

V1.2.0

Cybersecurity Recommendations

Mandatory actions to be taken towards cybersecurity

1. Change Passwords and Use Strong Passwords:

The number one reason systems get "hacked" is due to having weak or default passwords. It is recommended to change default passwords immediately and choose a strong password whenever possible. A strong password should be made up of at least 8 characters and a combination of special characters, numbers, and upper and lower case letters.

2. Update Firmware

As is standard procedure in the tech-industry, we recommend keeping NVR, DVR, and IP camera firmware up-to-date to ensure the system is current with the latest security patches and fixes.

"Nice to have" recommendations to improve your network security

1. Change Passwords Regularly

Regularly change the credentials to your devices to help ensure that only authorized users are able to access the system.

2. Change Default HTTP and TCP Ports:

• Change default HTTP and TCP ports for systems. These are the two ports used to communicate and to view video feeds remotely.

• These ports can be changed to any set of numbers between 1025-65535. Avoiding the default ports reduces the risk of outsiders being able to guess which ports you are using.

3. Enable HTTPS/SSL:

Set up an SSL Certificate to enable HTTPS. This will encrypt all communication between your devices and recorder.

4. Enable IP Filter:

Enabling your IP filter will prevent everyone, except those with specified IP addresses, from accessing the system.

5. Change ONVIF Password:

On older IP Camera firmware, the ONVIF password does not change when you change the system's credentials. You will need to either update the camera's firmware to the latest revision or manually change the ONVIF password.

6. Forward Only Ports You Need:

• Only forward the HTTP and TCP ports that you need to use. Do not forward a huge range of numbers to the device. Do not DMZ the device's IP address.

• You do not need to forward any ports for individual cameras if they are all connected to a recorder on site; just the NVR is needed.

7. Disable Auto-Login on SmartPSS:

Those using SmartPSS to view their system and on a computer that is used by multiple people should disable auto-login. This adds a layer of security to prevent users without the appropriate credentials from accessing the system.

8. Use a Different Username and Password for SmartPSS:

In the event that your social media, bank, email, etc. account is compromised, you would not want someone collecting those passwords and trying them out on your video surveillance system. Using a different username and password for your security system will make it more difficult for someone to guess

their way into your system.

9. Limit Features of Guest Accounts:

If your system is set up for multiple users, ensure that each user only has rights to features and functions they need to use to perform their job.

10. UPnP:

• UPnP will automatically try to forward ports in your router or modem. Normally this would be a good thing. However, if your system automatically forwards the ports and you leave the credentials defaulted, you may end up with unwanted visitors.

• If you manually forwarded the HTTP and TCP ports in your router/modem, this feature should be turned off regardless. Disabling UPnP is recommended when the function is not used in real applications.

11. SNMP:

Disable SNMP if you are not using it. If you are using SNMP, you should do so only temporarily, for tracing and testing purposes only.

12. Multicast:

Multicast is used to share video streams between two recorders. Currently there are no known issues involving Multicast, but if you are not using this feature, deactivation can enhance your network security.

13. Check the Log:

If you suspect that someone has gained unauthorized access to your system, you can check the system log. The system log will show you which IP addresses were used to login to your system and what was accessed.

14. Physically Lock Down the Device:

Ideally, you want to prevent any unauthorized physical access to your system. The best way to achieve this is to install the recorder in a lockbox, locking server rack, or in a room that is behind a lock and key.

15. Connect IP Cameras to the PoE Ports on the Back of an NVR:

Cameras connected to the PoE ports on the back of an NVR are isolated from the outside world and cannot be accessed directly.

16. Isolate NVR and IP Camera Network

The network your NVR and IP camera resides on should not be the same network as your public computer network. This will prevent any visitors or unwanted guests from getting access to the same network the security system needs in order to function properly.

Regulatory Information

FCC Information



Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC conditions:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

FCC compliance:

This equipment has been tested and found to comply with the limits for a digital device, pursuant to part 15 of the FCC Rules. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the guide, may cause harmful interference to radio communication.

- For class A device, these limits are designed to provide reasonable protection against harmful interference in a commercial environment. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- For class B device, these limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 - Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.

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Foreword

General

This user's manual (hereinafter referred to be "the Manual") introduces the functions and operations of the NVR (EZ-IP 2.0) devices (hereinafter referred to be "the Device").

Safety Instructions

The following categorized signal words with defined meaning might appear in the Manual.

Signal Words	Meaning
	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
	Indicates a potential risk which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
	Indicates dangerous high voltage. Take care to avoid coming into contact with electricity.
	Indicates a laser radiation hazard. Take care to avoid exposure to a laser beam.
ESD	Electrostatic Sensitive Devices. Indicates a device that is sensitive to electrostatic discharge.
©_ TIPS	Provides methods to help you solve a problem or save you time.
	Provides additional information as the emphasis and supplement to the text.

Revision History

No. Version Revision Content	Release Time
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No.	Version	Revision Content	Release Time
1	V1.0.0	First Release.	November, 2017
2	V1.1.0		April, 2018
3	V1.1.1	Add privacy protection notice.	May, 2018
4	V1.1.2	 Add FCC. Add new models: NVR1A-4P/1A-8P/1AHS/1AHS-4P/1AHS-8P/2A16. 	July, 2018
5	V1.2.0	 Add models: NVR1BHC/E, NVR1BHC-4P/E, NVR1BHS-8P/E. Update relevant information about the added models. GDPR update. 	August, 2018

Privacy Protection Notice

As the device user or data controller, you might collect personal data of others such as face, fingerprints, car plate number, Email address, phone number, GPS and so on. You need to be in compliance with the local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures including but not limited to: providing clear and visible identification to inform data subject the existence of surveillance area and providing related contact.

About the Manual

- The Manual is for reference only. If there is inconsistency between the Manual and the actual product, the actual product shall prevail.
- We are not liable for any loss caused by the operations that do not comply with the Manual.
- The Manual would be updated according to the latest laws and regulations of related regions. For detailed information, see the paper manual, CD-ROM, QR code or our official website. If there is inconsistency between paper manual and the electronic version, the electronic version shall prevail.
- All the designs and software are subject to change without prior written notice. The product updates might cause some differences between the actual product and the Manual. Please contact the customer service for the latest program and supplementary documentation.
- There still might be deviation in technical data, functions and operations description, or errors in print. If there is any doubt or dispute, please refer to our final explanation.
- Upgrade the reader software or try other mainstream reader software if the Guide (in PDF format) cannot be opened.
- All trademarks, registered trademarks and the company names in the Manual are the properties of their respective owners.

- Please visit our website, contact the supplier or customer service if there is any problem occurred when using the device.
- If there is any uncertainty or controversy, please refer to our final explanation.

Important Safeguards and Warnings

The following description is the correct application method of the device. Read the manual carefully before use to prevent danger and property loss. Strictly conform to the manual during application and keep it properly after reading.

Operating Requirement

- Don't place and install the device in an area exposed to direct sunlight or near heat generating device.
- Don't install the device in a humid, dusty or fuliginous area.
- Keep its horizontal installation, or install it at stable places, and prevent it from falling.
- Don't drip or splash liquids onto the device; don't put on the device anything filled with liquids, in order to prevent liquids from flowing into the device.
- Install the device at well-ventilated places; don't block its ventilation opening.
- Use the device only within rated input and output range.
- Don't dismantle the device arbitrarily.
- Transport, use and store the device within allowed humidity and temperature range.

Power Requirement

- Make sure to use batteries according to requirements; otherwise, it may result in fire, explosion or burning risks of batteries!
- To replace batteries, only the same type of batteries can be used.
- The product shall use electric wires (power wires) recommended by this area, which shall be used within its rated specification.
- Make sure to use standard power adapter matched with this device. Otherwise, the user shall undertake resulting personnel injuries or device damages.
- Use power supply that meets SELV (safety extra low voltage) requirements, and supply power with rated voltage that conforms to Limited Power Source in IEC60950-1. For specific power supply requirements, please refer to device labels.
- Products with category I structure shall be connected to grid power output socket, which is equipped with protective grounding.
- Appliance coupler is a disconnecting device. During normal use, please keep an angle that facilitates operation.

1 Features and Specifications

1.1 Overview

This series NVR is an entry-level network video recorder. This series product support local preview, multiple-window display, recorded file local storage, remote control and mouse shortcut menu operation, and remote management and control function.

This series product supports center storage, front-end storage and client-end storage. The monitor zone in the front-end can be set in anywhere. Working with other front-end devices such as IPC, this series product can establish a strong surveillance network via the CMS. In the network system, there is only one network cable from the monitor center to the monitor zone in the whole network. There is no audio/video cable from the monitor center to the monitor zone. The whole project is featuring of simple connection, low-cost, low maintenance work.

This series NVR can be widely used in many areas such as public security, water conservancy, transportation and education.

Cloud Upgrade	• For the NVR connected with the Internet, it supports online upgrade to update applications.
Real-time Surveillance	 VGA, HDMI port. Connect to monitor to realize real-time surveillance. Short-cut menu when preview. Support popular PTZ decoder control protocols. Support preset, tour and pattern.
Playback	 Support each channel real-time record independently, and at the same time it can support search, forward play, network monitor, record search, download and etc. Support various playback modes: slow play, fast play, backward play and frame by frame play. Support time title overlay so that you can view event accurate occurred time Support specified zone enlargement.
User Management	 Each group has different management powers that can be edited freely. Every user belongs to an exclusive group.
Storage	 Via corresponding setup (such as alarm setup and schedule setup), you can backup related audio/video data in the network video recorder. Support Web record and record local video and storage the file in the client end.
Network Monitor	 Through network, sending audio/video data compressed by IPC to client-ends, then the data will be decompressed and display. Support max 128 connections at the same time. Transmit audio/video data by HTTP, TCP, UDP, RTP/RTCP and etc. Support WEB access in WAN/LAN.
Window Split	Adopt the video compression and digital process to show several windows in one monitor. Support 1/4/8/9-window display (depending on

1.2 Features

	product channel amount) when preview and 1/4/9/16-window (depending on product channel amount) display when playback.			
Record	 Support normal/motion detect/alarm record function. Save the recorded files in the HDD, USB device, client-end PC, or network storage server. You can search or playback the saved files at the local-end or via the Web/USB device. 			
Backup	Support network backup, USB2.0 record backup function, the recorded files can be saved in network storage server, peripheral USB2.0 device, burner and etc.			
Network	Supervise NVR configuration and control power via Ethernet.			
Management	Support management via WEB.			
Peripheral	Support peripheral equipment management such as protocol setup and			
Equipment	port connection.			
Management				
Auxiliary	Support switch between NTSC and PAL.			
	Support real-time system resources information and running statistics			
	display.			
	Support log file.			
	 Local GUI output. Shortcut menu operation via mouse. 			
	 Play the video/audio from the network camera or NVS remotely. 			

1.3 Specifications

1.3.1 NVR1A-4P/1A-8P Series

Model		NVR1A-4P Series	NVR1A-8P Series
System System Resources		4/8-ch series product support 4/8 bandwidth supports 80Mbps.	HD connection respectively. Total
	os	Embedded Linux real-time operation system	
	Operation Interface	WEB/Local GUI	
Decode Video Decode Smart H.264+/H.264 Type			
	Decode Capability	Max 4-ch 1080P 30fps or 8-ch 720P 30fps or 8-ch D1 3	
Video Video Input 4/8-ch network compression video input		input	
	Video Output	1-channel VGA analog video output	

Model		NVR1A-4P Series	NVR1A-8P Series	
НДМІ		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-Chann el Playback	Max 8-channel D1 or 8-channel 72	20P or 4-channel 1080P playback	
Port and RS232 Port Indicator		N/A		
	RS485 Port	N/A		
USB Port		2 peripheral USB2.0 ports.		
Network Connection		1 RJ45 10/100Mbps self-adaptive Ethernet port.		
	PoE	4	8	
	Power Port	1 power socket. Power adapter power supplying mode. DC 48V power.	1 power socket. Power adapter power supplying mode. DC 48V power.	

Model		NVR1A-4P Series	NVR1A-8P Series
	Power Button	N/A	
	Power On-off Button	N/A	
	IR Receiver Window	eiver N/A	
	Clock	Built-in clock.	
		One power status indicator light.	
	Indicator Light	One network status indicator light.	
-		One HDD status indicator light.	
Power Consumption <10W (No HDD)			
	Working Temperature	- 10℃~ + 55℃	
Working Humidity		10%~90%	
Air pressure 86kPa~106		86kPa∼106kPa	
	Dimension	205mm×206.75mm×45.2mm	425mm×95mm×260mm
Weight 0.5kg~2kg (No HDD)		0.5kg \sim 2kg (No HDD)	
	Installation Mode	Desk installation	

1.3.2 NVR1AHS/1AHS-4P/1AHS-8P Series

Model		NVR1AHS Series	NVR1AHS-4P Series NVR1AHS-8P Series
System System Resources	, , , , , , , , , , , , , , , , , , ,	4/8-ch series product support 4/8 HD connection respectively. Total bandwidth supports 80Mbps.	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	

Model		NVR1AHS Series	NVR1AHS-4P Series	NVR1AHS-8P Series
Decode	Video Decode Type	Smart H.264+/H.264		
	Decode Capability	Max 4-ch 1080P 30fps	or 8-ch 720P 30fs or 8-	ch D1 30fps
Video Video Input		4/8-ch network compression video input	4/8-ch network compre	ession video input
	Video Output	1-channel VGA analog	y video output	
	HDMI	1-ch HDMI output. Ver	sion number is 1.4	
	Window Split	1/4/8/9-window	1/4/8/9-window	
Audio	Audio Input	1-ch bidirectional talk i	nput	
	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-Chann el Playback	Max 4-channel 1080P	or 8-channel 720P or 8-	channel D1 playback
Port and	RS232 Port	N/A		
Indicator	RS485 Port	N/A		
	USB Port	2 peripheral USB2.0 ports.		
	Network Connection	1 RJ45 10/100Mbps se	elf-adaptive Ethernet po	rt.
	PoE Port	N/A	4	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.	1 power socket. Power adapter power supplying mode. DC 48V power.
Power Button N/A				

Model		NVR1AHS Series	NVR1AHS-4P Series	NVR1AHS-8P Series
	Power On-off Button			
	IR Receiver Window			
	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 (No HDD)		
	Working Temperature	- 10℃~ + 55℃		
	Working Humidity	10%~90%		
	Air pressure	86kPa \sim 106kPa		
	Dimension(W× D×H)	260mm×220mm×44mm		
	Weight	0.7kg \sim 0.8kg (No HDD)		
	Installation Mode	Desk installation		

1.3.3 NVR2A16 Series

Model		NVR2A16 Series
System	System Resources	16-ch series product support 16 HD connection respectively. Total bandwidth supports 80Mbps.
	OS	Embedded Linux real-time operation system
	Operation Interface	WEB/Local GUI
Decode	Video Decode Type	Smart H.264+/H.264
	Decode Capability	Max 4-ch 1080P 30fps or 8-ch 720P 30fs or 8-ch D1 30fps
Video	Video Input	16-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

Model		NVR2A16 Series
	Audio Output	1-ch bidirectional talk output
	Audio Compression Standard	G.711a
Alarm	Alarm Input	N/A
	Alarm Output	N/A
Function	Storage	2 built-in SATA ports
	Multiple-Chann el Playback	Max 4-channel 1080P or 8-channel 720P or 8-channel D1 playback
Port and	RS232 Port	N/A
Indicator	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
	Power Port	1 power socket. Power adapter power supplying mode. DC 12V 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 (No HDD)
	Working Temperature	- 10℃~ + 55℃
	Working Humidity	10%~90%
	Air pressure	86kPa~106kPa
	Dimension(W× D×H)	375mm×287mm×52mm
	Weight	1.5kg \sim 2.5kg (No HDD)

Model	NVR2A16 Series
Installation Mode	Desk installation

1.3.4 NVR1B04/L, NVR1B08/L, NVR1B04-4P/L Series

Model		NVR1B04/L Series	NVR1B08/L Series	NVR1B04-4P/L Series	
System	System Resources	4/8-ch series product support 4/8 HD connection respectively. Tota bandwidth supports 48Mbps.			
	os	Embedded Linux real-time operation system			
	Operation Interface	WEB/Local GUI			
Decode	Video Decode Type	H.265/H.264			
	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			
		1-ch HDMI output. Ver	sion number is 1.4		
	Window Split	1/4-window	1/4/8/9-window	1/4-window	
Audio	Audio Input	N/A N/A			
	Audio Output				
	Audio Compression Standard	N/A			

Model		NVR1B04/L Series	NVR1B08/L Series	NVR1B04-4P/L Series		
Alarm	Alarm Input	N/A				
	Alarm Output	N/A				
Function	Storage	1 built-in SATA port				
	Multiple-Chann el Playback	Max 4-channel 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 se	elf-adaptive Ethernet po	rt.		
	ΡοΕ	N/A	N/A	4 Ports		
	Power Port	1 power socket. P supplying mode. DC 1	1 power socket. Power adapter power supplying mode. DC 48V power.			
	Power Button	N/A				
	Power On-off Button	N/A				
	IR Receiver Window					
	Clock	Built-in clock.				
	Indicator Light	One power status indic One network status indice One HDD status indice	dicator light.			

Model		NVR1B04/L Series	NVR1B08/L Series	NVR1B04-4P/L Series	
General	Power Consumption	<10W (No HDD)			
	Working Temperature	- 10℃~ + 55℃			
	Working Humidity	10%~90%			
	Air pressure	86kPa∼106kPa			
	Dimension	204.6mm×204.6mm×4	5.2mm		
	Weight	0.4 kg \sim 0.65 kg (No HDD)			
	Installation Mode	Desk installation			

1.3.5 NVR1B04HS/L, NVR1B08HS/L, NVR1B04HS-4P/L Series

Model		NVR1B04HS/L Series	NVR1B08HS/L Series	NVR1B04HS-4P/L Series	
System	System Resources	4/8-ch series product support 4/8 HD connection respectively. Total bandwidth supports 48Mbps.			
	OS	Embedded Linux real-	ime operation system		
	Operation Interface	WEB/Local GUI			
Decode	Video Decode Type	H.265/H.264			
	Decode Capability	Max 2-ch 1080P 30fps or 4-ch 720P 30fs or 8-ch D1 30fps			
Video	Video Input	4/8-ch network compre	ession video input		
	Vieo Output	1-channel VGA analog	video output		
		1-ch HDMI output. Ver	sion number is 1.4		
	Window Split	1/4-window 1/4/8/9-window 1/4-window			
Audio	Audio Input	N/A			
	Audio Output	N/A			
	Audio	N/A			

Model		NVR1B04HS/L Series	NVR1B08HS/L Series	NVR1B04HS-4P/L Series
	Compression Standard			
Alarm	Alarm Input	N/A		
	Alarm Output	N/A		
Function	Storage	1 built-in SATA port		
	Multiple-Chann el Playback	Max 4-channel playba	ck	
Port and	RS232 Port	N/A		
Indicator	RS485 Port	N/A		
	USB Port	2 peripheral USB2.0 p	orts.	
	Network Connection	1 RJ45 10/100Mbps se	elf-adaptive Ethernet po	rt.
	PoE Port	N/A	N/A	4 ports
	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	N/A		
	Power On-off Button	N/A		
	IR Receiver Window	N/A		
	Clock	Built-in clock.		
	Indicator Light	One power status indic	•	
		One network status inco One HDD status indica	-	
General	Power Consumption	<10W (No HDD)		
	Working Temperature	- 10℃~ + 55℃		
Working 10%~90% Humidity		10%~90%		
	Air pressure	86kPa \sim 106kPa		
	Dimension(W× D×H)	260mm×229.3mm×47	6mm	

Model		NVR1B04HS/L Series	NVR1B08HS/L Series	NVR1B04HS-4P/L Series
Weight		0.9kg \sim 1kg (No HDD)		
	Installation Mode	Desk installation		

1.3.6 NVR1B04, NVR1B08, NVR1B04-4P Series

Model		NVR1B04 Series	NVR1B08 Series	NVR1B04-4PSeries	
System	System Resources	4/8-ch series product bandwidth supports 80	support 4/8 HD connect Mbps.	tion respectively. Total	
	OS	Embedded Linux real-	ime operation system		
	Operation Interface	WEB/Local GUI			
Decode	Video Decode Type	H.265/H.264			
	Decode Capability	Max 1-ch 4K 30fps or 4-ch 1080P 30fps or 8-ch 720P 30fs			
Video	Video Input	4/8-ch network compression video input			
	Video Output	1-channel VGA analog video output			
		1-ch HDMI output. Ver			
	Window Split	1/4/8/9-window			
Audio	Audio Input	1-ch bidirectional talk input			
	Audio Output	1-ch bidirectional talk i	nput		
	Audio Compression Standard	PCM、G.711a、G711	u		
Alarm	Alarm Input	N/A			
	Alarm Output	N/A			
Function	Storage	1 built-in SATA port			
	Multiple-Chann el Playback	Max 4-channel playba	ck		
Port and	RS232 Port	N/A			
Indicator	RS485 Port	N/A			
	USB Port	2 peripheral USB2.0 p	orts.		

