

AMCREST

Digital Video Recorder
User Manual

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Welcome

Thank you for purchasing an Amcrest DVR!

This user manual is designed to be a reference tool for the installation and operation of your DVR system.

Here you can find information about the DVR's features and functions, as well as information to aid in troubleshooting.

Many of the setup and installation sections below have corresponding videos on YouTube

To access the setup videos, please go to http://amcrest.com/videos

NOTE: This user manual is applicable to all Amcerst XVR/H5 model DVRs.

Important Security Warning



To keep your Amcrest camera secure and prevent unauthorized access, please make sure to follow the steps below:

- Always make sure that your camera has the latest firmware as listed on www.amcrest.com/firmware
- Never use the default password for your camera. Always ensure that your password is at least 8-10 characters long and contains a combination of lowercase characters, uppercase characters as well as numbers.

For access to the quick start guide and other support information, go to http://amcrest.com/support

To contact Amcrest support, please do one of the following:

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: 888-212-7538
Canada: 437-888-0177
UK: 203-769-2757
Email Amcrest Customer Support support@amcrest.com

Important Safeguards and Warnings

1. **Electrical Safety**

All 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 electrical shock caused by improper handling or installation.

2. **Transportation Security**
Heavy stress, violent vibrations, and excess moisture should not occur during transportation, storage, and installation of the DVR.

3. **Installation**
Handle the DVR with care. Keep the DVR right side up.
Do not apply power to the DVR before completing installation.
Do not place objects on top of the DVR.

4. **Repair Professionals**
All the examination and repair work should be done by qualified service engineers.
We are not liable for any problems caused by unauthorized modifications or user-attempted repair.

5. **Environment**
The DVR should be installed and kept in a cool, dry place away from direct sunlight, flammable materials, explosive substances, etc.
This product should be transported, stored, and used only in the specified environments as stated above.

6. **Accessories**
Be sure to use only the accessories recommended by manufacturer.
Before installation, please open the package and check to ensure that all the components are present.
Contact the retailer that you purchased from, or Amcrest directly if anything is broken or missing in the package.

1. Features and Specification

1.1 Overview

The Amcrest is an excellent digital surveillance product designed for the security field. The DVR uses a Linux based OS to maintain reliable operation. It's easy to use and can be set up in a relatively small amount of time. It has various functions such as recording, playback, and monitoring functionality and it synchronizes audio and video by default.

This DVR adopts a high-quality design to achieve high levels of reliability and security. It can be configured to work locally, as well as on a network. With the provided professional surveillance software (PSS) tool, as well as many built-in tools on the DVR's OS, this DVR can also help monitor and track network usage by the DVR itself.

By using industry standard cables and the latest technology, the DVR can be used with a variety of different cameras (Analog, , or IP, etc) and can work with most standard security system cable setups. This product can be used in a variety of locations such as banks, residential neighborhoods or homes, factories, warehouses, transportation (trucking), and more.

1.2 Features

The Amcrest has the following features:

- **Real-time Monitoring**
  The has an analog output port, VGA port, and an HDMI port. You can use a variety of monitors to display the DVR's interface, and the DVR can support VGA and HDMI output at the same time.

- **Storage Functionality**
  The DVR can record multiple video and audio streams to the built-in hard drive to allow for playback of any recorded media.

- **Compression Format**
  By utilizing advanced compression, the DVR can support multiple channels of audio and video, decoding audio and video from each channel to maintain video and audio synchronization.

- **Backup Function**
  The DVR supports backup of recorded media and settings via the USB port. A variety of DVRs can be used for backup purposes, such as a flash drive, and internal HDDs.

- **Advanced Playback Function**
  This DVR supports independent real-time recording for each channel and can support search, fast forwarded playback, recorded searches, and downloading of videos and screenshots. The DVR can also playback in slow motion, backwards, and frame by frame as needed. When recording, the DVR shows a date/time overlay to ensure accurate viewing of events when they occurred. Lastly, the DVR can support video enlargement of certain zones within a stream.

- **Network Operation**
  The DVR has built-in tools to allow for remote network real-time monitoring, remote recording of searches, and remote PTZ control.

- **Alarm Activation Function**
  On the back of the DVR there are ports for installation and connection of alarm outputs to enable alarm or light activation based on activity within the video stream. The alarm input and output circuits are protected to ensure DVR safety.

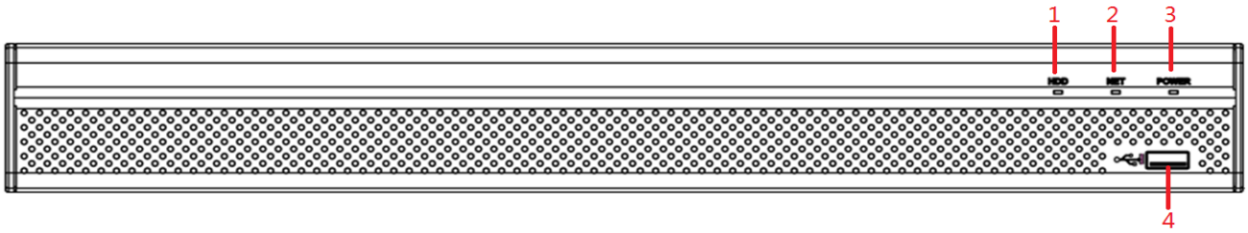
- **Advanced Network Protocol Support**
  The DVR is UPnP compatible, and includes functionality for use with PPPoE, and DDNS protocols to allow remote and local connection with a large variety of network hardware.

Note: There may be slight differences in functionality due to the existence of different product series.

2. Overview and Controls

This section provides information about the physical design and controls for the DVR. Please refer to the diagrams below to become acquainted with the DVR and its physical features.

2.1 Front Panel

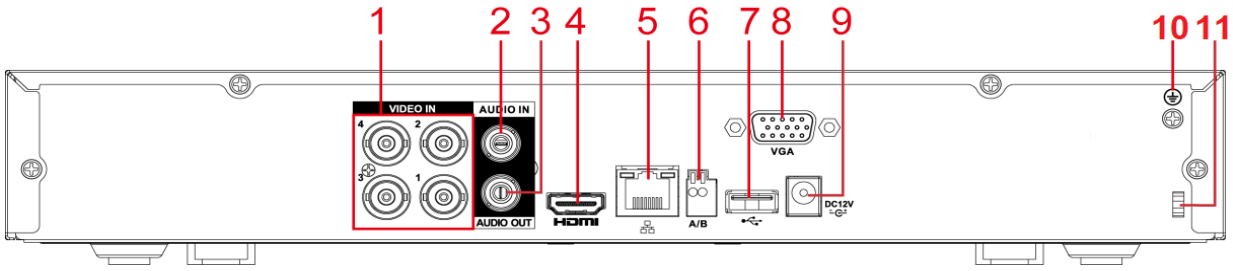


	Port Name	Function
1	HDD	Glows blue when HDD status is abnormal.
2	NET	Glows blue when network status is abnormal.
3	POWER	Glows blue when the power is connected properly.
4	USB Port	Connects to external DVRs such as a mouse or USB storage DVR

2.2 Rear Panel

This is for example purposes only, the diagram represents a 4 Channel system, however, is applicable to all units provided in the description.

Note: The 4-channel system rear panel is as shown below.



Please refer to the following table for detailed information:

	Port Name	Function
1	Video input port	Connects to analog camera to input video signal.
2	Audio input port	Receives audio signal output from an RCA microphone DVR.
3	Audio output port	Outputs audio signal to an external RCA speaker.

	Port Name	Function
4	HDMI port	High definition audio and video signal output port. The port outputs an uncompressed high-definition feed as well as multi-channel audio data to a connected HDMI compatible display.
5	Network port	Connects to Ethernet port.
6	USB port	Connects to an external DVR such as, a mouse, keyboard, or external USB storage DVR.
7	VGA port	Outputs analog video data to a connected display with a compatible VGA port.
8	Power input port	Inputs DC 12V power.
9	⏚	Ground terminal.
10	Power cable fastener	Use a clamp to secure the power cable on the DVR to avoid signal error.

2.3 Mouse Control

The following table details the different uses for a computer mouse regarding the DVR's controls.

Left click mouse	System pops up password input dialogue box if you have not logged in. In real-time monitor mode, you can go to the main menu.
	When you have selected one menu item, left click mouse to view menu content.
	Implement the control operation.
	Modify checkbox or motion detection status.
	Click combo box to pop up drop down list
	In the input box, you can select input methods. Left click the corresponding button on the panel and you can input numeral/English character (small/capitalized). Here, ← stands for backspace button. __ stands for the space button. In English input mode: _ stands for input a backspace icon and ← stands for deleting the previous character. 
Double left click mouse	Implement special control operation 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-window. Double left click current video again to go back to previous multiple-window mode.

Right click mouse	In real-time monitor mode, pops up shortcut menu: one-window, four-window, nine window and sixteen-window, Pan/Tilt/Zoom, color setting, search, record, alarm input, alarm output, main menu. Among which Pan/Tilt/Zoom and color setting applies for current selected channel. If you are in multiple-window mode, system automatically switches to the corresponding channel.
	Exit current menu without saving the modification.
Press middle button	In numeral input box: Increase or decrease 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 motion detection zone
	Select privacy mask zone.

3. Connection and Installation

3.1 Check Hardware

When you receive the DVR system in the packaging, unpack it, and check all sides of the DVR to see if there is any physical damage. The protective materials used for the packaging of the DVR can protect most accidental damage during transportation, but to ensure that your equipment is operating as expected, it is recommended to inspect the product before proceeding further.

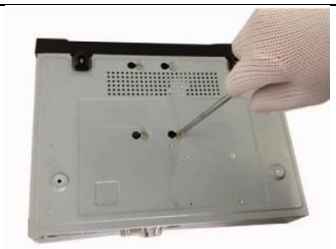
On the DVR unit, check specifically that the label on the bottom of the DVR is not damaged. The serial number of the unit is usually needed to provide support.

Please check that all required items for your DVR are present and accounted for. To check what is included with your purchase, go to http://amcrest.com/-security-camera-systems.html/ and find the product you purchased, then scroll down and click the “What’s Included” tab. If any item is missing, please contact us as soon as possible so we can send you the missing component.

3.2 Hard Drive Installation

You can refer to the Appendix for recommended HDD brands and models. Please use an HDD of 7200rpm or higher. Please follow the instructions below to install a hard disk drive (HDD).

All the figures listed below are for reference only. Slight differences may be found on the front or rear panel.

		
1. Loosen the screws of the upper cover and side panel.	2. Attach four screws in the HDD (Turn three times).	3. Place the HDD in accordance with the four holes on the bottom.
		
4. Connect the HDD power and data cable to the motherboard of the unit.	5. Secure the HDD to the unit by tightening the four screws.	6. Place the upper cover back on the unit and secure it to the unit.

Note:

- An HDD is **NOT** included with the DVR by default.
- To connect the HDD, connect the HDD data cable and the power cable before attaching the HDD in the DVR.
- To remove the front cover, push the clip first, and then slide the cover off.

3.3 Connection Port Information

3.3.1 Power Supply Connection

Please check to make sure the input voltage is correct, and the power button is in the off position when connecting the power supply.
We recommend you use an Uninterruptible Power Supply (UPS) to guarantee steady operation of the DVR, as well as to elongate the life span of the DVR and other peripheral equipment such as attached cameras and other accessories.

3.3.2 Video Input/Output Connections

Video Input Connection Information

The video input interface is BNC.

The input video format includes: PAL/NTSC BNC (1.0VBP- P, B75Ω)

The video signal should comply with your national standards.

The input video signal should have high SNR, low distortion; low interference, natural color and suitable brightness.

To guarantee the stability and reliability of the camera signal, the camera should be installed in a cool, dry place away from direct sunlight, flammable materials, explosive substances, etc.

The camera and the DVR should have the same grounding to ensure the normal operation of the camera.
Guarantee stability and reliability of the transmission line

Please use high quality, well shielded BNC cable. Please select suitable BNC model according to the transmission distance.

If the distance is too long, you should use twisted pair cable. You can add video compensation DVRs or use optical fiber to ensure video quality.

You should keep the video signal away from the strong electromagnetic interference, especially power lines.

Keep connection lugs closely contacted.

The signal line and shielded wire should be fixed firmly and in well connection. Avoid dry joint, lap welding, and oxidation.

Video Output Connection Information

Video output includes a BNC (PAL/NTSC1.0VP-P， 75Ω） output, a VGA output, and a HDMI output. The system supports BNC, VGA and HDMI output at the same time.

When you are using pc monitor, please pay attention to the following points:

- To defer aging, do not allow the pc monitor to run for a long time.
- Regular demagnetization will keep your DVR in proper working condition.
- Keep it away from strong electromagnetic interference DVRs.

Using a TV as video output DVR is not a reliable substitution method. When using a TV as a video output DVR, it is advised to turn off the TV from time to time to ensure its longevity. The use of a low-quality TV may result in the damage of the DVR.

3.3.3 Audio Input/Output Connections

Audio Input Connection Information

The DVR audio input ports uses a BNC type connection.
Due to high impedance of audio input, please use an active sound microphone to get the best audio quality.

Audio transmission is like video transmission. Try to avoid interference, look out for dry joints, loose contacts, and keep the audio DVRs and cables away from power lines.

Audio Output Connection Information

The audio output signal parameter is usually over 200mv 1KΩ (BNC or RCA).

It can directly connect to a low impedance earphone, active speaker, or amplifier-drive audio output DVR.

If the speaker and the microphone cannot be separated spatially, it may create a feedback loop. In this case you can adopt the following measures:

- Use a better directional microphone.
- Reduce the volume of the speaker.
- Using more sound-absorbing materials in the surrounding area can reduce voice echo and improve the acoustic environment.

Adjust the layout of the audio output cables to reduce the occurrence of a feedback loop.

3.3.4. USB Port

On the DVR there is a standard USB port. For information on which DVRs are supported by this USB port, please see *Appendix F*.

3.4 DVR Assembly Guide

Before setting up the DVR, you will need the following items.

The items are not included:

- A computer monitor or TV with either an HDMI or VGA input
- A power strip with room for 4 large power plugs

It is recommended to connect all components of the system as shown below *before* mounting any of the cameras. This is to ensure all components are working before any physical installation takes place. If any components are not functioning, please contact Amcrest Support at support@amcrest or by giving us a call at 888-212-7538.

Setting up the cable connections

The following instructions will show you how to set up the cables for the DVR, cameras, as well as a monitor or TV screen.

To set up the DVR's cable connections, there are 6 major steps:

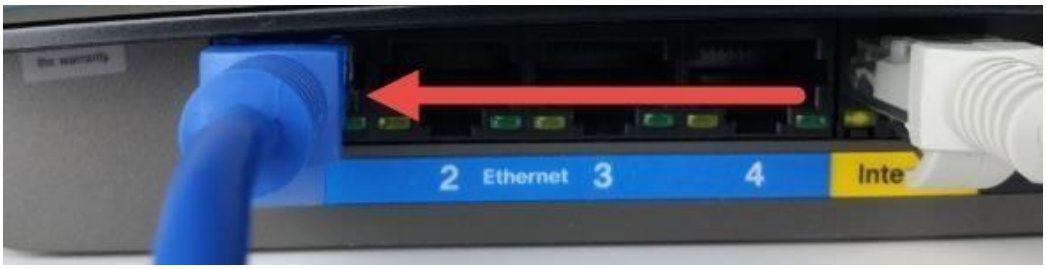
1. Connect a monitor or TV screen to your DVR. For purposes of this guide, we will use a VGA connection. Take a VGA cable, and connect one end to the VGA port on your monitor/screen and the other end to the VGA port on the back panel of your DVR.



2. Connect the included USB mouse to the front of the DVR.



3. Connect an Ethernet cable to your router.



4. Then, connect the other end of the Ethernet cable to the DVR.



5. Secure the coaxial extension cable to the camera's video cable port. Then, connect a power adapter to the camera's power adapter port and plug the power adapter into a wall socket or power source.





6. Secure the coaxial cable port from the camera to any of the video (coaxial) ports on the back of the DVR.



7. Connect the power adapter into the back of the DVR, and then plug in the DVR power adapter into an electrical socket to turn on the unit.

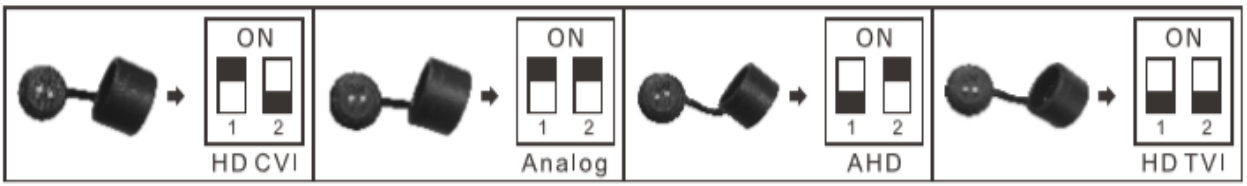


3.4.1. Using an Amcrest 4-in-1 Camera

Quadbrid or 4-in-1 technology, allows for a flexible means of providing HD-CVI, HD-TVI, AHD, and Analog formatted video to your DVR. The signal is transmitted uncompressed, which eliminates latency and allows for real-time, highly reliable video security without loss or delay. The cameras connect point-to-point directly to the DVR (BNC) which provides a highly secure, closed network, as well as a painless and non-complex plug-and-play setup process. The toggle switch for your 4-in-1 camera is represented in the image below:



Most Amcrest DVRs will require you to set the camera to **HD-CVI or Analog (960H)** settings and may not be compatible with HD-TVI or AHD. Ensure your 4-in-1 camera's toggle switch is set to the proper setting as indicated in the diagram below.



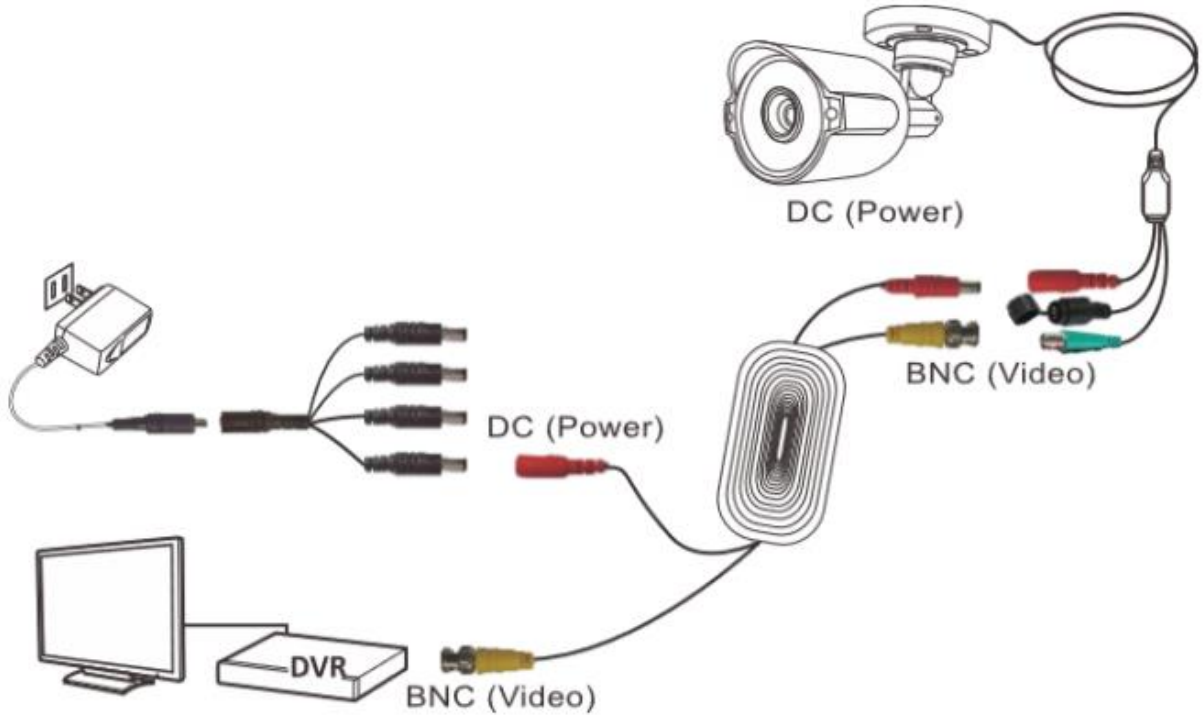
Note: If the proper mode configuration is not set, **you will not be able to view your camera on your DVR**. Please make sure you have the proper settings on your camera before you begin setting up or installing.

To install your Amcrest 4-in-1 camera, please follow the steps provided below:

Note: Make sure you have the proper mode configuration on your camera before running or connecting any cables. Refer to the Figure 1-1 for more details on how to set mode configurations for your specific DVR.

Step 1: Connect a BNC (coaxial) cable to the video out connection of your camera.
Step 2: Connect the male end of the DC power connector of the BNC (coaxial) cable to the female end of the power connector of the camera.
Step 3: Connect the BNC (coaxial) cable to a video out channel on the back of your DVR.
Step 4: Connect the male end of the DC power connector of the power adapter to the female end of the power connector of the BNC (coaxial) cable. Plug in the power adapter to apply power to the camera.

For more information on the installation process described, refer to the image below for more details.

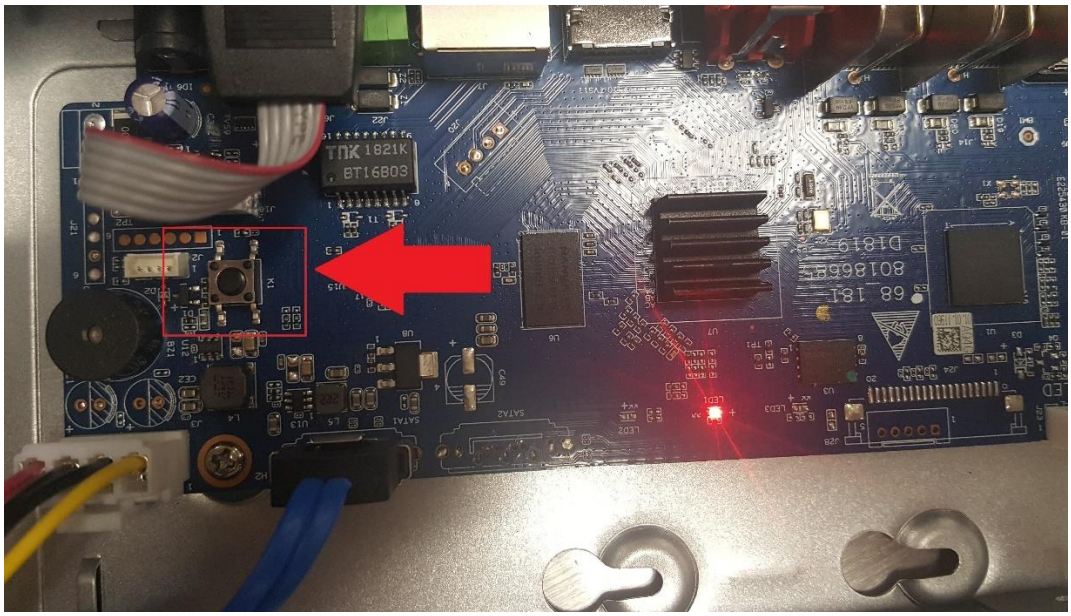


3.5 Factory Reset Procedures

Newer Amcrest model DVRs, such as the XVR or S5 models, will have a different factory reset process than its previous counterparts.

To begin the process, you will need to remove the DVR cover. Use a Phillips head screwdriver to remove the four screws on the back and sides of the DVR. Once the screws have been removed, lift the lid to expose the DVR's motherboard.

On the motherboard you will notice a small black button. This is the factory reset switch for your DVR:



To factory reset the DVR, unplug the DVR from power. Once power is removed from the unit, press and hold the factory reset switch for 4 - 5 seconds. Continue holding the reset switch and plug the DVR's power supply back into the unit, you will hear a beep.

Continue holding the reset switch and allow the DVR to initialize for 20 - 30 seconds and then release the switch. The DVR will be set to default and will show the DVR initialization screen. For more information on the DVR initialization screen, refer to section *4.2 DVR Initialization*.

4. Overview of Navigation and Controls

4.1 Startup and Shut down

4.1.1 Startup

Before initial startup, please make sure:

- The rated input voltage matches the output voltage at your location. Please make sure the power wire connection is secure before pressing the power on-off button.
- Always use a stable current. If necessary, an Uninterruptable Power Supply (UPS) is a good way to ensure power stability.

Please follow the steps listed below to boot up the DVR:

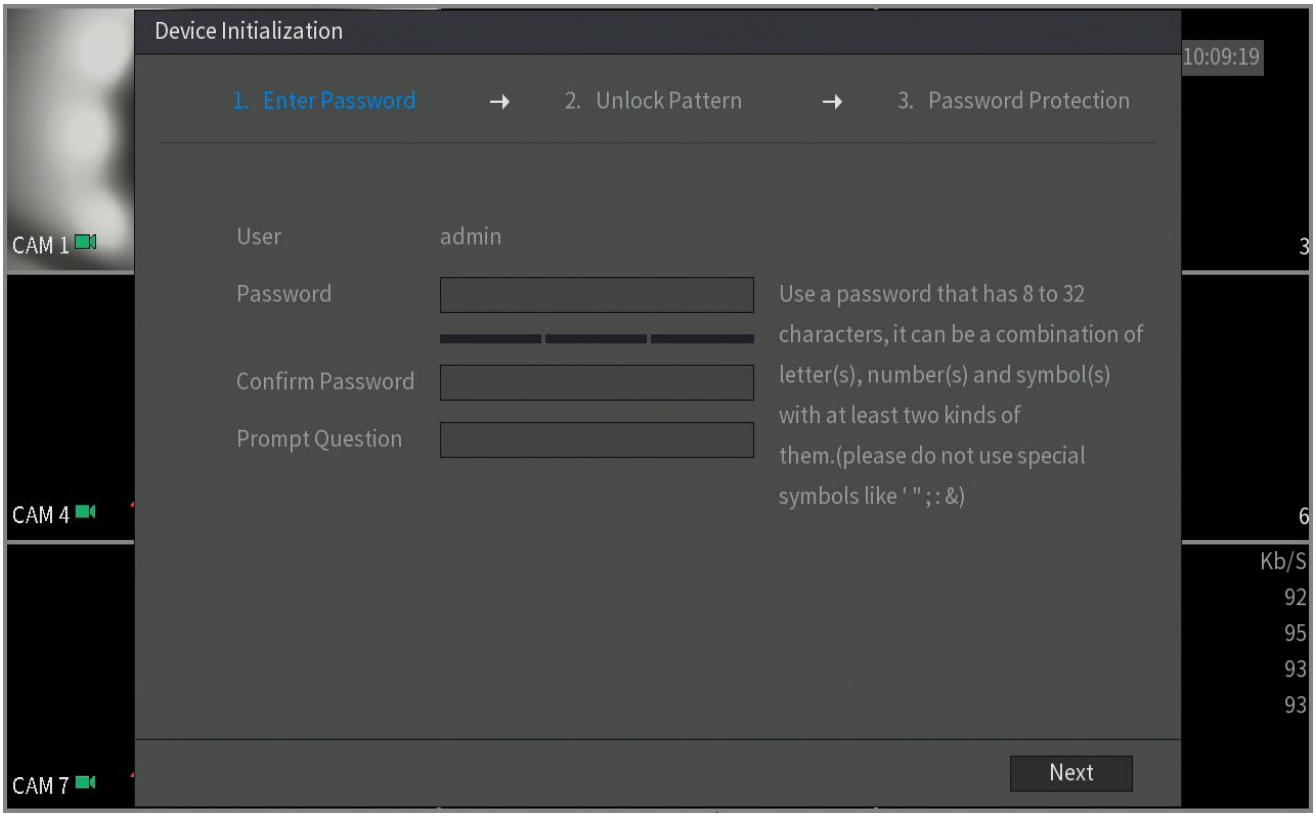
- Plug an Ethernet cable into your router/modem.
- Connect the Ethernet cable to the Ethernet Port of the DVR.
- Plug the power adapter into a wall outlet.
- Connect the power cable to the DVR.

4.1.2 Shut down

- Click the logout button located on the main menu and select **Shut Down**.
- Do not unplug the power cable or click the power on-off button to shut down the DVR directly when DVR is running (especially when it is recording.)

4.2. DVR Initialization

In this screen you will be able to enable DVR initialization features. These are basic features related to the system, such as password setups, recovery settings, etc.



4.2.1 Default Account Usernames and Passwords

To login to the system for the first time, you will need to assign a password for the user (admin) account. Please enter a password for the account into the password field and rewrite it into the confirm password field. You can also add in a prompt question that will be applicable for password recovery. The prompt question field is optional.

Note:

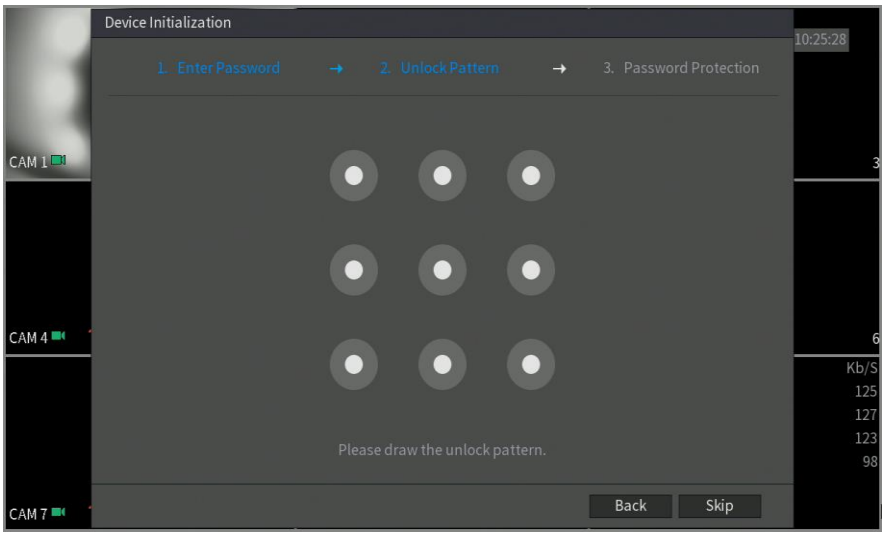
- Use a password that has 8 to 32 characters, it can be a combination of letter(s), number(s), and symbol(s) with at least two kinds of them. Do **not** use special symbols such as, (‘ “ ; : &).
- These settings configured in the startup wizard can be changed at any time by accessing the settings menu. Information on each of these settings screens can be found in the Overview of Navigation and Controls -> Main Menu Interface section.

- If the password for the administrator account is misplaced, forgotten, or a user is locked out, contact Amcrest Support via one of the following options as a hard password reset may be needed:

  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

4.2.2. Unlock Pattern

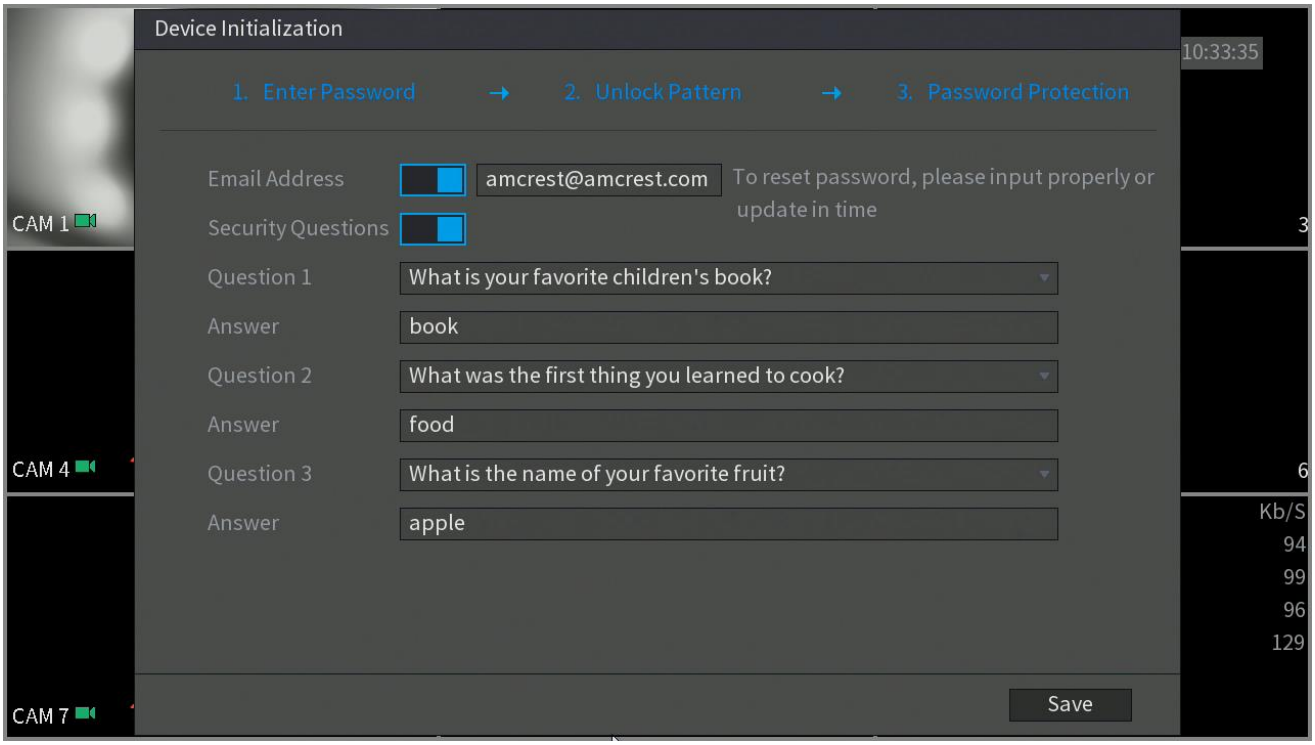
The next screen that will be configured will be the unlock pattern screen. In this screen you can configure the unlock pattern for your DVR. This setting is optional and can be skipped by pressing the **Skip** button.



To set the unlock pattern, use the mouse to draw a pattern you would like to use. Once you have drawn the desired pattern on the screen, the system will ask you to confirm the unlock pattern you have set. To confirm the setup, use the mouse to draw the pattern again. When complete you will be taken to the password protection screen.

4.2.3. Password Protection

The next screen that will appear will be the password protection screen. This screen is another means of password retrieval can be set up in this menu. To begin, enter a valid email address into the **Email Address** field. The email address will be retained in the system.



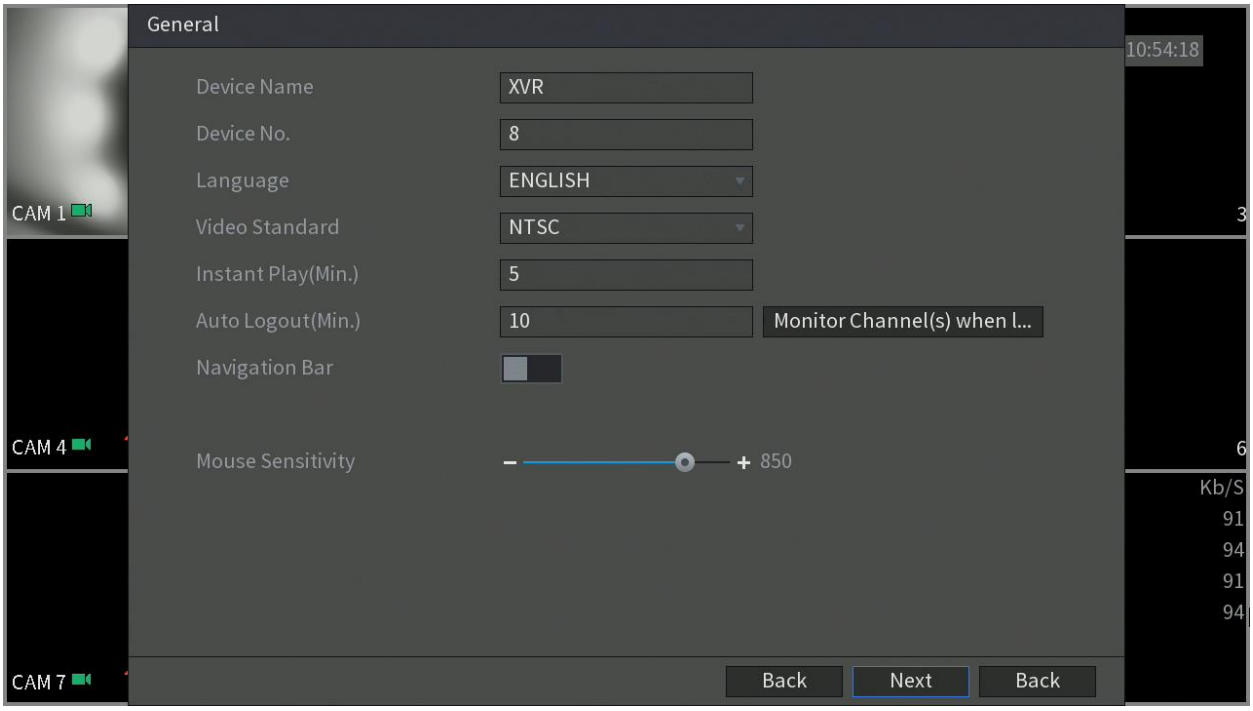
Next, you will need to assign security questions. These are an added security feature that will help you obtain your password. To begin, select a question from the drop-down menus for **Question 1, Question 2,** and **Question 3** and enter the answers to those questions in the **Answer** fields.

Once this section is complete, click on the **Save** button to save your information and move on to the next initialization screen.

4.3 DVR Setup

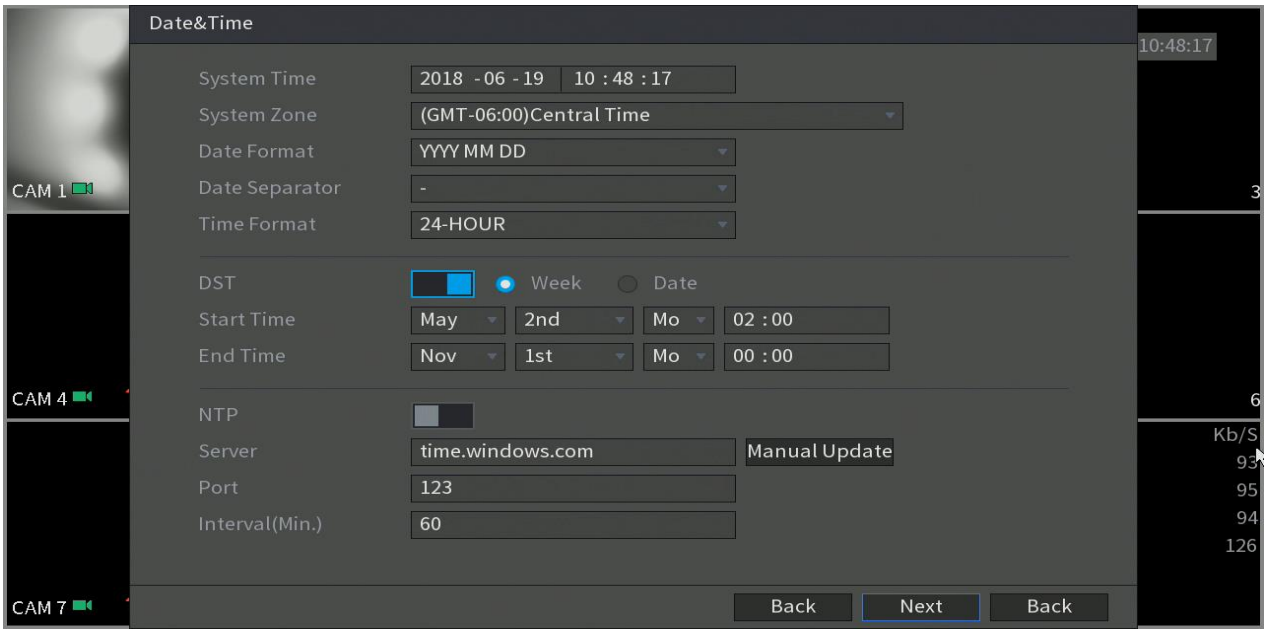
4.3.1. General

The first screen that appears in the startup wizard will be the **General** menu. This menu allows you to set the name for your DVR as well as provides several general options associated with your DVR.



4.3.2. Date&Time

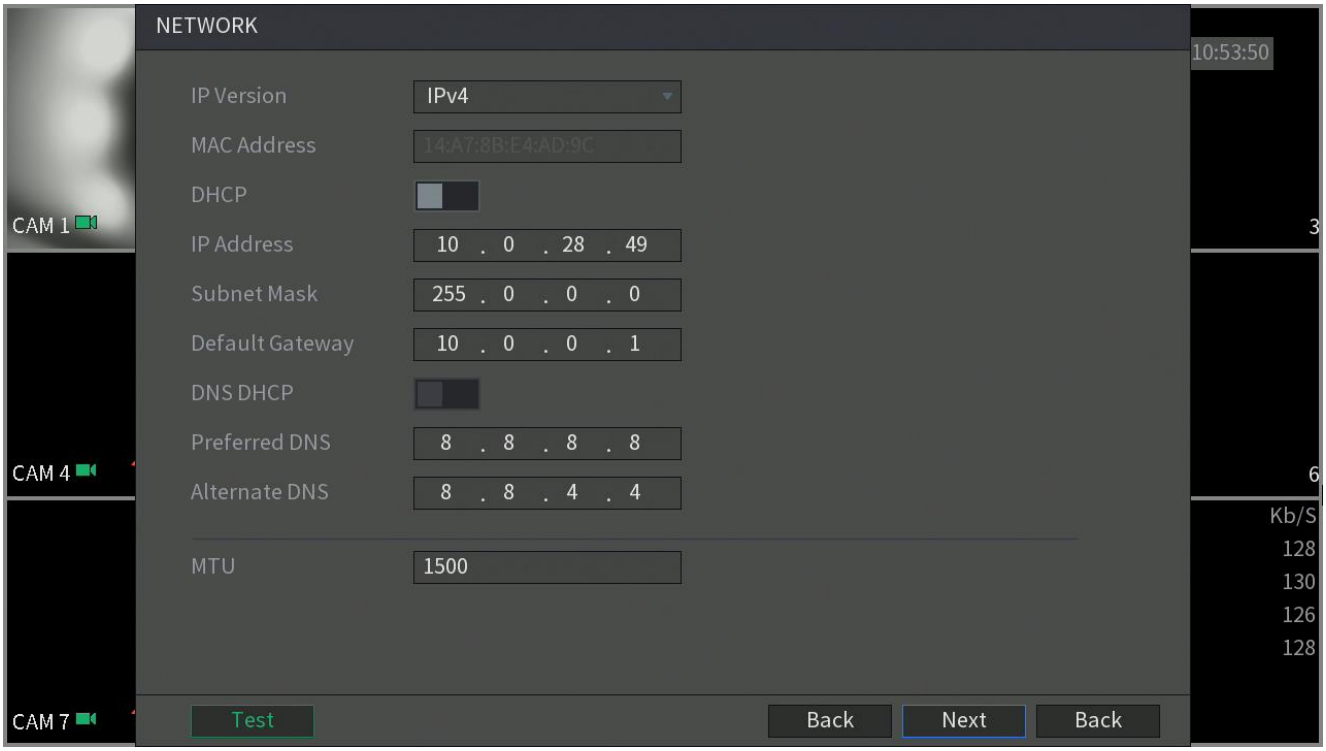
The next screen that appears will be the Date & Time settings screen. This is where you can set the date and time for your specific location. If you wish to utilize daylight savings time, toggle the DST toggle switch to the on position. Once you have selected the proper date and time for your DVR, click the **Next** button to continue.



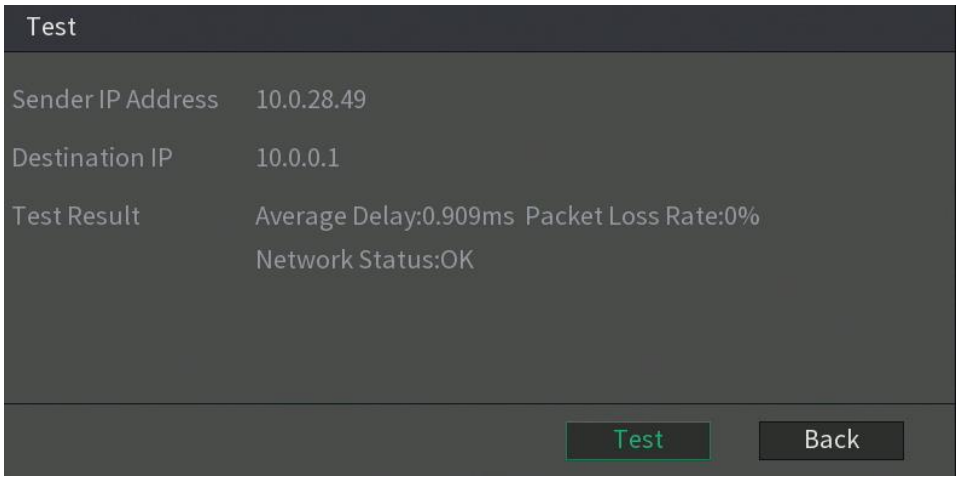
Note: Make sure to toggle the NTP toggle switch to the off position to avoid syncing your DVR to the NTP server.

4.3.3. Network

The next screen that will appear is the Network settings screen. In this screen you can configure the network settings. If you want to set your DVR up to have a static IP, toggle the DHCP toggle switch to the off position.



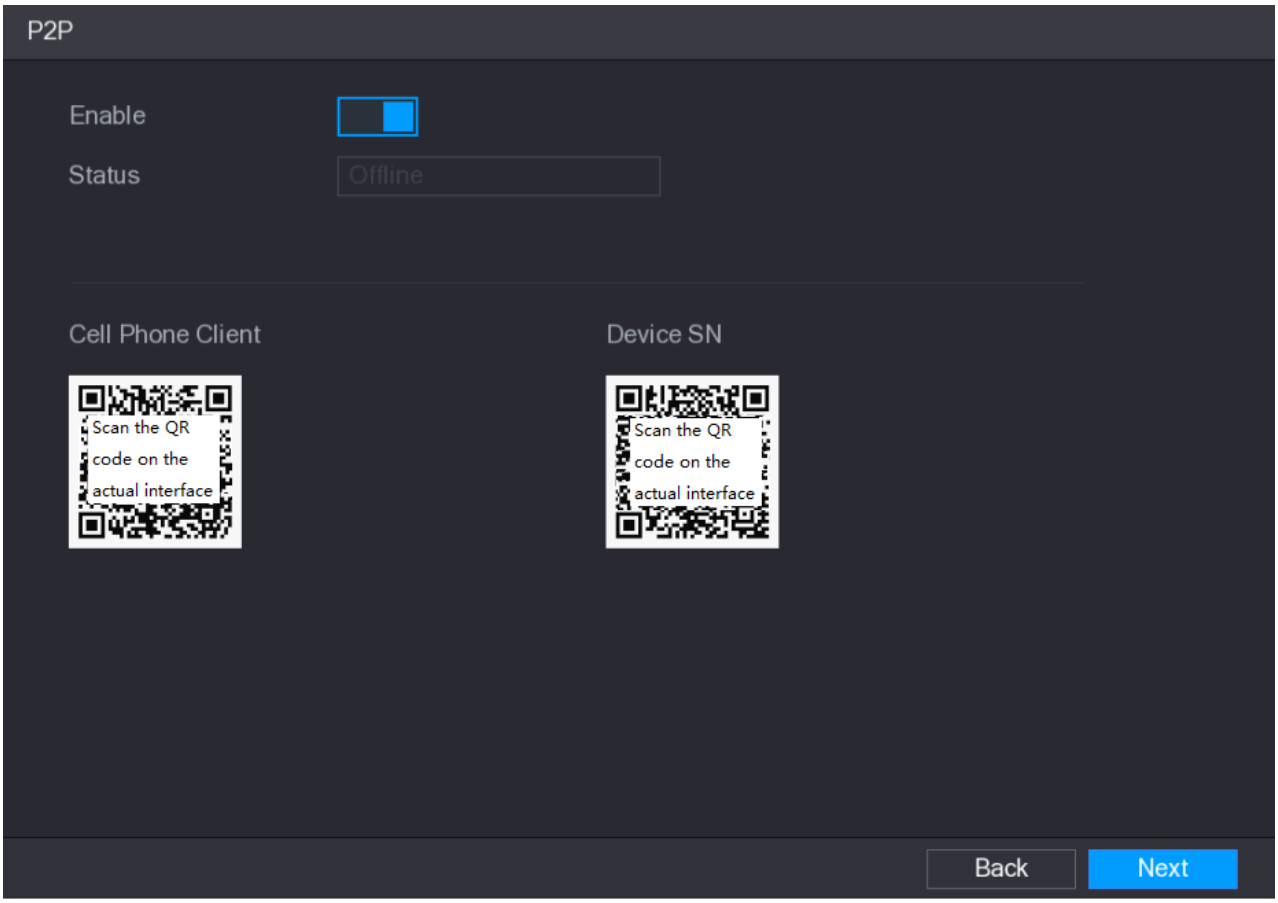
Note: To test the connectivity of the DVR to your network, click on the Test button. The DVR will return a network status. To return to the previous menu, click the **Back** button.



4.3.4. P2P

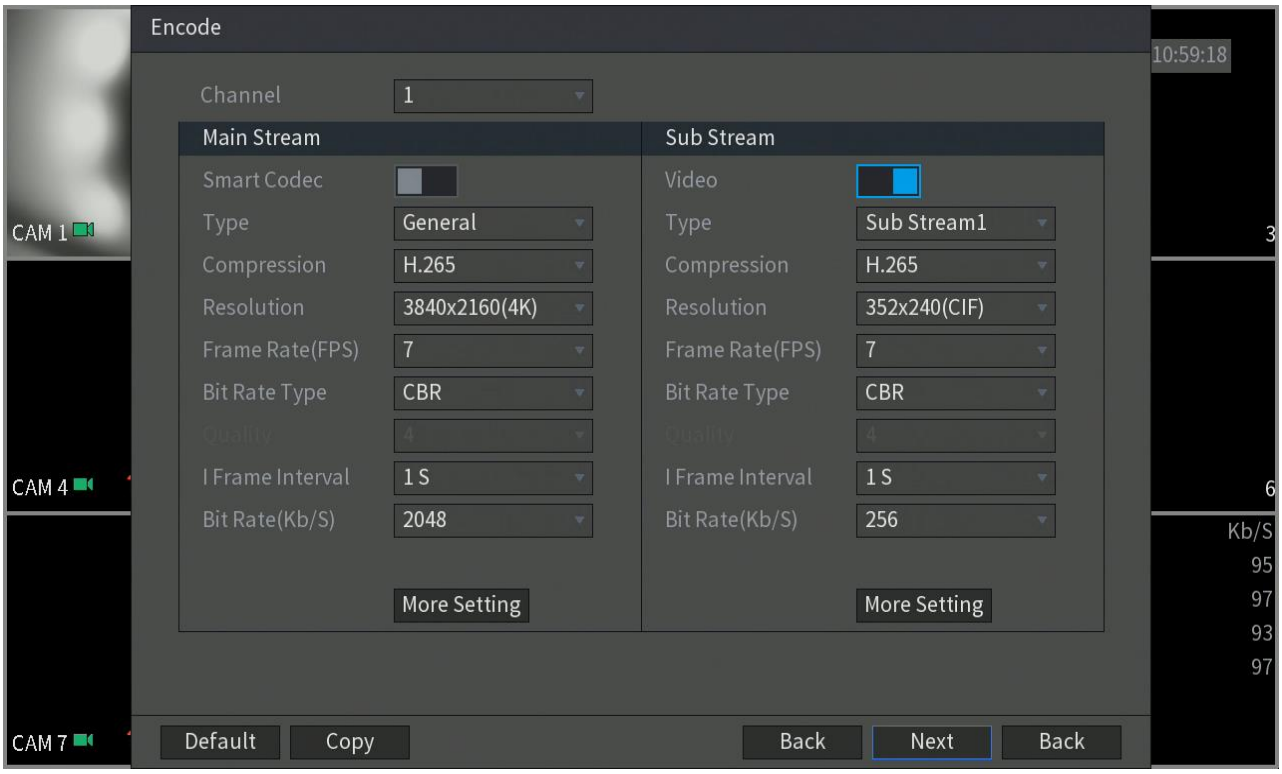
The next screen that appears is the P2P settings screen. It is highly recommended to keep this enabled if you want to use the DVR in the Amcrest View Pro mobile app or AmcrestView.com so you can view your DVR remotely on your mobile device.

