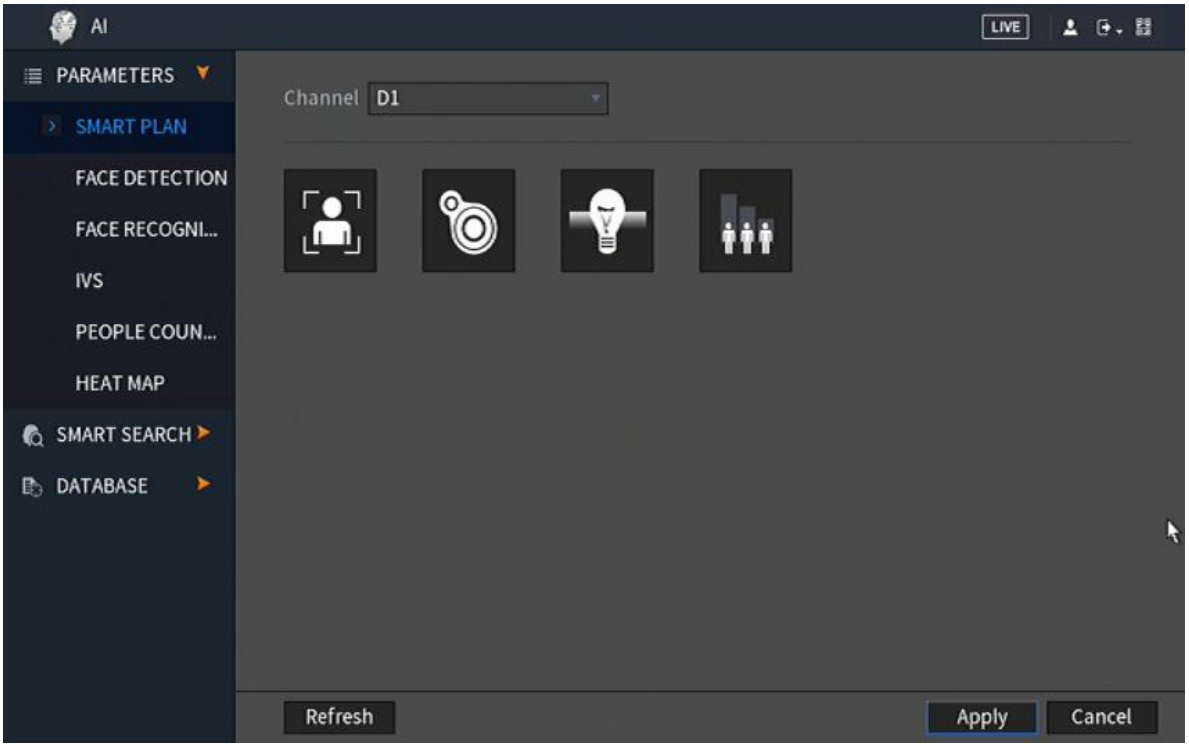
AI

The AI menu allows the user to manage and view artificial intelligence and face recognition information and settings. AI features available on the device can be controlled either by the device or via a connected AI camera depending on its features. To access the AI menu, click on "AI" located on the main menu.



Smart Plan

A smart plan acts as the "master switch" for all AI features. A smart plan may not be available if using AI features with a non-AI camera. AI features such as IVS and Heat Map can be used simultaneously, however, Face Detection and People Counting will have to be used separately. A smart plan must be enabled for an AI feature to be activated.



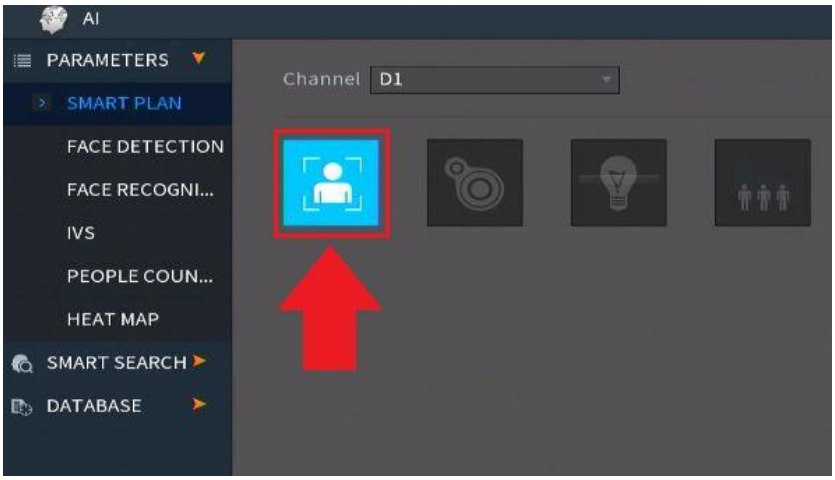
Below is a description of the features listed in the **Smart Plan** menu:

Channel: This option is used to select which channel the Smart Plan will apply.
Face Detection: Face Detection is used in conjunction with an AI NVR, however, can be used independently as well to detect faces.
Heat Map: Heat Map provides a general reporting of crowd density statistics based on color levels detected by the camera.
IVS: IVS stands for intelligent video system analytics and is the basis for all the AI rules associated with your device.
People Counting: People Counting allows the camera to automatically monitor how many people enter and exit a certain area. This is useful for constant and consistent monitoring of a flow rate in a certain area.

To refresh the menu to its original format, click the **Refresh** button. To save a smart plan to your camera, click the **Apply** button.

Face Detection

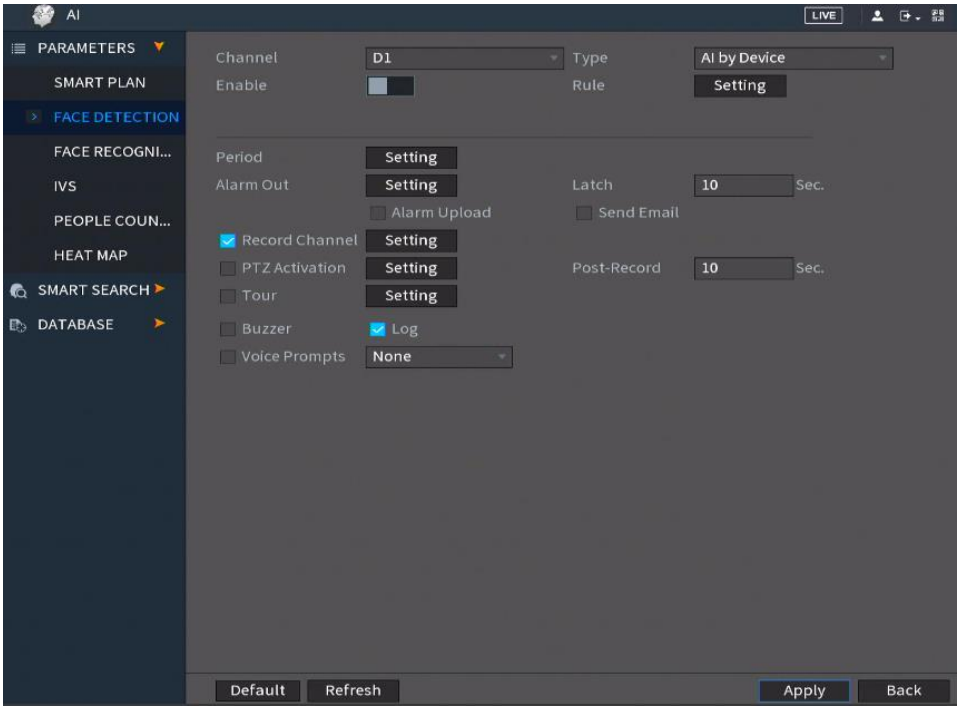
Face Detection is typically used in conjunction with an AI NVR, however, can be used independently to detect faces. Please note, face detection cannot be used simultaneously with IVS, Heat Map, or People Counting rules. Make sure the Face Detection option is enabled in the Smart Plan menu before configuring any face detection settings.



Using Face Detection

Once the smart plan for face detection has been enabled, navigate to the **Face Detection** menu located in the parameters section.

Below is a screenshot of the **Face Detection** menu.



Below is a description of the features provided in the **Face Detection** menu.

Enable: This option is used to enable face detection. Use the channel dropdown to select a channel. Please note, the channel selected must reflect the same channel enabled in the smart plan menu.
Type: The type menu allows the user to choose if the AI feature will be controlled by the camera or controlled by the NVR. Please note, AI by Camera will allow the feature to be controlled by the camera, AI by Device will allow the feature to be controlled by the NVR's built in face detection capabilities.
Face ROI: This option is only available if face detection is available on the AI camera. Face ROI (region of interest) allows the camera to focus on providing the highest quality image for a selected region only. The remaining part of the image, outside the region of interest, is recorded at lower quality or not recorded at all. If the camera records are scene with regions of higher and lower importance, the compression can be focused on the regions of interest only.
Rule: Allows the user to adjust face detection area on the live view monitoring screen.
Period: Allows the user to set a schedule in which face detection will be triggered.
Post Record: Allows the user to delay recording for a specified time after the event ends.
Alarm Out: Allows the user to set general settings for an external alarm.
General Alarm: Used to enable alarm out features.
Alarm Out: Used to enable one or both alarm out channels.
Latch: The Delay (in seconds) before the system begins detecting for the same alarm/event.
Record Control: The channel currently enabled.
Tour: Used to setup a tour for multiple channels. Please note, this is only applicable for PTZ controlled devices.
PTZ Activation: Allows the user to activate pan, tilt, and zoom options. Please note, this is only applicable to PTZ controlled devices.
Voice Prompts: Plays an audio file set by the user once an alert is triggered.
More Settings: Access additional settings such as, buzzer, alarm upload, log, send email.

Buzzer: Enable a buzzer to alert each time an alert is triggered.

Alarm Upload: Allows an alarm signal to be uploaded to the network and retain in the alarm info menu.

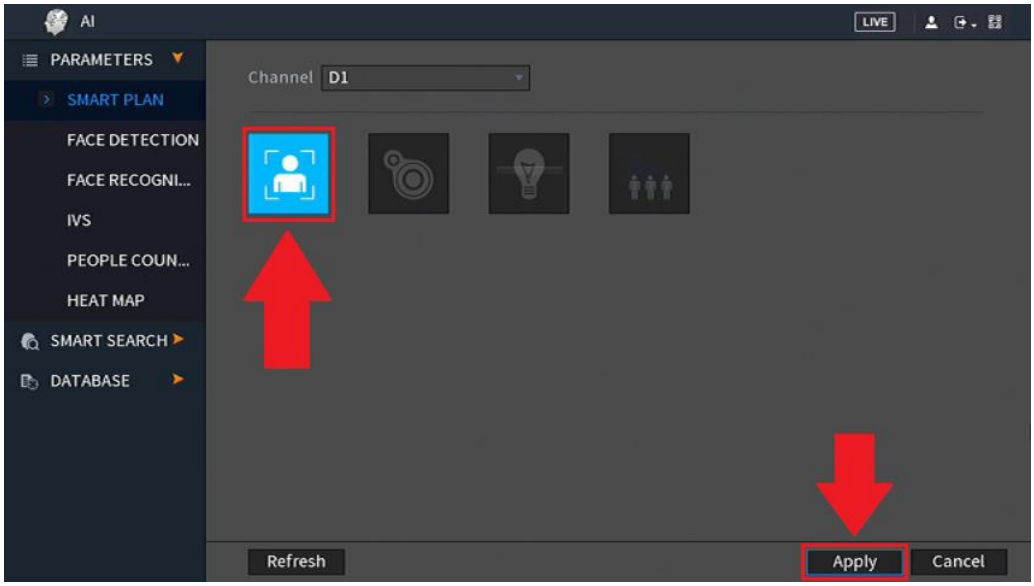
Log: Allows an alarm signal to be uploaded to the network and retain in the log menu.

Send Email: This checkbox allows the user to enable the camera to send an email when an event is triggered. For more information on how to setup email alerts, please visit amcrest.com/support

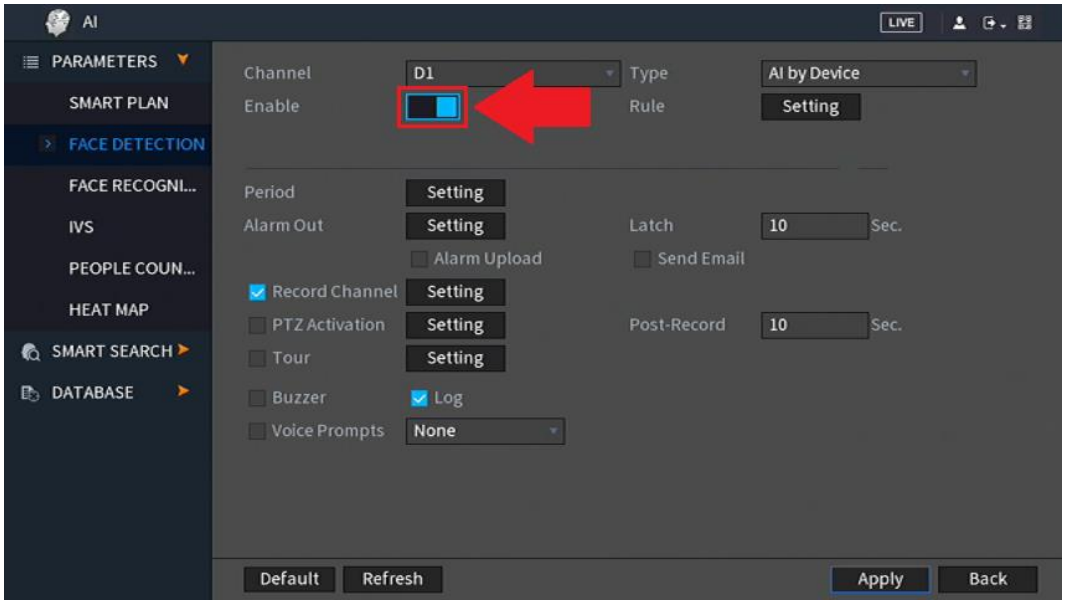
To reset to default settings, click the **Default** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Apply** button.

How to Activate Face Detection

1: Access the **Smart Plan** menu and select the channel you would like to configure from the **Channel** drop down menu. Click on the **Face Detection** icon and then click **Apply**. If using a non-AI camera, a smart plan may not be available for the specific channel.

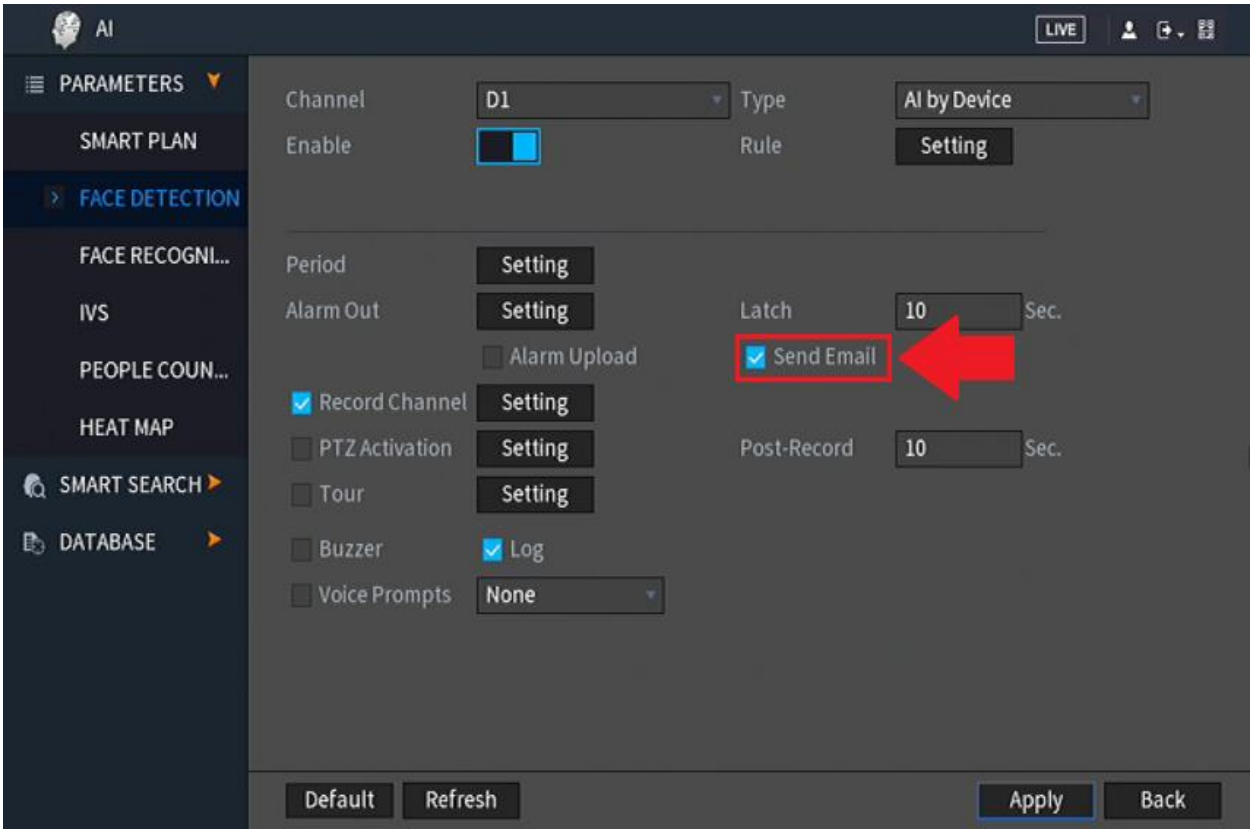


2. Click on the **Face Detection** menu located in the **Parameters** section and select which channel to configure from the Channel drop down menu. Next, choose which face detection type you will be using from the **Type** drop down menu. In this example we will be using **AI by Device**, however, you can choose AI by Camera to use the camera's built-in face detection settings, if applicable. Enable the face detection toggle switch.



3. It is best to leave the **Rule** settings as default, however, they can be adjusted by clicking on the **Setting** button. Use your mouse to adjust the minimum (Min) and maximum (Max) size of the face detection area.

4. When triggered, the face detection event will be retained in the face detection smart search menu or snapshots of the event can be emailed to you. To have a snapshot of the event emailed to you, setup email alerts as described in section: *Setting Up Email Alerts* and click on the **"Send Email"** checkbox. Click **Apply** to save the setting.

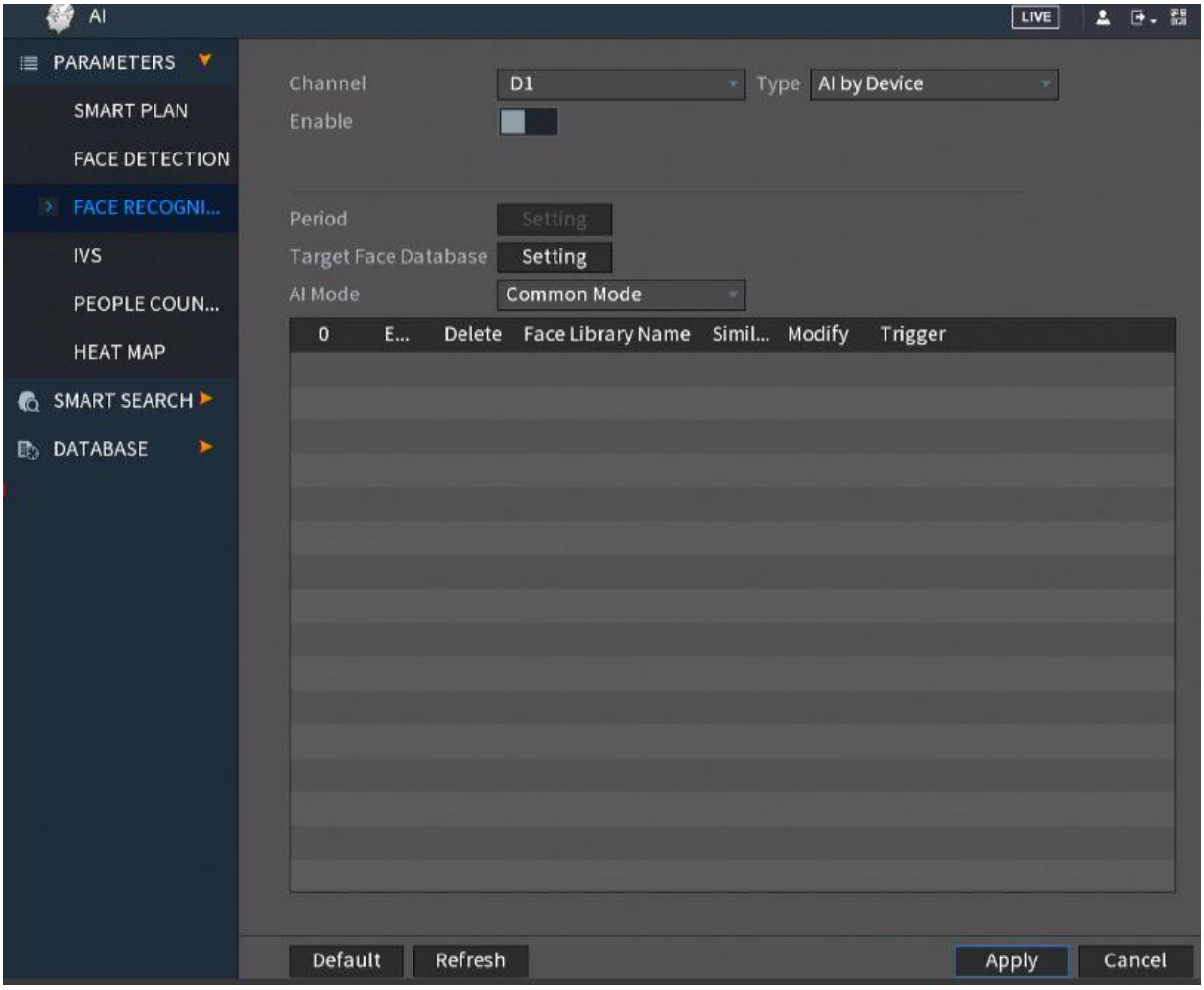


Face Recognition

Face recognition is used in conjunction with face detection to locate and determine facial similarities detected by the system. Images are registered in a face library, by the user, and accessed via a face recognition smart search tool that is built into the NVR.

Note: A USB flash drive with applicable facial images (in jpeg format) should be inserted into a USB port on the NVR if you are importing images locally. Make sure the Face Detection option is enabled in the Smart Plan menu before configuring any face detection settings.

Below is a screenshot of the **Face Recognition** menu.



Below is a description of the options in this menu:

Channel: Use the channel dropdown to select a channel. Please note, the channel selected must reflect the same channel enabled in the smart plan menu.
Type: The type menu allows the user to choose if the AI feature will be controlled by the camera or controlled by the NVR. Please note, AI by Camera will allow the feature to be controlled by the camera, AI by Device will allow the feature to be controlled by the NVR's built in face detection capabilities.
Enable: This option is used to enable face recognition.
Period: Allows the user to set a schedule in which face detection will be triggered.
Target Face Database: This option is used to import a created face library.
AI Mode: Used to switch between common and stranger modes.

To reset to default settings, click the **Default** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Apply** button.

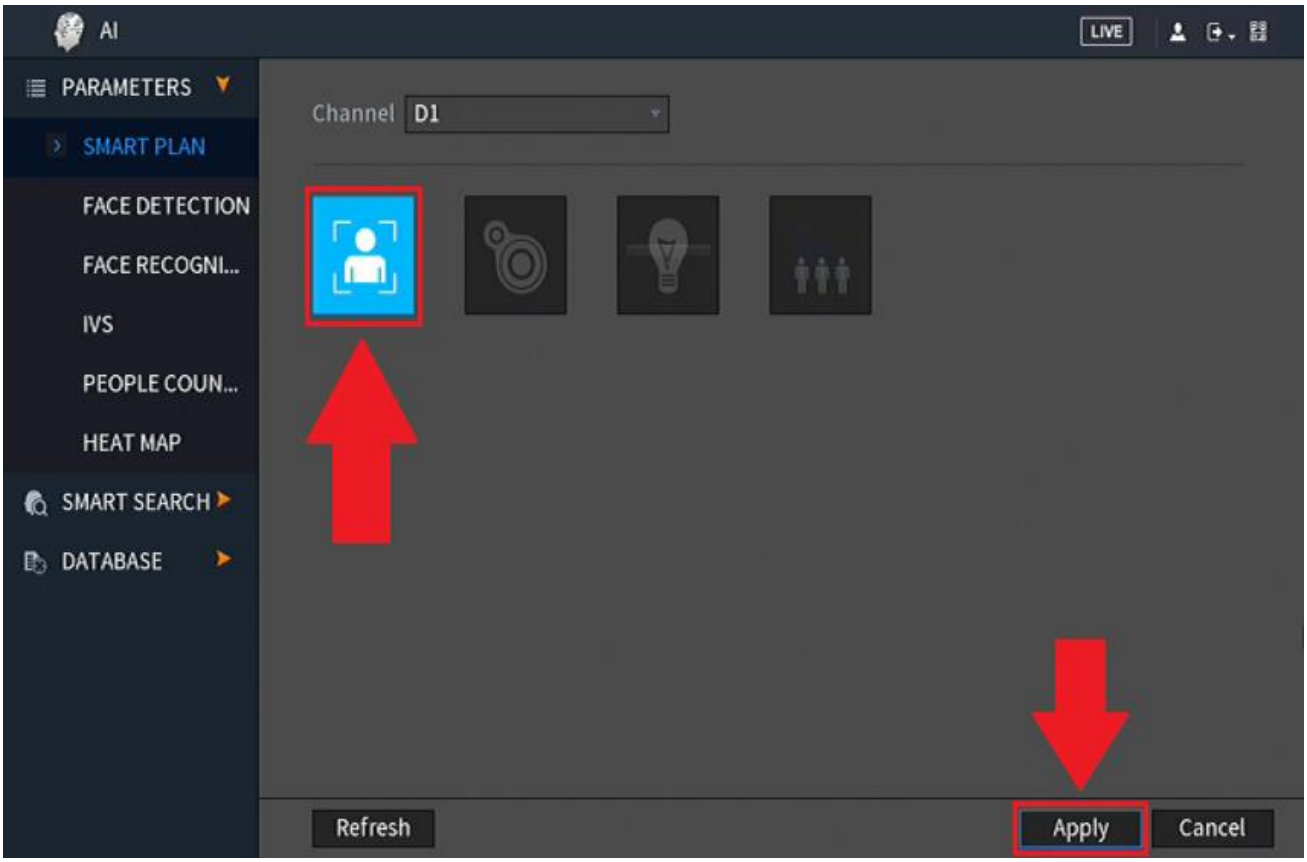
Using Face Recognition

There are 2 methods of face recognition, common mode, and stranger mode. Common mode allows the device to use the images registered in the face library as a reference to recognize faces. Stranger mode will alert the system once an unrecognized face is detected.

Note: Common mode can only be setup locally on the NVR or by using Internet Explorer on a PC. If using Face Recognition on other browsers, such as Google Chrome or Firefox, please use Stranger Mode.

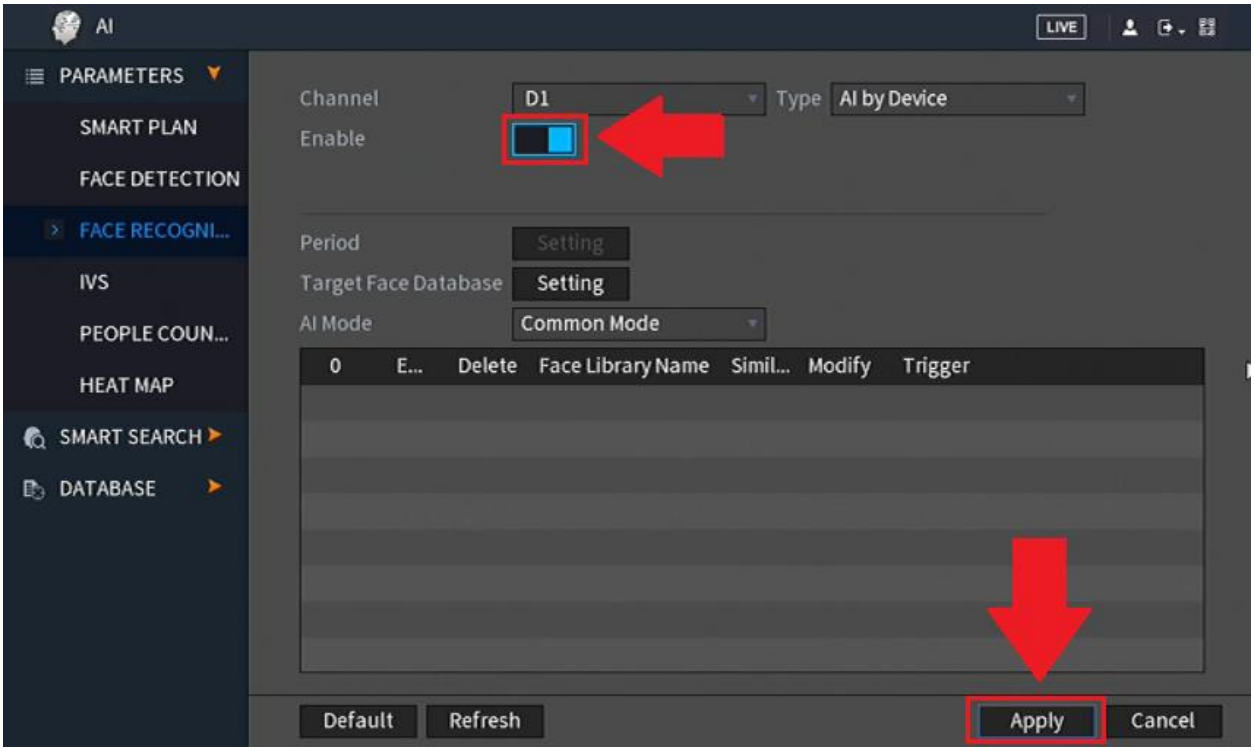
How to Use Common mode

1. In the **Parameters** section, access the **Smart Plan** menu and click on the **Face Detection** option. Please note, the Face Detection option cannot be used simultaneously with other AI smart plans. Click **Apply**.



Note: If using a non-AI camera, a smart plan may not be available for the specific channel.

2. Click on the **Face Recognition** option located in the **Parameters** section. Click **Enable** to enable face recognition. Click **Apply** to save.



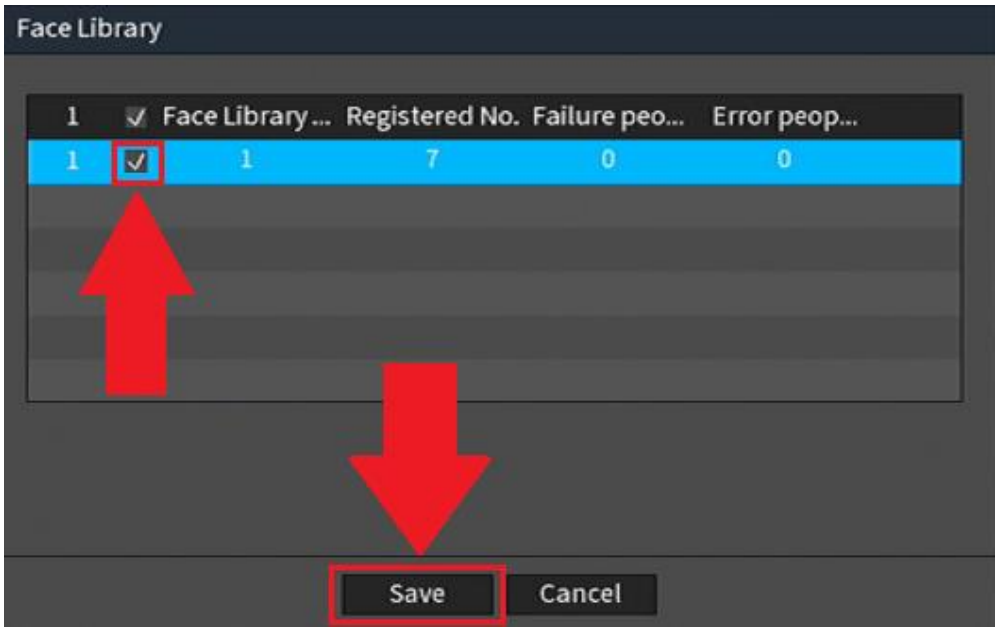
3. Click on the **Database** option located in the AI menu and click on **Add** to begin registering images to a face library. **A face library must be registered for this feature to function properly.** Enter a name for your face library and click **Save.**

The library will now be saved to the database. Click on the **Details** section to begin adding images into the to the face library.

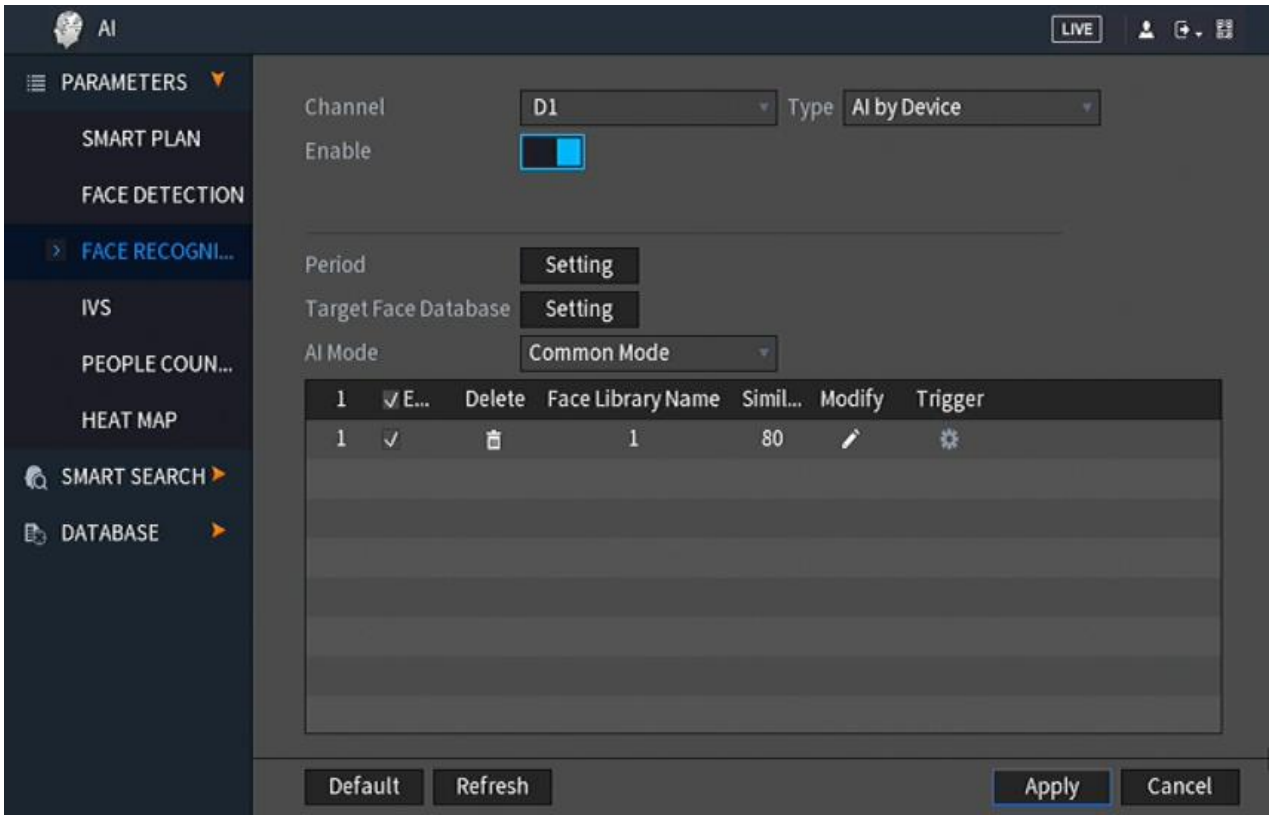


If you have a single image to add click **Register ID**, if you have multiple images to add click on **Batch register**. Follow the on-screen prompts to add the images into the library. Once the images have been successfully modeled into the database left click on the interface to exit.

