AI Digital Video Recorder
User Manual

Version 1.0.0.
November 20th, 2020

Contents

Welcome

Thank you for purchasing an Amcrest AI DVR!

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

Important Safeguards and Warnings

Electrical Safety

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

Transportation Security

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

Installation

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

Qualified Engineers Needed

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

Environment

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

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

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

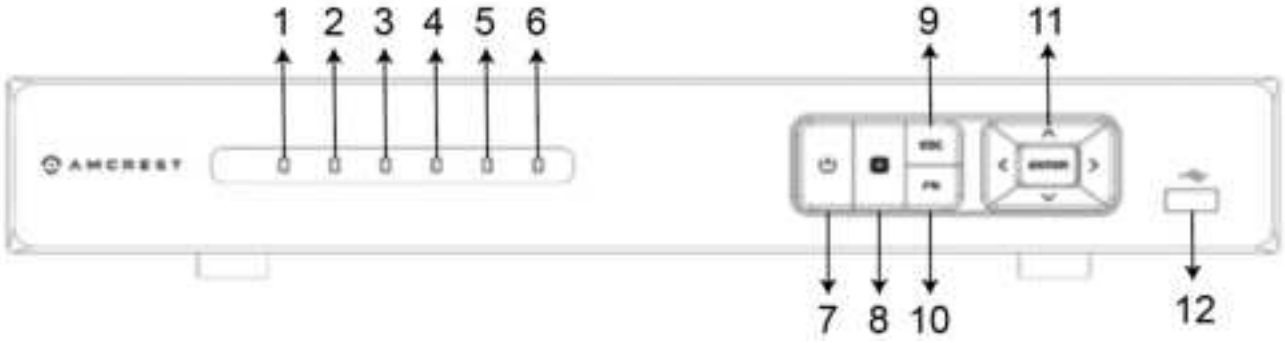
Accessories

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

Before operating, please read the following instructions carefully.

Front Panel

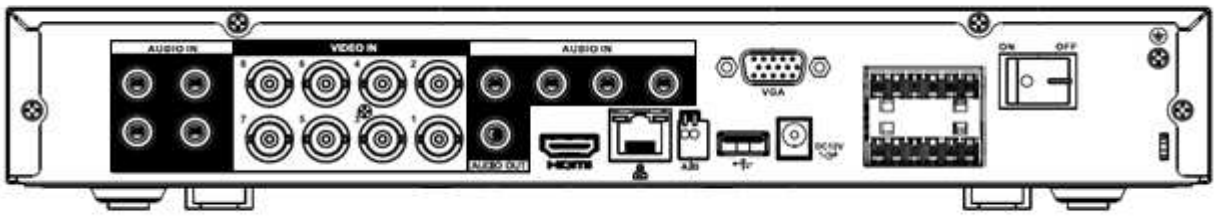
Applicable for Amcrest AI DVRs



#	Icon	Name	Function(s)
1	Alarm	Alarm Status	When an alarm event occurs, this LED turns blue.
2	REC	Recording Status	When recording to the hard drive, this LED will turn blue.
3	HDD	HDD Status	HDD error or the HDD is at capacity.
4	NET	Network Status	Network error or disconnection has occurred.
5	ACT	Enter	Activates once an operation is confirmed.
6	Power	Power Status	When the DVR is powered on, this LED will remain blue.
7	⏻	Power Button	Press and hold for 3 seconds to boot or shut down the device.
8	IR	Infrared Sensor	Infrared sensor
9	ESC	Escape	Go to the previous menu or cancel the current operation. When in playback, push ESC to restore real-time monitoring.
10	FN	Assist	When is single monitoring mode, push this button to display additional functions such as PTZ control and image color. Backspace function: in numeric/text control, press Fn for 1.5 seconds to delete the character before the cursor. In motion detection setup, use the Fn button and directional keys to adjust the settings. In text mode, push Fn to switch between numeric and English characters (small/capitalized), etc. Activates other special functions.
11	▲ / ▼ Enter	Up/Down/Enter	Activates current controls, modifies settings, and allows navigating up and down through options. Increases/Decreases numerals. Goes to the default button. Assists in functions such as PTZ menu.
12	⇐	USB 2.0 port	USB 2.0 port: connect a mouse, USB storage device, etc.

Rear Panel

The rear panel of the DVR may differ model to model. Below is a representation of the rear panel for the Amcrest AI DVR.



Button	Icon	Description
	USB 2.0 port	USB 2.0 port. Connect a mouse, USB storage device, etc.
	Network port	10M/100Mbps self-adaptive Ethernet port.
HDMI	HDMI Output	High definition audio and video signal output port.
VGA	VGA video output port	VGA video output port. Outputs analog video signal. This connects to the monitor to view analog video.
	GND	Ground end
	Power Port	DC12V, DC48V Depending on model.
	Alarm Port	Alarm connection port used to connect an external alarm.
	RS485(RS-485) communication port	RS485_A port. It is the cable A. You can connect to the control devices such as speed dome PTZ. RS485_B. It is the cable B. You can connect to the control devices such as speed dome PTZ.
MIC IN	Audio input port	Bidirectional talk input port. This is used to receive the analog audio signal from the device such as a microphone.
MIC Out	Audio output port	Audio output port. This is used to output the analog audio signal to devices such as an external RCA speaker. Bidirectional talk output. Audio output on 1-window video monitoring. Audio output on 1-window video playback.

Hardware Setup

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

Note: This section *only* applies to DVRs purchased without a hard drive already preinstalled. Most 'kits' or 'bundles will come with a pre-installed hard drive.

The DVR has connections for only 1 hard drive inside the case and the hard drive must be no larger than 8TB (Terabytes).

To install your hard drive, the following is needed:

A medium sized (regular) Phillips-head screwdriver - *not included*

A hard drive - *not included (unless you purchased a 'kit' that **does** have one included)*
Four hard drive fastening screws – *included*

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

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

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

Setting Up the Cables

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

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

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

2. Connect an Ethernet cable to your router.

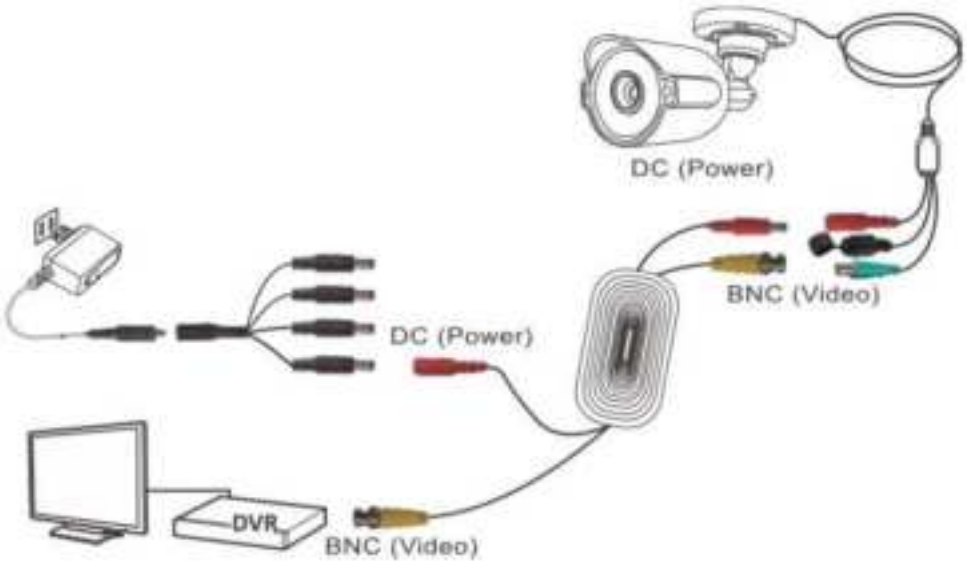
Then, connect the other end of the cable to the Ethernet port on the back of the DVR.

3. Connect the cameras to power.

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

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

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



Factory Reset Procedures

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

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

To factory reset the DVR, unplug the DVR from power. Once power is removed from the unit, press, and hold the factory reset switch for 4 - 5 seconds. Continue holding the reset switch and plug the DVR's power supply back into the unit, you will hear a beep.
Continue holding the reset switch and allow the DVR to initialize for 20 - 30 seconds and then release the switch. The DVR will be set to default and will show the DVR initialization screen.

Alarm Connection

Alarm Port

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

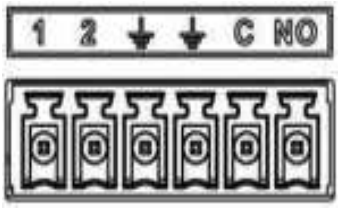


Figure 2-6

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

Note Different models support different alarm input ports. Please refer to the specifications sheet for detailed information. Slight differences may be found on the alarm port layout.

Alarm input port

Connect the positive end (+) of the alarm input device to the alarm input port (ALARM IN 1~2) of the DVR. Connect the negative end (-) of the alarm input device to the ground end (⏚) of the DVR.

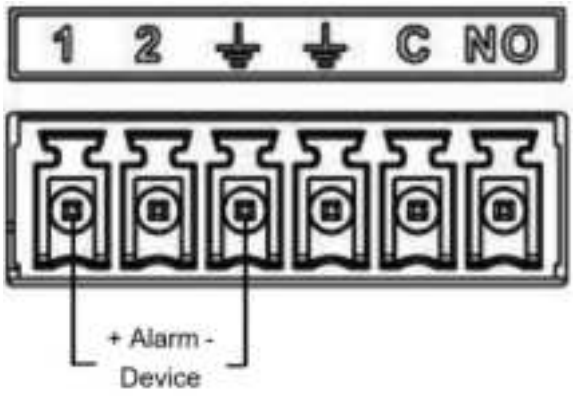


Figure 2-7

Note When connecting the ground port of the alarm device to the DVR, you can use any of the GND ports. When there is peripheral power supplying the alarm device, ensure it is grounded on the DVR.

Alarm input and output port

There is peripheral power supplying to the external alarm device.

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

Alarm relay specifications

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

Audio Ports

Device-end to PC-end

Device Connection

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

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

Mouse Operation

Please refer to the following sheet for mouse operation instructions.

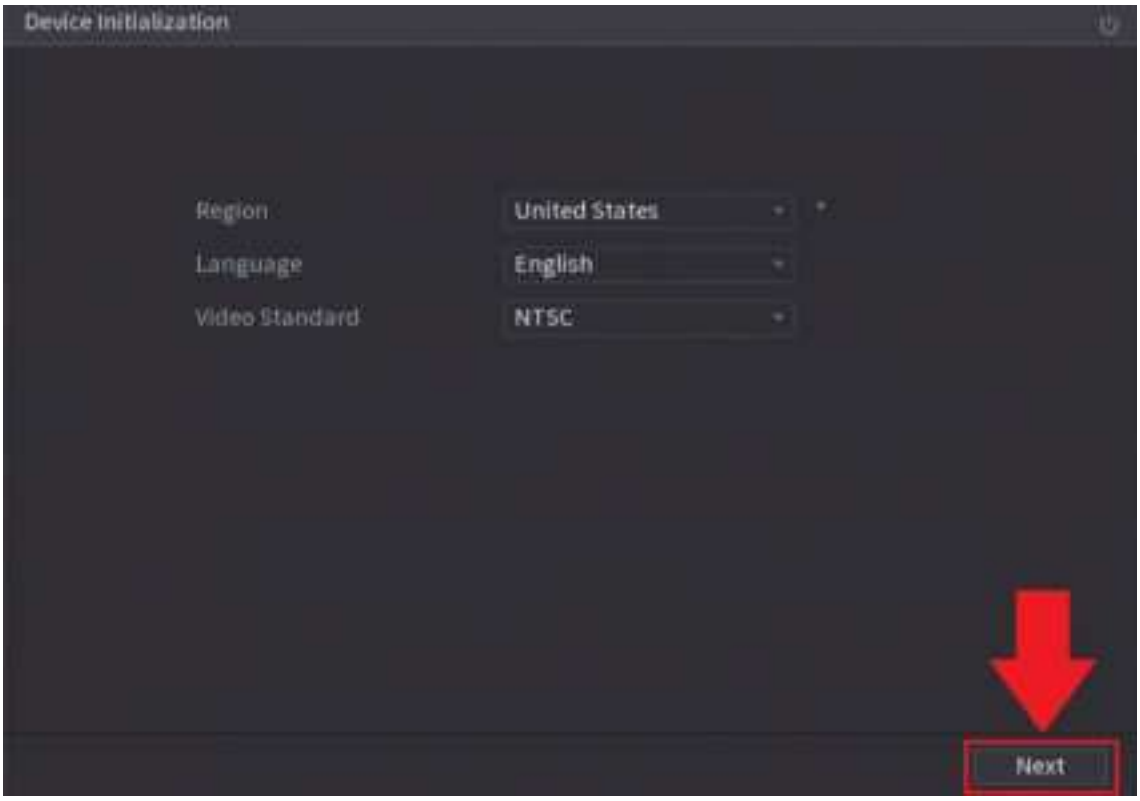
Left mouse click	When you have selected one menu item, left mouse click to view the menu content.
	Modify a checkbox or motion detection status.
	Click a combo box to show the dropdown list
	In an input box, you can select different input methods. Left click the corresponding button on the panel to input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

Move mouse	Select current control or move control
Drag mouse	Select the motion detection zone
	Select the privacy mask zone

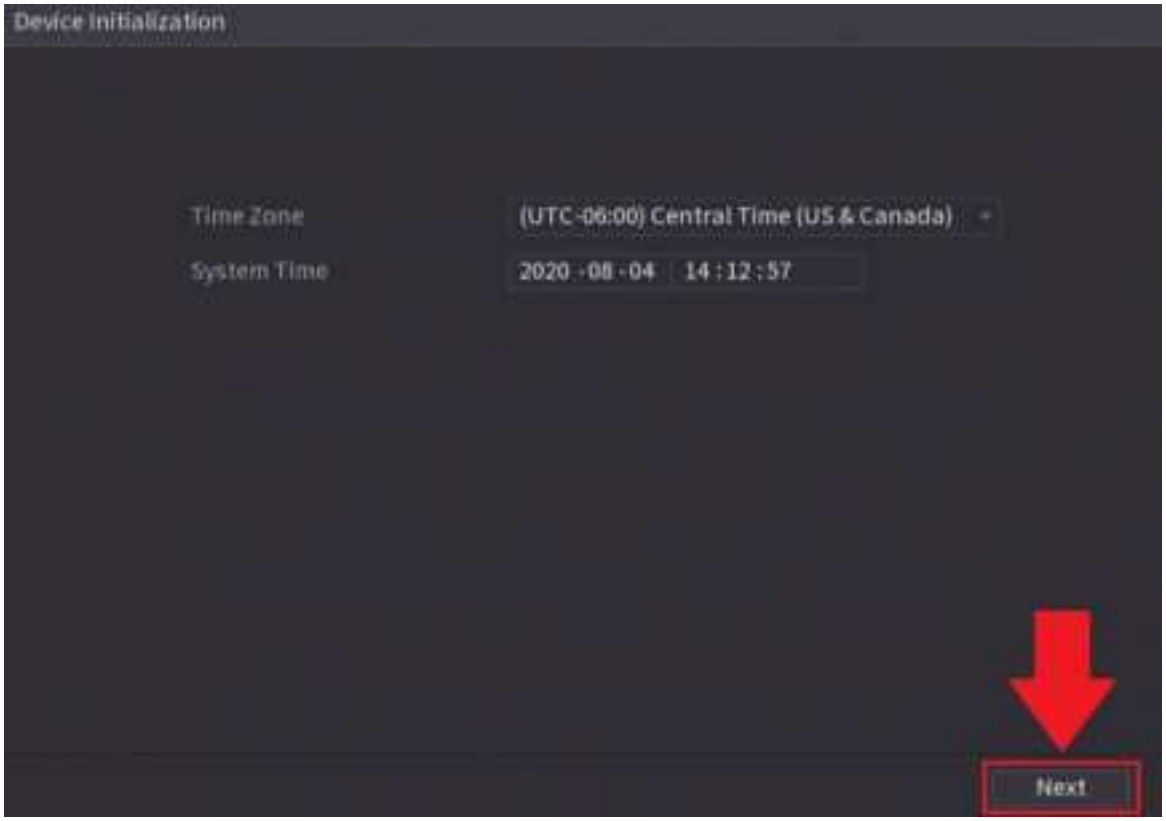
Device Installation

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

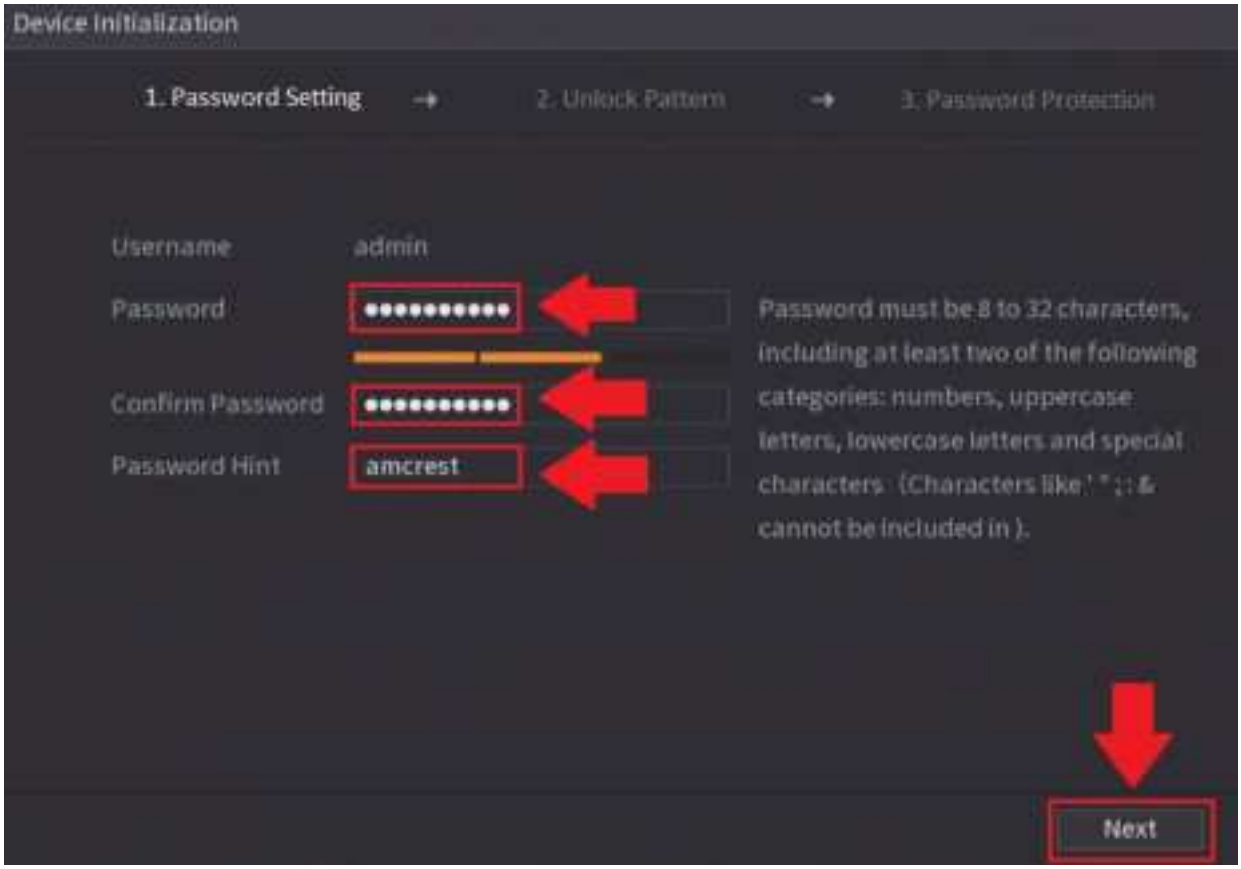
1. Set a Region, Language, and Video Standard



2. Set a Time Zone and System Time



3. Enter Password



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

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

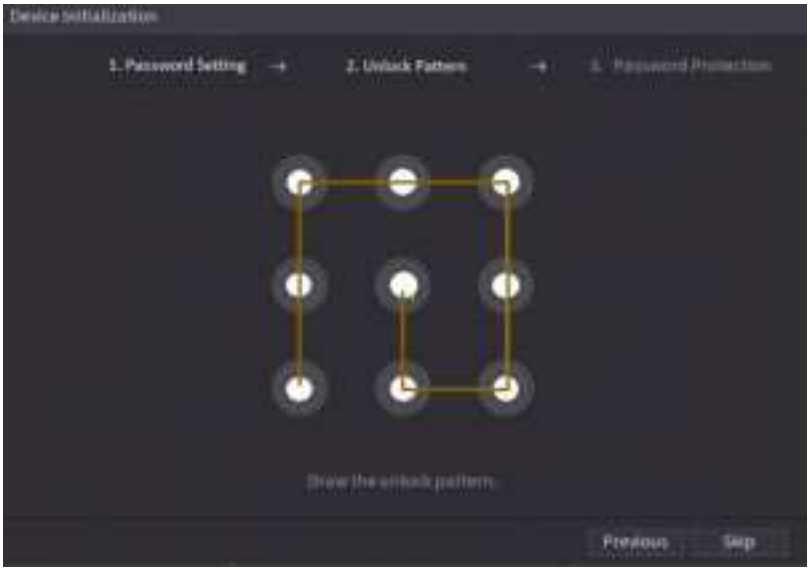
Once you have entered a new password for your device, confirm the password in the next field.

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

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

4. Unlock Pattern

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

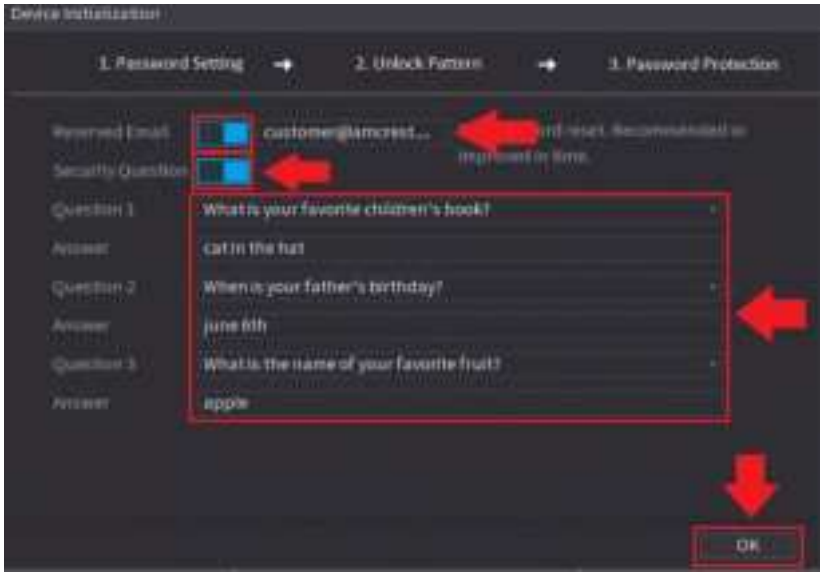


If you have assigned an unlock pattern, you will need to draw the pattern again to confirm.

5. Password Protection

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

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



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

6. Basic

The next screen is the **Basic** settings screen. This screen allows you to set a language, video standard and other basic settings for the DVR. Once you are satisfied with the settings on this screen, click the **Next** button at the bottom of the screen.

