AMCREST

Network Video Recorder User Manual

Version 1.0.3
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Contents

Welcome

Thank you for purchasing an Amcrest NVR!

This user's manual is designed as a reference tool only and is applicable to all Amcrest model NVRs. Some features and options may vary model to model. For a brief overview of Amcrest NVRs please refer to the NVR Quick Start Guide.

Please open the accessory bag to check the items one by one in accordance with the included packing list. Contact your local retailer if anything is missing or damaged.

Important Safeguards and Warnings

1. **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.

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

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

4. **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.

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

- The function of the ITE with concerns to IEC 60950-1 is considered now likely to require a connection to an Ethernet network with an outside power source, including campus environments.
- If applicable, the installation instructions clearly state that the ITE is to be connected only to designated POE networks without routing to an outside power source.

6. **Accessories**

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

Before operating, please read the following instructions carefully.

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

1 Overview and Features

1.1. Overview

This is a high-performance network video recorder. The device supports local preview, multiple window display, local storage of recordings, mouse, shortcut menu operations, and remote management.

This device supports central storage, front-end storage, and client-end storage. The monitor zone in the front-end can be setup anywhere. Working with other front-end devices such as IPC or NVS, the device creates a strong surveillance network. This device utilizes standard network (Ethernet) cables to connect the cameras. The existing infrastructure can be used to accomplish this avoiding the installation of multiple wires. The device uses simple connections, is low cost, and requires little maintenance to function.

The device can be used in many areas such as public security, water conservation, transportation, education, residential, etc.

1.2. Features

Real-time Surveillance	• •	Connect a monitor to the HDMI or VGA port to watch what is happening in real-time. Some series may also support TV/VGA/HDMI output at the same time. Shortcut menus for multiple options while viewing.
	•	Supports popular PTZ decoder control protocols such as, presets, tours, and patterns.

Playback	• •	Supports simultaneous real-time recording, searches, playback, downloading, etc. for each channel. Supports various playback modes; slow play, fast play, backward play, and frame by frame play.
Live View	•	Supports time title overlays for accuracy with recorded events.
Motion Detection	•	Supports specified regions, sensitivity, and threshold enlargements.
User Management	•	Each group has different management rights that can be edited freely. Every user belongs to an exclusive group.
HDD Management	•	From a corresponding setup (such as alarm and schedule setups) you can backup related audio/video data on the device.
Web User Interface	•	Supports web recording via a web user interface, local recording, and storing files on the client end.
Alarm	•	Responds to external alarms simultaneously (within 200MS) and based on the user's predefined relay setup, the system can process the alarm input and prompt the user by screen and voice (supports prerecorded audio).
Email Alerts	•	The device also supports alerts remotely via email.
Network Monitor	• •	Sends audio/video data compressed by the IPC or NVS through the network to the client-end. The data is then decompressed and displayed. Supports a max of 128 simultaneous connections. Transmits audio/video data via HTTP, TCP, UDP, MULTICAST, RTP/RTCP, etc.
Window Split	•	Adopts video compression and digital processing to show several windows in a single monitor. Supports 1/4/8/9/16/25/36-window displays during preview and 1/4/9/16-window display during playback. **Note:** Window split amounts vary based on specific models.
Record	•	Supports normal/motion detection/alarm recording functions. Saves the recorded files on an installed internal hard drive, USB device, client-end PC, or network storage server. You can search, or playback saved files at the local-end or via the web/USB device
Backup	•	Supports network backup and USB 2.0 backup functions. The recorded files can be saved on a network storage server, peripheral USB 2.0 device, etc.
Network Management	•	Supervise NVR configurations and control power via Ethernet. Supports management via a web interface.

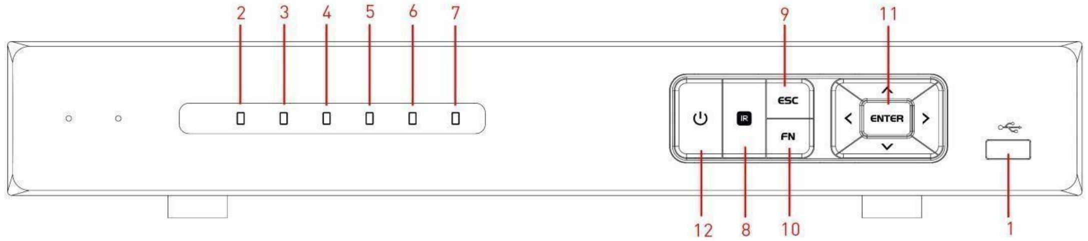
Peripheral Equipment Management	• •	Supports peripheral equipment management such as protocol setup and port connection. Supports transparent data transmission such as RS232 (RS-422), RS485 (RS-485).
Auxiliary	•	Supports switching between NTSC and PAL. Supports real-time system resources information and running statistics display.

2 Front Panel and Rear Panel

This section highlights the front and rear panel of each NVR device and their functions. This section goes by series numbers and may not pertain to your specific device.

2.1. Front Panel

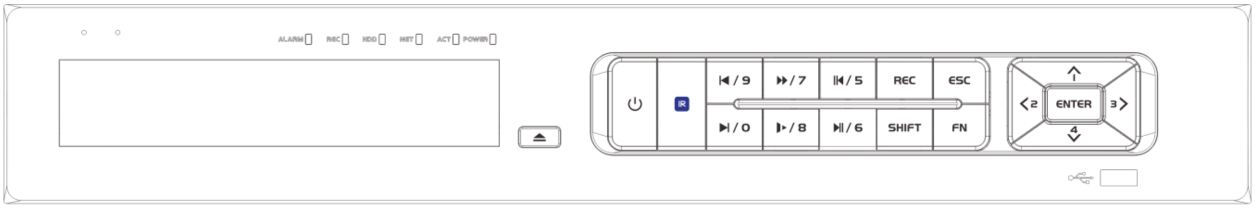
2.1.1. NV1104E/NV1104E/NV4108/NV4108E/NV4108-HS/NV4416-HS model NVR systems.



SN	Icon	Name	Function
1		USB port	To connect USB storage device, USB mouse, etc.
2	Alarm	Alarm indicator light	When an alarm occurs, the light becomes red to alert you.
3	REC	Record indicator light	When the NVR is recording, the light turns red to alert you
4	HDD	HDD abnormal indicator light	HDD error occurs, or HDD capacity is below specified threshold value, the light becomes red to alert you.
5	NET	Network abnormal indicator light	Network error occurs or there is no network connection, the light becomes red to alert you.
6	ACT	Remote control indicator light	When the NVR receives a signal from the remote, the light will blink.

7	POWER	Power indicator	When NVR is on, the light is on.
8	ESC	ESC	Go to previous menu or cancel current operation.
			hen playback, click it to restore real-time monitor mode.
9	FN	Assist	ne-window monitor mode click this button to display assistant function: PTZ control and image color.
10	Enter	ENTER	Confirm current operation
			Go to default button
			Go to menu
11	⏻	Power button	ower button press this button for three seconds to boot up or shut down NVR.
12	▲, ▼	Up Down	ctivate current control, modify setup, and then move up and down.
			Increase/decrease numeral.
			Assistant function such as PTZ menu.
	◀, ▶	Left Right	Shift current activated control,
			hen playback, click these buttons to control playback bar.

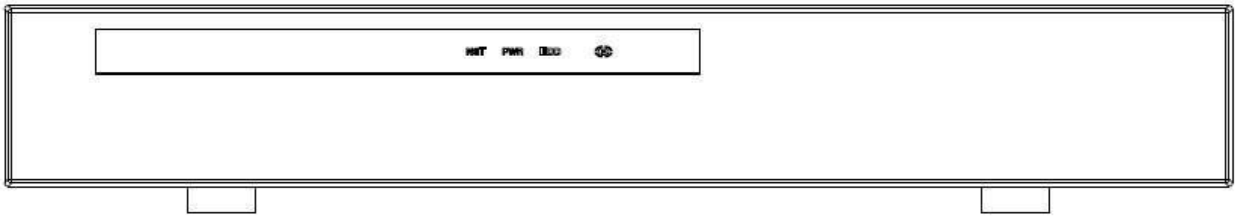
2.1.2. Applicable for the NV4432-HS/NV4432E-HS/NV4432E model NVR systems.



Name	Icon	Function
CD Drive	⏏	Use this button to open/close the built-in CD drive (if applicable)
Power button	⏻	Power button press this button for three seconds to boot up or shut down NVR.

Shift	Shift	In textbox, click this button to switch between numeral, English(Small/Capitalized),donation etc.
Up/1 Down/4	▲、▼	Activate current control, modify setup, and then move up and down.
		Increase/decrease numeral.
		Assistant function such as PTZ menu.
		In text mode, input number 1/4 (English character G/H/I)
Left/2 Right/3	◀ ▶	Shift current activated control,
ESC	ESC	Go to previous menu or cancel current operation. When playback, click it to restore real-time monitor mode.

2.1.3. Applicable for the NV2104/NV2104E/NV2108/ NV2116/NV2108E/NV4108E-HS/NV4116E-HS

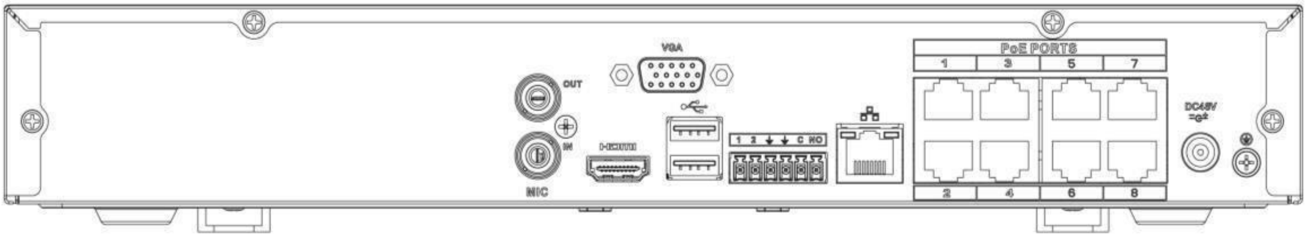


	Icon	Name	Function
	NET	Network abnormality indicator light	When a network error occurs or there is no network connection, this light turns red.
	PWR	Power indicator	When NVR is on, this light remains on.
	HDD	HDD abnormal indicator light	When an HDD error occurs, or the HDD capacity is below the specified threshold value, this light turns red.

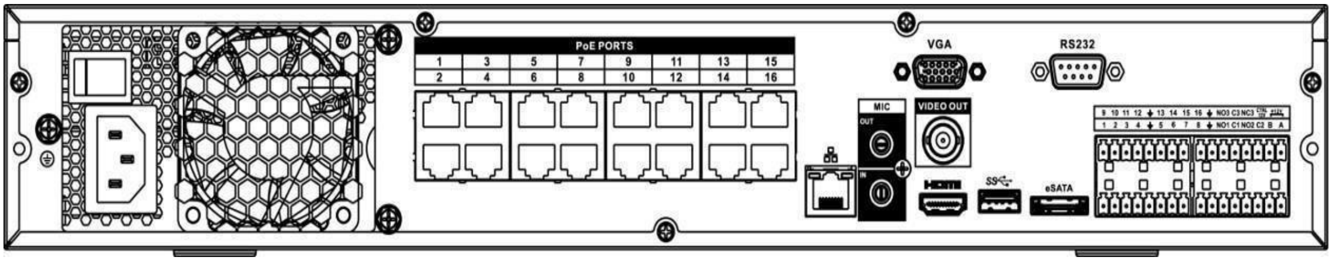
2.2. Rear Panel

The rear panel of the NVR may differ model to model. Below is a representation of the rear panel of all applicable NVR devices.

NVXXXX-Series is shown below.



NV4432 Series is shown below.



Port Name	Connection	Function
🔌	USB2.0 port	USB2.0 port. Connect a mouse, USB storage device, USB burner, etc.
🖧	Network port	10M/100Mbps self-adaptive Ethernet port. Connects to the network.
HDMI	High Definition Media Interface	High definition audio and video signal output port. It transmits uncompressed high definition video and multiple-channel data to the HDMI port of the display device. HDMI version is 1.4.
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
DC 12V DC 48V	Power input port	Power socket. For NVXXX series, inputs DC 12V/2A. For NV4432 series, inputs DC 48V/1.25A.
MIC IN	Audio input port	Bidirectional talk input port. This is used to receive the analog audio signal from the devices 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 amplifier. Bidirectional talk output. Audio output on 1-window video monitoring. Audio output on 1-window video playback.
PoE PORT	PoE port	Built-in switch. Supports PoE. For PoE series products, you can use this port to provide power to the network cameras.

2.3 Alarm Connection

2.3.1 Alarm Port

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

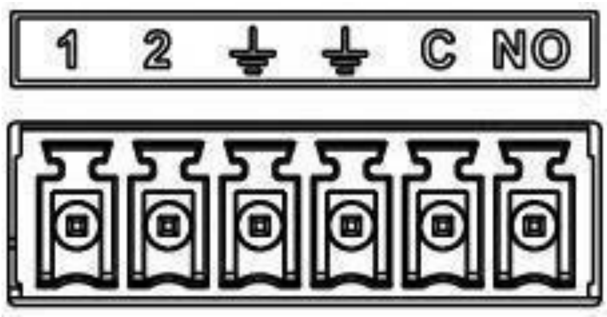


Figure 2-6

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.
⏚	GND

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.

2.3.2 Alarm input port

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

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

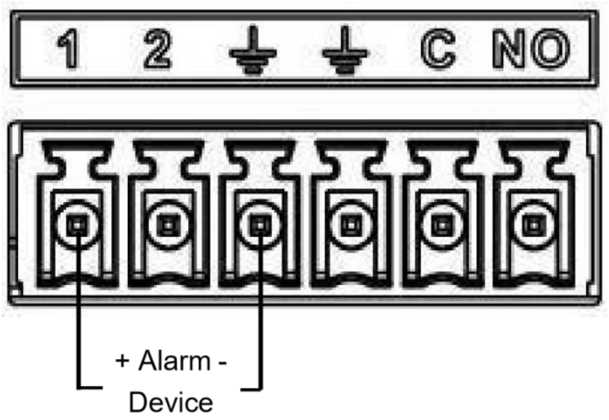


Figure 2-7

Note

- ★ When connecting the ground port of the alarm device to the NVR, you can use any of the GND ports (⏚).
- ★ When there is peripheral power supplying the alarm device, ensure it is grounded on the NVR.

2.3.3 Alarm input and output port

- ★ There is peripheral power supplying to the external alarm device.
- ★ An overload may result in NVR damage. Please refer to the following relay specifications for detailed information.

2.3.4 Alarm relay specifications

Model:	**JRC-27F**	
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	

2.4 Audio Ports

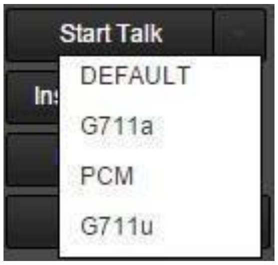
2.4.1 Device-end to PC-end

Device Connection

Please connect a microphone to the first audio input port in the device rear panel. Then connect headphones or speakers to the audio output port on the PC.

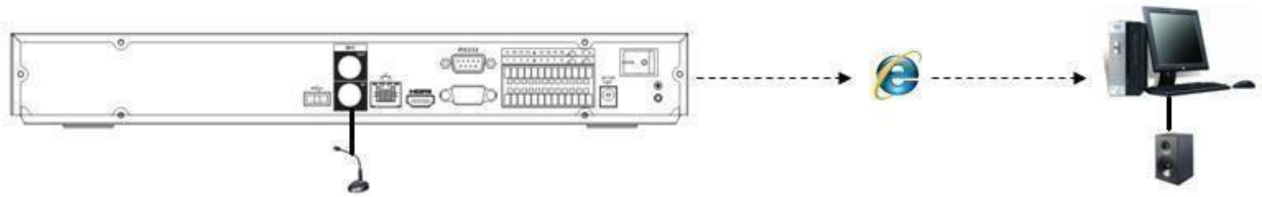
Login to the Web and then enable the corresponding channel real-time monitor.

Please refer to the following interface to enable bidirectional talk.



Listening Operation

At the device end, speak via a microphone, and then you can hear the audio through the headphones or speakers at the PC-end.



2.4.2 PC-end to the device-end

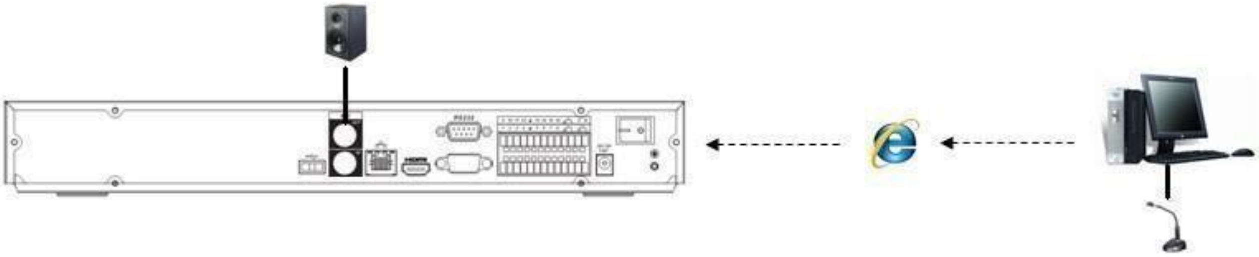
Device Connection

Connect a microphone to the audio input port in the PC and then connect headphones or speakers to the first audio input port in the device rear panel.

Login to the Web and then enable the corresponding channel real-time monitor. Please refer to the above interface to enable bidirectional talk.

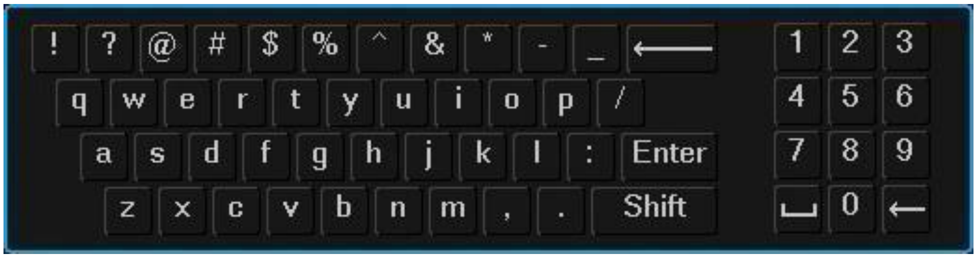
Listening Operation

At the PC-end, speak though the microphone, and then you can hear the audio through the headphones or speakers at the device-end.



2.5 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.  ! ? @ # $ % ^ & * - _ ⟵ 1 2 3 q w e r t y u i o p / 4 5 6 a s d f g h j k l : Enter 7 8 9 z x c v b n m , . Shift ␣ 0 ← In numeral input mode: _ stands for clear and ← stands for deleting the previous numeral.
Double left	Implement special control operations such as double click one item in the file list to playback the video.
mouse click	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

3 Device Installation

Note: All the installation and operations here should conform to your local electric safety rules.

3.1 Check Unpacked NVR

When you receive the NVR system in the packaging, unpack it, and check all sides of the NVR for any physical damage. The protective materials used in the packaging of the NVR can protect most accidental damage during transportation, but to ensure that your equipment is operating as expected, it is recommended to inspect the product before proceeding further. On the NVR unit, check specifically that the label on the bottom of the NVR is not damaged. The serial number of the unit is often needed to provide support.

3.2 HDD Installation

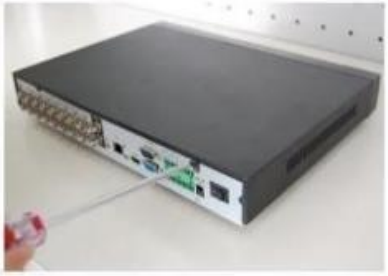
A hard drive can be installed if you want to be able to use the NVR to record and save footage locally (on the NVR). Having a hard drive allows you to configure and use the recording functionality of the NVR, including playing back previously recorded footage.

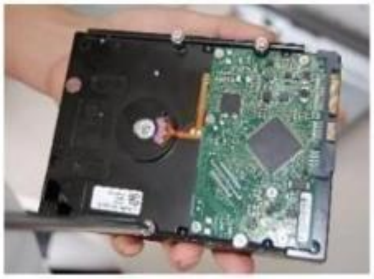
The NVR has connections for only 1 hard drive inside the case and the hard drive must be no bigger than 6TB (Terabytes).

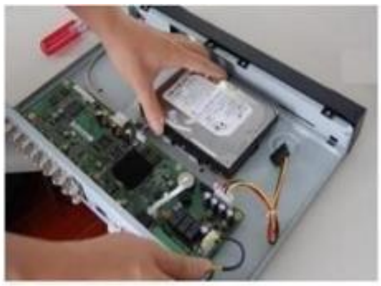
To install your hard drive, the following is needed:

- A medium sized (regular) Phillips-head screwdriver - *not included*
- A hard drive - *not included*
- Four hard drive fastening screws - *included*

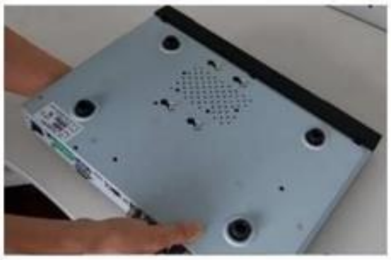
Note: **Before installing the hard drive, make sure the NVR is powered off with the power cable disconnected.**

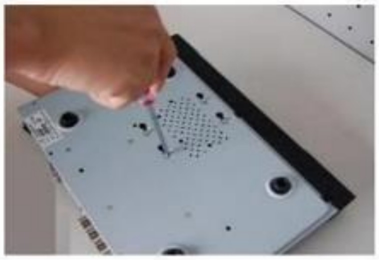


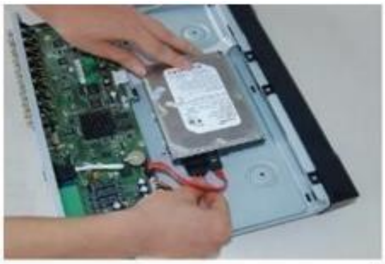




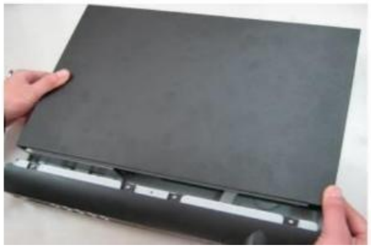
1. Loosen the screws of the upper cover and side panel.	2. Attach four screws in the HDD (Turn just three times).	3. Place the HDD in accordance with the four holes in the bottom.

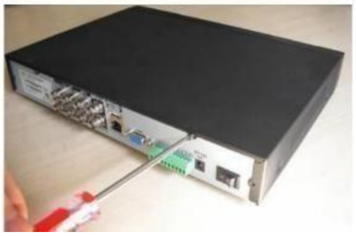






4. Turn the device upside down and then turn the screws in firmly.	5. Attach the HDD firmly.	6. Connect the HDD cable and power cable.





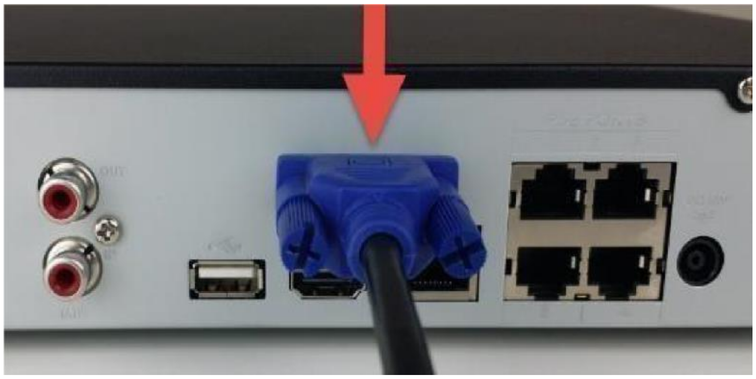
7. Put the cover in accordance with the clip and then place the upper cover back on.	8. Secure the screws in the rear panel and the side panel.

3.3. Setting Up Cable Connections

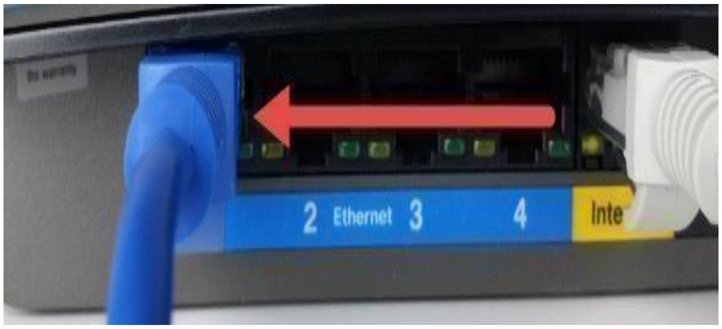
The following instructions will show you how to set up the cables for the NVR, cameras (PoE and Wi-Fi), as well as a monitor or TV screen.

To set up the NVR‟s cable connections, there are 5 simple steps:

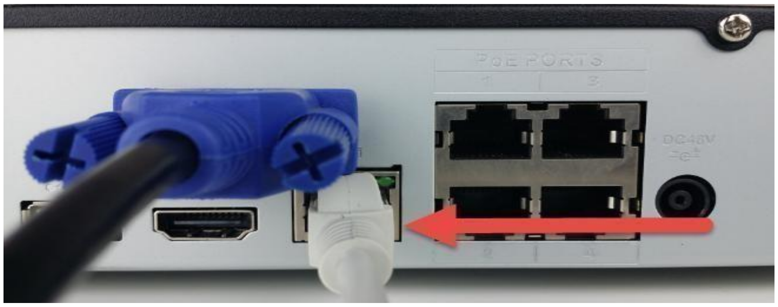
1. Connect a monitor or TV screen to your NVR. The NVR is compatible with any monitor or screen that uses a VGA or HDMI connection. For purposes of this guide, we will use a VGA connection. Take a VGA cable, and connect one end to the VGA port on your monitor/screen and the other end to the VGA port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



2. Connect an Ethernet cable to your router.



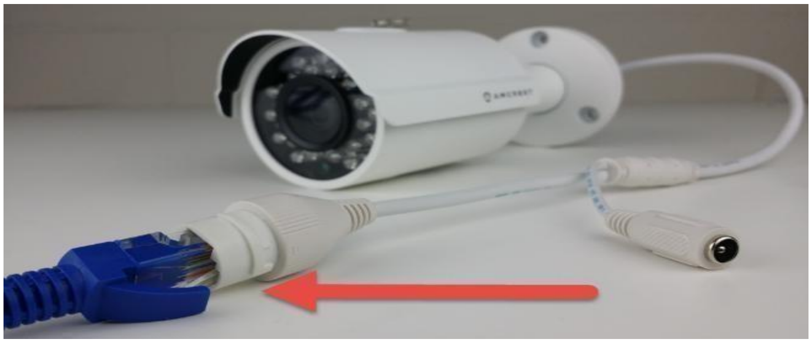
Then, connect the other end of the Ethernet cable to the NVR.



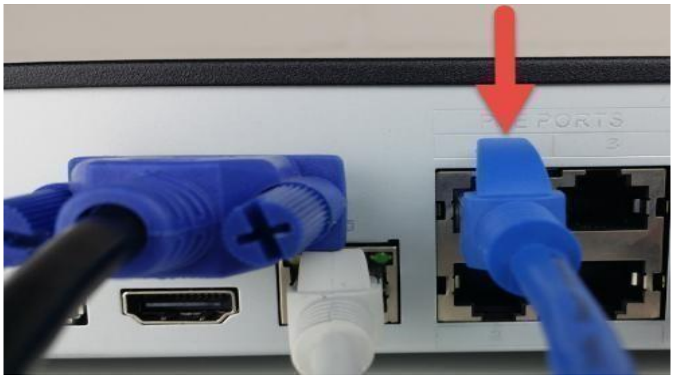
3. Connect the USB mouse to a USB port on the NVR.

4. Connect your cameras.

a. **For PoE Cameras**: If you are using a PoE camera, connect an Ethernet cable to the Ethernet port attached to the camera.

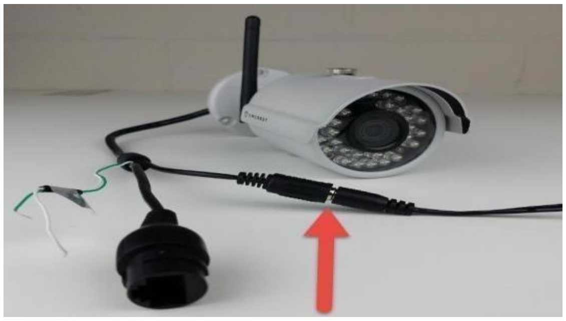


Then, connect the other end of the Ethernet cable to a PoE port on the back of the NVR.



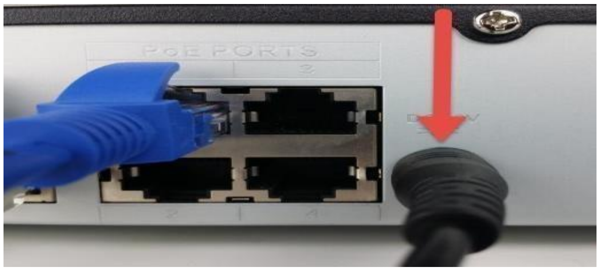
Note: PoE cameras can either be powered with a PoE connection or with a standard power adapter (sold separately).

b. **For WiFi Cameras**: Connect the camera’s power adapter to the power port attached to the camera.

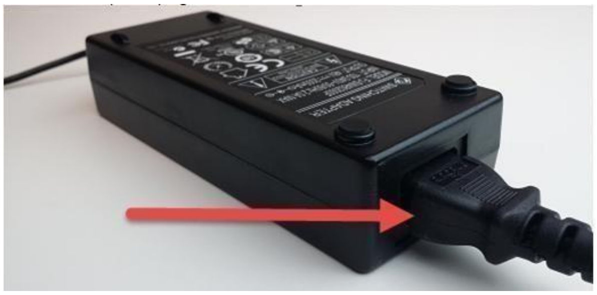


Then, plug the adapter into a wall outlet or power strip.

5. Power on your NVR by connecting the power adapter for your NVR to the power port located on the back.



Then, take the power plug and connect it to the power brick on one end, the power brick is shown in the image below, and connect the other end of the power cable into a wall outlet or power strip.



The NVR will turn on. Allow the device to boot up, you will then be taken to an administrator setup page.

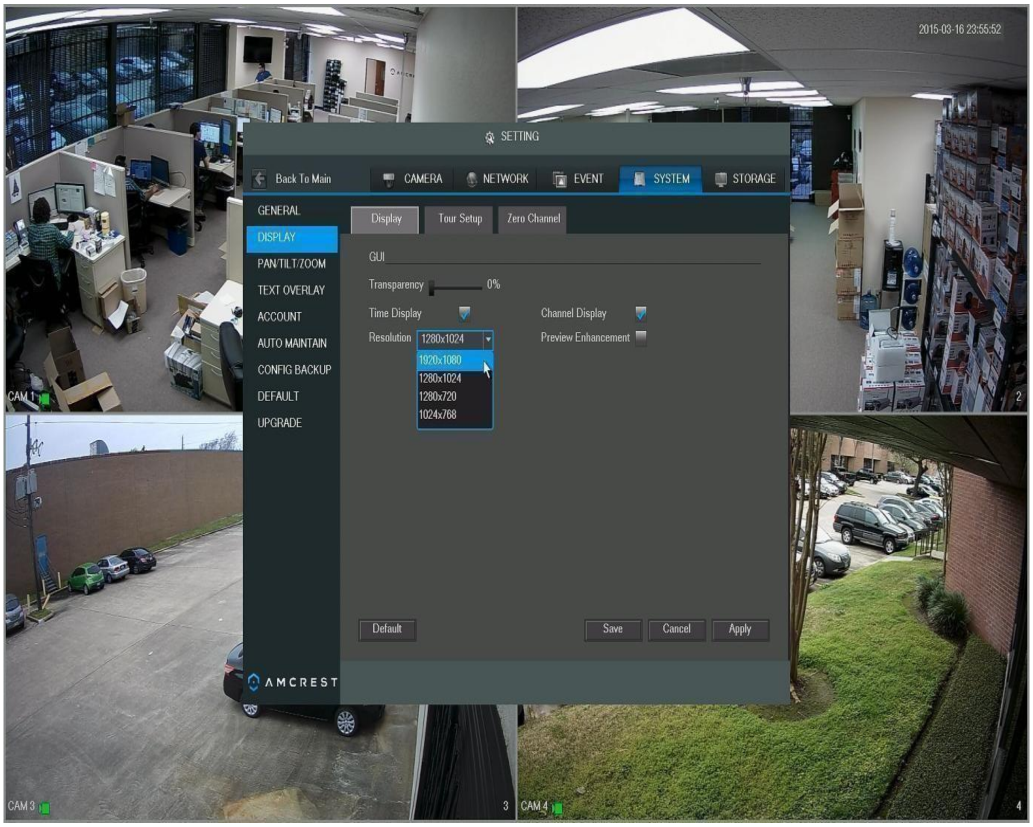
Note: Your NVR may not work properly if the following is not accounted for.

Every NVR comes preset to a video output resolution of **1280x1024**. What this means is that any time an HDMI cable is plugged into an HDTV, it may result with a blank screen even if the NVR is operational. If this occurs, please follow the steps below.

Procedure using a VGA cable:

1. Connect your NVR to a computer monitor or TV screen with a VGA cable (the HDMI cable should not be connected during this process).
2. Boot up your NVR. When the interface loads, you will see the login screen appear. On the monitor or TV, please make sure the ‘input’ is set to VGA.
3. On your NVR, open the Main Menu by left-clicking once on the live feed screen and, under the Settings row, click on the System icon. Then, on the new window, click Display from the list on the left column of options. Change your resolution from **1280x1024** to **1920x1080** and click Apply down below. Your NVR will reset to effect the change.
4. Disconnect the VGA cable and connect your NVR to an HD monitor or TV using an HDMI cable. Don’t forget to change the input to HDMI on a TV. Your interface will now appear, and you can use your NVR freely.

Display Settings Screen



Transparency 0%
Time Display ☑
Channel Display ☑
Resolution 1280x1024
Preview Enhancement ☐

4 Local Basic Operation

4.1 Boot up and Shutdown

4.1.1 Boot up

Before booting up the NVR, please make sure:

- ★ The rated input voltage matches the device's power. Please make sure the power wire connection is secure. Then press the power on-off button.
- ★ Always use stable current. If necessary, an UPS is the best alternative measure.

Please follow the steps listed below to boot up the device.

- ★ Connect the device to a monitor and then connect a mouse.
- ★ Connect the power cable.

Shutdown

Note:

- ★ When you see corresponding dialogue box "System is shutting down…" Do not click the power on-off button directly.
- ★ Do not unplug the power cable or click the power on-off button to shut down the device directly when device is running (especially when it is recording.)

There are two ways for you to shut down the NVR:

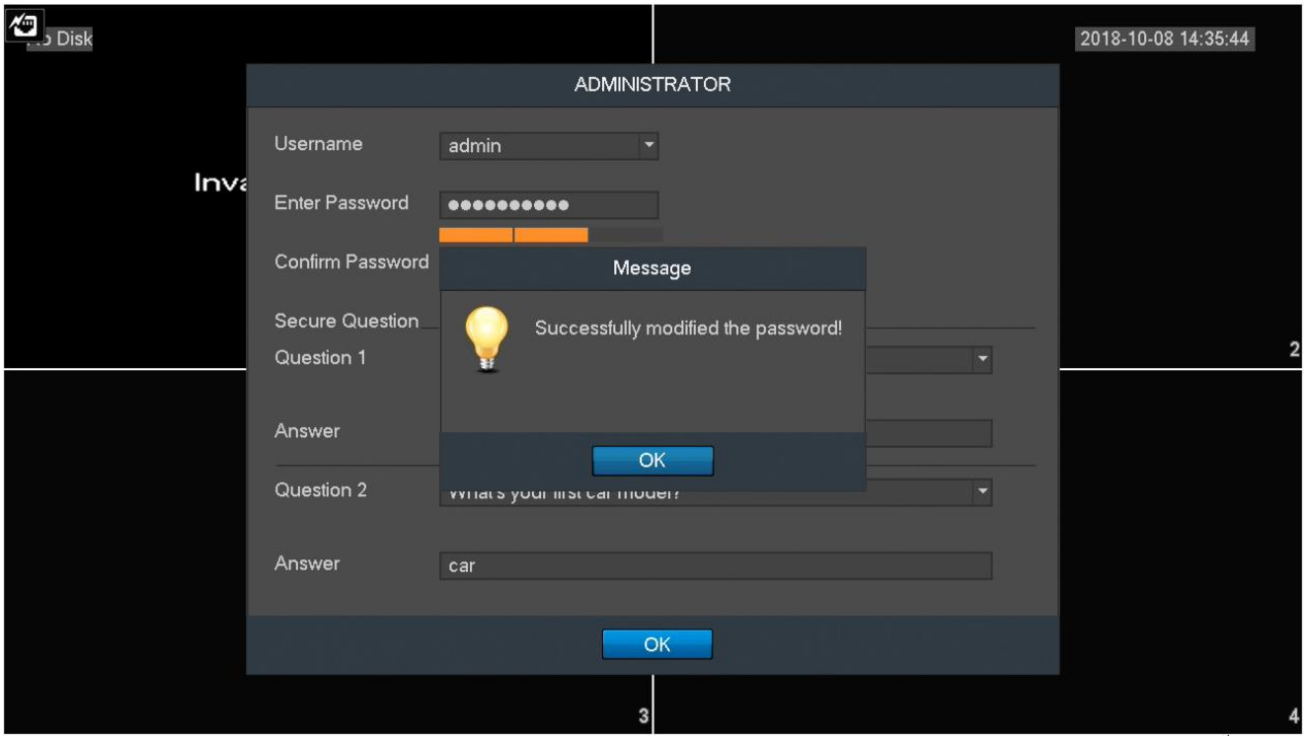
Main Menu (**RECOMMENDED**)

From Main Menu->Shutdown, select shutdown from the dropdown list. Click the OK button and the device shuts down.

The first screen you will be taken to during setup will be the Administrator page. In this page, you will set your NVR username and password as well as set up security questions. These security questions will help assist during password reset procedures or as a means of gaining access to a forgotten password.

Note: A strong password for the device should be between 8 to 32 characters long with a combination of letters and numbers. Please avoid using special characters during password setup.

After you have entered a valid password, use the drop-down menu in question one and two to select a security question. Enter the answer for your question into the **Answer** field. When you are done, click **OK** to continue. The information will then be modified and saved to your device, click on **OK** to continue.



Username: admin

Enter Password: ●●●●●●●●●●●

Question 2: What's your first car model?

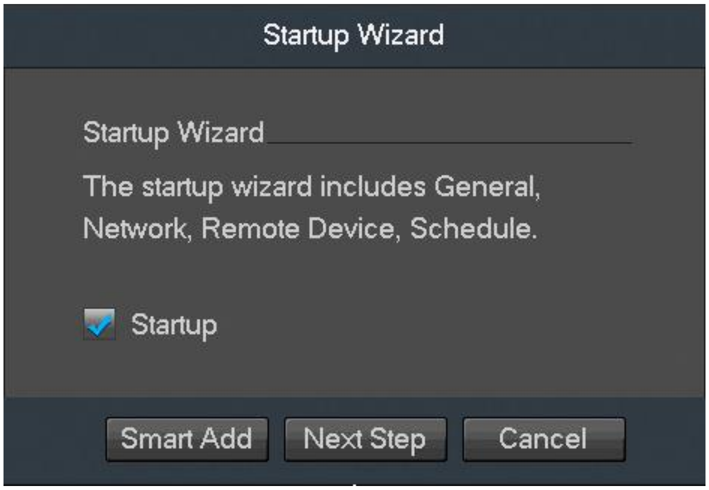
Answer: car

Successfully modified the password!

After the administrator page has been modified, you will then be taken to the startup wizard which will guide you through a step by step process of setting up your NVR.

4.2. Startup Wizard Walkthrough

The first page of the Startup Wizard will appear:



The startup wizard includes General, Network, Remote Device, Schedule.

☑ Startup

4.2.1. Smart Add

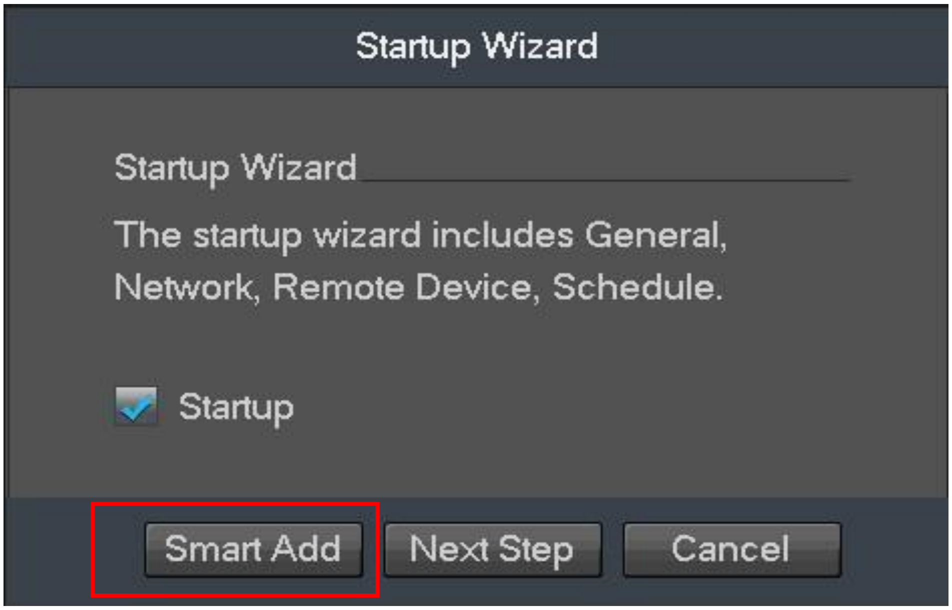
When the network camera(s) and the NVR are on the same router or switch, you can use the smart add function to add all network cameras to the NVR at the same time.

NOTE: Before adding a camera to your NVR it is highly recommended to set the **camera's** IP address to **Static.** If the device does not have a static IP address assigned in the system, there could be a compromise in the integrity of the connection if the NVR loses power or resets.

For more information on how to set a static IP for your camera visit: amcrest.com/staticIP

There are two ways for you to go to the smart add interface.

- ★ From the startup wizard, click Smart add button.



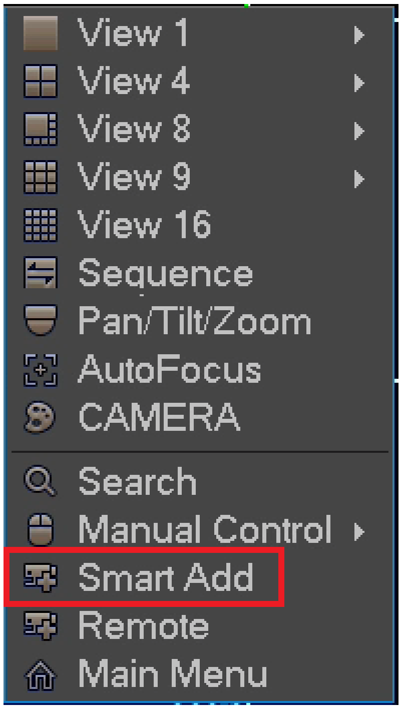
Startup Wizard

Startup Wizard

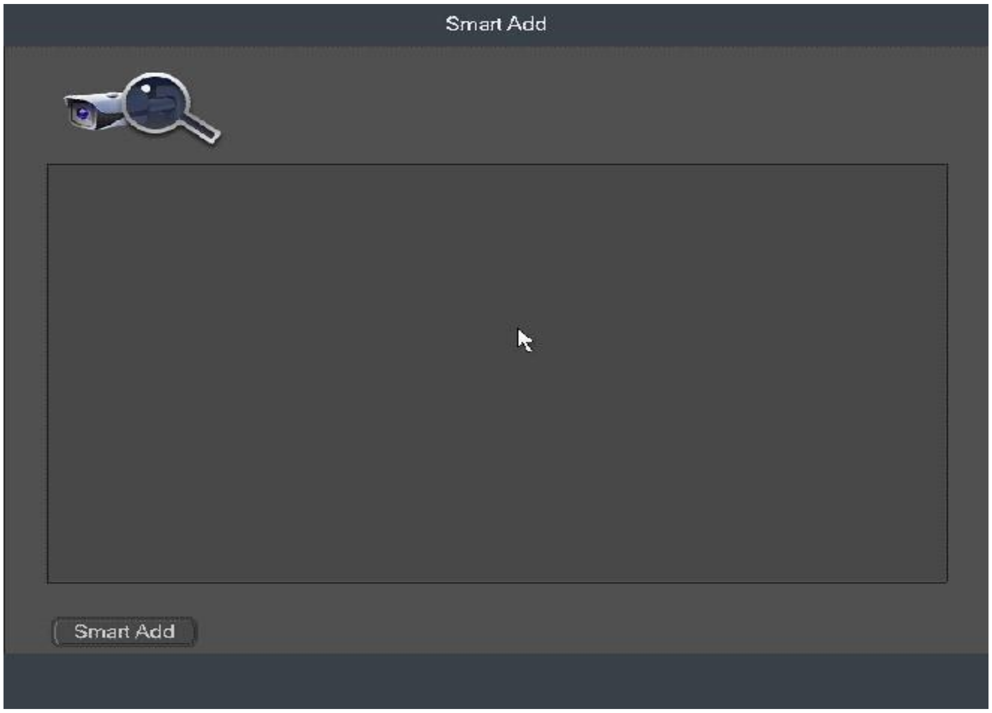
The startup wizard includes General, Network, Remote Device, Schedule.

☑ Startup

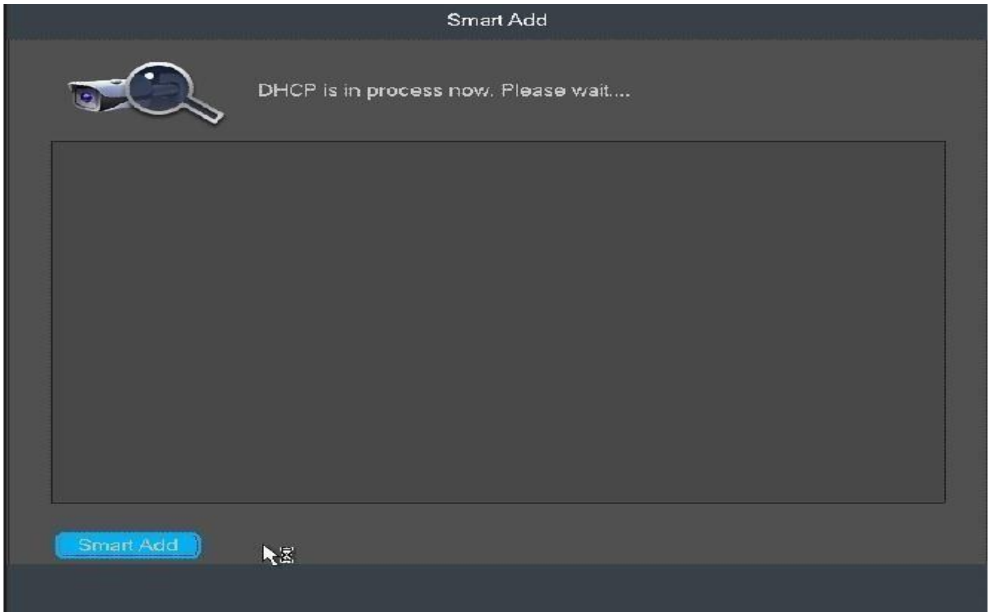
- ★ On the preview interface, right click mouse and then select Smart add.



Now you can go to the smart add interface.

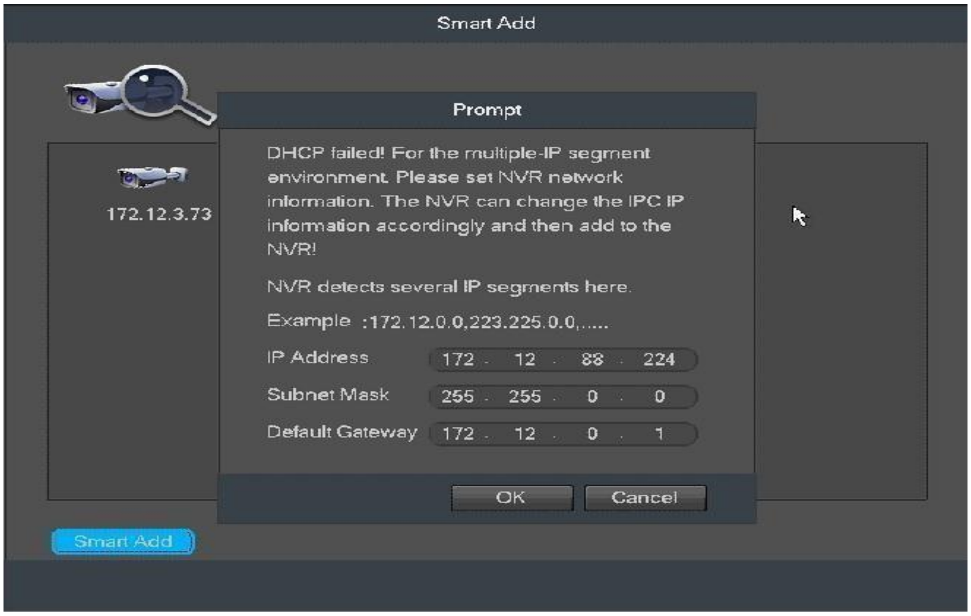


Click smart add button, you can see device enables DHCP function.



DHCP is in process now. Please wait....

System pops up the following interface for you to confirm IP information if there are several IP segments.



172.12.3.73

DHCP failed! For the multiple-IP segment environment. Please set NVR network information. The NVR can change the IPC IP information accordingly and then add to the NVR!

NVR detects several IP segments here.

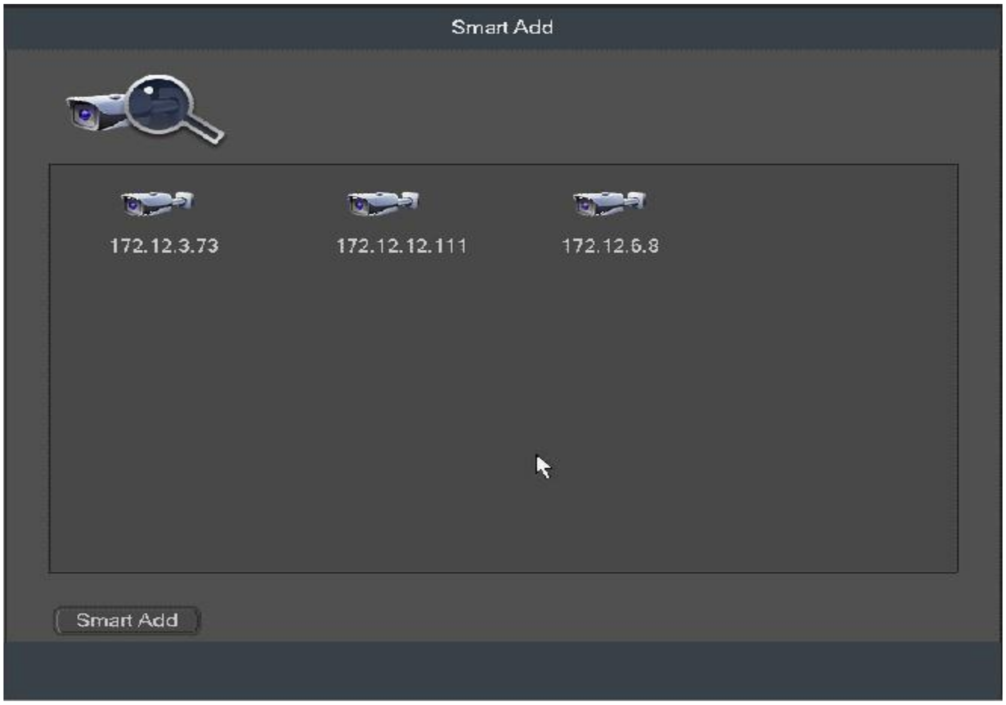
Example :172.12.0.0,223.225.0.0,.....

IP Address 172 . 12 . 88 . 224

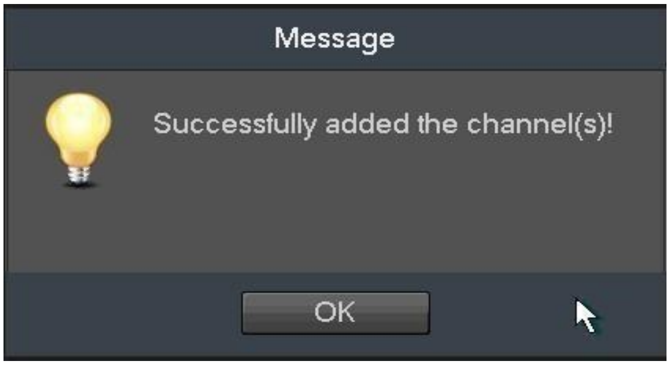
Subnet Mask 255 . 255 . 0 . 0

Default Gateway 172 . 12 . 0 . 1

Now you can see system is auto adding IPC to the corresponding channels.



You can see the following dialog box after system successfully added network cameras.



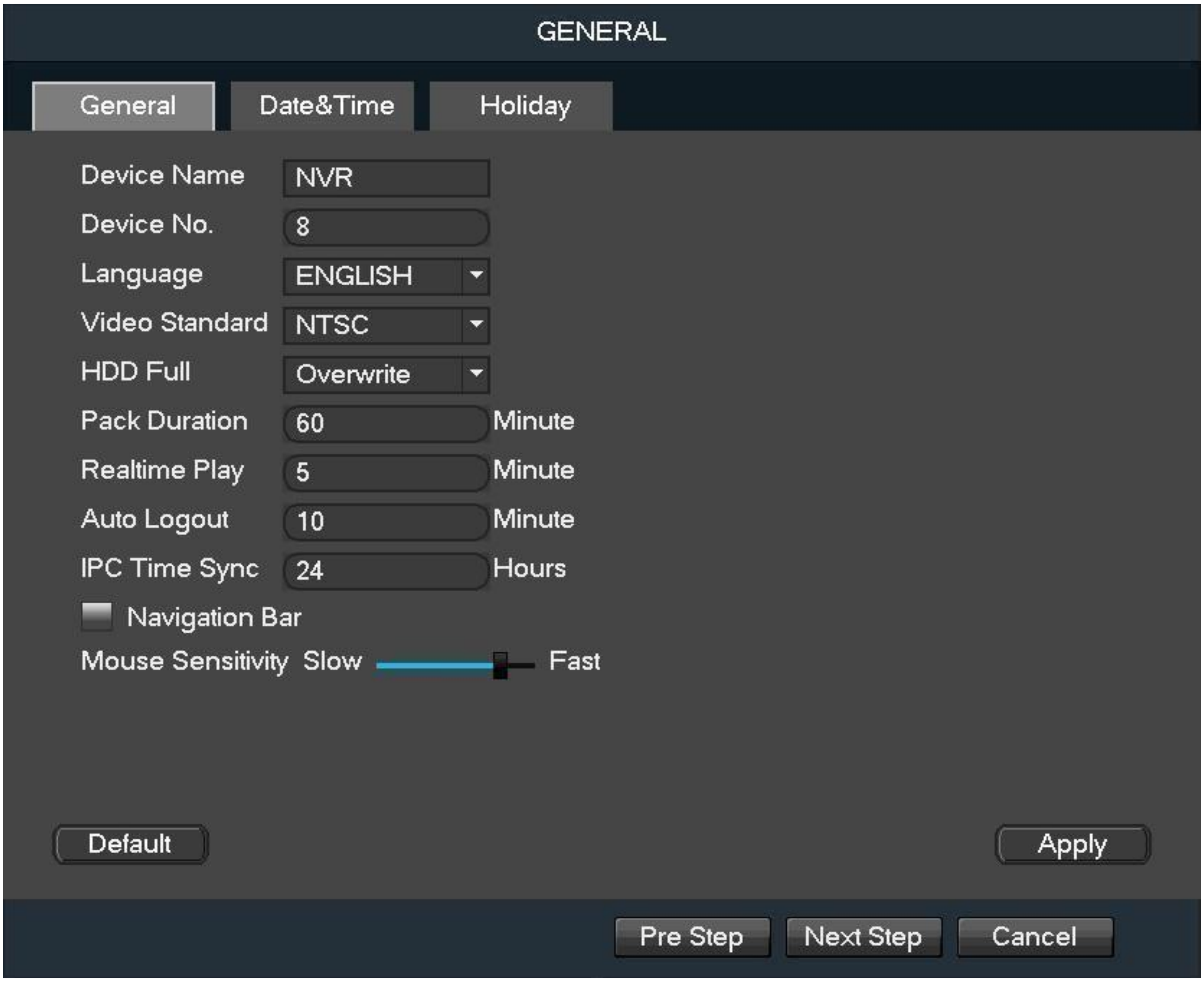
Successfully added the channel(s)!

If you do not want to use the Startup Wizard, or you have already gone through it and do not want it to keep appearing, unmark the checkbox next to **Startup** and click **Cancel**.

Note: Every page from the Startup Wizard that follows can be accessed and modified at any time through the Main Menu.

4.2.1. General

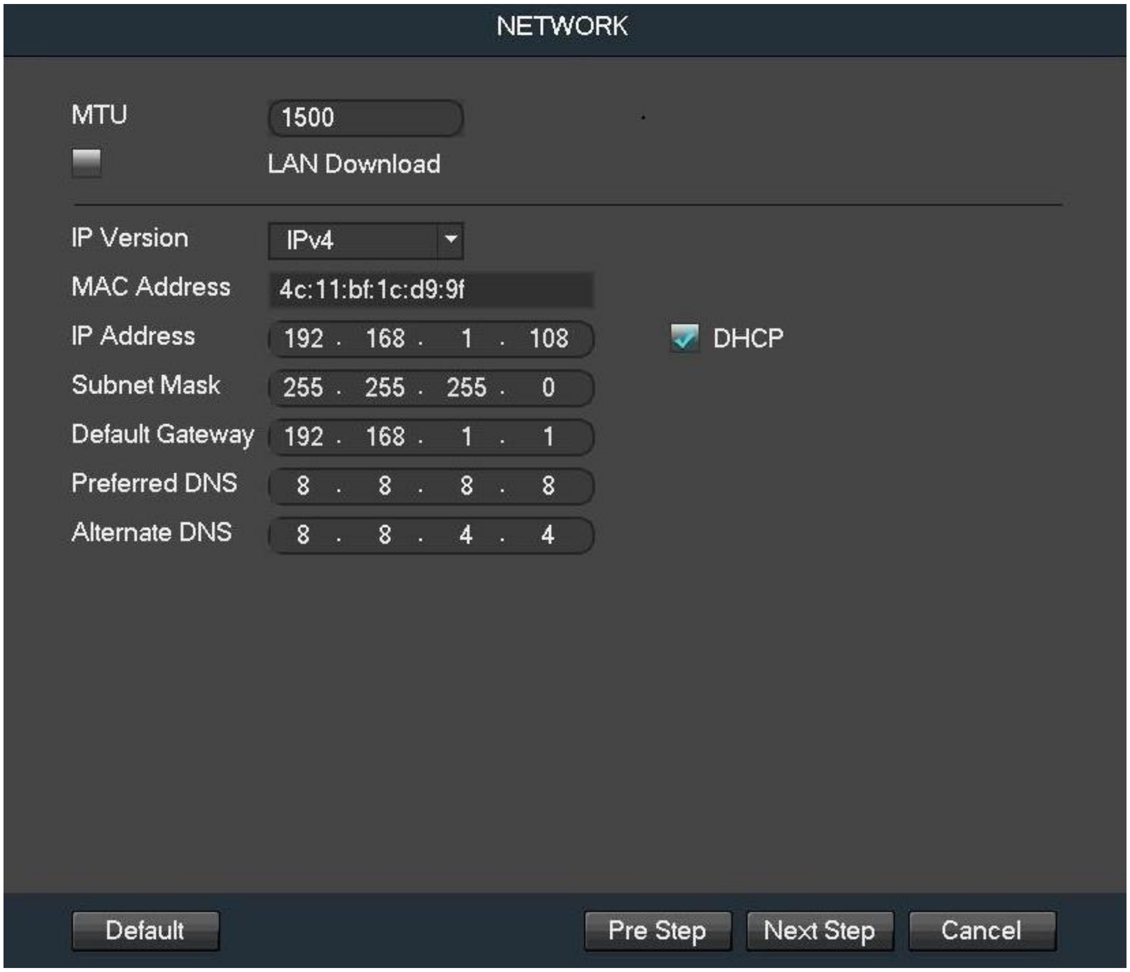
The first screen that comes up is the **GENERAL** settings screen. Make sure to click the tabs at the top for Date & Time, as well as Holiday to configure those settings as well. Once you are satisfied with the settings on this screen, click the **Next Step** button at the bottom of the screen.



Device Name: NVR
Device No.: 8
Language: ENGLISH
Video Standard: NTSC
HDD Full: Overwrite
Pack Duration: 60 Minute
Realtime Play: 5 Minute
Auto Logout: 10 Minute
IPC Time Sync: 24 Hours
☐ Navigation Bar
Mouse Sensitivity: Slow — Fast

4.2.2. Network

The next screen that comes up is the **NETWORK** settings screen. *Unless you have a specific reason to change these settings, it's best to leave them as they are.* The IP address for your NVR will be used to gain access to the web user interface for your NVR on a laptop or PC. For more information how to access the web user interface visit: amcrest.com/NVRwebsetup



MTU: 1500

☐ LAN Download

IP Version: IPv4

MAC Address: 4c:11:bf:1c:d9:9f

IP Address: 192 . 168 . 1 . 108 ☑ DHCP

Subnet Mask: 255 . 255 . 255 . 0

Default Gateway: 192 . 168 . 1 . 1

Preferred DNS: 8 . 8 . 8 . 8

Alternate DNS: 8 . 8 . 4 . 4

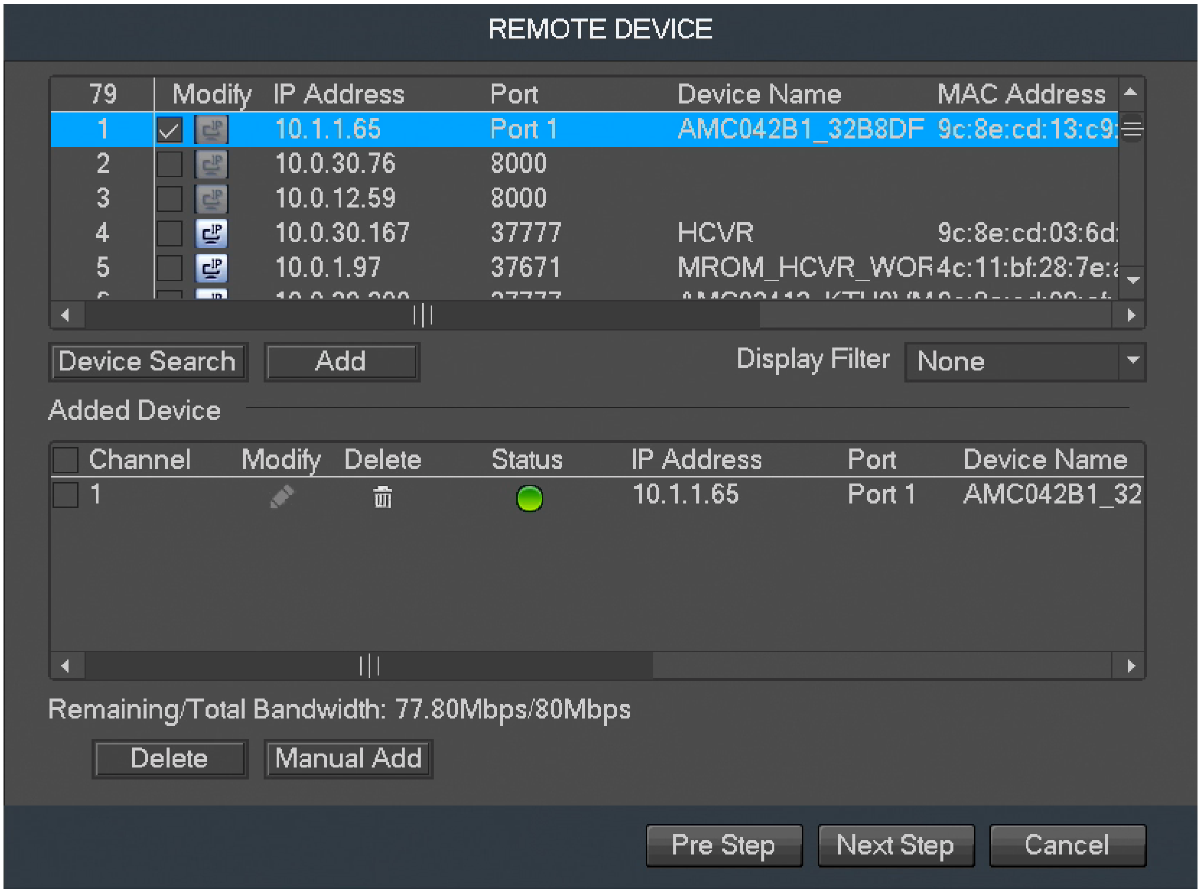
Once you are satisfied with the settings on this screen, click the **Next Step** button at the bottom of the screen.

4.2.3. Remote Device

The next screen that comes up is the **REMOTE DEVICE** settings screen. If you have already added cameras to your network or connected them directly to this NVR, you will be able to find and add them in this menu.

NOTE: Before adding a camera to your NVR it is highly recommended to set the **camera's** IP address to **Static.** If the device does not have a static IP address assigned in the system, there could be a compromise in the integrity of the connection if the NVR loses power or resets.

For more information on how to set a static IP for your camera visit: amcrest.com/staticIP
To add a camera to the NVR, click on **"Device Search"** and use the mouse to select which camera you would like to add. To add the camera into the added device section, click the **Add** button.



79	Modify	IP Address	Port	Device Name	MAC Address
1	☑	10.1.1.65	Port 1	AMC042B1_32B8DF	9c:8e:cd:13:c9
2	☐	10.0.30.76	8000		
3	☐	10.0.12.59	8000		
4	☐	10.0.30.167	37777	HCVR	9c:8e:cd:03:6d
5	☐	10.0.1.97	37671	MROM_HCVR_WOR	4c:11:bf:28:7e:

Display Filter: None

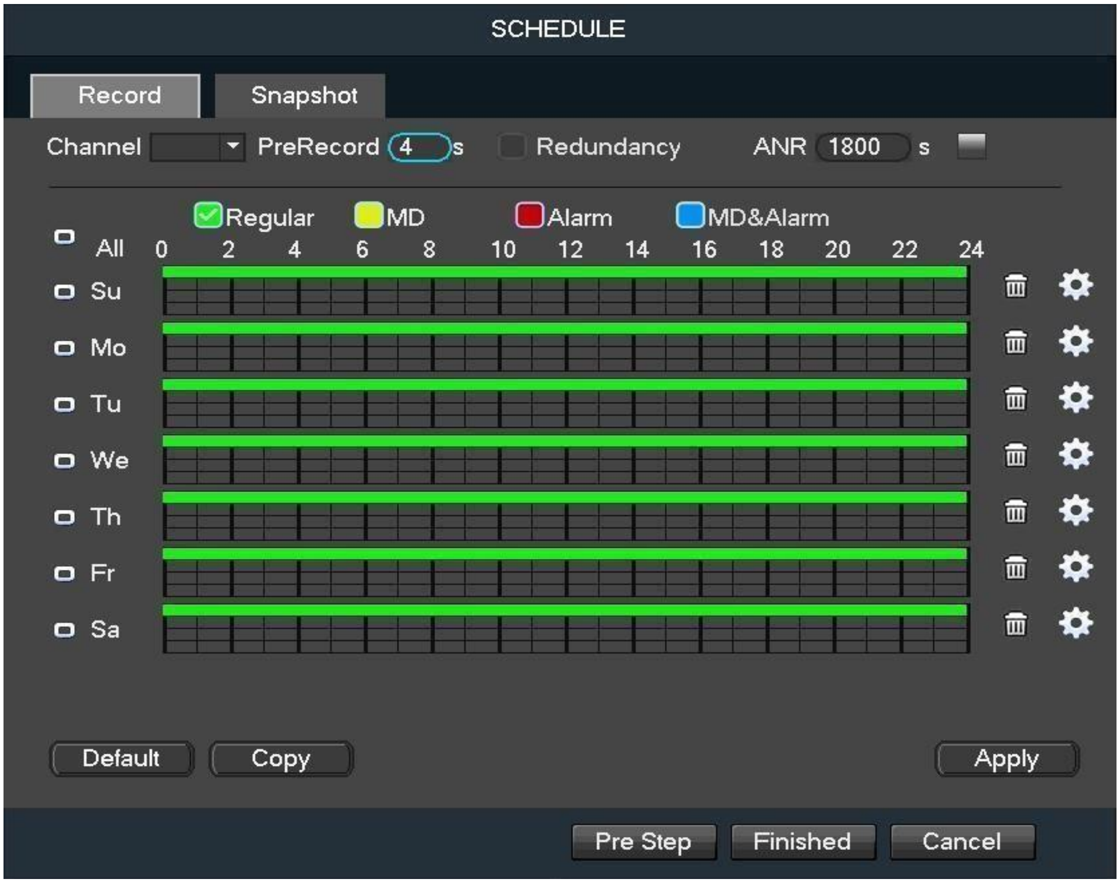
☐ Channel	Modify	Delete	Status	IP Address	Port	Device Name
☐ 1	✎	🗑	●	10.1.1.65	Port 1	AMC042B1_32

Remaining/Total Bandwidth: 77.80Mbps/80Mbps

If the **Status** of the camera is red that means the device is not properly connected to the device or the password has not been entered correctly.

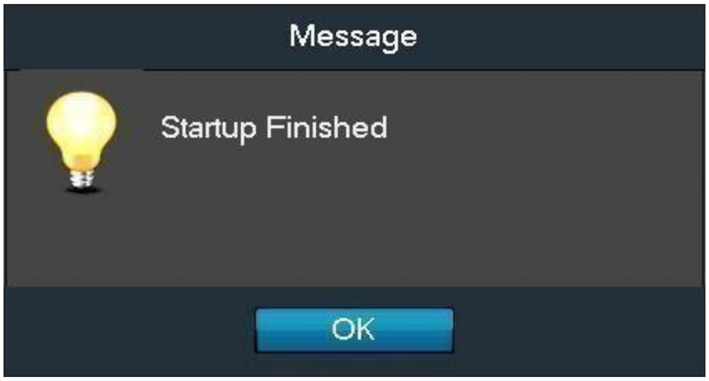
To enter the log in credentials for your camera click on the ✎ icon in the **Modify** section. In this section you will see the credentials for your camera. Enter the username and password for the camera you are adding into the username and password field. If this is your first-time logging into your camera, the username and password will be **admin**. After you have entered the credentials for your camera, click **Save** to save and apply the settings to your device.
Once you are satisfied with the settings on this screen, click the **Next Step** button at the bottom of the screen.

The final screen you see is the Schedule settings screen. Make sure to click the tabs at the top for Record and Snapshot to configure those settings as well. Your NVR is configured, by default, to record everything on all channels 24/7 (this will only actually happen provided you have a hard drive installed - which will be covered later in this guide). You can also use this screen to set up motion detection and alarm schedules. Once you are satisfied with the settings on this screen, click the **Finished** button at the bottom of the screen.



Channel
PreRecord 4 s
Redundancy
ANR 1800 s

Once the setup process is finished and you have clicked the ‘**Finished**’ button, you should see the below dialog box:



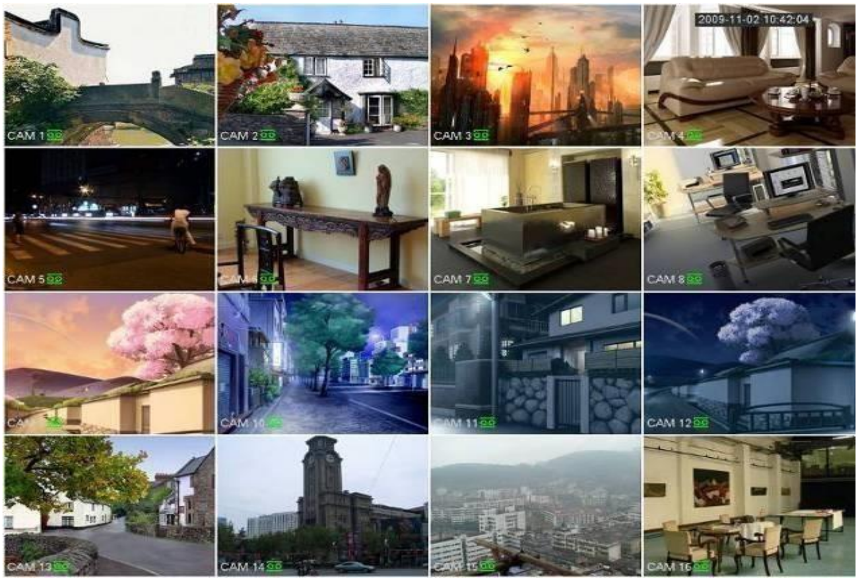
Startup Finished

Click **OK** to continue and the next screen you will reach will be the home 4-window (4-channel) screen for your system.

Before following this guide to the next step, that covers the main menu, you will need to left-click once or right-click and select “Main Menu‟ from the right-click menu.

4.3 Preview

After the device boots up, the system is in multiple-channel display mode. Please note the displayed window amount may vary. The following figure is for reference only. Please refer to chapter 1.3 Specifications for the window-amount your product supports.



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

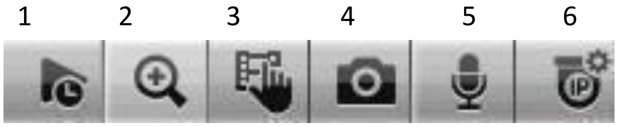
Tips

★ 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.

4.3.1 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 backup 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.

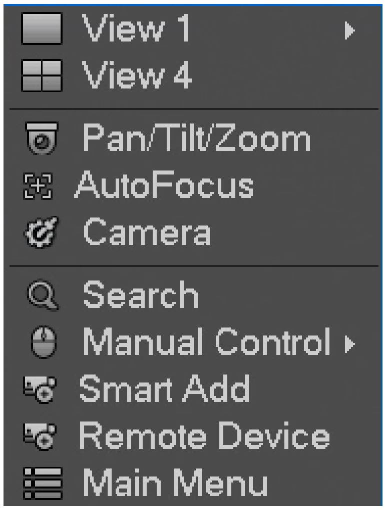
4.3.2 Right Click Menu

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.

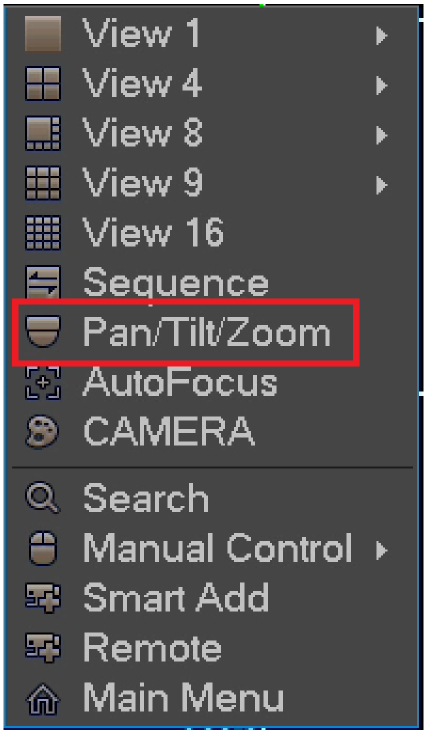
- ★ Remote Device: Search and add a remote device.
- ★ Main Menu: Go to the system's Main Menu interface.

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



4.3.3.1 PTZ

4.3.3.1.1. PTZ Control



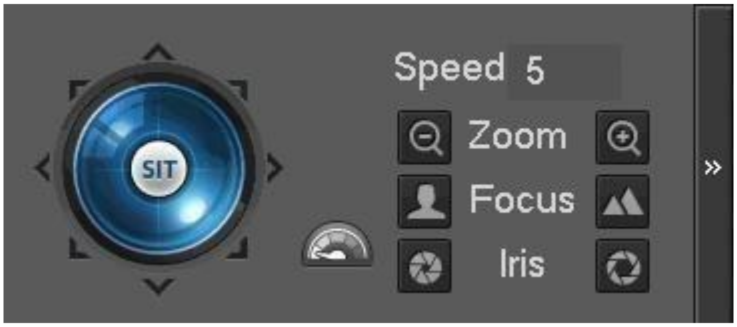
Right mouse click (press the “Fn” Button on the front. Please note you can only go to the PTZ control interface when you are in 1-window display mode.

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 ⊖ and ⊕ 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.


Speed 5

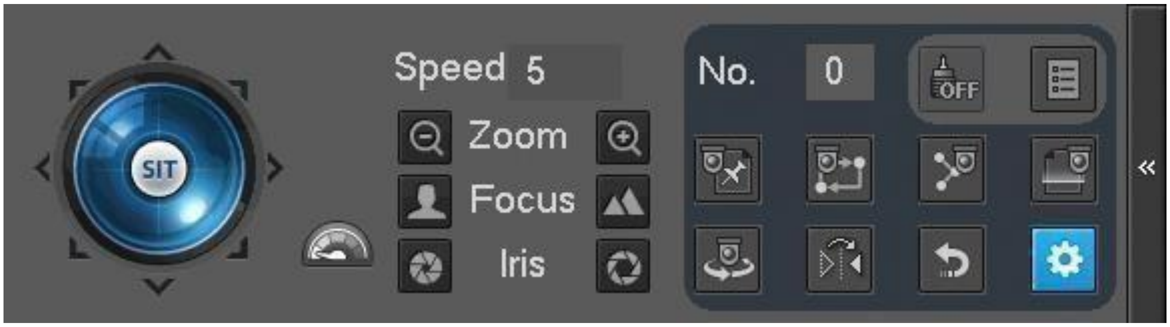
In the middle of the eight direction arrows, there is a 3D intelligent positioning key. See Figure 4-35. Please make sure your protocol supports this function and you need to use the mouse to control it. Click this key and the system goes back to the single screen mode. Drag the mouse in the screen to 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.

SIT

Name	Function key	Function	Shortcut key	Function key	Function	Shortcut key
Zoom	⊖	Out	▮▸	⊕	In	▸▸
Focus	👤	Near	|◀	⛰	Far	▶|

Iris		Close	II ◀		Open	▶ II

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.

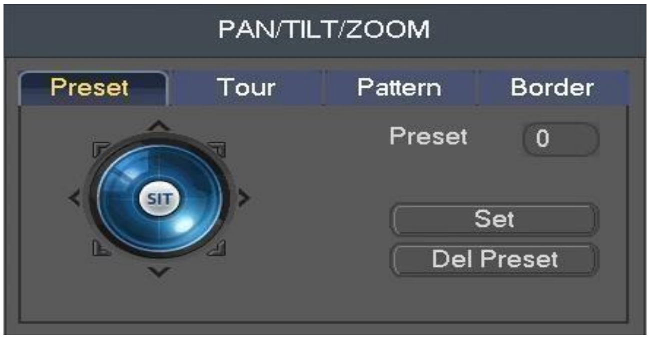
Right mouse click or click the ESC button on the front panel to go back.

Icon	**Function**	**Icon**	**Function**
	Preset		Flip
	Tour		Reset
	Pattern		Aux

	Scan	OFF	Aux on-off button
	Rotate		Go to menu

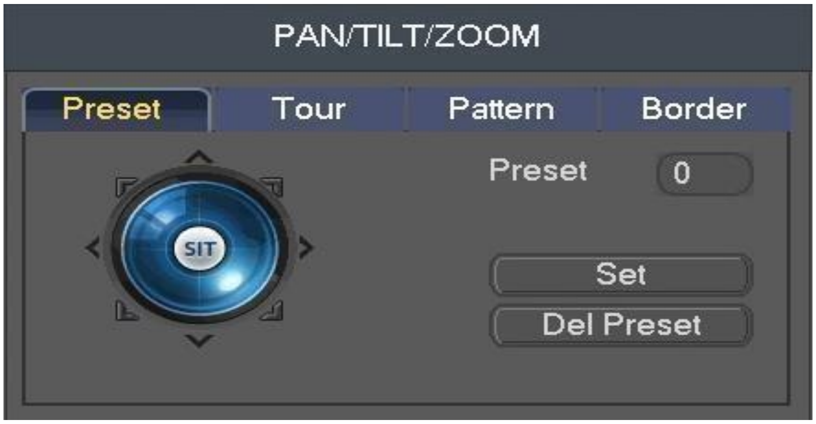
4.3.3.1.2. PTZ Function Setup

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



4.3.3.1.3. 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.



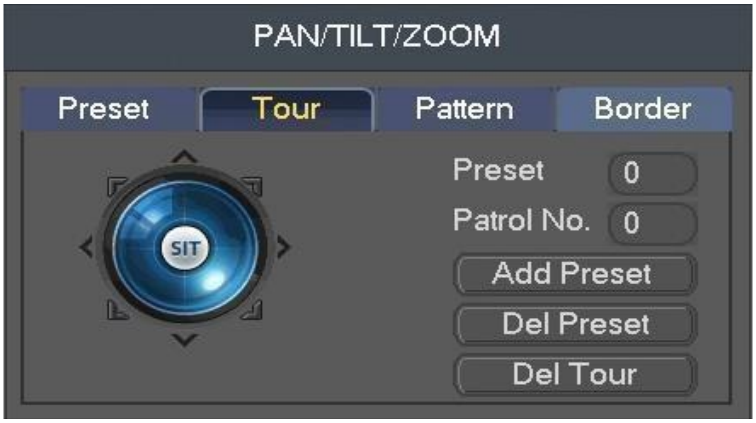
4.3.3.1.4. Tour Setup

Click the Tour button.

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.



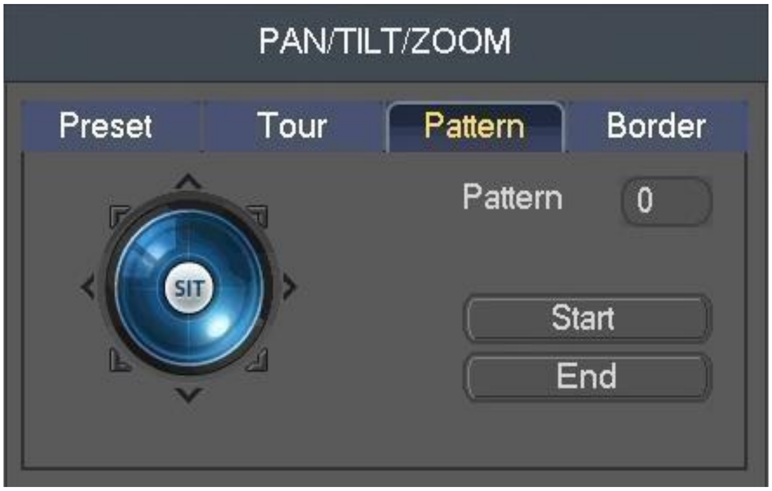
Preset 0
Patrol No. 0

4.3.3.1.5. 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.

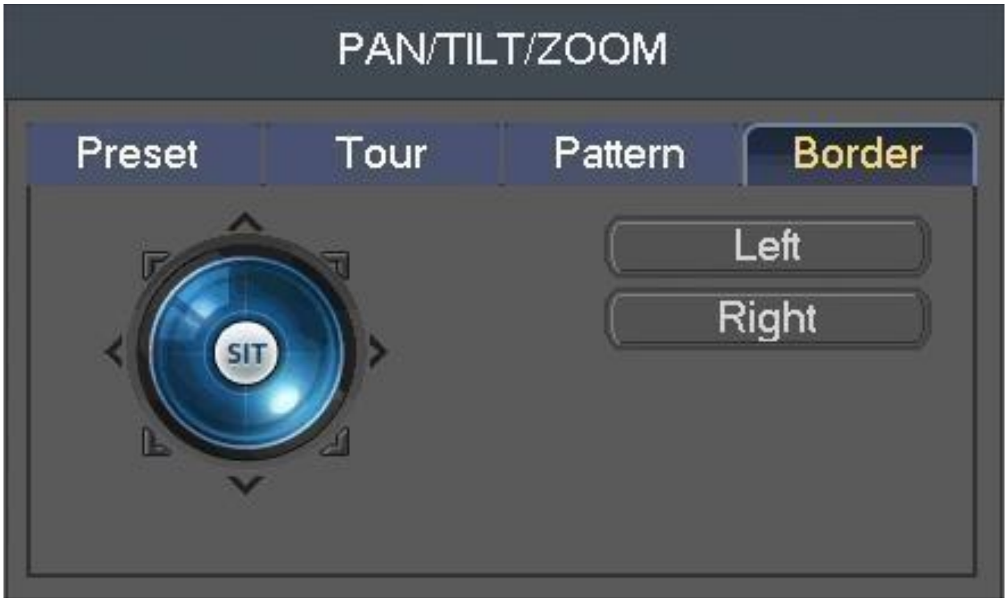


Pattern 0

4.3.3.1.6. 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.



4.3.3.1.7. 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.

Rotate

Click to enable the camera to rotate.

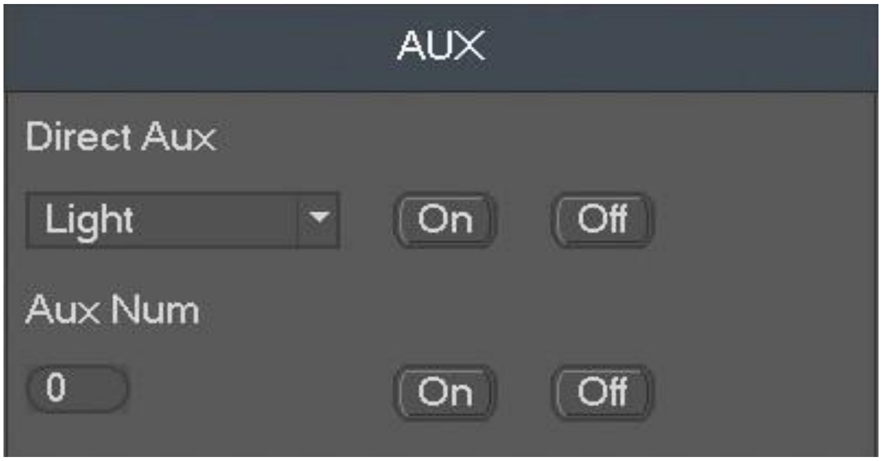
The system supports preset, tour, pattern, scan, rotate, and light functions.

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.

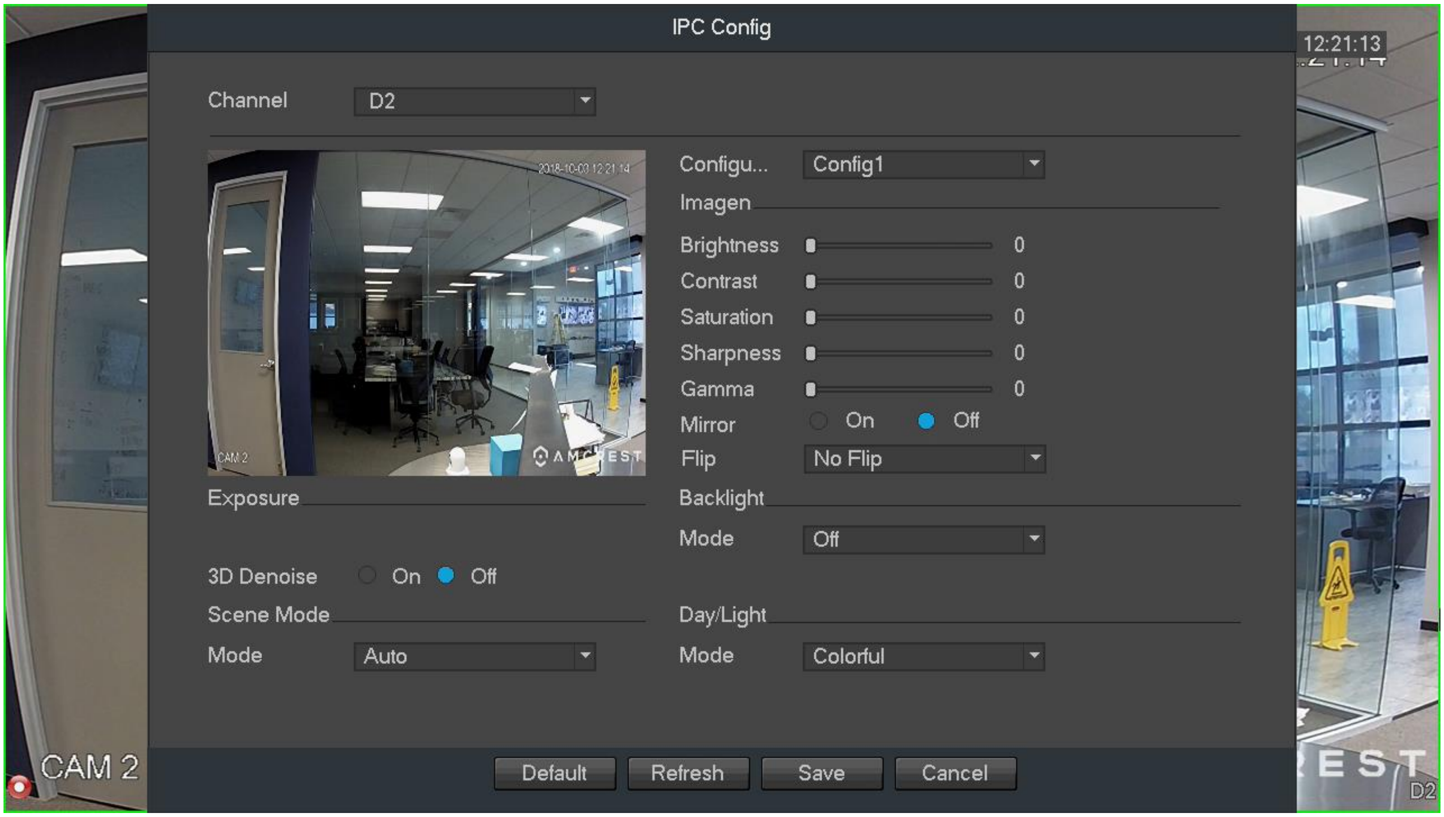

AUX

Direct Aux: Light

Aux Num: 0

4.3.3.Camera

This section is related to the camera menu which can be found by using the right click menu and selecting **Camera** from the menu. Here you can set the brightness, contrast, saturation, scene, light, etc.



IPC Config

Channel: D2

Configu...: Config1

Imagen

Brightness: 0

Contrast: 0

Saturation: 0

Sharpness: 0

Gamma: 0

Mirror: ○ On ● Off

Flip: No Flip

Exposure

3D Denoise: ○ On ● Off

Scene Mode

Mode: Auto

Backlight

Mode: Off

Day/Light

Mode: Colorful

Please refer to the following sheet for detailed information.

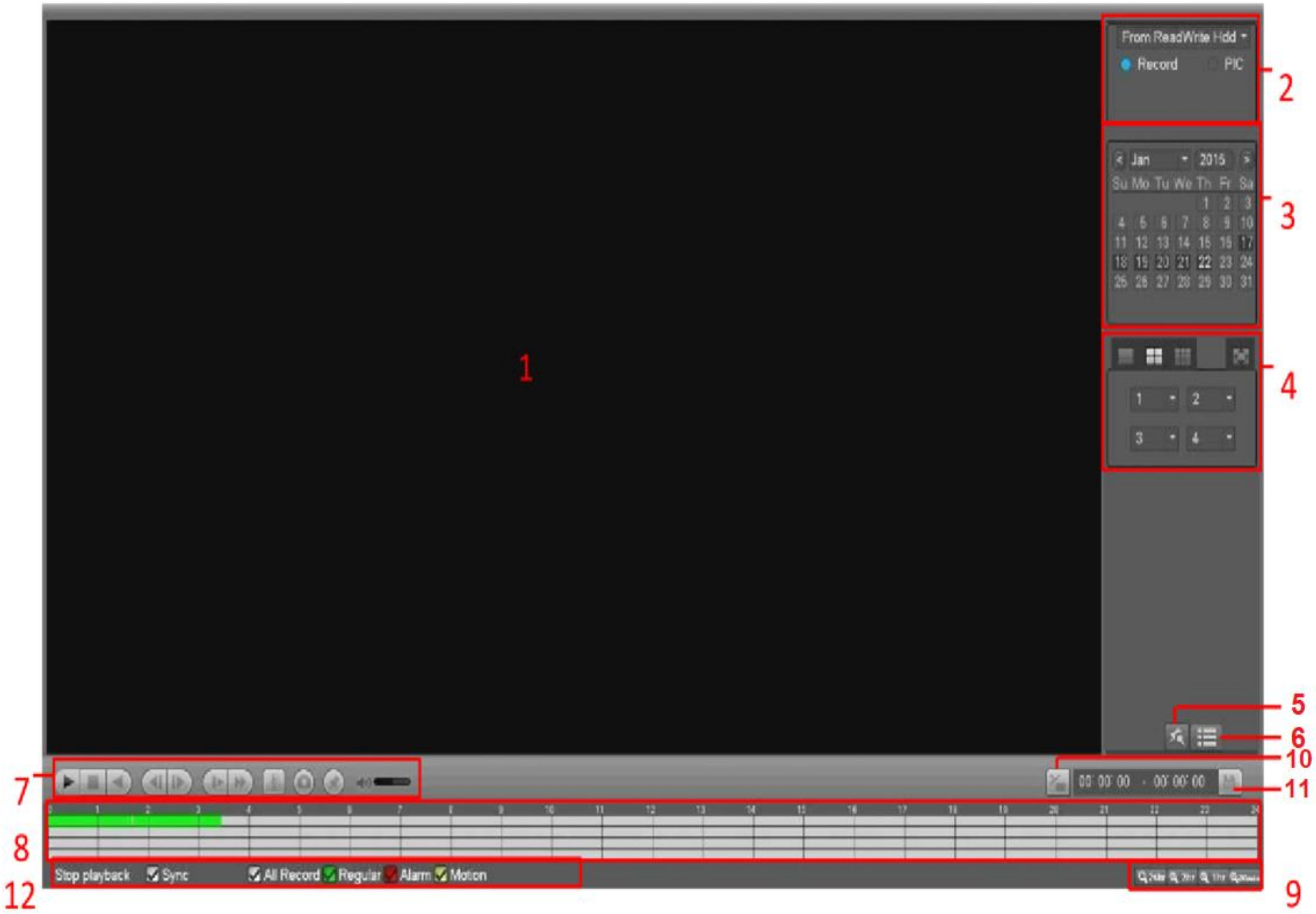
Item	Note
Configuration	This determines which period you are configuring: day, night, select for period, or normal. You can set different saturation, brightness, contrast, and sharpness setups for different periods.
Sharpness	The value here is to adjust the edge clarity of the video. The value ranges from 0 to 100. The larger the value is, the clearer the edge is and vice versa. Please note there is noise if the value here is too high. The default value is 50 and the recommended value ranges from 40 to 60.

Brightness	This is to adjust monitor window bright. The value ranges from 0 to 100. The default value is 50. The larger the number, the brighter the video is. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The recommended value ranges from 40 to 60.
Contrast	This is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50. The larger the number, the higher the contrast is. You can use this function when the whole video brightness is **OK** but the contrast is not correct. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may over exposure. The recommended value ranges from 40 to 60.
Saturation	This is to adjust monitor window saturation. The value ranges from 0 to 100. The default value is 50. The larger the number, the strong the color is. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For the grey part of the video, the distortion may occur if the white balance is not accurate. Please note the video may not be attractive if the value is too low. The recommended value ranges from 40 to 60.
Mirror	This option reflects the image to switch the left and right sides (as if looking through a mirror). This is useful when used with Flip to ensure the view is correct.
Flip	This option flips the image upside down. This is often used when the camera is mounted upside down.
3D Denoise	This reduces the noise in the video to enhance the quality.
Backlight	This is the backlight compensation setting. It has three settings for a High or bright backlight compensation, Low or moderate backlight compensation, and Stop for no backlight compensation.
Scene Mode	This option adjusts the red and blue gain in the video and has 4 settings: schedule, sunny, night, and customized.

Day Light	Auto	Automatically switches between black and white and color depending on how much light is present.
	Black/White	The device outputs video in black and white.
	Colorful	The device outputs video in color.

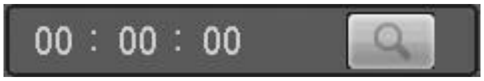
4.3.4. Search

This menu allows users to search and playback recorded data. Please note, an internal hard drive needs to be installed for any recordings to occur. Below is a screenshot of this menu:



Please refer to the following sheet for more information.

SN	Name	Function
1	Display window	★ Here is where the searched picture or file will be displayed. ★ Supports 1/4/9-window playback.
2	Search type	Here you can select to search the picture or the recorded file. You can select to play from the read-write HDD, from the peripheral device, or from the redundancy HDD. Before you select to play from the peripheral device, please connect the corresponding peripheral device. You can view all recorded files on the root directory of the peripheral device. Click the Browse button; you can select the file you want to play. **Important** **Redundancy HDD does not support the picture backup function, but it supports picture playback function. You can select to play from the redundancy HDD if there are pictures on the redundancy HDD.**
3	Calendar	The blue highlighted date means there are pictures or recordings. Otherwise, there are no pictures or recordings. In any play mode, click the date you want to see, and you can see the corresponding recording trace in the time bar.
4	Playback mode and channel selection pane.	★ Playback mode: 1/4/9. (It may vary due to different series.) In 1-window playback mode: you can select 1-X channels (X depends on the product channel amount). In 4-window playback mode: you can select 4 channels according to your requirement. In 9-window playback mode, you can all 8 channels. ★ The time bar will change once you modify the playback mode or the channel option.
5	Mark file list button	Click this to go to the mark file list interface. You can view all the mark information of current channel by time.

6	File list switch button	Double click this and you can view the picture/recordings list of the current day. The file list displays the first channel of the recording. The system can display a max of 128 files at one time. Use the ◀|and |▶ or the mouse to view the file. Select one item, and then double click the mouse or click the ENTER button to playback. You can input the period in the following interface to begin an accurate search. File type: R—regular record; A—external alarm record; M—Motion detect record.  00 : 00 : 00 Lock file. Click the file you want to lock and click the button to lock it. The file you locked will not be overwritten.	
7	Playback control pane.	▶/ ⏸	Play/Pause There are three ways for you to begin playback. The play button. Double click a valid period on the time bar. Double click the item in the file list. In slow play mode, click this to switch between play/pause.
		■	Stop
		◀	Backward play In normal play mode, left click this button, and the file begins to play backward. Click it again to pause the current record. In backward play mode, click ▶/ ⏸ to restore normal play.

		|◀/ ▶|	In playback mode, click this to play the next or the previous section. You can click continuously when you are watching the files from the same channel. In normal play mode, when you pause the current record, you can click ◀| and |▶ to begin frame by frame playback. In frame by frame playback mode, click ▶/ ⏸ to restore normal playback.
		▶	Slow play In playback mode, click this to slow play in various modes such as slow play 1, slow play 2, etc.
		⏩	Fast forward In playback mode, click this to fast forward in various modes such as fast play 1, fast play 2, etc.
		Note:	The actual play speed is related to the software version.
		🚶	Smart search

		📷	Click the snapshot button in the full-screen mode and the system will take 1 snapshot. The system supports a custom snapshot save path. Please connect the peripheral device first, click the snapshot button on the full-screen mode, and you can select or create a path. Click the Start button and the snapshot will be saved to the specified path.
		📌	Mark button. Please note this function is for some series product only. Please make sure there is a mark button in the playback control pane. You can refer to chapter 4.9.2.3 for detailed information.

8	Time bar	● This is to display the record type and its period in the current search criteria. ● In 4-window playback mode, there are four corresponding time bars. In other playback modes, there is only one-time bar. ● Use the mouse to click one point on the color zone in the time bar and the system begins playback. ● The time bar begins at 0 o'clock when you are setting the configuration. The time bar zooms in on the period of the current playback time when you are playing a record. ● The green color stands for a regular recording. The red color stands for an external alarm recording. The yellow stands for a motion detect recording.
9	Timebar unit	● This option includes: 24H, 12H, 1H and 30M. The smaller the unit, the larger the zoom rate. You can accurately set the time in the time bar to playback the record. ● The time bar begins at 0 o'clock when you are setting the configuration. The time bar zooms in on the period of the current playback time when you are playing a record.
10	Backup	★ Select the file(s) you want to backup from the file list. You can check from the list. Then click the backup button. Now you can see the backup menu. The system supports a customized path setup. Select or create a new folder, click the Start button to begin the backup operation. The record file(s) will be saved in the specified folder. ★ Check the file again to cancel current selection. The system displays a max of 32 files from one channel. ★ After you clip a recording, click the Backup button and you can save it. ★ For one device, if there is a backup in process, you cannot start a new backup operation.

