Wi-Fi Network Video Recorder

User Manual

Version 1.0.0.
December 15th, 2021

Contents

Welcome

Thank you for purchasing an Amcrest Wi-Fi NVR!

This user manual is designed to be a reference tool for the installation and use of your NVR. The information provided in this manual may be subject to change without notice. At Amcrest, we want to ensure the safety of our customers, their loved ones, homes, and businesses each product receives a full 1-year warranty and lifetime support provided directly from Amcrest. Thank you again for being a valued Amcrest customer.

Important Safeguards and Warnings

All installations and operations of the device should conform to your local electrical safety codes. We assume no liability or responsibility for any of the fires or electrical shocks caused by improper handling or installation.

We are not liable for any problems caused by unauthorized modifications or attempted repair. Do not submerge the device in water or install in areas with high levels of moisture or humidity. Handle with care, avoid from dropping or placing the device in unsecure areas. The NVR does not have rack mount compatibility and should be used on flat surfaces.

Overview

Amcrest NVRs use a Linux based operating system to maintain reliable operation. Connect and playback up to 8 IP cameras using wireless pairing or over your network. View and store recordings from a connected device using a hard drive (sold separately) up to 8TB.

Note: This is a baseline model NVR which does not include the ability to email snapshots or record to an FTP server.

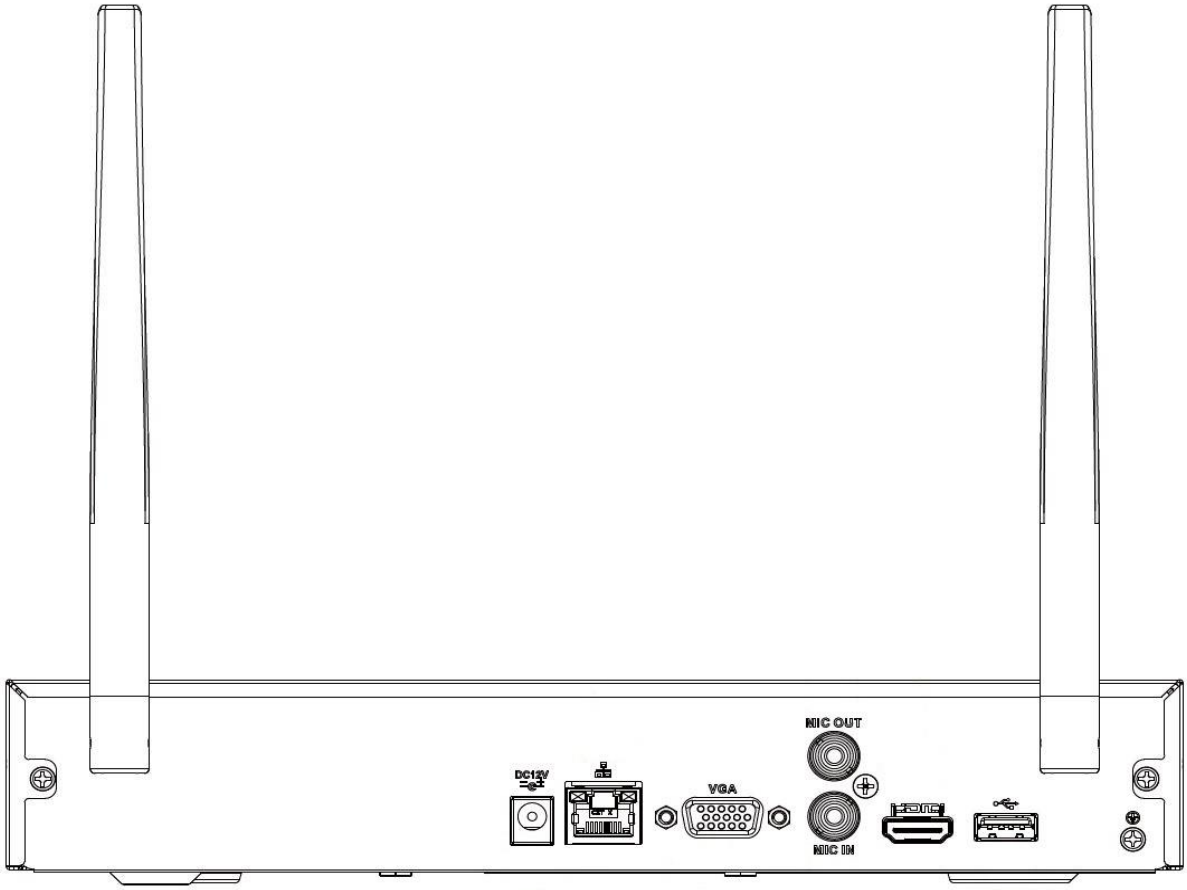
Check Hardware

When you receive the NVR system in the packaging, unpack it, and check all sides of the device to see if there is any physical damage. The protective materials used for the packaging 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 NVR, check that the label on the NVR is not damaged. The serial number of the unit may be needed if requesting support and is provides a QR code for a quick means of adding the device to the Amcrest View Pro app on your mobile device.

Front Panel

Applicable for A3 Series Wi-Fi NVRs



	USB 2.0 port	USB 2.0 port. Connect a mouse, USB storage device, etc.
	Network port	10M/100Mbps self-adaptive Ethernet port.
HDMI	HDMI Output	High-definition audio and video signal output port.
VGA	VGA video output port	VGA video output port. Outputs analog video signal. This connects to the monitor to view analog video.
	GND	Ground end
	Power Port	DC12V, 1.5A
MIC IN	Audio input port	This is used to receive the analog audio signal from a mono RCA microphone.
MIC Out	Audio output port	This is used to receive the analog audio signal from a mono RCA speaker.

Hardware Setup

Before setting up the NVR, you will need the following items. These items may not be included:
A computer monitor or TV with either an HDMI or VGA input
A power strip with room for 4 large power plugs
A hard drive for storing video recordings.

It is recommended to connect all components *before* mounting any of the cameras. This is to ensure all components are working properly before they are physically installed. If any components are not functioning, please contact Amcrest Support: https://amcrest.com/contact

Hard drive installation

Setting up the cable connections

A hard drive must be installed to record or save *any* footage. Please make sure the hard drive is installed properly before turning on the device.

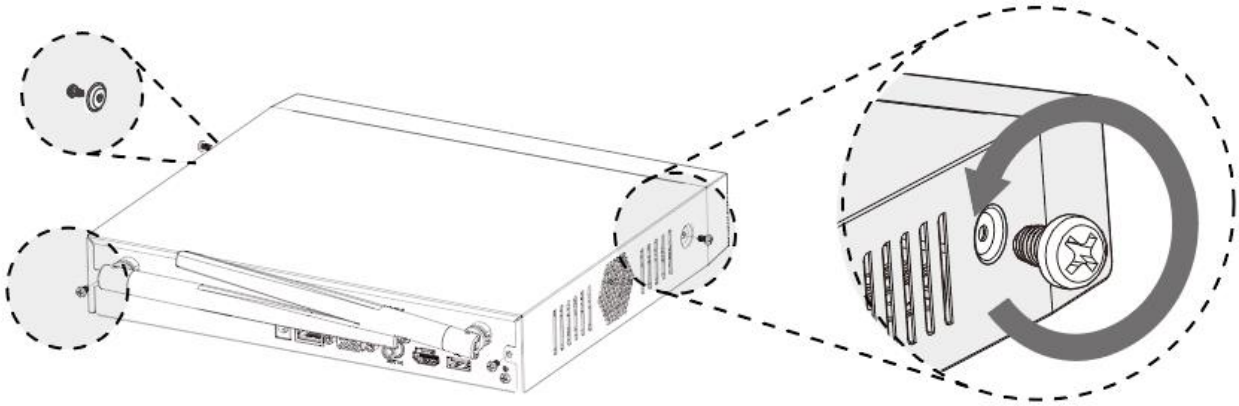
Hard drive installation

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

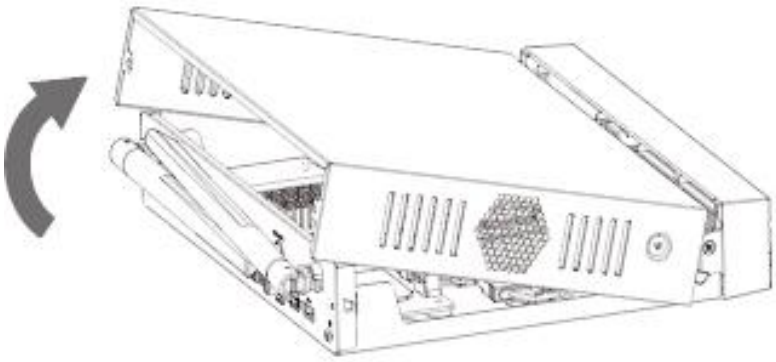
Note: This section *only* applies to NVRs purchased without a hard drive already preinstalled. Most 'kits' or 'bundles will come with a pre-installed hard drive. **The hard drive must be no larger than 8TB (Terabytes).**
To install your hard drive, the following is needed:

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

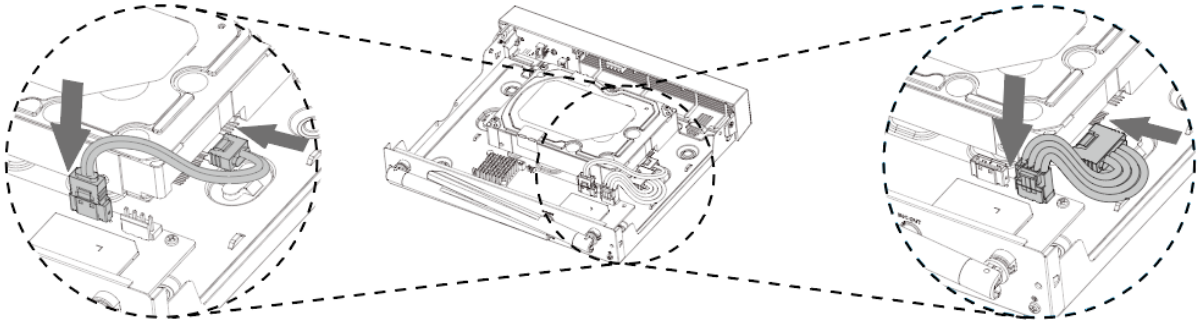
Step 1: Unscrew the four screws on the back and sides of the casing.



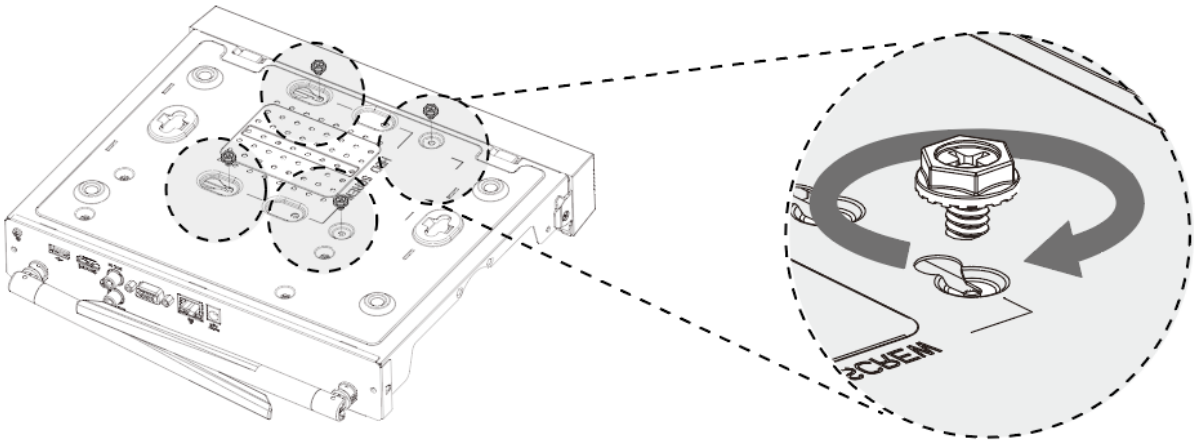
Step 2: Remove the cover in the direction of the arrow provided in the image.



Step 3: Connect a hard drive to the motherboard using the SATA power cable and the SATA data cable.



Step 4: Turn the NVR upside down and align the hard drive to the four holes on the bottom panel and secure it using the included security screws.



Note: Once you have finished securing the hard drive to the bottom panel of the NVR, turn the NVR back over and secure the cover back onto the device similar to the instructions provided in step one.

Setting Up the Cables

1. Connect a monitor or TV screen to your NVR. The NVR is compatible with any monitor or screen that uses a VGA or HDMI connection.
2. Connect an Ethernet cable to your router, then, connect the other end of the cable to the Ethernet port on the back of the NVR.
3. Connect the NVR's power adapter to the power port on the back of the NVR, then connect the other end into a wall outlet, surge protector, or power strip to power the device. Allow the device to boot, you may hear a beep noise once the NVR has finished booting.

Device Installation

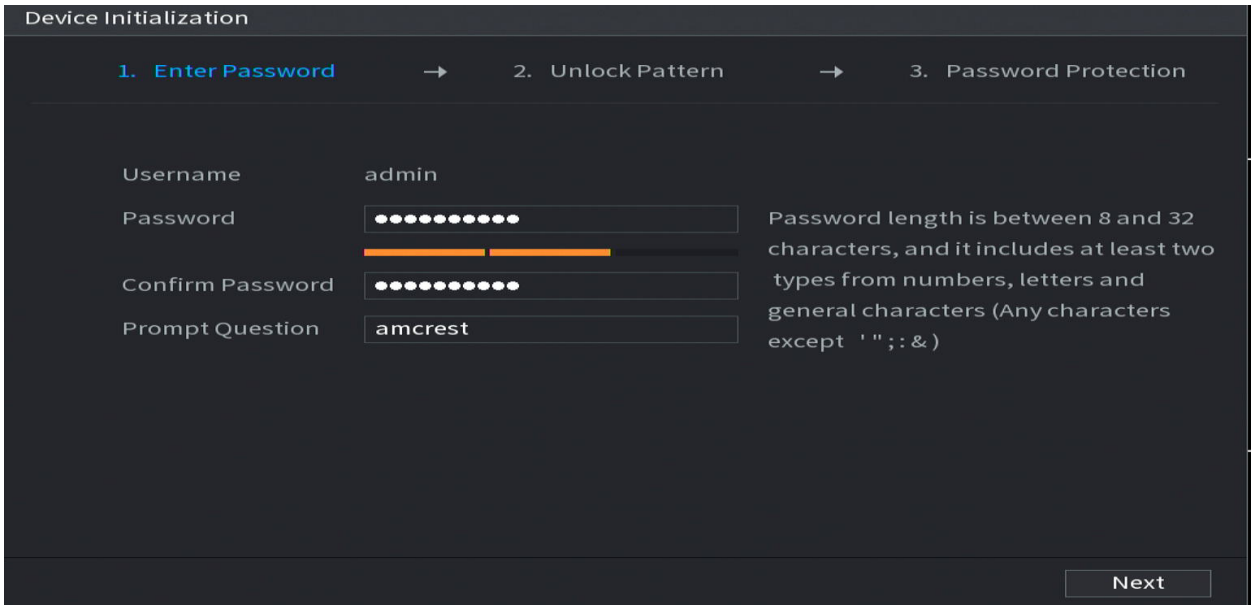
After the NVR has finished booting the **Device Initialization** screen will appear. Select your region, language, and video standard then click **Next** to continue.

