



Amcrest Network Video Recorder

NV2108E

User's Manual

V 3.6.1

Amcrest NV2108E



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Welcome

Thank you for purchasing our Amcrest network video recorder! This user's manual is designed to be a reference tool for your system.

Please open the accessory bag to check the items one by one in accordance with the included packing list. Contact your local retailer ASAP if something 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

Keep upright. Handle with care.

Do not apply power to the NVR 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 repair.

5. Environment

The NVR 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 environment needs to comply with the following conditions:

- The function of the ITE with concerns to IEC 60950-1 is considered not likely to require a connection to an Ethernet network with an outside power source, including campus environment.
- The installation instructions clearly state that the ITE is to be connected only to PoE networks without routing to outside power sources.

6. Accessories

Be sure to use only the accessories recommended by manufacturer.

Before installing, please open the package and check that all the components are included. Contact your local retailer ASAP if something is broken or missing in your package.

7. Lithium battery

Improper battery use may result in fire, explosion, or personal injury!

When replacing the battery, please make sure you are using the same model!

CAUTION:

RISK OF EXPLOSION IF THE BATTERY IS REPLACED WITH AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

Before operating, please read the following instructions carefully.

● **Installation environment**

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

- **Please refer to the packing list in the box to ensure all accessories are present.**

1 Features and Specifications

1.1 Overview

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

This series product 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, this series product creates a strong surveillance network. This system utilizes standard network cable to connect the cameras to the NVR. The existing infrastructure can be used to accomplish this avoiding the installation of multiple wires. The whole project is uses simple connections, is low-cost, and requires little maintenance.

This series NVR can be used in many areas such as public security, water conservation, transportation, education, etc.

1.2 Features

Real-time Surveillance	<ul style="list-style-type: none">□ Connect a monitor to the HDMI or VGA port to watch what is going on in real-time. Some series support TV/VGA/HDMI output at the same time.□ Shortcut menu to multiple options while previewing.□ Supports popular PTZ decoder control protocols. Supports presets, tours, and patterns.
Playback	<ul style="list-style-type: none">□ Supports simultaneous real-time recording and search, playback, network monitor, record search, download, etc for each channel.□ Supports various playback modes: slow play, fast play, backward play, and frame by frame play.□ Supports time title overlay so that you can accurately determine when events occur.□ Supports specified zone enlargement.
User Management	<ul style="list-style-type: none">□ Each group has different management rights that can be edited freely. Every user belongs to an exclusive group.
Storage	<ul style="list-style-type: none">□ Via a corresponding setup (such as alarm setup and schedule setup), you can backup related audio/video data on the network video recorder.□ Supports Web recording, recording local video, and storing files on the client end.
Alarm	<ul style="list-style-type: none">□ Responds to external alarms simultaneously (within 200MS), and based on user's pre-defined relay setup, the system can process the alarm input and prompt the user by screen and voice (supports pre-recorded audio).□ Supports a central alarm server setup, so that alarm information can remotely notify users automatically. Alarm input can be derived from various connected peripheral devices.□ Alerts you remotely via email.

Network Monitor	<ul style="list-style-type: none"> □ 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. □ Transmits some alarm data or alarm info via SNMP. □ Supports WEB access over WAN/LAN.
Window Split	<ul style="list-style-type: none"> □ Adopts video compression and digital processing to show several windows in one monitor. Supports 1/4/8/9/16/25/36-window display during preview and 1/4/9/16-window display during playback. (Window split amount varies based on model)
Record	<ul style="list-style-type: none"> □ Supports normal/motion detection/alarm recording functions. Saves the recorded files on the HDD, USB device, client-end PC, or network storage server. You can search or playback the saved files at the localend or via the Web/USB device.
Backup	<ul style="list-style-type: none"> □ Supports network backup and USB2.0 backup functions. The recorded files can be saved on a network storage server, peripheral USB2.0 device, burner, etc.
Network Management	<ul style="list-style-type: none"> □ Supervise NVR configuration and control power via Ethernet. Supports management via WEB interface.
Peripheral Equipment Management	<ul style="list-style-type: none"> □ Supports peripheral equipment management such as protocol setup and port connection. □ Supports transparent data transmission such as RS232 (RS-422), RS485 (RS-485).
Auxiliary	<ul style="list-style-type: none"> □ Supports switching between NTSC and PAL. □ Supports real-time system resources information and running statistics display. □ Supports log files. □ Local GUI output. Shortcut menu operations via mouse. □ IR control function (for some series product only). Shortcut menu operation via remote control. □ Supports IPC or NVS remote video preview and control.

1.3 Specifications

1.3.1 NVR11H/11H-P Series

Model		11H Series	11H-P Series
System	System Resources	4/8-ch series product supports 4/8 HD connections respectively. Total bandwidth supports 28/56Mbps respectively.	

	OS	Embedded Linux real-time operating system
	Operation Interface	WEB/Local GUI

Model		11H Series	11H-P Series
Decode	Video Decode Type	H.264/MJPEG	
	Decode Capability	Max 2-ch 1080P 30fps or 4-ch 720P 30fps or 8-ch D1 30fps	
Video	Video Input	4/8-ch network compression video input	
	Video Output	1-channel VGA analog video output	
	HDMI	1-ch HDMI output. Version number is 1.4	
	Window Split	1/4/8-window	
Audio	Audio Input	1-ch bidirectional talk input	
	Audio Output	1-ch bidirectional talk output	
	Audio Compression Standard	G.711a	
Alarm	Alarm Input	N/A	
	Alarm Output	N/A	

Function	Storage	1 built-in SATA port
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	Multiple-Channel Playback	Max 8-channel D1 or 4-channel 720P or 2-channel 1080P playback
Port and Indicator	RS232 Port	N/A
	RS485 Port	N/A
Model		11H Series 11H-P Series
	USB Port	2 peripheral USB2.0 ports.
	Network Connection	1 RJ45 10/100Mbps self-adaptive Ethernet port.
	PoE	N/A 4
	Power Port	1 power socket. Power adapter supplies DC 12V power. 1 power socket. Power adapter supplies DC 48V power.
	Power Button	N/A
	Power On-off Button	N/A
	IR Receiver Window	N/A
	Clock	Built-in clock.
	Indicator Light	One power status indicator light. One network status indicator light. One HDD status indicator light.

General	Power Consumption	<10W (Excludes HDD)
	Working Temperature	- 10°C ~ + 55°C
	Working Humidity	10%~90%

	Air pressure	86kPa~106kPa
	Dimension	325mm×250.58mm×51mm
	Weight	0.5kg~1kg (Excludes HDD)
	Installation Mode	Desk installation

3.2 NVR21H-S2/21H-P-S2/21H-8P-S2

Model		21H-S2 Series	21H-P-S2 Series	21H-8P-S2
System	System Resources	4/8-ch series product support 4/8 HD connection respectively. Total bandwidth supports 80Mbps.		
	OS	Embedded Linux real-time operation system		
	Operation Interface	WEB/Local GUI		
Decode	Video Decode Type	H.264		
	Decode Capability	Max: 2-ch 4MP 30fps or 4-ch 4MP 15fps or 4-ch 3MP 20fps or 4-ch 1080P 30fps or 8-ch 720P 30fps		
Video	Video Input	4/8-ch network compression video input		
	Video Output	1-channel VGA analog video output		
	HDMI	1-ch HDMI output. Version number is 1.4		

	Window Split	1/4/8/9-window		
Audio	Audio Input	1-ch bidirectional talk input		
	Audio Output	1-ch bidirectional talk output		
	Audio Compression Standard	G.711a		
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
Function	Storage	1 built-in SATA port		
	Multiple-Channel Playback	Max 4-channel 1080P or 8-channel 720P		
Port and Indicator	RS232 Port	N/A		
	RS485 Port	N/A		
	USB Port	2 peripheral USB2.0 ports.		
	Network Connection	1 RJ45 10/100Mbps self-adaptive Ethernet port.		
	PoE Port	N/A	4	8
	Power Port	1 power socket. Power adapter power supplying mode. DC 12V	1 power socket. Power adapter power supplying mode. DC 48V	1 power socket. Power adapter power supplying mode. DC 48V
Model		21H-S2 Series	21H-P-S2 Series	21H-8P-S2
		power.	power.	power.
	Power Button	1 button		
	Power On-off Button	N/A		
	IR Receiver Window	N/A		
	Clock	Built-in clock.		
	Indicator Light	One power status indicator light. One network status indicator light. One HDD status indicator light.		
General	Power Consumption	<10W (Exclude HDD)		

	Working Temperature	- 10°C ~ + 55°C
	Working Humidity	10%~90%
	Air pressure	86kPa~106kPa
	Dimension	325mm×250.58mm×51mm
	Weight	0.5kg~1kg (Exclude HDD)
	Installation Mode	Desk installation

1.3.3 NVR41H/41H-8P Series

Model		41H Series	41H-8P Series
System	System Resources	4/8/16-ch series product support 4/8/16 HD connection respectively. Total bandwidth supports 28/56/80Mbps respectively.	
	OS	Embedded Linux real-time operation system	
	Operation Interface	WEB/Local GUI	
Decode	Video Decode Type	H.264/MJPEG/MJPEG4	
	Decode Capability	Max 2-ch 5M 25fps or 4-ch 3M 25fps or 4-ch 1080P 30fps or 8-ch 720P 30fs	
Video	Video Input	4/8/16-ch network compression video input	
	Video Output	1-channel VGA analog video output	

Model		41H Series	41H-8P Series
	HDMI	1-ch HDMI output. Version number is 1.4	
	Window Split	1/4/8/9/16-window	
Audio	Audio Input	1-ch bidirectional talk input	
	Audio Output	1-ch bidirectional talk output	
	Audio Compression Standard	G.711a	

Alarm	Alarm Input	N/A	2-channel
	Alarm Output	N/A	2-channel
Function	Storage	1 built-in SATA port	
	Multiple-Channel Playback	Max 4-channel 1080P playback	
Port and Indicator	RS232 Port	N/A	
	RS485 Port	N/A	
	USB Port	2 peripheral USB2.0 ports.	
	Network Connection	1 RJ45 10/100Mbps self-adaptive Ethernet port.	
	PoE Port	N/A	8
	Power Port	1 power socket. Power adapter power supplying mode. DC 12V power.	1 power socket. Power adapter power supplying mode. DC 48V power.
	Power Button	1 button	
	Power On-off Button	N/A	
	IR Receiver Window	N/A	
	Clock	Built-in clock.	
	Indicator Light	One power status indicator light. One network status indicator light. One HDD status indicator light.	
General	Power Consumption	<10W (Exclude HDD)	
	Working Temperature	- 10°C ~ + 55°C	
	Working	10%~90%	
Model		41H Series	41H-8P Series
	Humidity		
	Air pressure	86kPa~106kPa	
	Dimension	325mm×250.58mm×51mm	

	Weight	0.5kg~1kg (Exclude HDD)
	Installation Mode	Desk installation

1.3.4 NVR44-16P Series

Model		NVR44-16P Series
System	System Resources	32-channel series product supports 32-channel HD connections. The main stream bandwidth supports 200Mbps.
	Operation System	Embedded Linux real-time operation system
	Operation Interface	WEB/Local GUI
Decode	Video Compression	H.264/MJPEG/MPEG4
	Decode Capacity	Max supports 16-channel 720P, or 8-channel 1080P, or 4-channel 3MP 15fps, or 4-channel 4MP 2fps, or 2-channel 5MP 8fps.
Video	Video Input	32-ch network compression video input

	Video Output	1-channel VGA analog video output.
	HDMI	1-ch HDMI output. Version number is 1.4
	Window Split	1/4/8/9/16-window
Audio	Audio Input	1-ch bidirectional talk input
	Audio Output	1-ch bidirectional talk output
	Audio Compression	G.711a
Alarm	Alarm Input	16-ch alarm input
	Alarm Output	4-ch alarm output Relay output. Relay (DC 30V /1A, AC 125V/0.5A (Activation output)) Including one controllable DC +12V output.
Function	Storage	4 built-in SATA ports. 1 external eSATA port.
	Multi-channel Playback	Max supports 16-channel 720P, or 8-channel 1080P, or 4-channel 3MP 15fps, or 4-channel 4MP 2fps, or 2-channel 5MP 8fps.
Port and Indicator	RS232 Port	One RS232 port to debug transparent COM data.
	RS485 port	One RS485 port to control PTZ. Support various protocols.

	USB2.0 Port	2 peripheral USB2.0 ports. One at the front panel and one at the rear panel.
	Network	One RJ45 10/100/1000Mbps self-adaptive Ethernet port.
	Connection	16 RJ45 10/100 POE+ Ethernet ports for local cameras.
	Power Port	One power port. Input 100-240V, 50~60Hz.
	Power Button	One button. At the rear panel.
	Power On-off Button	One button. At the front-panel.
	IR Receiver Window	Support IR remote control
	Clock	Built-in clock.
General	Indicator Light	One power status indicator light. One network status indicator light. One HDD status indicator light.
	Power Consumption	<30W(Exclude HDD)
	Working Temperature	-10°C~+55°C
	Working Humidity	10%—90%
	Air pressure	86kpa—106kpa

	Dimension	1.5U, 440mm x 460mm x 68mm
	Weight	5kg~6kg (Exclude HDD)
	Installation	Desk installation

Front Panel and Rear Panel

2


2.1 Front Panel

2.1.1 NVR11H/11H-P/21H-S2/21H-P-S2/21H-8P-S241H/41H-8P Series

The front panel is shown as in Figure 2-1.

Figure 2-1

Please refer to the following sheet for detailed information.

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 DVR 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 DVR receives a signal from the remote, the light will blink.
7	POWER	Power indicator	When DVR is on, the light is on.
8	IR	IR Receiver	It is to receive the signal from the remote control.
9	ESC	ESC	Go to previous menu, or cancel current operation.
			When playback, click it to restore real-time monitor mode.
10	FN	Assist	One-window monitor mode, click this button to display assistant function: PTZ control and image color.
			Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the cursor.
			In motion detection setup, working with Fn and direction keys to assist the setup.
			In text mode, click it to switch between numeral, English character(small/capitalized) and etc.

SN	Icon	Name	Function
			Utilize other special functions.
11	Enter	ENTER	Confirm current operation
			Go to default button
			Go to menu
12			
	▲, ▼	Up Down	Activate 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,
			When playback, click these buttons to control playback bar.

2.1.2 NVR44-16P Series

The front panel is shown as in Figure 2-2

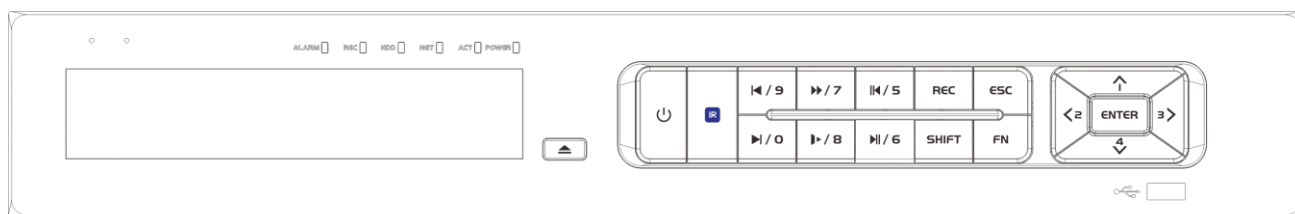









Figure 2-2

Please refer to the following sheet for front panel button information.

Name	Icon	Function
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 and 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,
		When playback, click these buttons to control playback bar. In text mode, input number 2(English character A/B/C) /3(English character D/E/F) .

ESC	ESC	Go to previous menu, or cancel current operation.
		When playback, click it to restore real-time monitor mode.

Enter	ENTER	Confirm current operation
		Go to default button
		Go to menu
Record	REC	Manually stop/start recording, working with direction keys or numeral keys to select the recording channel.
Slow play/8		Multiple slow play speeds or normal playback. In text mode, input number 8 (English character T/U/V).
Assistant	Fn	One-window monitor mode, click this button to display assistant function: PTZ control and image color.
		Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the cursor.
		In motion detection setup, working with Fn and direction keys to realize setup.
		In text mode, click it to switch between numeral, English character (small/capitalized) and etc.
		Realize other special functions.
Fast play/7		Various fast speeds and normal playback. In text mode, input number 7 (English character P/Q/R/S).
Play previous/0		In playback mode, playback the previous video In text mode, input number 0.
Reverse/Pause/6		In normal playback or pause mode, click this button to reverse playback In reverse playback, click this button to pause playback.
Play Next/9		In playback mode, playback the next video In menu setup, go to down ward of the dropdown list. In text mode, input number 9 (English character W/X/Y/Z)
Play/Pause /5		In normal playback click this button to pause playback In pause mode, click this button to resume playback. In text mode, input number 5(English character J/K/L).
USB port		To connect USB storage device, USB mouse.

Network abnormal indicator light	Net	Network error occurs or there is no network connection, the light becomes red to alert you.
HDD abnormal indicator light	HDD	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.
Record light	1-16	System is recording or not. It becomes on when system is recording.

2.2 Rear Panel

2.2.1 NVR11H/11H-P/21H-S2/21H-P-S2/21H-8P-S241H/41H-8P Series

The NVR11H/41H rear panel is shown as in Figure 2-3.

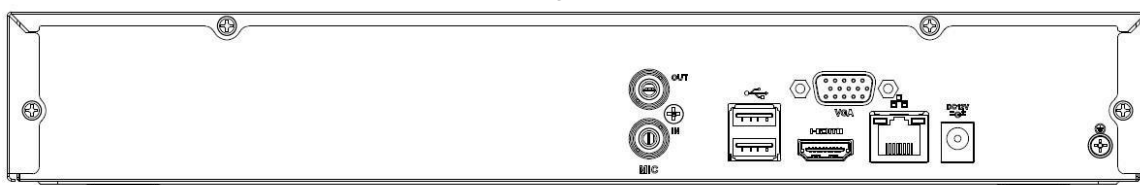


Figure 2-3

The NVR11H-P panel is shown as in Figure 2-4.

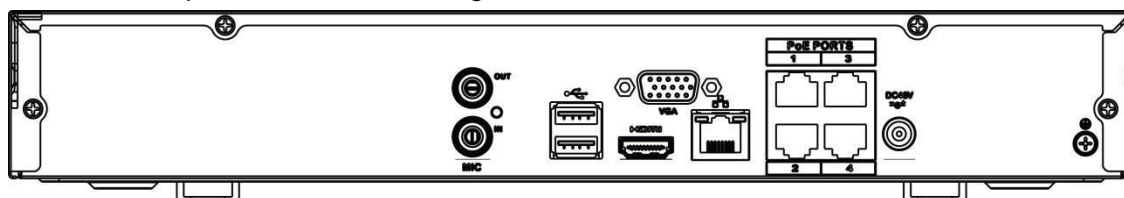


Figure 2-4

The NVR41H-8P rear panel is shown as in Figure 2-5.

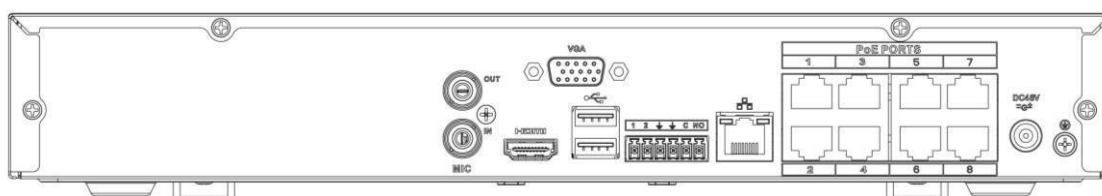


Figure 2-5

2.2.2 NVR44-16P Series

The NVR44-16P series rear panel is shown as below. See Figure 2-6

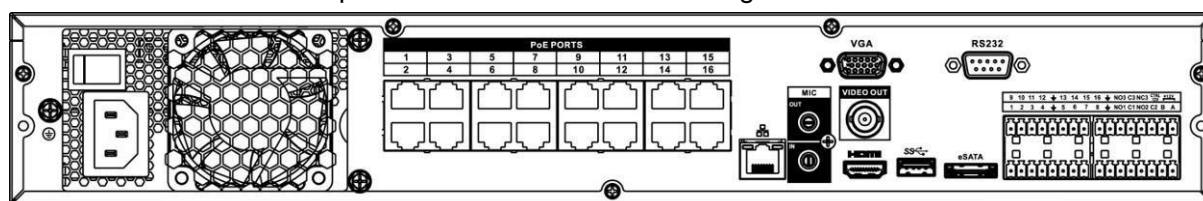



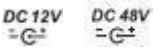


Figure 2-6

Please refer to the following sheet for detailed information.

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
	Power input port	Power socket. <ul style="list-style-type: none"> ● For NVR11H series, inputs DC 12V/2A. ● For NVR11H-P series, inputs DC 48V/1.25A. ● For NVR41H-8P series, inputs DC 48V/2A.
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. <ul style="list-style-type: none"> ● 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.

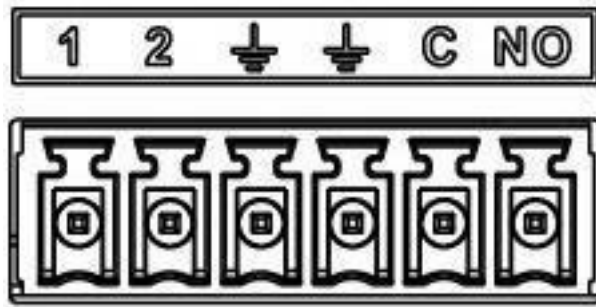



Figure 2-6


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.

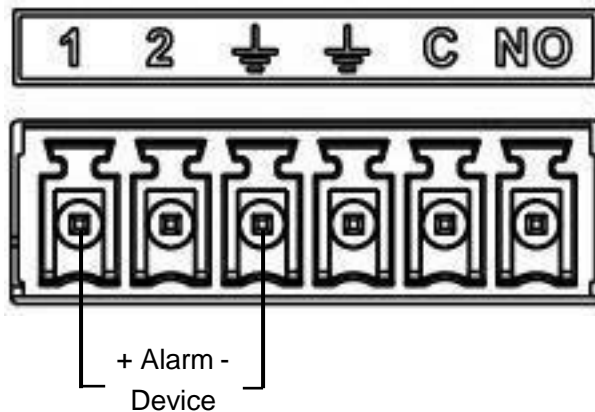



Figure 2-7

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	50×10 ⁶ MIN (3Hz)
	Electrical	200×10 ³ MIN (0.5Hz)
Temperature	-40°C ~+70°C	

2.4 Bidirectional talk

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. See Figure 2-8.



Figure 2-8

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. See Figure 2-9.

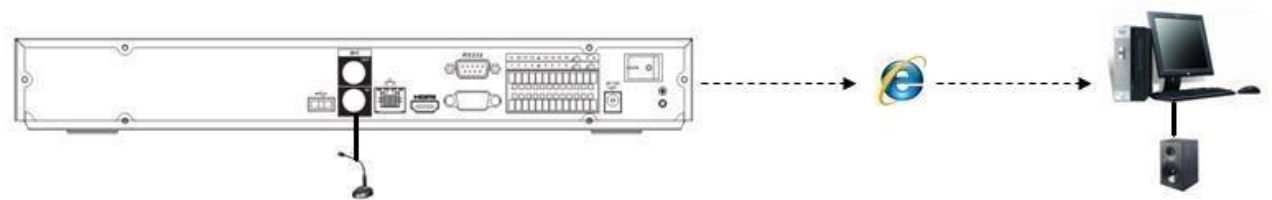


Figure 2-9

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 (Figure 2-8) to enable bidirectional talk.

Listening Operation

At the PC-end, speak through the microphone, and then you can hear the audio through the headphones or speakers at the device-end. See Figure 2-10.

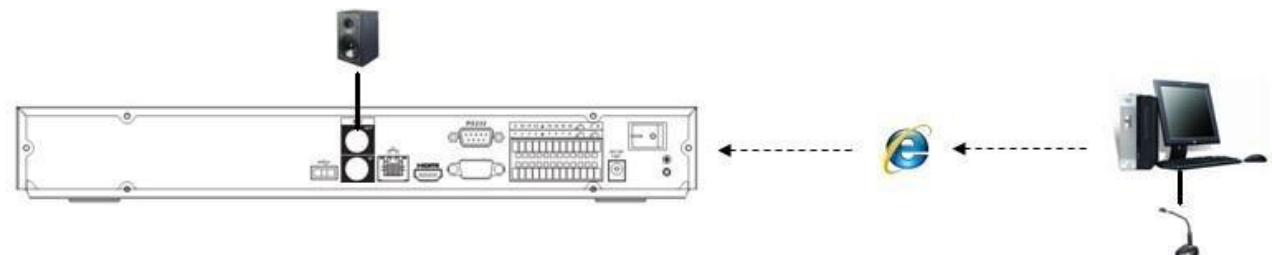



Figure 2-10

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
	<p>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.</p> <p>In English input mode: _ stands for inputting a space icon and ← stands for deleting the previous character.</p>  <p>In numeral input mode: _ stands for clear and ← stands for deleting the previous numeral.</p>
Double left mouse click	<p>Implement special control operations such as double click one item in the file list to playback the video.</p> <p>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.</p>
Right click mouse	<p>In real-time monitor mode, this pops up a shortcut menu.</p> <p>Exit the current menu without saving any modifications.</p>
Scroll middle button	<p>In a numeral input box: Increase or decrease the numeral value.</p> <p>Switch the items in the check box.</p> <p>Page up or page down</p>
Move mouse	Select current control or move control
Drag mouse	<p>Select the motion detection zone</p> <p>Select the privacy mask zone</p>

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 DVR 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

Important: Please turn off the power before you install or replace the HDD.

This unit comes with a HDD already installed so this is only needed in order to replace a HDD.

You can refer to the Appendix for HDD space information and recommended HDD brand. Please use HDD of 7200rpm or higher. **Usually we do not recommend PC HDDs.** Please follow the instructions below to install the hard disk.

3.2.1 NVR11H/11H-P/41H-8P Series



1. Loosen the screws on the rear panel and side panels.	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 tighten the screws in firmly into in the chassis.	5. Attach the HDD securely.	6. Connect the HDD cable and power cable.
--	-----------------------------	---



7. Put the cover on in accordance with the clip and replace the upper cover back.	8. Secure the screws in the rear panel and the side panels.
---	---

3.3 Sample Connection

3.3.1 NVR11H/11H-P/41H-8P Series

Please refer to Figure 3-1 for a sample connection.

Here we take the NVR41H as an example.

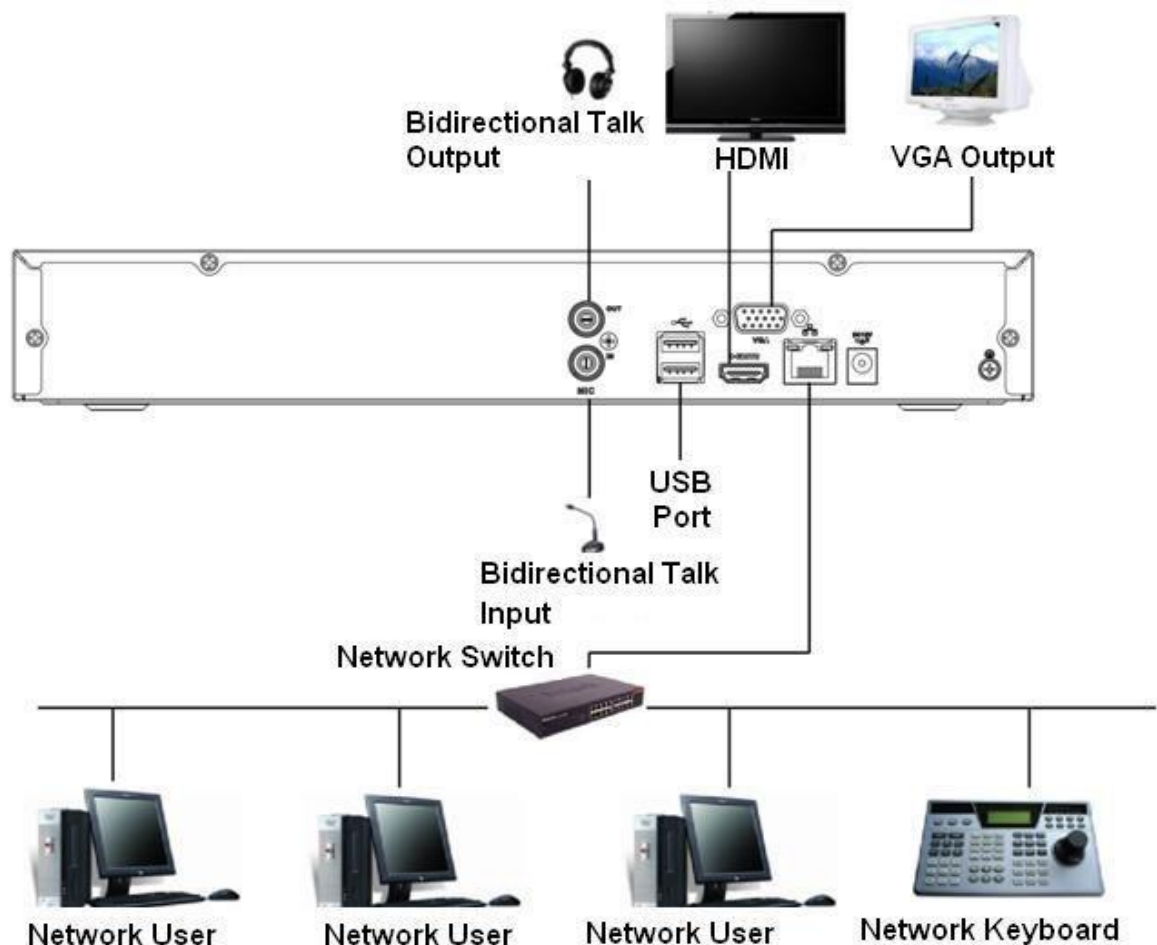


Figure 3-1

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.
 - Click the power button at the front or rear panel and then boot up the device. After the device has booted up, the system is in multiple-channel display mode by default.
- 4.1.2 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 shutdown the device directly when device is running (especially when it is recording.)

There are two ways for you to shutdown the NVR:

a) Main Menu (**RECOMMENDED**)

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

b) From the power on-off button on the remote control.

Press the power on-off button on the remote control for more than 3 seconds to shutdown the device.

4.2 Startup Wizard

After the device has successfully booted up for the first time, it goes to the startup wizard.

Click the Next button, and you can see the system goes to the login interface. If the Cancel button is clicked the startup wizard is skipped. These settings can then be setup manually.

Tips

Check the Startup option, and the system goes to the startup wizard again when it boots up the next time. Uncheck the Startup option, and the system goes to the login interface directly when it boots up the next time.

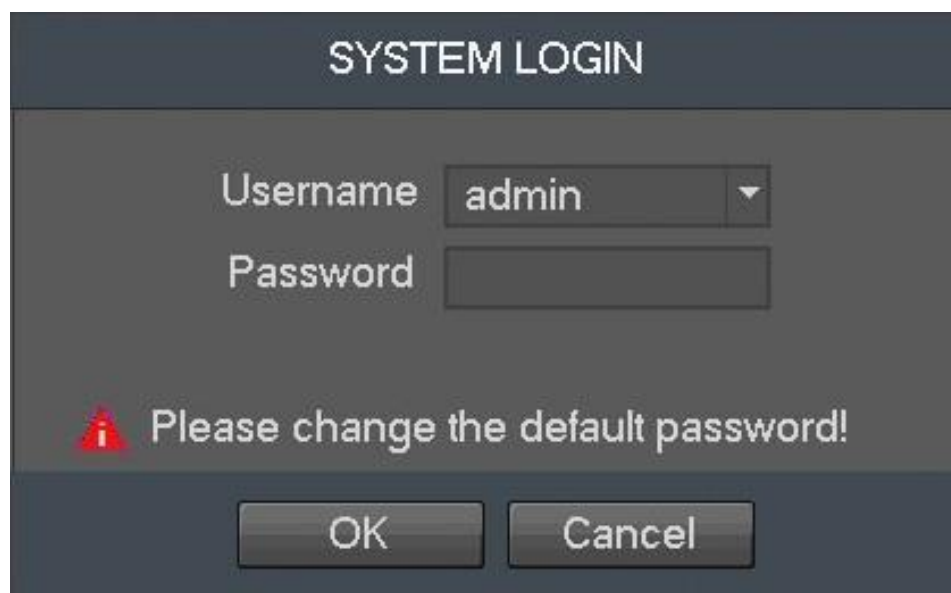


Figure 4-1

Click Cancel or Next; the system goes to the login interface. See Figure 4-2.

The system has two accounts:


- **Username:** admin. **Password:** admin. (administrator, local and network)
- **Username:** default. **Password:** default (hidden user). 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.



SYSTEM LOGIN

Username

Password

 Please change the default password!

OK Cancel

Figure 4-2

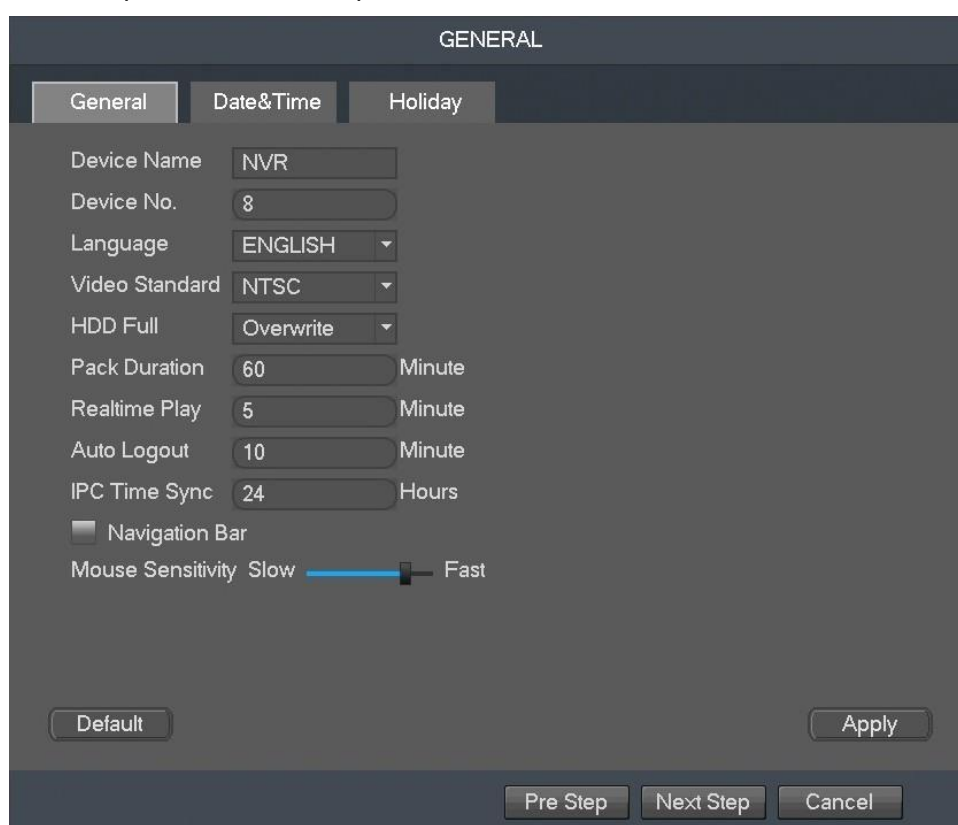
Note:

For security reasons, please modify the password after you first login.

Three failed logins within 30 minutes will result in a system alarm and five failed logins will result in an account lock!

Click the OK button to login and go to the General interface. See Figure 4-3.

For detailed information, please refer to chapter 4.14.1.



GENERAL

General Date&Time Holiday

Device Name

Device No.

Language

Video Standard

HDD Full

Pack Duration Minute

Realtime Play Minute

Auto Logout Minute

IPC Time Sync Hours

☐ Navigation Bar

Mouse Sensitivity Slow Fast

Default Apply

Pre Step Next Step Cancel

Figure 4-3

Click the Next button to go to the Network interface. See Figure 4-4.

For detailed information, please refer to chapter 4.12.

NETWORK

MTU: 1500

☐ LAN Download

IP Version: IPv4

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

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

Default Pre Step Next Step Cancel

Figure 4-4

Click the Next button to go to the Remote Device interface. See Figure 4-5.

For detailed information, please refer to chapter 4.5.1.

REMOTE DEVICE

0	Modify	IP Address	Port	Device Name	MAC Address
---	--------	------------	------	-------------	-------------

Device Search Add Display Filter: None

Added Device

Channel	Modify	Delete	Status	IP Address	Port	Device Name
1			●	10.1.1.128	Port 1	
3			●	10.1.1.129	Port 5	
4			●	192.168.2.50	8091	
5			●	192.168.2.52	8093	
8			●	192.168.2.51	8092	

Delete Manual Add

Pre Step Next Step Cancel

Figure 4-5

Click the Next button to go to the Schedule interface. See Figure 4-6.
For detailed information, please refer to chapter 4.8.2.

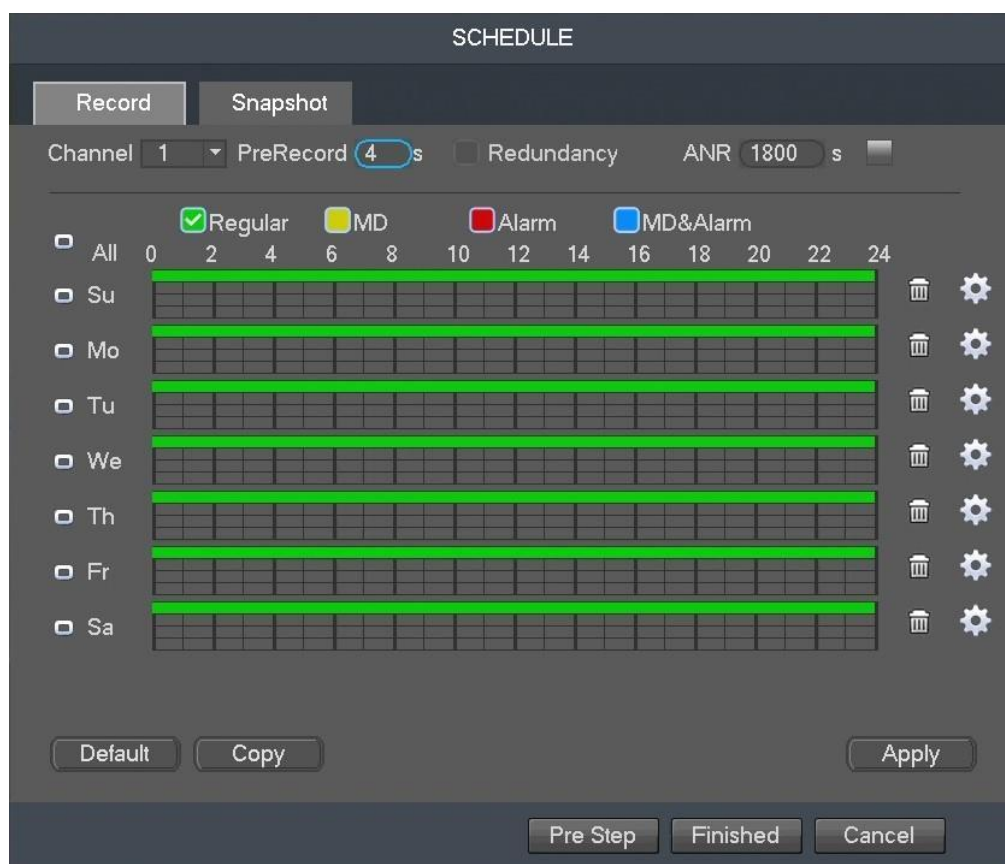


Figure 4-6

Click the Finished button and the system pops up a dialogue box. Click the OK button, and the startup wizard is complete. See Figure 4-7.

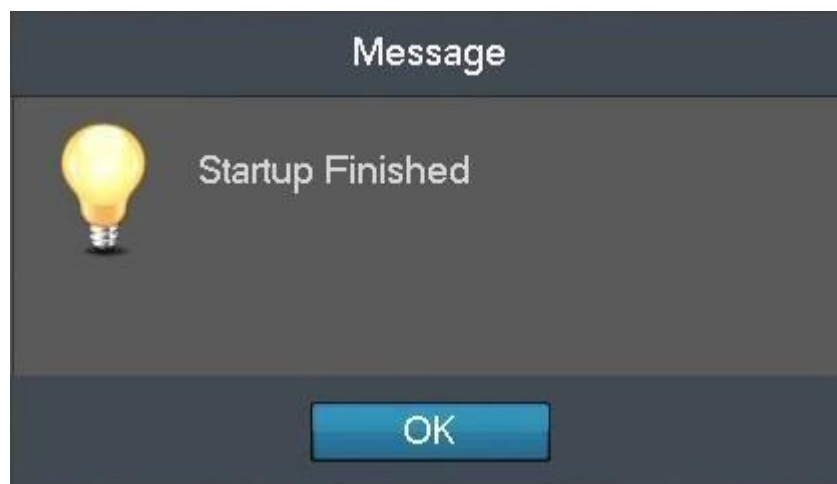


Figure 4-7

4.3 Navigation Bar


You need to go to the Main Menu->Setting->System->General to enable the navigation bar function; otherwise you cannot see the following interface. While on the main view, left click to show the navigation bar.

The navigation bar is shown as below. See Figure 4-8.



Figure 4-8

4.3.1 Main Menu

Click the  button to go to the Main Menu interface.


4.3.2 Multiview

Click the corresponding button to show the desired channel view.


4.3.3 Tour

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


4.3.4 PTZ

Click  and the system shows the PTZ control interface. Please refer to chapter 4.7.1.


4.3.5 Color

Click  and the system shows the color interface. Please refer to chapter 4.6.4.1.
Please make sure the system is in one-channel mode.


4.3.6 Search

Click  and the system shows the search interface. Please refer to chapter 4.9.2

4.3.7 Alarm Status

Click  and the system shows the alarm status interface. This is to view the device and channel status.
Please refer to chapter 4.15.1.4.

4.3.8 Channel Info

Click  and the system shows the channel information setup interface. This is to view the information of the corresponding channel. See Figure 4-9.









DEVICE STATUS						
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

Figure 4-9


4.3.9 Remote Device

Click  and the system shows the remote device interface. Please refer to chapter 4.4


4.3.10 Network

Click  and the system shows the network interface. This is to set network IP address, default gateway, etc. Please refer to chapter 4.12.

4.3.11 HDD Manager

Click  and the system shows the HDD manager interface. This is to view and manage HDD information. Please refer to chapter 4.13.1.

4.3.12 USB Manager

Click  and the system shows the USB Manager interface. This is to view USB information, backup, and update. Please refer to chapter 4.10.1 for file backup, chapter 4.10.3 for the backup log, chapter 4.10.2 for import/export, and chapter 4.15.4 for upgrade detailed information.

4.4 Smart Add

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

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

- From the startup wizard, click Smart add button. See Figure 4-10.

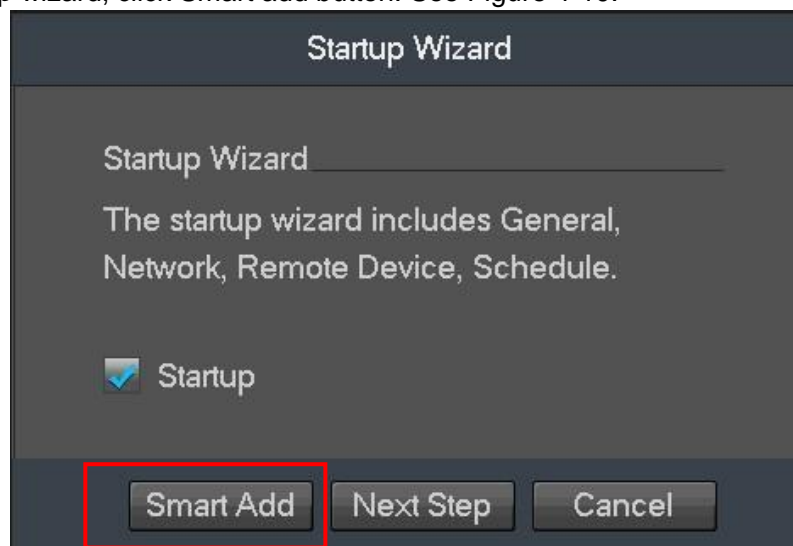


Figure 4-10

- On the preview interface, right click mouse and then select Smart add. See Figure 4-11.



Figure 4-11

Now you can go to the smart add interface. See Figure 4-12.

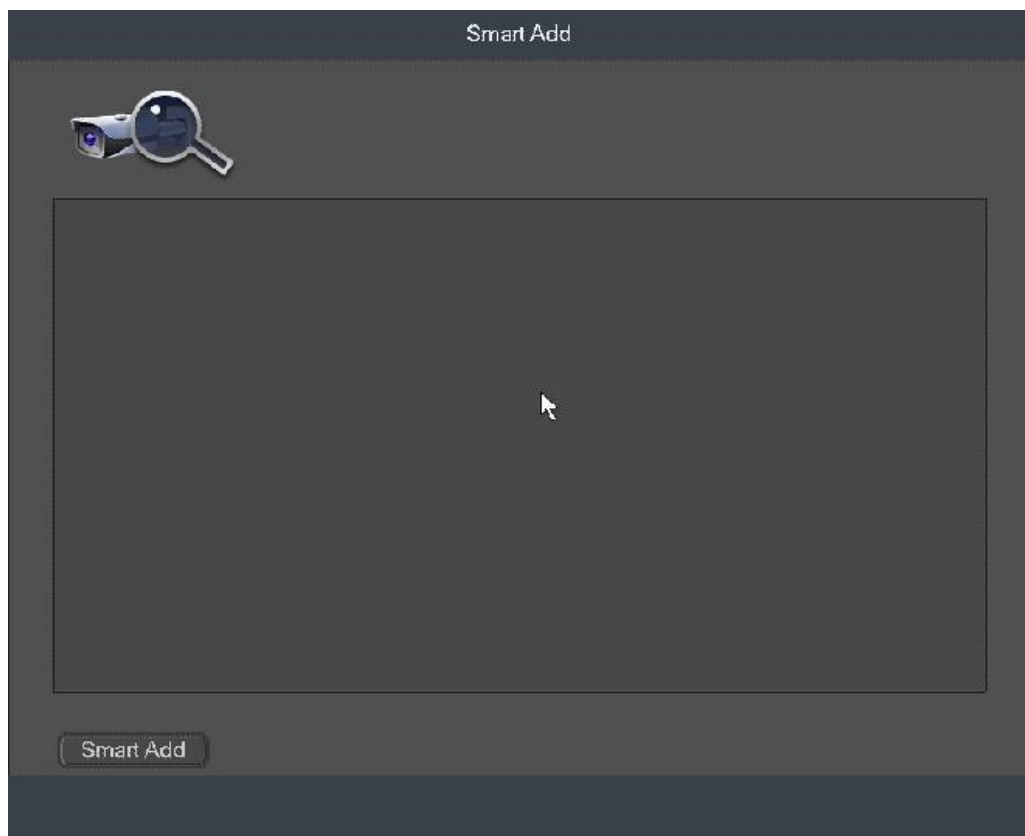


Figure 4-12

Click smart add button, you can see device enables DHCP function. See Figure 4-13.

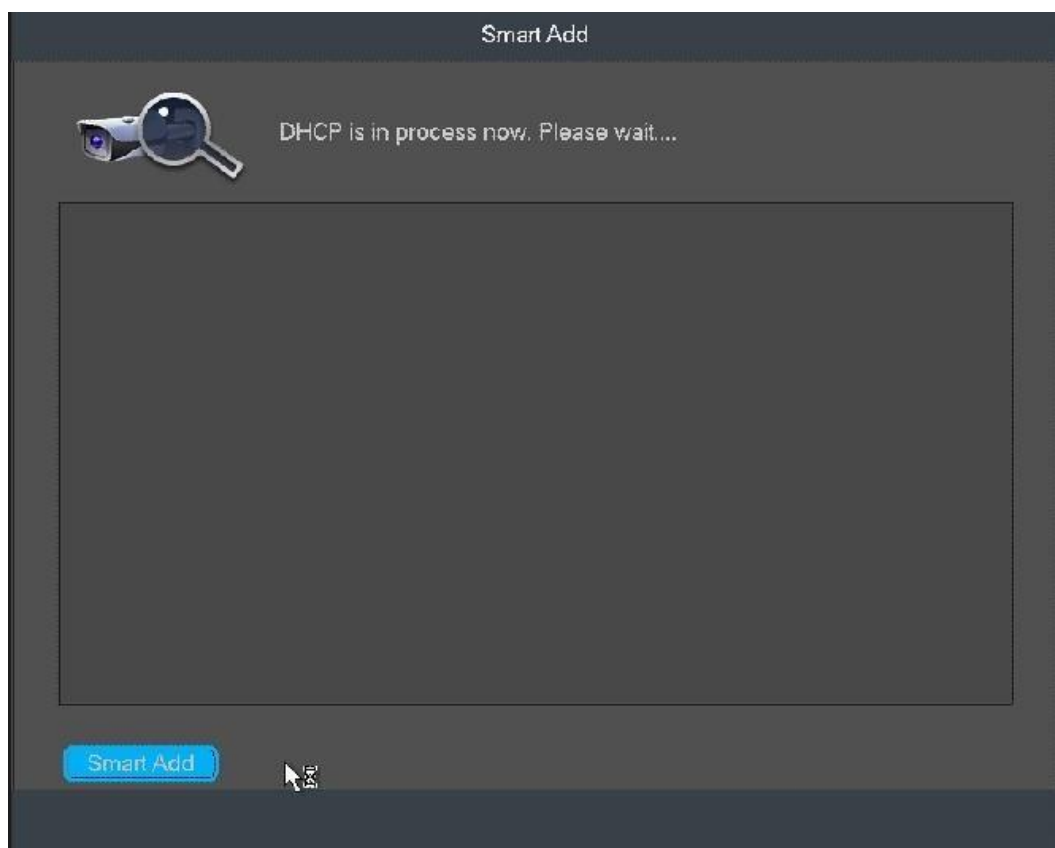


Figure 4-13

System pops up the following interface for you to confirm IP information if there are several IP segments. See Figure 4-14.

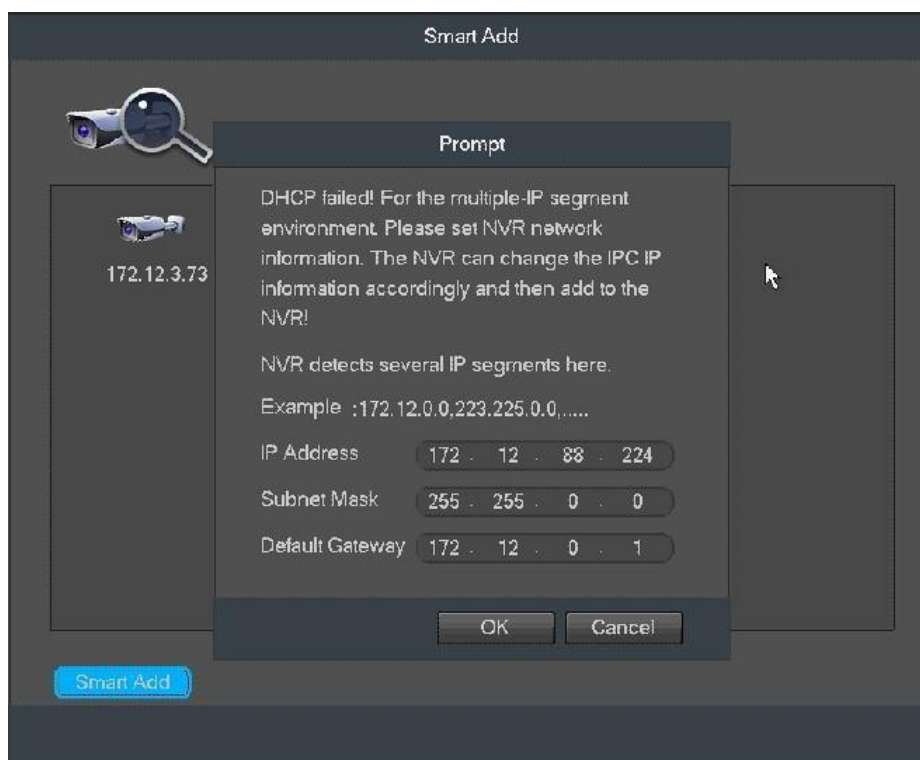


Figure 4-14

Now you can see system is auto adding IPC to the corresponding channels. See Figure 4-15.

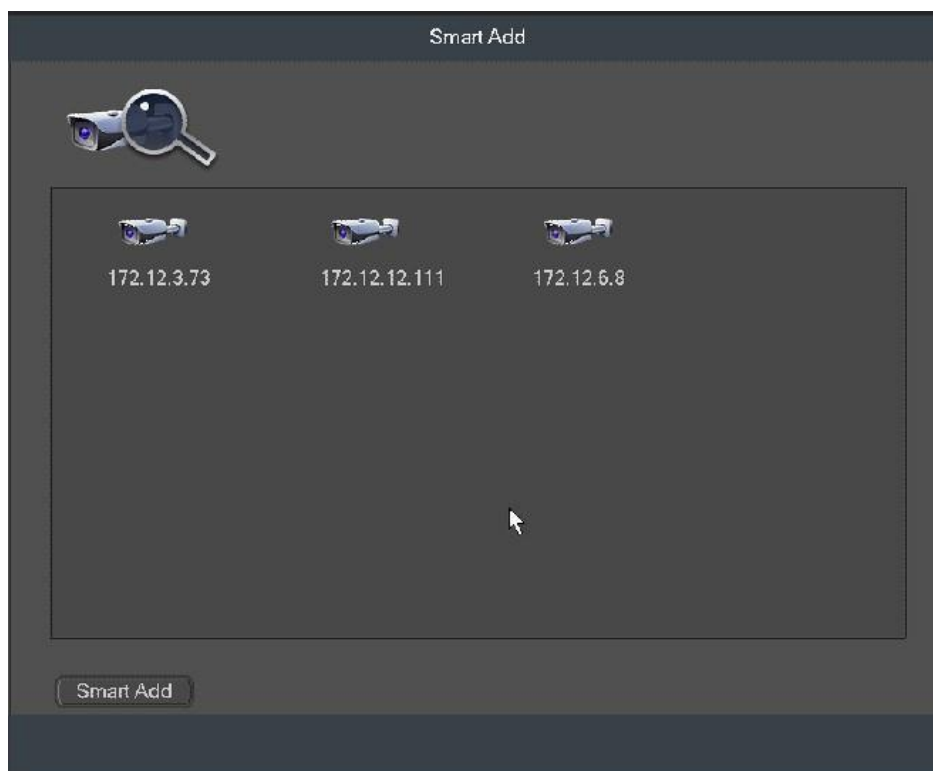


Figure 4-15

You can see the following dialog box after system successfully added network cameras. See Figure 4-16.

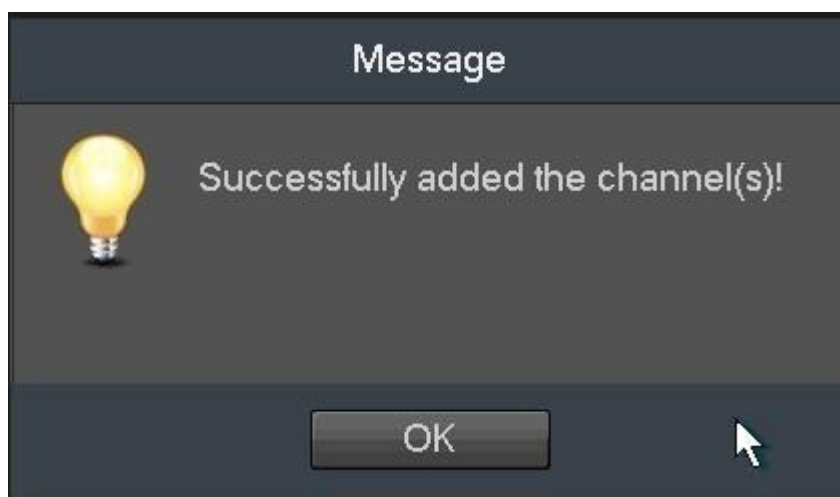


Figure 4-16

4.5 Remote Device

4.5.1 Remote Device Connection

From Main Menu->Setting->Camera or right mouse click on the preview interface and then select Remote, you can see the following interface. See Figure 4-17.

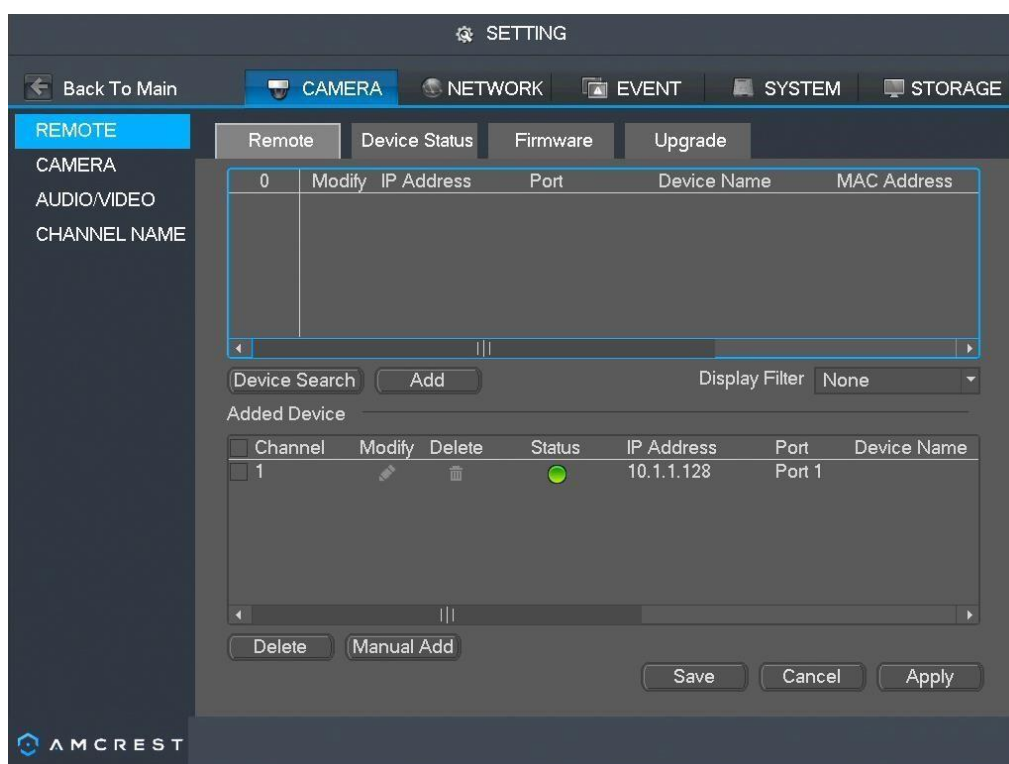


Figure 4-17

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. See Figure 4-18.