4. Navigate back to the **Face Recognition** menu in the **Parameters** section and click on the **Setting** option in the **Target Face Database** field. Select the face library you just created and click **Save** to insert the library of registered images into the interface.



5. Select an AI mode from the **AI Mode** drop down menu. **Common Mode** allows the device to use the images registered in the face library as a reference. Enabling the **Stranger Alarm** will alert the system once an unrecognized face is detected. Click **Apply** to save the settings to your system.



Note: To adjust **Common Mode** settings, click on the **Trigger** (gear) icon and select which additional options you would like to apply to this feature. Be sure to click **Apply** to save the settings to your device.

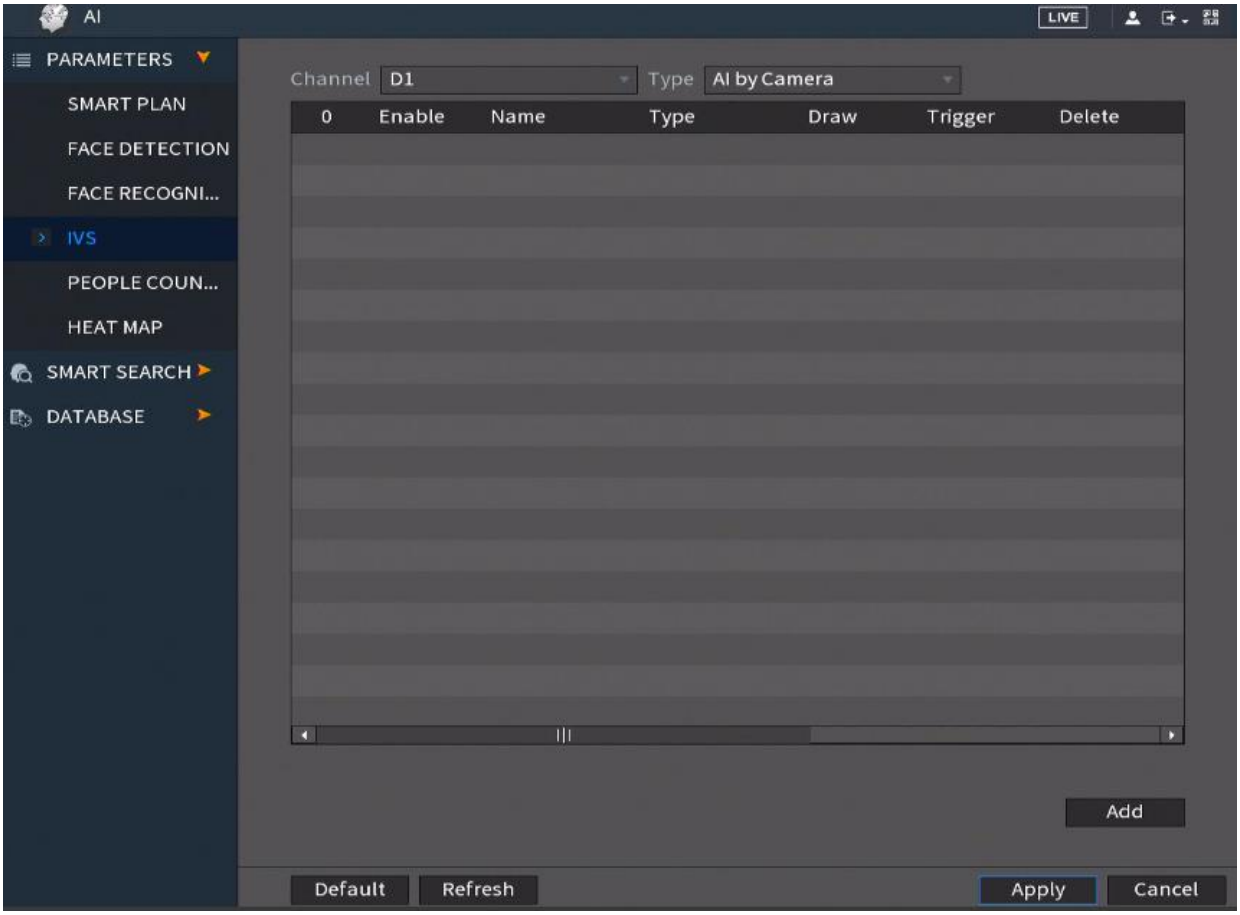
IVS

IVS stands for intelligent video system analytics and is the basis for all the AI rules associated with your device. The IVS menu allows the user to customize and set IVS rules which allows the device to produce general behavior analytics and reporting directly from the web user interface.

Please note, both IVS and Heat Map can be enabled at the same time. Ensure that the IVS option is enabled in the smart plan menu before enabling IVS features. Please make sure to completely disable any face detection, face recognition, people counting or other AI features when using IVS rules.

IVS rules on the NVR are controlled either by camera or by the NVR. The NVR currently has 2 built-in IVS features available (Tripwire and Intrusion) whereas some Amcrest AI cameras may have additional IVS features.

Below is a screenshot of the IVS menu:



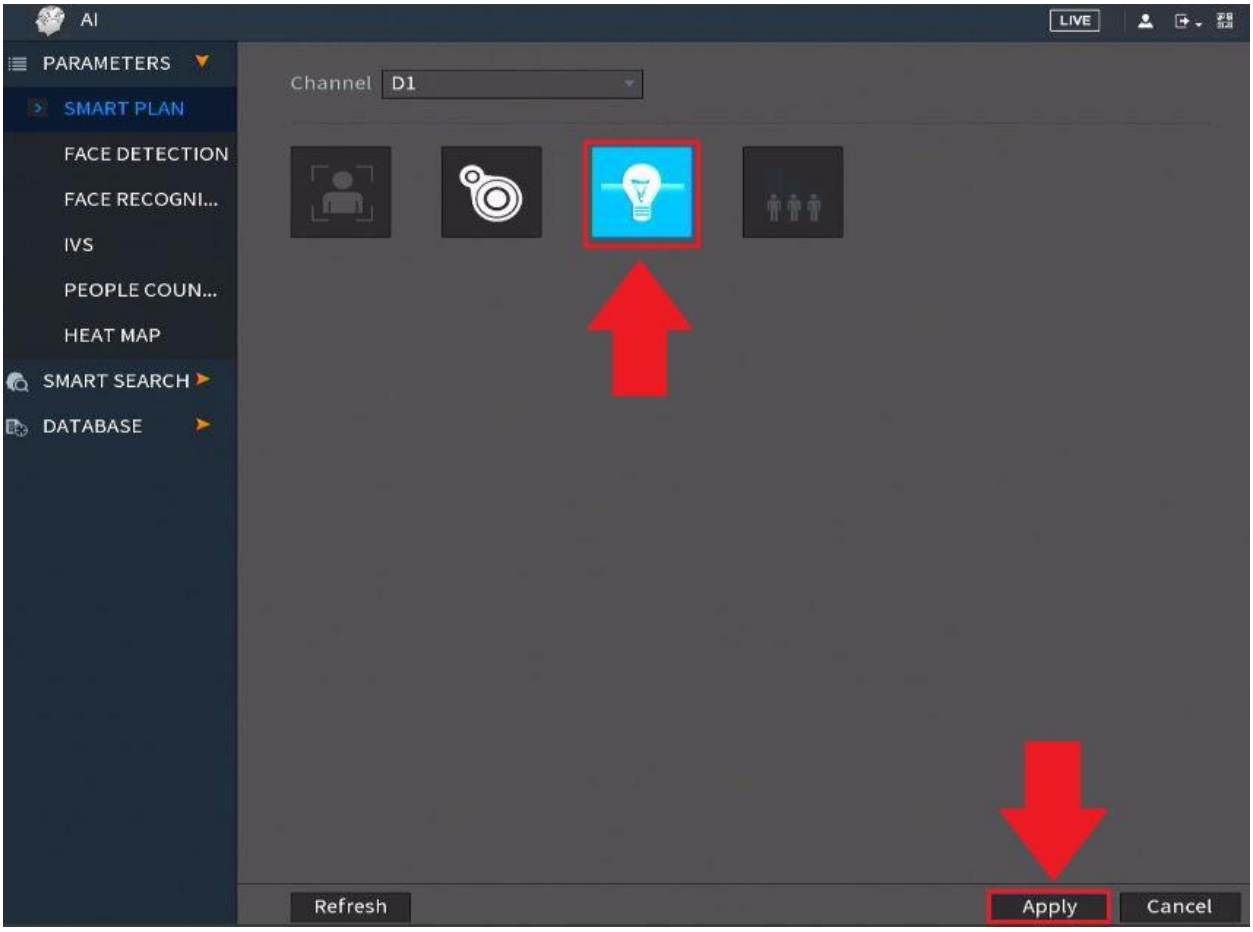
Below is a description of the features in this menu:

Channel: Use this dropdown menu to select which channel will apply to the AI feature.
Type: Used to select whether the AI feature will apply
No: Provides the order in which the IVS rules will be displayed in the menu.
Name: Allows the user to customize a name for their rule. Double click the name in the Rule column to modify.
Type: Allows the user to choose specific IVS features available in the device.
Add: The "Add" button is used to add additional IVS rules to the live view screen.
Trashcan Icon: The trashcan icon is used to delete a set IVS rule from the device.

Setting an IVS Rule

All IVS rules can only be set and/or modified using the web user interface. They cannot be set using the Amcrest View Pro app or any other platforms associated with your device. For more information on setting IVS rules, please refer to the information below.

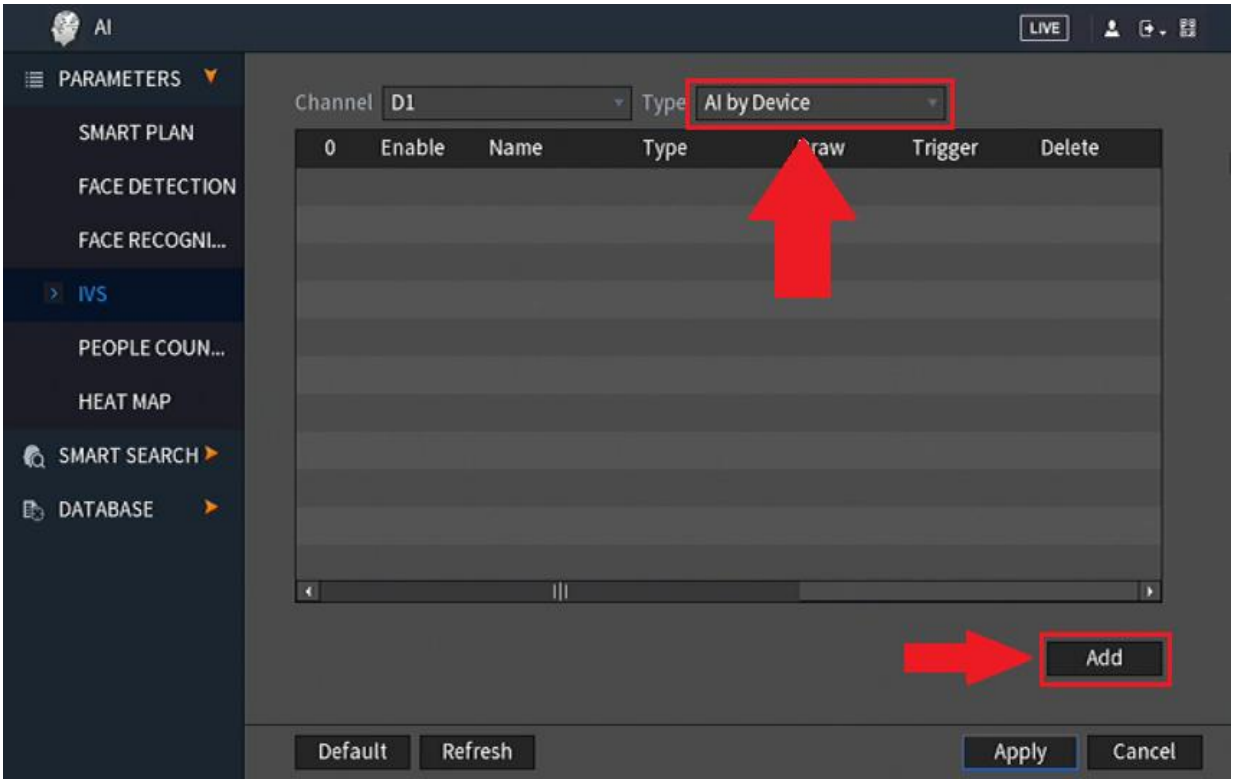
1. Ensure a Smart Plan has been activated in the **Smart Plan** menu for IVS.



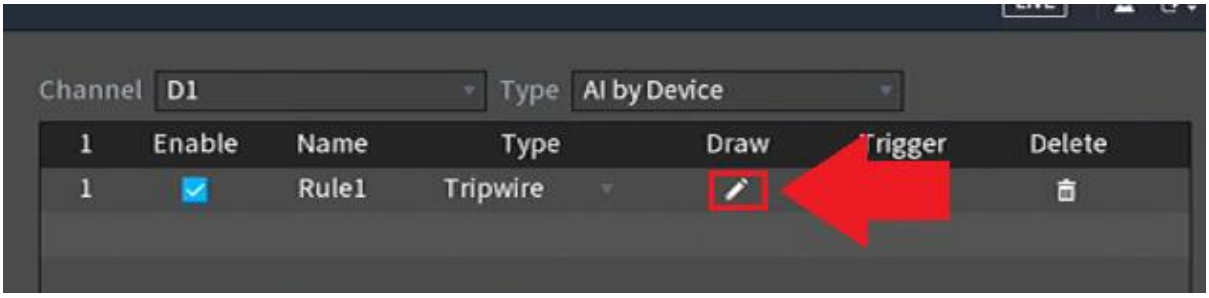
2. Access the IVS menu and select which channel the rule will apply.

3. Click on the **Type** dropdown menu and select if the IVS rules will be applied from the camera (AI by Camera) or by the NVR (AI by Device). Please note, AI by Camera can only be used if the camera supports IVS. If the camera does not support IVS, please use AI by Device to use the NVR's built in IVS features.

4. Click on the **Add** button to begin customizing an IVS rule.



5. Click on the **Type** drop down menu to select an available IVS rule. Once a rule is selected, click on the **Draw** (pencil) icon, to begin configuring the rule.



There are 2 IVS rules available by device:

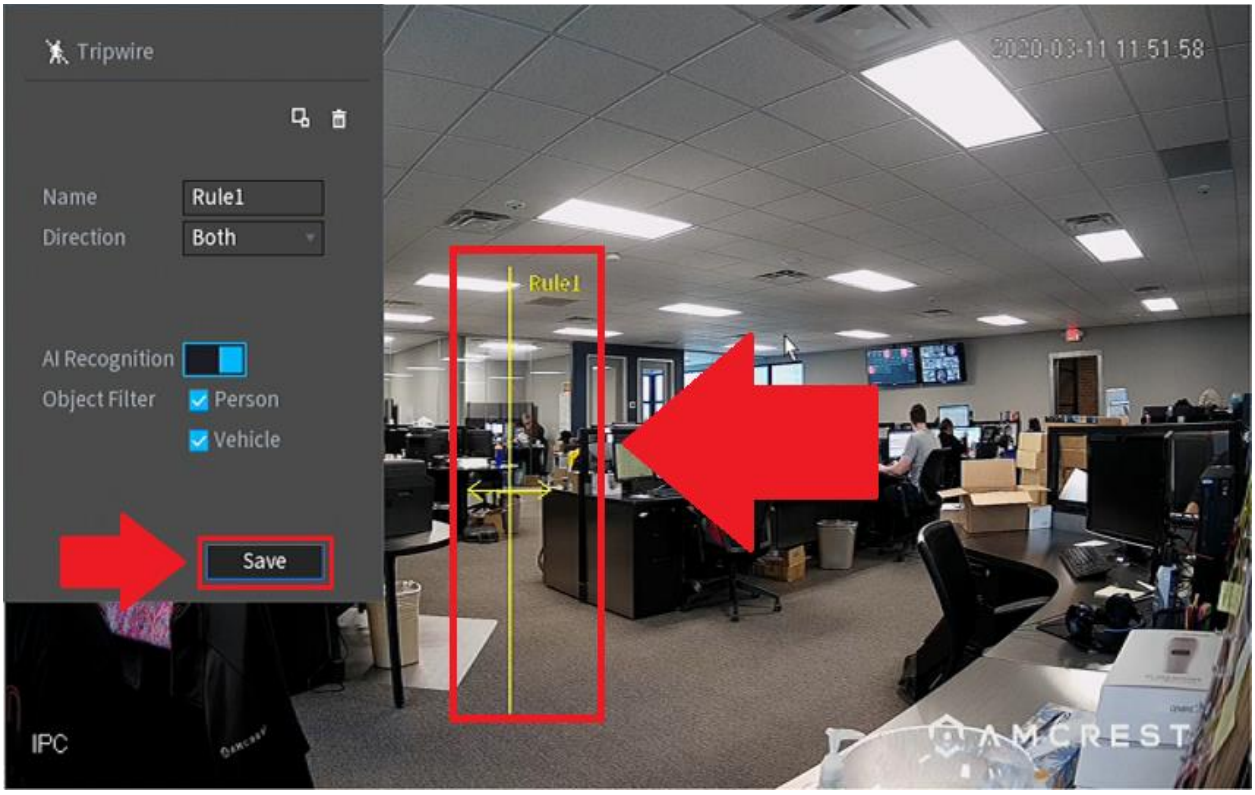
Tripwire: Allows the device to trigger an event if an object, such as a human or vehicle, crosses a set tripwire line.

Intrusion: Allows the device to trigger an event if an object, such as a human or vehicle, appears or crosses a set intrusion area.

Setting an IVS Rule

Use your mouse to draw an area or line on the interface. Click on the interface and use your mouse to draw an area or line, click your mouse on the interface when done, then right click to set the area or line to the system.

If you would like to add a name for the rule, enter a name in the **Name** box. The **Direction** drop down menu allows you to choose a direction in which the rule will be triggered. Object filters can be enabled for accuracy. Click **Save**.



The Target Filter option is used to set a minimum or maximum detection area. It is recommended to leave this as default; however, it can be modified. Use the Clear (trash can) icon to remove a drawn area or line. The AI Recognition toggle switch enables object filtering options that allow you the ability to determine if a human or vehicle has entered the area. If Person is chosen, the rule will only be triggered if a human figure is detected. If Vehicle is chosen, the rule will only be triggered if a vehicle is detected by the system. Both object filtering options can be used simultaneously if needed.

If you would like to add multiple rules to the device, click on **Add** and repeat the IVS setup process for the rule. Click **Apply** once all IVS rules are set.

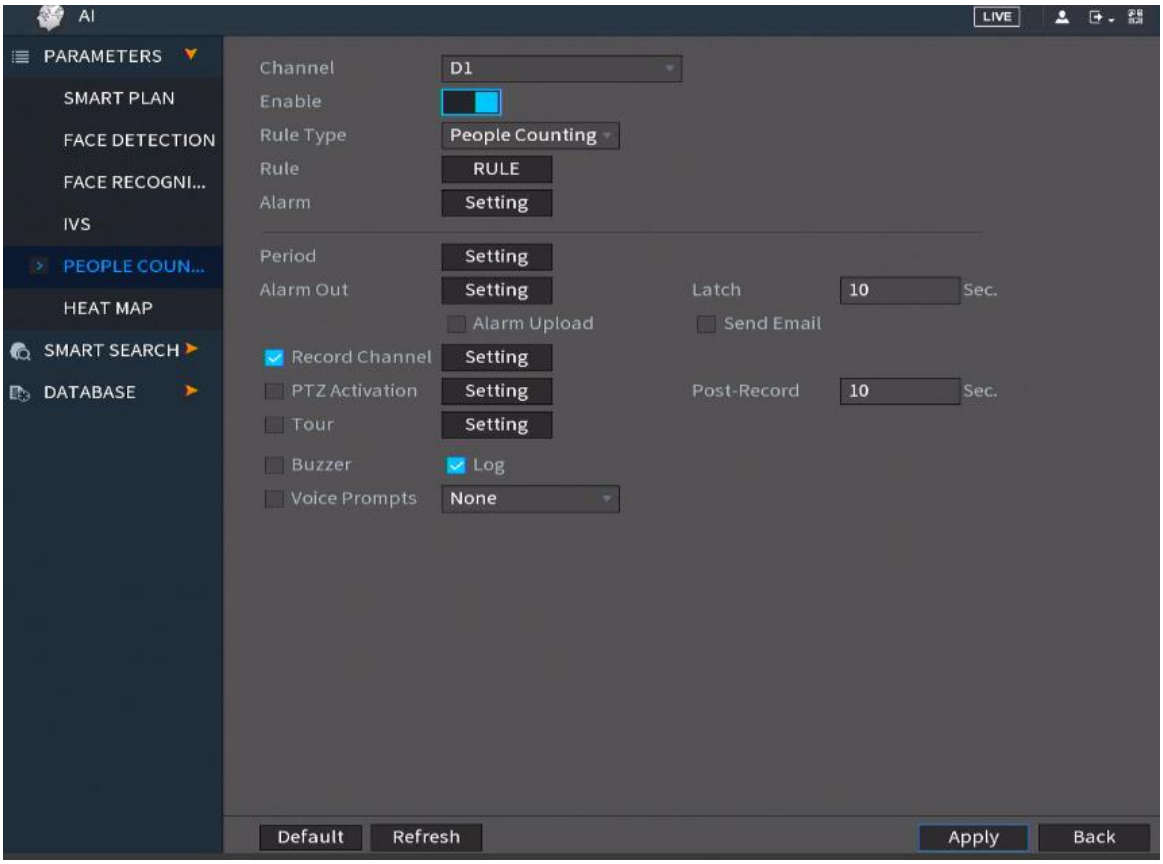
Use the Trigger (gear) icon to apply any additional settings to an IVS rule, such as enabling email snapshots, etc. To delete an IVS rule, click on the delete (trash can) icon.

Note: Once an IVS rule is triggered the line or area visible on the live view screen will flash. All IVS events can be viewed in the Playback interface or in the "Smart Search" option located in the Smart Search menu.

People Counting

People Counting is used to provide a statistic based on the number of people who enter and exit a certain area. This feature cannot be used in conjunction with IVS or any other AI features associated with your device.

Below is a screenshot of the **People Counting** menu:



Below is a description of the features listed in this menu:

Channel: Use the channel dropdown menu to select the proper channel for this feature.
Enable: This option is used to enable **People Counting**.
Rule Type: Enabled as People Counting.
Rule: Used to set the name and direction of the NumberStat1 line.

Name: The name used on the detection line. The name will be default to "NumberStat1", however, it can be modified.

Direction: The direction in which the rule will apply. The detection line can go from left to right (A to B) or right to left (B to A).

Alarm: Used to enable/disable the OSD overlay and set enter, exit, and stranded numbers units.

OSD Overlay: Use the clear option to reset and clear the enter/exit data in the interface.

Clear: Clears the data in the OSD overlay.

Enter No.: The amount of people it takes to trigger a person entering the set area to be counted. For efficiency, it is highly recommended to leave this as default (0).

Leave No.: The amount of people it takes to trigger a person exiting the set area to be counted. For efficiency, it is highly recommended to leave this as default (0).

Stranded No.: The amount of people it takes to generate an alarm who loiter in the set area. For efficiency, it is highly recommended to leave this as default (0).

Save: Saves the Alarm settings.

Period: Allows the user to set a schedule in which the people counting feature will be used.

Alarm Out: Allows the user to set general settings for an external alarm.

General Alarm: Used to enable alarm out features.

Alarm Out: Used to enable one or both alarm out channels.

Latch: The Delay (in seconds) before the system begins detecting for the same alarm/event.

Alarm Upload: Allows an alarm signal to be uploaded to the network and retain in the alarm info menu.

Send Email: This checkbox allows the user to enable the camera to send an email when an event is triggered.

Record Control: The channel currently enabled.

PTZ Activation: Allows the user to activate pan, tilt, and zoom options. Please note, this is only applicable to PTZ controlled devices.

Post Record: Allows the user to delay recording for a specified time after the event ends.

Tour: Used to setup a tour for multiple channels. Please note, this is only applicable for PTZ controlled devices.

Buzzer: Enable a buzzer to alert each time an alert is triggered.

Log: Allows an alarm signal to be uploaded to the network and retain in the log menu.

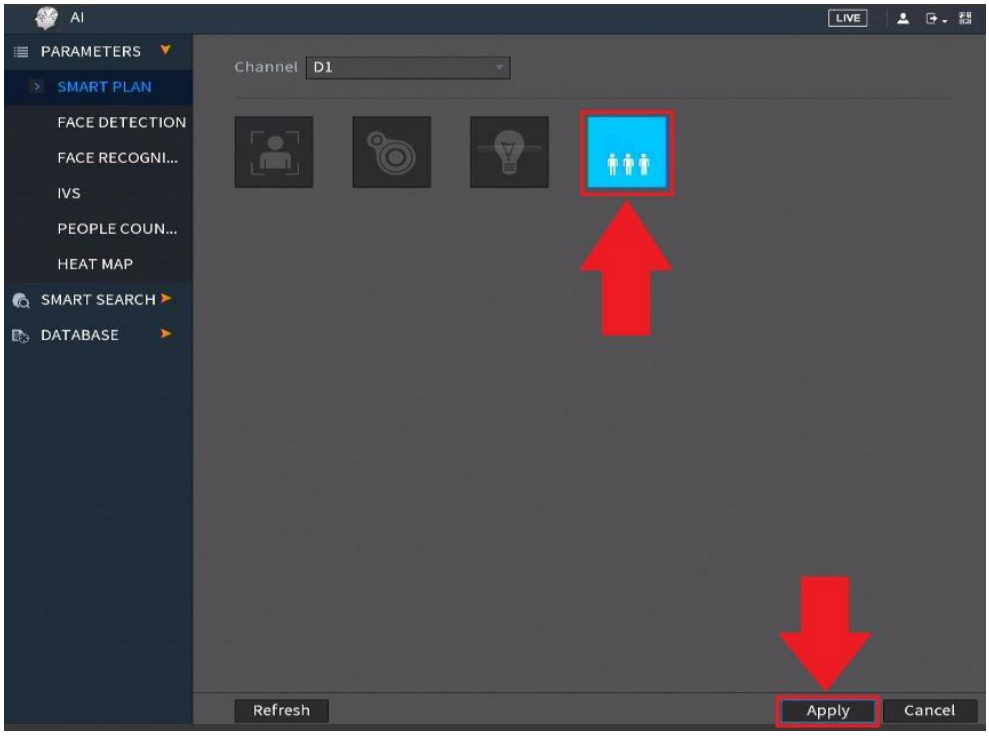
Voice Prompts: Plays an audio file set by the user once an alert is triggered.

To reset to default settings, click the **Default** button. To refresh the page, click the **Refresh** button. To save the settings, click the **Apply** button.

Setting Up People Counting

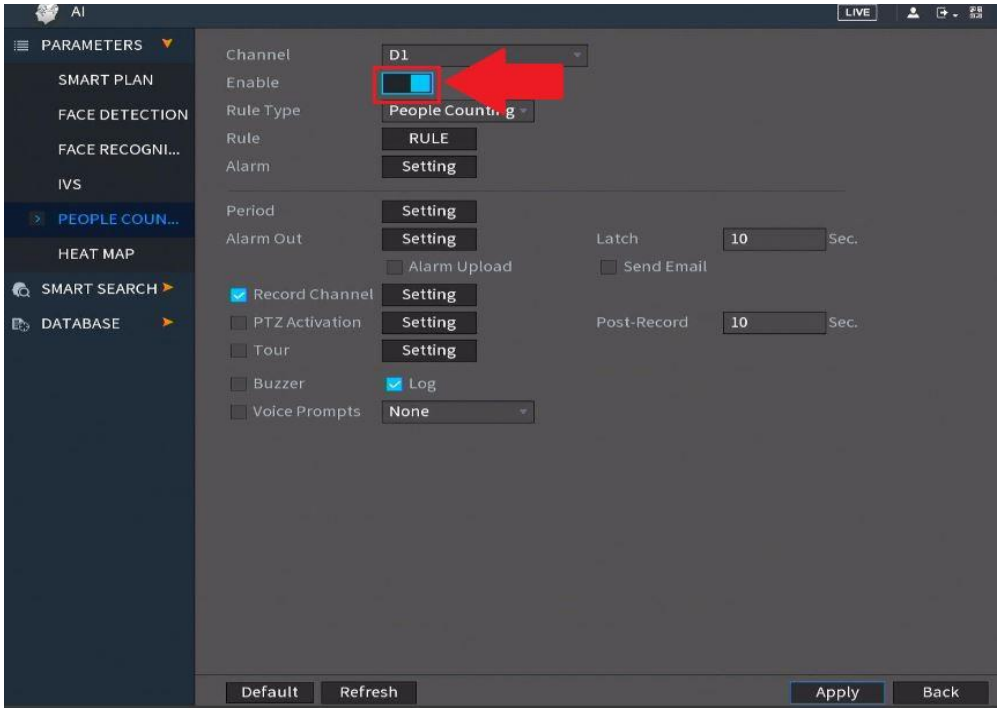
People Counting is a great tool to use to keep track and provide insight into the number of people entering or exiting a certain area. For more information on how to use People Counting refer to the information below:

1. Open the **Smart Plan** menu and activate the People Counting Smart Plan. Click **Apply**.



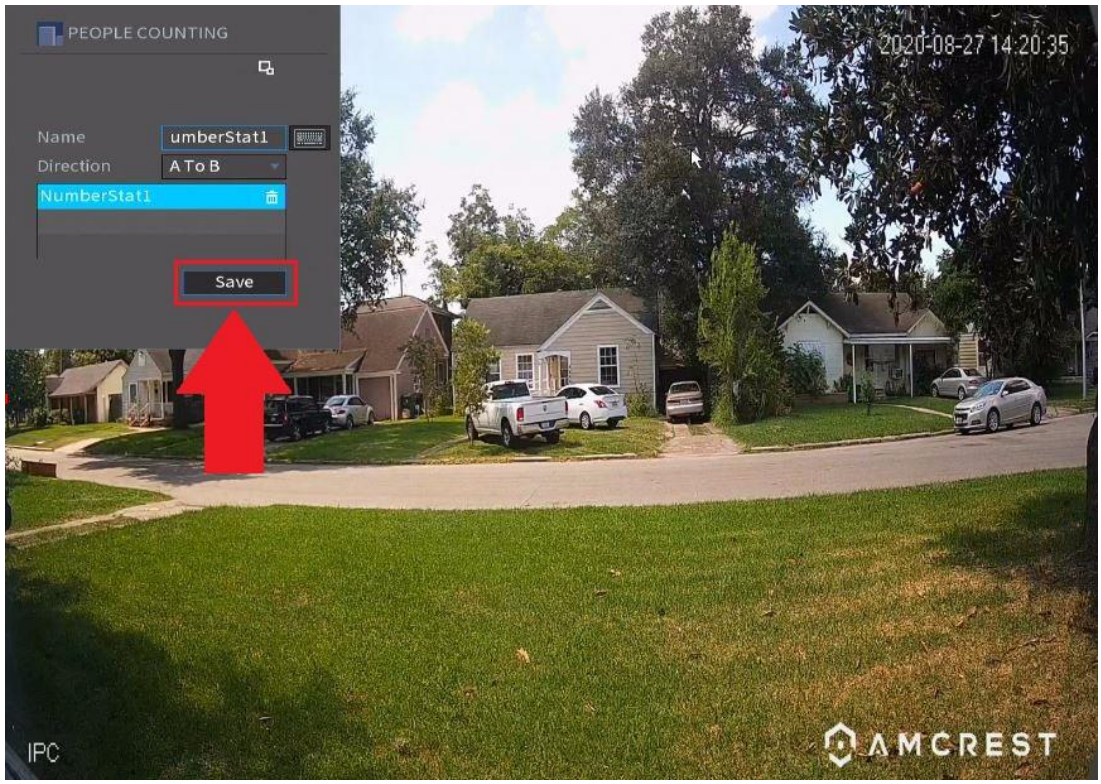
Note: People Counting cannot be used in conjunction with any other AI features in the system.

2. Open the **People Counting** option in the **Parameters** menu and click **Enable**.

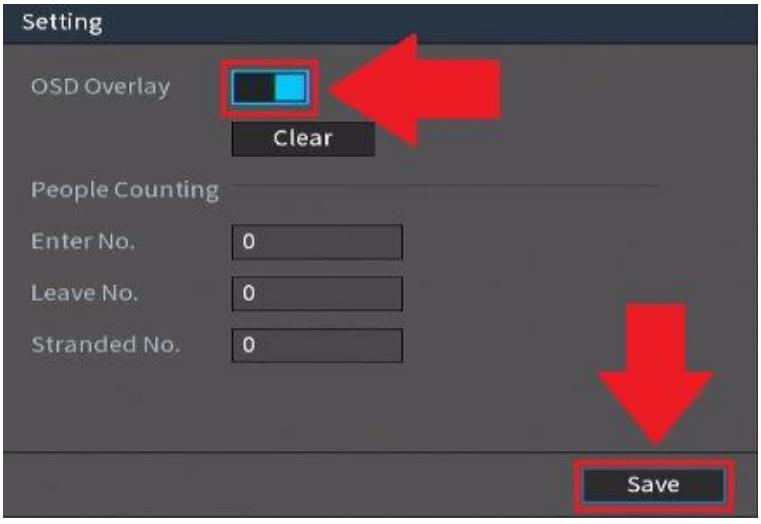


3. Click on **Rule** if you would like to update the NumberStat1 line. The NumberStat1 line is the threshold in which the system will count the number of people entering or exiting the area.