11	Clip	★ This is to edit the record. ★ Please play the recording you want to edit and then click this button when you want to edit. You can see the corresponding slide bars on the time bar of the corresponding channel. You can adjust the slide bar or input the accurate time to set the file end time. ★ After you set this, you can click the Clip button again to edit the second period. You can see the slide bar restore its previous position.

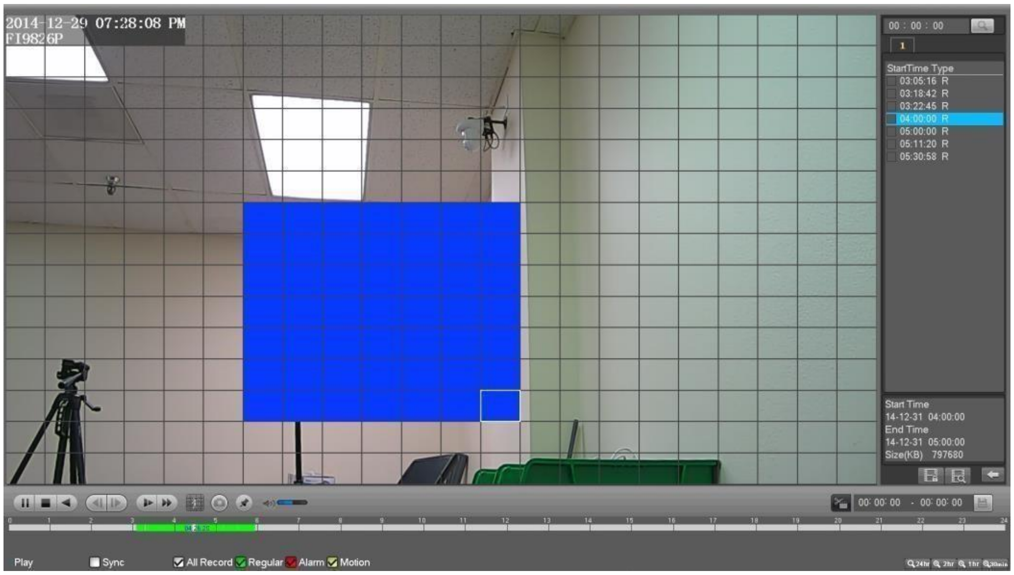
		★ Click the Backup button when finished and you can save current contents in a new file. ★ You can clip one channel or multiple-channels. The multiple-channel clip operation is like the one-channel operation. Please note: ★ **System supports a max backup of 1024 files at the same time.** ★ **You cannot operate clip if any file has been checked in the file list.**
12	Record type	In any playback mode, the time bar will change once you modify the search type.
Other Functions		
13	Smart search	When the system is playing, you can select a zone in the window to begin the smart search. Click the motion detect button to begin playing. Once motion detect playing has begun, clicking the button again will terminate current motion detect playing. ★ There is no motion detect zone by default. If you select to play another file in the file list, the system switches to motion detect play of the other file. During the motion detect play process, you cannot implement operations such as change time bar, begin backward playback, or frame by frame playback.
14	Other channel synchronization switch to play during playback	When playing the file, click the number button and the system can switch to the same period of the corresponding channel to play.

15	Digital zoom	When the system is in full-screen playback mode, left click the mouse in the screen. Drag your mouse in the screen to select a section and then left mouse click to zoom in. You can right mouse click to exit.
16	Manually switch channel during playback	During the file playback process, you can switch to another channel via the dropdown list or rolling the mouse. This function is null if there is no record or the system is in the smart search process.

Note:
All the operations here (such as playback speed, channel, time, and progress) have a relationship with the hardware version. Some series NVRs do not support some functions or playback speeds.

4.3.4.1. Smart Search

During the multiple-channel playback mode, double click one channel and then click the button, and the system begins a smart search. The system supports 396(22*18 PAL) and 330(22*15 NTSC) zones. Please left click mouse to select smart search zones.



StartTime	Type
03:05:16	R
03:18:42	R
03:22:45	R
04:00:00	R
05:00:00	R
05:11:20	R
05:30:58	R

Start Time
14-12-31 04:00:00
End Time
14-12-31 05:00:00
Size(KB) 797680

Click the , and you can go to the smart search playback. Click it again and the system stops smart search playback.

Important

- ★ **The system does not support motion detect zone setup during the full-screen mode.**
- ★ **During the multiple-channel playback, the system stops playback of the rest of the channels if you implement one-channel smart search.**

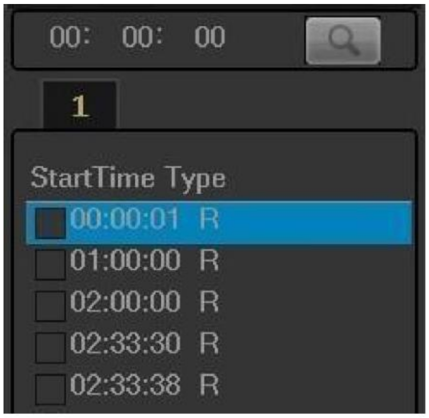
4.3.4.2. Accurate playback by time

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.

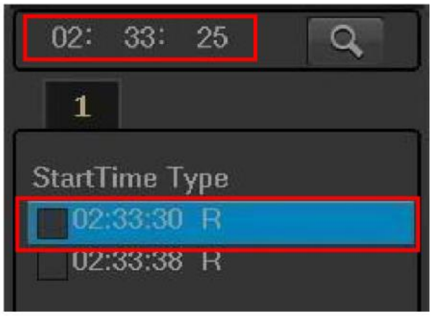
For example, input time 11:00.00 and then click the Search button , and you can view all the record files after 11:00.00 (The records include the current time.). See image on the right side of the Figure 4-68 Double click a file name to playback.

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.



StartTime	Type
☐ 00:00:01	R
☐ 01:00:00	R
☐ 02:00:00	R
☐ 02:33:30	R
☐ 02:33:38	R



StartTime	Type
☐ 02:33:30	R
☐ 02:33:38	R

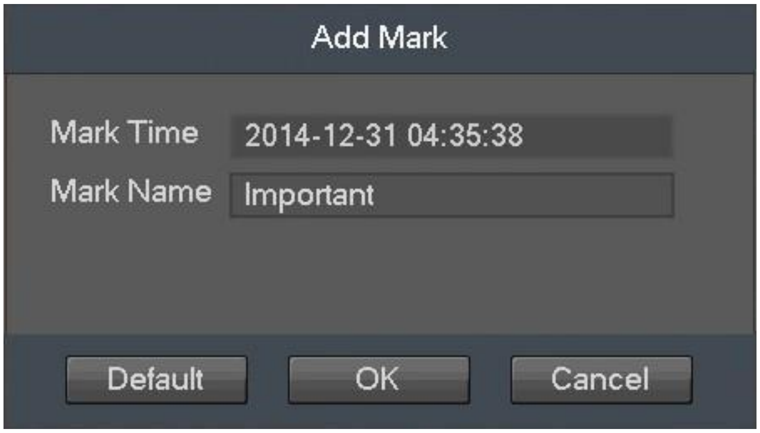
4.3.4.3. Mark Playback

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.



Mark Time 2014-12-31 04:35:38

Mark Name Important

★ **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**

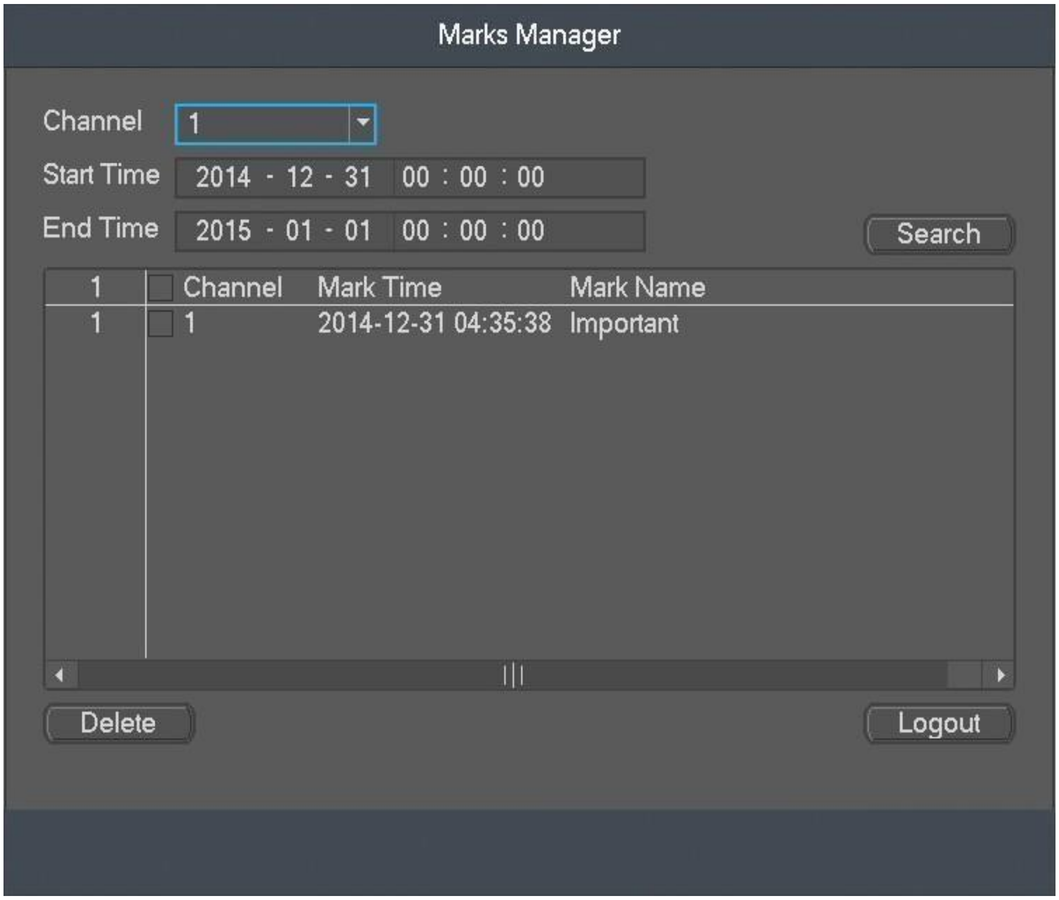
Here you can set to begin playback from the previous N seconds of the mark time.

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.



Channel: 1

Start Time: 2014 - 12 - 31 00 : 00 : 00

End Time: 2015 - 01 - 01 00 : 00 : 00

1	☐	Channel	Mark Time	Mark Name
1	☐	1	2014-12-31 04:35:38	Important

★ **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.

★ 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.

4.3.4.4 Picture Playback

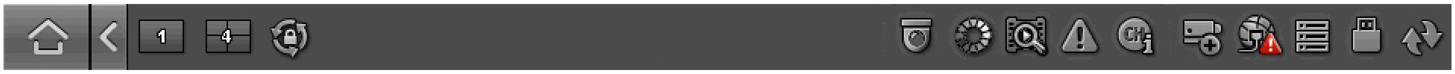
a) From Main Menu->Search, or on the preview interface right mouse click, you can go to the navigation bar.

.

b) At the top right pane, you can check the box to select picture and then select the playback interval.

4.3.4.5. Navigation Bar

To access the navigation bar, go to the Main Menu->Setting->System->General and enable the navigation bar function. Next, while on the main view, left click to show the navigation bar.
The navigation bar is shown as below.



4.3.4.6. Main Menu

Click the button to go to the Main Menu interface.

4.3.4.7. Multiview

Click the corresponding button to show the desired channel view.

4.3.4.8. Tour

Click to enable the tour. The icon becomes and you can see the tour is in process.

4.3.4.9. PTZ

Click and the system shows the PTZ control interface.

4.3.4.10. Color

Click and the system shows the color interface. Please make sure the system is in one-channel mode.

4.3.4.11 Search

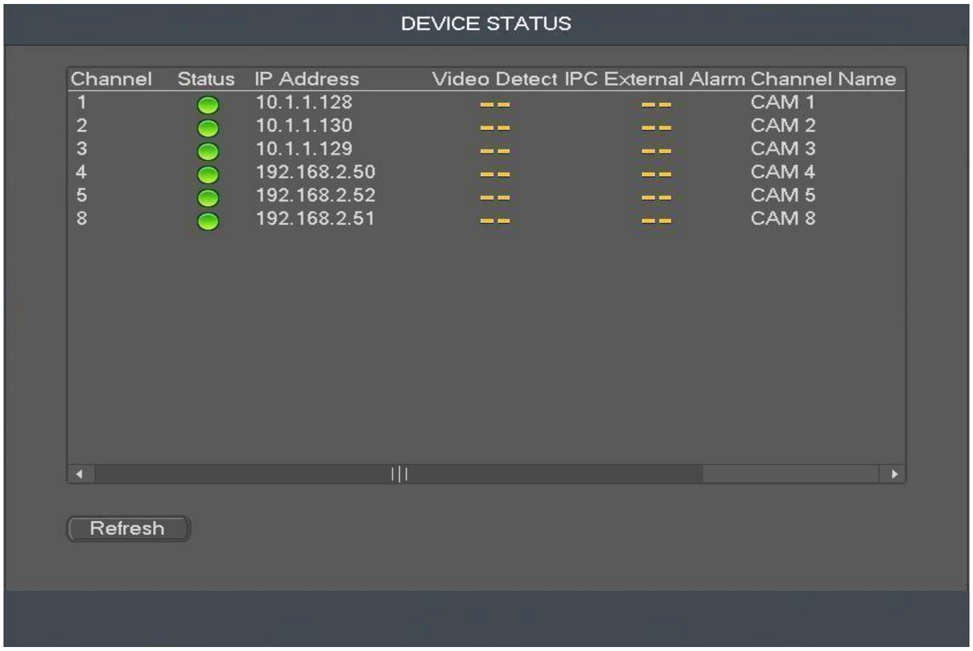
Click and the system shows the search interface.

4.3.4.12 Alarm Status

Click and the system shows the alarm status interface. This is to view the device and channel status.

4.3.4.13. Channel Info

Click and the system shows the channel information setup interface. This is to view the information of the corresponding channel.



Channel	Status	IP Address	Video Detect	IPC External Alarm	Channel Name
1	●	10.1.1.128	--	--	CAM 1
2	●	10.1.1.130	--	--	CAM 2
3	●	10.1.1.129	--	--	CAM 3
4	●	192.168.2.50	--	--	CAM 4
5	●	192.168.2.52	--	--	CAM 5
8	●	192.168.2.51	--	--	CAM 8

4.3.4.14. Remote Device

Click and the system shows the remote device interface.

4.3.4.15. Network

Click and the system shows the network interface. This is to set network IP address, default gateway, etc.

4.3.4.16. HDD Manager

Click and the system shows the HDD manager interface. This is to view and manage HDD information.

4.3.4.17. USB Manager

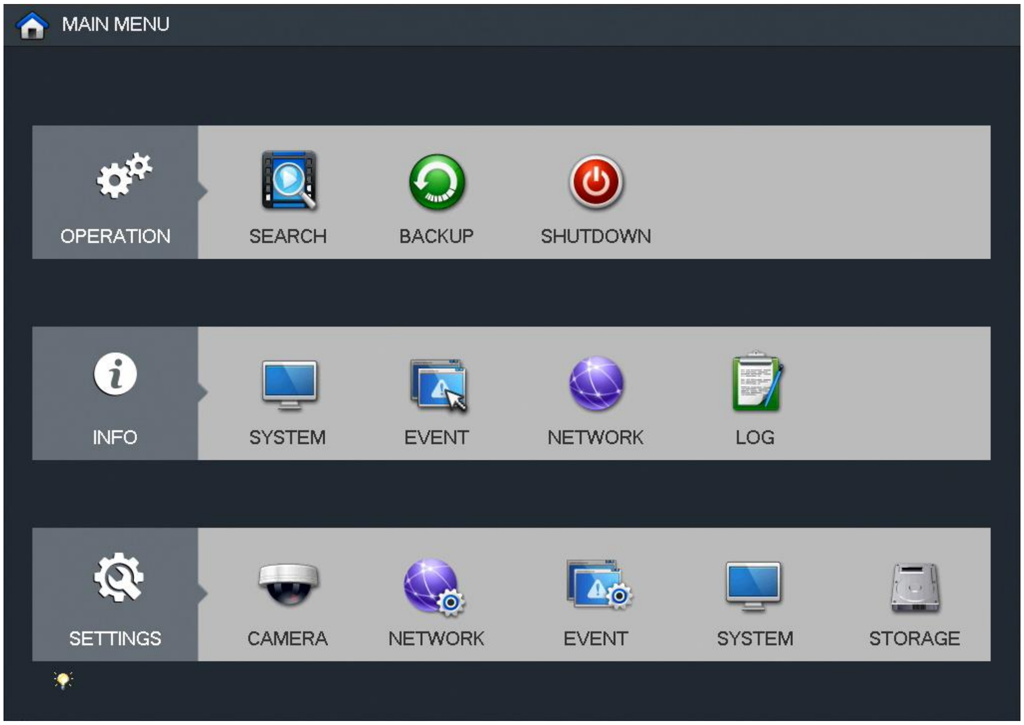
Click and the system shows the USB Manager interface. This is to view USB information, backup, and update.

4.3.4.18. Upgrade

Click and the system shows the current firmware status of your device. If the system is not up to date, you will need to update to the current firmware.

4.5. Main Menu Overview

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



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

OPERATION -> **SEARCH**: Search and playback recorded video that is stored on the hard drive.
OPERATION -> **BACKUP**: Backup recorded files onto a USB drive.
OPERATION -> **SHUTDOWN**: Logout, shutdown, or restart the system.

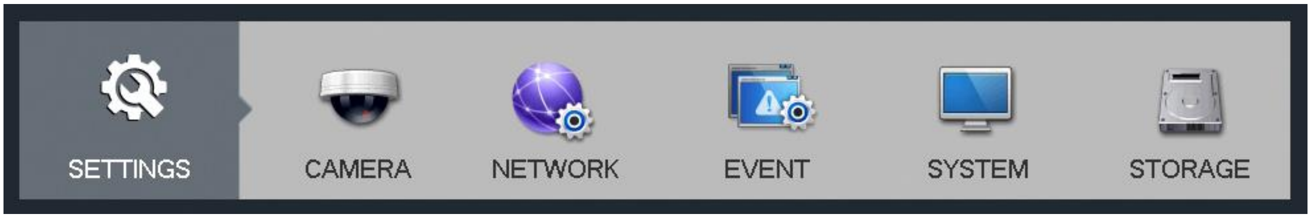
INFO -> **SYSTEM**: View information about the recordings, hard drive statistics, or version information. **INFO** -> **NETWORK**: View information about the network or test the network status **INFO** -> **EVENT**: Display information about events that triggered recording. **INFO** -> **LOG**: Display system logs of critical events.

SETTINGS -> **CAMERA**: Review or edit settings for each camera, including video settings (e.g. quality, bit rate, color, etc.).
SETTINGS -> **NETWORK**: Review or edit network settings for the NVR (e.g. email, DDNS, UPnP, etc.) **SETTINGS** -> **EVENT**: Review or edit settings that trigger recording events (e.g. motion detection, alarm, etc.).
SETTINGS -> **SYSTEM**: Review or edit system parameters or configuration, including account settings (e.g. usernames, etc.).
SETTINGS -> **STORAGE**: Review or edit storage parameters and settings.

The first area explored in this manual will be the **Settings menu.**

Settings Menu

The first section covered in this user manual will be related to the **Settings** section.

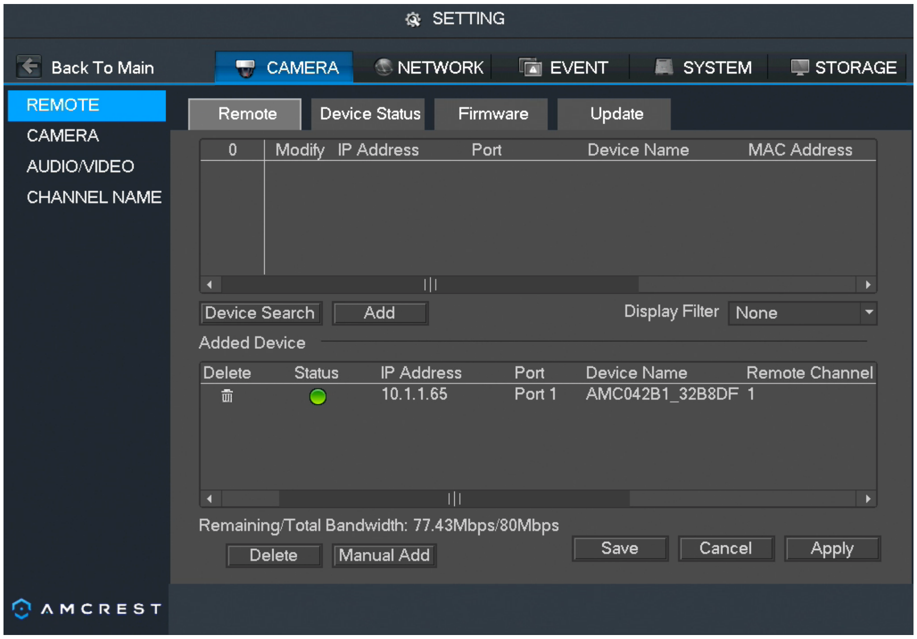


4.6. Camera

4.6.1 Remote

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

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



0	Modify	IP Address	Port	Device Name	MAC Address

Display Filter: None

Added Device

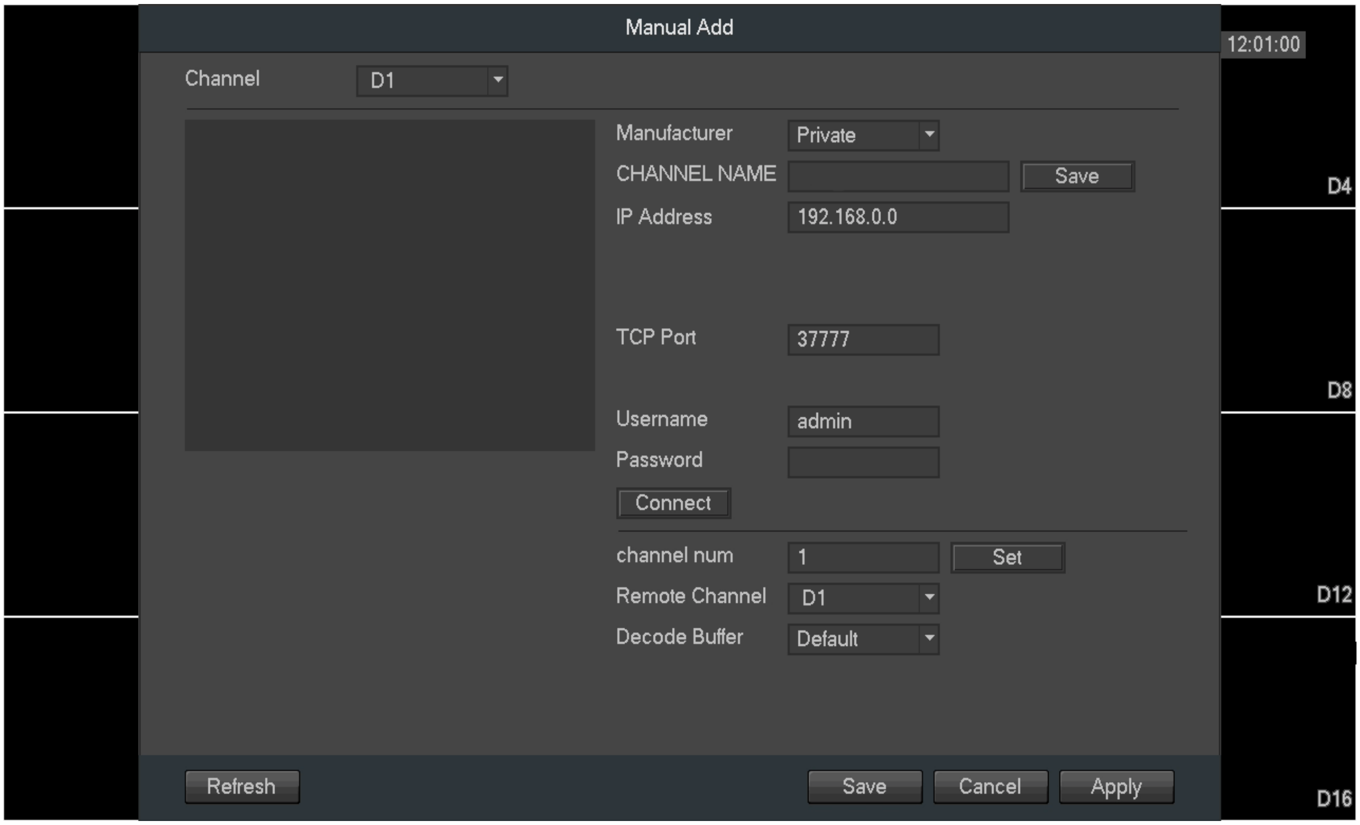
Delete	Status	IP Address	Port	Device Name	Remote Channel
🗑	●	10.1.1.65	Port 1	AMC042B1_32B8DF	1

Remaining/Total Bandwidth: 77.43Mbps/80Mbps

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

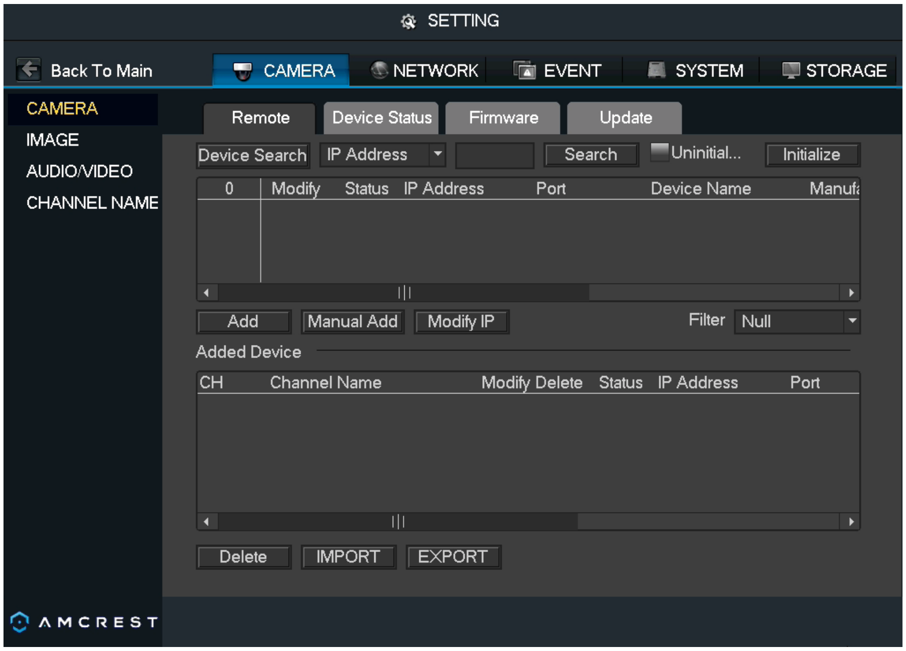
Click the **Manual Add** button to add a device directly. Here you can set TCP/UPD/auto connection mode. The default setup is TCP.

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



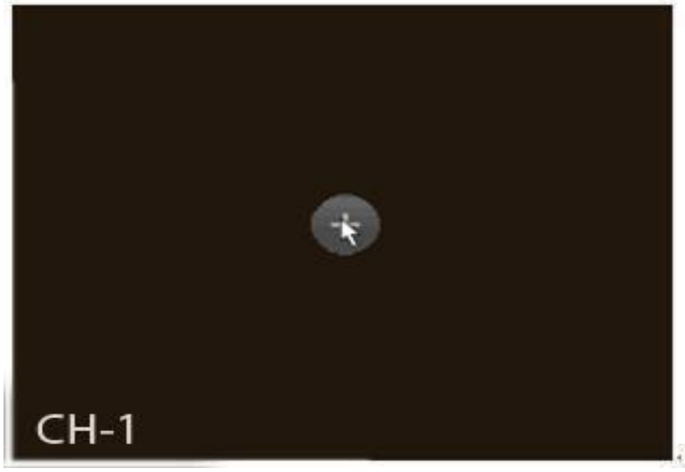
Channel: D1
Manufacturer: Private
CHANNEL NAME:
IP Address: 192.168.0.0
TCP Port: 37777
Username: admin
Password:
channel num: 1
Remote Channel: D1
Decode Buffer: Default

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

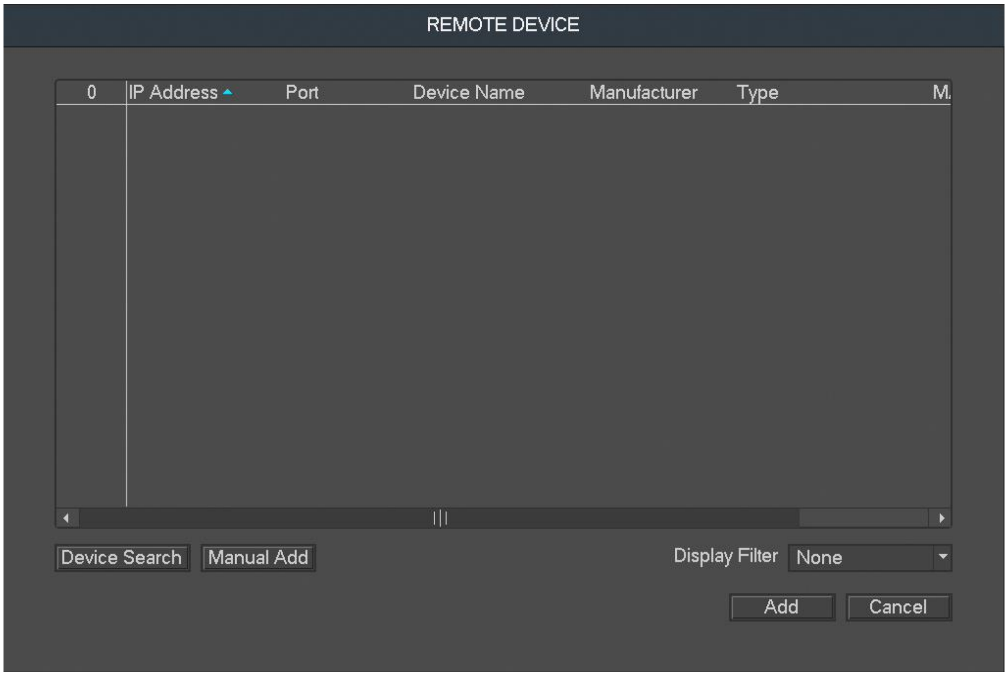


Shortcut Menu

In the preview interface, for a channel with no IPC connection, you can click the icon "+" in the center of the interface to quickly go to the Remote Device interface.

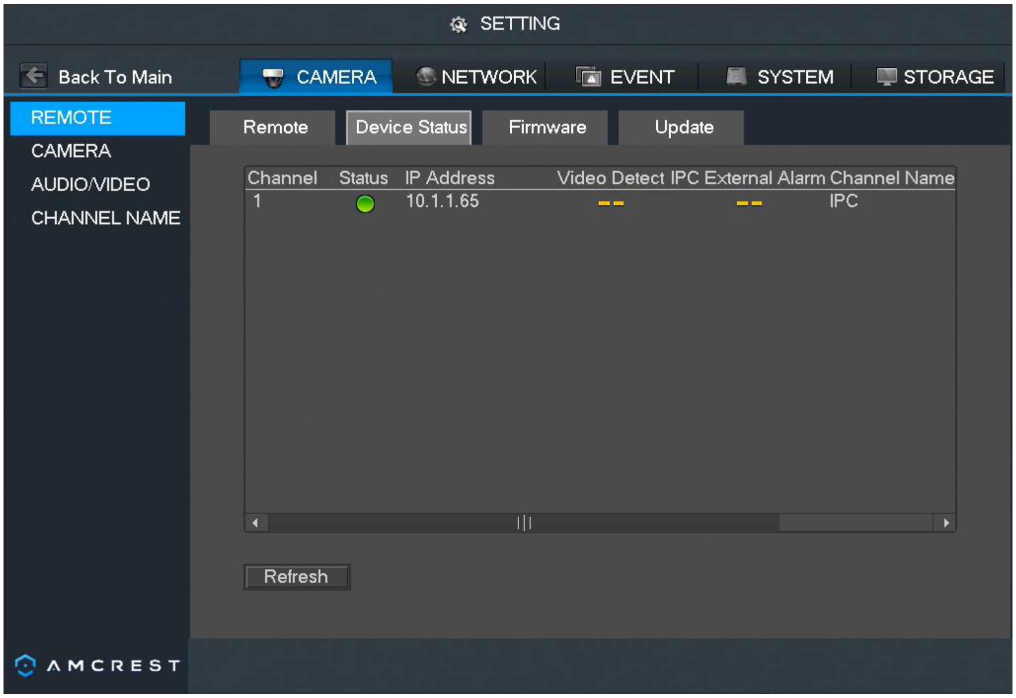


Below is a screenshot of the Remote Device interface from the shortcut menu:



4.6.1.1. Device Status

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



Channel	Status	IP Address	Video Detect	IPC External Alarm	Channel Name
1	●	10.1.1.65	--	--	IPC

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

- Channel: Indicates the channel number of the camera being monitored.
- Status: Indicates the connection status of the camera. It can be either green, for good connection, or red, for possible connection issue.
- IP Address: Indicates the IP address of the connected camera.
- Video Detect: Indicates the current video detect settings assigned to the camera.
- IPC External Alarm: Indicates the current external alarm settings assigned to the camera.
- Channel Name: Shows the name of the channel for the camera being monitored by the NVR.
- Refresh: Allows the user to refresh settings currently applied in this menu.

▬ ▬ :Understanding device status icons:

🔴 : Front-end is not supported

🟢 : Front-end is supported

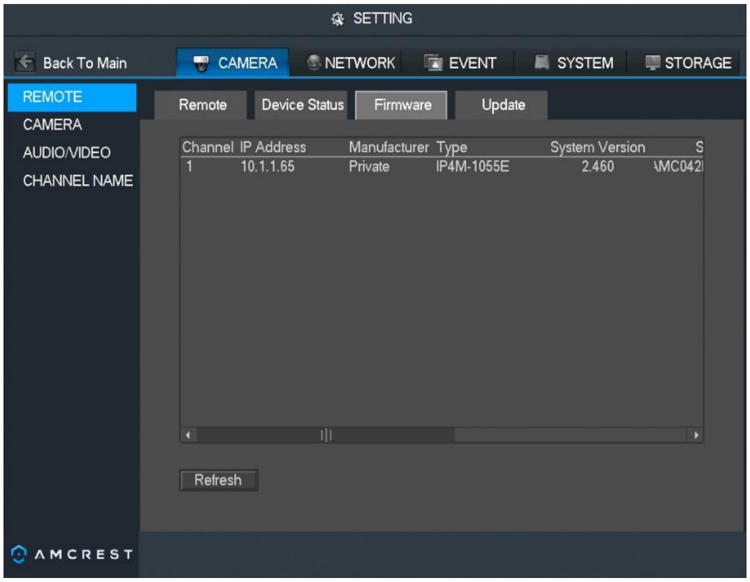
⚠ : There is an alarm event from the current front-end

🟢 : Connection succeeded

🔴 : Connection failed

4.6.1.2. Firmware

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



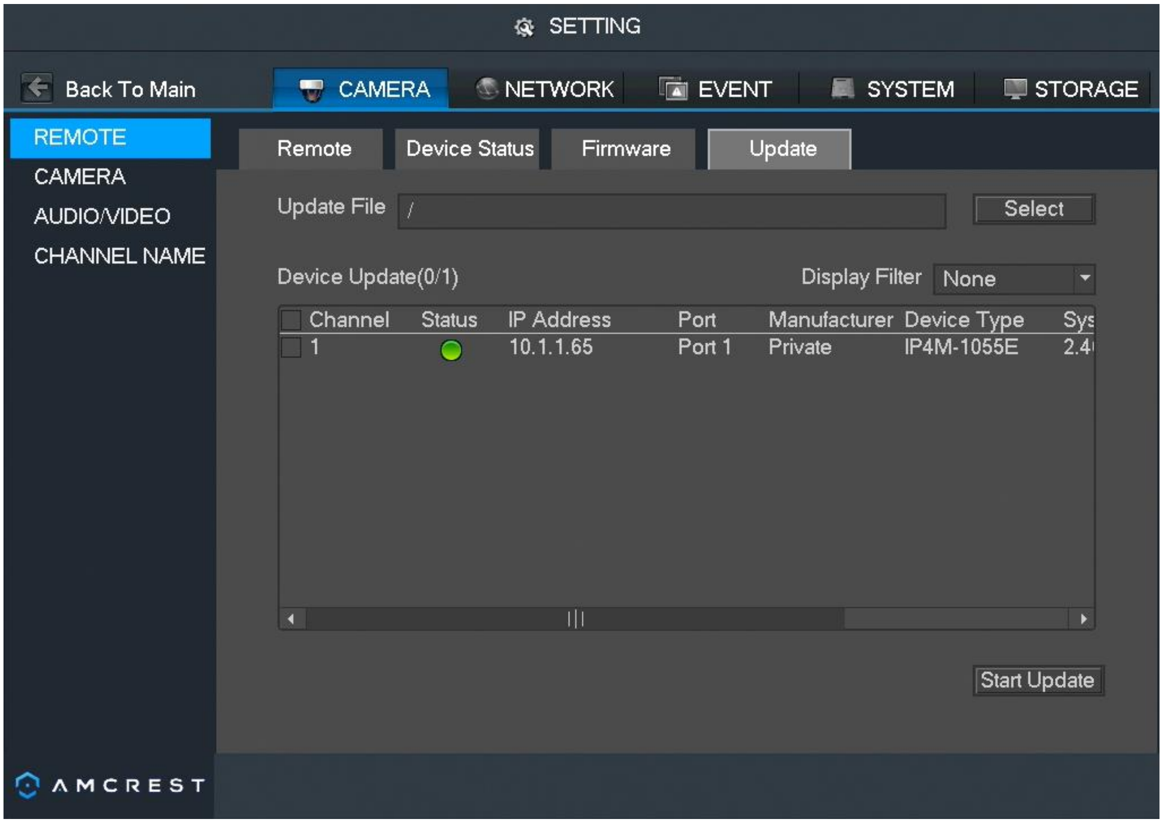
Channel	IP Address	Manufacturer	Type	System Version	S
1	10.1.1.65	Private	IP4M-1055E	2.460	MC042

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

- Channel: Indicates the channel number of the camera being monitored.
- IP Address: Indicates the IP address of the connected camera.
- Manufacturer: Indicates the current protocol that the camera is connecting to the NVR with.
- Type: Indicates the model of the camera being connected to the NVR.
- System Version: Indicates what firmware version the camera is running on.
- Serial No.: Shows the serial number of the camera that is connected to the NVR.
- Video Input: Indicates which video input the camera relates to.
- Audio Input: Indicates which audio input the camera is relates to.
- External Alarm: Shows the stats for any external alarms associated with the camera.
- Refresh: Allows the user to refresh settings currently applied in this menu.

4.6.1.3. Update

This tab allows the user to upgrade the firmware for their camera directly from the NVR. Below is a screenshot of this menu:



Update File: /

Device Update(0/1)

Display Filter: None

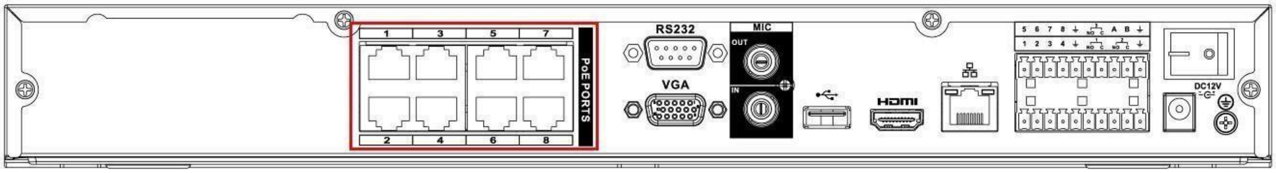
☐ Channel	Status	IP Address	Port	Manufacturer	Device Type	Sys
☐ 1	●	10.1.1.65	Port 1	Private	IP4M-1055E	2.4

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

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

Important
Do not connect a switch to the PoE port, otherwise the connection may fail!

Please connect the IPC to the PoE port on the device’s rear panel. The system can auto connect to the network camera. Please note the following figure is for reference only.

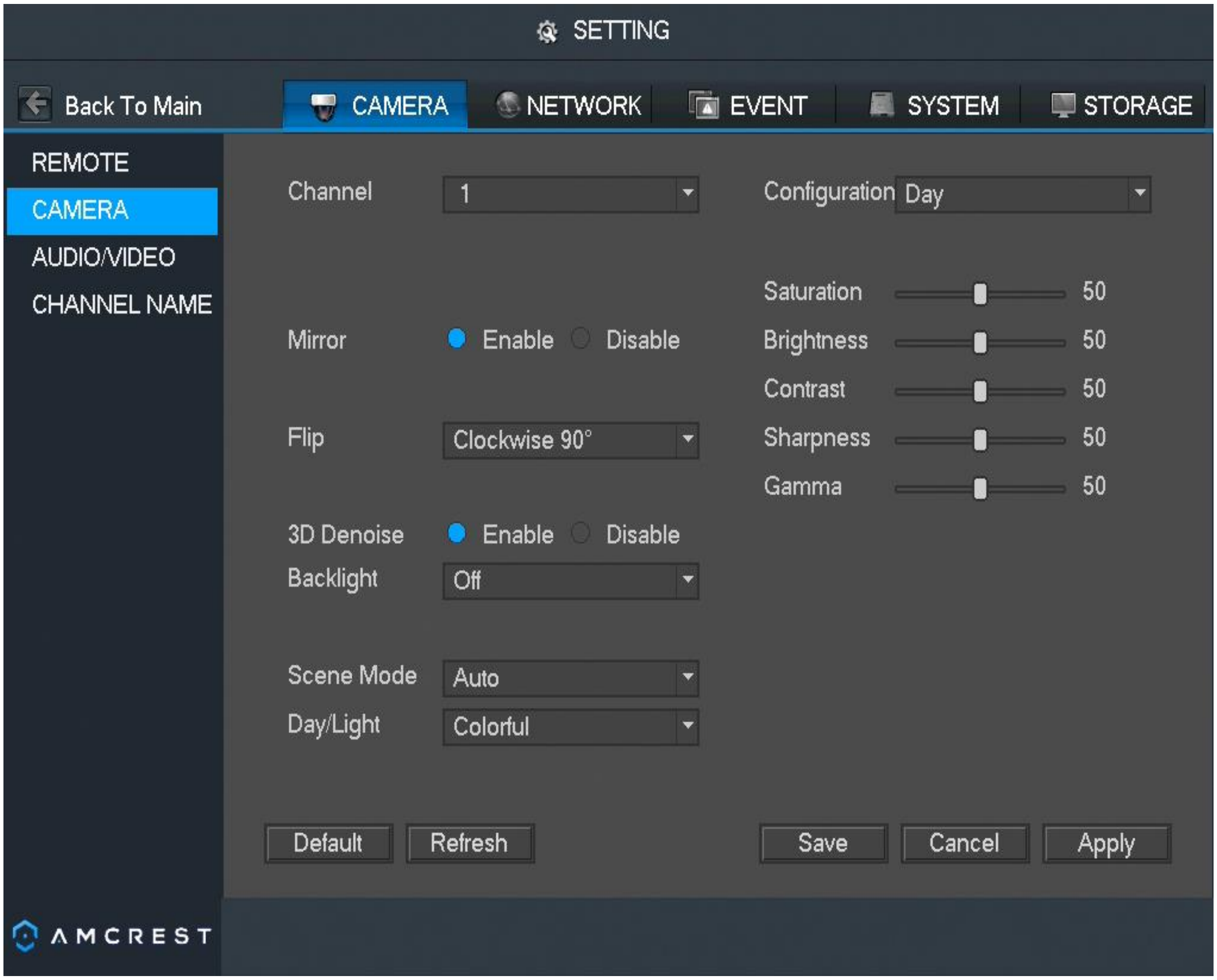


To upgrade the camera’s firmware from this menu, first you will need to obtain the firmware file from the firmware page on the Amcrest web site. To access this page visit amcrest.com/firmware-subscribe

Next, locate the firmware file for your camera and download the file to an external USB storage device or flash drive. After it has finished downloading, plug the external USB storage device into a USB port on the NVR. In the update tab, click on **Select** to select the file from the USB storage device. Once the file has been selected click on **Start Update** to begin the update. When the update process is complete the camera will then be running on the firmware provided.

4.6.2. Camera

The Camera tab can also be known as the **Image** tab is some models. The camera (image) tab allows the user to adjust image settings such as, saturation, brightness, contrast, sharpness, gamma, as well as flip and mirror the image. Below is a screenshot of this menu:



Channel: 1
Configuration: Day
Mirror: ● Enable ○ Disable
Flip: Clockwise 90°
3D Denoise: ● Enable ○ Disable
Backlight: Off
Scene Mode: Auto
Day/Light: Colorful
Saturation: 50
Brightness: 50
Contrast: 50
Sharpness: 50
Gamma: 50

The following options will vary depending on camera model and manufacturer

Channel: Select a channel from the dropdown list.

★ **Saturation:** This is to adjust the monitor window saturation. The value ranges from 0 to 100. The default value is 50. The larger the number, the stronger the color. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For the grey part of the video, distortion may occur if the white balance is not accurate. Please note the video may not be attractive if the value is too low. The recommended value ranges from 40 to 60.

★ **Brightness:** This is to adjust monitor window brightness. The value ranges from 0 to 100. The default value is 50. The larger the number, the brighter the video. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The recommended value ranges from 40 to 60.

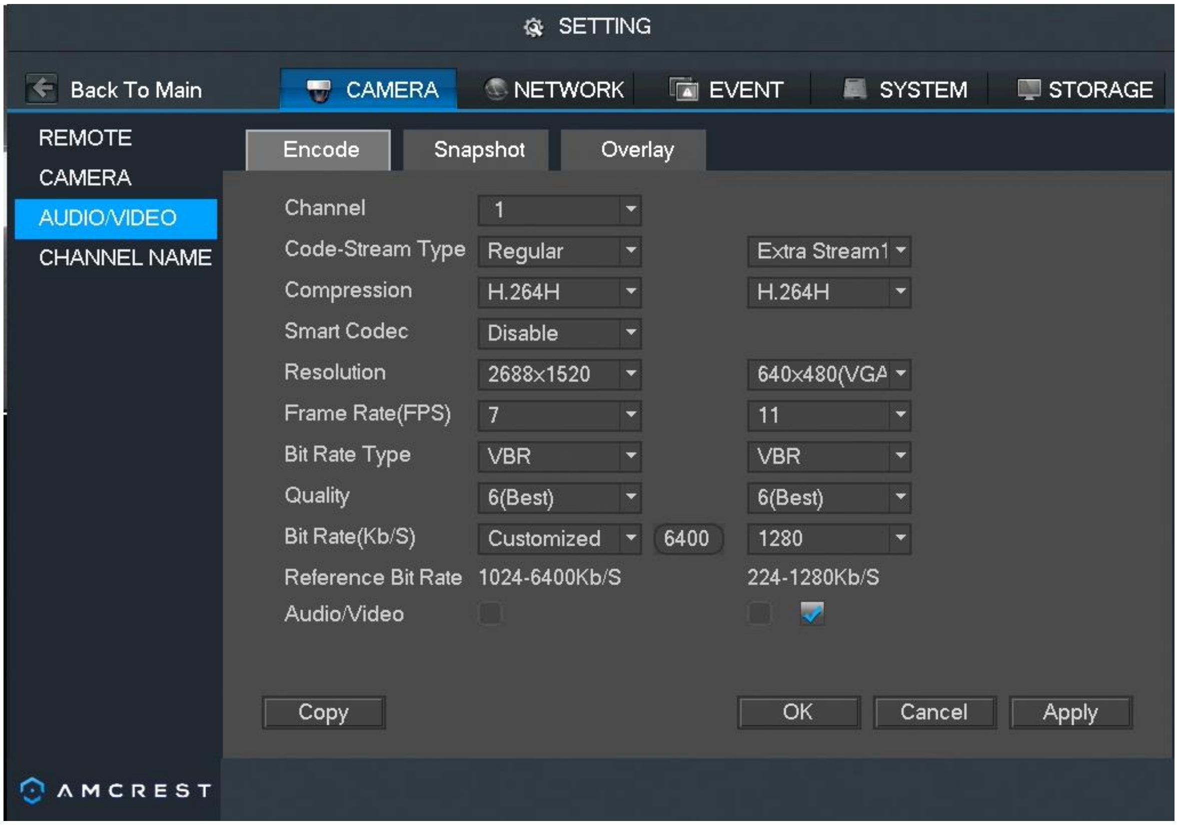
- ★ **Contrast:** This is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50. The larger the number, the higher the contrast. You can use this function when the whole video brightness is OK but the contrast is not correct. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may over expose. The recommended value ranges from 40 to 60.
- ★ **Auto Iris:** This is for devices with an auto iris lens. You can check the box next to ON to enable this function. The auto iris may change if the light becomes different. When you disable this function, the iris is at the max. The system does not add the auto iris function in the exposure control. This function is on by default.
- ★ **Mirror:** This is to flip the video horizontally (as if looking in a mirror). This function is disabled by default.
- ★ **Flip:** This is to flip the video upside down. This function is disabled by default.
- ★ **3D Denoise:** This reduces the noise in the video to enhance the quality.
- ★ **Backlight**: This is to compensate for the backlight and includes several options: High/Low/Stop.
  - ✧ Off: This is to disable backlight compensation. Please note this function is disabled by default.
  - ✧ Backlight: Used to activate backlight function
  - ✧ WDR This is used when the backlight is very bright.
  - ✧ HLC: This is used when the backlight is moderately bright.
- ★ **Scene Mode**: This is to set the white balance mode. It affects the general hue of the video. This function is on by default. You can select different scene modes such as sunny, night, schedule, and customized to adjust the video to the best quality.
  - ✧ Auto: The auto white balance is on. The system can auto compensate the color temperature to make sure the video color is correct.
  - ✧ Sunny: The threshold of the white balance is in the sunny mode.
  - ✧ Night: The threshold of the white balance is in the night mode.
  - ✧ Customized: You can set the gain of the red/blue channels. The value ranges from 0 to 100.
- ★ **Day Light**: This is to set the device to output color or B/W video. The default setup is auto.
  - ✧ Colorful: The device outputs color video.
  - ✧ Auto: The device auto selects to output color or B/W video according to the device feature (The general brightness of the video or if there is IR lights or not.) ✧ Black/White: The device outputs the black and white video.

To revert to default settings, click the Default button near the bottom left hand corner. To confirm settings, click the Save button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner. After completing the setup please click the save button to go back to the previous menu.

4.6.3. Audio/Video

4.6.3.1. Encode

This tab is used to set the audio/video encoding settings for each channel. See below for a screenshot of the tab:



Channel	1	
Code-Stream Type	Regular	Extra Stream1
Compression	H.264H	H.264H
Smart Codec	Disable	
Resolution	2688x1520	640x480(VGA
Frame Rate(FPS)	7	11
Bit Rate Type	VBR	VBR
Quality	6(Best)	6(Best)
Bit Rate(Kb/S)	Customized 6400	1280
Reference Bit Rate	1024-6400Kb/S	224-1280Kb/S
Audio/Video	☐	☐ ☑

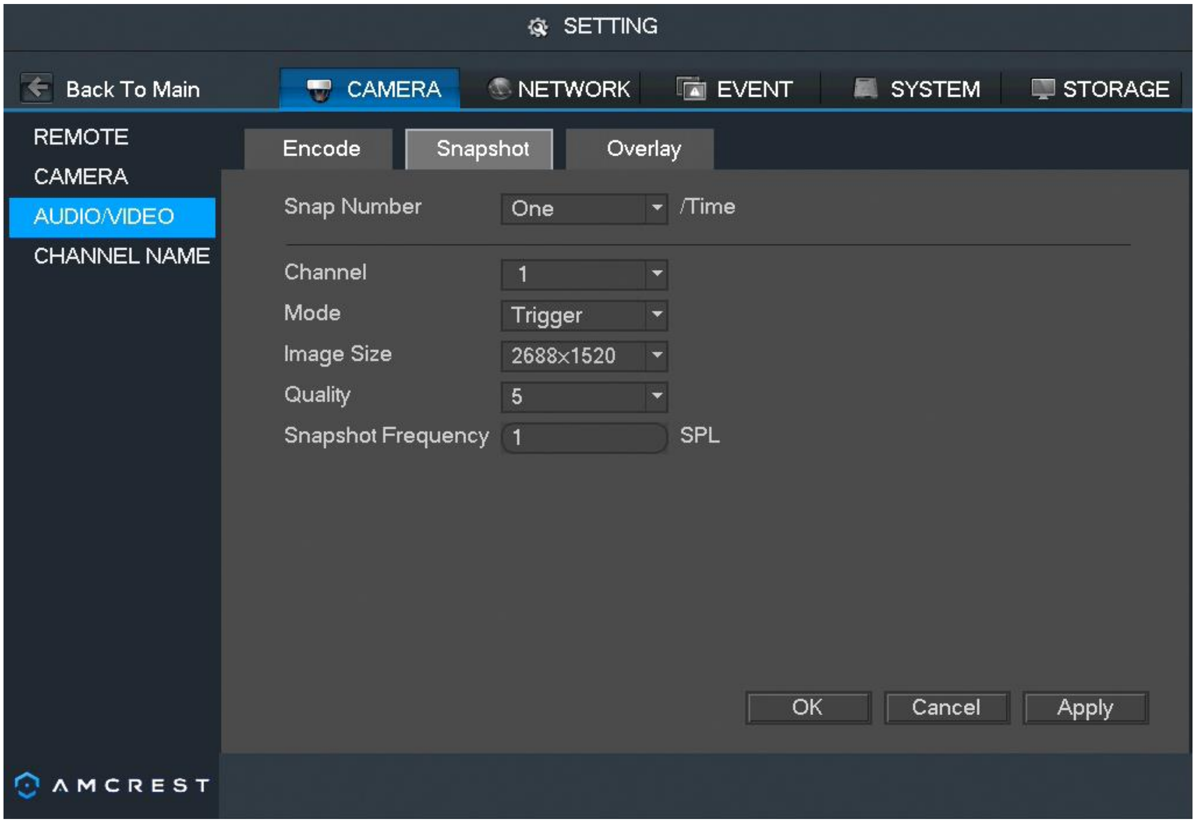
Below is an explanation of the fields on the Encode settings screen:

- Channel: This dropdown box allows the user to select a channel from the dropdown list to modify.
- Code Stream Type: This dropdown box allows the user to select one of 3 channel types: regular, motion detect, 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 and MJPEG video compression protocols.
- Smart Codec: This dropdown box allows the user to enable or disable Smart Codec. Smart Codec allows the NVR to automatically detect the proper codec configuration for a connected device.
- 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: 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.
- Audio/Video: This checkbox allows the user to enable or disable Video/Audio. Audio formal can be selected as well.

To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click the Copy button near the bottom right hand corner. To confirm settings, click the Save button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner. After completing the setup please click the save button to go back to the previous menu.

4.6.3.2. Snapshot

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



Snap Number: One /Time
Channel: 1
Mode: Trigger
Image Size: 2688x1520
Quality: 5
Snapshot Frequency: 1 SPL

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

- Snapshot Mode: This dropdown box allows the user to select a snapshot mode. There are two snapshot modes: regular and trigger.
  - Regular: Based on timing and happens at a set interval.
  - Trigger: Based on motion detection or alarm activation.
- Image Size: This dropdown box allows the user to select an image size.

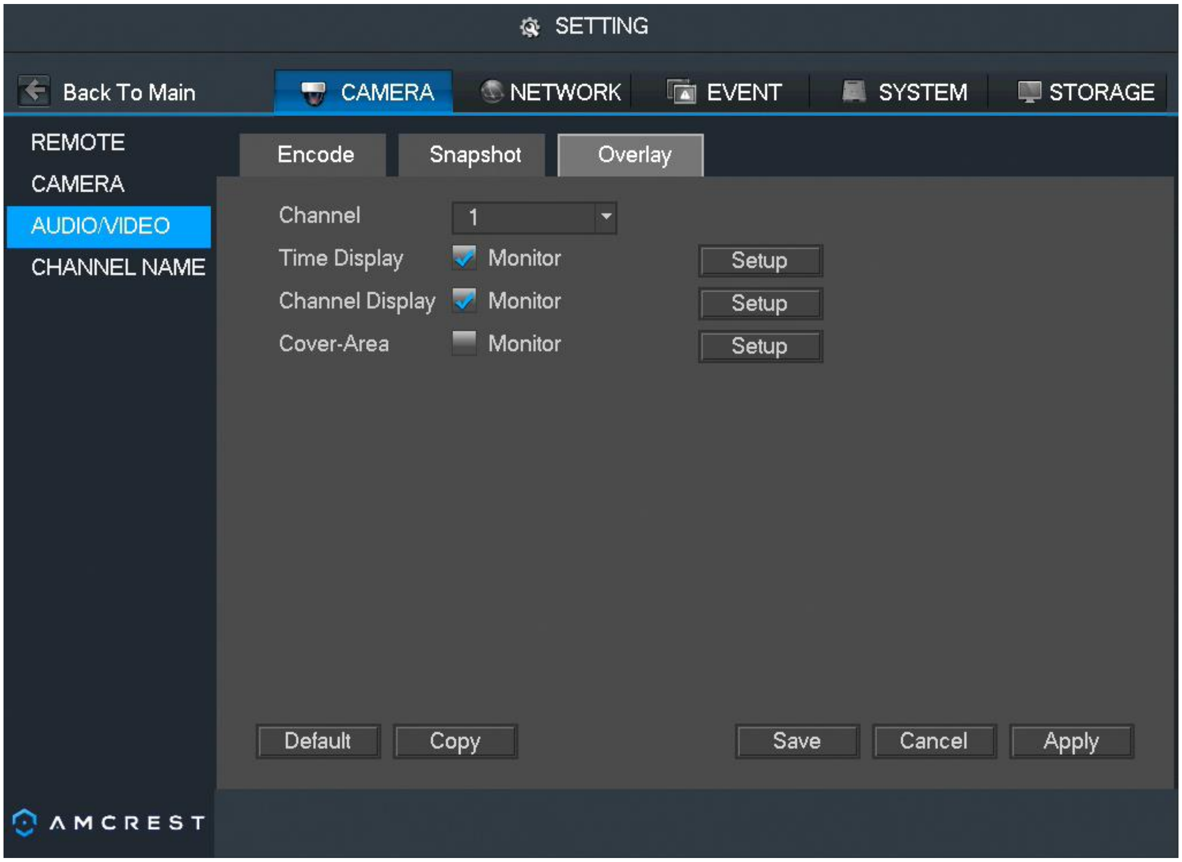
- There are 4 settings: D1, HD1, 2CIF, and CIF.
- Image Quality: This dropdown box allows the user to select image quality. Quality is adjusted on a scale of 110.
- Snapshot Frequency: This dropdown allows the user to select the snapshot interval. The value ranges from 1 to 7 seconds. The maximum setting for a customized interval is 3600s/picture.

To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click the Copy button near the bottom right hand corner. To confirm settings, click the Save button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner. After completing the setup please click the save button to go back to the previous menu.

4.6.3.3. Overlay

The overlay tab allows the user to change overlay settings for each channel.

Below is a screenshot of the overlay tab:



Channel 1
Time Display ☑ Monitor
Channel Display ☑ Monitor
Cover-Area ☐ Monitor

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.
- Cover Area: This button allows the user to set the cover area. Drag the mouse to set the proper section size. The system supports a maximum of 4 zones in one channel.
- Preview/Monitor: There are two types of cover areas
- Preview means the privacy mask zone cannot be viewed by user when system is in preview status.
    - Monitor means the privacy mask zone cannot be viewed by the user when system is in monitor status.
- Time Display: This button allows the user to select whether the system displays time on playback video.

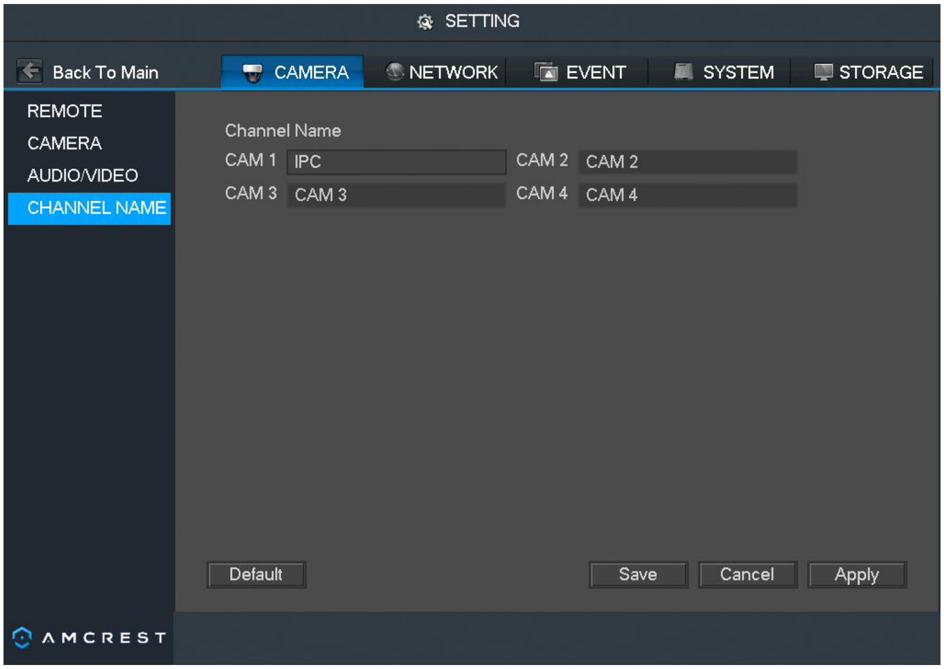
Clicking the set button and allows the user to drag the timestamp to the desired position on the screen.

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

To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click the Copy button near the bottom right hand corner. To confirm settings, click the Save button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner. After completing the setup please click the save button to go back to the previous menu.

4.6.5. Channel Name

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



Channel Name

CAM 1 IPC
CAM 2 CAM 2
CAM 3 CAM 3
CAM 4 CAM 4

To revert to default settings, click the Default button near the bottom left hand corner. To confirm settings, click the Save button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner. After completing the setup please click the save button to go back to the previous menu.

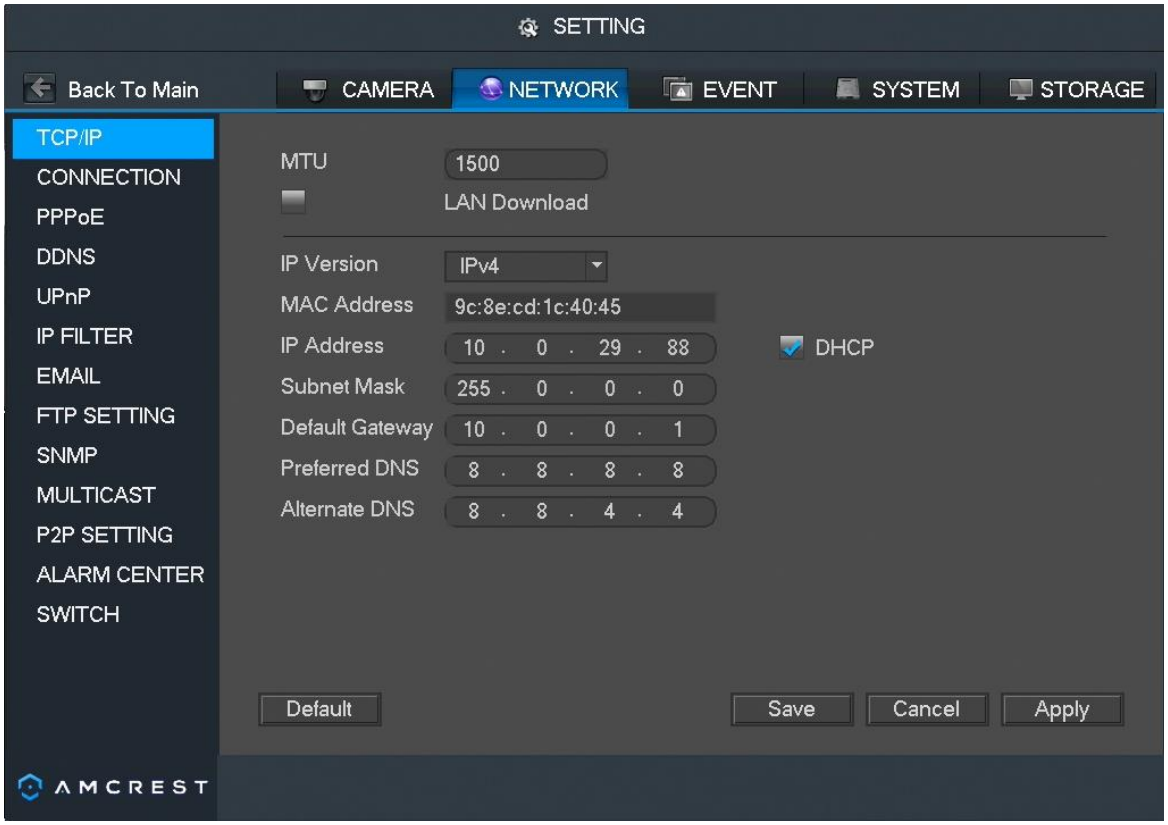
4.7. Network

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

4.7.1 TCP/IP

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

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



MTU 1500

☐ LAN Download

IP Version IPv4

MAC Address 9c:8e:cd:1c:40:45

IP Address 10 . 0 . 29 . 88 ☑ DHCP

Subnet Mask 255 . 0 . 0 . 0

Default Gateway 10 . 0 . 0 . 1

Preferred DNS 8 . 8 . 8 . 8

Alternate DNS 8 . 8 . 4 . 4

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

- MTU: MTU stands for Maximum Transmission Unit. This field allows the user to set the MTU value of the network adapter. The value ranges from 1280-7200 bytes. The default value is 1500 bytes. Please note MTU modification may result in network adapter reboot and the network turning off. MTU modification can affect the current network service. The system may pop up a dialog box to confirm setup when the MTU value is changed. Click the OK button to confirm current value and reboot or can click the Cancel button to terminate the current modification. Before the modification, you can check the MTU of the gateway; the MTU of the NVR should be the same or lower than the MTU of the gateway. This way, packets can be reduced, and the network transmission efficiency be enhanced. The following MTU values are for reference only.
  1500: Ethernet information packet maximum value and it is also the default value. It is the typical setup when there is no PPPoE or VPN. It is the default setup of some routers, switches, and network adapters.
  1492: Recommend value for PPPoE
  1468: Recommend value for DHCP.

Preferred DNS server: This field allows the user to enter the DNS server IP address.
Alternate DNS server: This field allows the user to enter the Alternate DNS server IP address.
LAN download: This checkbox allows the user to enable the user to process the downloaded data first. The download speed is 1.5X or 2.0X compared to the normal streaming speed.

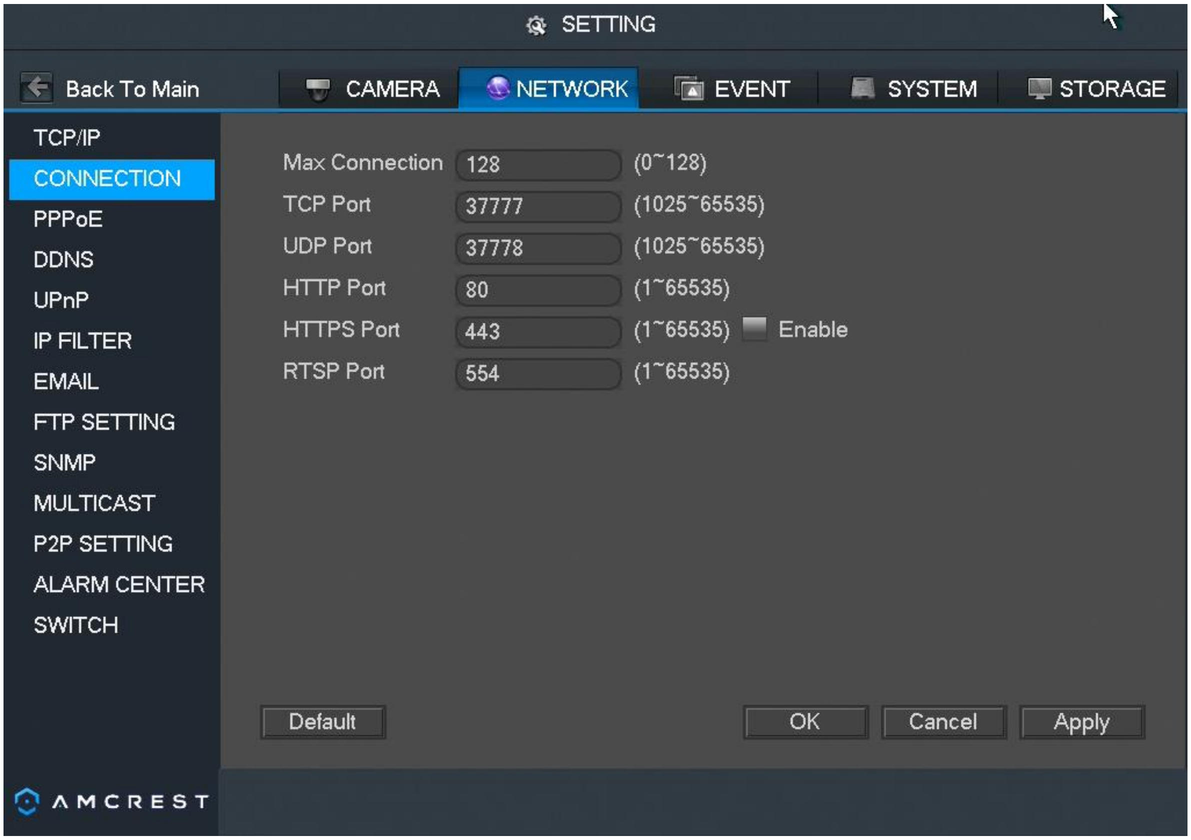
- IP Version: This dropdown allows the user to select the IP version. The two options are IPV4 and IPV6.
- MAC address: This field shows the NVR's MAC address, which is unique to this device. This number is read-only and is used to access a local area network (LAN).
- Static vs DHCP: This check box allows the user to choose between a static IP address, and a dynamic IP address. DHCP stands for Dynamic Host Configuration Protocol, and this enables the NVR to automatically obtain an IP address from another network device such as a server or more commonly, a router. When the DHCP function is enabled, the user cannot modify the IP address, Subnet Mask, or Gateway, as these values are obtained from the DHCP function. To view the current IP address, DHCP needs to be disabled. Note: When PPPoE is enabled, modification of IP Address, Subnet Mask, and Gateway becomes prohibited.
- IP Address: This field allows the user to enter a custom IP address.
- Subnet Mask: This field allows the user to enter a custom subnet mask. The default subnet mask is 255.255.255.0. This number is used to determine which subnetwork the IP address belongs to.
- Default Gateway: This field allows the user to enter the default gateway for the network. The default gateway should be on the same IP subnet as the NVR's IP. 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.

To revert to default settings, click the Default button near the bottom left hand corner. To confirm settings, click the Save button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner. After completing the setup please click the save button to go back to the previous menu.

4.7.2. Connection

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

Below is a screenshot of the connection screen:



Max Connection 128 (0~128)
TCP Port 37777 (1025~65535)
UDP Port 37778 (1025~65535)
HTTP Port 80 (1~65535)
HTTPS Port 443 (1~65535) ☐ Enable
RTSP Port 554 (1~65535)

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

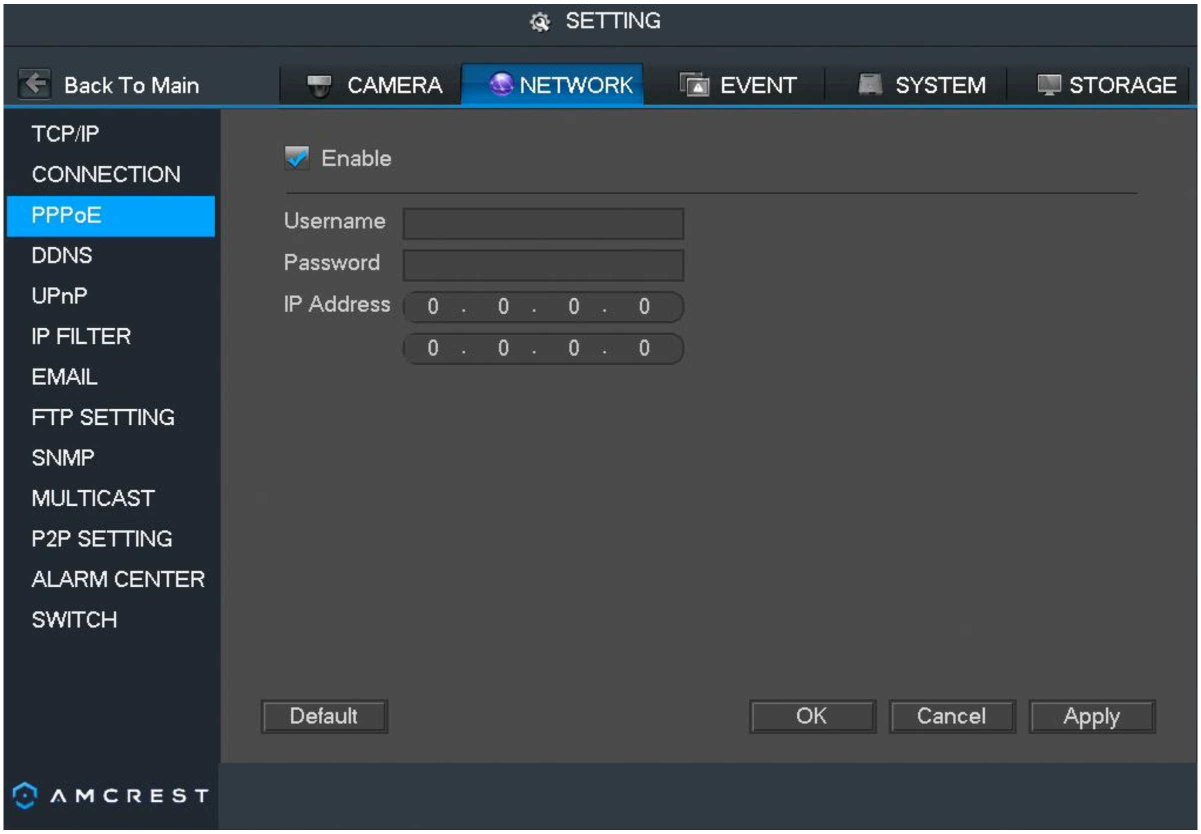
- Maximum Connection: This field represents the maximum number of users that can be connected to the NVR at the same time. The maximum number of users the NVR can support at one time is 128.
- TCP Port: This field designates the Transmission Control Protocol (TCP) port number. The default value is 37777.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

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

To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click the Copy button near the bottom right hand corner. To confirm settings, click the Save button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner. After completing the setup please click the save button to go back to the previous menu.

4.7.3. PPPoE

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



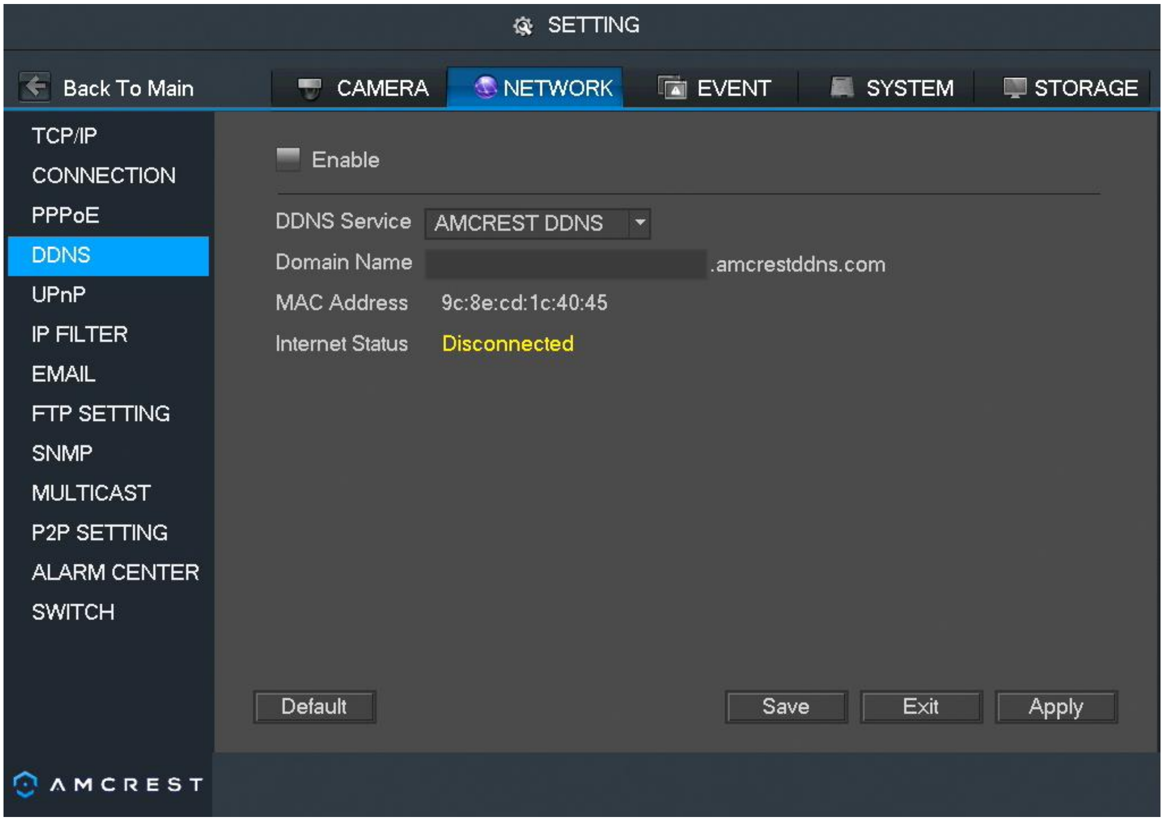
☑ Enable
Username
Password
IP Address 0 . 0 . 0 . 0
0 . 0 . 0 . 0

To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click the Copy button near the bottom right hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner. After completing the setup please click the save button to go back to the previous menu.

4.7.4 DDNS

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

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



☐ Enable
DDNS Service: AMCREST DDNS
Domain Name: .amcrestddns.com
MAC Address: 9c:8e:cd:1c:40:45
Internet Status: Disconnected

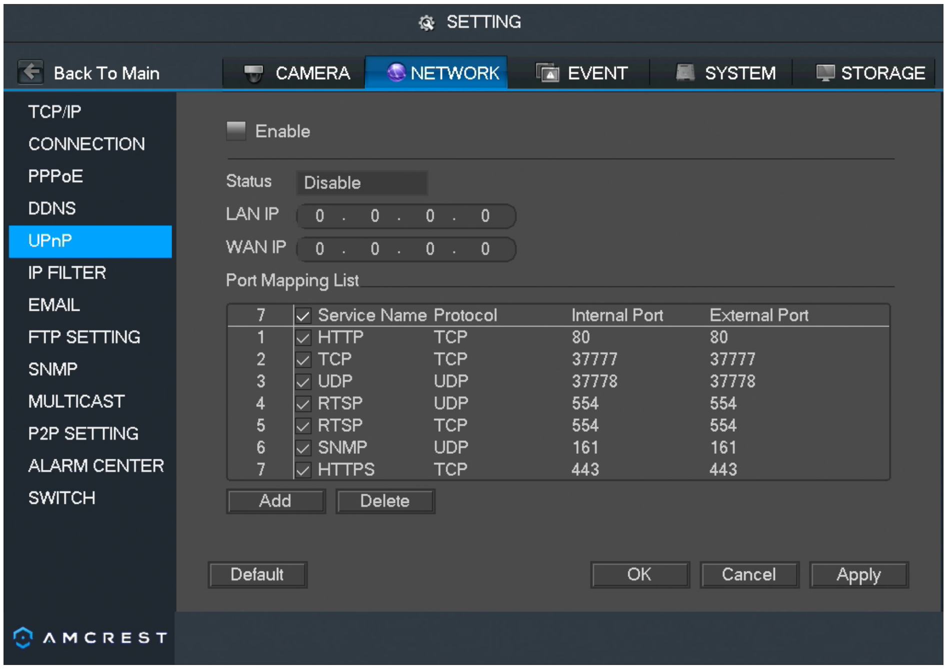
Below is an explanation of the fields that can be configured on DDNS settings screen when set to AmcrestDDNS type. Fields with a '*' next to them appear when AmcrestDDNS is selected:

- Enable: This checkbox allows the user to enable DDNS on the NVR.
- DDNS Type: This dropdown box allows the user to select which DDNS service is being used on the NVR.
- *Server IP: This field allows the user to enter the IP address for the server used by the specific DDNS service.
For AmcrestDDNS, the default address is www.AmcrestDDNS.com
- *Domain Mode: This radio button allows the user to choose a custom domain names, or the default one generated by the AmcrestDDNS system.
- *Domain Name: This field allows the user to enter the domain name from the AmcrestDDNS service.
- *Email Address: This field allows the user to enter the email address associated with the AmcrestDDNS account.

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

4.7.5 UPNP

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



☐ Enable

Status Disable
LAN IP 0 . 0 . 0 . 0
WAN IP 0 . 0 . 0 . 0

Port Mapping List

7	☑ Service Name	Protocol	Internal Port	External Port
1	☑ HTTP	TCP	80	80
2	☑ TCP	TCP	37777	37777
3	☑ UDP	UDP	37778	37778
4	☑ RTSP	UDP	554	554
5	☑ RTSP	TCP	554	554
6	☑ SNMP	UDP	161	161
7	☑ HTTPS	TCP	443	443

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.
- UPnP Status: This field shows the UPnP status and has two options:
- Unknown: This means that UPnP is offline.
- Successful: This means that UPnP is working.
- Router LAN IP: This field allows the user to enter the IP address of the router that the NVR is trying to connect to.
- WAN IP: This field is where the NVR Wide Area Network (WAN) IP is populated. This IP address is what is used to remotely access the NVR through web access.

PAT Table: This table is used to show how the ports for each protocol listed below have been remapped by the UPnP protocol.

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

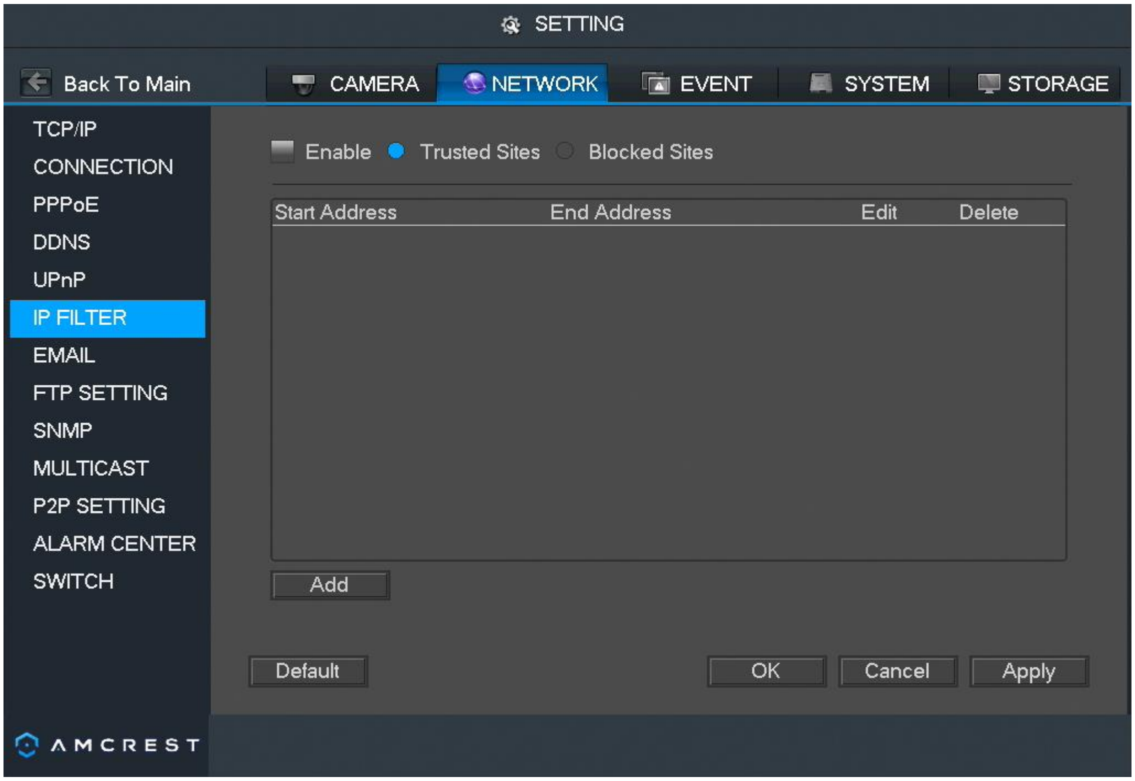
To revert to default settings, click the Default button near the bottom left hand corner. To add a service to the list, click Add Service near the bottom left hand corner. To delete a service, click Delete near the bottom left hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

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

4.7.6. IP Filter

This screen allows for the filtering of IP addresses, either blocking them, or granting them access to the NVR. This feature can also be located in the **System** tab as **Security** on some models. For more information on the features listed in the System tab, refer to *section 4.9 System.*

This feature helps make the NVR more secure by limiting remote access only to approved users. Below is a screenshot of the IP Filter screen:



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

- Enable: This checkbox allows the user to enable the IP Filter feature. Many of the other fields below cannot be edited if this checkbox is not checked.
- Type: This dropdown box allows the user to select an IP address type. There are two types of IP addresses that can be used by this feature. Only one of them can be activated at a time.
  - Trusted Sites: This setting allows the user to enter trusted IP addresses. All other addresses will be blocked.
  - Blocked Sites: This setting allows all IP addresses, but blocks the ones that are specified.
- Start Address/End Address: This field allows the user to enter IP addresses, and depending on which button is clicked, it can either add a single IP address, or a section of IP addresses to the IP Filter list. ○ The NVR can support a maximum of 64 IP addresses on this list.
  - Newly added IP addresses are enabled by default but can be disabled or added to the block list. If the system is in trusted sites mode, select the IP address, and delete it to remove it from the list. If the system is in blocked sites mode, add the IP address to the blocked sites list to prevent that IP from getting access.
  - The IP address column supports both IPV4 and IPV6 IP address formats. For IPV6 addresses, the system can optimize them to make the addresses more readable.
    - aa:0000: 00: 00aa: 00aa: 00aa: 00aa: 00aa can be optimized to aa:: aa: aa: aa: aa: aa: aa

IP addresses automatically have spaces before or after the address removed as they are entered.

For adding a single IP, enter it in the Start Address field. For entering in a section of IP addresses, enter in IP addresses in both fields, ensuring that the larger number IP address is in the End Address field.

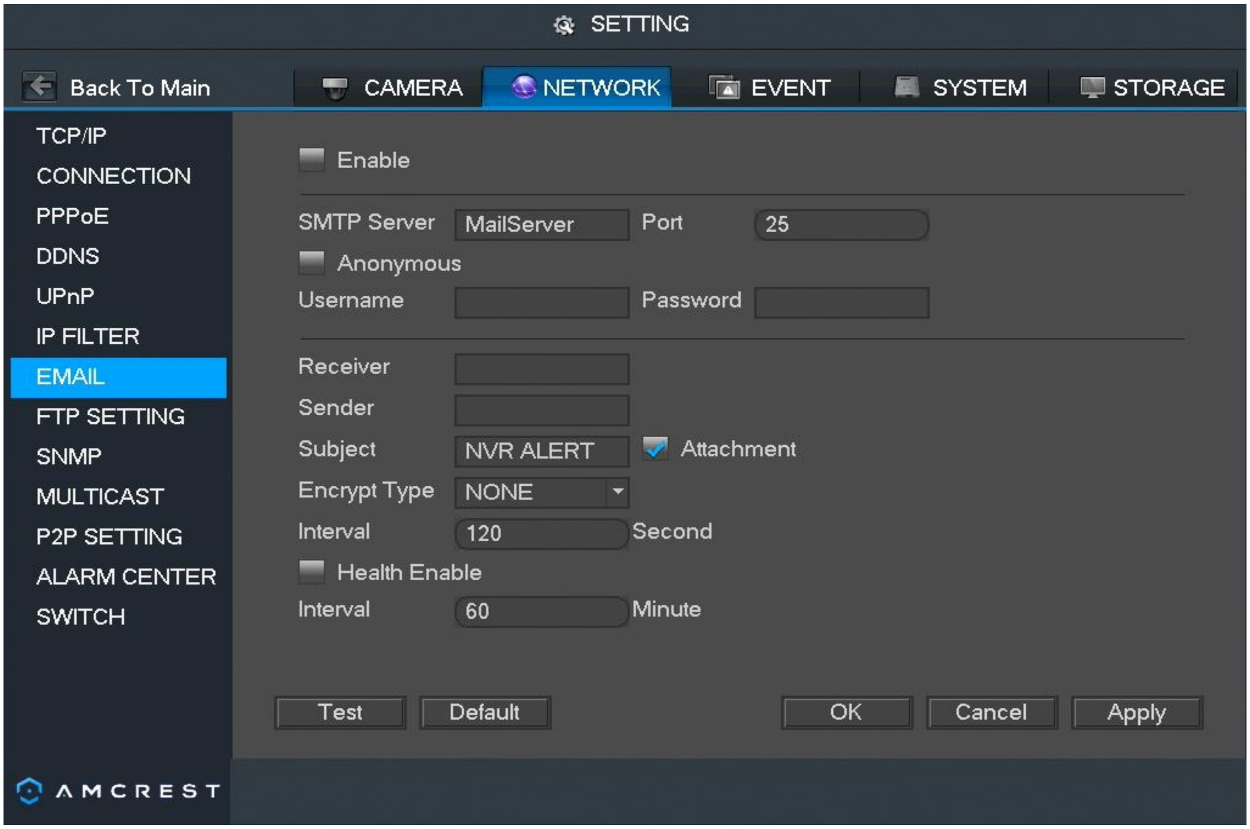
Note: The system also supports the adding of MAC addresses.

Delete: This button allows a user to remove a specific IP address from the IP Filter list.
Edit: This button allows a user to edit start or end addresses.

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

4.7.7. Email

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



☐ Enable

SMTP Server MailServer Port 25

☐ Anonymous

Username Password

Receiver

Sender

Subject NVR ALERT ☑ Attachment

Encrypt Type NONE

Interval 120 Second

☐ Health Enable

Interval 60 Minute

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

- Enable: This checkbox allows the user to enable the email feature.
- SMTP Server: SMTP stands for Simple Mail Transfer Protocol. This field allows the user to enter the SMTP server used by the email service.
- Port: This field allows the user to enter the port that corresponds to the selected SMTP server.
- User Name: 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 NVR.
- Receiver: This field allows the user to enter the receiver email address. These email addresses are the ones that will receive any emails pertaining to alert and alarm emails sent by the NVR. Up to 3 email addresses can be entered in this field.
- Subject: This field allows the user to define the subject line of the email that is sent to the receivers.
- Attachment: This checkbox allows the user to enable the attachment of screenshots with emails.
- Encrypt Type: This dropdown box allows the user to select an encryption type. There are two types of email encryption that are available
- SSL: Secure Socket Layer
- TLS: Transport Layer Security

Event Interval: This field allows the user to define, in seconds, how many events can be triggered concurrently.

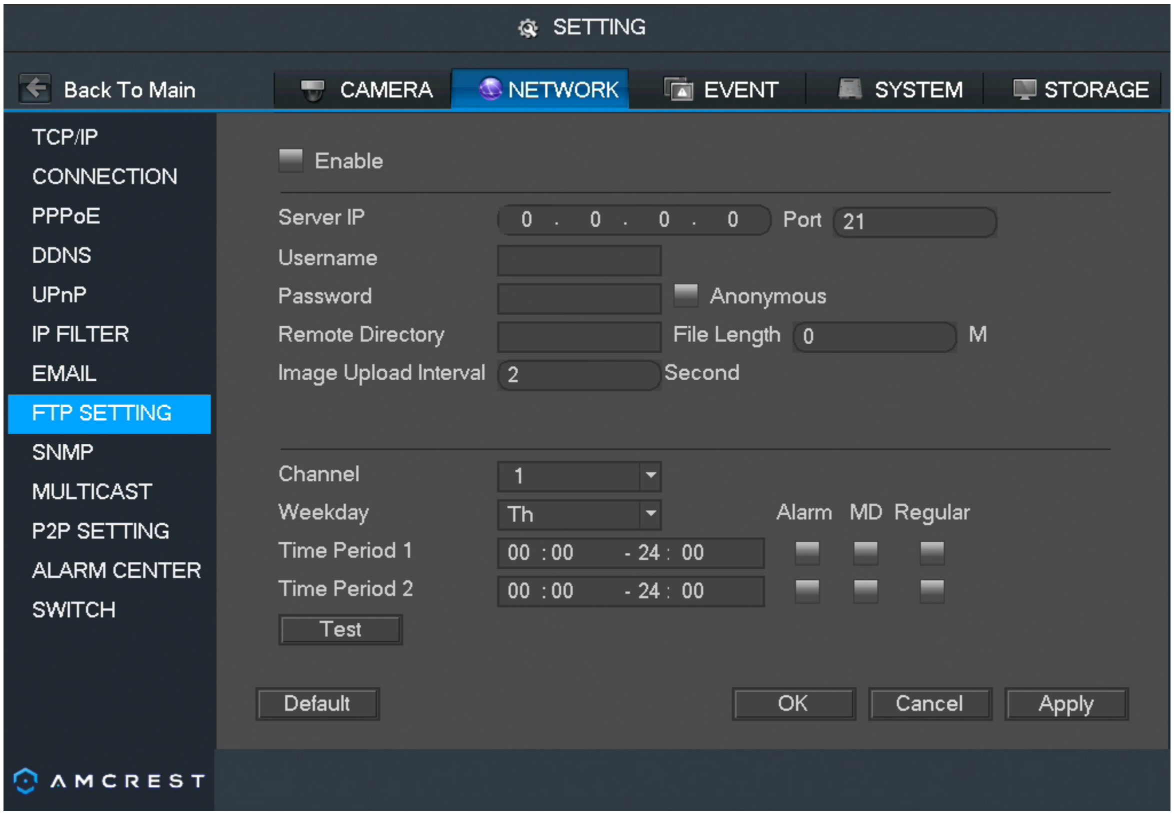
- Health Enable: This checkbox allows the user to enable the function that causes the system to send out a test email to ensure if the connection is OK or not.
- Interval: This field allows the user to define, in minutes, how often emails can be sent by the system. This helps to curb heavy load on the email server when multiple events are occurring.

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

4.7.8. FTP Setting

FTP stands for File Transfer Protocol. This protocol allows for remote uploading of files to a server. This feature requires the use of an FTP tool on a computer to enable the use of FTP features on the NVR. This feature can also be located in the **System** tab on some models as **FTP.** For more information see *section 4.9 System.*

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



☐ Enable

Server IP 0 . 0 . 0 . 0 Port 21

Username

Password ☐ Anonymous

Remote Directory File Length 0 M

Image Upload Interval 2 Second

Channel 1

Weekday Th Alarm MD Regular

Time Period 1 00 : 00 - 24 : 00 ☐ ☐ ☐

Time Period 2 00 : 00 - 24 : 00 ☐ ☐ ☐

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

- Enable: This checkbox allows the user to enable the FTP feature for the NVR.
- Server IP: This field allows the user to enter the FTP server IP address and port.
- User Name: This field allows the user to enter the FTP username.
- Password: This field allows the user to enter the FTP server password. The checkbox next to this field enables anonymous access to the FTP.
- Remote Directory: This field allows the user to designate which folder the NVR will upload files to.
- File Length: This field allows the user to dictate how large upload files can be.
- Image Upload Interval: This field allows the user to define, in seconds, how often images can be uploaded to the FTP server.
- Channel: This field allows the user to pick a channel to set FTP settings for.
- Weekday: This field allows the user to pick a day of the week to set FTP settings for.

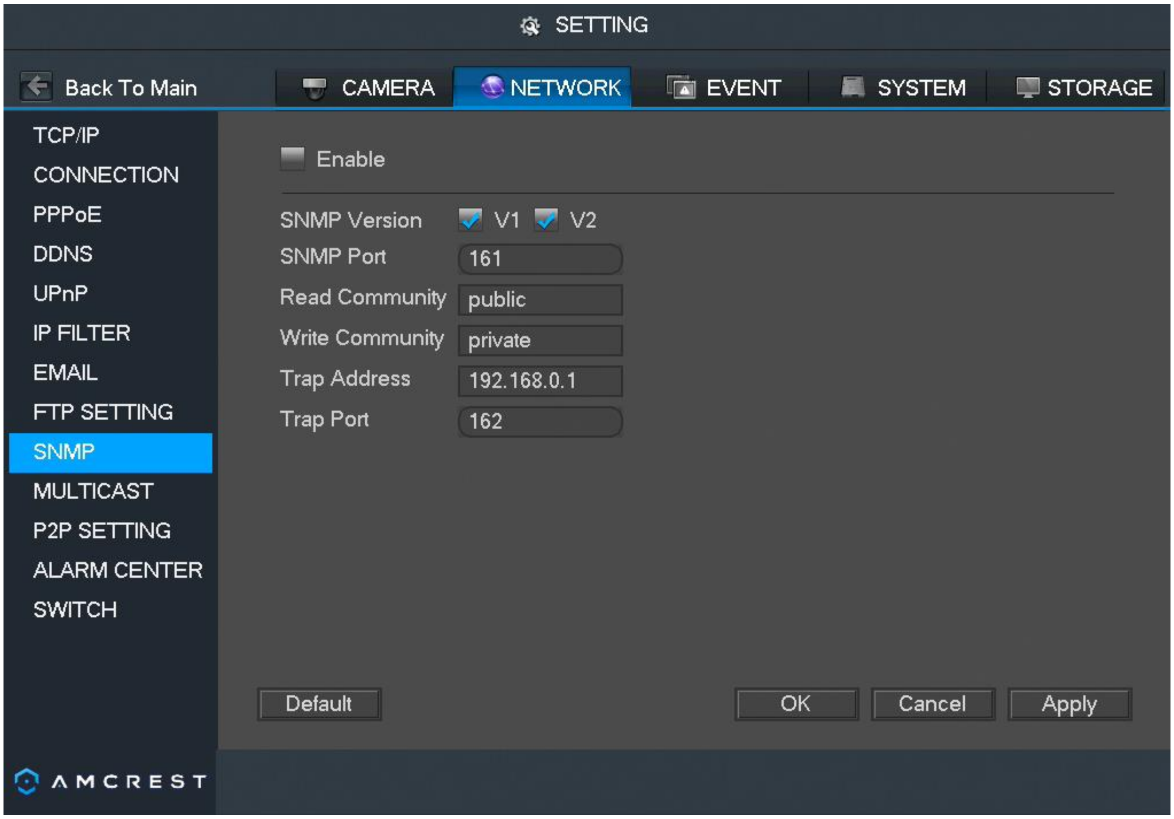
Time Period 1: This field allows the user to specify a time period and what types of files to upload (Alarm, Motion, Regular).

- Time Period 2: This field allows the user to specify a time period and what types of files to upload (Alarm, Motion, Regular).

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

4.7.9. SNMP

SNMP is an abbreviation of Simple Network Management Protocol. It provides the basic network management frame of the network management system. SNMP is widely used in many environments. It is used in many network devices, software, and systems. Below is a screenshot of the interface:



☐ Enable

SNMP Version ☑ V1 ☑ V2
SNMP Port 161
Read Community public
Write Community private
Trap Address 192.168.0.1
Trap Port 162

Please enable the SNMP function. Use the corresponding software tool (MIB Builder and MG-SOFT MIB Browser. You still need two MIB files: BASE-SNMP-MIB, NVR-SNMP-MIB) to connect to the device. You can get the device's corresponding configuration information after successfully connecting. Please follow the steps listed below to configure.