Select your time zone as well as current date and time. Click **Next** to continue.

Enter Password

Create a new admin password for your NVR. The password for your device should be between 8 and 32 characters. A combination of letters, numbers, and symbols are recommended when setting up your password.

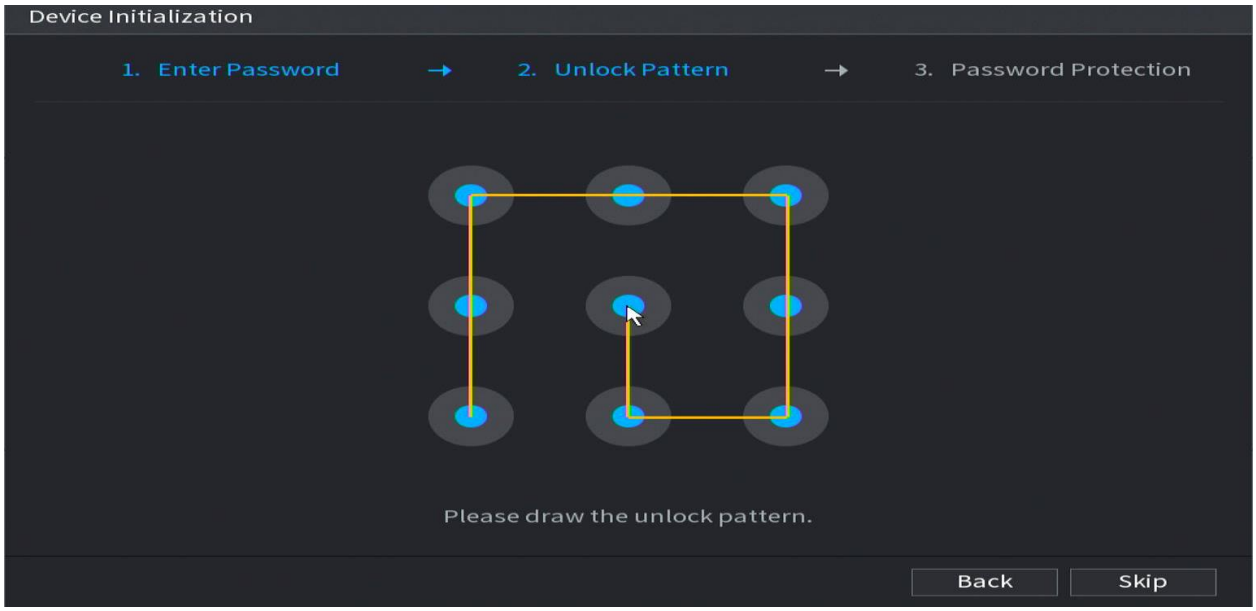
Note: Please do not use special symbols like ' ' ; : &



Once you have entered a new password for your device, confirm the password in the next field. A hint for the password is optional but is recommended in case you forget the password. You can also disable or enable the unlock pattern toggle switch as this feature is optional. Click **Next**.

Unlock Pattern

This is an optional security measure for your device. To set an unlock pattern, use your mouse to draw a design that you will remember**.** Draw the pattern again to confirm. If you do not want to assign an unlock pattern, you can click '**Skip**' to skip this process.



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

Password Protection

Additional means of password protection and retrieval can be set up in this menu. If you would like to reset your password using your email, make sure the email address checkbox is enabled and enter a valid email address in the **Email Address** field. The email address will be retained in the system.

If you do not want to use an email address you can disable the email address option. As a secondary means of recovering your password, you can apply security questions to your NVR. To add a question, select a question from the drop-down menus for **Question 1, Question 2,** and **Question 3** and enter the answers to those questions in the **Answer** fields.

Once this section is complete, click on the **Save** button to Save your information to the device.

IP Setting

The IP address for the NVR will be the address used to access your NVR's web user interface in a web browser. It is highly recommended to make sure the IP is set as **static**. To set the NVR to a static IP address, click on the **DHCP** toggle switch to disable DCHP. Click the **Test** button see if the IP is available. Click **Next**.

P2P

The next screen that appears is the P2P screen. This screen allows you to connect your NVR to your mobile device using the Amcrest View Pro app which is available in the App Store or Google Play store. Ensure the P2P toggle switch is enabled, and the P2P status reads “Online”. When using the app, use the **Device SN** QR Code for quick access to the serial number for your NVR. Click **Next**.

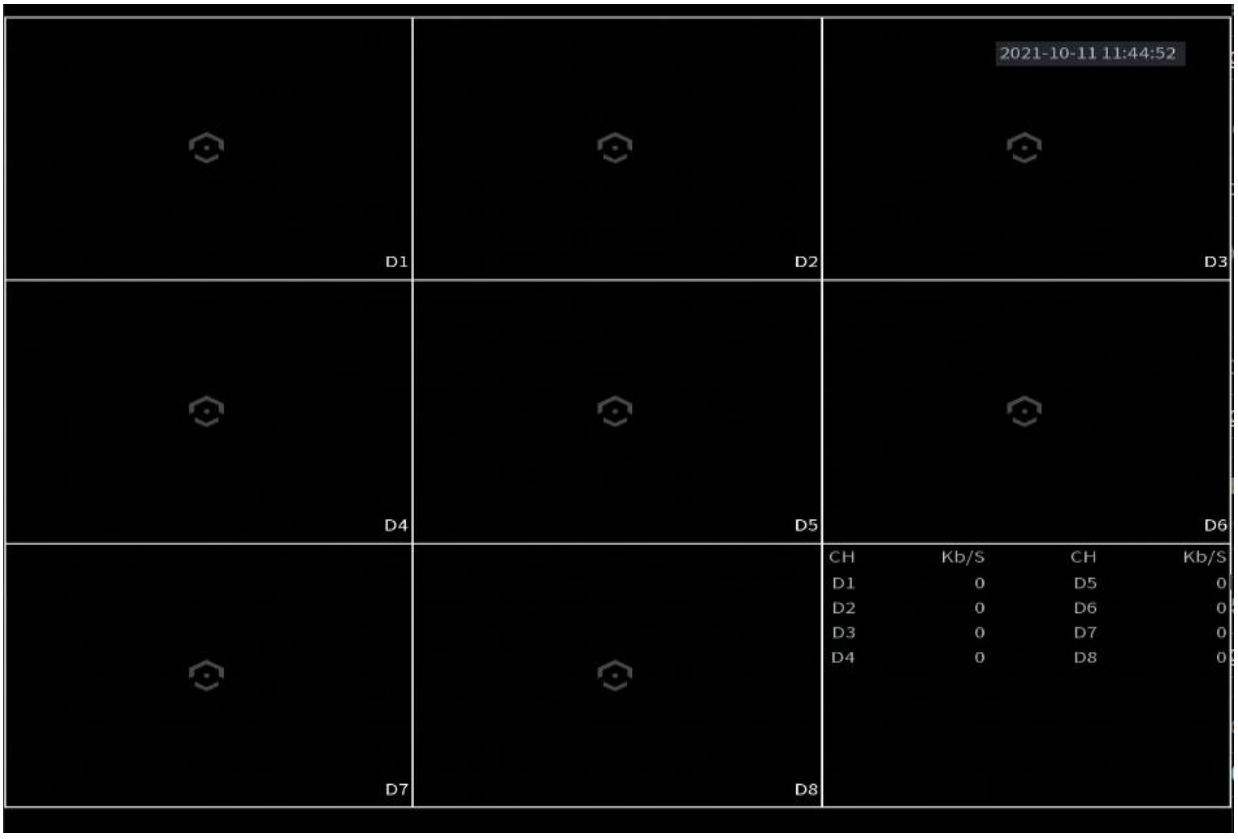
HDD Manager

The next screen will be the hard drive manager screen. This screen allows the user to verify the hard drive is being read properly by the NVR as well as provides an option to format. It is highly recommended to format the hard drive before proceeding.

To format the hard drive, select the hard drive you would like to format from the list, click **Format**. A prompt will appear letting you know that all data will be cleared, click **Save**. Enter the password you set previously on the NVR and click **Save**. Once it has successfully been formatted, click **Save** to continue and **Save** again to proceed.

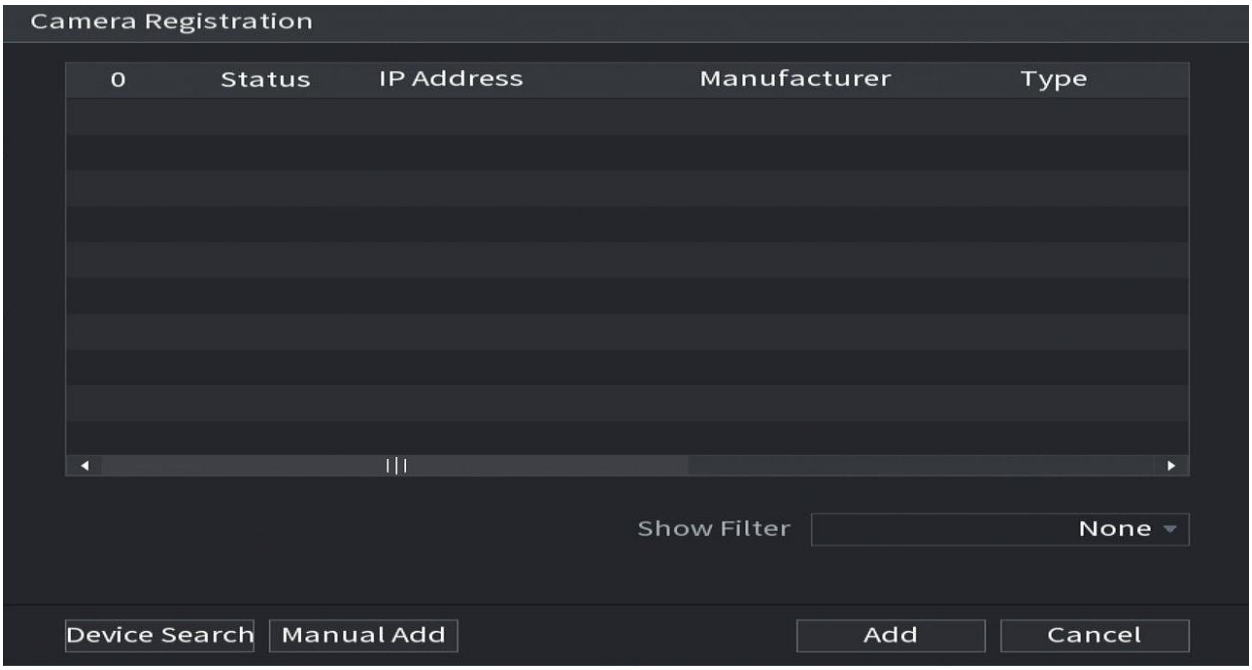
Video Wall

The video wall allows the user to view multiple devices on a single screen as well as provides the connection speeds (Kb/s) of each channel . Please note the displayed window amount may vary depending on how many channels your NVR can support. The following figure is for reference only.



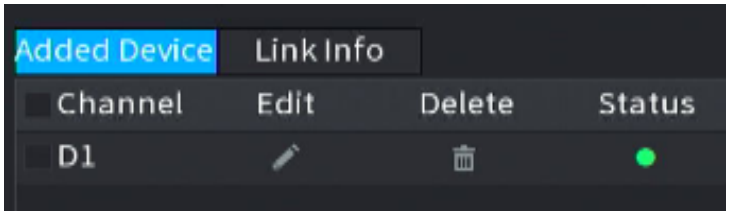
How to Add Cameras

If you have a camera already connected to the same network segment as the NVR and would like to quickly add the camera you can use the express camera registration option. To add a camera using this method, hover your mouse over the Amcrest logo and click the "+" icon.



Click on **Device Search** and locate the camera you would like to add. Select the device from the interface and click **Add**. If the camera is registering as offline the password for the camera may need to be properly registered in the NVR.

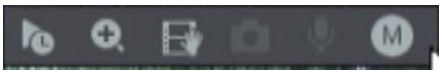
To edit the password, exit the interface, right click on the video wall and select **Main Menu**. Click on the **Camera** in the **Management** section to access the Camera Registration menu. Click on Edit, select the Password field and enter the password for your camera. Click Connect then click Save. The status will change from red to green indicating the camera has been properly registered to the NVR.



Note: If you are using wireless pairing or other methods to add a camera to the NVR, please refer to section, *"Camera Registration"* for more details.

Preview Control Interface

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



Instant Playback

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

Digital Zoom

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

Manual Record

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

Manual Snapshot

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

Audio talk

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

Switch Stream

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

Shortcut Menu

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

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

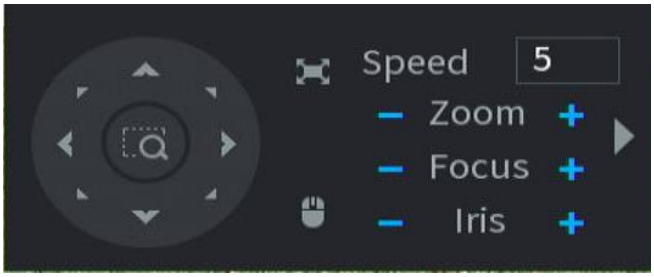
Speed: Controls the PTZ movement speed. Its values can range from 1, being the slowest, and 8 being the fastest.