On this screen you will notice two QR codes. These QR codes allow you to download the cell phone client (Amcrest View Pro) app as well as quick access to your DVR's serial number. The serial number for your DVR is used to add the device into the Amcrest View Pro app. For more information on app setup, refer to section *6.2.9.1. Using the Cell Phone Client*.



4.3.4. Encode

The next screen that appears is the encode settings screen. This is where you can adjust the video quality settings for your device, including the compression and frame rate. If applicable, if you would like to access or adjust audio formats and sources, click on the **More Setting** tab.

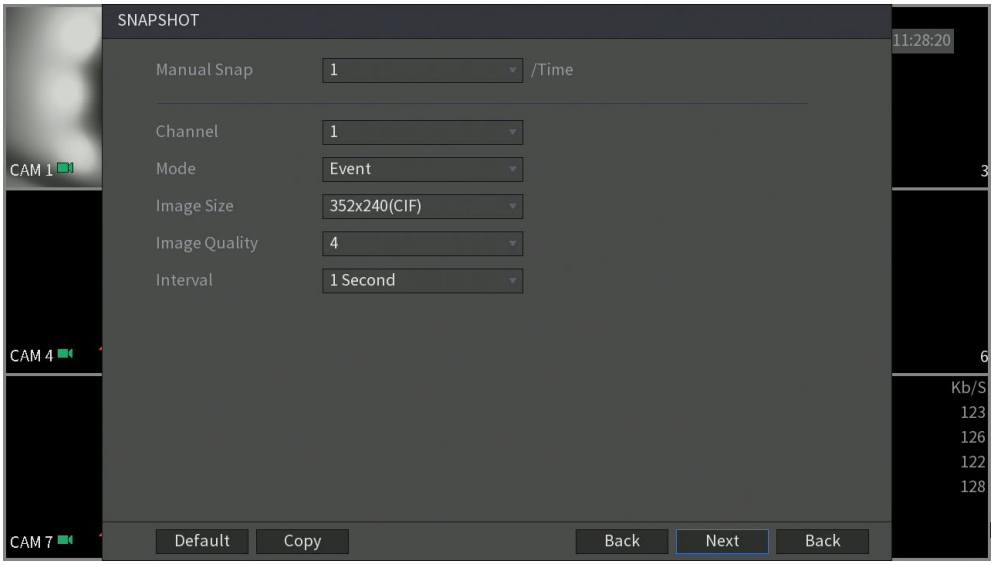


If you have made any incorrect encode settings and would like to revert the settings back to its original default settings, click on the **Default** button. You can also copy and apply the settings to multiple channels if they apply.

To copy the encode settings to multiple channels press the **Copy** button and select which channels you would like the settings to apply with. To return to the previous menu, click the **Back** button. When you have successfully completed setting up your desired encode settings, click the **Next** button to save and proceed to the next screen.

4.3.5. Snapshot

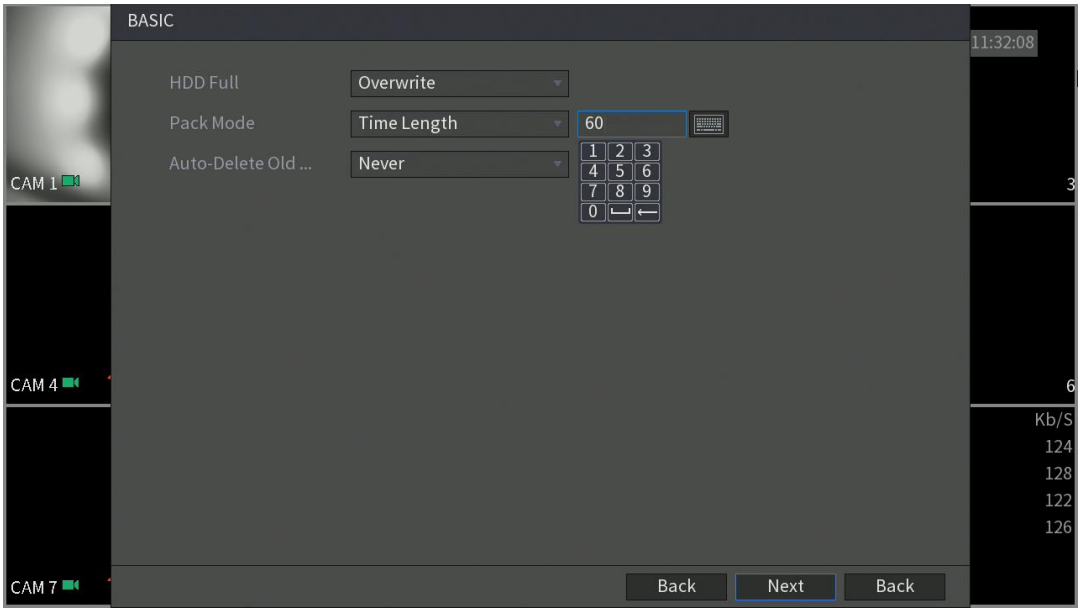
The next screen that will appear will be the snapshot settings screen. This is where you can adjust the settings for snapshots. This includes, the image size, quality, as well as interval in which the snapshot is retained. Once set, click on the **Next** button to continue.



If you have made any incorrect settings and would like to revert the settings back to its original default settings, click on the **Default** button. You can also copy and apply the settings to multiple channels if they apply. To copy the encode settings to multiple channels press the **Copy** button and select which channels you would like the settings to apply with. To return to the previous menu, click the **Back** button. When you have successfully completed setting up your desired encode settings, click the **Next** button to save and proceed to the next screen.

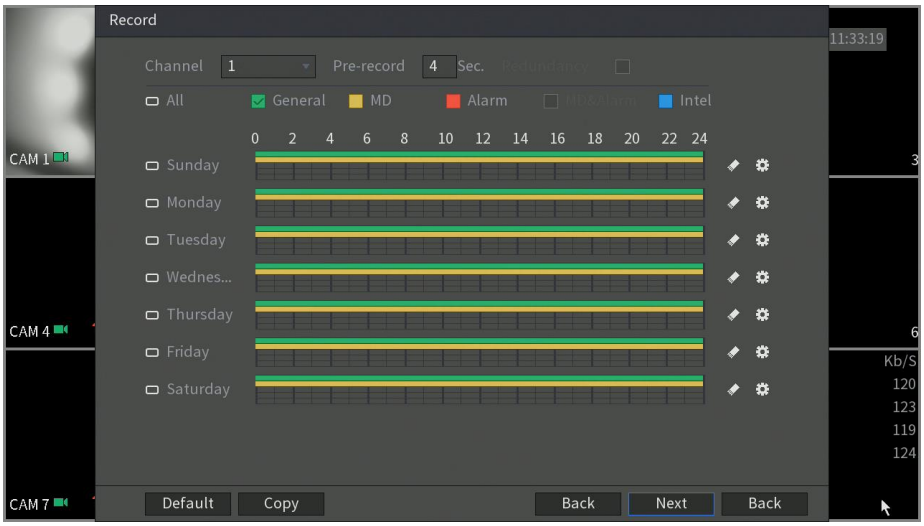
4.3.6. Basic

The next screen that will appear will be labeled **Basic**. This is where you can configure your hard drive settings including, when to overwrite a full hard drive or customizing an auto-delete option. The auto-delete option pertains to old files and how long you would like that data to remain on your hard drive. This is measured in days and is set with a built-in number pad.



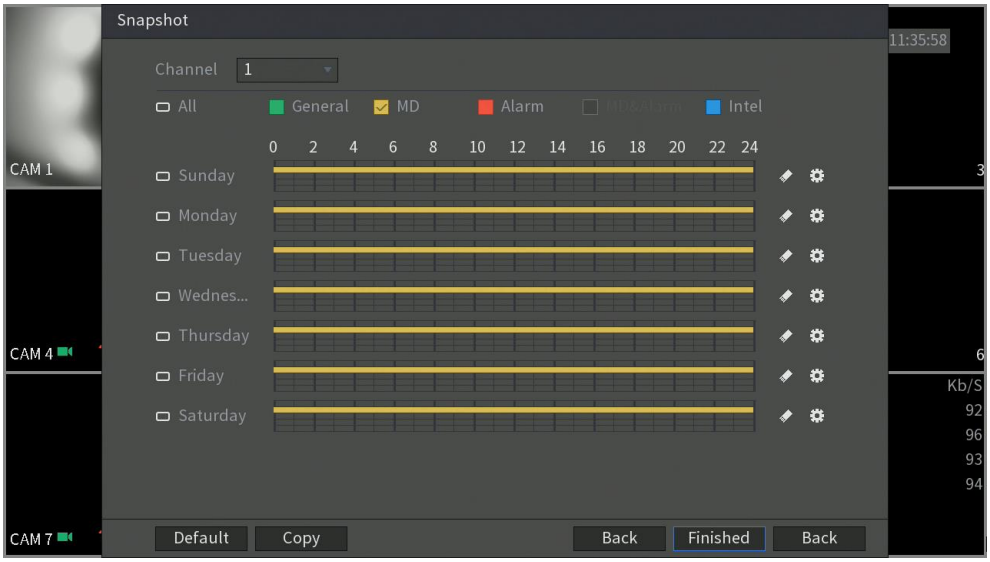
4.3.7. Record

The next screen you see is the Record settings screen. Your DVR is configured, by default, to record everything on all channels 24/7 (this will only actually happen provided you have a hard drive installed). You can also use this screen to set up motion detection and alarm schedules.

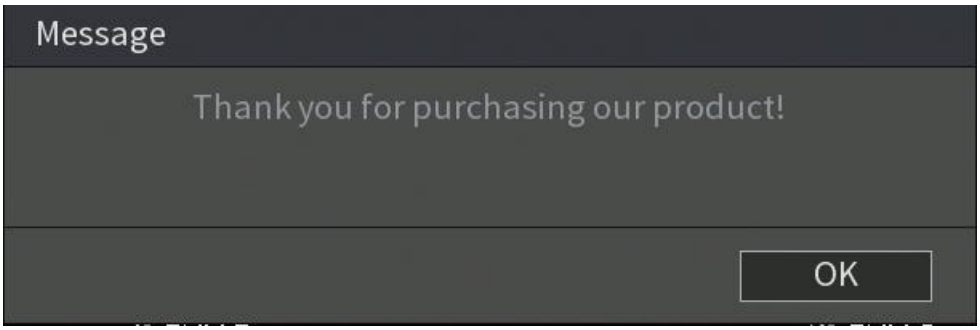


If you have made any incorrect settings and would like to revert the settings back to its original default settings, click on the **Default** button. You can also copy and apply the settings to multiple channels if they apply. To copy the encode settings to multiple channels press the **Copy** button and select which channels you would like the settings to apply with. To return to the previous menu, click the **Back** button. When you have successfully completed setting up your desired encode settings, click the **Next** button to save and proceed to the next screen.

Next, you will be able to configure your snapshot settings for your scheduled recordings. You can also use this screen to set up motion detection and alarm schedules for snapshot events. Once you have scheduled your events, click on the **Finished** button to continue.



Once the setup process is finished and you have clicked the “Finished” button, you should see the below dialog box:



Click **OK** to continue and the next screen you will reach will be the home video wall screen for your system.

4.4. Live View

When you have completed initial setup of the DVR, you will notice a video wall. The video wall will display all live connected cameras, excluding IP cameras.



Note: The number of screens displayed will be dependent on the model of your DVR.

4.4.1. Live View Screen

By default, the system time, channel name and channel number will be displayed on each channel window. This setting, however, can be also configured by going to, **Main Menu>Camera>Overlay.** The figure in the bottom right

corner represents the channel number. If the channel position is changed or the name is modified, you can recognize the channel number by this figure. This number also represents the channel number you will refer to for performing operations such as, record queries, and playback. For more information on the icons listed, refer to the table below.

Icon	Function
	Indicates recording status. This icon displays when the video is being recorded.
	This icon displays when the motion detection occurs in the scene.
	This icon displays when the video loss is detected.
	This icon displays when the channel monitoring is locked.

Note: To switch the position of two channels, point to one of the two channels and drag the window to the other channel.

4.4.1. Live View Control Bar

The live view control bar provides you access to perform the operations such as playback (Instant Play), digital zoom, real-time backup, manual snapshot, voice talk, adding remote DVRs, and streams switch. These options can be applicable depending on specific model cameras that are connected to the device.



When you move the pointer to the top middle position of a channel window, the live view control bar is displayed. For more information on these functions, refer to the table below.



No.	Function	No.	Function	No.	Function
1	Instant Play	4	Manual Snap	7	Camera Registration
2	Digital Zoom	5	Mute		
3	Real-time Backup	6	Audio Talk		

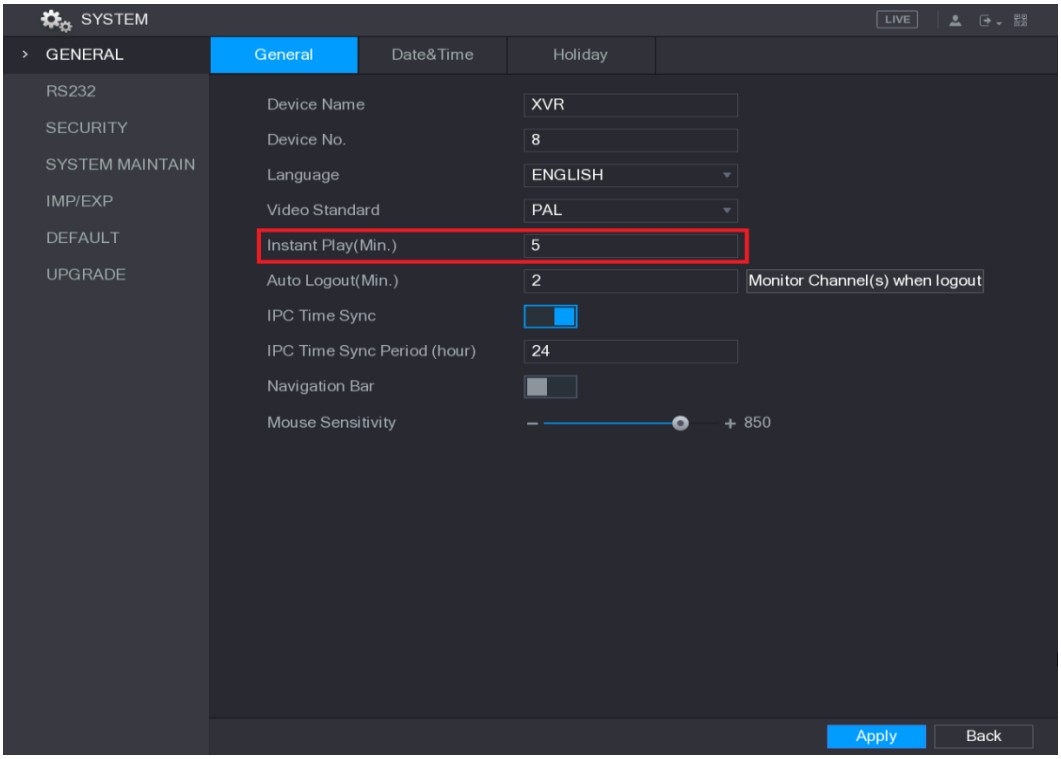
4.4.2. Instant Playback

This option allows you to play back the previous five to sixty minutes of a recorded video.

By clicking on the  icon, the instant playback interface will be displayed. The instant playback feature has the follow features:

- Move the slider to choose the time you want to start playing.
- Play, pause and close playback.
- The information such as channel name and recording status icon are shielded during instant playback and will not display until exited.
- During playback, screen split layout switch is not allowed.

To change the playback time, select **Main Menu > SYSTEM > GENERAL**, in the **Instant Play** box, enter the time you want to play back.



4.4.3. Digital Zoom

This feature allows you to enlarge a specific area of the image in the live view screen.

This function can be accessed in two ways:

- Click , the icon switches to . Hold down the left mouse button to select an area you want to enlarge. The area is enlarged after the left mouse button is released.
- Point to the center that you want to enlarge, rotate the wheel button to enlarge the area.

Note: For some models, when the image is enlarged, the selected area is zoomed proportionally according to the window. When the image is enlarged, you can drag the image toward any direction to view other enlarged areas. To return to the original status of the image, right-click on the enlarged image.

4.4.4. Real-time Backup

This feature allows you to record the video of any channel and save the clip into a USB storage DVR.

By clicking , the recording is started. To stop recording, click this icon again. The clip is automatically saved into the connected USB storage DVR.

4.4.5. Mute

This feature is only available on analog channels.

You can mute the video sound by clicking . This function is supported in single-channel view.\

4.4.6. Bidirectional Talk

This feature is only available in digital channels.

You can perform the voice interaction between the DVR and other remote DVR to improve efficiency. This function is supported only when the remotely connected IPC DVR supports bidirectional talk.

- Click , the icon switches to , the bidirectional talk of the remote DVR is turned on. The bidirectional talk of other digital channels is disabled.
- Click to cancel the bidirectional talk. The bidirectional talk of other digital channels is resumed.

4.4.7. Remote DVRs

This allows you to view information of remote DVRs as well as add new remote DVRs to replace any current connected DVRs.

By clicking , the **Camera Registration** interface is displayed. For details about adding the remote DVRs.

4.5 Navigation Bar

The navigation bar allows you to access functions more efficiently in the DVR. This option is not displayed by default. It will not appear in the live view screen until it is enabled. To enable the navigation bar, go to, **Main Menu>SYSTEM>GENERAL**, and enable the navigation bar toggle switch. Once enabled, click **Apply** to apply the setting. For more information on the navigation bar and its features, refer to the table provided below.

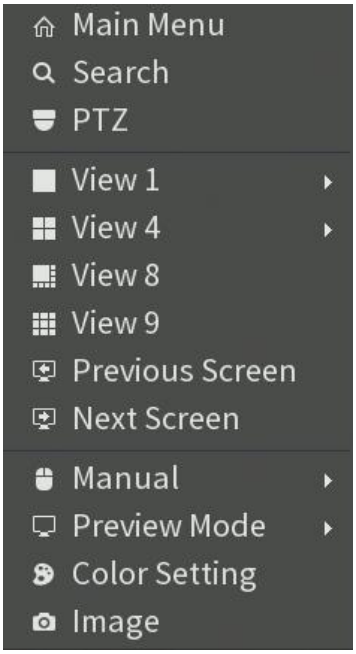


Icon	Function
	Open **Main Menu**.
	Expand or condense the navigation bar.
	Select view layout. (Options dependent on specific models)
	Go to the previous screen.
	Go to the next screen.
	Enable tour function. The icon switches to .
	Open the PTZ control panel.
	Open the **Color Setting** interface. This function is supported only in single-channel layout.
	Open the record search interface.

Icon	Function
	Open the **EVENT** interface to view the DVR alarm status.
	Open the **CHANNEL INFO** interface to display the information of each channel.
	Open the **CAMERA REGISTRATION** interface.
	Open the **NETWORK** interface.
	Open the **HDD MANAGER** interface.
	Open the **USB MANAGER** interface.
	Open the **UPGRADE MANAGER** to make sure your system is operating on the latest firmware.

4.6 Shortcut Menu

By right-clicking the mouse on the live view screen, the following menu opens:



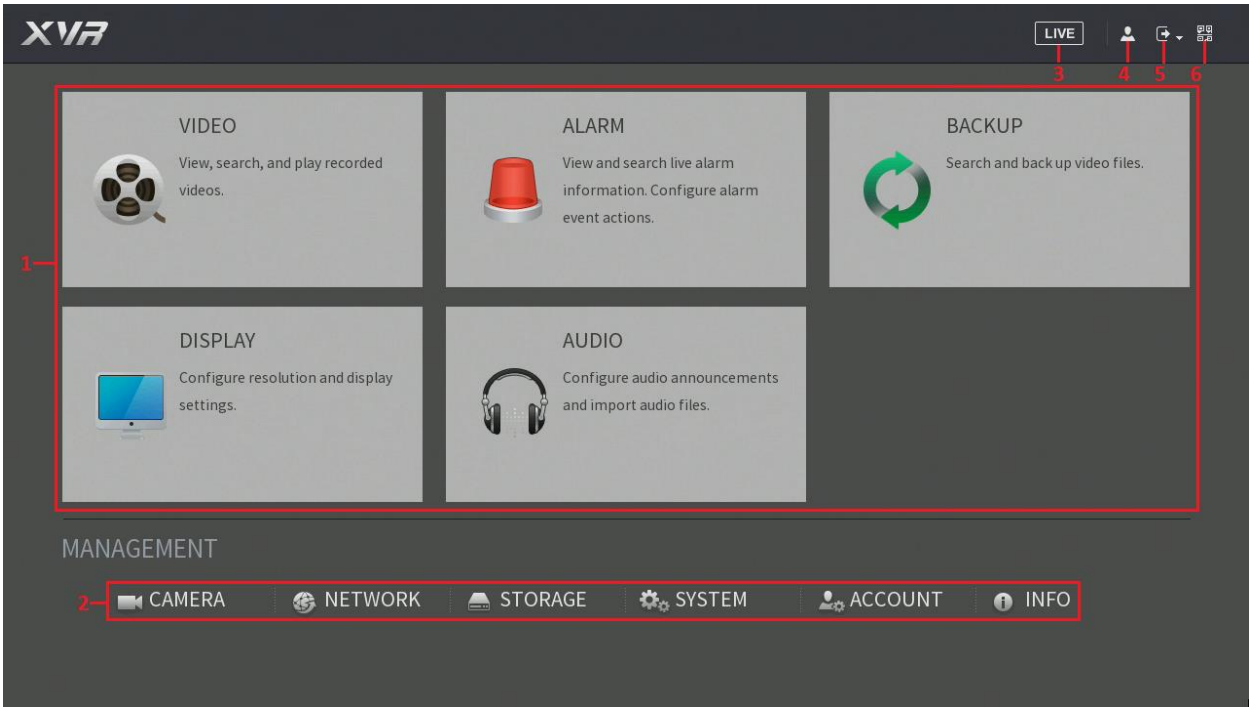
For more information on the shortcut menu and its functions, refer to the table provided below.

Function	Description
Main Menu	Open **Main Menu** interface.
Search	Open the **PLAYBACK** interface where you can search and play back recorded files.
PTZ	Open the **PTZ** interface.
View Layout	Configure the live view screen as a single or multi-channel layout.
Previous Screen	

Function	Description
Next Screen	Click the **Previous Screen** button to go to the previous screen. For example, if you are using 4-split mode, the first screen is displaying the channel 1-4, click **Next screen**, you can view channel 5-8.
Camera Registration	Open the **CAMERA REGISTRATION** interface.
Manual	Select **Record**, you can configure the recording mode as **Auto** or **Manual** or stop the recording. You can also enable or disable snapshot function Select **Alarm Out**, you can configure alarm output settings.
Preview Mode	Select **General**, the layout of live view screen is as default. Select **Show Face Lis**t, the detected face snapshots are displayed in the bottom of the live view screen.
Auto Focus	Point to the channel window and right-click on it to open the shortcut menu, and then click **Auto Focus**. **Note:** Not all cameras support this function.
Color Setting	Open the **COLOR** interface where you can adjust the video image color.
Image	Click to modify the camera properties.

4.7. Main Menu

The main menu for your DVR can be accessed by accessing the shortcut menu and clicking on **Main Menu**. You can also left-click on the live view screen which will take you right to the main menu as well. Once accessed the main menu will be displayed. For more information on the features listed in the main menu, refer to the table provided below.



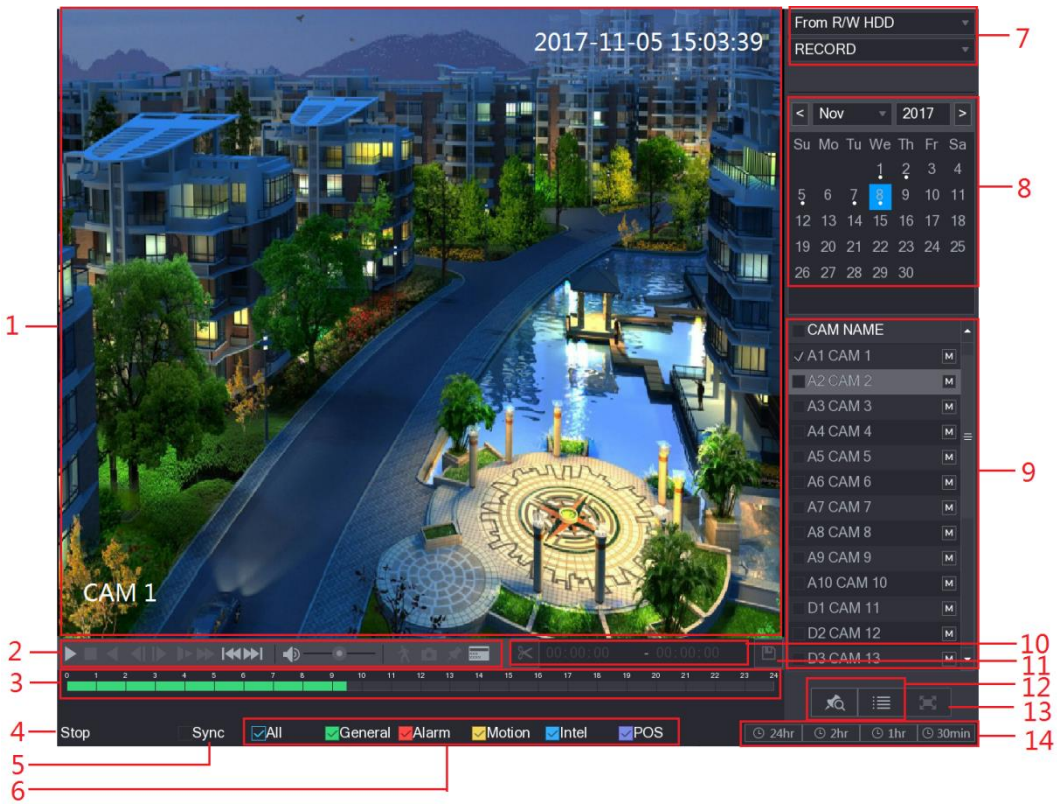
No.	Icon	Description
1	Function tiles	Includes five function tiles: **VIDEO**, **ALARM**, **BACKUP**, **DISPLAY**, and **AUDIO**. Click each tile to open the configuration interface of the tile. **VIDEO**: Search for and play back the recorded video saved on the DVR. **ALARM**: Search for alarm information and configure alarm event actions. **BACKUP**: Search and back up the video files to the local PC or external storage DVR such as USB storage DVR. **DISPLAY**: Configure the display effect such as displaying content, image transparency, and resolution, and enable the zero-channel function. **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.
2	Management menu	Includes six configurations through which you can configure: camera settings, network settings, storage settings, system settings, account settings, and view information.
3	Live	**Click** LIVE to go to the live view screen.
4		When you point to , the current user account is displayed.
5		Click , select **Logout**, **Reboot**, or **Shutdown** according to your actual situation.
6		Displays **Cell Phone Client** and **DVR SN** QR Code. Cell Phone Client: Use your mobile phone to scan the QR code to add the DVR into the Cell Phone Client, and then you can start accessing the DVR from your cell phone. DVR SN: Obtain the DVR SN by scanning the QR code. Go to the P2P management platform and add the DVR SN into the platform. Then you can access and manage the DVR in the WAN. For details, please refer to the P2P operation manual. You can also configure P2P function in the local configurations.

4.8. Function Tiles

Function tiles allow you quick access to key features of the DVRs. For more information on function tiles, refer to the table above.

4.8.1. Video

The video function tile allows you to view, search and playback recorded video located on your DVR. For more information on the features listed in this menu, refer to the table below.



No.	Function	Description
1	Display Window	Display the searched recorded video or picture. It supports playing in single-channel, 4-channel, 9-channel, and 16-channel simultaneously. **Note:** When playing back a recording in single channel mode, hold down the left mouse button to select the area that you want to enlarge. The area is enlarged after the left mouse button is released. To exit the enlarged image, right-click on the image.
2	Playback Controls Bar	Playback control buttons.
3	Time Bar	Display the type and time period of the current recorded video. In the 4-channel layout, there are four-time bars are displayed; in the other view layouts, only one-time bar is displayed. Click on the colored area to start playback from a certain time. In the situation when you are configuring the settings, rotate the wheel button on the time bar, the time bar is zooming in from 0. In the situation when playback is ongoing, rotate the wheel button on the time bar, the time bar is zooming from the time point where the playback is located. Time bar colors: Green indicates general type; Red indicates external alarm; Yellow indicates motion detection; Blue indicates intelligent events; Purple indicates POS events.

No.	Function	Description
		For some models, when you are clicking on the blank area in the time bar, the system automatically jumps to the next time point where there is a recorded video located.
4	Play Status	Includes two playback statuses: **Play** and **Stop**.
5	Sync	Select the **Sync** check box to simultaneously play recorded videos of different channels in the same period in multi-channel view.
6	Record type	Select the check box to define the recording type to search for.
7	Search type	Select the content to play back: **Record**, **PIC**, **Splice Playback.**
8	Calendar	Click the date that you want to search, the time bar displays the corresponding record. The dates with record or snapshot have a small solid circle under the date.
9	View Layout and Channel Selection	In the **CAM NAME** list, select the channel(s) that you want to play back. The window split is decided by how you select the channel(s). For example, if you select one channel, the playback is displayed in the single-channel view; if you select two to four channels, the playback is displayed in the four-channel view. The maximum is eight channels. Click  to switch the streams.  indicates main stream, and  indicates sub stream.
10	Video Splice	Splice a section of recorded video and save it.
11	Backup	Back up the recorded video files.
12	List Display	This area includes **Mark List** and **File List**. : Click the **Mark List** button, the marked recorded video list is displayed. Double-click the file to start playing. : Click the **File List** button, the searched recorded video list is displayed. You can lock the files. For details, see "**Error! Reference s ource not found. Error! Reference source not found.**."
13	Full Screen	Click  to display in full screen. In the full screen mode, point to the bottom of the screen, the time bar is displayed. Right-click on the screen to exit full screen mode.
14	Time Bar Unit	You can select 24hr, 2hr, 1hr, or 30min as the unit of time bar. The time bar display changes with the setting.

Playback Controls Bar

The playback controls bar allows you to control the speed of the playback, add a mark, and take snapshots of a recorded event. For more information on the playback control bar, refer to the table provided below.



Icon	Function
	Play/Pause. During playing back, you can switch between play and pause.

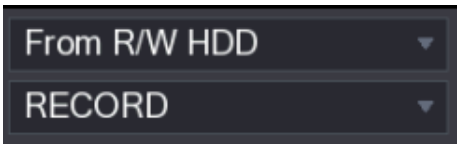
Icon	Function
	Stop. During playing back, you can click the **Stop** button to stop playback.
	Play Backward. During playing back, click the **Play Backward** button to backward play the recorded video, the button switches to ; click  to stop playing backward. During playing back, click  to start playing forward.
	Previous Frame/Next Frame. When the playback is paused, click  or click  to play single-frame recorded video. When playing back single-frame recorded video, click  to start playing forward.
	Slow Playback. During playing back, click  to set the speed of slow playback as SlowX1/2, SlowX1/4, SlowX1/8, or SlowX1/16. During fast playback, click  to slow down the speed of fast playback.
	Fast Playback. During playing back, click  to set the speed of fast playback as FastX2, FastX4, FastX8, or FastX16. During slow playback, click  to speed up slow playback.
	Previous Day/Next Day. Click  or click  to play the previous day or next day of the current recorded video.
	Adjust volume of playback.
	Smart Search. For details about the using the smart search, see "**Error! R eference source not found. Error! Reference source not found.**."
	In the full screen mode, click  to take a snapshot and save into the USB storage DVR or mobile HDD.
	Add Mark for the recorded view.
	Hide POS Hide. During single-channel playback, click  to display or hide POS information on the screen.

Note: The playback function and playback speed are dependent on the product version.

Selecting a Search Type

This menu is in the upper right-hand corner screen of the playback interface. In this menu you can search for, recorded videos, spliced videos, or snapshots from the installed hard drive or external storage DVR.

- **From R/W HDD**: Recorded videos or snapshots playback from HDD of the DVR.



- **From I/O DVR**: Recorded videos playback from external storage DVR.

To access the recorded event and play it back, you can double-click on the video file, or click the  icon to start playing the video.

Clipping a Recorded Video

This feature allows you to clip sections of recorded video and save them to a USB storage DVR. Below is the video clip interface.



To use this feature, select a recorded video that you want to play.

Click  to start playing from the beginning.
Double-click anywhere in the time bar colored area to start playback.

Next, click on the time bar to select the start time, and then click the  icon to start clipping. To stop clipping a video, click on the  icon again while in operation. To save the clipping to a USB storage DVR, click on the  icon. The **BACKUP** dialog box will then be displayed.

Note: You can clip the video of either a single channel, or multiple channels. A maximum of 1024 files can be backed up at one time. The files selected from the **File List** cannot be clipped.

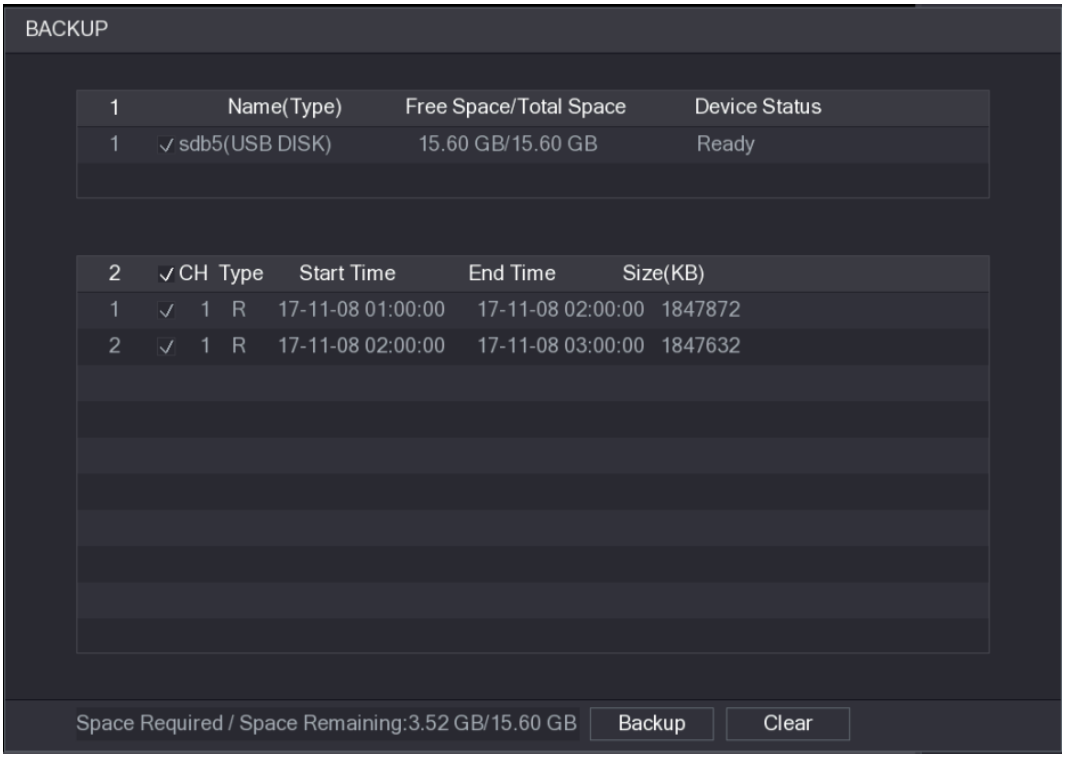
Backing up Recorded Video

This feature allows you to backup recorded video, or spliced files, into a USB storage DVR.

To use this feature, select the recorded video file that you want to backup. You can select the following two types of files:

Recorded video file: Click , the **File List** area is displayed. Select the file(s) that you want to back up.
Spliced video files.

After selecting a video file, click on the  icon, the **BACKUP** dialog box with then be displayed.



In the backup dialog box, click on **Backup** to begin backing up the selected files to an external USB storage DVR.

Note: If you do not want to back up the file, click on the **Clear** button to return to the previous menu.

Smart Search

The Smart Search feature enables searching for motion within the recorded file for a specific channel. This feature is useful, as it allows users to search a channel's recorded files for motion without having to change the recording type to a motion detection recording.

Note: Not all models will support this feature

To utilize this function, select channel you wish to play from the **CAM NAME** list and click on the  icon. You can also double-click anywhere in the time bar colored area to start playback. Next, click on the  icon to allow the smart search grid to be displayed. Drag the mouse pointer to select a searching area. When finished, click on the  icon, the screen will start playing back the motional splices of recorded video for the selected area. When finished, to exit smart search, click on the  icon again to exit.

Note:

• The system does not support motion detection zone setup while in full-screen mode.

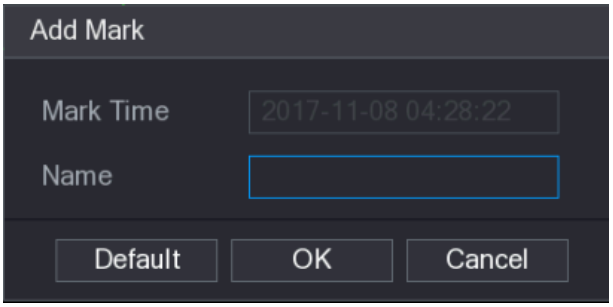
• Smart search is only compatible while in single channel mode. If multi-channels are selected, double-click on the channel window to display a single channel.

• The system supports 396(22*18 PAL) and 330(22*15 NTSC) zones. Please left click mouse to select smart search zones.

Marking and Playing Back Video

In this DVR you can mark recordings. This option is useful for areas you want to highlight or refer to when playing back a file.

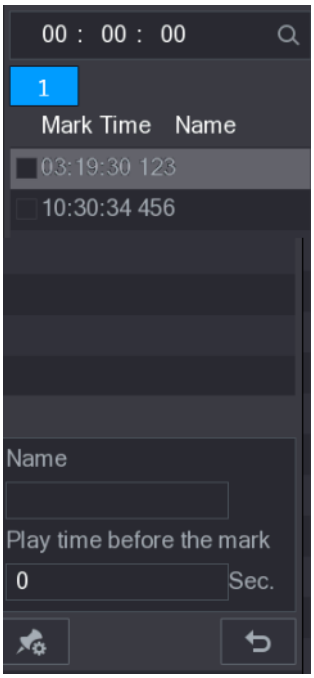
To begin marking a file, select the  icon located in the playback interface. The **Add Mark** dialog box will then be displayed.



In the **Name** field of the dialog box, enter a name for the mark and then click **OK**. When complete the marked video can be found in the **Mark List**.

Note: This function is only supported during single-channel playback.

To playback the marked video, select one channel from the **CAM NAME** list and click on the  icon to display the mark list interface.

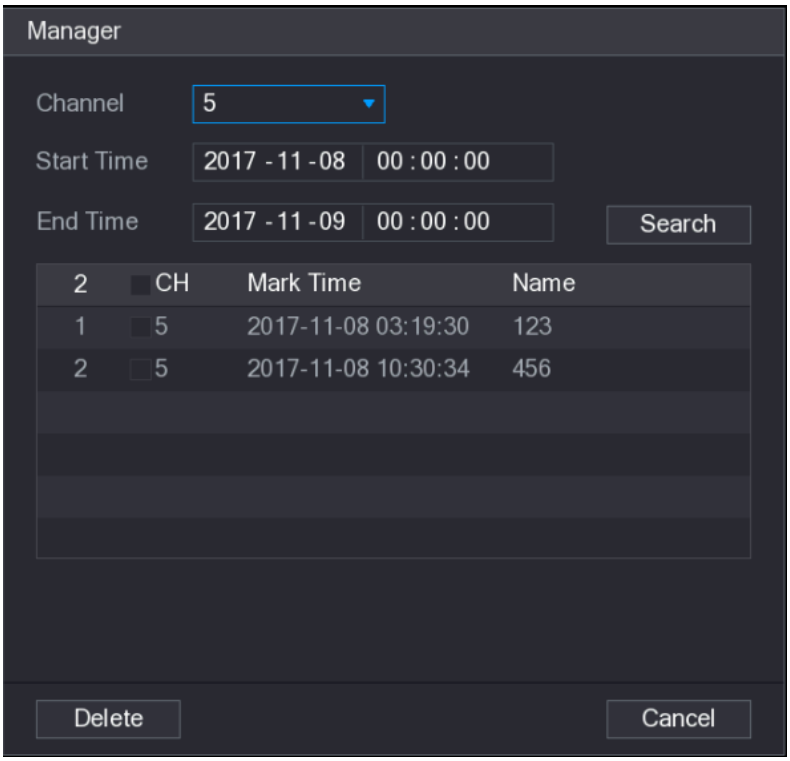


In the mark list interface, double-click the file that you want to play back. If you need to search for the marked video by time, enter the time of the file in the **SEARCH** box at the top of the interface and click on the icon.

The mark list interface also allows you to play the video in N seconds, or time before the marked time. To begin, enter the name of the marked video in the **Name** box. Then, in the **Playback time before mark** box, enter N seconds and click on the icon to begin playback. The playback will then start from N seconds before the marked time.

Note: If there is N seconds before the marked time, the playback starts from N seconds before the marked time. If there is not, it will not.

Managing Marked Video, in the **Mark List** interface, click on the icon to display the manager interface.



- By default, the manager manages all the marked videos of the selected channel.
- To search the marked video, select channel number from the **Channel** list, enter time in **Start Time** box and **End Time** box, and then click **Search**.
- All the marked videos display in order of time.
- To modify the name of marked video, double-click a marked video, the **Edit Mark** dialog box is displayed.
- To delete the marked video, select the marked video, and then click **Delete**.

Playing Back Snapshots

To playback snapshot events via the playback interface, navigate to the **Search Type** field of the interface located in the upper right-hand corner and select **PIC** from the drop-down menu. From the playback interface, locate the

Channel list and select the channel number you wish to access. Then, from the **Calendar** area, select a date, and click on the  icon to allow the system to play. All snapshots related to that specific channel will be played at the configured intervals.

Playing Back Splices

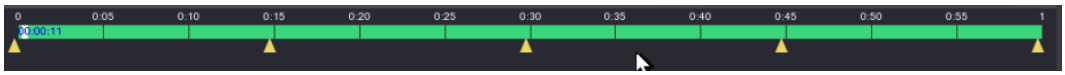
To playback spliced events via the playback interface, navigate to the **Search Type** field of the interface located in the upper right-hand corner and select **Splice Playback** from the drop-down menu.



From the playback interface, locate the **Channel** list and select the channel number you wish to access.

Note: Only single-channel function is compatible with this feature.

Then, from the **Calendar** area, select a date, and click on the  icon to allow the system to play. All snapshots related to that specific channel will be played at the configured intervals. You can also double-click anywhere on the time bar to playback a spliced video from the interface.



Note: Every recorded video file must be at least **five minutes**. If a recorded video file is less than 20 minutes the system will automatically adjust the windows quantity to ensure every splice is at least five minutes. If a recording is less than five minutes, an image will not be displayed.

Using the File List

The file list allows you to view all recorded videos within a certain period from any channel. Each channel must be associated with the file list to view data.

To use the file list, access the playback interface and select the  icon located in the bottom right-hand corner of the screen. The **File List** interface will then be displayed.



Note: A maximum of 128 files can be displayed in this menu. File types are listed as, **R** for general recordings; **A** for videos with external alarms; **M** for motion events; and **I** for intel events.

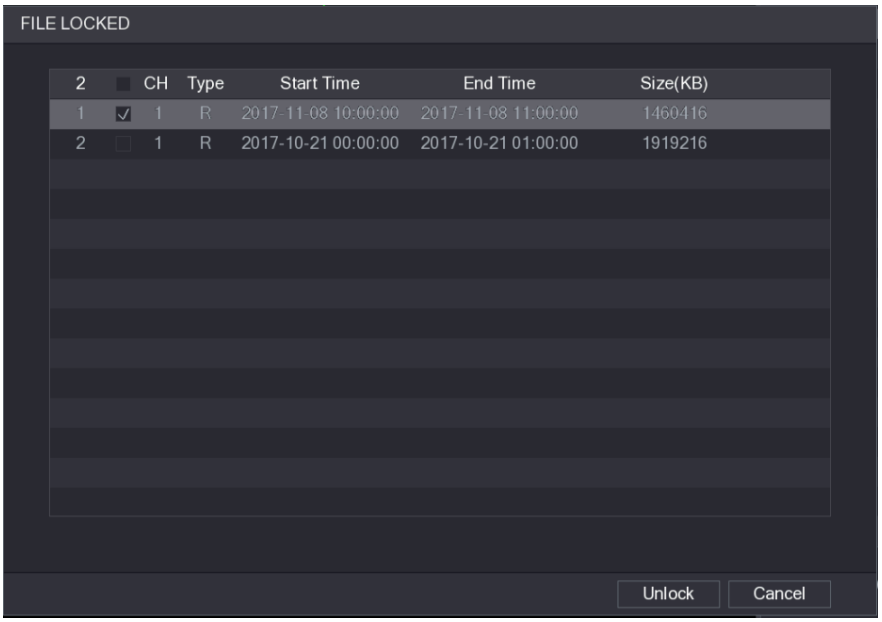
To start playing back a file from the file list, select the file you wish to play from the list and click on the icon located above the time bar. In the search box, you can also enter a specific time of a file to view a file from a specific time. To return to the playback interface, click on the icon.

Locking and Unlocking a Recorded Video

- To lock the recorded video, in the **File List** interface, select the check box of the recorded video, and then click . The locked video will not be covered.
- To view the locked information, click , the **FILE LOCKED** interface is displayed.

Note: The recorded video that is being written or overwritten cannot be locked.

To unlock the recorded video, in the **FILE LOCKED** interface, select the video, and then click **Unlock**.

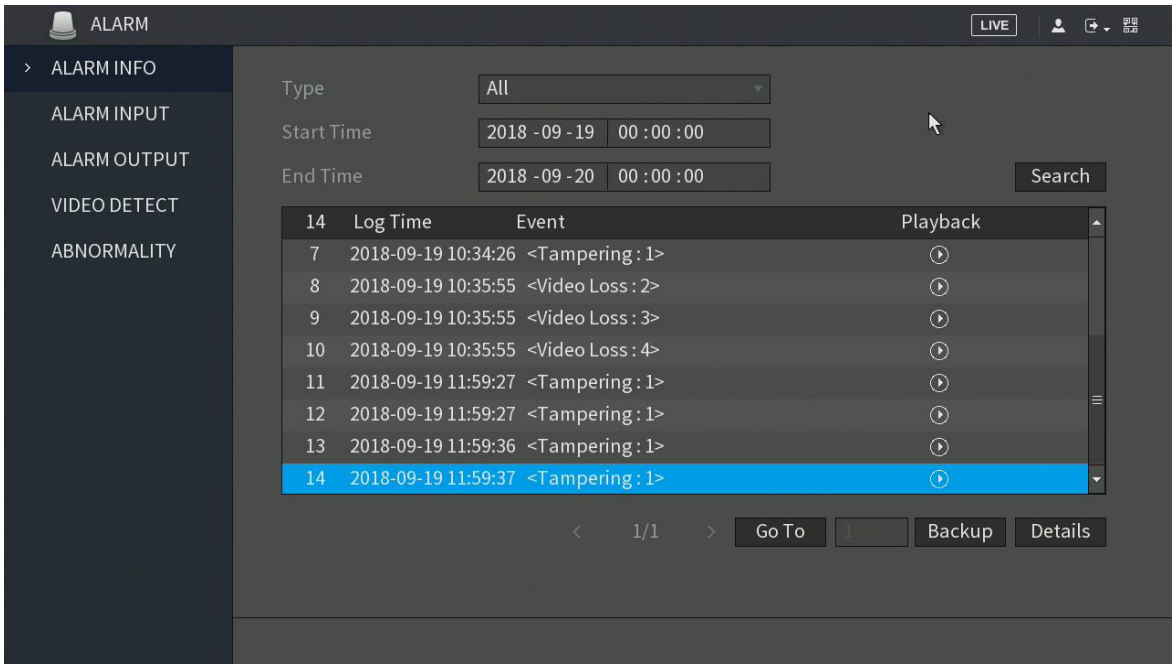


4.8.2. Alarm

The alarm function tile located in the main menu of the DVR allows you to search live alarm information as well as configure alarm action events.

Alarm Info

This feature allows you 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 drop-down 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 DVR. 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 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 DVR you will be able to view alarm events from the DVR 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.

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 DVR if a port is available on your specific model DVR. For more information about the parameters listed in this menu, refer to the table provided below.

- **Auto**: When an alarm event is triggered on the DVR, the connected alarm DVR generates alarms.
- **Manual**: The alarm DVR is forced to keep generating alarms.
- **Stop**: The alarm output function is not enabled.

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.

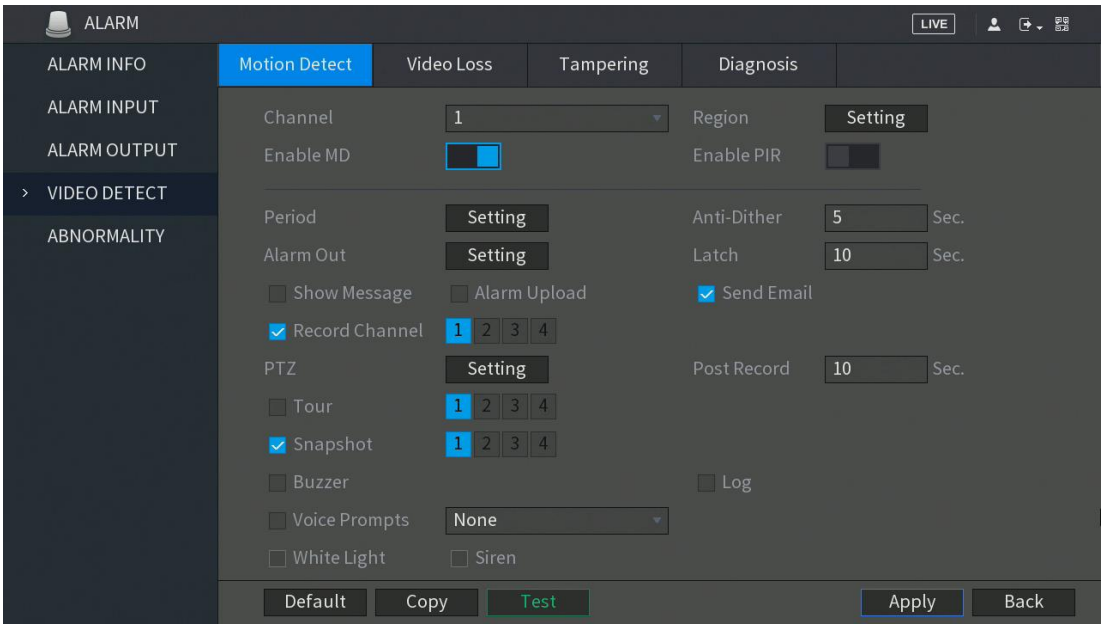
Video Detect

Video detection adopts computer vision and image processing technology. This technology analyzes the video images to detect obvious changes such as moving objects and blurriness. The system activates alarms when such changes are detected. These alarms include, Motion detection, Video Loss, Tampering, and Diagnosis.

Motion Detect

When a moving object appears or moves fast enough to reach the preset sensitivity values, the system will activate an alarm. These alarms are known as motion detect, or **MD**.

To configure the motion detection settings on your DVR, select the **Motion Detect** tab in the **Video Detect** menu and toggle the **Enable MD** switch to the on position.



For a more detailed overview of the motion detect screen, refer to the table provided below.

Parameter	Description
Channel	In the **Channel** list, select a channel to set the motion detection.
Region	Click **Setting** to define the motion detection region.
Enable MD	Enable or disable the motion detection function.
Enable PIR	PIR function helps enhancing the accuracy and validity of motion detect. It can filter the meaningless alarms that are activated by the objects such as falling leaves, flies. The detection range by PIR is smaller than the field angle. PIR function is enabled by default if it is supported by the cameras. Enabling PIR function will get the motion detect to be enabled automatically to generate motion detection alarms; if the PIR function is not enabled, the motion detect just has the general effect. **Note:** The PIR function can only be enabled with a CVI channel type and if the camera supports PIR functionality. If the DVR does not support PIR functions, it will not be displayed in the interface.
Period	Define a period during which the motion detection is active.
Anti-Dither	Configure the event detection lasting time. The system records only one event during this period. The value ranges from 5 seconds to 300 seconds.