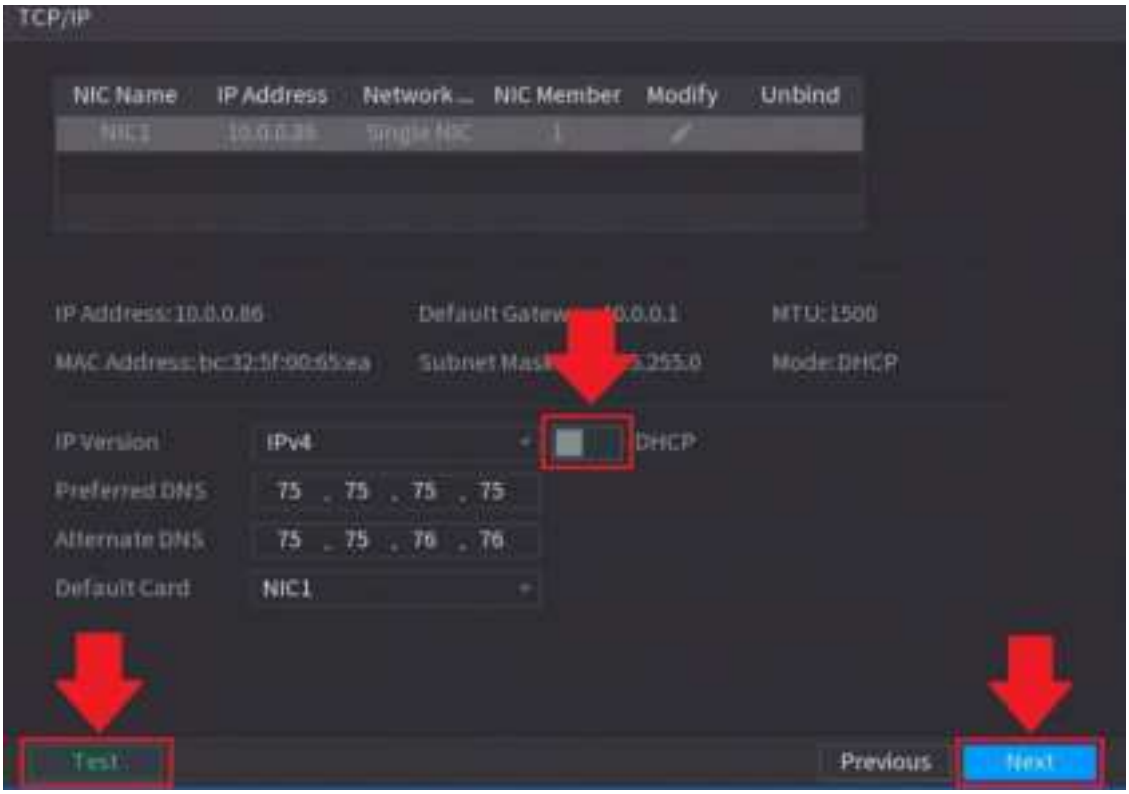
7. Date & Time

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

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

8. Network

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



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

Click **Next** to continue.

9. P2P

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

Click **Next** to continue.

10. Audio/Video

This screen allows you to adjust the video quality and encode settings on the main and sub streams of a connected camera. Use the **Channel** dropdown menu to select a camera if multiple cameras are connected. To access or adjust audio formats (if applicable), click on the **More** tab.

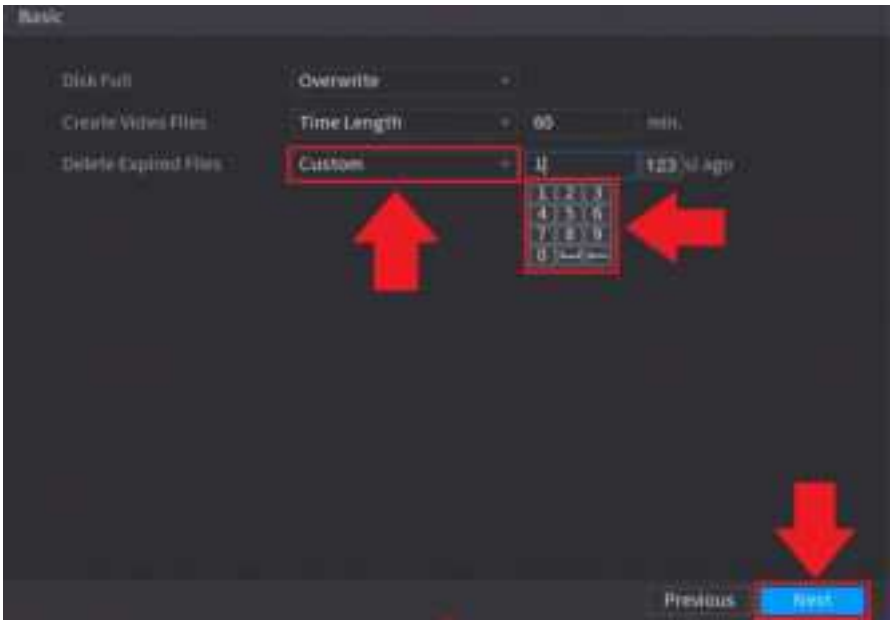
After adjusting the video and audio settings, click **Next** to continue.

11. Snapshot

This screen allows you to adjust the settings such as the image size, quality, as well as intervals in which the snapshot is retained. Once set, click **Next** to continue.

12. Basic

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



13. Record

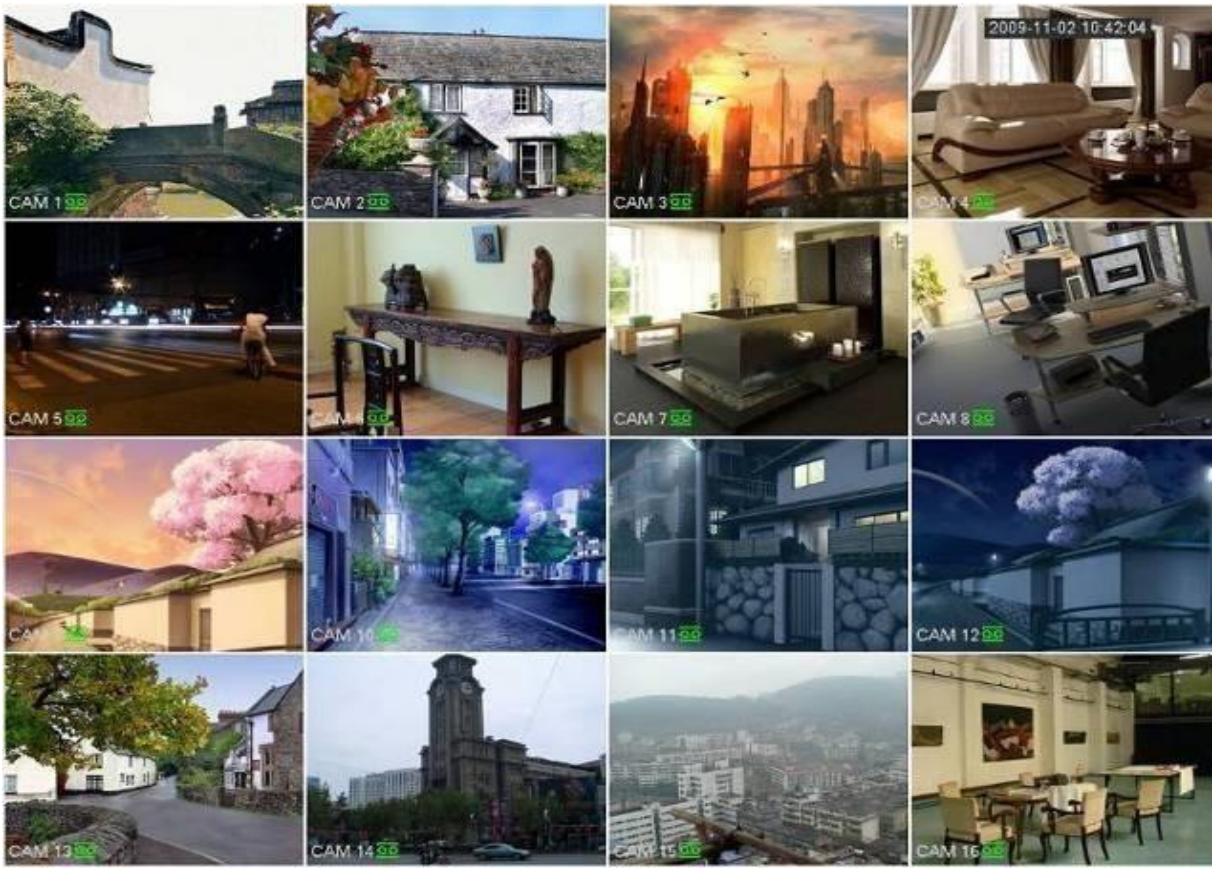
The DVR is configured by default to record general (continuous recording), motion detection, and IVS record types on all channels 24/7, however, this section allows you to create a schedule for your recording types.

14. Snapshot

The snapshot menu allows you to configure your snapshot settings for scheduled recordings. You can also use this screen to set up general, motion detection, IVS and other recording type schedules for snapshot events.

Video Wall

After the device boots up, the system is in video wall mode. Please note the displayed window amount may vary. The following figure is for reference only.



If you want to change the system date and time, you can refer to general settings (Main Menu>Setting>System->General). If you want to modify the channel name, please refer to the display settings (Main Menu->Camera->Channel Name).
Please refer to the following sheet for detailed information.

1		Recording status	**3**		Video loss
2		Motion detection	**4**		Camera lock

Tips

Preview drag: If you want to change the position of channel 1 and channel 2 when you are previewing, you can left mouse click in channel 1 and then drag it to channel 2. Release the mouse and channel 1 and channel 2 switch positions.

Use the middle mouse button to control window split: You can scroll the middle mouse button to switch the window split amount.

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.

1) **Realtime playback**

This is to playback the previous 5-60 minutes of video recorded on the current channel.
Please go to the Main Menu->Setting->System->General to set the real-time playback time.
The system may pop up a dialogue box if there is no such recording for the current channel.

2) **Digital zoom**

This is to zoom in on a specified zone of the current channel. It supports the zoom in function on multiple channels.

Click the  button and the button is shown as  . There are two ways for you to zoom in:

Drag the mouse to select a zone.

Put the cursor at the center of the zone you want to zoom in and scroll the middle mouse wheel.

Right mouse click to cancel the zoom and go back to the original interface.

3) **Manual record function**

This is to back up the video on current channel to the USB device. The system cannot backup the video of multiple channels at the same time.

Click the  button and the system begins recording. Click it again and the system stops recording. You can find the recorded file on the USB device.

4) **Manual Snapshot**

Click  to take 1-5 snapshots. The snapshot files are saved on the USB device or HDD. You can go to the Search interface to view.

5) **Bidirectional talk**

If the connected front-end device supports the bidirectional talk function, you can click this button.

Click the  button to start the bidirectional talk function. The icon is now shown as  . Now the rest of the bidirectional talk buttons on the digital channels become null.

Click  again to cancel bidirectional talking. The bidirectional talk buttons of other digital channels change to  .

6) **Remote device**

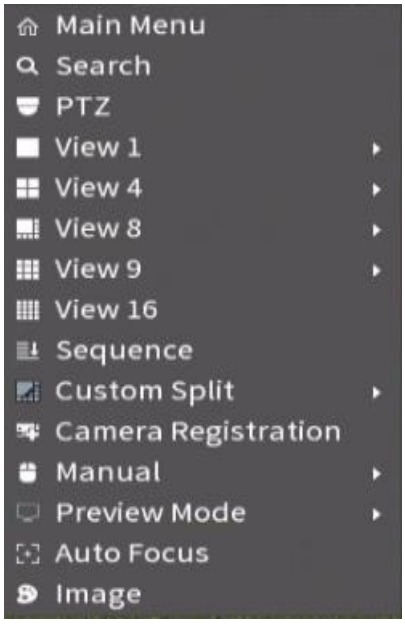
From the shortcut menu, click it to go to the remote device interface to add/delete remote devices or view its corresponding information.

Right Click Menu

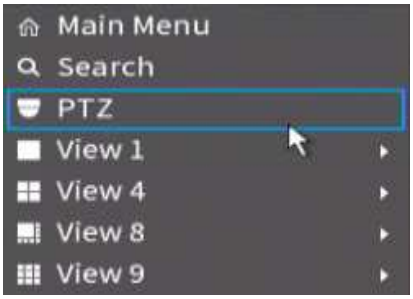
After you have logged into the device, right mouse click and you can see the shortcut menu.

Window split mode: You can select the window amount and then select the desired channels.
Pan/Tilt/Zoom: Click this to go to the PTZ interface.
Auto focus: This is to set the auto focus function. Please make sure the connected network camera supports this function.
Camera: Set the videos corresponding information.
Search: Click it to go to the Search interface to search and playback a recorded file.
Manual Control: Enable/disable recording a channel.
Smart Add: Detect and add remote devices on your network.
Remote Device: Search and add a remote device.
Main Menu: Go to the system's Main Menu interface.

Tips: Right mouse click to go back to the previous interface.



PTZ



Right mouse click (press the “Fn” Button on the front. Please note you can only go to the PTZ control interface when you are in 1-window display mode.

Please note the command name is grey if the device does not support this function. The PTZ operation is only valid in one-window mode.

Here you can control the PTZ direction, speed, zoom, focus, iris, preset, tour, scan, pattern, aux function, light and wiper, rotation, etc.

Speed is to control the PTZ movement speed. The value ranges from 1 to 8. 8 is the fastest and 1 is the slowest.
You can click on the “+” and “-“icons on the zoom, focus, and iris to zoom in/out, change focus, and adjust brightness.

The PTZ rotation supports 8 directions. If you are using direction buttons on the remote, there are only four directions: up/down/left/right.

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. It can use PTZ automatically. 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  to open the menu. You can set preset, tour, pattern, scan, etc.

Refer to the following sheet for detailed information.

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

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

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

PTZ Function Setup

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

Preset Setup

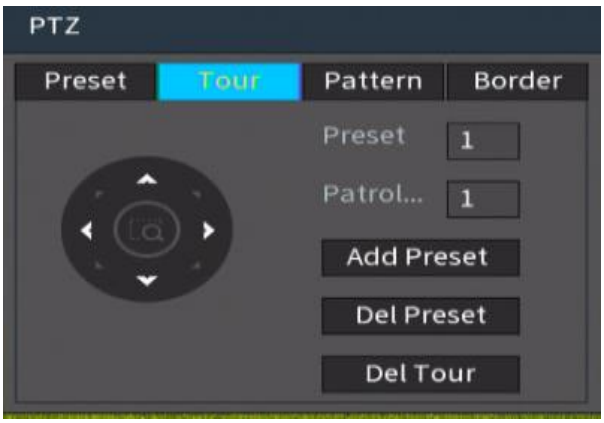
Click the Preset button and use the eight direction arrows to adjust camera to the proper position.
Click the box next to Preset and then input the preset number. Click the Set button to save the current preset.

Tour Setup

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

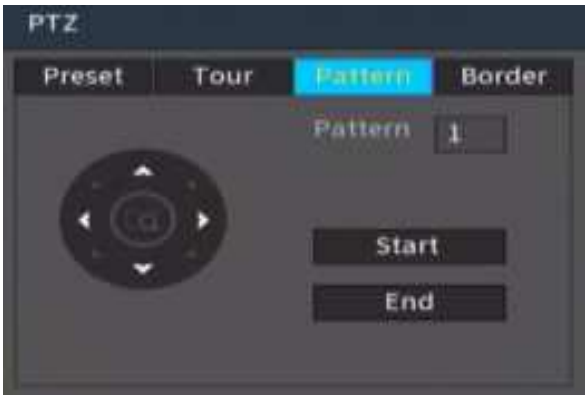
Tips

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



Pattern Setup

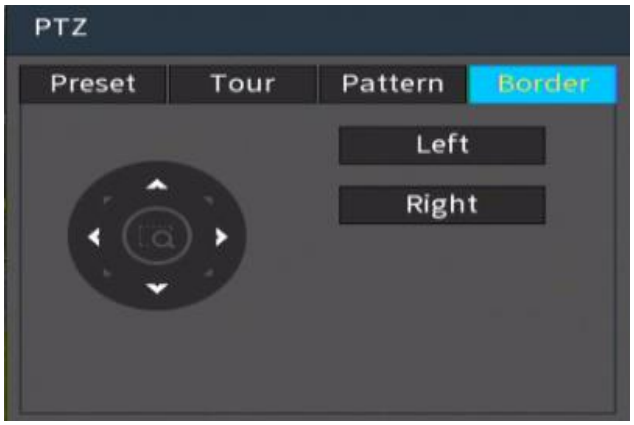
Click the **Pattern** button and input pattern number.
Click the **Begin** button to start the direction operation. Or you can go back to the screen below to operate zoom/focus/iris/direction operation.
Click the **End** button.



Scan Setup

Click the **Scan** button.

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



Call PTZ Function

Preset

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

Call Pattern

Input the Pattern value and then click to call a pattern. 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 Scan

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

Flip

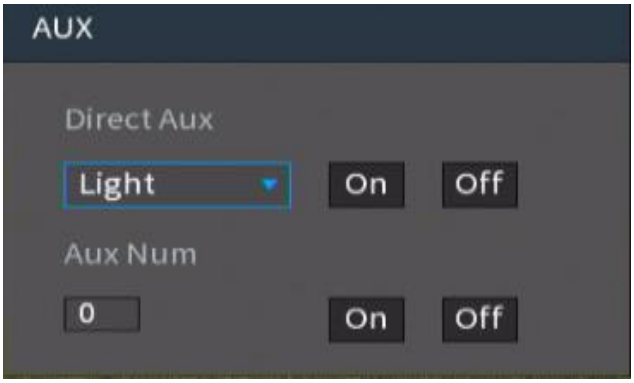
Click  to enable the camera to flip its image.

The system supports preset, tour, pattern, scan, rotate, and light functions.

Note:
Preset, tour, and pattern all need the value to be the control parameters. You can define it as you require.
You need to refer to your camera user's manual for the Aux definition. In some cases, it can be used for special a process.

Aux

Click  and the system goes to the following interface. The options here are defined by the protocol. The aux number corresponds to the aux on-off button of the decoder.



Left click on the video wall interface to exit any menus in the system.

Web Operation

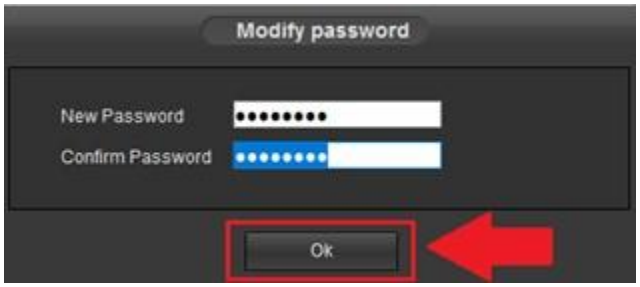
This device features the latest in JS technology which allows you to access your device via a wide variety of web browsers including, Google Chrome, Firefox, Safari and other mainstream web browser via your PC or Mac computer. However, as a primary means of accessing the web user interface for your Amcrest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

Internet Explorer is currently the most preferred method of accessing your device on your computer from a web browser. To access the web UI via Internet Explorer please refer to the information provided below. Locate the IP address for your device using the Amcrest IP Config Tool. The Amcrest IP Config Tool can be downloaded at the following web page: amcerest.com/downloads

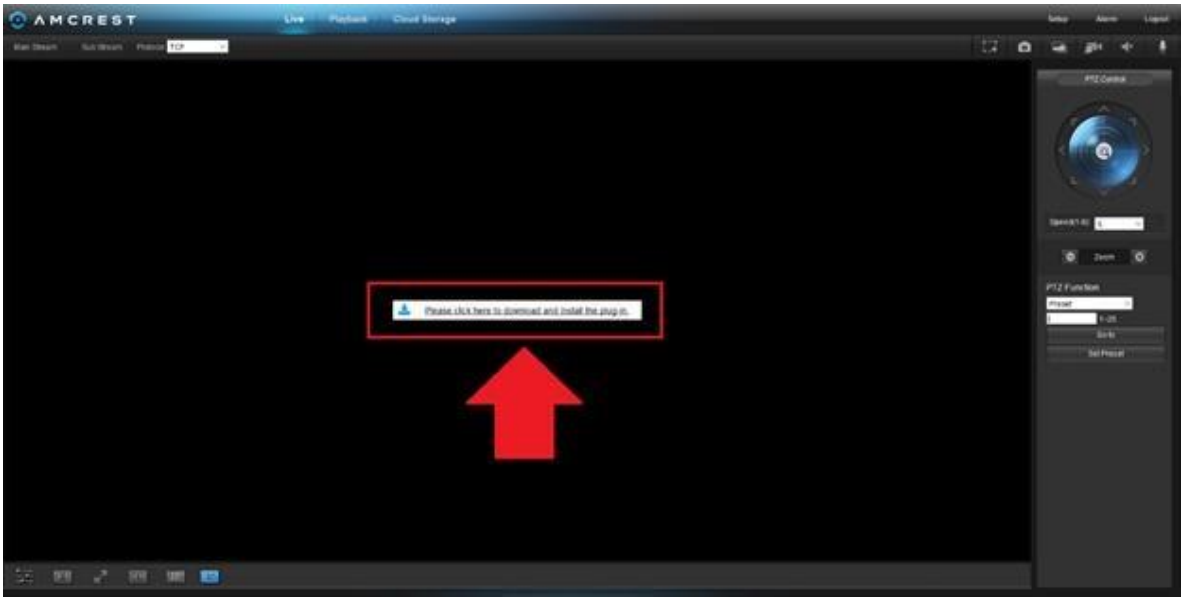
In the All Downloads menu, click on IP Config Software to begin the free download. Once the download has completed installing, locate the IP address associated with the device you would like to view in the browser.

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

In the web user interface, enter the login credentials for your device. If this is the first time accessing the device, the username and password will both be **admin.** Click on **Login**.
If this is the first-time logging into your device, you will be prompted to modify the password for your device. To modify the password, enter the new password you would like to use in the **New Password** field and confirm. The password used should be between 8 and 32 characters long with a combination of letters and numbers. Click **Ok** when done to log into the web user interface.



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



Click **Run** to download the plugin.

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

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

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

Main Menu

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

LIVE: View real-time video via the live view interface.
PLAYBACK: View, search, and play recorded videos.
ALARM: View and search live alarm information. Configure alarm event actions.
AI: Manage and view artificial intelligence and face recognition information and settings.
OPERATION: View system information, system updates. Import/export configuration files, etc.

BACKUP: Search and backup files using a USB flash drive.
DISPLAY: Configure resolution and display settings.
AUDIO: Configure audio announcements and import audio files.

Management

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

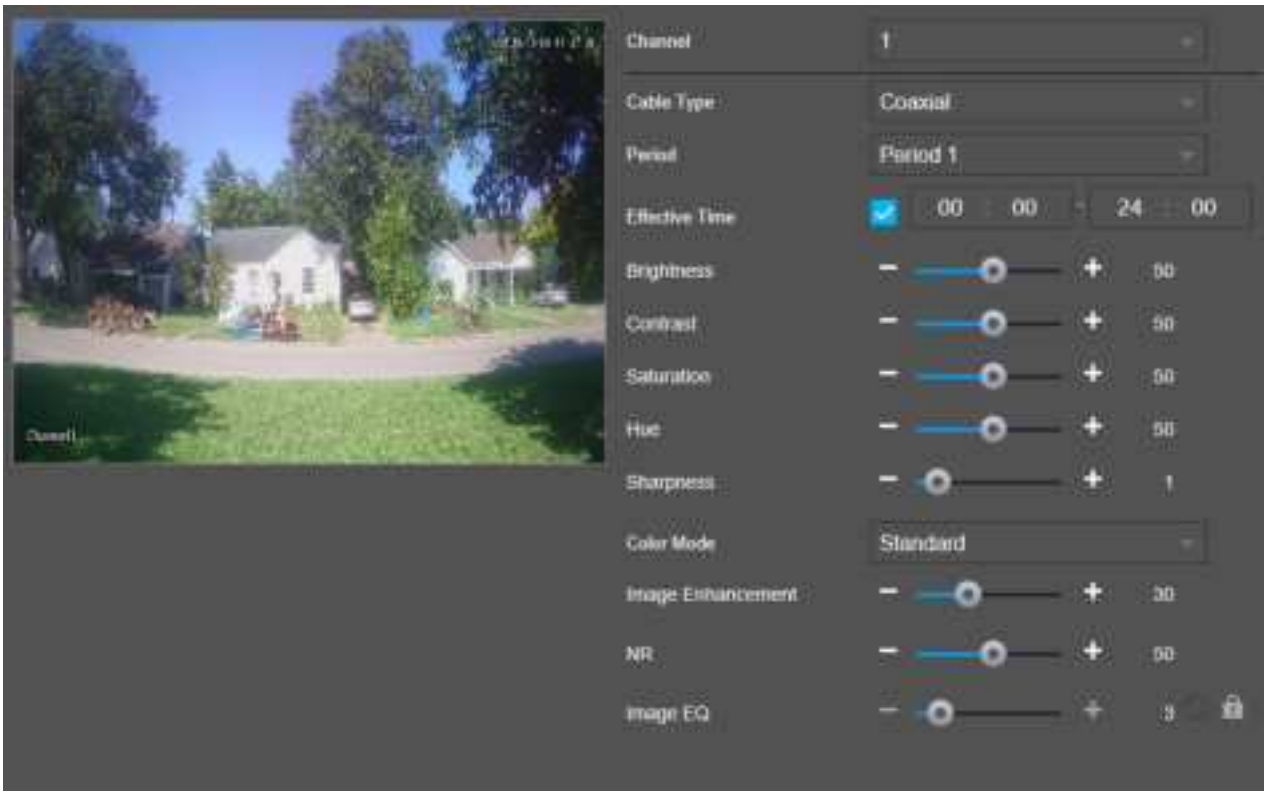
Camera

The camera menu allows the user to access camera settings and different menu such as image, encode, PTZ, and channel types. For more information on the items in this menu, please refer to the information provided below.