Click on the **Direction** dropdown menu to choose a direction in which the system will count. The detection line can run from left to right (A to B) or right to left (B to A). Click **Save**.



4. Click on the **Alarm** option to enable the OSD overlay. Use the items listed in the **People Counting** section to modify how many people it will take for the alarm to trigger if a person enters or exits an area. It is highly recommended to leave these field as default (0) for best results. Click **Save.**



5. Click on the **Setting** button in the Period field to set a detection schedule. This is optional but is useful If the camera is only to record people counting data at specific times of day.

6. Click on the **Record Channel** option to allow the system to record the rule.

7. Click **Apply**.

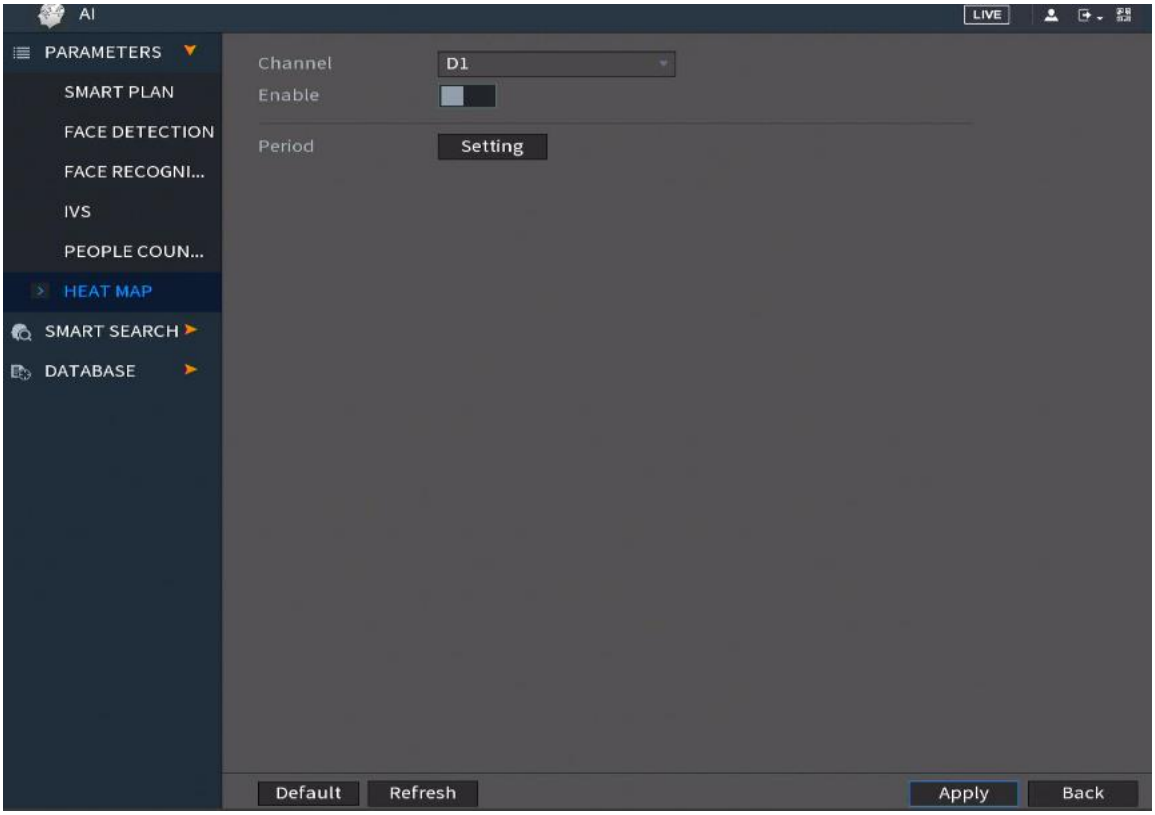
Note: All People Counting data can be viewed graphically in the Smart Search menu.

To reset to default settings, click the **Default** button. To refresh the page, click the **Refresh** button. To save the settings click the **Apply** button.

Heat Map

Heat Map is a tool used to determine the overall crowd flow (density) over a certain amount of time in a specific area. Heat map provides a color-coded layout of the density with red being the highest level to blue which is the lowest level.

Below is a screenshot of the Heat Map menu:

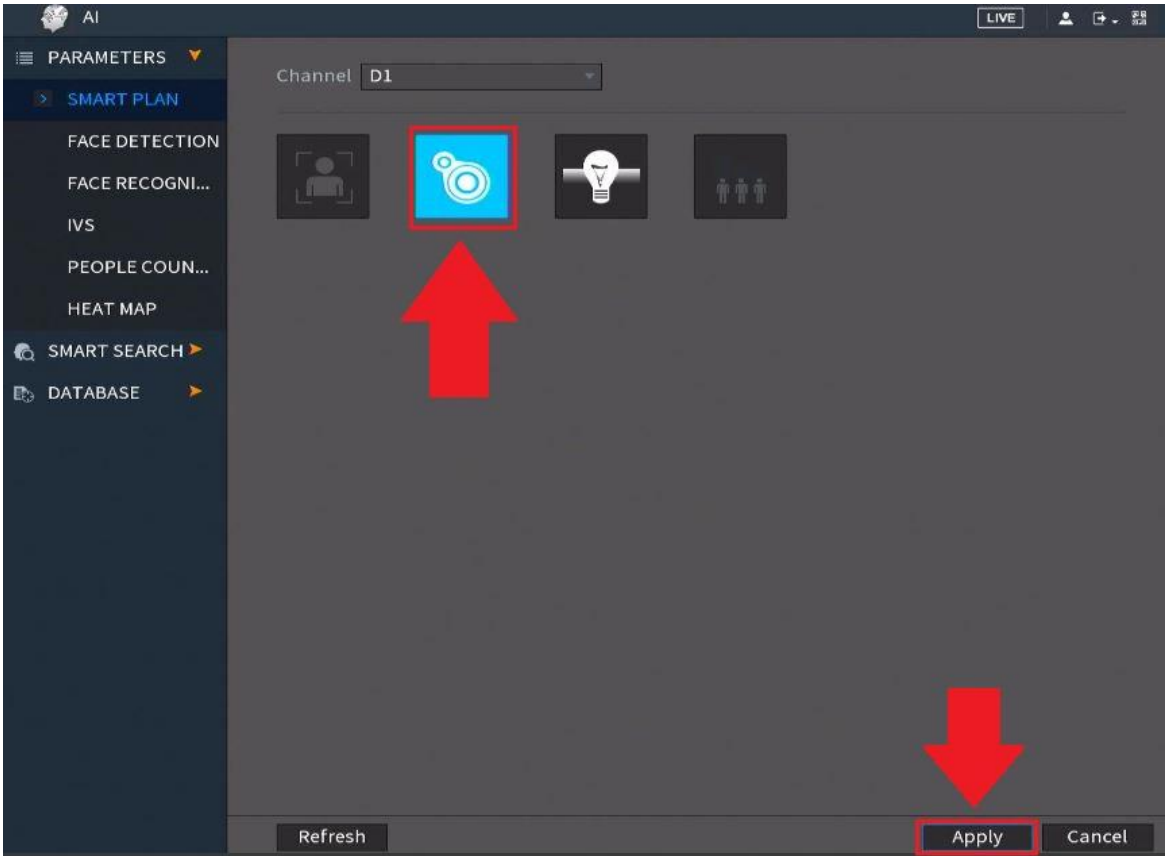


Below is a description of the options in this menu:
Channel: Use the channel dropdown menu to select the proper channel for this feature.
Enable: This option is used to enable **Heat Map**.
Period: Allows the user to set a schedule in which the people counting feature will be used.
To reset to default settings, click the **Default** button. To refresh the page, click the **Refresh** button. To save the settings click the **Apply** button.

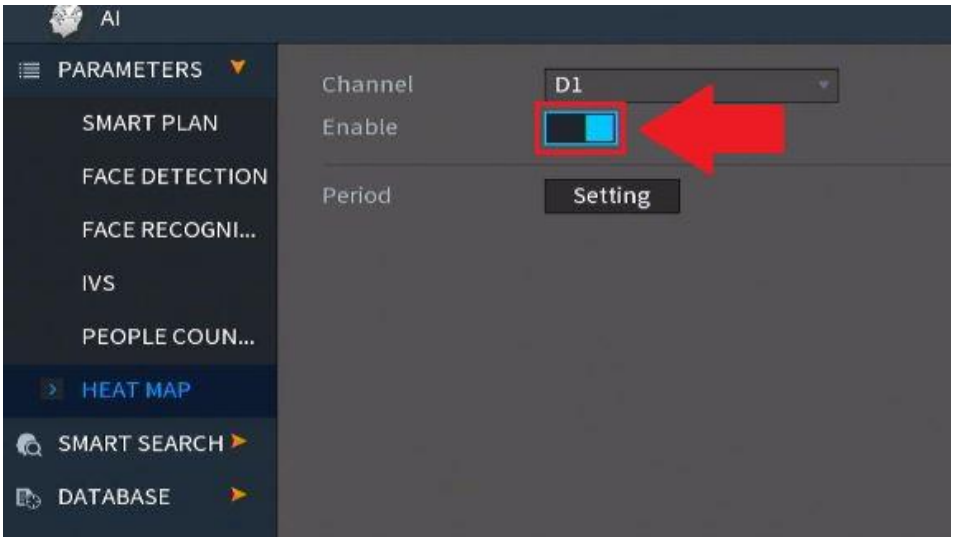
Setting up Heat Map

The Heat Map feature can be used in conjunction with an IVS rule if needed. For more information on how set up heat map, please refer to the information provided below.

1. Open the **Smart Plan** menu and activate the Heat Map smart plan. Click **Apply**.



2. Navigate to the **Heat Map** option in the Parameters section and click **Enable**.



Note: A schedule can be set for this feature by clicking on the **Setting** button in the **Period** field. This will allow the feature only to function during specific times set by the user.

3. Click **Apply.**

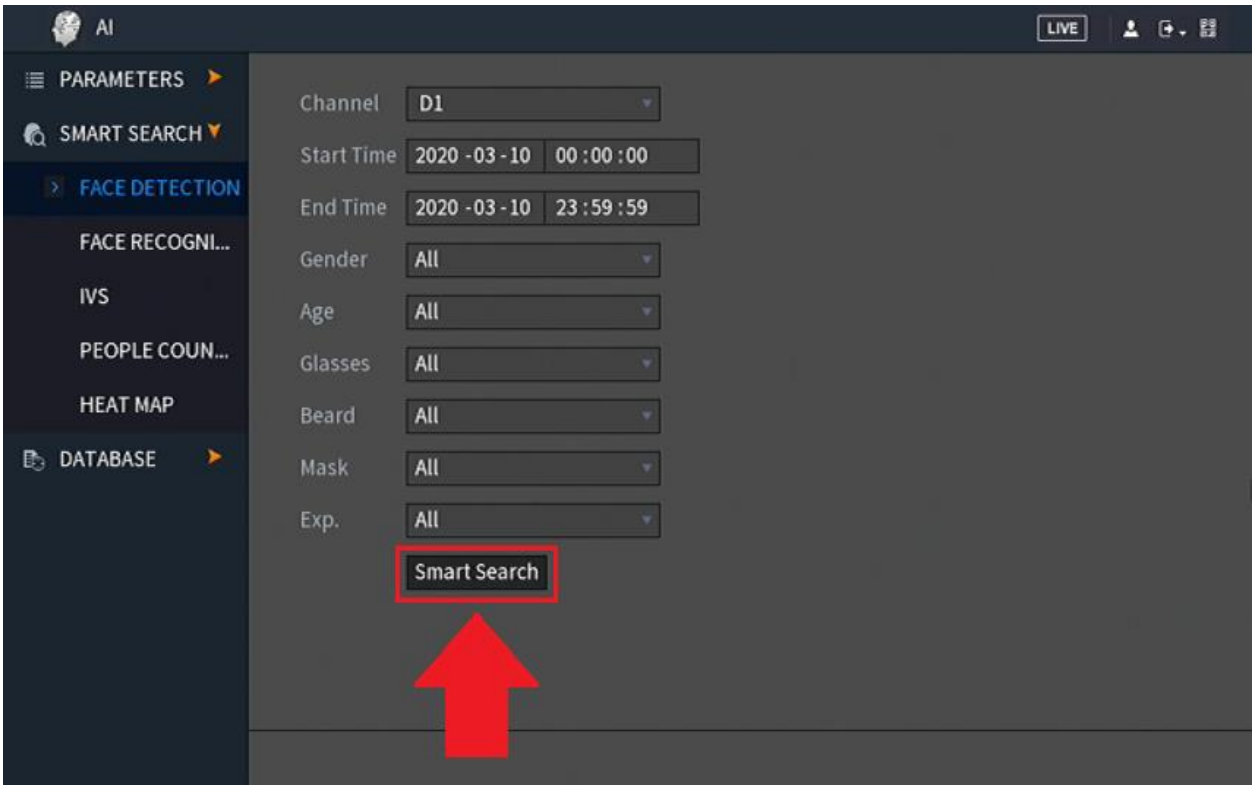
Note: All Heat Map data can be viewed graphically in the Smart Search menu under the **Heat Map** option.

Smart Search

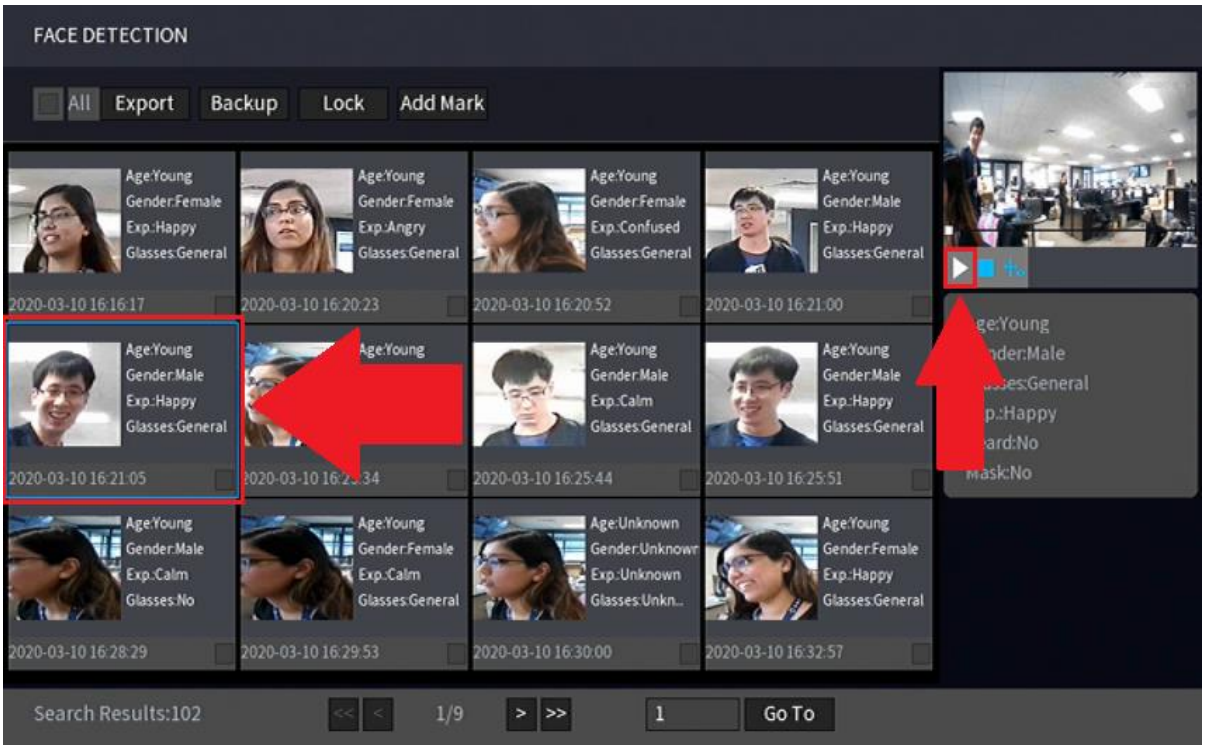
The Smart Search menu allows the user to view and access AI events from a centralized location. For more information, please refer to the information provided below.

Viewing Face Detection Events

All face detection data retained by the system can be accessed via the **Face Detection** option located in the **Smart Search** menu. Enter a start and end date and time for the event you would like to view in the Smart Search interface and click **Smart Search**.

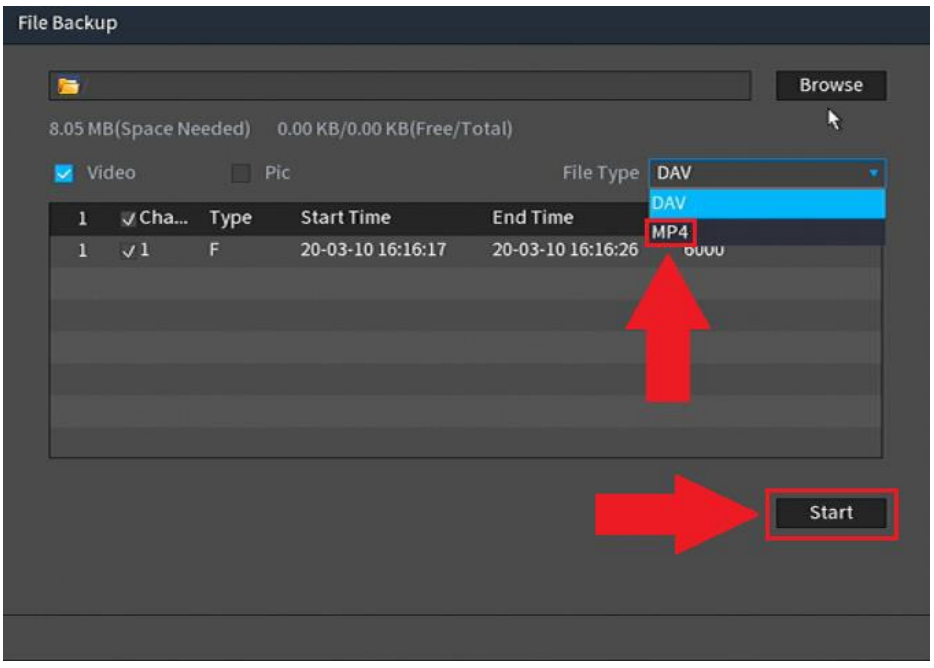


A display of all face detection data will be displayed along with facial attributes. Click on the event you would like to view, and a clip of the event will be displayed in the built-in player. Click on the play icon to view the event.



Storing a Face Detection Event

Face detection events can be stored on a USB flash drive. Insert the flash drive into a USB port on the device then click the check box next to the event you wish to store. If you would like to store all files, click on the **All** checkbox at the top of the interface. Click **Backup** to store the event, or multiple events to the USB flash drive. There will be a "File Type" drop down menu, select MP4 from the file type menu can click **Start**.

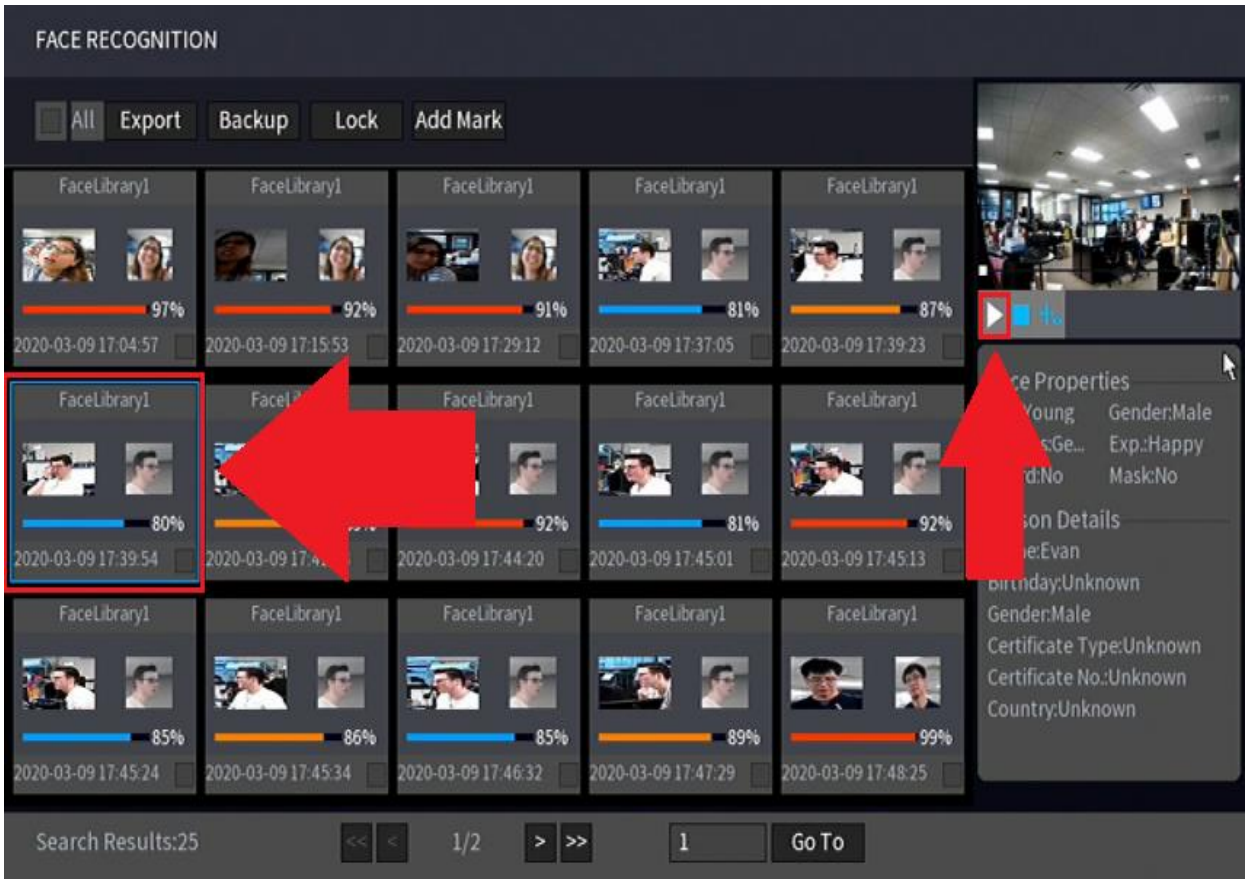


Once the backup process is complete, click **Save**. The files will be stored onto your USB flash drive and the MP4 recordings can be viewed on a computer.

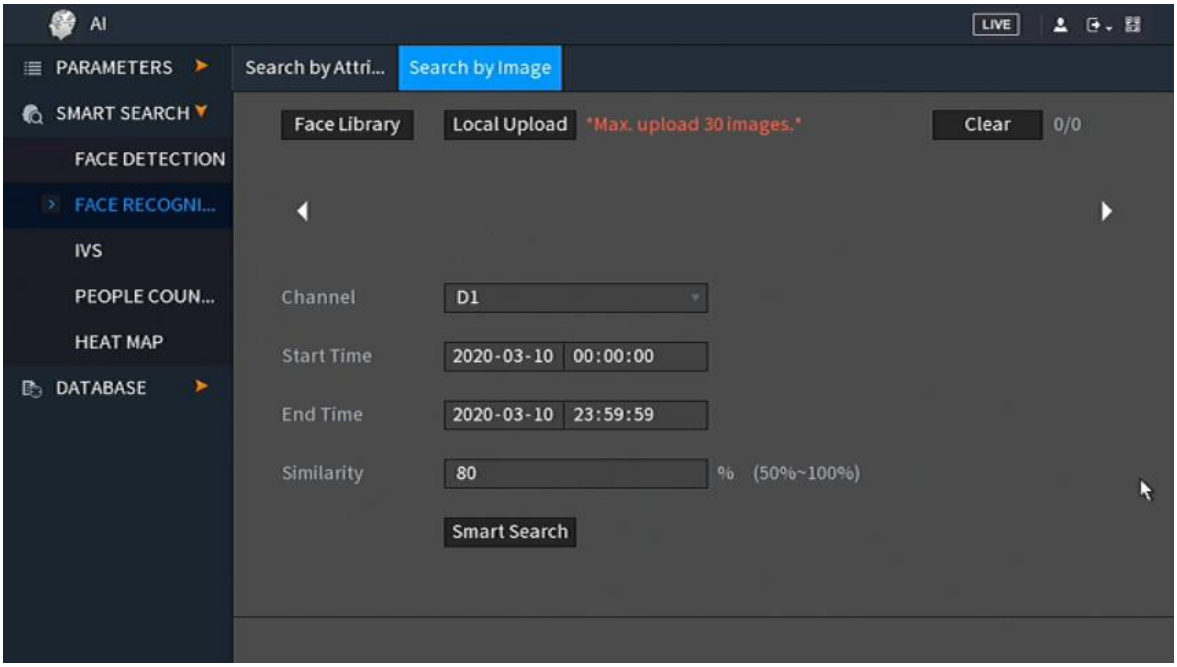
Viewing Face Recognition Events

All face recognition data retained by the system can be accessed via the **Face Recognition** option located in the **Smart Search** menu. A search by attributes or a search by image can be performed. Searching by attributes will load all face recognition data found in the system whereas searching by an image will filter and display only the faces chosen by the user.

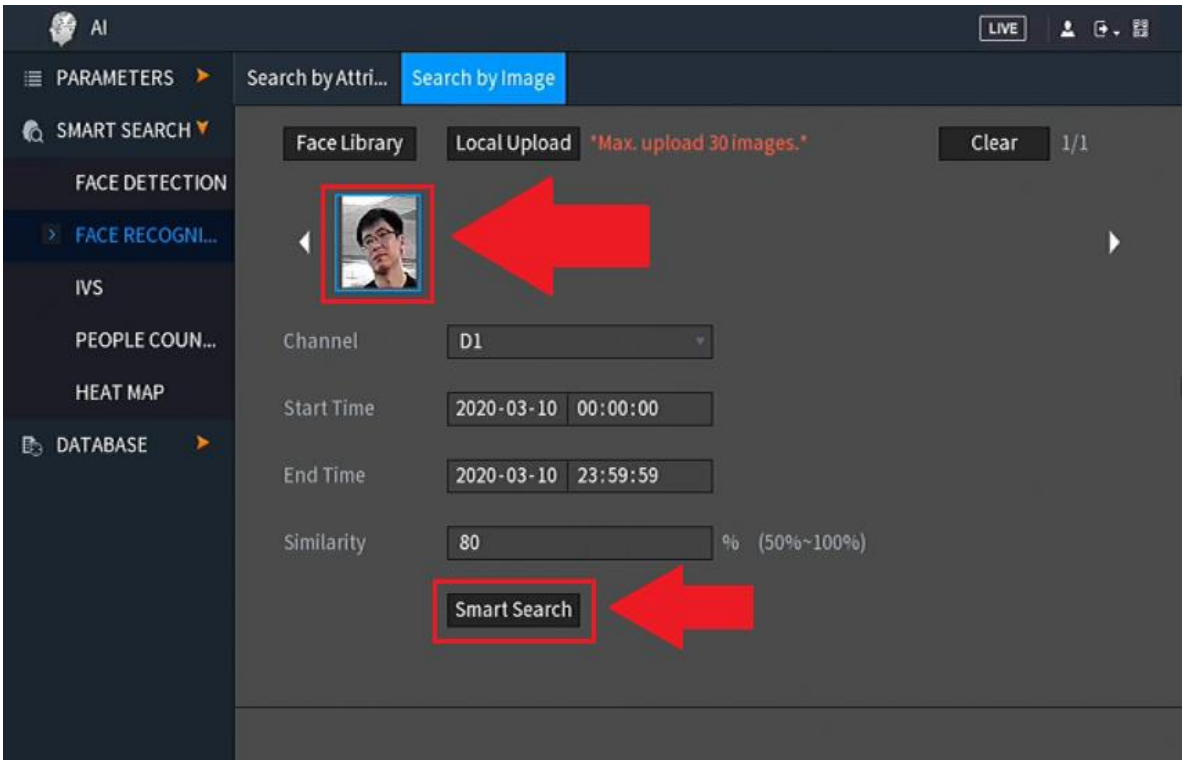
To search by attributes, enter a start and end time of the event in the interface and then click **Smart Search**. The interface will display all face recognition data. To view the event, click on the event you would like to view then click the play button in the interface.



To view specific face recognition data by image, click on the **Search by Image** tab located in the **Face Recognition** interface.



If searchable images are already uploaded into a face library click on **Face Library** and select an image from the interface, then click **Save** to begin a search. If you would like to add images locally click **Local Upload** and follow the on-screen prompts to upload images. A USB flash drive with applicable images (in jpeg format) can be used to upload images to the NVR. Once an image has been loaded, enter a start and end time of the event, and click **Smart Search.**

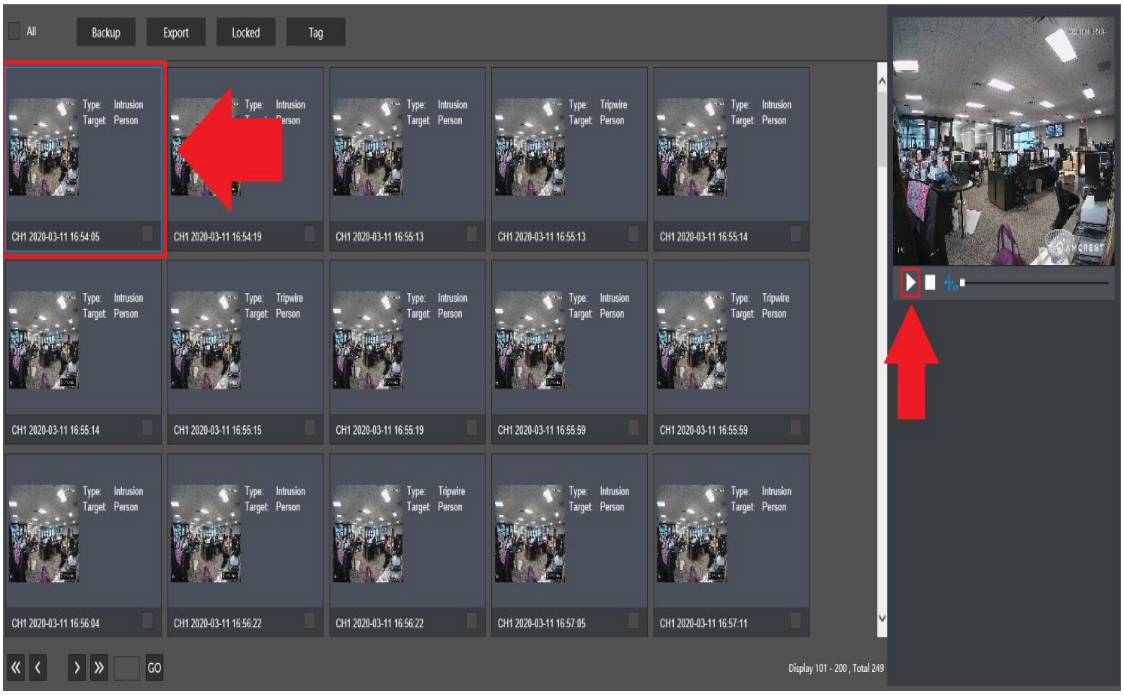


The system will display all face recognition data based on the image selected. All face recognition data can be backed up locally using a USB flash drive.

Viewing IVS Events

Any IVS data retained on the system can be viewed using the IVS Smart Search interface or via the playback menu if an IVS schedule is set in the system. For more information on how to view IVS events, please refer to the information provided below.

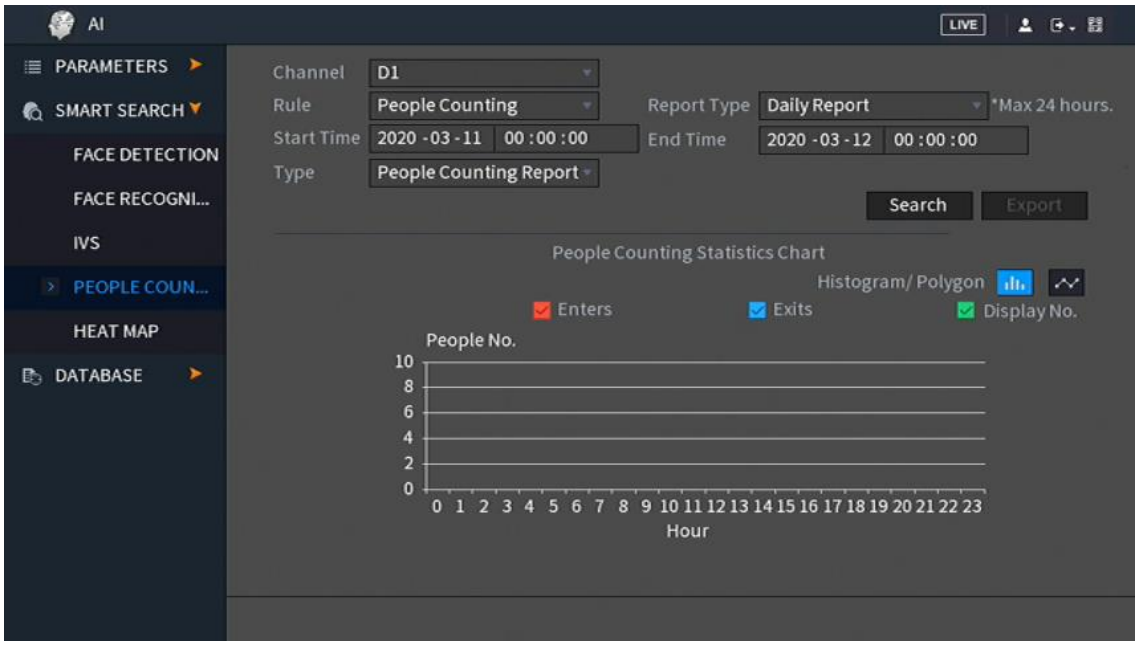
To view IVS data using the IVS smart search interface, click on the **IVS** option located in the Smart Search menu. Enter a start and end time of the event and click **Smart Search**. A layout of all IVS events will be displayed. To view the event, select the event from the interface and click the play button. The event can also be stored using a USB flash drive.