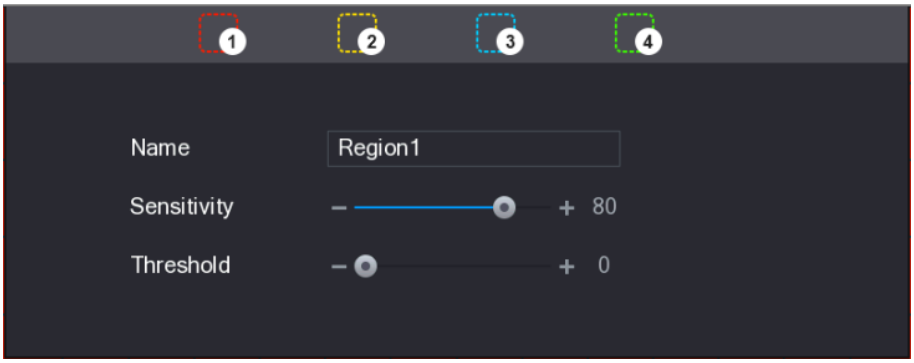
Parameter	Description
Alarm Out	Click **Setting** to display setting interface. General Alarm: Enable alarm activation through the alarm DVRs connected to the selected output port. External Alarm: Enable alarm activation through the connected alarm box. Wireless Siren: Enable alarm activation through DVRs 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.
Show Message	Select the **Show Message** check box to enable a pop-up message in your local host PC.
Alarm Upload	Select the **Alarm Upload** check box to enable the system to upload the alarm signal to the network (including alarm center) when an alarm event occurs.
Send Email	Select the **Send Email** check box to enable the system to send an email notification when an alarm event occurs. **Note:** To use this function, make sure the email notification function is enabled for the DVR. (**Main Menu>NETWORK>EMAIL**
Record Channel	Select the channel(s) that you want to record. The selected channel(s) starts recording after an alarm event occurs. **Note:** Motion detection and auto recording functions must be enabled.
PTZ	Click **Setting** to display the PTZ interface. Enable PTZ activation function. For each PTZ camera, select the preset that you want to be called when an alarm event occurs. **Note:** Motion Detect can only activate PTZ presets.
Post Record	Set a length of time for the DVR to delay turning off recording after the alarm is cancelled. The value ranges from 10 seconds to 300 seconds, and the default value is 10 seconds.
Tour	Select the **Tour** check box to enable a tour of the selected channels. **Note:** To use this function, make sure tour is enabled by going to **Main Menu>DISPLAY>TOUR**
Snapshot	Select the **Snapshot** check box to take a snapshot of the selected channel. **Note:** To use this function, make sure the following settings are configured: The snapshot function is enabled for motion detect alarms in **Main Menu>STORAGE>SCHEDULE>Snapshot** Select **Main Menu>CAMERA>Snapshot,** in the **Mode** list and select **Event**.
Buzzer	Select the check box to activate a buzzer noise at the DVR.
Log	Select the check box to enable the DVR to record a local alarm log.
Voice Prompts	Select to enable audio broadcast/voice prompts in response to a motion detection event.
White Light	Select if applicable to certain models that detect specific light spectrums and may be disabled by default.
Siren	Select if applicable to certain models that enable siren technology. This option may be disabled by default.

After you have enabled your desired settings for motion detection, make sure to click the **Apply** button to save them to your DVR.

Note: Click the **Default** button to restore the motion detection settings to its default setting. To apply the settings to multiple channels on your DVR, click **Copy** and in the **Copy** dialog box, select the additional channel(s) you would like to set, and press **Apply**. To test the applied settings, click the **Test** button in the motion detect menu.

Settings Motion Detection Regions

The **Setting** 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 **Setting** 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.

o 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.

o 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.

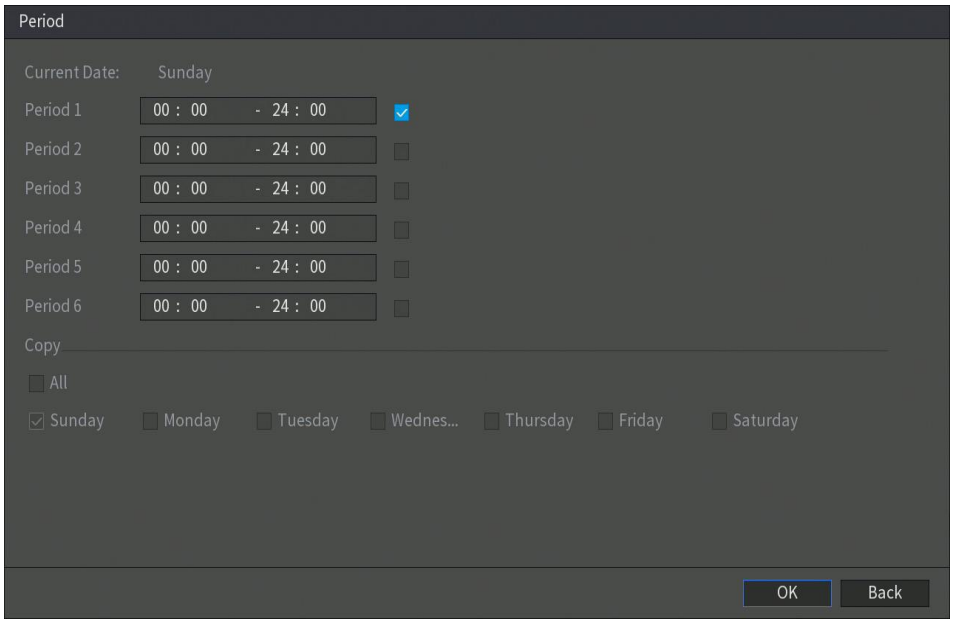
Setting a Motion Detection Period

This **Setting** button takes the user to the motion detection period settings screen. Below is a screenshot of the motion detection period settings screen.



In this menu, you will define the motion detection period for the selected channel. By default, it is it is active to record motion 24/7. You can define the period, or schedule.

- Define a period for a specified day of the week by clicking the half-hour clocks you wish to enable.
- Define several days of the week by clicking the icon before each day. The icon selected will then switch to the icon which indicates it is linked.
- Define for all days of the week by clicking on the icon located by the **All** option. Each day will then switch to the icon and all days of the week will be selected.
- Define the period by editing. In this example, we will use Sunday. Click the icon to access the **Period** interface.

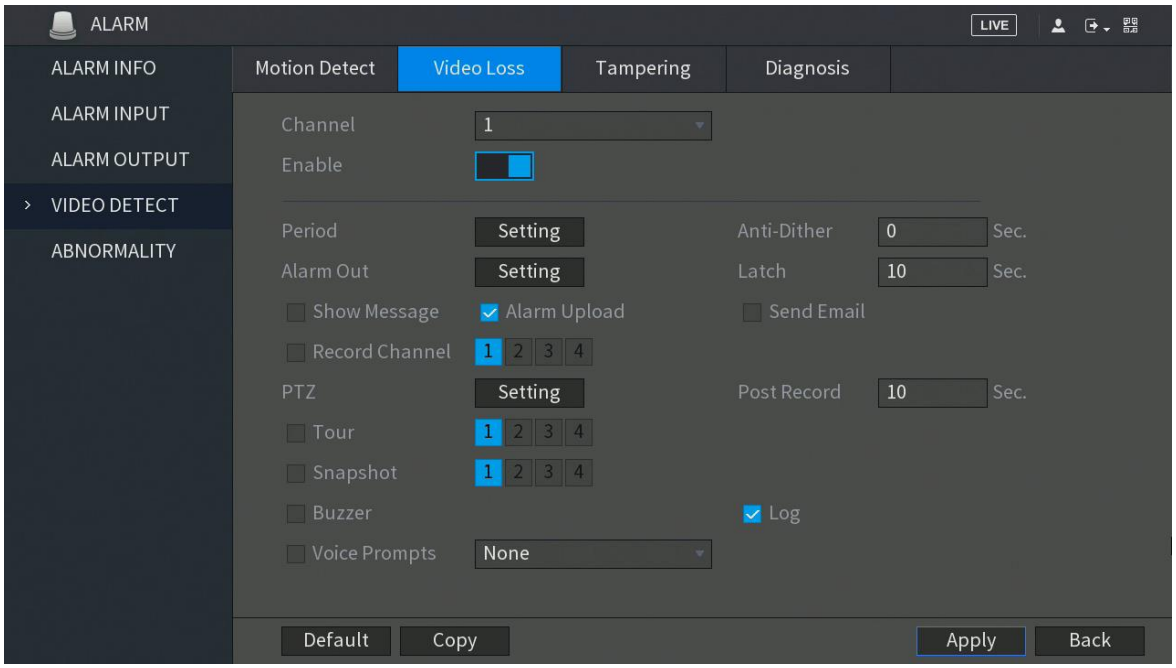


In the period interface, enter the time frame you would like to set as your period and select the checkbox to enable the settings. There are a total of six periods that you can set for each day. Under the **Copy** menu, you can apply these settings to all days of the week by checking the **All** option or you can also select specific days as well. To save the settings in this menu, click **OK** to continue.

- Once you have set your desired settings in the **Motion Detect** interface, click **Apply** to complete the process.

4.8.3. Video Loss

The video loss settings screen is where the DVR 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:



To configure the video loss settings on your DVR, select the **Video Loss** tab in the **Video Detect** menu and toggle the **Enable s**witch to the on position. For more information on the settings set in this menu, refer to the table listed below.

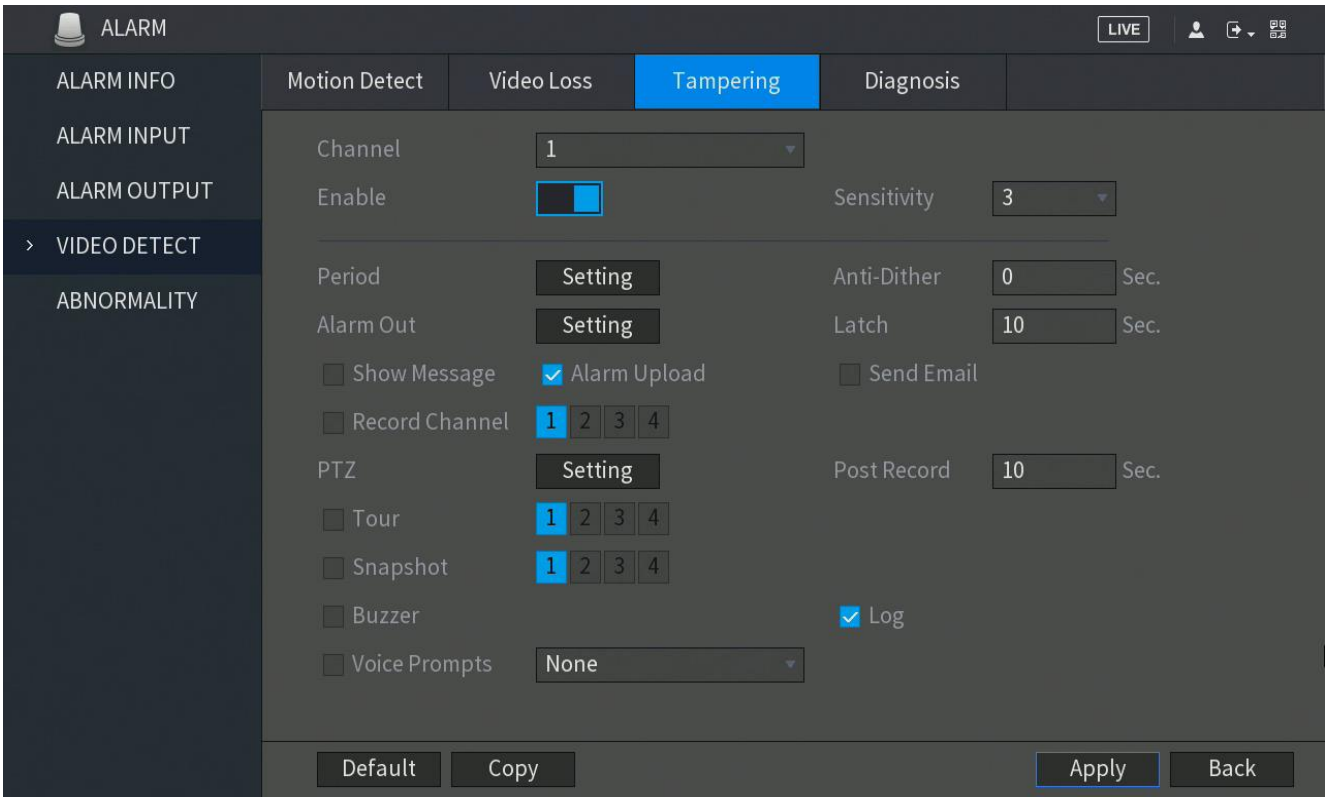
Parameter	Description
Channel	In the **Channel** list, select a channel to set the motion detection.
Enable	Enable or disable the motion detection function.
Period	Define a period during which the motion detection is active.
CAM Anti-Dither	Configure the event detection lasting time. The system records only one event during this period. The value ranges from 5 seconds to 300 seconds.
Alarm Out	Click **Setting** to display setting interface. General Alarm: Enable alarm activation through the alarm DVRs connected to the selected output port. External Alarm: Enable alarm activation through the connected alarm box. Wireless Siren: Enable alarm activation through DVRs connected by USB gateway or camera gateway.

Parameter	Description
Latch	Set a length of time for the DVR to delay turning off alarm 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	Select the **Show Message** check box to enable a pop-up message in your local host PC.
Send Email	Select the **Send Email** check box to enable the system to send an email notification when an alarm event occurs. **Note:** To use this function, make sure the email notification function is enabled for the DVR. (**Main Menu>NETWORK>EMAIL**
Record Channel	Select the channel(s) that you want to record. The selected channel(s) starts recording after an alarm event occurs. **Note:** Motion detection and auto recording functions must be enabled.
PTZ	Click **Setting** to display the PTZ interface. Enable PTZ activation function. For each PTZ camera, select the preset that you want to be called when an alarm event occurs. **Note:** Motion Detect can only activate PTZ presets.
Post Record	Set a length of time for the DVR to delay turning off recording after the alarm is cancelled. The value ranges from 10 seconds to 300 seconds, and the default value is 10 seconds.
Tour	Select the **Tour** check box to enable a tour of the selected channels. **Note:** To use this function, make sure tour is enabled by going to **Main Menu>DISPLAY>TOUR**
Snapshot	Select the **Snapshot** check box to take a snapshot of the selected channel. **Note:** To use this function, make sure the following settings are configured: The snapshot function is enabled for motion detect alarms in **Main Menu>STORAGE>SCHEDULE>Snapshot** Select **Main Menu>CAMERA>Snapshot,** in the **Mode** list and select **Event**.
Buzzer	Select the check box to activate a buzzer noise at the DVR.
Voice Prompts	Select to enable audio broadcast/voice prompts in response to a motion detection event.

Note: For PTZ activation, video loss detection can activate PTZ presets, tours, and patterns. After setting your video loss settings, click **Apply** to complete the process. If you wish to reset your video loss settings to default, click **Default**. If you want to apply these settings to multiple channels on the system, click on the **Copy** button and apply the settings to your desired channels.

4.8.4. Tampering

The tampering settings screen is where the DVR 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:



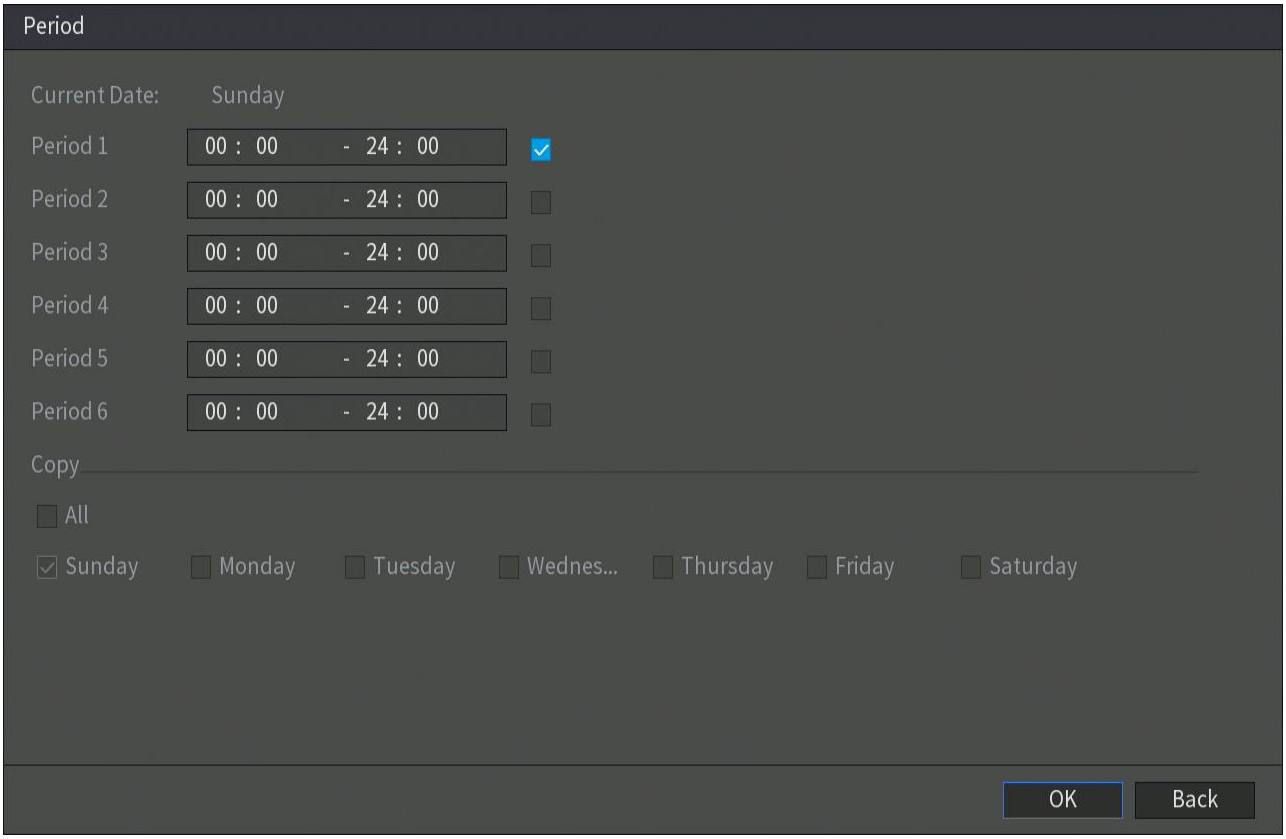
Below is a description of the fields on the Tampering settings page:

• **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.

• **Sensitivity** – Allows the user to set a preset sensitivity setting for motion detected events.

• **Period**: This setup button takes the user to the tampering period settings screen. Below is a screenshot of the motion detection period settings screen.
In this menu, you will define the tampering period for the selected channel. By default, it is it is active to record 24/7. You can define the period, or schedule.

- Define a period for a specified day of the week by clicking the half-hour clocks you wish to enable.
- Define several days of the week by clicking the icon before each day. The icon selected will then switch to the icon which indicates it is linked.
- Define for all days of the week by clicking on the icon located by the **All** option. Each day will then switch to the icon and all days of the week will be selected.
- Define the period by editing. In this example, we will use Sunday. Click the icon to access the **Period** interface.



In the period interface, enter the time frame you would like to set as your period and select the checkbox to enable the settings. There are a total of six periods that you can set for each day. Under the **Copy** menu, you can apply these settings to all days of the week by checking the **All** option or you can also select specific days as well. To save the settings in this menu, click **OK** to continue.

• **CAM 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.

• **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.

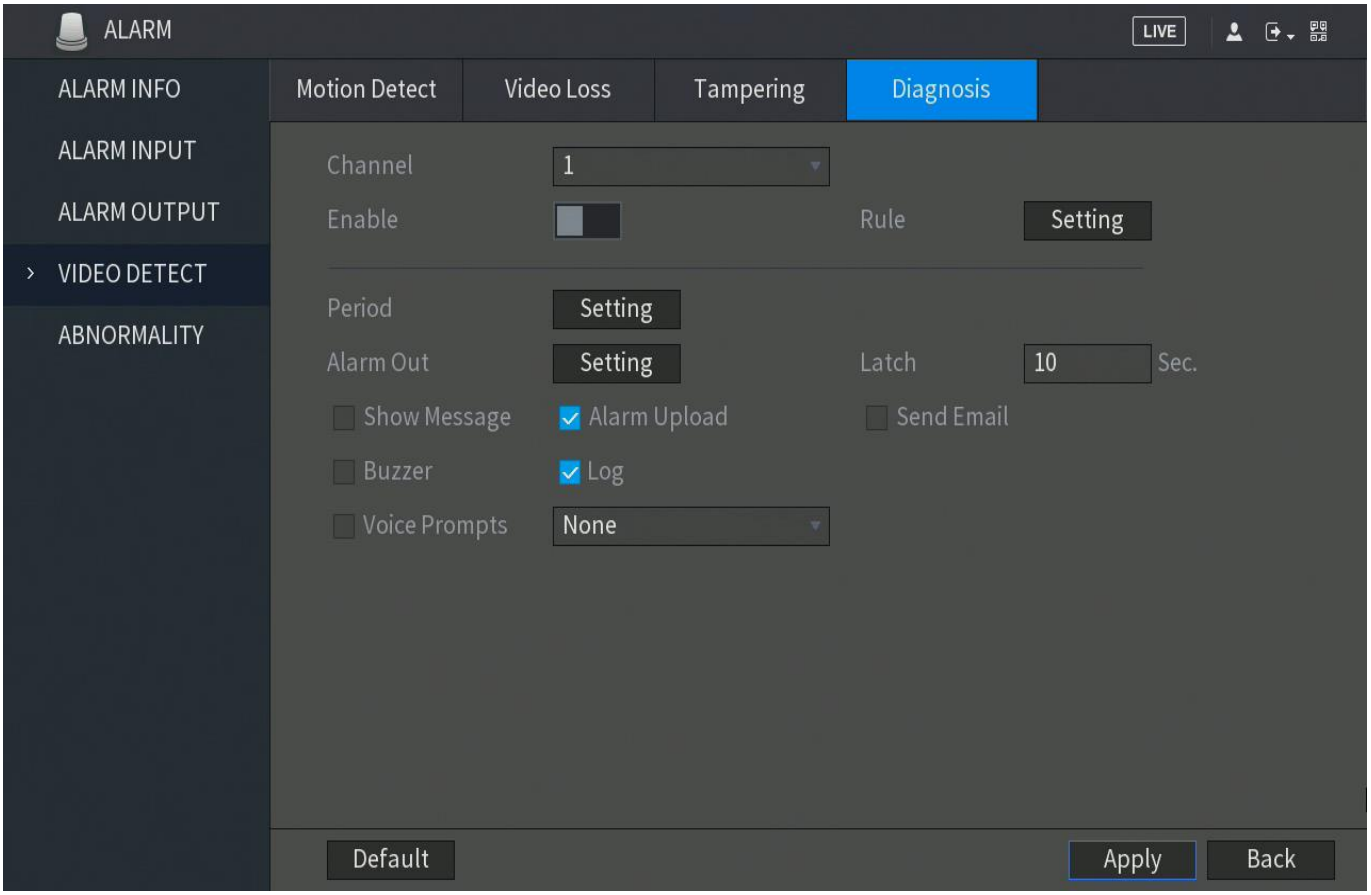
• **Record Channel**: This checkbox allows the user to enable the system to record video for that channel when a motion detection alarm is triggered. Delay is also associated with this tab, it is the This field specifies in seconds how long the delay between alarm activation and recording should be.
• **PTZ**: Allows the user to active PTZ functionality to applicable PTZ DVRs.
• 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.
• Buzzer: Allows the user to trigger a buzzer once a motion event is detected.
• Log: Allows the user to log all motion detected events that are triggered in the DVR.
• Voice Prompts (N/A): Allows the user to customize voice prompts for motion detected events.
• Log: Allows the user to log all motion detected events that are triggered in the DVR.

Note: When you have completed setting the tampering settings for your DVR, click on **Apply** to complete the process.

4.8.5. Diagnosis

This menu allows you to enable or disable diagnosis settings. These settings include features such as, overexposure from the camera, out of focus, or other related quality issues.

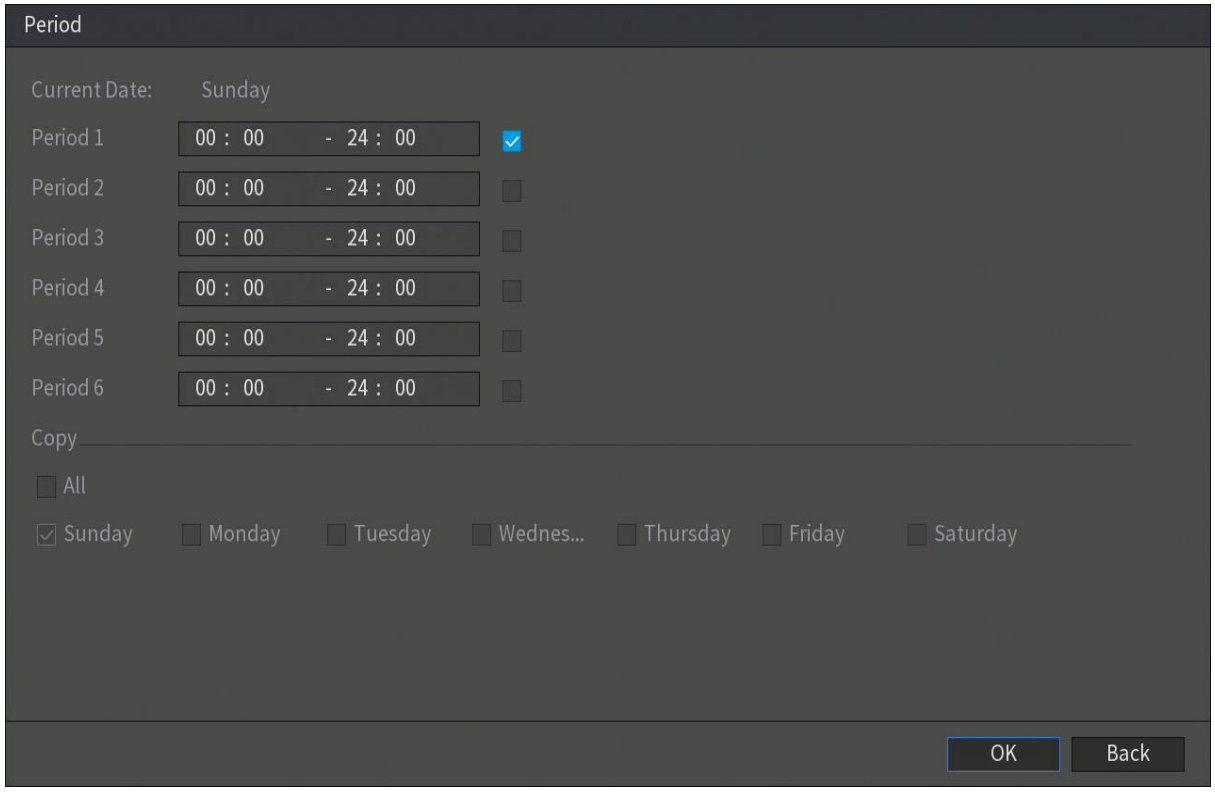
To enable this setting, toggle the **Enable** switch to the on position.



• **Rule**: This setting allows you to set diagnosis types to specific targets.
• **Period**: This setup button takes the user to the tampering period settings screen. Below is a screenshot of the motion detection period settings screen.

In this menu, you will define the tampering period for the selected channel. By default, it is it is active to record 24/7. You can define the period, or schedule.

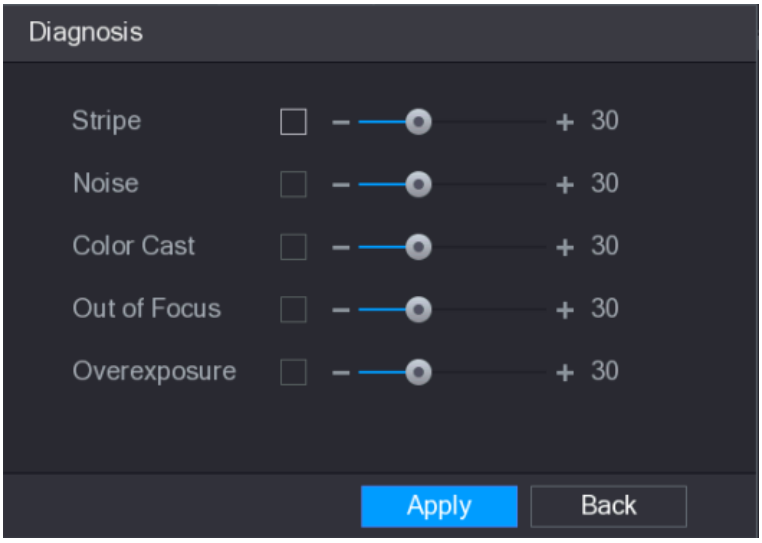
- Define a period for a specified day of the week by clicking the half-hour clocks you wish to enable.
- Define several days of the week by clicking the icon before each day. The icon selected will then switch to the icon which indicates it is linked.
- Define for all days of the week by clicking on the icon located by the **All** option. Each day will then switch to the icon and all days of the week will be selected.
- Define the period by editing. In this example, we will use Sunday. Click the icon to access the **Period** interface.



In the period interface, enter the time frame you would like to set as your period and select the checkbox to enable the settings. There are a total of six periods that you can set for each day. Under the **Copy** menu, you can apply these settings to all days of the week by checking the **All** option or you can also select specific days as well. To save the settings in this menu, click **OK** to continue.

Setting Types of Diagnoses Targets

This menu allows you to set the specific features or rules, of the features listed in the diagnosis screen.
To set a diagnosis type, click on the **Setting** button next to the **Rule** field to access the Diagnosis interface.



Select the items that you want to diagnose and set the threshold for these settings. For more information on the settings list in this menu, refer to the table below.

Parameter	Description
Stripe	A horizontal, vertical or diagonal stripe that might appear in the video because of DVR aging or electronic interruption. Such stripe brings visual interruption.
Noise	Video noises such as blurriness or quality reduction that is caused by optical distortion or DVR problem during camera shooting.
Color Cast	Variances in the normal proportions of RGB colors.
Out of Focus	Blurry video is caused during camera shooting, transferring and processing. Such condition is a common image quality reduction problem and defined as out of focus.
Overexposure	The video brightness refers to the intensity of image pixel. The range is between 0 (the darkest black) and 255 (the brightest white). If the brightness exceeds the threshold, the image is over exposed.
Threshold	The range is from 1 through 100. If the value after diagnosing is higher than what you set, the system activates the alarm to the corresponding diagnosing types such as stripe.

When you have finished setting your diagnosis rules, click on **OK** in the diagnosis interface to save the settings. The system will then return to the **Diagnosis** menu. To complete the process, Click **Apply** to save the settings for your system.

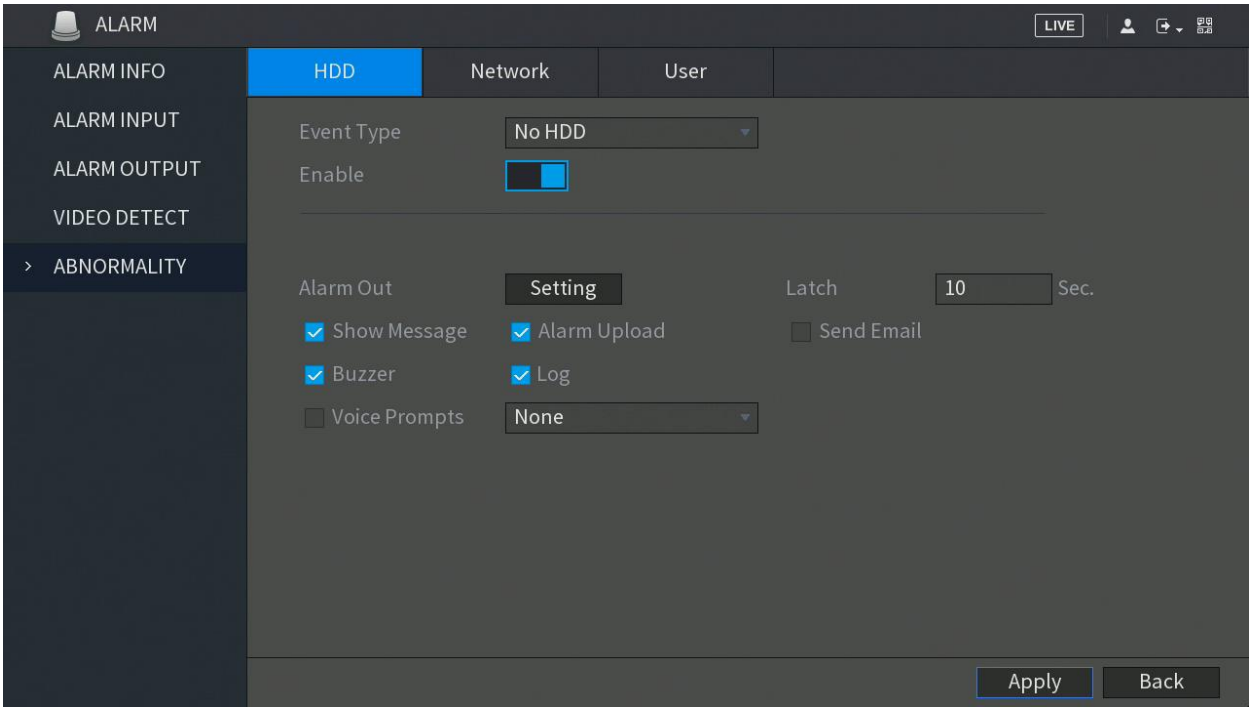
Note: To return the DVR to its default diagnosis settings, click on the **Default** button. The default rules in the diagnosis screen will always be defaulted to 30.

4.8.6. Abnormality

This screen is used to specify system actions in the case the device experiences any abnormalities including hard drive, network, or user abnormalities.

HDD

This screen allows the user to specify actions that occur when there is an abnormality with the DVR'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.
  - o No HDD: No hard drive is detected.
  - o HDD Error: The hard drive has an error.
  - o HDD No Space: The hard drive is about to or has run out of space.

• **Enabl**e: This checkbox allows the user to enable the features below for the specified event type.

- General Alarm: Enable alarm activation through the alarm DVRs connected to the selected output port.
- Alarm Out: Click **Setting** to display setting interface.
- External Alarm: Enable alarm activation through the connected alarm box.
- Wireless Siren: Enable alarm activation through DVRs connected by USB gateway or camera gateway.

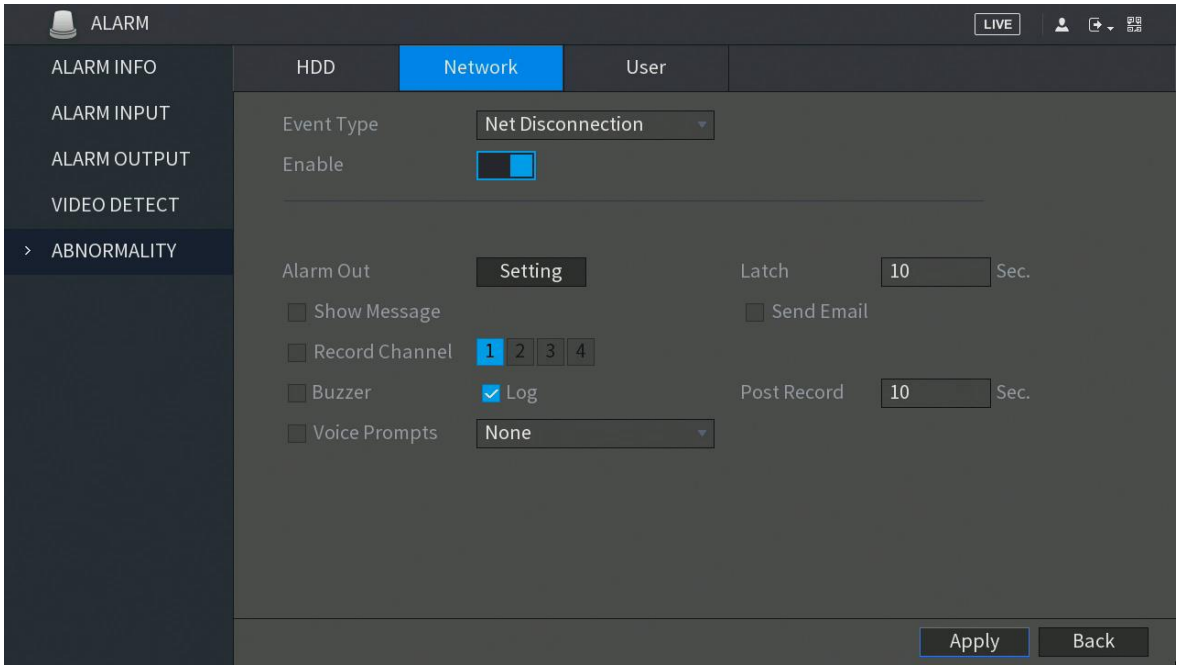
• **Show Message**: This checkbox allows the user to enable the system to show an on-screen message when an HDD abnormality occurs.
• **Alarm Upload:** This checkbox allows the user to enable the system to upload alarm information when a motion detection alarm is triggered.

• **Send Email**: This checkbox allows the user to enable the system to send an email when an HDD abnormality occurs.
• **Buzzer**: This checkbox allows the user to enable the system to activate a buzzer when an HDD abnormality occurs.
• **Log**: Allows the user to log all motion detected events that are triggered in the DVR.
• **Voice Prompts (N/A)**: Allows the user to customize voice prompts for motion detected events.

To save settings, click the **Apply** button. To cancel any modifications, click the **Cancel** button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

Network

This screen allows the user to specify actions that occur when there is an abnormality with the DVR's network connection. Below is a screenshot of 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: Network is disconnected.
  - IP Conflicted: The IP has a connection conflict.
  - MAC Conflicted: The MAC address the DVR has a conflict.

• **Enable**: This checkbox allows the user to enable the features below for the specified event type.

- General Alarm: Enable alarm activation through the alarm DVRs connected to the selected output port.
- Alarm Out: Click **Setting** to display setting interface.
- External Alarm: Enable alarm activation through the connected alarm box.
- Wireless Siren: Enable alarm activation through DVRs connected by USB gateway or camera gateway.

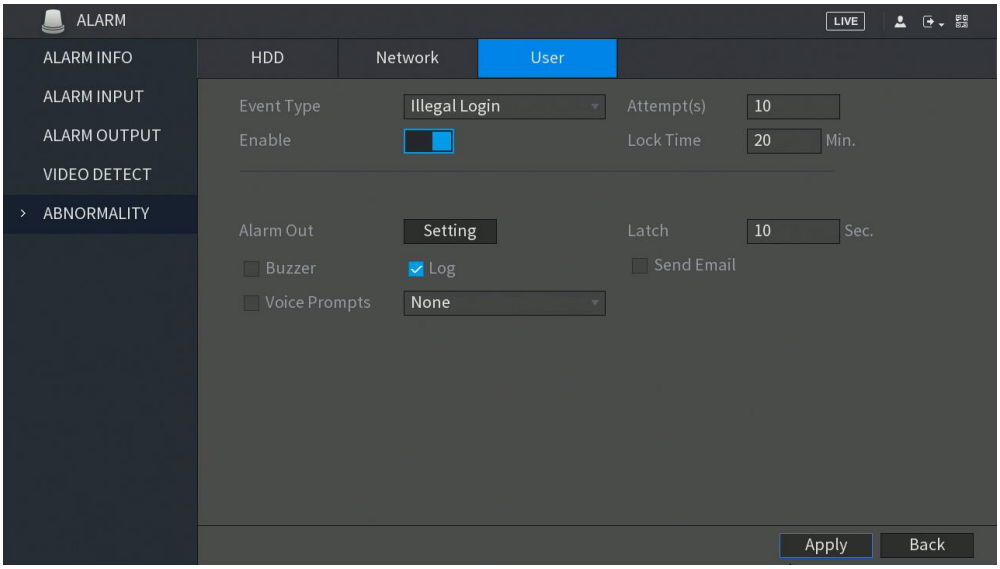
• **Show Message**: This checkbox allows the user to enable the system to show an on-screen message when an HDD abnormality occurs.

• **Alarm Upload:** This checkbox allows the user to enable the system to upload alarm information when a motion detection alarm is triggered.
• **Send Email**: This checkbox allows the user to enable the system to send an email when an abnormality occurs.
• **Buzzer**: This checkbox allows the user to enable the system to activate a buzzer when an abnormality occurs.
• **Log**: Allows the user to log all motion detected events that are triggered in the DVR.
• **Voice Prompts (N/A)**: Allows the user to customize voice prompts for motion detected events.

To save settings, click the **Apply** button. To cancel any modifications, click the **Cancel** button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

User

This screen allows the user to specify actions that occur when there is an abnormality with the DVR's user options. Below is a screenshot of the User Abnormality settings screen:



• **Event Type**: This field allows the user to specify which user abnormality event type they would like to configure settings for. **Login:** DVR has reached limit of allowed login attempts
•**Enabl**e: This checkbox allows the user to enable the features below for the specified event type.
• **Attempts:** This is the number of failed attempts set to the DVR before it is locked.
• **Lock Time**: Set a length of time you would like the DVR to lock to after several failed attempts have occurred.
• **Alarm Out:** Click **Setting** to display setting interface.

- General Alarm: Enable alarm activation through the alarm DVRs connected to the selected output port.
- External Alarm: Enable alarm activation through the connected alarm box.
- Wireless Siren: Enable alarm activation through DVRs connected by USB gateway or camera gateway.

• **Latch:** Set a length of time for the DVR to delay turning off alarm 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.
• **Buzzer**: This checkbox allows the user to enable the system to activate a buzzer when an abnormality occurs.
• **Log**: Allows the user to log all motion detected events that are triggered in the DVR.
• **Send Email**: This checkbox allows the user to enable the system to send an email when an abnormality occurs.

• **Voice Prompts (N/A)**: Allows the user to customize voice prompts for motion detected events.

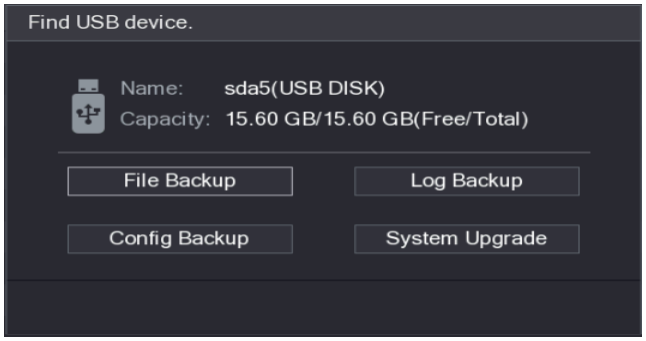
To save settings, click the **Apply** button. To cancel any modifications, click the **Cancel** button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

4.10. Backup

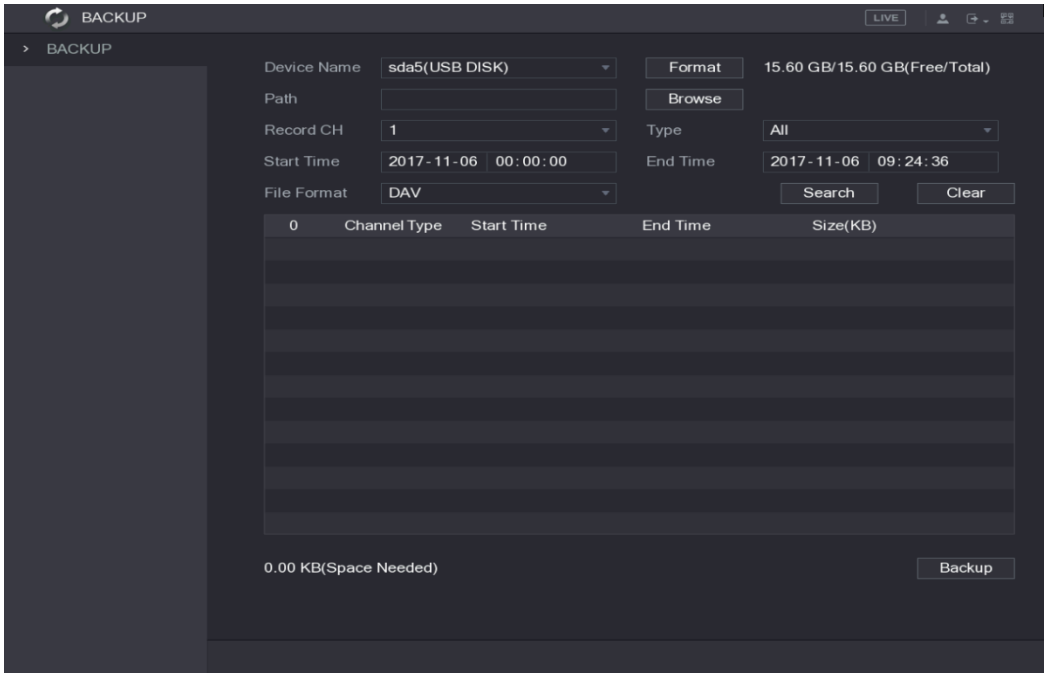
The Backup function tile allows you to search and backup data to an external USB storage DVR.
The DVR has two USB ports, one in the front and one in the back to utilize this function.

4.10.1. Configuring Backup Settings

When you inset a USB storage DVR into the USB port of the DVR, the DVR will automatically detect the USB storage DVR. A pop up will appear, "Find USB DVR" interface, which provides you a shortcut to perform backup and upgrading operations. To access the Backup settings, click on **File Backup** from the interface.



This will take you to the Backup menu:



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

Parameter	Description
DVR Name	In the **DVR Name** list, select the DVR that you want to back up the files to.
Format	Click **Format** to format the selected DVR.
Path	Click **Browse**, the **Browse** interface is displayed. Select the route where you want to search for the files.
Record CH	In the **Record CH** list, select the channel where you want to search for the files.
Type	In the **Type** list, select the file type that you want to search.
Start Time	Enter the start time and end time for the files that you want to search.
End Time	
File Format	In the **File Format** list, select the file format that you want to search.

To begin backing up data to your external USB storage DVR, click on the **Search** button in the backup menu to search for the indicated file. Select the file from the file list that you want to backup and click on the **Backup** button to allow the data to transfer to your USB storage DVR.

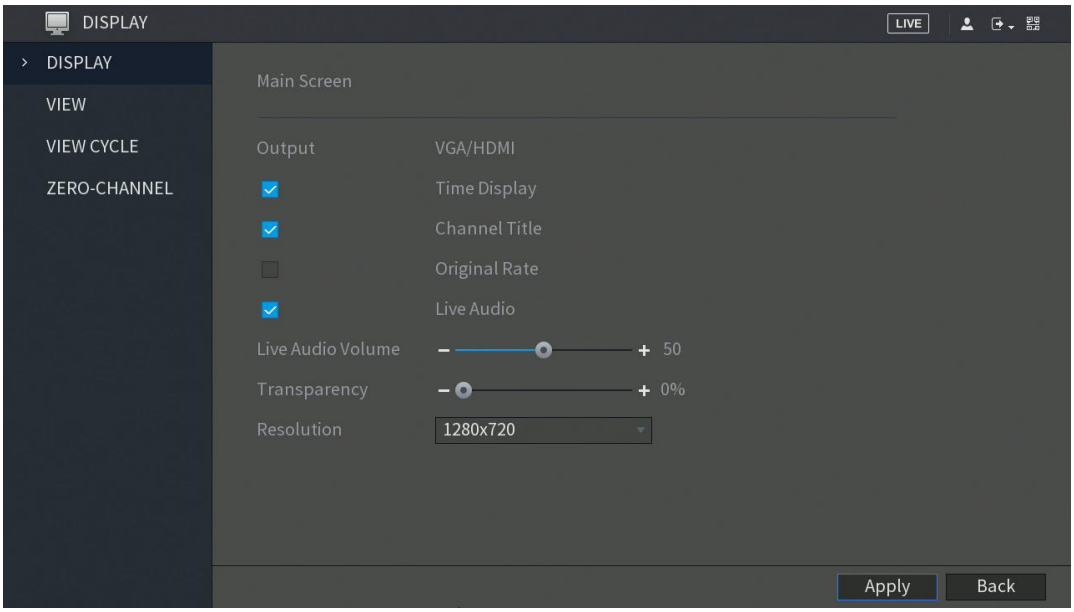
Note: By default, video data will be in the file format, DAV, this can be modified in the **File Format** dropdown menu to MP4 if necessary.

4.11. Display

This function tile allows you to configure resolution and display setting outputs from the DVR.

4.11.1. Configuring Display Settings

This menu provides you with quick access to your display and output information associated with your DVR. 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.

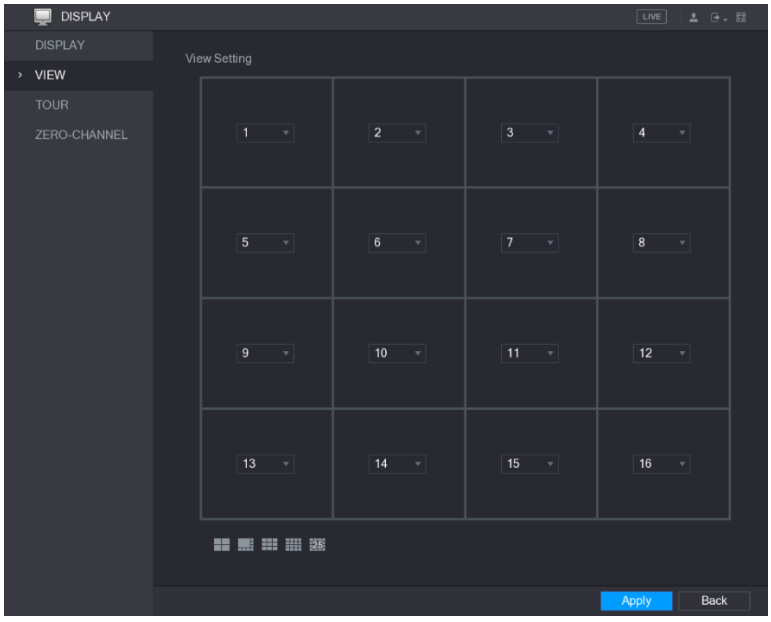
Parameter		Description
Main Screen	Out Port	Indicates the main screen port.
	Time Title	Select the **Time Title** check box, the current system time displays in each channel window in live view screen. To hide the time, clear the check box.
	Channel Title	Select the **Channel Title** check box, the channel name, channel number and recording status display in each channel window in live view screen. To hide the time, clear the check box.
	Original Rate	Select the **Original Rate** check box, the video image displays in its actual size in the channel window.
	Transparency	Configure the transparency of the graphical user interface (GUI). The higher the value, the more transparent the GUI becomes.
	Resolution	Select resolution for the video. The default resolution for VGA port and HDMI port is 1280×1024. **Note:** Some of the resolution options might not be supported on the HDMI port.

When you have successfully set your desired display settings, click on **Apply** to apply the settings to your DVR. To return to the previous menu click **Back**.

Note: Make sure to select the correct resolution setting for your desired output DVR. If your VGA/HDMI DVR is set to an incorrect resolution, you will not gain an accurate picture from the system.

4.11.2. View

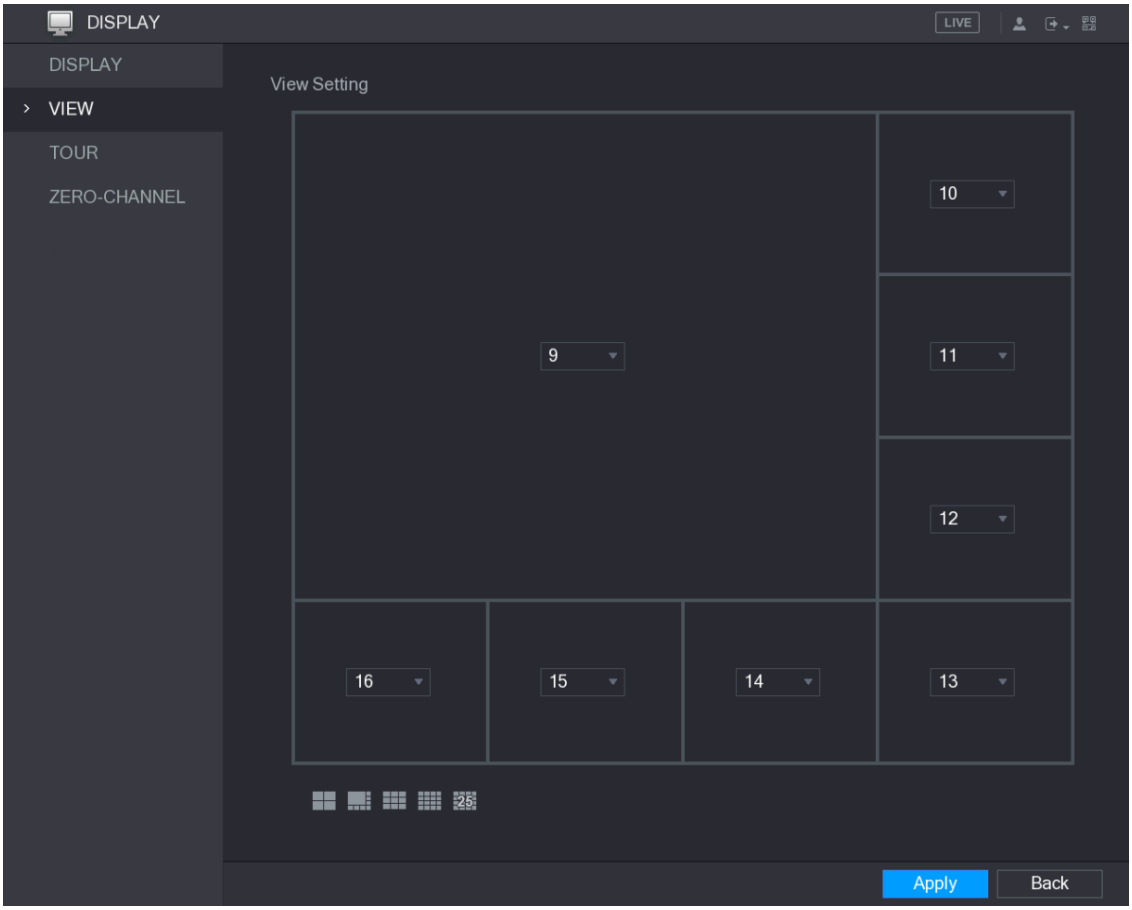
This menu allows you to configure the view layout of the live view screen. This section's functionality and layout will be dependent on the specific model DVR you have. When you access the **View** tab from the **Display** function tile, you will be taken to the **View Setting** interface.