Important

Please note the manual add function is for Foscam, Dahua, Panasonic, Sony, Dynacolor, Samsung, AXIS, Arecont, ONVIF, and Custom. When the type is the custom, you can input the URL address, user name, and password to connect to the network camera without selecting the network camera manufacturer. Please contact your network camera manufacturer for the URL address.

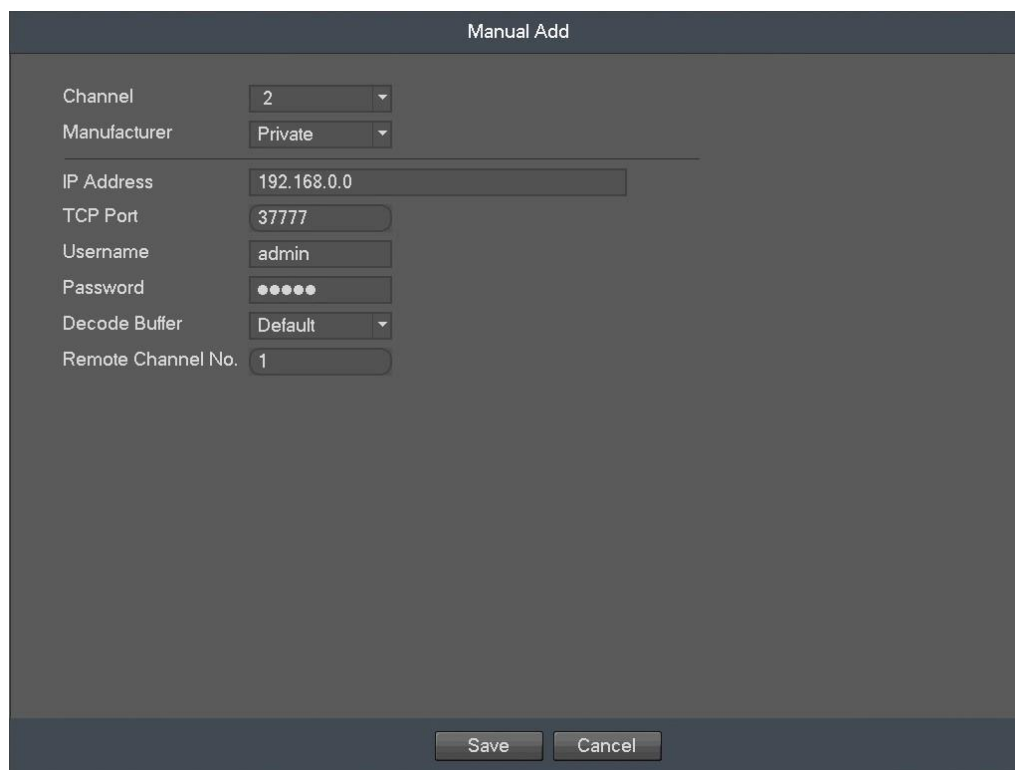
A screenshot of a 'Manual Add' configuration window. The window has a dark gray background with white text. At the top, the title 'Manual Add' is centered. Below the title, there are several input fields: 'Channel' with a dropdown menu showing '2', 'Manufacturer' with a dropdown menu showing 'Private', 'IP Address' with a text box containing '192.168.0.0', 'TCP Port' with a text box containing '37777', 'Username' with a text box containing 'admin', 'Password' with a text box containing six dots, 'Decode Buffer' with a dropdown menu showing 'Default', and 'Remote Channel No.' with a text box containing '1'. At the bottom of the window, there are two buttons: 'Save' and 'Cancel'.

Figure 4-18

4.5.2 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. See Figure 4-19.

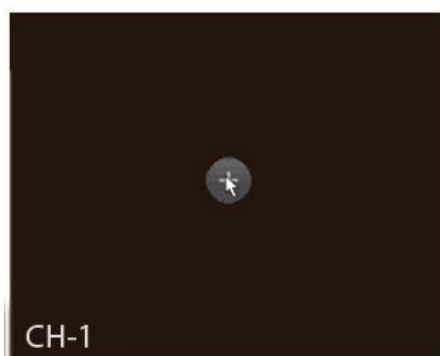


Figure 4-19

4.5.3 Camera

From Main Menu->Setting->Camera->Camera you can see the image interface is shown as below.

The following options will vary depending on camera model and manufacturer. See Figure 4-20.

- 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.
- Backlight: This is to compensate for the backlight and includes several options: High/Low/Stop.
 - ✧ High: This is used when the backlight is very bright.
 - ✧ Low: This is used when the backlight is moderately bright.
 - ✧ Stop: This is to disable backlight compensation. Please note this function is disabled by default.
- 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.

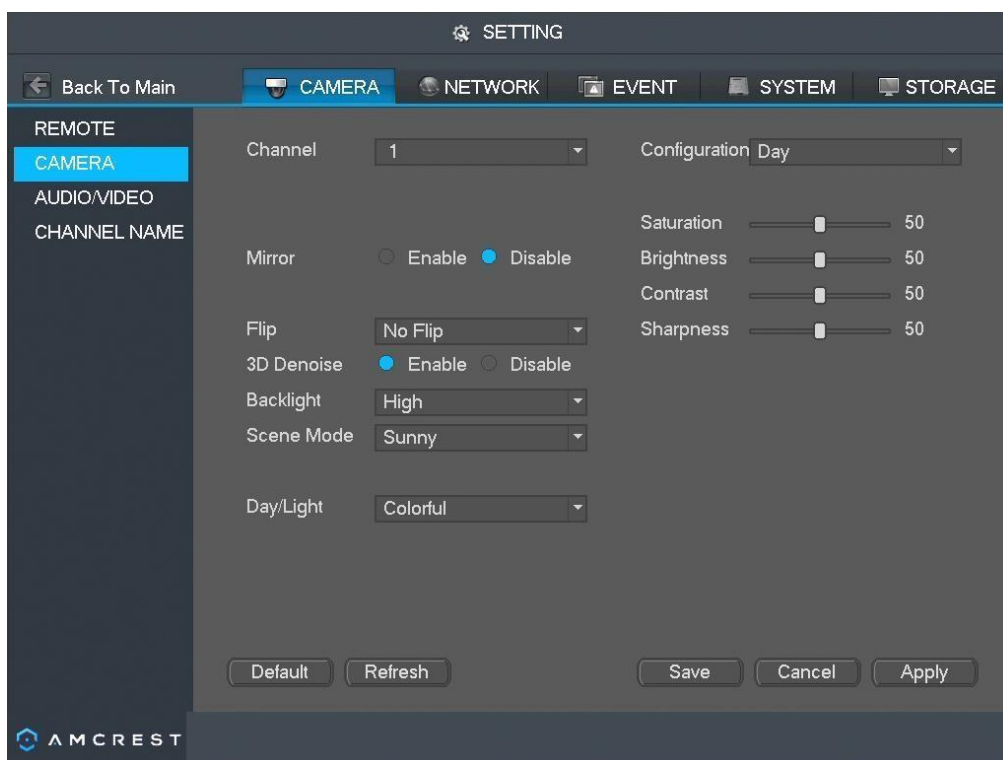


Figure 4-20

4.5.4 Channel Name

From Main Menu->Setting->Camera>Channel name, you can see an interface shown as in Figure 4-21. This is to modify the channel name. It supports a max of 31-characters. Please note you can only modify the channel name of a connected network camera.

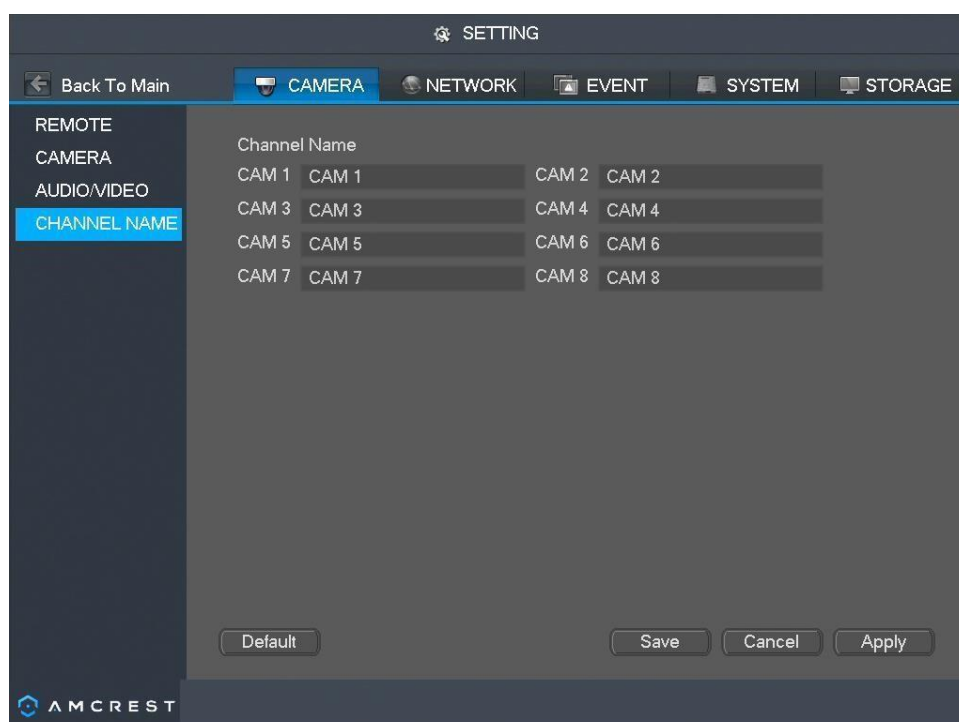


Figure 4-21

4.5.5 Upgrade

This is to upgrade the network camera.

From Main Menu->Setting->Camera->Remote, the interface is shown as below. See Figure 4-22. Click the Select button and select the upgrade file. Next select a channel (or you can select the device type filter to select several devices at the same time.)

Click the Start Upgrade button to upgrade. You can see the corresponding dialogue once the upgrade is finished.

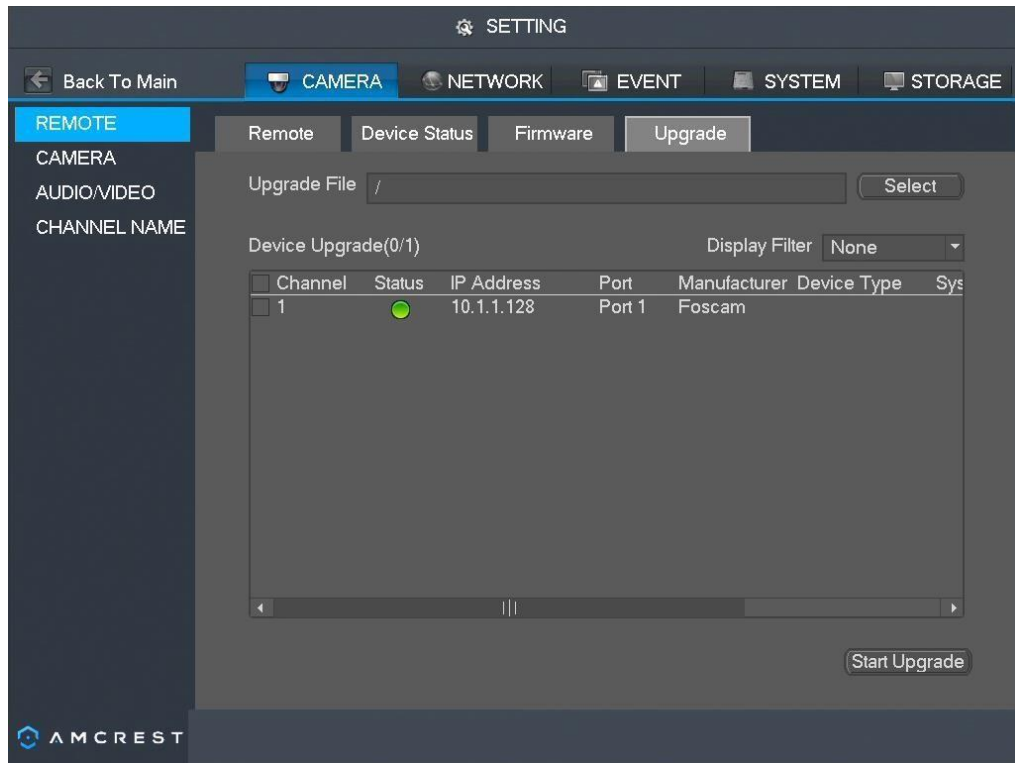


Figure 4-22

4.5.6 UPNP

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 (Figure 4-23). The system can auto connect to the network camera. Please note the following figure is for reference only.

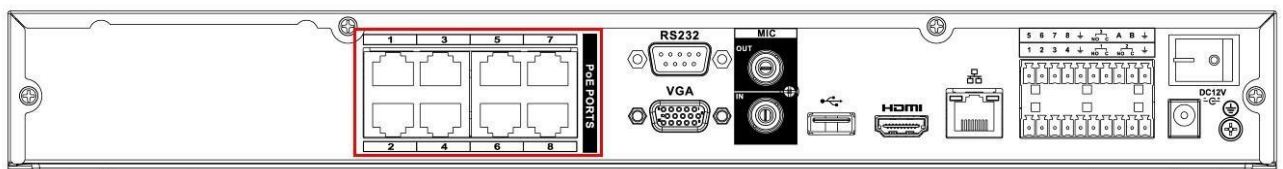


Figure 4-23

4.5.7 Built-in Switch Setup

The built-in switch function is for products on the PoE port.

From Main Menu->Setting->Network->Switch, you can set the switch IP address, subnet mask, and gateway. See Figure 4-24.

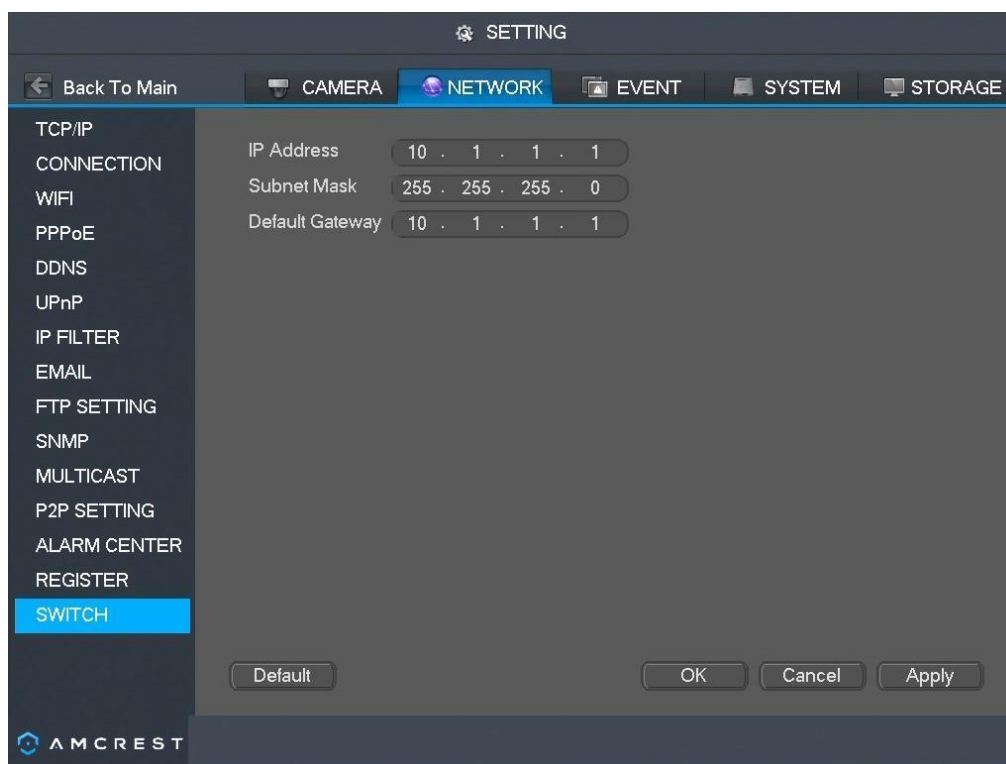


Figure 4-24

4.6 Preview

After the device boots up, the system is in multiple-channel display mode. See Figure 4-25. 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.

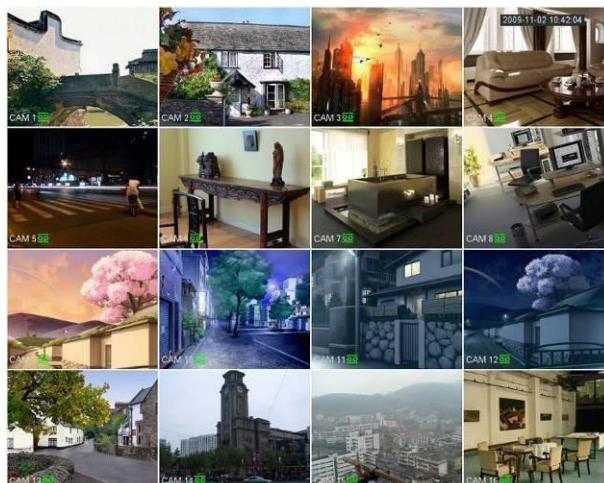


Figure 4-25

4.6.1 Preview

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.

4.6.2 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. See Figure 4-26. If your mouse stays in this area for more than 6 seconds and performs no operation, the control bar automatically hides.



Figure 4-26

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. You can view an interface show as Figure 4-27.



Figure 4-27

- Put the cursor at the center of the zone you want to zoom in, and scroll the middle mouse wheel. You can view an interface shown as in Figure 4-28.




Figure 4-28


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 (chapter 4.9) 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. Please refer to chapter 4.5.2 for detailed information.

4.6.3 Right Click Menu

After you have logged into the device, right mouse click and you can see the shortcut menu. Please see Figure 4-29.

- Window split mode: You can select the window amount and then select the desired channels.
- PTZ: 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.

- 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.



Figure 4-29

4.6.4 Preview Display Effect Setup

4.6.4.1 Video Settings

Here you can set the brightness, contrast, saturation, scene, light, etc. See Figure 4-30.

CAMERA

Channel	<div style="background-color: #444; color: white; padding: 2px 10px;">1</div>	Configuration	<div style="background-color: #444; color: white; padding: 2px 10px;">Day</div>
Mirror	<input type="radio"/> Enable <input checked="" type="radio"/> Disable	Saturation	<div style="display: flex; align-items: center;"> <div style="flex-grow: 1; border: 1px solid #ccc; position: relative;"> <div style="position: absolute; left: 0; top: 0; bottom: 0; width: 50%; background: linear-gradient(to right, #ccc, #eee);"></div> </div> <div style="width: 20px; text-align: center;">50</div> </div>
Flip	<div style="background-color: #444; color: white; padding: 2px 10px;">No Flip</div>	Brightness	<div style="display: flex; align-items: center;"> <div style="flex-grow: 1; border: 1px solid #ccc; position: relative;"> <div style="position: absolute; left: 0; top: 0; bottom: 0; width: 50%; background: linear-gradient(to right, #ccc, #eee);"></div> </div> <div style="width: 20px; text-align: center;">50</div> </div>
3D Denoise	<input checked="" type="radio"/> Enable <input type="radio"/> Disable	Contrast	<div style="display: flex; align-items: center;"> <div style="flex-grow: 1; border: 1px solid #ccc; position: relative;"> <div style="position: absolute; left: 0; top: 0; bottom: 0; width: 50%; background: linear-gradient(to right, #ccc, #eee);"></div> </div> <div style="width: 20px; text-align: center;">50</div> </div>
Backlight	<div style="background-color: #444; color: white; padding: 2px 10px;">High</div>	Sharpness	<div style="display: flex; align-items: center;"> <div style="flex-grow: 1; border: 1px solid #ccc; position: relative;"> <div style="position: absolute; left: 0; top: 0; bottom: 0; width: 50%; background: linear-gradient(to right, #ccc, #eee);"></div> </div> <div style="width: 20px; text-align: center;">50</div> </div>
Scene Mode	<div style="background-color: #444; color: white; padding: 2px 10px;">Sunny</div>		
Day/Light	<div style="background-color: #444; color: white; padding: 2px 10px;">Colorful</div>		

Default

Refresh

Save

Cancel

Figure 4-30

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
Item	Note
	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.

4.6.4.2 GUI

From Main Menu->Setting->System->GUI, you can go to the following interface. See Figure 4-31. Here you can set menu and video preview effects. All your operations here do not affect the recorded file and playback effect.

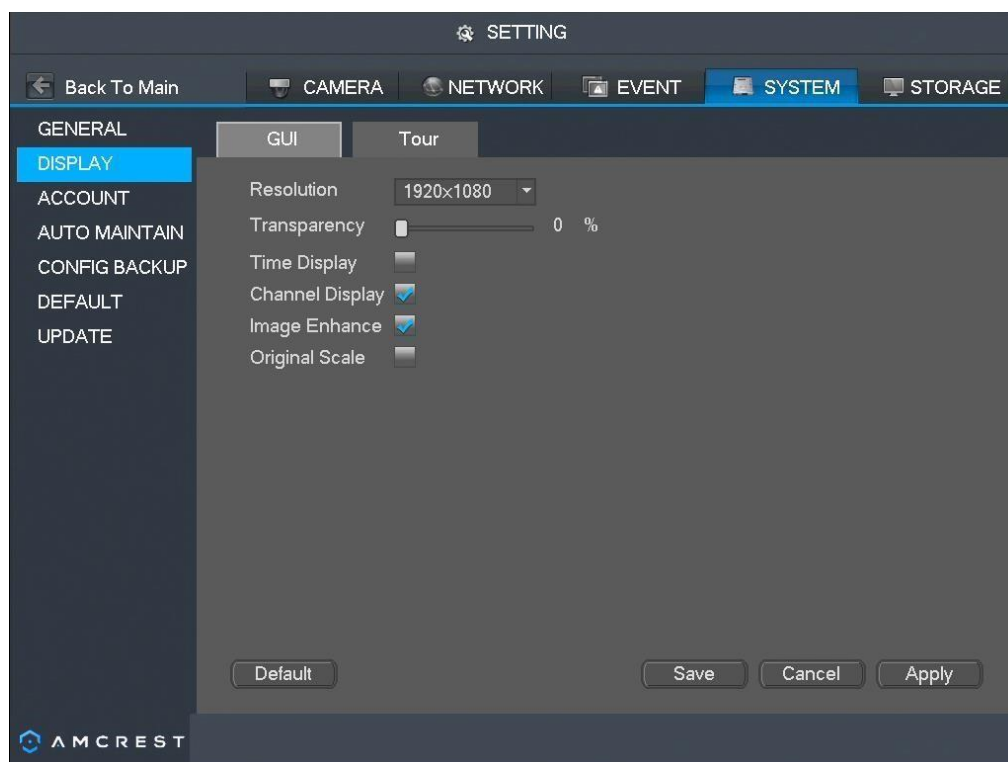


Figure 4-31

Now you can set corresponding information.

- 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 or not to display the time when the system is in playback.
- Channel display: You can select whether or not to display the channel name when system is in playback.
- Image enhance: Check this box to optimize the image of the preview video.
- Original scale: Check this box to restore the video's original scale. Click the Save button to save the current setup.

4.6.5 Preview Tour Parameters

Set preview display mode, channel display sequence, and tour setup.

- Set preview display mode: On the preview interface, right mouse click and you can the view right-click menu. Now you can select the preview window amount and channel.
- Set channel display mode: On the preview interface, if you want to change the position of channel 1 and channel 8, please left click the channel 1 video window and then drag to the channel 8 video window, release button, and channel 1 and channel 8 will change positions.
- Tour setup: Here you can set the preview window channel display mode and interval. Please follow the steps listed below.

From Main Menu->Setting->System->Display->Tour, you can see an interface shown as in Figure 4-32.

Here you can set tour parameters.

- Enable tour: Check the box here to enable the tour function.
- Interval: Input the desired time interval here. The value ranges from 1-120 seconds.
- Monitor tour type: System supports 1/4-window tour. ● Alarm tour type: System supports 1/4window tour.

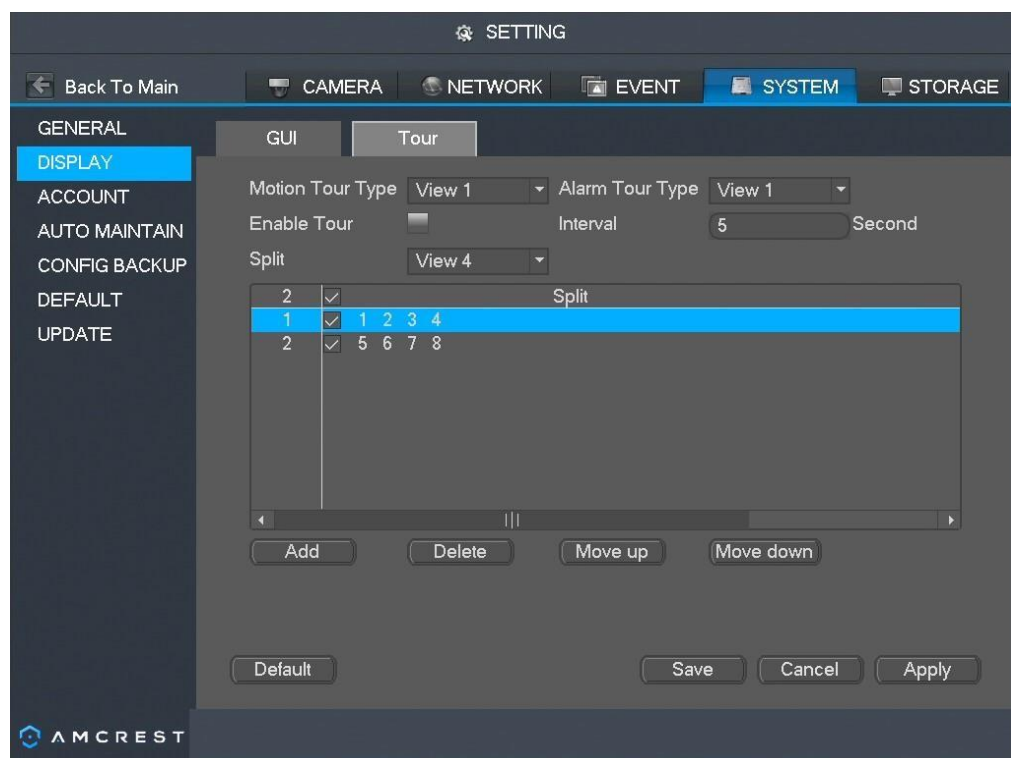


Figure 4-32

Tips



On the navigation bar, click  to enable/disable the tour. Click the  Save button to save the current setup.

4.7 PTZ

4.7.1 PTZ Control Right mouse click (press the “Fn” Button on the front panel or click the “Fn” key on the remote control). The interface is shown as in Figure 4-33. Please note you can only go to the PTZ control interface when you are in 1-window display mode.





Figure 4-33

The PTZ setup is shown as in See Figure 4-34.

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 use the remote control or click the small keyboard to set.

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.

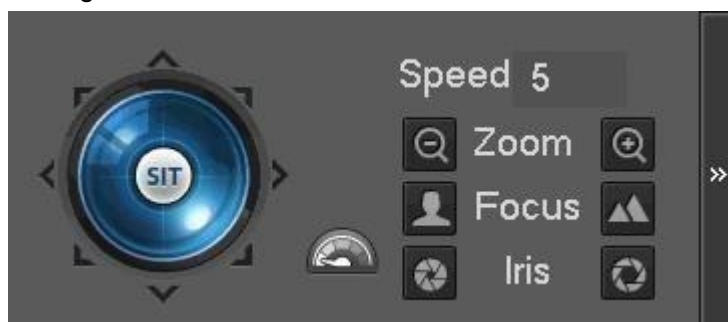














Figure 4-34

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.



Figure 4-35

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












In Figure 4-34, click the  to open the menu. You can set preset, tour, pattern, scan, etc. See Figure 436.



Figure 4-36 Please

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 clicks or click the ESC button on the front panel to go back to Figure 4-34.

Icon	Function	Icon	Function
	Preset		Flip
	Tour		Reset
	Pattern		Aux
	Scan		Aux on-off button
	Rotate		Go to menu

4.7.1.1 PTZ Function Setup


Click  to go to the following interface to set preset, tour, pattern, and scan. See Figure 4-37.



Figure 4-37

Preset Setup

In Figure 4-37, click the Preset button and use the eight direction arrows to adjust camera to the proper position. The interface is shown as in Figure 4-38.

Click the box next to Preset and then input the preset number. Click the Set button to save the current preset.



Figure 4-38

Tour Setup

In Figure 4-37, click the Tour button.

Input tour value and preset No. Click the Add preset button to add the current preset to the tour. See Figure 4-39. **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.



Figure 4-39

Pattern Setup

In Figure 4-37, click the Pattern button and input pattern number.

Click the Begin button to start the direction operation. Or you can go back to Figure 4-34 to operate zoom/focus/iris/direction operation.

In Figure 4-37, click the End button.



Figure 4-40

Scan Setup

In Figure 4-37, 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.



Figure 4-41

4.7.1.2 Call PTZ Function **Call**

Preset

In Figure 4-36, input the Preset value and then click  to call a preset. Click  again to stop the call.

Call Pattern

In Figure 4-36, input the Pattern value and then click  to call a pattern. Click  again to stop the call.

Call Tour

In Figure 4-36, input the Tour value and then click  to call a tour. Click  again to the stop call.

Call Scan

In Figure 4-36, input the Scan value and then click  to call a scan. Click  again to stop the call.

Rotate


In Figure 4-36, click  to enable the camera to rotate.

The system supports preset, tour, pattern, scan, rotate, light, etc 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. See Figure 4-42.

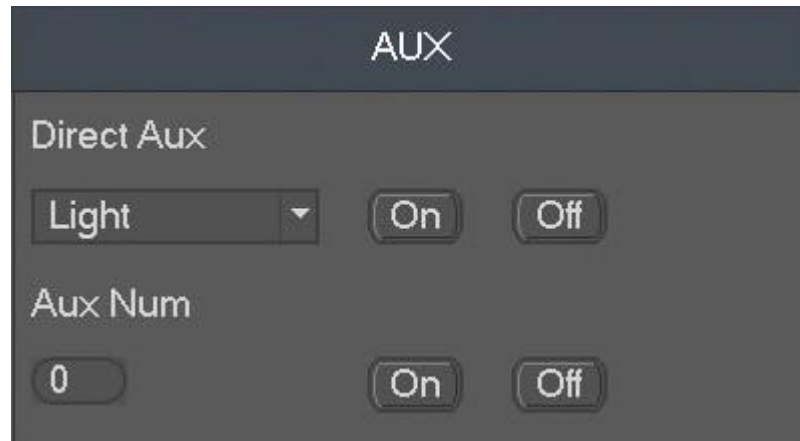


Figure 4-42

4.8 Record and Snapshot

The record/snapshot priority is: Alarm->Motion detect->Schedule.

4.8.1 Audio Video

4.8.1.1 Encode

Encode setting is to set the IPC encode mode, resolution, bit stream type, etc

From Main Menu->Setting->System->Encode, you can see the following interface. See Figure 4-36.

- Channel: Select the channel you want.
- Type: Please select from the dropdown list. There are three options: regular/motion detect/alarm.
You can set the various encode parameters for different recording types. ● Compression: The system supports H.264, MPEG4, MJPEG, etc.
- Resolution: The main stream's resolution type is the IPC's encoding config. Generally there is D1/720P/1080P.
- Frame rate: This ranges from 1f/s to 25f/s in PAL mode and 1f/s to 30f/s in NTSC mode.
- Bit rate type: The system supports two types: CBR and VBR. In VBR mode, you can set the video quality.
- Quality: There are six levels ranging from 1 to 6. The sixth level has the highest image quality.
- Video/Audio: You can enable or disable the video/audio. Please note, once you enable the audio function for one channel, the system may enable the audio function of the rest channels by default.
- Copy: After you complete the setup, you can click the Copy button to copy the current setup to other channel(s). You can see an interface is shown as in Figure 4-46. You can see the current channel number is grey. Please check the number to select the channel or you can check the box ALL. Please click the OK button in Figure 4-46 and Figure 4-44 respectively to complete the setup. Please note, once you check the All box, you set the same encoding setup for all channels.

The audio/video enable box, overlay button, and the copy button are shielded.

Please check the  to select the corresponding function.

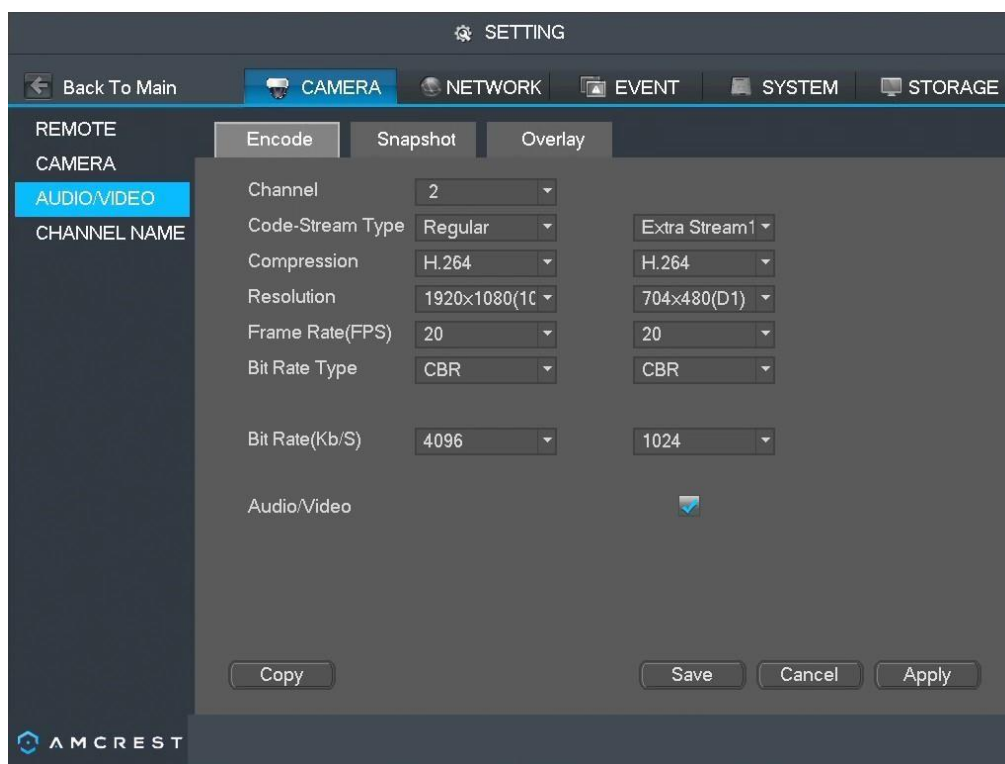


Figure 4-43

4.8.1.2 Overlay

Click the Overlay button and you can see an interface is shown in Figure 4-44.

- Cover area: Here is for you to cover a section. You can click and drag the mouse to set proper section sizes. You can set with the Fn button or direction buttons.
- Preview/monitor: The cover area has two types. Preview and Monitor. Preview means the privacy mask zone cannot be viewed by the 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: You can select whether or not the system displays the time when you playback recordings. Please click the Setup button and then drag the title to the desired position on the screen.
- Channel display: You can select whether or not the system displays the channel number when you playback recordings. Please click the Setup button and then drag the title to the desired position on the screen.

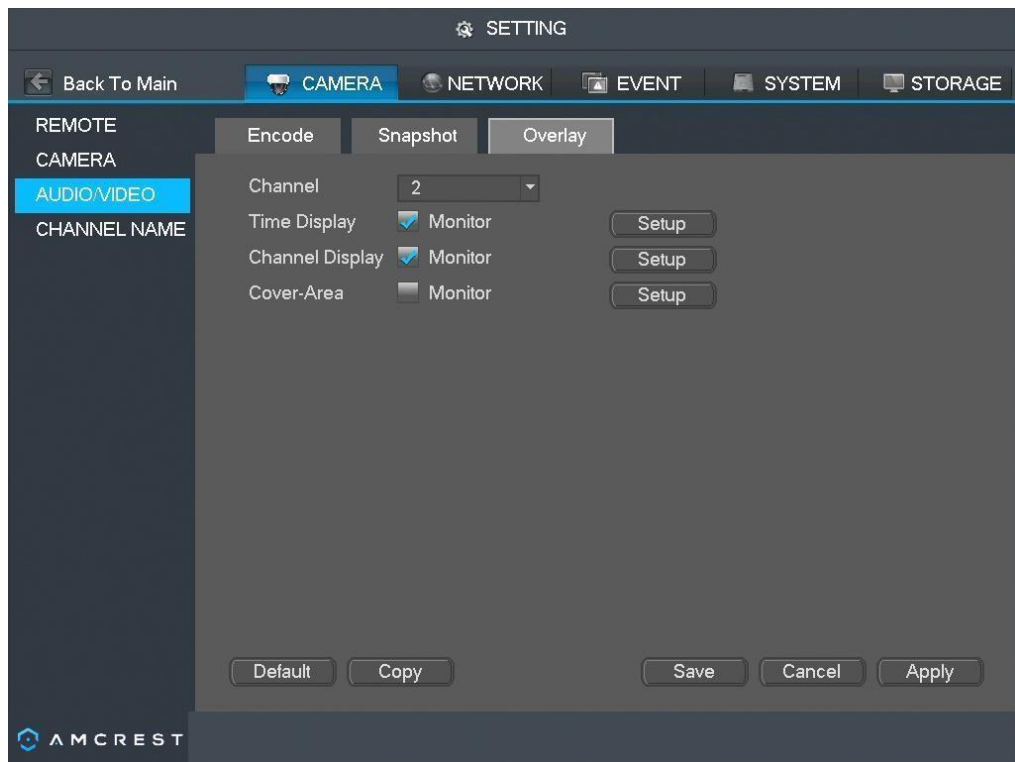


Figure 4-44

4.8.1.3 Snapshot

Here you can set the snapshot mode, picture size, quality, and frequency. See Figure 4-45.

- Snapshot mode: There are two modes: timing and trigger. If you set timing mode, you need to set the snapshot frequency. If you set trigger mode, you need to set the snapshot activation operation.
- Image size: Here you can set the snapshot picture size.
- Image quality: Here you can set the snapshot quality. The value ranges from 1 to 6.
- Interval: This is for you to set the timing (schedule) snapshot interval.

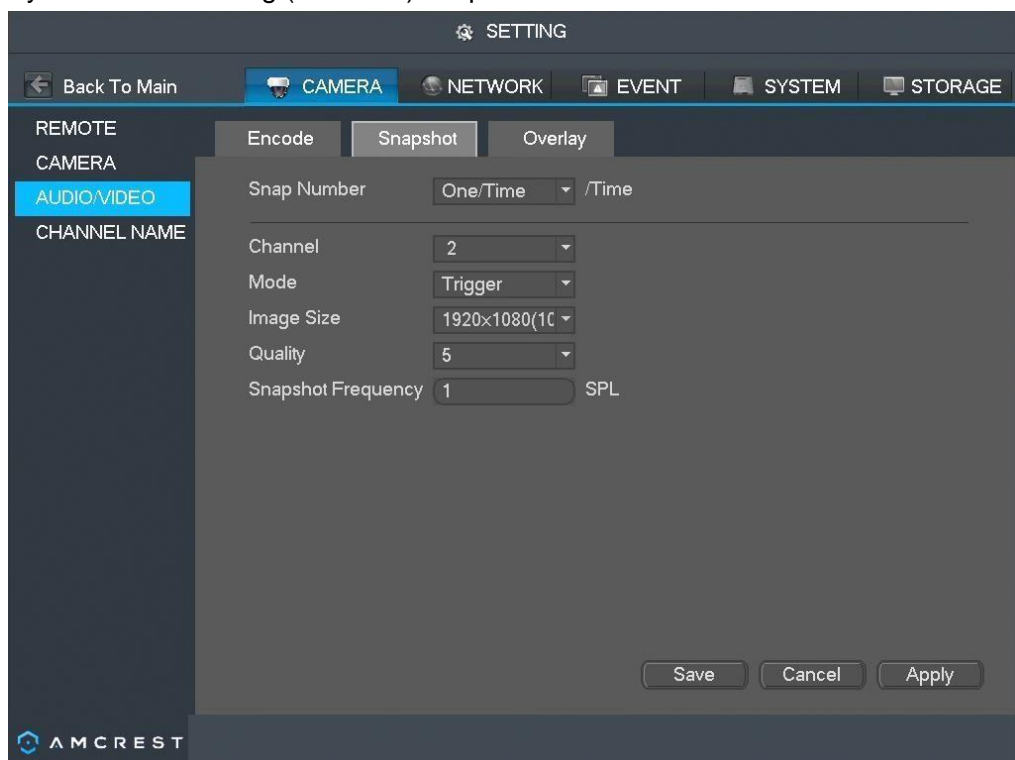


Figure 4-45

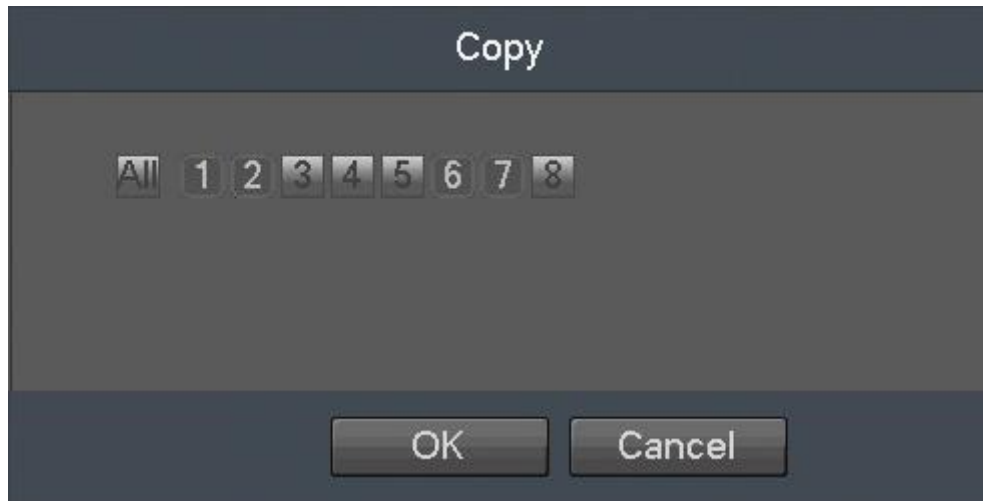


Figure 4-46





4.8.2 Schedule

The record type priority is: Alarm>Motion detect>Regular.

4.8.2.1 Schedule Record

Set record time, record plan, etc. Please note the system is in 24-hour recording by default after its first boot up.

In the Main Menu, from Main Menu->Setting->Storage->Schedule, you can go to the schedule menu. See Figure 4-50.

- Channel: Please select the channel number first. You can select “All” if you want to set the same schedule for all channels.
- ✧ : Sync connection icon. Select the  icon of several days and all synced days can be edited together.
- ✧ : Click this to delete a recording type from one period.
- Record Type: Please check the box to select the corresponding recording type. There are four types: Regular/MD (motion detect)/Alarm/MD&Alarm.
- Week day: There are eight options ranging from Saturday to Sunday and all.
- Holiday: This is to set a holiday. Please note you need to go to the General interface (Main Menu>Setting->System->General) to add a holiday first. Otherwise you can not see this item.
- Pre-record: The system can pre-record the video before the event occurs into the file. The value ranges from 1 to 30 seconds depending on the bit stream.
- Redundancy: The system supports a redundancy backup function. This allows your backup file to be recorded to two disks. You can highlight the Redundancy button to activate this function. Please note, before enabling this function, please set at least one HDD as redundant. (Main Menu->Setting>Storage->HDD Manager). **Please note this function is null if there is only one HDD.**
- ANR: This is to save video to the SD card of the network camera in case the network connection fails. The value ranges from 0s~43200s. After the network connection is resumed, the system can get the video from the SD card and there is no risk of recording loss.
- Period setup: Click the  button after one date or a holiday and you can see an interface shown as in Figure 4-51. There are four recording types: regular, motion detection (MD), alarm, MD & alarm.

Please follow the steps listed below to draw the period manually.

- a) Select a channel you want to set. See Figure 4-47.



Figure 4-47

- b) Set recording type. See Figure 4-48.



Figure 4-48

- c) Please draw manually to set the record period. There are six periods in one day. See Figure 449.

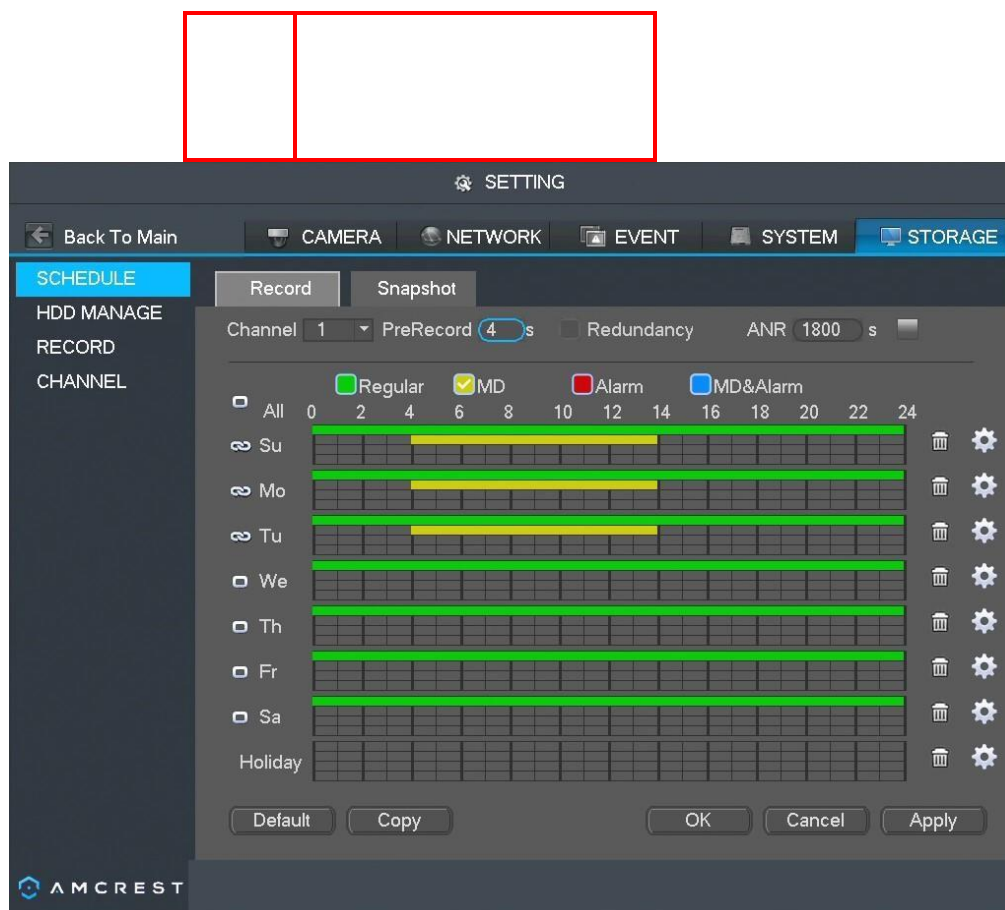


Figure 4-49

Please check the box ☐ to select the corresponding function. After completing all the setups please click the Save button and the system goes back to the previous menu.

There are color bars for your reference. Green stands for regular recording, yellow stands for motion detection, red stands for alarm recording, and white stands for MD and alarm recording. Once you have it

set to record when the MD and alarm occurs, the system will not record unless motion detect and the alarm occurs.

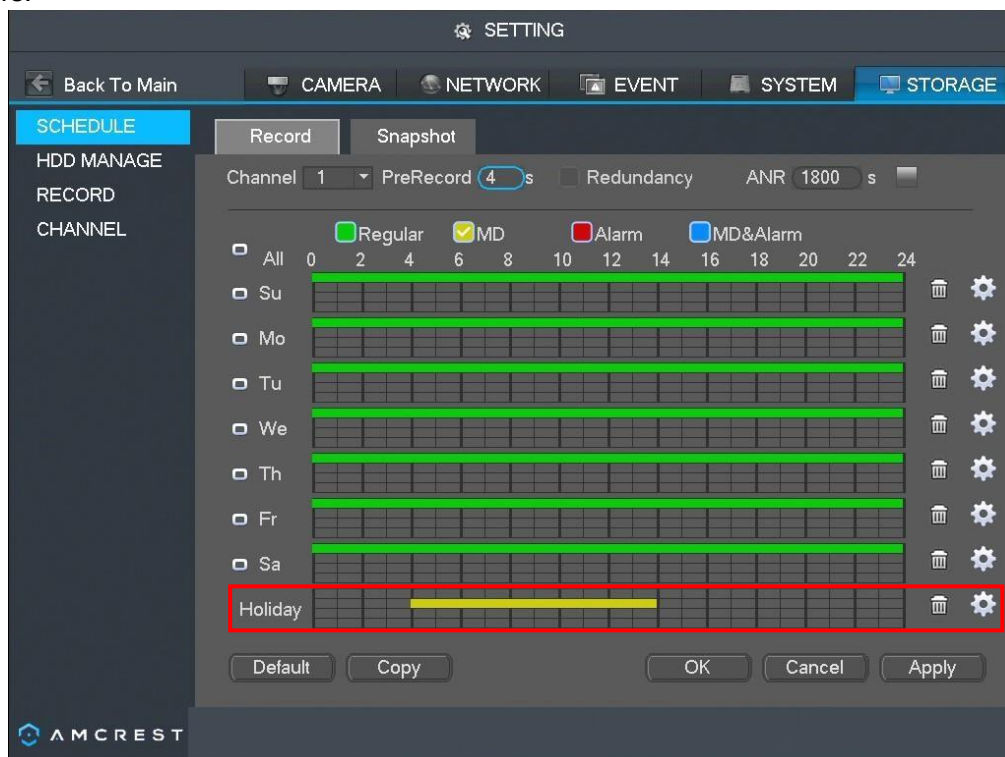


Figure 4-50

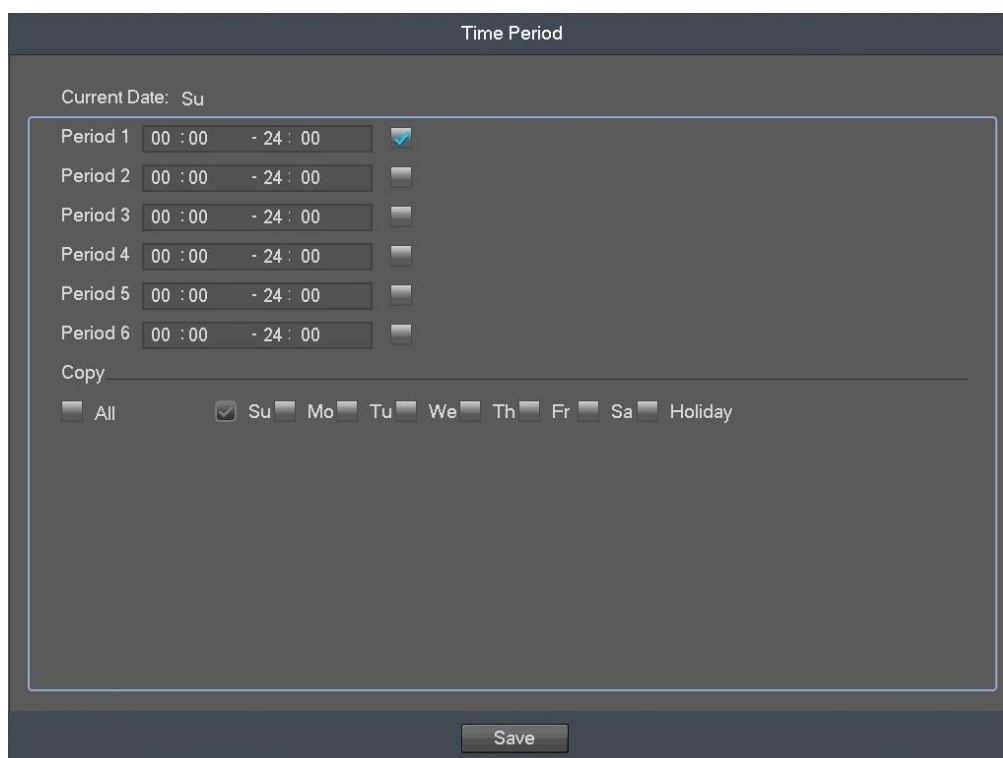


Figure 4-51

Quick Setup

The Copy function allows you to copy one channel's setup to another. After setting up channel 1, click the Copy button and you can go to interface Figure 4-52. You can see the current channel name is grey

such as channel 1. Now you can select the channels you want to paste to such as channel 5/6/7. If you want to save the current setup of channel 1 to all channels, you can click the first box "All". Click the OK button to save the current copy setup. Click the OK button in the Encode interface and the copy function will finish. Please note, if you select All in Figure 4-52, the recording setup of all channels are the same and the Copy button becomes hidden.

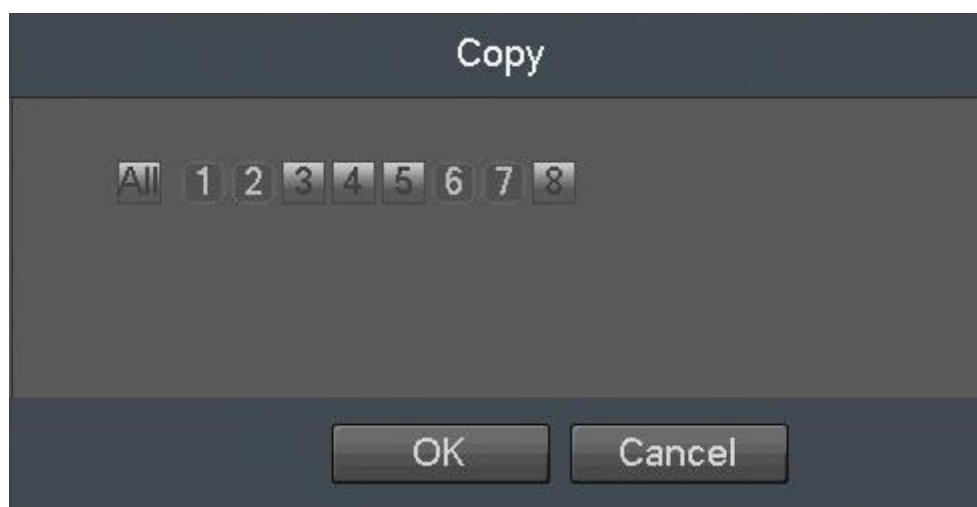


Figure 4-52

Click the OK button to save current setup.

4.8.2.2 Schedule Snapshot

From Main Menu->Setting->Storage->Record or on the preview interface, right mouse click and then select the record item, you can see Figure 4-53.

Select the snapshot channel and enable the snapshot function. Click the Save button.

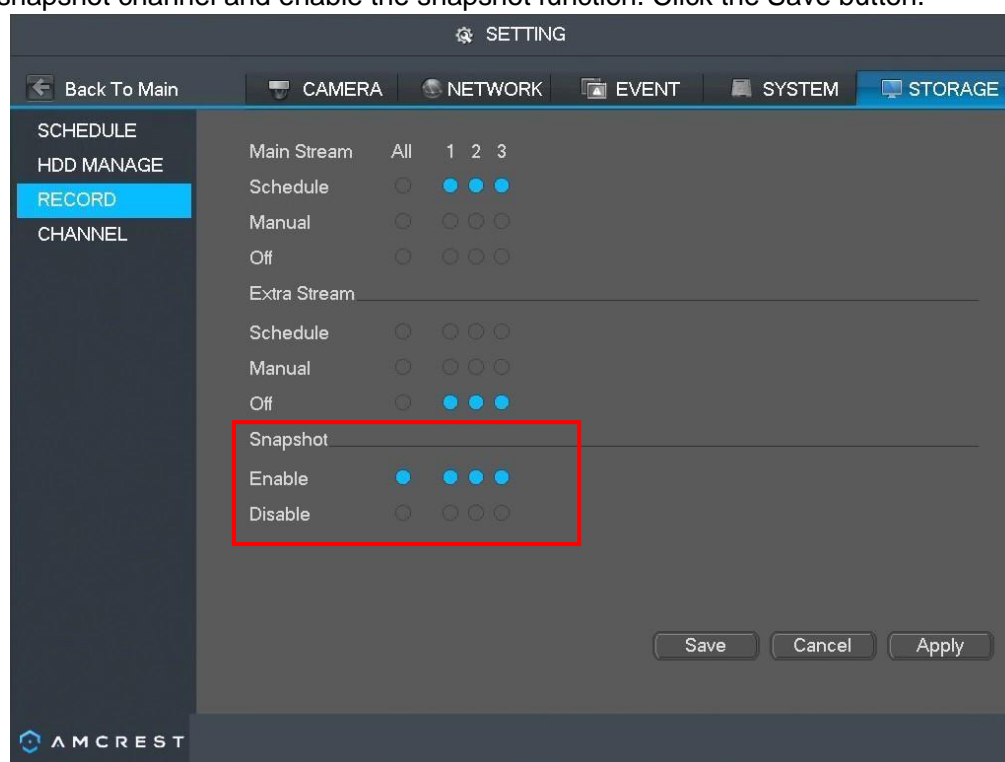


Figure 4-53

From Main Menu->Setting->Camera->Encode->Snapshot, you can go to the Snapshot interface. See Figure 4-54.

Select the snapshot channel from the dropdown list and then select the snapshot mode as Timing (Schedule) from the dropdown list and then set picture size, quality, and snapshot frequency.

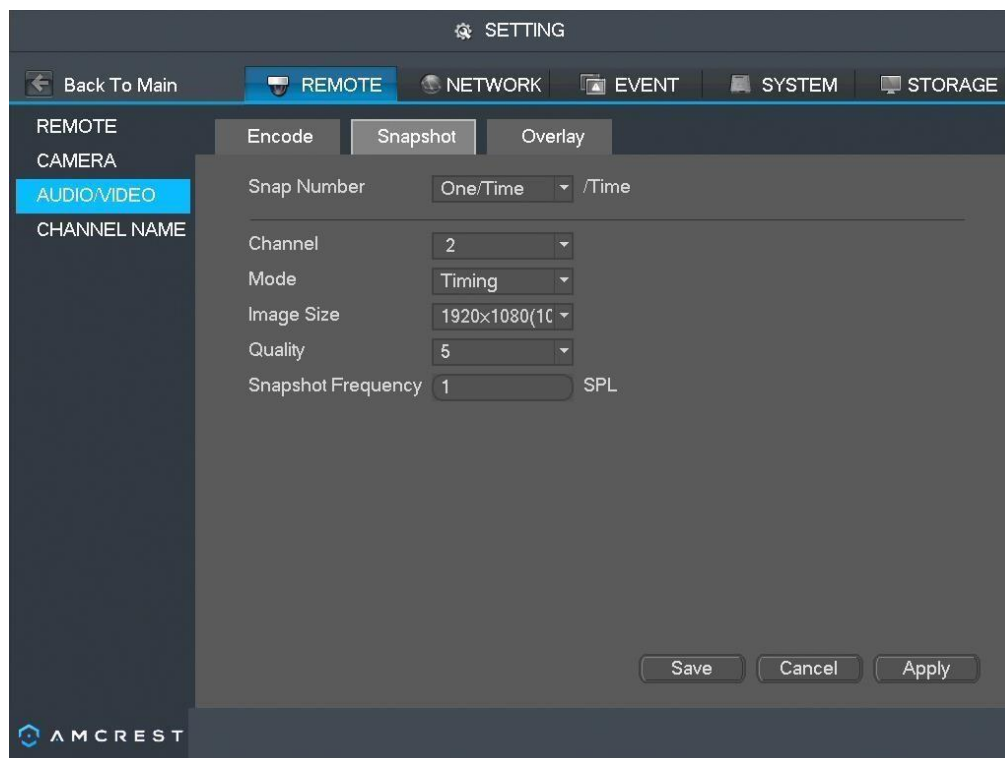


Figure 4-54

In the Main Menu, from Main Menu->Setting->Storage->Schedule, you can go to the Schedule menu. See Figure 4-50. Here you can set the snapshot period. There are a total of six periods in one day.