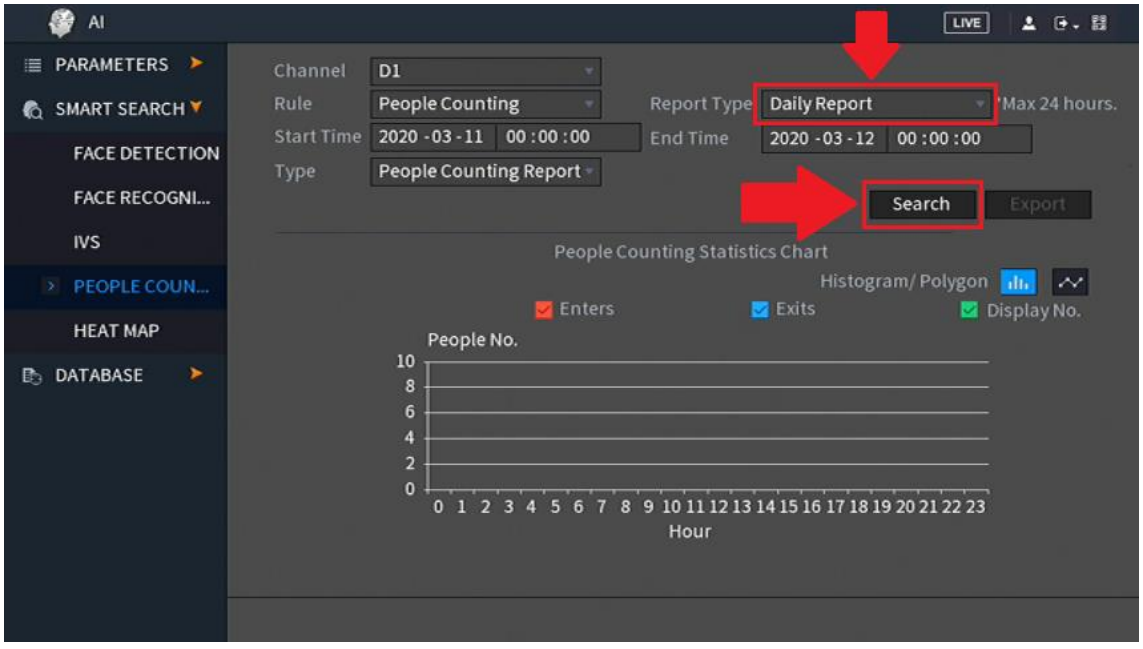
Viewing People Counting Data

People counting data shows the number of people reported by the system entering or exiting the area within a specified amount of time. This information is displayed graphically using a histogram or a line graph and can be exported to a USB flash drive if needed. For more information on how to view people counting data please refer to the information provided below.

1. Click on the **People Counting** option located in the **Smart Search** menu. Enter a start and end time of the report in the **Start Time** and **End Time** fields and click **Search**.

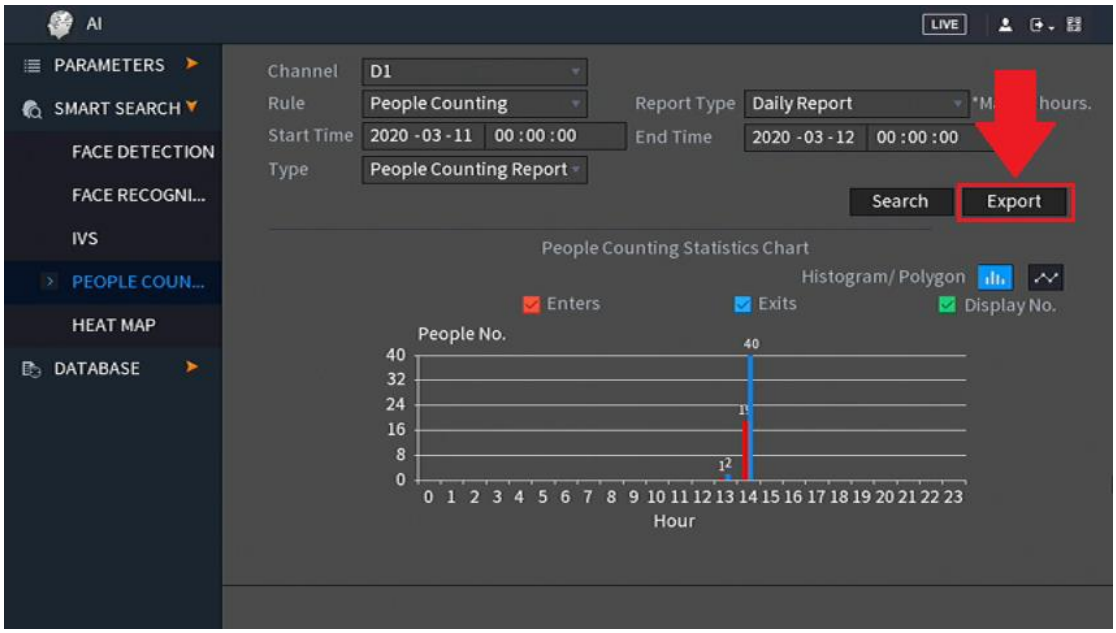


2. Reports can be pulled in daily, monthly, or yearly increments. Click on the **Report Type** drop down menu to access additional reports if needed. Click **Search** to view statistics.



3. A chart will be displayed in the interface showing how many people have entered or exited the area. You can use the Histogram/Polygon buttons to switch between different report types.

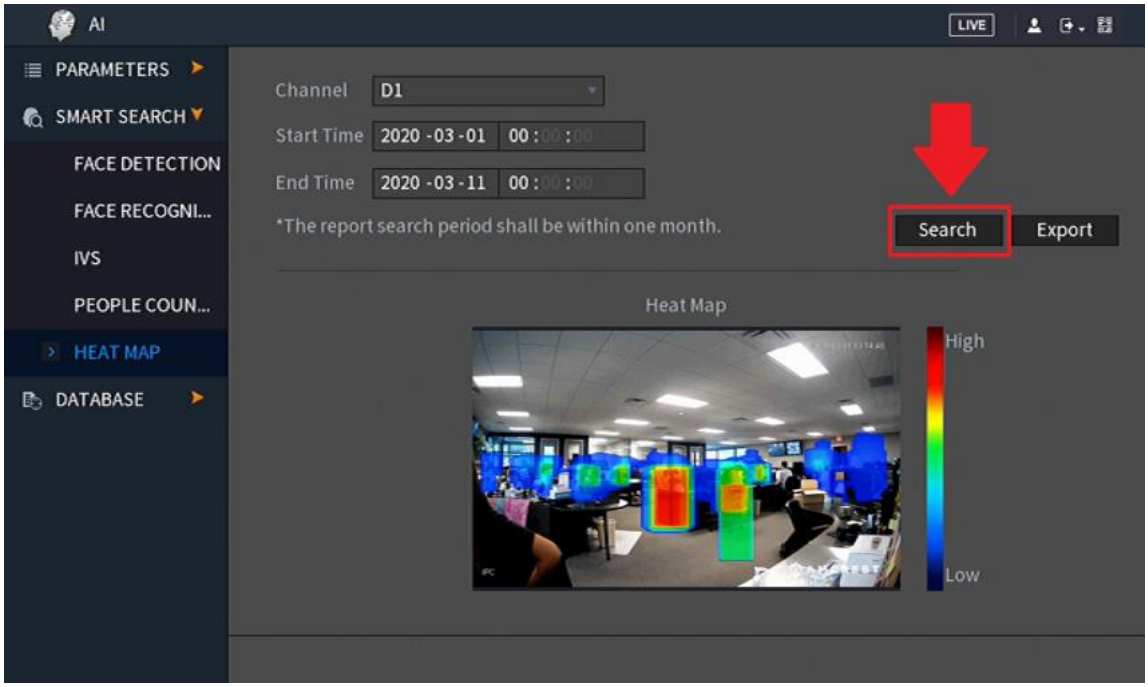
4. An excel spread sheet of this data can be exported and backed up via a USB flash drive. To export this data to a USB flash drive, insert a USB flash drive into a USB port on the NVR. Click **Export** in the interface. Click **Save**, this will export the excel sheet to your flash drive.



Viewing Heat Map Data

Heat Map data determines the overall crowd flow (density) over a certain amount of time in a specific area. Heat map provides a color-coded layout of the density with red being the highest level to blue which is the lowest level.

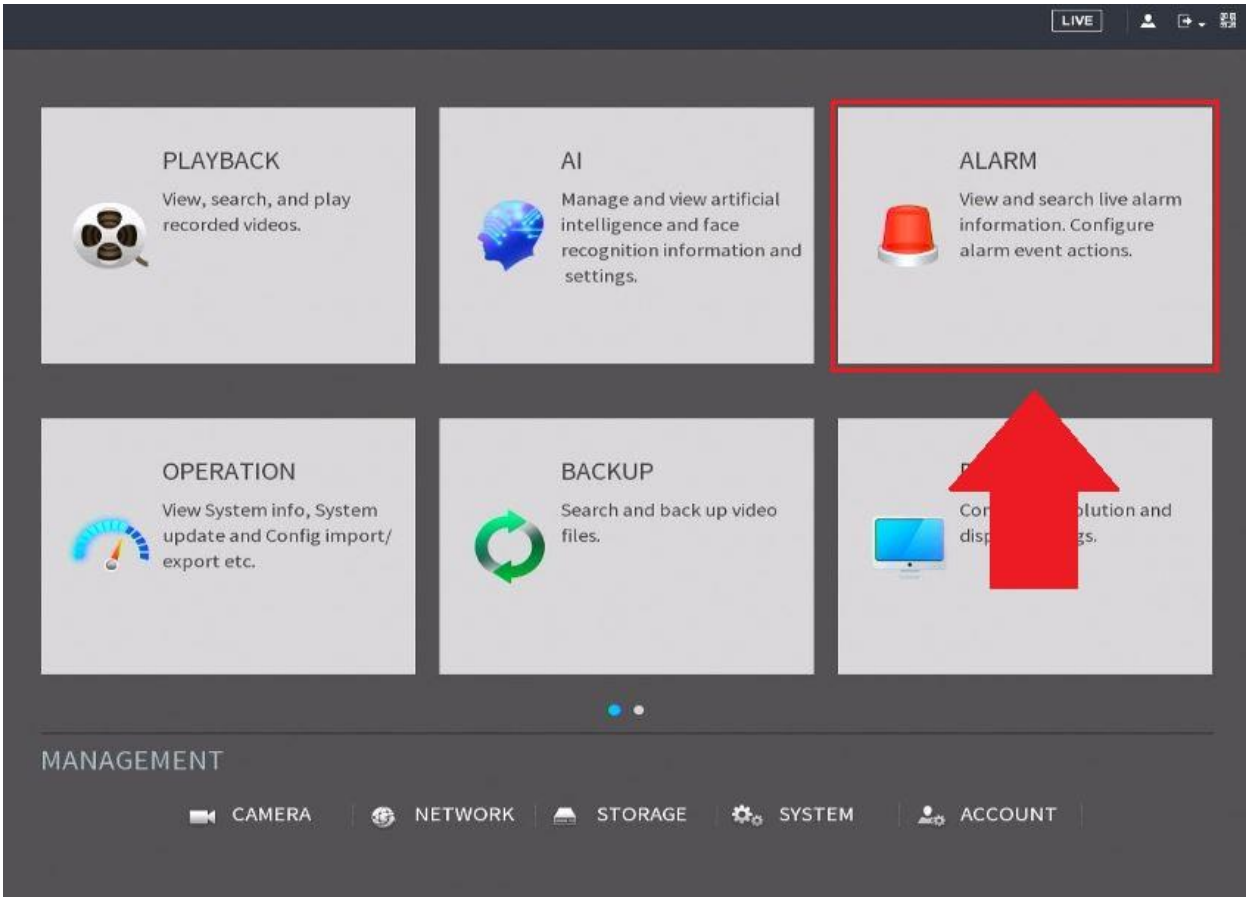
To view Heat Map data, click on the **Smart Search** option and click on **Heat Map**. Enter a start and end time into the interface and click **Search**. The heat map period cannot exceed one month of reporting. All heat map data will appear in the interface.



Note: To back up a heat map image, click on **Export** then click **Save**. This will save a BMP image to an external USB flash drive.

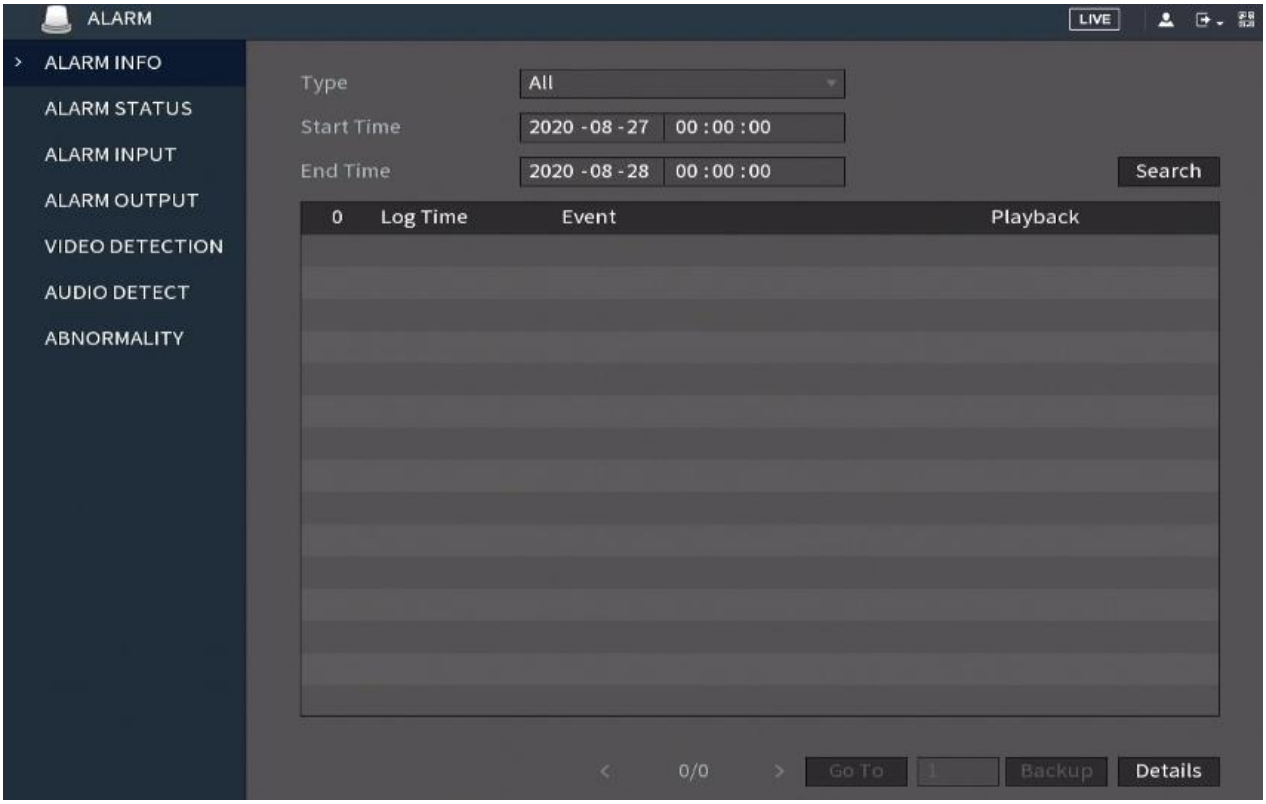
Alarm

The **Alarm** menu allows the user to view live alarm information as well as configure alarm event actions such as motion detection. To access the Alarm section, click on the Alarm option located on the main menu.



Alarm Info

This feature allows the user to search for specific types of alarm information related to the system. These specific types of alarms include, Motion Detection, Video Loss, Tampering, Abnormalities, Local Alarms, Intel, etc. You can also select **All** to view all log and alarm information. Here is a screenshot of the Alarm Info tab:

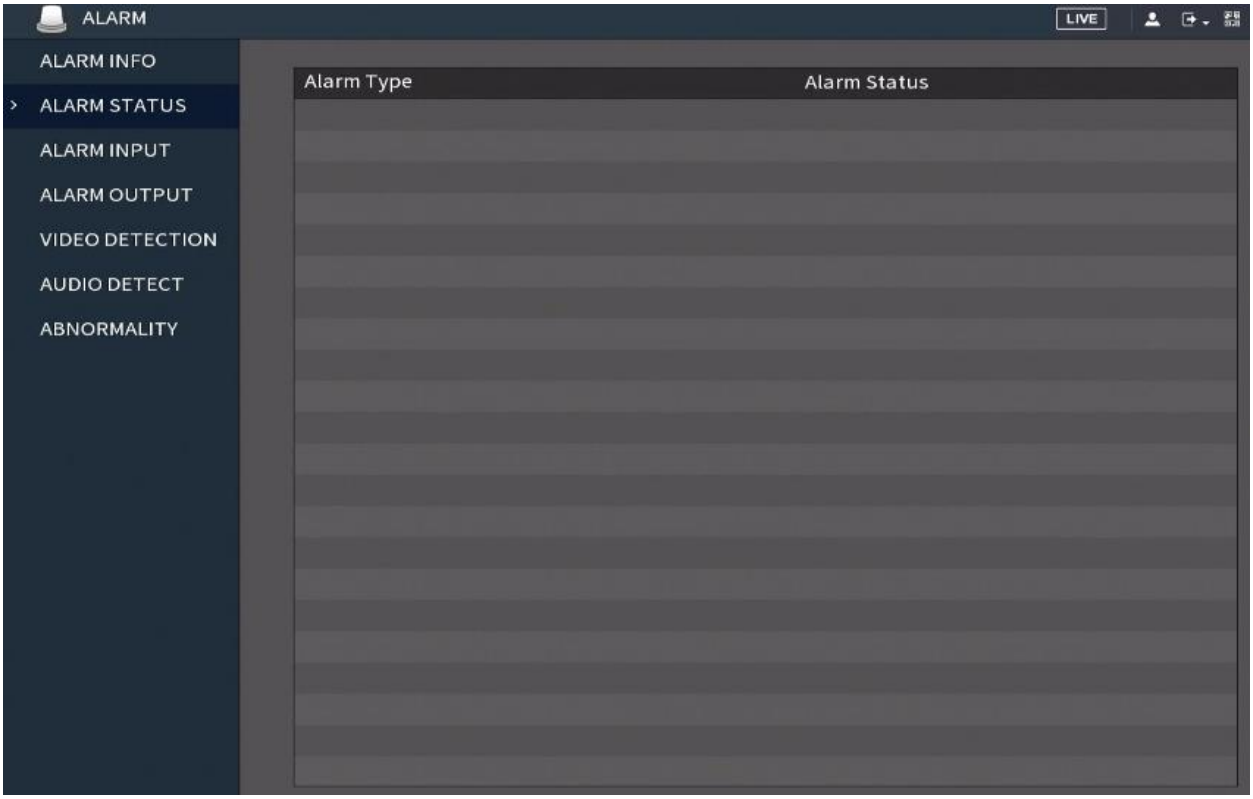


To use this feature, access the alarm info interface and select the type of alarm you are search for from the dropdown menu. Enter in the start and end times in the **Start Time** and **End Time** fields and click **Search.** The alarm you are viewing will be accessible via the alarm info list. In this list you can view information such as, the log time, event type and playback. To playback the event, click on the playback icon.

If you require to back up any alarm events, the alarm info interface has a backup option. When selected, all selected files will be saved to an external USB storage NVR. To backup events from this menu, click on **Backup** and follow the on-screen instructions. Also, for a more detailed description of the selected event, click on the **Details** options located next to the backup button.

Alarm Status

This feature provides the status of a set alarm type. The information provided in this menu will be automatically generated by the system if an alarm has been set in the system. The alarm **Type** section indicates the type of alarm that is set up and the alarm **Status** portion shows the status of the alarm.



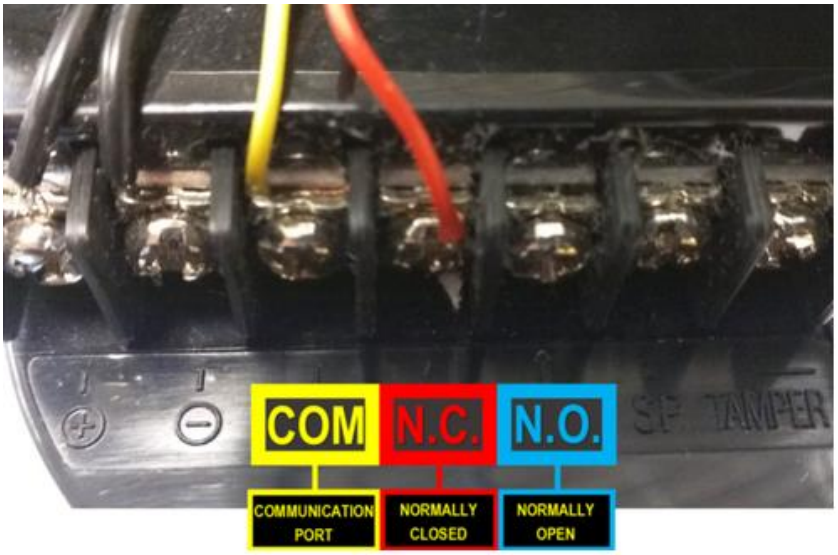
Alarm Input

This feature is related to an external alarm system. If you have your system hooked up to an external alarm system, via an RS485 port on the NVR you will be able to view alarm events from the NVR in this screen. This screen also allows you to send email alerts and configure status, config, and PTZ settings if applicable. To check the status of your alarm box, click on the **Status** button located in this menu. alarm events can also be accessed in this menu by clicking on the **Alarm** tab.

Local

This option allows the user to configure an external alarm information. The external alarm must be physically installed on the device to use this feature. For more information on how to set an external alarm, please refer to the information provided below.

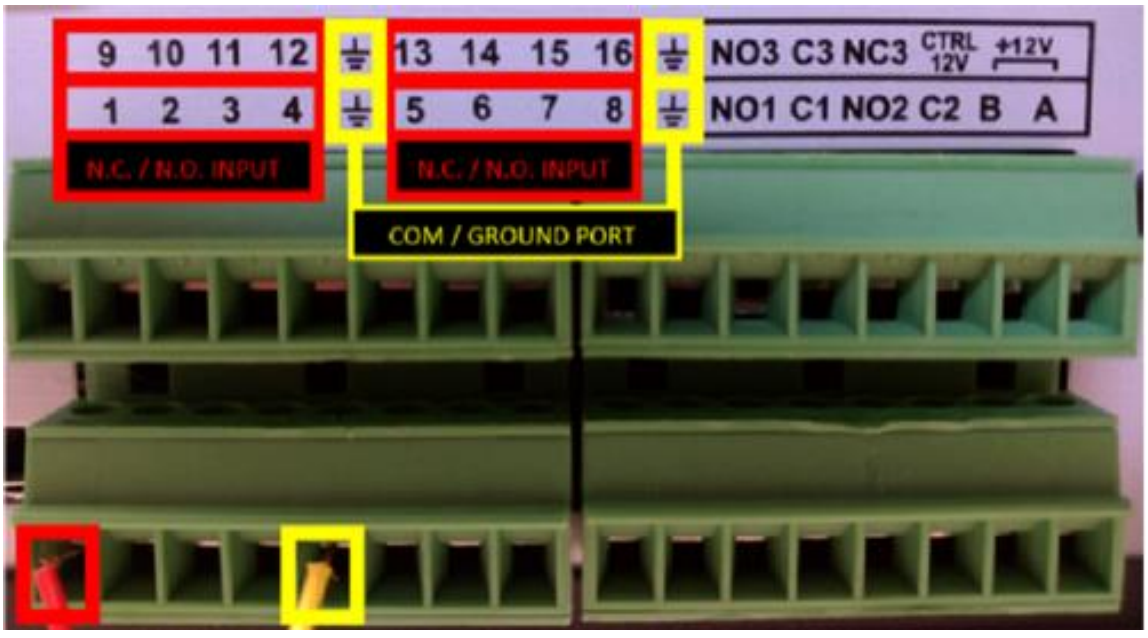
1. Identify the connections on the alarm trigger.



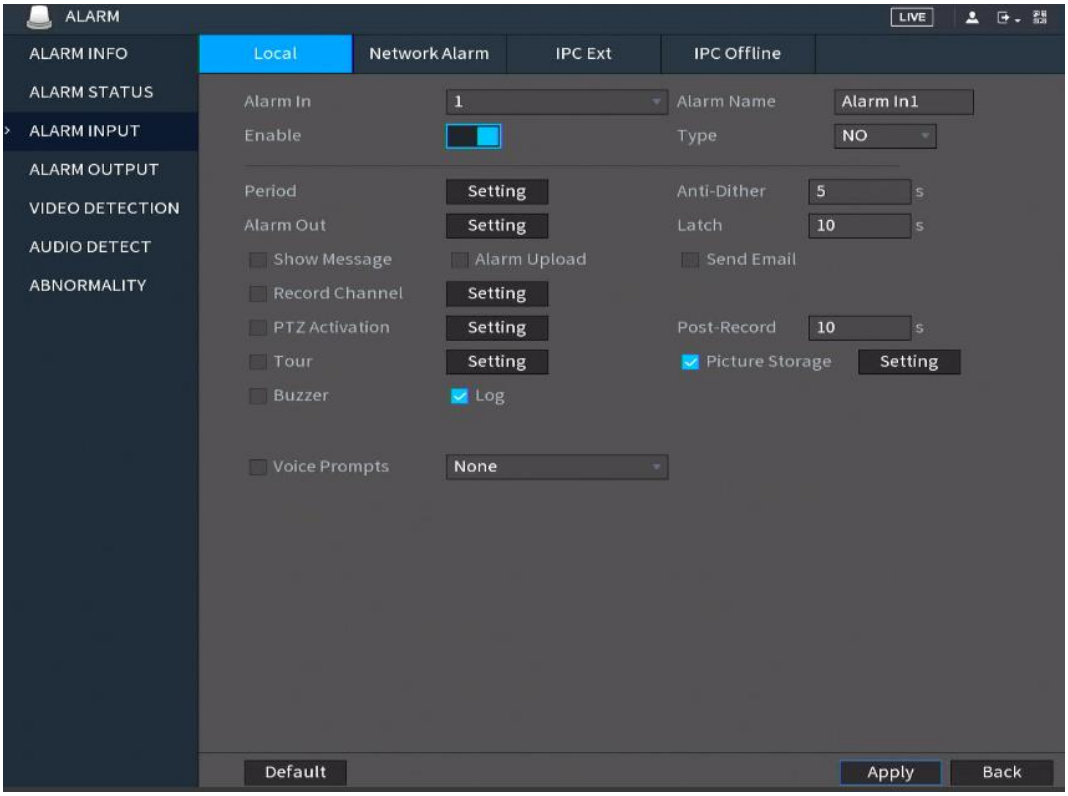
- **COM**: Communication Port or Ground N.C: Normally Closed - A Trigger that initiates when an object disrupts the communication line of 2 sensors
- **N.C**: Normally Closed - A Trigger that initiates when an object disrupts the communication line of 2 sensors
- **N.O**: Normally Open - A Trigger that initiates when an object completes the communication line of 2 sensors.

2. Connect the N.C. (Normally Closed) wire to one of the numbered ports. Connect the COM wire to the COM / Ground Port.

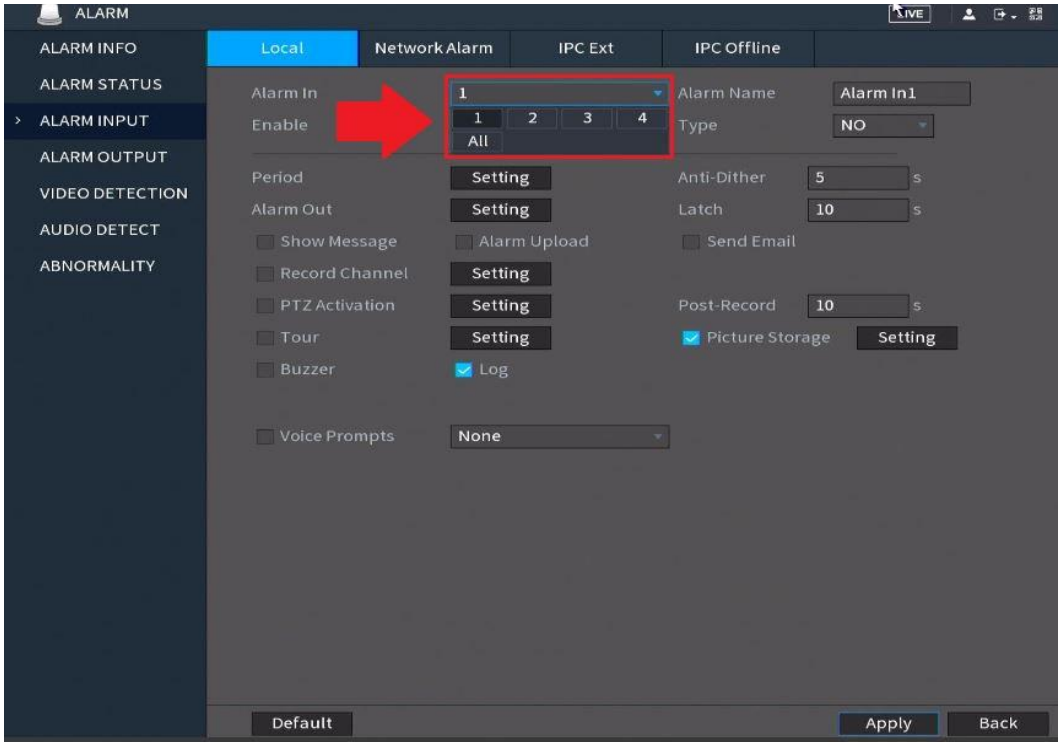
- Alarm Inputs are grouped in fours.
- Each group uses the Communication/Ground Port on the right. Alarm Inputs are grouped in fours. Each group uses the Communication/Ground Port on the right.



3. Once the alarm has been physically installed, navigate to the **Alarm Input** menu, and click **Enable**.

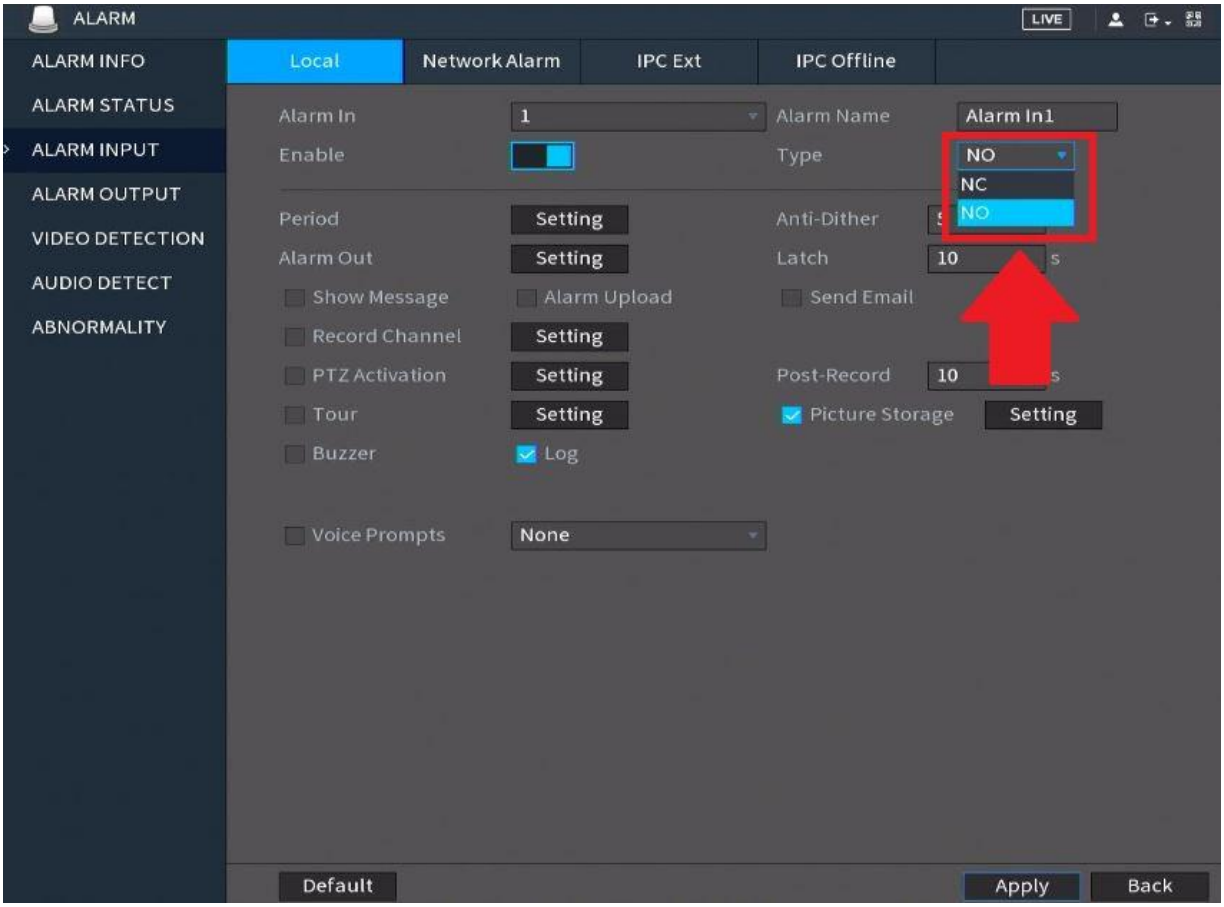


4. Select the Alarm In port that was connected in step 2.



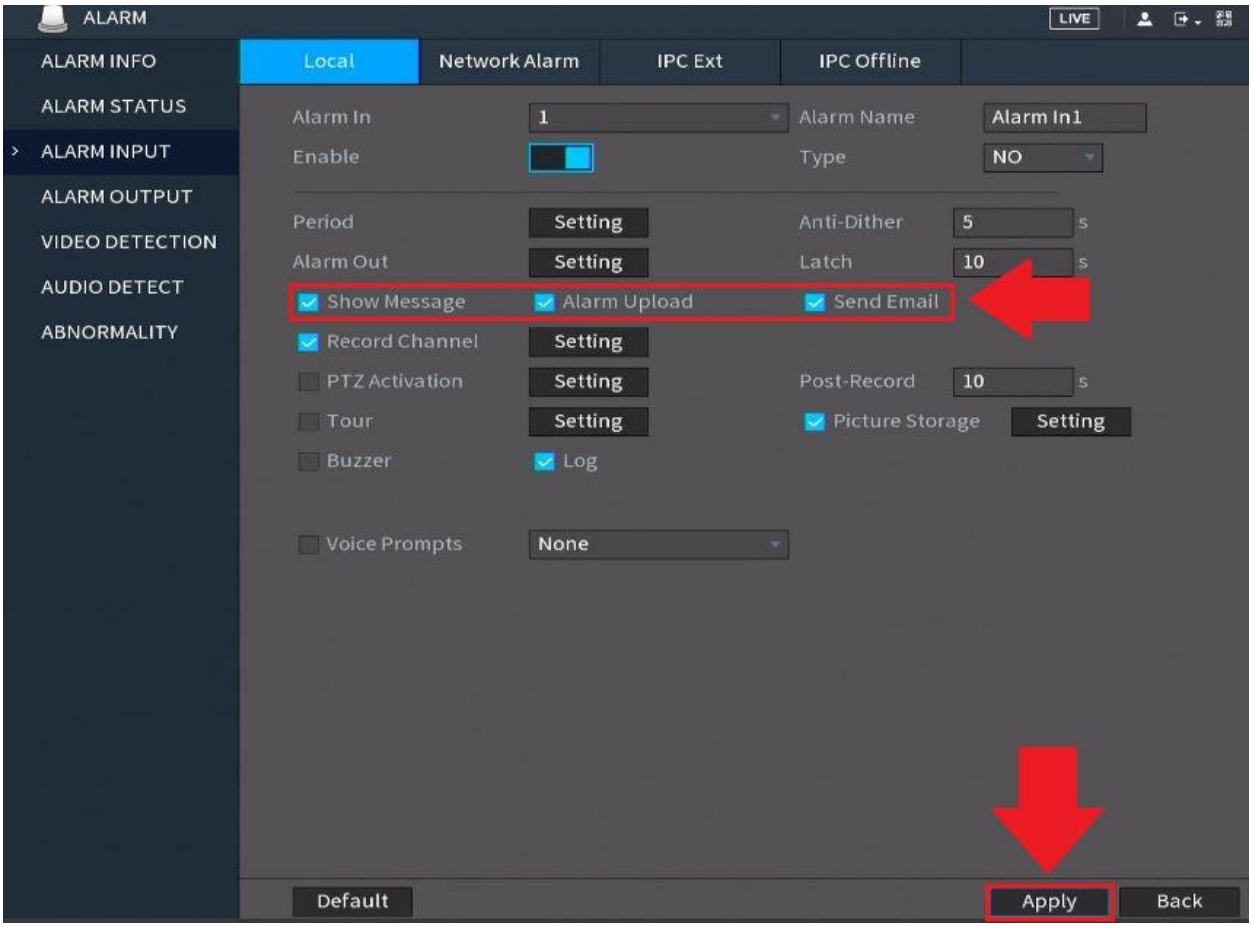
5. Set the Alarm trigger type.