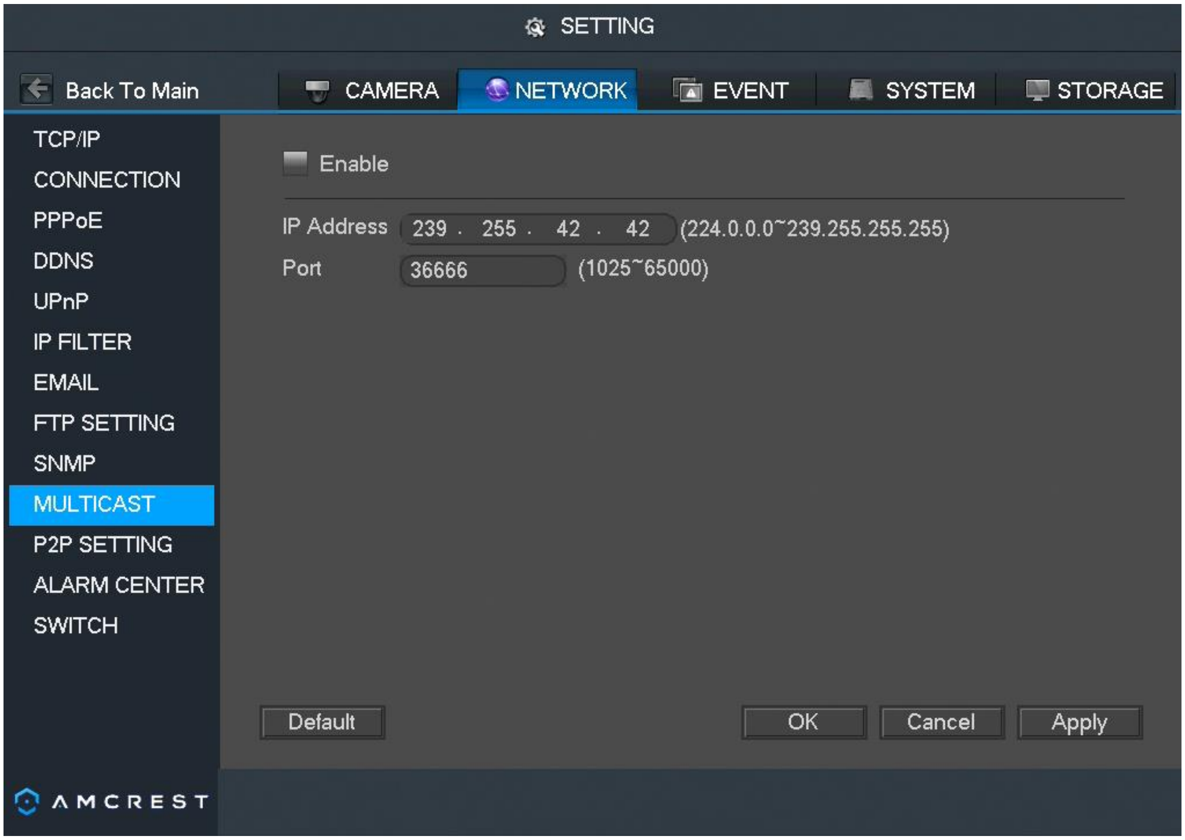
★ In Figure 4-107, check the box to enable the SNMP function. Input the IP address of the PC than is running the software in the Trap address. You can use default setup for the remaining items.
★ Compile the above mentioned two MIB file via the software MIB Builder.

- ★ Run the MG-SOFT MIB Browser to load the file from the previous step to the software.
- ★ Input the device IP you want to manage in the MG-SOFT MIB Browser. Please set the corresponding version for your future reference.
- ★ Open the tree list on the MG-SOFT MIB Browser to get the device configuration. Here you can see the device information such as how many video channels, audio channels, application version, etc.

Note: A port conflict occurs when SNMP port and Trap port are the same.

4.7.10. Multicast

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



☐ Enable

IP Address 239 . 255 . 42 . 42 (224.0.0.0~239.255.255.255)

Port 36666 (1025~65000)

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

- Enable: This checkbox allows the user to enable the Multicast feature for the NVR.
- IP Address: This field allows the user to enter the multicast IP address.
- Port: This field allows the user to enter the port number for the multicast IP address.

For more information on how to configure multicast, see the information below.

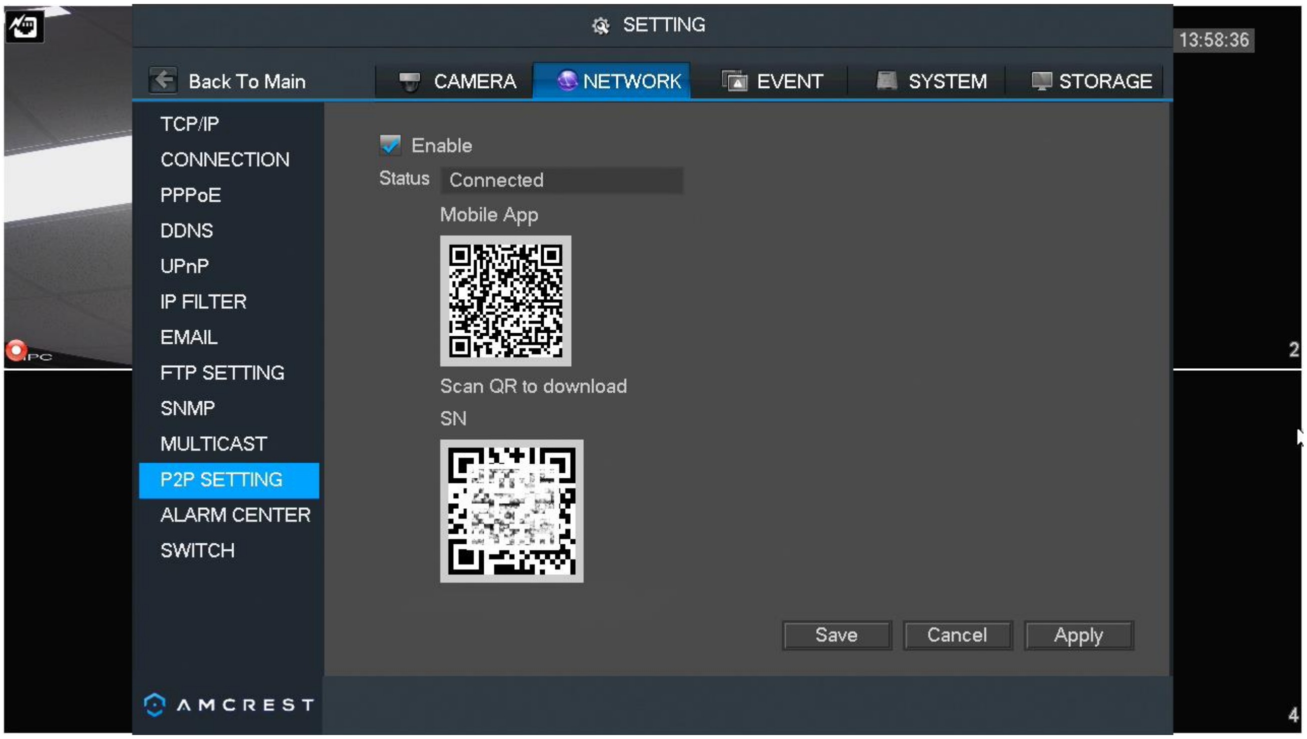
Multicast IP Address Range (IPV4): 224.0.0.0 through 239.255.255.255

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

To revert to default settings, click the Default button near the bottom left hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

4.7.11. P2P Setting

The P2P settings screen can also be labeled as simply **P2P** in some models. It is where users can use a QR code to connect their smartphone or tablet to the NVR. The HDCVI uses an app called Amcrest View, and it is available on both iOS and Android. Below is a screenshot of the P2P settings screen:



☑ Enable

Status Connected

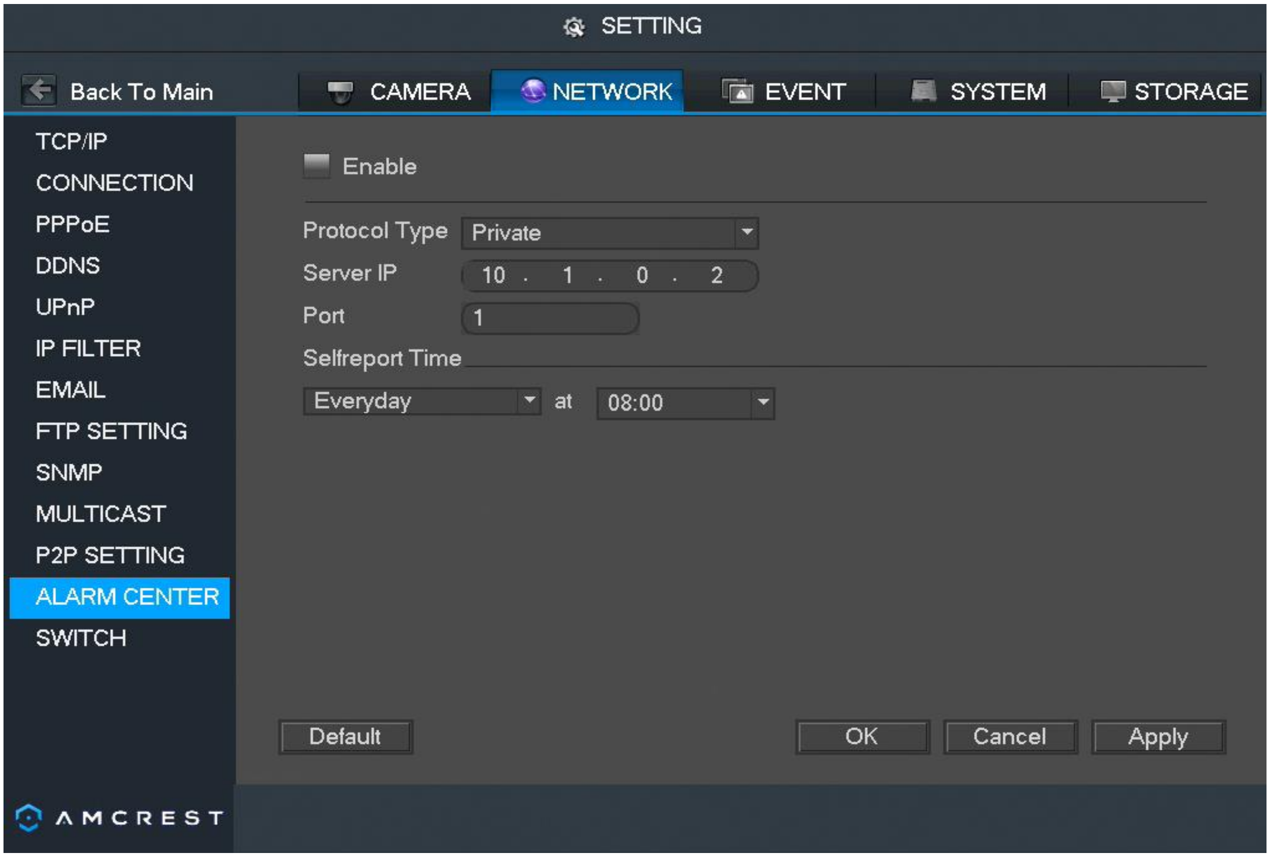
Below is an explanation of the fields on the P2P settings screen:

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

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

4.7.12. Alarm Center

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



☐ Enable

Protocol Type: Private
Server IP: 10 . 1 . 0 . 2
Port: 1
Selfreport Time
Everyday at 08:00

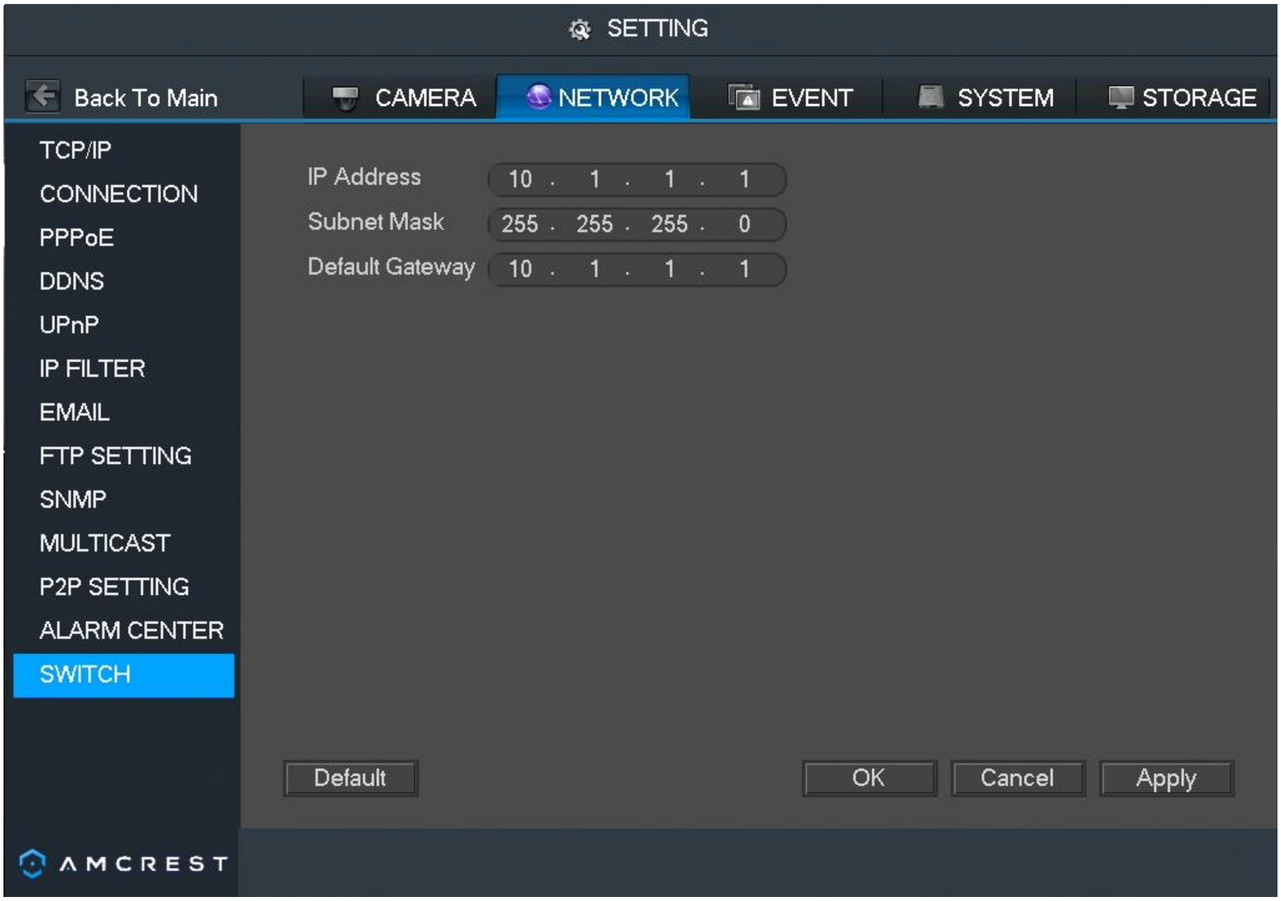
Below is an explanation of the fields on the Alarm Center settings screen:

- Enable: This checkbox allows the user to enable the Alarm Center feature for the NVR.
- Protocol Type: This field allows the user to select which protocol type they want to use for the alarm. Currently, only the private protocol type is available.
- Server IP: This field allows the user to enter the IP address of the alarm server.
- Port: This field allows the user to enter the port number of the alarm server.
- Self-Report Time: This field allows the user to enter a time of the day when they want to receive a report about the NVR's connection to the network each day.

To revert to default settings, click the Default button near the bottom left hand corner. To confirm settings, click the Save button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

4.7.13. Switch

This is for you to set the IP address, subnet mask, gateway, etc. of the Switch. Below is a screenshot of the switch interface:



IP Address 10 . 1 . 1 . 1
Subnet Mask 255 . 255 . 255 . 0
Default Gateway 10 . 1 . 1 . 1

Below is an explanation of each feature in this menu:

- IP Address: This displays the IP address that is associated with the switch
- Subnet Mask: Displays information pertaining to the subnet mask associated with the switch.
- Default Gateway: Displays the default gateway information that is associated with the switch.

4.8. Event

4.8.1. Detect

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

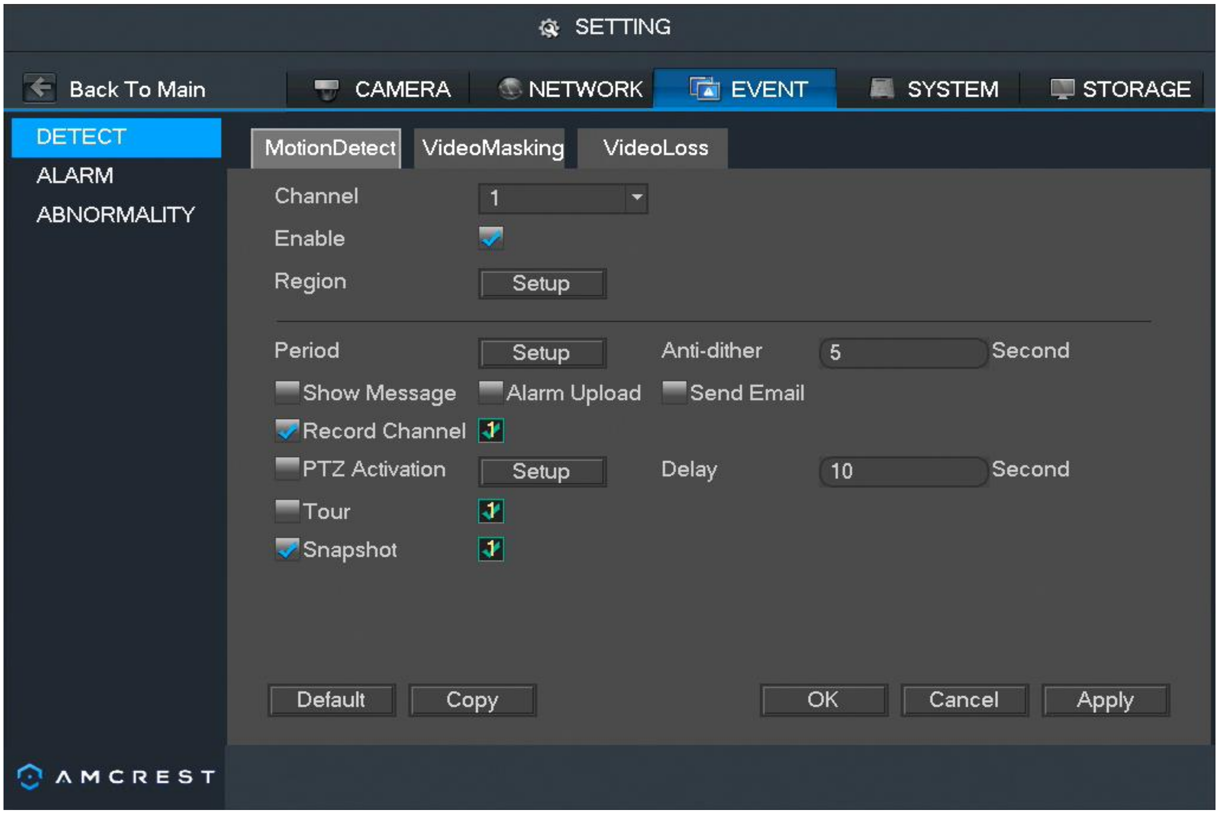
Tips:

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

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

4.8.1.1. Motion Detect

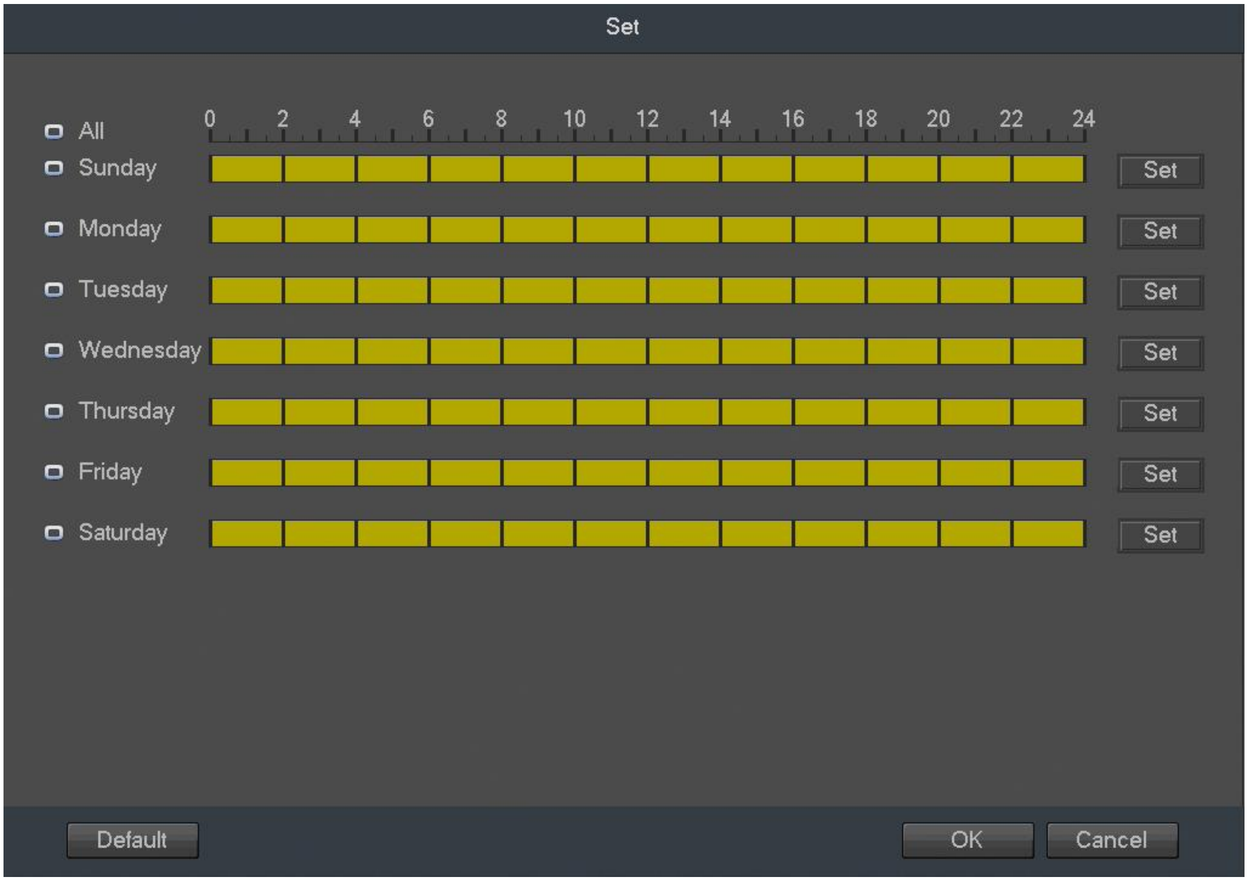
The motion detection settings screen is where motion detection can be setup for each individual channel. Based on the active motion detection region, the NVR can generate a motion detection alarm when a moving signal is detected in a specified area. Below is a screenshot of the motion detection settings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



Channel 1
Enable ☑
Region Setup
Period Setup
Anti-dither 5 Second
☐ Show Message
☐ Alarm Upload
☐ Send Email
☑ Record Channel
☐ PTZ Activation Setup
Delay 10 Second
☐ Tour
☑ Snapshot

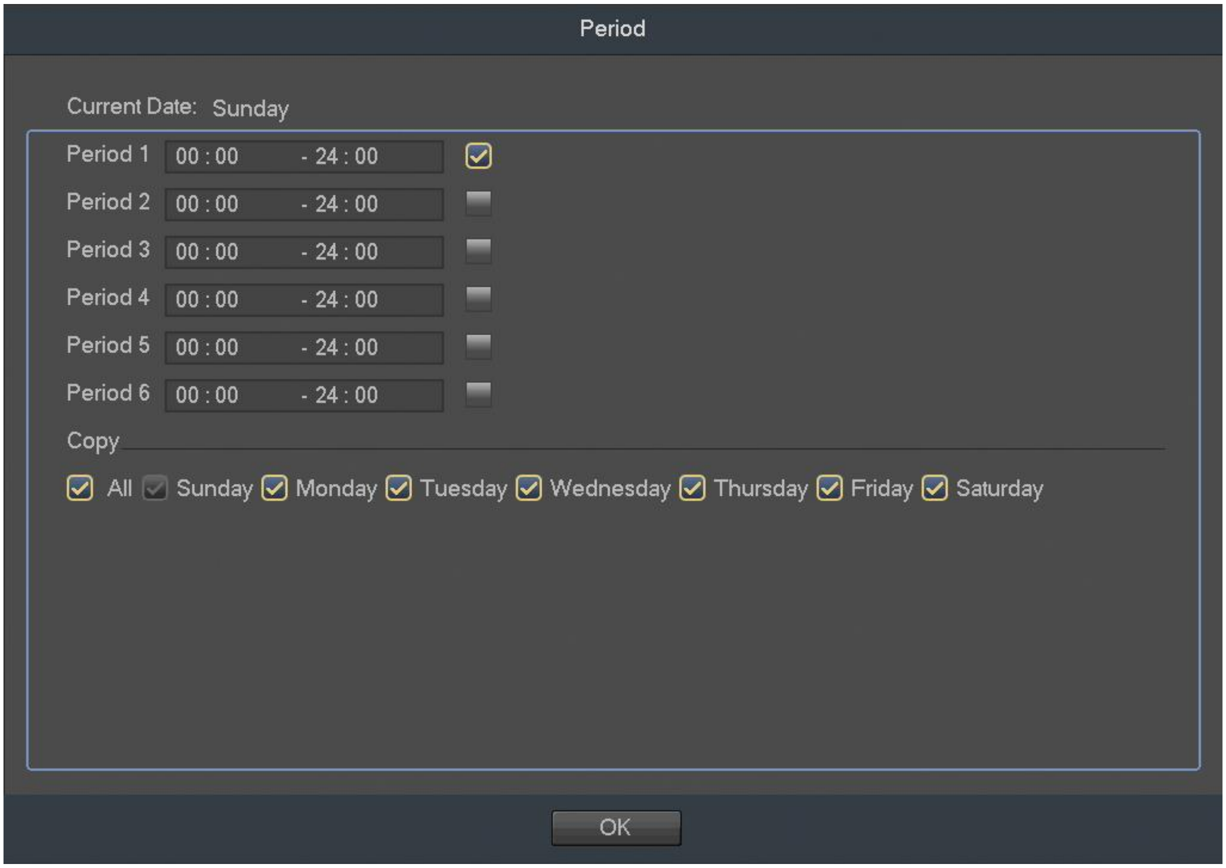
Below is a description of the fields on the Motion Detection settings page:

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



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

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



Period

Current Date: Sunday

Period 1 00 : 00 - 24 : 00 ☑

Period 2 00 : 00 - 24 : 00 ☐

Period 3 00 : 00 - 24 : 00 ☐

Period 4 00 : 00 - 24 : 00 ☐

Period 5 00 : 00 - 24 : 00 ☐

Period 6 00 : 00 - 24 : 00 ☐

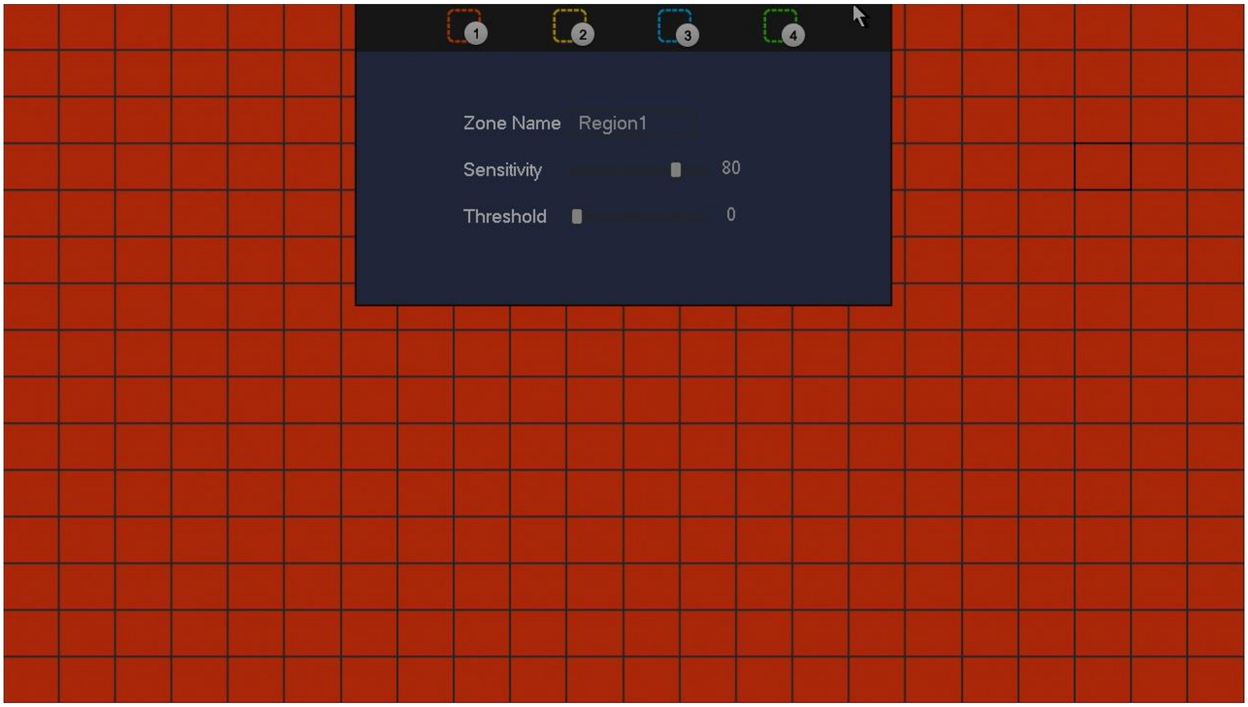
Copy

☑ All ☑ Sunday ☑ Monday ☑ Tuesday ☑ Wednesday ☑ Thursday ☑ Friday ☑ Saturday

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

- **Anti-Dither:** This field allows the user to set the anti-dither time. The values in this field can range from 5 to 600 seconds. This time value controls how long the alarm signal lasts. Based on motion detection, a buzzer can go off, a tour can begin, PTZ can be activated, a snapshot can be taken, or a channel can begin recording.
  - For example, if the anti-dither time is set to 10 seconds, each alarm may last 10 seconds if the local alarm is activated. During the process, if the system detects another local alarm signal at the fifth second, the buzzer, tour, PTZ activation, snapshot, record channel functions will begin another 10 seconds while the screen prompt, alarm upload, email will not be activated again. After 10 seconds, if system detects another alarm signal, it can generate a new alarm since the anti-dither time has expired.

- **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.


Zone Name Region1

Sensitivity 80

Threshold 0

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

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

The lower the threshold, the more likely that motion will trigger an alarm.

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

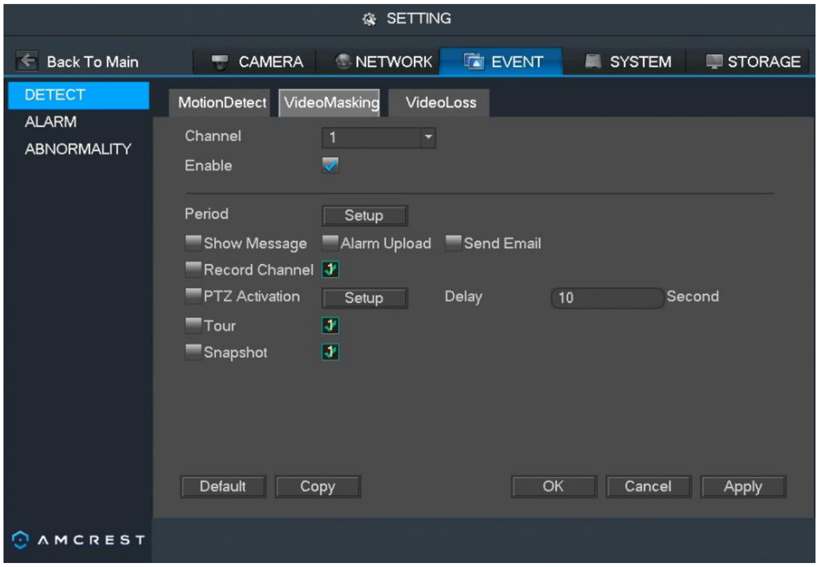
- **Record Channel:** This checkbox allows the user to enable the system to record video for that channel when a motion detection alarm is triggered. Delay is also associated with this tab, it is the This field specifies in seconds how long the delay between alarm activation and recording should be.

- **PTZ Activation:** Allows the user to active PTZ functionality to applicable PTZ devices.
- **Delay:** Allows the user to set a delay in between motion event activation.
- **Tour:** Allows the user to enable the camera to activate a PTZ tour when a motion detection alarm is triggered.
- **Snapshot: A**llows the user to enable the camera to take a snapshot when a motion detection alarm is triggered.
- **Voice Prompts:** Allows the user to customize voice prompts for motion detected events.
- **Show Message:** This checkbox allows the user to enable the system to show an on-screen message when a motion detection alarm is triggered.
- **Send Email:** This checkbox allows the user to enable the system to send an email when a motion detection alarm is triggered.
- **Buzzer:** Allows the user to trigger a buzzer once a motion event is detected.
- **Log:** Allows the user to log all motion detected events that are triggered in the device.
- **Alarm Upload:** This checkbox allows the user to enable the system to upload alarm information when a motion detection alarm is triggered.

To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click Copy near the bottom left hand corner. To test a channel's motion detection, click Test near the bottom left hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

4.8.1.2. Video Masking

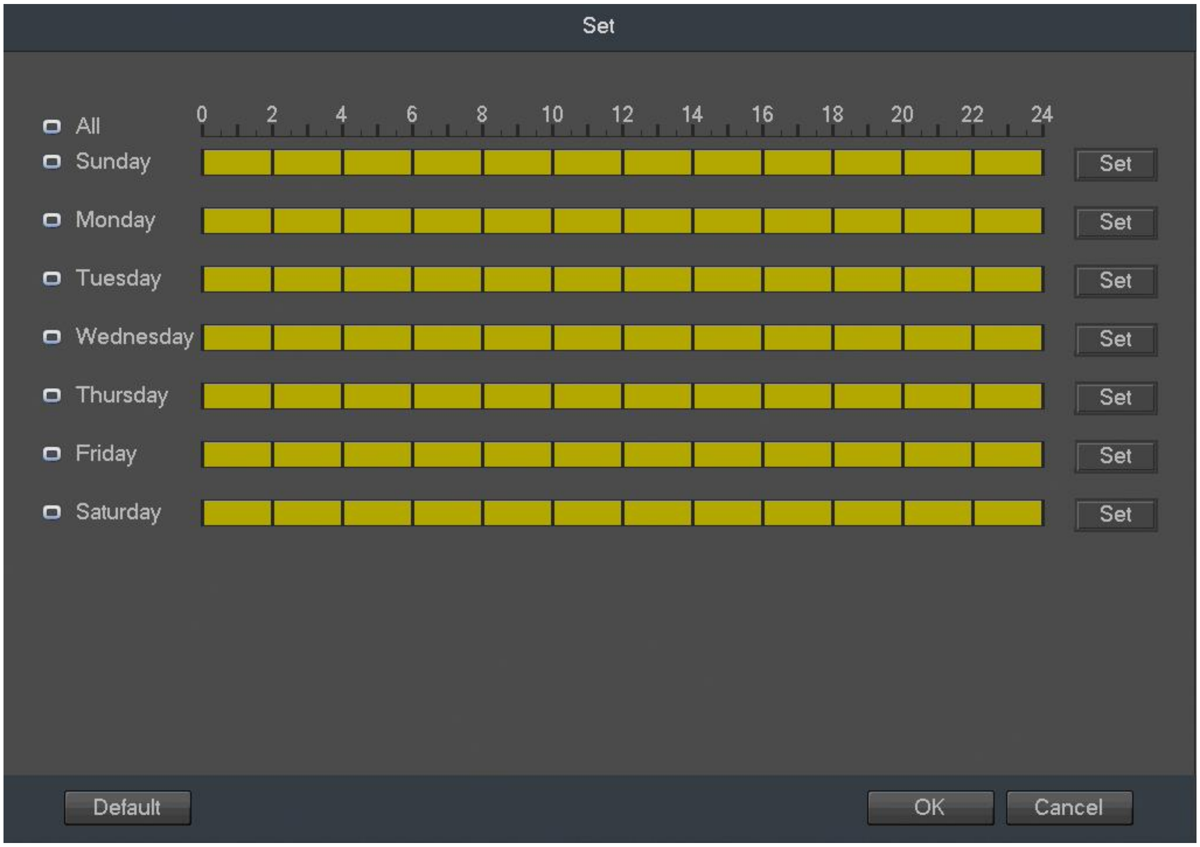
The video masking settings screen can also be labeled as Camera Masking on some models. The masking menu allows users to setup notifications for any time a camera is tampered with or if the output video is only displaying in one color. Below is a screenshot of the video masking (Camera Masking) settings screen:



Channel 1
Enable ☑
☐ Show Message ☐ Alarm Upload ☐ Send Email
☐ Record Channel
☐ PTZ Activation Delay 10 Second
☐ Tour
☐ Snapshot

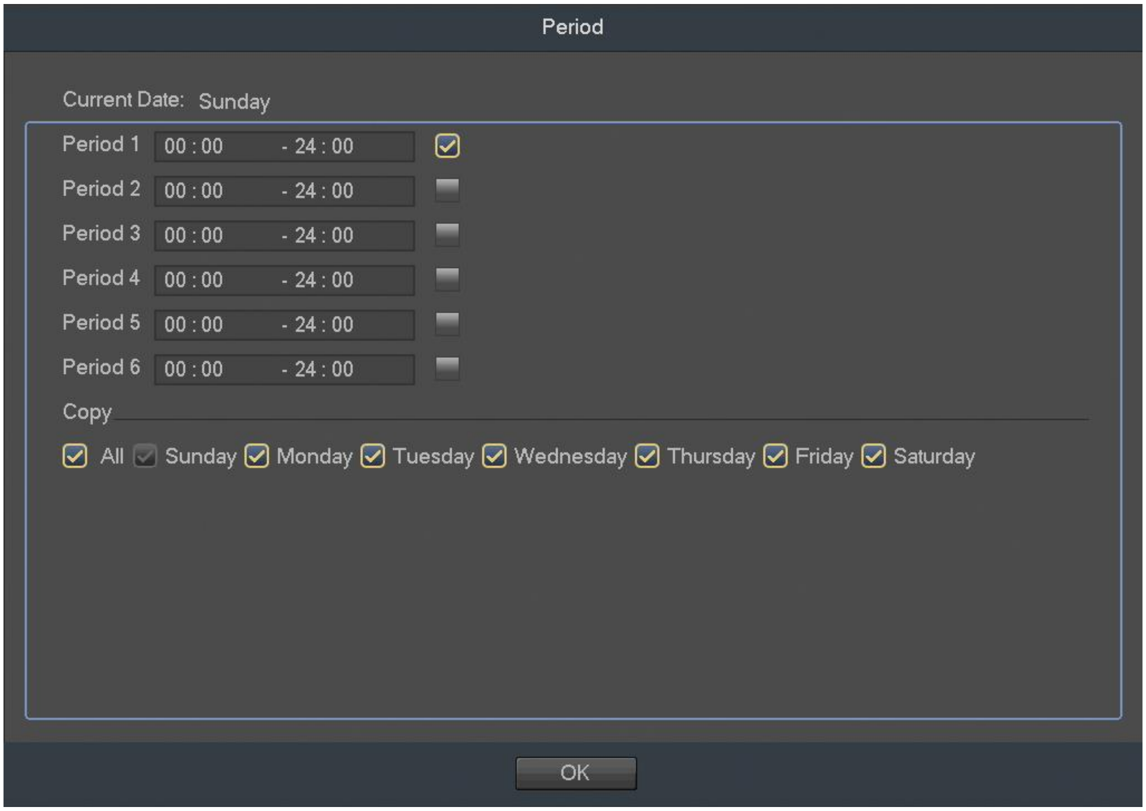
Below is a description of the fields on the masking settings page:

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



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

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



Current Date: Sunday

Period 1 00 : 00 - 24 : 00 ☑

Period 2 00 : 00 - 24 : 00 ☐

Period 3 00 : 00 - 24 : 00 ☐

Period 4 00 : 00 - 24 : 00 ☐

Period 5 00 : 00 - 24 : 00 ☐

Period 6 00 : 00 - 24 : 00 ☐

Copy

☑ All ☑ Sunday ☑ Monday ☑ Tuesday ☑ Wednesday ☑ Thursday ☑ Friday ☑ Saturday

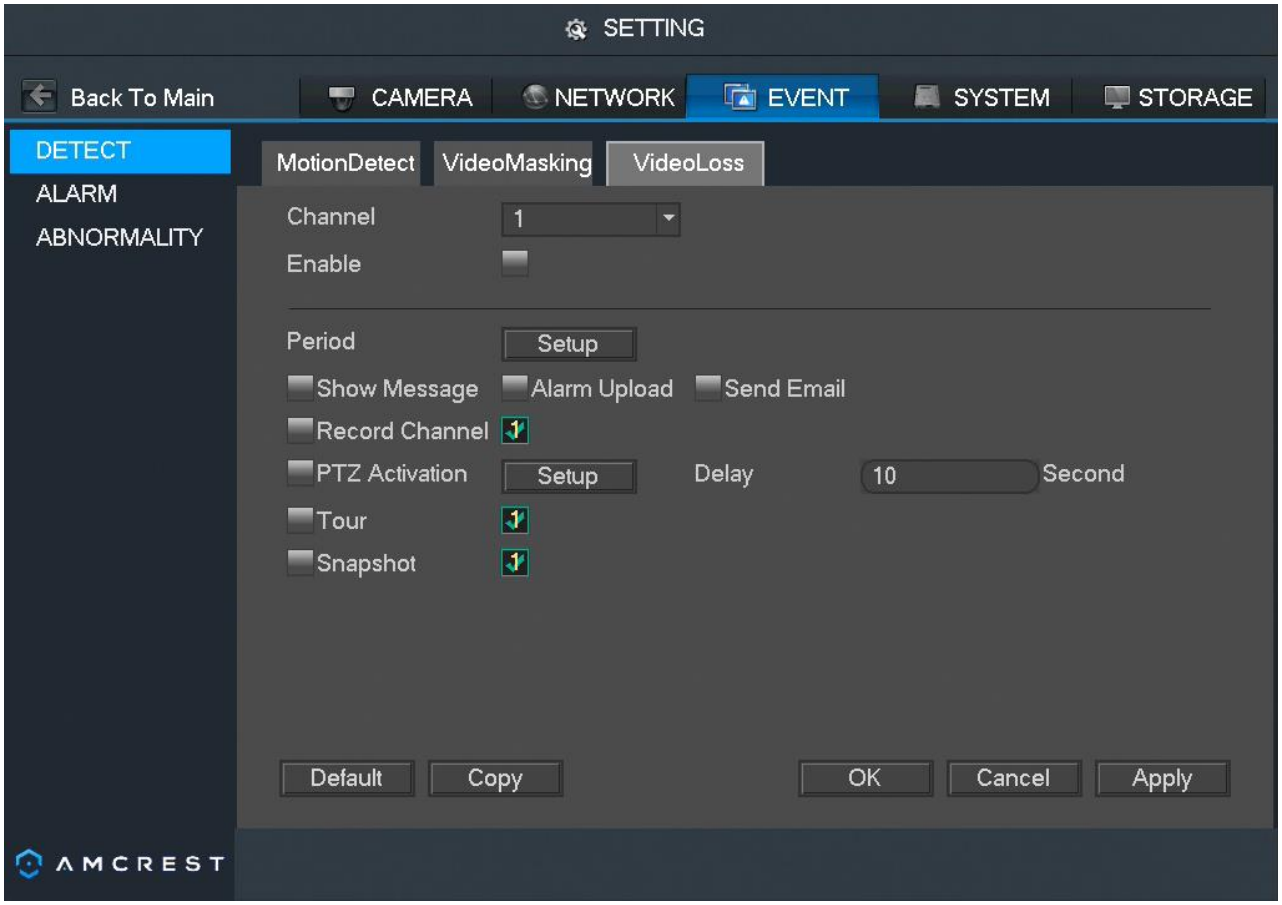
  - The system allows for the configuration of up to 6 different time periods. Click the checkbox to the left of the time period to enable that time period. Click the text next to each period to edit the time period. To copy time periods, click the checkboxes next to the days of the week that you'd like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

- **Record Channel:** This checkbox allows the user to enable the system to record video for that channel when a motion detection alarm is triggered. Delay is also associated with this tab, it is the This field specifies in seconds how long the delay between alarm activation and recording should be.
- **PTZ Activation:** Allows the user to active PTZ functionality to applicable PTZ devices.
- **Tour:** Allows the user to enable the camera to activate a PTZ tour when a motion detection alarm is triggered.
- **Snapshot: A**llows the user to enable the camera to take a snapshot when a motion detection alarm is triggered.
- **Show Message:** This checkbox allows the user to enable the system to show an on-screen message when a motion detection alarm is triggered.
- **Send Email:** This checkbox allows the user to enable the system to send an email when a motion detection alarm is triggered.
- **Alarm Upload:** This checkbox allows the user to enable the system to upload alarm information when a motion detection alarm is triggered.
- **Delay:** This allows the user to set a delay between masking events measured in seconds.

To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click Copy near the bottom left hand corner. To test a channel's motion detection, click Test near the bottom left hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

4.8.1.3. Video Loss

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

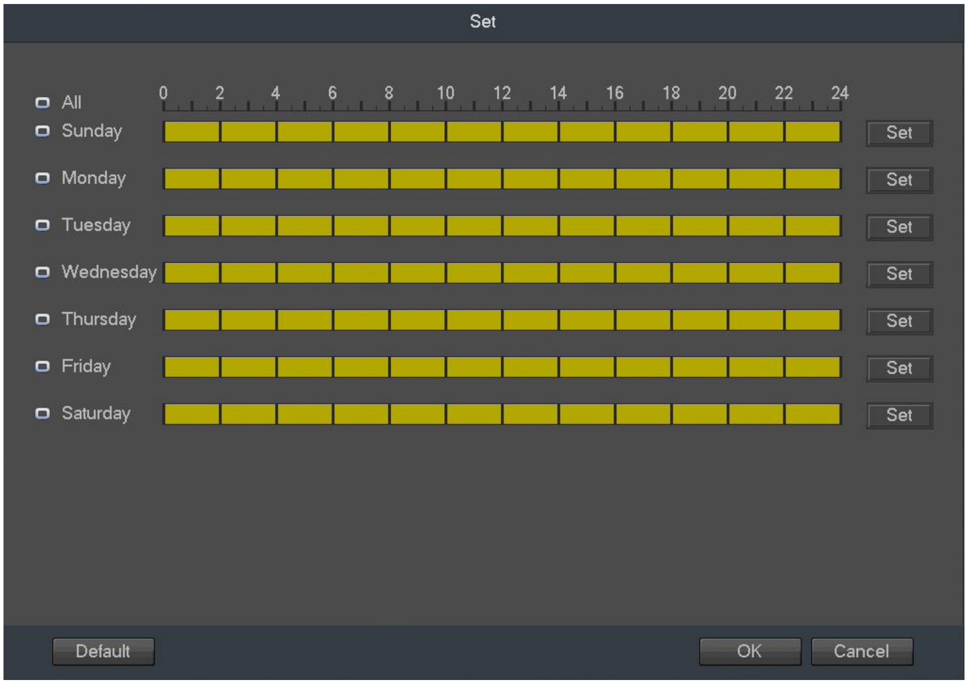


Channel 1
Enable ☐
Period
☐ Show Message ☐ Alarm Upload ☐ Send Email
☐ Record Channel
☐ PTZ Activation Delay 10 Second
☐ Tour
☐ Snapshot

Below is a description of the fields on the Video Loss settings page:

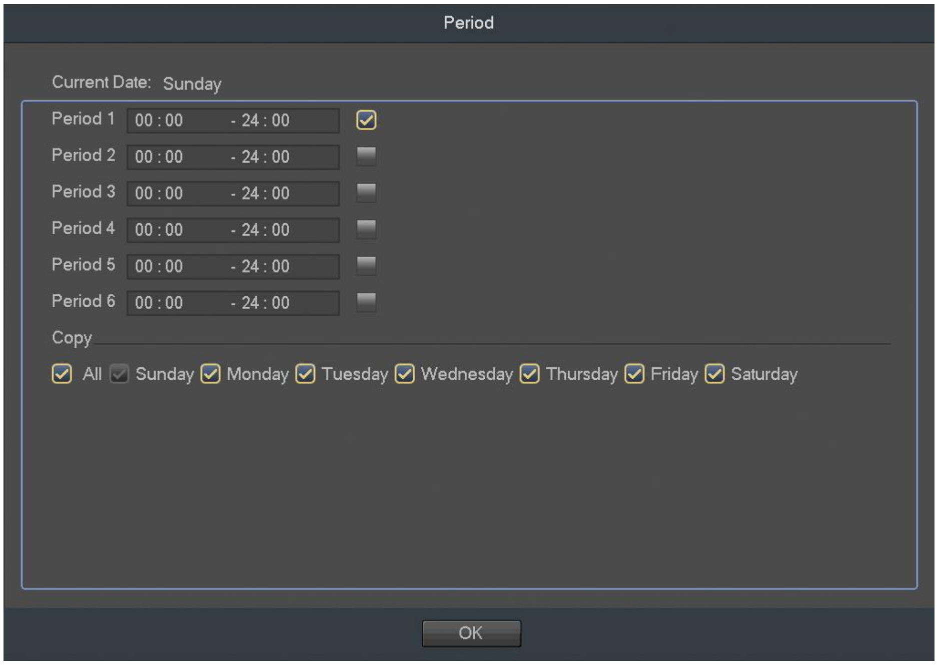
- **Channel:** The channel dropdown menu is used to select which channel you would like to use to set your motion detection.

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



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

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



Current Date: Sunday

Period 1 00 : 00 - 24 : 00 ☑
Period 2 00 : 00 - 24 : 00 ☐
Period 3 00 : 00 - 24 : 00 ☐
Period 4 00 : 00 - 24 : 00 ☐
Period 5 00 : 00 - 24 : 00 ☐
Period 6 00 : 00 - 24 : 00 ☐

Copy
☑ All ☑ Sunday ☑ Monday ☑ Tuesday ☑ Wednesday ☑ Thursday ☑ Friday ☑ Saturday

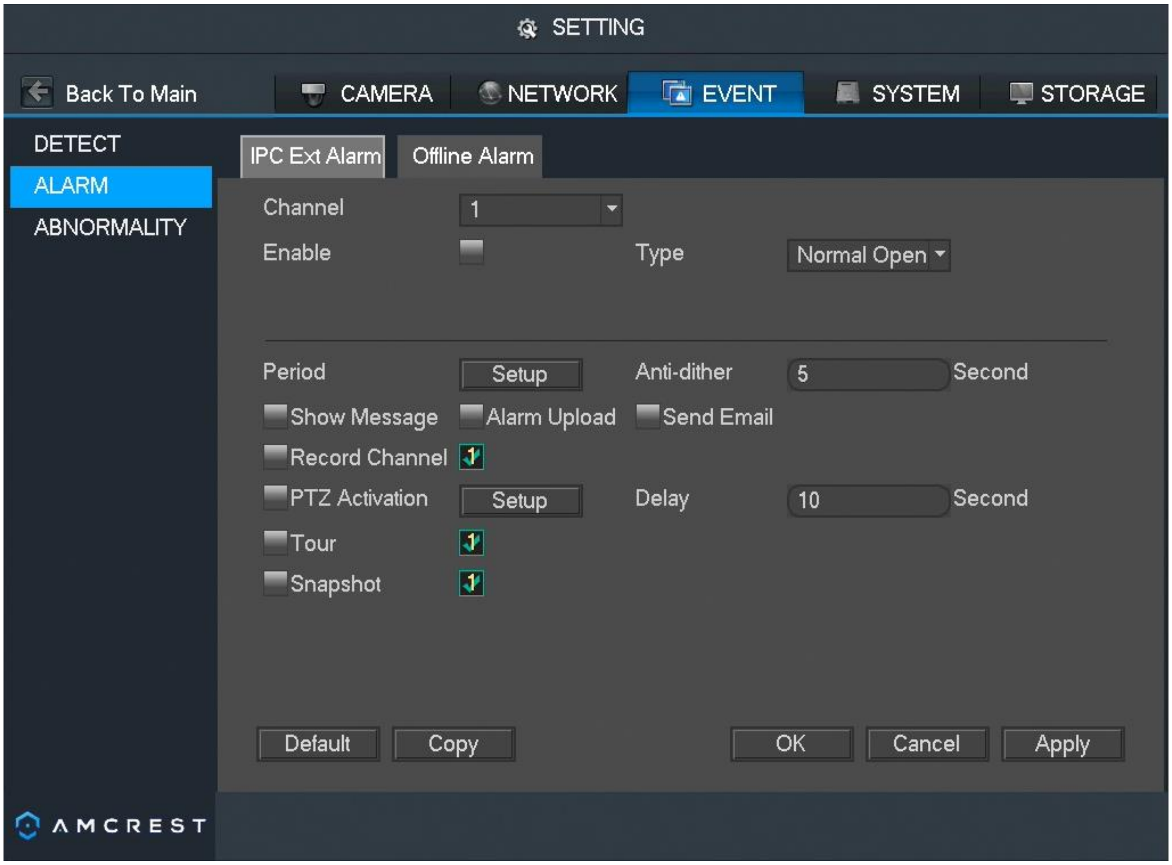
- The system allows for the configuration of up to 6 different time periods. Click the checkbox to the left of the time period to enable that time period. Click the text next to each period to edit the time period. To copy time periods, click the checkboxes next to the days of the week that you'd like to copy the settings to. Once finished on this screen, click Save to return to the time period settings screen.
  - **Record Channel:** This checkbox allows the user to enable the system to record video for that channel when a motion detection alarm is triggered. Delay is also associated with this tab, it is the This field specifies in seconds how long the delay between alarm activation and recording should be.
  - **PTZ Activation:** Allows the user to active PTZ functionality to applicable PTZ devices.
  - **Tour:** Allows the user to enable the camera to activate a PTZ tour when a motion detection alarm is triggered.
  - **Snapshot: A**llows the user to enable the camera to take a snapshot when a motion detection alarm is triggered.
  - **Show Message:** This checkbox allows the user to enable the system to show an on-screen message when a motion detection alarm is triggered.
  - **Send Email:** This checkbox allows the user to enable the system to send an email when a motion detection alarm is triggered.
  - **Alarm Upload:** This checkbox allows the user to enable the system to upload alarm information when a motion detection alarm is triggered.

To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click Copy near the bottom left hand corner. To test a channel's motion detection, click Test near the bottom left hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the

Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

4.8.2. Alarm

The alarm tab is used to configure external, third party alarms to the NVR. These can be tied to an IPC external alarm (camera), or an offline external alarm. Below is a screenshot of this menu:



Channel 1

Enable ☐

Type Normal Open

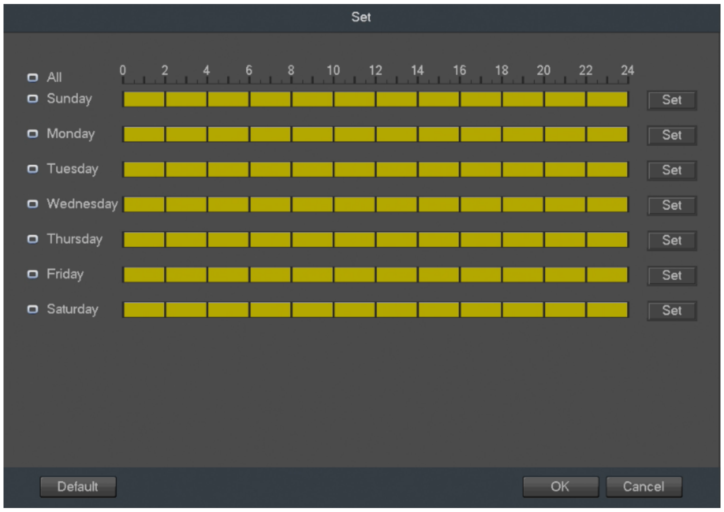
Period

Anti-dither 5 Second

Delay 10 Second

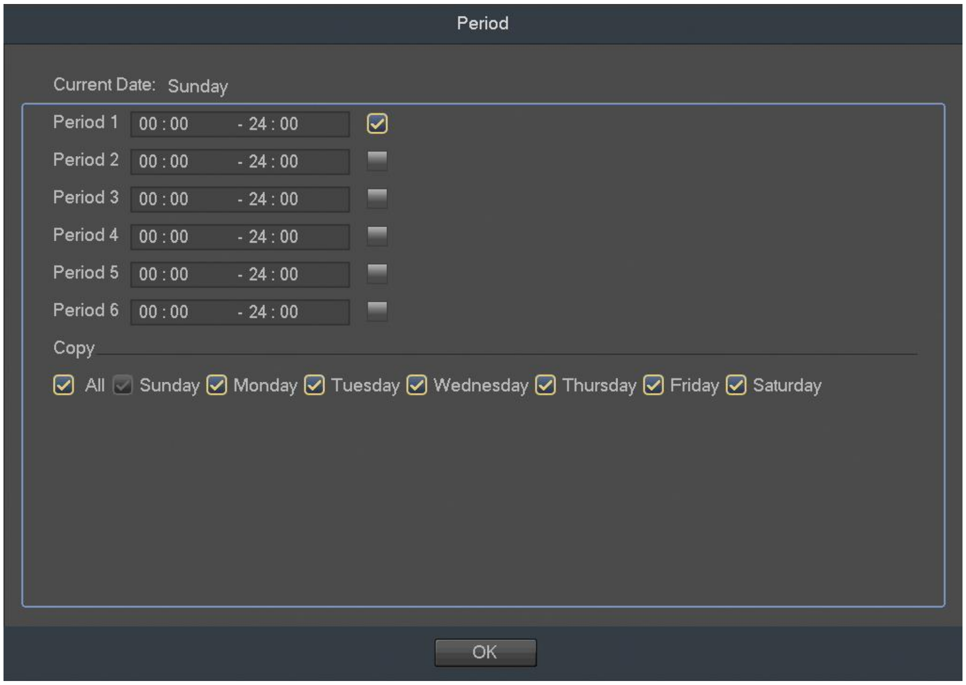
Below is an explanation of each field listed in this menu:

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



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

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



Period

Current Date: Sunday

Period 1 00 : 00 - 24 : 00 ☑
Period 2 00 : 00 - 24 : 00 ☐
Period 3 00 : 00 - 24 : 00 ☐
Period 4 00 : 00 - 24 : 00 ☐
Period 5 00 : 00 - 24 : 00 ☐
Period 6 00 : 00 - 24 : 00 ☐

Copy

☑ All ☑ Sunday ☑ Monday ☑ Tuesday ☑ Wednesday ☑ Thursday ☑ Friday ☑ Saturday

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

- **Anti-Dither:** This field allows the user to set the anti-dither time. The values in this field can range from 5 to 600 seconds. This time value controls how long the alarm signal lasts. Based on motion detection, a buzzer can go off, a tour can begin, PTZ can be activated, a snapshot can be taken, or a channel can begin recording.
  - For example, if the anti-dither time is set to 10 seconds, each alarm may last 10 seconds if the local alarm is activated. During the process, if the system detects another local alarm signal at the fifth second, the buzzer, tour, PTZ activation, snapshot, record channel functions will begin another 10 seconds while the screen prompt, alarm upload, email will not be activated again. After 10 seconds, if system detects another alarm signal, it can generate a new alarm since the anti-dither time has expired.
- **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.
- **Sensitivity –** Allows the user to set a preset sensitivity setting for motion detected events.
- **PTZ Activation:** Allows the user to active PTZ functionality to applicable PTZ devices.
- **Tour:** Allows the user to enable the camera to activate a PTZ tour when a motion detection alarm is triggered.
- **Snapshot: A**llows the user to enable the camera to take a snapshot when a motion detection alarm is triggered.
- **Voice Prompts:** Allows the user to customize voice prompts for motion detected events.
- **Show Message:** This checkbox allows the user to enable the system to show an on-screen message when a motion detection alarm is triggered.
- **Send Email:** This checkbox allows the user to enable the system to send an email when a motion detection alarm is triggered.
- **Alarm Upload:** This checkbox allows the user to enable the system to upload alarm information when a motion detection alarm is triggered.

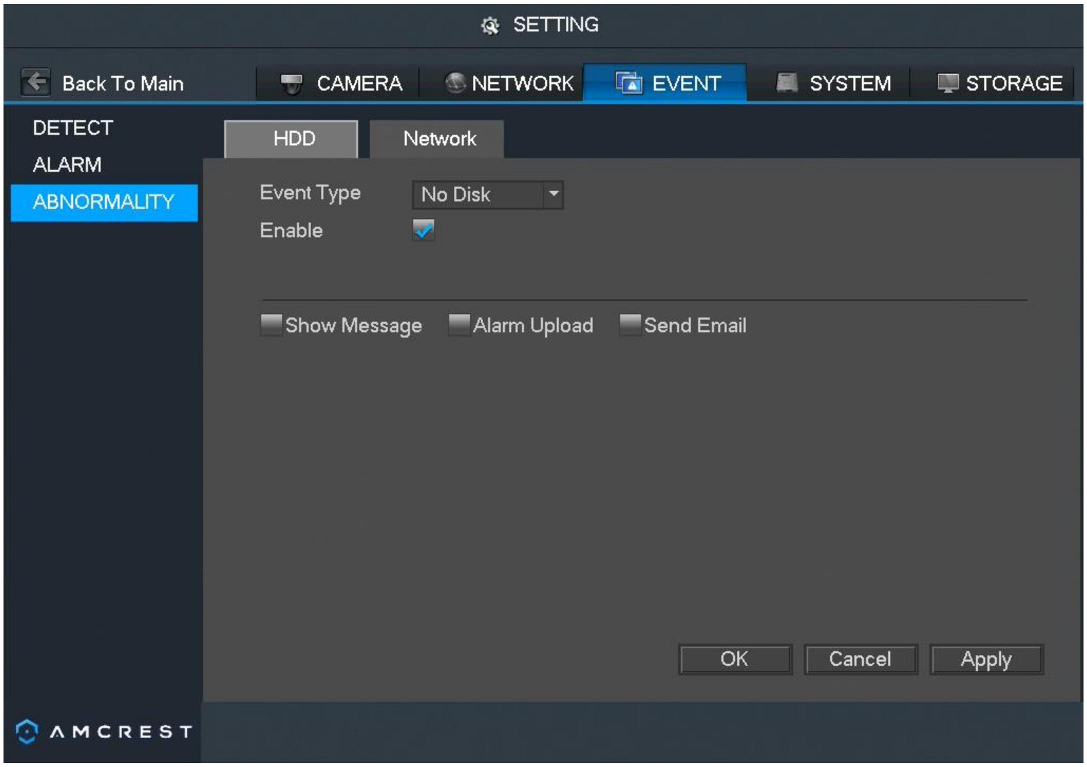
To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click Copy near the bottom left hand corner. To test a channel's motion detection, click Test near the bottom left hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

4.8.3. Abnormality

This screen is used to specify system action in the case of either hard drive abnormality, or network abnormality. Some model NVRs even allow voice prompts to be activated if an abnormality is detected. For more information on this feature, refer to *section 4.9.3. Voice.*

4.8.3.1. HDD

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



Event Type: No Disk

Enable ☑

☐ Show Message ☐ Alarm Upload ☐ Send Email

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.
    - Disk Error: The hard drive has an error.
    - Disk No Space: The hard drive is about to or has run out of space.
    - Less Than: This field allows the user to specify at what percentage of free disk space this condition should be triggered.

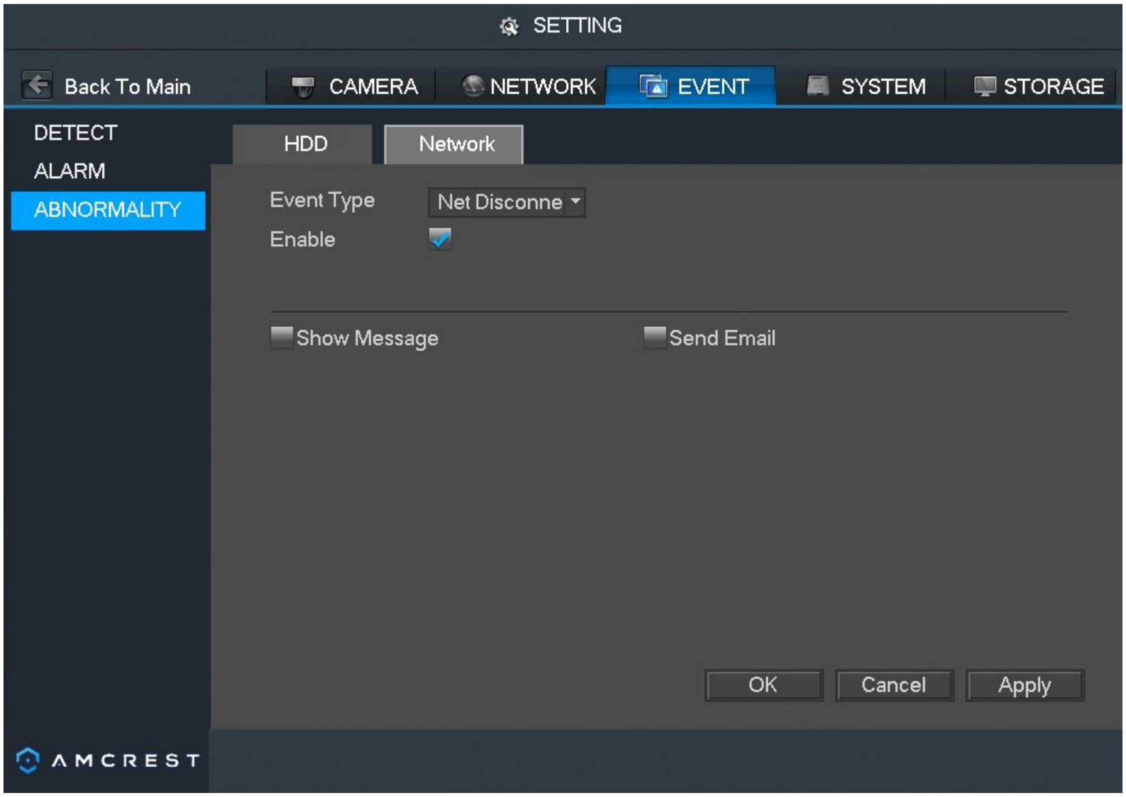
- Enable: This checkbox allows the user to enable the features below for the specified event type.
- Show Message: This checkbox allows the user to enable the system to show an on-screen message when an HDD abnormality occurs.

- Alarm Upload: This checkbox allows the user to enable the system to upload alarm information when an HDD abnormality occurs.

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

4.8.3.2. Network

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



Event Type: Net Disconne
Enable ☑

☐ Show Message
☐ Send Email

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

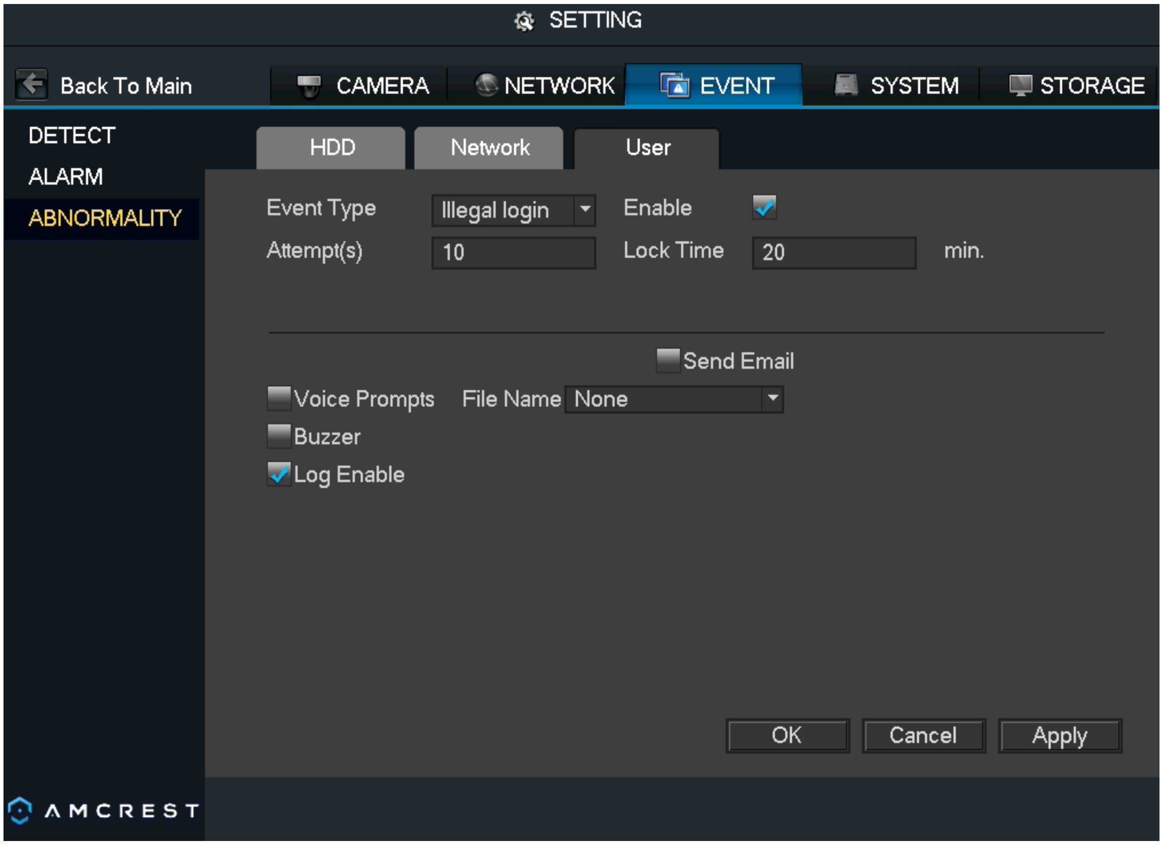
- Event Type: This field allows the user to specify which Network abnormality event type they would like to configure settings for.
    - Net Disconnected: The network connection has been disconnected.
    - IP Conflict: There is a device on the network with the same IP address.
    - MAC Conflict: There is a device on the network with the same MAC address.

- Enable: This checkbox allows the user to enable the features below for the specified event type.
- Show Message: This checkbox allows the user to enable the system to show an on-screen message when a network abnormality occurs.
- Send Email: This checkbox allows the user to enable the system to send an email when a network abnormality occurs.

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

4.8.3.3. User

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



Event Type Illegal login
Enable ☑
Attempt(s) 10
Lock Time 20 min.
☐ Send Email
☐ Voice Prompts File Name None
☐ Buzzer
☑ Log Enable

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

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

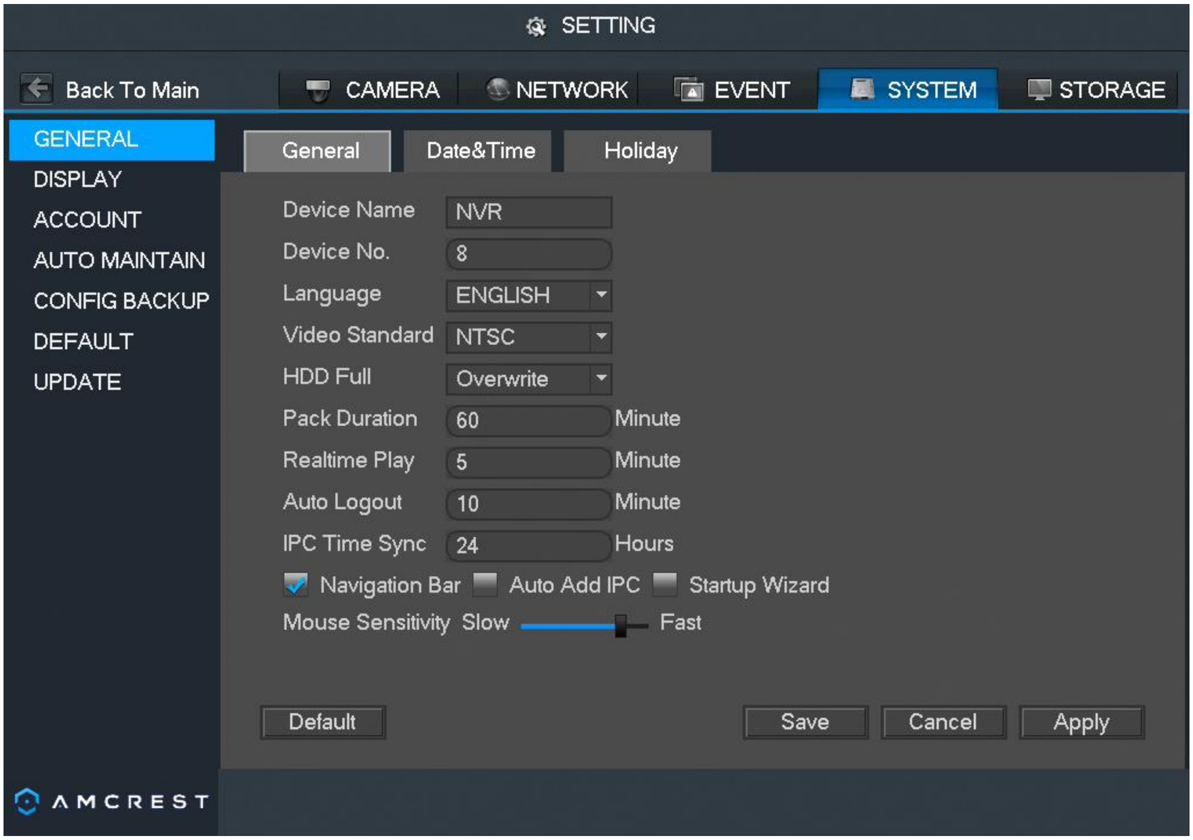
- Enable: Check this box to enable this feature.
- Attempt(s): Refers to the number of login attempts tried before the abnormality is triggered.
- Lock Time: How long the device will be locked until another login attempt can be made.
- Send Email: Check this box to enable alerts to be sent via email. For more information on enabling email alerts refer to *section 4.7.7. Email*.
- Voice Prompts: Check this box to enable a 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. For more information on how to put voice files on your device refer to *section 4.9.3. Voice*.
- Buzzer: Check this box to enable a buzzer to be sound on your device if an event occurs.
- Log Enable: Check this box to enable a log of the abnormality to be retained into the system.

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

4.9. System

4.9.1 General

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



Device Name NVR
Device No. 8
Language ENGLISH
Video Standard NTSC
HDD Full Overwrite
Pack Duration 60 Minute
Realtime Play 5 Minute
Auto Logout 10 Minute
IPC Time Sync 24 Hours
☑ Navigation Bar ☐ Auto Add IPC ☐ Startup Wizard
Mouse Sensitivity Slow Fast

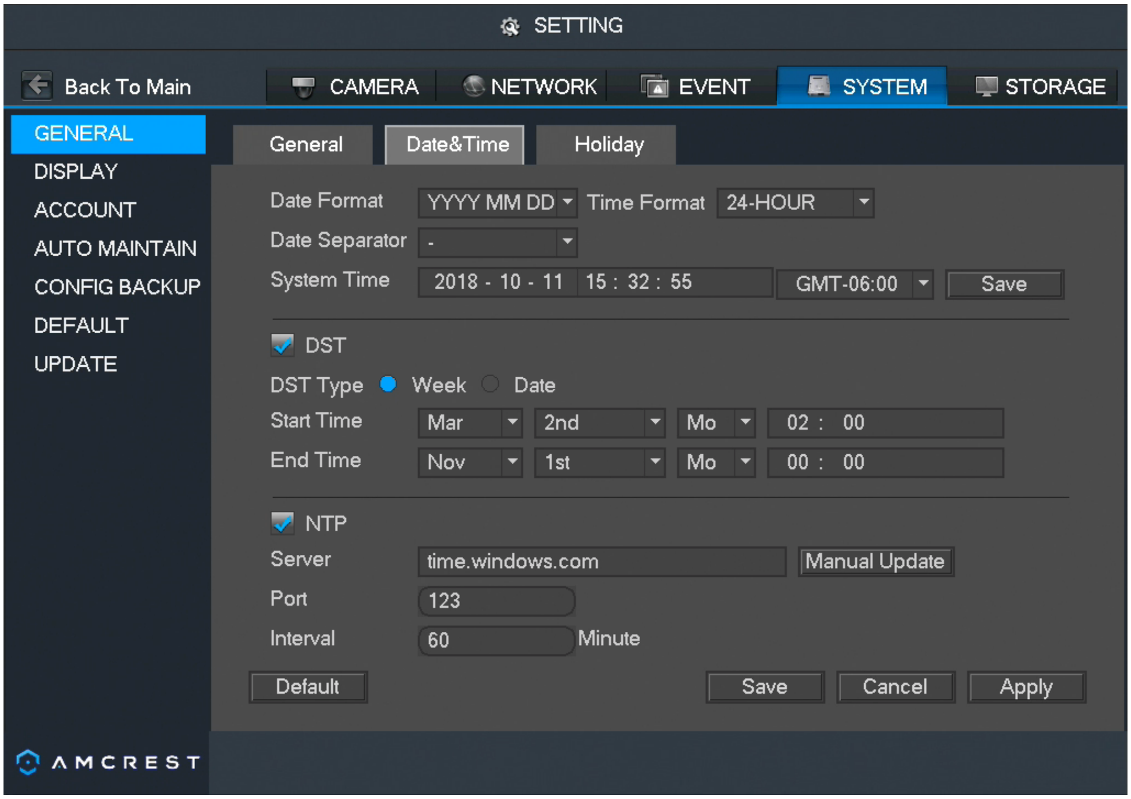
Below is an explanation of the fields on the General settings screen:

- Device Name: This field allows the user to customize the name of the NVR.
- Device No: This field allows the user to customize the device's number.
- Language: This dropdown box allows the user to select a language for the NVR. Options include English, Simplified Chinese, Traditional Chinese, Italian, Japanese, French, and Spanish.
- Video Standard: This dropdown box allows the user to select a video standard. The options are between PAL and NTSC.
- HDD Full: This dropdown box allows the user to specify what to do when the HDD is full. There are two options:
  - Overwrite: This option lets the NVR overwrite the oldest recorded video on the NVR.
  - Stop Record: This option causes the NVR to stop recording once the HDD is full.
- Pack Duration: This field allows the user to define the recording duration. The default value is 60 minutes.
- Realtime Play: This field allows the user to set the playback time frame that is viewed in the preview interface. This value can range from 5 to 60 minutes.
- Auto Logout: This field allows the user to define in minutes how long the system can stay idle before a user is logged out. The value can range from 0 to 60 minutes.
- IPC Time Sync: This field allows the user to define in hours how long a camera can stay idle before it is logged out. The values can range from 0 – 24 hours.
- Navigation Bar: This checkbox allows the user to enable the navigation bar that shows on the main screen.
- Auto Add IPC: This checkbox allows the user to enable the system to automatically add cameras once applied to the NVR.
- Startup Wizard: This checkbox allows the user to enable the startup wizard the next time the system is restarted.
- Mouse Sensitivity: This sliding scale allows the user to increase the movement and double click speed of the mouse.

To rest to default settings, click the Default button near the bottom left hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

4.9.1.1. Date and Time

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



Date Format: YYYY MM DD
Time Format: 24-HOUR
Date Separator: -
System Time: 2018 - 10 - 11 15 : 32 : 55 GMT-06:00

☑ DST

DST Type: ● Week ○ Date
Start Time: Mar 2nd Mo 02 : 00
End Time: Nov 1st Mo 00 : 00

☑ NTP

Server: time.windows.com
Port: 123
Interval: 60 Minute

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

- Date Format: This dropdown box allows the user to specify a date and time format for the NVR to use. There are 3 options.
    - YYYY MM DD: Year, Month, Day.
    - MM DD YYYY: Month, Day, Year.
    - DD MM YYYY: Day, Month, Year.
- Time Format: This dropdown box allows the user to specify a time format for the NVR to use. There are two options.
    - 24 Hour
    - 12 Hour
- Date Separator: This dropdown box allows the user to specify a date separator. There are 3 options:
    - – Dash
    - / Forward Slash
    - _ Underscore
- 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.
- Time Zone: This dropdown box allows the user to specify a time zone for the NVR to use.

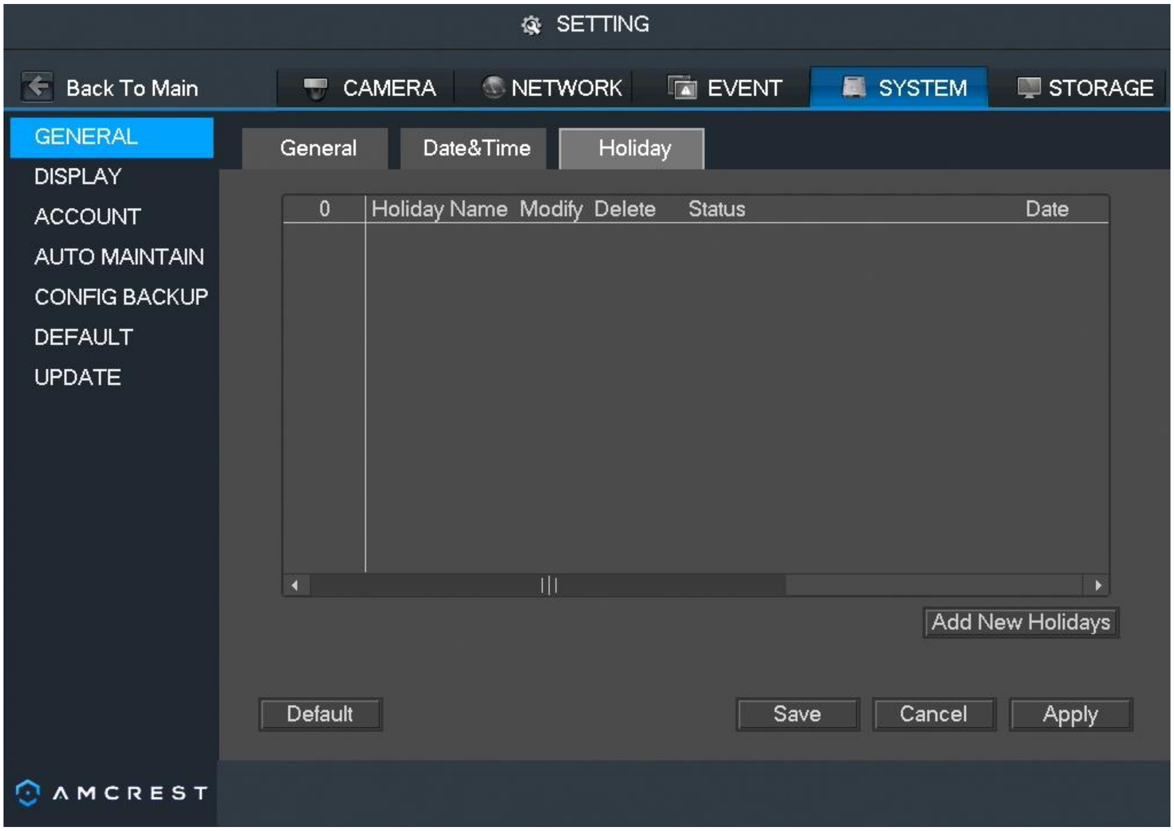
DST: This checkbox allows the user to activate DST for the system.

- DST Type: This field allows the user to pick whether DST starts on a specific day of the week, or on a specified.
- Start Time: This field allows the user to enter a start date and time for DST to begin.
- End Time: This field allows the user to enter an end date and time for DST to end on.
- NTP: NTP stands for Network Time Protocol. This checkbox allows the user to enable the use of an NST server to synchronize the date and time settings on the NVR.
- Server IP: 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: This field allows the user to set the NTP synchronization interval. This number determines how often the NVR queries the NTP server to get accurate date and time information. This value can be between 0 and 60 minutes.

To revert to default settings, click the Default button near the bottom left hand corner. To save settings, click the save button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

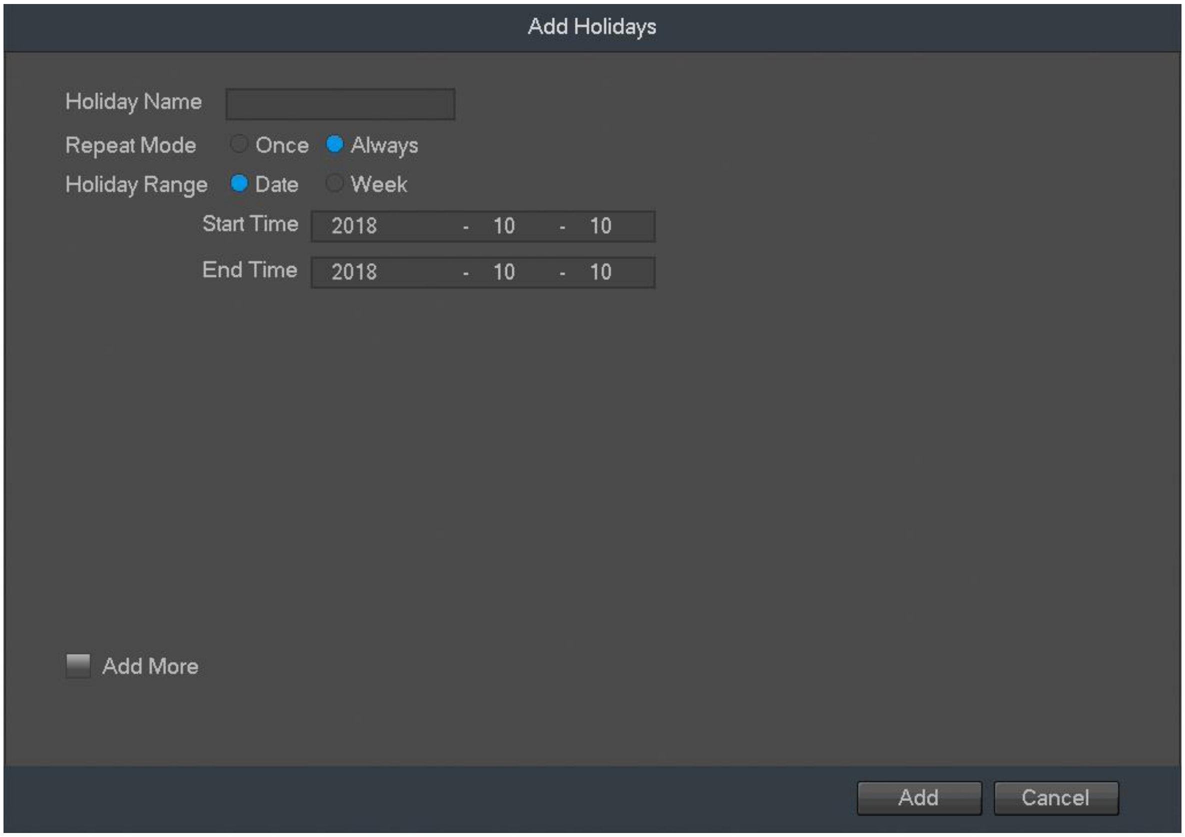
4.9.1.2. Holiday

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



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

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



Holiday Name
Repeat Mode ○ Once ● Always
Holiday Range ● Date ○ Week
Start Time 2018 - 10 - 10
End Time 2018 - 10 - 10
☐ Add More

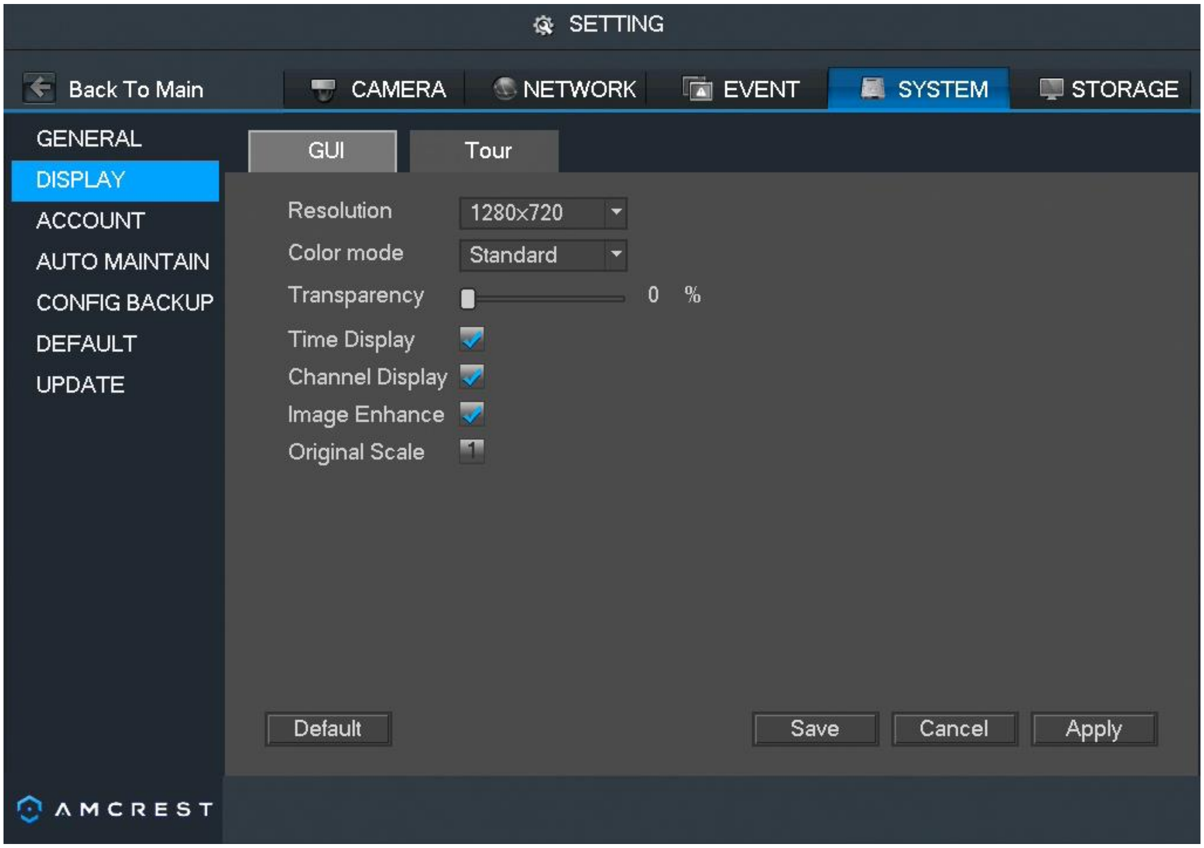
Note:
- Holidays take precedence over the scheduled setup.
- Holidays do not roll over based on their inherent date. Meaning, if a holiday is set for October 30th, then the system will treat every October 30th as a holiday.

4.9.2. Display

This menu allows the user to apply GUI and Tour options for their device. For more information on the features provided in this menu, refer to the sections provided below.

4.9.2.1. GUI

This menu allows users to set menu and video preview effects. All your operations here do not affect the recorded file and playback effect. Below is a screenshot of the GUI menu:



Resolution 1280×720

Color mode Standard

Transparency 0 %

Time Display ☑

Channel Display ☑

Image Enhance ☑

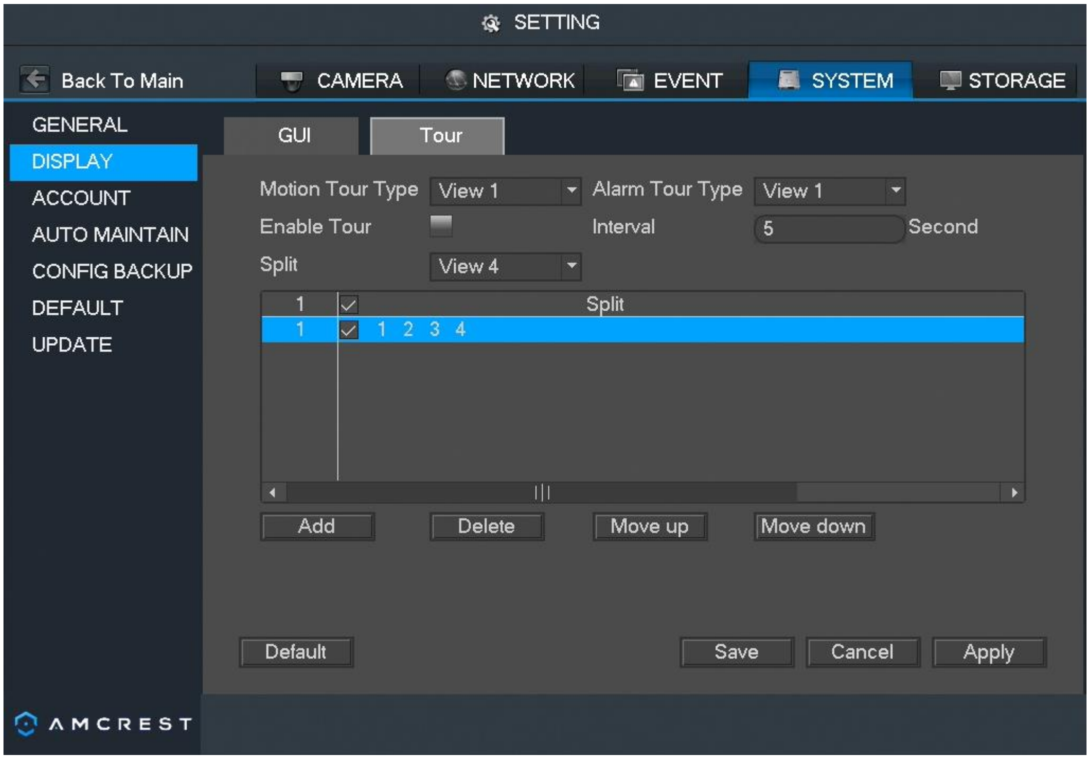
Original Scale ☐

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

- Resolution: There are four options: 1280×1024 (Default), 1280×720, 1920×1080, and 1024×768.
- Please note the system needs to reboot to activate the current setup.
- Transparency: Here is where you adjust the transparency of the menus. The value ranges from 0% to 100%.
- Time display: You can select whether to display the time when the system is in playback.
- Channel display: You can select whether to display the channel name when system is in playback.
- Image enhance: Check this box to optimize the image of the preview video.

4.9.2.2. Tour

This screen is used to activate tour functionality for the live preview. Below is a screenshot of the Tour Setup screen:



Motion Tour Type: View 1
Alarm Tour Type: View 1
Enable Tour ☐
Interval: 5 Second
Split: View 4

	☑	Split
1	☑	1 2 3 4

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

- Enable: This checkbox allows the user to enable the tour functionality.

Note: An alternate way to enable or disable tour is by clicking o on the navigation bar.

- Interval: This field allows the user to set an interval in seconds for how quickly the tour cycles through channels. This value ranges from 5 to 120 seconds.
- Motion Tour Type: This dropdown box allows the user to select whether they want to see 1 or 4 cameras at a time in the tour.
- Alarm Tour Type: This is a list that allows the user to select channels and add alarms as a part of the tour.
- Split: This list allows the users to select channels add as a part of the tour. The number in the corner indicates how many channels are available.
  - **Add:** This button allows the user to add a channel from the tour.
  - **Modify:** This button allows the user to modify or edit a channel from the tour.
  - **Delete:** This button allows the user to remove a channel from the tour.
  - **Move Up:** This button allows the user to move a camera up in the tour queue.
  - **Move Down:** This button allows the user to move a camera down in the tour queue.

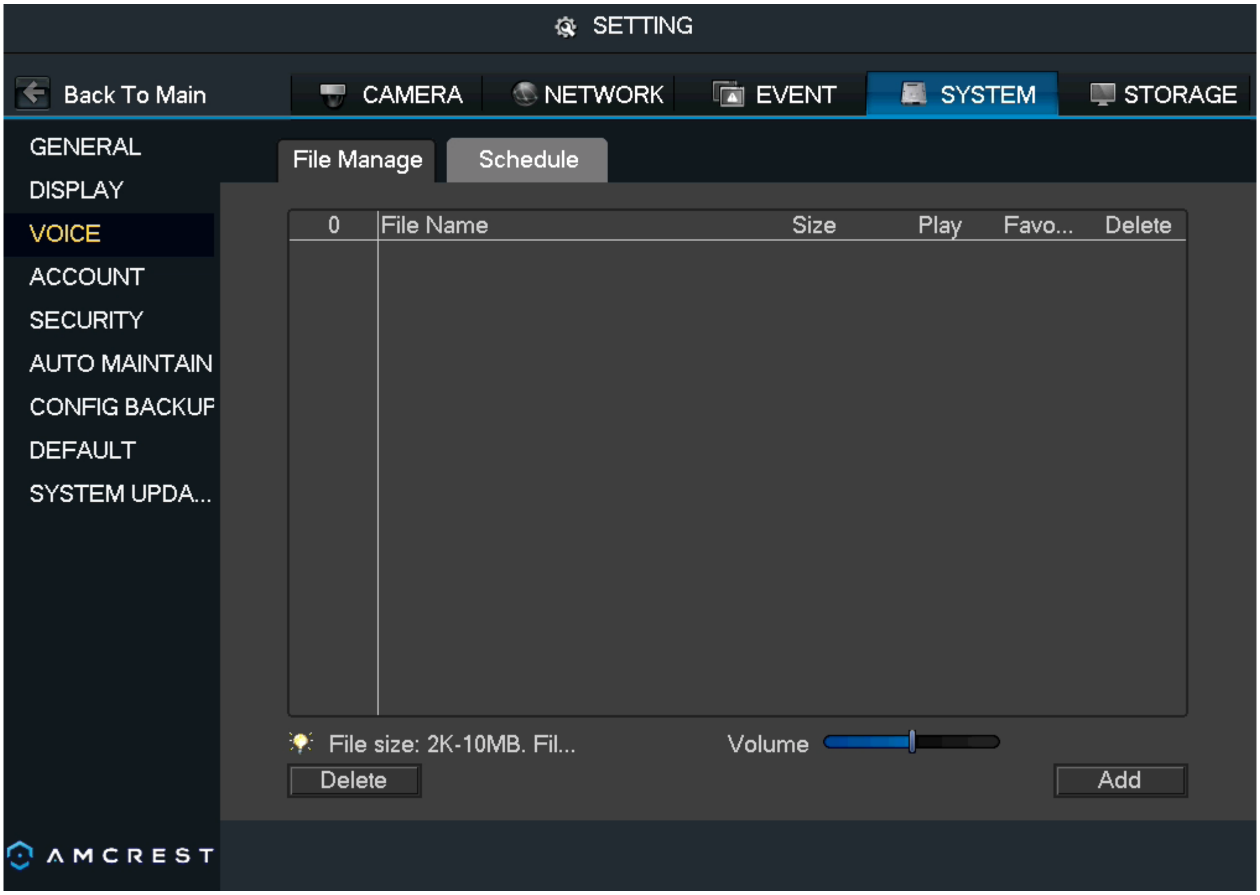
To revert to default settings, click the Default button near the bottom left hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

4.9.3. Voice

This menu is used to manage audio files retained by the NVR. To use this feature, you must have a USB storage device with the voice files added. For more information on the features listed in this menu, refer to the sections provided.