Please refer to chapter 4.8.2.1 for detailed setup information. The setup steps are generally the same.

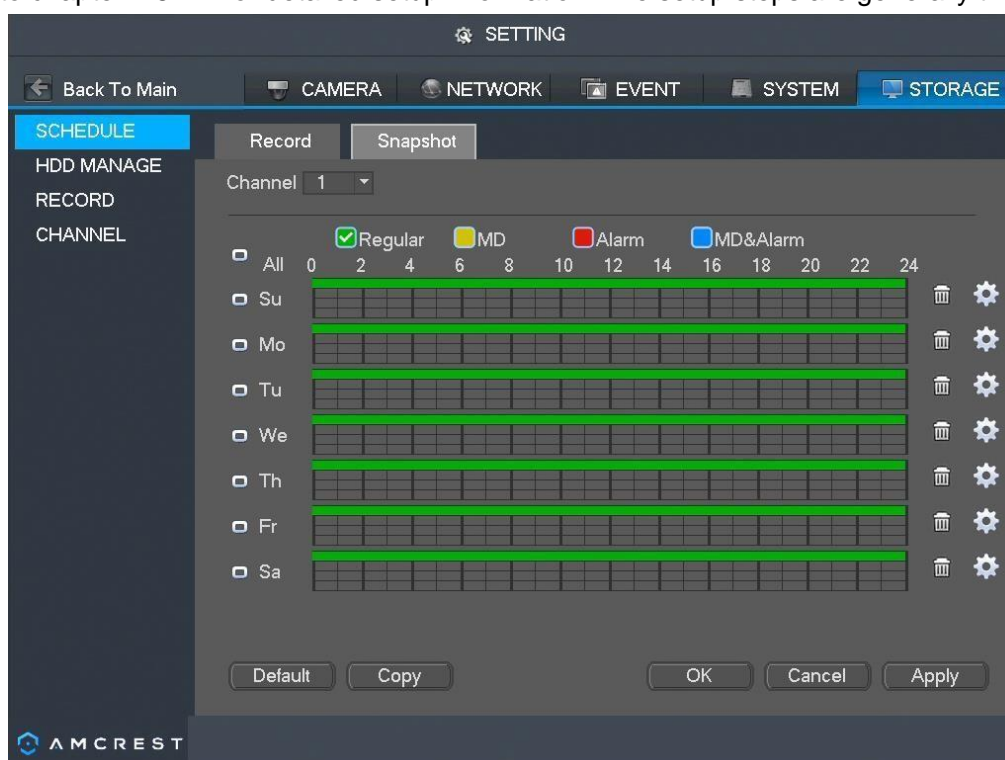


Figure 4-55

Note

- Please note the trigger snapshot has the higher priority than regular snapshots. If you have enabled these two types at the same time, the system can activate the trigger snapshot when an alarm occurs. Otherwise the system just operates the regular snapshot.
- Only the trigger snapshot supports this function. The regular snapshot function can not send out picture via the email. But you can upload the pictures to a FTP.

4.8.3 Motion detect record/snapshot

4.8.3.1 Motion detect record

- a) From Main Menu->Setting->Event->Detect, you can go to the following interface. See Figure 456.

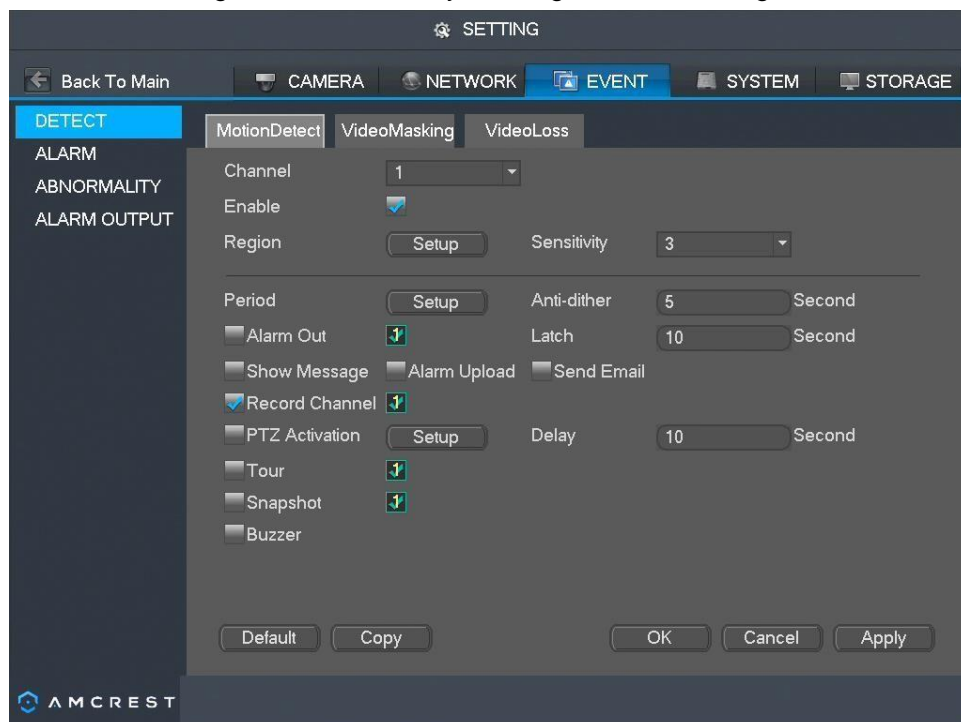





Figure 4-56

- b) Select Motion Detect tab. Select a channel from the dropdown list and then check the Enable button to enable the motion detect function.
- c) Click the Region Select button to set the motion detect zone. There are 396(PAL)/330(NTSC) small zones. The green zone is the current cursor position. The grey zone is the motion detection zone. The black zone is the disarmed zone. You can click the Fn button to switch between the arm mode and disarm mode. In arm mode, you can click the direction buttons to move the green rectangle to set the motion detection zone. After you have completed the setup, please click the ENTER button to exit the current setup. Do remember to 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 zone setup.
- d) Period: Click the Setup button and you can see an interface is shown as in Figure 4-57. Here you can set the motion detect period. The system only enables the motion detect operation in the specified periods. This is not for video loss or the tampering. There are two ways for you to set periods. Please note the system only supports 6 periods in one day.
- ✧ In Figure 4-57, select the  icon of several dates and all checked items can be edited together. Now the icon is shown as . Click  to delete a recording type from one period.


- ✧ In Figure 4-57. Click the  button after one date or a holiday and you can see an interface shown as in Figure 4-58.
- e) Set the sensitivity. Please note the sixth level has the highest sensitivity.
- f) Click the Save button to complete the motion detect setup.
- g) From Main Menu->Setting->Storage->-Schedule. See Figure 4-50
- h) Set the motion detect record channel, period, and the record type should be motion detect (MD). Please refer to chapter 4.8.2.
- i) Click the Copy button to copy the current setup to other channel(s).
- j) Click the OK button to complete motion detect record setup.



Figure 4-57

Time Period

Current Date: Su

Period 1	00 : 00 - 24 : 00	<input checked="" type="checkbox"/>
Period 2	00 : 00 - 24 : 00	<input type="checkbox"/>
Period 3	00 : 00 - 24 : 00	<input type="checkbox"/>
Period 4	00 : 00 - 24 : 00	<input type="checkbox"/>
Period 5	00 : 00 - 24 : 00	<input type="checkbox"/>
Period 6	00 : 00 - 24 : 00	<input type="checkbox"/>

Copy

☐ All ☒ Su ☐ Mo ☐ Tu ☐ We ☐ Th ☐ Fr ☐ Sa ☐ Holiday

Save

Figure 4-58

4.8.3.2 Motion Detect Snapshot

- From Main Menu->Setting->Camera->Encode->Snapshot, you can go to the snapshot interface. See Figure 4-59.
- In Figure 4-59, select trigger snapshot from the dropdown list and then set the picture size, quality, and snapshot frequency. Click the OK button to save the current setup.
- From Main Menu->Setting->Event->Detect you can select the motion detect type, motion detect channel, and then check the enable box. Please refer to chapter 4.8.3.1.
- Click the OK button to complete the motion detect setup.

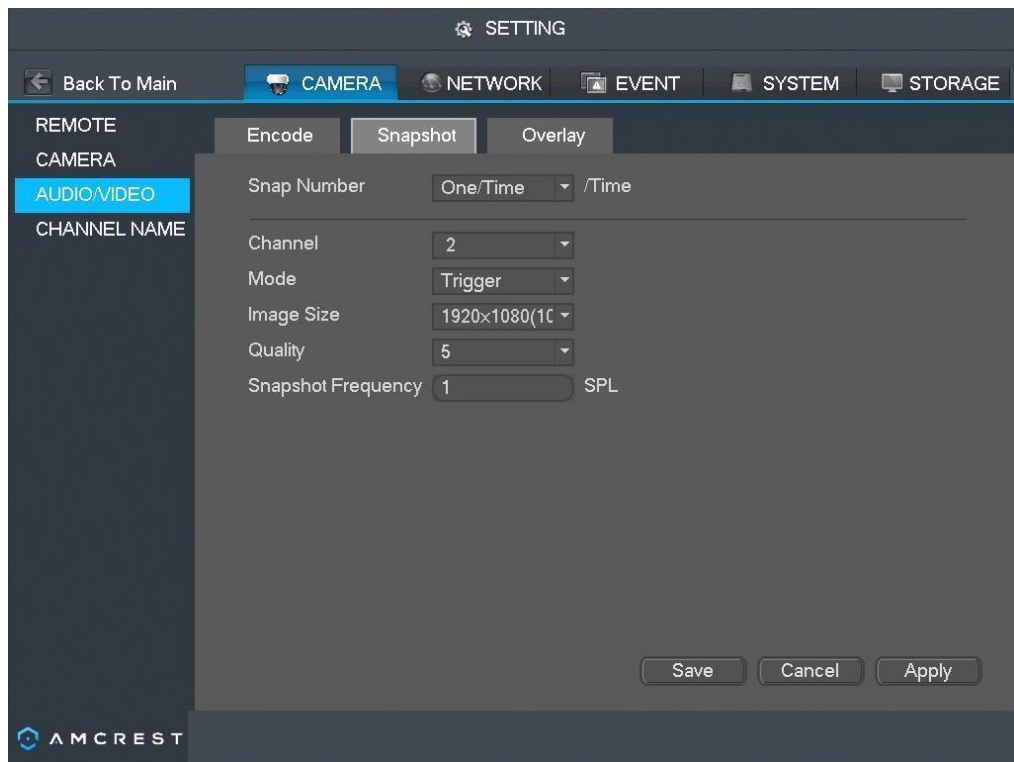


Figure 4-59

4.8.4 Alarm Record/Snapshot

4.8.4.1 Alarm Record

- Before you set the alarm setup information, please go to chapter 0 to connect the alarm input and alarm output cable (such as light, siren, etc).
- The record priority is: Alarm>Motion detect>Regular.

In the Main Menu, from Setting->Event->Alarm, you can see the alarm setup interface. See Figure 4-60.

- Alarm in: Here is where you select the channel number.
- Event type: There are four types. Local alarm/network alarm/IPC external/IPC offline alarm.
 - ✧ Local input alarm: The alarm signal is detected via the alarm input port.
 - ✧ Network input alarm: This is the alarm signal from the network.
 - ✧ IPC external alarm: This is the on-off alarm signal from the front-end device and can activate the local NVR.
 - ✧ IPC offline alarm: Once you select this item, the system can generate an alarm when the frontend IPC disconnects from the local NVR. The alarm can activate recording, PTZ, snapshot, etc.

The alarm can last until the IPC and the NVR connection resumes.
- Enable: Please check this box to enable the current function. ● Type: normal open or normal close.
- c) Click the Save button to complete alarm setup interface.

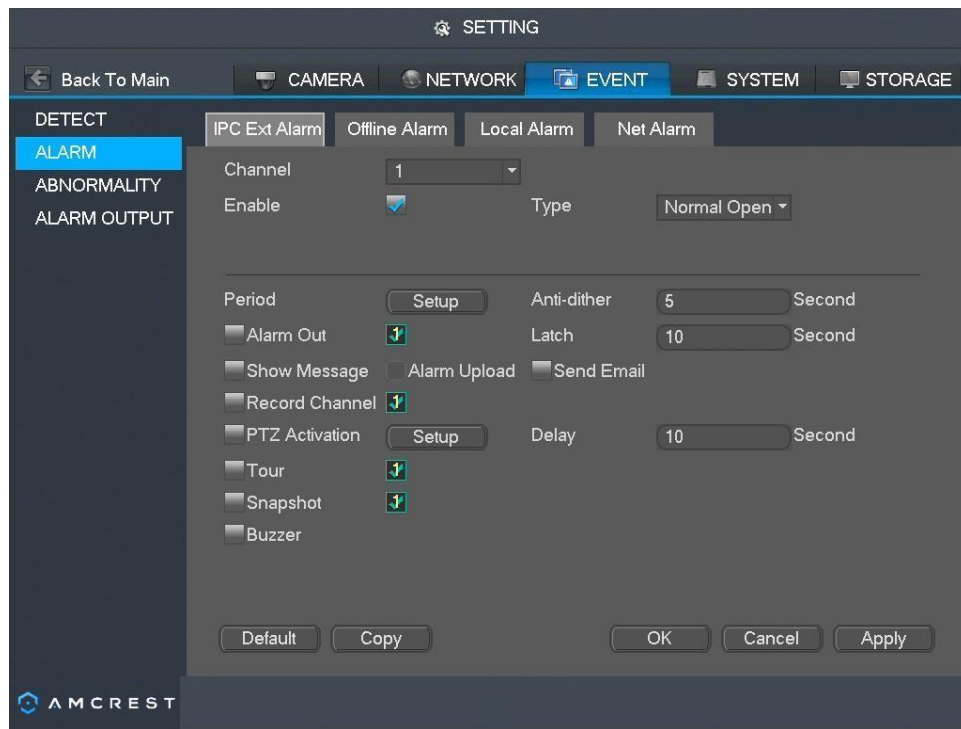


Figure 4-60

- d) From Main Menu->Setting->Storage->Schedule, you can go to Figure 4-50.
- e) Select alarm channel, period, and the record type for the alarm. Please refer to chapter 4.8.2.
- f) Click the Copy button to copy the current setup to other channel(s).
- g) Click the OK button to save the alarm settings.

4.8.4.2 Alarm Snapshot

- a) Please refer to Step a) to step c) of chapter 4.8.3.2 to enable timing snapshots.
- b) From Main Menu->Setting->Storage->Schedule you can go to Figure 4-61 to enable the snapshot function.
- c) From Main Menu->Setting->Event->Alarm, you can go to Figure 4- to set the alarm parameter and enable the snapshot function.
- d) Click the Save button to save alarm snapshot setup.

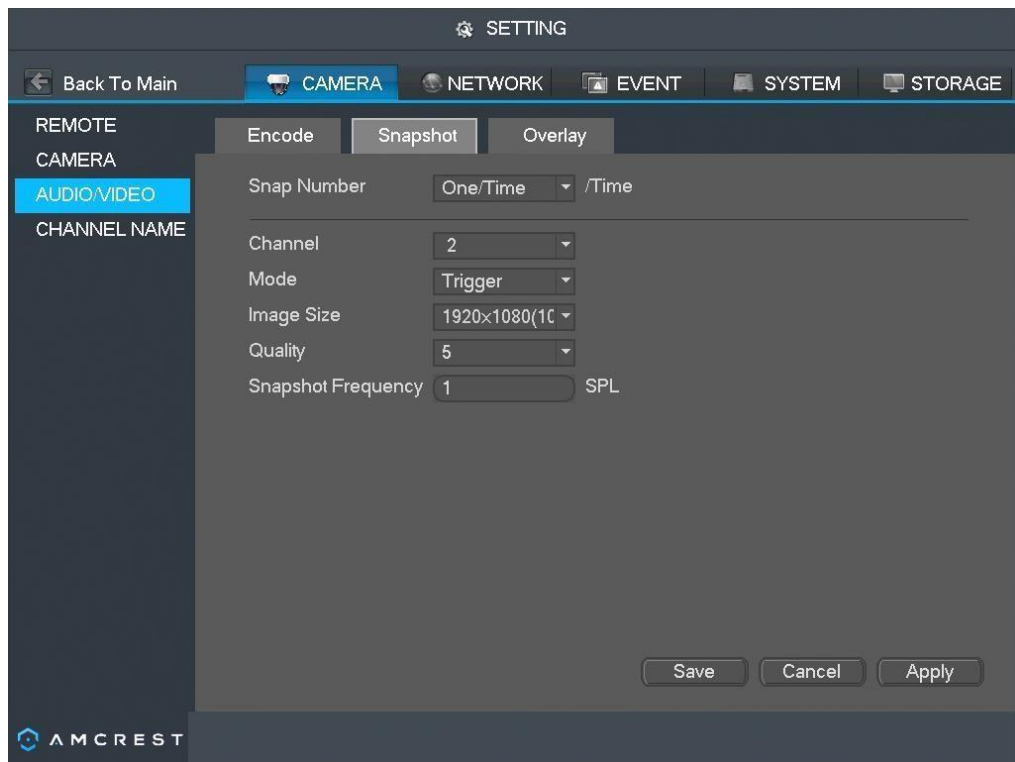


Figure 4-61

4.8.5 Manual Record/Snapshot

You need to have proper rights to implement the following operations. Please make sure the HDD has been properly installed.

4.8.5.1 Manual Record

- a) Right mouse click and select manual record or in the Main Menu, from

Setting->Storage->Manual Record. The manual record menu is shown as in Figure 4-62.

Tips

You can click the Rec button on the front panel (if possible) to go to the Manual Record interface.

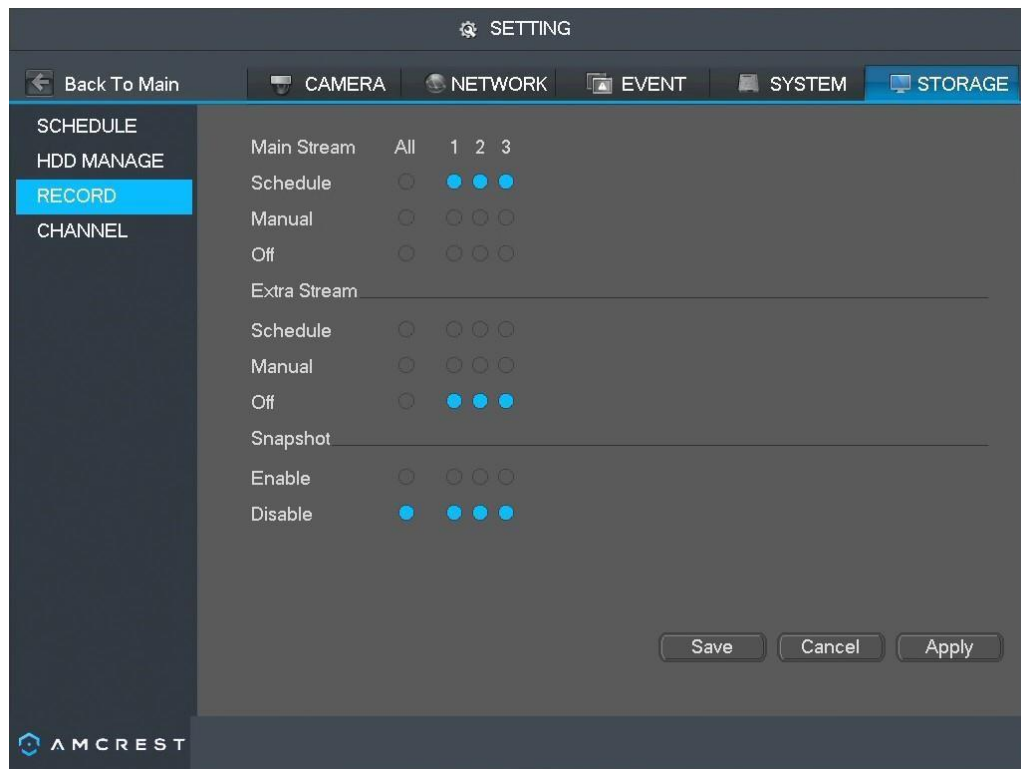



Figure 4-62

b) Check the box here to select the channel(s) to manually record. You can see the corresponding indicator light on the front panel is on.

- Channel: This is to select the desired device channels.
- Manual: This has the highest priority. Enable the corresponding channel to record no matter what period is applied in the record setup. Now the system is recording.
- Auto: The system enables the auto record function as you set in chapter 4.8.2 schedule interface (General/Motion detect/Alarm)
- Stop: Stop current channel recording/snapshot no matter what period is applied in the record setup.
- All: Check the All box to select all channels.

c) Click the OK button to complete manual record setup.

4.8.5.2 Manual Snapshot

Click the  button on the preview control bar and you can take 1-5 picture(s). From the Main Menu->Setting->Camera->Encode->Snapshot, you can set the amount of snapshots to take. You can go to chapter 4.9 to view the snapshots.

4.8.6 Holiday Record/Snapshot

This is for you to set the holiday record or snapshot plan. Please note the holiday record/snapshot setup has a higher priority than the ordinary date record/snapshot setup.

4.8.6.1 Holiday Record

- a) From Main Menu->Setting->System->General, you can go to the following interface. See Figure 4-63.

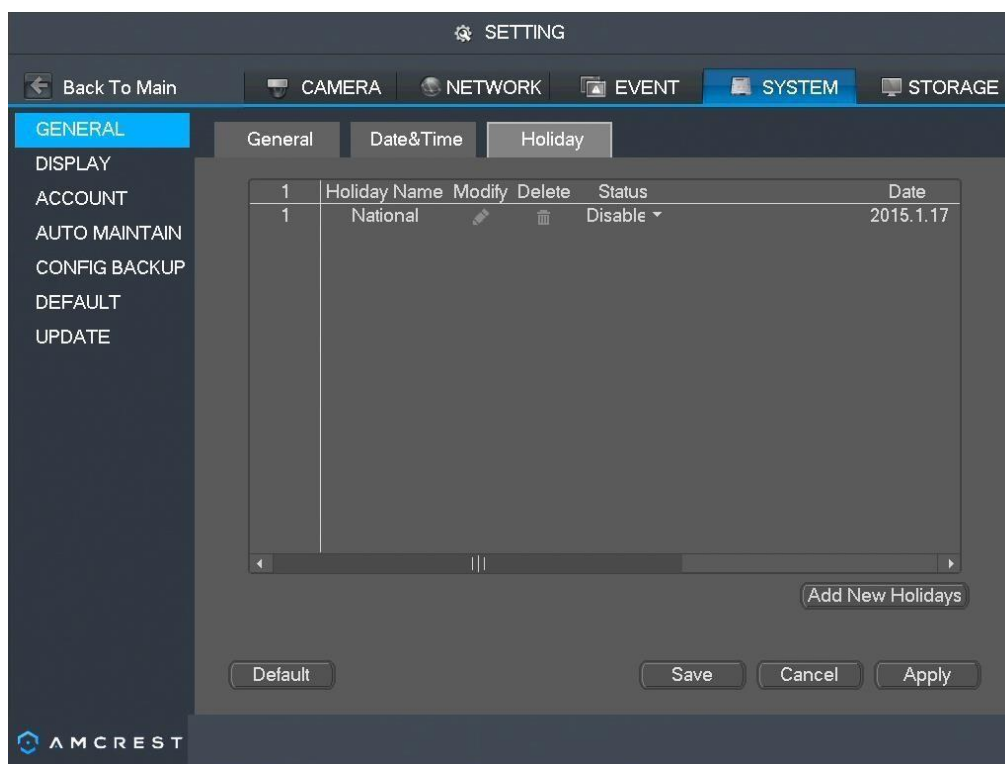


Figure 4-63

- b) Click the Add New Holidays button and you can see an interface shown as in Figure 4-64. Here you can set the holiday date name, repeat mode, start time/end time, etc.

The 'Add New Holidays' dialog box is shown. It includes the following fields and options:

- Holiday Name:** A text input field.
- Repeat Mode:** Radio buttons for 'Once' (selected) and 'Always'.
- Holiday Range:** Radio buttons for 'Date' (selected) and 'Week'.
- Start Time:** A date picker showing '2014 - 12 - 31'.
- End Time:** A date picker showing '2014 - 12 - 31'.
- Add More:** A checkbox.
- Buttons:** 'Save', 'Add', and 'Cancel' at the bottom right.

Figure 4-64

- c) Click the Add button to complete holiday setup. Now you can enable holiday setup and then click the Apply button.

- d) From Main Menu->Setting->Storage->Schedule, you can go to schedule interface. See Figure 465. Now you can set the period and record type for the holiday time. Please refer to chapter 4.8.2.1 for detailed setup information.

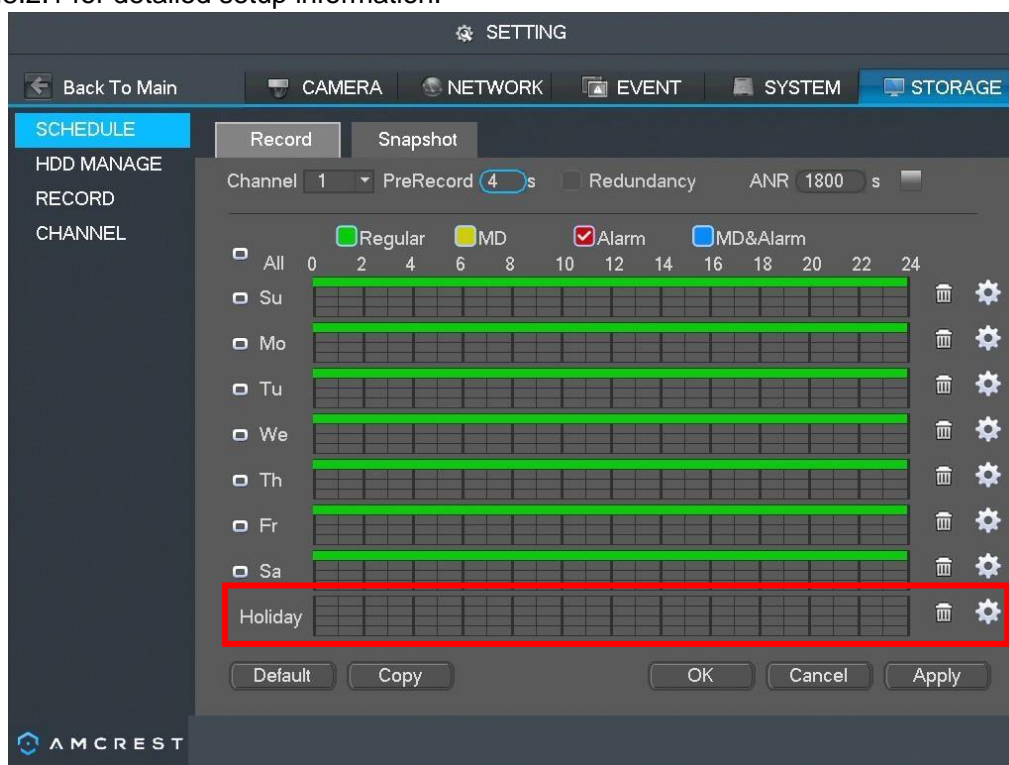


Figure 4-65

- e) Click the OK button to set the holiday record setup.

4.8.6.2 Holiday Snapshot

Set the Holiday date first. Please refer to step a) to step c) of chapter 4.8.6.1.

From Main Menu->Setting->Storage->Schedule, you can go to schedule interface. See Figure 4-. Click the Holiday item to set the snapshot period.

Set the holiday snapshot type (Trigger/Timing). Please refer to chapter 4.8.2.2 or chapter 4.8.3.2.

4.8.7 Other Record/Snapshot

For Motion Detect&Alarm record or snapshot, please refer to chapter 4.8.4.

For video loss or masking record or snapshot function, please refer to chapter 4.8.3.

4.9 Playback and Search

4.9.1 Real-time Playback

Please refer to chapter 4.6.2 for real-time playback information.

4.9.2 Search Interface

From Main Menu->Search, or on the preview interface right mouse click and then select the search item, you can go to the following interface. See Figure 4-66.

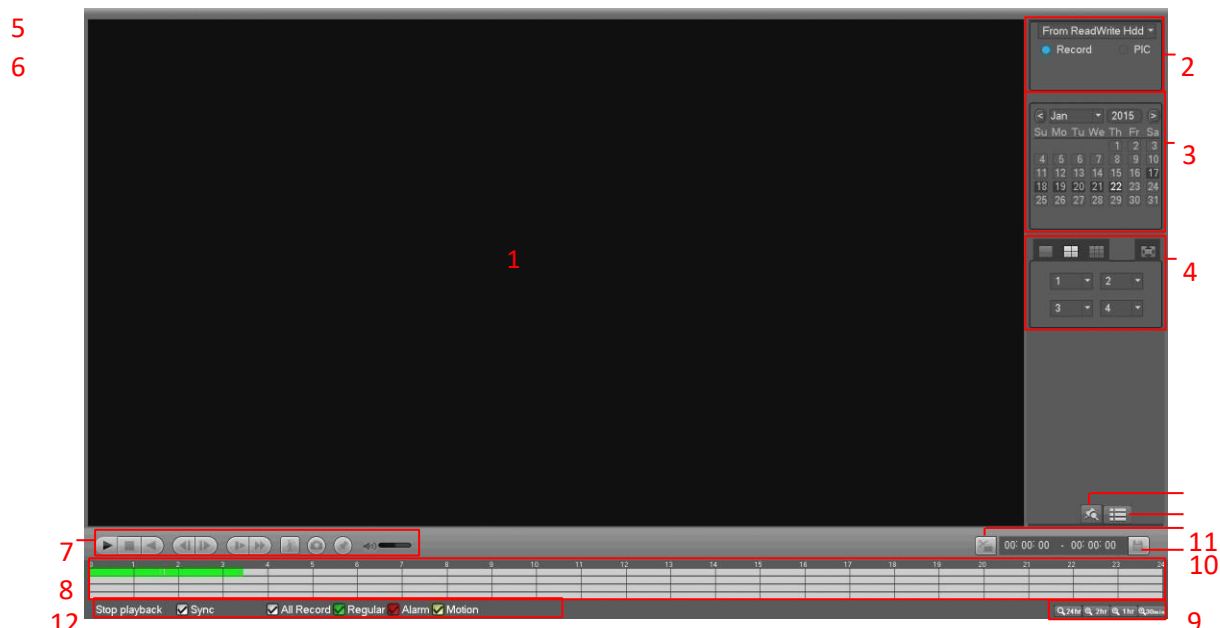





Figure 4-66

Please refer to the following sheet for more information.

SN	Name	Function
1	Display window	<ul style="list-style-type: none"> ● Here is where the searched picture or file will be displayed. ● Supports 1/4/9-window playback.
2	Search type	<ul style="list-style-type: none"> ● 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	<ul style="list-style-type: none"> ● 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.	<ul style="list-style-type: none"> ● 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.	
6	File list switch button	<ul style="list-style-type: none">● 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. <div><div>00 : 00 : 00</div><div></div></div> <ul style="list-style-type: none">● Lock file. Click the file you want to lock and click the button to lock it. <p>The file you locked will not be overwritten.</p>	
7	Playback control pane.		<p>Play/Pause</p> <p>There are three ways for you to begin playback.</p> <ul style="list-style-type: none">● The play button● Double click a valid period on the time bar.● Double click the item in the file list. <p>In slow play mode, click this to switch between play/pause.</p>
			Stop
			<p>Backward play</p> <p>In normal play mode, left click this button, and the file begins to play backward. Click it again to pause the current record.</p> <p>In backward play mode, click ▶/ to restore normal play.</p>
			<p>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.</p> <p>In normal play mode, when you pause the current record, you can click ◀ and ▶ to begin frame by frame playback.</p> <p>In frame by frame playback mode, click ▶/ to restore normal playback.</p>
			<p>Slow play</p> <p>In playback mode, click this to slow play in various modes such as slow play 1, slow play 2, etc.</p>
			<p>Fast forward</p> <p>In playback mode, click this to fast forward in various modes such as fast play 1, fast play 2, etc.</p>
		Note: The actual play speed is related to the software version.	

			Smart search
			The volume of the playback
			<p>Click the snapshot button in the full-screen mode and the system will take 1 snapshot.</p> <p>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.</p>
			<p>Mark button.</p> <p>Please note this function is for some series product only. Please make sure there is a mark button in the playback control pane.</p> <p>You can refer to chapter 4.9.2.3 for detailed information.</p>
8	Time bar	<ul style="list-style-type: none"> ● 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 is 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	<ul style="list-style-type: none"> ● 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 is 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	<ul style="list-style-type: none"> ● 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 can not start a new backup operation. 	


11	Clip	<ul style="list-style-type: none"> ● 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.
		<ul style="list-style-type: none"> ● 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 similar to the one-channel operation. <p>Please note:</p> <ul style="list-style-type: none"> ● 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	<ul style="list-style-type: none"> ● 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 can not implement operations such as change time bar, begin backward playback, or frame by frame playback. ● Please refer to chapter 4.9.2.1 Smart Search for detailed operation.
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.

4.9.2.1 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. See Figure 4-67.

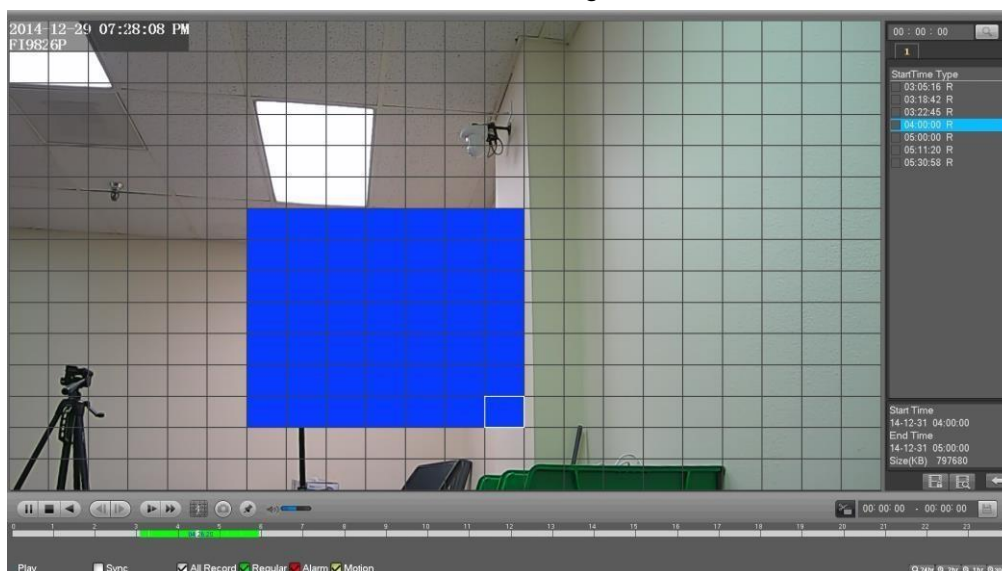




Figure 4-67

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.**

4.9.2.2 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. See image on the left side of the Figure 4-68 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.

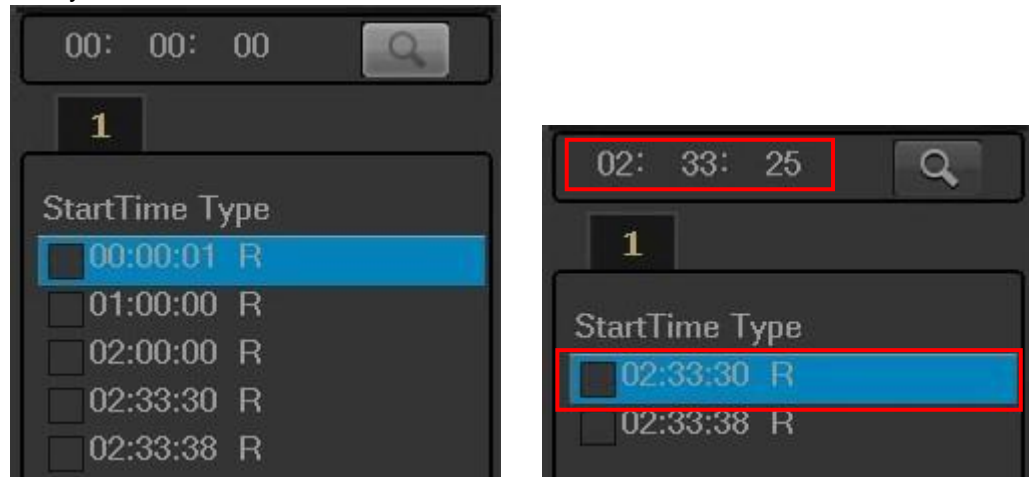


Figure 4-68

4.9.2.3 Mark Playback

Please make sure your purchased device support this function. You can use this function only if you can see the mark playback icon on the Search interface (Figure 4-66).

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. See Figure 4-69.

Figure 4-69 is a screenshot of the 'Add Mark' dialog box. The dialog has a title bar 'Add Mark'. Inside, there are two input fields: 'Mark Time' with the value '2014-12-31 04:35:38' and 'Mark Name' with the value 'Important'. At the bottom of the dialog, there are three buttons: 'Default', 'OK', and 'Cancel'.

Figure 4-69

- Playback Mark

During 1-window playback mode, click the mark file list button  in Figure 4-66, 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

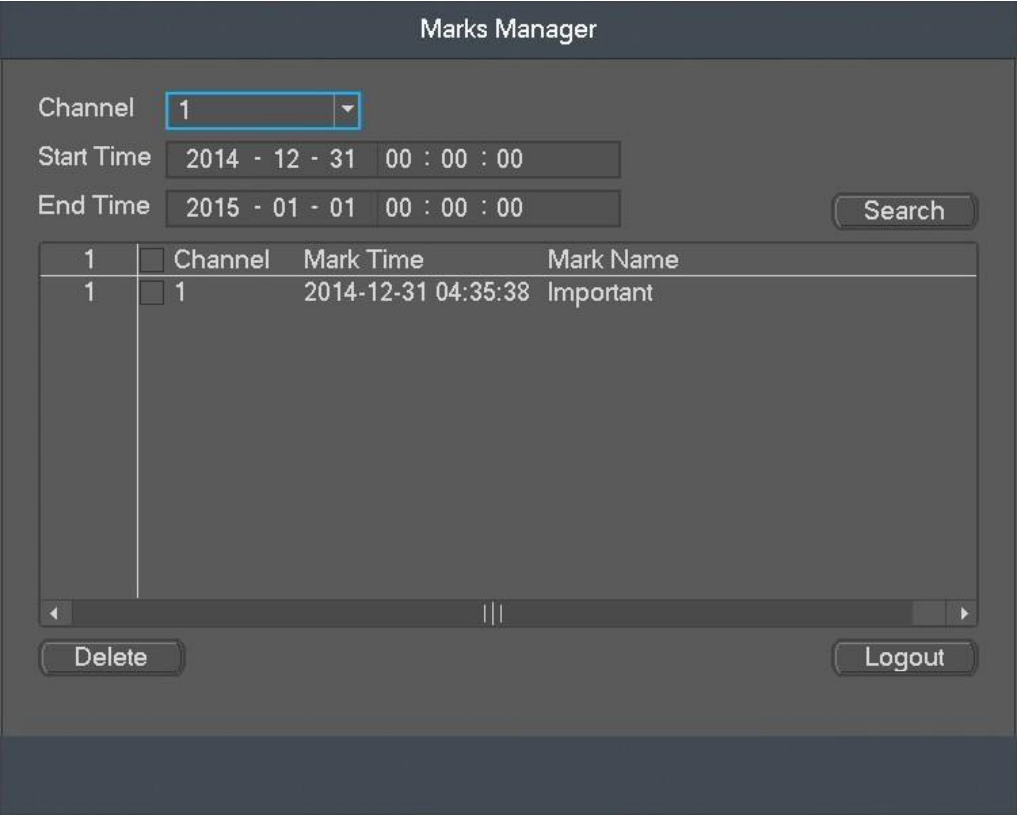
Here you can set to begin playback from the previous N seconds of the mark time.

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 (Figure 4-66); you can go to Mark Manager interface. See Figure 4-70. 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	Mark Time	Mark Name
1	2014-12-31 04:35:38	Important

Figure 4-70

- 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 begin playing back from the first file in the list.

4.9.3 Picture Playback

- From Main Menu->Search, or on the preview interface right mouse click, you can go to Figure 4-.
- At the top right pane, you can check the box to select picture and then select the playback interval.
- Please refer to chapter 4.9.2 to select the picture you want to view.

4.10 Backup

4.10.1 File Backup

In this interface, you can backup a recording to a USB device.

- Connect a USB burner, USB flash disk, portable HDD, etc to the device.
- From Main Menu->Backup, you can go to the Backup interface. See Figure 4-71

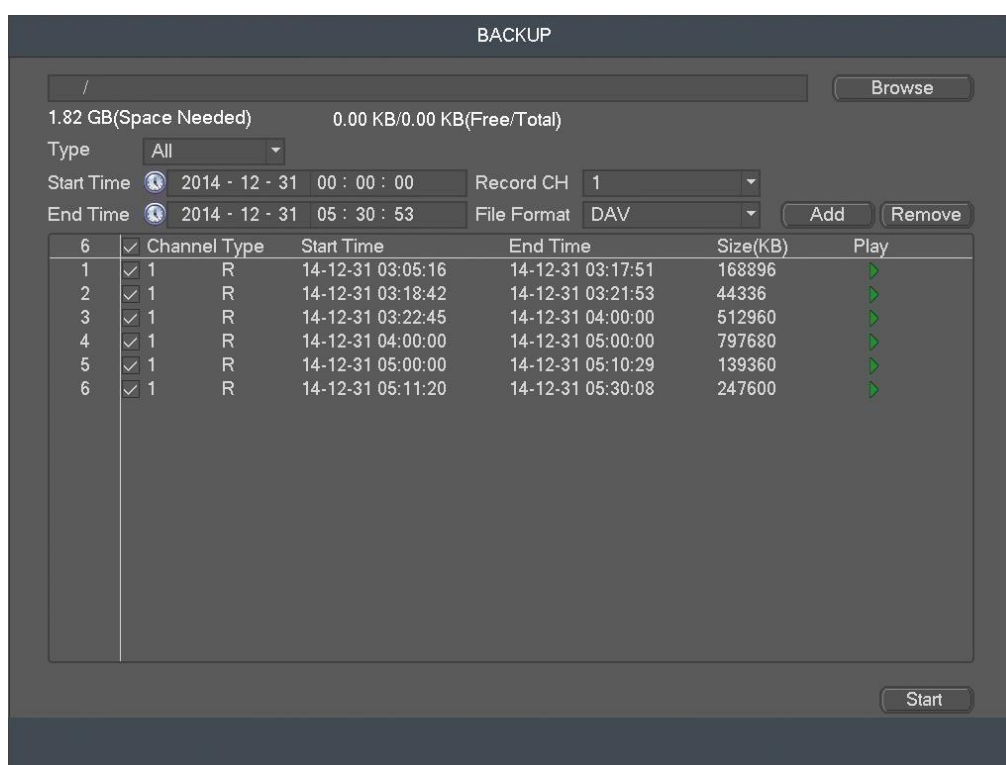


Figure 4-71

- Select the backup device and then set the channel, start time, and end time.
- Click the Add button, and the system begins searching. All matched files are listed below. The system automatically calculates the capacity needed and remaining. See Figure 4-72.
- The system only backs up files with a ✓ before the record. You can use the Fn or the Cancel button to delete the ✓ after a record.
- Click the Backup button to backup the selected files. There is a process bar for your reference.
- When the system completes the backup, you can see a dialogue box prompting a successful backup.

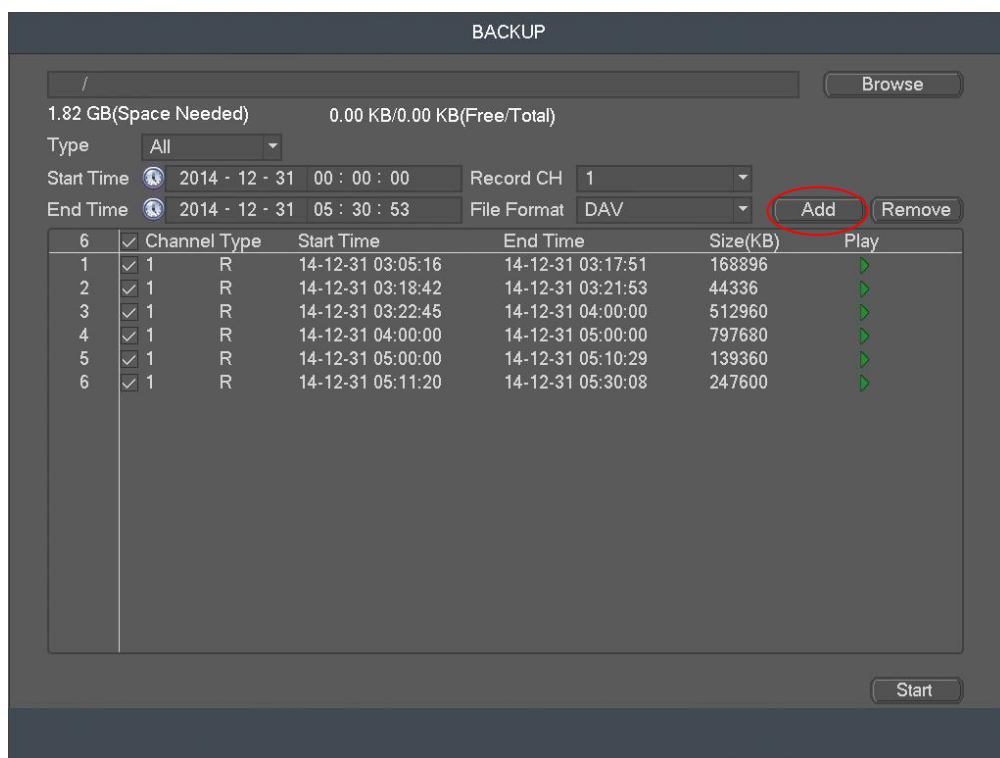


Figure 4-72

- h) Click the backup button and the system begins burning/writing. At the same time, the backup button becomes a stop button. You can view the remaining time and process bar at the left bottom.

Note

- During backup process, you can click ESC to exit the current interface for other operations (For some series products only). The system will not terminate the backup process.
- The file name format usually is: Channel number+Record type+Time. In the file name, the YDM format is Y+M+D+H+M+S. The file extension is .dav.

4.10.2 Import/Export

This function allows you to copy the current system configuration to other devices. It also supports import, create new folder, delete folder, etc functions.

From Main Menu->Setting->System->Import/Export, you can see the configuration file backup interface is shown as below. See Figure 4-73.

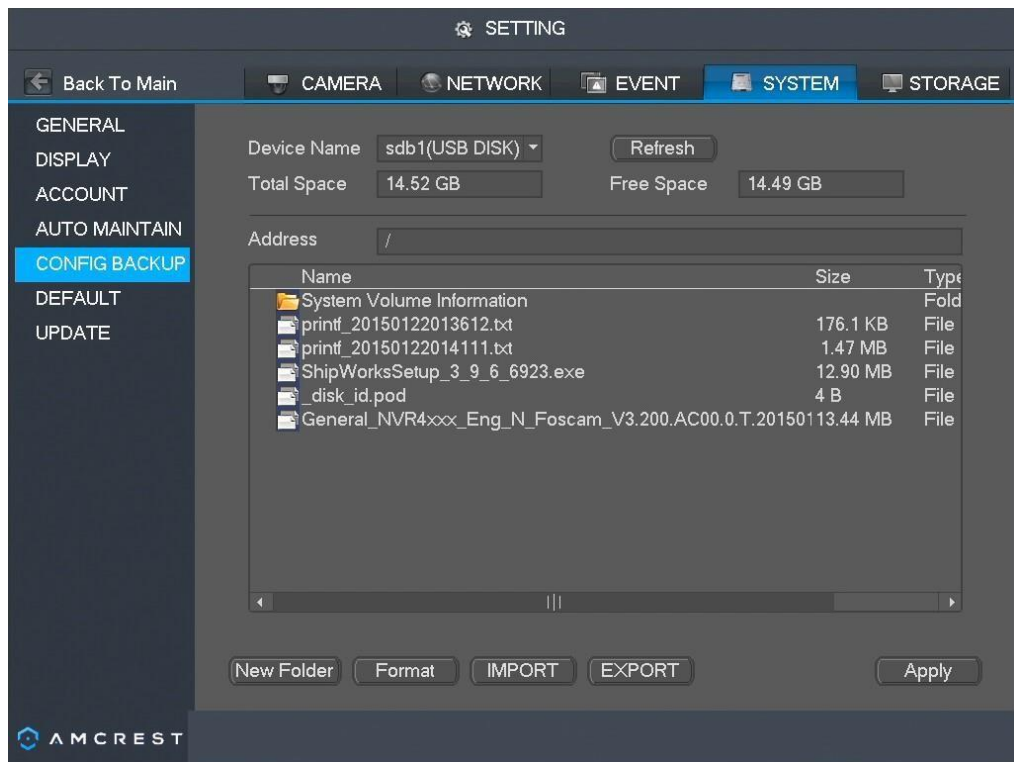


Figure 4-73

- Export: Please connect the peripheral device first and then go to the following interface. Click the Export button and you can see there is a corresponding "Config_Time" folder. Double click this folder and you can view some backup files.
- Import: Here you can import the configuration files from the peripheral device to the NVR. You need to select a folder first. A dialog box will appear asking you to select a folder containing a configuration file. If no configuration file is found in the folder, a dialog box will appear indicating this. After a successfully import, the system needs to reboot to activate the new settings.
- Format: Click the Format button and the system pops up a dialogue box for you to confirm the format operation. The system begins formatting after you click the OK button.

Note:

- The system cannot open the backup interface if there is a backup operation currently running.
- Every time the backup interface is opened, it will be at the root directory of the peripheral device.
- If you go to the configuration backup interface before inserting the peripheral device, please click the Refresh button to see the newly added device.

4.10.3 Backup Log

- a) From Main Menu->Info->Log, the interface is shown as below. See Figure 4-74.

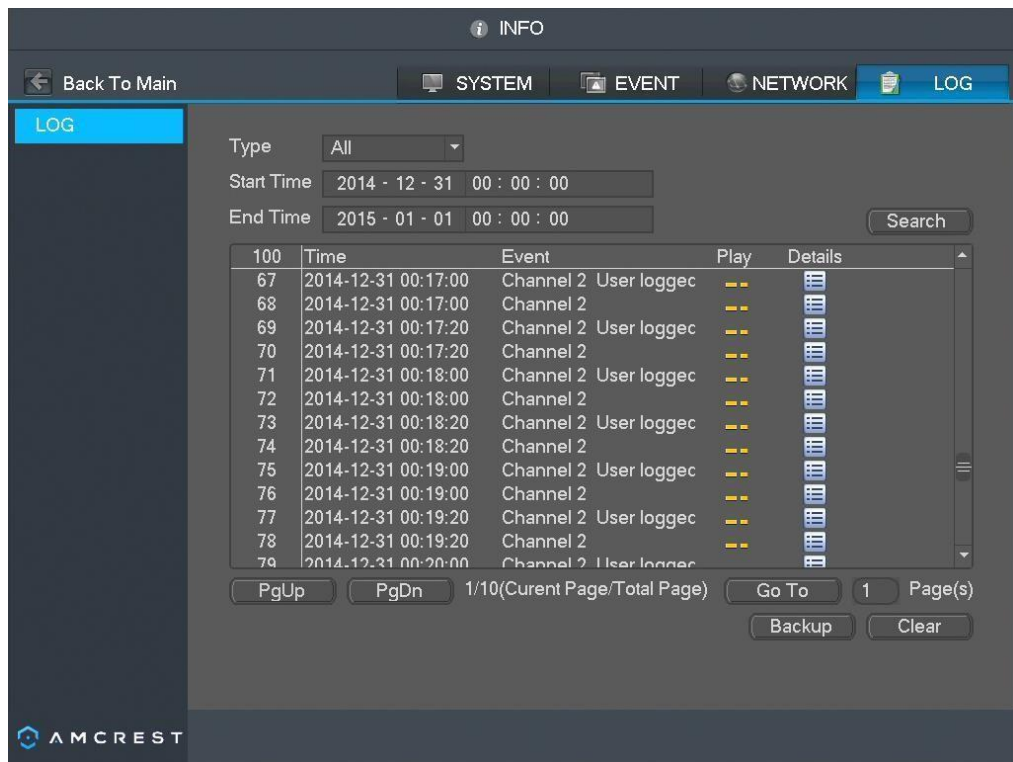



Figure 4-74

- b) 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.
- c) 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 backup the selected events and you can see a corresponding dialogue box after the process is finish.

4.10.4 USB Device Auto Pop-up

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. See Figure 4-75. For detailed information please refer to chapter 4.10.1 for file backup, chapter 4.10.3 for log backup, chapter 4.10.2 for import/export, and chapter 4.9.2 search.

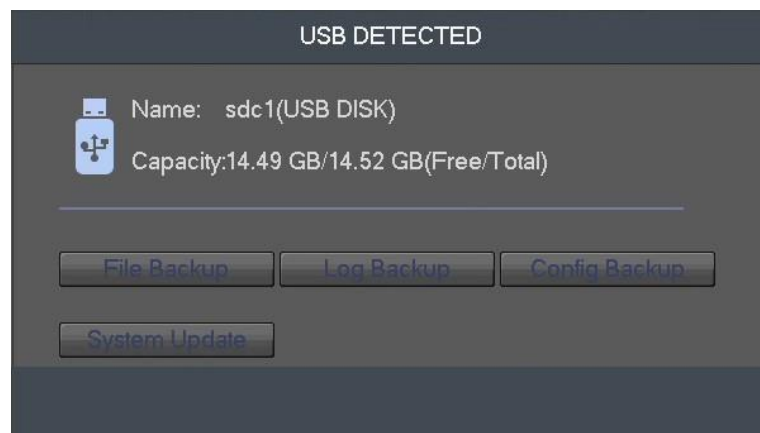


Figure 4-75

4.11 Alarm

4.11.1 Detect Alarm


In Main Menu->Setting->Detect, you can see the motion detect interface. See Figure 4-76. There are three detection types: motion detection, video loss, and tampering.

4.11.1.1 Motion Detect

This system can analyze realtime footage and generate a motion detect alarm when motion is detected at the sensitivity set here.

The detection menu is shown as below. See Figure 4-76.

- Event type: From the dropdown list you can select the motion detection type.
- Channel: Select a channel from the dropdown list to monitor for motion.
- Enable: Check the box here to enable the motion detect function.
- Region: Click the Setup button next to Region to view the interface is shown as in Figure 4-69. Here you can set up to four motion detection zones. Please select a zone first and then left click and drag the mouse to select a zone. Each zone has is represented by a different color. You can click the Fn button to switch between the arm mode and disarm mode. In the arm mode, you can use the direction buttons to control the green rectangle to set the motion detection zone. After you have finished setting the zones, please click ENTER button to exit the current setup. Remember to 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 zone setup.
- Sensitivity: The system supports 6 levels. The sixth level has the highest sensitivity.
- Anti-dither: Here you can set anti-dither time. The value ranges from 5 to 600s. The anti-dither time refers to how long the alarm signal lasts before it resets and a new alarm can be triggered. Any alarm within this anti-dither time will be included in the original alarm event and will also reset the anti-dither countdown. The latch time is not included. The screen prompt, alarm upload, email and etc will not be activated for alarms within the anti-dither time. For example, if you set the anti-dither time as 10 seconds, each activation may last 10s if the local alarm is activated. During this process, if the system detects another local alarm signal at the fifth second, the buzzer, tour, PTZ activation, snapshot, record channel will begin another 10s while the screen prompt, alarm upload, email will not be activated again. After 10s, if the system detects another alarm signal, it can generate an alarm since the anti-dither time is out.
- Period: Click the Setup button to see the interface is shown as in Figure 4-78. Here you can set the motion detect period. The system only enables the motion detect operation during the specified periods. This is not available for video loss or the tampering. There are two ways for you to set periods. Please note the system only supports 6 periods in one day.

✧ In Figure 4-, select the  icon of several dates and all checked items can be edited together. Now


the icon is shown as  Click  to delete a recording type from one period.

✧ In Figure 4-, click  after one date or a holiday to view the interface shown as in Figure 4-79.

There are four recording types: regular, motion detection (MD), alarm, MD & alarm.

- Alarm output: When an alarm occurs, the system enables peripheral alarm devices.
- Latch: When motion detection is complete, the system auto delays detecting for the specified time. The value ranges from 1-300 seconds.
- Show message: The system will show a pop up a message on the local host screen when an alarm occurs.
- Alarm upload: The system will upload the alarm signal to the network (including the alarm center).
- Send email: The system will send out an email to alert you when an alarm occurs.

- Record channel: The system will automatically record on the channel(s) once motion is detected. Please make sure you have set MD recording in the Schedule interface (Main Menu->Setting->Schedule) and scheduled recording in the manual record interface (Main Menu>Advanced->Manual Record)
- PTZ activation: Here you can set PTZ movement when an alarm occurs, such as go to preset, tour, or pattern. Click the Setup button to see an interface is shown as in Figure 4-77.
- Record Delay: The system can delay recording for a specified time after the alarm has ended. The value ranges from 10s to 300s.
- Tour: Here you can enable the tour function when an alarm occurs.
- Snapshot: You can enable this function to take a snapshot when a motion detect alarm occurs.
- Video matrix: Check the box here to enable this function. When an alarm occurs, the SPOT OUT port displays the device's video output. It displays video (1-window tour) from the alarm activation channel you select in the Record channel option.
- Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.

Please highlight check  to select the corresponding function. After all the settings are set, please click the save button and the system will go back to the previous menu.

Note:

In motion detection mode, you can not copy/paste to different channel setup since the video in each channel may not be the same.

In Region Setup, you can left click and then drag it to set a region for motion detection. Click Fn to switch between arm/disarm motion detection. After setting the zones, click the Enter button to exit.