The view layout configuration can be set by clicking on the layout buttons in the bottom left-corner of the interface.



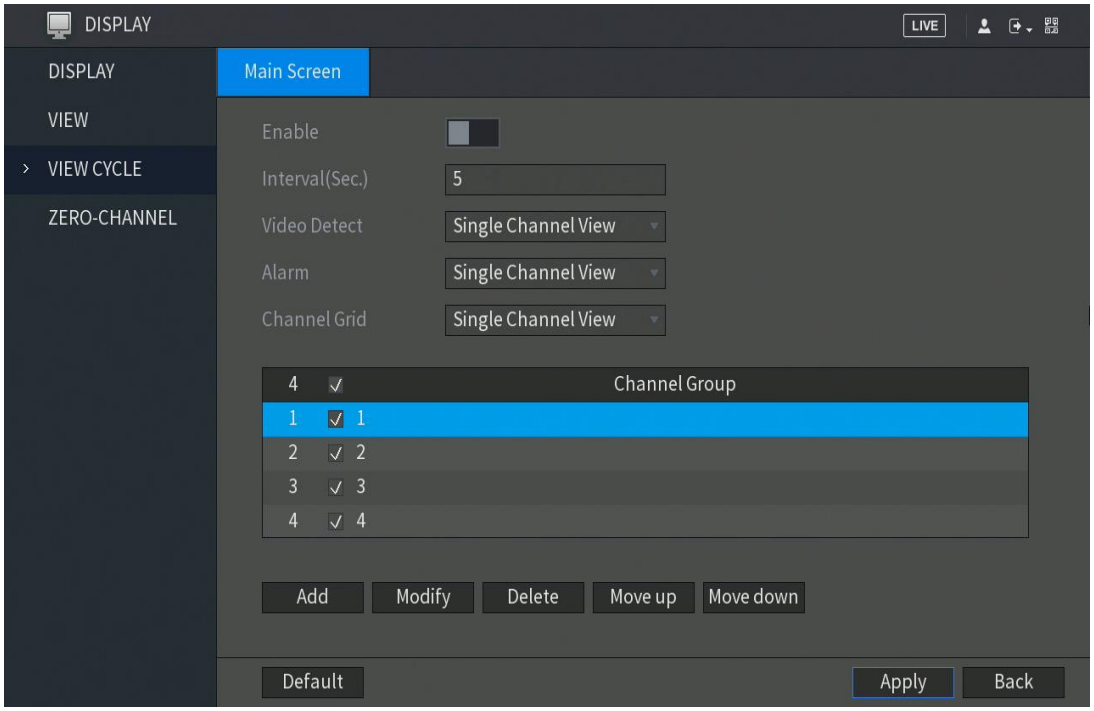
For example, when you click on the  icon, which is the **9-16** view layout, the live view layout will change immediately as such:



The same concept will apply for the other layout icons listed in the menu. Adjust the position of the channels as needed. In the channel list, for example, in the channel 9 list, you can select 10 and the channel 9 and channel 10 will exchange positions on the screen. When you have successfully configured your view layout, click **Apply** to apply the configuration to your DVR. To return to the previous menu, click on the **Back** button. When applied, the live view screen will reflect the same layout as displayed in this menu.

4.11.3. View Cycle

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 Setup settings screen:

- **Enable**: This checkbox allows the user to enable the tour functionality.
  - o An alternate way to enable or disable tour is by clicking on the navigation bar.

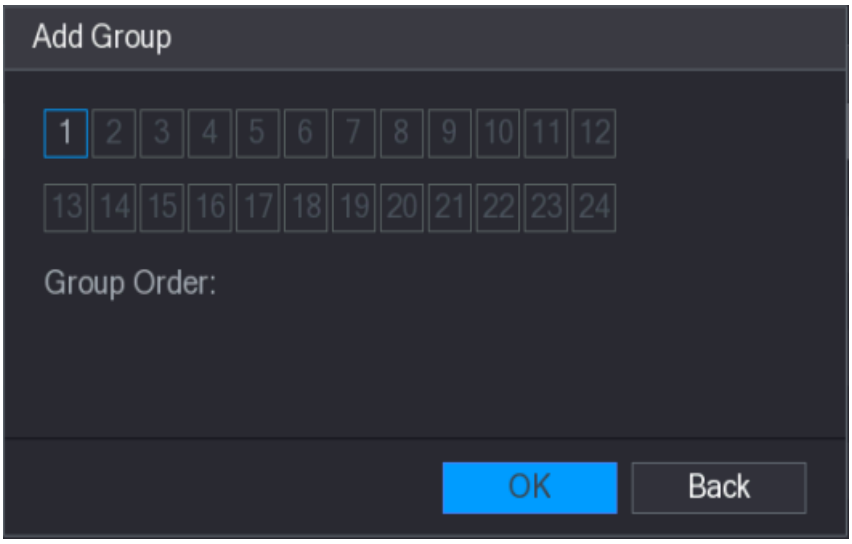
- **Interval (Sec)**: Enter the amount of time that you want each channel group displays on the screen. The value ranges from 5 seconds to 120 seconds, and the default value is 5 seconds.

- **Video Detect**: Select the View 1 or View 8 for **Motion Detect** tour and **Alarm** Tour (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 DVR.
  - o **Add:** This button allows the user to add a channel to the tour.
  - o **Delete:** This button allows the user to remove a channel from the tour.
  - o **Move Up**: This button allows the user to move a camera up in the tour queue.
  - o **Move Down**: This button allows the user to move a camera down in the tour queue.

Note: On the navigation bar, you can click  to enable the tour and click  to disable it.

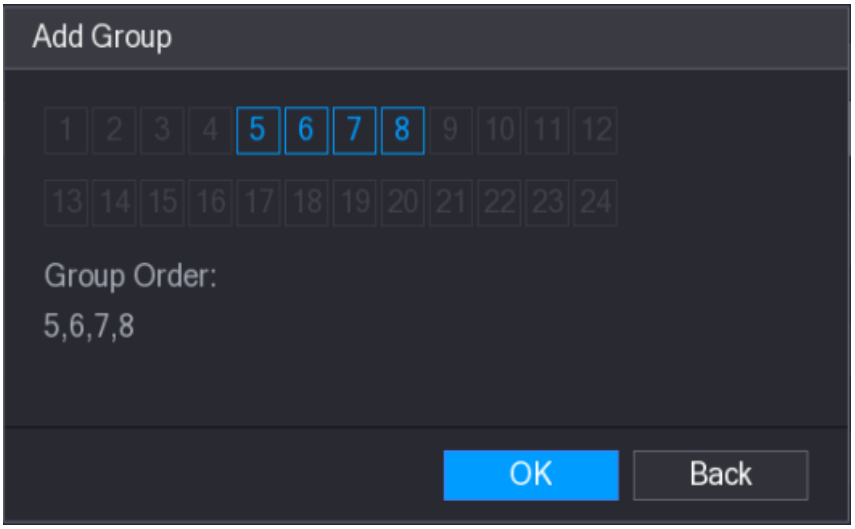
Adding a Channel Group

This function provides you the ability for grouping together channels to more efficiently use the tour options set up on the DVR. 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.

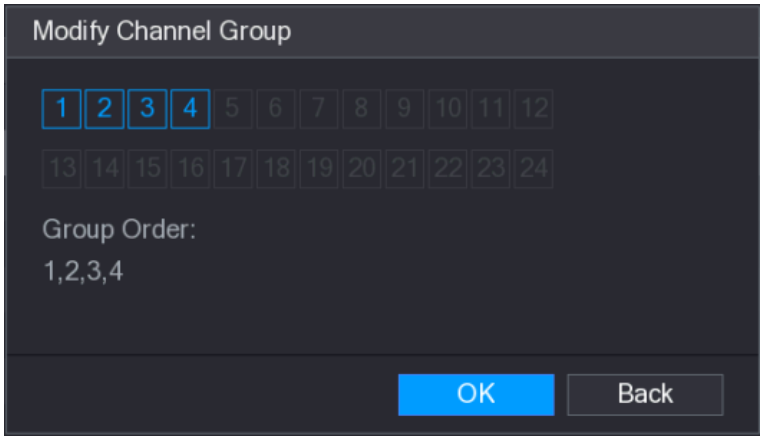
Note: If you want to select more than one channel, in the **Window Split** list, do not select **View1**.



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

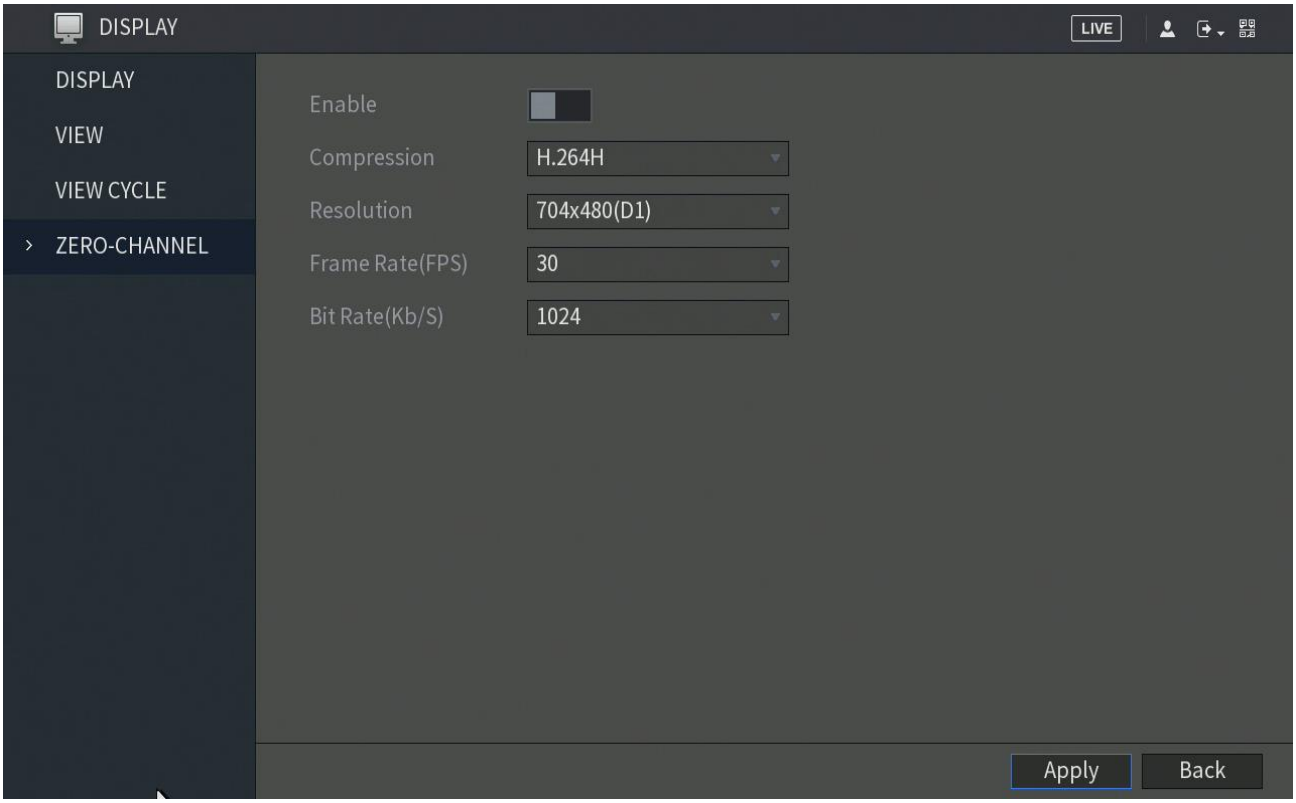
To modify an established channel group, double-click on a channel group to access the **Modify Channel Group** interface.



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.

4.11.4. Zero-Channel

This screen is used to configure zero channel encoding functionality. This feature allows for the preview of several channels in one channel's window. Below is a screenshot of the Zero-Channel Encoding settings screen:



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

Parameter	Description
Enable	Enable zero-channel function.
Compression	In the **Compression** list, select the video compression standard according to the DVR capability. The default is H.264.
Resolution	In the **Resolution** list, select the video resolution. The default is 704×576 (D1).
Frame Rate (FPS)	Select a value between 1 and 25 for PAL standard, and between 1 and 30 for NTSC standard. The actual arrange is decided and selected dependent on the DVR capability.
Bit Rate (Kb/S)	The default value is 1024Kb/S. The actual arrange is decided and selected dependent on the DVR capability and frame rate.

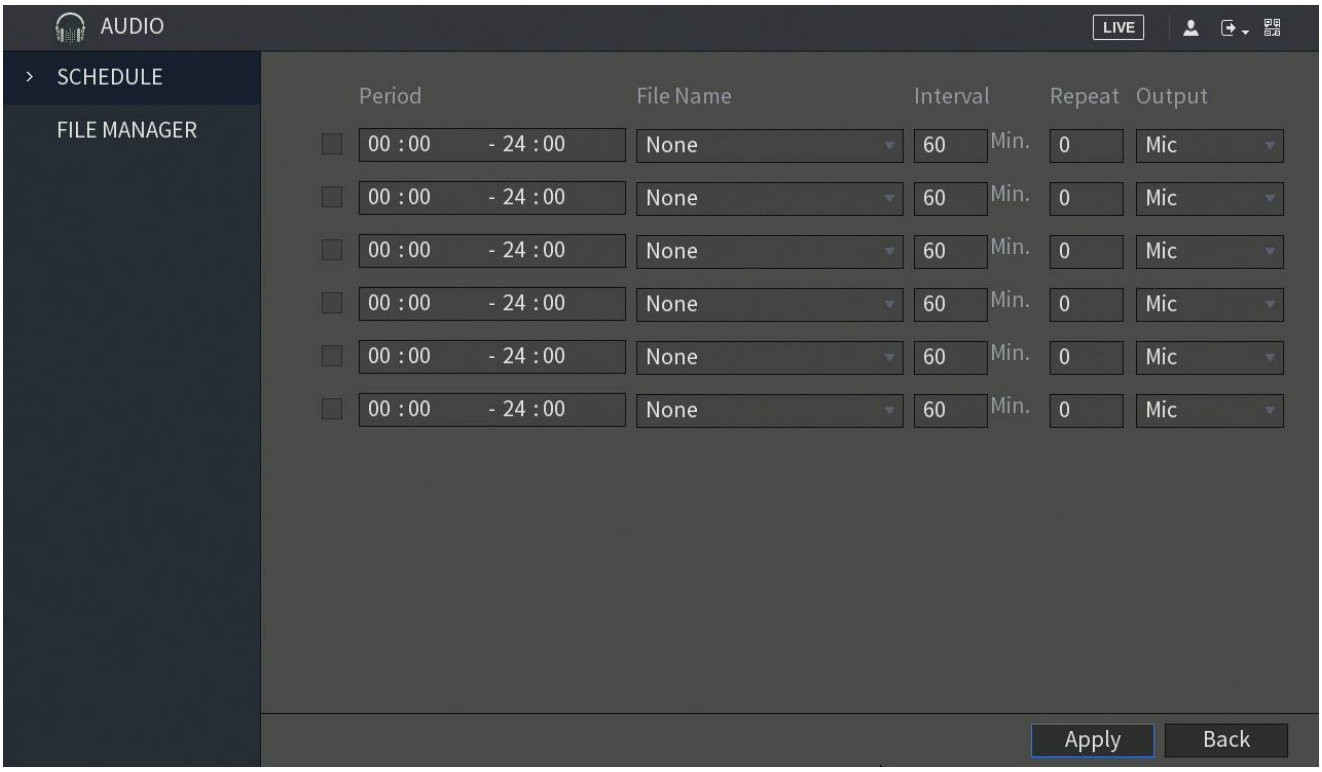
When you are finished configuring your zero channel settings, click **Apply** to apply the settings to your DVR. If you do not wish to proceed with the configuration, click the **Back** button to exit this screen.

4.12. 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.

4.12.1. Schedule

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



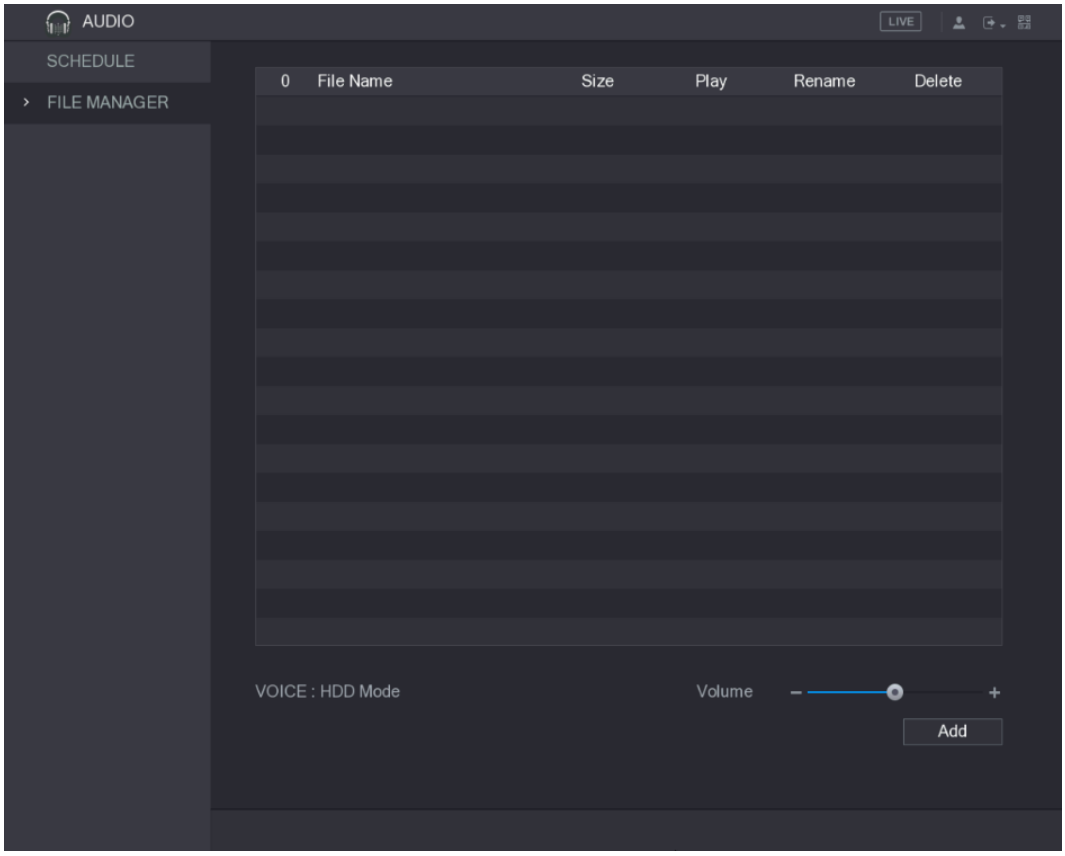
For more information on the features listed in this menu, refer to the table provided below.

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.

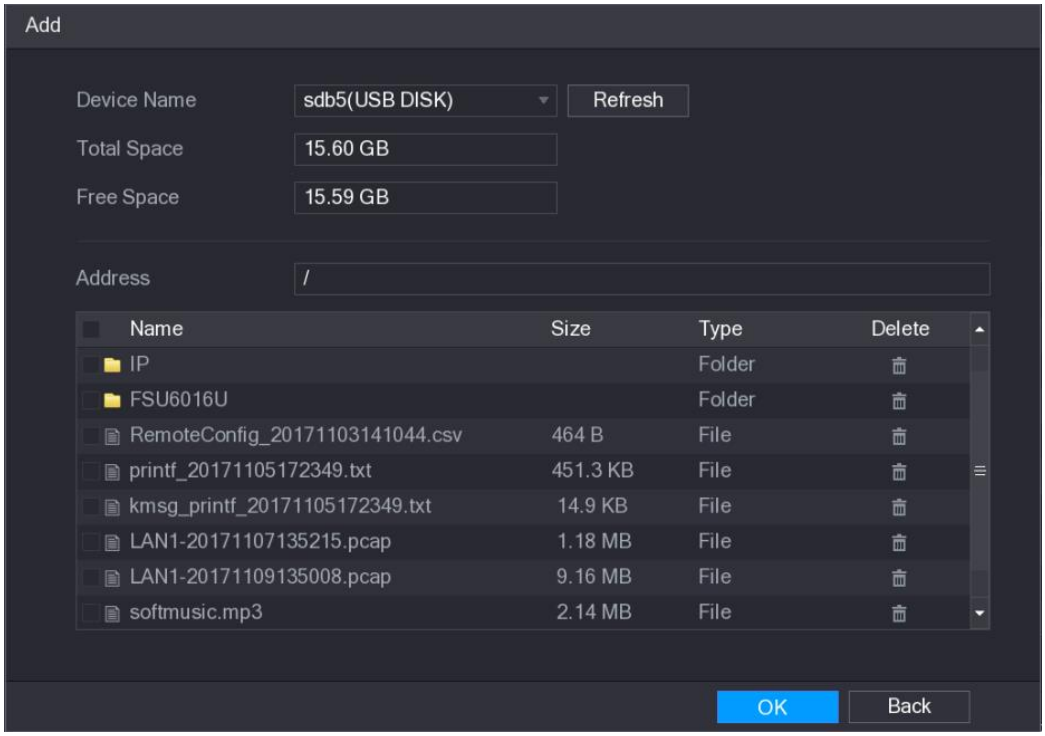
Note: Use the file manager to configure audio files for your schedule.

4.12.2. File Manager

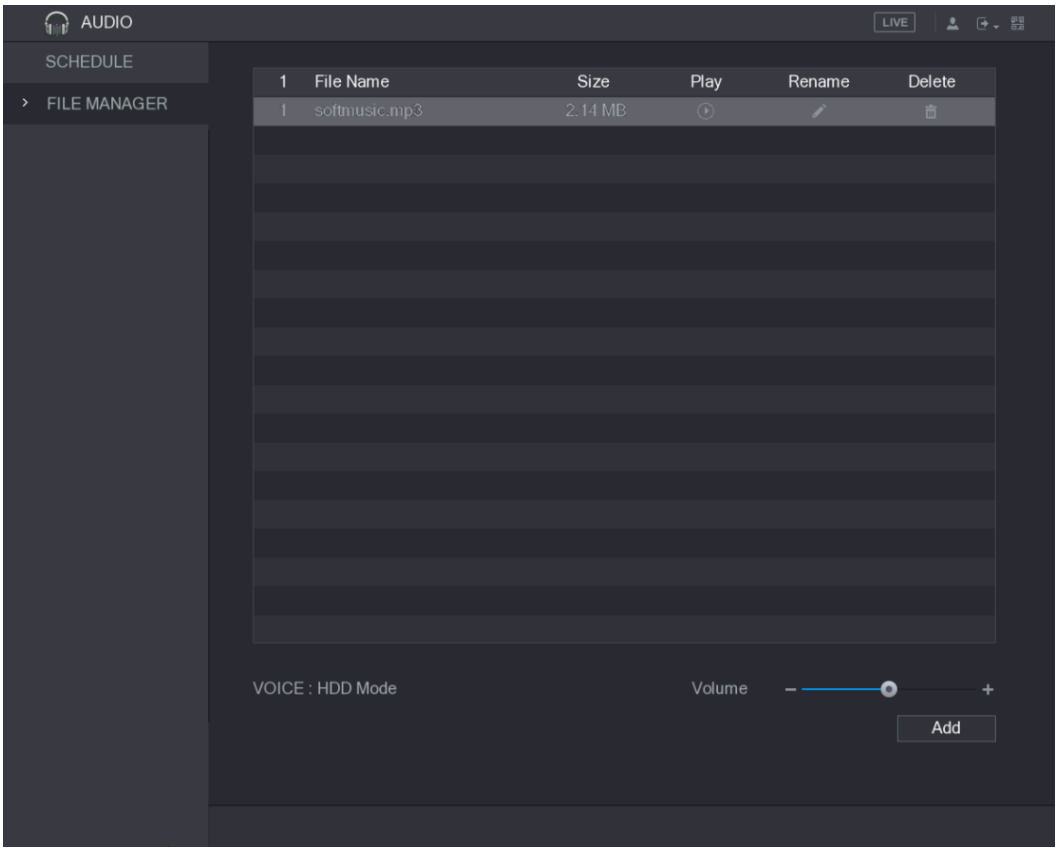
The file manager tab allows the user to configure audio files to a set schedule. Here is a screenshot of the file manager screen:



To begin configuring audio files the user will have to import the audio files into the system via a flash drive. After the USB flash drive with the audio files have been inserted into the device, click on **Add** and select the audio files you wish to import. Click on **OK** to start importing the file.



When the audio file has been imported successfully, you will see the file displayed in the file manager interface:



The imported audio files are automatically saved into the HDD, so you do not need to connect to the USB storage device to get the file next time.

Click  to play the audio file.

Click  to rename the audio file.

Click  to delete the audio file.

To decrease or increase the playing volume, move the slider to the left or to the right.

6. Management

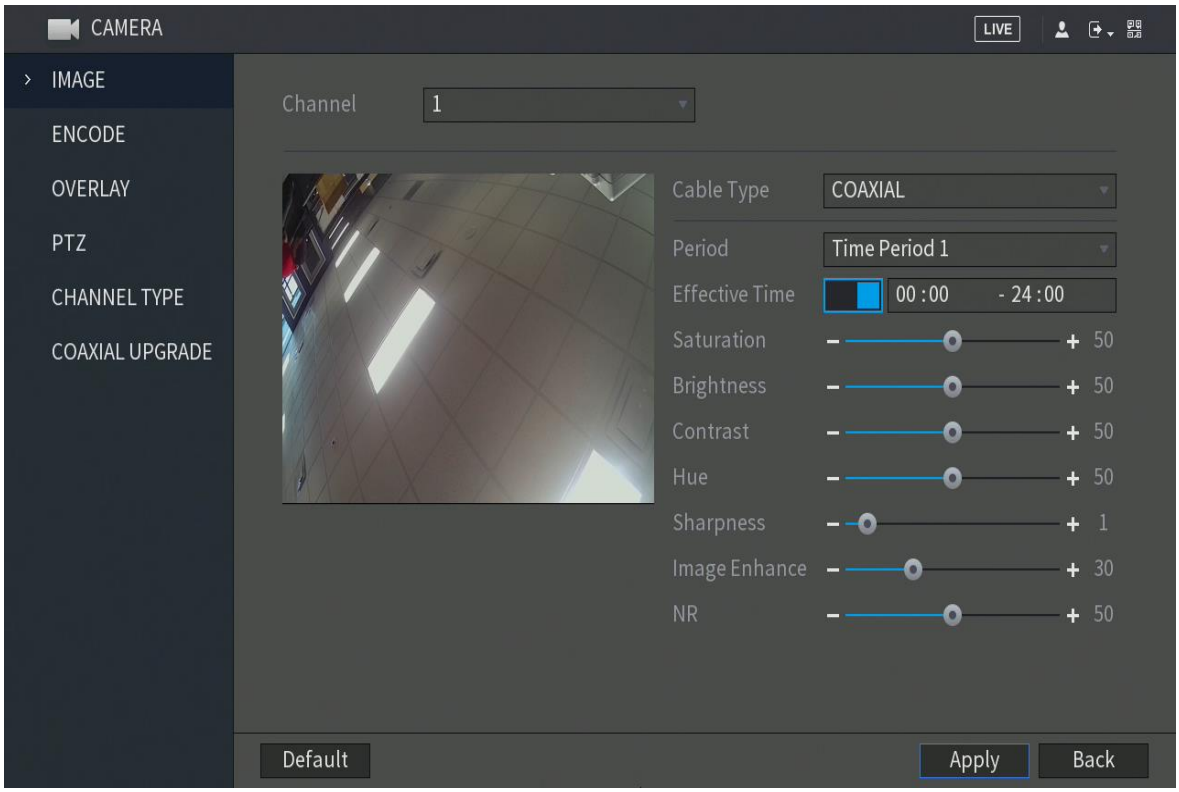
This section of the main menu allows you to access camera, network, storage, system, account, and information directly related to your DVR.

6.1. Camera

This section allows you to access and modify settings associated with connected cameras on your DVR. In this section you can modify the image, encode, overlay, PTZ (if applicable), channel types, as well as provide coaxial upgrades to your camera, if applicable.

6.1.1. Image

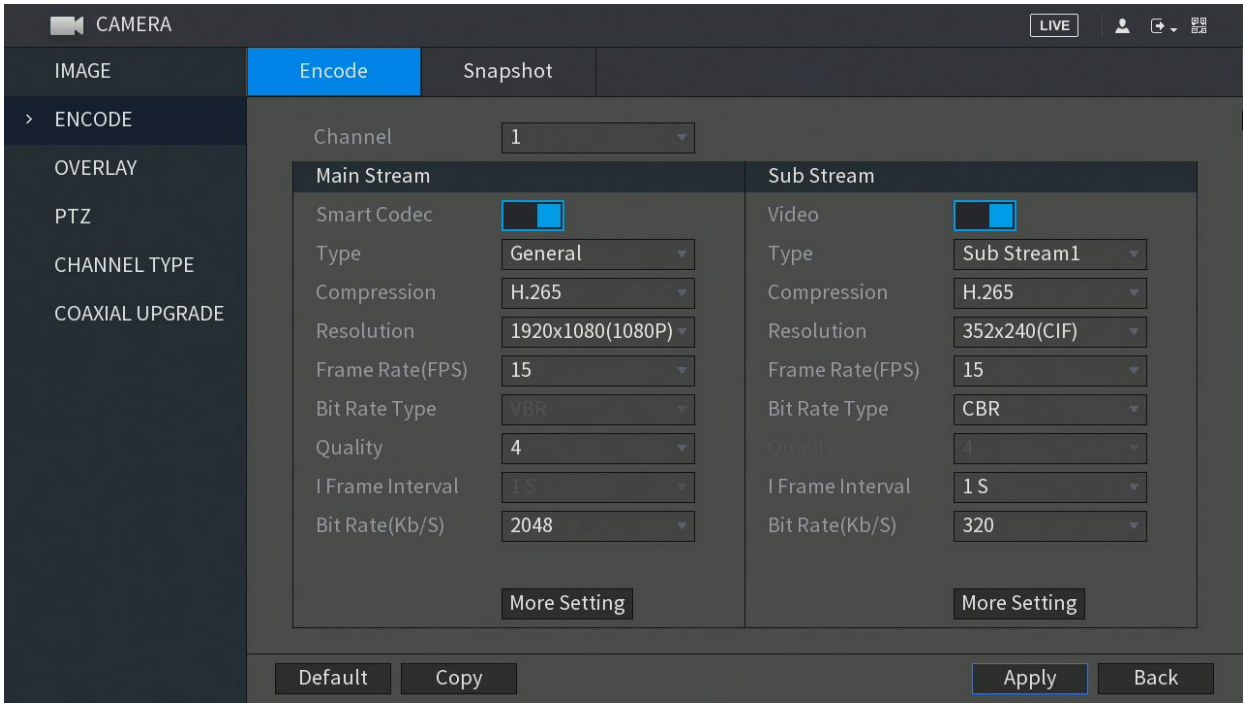
This menu allows you to access the image settings associated with a specific channel connected to your DVR. For more information on the settings provided in this menu, refer to the table provided below.



Parameter	Description
Channel	In the **Channel** list, select the channel that you want to configure.
Cable Type	In the **Cable Type** list, select the cable type that the camera uses. **Note:** Not all models support this function.
Period	In the **Period** list, select a time period for the image settings. The image settings will be only used during the selected period.
Effective Time	Enable the effective function. In the **Effective Time** box, enter the start time and end time for the period you selected.
Saturation	Adjusts the color shades. The bigger the value, the lighter the color will become. This value does not influence the general image lightness. The value ranges from 0 to 100. The default value is 50. The recommended range is between 40 and 60.
Contrast	Adjusts the image contrast. The bigger the value is, the more obvious the contrast between the light area and dark area will become. You can adjust this value when the contrast is not obvious. However, if the value is too big, the dark area is likely to become darker and the light area over exposed. If the value is too small, the image is likely to become dim. The value ranges from 0 to 100. The default value is 50. The recommended range is between 40 and 60.
Brightness	Adjusts the image brightness. The bigger the value is, the brighter the image will become. You can adjust this value when the image as a whole looks dark or bright. However, the image is likely to become dim if the value is too big. The value ranges from 0 to 100. The default value is 50. The recommended range is between 40 and 60.
Hue	Adjusts the hue of image. The value ranges from 0 to 100. The default value is 50.
Sharpness	Adjusts the sharpness of image edge. The bigger the value is, the more obvious the image edge, and the noise is also greater. The value ranges from 1 to 15. The default value is 1.
Image Enhance	Adjusts the image definition. The bigger the value is, the clearer the image will become, but there will be more noises.
NR	Reduces the noises from image. The bigger the value is, the better the image will become.

6.1.2. Encode

This tab is used to set the video encoding settings for each channel.



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

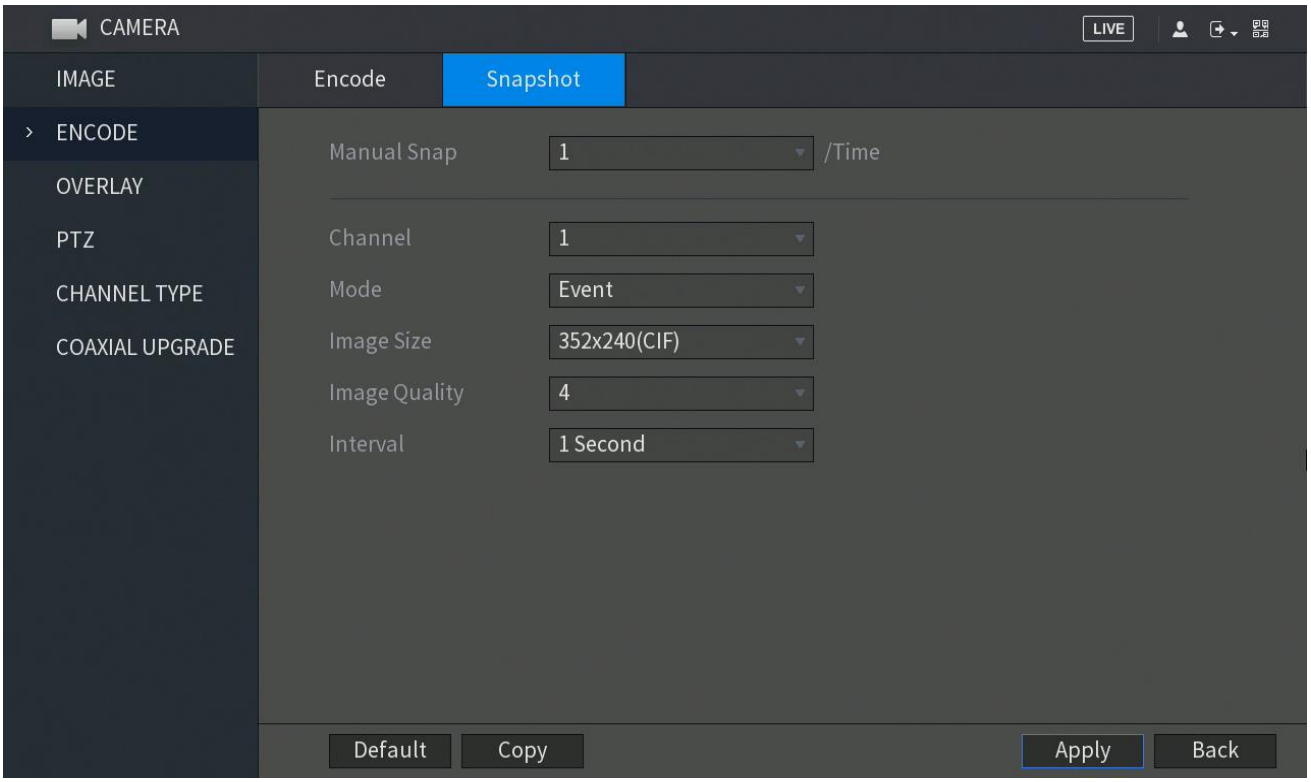
Parameter	Description
Channel	In the **Channel** list, select the channel that you want to configure the settings for.
Smart Codec	Enable the smart codec function. This function can reduce the video bit stream for non-important recorded video to maximize the storage space.
Type	Main Stream: In the **Type** list, select **General**, **MD** (Motion Detect), or **Alarm**. Sub Stream: This setting is not configurable.
Compression	In the **Compression** list, select the encode mode. H.265: Main profile encoding. H.264H: High profile encoding. Low bit stream with high definition. This setting is recommended. H.264: General profile encoding. H.264B: Baseline profile encoding. This setting requires higher bit stream compared with other settings for the same definition.
Resolution	In the Resolution list, select resolution for the video. The maximum video resolution might be different dependent on your DVR model.
Frame Rate (FPS)	Configure the frames per second for the video. The higher the value, the clearer and smoother the image will become. Frame rate changes along with the resolution. Generally, in PAL format, you can select the value from 1 through 25; in NTSC format, you can select the value from 1 through 30. However, the specific range of frame rate that you can select depends on the capability of the DVR.
Quality	The higher the value, the better the image will become.
I Frame Interval	The interval between two reference frames.

Parameter	Description
Bit Rate (Kb/S)	In the **Bit Rate** list, select a value or enter a customized value to change the image quality. The bigger the value is, the better the image will become.
Video	Enable the function for sub stream.
Audio Encode	Click **More Setting**, the **More Setting** interface is displayed. Audio Encode: This function is enabled by default for main stream. You need to manually enable it for sub stream 1. Once this function is enabled, the recorded video file is composite audio and video stream. Audio Source: In the **Audio Source** list, you can select **LOCAL** and . LOCAL: The audio signal is input from Audio input port. : The audio signal is input from camera. Audio Format: In the **Audio Forma**t list, select a format that you need.
Audio Source	
Audio Format	

When you have finished setting up your encode configuration settings, click on the **Apply** button to apply the settings to your DVR. If you would like to revert the image back to its default setting, click on **Default**. To set the encode settings to other channels on your DVR, click on the **Copy** button and select the channels that you wish to apply the settings to, click **OK** when you have finished. To exit this screen, press the **Back** button.

Configuring Snapshot Settings

This tab located in the encode menu allows you to configure the encode settings for snapshot parameters.



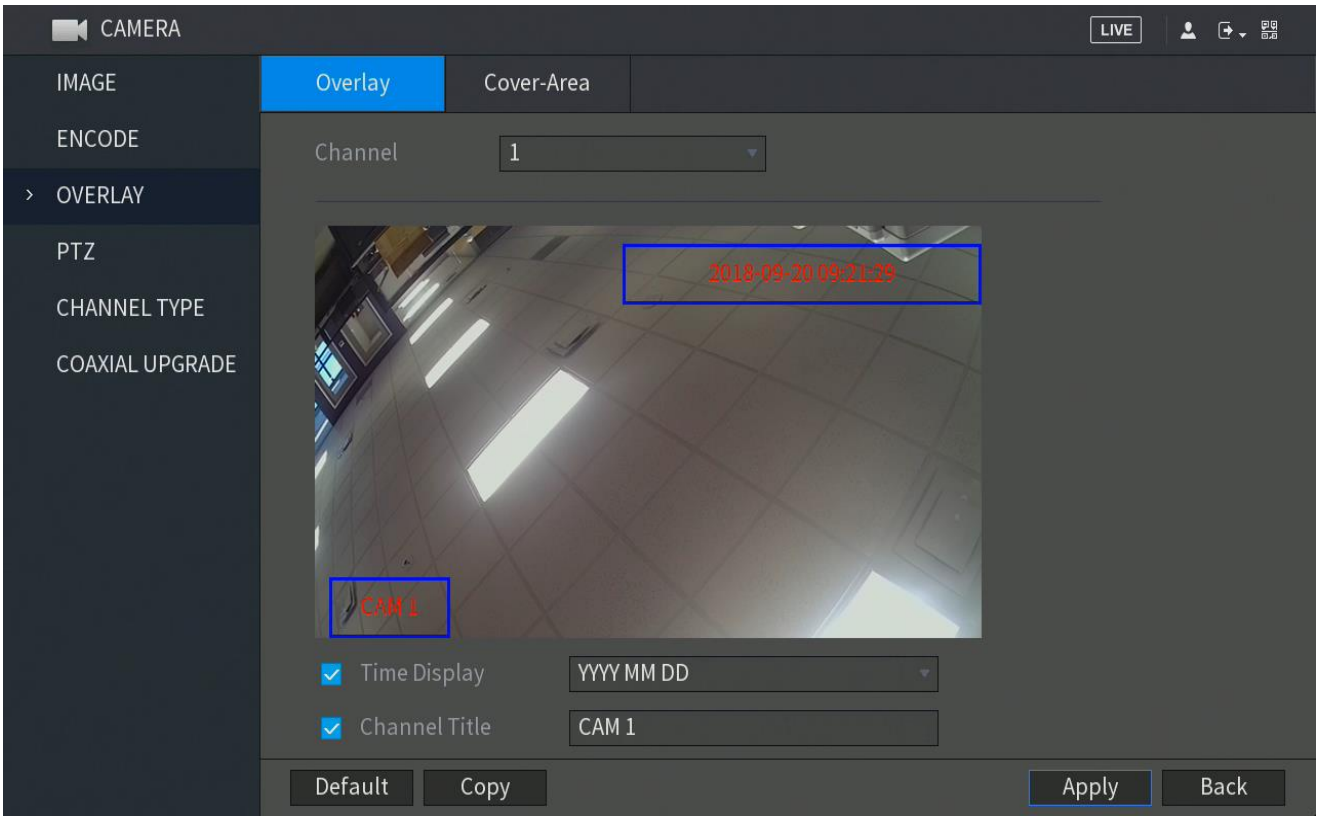
For more information on the settings provided in this menu, refer to the table below.

Parameter	Description
Manual Snap	In the **Manual Snap** list, select how many snapshots you want to take each time.
Channel	In the **Channel** list, select the channel that you want to configure the settings for.
Mode	In the **Mode** list, you can select **Human Face**, **Event**, or **General** as the event type for which you want to take a snapshot.
Image Size	In the **Image Size** list, select a value for the image.
Image Quality	Configures the image quality by 6 levels. The higher the level, the better the image will become.
Interval	Configures or customizes the snapshot frequency.

When you have finished setting up your configuration settings, click on the **Apply** button to apply the settings to your DVR. If you would like to revert the settings back to default, click on **Default**. To apply these settings to other channels on your DVR, click on the **Copy** button and select the channels that you wish to apply the settings to, click **OK** when you have finished. To exit this screen, press the **Back** button.

6.1.3. Overlay

The overlay tab allows the user to change overlay settings for each channel. Below is a screenshot of the overlay tab:



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

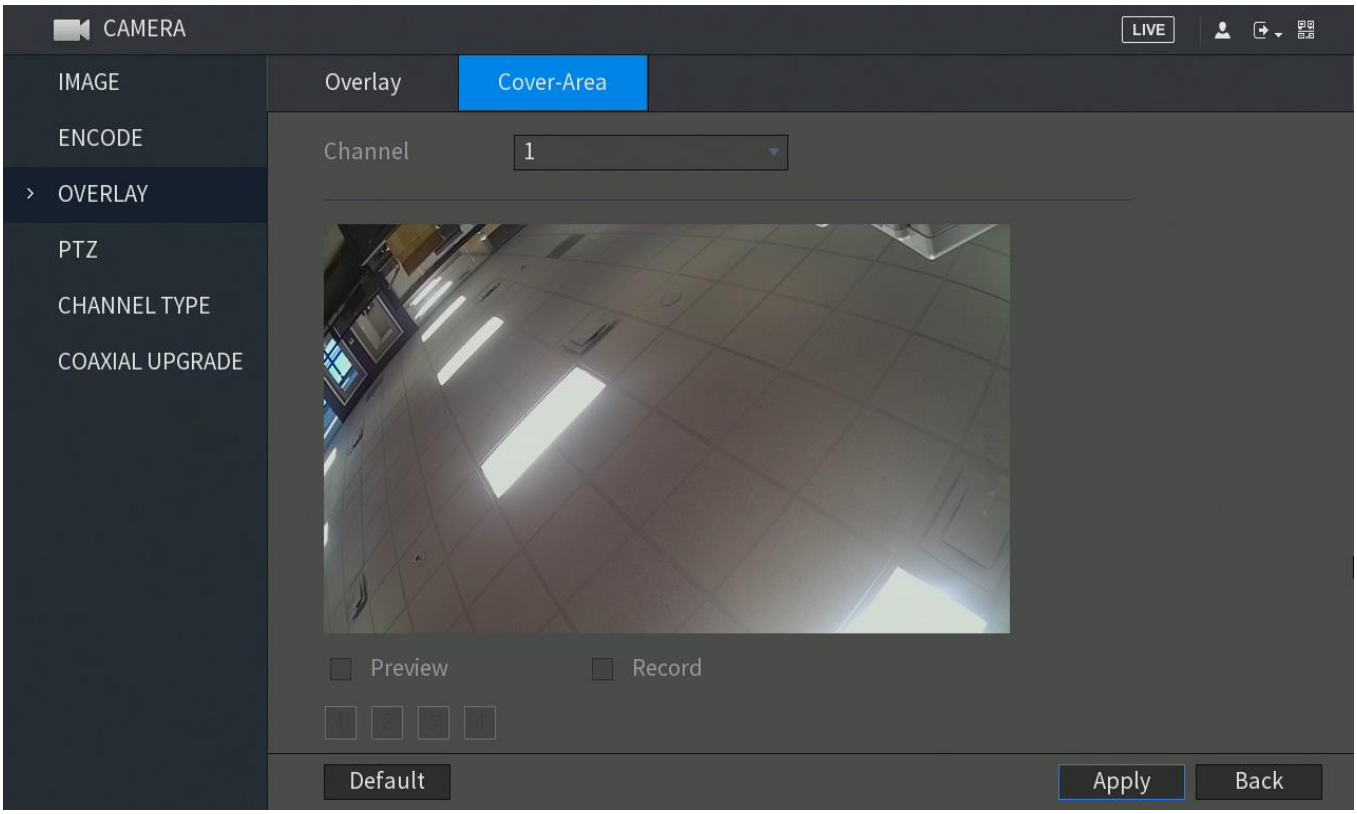
Parameter	Description
Channel	In the **Channel** list, select the channel that you want to configure the settings for.
Time Display	Select the **Time Display** check box to display the system time on each channel window in the live view screen. In the **Time Display** list, select time display style.
Channel Title	Select the **Channel Title** check box to display the channel name on each channel window in the live view screen. In the **Channel Title** box, enter the name for the selected channel.

When you have finished setting up your overlay settings, click on the **Apply** button to apply the settings to your DVR. If you would like to revert the settings back to default, click on **Default**. To apply these settings to other channels on your DVR, click on the **Copy** button and select the channels that you wish to apply the settings to, click **OK** when you have finished. To exit this screen, press the **Back** button

Cover-Area

The cover-area tab allows the user to set the cover area for specific channels in the system. The user can set cover areas for either preview (live view) or for recordings.

To begin, drag the mouse to set the proper section size. The system supports a maximum of 4 zones in one channel.



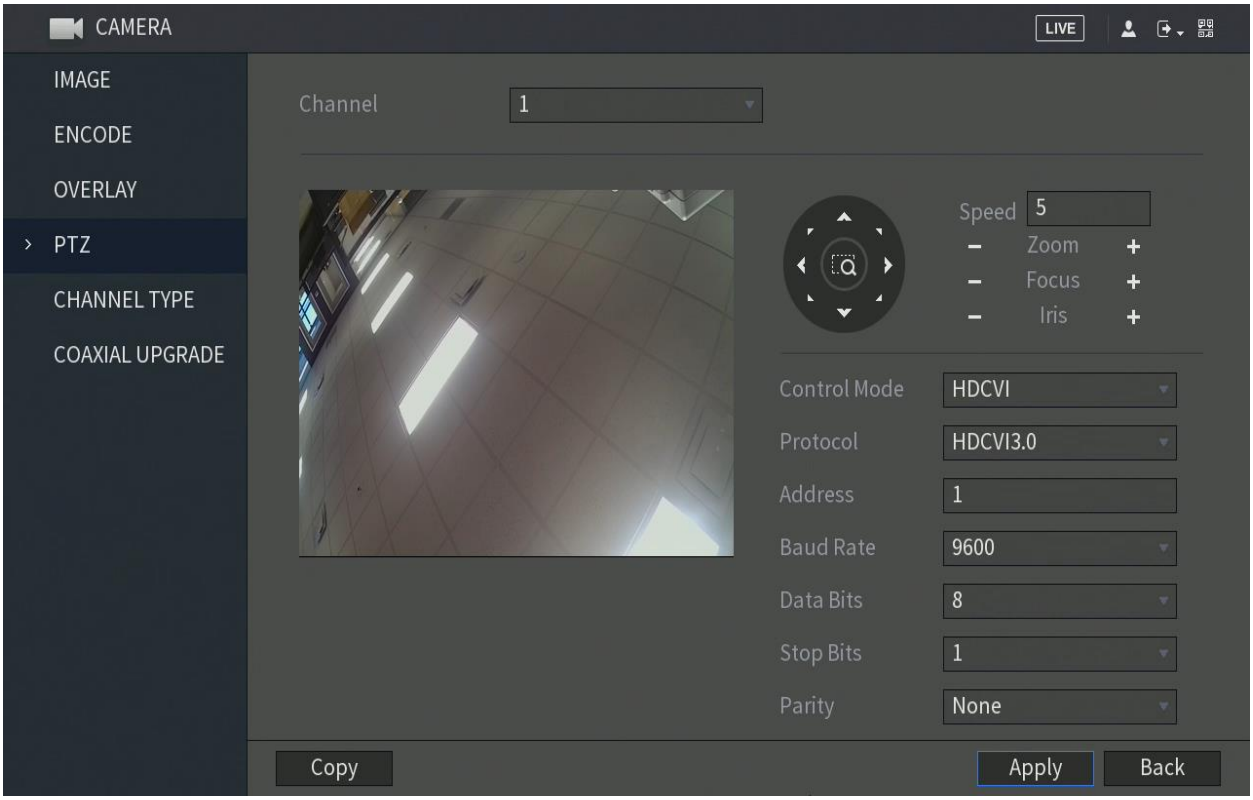
For more information on the settings listed in this menu, refer to the table below.

Parameter	Description
Channel	In the **Channel** list, select the channel that you want to configure the settings for.
Preview	Preview: Select the **Preview** check box to apply the configured covered block to the selected channel window in the live view screen. Record: Select the **Record** check box to apply the configured covered block to the selected channel window during recording. To configure covering block, do the following: 1. Select the **Preview** check box or the **Record** check box, or select the both. The "1, 2, 3, 4" buttons are activated. 2. Click the buttons to select blocks. 3. A triangle solid black block is displayed. You can drag the block to the area that you want to cover and adjust the size of the block. 4. You can configure total 4 covered blocks.
Record	

When you have finished setting up your cover-area settings, click on the **Apply** button to apply the settings to your DVR. If you would like to revert the settings back to default, click on **Default**. To exit this screen, press the **Back** button.