Model		NVR1B04 Series	NVR1B08 Series	NVR1B04-4PSeries
	Network Connection	1 RJ45 10/100Mbps so	elf-adaptive Ethernet po	rt.
	PoE Port	N/A	N/A	4 ports
	Power Port	1 power socket. P supplying mode. DC 1	ower adapter power 2V power.	1 power socket. Power adapter power supplying mode. 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 indic One network status indica One HDD status indica	dicator light.	
General	Power Consumption	<10W (No HDD)		
	Working Temperature	- 10℃~ + 55℃		
	Working Humidity	10%~90%		
	Air pressure	86kPa \sim 106kPa		
	Dimension(W× D×H)	204.6mm× 206.6mm×	45.2mm	
	Weight	0.9kg \sim 1kg (No HDD)		
	Installation Mode	Desk installation		

1.3.7 NVR1B04HS, NVR1B08HS, NVR1B04HS-4P, NVR1B08HS-8P Series

Model		NVR1B04HS Series	NVR1B08HS Series	NVR1B04HS- 4P Series	NVR1B08HS- 8P Series	
System	System Resources	4/8-ch series product support 4/8 HD connection respectively. Total bandwidth supports 80Mbps.				
	OS	Embedded Linu>	c real-time operation	on system		
	Operation Interface	WEB/Local GUI				

Model		NVR1B04HS Series	NVR1B08HS Series	NVR1B04HS- 4P Series	NVR1B08HS- 8P Series
Decode	Video Decode Type	H.265/H.264			
	Decode Capability	Max 1-ch 4K 30f	ps or 4-ch 1080P	30fps or 8-ch 720	P 30fs
Video	Video Input	4/8-ch network compression video input			
	Video Output	1-channel VGA a	analog video outpu	ut	
		1-ch HDMI output. Version number is 1.4			
	Window Split	1/4-window	1/4/8/9-window	1/4-window	1/4/8/9-window
Audio	Audio Input	N/A			
	Audio Output	N/A			
	Audio Compression Standard	PCM、G.711a、G711u			
Alarm	Alarm Input	N/A			
	Alarm Output	N/A			
Function	Storage	1 built-in SATA port			
	Multiple-Chann el Playback	Max 4-channel p	layback		
Port and	RS232 Port	N/A			
Indicator	RS485 Port	N/A			
	USB Port	2 peripheral USB2.0 ports.			
	Network Connection				1 RJ45 10/100/1000M bps self-adaptive Ethernet port.
	PoE Port	N/A	N/A	4 ports	8 ports
	Power Port	1 power socket. power supplying power.	Power adapter mode. DC 12V		. Power adapter mode. DC 48V
	Power Button	N/A			
	Power On-off Button	N/A			

Model		NVR1B04HS Series	NVR1B08HS Series	NVR1B04HS- 4P Series	NVR1B08HS- 8P Series
	IR Receiver Window	N/A			
	Clock	Built-in clock.			
	Indicator Light	One power statu One network sta One HDD status	tus indicator light.		
General	Power Consumption	<10W (No HDD)		
	Working Temperature	- 10℃~ + 55℃			
	Working Humidity	10%~90%			
	Air pressure	86kPa \sim 106kPa			
	Dimension(W× D×H)	260mm×229.3m	m×47.6mm		
	Weight	0.9kg \sim 1kg (No	HDD)		
	Installation Mode	Desk installation			

1.3.8 NVR2B16 Series

Model		NVR2B16 Series
System	System Resources	16-ch series product support 16 HD connection respectively. Total bandwidth supports 80Mbps.
	OS	Embedded Linux real-time operation system
	Operation Interface	WEB/Local GUI
Decode	Video Decode Type	Smart H.265/H.264
	Decode Capability	Max 4-ch 1080P 30fps or 8-ch 720P 30fs
Video	Video Input	16-ch network compression video input
	Video Output	1-channel VGA analog video output
		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

Model		NVR2B16 Series
	Audio Output	1-ch bidirectional talk output
	Audio Compression Standard	PCM、G.711a、G711u
Alarm	Alarm Input	N/A
	Alarm Output	N/A
Function	Storage	2 built-in SATA ports
	Multiple-Chann el Playback	Max 4-channel playback
Port and	RS232 Port	N/A
Indicator	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
	Power Port	1 power socket. Power adapter power supplying mode. DC 12V 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 (No HDD)
	Working Temperature	- 10℃~ + 55℃
	Working Humidity	10%~90%
	Air pressure	86kPa~106kPa
	Dimension(W× D×H)	375mm×282.6mm×53mm
	Weight	1.5kg \sim 2.5kg (No HDD)

Model	NVR2B16 Series
Installation Mode	Desk installation

1.3.9 NVR1BHC/E, NVR1BHC-4P/E Series

Model		NVR1BHC/E	NVR1BHC-4P/E	
	Host Processor	Industrial grade embedded microc	controller	
	OS	Embedded Linux operation system		
System	System	4-channel/8-channel NVR supports 4-channel/8-channel HD input		
	Resources	respectively		
	Operation Interface	Web, local GUI		
	Audi Input	N/A		
	Audio Output	N/A		
Audio	Audio Compression Standard	PCM, G711a, G711u		
	Video Input	4-channel and 8-channel network	compression video input	
	Video Output	1-channel VGA analog video output; 1-channel HDMI video output. Same source output.		
Video	Video Compression Standard	Not support.		
	Window Split	1/4/8/9-window		
A.L	Alarm Input	N/A		
Alarm	Alarm Output	N/A		
	Decoding Type	H.264; H265; MPEG4; smart264;	smart265	
Decode	Decoding	1-channel 6M, 1-channel 5M, 2-channel 4M, 4-channel 1080F		
	Capability	8-channel 720P		
	Record Mode	,	cord, schedule record and alarm record > alarm record > motion	
	Multi-Channel Playback	Max 4-channel 1080P playback at	the same time	
Function	Motion Detect	Each video supports PAL 396(22*18) detection zones, support multiple sensivity levels from level 1 to level 6		
	Tampering	Each channel supports 4 tamperin	ig zones	
	Record Storage	Local HDD, network, etc.		
	Backup Mode	External USB storage device		
Ports	Network Protocol	IPv4, IPv6, HTTP, NTP, DNS, ON	/IF	
	SATA Port	One		

Model		NVR1BHC/E	NVR1BHC-4P/E	
	eSATA Port	N/A		
	RS232 Port	N/A		
	RS485 Port	N/A		
	USB Port	Two USB 2.0		
	HDMI Port	One		
	VGA Port	One		
	Network Port	One RJ45 10/100Mbps self-adapt	ive Ethernet port	
	Power on-off Button	N/A		
	Power Button	N/A		
	IR Receiver Window	N/A		
	Clock	One built-in real-time clock		
	Indicator	N/A		
	Power input	DC12V 1.5A	DC48V 1.25A	
	Power consumption	2.57W (no HDD)	3.61W (no HDD)	
	Working temp	-10℃ to +45℃		
General	Working humidity	10% to 90%		
General	Atmospheric pressure	86kpa to 106kpa		
	Dimension	192 mm * 197 mm * 42 mm		
	Weight	1.15kg	1.46kg	
	Installation mode	Desktop		

1.3.10 NVR1BHS-8P/E Series

Model		NVR1BHS-8P/E	
Host		Industrial grade embedded microcontroller	
	Processor	Industrial grade embedded microcontroller	
	OS	Embedded Linux operation system	
System	System	8 channel NV/P cupperts 8 channel HD input respectively	
	Resources	8-channel NVR supports 8-channel HD input respectively	
	Operation	Web, local GUI	
	Interface	Web, local GOI	
	Audi Input	N/A	
	Audio Output	N/A	
Audio	Audio		
	Compression	PCM, G711a, G711u	
	Standard		
	Video Input	8-channel network compression video input	
Video	Video Output	1-channel VGA analog video output; 1-channel HDMI video output.	
	Video Output	Same source output.	

Video Compression Standard Not support. Alarm Alarm Input Alarm Output N/A Alarm Alarm Output Alarm Output N/A Decode Decoding Type H.264; H265; MPEG4; smart264; smart265 Decoding 1-channel 6M, 1-channel 5M, 2-channel 4M, 4-channel 3-channel 720P Manual record, motion detect record, schedule record and record. Record priority: Manual record > alarm record > in detect record > schedule record. Multi-Channel Playback Max 4-channel 1080P playback at the same time Function Motion Detect Each video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Storage Local HDD, network, etc. Backup Mode External USB storage device Network Protocol IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One QSATA Port N/A RS232 Port N/A QSB Port Two USB 2.0 HDMI Port One	alarm
Standard Window Split 1/4/8/9-window Alarm Marm Input N/A Alarm Output N/A Alarm Output N/A Decoding Type H.264; H265; MPEG4; smart264; smart265 Decoding 1-channel 6M, 1-channel 5M, 2-channel 4M, 4-channel 720P Record Mode 8-channel 720P Multi-Channel Manual record, motion detect record, schedule record and record. Record priority: Manual record > alarm record > in detect record. Multi-Channel Playback Motion Detect Each video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Storage Local HDD, network, etc. Stata Port One eSATA Port One eSATA Port N/A RS485 Port N/A	alarm
Window Split 1/4/8/9-window Alarm Alarm Input N/A Alarm Output N/A Alarm Output N/A Decoding Type H.264; H265; MPEG4; smart264; smart265 Decoding 1-channel 6M, 1-channel 5M, 2-channel 4M, 4-channel 720P Manual record, motion detect record, schedule record and record. Record priority: Manual record > alarm record > n detect record > schedule record. Multi-Channel Playback Max 4-channel 1080P playback at the same time Motion Detect Each video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Storage Local HDD, network, etc. Backup Mode External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A R5485 Port N/A R5485 Port N/A R5485 Port N/A USB Port Two USB 2.0	alarm
Alarm Alarm Input N/A Alarm Output N/A Decoding Type H.264; H265; MPEG4; smart264; smart265 Decoding 1-channel 6M, 1-channel 5M, 2-channel 4M, 4-channel 700 Capability 8-channel 720P Manual record, motion detect record, schedule record and record. Record priority: Manual record > alarm record > 1 detect record > schedule record. Multi-Channel Playback Max 4-channel 1080P playback at the same time Function Each video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Backup Mode External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A RS435 Port N/A RS435 Port N/A RS435 Port N/A RS435 Port N/A	alarm
Alarm Alarm Output N/A Decoding Decoding Type H.264; H265; MPEG4; smart264; smart265 Decode Decoding 1-channel 6M, 1-channel 5M, 2-channel 4M, 4-channel Becord Becord Mode 8-channel 720P Manual record, motion detect record, schedule record and record. Record priority: Manual record > alarm record > adetect record > schedule record. Multi-Channel Max 4-channel 1080P playback at the same time Playback Bach video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Backup Mode External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A RS485 Port N/A USB Port Two USB 2.0 HDMI Port One	alarm
Alarm Output N/A Decoding Type H.264; H265; MPEG4; smart264; smart265 Decoding 1-channel 6M, 1-channel 5M, 2-channel 4M, 4-channel 720P Record Mode Manual record, motion detect record, schedule record and record. Record priority: Manual record > alarm record > n detect record > schedule record. Multi-Channel Max 4-channel 1080P playback at the same time Playback Each video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Backup Mode External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A Res232 Port N/A USB Port Two USB 2.0 HDMI Port One	alarm
Decode Decoding Capability 1-channel 6M, 1-channel 5M, 2-channel 4M, 4-channel 8-channel 720P Record Mode Manual record, motion detect record, schedule record and record. Record priority: Manual record > alarm record > record. Multi-Channel Playback Max 4-channel 1080P playback at the same time Function Motion Detect Each video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Backup Mode External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A RS232 Port N/A RS485 Port N/A IUSB Port Two USB 2.0 HDMI Port One	alarm
Capability 8-channel 720P Manual record, motion detect record, schedule record and record. Record priority: Manual record > alarm record > idetect record. Record priority: Manual record > alarm record > idetect record. Multi-Channel Playback Max 4-channel 1080P playback at the same time Playback Each video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Storage IPv4, IPv6, HTTP, NTP, DNS, ONVIF Protocol IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A Rs485 Port N/A Rs485 Port N/A HDMI Port One	alarm
Function Manual record, motion detect record, schedule record and record. Record priority: Manual record > alarm record > record. Record priority: Manual record > alarm record > record. Multi-Channel Playback Max 4-channel 1080P playback at the same time Motion Detect Each video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Storage IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A Rs232 Port N/A Rs485 Port N/A HDMI Port One	notion
Record Mode record. Record priority: Manual record > alarm record > in detect record > schedule record. Multi-Channel Max 4-channel 1080P playback at the same time Playback Each video supports PAL 396(22*18) detection zones, simultiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Storage External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A RS232 Port N/A RS485 Port N/A HDMI Port One	notion
Function Multi-Channel Playback Max 4-channel 1080P playback at the same time Playback Motion Detect Each video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Storage External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF Protocol One eSATA Port N/A RS485 Port N/A USB Port Two USB 2.0 HDMI Port One	
Multi-Channel Playback Max 4-channel 1080P playback at the same time Playback Motion Detect Each video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Backup Mode External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A RS232 Port N/A USB Port Two USB 2.0 HDMI Port One	
Playback Max 4-channel 1080P playback at the same time Motion Detect Each video supports PAL 396(22*18) detection zones, s multiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Backup Mode External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A RS232 Port N/A USB Port Two USB 2.0 HDMI Port One	upport
Function Motion Detect Each video supports PAL 396(22*18) detection zones, simultiple sensivity levels from level 1 to level 6 Tampering Each channel supports 4 tampering zones Record Local HDD, network, etc. Backup Mode External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A R\$232 Port N/A R\$485 Port N/A USB Port Two USB 2.0 HDMI Port One	upport
Motion Detectmultiple sensivity levels from level 1 to level 6TamperingEach channel supports 4 tampering zonesRecordLocal HDD, network, etc.StorageExternal USB storage deviceNetworkIPv4, IPv6, HTTP, NTP, DNS, ONVIFProtocolOneSATA PortOneeSATA PortN/ARS232 PortN/ARS485 PortN/AUSB PortTwo USB 2.0HDMI PortOne	upport
Record Storage Local HDD, network, etc. Backup Mode External USB storage device Network Protocol IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A RS232 Port N/A RS485 Port N/A USB Port Two USB 2.0 HDMI Port One	••
Record Storage Local HDD, network, etc. Backup Mode External USB storage device Network Protocol IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A RS232 Port N/A RS485 Port N/A USB Port Two USB 2.0 HDMI Port One	
Storage External USB storage device Backup Mode External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF SATA Port One eSATA Port N/A RS232 Port N/A RS485 Port N/A USB Port Two USB 2.0 HDMI Port One	
Backup Mode External USB storage device Network IPv4, IPv6, HTTP, NTP, DNS, ONVIF Protocol One SATA Port One eSATA Port N/A RS232 Port N/A RS485 Port N/A USB Port Two USB 2.0 HDMI Port One	
ProtocolIPv4, IPv6, HTTP, NTP, DNS, ONVIFSATA PortOneeSATA PortN/ARS232 PortN/ARS485 PortN/AUSB PortTwo USB 2.0HDMI PortOne	
ProtocolSATA PortOneeSATA PortN/ARS232 PortN/ARS485 PortN/AUSB PortTwo USB 2.0HDMI PortOne	
eSATA PortN/ARS232 PortN/ARS485 PortN/AUSB PortTwo USB 2.0HDMI PortOne	
RS232 PortN/ARS485 PortN/AUSB PortTwo USB 2.0HDMI PortOne	
RS485 PortN/AUSB PortTwo USB 2.0HDMI PortOne	
USB Port Two USB 2.0 HDMI Port One	
HDMI Port One	
Ports VGA Port One	
Network Port One RJ45 10/100Mbps self-adaptive Ethernet port	
Power on-off Button	
Power Button N/A	
IR Receiver N/A	
Clock One built-in real-time clock	
Indicator N/A	
Power input DC48V/2A	
Power consumption 4.29W (no HDD)	
General Working temp -10°C to +45°C	
Working 10% to 90%	

Model		NVR1BHS-8P/E
pre Din Wei Inst	Atmospheric pressure	86kpa to 106kpa
	Dimension	221 mm * 260 mm * 48 mm
	Weight	2kg
	Installation mode	Desktop

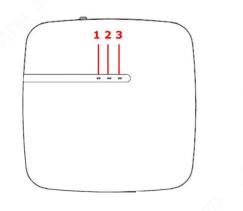
2 Front Panel and Rear Panel

The following front panel and rear panel figures are for reference only. The actual product shall prevail.

2.1 Front Panel

2.1.1 NVR1A-4P, NVR1A-8P, NVR1B04 (/L), NVR1B08 (/L), NVR1B04-4P (/L) Series

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





Please refer to the following sheet for detailed information.

SN	Name	Function
1	HDD status indictor light	The red light becomes on when HDD is abnormal.
2	Power indicator light	The red light becomes on when the power connection is OK.
3	Network status indicator light	The red light becomes on when the network connection is abnormal.

2.1.2 NVR1AHS, NVR1AHS-4P, NVR1AHS-8P, NVR2A16, NVR1B04HS (/L), NVR1B08HS (/L), NVR1B04HS-4P (/L), NVR1B08HS-8P, NVR2B16 Series

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

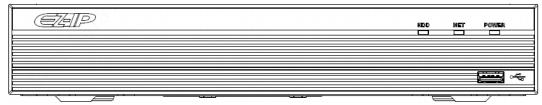


Figure 2-2

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

lcon	Name	Function
HDD	HDD status indicator	The blue light is on when the HDD is malfunction.
	light	

Icon	Name	Function
NET	Network status indicator	The blue light is on when the network connection is
	light	abnormal.
POWER	Power status indicator light	The blue light is on when the power connection is
		OK.
م نۍ	USB port	Connect to peripheral USB storage device, mouse
		and etc.

2.1.3 NVR1BHC/E, NVR1BHC-4P/E, NVR1BHS-8P/E Series

The NVR1BHC/E, NVR1BHC-4P/E series front panel is shown as in Figure 2-3.

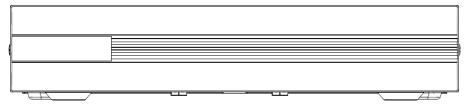


Figure 2-3

The NVR1BHS-8P/E series front panel is shown as in Figure 2-4.



Figure 2-4

2.2 Rear Panel

2.2.1 NVR1B04/L, NVR1B08/L, NVR1B04-4P/L Series

The NVR1B04/L, NVR1B08/L series rear panel is shown as in Figure 2-5.

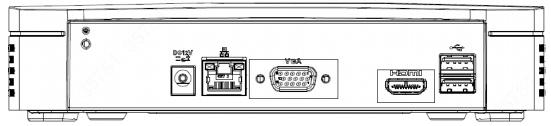
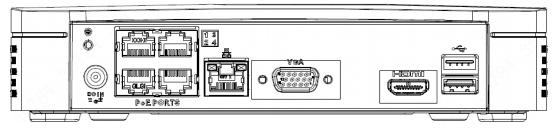


Figure 2-5

The NVR1B04-4P/L series rear panel is shown as in Figure 2-6.





2.2.2 NVR1A-4P, NVR1A-8P, NVR1B04, NVR1B08, NVR1B04-4P Series

The NVR1A-4P series rear panel is shown as in Figure 2-7.

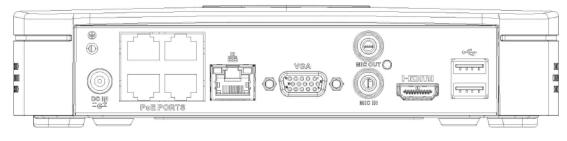


Figure 2-7

The NVR1A-8P series rear panel is shown as in Figure 2-8.

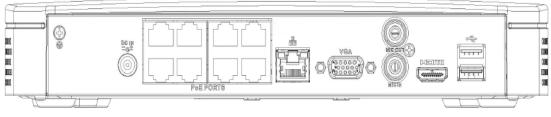


Figure 2-8

The NVR1B04/1B08 series rear panel is shown as in Figure 2-9.

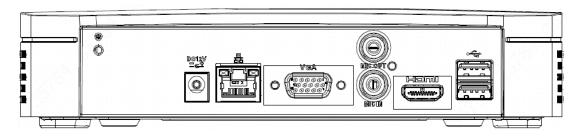


Figure 2-9 The NVR1B04-4P series rear panel is shown as in Figure 2-10.

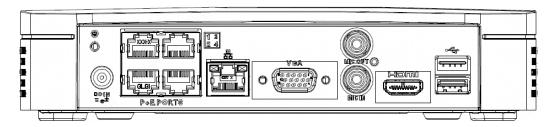


Figure 2-10

Please refer to the following sheet for detailed information.

Port Name	Connection	Function
DC 12V 	Power input port	Power socket
		• For NVR1B04-4P, input DC 48V/1.25A.
- - -	Network port	10M/100Mbps self-adaptive Ethernet port. Connect to the
		network cable.

Port Name	Connection	Function
ەت	USB port	USB port. Connect to mouse, USB storage device and etc.
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. Output analog video signal. It can connect to the monitor to view analog video.
MIC IN	Audio input port	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.
MIC OUT	Audio output port	 Audio output port. It is to output the analog audio signal to the devices such as the sound box. Bidirectional talk output. Audio output on 1-window video monitor. Audio output on 1-window video playback.
1	GND	Ground end
PoE PORTS	PoE port	Built-in switch. Support PoE function. For PoE series product, you can use this port to provide power to the network camera.

2.2.3 NVR1B04HS/L, NVR1B08HS/L, NVR1B04HS-4P/L Series

The NVR1B04HS/L, NVR1B08HS/L series rear panel is shown as below. See Figure 2-11.