Normally Closed: (NC) A Trigger that initiates when an object disrupts the communication line of 2 sensors.
Normally Open (NO): A Trigger that initiates when an object completes the communication line of 2 sensors.



6. Configure the alarm trigger settings. Click **Apply**.

- **Show Message:** An alert will appear on the display attached to the system when the alarm is triggered.
- **Record Channel:** Configure the alarm to trigger recording on a specific channel, or all.
- **Send Email:** A Snapshot will be taken and sent to an email address if one is setup in the system.

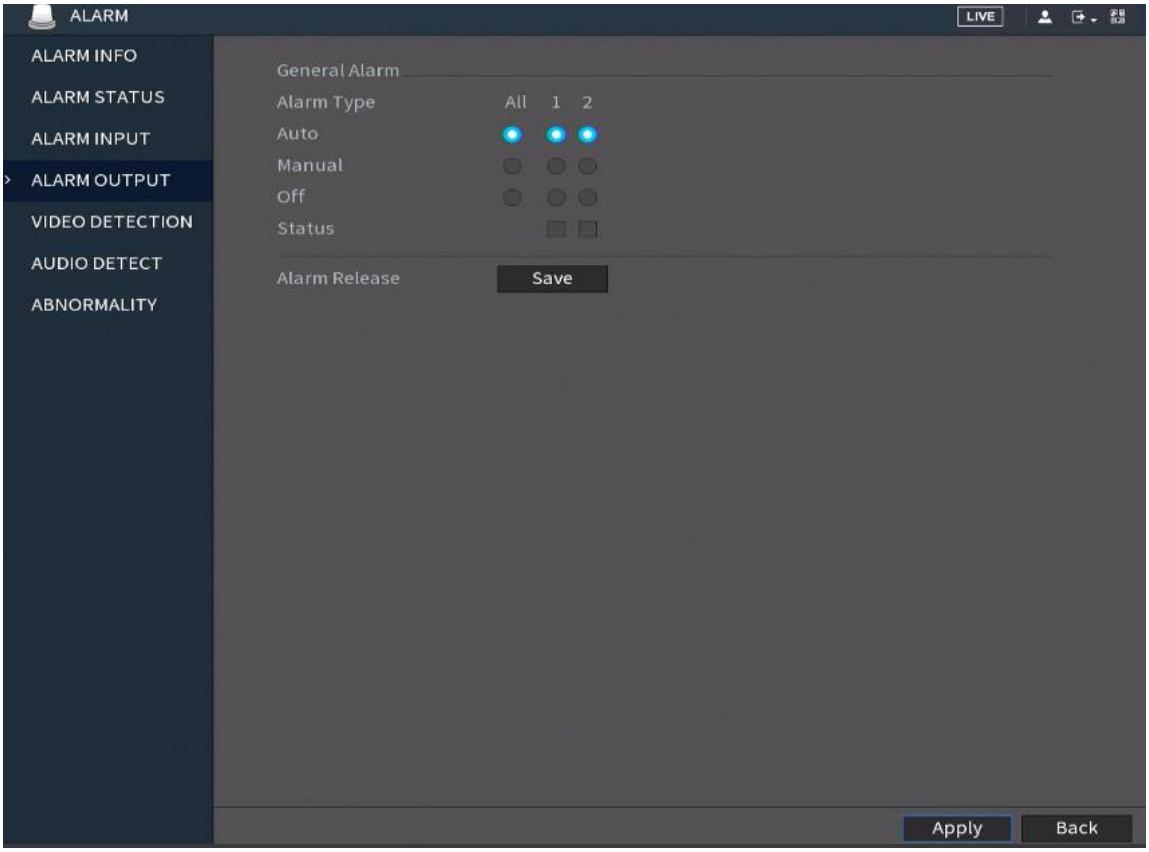


The other **Alarm Input** tabs can be used to setup other alarms such as a network alarm, which allows a network connected alarm (on the same network segment as the NVR) to be configured, IPC external alarm, which allows an external camera (with alarm output connections) to be configured to the NVR, and IPC Offline, which allows an offline IPC device, such as a camera, to be configured to the alarm inputs of the NVR.

Alarm Output

When the system receives an alarm, the connected external alarm will generate an alarm which can be configured in this section. You can connect to the output port of the NVR if a port is available on your specific model NVR.

Below is a screenshot of the **Alarm Output** menu.



Auto: When an alarm event is triggered on the NVR, the connected alarm NVR generates alarms.
Manual: The alarm NVR is forced to keep generating alarms.
Off: The alarm output function is not enabled.
Status: The connection status of the alarm.
Save: Click the **Save** button to release the alarm.

For more information about the parameters listed in this menu, refer to the table provided below.

Parameter		Description
General Alarm	Alarm Type	Select alarm type for each alarm output port.
	Status	Indicates the status of each alarm output port.
Ext. Alarm	Alarm Box	Select the alarm box number corresponding to the address number configured by the DIP switch on the Alarm Box.
	Alarm Type	Select the alarm type for each alarm output ports.
	Status	Indicates the status of each alarm output port.
Alarm Release		Click **OK to** clear all alarm output status.
White Light *optional		Select if applicable to certain models that detect specific light spectrums and may be disabled by default.
Siren *optional		Select if applicable to certain models that enable siren technology. This option may be disabled by default.

Video Detection

The detect tab allows users to set Motion Detection, Video Masking, and Video Loss events for their system.

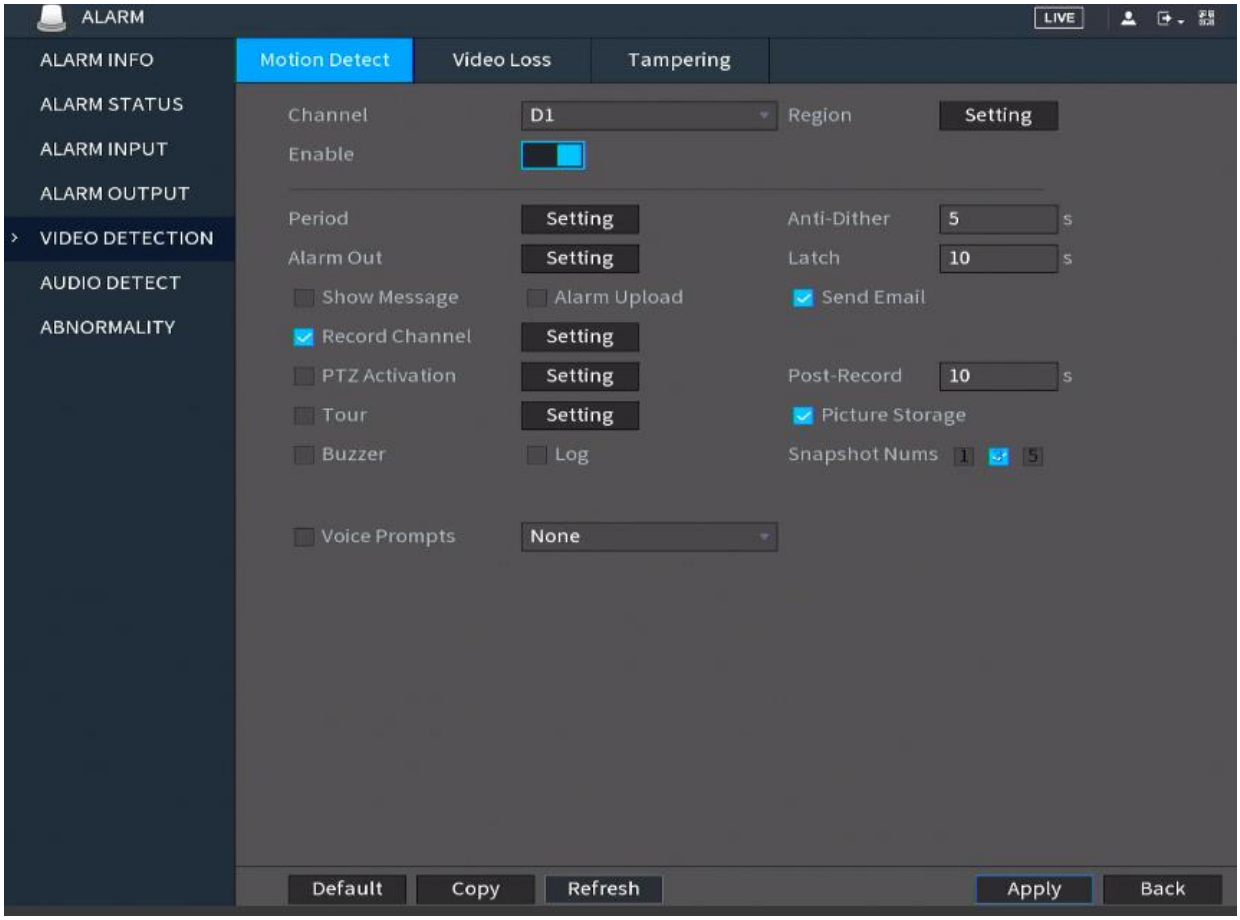
Tips:

The motion detection icon will be present if the motion detection alarm has been triggered on the current channel.

To set the motion detection region, click and drag the mouse over the region desired. Once the region has been set, click the **Apply** button to save the current region setup, and right click on the mouse to exit the motion detection interface.

Motion Detect

The motion detection settings screen is where motion detection can be setup for each individual channel. Based on the active motion detection region, the NVR can generate a motion detection alarm when a moving signal is detected in a specified area. Below is a screenshot of the motion detection settings screen:



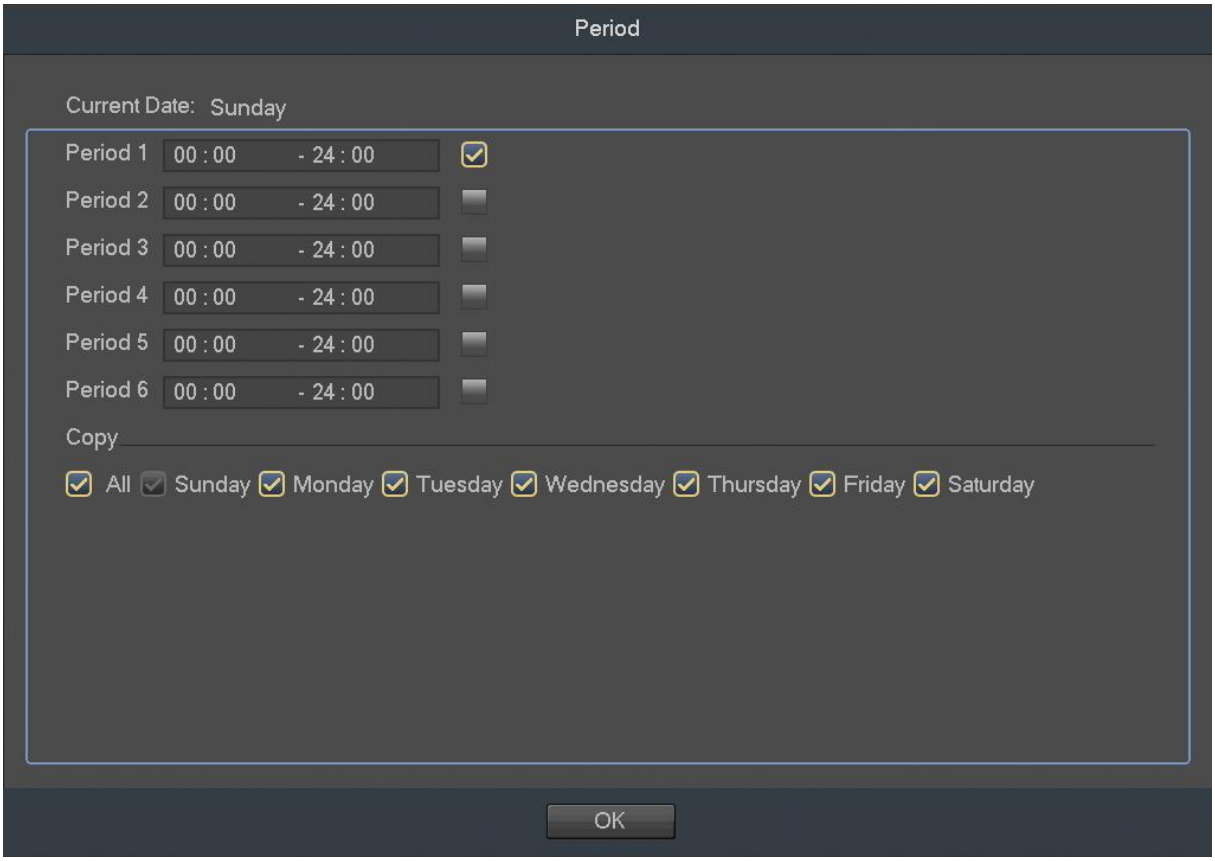
Below is a description of the fields on the Motion Detection settings page:

Channel: The channel dropdown menu is used to select which channel you would like to use to set your motion detection.
Enable: This checkbox allows the user to enable the motion detection function for a specific channel. To select a channel, click on the drop-down menu provided on the right.
Period: This setup button takes the user to the motion detection period settings screen. Below is a screenshot of the motion detection period settings screen.



Click and drag on the yellow bars to specify time zones for motion detection. To edit multiple days at once, either click the checkboxes next to the names, or click the checkbox next to All to edit all the days at once. Once the checkbox is clicked, press save to save and apply your detection settings. Click Cancel to undo any changes and return to the motion detection settings screen. Click **Default** to use the default settings.

To specify time zones in greater detail for each day, click the Setup button to the left of the time bar, and the Time Period setup screen will appear. The screenshot below shows the Time Period settings screen:



The system allows for the configuration of up to 6 different time periods. Click the checkbox to the left of the time period to enable that time period. Click the text next to each period to edit the time period. To copy time periods, click the checkboxes next to the days of the week that you would like to copy the settings to. Once finished on this screen, click Save to return to the time period settings screen.

Anti-Dither: This field allows the user to set the anti-dither time. The values in this field can range from 5 to 600 seconds. This time value controls how long the alarm signal lasts. Based on motion detection, a buzzer can go off, a tour can begin, PTZ can be activated, a snapshot can be taken, or a channel can begin recording.

For example, if the anti-dither time is set to 10 seconds, each alarm may last 10 seconds if the local alarm is activated. During the process, if the system detects another local alarm signal at the fifth second, the buzzer, tour, PTZ activation, snapshot, record channel functions will begin another 10 seconds while the screen prompt, alarm upload, email will not be activated again. After 10 seconds, if system detects another alarm signal, it can generate a new alarm since the anti-dither time has expired.

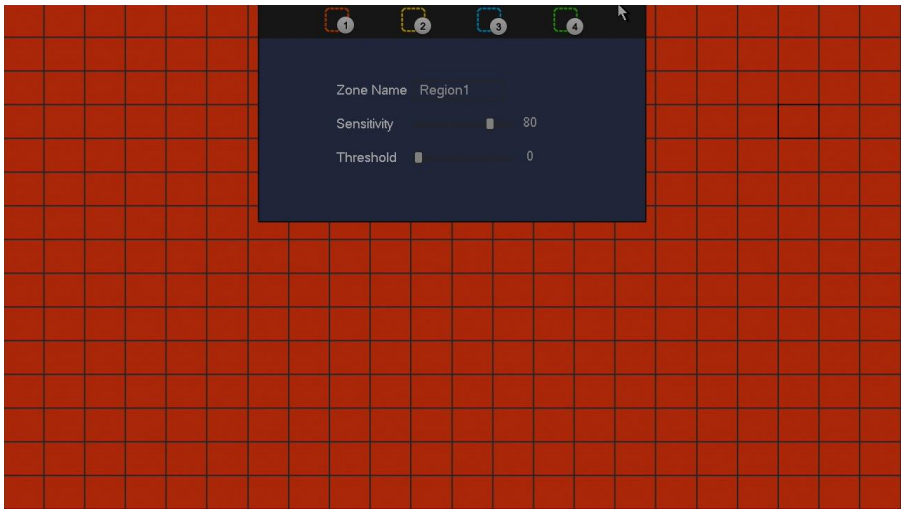
Alarm Out: Click **Setting** to display setting interface.

General Alarm: Enable alarm activation through the alarm NVRs connected to the selected output port.

External Alarm: Enable alarm activation through the connected alarm box. Wireless Siren: Enable alarm activation through NVRs connected by USB gateway or camera gateway.

Latch: Set a length of time that will delay turning off alarms after the external alarm is cancelled. The value ranges from 0 seconds to 300 seconds, and the default value is 10 seconds. If you enter 0, there will be no delay.

Region: The setup button takes the user to the motion detection region setup screen for that specific channel. On the next page is a screenshot of the motion detection region screen.



When the setup button is clicked, the current channel's interface comes into a full screen view. The user can then set up to 4 regions, each with their own region name, sensitivity (1-100), and threshold (1-100). Each region has a specific color, and the region selector tool is displayed when the mouse is moved to the top of the screen.

Sensitivity is the amount of change required to increase the motion detected by a percentage. The lower the sensitivity, the more movement is required to trigger an alarm.
Threshold is the level that the motion detection needs to reach to trigger an alarm.
The lower the threshold, the more likely that motion will trigger an alarm.

To designate a zone, click and drag the mouse over the area desired. When a colored box is displayed over the live feed, that area is now enabled for motion detection. Clicking the FN button will switch the mode between armed and disarmed, so that clicking and dragging the mouse can either designate a motion detection zone or remove any motion detection zone markers.
After the motion detection zone is set, click the enter button to exit the motion detection screen. Remember to click the save button on the motion detection settings screen, otherwise the motion detection zones will not go into effect. Clicking the escape button to leave the motion detection zone and will not save the zone setup.

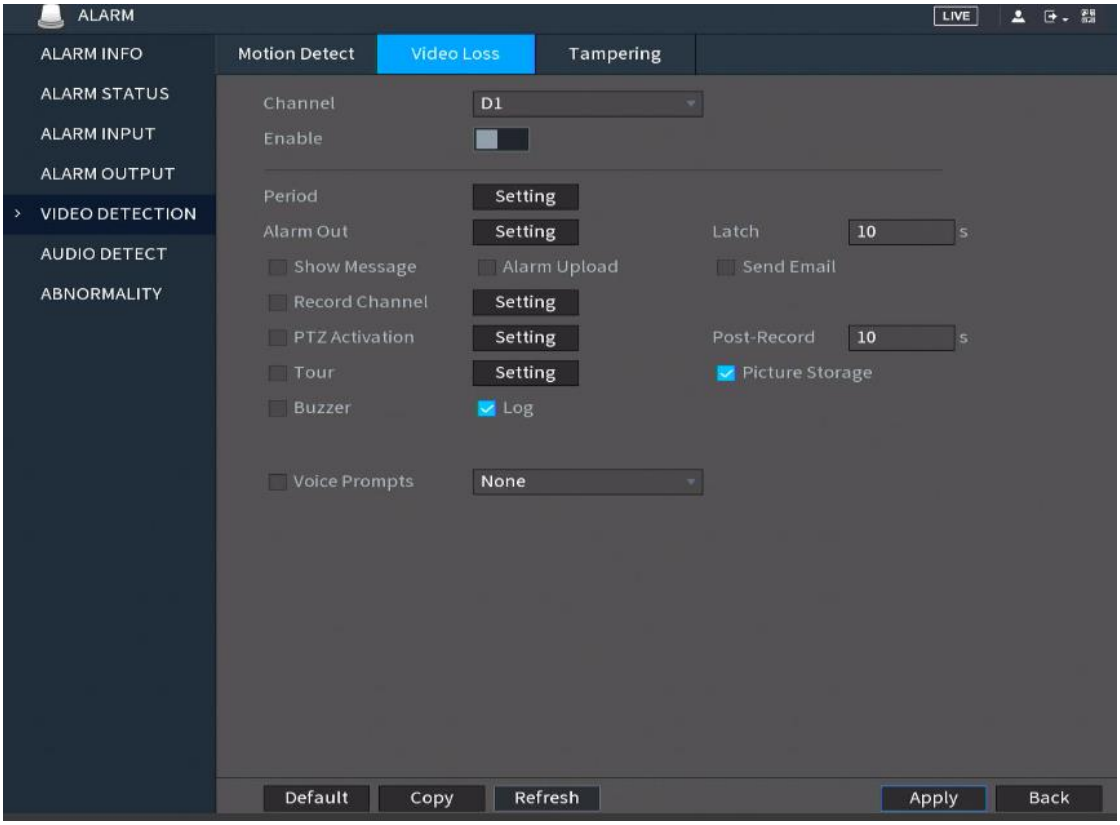
Record Channel: This checkbox allows the user to enable the system to record video for that channel when a motion detection alarm is triggered. Delay is also associated with this tab, it is the This field specifies in seconds how long the delay between alarm activation and recording should be.
PTZ Activation: Allows the user to active PTZ functionality to applicable PTZ devices.
Delay: Allows the user to set a delay in between motion event activation.

Tour: Allows the user to enable the camera to activate a PTZ tour when a motion detection alarm is triggered.
Snapshot: Allows the user to enable the camera to take a snapshot when a motion detection alarm is triggered.
Voice Prompts: Allows the user to customize voice prompts for motion detected events.
Show Message: This checkbox allows the user to enable the system to show an on-screen message when a motion detection alarm is triggered.
Send Email: This checkbox allows the user to enable the system to send an email when a motion detection alarm is triggered.
Tour: Allows the user to enable the camera to activate a PTZ tour when a motion detection alarm is triggered.
Buzzer: Check this box to enable a buzzer to be sound on your device if an event occurs.
Log: Check this box to enable a log of the abnormality to be retained into the system.
Picture Storage: When an alarm occurs, the NVR triggers a snapshot for the selected channel.
Voice Prompts: Check this box to enable an imported voice prompt to be used if an event occurs. To use this feature, select a file from the dropdown box in the **File Name** section.

To reset to default settings, click the **Default** button. To refresh the page, click the **Refresh** button. To save the settings click the **Apply** button.

Video Loss

The video loss settings screen is where the NVR can be setup to notify the user any time there is video loss on any of the channels. Below is a screenshot of the video loss settings screen:



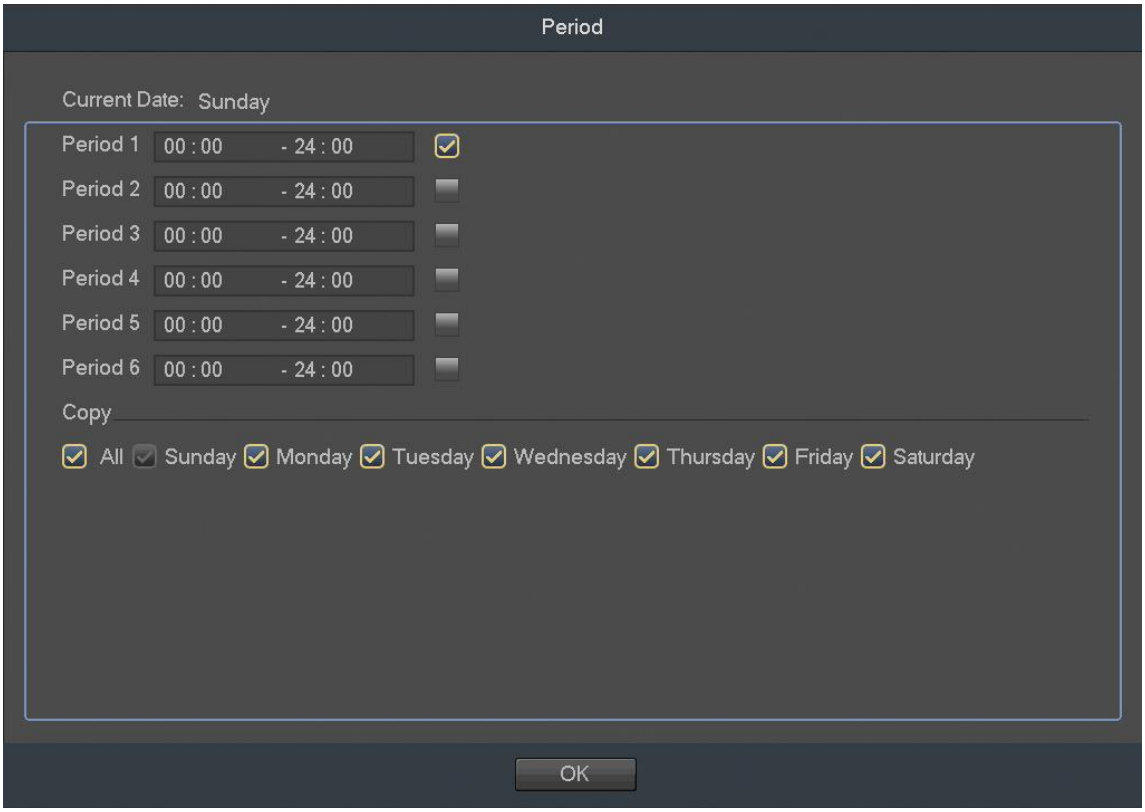
Below is a description of the fields on the masking settings page:

Channel: The channel dropdown menu is used to select which channel you would like to use to set your motion detection.
Enable: This checkbox allows the user to enable the motion detection function for a specific channel. To select a channel, click on the drop-down menu provided on the right.
Period: This setup button takes the user to the motion detection period settings screen. Below is a screenshot of the motion detection period settings screen.



Click and drag on the green bars to specify time zones for motion detection. To edit multiple days at once, either click the checkboxes next to the names, or click the checkbox next to All to edit all the days at once. Once the checkbox is clicked, press save to save and apply your detection settings. Click Cancel to undo any changes and return to the motion detection settings screen. Click Default to use the default settings.

To specify time zones in greater detail for each day, click the Setup button to the left of the time bar, and the Time Period setup screen will appear. The screenshot below shows the Time Period settings screen:



The system allows for the configuration of up to 6 different time periods. Click the checkbox to the left of the time period to enable that time period. Click the text next to each period to edit the time period. To copy time periods, click the checkboxes next to the days of the week that you'd like to copy the settings to. Once finished on this screen, click Save to return to the time period settings screen.

Record Channel: This checkbox allows the user to enable the system to record video for that channel when a motion detection alarm is triggered. Delay is also associated with this tab, it is the This field specifies in seconds how long the delay between alarm activation and recording should be.

PTZ Activation: Allows the user to active PTZ functionality to applicable PTZ devices.

Tour: Allows the user to enable the camera to activate a PTZ tour when a motion detection alarm is triggered.

Snapshot: Allows the user to enable the camera to take a snapshot when a motion detection alarm is triggered.

Show Message: This checkbox allows the user to enable the system to show an on-screen message when a motion detection alarm is triggered.

Send Email: This checkbox allows the user to enable the system to send an email when a motion detection alarm is triggered.

Alarm Upload: This checkbox allows the user to enable the system to upload alarm information when a motion detection alarm is triggered.

Post Record: This allows the user to set a delay between masking events measured in seconds.

Tour: Allows the user to enable the camera to activate a PTZ tour when a motion detection alarm is triggered.

Buzzer: Check this box to enable a buzzer to be sound on your device if an event occurs.

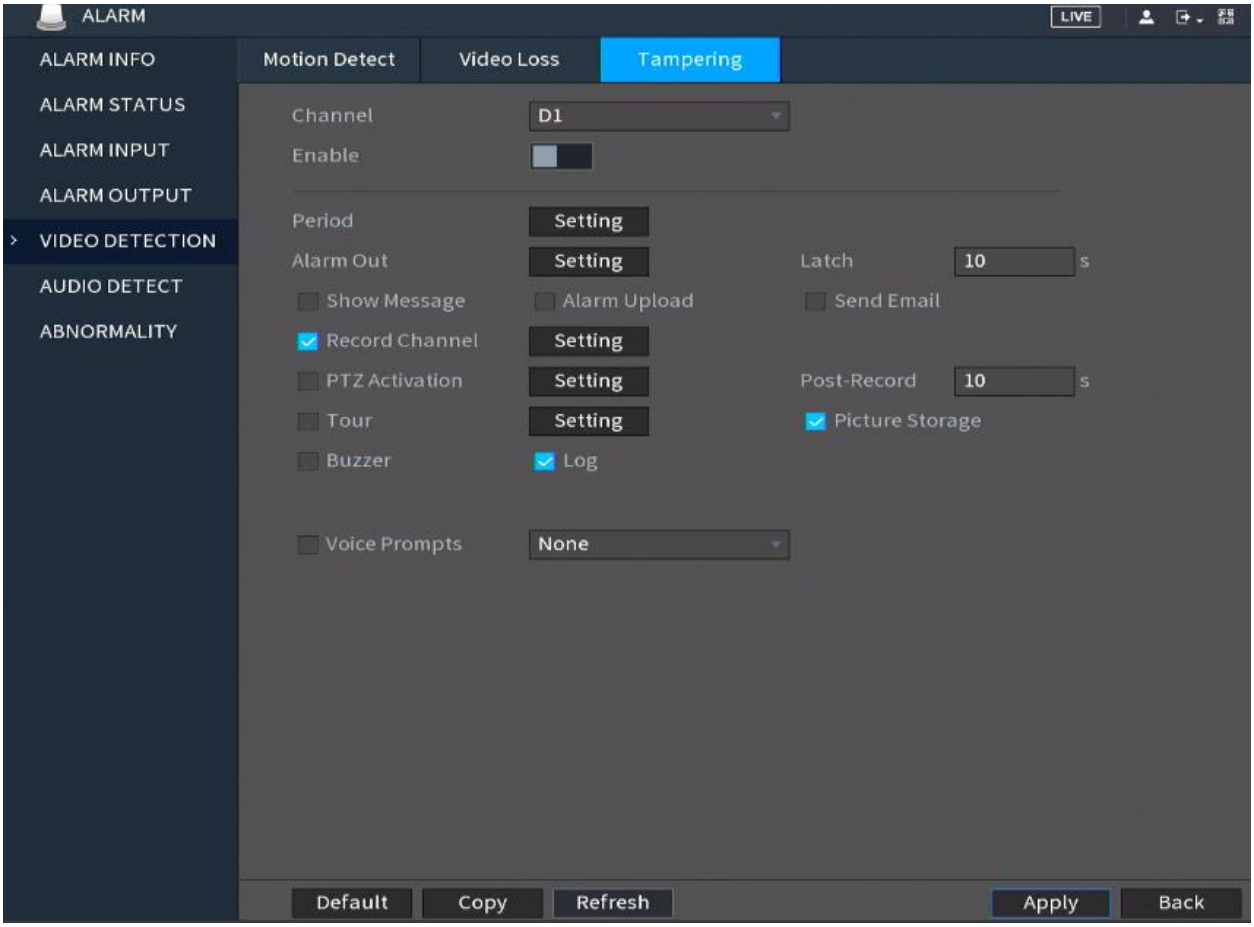
Log: Check this box to enable a log of the abnormality to be retained into the system.

Picture Storage: When an alarm occurs, the NVR triggers a snapshot for the selected channel.
Voice Prompts: Check this box to enable an imported voice prompt to be used if an event occurs. To use this feature, select a file from the dropdown box in the **File Name** section.

To reset to default settings, click the **Default** button. To refresh the page, click the **Refresh** button. To save the settings click the **Apply** button.

Tampering

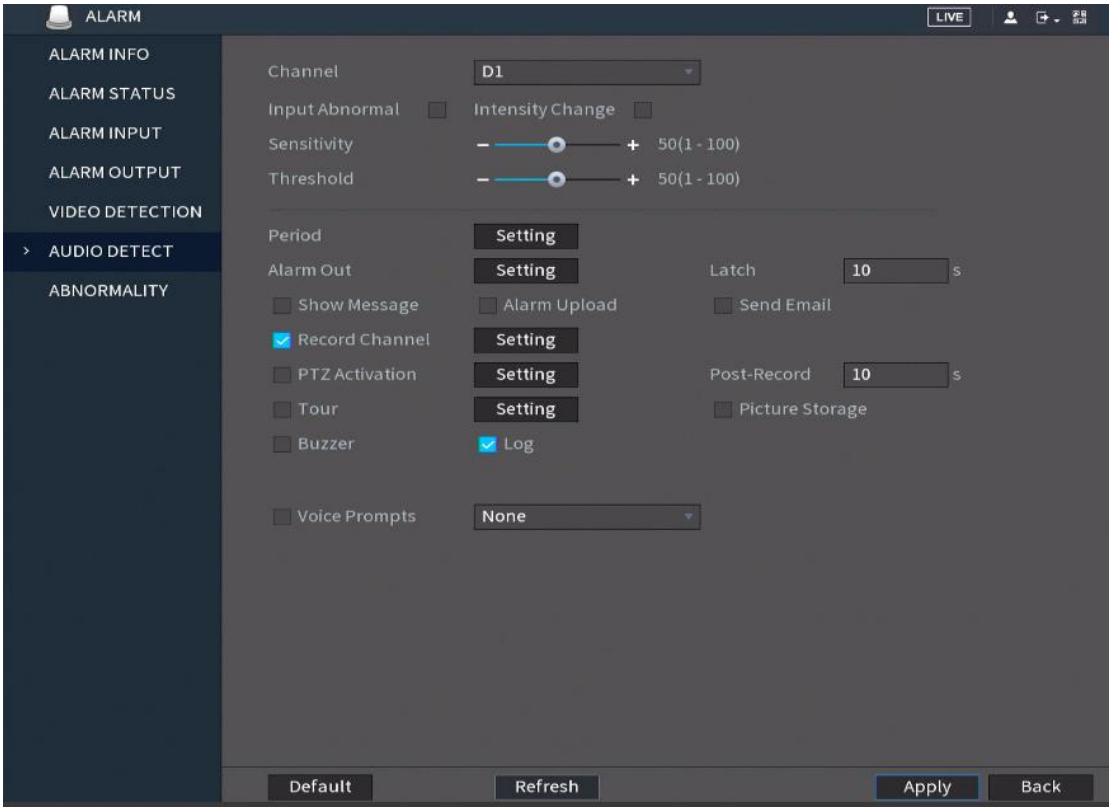
The tampering settings screen is where the NVR can be setup to notify the user any time a camera is tampered with or if the output video is only displaying in one color. Below is a screenshot of the video tampering settings screen:



Audio Detect

This screen is used to configure audio detection settings. Audio detection uses an "Audio In" interface (external or internal microphone) to trigger an alarm if audio is detected.