Image

The **Image** tab allows the user to adjust image settings such as, brightness, contrast, saturation, etc.

Below is a screenshot of this menu:



Below is a description of the

Channel: In the **Channel** list, select the channel that you want to configure.
Cable Type: In the **Cable Type** list, select the cable type that the camera uses.
Period: In the **Period** list, select a time period for the image settings. The image settings will be only used during the selected period.
Effective Time: Enable the effective function. In the **Effective Time** box, enter the start time and end time for the period you selected.
Brightness: Adjusts the image brightness. The bigger the value is, the brighter the image will become. You can adjust this value when the image looks dark or bright. However, the image is likely to become dim if the value is too big. The value ranges from 0 to 100. The default value is 50. The recommended range is between 40 and 60.
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.
Hue: Adjusts the hue of image. The value ranges from 0 to 100. The default value is 50.
Sharpness: Adjusts the sharpness of image edge. The bigger the value is, the more obvious the image edge, and the noise is also greater. The value ranges from 1 to 15. The default value is 1.

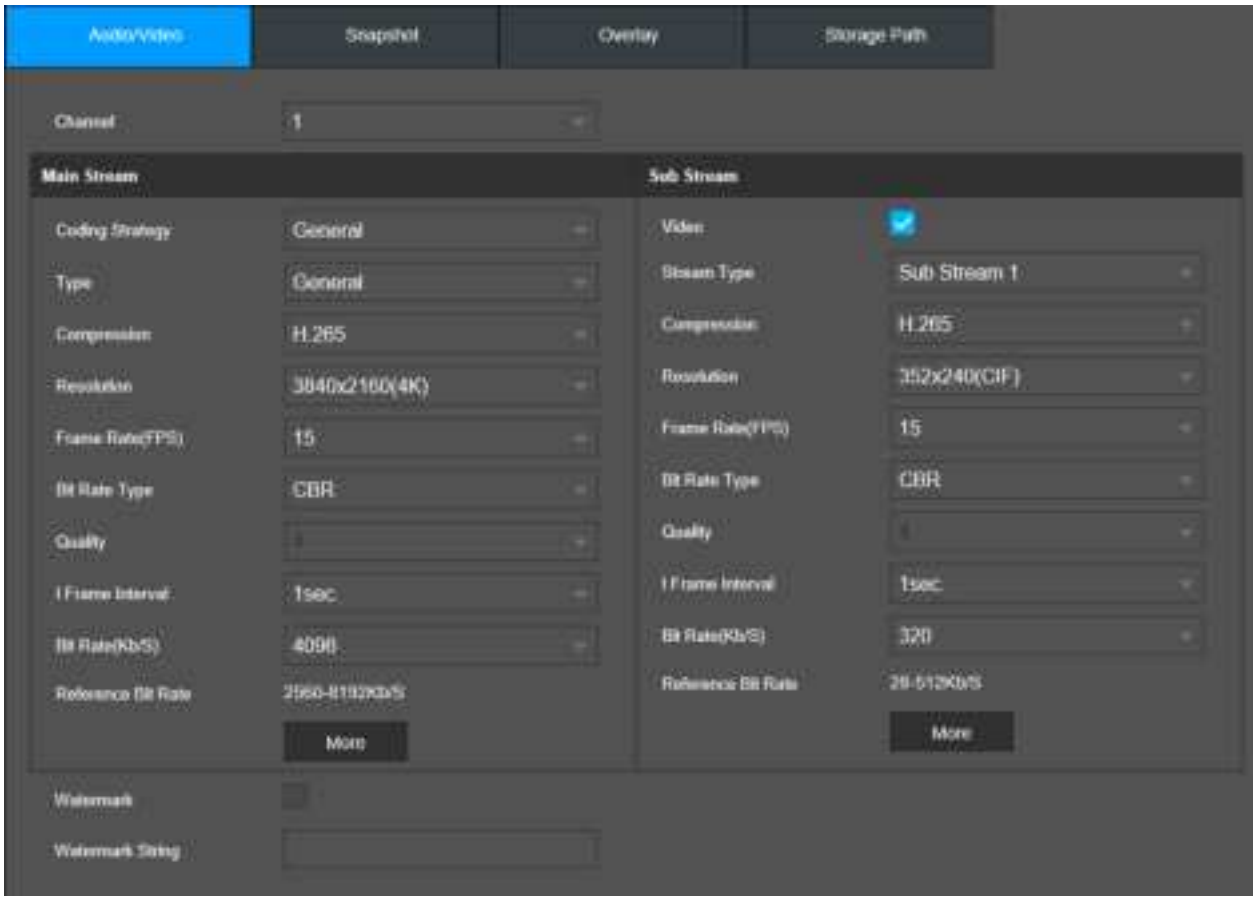
Color Mode: This dropdown menu allows the user to set color mode presets such as, bright, soft, vivid, etc. Color modes can also be customized using the Custom selections provided.
Image Enhance: Adjusts the image definition. The bigger the value is, the clearer the image will become, but there will be more noises.
NR: Reduces the noises from image. The bigger the value is, the better the image will become.
Image EQ: Adjust the image equalization. The bigger the value

Click the **Default** button to revert the image settings to default. Click **Custom**, to manually customize image settings, click the **Back** button to return to the interface. Click **Cancel** to exit the interface.

Encode

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

See below for a screenshot of the tab:



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

Channel: This dropdown box allows the user to select a channel from the dropdown list to modify.
Coding Strategy: This dropdown box allows the user to select a

Smart Codec is a function in most Amcrest cameras which aim to reduce bandwidth consumption without losing visible image quality by intelligently increasing compression where it will not make a visible difference in the scene.

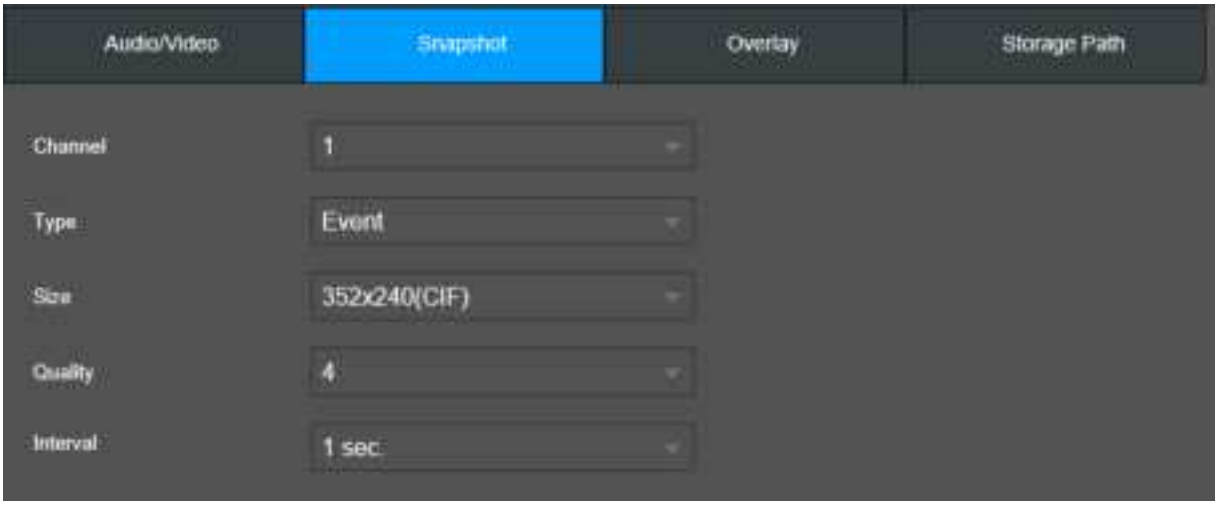
AI Coding takes video compression to a new level of content awareness. It puts emphasis on humans and vehicles while encoding, significantly improving the stream quality compared to H.265. At the same time, AI Coding also reduces the bit rate when there is no real target in sight, allowing efficient handling of videos to save HDD storage cost.

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 DVR) select Local as an audio source.

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 **OK** button.

Snapshot

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



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

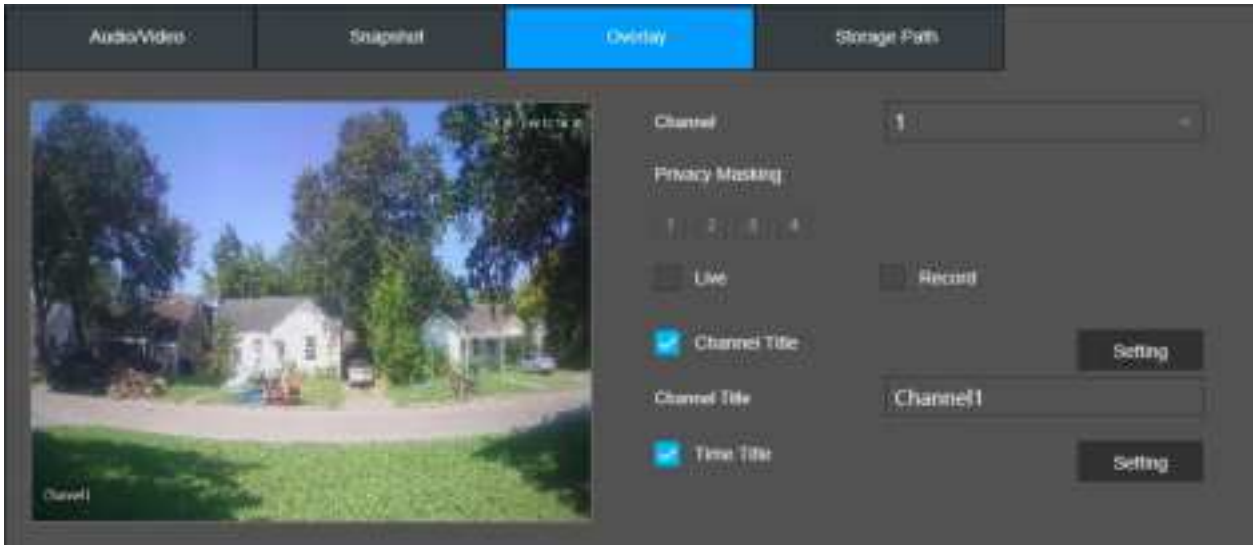
Channel: This dropdown box allows the user to select a channel from the dropdown list to modify.
Type: There are 2 snapshot modes, Scheduled and Event. Scheduled types will allow the feature to retain snapshots continuously, event mode will allow a snapshot to be retained when an event occurs.
Size: 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: This dropdown allows the user to select the snapshot interval. The value ranges from 1 to 7 seconds. The maximum setting for a customized interval is 3600s/picture.

To revert to default settings, click the **Default** button. 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 **OK** button.

Overlay

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

Below is a screenshot of the **Overlay** tab:



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

Channel: This dropdown box allows the user to select a channel from the dropdown list to modify.
Privacy Masking: Allows the user to customize privacy mask blocks on the interface.
Live: This checkbox allows the user to set a privacy mask only on the live view screen.

Record: This checkbox allows the user to set a privacy mask on the live view screen and while recording.

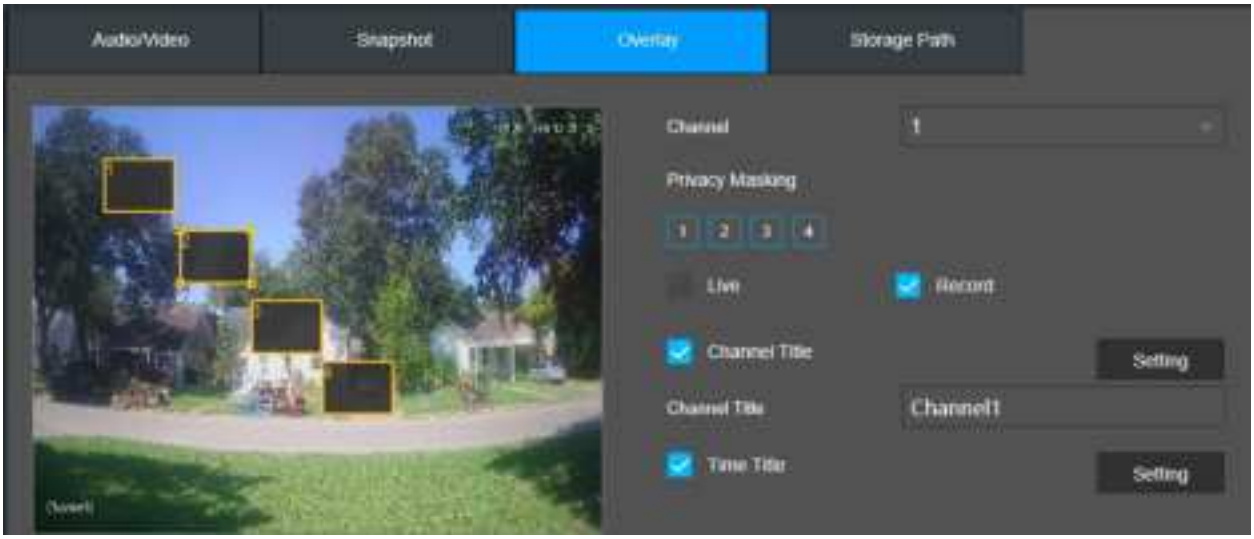
Channel Title: This button allows the user to select whether the system displays channel number on playback video. Clicking the set button allows the user to drag the title to the corresponding position on the screen.

Time Title: This button allows the user to select whether the system displays time on playback video. Clicking the set button and allows the user to drag the timestamp to the desired position on the screen.

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 **OK** button.

Privacy Masking

The privacy masking allows the user to customize privacy mask blocks on the interface. The interface can handle up to 4 privacy mask blocks. Click the Record checkbox or the Live checkbox to display a privacy mask block. To customize a privacy mask block, click on the block and use the mouse to move the blocks up or down or increase the size of the privacy mask block.

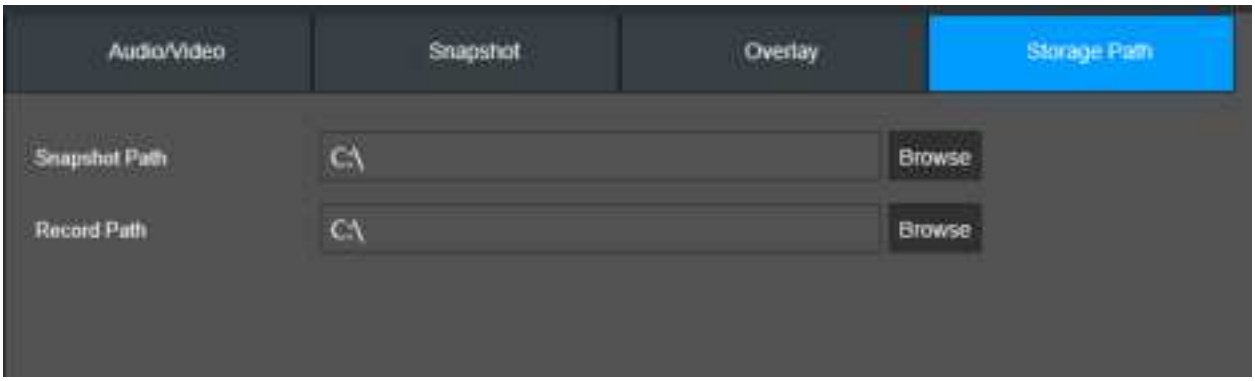


To revert to default settings, click the **Default** button. Click the **Copy to** button to copy the settings to other channels. Press the **Refresh** button to refresh the interface. To confirm settings, click the **OK** button.

Storage Path

The storage path tab allows the user to designate a path for snapshots and videos to be downloaded. This feature may not be available on all browsers.

Below is a screenshot of this menu:



Below is a description of the fields in this menu:

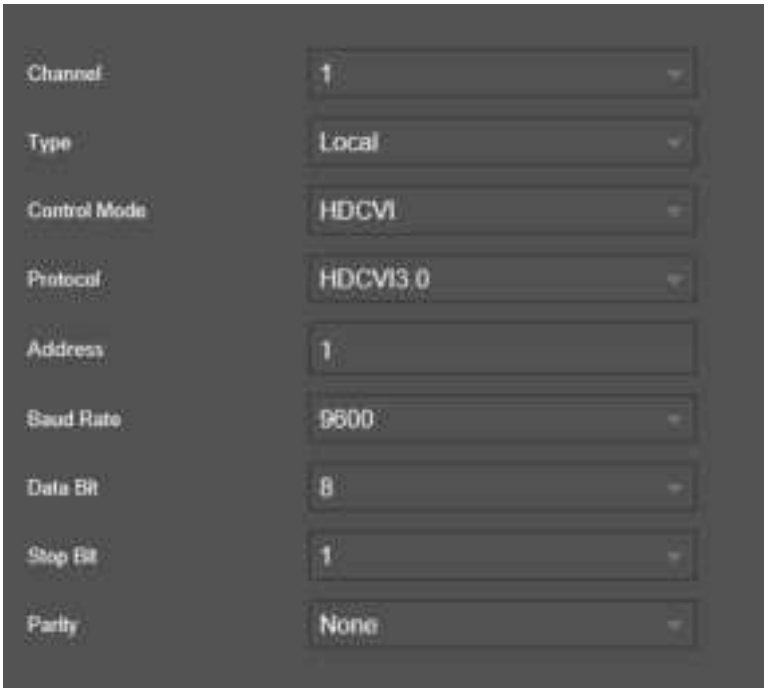
Snapshot Path – The designated storage path for all downloaded snapshots.
Record Path – The designated storage path for all downloaded recordings.

To set a storage path, click on the Browse button and select a storage path or folder in which snapshots or recordings will be downloaded.

To revert to default settings, click the **Default** button. To confirm settings, click the **OK** button.

PTZ

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



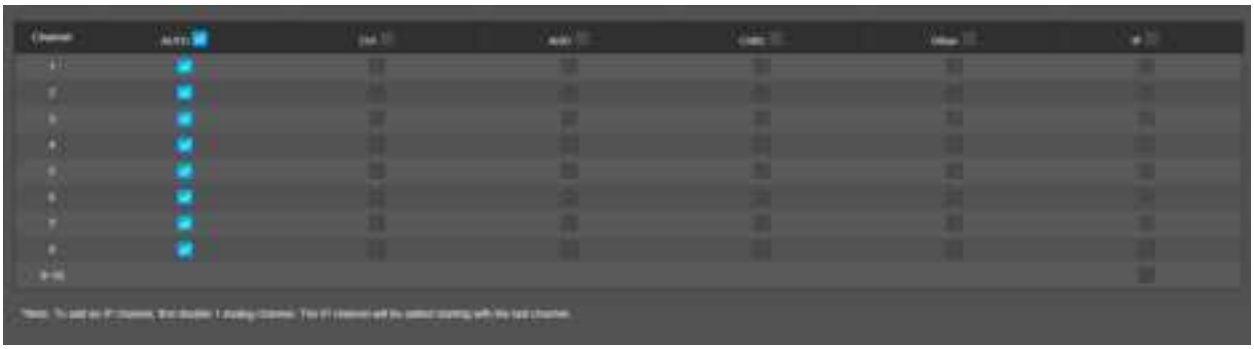
For more information on the settings listed in this menu, please refer to the information provided below.

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

Click the **Copy to** button to copy the interface setting. Press the **Refresh** button to refresh the interface. To confirm settings, click the **OK** button.

Channel Type

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



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

Note: The 9-16 channels are only for IP cameras and are dependent on the model you purchased. The channel selection for analog cameras or IP cameras are in sequence. For example, if you want to select channels for IP cameras, you need to select **9-16** first then apply the analog channels.

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

Connecting an IP Camera

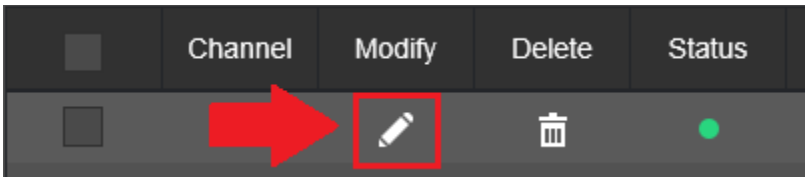
To connect an IP camera to your DVR, please follow the steps provided below:

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

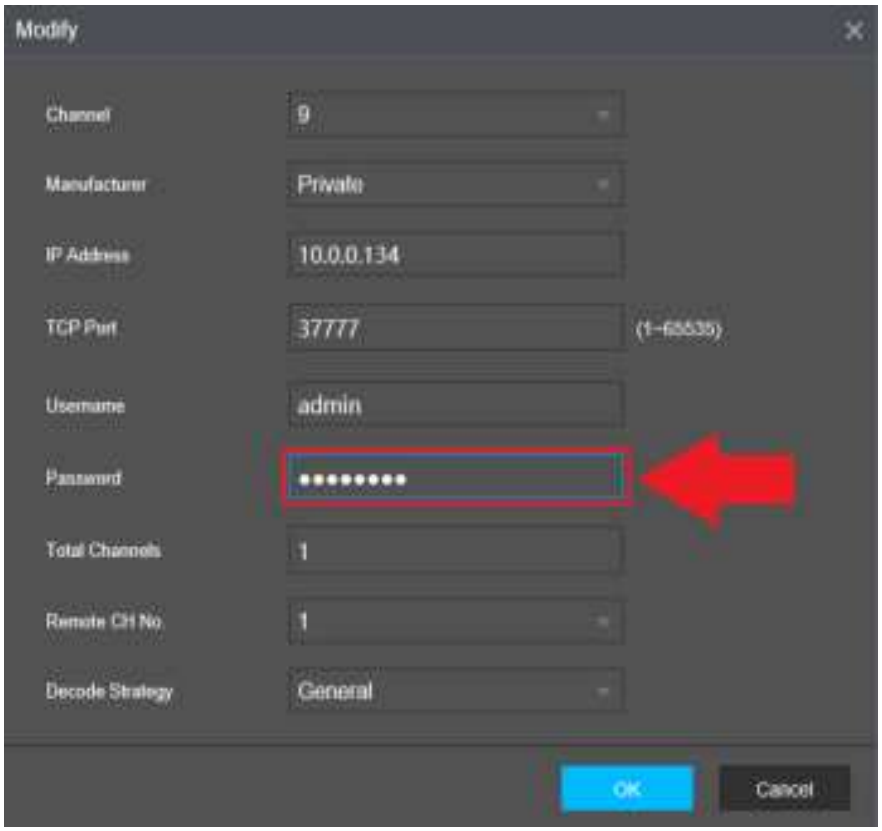
1. Click on the **Camera** option located in the **Management** section of the Main Menu.
2. Click on **Channel Type** and select the **IP Camera** option. (This is dependent on how many channels your specific model DVR can handle.)
3. Click on **OK** and allow the DVR to reset. **Please note, AI functions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

Updating the Password (IP Camera)

1. Click on the **Modify** button.



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



Network

This menu controls all network related functions for the DVR and governs how the DVR 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 DVR to establish connection to the network.