Zoom: Use the "+" and "-"icons to zoom in or zoom out on the interface.

Focus: Use the "+" and "-"icons to focus the image.

Iris: Use the "+" and "-" icons to control the iris behavior of the camera.

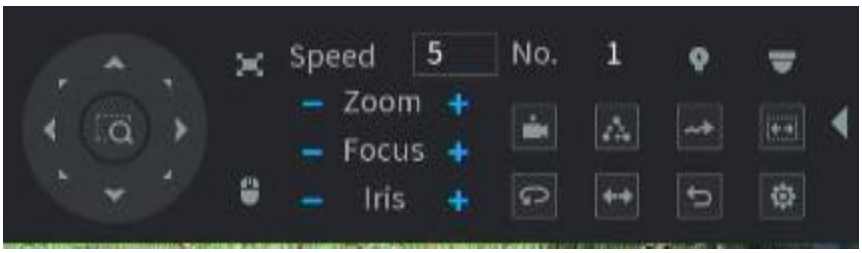
Full Screen: Click the full screen option to display a selected feed in full screen.
PTZ Trace: Provides the ability to store a sequence of camera movements as a preset.



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

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

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



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

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

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

Call PTZ Function

Preset

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

Call Tour

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

Call Pattern

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

Call Scan

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

Auto Pan

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

Flip

Click to enable the camera to flip its image.

Reset

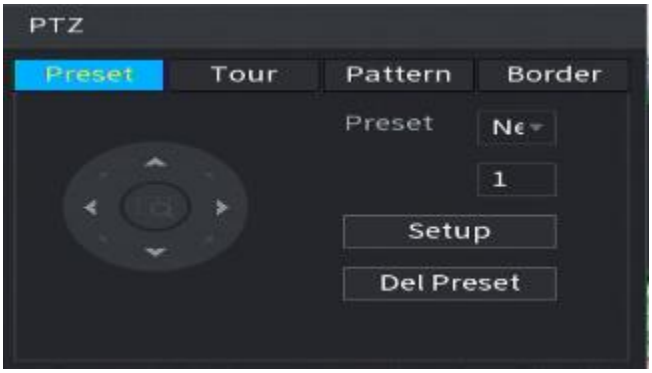
Click  to return to exit the current PTZ operation.

PTZ Function Setup

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

Preset Setup

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



Tour Setup

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

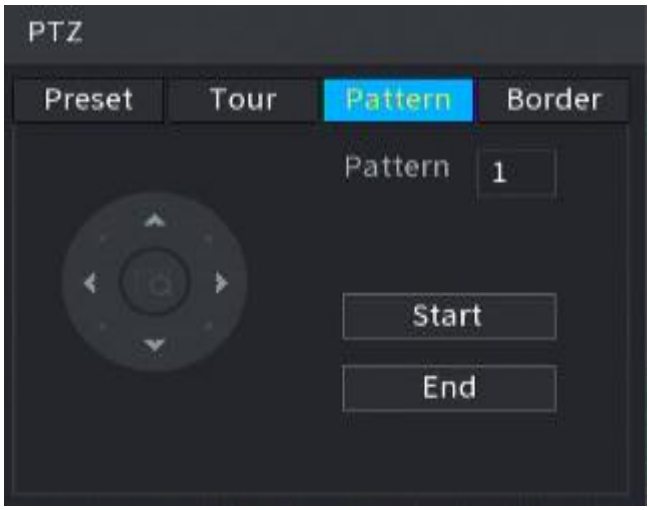
Tips

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

Pattern Setup

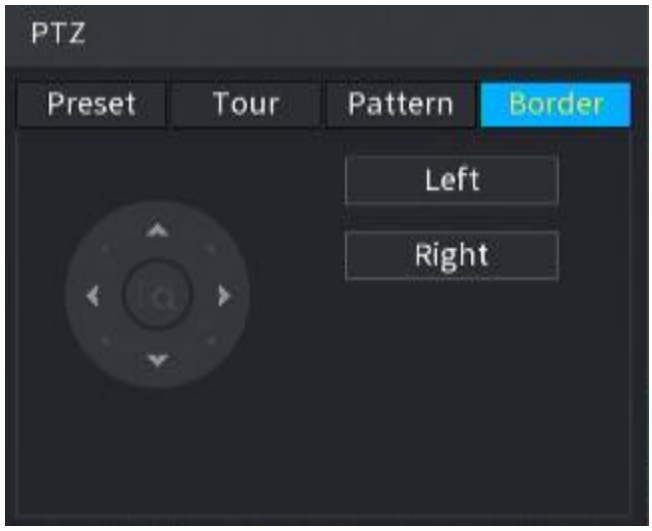
Click the **Pattern** button and input pattern number.

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



Border Setup

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



View 1: View a single device in the video wall.
View 4: View 4 simultaneous devices in the video wall. The same concept will apply to any other View (Window Split) options in this menu.
Sequence: Allows the user to display in which sequence the cameras will be displayed in the video wall.
Custom Split: Allows the user to customize how the splits will be arranged on the video wall.
Camera Registration: This option allows the user to register additional devices to the NVR.
Manual: Allows the user to access record and alarm output options.

Preview Mode: Allows the user to switch between a general mode and AI mode (applicable only to AI connected cameras.
Auto Focus: Click this option to auto focus the selected device.

Web Operation

This device features the latest in JavaScript technology which allows you to access your device via a wide variety of web browsers including, Google Chrome, Firefox, Safari and other mainstream web browser via your PC or Mac computer. However, as a primary means of accessing the web user interface for your Amcrest device in a web browser, **we highly recommend using Internet Explorer** to access your device's web user interface as most modern browsers may provide certain limitations when accessing your device via a web browser.

There are 2 ways to access your NVR from a computer, locally or remotely.
Local Access: Logging into your NVR's web interface from a computer or laptop connected to the same network as your NVR (home, office, etc.).
Remote Access: Logging into your NVR's web interface from a computer or laptop connected to a network outside of your home or business network (coffee shop, work computer, etc.)
Local access is preferred by those who do not want to make their NVR accessible from outside their network. *However, there are several options available for remote access that use standardized and secure network protocols including SSL, TLS, DDNS, etc.* Most other users require remote network access by way of their smartphones, tablets, laptops, or computers.

The following section will cover both means of access (local and remote). Keep in mind that any user can have *both* local *and* remote access simultaneously if they so choose.

The following must be considered before accessing the web user interface:
*You must access the NVR's web interface with its **IP address**.*
*You must install the Amcrest web **browser plugin** If using Internet Explorer (Recommended)*
The NVR can be accessed using Chrome and other browsers, however, some features, may be compromised.

Note: If you prefer not to use a web browser plugin to access your NVR you can use our free **Amcrest Surveillance Pro software** to access your device from a computer. To download the software please visit: https://amcrest.com/downloads

If using a web browser, there are 2 ways to access the NVR's IP address:
(1) **Amcrest IP Config**
(2) **Built-in interface**

Amcrest IP Config Tool Method

Amcrest IP Config software can be installed for free onto your computer from Amcrest's official website. The IP Config software is available for both Windows and Mac operating systems. To get to the downloads page please visit: https://amcrest.com/downloads

After you have downloaded the Amcrest IP config software, please follow the information provided below:

1. Once you see the first page of the installer wizard, click **Next** to continue.
2. On the next page, check the box next to '**I agree'**, then click **Install**.
3. After the progress bar completes, if you see a Windows Security Alert popup, click **Allow access** (if applicable).
4. This brings you to the main screen of the Amcrest IP Config Software. Your NVR will automatically be found on your network and appear in the list (if properly connected with an Ethernet cable to your router). You will also see the IP address associated with your NVR.

The 'e' icon to the right allows you to launch directly into your web browser from this screen.

Built-in Interface Method

1. Log into your NVR. The live view interface will load.
2. Left-click on the main video wall screen to access the Main Menu, or right-click and choose it from the list.
3. Click the **Network** option located in the **Management** section of the interface.
4. In the **Network** settings page locate the **TCP/IP** option on the left panel list. Then, locate where it says **IP Address** on the main center page of the window.
5. Write it down. It will look something like '192.168.xx.xxx', or '10.0.XX.XXX' depending on your network, router, or service provider.

Note: It does not matter what your IP address looks like, however, the IP address is needed to access the NVR from a web browser. If DHCP is enabled, it is highly recommended to disable it to allow the device to maintain a static IP address. This will help to increase the overall efficiency and security of your device.

To access the web user interface (web UI) for your NVR, open a web browser and type the IP address for your NVR into the browser and press **Enter**. This will pull up the device initialization screen. Set a location, language and video standard then click **Next** to continue.

Choose your Time Zone and System Time then click **Next** to continue.

Enter Password

Like accessing the NVR directly, if you are accessing the NVR for the first time you will need to enter a password for the device. Enter a password. Click **Next** to continue.

Next, it is recommended to secure your NVR with an Email address and security questions. The Email address entered can be used for password recovery purposes in case a password is forgotten or needs to be reset.
Enter a valid email address and then select and answer the security questions provided in the dropdown menu. Click **OK** when done.

When the NVR has been setup successfully you will hear a beep from the NVR and a prompt in the browser letting you know that the initialization is complete. You will then be taken to the login screen. Enter the **username** and **password** for your NVR then click **Login**.

Note: Please allow all permissions to allow the plugins to function in your browser. Once the plugins are allowed the main menu screen will appear.

Accessing the Web User Interface Remotely

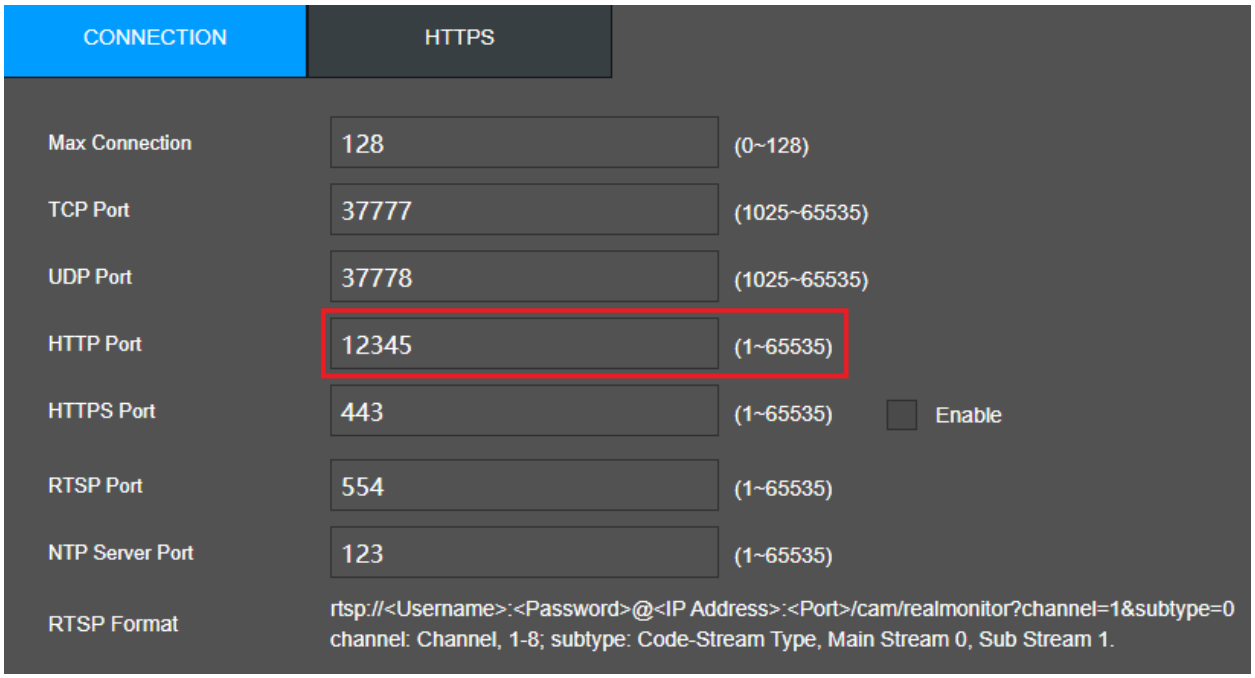
For the purposes of this guide, we will outline the most common method for setting up web access. Port forwarding using the HTTP protocol is the easiest way to setup stable remote access. For this method, you should have direct access to your router as well as the ability to port forward the device using the router's built-in interface.

Below is a step-by-step walk through which details how to setup the NVR for remote web access.

1. Log into the web UI and go to **Management>>Network>>Connection.** In the Connection tab, note the HTTP Port information for your NVR.

It is recommended to ensure the port number is at least 5 digits long to prevent any port conflicts. You can change the port to any 5-digit number that is less than 65535 (e.g., 12345) by clicking the number field and entering a new port number. Write it down, then click **OK**.

2. The system will need to reboot for this change to take effect. Click **OK**.
3. Once the NVR has come back online, log back into the web UI and navigate back to the Connection menu to verify the HTTP port has been updated properly.