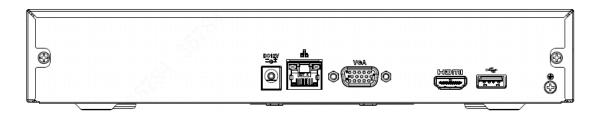


Figure 2-11

The NVR1B04HS-4P/L series rear panel is shown as below. See Figure 2-12.

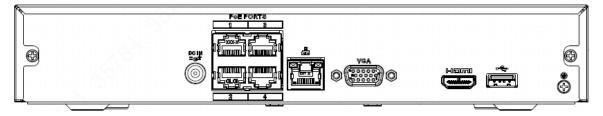


Figure 2-12

2.2.4 NVR1AHS, NVR1AHS-4P, NVR1AHS-8P, NVR1B04HS, NVR1B08HS, NVR1B04HS-4P, NVR1B08HS-8P Series

The NVR1AHS series rear panel is shown as below. See Figure 2-13.

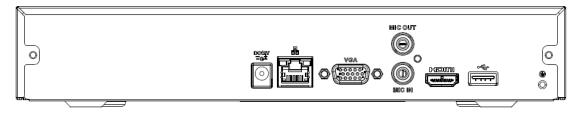
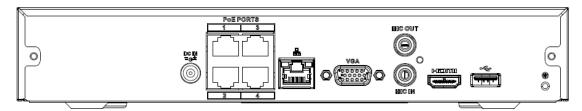


Figure 2-13

The NVR1AHS-4P series rear panel is shown as below. See Figure 2-14.





The NVR1AHS-8P series rear panel is shown as below. See Figure 2-15.

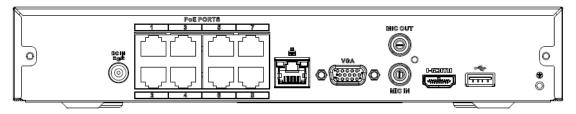


Figure 2-15

The NVR1B04HS, NVR1B08HS series rear panel is shown as below. See Figure 2-16.

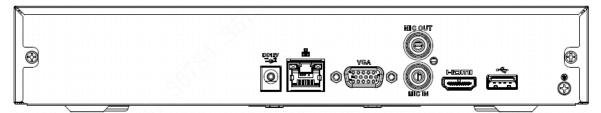


Figure 2-16

The NVR1B04HS-4P series rear panel is shown as below. See Figure 2-17.

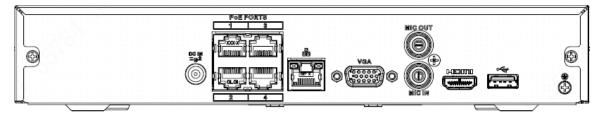


Figure 2-17

The NVR1B08HS-8P series rear panel is shown as below. See Figure 2-18.

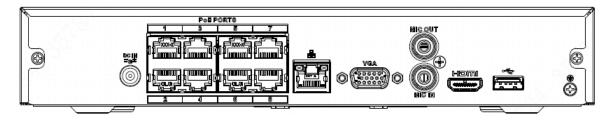


Figure 2-18

Please refer to	the following	sheet for	detailed	information.
1 10000 10101 10	and ronoming	011001101	aotanoa	

Port Name	Connection	Function	
DC 12V =G=	Power input port	 Power socket. For NVR1B04/08HS, input DC 12V/2A. For NVR1BHS-4P, input DC 48V/1.25A. For NVR1BHS-8P, input DC 48V/2A. 	
- - -	Network port	10M/100Mbps self-adaptive Ethernet port. Connect to the network cable.	
٩٩	USB port	USB port. Connect to mouse, USB storage device and etc.	
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. Output analog video signal. It can connect to the monitor to view analog video.	
MIC IN	Audio input port	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.	
MIC OUT	Audio output port	 Audio output port. It is to output the analog audio signal to the devices such as the sound box. Bidirectional talk output. Audio output on 1-window video monitor. Audio output on 1-window video playback. 	
Ŧ	GND	Ground end	
PoE PORTS	PoE port	Built-in switch. Support PoE function. For PoE series product, you can use this port to provide power to the network camera.	

2.2.5 NVR2A16, NVR2B16 Series

The NVR2A16 series rear panel is shown as below. See Figure 2-19.

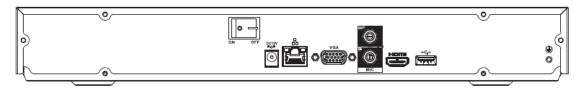


Figure 2-19

The NVR2B16 series rear panel is shown as below. See Figure 2-20.

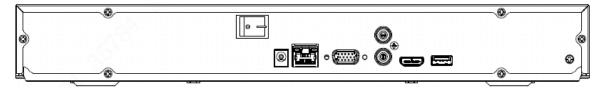


Figure 2-20

Please refer to the following sheet for detailed information.

Port Name	Connection	Function	
DC 12V 	Power input port	Power socket.	
- <u>-</u>	Network port	10M/100Mbps self-adaptive Ethernet port. Connect to the network cable.	
ەت	USB port	USB port. Connect to mouse, USB storage device and etc.	
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. Output analog video signal. It can connect to the monitor to view analog video.	
MIC IN	Audio input port	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.	
MIC OUT	Audio output port	 Audio output port. It is to output the analog audio signal to the devices such as the sound box. Bidirectional talk output. Audio output on 1-window video monitor. Audio output on 1-window video playback. 	
Ŧ	GND	Ground end	

2.2.6 NVR1BHC/E, NVR1BHC-4P/E, NVR1BHS-8P/E Series

The NVR1BHC/E series rear panel is shown as below. See Figure 2-21.

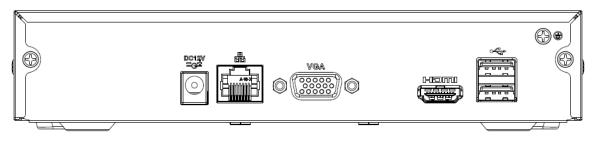


Figure 2-21

The NVR1BHC-4P/E series rear panel is shown as below. See Figure 2-22.

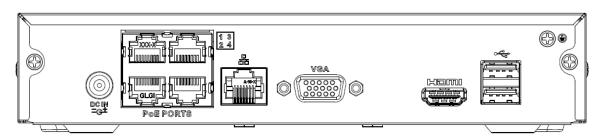


Figure 2-22

The NVR1BHS-8P/E series rear panel is shown as below. See Figure 2-23

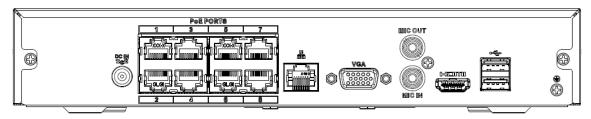


Figure 2-23

Please refer to the following sheet for detailed information.

Port Name	Connection	Function
DC 12V 	Power input port	Power socket.
PoE PORTS	PoE port	Built-in switch. Support PoE function. For PoE series product, you can use this port to provide power to the network camera.
	Network port	10M/100Mbps self-adaptive Ethernet port. Connect to the network cable.
VGA	VGA video output port	VGA video output port. Output analog video signal. It can connect to the monitor to view analog video.
MIC IN	Audio input port	Bidirectional talk input port. It is to receive the analog audio signal output from the devices such as microphone, pickup.
MIC OUT	Audio output port	 Audio output port. It is to output the analog audio signal to the devices such as the sound box. Bidirectional talk output. Audio output on 1-window video monitor. Audio output on 1-window video playback.
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.
•	USB port	USB port. Connect to mouse, USB storage device and etc.
Ŧ	GND	Ground end

2.3 Bidirectional talk

2.3.1 Device-end to PC-end

Device Connection

Please connect the speaker or the pickup to the first audio input port in the device rear panel. Then connect the earphone or the sound box to the audio output port in the PC.

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

Please refer to the following interface to enable bidirectional talk. See Figure 2-24.

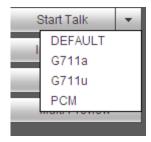
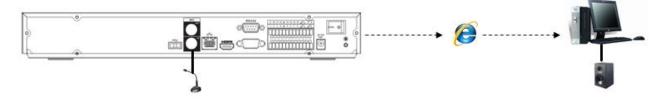


Figure 2-24

Listening Operation

At the device end, speak via the speaker or the pickup, and then you can get the audio from the earphone or sound box at the pc-end. See Figure 2-25.





2.3.2 PC-end to the device-end

Device Connection

Connect the speaker or the pickup to the audio output port in the PC and then connect the earphone or the sound box to the first audio input port in the device rear panel.

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

Please refer to the above interface (Figure 2-24) to enable bidirectional talk.

Listening Operation

At the PC-end, speak via the speaker or the pickup, and then you can get the audio from the earphone or sound box at the device-end. See Figure 2-26.

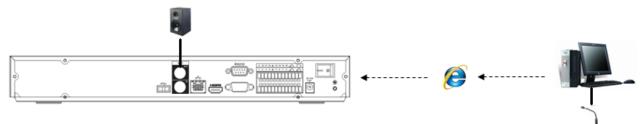


Figure 2-26

Please refer to the following sheet for mouse operation instruction.

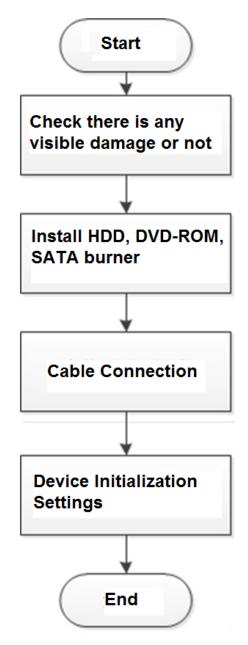
	ollowing sheet for mouse operation instruction.		
Left click	When you have selected one menu item, left click mouse to view menu content.		
mouse	Modify checkbox or motion detection status.		
	Click combo box to pop up dropdown list		
	In input box, you can select input methods. Left click the corresponding button		
	on the panel you can input numeral/English character (small/capitalized). Here		
	\leftarrow stands for backspace button stands for space button.		
	In English input mode: _stands for input a backspace icon and \leftarrow stands for		
	deleting the previous character.		
	!?@#\$%=+*← 123 qwertyuiop/ 456 asdfghjkl:Enter 789 z×cvbnm,.Shift □0&		
	! ? @ # \$ % = + * ← 1 2 3 Q W E R T Y U I O P / 4 5 6 A S D F G H J K L : Enter 7 8 9 Z X C V B N M , . Shift □ 0 &		
	In numeral input mode: _ stands for clear and \leftarrow stands for deleting the previous numeral.		
Double left	Implement special control operation such as double click one item in the file list		
click mouse	to playback the video.		
	In multiple-window mode, double left click one channel to view in full-window. Double left click current video again to go back to previous multiple-window mode.		
Right click	In real-time monitor mode, pops up shortcut menu.		
mouse	Exit current menu without saving the modification.		
Press middle	In numeral input box: Increase or decrease numeral value.		
button	Switch the items in the check box.		
	Page up or page down		
Move mouse	Select current control or move control		
Drag mouse	Select motion detection zone		
	Select privacy mask zone.		

3 Device Installation

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

3.1 Device Installation Diagrams

Please refer to the following diagrams to install the NVR.



3.2 Check Unpacked NVR

When you receive the NVR from the forwarding agent, please check whether there is any visible damage. The protective materials used for the package of the NVR can protect most accidental clashes during transportation. Then you can open the box to check the accessories.

Please check the items in accordance with the list. Finally you can remove the protective film of the NVR.

3.3 About Front Panel and Rear Panel

The model number in the stick on the bottom of NVR is very important; please check according to your purchase order.

The label in the rear panel is very important too. Usually we need you to represent the serial number when we provide the service after sales.

3.4 HDD Installation

For the first time installation, make sure whether the HDD has been installed or not. We recommend to use HDD of enterprise level or surveillance level. It is not recommended to use PC HDD.

- Shut off the power before you replace the HDD.
- Use the dedicated SATA HDD for monitoring recommended by the HDD manufacturer.
- You can refer to the Appendix for HDD space information and recommended HDD brand.

3.4.1 NVR1A-4P, NVR1A-8P, NVR1B04 (/L), NVR1B08 (/L), NVR1B04-4P (/L) Series

Step1 Turn over the device and remove the four fixing screws on the baseboard of the device.

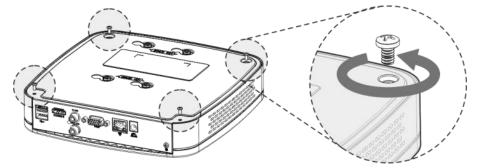


Figure 3-1

Step2 Remove the case cover along the direction shown in the following arrow.

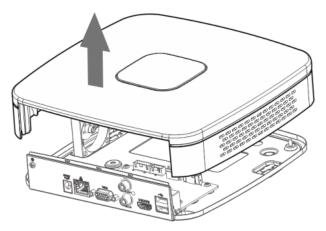


Figure 3-2

Step3 Match the four holes on the baseboard to place the HDD.

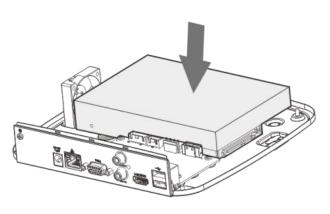


Figure 3-3

Step4 Turn the device upside down, match the screws with the holes on the HDD and then fasten them. The HDD is fixed to the baseboard.

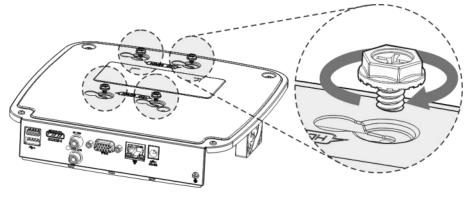


Figure 3-4

Step5 Connect the HDD data cable and power cable to the device.

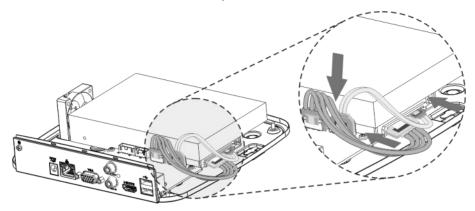


Figure 3-5

Step6 Put back the cover and fasten the four screws on the baseboard to complete the installation.



Figure 3-6

- 3.4.2 NVR1AHS, NVR1AHS-4P, NVR1AHS-8P, NVR1B04HS (/L), NVR1B08HS (/L), NVR1B04HS-4P (/L), NVR1B08HS-8P, NVR2A16, NVR2B16, NVR1BHC/E, NVR1BHC-4P/E, NVR1BHS-8P/E Series
- Step1 Remove the fixing screws of the case cover (including the two screws on the rear panel and two screws on the left and right panels).

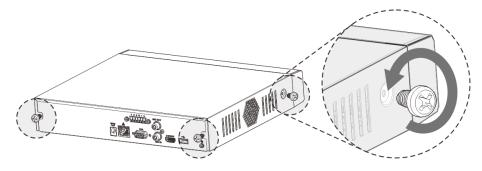


Figure 3-7

Step2 Remove the case cover along the direction shown in the following arrow .

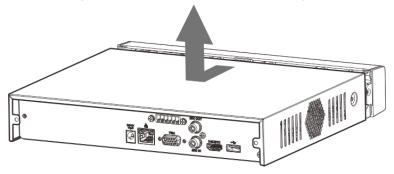


Figure 3-8

Step3 Match the four holes on the baseboard to place the HDD.

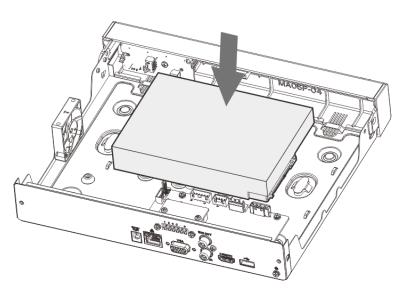


Figure 3-9

Step4 Turn the device upside down, match the screws with the holes on the HDD and then fasten them. The HDD is fixed to the baseboard

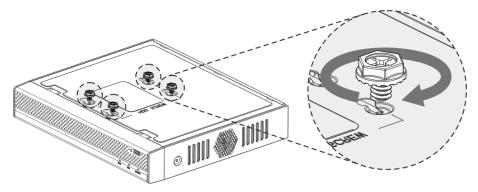


Figure 3-10

Step5 Connect the HDD data cable and power cable to the device.

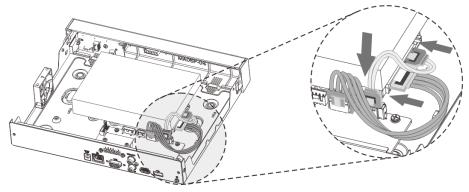


Figure 3-11

Step6 Put back the cover and fasten the screws on the rear panel and side panels to complete the installation.

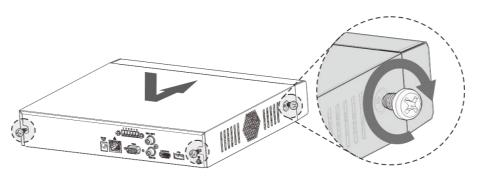


Figure 3-12

3.5 Connection Sample

3.5.1 NVR1A-4P, NVR1A-8P, NVR1B04 (/L), NVR1B08 (/L), NVR1B04-4P (/L) Series

Please refer to Figure 3-13 for connection sample.

The following figure for reference only.

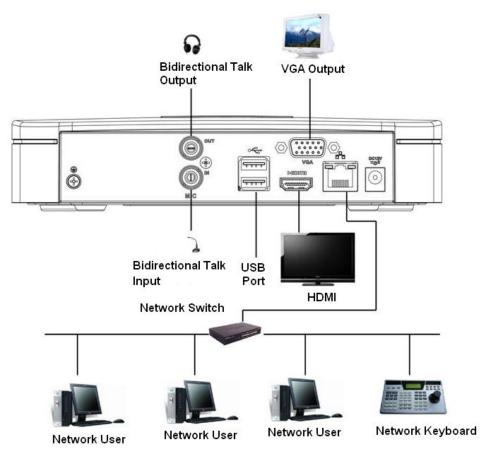


Figure 3-13

3.5.2 NVR1AHS, NVR1AHS-4P, NVR1AHS-8P, NVR1B04HS (/L), NVR1B08HS (/L), NVR1B04HS-4P (/L), NVR1B08HS-8P, NVR1BHC/E, NVR1BHC-4P/E, NVR1BHS-8P/E Series

Please refer to Figure 3-14 for connection sample.

The following figure for reference only.

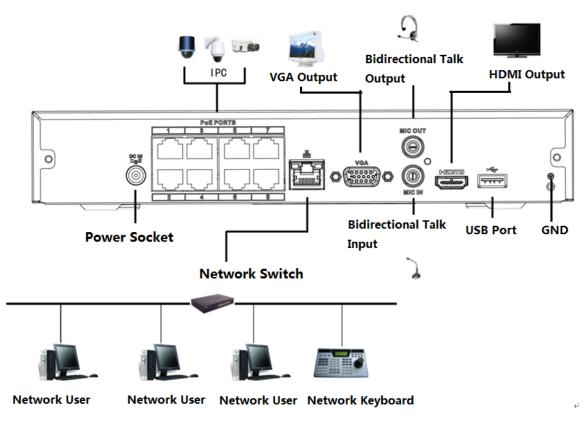


Figure 3-14

3.5.3 NVR2A16, NVR2B16 Series

Please refer to Figure 3-15 for connection sample. The following figure for reference only.

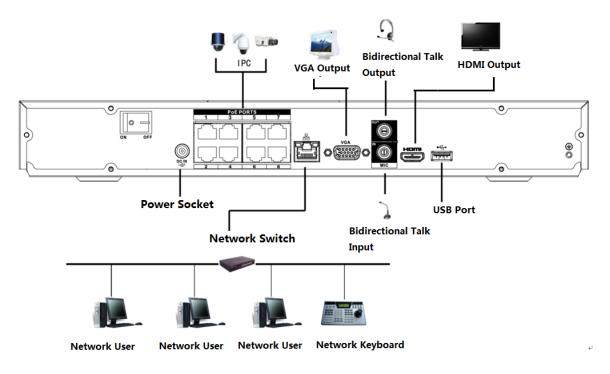


Figure 3-15

4 Local Basic Operation

D Note

Slight difference may be found on the user interface. The following figures for reference only.

4.1 Getting Started

4.1.1 Boot up and Shut down

4.1.1.1 Boot up

Before the boot up, please make sure:

- For device security, please connect the NVR to the power adapter first and then connect the device to the power socket.
- The rated input voltage matches the device power on-off button. Please make sure the power wire connection is OK. Then click the power on-off button.
- Always use the stable current, if necessary UPS is a best alternative measure.

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

- Step 1 Connect the device to the monitor and then connect a mouse.
- Step 2 Connect power cable.
- Step 3 Click the power button at the front or rear panel and then boot up the device. After device booted up, the system is in multiple-channel display mode by default.

4.1.1.2 Shutdown

🛄 Note

- When you see corresponding dialogue box "Saving data..." Do not click power on-off button directly.
- Do not unplug the power cable or click power on-off button to shutdown device directly when device is running (especially when it is recording.)

There are three ways for you to log out.

a) Main menu (**RECOMMENDED**)

From Main Menu->Shutdown, select shutdown from dropdown list.

Click OK button, you can see device shuts down.

b) From power on-off button on the rear panel.

4.1.2 Device Initialization

If it is your first time to use the device, please set a login password of **admin** (system default user). You can select to use unlock pattern to login or not at your own choosing.

D Note

For your device safety, please keep your login password of **admin** well after the initialization steps, and change the password regularly.