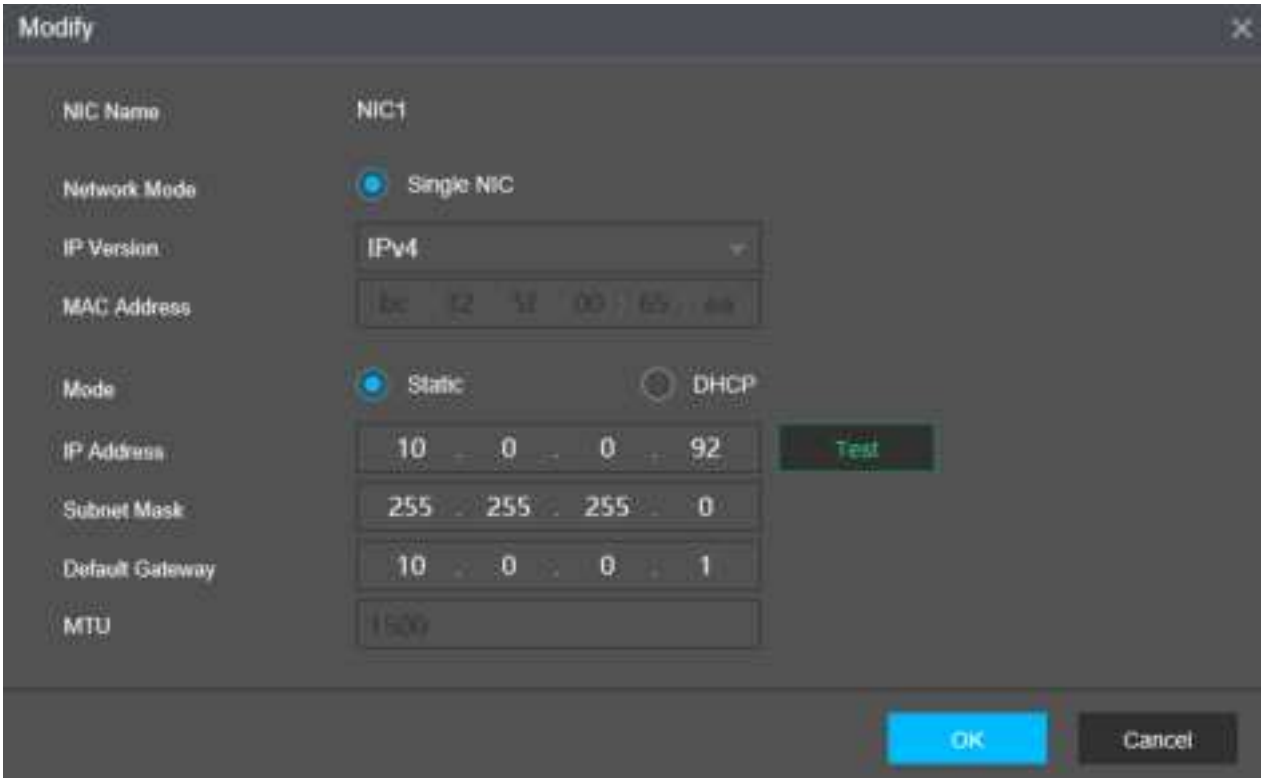
Below is a screenshot of the TCP/IP settings screen:

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

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 DVR's MAC address, which is unique to this DVR. This number is read-only and is used to access a local area network (LAN).
Mode: Set the NIC card to a static or DHCP mode. DHCP stands for Dynamic Host Configuration Protocol, and this enables the DVR to automatically obtain an IP address from another network DVR such as a server or more commonly, a router. When the DHCP function is enabled, the user cannot modify the IP address, Subnet Mask, or Gateway, as these values are obtained from the DHCP function. To view the current IP address, DHCP needs to be disabled.
IP Address: This field allows the user to enter a custom IP address.
Subnet Mask: This field allows the user to enter a custom subnet mask. The default subnet mask is 255.255.255.0. This number is used to determine which subnetwork the IP address belongs to.
Default Gateway: This field allows the user to enter the default gateway for the network. The default gateway should be on the same IP subnet as the DVR's IP. That is to say, the specified length of the subnet prefix should have the same string. For example, if the IP address is 192.168.0.25, the default gateway should start with 192.168.0.X. The default gateway is usually the IP address of the router.
MTU: MTU stands for Maximum Transmission Unit. This field allows the user to set the MTU value of the network adapter. The value ranges from 1280-7200 bytes. The default value is 1500 bytes. Please note MTU modification may result in network adapter reboot and the network turning off. MTU modification can affect the current network service. The system may pop up a dialog box to confirm setup when the MTU value is changed. Click the OK button to confirm

current value and reboot or can click the Cancel button to terminate the current modification. Before the modification, you can check the MTU of the gateway; the MTU of the DVR should be the same or lower than the MTU of the gateway. This way, packets can be reduced, and the network transmission efficiency be enhanced. The following MTU values are for reference only.
1500: Ethernet information packet maximum value and it is also the default value. It is the typical setup when there is no PPPoE or VPN. It is the default setup of some routers, switches, and network adapters.
1492: Recommend value for PPPoE.
1468: Recommend value for DHCP. Preferred DNS server: This field allows the user to enter the DNS server IP address.



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 **OK** 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 a screenshot of the connection screen:

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 DVR at the same time. The maximum number of users the DVR can support at one time is 128.
TCP Port: This field designates the Transmission Control Protocol (TCP) port number. The default value is 37777.
UDP Port: This field designates the User Datagram Protocol (UDP) port number. The default value is 37778.
HTTP Port: This field designates the Hypertext Transfer Protocol (HTTP) port number. The default value is 80.
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 **OK** button.

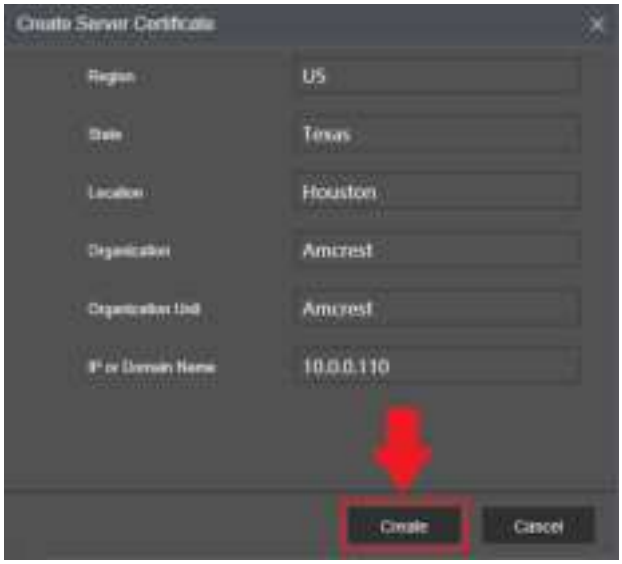
HTTPS

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.

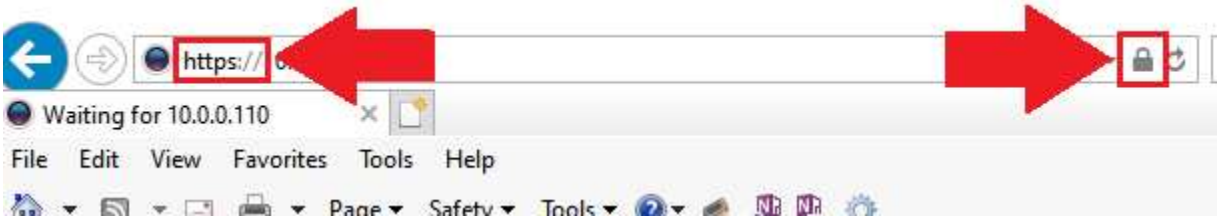
To create an HTTPS cert, click on the HTTPS checkbox located in the **Connection** menu and click **Save**. The browser will reload. Once the browser reloads, click on **More Information** and then click on Go on to the webpage (not recommended) to access the login screen.

The HTTPS cert will need to be created, log into the device and access the HTTPS menu. Click on the **Create Server Certificate** button.

Enter the necessary credentials for your HTTPS certificate and click Create.



The browser will reset again and will automatically load the login interface. You will notice the IP address has changed to HTTP and the security report will show a lock symbol indicating the cert has been created properly.



DDNS

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

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

Below is a screenshot of the DDNS settings screen, configured to AmcrestDDNS:

Below is an explanation of the fields that can be configured on DDNS settings screen:

Enable: This option allows the user to enable DDNS on the DVR.
DDNS Type: This dropdown box allows the user to select which DDNS service is being used on the DVR.
Domain Name: This field allows the user to enter the domain name from the AmcrestDDNS service.

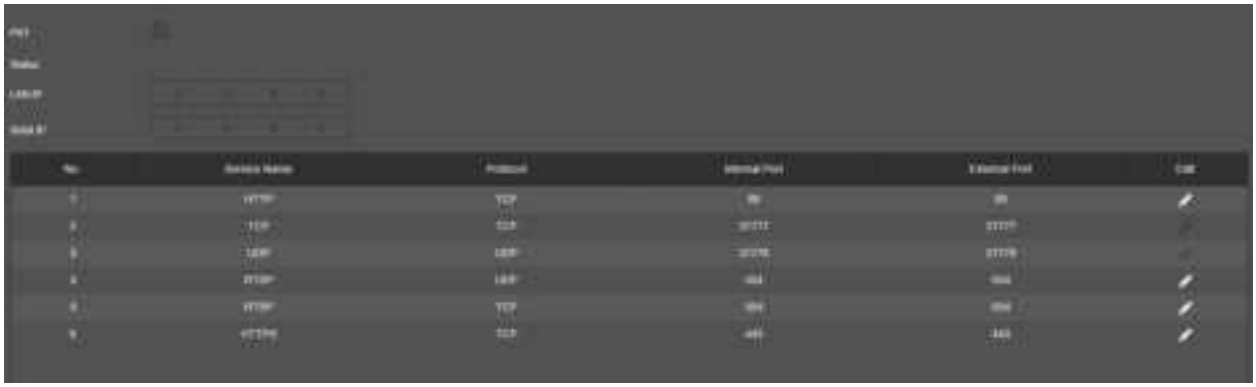
MAC address: This field shows the DVR's MAC address, which is unique to this device. This number is read-only and is used to access a local area network (LAN).
Internet Status: The DDNS connection status.

For more information on how to setup DDNS service for your device, please visit amcrest.com/support

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

UPNP

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



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

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

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

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

- The first column shows the order of the services.
- The second column shows the name of the services. To edit this, double click on the service line item.
- The third column shows the name of the protocol used by that service. To edit this, double click on the service line item.
- The fourth column shows the Internal Port used by that service. To edit this, double click on the service line item.

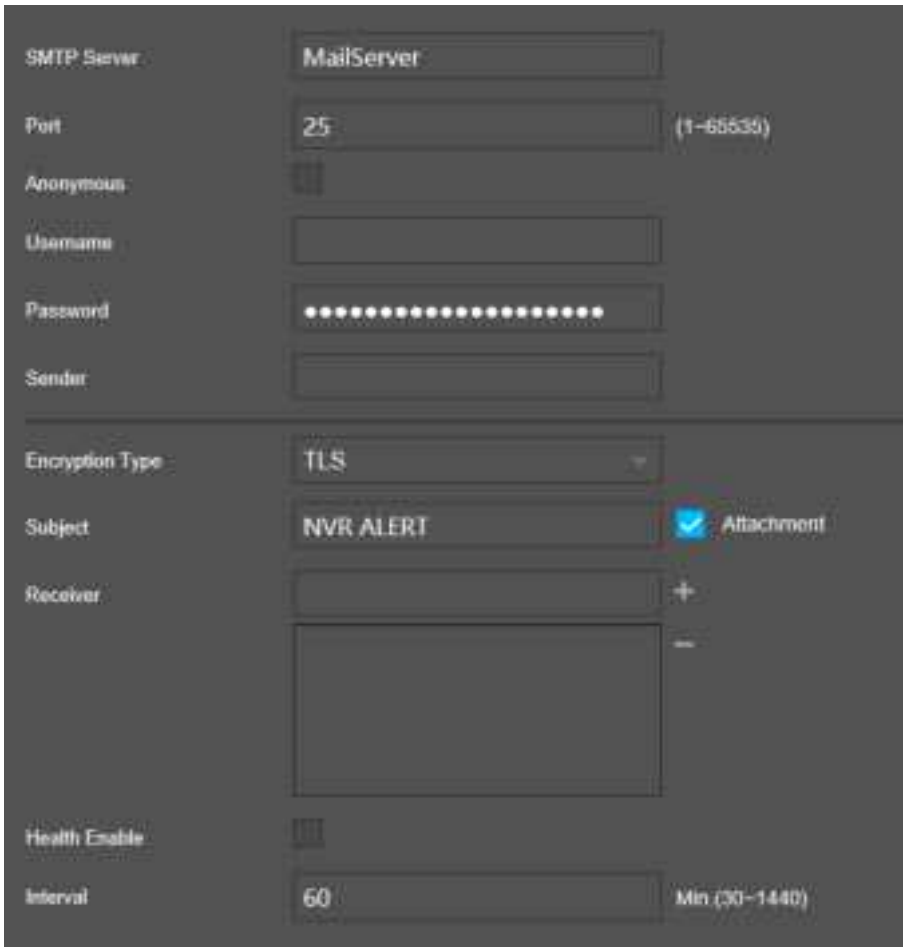
The fifth column shows the External Port used by that service. To edit this, double click on the service line item.

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

Email

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

Below is a screenshot of the email settings screen:



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

SMTP Server: SMTP stands for Simple Mail Transfer Protocol. This field allows the user to enter the SMTP server used by the email service.
Port: This field allows the user to enter the port that corresponds to the selected SMTP server.
Username: This field allows the user to enter the username used to login to the selected SMTP server.
Password: This field allows the user to enter the password associated with the SMTP username.

Sender: This field allows the user to enter the sender email address. This email address will be the one that sends out all emails pertaining to the alerts and alarm emails sent by the DVR.
Encrypt Type: This dropdown box allows the user to select an encryption type. There are two types of email encryption that are available.

SSL: Secure Socket Layer

TLS: Transport Layer Security

Subject: This field allows the user to define the subject line of the email that is sent to the receivers.
Attachment: This checkbox allows the user to enable the attachment of screenshots with emails.
Receiver: This field allows the user to enter the receiver email address. These email addresses are the ones that will receive any emails pertaining to alert and alarm emails sent by the DVR. Up to 3 email addresses can be entered in this field.
Health Enable: This checkbox allows the user to enable the function that causes the system to send out a test email to ensure if the connection is OK or not.
Interval: This field allows the user to define, in minutes, how often emails can be sent by the system. This helps to curb heavy load on the email server when multiple events are occurring.

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

Click on the **Test** button to test the connection. Click the **Refresh** button to refresh the interface. To confirm settings, click the **OK** button.

Register

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

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

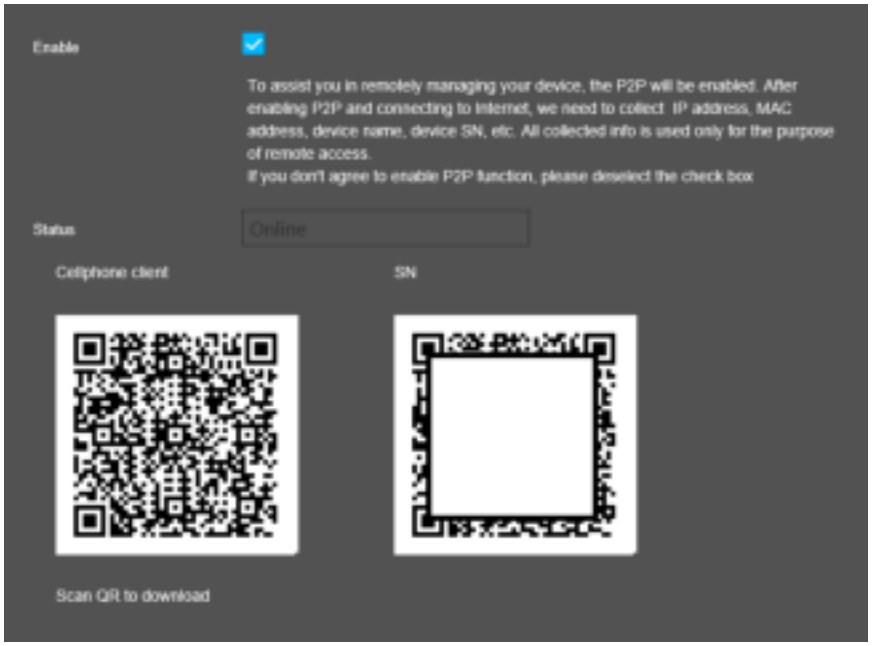
Enable: This option is used to enable the register function.
No: The number applied to the proxy in the system.
Server IP Address: Enter the IP address of the server being used.
Port: The port number used when setting up the proxy address.

ID: The ID number that is applicable to the proxy address.

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

P2P

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



Enable: This checkbox allows the user to enable the P2P feature for the DVR.
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 DVR's serial number. Use this as a quick reference point when setting up your DVR on the Amcrest View Pro app.

Click the **Refresh** button to refresh the interface. To confirm settings, click the **OK** 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 DVR can only be modified using the local or web UIs and cannot be adjusted using the Amcrest View Pro app.**
The Amcrest View Pro app can be downloaded in both the App Store and Play Store.

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

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

Amcrest View Pro Setup

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

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

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

	
1. Tap **"Start".**	2. Tap **"DVR/DVR".**

	
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	4. Scan the QR code. The QR code can be found on the serial tag along with a scannable barcode.
	
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".**	6. Update the default password for the device and tap **"Start Live View"** to view the device.

Storage

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

Basic

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

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

Disk 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.
Create Video Files – Specifies the recording duration of the overwrite. The values range from 1 to 120 minutes. Default value is 60 minutes.
Delete Expired 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 DVRs.

Click the **Refresh** button to refresh the interface. To confirm settings, click the **OK** 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 box allows the user to pick which channel they would like to change video recording settings for.
Prerecord: This field allows the user to capture extra video that occurs before an event. Up to 30 seconds of video prior to a recording event can be captured to provide context to a recording.
Record Types: There are 5 types of recordings:

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

To set a recording schedule for your device, click on the **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 **OK** button.

Snapshot

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

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

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

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

To set a recording schedule for your device, click on the **Settings** 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 **OK** 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 **OK** button.

HDD Manager

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

Below is a screenshot of the HDD Manager settings screen:

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

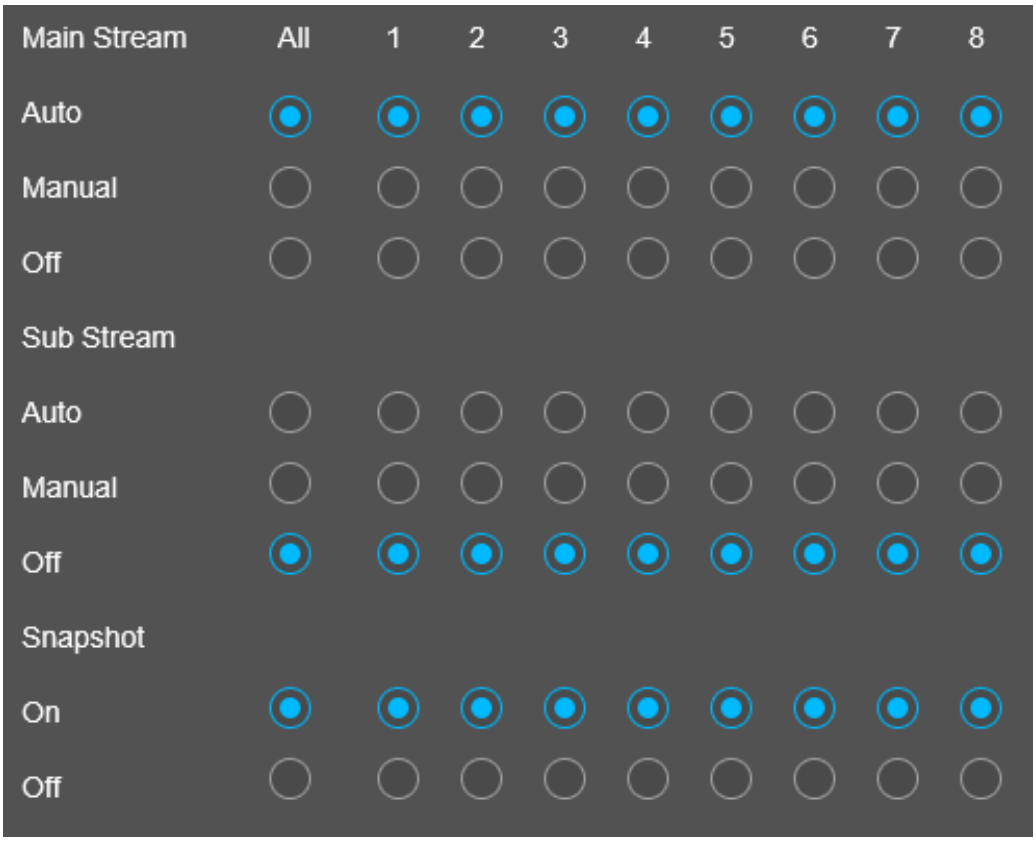
- **Normal:** This means the hard drive is operating normally.
- **Error:** This means the DVR is experiencing an error when attempting to access the hard drive.
- **Disconnected:** This means that the HDD has disconnected from the DVR.

Free Space/Total Space: This field shows the free space 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 **OK** 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 a screenshot of the Record screen:



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

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

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

Sub Stream: 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.

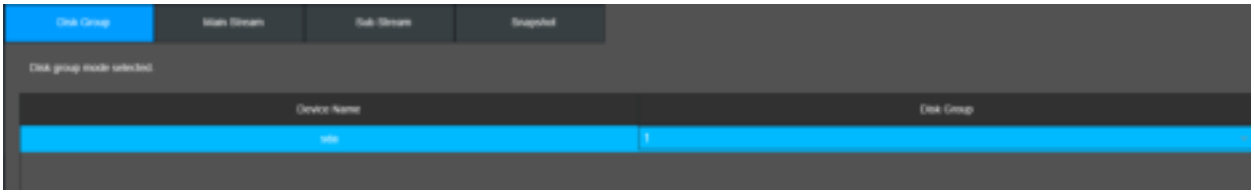
Snapshot: This set of options can either enable or disable the snapshot functionality for specific channels.

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 **OK** button to set the settings.

Disk Group

The disk group menu is used if multiple hard drives are used in the system to save main stream, sub stream and snapshots of designated channels to a hard drive group.



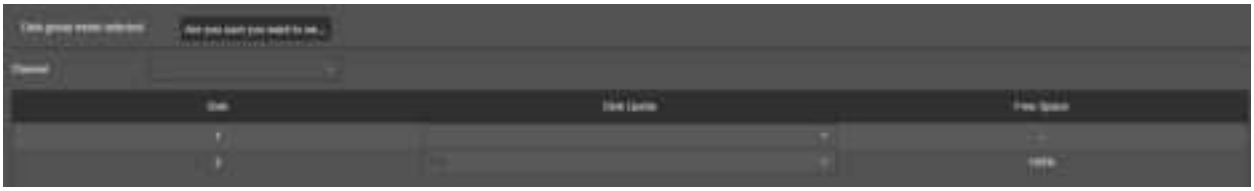
To group a hard drive, use the Disk Group dropdown menu to choose a group in which the hard drive will apply and click **OK**.

After configuring the hard drive group, click the **Main Stream**, **Sub Stream** and **Snapshot** tabs respectively, to configure the groups to main stream, sub stream and snapshot information of different channels to different HDD groups. Be sure to click **OK** on each tab to save its respective configuration.

Disk Quota

The disk quota menu allows the user to allocate a fixed storage capacity for each channel.

Below is a screenshot of the disk quota menu:



Please note, this feature cannot be used in conjunction with disk group mode. To use disk quota mode, click on the “Are you sure you want to switch from disk group to quota mode” button. Click on the channel dropdown menu to select which channel this quota percentage will apply.

Click on the **Disk Quota** dropdown menu to select a quota percentage. Click **OK** apply the quota. The same process can be applied to multiple channels if applicable.

Note: The system may prompt you to reboot the device each time when you switch the mode.