6.1.4. PTZ

This screen is used to configure Pan/Tilt/Zoom (PTZ) functionality. Below is a screenshot of the PTZ settings screen:



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

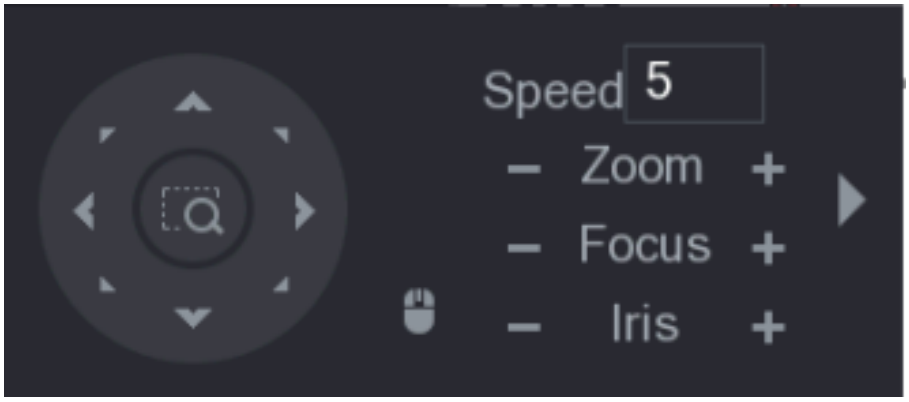
Parameter	Description
Channel	In the **Channel** list, select the channel that you want to connect the PTZ camera to.
PTZ Type	Local: Connect through RS485 port or coaxial cable. Remote: Connect through network by adding IP address of PTZ camera to the DVR.
Control Mode	In the **Control Mode** list, select **Serial** or . For series product, please select . The control signal is sent to the PTZ through the coaxial cable. For the serial mode, the control signal is sent to the PTZ through the RS485 port.
Protocol	In the **Protocol** list, select the protocol for the PTZ camera, for example, select **3.0**.
Address	In the **Address** box, enter the address for PTZ camera. The default is 1. **Note:** The entered address must be the same as the address configured on the PTZ camera. If not configured properly, the PTZ camera will not function in the DVR.
Baud Rate	In the **Baud rate** list, select the baud rate for the PTZ camera. The default is 9600.
Data Bits	The default is 8.
Stop Bits	The default is 1.
Parity	The default is NONE.

When you have finished setting up your PTZ settings, click on the **Apply** button to apply the settings to your DVR. If you would like to revert the settings back to default, click on **Default**. To apply these settings to other channels on your DVR, click on the **Copy** button and select the channels that you wish to apply the settings to, click **OK** when you have finished. To exit this screen, press the **Back** button.

PTZ Control Panel

The PTZ control panel is set to perform operations such as directing the camera, adjusting the zoom, focus, iris, and quick positioning settings.

Note: The PTZ control bar can direct the camera in eight different directions. You can also view the PTZ control panel by right-clicking on the live view screen.



For more information about the settings listed in the PTZ control bar, refer to the table provided below.

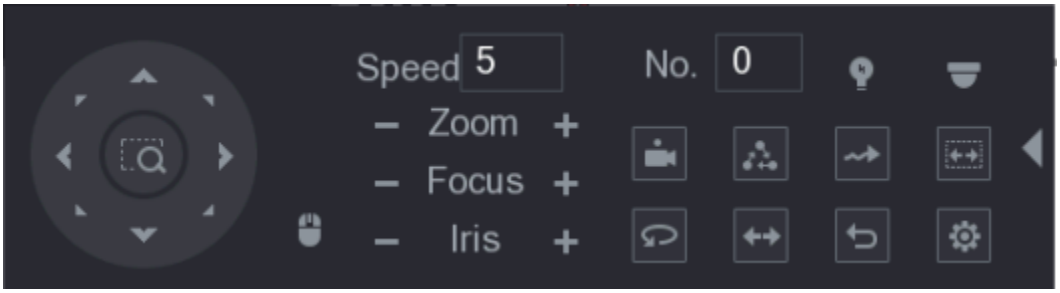
Parameter	Description
Speed	Controls the movement speed. The bigger the value is, the faster the movement will be.
Zoom	: Wide angle. : Long shot.
Focus	: Zoom in. : Zoom out.
Iris	: Small. : Large.
PTZ movement	Supports eight directions.
	Fast positioning button. Positioning: Click to enter the fast positioning screen, and then click anywhere on the live view screen, the PTZ will turn to this point and move it to the middle of the screen. Zooming: On the fast positioning screen, drag to draw a square on the view. The square supports zooming. Dragging upward is to zoom out, and dragging downward is to zoom in. The smaller the square, the larger the zoom effect. **Note:** Not all models support this function and can only be controlled manually.
	Click , you can control the four directions (left, right, up, and down) PTZ movement through mouse operation.
	Click to open the expanded PTZ control panel.

Note: The functions with buttons that are greyed out will not be supported by the system.

Expanded PTZ Control Panel

The expanded PTZ control panel provided additional PTZ settings that are associated with the system.

To access the expanded PTZ control panel, click on the icon on the PTZ control panel to expand the PTZ options.



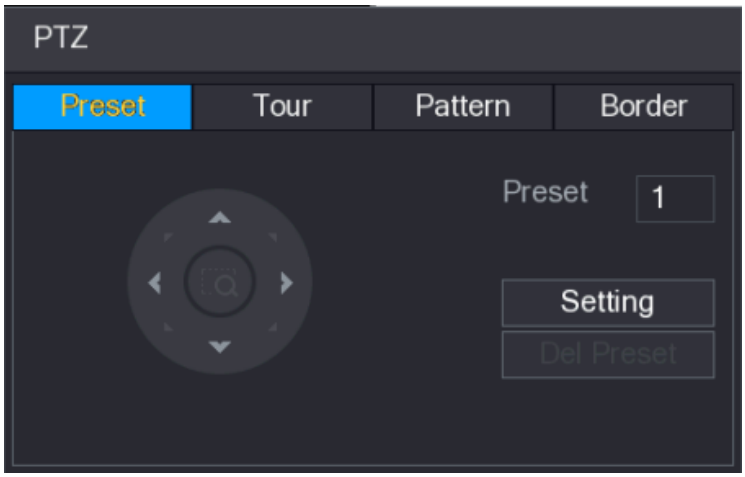
Note: The functions with buttons that are greyed out will not be supported by the system. To return to live view screen right-click once on the interface. To exit the expanded PTZ control panel, click on the icon. For more information on the settings listed in the expanded PTZ control panel, refer to the table provided below.

Icon	Function	Icon	Function
	Preset		Auto Pan
	Tour		Flip
	Pattern		Reset
	Autoscan		Click the **AUX Config** icon to open the PTZ functions settings interface.
	AUX Switch		Click the **Enter Menu** icon to open the **MENU OPERATION** interface.

Configuring PTZ Presets

This function allows for the creation and editing of preset camera configurations.

To access the PTZ preset menu, navigate to the expanded control panel and click on the icon. On the PTZ interface provided, click on the **Preset** tab.



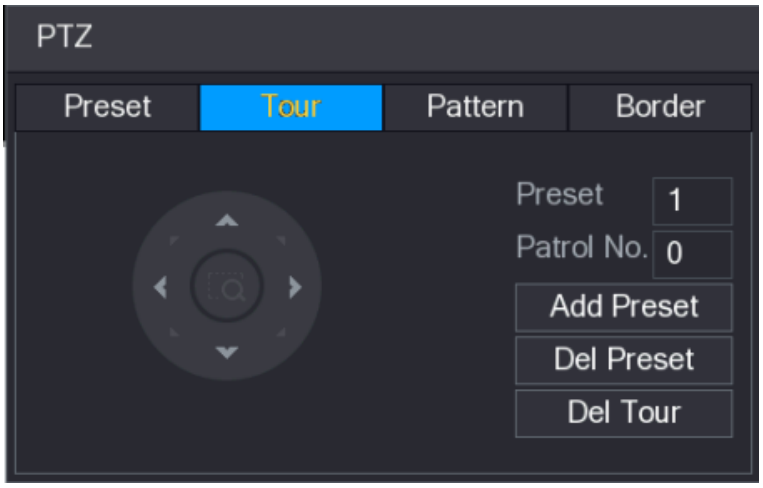
To create and manage preset camera configurations, follow the steps below:

- Configure the camera positioning as needed using the directional arrows.
- In the **Preset** box input the preset number you wish to set.
- Click the **Setting** button to save the current preset.
- Click **Del Preset** to delete the current preset.

Configuring PTZ Tour

The tour function allows for the use of multiple presets stringed together.

To access the PTZ tour menu, navigate to the expanded control panel and click on the icon. On the PTZ interface provided, click on the **Tour** tab.



To create and manage tours, follow the steps below:

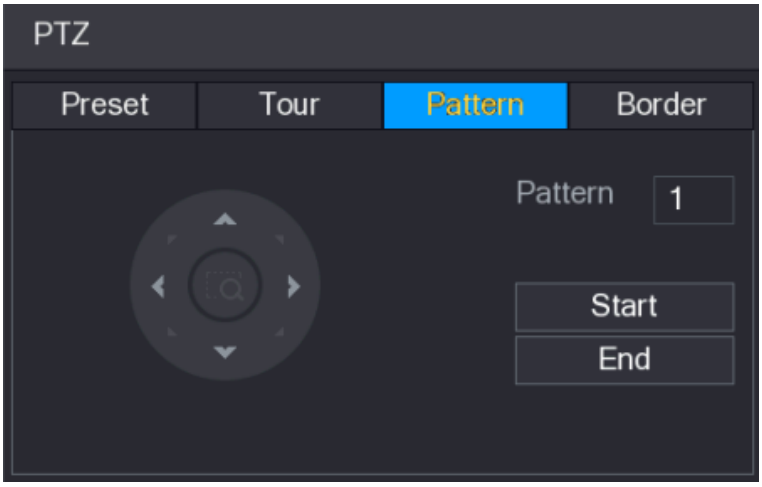
- Ensure you have more than 1 preset configured already.
- Input the tour value into the **Patrol No.**
- Click the **Add Preset** button to add another preset.
- Continue adding presets as needed.
- Click **Del Preset** to remove a preset from the tour.
- Click **Del Tour** to delete the entire tour.

Note: You can repeat the process by adding more presets this this function. Some protocols set may not support deleting.

Configuring PTZ Patterns

The pattern function allows for a custom tour to be created on the fly using the PTZ controls.

To access the PTZ pattern menu, navigate to the expanded control panel and click on the icon. On the PTZ interface provided, click on the **Pattern** tab.

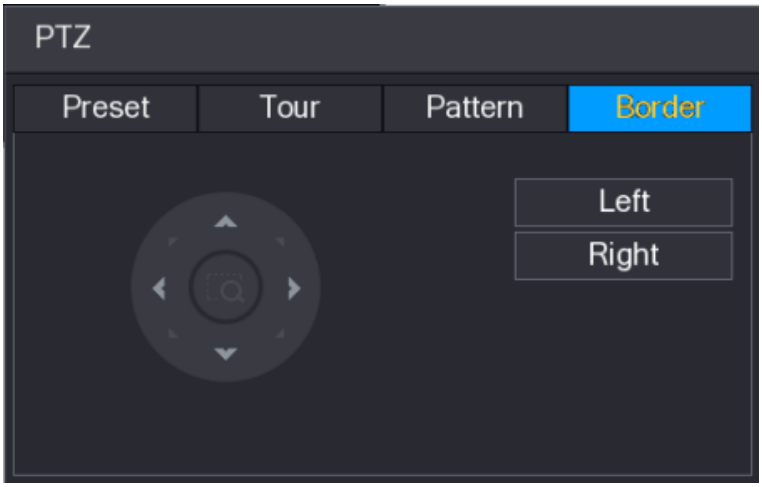


To create a pattern, click **Begin**, then use the PTZ controls to move the camera around. Once finished, click **End** to end and save the pattern. During the use of pattern mode, zoom/focus/iris cannot be modified.

Configuring PTZ Borders

The border function allows for constraining the area of movement for the cameras during any PTZ function.

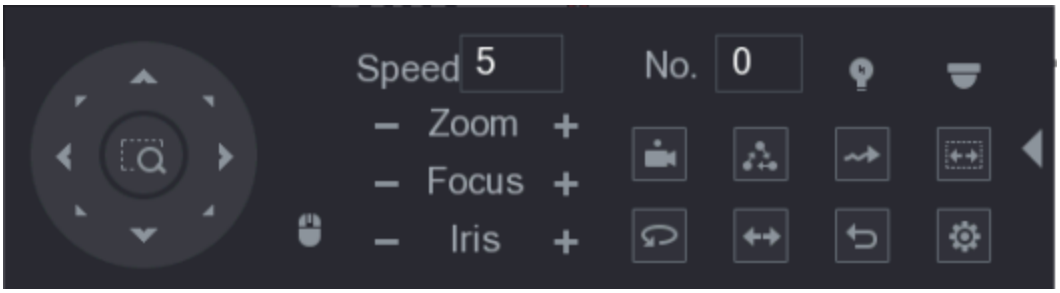
To access the PTZ border menu, navigate to the expanded control panel and click on the  icon. On the PTZ interface provided, click on the **Border** tab.



To set up borders, move the camera using the PTZ controls to the left limit, then click **Left** to designate that position as the left limit. Then move the camera to the right limit, and then click **Right** to designate that position as the right limit.

6.1.5. Calling PTZ Functions

After you have configured your PTZ settings, you can call the PTZ functions through the expanded PTZ control panel.



Calling Presets

Using the expanded PTZ control panel, enter the value of the preset you wish to call in the **No.** box. Once you have entered this value, click on the icon to access the preset. To stop calling the preset, click on the icon to exit.

Calling Tours

Using the expanded PTZ control panel, enter the value of the tour you wish to call in the **No.** box. Once you have entered this value, click on the icon to access the tour. To stop calling the tour, click on the icon to exit.

Calling Patterns

Using the expanded PTZ control panel, enter the value of the pattern you wish to call in the **No.** box. Once you have entered this value, click on the icon to access the pattern. To stop calling the pattern, click on the icon to exit.

Calling Auto Scan

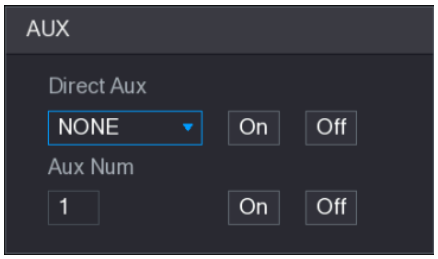
Using the expanded PTZ control panel, enter the value of the AutoScan you wish to call in the **No.** box. Once you have entered this value, click on the icon to access the AutoScan. To stop calling the AutoScan, click on the icon to exit.

Calling Auto Pan

Using the expanded PTZ control panel, enter the value of the AutoPan you wish to call in the **No.** box. Once you have entered this value, click on the icon to access the AutoPan. To stop calling the AutoPan, click on the icon to exit.

6.1.6. Using AUX Button

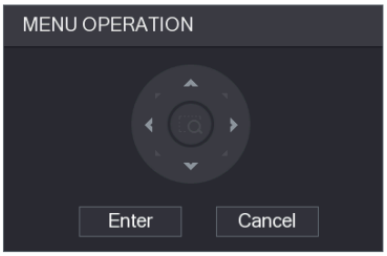
Using the expanded PTZ control panel, click on the icon to access the AUX setting interface.



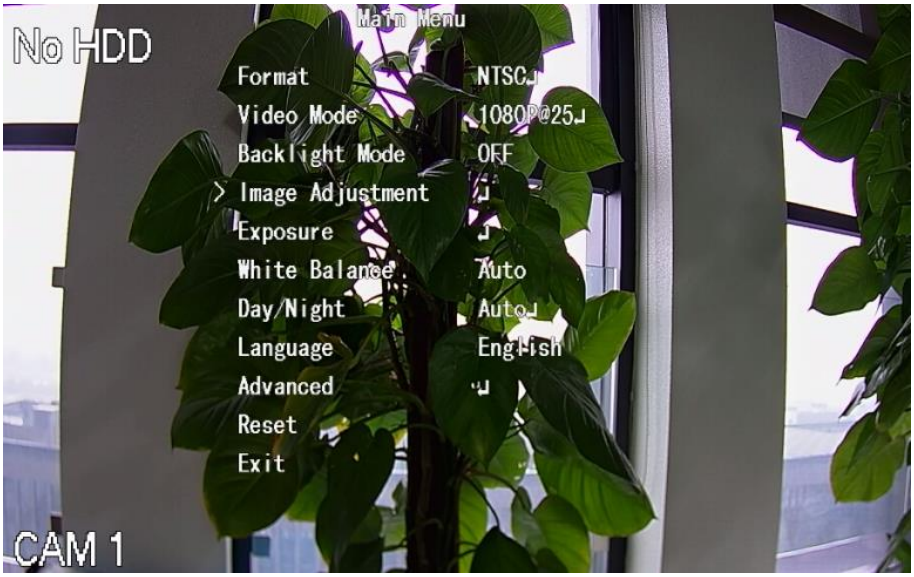
- In the **Direct Aux** list, select the option that corresponds to the applied protocol.
- In the **Aux Num** box, enter the number that corresponds to the AUX switch on the decoder.

6.1.7. Calling the OSD Menu

Using the expanded PTZ control panel, click on the  icon to access the **Menu Operation** interface.



To enter the **Main Menu** of the OSD screen, click on the **Enter** button in the **Main Operation** interface. The OSD screen will appear on the live view screen.

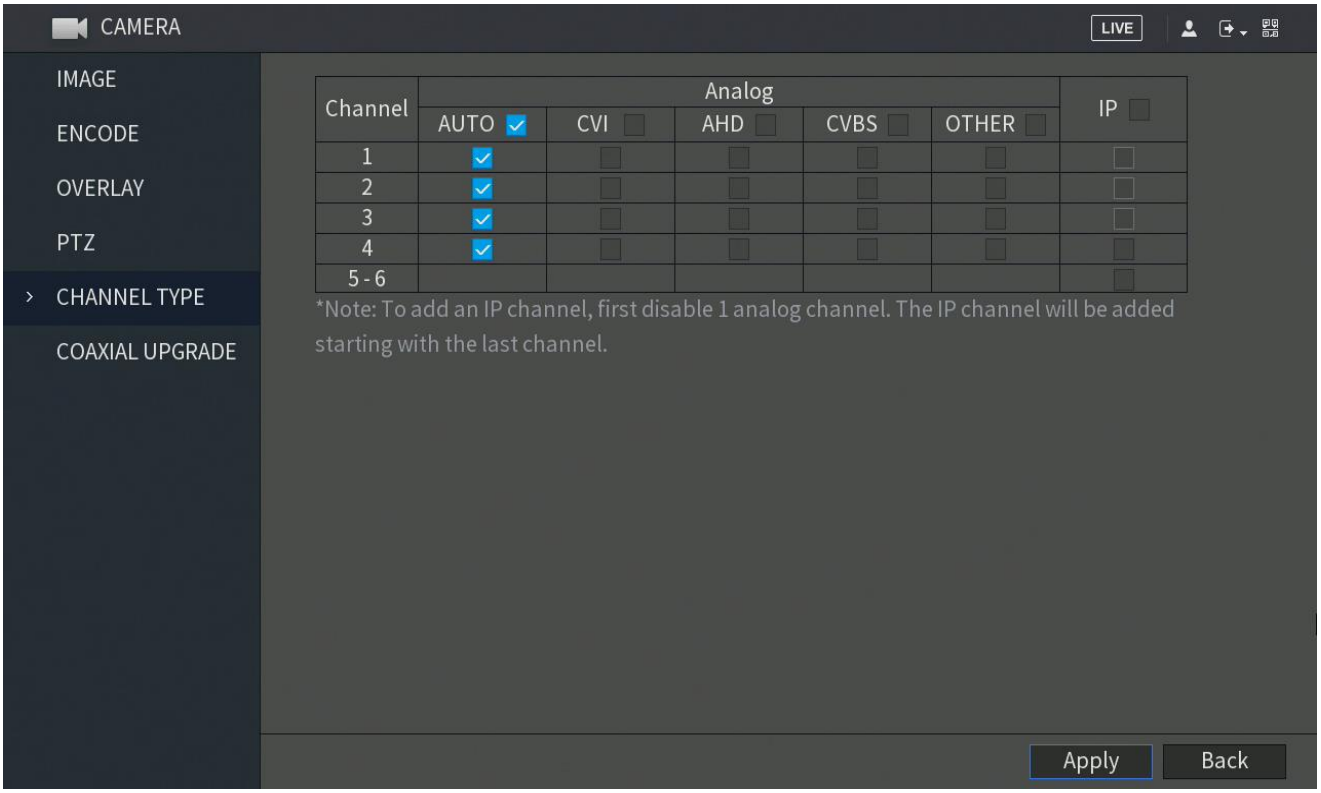


To navigate in the OSD screen, use the directional arrows provided in the main operation interface. To select a setting, click on the **Enter** button in the main operation interface.

Note: This option may be available on only certain model cameras and may not apply to all models.

6.1.8. Channel Type

The channel type menu allows the user to configure specific channels types in the system. These channel types include both **Analog** and **IP** channels configurations.



Configure the channels.
Analog Channel: Select the transmission medium such as CVI, CVBS, and then follow the onscreen instructions to complete the settings.
IP Channel: Select a channel for IP camera from the last channel number. Select from the **5-6** check box. Then follow the onscreen instructions to complete the settings.

Note: The 5-6 channels are only for IP cameras and are dependent on the model you purchased. The channel selection for analog cameras or IP cameras are in sequence. For example, if you want to select channels for IP cameras, you need to select **5-6** first then apply the analog channels.

Click **Apply** and follow the onscreen instructions to complete the settings. The device will reboot. For more information on how to add an IP camera to your device, refer to section If you do not wish to configure your channel types, click the **Back** button to exit.

Connecting an IP Camera

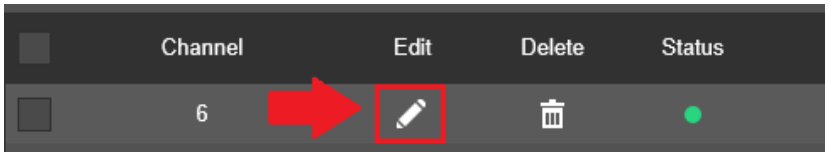
To connect an IP camera to your DVR, please follow the steps provided below:

Note: The number of IP cameras added to the DVR is dependent on how many channels your specific model can handle. An added IP camera will replace one active channel in the DVR.

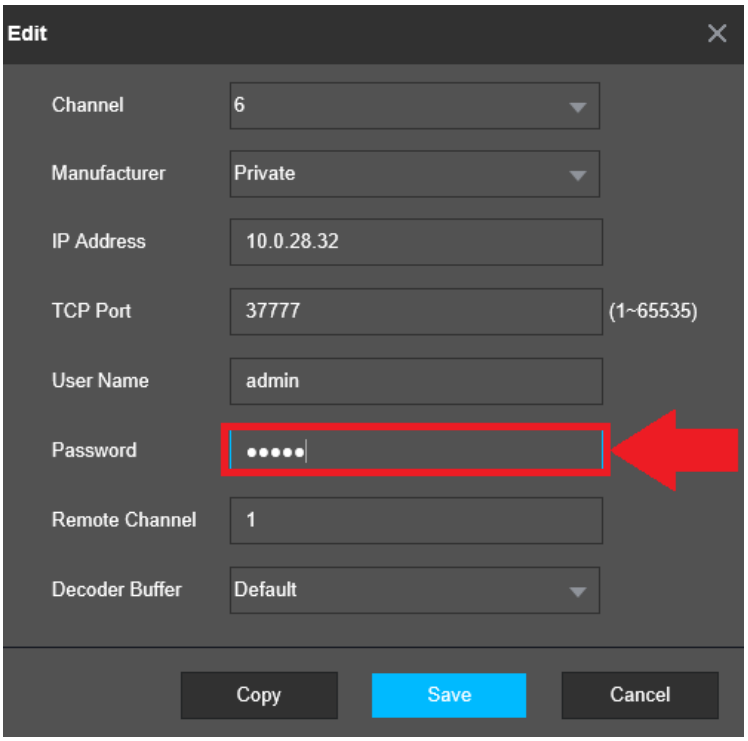
1. Click on the **Camera** option located in the **Management** section of the Main Menu.
2. Click on **Channel Type** and select the **IP Camera** option. (This is dependent on how many channels your specific model DVR can handle.)
3. Click on **Apply** and allow the DVR to reset.
4. Navigate back to the **Camera** menu and click on **Registration**.
5. Click on **Device Search** to search for the IP camera you want to add and click on the enable checkbox. .
6. Click on the **Add** button to add the IP Camera to the DVR. If the camera has an inactive status (red dot) the password may need to be updated

Updating the Password (IP Camera)

1. Click on the **Edit** button.



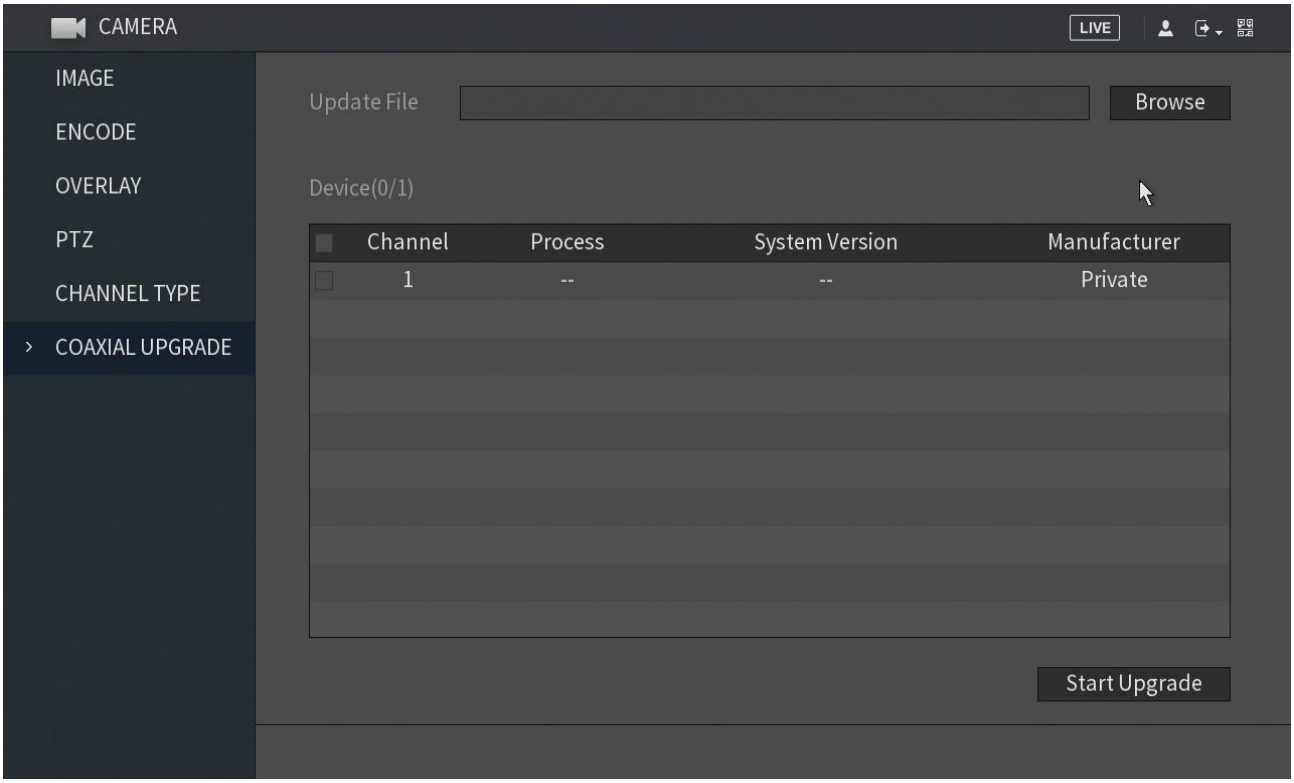
2. Ensure your camera settings are properly set and enter the password for your newly added IP Camera. If this is your first time using your camera the username and password will be **admin**.



3. Click on **Save** to save the settings to your camera. If all information was entered correctly, the indicator icon in the Status field will be green.

6.1.10. Coaxial Upgrade

The coaxial upgrade screen provides a means of upgrading firmware, specifically for coaxial cameras. The firmware upgrades in this menu are **only** related to coaxial connected cameras, not the system itself.



Note: Before continuing with the process, ensure to have an external USB storage device connected to the system. The storage device should contain the .bin file for the upgrade. To access the .bin, please visit amcrest.com/firmware and search for your DVR.

Once a USB storage device is input into the system, with the firmware file, click on the **Browse** button to locate the file from the USB storage device and click **OK**. Select the checkbox next to the file and click on **Start Upgrade** to begin updating your coaxial camera.

Note: If the upgrade is successful, the system will display a message indicating the upgrade is complete. If the upgrade fails, please check the format of the file you are using.

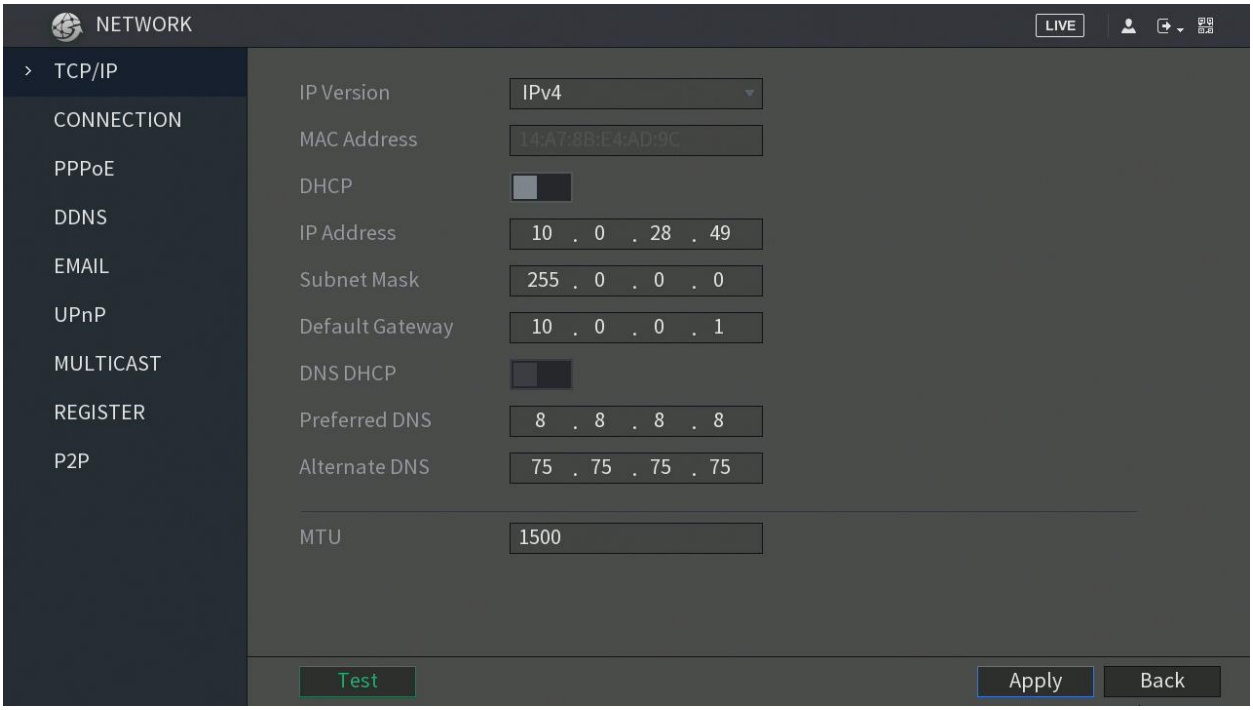
6.2. Network

This menu controls all network related functions for the DVR and governs how the DVR interacts with the network it is connected to.

6.2.1. TCP/IP

TCP/IP stands for Transmission Control Protocol/Internet Protocol and it is the language/protocol that allows communication between internet connected DVRs, whether on a local network, or a on the Internet at large. This screen allows for TCP/IP settings to be modified for the DVR 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 Version**: This dropdown allows the user to select the IP version. The two options are IPV4 and IPV6.
• **MAC address**: This field shows the DVR's MAC address, which is unique to this DVR. This number is read-only and is used to access a local area network (LAN).
• **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 DVR to automatically obtain an IP address from another network DVR 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 Address:** This field allows the user to enter a custom IP address.
• **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.
• **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 DVR's IP. That is to say, 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.

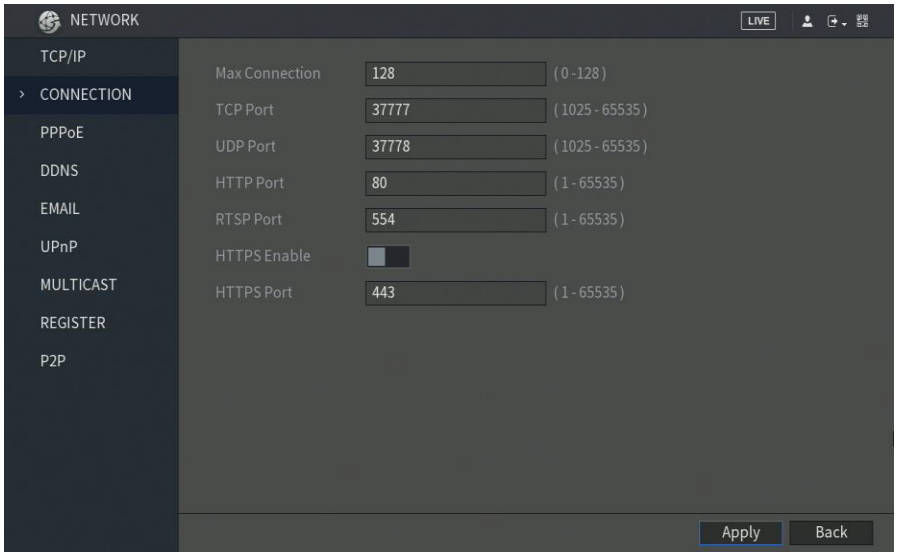
• **MTU:** MTU stands for Maximum Transmission Unit. This field allows the user to set the MTU value of the network adapter. The value ranges from 1280-7200 bytes. The default value is 1500 bytes. Please note MTU modification may result in network adapter reboot and the network turning off. That is to say, 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 DVR 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. 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.
- LAN download: This checkbox allows the user to enable the user to process the downloaded data first. The download speed is 1.5X or 2.0X compared to the normal streaming speed.

Note: To test the network connections set in this menu, click on the **Test** button. To apply the settings to your DVR, click on **Apply**. If you wish to exit this menu, click on the **Back** button.

6.2.2. 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:

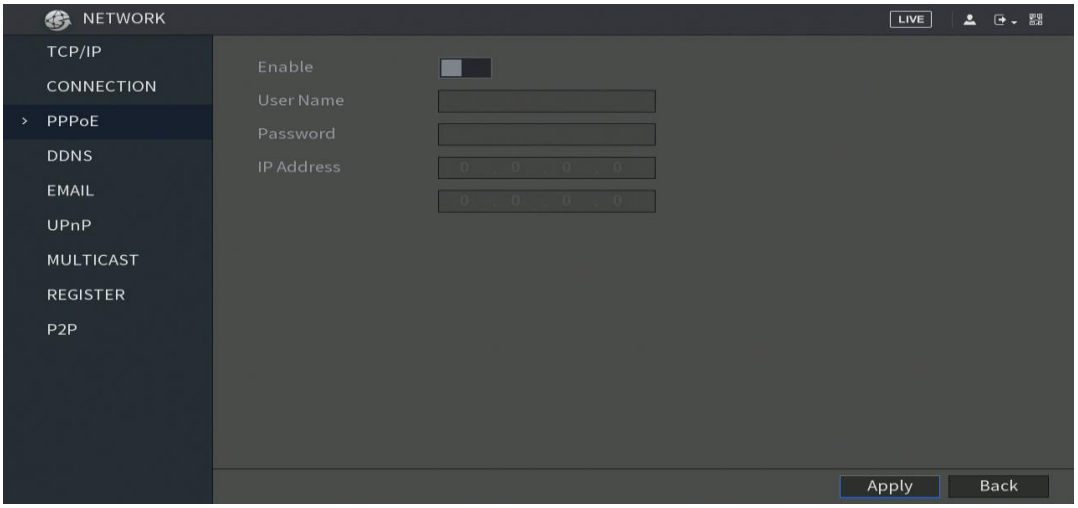
• **Maximum Connection**: This field represents the maximum number of users that can be connected to the DVR at the same time. The maximum number of users the DVR can support at one time is 128.

• **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.
• **RTSP Port:** This field designates the Real Time Streaming Protocol (RTSP) port number. The default value is 554.
• **HTTPS Port:** This field designates the Hypertext Transfer Protocol Secure (HTTPS) port number. The default value is 443.

Note: To apply the settings to your DVR, click on **Apply**. If you wish to exit this menu, click on the **Back** button.

6.2.3. 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:

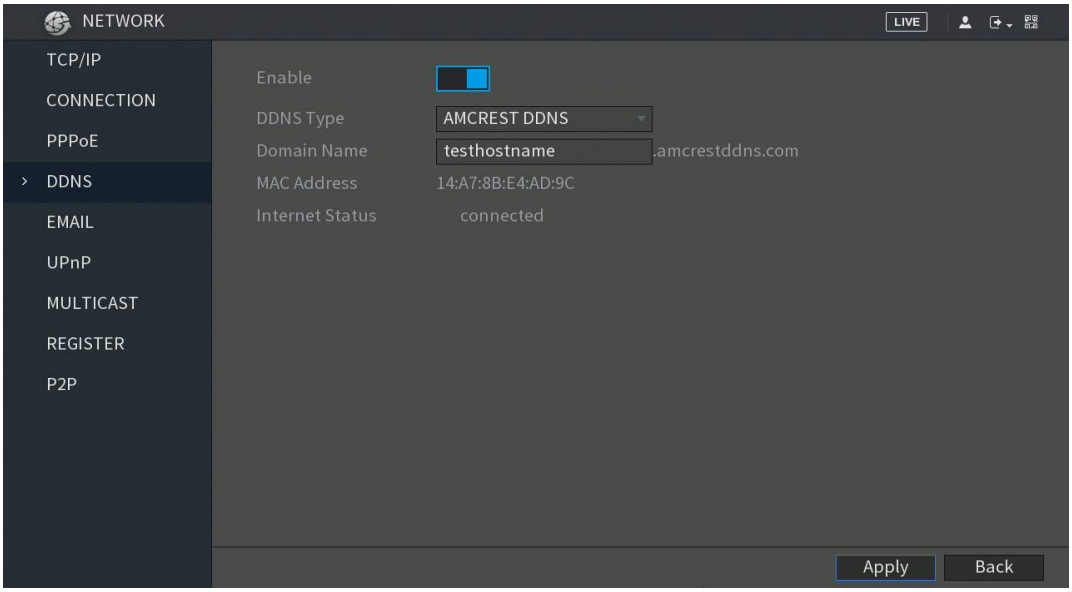


To apply the settings, click the Apply button near the bottom right hand corner. After completing the setup please click the save button to go back to the previous menu.

6.2.4. DDNS

DDNS stands for Dynamic Domain Name Server. This technology is used to automatically update name servers in real time to help the DVR maintain a persistent address despite changes in location or configuration. What this means is that even when the DVR is restarted, moved, or reconfigured, it can keep the same IP address, thus allowing remote users uninterrupted access to the DVR, 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 DVR supports a variety of DDNS services such as AMCREST DDNS, 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, AMCREST DDNS will be used. To use AMCREST DDNS, go to http://www.quickddns.com and register for an account. If the account is inactive for a year, AMCREST DDNS 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 AMCREST DDNS:

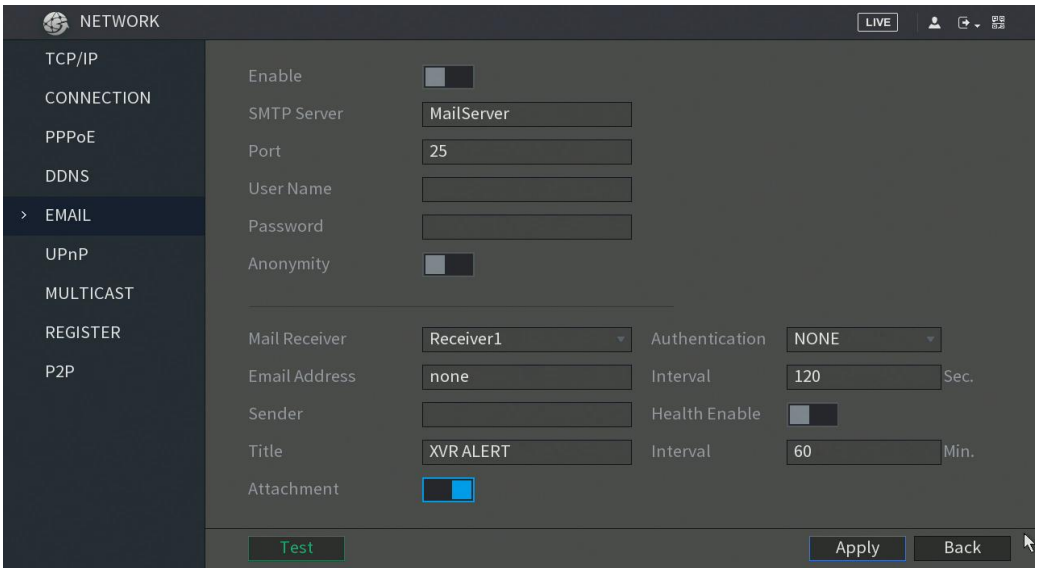


Below is an explanation of the fields that can be configured on DDNS settings screen when set to AMCREST DDNS type.

- **Enable:** This switch allows the user to enable DDNS on the DVR.
- **DDNS**: Type: This dropdown box allows the user to select which DDNS service is being used on the DVR.
- **Domain Name:** This field allows the user to enter the domain name from the AMCREST DDNS service.
- **MAC Address:** The assigned MAC address for the DVR.
- **Internet Status**: The connection status of your DDNS connection from the DVR.

6.2.5. Email

This screen allows for the configuring of email settings to permit the DVR to send emails when the connected cameras or alarms are triggered. Below is a screenshot of the email settings screen:



For more information about the settings listed in this menu, refer to the table below:

Parameter	Description
Enable	Enable the email function.
SMTP Server	Enter the address of SMTP server of sender's email account.
Port	Enter the port value of SMTP server. The default value setting is 25. You can enter the value according to your actual situation.
User Name	Enter the user name and password of sender's email account.
Password	
Anonymity	If enable the anonymity function, you can login as anonymity.
Mail Receiver	In the **Mail Receiver** list, select the number of receivers that you want to receive the notification. The DVR supports up to three mail receivers.
Email Address	Enter the email address of mail receiver(s).
Sender	Enter the sender's email address. It supports maximum three senders separated by comma.
Title	Enter the email subject. Supports Chinese, English and Arabic numerals. It supports maximum 64 characters.
Attachment	Enable the attachment function. When there is an alarm event, the system can attach snapshots as an attachment to the email.
Authentication	Select the encryption type: **NONE**, **SSL**, or **TLS**.
Interval (Sec.)	This is the interval that the system sends an email for the same type of alarm event, which means, the system does not send an email upon any alarm event. This setting helps to avoid the large amount of emails caused by frequent alarm events. The value ranges from 0 to 3600. 0 means that there is no interval.
Health Enable	Enable the health test function. The system can send a test email to check the connection.
Interval (Min.)	This is the interval that the system sends a health test email. The value ranges from 30 to 1440. 0 means that there is no interval.
Test	Click Test to test the email sending function. If the configuration is correct, the receiver's email account will receive the email. **Note:** Before testing, click **Apply** to save the settings.

Popular Email Servers, Ports, and Encryptions

Server	Port	Encryption
Gmail smtp.gmail.com	465 587	SSL TLS
Microsoft Live & Hotmail smtp.live.com	25 465 587	TLS SSL TLS
Yahoo smtp.mail.yahoo.com	465 587	SSL TLS
Comcast smtp.comcast.net	465 587	SSL TLS

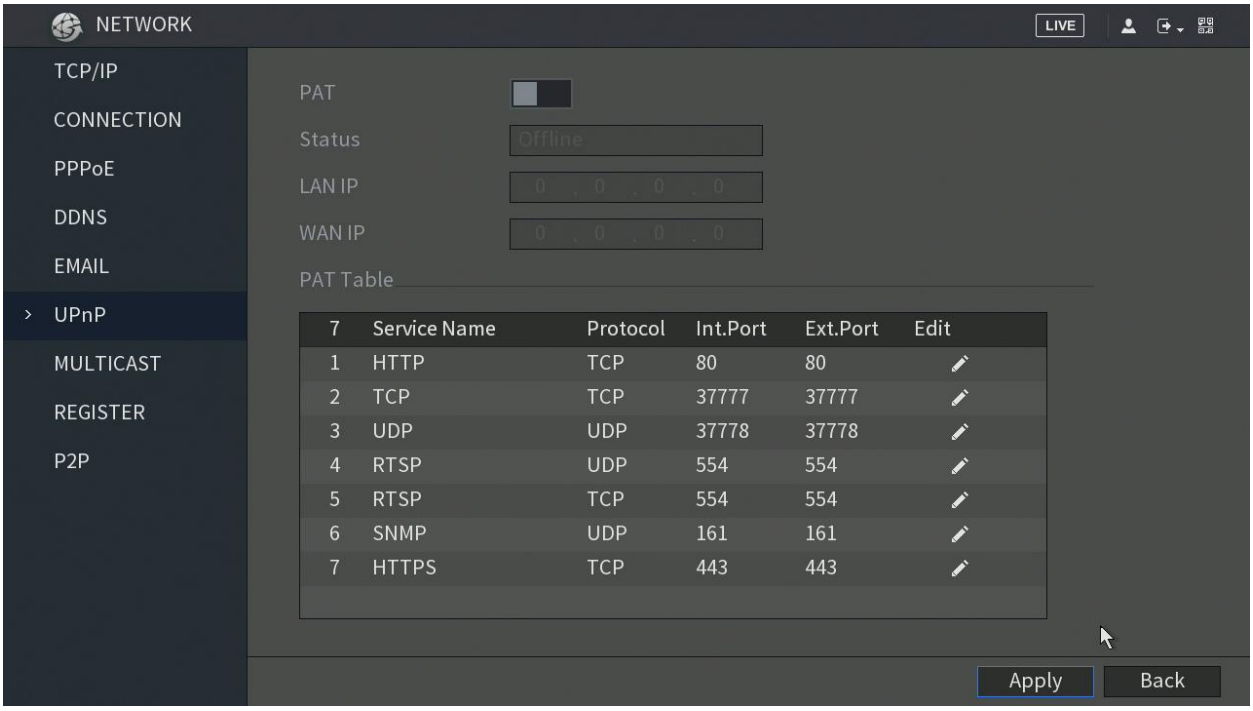
After you have enabled the email settings for your DVR, click on the **Test** button to test the connection. If the email test fails, make sure your Email Account has 2-Step Verification turned off. Confirm your Internet settings on the DVR are configured correctly.

2-Step Verification FAQ Gmail

After you login to your Gmail and you can view your inbox open a new tab and go to:
https://myaccount.google.com/security
Scroll down and find *2-Step Verification* under *Password & sign-in method*, click the pencil icon and disable it. To apply the settings, click **Apply**. To exit this menu, click on the **Back** button.

6.2.6. UPnP

UPnP stands for Universal Plug and Play, and it is a protocol used to easily connect DVRs to the internet. In the case of this DVR, it allows the DVR 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 DVR.

The settings in PAT table correspond to the UPnP PAT table on the router.

- Service Name: Name of network server.
- Protocol: Type of protocol.
- Int. Port: Internal port that is mapped on the DVR.
- Ext. Port: External port that is mapped on the router.

To modify the external port, click on the  icon next to the protocol you wish to modify.

• **UPnP** Status: This field shows the UPnP status and has two options:

o **Offline**: This means that UPnP is offline.
o **Successful**: This means that UPnP is working.

• **LAN IP**: This field allows the user to enter the IP address of the router that the DVR is trying to connect to.
• **WAN IP**: This field is where the DVR Wide Area Network (WAN) IP is populated. This IP address is what is used to remotely access the DVR 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.

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

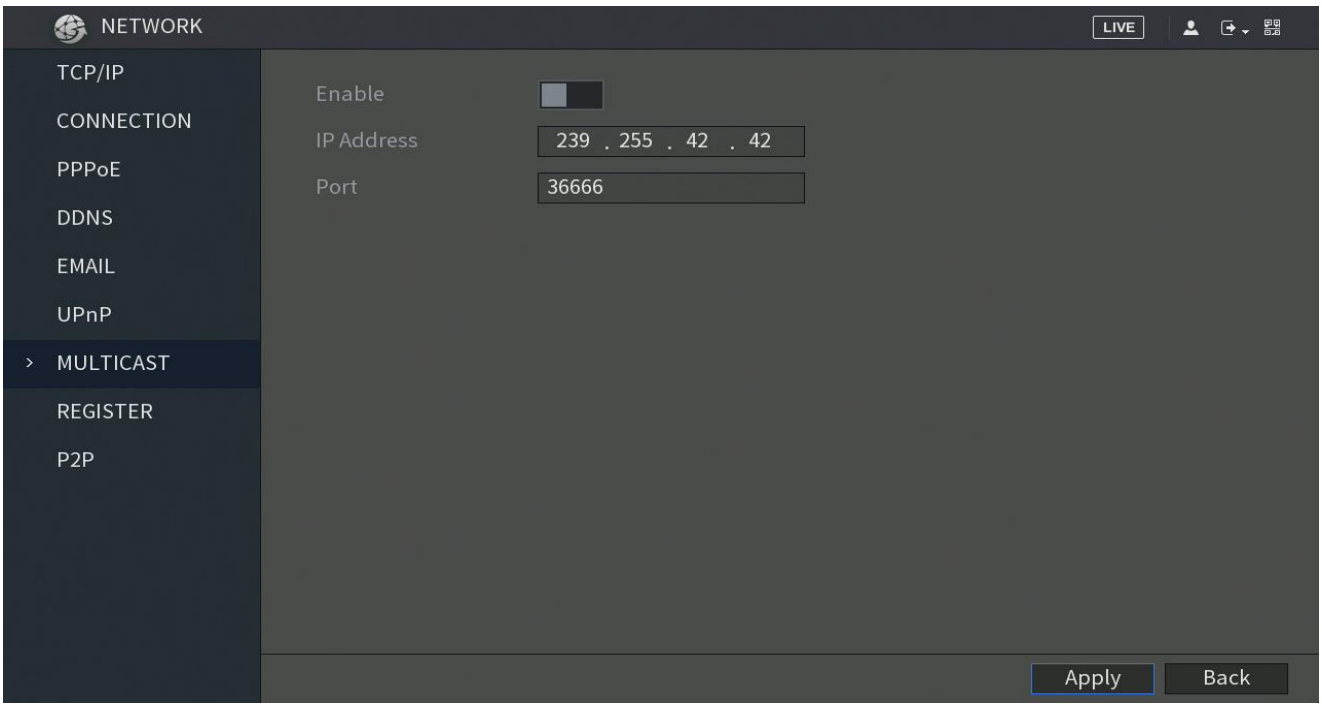
o The third column shows the name of the protocol used by that service. To edit this, double click on the service line item.
o The fourth column shows the Internal Port used by that service. To edit this, double click on the service line item.
o The fifth column shows the External Port used by that service. To edit this, double click on the service line item.

To confirm settings, click the **Apply** button near the bottom right hand corner. To cancel any modifications, click the **Back** button near the bottom right hand corner.

To view a video on how to remotely access your DVR using UPnP, go to http://amcrest.com/videos and view the video titled "How to Gain Remote Access to Your DVR with Universal Plug and Play".

6.2.7. Multicast

Multicast is a feature that enables the DVR 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 DVR.
- 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.