Please follow the steps listed below.

Step 1 Boot up NVR. Device displays device initialization interface. See Figure 4-1.

	Devic	e Initialization		
1 Enter Password	2	Unlock Pattern	3	Password Protection
	Username	admin		
	Password			
	lt is 8 to 32-digit co ontains at least two	ontaining letter(s), number(s) o types.	,symbol	(s). It c
	Confirm Password			
	Prompt Question			
				Next

Figure 4-1

Step 4 Set login password of admin.

- User name: The default user name is **admin**.
- Password/confirm password: The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "!", "!", ";", "&"). The password shall contain at least two categories. Usually we recommend the strong password.
- Prompt question: If you set the prompt question here. On the login interface, move your mouse

on 🛅, device can display the corresponding prompt question for you to remind the password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

Step 5 Click Next, device goes to the following interface. See Figure 4-2.

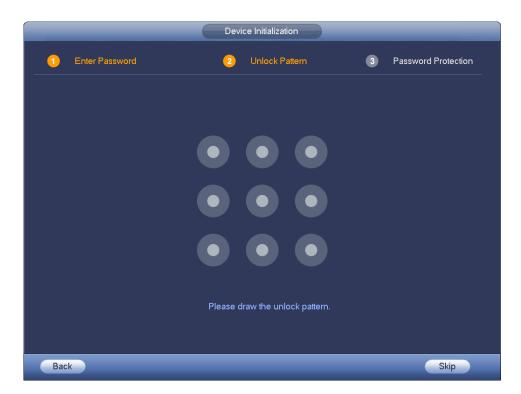


Figure 4-2

Step 6 Set unlock pattern.

After set unlock pattern, device goes to password protection interrface. See Figure 4-3.

D Note

- Device adopts unlock pattern to login by default if you have set pattern here. If there is no unlock pattern, please input the password to login.
- Click Skip if there is no need to set unlock pattern.

		Device Initialization		
1 En	ter Password	2 Unlock Pattern	3 Password Protection	
🗹 Email ((To reset pas	ssword)	
🖌 Security	Question			
	What is your favorite childre	n's book?		
Answer (
Question 2(Answer (What was the first name of y	rour first boss?		
Question 3(What is the name of your fav	vorite fruit?		
Answer (
			ОК	

Figure 4-3

Step 7 Set security questions.

D Note

- After setting the security questions here, you can use the email you input here or answer the security questions to reset **admin** password. Refer to chapter 4.1.3 Reset password for detailed information.
- Cancel the email or security questions box and then click Next button to skip this step.
- Email: Input an email address for reset password purpose. In case you forgot password in the future, input the security code you got on the assigned email to reset the password of admin. If you have not input email here or you need to update the email information, please go to the main menu->Setting->System->Account to set. Refer to chapter 4.10.1.1.2 Modify User for detailed information.
- Security question: Set security questions and corresponding answers. Properly answer the questions to reset admin password. In case you have not input security question here or you need to update the security question information, please go to the main menu->Setting->System->Account->Security question to set. Refer to chapter 4.10.1.3 Security Question for detailed information.

III Note

If you want to reset password by answering security questions, please go to the local menu interface.

Step 8 Click OK to complete the device initialization setup.

Device goes to startup wizard interface. Refer to chapter 4.1.4 Quick Settings for detailed information.

4.1.3 Reset Password

If you forgot the admin password, you can reset the password by the following ways:

- When the password reset function is enabled, you can scan the QR code on the local interface to reset the password.
- When the password reset function is disabled, you can reset password via the security questions configured before. If the secury questions are not configured, system displays that Password reset is closed! You need to contact the customer service for help.

Step 1 Go to the device login interface. See Figure 4-4 or Figure 4-5. .

- If you have set unlock pattern, device displays unlock pattern login interface. See Figure 4-4. Click "Forgot unlock pattern", device goes to Figure 4-5.
- If you have not set unlock pattern, device displays password interface. See Figure 4-5.

Note

Click Switch user button, NVR goes to general user login interface. The default user name is **admin**. Click the user name and then select a user from the dropdown list; you can login via other account.

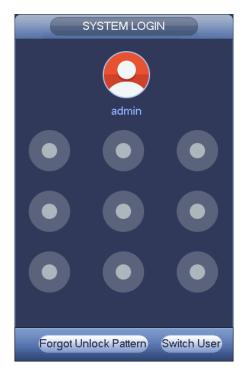


Figure 4-4

SYSTEM LOGIN
User Name admin Password Forgot password
OK Cancel

Figure 4-5



- If you have not input email address information when you are initializing the device, the interface ulletis shown as in Figure 4-6. Please input an email address, click Next button, and then device goes to Figure 4-7.
- If you have input email when you are initializing the device, device goes to Figure 4-7. •



Figure 4-6



Figure 4-7

Step 3 Click OK button and device goes to Figure 4-8

After clicking OK, we will collect your personal information such as cell phone number, MAC address and device serial number. The collected information is used for verifying device legality and sending security code. Please read the notice carefully and confirm if you agree with the

collection or not.

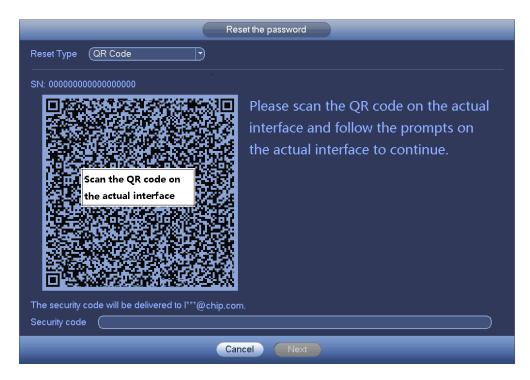


Figure 4-8

Step 4 Reset login password.

There are two ways to reset the password: Scan QR code and reset by email/security questions (local menu only)

Email

In Figure 4-7, follow the prompts on the interface to scan the QR code, and then input the security code you get via the assigned email.



- For the same QR code, max scan twice to get two security codes. Refresh the QR code if you want to get security code again.
- \diamond The security code on your email is only valid for 24 hours.
- Security questions

In Figure 4-6., select security question from the drop down list. Device displays security question interface. See Figure 4-9. Please input the correct answers here.

NOTE

You shall configure the security questions before resetting password by answering the questions. If you have not configured the questions, this method will not be available in the drop-down list.

	Reset
Reset Type	Security Question
Question 1 Answer	What is your favorite cl <mark>u</mark> ildren's book?
Question 2 Answer	What was the first name of your first boss?
Question 3 Answer	When did you last enroll?
	Next Cancel

Figure 4-9

Step 5 Click Next button.

Device displays reset password interface. See Figure 4-10.

Reset password
Reset password of (admin)
New Password
Use a password that has 8 to 32 characters, it can be a combination of letter(s), number(s) and sym bol(s) with at least two kinds of them.(please do n ot use special symbols like ' " ; : &)
Confirm Password
Save Cancel

Figure 4-10

Step 6 Input new password and then confirm.

The password can be set from 8 characters through 32 characters and contain at least two types from number, letter and special character (excluding"", """, ";", ":" and "&"). It is recommended to set a password of high security according to the prompt.

Step 7 Click OK button to complete the setup.

4.1.4 Quick Settings

After you successfully initialize the device, it goes to startup wizard. Here you can quickly configure your

device. It includes general setup, basic network setup, camera registration, P2P, and schedule interface.

III Note

- Once the power is off during the quick settings process, you need to go through startup wizard again when the device boot up the next time.
- After completing all items on the startup wizard, the startup wizard automatically hides when the device boot up the next time.

Please follow the steps listed below.

Boot up the device and complete the device initialization. Device goes to startup wizard. See Figure 4-11.

• Select auto check, device automatically checks there is new applications or not every day.

Startup Wizard
Startup Wizard The startup wizard includes General, Network,Remote Device, Record Control Settings.
 Auto-check for updates Automatically notify me when updates are available. The system checks for updates daily. To inform you of the latest firmware upgrades for your device, we need to collect device info such as IP address, device name, firmware version, device SN, etc. All collected info is used only for the purposes of verifying device validity and pushing upgrade notifications.
Next



Note

After auto-check is enabled, in order to inform you of the latest firmware upgrades, we will collect your personal information such as IP address, device name, firmware version and device SN. The collected information is used for verifying device legality and pushing upgrade notice.

4.1.4.1 General

It is to set NVR basic information such as system date, holiday and etc.

4.1.4.1.1 General

It is to set device basic information such as device name, serial number and etc.

Please follow the steps listed below.

Step 1 Click Next button,

Enter General interface.

Step 2 Click General button.

The interface is shown as below. See Figure 4-12.



From Main menu->Setting->System->General->General, you can go to the general interface.

- Step 3 Set parameters.
 - Device Name: 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 for your management.
 - Language: 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.)
 - Instant play: It is to set playback time you can view in the preview interface. The value ranges from 5 to 60 minutes.
 - Auto logout: Here is for you to set auto logout interval once login user remains inactive for a specified time. Value ranges from 0 to 60 minutes.
 - Monitor channels when logout: Here you can set channels you want to view when your account has logged out. Click the button and then cancel the channel name box, you need

to login to view the corresponding video. The channel window displays

- IPC Time Sync: You can input an interval here to synchronize the NVR time and IPC time.
- Mouse sensitivity: You can set double click speed via dragging the slide bard. You can Click Default button to restore default setup.

GENERAL	
General Date&Time Holiday	
Device Name NVR Device No. 8 Language ENGLISH • Video Standard PAL •	
Instant Playback 5 Auto Logout 10 IPC Time Sync 24 Hours	
Mouse Sensitivity Slow ———— Fast	
Default	Apply
Back	Next

Figure 4-12

Step 4 Click Apply button to save settings.

4.1.4.1.2 Date and Time

Here you can set device time. You can enable NTP (Network Time Protocol) function so that the device

can sync time with the NTP server.

Step 1 Click Date and time button. See Figure 4-13.

Note

From Main menu->Setting->System->General->Date and time, you can go to the date and time interface.

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



- System time is very important; do not modify time casually unless there is a must!
- ♦ Before your time modification, please stop record operation first!

GENERAL
General Date&Time Holiday
Date Format YYYY M Time Format 24-HOUR Time Date Separator Time System Time 2017 - 09 - 20 19 : 55 : 01 GMT+08:00 Save
□ DST DST Type ○ Week ● Date Start Time ③ 2000 - 01 - 01 00 : 00 End Time ③ 2000 - 01 - 01 00 : 00
NTP Server (time.windows.com) Port (123) Interval 60
Default
Back

Figure 4-13

Step 5 Click Apply button to save settings.

4.1.4.1.3 Holiday

Here you can add, edit, delete holiday. After you successfully set holiday information, you can view holiday item on the record and snapshot period.

Step 1 Click Holiday button. See Figure 4-14.

III Note

From Main menu->Setting->System->General->Holiday, you can go to the holiday interface.

		GENERAL	
General	Date&Time	Holiday	
0	Status	Holiday Name	
•			>
			(Add Holidays)
Defau	ult		Apply
Back			Next

Figure 4-14

Step 2 Click Add new holiday button, device displays the following interface. See Figure 4-15.

	Add Holidays		
Holiday Name (11			
Repeat Mode 🔍 Once 🔿 Always			
Holiday Range 🔍 Date 🔿 Week			
Start Time 2017 - 09 -	20		
End Time 2017 - 09 -	20		
Add More			
	(Save Add	Cancel

Figure 4-15

Step 3 Set holiday name, repeat mode and holiday mode.



Click Add more to add new holiday information.

Step 4 Click Add button, you can add current holiday to the list.

III Note

- Click the dropdown list of the state; you can enable/disable holiday date.
- \diamond Click *left* to change the holiday information. Click *left* to delete current date.

Step 5 Click Apply button to save settings.

4.1.4.2 Basic Network Settings

Set device IP address, DNS (Domain Name System) information.

Preparation

Make sure the device has properly connected to the network.

Step 1 Click Next button, device goes to TCP/IP interface. See Figure 4-16.

D Note

- ♦ From Main menu->Setting->Network->TCP/IP, you can go to the TCP/IP interface.
- Different series products have different Ethernet adapter amount and type. Please refer to the actual product.

		TCP/IP					
Ethernet Card Ethernet Port1	IP Address 192.168.1.108	Net Mode Single NIC		ember 1	Edit ⁄	Unbond	
							_
IP Address: 192.16	8.1.108	Default Gate	way: 19	92.168.1.	.1	MTU: 1500	– –
IP Address: 192.16 MAC Address: 10::		Default Gate Subnet Mas		92.168.1. 55.255.29		MTU: 1500 Mode: STA	
MAC Address: 10::							
MAC Address: 10:: IP Version (IPv4	22:aa:a1:31:32	Subnet Mas					 .тк
MAC Address: 10:: IP Version (IPv4 Preferred DNS (22:aa:a1:31:32	Subnet Mas					 .TI(
MAC Address: 10:: IP Version (IPv4 Preferred DNS (22:aa:a1:31:32 8 . 8 . 8 8 . 8 . 4 .	Subnet Mas					 .TI(
MAC Address: 10:: IP Version (IPv4 Preferred DNS (Alternate DNS (22:aa:a1:31:32 8 . 8 . 8 8 . 8 . 4 .	Subnet Mas					
MAC Address: 10:: IP Version (IPv4 Preferred DNS (Alternate DNS (22:aa:a1:31:32 8 . 8 . 8 8 . 8 . 4 .	Subnet Mas					

Figure 4-16

Step 2 Click *C*, device display edit interface. See Figure 4-17.

Ethernet Card Ethernet Port1 Net Mode Single NIC IP Version IPv4 MAC Address 10:22:aa:a1:31:32 IP Address 192 . 168 . 1 . 108 Subnet Mask 255 . 255 . 255 . 0 Default Gateway 192 . 168 . 1 . 1 MTU 1500			Edit
MAC Address 10:22:aa:a1:31:32 IP Address 192 . 168 . 1 . 108 Subnet Mask 255 . 255 . 0 Default Gateway 192 . 168 . 1 . 1			
MTU (1500	MAC Address IP Address Subnet Mask	10:22:aa:a1:31:32 192 168 1 108 255 255 255 0	🗋 рнср
	MTU	(1500	

Figure 4-17

- Step 3 Set parameters.
 - IP Version: There are two options: IPv4 and IPv6. Right now, system supports these two IP address format and you can access via them.
 - MAC address: The host in the LAN can get a unique MAC address. It is for you to access in the LAN. It is read-only.
 - IP address: Here you can use up/down button (▲▼) or input the corresponding number to input IP address. Then you can set the corresponding subnet mask the default gateway.
 - Default gateway: Here you can input the default gateway. Please note system needs to check the validity of all IPv6 addresses. The IP address and the default gateway shall be in the same IP section. That is to say, the specified length of the subnet prefix shall have the same string.
 - MTU: It is to set MTU value of the network adapter. The value ranges from 1280-7200 bytes.
 The default setup is 1500 bytes.

Step 4 Click OK to complete the settings.

4.1.4.3 P2P

Click Next button, you can set P2P function. Scan the QR code, download the App to the cell phone, you can use the smart phone to add the device.

- Scan the QR code on the actual interface to download the cell phone app. Register an account and then use.
- Go to the www.easy4ip.com to register an account and use the SN to add a device. Refer to the P2P operation manual for detailed information.



Connect the NVR device to the Internet, otherwise P2P can not run properly.

Step 1 Enter from main menu -> Setting -> Network -> P2P.

The P2P interface is displayed. See Figure 4-18.



Figure 4-18

- 🛄 NOTE
- P2P is enbaled by default.
- When P2P is enabled and the device is connected to the Internet, it displays Online in the Status box.
 We need to collect information like IP address, MAC address, device name and device SN. All collected information is used only for the purpose of remote access.
- Step 2 Click Next to conplete the setting. If system displays Online in the Status box, P2P registration is successful.

Mobile APP Operation

The following contents are introduced in the example of mobile App.

- Step 1 Scan the QR code to download and install the mobile App.
- Step 2 Select Camera and enter the main interface.
- Step 3 Register device in the mobile App:

1) Click and select Device Manager. See Figure 4-19.

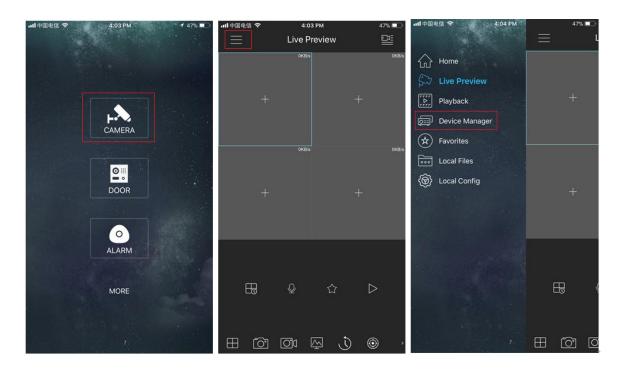


Figure 4-19

2) Click and enter the Add Device interface.

NOTE Mobile App supports device initialization.

- 3) Select Wired Device -> P2P to enter the P2P interface.
- 4) Click the QR code icon behind the SN to enter the QR code scan interface.
- Scan the device label or scan the SN QR code got by entering from main menu -> Setup -> Network -> P2P. When the scan is successful, the device SN will be displayed in the SN item.
- 6) Enter name and password.

Step 4 After device registraion on mobile App, click Start Preview and you can see the monitor screen.

4.1.4.4 Registration

After add remote device, the device can receive, storage, and manage the video streams of the remote device. You can view, browse, playback, manage several remote devices at the same time.

Step 1 On the P2P interface, click Next button.

Enter remote device interface. See Figure 4-20.

D Note

There are two ways to go to Registration interface.

- From main menu->Setting->Camera->Registration, you can go to the registration interface.
- On the preview interface, right click mouse and then select Camera Registration.

			REGIST	RATION		_		
Device	Search) (IP A	ddress	\mathbb{P}) (Sea	irch	🔲 Uninitialized	l Initialize	
36	Modify	Status	IP Address	Port		Device Nam	e MA	
1			10.15.23.43	3777	7	2L0204APA0	G00053 e0:	
2			10.15.108.203	3777	7	3D02E5BPA	N00018_e0;	
3	🗆 🖷		10.15.6.108	3777	7	EVS	4c:	t
4			10.15.5.111	3777	7	NVR	4c:	ti 📗
5			10.15.5.113	3777	7	HCVR	4c:	: 🖵
		-						┟╼┨│
Add) (Modi	fv IP				Filter (Non	۵	$\overline{\mathbf{P}}$
		<u>'y ''</u>)					<u> </u>	
Added E)evice ——							
СН	Camera Na	ime	Modify	[,] Delete	Status	IP Address	Port	٦
D1	Channel 1		/	×	0	10.15.6.108	37777	
🗌 D2	Channel 2		/	×	0	10.15.23.43	37777	2
🗌 D3	Channel 3		/	×	0	10.15.6.108	37777	E
🗌 D4	Channel 4		/	×	0	10.15.5.111	37777	Ν
Remaini	ng/Total Ban	dwidth: 7	7.98Mbps/80Mi	ops				
Delet	e Manu	ial Add						
	Back						Next	



Step 2 Set parameters

- Channel: It is the device channel number. If you have not added the network camera, the channel number is shown as -.
- Status: Red circle (
) means current channel has no video, green circle (
) means current channel has video.
- IP address: It is to display network camera IP address.
- Type: There are two connection types. You can use the network to connect to the camera or

use the WIFI. The 🗐 means current network camera connection mode is general; the

means current network camera mode is hotspot.

- Add/Delete: Click I to delete the device, click I to add the device to the NVR.
- Step 3 Add network camera.
 - Device search: Click the button; you can search all network cameras in the same network segment. See Figure 4-21. Double click a camera or check the camera box and then click Add button; you can add a device to the list.

Note

The device in the added device list is not shown in the search result column.

			REGIST	RATION				
Device S	Search) (IP A	\ddress	\mathbb{P}) (Sea	rch	🔲 Uninitialized	d 🔵 Initializ	e
36	Modify	Status	IP Address	Port		Device Nam	ie M	1A -
1	_ ē		10.15.23.43	37777	7	2L0204APA	G00053 e	0: 🚍
2	🗆 🖷		10.15.108.203	37777	7	3D02E5BPA	.N00018 e	0:
3	🗆 🖷		10.15.6.108	37777	7	EVS	4	c:
4	- ē		10.15.5.111	37777	7	NVR	4	c:
5	ē		10.15.5.113	37777	7	HCVR	4	C: 🖵 .
Add) (Modi	6/IP				Filter (Nor	0	$\overline{}$
Added D	evice —							
СН	Camera Na	ime	Modify	Delete	Status	IP Address	Port	þ
D1	Channel 1		/	×	0	10.15.6.108	37777	E
🗌 D2	Channel 2		/	×		10.15.23.43	37777	2
🗌 D3	Channel 3		/	×	$\overline{\mathbf{O}}$	10.15.6.108	37777	Ę
🗌 D4	Channel 4		/	×	0	10.15.5.111	37777	N
•								
Remainii	ng/Total Ban	dwidth: 7	7.99Mbps/80Mt	ops				
Delet	e) (Manu	ual Add)						
	Back					-	Next	
	Buck							



 Manual Add: Click Manual Add button, you can set the corresponding network camera information and then select the channel you want to add. See Figure 4-22.

♦ Manufacturer: Please select from the dropdown list.

Note

Different series products may support different manufactures, please refer to the actual product.