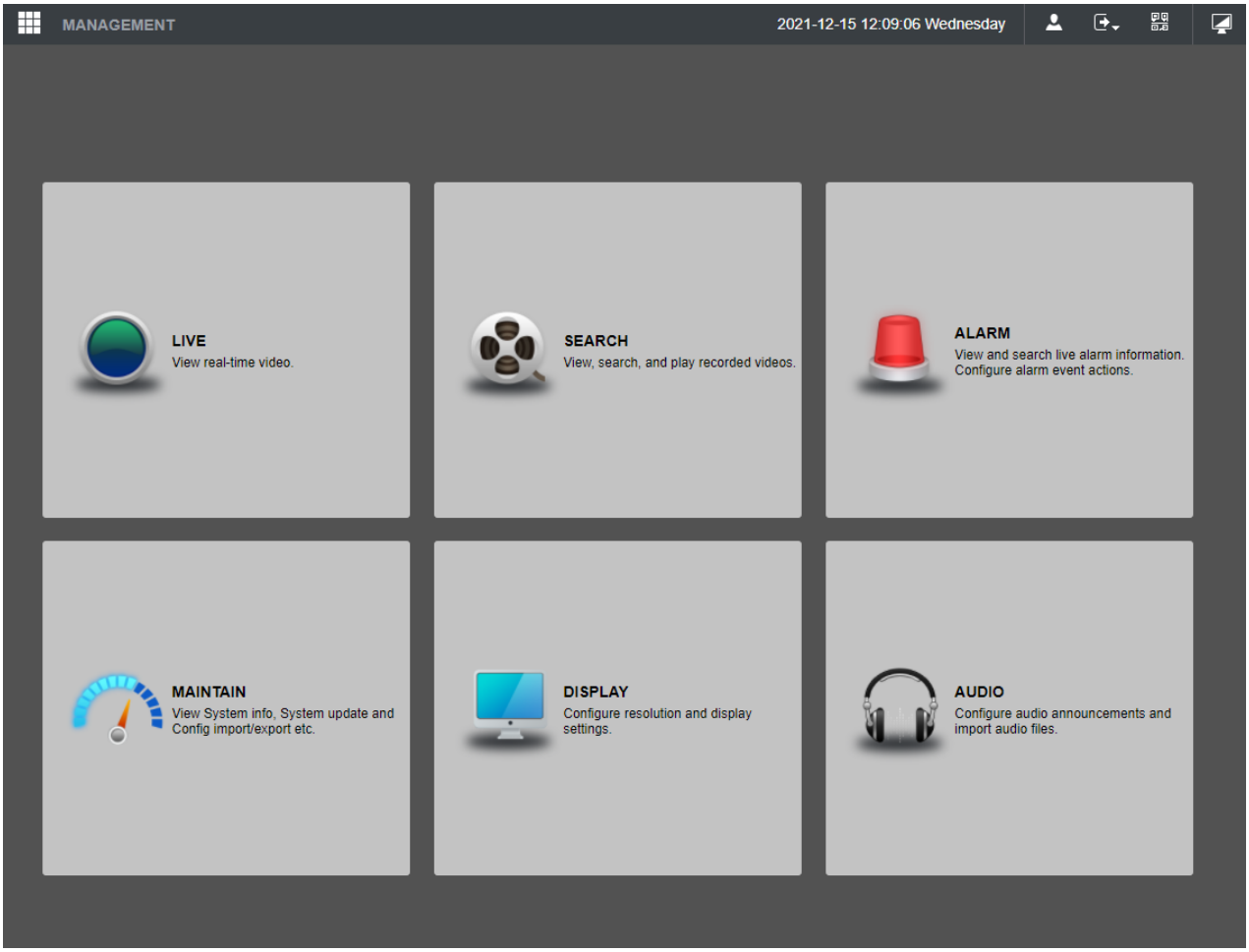


4. Access your router's user interface and port forward the device using the HTTP port information displayed in the system. Every router's port forwarding protocols are unique. For more information on how to port forward your specific device, please visit portforward.com or refer to the user manual for your specific router.

Note: When port forwarding the NVR in your router, make sure to use the TCP, UDP and updated HTTP protocols displayed in the NVR. If DDNS is not an option, the device can be accessed remotely using the public IP address for your network and the HTTP port used that was port forwarded in your router. To locate your public IP address and verify the connectivity of your system, please visit: canyouseeme.org

After setting up the NVR in the previous steps provided, open a web browser, and enter the public IP and HTTP port number into the browser, an example of the URL would be http://98.508.502:12345

Main Menu



Below are short descriptions for each of the menu items on the main menu:
LIVE: Access the live view screen and display a video wall for each connected device.
SEARCH: Search and playback recorded video that is stored on the hard drive.
ALARM: View and configure live alarm information and notifications sent by the device.

MAINTAIN: View system information, update, and configuration import/export settings, etc.
BACKUP: Search and backup video data via an external USB or flash drive.
DISPLAY: Configure resolution and display output settings.
AUDIO: Schedule, manage, and import audio announcements and files. Please note, this option is only applicable for cameras that support this function.

Management

CAMERA: Review or edit settings for each camera, including video settings (e.g. quality, bit rate, color, etc.).
NETWORK: Review or edit network settings for the NVR. (e.g. TCP/IP settings, ports, P2P, etc.).
STORAGE: Review or edit storage parameters and settings. (e.g. recording schedules, HDD manager, etc.).
SYSTEM: Review or edit system parameters and configuration (e.g. Date & time, firewall settings, etc.).
ACCOUNT: Review admin accounts and add new users to device. (e.g. Shared users, ONVIF users, etc.).

Camera

This option allows the user to add a camera, access and modify image and encode settings, as well as modify the name of a device and add new devices into the system.

Remote Device

This menu allows you to register a camera to the NVR, verify the firmware version, as well as update firmware for a connected camera.

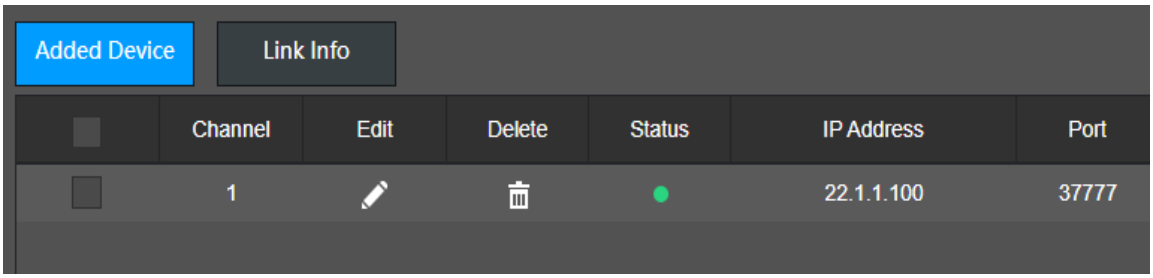
Camera Registration

The NVR can register cameras wirelessly or cameras over your network. Wireless cameras can be paired to the device using wireless pairing. Please note, the Wi-Fi camera does not need to be connected to your network initially to pair it to the NVR. For more information on how to pair a Wi-Fi camera to the Wi-Fi NVR, please refer to the information provided below.

Pairing a Wi-Fi Camera

To pair a Wi-Fi camera, make sure the Wi-Fi camera is within ten feet of the NVR and is powered on. Please note, if the Wi-Fi camera's password is set to **admin** (factory default), it may automatically register with the NVR, however, if the camera does not automatically pair with the NVR it will need to be manually paired. To manually pair the camera, click on the **Wireless Pairing** option located in the remote device menu.

A wireless pairing interface will be displayed and will list all Wi-Fi cameras detected by the system. A pairing countdown will begin, once the countdown is complete, the Wi-Fi cameras detected by the system will be paired and automatically assigned to an open channel. If the camera is not initially displayed in the Add Device menu, click on the Refresh button to refresh the interface, and display the newly added device.



Adding a Camera Over the Network

This can apply to Wi-Fi cameras or PoE cameras that are already registered over the network. Please make sure the NVR is connected to the same network segment as the cameras before applying this method. To register the cameras, click on the **Device Search** button in the remote device menu and allow the NVR to locate the cameras. Select the device or devices from the interface and click the Add button to add the cameras into the system. If the status of the cameras remains as "red" in the system, click on the **Edit** button next to the camera and enter the correct password for the camera into the interface and click **Save**.

Upgrade

The **Upgrade** tab allows the user to update firmware for a connected device. To access the latest firmware for your camera, please visit amcrest.com/firmware
For more information on how to upgrade the firmware for your camera using this tab, please refer to the information provided below.

1. Download the firmware for your camera.
2. Click **Browse** then locate and import the firmware into the interface.
3. Select the device from the Camera Update interface and click **Online Update**. Please note, if the camera is actively recording, recording will need to be disabled or the update may fail. If the camera is recording, click **Save** to disable the recording and begin upgrading the firmware.
4. Once updated, a prompt should be displayed indicating the update is successful.

Note: The recommended method for updating the camera on a camera is through the camera's actual web user interface.

Image

The **Image** tab allows the user to adjust image settings such as, brightness, contrast, saturation, etc. Below is a description of the options provided in this menu.

Channel: In the **Channel** list, select the channel that you want to configure.
Config File: Allows the user to set up to 3 image presets.
Brightness: Adjusts the image brightness. The bigger the value is, the brighter the image will become. You can adjust this value when the image is 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.

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.

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.

Sharpness: This slider is used for image processing which can correct low resolution of the lens in some degree. Please note, noise increasing is a side effect of sharpening. The value ranges from 0 to 100. The larger the value is, the clearer the edges are and vice versa. Note: The higher the value, the higher likelihood of picture noise occurring. The default value is 50 and the recommended value ranges from 40 to 60.

Gamma: This slider is used to adjust the gamma of the video. The larger the number, the brighter the video image will become. The default value is 50 however the recommended value ranges are between 40 to 60.

Mirror: Mirrors the image on a vertical axis. Click on the Enable button to mirror the image, click on the Disable button to return to its original orientation.

Flip: Allows the image to rotate to 0°, 180°, 90°, and 270°. Normal will return the image back to 0°.

3D NR: A method of suppressing noise in an image, appearing in low light.

BLC: The items in this dropdown menu are used to adjust backlight compensation settings.

Close: Disables back light settings associated with the image.

WDR: Wide Dynamic Range makes multiple scans of a scene to provide one balanced and unwashed image that is clear for the user.

HLC: Highlight compensation is a feature that came out of necessity due to overexposure from strong light sources like headlights or spotlights.

White Balance: Removes unrealistic color casts. It is an adjustment so white colors seem white in certain warm or cool lighted areas:

Auto: Adjusts for the best setting of the whole picture.

Outdoor: Adjusts for outdoor lighting settings.

Natural: Adjusts for heavily lit or sunny environments.

Street Lamp: Adjusts according to light and dark environments. The overall effect is based on the concept of a sodium lamp which adjusts different light spectrums of the video stream based on its surrounding environment.

Manual: Adjust white balance values to be adjusted manually as per the user's settings.

Customized Zone: Allows the user to adjust the red and blue colors of the video stream. The default settings for both values are 50, but they can range from 0 ~ 100.

Day & Light: This menu allows user to select day & night presets based on the surrounding environment of the camera.

Color - Always represents picture in color, does not use IR or black and white mode. Performs poorly in dimly lit areas unless you are using the Starlight series cameras.

Auto: Uses day and night sensitivity settings to change between color mode, infrared, and black& white modes.

B&W - Allows the user to set the video stream to black and white, however, if the illuminated image is too dark it will switch to IR mode.

To refresh the interface, click **Refresh**. To Save the image settings, click **Save**.

Encode

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

Channel: This dropdown box allows the user to select a channel from the dropdown list to modify.
Type: This dropdown box allows the user to select one of 3 channel types: general, motion, and alarm. Various encode parameters can be for different record types.
Compression: This dropdown box allows the user to select a compression protocol. The system supports H.264, H.264B, H.264H, and H.265 compression protocols.
Resolution: This dropdown box allows the user to set the resolution. The system supports various resolutions, and they can be selected from this dropdown list.
Frame Rate (FPS): This dropdown box allows the user to select a frame rate. Frame rate settings range from 1f/s to 25f/s in NTSC mode and 1f/s to 30f/s in PAL mode.
Bit Rate Type: This dropdown box allows the user to select a bit rate type. The system supports two-bit rate types: CBR and VBR. In VBR mode, video quality can be set.
Quality: This dropdown menu allows the user to set a quality level for a connected device. The quality can be adjusted based on the capabilities of a connected device.
I Frame Interval: The interval of time between every two I frames.
Bit Rate (Kb/S): Represents how much data is packed into every data packet per second.
More: This checkbox allows the user to enable or disable audio encode and codec settings. Please note, if using an external microphone (connected to the Audio In on the back of the NVR) select Local as an audio source.

Click the **Copy to** button to copy the settings to other channels. Press the **Refresh** button to refresh the interface. To confirm settings, click the **Save** button.

Snapshot

This tab allows the user to set scheduled or event snapshot settings. Below is a description of the options provided in this menu.

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

To revert to default settings, click the **Default** button. Click the **Copy to** button to copy the settings to other channels. Press the **Refresh** button to refresh the interface. To confirm settings, click the **Save** button.

Overlay

The overlay tab allows the user to change overlay settings for each channel. There are a time display, channel display, and a custom title display which allows the user to set a custom title. A total of 5 custom titles can be added per channel. Below is a description of the options provided in this menu.

Channel: This dropdown box allows the user to select a channel from the dropdown list to modify.
Privacy Masking: Used to block or mask certain areas of the live view screen. Supports up to 4 privacy masks. To use this feature, click the Enable button and select between 1, 2, 3, or 4 privacy masking blocks. Select the box from the interface and use your mouse to move or adjust the masking box. Click **Save** to save the masking settings.
Channel Display: Update the name of the camera as it is represented in the system. The overlay will be represented in the live view menu, use your mouse to adjust the location of the overlay.
Time Display: Allows the user to select whether the system displays the date & time overlay. Clicking the set button and allows the user to drag the timestamp to the desired position on the screen.
Customized Title: This button allows the user to enter a custom title to the interface. A total of 5 custom titles can be added to the interface.
Font Size: Adjust the size of the font represented in the overlay.
Align Mode: Set the orientation of the font represented in the overlay.

Click the **Copy to** button to copy the settings to other channels. Press the **Refresh** button to refresh the interface. To confirm settings, click the **Save** button.

Network

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

TCP/IP

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

NIC Name: The name of the NIC card in the device.
IP Address: This field allows the user to enter a custom IP address.
Network Mode: The current NIC mode detected by the system. The system only supports a single NIC.
NIC Member: The NIC number that is being detected by the system.
Modify: Click the pencil icon to edit TCP/IP information.
NIC Name: The current name of the NIC card.

Network Mode: The current NIC mode detected by the system.

IP Version: The current IP version of the NIC card, IPv4 or IPv6.

MAC Address: This field shows the NVR's MAC address, which is unique to this NVR. This number is read-only and is used to access a local area network (LAN).

Mode: Set the NIC card to a static or DHCP mode. DHCP stands for Dynamic Host Configuration Protocol, and this enables the NVR to automatically obtain an IP address from another network NVR 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.

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 NVR'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 information cannot be adjusted. The default value is 1500.