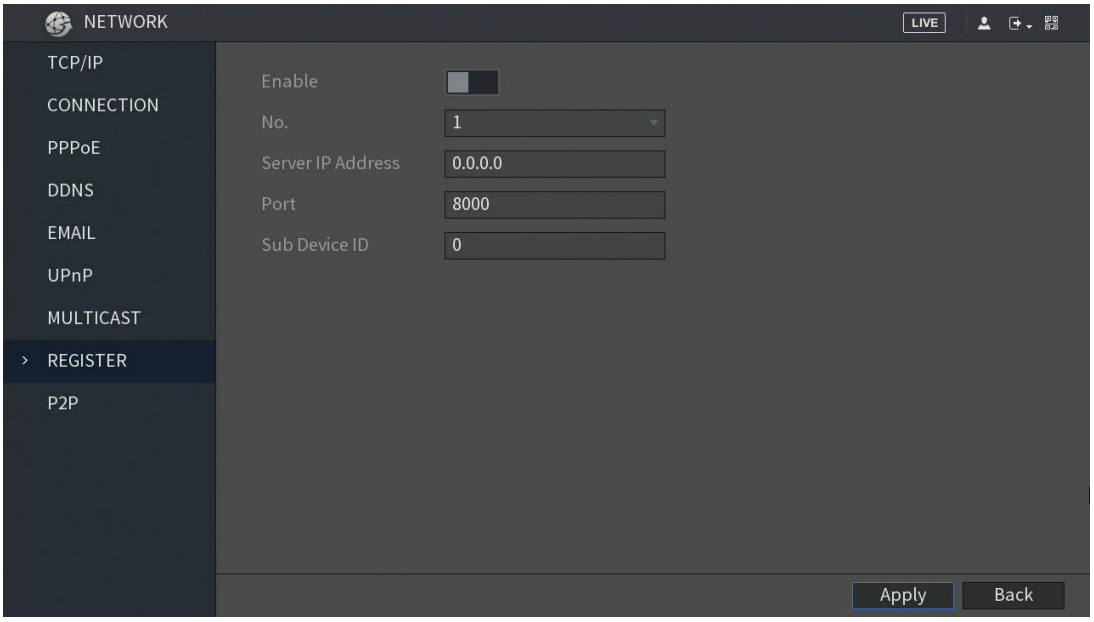
Multicast IP Address Range (IPV4): 224.0.0.0 through 239.255.255.255

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. To cancel any modifications, click the **Back** button near the bottom right hand corner.

6.2.8. Register

The register feature allows the DVR to register itself with a specified proxy, so that the DVR can be remotely accessed via a proxy. A proxy is a computer server that acts as an intermediary between client computers that are seeking resources from a server. Below is a screenshot of the Register settings screen:



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

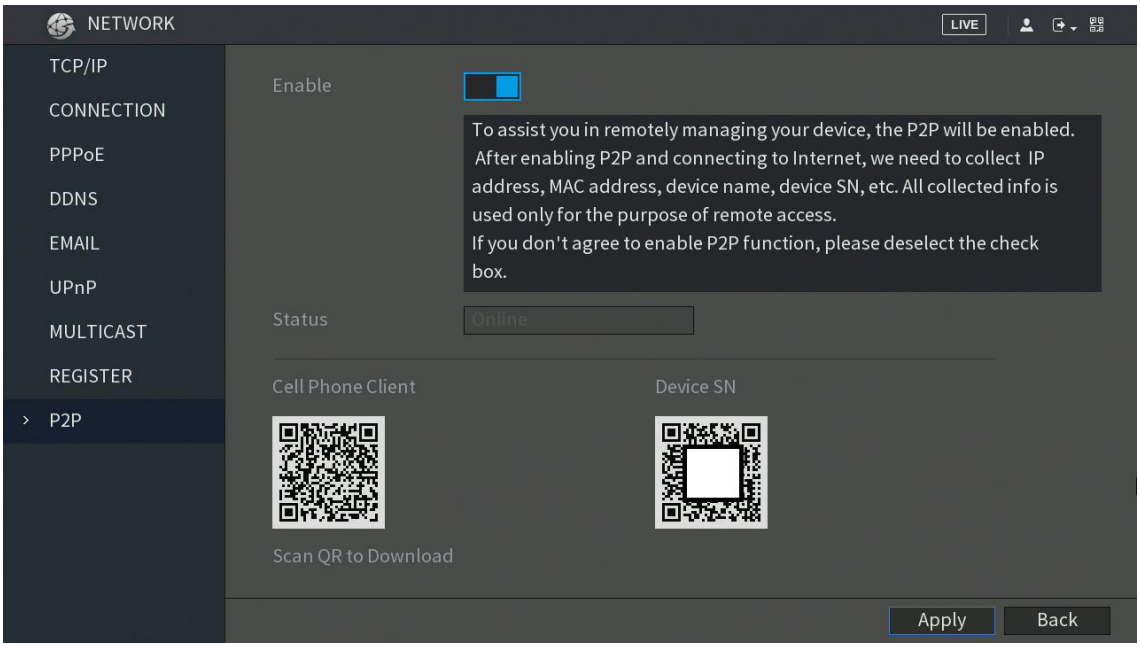
- **Enable:** This checkbox allows the user to enable the Register feature for the DVR.
- **No:** This dropdown box allows the user to select the proxy number. Currently the DVR can only configure one proxy.
- **Server IP Address**: This field allows the user to enter the proxy server IP address.
- **Port:** This field allows the user to enter the proxy port number.
- **Sub Device ID**: This field allows the user to enter the proxy ID number.

Note: Do not enter a network default port for this port number. It may result in a port conflict.

To confirm settings, click the **Apply** button near the bottom right hand corner. To cancel any modifications, click the **Back** button near the bottom right hand corner.

6.2.9. P2P

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



To begin, make sure that the **Enable** switch is in the on position. The status field will then say, **Online**. When the P2P function is in online status, you can utilize the QR codes listed on the screen:

Cell Phone Client: Use your mobile phone to scan the QR code to add the DVR into the Cell Phone Client, and then you can start accessing the DVR.
Platform: Obtain the DVR SN by scanning the QR code. Go to the P2P management platform and add the DVR SN into the platform. Then you can access and manage the DVR in the WAN.

Note: You can also enter the QR code of the Cell Phone Client and DVR SN by click clicking on the QR Code  icon in the top right of the interface. The icon can also be accessible via the main menu.

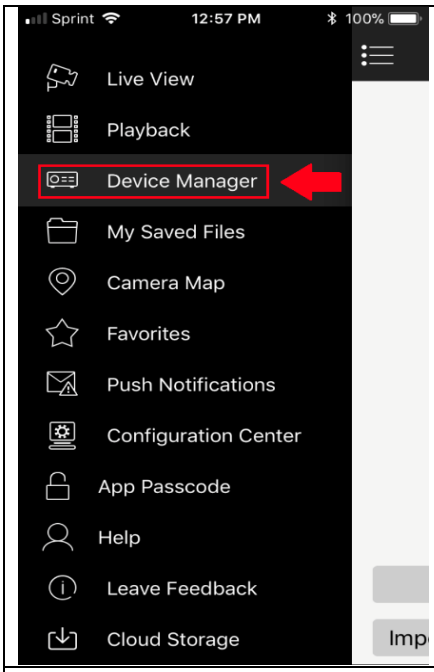
Using the Cell Phone Client

The P2P screen allows you to add your DVR into your cell phone client. The cell phone app you should use for this process is Amcrest View Pro. You can access this cell phone app via the P2P menu directly by scanning the QR Code labeled **Cell Phone** Client, or via the Google Play or Apple Store.

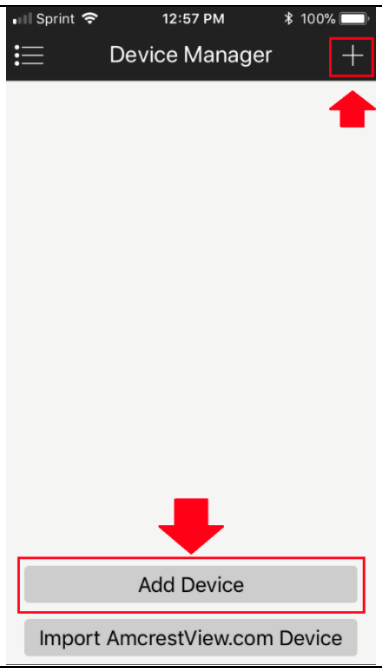
GET IT ON Google Play

Download on the App Store

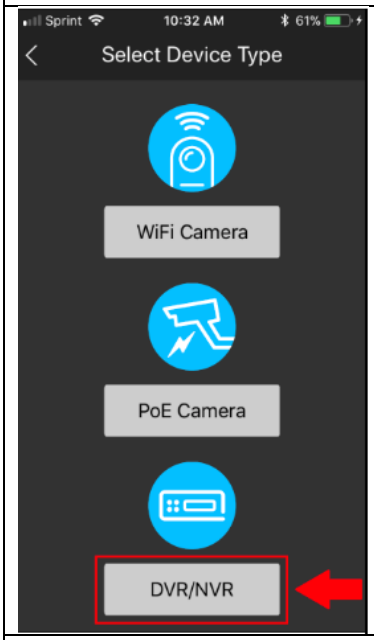
Once you have downloaded the Amcrest View Pro app from the following sources, please follow the step by step instructions provided below to proceed.



1. Access the Amcrest View Pro app from your mobile DVR and tap on the ☰ icon to display the main menu. From the main menu, click on **Device Manager** to begin adding the DVR to the application.



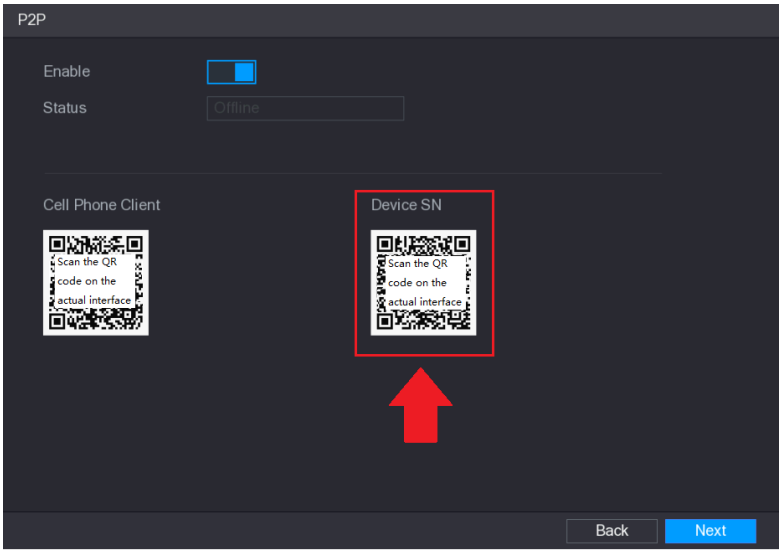
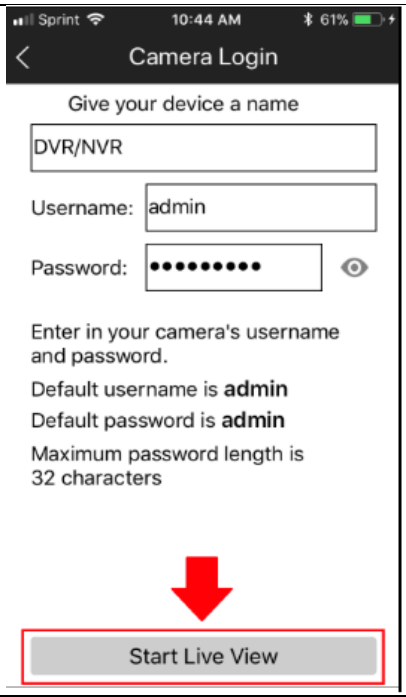
2. From the **Device Manager** screen, you can click on either **Add Device** or the + icon in the upper right-hand corner.



3. Next, you will need to select a DVR type from the **Select Device Type** menu. Since we are adding a DVR to the application, click on the **DVR/NVR** option at the bottom of the menu.



4. When the DVR type has been selected, you will be taken to a **Connection Type** screen. Since we will be connecting via a P2P connection, select **P2P Connection** from this menu.

	
4. The app will then prompt you to scan the QR code for your DVR. In the P2P menu of the DVR, scan the QR code labeled **Device SN** in the P2P screen	5. Once the **Device SN** QR code has been scanned, the app will direct you to a login screen. In this menu you can create a name for your DVR. Also, you will need to enter in the username and password associated with your DVR. If this is your first time setting up your DVR, the default username and password is **admin**.

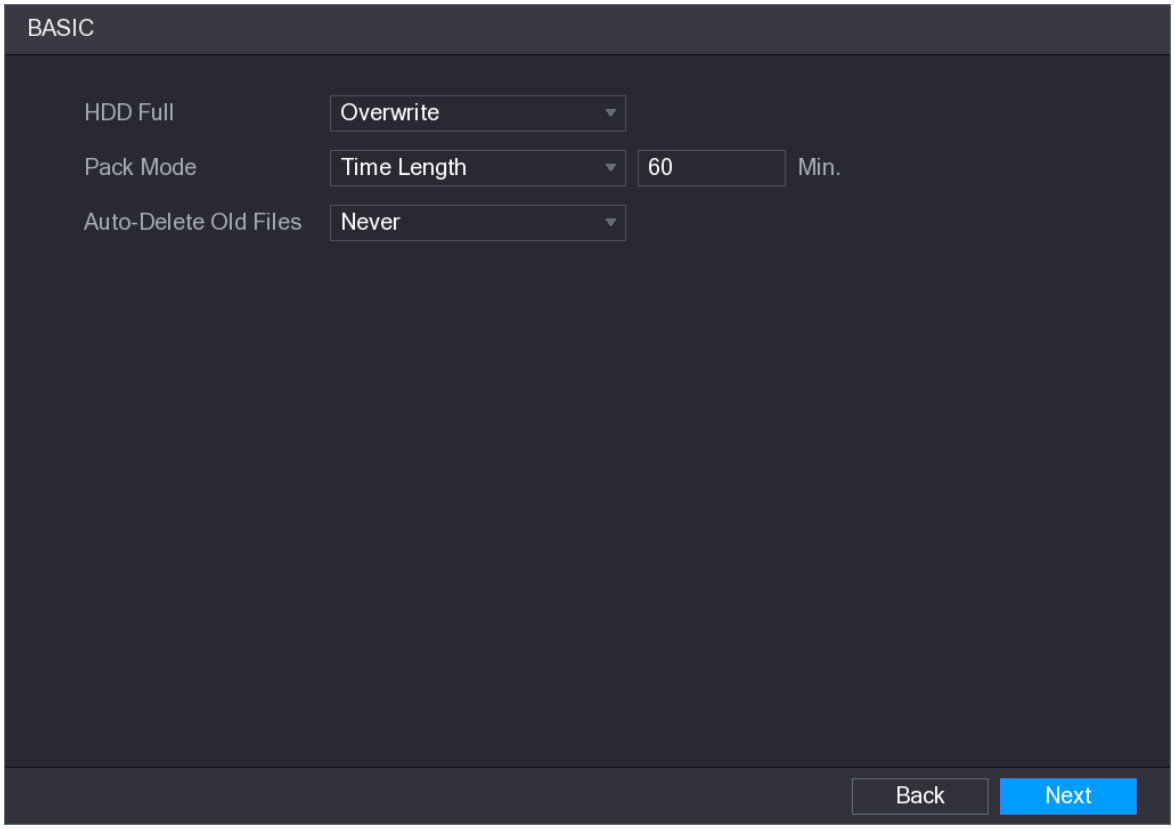
Once this information is entered, tap the **Start Live View** button and you should start seeing live video from the DVR.

6.3. Storage

The sets of options listed in this menu deal with storage data related to the DVR.

6.3.1. Basic

This option allows you to configure the settings for an installed hard drive. For example, you can set settings for when the hard drive is full, you can set the file length and time of a recorded video, or setup auto-delete to auto delete old files from the system.

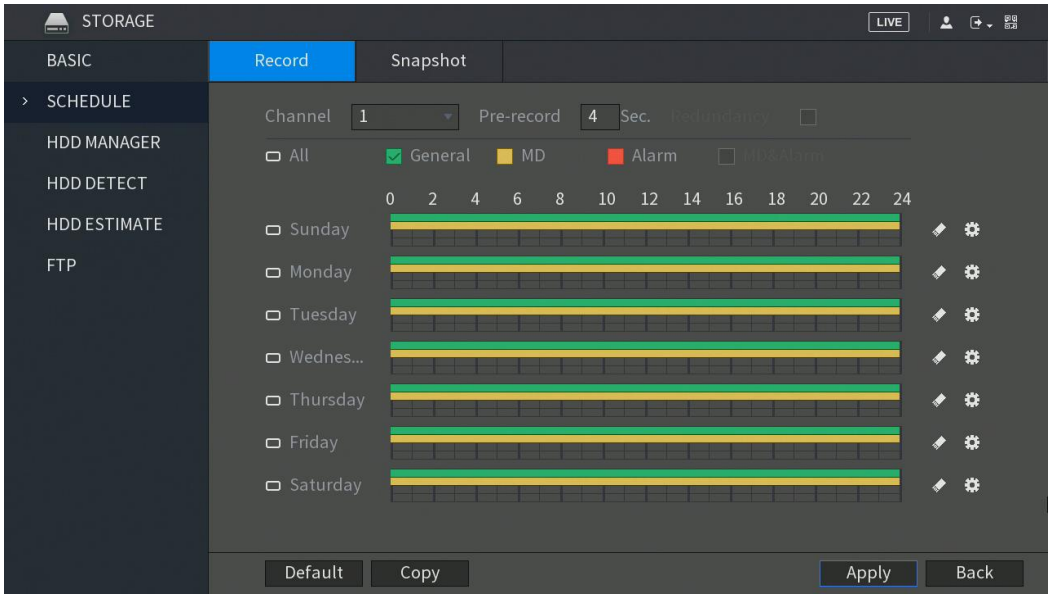


For more information on the settings listed in this menu, refer to the table below.

Parameter	Description
HDD Full	Configure the settings for the situation when all the read/write discs are full, and there is no more free disc available. Select **Stop Record** to stop recording Select **Overwrite** to overwrite the recorded video files always from the earliest time.
Pack Mode	Configure the time length and file length for each recorded video.
Auto-Delete Old Files	Configure whether to delete the old files and if yes, in the **Auto-Delete Old Files** list, select **Customized** to configure the time length for how long you want to keep the old files.

6.3.2. Schedule

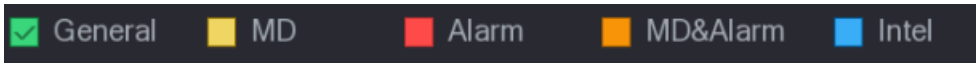
This screen is used to specify the recording schedule for both recorded video and snapshots.



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

Parameter	Description
Channel	ıe **Channel** list, select a channel to record the video.
Pre-record	In the **Pre-record** list, enter the amount of time that you want to start the recording in advance.
Redundancy	If there are several HDDs installed to the DVR, you can set one of the HDDs as the redundant HDD to save the recorded files into different HDDs. In case one of the HDDs is damaged, you can find the backup in the other HDD. Select **Main Menu > STORAGE > HDD MANAGER**, and then set a HDD as redundant HDD. Select **Main Menu > STORAGE > SCHEDUE > Record**, and then select the **Redundancy** check box. If the selected channel is not recording, the redundancy function takes effect next time you record no matter you select the check box or not. If the selected channel is recording, the current recorded files will be packed, and then start recording according to the new schedule. **Note:** Not all models support this function. If the option is greyed out on the screen, it means it is not supported with your specific DVR. The redundant HDD does **not** back up snapshots.
Event type	Select the check box of the event type which includes **General**, **MD** (motion detect, video loss, tempering, diagnosis), **Alarm** (IoT alarms, local alarms, alarms from alarm box, IPC external alarms, IPC Offline alarms), **MD&Alarm**, **Intel** (IVS events, face detection), and **POS**.
Period	Define a period during which the configured recording setting is active. **Note:** The system only activates the alarm in the defined period.
Copy	Click **Copy** to copy the settings to other channels.

There are 5 types of record types listed for this feature:



General: A general recording means that the DVR captures all footage for the specified time period. These recordings are represented in green are typically tied to 24/7 recording.
MD: An MD recording relates to motion detection. With this setting, the DVR only captures footage when a motion detection alarm is triggered. MD recordings are represented by the color yellow.
Alarm: An alarm recording means that the DVR 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 orange.
Intel*: An intel recording means that the DVR captures only footage when an intelligent alarm, such as IVS triggers have been activated. Intel recordings are represented by the color blue.

Note: Intel events **only** apply to DVRs with IVS features. Not all model DVRs will have this feature available.

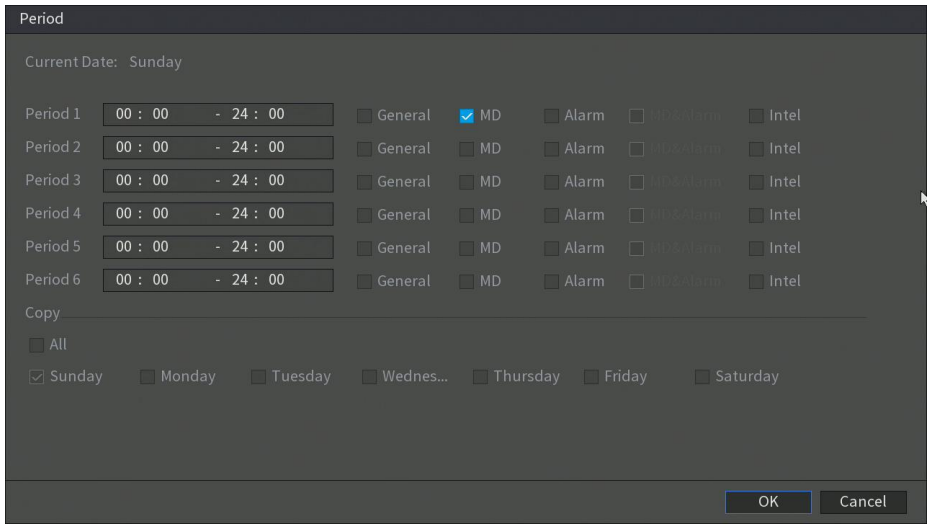
The system allows for the configuration of up to 6 different time periods. To define a period for the whole week, you can click on the icon next to **All** to apply the settings to all time periods. The icon for each day will then be switched to the icon which means all days have been linked to the applied settings.

To define a period for specific days, click on the icon on the days you wish to choose. Once chosen, the icon will switch to a icon indicating the applied settings have been linked to those specific days.

To set a recording schedule for your DVR, on the timeline, you can choose which record type you want to set and drag the mouse over specific time frames, or you can click on the icon located on the right of the day you wish to set the schedule to set configurations.



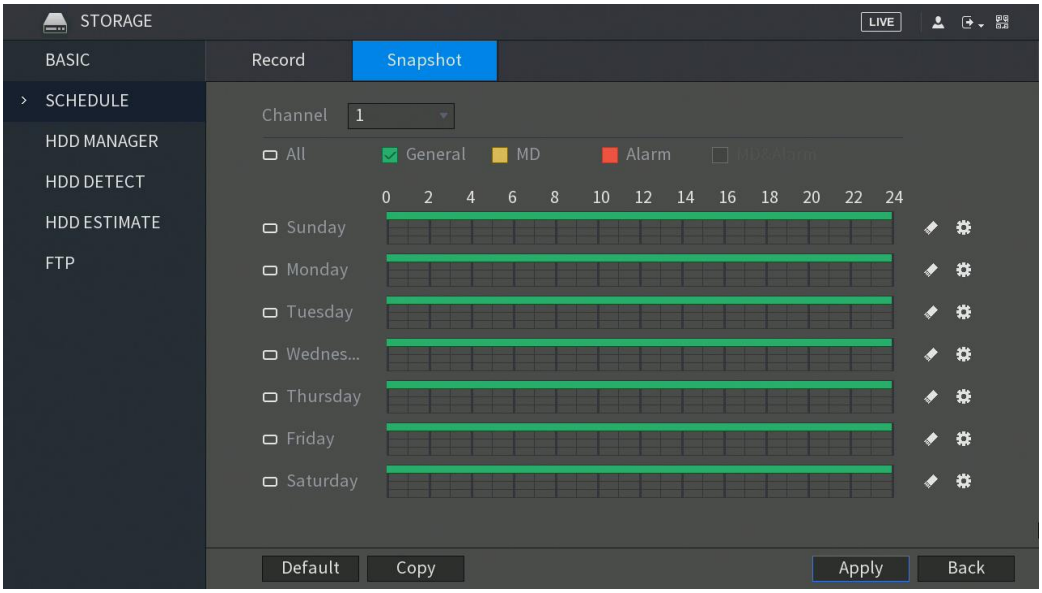
If you choose to set periods via the set **Period** menu, enter in the time frame for the period you want and select the event checkbox you wish to apply. There are total of six periods. If you wish to copy these settings and apply them to multiple days, you can do so in the **Copy** menu. To apply all settings for each day, click on **All**. If you wish to apply these settings to activate on specific days, click on the day you wish to choose from this menu. When you are finished, click **OK** to continue.



When you have finished applying your schedule settings, be sure to click **Apply** to apply the settings to your DVR. To revert to default settings in this menu, click on **Default**. If you wish to apply these settings to multiple channels on your DVR, click on the **Copy** button and select which channels you would like to be configured. To select all channels, click on the **All** button in this menu. To exit the schedule menu, click on **Back** button.

Snapshot

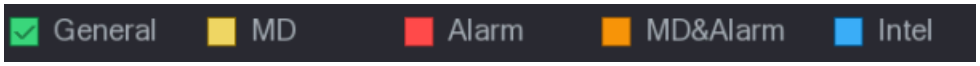
This tab is where snapshot recording settings are configured. Below is a screenshot of the Snapshot settings screen:



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

Parameter	Description
Channel	ıe **Channel** list, select a channel to record the video.
Pre-record	In the **Pre-record** list, enter the amount of time that you want to start the recording in advance.
Redundancy	If there are several HDDs installed to the DVR, you can set one of the HDDs as the redundant HDD to save the recorded files into different HDDs. In case one of the HDDs is damaged, you can find the backup in the other HDD. Select **Main Menu > STORAGE > HDD MANAGER**, and then set a HDD as redundant HDD. Select **Main Menu > STORAGE > SCHEDUE > Record**, and then select the **Redundancy** check box. If the selected channel is not recording, the redundancy function takes effect next time you record no matter you select the check box or not. If the selected channel is recording, the current recorded files will be packed, and then start recording according to the new schedule. **Note:** Not all models support this function. If the option is greyed out on the screen, it means it is not supported with your specific DVR. The redundant HDD does **not** back up snapshots.
Event type	Select the check box of the event type which includes **General**, **MD** (motion detect, video loss, tempering, diagnosis), **Alarm** (IoT alarms, local alarms, alarms from alarm box, IPC external alarms, IPC Offline alarms), **MD&Alarm**, **Intel** (IVS events, face detection), and **POS**.
Period	Define a period during which the configured recording setting is active. **Note:** The system only activates the alarm in the defined period.
Copy	Click **Copy** to copy the settings to other channels.

There are 5 types of record types listed for this feature:



General: A general recording means that the DVR captures all footage for the specified time period. These recordings are represented in green are typically tied to 24/7 recording.
MD: An MD recording relates to motion detection. With this setting, the DVR only captures footage when a motion detection alarm is triggered. MD recordings are represented by the color yellow.
Alarm: An alarm recording means that the DVR 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 orange.
Intel: An intel recording means that the DVR captures only footage when an intelligent alarm, such as IVS triggers have been activated. Intel recordings are represented by the color blue.

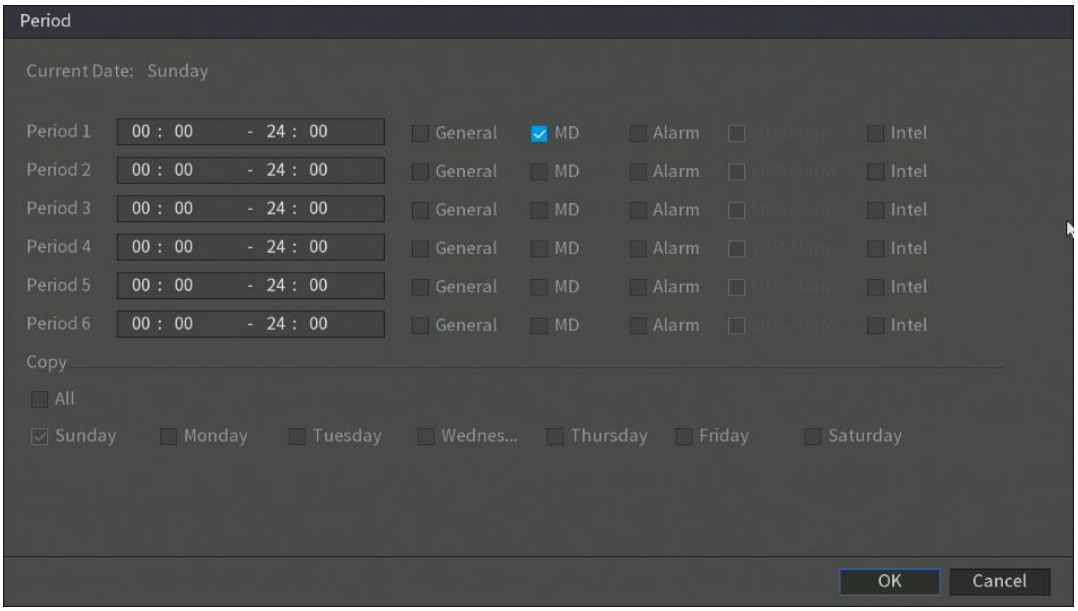
The system allows for the configuration of up to 6 different time periods. To define a period for the whole week, you can click on the icon next to **All** to apply the settings to all time periods. The icon for each day will then be switched to the icon which means all days have been linked to the applied settings.

To define a period for specific days, click on the icon on the days you wish to choose. Once chosen, the icon will switch to a icon indicating the applied settings have been linked to those specific days.

To set a recording schedule for your DVR, on the timeline, you can choose which record type you want to set and drag the mouse over specific time frames, or you can click on the icon located on the right of the day you wish to set the schedule to set configurations.



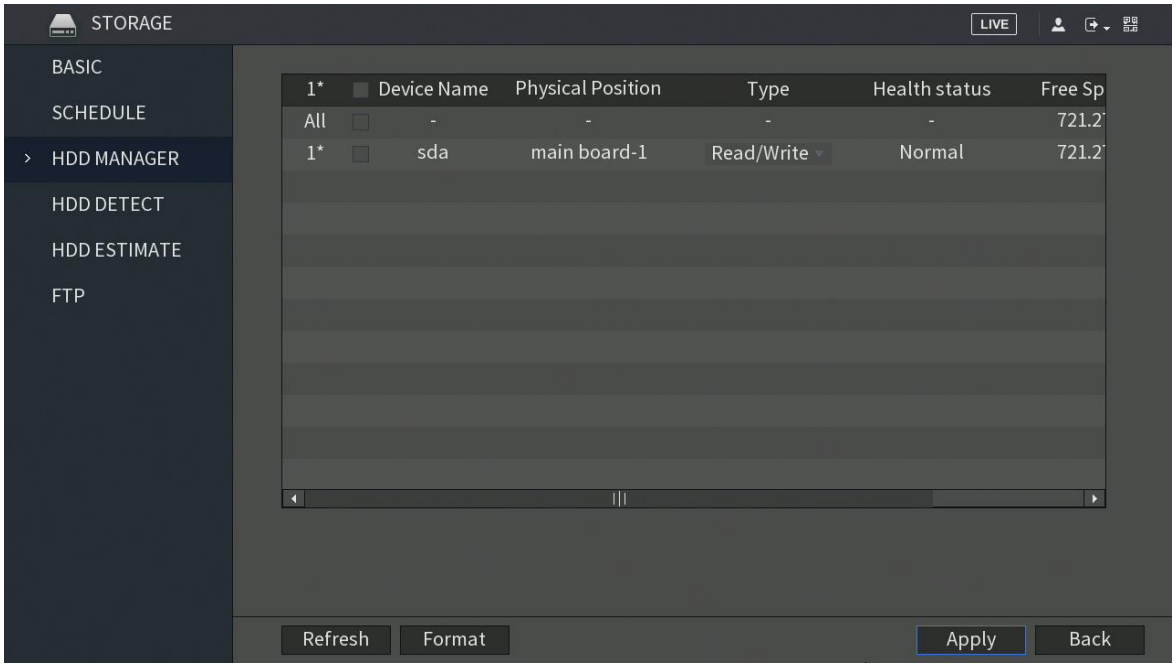
If you choose to set periods via the set **Period** menu, enter in the time frame for the period you want and select the event checkbox you wish to apply. There are total of six periods. If you wish to copy these settings and apply them to multiple days, you can do so in the **Copy** menu. To apply all settings for each day, click on **All**. If you wish to apply these settings to activate on specific days, click on the day you wish to choose from this menu. When you are finished, click **OK** to continue.



When you have finished applying your schedule settings, be sure to click **Apply** to apply the settings to your DVR. To revert to default settings in this menu, click on **Default**. If you wish to apply these settings to multiple channels on your DVR, click on the **Copy** button and select which channels you would like to be configured. To select all channels, click on the **All** button in this menu. To exit the schedule menu, click on **Back** button.

6.3.3. HDD Manager

This screen is meant to help the user monitor the DVR'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 Manage settings screen:



This menu shows what hard drives are currently connected to the DVR and displays information about them.

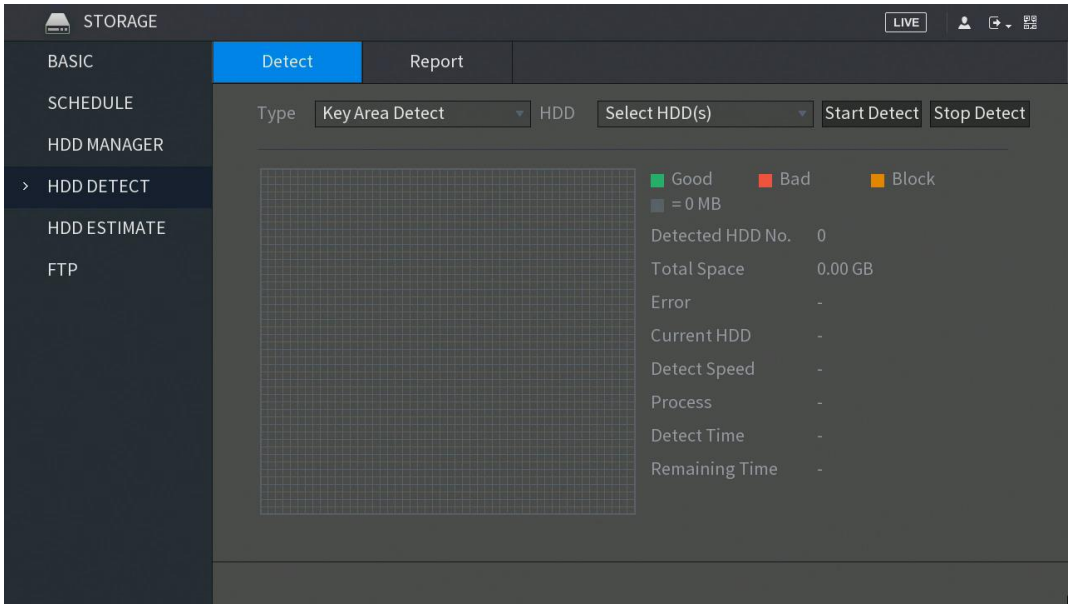
- **DVR Name:** This column shows the names of the connected hard disk drives (HDD).
- **Physical Position:** This column shows the location of the board in relation to its connection.
- **Type:** This column shows the type of access the DVR has to the hard drive. To change a hard drive's type, click the downward arrow next to the HDD's hard drive's type and select the desired type from this field. There are currently two types of possible settings.
  - **Read/Write:** This allows the DVR to both read and write data on the HDD.
  - **Read-Only**: This allows the DVR to only read data that is on the HDD.
- **Health Status:** This column shows the status of the connected hard drive. There are three types of statuses associated with this DVR:
  - **Normal**: This means the hard drive is operating normally.
  - **Error:** This means the DVR is experiencing an error when attempting to access the hard drive
  - **Disconnected**: This means that the HDD has disconnected from the DVR.

Free Space/Total Space: This field shows the free space available on the hard drive compared to its total capacity.

To refresh the hard drive list, click **Refresh** near the bottom left hand corner. To format a hard drive, select a hard drive to format from the list, and then click **Format** near the bottom left hand corner. To confirm settings, click the **Apply** button near the bottom right hand corner. To cancel any modifications, click the **Back** button near the bottom right hand corner.

6.3.4. HDD Detect

This menu allows the user to detect the current status of an installed hard drive. This is useful in detecting the performance of your hard drive as well as if it needs to be replaced or is defective. Below is a screen shot of the HDD Detect menu:

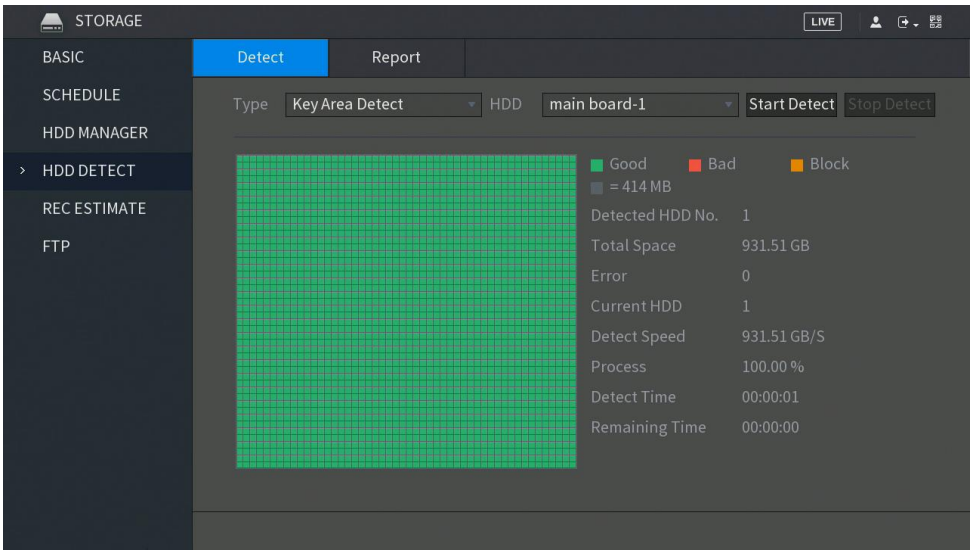


The system allows you to detect a hard drive on your system via two types of settings:

- **Key Area Detect:** Which scans files saved in the HDD. The detected bad files can be repaired by formatting the HDD. If there are no files present in the HDD, the system will not detect any bad files associated with your system.
- **Global Detect**: Which scans the entire HDD for errors. This option may take longer and may affect any recordings that are being applied to the system during operation.

To begin the process, in the **Detect** tab, click on the **Type** of detect you would like to perform and then in the **HDD** drop down menu, select the HDD DVR you would like to scan. When selected, click on the **Start Detect** button to begin scanning the HDD for errors.

Note: HDD detection may result in record file loss. If you would like to proceed, click **OK**. To cancel, press **Cancel.** When the process has completed, you will see the results of the scan on the screen. All good information will be listed in green, the bad will be in red and any blocked data will be shown in orange.

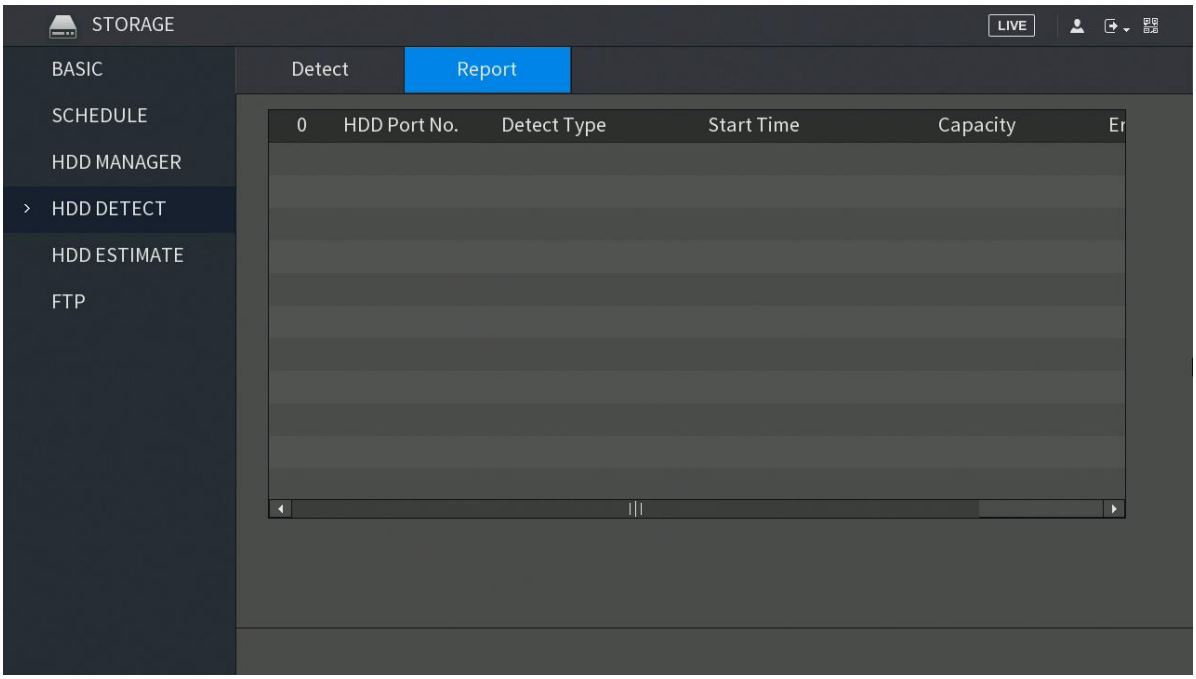


Report

The report tab in the HDD Detect menu allows the user to view a detailed report of the scan that was previously executed in the detection menu.

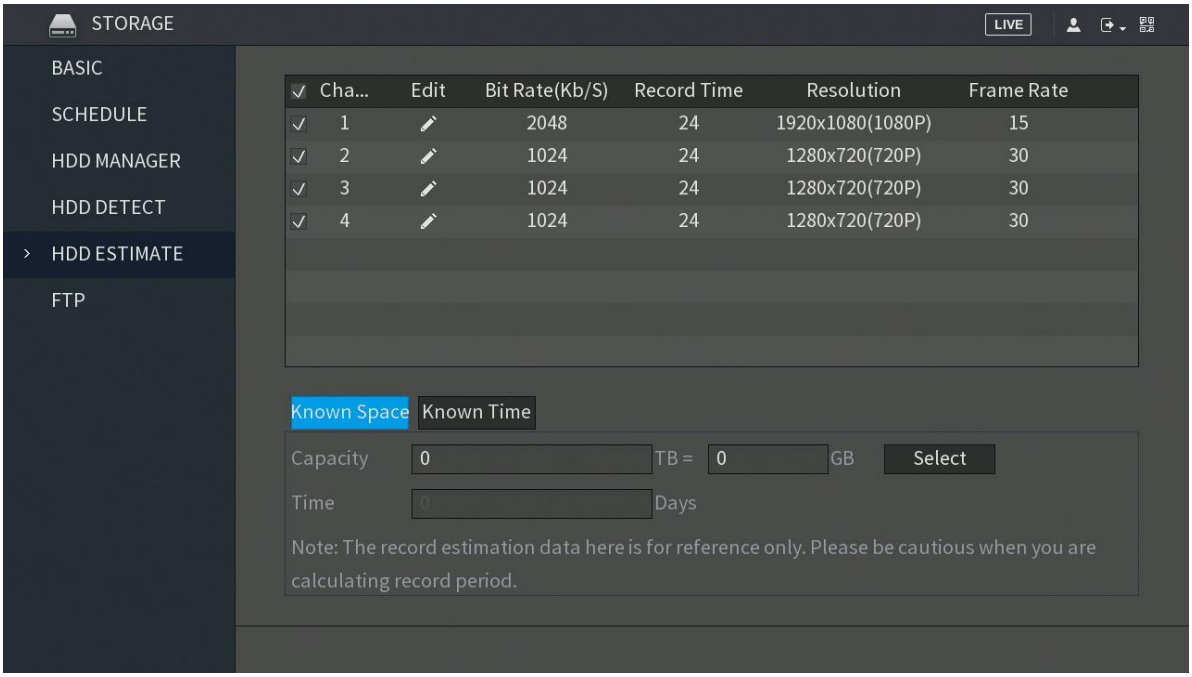
The **Report** tab will show the **HDD Port No.** that was being scanned, the **Detect Type** that was used for the scan, the **Start Time** of the scan, the **Capacity** of the hard drive, any **Error** present, and the physical report can be accessed in the **View** field. To view the report, click on the  icon in this field. When the report is accessed you will notice two tabs:

- **Detect Results:** Which shows a basic overview of the scan.
- **S.M.A.R.T.** (Self-Monitoring-Analysis and Reporting Technology): Which shows more details of the scan.

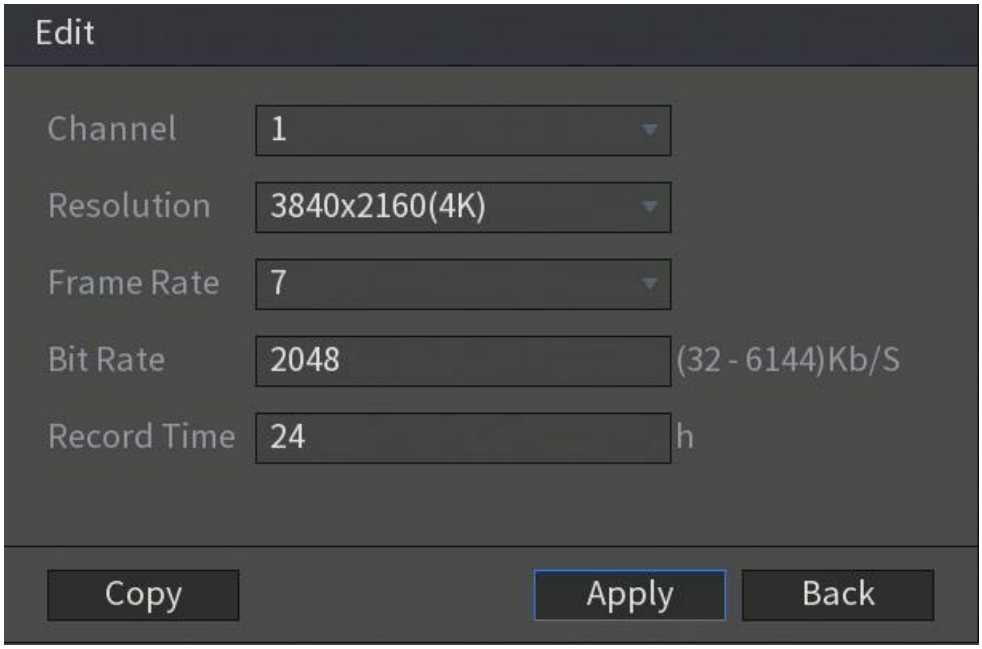


6.3.5. HDD Estimate

The record estimate menu allows the user to calculate how long you can record video for on the HDD according to its capacity. This calculation can also be relevant to a known time of a recording period.



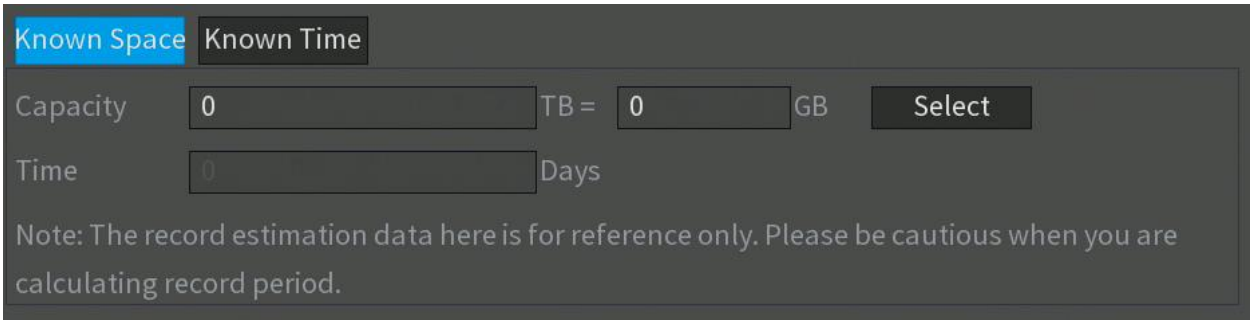
To edit a specific channel's settings in this menu, click on the  icon listed in the **Edit** field. You will be taken to an edit interface.



In this menu you can edit the resolution, frame rate, bit rate and record time, in hours, for the specific channel in the calculation. To copy these settings to other channels in the system, click on the **Copy** button to select the channels. When finished, click **OK**. To apply the settings, click on **Apply.** To exit the edit menu, click on the **Back** button.

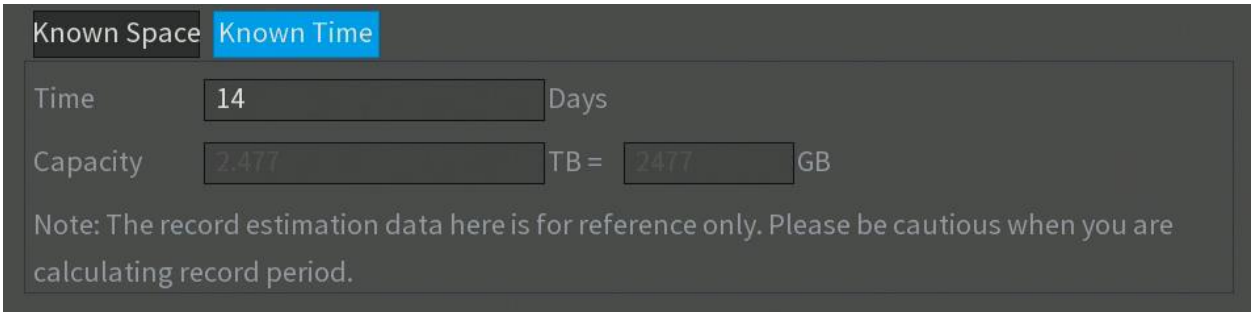
Calculating Recording Time

Calculating recording time in the **REC ESTIMATE** can be done through either a **Known Space** on the DVR or via a **Known Time**.



To begin, click on the **Select** button and set the hard drive you would like to calculate. To set the hard drive, select the HDD from the menu, and click on **Apply.** In the **Capacity** field, enter the capacity, in TB, you would like to calculate. The approximate amount of time for the applied settings will be displayed in the **Time** field. This will be the amount of time you will have to record on with this capacity of hard drive.

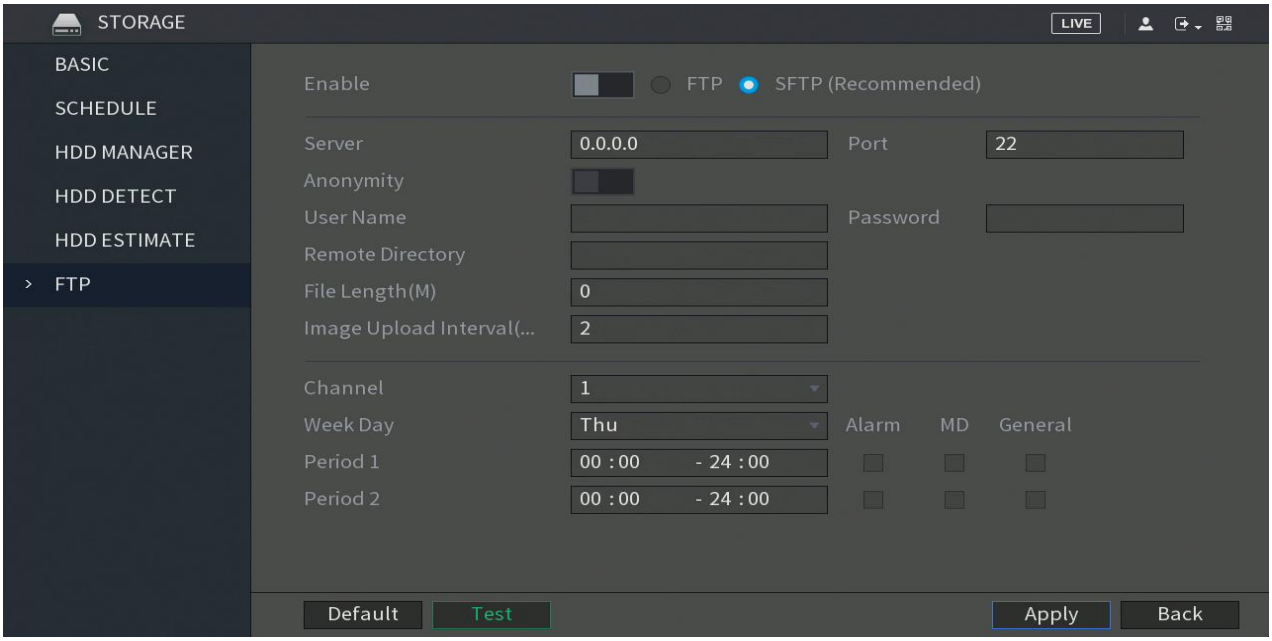
Similarly, you can make calculations based on a known time. Click on the **Known Time** tab, and then enter the amount of time you would like to record for in the **Time** field. The time field will be calculated by days. Once you enter the desired time, the capacity calculate, in TBs, will be displayed in the **Capacity** field.