- ♦ IP address: Input remote device IP address.
- ♦ RTSP port: Input RTSP port of the remote device. The default setup is 554.

Note

Skip this item if the manufacture is Private or General.

♦ HTTP port: Input HTTP port of the remote device. The default setup is 80.

Note

Skip this item if the manufacture is ONVIF or General.

- ♦ TCP port: Input TCP port of the remote device. The default setup is 37777.
- ♦ User name/password: The user name and password to login the remote device.
- Channel No.: Input channel amount or click the Connect button to get the channel amount of the remote device.

Note

We recommend click Connect button to get remote device channel amount, the manual add operation may result in failure if the input channel amount is not right.

Remote channel No.: After getting the remote device channel amount, click Setup to select a channel.

Note

Click to select one or more remote channel numbers here.

- Channel: The local channel number you want to add. One channel name has corresponding one channel number.
- ♦ Decode buffer: There are three items: realtime,local,fluent.
- ♦ Service type: There are four items: auto/TCP/UDP/MULTICAST(ONVIF device only)

Note

The default connection mode is TCP if the connection protocol is private.

There are four types including Auto, TCP, UDP and MULTICAST if the connection protocol is ONVIF.

There are two types including TCP and UDP if the connection protocol is customized.

Encrypt: When the connection protocol is ONVIF, enable the encryption function and system transmits data in the encrypted mode.

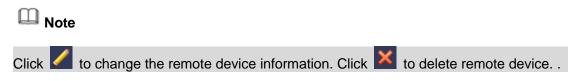
Note

HTTPS shall be enabled in IPC to support encryption.

	Manual Add	
Channel	D1 •	
Manufacturer	Onvif	
CAM NAME	Channel 2 Save	
IP Address	(192.168.0.0	
RTSP Port	Customized 🔻 554	
HTTP Port	80	
Username	admin	
Password		
Connect		
Channel No.	1 Setting	
Remote Channel No.		
Decode Buffer	Default	
Encrypt		
	OK Cancel	

Figure 4-22

Step 4 Click OK to add the camera to the device.



4.1.4.5 Schedule

After set record schedule and snapshot schedule, the device can automatically record video and snapshot image at the specified time.

4.1.4.5.1 Schedule Record

After set schedule record, device can record video file according to the period you set here. For example, the alarm record period is from $6:00 \sim 18:00$ Monday, device can record alarm video files during the $6:00 \sim 18:00$.

All channels are record continuously by default. You can set customized record period and record type. Step 1 Click Next button.

Enter schedule interface. See Figure 4-23.



From main menu->Setting->Storage->Schedule->Record, you can go to the record interface.



Figure 4-23

Step 2 Set parameters.

 Channel: Please select the channel number first. You can select "all" if you want to set for the whole channels.

Sync connection icon. Select icon of several dates, all checked items can be

edited or together. Now the icon is shown as

- Click it to delete a record type from one period.
- Record Type: Please check the box to select corresponding record type. There are four types: Regular/MD (motion detect)/Alarm/MD&Alarm.
- Week day: There are eight options: ranges from Saturday to Sunday and all.
- Holiday: It is to set holiday setup. Please note you need to go to the General interface (Main Menu->Setting->System->General) to add holiday first. Otherwise you cannot see this item.
- Pre-record: 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: System supports redundancy backup function. It allows you backup recorded file in two disks. You can highlight Redundancy button to activate this function. Please note, before enable 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: It is to save video to the SD card of the network camera in case the network connection fails. The value ranges from 0s \sim 43200s. After the network connection resumed, the system can get the video from the SD card and there is no risk of record loss.
- Period setup: Click button after one date or a holiday, you can see an interface shown as in Figure 4-24. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.

Period 1 (00:00 - 24:00	Regular	Motion	Alarm	MD&Alarm
Period 2 00 : 00 - 24 : 00	Regular	Motion	Alarm	MD&Alarm
Period 3 00 : 00 - 24 : 00	Regular	Motion	Alarm	MD&Alarm
Period 4 00 : 00 - 24 : 00	Regular	Motion	Alarm	MD&Alarm
Period 5 00 : 00 - 24 : 00	Regular	Motion	Alarm	MD&Alarm
Period 6 00 : 00 - 24 : 00	Regular	Motion	Alarm	MD&Alarm
□All	_₩ed _Thu	∏Fri ∏Sat		

Figure 4-24

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

Step 1 Select a channel you want to set. See Figure 4-25.



Figure 4-25

Step 2 Set record type. See Figure 4-26.





Note

- When the record type is MD (motion detect), alarm, MD&Alarm, please enable the channel record function when corresponding alarm occurs. For example, when the alarm type is MD, from main menu->Setting->Event->Video Detect->Motion Detect, please select the record channel and enable record function. See Figure 4-27.
- When the record type is MD (motion detect), alarm, MD&Alarm, refer to chapter 4.7.1 Video detect, chapter 4.7.2 Alarm Settings.

	SETTING
SAMERA	TRANSPORT TRANSPORT
VIDEO DETEC ALARM ABNORMALITY	Motion Detect Video Loss Tampering Channel D1 Enable Region Set
	Period Set Anti-dither (5) s Show Message □Send Email PRecord Channel D1 Post Record 10 s □PTZ Activation Set Post Record 10 s □Tour D1 □Snapshot D1 □Log
	Default Copy Refresh OK Cancel Apply

Figure 4-27

Step 3 Please draw manually to set record period. There are six periods in one day. See Figure 4-28.

D Note

If you have added a holiday, you can set the record period for the holiday.

		SETTING		
😋 CAMERA		EVENT	STORAGE	SYSTEM
BASIC SCHEDULE HDD MANAGE RECORD HDD DETECT	Channel D1	Snapshot	Alarm 12 14 16 12 14 16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ANR 1800 s MD&Alarm 18 20 22 24

Figure 4-28

Step 4 Click Apply button to save schedule record settings.

III Note

Please enable auto record function so that the record plan can become activated. Refer to chapter 4.1.4.5.3 Record control for detailed information.

4.1.4.5.2 Schedule Snapshot

It is to set schedule snapshot period.

After set schedule snapshot, device can snapshot image according to the period you set here. For example, the alarm snapshot period is from $6:00 \sim 18:00$ Monday, device can snapshot during the $6:00 \sim 18:00$ when an alarm occurs.

Step 1 Click Snapshot button, device goes to following interface. See Figure 4-29.

III Note

From main menu->Setting->Storage->Schedule->Snapshot, you can go to the snapshot interface.

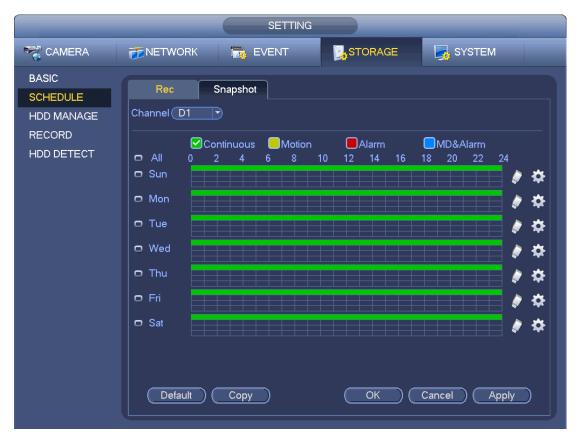


Figure 4-29

Step 2 Select a channel to set schedule snapshot.

- Step 3 Set snapshot type as schedule. Refer to chapter 4.2.5.3 Snapshot for detailed information.
- Step 4 Check the box to set alarm type. See Figure 4-30.

Continuous	Motion	Alarm	MD&Alarm
Figure 4-30			

Note

- When the record type is MD (motion detect), alarm, MD&Alarm, please enable the channel snapshot function when corresponding alarm occurs. For example, when the alarm type is MD, from main menu->Setting->Event->Video Detect->Motion Detect, please select the snapshot channel and enable snapshot function. See Figure 4-31.
- When the snapshot type is MD (motion detect), alarm, MD&Alarm, refer to chapter 4.7.1 Video detect, chapter 4.7.2 Alarm Settings.

	SETTING
STAMERA	TORAGE
VIDEO DETEC ALARM ABNORMALITY	Motion Detect Video Loss Tampering Channel D1 Enable Image: Channel Region Set Set Image: Channel Period Set Anti-dither (5) s s
	Show Message Send Email Record Channel D1 PTZ Activation Set Post Record 10 Tour D1 Snapshot D1 Log
	Voice Prompts File Name None Buzzer Default Copy Refresh OK Cancel Apply

Figure 4-31

- Step 5 Refer to chapter 4.1.4.5.1 to set snapshot period.
- Step 6 Click Apply button to save snapshot plan.

D Note

Please enable auto snapshot function so that the snapshot plan can become activated. Refer to chapter 4.1.4.5.3 Record control for detailed information.

Step 7 Click Finish button, system pops up a dialogue box. Click the OK button, the startup wizard is complete. See Figure 4-32.



Figure 4-32

4.1.4.5.3 Record Control

III Note

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

There are two ways for you to go to record menu.

- Right click mouse and then select Manual->Record.
- In the main menu, from Setting->Storage->Record.

After set schedule record and schedule snapshot function, please enable auto record and auto snapshot function so that the device can automatically record and snapshot. System supports main stream and sub stream. There are three statuses: schedule/manual/stop. See Figure 4-33. Please highlight icon"o" to select corresponding channel.

- Manual: The highest priority. After manual setup, all selected channels will begin general recording.
- Auto: Channel records as you have set in recording setup (Main Menu->Setting->Storage->>Schedule)
- Off: Current channel stops recording.
- All: Check All button after the corresponding status to enable/disable all-channel schedule/manual record or enable/disable all channels to stop record.
- Snapshot: Select one or more channel(s) first and then enable/disable schedule snapshot function.

			SETTING		
ST CAMERA		7	EVENT	STORAGE	SYSTEM
BASIC SCHEDULE HDD MANAGE RECORD HDD DETECT	Manual (Off (Sub Stream1_ Auto (Manual (Off (Sub Stream2_				
	Off (Snapshot Enable (ОК	Cancel Apply

Figure 4-33

4.1.4.5.4 Record Info

After system recorded video files, go to the record info interface to view device name, start time, end time and etc.

From main menu->Info-System->Record, the interface is shown as below. See Figure 4-34.

		INFO		
SYSTEM	🔀 EVENT		LOG	_
HDD				
RECORD		e Name Start Time	End Time	
BPS	All	2000-00-00 00:00:00	2000-00-00 00:00:00	
VERSION				
VERGICITY				

Figure 4-34

4.2 Camera

4.2.1 Connection

After register a remote device to the NVR, you can view the video on the NVR, and manage and storage the video file. Different series products support different remote device amount. Refer to chapter 4.1.4.4 Registration to add a camera.

4.2.1.1 Change IP address

Step 1 From Main menu->Setting->Camera->Registration, check the box before the camera name and

then click Change IP or click the 🗐 before the camera name.

Enter change IP interface. See Figure 4-35.

Note

Check the box before several cameras, change the IP addresses of several cameras at the same time.

	IP Setting	
Checked Device No.: 1		
O DHCP		User Name (admin
STATIC		Password
IP Address 10	. 15 . 5 . 111	Incremental Value 🚺
Subnet Mask 255	. 255 . 0 . 0	
Default Gateway 10	. 15 . 0 . 1	
1 Serial No.	IP Address	
1 2F00834PAMV	M5PP 10.15.5.111	
Save Cancel		

Figure 4-35

Step 2 Select IP mode.

Check DHCP, there is no need to input IP address, subnet mask, and default gateway. Device automatically allocates the IP address to the camera.

Check Static, and then input IP address, subnet mask, default gateway and incremental value.



If it is to change several devices IP addresses at the same time, please input incremental value. Device can add the fourth address of the IP address one by one to automatically allocate the IP addresses.

If there is IP conflict when changing static IP address, device pops up IP conflict dialogue box. If batch change IP address, device automatically skips the conflicted IP and begin the allocation according to the incremental value

- Step 3 Input remote device user name and password.
- Step 4 Click OK button to save settings.

After the changing operation, search again, device displays new IP address.

Note

When change IP addresses of several devices at the same time, make sure the cameras user name and passwords are the same.

4.2.2 Remote Device Initialization

Remote device initialization can change remote device login password and IP address.

D Note

- When connect a camera to the NVR via PoE port, NVR automatically initialize the camera. The camera adopts NVR current password and email information by default.
- When connect a camera to the NVR via PoE port after NVR upgraded to the new version, the NVR may fail to initialize the camera. Please go to the Registration interface to initialize the camera.
- Step 1 From main menu->Setting->Camera->Registration. Enter Registration interface.
- Step 2 Click Device Search and then click Uninitialized. Device displays camera(s) to be initialized.
- Step 3 Select a camera to be initialized and then click Initialize. Device displays password setup interface. See Figure 4-36.

D Note

 If you want to use current device password and email information, the remote device automatically uses NVR admin account information (login password and email). There is no need to set password and email. Please go to step 4.

	Enter Password	
(☑Using current device password and email info.	
	I	4
		Next

Figure 4-36

1. Cancel using current device password and email information, Enter password setting interface. See Figure 4-37.

Enter Password	
Using current device password and email info.	
Username admin	
Password	
It is 8 to 32-digit containing letter(s), number(s),symbol(s). It c ontains at least two types.	
Confirm Password	
Next	À.

Figure 4-37

2. Set camera password.

• The user name is **admin**. The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "!", "!", ";", "&"). The password shall contain at least two categories. Usually we recommend the strong password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

3. Click Next button.

Enter input email interface. See Figure 4-38.



Figure 4-38

4. Set email information.

Email: Input an email address for reset password purpose.



Cancel the box and then click Next or Skip if you do not want to input email information here.

Step 4 Click Next button. Enter Change IP address interface. See Figure 4-39.

IP Setting	
IP Setting Checked Device No.: 1 O DHCP STATIC IP Address 10 15 Subnet Mask 255 255 Default Gateway 1 Serial No. 1 Serial No. 1 2F00834PAMVM5PP 10 15.5.111	User Name (admin Password) Incremental Value (1)
Save Cancel	

Figure 4-39

Step 5 Set camera IP address

Check DHCP, there is no need to input IP address, subnet mask, and default gateway. Device automatically allocates the IP address to the camera.

Check Static, and then input IP address, subnet mask, default gateway and incremental value.



- If it is to change several devices IP addresses at the same time, please input incremental value. Device can add the fourth address of the IP address one by one to automatically allocate the IP addresses.
- If there is IP conflict when changing static IP address, device pops up IP conflict dialogue box. If batch change IP address, device automatically skips the conflicted IP and begin the allocation according to the incremental value

Step 6 Click Next button. Device begins initializing camera. See Figure 4-40.

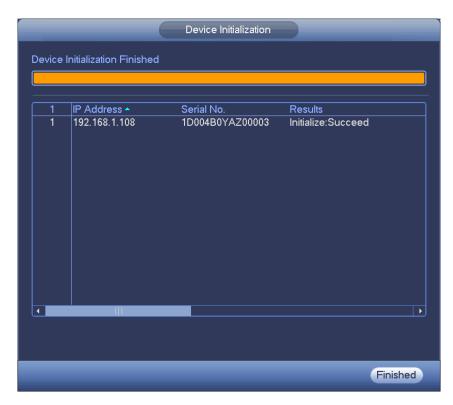


Figure 4-40

Step 7 Click Finish to complete the setup.

4.2.3 Short-Cut Menu to Register Camera

If you have not registered a remote device to a channel, please go to the preview interface to add. Step 1 On the preview interface,

Move your mouse to the center, there is an icon "+". See Figure 4-41.

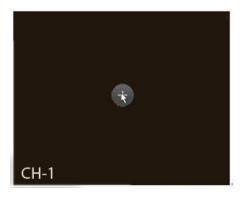


Figure 4-41

Step 2 Click "+", device pops up interface to add network camera. Refer to chapter 4.1.4.4 Registration for detailed information.

4.2.4 Image

It is to set network camera parameters according to different environments. It is to get the best video effect.

From main menu->setting->camera->image, you can see the image interface is shown as below. See Figure 4-42.

- Channel: Select a channel from the dropdown list.
- Saturation: It 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.
- Brightness: It is to adjust monitor window bright. The value ranges from 0 to 100. The default value is 50. The larger the number is, the bright 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: It is to adjust 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 bright is OK but the contrast is not proper. 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.
- Auto Iris: It is for the device of the auto lens. You can check the box before 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. System does not add the auto iris function in the exposure control. This function is on by default.
- Mirror: It is to switch video up and bottom limit. This function is disabled by default.
- Flip: It is to switch video left and right limit. This function is disabled by default.
- BLC: It includes several options: BLC/WDR/HLC/OFF.
- BLC: The device auto exposures according to the environments situation so that the darkest area of the video is cleared
- WDR: For the WDR scene, this function can lower the high bright section and enhance the brightness of the low bright section. So that you can view these two sections clearly at the same time. The value ranges from 1 to 100. When you switch the camera from no-WDR mode to the WDR mode, system may lose several seconds record video.
- HLC: After you enabled HLC function, the device can lower the brightness of the brightest section according to the HLC control level. It can reduce the area of the halo and lower the brightness of the whole video.
- ♦ OFF: It is to disable the BLC function. Please note this function is disabled by default.
- Profile: It 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 mode such as auto, sunny, cloudy, home, office, night, disable and etc to adjust the video to the best quality.
- ♦ Auto: The auto white balance is on. System can auto compensate the color temperature to make sure the vide color is proper.
- \diamond 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 channel. The value reneges from 0 to 100.
- Day/night. It is to set device color and the B/W mode switch. The default setup is auto.
- ♦ Color: Device outputs the color video.
- Auto: Device auto select to output the color or the B/W video according to the device feature (The general bright of the video or there is IR light or not.)
- \diamond B/W: The device outputs the black and white video.

 \diamond Sensor: It is to set when there is peripheral connected IR light.

Please note some non-IR series product support sensor input function.

		SETTIN	IG			
		To EVENT	ST	ORAGE	SYSTEM	
REGISTRATION						
IMAGE	Channel	(D2				
ENCODE	-	1990.000	TO MARK	Config Files	(Confia1	
CAM NAME		The same the same	See. 1	Imagen		
				Brightness		⇒ 50
	and a start	TOTAL OF	Case!	Contrast		⇒ 50
	The second			Saturation		⇒ 50
			and a	Sharpness	-	⇒ 50
			1	Gamma		⇒ 50
	Cold Cold		Lesson .	Mirror	O On 🛛 Off	
		1 40	States of States	Flip	(Normal	
	Exposure			BLC		
				Mode	Close	
	3D Denoise	● On O Off				
	WB			Day & Night		
	Mode	Auto		Mode	Auto	
		Datural D	(C		
	Default	Refresh		Save)	Cancel A	pply

Figure 4-42

4.2.5 Encode

It is to set video encode parameters such as video bit rates, video overlay, snapshot settings.

4.2.5.1 Encode

It is to set IPC encode mode, resolution, bit stream type and etc.

Note

Some series products support three streams: main stream, sub stream 1, sub stream 2. The sub stream maximally supports 1080P.

From Main menu->Setting->System->Encode, you can see the following interface. See Figure 4-43.

- Channel: Select the channel you want.
- Type: It is to set device bit stream type.
- ✤ For main stream, there are three options: regular/motion detect/alarm. The sub stream supports regular bit streams only.
- The active control frame function (ACF) can record in different frame rates. For example, you can use high frame rate to record important events, record scheduled event in lower frame rate.
- ♦ Set different frame rates for different record events.



Some series products do not support motion detect bit streams and alarm streams.

- Compression: Video encode mode.
- ♦ H.264: Main Profile encode mode.
- ♦ H.264H: High Profile encode mode.

- ♦ H.264B: Baseline Profile encode mode.
- ♦ H.265: Main Profile encode mode.
- ♦ MJPEG: System needs high bit streams to guarantee video definition. Use the recommended max bit stream value to get the better video effect.
- Smart Codec: This function is to reduce bit streams.

D Note

- Some series products support smart codec function.
- After changing smart code, please reboot network camera and some network camera functions (such as IVS, ROI, SVC, lobby mode and etc.) becomes null. Please think twice before the operation.
- Resolution: The resolution here refers to the capability of the network camera.

Note

Different series products support different resolutions. Please refer to the actual interface for detailed information.

- Frame rate (FPS): The video frame amount displayed in each second. The higher the frame rate is, the clearer and more fluent the video is. The frame rate may vary depending on the resolution.
- Bit rate type: System supports two types: CBR and VBR.
 - Main stream: It is to set frame rate to change video quality. The higher the frame rate is, the better the video quality is. The referenced bit rate is the recommended value.
 - Sub stream: In CBR mode, the bit stream is near the specified value. In VBR mode, the video quality changes according to the bit stream value. But its max value is near the specified value. Reference bit rate: The reference bit rate depends on the resolution and frame rate you set.
- Video/audio: You can enable or disable the video/audio. The main stream is enabled by default. After enable the audio function, the record file is composite file consisting of the video and audio. For the sub stream 1, please enable video first and then enable audio function.
- Audio format: Set audio encode format.

III Note

Different series products support different audio encode mode. Please refer to the actual interface for detailed information.

- Sampling rate: Audio sampling rate refers to the sampling amount within 1 second. The higher the value is, the better the audio is. The default setup is 8K.
- Copy: After you complete the setup, you can click Copy button to copy current setup to other channel(s). You can see an interface is shown as in Figure 4-46. You can see 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 same encode setup for all channels. Audio/video enable box, overlay button and the copy button is shield.