Click **Test** to test the TCP/IP connection. Click **OK** to modify the NIC settings. Click **Cancel** to exit the interface. To refresh the interface, click the **Refresh** button. Click **Save** to save the settings.

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 an explanation of the fields on the **Connection** screen:

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

TCP Port: This field designates the Transmission Control Protocol (TCP) port number. The default value is 37777.

UDP Port: This field designates the User Datagram Protocol (UDP) port number. The default value is 37778.

HTTP Port: This field designates the Hypertext Transfer Protocol (HTTP) port number. The default value is 80.

HTTPS Port: This field designates the Hypertext Transfer Protocol Secure (HTTPS) port number. The default value is 443. Click this checkbox to begin creating an HTTP certificate.

RTSP Port: This field designates the Real Time Streaming Protocol (RTSP) port number. The default value is 554.

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

HTTPS

The HTTPS tab allows the user to create an HTTPS certificate for the device. Hypertext transfer protocol secure (HTTPS) is the secure version of HTTP, which is the primary protocol used to send data between a web browser and a website. HTTPS is encrypted to increase security of data transfer.

To create an HTTPS cert, click on the HTTPS checkbox located in the **Connection** menu and click **Save**. The browser will reload. Once the browser reloads, verify the HTTPS icon ( )is displayed in the browser. If HTTPS is not activated, navigate back to the Connection menu, click on the HTTPS tab, create a server certificate then download and install the root server on your computer.

Wi-FI AP

The **Wi-Fi AP** menu allows the user to view and modify SSID which is used to pair a Wi-Fi camera to the device. For more information on the features provided in this menu, please refer to the information provided below.

Wi-Fi: Enable or disable the Wi-Fi access point. Please note, if it is disabled, the pairing feature will be disabled.
SSID: The SSID (hotspot) name of the NVR. This can be modified, to modify the name of the SSID, highlight the name, delete it, enter a new name for the SSID and click **Save**.
Hide SSID: Enable this option to hide the SSID from being detected. This will be enabled by default.
Encryption Type: The default encryption for the wireless AP is WPA2 PSK, however, can be adjusted to WPA PSK if needed.
Password: The SSID will not have a password by default however a password can be entered in the system for the access point. To enter a password, enter a password into this field and click Save.
Select Channel: Choose which channel in which a camera will be paired to the device. Setting the device to Auto will all the NVR to automatically place a camera into an empty channel in the system.
Network Proxy: Enables external network access through the device for a wireless camera.

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

Advanced

The **Advanced** tab allows the user to configure the IP address, subnet mask, default gateway, and DHCP server of the SSID. For more information on the features provided in this menu, please refer to the information provided below.

IP Config: Modify and adjust the IP address, subnet mask, and default gateway of the SSID. Please note, the IP address and default gateway must be in the same network segment.
DHCP Server: Modify the start and end IP address of the DHCP server associated with the SSID. The user can also modify the preferred and alternate DNS server information if needed.

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

Register

The **Register** menu allows the user to register the device into a specified proxy server which acts as a transit to make it easier for a client software to access the device. For more information on this feature please refer to the information provided below.

Enable: This option is used to enable the register function.
No: The number applied to the proxy in the system.
Server IP Address: Enter the IP address of the proxy server.
Port: The port number associated with the proxy server.
ID: The ID number associated with the proxy server.

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

P2P

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

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

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

Amcrest View Pro Setup

The Amcrest View Pro app allows instant access to all live camera streams from any location. The app supports a multitude of features and includes both a plug-and-play setup as well as a manual network setup. **Please note, AI features provided by the NVR can only be modified using the local or web UI and cannot be adjusted using the Amcrest View Pro app.**

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

Enabling P2P

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

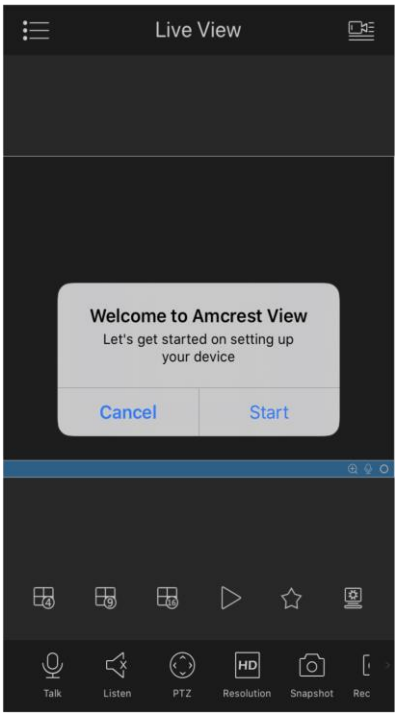
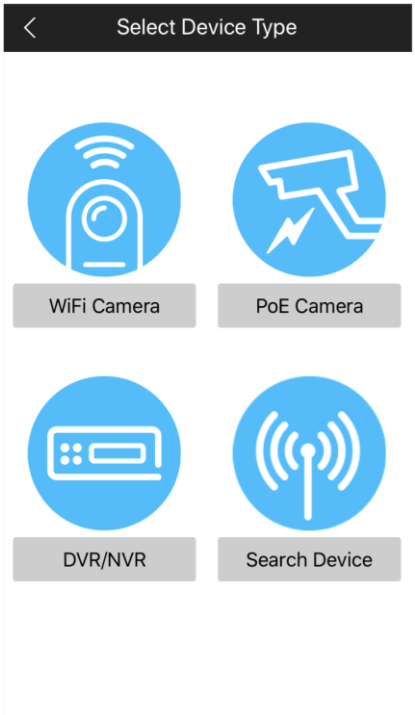
Log into your NVR and access the Main Menu.
In the **Management** section, click on **Network** then click on **P2P**. Ensure the Enable toggle switch is enabled and the P2P status says “Online”. This indicates the P2P option is enabled.

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

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

ANDROID APP ON Google play Download on the App Store

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

	
1. Tap **“Start”.**	2. Tap **“NVR/NVR”.**

<table>
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<td> 
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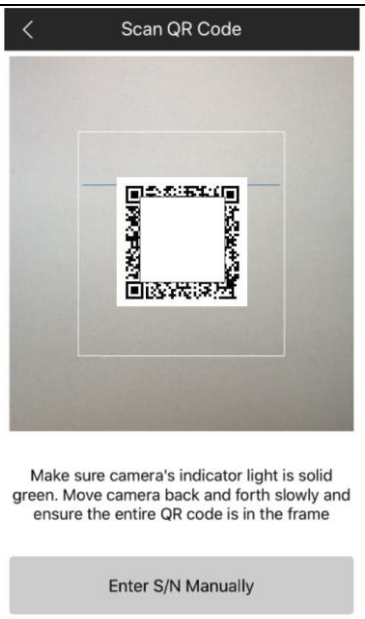
<td> 
</td>
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<tr>
<td>3. Tap “P2P Connection”.

Note: IP/Domain/DDNS can be used to establish a DDNS connection. For more information on how to setup a DDNS connection, visit amcrest.com/support</td>
<td>4. Scan the QR code. The QR code can be found on the serial tag along with a scannable barcode.</td>
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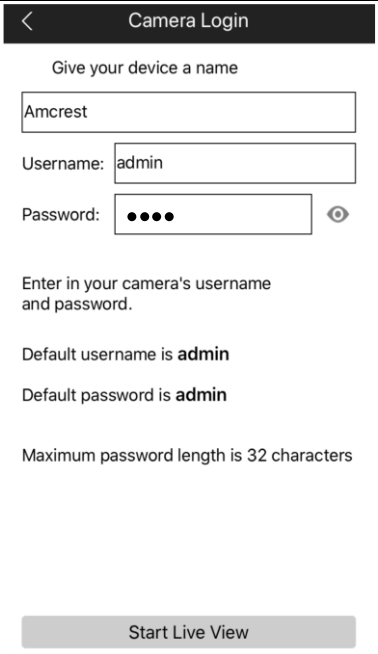
<td> 
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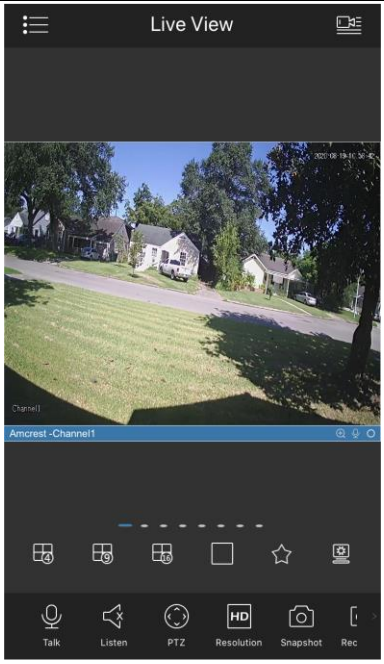
<td> 
</td>
</tr>
<tr>
<td>5. Create a name for the device and enter a username and password. The default username and password will be admin. Tap “Start Live View”.</td>
<td>6. Update the default password for the device and tap “Start Live View” to view the device.</td>
</tr>
</table>

Storage

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

Basic

This menu allows the user to set hard drive (HDD) overwrite permissions for the system. Below is a description of the features listed in this menu:

HDD Full – Allows the user to set a overwrite mode for their recordings. This option can be set to overwrite, which automatically overwrites old recordings once the hard drive is full, or to stop recording, which means the recordings will stop once the hard drive is full.
Pack Mode – Specifies the recording duration of the overwrite. The values range from 1 to 120 minutes. Default value is 60 minutes.
Auto Delete Old Files – Allows the user to automatically delete or customize a delete schedule. The customized field will be denoted in how many days you would like to retain information on the HDD.

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

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

Schedule

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

Record

This screen is used to specify the recording schedule for both recorded video and snapshots. Below is an explanation of the fields on the **Record** settings screen:

Channel: This dropdown menu allows the user to pick which channel the schedule will apply.
ANR: Used to save video to the SD card of the network camera in case the network connection fails. The value ranges from 0s～ After the network connection resumed, the system can get the video from the SD card and there is no risk of record loss.
Prerecord: This field allows the user to capture extra video that occurs before an event. Up to 30 seconds of video prior to a recording event can be captured to provide context to a recording.
Record Types: There are 5 types of recordings:

Regular: General recording means that the NVR captures all footage for the specified time period. Regular recording is represented by green.
MD: Motion Detection recording means that the NVR captures only footage when the motion detection alarm is activated. MD recording is represented by yellow.
Alarm: Alarm recording means that the NVR captures only footage when an alarm is activated. Alarm recording is represented by the color red.

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

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

To revert to default settings, click the **Default** button. To copy settings to another channel, click **Copy to**. To confirm settings, click the **Save** button.

Snapshot

This **Snapshot** tab allows the user to schedule snapshot schedules. The process is similar to the record schedule for video. Below is an explanation of the fields on the **Snapshot** settings screen:

Channel: This dropdown box allows the user to pick which channel they would like to change video recording settings for

Record Types: There are 5 types of recordings:

- **Regular:** General recording means that the NVR captures all snapshots for the specified time period. Regular recording is represented by green.
- **MD:** Motion Detection recording means that the NVR captures only footage when the motion detection alarm is activated. MD recording is represented by yellow.
- **Alarm:** Alarm recording means that the NVR captures only footage when an alarm is activated. Alarm recording is represented by the color red.

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

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

To revert to default settings, click the **Default** button. To copy settings to another channel, click **Copy to**. To confirm settings, click the **Save** button.

HDD Manager

This screen is used to help the user monitor the NVR's hard drives. Using this screen, the user can see the current HDD type, status, and capacity. The user can also use this screen to format hard drives and change hard drive properties. Below is an explanation of the fields on the **HDD Manager** settings screen:

No.: Displays how many HDDs the system is supported.
Device Name: This column shows the names of the connected hard disk drives (HDD).
Physical Position: The location in which the HDD is connected on the device.
Properties: This column shows the type of access the NVR has to the hard drive. To change a hard drive's type, click the downward arrow next to the HDD's type and select the desired type. There are 3 possible settings:
Read-Only: This allows the NVR to read the data, but not modify it in anyway.
Write-Only: This allows the NVR to write data to the HDD, but not read any data from it.
Read/Write: This allows the NVR to both read and write data on the HDD.
Health Status: This column shows the status of the connected hard drive. There are 3 statuses:
Normal: This means the hard drive is operating normally.
Error: This means the NVR is experiencing an error when attempting to access the hard drive.
Disconnected: This means that the HDD has disconnected from the NVR.
Free Space/Total Space: This field shows the free space on the hard drive compared to its total capacity.
Format: This option allows the user to format a connected HDD. This will erase all information from the HDD. To format the HDD, click the **Format** button, then click **Save** to complete the format.

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

Record Mode

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

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

Main Stream: The main stream is the stream through which the channels transmit data by default. There are 3 settings that can be used for the mainstream.
Auto: Channels will record as they have been scheduled, and not in any other capacity.
Manual: Channels will support all recording type. This includes scheduled recording.
Off: Channels will not record in any capacity. This includes scheduled and manual recording.
Sub Stream: These options allow the user to enable or disable sub stream recording types. There are 3 settings that can be used for sub stream 1.
Auto: Channels will record as they have been scheduled, and not in any other capacity.
Manual: Channels will support all recording type. This includes scheduled recording.
Off: Channels will not record in any capacity. This includes scheduled and manual recording.
Snapshot: This set of options can either enable or disable the snapshot functionality for specific channels.
Enable: Enable snapshots to be recorded or sent from the system.
Disable: Disable snapshots from being recorded or sent from the system.

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

System

This menu allows the user to access and modify general system functions.

General

This screen displays general settings for the NVR. Below is an explanation of the fields on the **General** settings screen:

Device Name: This field allows the user to customize the name of the NVR.
Device No: This field allows the user to customize the device's number.
Language: The default language will be English.
Video Standard: The default video standard will be NTSC.
Sync to Remote Device: This option allows device settings, including language, format, and time zone, to sync to a remotely connected device.
Auto Logout: This field allows the user to define in minutes how long a camera can stay idle before it is logged out.
IPC Time Sync: Allow the device to keep all camera's time up to date.
IPC **Time Sync Period (hour):** The time, in hours, in which the time will be updated. The default value is 24 hours.