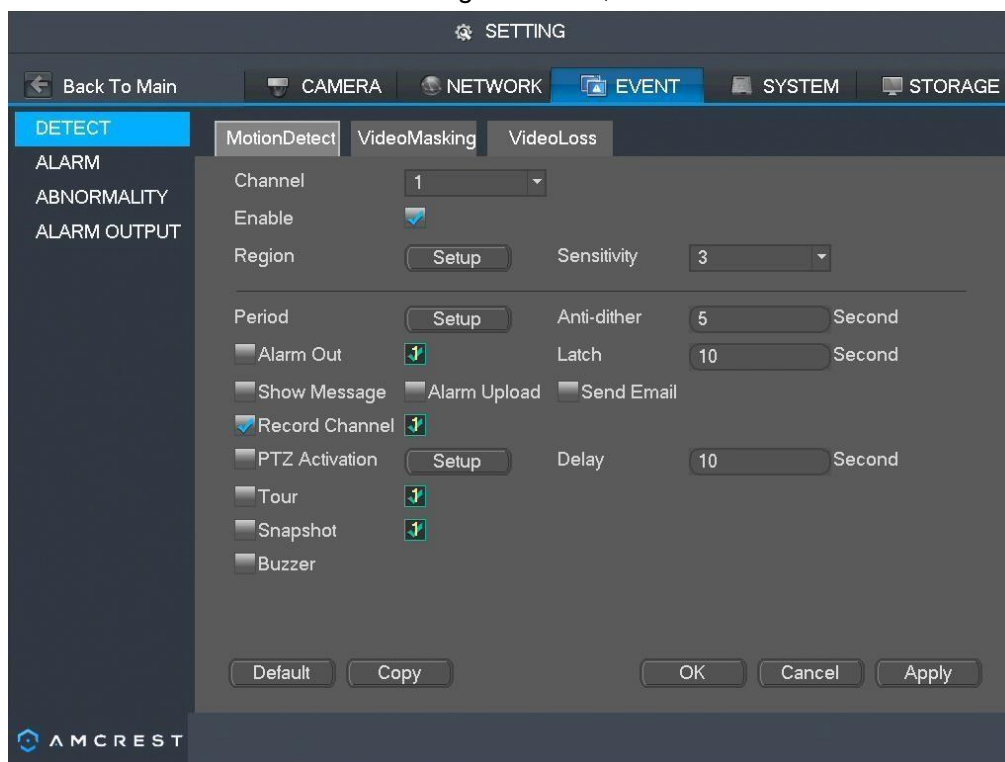


Figure 4-76

PTZ Activation

CAM 1	None	0	CAM 2	None	0
CAM 3	None	0	CAM 4	None	0
CAM 5	None	0	CAM 6	None	0
CAM 7	None	0	CAM 8	None	0

Figure 4-77

Setup

☐ All
☐ Su
☐ Mo
☐ Tu
☐ We
☐ Th
☐ Fr
☐ Sa

0 2 4 6 8 10 12 14 16 18 20 22 24

Setup

Setup

Setup

Setup

Setup

Setup

Setup

Figure 4-78

78


AMCREST

Period	Start Time	End Time	Enabled
Period 1	00 : 00	- 24 : 00	<input checked="" type="checkbox"/>
Period 2	00 : 00	- 24 : 00	<input type="checkbox"/>
Period 3	00 : 00	- 24 : 00	<input type="checkbox"/>
Period 4	00 : 00	- 24 : 00	<input type="checkbox"/>
Period 5	00 : 00	- 24 : 00	<input type="checkbox"/>
Period 6	00 : 00	- 24 : 00	<input type="checkbox"/>

Copy

☐ All
 ☒ Su
 ☐ Mo
 ☐ Tu
 ☐ We
 ☐ Th
 ☐ Fr
 ☐ Sa
 ☐ Holiday

Save

Figure 4-79

Motion detect here only has a relationship with the sensitivity and region setup. It has no relationship to other setups.

4.11.1.2 Tampering

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. The tampering interface is shown as in Figure 4-80. You can enable the "Alarm output" or "Show message" function when a tampering alarm occurs.

- **Sensitivity:** The value ranges from 1 to 6. This is based on the brightness. The highest sensitivity is 6 and lowest is 1. The default value is 3.

Tips:

You can enable a preset/tour/pattern operation when video loss occurs.

Please refer to chapter 4.11.1.1 motion detection for detailed information.

Note:

- In the Detect interface, the copy/paste function is only valid for the same detection type. This means you can not copy a channel setup in the video loss mode to the video masking mode.
- **Default function limitations:** Since the detection channel and detection type may not be the same, the system can only restore the default settings of current detect type. For example, if you click the Default button on the video masking interface, only the video masking settings will be restored to their defaults. The other detection types will remain unchanged.
- The system only enables the video masking function during the period you set here. It does not effect motion detect or video loss periods.

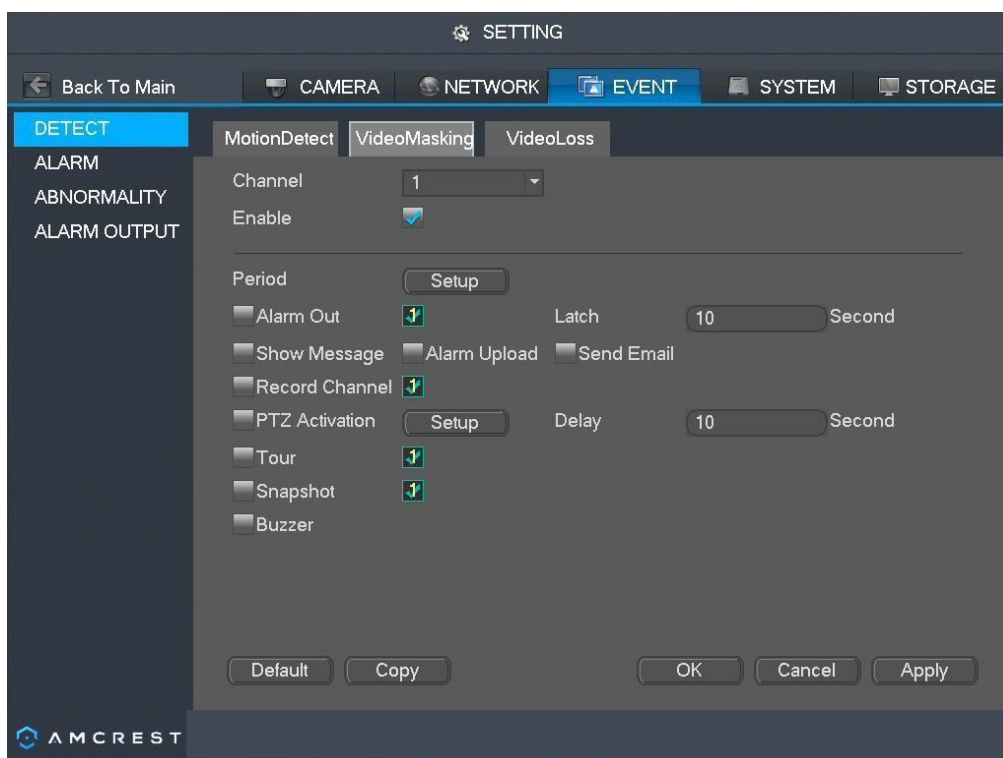


Figure 4-80

4.11.1.3 Video Loss

In Figure 4-, select the Video Loss menu. You can see the interface is shown as in Figure 4-81. This function informs you when video loss occurs. You can enable the alarm output channel and then enable the show message function.

You can refer to chapter 4.11.1.1 Motion detect for detailed information. **Tips:** You can enable a preset/tour/pattern operation when video loss occurs.

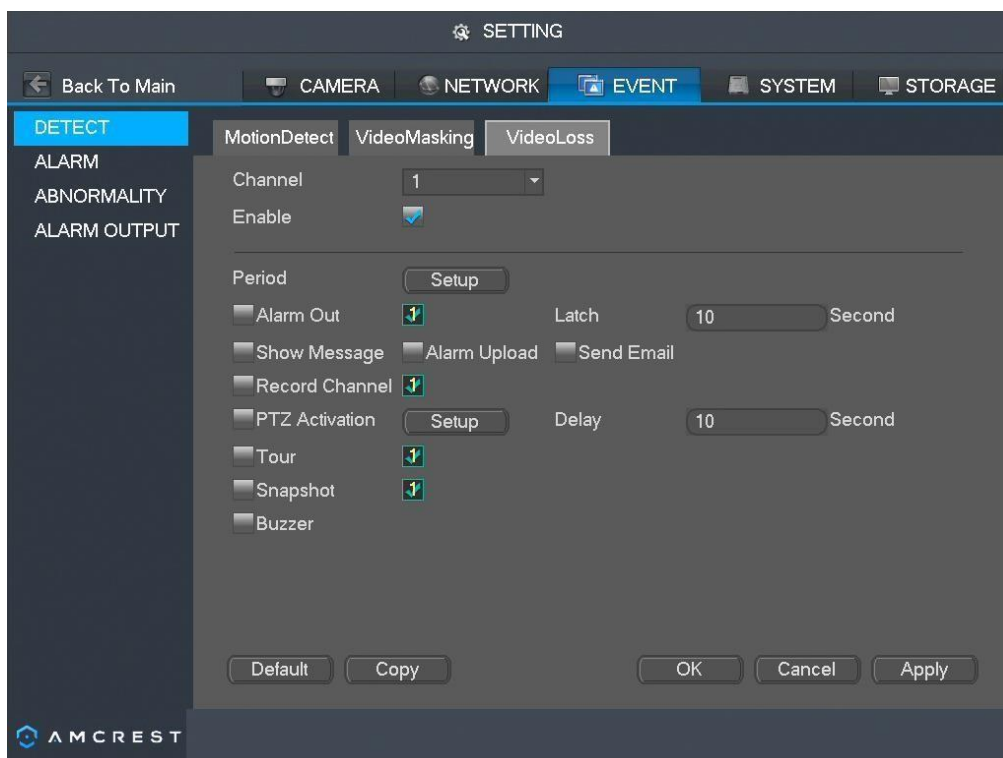


Figure 4-81

4.11.2 Alarm Output

From Main Menu->Setting->Event->Alarm Output, you can see an interface shown as in Figure 4-82.

You can set the proper alarm output (Auto/manual/stop) here.

Click the Save button of the alarm release to clear the alarm output status.

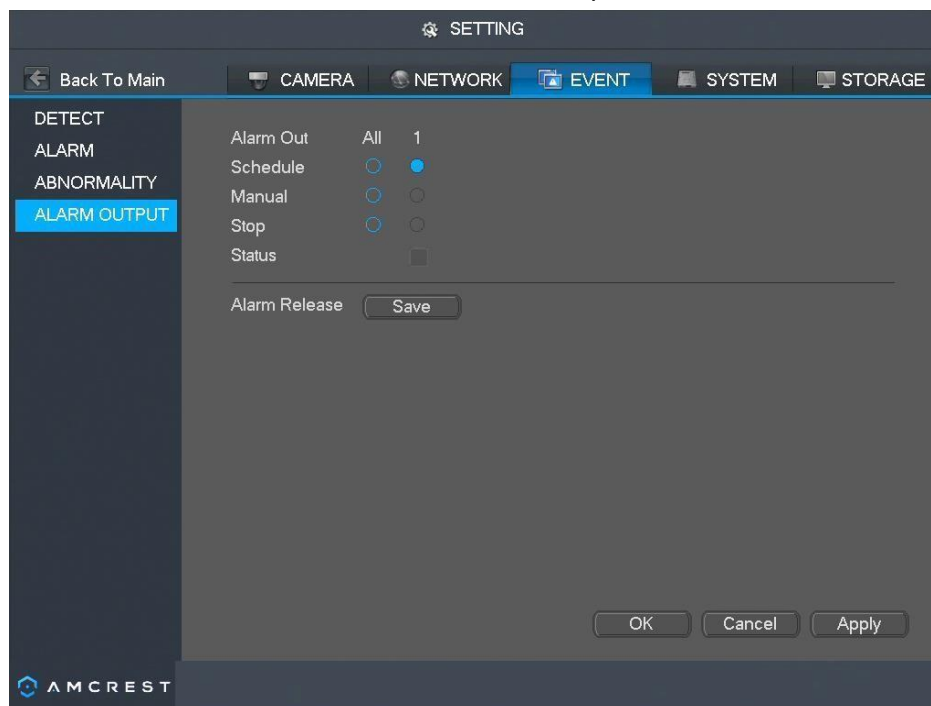


Figure 4-82

Please check ☐ to select the corresponding alarm output.

After all the settings are set, please click the OK button to go back to the previous menu.

4.11.3 Alarm Setup

In the Main Menu, from Setting->Event->Alarm, you can see the alarm setup interface.

- Alarm in: Here is where you to select channel number.






In the Main Menu, from Setting->Event->Alarm, you can see alarm setup interface. See Figure 4-83.

There are four alarm types. See Figure 4-83 to Figure 4-86.

- ✧ Local alarm: The alarm signal is detected from the alarm input port.
- ✧ Network alarm: The alarm signal comes from the network.
- ✧ IPC external alarm: This is the on-off alarm signal from the front-end device and can activate the local HNVR.
- ✧ IPC offline alarm: Once you select this item, the system can generate an alarm when the front-end IPC disconnects from the local HNVR. The alarm can activate record, PTZ, snap, etc. The alarm can last until the IPC and HNVR connection resumes.

Important

- If it is your first time to boot up the device, the disconnection status of the front-end network camera will not be regarded as offline. After one successfully connection, all the following disconnection events will be regarded as IPC offline event.
- When IPC offline alarm occurs, the record and snapshot function of the digital channel are null.
- Enable: Enables the alarm function. ● Type: normal open or normal closed.

- Period: Click the setup button to see an interface is shown as in Figure 4-88. There are two ways for you to set periods. There are a max of 6 periods in one day. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.
- ✧ In Figure 4-88, select the  icon of several dates to edit all checked items together. Now the icon is shown . Click  as to delete a recording type from one period.
- ✧ In  Figure 4-88, click  after one date or a holiday to see an interface shown as in Figure 4-9. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.
- PTZ activation: When an alarm occurs, the system can activate the PTZ operation. The PTZ operation lasts the duration of the anti-dither period. See Figure 4-87.
- Anti-dither: Here you can set anti-dither time. The value ranges from 5 to 600s. The anti-dither time refers to how long the alarm signal lasts before it resets and a new alarm can be triggered. Any alarm within this anti-dither time will be included in the original alarm event and will also reset the anti-dither countdown. The latch time is not included. The screen prompt, alarm upload, email and etc will not be activated for alarms within the anti-dither time. For example, if you set the anti-dither time as 10 seconds, each activation may last 10s if the local alarm is activated. During this process, if the system detects another local alarm signal at the fifth second, the buzzer, tour, PTZ activation, snapshot, record channel will begin another 10s while the screen prompt, alarm upload, email will not be activated again. After 10s, if the system detects another alarm signal, it can generate an alarm since the anti-dither time is out.
- Alarm output: The number here is the device alarm output port. You can select the corresponding ports(s) so the system can activate the corresponding alarm device(s) when an alarm occurs.
- Latch: When the anti-dither time ends, the channel alarm you select in the alarm output will last the specified period. The value ranges from 1 to 300 seconds. This function is not for other alarm activation operations. The latch is still valid even if you disable the alarm event function directly.
- Show message: The system will show a pop up message on the local host screen when an alarm occurs.
- Alarm upload: The system will upload the alarm signal to the network (including the alarm center and the WEB) if you enabled this function. The system only uploads the alarm channel status. You can go to the Alarm menu on the WEB interface to set an alarm event and alarm operation. Please go to the Network interface to set the alarm center information.
- Send email: An email will be sent out to alert you when an alarm occurs. Once you enable the snap function, the system can also send out an image as an attachment. Please go to the Main Menu>Setting->Network->Email interface to setup an email account.
- Record channel: You can select proper channel to record the alarm video (Multiple choices).
 - ✧ You need to set alarm record mode as Schedule in the Record interface (Main Menu->Advanced>Record). Please note manual record has the highest priority. If you select Manual mode, the system will record all the time even if there is no alarm triggered.
 - ✧ Now you can go to the Schedule interface (Main Menu->Setting->Schedule) to set the record type, corresponding channel number, week, and date. You can select the record type: Regular/MD/Alarm/MD&Alarm. Please note, you can not select the MD&Alarm and MD (or Alarm) at the same time.
 - ✧ Now you can go to the Encode interface to select alarm record and set the encode parameter (Main Menu->Setting->Encode).
 - ✧ Finally, you can set the alarm input as the local alarm and then select the record channel. The selected channel begins alarm recording when an alarm occurs. Please note, the system begins

the alarm recording instead of the MD recording if the local alarm and MD event occur at the same time.

- **Tour:** Here you can enable the tour function when an alarm occurs. The system supports 1/8-window tour. Please go to chapter 4.6.5 Display for the tour interval setup. Please note the tour setup here has higher priority than the tour setup you set in the Display interface. Once the two tours are both enabled, the system can enable the alarm tour when an alarm occurs. If there is no alarm, the system implements the tour setup in the Display interface.
- **Snapshot:** You can enable this function to take a snapshot when an alarm occurs.
- **Buzzer:** Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.

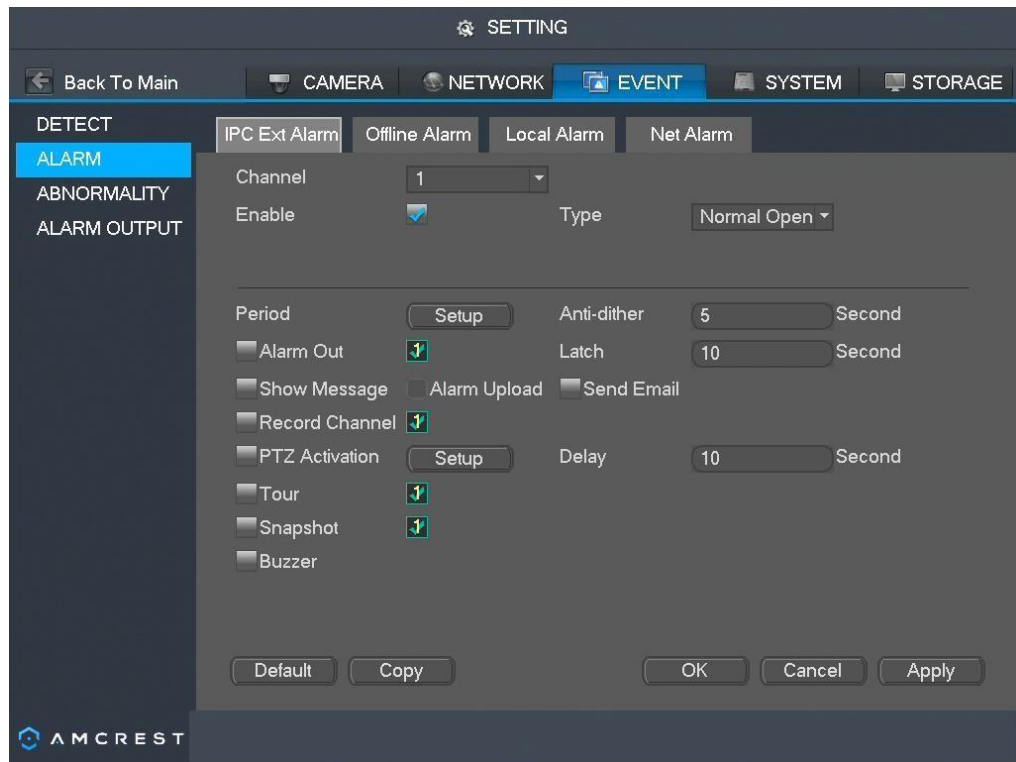


Figure 4-83

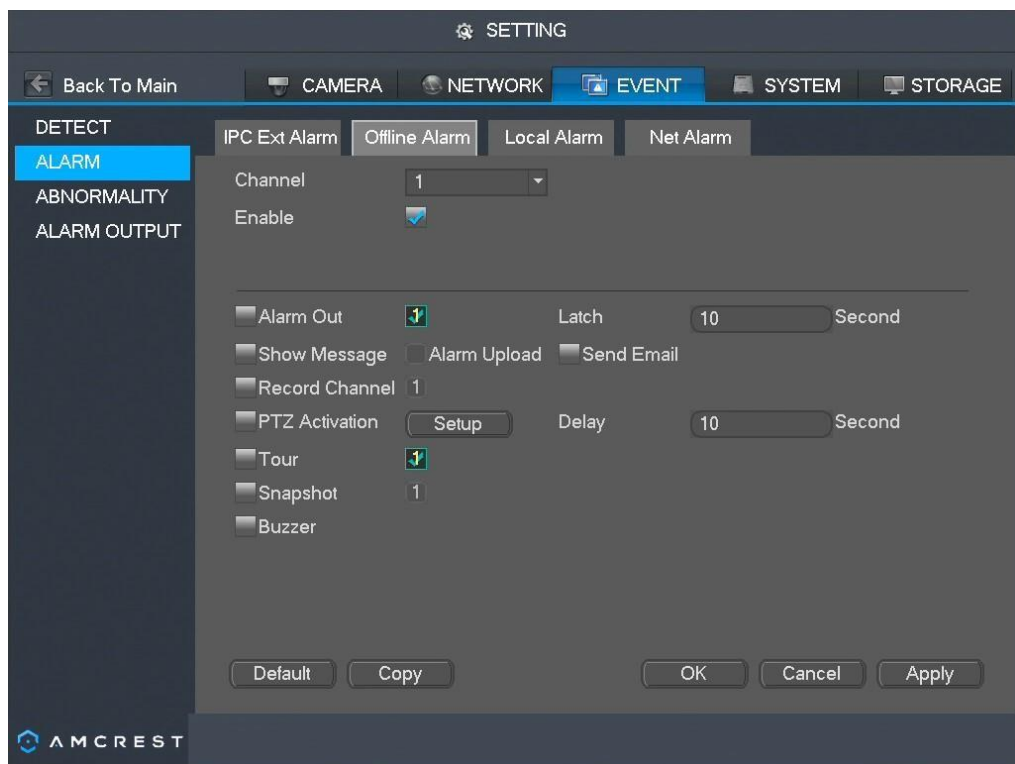


Figure 4-84

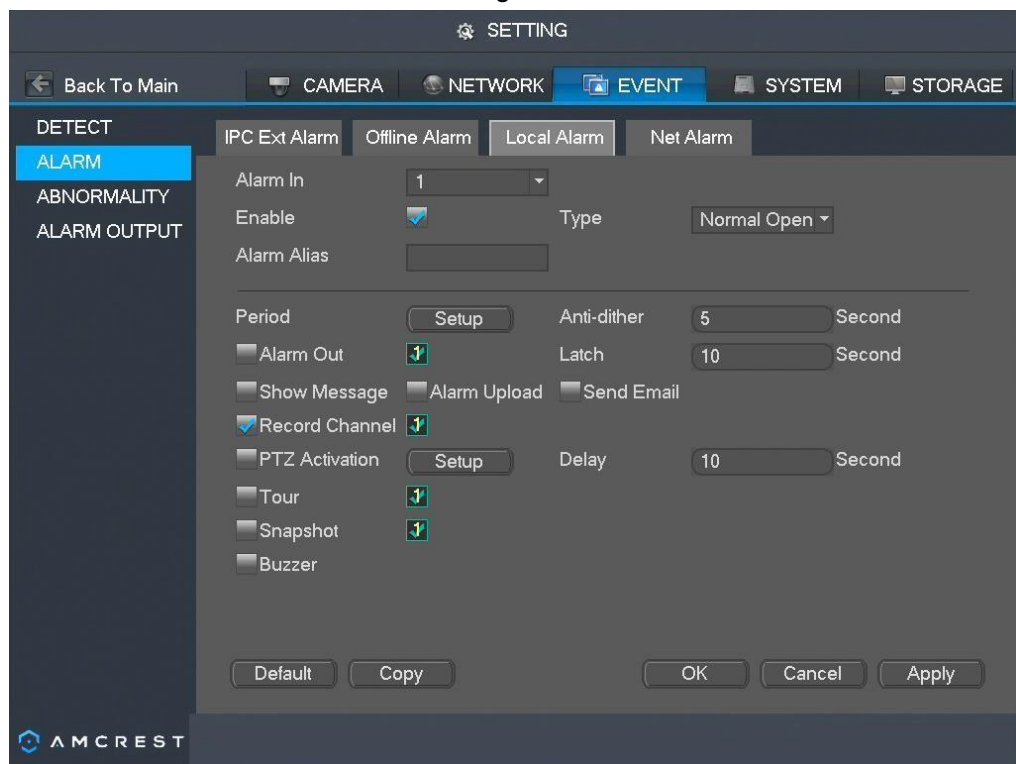


Figure 4-85

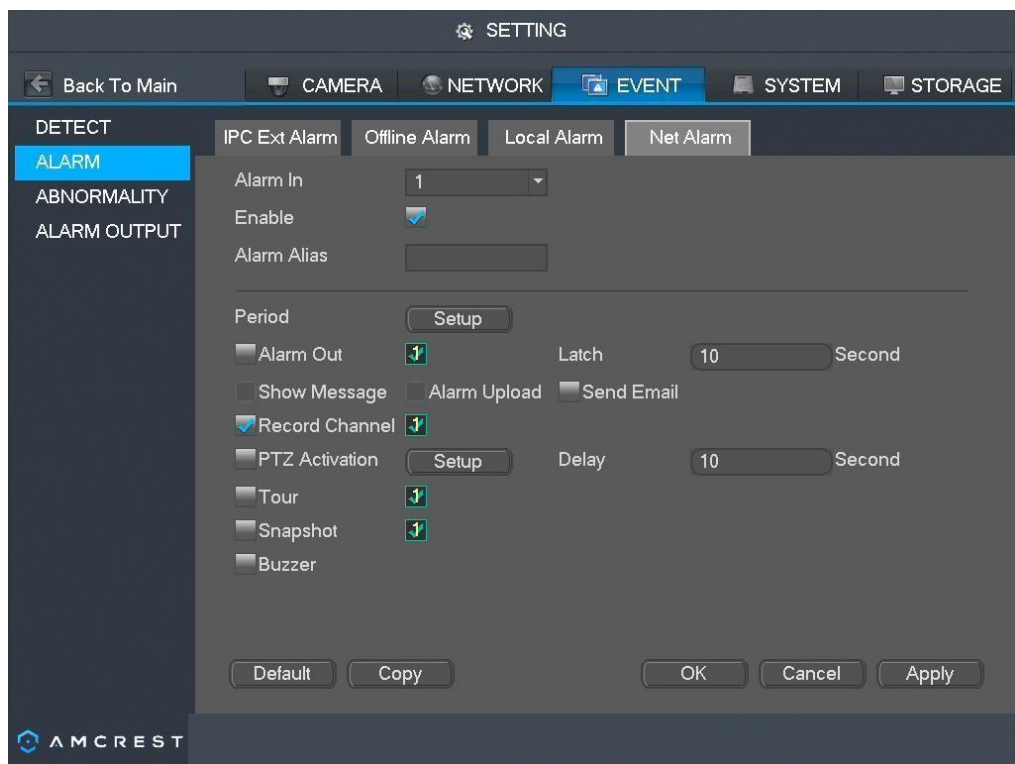


Figure 4-86

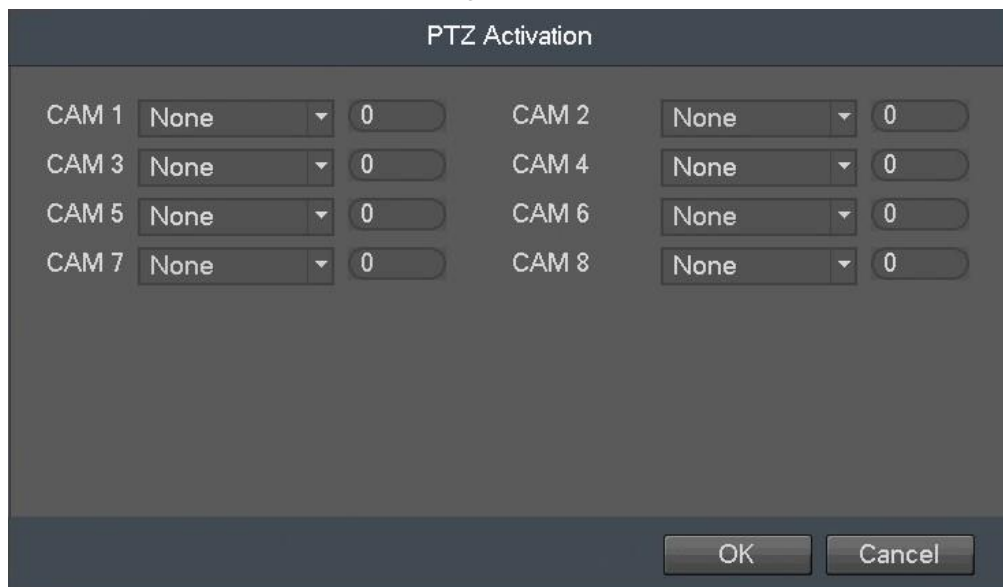


Figure 4-87



Figure 4-88

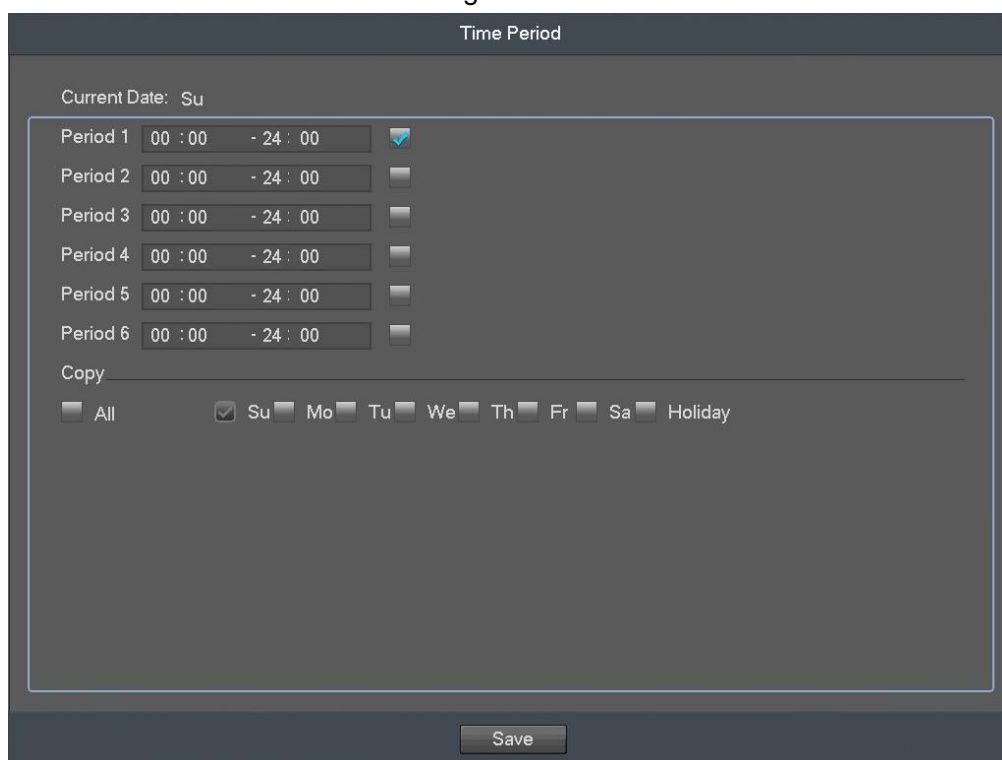



Figure 4-89

Please highlight the  icon to select the corresponding function. After completing the settings, please click the Save button to back to the previous menu.

4.11.4 Abnormality

There are two types: Disk/Network.

- ✧ Disk: Disk error, no disk, no space. See Figure 4-90 and Figure 4-91.
- ✧ Network: Disconnection, IP conflict, MAC conflict. See Figure 4-92.
- Alarm output: Please select an alarm activation output port (multiple choices).
- Less than: The system can alarm you when the HDD space is less than the threshold you set here (For HDD no space option only).
- Latch: Here you can set corresponding delay time. The value ranges from 1s-300s. The system automatically delays for the specified seconds in turning off the alarm and activated output after external the alarm is cancelled.
- Show message: The system will pop up a message in the local screen to alert you when an alarm occurs.
- Alarm upload: The system will upload the alarm signal to the network (including the alarm center) if you enabled this function. For a disconnection event, IP conflict event, and MAC conflict event, this function is null.
- Send email: The system will send out an email to alert you when an alarm occurs.
- Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.

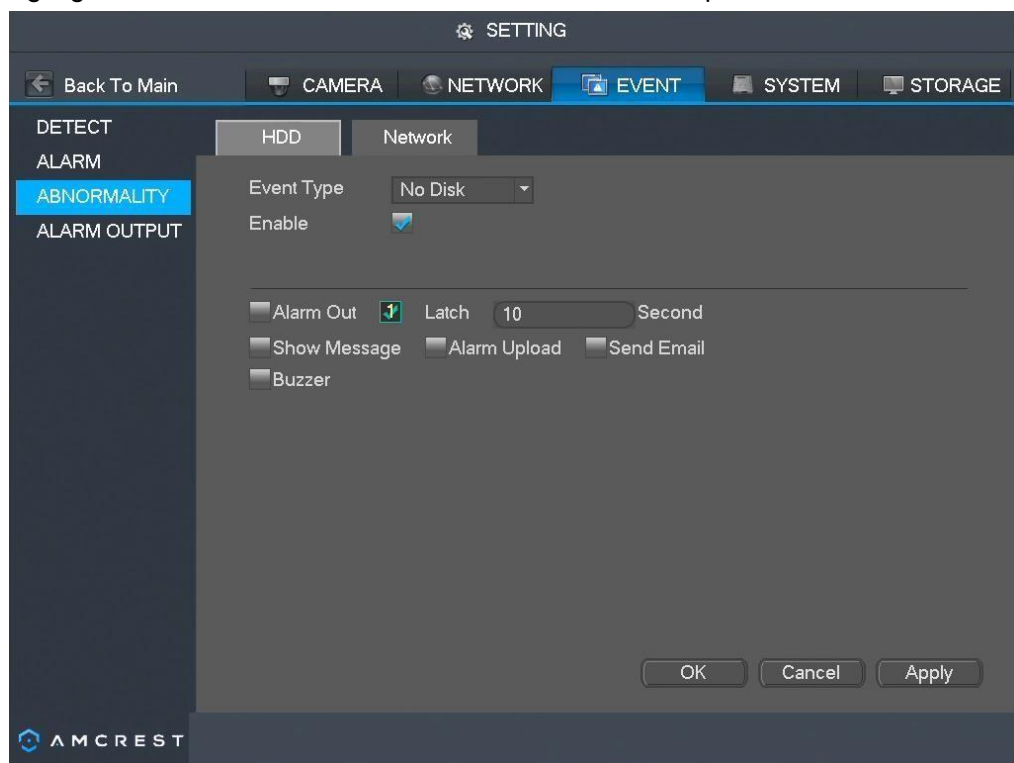


Figure 4-90

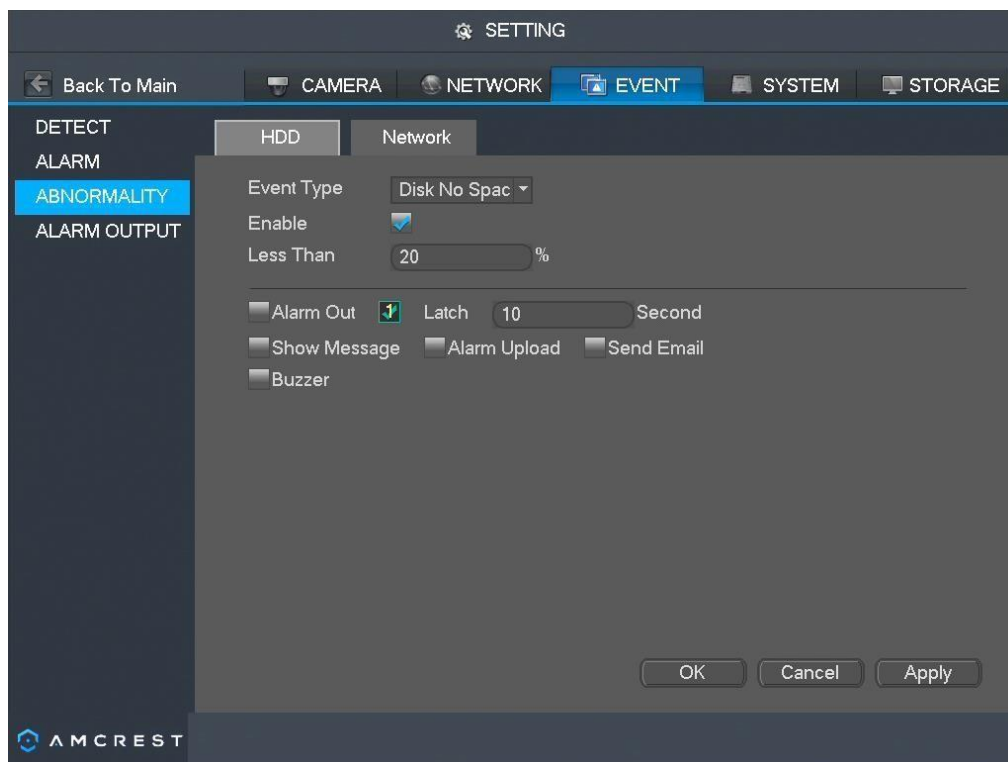


Figure 4-91

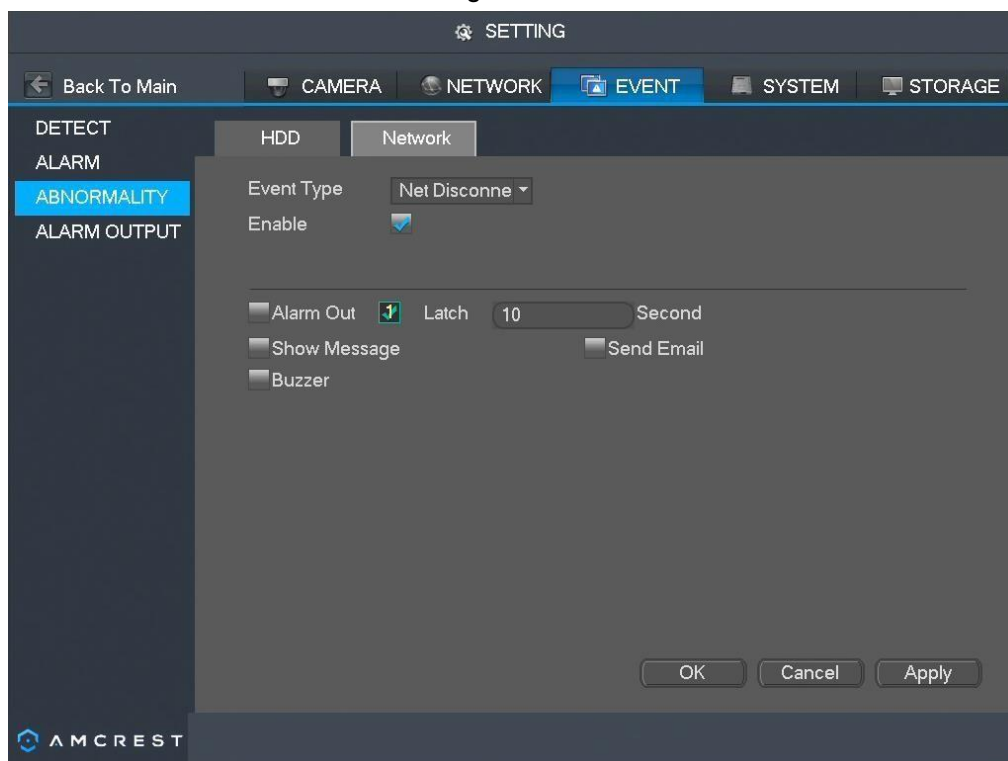


Figure 4-92

4.12 Network

4.12.1 Basic Setup

The network adapter interface is shown as in Figure 4-93

- IP Version: There are two options: IPv4 and IPv6. Right now, the system supports these two IP address formats to access it.

- MAC address: The NVR has a unique MAC address. It is for you to access in the LAN. It is read-only.
- IP address: Here you can use the up/down button (▲▼) or input the desired IP address. Then you can set the corresponding subnet mask the default gateway.
- Default gateway: Here you can input the default gateway. Please note the system needs to check the validity of all IPv6 addresses. The IP address and the default gateway should be in the same IP section. That is to say, the specified length of the subnet prefix should have the same string.
- DHCP: This will automatically obtain your network information. When the DHCP function is enabled, you can not modify the IP/Subnet mask /Gateway. These values are from the DHCP function. If you have not enabled the DHCP function, IP/Subnet mask/Gateway display as zero. You need to disable the DHCP function to view the current IP information. When PPPoE is used, you can not modify IP/Subnet mask/Gateway.
- MTU: This is to set MTU value of the network adapter. The value ranges from 1280-7200 bytes. The default setup is 1500 bytes. Please note MTU modification may result in network adapter reboot and network disconnection. That is to say, MTU modification can affect your current network service. The system may pop up a dialog box for you to confirm the setting when you want to change MTU setup. Click the OK button to confirm and reboot, or you 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. In this way, you can reduce packets and enhance network transmission efficiency.

The following MTU value is for reference only.

- ✧ 1500: Ethernet information packet max 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 the network adapter.
- ✧ 1492: Recommend value for PPPoE.
- ✧ 1468: Recommend value for DHCP.
- Preferred DNS server: DNS server IP address.
- Alternate DNS server: Alternate DNS server address.
- Transfer mode: Here you can select the priority between fluency and video quality.
- LAN download: The system can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.

After completing all the settings please click the Save button to go back to the previous menu.

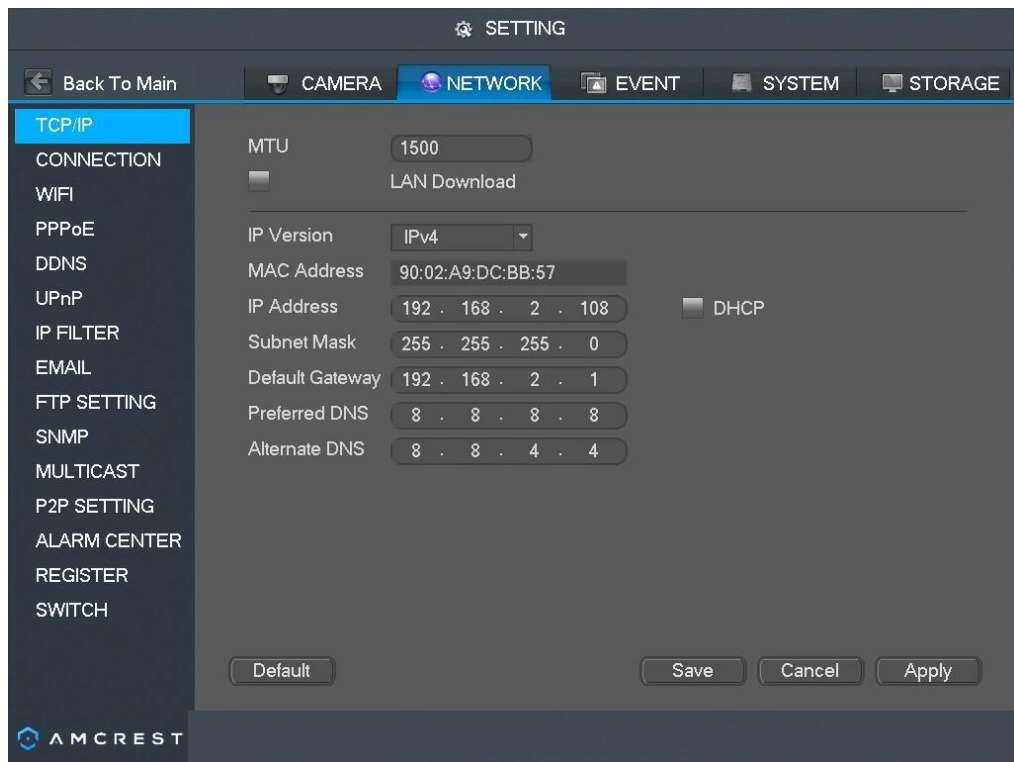


Figure 4-93

4.12.1.1 Connection

The connection setup interface is shown as in Figure 4-94.

- Max connection: The system supports a max of 128 users. 0 means there is no connection limit.
- TCP port: Default value is 37777.
- UDP port: Default value is 37778.
- HTTP port: Default value is 80.
- HTTPS port: Default value is 443. ● RTSP port: Default value is 554.

Important: The system needs to reboot after you have changed and saved any of the above four ports. Please make sure the port values here do not conflict.

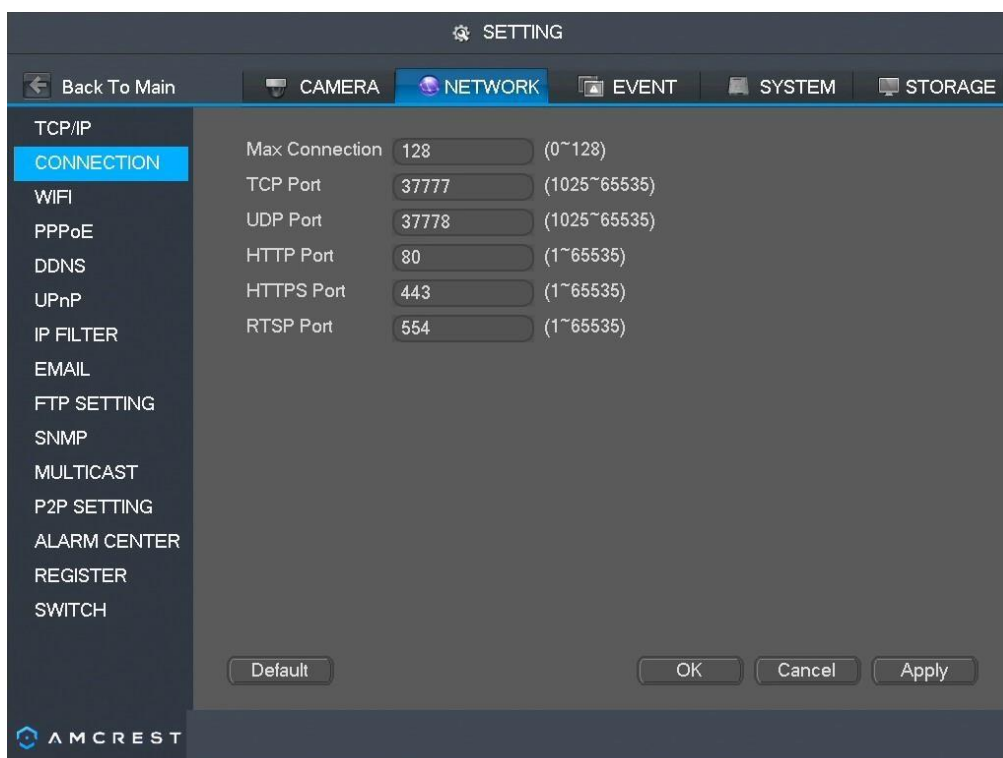


Figure 4-94

4.12.1.2 WIFI AP

Note

This function is for some WiFi series product only.

The WIFI AP interface is shown as below. See Figure 4-95. Here you can set WIFI hotspot, so that the network camera can use the hotspot to connect to the network.

- SSID: It is to set SSID name. You can use this name to search the device.
- Password: It is to set SSID password. You can use this password to connect to the network.
- Authentication mode: Select authentication from the dropdown list.
- Encrypt type: Select encryption type from the dropdown list.
- Start IP/End IP: Input start IP and end IP. The NVR can allocate the IP address in the range you specified here.
- WPS: Click WPS button to enable WPS function. After the network camera enabled this function, it can automatically connect to the network.
- Remote device: In the list, you can view the network camera(s) that connected to the NVR. It includes signal intensity, IP, MAC address, bit rate, channel number, type, status and etc.

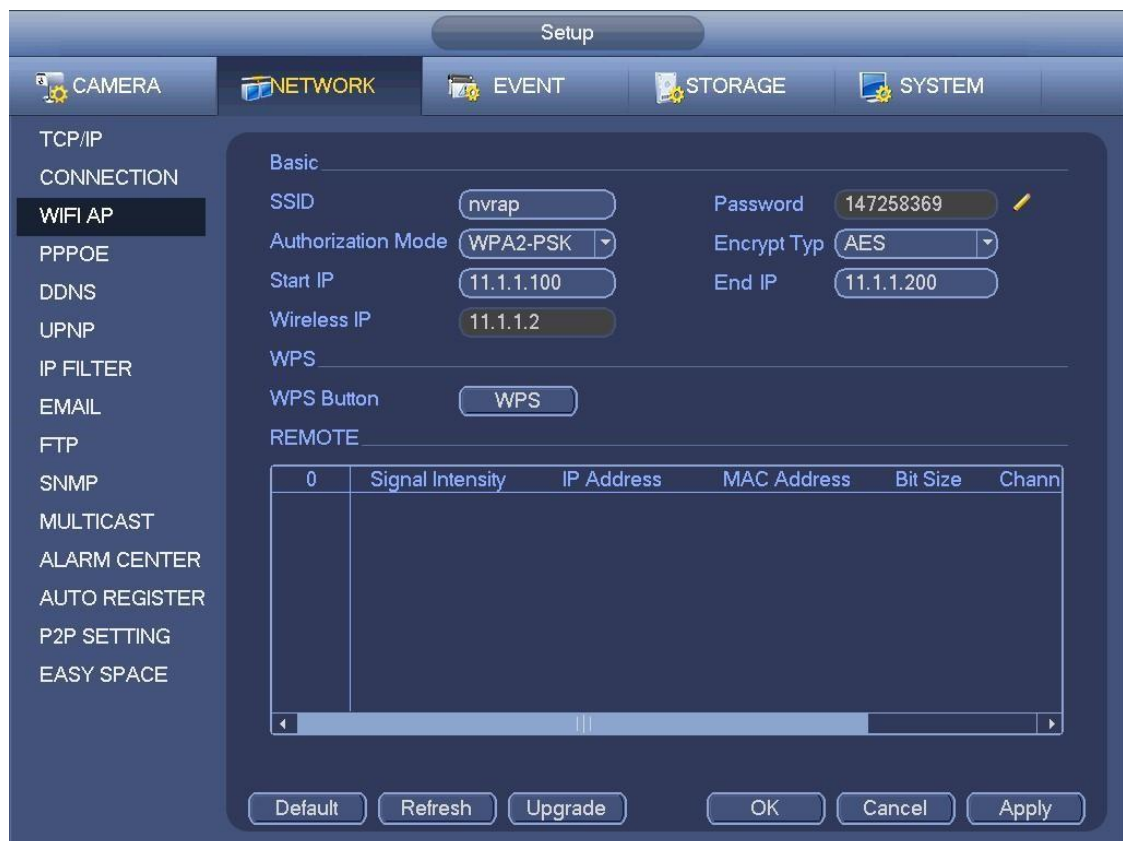


Figure 4-95

4.12.1.3 WIFI

The WIFI interface is shown as below. See Figure 4-96.

- **Enable:** Check the box here to enable the WIFI function.
- **Refresh:** Click to search for WIFI networks. It can automatically input information such as the password if you have set it before.
- **Disconnect:** Click it to terminate the connection.
- **Connect:** Click to connect to the WIFI network. The system will disconnect from the current network and connect to the new network.

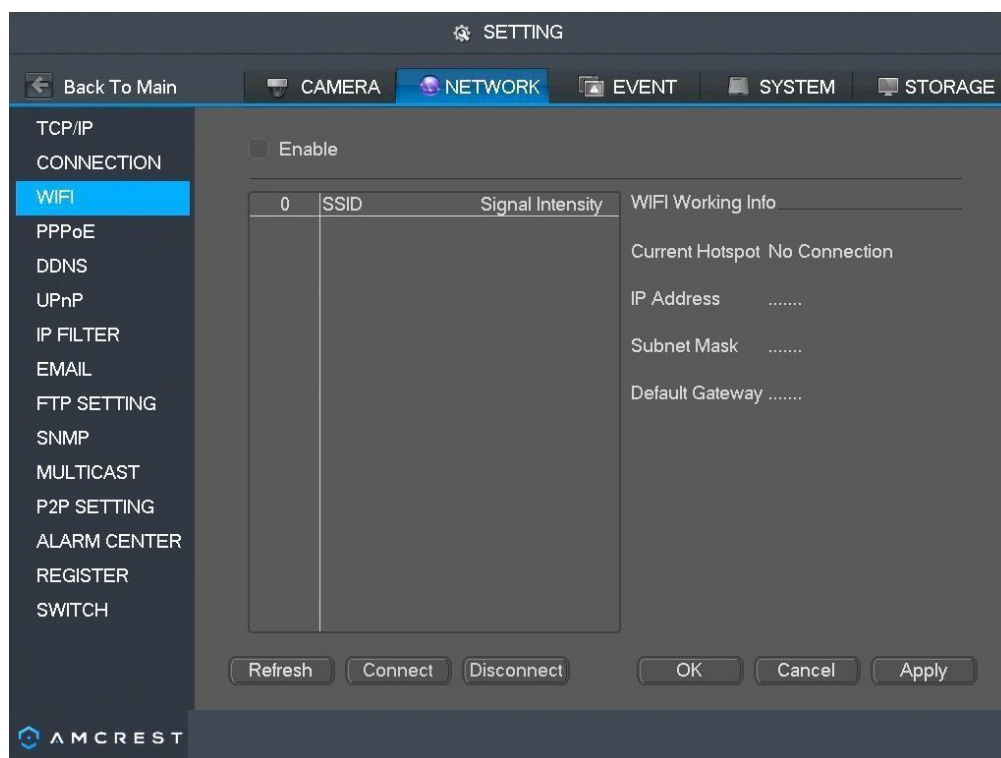


Figure 4-96

- WIFI Working Info: Here you can view current connection status.

Please note:

- After a successful connection, you can see a WIFI connection icon at the top right corner of the preview interface.
- When the WIFI verification type is WEP, the system displays as AUTO since the device can not detect its encryption type.
- The system does not support verification type WPA and WPA2. The display may become incorrect for the verification type and encryption type.

After the device is successfully connected to the WIFI network, you can view the network name, IP address, subnet mask, default gateway, etc. For supported WIFI models please see Appendix D.

4.12.1.4 PPPoE

The PPPoE interface is shown as in Figure 4-97.

Input the “PPPoE name” and “PPPoE password” you get from your ISP (Internet service provider). Click the Save button. You need to restart to activate your configuration.

After rebooting, the NVR will connect to internet automatically. The IP in the PPPoE section is the NVR dynamic value. You can use this IP to access the unit.

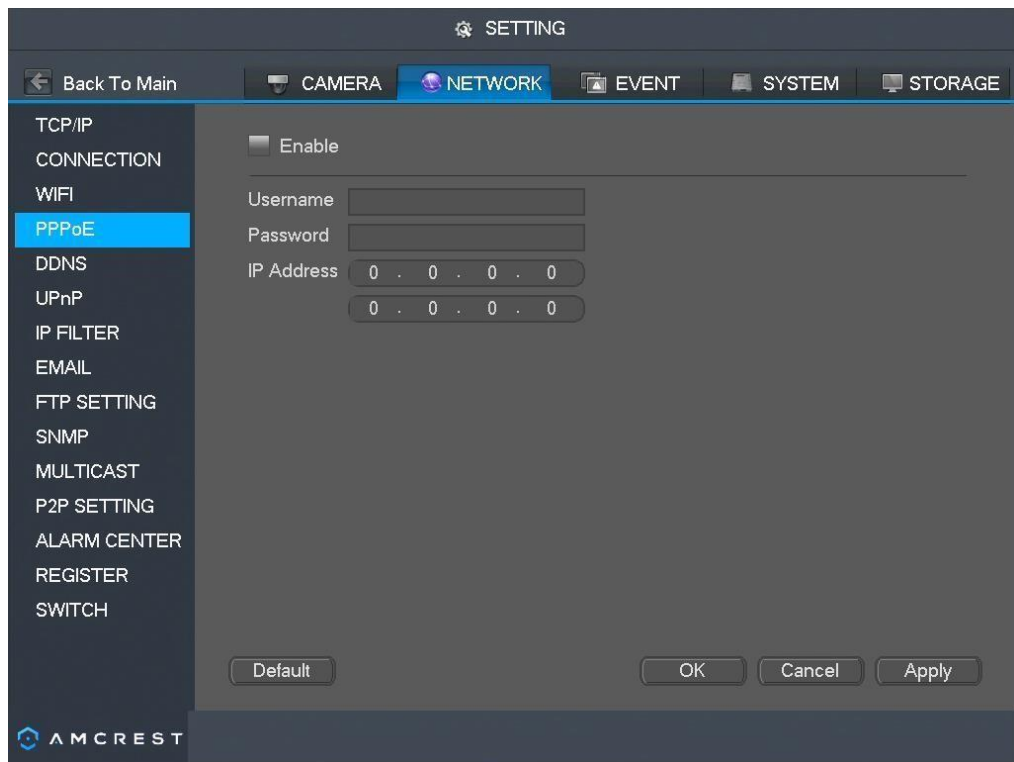


Figure 4-97

4.12.1.5 DDNS Setup

The DDNS setup interface is shown as in Figure 4-98.

You need a PC with a fixed IP on the internet with DDNS software running on it. In other words, this PC is a DNS (domain name server).

On the DDNS page, please select the DDNS type and check the Enable box. Then please input your PPPoE name you get from you ISP and server IP (PC with DDNS). Click save button and then reboot system.

Click the Save button and the system prompts for rebooting to activate the setup.

After rebooting, open IE and input the following: `http://(DDNS server IP)/(virtual directory name)/webtest.htm` e.g.:

`http://10.6.2.85/NVR_DDNS/webtest.htm.)`

Now you can open the DDNSServer web search page.

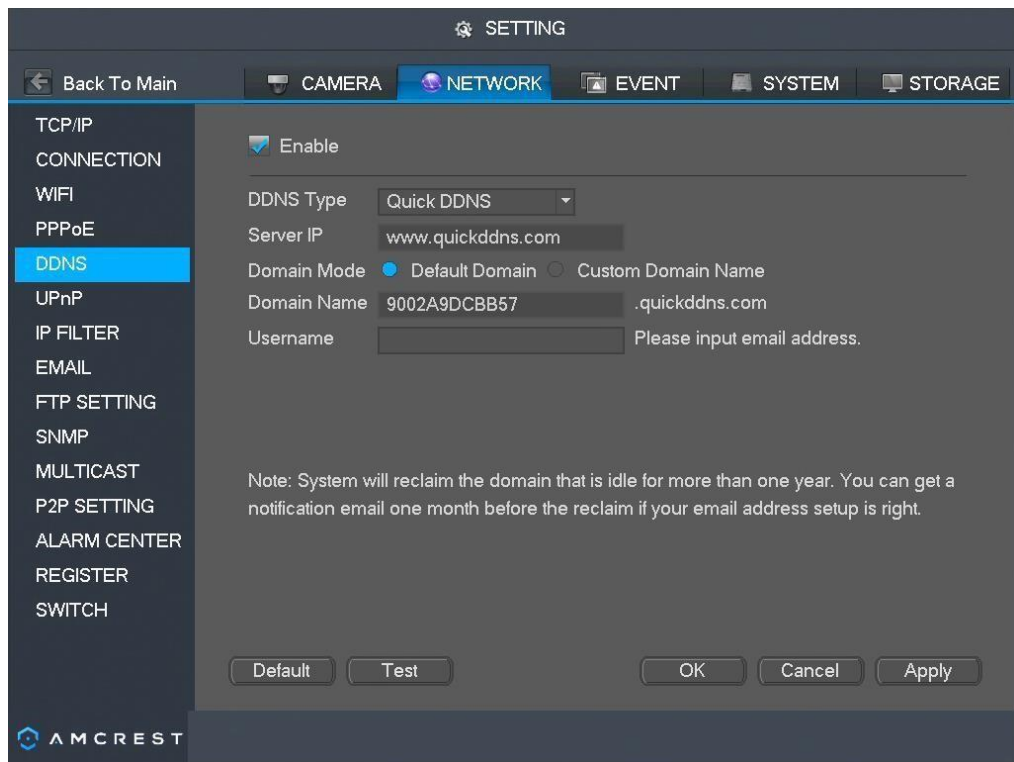


Figure 4-98

Please note DDNS type includes: CN99 DDNS, NO-IP DDNS, Quick DDNS, Dyndns DDNS and sysdns DDNS. All of the DDNS services can be valid at the same time. Select the one you need.