Please highlight icon 📕 to select the corresponding function.

	SETTING
	📂NETWORK 📷 EVENT 🧏 STORAGE 🗾 SYSTEM
REGISTRATION	Encode Overlay Snapshot
ENCODE	Channel D1 -
CAM NAME	Code-Stream Type Regular
	Compression (H.265) (H.264H)
	Resolution (1920×108)
	Frame Rate(FPS) 30 • 25 •
	Bit Rate Type CBR CBR
	Bit Rate(Kb/S) (1536) (224)
	Reference Bit Rate 768-6400Kb/S 216-768Kb/S
	Audio/Video 🗹 🔲 🗹
	Copy Refresh Save Cancel Apply

Figure 4-43

4.2.5.2 Overlay

Click overlay button, you can see an interface is shown in Figure 4-44.

- Cover area: Here is for you to cover area section. You can drag you mouse to set proper section size.
 In one channel video, system max supports 4 zones in one channel. You can set with 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 user when system is in preview status. Monitor means the privacy mask zone cannot be view by the user when system is in monitor status.
- Time display: You can select system displays time or not when you playback. Please click set button and then drag the title to the corresponding position in the screen.
- Channel display: You can select system displays channel number or not when you playback. Please click set button and then drag the title to the corresponding position in the screen.

	SETTING
	📂NETWORK 📷 EVENT 📴 STORAGE 🛃 SYSTEM
REGISTRATION	Encode Overlay Snapshot
ENCODE	Channel (D1)
CAM NAME	Time Display 🖌 Monitor SETTING
	Channel Display 🖌 Monitor
	Cover-Area Monitor SETTING
	Default Copy Refresh Save Cancel Apply

Figure 4-44

4.2.5.3 Snapshot

Here you can set 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 snapshot frequency. If you set trigger snapshot, you need to set snapshot activation operation.
- Image size: Here you can set snapshot picture size.
- Image quality: Here you can set snapshot quality. The value ranges from 1 to 6.
- Snapshot frequency: It is to set snapshot interval at timing mode.

	SETTING
	👘NETWORK 📷 EVENT 🌅 STORAGE 📑 SYSTEM
REGISTRATION IMAGE	Encode Overlay Snapshot
ENCODE	Manual Snap (1) /Time
CAM NAME	Channel D1 Mode Timing Image Size 1920x108 Quality 5 Snapshot Frequency 1 SPL

Figure 4-45

Сору	
OK Cancel	



4.2.6 Channel Name

From main menu->Setting->Camera-Channel name, you can see an interface shown as in Figure 4-47. It is to modify channel name. It max supports 63-character.

Please note you can only modify the channel name of the connected network camera.



Figure 4-47

4.2.7 Remote Upgrade

It is to upgrade the connected network camera firmware. It includes online upgrade and file upgrade. From main menu->setting->camera->registration, the interface is shown as below. See Figure 4-48.



Figure 4-48

Online Upgrade

- Step 1 Select a remote device and then click the Detect button on the right side, or check a box to select a remote device and then click Manual Check.
 System detects the new version on the cloud.
- Step 2 Select a remote device that has new version and then click online upgrade. After successful operation, system pops up upgrade successful dialogue box.

File upgrade

- Step 1 Select a channel and then click File upgrade.
- Step 2 Select upgrade file on the pop-up interface.
- Step 3 Select the upgrade file and then click OK button. After successful operation, system pops up upgrade successful dialogue box.

Note

If there are too much remote devices, select device type from the drop-down list to search the remote device you desire.

4.2.8 Remote Device Info

4.2.8.1 Device Status

Here you can view the IPC status of the corresponding channel such as motion detect, video loss, tampering, alarm and etc. See Figure 4-49.

- IPC status: Front-end does not support. Front-end supports. There is alarm event from current front-end.
- Connection status: Connection succeeded.
- Refresh: Click it to get latest front-end channel status.

	SETTING
	7 NETWORK 📷 EVENT 📴 STORAGE 🛃 SYSTEM
REGISTRATION IMAGE	Registration Status Firmware Upgrade
ENCODE CAM NAME	CH Status IP Address Video Detect IPC Ext Alarm Camera Name D1 10.15.23.43 IPC D2 10.15.23.42 IPC D3 0 10.15.23.99 Visual
	Refresh

Figure 4-49

4.2.8.2 Firmware

It is to view channel, IP address, manufacturer, type, system version, SN, video input, audio input, external alarm and etc. See Figure 4-50.

	SETTING
	👘NETWORK 📷 EVENT 📴 STORAGE 📑 SYSTEM
REGISTRATION IMAGE	Registration Status Firmware Upgrade
ENCODE CAM NAME	CH IP Address Manufacturer Type System Version S D1 10.15.23.43 Private IPC-HUM8230-E1 2.460.00000 2L020 D2 10.15.23.42 Private IP Camera 2.600.0007.13 3F04E D3 10.15.23.99 Private TPC-PT8320 2.404.0000.3 2L014 D4 192.168.1.128 Private Yer Yer Yer
	Refresh

Figure 4-50

4.3 Preview

After device booted up, the system is in multiple-channel display mode. See Figure 4-51.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 supported.



Figure 4-51

4.3.1 Preview

If you want to change 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->CAM name)

Please refer to the following sheet for detailed information.

SN	lcon	Function
1		When current channel is recording, system displays this icon.

SN	lcon	Function
2	*	When motion detection alarm occurs, system displays this icon.
3	?	When video loss alarm occurs, system displays this icon.
4	8	When current channel is in monitor lock status, system displays this icon.

<u>Tips</u>

- Preview drag: If you want to change position of channel 1 and channel 2 when you are previewing, you can left click mouse in the channel 1 and then drag to channel 2, release mouse you can switch channel 1 and channel 2 positions.
- Use mouse middle button to control window split: You can use mouse middle button to switch window split amount.

4.3.2 Preview Control Interface

Move you mouse to the top center of the video of current channel, you can see system pops up the preview control interface. See Figure 4-52. If your mouse stays in this area for more than 6 seconds and has no operation, the control bar automatically hides.



Figure 4-52

1) Instant playback

It is to playback the previous 5-60 minutes record of current channel.

Please go to the Main menu->Setting->->System->General to set real-time playback time.

System may pop up a dialogue box if there is no such record in current channel.

2) Digital zoom

It is to zoom in specified zone of current channel. It supports zoom in function of multiple-channel.

Click button , 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 4-53.





• Put the middle button at the center of the zone you want to zoom in, and move the mouse, you can view an interface shown as in Figure 4-54.



Figure 4-54

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

3) Manual record function

It is to back up the video of current channel to the USB device. System cannot backup the video of multiple-channel at the same time.

Click button system begins recording. Click it again, system stops recoriding. You can find the record file on the flash disk.

4) Manual Snapshot

Click Click constraints to snapshot 1-5 times. The snapshot file is saved on the USB device or HDD. You can go to the Search interface (chapter 4.5) to view.

5) Bidirectional talk

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

button 💟 to start bidirectional talk function the icon now is shown as 🖳 . Now the rest bidirectional talk buttons of digital channel becomes null too.

Click Zagain, you can cancel bidirectional talk and the bidirectional talk buttons of other digital

channels become as

6) Registration

Shortcut menu. Click it to go to the registration interface to add/delete remote device or view its corresponding information. Please refer to chapter 4.2.2 for detailed information.

4.3.3 Right Click Menu

After you logged in the device, right click mouse, you can see the short cut menu. Please see Figure 4-55.

- Window split mode: You can select window amount and then select channels.
- Edit view (Sequence): Change channel display sequence on the preview window.
- PTZ: Click it to go to PTZ interface.
- Auto focus: It is to set auto focus function. Please make sure the connected network camera supports this function.
- Image: Set video corresponding information.
- Search: Click it to go to Search interface to search and playback a record file.
- Record control: Enable/disable record channel.
- Camera registration: Search and add a remote device.
- Camera registration: Click to go to the Registration interface.
- Main menu: Go to system main menu interface.

Tips:

Right click mouse to go back to the previous interface.

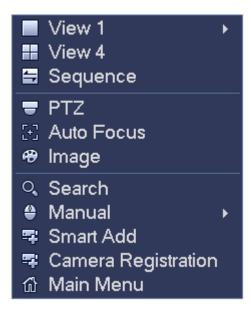


Figure 4-55

4.3.4 Edit View (Sequence)

It is to set customized view layout.



Warning

The preview layout restores default channel layout after Default operation. (Main menu->Setting->General->Default).

Step 1 On the preview interface, right click mouse and then click Edit view. Enter edit view interface. See Figure 4-56.

Note

- Enter edit view interface, device automatically switches to the max split amount mode.
- The channel list on the edit view interface displays the added camera channel number and

channel name. 💟 means camera is online. 💭 means camera is offline.

 In case the channel amount has exceeded the device max split amount, the edit view interface can display the max screen number amount and current screen number. In Figure

4-56, click solution of the state of the sta

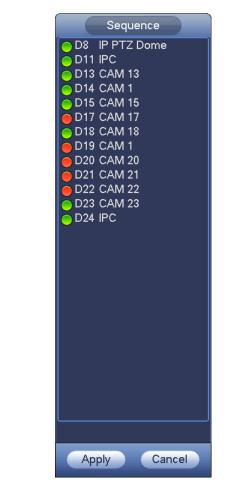


Figure 4-56

Step 2 On the edit view interface, drag the channel to the desired window, or drag on the preview window to switch the position.Check the channel number at the right bottom corner to view the current channel sequence. See Figure 4-57.

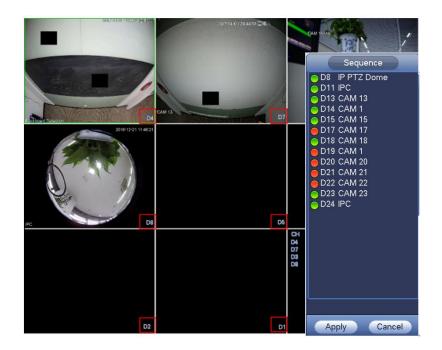


Figure 4-57

- Step 3 Click Apply to save current channel sequence.
 After you change the channel sequence, click Cancel button or right click mouse, device pops up the dialogue box. See Figure 4-58.
 - Click OK to save current settings.
 - Click Cancel to exit without saving the settings.

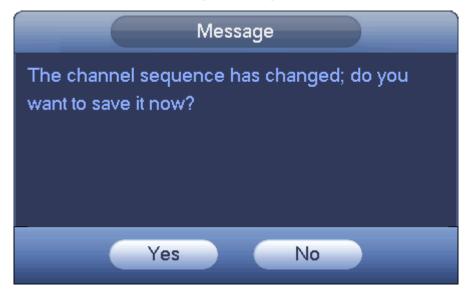


Figure 4-58

4.3.5 Preview Display Effect Setup

4.3.5.1 Display

From Main Menu->Setting->System->Display->Display, you can go to the following interface. See Figure 4-59.

Here you can set menu and video preview effect. All you operation here does not affect the record file and

playback effect.

	_	SETTING		
CAMERA		Ta EVENT	STORAGE	SYSTEM
GENERAL DISPLAY	Display	Tour		
VOICE PROMPT	Transparency	 0	%	
ACCOUNT	Time Display			
SECURITY	Channel Display			
AUTO MAINTAIN	Image Enhance			
IMP/EXP	Original Scale	Set		
DEFAULT	Resolution	(1280×1024 💎		
UPGRADE				
	(Default)			Cancel) (Apply)
				Cancel (Apply)
		•		



Now you can set corresponding information.

- Resolution: There are five options: 1280×1024 (Default), 1280×720, 1920×1080, 1024×768 and 3840×2160. Please note the system needs to reboot to activate current setup. Please note 3840×2160 is for some series only.
- Transparency: Here is for you to adjust menu transparency. The higher the value is, the better transparent the menu is.
- Time display: You can select to display time or not when system is playback.
- Channel display: You can select to channel name or not when system is playback.
- Image enhance: Check the box; you can optimize the margin of the preview video.
- Original scale: Check the box here to select a corresponding channel; it can restore video original scale.

Click Save button to save current setup.

4.3.5.2 Preview Tour Parameters

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

- Set preview display mode: On the preview interface, right click mouse, you can view right-click menu. Now you can select preview window amount and channel.
- Set channel display mode: On the preview interface, if you want to change channel 1 and channel 16

position, please right click channel 1 video window and then drag to the channel 16 video window, release button, you can change channel 1 and channel 16 position.

• Tour setup: Here you can set 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 4-60. Here you can set tour parameter.

- Enable tour: Check the box here to enable tour function. The general tour supports all types of window split mode.
- Interval: Input proper interval value here. The value ranges from 1-120 seconds.
- Motion tour type: System support 1/8-window tour. Please note you need to go to the main menu->Setting->Event->Video detect->Motion detect to enable tour function.
- Alarm tour type: System support 1/8-window tour. Please note you need to go to the main menu->Setting->Event->Alarm to enable tour function.
- Window split: It is to set window split mode.

	SETTING
STAMERA	📷 NETWORK 🛛 🔂 EVENT 🛛 🛃 STORAGE
GENERAL DISPLAY VOICE PROMPT	
ACCOUNT	Video Detect View 1 Enable Tour Interval Window Split View 4
AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	1 ✓ Window Split 1 ✓ 1 2 3 4
	Add Del Move up Move down
	Default OK Cancel Apply

Figure 4-60

4.4 PTZ

D Note

Before you control the PTZ, please make sure the PTZ decoder and the NVR network connection is OK and the corresponding settings are right.

After completing all the setting please click save button. Right click mouse (click "Fn" Button in the

front panel or click "Fn" key in the remote control). The interface is shown as in Figure 4-61. Please note you can only go to the PTZ control interface when you are in 1-window display mode.



Figure 4-61

The PTZ setup is shown as in See Figure 4-62.

Please note the commend name is grey once device does not support this function.

The PTZ operation is only valid in one-window mode.

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

Speed is to control PTZ movement speed. The value ranges from 1 to 8. The speed 8 is faster than speed 1. You can use the remote control to click the small keyboard to set.

You can click 🖸 and 💷 of the zoom, focus and iris to zoom in/out, definition and brightness.

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





In the middle of the eight direction arrows, there is a 3D intelligent positioning key. See Figure 4-63. Please make sure your protocol supports this function and you need to use mouse to control.

Click this key, system goes back to the single screen mode. Drag the mouse in the screen to adjust section size. The dragged zone supports 4X to 16X speeds. It can realize PTZ automatically. The smaller zone you dragged, the higher the speed.



Name	Function	function	Shortcut	Function	function	Shortcut
	key		key	key		key
Zoom	0	Near	Þ	•	Far	*
Focus	0	Near	•	•	Far	►
Iris	•	close	◀	Ð	Open	▶

In Figure 4-62, click to open the menu, you can set preset, tour, pattern, scan and etc. See Figure 4-64.



Figure 4-64

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 once the current function is null.

Right click mouse or click the ESC button at the front panel to go back to the Figure 4-62.

Icon	Function	lcon	Function
•	Preset	Ð	Flip
	Tour	Ð	Reset
~	Pattern		Aux
	Scan	0	Aux on-off button
P	Rotate	0	Go to menu

4.4.1.1 PTZ Function Setup

Click you can go to the following interface to set preset, tour, pattern, and scan. See Figure 4-65.



Figure 4-65

Preset Setup

In Figure 4-65, click preset button and use eight direction arrows to adjust camera to the proper position. The interface is shown as in Figure 4-66.

Click Set button and then input preset number.

Click Set button to save current preset.

	P	TZ	
Preset	Tour	Pattern	Border
		Preset	1
			et) 'reset

Figure 4-66

Tour Setup

In Figure 4-65, click tour button.

Input tour value and preset No. Click Add preset button to add current preset to the tour. See Figure 4-67. **Tips**

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



Figure 4-67

Pattern Setup

In Figure 4-65, click Pattern button and input pattern number.

Click Begin button to start direction operation. Or you can go back to Figure 4-62 to operate zoom/focus/iris/direction operation.

In Figure 4-65, click End button.



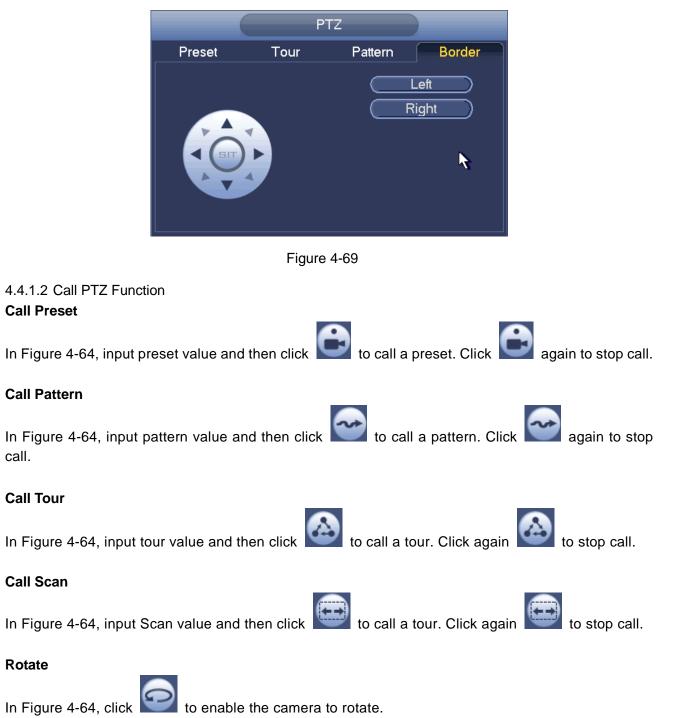
Figure 4-68

Scan Setup

In Figure 4-65, click Scan button.

Use direction buttons to set camera left limit and then click Left button.

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



System supports preset, tour, pattern, scan, rotate, light and etc function.

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 Aux definition. In some cases, it can be used for special process.

Aux

Click system goes to the following interface. The options here are defined by the protocol. The aux number is corresponding to the aux on-off button of the decoder. See Figure 4-70.

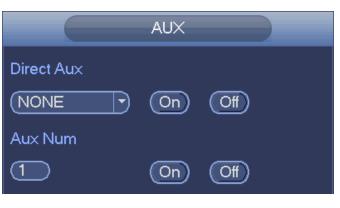


Figure 4-70

4.5 Record File

Device adopts 24-hour continuous record by default. It supports customized record period and record type. Refer to chapter 4.1.4.5 Schedule for detailed information.

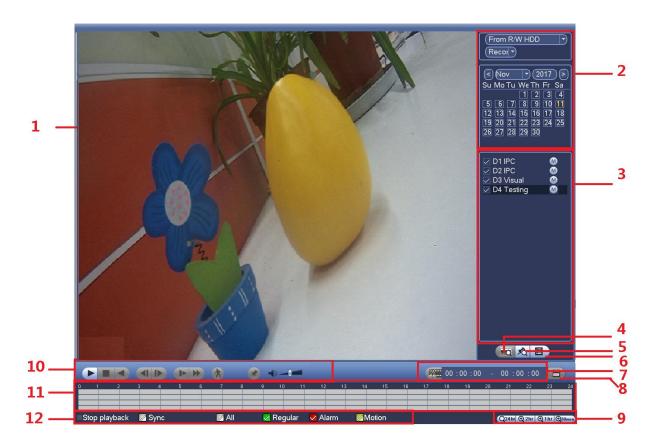
4.6 Playback and Search

4.6.1 Instant Playback

Please refer to chapter 4.3.2 Preview Control Interface for real-time playback information.

4.6.2 Search Interface

From Main menu->Search, or on the preview interface right click mouse and then select search item, you can go to the following interface. See Figure 4-71.



Please refer to the following sheet for more information.

SN	Name	Function
1	Display	Here is to display the searched picture or file.
	window	 Support 1/4/9/16-window playback. (It depends on the product channel amount).
2	Search	• Here you can select to search the picture or the recorded file.
	type	 You can select to play from the read-write HDD, from peripheral device or from redundancy HDD. Before you select to play from the peripheral device, please connect the
		corresponding peripheral device. You can view all record files of 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 picture backup function, but it supports picture playback function. You can select to play from redundancy HDD if there are pictures on the redundancy HDD.
3	Display	
	channel	Select a channel and then click $\widehat{\mathbb{M}}$ to switch main stream($\widehat{\mathbb{M}}$) and sub
	name	
	and	stream(
	stream	
4	Card	The card number search interface is shown as below. Here you can view card
	number	number/field setup bar. You can implement advanced search. Current series
	search	product supports this function.
5	Mark file	Click it to go to mark file list interface. You can view all mark information of current
	list button	channel by time. Please refer to chapter 4.6.4 for detailed information.
		Please note only the product of this icon supports mark function.
6	File list switch	 Double click it, you can view the picture/record file list of current day. The file list is to display the first channel of the record file.
	button	● The system can display max 128 files in 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 accurate search.
		• File type:R—regular record; A—external alarm record; M—Motion detect
		record.
		00:00:00
		• Lock file. Click the file you want to lock and click the button to lock. The
		file you locked will not be overwritten.
		• Search locked file: Click the button to view the locked file.
7	Clip	Refer to chapter 4.6.2.2 Clip for detailed information.