6.3.6. 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 DVR.

Once an FTP tool has been acquired, installed, and configured to allow read, write, append, and delete access, then the DVR 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 toggle switch allows the user to enable the FTP feature for the DVR.
- **Host IP**: This field allows the user to enter the FTP server IP address and port.
- **User Name**: 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 DVR will upload files to.

- **File Length:** This field allows the user to dictate how large upload files can be.
- **Image Upload Interval**: This field allows the user to define, in seconds, how often images can be uploaded to the FTP server.
- **Channel:** This field allows the user to pick a channel to set FTP settings for.
- **Weekday**: 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).

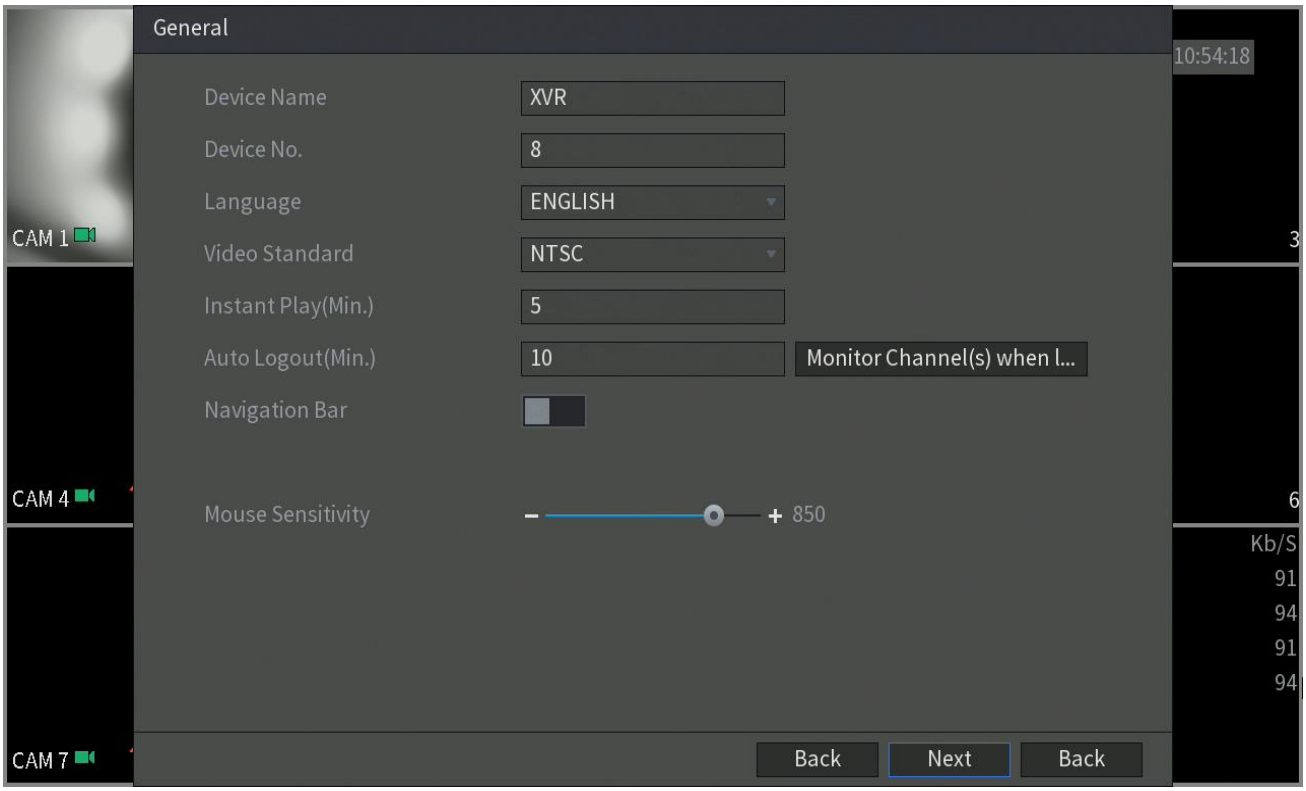
To revert to default settings, click the **Default** button near the bottom left hand corner. To test the current settings, click **Test** near the bottom left hand corner. To confirm settings, click the **Apply** button near the bottom right hand corner. To cancel any modifications, click the **Back** button near the bottom right hand corner.

6.4. System

The systems menu allows you to access general information on your DVR as well as, view system security settings, maintenance, import/export functions, default settings, and upgrades.

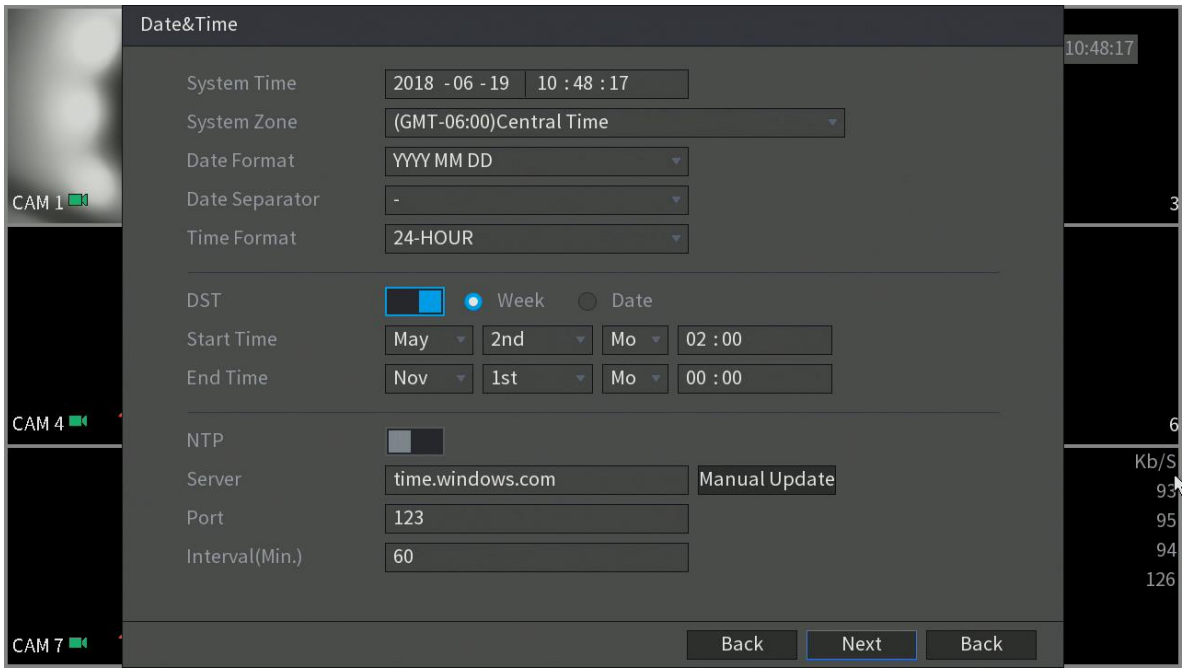
6.4.1. General

This menu allows you to set the name for your DVR as well as provides several general options associated with your DVR.



Date&Time

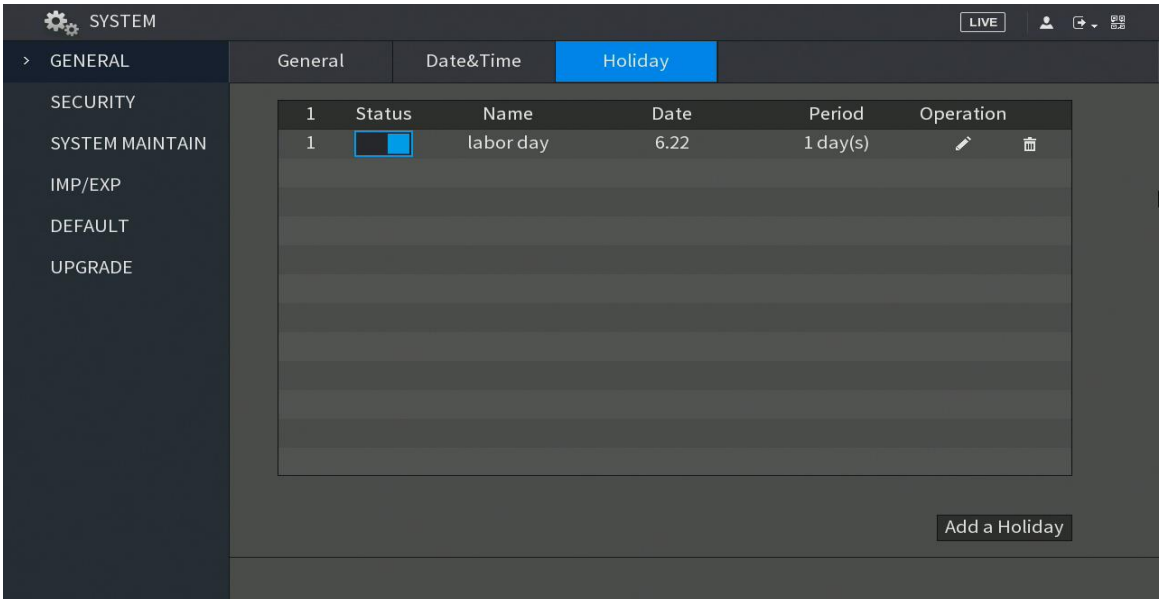
The next screen that appears will be the Date & Time settings screen. This is where you can set the date and time for your specific location. If you wish to utilize daylight savings time, toggle the DST toggle switch to the on position. Once you have selected the proper date and time for your DVR, click the **Next** button to continue.



Note: Make sure to toggle the NTP toggle switch to the off position to avoid syncing your DVR to the NTP server.

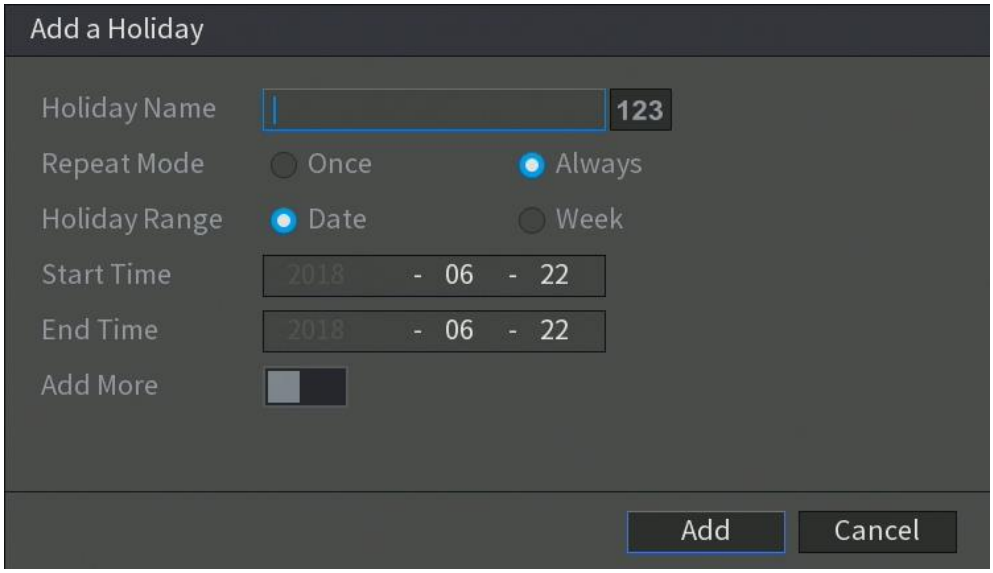
Holiday

This screen displays the holiday settings for the DVR. Below is a screenshot of the Holiday settings screen:



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

- **1:** 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 toggle switch indicates the status of the holiday.
- **Name:** This column is where the name of the holiday is displayed.
- **Date:** This column shows the date that the holiday occurs on.
- **Period:** This column shows the range in which the holiday occurs.
- **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 New Holidays:** This button allows the user to add a holiday. Below is screenshot of the Add New Holidays screen.



To add a new holiday to this screen, enter the details of the holiday and press the **Add** button. If you do not wish to add a new holiday in the system, click the **Cancel** button.

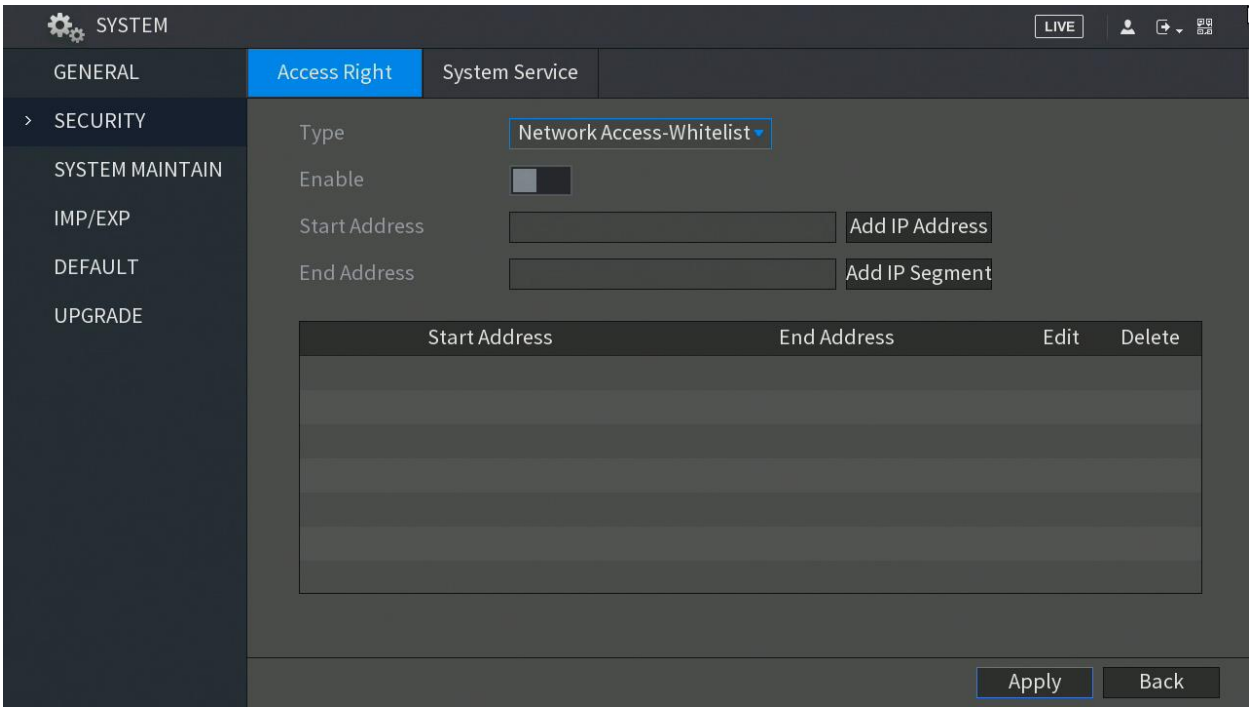
6.4.2. Security

This menu allows the user to modify basic security settings within the DVR. In this menu you can configure access permissions from host IPs and set password reset guidelines.

Access Right

This tab allows the user to configure access permission from host IPs. These types of modifications can include three of the following types:

- White list includes the host IP that are permitted to access the DVR.
- Back list includes the host IP that are not permitted to access the DVR.
- Update time white list includes the host IP that are permitted to sync the DVR time.



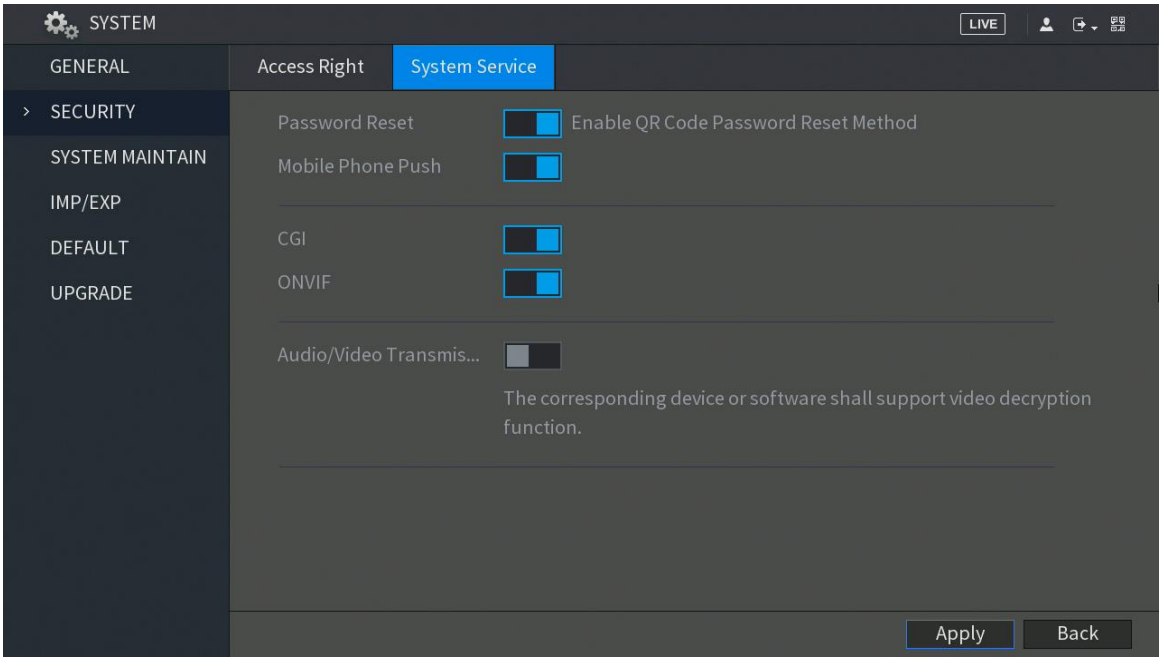
For more information on the settings provided in this menu, refer to the table listed below:

Parameter	Description
Type	In the Type list, you can select Limits of network-whitelist, Limits of network-blacklist, or Update time-whitelist.
Enable	Enable the security settings.
Start Address	Enter a single IP address or a start IP address of a network segment.
Add IP Address	Click **Add IP Address** to add a single IP address.
End Address	Enter the end IP address of a network segment.
Add IP Segment	Click **Add IP Segment** to add the IP addresses from the start IP through the end IP. **Note:** The system supports up to 64 IP addresses.

When you have completed the access right settings for this menu, click on the **Apply** button to apply the settings to your DVR. To cancel, click on the **Back** button.

System Service

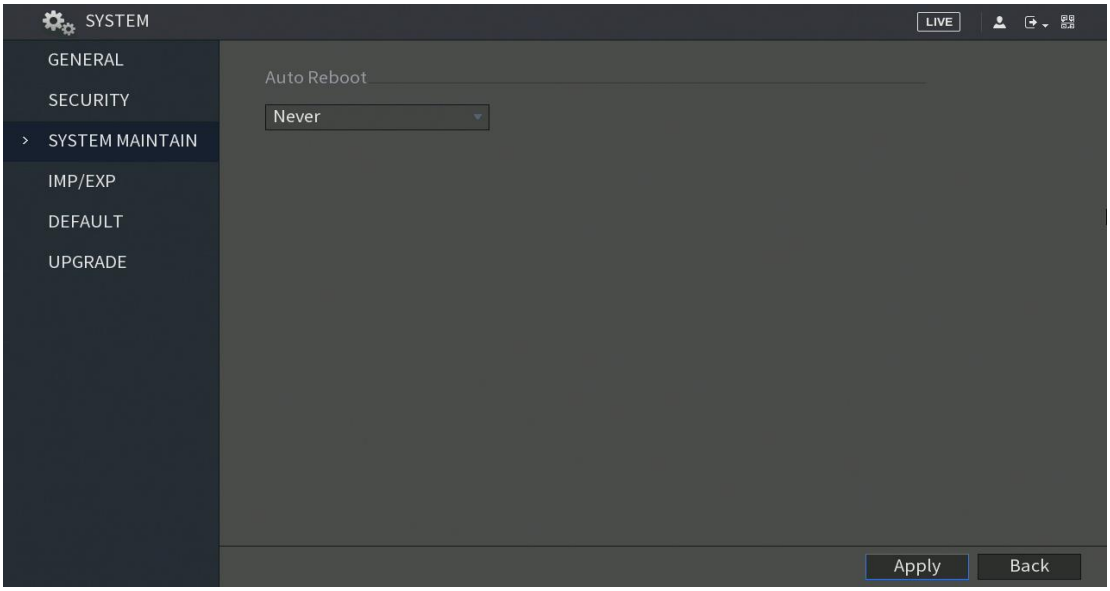
This tab allows the user to enable or disable the additional password reset functions in the system.



Note: If you clear the **Enable** toggle switch, you can only use the security questions to reset the password for your DVR. Make sure you have set the security questions first before clearing the toggle switch.

6.4.3. System Maintain

This screen is used to configure system maintenance settings for the DVR. Below is a screenshot of the System Maintain settings screen:



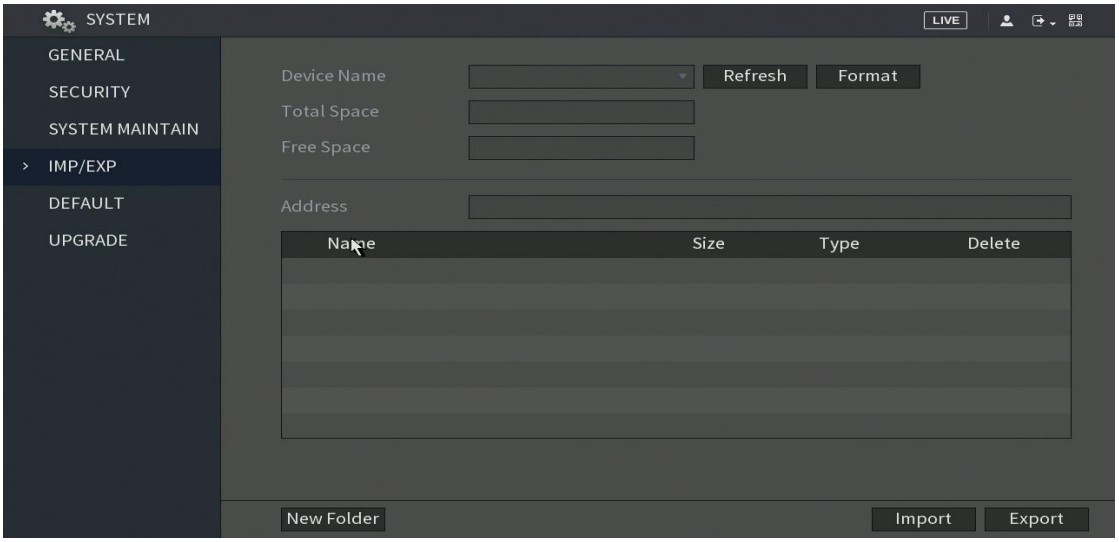
Below is an explanation of the fields on the Auto Maintain settings screen:

- **Auto Reboot**: This dropdown field allows the user to set a day of the week and time to automatically reboot the system to keep the system healthy.
  Note: Not all models will support this function. It is only supported on local configurations.

  To confirm settings, click the **Apply** button near the bottom right hand corner. To cancel any modifications, click the **Back** button near the bottom right hand corner.

6.4.4. IMP/EXP

This screen is used to manage importing and exporting of system configurations. This feature can be used to clone the settings from one DVR to another. Below is a screenshot of the IMP/EXP settings screen:

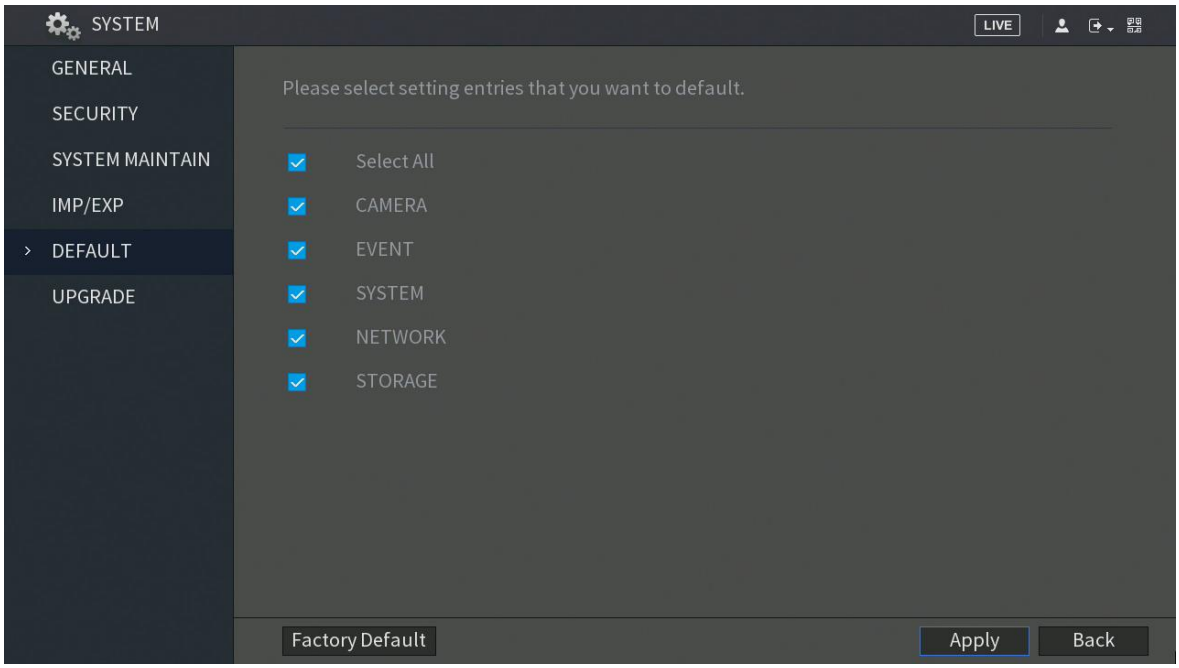


Below is an explanation of the fields on the Config Backup settings screen:

- DVR Name: This dropdown field allows the user to select a DVR to pull configuration data from.
- Refresh: This button refreshes the list of DVRs connected to the DVR.
- Total Space: This field displays the total storage capacity on the selected DVR.
- Free Space: This field displays the remaining storage capacity on the selected DVR.
- New Folder: This button allows the user to create a new folder on the selected DVR.
- Format: This button allows the user to format the selected DVR.
- Import: This button allows the user to import configuration data to the DVR.
- Export: This button allows the user to export current configuration data to another DVR.

6.4.5. Default

This screen is used to revert the DVR back to its default settings. This feature can be used to restore the DVR to its factory setup conditions. Below is a screenshot of the Default settings screen:



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

The following settings are also reset with a factory reset:

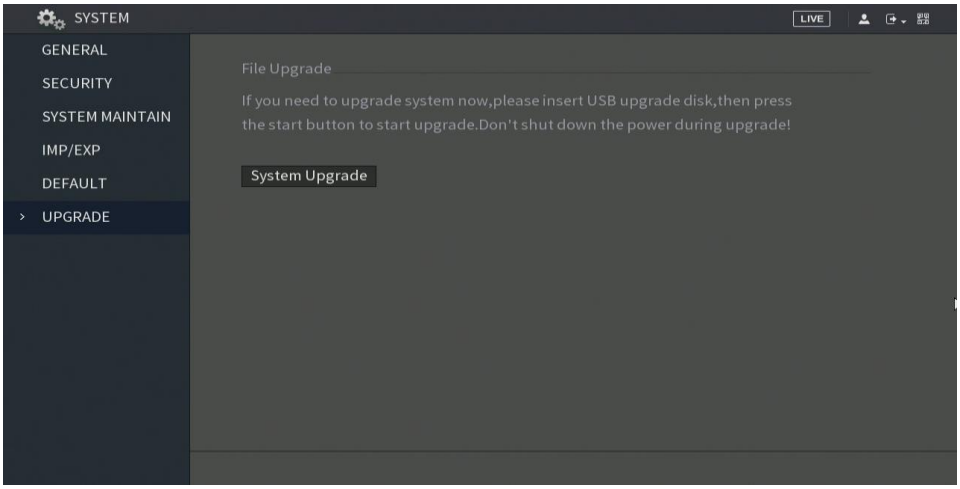
- System Menu Color
- Language
- Time Display Mode
- Video Format
- IP Address
- User Accounts

To begin the factory reset process, click on the **Factory Default** button. To confirm settings, click the **Apply** button near the bottom right hand corner. To cancel any modifications, click the **Back** button near the bottom right hand corner.

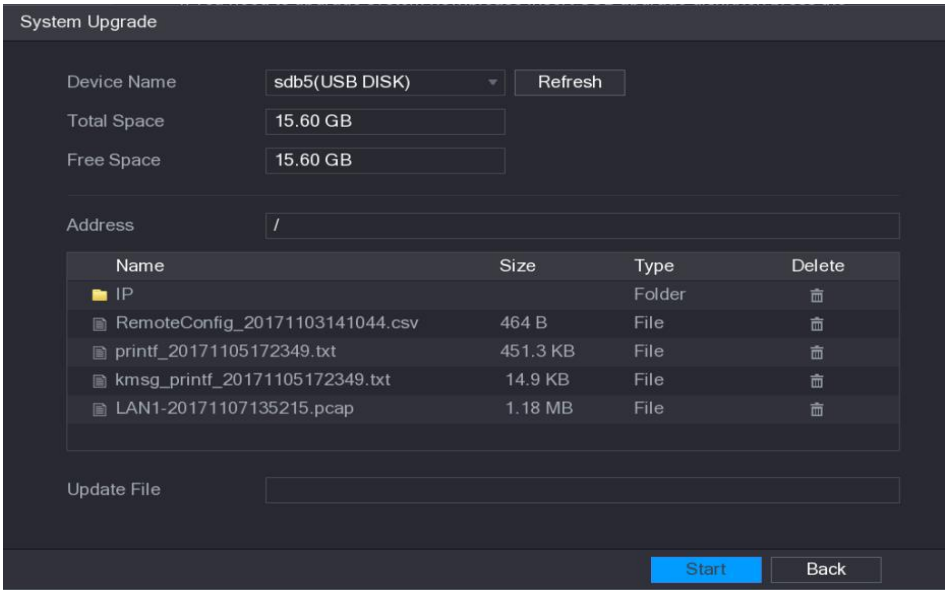
6.4.6. Upgrade

This screen is used to update the DVR's firmware to the latest version. To conduct a system update, it is required to put an update file onto a USB storage DVR and plug it into the DVR. Ensure the update file is named update.bin.

Below is a screenshot of the upgrade screen:



To begin, insert the USB storage DVR containing the firmware file into a USB on the DVR. Once inserted, navigate back to the upgrade menu and click on **UPGRADE.** The system upgrade interface will appear.



From the file list, locate the correct firmware file and click on it to import the file into the **Update File** field. To initiate the upgrade process, click on the **Start** button.

6.5. Account

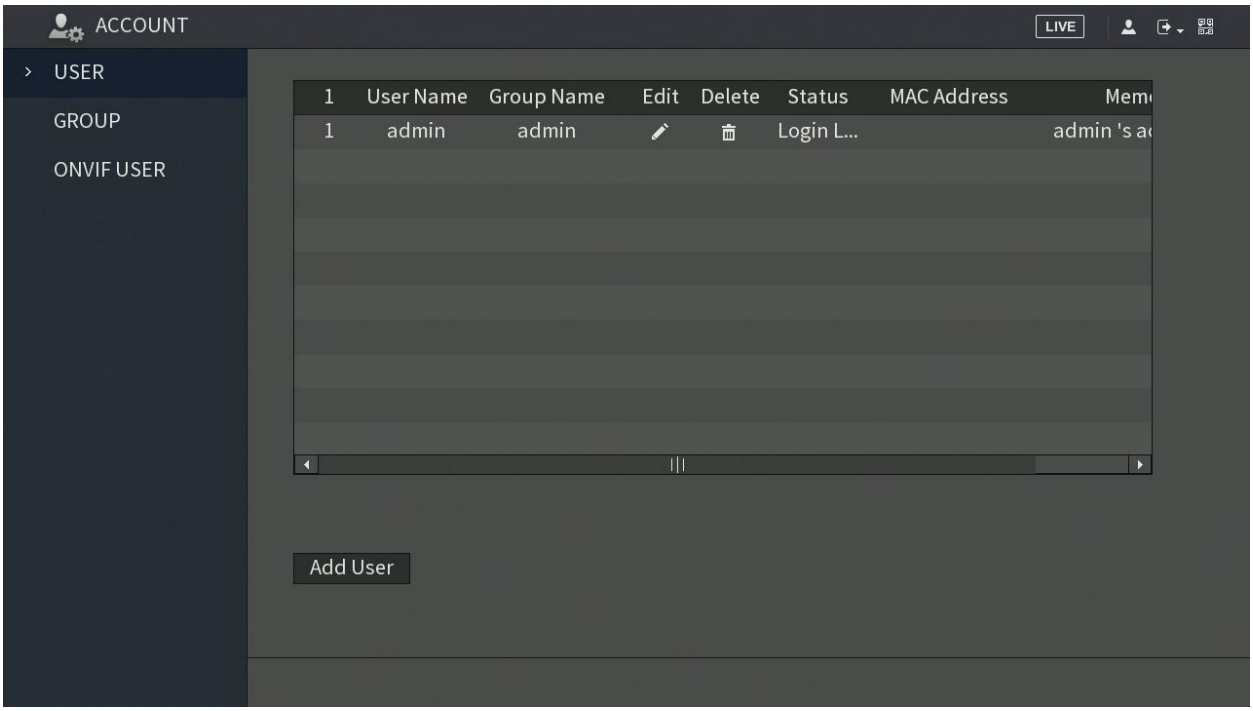
This menu is used to manage user accounts, user account passwords, and user groups. Below are a few considerations to keep in mind when editing this information.

- The DVR comes with a username 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 user name 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 DVR settings.
  Each user can belong to only one group, and user rights cannot exceed group rights.

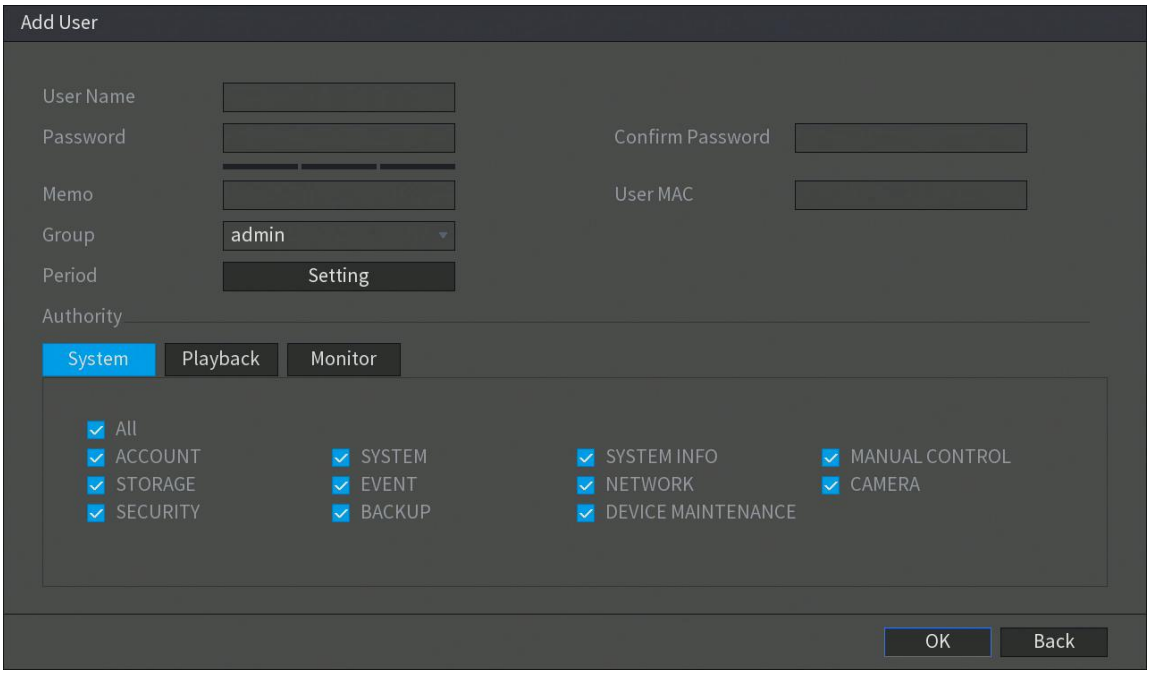
6.5.1. User

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 Account settings screen:

- **1**: This number indicates how many users are in the system. Each line item has a number to signify its place in the list.
- **User Name**: This column indicates an account's username.
- **Group Name**: This column shows which group the username belongs to.
- **Edit**: This column allows for the account's properties to be edited. Note: You will need the MAC address for your device to proceed with modifications. To access the MAC address go to **Network>>TCP/IP**.
- **Delete**: This column has a button that allows for the account's properties to be deleted.
- **Status:** This column shows the status of a selected account.
- **Add User**: This button allows the user to add another user account. Below is a screenshot of the Add User screen.



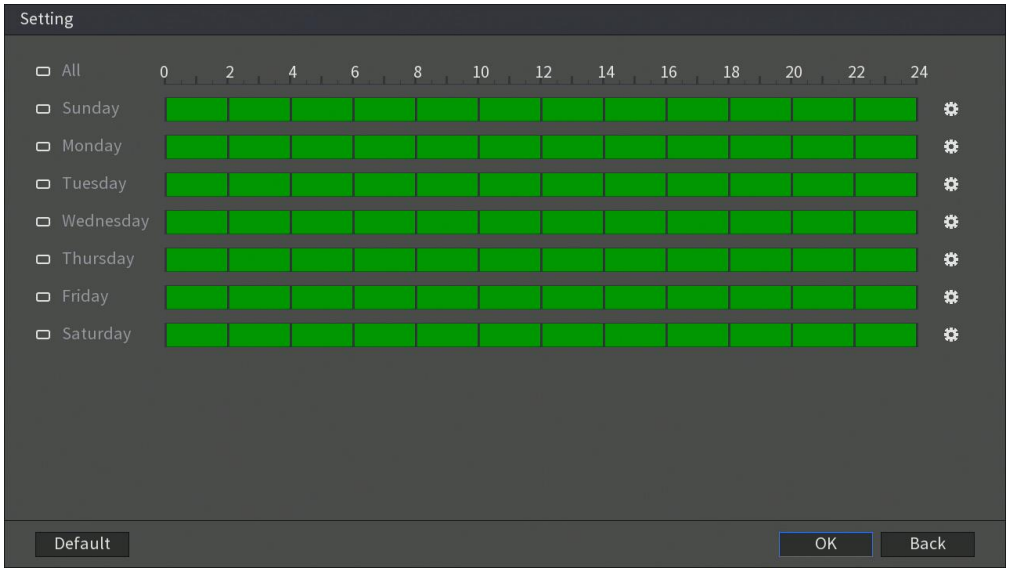
Note: It is recommended to give the general user fewer rights than an administrative one.

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 DVR. If left blank, the user can logon from any MAC address.

There is a total of 98 rights that can be assigned to a user.

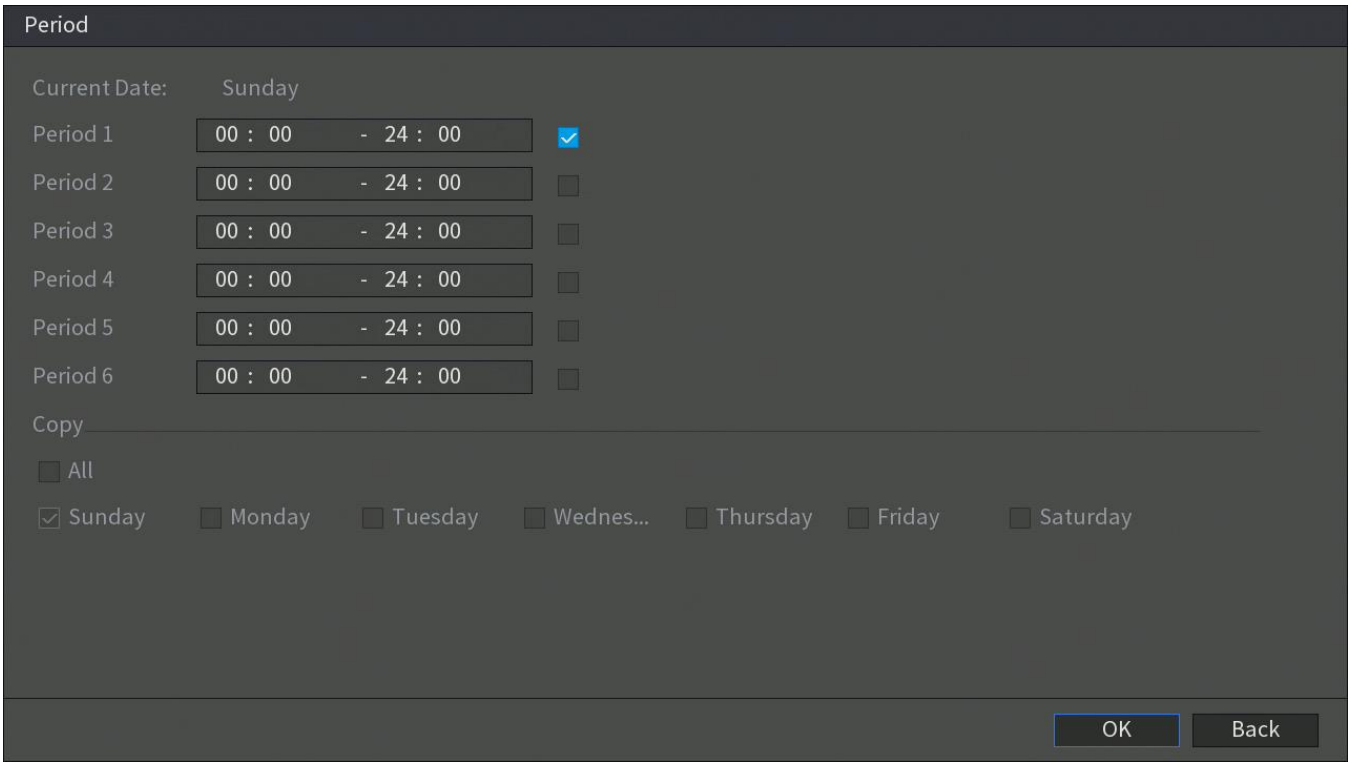
Settings Permitted Periods

This section is used to permit users to use certain period settings within the system. This feature can be accessed in the **Add User** menu of the **User** interface by click on the **Setting** button in the period field.



By default, it is it is active to record 24/7. You can define the period, or schedule.

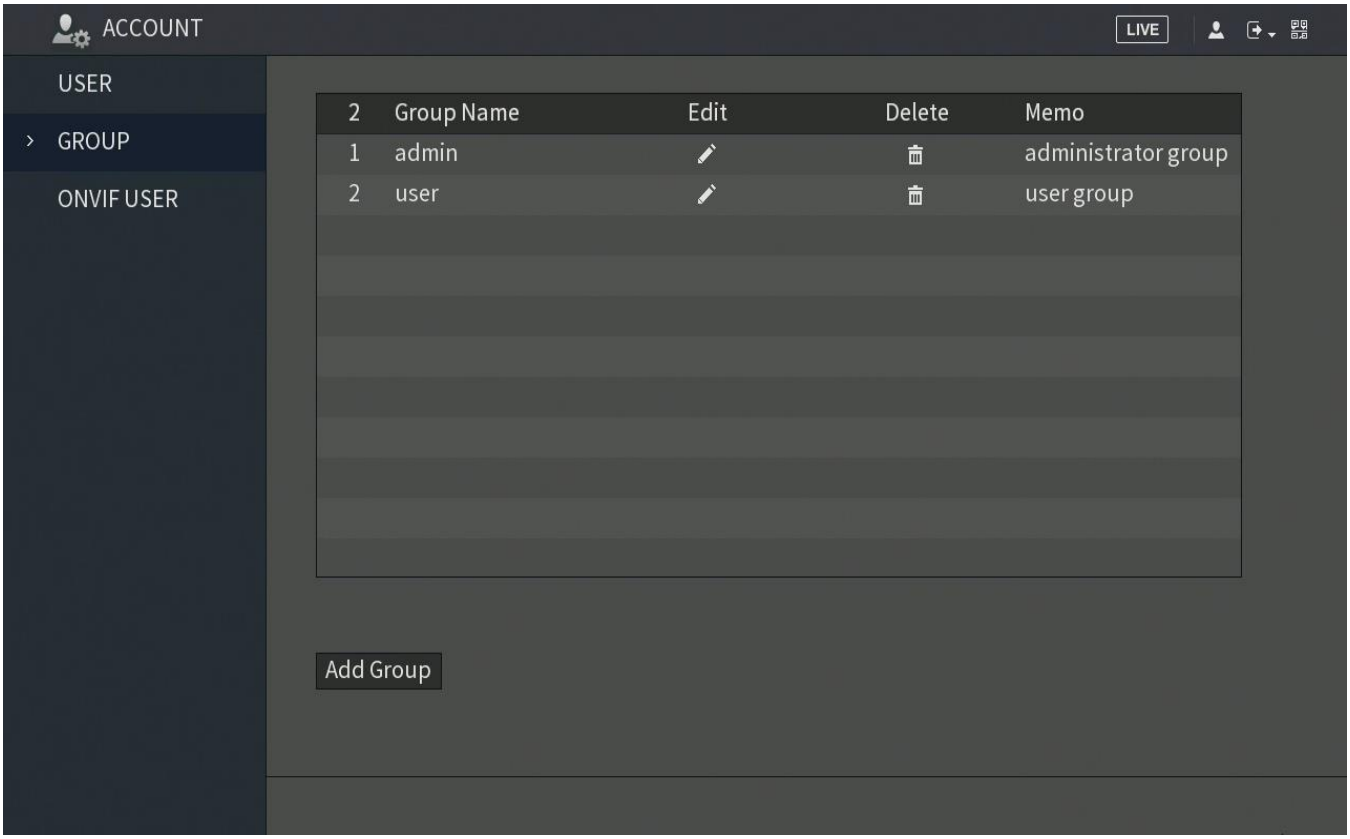
- Define a period for a specified day of the week by clicking the half-hour clocks you wish to enable.
- Define several days of the week by clicking the icon before each day. The icon selected will then switch to the icon which indicates it is linked.
- Define for all days of the week by clicking on the icon located by the **All** option. Each day will then switch to the icon and all days of the week will be selected.
- Define the period by editing. In this example, we will use Sunday. Click the icon to access the **Period** interface.



In the period interface, enter the time frame you would like to set as your period and select the checkbox to enable the settings. There are a total of six periods that you can set for each day. Under the **Copy** menu, you can apply these settings to all days of the week by checking the **All** option or you can also select specific days as well. To save the settings in this menu, click **OK** to continue. For more information on setting periods, refer to section *6.3.2. Schedule*.

6.5.2. Group

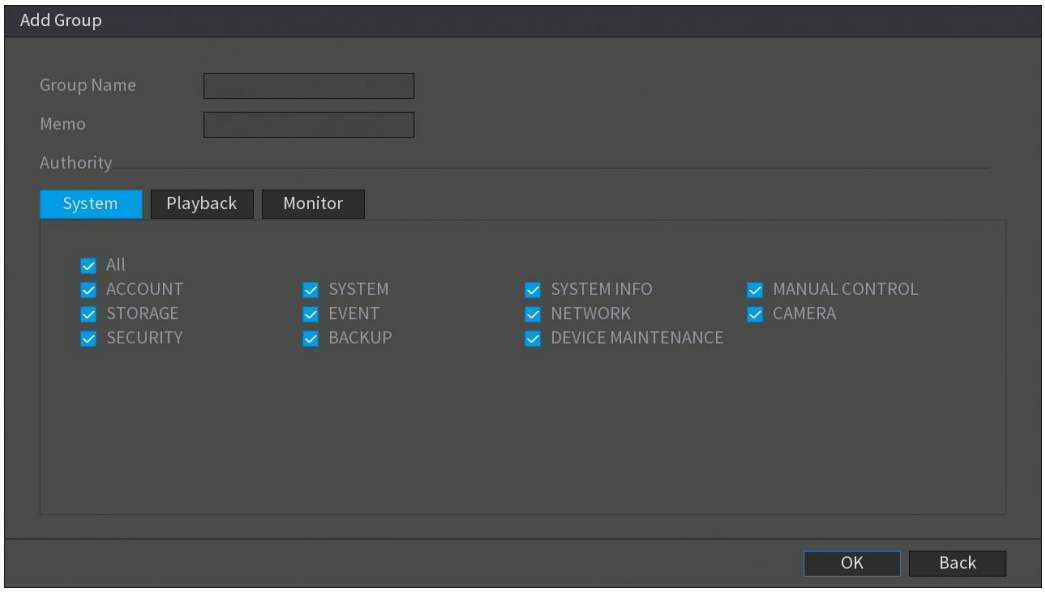
This screen is used to configure Group Account settings. Below is a screenshot of the Group Account settings screen:



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.



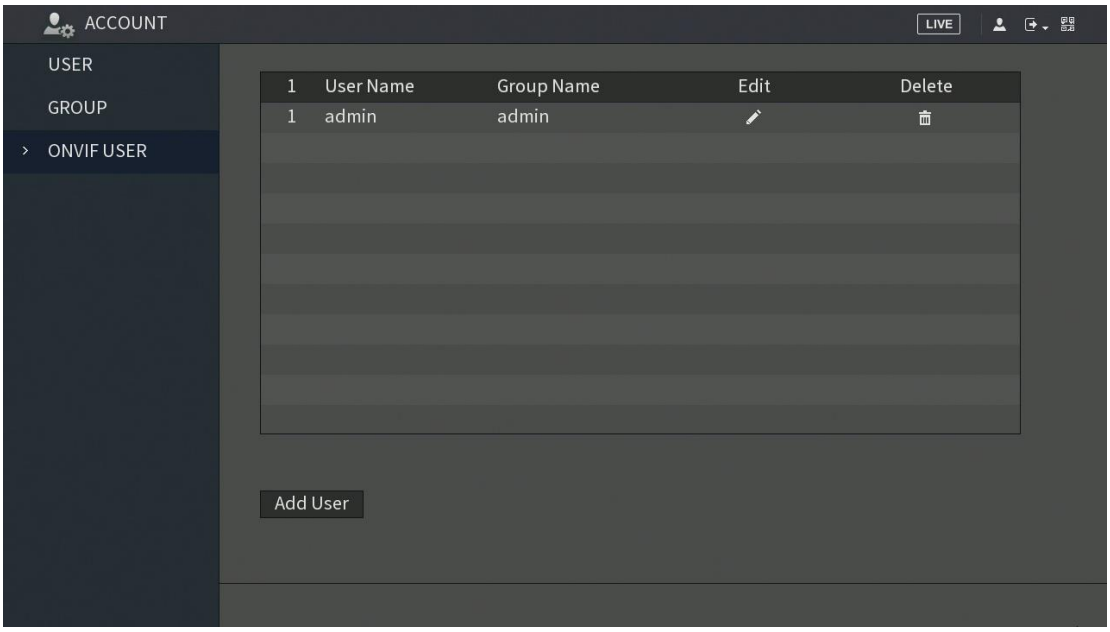
Note:

- 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.

6.5.3. ONVIF User

The DVR manufactured by other companies can be connected to the DVR via an ONVIF protocol. This is viable through an authorized ONVIF account. This menu allows the user to create or edit ONVIF users associated with the system.

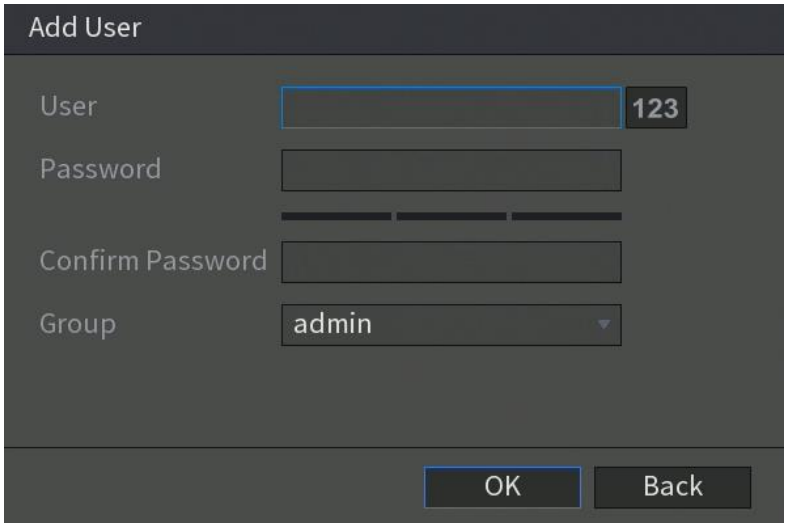
Note: The admin account is created for ONVIF users right after the DVR has been initialized.