Private DDNS functions should work with a special DDNS server and special Professional Surveillance Software (PSS).

Quick 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. Besides the general DDNS, Quick DDNS works with the device from the manufacturer so that it can be easily setup.

2) Function Introduction

The quick DDNS client has the same function as other DDNS clients. It bonds a domain name to your external 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 the MAC address) as an option. You can also use a customized valid domain name (has not registered.). **3)**

Operation

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

- Server address: www.quickddns.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 a personalized domain name.) After successful registration, you can use domain name to access the NVR.

- User name: This is optional. You can input your commonly used email address.

Important

- 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 a domain name that is idle for one year. You can get a notification email before the the domain is reclaimed if your email address setup is correct.

4.12.1.6 UPnP

The UPnP protocol is to establish a mapping relationship between the LAN and the WAN. See Figure 499.

- UPnP on/off: Turn on or off the UPnP function.
- Status: When the UPnP is offline, it shows as “Unknown”. When the UPNP is working it shows as “Success”.
- Router LAN IP: This is the router’s LAN IP.
- WAN IP: This is the router’s WAN IP.
- Port Mapping list: The port mapping list here lists the one to one relationships with the router’s port mapping setting. ● List:
 - ✧ Service name: Defined by user.
 - ✧ Protocol: Protocol type
 - ✧ Internal port: Port that has been mapped locally.
 - ✧ External port: Port that has been mapped in the router.
- Default: UPnP default port servies are the HTTP, TCP, and UDP ports of the NVR.
- Add to the list: Click this to add a mapping relationship.
- Delete: Click this to remove one mapped item.

Double click one item and you can change the corresponding mapping information. See Figure 4-100.

Important:

When you are setting the router’s external port, please use a port in the range 1024~5000. Do not use well-known ports 1~255 and the system ports 256~1023 to avoid conflict.

For the TCP and UDP, please make sure the internal port and external port are the same to guarantee proper data transmission.

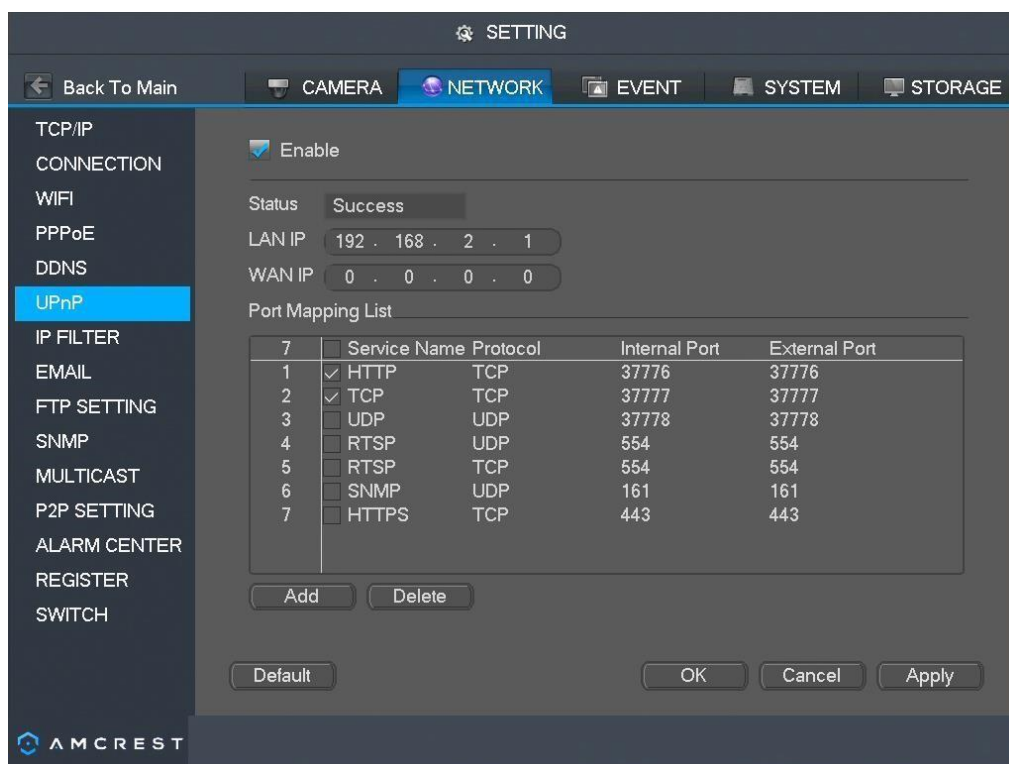


Figure 4-99

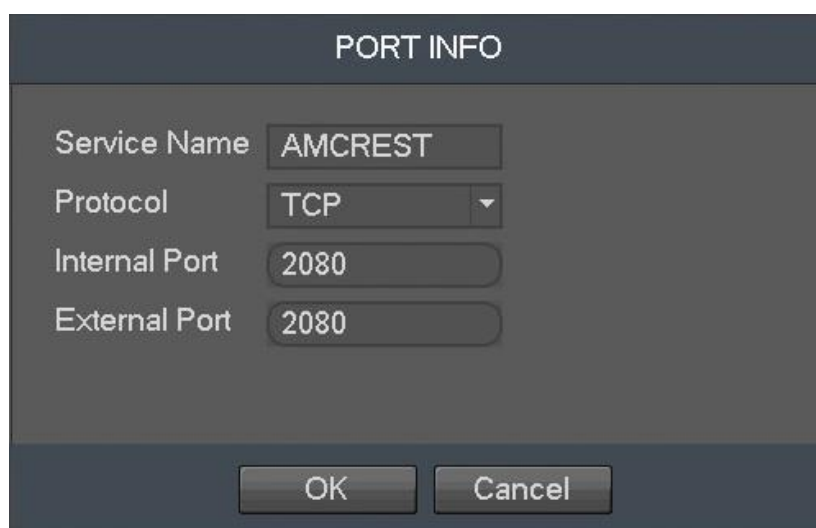


Figure 4-100

4.12.1.7 IP Filter

The IP filter interface is shown as in Figure 4-101. You can add IPs in the following list. The list supports a max of 64 IP addresses. The system supports valid IPv4 and IPv6 addresses. **Please note the system needs to check the validity of all IPv6 addresses and implement optimization.**

After you enabled the trusted sites function, only the IPs listed below can access the NVR.

If you enable the blocked sites function, the following listed IP addresses cannot access the NVR.

- **Enable:** Highlight the box here and you can check the trusted sites function and blocked sites function. You cannot see these two modes if the Enable button is grey.
- **Type:** You can select trusted site or blacklist from the dropdown list. You can view the IP address on the following column.
- **Start address/end address:** Select one type from the dropdown list and you can input an IP address in the start address and end address. Now you can click Add IP address or Add IP section to add it.

- a) For the newly added IP address, it is in enable status by default. Remove the ✓ before the item to remove it from the list.
 - b) The system supports a max of 64 items.
 - c) The address column supports IPv4 or IPv6 format. If it is an IPv6 address, the system can optimize it. For example, the system can optimize aa:0000: 00: 00aa: 00aa: 00aa: 00aa: 00aa as aa:: aa: aa: aa: aa: aa: aa.
 - d) The system automatically removes space if there is any space before or after the newly added IP address.
 - e) The system only checks the start address if you add a single IP address. If an IP section is added, the system checks the start and end end address to make sure the end address is larger than the start.
 - f) The system may check if newly added IP address exists or not. The system does not add the address if it does not exist.
- Delete: Click this to remove a specified item.
 - Edit: Click this to edit the start address and end address. See Figure 4-102. The system will check the IP address validity after the edit operation and implement IPv6 optimization.
 - Default: Click this to restore the default setup. In this case, the trusted sites and blocked sites are both null.
- Note:**
- If you enabled trusted sites, only the IPs in the trusted sites list can access the device.
 - If you enabled blocked sites, the IPs in the blocked sites cannot access the device. ● The system supports adding MAC addresses.

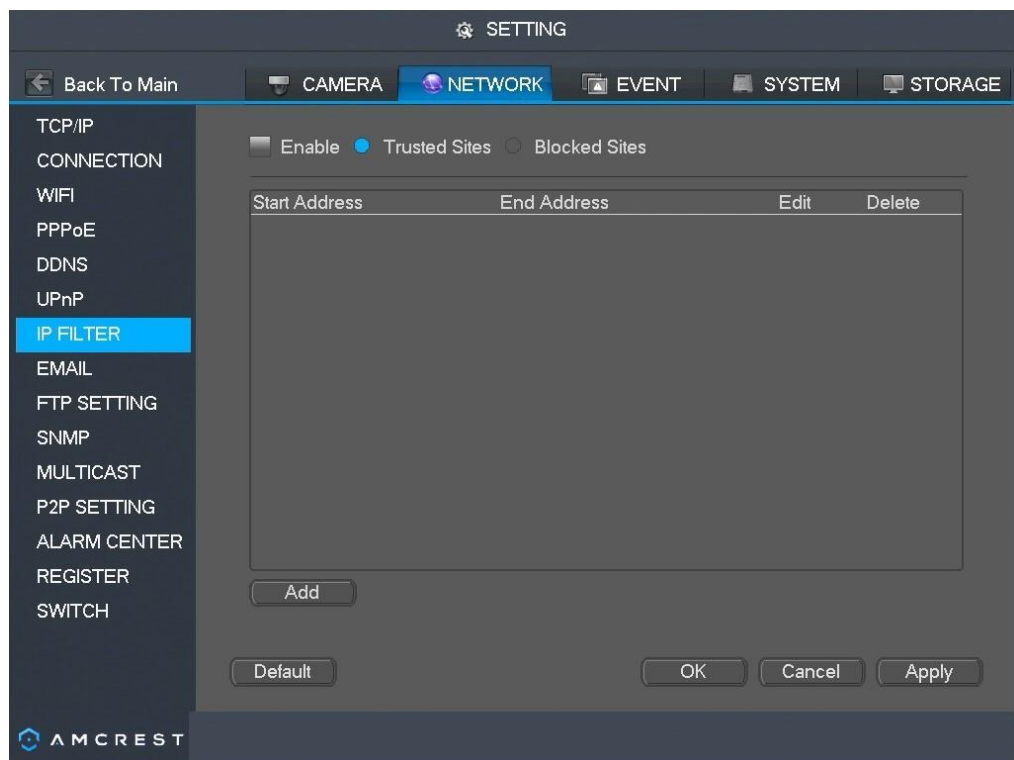


Figure 4-101

Figure 4-102

4.12.1.8 Email

The email interface is shown as below. See Figure 4-103.

- SMTP server: Please input your email SMTP server IP here.
- Port: Please input the corresponding port value here.
- User name: Please input the user name to login to the email. ● Password: Please input the corresponding password here.
- Sender: Please input sender's email here.
- Title: Please input the email's subject here. The system supports English characters and Arabic numbers. Max 32 characters.
- Receiver: Please input receiver email address here. The system supports a max of 3 email receivers. The system automatically filters the same addresses if you input one receiver repeatedly.
- SSL enable: The system supports SSL encryption.
- Interval: The send interval ranges from 0 to 3600 seconds. 0 means there is no interval.
- Health email enable: Please check the box here to enable this function. This function allows the system to send out a test email to check if the connection is OK or not.
- Interval: Please check the above box to enable this function and then set the corresponding interval. The system can send out email regularly as you set here. Click the Test button and you can see the corresponding dialogue box to see if the email connection is OK or not.

Please note the system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormality 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 abnormality events, which may result in heavy load for the email server.

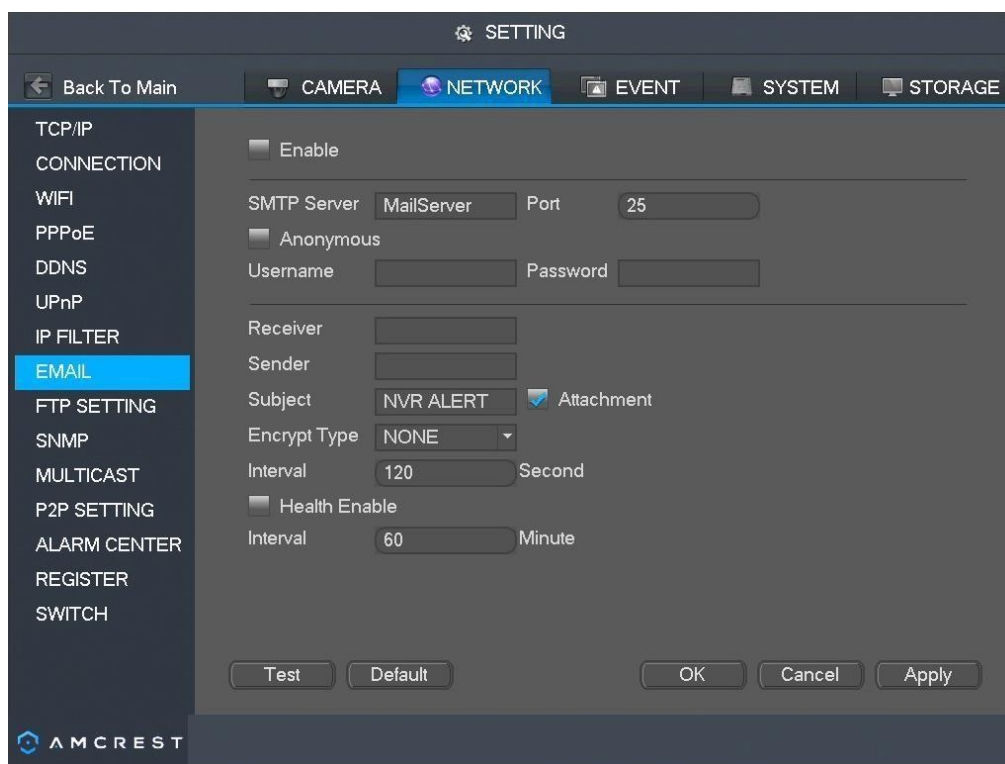


Figure 4-103

4.12.1.9 FTP

You need to download or buy a FTP service tool (such as Ser-U FTP SERVER) to establish a FTP service. Please install Ser-U FTP SERVER first. From “start” -> “program” -> Serv-U FTP Server -> Serv-U Administrator. Now you can set user, password, and FTP folder. Please note you need to grant the write right to FTP upload user. See Figure 4-104.

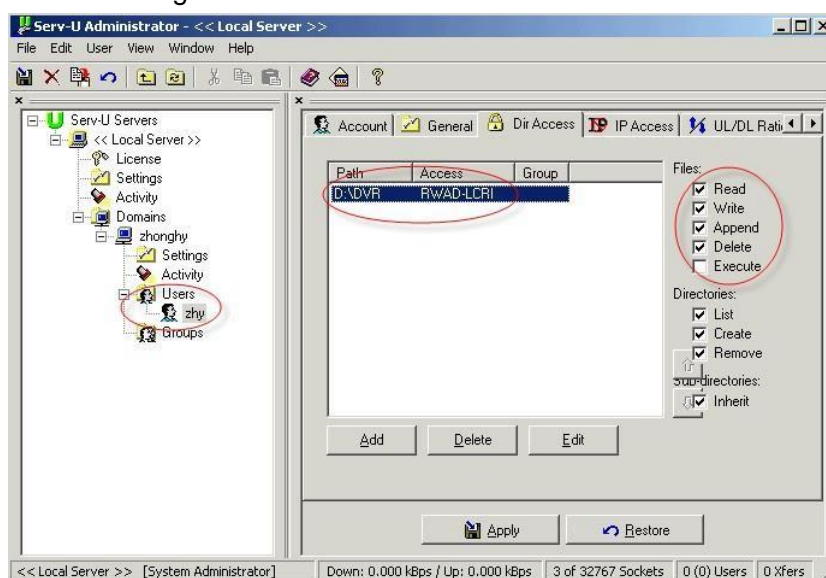


Figure 4-104

You can use a PC or FTP login tool to test the setup.

For example, you can login with the user ZHY to FTP://10.10.7.7 and then test if it can modify or delete a folder. See Figure 4-105.

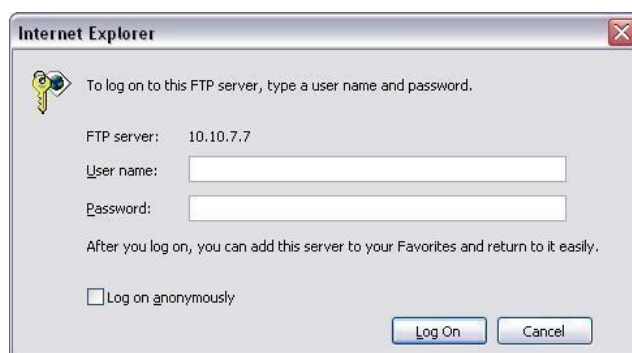



Figure 4-105

The system also supports the upload of multiple NVRs to one FTP server. You can create multiple folders under this FTP.

The FTP interface is shown as in Figure 4-106.

Please highlight the  icon in front of Enable to activate the FTP function.

Here you can input the FTP server address, port, and remote directory. When remote directory is null, the system will automatically create folders according to the IP, time, and channel.

The user name and password is the account information to login to the FTP.

File length is the upload file length. When this setting is larger than the actual file length, system will upload the whole file. When this setting is smaller than the actual file length, system only uploads the set length and ignores the remaining section. When the interval value is 0, the system uploads all corresponding files.

After completing the channel and weekday setup, you can set two periods for each channel. Click the Test button and a dialogue box will notify you if the FTP connection is OK or not.

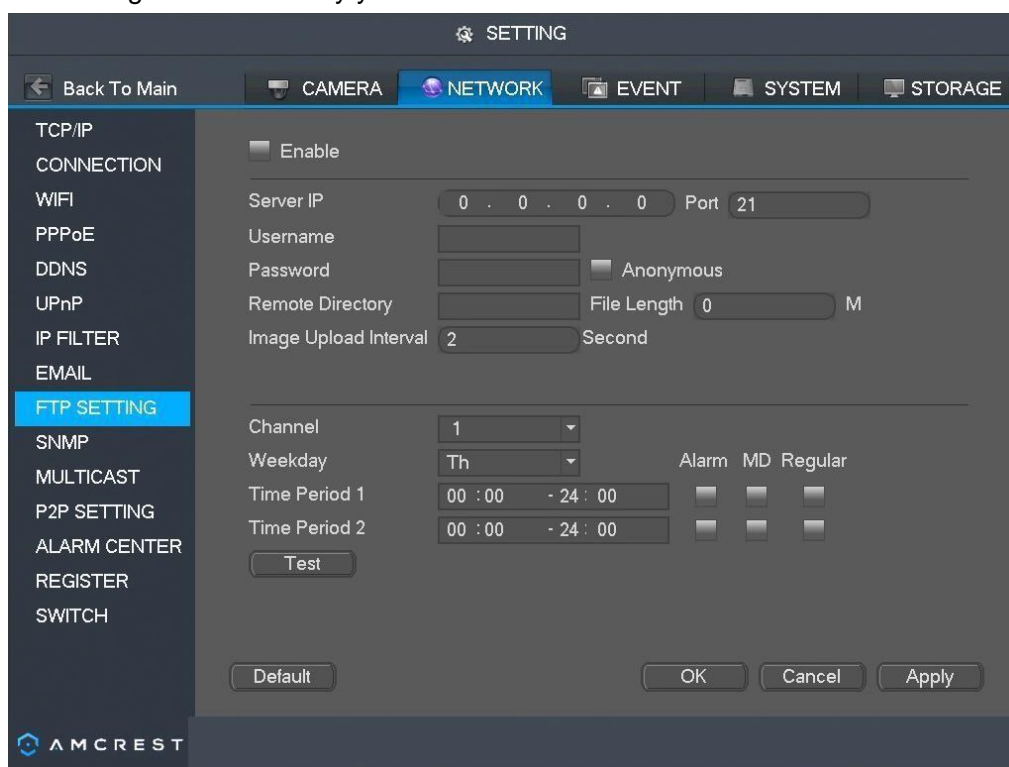


Figure 4-106

4.12.1.10 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. You can set in the following interface. See Figure 4-107.

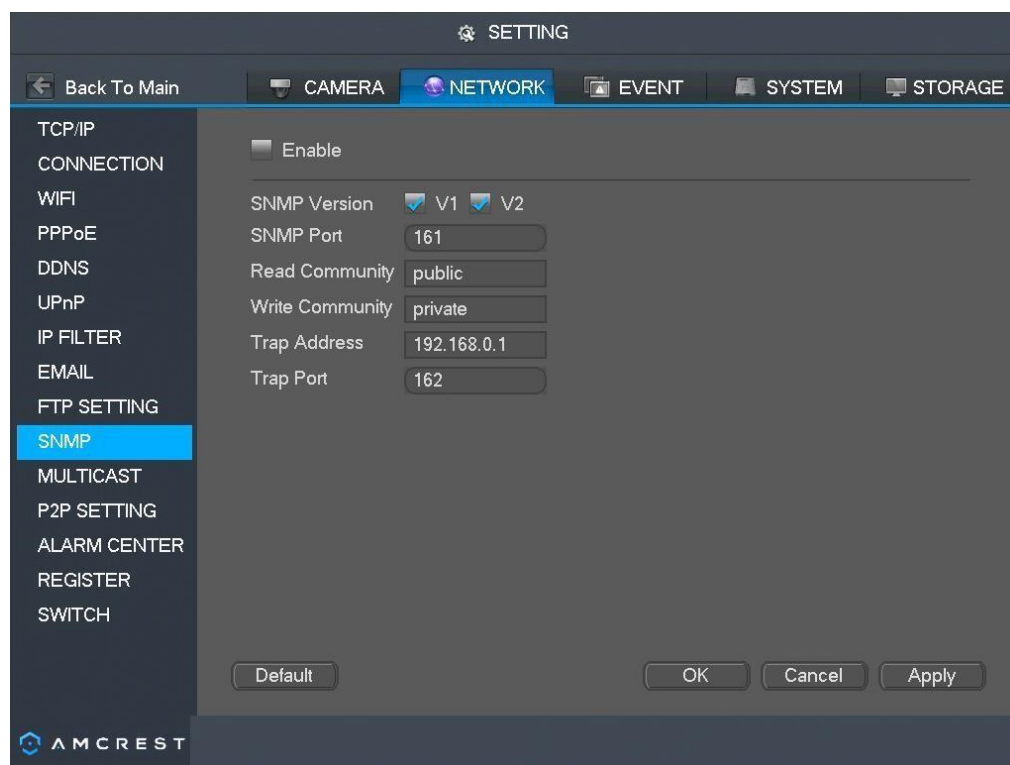


Figure 4-107

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.

4.12.1.11 Multicast

The multicast setup interface is shown as in Figure 4-108.

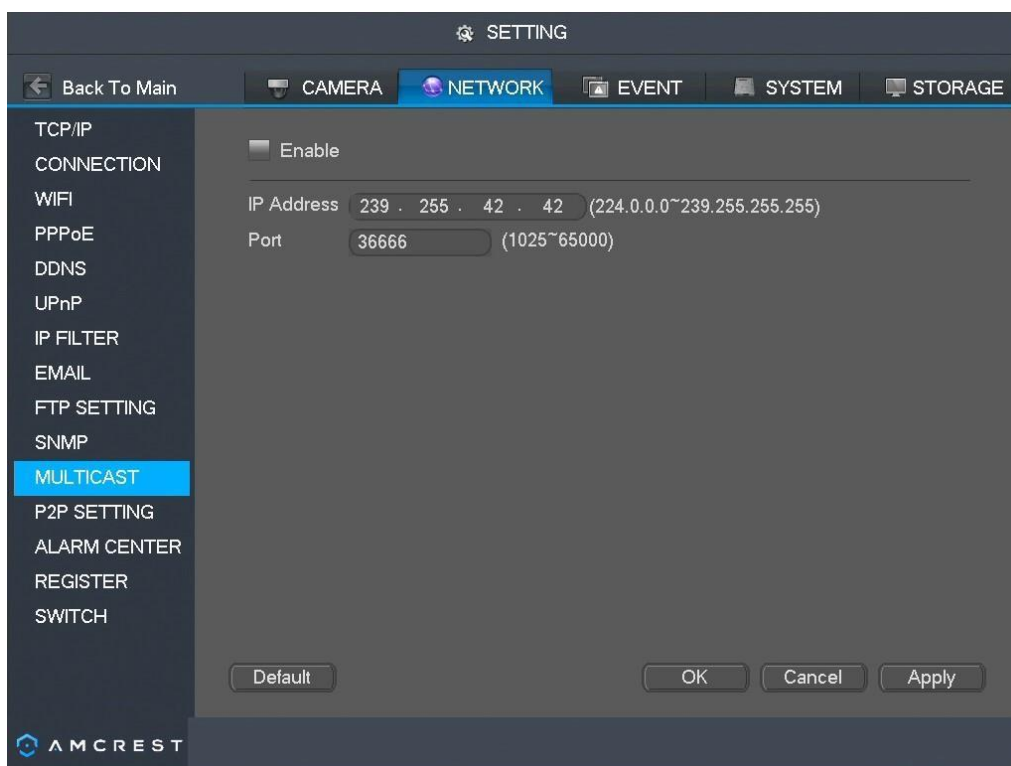


Figure 4-108

Here you can set a multiple cast group. Please refer to the following sheet for detailed information.

IP multiple cast group address ● -224.0.0.0-239.255.255.255

-“D” address space

-
-

The higher four-bit of the first byte="1110"

Reserved local multiple cast group address

-224.0.0.0-224.0.0.255

-TTL=1 When sending out telegraph

-For example

224.0.0.1 All systems in the sub-net

224.0.0.2 All routers in the sub-net

224.0.0.4 DVMRP router

224.0.0.5 OSPF router 224.0.0.13

PIMv2 router

-

Administrative scoped addressees

-239.0.0.0-239.255.255.255

-Private address space

-
-
-

Like the single broadcast address of RFC1918

Can not be used in Internet transmission

Used for multiple cast broadcast in limited space.

Except the above mentioned addresses of special meaning, you can use other addresses. For example:

Multiple cast IP: 235.8.8.36 Multiple cast PORT: 3666.

After you log in to the Web, the Web can automatically get the multiple cast address and add it to the multiple cast groups. You can enable the real-time monitor function to view. Please note the multiple cast function applies to special series only.

4.12.1.12 Alarm Center

This interface is reserved for developers to integrate with our system. See Figure 4-109.

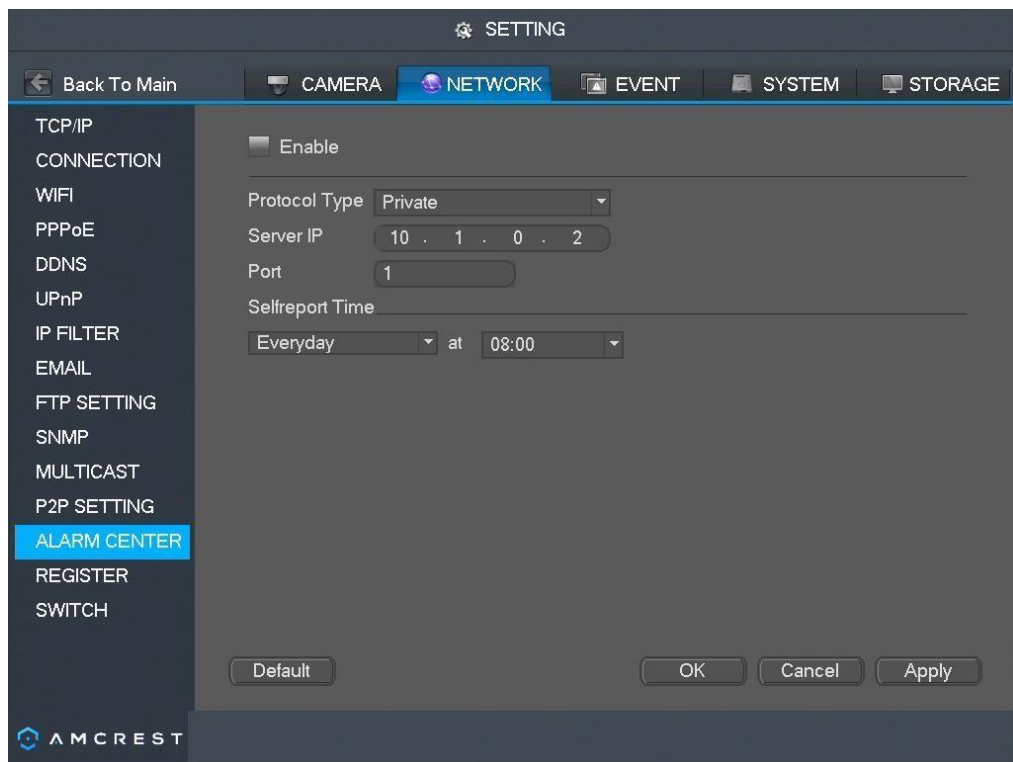


Figure 4-109

4.12.1.13 Register

This function allows the device to auto register with the proxy you specify. In this way, you can use the client-end to access the NVR etc via the proxy. Here the proxy has a switch function. In the network service, the device supports the server address of IPv4 or domain.

Please follow the steps listed below to use this function.

Please set the proxy server address, port, and sub-device name at the device-end. Please enable the auto register function and the device will auto register with the proxy server. 1) The setup interface is shown as in Figure 4-110.

Important

Do not input network default port such as TCP port number.

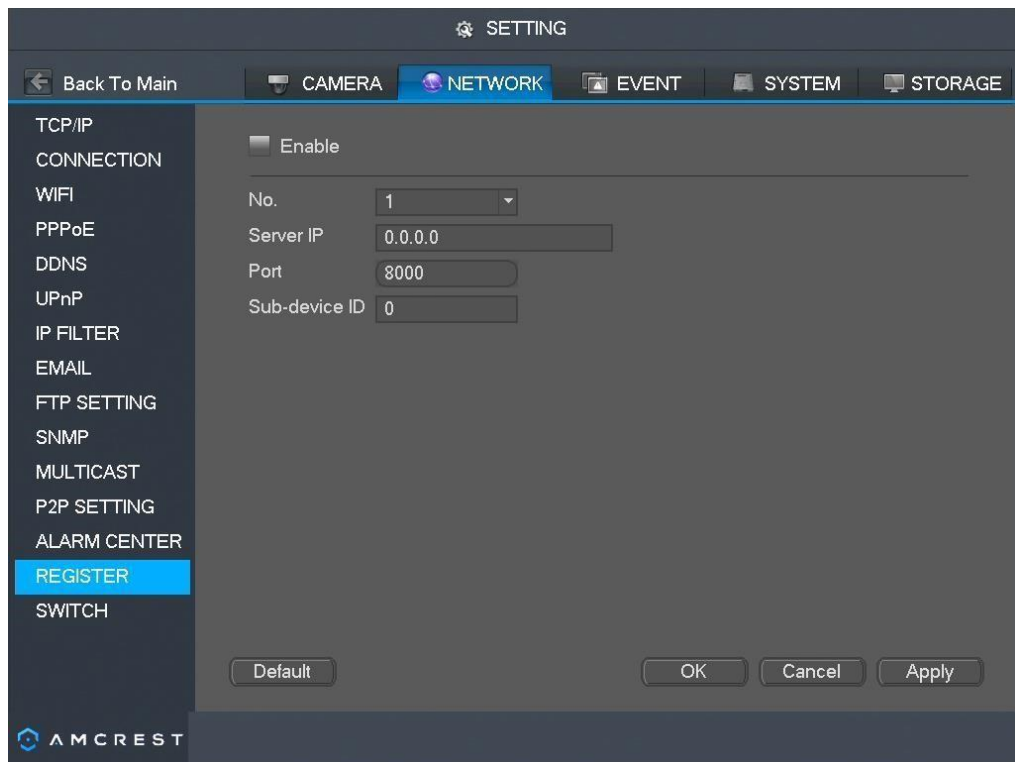


Figure 4-110

- 2) The proxy server software developed from the SDK. Please open the software and input the global setup. Please make sure the auto connection port here is the same as the port you set in the previous step.
- 3) Now you can add a device. Please do not input the default port number such as the TCP port in the mapping port number. The device ID here should be the same as the ID you input in Figure 4-110. Click the Add button to complete the setup.
- 4) Now you can boot up the proxy server. When you see the network status is Y, it means your registration is OK. You can view the proxy server when the device is online.

Important

The server IP address can also be a domain. You need to register a domain name before you run your proxy device server.

4.12.1.14 Switch

This is for you to set the IP address, subnet mask, gateway, and etc of the Switch. See Figure 4-111.

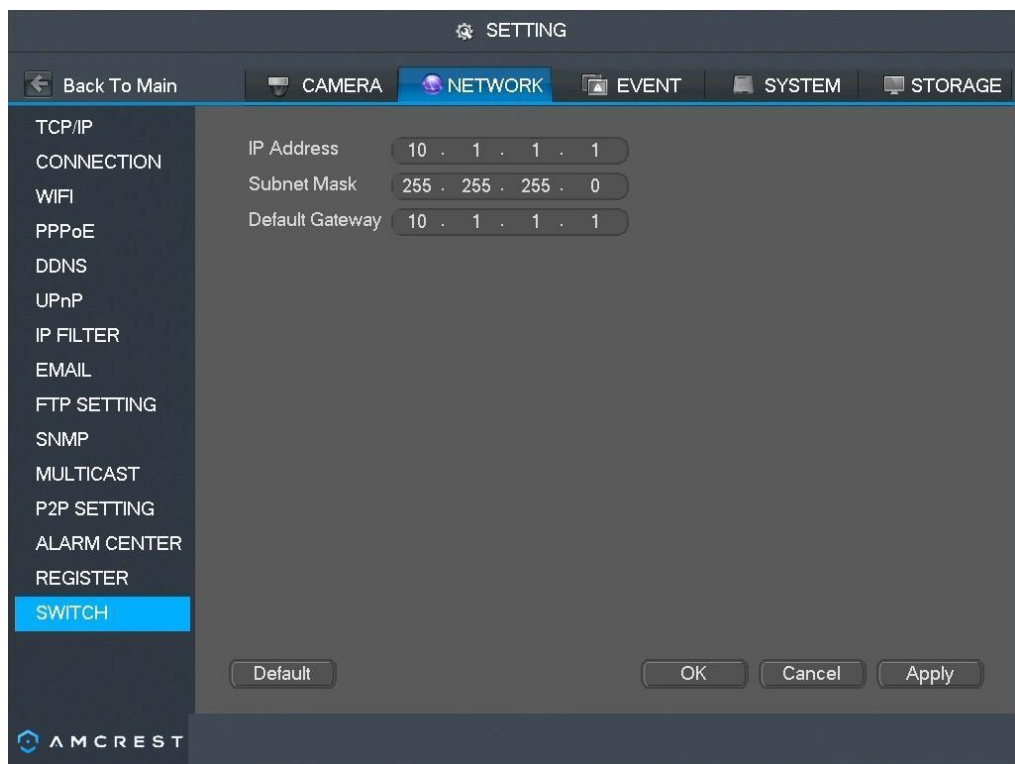


Figure 4-111

4.12.1.15 P2P

The P2P interface is shown as in Figure 4-112.

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.

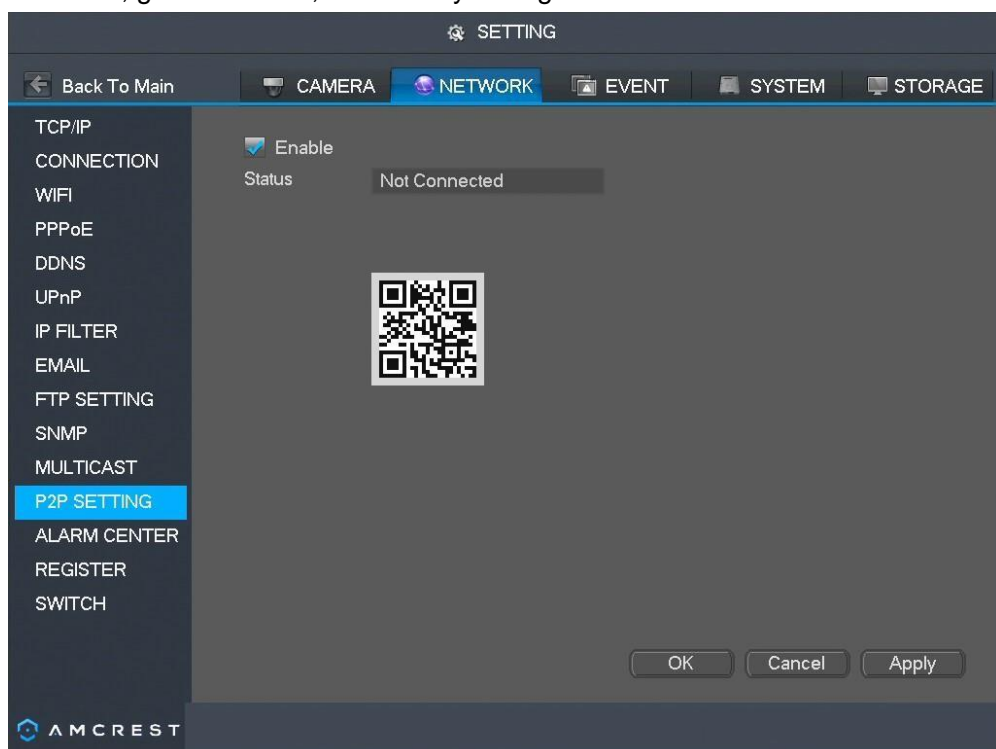


Figure 4-112


4.12.2 Network Test


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

4.12.2.1 Network Test

From Main Menu->Info->Network->Test, the network test interface is shown as in Figure 4-113.

- 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.

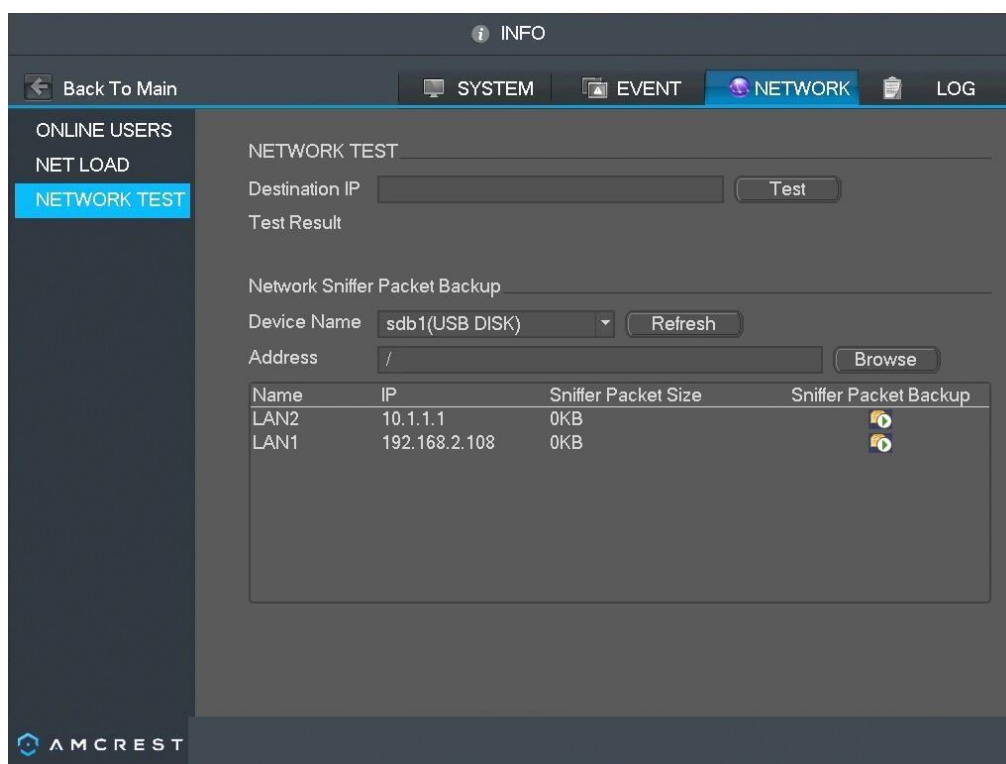


Figure 4-113

4.12.2.2 Network Load

From Main Menu->Info-Network->Load, network load is shown as in Figure 4-114. Here you can view the following statistics of the device network adapter.

Here you can view information on all connected network adapters. 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

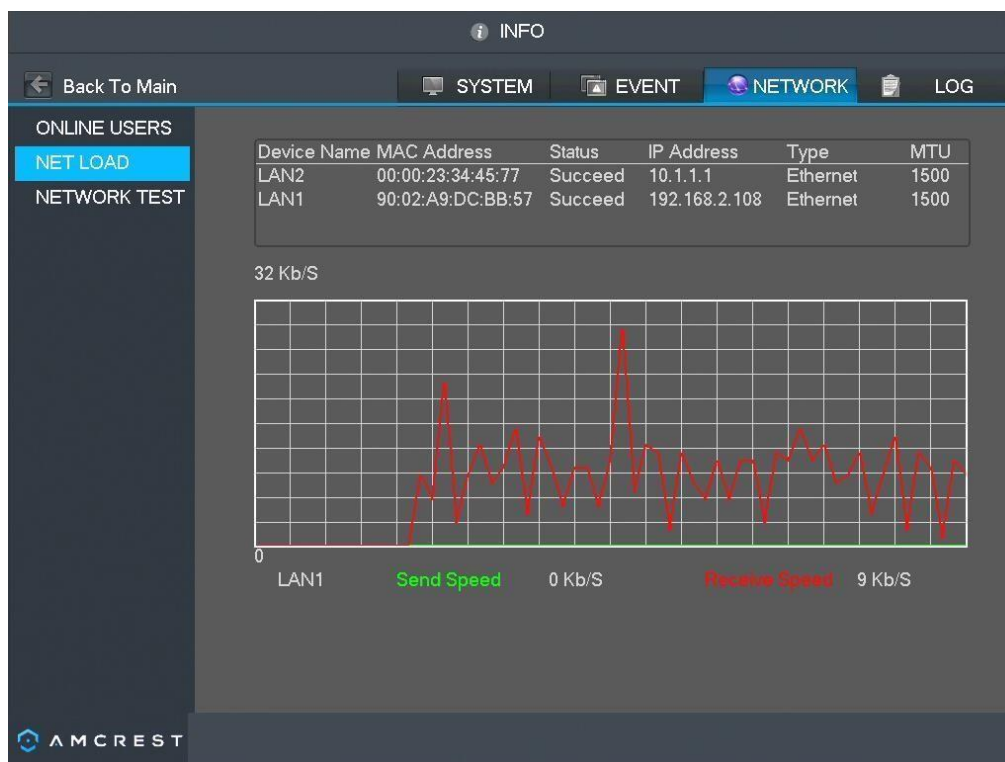


Figure 4-114

4.13 HDD Setup

Here you can view HDD information such as type, status, total capacity, record time, and etc. The operation includes format, resume from error, and change HDD property (Read write, Read-only). Here you can also set alarm and HDD storage position.

4.13.1 Format

- From Main Menu->Setting->Storage->HDD Manager, you can go to HDD management interface. See Figure 4-115.

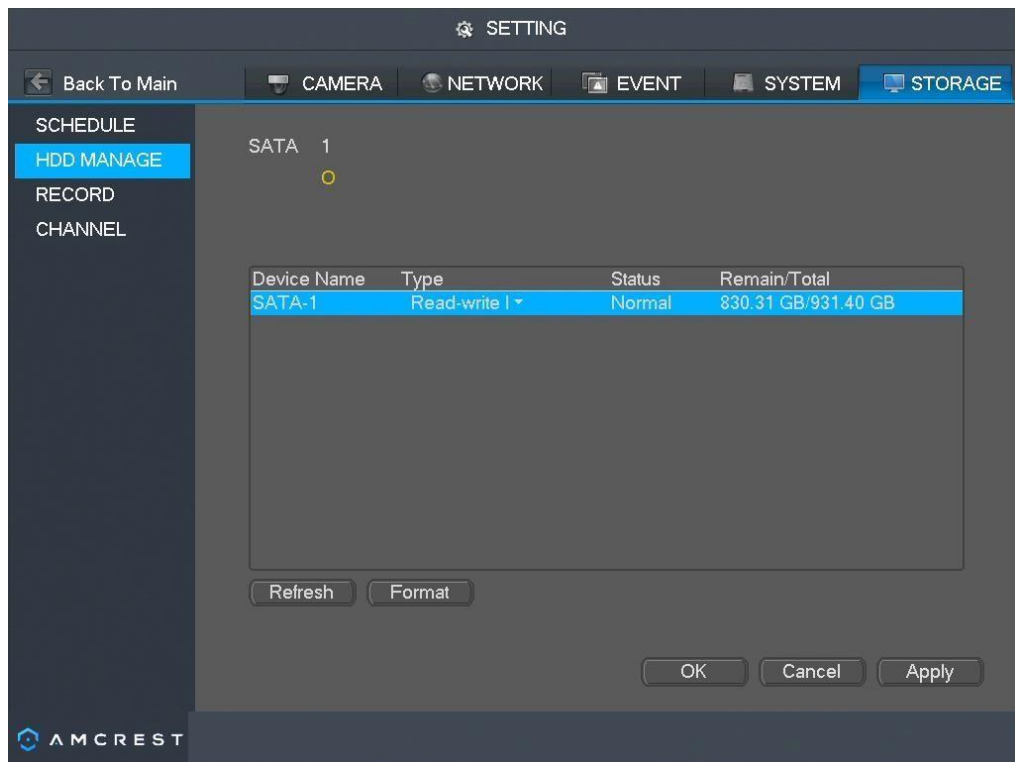


Figure 4-115

- b) Select a HDD and then select format from the dropdown list. Click the Format button.
- c) Click OK button to complete the setup. The system needs to restart to activate the current setup.

4.13.2 HDD Information

Here lists hard disk type, total space, free space, and status. See Figure 4-116. ○ 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.

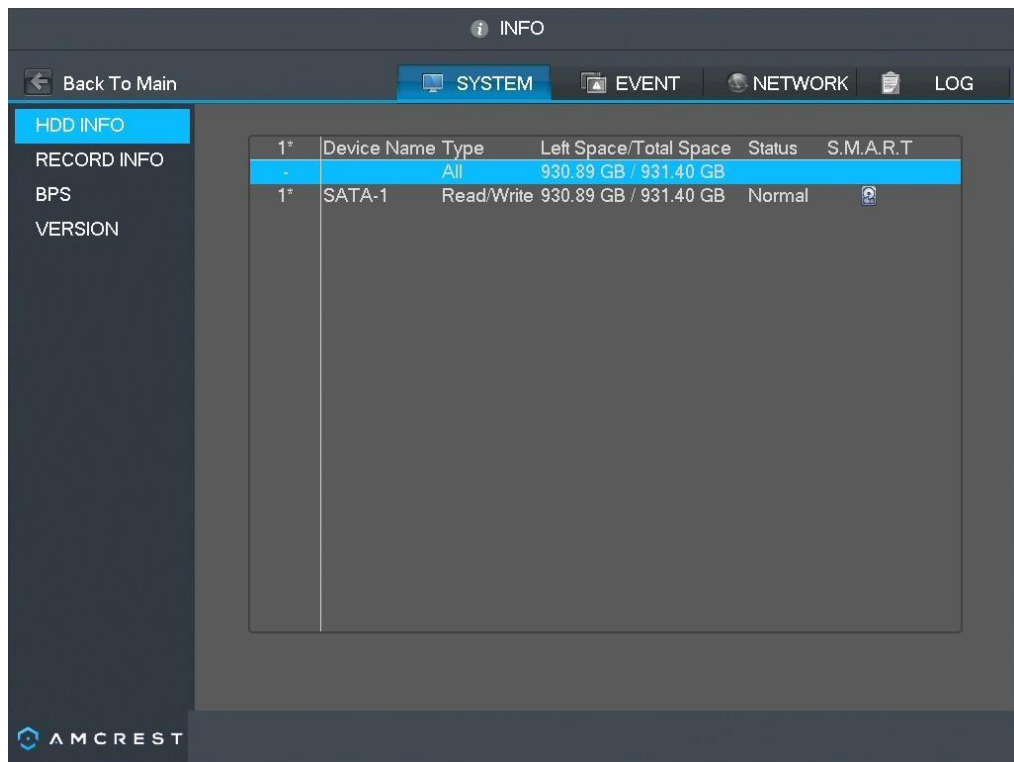


Figure 4-116

In Figure 4-116, click one HDD item. The S.M.A.R.T interface is shown as in Figure 4-117.

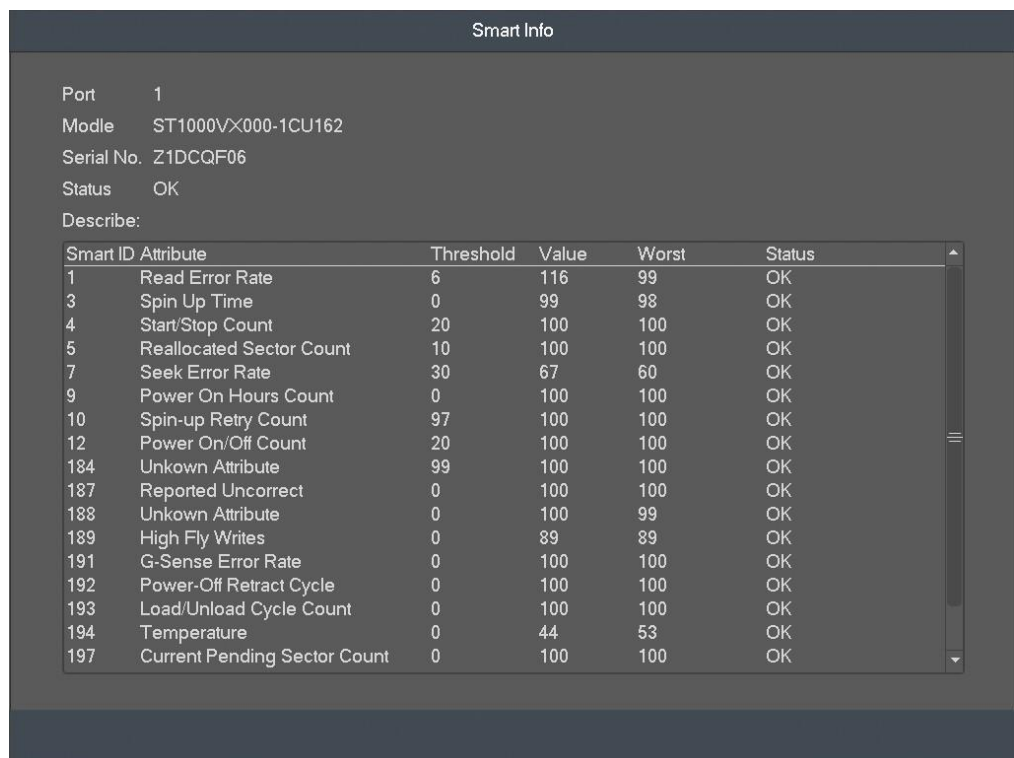


Figure 4-117

Parameter	Function
-----------	----------

Device Name	Shows the device name.
Type	Shows if the HDD is Read/Write or Read.
Total space	The total HDD capacity.
Left space	The free HDD capacity.
Status	HDD is working properly or not.
Smart	Click this to view the S.M.A.R.T. information.

4.13.3 Channel

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.

The HDD group mode is shown as in Figure 4-118.

- HDD: Here you can view the HDD amount the device can support.
- HDD Group: This lists the HDD Group number of current hard disk.

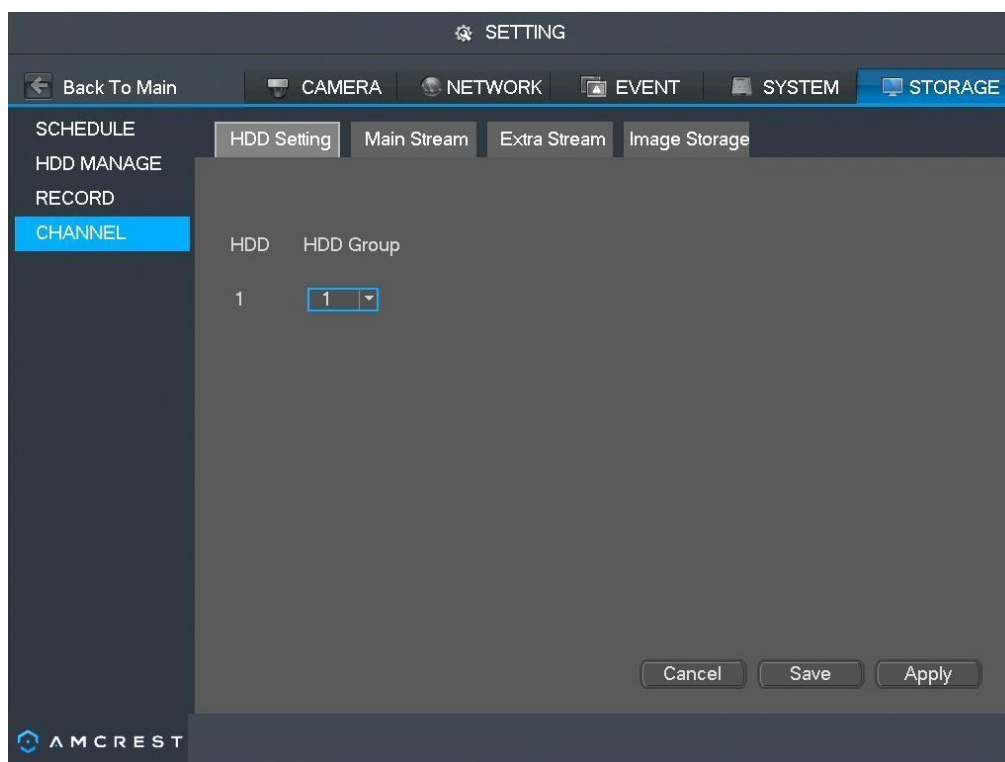


Figure 4-118

Please select the correspond group from the dropdown list and then click Apply button.

Click the main stream/extra stream/image storage tabs to set corresponding HDD group information. See Figure 4-119 through Figure 4-121.

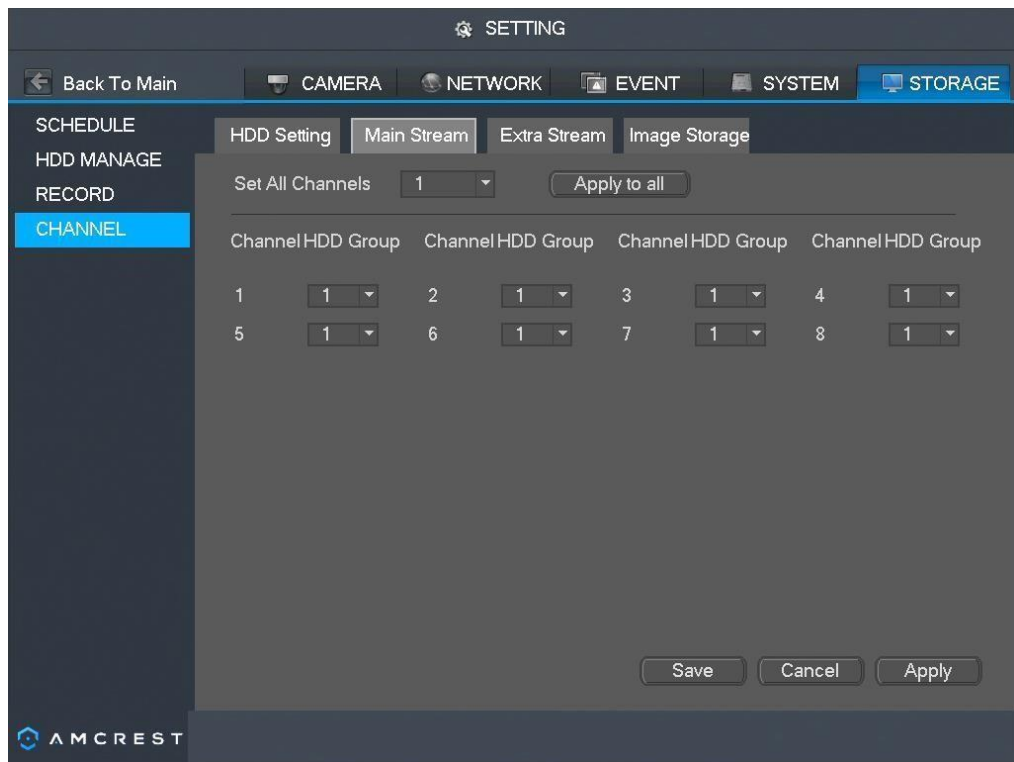


Figure 4-119

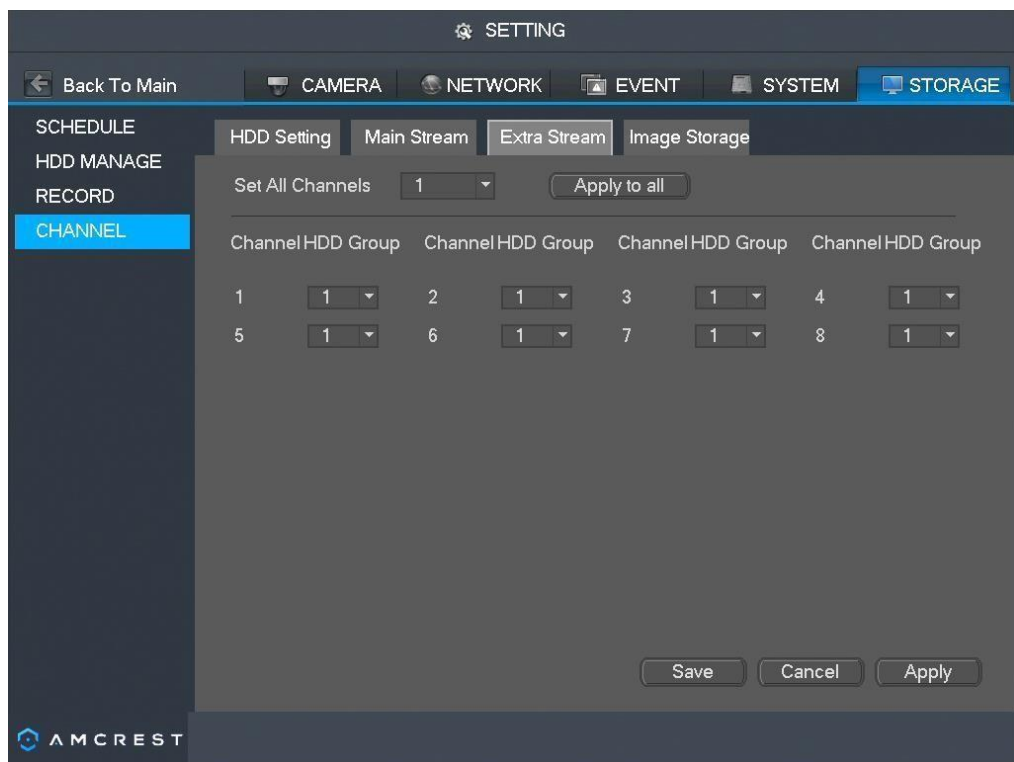


Figure 4-120

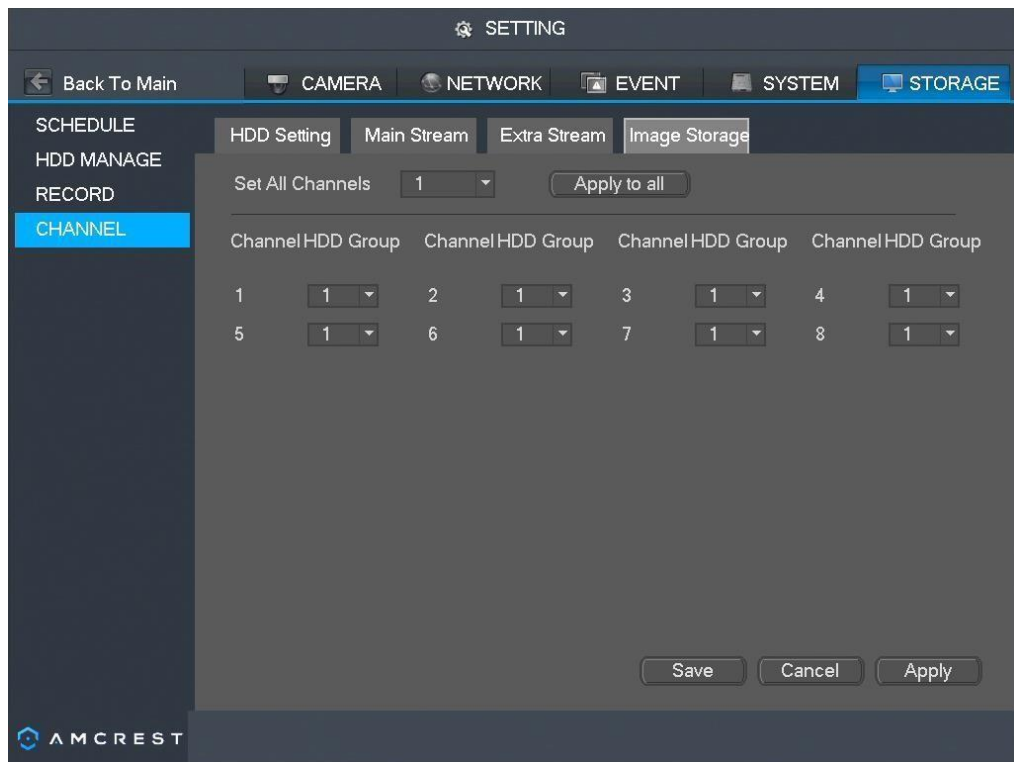


Figure 4-121

4.14 Basic Setups

This section describes how to preform basic NVR setup, device setup, and other setups.