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

Date and Time

This screen displays date and time settings for the NVR. Below is an explanation of the fields on the Date & Time settings screen:

System Time: This field allows the user to set the system time and time zone. Click Save to Save the system time as it is shown in the display.
System Zone: This dropdown box allows the user to specify a time zone for the NVR to use.
Date Format: This dropdown box allows the user to specify a date and time format for the NVR to use. There are 3 options.
YYYY MM DD: Year, Month, Day.
MM DD YYYY: Month, Day, Year.
DD MM YYYY: Day, Month, Year.
Date Separator: This dropdown box allows the user to specify a date separator. There are 3 options:
– Dash
/ Forward Slash
_ Underscore
Time Format: This dropdown box allows the user to specify a time format for the NVR to use. There are two options.
24 Hour
12 Hour
DST: This option allows the user to activate DST for the system.
DST Type: This field allows the user to pick whether DST starts on a specific day of the week, or on a specified.
Start Time: This field allows the user to enter a start date and time for DST to begin.
End Time: This field allows the user to enter an end date and time for DST to end on.

NTP: NTP stands for Network Time Protocol. This checkbox allows the user to enable the use of an NST server to synchronize the date and time settings on the NVR.
Server: This field allows the user to set the NTP server IP address. Clicking the Manual Update button pulls a time update from the server.
Port: This field allows the user to set the NTP server port number.
Interval (Min.): This field allows the user to set the NTP synchronization interval. This number determines how often the NVR queries the NTP server to get accurate date and time information. This value can be between 0 and 60 minutes.

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

Holiday

This screen displays the holiday settings for the NVR. Holiday settings are used to allow the device to recognized holidays in the system which are set by the user. Below is an explanation of the fields on the Holiday settings screen:

No.: This number indicates how many holidays are in the system. Each line item has a number to signify its place in the list.
Status: This dropdown box indicates the status of the holiday. There are two options:
Open: The holiday is active, and the NVR will stop recording for that holiday period.
Stop: The holiday is inactive, and the NVR will continue normal operation for that holiday period.
Name: This column is where the name of the holiday is displayed.
Date: This column shows the date that the holiday occurs on.
Duration: This column shows the range in which the holiday occurs.
Operation: This column allows the user to edit or delete the holiday.
Edit ( ): This column has a button that allows for the editing of the holiday.
Delete ( ): This column has a button that allows for the deletion of the holiday.
Add Holidays: This button allows the user to add a holiday.

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

Firewall

The Firewall menu allows the user to set IP filters which allow certain IP addresses to become whitelisted or blacklisted in the system. Below is a description of the fields in the security settings screen:

Type: This dropdown menu allows the user to select which type of firewall will be included. There are 3 types of firewall settings.
Network Access: Prevents a set IP address from network access.
Ping Prohibited: Prevents the device from pinging a set IP address.
Anti-Half Connection: Prevents the device from partial connection to a set IP address.
Enable: This option allows the user to enable the firewall feature.
Mode: Allows the user to choose which sites will be trusted (whitelisted) or blocked (blacklisted.

Host IP/Mac: The host IP/Mac address of the applied IP address.
Port: The port number of the whitelisted or blacklisted IP address.
Edit: Allows the user to edit an IP or port number of a whitelisted or blacklisted IP address.
Delete: Delete an added whitelisted or blacklisted IP address
Add: Click this button to add a trusted or blocked site into the system.

To refresh the interface, click the **Refresh** button. To confirm settings, click the **SAVE** button.

Account

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

The NVR comes with 2 usernames by default:

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

It is highly recommended to change the passwords for the admin and default accounts.
Each Username and user group name can only contain letters, numbers, underline marks, dashes, or dots. No empty spaces are allowed.
The maximum number of users is 64, and the maximum number of users that can be in one group is 20.
There are two levels for user management: administrator and user. Administrator has more rights than a normal user and can modify key NVR settings. Each user can belong to only one group, and user rights cannot exceed group rights.

User

This screen is used to configure User Account settings. Below is an explanation of the fields on the User screen:

No: This number indicates how many users are in the system. Each line item has a number to signify its place in the list.
Username: This column indicates an account's username.
Group Name: This column shows which group the username belongs to.
Password Strength: The security of the user's password.
MAC address: The MAC address in which the user's credentials are associated.
Memo: This column provides a brief description of the account's status in the NVR.
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.
Add User: This button allows the user to add another user account.

Note: It is recommended to give the general user fewer rights than an administrative one. When a new user is created, a MAC address can be entered for the user. This can limit the user's ability to logon from another device. If left blank, the user can logon from any MAC address. There is a total of 98 rights that can be assigned to a user.

Group

This screen is used to configure **Group** account settings. Below is an explanation of the fields on the **Group** settings screen:

No.: 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.
Memo: This column indicates any notes about the user group.
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.
Add: This button allows the user to add another user group.
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.

ONVIF User

This screen is used to configure or modify ONVIF users that are associated with your NVR. Below is a description of the fields listed in this menu:

No.: This number indicates how many users are in the system. Each line item has a number to signify its place in the list.
Username – The user account that is being modified.
Password Strength: The security of the user's password.
Group Name – The group name of the account that is being modified.
Edit – Used to modify the settings associated with this menu.
Delete – Used to delete the user from this menu.
Add – Used to add a new user into the system.

Password Reset

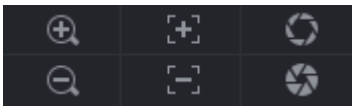
This menu is used to add an email address in which the **Forgot Password** instructions can be emailed. Please ensure a valid email address is entered in this field. To confirm settings, click the **Save** button. Click the **Refresh** button to refresh the interface.

Live

The live view interface provides a real-time viewing of a connected device. Below is a description of the options in this menu.

Channel List: The amount of channels currently available on the system.
Preview Recover: Refreshes the live view interface to its default format.
Start Talk: Enables two-way audio if an external and microphone and speaker are connected. Requires a plugin to function if using a web browser (Internet Explorer).
Instant Record: Instantly starts recording video (a hard drive must be installed).

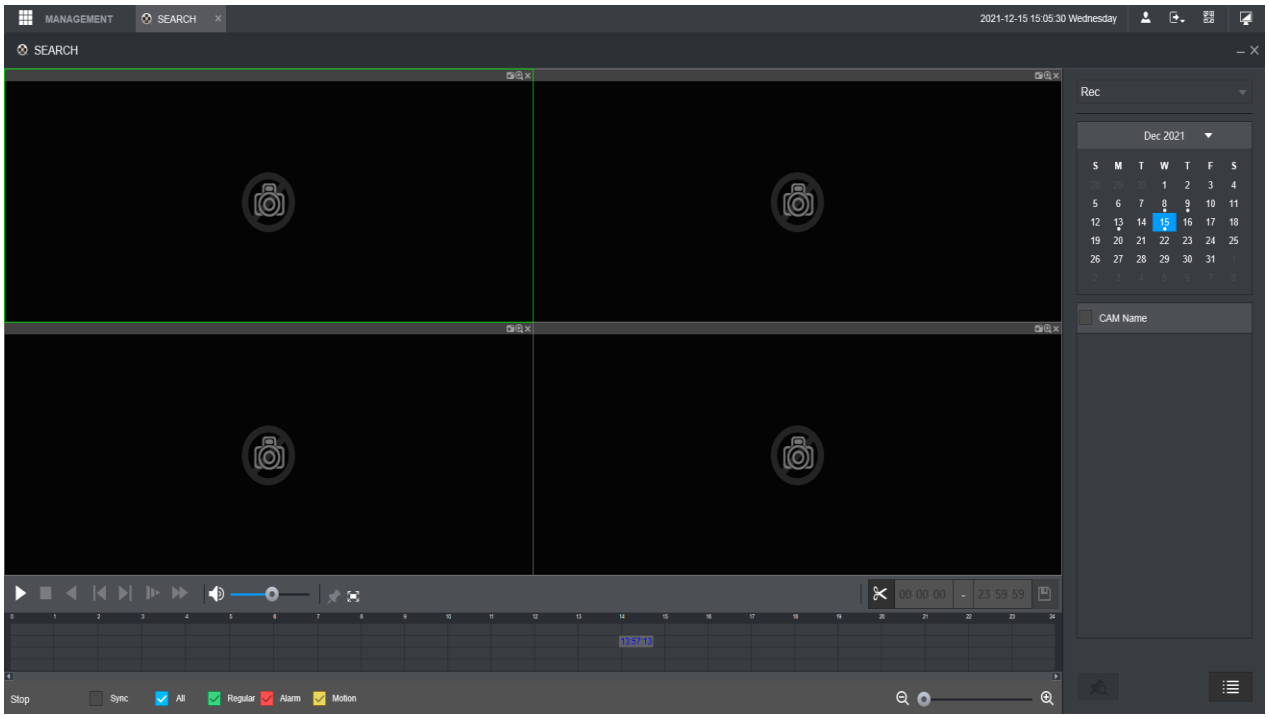
Local Play: Pulls a downloaded video that is locally stored. Requires a plugin to function if using a web browser (Internet Explorer).
W:H: Adjust the aspect ratio output of the selected device. Requires a plugin to function if using a web browser (Internet Explorer).
HD: Switch between high and low quality video output.
Fluency Output: Switch between fluent, general, and real time video fluency. Requires a plugin to function if using a web browser (Internet Explorer).
Full Screen: Bring a selected channel to full screen.
Refresh: Refreshes the stream of a selected channel.
Window Splits: Select how many channels will be displayed in the interface.
PTZ: Used to pan/tilt/zoom a connected PTZ camera.
Speed: Use this slider to control the speed of the pan/tilt.


: Used for zoom, focus, and iris control.

PTZ Setup: Set PTZ presets for a PTZ controlled camera. The system can handle 1~255 presets.
PTZ Menu: Used to access the OSD menu for a connected camera. To access the OSD menu, click Save in the PTZ Menu and use the directional arrows to scroll up and down the menu.

Search

The **Search** menu allows the user to view recorded data retained in the system. This includes recording types such as regular, motion detection, (MD), Alarm. The system will need a hard drive installed to view recorded events. Please note, some of the features provided in this menu such as clipping and downloading events may require a plugin.



Please refer to the following sheet for more information.

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

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

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

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

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

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

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

Playback options – Please refer to the table below:

Icon	Feature
▶/ II	**Play/Pause:** Play and pause the recording.
■	**Stop:** Stops the recording
◀	**Backward Play:** Rewinds the recording. Click the ▶/ II icon to resume play mode.
◀I	**Previous Frame:** Returns the recording to the previous frame in playback mode.
I▶	**Next Frame:** Moves the recording to the next frame while in playback mode.
▶	**Slow Play:** Plays the recording in slow motion modes.
▶▶	**Fast Forward:** Fast forwards the recording while in playback mode.
⏮	**Previous Day:** Moves the interface previous day recordings
⏭	**Next Day:** Moves the interface to the next day recordings.
🔊	**Volume:** Adjust the volume of the recording up or down using the volume slider.
📌	**Mark Button:** Adds a mark into the time bar while in playback mode.
	**Full Screen:** Click this button to view the event in full screen mode.
✂	**Clip:** Used to clip an event by entering a start and end time for the clip.
💾	**Save:** Used to Save and download a created clip.

Time Bar	Provides a timeline of all recording types for a selected channel. Different recording will be displayed in different colors on the timeline. Use the recording type checkboxes to filter which recording types will be displayed in the playback timeline.
Zoom	While in playback mode, select an area of the recording to digitally zoom in and out.
	File List: Access and view recordings from a selected date & time.
	Mark a recording manually in the file list.
	Search and unlock a marked recording.
	Go Back: Exit the file list menu.

File List Playback

The **File List** provides a list of active recordings based on the date selected in the calendar. To use the file list, choose a day with active recordings from the calendar and select the channel(s) you would like to view. Click on the **File List** icon.

A list of recordings and their record types will be displayed in the file list. Find the recording you would like to view; you can double click the event to play it back or click the play button.

Downloading a Recording

To download a recording, select the recording from the file list that you would like to download, note the start and end times, and click the **Clip** icon. Enter the start and end time of the event into the interface and click the **Save** icon.

Select a path for the recording and the file format in which the recording will be downloaded. The default file format will be MP4 however .dav can be selected as well. Click Save. The recording will begin to download to the specified path on your computer.

Alarm

The **Alarm** menu allows the user to view live alarm information as well as configure alarm event actions such as motion detection.

Alarm Info

This feature allows the user to search for specific types of alarm information related to the system. These specific types of alarms include, Motion Detection, Video Loss, Tampering, Abnormalities, Local Alarms, HDDs, etc. You can also select **All** to view all log and alarm information.