Below is a screenshot of the **Audio Detect** menu:



Below is a description of the features in this menu:

Channel: The channel dropdown menu is used to select which channel you would like to use to set your motion detection.
Input Abnormal: Interprets if an audio input is abnormal, such as clipping audio, etc.
Intensity Change: Interprets if the intensity value surpasses the set threshold; it can record, send a snapshot, and an alarm according to the result.
Sensitivity: Adjust and control the sensitivity of the audio from the camera.
Threshold: Adjust the threshold in which the audio will be detected by the camera.
Period: This setup button takes the user to the motion detection period settings screen. Below is a screenshot of the motion detection period settings screen.
Alarm Out: Click **Setting** to display setting interface.

General Alarm: Enable alarm activation through the alarm NVR connected to the selected output port.

Alarm Out: Enable an alarm channel in which an external alarm is connected.

Latch: Set a length of time that will delay turning off alarms after the external alarm is cancelled. The value ranges from 0 seconds to 300 seconds, and the default value is 10 seconds. If you enter 0, there will be no delay.
Show Message: This checkbox allows the user to enable the system to show an on-screen message when a motion detection alarm is triggered.
Alarm Upload: This checkbox allows the user to enable the system to upload alarm information when a motion detection alarm is triggered.

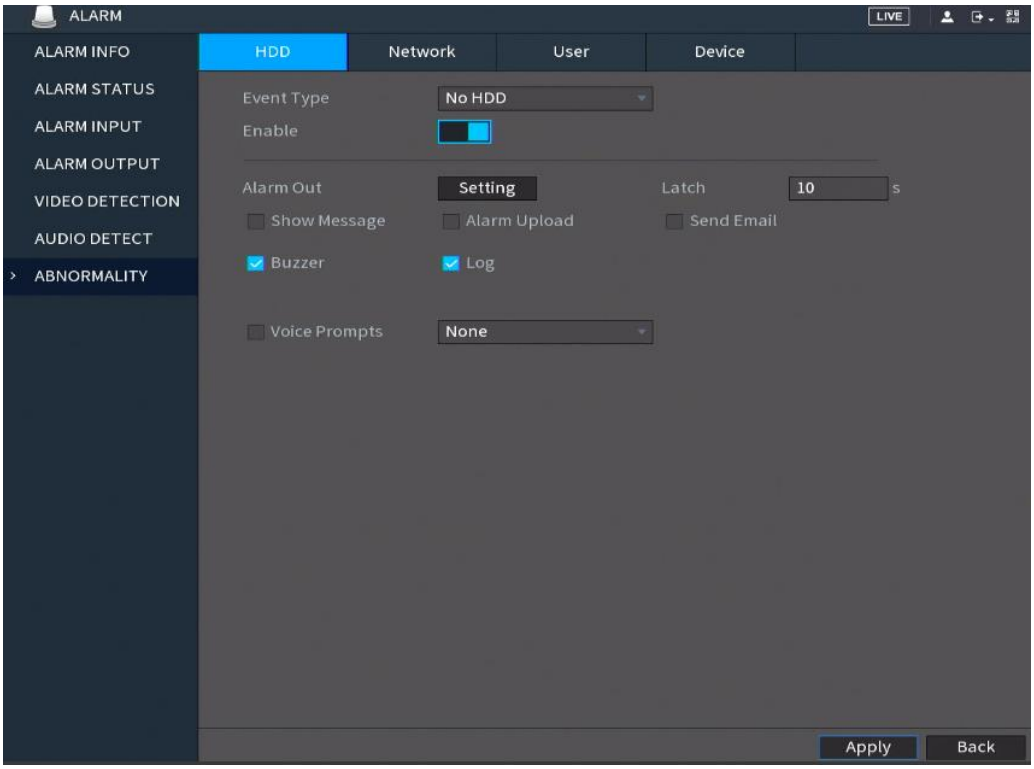
Send Email: This checkbox allows the user to enable the system to send an email when a motion detection alarm is triggered.
Delay: This allows the user to set a delay between masking events measured in seconds.
Record Channel: This checkbox allows the user to enable the system to record video for that channel when a motion detection alarm is triggered. Delay is also associated with this tab; it is the This field specifies in seconds how long the delay between alarm activation and recording should be.
PTZ Activation: Allows the user to active PTZ functionality to applicable PTZ devices.
Post Record: This allows the user to set a delay between masking events measured in seconds.
Tour: Allows the user to enable the camera to activate a PTZ tour when a motion detection alarm is triggered.
Buzzer: Check this box to enable a buzzer to be sound on your device if an event occurs.
Log: Check this box to enable a log of the abnormality to be retained into the system.
Picture Storage: When an alarm occurs, the NVR triggers a snapshot for the selected channel.
Voice Prompts: Check this box to enable an imported voice prompt to be used if an event occurs. To use this feature, select a file from the dropdown box in the **File Name** section.

To reset to default settings, click the **Default** button. To refresh the page, click the **Refresh** button. To save the settings click the **Apply** button.

Abnormality

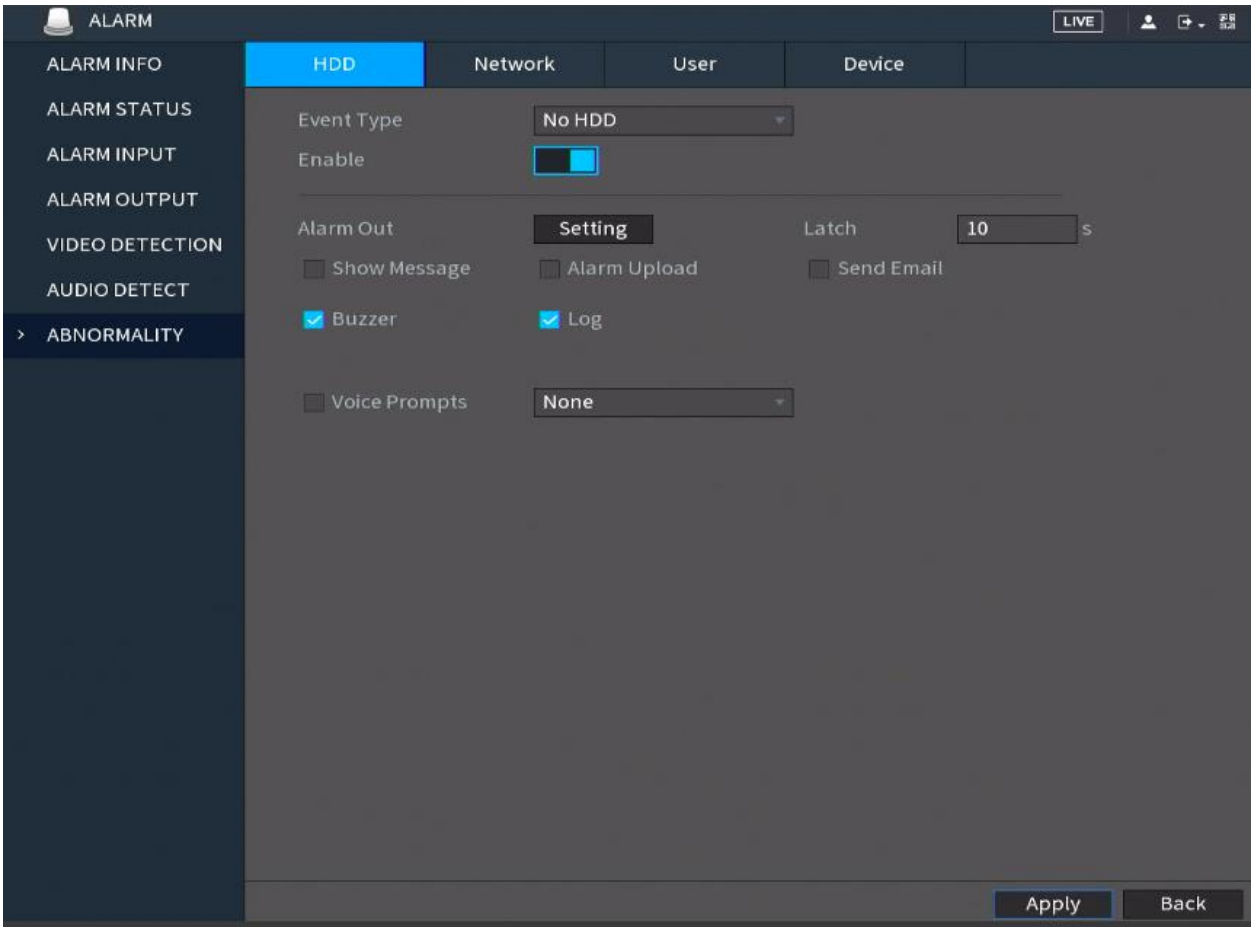
This screen is used to specify system action in the case of either hard drive abnormality, or network abnormality.

Below is a screenshot of the **Abnormality** screen:



HDD

This screen allows the user to specify actions that occur when there is an abnormality with the NVR's hard disk drive (HDD). Below is a screenshot of the HDD abnormality settings screen:



Below is an explanation of the fields on the HDD Abnormality settings screen:

Event Type: This field allows the user to specify which HDD abnormality event type they would like to configure settings for.

No HDD: No hard drive is detected.

HDD Error: The hard drive has an error.

HDD No Space: The hard drive is about to or has run out of space.

Enable: This option allows the user to enable the features below for the specified event type.

Alarm Out: Click **Setting** to display setting interface.

General Alarm: Enable alarm activation through the alarm NVR connected to the selected output port.

Alarm Out: Enable an alarm channel in which an external alarm is connected.

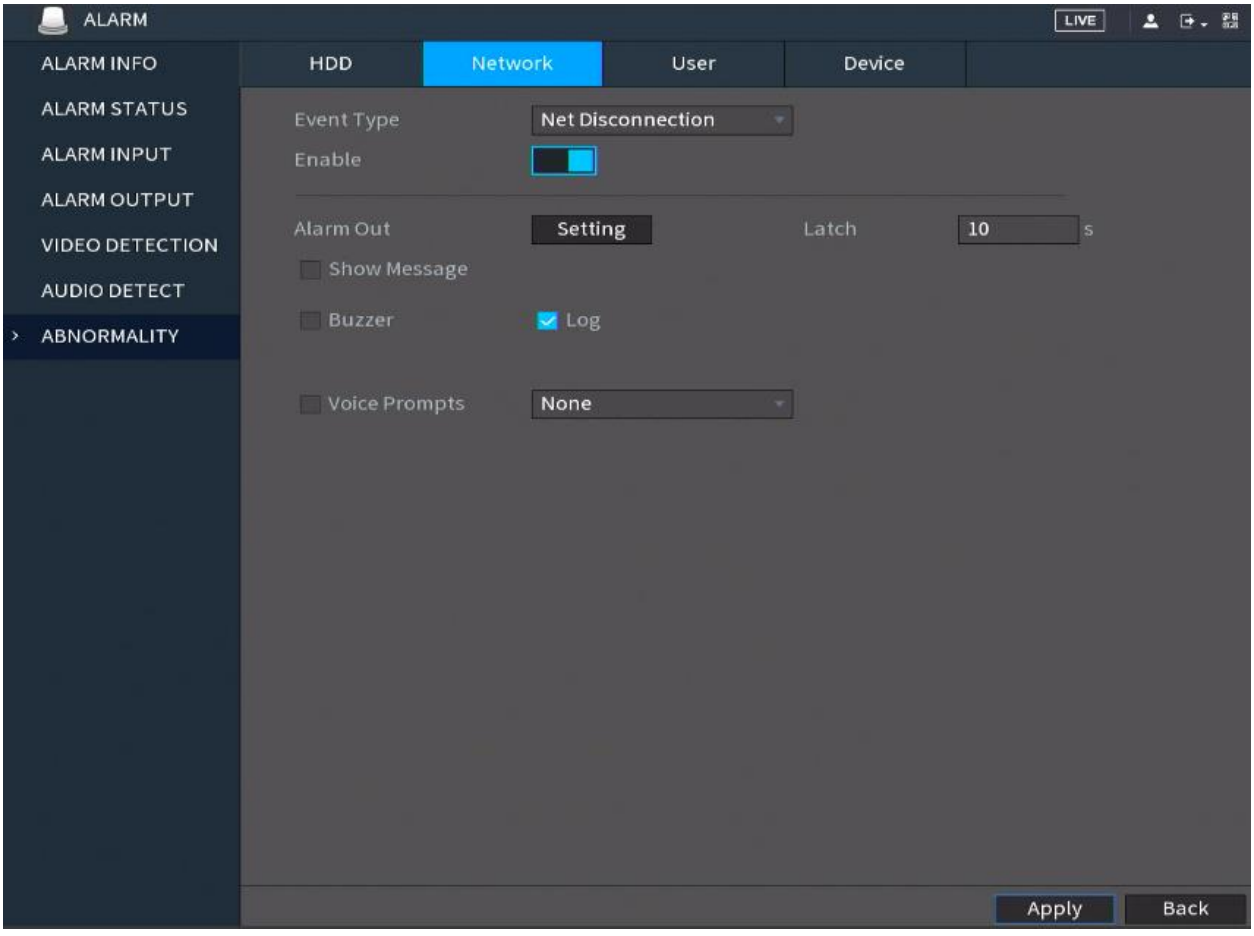
Latch: Set a length of time that will delay turning off alarms after the external alarm is cancelled. The value ranges from 0 seconds to 300 seconds, and the default value is 10 seconds. If you enter 0, there will be no delay.

Show Message: This checkbox allows the user to enable the system to show an on-screen message when an HDD abnormality occurs.
Alarm Upload: This checkbox allows the user to enable the system to upload alarm information when an HDD abnormality occurs.
Send Email: This checkbox allows the user to enable the system to send an email when a motion detection alarm is triggered.
Buzzer: Check this box to enable a buzzer to be sound on your device if an event occurs.
Log: Check this box to enable a log of the abnormality to be retained into the system.
Voice Prompts: Check this box to enable an imported voice prompt to be used if an event occurs. To use this feature, select a file from the dropdown box in the **File Name** section.

To save the settings click the **Apply** button.

Network

This screen allows the user to specify actions that occur when there is an abnormality with the NVR's network connection. Below is a screenshot of the network abnormality settings screen:



Below is an explanation of the fields on the Network Abnormality settings screen:

Event Type: This field allows the user to specify which Network abnormality event type they would like to configure settings for.

Net Disconnection: The network connection has been disconnected.

IP Conflict: There is a device on the network with the same IP address.

MAC Conflict: There is a device on the network with the same MAC address.

Enable: This option allows the user to enable the features below for the specified event type.

Show Message: This checkbox allows the user to enable the system to show an on-screen message when an abnormality occurs.

Buzzer: Check this box to enable a buzzer to be sound on your device if an event occurs.

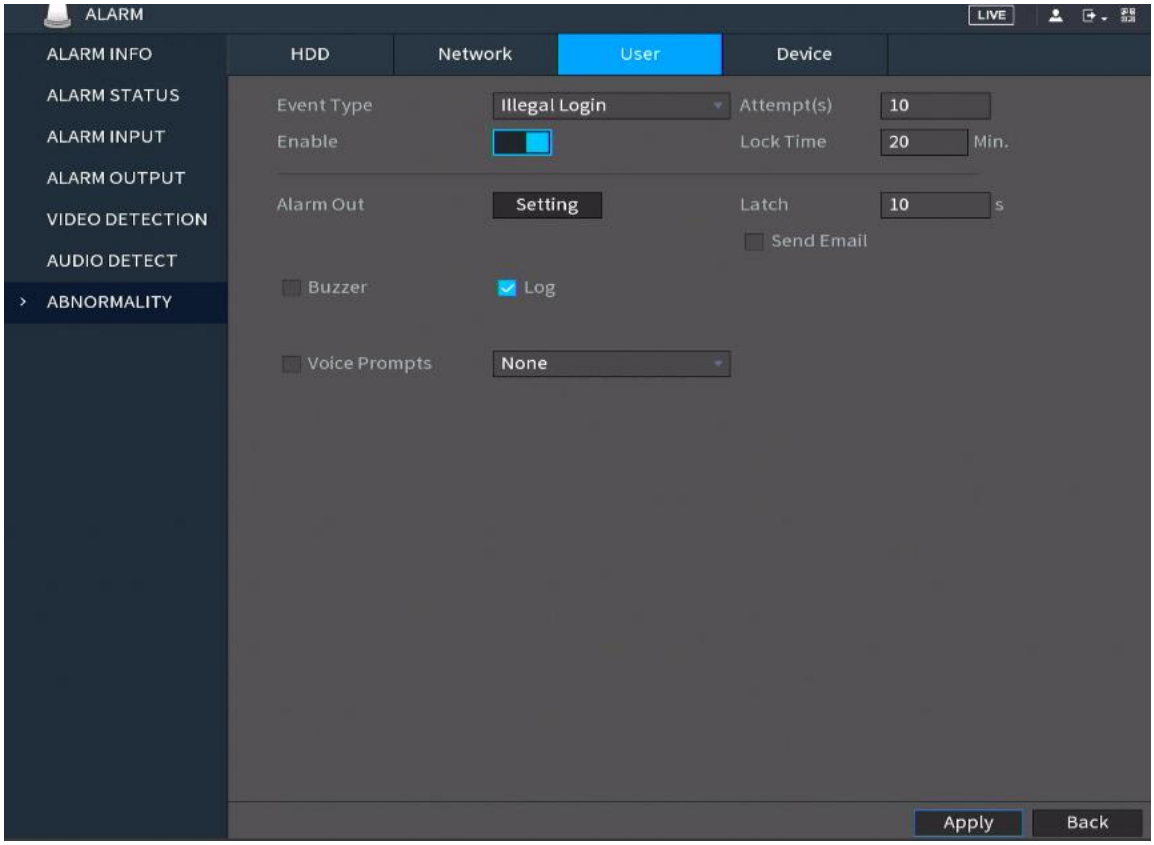
Log: Check this box to enable a log of the abnormality to be retained into the system.

Voice Prompts: Check this box to enable an imported voice prompt to be used if an event occurs. To use this feature, select a file from the dropdown box in the **File Name** section.

To save the settings click the **Apply** button.

User

This screen allows the user to specify actions that occur when illegal login has been attempted on their device. Below is a screenshot of this menu:



Below is a description of the features listed in this menu:

Event Type: Sets the type of event that is being triggered by the abnormality.

Enable: Check this box to enable this feature.

Attempt(s): Refers to the number of login attempts tried before the abnormality is triggered.
Lock Time: How long the device will be locked until another login attempt can be made.
Alarm Out: Click **Setting** to display setting interface.

General Alarm: Enable alarm activation through the alarm NVR connected to the selected output port.

Alarm Out: Enable an alarm channel in which an external alarm is connected.

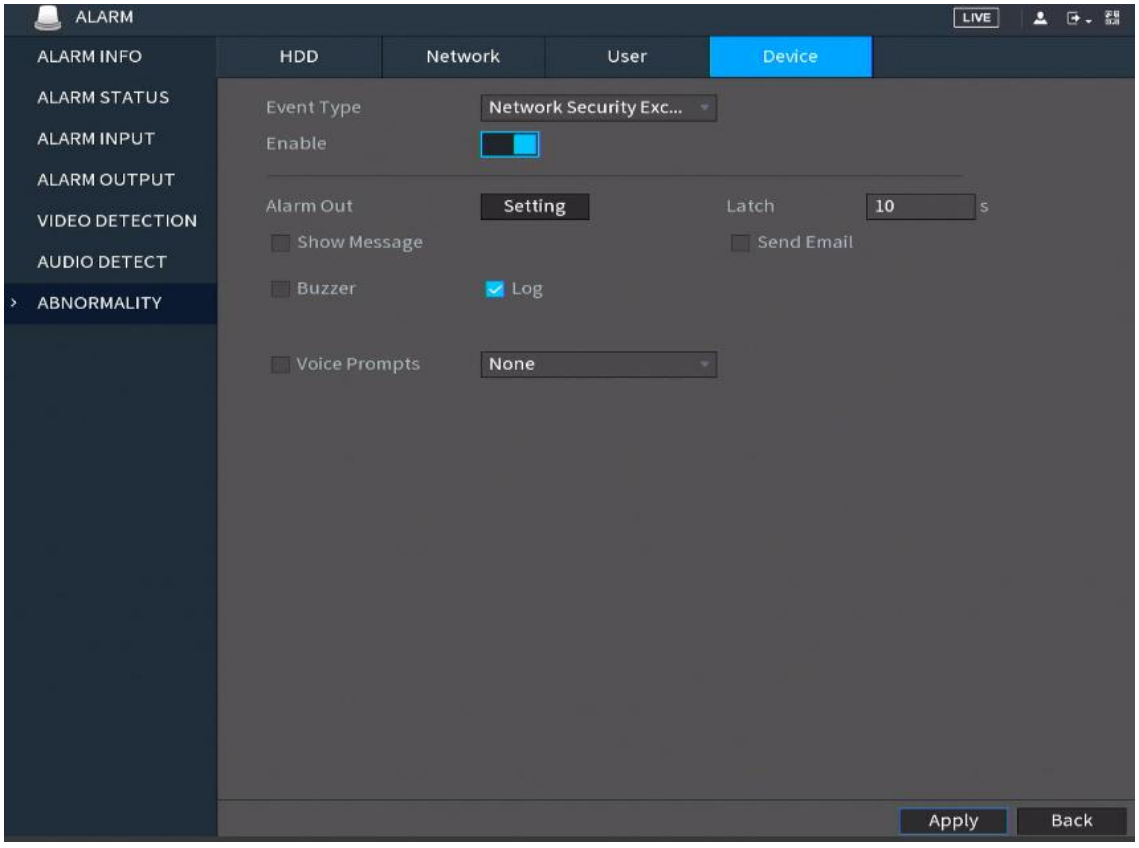
Latch: Set a length of time that will delay turning off alarms after the external alarm is cancelled. The value ranges from 0 seconds to 300 seconds, and the default value is 10 seconds. If you enter 0, there will be no delay.
Send Email: This checkbox allows the user to enable the system to send an email when a motion detection alarm is triggered.
Buzzer: Check this box to enable a buzzer to be sound on your device if an event occurs.
Log: Check this box to enable a log of the abnormality to be retained into the system.
Voice Prompts: Check this box to enable an imported voice prompt to be used if an event occurs. To use this feature, select a file from the dropdown box in the **File Name** section.

To save the settings click the **Apply** button.

Device

This screen allows the user to specify actions that occur if the device encounters a network security exception.

Below is a screenshot of the **Device** abnormality menu:



Below is a description of the features provided in this menu:

Event Type: Sets the type of event that is being triggered by the abnormality.
Enable: Check this box to enable this feature.
Attempt(s): Refers to the number of login attempts tried before the abnormality is triggered.
Lock Time: How long the device will be locked until another login attempt can be made.
Alarm Out: Click **Setting** to display setting interface.

General Alarm: Enable alarm activation through the alarm NVR connected to the selected output port.
Alarm Out: Enable an alarm channel in which an external alarm is connected.

Latch: Set a length of time that will delay turning off alarms after the external alarm is cancelled. The value ranges from 0 seconds to 300 seconds, and the default value is 10 seconds. If you enter 0, there will be no delay.
Show Message: This checkbox allows the user to enable the system to show an on-screen message when an abnormality occurs.
Send Email: This checkbox allows the user to enable the system to send an email when a motion detection alarm is triggered.
Buzzer: Check this box to enable a buzzer to be sound on your device if an event occurs.
Log: Check this box to enable a log of the abnormality to be retained into the system.
Voice Prompts: Check this box to enable an imported voice prompt to be used if an event occurs. To use this feature, select a file from the dropdown box in the **File Name** section.

To save the settings click the **Apply** button.

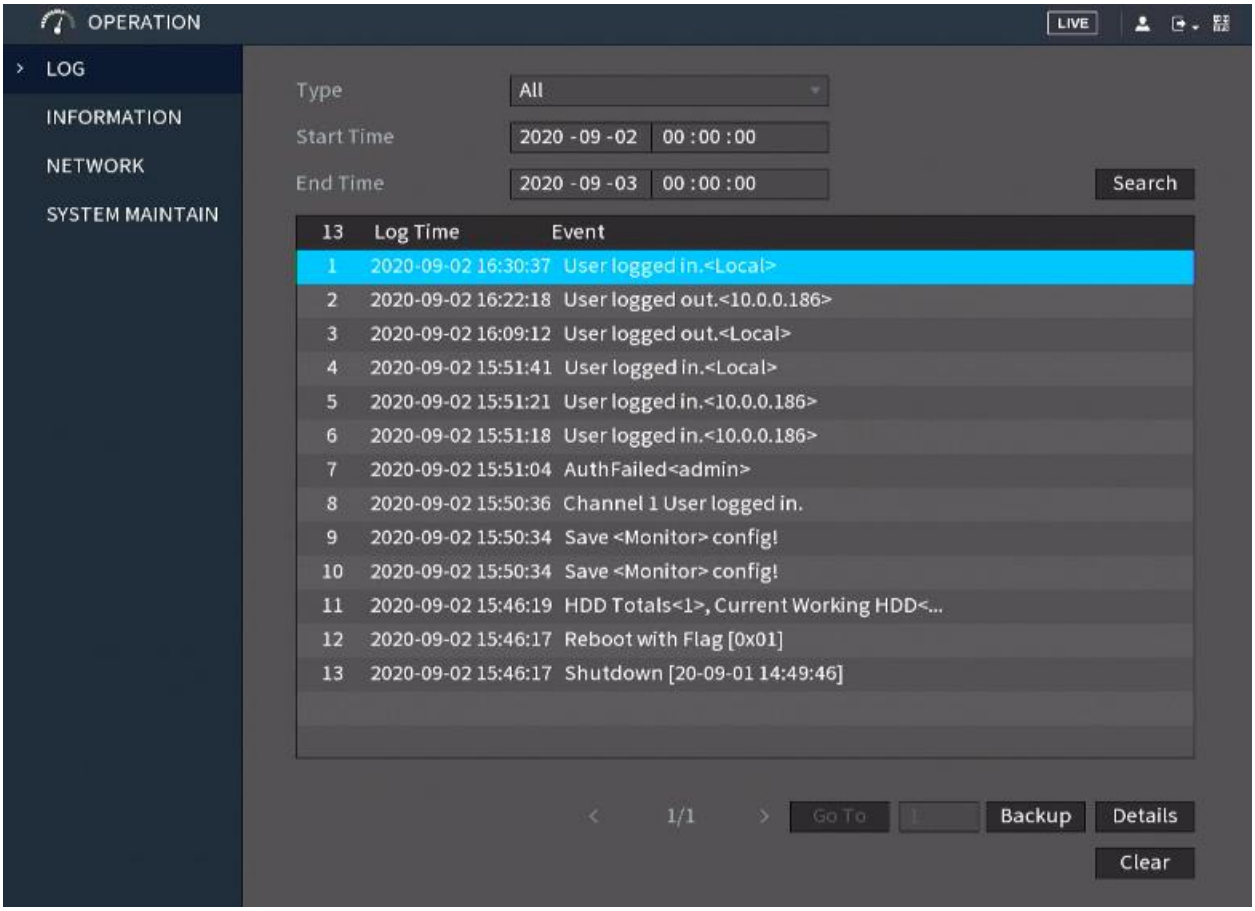
Operation

The **Operation** menu allows the user to view system information, update, import and export configuration settings, etc.

Log

This menu allows the user to view log information retained in the system. The system will automatically retain logs of events which occur during normal operation.

Below is a screenshot of this menu:



Below is a description of the features in this menu:

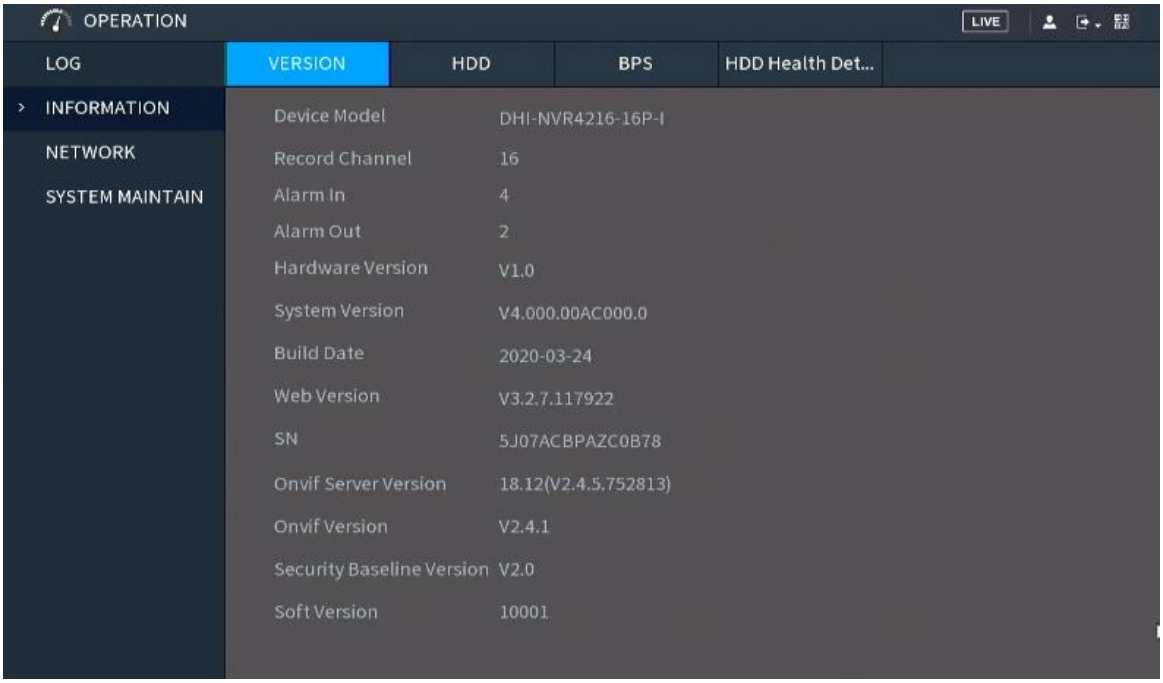
Type: Use this dropdown menu to select a log type.
Start Time: The start time in which logged events will be displayed
End Time: The end time in which a logged event will be displayed.
Search: Run a query of logs based on the start and end time.
Go To: Go to a specific log in the query.
Backup: Used to download data from the query to an inserted flash drive.
Details: Provides details of a selected log such as, the login group, IP address, user, time, etc.
Clear: Clears the query.

Information

This menu allows the user to view information about their system such as the current system and firmware version, hard drive details, BPS, and hard drive health detection.

Version

The version tab provides details about the NVR such as the model, system version, and other basic information related to the system.



Please note the following figure is for reference only.

HDD

The HDD tab provides information about a connected hard drive in the system.



Below is a description of the fields listed in this menu:

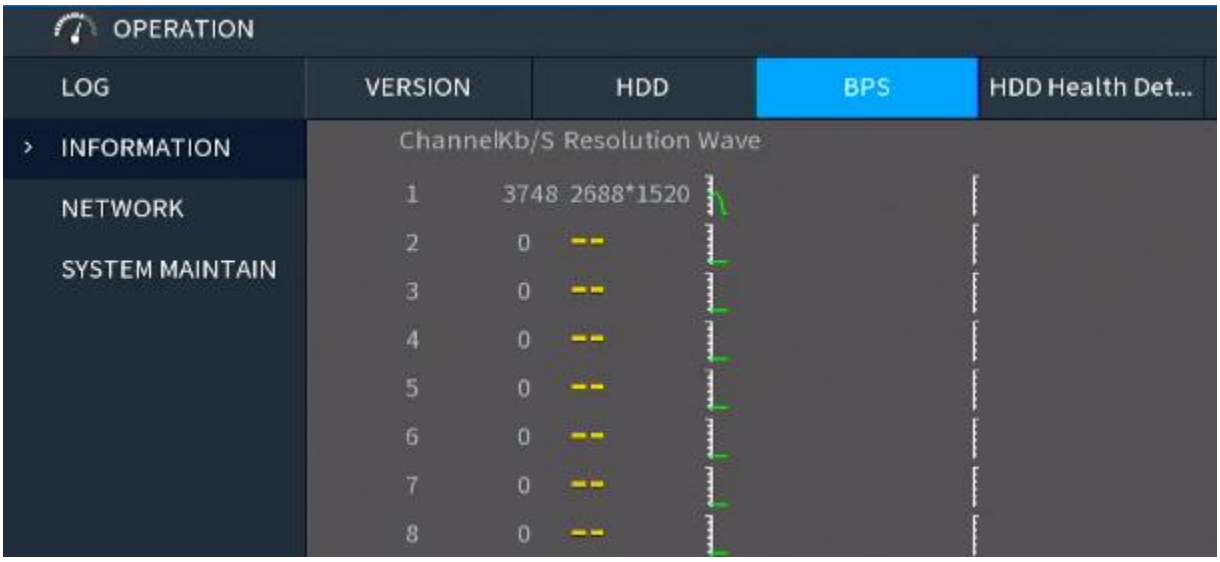
Number: The number represented in the system for the hard drive.
Device Name: The name assigned by the system for the connected hard drive.

Physical Position: Displays the location of the connected hard drive on the system.
Type: The read and write type assigned to the hard drive.
Total Space: The total space used on the hard drive.
Free Space: The total free space available on the hard drive.

BPS

The BPS tab allows the user to view current video bit rate (kb/s) and resolution provided for each connected channel.