4.14.1 Device Setup

From Main Menu->Setting->System->General, you can go to the general interface. See Figure 4-122.

- Device ID: Please input a corresponding device name here.
- Device No: When you are using one remote control (not included in the accessory bag) to control several NVRs, you can give a name to each NVR to differentiate them.
- Language: The system supports various languages: Chinese (simplified), Chinese (Traditional), English, Italian, Japanese, French, Spanish (All languages listed here are optional. Slight difference maybe found in various series.)
- Video standard: There are two formats: NTSC and PAL.
- HDD full: Here is for you to select what the DVR does 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 specify the record duration. The value ranges from 1 to 120 minutes. Default value is 60 minutes.
- Realtime play: This is to set playback time that you can view in the preview interface. The value ranges from 5 to 60 minutes.
- Auto logout: Here is where you set the auto logout interval. Once has user remains inactive for the specified time, they are logged out. Value ranges from 0 to 60 minutes.
- Navigation bar: Check the box here to display the navigation bar on the interface.
- IPC Time Sync: You can input an interval here to synchronize the NVR time and IPC time.
- Startup wizard: Once you check the box here, the system will go to the startup wizard directly when the system restarts the next time. Otherwise, it will go to the login interface.

- Mouse property: You can set the double click speed via dragging the slide bard. You can click the Default button to restore default settting.

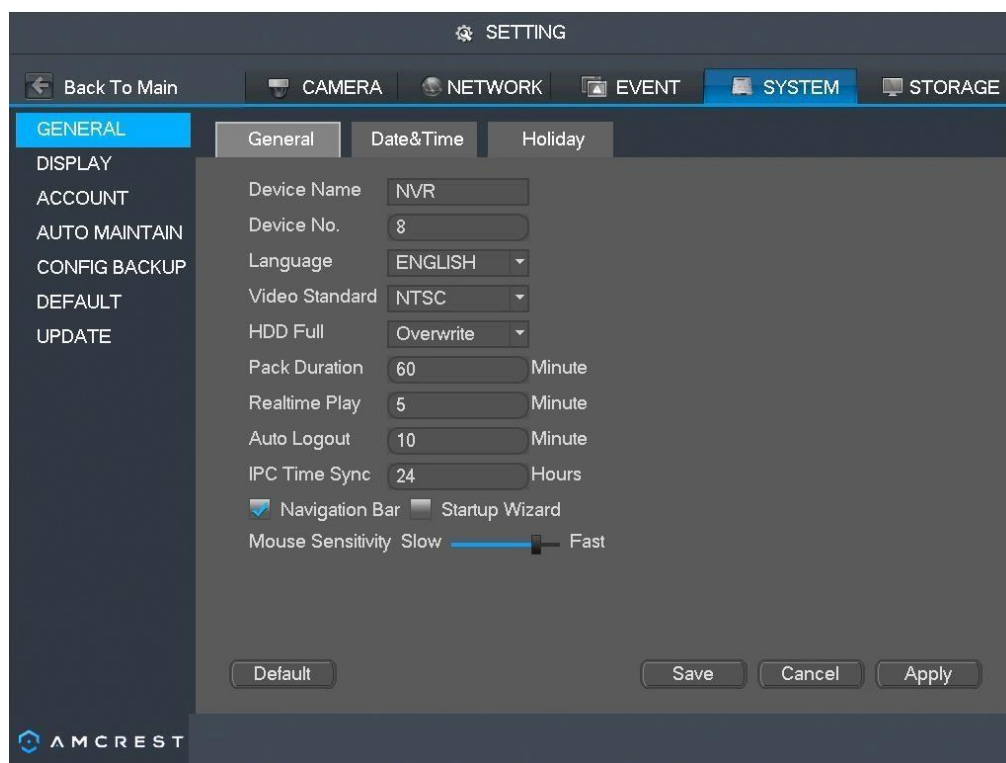


Figure 4-122

4.14.2 Data and Time

From Main Menu->Setting->System->General, you can go to the general interface. See Figure 4-123.

- System time: Here is where you set system time
- Date format: There are three types: YYYY-MM-DD: MM-DD-YYYY or DD-MM-YYYY.
- Date separator: There are three denotations to separate the date: ".", "-", and "/".
- DST: Here you can set the DST time and date by week or by date. Please enable the DST function and then select the setup mode. Please input the start time and end time and click the Save button.
- Time format: There are two types: 24-hour mode or 12-hour mode.
- NTP: This is to set NTP server, port, and interval.

Note:

Since the system time is very important, do not modify time casually unless there is a reason!

Before you modify the time, please stop recording first!

After completing all the settings please click the save button to back to the previous menu.

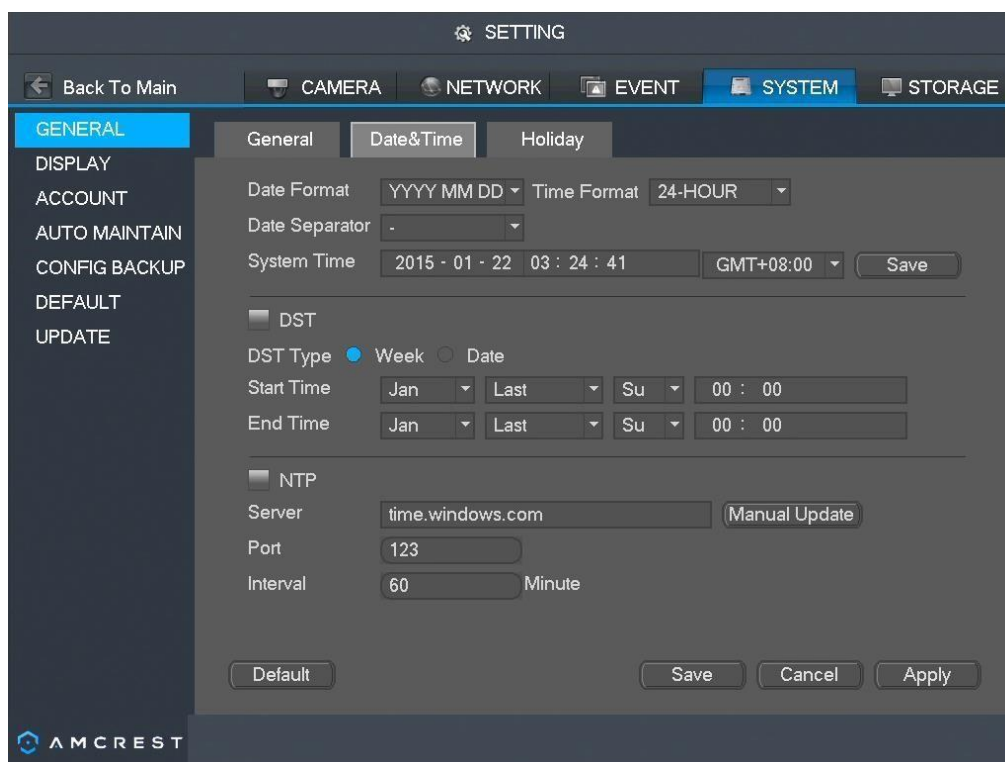


Figure 4-123

4.14.3 Holiday

The holiday setup interface is shown as in Figure 4-124. Click the Add New Holidays button to input new holiday information. See Figure 4-125. Here you can set the holiday name, repeat mode, and start/end time.

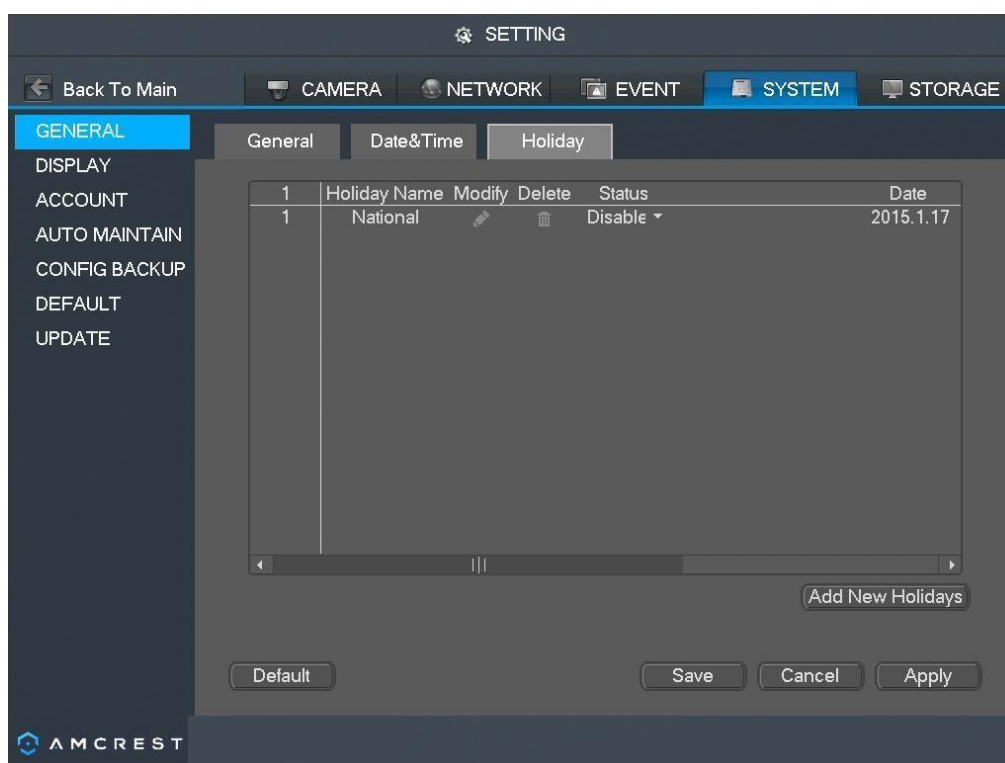


Figure 4-124

Figure 4-125

4.15 Device Maintenance and Manager

4.15.1 System Info

4.15.1.1 Version

From Main Menu->Info->System->version, you can go to the version interface.

Here is where you view some version information. See Figure 4-126. **Please note the following figure is for reference only.**

- Channel
- Alarm in
- Alarm out
- System version
- Build Date
- Web
- Serial number

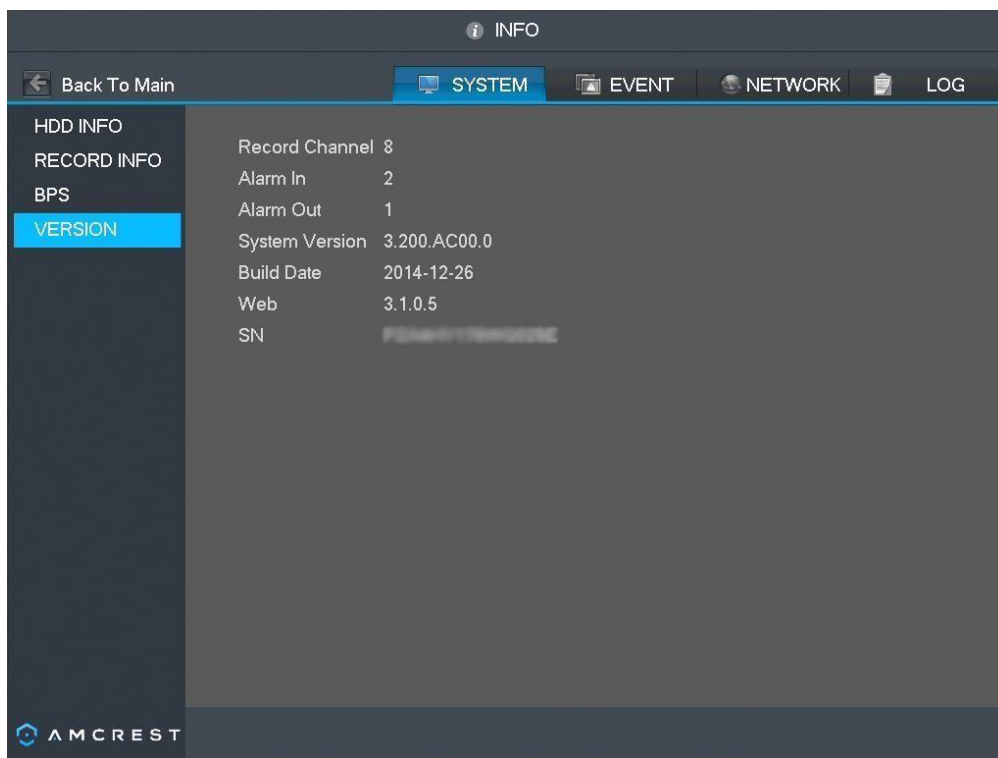


Figure 4-126

4.15.1.2 BPS

Here is where you view current video bit rate (kb/s) and resolution. See Figure 4-127.

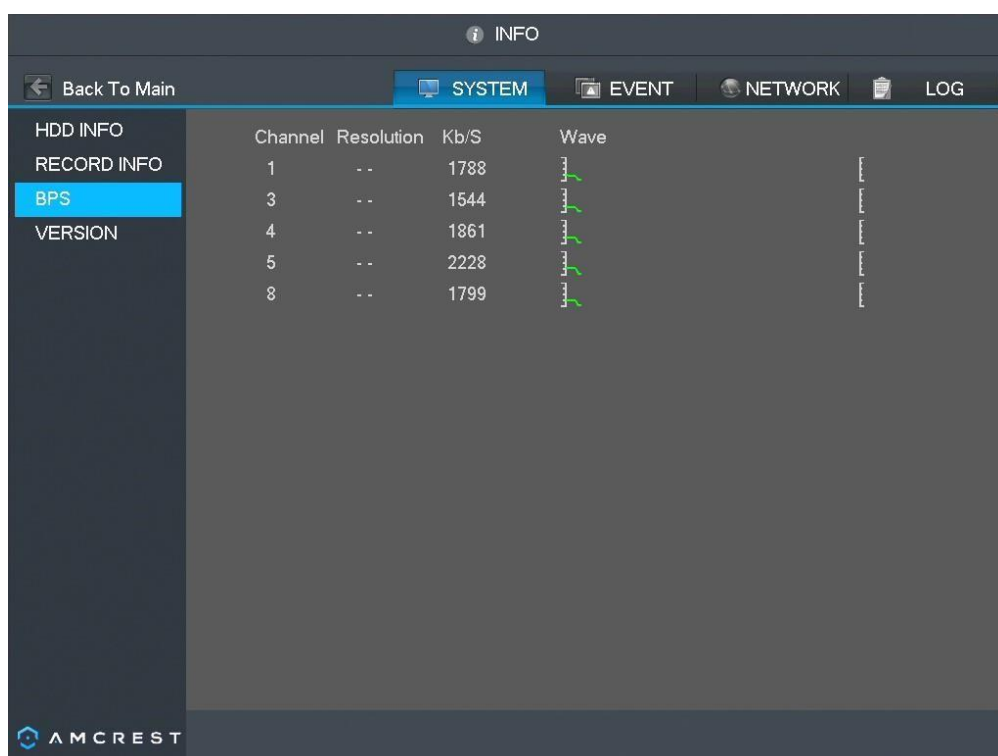



Figure 4-127

4.15.1.3 Online User

Here is where you manage online users connected to your NVR. See Figure 4-128.

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.

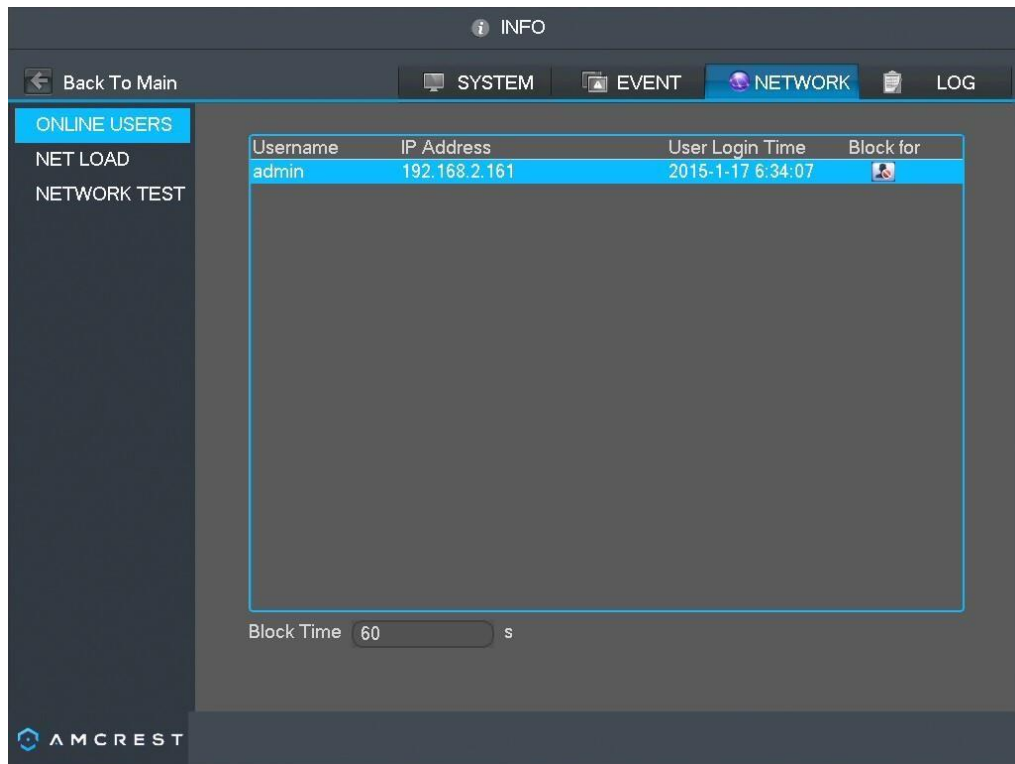


Figure 4-128

4.15.1.4 Remote Device Information

From Main Menu->Info->Event you can view the channel status of the remote device, connection log, etc. See Figure 4-129.

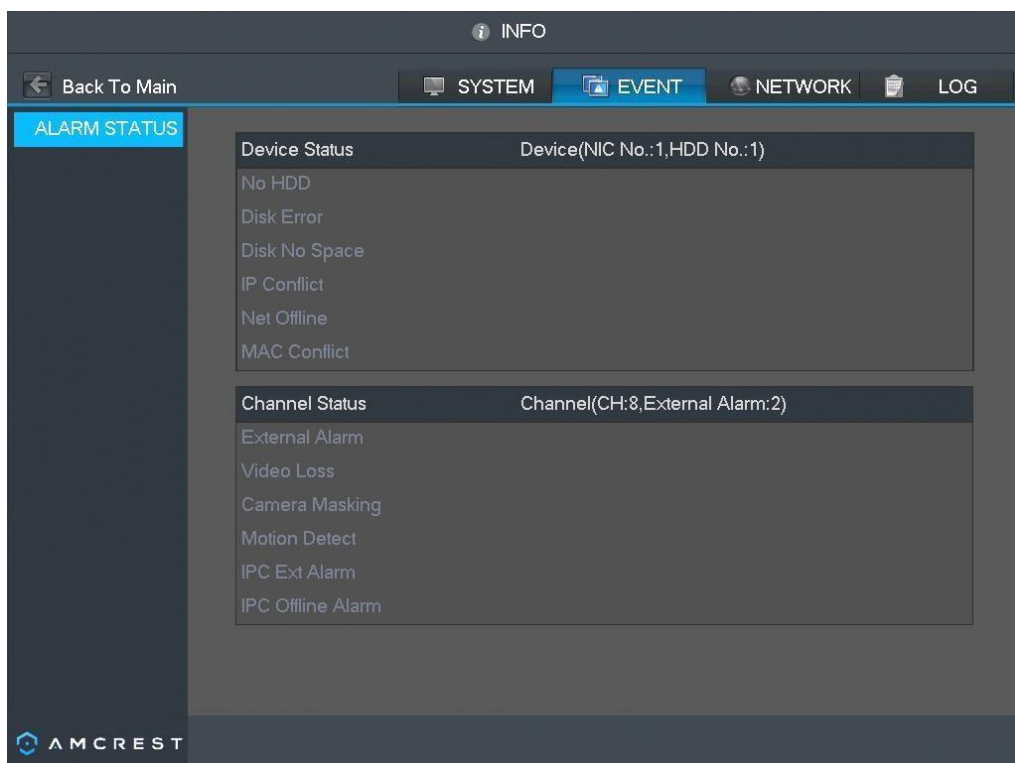







Figure 4-129

4.15.1.5 Device Status

Here you can view the IPC status of the corresponding channel such as motion detect, video loss, tampering, alarm, etc. See Figure 4-130.

- IPC status: : Front-end is not supported. : Front-end is supported. : There is alarm event from current front-end.
- Connection status: : Connection succeeded. : Connection failed.
- Refresh: Click this to get the latest front-end channel status.

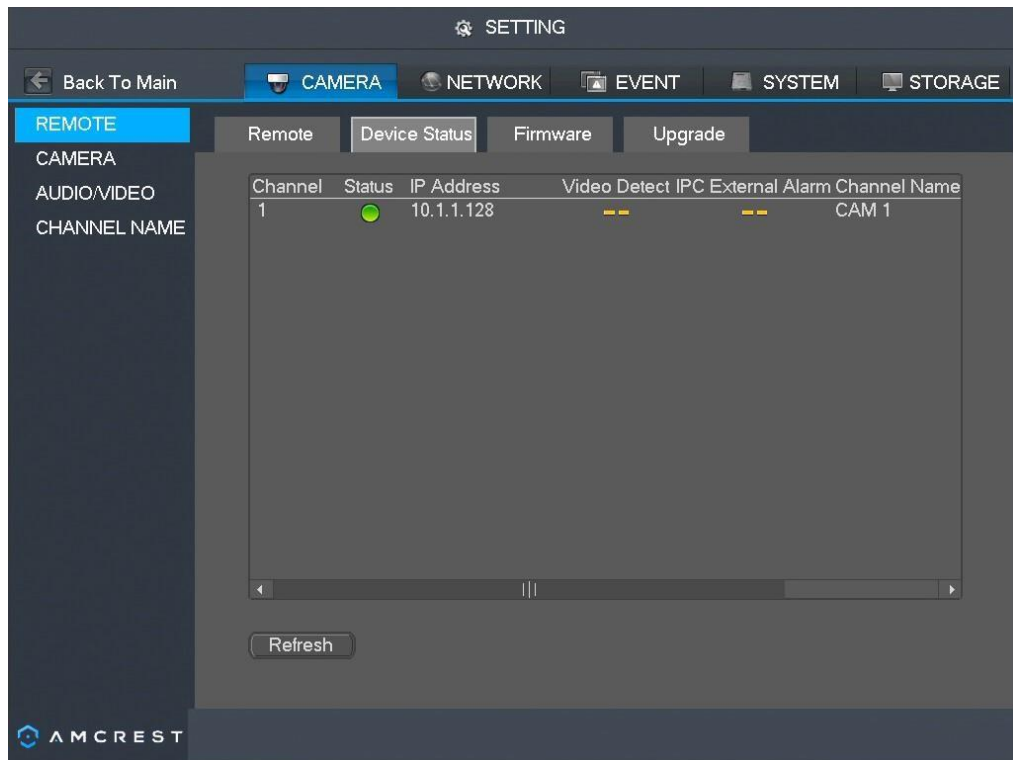


Figure 4-130

4.15.1.6 Firmware

This is to view channel, IP address, manufacturer, type, system version, SN, video input, audio input, external alarm, etc. See Figure 4-131.

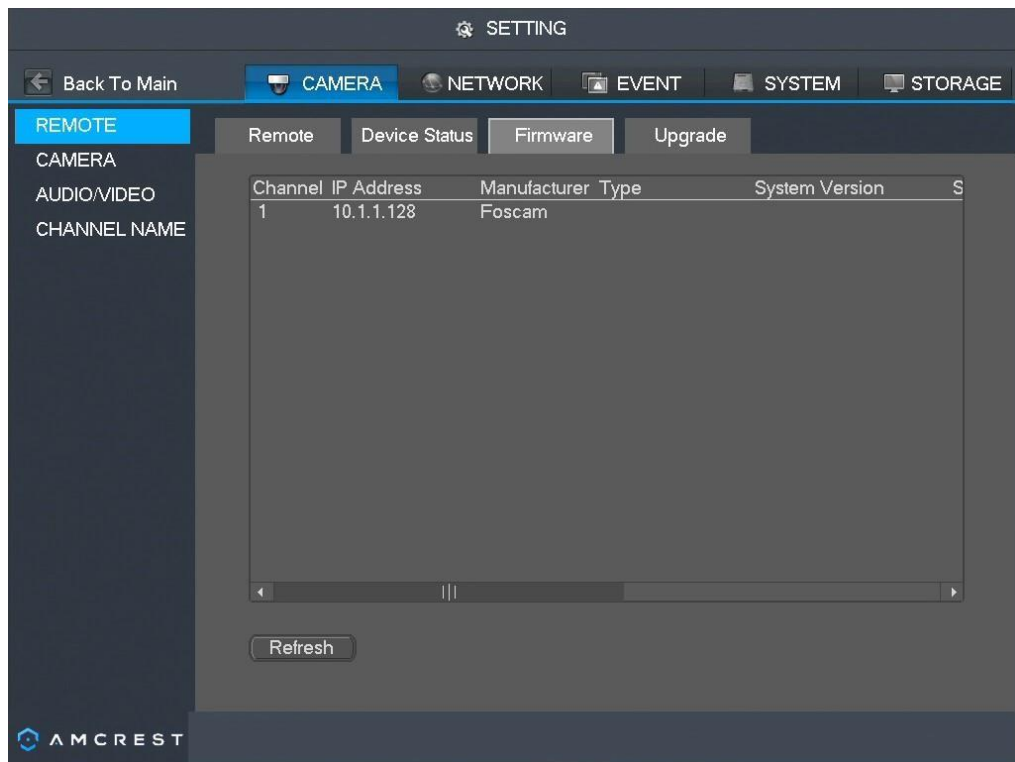


Figure 4-131

4.15.2 Log

From Main Menu->Info->Log, you can go to the following interface. See Figure 4-132.

- 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. See Figure 4-133. Click PgUp/PgDn to view more logs.

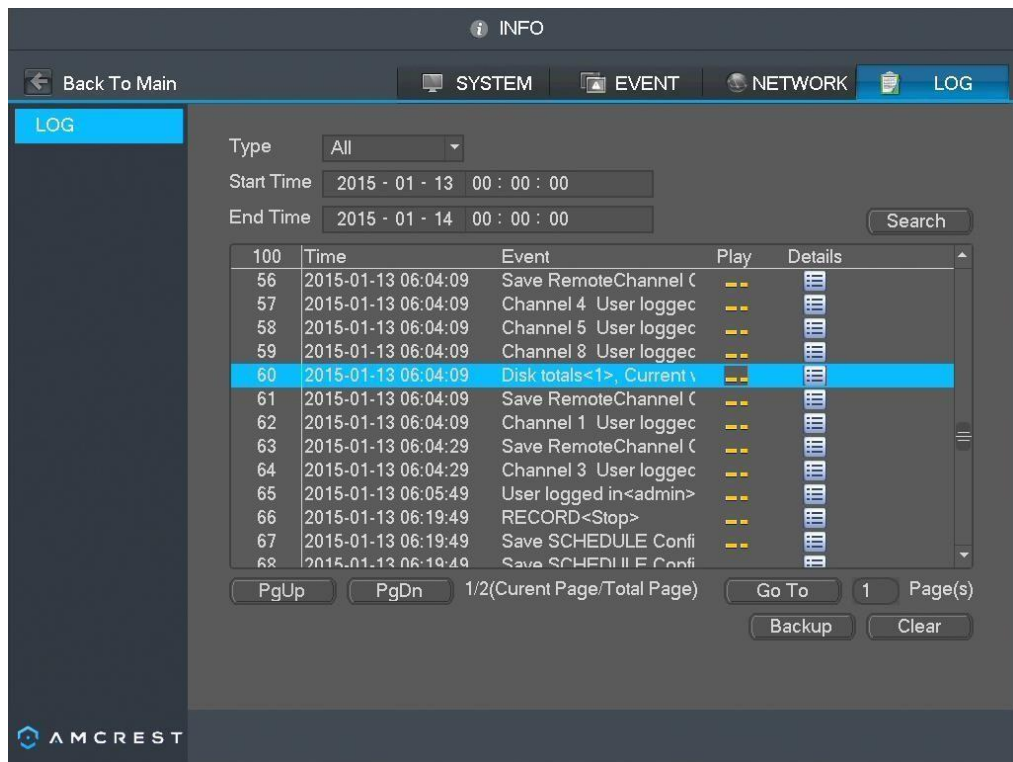


Figure 4-132

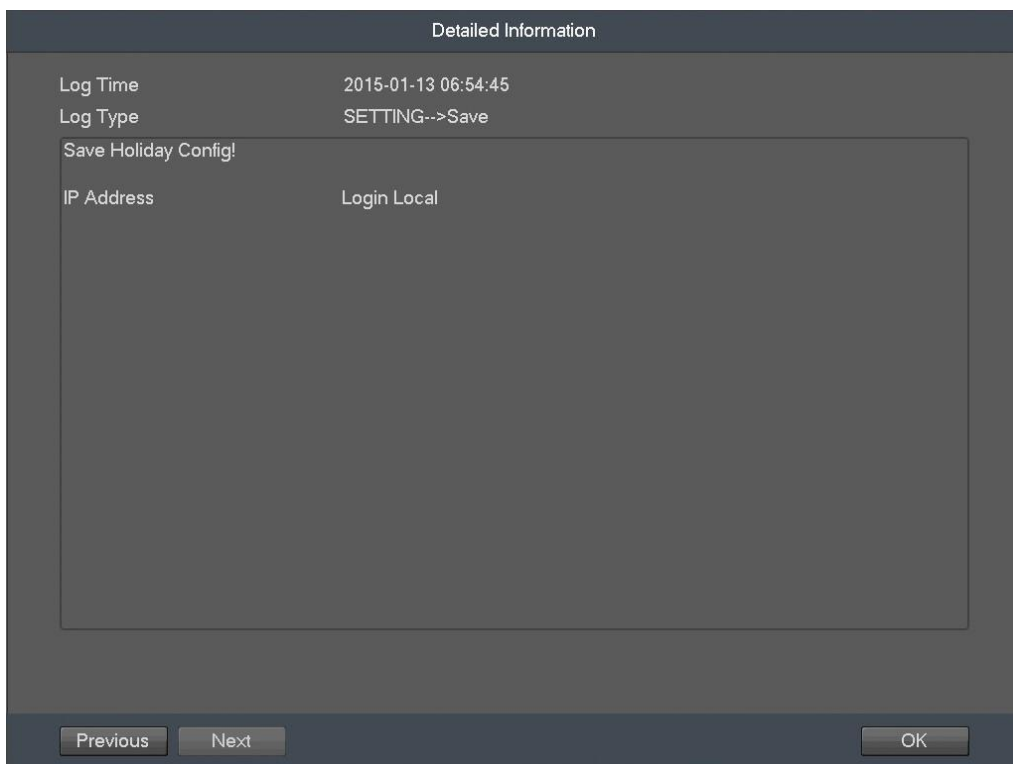


Figure 4-133

4.15.3 Account

Here is where you implement account management. See Figure 4-134 and Figure 4-135. Here you can:

- Add new user
- Modify user
- Add group

- Modify group
- Modify password

For account management please note:

- For the user account name and the user group, the max string length is 6 bytes. A space in front of or at the back of the string is invalid. There can be a space in the middle. The string can include the valid characters: letters, numbers, underline, dash, and period.
- The default user amount is 64 and the default group amount is 20. The system account adopts twolevel management: group and user. No limit on group or user amount.
- For group or user management, there are two levels: admin and user.
- The user name and group name can consist of eight bytes. One name can only be used once. 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.
- One user should belong to one group. User rights can not exceed group rights.
- About the reusable function: this function allows multiple users use the same account to login. After all the settings are completed, please click the Save button to go back to the previous menu.

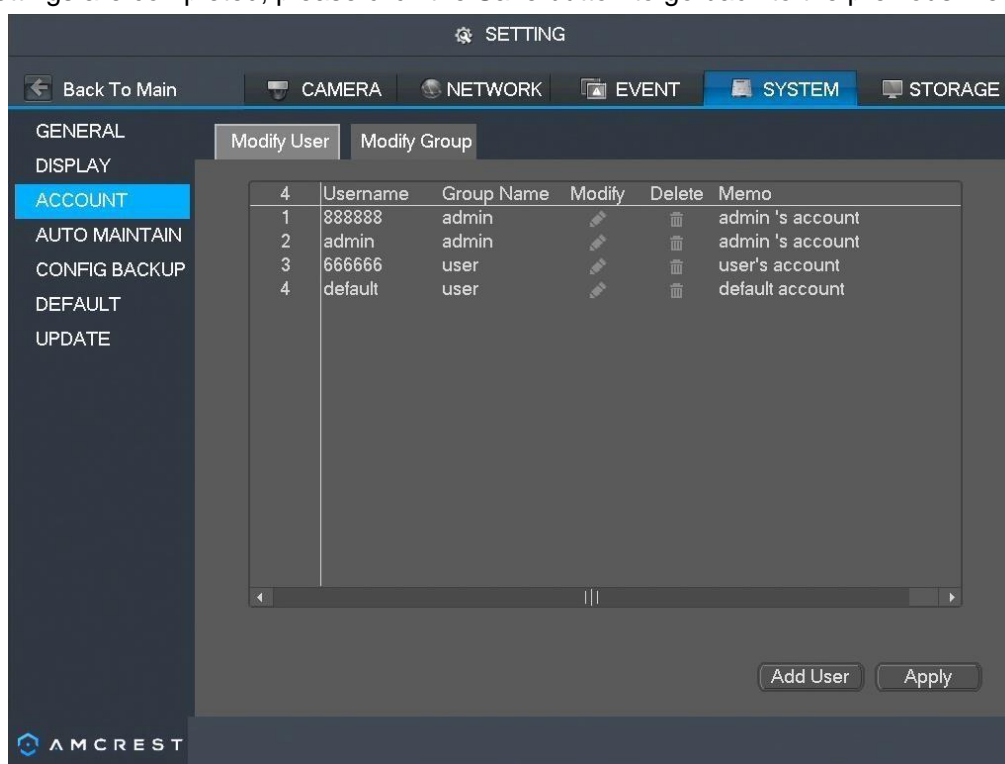


Figure 4-134

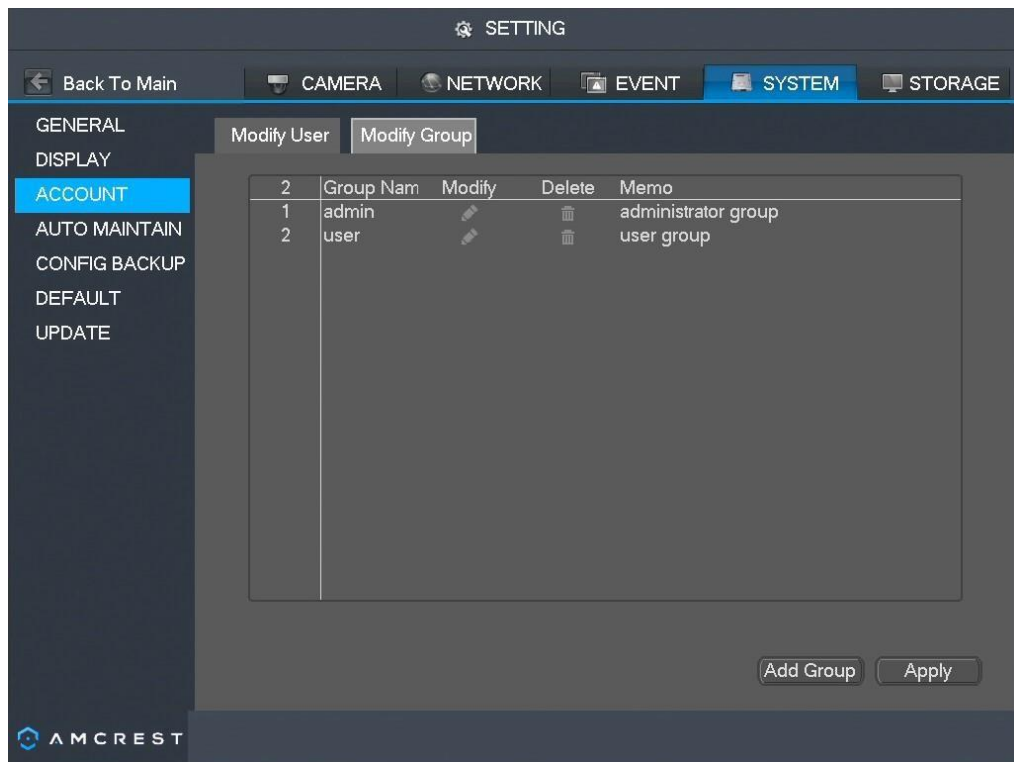


Figure 4-135

4.15.3.1 Add/Modify Group

Click the Add Group button and the interface is shown as below. See Figure 4-136.

Here you can input a group name and then input some memo information if necessary.

There are many rights such as control panel, shut down, real-time monitor, playback, record, record file backup, PTZ, user account, system information view, alarm input/output setup, system setup, log view, clear log, upgrade system, control device, etc.

The modify group interface is similar to the Figure 4-136.

Add Group

Group Name

Memo

Authority

System Playback Monitor

- ☒ All
- ☒ User Account
- ☒ Pan/Tilt/Zoom
- ☒ Storage
- ☒ Clear Log
- ☒ System
- ☒ INFO
- ☒ Event
- ☒ Shutdown the Device
- ☒ OFFLINE USER
- ☒ Manual Control
- ☒ Network
- ☒ Default&Update
- ☒ BACKUP
- ☒ Remote Device

Save Cancel

Figure 4-136

4.15.3.2 Add/Modify User

Click the Add User button and the interface is shown as in Figure 4-137.

Please input the user name, password, and select the group it belongs to from the dropdown list.

Then you can check the corresponding rights for current user.

For convenient user management, usually we recommend the general user have rights lower than the admin account.

The modify user interface is similar to Figure 4-137.

Add User

Username

Password

Memo

Group

Reuseable ☐

Confirm Password

Authority

System Playback Monitor

- ☒ All
- ☒ User Account
- ☒ Pan/Tilt/Zoom
- ☒ Storage
- ☒ Clear Log
- ☒ System
- ☒ INFO
- ☒ Event
- ☒ Shutdown the Device
- ☒ OFFLINE USER
- ☒ Manual Control
- ☒ Network
- ☒ Default&Update
- ☒ BACKUP
- ☒ Remote Device

Save Cancel

Figure 4-137

4.15.4 Upgrade

From Main Menu->Setting->Info->Upgrade, you can go to the following interface. See Figure 4-138. a) Insert a USB device that contains the upgrade file.

b) Click the Start button and then select the .bin file.

c) You can see the corresponding dialogue box after the update process is complete.

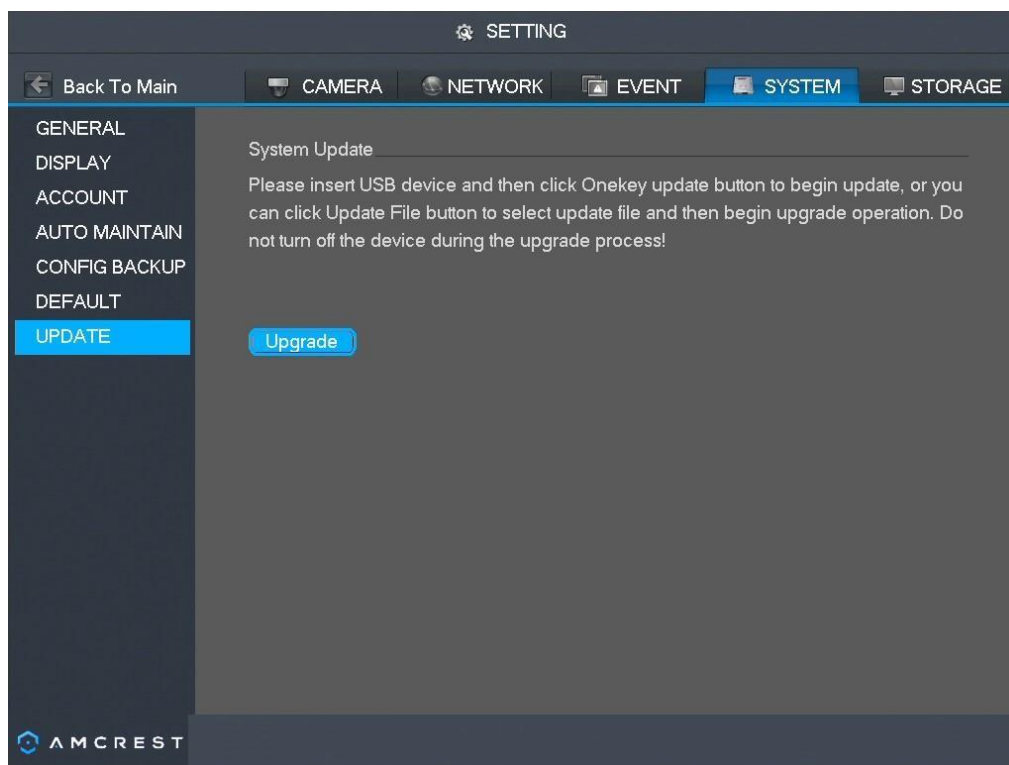



Figure 4-138


4.15.5 Default

You can restore factory default settings to fix some problems when the device is running slowly or a configuration error has occurred.

From Main Menu->Setting->System->Default, you can go to the default interface. See Figure 4-139.

Click the Default icon and the system pops up a dialogue box. You can highlight  to restore factory default settings.

- All
- Camera
- Network
- Event
- Storage
- System

Please highlight  to select the corresponding function.

After all the settings are complete please click the OK button to go back to the previous menu. **Warning!** After you use the default function, some your customized settings may be lost forever! Please think twice before you begin the operation!

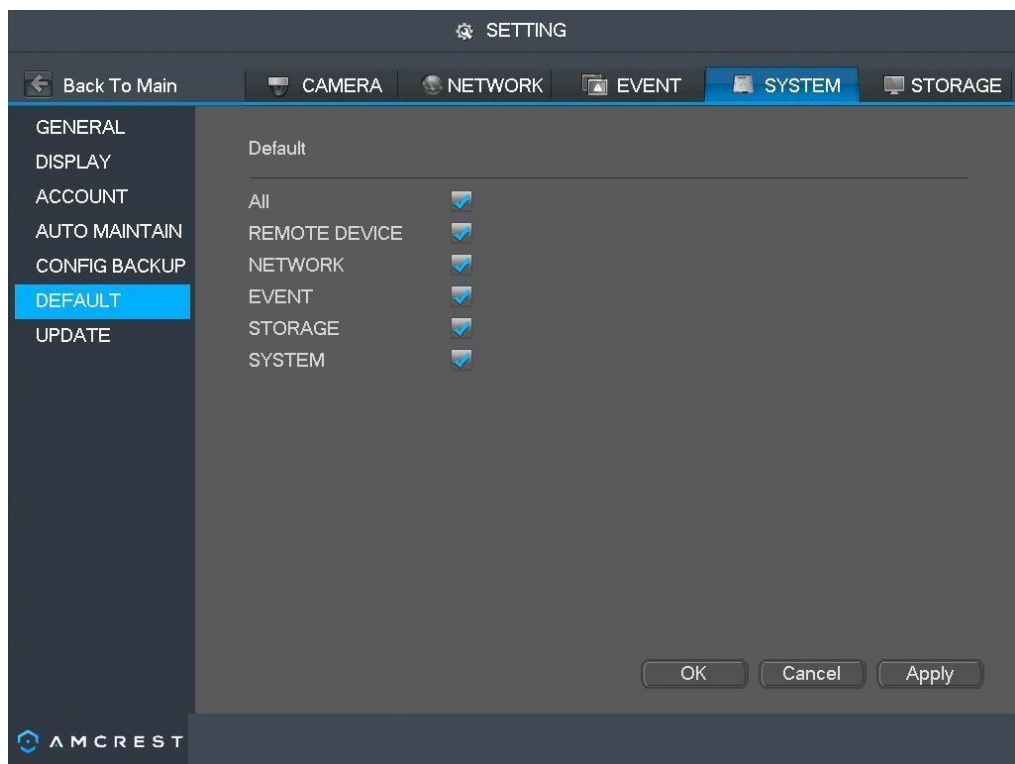


Figure 4-139

4.15.6 Auto Maintain

Here you can setup an auto-reboot time and auto-delete old files. You can set it to delete the files for the specified days. See Figure 4-140.

You can select the desired setting from dropdown list.

After all the settings are complete please click the Save button to go back to the previous menu.

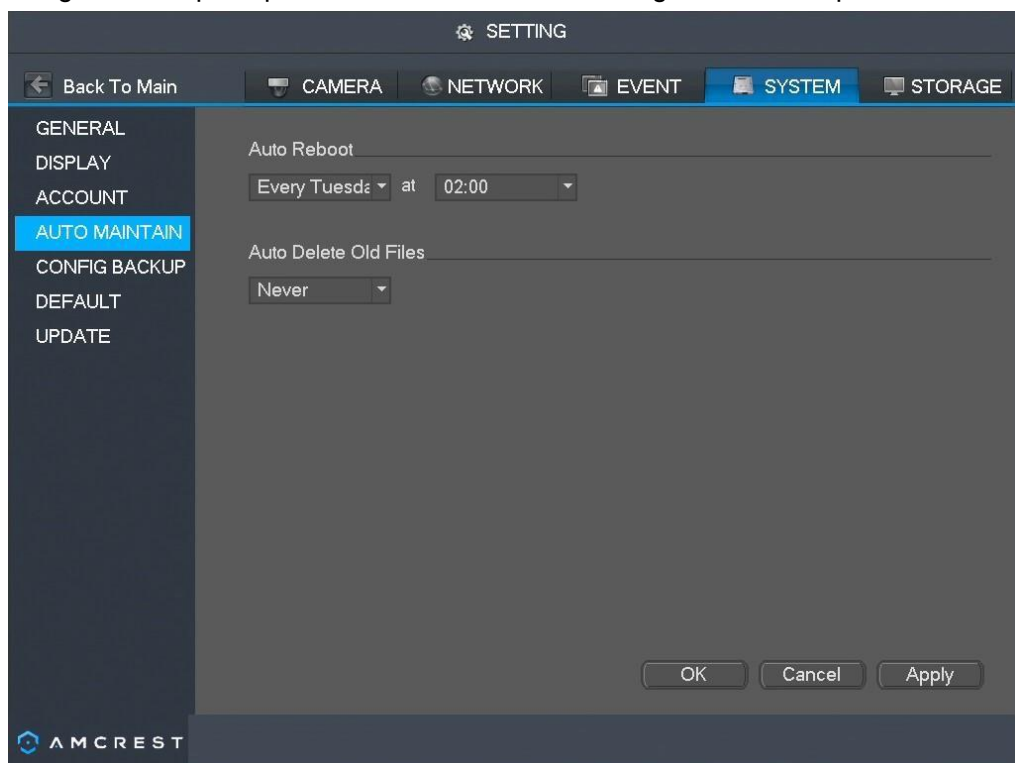


Figure 4-140

4.15.7 Logout /Shutdown/Restart

From Main Menu->Operation->Shutdown, you can see an interface shown as in Figure 4-141.

- 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.



Figure 4-141

5 Web Operation

5.1 General Introduction

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

Important

The following operation is based on 32-channel series device.

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, Safari, Mozilla Firefox, and Google Chrome.

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.

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

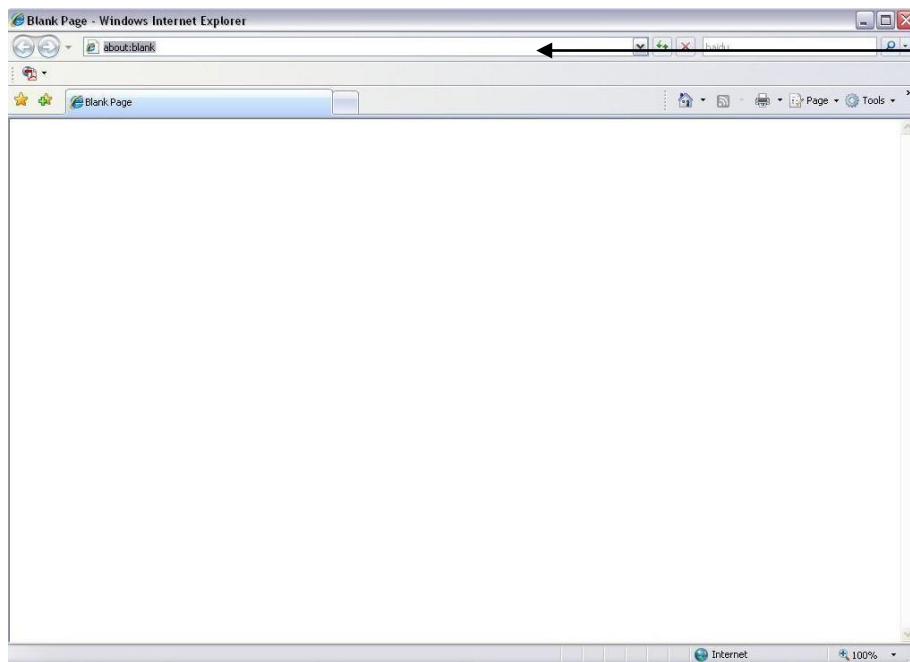
4) When you plug in a PoE device, all channels are currently in use.

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

5.1.2 Log in

Open IE and then input the NVR IP address in the address field.

For example, if your NVR IP address is 192.168.1.108, then please input <http://192.168.1.108> in IE address column. See Figure 5-1.



Input IP
address here.

Figure 5-1

The system pops up warning and asks you whether or not to install webrec.cab control. Please click Yes or Allow. If you can't download the ActiveX file, please go to Internet Options, click the Security Tab, make sure the Internet zone is selected, click Custom level, and modify your settings as follows. See Figure 5-2.

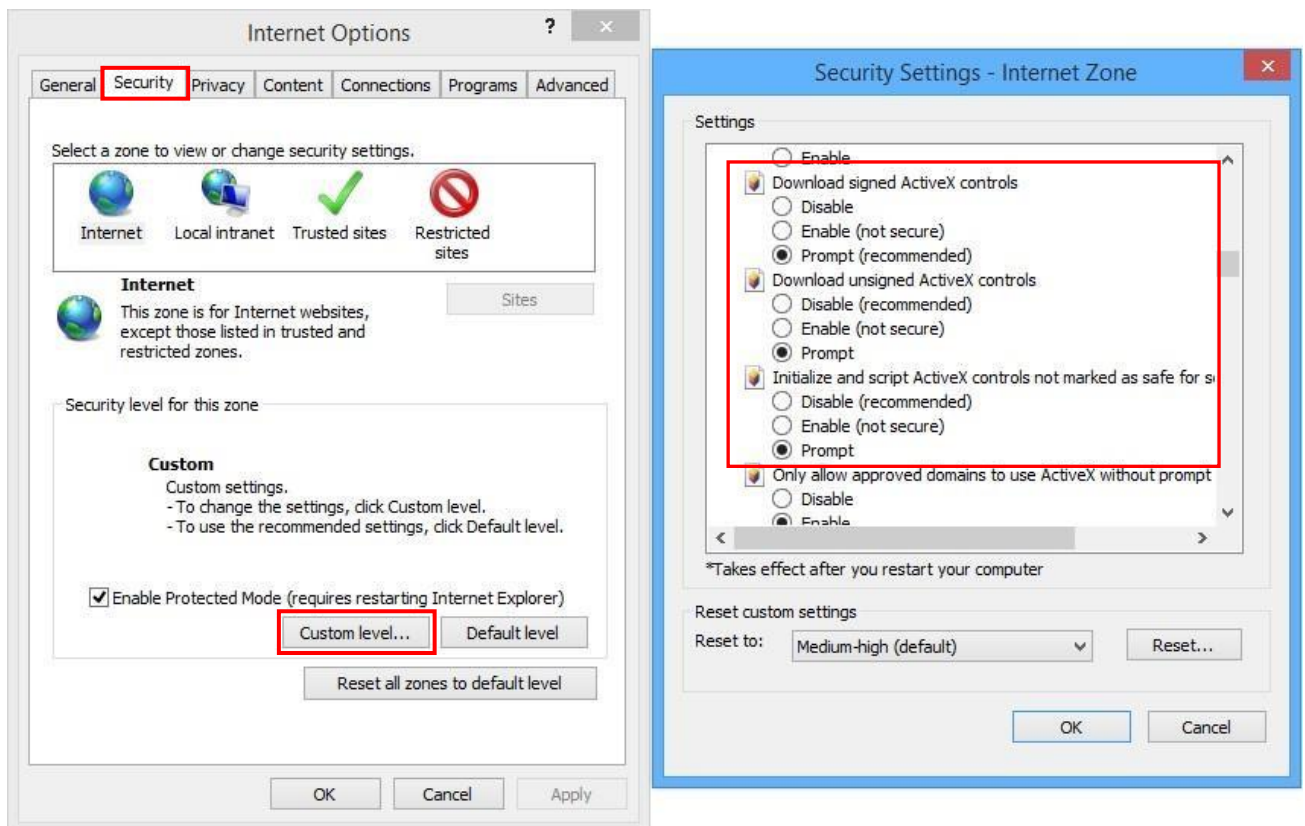


Figure 5-2

After installing the plugin, the interface is shown as below. See Figure 5-3.



Figure 5-3

Please input your user name and password.

The default user name is **admin** and password is **admin**.

Note: For security reasons, please modify your password after you first login.

5.2 Local Access

The camera can be accessed by the local IP address listed in Main Menu->Setting->Network->TCP/IP. To ensure the IP here is on the same subnet as the router, we recommend enabling the DHCP option first and rebooting. In order to access the NVR consistently we recommend setting the IP to static by unchecking the DHCP option. Using a static IP means the IP address will not change and the web page can be saved as a bookmark for easy access.

5.3 Remote Access

There are two main methods for setting up remote access: UPnP and port forwarding.

5.3.1 UPnP

UPnP is the simpler way to setup remote access. In Main Menu->Setting->Network->UPnP check the box to enable it. Once enabled, the NVR will communicate with the router to allow access to it from remote networks. The status will change from "Searching" to "Success" when it has finished configuring. The NVR can now be accessed via the external IP or DDNS from a remote network.

We recommend connecting to the NVR via DDNS as external IPs change on most networks. The DDNS feature must be enabled in Main Menu->Setting->Network->DDNS. Further information on this can be found in section 4.12.1.5 of this manual.

Important:

- Many internet providers block port 80 for security reasons. Since this is the default HTTP port for the NVR, we recommend changing it in Main Menu->Setting->Network->Connection. Once it has been changed, the UPnP service rule must be changed to match. Double click the HTTP service rule on the UPnP page to edit the port number.

- For UPnP to work, your router must support it. Most new routers do support this but sometimes it needs to be enabled in its' settings. Please check with the router's manufacturer to see if it supports UPnP and how to enable it.

5.3.2 Port Forwarding

The port forwarding method can be more difficult as it requires changing settings in your router.

First the NVR needs to have a static IP. The NVR is set to DHCP by default and already has the appropriate information. Simply navigate to Main Menu->Setting->Network->TCP/IP and uncheck the DHCP option.