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

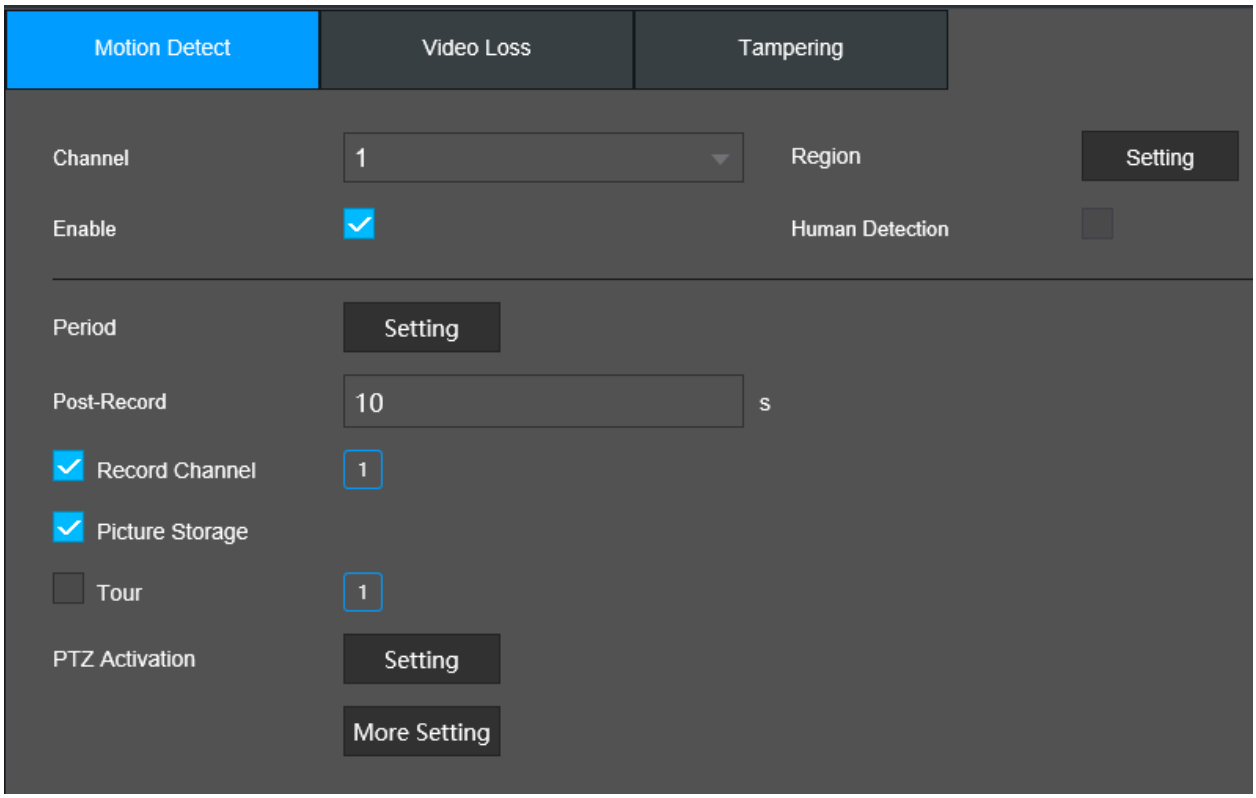
If you require to back up any alarm events, the alarm info interface has a backup option. When selected, all selected files will be Saved to an external USB storage NVR. To backup events from this menu, click on **Backup** and follow the on-screen instructions. Also, for a more detailed description of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

Video Detection

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

Motion Detect

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

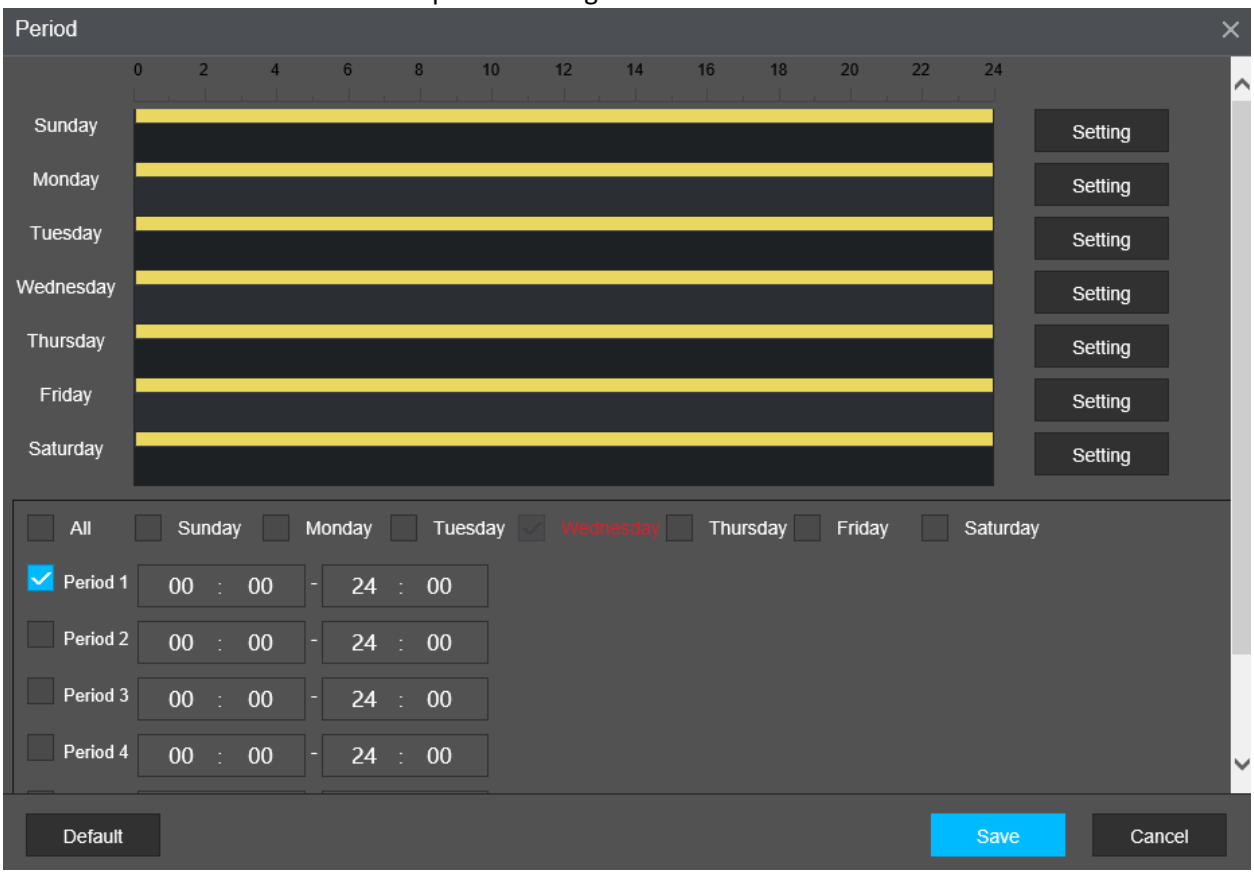


Below is a description of the fields on the **Motion Detection** settings page:

Channel: The channel dropdown menu is used to select which channel you would like to use to set your motion detection.
Region: The setup button takes the user to the motion detection region setup screen for that specific channel. On the next page is a screenshot of the motion detection region screen.

When the setup button is clicked, the current channel's interface comes into a full screen view. The user can then set up to 4 regions, each with their own region name, sensitivity (1-100), and threshold (1-100). Each region has a specific color, and the region selector tool is displayed when the mouse is moved to the top of the screen.
Sensitivity is the amount of change required to increase the motion detected by a percentage. The lower the sensitivity, the more movement is required to trigger an alarm.
Threshold is the level that the motion detection needs to reach to trigger an alarm.
The lower the threshold, the more likely that motion will trigger an alarm.
To designate a zone, click and drag the mouse over the area desired. When a colored box is displayed over the live feed, that area is now enabled for motion detection. Clicking the FN button will switch the mode between armed and disarmed, so that clicking and dragging the mouse can either designate a motion detection zone or remove any motion detection zone markers.
After the motion detection zone is set, click the enter button to exit the motion detection screen. Remember to click the Save button on the motion detection settings screen, otherwise the motion detection zones will not go into effect. Clicking the escape button to leave the motion detection zone and will not Save the zone setup.

Enable: This checkbox allows the user to enable the motion detection function for a specific channel. To select a channel, click on the drop-down menu provided on the right.
Period: This setup button takes the user to the motion detection period settings screen. Below is a screenshot of the motion detection period settings screen.



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

The system allows for the configuration of up to 6 different time periods. Click the checkbox to the left of the time period to enable that time period. Click the text next to each period to edit the time period. To copy time periods, click the checkboxes next to the days of the week that you would like to copy the settings to. Once finished on this screen, click Save to return to the time period settings screen.
Human Detection: If the connected device supports human detection, this option can be enabled which will allow the device to only capture a motion event if a human is detected only.
Post-Record: This allows the user to set a delay between masking events measured in seconds.
Record Channel: This checkbox allows the user to enable the system to record video for that channel when a motion detection alarm is triggered. Delay is also associated with this tab; it is the This field specifies in seconds how long the delay between alarm activation and recording should be.
Picture Storage: When an alarm occurs, the NVR triggers a snapshot for the selected channel.
Tour: Allows the user to enable the camera to activate a PTZ tour when a motion detection alarm is triggered.
PTZ Activation: Allows the user to active PTZ functionality to an applicable PTZ device.
Alarm Tone: Check this box to enable an imported voice prompt to be used if an event occurs. To use this feature, select a file from the dropdown box in the **File Name** section.
More Setting: Allows the user to access other motion detection options:

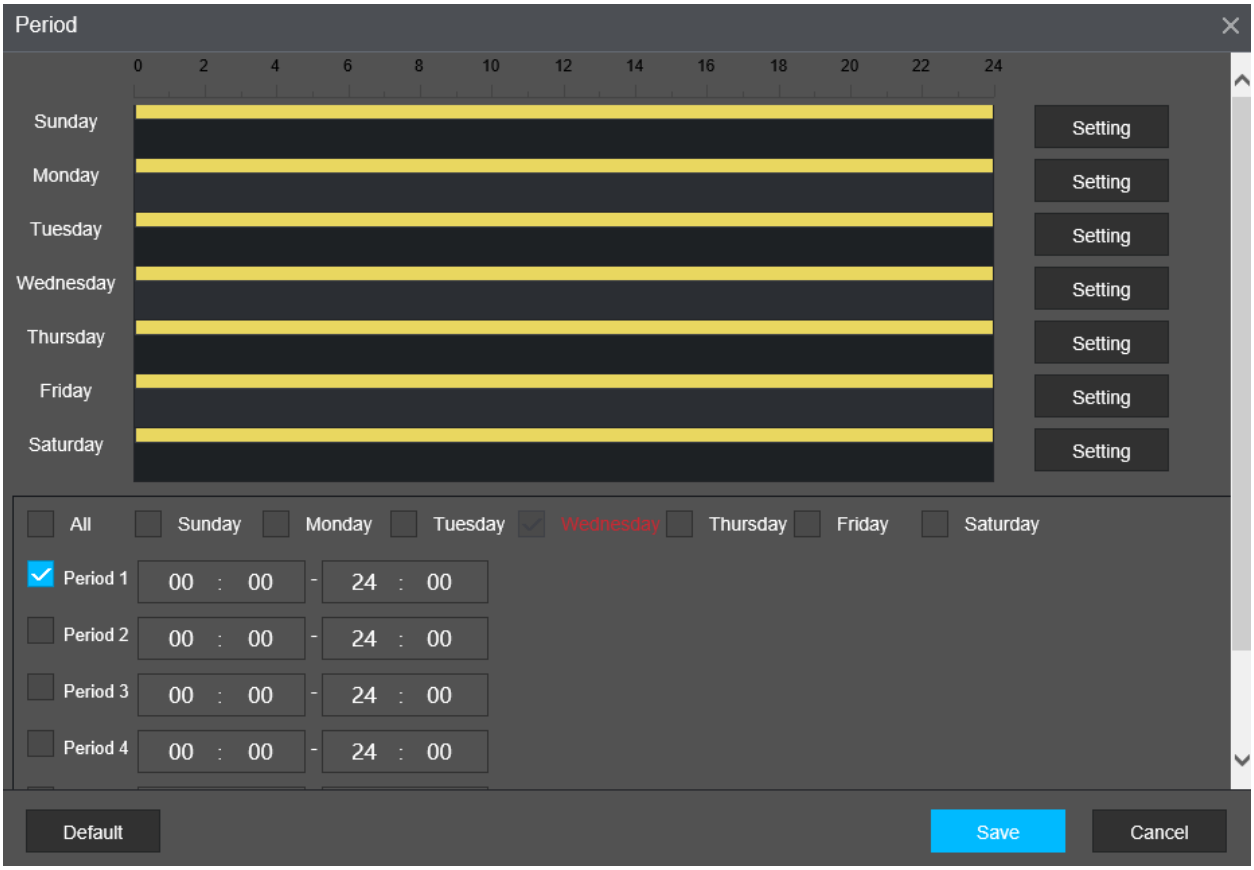
Anti-Dither: This field allows the user to set the anti-dither time. The values in this field can range from 5 to 600 seconds. This time value controls how long the alarm signal lasts. Based on motion detection, a buzzer can go off, a tour can begin, PTZ can be activated, a snapshot can be taken, or a channel can begin recording.
Show Message: This checkbox allows the user to enable the system to show an on-screen message when a motion detection alarm is triggered.
Buzzer: Check this box to enable a buzzer to be sound on your device if an event occurs.
Log: Check this box to enable a log of the abnormality to be retained into the system.

To reset to default settings, click the **Default** button. To copy the motion detection settings, click on the **Copy to** button. To refresh the page, click the **Refresh** button. To Save the settings click the **Save** button.

Video Loss

The video loss settings screen is where the NVR can be setup to notify the user any time there is video loss on any of the channels. Below is a description of the fields on the **Video Loss** settings page.

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



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

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

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

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.

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

PTZ Activation: Allows the user to active PTZ functionality to an applicable PTZ device.