FTP

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

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

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

Enable: This checkbox allows the user to enable the FTP feature for the DVR.
FTP: Enables FTP.
Server Address: This field allows the user to enter the FTP server IP address and port.
Port: The port number of the FTP server. The default port number is 21.
Username: This field allows the user to enter the FTP username.
Password: This field allows the user to enter the FTP server password. The checkbox next to this field enables anonymous access to the FTP.
Anonymous: This checkbox allows the event to be retained as an anonymously titled event.
Storage Path: This field allows the user to designate which folder the DVR will upload files to.
File Size: This field allows the user to dictate how large upload files can be.
Channel: This field allows the user to pick a channel to set FTP settings for.
Day: This field allows the user to pick a day of the week to set FTP settings for.
Period 1: This field allows the user to specify a time period and what types of files to upload (Alarm, Motion, Regular).
Period 2: This field allows the user to specify a time period and what types of files to upload (Alarm, Motion, Regular).
Picture Upload Interval: This field allows the user to define, in seconds, how often images can be uploaded to the FTP server.

Channel: This settings button allows the user to select a channel in which the FTP will apply.

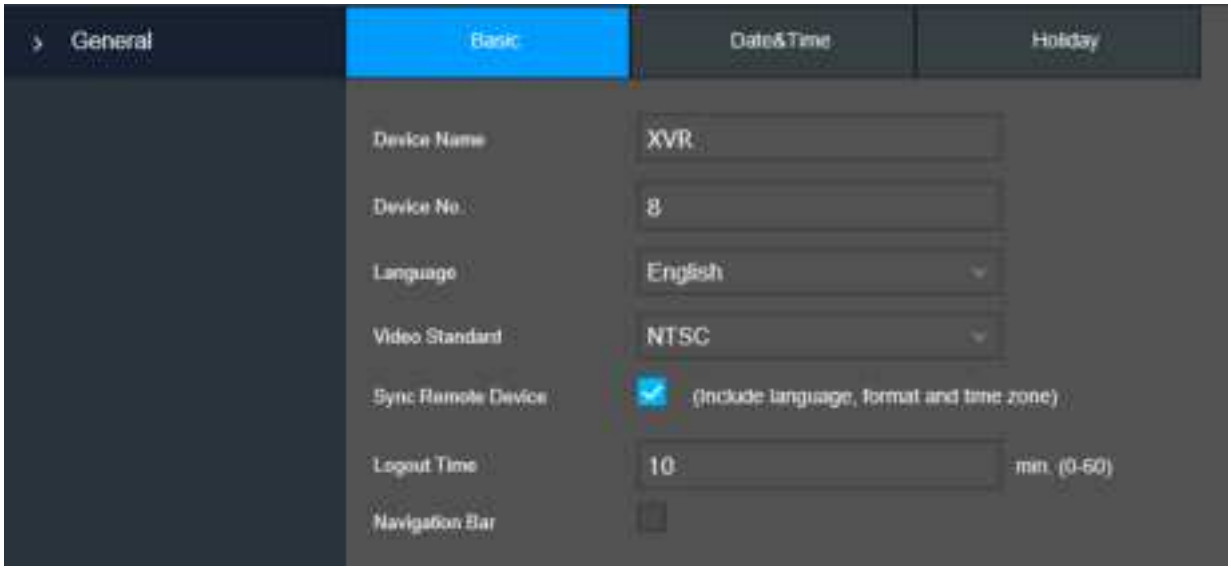
For more information how to setup FTP settings, please visit amcrest.com/support

To reset the interface back to default, click the Default button. To test the current settings, click **Test.** To refresh the interface, click the **Refresh** button. To confirm settings, click the **OK** button.

System

General

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



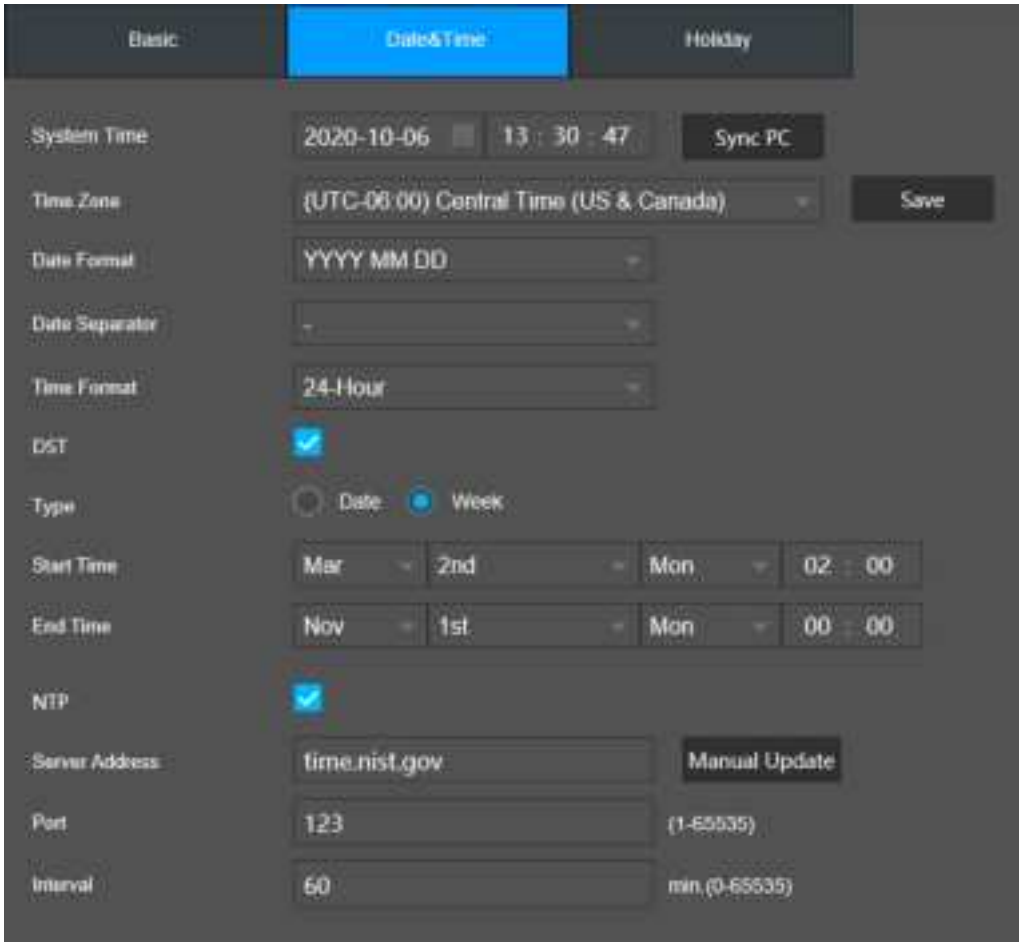
Below is an explanation of the fields on the **General** settings screen:

Device Name: This field allows the user to customize the name of the DVR.
Device No: This field allows the user to customize the device's number.
Language: This dropdown box allows the user to select a language for the DVR. Options include English, Simplified Chinese, Traditional Chinese, Italian, Japanese, French, and Spanish.
Video Standard: This dropdown box allows the user to select a video standard. The options are between PAL and NTSC.
Sync to Remote Device: This option allows device settings, including language, format, and time zone, to sync to a remotely connected device.
Logout Time: This field allows the user to define in minutes how long a camera can stay idle before it is logged out.
Navigation Bar: This option allows the user to enable the navigation bar that shows on the main screen.

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

Date and Time

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



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

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

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 DVR 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 **OK** button.

Holiday

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

Below is a screenshot of the Holiday settings screen:

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

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 DVR will stop recording for that holiday period.

Stop: The holiday is inactive, and the DVR 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.

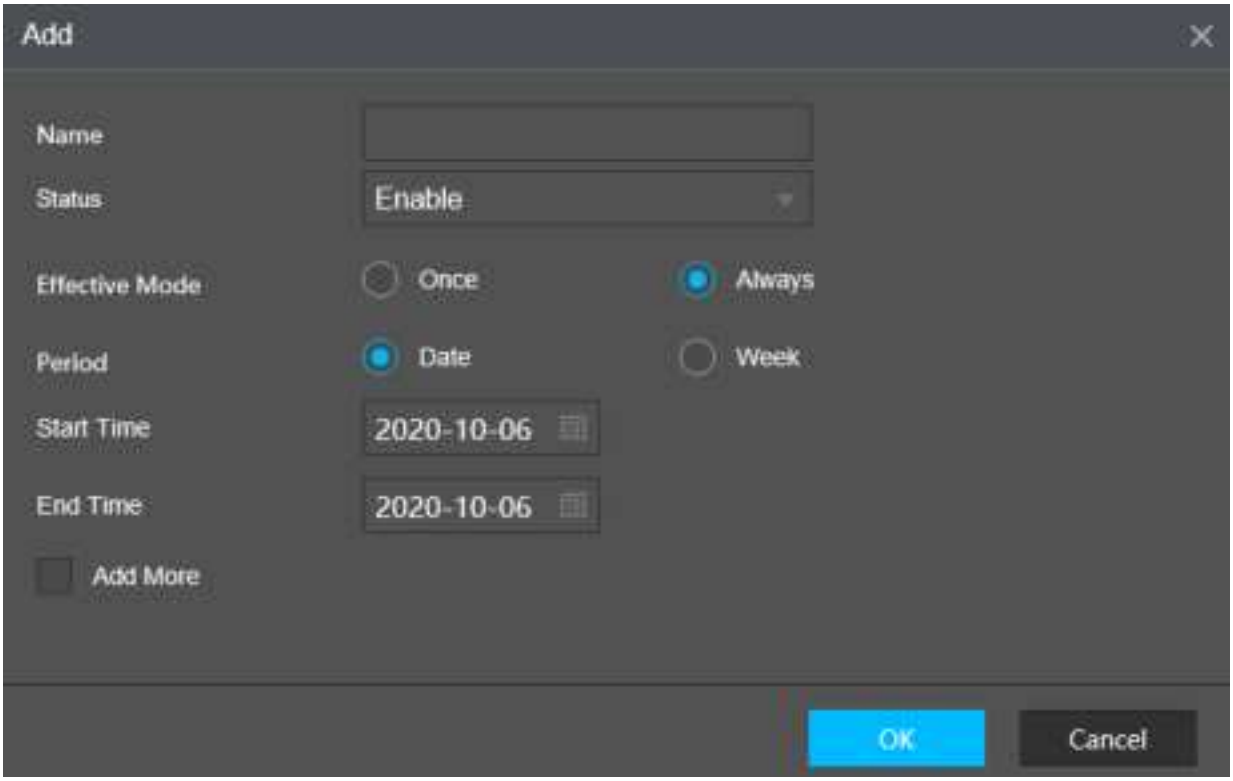
Duration: This column shows the range in which the holiday occurs.

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.

Security

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

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

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

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

Network Access: Prevents a set IP address from network access.
Ping Prohibited: Prevents the device from pinging a set IP address.
Anti-Half Connection: Prevents the device from partial connection to a set IP address.

Enable: This option allows the user to enable the firewall feature.
Mode: Allows the user to choose which sites will be trusted (whitelisted) or blocked (blacklisted.
Host IP/Mac: The host IP/Mac address of the applied IP address.
Port: The port number of the whitelisted or blacklisted IP address.
Edit: Allows the user to edit an IP or port number of a whitelisted or blacklisted IP address.
Delete: Delete an added whitelisted or blacklisted IP address
Add: Click this button to add a trusted or blocked site into the system.

To refresh the interface, click the **Refresh** button. To confirm settings, click the **OK** 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 DVR 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 DVR settings. Each user can belong to only one group, and user rights cannot exceed group rights.

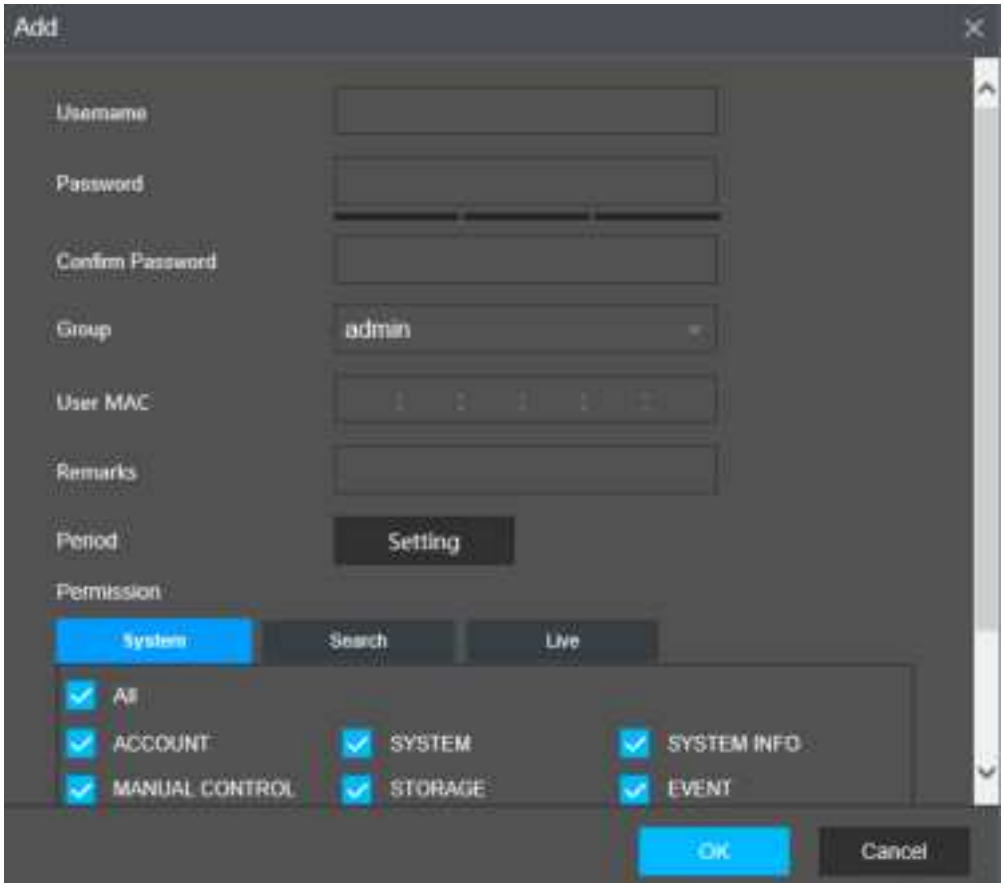
User

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

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

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

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



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

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.
Remarks: This column indicates any notes about the user group.
Modify: 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 DVR.

Below is a screenshot of this menu:

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: Signifies if the strength of the password is low, medium or high.
Group Name – The group name of the account that is being modified.
Modify – 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.

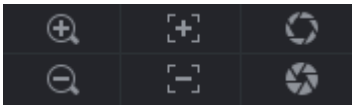
To confirm settings, click the **Save** button. Click the Refresh button to refresh the interface.

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 HDCVI channels currently available on the system.
Start Talk: Enables two-way audio if an external and microphone and speaker are connected.
Instant Record: Instantly starts recording video (a hard drive must be installed).
Local Playback: Pulls a downloaded video that is locally stored.
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.

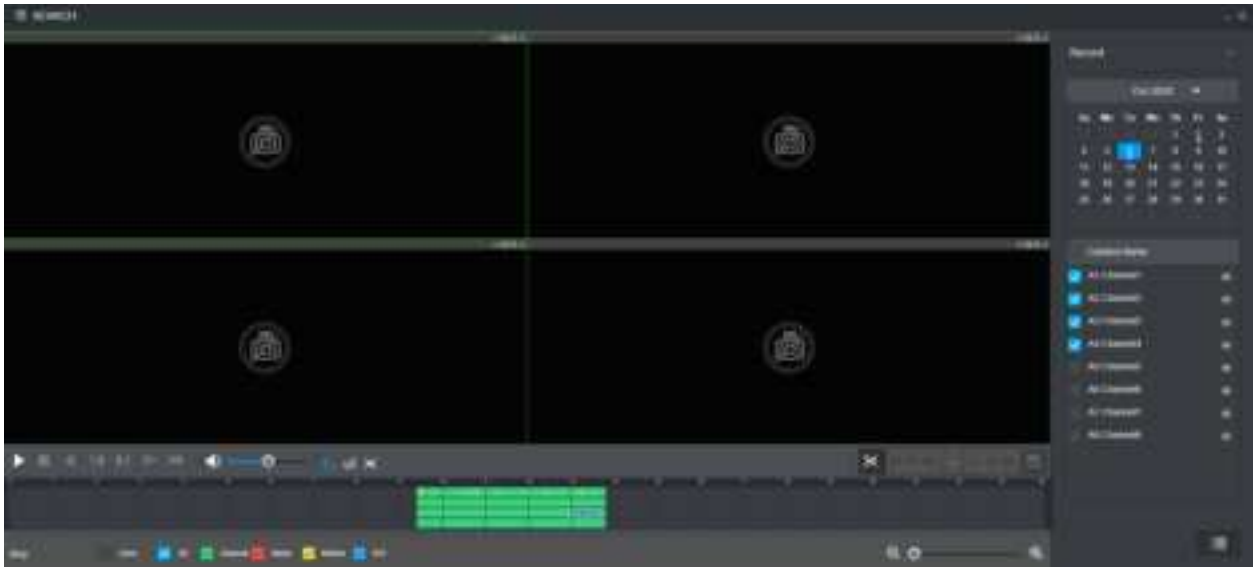
PTZ Setup: Set PTZ presets for a PTZ controlled camera. The system can handle 1~255 presets.

PTZ Menu: Used to configure PTZ presets.

For more information on how to setup a PTZ preset, if applicable, please visit: amcrest.com/support

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, and IVS. The system will need a hard drive installed to view recorded events.



Please refer to the following sheet for more information.

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

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

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

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

Rec – Video recordings will be pulled from either selection.

Pic – Snapshot recordings will be pulled from either selection.

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

Important

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

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.

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

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

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

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).

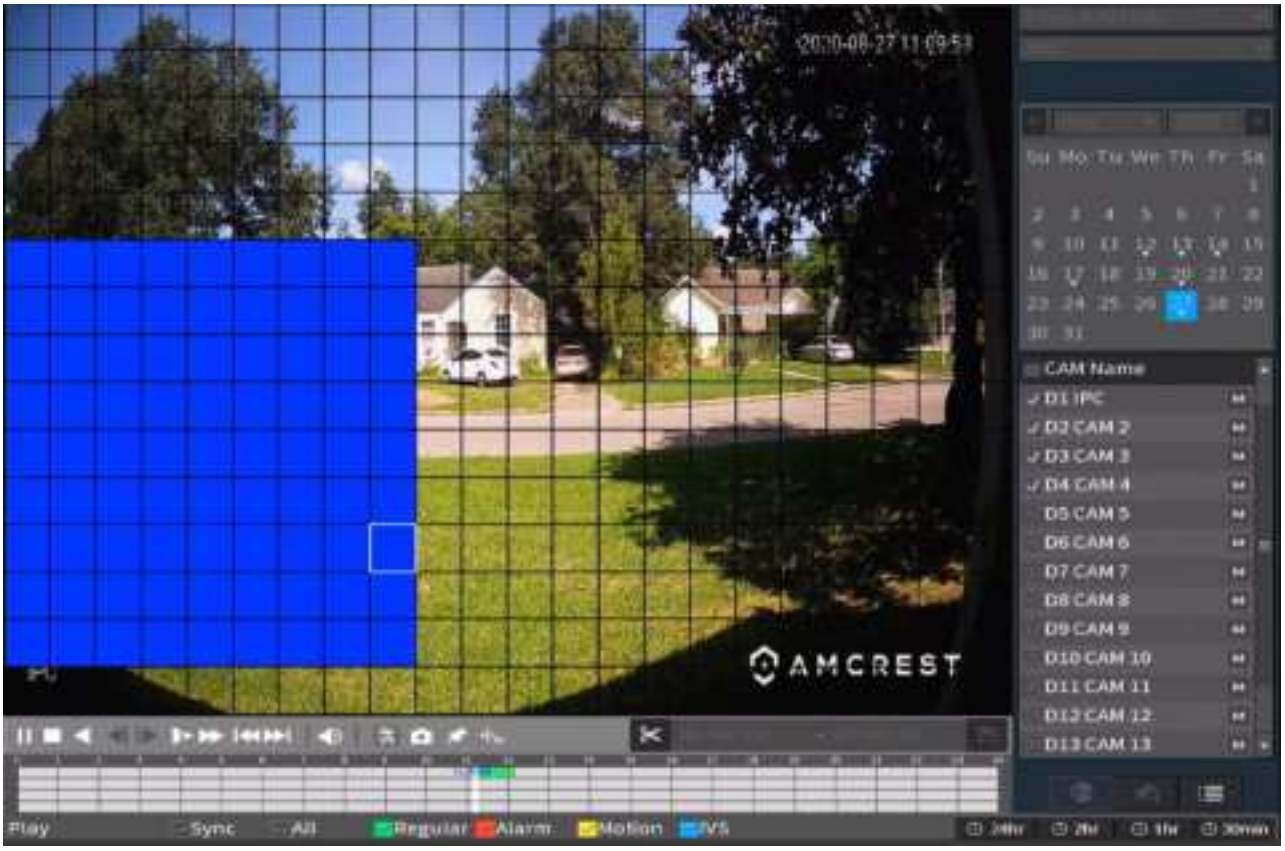
Playback options – Please refer to the table below:

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.
	**Smart Search:** Provides motion grids on a recording while in playback mode. This option may be available in the Local UI only.
	**Snapshot:** Takes a snapshot of the recording while in playback mode.
	**Mark Button:** Adds a mark into the time bar while in playback mode.
	**IVS Overlay Button:** Enable/Disable IVS overlays while in playback mode.

	Human/Vehicle Filter: Filter between human and vehicle events.
	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.
Digital Zoom	While in playback mode, select an area of the recording to digitally zoom in and out.

Smart Search

This feature may only be available on local UI or may not be available in all model DVRs. Smart search is used to create motion zones while in playback mode which helps to better define motion events. This option pertains only to motion detection events. While in full screen playback mode, click on the **Smart Search** icon to activate a motion detection zone grid and use your mouse to create a zone on the interface.



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

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

Accurate Playback by Time

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

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

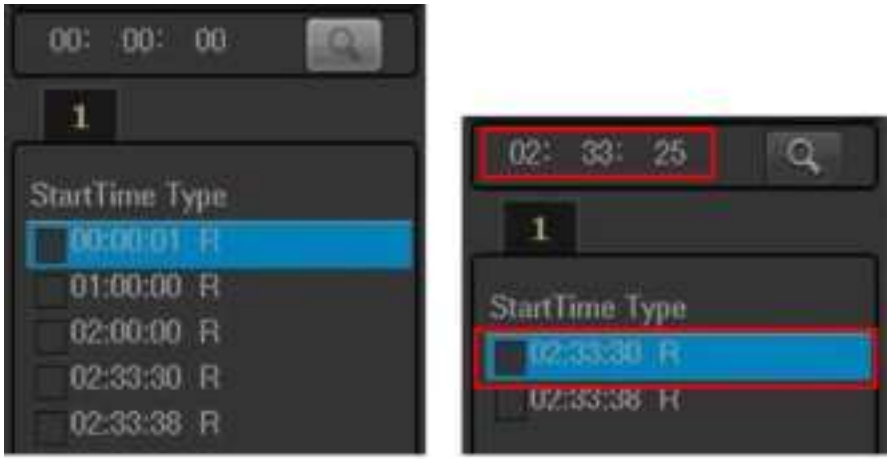
, and you can view all the record files after 11:00.00 (The records include the current time.). See image on the right side of the Figure 4-68 Double click a file name to playback.

Note

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

The system does not support accurate playback for pictures.

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



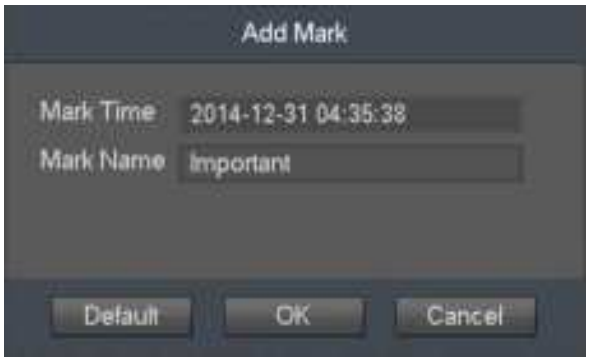
Mark Playback

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

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

Add Mark

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



Playback Mark

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

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

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

Mark Manager

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

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

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

Note: After you go to the mark management interface the system needs to pause the current playback. The system resumes playback after you exit the mark management interface.
If the mark file you want to playback has been removed, the system begins playing back from the first file in the list.