4.9.3.1. File Manage

This menu allows the user to manage any voice files that have been added onto the NVR. Below is a screenshot of this menu:



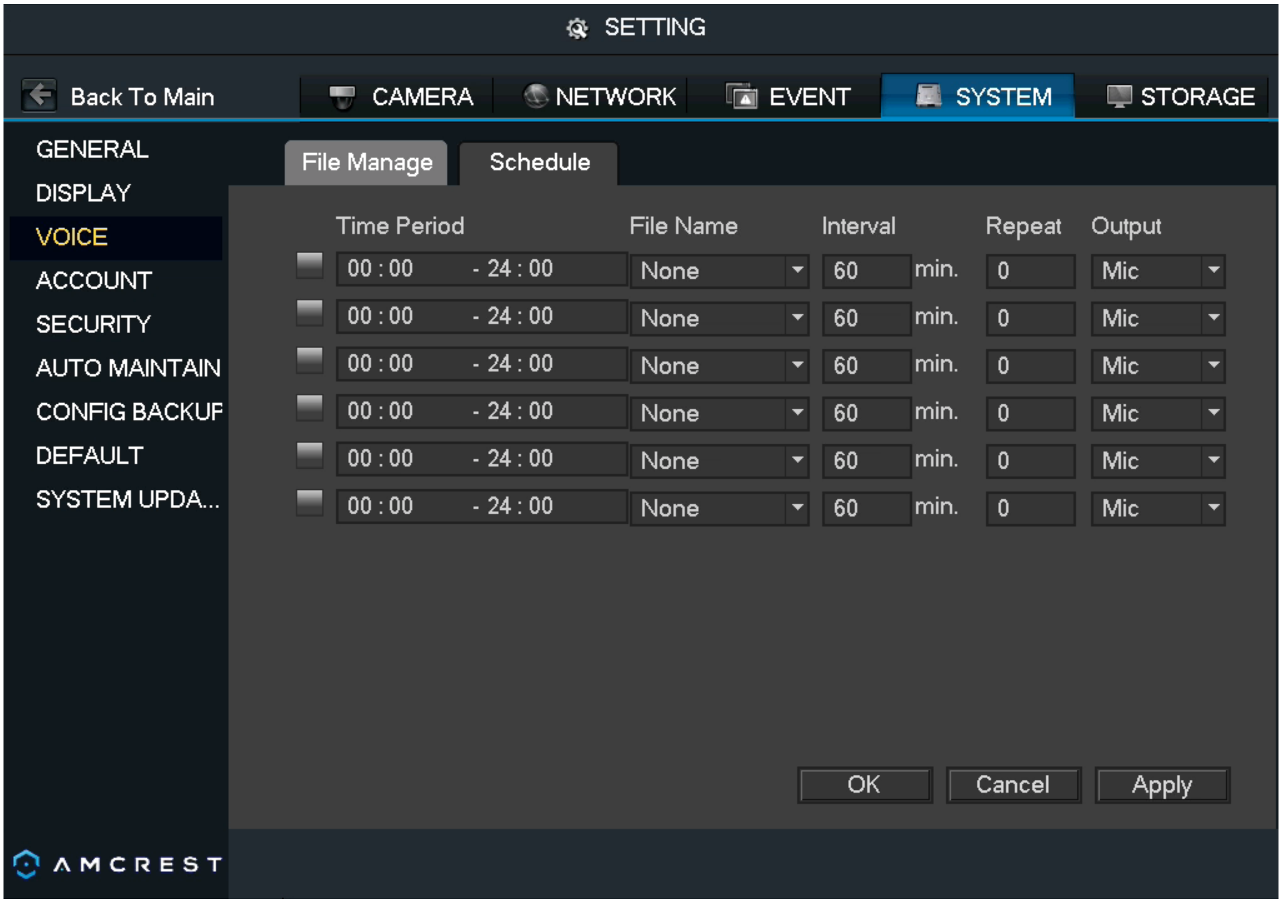
Below is a description of the features in this menu:

- **Add –** Used to add a voice file from an inserted USB storage device.
- **Delete –** Used to delete any added voice files imported to the NVR.
- **File Name –** The name of the voice file that was added to the system.
- **Size –** The size of the voice file that was added to the system.
- **Play –** Allows the user to playback any added voice files.
- **Favorites Rename –** Allows the user to rename the voice file.
- **Delete:** Allows the user quick access to delete voice files from the system.

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

4.9.3.2. Schedule

This menu is used to set notification schedules for any associated voice files imported to the system. Below is a screenshot of this menu:



	Time Period	File Name	Interval		Repeat	Output
☐	00 : 00 - 24 : 00	None	60	min.	0	Mic
☐	00 : 00 - 24 : 00	None	60	min.	0	Mic
☐	00 : 00 - 24 : 00	None	60	min.	0	Mic
☐	00 : 00 - 24 : 00	None	60	min.	0	Mic
☐	00 : 00 - 24 : 00	None	60	min.	0	Mic
☐	00 : 00 - 24 : 00	None	60	min.	0	Mic

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

- **Time Period** – Allows the user to set a custom time period for their voice notifications.
- **File Name** – The name of the voice file that will be scheduled.
- **Interval** – How many minutes the voice file will be used in the notification.
- **Repeat** – How many times the scheduled notification will repeat.
- **Output** – The output source of the notification. This will typically be defaulted to **Mic**.

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

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

4.9.4. Account

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

The NVR comes with 2 usernames by default:

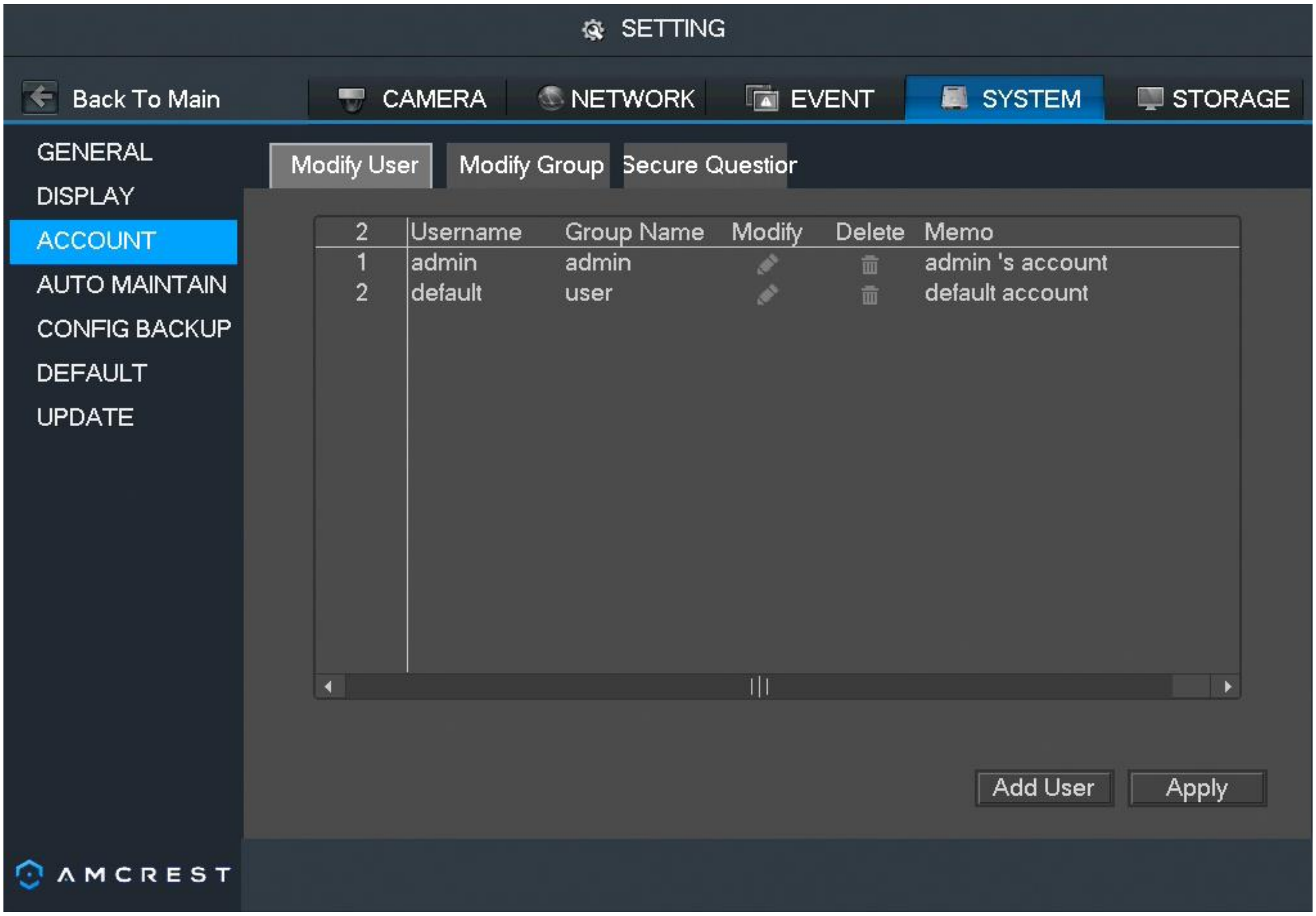
- Username: admin Password: admin
- Username: default Password: default

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

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

4.9.4.1. Modify User

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

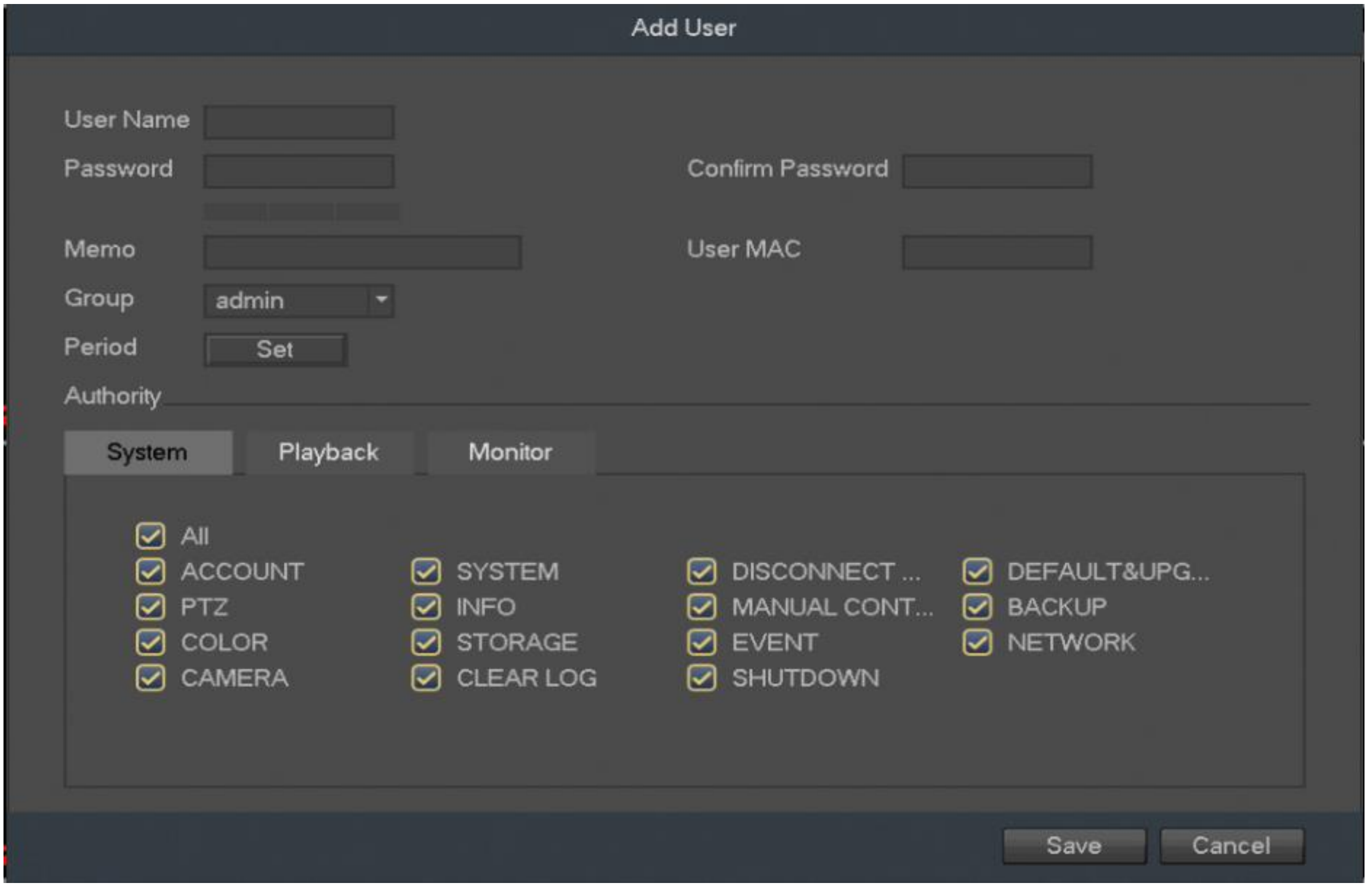


2	Username	Group Name	Modify	Delete	Memo
1	admin	admin	✎	🗑	admin 's account
2	default	user	✎	🗑	default account

Below is an explanation of the fields on the User Account settings 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.
- User Name: This column indicates an account's username.
- Group Name: This column shows which group the username belongs to.
- 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.
- Memo: This column provides a brief description of the account’s status in the NVR.
- Add User: This button allows the user to add another user account.

Below is a screenshot of the Add User screen.



Group: admin

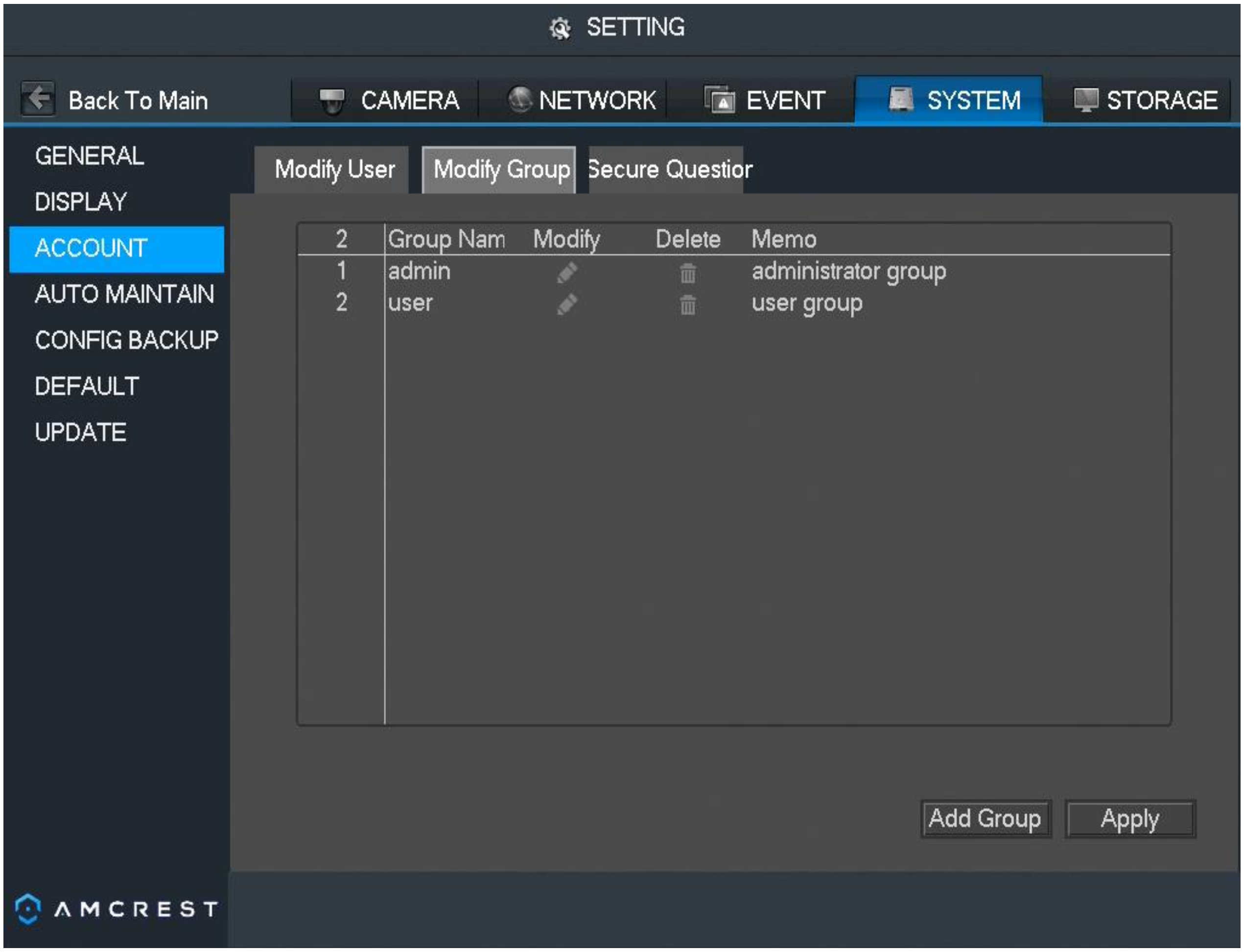
☑ All
☑ ACCOUNT
☑ PTZ
☑ COLOR
☑ CAMERA
☑ SYSTEM
☑ INFO
☑ STORAGE
☑ CLEAR LOG
☑ DISCONNECT ...
☑ MANUAL CONT...
☑ EVENT
☑ SHUTDOWN
☑ DEFAULT&UPG...
☑ BACKUP
☑ NETWORK

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.

4.9.4.2 Modify Group

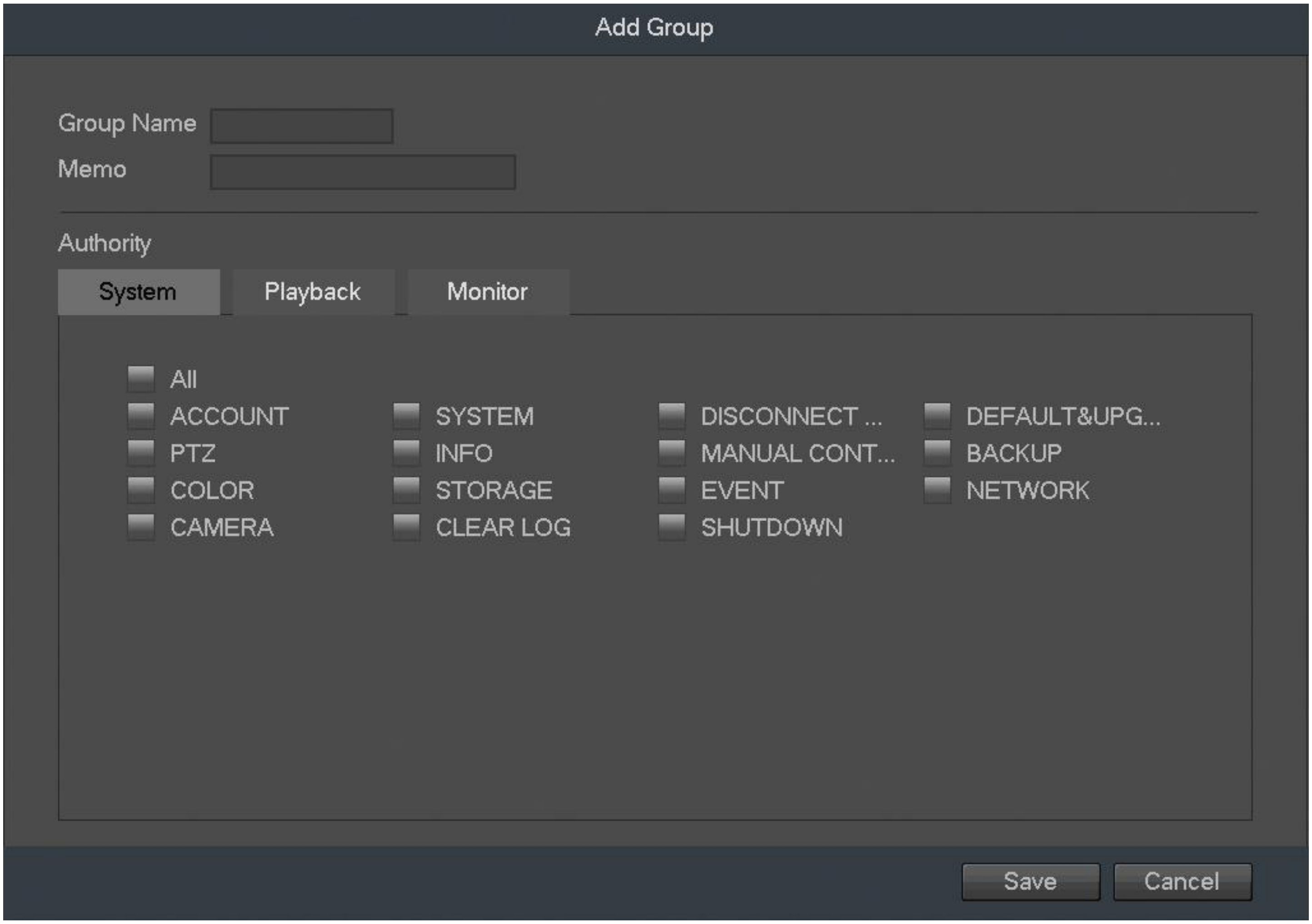
This screen is used to configure Group Account settings. Below is a screenshot of the Group Account settings screen:



2	Group Nam	Modify	Delete	Memo
1	admin	✎	🗑	administrator group
2	user	✎	🗑	user group

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

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

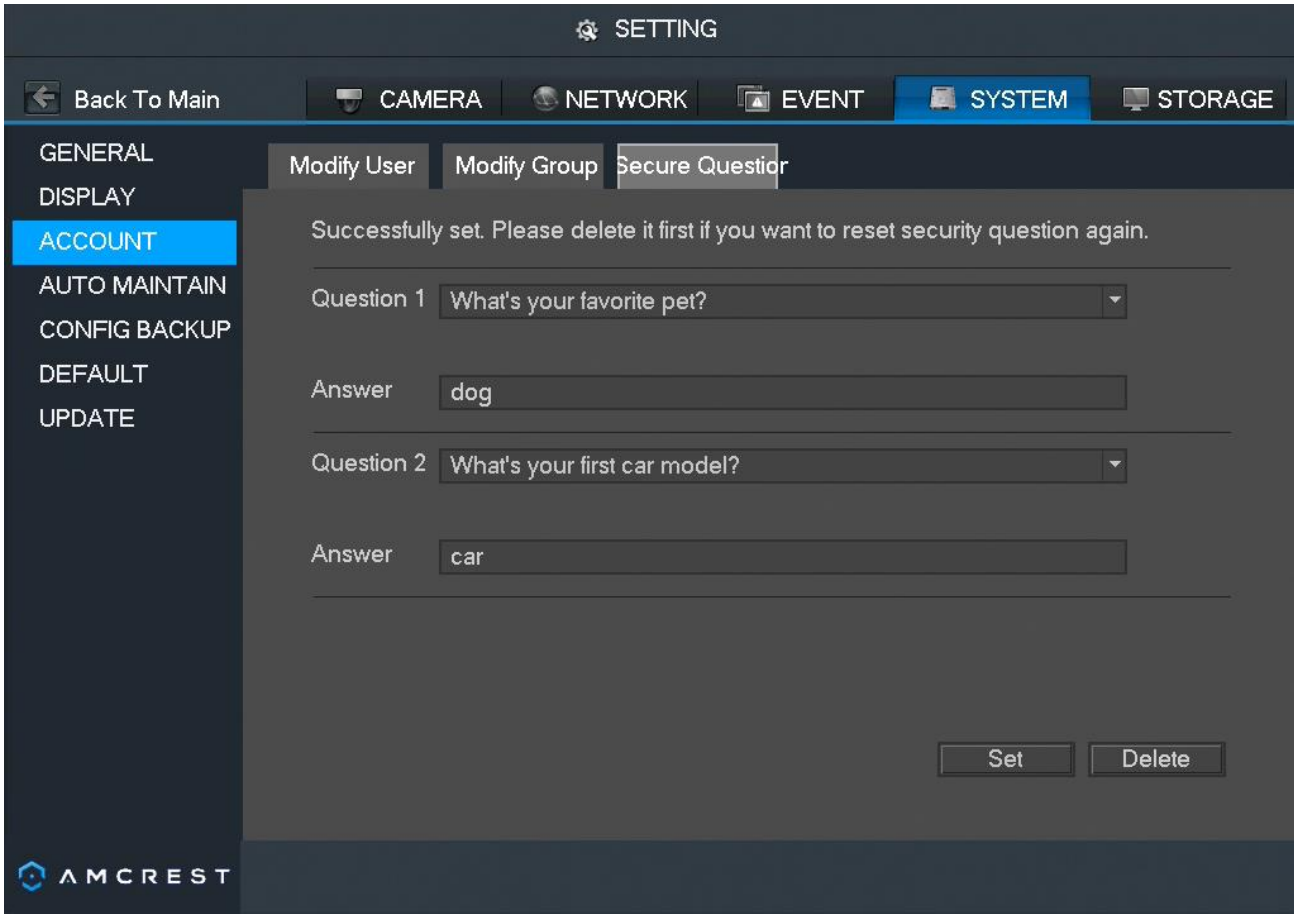


Note:

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

4.9.4.3. Secure Questions

This screen is used to configure or modify security questions for password resets. Below is a screenshot of this menu:



Successfully set. Please delete it first if you want to reset security question again.

Question 1: What's your favorite pet?

Answer: dog

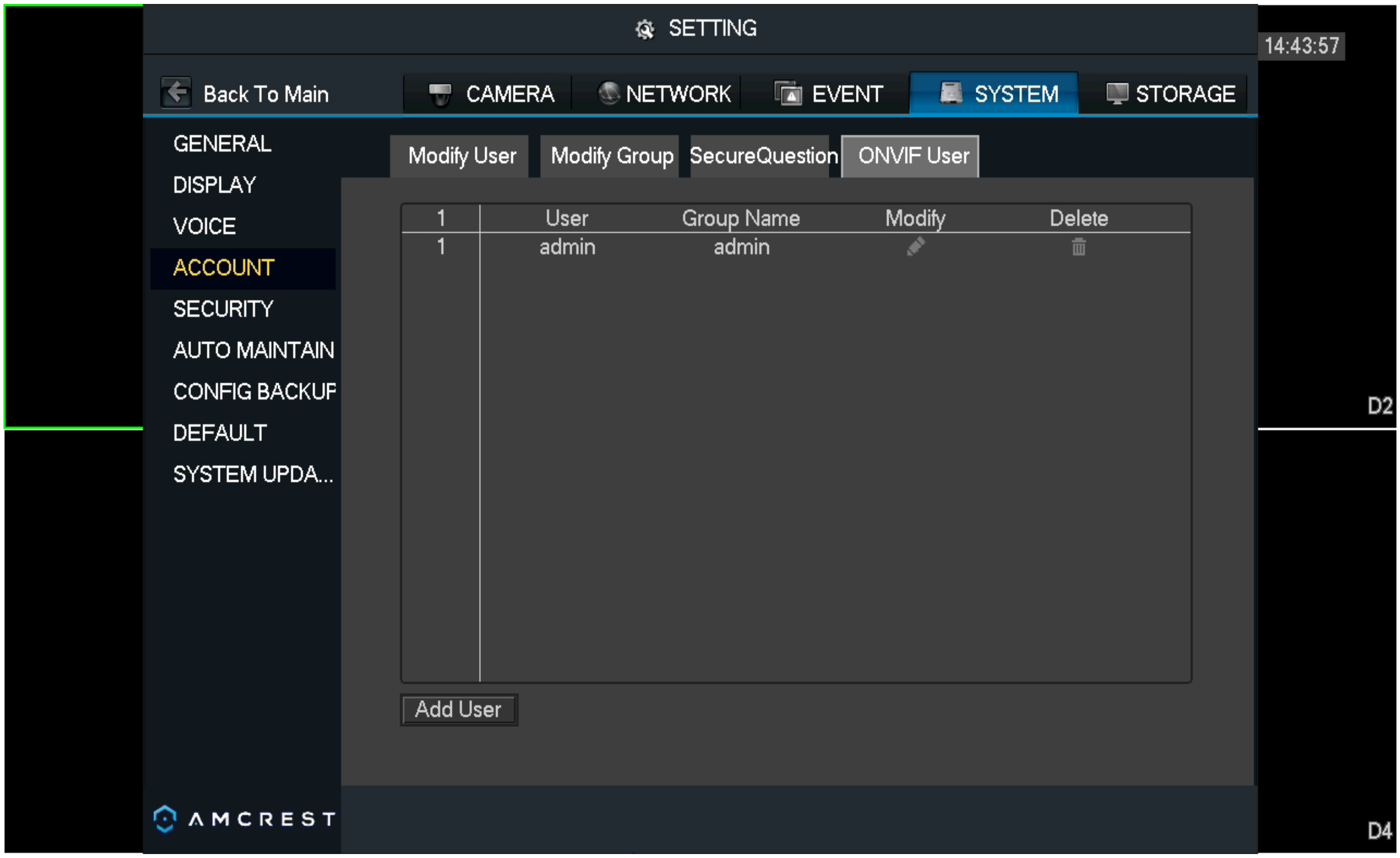
Question 2: What's your first car model?

Answer: car

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

4.9.4.4. ONVIF User

This screen is used to configure or modify ONVIF users that are associated with your NVR. Below is a screenshot of this menu:



1	User	Group Name	Modify	Delete
1	admin	admin	✎	🗑

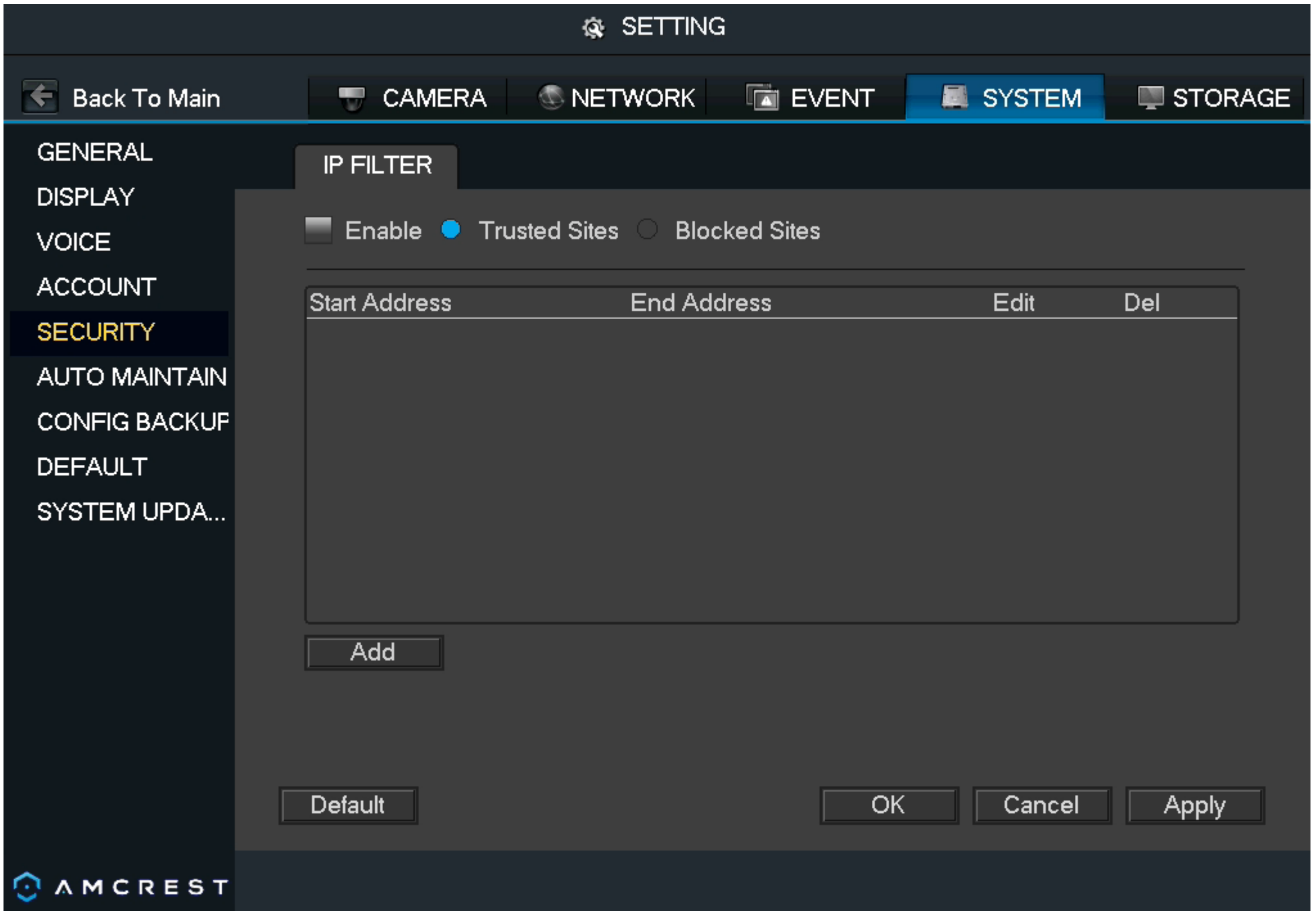
Below is a description of the fields listed in this menu:

- **Add User** – Used to add a new user into the system.
- **User** – The user account that is being modified.
- **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.

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

4.9.5. Security

This menu is used to block or allow trusted sites onto the NVR. This is applied via a built-in IP filter. Below is a screenshot of this menu:



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

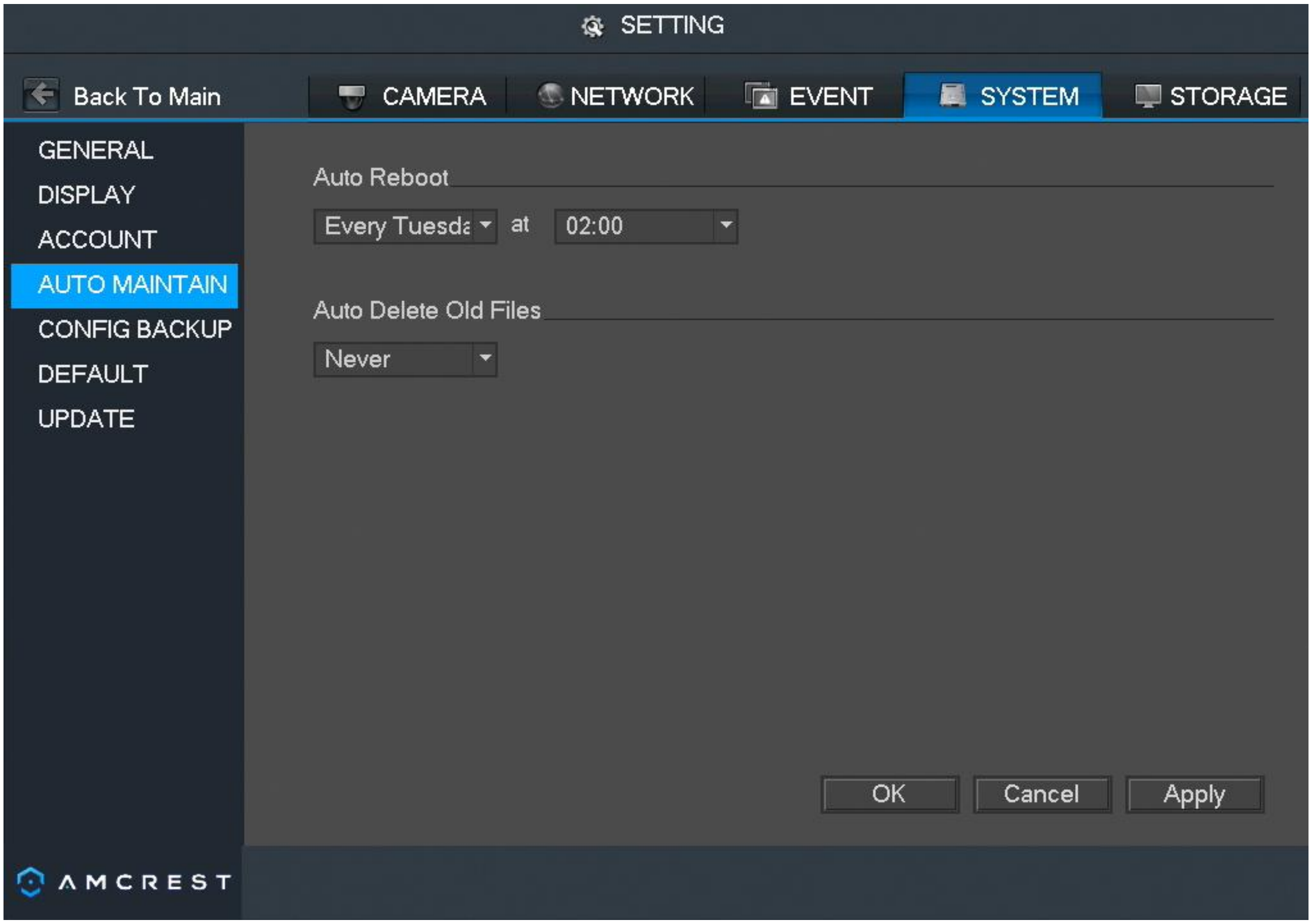
- **Enable** – Used to enable the IP Filter.
- **Add** – Used to Add a trusted or block site into the filter.
- **Trusted sites** – Provides a list of trusted sites set by the user.
- **Block Sites** – Provides a list of blocked sites set by the user.

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

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

4.9.6. Auto Maintain

This screen is used to configure Auto Maintenance settings for the NVR. Below is a screenshot of the Auto Maintain settings screen:



Auto Reboot

Every Tuesda at 02:00

Auto Delete Old Files

Never

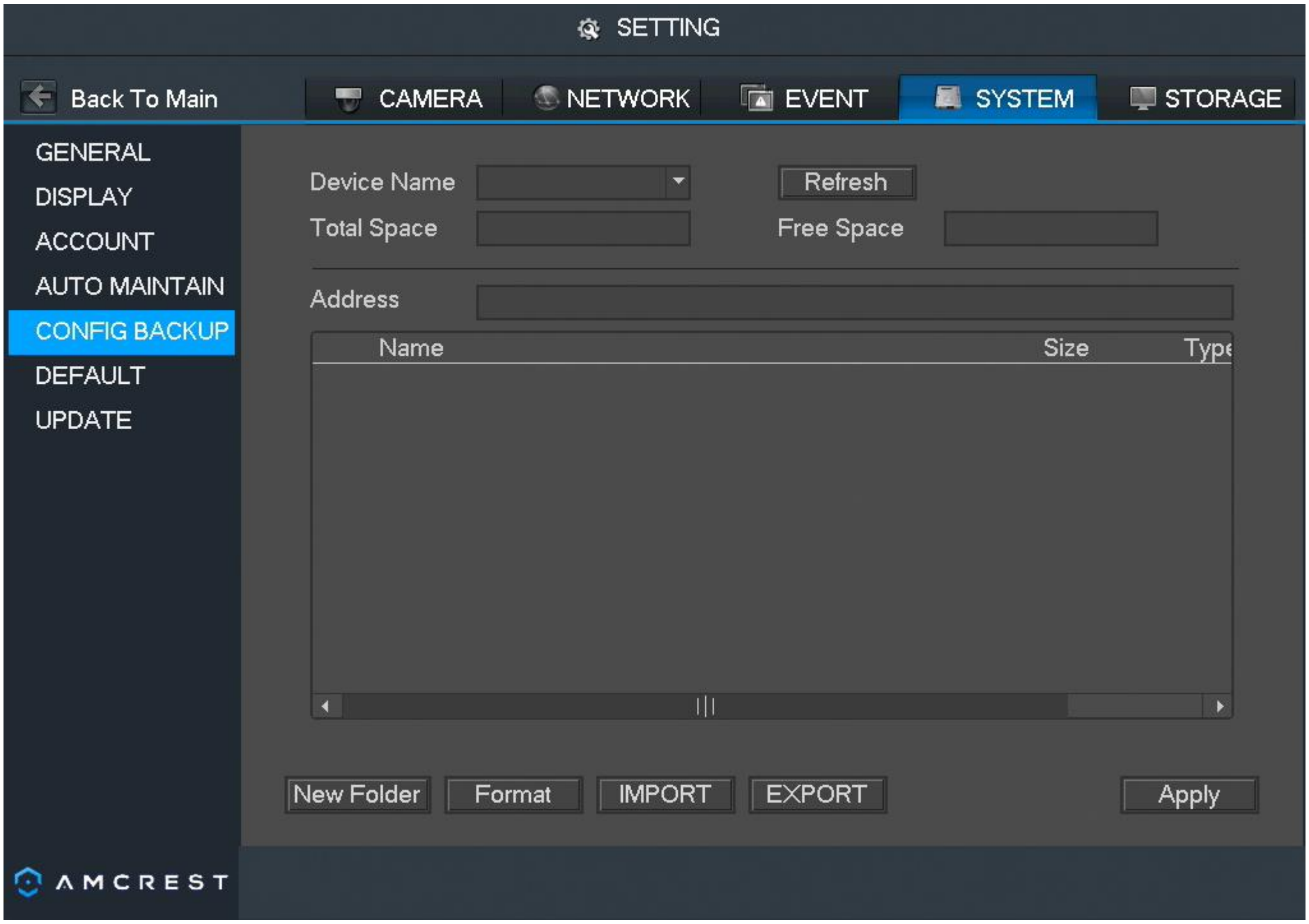
Below is an explanation of the fields on the Auto Maintain settings screen:

- Auto Reboot: This dropdown field allows the user to set a day of the week and time to automatically reboot the system to keep the system healthy.
- Auto Delete Old Files: This dropdown field allows the user to delete old files. The two settings are Never and Customized. When customized is selected, several days can be specified. Any files that exist past that many days in the past are deleted to create space on the NVR's hard drive.

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

4.9.7. Config Backup

This screen is used to manage importing and exporting of system configurations. This feature can be used to clone the settings from one NVR to another. Below is a screenshot of the Config Backup settings screen:

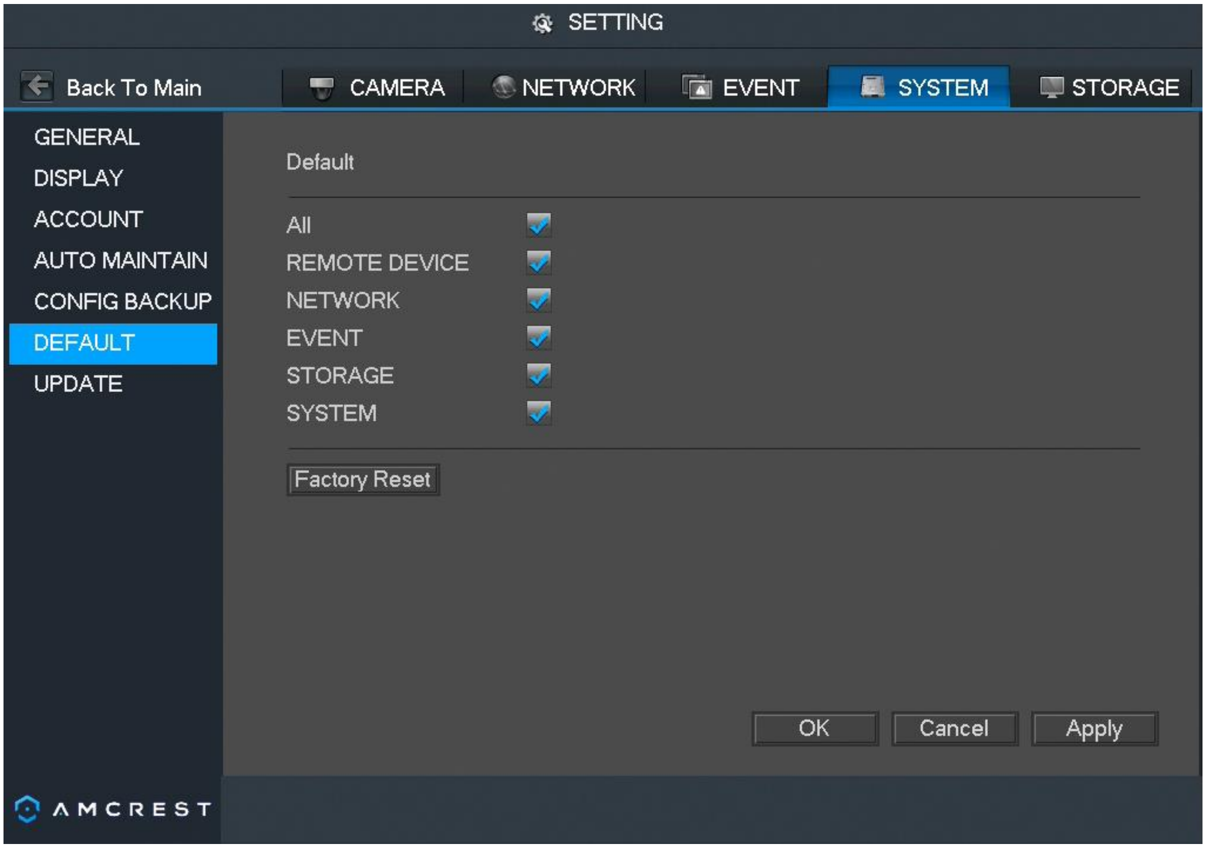


Below is an explanation of the fields on the Config Backup settings screen:

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

4.9.8. Default

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



Default

All ☑
REMOTE DEVICE ☑
NETWORK ☑
EVENT ☑
STORAGE ☑
SYSTEM ☑

There are 5 different settings areas that can be reset to default settings: Remote Device settings, Network Settings, Event settings, Storage settings, and System settings. All these settings can be reset using the **All** checkbox.

The following settings are also reset with a factory reset:

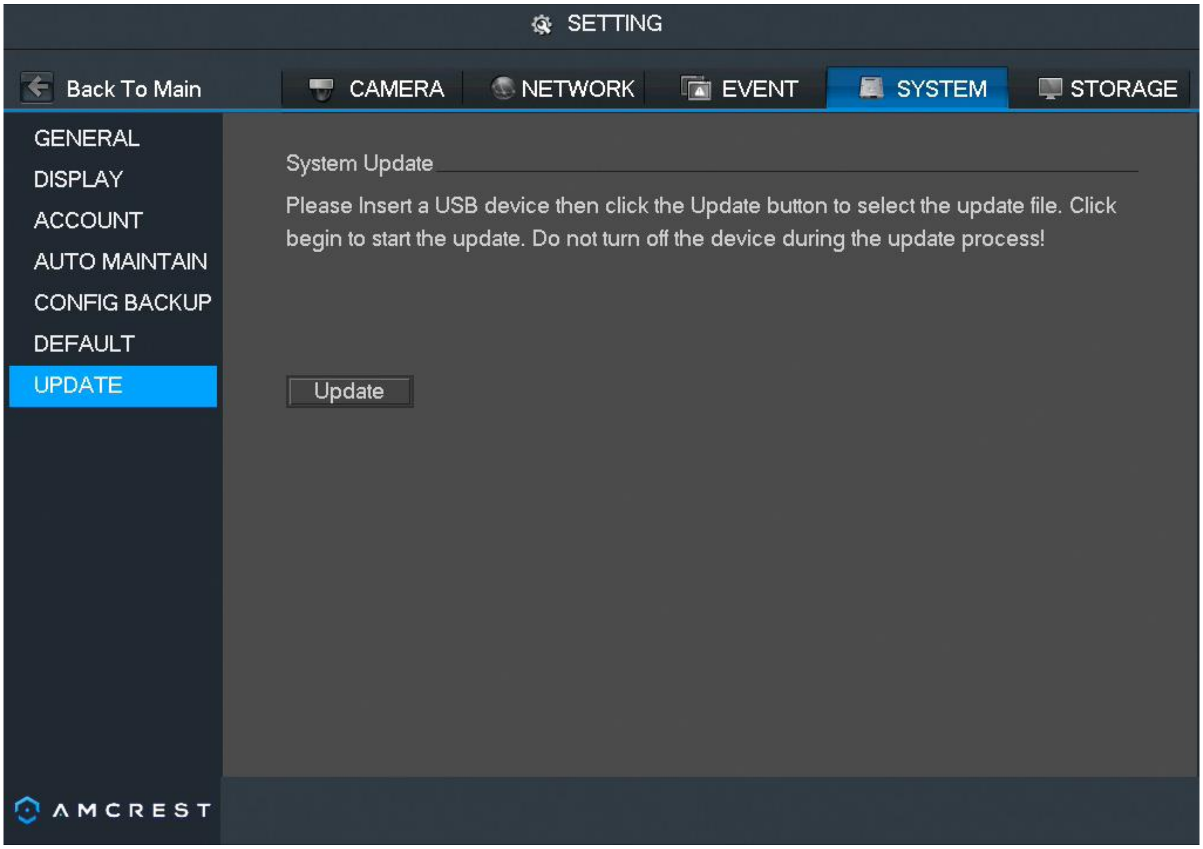
- System Menu Color
- Language
- Time Display Mode
- Video Format
- IP Address
- User Accounts

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

4.9.9. Update

This can be labeled as System Update on some model NVRs. This screen is used to update the NVR's firmware to the latest version. To conduct a system update, it is required to put an update file onto a USB storage device and plug it into the NVR. Ensure the update file is named update.bin.

Below is a screenshot of the Update screen:



System Update

Please Insert a USB device then click the Update button to select the update file. Click begin to start the update. Do not turn off the device during the update process!

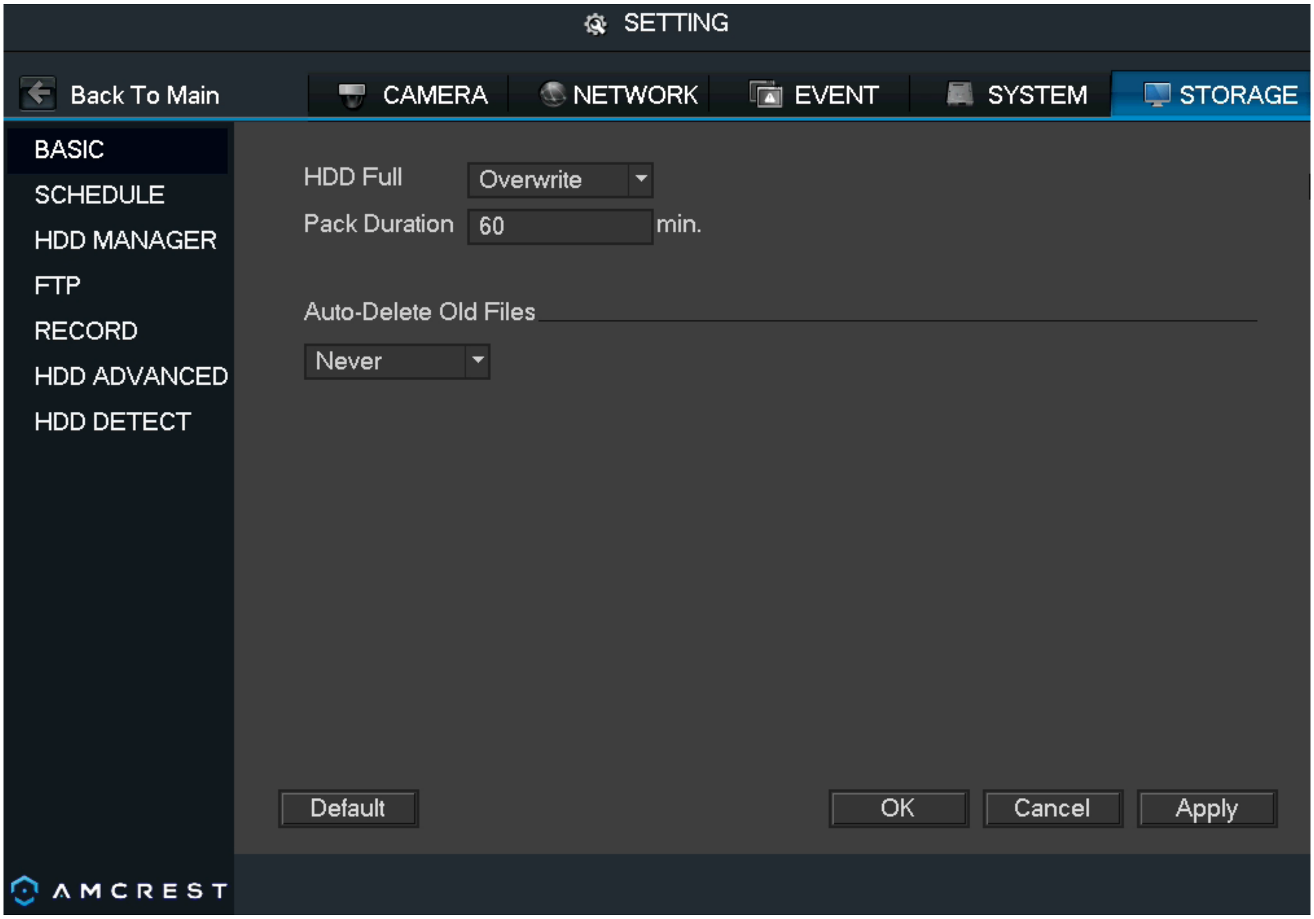
Once the USB device with the firmware update is plugged in, navigate to this screen and click the Start button to begin the firmware update process.

4.10. Storage

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

4.10.1. Basic

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



HDD Full: Overwrite

Pack Duration: 60 min.

Auto-Delete Old Files: Never

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

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

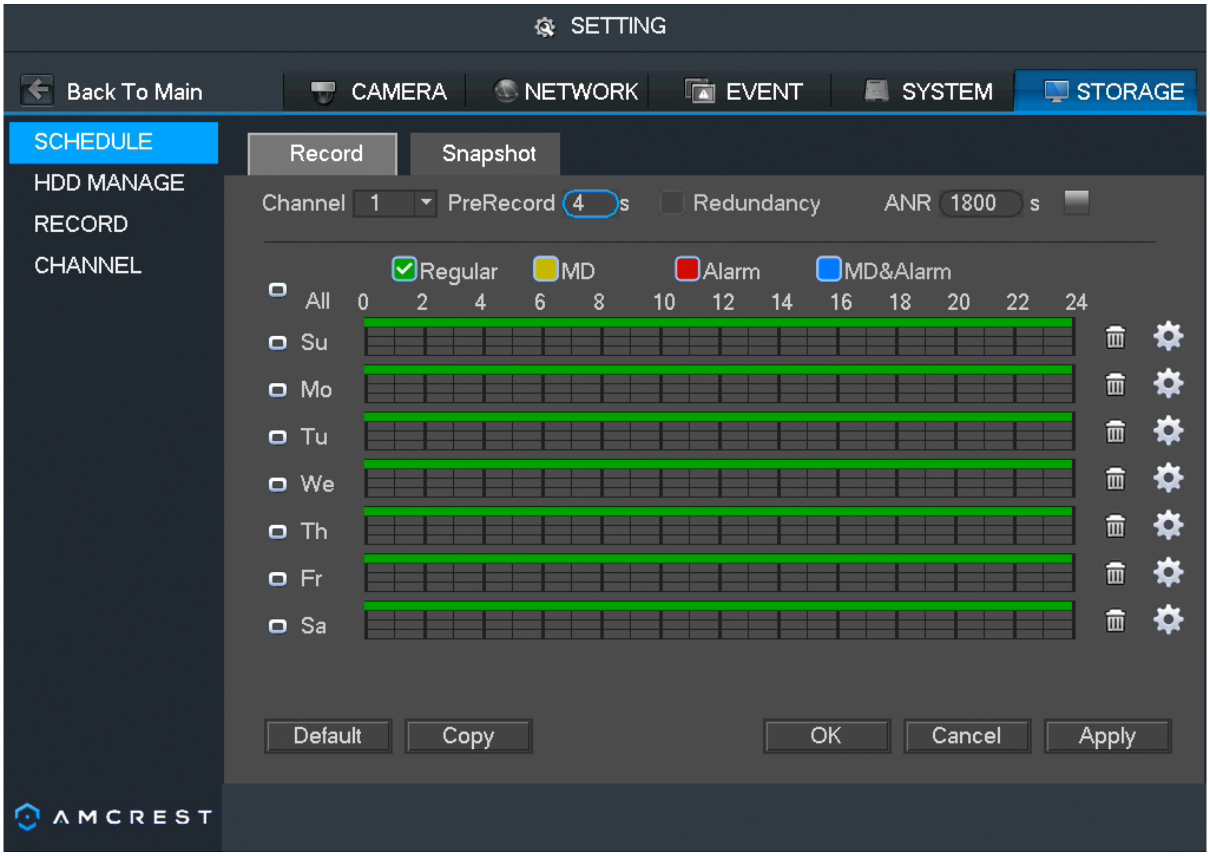
Note: This feature may not be available in all models and may be applicable to only certain model NVRs.

4.10.2 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.

4.10.2.1. Record

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



Channel 1

PreRecord 4 s

☐ Redundancy

ANR 1800 s

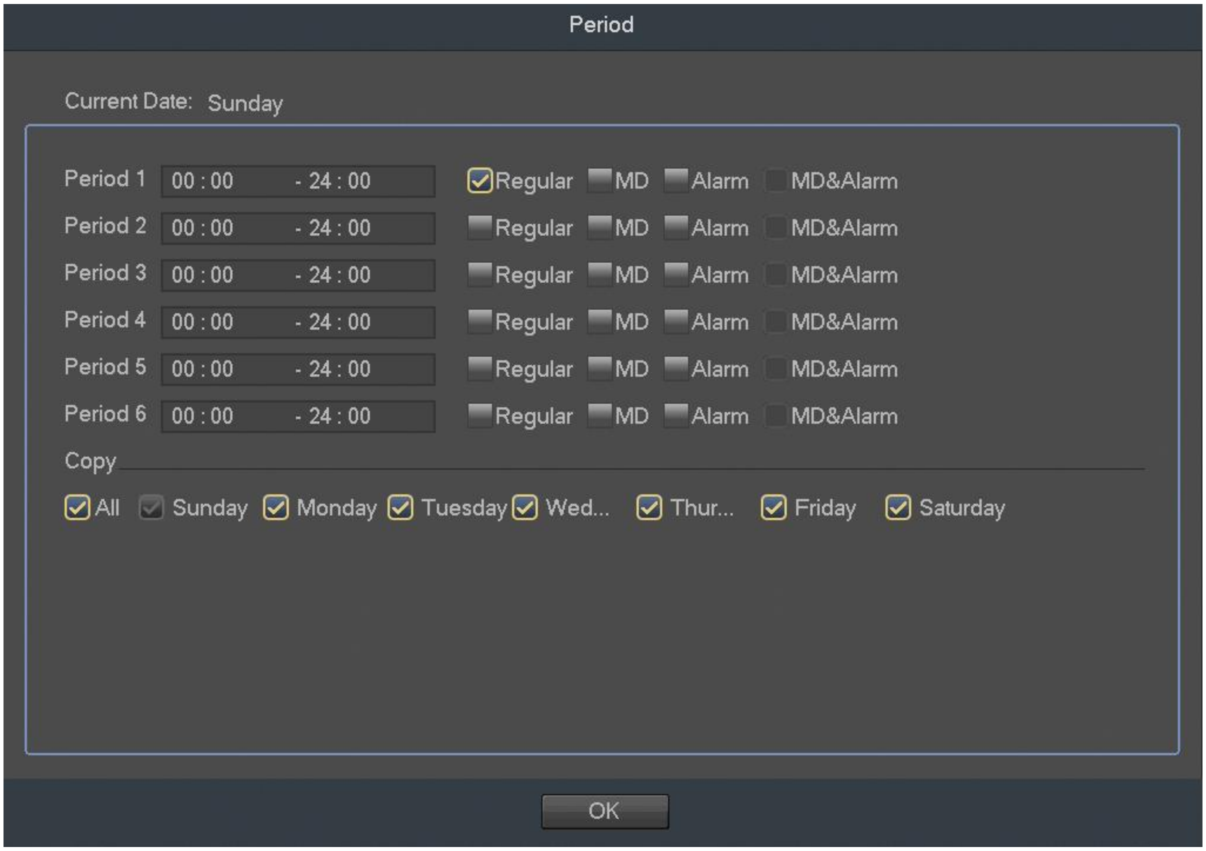
Below is an explanation of the fields on the Record settings screen:

- **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.
- **Redundancy:** This checkbox allows the user to enable the redundancy backup feature. This feature allows the NVR to record video to two hard drives concurrently to ensure that in the case of a hard drive failure, the recorded data may be backed up to another hard drive.

  - This function only works if the HDD has two hard drives installed.
  - One hard drive must be designated as redundant from the HDD Manager menu.

- Record Types: There are 4 types of recordings:
  - **Regular:** Regular recording means that the NVR captures all footage for the specified time period. Regular recording is represented by green.
  - **MD:** Motion Detection recording means that the NVR captures only footage when the motion detection alarm is activated. MD recording is represented by yellow.
  - **Alarm:** Alarm recording means that the NVR captures only footage when an alarm is activated. Alarm recording is represented by the color red.
  - **MD & Alarm**: This type of recording is a combination of motion detection and alarm footage, and records when either a motion detection alarm or general alarm is activated. MD & Alarm recording is represented by the color white.

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



Current Date: Sunday

Period 1 00 : 00 - 24 : 00 ☑ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Period 2 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Period 3 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Period 4 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Period 5 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Period 6 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm

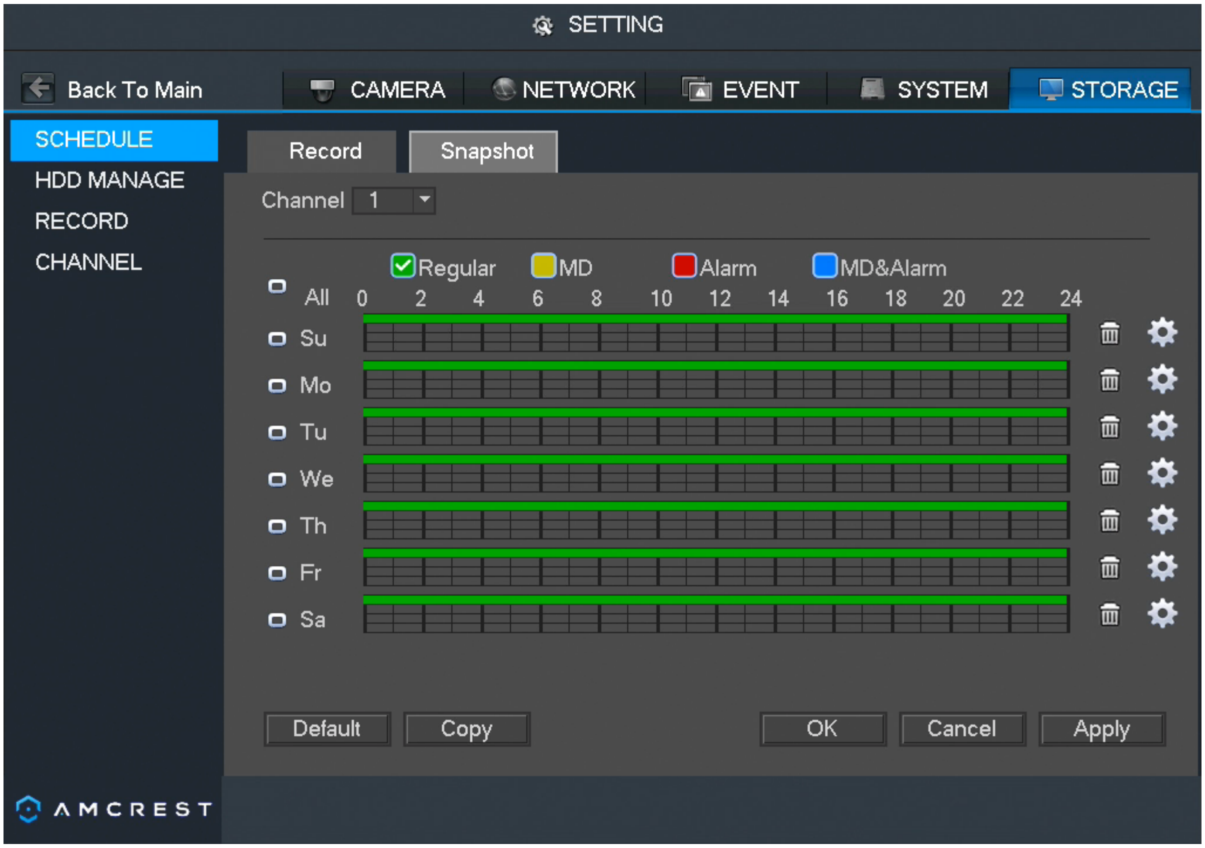
Copy
☑ All ☑ Sunday ☑ Monday ☑ Tuesday ☑ Wed... ☑ Thur... ☑ Friday ☑ Saturday

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 the all options to apply the settings to all days of the week.

To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click Copy near the bottom left hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

4.10.2.2. Snapshot

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



Channel 1

Note: Prior to setting up a schedule for snapshots in this menu, it is highly recommended to do the following 3 steps.

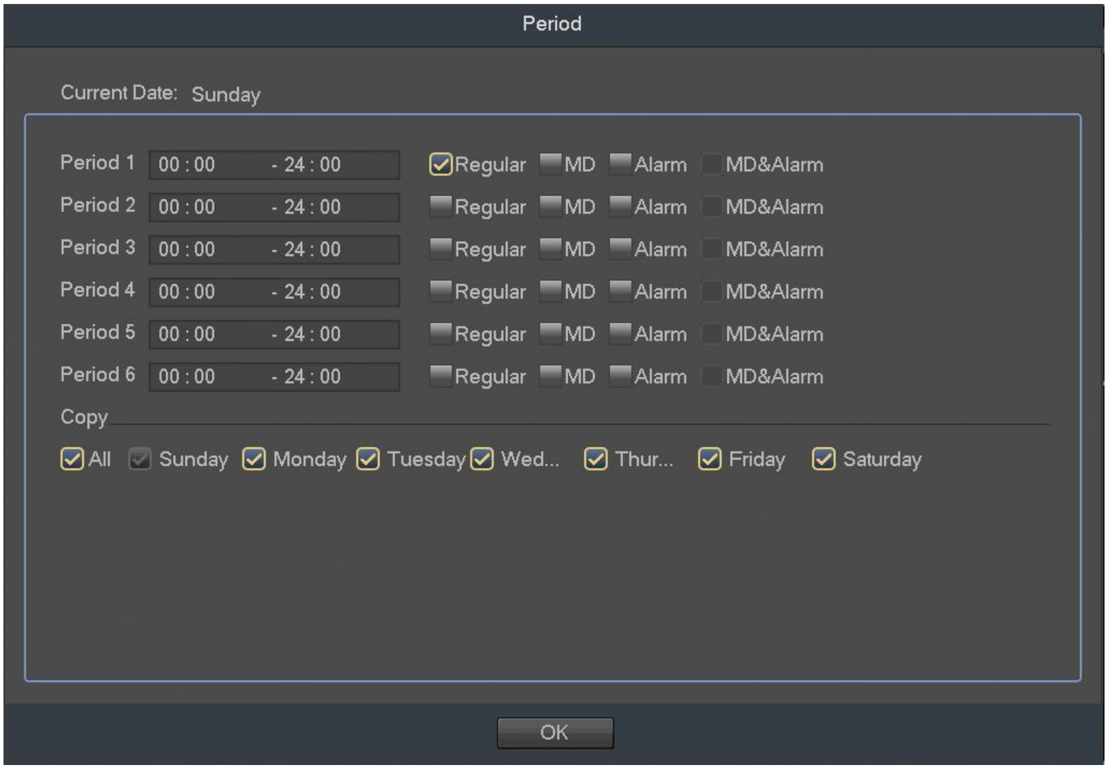
1. Go to Main Menu -> Settings -> Storage -> Record and enable snapshot for any channels that may be using this feature.
2. Go to Main Menu -> Settings -> Camera -> Encode -> Snapshot Interface and configured the settings on this page.

3. Go to Main Menu -> Settings -> Event -> Detect and enable snapshot for any specified channels for motion detection, video loss, and video masking.

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

- **Channel:** This dropdown box allows the user to pick which channel they would like to change video recording settings for.
- **Record Types**: There are 4 types of recordings:
  - **Regular:** Regular recording means that the NVR captures all footage for the specified time period. Regular recording is represented by green.
  - **MD:** Motion Detection recording means that the NVR captures only footage when the motion detection alarm is activated. MD recording is represented by yellow.
  - **Alarm:** Alarm recording means that the NVR captures only footage when an alarm is activated. Alarm recording is represented by the color red.
  - **MD & Alarm**: This type of recording is a combination of motion detection and alarm footage, and records when either a motion detection alarm or general alarm is activated. MD & Alarm recording is represented by the color white.

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



Current Date: Sunday

Period 1 00 : 00 - 24 : 00 ☑ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Period 2 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Period 3 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Period 4 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Period 5 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Period 6 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm

Copy
☑ All ☑ Sunday ☑ Monday ☑ Tuesday ☑ Wed... ☑ Thur... ☑ Friday ☑ Saturday

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 the all options to apply the settings to all days of the week.

To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click Copy near the bottom left hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

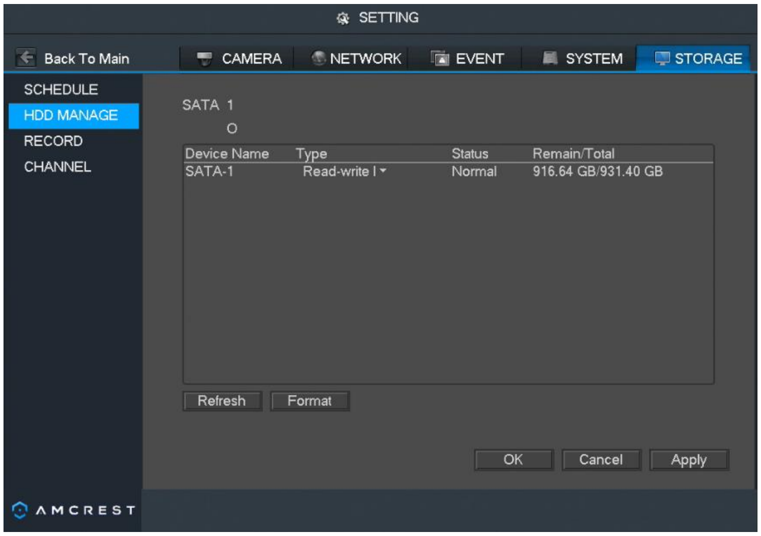
Note: Alarm activated snapshots have higher recording priority than scheduled snapshots. If there is an overlap, alarm activated snapshots will take precedence.

Note: To enable FTP upload of snapshots, connection to an FTP server must be configured.
To revert to default settings, click the Default button near the bottom left hand corner. To copy settings to another channel, click Copy near the bottom left hand corner. To confirm settings, click the OK button near the bottom right hand corner. To cancel any modifications, click the Cancel button near the bottom right hand corner. To apply the settings, click the Apply button near the bottom right hand corner.

4.10.3. HDD Manage

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

Below is a screenshot of the HDD Manage settings screen:



Device Name	Type	Status	Remain/Total
SATA-1	Read-write	Normal	916.64 GB/931.40 GB

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

- SATA: This shows how many hard drives the system can support.
- 1 here means the system supports a maximum of 1 HDD.

The symbol on the next row shows the status of the connected hard drive.

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

- Hard Drive List:
- This shows what hard drives are currently connected to the NVR and displays information about them.
- Device Name: This column shows the names of the connected hard disk drives (HDD).
- Type: This column shows the type of access the NVR has to the hard drive. To change a hard drive's type, click the downward arrow next to the HDD's type and select the desired type. There are 3 possible settings:

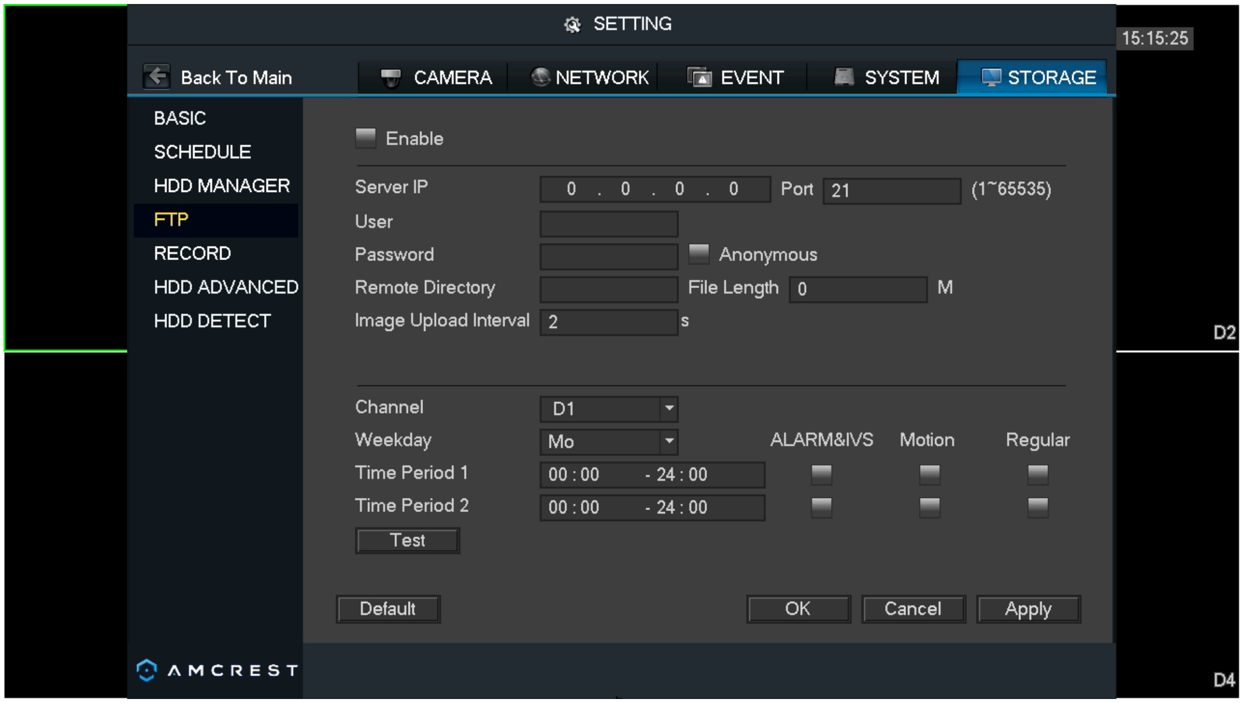
- Read-Only: This allows the NVR to read the data, but not modify it in anyway.
- Write-Only: This allows the NVR to write data to the HDD, but not read any data from it.
- Read/Write: This allows the NVR to both read and write data on the HDD.
- Status: This column shows the status of the connected hard drive. There are 3 statuses:
- Normal: This means the hard drive is operating normally.
- Error: This means the NVR is experiencing an error when attempting to access the hard drive.
- Disconnected: This means that the HDD has disconnected from the NVR.
- Free Space/Total Space: This field shows the free space on the hard drive compared to its total capacity.

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

4.10.4. FTP

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

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



☐ Enable
Server IP 0 . 0 . 0 . 0 Port 21 (1~65535)
User
Password ☐ Anonymous
Remote Directory File Length 0 M
Image Upload Interval 2 s
Channel D1
Weekday Mo
Time Period 1 00 : 00 - 24 : 00 ☐ ☐ ☐
Time Period 2 00 : 00 - 24 : 00 ☐ ☐ ☐

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

- Enable: This checkbox allows the user to enable the FTP feature for the NVR.
- Server IP: This field allows the user to enter the FTP server IP address and port.
- User Name: This field allows the user to enter the FTP username.
- Password: This field allows the user to enter the FTP server password. The checkbox next to this field enables anonymous access to the FTP.
- Remote Directory: This field allows the user to designate which folder the NVR will upload files to.
- File Length: This field allows the user to dictate how large upload files can be.
- Image Upload Interval: This field allows the user to define, in seconds, how often images can be uploaded to the FTP server.
- Channel: This field allows the user to pick a channel to set FTP settings for.
- Weekday: This field allows the user to pick a day of the week to set FTP settings for.

Time Period 1: This field allows the user to specify a time period and what types of files to upload (Alarm, Motion, Regular).

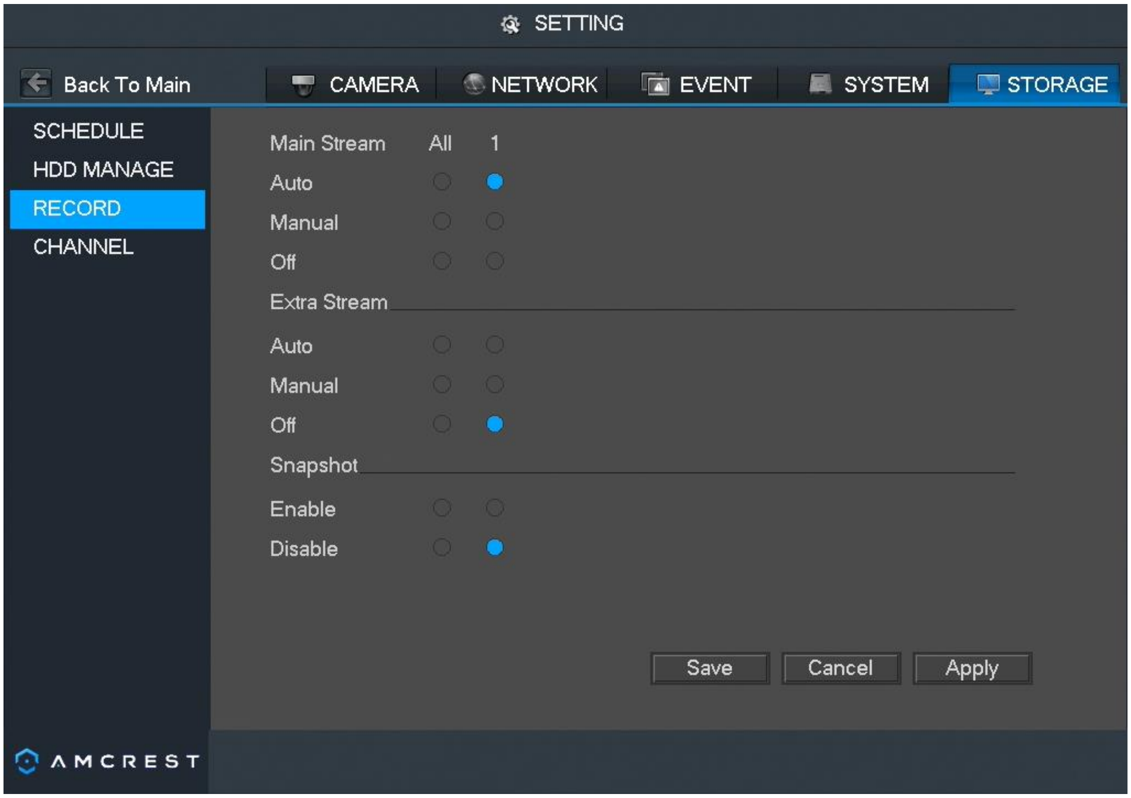
- Time Period 2: This field allows the user to specify a time period and what types of files to upload (Alarm, Motion, Regular).

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

Note: This feature may be available in the Network tab in some model NVRs. For more information on this option, refer to *section 4.7.8. FTP Setting*.

4.10.5. Record

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



Main Stream	All	1
Auto	○	●
Manual	○	○
Off	○	○
Extra Stream		
Auto	○	○
Manual	○	○
Off	○	●
Snapshot		
Enable	○	○
Disable	○	●

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 main stream.
  - Schedule: 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.
  - Stop: Channels will not record in any capacity. This includes scheduled and manual recording.
- Extra Stream: Otherwise known as the sub stream, this stream allows for additional data to be transmitted.

There are 3 settings that can be used for the main stream.

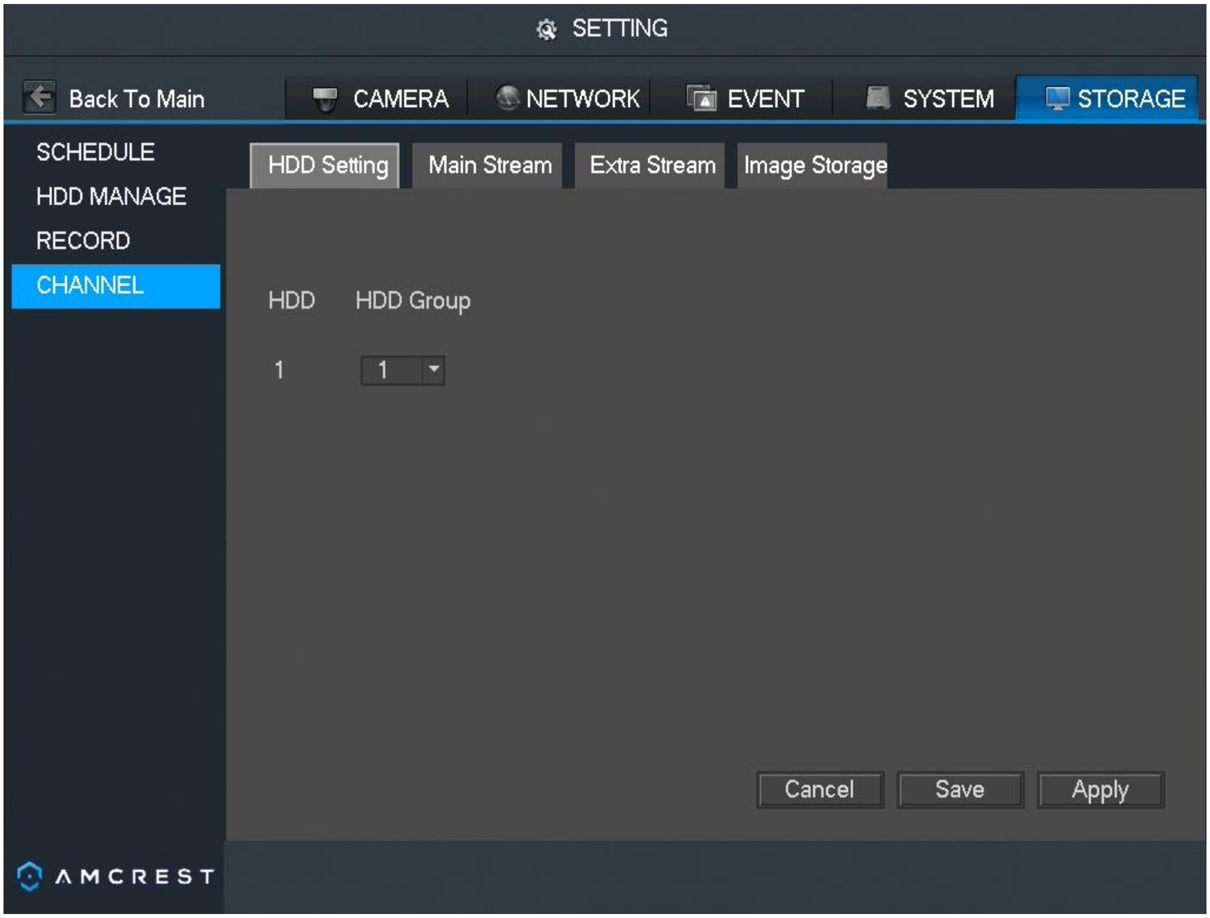
  - Schedule: Channels will record as they have been scheduled, and not in any other capacity.
  - Manual: Channels will support all recording type. This includes scheduled recording.
  - Stop: Channels will not record in any capacity. This includes scheduled and manual recording.

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

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

4.10.6. Channel

This tab may be labeled as **HDD Advanced** on some model NVRs. This screen allows the user to set and group corresponding HDD and image settings. Below is a screenshot of the channel menu:



HDD	HDD Group
1	1

4.10.6.1. HDD Setting

This is to set the HDD group, and HDD group setup for main stream, sub stream, and snapshot operations.

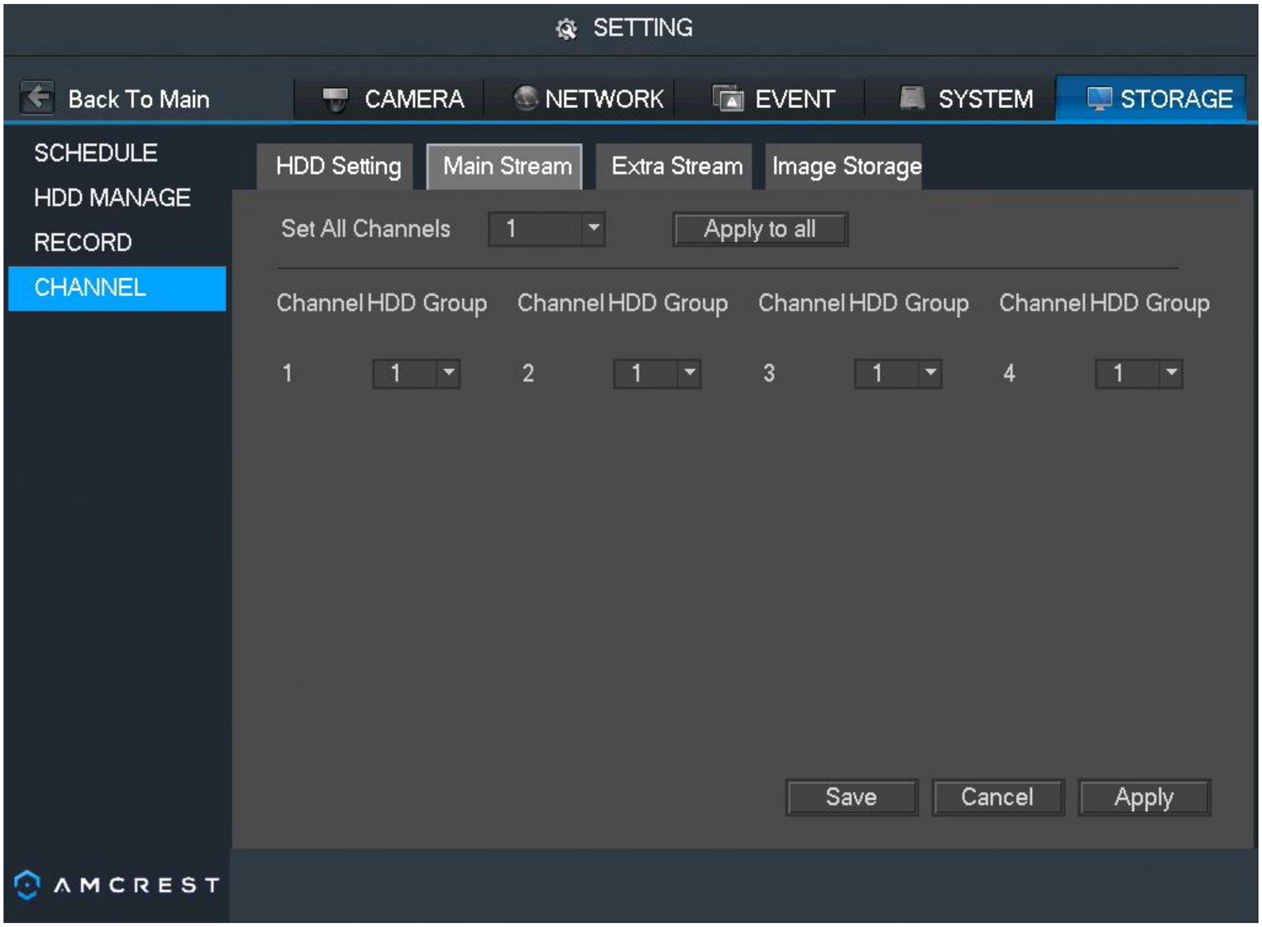
Important

The HDD group and quota mode cannot be used at the same time. The system needs to restart once you change the mode here.

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

4.10.6.2. Main Stream

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



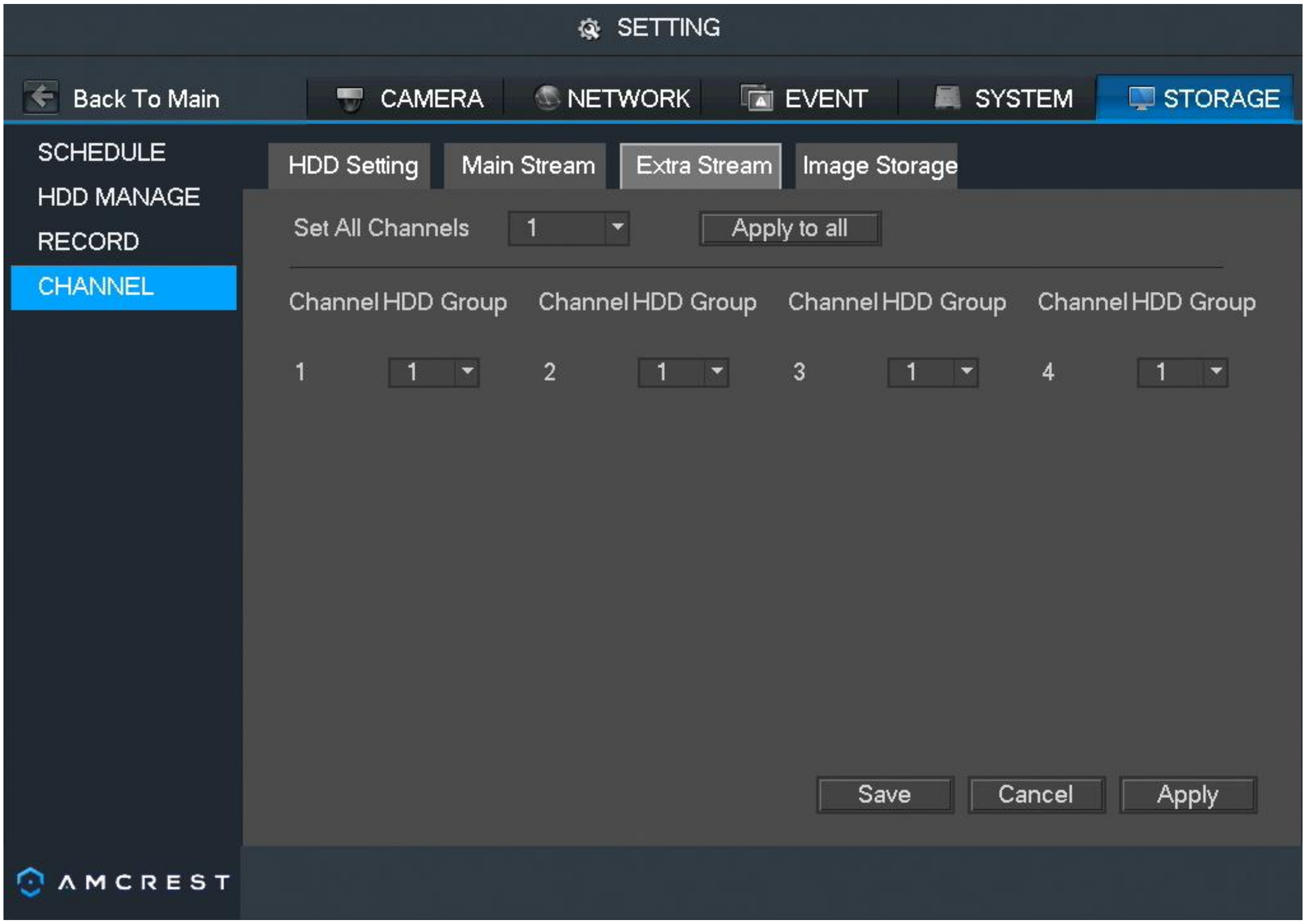
Set All Channels: 1

Channel	HDD Group	Channel	HDD Group	Channel	HDD Group	Channel	HDD Group
1	1	2	1	3	1	4	1

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

4.10.6.3. Extra Stream

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



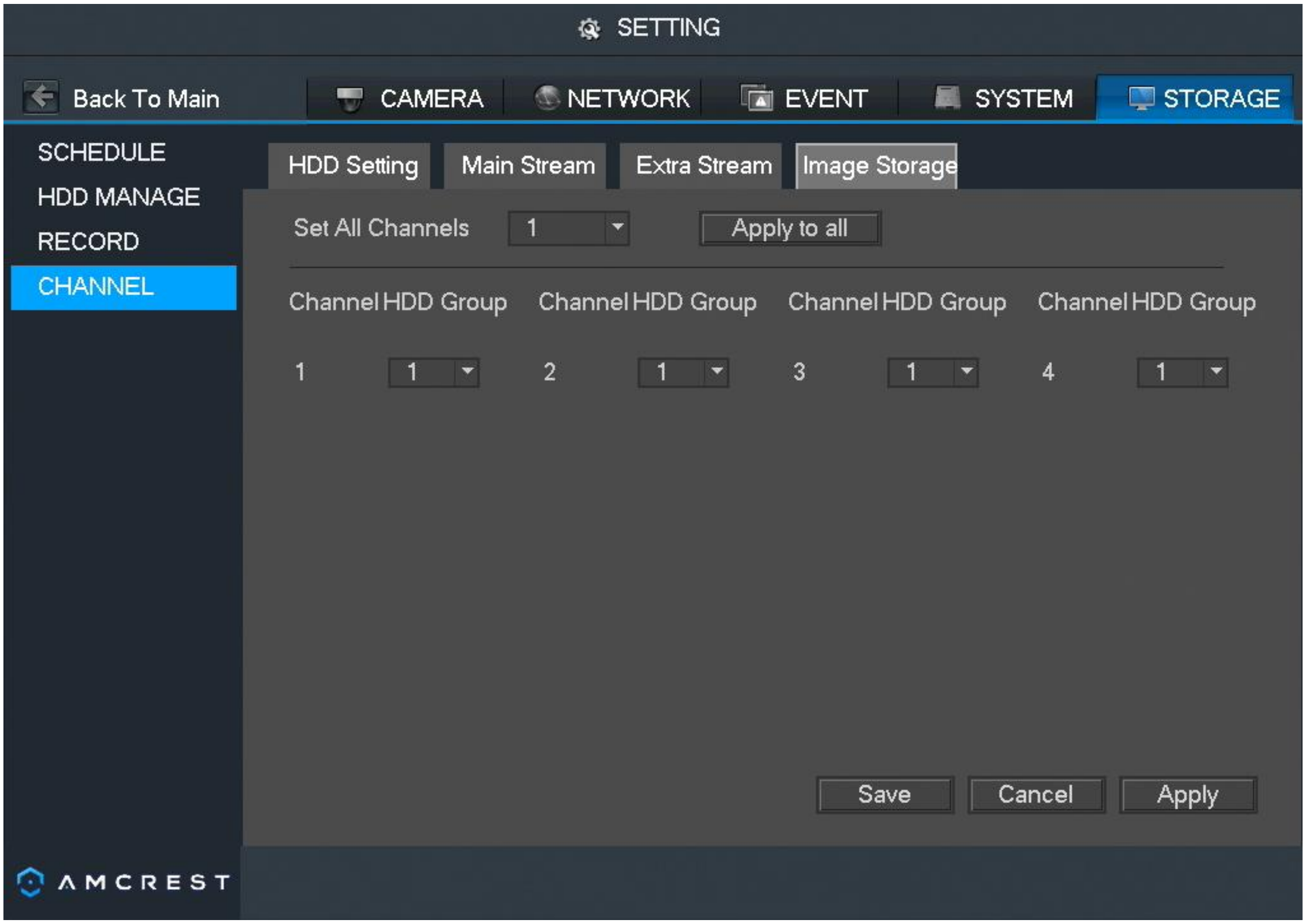
Set All Channels: 1

Channel	HDD Group	Channel	HDD Group	Channel	HDD Group	Channel	HDD Group
1	1	2	1	3	1	4	1

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

4.10.6.4. Image Storage

The image storage interface allows the user set corresponding HDD group to save image settings of a connected device. Below is a screenshot of the image storage channel interface:



Set All Channels: 1

Channel	HDD Group	Channel	HDD Group	Channel	HDD Group	Channel	HDD Group
1	1	2	1	3	1	4	1

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

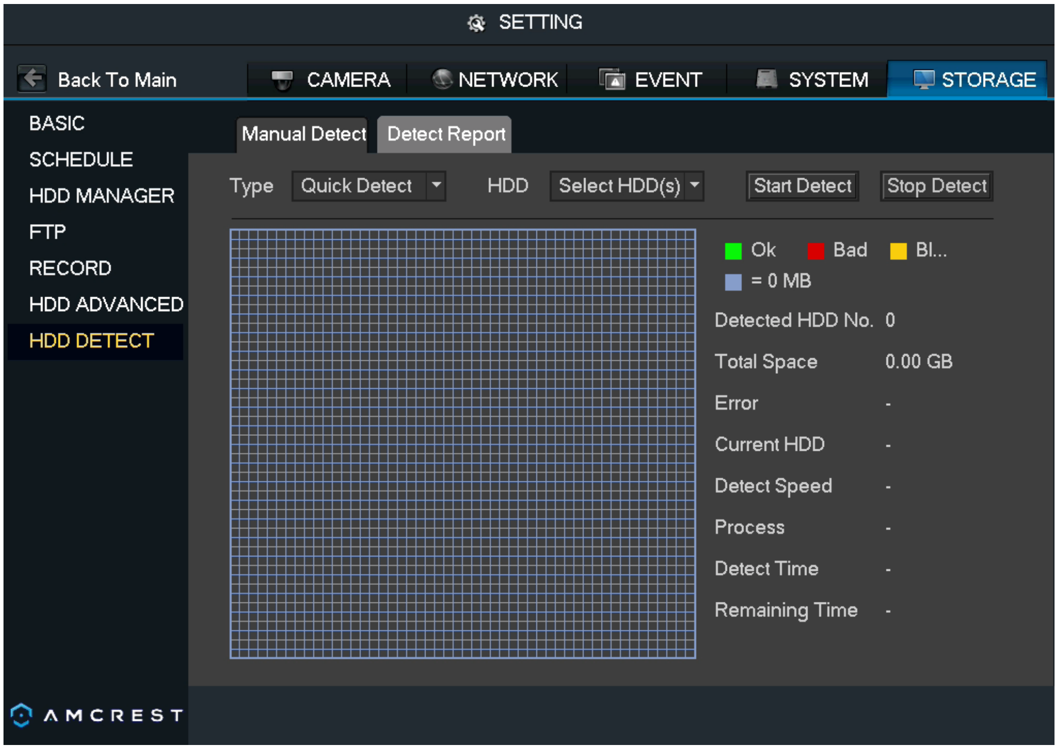
4.10.7. HDD Detect

This tab allows the user to quickly detect errors on an installed hard drive (HDD) that is applied to the NVR.

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

4.10.7.1. Manual Detect

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



Type: Quick Detect
HDD: Select HDD(s)

🟦 = 0 MB
Detected HDD No. 0
Total Space 0.00 GB
Error -
Current HDD -
Detect Speed -
Process -
Detect Time -
Remaining Time -

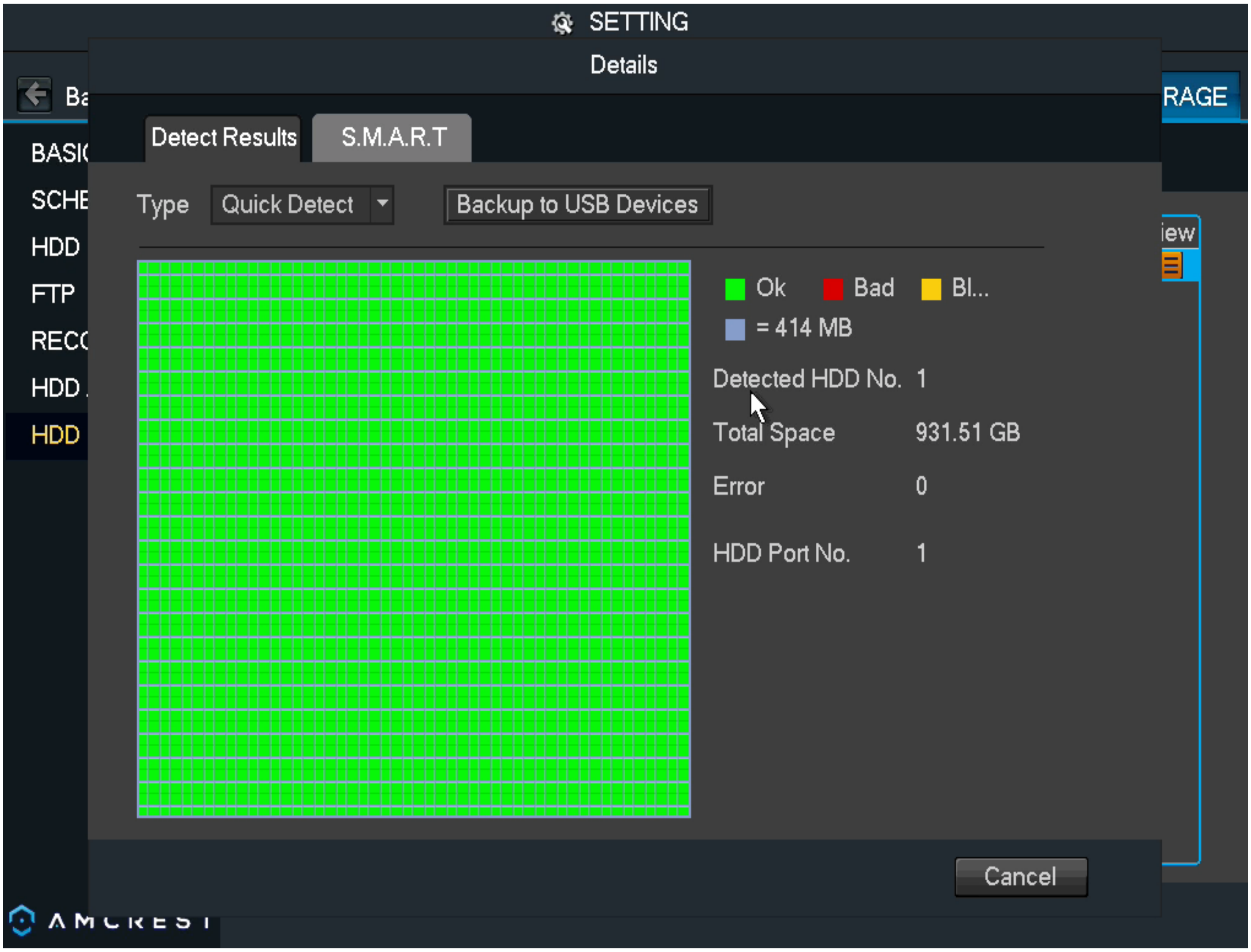
Below is a description of the features listed in this menu:

- Type – This dropdrown allows the user to select which detection type they would like to use for HDD detection. This can be a quick detect which provides a brief detection of your HDD or a Full Detect which provides a full overview of the detect process.
- **Note:** Using full detect may result in the loss of file data on the HDD.
- HDD – Allows the user to select which HDD is being detected.
- Start Detect – Starts the HDD detect process.
- Stop Detect - Stops the HDD detect process.