More Setting: Allows the user to access other motion detection options:

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

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

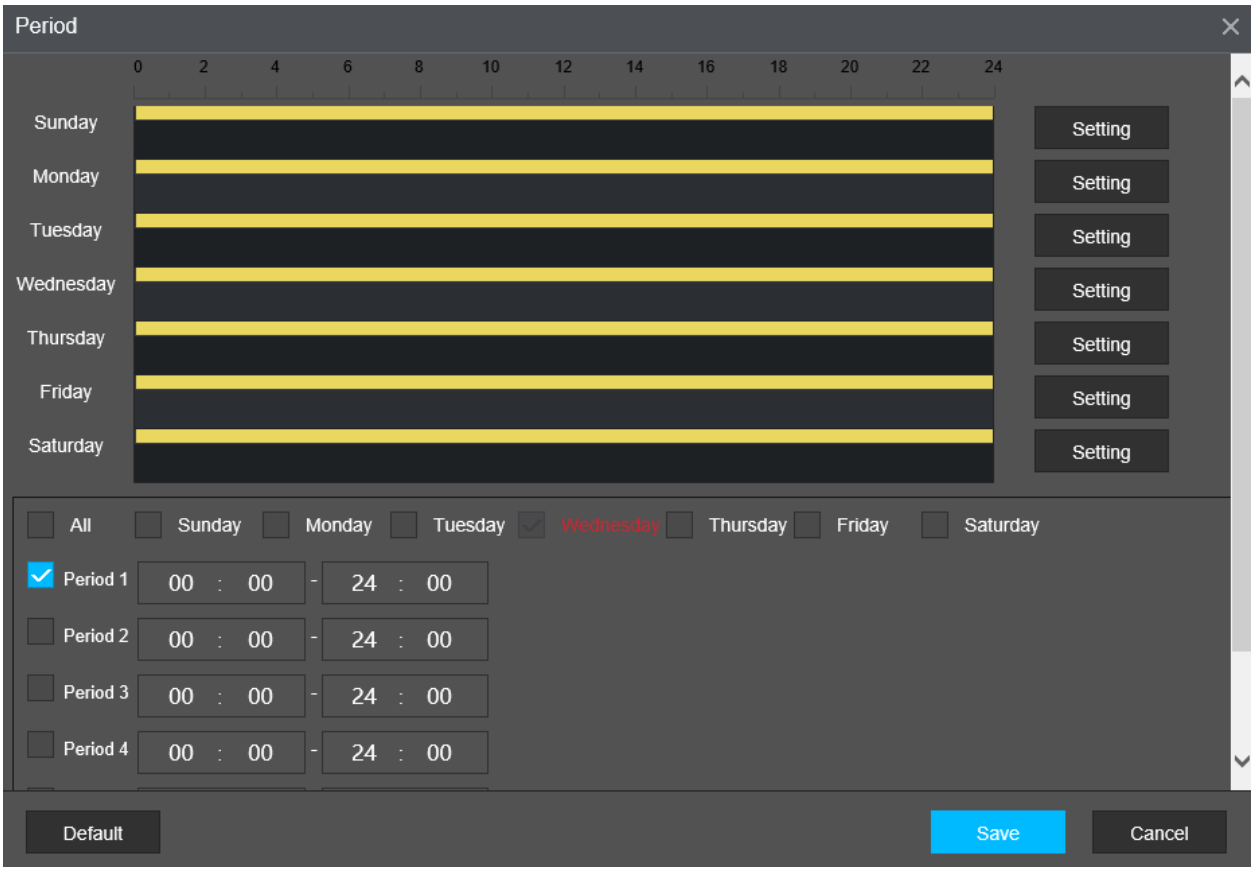
Log: Check this box to enable a log of the abnormality to be retained into the system.

To reset to default settings, click the **Default** button. To copy the motion detection settings, click on the **Copy to** button. To refresh the page, click the **Refresh** button. To Save the settings click the **Save** button.

Tampering

The **Tampering** settings screen is where the NVR can be setup to notify the user any time a camera is tampered with or if the output video is only displaying in one color. Below is a description of the fields on the **Video Tampering** settings page:

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



Click and drag on the yellow bars to specify time zones for detection. To edit multiple days at once, either click the checkboxes next to the names, or click the checkbox next to All to edit all the days at once. Once

the checkbox is clicked, press Save to Save and apply your detection settings. Click Cancel to undo any changes and return to the motion detection settings screen. Click **Default** to use the default settings.
The system allows for the configuration of up to 6 different time periods. Click the checkbox to the left of the time period to enable that time period. Click the text next to each period to edit the time period. To copy time periods, click the checkboxes next to the days of the week that you would like to copy the settings to. Once finished on this screen, click Save to return to the time period settings screen.
Post Record: Allows the user to delay recording for a specified time after the event ends.
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.
Picture Storage: When an alarm occurs, the NVR triggers a snapshot for the selected channel.
Tour: Allows the user to enable the camera to activate a PTZ tour when a motion detection alarm is triggered.
PTZ Activation: Allows the user to active PTZ functionality to an applicable PTZ device.
More Setting: Allows the user to access other motion detection options:

- **Show Message:** This checkbox allows the user to enable the system to show an on-screen message when a motion detection alarm is triggered.
- **Buzzer:** Check this box to enable a buzzer to be sound on your device if an event occurs.
- **Log:** Check this box to enable a log of the abnormality to be retained into the system.

To reset to default settings, click the **Default** button. To copy the motion detection settings, click on the **Copy to** button. To refresh the page, click the **Refresh** button. To Save the settings click the **Save** button.

Abnormality

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

HDD

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

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

- **No HDD:** No hard drive is detected.
- **HDD Error:** The hard drive has an error.
- **HDD No Space:** The hard drive is about to or has run out of space.

Enable: This option allows the user to enable the features below for the specified event type.
More Setting: Allows the user to access other detection options.

- **Show Message:** This checkbox allows the user to enable the system to show an on-screen message when an HDD abnormality occurs.
- **Buzzer:** Check this box to enable a buzzer to be sound on your device if an event occurs.
- **Log:** Check this box to enable a log of the abnormality to be retained into the system.

To refresh the page, click the **Refresh** button. To Save the settings click the **Save** button.

Network

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

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

- **Net Disconnection:** The network connection has been disconnected.
- **IP Conflict:** There is a device on the network with the same IP address.
- **MAC Conflict:** There is a device on the network with the same MAC address.

Enable: This option allows the user to enable the features below for the specified event type.
More Setting: Allows the user to access other detection options.

- **Show Message:** This checkbox allows the user to enable the system to show an on-screen message when an abnormality occurs.
- **Buzzer:** Check this box to enable a buzzer to be sound on your device if an event occurs.
- **Log:** Check this box to enable a log of the abnormality to be retained into the system.

To refresh the page, click the **Refresh** button. To Save the settings click the **Save** button.

Maintain

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

Log

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

Below is a description of the features in this menu:

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

To view system logs, enter a start and end time for the log you wish to pull and select a log type from the dropdown menu. Click **Search**. To download a copy of the log to your computer, click on **Backup**, select a path for the text document.

System Info

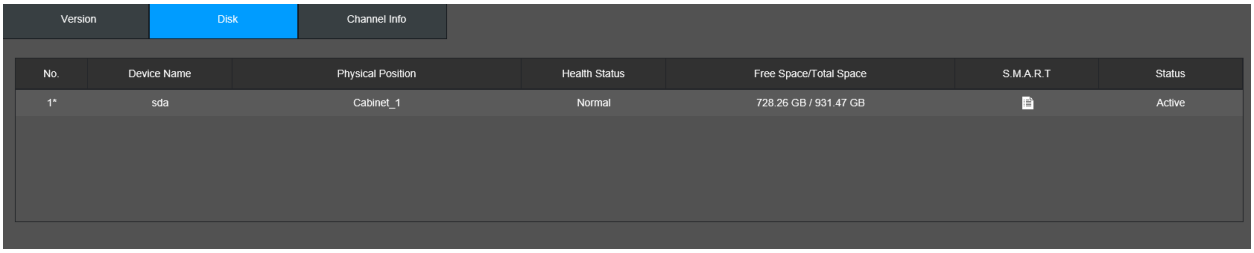
This menu allows the user to view information about their system such as the current system and firmware version, hard drive details, BPS, and hard drive health detection.

Version

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

HDD

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



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

Number: The number represented in the system for the hard drive.
Device Name: The name assigned by the system for the connected hard drive.
Physical Position: Displays the location of the connected hard drive on the system.
Type: The read and write type assigned to the hard drive.
Free Space/Total Space: The total space used on the hard drive.
S.M.A.R.T: S.M.A.R.T. stands for, "Self-Monitoring, Analysis, and reporting technology. The S.M.A.R.T. report provides a detailed description of the results taken from the initial HDD detect process. This report is designed to provide insight into the health of your HDD and its interaction with your system.
Status: The status of the hard drive.

BPS

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

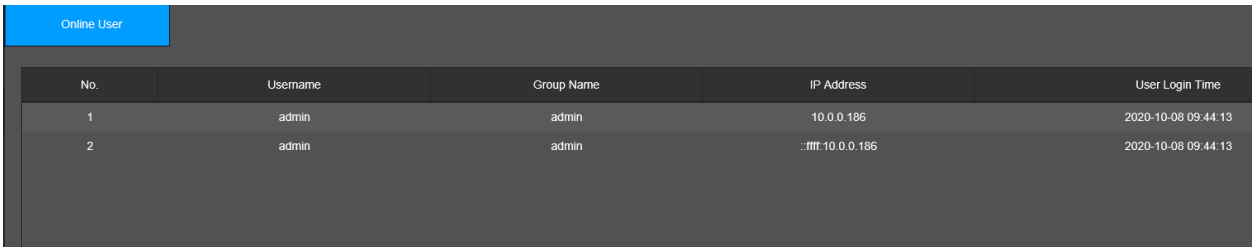
Network

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

Online Users

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

Below is a screenshot of this menu.



Below is a description of the fields listed in this menu:
No: The number assigned to the user in the system.
Username: The username of the connected user.
Group Name: The group name associated with the connected user.
IP address: The IP address used by the connected user to access the system.
User Login Time: The date & time which the user logged into the system.
Refresh: This button is used to refresh the interface.

Manager

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

Maintenance

This screen is used to configure **Maintenance** settings for the system. Below is an explanation of the fields in the **Maintenance** screen:

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

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

Import/Export

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

Export: Used to export device configuration files to the device.
Browse: Click this button to select the device configuration file from
Import: Click this button after the config file has been imported into the interface to import the settings.

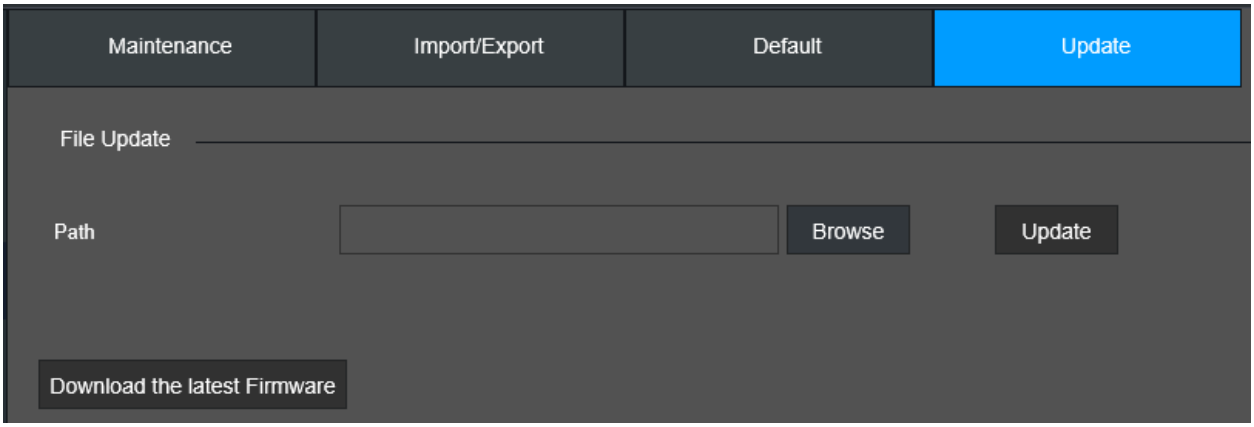
Default

This screen is used to revert the NVR back to its original default or factory default settings. To reset specific parameters, excluding network, user management, etc. use the **Default** button. To perform a factory reset, click on the **Factory Default** button. A prompt will be displayed, click the **SAVE** button to begin the factory reset. The device will reboot and restored back to its original factory settings.

Update

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

Below is a screenshot of the upgrade screen:



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

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

BackUp

This menu allows the user to backup file information from the device to an external USB storage device. This feature is only available locally or using a web browser that supports a plugin such as Internet Explorer. For more information on this option please refer to the information provided below.

In the **Path** field, choose a file path in which the files will be backed up, click the **Browse** option to select a file path. Choose a channel in which the file is located and choose a record type if necessary. Enter a start and end time of the event and the file format from the **Type** dropdown menu. Click **Search** to import all recorded data.

Note: A view the event before it is downloaded, click on the Play icon. Select the event from the interface and click **Backup**. The chosen files will be backed up to the file path previously chosen.

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

Display

This menu allows the user to configure resolution and display setting outputs as well as setup a display tour if multiple displays are being used.

Display

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

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

Parameter	Description
Main Screen	The main display outputs. The device should be VGA+HDMI by default.
Screen Enable	This checkbox enables decoding from the NVR to the display.
Screen No.	This dropdown menu should be default to VGA+HDMI.
Resolution	This drop-down menu provides output different output resolutions of the NVR.
Transparency	Use this slider to choose a transparency rate for the output of your device.
Time Display	This checkbox enables the time overlay on the display.
Channel Display	This checkbox enables the channel overlay on the display.

To revert the settings to default, click **Default**. Click **Refresh** to refresh the interface. Click **Save** to Save display settings.

Tour Setting

This screen is used to activate tour functionality for the live preview. Below is an explanation of the fields on the Tour screen:

Enable: This checkbox allows the user to enable the tour functionality.
Interval: Enter the amount of time that you want each channel group displays on the screen. The value ranges from 5 seconds to 120 seconds, and the default value is 5 seconds.
Video Detection Select the View 1 or View 8 for **Motion** tour.
Alarm: Select the View 1 or View 8 for Alarm tours (system alarm events).
Window Split: Select **View 1**, **View 4**, **View 8**, or other modes that are supported by the NVR.
Add: This button allows the user to add a channel to the tour.
Modify: This button allows the user to modify a channel group sequence.
Delete: This button allows the user to remove a channel from the tour.
Move Up: This button allows the user to move a camera up in the tour queue.

Move Down: This button allows the user to move a camera down in the tour queue.

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

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.

File Manager

The file manager tab allows the user to configure audio files to a set schedule.

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

Click **Add to Remote** to apply the audio file to a remotely connected device.

Click **Refresh** to refresh the interface. Click **SAVE** to Save the audio file to the system.

FCC Statement

1. This NVR complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this NVR may not cause harmful interference, and (2) this NVR must accept any interference received, including interference that may cause undesired operation.
2. The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes, or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.
3. (b) For a Class B digital NVR or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital NVR, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.
4. RF exposure warning
This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

IC Warning Statement

This NVR complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:
(1) This NVR may not cause interference; and
(2) This NVR must accept any interference, including interference that may cause undesired operation of the NVR. *Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio* exempts *de l icence. L'exploitation est autorisée aux deux conditions suivantes : (1) apparel ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.
Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil ettoutes les personnes.

Appendix A: Toxic or Hazardous Materials or Elements

Toxic or Hazardous Materials or Elements						
Component Name	Pb	Hg	Cd	Cr Vl	PBB	PBDE
Sheet Metal	o	o	o	o	o	o
Plastic Parts	o	o	o	o	o	o
Circuit Board	o	o	o	o	o	o
Fasteners	o	o	o	o	o	o
Cables/Adapters	o	o	o	o	o	o
Packing Materials	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.

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