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, Intel, etc. You can also select **All** to view all log and alarm information. Here is a screenshot of the Alarm Info tab:

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

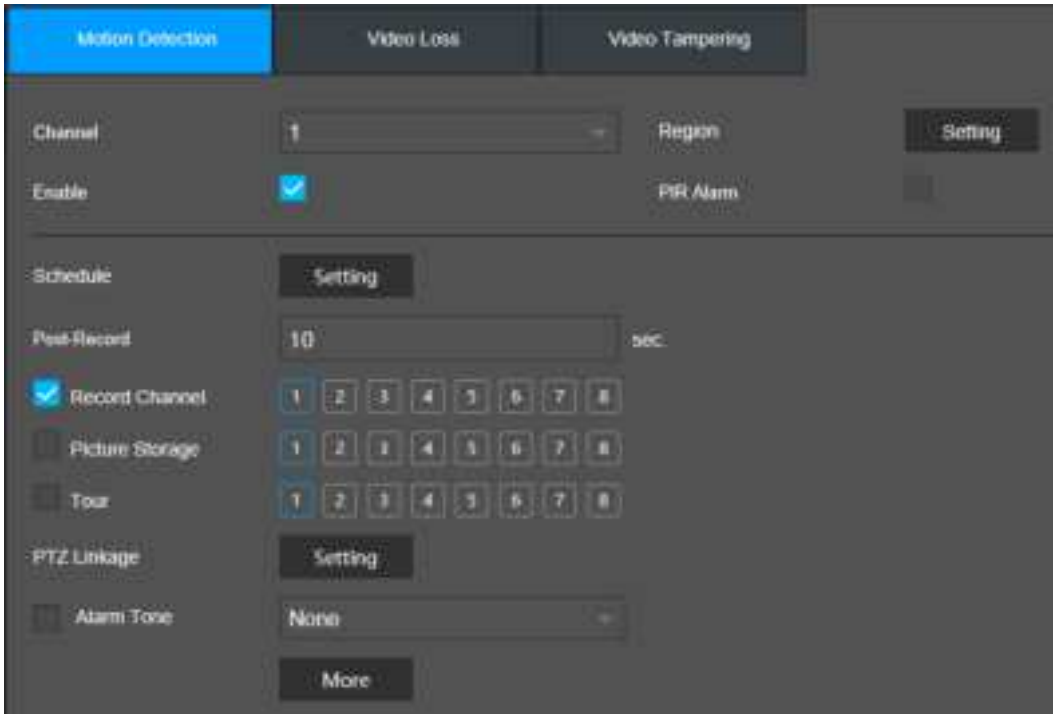
If you require to back up any alarm events, the alarm info interface has a backup option. When selected, all selected files will be saved to an external USB storage DVR. To backup events from this menu, click on **Backup** and follow the on-screen instructions. Also, for a more detailed description of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

Video Detection

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

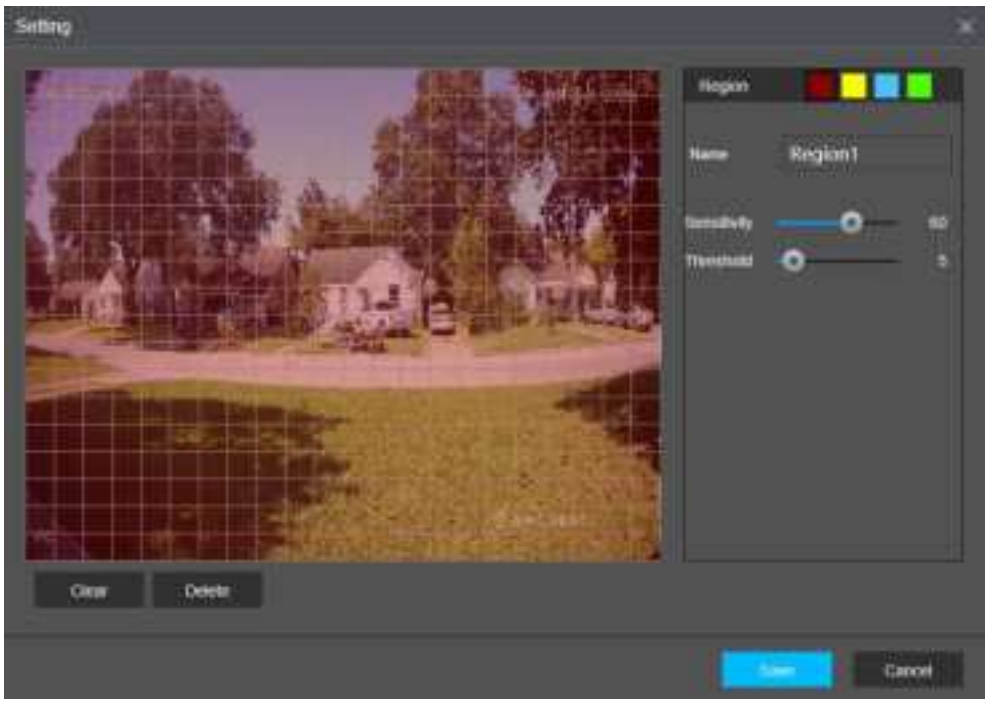
Motion Detection

The motion detection settings screen is where motion detection can be setup for each individual channel. Based on the active motion detection region, the DVR 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.
PIR Alarm: This checkbox is typically disabled by default, however, is used to enable PIR sensors if a PIR device is connected to the system.
Schedule: 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.

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 DVR 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 Linkage: 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: 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.

Report Alarm: This option allows the system to upload the alarm signal to the network (including alarm if you enabled current function).

Sub Screen: This option allows the system to provide a pop up of the alarm once it is triggered.

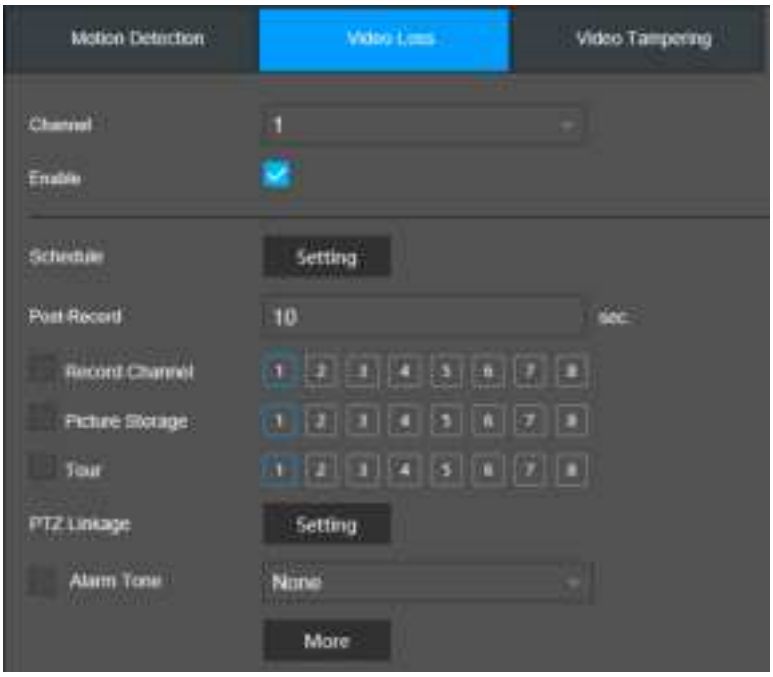
Log: Check this box to enable a log of the abnormality to be retained into the system.

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

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 **OK** button.

Video Loss

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



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.

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.

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 DVR 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 Linkage: 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: 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.

Report Alarm: This option allows the system to upload the alarm signal to the network (including alarm if you enabled current function).

Sub Screen: This option allows the system to provide a pop up of the alarm once it is triggered.

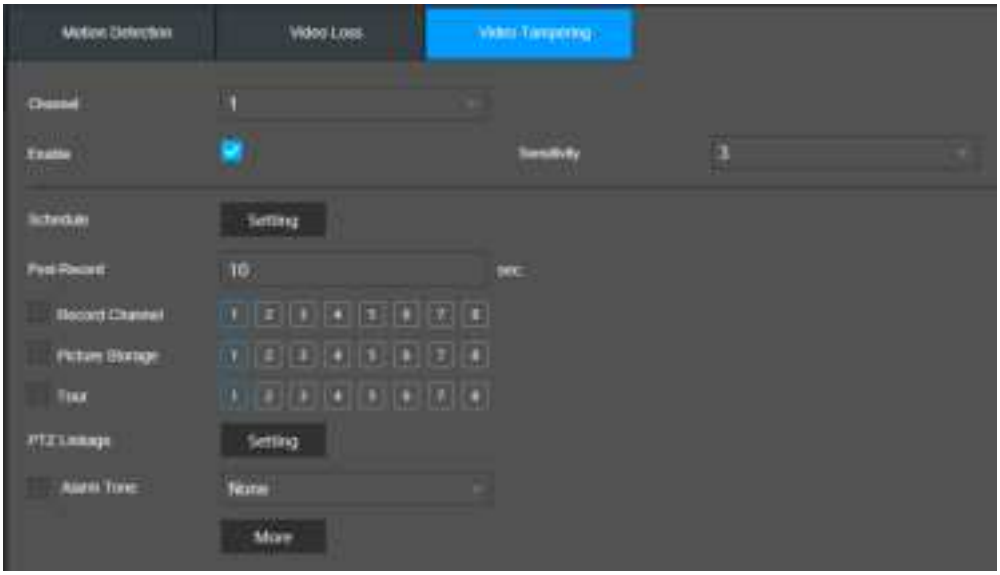
Log: Check this box to enable a log of the abnormality to be retained into the system.

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

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 **OK** button.

Video Tampering

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



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

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.

Sensitivity: This dropdown menu allows the user to set the sensitivity level in which the event will be detected. The levels can be set between 1 being the lowest and 6 being the highest sensitivity.

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 DVR 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 Linkage: 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: 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.

Report Alarm: This option allows the system to upload the alarm signal to the network (including alarm if you enabled current function).

Sub Screen: This option allows the system to provide a pop up of the alarm once it is triggered.

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

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

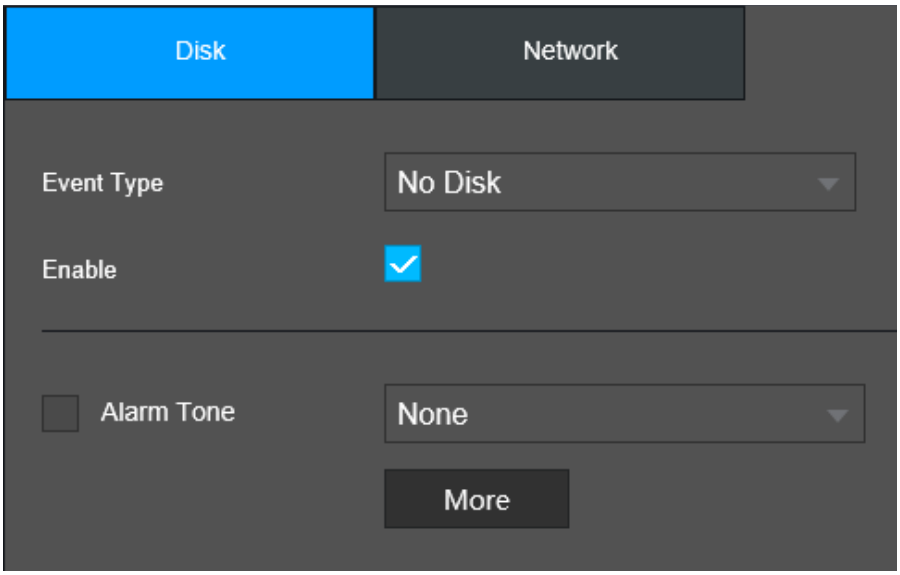
To reset to default settings, click the **Default** button. To copy the motion detection settings, click on the **Copy to** button. To refresh the page, click the **Refresh** button. To save the settings click the **OK** button.

Abnormality

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

Disk

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



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

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

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

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

Alarm 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.

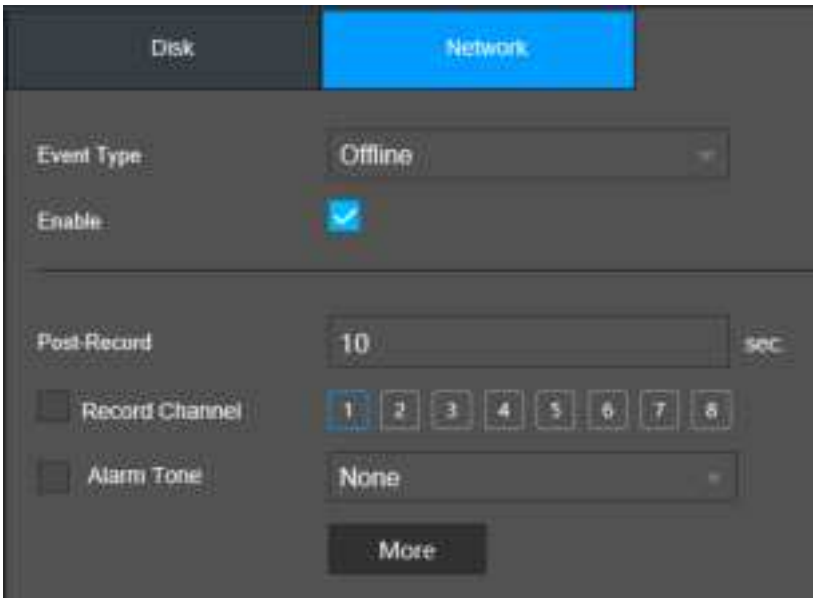
More: Allows the user to access other detection options.

- **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.
- **Report Alarm:** This option allows the system to upload the alarm signal to the network (including alarm if you enabled current function).
- **Log:** Check this box to enable a log of the abnormality to be retained into the system.
- **Send Email:** This checkbox allows the user to enable the system to send an email when a motion detection alarm is triggered.

To refresh the page, click the **Refresh** button. To save the settings click the **OK** button.

Network

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



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.

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

To refresh the page, click the **Refresh** button. To save the settings click the **OK** button.

AI

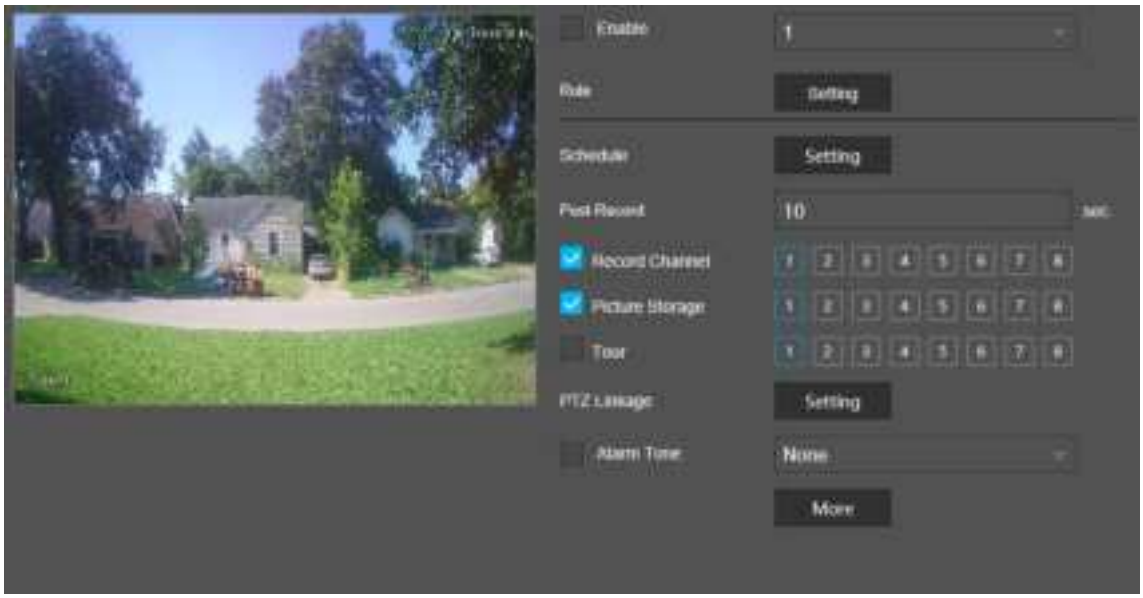
The AI menu allows the user to manage and view artificial intelligence and face recognition information and settings. AI features available on the device can be controlled either by the device or via a connected AI camera depending on its features.

Face Detection

Face Detection is typically used in conjunction with an AI DVR, however, can be used independently to detect faces. Please note, face detection cannot be used simultaneously with features such as IVS, etc. however, can be used with Face Recognition and SMD. For more information on how to use face detection, please refer to the information provided below.

Using Face Detection

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



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

Enable: This option is used to enable face detection. Use the channel dropdown to select a channel. Please note, the channel selected must reflect the same channel enabled in the smart plan menu.
Rule: Allows the user to adjust face detection area on the live view monitoring screen.
Schedule: Allows the user to set a schedule in which face detection will be triggered.
Post Record: Allows the user to delay recording for a specified time after the event ends.
Record Control: The channel currently enabled.
Picture Storage: When an alarm occurs, the DVR triggers a snapshot for the selected channel.

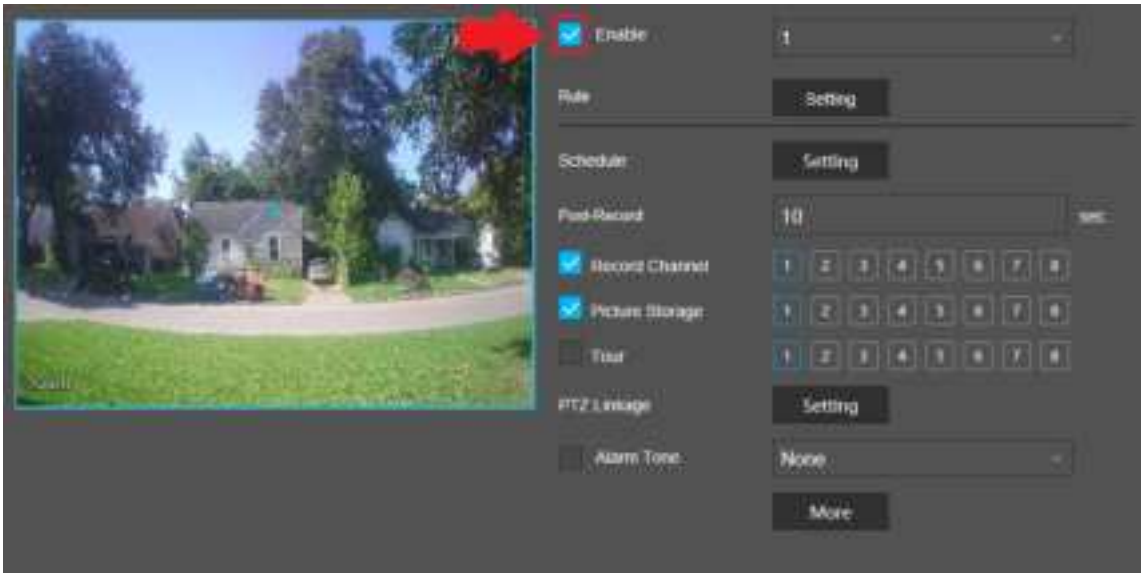
Tour: Used to setup a tour for multiple channels. Please note, this is only applicable for PTZ controlled devices.
PTZ Linkage: Allows the user to activate pan, tilt, and zoom options. Please note, this is only applicable to PTZ controlled devices.
Alarm Tone: Plays an audio file set by the user once an alert is triggered.
More: Access additional settings such as, buzzer, alarm upload, log, send email.

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.
Report Alarm: This option allows the system to upload the alarm signal to the network (including alarm if you enabled current function).
Sub Screen: This option allows the system to provide a pop up of the alarm once it is triggered.
Log: Check this box to enable a log of the abnormality to be retained into the system.
Send Email: This checkbox allows the user to enable the camera to send an email when an event is triggered. For more information on how to setup email alerts, please visit amcrest.com/support

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

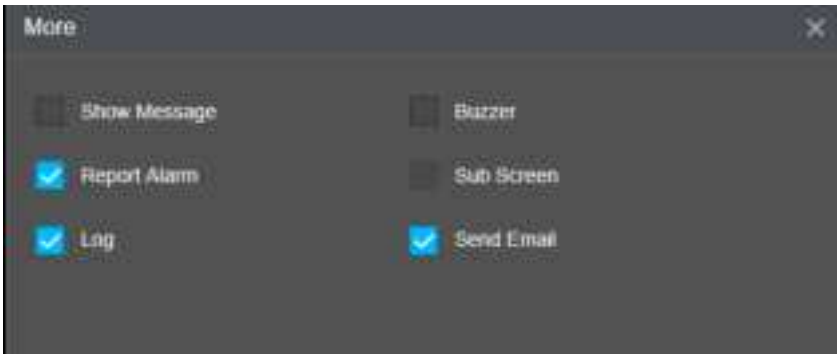
How to Activate Face Detection

1. Click on the **Face Detection** menu located in the **Parameters** section and select the face detection menu. Click on the Enable checkbox to enable the feature.



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

2. When triggered, the face detection event will be retained in the face detection smart search menu or snapshots of the event can be emailed to you. To enable Email snapshots, click on the More button and enable the Send Email checkbox and click **OK**.

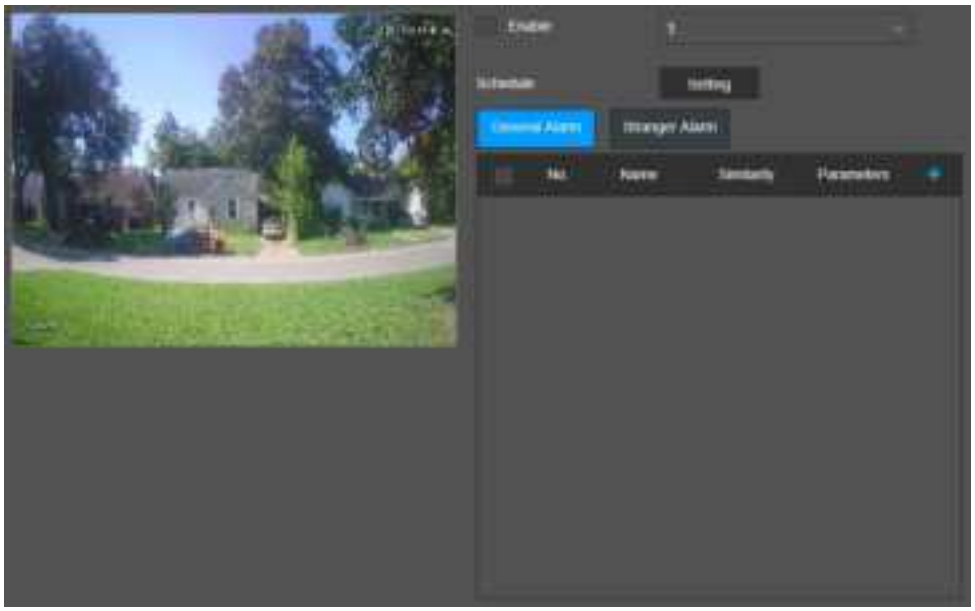


Face Recognition

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

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

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



Below is a description of the options in this menu:

Use the channel dropdown to select a channel. Please note, the channel selected must reflect the same channel enabled in the smart plan menu.
Enable: This option is used to enable face recognition.
Schedule: Allows the user to set a schedule in which face detection will be triggered.
General Alarm: General alarms are based off facial images imported from a face library.
Stranger Alarm: This interface is used to trigger an event when a face is not recognized.
+: The add button is used to import a face library.