	-			
8	Backup	 Select the file(s) you want to backup from the file list. You can check from the list. Then click the backup button, now you can see the backup menu. System supports customized path setup. After select or create 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 you can cancel current selection. System max supports to display 32 files from one channel. After you clip on record file, click Backup button you can save it. For one device, if there is a backup in process, you cannot start a new backup operation. 		
9	Time bar unit	 The option includes: Q24hr、Q2hr、Q1hr和Q30min, . 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 beginning with 0 o'clock when you are setting the configuration. The time bar zooms in the period of the current playback time when you are playing the file. 		
10	Playback control pane.	Refer to chapter 4.6.2.1 Playback control for detailed information.		
11	Time bar	 It is to display the record type and its period in current search criteria. In 4-window playback mode, there are corresponding four time bars. In other playback mode, there is only one time bar. Use the mouse to click one point of the color zone in the time bar, system begins playback. The time bar is beginning with 0 o'clock when you are setting the configuration. The time bar zooms in the period of the current playback time when you are playing the file. The green color stands for the regular record file. The red color stands for the external alarm record file. The yellow stands for the motion detect record file. 		
12	Record type	In any play mode, the time bar will change once you modify the search type.		
Other Functions				
15	Motion detection search	 When system is playing, you can select a zone in the window to begin motion detection search. Click the motion detect button to begin play. Once the motion detect play has begun, click button again will terminate current motion detect file play. There is no motion detect zone by default. If you select to play other file in the file list, system switches to motion detect play of other file. During the motion detect play process, you cannot implement operations such as change time bar, begin backward playback or frame by frame playback. 		
16	Other channel synchroni	When playing the file, click the number button, system can switch to the same period of the corresponding channel to play.		

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

III Note

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

4.6.2.1 Playback Control

The playback control interface is shown as below. See Figure 4-72.



Figure 4-72

Please refer to the following sheet for more information.

lcon	Function				
N II	Play/Pause				
	In slow play mode, click it to switch between play/pause.				
	Backward play				
	• In normal play mode, left click the button, the file begins backward				
	play. Click it again to pause current play.				
	 In backward play mode, click bor II to restore normal play. 				
	Display previous frame/next frame.				
	• When pause the normal playback file, click I or b to				
	playback frame by frame.				
	 In frame by frame playback mode, click b or II to resume 				
	normal playback mode.				
	Slow play				
	In playback mode, click it to realize various slow play modes such as				
	slow play 1, slow play 2, and etc.				
	Fast forward				
	In playback mode, click to realize various fast play modes such as				
	fast play 1,fast play 2 and etc.				

lcon	Function
	Adjust the volume of the playback
*	Smart search . You can refer to chapter 4.6.3 for detailed information.
٥	Click the snapshot button in the full-screen mode, the system can snapshot 1 picture. System supports custom snap picture saved path. Please connect the peripheral device first, click snap button on the full-screen mode, you can select or create path. Click Start button, the snapshot picture can be saved to the specified path.
	Mark button. Please note this function is for some series product only. Please make sure there is a mark button in the playback control pane. You can refer to chapter 4.6.4 for detailed information.

4.6.2.2 Clip

This function allows you to clip some footages to a new file and then save to the USB device. See Figure 4-73. Please follow the steps listed below.

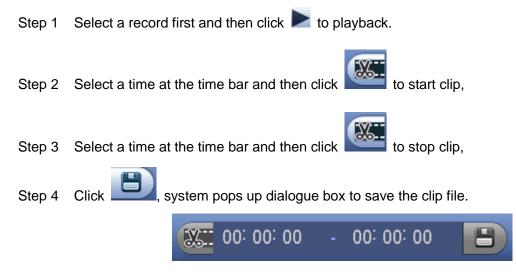


Figure 4-73

Note

- Clip function is for one-channel/multiple-channel.
- Max save 1024 files at the same time.
- This function is not for the file already checked in the file list.

4.6.2.3 Record Backup

This function is to backup files you checked in the file list, or the file you just clip.

Click , enter the following interface. See Figure 4-74.

	Name(Type) Fr	ee Space/Total Space	
1	✓ sdb1(USB DISK)	1.92 GB/7.52 GB	Ready
	✓ CH Type Start Time	End Time 5	Size(KB)
1	☑ D1 R(M) 17-11-12 20:26:3	28 17-11-12 20:26:37	8443

Figure 4-74

Click Backup to begin the process.

4.6.3 Smart Search Playback

I Note

This function is for some series product only.

During playback process, it can analyze the motion detect zone in the scene and give the analysis result.

This function is for channel that already enabled motion detect function (main menu->Setting->Event->Video detect->Motion detect).

Please follow the steps listed below.

Step 1 Select a channel to playback video and then click . You can view the grids on the playback video.

D Note

- This function is for one-channel playback mode.
- If you are in multiple-channel playback mode, double click a channel first to switch to one-channel playback mode.
- Step 2 Left click mouse and then drag to select smart search zones (22*18 (\mbox{PAL}) , 22*15 (\mbox{NTSC})).
- Step 3 Click to go to smart search and playback. System is going to playback all motion detect record footages.

Step 4 Click again to stop smart search function.

4.6.4 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 (See Figure 4-71).

When you are playback record, you can mark the record when there is important information. After

playback, you can use time or the mark key words to search corresponding record and then play. It is very easy for you to get the important video information.

Add Mark

When system is playback, click Mark button, you can go to the following interface. See Figure 4-75.

Add Mark
Mark Time (2013-09-27 10:01:08) Mark Name (
Default OK Cancel

Figure 4-75

Playback Mark

During 1-window playback mode, click mark file list button in Figure 4-71, you can go to mark file list interface. Double click one mark file, you can begin playback from the mark time.

• Play before mark time

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

D Note

Usually, system can playbacks previous N seconds record if there is such kind of record file. Otherwise, system playbacks from the previous X seconds when there is such as kind of record.

Mark Manager

Click the mark manager button on the Search interface (See Figure 4-71); you can go to Mark Manager interface. See Figure 4-76. System can manage all the record mark information of current channel by default. You can view all mark information of current channel by time.

Marks Manager	
Channel 1 Start Time 2013 - 09 - 27 00 : 00 : 00 End Time 2013 - 09 - 28 00 : 00 : 00 1 CH Mark Time Mark Name 1 1 2013-09-27 10:00:12 report	Search
₹	
Delete	Exit

Figure 4-76

Modify

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

• Delete

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

Note

- After you go to the mark management interface, system needs to pause current playback. System resume playback after you exit mark management interface.
- If the mark file you want to playback has been removed, system begins playback from the first file in the list.

4.6.5 Playback Image

Here you can search and play the image. Please follow the steps listed below.

- Step 1 From main menu->Search, or on the preview window right click mouse and then click Search, you can go to the search interface.
- Step 2 At the top right corner, select image and then input playback interval.
- Step 3 Select date and channel, click 🕨 to play.

4.6.6 File List

Click III, system displays file list. It displays the first channel of the record. See Figure 4-77.

00 : 00 : 00 🔍
1 2 3 4
StartTime Type 🛛 🔺
00:00:00 R
🗌 00:34:00 R
02:00:00 R
🗌 03:00:00 R
04:00:00 R
05:00:00 R
06:00:00 R
07:00:00 R
08:00:00 R
09:00:00 R
10:00:00 R
10:50:35 R
□ 10:54:11 R □ 10:56:50 R
□ 10:56:50 R □ 10:59:47 R
11:02:38 R
□ 11:21:14 R
□ 11:26:34 R
□ 11:27:00 R
□ 11:32:37 R
□ 11:34:52 R
□ 11:37:33 R
Start Time
16-06-23 00:00:00
End Time
16-06-23 00:34:00
Size(KB) 1064960

Figure 4-77

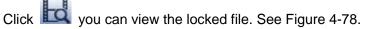
- Check a file name, double click file or click log to play.
- Input accurate time at the top column, you can search records of current day.
- System max displays 128 record files in one list.
- Click to go back to the calendar/channel selection interface.

Lock or Unlock File

In Figure 4-77, select a file first and then click **b**. You can lock it in case it is overwritten in the future.

Note

NVR cannot lock a file when it is writing or overwriting.



FILE LOCKED							
	3	🗆 СН	Туре	Start Time	End Time	Size(KB)	
	1		R	2016-06-23 10:00:00	2016-06-23 10:33:44	539136	
	2 3		R R	2016-06-23 10:50:35 2016-06-23 10:56:50	2016-06-23 10:52:55 2016-06-23 10:58:11	2048 2048	
	ు		ĸ	2010-00-23 10:50:50	2010-00-23 10:58:11	2048	
						Unlock Cancel	

Figure 4-78

Select a file in the above figure and then click Unlock, you can unlock it.

4.6.7 Other Aux Functions

4.6.7.1 Digital Zoom

In 1-window playback mode, left click mouse to select any zone on the screen, you can zoom in current zone. Right click mouse to exit.

4.6.7.2 Switch Channel

During playback mode, select from the dropdown list to switch playback channel. This function is not for the channel of no record. The smart search channel does not support this function either.

4.7 Event Manager

4.7.1 Video Detect

The video detect adopts the computer image and graphics process technology. It can analyze the video and check there is considerable changing degree or not. Once video has changed considerably (such as there is any moving object, video is distorted), system can trigger the corresponding alarm activation operations.

In the main menu, from Setting to Detect, you can see motion detect interface. See Figure 4-79. There are four detection types: motion detection, video loss, tampering and scene changing.

4.7.1.1 Motion Detect

After analysis video, system can generate a motion detect alarm when the detected moving signal reached the sensitivity you set here.

Detection menu is shown as below. See Figure 4-79.

- Event type: From the dropdown list you can select motion detection type.
- Channel: Select a channel from the dropdown list to set motion detect function.

- Enable: Check the box here to enable motion detect function.
- Region: Click select button, the interface is shown as in Figure 4-80. Here you can set motion detection zone. There are four zones for you to set. Please select a zone first and then left drag the mouse to select a zone. The corresponding color zone displays different detection zone. You can click 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 completed the setup, please click ENTER button to exit current setup. Do remember click save button to save current setup. If you click ESC button to exit the region setup interface system will not save your zone setup.
- Sensitivity: 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 the alarm signal lasts time. It can be seem as the alarm signal activation stays such as the buzzer, tour, PTZ activation, snapshot, channel record. The stay time here does not include the latch time. During the alarm process, the alarm signal can begin an anti-dither time if system detects the local alarm again. The screen prompt, alarm upload, email and etc will not be activated. For example, if you set the anti-dither time as 10 second, you can see the each activation may last 10s if the local alarm is activated. During the process, if 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 system detects another alarm signal, it can generate an alarm since the anti-dither time is out.
- Period: Click set button, you can see an interface is shown as in Figure 4-82. Here you can set motion detect period. System only enables motion detect operation in the specified periods. It is not for video loss or the tampering. There are two ways for you to set periods. Please note system only supports 6 periods in one day.
- ♦ In Figure 4-82, Select icon of several dates, all checked items can be edited together. Now

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

- ♦ In Figure 4-82. Click button after one date or a holiday, you can see an interface shown as in Figure 4-83. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.
- Latch: when motion detection complete, system auto delays detecting for a specified time. The value ranges from 1-300(Unit: second)
- Show message: System can pop up a message to alarm you in the local host screen if you enabled • this function.
- Record channel: System auto activates motion detection channel(s) to record once an alarm occurs. Please make sure you have set MD record in Schedule interface(Main Menu->Setting->Schedule) and schedule record in 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 &pattern when there is an alarm. Click "select" button, you can see an interface is shown as in Figure 4-81.
- Record Delay: System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
- Tour: Here you can enable tour function when alarm occurs. System one-window tour.
- Snapshot: You can enable this function to snapshot image when a motion detect alarm occurs.

Please highlight icon 🔳 to select the corresponding function.

Note:

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

In Figure 4-80, you can left click mouse and then drag it to set a region for motion detection. Click Fn to switch between arm/withdraw motion detection. After setting, click enter button to exit.

		SETTIN	G	
ST CAMERA		📷 EVENT	STORAGE	SYSTEM
VIDEO DETEC ALARM ABNORMALITY	Motion Detect Vic Channel Region	deo Loss Tamp	-	
	Period □Show Message ☑Record Channel	Set D1	Anti-dither (5	
	PTZ Activation	D1 D1	Post Record 10	s
	☐Voice Prompts ☐Buzzer	File Name (None		
	Default	Copy Refr	esh) OK C	Cancel Apply

Figure 4-79



Figure 4-80



Figure 4-81



Figure 4-82

Time Period				
Current Date: Sun				
Period 1 00 : 00 - 24 : 00				
Period 2 00 : 00 - 24 : 00				
Period 3 (00 : 00 - 24 : 00				
Period 4 (00 : 00 - 24 : 00)				
Period 5 (00 : 00 - 24 : 00)				
Period 6 (00 : 00 - 24 : 00)				
Copy				
All Sun Mon Tue Wed Thu Fri Sat				
Save				

Figure 4-83

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

4.7.1.2 Video Loss

After connected the system to the remote device, system can generate an alarm once the remote device has lost the video. System can trigger the corresponding alarm operations.

In Figure 4-79, select video loss from the type list. You can see the interface is shown as in Figure 4-84. This function allows you to be informed when video loss phenomenon occurred. You can enable alarm output channel and then enable show message function.

You can refer to chapter 4.7.1.1 Motion detect for detailed information.

Tips:

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

		SETTING		
STAMERA	TWORK	Tevent	STORAGE	SYSTEM
VIDEO DETEC ALARM ABNORMALITY	Motion Detect Vi Channel	deo Loss Tamperi D1 E	ng nable 🖌	
	Period Show Message Record Channe PTZ Activation Tour Snapshot Voice Prompts Buzzer	B D1 Set P D1 D1	Send Email ost Record (10)	S Cancel Apply



4.7.1.3 Tampering

When someone viciously masks the lens, or the output video is in one-color due to the environments light change, the system can alert you to guarantee video continuity. Tampering interface is shown as in Figure 4-85. You can enable "Alarm output "or "Show message" function when tampering alarm occurs.

• Sensitivity: The value ranges from 1 to 6. It mainly concerns the brightness. The level 6 has the higher sensitivity than level 1. The default setup is 3.

Tips:

You can enable preset/tour/pattern activation operation when video loss occurs. Please refer to chapter 4.7.1.1 motion detection for detailed information.

III Note

- In Detect interface, copy/paste function is only valid for the same type, which means you cannot copy a channel setup in video loss mode to tampering mode.
- About Default function. Since detection channel and detection type may not be the same, system can only restore default setup of current detect type. For example, if you click Default button at the tampering interface, you can only restore default tampering setup. It is null for other detect types.
- System only enables tampering function during the period you set here. It is null for motion detect or video loss type.

		SETTING		
CAMERA		🔂 EVENT	STORAGE	SYSTEM
VIDEO DETEC ALARM ABNORMALITY	Motion Detect Vit	deo Loss Tamperi D1 E	ng nable 🖌	
	Period Show Message Record Channe PTZ Activation Tour Snapshot Log Voice Prompts Buzzer	I D1 Set P D1 D1)Send Email ost Record (10	S
	Default	Copy Refresi		Cancel Apply

Figure 4-85

4.7.2 Alarm Settings

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

• Alarm in: Here is for you to select channel number.

In the main menu, from Setting->Event->Alarm, you can see alarm setup interface. See Figure 4-86. There are two alarm types. See Figure 4-86 to Figure 4-87.

- IPC external alarm: When the network camera connected peripheral device has triggered an alarm, it can upload the alarm signal to the NVR via the network transmission. The system can trigger the corresponding alarm operations.
- IPC offline alarm: When the network connection between the NVR and the network camera is off, the system can trigger the corresponding alarm operations.
- Enable: Please you need to highlight this button to enable current function.
- Type: normal open or normal close.
- Period: Click set button, you can see an interface is shown as in Figure 4-89. There are two ways for you to set periods. There are max 6 periods in one day. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.
 - \diamond In Figure 4-89, Select icon \square of several dates, all checked items can be edited together.

Now the icon is shown as Click V to delete a record type from one period.

✿

♦ In Figure 4-89. Click button after one date or a holiday, you can see an interface shown as in Figure 4-90. There are four record types: regular, motion detection (MD), Alarm, MD & alarm.

- PTZ activation: When an alarm occurred, system can activate the PTZ operation. The PTZ activation lasts an anti-dither period. See Figure 4-88.
- Anti-dither: Here you can set anti-dither time. The value ranges from 5 to 600s. The anti-dither time refers to the alarm signal lasts time. It can be seem as the alarm signal activation stays such as the buzzer, tour, PTZ activation, snapshot, channel record. The stay time here does not include the latch time. During the alarm process, the alarm signal can begin an anti-dither time if system detects the local alarm again. The screen prompt, alarm upload, email and etc will not be activated. For example, if you set the anti-dither time as 10 second, you can see the each activation may last 10s if the local alarm is activated. During the process, if 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 system detects another alarm signal, it can generate an alarm since the anti-dither time is out.
- Latch: When the anti-dither time ended, the channel alarm you select in the alarm output may 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 you disable the alarm event function directly.
- Show message: System can pop up a message to alarm you in the local host screen if you enabled this function.
- Record channel: you can select proper channel to record alarm video (Multiple choices).
 - You need to set alarm record mode as Schedule in Record interface (Main Menu->Advanced->Record). Please note the manual record has the highest priority. System record all the time no matter there is an alarm or not if you select Manual mode.
 - 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 cannot select the MD&Alarm and MD(or Alarm) at the same time.
 - Now you can go to the Encode interface to select the 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 select channel begins alarm record when an alarm occurred. Please note system begins the alarm record instead of the MD record if the local alarm and MD event occurred at the same time.
- Tour: Here you can enable tour function when an alarm occurs. System supports 1/8-window tour. Please go to chapter4.3.5.1 Display for tour interval setup. Please note the tour setup here has higher priority than the tour setup you set in the Display interface. Once there two tours are both enabled, system can enable the alarm tour as you set here when an alarm occurred. If there is no alarm, system implements the tour setup in the Display interface.
- Snapshot: You can enable this function to snapshot image when an alarm occurs.

		SETTING		
CAMERA		EVENT	STORAGE	SYSTEM
VIDEO DETECT ALARM ABNORMALITY	IPC Ext IP Channel	C Offline (D1) E	nable 🗌 Type (NO	
	Period Show Message PTZ Activation Tour Snapshot Log Enable	el D1 D2 D3 D4	ost Record 10	s s

Figure 4-86

		SETTING			
CAMERA		Devent	STORAGE	SYSTEM	
VIDEO DETECT ALARM ABNORMALITY	IPC Ext IP Channel	C Offline	nable 🖌		
	 PTZ Activation Tour Snapshot Log Enable 		ost Record (10	S	
	(Default) (Сору)	Save (Cancel (Apply)	

Figure 4-87



Figure 4-88



Figure 4-89

Time Period
Current Date: Sun
Period 1 (00 : 00 - 24 : 00)
Period 2 (00 : 00 - 24 : 00)
Period 3 (00 : 00 - 24 : 00
Period 4 (00 : 00 - 24 : 00)
Period 5 00 : 00 - 24 : 00
Period 6 (00 : 00 - 24 : 00
Copy
🗌 All 👘 Sun 🗍 Mon 📄 Tue 💭 Wed 💭 Thu 💭 Fri 💭 Sat
Save
Gave

Figure 4-90

Please highlight icon to select the corresponding function. After setting all the setups please click save button.

4.7.3 Abnormality

There are three types: HDD/Network/User.

- ♦ HDD: HDD error, no HDD, no space. See Figure 4-91.
- ♦ Network: Disconnection, IP conflict, MAC conflict. See Figure 4-92.
- ♦ User: Illegal login. Figure 4-93.
- Less than: System can alarm you when the HDD space is less than the threshold you set here (For HDD no space type only).
- Attempts: In user interface, select illegal login from the dropdown list. Here you can set login attempts. The value ranges from 1 to 10.
- Lock time: In user interface, select illegal login from the dropdown list. Here you can set account lock time. The value ranges from 1 to 30 minutes.
- Latch: Here you can set corresponding delaying time. The value ranges from 1s-300s. System automatically delays specified seconds in turning off alarm and activated output after external alarm cancelled.
- Show message: system can pop up the message in the local screen to alert you when alarm occurs.
- Send email: System can send out email to alert you when alarm occurs.
- Buzzer: Highlight the icon to enable this function. The buzzer beeps when an alarm occurs.
- Log: Check the box here, system can record corresponding alarm log.
- Voice prompts: Check the box here to trigger audio broadcast function. You can select specified audio file here. System can play the audio file once the corresponding event occurs.

	SETTING	
🥰 CAMERA	👼 NETWORK 🔯 EVENT 🔤 STORAGE 📑 SYSTEM	
VIDEO DETEC ALARM ABNORMALITY	HDD Network User Name Event Type (No HDD) Enable	
	Show Message Send Email Voice Prompts File Name None Buzzer Voice Send Email Buzzer Voice Prompts File Name None Buzzer OK Cancel Apply	

Figure 4-91

	SETTING
CAMERA	🛜 NETWORK 🔯 EVENT STORAGE SYSTEM
VIDEO DETEC ALARM ABNORMALITY	HDD Network User Name Event Type Disconnect Enable
	Show Message OK Cancel Apply

Figure 4-92

SETTING					
STAMERA	7 NETWORK	📷 EVENT	STORAGE	SYSTEM	
VIDEO DETEC ALARM	HDD	Network User N	lame		
ABNORMALITY	Event Type Attempt(s)	(Illegal login 💌	Enable 🗹 Lock Time (5	Min.	
	□Voice Promp □Buzzer ☑Log	ots File Name(<u>Non</u>		Cancel Apply	

Figure 4-93

4.8 Network

4.8.1 Network Settings

4.8.1.1 TCP/IP

The interface is shown as in Figure 4-94.