The next recommended step is to change the HTTP Port. Most internet providers block the default HTTP Port 80 for security reasons. To change the HTTP Port, go to Main Menu->Setting->Network->Connection. The port can be anything between 1~65535 but we recommend using one between 1025~65535 to avoid any conflicts.

This step will vary depending on your router and network setup. We recommend checking out the Port Forwarding Guides at <http://portforward.com>. The only ports that are required to be forwarded are the HTTP Port using the TCP protocol, TCP Port using the TCP protocol, and UDP Port using the UDP protocol.


5.3.3 Accessing via a PC

Once remote access has been setup, to access the camera open a web browser and enter `http://*external IP*:*HTTP Port*` or `http://*DDNS*:*HTTP Port*` in the address bar. For example, if your external IP is 50.197.211.181 and your HTTP Port is 37776, the URL would be `http://50.197.211.181:37776`. Or if your DDNS is AB1234567890.quickddns.com and your HTTP Port is 1026, the URL would be `http://AB1234567890.quickddns.com:1026`

5.3.4 Accessing via a Mobile Device

To access the NVR on a mobile device, the Amcrest View app is needed. It can be found on the Play Store on Android and the App Store for iOS. Once it is installed, open the app and it will give you a brief tutorial.

After the tutorial, press the top right button  to bring up a list of NVRs. This list should be

blank as no devices have been added. Click the  button on the top right of this window to add the NVR. From here there are three ways to register the NVR to the mobile device. Please see Figure 5-4

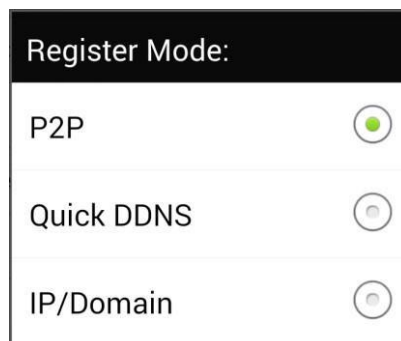


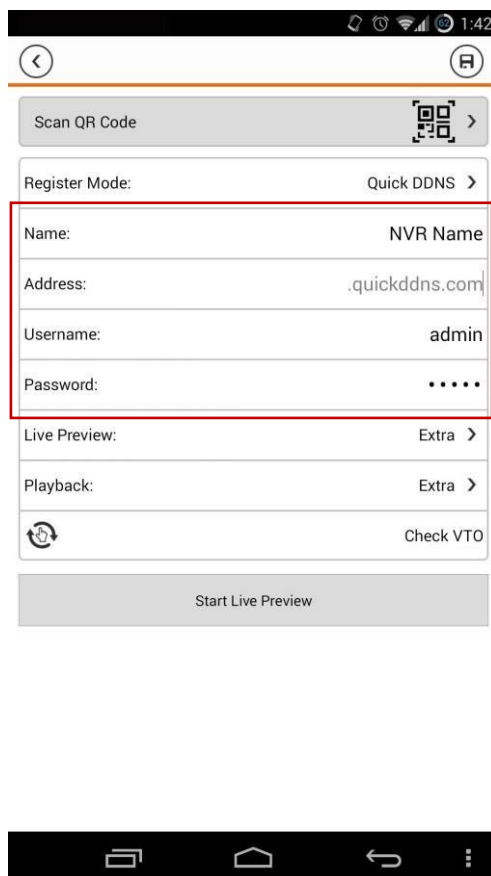
Figure 5-4 • The easiest way to add the device is the P2P option. Click the "Scan QR Code" option, scan the QR code found on the Setting->Network->P2P page (chapter 4.12.1.15), name it something easily recognized, and enter the username and password. Please see Figure 5-5

The image shows a mobile application interface for registering a device. At the top, there is a status bar with icons for signal, battery, and time (1:41). Below the status bar is a navigation bar with a back arrow and a home icon. The main content area contains several input fields and buttons, all of which are highlighted with red rectangular boxes. The fields are: 'Scan QR Code' with a QR code icon and a right arrow; 'Register Mode:' with 'P2P' and a right arrow; 'Name:' with 'NVR Name'; 'SN:' with '1234567890ABCD'; 'Username:' with 'admin'; 'Password:' with six dots; 'Live Preview:' with 'Extra' and a right arrow; 'Playback:' with 'Extra' and a right arrow; and a 'Check VTO' button with a circular arrow icon. At the bottom of the form is a large 'Start Live Preview' button. The bottom of the screen features a standard Android navigation bar with icons for recent apps, home, back, and a menu.

Scan QR Code	>
Register Mode:	P2P >
Name:	NVR Name
SN:	1234567890ABCD
Username:	admin
Password:
Live Preview:	Extra >
Playback:	Extra >
Check VTO	
Start Live Preview	

Figure 5-5

- The next option is Quick DDNS. Name the device, enter the Quick DDNS URL which can be found on the Setting->Network->DDNS Setup page (chapter 4.12.1.5), and enter the username and password. Please see Figure 5-6.

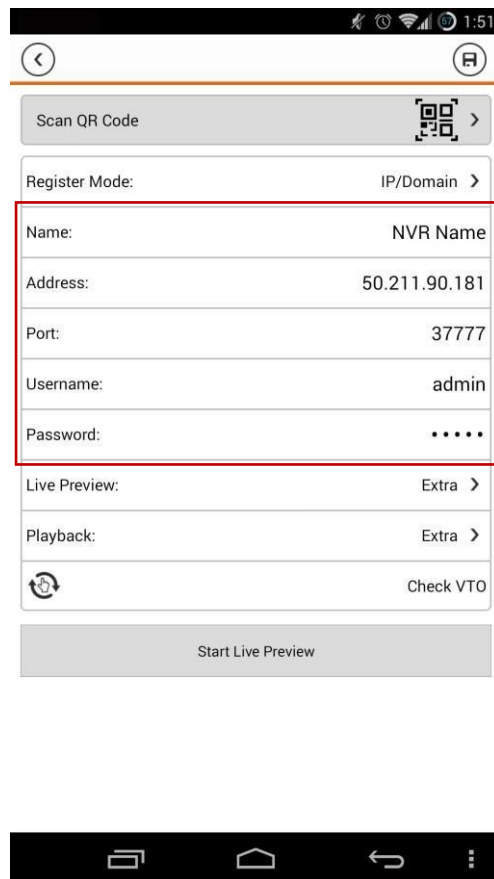


The image shows a mobile application interface for NVR registration. At the top, there is a status bar with icons for signal, battery, and time (1:42). Below the status bar is a navigation bar with a back arrow and a home icon. The main content area is divided into several sections. The first section is a 'Scan QR Code' button with a QR code icon. Below this is a 'Register Mode:' section with a 'Quick DDNS' option and a right arrow. The 'Quick DDNS' section is highlighted with a red border and contains four input fields: 'Name:' with the text 'NVR Name', 'Address:' with the text '.quickddns.com', 'Username:' with the text 'admin', and 'Password:' with masked characters '.....'. Below these fields are two more sections: 'Live Preview:' with an 'Extra' option and a right arrow, and 'Playback:' with an 'Extra' option and a right arrow. At the bottom of the main content area is a 'Check VTO' button with a circular arrow icon. Below the main content area is a 'Start Live Preview' button. The bottom of the screen features a standard Android navigation bar with icons for back, home, and recent apps.

Scan QR Code	
Register Mode:	Quick DDNS >
Name:	NVR Name
Address:	.quickddns.com
Username:	admin
Password:
Live Preview:	Extra >
Playback:	Extra >
Check VTO	
Start Live Preview	

Figure 5-6

- The final option is IP/Domain. Name the device, enter the external IP or 3rd party DDNS, TCP Port number (default is 37777), and enter the username and password. Please see Figure 5-7



Mobile app registration screen showing fields for Name, Address, Port, Username, and Password. A red box highlights the registration form fields. Below the form are buttons for 'Live Preview', 'Playback', and 'Check VTO'. At the bottom is a 'Start Live Preview' button.

Register Mode:	IP/Domain >
Name:	NVR Name
Address:	50.211.90.181
Port:	37777
Username:	admin
Password:
Live Preview:	Extra >
Playback:	Extra >
Check VTO	

Start Live Preview

Figure 5-7

Once the information is entered click “Start Live Preview” to begin viewing your live feeds.

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.

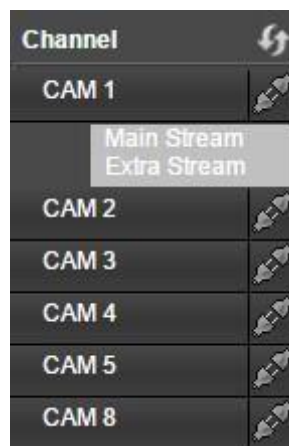


Figure 5-8

- 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 .dav.

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/1-window/4window/6-window/8-window/9-window. You can set video fluency and real-time feature

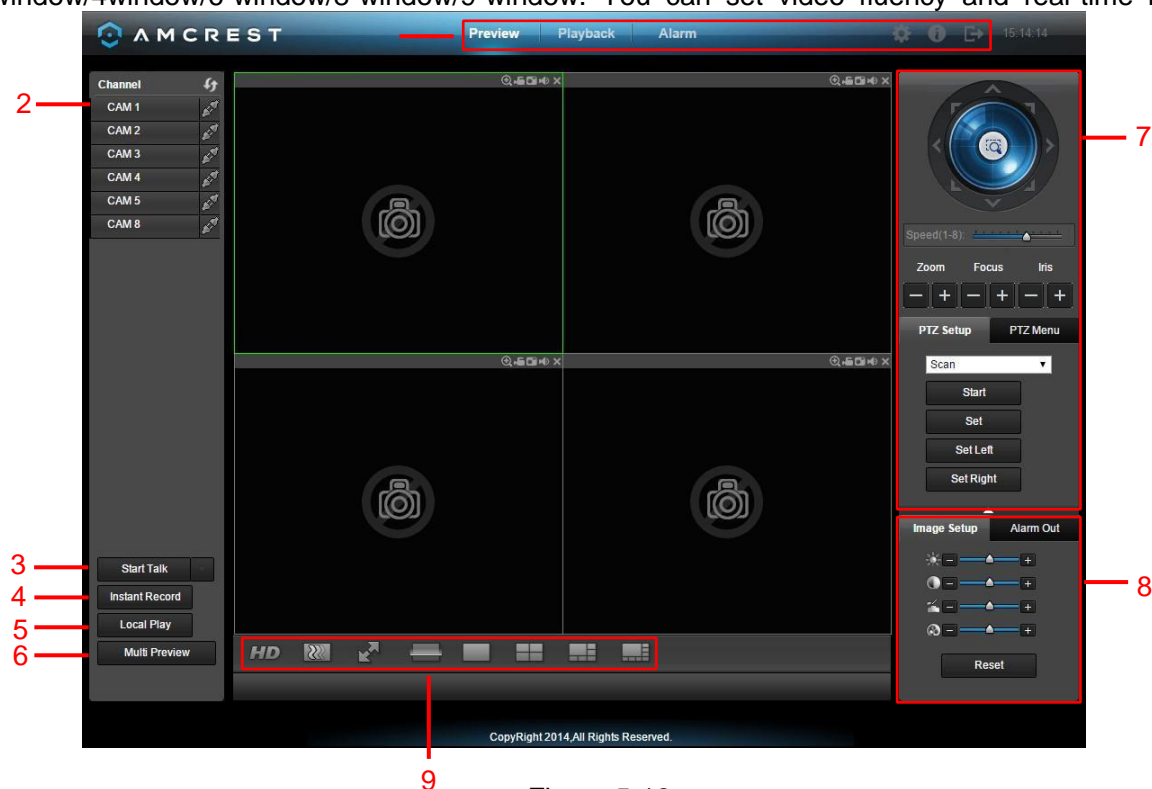


Figure 5-12

priority. 1

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.



Figure 5-13

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

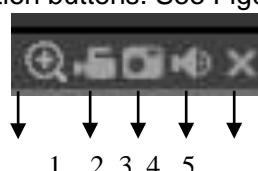


Figure 5-14

- 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 RecordDownload 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 PictureDownload (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. (Please refer to chapter **Error! Reference source not found.**).

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	<ul style="list-style-type: none"> ● 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	<ul style="list-style-type: none"> ● 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	<ul style="list-style-type: none"> ● 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	<ul style="list-style-type: none"> ● 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	<ul style="list-style-type: none"> ● Please input the corresponding aux value here. ● You can select one option and then click the AUX on or AUX off button.
Light and wiper	You can turn on or turn off the light/wiper.

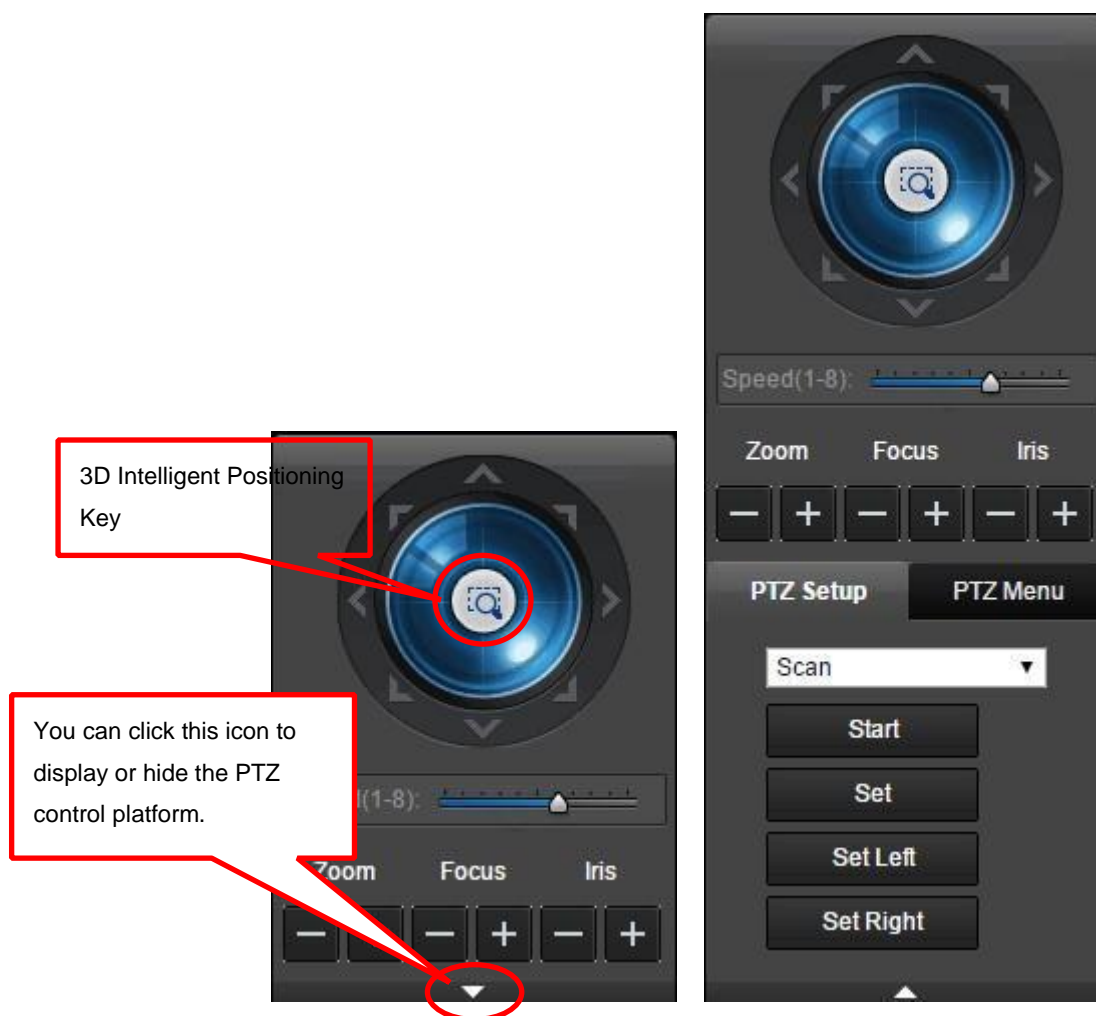


Figure 5-15

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.

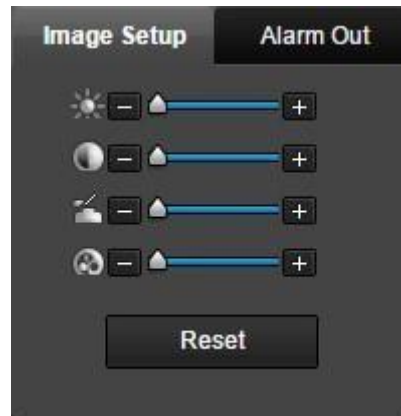


Figure 5-16

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.

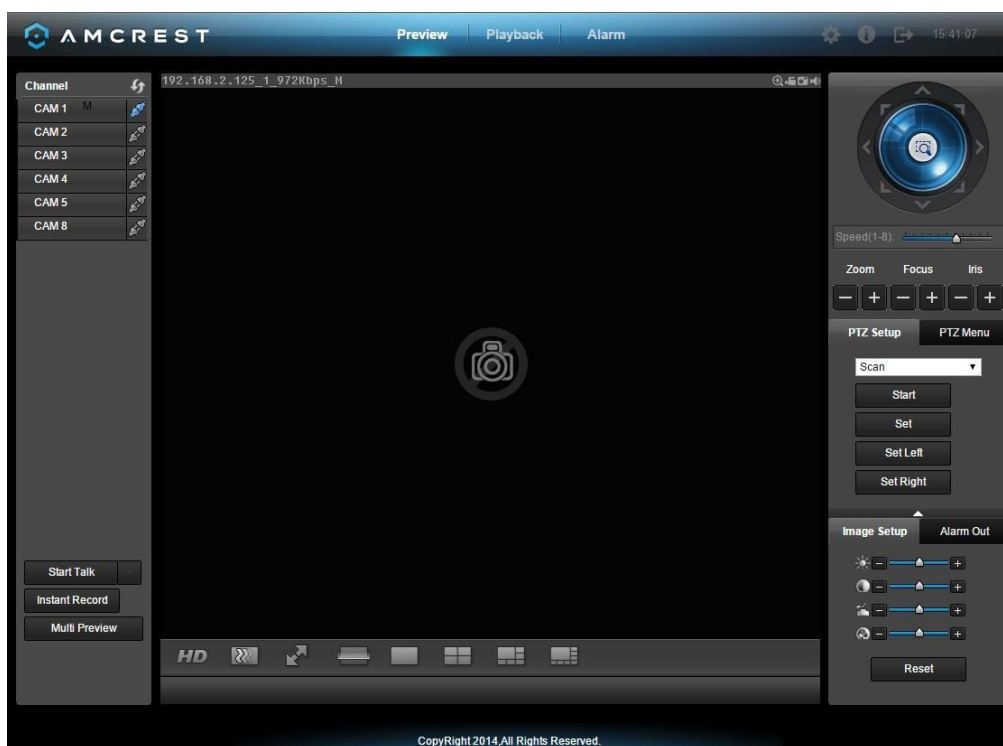


Figure 5-18

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.

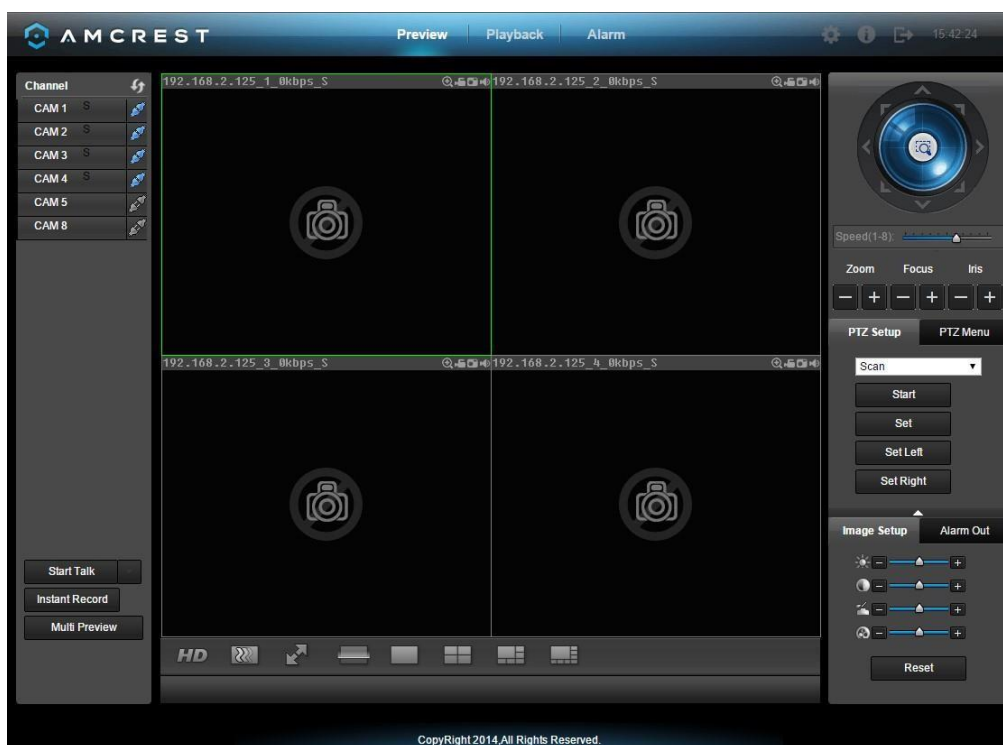


Figure 5-19

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 can not 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 Device

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

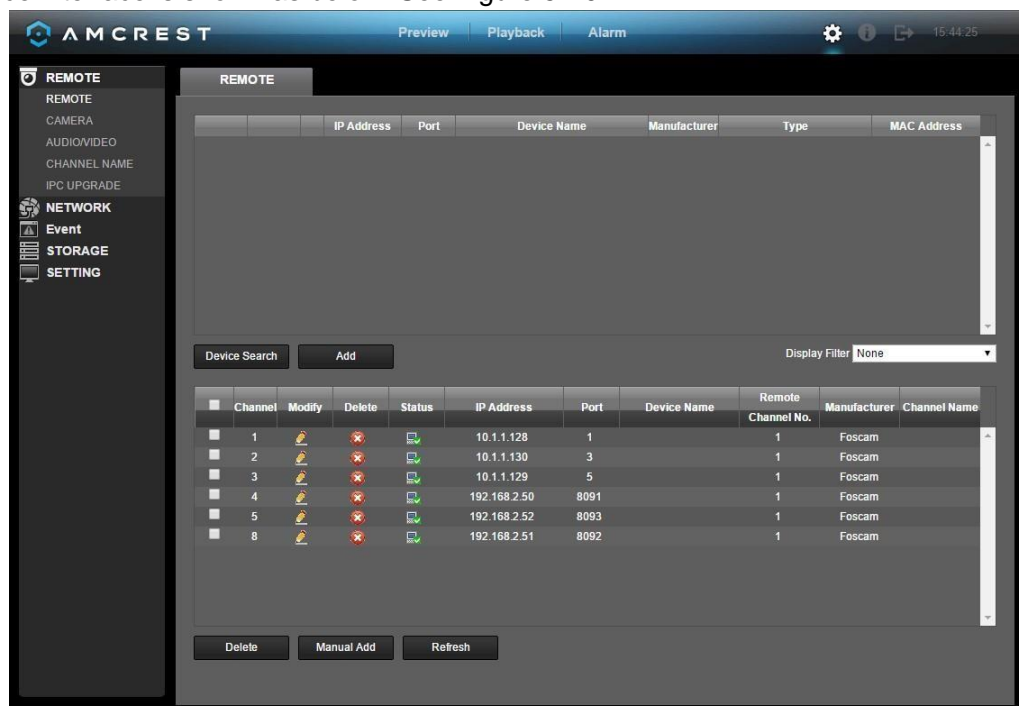


Figure 5-20

Manual Add

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

Save Cancel

Figure 5-21

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	<p>Click this and the interface is shown as in Figure 5-21. Here you can add a network camera manually.</p> <p>You can select a channel from the dropdown list (Only available channels are show.) Note:</p> <ul style="list-style-type: none"> ● The system supports manufactures such as Foscam, 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 Image

Here you can view device properties. The settings become valid immediately after you set them. See Figure 5-22.

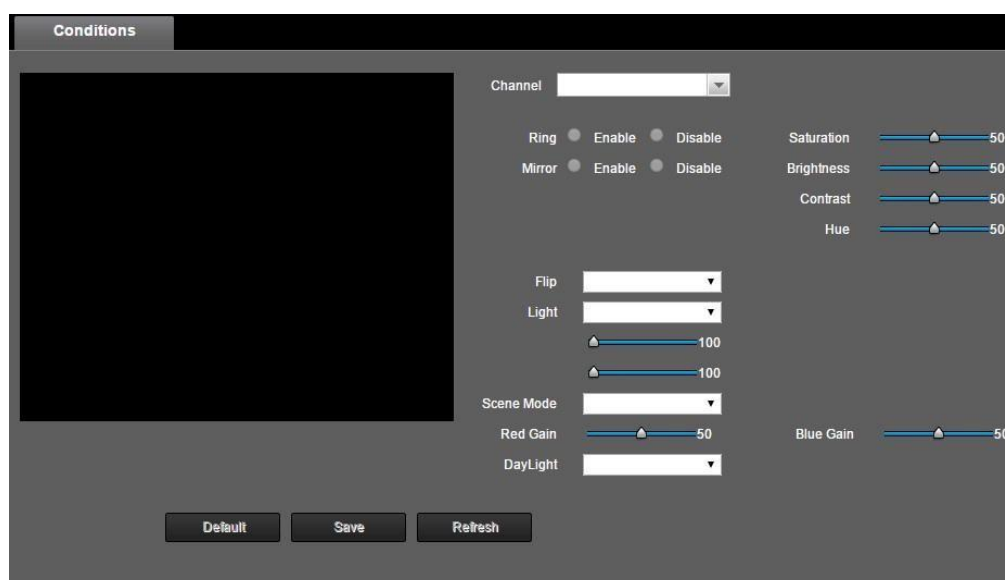


Figure 5-22

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	<p>This is to adjust monitor video brightness and darkness level. The default value is 50.</p> <p>The bigger the value is, the large the contrast between the bright and dark section is and vice versa.</p>

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 noticable.	
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,
		<p>sunny, cloudy, home, office, night, disable, etc to adjust the video to the best quality.</p> <ul style="list-style-type: none"> ● 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		<p>This is to set device color and the B/W mode switch. The default setup is auto.</p> <ul style="list-style-type: none"> ● 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

5.9.1.3.1 Encode

The encode interface is shown as below. See Figure 5-23.

Figure 5-23

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	<ul style="list-style-type: none"> ● 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	<p>This function allows you to verify if the video has been tampered with or not.</p> <p>Here you can select the watermark bit stream, watermark mode, and watermark character. The default character is DigitalCCTV. The max length is 85 characters. The characters can only include number, character, and underscore.</p>

5.9.1.3.2 Snapshot

The snapshot interface is shown as in Figure 5-24.

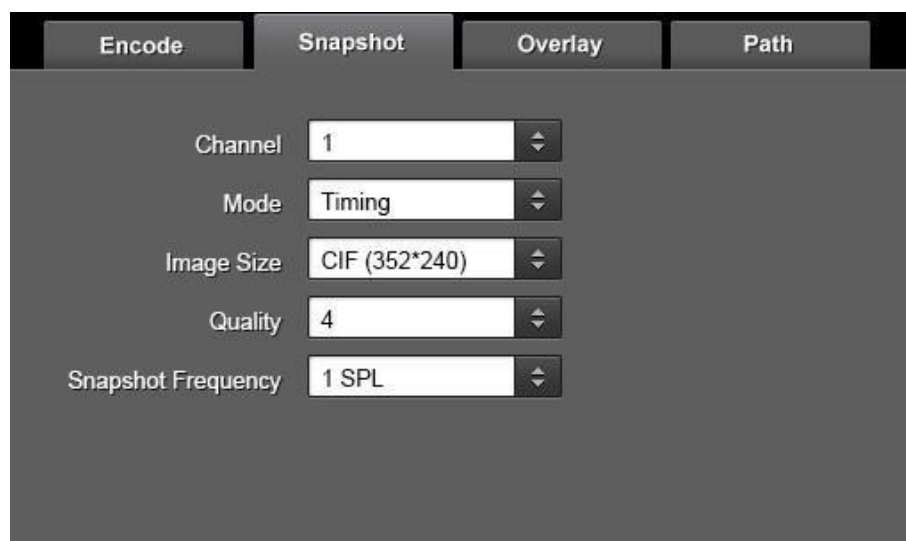


Figure 5-24

Please refer to the following sheet for detailed information.

Parameter	Function
Snapshot type	There are two modes: Regular (schedule) and Trigger. <ul style="list-style-type: none"> 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 5-25.

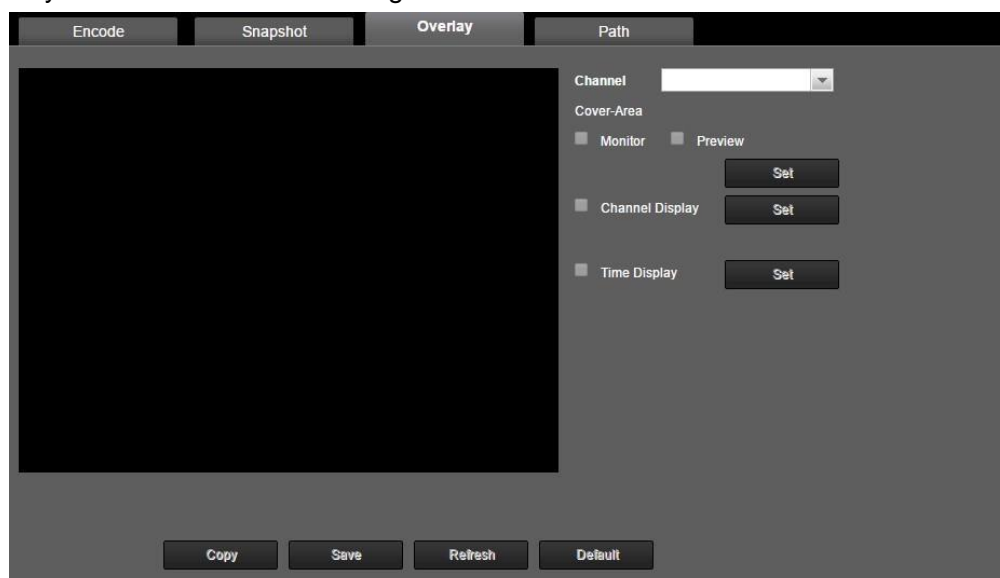




Figure 5-25

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 oo the WEB or the playback video.

5.9.1.3.4 Path

The storage path interface is shown as in Figure 5-26.

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.

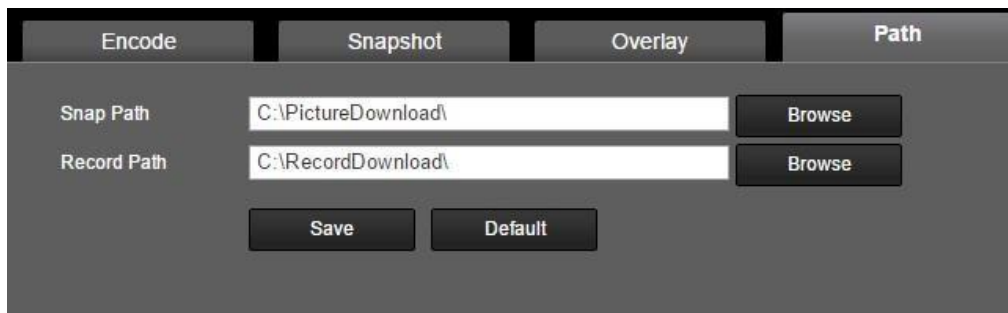


Figure 5-26

5.9.1.4 Channel Name

Here you can set the channel name. See Figure 5-27.



Figure 5-27

5.9.1.5 IPC Upgrade

This interface is to upgrade network cameras. See Figure 5-28.

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

The interface is titled "IPC UPGRADE". It features an "Upgrade File" section with a text input field and a "Browse..." button. Below this is a "Device Upgrade" section with a "Display Filter" dropdown menu set to "Null". A table lists the devices to be upgraded:

	Channel	Status	IP Address	Port	Manufacturer	Type	Version	Upgrade Status
<input type="checkbox"/>	1		10.1.1.128	88	Foscam			—
<input type="checkbox"/>	2		10.1.1.130	80	Foscam			—
<input type="checkbox"/>	3		10.1.1.129	88	Foscam			—
<input type="checkbox"/>	4		192.168.2.50	8091	Foscam			—
<input type="checkbox"/>	5		192.168.2.52	8093	Foscam			—
<input type="checkbox"/>	8		192.168.2.51	8092	Foscam			—

At the bottom left, there is a "Start Upgrade" button.

Figure 5-28

5.9.2 Network

5.9.2.1 TCP/IP

The TCP/IP interface is shown as in Figure 5-29.

The interface has two tabs: "TCP/IP" (selected) and "P2P Setting". Under the "TCP/IP" tab, there are radio buttons for "Static" (selected) and "DHCP". Below these are several configuration fields:

- 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: ☐ (unchecked)

At the bottom, there are three buttons: "Save", "Refresh", and "Default".

Figure 5-29

Please refer to the following sheet for detailed information.

Parameter	Function
-----------	----------

Mode	<p>There are two modes: static mode and DHCP mode.</p> <ul style="list-style-type: none"> ● 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	<p>This is to select the IP version. IPV4 or IPV6.</p> <p>You can access the IP address of these two versions.</p>
IP Address	Please 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 5-30.

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.



Figure 5-30

5.9.2.3 Connection

The connection interface is shown as in Figure 5-31.

CONNECTION

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.

Save Refresh Default

Figure 5-31

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 5-32.

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.

Figure 5-32

5.9.2.5 DDNS

The DDNS interface is shown as in Figure 5-33.

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.

Figure 5-33

Please refer to the following sheet for detailed information.

Parameter	Function
Server Type	You can select a DDNS protocol from the dropdown list and then enable DDNS function.
Host IP	DDNS server IP address or domain.
Server Port	DDNS server port.
Domain Name	Your self-defined domain name.

User	The user name to your DDNS service.
Password	The password to your DDNS service.
Update period	The device sends out an alive signal to the server regularly. You can set the interval value between the device and DDNS server here.

Quick 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, Quick DDNS works with the device from the manufacturer so that it can be easily setup. **2) Function Introduction**

The Quick 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 Quick DDNS, you need to enable this service and set the correct server address, port value, and domain name.

- Server address: www.quickddns.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.

Important

- 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 5-34.

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 can not access current NVR.

The IP Filter interface has a main title bar with the text "IP Filter". Below the title bar, there are three radio buttons: "Enable" (checked), "Trusted Sites", and "Blocked Sites". Under the "Trusted Sites" tab, there is a table with the following structure:

IP Address	Edit	Delete

At the bottom of the interface, there are four buttons: "Add", "Save", "Refresh", and "Default".

Figure 5-34

5.9.2.7 Email

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

The Email configuration interface has a main title bar with the text "Email". Below the title bar, there are several configuration options:

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

At the bottom of the interface, there are three buttons: "Test", "Save", "Refresh", and "Default".

Figure 5-35

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 abnormality 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 abnormality 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 5-36.



- 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”

UPnP

PAT ☒ Enable ☐ Disable

Status Disable

LAN IP 0 . 0 . 0 . 0

WAN IP 0 . 0 . 0 . 0

No.		Service Name	Protocol	Internal Port	External Port	Modify	Delete
1	<input checked="" type="checkbox"/>	HTTP	TCP	80	80		
2	<input checked="" type="checkbox"/>	TCP	TCP	37777	37777		
3	<input checked="" type="checkbox"/>	UDP	UDP	37778	37778		
4	<input checked="" type="checkbox"/>	RTSP	UDP	554	554		
5	<input checked="" type="checkbox"/>	RTSP	TCP	554	554		
6	<input checked="" type="checkbox"/>	SNMP	UDP	161	161		
7	<input checked="" type="checkbox"/>	HTTPS	TCP	443	443		

Add Save Refresh Default

Figure 5-36

5.9.2.9 SNMP

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

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.

SNMP

☐ 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

Save Refresh Default

Figure 5-37

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	This 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
Parameter	Function
	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	<ul style="list-style-type: none"> ● 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 5-38.

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.

Figure 5-38

5.9.2.11 Auto Register

The auto register interface is shown as below. See Figure 5-39.

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.

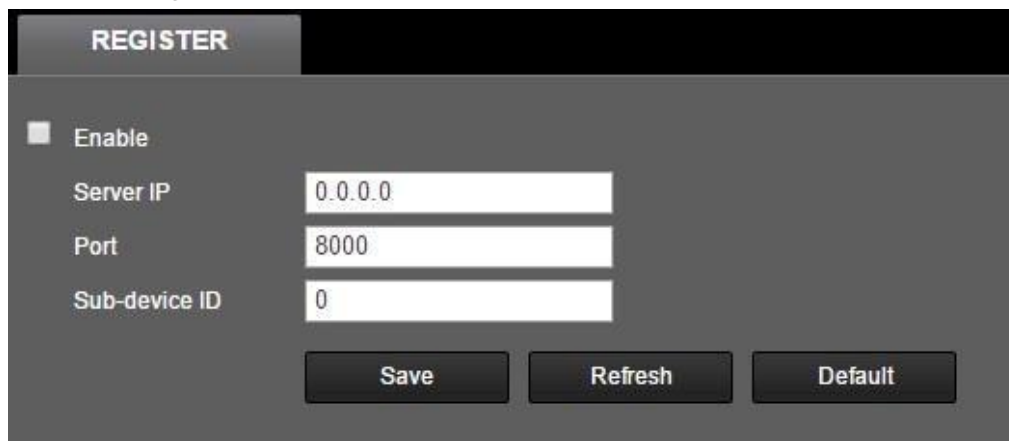


Figure 5-39

5.9.2.12 Alarm Center

The alarm center interface is shown as below. See Figure 5-40.

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.

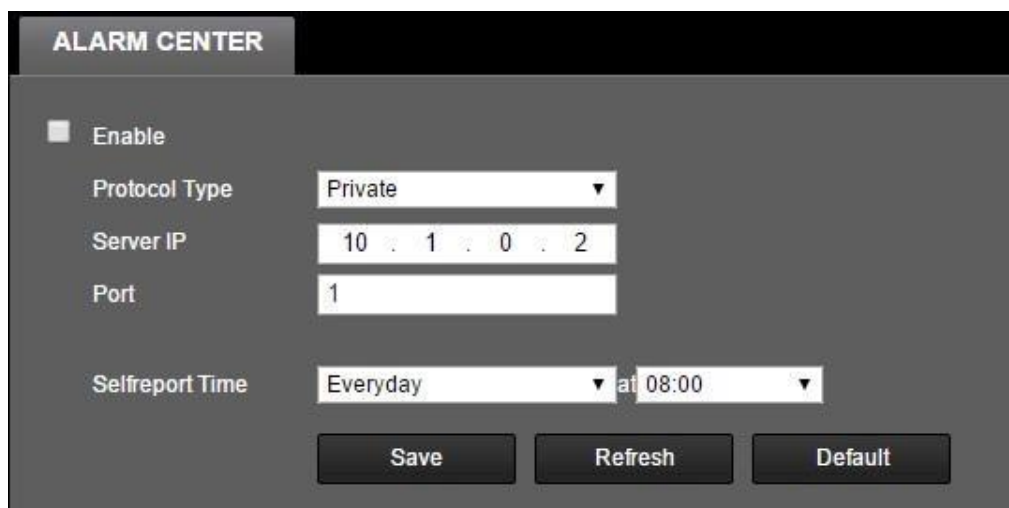


Figure 5-40

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 5-41.

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 5-41

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 5-41, click **Create Server Certificate**, input the country name, state name, etc. Click the Create button. See Figure 5-42.

Note

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

 A 'Create Server Certificate' dialog box with the following fields:

Country	US
State	
Locality	
Organization	
Organization Unit	
IP or Domain Name	192.168.0.2

 At the bottom are 'Create' and 'Cancel' buttons.

Figure 5-42

You will see the corresponding prompt. See Figure 5-43. Now the server certificate is successfully created.



Figure 5-43

5.9.2.13.2 Download root certificate

In Figure 5-41, click **Download Root Certificate**, and the system pops up a dialogue box. See Figure 5-44.



Figure 5-44

Click the Open button and you will see the following interface. See Figure 5-45.



Figure 5-45

Click Install certificate and the certificate wizard will start. See Figure 5-46.



Figure 5-46

Click the Next button to continue. Now you can select a location for the certificate. See Figure 5-47.



Figure 5-47

Click the Next button, and the certificate import process is complete. See Figure 5-48.



Figure 5-48

Click the Finish button, and the system pops up a security warning dialogue box. See Figure 5-49.

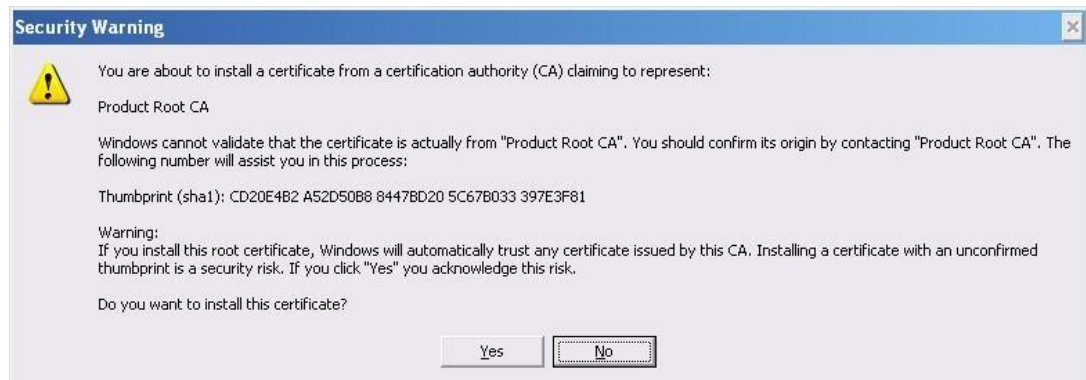


Figure 5-49

Click the Yes button and the system pops up the following dialogue box. You can see the certificate download is complete. See Figure 5-50.



Figure 5-50

5.9.2.13.3 View and set HTTPS port

From Setup->Network->Connection, you can see the following interface. See Figure 5-51. You can see the HTTPS default value is 443.

CONNECTION		
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.	
<div> <input type="button" value="Save"/> <input type="button" value="Refresh"/> <input type="button" value="Default"/> </div>		

Figure 5-51

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 5-52.

Motion Detect
Video Loss
Camera Masking

☒ Enable

Period

Setup

Anti-dither

5

Second (0-600)

Sensitivity

3

Region

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

Copy

Save

Refresh

Default

Figure 5-52

Setup

Wednesday

Copy

☒ 00 : 00 - 24 : 00

☐ 00 : 00 - 24 : 00

☐ 00 : 00 - 24 : 00

☐ 00 : 00 - 24 : 00

☐ 00 : 00 - 24 : 00

☐ 00 : 00 - 24 : 00

Save

Cancel

Figure 5-53

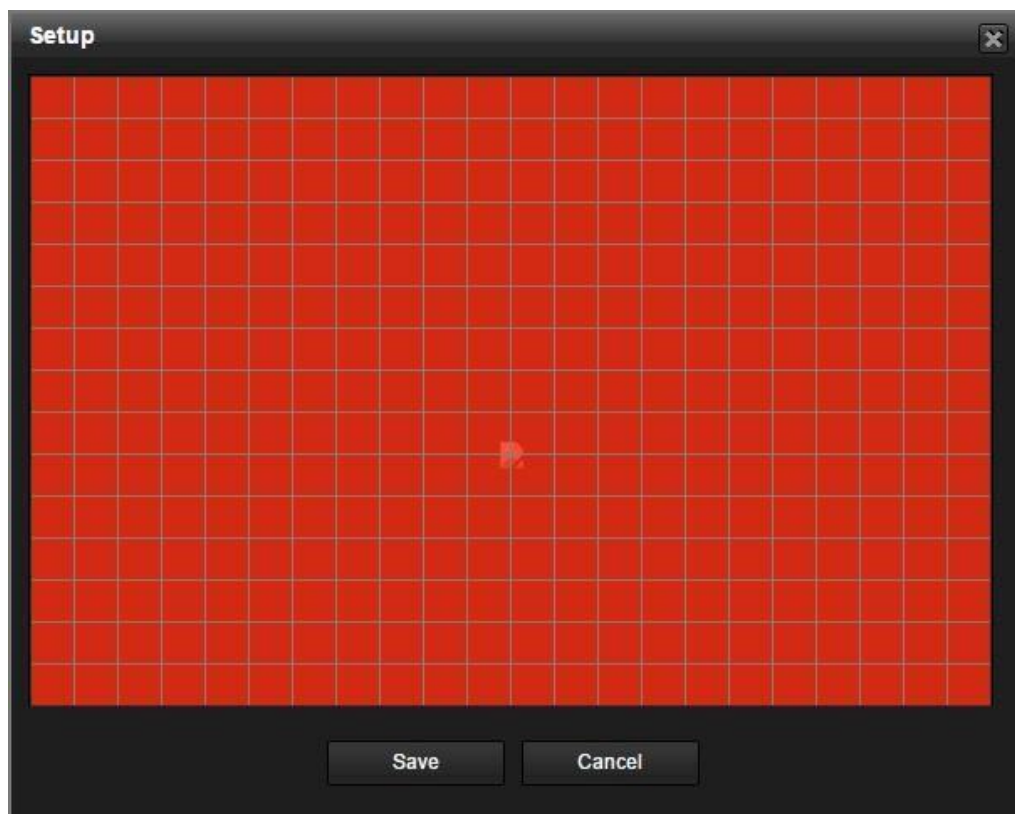


Figure 5-54



Figure 5-55

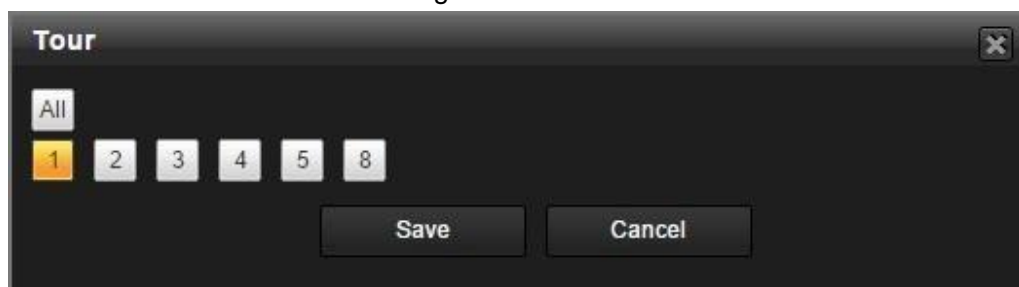


Figure 5-56

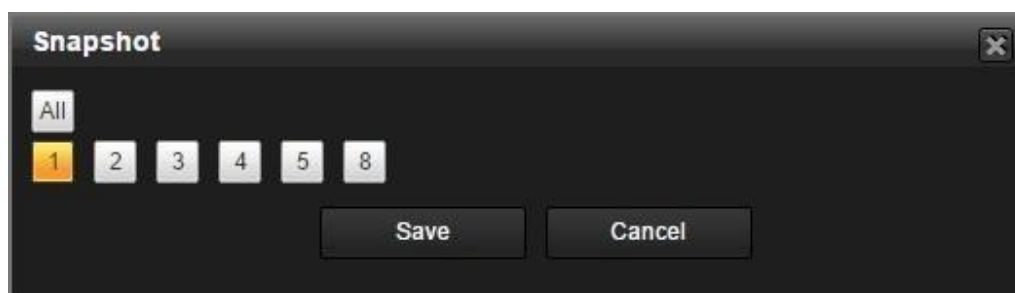


Figure 5-57

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	The motion detection function becomes activate during the specified periods. See Figure 5-53. There are six periods in one day. Please draw a circle to enable the corresponding period. Click 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
Parameter	Function
	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 onechannel 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 5-58.

Please note the video loss does not support anti-dither, sensitivity, or region setup. For the rest of the settings, please refer to chapter 5.9.3.1.1 motion detect for detailed information.

Figure 5-58

5.9.3.1.3 Tampering

The tampering interface is shown as in Figure 5-59.

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.

For detailed about the settings, please refer to chapter 5.9.3.1.1 motion detect for detailed information.

The screenshot shows a web-based configuration interface for 'Camera Masking'. At the top, there are three tabs: 'Motion Detect', 'Video Loss', and 'Camera Masking', with the latter being the active tab. The interface is divided into two main columns. The left column contains a list of settings, each with a checkbox: 'Enable' (checked), 'Record Channel', 'Alarm Out', 'PTZ Activation', 'Tour', 'Snapshot', and 'Show Message'. The right column contains the corresponding configuration options: a dropdown menu for 'Enable', a 'Setup' button for 'Period', a 'Setup' button for 'Record Channel', a text input '10' with a unit 'Second (10-300)' for 'Delay', a yellow square icon with the number '1' for 'Alarm Out', a text input '10' with a unit 'Second(1-300)' for 'Latch', and 'Setup' buttons for 'PTZ Activation', 'Tour', and 'Snapshot'. Below these, there are three checkboxes for 'Show Message': 'Send Email', 'Alarm Upload', and 'Buzzer'. At the bottom of the interface, there are four buttons: 'Copy', 'Save', 'Refresh', and 'Default'.

Figure 5-59

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.

Local Alarm

Net Alarm

IPC External Alarm

IPC Offline Alarm

☒ Enable

 Alarm Alias

Period

Setup

Anti-dither Second(0-600)
 Type

Normal Open

☒ Record Channel

Setup

Delay Second (10-300)

☐ Alarm Out

1

Latch Second(1-300)

☐ PTZ Activation

Setup

☐ Tour

Setup

☐ Snapshot

Setup

☐ Show Message
 ☐ Send Email
 ☐ Alarm Upload
 ☐ Buzzer

Copy

Save

Refresh

Default

Figure 5-60

Setup

Wednesday

Copy

☒ 00 : 00 - 24 : 00
 ☐ 00 : 00 - 24 : 00
 ☐ 00 : 00 - 24 : 00
 ☐ 00 : 00 - 24 : 00
 ☐ 00 : 00 - 24 : 00
 ☐ 00 : 00 - 24 : 00

Save

Cancel

Figure 5-61

The image shows a 'PTZ Activation' dialog box. It contains a table with 8 rows, each representing a channel. Each row has a dropdown menu currently set to 'None' and a numeric input field set to '0'. At the bottom of the dialog are 'Save' and 'Cancel' buttons.

Channel	PTZ Activation	Value
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 5-62

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	<p>This function enables the alarm during specified periods. There are six periods in one day. Please check the box to enable the corresponding period.</p> <p>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.</p> <p>Click the OK button to go back to local alarm interface. Please click save button to exit.</p>
Anti-dither	System only recognizes one event during the anti-dither period. The value ranges from 5s to 600s.
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
Parameter	Function
	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 multiplewindow 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 5-63.

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. For setup information, please refer to chapter 5.9.3.2.1.

Figure 5-63

5.9.3.2.3 IPC external alarm

The IPC external alarm interface is shown as in Figure 5-64.

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. For setup information, please refer to chapter 5.9.3.2.1.

Figure 5-64

5.9.3.2.4 IPC Offline Alarm

The IPC offline alarm interface is shown as in Figure 5-65.

The system can generate an alarm when a network camera is offline. For setup information, please refer to chapter 5.9.3.2.1.

Figure 5-65

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.

No Disk | Disk Error | Disk No Space | Net Disconnection | IP Conflict | MAC Conflict

☒ Enable

☐ Alarm Out 1

Latch Second(1-300)

☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

Figure 5-66

Disk Error | No Disk | Disk No Space | Net Disconnection | IP Conflict | MAC Conflict

☒ Enable

☐ Alarm Out 1

Latch Second(1-300)

☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

Figure 5-67

Disk No Space | No Disk | Disk Error | Net Disconnection | IP Conflict | MAC Conflict

☒ Enable Less Than %

☐ Alarm Out 1

Latch Second(1-300)

☐ Show Message ☐ Send Email ☐ Alarm Upload ☐ Buzzer

Figure 5-68

Net Disconnection | No Disk | Disk Error | Disk No Space | IP Conflict | MAC Conflict

☒ Enable

☐ Alarm Out 1

Latch Second(1-300)

☐ Show Message ☐ Send Email ☐ Buzzer

Figure 5-69

IP Conflict | No Disk | Disk Error | Disk No Space | Net Disconnection | MAC Conflict

☒ Enable

☐ Alarm Out 1

Latch Second(1-300)

☐ Show Message ☐ Send Email ☐ Buzzer

Figure 5-70

MAC Conflict | No Disk | Disk Error | Disk No Space | Net Disconnection | IP Conflict

☒ Enable

☐ Alarm Out 1

Latch Second(1-300)

☐ Show Message ☐ Send Email ☐ Buzzer

Figure 5-71

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 interfaces, you can add or remove the scheduled recording setup. See Figure 5-72.

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.

Record Snapshot

Channel Pre-record Second (0~30) ☐ Redundancy

☐ ANR Second

	0	2	4	6	8	10	12	14	16	18	20	22	24	
Sunday														Setup
Monday														Setup
Tuesday														Setup
Wednesday														Setup
Thursday														Setup
Friday														Setup
Saturday														Setup

Copy Save Refresh Default

Figure 5-72

Setup

Time Period 1	<input type="text" value="00 : 00"/>	-	<input type="text" value="24 : 00"/>	<input checked="" type="checkbox"/> Regular	<input type="checkbox"/> MD	<input type="checkbox"/> Alarm	<input type="checkbox"/> MD&Alarm
Time Period 2	<input type="text" value="00 : 00"/>	-	<input type="text" value="24 : 00"/>	<input type="checkbox"/> Regular	<input type="checkbox"/> MD	<input type="checkbox"/> Alarm	<input type="checkbox"/> MD&Alarm
Time Period 3	<input type="text" value="00 : 00"/>	-	<input type="text" value="24 : 00"/>	<input type="checkbox"/> Regular	<input type="checkbox"/> MD	<input type="checkbox"/> Alarm	<input type="checkbox"/> MD&Alarm
Time Period 4	<input type="text" value="00 : 00"/>	-	<input type="text" value="24 : 00"/>	<input type="checkbox"/> Regular	<input type="checkbox"/> MD	<input type="checkbox"/> Alarm	<input type="checkbox"/> MD&Alarm
Time Period 5	<input type="text" value="00 : 00"/>	-	<input type="text" value="24 : 00"/>	<input type="checkbox"/> Regular	<input type="checkbox"/> MD	<input type="checkbox"/> Alarm	<input type="checkbox"/> MD&Alarm
Time Period 6	<input type="text" value="00 : 00"/>	-	<input type="text" value="24 : 00"/>	<input type="checkbox"/> Regular	<input type="checkbox"/> MD	<input type="checkbox"/> Alarm	<input type="checkbox"/> MD&Alarm

☐ All
 ☒ Sunday
 ☐ Monday
 ☐ Tuesday
 ☐ Wednesday
 ☐ Thursday
 ☐ Friday
 ☐ Saturday

☐ Holiday

Save Cancel

Figure 5-73

☐ All
 ☒ Channel 1
 ☐ Channel 2

☐ Channel 3
 ☐ Channel 4

☐ Channel 5
 ☐ Channel 6

☐ Channel 7
 ☐ Channel 8

Save Cancel

Figure 5-74

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.

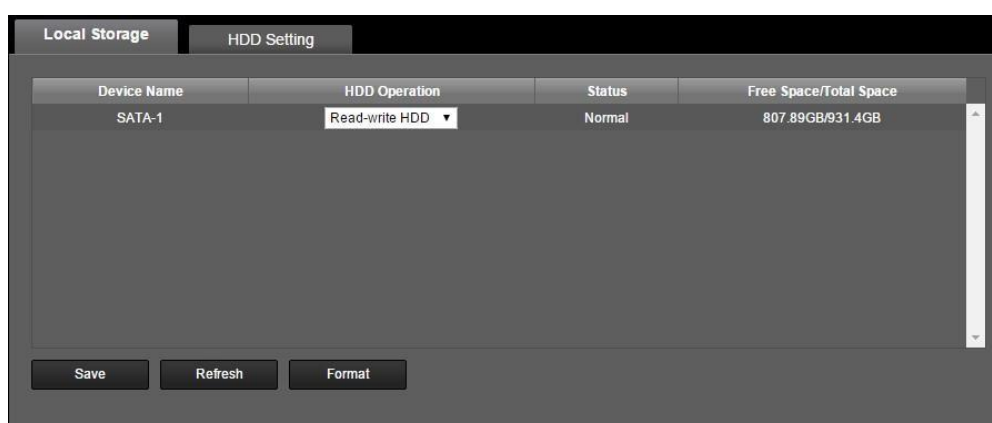


Figure 5-75

5.9.4.2.2 HDD

The HDD interface is to the set HDD group. See Figure 5-76.

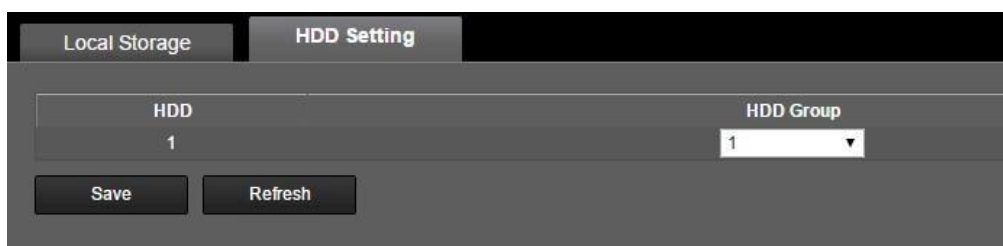


Figure 5-76

5.9.4.3 Record Control

The Record interface is shown as in Figure 5-77.

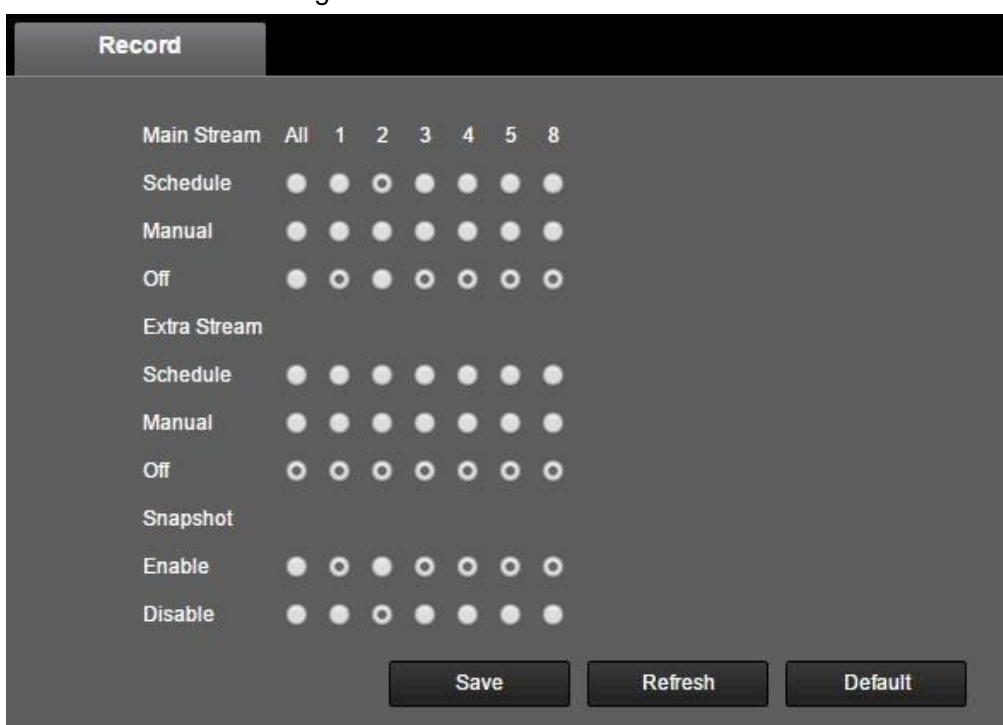


Figure 5-77

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 5-78. Here you can set the corresponding HDD group to save the main stream.