Once HDD detect has begun, the system will begin scanning the HDD for issues. Once the scan is complete you can get a quick view of the results below, or you can get a full detect report in the Detect Report tab.

4.10.7.2. Detect Report

This menu allows the user to view results of their HDD detection scan. To view the detect report click on **View.** Below is a screenshot of this menu:



Type: Quick Detect

🟩 Ok 🟥 Bad 🟨 Bl...

🟦 = 414 MB

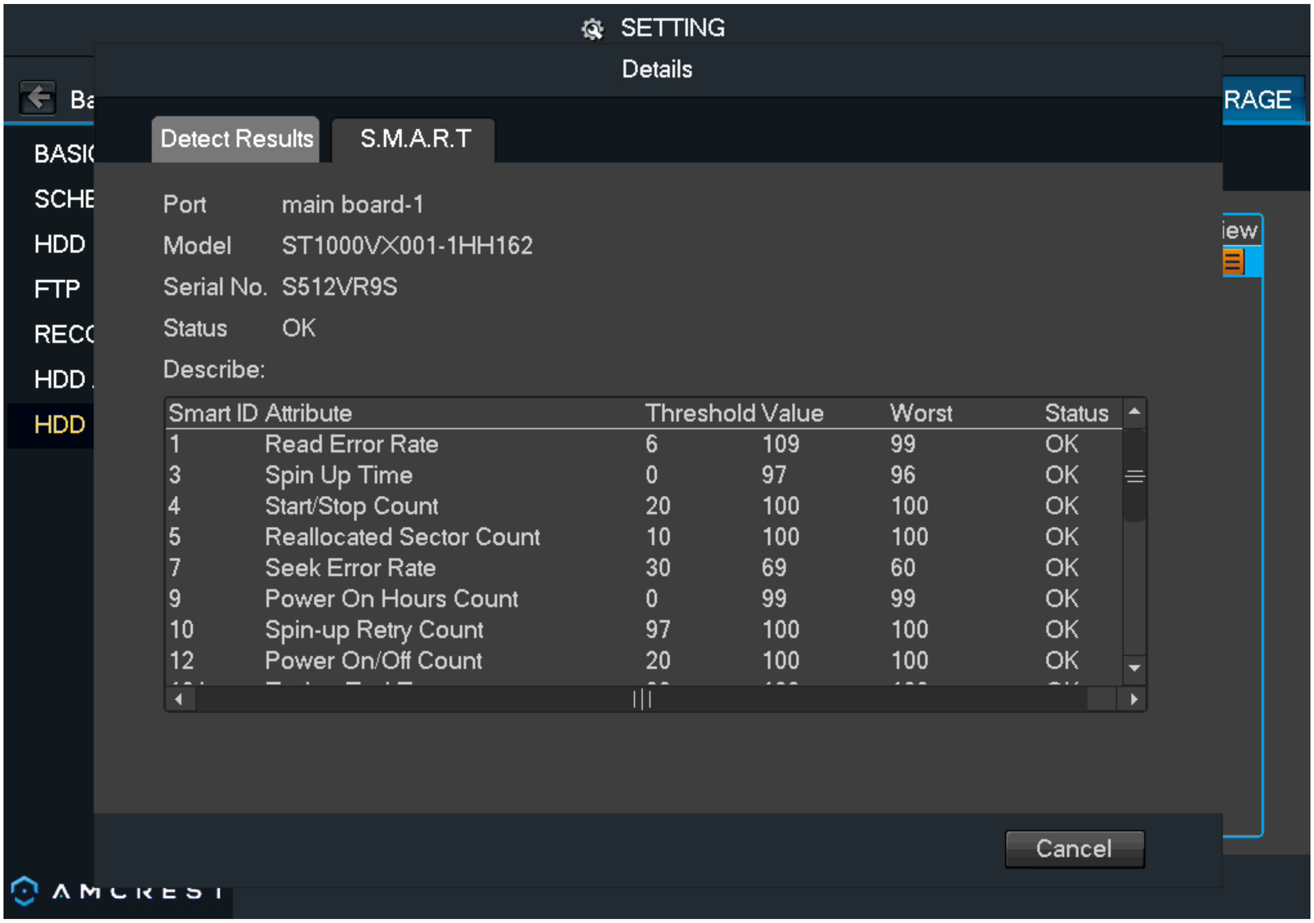
Detected HDD No.	1
Total Space	931.51 GB
Error	0
HDD Port No.	1

4.10.7.2.1. Detect Results

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

4.10.7.2.2. S.M.A.R.T.

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



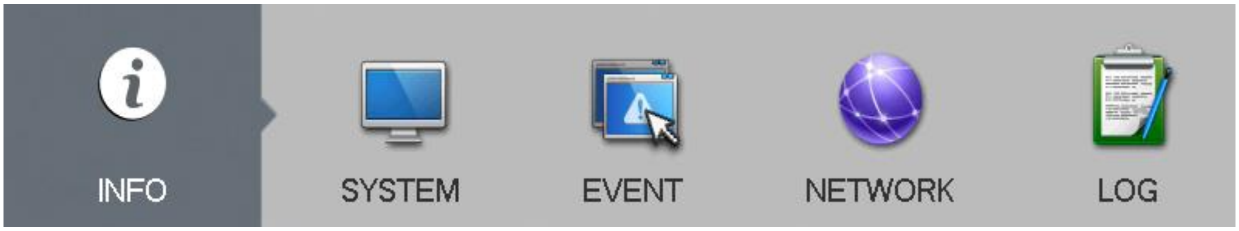
Port main board-1
Model ST1000VX001-1HH162
Serial No. S512VR9S
Status OK
Describe:

Smart ID	Attribute	Threshold	Value	Worst	Status
1	Read Error Rate	6	109	99	OK
3	Spin Up Time	0	97	96	OK
4	Start/Stop Count	20	100	100	OK
5	Reallocated Sector Count	10	100	100	OK
7	Seek Error Rate	30	69	60	OK
9	Power On Hours Count	0	99	99	OK
10	Spin-up Retry Count	97	100	100	OK
12	Power On/Off Count	20	100	100	OK

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.

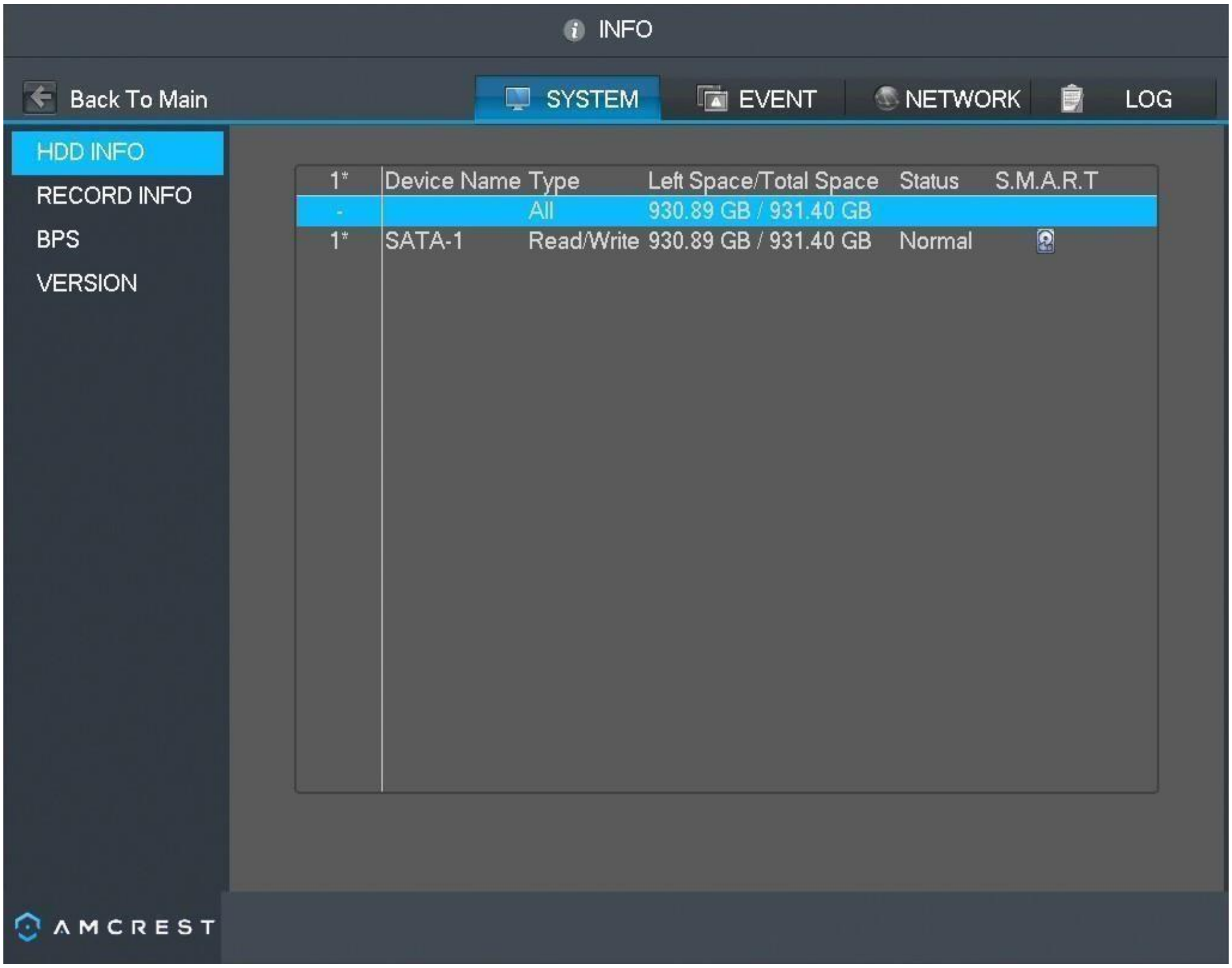
Info Menu

The next section covered in this user manual will be related to the **Info** section located on the main menu.



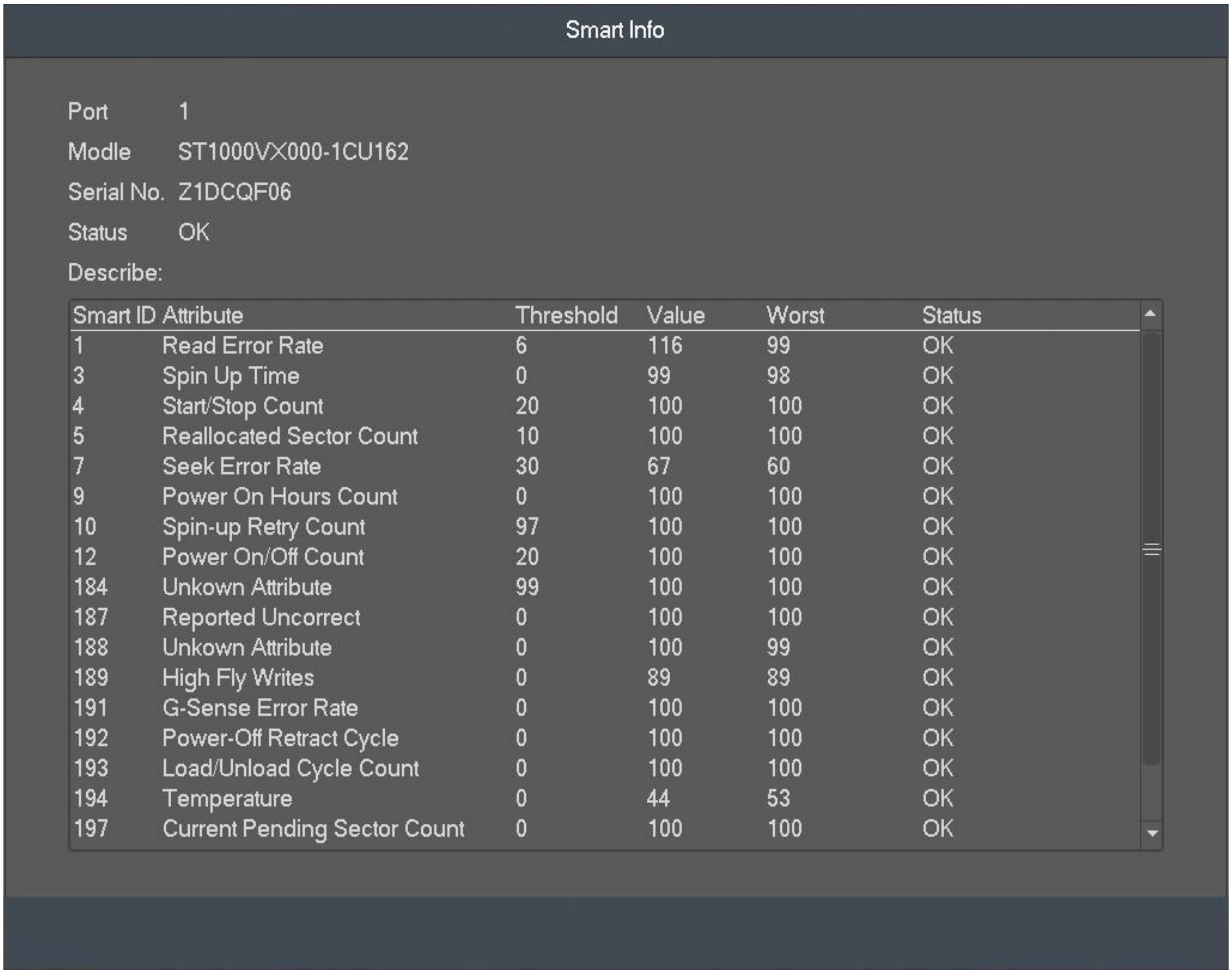
4.11. System

Here lists hard disk type, total space, free space, and status. ○ means the current HDD is normal. - means there is no HDD. If the disk is damaged, the system shows a “?”. Please remove the broken hard disk before you add a new one.



1*	Device Name	Type	Left Space/Total Space	Status	S.M.A.R.T
-		All	930.89 GB / 931.40 GB		
1*	SATA-1	Read/Write	930.89 GB / 931.40 GB	Normal	

Click one HDD item. The S.M.A.R.T interface is shown in the image below:



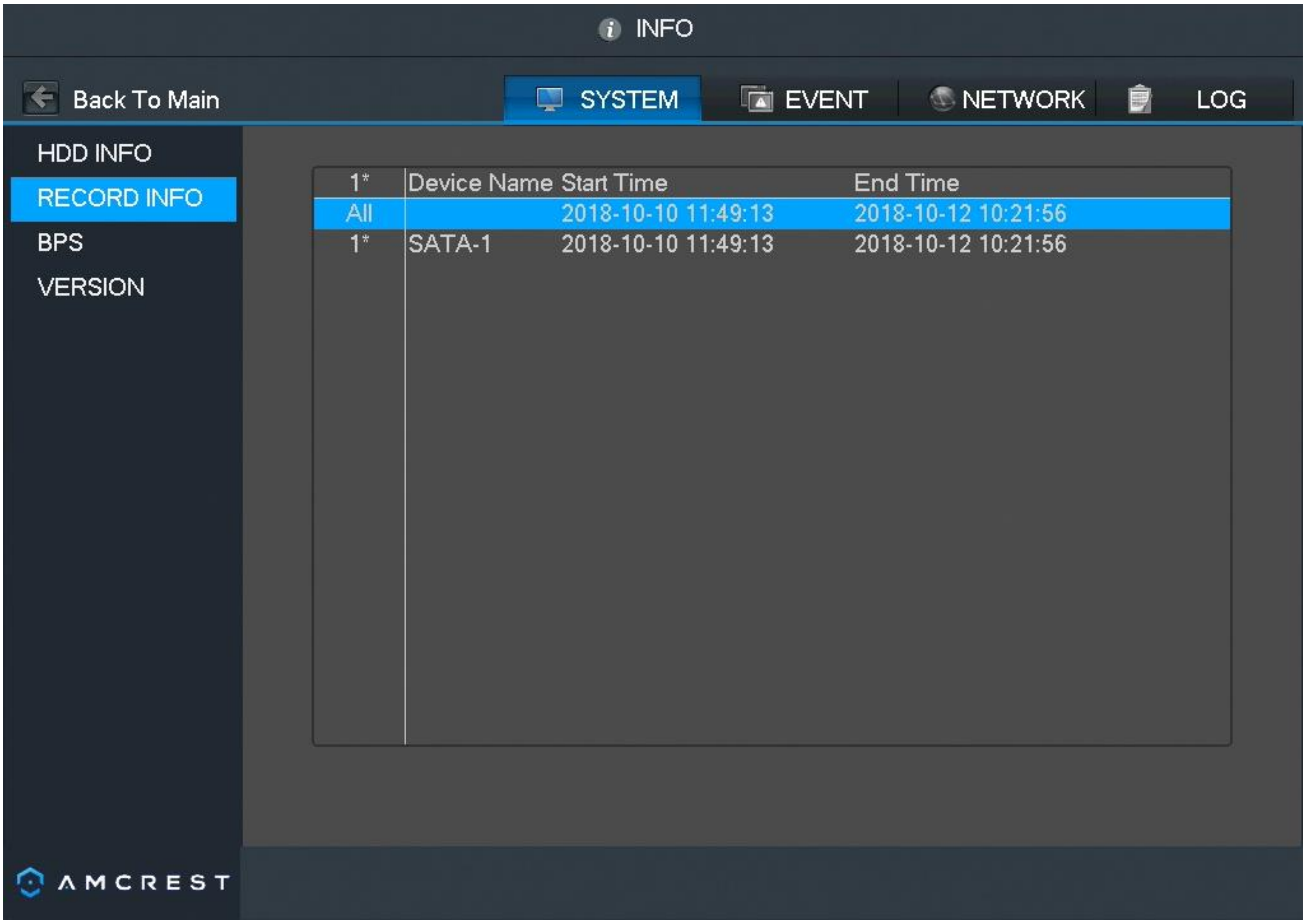
Port 1
Modle ST1000VX000-1CU162
Serial No. Z1DCQF06
Status OK
Describe:

Smart ID	Attribute	Threshold	Value	Worst	Status
1	Read Error Rate	6	116	99	OK
3	Spin Up Time	0	99	98	OK
4	Start/Stop Count	20	100	100	OK
5	Reallocated Sector Count	10	100	100	OK
7	Seek Error Rate	30	67	60	OK
9	Power On Hours Count	0	100	100	OK
10	Spin-up Retry Count	97	100	100	OK
12	Power On/Off Count	20	100	100	OK
184	Unkown Attribute	99	100	100	OK
187	Reported Uncorrect	0	100	100	OK
188	Unkown Attribute	0	100	99	OK
189	High Fly Writes	0	89	89	OK
191	G-Sense Error Rate	0	100	100	OK
192	Power-Off Retract Cycle	0	100	100	OK
193	Load/Unload Cycle Count	0	100	100	OK
194	Temperature	0	44	53	OK
197	Current Pending Sector Count	0	100	100	OK

For more information on the S.M.A.R.T. report, refer to *section 4.10.7.2.2. S.M.A.R.T.*

4.11.2. Record Info

This screen allows the user to view the current destination of all recorded data from the NVR. Below is a screenshot of this menu:

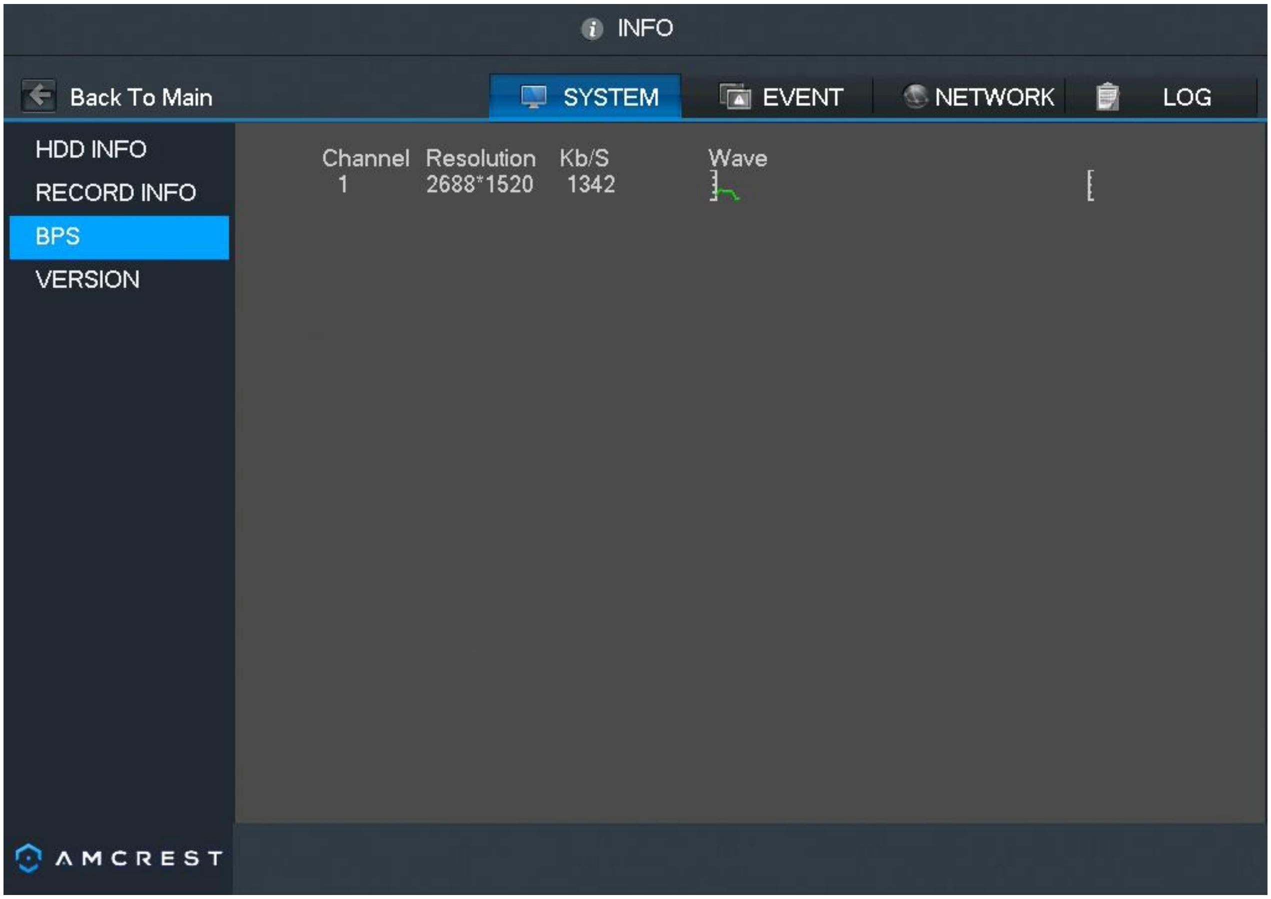


1*	Device Name	Start Time	End Time
All		2018-10-10 11:49:13	2018-10-12 10:21:56
1*	SATA-1	2018-10-10 11:49:13	2018-10-12 10:21:56

The menu will show all HDD devices associated with the NVR as well as the start and end times of the last reported recorded information.

4.11.3. BPS

Here is where you view current video bit rate (kb/s) and resolution. Below is a screenshot of this menu:

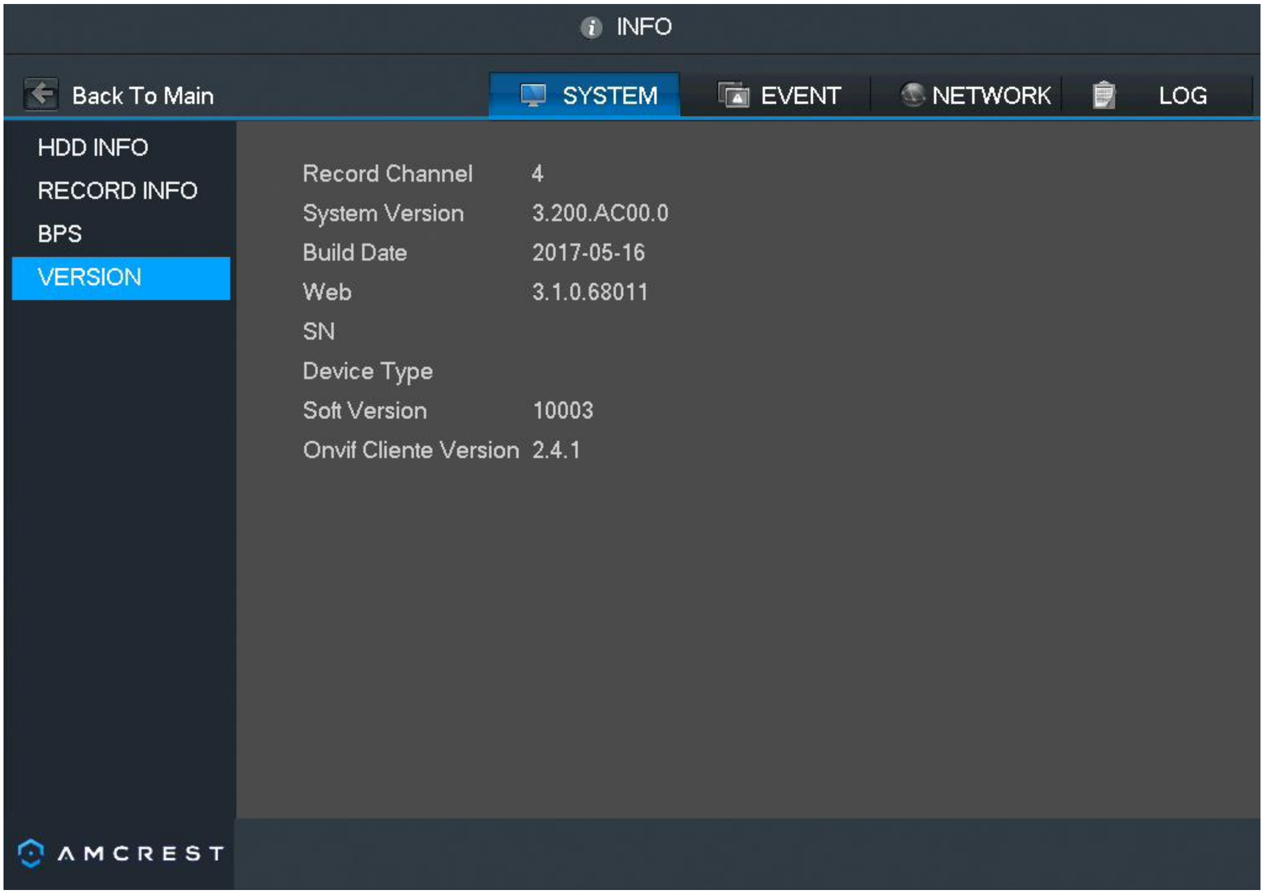


Channel	Resolution	Kb/S	Wave
1	2688*1520	1342	

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

4.11.4. Version

This menu shows the user the current software version and other critical information related to the NVR. Below is a screenshot of this menu:



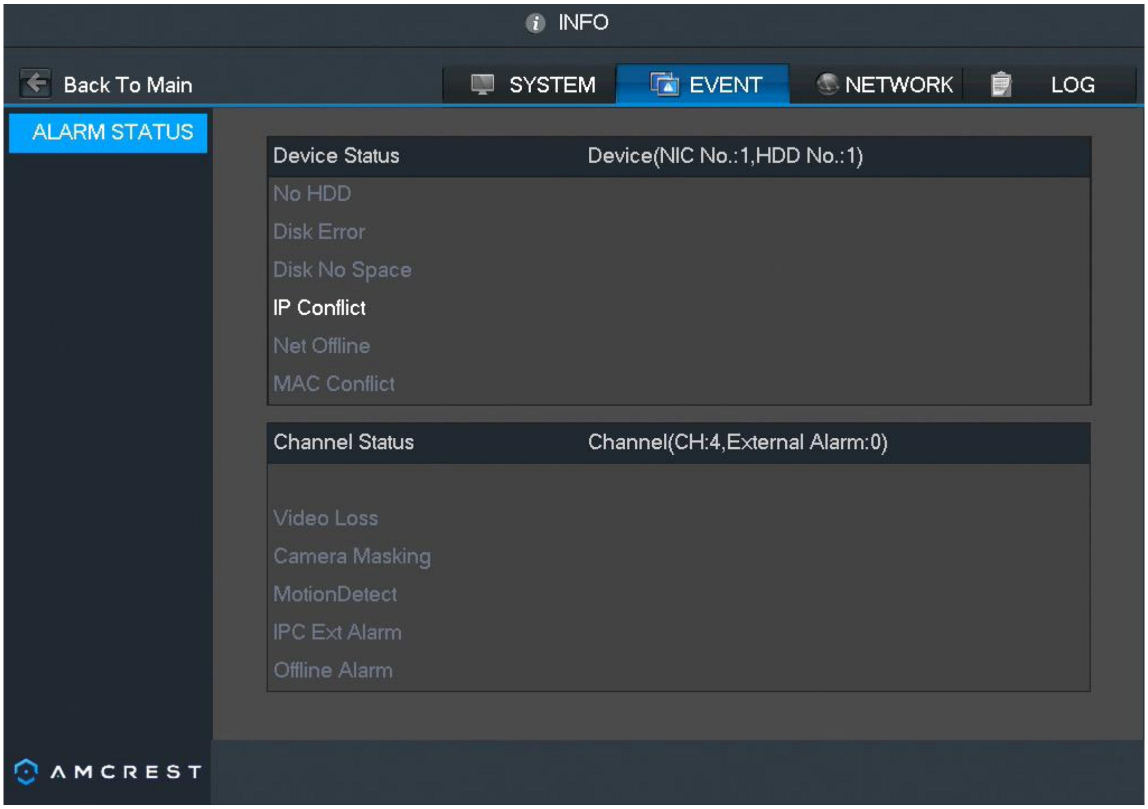
Record Channel	4
System Version	3.200.AC00.0
Build Date	2017-05-16
Web	3.1.0.68011
SN	
Device Type	
Soft Version	10003
Onvif Cliente Version	2.4.1

Please note the following figure is for reference only.

- ★ Record Channel: The number of channels the system incorporates.
- ★ System version: The current firmware version running on the system.
- ★ Build Date: The build date of the current firmware running on the system.
- ★ Web: The current web version running on the system.
- ★ SN: The serial number of your system.
- ★ Device Type: The model number of your system.
- ★ Soft Version: The software version used by the system.
- ★ Onvif Cliente Version: The current Onvif version used by the system.

4.12. Event

This menu allows the user to see any event information that the system has initiated. Below is a screenshot of this menu:



Device Status Device(NIC No.:1,HDD No.:1)

Channel Status Channel(CH:4,External Alarm:0)

Below is an explanation of each item listed in this menu:

- Device Status: Relates to the HDD and NIC card installed in the system. The following errors reported by the system are highlighted in this field.
  - No HDD: No hard drive was detected by the system upon install.
  - Disk Error: Error detecting HDD when installed
  - Disk No Space: Insufficient HDD space on the HDD
  - IP Conflict: IP conflict detected within the NIC card of the system.
  - MAC Conflict: The system detected a MAC address conflict upon initialization.

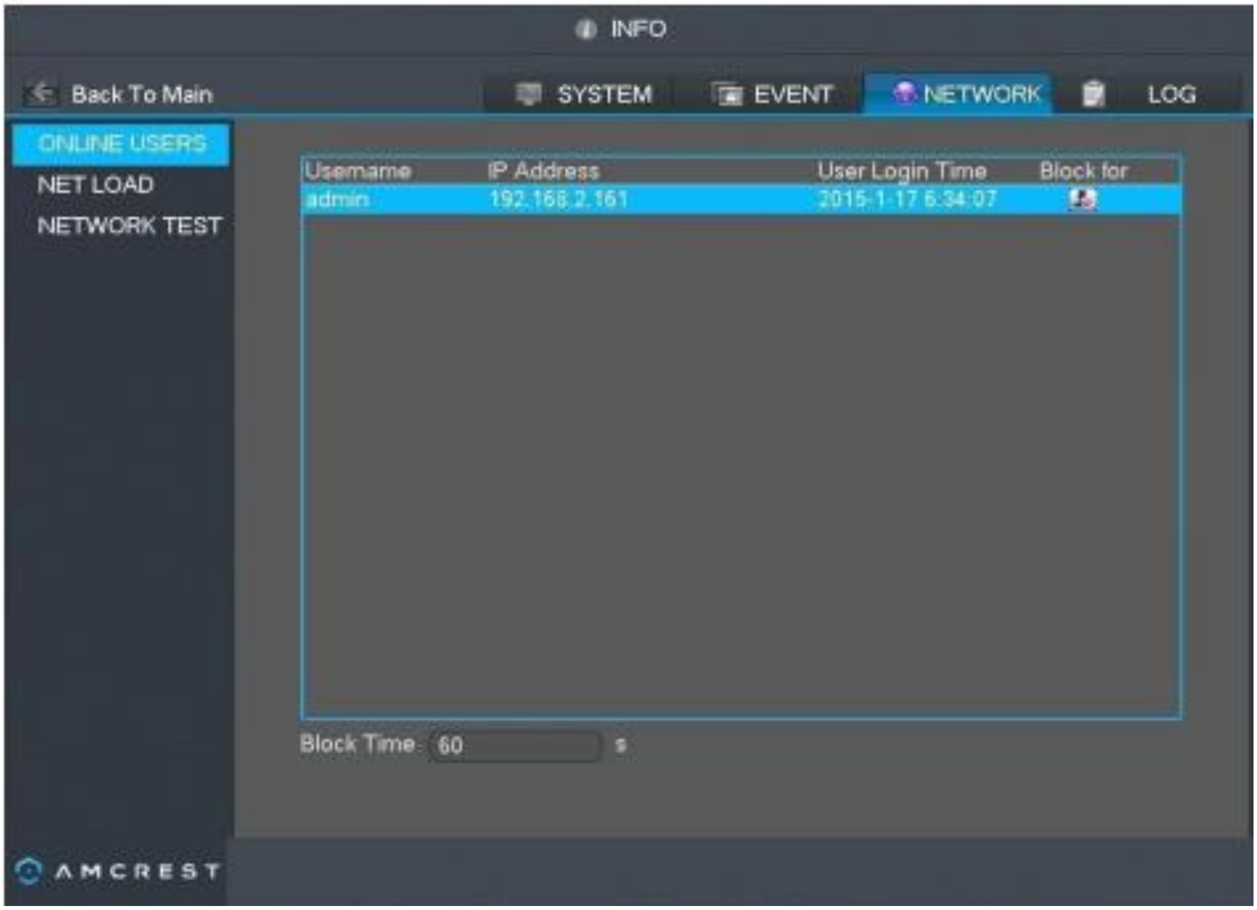
- Channel Status: Relates to the current channels and external alarms associated with the system. The follow errors reported by the system are highlighted in this field.
  - Video Loss: Video loss error detected on connected channel.
  - Camera Masking: A masking error was detected on the system
  - Motion Detect: A motion detect alarm was detected on a channel within the system.
  - IPC Ext Alarm: A camera has an external alarm error reported by the system.
  - Offline Alarm: A camera has been detected with an offline alarm error, or no offline alarm has been set for the channel.

4.13. Network

In this interface, you can perform a network test and see network load information.

4.13.1. Online Users:

Here is where you manage online users connected to your NVR. Below is a screenshot of this menu.



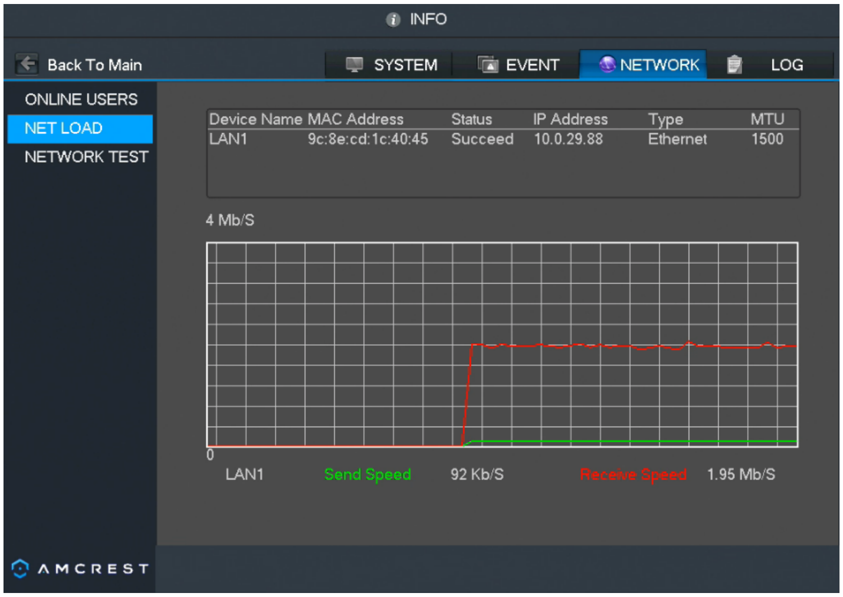
Username	IP Address	User Login Time	Block for
admin	192.168.2.161	2015-1-17 6:34:07	

Block Time 60 s

You can click to disconnect or block one user if you have the system right. The system detects if there are any newly added or deleted users every five seconds and refreshes the list automatically.

4.13.2. Net Load

This menu allows the user to view the following statistics of all the devices connected to the network adapter. Below is a screenshot of this menu:



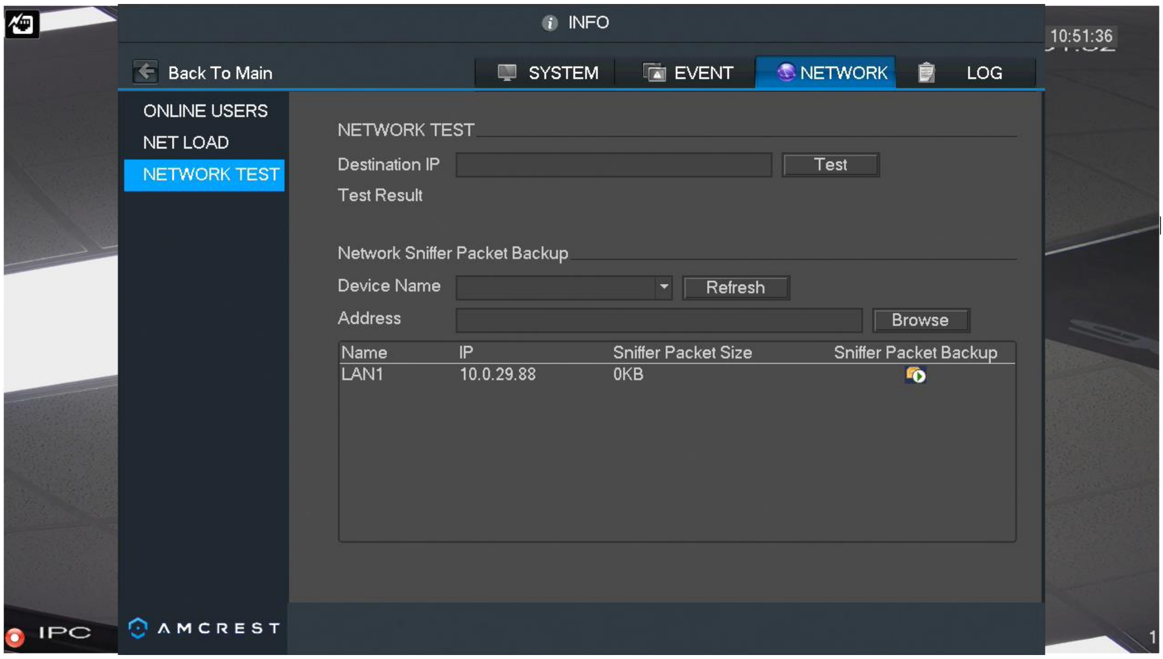
Device Name	MAC Address	Status	IP Address	Type	MTU
LAN1	9c:8e:cd:1c:40:45	Succeed	10.0.29.88	Ethernet	1500

LAN1 Send Speed 92 Kb/S Receive Speed 1.95 Mb/S

The connection status is shown as offline if the connection is disconnected. Click one network adapter to view the flow statistics such as send rate and receive rate on the top panel.

4.13.3. Network Test

This menu allows the user to view and test all network load information related to the system. Below is a screenshot of this menu:



Name	IP	Sniffer Packet Size	Sniffer Packet Backup
LAN1	10.0.29.88	0KB	

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

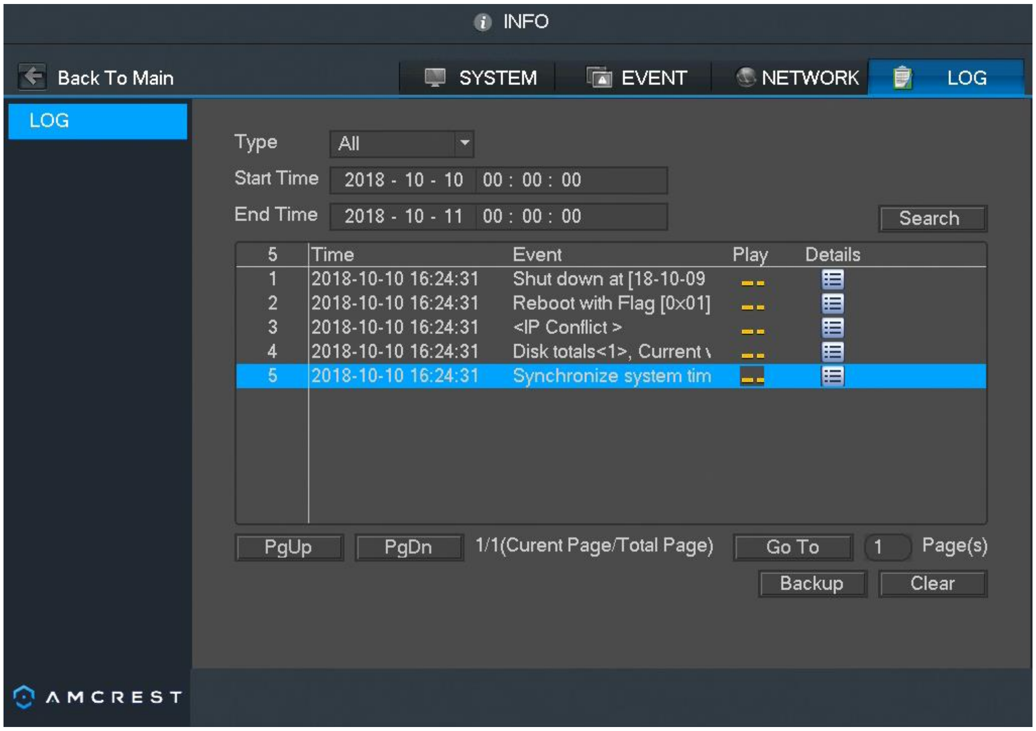
- Destination IP: Please input a valid IPV4 address or domain name.
- Test: Click this to test the connection with the destination IP address. The test results can display average delay and packet loss rate and you can also view the network status as OK, bad, no connection, etc.
- Network Sniffer backup: Please insert a USB2.0 device and click the Refresh button to view the device on the following column. You can use the dropdown list to select the peripheral device. Click the Browse button to select the snap path. The steps here are the same as the preview backup operation.

You can view all connected network adapter names (including Ethernet and PPPoE). Click the button on the right panel to start the Sniffer. Click the grey stop button to stop. Please note the system cannot Sniffer several network adapters at the same time.

After the Sniffer begins, you can exit to implement corresponding network operation such as WEB login or monitoring. Please go back to the Sniffer interface to click to stop the Sniffer. The system can save the packets to the specified path. The file is named "Network adapter name+time". You can use software such as Wireshark to open the packets on the PC for the professional engineer to solve complicated problems.

4.14. Log

This menu allows the user to view log information retained in the system. Below is a screenshot of this menu:



Type: All

Start Time: 2018 - 10 - 10 00 : 00 : 00

End Time: 2018 - 10 - 11 00 : 00 : 00

5	Time	Event	Play	Details
1	2018-10-10 16:24:31	Shut down at [18-10-09		☰
2	2018-10-10 16:24:31	Reboot with Flag [0x01]		☰
3	2018-10-10 16:24:31	<IP Conflict >		☰
4	2018-10-10 16:24:31	Disk totals<1>, Current \		☰
5	2018-10-10 16:24:31	Synchronize system tim		☰

1/1(Curent Page/Total Page) 1

Below is a description of the items listed in this field:

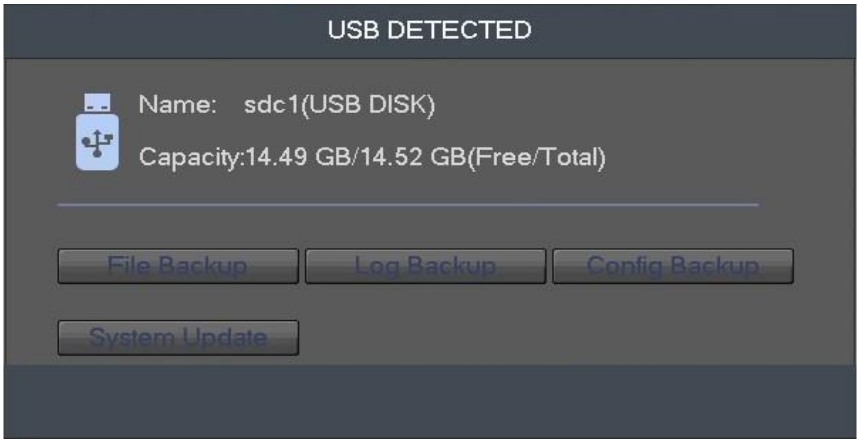
a) Select the log type then set the start time/end time. Click the Search button to see the list of logged events. Click ☰ to view detailed log information.
b) Select log items you want to save and then click backup button. You can select the folder where you want to save them. Click Start to back up the selected events and you can see a corresponding dialogue box after the process is finish.
   - ★ Start time/end time: Please select the start time and end time, then click the search button. You can view the log files in a list. The system displays a max of 100 logs in one page. It can save a max of 1024 log files. Please use the page up/down buttons on the interface or the front panel to view more.

Tips

Double click a log item to view its detailed information. Click PgUp/PgDn to view more logs.

4.14.1. Backup

After you have inserted a USB device, the system will auto detect it and pop up the following dialogue box. It allows you to conveniently backup files, logs, configurations, or update the system.

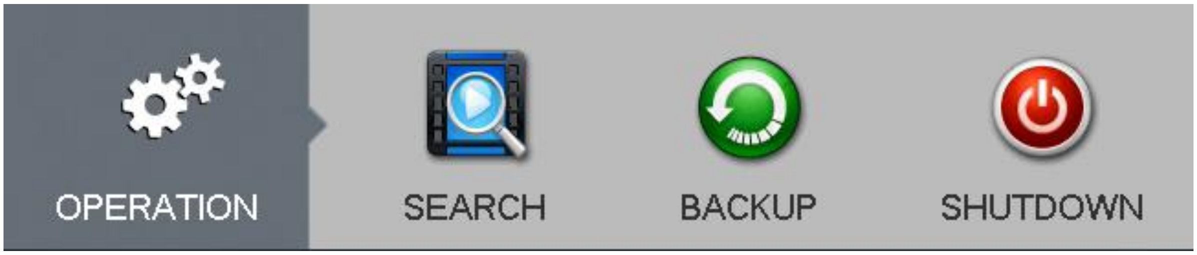


Name: sdc1(USB DISK)

Capacity:14.49 GB/14.52 GB(Free/Total)

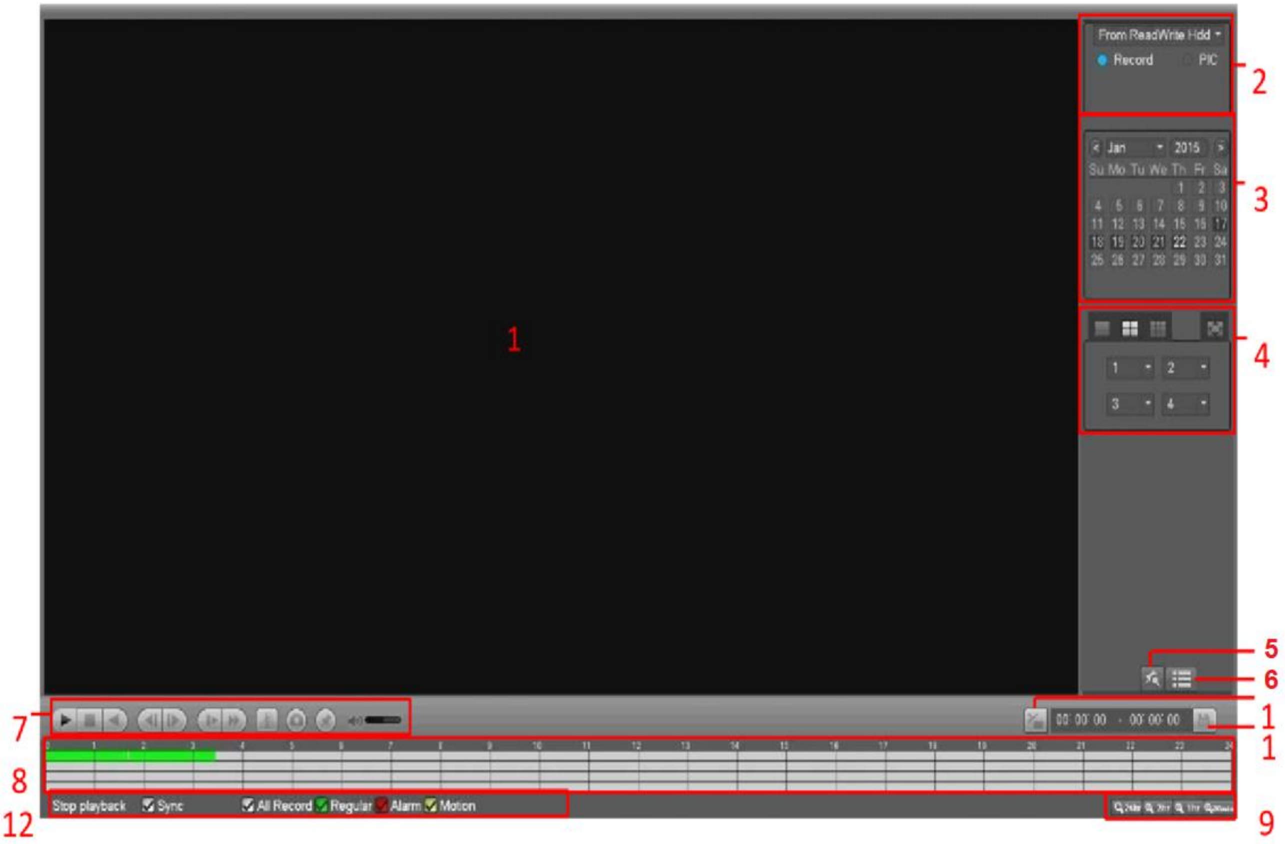
Operation Menu

The next section covered in this user manual will be related to the **Operation** section located on the main menu.



4.15. Search

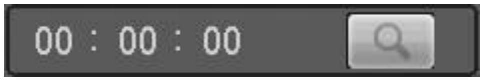
The search menu allows the user to access and playback recorded data retained in the system. The system will need a hard drive installed before recording or playback can be initialized. Below is a screenshot of the search menu:



Please refer to the following sheet for more information.

SN	Name	Function
1	Display window	★ Here is where the searched picture or file will be displayed. ★ Supports 1/4/9-window playback.

2	Search type	Here you can select to search the picture or the recorded file. You can select to play from the read-write HDD, from the peripheral device, or from the redundancy HDD. Before you select to play from the peripheral device, please connect the corresponding peripheral device. You can view all recorded files on the root directory of the peripheral device. Click the Browse button; you can select the file you want to play. **Important** **Redundancy HDD does not support the picture backup function, but it supports picture playback function. You can select to play from the redundancy HDD if there are pictures on the redundancy HDD.**
3	Calendar	The blue highlighted date means there are pictures or recordings. Otherwise, there are no pictures or recordings. In any play mode, click the date you want to see, and you can see the corresponding recording trace in the time bar.
4	Playback mode and channel selection pane.	★ Playback mode: 1/4/9. (It may vary due to different series.) In 1-window playback mode: you can select 1-X channels (X depends on the product channel amount). In 4-window playback mode: you can select 4 channels according to your requirement. In 9-window playback mode, you can all 8 channels. ★ The time bar will change once you modify the playback mode or the channel option.
5	Mark file list button	Click this to go to the mark file list interface. You can view all the mark information of current channel by time. Please refer to chapter 4.9.2.3 for detailed information.

<table>
<tr><td>6</td><td>File list switch button</td><td colspan="2">Double click this and you can view the picture/recordings list of the current day.
The file list displays the first channel of the recording.
The system can display a max of 128 files at one time. Use the ◀| and |▶ or the mouse to view the file. Select one item, and then double click the mouse or click the ENTER button to playback.
You can input the period in the following interface to begin an accurate search.
File type: R—regular record; A—external alarm record; M—Motion detect record.

Lock file. Click the file you want to lock and click the ▣ button to lock it.
The file you locked will not be overwritten.</td></tr>
<tr><td>7</td><td>Playback control pane.</td><td>▶/⏸</td><td>Play/Pause
There are three ways for you to begin playback.
The play button
Double click a valid period on the time bar.
Double click the item in the file list.
In slow play mode, click this to switch between play/pause.</td></tr>
<tr><td></td><td></td><td>■</td><td>Stop</td></tr>
<tr><td></td><td></td><td>◀</td><td>Backward play
In normal play mode, left click this button, and the file begins to play backward. Click it again to pause the current record.
In backward play mode, click ▶/⏸ to restore normal play.</td></tr>
</table>

		|◀/ ▶|	In playback mode, click this to play the next or the previous section. You can click continuously when you are watching the files from the same channel. In normal play mode, when you pause the current record, you can click ◀| and |▶ to begin frame by frame playback. In frame by frame playback mode, click ▶/ ll to restore normal playback.
		▶	Slow play In playback mode, click this to slow play in various modes such as slow play 1, slow play 2, etc.
		▶▶	Fast forward In playback mode, click this to fast forward in various modes such as fast play 1, fast play 2, etc.
		Note: The actual play speed is related to the software version.	
		🚶	Smart search

			The volume of the playback
		📷	Click the snapshot button in the full-screen mode and the system will take 1 snapshot. The system supports a custom snapshot save path. Please connect the peripheral device first, click the snapshot button on the full-screen mode, and you can select or create a path. Click the Start button and the snapshot will be saved to the specified path.
		📌	Mark button. Please note this function is for some series product only. Please make sure there is a mark button in the playback control pane.

8	Time bar	● This is to display the record type and its period in the current search criteria. ★ In 4-window playback mode, there are four corresponding time bars. In other playback modes, there is only one-time bar. ● Use the mouse to click one point on the color zone in the time bar and the system begins playback. ● The time bar begins at 0 o'clock when you are setting the configuration. The time bar zooms in on the period of the current playback time when you are playing a record. ● The green color stands for a regular recording. The red color stands for an external alarm recording. The yellow stands for a motion detect recording.
9	Time bar unit	● This option includes: 24H, 12H, 1H and 30M. The smaller the unit, the larger the zoom rate. You can accurately set the time in the time bar to playback the record. ● The time bar begins at 0 o'clock when you are setting the configuration. The time bar zooms in on the period of the current playback time when you are playing a record.
10	Backup	★ Select the file(s) you want to backup from the file list. You can check from the list. Then click the backup button. Now you can see the backup menu. The system supports a customized path setup. Select or create a new folder, click the Start button to begin the backup operation. The record file(s) will be saved in the specified folder. ★ Check the file again to cancel current selection. The system displays a max of 32 files from one channel. ★ After you clip a recording, click the Backup button and you can save it. ★ For one device, if there is a backup in process, you cannot start a new backup operation.

11	Clip	★ This is to edit the record. ★ Please play the recording you want to edit and then click this button when you want to edit. You can see the corresponding slide bars on the time bar of the corresponding channel. You can adjust the slide bar or input the accurate time to set the file end time. ★ After you set this, you can click the Clip button again to edit the second period. You can see the slide bar restore its previous position.
		★ Click the Backup button when finished and you can save current contents in a new file. ★ You can clip one channel or multiple-channels. The multiple-channel clip operation is like the one-channel operation. Please note: ★ **System supports a max backup of 1024 files at the same time.** ★ **You cannot operate clip if any file has been checked in the file list.**
12	Record type	In any playback mode, the time bar will change once you modify the search type.
Other Functions		
13	Smart search	When the system is playing, you can select a zone in the window to begin the smart search. Click the motion detect button to begin playing. Once motion detect playing has begun, clicking the button again will terminate current motion detect playing. There is no motion detect zone by default. If you select to play another file in the file list, the system switches to motion detect play of the other file. During the motion detect play process, you cannot implement operations such as change time bar, begin backward playback, or frame by frame playback.

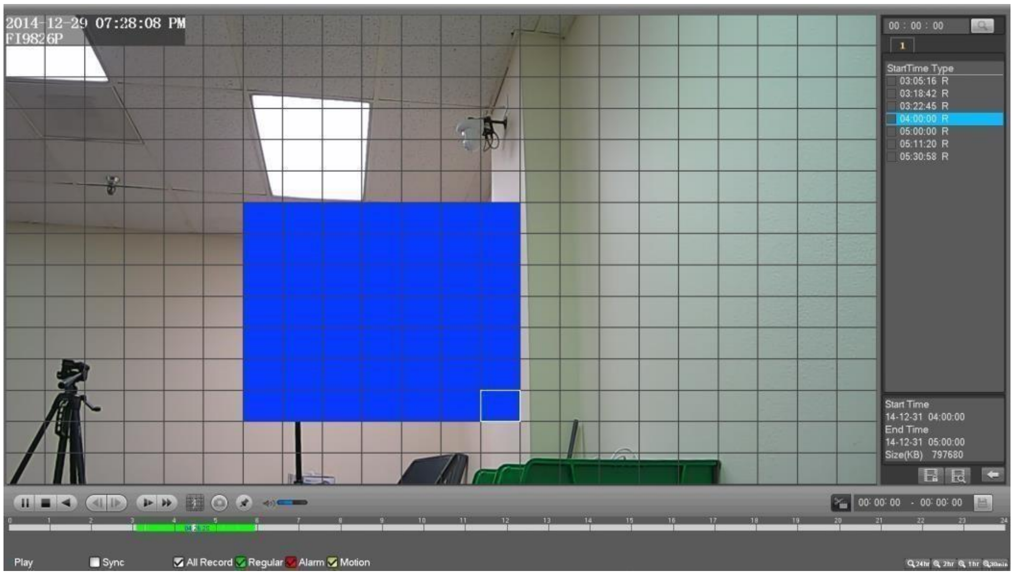
14	Other channel synchronization switch to play during playback	When playing the file, click the number button and the system can switch to the same period of the corresponding channel to play.
15	Digital zoom	When the system is in full-screen playback mode, left click the mouse in the screen. Drag your mouse in the screen to select a section and then left mouse click to zoom in. You can right mouse click to exit.
16	Manually switch channel during playback	During the file playback process, you can switch to another channel via the dropdown list or rolling the mouse. This function is null if there is no record or the system is in the smart search process.

Note:

All the operations here (such as playback speed, channel, time, and progress) have a relationship with the hardware version. Some series NVRs do not support some functions or playback speeds.

4.15.1. Smart Search

During the multiple-channel playback mode, double click one channel and then click the 🚶 button, and the system begins a smart search. The system supports 396(22*18 PAL) and 330(22*15 NTSC) zones. Please left click mouse to select smart search zones.



StartTime	Type
03:05:16	R
03:18:42	R
03:22:45	R
04:00:00	R
05:00:00	R
05:11:20	R
05:30:58	R

Start Time
14-12-31 04:00:00
End Time
14-12-31 05:00:00
Size(KB) 797680

Click the , and you can go to the smart search playback. Click it again and the system stops smart search playback.

Important

- ★ **The system does not support motion detect zone setup during the full-screen mode.**
- ★ **During the multiple-channel playback, the system stops playback of the rest of the channels if you implement one-channel smart search.**

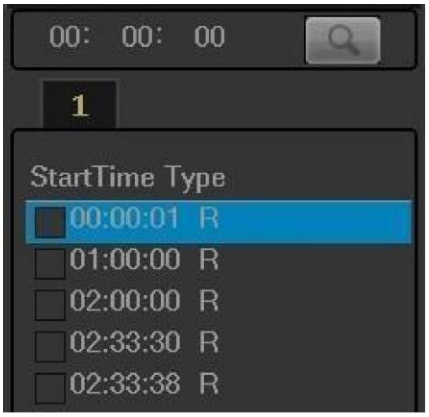
4.15.2. Accurate Playback by Time

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 00 : 00 : 00, 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

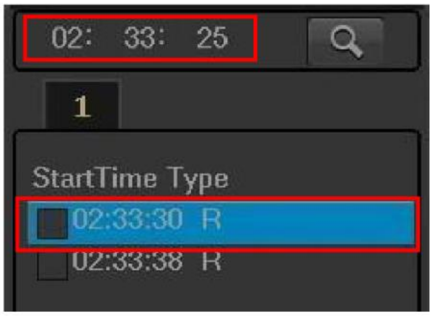
- ★ After you have searched files, the system implements accurate playback once you click Play for the first time.
- ★ The system does not support accurate playback for pictures.
- ★ The system supports synchronized playback and non-synchronous playback. The synchronized playback supports all channels and non-synchronous playback only supports accurate playback of the currently selected channel.



00: 00: 00

1

StartTime	Type
☐ 00:00:01	R
☐ 01:00:00	R
☐ 02:00:00	R
☐ 02:33:30	R
☐ 02:33:38	R



02: 33: 25

1

StartTime	Type
☐ 02:33:30	R
☐ 02:33:38	R

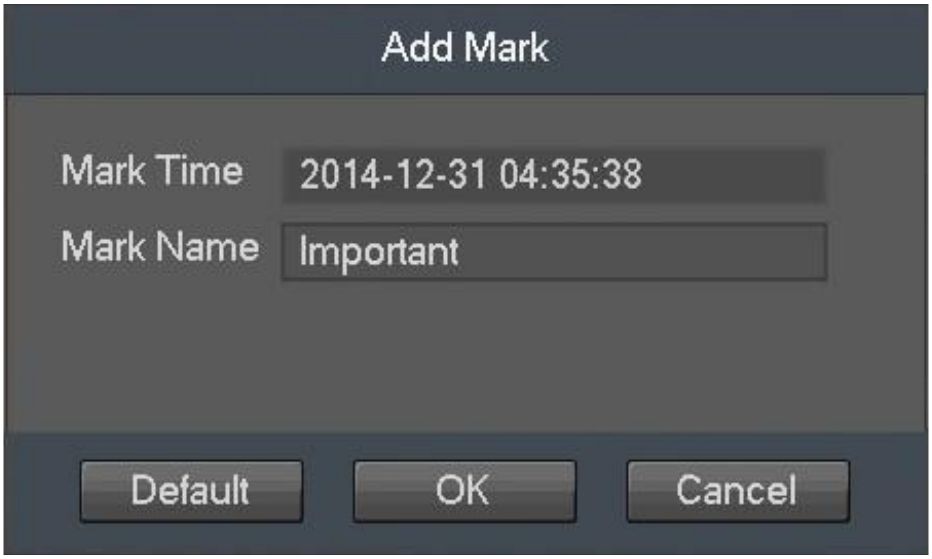
4.15.3. Mark Playback

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.



Add Mark

Mark Time: 2014-12-31 04:35:38

Mark Name: Important

★ 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.

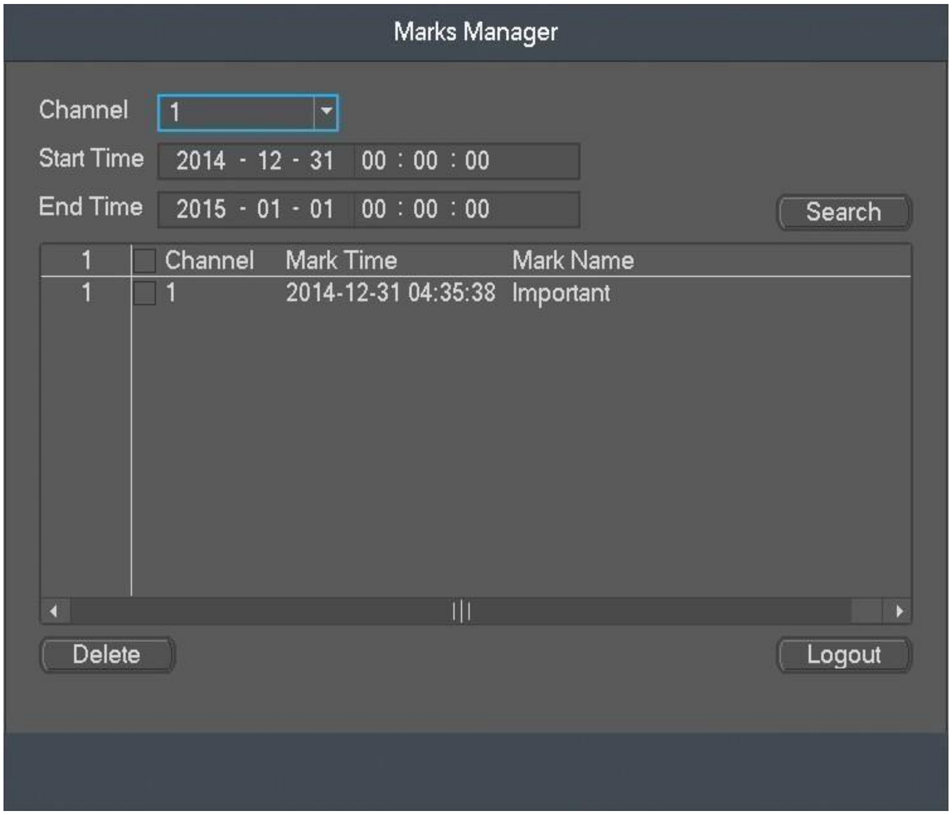
★ Play before mark time

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.



Channel 1

Start Time 2014 - 12 - 31 00 : 00 : 00

End Time 2015 - 01 - 01 00 : 00 : 00

1	☐	Channel	Mark Time	Mark Name
1	☐	1	2014-12-31 04:35:38	Important

★ 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.

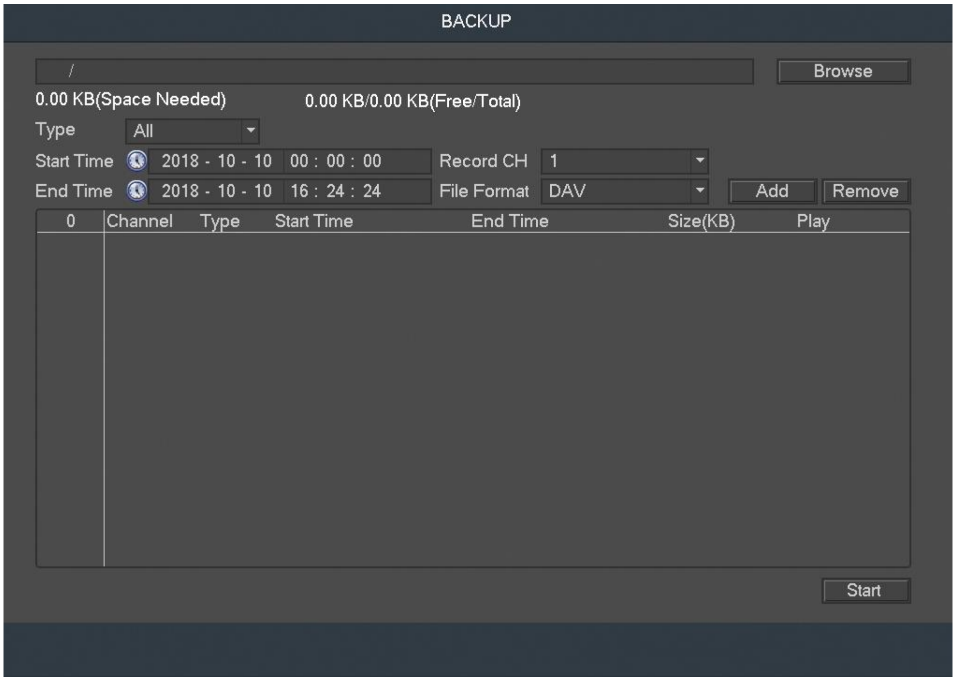
4.15.4 Picture Playback

From Main Menu->Search, or on the preview interface right mouse click, you can go to the navigation bar.

At the top right pane, you can check the box to select picture and then select the playback interval.

4.16. Backup

This menu allows the user to backup file information from the device to a external USB storage device. Below is a screenshot of this menu:



/

0.00 KB(Space Needed)   0.00 KB/0.00 KB(Free/Total)

Type: All

Start Time: 2018 - 10 - 10 00 : 00 : 00   Record CH: 1

End Time: 2018 - 10 - 10 16 : 24 : 24   File Format: DAV

0	Channel	Type	Start Time	End Time	Size(KB)	Play

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

★ Select the file(s) you want to backup from the file list. You can check from the list. Then click the backup button. Now you can see the backup menu. The system supports a customized path setup. Select or create a new folder, click the Start button to begin the backup operation. The record file(s) will be saved in the specified folder.

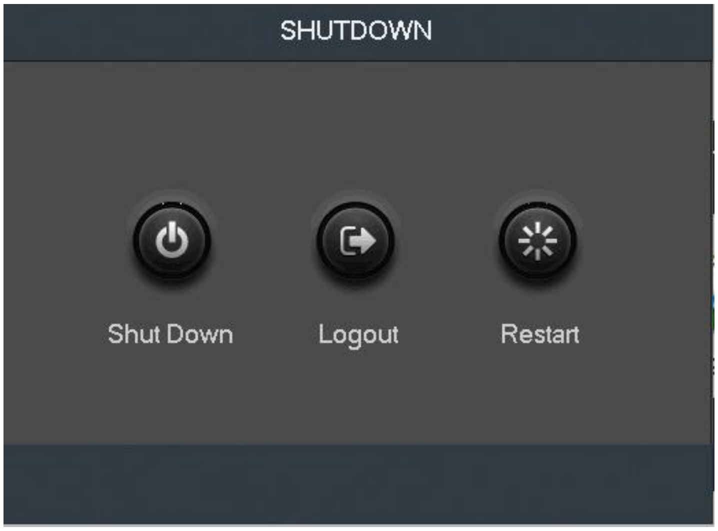
★ Check the file again to cancel current selection. The system displays a max of 32 files from one channel.

After you clip a recording, click the Backup button and you can save it.

★ For one device, if there is a backup in process, you cannot start a new backup operation.

4.17. Shutdown

This menu allows the user to quickly access methods of shutting down, logging out, or restarting the device. Below is a screenshot of this menu:



★ Shutdown: The system shuts down and turns off the power.

★ Logout: Logs out the current user. You need to input password when you login the next time.

★ Restart: Reboots the device.

If you shut down the device, there is a process bar for your reference. The system waits for 3 seconds and then shuts down (You cannot cancel).

Please note, sometimes you need to input the password to shut down the device.

5 Web Operation

5.1 General Introduction

The device's web interface provides a channel monitor menu , search, alarm setup, system setup, PTZ control, monitor window, etc.

Important

The features available in the web user interface will be the same features that are featured in the main user interface as discussed in chapter 4. Some model NVRs may vary model to model.

5.1.1 Preparation

Before logging in, please make sure:

★ Network connection is correct

★ NVR and PC network setup is correct. Please refer to network setup(Main Menu>Setting->Network)

★ Open a browser and then input the NVR IP address.

★ The system can automatically download the latest web control and the new version can overwrite the previous one.

★ If you want to uninstall the web control, please run *uninstall webrec2.0.bat*. Or you can go to C:\Program Files\webrec and remove the folder. Please note, before you uninstall, please close all web pages, otherwise the uninstall might result in an error.

★ The current series product supports various browsers such as Internet Explorer and Safari.

About PoE address setup, operation and allocation.

1) Plug in to PoE

After you plug in a PoE device, it may try to set a corresponding IP address with the Switch network adapter. First, the system tries to set it via ARP ping. It then uses DHCP if it finds that DHCP is enabled. After successfully setting the IP address, the system may use the Switch to send out a broadcast. The system considers the connection is OK when there is any response. Now system is tries to login to the newly found IPC. Now please check the interface, and you can see the corresponding digital channel is active now. You can see a small PoE icon at the top left corner. You can see the PoE channel, PoE port information, etc. from the connection list of the remote device interface. For the IP search list, you need to click the IP search button to display or refresh.

2) Unplug from PoE

After you unplug from PoE, you can see the corresponding digital channel becomes idle (disabled). On the remote device interface, it is removed from the connected list. For the IP search list, you need to click the IP search button to refresh.

3) After you plug in a PoE device, the system follows the principles listed below to map the channel.

a) If it is your first time to plug a PoE device, the system can map it to the first idle channel. After mapping, the channel can memorize the MAC address of the IPC. It is a <Channel>-<IPC MAC> map. If the current channel does not connect to other devices, the system can memorize current MAC address, otherwise it can refresh to the newly added device and memorize the <PoE port>---<Channel>.

b) If it is your second time to insert the PoE device, the system can check the saved MAC address according to <Channel>---<IPC mac> map to see if the current IPC has connected or not. If the system finds the previous information and the channel is idle, the system will map it to the previously used channel. Otherwise the system goes to the next step.

c) Thirdly, according to the <PoE port>---<Channel> map, the system knows the previous mapping channel of the current PoE port. The system can select the current channel if it is free. Otherwise, it goes to the next step:

d) Fourthly, the system uses the first idle channel it can get.

Once you plug in a PoE device, the system follows the steps listed above to find the channel available.

4) When you plug in a PoE device, all channels are currently in use.

The system will pop up a dialogue box for you to select a channel to overwrite. The title of the popup interface is the name of the currently operating PoE port. In this interface, all PoE channels become grey and cannot be select.

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

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

- The NVR is connected to the Network via an Ethernet cable.
- The NVR and the PC are on the same network OR the NVR has been configured for remote access.
- Use one of the following web browsers: Safari, Internet Explorer, or Google Chrome.

5.1 Local Web Access

To view a video on how to setup the HDCVI NVR for Local Access go to http://amcrest.com/videos and view the video titled "How to Setup Amcrest HDCVI DVR for Local Access".

Below is a step-by-step walkthrough that details how to setup the HDCVI for Local Web Access:

1. Login to your NVR, open the main menu then go to Settings -> Network.
2. Open the TCP/IP settings screen.
3. By default, the NVR has the mode set to Static. Click the radio button next to DHCP to change this to DHCP.
   The IP Address, Subnet Mask, Default Gateway, Preferred DNS, and Alternate DNS should all change to 0s.
4. Click Save to save these settings. This should now open the main menu.
5. From the main menu, go to Settings -> Network.
6. On the TCP/IP settings screen, the IP Address, Subnet Mask, Default Gateway, Preferred DNS, and Alternate DNS should all be populated.
7. Click the radio button next to Static, to change the mode to Static.
8. Write down the IP Address that is currently in the IP address field.
9. Click the Save button.
10. Open an internet browser and type the IP address from step 8 into the address bar and hit enter.

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

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

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

5.2 Remote Web Access

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

5.2.1 UPnP/DDNS Remote Access Setup

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

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

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

1. Login to your NVR, open the main menu then go to Settings -> Network.
2. Using the left-hand menu, go to the Connection menu, and write down the HTTP port. It is recommended to ensure the port number is at least 5 digits long to prevent any port conflicts. If need be, change the port to a 5-digit number that is less than 65535, note the number down, and click save before proceeding to the next step.
3. The system will prompt you to reset the NVR. Click OK and wait for the NVR to restart.
4. Login to your NVR, open the main menu then go to Settings -> Network.
5. Click the Connections menu item on the left-hand menu and ensure that the HTTP port has changed.

6. Click the DDNS menu item on the left-hand menu, click the enable checkbox, and then click the Apply button on the bottom right.
7. Write down the entire Domain Name field, including the white text that says .AmcrestDDNS.com 8. Click the UPnP menu item on the left-hand menu and click the enable radio button at the top.
9. While in the UPnP menu, double click the HTTP port, and change both the internal and external HTTP ports to match the number that was used in step 2.
10. Uncheck the last 4 checkboxes in the PAT table on the UPnP menu.
11. Click apply and ensure the UPnP status field says “Searching.”
12. Exit this menu to go back to the main menu, then re-enter the UPnP menu, and ensure the UPnP status says “Success”.
13. Open a web browser and enter in the DDNS domain name address from step 3, enter in a colon, then type the port number from step 4 on to the end.

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

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

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

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

5.2.2 Port Forwarding Remote Access Setup

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

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

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

1. Login to your NVR, open the main menu then go to Settings -> Network.
2. Open the TCP/IP settings screen.
3. By default, the NVR has the mode set to Static. Click the radio button next to DHCP to change this to DHCP. The IP Address, Subnet Mask, Default Gateway, Preferred DNS, and Alternate DNS should all change to 0s.
4. Click Save to save these settings. This should now open the main menu.
5. From the main menu, go to Settings -> Network.
6. On the TCP/IP settings screen, the IP Address, Subnet Mask, Default Gateway, Preferred DNS, and Alternate DNS should all be populated.
7. Click the radio button next to Static, to change the mode to Static.
8. Write down the IP Address that is currently in the IP address field.
9. Click the Save button.
10. Using the left-hand menu, go to the Connection menu, and write down the TCP, UDP, and HTTP port number. It is recommended to ensure that these port numbers are at least 5 digits long to prevent any port conflicts. If need be, change each of these port numbers to a 5-digit number that is less than 65535, note the numbers down, and click save before proceeding to the next step.
11. Go to http://www.canyouseeme.org/ and check to ensure each of the port numbers specified in step 10 are open.
12. Write down the manufacturer name, brand, and model name for the router that the NVR is connected to, and then proceed to portforward.com on your web browser.
13. Open the port forwarding guide section on the left-hand side menu.
14. Find the router brand name in the list and click it.
15. Find the router model number and click it.
16. Click the Default Guide link near the middle of the page.
17. This guide will help you take the step necessary to port forward on the router. Follow these steps, and then return to the NVR.
18. Login to your NVR, open the main menu then go to Settings -> Network.
19. Click the DDNS menu item on the left-hand menu, click the enable checkbox, and then click the Apply button on the bottom right.
20. Write down the entire Domain Name field, including the white text that says.AmcrestDDNS.com
21. Open a web browser and enter in the DDNS domain name address from step 20, enter in a colon, then type the HTTP port number from step 10 on to the end.

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

22. The browser may prompt you to install a plugin. Click install to download the plugin, and then click on the plugin installation file to install the plugin.
23. If the browser prompts you to allow the plugin to work on the computer, hit Allow to ensure the plugin can run successfully.
24. Enter in login details into the username and password fields.
25. Click the WAN option, and then click Login.

26. Once the main interface opens, click the plug icons next to each camera on the list on the left-hand side, and activate the main stream for each of them to enable the live feed.
    If the process above is not working, please contact Amcrest Support via one of the following options:
    Visit http://amcrest.com/contacts and use the email form
    Call Amcrest Support using one of the following numbers Toll Free: (888) 212-7538
    International Callers (Outside of US): +1-713-893-8956
    USA: 713-893-8956
    Canada: 437-888-0177
    UK: 203-769-2757
    Email Amcrest Customer Support support@amcrest.com

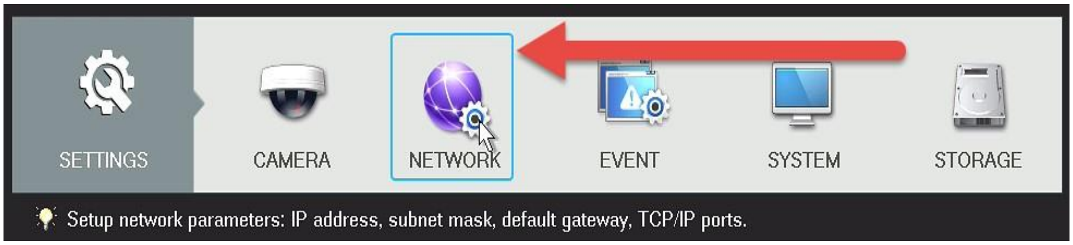
5.3.4 Amcrest View App Setup

The Amcrest View app grants instant access to all live camera streams from any location. This is the primary application most users prefer when using Amcrest systems. The app supports a multitude of features and includes both a plug-and-play setup as well as a manual network setup. For purposes of this guide, we will use Amcrest View Pro, which is free on both the App Store and Play Store.

Before accessing the NVR through the app using the easy plug-and-play method (P2P Setup), **confirm that P2P is enabled on the NVR**. This feature should be enabled by default.

1. Log into your NVR console's built-in interface using the NVR login credentials.

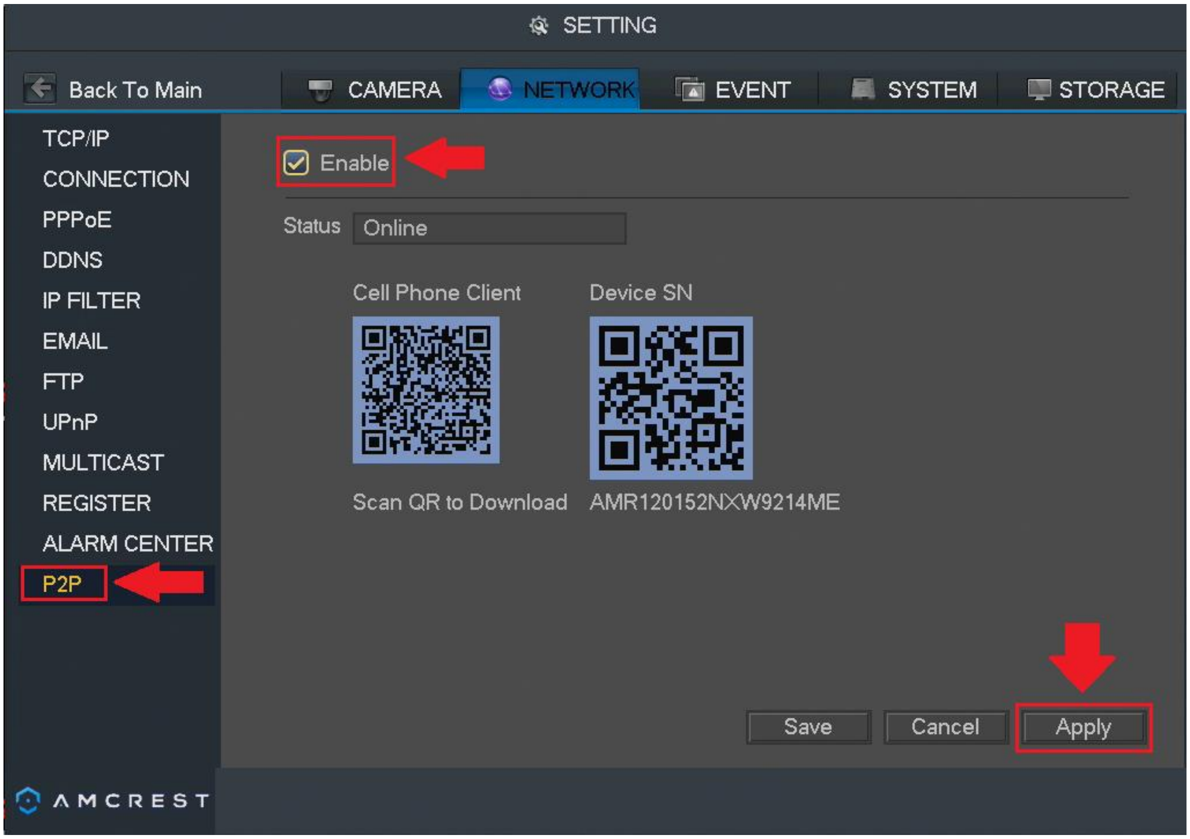
2. Open the **MAIN MENU** by left-clicking the NVR's home preview screen. Then, click **NETWORK** in the bottom **SETTINGS** row:



Setup network parameters: IP address, subnet mask, default gateway, TCP/IP ports.

3. Select **P2P** from the left navigation panel's list of options. Make sure the checkbox next to **Enable** is checked. If it is not, check it, then click **Apply** and **Save**.

4. Exit out of the main menu, then come back to the **P2P** page and confirm that the **Status** is '**Online**'.



☑ Enable

Status Online

Device SN: AMR120152NXW9214ME

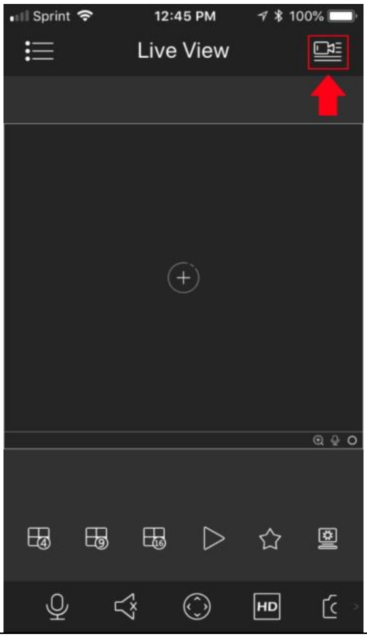
The following steps will continue the app setup process for an Android phone and, though the iPhone version of the app has slightly different steps, most of this process is identical and easy.

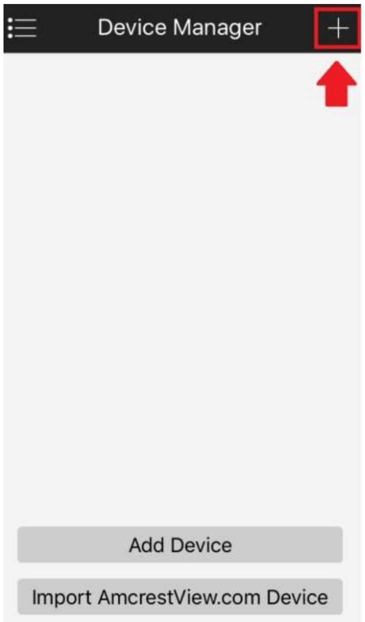
1. Download and install the Amcrest View Pro app for the App Store or Google Play Store.

ANDROID APP ON Google play

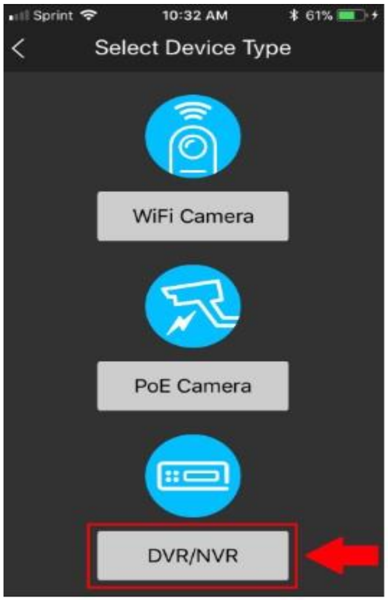
Download on the App Store

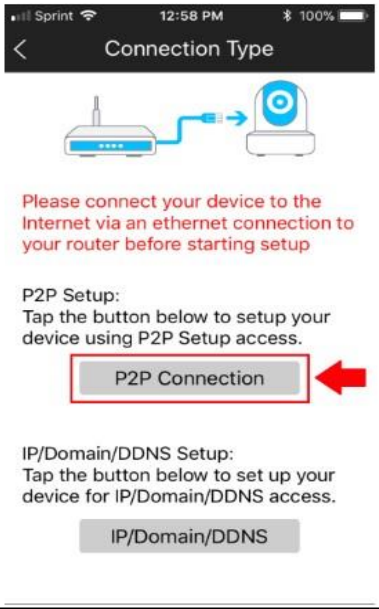
2. Open the app on your mobile device and allow the app to load.





3. Now you should see the home screen of your app. Tap the icon in the top-right to get to the **Device List**.	4. Tap the + icon in the top right of this window to get to the Connection Type screen.

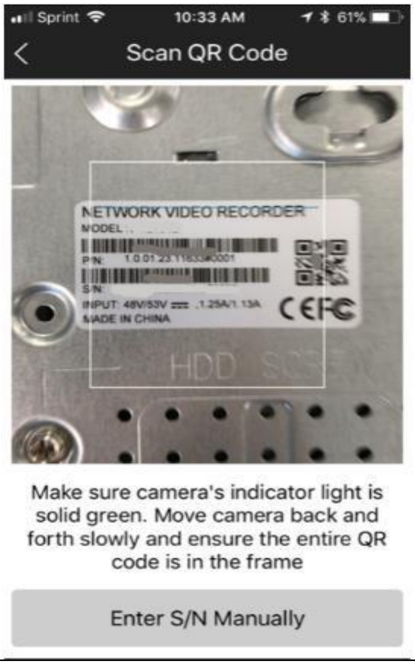
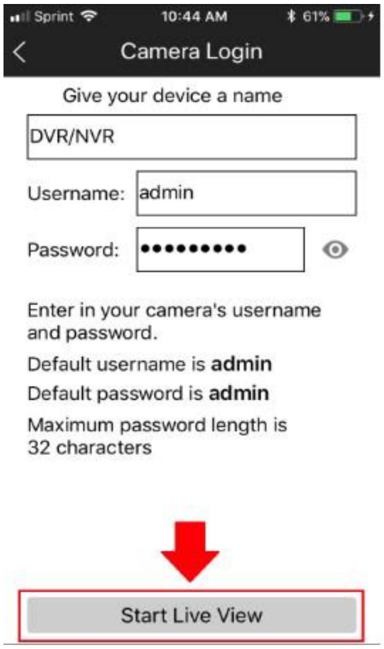




Please connect your device to the Internet via an ethernet connection to your router before starting setup

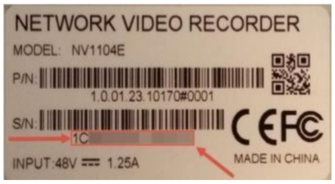
P2P Setup:
Tap the button below to setup your device using P2P Setup access.

IP/Domain/DDNS Setup:
Tap the button below to set up your device for IP/Domain/DDNS access.

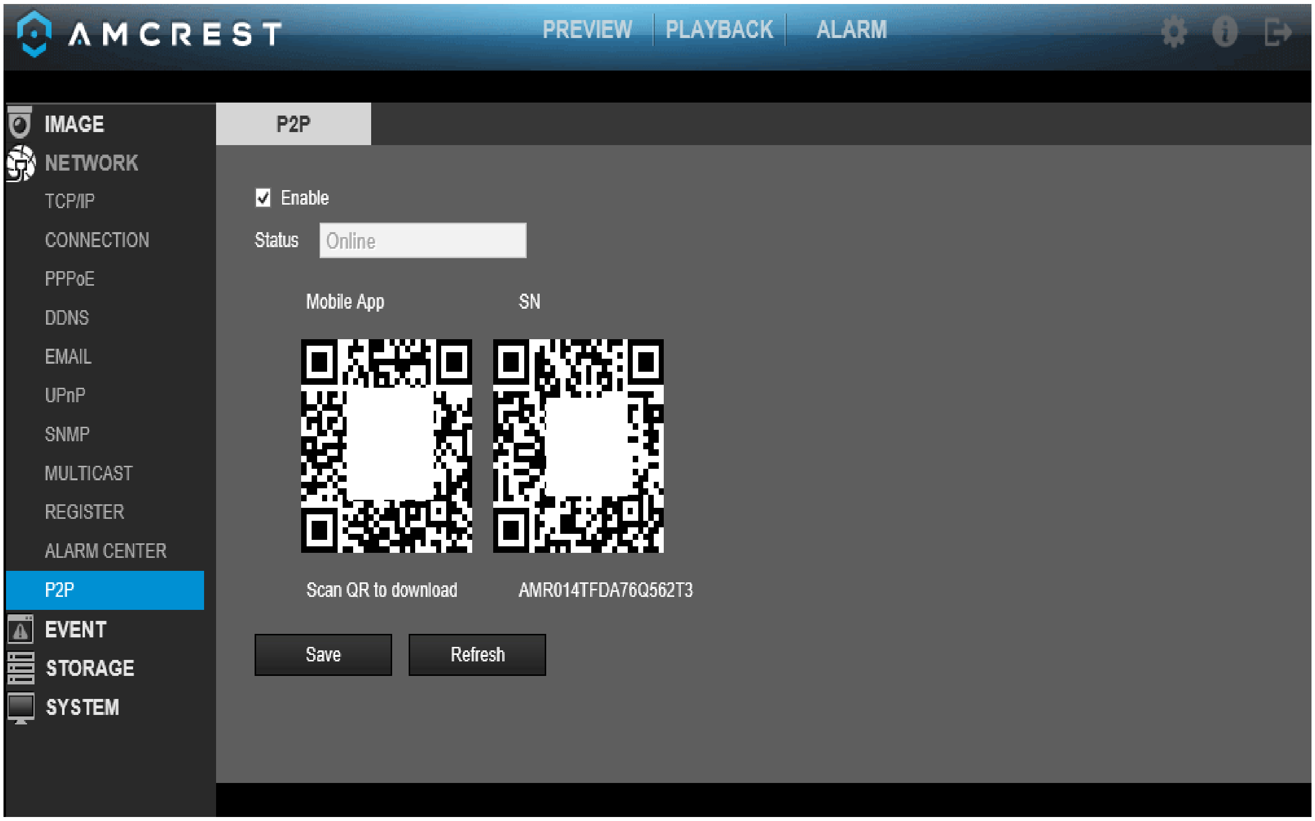
5. Select your device type. In this case, we will select "**DVR/NVR**" since we are setting up an NVR/NVR.	6. Tap on **P2P Connection** to establish a P2P connection
 Scan QR Code Sprint 10:33 AM 61% NETWORK VIDEO RECORDER MODEL P/N S/N INPUT 48V/53V MADE IN CHINA HDD Make sure camera's indicator light is solid green. Move camera back and forth slowly and ensure the entire QR code is in the frame Enter S/N Manually	 Camera Login Give your device a name DVR/NVR Username: admin Password: •••••••••• Enter in your camera's username and password. Default username is **admin** Default password is **admin** Maximum password length is 32 characters Start Live View
6. Scan the QR code for the unit. The QR code can be found on the serial tag along with the scannable barcode. Your mobile device will enable its camera to scan the QR code.	7. Once the data is scanned or entered you will be taken to a camera login screen. In this menu you can create a name for your device. Also, enter in the username and password associated with your device. If this is your first time setting up your camera, the default password will be **admin.** Tap **Start Live View** to complete the process.

Note: To locate the serial number, you must either have physical access to the NVR or computer access to the web interface.

On the bottom of the NVR console, there is a sticker with the serial number printed on it. It will begin with either 'AMR or ‘AMDV'. Write this down.
If the QR code is not able to scan you can also enter in the serial number manually by tapping **Enter S/N Manually**.



Otherwise, if you are setting up the app after gaining local access with a computer, log into the web interface with your username and password. Then click the **Setup** “ ⚙ ” icon at the top of the screen. Navigate to **Network** and click on the **P2P** tab and scan the QR Code for **SN** (serial number).



☑ Enable

Status: Online

SN: AMR014TFDA76Q562T3

Once the app is setup to work with your NVR, it should look like the image below on the left. Here, you will be able to access all crucial functions like taking snapshots, manual recordings, etc.

App setup not working? (troubleshooting steps)

1. **Re-enter login credentials**: Are you getting a (quote ‘incorrect password’ error) message? Try double checking your username and password. These will be the same credentials used to log into the NVR console’s built-in interface.
2. **Confirm your phone is online**: Make sure that your phone is receiving a strong Wi-Fi or cellular data signal. Confirm the Internet connection is working by loading a webpage or testing another internet enabled app.

3. **Confirm the NVR is online**: Make sure an Ethernet cable is connected from your router to the Internet port on the back panel of your NVR console. (For help with this, refer to part 2 of this guide: **Hardware Setup** > **Setting up the cable connections**.)

4. **Confirm P2P is enabled**: To use the P2P Setup to gain plug-and-play instant access, P2P needs to be enabled on the NVR. It will be enabled by default. To confirm P2P is enabled, log into the main console built-in interface for your NVR and select Network from the Main Menu (in the Settings row). Then, click P2P from the left navigation panel (on the bottom). Make sure the checkbox is checked next to “Enabled”. If it is not, check it, click Apply down below, then attempt the P2P App Setup again (tap Start Live Preview).

5. **Confirm the serial number**: if you entered the serial number manually, double check that it is correct and re-enter it. This does not apply if you used the QR code scan.

6. **Still not working?**

   If you have tried all the above troubleshooting steps, try rebooting your NVR. Then, restart your phone and try the P2P Setup on your app again. Contact support if you are still unable to gain access.

   To view a video on how to setup the Amcrest NVR for remote access on a smartphone or tablet, go to http://amcrest.com/videos and view the video titled
   “How to Setup Amcrest HDCVI DVR for Remote Access on Smartphone/Tablet”.

5.4 LAN Mode

For the LAN mode, after you have logged in, you can see the main window. See Figure 5-12.
This main window can be divided into the following sections.

★ Section 1: There are six function buttons: Preview, Setup (chapter 5.9), Info (chapter 5.10), Playback (chapter 5.11), Alarm (chapter 5.12), and Logout (chapter 5.13).

★ Section 2: These are monitor channels that have successfully connected to the NVR. Please refer to Figure 5-8 for main stream and extra stream switch information.

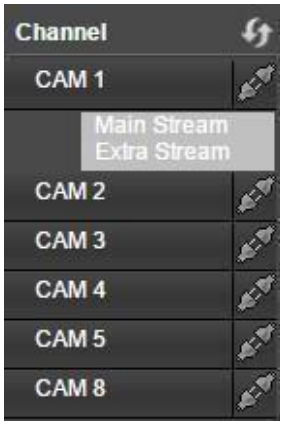


Figure 5-8

- ★ Section 3: Start Talk button.
  You can click this button to enable the talk feature. Click 【▼】 to select the bidirectional talk mode. There are four options: DEFAULT, G711a, G711u, and PCM. See Figure 5-9.
  After you enable the bidirectional talking, the Start talk button becomes the End Talk button and it becomes yellow.
  Please note, if the audio input port from the device to the client-end is using the first channel audio input port, during the bidirectional talk process, the system will not encode the audio data from the 1channel.

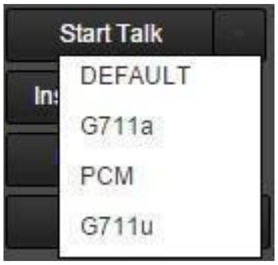


Figure 5-9

- ★ Section 4: Instant record button. Click it and the button becomes yellow and the system begins manual recording. See Figure 5-10. Click it again and the system restores the previous record mode.

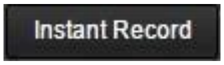


Figure 5-10

- ★ Section 5: Local play button.
  The Web interface can playback the saved files on the PC-end. These files end in .day.
  Click the local play button, and the system pops up the following interface for you to select local file to play. See Figure 5-11.

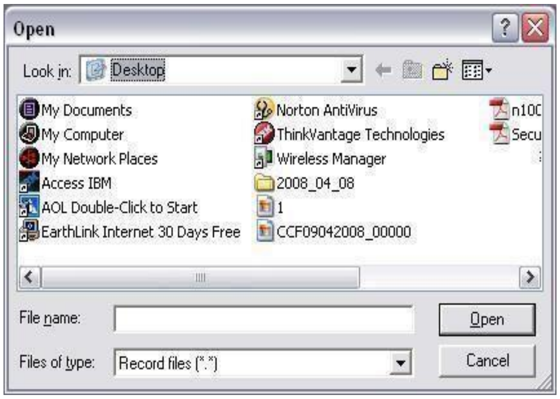


Figure 5-11

- ★ Section 6: Multi Preview. This shows the video feeds exactly as they are setup on the NVR’s display.
- ★ Section 7: PTZ operation panel. Please refer to chapter 5.6 for detailed information.
- ★ Section 8: Image setup and alarm setup. Please refer to chapter 5.7 for detailed information.
- ★ Section 9: From the left to the right, you can see video quality/fluency/ full screen/1window/4window/6-window/8-window/9-window. You can set video fluency and real-time feature.