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 User: This button allows the user to add another ONVIF user to the system. On the next page is a screenshot of the Add User screen.



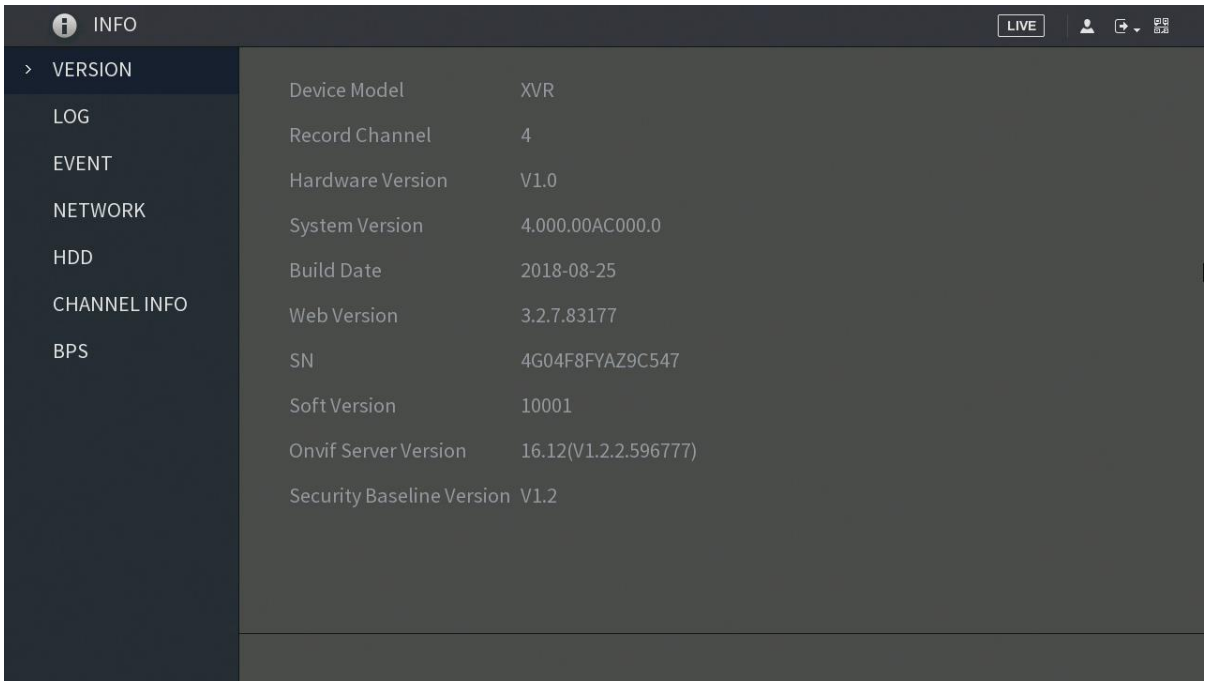
In the add user interface, enter the ONVIF user name and password into the system. Confirm the password and from the **Group** drop down menu, select which group you would like to associate this account with. There are three categories listed, admin, operator, and user. When you have finished the process, click **OK** to continue. The ONVIF username entered will then be implemented into the user list.

6.6. Info

This menu allows the user to access information related to their system. This information includes options such as, system version, log, event, network, HDD, channel info, and bps information.

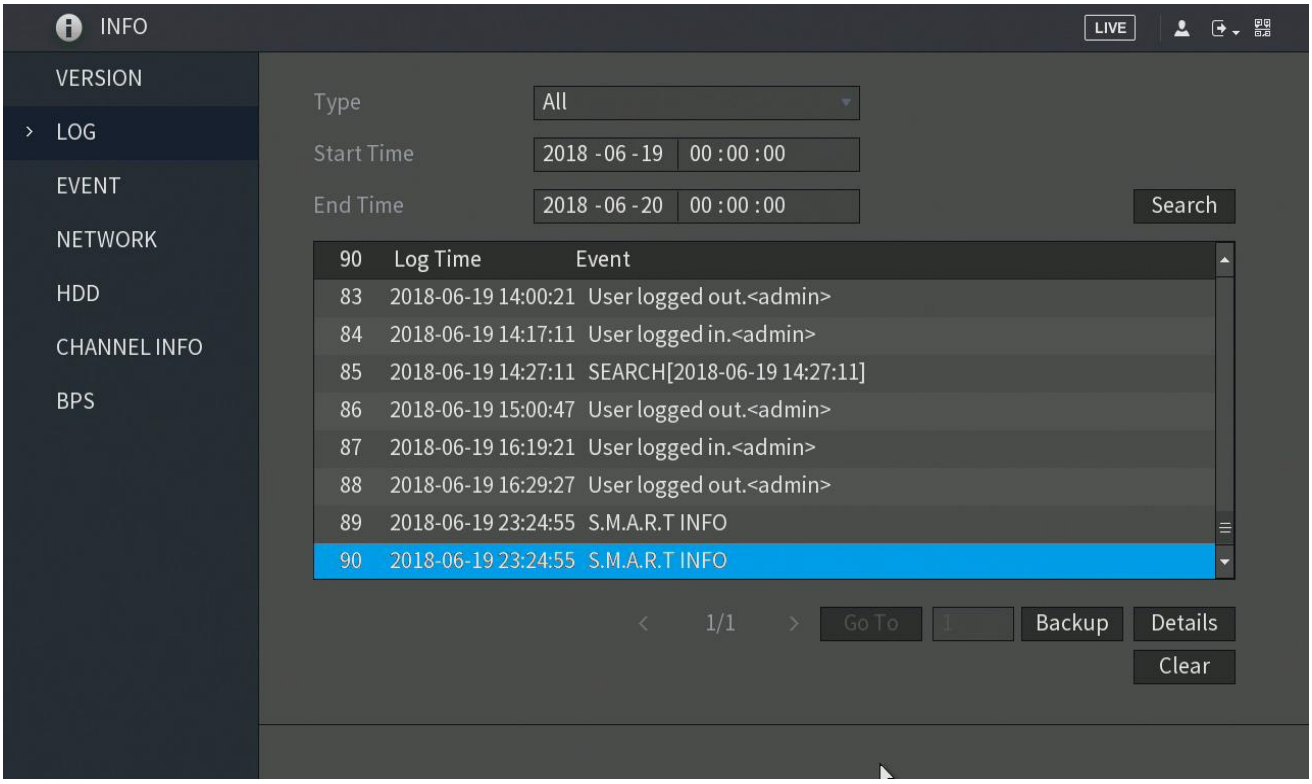
6.6.1. Version

This menu allows the user to access general DVR information. This includes the DVR model, system version, and build date. Below is a screen shot of the version menu.



6.6.2. Log

This screen is used to keep a log of all activity on the DVR. Below is a screenshot of the Log screen:



The system lists the following information:

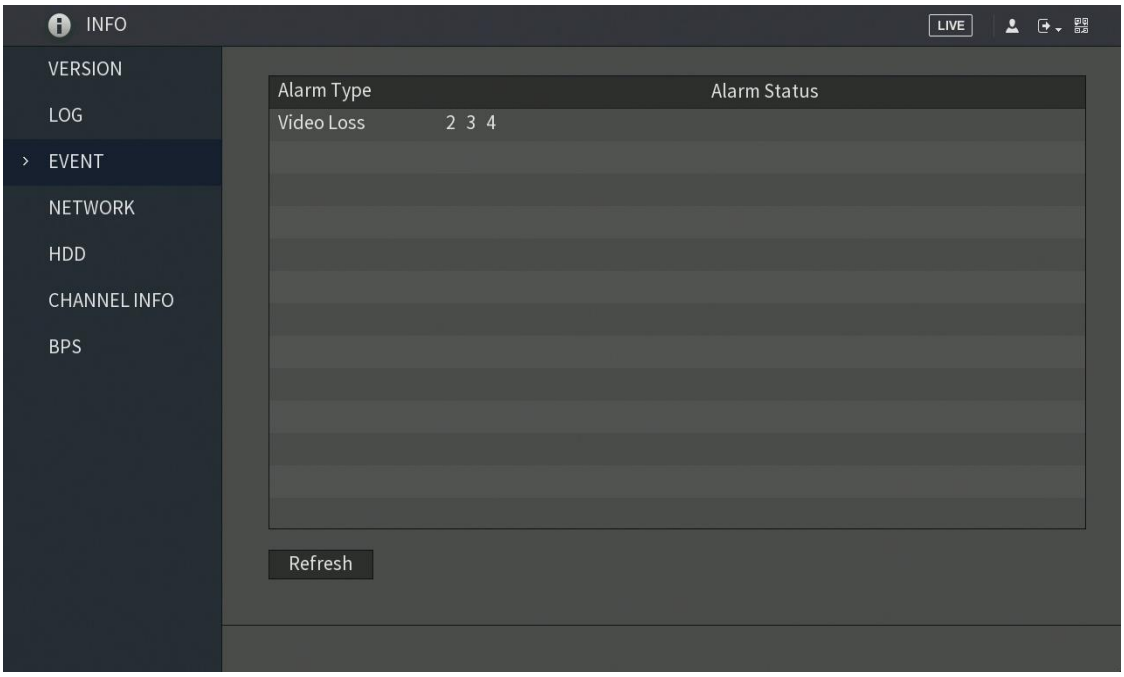
- System Operation
- Account Manager
- Configuration Operation
- Log Clear
- Data Management
- File Operation
- Alarm Events
- Reboot Type
- Record Operation
- S.M.A.R.T Info
- User Login/Logged Out
- Search

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

Parameter	Function
Type	This dropdown box allows the user to select which type of log they want to view. Log types include system operation, configuration operation, data operation, event operation, record operation, user management, and log clear.
Start time	This field allows the user to set the start time of the requested log.
End time	This field allows the user to set the end time of the requested log.
Search	You can select the log type from the drop-down list and then click search button to view the list. You can click the stop button to terminate the current search operation.
Details	Double click a line item to open a more detailed view of that log item or click the **Details** button.
Clear	This button deletes all log files that are currently displayed.
Backup	Click this button to backup log files to the PC.

6.6.3. Event

The event menu allows the user to access system related event information associated with specific channels in the system. These events include errors such as, video loss, motion detect, network disconnections, etc.

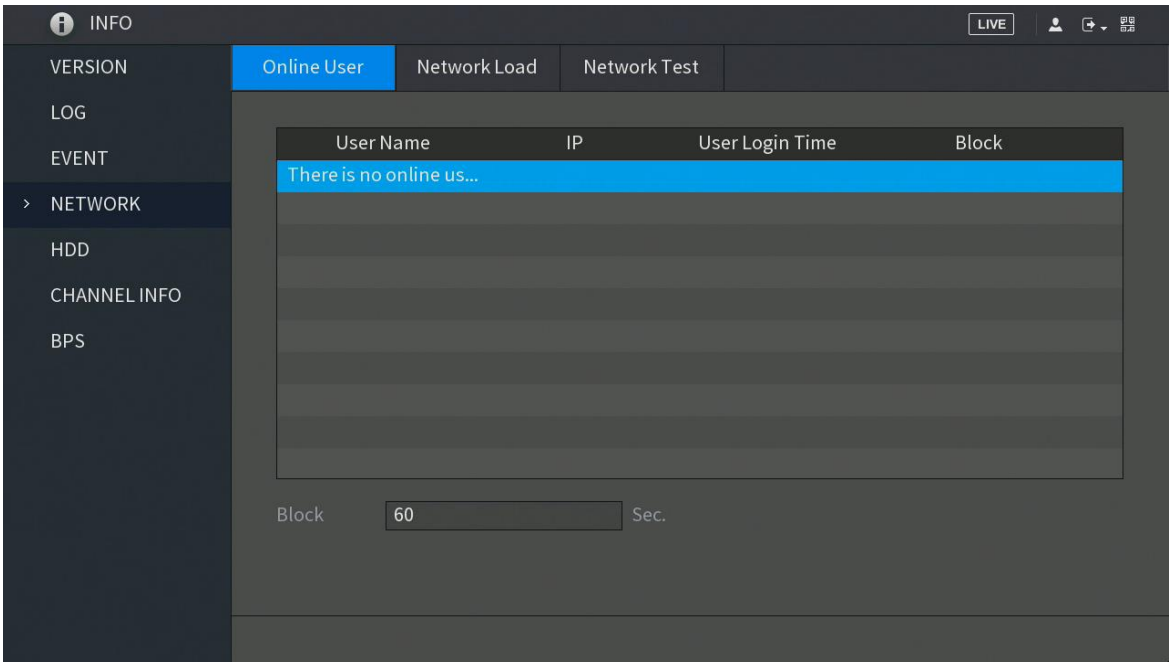


6.6.4. Network

The network menu allows users the ability to view online users, network data transmission (load) details, and test network connectivity.

Online User

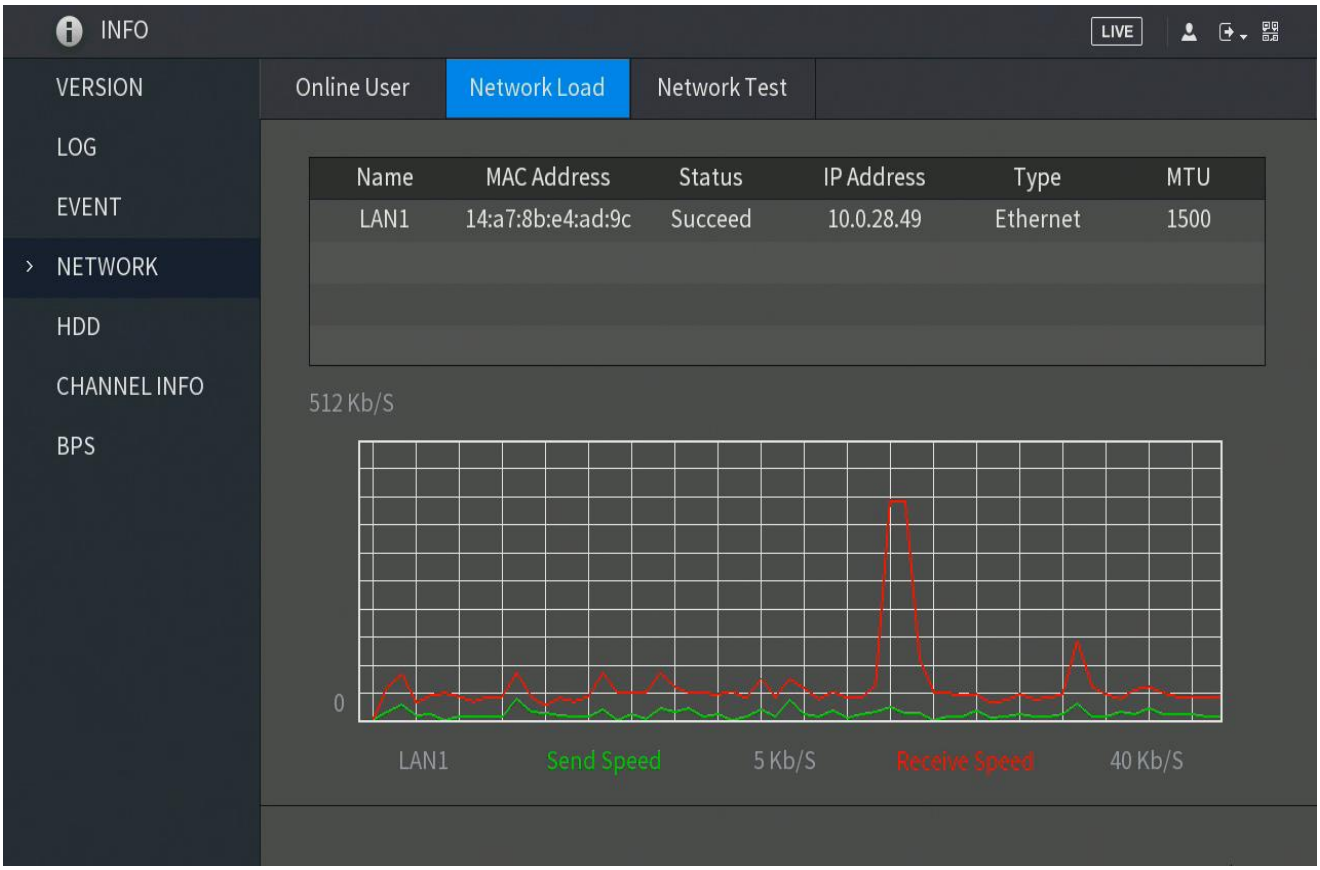
This tab allows the user to access and view online user's information associated with the system. You can also block any user off the system for a certain period of time.



To block an online user, click  and then enter the time that you want to block this user. The maximum value you can set is 65535.
The system detects every 5 seconds to check if there is any user added or deleted and update the user list timely.

Network Load

This tab allows the user to view and track network load and data transfer information associated with the system.

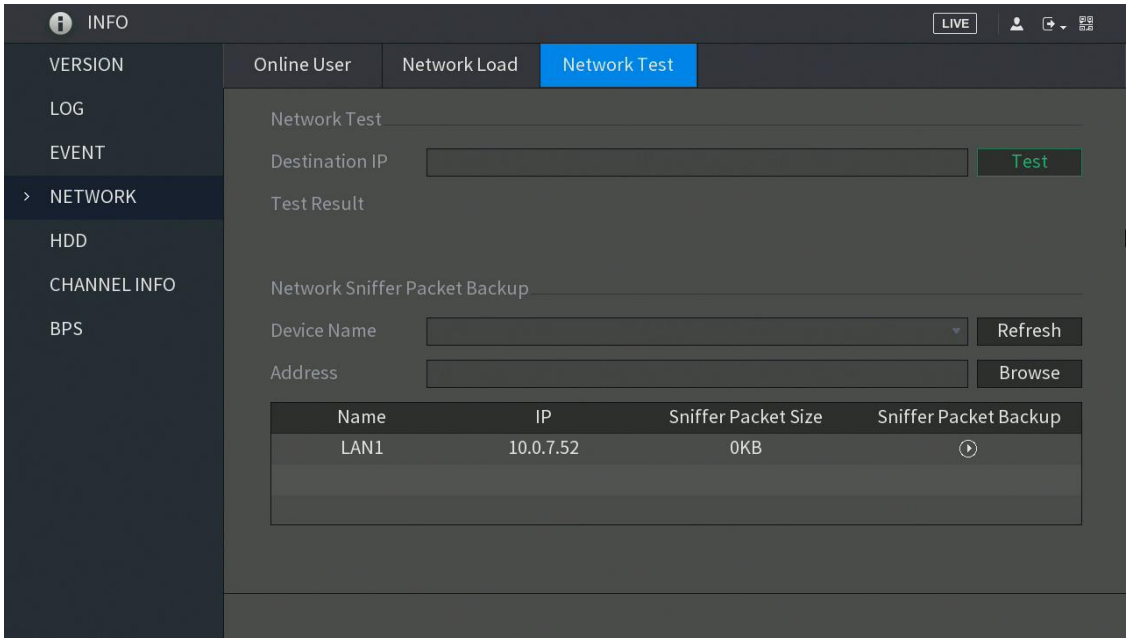


If there are multiple networks being viewed in this screen, click on the LAN name that you want to view. The system will display the data sending and receiving speed of that network.

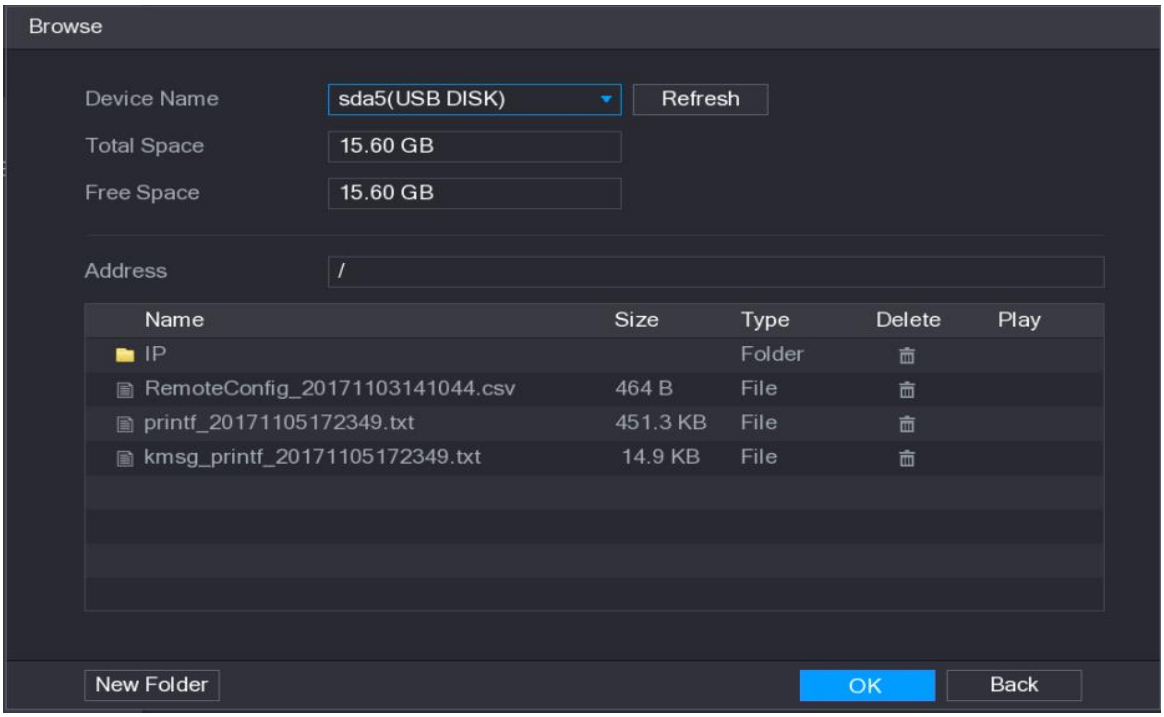
Note: The default display will always be LAN1 load. Only one LAN load can be displayed at one time.

Network Test

The network test tab allows the user to capture, resend, and edit network packets that are sent and received during network transmissions. If there is a network abnormality, the user can perform packet capturing and back up this information onto a USB storage device. This can be useful for detecting and analyzing network conditions in the system. Here is a screen shot of the network test screen:



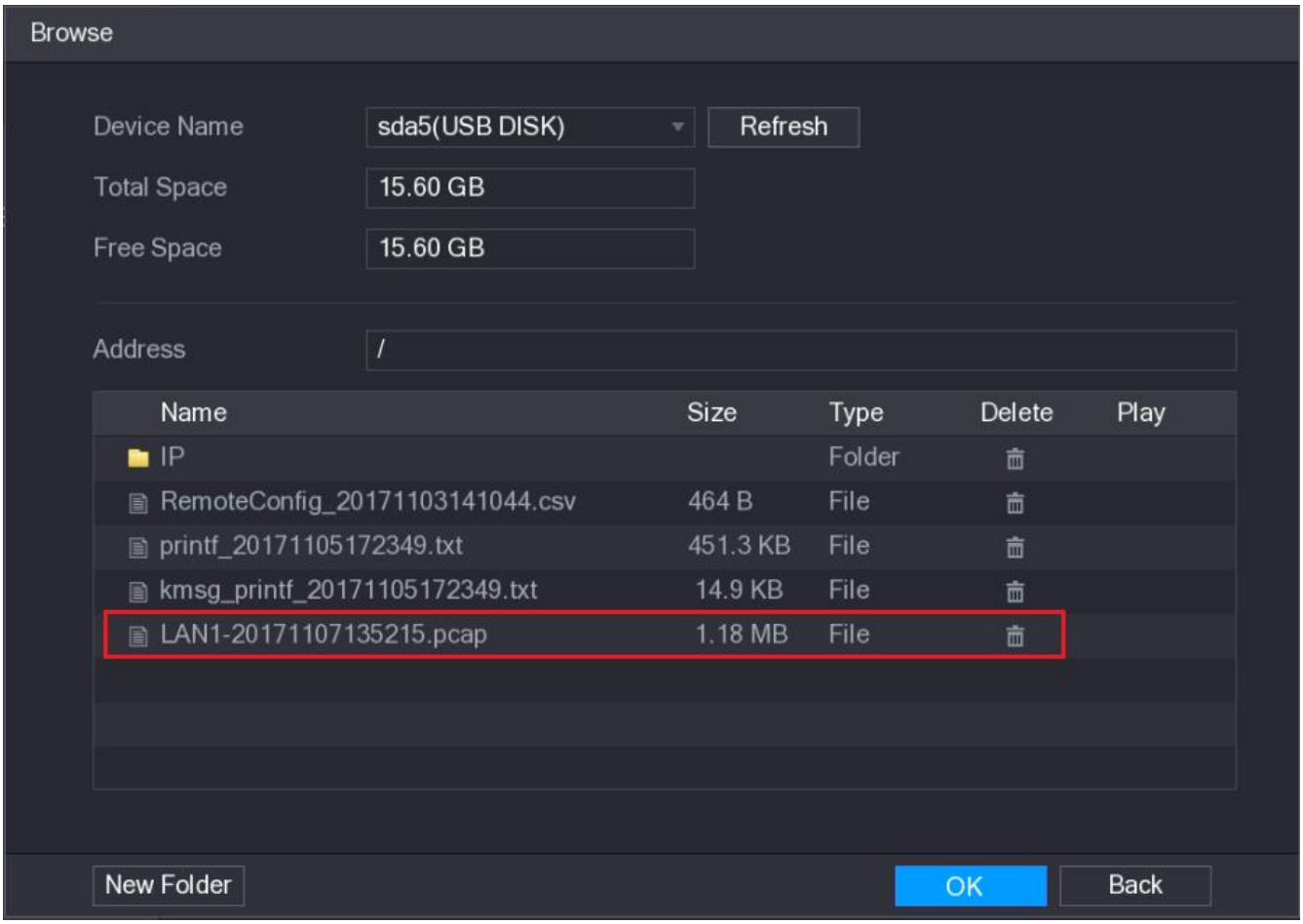
To perform the procedure, connect a USB storage device to the DVR and click **Fresh**. The DVR will begin detecting the USB storage device and display its name in the **Device Name** box. Choose the route of the data that you want to back up, then in the **Network Sniffer Packet Backup** menu, click **Browse**.



Note: If there are several USB storage devices connected to the DVR, you can select the device from the **Device Name** list. Click **Refresh** to display the total space, free space, and file list for the selected USB storage device. In

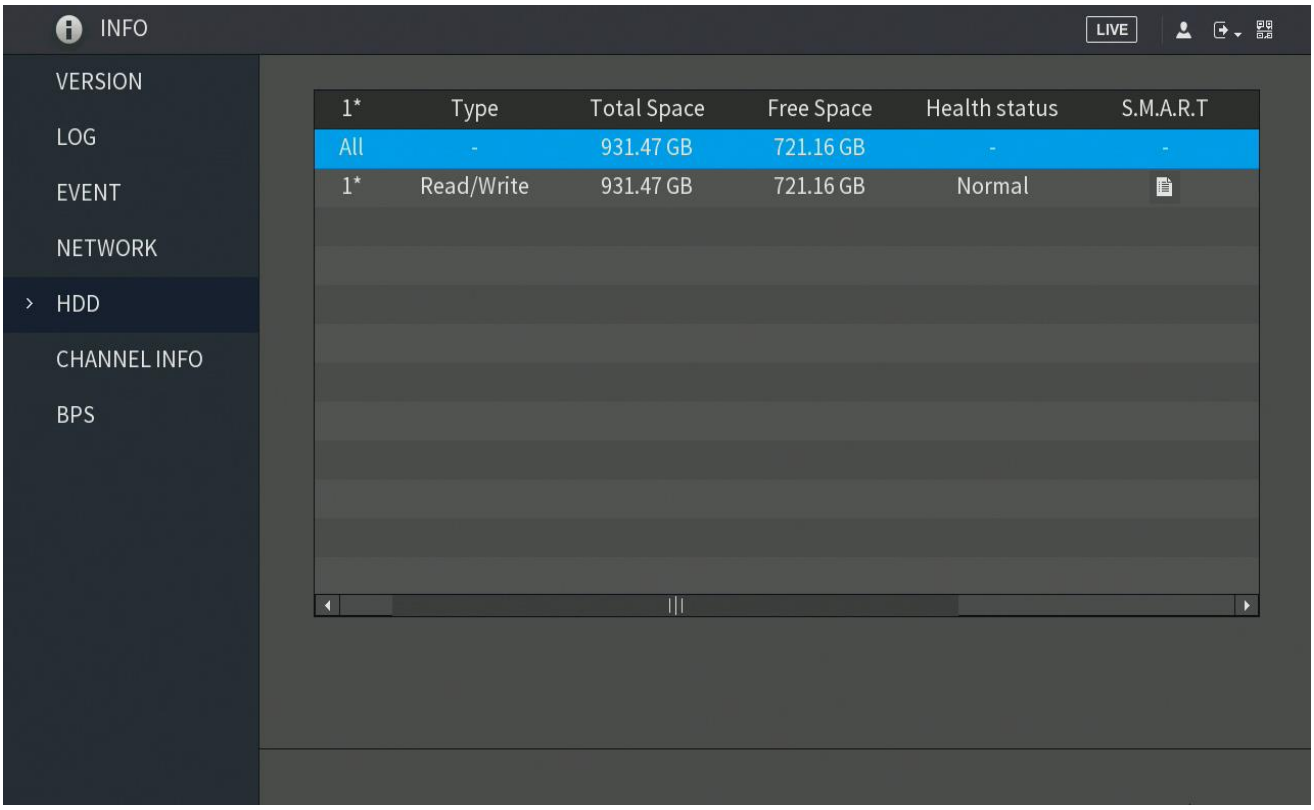
case of insufficient capacity, click the icon to delete unnecessary files. If you would like to create a new folder within the storage device, click the **New Folder** option. Click **Apply** to return to the to the network test interface.

In the **Network Test** menu type the IP address of the address you would like to test in the **Destination IP** box and click **Test**. The test will then be performed. To backup the test to the USB storage device, click the icon located in the **Sniffer Packet Backup** menu. If you would like to stop the process, click the to stop. The backup data is saved in the selected route under the naming style "LAN name-time.pcap." The information can be opened as well using Wire shark software.



HDD

The hard disk DVR (HDD) menu allows the user to view information such as, HDD quantity, HDD type, total space, free space, status, and S.M.A.R.T. information. Here is a screenshot of the HDD menu screen:

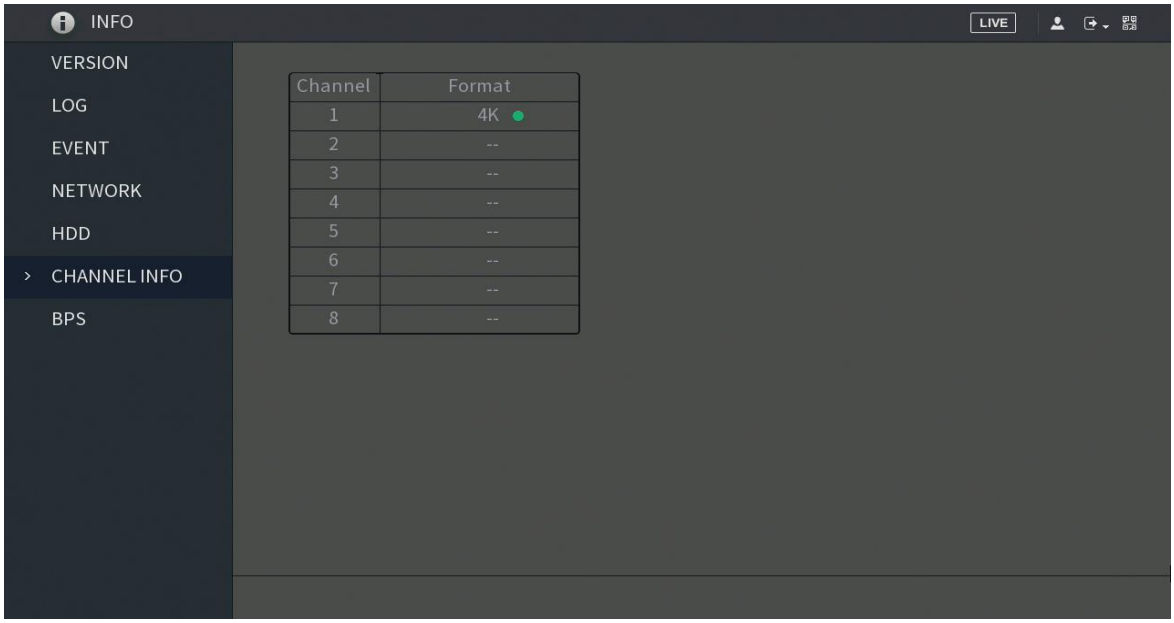


For more details on the information provided in this menu, refer to the provided below:

Parameter	Description
1*	Indicates the number of the currently connected HDD. * means the current working HDD.
Type	Indicates HDD type.
Total Space	Indicates the total capacity of HDD.
Free Space	Indicates the usable capacity of HDD.
Status	Indicates the status of the HDD to show if it is working normally.
S.M.A.R.T	View the S.M.A.R.T reports from HDD detecting.

Channel Info

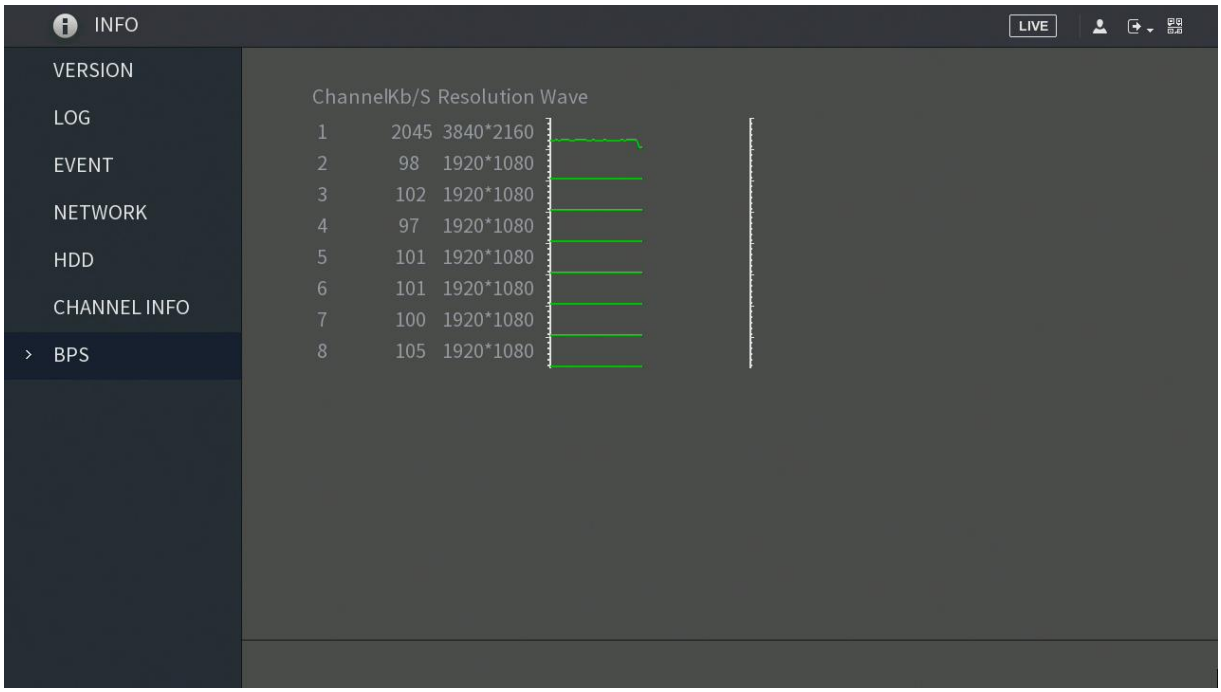
This menu allows the user to view camera information that is connected to each channel on the system.



Note: The number of channels listed in this screen will vary from DVR to DVR.

BPS

This menu allows the user to view, in real-time, the data stream rate and resolution of each channel associated with the DVR.



7. Web Operation

One of the main features of the Amcrest DVR is the ability to access the DVR and its features through the web. Whether you want to view the live feed from remote location, or you want the ability to display the live feed on multiple computers on your local network, the Amcrest DVR can accommodate all those needs.

To enable web client operation, ensure the following items are completed:

- The DVR is connected to the Network via an Ethernet cable.
- The DVR and the PC are on the same network OR the DVR has been configured for remote access.

7.1 Local Web Access

NPAPI plugins have been recently depreciated by most mainstream web browsers such as recent versions Google Chrome, Edge, and Firefox. Currently, our team is pursuing a solution to this, however, as a primary means of accessing the web user interface for your Amcrest device in a web browser, **we recommend using Internet Explorer**. Other browser will also be functional such as, the Amcrest Web View app for Google Chrome, a previously released version of Mozilla Firefox, such as Firefox 49.0.2, or Safari 11.

As an alternative, other secondary browsers will also be functional for the web user interface such as, SeaMonkey, and Pale Moon web browsers. SeaMonkey is compatible with Windows and Mac and is free to use, Pale Moon is only compatible with Windows and Linux systems. Conversely, both browsers will require the use of a plugin like other web browsers.

Note: Pale Moon users, please use the 32-bit version of the browser as the 64-bit version may be incompatible with our plugins.

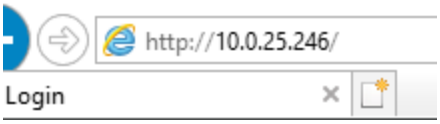
Internet Explorer is currently the most preferred method of accessing your device on your computer from a web browser. To access the web UI via Internet Explorer please refer to the information provided below.

Locate the IP address for your device using the Amcrest IP Config Tool. The Amcrest IP Config Tool can be downloaded at the following web page: amcerest.com/downloads

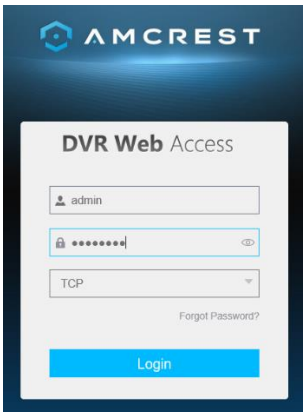
In the All Downloads menu, click on IP Config Software to begin the free download. Once the download has completed installing, locate the IP address associated with the device you would like to view in the browser.



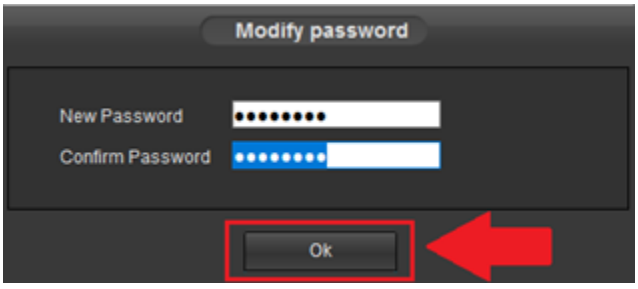
Enter this IP address into the Internet Explorer browser and press enter to load the web user interface.



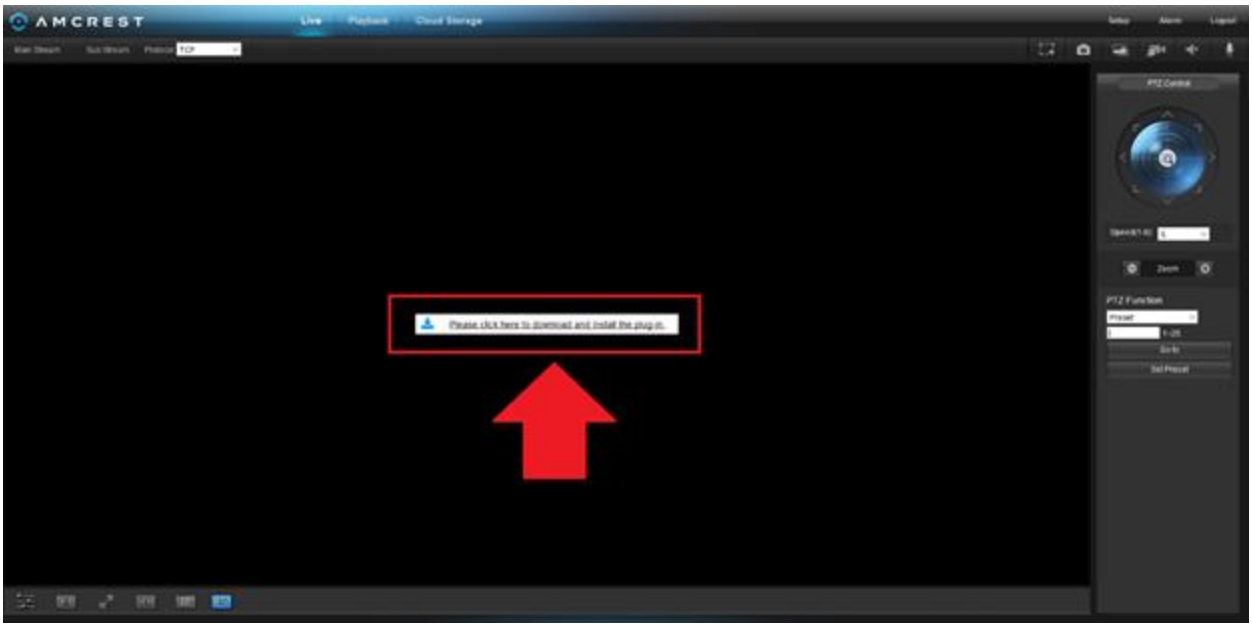
In the web user interface, enter the login credentials for your device. If this is the first time accessing the device, the username and password will both be **admin.** Click on **Login**.



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** when done to log into the web user interface.



To view your device on the browser you will need to download the plugin. To download the plugin, click on the **Please click here to download and install the plugin** prompt in the middle of the screen.



Click **Run** to download the plugin.



The browser will then show the live feed of your connected device in the web user interface.

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

7.2 Remote Web Access

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

7.2.1 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.

To view a video on how to setup the for UPnP/DDNS remote access go to http://amcrest.com/videos and view the video titled "How to Gain Remote Access to Your HDCVI DVR with Universal Plug and Play".

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 DVR, 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 5-digit 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 DVR. Click OK and wait for the DVR to restart.
4. Login to your DVR, 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 main stream 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:

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

7.2.2 Port Forwarding Remote Access Setup

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

To view a video on how to setup the for Port Forwarding remote access go to http://amcrest.com/videos and view the video titled "How to Gain Remote Access to Your DVR with Port Forwarding".

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

1. Login to your DVR, open the main menu then go to Management -> Network.
2. Open the TCP/IP settings screen.
3. By default, the DVR 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 DVR 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 DVR.
18. Login to your DVR, 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 main stream 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:

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

7.3 Web Access Interface

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

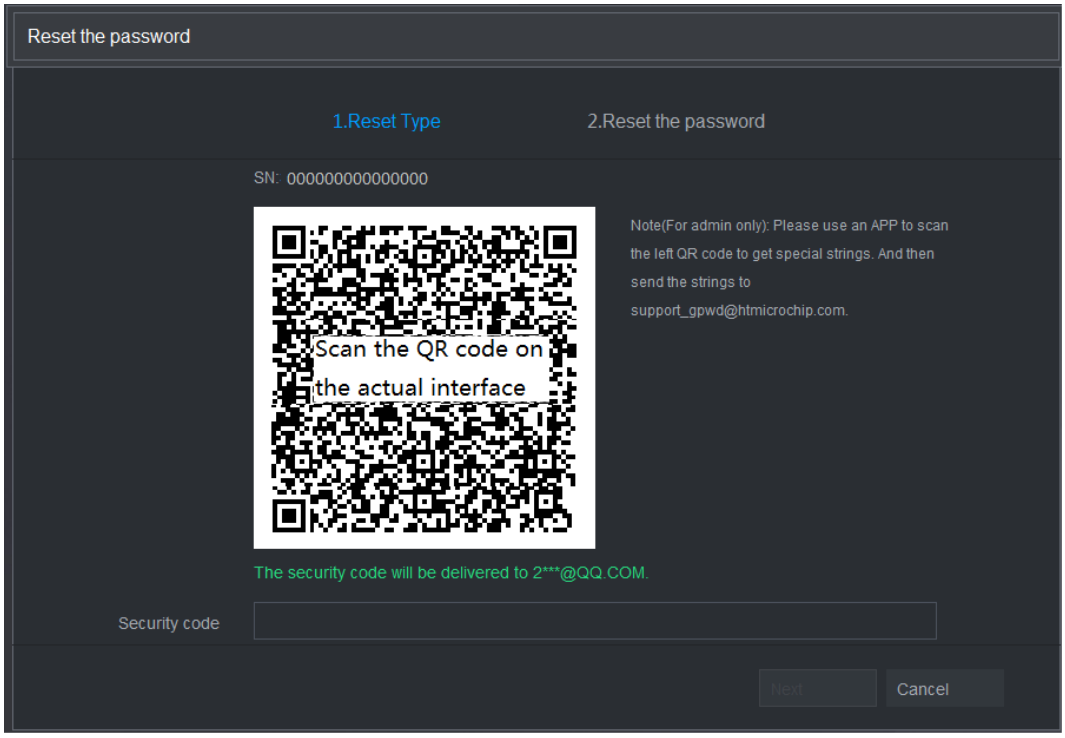


Log into your DVR with the associated username and password to be taken to the main menu. If this is your first-time logging into your DVR, the username and password will both be **admin**. To display the password, click on the  icon. If you have forgotten the password, click on **Forgot Password.**

7.3.1. 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 DVR through a reserved email address.

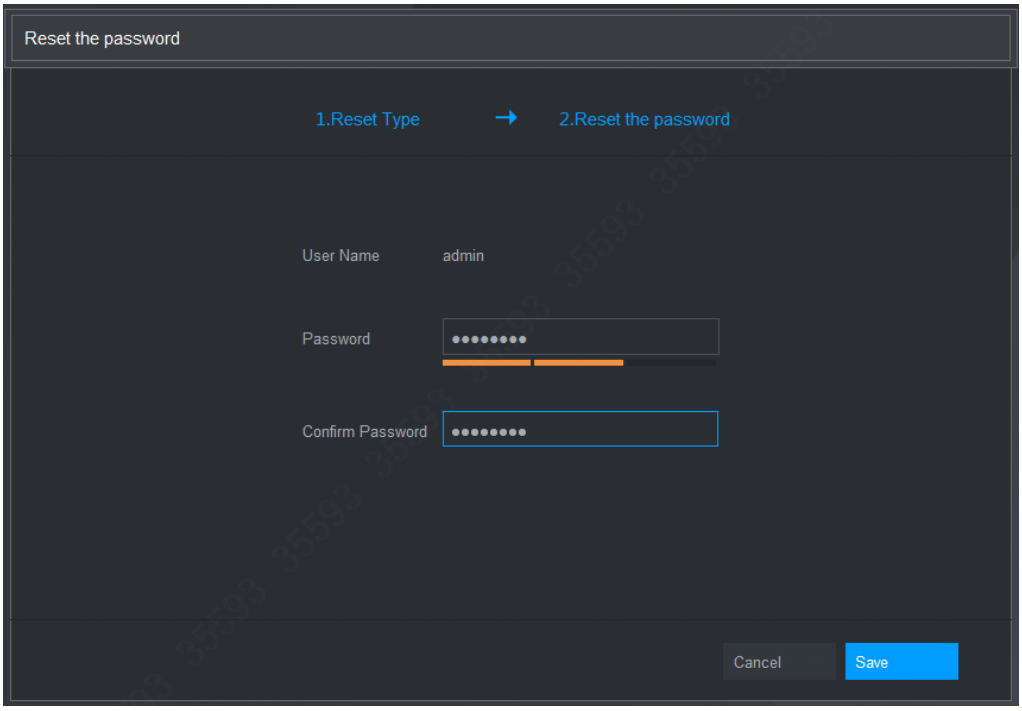
To reset the password, click on **Forgot Password?** and proceed to the **Reset the** password interface.



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.

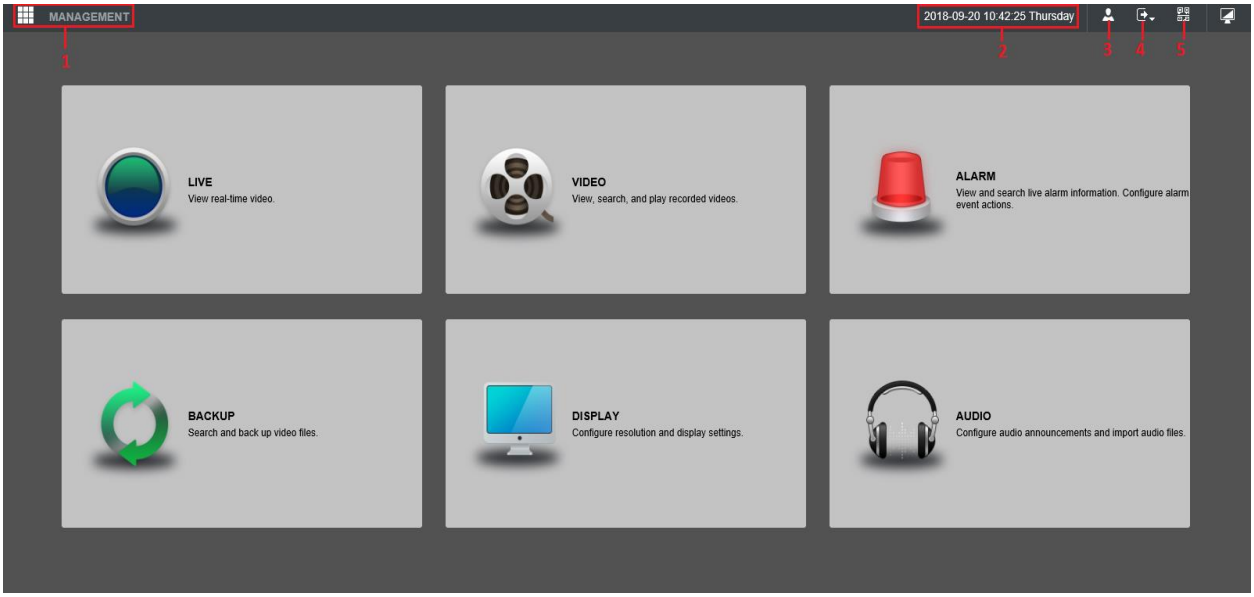
Next, you will need to enter a new password for the DVR. In the **Password** box, enter a new password for your DVR and then confirm the password in the **Confirm Password** field. When you are done, click **Save** to save the password.



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 ‘&’.

7.3.2. 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. For more information on the settings listed in this option, refer to *6. Management; pg. 89.*
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 **DVR SN** QR Code. Cell Phone Client: Use your mobile phone to scan the QR code to add the DVR into the Cell Phone Client, and then you can start accessing the DVR from your cell phone. DVR SN: Obtain the DVR SN by scanning the QR code. Go to the P2P management platform and add the DVR SN into the platform. Then you can access and manage the DVR in the WAN. For details, please refer to the P2P operation manual. You can also configure P2P function in the local configurations. See "**Error! Reference source not found. Error! Reference source not found.**."
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 DVR. **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 DVR such as USB storage DVR. **DISPLAY**: Configure the display effect such as displaying content, image transparency, and resolution, and enable the zero-channel function. **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 DVR 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 DVR's main motherboard.

2. DVR 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 DVR 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 DVR'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 DVR 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 DVR 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 DVR 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 DVR is not compatible with the monitor.
- The video transmission cable is too long, or signal degradation is too great.
- The DVR'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 DVR'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 DVR software has a read error. Restart the DVR to solve this problem.
- The hard drive cable is damaged.
- The hard drive is malfunctioning.
- The DVR'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 DVR 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 DVR 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 DVR to the DVR.
- The PTZ decoder and the DVR protocol are not compatible.
- The PTZ decoder and DVR 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 DVR 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 DVR's firmware.

14. Web Access live view is only displaying a static picture. Both live playback and recorded playback aren't 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 DVR'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 DVR network card may be defective.

16. Keyboard is not working with the DVR.

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

- The DVR 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 DVR'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 DVR may have an input DVR error, or the connection is not correctly configured.
- There may be an error in the DVR'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 DVR.

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.

To contact Amcrest support, please do one of the following:

- 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

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 DVR's system time.

FCC Statement

1. This DVR complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this DVR may not cause harmful interference, and (2) this DVR 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 DVR 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 DVR, 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 DVR complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This DVR may not cause interference; and

(2) This DVR must accept any interference, including interference that may cause undesired operation of the DVR.

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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