Below is a screenshot of this menu:

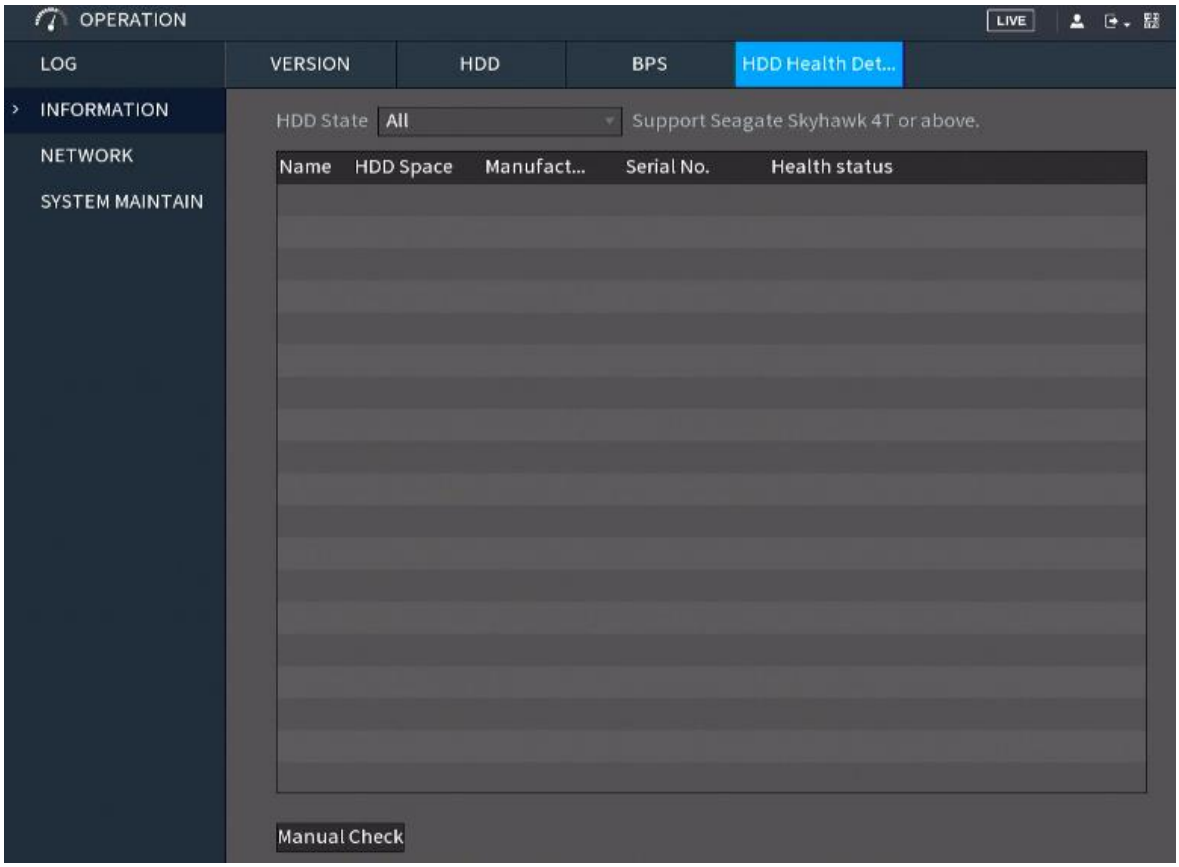


The menu will show the current channel and resolution of that specific channel. The kb/S section denotes the amount of kb/S used by that channel and the **Wave** menu shows, in wave format, the amount of kb/S used by that specific channels output.

HDD Health Detection

The HDD Health Detection tab allows the user to view any errors associated with a connected hard drive. The interface can detect the name, amount of space left, the manufacturer, serial number, and current health status of the drive.

Below is a screenshot of the interface:



Below is a description of the fields listed in this menu:

HDD State: Allows the user to filter specific types of errors

All: Displays all errors detected.

Normal: Displays all normal operations detected.

Warning: Displays all erroneous information related to the hard drive.

Error: Displays any errors detected in the hard drive.

Manufacturer: Displays the manufacturer of the hard drive.

Serial No: Displays the serial number of the hard drive.

Health Status: Displays the current health status of the connected hard drive.

Manual Check: Runs a query which is used

Note: Using this option may result in data being lost on the hard drive. The system supports Seagate Skyhawk 4T and above hard drives.

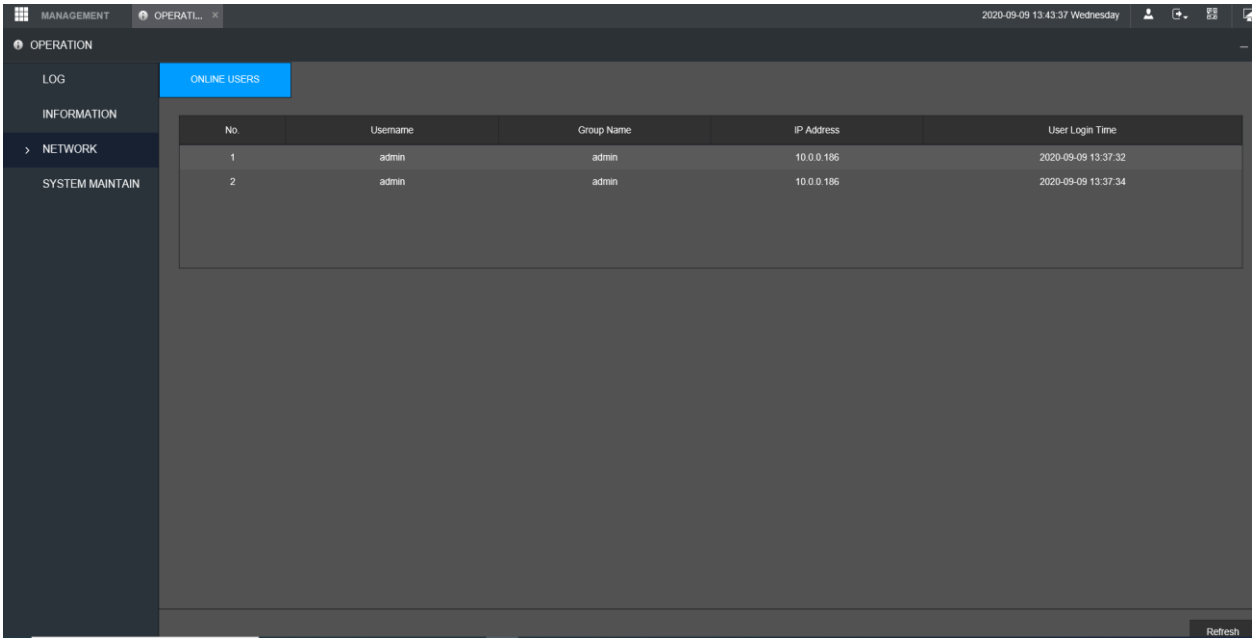
Network

The Network menu provides an overview of all online users currently logged into the system.

Online Users:

The Online Users tab allows the user to manage online users connected to your NVR.

Below is a screenshot of this menu.



Below is a description of the fields listed in this menu:

No: The number assigned to the user in the system.
Username: The username of the connected user.
Group Name: The group name associated with the connected user.
IP address: The IP address used by the connected user to access the system.
User Login Time: The date & time which the user logged into the system.

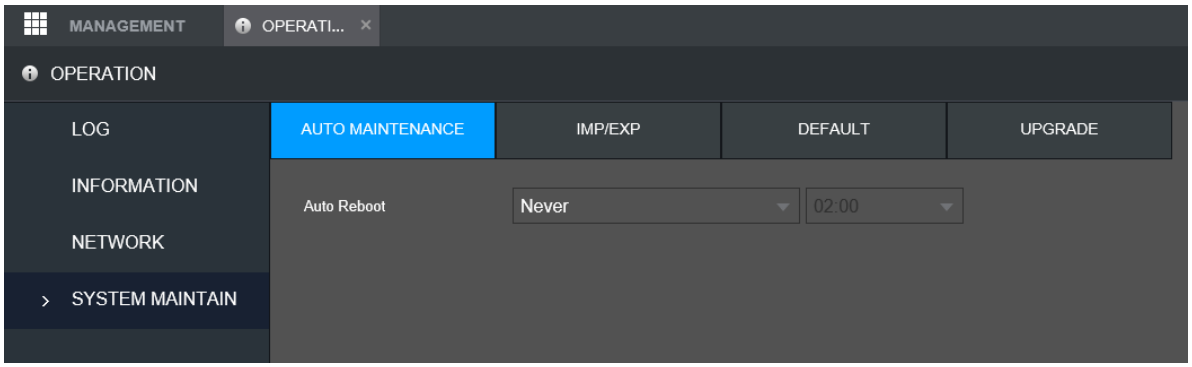
System Maintain

The system maintain menu allows the user to set auto maintenance settings, import/export settings, reset the device back to its default settings, and upgrade firmware.

Auto Maintenance

This screen is used to configure Auto Maintenance settings for the system.

Below is a screenshot of the Auto Maintenance screen:



Below is an explanation of the fields in the Auto Maintenance screen:

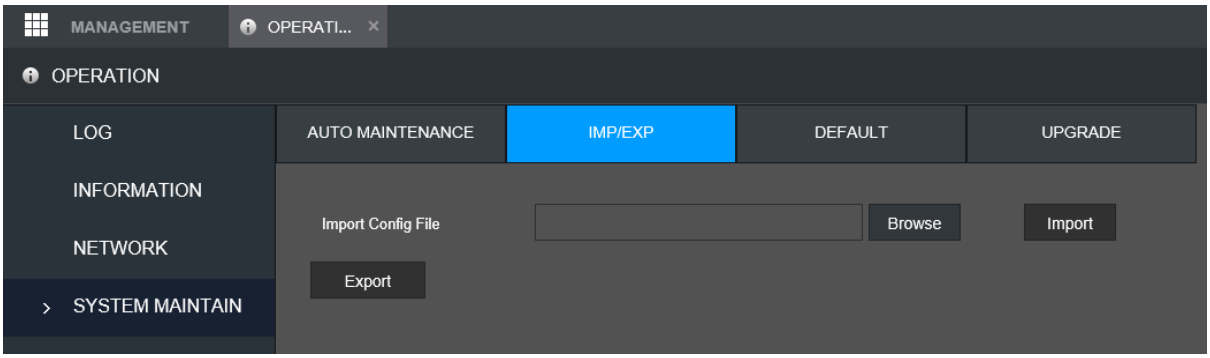
Auto Reboot: This dropdown field allows the user to set a day of the week and time in which the device will automatically reboot the system to keep the system healthy. The interface will be set to Never by default unless changed by the user.

To confirm settings, click the **Save** button. Click the **Refresh** button to refresh the interface.

IMP/EXP

This screen is used to manage importing and exporting of system configurations. This feature can be used to import and export NVR settings.

Below is a screenshot of the IMP/EXP settings screen:



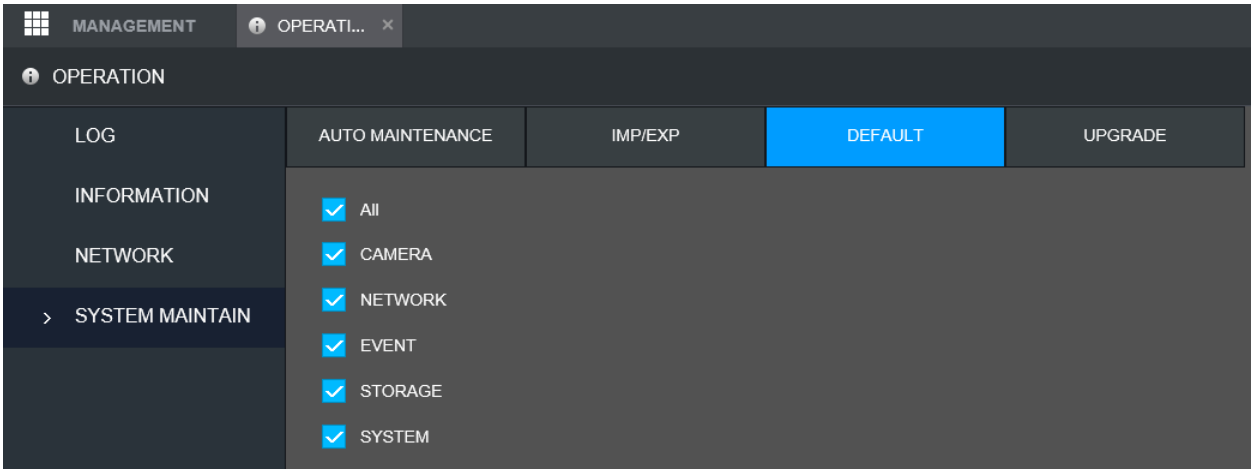
Below is an explanation of the fields on the Config Backup settings screen:

Export: Click this button to export all saved settings from the NVR to an inserted flash drive or to the computer if using the web user interface. The file will export as a "configFileExport.backup"
Browse: Click this button to choose the config backup file from the flash drive or computer. Click the Open button to import the file into the interface.
Import: Click this button after the config file has been imported into the interface to import the settings

Default

This screen is used to revert the NVR back to its original default or factory default settings.

Below is a screenshot of the **Default** settings screen:



There are six different settings that can be reset to default settings: Camera, Network, Event, Storage, and System settings. All these settings can be reset by the use of the **All** check box.

The following settings are also reset with a factory reset:

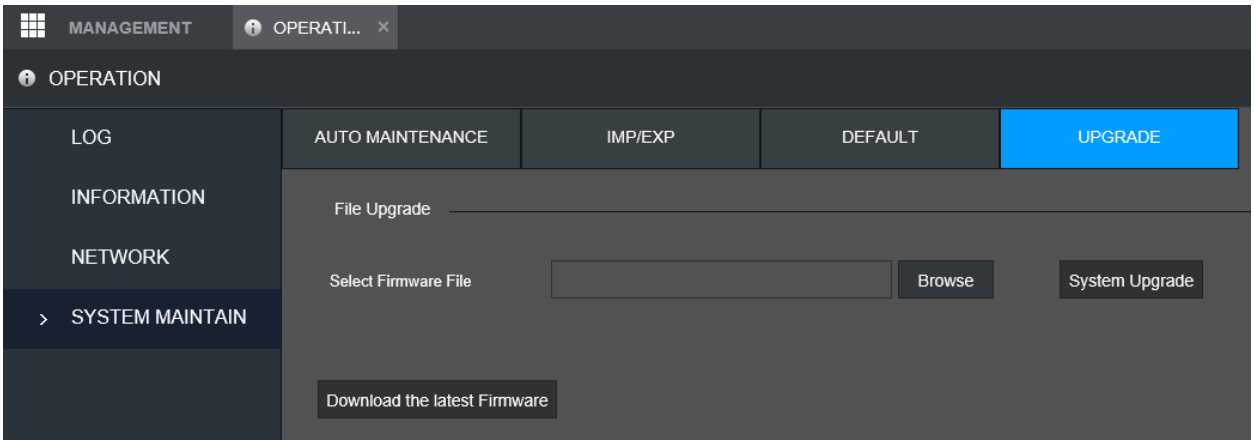
System Menu Color
Language
Time Display Mode
Video Format
IP Address
User Accounts

To perform a factory reset, click on the **Factory Default** button. A prompt will be displayed, click the OK button to begin the factory reset. The device will reboot and restored back to its original factory settings.

Upgrade

This screen is used to update the NVRs firmware. To conduct a system update, it is required to put an update file onto a USB storage device and plug it into the NVR. For more information on how to download a firmware file, please visit https://amcrest.com/firmware-subscribe

Below is a screenshot of the upgrade screen:

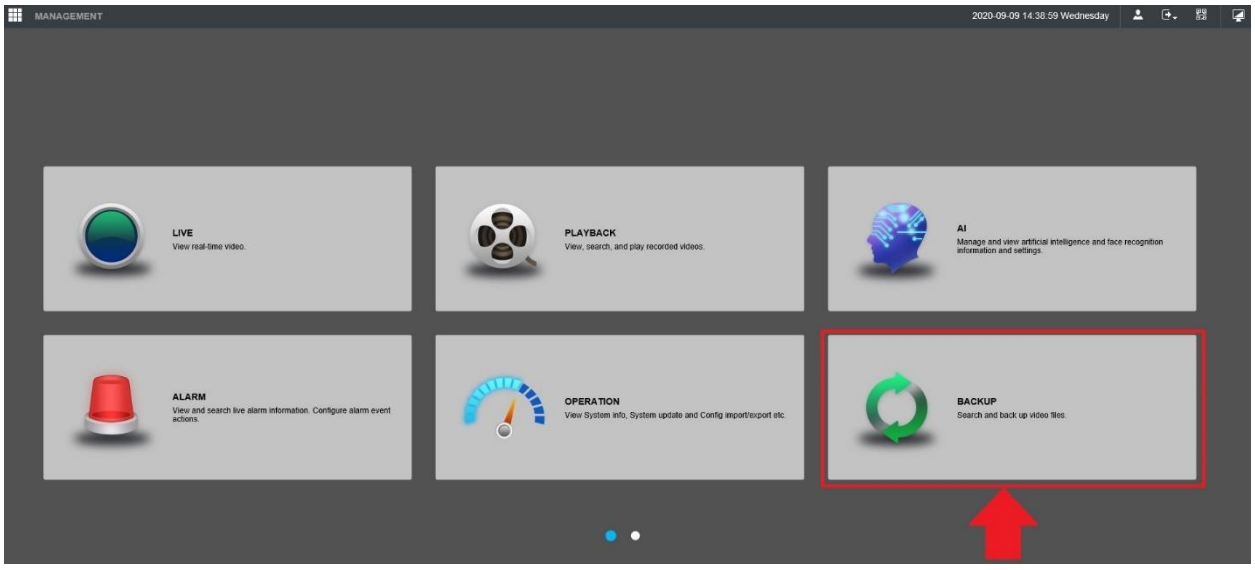


To begin upgrading the firmware, click on **Download the latest Firmware** and locate the firmware file for your specific device. Download the firmware to a USB flash drive or to the computer if using a web user interface. Click on **Browse** to locate and import the firmware (.bin) file into the interface. Click **System Upgrade** and allow the device to complete the upgrade process.

Note: The device will reset after the firmware upgrade is complete.

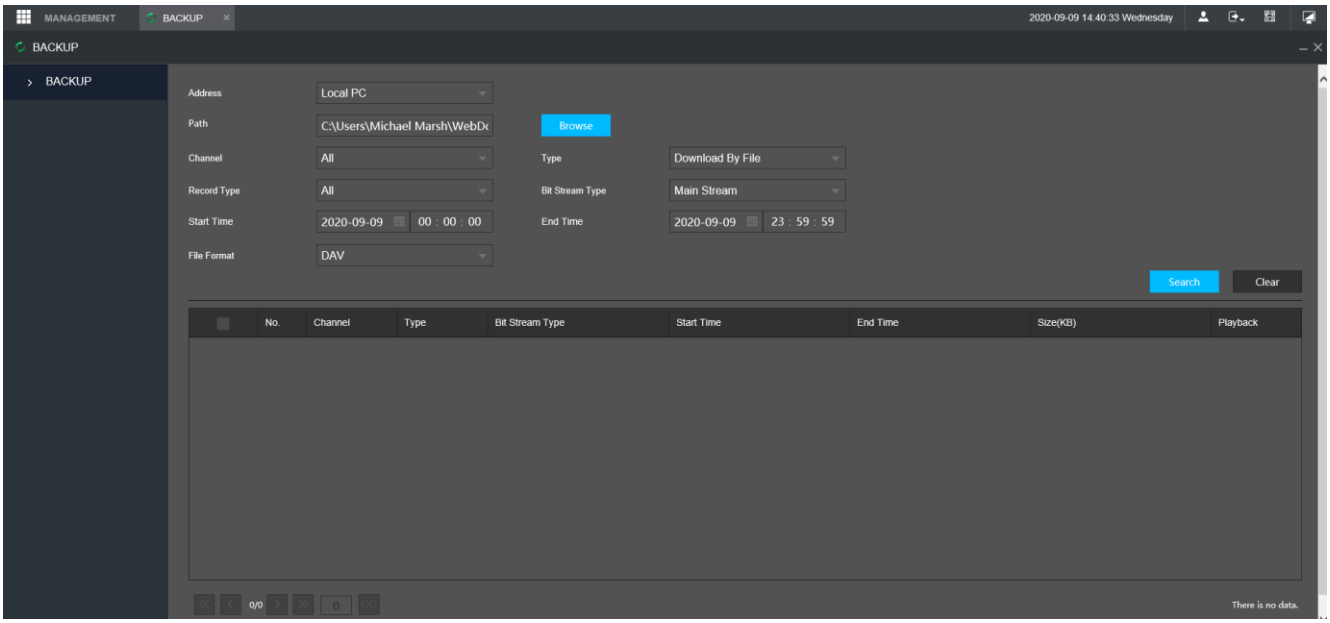
Back Up

This menu allows the user to backup file information from the device to an external USB storage device. To access the backup menu, click on the Back Up option on the main menu.



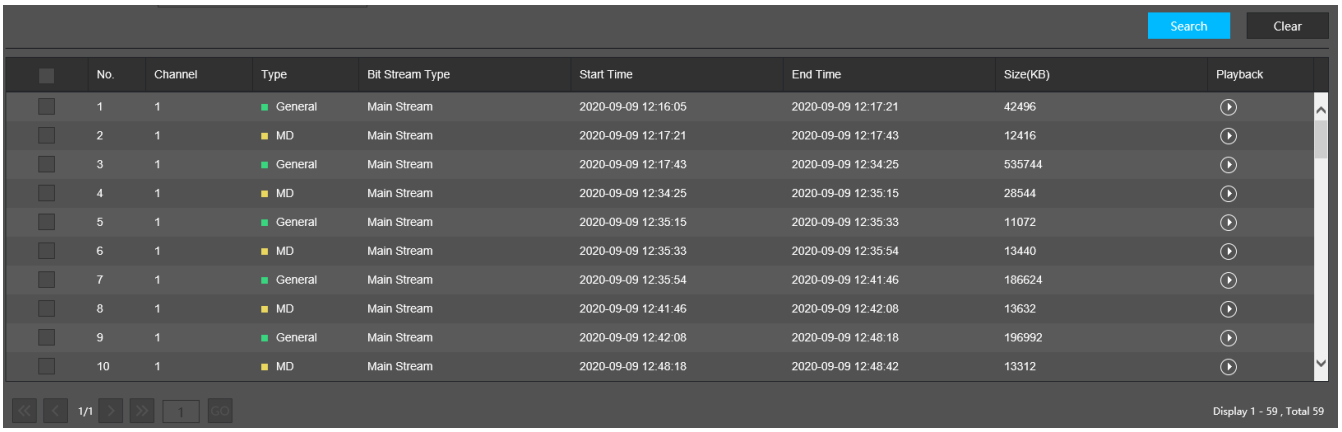
Back Up

Below is a screenshot of this menu:



Here is a brief explanation on how to use the backup feature listed in this menu:

In the Path field, choose a file path in which the file will be backed up. This can be a local USB flash drive, if inserted locally or a folder path if using a web user interface. Click the Browse option to select a file path. Choose a channel in which the file is located and choose a record type if necessary. Enter a start and End time of the event and the file format from the File Format dropdown menu. Click Search to import all recorded data.



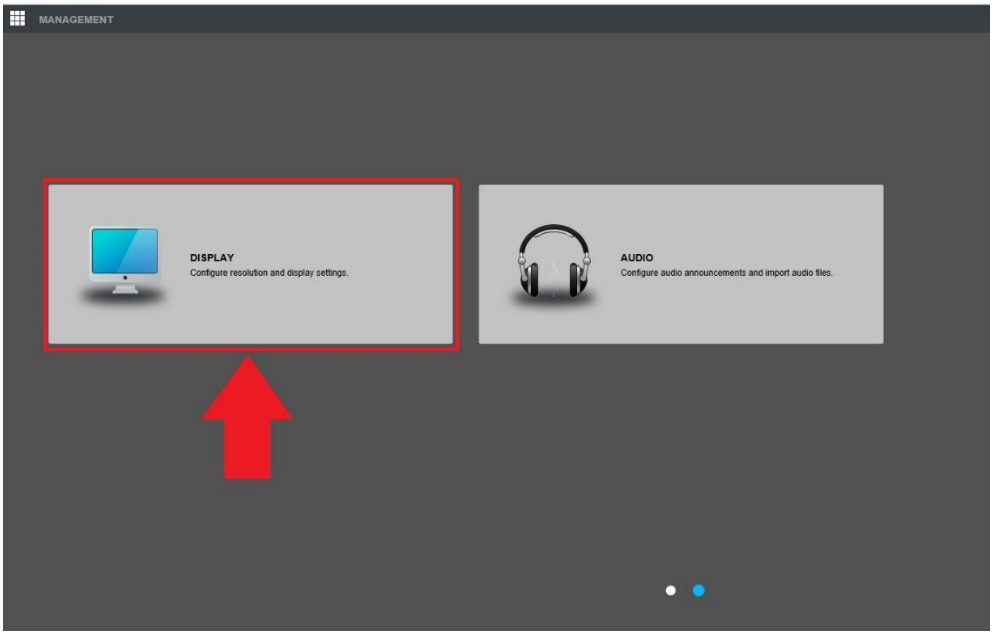
Note: A preview button can be found next to each event in the interface.

Select the event from the interface and click **Back Up**. The chosen files will be backed up to the file path previously chosen.

Note: Click on the Watermark option to verify the watermark information assigned to the downloaded file.

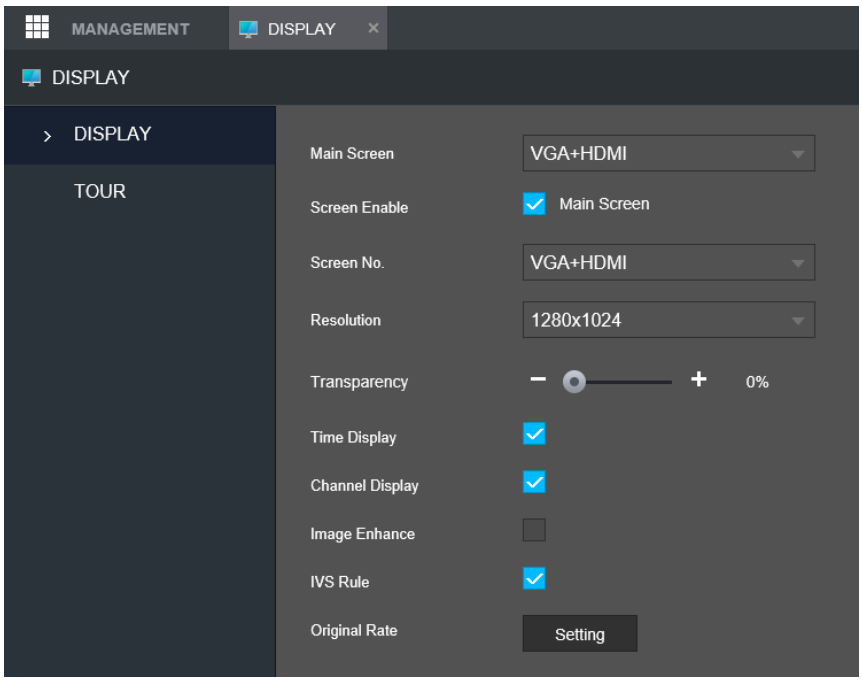
Display

This menu allows the user to configure resolution and display setting outputs as well as setup a display tour if multiple displays are being used. To access the Display menu, click on the next screen in the main menu and select the **Display** option.



Display

This menu provides you with quick access to your display and output information associated with your NVR. You can configure the display effects such as, resolution, time delays, channel titles, etc.



For more information on the settings provided in this menu, refer to the table provided below.

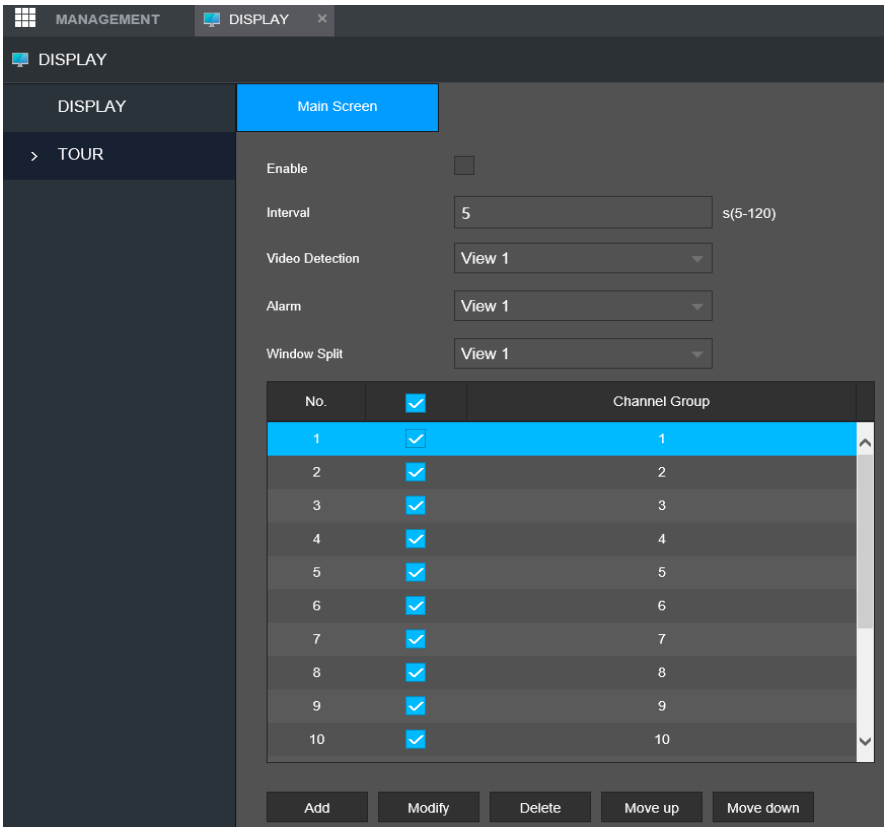
Parameter	Description
Main Screen	The main display outputs. The device should be VGA+HDMI by default.
Screen Enable	Enables the Main Screen output.
Screen No.	The default main display outputs. The device should be VGA+HDMI by default.
Resolution	This drop-down menu provides output different output resolutions of the NVR.
Transparency	Use this slider to choose a transparency rate for the output of your device.
Time Delay	Enable and disables a time overlay in the output display.
Channel Display	Enable and disable a channel overlay in the output display.
Image Enhance	Enable and disable image enhancement settings of the output display.
IVS Rule	Enable and disable IVS overlays in the in the output display.
Original Rate	Enable the default rate of a specific channel in the system.

Click **Default** to set the display settings back to its original default settings. Click **Refresh** to refresh the interface. Click **Save** to save display settings.

Tour

This screen is used to activate tour functionality for the live preview

Below is a screenshot of the Main Screen:



Below is an explanation of the fields on the Tour screen:

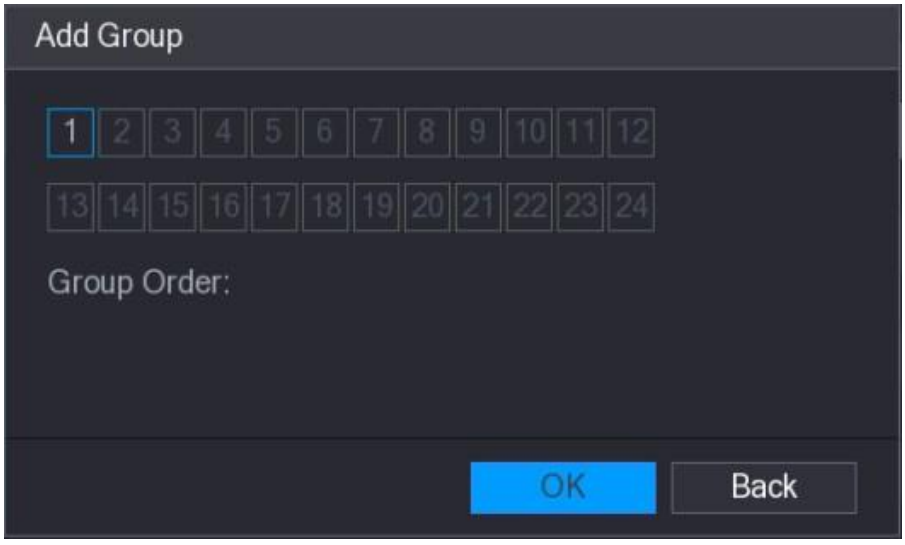
Enable: This checkbox allows the user to enable the tour functionality.
Interval: Enter the amount of time that you want each channel group displays on the screen. The value ranges from 5 seconds to 120 seconds, and the default value is 5 seconds.
Video Detect: Select the View 1 or View 8 for **Motion Detect** tour.
Alarm: Select the View 1 or View 8 for Alarm tours (system alarm events).
Window Split: In the **Window Split** list, select **View 1**, **View 4**, **View 8**, or other modes that are supported by the NVR.

Add: This button allows the user to add a channel to the tour.
Delete: This button allows the user to remove a channel from the tour.
Move Up: This button allows the user to move a camera up in the tour queue.
Move Down: This button allows the user to move a camera down in the tour queue.

Click the **Default** option to set the tour settings back to default. Click the **Refresh** option to refresh the interface. Click the **Save** option to save the tour settings.

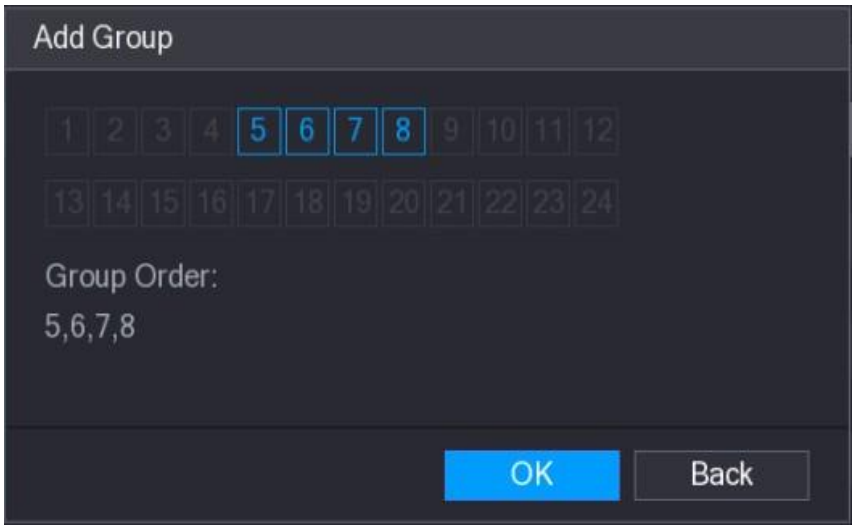
Adding a Channel Group

This function provides you the ability for grouping together channels to more efficiently use the tour options set up on the NVR. To utilize this function, enable the **Enable** toggle switch and click on the **Add** button located in the **Main Screen** tab of the **View Cycle** menu. This will take you to the **Add Group** interface.



From the interface, select the channels that you want to group with the established tour settings.