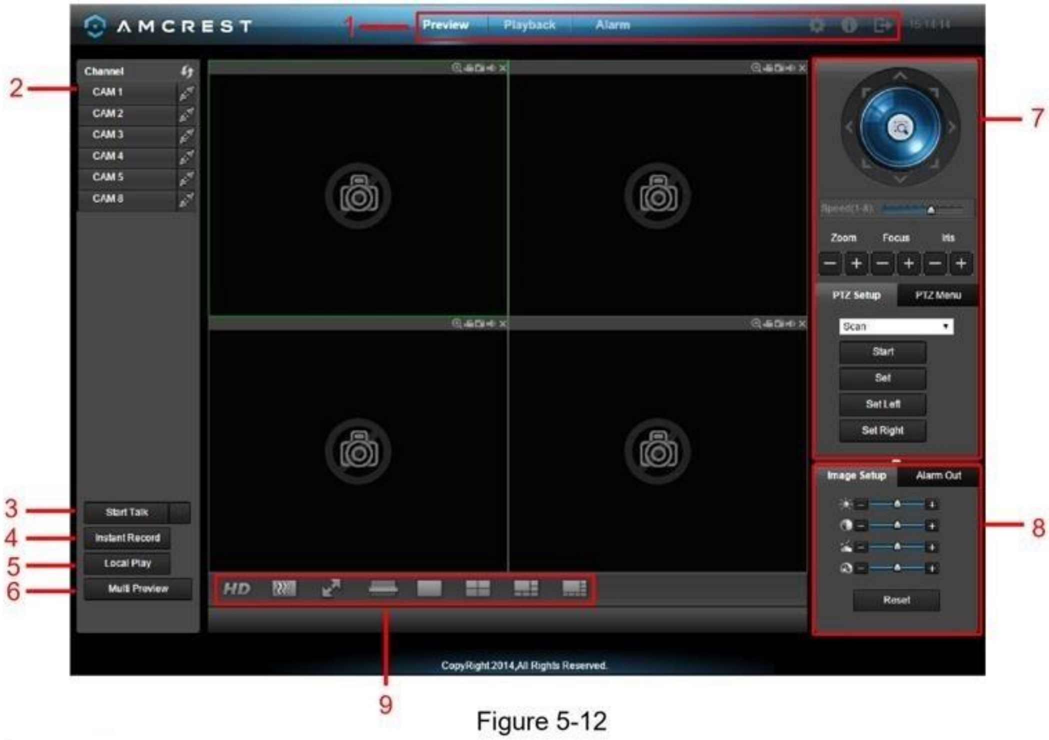
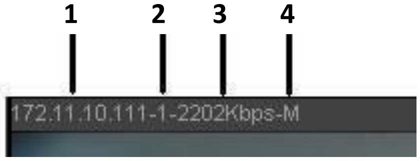


Figure 5-12

5.5 Real-time Monitor

In section 2, left click the channel name you want to view to see the corresponding video in the current window.
On the top left corner, you can view the device IP(172.11.10.11), channel number(1), network monitor bit stream(2202Kbps), and stream type(M=main stream, S=sub stream). See Figure 5-13.



172.11.10.111-1-2202Kbps-M

Figure 5-13

On the top right corner, there are six function buttons. See Figure 5-14.

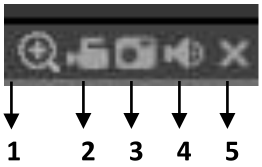


Figure 5-14

★ 1: Digital zoom: Click this button and then left click and drag the mouse in the zone to zoom in. Right click to restore the original status.

★ 2: Local record. When you click the local record button, the system begins recording and this button becomes highlighted. You can go to system folder Record Download to view the recorded file.

★ 3: Snapshot picture. You can take a snapshot of important video. All images are saved in the system client folder Picture Download (default).

★ 4: Audio: Turn on or off audio. (This has no relationship to the system audio setup

★ 5: Close video.

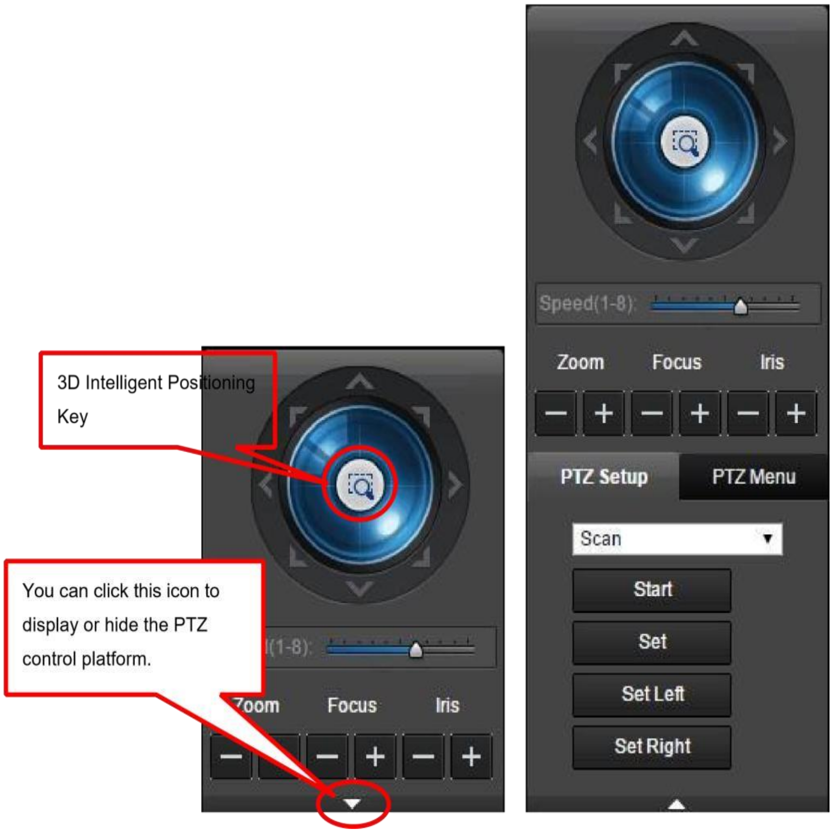
5.6 PTZ

Before using the PTZ operation, please make sure you have properly set the PTZ protocol.
There are eight direction keys. In the middle of the eight direction keys, there is a 3D intelligent positioning key.

Click the 3D intelligent positioning key to go back to the single screen mode. Drag the mouse in the screen to adjust the section size. It can PTZ automatically.

Please refer to the following sheet for PTZ setup information.

Parameter	Function
Scan	Select Scan from the dropdown list. Click the Set button and you can set scan left and right limit. Use direction buttons to move the camera to the desired location and then click left limit button. Then move the camera again and click the right limit button to set a right limit.
Parameter	Function
Preset	Select Preset from the dropdown list. Turn the camera to the corresponding position and input the preset value. Click the Add button to add a preset.
Tour	★ Select Tour from the dropdown list. ★ Input preset value in the column. Click the Add preset button and you have added one preset in the tour. ★ Repeat the above procedures to add more presets in one tour. ★ Or you can click the delete preset button to remove one preset from the tour.
Pattern	★ Select Pattern from the dropdown list. ★ You can input the pattern value and then click the Start button to begin PTZ movement such as zoom, focus, iris, direction, etc. Then you can click the Add button to set one pattern.
Aux	★ Please input the corresponding aux value here. ★ You can select one option and then click the AUX on or AUX off button.



3D Intelligent Positioning Key

You can click this icon to display or hide the PTZ control platform.

Figure 5-15

5.7 Image/Alarm-out

Select one monitor channel video and then click the Image button in section 9. The interface is shown as Figure 5-16.

5.7.1 Image

Here you can adjust its brightness, contrast, hue, and saturation. (Current channel border becomes green). Or you can click the Reset button to restore the system default settings.

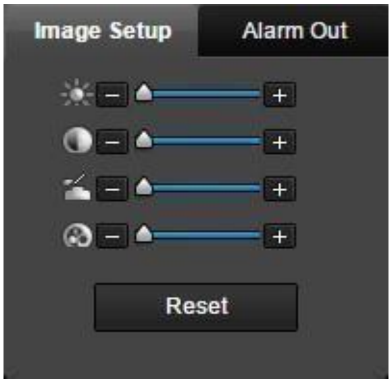


Figure 5-16

5.7.2 Alarm output

Here you can enable or disable the alarm signal of the corresponding port. See Figure 5-17.

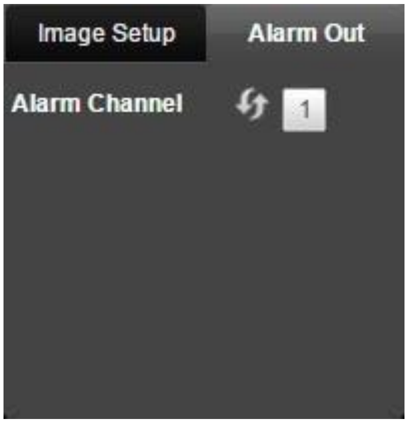


Figure 5-17

5.8 WAN Login

In WAN mode, after you have logged in, the interface is shown as below. See Figure 5-18.

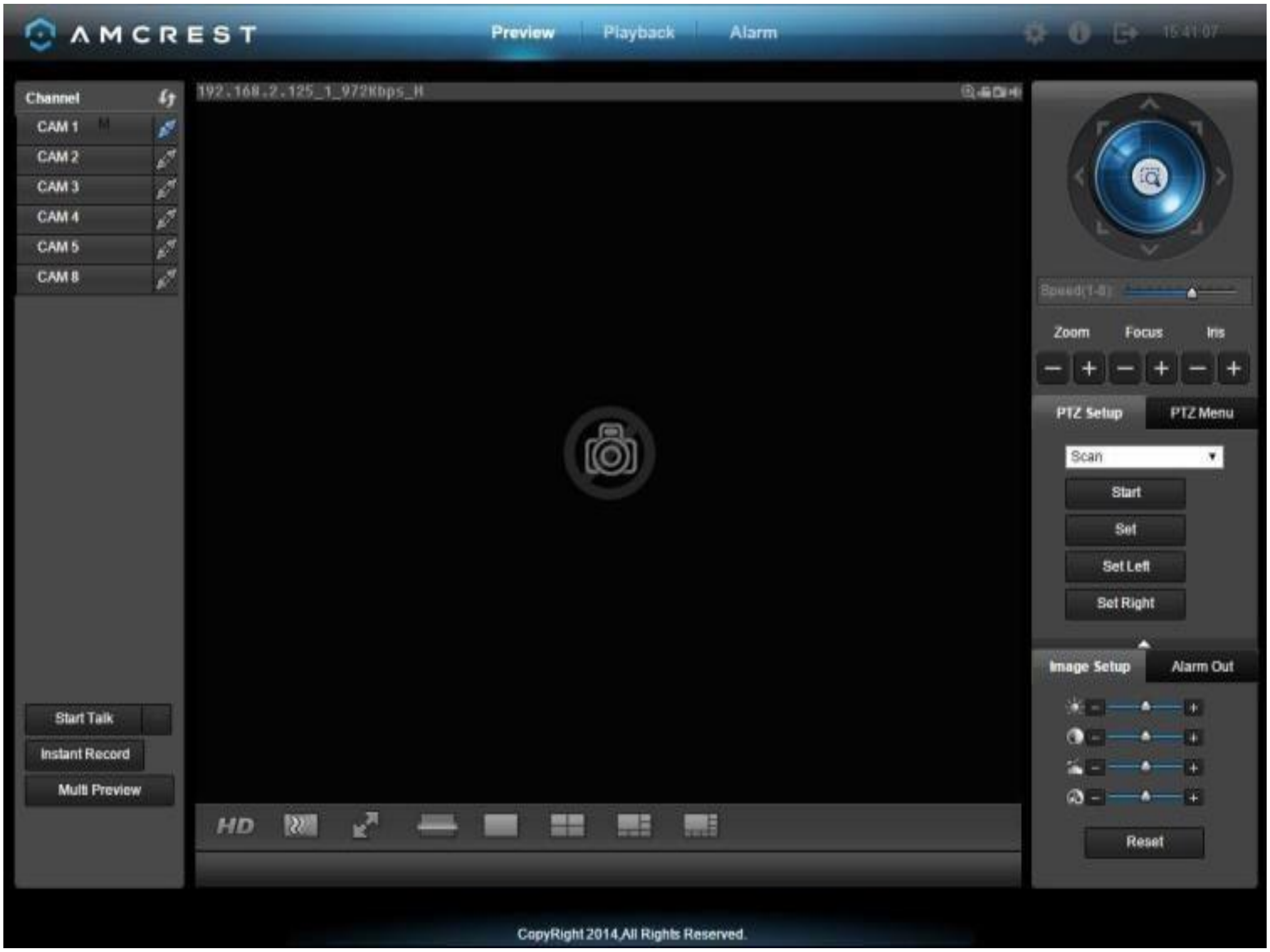


Figure 5-18

Please refer to the following contents for LAN and WAN login difference.

1. In the WAN mode, the system opens the main stream of the first channel to monitor by default. The open/close button on the left pane is null.

2. You can select different channels and different monitor modes at the bottom of the interface. See Figure 5-19.

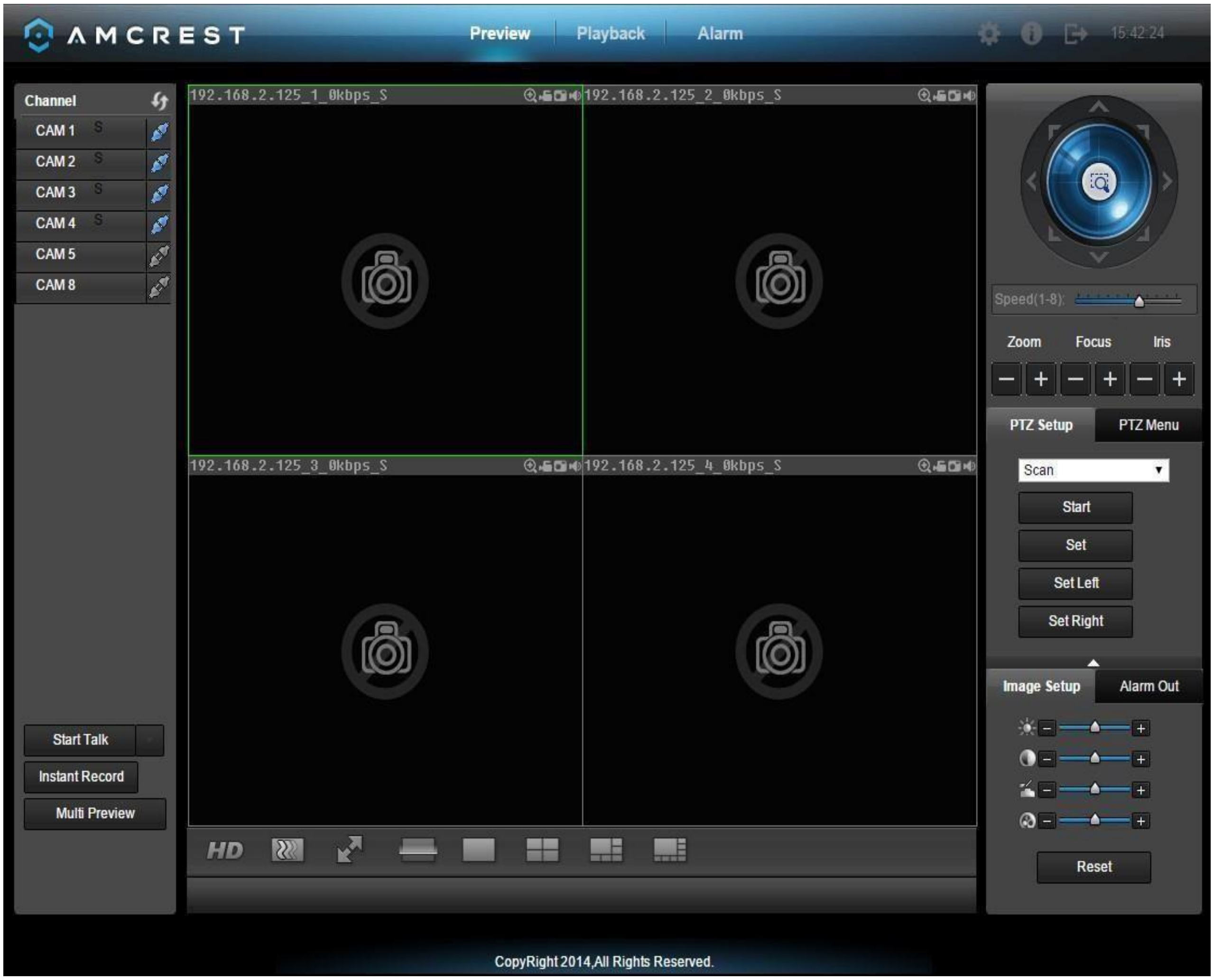


Figure 5-19

Important:

The window display mode and the channel number are set by default. For example, for the 16channel, the max window split mode is 16.

3) Multiple-channel monitor. The system uses the extra streams to monitor by default. Double click one channel, and the system switches to single channel and monitors the main stream. There are two icons at the left top corner of the channel number for you reference. M stands for main stream. S stands for sub stream (extra stream).

4) If you login via the WAN mode, the system does not support alarm activation to open the video function in the Alarm setup interface.

Important

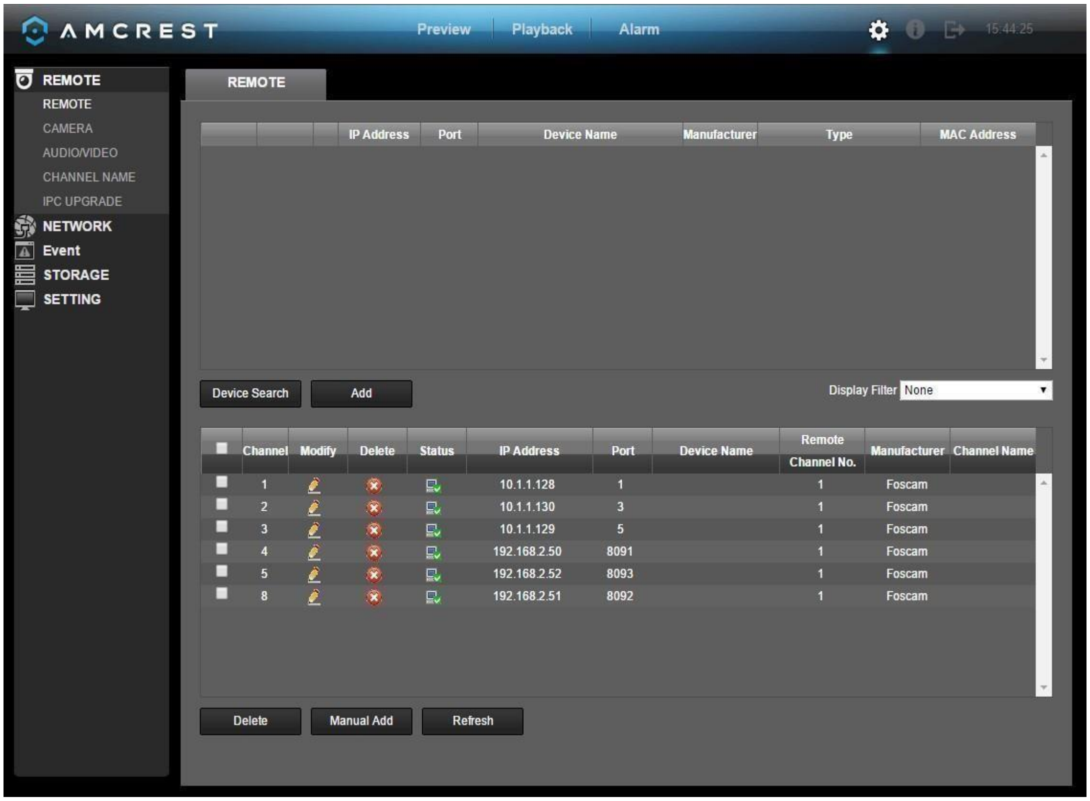
- ★ For multiple-channel monitor mode, the system uses the extra stream to monitor by default. You cannot modify this manually. All channels are trying to synchronize. Please note the synchronization effect still depends on your network environments.
- ★ For bandwidth consideration, the system cannot support monitor and playback at the same time. The system auto closes the monitor or playback interface when you are searching settings in the configuration interface. This is to enhance the search speed.

5.9 Setup

5.9.1 Camera

5.9.1.1 Remote

Remote device interface is shown as below. See Figure 5-20.



Display Filter None

☐	Channel	Modify	Delete	Status	IP Address	Port	Device Name	Remote Channel No.	Manufacturer	Channel Name
☐	1	✎	⊗	✓	10.1.1.128	1		1	Foscam	
☐	2	✎	⊗	✓	10.1.1.130	3		1	Foscam	
☐	3	✎	⊗	✓	10.1.1.129	5		1	Foscam	
☐	4	✎	⊗	✓	192.168.2.50	8091		1	Foscam	
☐	5	✎	⊗	✓	192.168.2.52	8093		1	Foscam	
☐	8	✎	⊗	✓	192.168.2.51	8092		1	Foscam	

Figure 5-20

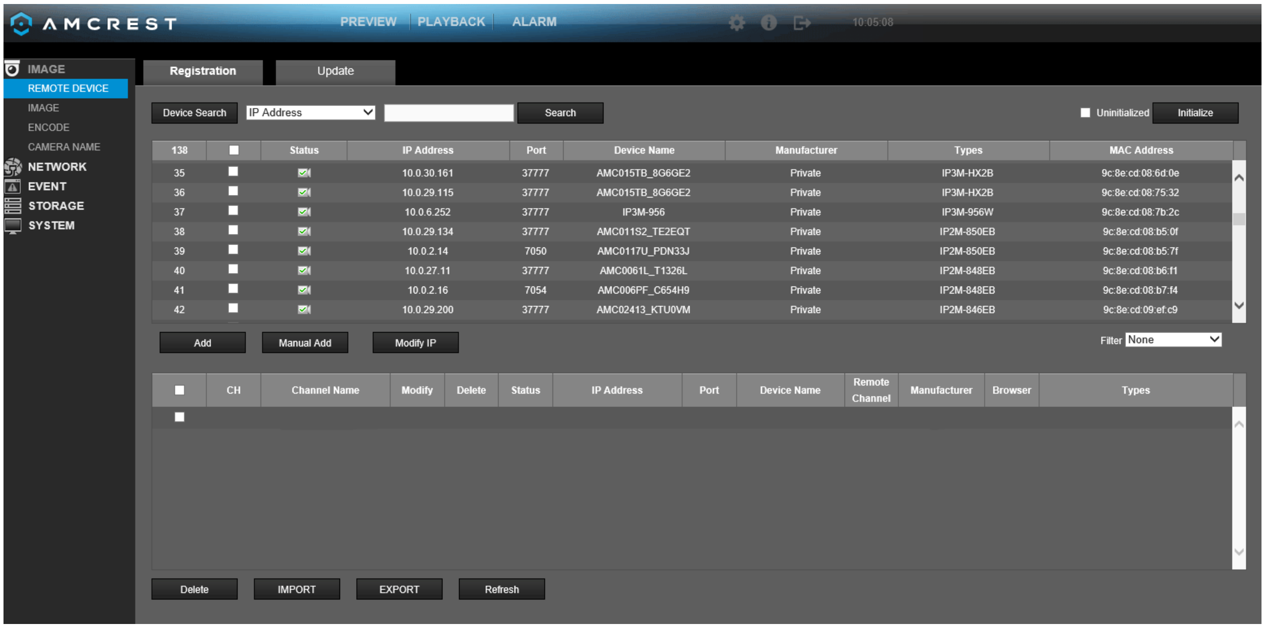
Please refer to the following sheet for log parameter information.

Parameter	Function

Device search	Click the Device search button to view the searched device information on the list. This includes the device IP address, port, device name, manufacturer, and type.
Add	Select a device in the list and then click the Add button. The system can connect the device automatically and add it to the Added device list. Or you can double click one item in the list to add a device.
Modify	Click ✎ or any device in the Added device list to change the corresponding channel setup.
Delete	Click ⊗ to delete the remote connection of the corresponding channel.
Connection status	✓ : Connection succeeded. ✗ : Connection failed.
Delete	Select a device in the Added device list and then click Delete button. The system will disconnect the device and remove it from the Added device list.
Parameter	**Function**
Manual Add	Click this and the interface is shown as in Figure 5-21. Here you can add a network camera manually. You can select a channel from the dropdown list (Only available channels are show.) **Note:** The system supports manufactures such as, Panasonic, Sony, Dynacolor, Samsung, AXIS, Arecont, Dahua, and Onvif standard protocol. If you do not input an IP address here the system uses the default IP 192.168.0.0 and does not connect to this IP. Cannot add two devices at the same time. Click the OK button here and the system only connects to the corresponding device of current channel.

5.9.1.2. Adding a Remote Device

To begin adding a remote device from your network onto your NVR, click on **Device Search**. A populated list of devices on your network will appear as shown in Figure 5-21.

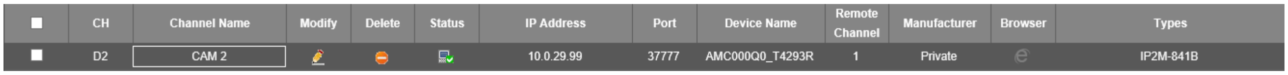


138	☐	Status	IP Address	Port	Device Name	Manufacturer	Types	MAC Address
35	☐	✓	10.0.30.161	37777	AMC015TB_8G6GE2	Private	IP3M-HX2B	9c:8e:cd:08:6d:0e
36	☐	✓	10.0.29.115	37777	AMC015TB_8G6GE2	Private	IP3M-HX2B	9c:8e:cd:08:75:32
37	☐	✓	10.0.6.252	37777	IP3M-956	Private	IP3M-956W	9c:8e:cd:08:7b:2c
38	☐	✓	10.0.29.134	37777	AMC011S2_TE2EQT	Private	IP2M-850EB	9c:8e:cd:08:b5:0f
39	☐	✓	10.0.2.14	7050	AMC0117U_PDN33J	Private	IP2M-850EB	9c:8e:cd:08:b5:7f
40	☐	✓	10.0.27.11	37777	AMC0061L_T1326L	Private	IP2M-848EB	9c:8e:cd:08:b6:f1
41	☐	✓	10.0.2.16	7054	AMC006PF_C654H9	Private	IP2M-848EB	9c:8e:cd:08:b7:f4
42	☐	✓	10.0.29.200	37777	AMC02413_KTU0VM	Private	IP2M-846EB	9c:8e:cd:09:ef:c9

☐	CH	Channel Name	Modify	Delete	Status	IP Address	Port	Device Name	Remote Channel	Manufacturer	Browser	Types
☐												

Figure 5-21

In this list you will notice a series of different fields for your device. These include the status of the device, IP Address, Port number, Device Name, Manufacturer protocol, Types, and MAC Address. Select which device you would like to add and click on **Add**. The camera will then appear in the corresponding field below as shown in Figure 5-22.



☐	CH	Channel Name	Modify	Delete	Status	IP Address	Port	Device Name	Remote Channel	Manufacturer	Browser	Types
☐	D2	CAM 2	✎	⊖	✓	10.0.29.99	37777	AMC000Q0_T4293R	1	Private	e	IP2M-841B

Figure 5-22

5.9.1.2.1. Setting a Remote Device to a Static IP

When you have successfully added your camera to your NVR it is highly recommended to set your device's IP address to **static**. If the device does not have a static IP address assigned in the system, there could be a compromise in the integrity of the connection if the NVR is reset or loses power.

For more information on how to set a static IP for your camera visit: amcrest.com/staticIP

To set a static IP for your device, click on the e icon located in the **Browser** section of the registration menu. You will then be directed to the web user interface menu for your device as shown in Figure 5-23.

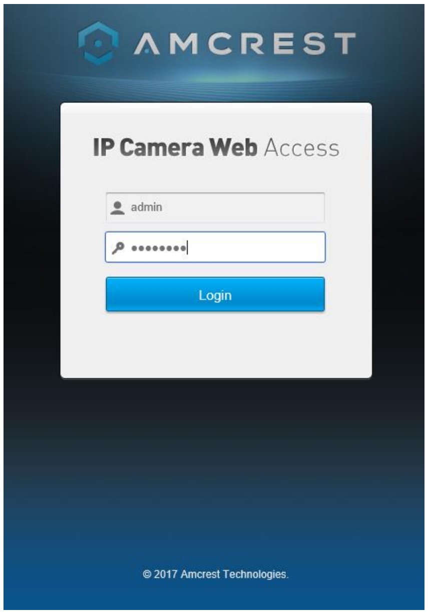


Figure 5-23

Enter the username and password for your device. If your device does not have a username and password setup yet the default username and password will be **admin.** You will then need to set a password for your device. The password should be between 8 and 32 characters with a combination of upper and lowercase letters.

Once you have a password set for your device, click on **Login** to log into the web user interface. The web user interface for your device is represented in Figure 5-24.

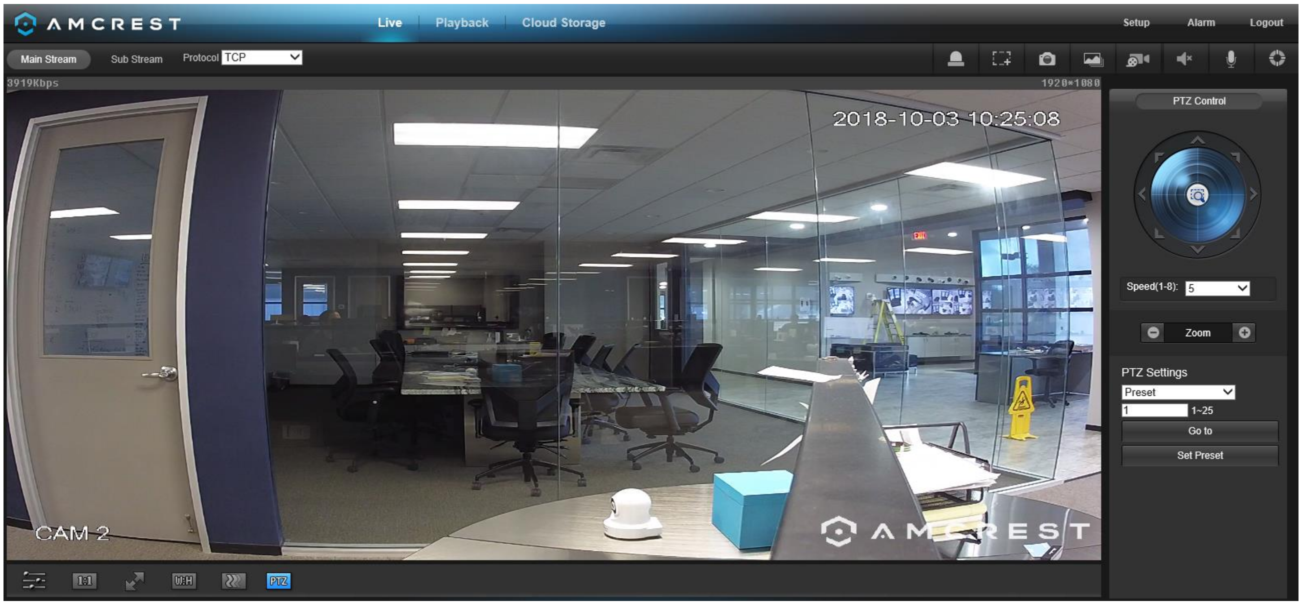
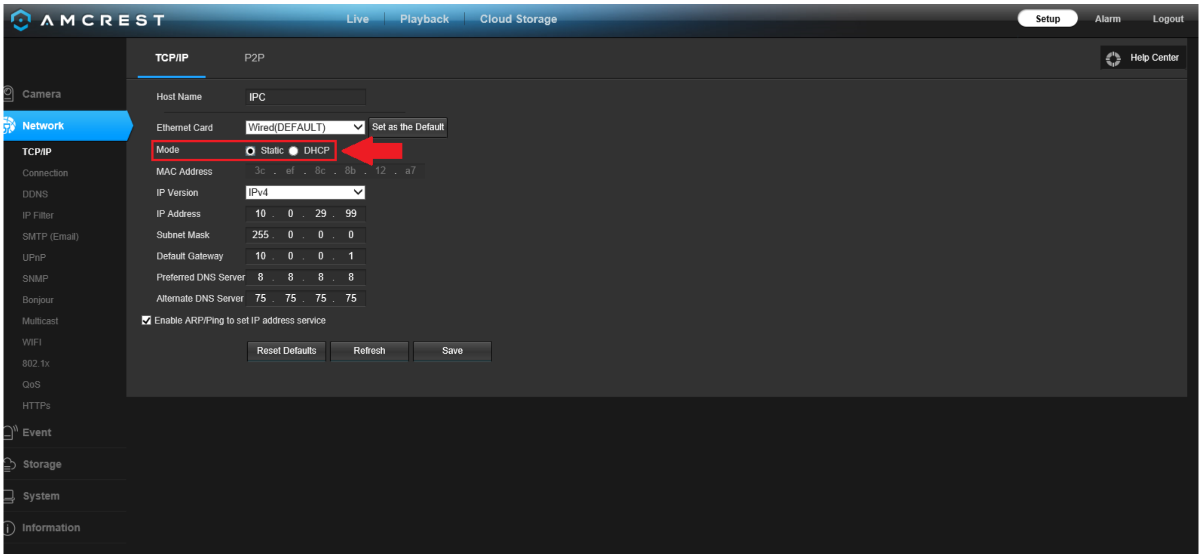


Figure 5-24

Inside the web user interface for your device, navigate to **Setup>>Network>>TCP/IP** and locate the **Mode** field.



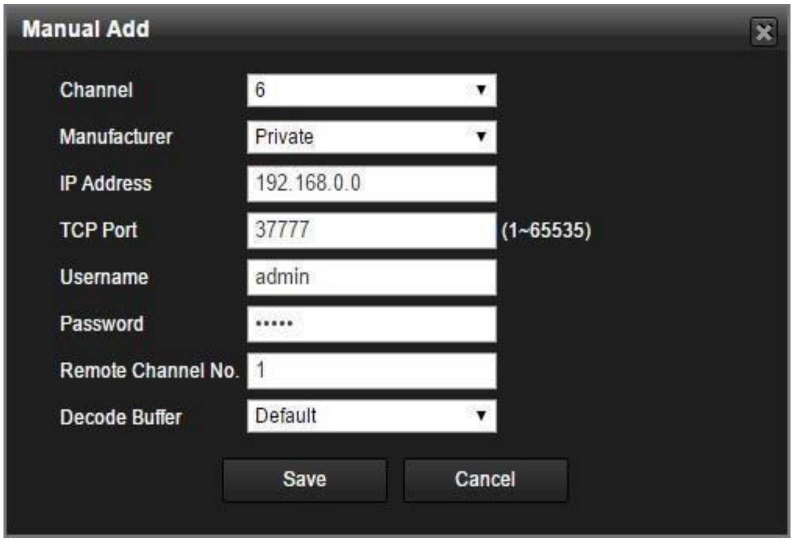
Host Name: IPC
Ethernet Card: Wired(DEFAULT)
Mode: ● Static ○ DHCP
MAC Address: 3c . ef . 8c . 8b . 12 . a7
IP Version: IPv4
IP Address: 10 . 0 . 29 . 99
Subnet Mask: 255 . 0 . 0 . 0
Default Gateway: 10 . 0 . 0 . 1
Preferred DNS Server: 8 . 8 . 8 . 8
Alternate DNS Server: 75 . 75 . 75 . 75
☑ Enable ARP/Ping to set IP address service

Figure 5-25

Select **Static** from the mode field to set your device to static. After setting your camera to static, click on **Save** to save and apply your settings to your NVR.

5.9.1.3. Manually Adding a Device

If a search for your device is unsuccessful and would like to add a device manually to your NVR click on **Manual Add** to manually enter the credentials of your device into the system. Click **Save** when finished to add the device. The manual add interface is represented below in Figure 5-26.



Channel: 6
Manufacturer: Private
IP Address: 192.168.0.0
TCP Port: 37777 (1~65535)
Username: admin
Password: •••••
Remote Channel No.: 1
Decode Buffer: Default

Figure 5-26

5.9.1.2 Image

Here you can view device properties. The settings become valid immediately after you set them. See Figure 5-27.

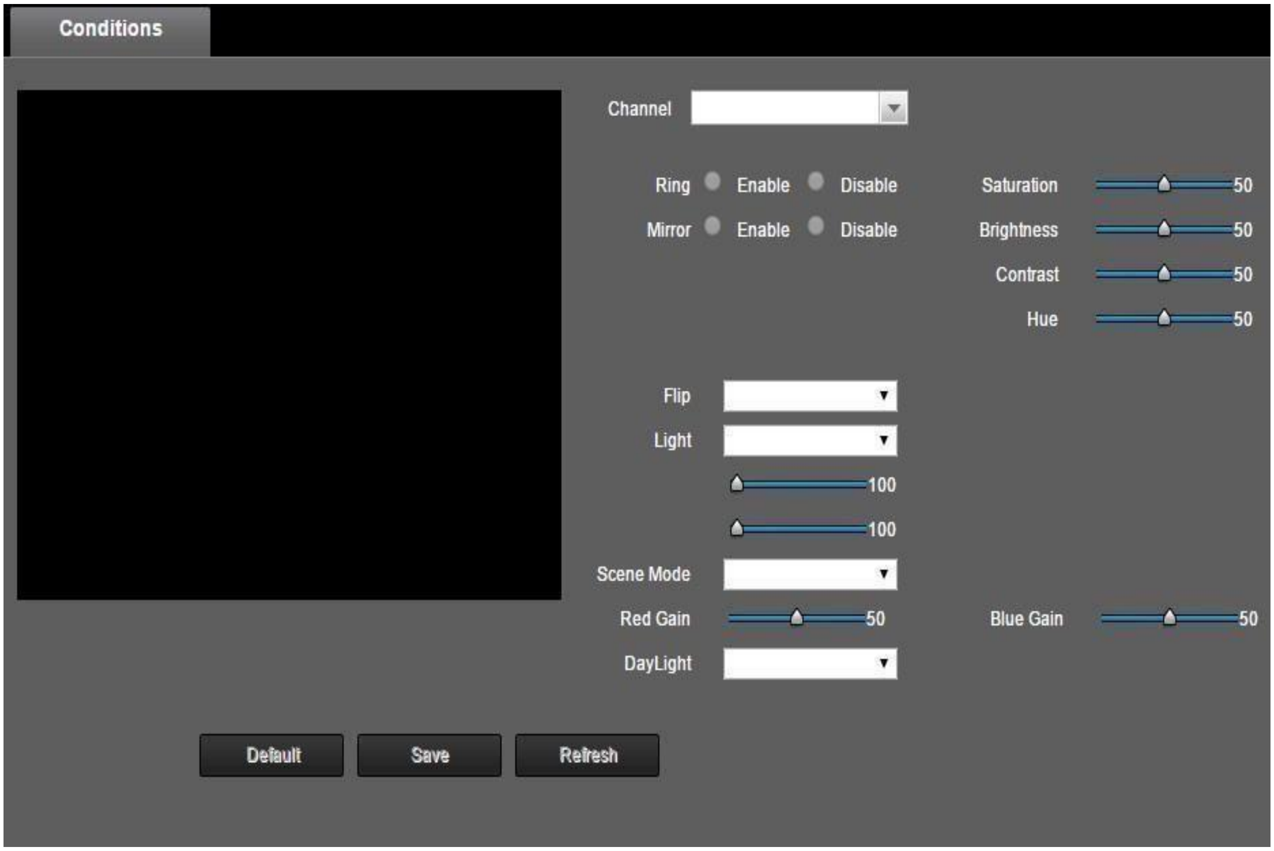


Figure 5-27

Please refer to the following sheet for detailed information.

Parameter	**Function**
Channel	Please select a channel from the dropdown list.
Period	This divides one day (24 hours) to two periods. You can set different hue, brightness, and contrast for different periods.

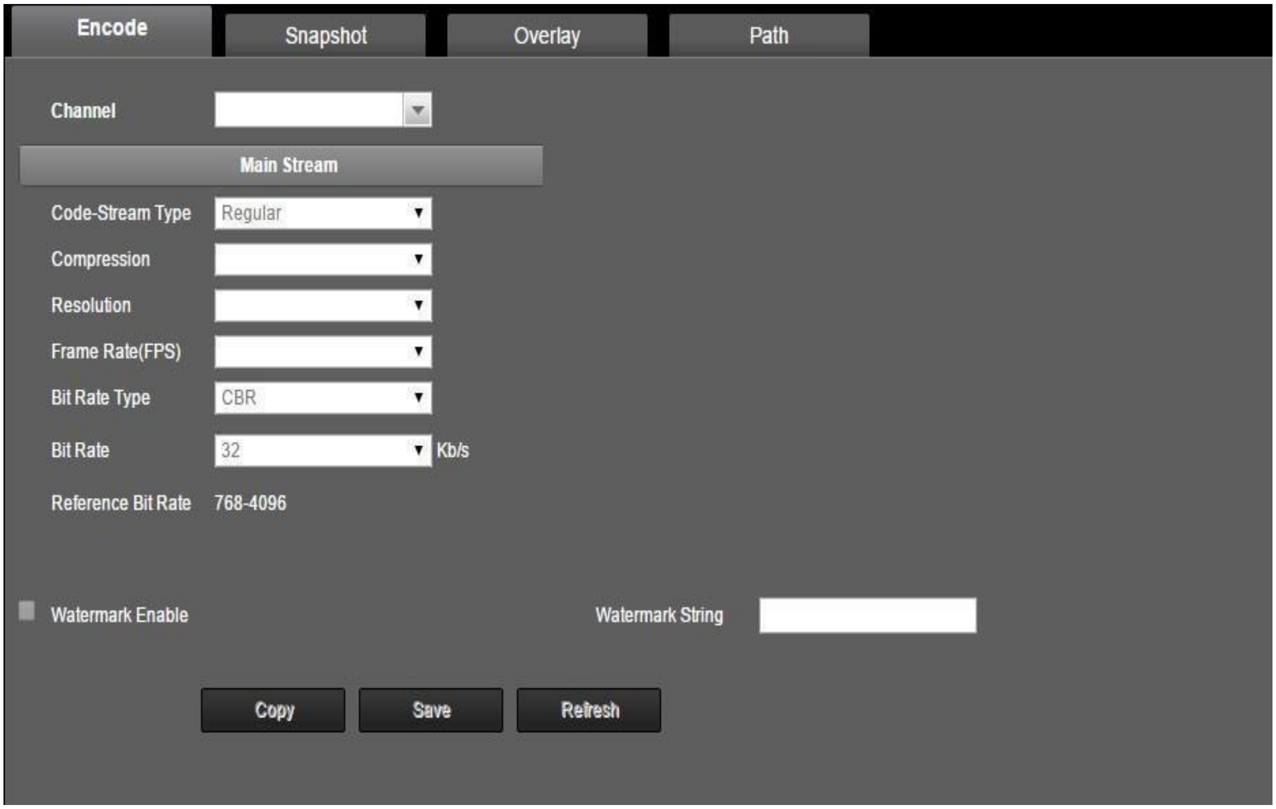
Hue	This is to adjust monitor video brightness and darkness level. The default value is 50. The bigger the value is, the large the contrast between the bright and dark section is and vice versa.
Brightness	This is to adjust the monitor window brightness. The default value is 50. The larger the number is, the brighter the video is. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The value ranges from 0 to 100. The recommended value ranges from 40 to 60.
Contrast	This is to adjust the monitor window contrast. The value ranges from 0 to 100. The default value is 50. The larger the number is, the higher the contrast is. You can use this function when the whole video brightness is OK but the contrast is not correct. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may over exposure. The recommended value ranges from 40 to 60.
Saturation	This is to adjust the monitor window saturation. The value ranges from 0 to 100. The default value is 50. The larger the number is, the strong the color is. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For the grey part of the video, the distortion may occur if the white balance is not accurate. Please note the video may not be attractive if the value is too low. The recommended value ranges from 40 to 60.
Gain	The gain adjust is to set the gain value. The smaller the value is, the lower the noise is. But the brightness is also too lower in dark environments. It can enhance the video brightness if the value is high. But the video noise may become too noticeable.

White level		This is to enhance the video effect.
Color mode		This includes several modes such as standard, color, etc. You can select the corresponding color mode here. The hue, brightness, contrast, etc. will adjust accordingly.
Auto Iris		This is to enable/disable the auto iris function.
Flip		This is to switch video up and bottom limit (flip the video upside down). This function is disabled by default.
Mirror		This is to switch video left and right limit (flip the video about vertical axis). This function is disabled by default.
Backlight	High	The high setting is used to compensate when the backlight is very bright.
	Low	The low setting is used to compensate when the backlight is moderate.
	Off	This is to disable the backlight compensation function. Please note this function is disabled by default.
Profile		This is to set the white balance mode. It has effect on the general hue of the video. This function is on by default. You can select the different scene modes such as auto,
		sunny, cloudy, home, office, night, disable, etc. to adjust the video to the best quality. Auto: The auto white balance is on. The system can auto compensate the color temperature to make sure the video color is accurate. Sunny: The threshold of the white balance is in the sunny mode. Night: The threshold of the white balance is in the night mode. Customized: You can set the gain of the red/blue channels. The value ranges from 0 to 100.

Day/Night	This is to set device color and the B/W mode switch. The default setup is auto. ★ Color: Device outputs color video. ★ Auto: Device auto selects to output the color or the B/W video according to the device feature (The general brightness of the video or if there is IR light or not.) ★ B/W: The device outputs black and white video. ★ Sensor: This is to set when there is peripheral connected IR light.

5.9.1.3 Encode

The encode interface is shown as below. See Figure 5-28.



Code-Stream Type: Regular

Bit Rate Type: CBR

Bit Rate: 32 Kb/s

Reference Bit Rate: 768-4096

☐ Watermark Enable

Figure 5-28

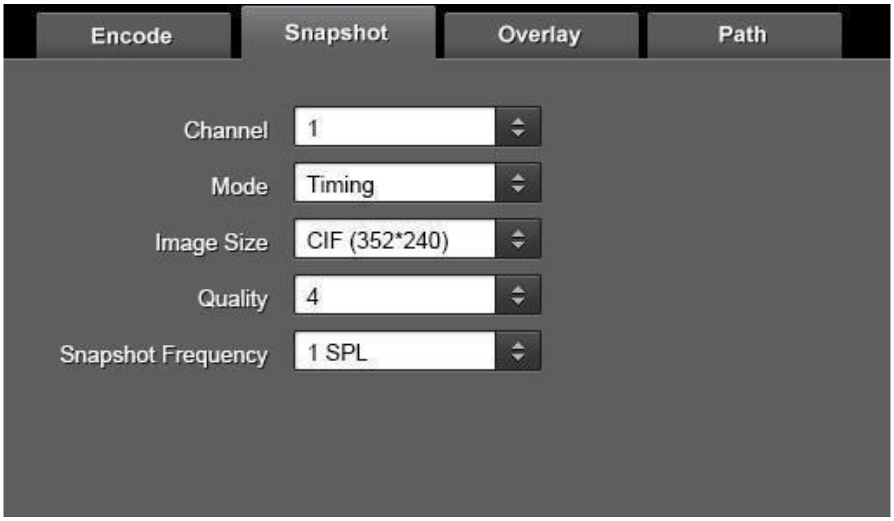
Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Please select a channel from the dropdown list.
Video enable	Check the box here to enable the extra stream video. This item is enabled by default.
Code stream type	This includes main stream, motion stream, and alarm stream. You can select different encode frame rates for different events. The system supports active control frame function (ACF). It allows you to record in different frame rates.
	For example, you can use high frame rate to record important events. Record scheduled event in lower frame rate, and it allows you to set different frame rates for motion detection record and alarm record.
Compression	The main bit stream supports H.264. The extra stream supports H.264 and MJPG.
Resolution	The resolution here refers to the capability of the network camera.
Frame Rate	PAL: 1~25fps; NTSC: 1~30fps.
Bit Rate	Main stream: You can set the bit rate here to change the video quality. The large the bit rate is, the better the quality is. Please refer to recommend bit rate for detailed information. Extra stream: In CBR, the bit rate here is the max value. In dynamic video mode, the system needs to lower the frame rate or video quality to guarantee the value. The value is null in VBR mode.
Reference bit rate	Recommended bit rate value according to the resolution and frame rate you have set.
I Frame	Here you can set the P frame amount between two I frames. The value ranges from 1 to 150. The default value is 50. Recommended value is frame rate *2.

Watermark enable	This function allows you to verify if the video has been tampered with or not. Here you can select the watermark bit stream, watermark mode, and watermark character. The default character is Digital CCTV. The max length is 85 characters. The characters can only include number, character, and underscore.

5.9.1.3.2 Snapshot

The snapshot interface is shown as in Figure 5-29.



Channel: 1
Mode: Timing
Image Size: CIF (352*240)
Quality: 4
Snapshot Frequency: 1 SPL

Figure 5-29

Please refer to the following sheet for detailed information.

Parameter	**Function**
Snapshot type	There are two modes: Regular (schedule) and Trigger. Regular snapshot is valid during the specified period you set. Trigger snapshot only is valid when a motion detect alarm, tampering alarm, or local activation alarm occurs.
Image size	This is the same with the resolution of the main stream.
Quality	This is to set the image quality. There are six levels.

Interval	This is to set snapshot frequency. The value ranges from 1s to 7s. Or you can set a customized value. The max setting is 3600s/picture.
Copy	This enables you to copy the current channel setup to other channel(s).

5.9.1.3.3 Video Overlay

The video overlay interface is shown as in Figure 5-30.

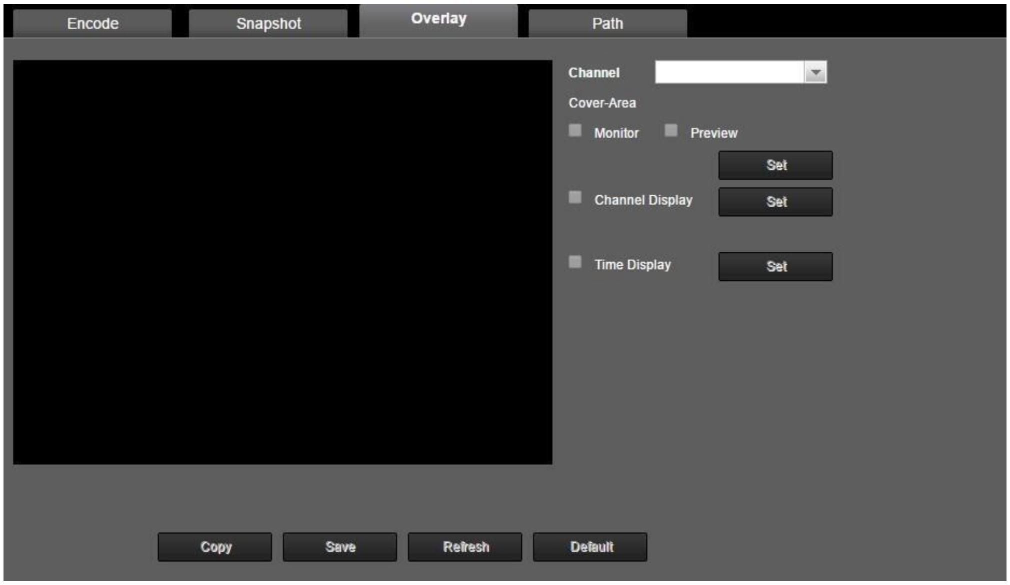


Figure 5-30

Please refer to the following sheet for detailed information.

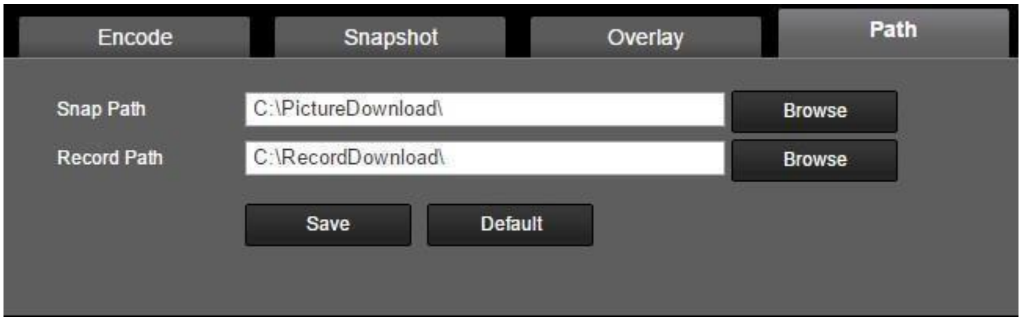
Parameter	**Function**
Cover-area	Check Preview or Monitor first. Click the Setup button to create a privacy mask for the specified video in the preview or monitor video. System supports a max of 4 privacy mask zones.
Time Title	You can enable this function so that system overlays time information in the video window. You can use the mouse to drag the time title position. You can view the time title on the live video on the WEB or the playback video.

Channel Title	You can enable this function so that system overlays channel information in the video window. You can use the mouse to drag the channel title position. You can view the channel title on the live video on the WEB or the playback video.

5.9.1.3.4 Path

The storage path interface is shown as in Figure 5-31.

Here you can set snap image saved path (📷 in the preview interface) and the record storage path (🎥 in the preview interface). The default locations are C:\PictureDownload and C:\RecordDownload. Please click the the Save button to save the current setup.



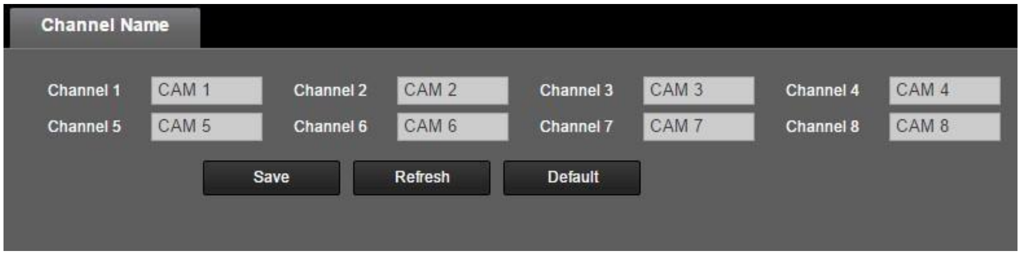
Snap Path: C:\PictureDownload\

Record Path: C:\RecordDownload\

Figure 5-31

5.9.1.4 Channel Name

Here you can set the channel name. See Figure 5-32.



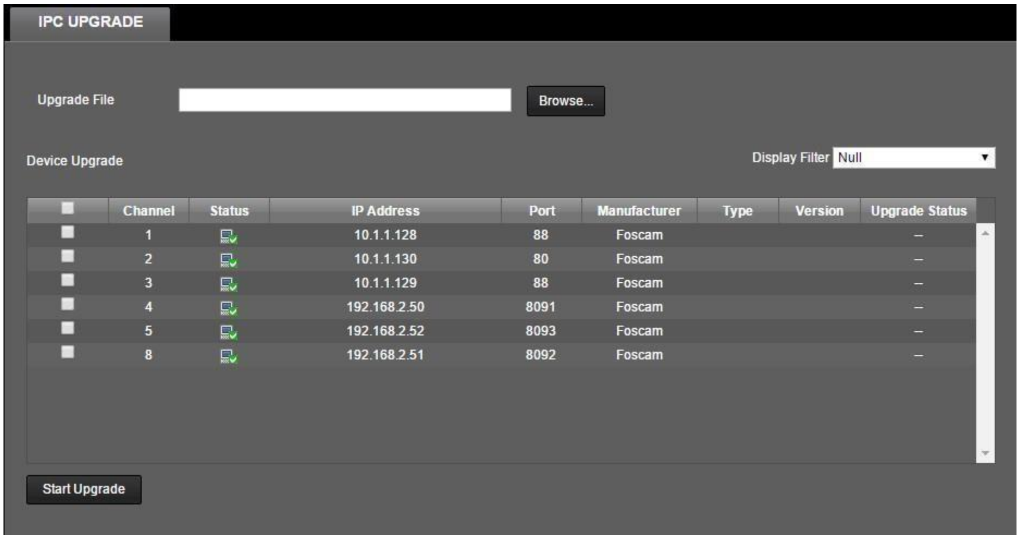
Channel 1: CAM 1
Channel 2: CAM 2
Channel 3: CAM 3
Channel 4: CAM 4
Channel 5: CAM 5
Channel 6: CAM 6
Channel 7: CAM 7
Channel 8: CAM 8

Figure 5-32

5.9.1.5 IPC Upgrade

This interface is to upgrade network cameras. See Figure 5-33.

Click the Browse button to select an upgrade file. You can use a filter to select several network cameras at the same time.



Upgrade File

Device Upgrade

Display Filter: Null

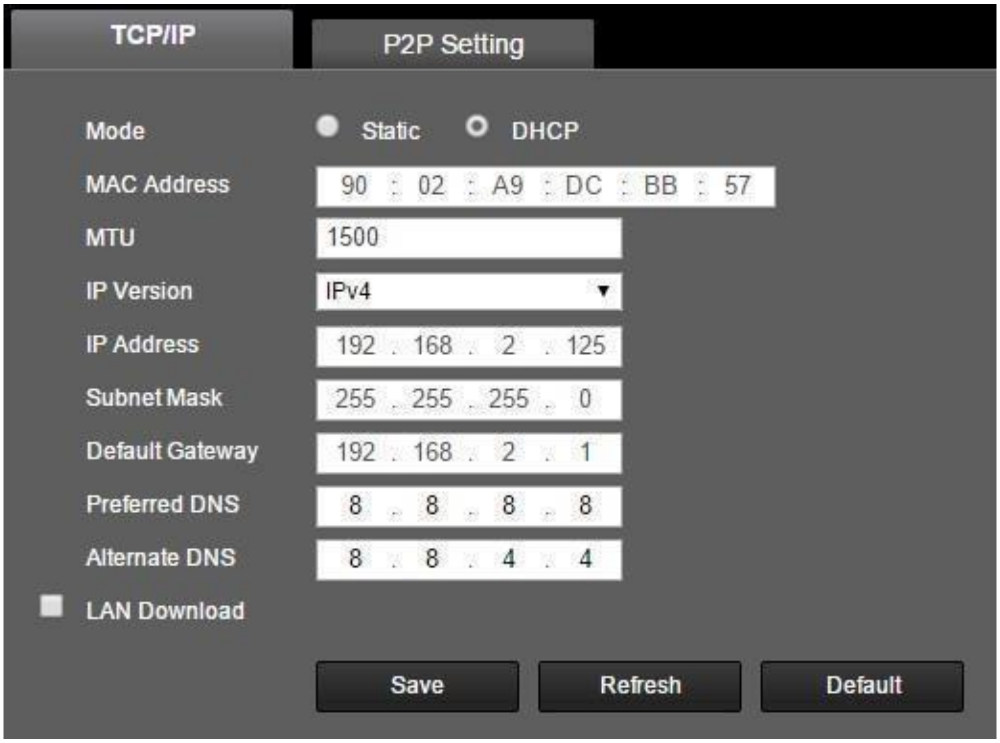
☐	Channel	Status	IP Address	Port	Manufacturer	Type	Version	Upgrade Status
☐	1	✓	10.1.1.128	88	Foscam			–
☐	2	✓	10.1.1.130	80	Foscam			–
☐	3	✓	10.1.1.129	88	Foscam			–
☐	4	✓	192.168.2.50	8091	Foscam			–
☐	5	✓	192.168.2.52	8093	Foscam			–
☐	8	✓	192.168.2.51	8092	Foscam			–

Figure 5-33

5.9.2 Network

5.9.2.1 TCP/IP

The TCP/IP interface is shown as in Figure 5-34.



Mode: ○ Static ● DHCP

MAC Address: 90 : 02 : A9 : DC : BB : 57

MTU: 1500

IP Version: IPv4

IP Address: 192 . 168 . 2 . 125

Subnet Mask: 255 . 255 . 255 . 0

Default Gateway: 192 . 168 . 2 . 1

Preferred DNS: 8 . 8 . 8 . 8

Alternate DNS: 8 . 8 . 4 . 4

☐ LAN Download

Figure 5-34

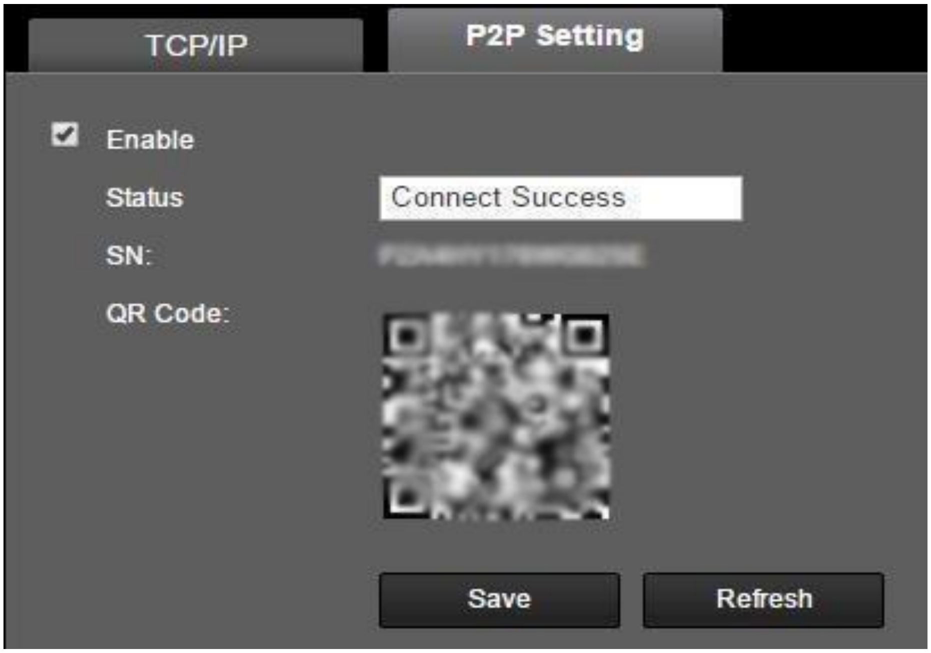
Please refer to the following sheet for detailed information.

Parameter	**Function**
Mode	There are two modes: static mode and DHCP mode. The IP/submask/gateway are null when you select the DHCP mode to auto obtain an IP. If you select the static mode, you need to set the IP/submask/gateway manually. If you select the DHCP mode, you can view the IP/submask/gateway from the DHCP. If you switch from the DHCP mode to the static mode, you need to reset the IP parameters. IP/submask/gateway and DHCP are read-only when the PPPoE is used.
Mac Address	This is to display the host Mac address.
IP Version	This is to select the IP version. IPV4 or IPV6. You can access the IP address of these two versions.
IP Address	lease use the keyboard to input the desired IP address and then set the corresponding subnet mask and default gateway.
Preferred DNS	DNS IP address.
Alternate DNS	Alternate DNS IP address.
For the IP address of IPv6 version, default gateway, preferred DNS and alternate DNS, the input value should be 128-digit. It should not be left blank.	
LAN load	The system can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X the normal speed.

5.9.2.2 P2P

The P2P interface is shown as in Figure 5-35.

This is used to easily add the NVR to our Amcrest app, Amcrest View. You can find the app on the App Store or Play store on your mobile device. When adding a new device on the app, select the QR option then scan the QR code, give it a name, and enter your login credentials to connect.



☑ Enable

Status: Connect Success

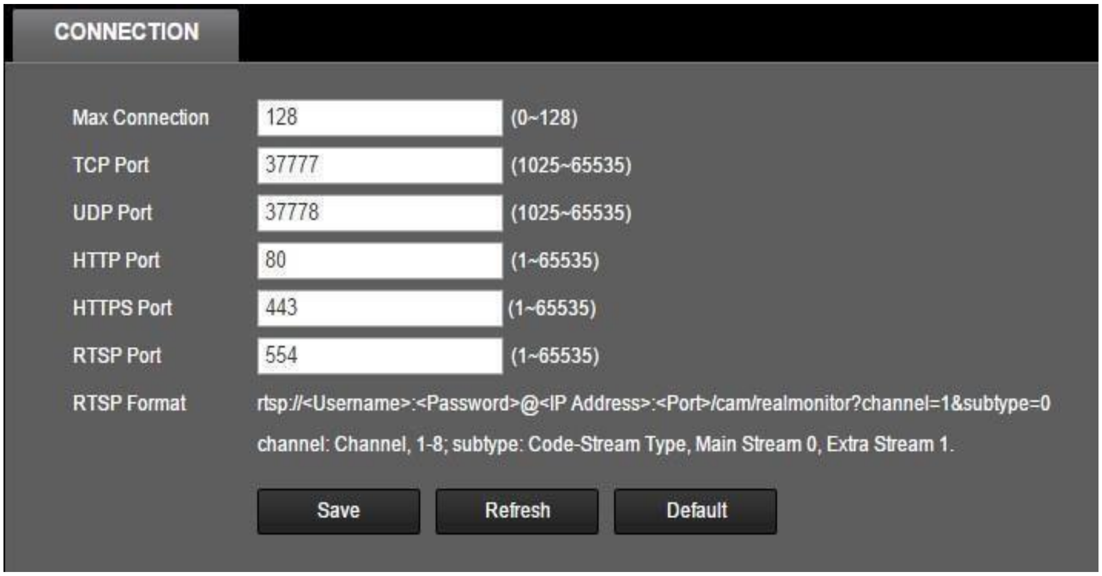
SN: [redacted]

QR Code:

Figure 5-35

5.9.2.3 Connection

The connection interface is shown as in Figure 5-36.



Max Connection	128	(0~128)
TCP Port	37777	(1025~65535)
UDP Port	37778	(1025~65535)
HTTP Port	80	(1~65535)
HTTPS Port	443	(1~65535)
RTSP Port	554	(1~65535)

RTSP Format: rtsp://<Username>:<Password>@<IP Address>:<Port>/cam/realmonitor?channel=1&subtype=0

channel: Channel, 1-8; subtype: Code-Stream Type, Main Stream 0, Extra Stream 1.

Figure 5-36

Please refer to the following sheet for detailed information.

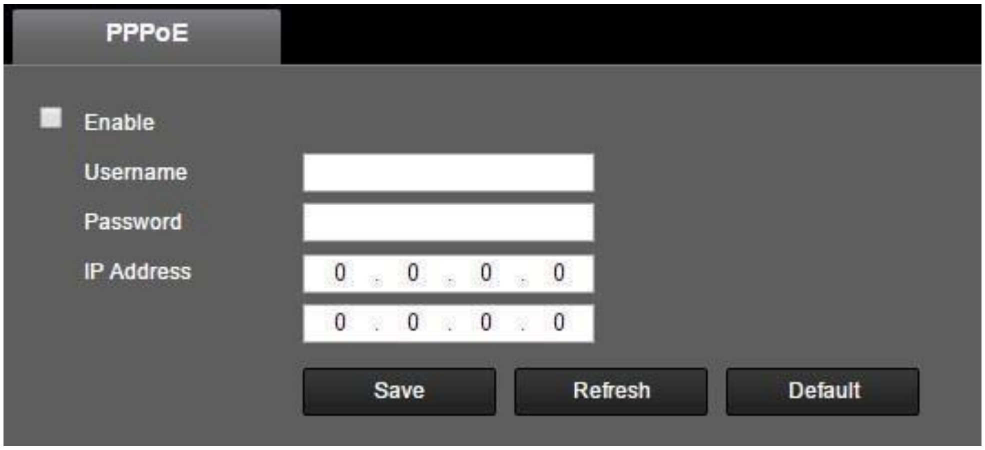
Parameter	Function
Max connection	This is the max Web connections for the same device. The value ranges from 1 to 120. The default setting is 120.
TCP port	The default value is 37777. You can input a different port number if necessary.
UDP port	The default value is 37778. You can input a different port number if necessary.
HTTP port	The default value is 80. You can input a different port number if necessary.
HTTPS	The default value is 443. You can input a different port number if necessary.
RTSP port	The default value is 554.

5.9.2.4 PPPoE

The PPPoE interface is shown as in Figure 5-37.

Input the PPPoE user name and password you get from the IPS (internet service provider) and enable the PPPoE function. Please save current setup and then reboot the device to activate the setup. The device connects to the internet via PPPoE after the reboot. You can get the IP address from the IP address column.

Please note. You need to use the previous IP address on the LAN to login to the device. Please go to the IP address item via the device's current device information. You can access the client-end via this new address.



☐ Enable
Username
Password
IP Address 0 . 0 . 0 . 0
0 . 0 . 0 . 0

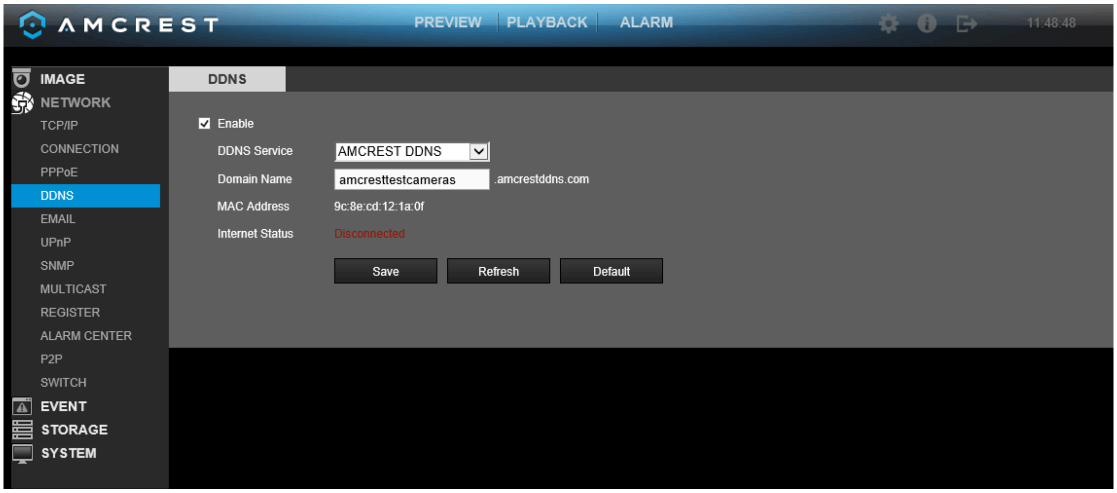
Figure 5-37

5.9.2.5 DDNS

The DDNS interface is shown as in Figure 5-38.

The DDNS can connect the various servers so that you can access the system via a web address. Please go to the corresponding service website to apply a domain name and then access the system via the domain. This will allow you continuous access to your system even if the external IP changes.

Please select DDNS from the dropdown list (Multiple choices). Before you use this function, please make sure your device supports this function.



☑ Enable
DDNS Service: AMCREST DDNS
Domain Name: amcresttestcameras .amcrestddns.com
MAC Address: 9c:8e:cd:12:1a:0f
Internet Status: Disconnected

Figure 5-38

Please refer to the following sheet for detailed information.

Parameter	Function
DDNS Service	You can select a DDNS protocol from the dropdown list and then enable DDNS function. Amcrest DDNS would be recommended.
Domain Name	Your self-defined domain name.
MAC Address	The MAC address of the connected device.
Internet Status	Shows the current connection status of your DDNS connection. It will show either “Disconnected” or “Connected”

Amcrest DDNS and Client-end Introduction

1) Background Introduction

The external IP is not static if you use ADSL to access the internet. The DDNS function allows you to access the NVR via the registered domain name. In addition to the general DDNS, Amcrest DDNS works with the device from the manufacturer so that it can be easily setup.

2) Function Introduction

The Amcrest DDNS client has the same function as other DDNS clients. It bonds the domain name and the IP address. Right now, the current DDNS server is for our own devices only. You need to refresh the bonding relationship of the domain and the IP regularly. There is no user name, password, or ID registration on the server. At the same time, each device has a default domain name (generated by
MAC address) as an option. You can also use a customized valid domain name (has not registered.).

3) Operation

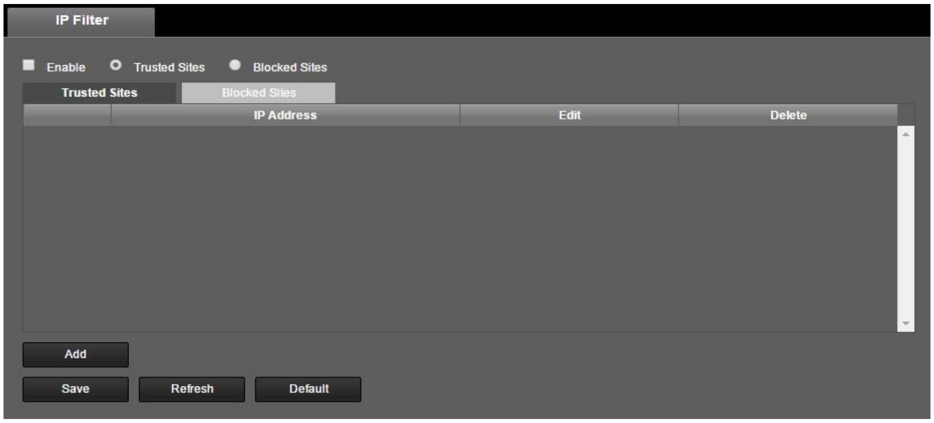
Before you use Amcrest DDNS, you need to enable this service and set the correct server address, port value, and domain name.

- ★ Server address: www.amcrestddns.com
- ★ Port number: 80
- ★ Domain name: There are two modes: Default domain name and customized domain name.
  In addition to default domain name registration, you can also use a customized domain name (You can input your self-defined domain name.) After successful registration, you can use domain name to login to access the device.
- ★ User name: This is optional. You can input your commonly used email address.
- ★ Do not register frequently. The interval between two registrations should be more than 60 seconds. Too many registration requests may result in a server attack.
- ★ The system may take back the domain name that is idle for one year. You can get a notification email before the domain is reclaimed if your email address setup is correct.

5.9.2.6 IP filter

The IP filter interface is shown as in Figure 5-39.

After you enabled the trusted sites function, only the IP addresses listed below can access current NVR. If you enable the blocked sites function, the following listed IP addresses cannot access current NVR.

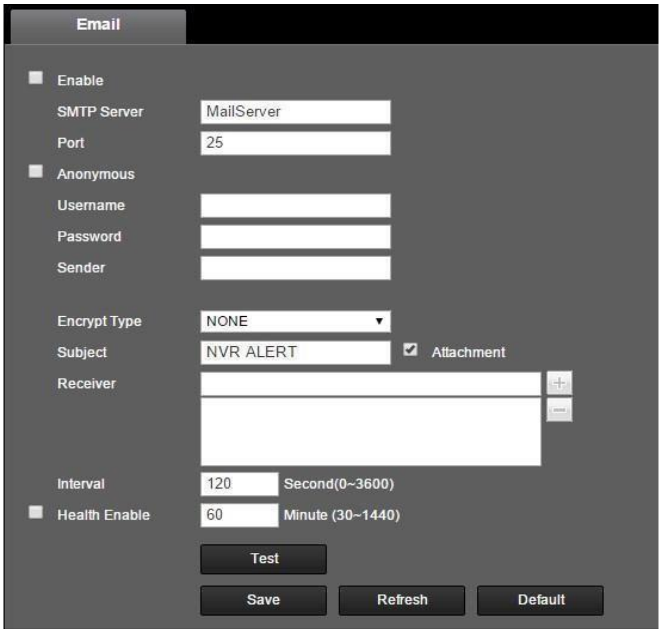


☐ Enable ○ Trusted Sites ● Blocked Sites

Figure 5-39

5.9.2.7 Email

The email interface is shown as in Figure 5-40.



☐ Enable
SMTP Server: MailServer
Port: 25
☐ Anonymous
Encrypt Type: NONE
Subject: NVR ALERT ☑ Attachment
Interval: 120 Second(0~3600)
☐ Health Enable: 60 Minute (30~1440)

Figure 5-40

Please refer to the following sheet for detailed information.

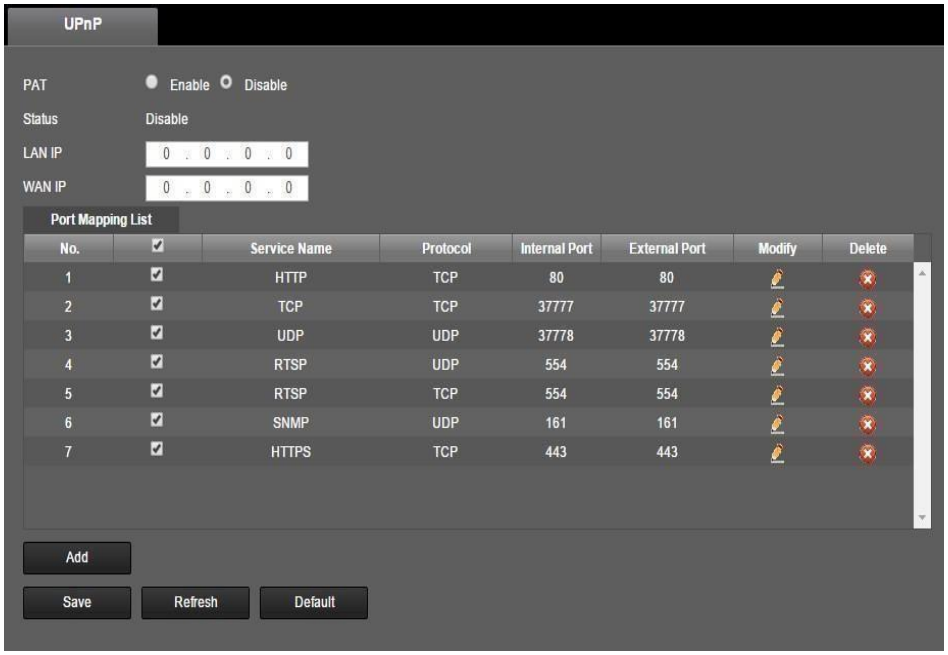
Parameter	Function
Enable	Please check this box here to enable the email function.
SMTP Server	Input the server address and then enable this function.
Port	The default value is 25. You can modify it if necessary.
Anonymity	For servers that support the anonymity function, you can login anonymously. You do not need to input the user name, password, and the sender information.
User Name	The user name of the sender's email account.
Password	The password of sender's email account.
Sender	Sender's email address.
Authentication (Encryption mode)	You can select SSL or none.
Subject	Input email subject here.
Parameter	**Function**
Attachment	The system can send out an email of the snapshot picture once you check this box.
Receiver	Input receiver's email address here. Max of three addresses. It supports SSL and TLS emails.

Interval	The send interval ranges from 0 to 3600 seconds. 0 means there is no interval. Please note the system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormity event activates the email, the system sends out the email according to the interval you specified here. This function is very useful when there are too many emails activated by the abnormity events, which may result in a heavy load for the email server.
Health mail enable	Please check the box here to enable this function.
Update period (interval)	This function allows the system to send out a test email to check if the connection is correct. Please check this box to enable this function and then set the corresponding interval. The system will send out the email regularly according to what you set here.
Email test	The system will automatically send out an email once to test if the connection is correct. Before the email test is sent, please save the email setup information.

5.9.2.8 UPnP

This allows you to establish a mapping relationship between the LAN and the public network. Here you can also add, modify, or remove UPnP item. See Figure 5-41.

- ★ In the Windows OS, from Start->Control Panel->Add or remove programs. Click the “Add/Remove Windows Components” and then select the “Network Services” from the Windows Components Wizard.
- ★ Click the Details button and then check the “Internet Gateway Device Discovery and Control client” and “UPnP User Interface”. Please click OK to begin installation.
- ★ Enable UPnP from the Web. If your UPnP is enabled in the Windows OS, the NVR can auto detect it via the “My Network Places”



PAT ● Enable ○ Disable

Status Disable

LAN IP 0 . 0 . 0 . 0

WAN IP 0 . 0 . 0 . 0

Port Mapping List

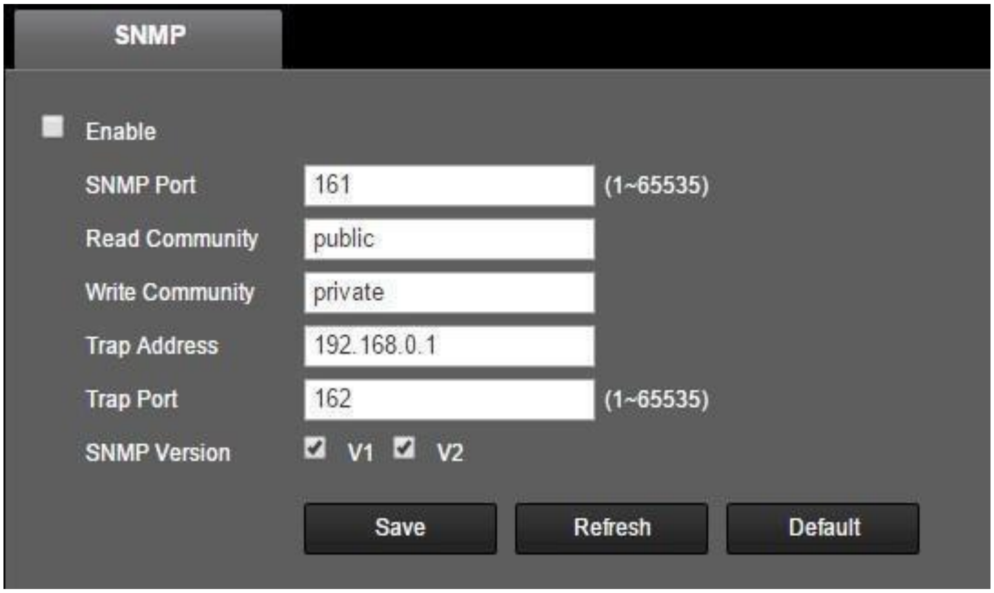
No.	☑	Service Name	Protocol	Internal Port	External Port	Modify	Delete
1	☑	HTTP	TCP	80	80	✎	✖
2	☑	TCP	TCP	37777	37777	✎	✖
3	☑	UDP	UDP	37778	37778	✎	✖
4	☑	RTSP	UDP	554	554	✎	✖
5	☑	RTSP	TCP	554	554	✎	✖
6	☑	SNMP	UDP	161	161	✎	✖
7	☑	HTTPS	TCP	443	443	✎	✖

Figure 5-41

5.9.2.9 SNMP

The SNMP interface is shown as in Figure 5-42.

The SNMP allows for the communication between the network management work station software and the proxy of the managed device. It is reserved for the 3rd parties to develop.



☐ Enable

SNMP Port 161 (1~65535)

Read Community public

Write Community private

Trap Address 192.168.0.1

Trap Port 162 (1~65535)

SNMP Version ☑ V1 ☑ V2

Figure 5-42

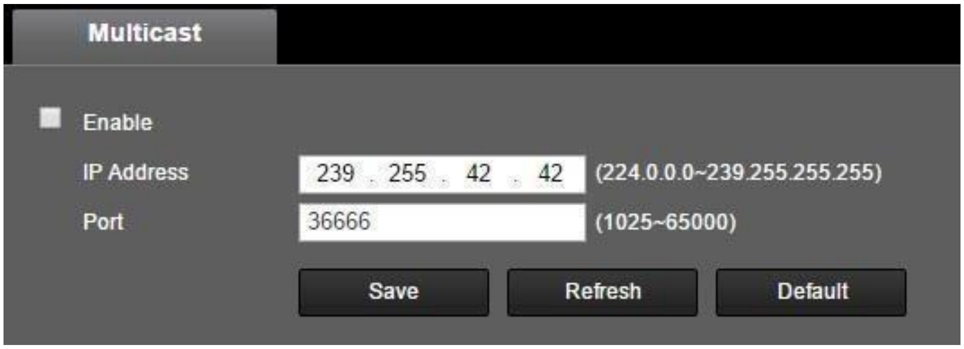
Please refer to the following sheet for detailed information.

Parameter	Function
SNMP Port	The listening port of the proxy program of the device. This is a UDP port not a TCP port. The value ranges from 1 to 65535. The default value is 161
Read Community	his is a string. It is a command between the manage process and the proxy process. It defines the authentication, access control, and management relationship between one proxy and one group of the managers. Please make sure the device and the proxy are the same. The read community will read all the objects the SNMP supports in the specified name. The default setup is public.
Write Community	This is a string. It is a command between the manage process and the proxy process. It defined the authentication, access control, and management relationship between one proxy and one group of the managers. Please make sure the device and the proxy are the same. The read community will read/write/access all the objects the SNMP supports in the specified name. The default setup is write.
Trap address	The destination address of the Trap information from the proxy program of the device.
Trap port	The destination port of the Trap information from the proxy program of the device. It is for the gateway device and the client-end PC in the LAN to exchange the information. It is a non-protocol connection port. It has no effect on the network applications. It is a UDP port not a TCP port. The value ranges from 1 to 165535. The default value is 162.
SNMP version	★ Check V1, system only processes the information of V1. ★ Check V2, system only processes the information of V2.

5.9.2.10 Multicast

The multicast interface is shown as in Figure 5-43.

Multicast is a transmission mode of data packets. When there are multiple hosts to receive the same data packet, multiple-cast is the best option to reduce the broad width and the CPU load. The source host can send out one data packet multiple receivers. This function also depends on the relationship of the group members and outer group.



☐ Enable
IP Address: 239 . 255 . 42 . 42 (224.0.0.0~239.255.255.255)
Port: 36666 (1025~65000)

Figure 5-43

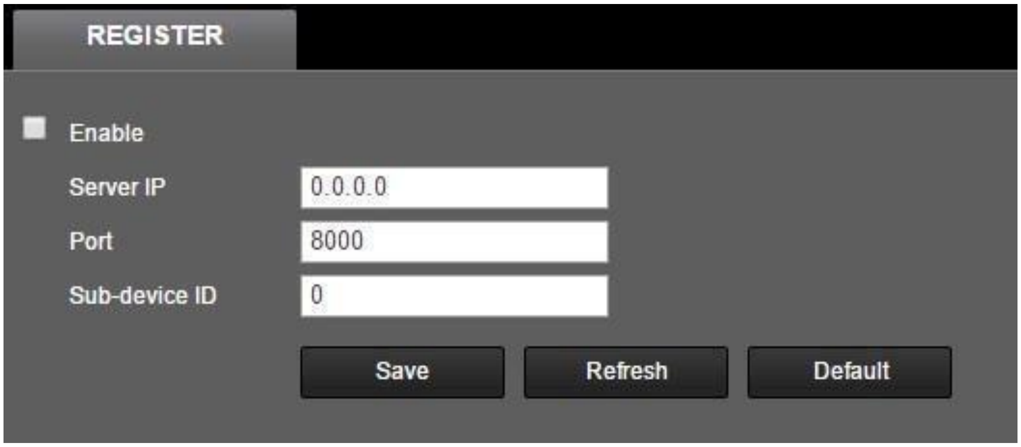
5.9.2.11 Auto Register

The auto register interface is shown as below. See Figure 5-44.

This function allows the device to auto register to the proxy you have specified. In this way, you can use the client-end to access the NVR via the proxy. Here the proxy has a switch function. The device supports an IPv4 address or domain.

Please follow the steps listed below to use this function.

Please set the proxy server address, port, and sub-device ID at the device-end. Please enable the auto register function to auto register to the proxy server.



☐ Enable
Server IP: 0.0.0.0
Port: 8000
Sub-device ID: 0

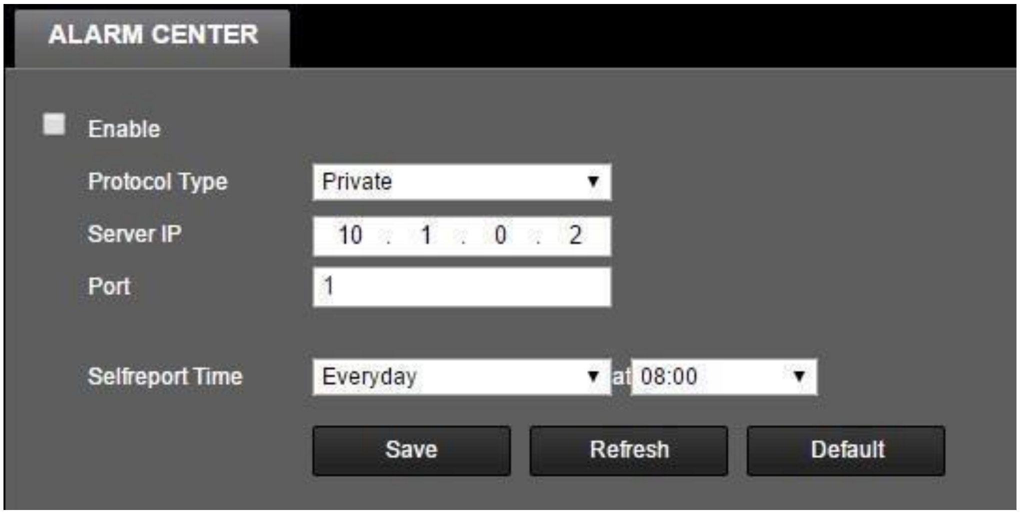
Figure 5-44

5.9.2.12 Alarm Center

The alarm center interface is shown as below. See Figure 5-45.

This interface is reserved for developers. The system can upload alarm signals to the alarm center when a local alarm occurs.

Before you use the alarm center, please set the server IP, port, etc. When an alarm occurs, the system sends out data as the protocol defines, so the client-end can get the data.



ALARM CENTER

☐ Enable

Protocol Type: Private

Server IP: 10 . 1 . 0 . 2

Port: 1

Selfreport Time: Everyday at 08:00

Figure 5-45

5.9.2.13 HTTPS

In this interface, you can make sure the PC can successfully login via the HTTPS. This is to guarantee communication data security. This reliable and stable technology can secure the user’s information securely and safety. See Figure 5-46.

Note

★ **You need to recreate and install the server certificate again if the device IP has changed.**

★ **You need to download the root certificate if it is your first time to use HTTPS on the current PC.**

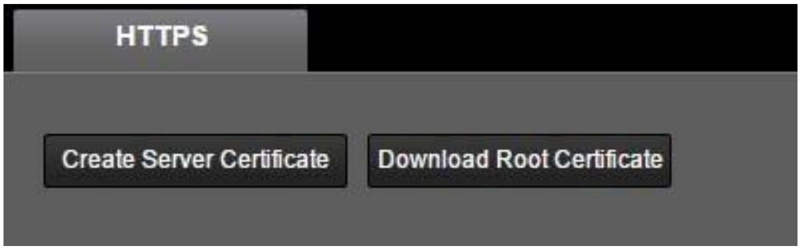


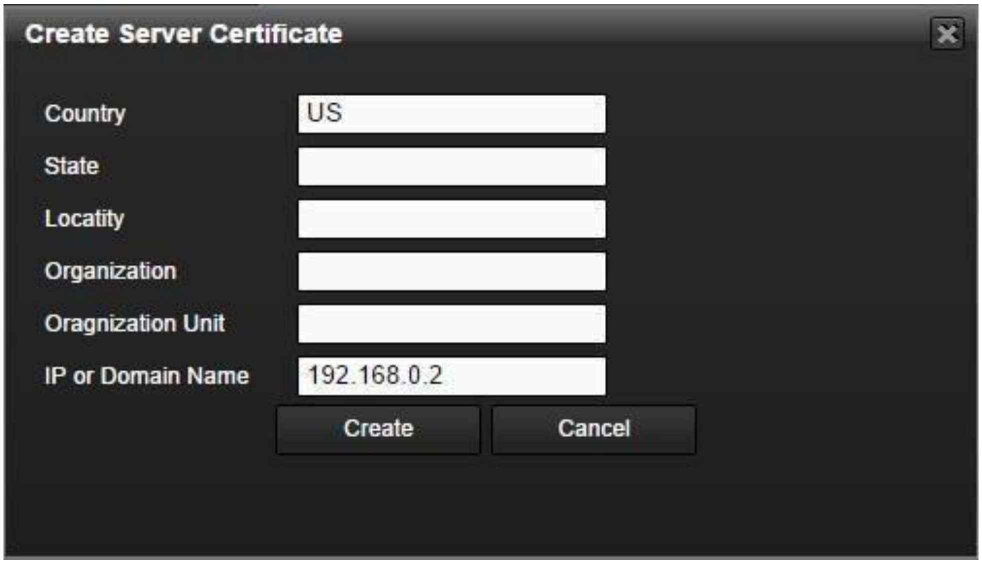
Figure 5-46

5.9.2.13.1 Create Server Certificate

If it is your first time to use this function, please follow the steps listed below.

In Figure 5-46, click Create Server Certificate, input the country name, state name, etc. Click the Create button. See Figure 5-47.

Note: Please make sure the IP or domain information is the same as your device IP or domain name.

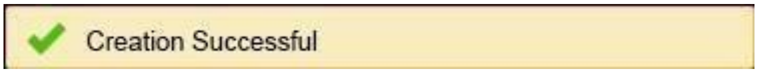


Create Server Certificate

Country: US
State:
Locatity:
Organization:
Oragnization Unit:
IP or Domain Name: 192.168.0.2

Figure 5-47

You will see the corresponding prompt. See Figure 5-48. Now the server certificate is successfully created.

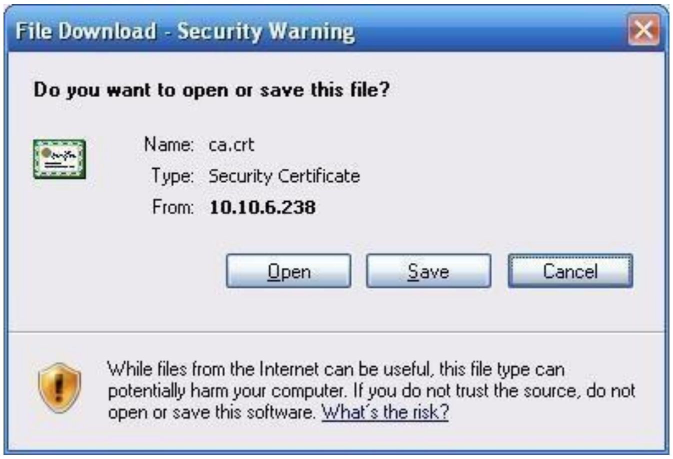


✓ Creation Successful

Figure 5-48

5.9.2.13.2 Download Root Certificate

In Figure 5-46, click Download Root Certificate, and the system pops up a dialogue box. See Figure 5-49.



Do you want to open or save this file?

Name: ca.crt

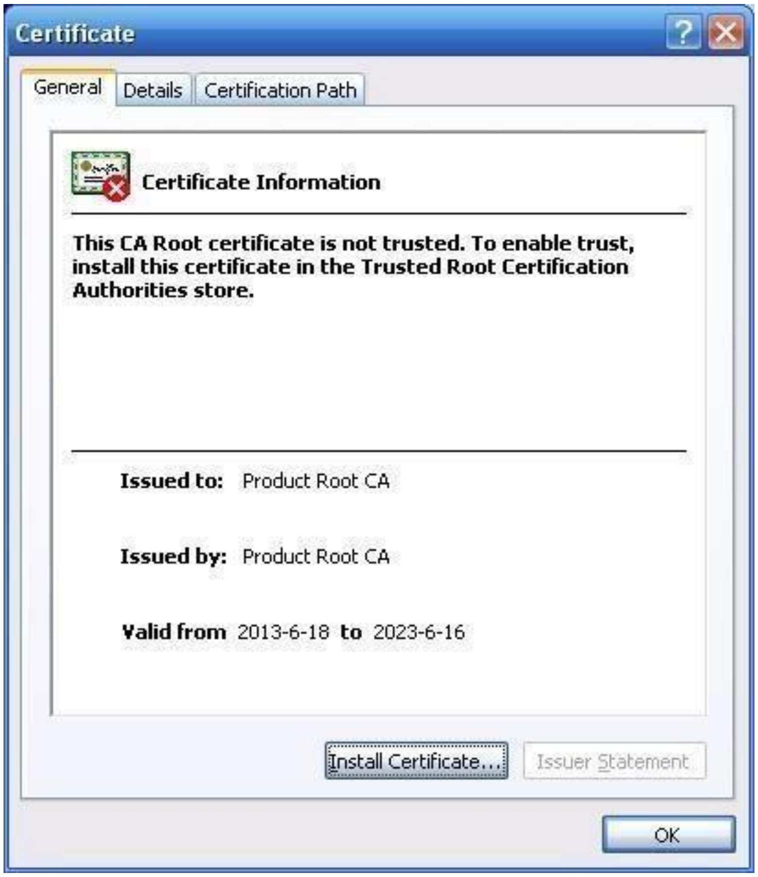
Type: Security Certificate

From: 10.10.6.238

While files from the Internet can be useful, this file type can potentially harm your computer. If you do not trust the source, do not open or save this software. What's the risk?

Figure 5-49

Click the Open button and you will see the following interface. See Figure 5-50.



Certificate Information

This CA Root certificate is not trusted. To enable trust, install this certificate in the Trusted Root Certification Authorities store.

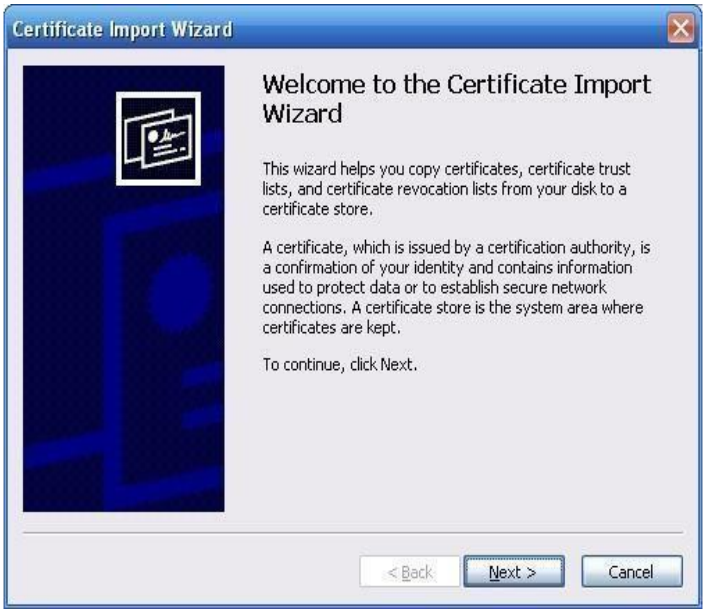
Issued to: Product Root CA

Issued by: Product Root CA

Valid from 2013-6-18 to 2023-6-16

Figure 5-50

Click Install certificate and the certificate wizard will start. See Figure 5-51.



Welcome to the Certificate Import Wizard

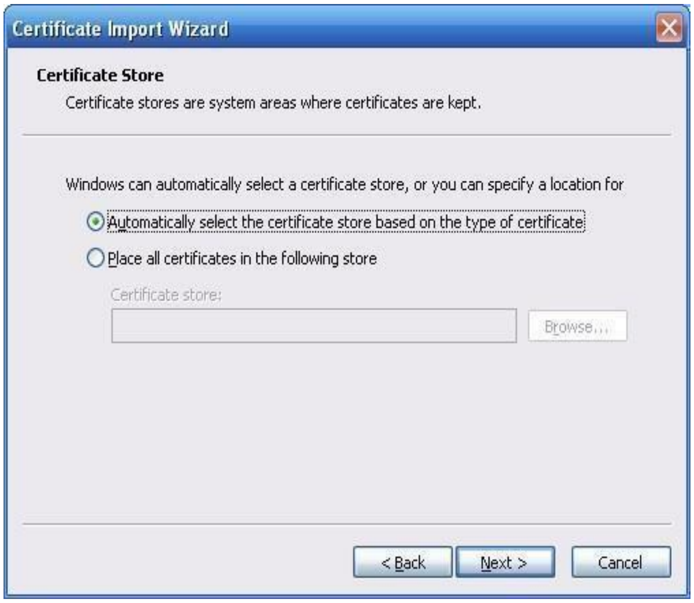
This wizard helps you copy certificates, certificate trust lists, and certificate revocation lists from your disk to a certificate store.

A certificate, which is issued by a certification authority, is a confirmation of your identity and contains information used to protect data or to establish secure network connections. A certificate store is the system area where certificates are kept.

To continue, click Next.

Figure 5-51

Click the Next button to continue. Now you can select a location for the certificate. See Figure 5-52.



Certificate Store

Certificate stores are system areas where certificates are kept.