The screenshot shows a web interface with three tabs: 'Main Stream' (selected), 'Extra Stream', and 'Image Storage'. Below the tabs is a table with 8 columns: 'Channel' and 'HDD Group' repeated four times. The first two rows are populated with 'Channel 1', 'Channel 5', 'Channel 2', 'Channel 6', 'Channel 3', 'Channel 7', 'Channel 4', and 'Channel 8' respectively. Each 'HDD Group' column contains a dropdown menu with the value '1'. At the bottom of the interface are three buttons: 'Save', 'Refresh', and 'Copy'.

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 5-78

5.9.4.4.2 Sub Stream

The sub stream interface is shown as in Figure 5-79.

Here you can set the corresponding HDD group to save the sub stream.

The screenshot shows a web interface with three tabs: 'Main Stream', 'Extra Stream' (selected), and 'Image Storage'. Below the tabs is a table with 8 columns: 'Channel' and 'HDD Group' repeated four times. The first two rows are populated with 'Channel 1', 'Channel 5', 'Channel 2', 'Channel 6', 'Channel 3', 'Channel 7', 'Channel 4', and 'Channel 8' respectively. Each 'HDD Group' column contains a dropdown menu with the value '1'. At the bottom of the interface are three buttons: 'Save', 'Refresh', and 'Copy'.

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 5-79

5.9.4.4.3 Snapshot

The snapshot interface is shown as in Figure 5-80. Here you can set the corresponding HDD group to save snapshots.

The screenshot shows a web interface with three tabs: 'Main Stream', 'Extra Stream', and 'Image Storage' (selected). Below the tabs is a table with 8 columns: 'Channel' and 'HDD Group' repeated four times. The first two rows are populated with 'Channel 1', 'Channel 5', 'Channel 2', 'Channel 6', 'Channel 3', 'Channel 7', 'Channel 4', and 'Channel 8' respectively. Each 'HDD Group' column contains a dropdown menu with the value '1'. At the bottom of the interface are three buttons: 'Save', 'Refresh', and 'Copy'.

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 5-80

5.9.5 Setting

5.9.5.1 General

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 5-81.

The screenshot shows a web interface for configuring a device. At the top, there are three tabs: 'GENERAL', 'Date&Time', and 'Holiday'. The 'GENERAL' tab is selected. Below the tabs, there are several configuration fields: 'Device Name' with the value 'NVR', 'Device No.' with the value '8', 'Language' with a dropdown menu showing 'ENGLISH', 'Video Standard' with a dropdown menu showing 'NTSC', 'HDD Full' with a dropdown menu showing 'OverWrite', and 'Pack Duration' with a text input '60' and a unit label 'Minute'. At the bottom of the form, there are three buttons: 'Save', 'Refresh', and 'Default'.

Figure 5-81

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 is shown as in Figure 5-82

Figure 5-82

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 5-83.

Here you can click the Add holidays box to add a new holiday and then click the Save button to save.

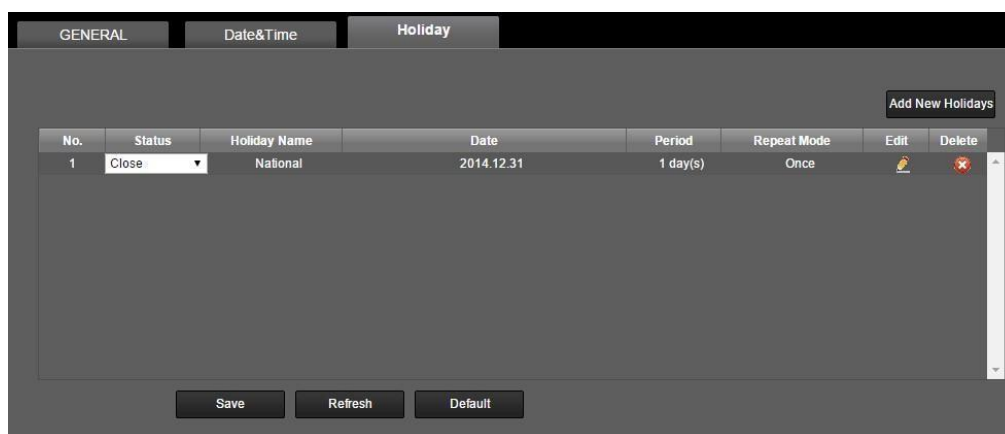


Figure 5-83

5.9.5.2 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 5-84.

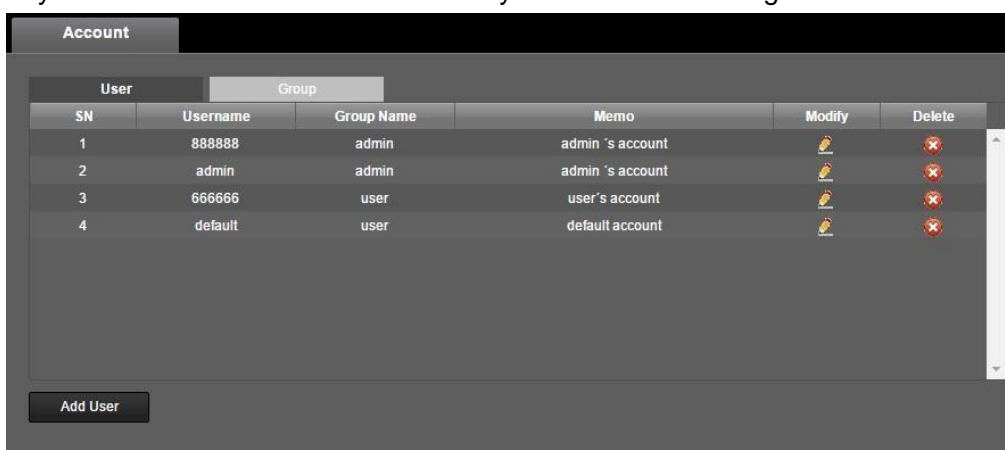


Figure 5-84

Add user: This is to add a user to a group and set the user's rights. See Figure 5-85.

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.

Add User

Username

Reuseable ☐

Password

Confirm Password

Group

Memo

Authority

System | Playback | Real-time Monitor

- ☒ All
- ☒ Account
- ☒ PTZ Control
- ☒ Storage
- ☒ Clear Log
- ☒ System
- ☒ System Info
- ☒ Event
- ☒ Shut Down
- ☒ Disconnect
- ☒ Manual Control
- ☒ Network
- ☒ Default&Update
- ☒ File Backup
- ☒ Remote Device

Save Cancel

Figure 5-85

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.

Figure 5-86

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 5-87.

SN	Group Name	Memo	Modify	Delete
1	admin	administrator group		
2	user	user group		

Figure 5-87

Add group: This is to add a group and set its corresponding rights. See Figure 5-88.

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.

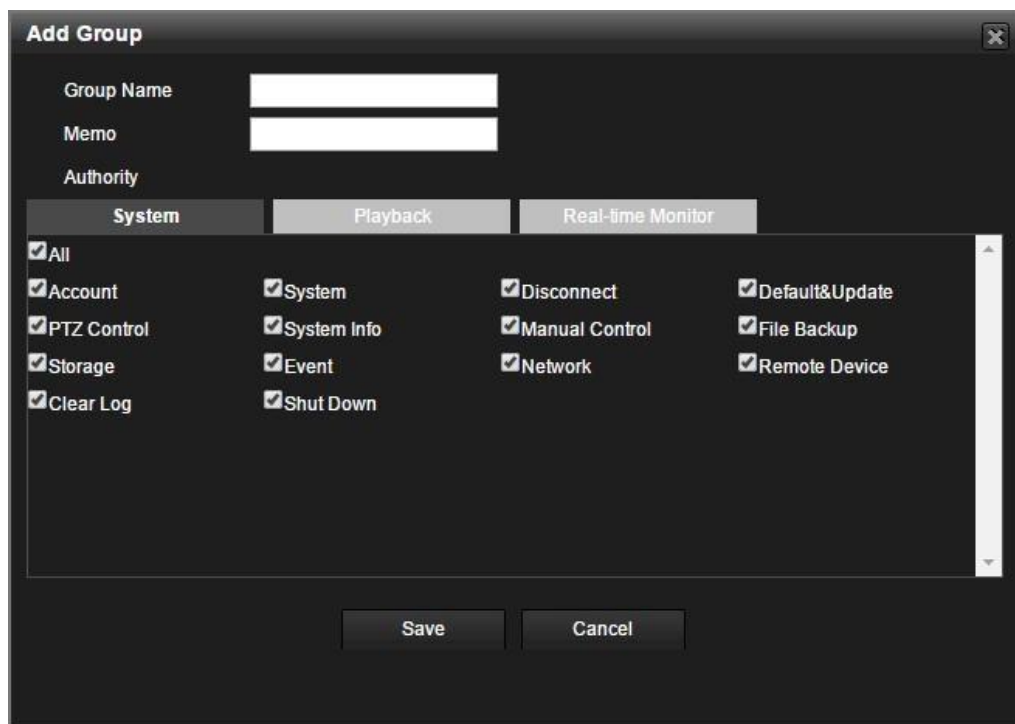


Figure 5-88

Modify group

Click the modify group button to see an interface is shown as in Figure 5-89. Here you can modify the group information such as remarks and rights.

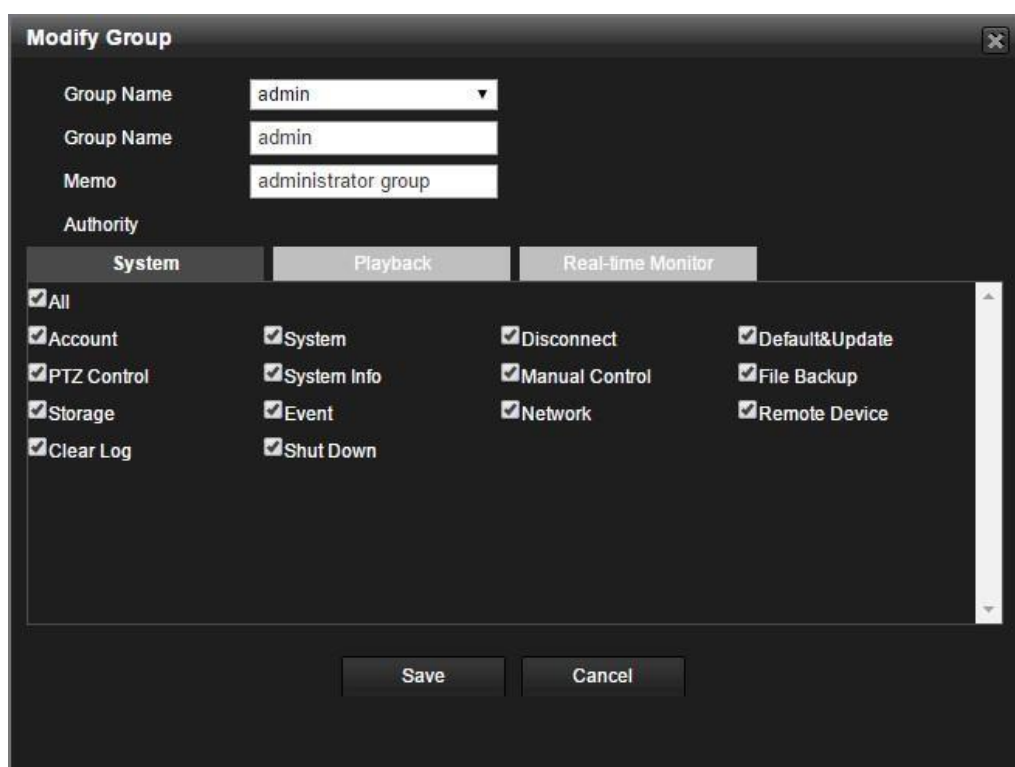


Figure 5-89

5.9.5.3 Display

The display interface includes Display and Tour.

5.9.5.3.1 Display

Here you can set the background color and transparency level. See Figure 5-90.

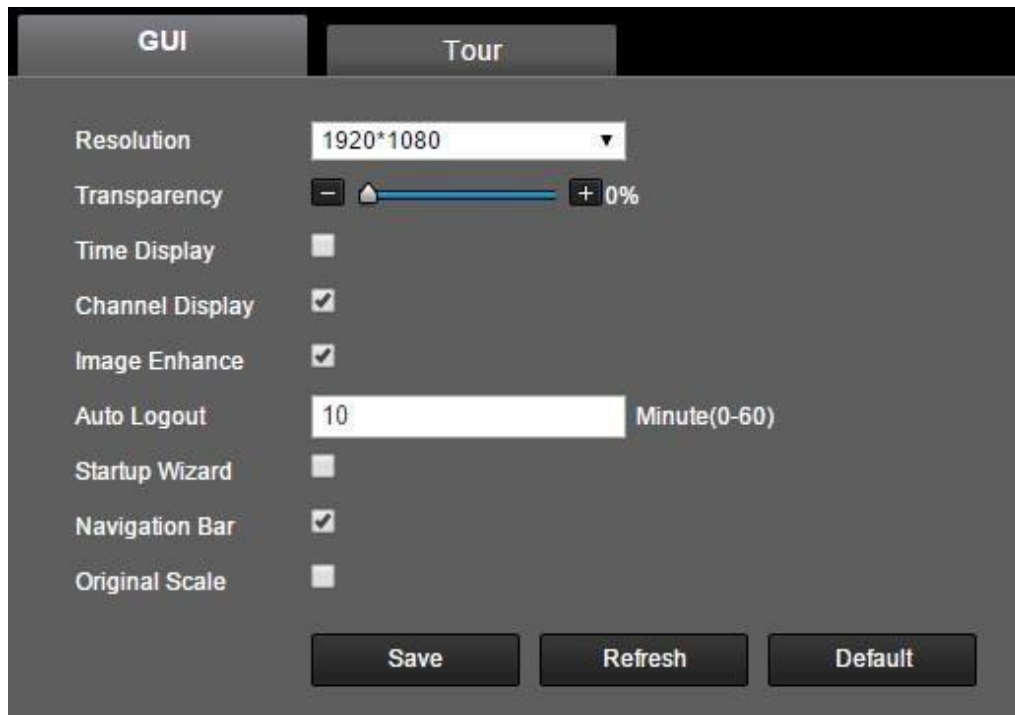


Figure 5-90

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 5-91. Here you can set the tour interval, split mode, motion detect tour, and alarm tour mode.

The screenshot shows the 'Tour' configuration window. It has a dark grey background. At the top, there are two tabs: 'GUI' and 'Tour'. The 'Tour' tab is active. Below the tabs, there is a section for 'Enable Tour' with a checkbox. Below that is the 'Interval' field, which is set to '5' and has a unit of 'Second' and a range '(5-120)'. Below the interval is the 'Split' dropdown menu, which is set to 'View 1'. Below the split menu is a list of 8 channels, each with a checkbox and a number. The first channel is highlighted in yellow. To the right of the list are four buttons: '+', '-', '<', and '>'. Below the list are two more dropdown menus: 'Motion Tour Type' set to 'View 8' and 'Alarm Tour Type' set to 'View 1'. At the bottom of the window are three buttons: 'Save', 'Refresh', and 'Default'.

Figure 5-91

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 5-92 Here you can set alarm output mode: auto/manual/stop.

Alarm Out

Alarm Type: All 1

Schedule: ☐ ☐

Manual: ☐ ☐

Stop: ☐ ☐

Status: ☐

Save **Refresh**

Figure 5-92

5.9.5.5 Default

The default setup interface is shown as in Figure 5-93.

Here you can select Network/Event/Storage/Setting/Camera or you can check the All box to select all items.

Default

☒ All

☒ Network ☒ Event

☒ STORAGE ☒ System Config ☒ Remote Device

Default

Figure 5-93

5.9.5.6 Import/Export

The interface is shown as in Figure 5-94. This interface is for you to export or import configuration files.

Import&Export

Address: **Browse** **Config Import**

Config Export

Figure 5-94

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.

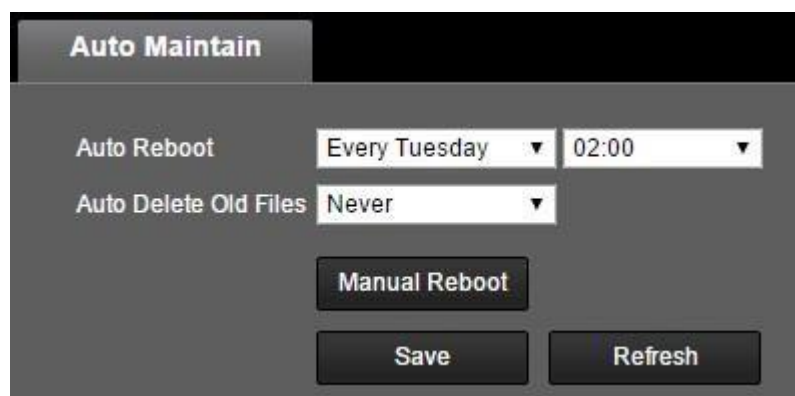


Figure 5-95

5.9.5.8 Upgrade

The upgrade interface is shown as in Figure 5-96.

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 5-96

5.10 Information

5.10.1 Version

The version interface is shown as in Figure 5-97.

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.

Version	
Record Channel:	8
Alarm In:	2
Alarm Out:	1
SN:	XXXXXXXXXXXX
Web:	3.1.0.5
System Version:	3.200.AC00.0
Build Date:	2014-12-26

Figure 5-97

5.10.2 Log

Here you can view system log. See Figure 5-98.

Log		
Begin Time	2015 - 01 - 13 00 : 00 : 00	End Time 2015 - 01 - 14 00 : 00 : 00
Type	All	Search 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		
Backup		Clear

Figure 5-98

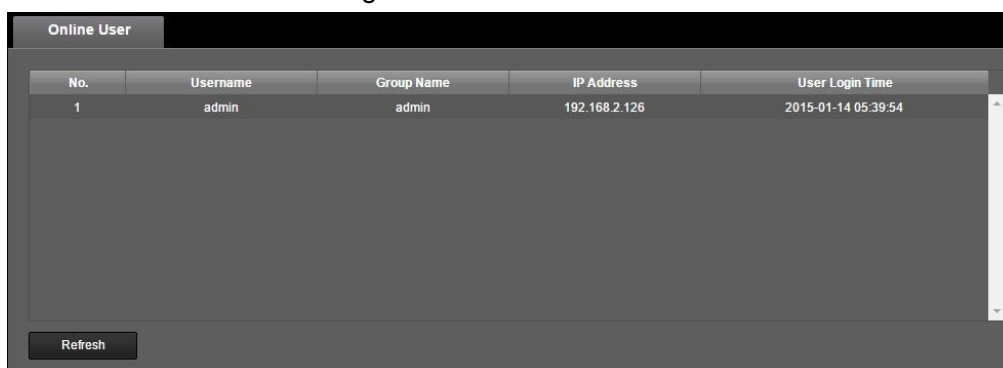
Please refer to the following sheet for log parameter information.

Parameter	Function
Type	Log types include: system operation, configuration operation, data operation, event operation, record operation, user management, and log clear.

Parameter	Function
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 5-99.



Online User				
No.	Username	Group Name	IP Address	User Login Time
1	admin	admin	192.168.2.126	2015-01-14 05:39:54
Refresh				

Figure 5-99

5.11 Playback

Click the Playback button, and you can see an interface is shown as in Figure 5-100. 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.

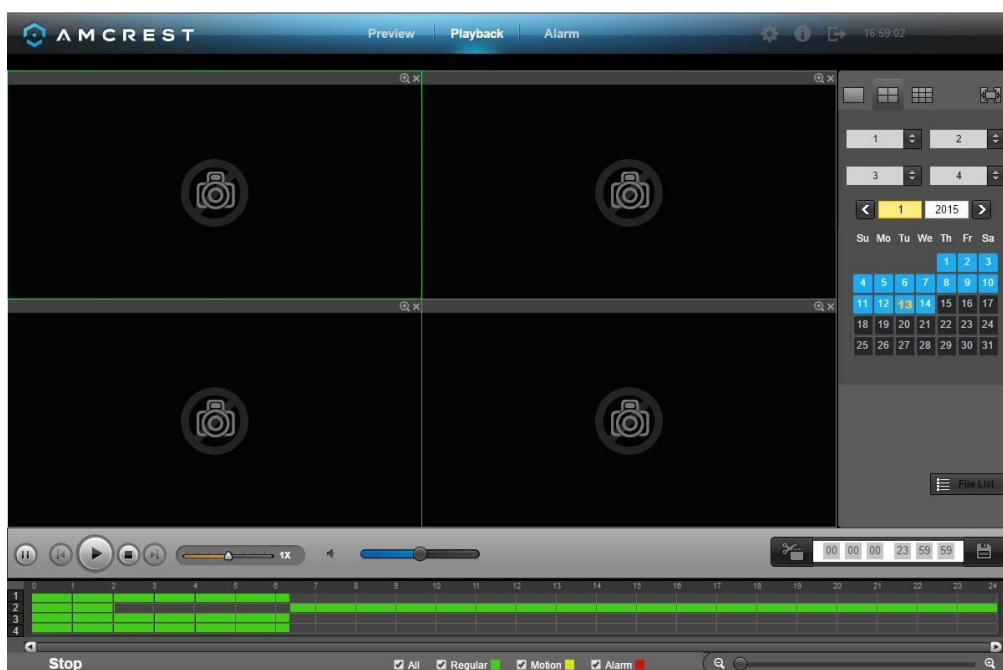


Figure 5-100

Then please click the File list button, and you can see the corresponding files in the list. See Figure 5-101.

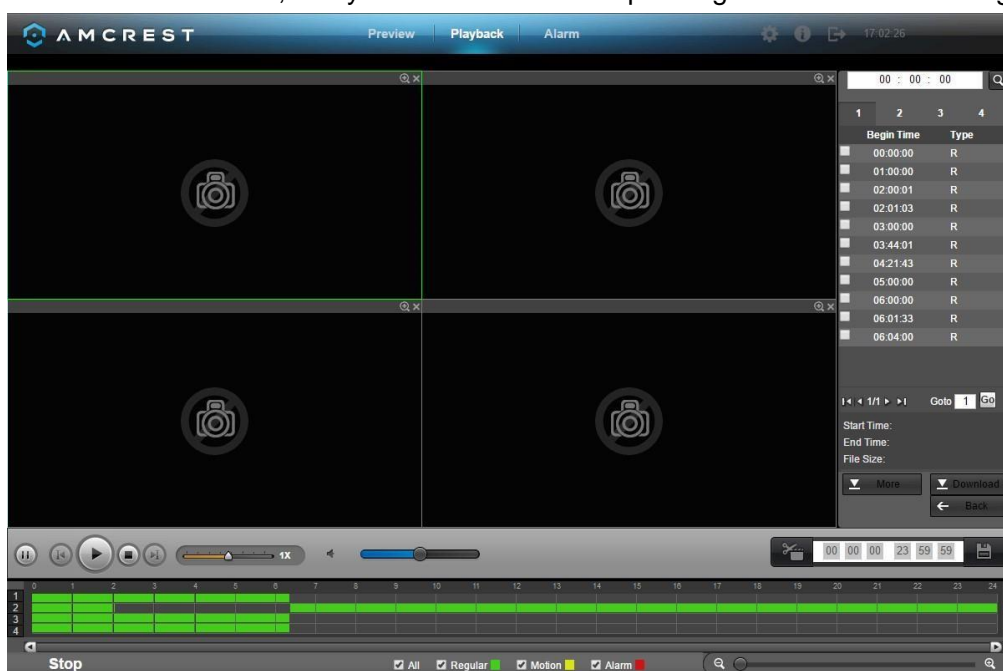


Figure 5-101

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 can not 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 5-102.

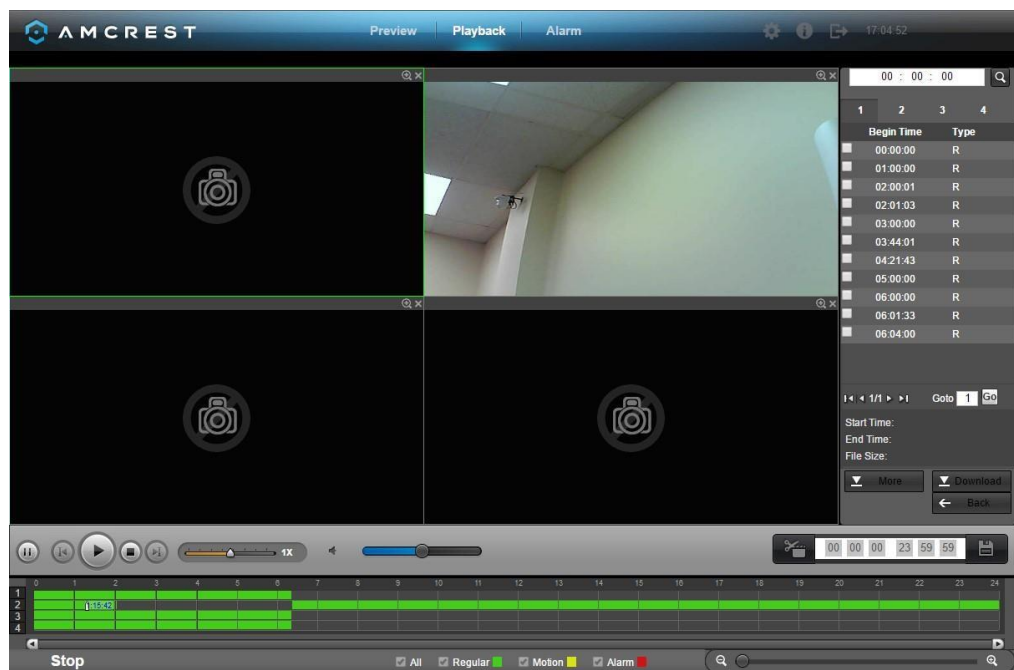


Figure 5-102

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.

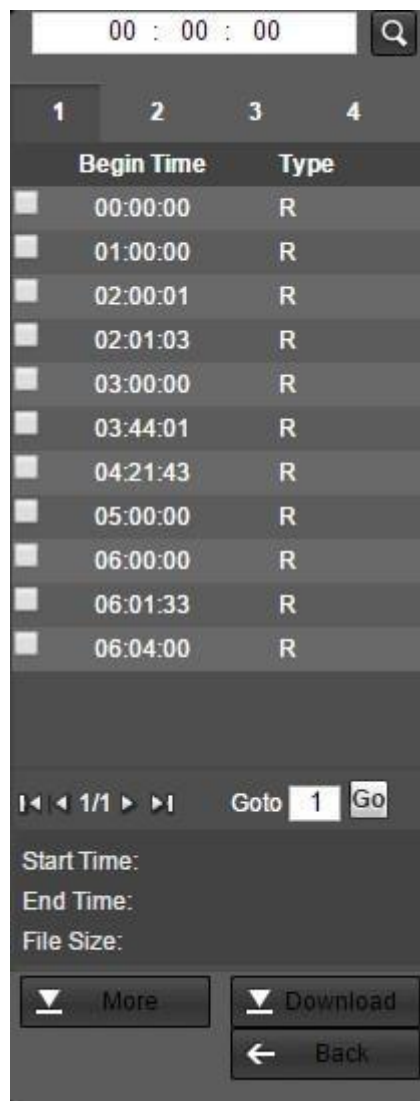


Figure 5-103

Load more

Click the More button in Figure 5-103 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.

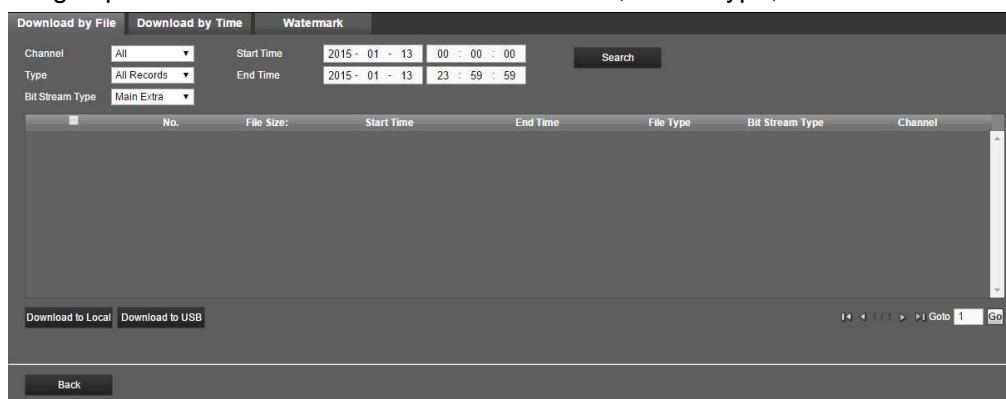


Figure 5-104

Watermark

The watermark interface is shown as in Figure 5-105. Please select a file and then click the Verify button to see if the file has been tampered with or not.

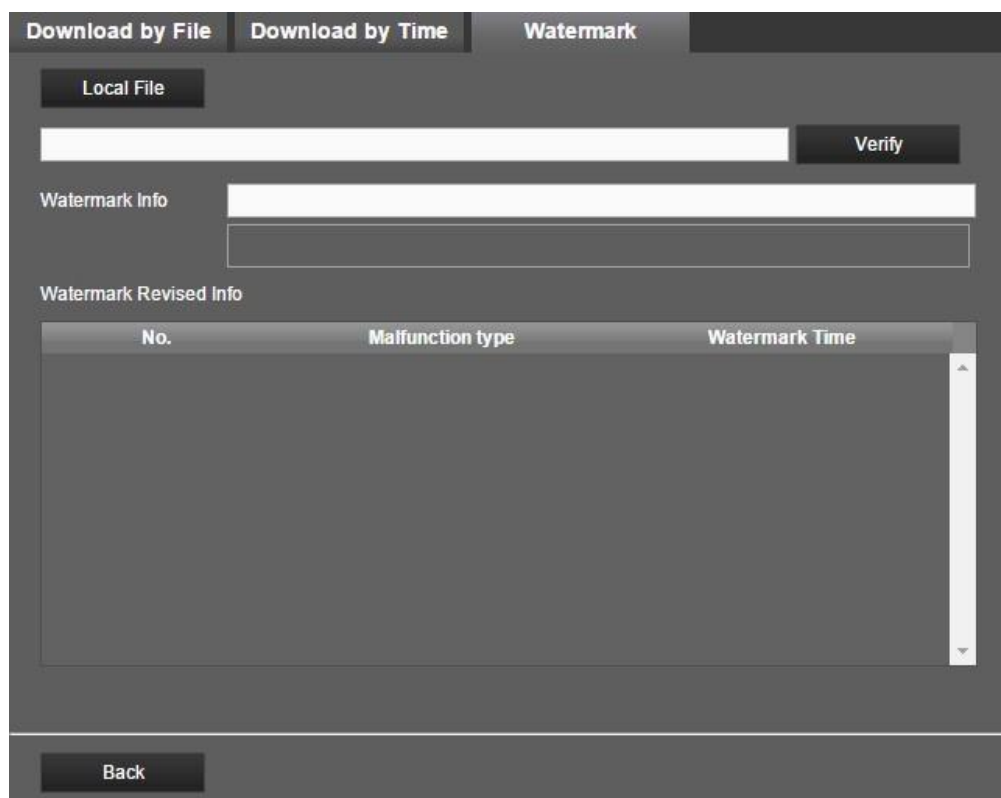


Figure 5-105

5.12 Alarm

Click the alarm function, and you can see an interface is shown as Figure 5-106.

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.)

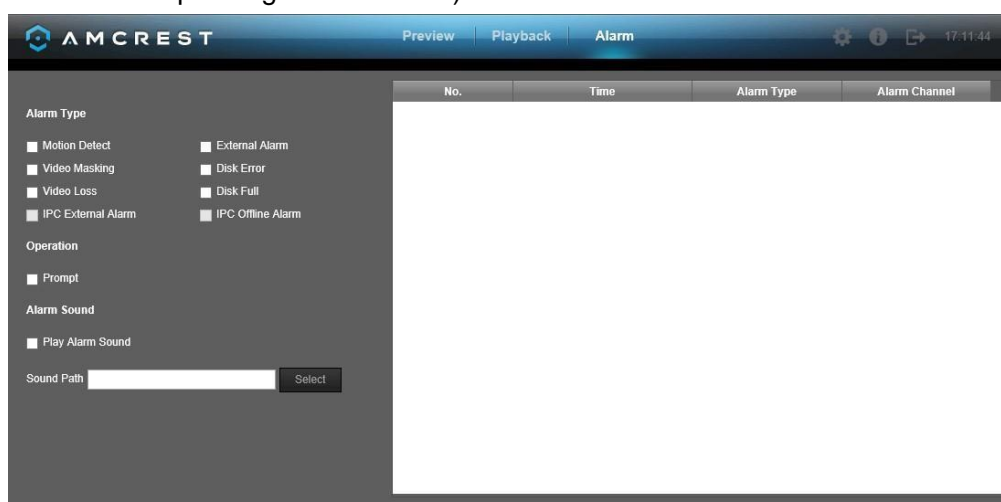


Figure 5-106

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	Play 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 5-107. You will need to input the user name and password to login again.



Figure 5-107

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 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 dualstream 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.

7 Appendix A HDD Capacity Calculation

Calculate the total capacity needed by each device according to video recording (video recording type and video file storage time).

Step 1: Formula (1) is used to calculate the storage capacity q_i ; that is the capacity of each channel needed for each hour in Mbytes.

$$q_i = d_i \times 3600 \times 1024 \quad (1)$$

In the formula: d_i is the bit rate in Kbit/s

Step 2: After the video time requirement is confirmed, formula (2) is used to calculate the storage capacity m_i , which is storage of each channel needed in Mbytes.

$$m_i = q_i \times h_i \times D_i \quad (2)$$

In the formula:

h_i is the recording time for each day (hour)

D_i is the number of days for which the video will be kept

Step 3: Formula (3) is used to calculate the total capacity (accumulation) q_T that is needed for all channels in the device during **scheduled video recording**.

$$q_T = \sum_{i=1}^c m_i \quad (3)$$

In the formula: c is the total number of channels in one device

Step 4: Formula (4) is used to calculate the total capacity (accumulation) q_T that is needed for all channels in device during **alarm video recording (including motion detection)**.

$$q_T = \sum_{i=1}^c m_i \times a\% \quad (4)$$

In the formula: $a\%$ is the alarm occurrence rate

8 Appendix B Compatible Network Camera

Please note all the models in the following list are for reference only. For those products not included in the list, please contact your local retailer or technical support engineer for detailed information.



Manufacture	Model	Version	Video Encode	Audio/Video	Protocol
AXIS	P1346	5.40.9.2	H264	√	ONVIF, Private
	P3344/P3344-E	5.40.9.2	H264	√	ONVIF, Private
	P5512	—		√	ONVIF, Private
	Q1604			√	ONVIF, Private
	Q1604-E			√	ONVIF, Private
	Q6034E			√	ONVIF, Private
	Q6035		H264 H264 H264 H264 H264 H264 H264 H264	√	ONVIF, Private
	Q1755	5.40.3.2 5.40.9 — 5.40.9 — — 5.40.9.2 130220		√	ONVIF, Private
	M7001			√	Private
	M3204			√	Private
	P3367	HEAD LFP4_0	H264	√	ONVIF
	P5532-P	HEAD LFP4_0 130220	H264	√	ONVIF
ACTi	ACM-3511	A1D-220-V3.12 .15-AC	MPEG4	√	Private
	ACM-8221	A1D-220-V3.13 .16-AC	MPEG4	√	Private
Arecont	AV1115	65246	H264		Private
	AV10005DN	65197	H264		Private
	AV2115DN	65246	H264		Private
	AV2515DN	65199	H264		Private
	AV2815	65197	H264		Private

	AV5115DN	65246	H264	√	Private
	AV8185DN	65197		√	Private
				√	
				√	
				√	
				√	
				√	
Bosch	NBN-921-P	—	H264 H264	√	ONVIF
	NBC-455-12P	—	H264	√	ONVIF
	VG5-825	9500453 66500500	H264 H264	√	ONVIF
	NBN-832			√	ONVIF
	VEZ-211-IWT EIVA	—	H264	√	ONVIF
	NBC-255-P	15500152	H264	√	ONVIF
	VIP-X1XF			√	ONVIF
Brikcom	B0100	— — —	H264 H264 H264	√	ONVIF
	D100			√	ONVIF
	GE-100-CB	—	H264	√	ONVIF
	FB-100A	v1.0.3.9	H264	√	ONVIF
	FD-100A	v1.0.3.3	H264	√	ONVIF
Cannon	VB-M400	—	H264	√	Private
CNB	MPix2.0DIR	XNETM112011 1229	H264	√	ONVIF
	VIPBL1.3MIR VF	XNETM210011 1229	H264	√	ONVIF
	IGC-2050F	XNETM210011 1229	H264	√	ONVIF
CP PLUS	CP-NC9-K	6.E.2.7776	H264	√	Private, ONVIF
	CP-NC9W-K	6.E.2.7776	H264	√	Private
	CP-ND10-R	cp20111129AN S	H264	√	ONVIF
	CP-ND20-R	cp20111129AN S	H264	√	ONVIF
	CP-NS12W-C R	cp20110808NS	H264	√	ONVIF
	VS201	cp20111129NS	H264	√	ONVIF

	CP-NB20-R	cp20110808BN S	H264	√	ONVIF
	CP-NT20VL3-R	cp20110808BN S	H264	√	ONVIF
	CP-NS36W-A R	cp20110808NS	H264	√	ONVIF
	CP-ND20VL2-R	cp20110808BN S	H264	√	ONVIF
	CP-RNP-1820	cp20120821NS A	H264	√	Private
	CP-RNC-TP2 0FL3C	cp20120821NS A	H264	√	Private
	CP-RNP-12D	cp20120828AN S	H264	√	Private
	CP-RNC-DV1 0	cp20120821NS A	H264	√	Private
	CP-RNC-DP2 0FL2C	cp20120821NS A	H264	√	Private
Dynacolor	ICS-13	d20120214NS	H264	√	Private, ONVIF
	ICS-20W	vt20111123NSA	H264	√	Private, ONVIF
	NA222	—	H264	√	ONVIF
	MPC-IPVD-03 13	k20111208ANS	H264	√	Private, ONVIF
	MPC-IPVD-03 13AF	k20111208BNS	H264	√	Private, ONVIF
Honeywell	HIDC-1100PT	h.2.2.1824	H264	√	ONVIF
	HIDC-1100P	h.2.2.1824	H264	√	ONVIF
	HIDC-0100P	h.2.2.1824	H264	√	ONVIF
	HIDC-1300V	2.0.0.21	H264	√	ONVIF

	HICC-1300W	2.0.1.7	H264	√	ONVIF
	HICC-2300	2.0.0.21	H264	√	ONVIF
	HDZ20HDX	H20130114NS A	H264	√	ONVIF
LG	LW342-FP	—	H264	√	Private
	LNB5100	—	H264	√	ONVIF
Imatek	KNC-B5000	—		√	Private
	KNC-B5162	—	H264 H264	√	Private
	KNC-B2161	—	H264	√	Private

Panasonic	NP240/CH	—	MPEG4	√	Private
	WV-NP502	—	MPEG4	√	Private
	WV-SP102H	1.41	H264	√	Private, ONVIF
	WV-SP105H	—	H264	√	Private, ONVIF
	WV-SP302H	1.41	H264、MPEG4	√	Private, ONVIF
	WV-SP306H	1.4	H264、MPEG4	√	Private, ONVIF
	WV-SP508H	—	H264、MPEG4	√	Private, ONVIF
	WV-SP509H	—	H264、MPEG4	√	Private, ONVIF
	WV-SF332H	1.41	H264、MPEG4	√	Private, ONVIF
	WV-SW316H	1.41	H264、MPEG4	√	Private, ONVIF
	WV-SW355H	1.41	H264、MPEG4	√	Private, ONVIF
	WV-SW352H	—	H264、MPEG4	√	Private, ONVIF
	WV-SW152E	1.03	H264、MPEG4	√	Private, ONVIF
	WV-SW558H	—	H264、MPEG4	√	Private, ONVIF
	WV-SW559H	—	H264、MPEG4	√	Private, ONVIF
	WV-SP105H	1.03	H264、MPEG4	√	Private, ONVIF
	WV-SW155E	1.03	H264、MPEG4	√	Private, ONVIF
	WV-SF336H	1.44	H264、MPEG4	√	Private, ONVIF
	WV-SF332H	1.41	H264、MPEG4	√	Private, ONVIF
	WV-SF132E	1.03	H264、MPEG4	√	Private, ONVIF
	WV-SF135E	1.03	H264、MPEG4	√	Private, ONVIF
	WV-SF346H	1.41	H264、MPEG4	√	Private, ONVIF
	WV-SF342H	1.41	H264、MPEG4	√	Private, ONVIF
	WV-SC385H	1.08	H264、MPEG4	√	Private, ONVIF
	WV-SC386H	1.08	H264、MPEG4	√	Private, ONVIF
	WV-SP539	1.66	H264、MPEG4	√	ONVIF
	DG-SC385	1.66	H264、MPEG4	√	ONVIF
PELCO	IXSOLW	1.8.1-20110912-1.9082-A1.6617	H264	√	Private
	IDE20DN	1.7.41.9111-O3.6725	H264	√	Private
	D5118	1.7.8.9310-A1.5288	H264	√	Private
	IM10C10	1.6.13.9261-O2.4657	H264	√	Private
	DD4N-X	01.02.0015	MPEG4	√	Private
	DD423-X	01.02.0006	MPEG4	√	Private
	D5220	1.8.3-FC2-20120614-1.9320-A1.8035	H264	√	Private

Samsung	SNB-3000P	2.41	H264、MPEG4	√	Private, ONVIF
	SNP-3120	1.22_110120_1	H264、MPEG4	√	Private, ONVIF
	SNP-3370	1.21_110318	MPEG4	√	Private
	SNB-5000	2.10_111227	H264、MPEG4	√	Private, ONVIF
	SND-5080	—	H264、MPEG4	√	Private
	SNZ-5200		H264、MPEG4	√	Private, ONVIF
	SNP-5200		H264、MPEG4	√	Private, ONVIF
	SNB-7000	1.02_110512 1.04_110825 10_110819 V1.0.0 1.	H264	√	Private, ONVIF
Sony	SNB-6004		H264	√	ONVIF
	SNC-DH110	1.50.00	H264	√	Private, ONVIF
	SNC-CH120	1.50.00	H264	√	Private, ONVIF
	SNC-CH135	1.73.01	H264	√	Private, ONVIF
	SNC-CH140	1.50.00	H264	√	Private, ONVIF
	SNC-CH210	1.73.00	H264	√	Private, ONVIF
	SNC-DH210	1.73.00	H264	√	Private, ONVIF
	SNC-DH240	1.50.00	H264	√	Private, ONVIF
	SNC-DH240-T	1.73.01	H264	√	Private, ONVIF
	SNC-CH260	1.74.01	H264	√	Private, ONVIF
	SNC-CH280	1.73.01	H264	√	Private, ONVIF
	SNC-RH-124	1.73.00	H264	√	Private, ONVIF
	SNC-RS46P	1.73.00	H264	√	Private, ONVIF
	SNC-ER550	1.74.01	H264	√	Private, ONVIF
	SNC-ER580	1.74.01	H264	√	Private, ONVIF
	SNC-ER580	1.78.00	H264	√	ONVIF
	SNC-VM631	1.4.0	H264	√	ONVIF
	WV-SP306	1.61.00	H264、MPEG4	√	SDK
	WV-SP306	1.61.00	H264	√	ONVIF
	SNC-VB600	1.5.0	H264	√	Private
	SNC-VM600	1.5.0	H264	√	Private
	SNC-VB630	1.5.0	H264	√	Private
	SNC-VM630	1.5.0	H264	√	Private
SANYO	VCC-HDN400 0PC	—	H264	√	ONVIF

9 Appendix C Compatible Backup Device List

Compatible USB drive list

Manufacturer	Model	Capacity
--------------	-------	----------

Sandisk	Cruzer Micro	512M
Sandisk	Cruzer Micro	1G
Sandisk	Cruzer Micro	2G
Sandisk	Cruzer Freedom	256M
Sandisk	Cruzer Freedom	512M
Sandisk	Cruzer Freedom	1G
Sandisk	Cruzer Freedom	2G
Kingston	DataTraveler II	1G
Kingston	DataTraveler II	2G
Kingston	DataTraveler	1G
Kingston	DataTraveler	2G
Maxell	USB Flash Stick	128M
Maxell	USB Flash Stick	256M
Maxell	USB Flash Stick	512M
Maxell	USB Flash Stick	1G
Maxell	USB Flash Stick	2G
Kingax	Super Stick	128M
Kingax	Super Stick	256M
Kingax	Super Stick	512M
Kingax	Super Stick	1G
Kingax	Super Stick	2G
Netac	U210	128M
Netac	U210	256M
Netac	U210	512M
Netac	U210	1G
Netac	U210	2G
Netac	U208	4G
Teclast	Ti Cool	128M
Teclast	Ti Cool	256M
Teclast	Ti Cool	512M
Teclast	Ti Cool	1G
SanDisk	cruzer mirco	2G
SanDisk	cruzer mirco	8G
SanDisk	Ti Cool	2G

SanDisk	Hongjiao	4G
Lexar	Lexar	256MB
Kingston	Data Traveler	1G
Kingston	Data Traveler	16GB
Kingston	Data Traveler	32GB
Aigo	L8315	16GB
Manufacturer	Model	Capacity
Sandisk	250	16GB
Kingston	Data Traveler Locker+	32GB
Netac	U228	8GB

Compatible SD Card List

Please refer to the following sheet for compatible SD card brands.

Brand	Standard	Capacity	Card type
Transcend	SDHC6	16GB	SD
Kingston	SDHC4	4GB	SD
Kingston	SD	2GB	SD
Kingston	SD	1GB	SD
Sandisk	SDHC2	8GB	Micro-SD
Sandisk	SD	1GB	Micro-SD

Compatible Portable HDD List

Please refer to the following sheet for compatible portable HDD brands.

Brand	Model	Capacity
YDStar	YDstar HDD box	40G
Netac	Netac	80G
Iomega	Iomega RPHD-CG" RNAJ50U287	250GB
WD Elements	WCAVY1205901	1.5TB
Newsmy	Liangjian	320GB
WD Elements	WDBAAR5000ABK-00	500GB
WD Elements	WDBAAU0015HBK-00	1.5TB
Seagate	FreeAgent Go(ST905003F)	500GB
Aigo	H8169	500GB

Compatible USB DVD Burner List

Manufacturer	Model
Samsung	SE-S084
Benq	TW200D

Compatible SATA DVD Burner List

Manufacturer	Model
LG	GH22NS30
Samsung	TS-H653 Ver.A
Samsung	TS-H653 Ver.F
Samsung	SH-224BB/CHXH
SONY	DRU-V200S
Manufacturer	Model
SONY	DRU-845S
SONY	AW-G170S
Pioneer	NVR-217CH
Pioneer	NVR-215CHG

Compatible SATA HDD List

Manufacturer	Series	Model	Capacity	Port Mode
Seagate	Seagate SV35.1	ST3250824SV	250G	SATA
Seagate	Seagate SV35.1	ST3500641SV	500G	SATA
Seagate	Seagate SV35.2	ST3250820SV	250G	SATA
Seagate	Seagate SV35.2	ST3320620SV	320G	SATA
Seagate	Seagate SV35.2	ST3500630SV	500G	SATA
Seagate	Seagate SV35.2	ST3750640SV	750G	SATA
Seagate	Seagate SV35.3	ST3250310SV	250G	SATA
Seagate	Seagate SV35.3	ST3500320SV	500G	SATA

Seagate	Seagate SV35.3	ST3750330SV	750G	SATA
Seagate	Seagate SV35.3	ST31000340SV	1T	SATA
Seagate	Seagate SV35.4	ST3320410SV	320G	SATA
Seagate	Seagate SV35.4	ST3250311SV	250G	SATA
Seagate	Seagate SV35.5	ST3500410SV	500G	SATA
Seagate	Seagate SV35.5	ST3500411SV	500G	SATA
Seagate	Seagate SV35.5	ST31000525SV	1T	SATA
Seagate	Seagate SV35.5	ST31000526SV	1T	SATA
Seagate	Seagate SV35.5	ST1000VX000	1T	SATA
Seagate	Seagate SV35.5	ST2000VX003	2T	SATA
Seagate	Seagate SV35.5	ST2000VX002	2T	SATA
Seagate	Seagate SV35.5	ST2000VX000	2T	SATA
Seagate	Seagate SV35.5	ST3000VX000	3T	SATA
Seagate	Seagate Pipeline HD	ST3320410CS	320G	SATA
Seagate	Seagate Pipeline HD	ST3320310CS	320G	SATA
Seagate	Seagate Pipeline HD	ST3500422CS	500G	SATA
Seagate	Seagate Pipeline HD	ST3500321CS	500G	SATA

Manufacturer	Series	Model	Capacity	Port Mode
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Seagate	Seagate Pipeline HD2	ST3250412CS	250G	SATA
Seagate	Seagate Pipeline HD2	ST3320311CS	250G	SATA
Seagate	Seagate Pipeline HD2	ST3500414CS	500G	SATA
Seagate	Seagate Pipeline HD2	ST3500312CS	500G	SATA

Seagate	Seagate Pipeline HD2	ST31000424CS	1T	SATA
Seagate	Seagate Pipeline HD2	ST31000322CS	1T	SATA
Seagate	Seagate Pipeline HD2	ST1000VM002	1T	SATA
Seagate	Seagate Pipeline HD2	ST1500VM002	1T	SATA
Seagate	Seagate Pipeline HD2	ST2000VM002	2T	SATA
Seagate	Seagate Pipeline HD2	ST2000VM003	2T	SATA
Seagate	Seagate Constellation ES	ST3500514NS	500G	SATA
Seagate	Seagate Constellation ES	ST31000524NS	1T	SATA
Seagate	Seagate Constellation ES	ST32000644NS	2T	SATA
Seagate	Seagate Constellation ES	ST2000NM0011	2T	SATA
Seagate	Seagate Constellation ES	ST1000NM0011	1T	SATA
Seagate	Seagate Constellation ES	ST500NM0011	500G	SATA
Seagate	Seagate Constellation ES	ST2000NM0031	2T	SATA
Seagate	Seagate Constellation ES	ST1000NM0031	1T	SATA

Manufacturer	Series	Model	Capacity	Port Mode
Seagate	Seagate Constellation ES	ST500NM0031	500G	SATA

Seagate	Seagate Constellation ES	ST2000NM0051	2T	SATA
Seagate	Seagate Constellation ES	ST1000NM0051	1T	SATA
Seagate	Seagate Constellation ES	ST500NM0051	500G	SATA
Seagate	Seagate Constellation ES.2	ST33000650NS	3T	SATA
Seagate	Seagate Constellation ES.2	ST32000645NS	2T	SATA
Seagate	Seagate Constellation ES.2	ST33000651NS	3T	SATA
Seagate	Seagate Constellation ES.2	ST32000646NS	2T	SATA
Seagate	Seagate Constellation ES.2	ST33000652NS	3T	SATA
Seagate	Seagate Constellation ES.2	ST32000647NS	2T	SATA
Western Digital	Cariar SE	WD3200JD	320G	SATA
Western Digital	Cariar SE	WD3000JD	300G	SATA
Western Digital	Cariar SE	WD2500JS	250G	SATA
Western Digital	Cariar SE16	WD7500KS	750G	SATA
Western Digital	Cariar SE16	WD5000KS	500G	SATA
Western Digital	Cariar SE16	WD4000KD	400G	SATA
Western Digital	Cariar SE16	WD3200KS	320G	SATA

Western Digital	Caviar SE16	WD2500KS	250G	SATA
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Manufacturer	Series	Model	Capacity	Port Mode
Western Digital	WD Caviar SE16	WD2500YS-01SHB0	250G	SATA
Western Digital	WD Caviar RE16	WD3200YS-01PGB0	320G	SATA
Western Digital	WD Caviar RE2	WD5000YS-01MPB0	500G	SATA
Western Digital	WD AV—AVJS	WD2500AVJS-63WDA0	500G	SATA
Western Digital	WD AV—AVJS	WD3200AVJS-63WDA0	320G	SATA
Western Digital	WD AV—AVJS	WD5000AVJS-63YJA0	500G	SATA
Western Digital	WDAV-GP—AVCS	WD5000AVCS-63H1B1	500G	SATA
Western Digital	WDAV-GP—AVCS	WD7500AVCS-63ZLB0	750G	SATA
Western Digital	WDAV-GP—AVCS	WD3200AVCS	320G	SATA
Western Digital	WDAV-GP—AVCS	WD2500AVCS	250G	SATA
Western Digital	WDAV-GP—EVCS	WD10EVCS-63ZLB0	1T	SATA
Western Digital	WDAV-GP—EVCS	WD20EVCS-63ZLB0	2T	SATA
Western Digital	WDAV-GP—AVVS	WD3200AVVS-63L2B0	320G	SATA
Western Digital	WDAV-GP—AVVS	WD5000AVVS-63ZWB0	500G	SATA

Western Digital	WDAV-GP—AVVS	WD7500AVVS-63E1B1	750G	SATA
Western Digital	WDAV-GP—AVVS	WD7500AVVS-63E1B1	750G	SATA
Western Digital	WDAV-GP—EVVS	WD10EVVS-63E1B1	1T	SATA
Western Digital	WDAV-GP—EVDS	WD10EVDS-63N5B1	1T	SATA

Manufacturer	Series	Model	Capacity	Port Mode
Western Digital	WDAV-GP—EVDS	WD15EVDS-63V9B0	1.5T	SATA
Western Digital	WDAV-GP—EVDS	WD20EVDS-63T3B0	2T	SATA
Western Digital	WDAV-GP—AVDS	WD5000AVDS-63U7B0	500G	SATA
Western Digital	WD AV-GP	WD30EURS	3T	SATA
Western Digital	WD AV-GP	WD25EURS	2.5T	SATA
Western Digital	WD AV-GP	WD20EURS	2T	SATA
Western Digital	WD AV-GP	WD15EURS	1.5T	SATA
Western Digital	WD AV-GP	WD10EURS	1T	SATA
Western Digital	WD AV-GP	WD10EURX	1T	SATA
Western Digital	WD AV-GP	WD7500AURS	750G	SATA
Western Digital	WD AV-GP	WD7500AVDS	500G	SATA

Western Digital	WD AV-GP	WD500AVDS	500G	SATA
Western Digital	WD AV-GP	WD10EUCX	1T	SATA
Samsung	Samsung—HA	HA500LJ/CE	500G	SATA
Samsung	Samsung—HA	HA751LJ	750G	SATA
Samsung	Samsung—HA	HA101UJ/CE	1T	SATA
Samsung	Samsung—HD	HD502HI/CEC	500G	SATA
Samsung	Samsung—HD	HD103SI/CEC	1T	SATA
Samsung	Samsung—HD	HD154UI/CE	1.5T	SATA
Hitachi	HitachiCinemaStar™ 5K500	HCP725050GLA380	500G	SATA
Hitachi	HitachiCinemaStar™	HCT721050SLA360	500G	SATA
Manufacturer	Series	Model	Capacity	Port Mode
	7K1000.B			
Hitachi	HitachiCinemaStar™ 7K1000.B	HCT721075SLA360	750G	SATA
Hitachi	HitachiCinemaStar™ 7K1000.B	HCT721010SLA360	1T	SATA
Maxtor	DiamondMax 20	STM3320820AS	320G	SATA
Maxtor	DiamondMax 20	STM3250820AS	250G	SATA

Compatible 2.5-inch HDD List

Manufacturer	Series	Model	Capacity
Seagate	ST1000LM024	1T	SATA
Seagate	ST500LM012	500G	SATA
Seagate	ST9320325AS	320G	SATA
Western Digital	WD10JPVX	1T	SATA
Western Digital	WD5000LPVX	500G	SATA

Western Digital	WD3200LPVX	320G	SATA
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10 Appendix D Compatible WIFI Device List

Manufacturer	Model
Dabei	SWG29DA-0
Ralink	RT2070
Ralink	RT3070
Ralink	RT5370
Ralink	RT73
Ralink	MARVELL
Ralink	WBN240
Ralink	UB94
Ralink	UB91
TOTOLINK	N200UP RT3070
WIDEMAC	SL-1506N RT5370

11 Appendix E Compatible CD/DVD

Manufacturer	Model	Port Mode	Type
Sony	DRX-S50U	USB	DVD-RW
Sony	DRX-S70U	USB	DVD-RW
Sony	AW-G170S	SATA	DVD-RW
Samsung	TS-H653A	SATA	DVD-RW
Panasonic	SW-9588-C	SATA	DVD-RW
Sony	DRX-S50U	USB	DVD-RW
BenQ	5232WI	USB	DVD-RW

12 Appendix F Compatible Display List

Brand	Model	Dimension (Unit: inch)
BENQ (LCD)	ET-0007-TA	19-inch (wide screen)
DELL (LCD)	E178FPc	17-inch
BENQ (LCD)	Q7T4	17-inch
BENQ (LCD)	Q7T3	17-inch
LENOVO (LCD)	LXB-L17C	17-inch
SANGSUNG (LCD)	225BW	22-inch (wide screen)
LENOVO(CRT)	LXB-FD17069HB	17-inch
LENOVO(CRT)	LXB-HF769A	17-inch
LENOVO(CRT)	LX-GJ556D	17-inch
Samsung (LCD)	2494HS	24-inch
Samsung (LCD)	P2350	23-inch
Samsung (LCD)	P2250	22-inch
Samsung (LCD)	P2370G	23-inch
Samsung (LCD)	2043	20-inch
Samsung (LCD)	2243EW	22-inch
LG (LCD)	W1942SP	19-inch
LG (LCD)	W2243S	22-inch
LG (LCD)	W2343T	23-inch
BENQ (LCD)	G900HD	18.5-inch
BENQ (LCD)	G2220HD	22-inch
PHILIPS (LCD)	230E	23-inch
PHILIPS (LCD)	220CW9	23-inch
PHILIPS (LCD)	220BW9	24-inch
PHILIPS (LCD)	220EW9	25-inch

13 Appendix G 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.
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