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

Using Face Recognition

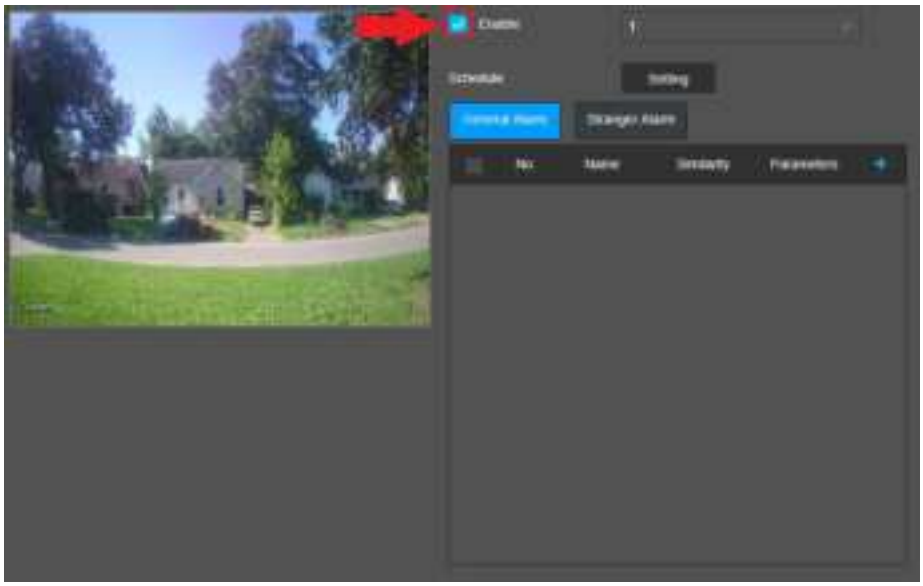
There are 2 methods of face recognition, general, and stranger modes. Common mode allows the device to use the images registered in the face library as a reference to recognize faces. Stranger mode will alert the system once an unrecognized face is detected.

Note: General mode can only be setup locally on the DVR or by using Internet Explorer on a PC. The face recognition feature is currently not compatible with certain browsers such as, Google Chrome, Firefox, etc.

How to Use General mode

Please make sure Face Detection is enabled before setting up Face recognition. For more information on how to setup face detection, please refer to "*How to Activate Face Detection*".

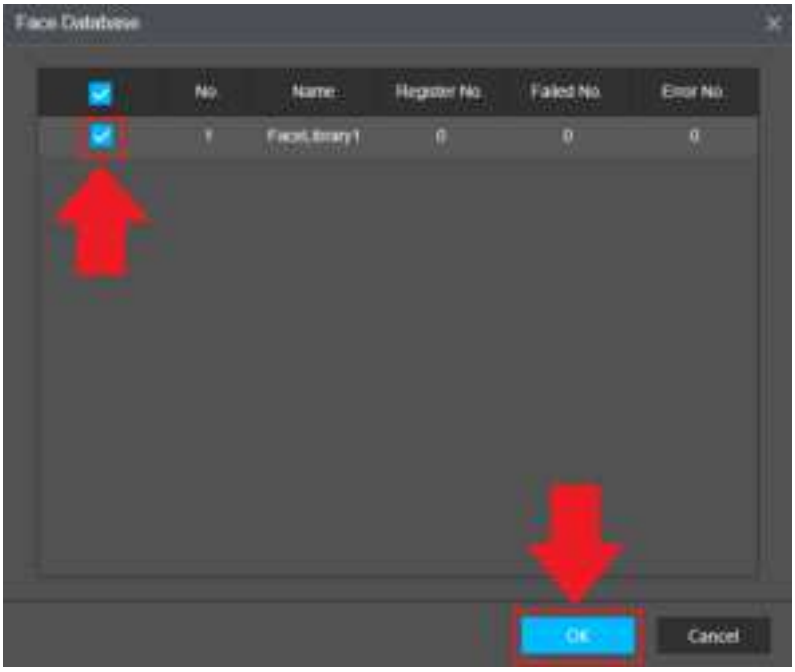
1. Click on the **Face Recognition** option located in the **Parameters** section. Click **Enable** to enable face recognition. Click **OK** to save.



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

The library will now be saved to the database. Click on the **Details** section to begin adding images into the to the face library.
If you have a single image to add click **Register ID**, if you have multiple images to add click on **Batch register**. Click on the (+) option to import an image from your computer and enter all necessary information for the image. Click **OK**.

3. Navigate back to the **Face Recognition** menu and click on the **(+)** icon to import the face library. Click on the checkbox next to the library to highlight it and click **OK**.



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

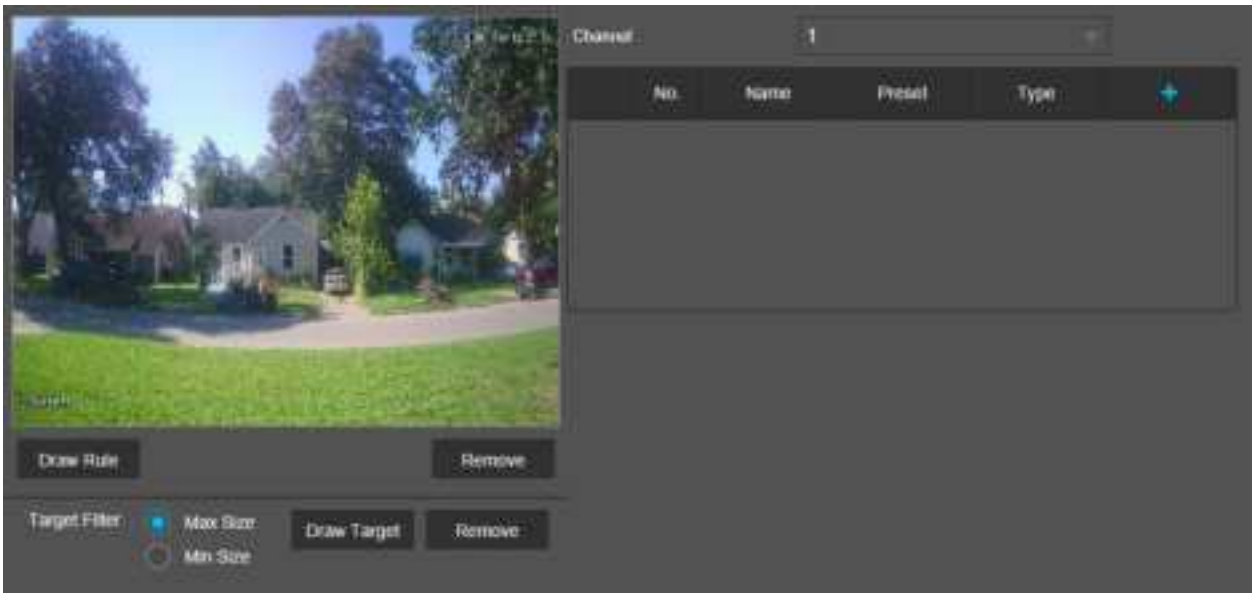
Enabling the **Stranger Alarm** will alert the system once an unrecognized face is detected. Click **OK** to save the settings to your system.

IVS

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

Please note IVS rules cannot be enabled if other AI rules are enabled on the device.

The DVR currently has 2 built-in IVS features available (Tripwire and Intrusion). Below is a screenshot of the IVS menu:



Below is a description of the features in this menu:

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

Setting an IVS Rule

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

1. Access the IVS menu and click the **(+)** icon to add a rule.
2. Double click on the **Type** dropdown menu to select an IVS rule.
3. Click on the **Type** dropdown menu to select an available IVS rule. Once a rule is selected, click on the **Draw** (pencil) icon, to begin configuring the rule.

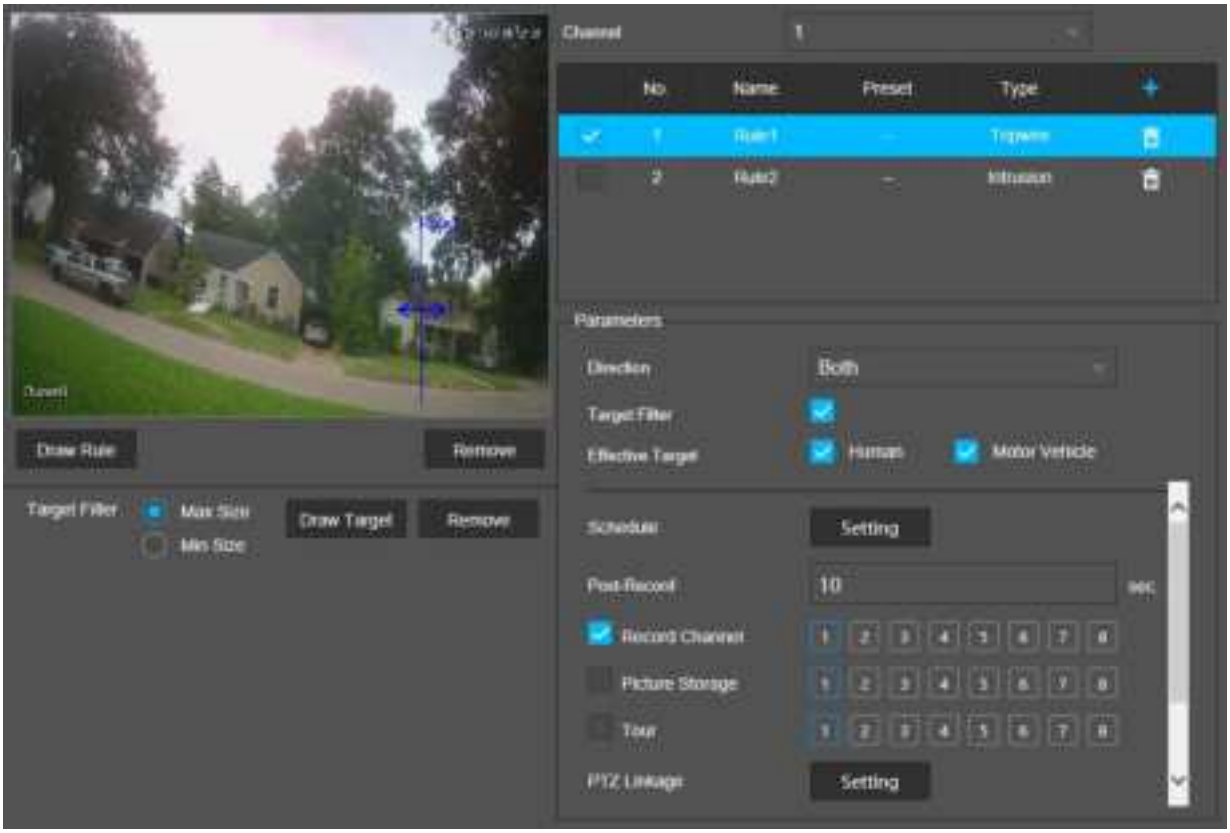
There are 2 IVS rules available by device:

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

Setting an IVS Rule

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

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



The Target Filter option is used to set a minimum or maximum detection area. It is recommended to leave this as default; however, it can be modified. Use the **Remove** button to remove a drawn area or line.

The AI Recognition toggle switch enables object filtering options that allow you the ability to determine if a human or vehicle has entered the area. If Person is chosen, the rule will only be triggered if a human figure is detected. If Vehicle is chosen, the rule will only be triggered if a

vehicle is detected by the system. Both object filtering options can be used simultaneously if needed.

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

Note: All IVS events can be viewed in the Playback interface or in the "Smart Search" option located in the Smart Search menu.

Smart Motion Detection

Smart Motion Detection (SMD) uses an advanced algorithm to differentiate human and vehicular shapes within a scene and send alarms only when a person or vehicle is detected. Please note, SMD cannot be enabled with any other AI rules.

Below is a screenshot of the **Smart Motion Detection** menu:

Below is a description of the options in this menu:

Channel: Use this dropdown menu to select a channel.
Enable: Use this checkbox to enable Smart Motion Detection.
Sensitivity: Use this dropdown menu to select a sensitivity setting for smart motion detection. The sensitivity can be set as low, medium, or high.

Effective Object: The object filter checkboxes allow the camera to be triggered only when a specific object, such as a human or car, is detected by the camera. Both effective object checkboxes can be activated at the same time.

Human: This checkbox allows the camera to be triggered only when a human figure is detected.

Motor Vehicle: This checkbox allows the camera to be triggered only when a vehicle has been detected.

Schedule: This checkbox allows the user to enable the camera to record once an event is detected.

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

Record Control: The channel currently enabled.

Picture Storage: When an alarm occurs, the DVR triggers a snapshot for the selected channel.

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

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

Alarm Tone: Plays an audio file set by the user once an alert is triggered.

More: Access additional settings such as, buzzer, alarm upload, log, send email.

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.

Report Alarm: This option allows the system to upload the alarm once an event occurs.

Sub Screen: This option allows the system to provide a pop up of the alarm once it is triggered.

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

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

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

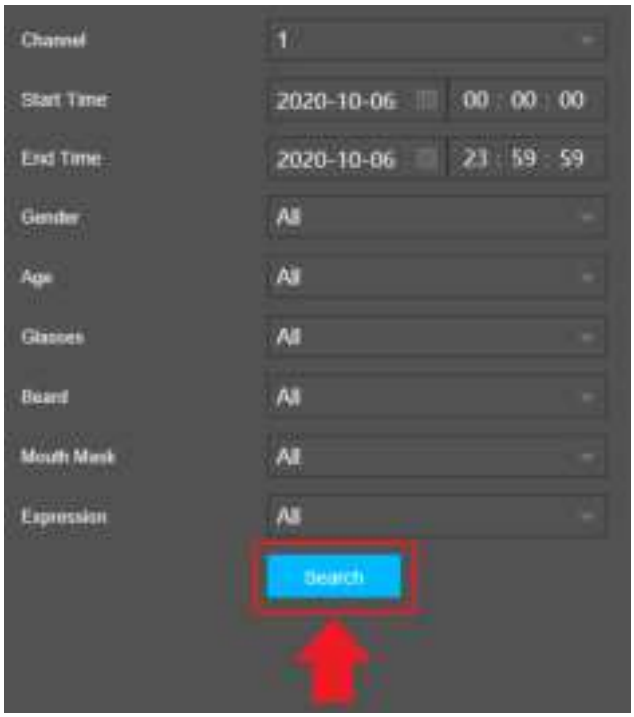
Smart Search

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

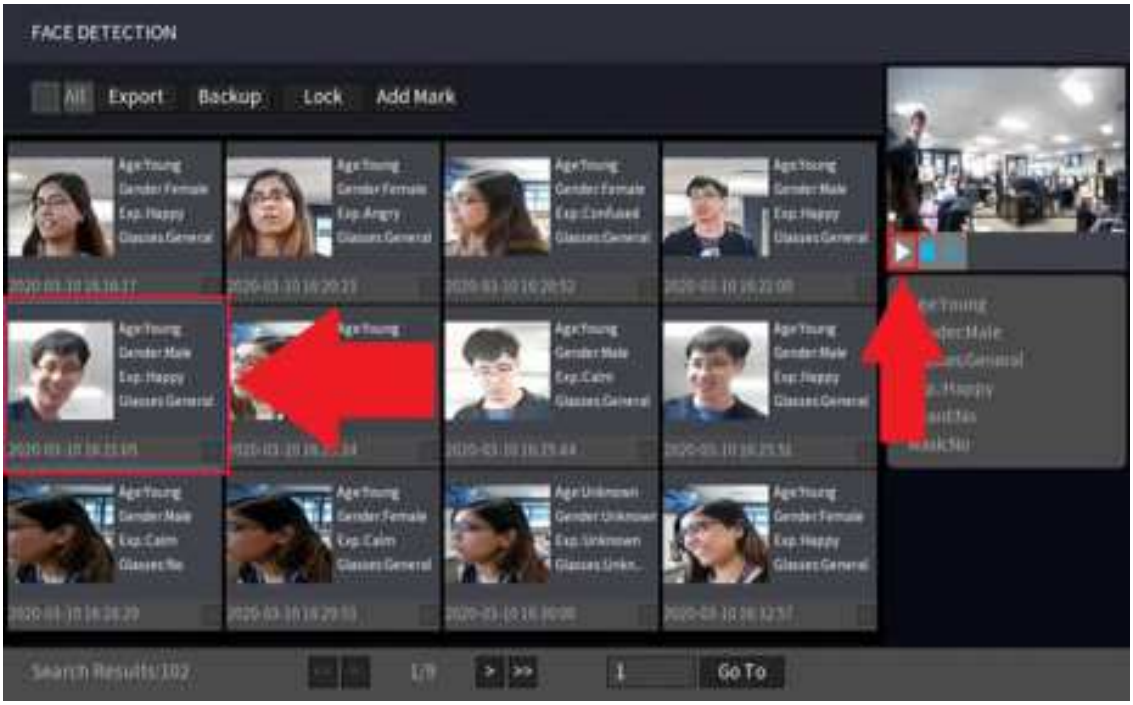
Viewing Face Detection Events

All face detection data retained by the system can be accessed via the **Face Detection** option located in the **Smart Search** menu. Enter a start and end date and time for the event and list

any attributes of the event such as Gender, Age, Expressions, etc. that you would like to view in the Smart Search interface and click **Search**.



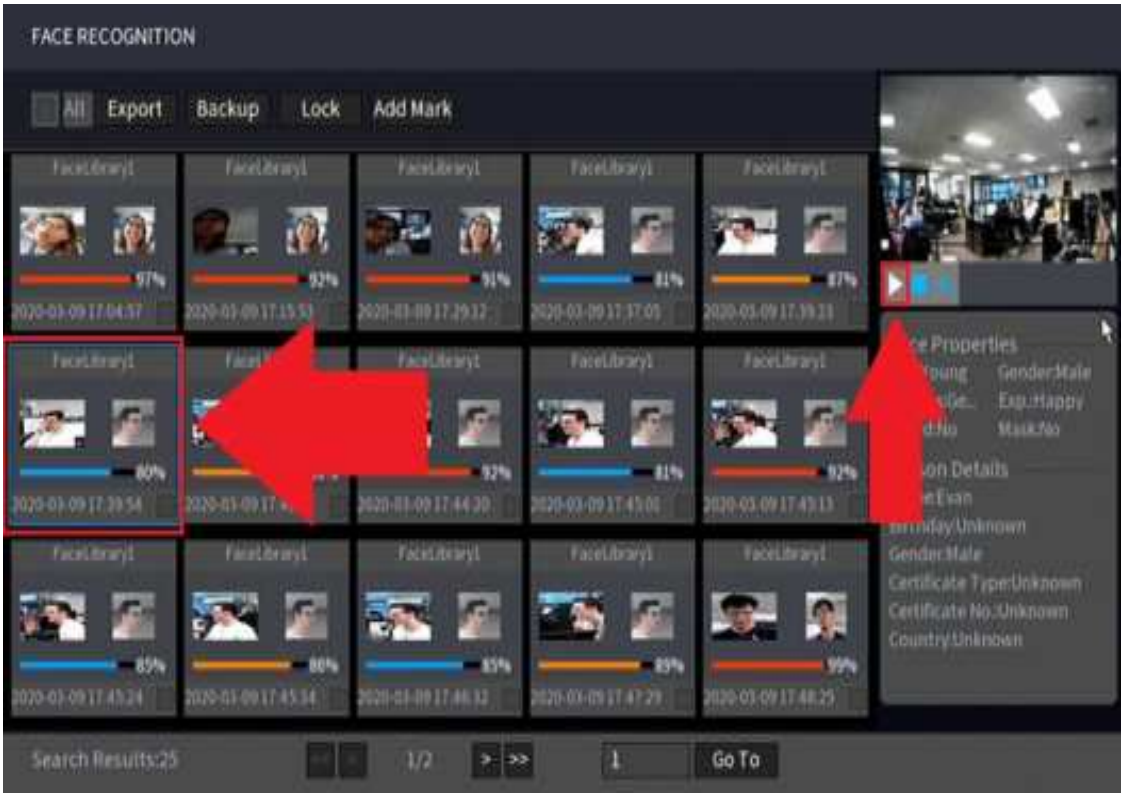
A display of all face detection data will be displayed along with facial attributes. Click on the event you would like to view, and a clip of the event will be displayed in the built-in player. Click on the play icon to view the event.



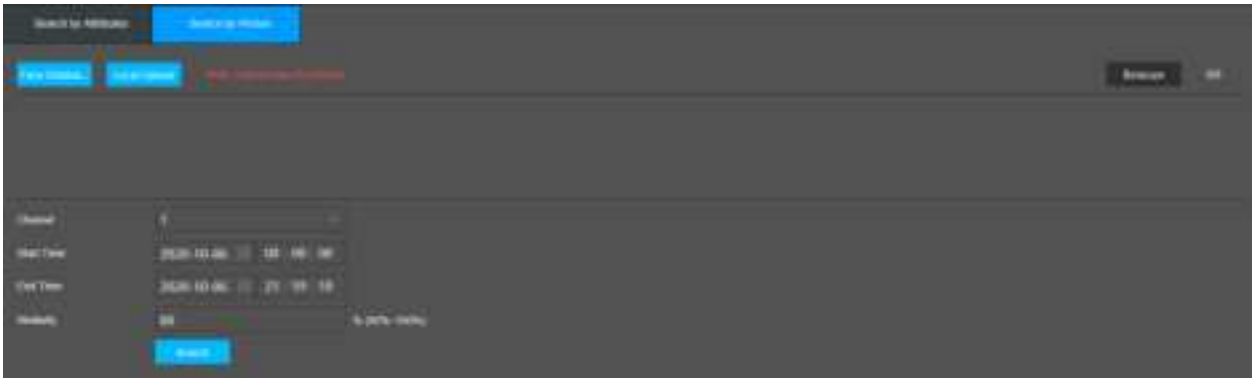
Viewing Face Recognition Events

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

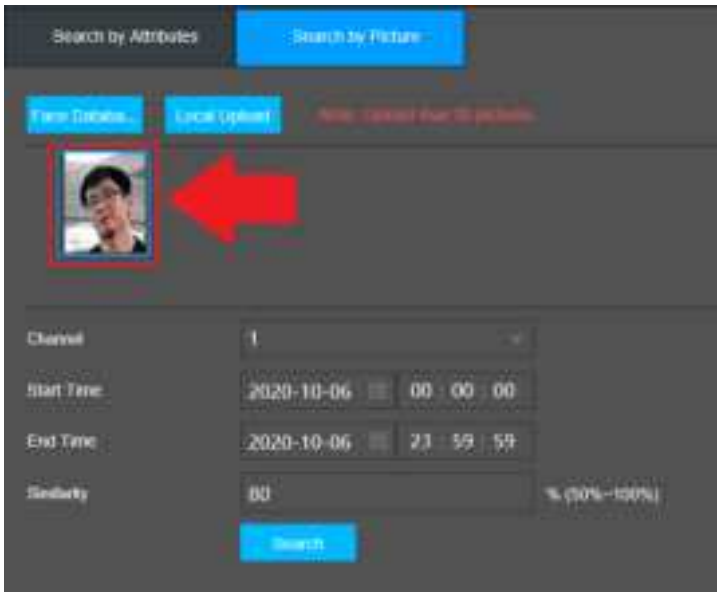
To search by attributes, enter a start and end time of the event in the interface and then click **Search**. The interface will display all face recognition data. To view the event, click on the event you would like to view then click the play button in the interface.



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



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

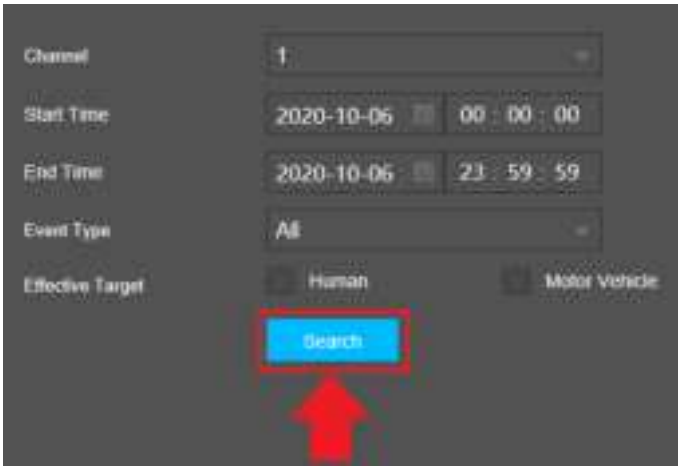


The system will display all face recognition data based on the image selected.