Windows can automatically select a certificate store, or you can specify a location for

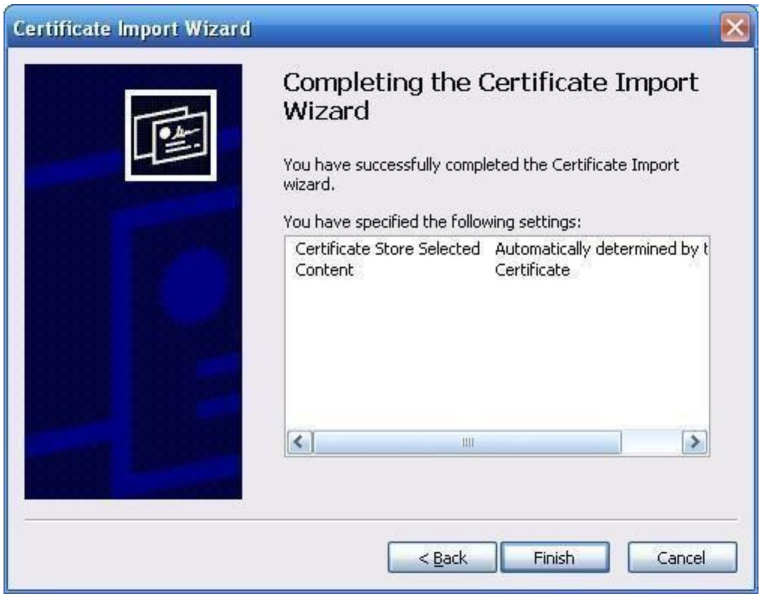
● Automatically select the certificate store based on the type of certificate

○ Place all certificates in the following store

Certificate store:

Figure 5-52

Click the Next button, and the certificate import process is complete. See Figure 5-53.



Certificate Import Wizard

Completing the Certificate Import Wizard

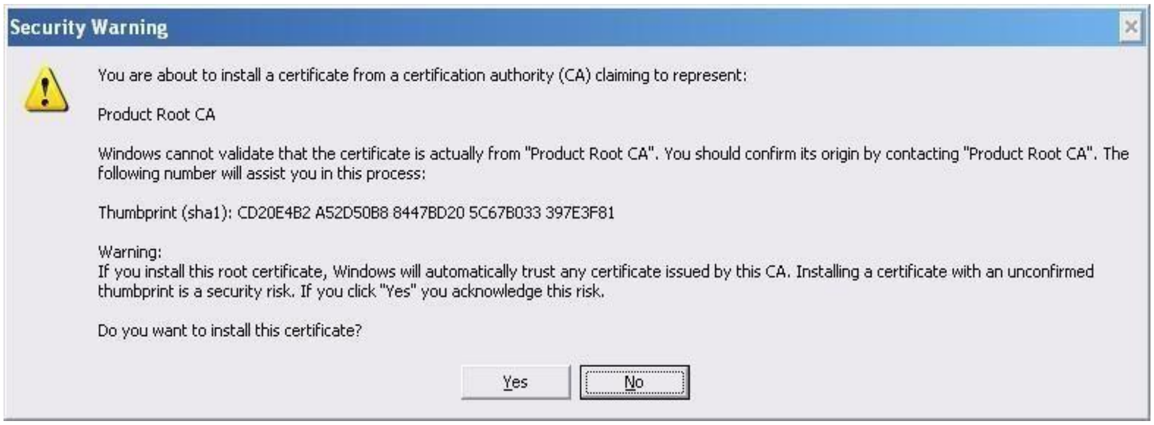
You have successfully completed the Certificate Import wizard.

You have specified the following settings:

Certificate Store Selected	Automatically determined by t
Content	Certificate

Figure 5-53

Click the Finish button, and the system pops up a security warning dialogue box. See Figure 5-54.



Security Warning

You are about to install a certificate from a certification authority (CA) claiming to represent:

Product Root CA

Windows cannot validate that the certificate is actually from "Product Root CA". You should confirm its origin by contacting "Product Root CA". The following number will assist you in this process:

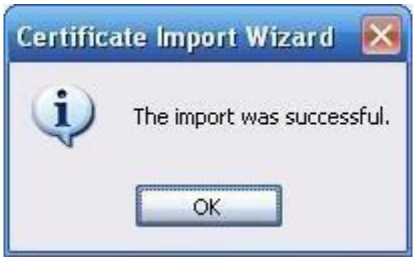
Thumbprint (sha1): CD20E4B2 A52D50B8 8447BD20 5C67B033 397E3F81

Warning:
If you install this root certificate, Windows will automatically trust any certificate issued by this CA. Installing a certificate with an unconfirmed thumbprint is a security risk. If you click "Yes" you acknowledge this risk.

Do you want to install this certificate?

Figure 5-54

Click the Yes button and the system pops up the following dialogue box. You can see the certificate download is complete. See Figure 5-55.

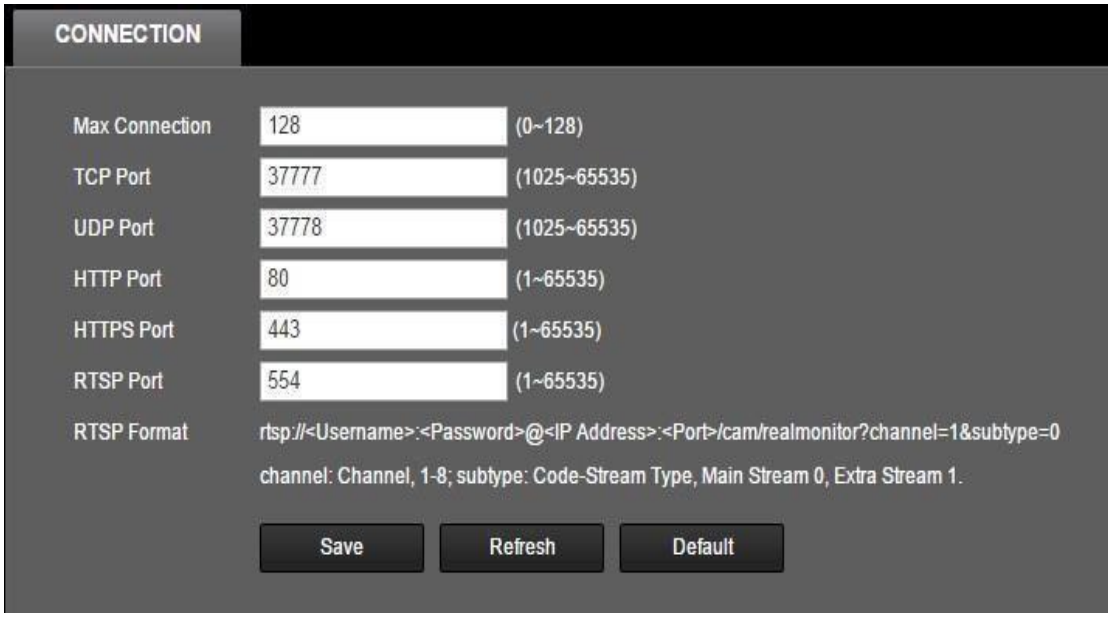


The import was successful.

Figure 5-55

View and set HTTPS port

From Setup->Network->Connection, you can see the following interface. See Figure 5-56.
You can see the HTTPS default value is 443.



Max Connection	128	(0~128)
TCP Port	37777	(1025~65535)
UDP Port	37778	(1025~65535)
HTTP Port	80	(1~65535)
HTTPS Port	443	(1~65535)
RTSP Port	554	(1~65535)
RTSP Format	rtsp://<Username>:<Password>@<IP Address>:<Port>/cam/realmonitor?channel=1&subtype=0 channel: Channel, 1-8; subtype: Code-Stream Type, Main Stream 0, Extra Stream 1.	

Figure 5-56

5.9.2.13.4 Login

Open the browser and then input https://xx.xx.xx.xx:port. xx.xx.xx.xx: is your device IP or domain name.
Port is the HTTPS port. If you are using default HTTPS value 443, you do not need to add port information here. You can input https://xx.xx.xx.xx to access the NVR. Now you can see the login interface if your setup is correct.

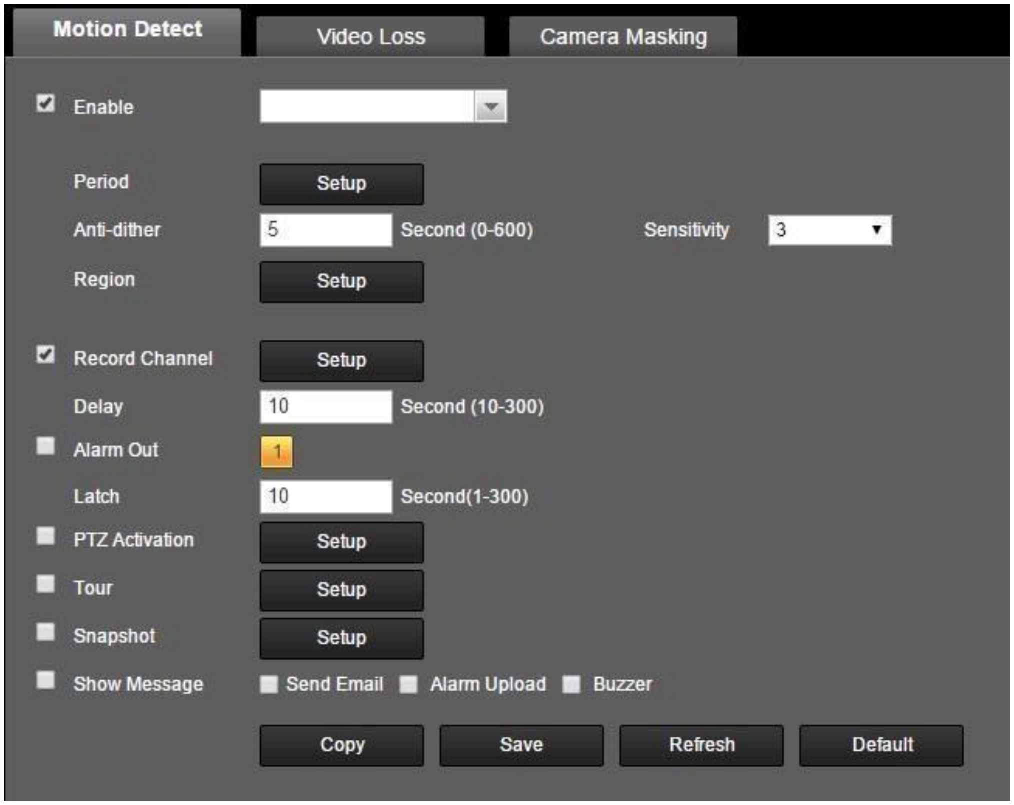
5.9.3 Event

5.9.3.1 Video detect

5.9.3.1.1 Motion Detect

The system can analyze footage in real time and generate a motion detect alarm when movement is detected at the sensitivity you set here.

The motion detect interface is shown as in Figure 5-57.



☑ Enable

Period

Anti-dither 5 Second (0-600) Sensitivity 3

Region

☑ Record Channel

Delay 10 Second (10-300)

☐ Alarm Out 1

Latch 10 Second(1-300)

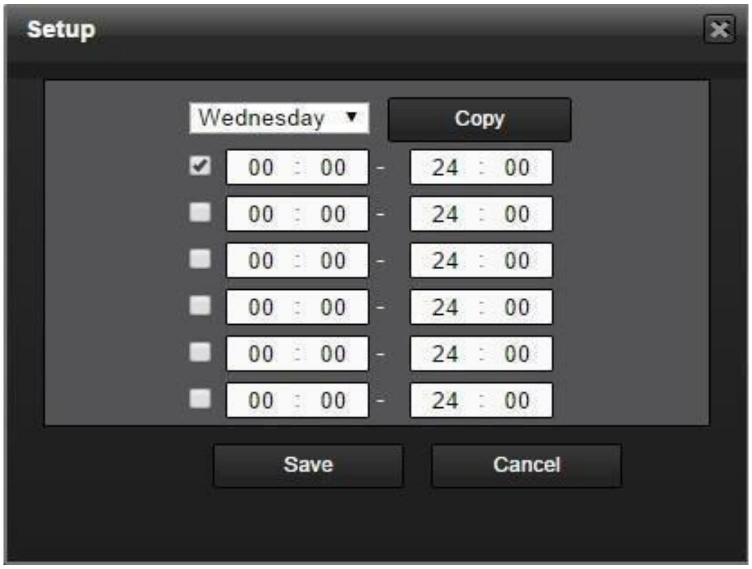
☐ PTZ Activation

☐ Tour

☐ Snapshot

☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

Figure 5-57



Setup

Wednesday

☑ 00 : 00 - 24 : 00

☐ 00 : 00 - 24 : 00

☐ 00 : 00 - 24 : 00

☐ 00 : 00 - 24 : 00

☐ 00 : 00 - 24 : 00

☐ 00 : 00 - 24 : 00

Figure 5-58

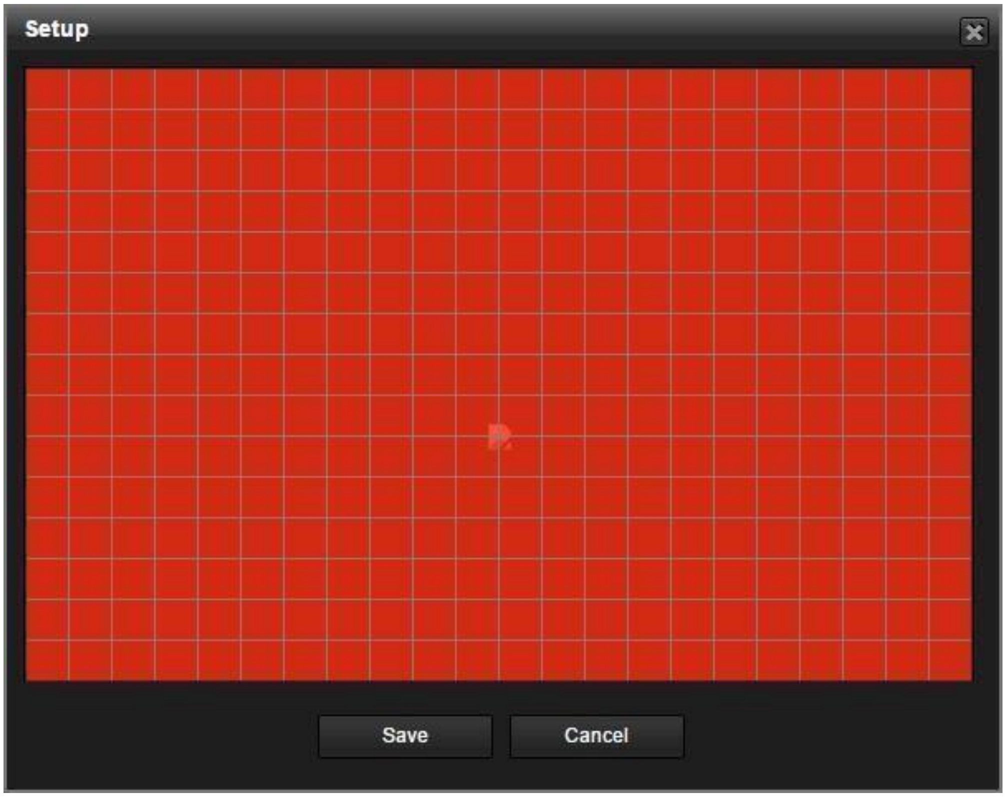
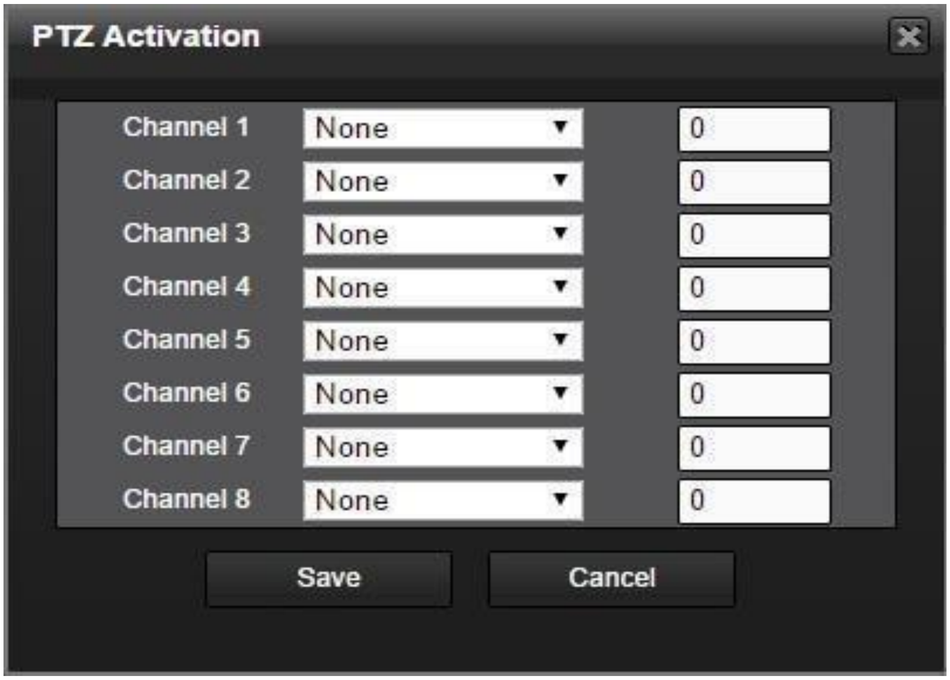


Figure 5-59



Channel 1	None	0
Channel 2	None	0
Channel 3	None	0
Channel 4	None	0
Channel 5	None	0
Channel 6	None	0
Channel 7	None	0
Channel 8	None	0

Figure 5-60

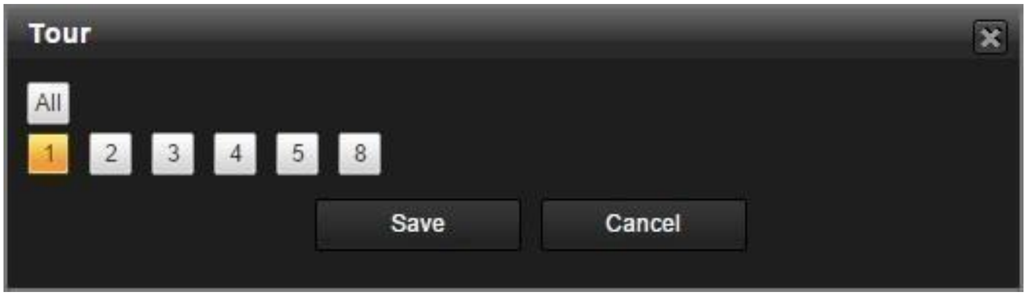


Figure 5-61

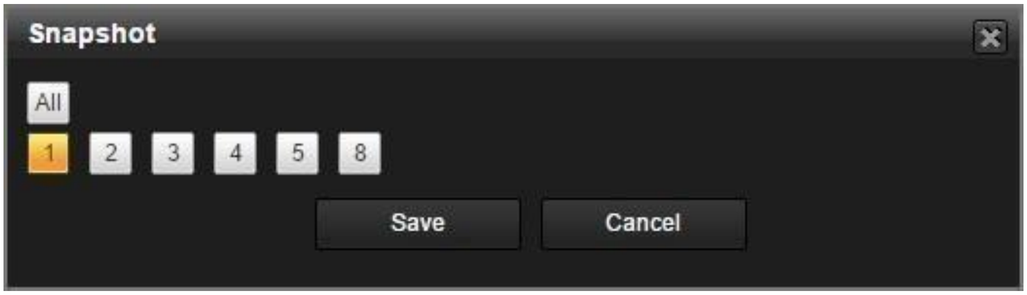


Figure 5-62

Please refer to the following sheet for detailed information.

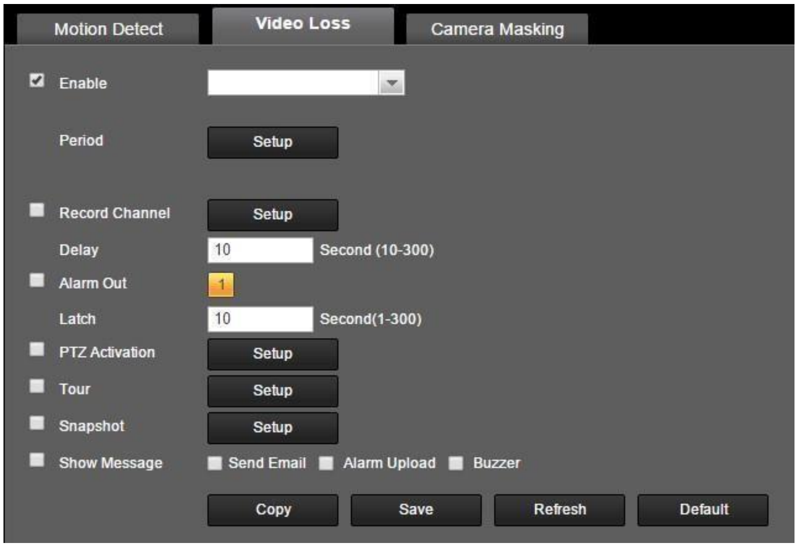
Parameter	Function
Enable	You need to check this box to enable the motion detection function. Please select a channel from the dropdown list.
Period	he motion detection function becomes activate during the specified periods. See Figure 5-53. here are six periods in one day. Please draw a circle to enable the corresponding period. lick the OK button to go back to motion detection interface then click the Save button to exit.
Anti-dither	The system only sets off one event during the anti-dither period. The value ranges from 5s to 600s.
Sensitivity	There are six levels. The sixth level has the highest sensitivity.
Region	Once you enable the motion detection type, you can click Setup to set motion detection zone. The interface is shown as in Figure 554. Here you can set motion detection zone. There are four zones for you to set. Left drag the mouse to select a zone. After you completed the setup, please click the ENTER button to exit the current setup. Please click the save button to save the current setup. If you click the ESC button to exit the region setup interface, the system will not save your zones.
Record channel	The system auto activates motion detection channel(s) to record once an alarm occurs. Please note you need to set the motion detect record period. Go to Storage->Schedule to set the current channel as schedule record.
Record Delay	The system can delay the recording for a specified time after the alarm has ended. The value ranges from 10s to 300s.
Alarm out	Enable the alarm activation function. You need to select alarm the output port so that system can activate the corresponding alarm device when an alarm occurs.

Latch	The system can delay the alarm output for a specified time after an alarm has ended. The value ranges from 1s to 300s.
Show message	The system can pop up a message to alarm you on the local host screen if you enabled this function.
Buzzer	Check the box here to enable this function. The buzzer beeps when an alarm occurs.
Alarm upload	The system can upload the alarm signal to the alarm center.
Send Email	If you enabled this function, the system can send out an email to alert you when an alarm occurs.
Tour	You need to click the Setup button to select a tour channel. The system begins a 1-window or multiple-window tour display among the channel(s) you set to record when an alarm occurs. See Figure 5-56.
PTZ Activation	Here you can set PTZ movement when an alarm occurs, such as go to preset X. See Figure 5-55.
Snapshot	Click Setup to select a snapshot channel. See Figure 5-57.
Video Matrix	This function is for motion detect only. Check the box here to enable the video matrix function. Right now, the system supports a one channel tour function. The system takes the “first come, first served” principle to deal with the activated tour. The system will process the new tour when a new alarm occurs after the previous alarm ended. Otherwise it restores the previous output status before the alarm was triggered.

5.9.3.1.2 Video Loss

The video loss interface is shown as in Figure 5-63.

Please note the video loss does not support anti-dither, sensitivity, or region setup.



☑ Enable

Period Setup

☐ Record Channel Setup

Delay 10 Second (10-300)

☐ Alarm Out 1

Latch 10 Second(1-300)

☐ PTZ Activation Setup

☐ Tour Setup

☐ Snapshot Setup

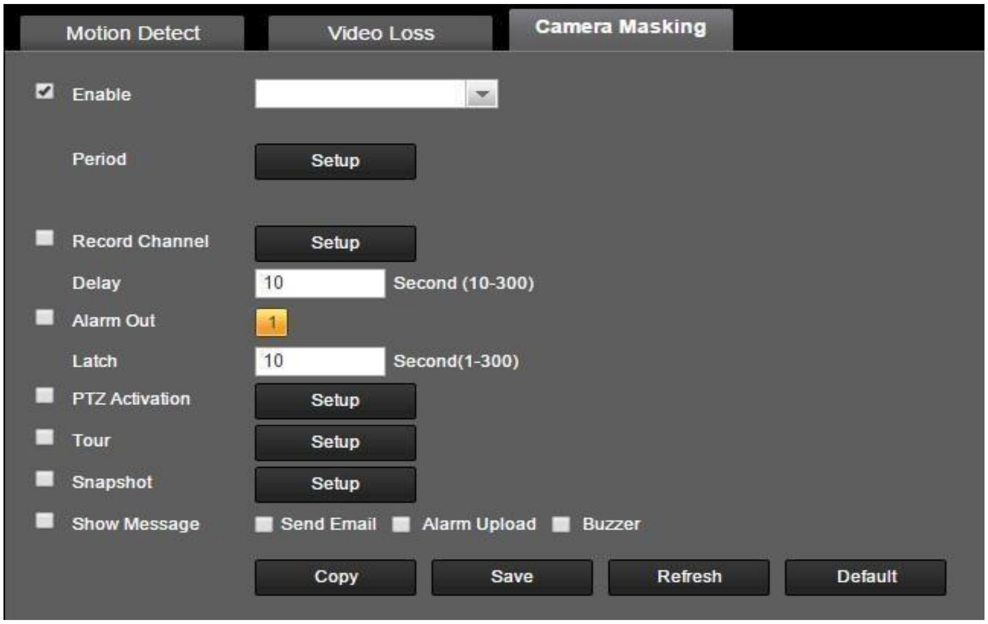
☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

Figure 5-63

5.9.3.1.3 Tampering

The tampering interface is shown as in Figure 5-64.

When someone maliciously masks the lens, or the video is in one-color due to the environment’s lighting, the system can alert you to guarantee video continuity.



☑ Enable

Period Setup

☐ Record Channel Setup

Delay 10 Second (10-300)

☐ Alarm Out 1

Latch 10 Second(1-300)

☐ PTZ Activation Setup

☐ Tour Setup

☐ Snapshot Setup

☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

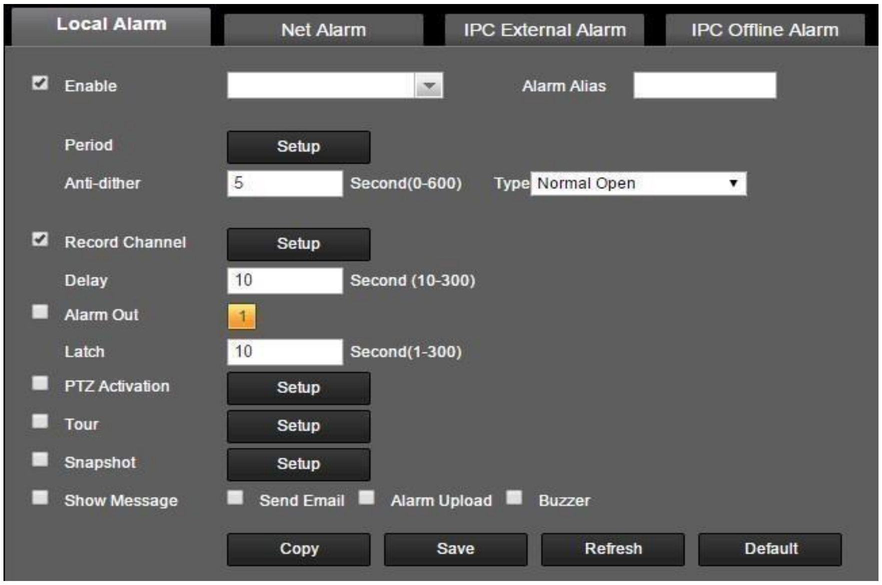
Figure 5-64

5.9.3.2 Alarm

Before using, please make sure you have properly connected alarm devices such as a buzzer. The input mode includes local alarm and network alarm.

5.9.3.2.1 Local Alarm

The local alarm interface is shown as in Figure 5-60. This refers to the alarm on the local device.



☑ Enable

Anti-dither 5 Second(0-600) Type Normal Open

☑ Record Channel

Delay 10 Second (10-300)

☐ Alarm Out 1

Latch 10 Second(1-300)

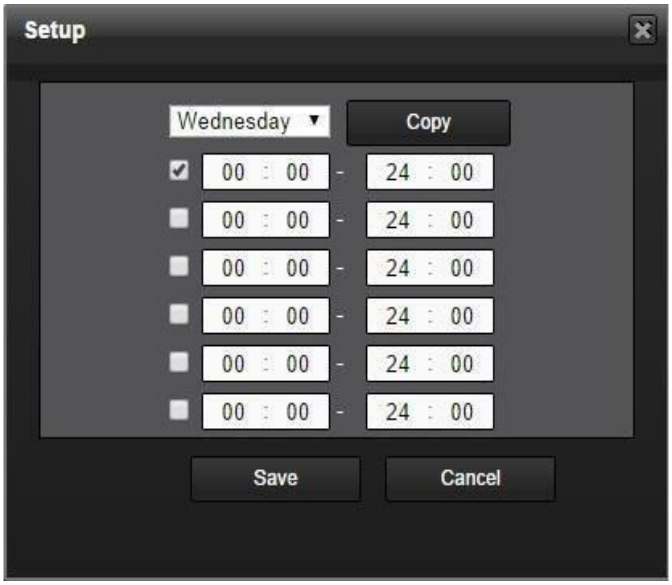
☐ PTZ Activation

☐ Tour

☐ Snapshot

☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

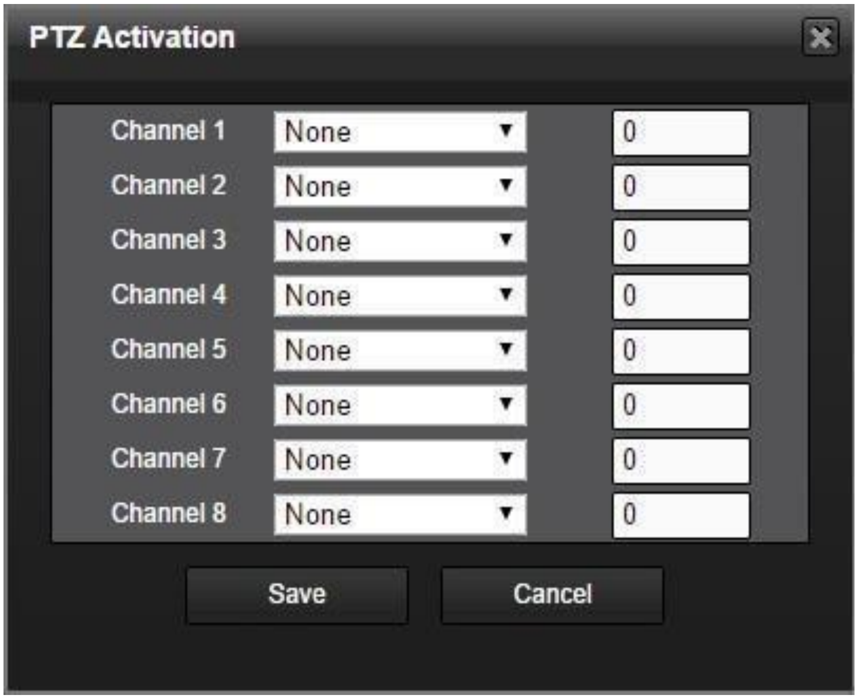
Figure 5-65



Wednesday

☑ 00 : 00 - 24 : 00
☐ 00 : 00 - 24 : 00
☐ 00 : 00 - 24 : 00
☐ 00 : 00 - 24 : 00
☐ 00 : 00 - 24 : 00
☐ 00 : 00 - 24 : 00

Figure 5-66



Channel 1	None	0
Channel 2	None	0
Channel 3	None	0
Channel 4	None	0
Channel 5	None	0
Channel 6	None	0
Channel 7	None	0
Channel 8	None	0

Figure 5-67

Please refer to the following sheet for detailed information.

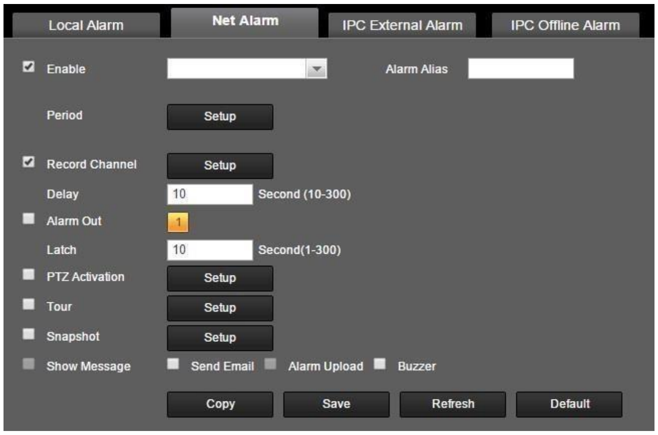
Parameter	**Function**
Enable	You need to check this box to enable this function. Please select a channel from the dropdown list.
Period	This function enables the alarm during specified periods. There are six periods in one day. Please check the box to enable the corresponding period. Select the day. If you do not select this, the current setup applies to today only. You can select the all week column to apply to the whole week. Click the OK button to go back to local alarm interface. Please click save button to exit.
Anti-dither	System only recognizes one event during the anti-dither period. The value ranges from 5s to 600s.

Parameter	Function
Sensor type	There are two options: NO/NC.
Record channel	The system automatically records once an alarm is triggered for the selected channel(s). Please note you need to set the alarm record period. Go to Storage-> Schedule to set the current channel for schedule record.
Record Delay	The system can delay the recording for a specified time after the alarm ends. The value ranges from 10s to 300s.
Alarm out	Enables the alarm activation function. You need to select the alarm output port so that the system can activate the corresponding alarm device when an alarm occurs.
Latch	The system can delay the alarm output for a specified time after an alarm ends. The value ranges from 1s to 300s.
Show message	The system can pop up a message to notify you on the local host screen if you enabled this function.
Buzzer	Check this box here to enable this function. The buzzer beeps when an alarm occurs.
Alarm upload	The system can upload the alarm signal to the center (including the alarm center).
Send Email	If you enabled this function, the system will send out an email to alert you when an alarm occurs.
Tour	You need to click the setup button to select the tour channel. The system begins a 1-window or multiple window tour according to the channel(s) you set to record when an alarm occurs. See Figure 5-56.
PTZ Activation	Here you can set PTZ movement when alarm occurs. Such as go to preset X. See Figure 5-62.
Snapshot	Click the setup button to select the snapshot channel. See Figure 5-57.

5.9.3.2.2 Net Alarm

The network alarm interface is shown as in Figure 5-68.

A network alarm refers to an alarm signal from the network. The system does not support anti-dither nor sensor type setup for this alarm.



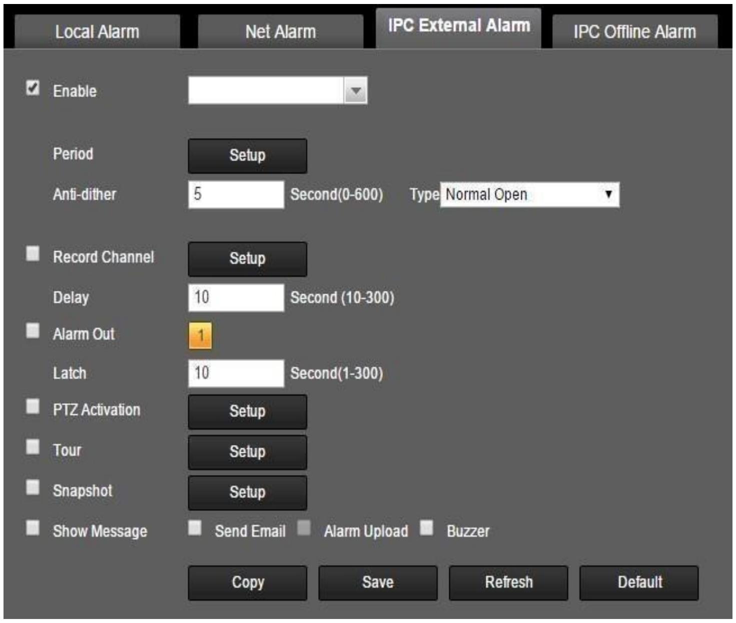
☑ Enable
Alarm Alias
Period
☑ Record Channel
Delay 10 Second (10-300)
☐ Alarm Out 1
Latch 10 Second(1-300)
☐ PTZ Activation
☐ Tour
☐ Snapshot
☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

Figure 5-68

5.9.3.2.3 IPC External Alarm

The IPC external alarm interface is shown as in Figure 5-69.

The IPC external alarm refers to an alarm signal from an IPC. The system does not support anti-dither nor sensor type setup for this alarm.



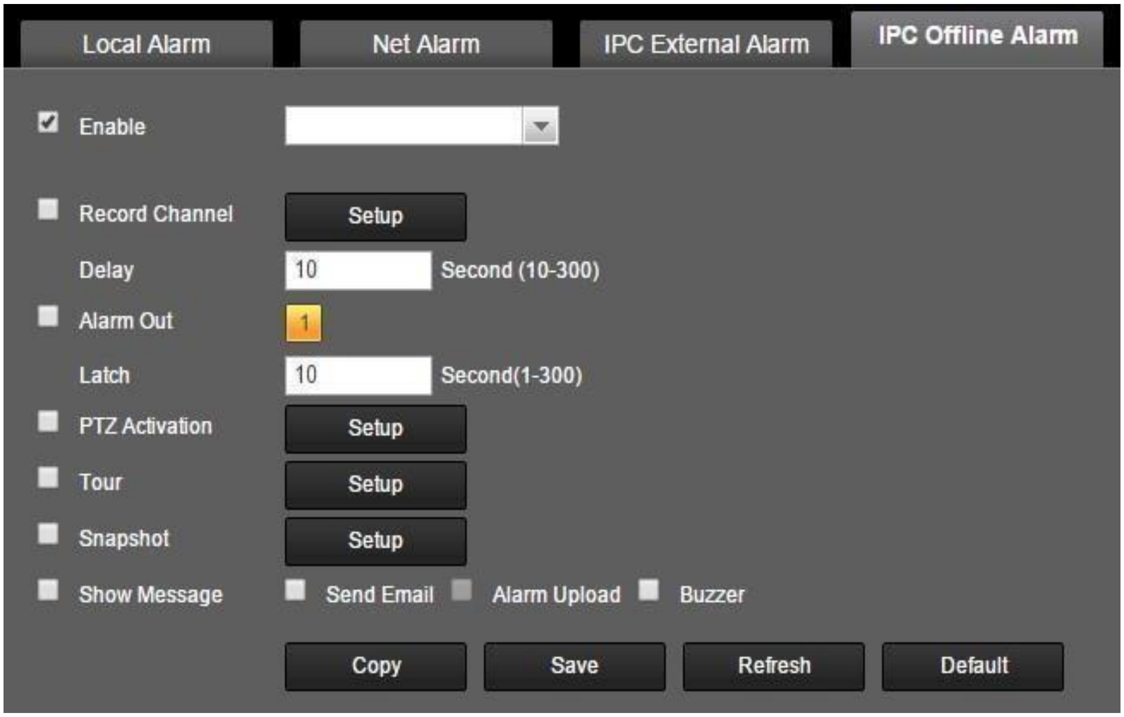
☑ Enable
Period
Anti-dither 5 Second(0-600) Type Normal Open
☐ Record Channel
Delay 10 Second (10-300)
☐ Alarm Out 1
Latch 10 Second(1-300)
☐ PTZ Activation
☐ Tour
☐ Snapshot
☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

Figure 5-69

5.9.3.2.4 IPC Offline Alarm

The IPC offline alarm interface is shown as in Figure 5-70.

The system can generate an alarm when a network camera is offline.

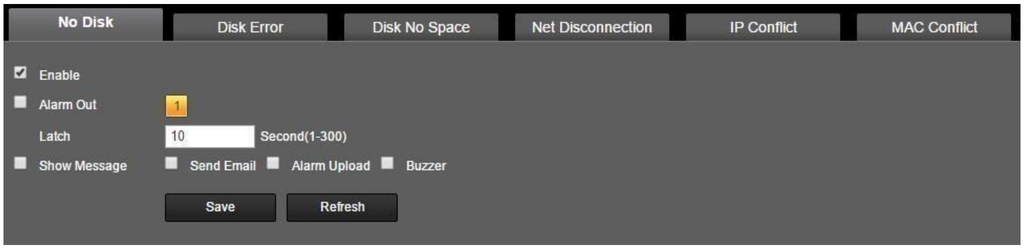


☑ Enable
☐ Record Channel
Delay 10 Second (10-300)
☐ Alarm Out 1
Latch 10 Second(1-300)
☐ PTZ Activation
☐ Tour
☐ Snapshot
☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

Figure 5-70

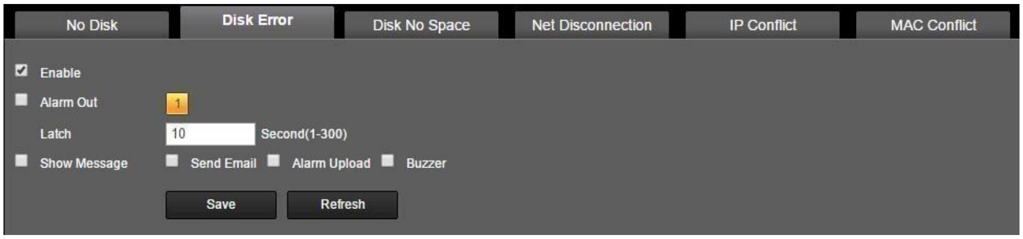
5.9.3.3 Abnormality

This includes six types: No disk, disk error, no disk space, network disconnection, IP conflict, and MAC conflict. See Figure 5-66 through Figure 5-71.



☑ Enable
☐ Alarm Out 1
Latch 10 Second(1-300)
☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

Figure 5-71



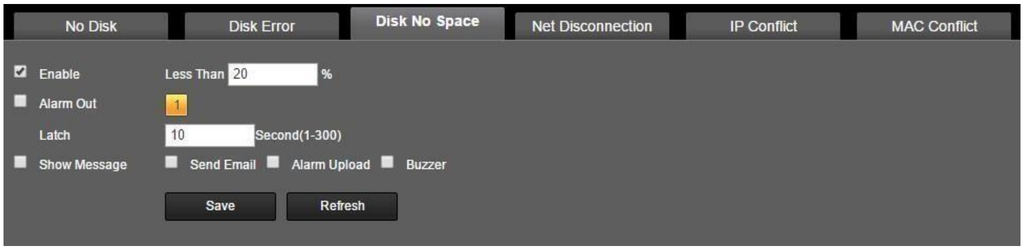
☑ Enable

☐ Alarm Out 1

Latch 10 Second(1-300)

☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

Figure 5-72



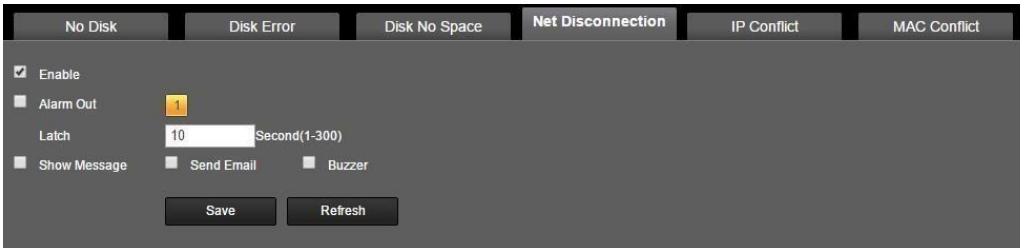
☑ Enable Less Than 20 %

☐ Alarm Out 1

Latch 10 Second(1-300)

☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

Figure 5-73



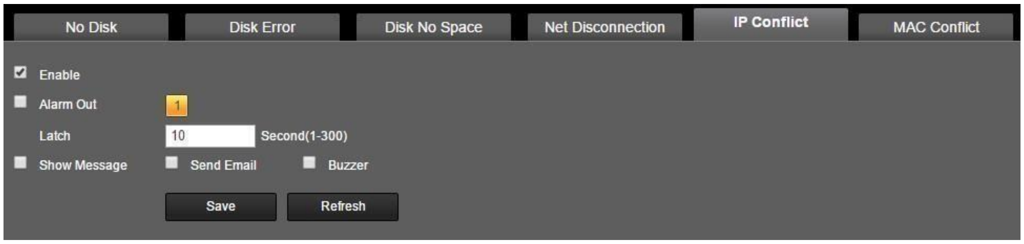
☑ Enable

☐ Alarm Out 1

Latch 10 Second(1-300)

☐ Show Message ☐ Send Email ☐ Buzzer

Figure 5-74



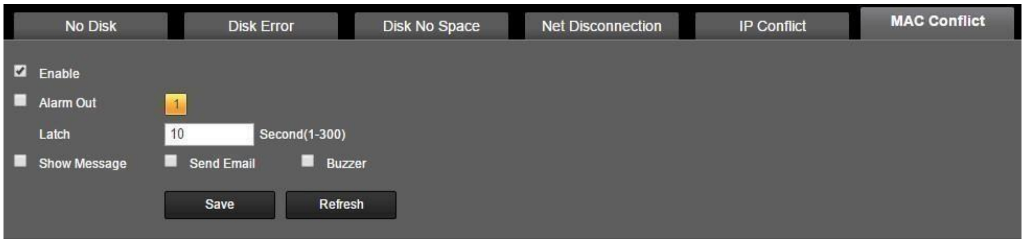
☑ Enable

☐ Alarm Out 1

Latch 10 Second(1-300)

☐ Show Message ☐ Send Email ☐ Buzzer

Figure 5-75



☑ Enable

☐ Alarm Out 1

Latch 10 Second(1-300)

☐ Show Message ☐ Send Email ☐ Buzzer

Figure 5-76

Please refer to the following sheet for detailed information.

Parameter	**Function**
Event Type	The abnormal events include: No disk, disk error, no disk space, network disconnection, IP conflict, and MAC conflict. You can set one or more items here. Less than: You can set the minimum percentage value here (For no disk space only). The device can alarm when capacity is not sufficient. You need to check the box to enable this function.
Enable	Check the box here to enable the selected function.
Alarm Out	You need to select the alarm output port so that the system can activate the corresponding alarm device when an alarm occurs. You need to check the box to enable this function.
Latch	The alarm output can delay for the specified time after an alarm stops. The value ranges from 1s to 300s.
Show message	The system can pop up a message to alarm you on the local host screen if you enabled this function.
Alarm upload	The system can upload the alarm signal to the center (including the alarm center).
Send Email	If you enabled this function, the system can send out an email to alert you when an alarm occurs.
Buzzer	Check the box here to enable this function. The buzzer beeps when an alarm occurs.

5.9.4 Storage

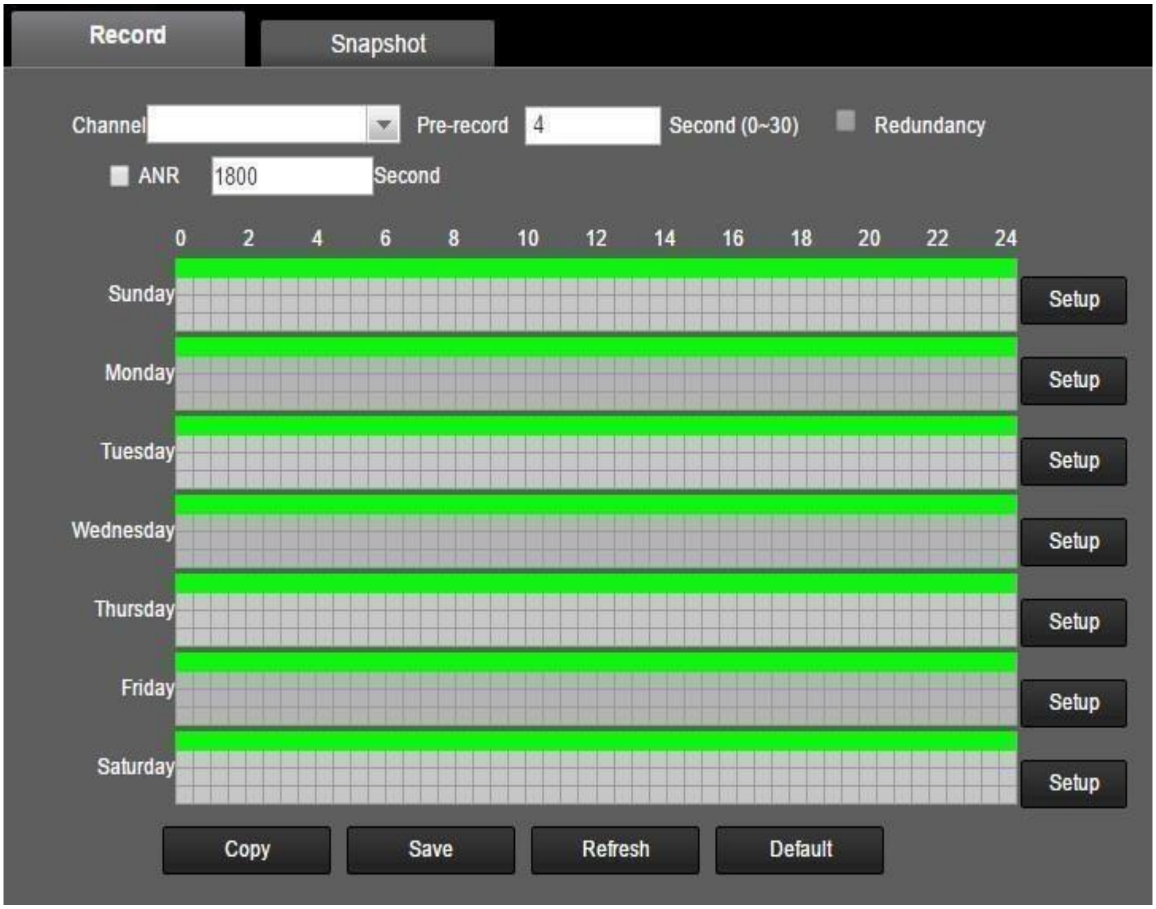
5.9.4.1 Schedule

In this interface, you can add or remove the scheduled recording setup. See Figure 5-77.

There are four record modes: general (auto), motion detect, alarm, and MD&alarm. There are six periods in one day.

You can view the current time period setup from the colored bars.

- ★ Green stands for the general record/snapshot.
- ★ Yellow stands for the motion detect record/snapshot.
- ★ Red stands for the alarm record/snapshot.
- ★ Blue stands for MD&alarm record/snapshot.



Channel

Pre-record 4 Second (0~30) ☐ Redundancy

☐ ANR 1800 Second

Figure 5-77

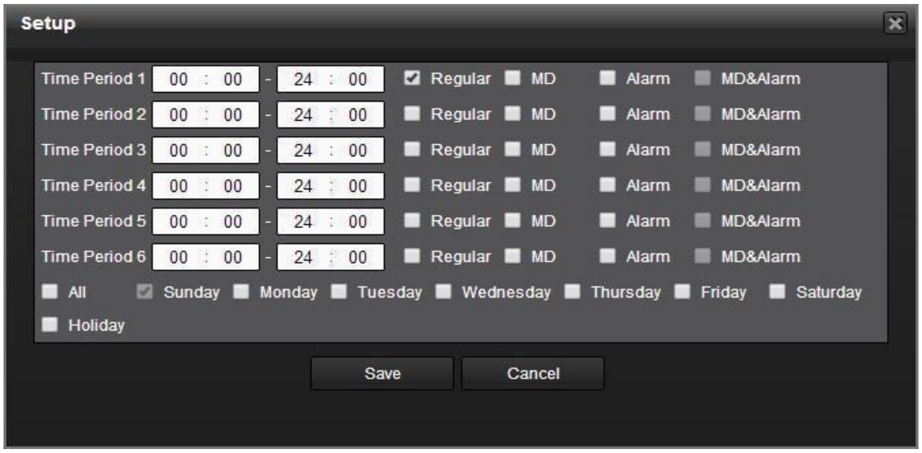

Setup
Time Period 1 00 : 00 - 24 : 00 ☑ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Time Period 2 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Time Period 3 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Time Period 4 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Time Period 5 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
Time Period 6 00 : 00 - 24 : 00 ☐ Regular ☐ MD ☐ Alarm ☐ MD&Alarm
☐ All ☑ Sunday ☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday ☐ Saturday
☐ Holiday
Save
Cancel

Figure 5-78

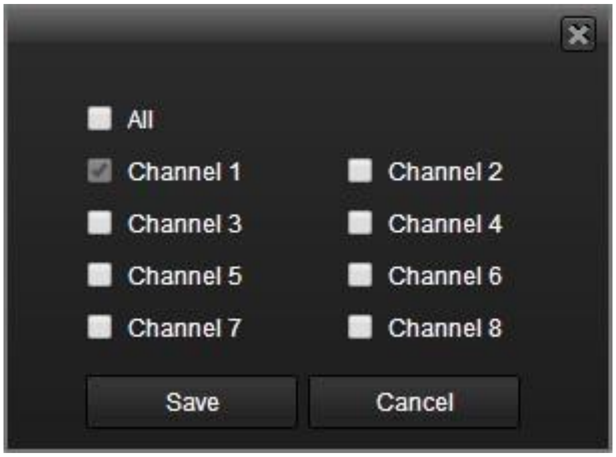


Figure 5-79

Please refer to the following sheet for detailed information.

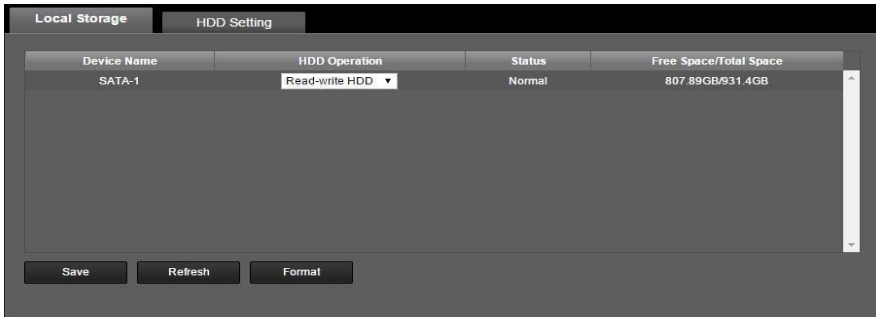
Parameter	**Function**
Channel	Please select a channel from the dropdown list.
Pre-record	Please input the pre-record time here. The value ranges from 0 to 30s.

Redundancy	Check this box here to enable the redundancy function. **Please note this function is null if there is only one HDD.**
Snapshot	Check this box here to enable the snapshot function.
Holiday	Check this box here to enable the holiday function.
Setup	Click the Setup button to set the record period. See Figure 5-73. There are six periods in one day. If you do not check the day at the bottom of the interface, the current setup is for today only. Please click the Save button and then exit.
Copy	The copy function allows you to copy one channel's setup to another. After setting up the channel, click the Copy button to go to interface Figure 5-74. You can see the current channel name is grey such as channel 1. Now you can select the channels you want to paste such as channel 5/6/7. If you want to save current setup of channel 1 to all channels, you can click the first box "ALL". Click the the OK button to save current copy setup. Click the OK button on the Encode interface to finish copying.

5.9.4.2 Storage Media

5.9.4.2.1 Local Storage

The local storage interface is shown as in Figure 5-75. Here you can see HDD information. You can also operate the read-only, read-write, redundancy (if there is more than one HDD) and format operations.

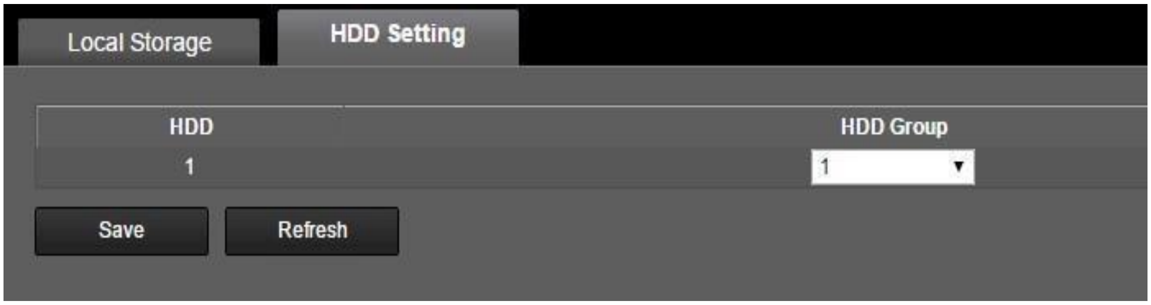


Device Name	HDD Operation	Status	Free Space/Total Space
SATA-1	Read-write HDD	Normal	807.89GB/931.4GB

Figure 5-80

5.9.4.2.2 HDD

The HDD interface is to the set HDD group. See Figure 5-76.

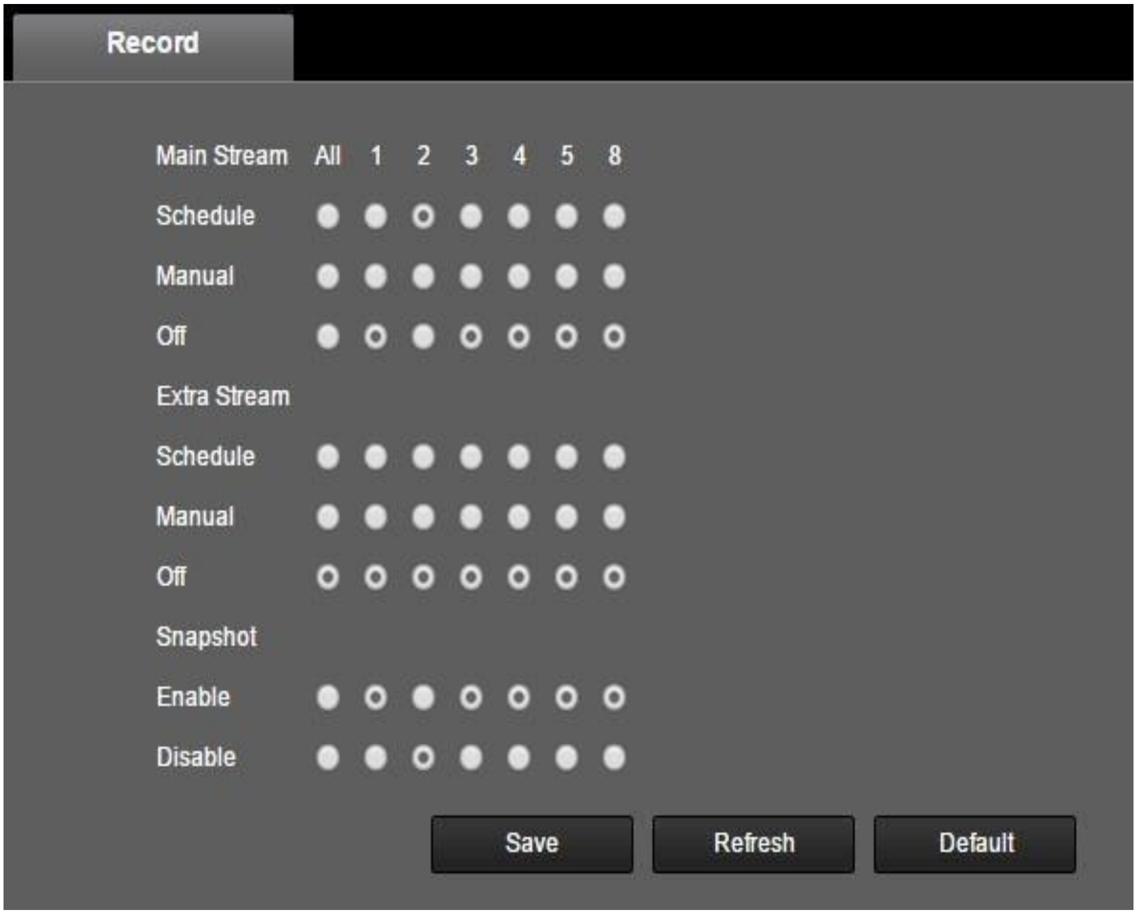


HDD	HDD Group
1	1

Figure 5-81

5.9.4.3 Record Control

The Record interface is shown as in Figure 5-77.



Main Stream	All	1	2	3	4	5	8
Schedule	●	●	○	●	●	●	●
Manual	●	●	●	●	●	●	●
Off	●	○	●	○	○	○	○
Extra Stream							
Schedule	●	●	●	●	●	●	●
Manual	●	●	●	●	●	●	●
Off	○	○	○	○	○	○	○
Snapshot							
Enable	●	○	●	○	○	○	○
Disable	●	●	○	●	●	●	●

Figure 5-82

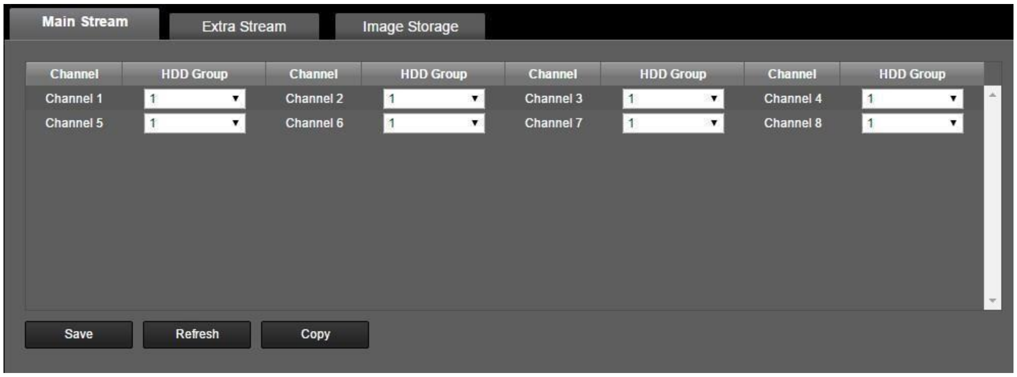
Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Here you can view the channel number. The number displayed here is the maximum number of channels your device supports.
Status	There are three statuses: auto, manual, and stop.
Auto	The system enables the auto record function as you set in record schedule setup (general, motion detect, and alarm).
Manual	This has the highest priority. Enables the corresponding channel to record no matter what period is applied in the record setup.
Stop	Stops the current channel recording no matter what period is applied in the record setup.
Start all/ stop all	Check the corresponding All buttons to enable or disable all of the channels recording.

5.9.4.4 Storage

5.9.4.4.1 Main Stream

The main stream interface is shown as in Figure 5-83. Here you can set the corresponding HDD group to save the main stream.



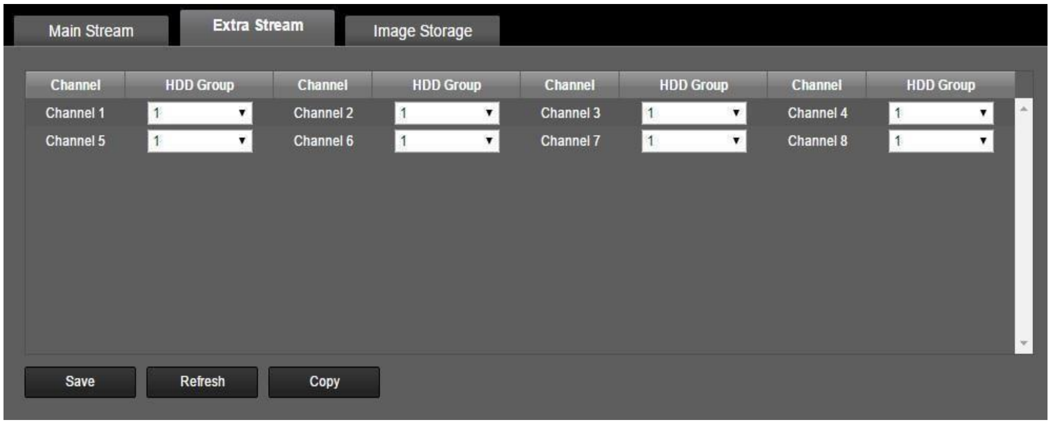
Channel	HDD Group	Channel	HDD Group	Channel	HDD Group	Channel	HDD Group
Channel 1	1	Channel 2	1	Channel 3	1	Channel 4	1
Channel 5	1	Channel 6	1	Channel 7	1	Channel 8	1

Figure 5-83

5.9.4.4.2 Sub Stream

The sub stream interface is shown as in Figure 5-84.

Here you can set the corresponding HDD group to save the sub stream.

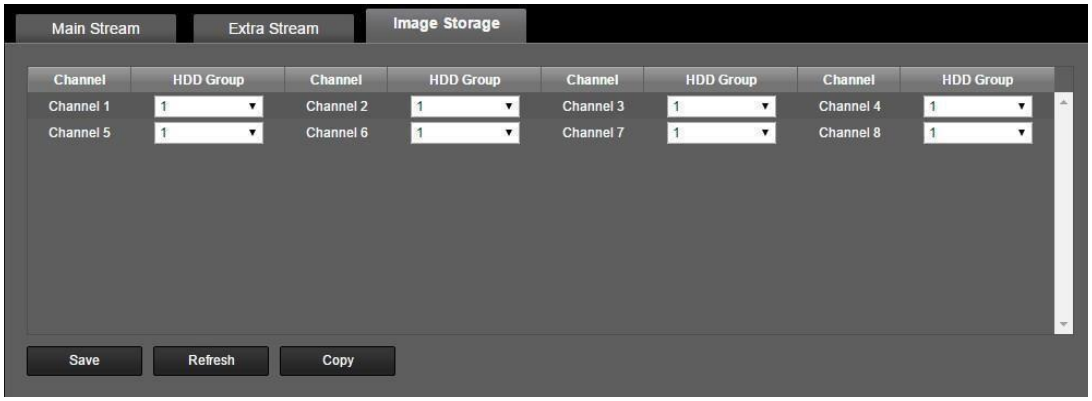


Channel	HDD Group	Channel	HDD Group	Channel	HDD Group	Channel	HDD Group
Channel 1	1	Channel 2	1	Channel 3	1	Channel 4	1
Channel 5	1	Channel 6	1	Channel 7	1	Channel 8	1

Figure 5-84

5.9.4.4.3 Snapshot

The snapshot interface is shown as in Figure 5-85. Here you can set the corresponding HDD group to save snapshots.



Channel	HDD Group	Channel	HDD Group	Channel	HDD Group	Channel	HDD Group
Channel 1	1	Channel 2	1	Channel 3	1	Channel 4	1
Channel 5	1	Channel 6	1	Channel 7	1	Channel 8	1

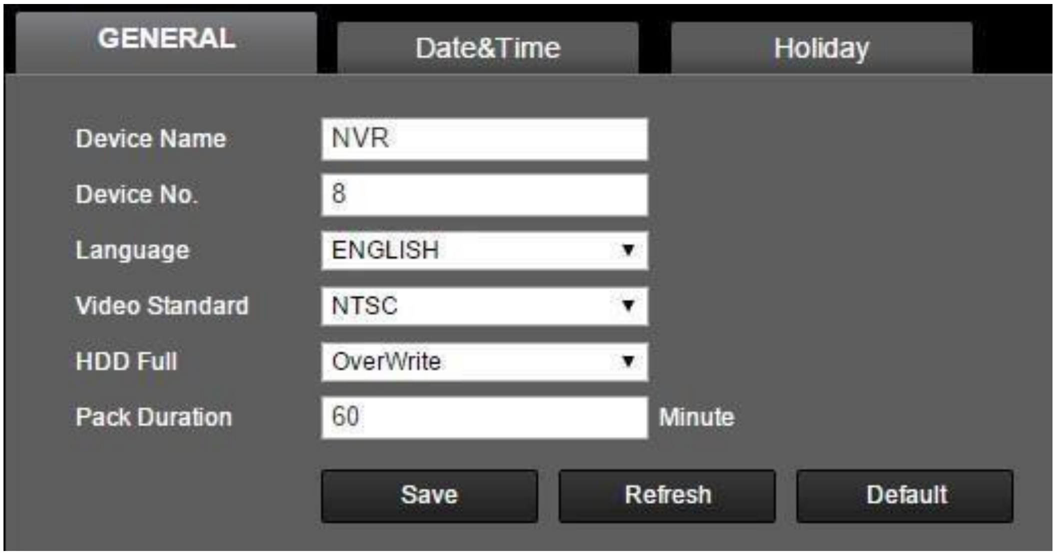
Figure 5-85

5.9.5 Setting

The general interface includes the general, date/time, and holiday setup.

5.9.5.1.1 General

The general interface is shown as in Figure 5-86.



Device Name: NVR
Device No.: 8
Language: ENGLISH
Video Standard: NTSC
HDD Full: OverWrite
Pack Duration: 60 Minute

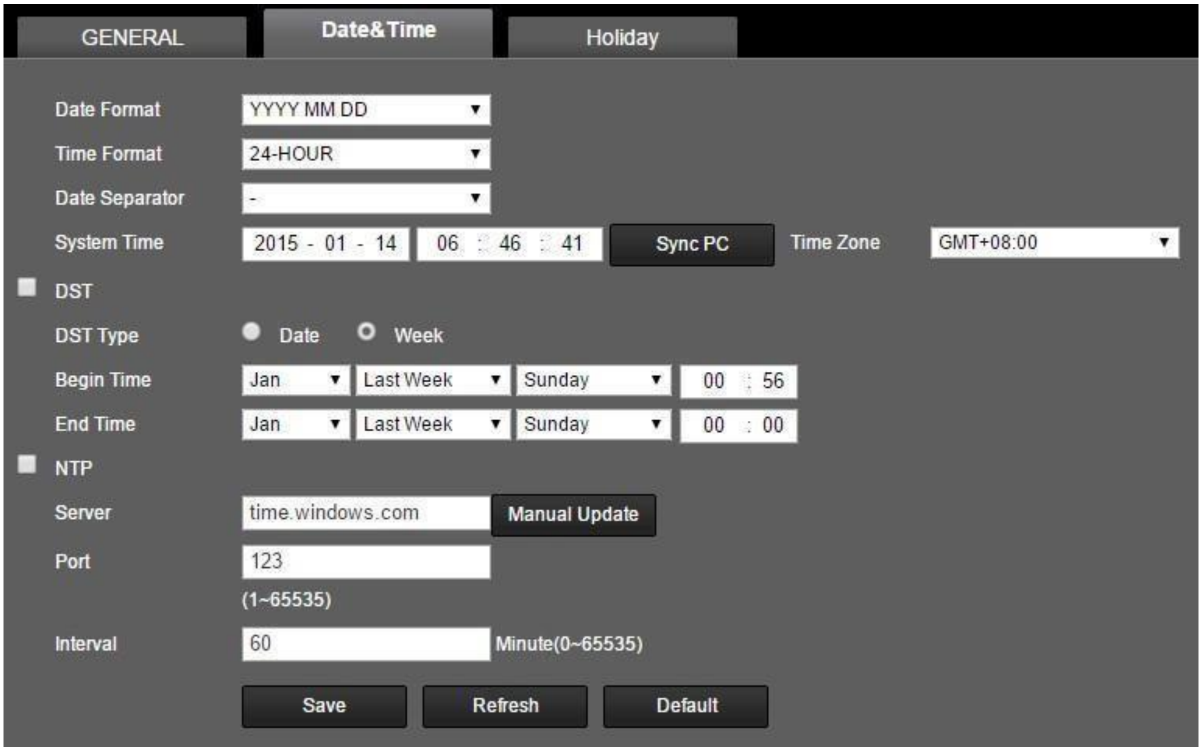
Figure 5-86

Please refer to the following sheet for detailed information.

Parameter	Function
Device ID	This is to set device name.
Device No.	This is device channel number.
Language	You can select the desired language from the dropdown list. **Please note the device needs to reboot to activate this modification.**
Video Standard	This is to set the display video standard such as PAL.
HDD full	Here is where you to select the working mode when the hard disk is full. There are two options: stop recording or rewrite. If the NVR is in rewrite mode, the current working HDD is full, and the next HDD is not empty, the oldest files will be overwritten. If the NVR is in stop recording mode, the HDD is full, and the next HDD is not empty, recording will stop.
Pack duration	Here is where you to specify the recording duration. The value ranges from 1 to 120 minutes. Default value is 60 minutes.

5.9.5.1.2 Date and time

The date and time interface are shown as in Figure 5-87.



Date Format: YYYY MM DD
Time Format: 24-HOUR
Date Separator: -
System Time: 2015 - 01 - 14 06 : 46 : 41
Time Zone: GMT+08:00
☐ DST
DST Type: ● Date ○ Week
Begin Time: Jan Last Week Sunday 00 : 56
End Time: Jan Last Week Sunday 00 : 00
☐ NTP
Server: time.windows.com
Port: 123 (1~65535)
Interval: 60 Minute(0~65535)

Figure 5-87

Please refer to the following sheet for detailed information.

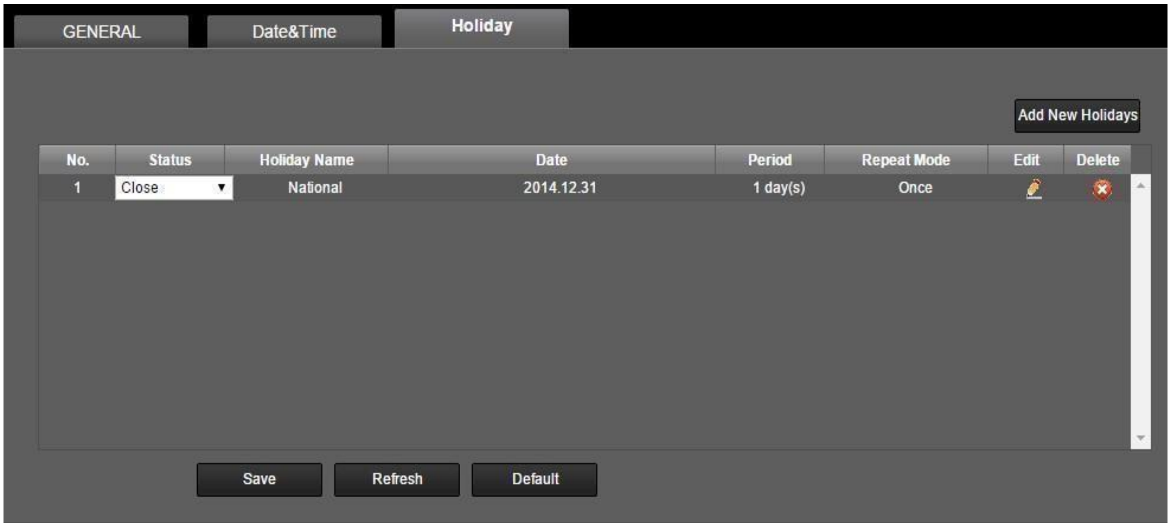
Parameter	**Function**
Date format	Here you can select date format from the dropdown list.
Time Format	There are two options: 24-H and 12-H.
Time zone	The time zone of the device.
System time	This is to set system time. It becomes valid after it is set.

Sync PC	You can click this button to the the system time the same as your current PC time.
DST	Here you can set the day light savings beginning and ending time. You can set via the date format or the week format.
NTP	You can check this box to enable the NTP function.
NTP server	You can set the time server address.
Port	This is to set the time server port.
Interval	This is to set the sync periods between the device and the time server.

5.9.5.1.3 Holiday Setup

Holiday setup interface is shown as in Figure 5-88.

Here you can click the Add holidays box to add a new holiday and then click the Save button to save.



No.	Status	Holiday Name	Date	Period	Repeat Mode	Edit	Delete
1	Close ▾	National	2014.12.31	1 day(s)	Once	✎	⊗

Figure 5-88

5.9.5. Account

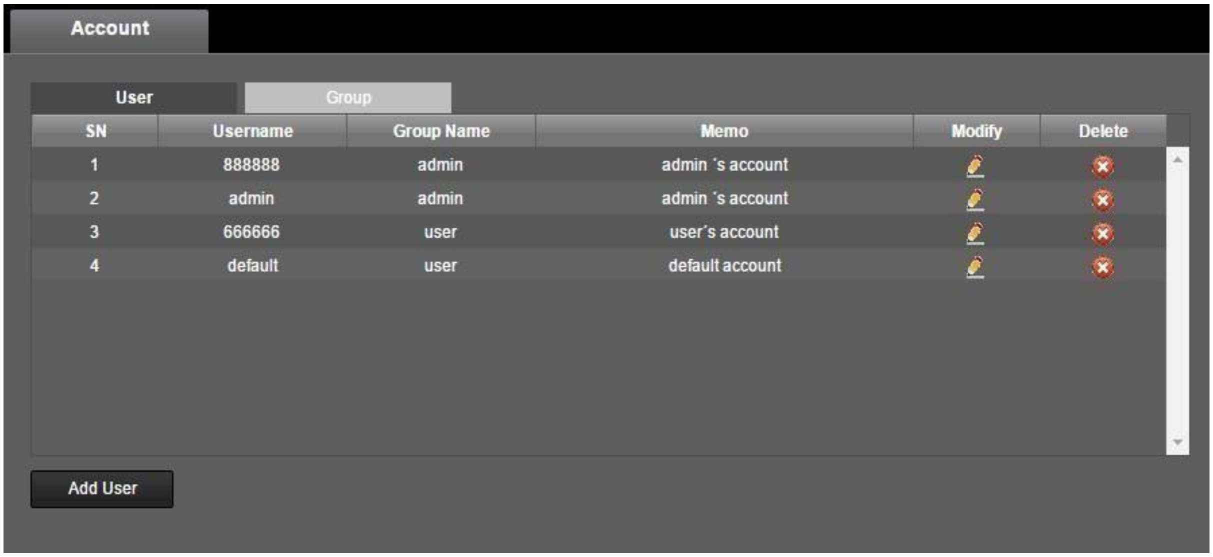
Note:

★ For the following user name or the user group name, the system supports a max of 6 characters. A space at the front or at the end of the string is null. A valid string can include: characters, numbers, and underlines.

- ★ The default user amount is 64 and the default group amount is 20. The factory default settings include two levels: user and admin. You can set the corresponding group and then set the rights for the respective user in the specified groups.
- ★ User management adopts group/user modes. The user name and the group name must be unique. A user can only be included in one group.

5.9.5.2.1 User name

In this interface you can add/remove users and modify user names. See Figure 5-89.



SN	Username	Group Name	Memo	Modify	Delete
1	888888	admin	admin 's account	✎	✖
2	admin	admin	admin 's account	✎	✖
3	666666	user	user's account	✎	✖
4	default	user	default account	✎	✖

Figure 5-89

Add user: This is to add a user to a group and set the user's rights. See Figure 5-89.

There are two default users: admin and the hidden user "default". All users have administrator rights. The hidden user "default" is for system interior use only and cannot be deleted. When there is no user logged in, the hidden user "default" automatically logs in. You can set some rights such as monitor for this user so that you can view some channel views without logging in.

Here you can input the user name and password and then select one group for the current user.
Please note the user's rights should not exceed the group's rights.
For a convenient setup, please make sure the general user has lower rights than the admin.

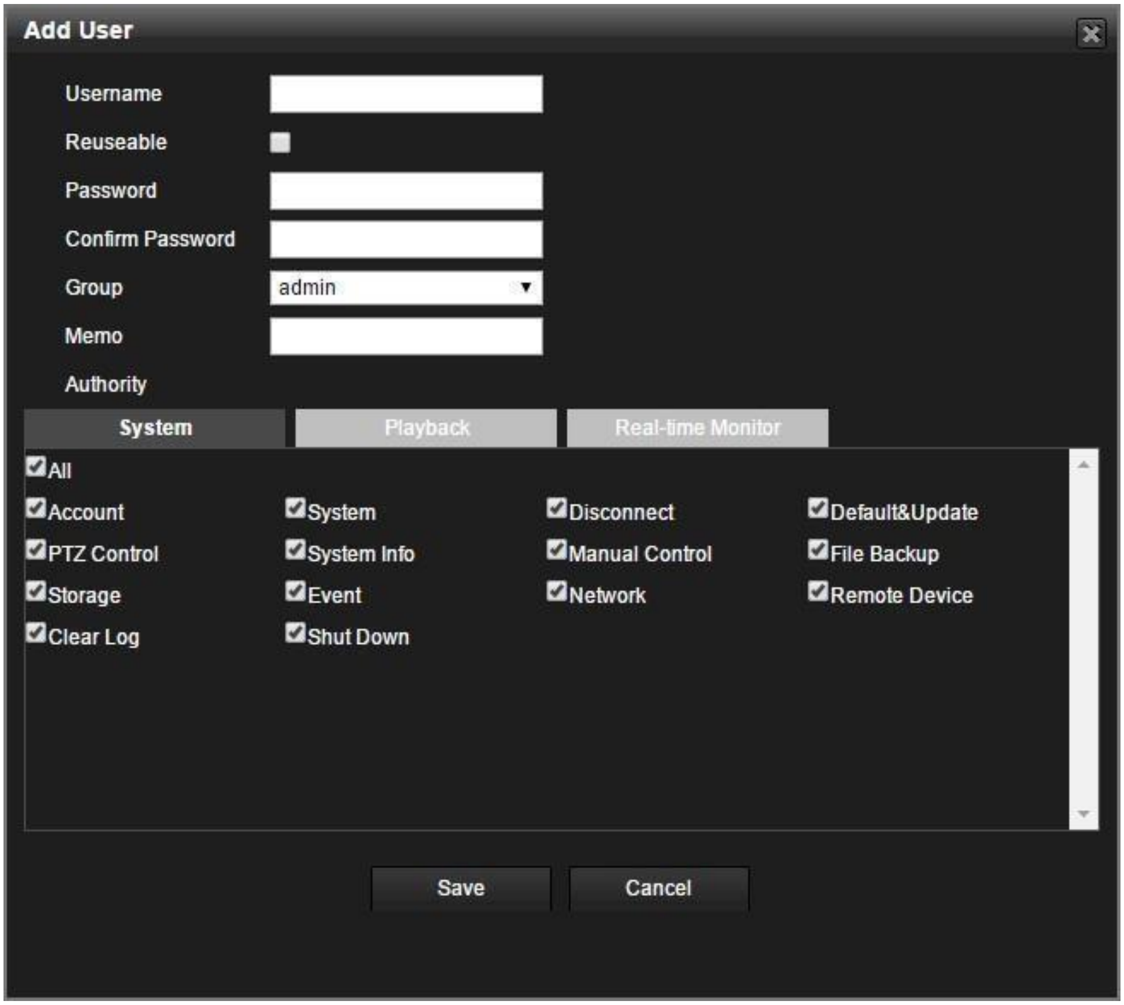


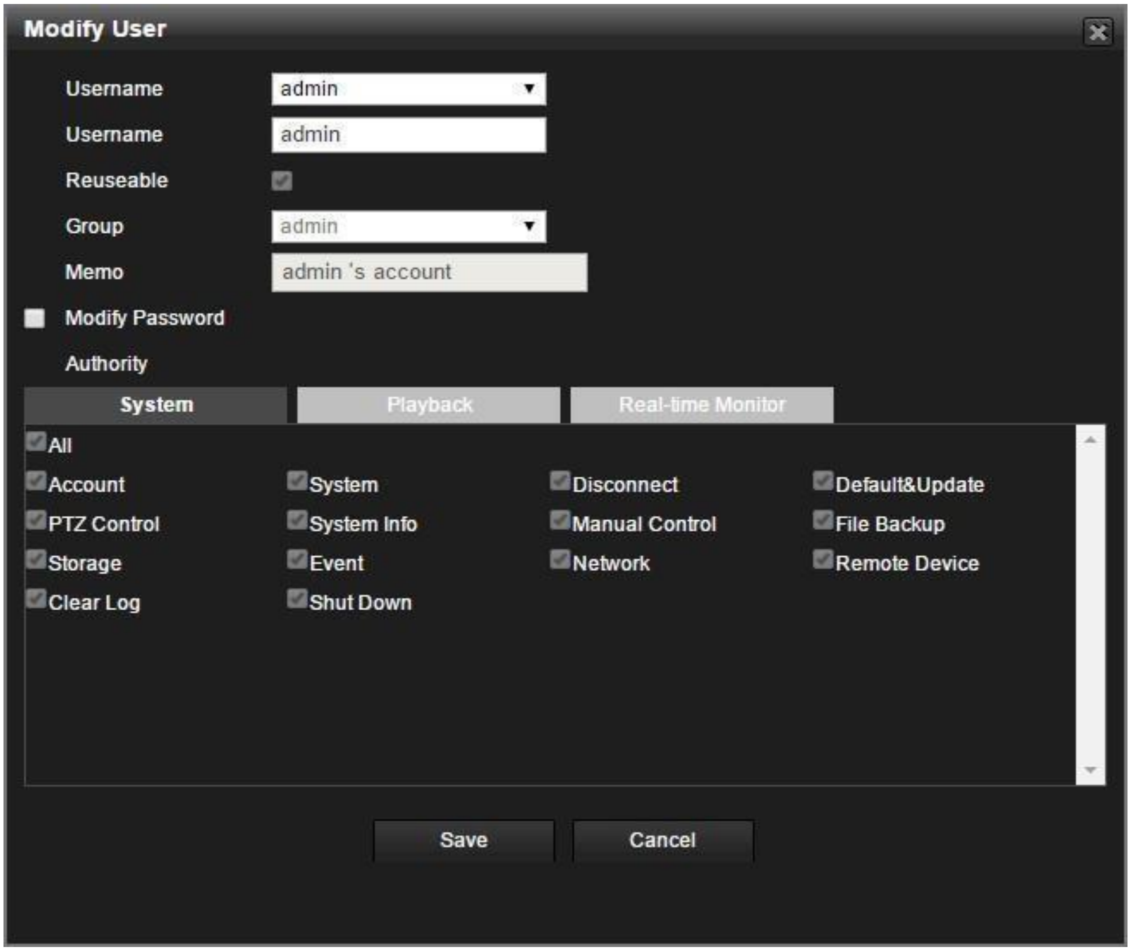
Figure 5-90

Modify user

This is to modify the user's properties, group, password, and rights. See Figure 5-86. **Modify password**

This is to modify the user's password. You need to input the old password and then input the new password twice to confirm the new password. Please click the OK button to save.

Please note the password ranges from 1 digit to 6 digits. It should include numbers only. Users with the ACCOUNT right can modify the password of other users.



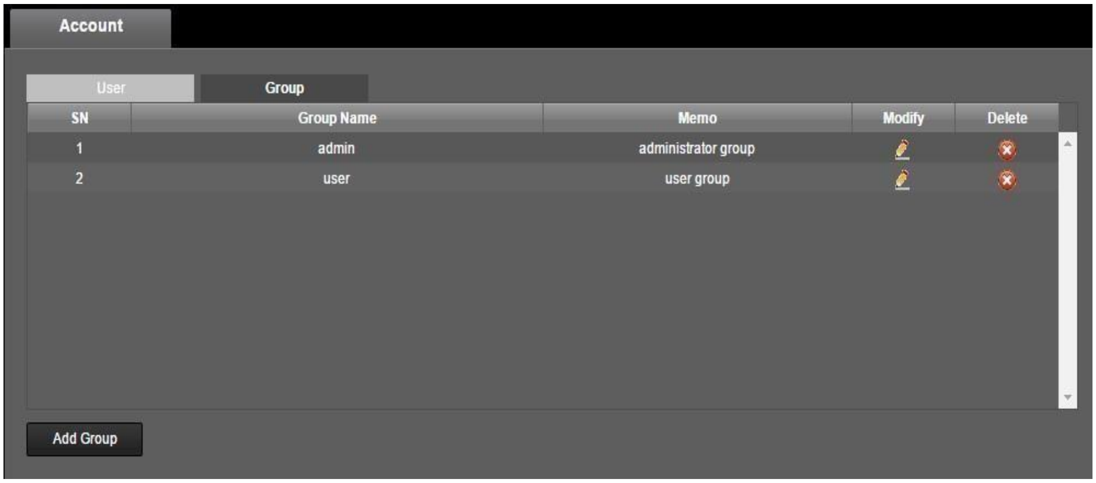
Username: admin
Username: admin
Reuseable ☑
Group: admin
Memo: admin 's account
☐ Modify Password
Authority

☑ All
☑ Account ☑ System ☑ Disconnect ☑ Default&Update
☑ PTZ Control ☑ System Info ☑ Manual Control ☑ File Backup
☑ Storage ☑ Event ☑ Network ☑ Remote Device
☑ Clear Log ☑ Shut Down

Figure 5-91

5.9.5.2.2 Group

The group management interface can add/remove groups, modify group passwords, etc. The interface is shown as in Figure 5-92.

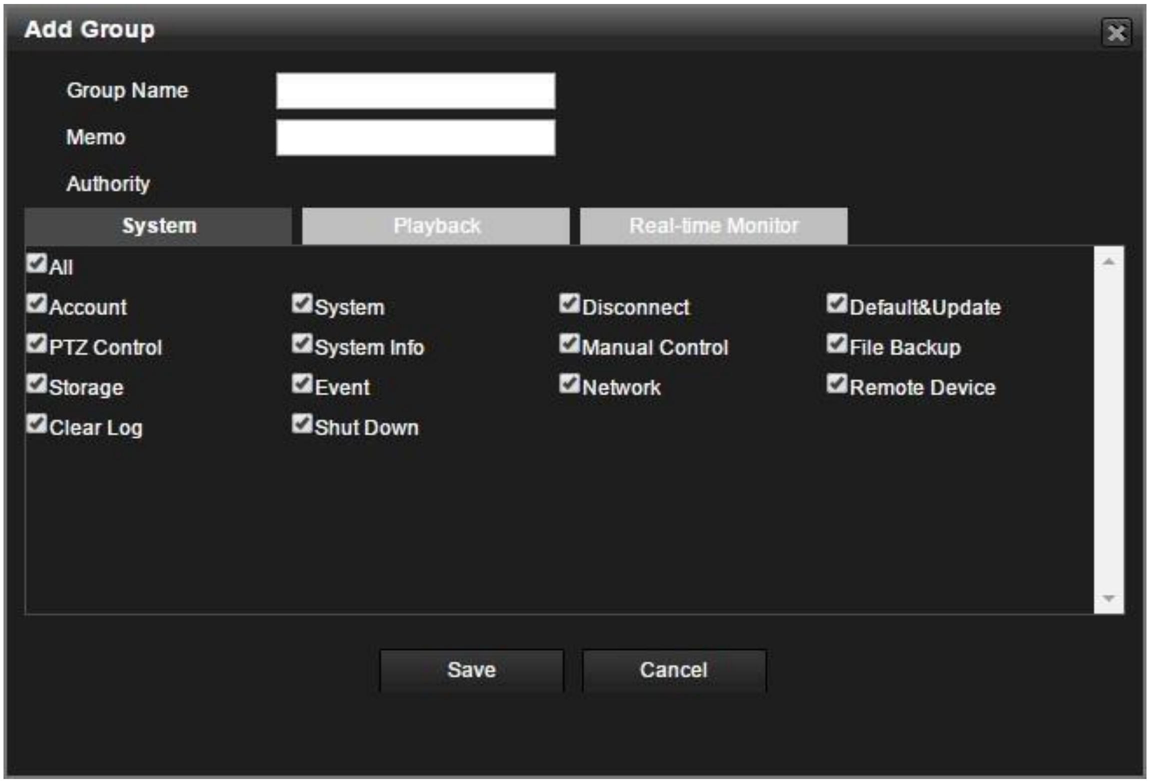


SN	Group Name	Memo	Modify	Delete
1	admin	administrator group	✎	⊗
2	user	user group	✎	⊗

Figure 5-92

Add group: This is to add a group and set its corresponding rights. See Figure 5-93.

Please input the group name and then check the box to select the corresponding rights. It includes: shutdown/reboot device, live view, record control, PTZ control, etc.



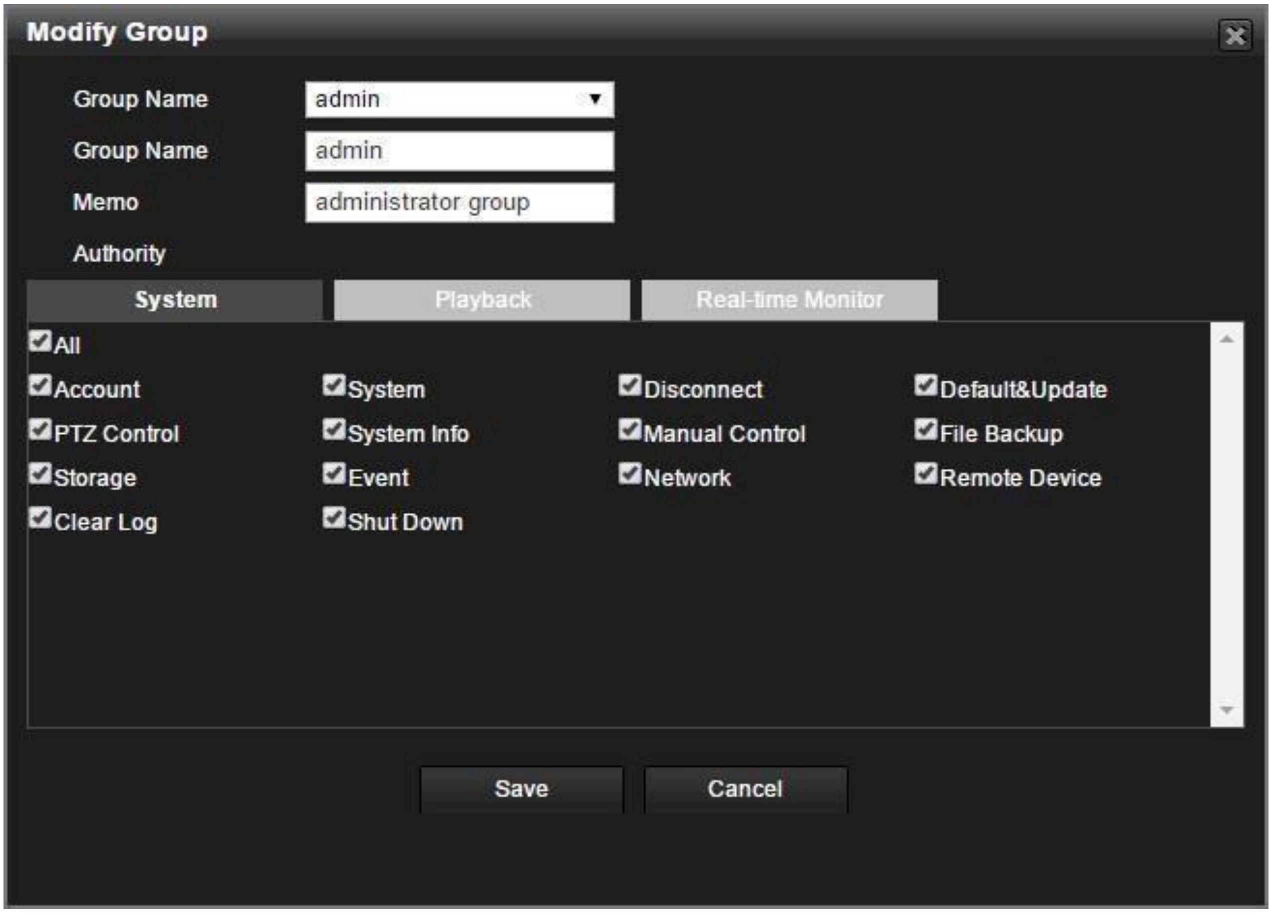
☑ All

☑ Account
☑ PTZ Control
☑ Storage
☑ Clear Log
☑ System
☑ System Info
☑ Event
☑ Shut Down
☑ Disconnect
☑ Manual Control
☑ Network
☑ Default&Update
☑ File Backup
☑ Remote Device

Figure 5-93

Modify group

Click the modify group button to see an interface is shown as in Figure 5-94. Here you can modify the group information such as remarks and rights.



Group Name: admin

Group Name: admin

Memo: administrator group

Authority

☑All

☑Account ☑System ☑Disconnect ☑Default&Update

☑PTZ Control ☑System Info ☑Manual Control ☑File Backup

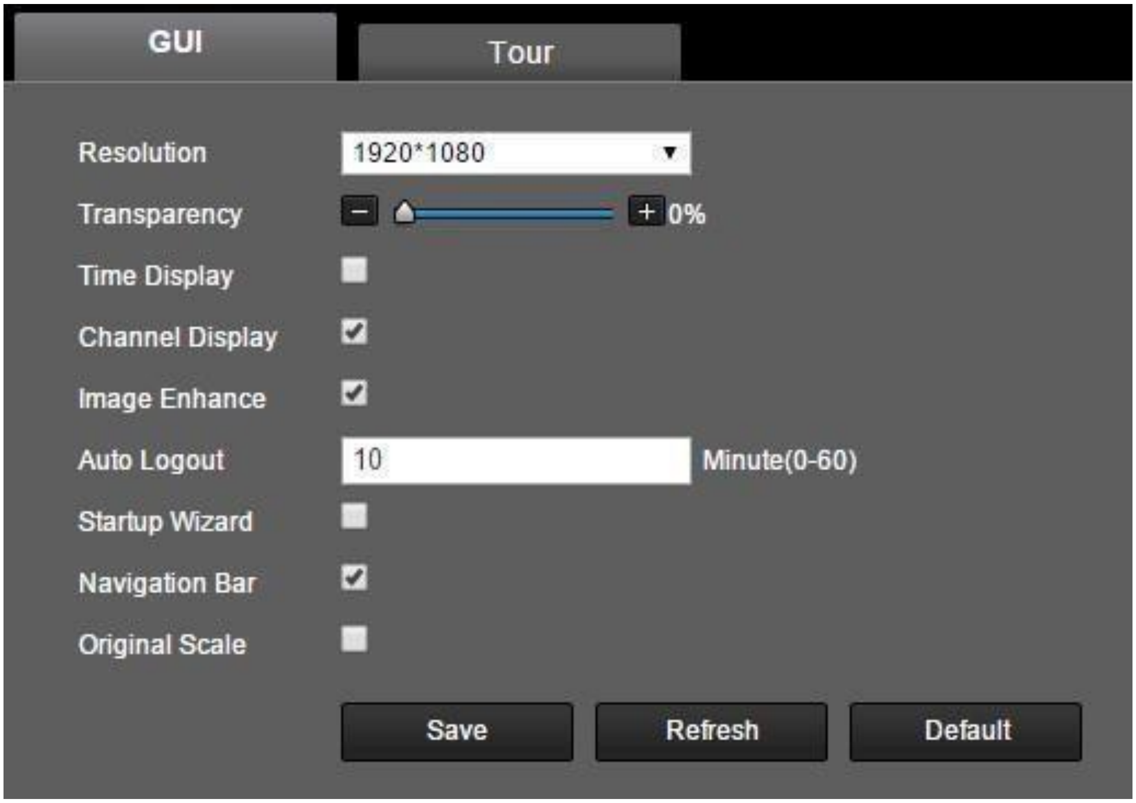
☑Storage ☑Event ☑Network ☑Remote Device

☑Clear Log ☑Shut Down

Figure 5-94

5.9.5.3 Display

The display interface includes Display and Tour. Here you can set the background color and transparency level. See Figure 5-95.



Resolution 1920*1080

Transparency 0%

Time Display ☐

Channel Display ☑

Image Enhance ☑

Auto Logout 10 Minute(0-60)

Startup Wizard ☐

Navigation Bar ☑

Original Scale ☐

Figure 5-95

Please refer to the following sheet for detailed information.

Parameter	**Function**
Resolution	There are four options: 1920×1080, 1280×1024(default), 1280×720, and 1024×768. Please note the system needs to reboot to activate the current setup.
Transparency	Here is where you adjust the transparency. The value ranges from 128 to 255.
Time title/channel title	Check this box here to view the system time and channel number on the monitor video.
Image enhance	Check this box to optimize the image of the preview video.

5.9.5.3.2 Tour

The tour interface is shown as in Figure 5-96. Here you can set the tour interval, split mode, motion detect tour, and alarm tour mode.