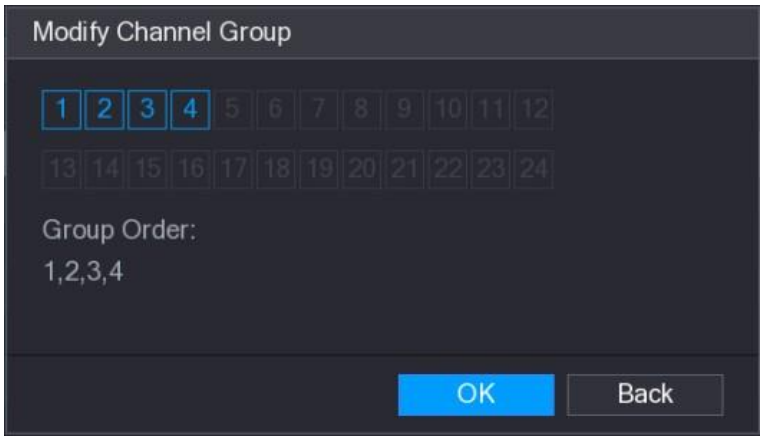
Note: If you want to select more than one channel, in the **Window Split** list, do not select **View1**.



When you have finished selecting the appropriate group order, click **OK** to complete the process. If you do not wish to proceed with the group function, click **Back** to exit the add group interface.

Modifying a Channel Group

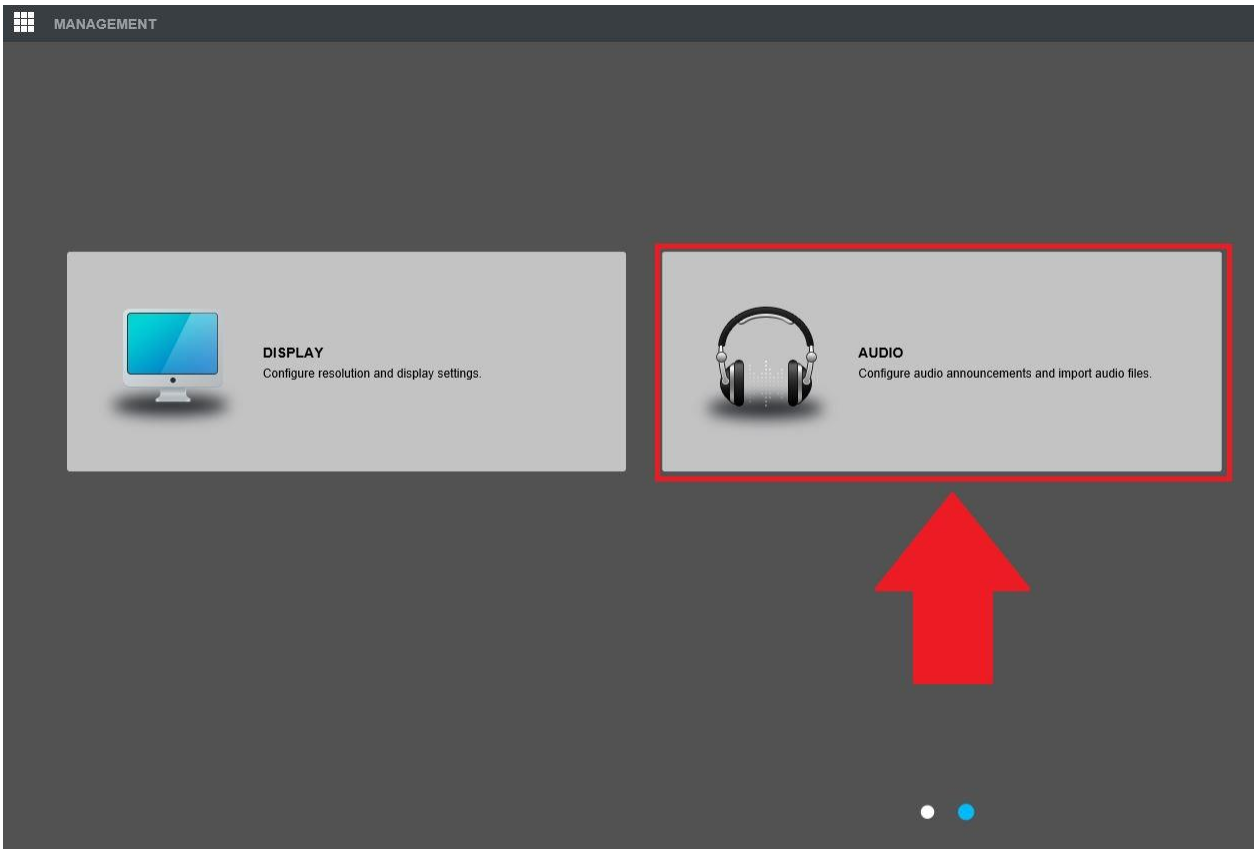
To modify an established channel group, double-click on a channel group to access the **Modify Channel Group** interface.



In the modify channel group interface, select the group order for your selected group and click **OK** to complete the process. If you do not want to proceed with the modification, click the **Back** button to exit the modify group interface.

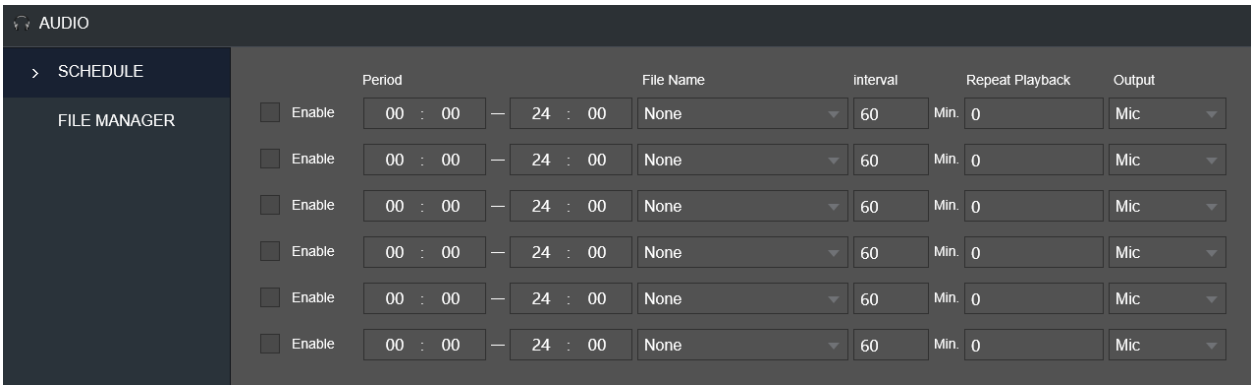
Audio

This function tile allows you to manage audio functions such as, audio file management and configuring audio playing schedules which can be associated with specific alarm events. To access the Audio menu, click the **Audio** option located in the main menu.



Schedule

The schedule tab allows you to schedule downloaded audio to specific alarms in the device. Below is a screenshot of the schedule menu:



For more information on the features listed in this menu, refer to the table provided below.

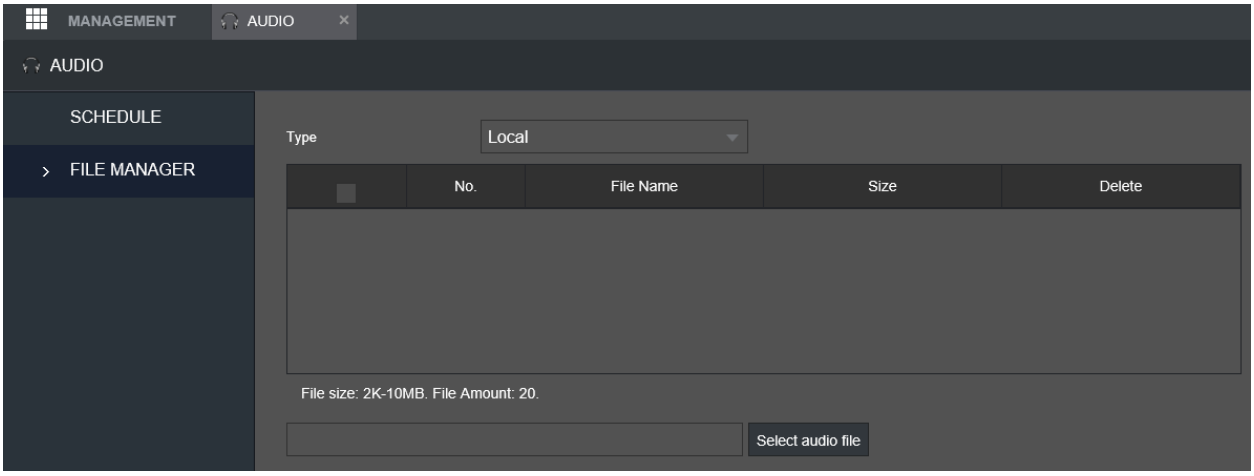
Parameter	Description
Period	In the **Period** box, enter the time. Select the check box to enable the settings. You can configure up to six periods.

File Name	In the **File Name** list, select the audio file that you want to play for this configured period.
Interval	In the **Interval** box, enter the time in minutes for how often you want to repeat the playing.
Repeat	Configure how many times you want to repeat the playing in the defined period.
Output	Includes two options: MIC and Audio. It is MIC by default. The MIC function shares the same port with talkback function and the latter has the priority.

Note: Use the file manager to configure audio files for your schedule.

File Manager

The file manager tab allows the user to configure audio files to a set schedule. Below is a screenshot of the file manager screen:



To begin configuring audio files click on **Select audio file** to import the audio files into the system via a flash drive or a computer if using the web user interface. Click **Add** and select the audio files you wish to import. Click on **Save** to import the file.

Click **Add to Remote** to apply the audio file to a remotely connected device. Click **Refresh** to refresh the interface. Click **Save** to save the audio file to the system.

Web Operation

This device features the latest in JS technology which allows you to access your device via a wide variety of web browsers including, Google Chrome, Firefox, Safari and other mainstream web browser via your PC or Mac computer. However, as a primary means of accessing the web user interface for your Amcrest device in a web browser, **we highly recommend using Internet Explorer** to access your device's web user interface. For more information on how to access your device from your computer please refer to the information below.

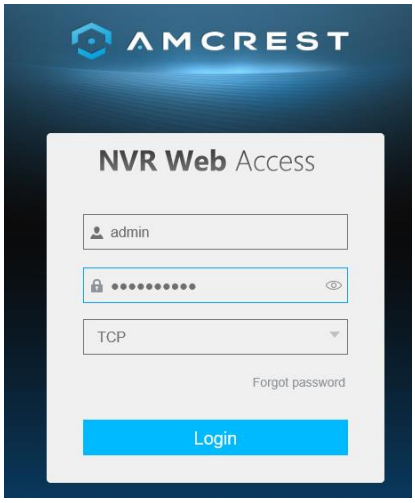
To access your device from your computer you will need to first locate the device's IP address. To locate the device's IP address is it highly recommended to download our free Amcrest IP Config Tool software. The Amcrest IP Config Tool can be downloaded at the following web page: amcrest.com/downloads

In the **All Downloads** menu, click on **IP Config Software** to begin the free download. Once the download has completed installing, locate the IP address associated with the device you would like to view in the browser.

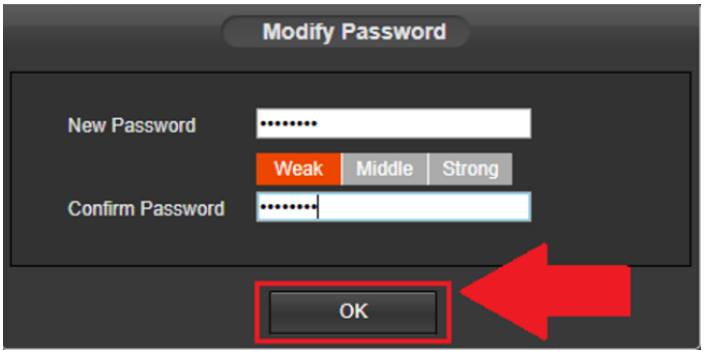
Please note, the IP address listed in the image above is just an example. The IP address for your device may be different than the one represented in the image.

Open the web browser and enter the IP address into your browser. Press enter to access the web user interface.

In the web user interface, enter the login credentials for your device. If this is the first time accessing the device, the username and password will both be **admin.** Click on **Login**.



Please note, if this is the first-time logging into your device, you will be prompted to modify the password for your device. To modify the password, enter the new password you would like to use in the **New Password** field and confirm. The password used should be between 8 and 32 characters long with a combination of letters and numbers.



Click **OK.** The main menu for the NVR will be displayed.

If the process above is not working, please contact Amcrest Support via one of the following options:

Visit http://amcrest.com/contacts and use the email form
Call Amcrest Support using one of the following numbers Toll Free: (888) 212-7538
International Callers (Outside of US): +1-713-893-8956
USA: 713-893-8956
Canada: 437-888-0177
UK: 203-769-2757
Email Amcrest Customer Support support@amcrest.com

Remote Web Access

There are two main methods for setting up remote access: UPnP/DDNS, and Port Forwarding.

UPnP/DDNS Remote Access Setup

Using Universal Plug and Play (UPnP) and Dynamic Domain Name Server (DDNS) functionality is the easiest way to setup stable remote access. For this method, your router should support the uPnP networking protocol and the protocol should be enabled. Please refer to your router manufacturer's documentation to learn how to enable uPnP on your router.

Below is a step-by-step walkthrough that details how to setup the for Remote Web Access using UPnP and DDNS:

1. Login to your NVR, open the main menu then go to Management -> Network.
2. Using the left-hand menu, go to the Connection menu, and write down the HTTP port. It is recommended to ensure the port number is at least 5 digits long to prevent any port conflicts. If need be, change the port to a 5digit number that is less than 65535, note the number down, and click save before proceeding to the next step.
3. The system will prompt you to reset the NVR. Click OK and wait for the NVR to restart.
4. Login to your NVR, open the main menu then go to Management -> Network.
5. Click the Connections menu item on the left-hand menu and ensure that the HTTP port has changed.
6. Click the DDNS menu item on the left-hand menu, click the enable checkbox, and then click the Apply button on the bottom right.
7. Write down the entire Domain Name field, including the white text that says.quickddns.com 8. Click the UPnP menu item on the left-hand menu and click the enable radio button at the top.
9. While in the UPnP menu, double click the HTTP port, and change both the internal and external HTTP ports to match the number that was used in step 2.
10. Uncheck the last 4 checkboxes in the PAT table on the UPnP menu.
11. Click apply and ensure the UPnP status field says "Searching."
12. Exit this menu to go back to the main menu, then re-enter the UPnP menu, and ensure the UPnP status says "Success".

13. Open a web browser and enter in the DDNS domain name address from step 3, enter in a colon, then type the port number from step 4 on to the end.

a. For example, if the DDNS domain name is http://abc123456789.quickddns.com and your HTTP Port is 33333, the URL would be http://abc123456789.quickddns.com:33333

14. The browser may prompt you to install a plugin. Click install to download the plugin, and then click on the plugin installation file to install the plugin.
15. If the browser prompts you to allow the plugin to work on the computer, hit Allow to ensure the plugin can run successfully.
16. Enter in login details into the username and password fields.
17. Click the WAN option, and then click Login.
18. Once the main interface opens, click the plug icons next to each camera on the list on the left-hand side, and activate the mainstream for each of them to enable the live feed.

If the process above is not working, please contact Amcrest Support via one of the following options:

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UK: 203-769-2757
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Port Forwarding Remote Access Setup

Port Forwarding is an alternative method to setting up remote access for your NVR. This method should only be used if the UPnP/DDNS Remote Access method did not work.

Below is a step-by-step walkthrough that details how to setup the for Remote Web Access using UPnP:

1. Login to your NVR, open the main menu then go to Management -> Network.
2. Open the TCP/IP settings screen.
3. By default, the NVR has the mode set to Static. Click the radio button next to DHCP to change this to DHCP. The IP Address, Subnet Mask, Default Gateway, Preferred DNS, and Alternate DNS should all change to 0s.
4. Click Save to save these settings. This should now open the main menu.
5. From the main menu, go to Management -> Network.
6. On the TCP/IP settings screen, the IP Address, Subnet Mask, Default Gateway, Preferred DNS, and Alternate DNS should all be populated.
7. Click the radio button next to Static, to change the mode to Static.
8. Write down the IP Address that is currently in the IP address field.
9. Click the Save button.
10. Using the left-hand menu, go to the Connection menu, and write down the TCP, UDP, and HTTP port number. It is recommended to ensure that these port numbers are at least 5 digits long to prevent any

port conflicts. If need be, change each of these port numbers to a 5-digit number that is less than 65535, note the numbers down, and click save before proceeding to the next step.

11. Go to http://www.canyouseeme.org/ and check to ensure each of the port numbers specified in step 10 are open.
12. Write down the manufacturer name, brand, and model name for the router that the NVR is connected to, and then proceed to portforward.com on your web browser.
13. Open the port forwarding guide section on the left-hand side menu.
14. Find the router brand name in the list and click it.
15. Find the router model number and click it.
16. Click the Default Guide link near the middle of the page.
17. This guide will help you take the step necessary to port forward on the router. Follow these steps, and then return to the NVR.
18. Login to your NVR, open the main menu then go to Settings -> Network.
19. Click the DDNS menu item on the left-hand menu, click the enable checkbox, and then click the Apply button on the bottom right.
20. Write down the entire Domain Name field, including the white text that says.quickddns.com
21. Open a web browser and enter in the DDNS domain name address from step 20, enter in a colon, then type the HTTP port number from step 10 on to the end.

a. For example, if the DDNS domain name is http://abc123456789.quickddns.com and your HTTP Port is 33333, the URL would be http://abc123456789.quickddns.com:33333

22. The browser may prompt you to install a plugin. Click install to download the plugin, and then click on the plugin installation file to install the plugin.
23. If the browser prompts you to allow the plugin to work on the computer, hit Allow to ensure the plugin can run successfully.
24. Enter in login details into the username and password fields.
25. Click the TCP option, and then click Login.
26. Once the main interface opens, click the plug icons next to each camera on the list on the left-hand side, and activate the mainstream for each of them to enable the live feed.

If the process above is not working, please contact Amcrest Support via one of the following options:

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Web Access Interface

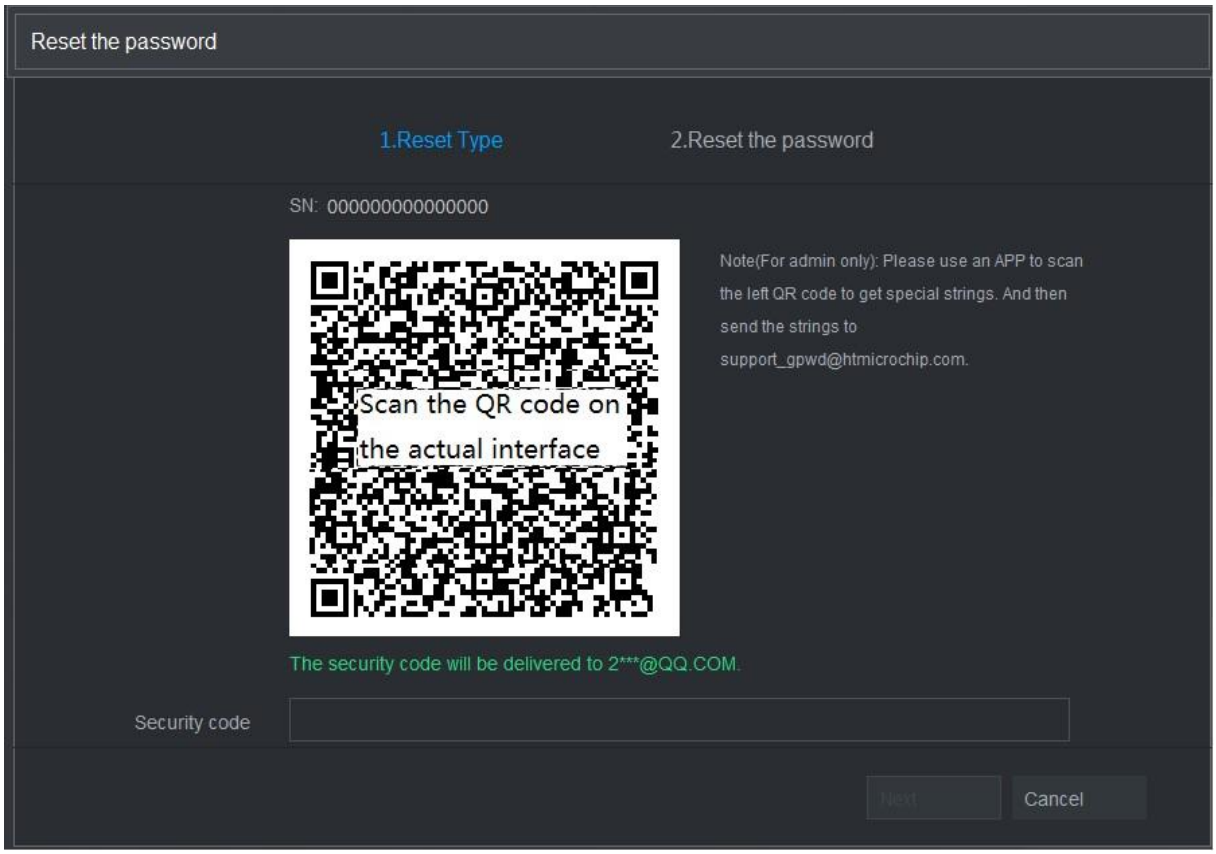
When you have accessed your NVR's web UI successfully, you will be taken to the login menu.

Log into your NVR with the associated username and password to be taken to the main menu. If this is your first-time logging into your NVR, the username and password will both be **admin**. To display the password, click on the icon. If you have forgotten the password, click on **Forgot Password.**

Resetting the Password

If you have forgotten your password, the **Forgot Password** option is there to help you. You can reset the password for your NVR through a reserved email address.

To reset the password, click on **Forgot Password?** and proceed to the **Reset the** password interface.



Follow the on-screen instructions and scan the QR code to receive the security code. Once you have received the security code, enter the code into the field label **Security Code**. Once you have successfully entered your security code, click on the **Next** button to continue.

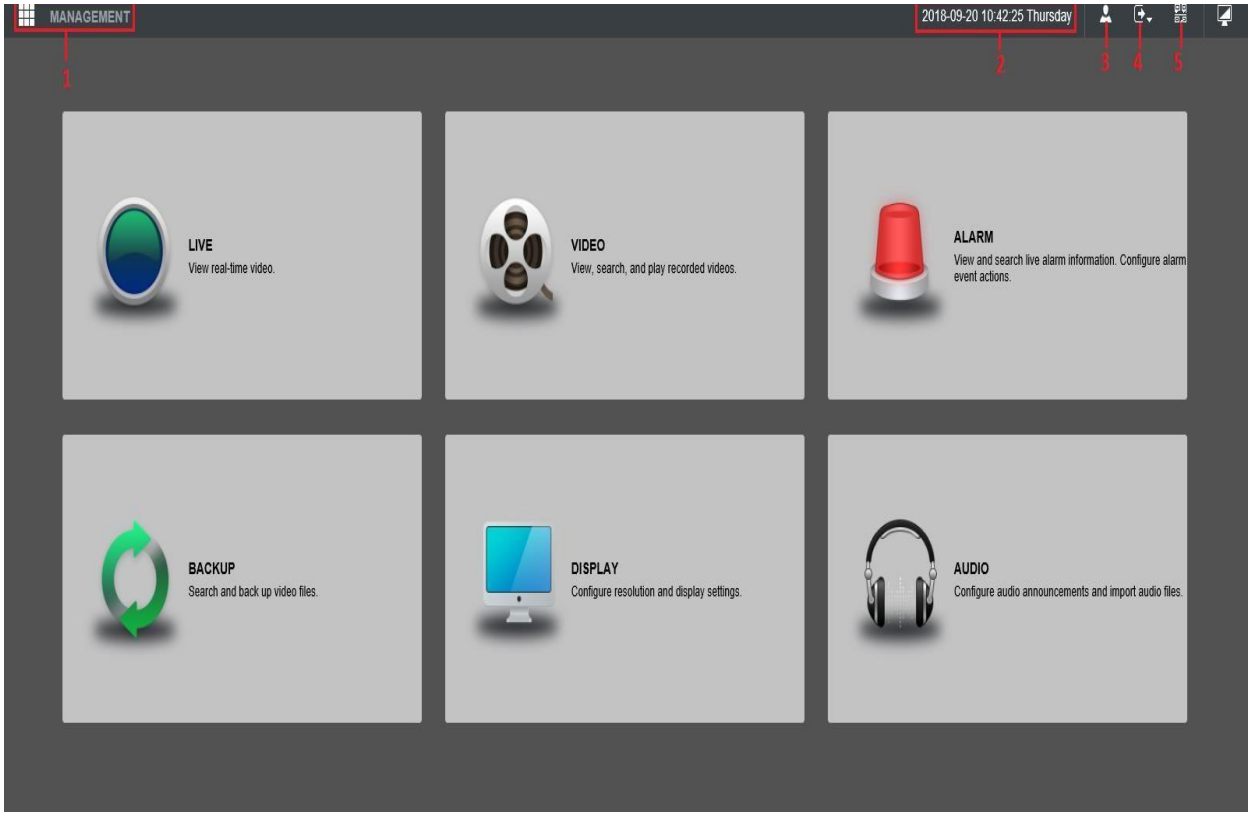
Note: Please use the security code delivered to your email within 24 hours. If the security code is not used within the 24-hour period, it will be invalid. You will have five attempts to enter your security code correctly otherwise the system will lock you out.

Next, you will need to enter a new password for the NVR. In the **Password** box, enter a new password for your NVR and then confirm the password in the **Confirm Password** field. When you are done, click **Save** to save the password.

Note: The new password must contain a minimum of 8 characters and a maximum of 32 characters. The password must also contain two types of letters, numbers, and special characters. These special characters will exclude, ", "", ";". ":" and "&".

Main Menu

The main menu web interface contains seven different options:



For more information on the options listed in this menu, refer to the table provided below:

No.	Icon	Description
1		**Management:** Includes configuration menu through which you can configure camera settings, network settings, storage settings, system settings, account settings, and view information.
2	Date/Time	Displays system date and time.
3		When you point to , the current user account is displayed.

4		Click , select **Logout**, **Reboot**, or **Shutdown** according to your actual situation.
5		Displays **Cell Phone Client** and **NVR SN** QR Code. Cell Phone Client: Use your mobile phone to scan the QR code to add the NVR into the Cell Phone Client, and then you can start accessing the NVR from your cell phone. NVR SN: Obtain the NVR SN by scanning the QR code. Go to the P2P management platform and add the NVR SN into the platform. Then you can access and manage the NVR in the WAN. For details, please refer to the P2P operation manual. You can also configure P2P function in the local configurations.
6		Displays the web main menu.
7	Function Tiles	Includes eight function tiles: **LIVE**, **VIDEO**, **ALARM**, **IVS**, **IoT**, **BACKUP**, **DISPLAY**, and **AUDIO**. Click each tile to open the configuration interface of the tile. **LIVE**: You can perform the operations such as viewing real-time video, configuring channel layout, setting PTZ controls, and using smart talk and instant record functions if needed. **VIDEO**: Search for and play back the recorded video saved on the NVR. **ALARM**: Search for alarm information and configure alarm event actions. **BACKUP**: Search and back up the video files to the local PC or external storage NVR such as USB storage NVR. **DISPLAY**: Configure the display effect such as displaying content, image transparency, and resolution, etc. **AUDIO**: Manage audio files and configure the playing schedule. The audio file can be played in response to an alarm event if the voice prompts function is enabled.

8. FAQs/Troubleshooting

1. The NVR does not boot up properly.

Below are a few possible reasons why this may be occurring:

- The power input is not correct voltage.
- The power cable connection is not secured correctly.
- The power button is damaged or malfunctioning.
- The firmware was upgraded incorrectly.
- There is an HDD malfunction, or something is wrong with the HDD cable.
- There is damage to the NVR's main motherboard.

2. NVR often shuts down and stops running.

Below are a few possible reasons why this may be occurring:

- The input voltage is too low or is not stable.
- There is an HDD malfunction, or something is wrong with the HDD cable.
- The power button is damaged or malfunctioning.
- Video output signal is not stable.
- The insides of the NVR have accumulated too much dust.
- The temperature is either too hot or too cold.
- The hardware is malfunctioning.

3. The system does not detect a hard drive.
Below are a few possible reasons why this may be occurring:

The hard drive is broken.
- The hard drive cable is damaged.
- The hard drive cable connection is loose.
- The NVR's main motherboard SATA port is broken.

4. There is no video output on any of the channels.
Below are a few possible reasons why this may be occurring:

- The NVR firmware is incompatible with the attached cameras. Upgrade to the latest firmware.
- The image brightness is set to 0. Change the brightness using the image settings or restore the NVR to factory default settings.
- There is no video input signal, or the signal is too weak.
- A privacy mask or screensaver may be enabled.
- There might be a malfunction with the NVR hardware.

5. Real-time video color is distorted.
Below are a few possible reasons why this may be occurring:

- When using a BNC output, NTSC and PAL may be setup incorrectly. The real-time video may become black and white.
- The NVR is not compatible with the monitor.
- The video transmission cable is too long, or signal degradation is too great.
- The NVR's color or brightness settings are not correctly configured.

6. Local Recordings are not searchable.
Below are a few possible reasons why this may be occurring:

- The hard drive cable is damaged.
- The hard drive is broken.
- The NVR's firmware is incompatible with the recorded video.
- The recorded files have been overwritten.
- The recording function has been disabled.

7. Local playback video is distorted.
Below are a few possible reasons why this may be occurring:

- The video quality setting is too low.
- The NVR software has a read error. Restart the NVR to solve this problem.
- The hard drive cable is damaged.
- The hard drive is malfunctioning.
- The NVR's hardware is malfunctioning.

8. There is no audio during real-time monitoring.
Below are a few possible reasons why this may be occurring:

- The microphone being used is not sufficiently powered.
- The speakers being used are not sufficiently powered.
- The audio cable is damaged.
- The NVR hardware is malfunctioning.

9. There is no audio during recorded video playback.
Below are a few possible reasons why this may be occurring:

- Audio may not be enabled for that channel.

The corresponding channel may not have any audio input.

10. The timestamp is not displaying the correct time.
Below are a few possible reasons why this may be occurring:

- The time and date settings may not be configured correctly.
- The battery inside the NVR may be loose, or the battery is running low.

11. PTZ control is not working.
Below are a few possible reasons why this may be occurring:

There may be an error with the PTZ front panel buttons.

- The PTZ decoding settings aren't configured correctly.
- The PTZ connection may be loose or may not be installed correctly.
- An incorrect cable may be used to connect the PTZ enabled NVR to the NVR.
- The PTZ decoder and the NVR protocol are not compatible.
- The PTZ decoder and NVR address are not compatible.
- Multiple PTZ decoders are causing reverberation or impedance matching, causing PTZ signal interference. Use a 120 Ohm resister between the PTZ cables to reduce interference.
- The PTZ cable is too long or signal degradation is too great.

12. Motion detection does not work.
Below are a few possible reasons why this may be occurring:

- The motion detection time period may be incorrectly configured.
- Motion detection zone setup is not correctly configured.
- Motion detection sensitivity is too low.

13. Web Access isn't working.

Below are a few possible reasons why this may be occurring:

- Windows version is pre -Windows 2000 service pack 4. Use a more recent version of Windows.
- ActiveX controls have been disabled.
- The PC is not using DirectX 8.1 or higher. Upgrade to a more recent version of DirectX.
- The NVR is having network connection errors.
- Web access may be setup incorrectly.
- The username or password may be incorrect.
- The client end computer is not compatible with the NVR's firmware.

14. Web Access live view is only displaying a static picture. Both live playback and recorded playback are not working.

Below are a few possible reasons why this may be occurring:

- The network speed is not sufficient to transfer video data via web access.
- The client PC may have limited resources.
- Multicast mode may be causing this issue.
- A privacy mask or screensaver may be enabled.
- The logged in user may not have sufficient rights to monitor real-time playback.
- The NVR's local video output quality is not sufficient.

15. Network connection is not stable.

Below are a few possible reasons why this may be occurring:

- The network is not stable.
- There may be an IP address conflict.
  There may be a MAC address conflict.
- The PC or NVR network card may be defective.

16. Keyboard is not working with the NVR.

Below are a few possible reasons why this may be occurring:

- The NVR serial port is not setup correctly.
- The keyboard may be drawing too much power.
- The keyboard cable too long.
- The keyboard is not compatible with the NVR's firmware.

17. The alarm signal cannot be disarmed.

Below are a few possible reasons why this may be occurring:

- An alarm may be setup incorrectly.
- An alarm output may have been manually opened.

- The NVR may have an input NVR error, or the connection is not correctly configured.
- There may be an error in the NVR's firmware.

18. **Alarms are not working.**
    Below are a few possible reasons why this may be occurring:

- The alarm is not setup correctly.
- The alarm cable is not connected correctly.
- The alarm input signal is not correctly configured.
- There are two loops connected to one alarm NVR.

19. **The camera is not recording enough video.**
    Below are a few possible reasons why this may be occurring:

- The hard drive's capacity is not enough.
- The hard drive is damaged.

20. **Downloaded files cannot be played back.**
    Below are a few possible reasons why this may be occurring:

- The media player software on the PC may not be able to read the file format.
- The PC may not have DirectX 8.1 or higher.
- The PC may not have Windows XP or higher.

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- Call Amcrest Support using one of the following numbers Toll Free: (888) 212-7538
  International Callers (Outside of US): +1-713-893-8956
  USA: 713-893-8956
  Canada: 437-888-0177
  UK: 203-769-2757
- Email Amcrest Customer Support support@amcrest.com

21. **When I login via HTTPS, a dialogue says the certificate has expired or is not valid yet.**

Ensure the PC has the same time as the NVR's system time.

FCC Statement

1. This NVR complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this NVR may not cause harmful interference, and (2) this NVR must accept any interference received, including interference that may cause undesired operation.
2. The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes, or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the

information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

3. (b) For a Class B digital NVR or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital NVR, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

4. RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

IC Warning Statement

This NVR complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This NVR may not cause interference; and

(2) This NVR must accept any interference, including interference that may cause undesired operation of the NVR. *Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio* exempts *de l icence. L'exploitation est autorisée aux deux conditions suivantes : (1) apparel ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.

Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil ettoutes les personnes.

Appendix A: Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Sheet Metal(Case)	O	O	O	O	O	O
Plastic Parts （Panel）	O	O	O	O	O	O
Circuit Board	O	O	O	O	O	O
Fastener	O	O	O	O	O	O
Wire and Cable/Ac Adapter	O	O	O	O	O	O
Packing Material	O	O	O	O	O	O
Accessories	O	O	O	O	O	O

Note

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes.

Note:

To view setup videos for many of the steps outlined in this guide, go to http://amcrest.com/videos •
Slight differences may be found in the user interface based on specific model numbers.
All the designs and software here are subject to change without prior written notice.
All trademarks and registered trademarks mentioned are the properties of their respective owners.
If you have any questions or concerns, please contact us at support@amcrest.com, or call us at 888212-7538.

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