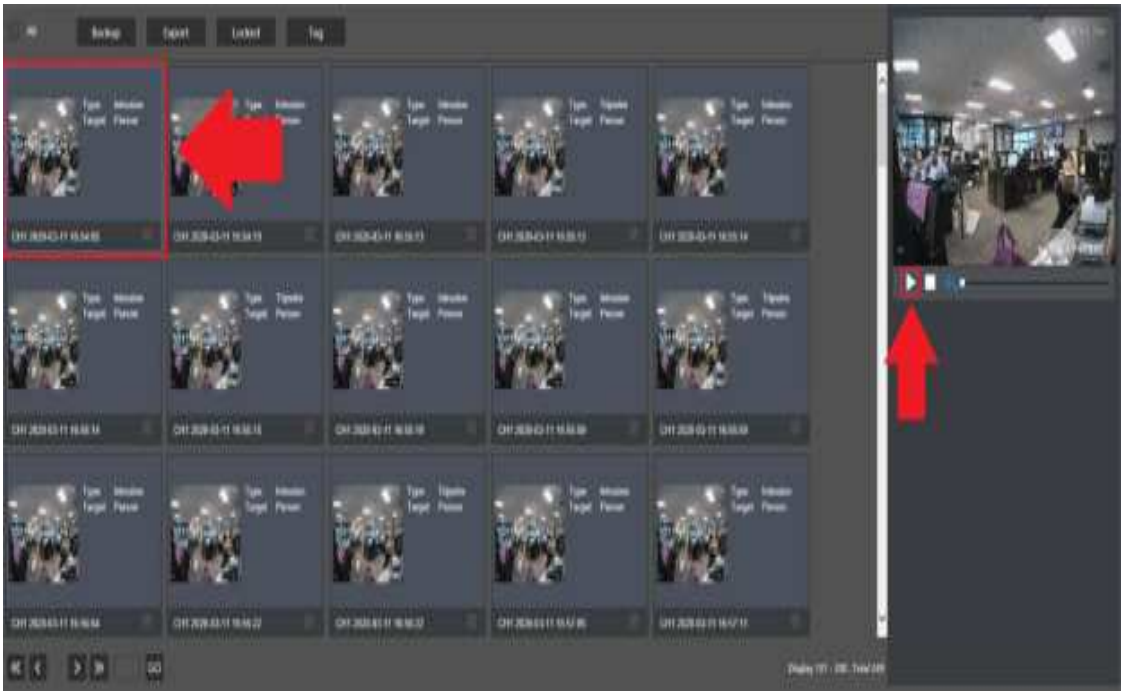
Viewing IVS Events

Any IVS data retained on the system can be viewed using the IVS Smart Search interface or via the playback menu if an IVS schedule is set in the system.

To view IVS data using the IVS smart search interface, click on the **IVS** option located in the Smart Search menu. Enter a start and end time, event type, and choose any attribute object filters such as, human or motor vehicle and click **Search**.



A layout of all IVS events will be displayed. To view the event, select the event from the interface and click the play button.



To download the IVS event, select the event from the interface and click on **Backup**. Choose a file path for the recording and click **Backup**. The event will be downloaded to the set file path.

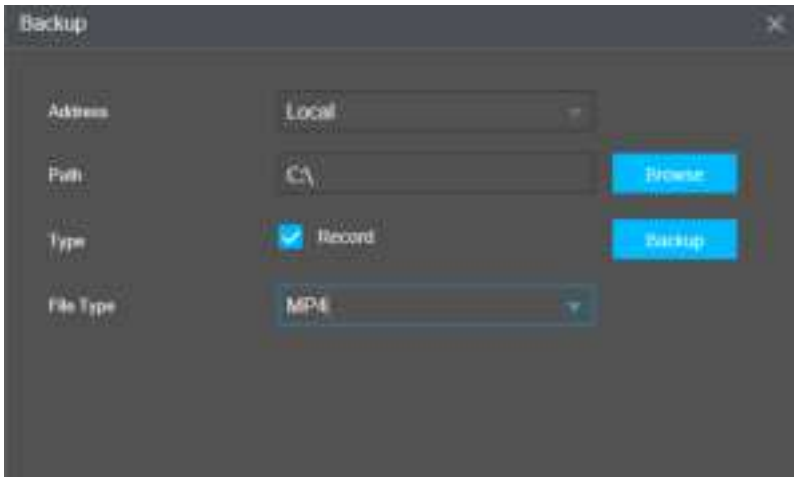
Viewing SMD Events

Any SMD data retained on the system can be viewed using the SMD Smart Search interface or via the playback menu if an SMD schedule is set in the system.

To view SMD data using the IVS smart search interface, click on the **SMD** option located in the **Smart Search** menu. Select a channel and type and enter a start and end time of the event, click Search. A list of retained SMD events will be displayed in the interface.

To view the SMD event, click on the Play icon to automatically play the SMD event.

To download the SMD event, select the event from the interface and click on **Backup**. Choose a file path for the recording and click Backup. The event will be downloaded to the set file path.



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 screenshot of this menu:

Below is a description of the features in this menu:

Type: Use this dropdown menu to select a log type.
Start Time: The start time in which logged events will be displayed
End Time: The end time in which a logged event will be displayed.
Search: Run a query of logs based on the start and end time.
Go To: Go to a specific log in the query.
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.

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

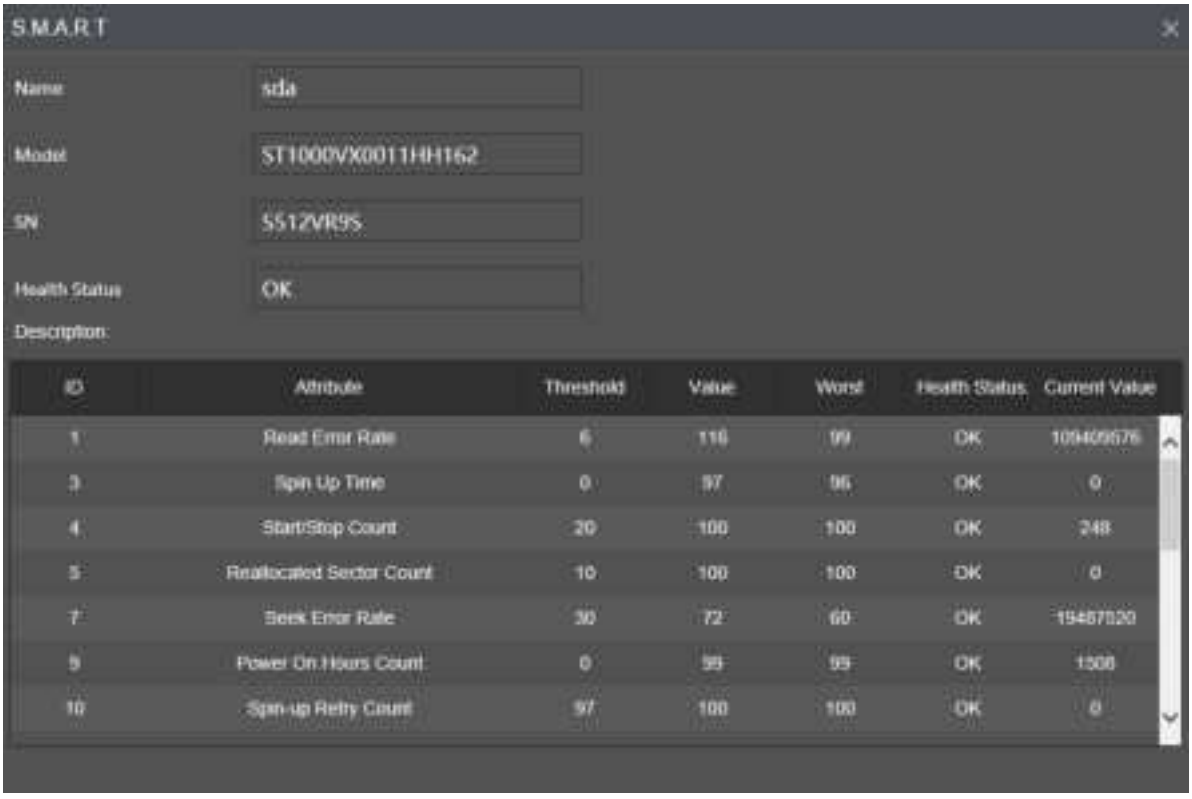
The version tab provides details about the DVR such as the model, system version, and other basic information related to the system.

Disk

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.

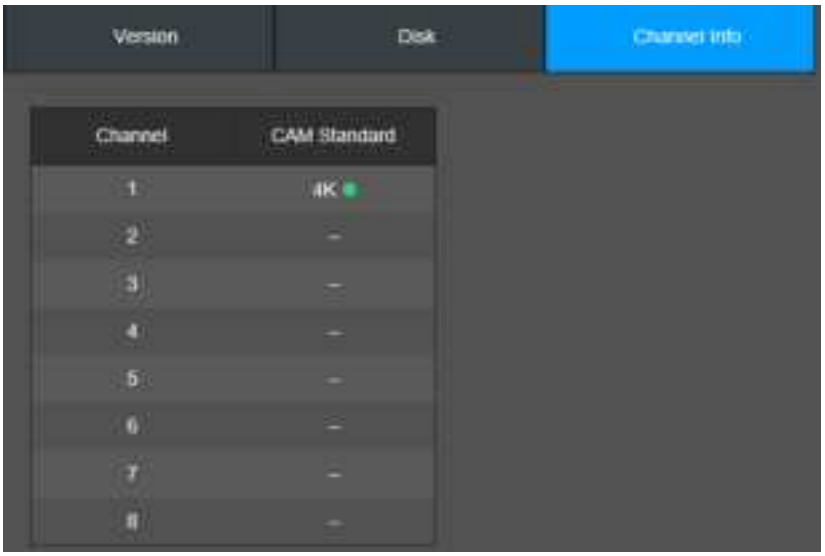


Status: The status of the hard drive.

Channel Info

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

Below is a screenshot of the interface:



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

Channel: The channel number that is being monitored.
Cam Standard: The status and type of camera being monitored.

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 DVR.
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.

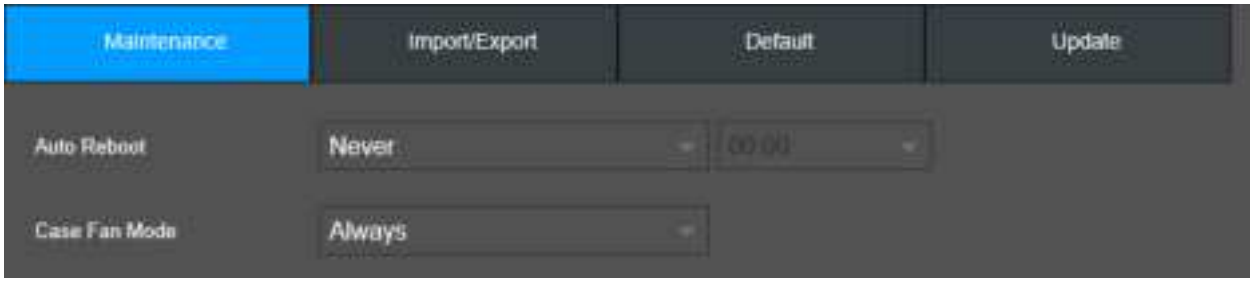
Manager

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 a screenshot of the **Maintenance** screen:



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.
Case Fan Mode: Used to reduce noise and extend the service life.

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

Import/Export

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

Below is a screenshot of the **Import/Export** settings screen:

Below is an explanation of the fields on the Import/Export settings screen:

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 DVR back to its original default or factory default settings.

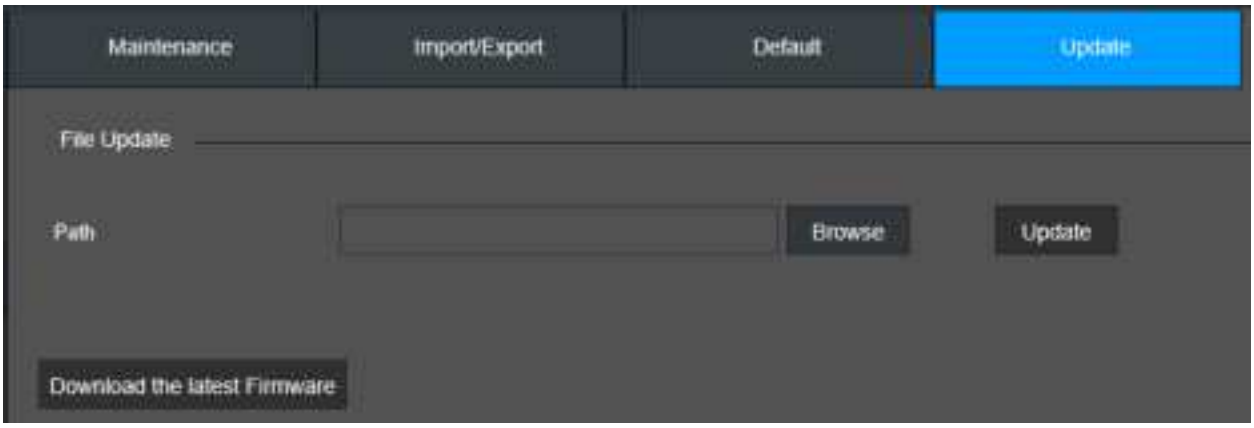
Below is a screenshot of the **Default** settings screen:

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

Below is a screenshot of the upgrade screen:



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

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

Back Up

This menu allows the user to backup file information from the device to an external USB storage device.

Below is a screenshot of this menu:

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

In the **Path** field, choose a file path in which the 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 **Back Up**. The chosen files will be backed up to the file path previously chosen.

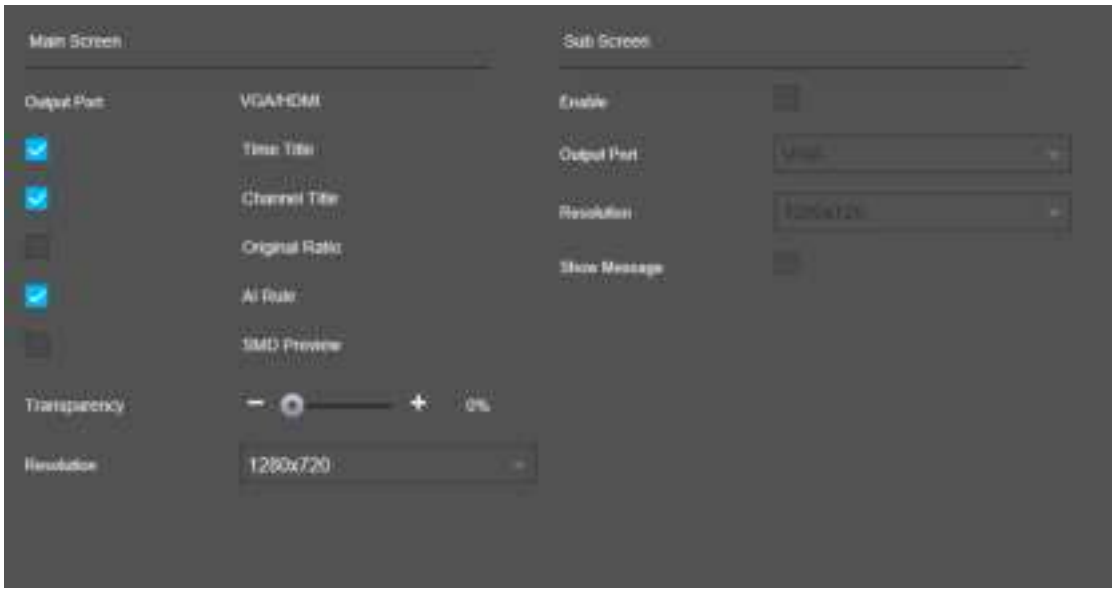
Note: Click on the Watermark option to verify the watermark information assigned to the downloaded file.

Display

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

Display

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



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

Parameter	Description
Main Screen	The main display outputs. The device should be VGA+HDMI by default.
Time Title	This checkbox enables the time overlay on the display.
Channel Title	This checkbox enables the channel overlay on the display.
Original Ratio	This checkbox sets the display into its original aspect ratio.
AI Rule	Enable and disable AI overlays in the in the output display.
SMD Preview	This check box enables smart motion detection previews on the display.
Resolution	This drop-down menu provides output different output resolutions of the DVR.
Transparency	Use this slider to choose a transparency rate for the output of your device.
Resolution	This drop-down menu provides output different output resolutions of the DVR.

Click **Refresh** to refresh the interface. Click **OK** to save display settings.

Tour Setting

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

Below is a screenshot of the **Main Screen**:

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

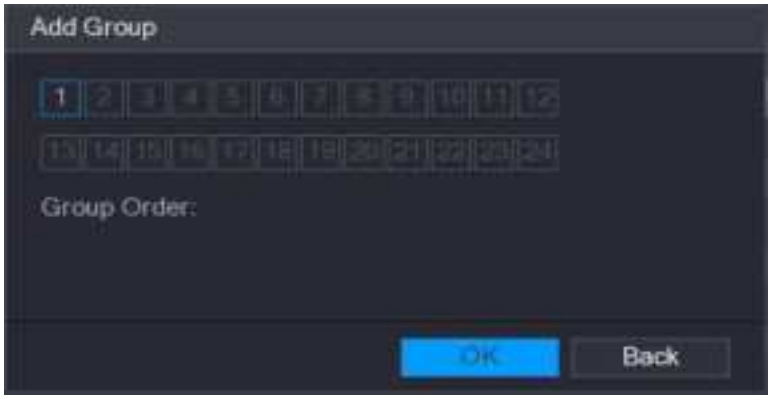
Enable: This checkbox allows the user to enable the tour functionality.
Interval: Enter the amount of time that you want each channel group displays on the screen. The value ranges from 5 seconds to 120 seconds, and the default value is 5 seconds.
Motion Tour Select the View 1 or View 8 for **Motion**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

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 **OK** option to save the tour settings.

Adding a Channel Group

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



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

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

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

Modifying a Channel Group

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

In the modify channel group interface, select the group order for your selected group and click **OK** to complete the process.

Zero-Channel

The Zero-Channel menu is used to view several video sources on one channel. Below is a screenshot of the zero-channel menu:

Below is a description of the zero-channel menu:

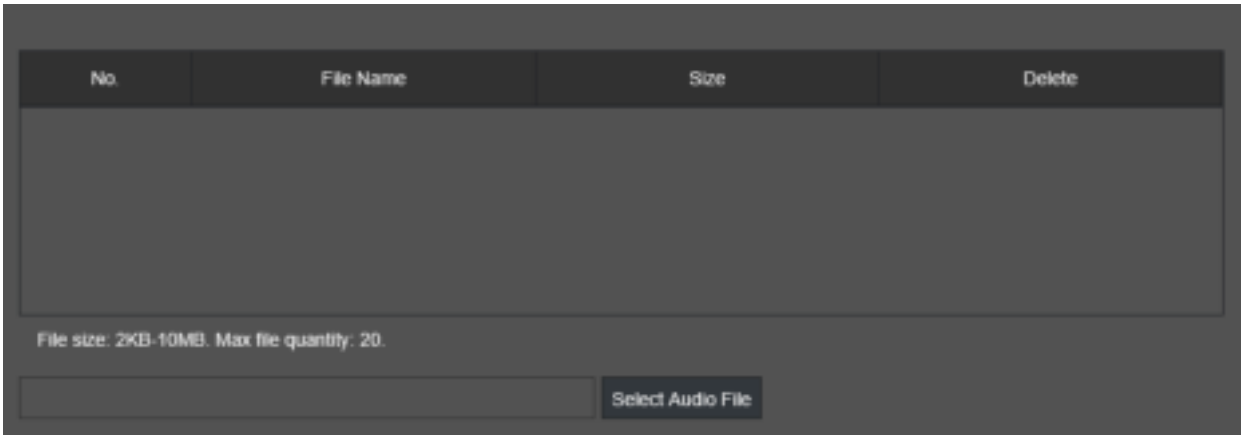
Enable: This checkbox is used to enable the zero-channel function.
Compression: Allows the user to select a video compression standard.
Resolution: Allows the user to select a video resolution. The default resolution will be 704x480(D1)
Frame Rate (FPS): Allows the user to select a value between 1 and 25 for PAL standard, and between 1 and 30 for NTSC standard.
Bit Rate (Kb/S): The default bit rate is 1024Kb/S, however, can be adjusted between 896 and 4096 Kb/S.
Click the **Refresh** button to refresh the interface. Click **OK** to save the 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 Management

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



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

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

Click **Refresh** to refresh the interface. Click **OK** to save the audio file to the system.

Audio Play

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

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

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

FAQs/Troubleshooting

1. The DVR does not boot up properly.
Below are a few possible reasons why this may be occurring:

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

2. DVR often shuts down and stops running.
Below are a few possible reasons why this may be occurring:

- The input voltage is too low or is not stable.
- There is an HDD malfunction, or something is wrong with the HDD cable.

- The power button is damaged or malfunctioning.
- Video output signal is not stable.
- The insides of the DVR have accumulated too much dust.
- The temperature is either too hot or too cold.
- The hardware is malfunctioning.

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

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

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

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

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

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

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

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

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

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

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

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

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

- Audio may not be enabled for that channel.

The corresponding channel may not have any audio input.

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

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

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

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

12. Motion detection does not work.
Below are a few possible reasons why this may be occurring:
- The motion detection time period may be incorrectly configured.
- Motion detection zone setup is not correctly configured.

- Motion detection sensitivity is too low.

13. Web Access is not working.

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

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

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

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

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

15. Network connection is not stable.

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

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

16. Keyboard is not working with the DVR.

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

- The DVR serial port is not setup correctly.
- The keyboard may be drawing too much power.
- The keyboard cable too long.
- The keyboard is not compatible with the DVR's firmware.

17. The alarm signal cannot be disarmed.

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

- An alarm may be setup incorrectly.
- An alarm output may have been manually opened.
- The DVR may have an input DVR error, or the connection is not correctly configured.
- There may be an error in the DVR's firmware.

18. **Alarms are not working.**
    Below are a few possible reasons why this may be occurring:
- The alarm is not setup correctly.
- The alarm cable is not connected correctly.
- The alarm input signal is not correctly configured.
- There are two loops connected to one alarm DVR.

19. **The camera is not recording enough video.**
    Below are a few possible reasons why this may be occurring:
- The hard drive's capacity is not enough.
- The hard drive is damaged.

20. **Downloaded files cannot be played back.**
    Below are a few possible reasons why this may be occurring:
- The media player software on the PC may not be able to read the file format.
- The PC may not have DirectX 8.1 or higher.
- The PC may not have Windows XP or higher.

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

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

21. **When I login via HTTPS, a dialogue says the certificate has expired or is not valid yet.**

    Ensure the PC has the same time as the DVR's system time.

FCC Statement

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

3. (b) For a Class B digital DVR or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

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

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

4. RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

IC Warning Statement

This DVR complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

(1) This DVR may not cause interference; and

(2) This DVR must accept any interference, including interference that may cause undesired operation of the DVR. *Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio* exempts *de l icence. L'exploitation est autorisée aux deux conditions suivantes : (1) apparel ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.

Pour se conformer aux exigences de conformité CNR 102 RF exposition, une distance de séparation d'au moins 20 cm doit être maintenue entre l'antenne de cet appareil ettoutes les personnes.

Appendix A: Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Sheet Metal (Case)	o	o	o	o	o	o
Plastic Parts (Panel）	o	o	o	o	o	o

Circuit Board	O	O	O	O	O	O
Fastener	O	O	O	O	O	O
Wire and Cable/AC Adapter	O	O	O	O	O	O
Packing Material	O	O	O	O	O	O
Accessories	O	O	O	O	O	O

Note

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes.

Note:

To view setup videos for many of the steps outlined in this guide, go to http://amcrest.com/videos •
Slight differences may be found in the user interface based on specific model numbers.
All the designs and software here are subject to change without prior written notice.
All trademarks and registered trademarks mentioned are the properties of their respective owners.
If you have any questions or concerns, please contact us at support@amcrest.com, or call us at 888212-7538.