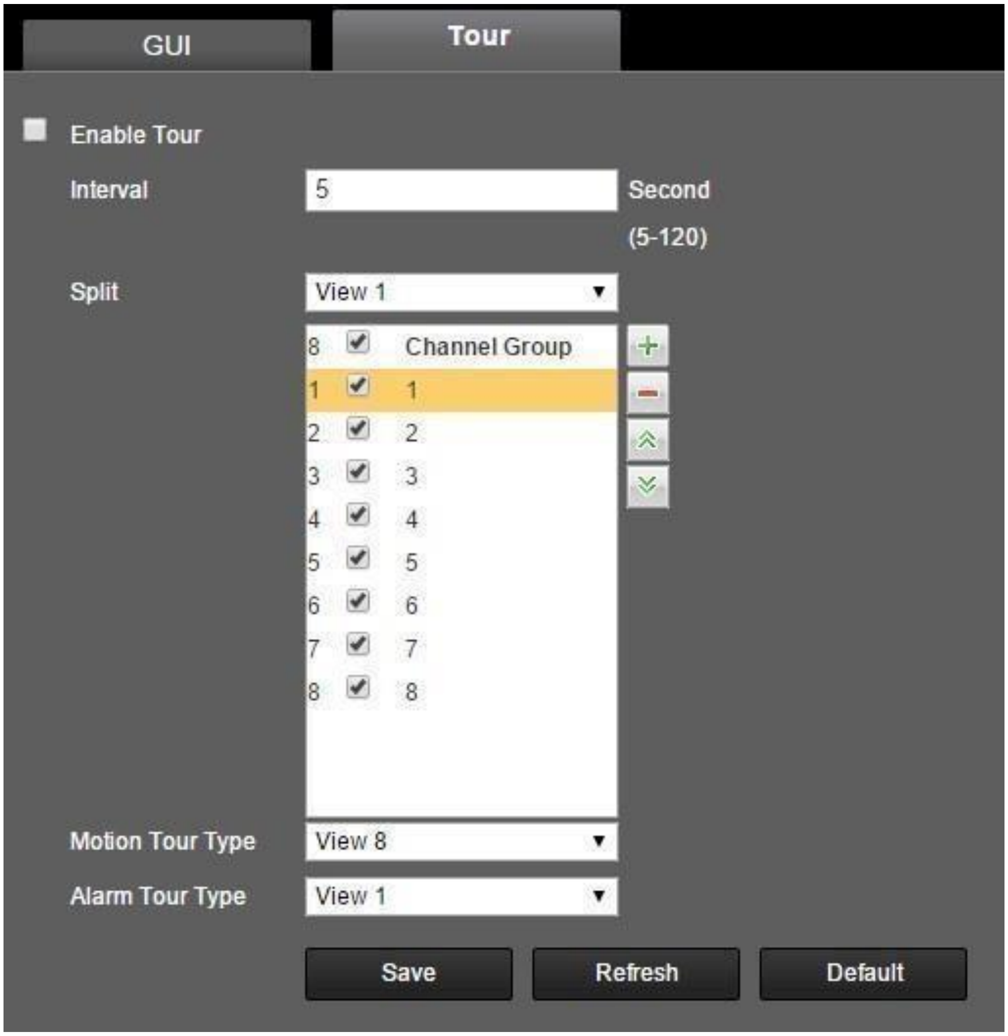


Figure 5-96

Please refer to the following sheet for detailed information.

Parameter	**Function**
Enable tour	Check this box here to enable the tour function.

Interval	Here is where you adjust the interval in which to change cameras. The value ranges from 5 to 120s. The default setup is 5s.
Split	Here you can set the window mode and channel group. The system can support 1/4/8/9/16/25/36-window according to the device channel amount.
Motion tour/Alarm tour	Here you can set the motion detect tour/alarm tour window mode. The system supports 1/8-window.

5.9.5.4 Alarm Out

The alarm output interface is shown as below. See Figure 5-97 Here you can set alarm output mode: auto/manual/stop.

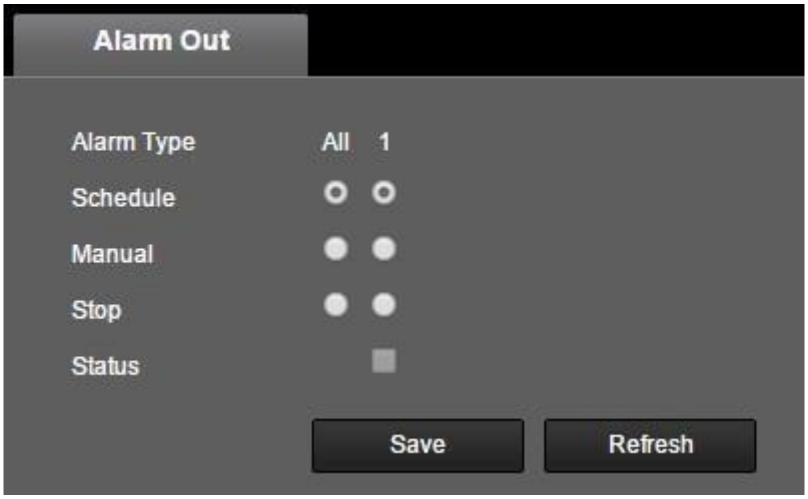


Figure 5-97

5.9.5.5 Default

The default setup interface is shown as in Figure 5-98.

Here you can select Network/Event/Storage/Setting/Camera, or you can check the All box to select all items.

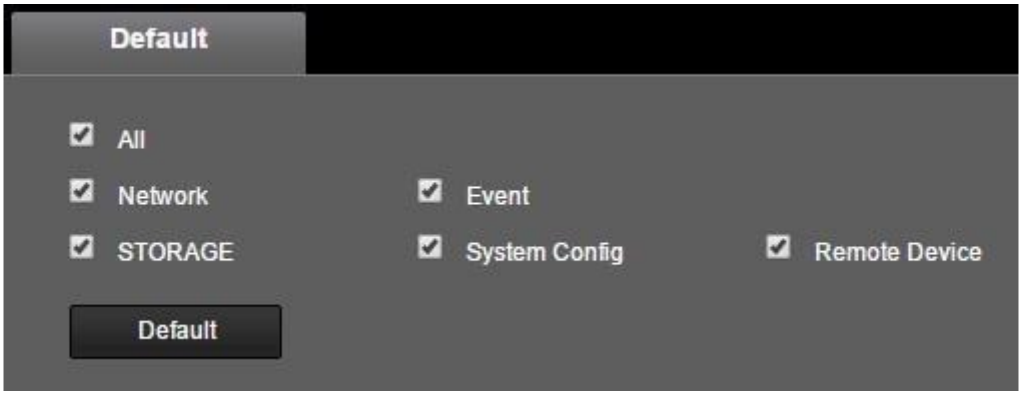


Figure 5-98

5.9.5.6 Import/Export

The interface is shown as in Figure 5-99. This interface is for you to export or import configuration files.

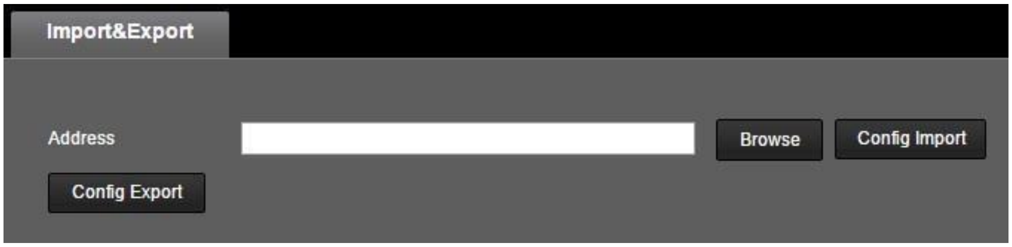


Figure 5-99

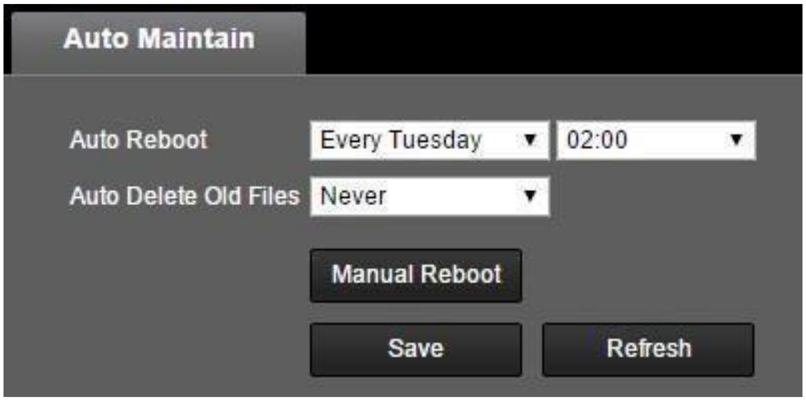
Please refer to the following sheet for detailed information.

Parameter	Function
Browse	Click to select the file to import.
Parameter	**Function**
Import	This is to import a configuration file from your local system.
Export	This is to export the WEB configuration to your local PC.

5.9.5.7 Auto Maintain

The auto maintain interface is shown as in Figure 5-95.

Here you can select to auto reboot the device and auto delete old files on the interval from the dropdown list. If you want to use the auto delete old files function, you need to set the file period. Click the Manual reboot button to restart the device manually.



Auto Reboot: Every Tuesday 02:00

Auto Delete Old Files: Never

Figure 5-100

5.9.5.8 Upgrade

The upgrade interface is shown as in Figure 5-101.

Please select the upgrade file and then click the update button to begin updating. Please note the file name should end be in *.bin. During the upgrade process, do not unplug the power cable, network cable, or shutdown the device.

Important

Improper upgrading may result in the device malfunctioning! Please make sure the operation is operated under the supervision of a quality professional!

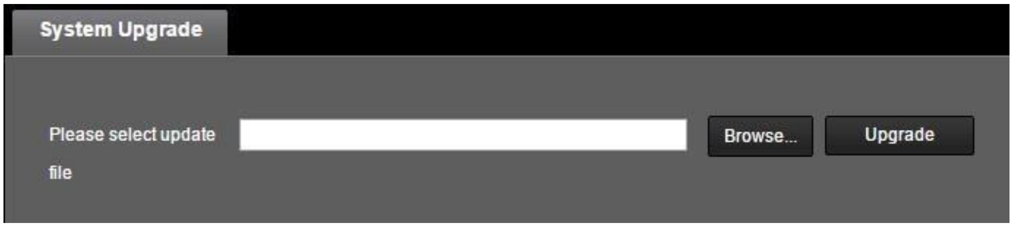


Figure 5-101

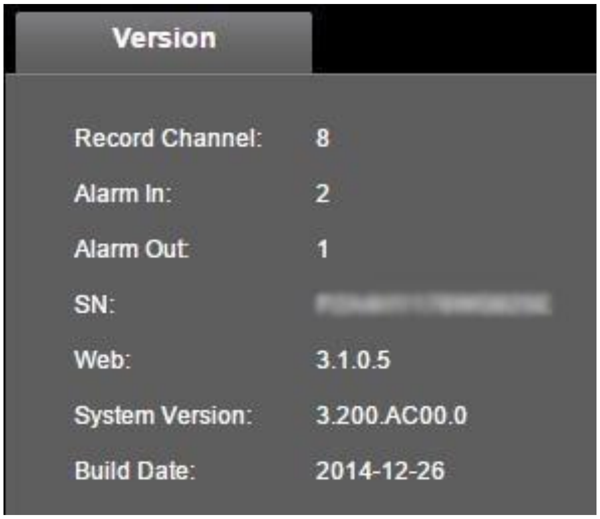
5.10 Information

5.10.1 Version

The version interface is shown as in Figure 5-102.

Here you can view the record channel, alarm input/output information, software version, release date, etc.

Please note the following information is for reference only.



Record Channel: 8

Alarm In: 2

Alarm Out: 1

SN: [redacted]

Web: 3.1.0.5

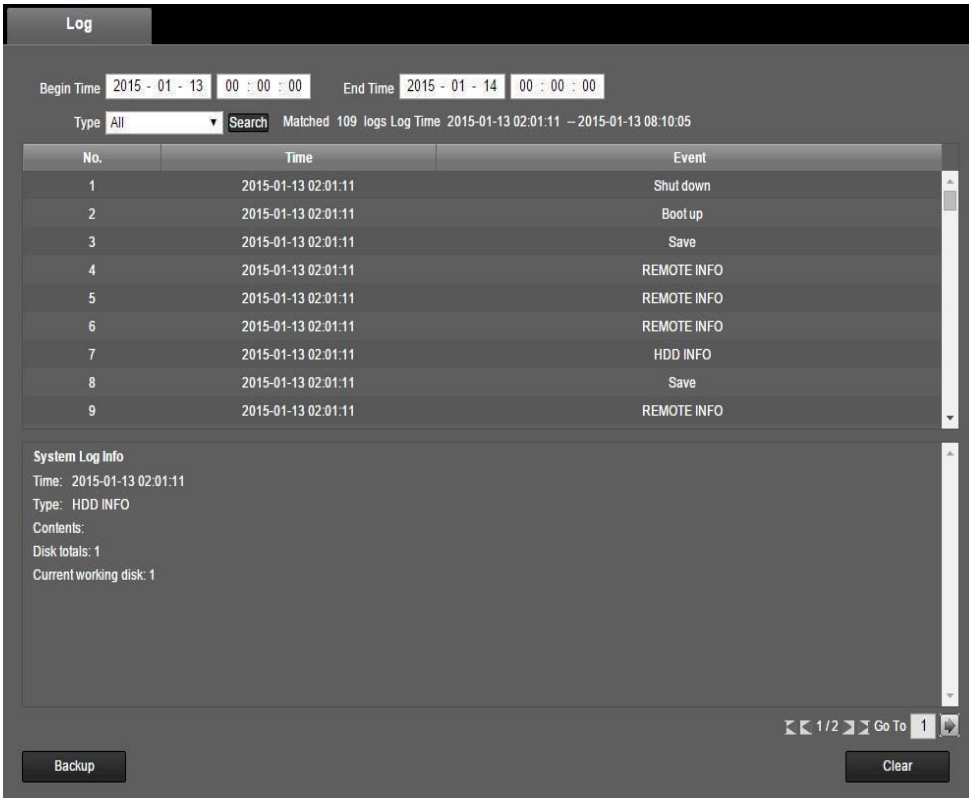
System Version: 3.200.AC00.0

Build Date: 2014-12-26

Figure 5-102

5.10.2 Log

Here you can view system log. See Figure 5-103.



Begin Time 2015 - 01 - 13 00 : 00 : 00 End Time 2015 - 01 - 14 00 : 00 : 00

Type All

Matched 109 logs Log Time 2015-01-13 02:01:11 -- 2015-01-13 08:10:05

No.	Time	Event
1	2015-01-13 02:01:11	Shut down
2	2015-01-13 02:01:11	Boot up
3	2015-01-13 02:01:11	Save
4	2015-01-13 02:01:11	REMOTE INFO
5	2015-01-13 02:01:11	REMOTE INFO
6	2015-01-13 02:01:11	REMOTE INFO
7	2015-01-13 02:01:11	HDD INFO
8	2015-01-13 02:01:11	Save
9	2015-01-13 02:01:11	REMOTE INFO

System Log Info

Time: 2015-01-13 02:01:11

Type: HDD INFO

Contents:

Disk totals: 1

Current working disk: 1

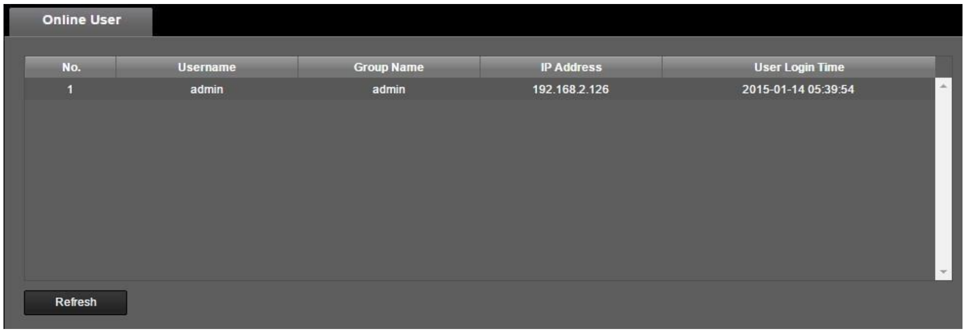
Figure 5-103

Please refer to the following sheet for log parameter information.

Parameter	**Function**
Type	Log types include: system operation, configuration operation, data operation, event operation, record operation, user management, and log clear.
Start time	Set the start time of the desired log.
End time	Set the end time of the desired log.
Search	You can select log type from the drop-down list and then click the Search button to view the list. You can click the Stop button to terminate the current search operation.
Detailed information	You can select one item to view detailed information.
Clear	You can click this button to delete all displayed log files. Please note system does not support clear by type.
Backup	You can click this button to backup log files to the current PC.

5.10.3 Online User

The online user interface is shown as in Figure 5-104.



No.	Username	Group Name	IP Address	User Login Time
1	admin	admin	192.168.2.126	2015-01-14 05:39:54

Figure 5-104

5.11 Playback

Click the Playback button, and you can see an interface is shown as in Figure 5-105. Please set the record type, record date, window display mode, and channel name.

You can click the date on the right pane to select the date. The green highlighted date is the system's current date and the blue highlighted date means it has recordings.

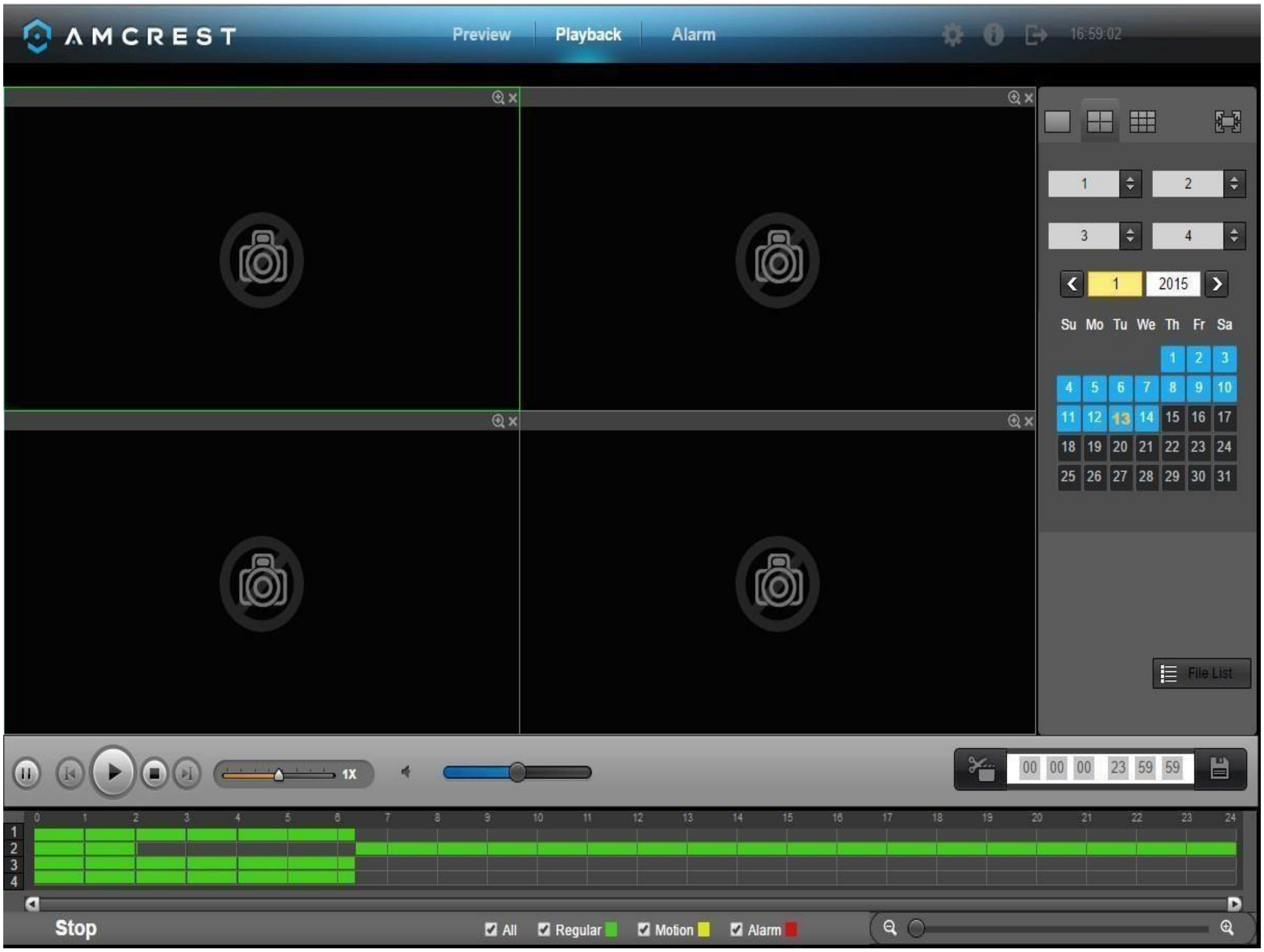
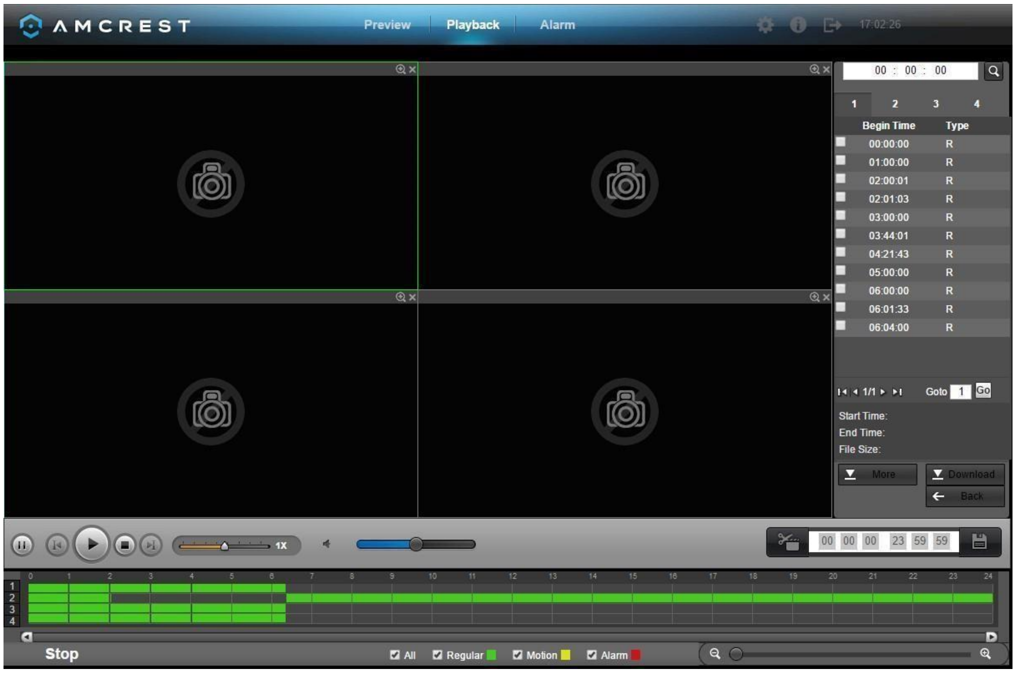


Figure 5-105

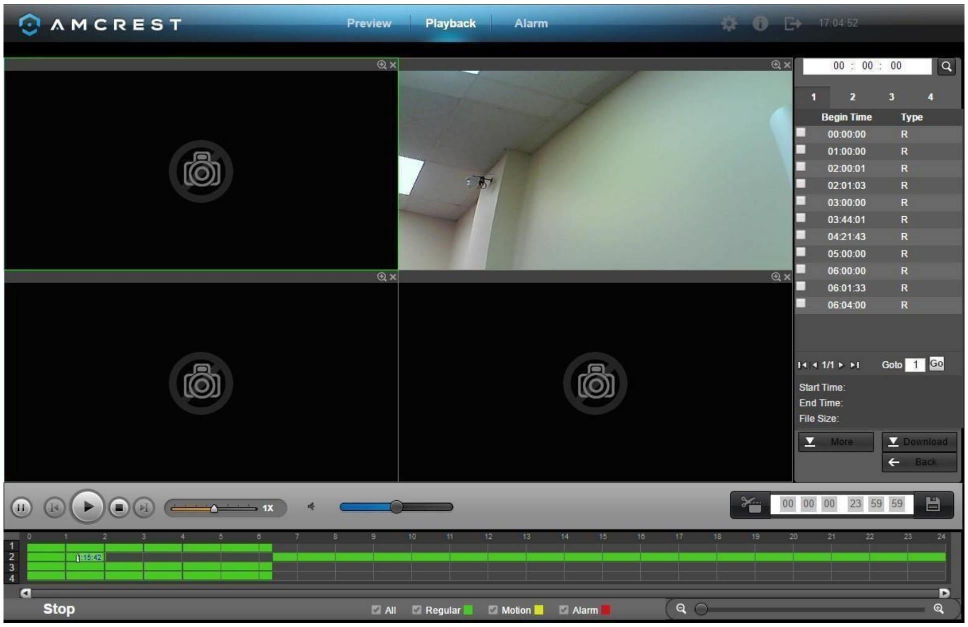
Then please click the File list button, and you can see the corresponding files in the list. See Figure 5-101.



Begin Time	Type
00:00:00	R
01:00:00	R
02:00:01	R
02:01:03	R
03:00:00	R
03:44:01	R
04:21:43	R
05:00:00	R
06:00:00	R
06:01:33	R
06:04:00	R

Figure 5-106

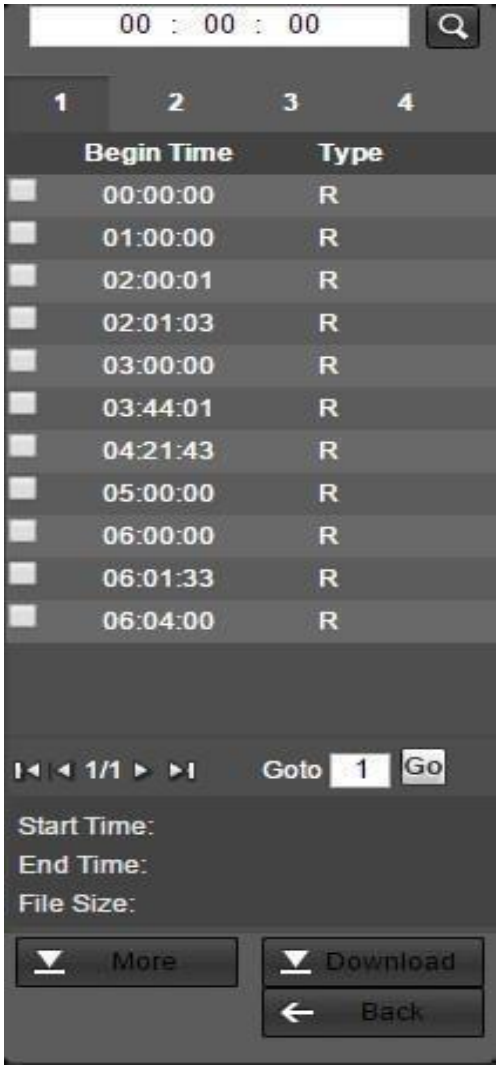
Select a file you want to play and then click Play button to begin playback. You can playback a recording in full-screen. Please note for one channel, the system cannot playback and download at the same time. You can use the playback control bar to implement various operations such as play, pause, stop, slow play, fast play, etc. See Figure 5-107.



Begin Time	Type
00:00:00	R
01:00:00	R
02:00:01	R
02:01:03	R
03:00:00	R
03:44:01	R
04:21:43	R
05:00:00	R
06:00:00	R
06:01:33	R
06:04:00	R

Figure 5-107

Select the file(s) you want to download and then click the Download button. Please refer to the interface shown as in Figure 5-103. The Download button becomes a Stop button and there is a process bar for your reference. Please go to you default file saved path to view the files.



00 : 00 : 00

	Begin Time	Type
☐	00:00:00	R
☐	01:00:00	R
☐	02:00:01	R
☐	02:01:03	R
☐	03:00:00	R
☐	03:44:01	R
☐	04:21:43	R
☐	05:00:00	R
☐	06:00:00	R
☐	06:01:33	R
☐	06:04:00	R

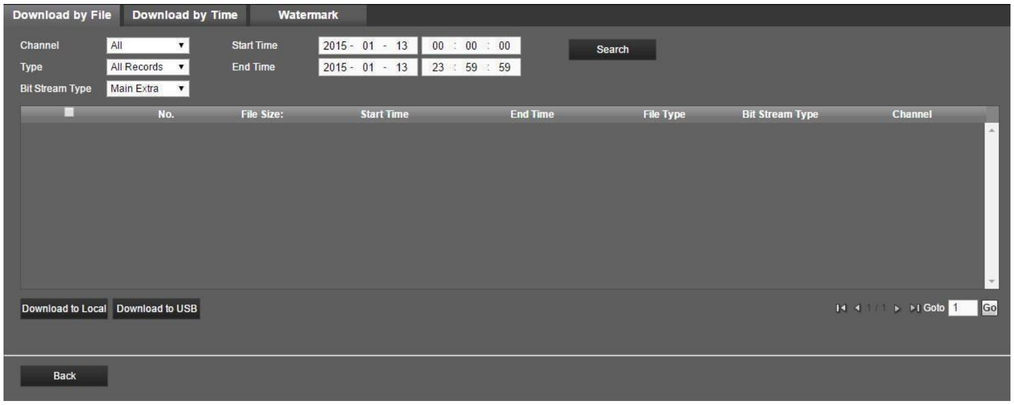
1/1 Goto 1

Start Time:
End Time:
File Size:

Figure 5-108

Load more

Click the More button in Figure 5-109 to see an interface shown as in Figure 5-104. This is for you to search a recording or picture. You can select the record channel, record type, and record time to download.



Channel: All
Type: All Records
Bit Stream Type: Main Extra
Start Time: 2015 - 01 - 13 00 : 00 : 00
End Time: 2015 - 01 - 13 23 : 59 : 59
Goto: 1

Figure 5-109

Watermark

The watermark interface is shown as in Figure 5-110. Please select a file and then click the Verify button to see if the file has been tampered with or not.

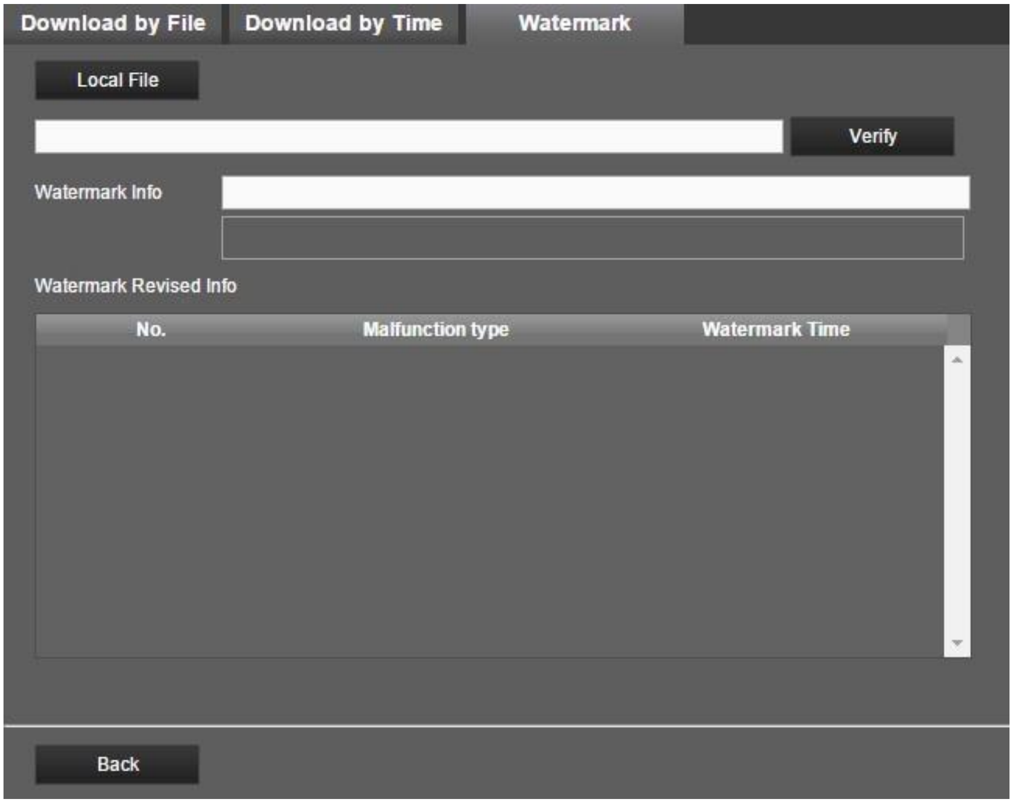


Figure 5-110

5.12 Alarm

Click the alarm function, and you can see an interface is shown as Figure 5-111.

Here you can set the device alarm type and alarm sound setup. (Please make sure you have enabled the audio function of the corresponding alarm events.)

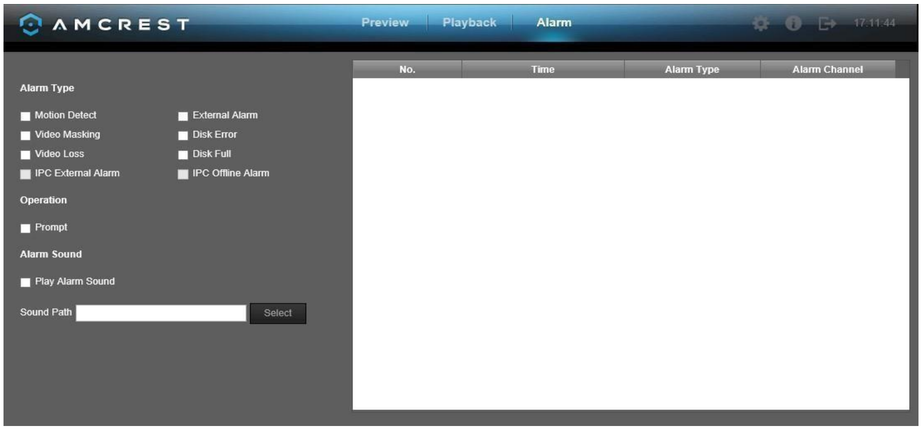


Figure 5-111

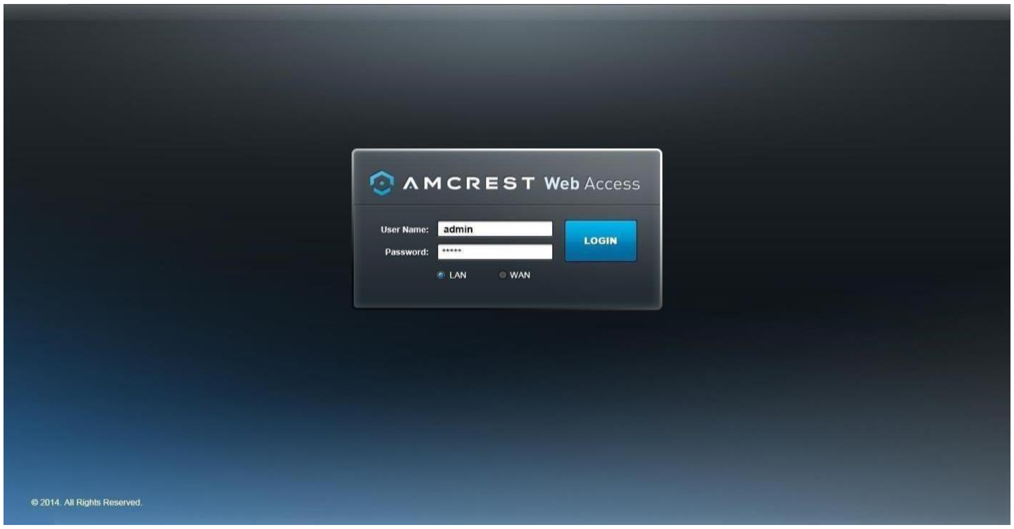
Please refer to the following sheet for detailed information.

Type	Parameter	Function
Alarm	Video loss	The system alarms when video loss occurs.
Type	Motion detection	The system alarms when a motion detection alarm occurs.
	Tampering	The system alarms when the camera is maliciously masked.
	Disk full	The system alarms when the disk is full.
	Disk error	The system alarms when a disk error occurs.
	External alarm	The alarm input device sends out an alarm.
	IPC external alarm	This refers to the on-off signal from a network camera. It can activate the NVR local alarm operation.
	IPC offline alarm	The system can generate an alarm when a network camera disconnects from the NVR.

Operation	Prompt	Check the box here to automatically pop up an alarm icon on the Alarm button in the main interface when there is an alarm.
Alarm Sound	lay alarm sound	The system sends out an alarm sound when an alarm occurs. You can choose the sound.
	Sound path	Specify the alarm sound file here.

5.13 Logout

Click the logout button to go back to login interface. See Figure 5-112. You will need to input the user name and password to login again.



User Name: admin
Password: *****

Figure 5-112

5.14 Un-install Web Control

You can use web uninstall tool “uninstall web.bat” to uninstall the web control.

Please note, before you uninstall, please close all web pages, otherwise the uninstallation might result in an error.

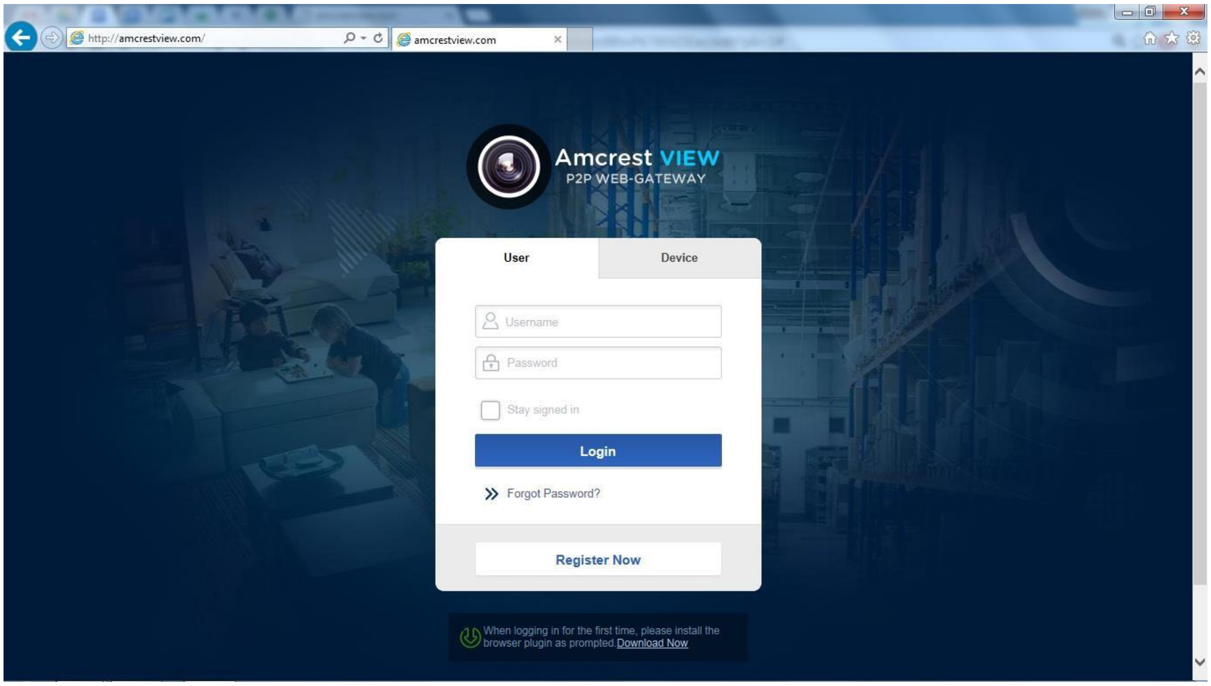
6. Amcrest View Web Portal Setup

You can access your DVR through a computer using the P2P web portal **AmcrestView.com** for quick plug-and-play access. It uses the same technology as the Amcrest View mobile app and is an easy, non-technical setup method.

There are 2 methods of accessing your DVR using AmcrestView.com: the **user method** (registering an account for login), and the **device method** (instant direct access using the serial number).
Both methods require that the Amcrest **browser plugin** be installed for AmcrestView.com.

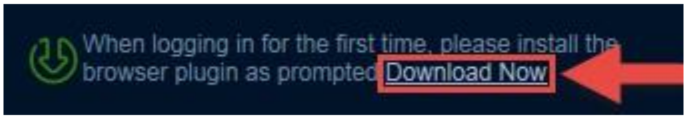
6.1. Installing the AmcrestView.com browser plugin

1. Open Internet Explorer, type "www.amcrestview.com" into the search bar, and hit Enter. This will take you to the login screen:



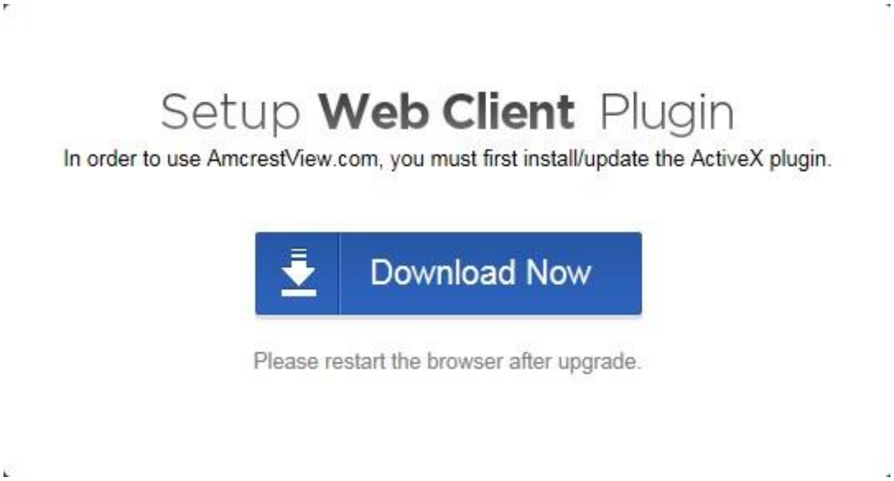
When logging in for the first time, please install the browser plugin as prompted Download Now

2. Once you're on the login page, you will see a message about installing the plugin below the login box. Click **Download Now**:



When logging in for the first time, please install the browser plugin as prompted Download Now

3. This will take you to another page where you will need to click the **Download Now** button:

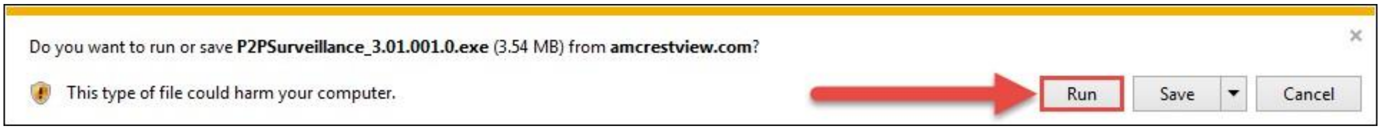


Setup **Web Client** Plugin

In order to use AmcrestView.com, you must first install/update the ActiveX plugin.

Please restart the browser after upgrade.

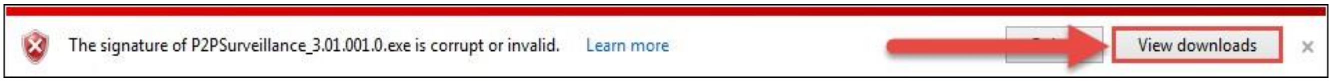
4. You will be prompted by the browser to install the plugin. Click **Run**:



Do you want to run or save **P2PSurveillance_3.01.001.0.exe** (3.54 MB) from **amcrestview.com**?

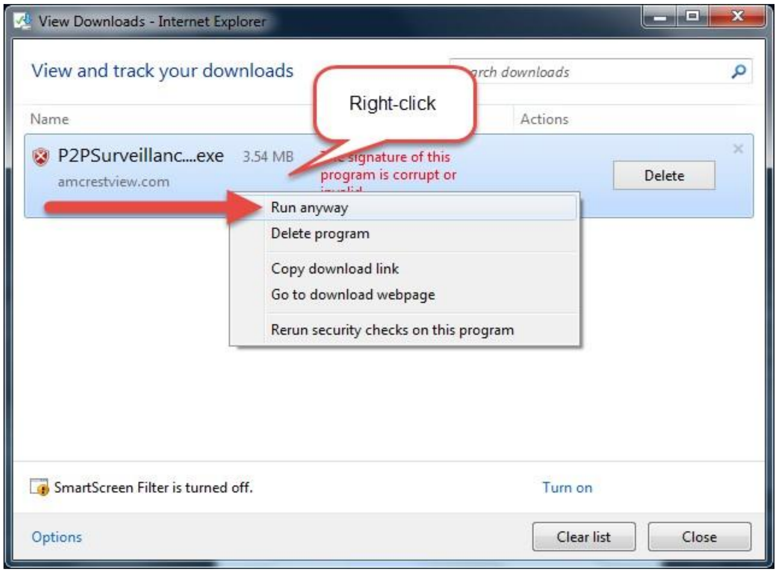
This type of file could harm your computer.

5. You may be prompted to verify this download. This software is not harmful to your computer and will not make any unwanted changes. To verify, start by clicking **View Downloads**:



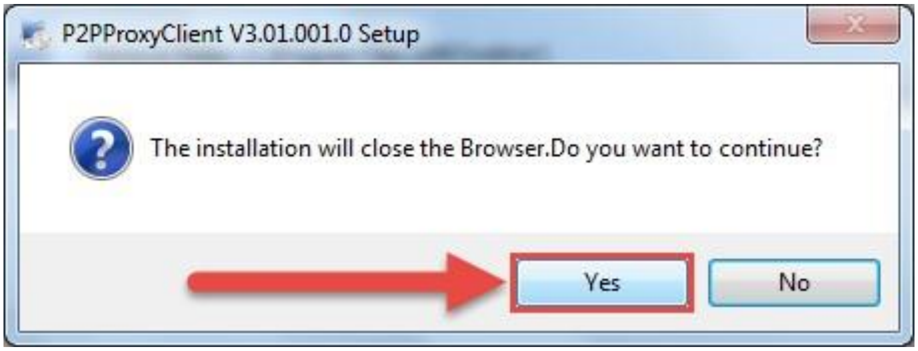
The signature of P2PSurveillance_3.01.001.0.exe is corrupt or invalid.

6. In the View Downloads page, right click the plugin, then click **Run Anyway**.



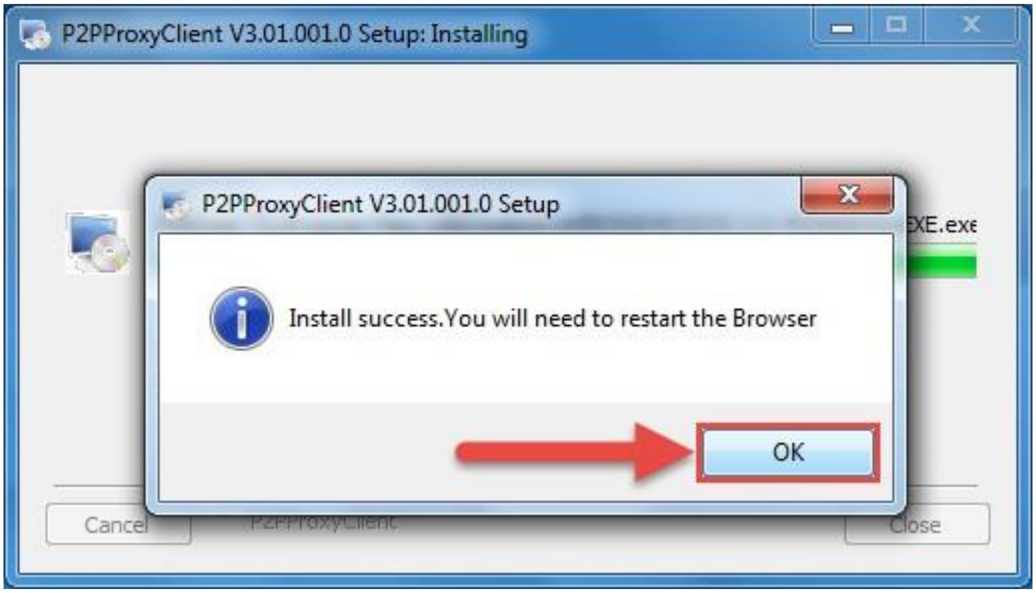
SmartScreen Filter is turned off.

7. The plugin will close your browser sessions to install. Save any pages, then click **Yes**:



The installation will close the Browser.Do you want to continue?

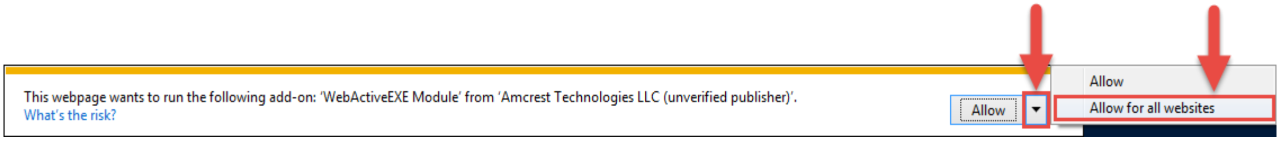
8. On the next prompt, it will say the install was successful and ask you to restart your browser. Click **OK**:



P2PProxyClient V3.01.001.0 Setup: Installing
P2PProxyClient V3.01.001.0 Setup
EXE.exe
OK
Cancel
P2PProxyClient
Close

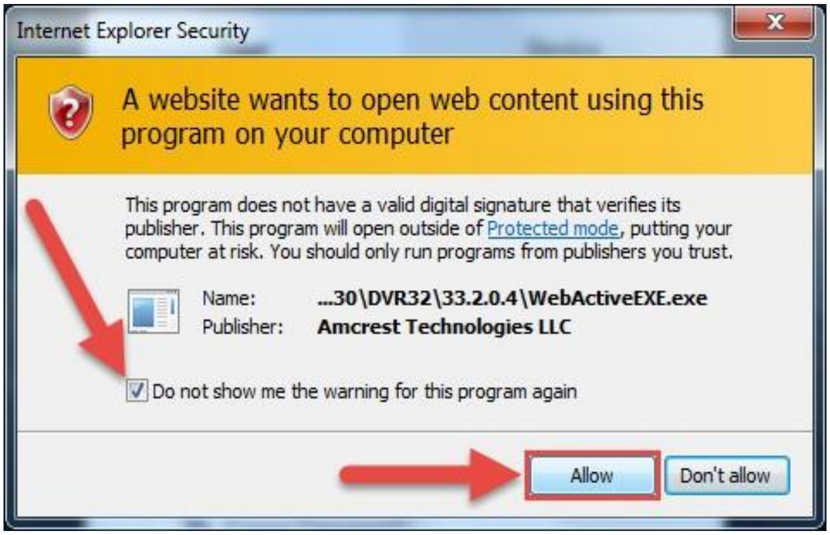
Install success.You will need to restart the Browser

9. You will be taken back to the login page and see another notification from your browser asking you to allow this plugin on this web page. Click the small arrow next to **Allow**, then click **Allow for all websites**:



This webpage wants to run the following add-on: 'WebActiveEXE Module' from 'Amcrest Technologies LLC (unverified publisher)'.

10. Another popup will appear asking you to allow this plugin. Mark the checkbox next to **Do not show me the warning for this program again**, then click **Allow**:


Internet Explorer Security
A website wants to open web content using this program on your computer

This program does not have a valid digital signature that verifies its publisher. This program will open outside of Protected mode, putting your computer at risk. You should only run programs from publishers you trust.

Name: ...30\DVR32\33.2.0.4\WebActiveEXE.exe
Publisher: Amcrest Technologies LLC

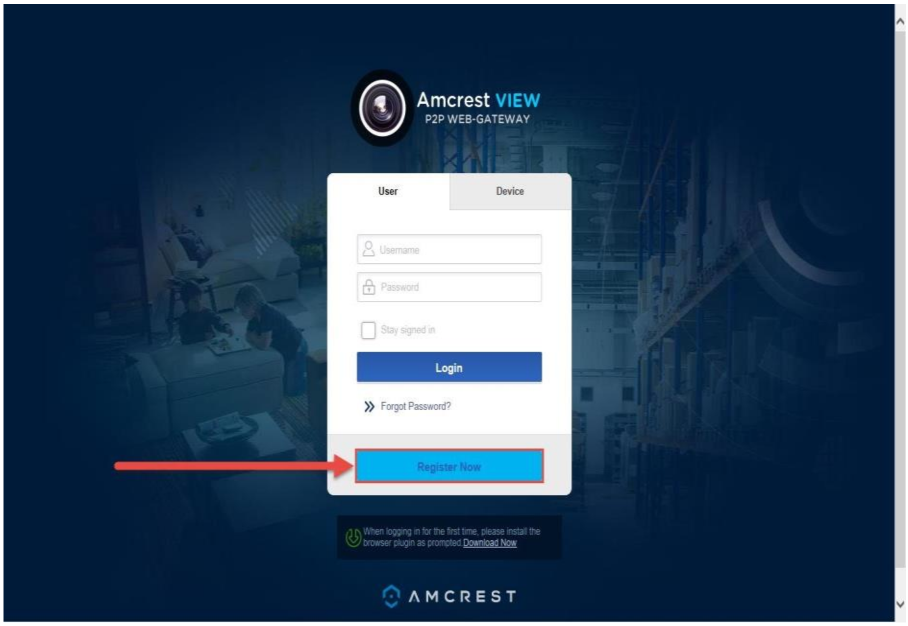
☑ Do not show me the warning for this program again

Now the plugin has been installed successfully and you can continue to register for an account for NVR access through AmcrestView.com

6.2. User Method

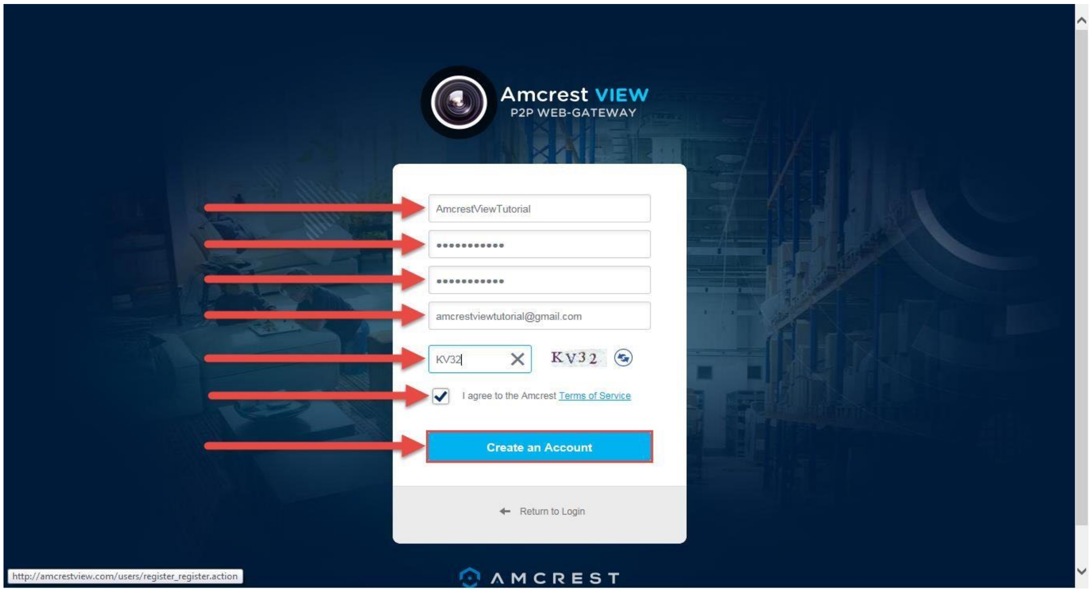
The **user method** requires that you first install the Amcrest browser plugin for AmcrestView.com. Then, you can register for an account to set up your NVR.

1. On the main login screen, www.amcrestview.com, click the **Register Now** button:



When logging in for the first time, please install the browser plugin as prompted. Download Now

2. You will be taken to the registration form. Enter your **Username**, **Password**, then **Confirm Password**, type your **Email**, enter the **Verification Code**, make sure the box is checked confirming you've read the 'Amcrest Terms of Service', then click **Create an Account**:



AmcrestViewTutorial

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•••••••••••

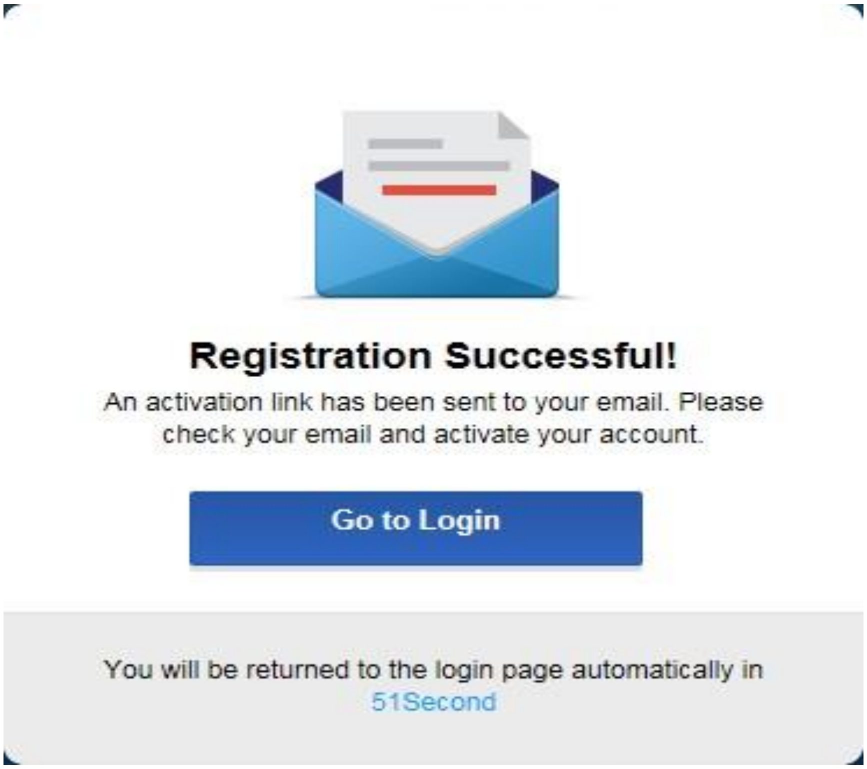
amcrestviewtutorial@gmail.com

KV32 KV32

☑ I agree to the Amcrest Terms of Service

http://amcrestview.com/users/register_register.action

3. You will see the **Registration Successful** message and a confirmation email will be sent to you:

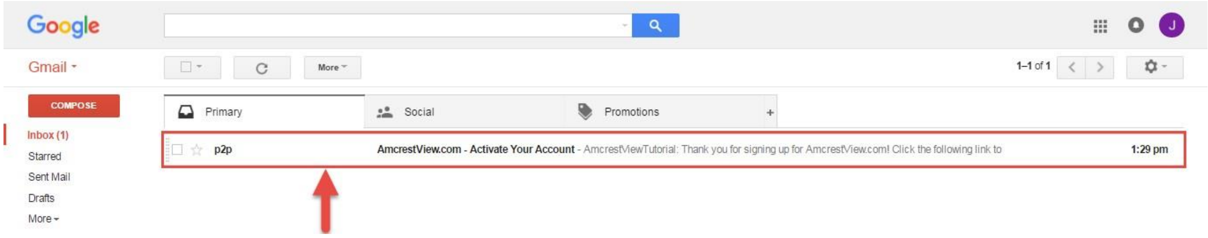


Registration Successful!

An activation link has been sent to your email. Please check your email and activate your account.

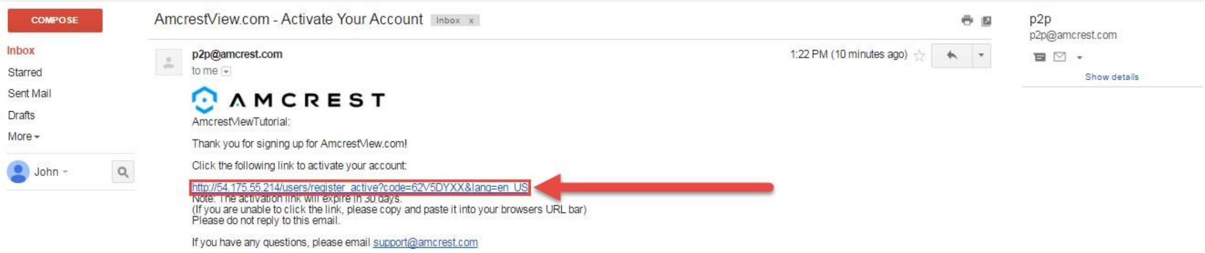
You will be returned to the login page automatically in 51Second

Check your email, and click the confirmation email from AmcrestView.com:



p2p **AmcrestView.com - Activate Your Account** - AmcrestViewTutorial: Thank you for signing up for AmcrestView.com! Click the following link to **1:29 pm**

4. Once you’ve opened the email, click the confirmation link inside to complete your registration:



AmcrestView.com - Activate Your Account

p2p@amcrest.com
to me

1:22 PM (10 minutes ago)

p2p
p2p@amcrest.com

AMCREST

AmcrestViewTutorial:

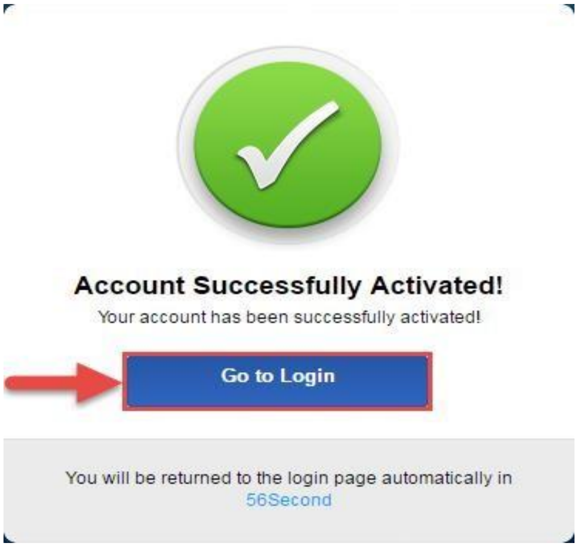
Thank you for signing up for AmcrestView.com!

Click the following link to activate your account:

http://54.175.55.214/users/register_active?code=62V5DYXX&lang=en_US
Note: The activation link will expire in 30 days.
(If you are unable to click the link, please copy and paste it into your browsers URL bar)
Please do not reply to this email.

If you have any questions, please email support@amcrest.com

5. You will be taken back to AmcrestView.com and shown confirmation that your account has been activated. Click **Go to Login**:

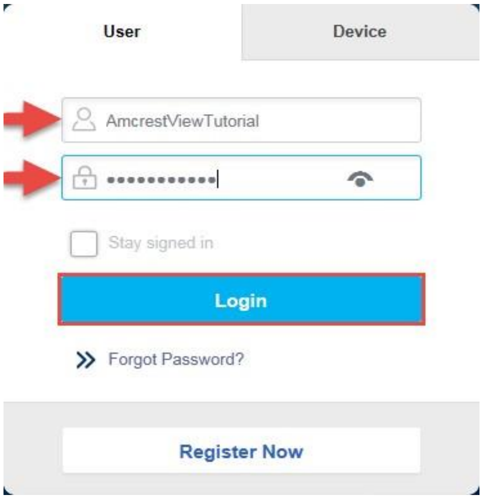


Account Successfully Activated!

Your account has been successfully activated!

You will be returned to the login page automatically in 56Second

6. You will be taken back to the login screen. Enter your new AmcrestView.com username and password, then click **Login**:



AmcrestViewTutorial

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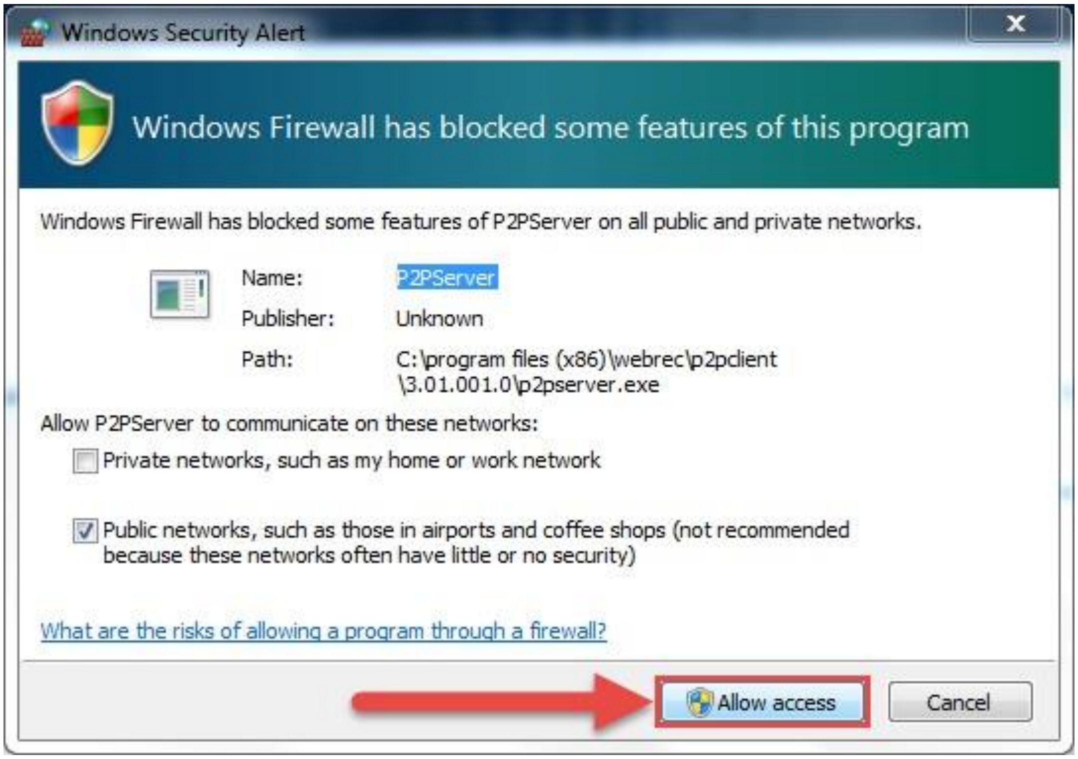
7. A popup will appear from your Windows Firewall. Click **Allow access**:



Windows Firewall has blocked some features of P2PServer on all public and private networks.

Name: P2PServer
Publisher: Unknown
Path: C:\program files (x86)\webrec\p2pclient \3.01.001.0\p2pserver.exe

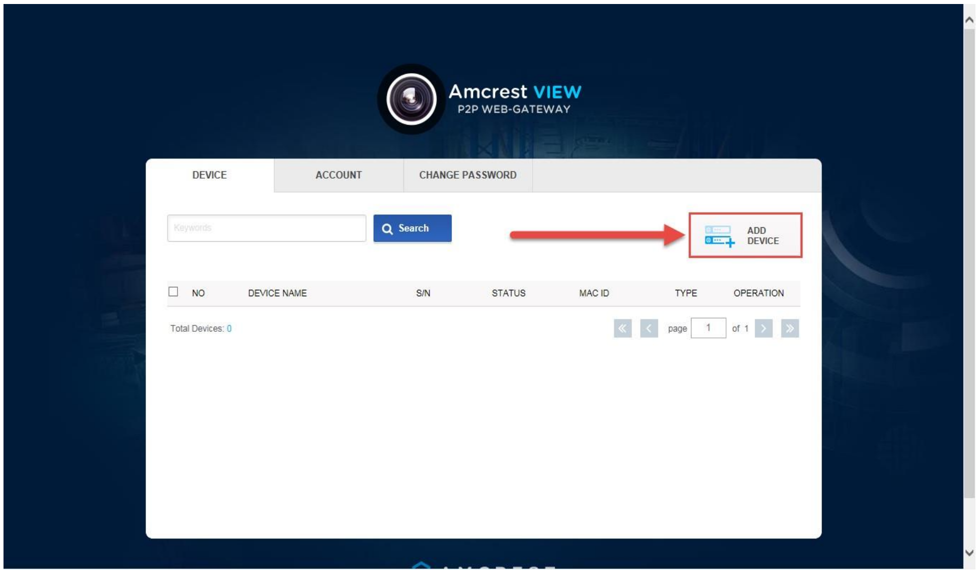
Allow P2PServer to communicate on these networks:

☐ Private networks, such as my home or work network

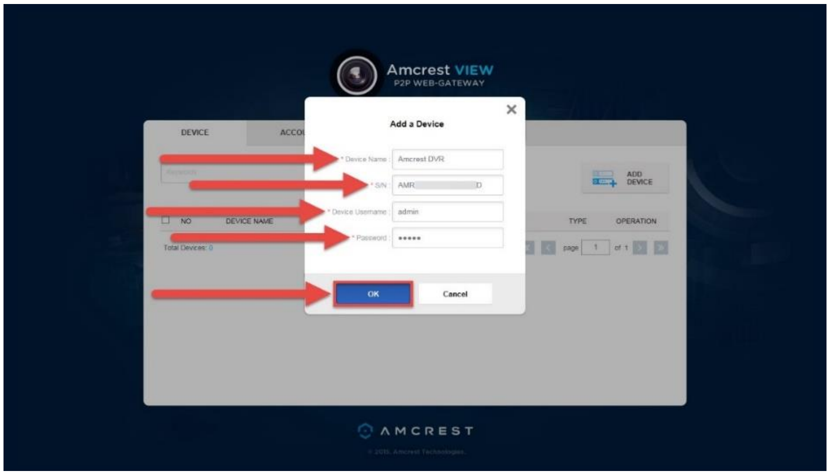
☑ Public networks, such as those in airports and coffee shops (not recommended because these networks often have little or no security)

What are the risks of allowing a program through a firewall?
Allow access
Cancel

8. You will be taken to the main screen of your account. From here, click the **Add Device** button:



9. Now you can enter your DVR's information. Enter a **Device Name** (this can be anything). Then, fill in the **S/N** (serial number) this can be found on the sticker attached to the bottom of your DVR or through the web interface. Please refer to part 6 of this guide: **Amcrest View App Setup** > **Entering serial number manually (technical method - harder)**.



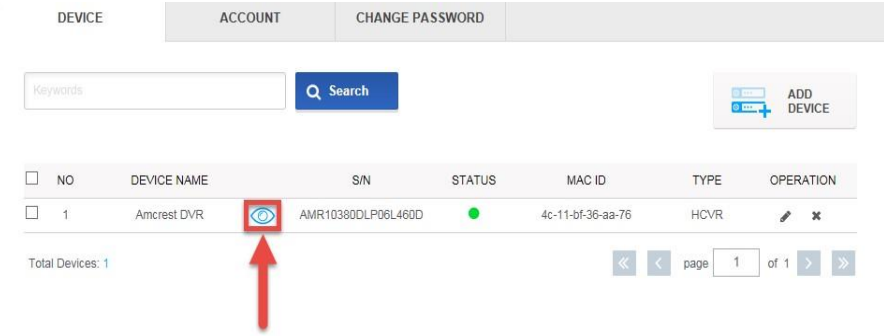
Add a Device

* Device Name : Amcrest DVR
* S/N : AMR[redacted]D
* Device Username : admin
* Password : •••••

OK

Enter your username and password for the NVR, not the username and password you just created for AmcrestView.com. To find your NVR login credentials, please refer to part 4 of this guide: **Console Setup (Login & Startup Wizard)** > **Logging in**. Finally, click **OK**:

10. You will then see your NVR added to the device list on the main screen. Click the 'eye' icon to view the live feed:

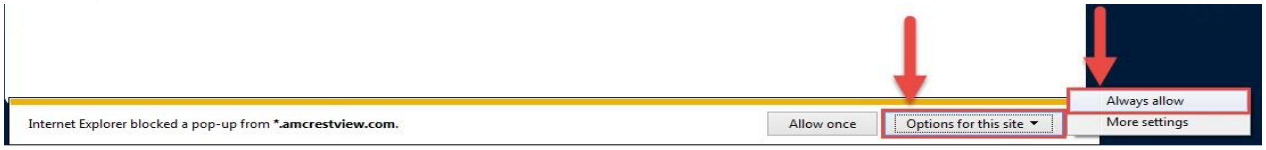


☐	NO	DEVICE NAME		S/N	STATUS	MAC ID	TYPE	OPERATION
☐	1	Amcrest DVR	👁	AMR10380DLP06L460D	●	4c-11-bf-36-aa-76	HCVR	✎ ✖

Total Devices: 1

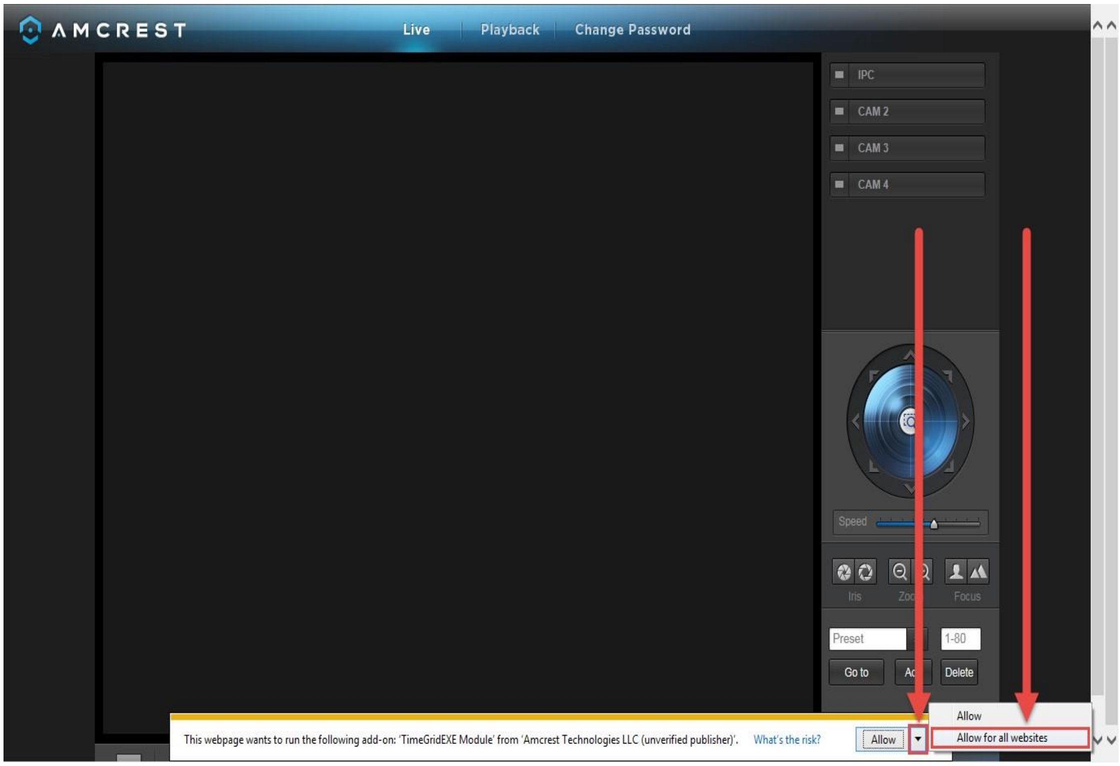
page 1 of 1

11. Your browser will give you a notification asking you to allow popups from AmcrestView.com. Click **Options for this site**, then click **Always allow**:



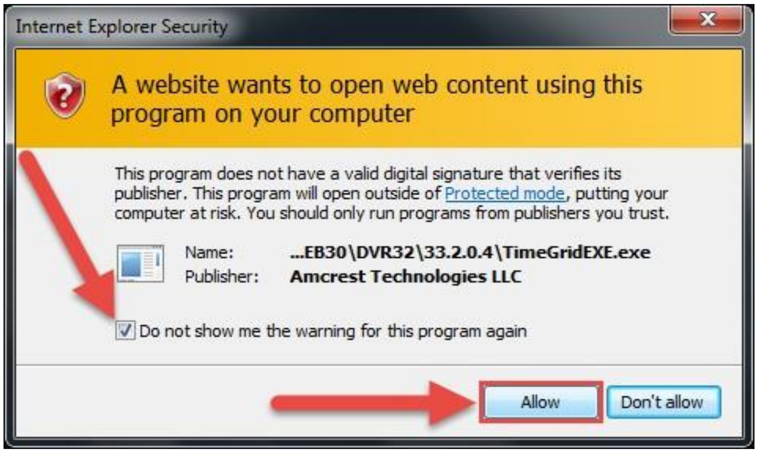
Internet Explorer blocked a pop-up from *.amcrestview.com.

12. You will be taken to the live view page and given a notification to allow the plugin to pull the video feed through here. Click the small arrow to the right of **Allow**, then click **Allow for all websites**:



This webpage wants to run the following add-on: 'TimeGridEXE Module' from 'Amcrest Technologies LLC (unverified publisher)'.

13. A final popup will appear asking you to confirm that you allow this plugin on your browser. Mark the checkbox next to **Do not show me the warning for this program again**, then click **Allow**:



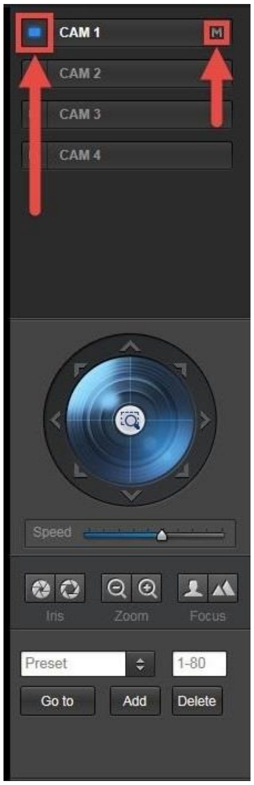
A website wants to open web content using this program on your computer

This program does not have a valid digital signature that verifies its publisher. This program will open outside of Protected mode, putting your computer at risk. You should only run programs from publishers you trust.

Name: ...EB30\DVR32\33.2.0.4\TimeGridEXE.exe
Publisher: Amcrest Technologies LLC

☑ Do not show me the warning for this program again

14. Now you can enable any of your added cameras to see their live feeds. In the top-right panel, there is a channel list. Click the small square icon to enable your feed for an added camera to see the video feed:

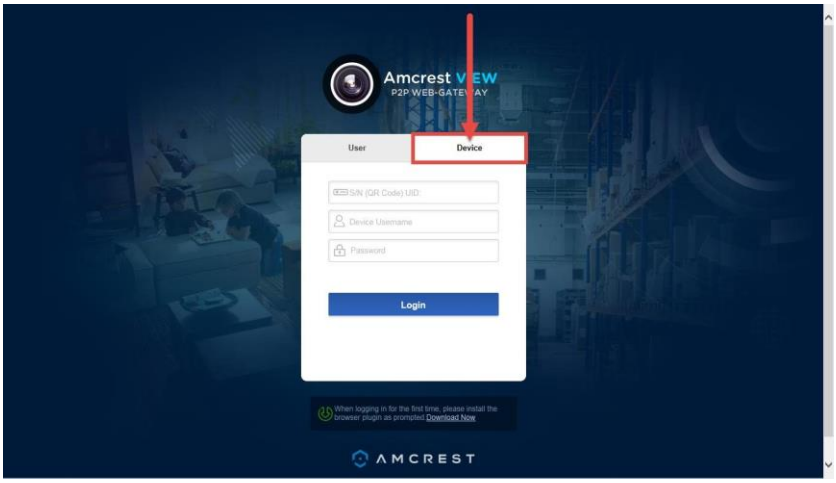


Click the "S" to change it to an "M" which stands for "Main Stream" and will give you a full HD quality video stream. To go back to "Sub Stream", for lower quality video (that works better on slower internet connections), click the "M" and change it to an "S" again.

6.3. Device method

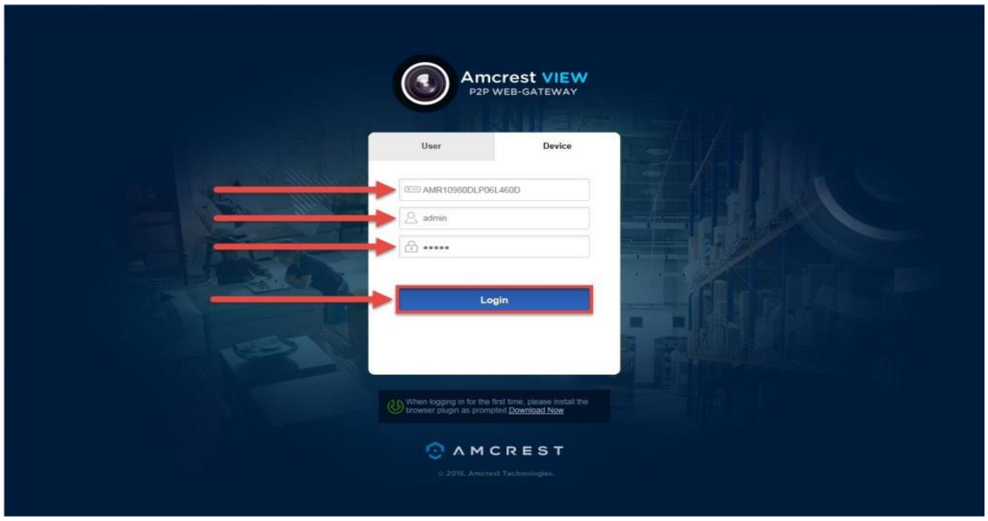
To login to your DVR quickly, without having to register, you can use the **device method**. This method still requires that you install a plugin, which is covered above, but can be done with only the NVR's login credentials and the **serial number**.

1. On the main login screen for AmcrestView.com, click the **Device** tab:



When logging in for the first time, please install the browser plugin as prompted Download Now

2. Enter your NVR’s **S/N** (serial number) into the top field, enter your NVR’s username and password, then click **Login**.



AMR10980DLP06L460D

admin

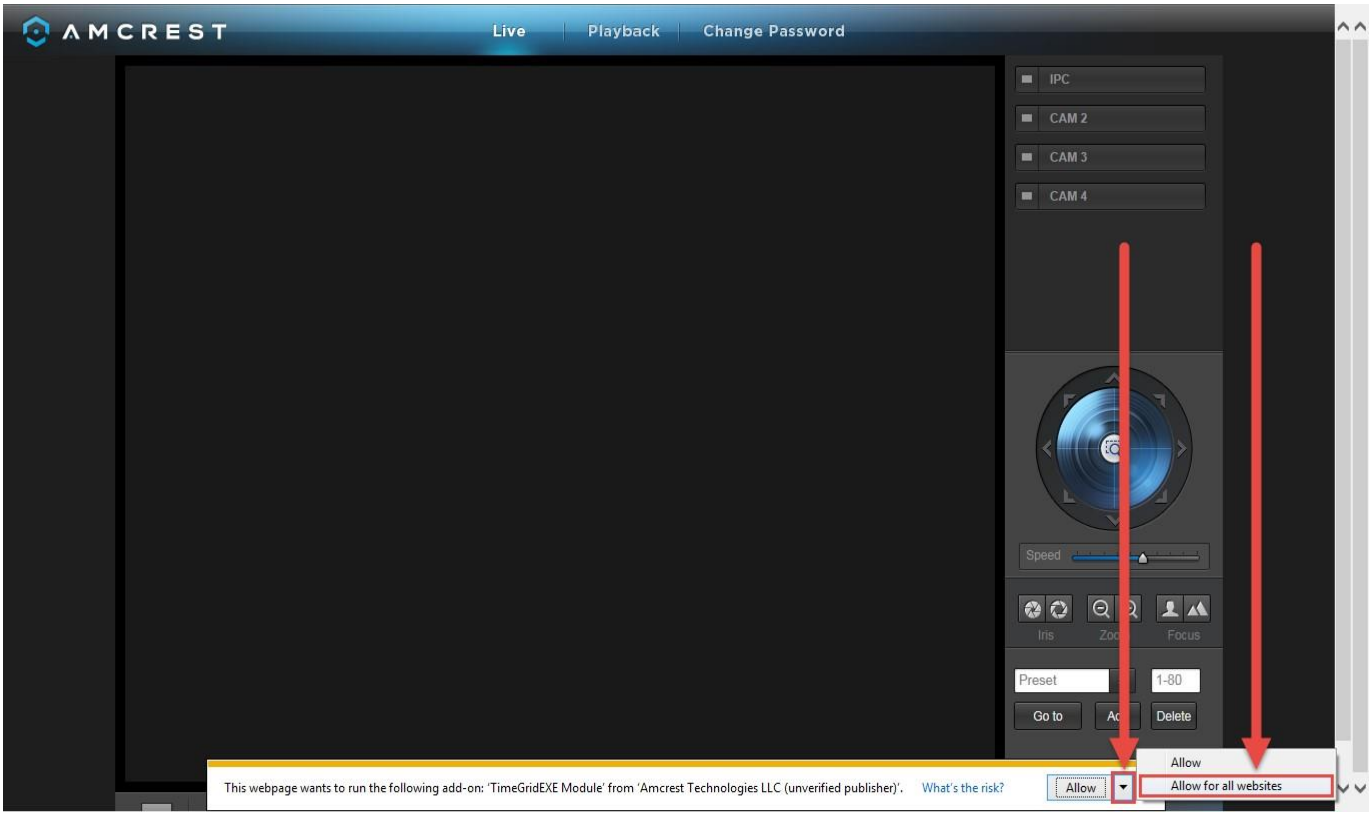
*****

When logging in for the first time, please install the browser plugin as prompted Download Now

© 2016. Amcrest Technologies.

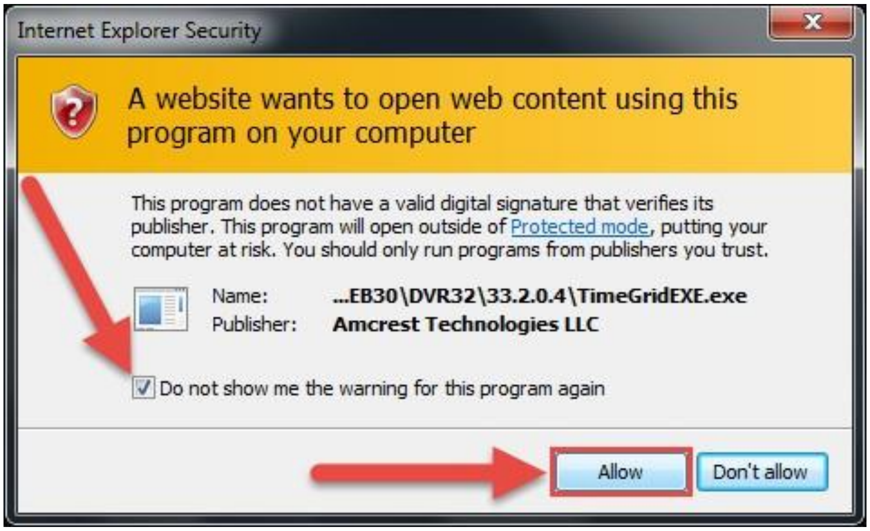
To find your NVR’s login credentials, please refer to part 4 of this guide: **Console Setup (Login & Startup Wizard)** > **Logging in**.

3. This will take you straight to the live view screen. You will see a notification from your browser asking you to allow the plugin. Click the small arrow to the right of **Allow**, then click **Allow for all websites**:



This webpage wants to run the following add-on: 'TimeGridEXE Module' from 'Amcrest Technologies LLC (unverified publisher)'.

4. You will see a popup asking you to confirm that you allow this plugin. Check the box next to **Do not show me the warning for the program again**, then click **Allow**:



Internet Explorer Security

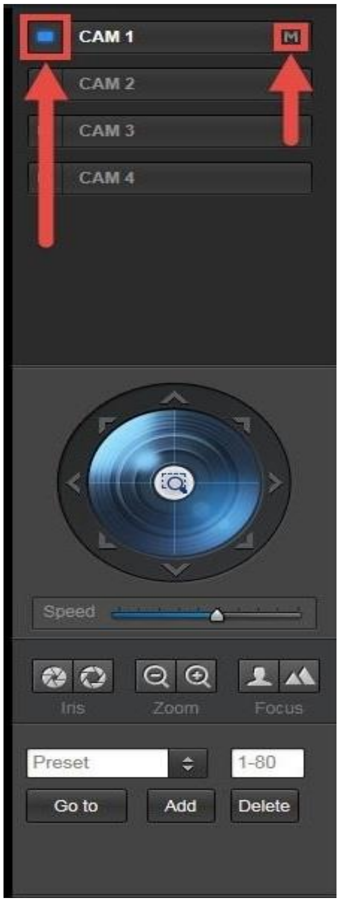
A website wants to open web content using this program on your computer

This program does not have a valid digital signature that verifies its publisher. This program will open outside of Protected mode, putting your computer at risk. You should only run programs from publishers you trust.

Name: ...EB30\DVR32\33.2.0.4\TimeGridEXE.exe
Publisher: Amcrest Technologies LLC

☑ Do not show me the warning for this program again

5. Now you can enable any of your added cameras to see their live feeds. In the top-right panel, there is a channel list. Click the small square icon to enable your feed for an added camera to see the video feed:



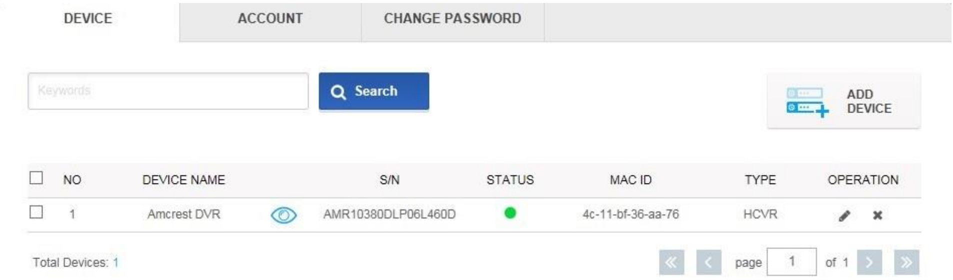
Click the “S” to change it to an “M” which stands for “Main Stream” and will give you a full HD quality video stream. To go back to “Sub Stream”, for lower quality video (that works better on slower internet connections), click the “M” and change it to an “S” again.

6.4. Amcrest View Web Interface Overview

There are two main sections inside of the Amcrest View web interface: the main **device list section** (for anyone logged in with a registered account) and the **live view section** (can be accessed by both registered users and those accessing their DVRs using the **device method** covered above.

Device list section

The device list section has 3 main tabs. The first is the **DEVICE** tab:

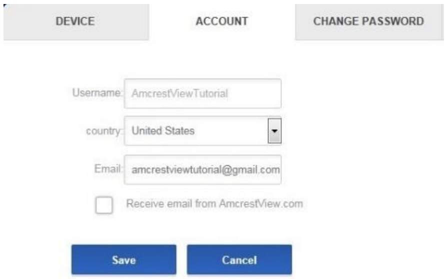


☐	NO	DEVICE NAME		S/N	STATUS	MAC ID	TYPE	OPERATION
☐	1	Amcrest DVR	👁	AMR10380DLP06L460D	●	4c-11-bf-36-aa-76	HCVR	✎ ✖

Total Devices: 1

This page shows you a list of any added devices and is where you can click the ‘eye’ icon to view your DVR’s live camera feeds. This is where you can **ADD DEVICE**, **Search**, edit, or delete your added devices.

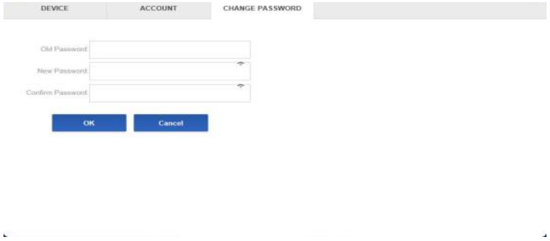
The next tab is the **ACCOUNT** tab:



Username: AmcrestViewTutorial
country: United States
Email: amcrestviewtutorial@gmail.com
☐ Receive email from AmcrestView.com

This is where you can see your **Username**, change your **Country**, see your **Email**, and enable email notifications from AmcrestView.com.

The last tab for the device list section is the **CHANGE PASSWORD** tab:

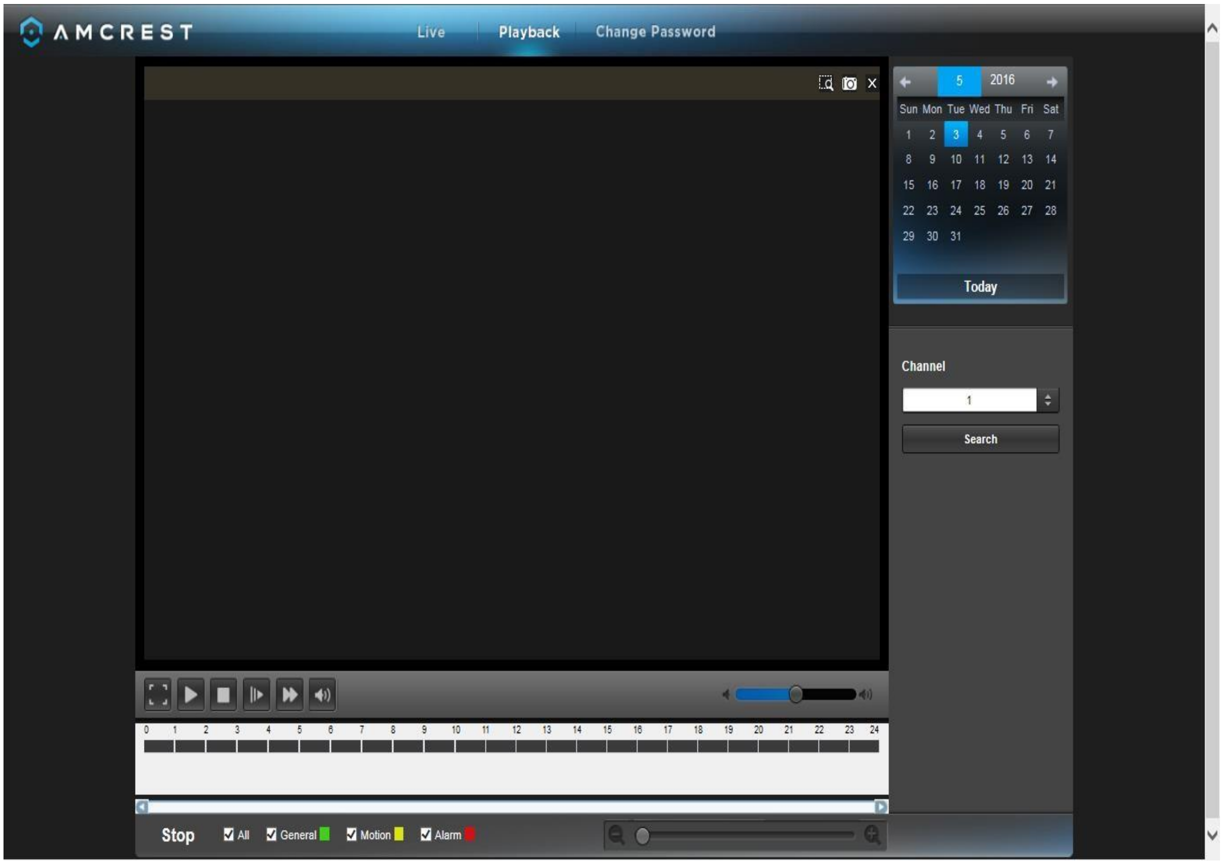


Here, you can change your password.

Live view section

The live view section is where you can see the live camera feeds and playback footage for any cameras added to your NVR. The first tab is the **Live**.

Here, you can enable the live feeds for any connected cameras, control PTZ, take snapshots, use 2-way audio, view them in full screen, and more.
The next tab is the **Playback** tab:



Here, on the right panel, there is a calendar for you to choose which day you'd like to see footage from, and you can choose a channel to select which camera you want to see footage from. The timeline on the bottom allows you to play, stop, forward, etc.

Note: Keep in mind that you can see the live feeds from your cameras whether a hard drive is installed in your DVR. However, you will need to have a hard drive installed and recordings properly configured to view the playback.

FAQs/Troubleshooting

1. The NVR does not boot up properly.

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

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

2. NVR often automatically shuts down or stops running.

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

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

3. The system does not detect a hard drive.

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

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

4. There is no video output on any of the channels.

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

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

5. Real-time video color is distorted.

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

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

6. Local Recordings are not searchable.

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

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

7. Local playback video is distorted.

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

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

8. There is no audio during real-time monitoring.

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

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

9. There is no audio during recorded video playback.

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

- Audio may not be enabled for that channel.
- The corresponding channel may not have any audio input.

10. The timestamp is not displaying the correct time.

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

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

11. PTZ control is not working.

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

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

12. Motion detection does not work.

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

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

13. Web Access isn't working.

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

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

14. Web Access live view is only displaying a static picture. Both live playback and recorded playback aren't working.

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

- The network speed is not enough 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 enough rights to monitor real-time playback.
- The NVR's local video output quality is not enough.

15. Network connection is not stable.

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

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

16. Keyboard is not working with the NVR.

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

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

17. The alarm signal cannot be disarmed.

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

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

18. Alarms are not working.

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

- The alarm is not setup correctly.
- The alarm cable is not connected correctly.
- The alarm input signal is not correctly configured.
- There are two loops connected to one alarm device.

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.

23. Forgot local menu operation password or network password

As a security measure, your device will lock your account after so many failed attempts. This is implemented to prevent unauthorized users from continually attempting to gain access to your system without consent.

If you experience a locked account issue, there are a few troubleshooting steps you can take to help resolve the problem.

1. **Power Cycle** - To power cycle the device, please remove the device from its power source and allow the device to shut down. This should take approximately **45 seconds** to complete. Once complete, plug the camera back in with its power supply and allow the device to boot back up. When the device is ready, try to connect to the device again.

2. **Wait to Unlock** - Initially, the device will be locked for a duration of 60 minutes. After the 60 minutes have passed, you will be given another round of password attempts to enter in the password correctly.
3. **Password Reset -** If the problem persists, it is highly advisable to fill out a password request form. This form can be found at https://amcrest.com/password. For more information on this issue. When completing the form, for security purposes, it will be required to provide a **proof of ownership** to help prevent unauthorized access to your device. A proof of ownership includes:
- A screenshot of the order history showing the purchase of the device.
- An image of the receipt or invoice for your purchase.
- A screenshot of the email confirmation with purchase information included.

Note: This information must be provided in common formats such as; PDF, JPG, or PNG format. Please make sure the file does not exceed **10MB**.

If the file is too large, it is advisable to either take a snip of the image, crop it, or resize it to fit these criteria. To expedite your request, please make sure the image is legible and visible enough for verification purposes.

If you have any questions or are having continued issues filling out the password reset form, please view the following instructional video at https://www.youtube.com/watch?v=20XKCXwwSlk

Maintenance Tips:

- Please use a brush to clean the motherboard, socket connectors, and the NVR chassis and keep it free of dust.
- The device should be soundly grounded in case there is an audio/video disturbance. Keep the device away from static electricity or induced electricity.
- Please unplug the power cable before you remove audio/video signal cables, RS232 cables, or RS485 cables.
- Always shut down the device properly. Please use the shutdown function in the menu or can press the power button on the front panel for at least three seconds to shut down the NVR. Incorrect shutdown may result in a hard drive malfunction.

Keep the device is away from direct sunlight or other heat sources and keep the NVR well ventilated.

Glossary

- ★ **DHCP:** DHCP (Dynamic Host Configuration Protocol) is a network protocol. It is part of the TCP/IP protocol cluster. It is principally used to assign a temporary IP addresses to computers on a network.
- ★ **DDNS:** DDNS (Dynamic Domain Name Server) is a service that maps Internet domain names to IP addresses. This service is useful to anyone who wants to operate a server (web server, mail server, ftp server, etc.) connected to the internet with a dynamic IP or to someone who wants to connect to an office computer or server from a remote location with software.
- ★ **eSATA**: eSATA(External Serial ATA) is an interface that provides fast data transfer for external storage devices. It offers the speed of a SATA interface but connects externally.
- ★ **PPPoE:** PPPoE (Point to Point Protocol over Ethernet) is a specification for connecting multiple computer users on an Ethernet local area network to a remote site. Now the popular mode is ADSL and it adopts the PPPoE protocol.
- ★ **Dual-stream:** The dual-stream technology adopts a high-rate bit stream for local HD storage such as QCIF/CIF/2CIF/DCIF/4CIF encoding and one low-rate bit stream for network transmission such as QCIF/CIF encoding. It can balance the local storage and remote network transmission. The dual stream can meet the different band width requirements of local and remote transmissions. In this way, the local transmission using the high-bit stream can achieve

HD storage and the network transmission adopting low bit stream are suitable for the fluency requirements of the 3G network such as WCDMA, EVDO, TD-SCDMA.

★ **On-off value:** This is the non-consecutive signal sampling and output. It includes remote sampling and remote output. It has two statuses: 1/0.

FCC Statement

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

(1) This device may not cause interference; and

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

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil 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)	○	○	○	○	○	○
Plastic Parts （Panel）	○	○	○	○	○	○
Circuit Board	○	○	○	○	○	○
Fastener	○	○	○	○	○	○
Wire and Cable/Ac Adapter	○	○	○	○	○	○
Packing Material	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

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:

- **This manual is for reference only. Slight differences may be found in the user interface.**
- **All the designs and software here are subject to change without prior written notice.**
- **All trademarks and registered trademarks are the properties of their respective owners.**
- **If there is any uncertainty or controversy, please refer to us for the final explanation.**
- **Please visit our website (amcrest.com) or contact your local service engineer for more information.**

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