- IP Version: There are two options: IPv4 and IPv6. Right now, system supports these two IP address format and you can access via them.
- MAC address: The host in the LAN can get a unique MAC address. It is for you to access in the LAN. It is read-only.
- IP address: Here you can use up/down button (▲▼) or input the corresponding number to input IP address. Then you can set the corresponding subnet mask the default gateway.
- Default gateway: Here you can input the default gateway. Please note system needs to check the validity of all IPv6 addresses. The IP address and the default gateway shall be in the same IP section. That is to say, the specified length of the subnet prefix shall have the same string.
- Preferred DNS server: DNS server IP address.
- Alternate DNS server: DNS server alternate address.

After completing all the setups please click save button, system goes back to the previous menu.

	SETTING
STAMERA	📻 NETWORK 📷 EVENT 🔤 STORAGE 📑 SYSTEM
TCP/IP Port DDNS EMAIL REGISTER SWITCH P2P	Ethernet Card IP Address Net Mode NIC Member Edit Unbond Ethernet Port1 10.15.23.108 Single NIC 1
	IP Address: 10.15.23.108 Default Gateway: 10.15.0.1 MTU: 1500 MAC Address: 14:a7:8b:5e:ff:4c Subnet Mask: 255.255.0.0 Mode: STATIC IP Version IPv4 • Preferred DNS 8 8 Alternate DNS 8 4 Default Card Ethernet Port1 •
	Default OK Cancel Apply

Figure 4-94

4.8.1.2 Port

The port setup interface is shown as in Figure 4-95.

- Max connection: The max client login amount (such as WEB, platform, cellphone and etc). The value ranges from 1 to 128(default).
- TCP port: Default value is 37777.
- UDP port: Default value is 37778.
- HTTP port: Default value is 80.
- HTTPS port: Select the Enable check box and configure the port according to your actual needs. The default value is 443. After HTTPS is enabled, HTTP will be switched to HTTPS by force to transmit data in a safer way.
- RTSP port: Default value is 554.

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

SETTING					
STAMERA		Ta EVENT	STORAGE	SYSTEM	
TCP/IP Port DDNS EMAIL REGISTER SWITCH P2P	Max Connection TCP Port UDP Port HTTP Port RTSP Port HTTPS Port	128 (37777 (37778) (80) (554) (443)	(1 [~] 128) (1025~65535) (1025~65535) (1 [~] 65535) (1 [~] 65535) (1 [~] 65535) ☐ Enable	Cancel Apply	

Figure 4-95

4.8.1.3 DDNS

DDNS (Dynamic Domain Name Server) is to dynamically refresh the DNS domain name and IP address if the device IP address has changed frequently. The user can use the domain to access the device.

Preparation

Before the operation, make sure the device supports DNS type and go to the DDNS service provider website to register the domain name via the PC.



After you successfully registered and logged in the DDNS website, you can view all connected device information of current login user.

Step 1 Enter from main memu > Setup > Network > DDNS. DDNS setup interface is shown as in Figure 4-96.

		SETTING		
CAMERA	TNETWORK	EVENT		SYSTEM
TCP/IP Port DDNS EMAIL REGISTER SWITCH P2P	Enable Atter DDNS Type Host IP Domain Name User Name Password Interval	enabling DDNS funct (NO-IP DDNS (dynupdate.no (1440	•	may collect your devic
	Default T	est	ОК	Cancel Apply



Step 2 Select the Enable check box to enable DDNS function.

After enabling DDNS, third-party server may collect your device information.

Step 3 Configure the DDNS parameters according to practical situation.

- Type/address:
- ♦ NO-IP DDNS is dynupdate.no-ip.com.
- ♦ CN99 DDNS is members.3322.org.
- Domain: The domain name registered on the DDNS service provider website.
- User name/password: Input the user name and password got from the DDNS service provider. Make sure you have logged in the DDNS service provider website to register an account (user name and password).
- Interval: After DDNS boots up, it sends out refresh query regularly. The unit is minute.
- Step 4 Click Apply or Save to complete setup.
- Step 5 Open a browser and input domain name, click Enter key.
 - The setting is right if you can view device WEB interface. Otherwise, please check the parameters.

4.8.1.4 Email

The email interface is shown as below. See Figure 4-97.

- SMTP server: Please input your email SMTP server IP here.
- Port: Please input corresponding port value here.
- User name: Please input the user name to login the sender email box.
- Password: Please input the corresponding password here.
- Sender: Please input sender email box here.

- Title: Please input email subject here. System support English character and Arabic number. Max 32-digit.
- Receiver: Please input receiver email address here. System max supports 3 email boxes. System automatically filters same addresses if you input one receiver repeatedly.
- SSL enable: System supports SSL encryption box.
- 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 the test email to check the connection is OK or not.
- Interval: Please check the above box to enable this function and then set the corresponding interval.
 System can send out the email regularly as you set here. Click the Test button, you can see the corresponding dialogue box to see the email connection is OK or not.

Please note system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormity event activates the email, system sends out the email according to the interval you specified here. This function is very useful when there are too many emails activated by the abnormity events, which may result in heavy load for the email server.

		SETTING		
		👼 EVENT 🛛 🛐	STORAGE	SYSTEM
TCP/IP Port DDNS EMAIL REGISTER SWITCH P2P	 Enable SMTP Server Anonymous User Receiver Sender Subject Encryption Type Interval Health Enable Test 	(NONE) (120 s	(25 ord (achment	(1~65535)

Figure 4-97

4.8.1.5 Register

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

Please follow the steps listed below to use this function.

Please set proxy server address, port, and sub-device name at the device-end. Please enable the auto

register function, the device can auto register to the proxy server.

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

Important

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

		SETTING		
R CAMERA		To EVENT		SYSTEM
TCP/IP Port DDNS EMAIL REGISTER SWITCH P2P	Enable No. (Host IP (Port (1	0	
	Default		ОК	Cancel Apply

Figure 4-98

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 device. Please do not input default port number such as the TCP port in the mapping port number. The device ID here shall be the same with the ID you input in Figure 4-98. Click 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 domain. But you need to register a domain name before you run proxy device server.

4.8.1.6 P2P

You can use your cell phone to scan the QR code and add it to the cell phone client. For detailed operations, see chapter 4.1.4.3 P2P.

Via the SN from scanning the QR code, you can access the device in the WAN. Please refer to the P2P

operation manual included in the resources CD.

4.8.1.7 SWITCH

When connect a network camera to the PoE port of the NVR, NVR can automatically allocate the IP address according to the specified IP segment. The network camera can automatically register to the NVR.

It is for you to set IP address, subnet mask, gateway and etc of the Switch. See Figure 4-99.



- This function is for product of PoE port.
- Do not connect switch to the PoE port, otherwise the connection may fail.
- The SWITCH function of the NVR is enabled by default. The IP segment is 10.1.1.1. Usually we recommend the default setup.
- For the camera from the third party, make sure the camera supports ONVIF and DHCP function is enabled.

		SETTING		
SAMERA		To EVENT	STORAGE	SYSTEM
TCP/IP Port DDNS EMAIL REGISTER SWITCH P2P	IP Address Subnet Mask Default Gateway	10 . 1 . 1 . (255 . 255 . 255 . 255 (10 . 1 . 1 . 1 .	0	
	Default		ОК	Cancel Apply

Figure 4-99

Refer to the following table for PoE notice.

Type Note	J	
	Туре	Note

Туре	Note
Connect	After connect the camera to the PoE, NVR allocate an IP address in the
camera to the	specified IP segment to the camera. NVR tries to use arp ping to set. If the
PoE	NVR has enabled the DHCP function, it uses DHCP to set.
	• After successfully set IP address, NVR can send out broadcast via the
	switch and get the corresponding response. Now The camera has
	registered to the NVR. Go to the preview interface, the corresponding
	channel has been used and there is a small PoE icon at the top left
	corner.
	• Go to the Register interface to view the connected device list, you can
	see the PoE channel number, PoE port information and etc. Click IP
	search to display or refresh the information.
Remove	After remove the camera network cable from the PoE port, the channel
camera from	displays "Cannot find the network host". On the registration interface, the IP
the PoE port	address is shown as offline.
The mapping	The PoE port and the channel window is one to one correspondence. For
policy when	example, connect a network camera to PoE port 1, it register to channel 1 by
connect a	default.
camera to the	
PoE port.	

4.8.2 Network Test

In this interface, you can see network load information.

From main menu->Info-Network->Load, network load is shown as in Figure 4-100. Here you can view the follow statistics of the device network adapter.

Here you can view information of all connected network adapters. The connection status is shown as offline if connection is disconnected. Click one network adapter, you can view the flow statistics such as send rate and receive rate at the top panel.

III Note

- It is to display LAN1 network load by default.
- View one LAN network load by one time.

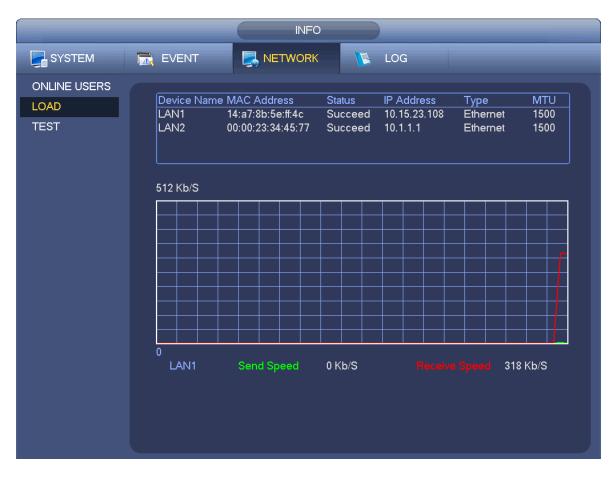


Figure 4-100

4.9 Storage

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

4.9.1 Basic

It is to manage HDD storage space.

Step 1 From main menu->Setup->Storage->Basic. Enter Basic interface. See Figure 4-101.

	SETTING		
SAMERA	👼 NETWORK 🛛 📆 EVENT	STORAGE	SYSTEM
BASIC SCHEDULE HDD MANAGE RECORD HDD DETECT	HDD Full Overwrite Pack Duration 60 Min. Auto-Delete Old Files Never		
	Default	ОК	Cancel Apply

Figure 4-101

Step 2 Set parameters.

- HDD full: It is to select working mode when hard disk is full. There are two options: stop recording or rewrite.
- Pack duration: It is to specify record duration. The max length is 120 minutes.
- Auto delete old files:
- ♦ Never: Do not auto delete old files.
- ♦ Customized: input customized period here, system can auto delete corresponding old files.
- \diamond The deleted file cannot be restored.

Step 3 Click Apply or Save to complete setup.

4.9.2 Schedule

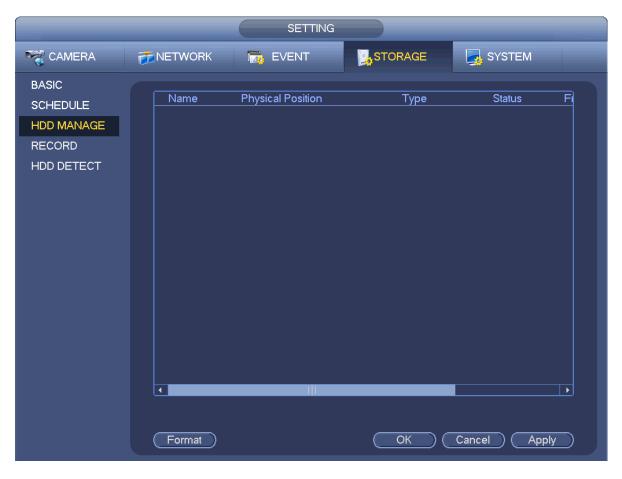
It is to set schedule record and schedule snapshot. NVR can record or snapshot as you specified. For detailed information, please refer to chapter 4.1.4.5.1 schedule record and 4.1.4.5.2 schedule snapshot.

4.9.3 HDD

It is to view and sett HDD properties and format HDD.

It is to view current HDD type, status, capacity and etc. The operation includes format HDD, and change HDD property (read and write/read-only/redundancy).

- To prevent files be overwritten in the future, you can set HDD as read-only.
- To backup recorded video file, you can set HDD as redundant HDD.
- Step 1 From Mani-menu->Setting->Storage->HDD Manager, you can go to HDD management interface. See Figure 4-102.





- Step 2 Select a HDD and then select an time from the dropdown list. Click Execute button.
- Step 3 Click OK button to complete the setup. You can see system needs to restart to activate current setup if you want to format the HDD.

4.9.4 Record Control

After you set schedule record or schedule snapshot function, please set auto record/snapshot function so that the NVR can automatically record or snapshot. For detailed information, please refer to chapter 4.1.4.5.3 record control.

4.9.5 HDD Information

Here is to list hard disk type, total space, free space, and status. See Figure 4-103. \circ means current HDD is normal.. - means there is no HDD.

If disk is damaged, system shows as "?". Please remove the broken hard disk before you add a new one.



Figure 4-103

In Figure 4-103, click one HDD item, the S.M.A.R.T interface is shown as in Figure 4-104.

Serial No. W9800 Status OK Describe: Smart ID Attribute 1 Read El 3 Spin Up 4 Start/Sto	e rror Rate	Threshold 6	Value			
Status OK Describe: Smart ID Attribute 1 Read Ei 3 Spin Up 4 Start/Sto	e rror Rate		Value			
Describe: Smart ID Attribute 1 Read Ei 3 Spin Up 4 Start/Sto	rror Rate		Value			
Smart ID Attribute 1 Read Ei 3 Spin Up 4 Start/Sto	rror Rate		Value			
1 Read Ei 3 Spin Up 4 Start/Sto	rror Rate		Value	147 1171		
3 Spin Up 4 Start/Sto		6		Worst Value	Status	
4 Start/Sto	Time	0	64	64	OK	
	Time .		98	98	ОК	
5 Poalloc	p Count	20	100	100	ОК	
	ated Sector Count	10	100	100	OK	
7 Seek Er	ror Rate	30	69	60	OK	
9 Power (On Hours Count		100	100	OK	
10 Spin-up	Retry Count	97	100	100	ОК	
12 Power (Dn/Off Count	20	100	100	ОК	
183 Runtime	e Bad Block		100	100	ОК	
184 End-to-l	End Error	99	100	100	ОК	
187 Reporte	d Uncorrect		99	99	ОК	
188 Comma	nd Timeout		100	100	ОК	- F
189 High Fly	/ Writes		100	100	ОК	
191 G-Sens	e Error Rate		100	100	ОК	
192 Power-0	Off Retract Cycle		100	100	ОК	
193 Load/Ur	nload Cycle Count		100	100	ОК	
194 Temper	ature		23	45	OK	t,

Figure 4-104

Parameter	Function
SATA	1 here means there is 1 HDD.
	For different series product, the max HDD amount may vary,
	When HDD is working properly, system is shown as O "_" means there is no HDD.
SN	You can view the HDD amount the device connected to;

	* means the second HDD is current working HDD.
Туре	The corresponding HDD property.
Total space	The HDD total capacity.
Free space	The HDD free capacity.
Status	HDD can work properly or not.
Bad track	Display there is bad track or not.
Page up	Click it to view previous page.
Page down	Click it to view the next page.
View recording time	Click it to view HDD record information (file start time and end time).
View HDD type and capability	Click it to view HDD property, status and etc,

4.9.6 HDD Detect

Note

This function is for some series product only.

The HDD detect function is to detect HDD current status so that you can clearly understand the HDD performance and replace the malfunction HDD.

There are two detect types:

- Quick detect is to detect via the universal system files. System can quickly complete the HDD scan. If you want to use this function, please make sure the HDD is in use now. If the HDD is removed from other device, please make sure the write-data once was full after it installed on current device.
- Global detect adopts Windows mode to scan. It may take a long time and may affect the HDD that is recording.

4.9.6.1 Manual Detect

From main menu->Setting->Storage->HDD Detect->Manual Detect, the interface is shown as below. See Figure 4-105.

Please select detect type and HDD. Click start detect to begin. You can view the corresponding detect information.

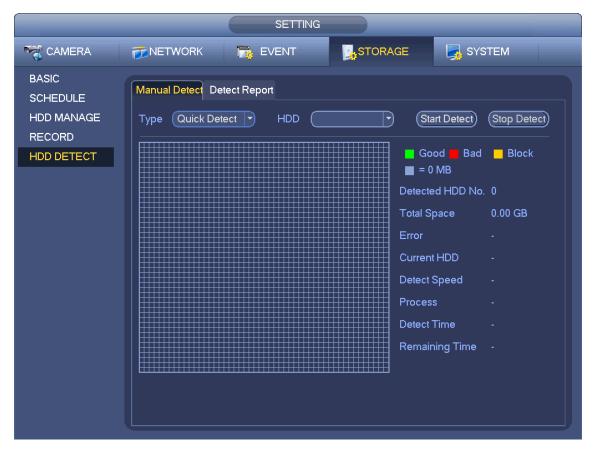


Figure 4-105

4.9.6.2 Detect Report

After the detect operation, you can go to the detect report to view corresponding information.

From main menu->Setting->Storage->HDD Detect->Manual Detect, the interface is shown as below. See Figure 4-106.

			SETTING				
		VORK		STORAGE	SYSTE	EM	
BASIC SCHEDULE	Manual	Detect Detect F	Report				
HDD MANAGE	1	HDD Port No.	Detect Type	Start Time	Capacity	Error	View
RECORD	1	1	Quick Detect	2017-09-21 22:10:43	1863.02 GB	0	
HDD DETECT							

Figure 4-106

Click View, you can see the detailed information such as detect result, backup and S.M.A.R.T. See Figure 4-107 and Figure 4-108.

Detect Results S.M.A.R.T Type Quick Detect Good Bad Block Backup to USB Devices Backup to USB Devi	Details		
■ = 829 MB Detected HDD No. 1 Total Space 1863.02 GB Error 0	Backup to USB Devices)	
		 = 829 MB Detected HDD No. Total Space Error 	1 1863.02 GB 0

Figure 4-107

Port	1			
Modle	ST2000VX007-2AY102			
Serial	No. W9800B3Q			
Status	OK			
Descri				
	ID Attribute	Threshold	Value	Worst Value
1	Read Error Rate	6	64	64
3	Spin Up Time	0	98	98
4	Start/Stop Count	20	100	100
5	Reallocated Sector Count	10	100	100
7	Seek Error Rate	30	69	60 🗖
9	Power On Hours Count	0	100	100
10	Spin-up Retry Count	97	100	100
12	Power On/Off Count	20	100	100
183	Runtime Bad Block	0	100	100
184	End-to-End Error	99	100	100
187	Reported Uncorrect	0	99	99 👻

Figure 4-108

4.10 Device Maintenance and Manager

4.10.1 Account

It is to manage users, user group and ONVIF user, set admin security questions.

D Note

- For the user name, the string max length is 31-byte, and for the user group, the string max length is 15-byte. The user name can only contain English letters, numbers and "_"、 "@"、 ".".
- The default user amount is 64 and the default group amount is 20. System account adopts two-level management: group and user. The user authorities shall be smaller than group authorities (The **admin** user authorities are set by default).
- For group or user management, there are two levels: admin and user. The user name shall be unique and one user shall only belong to one group.
- 4.10.1.1 User
- 4.10.1.1.1 Add User
- Step 1 From main menu->Setting->System->Account->User.
 - Enter user interface. See Figure 4-109.

		SETTING				
STAMERA		T EVENT	STOR/	AGE	SYSTEM	
GENERAL DISPLAY VOICE PROMPT		Group Secure (ata Mana		
ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	1 User 1 admin	Group Name admin	Modify Del	ete Memo	ם ז's account	
	(Add User)					

Figure 4-109

Step 2 Click Add user button in Figure 4-109. The interface is shown as in Figure 4-110.

		Add User	
User Name Password Memo Group (admin • Authority		Confirm Password	
System Playback System Playback All All Storaage Storaage Security Security	Monitor SYSTEM EVENT M File Backup		MANUAL CONTROL
			Save Cancel

Figure 4-110

Step 3 Input the user name, password, select the group it belongs to from the dropdown list. Then you can check the corresponding rights for current user.

Note

For convenient user management, usually we recommend the general user right is lower than the admin account.

Step 4 Click Save button.

4.10.1.1.2 Modify user

From main menu->Setting->System->Account->User, click //, you can go to the following interface to

change user information. See Figure 4-111.

		Modify User
User Name (admin Modify Password) Old Password New Password Confirm Password Prompt Question Authority		Group admin ♥ Email Address (h***@dahuatech.com Memo admin 's account ♥ Unlock Pattern ■
System Playback All ACCOUNT STORAGE	Monitor SYSTEM EVENT M File Backup	 ✓ SYSTEM INFO ✓ MANUAL CONTROL ✓ NETWORK MAN ✓ CAMERA ✓ Device Maintain
		Save Cancel

Figure 4-111

For **admin** user, you can change the email, enable/disable unlock pattern, change password prompt question, set security questions. See Figure 4-112.

	Mod	ify User	
User Name (admin		Group (admin)
Modify Password		Email Address (h***@c	lahuatech.com
New Password		Memo admin	's account
Confirm Password		🔽 Unlock Pattern 🛱	
Prompt Question (1111111			
Authority			
System Playback	Monitor		
	_	_	
	SYSTEM		
		NETWORK MAN	
	🗹 File Backup	🗹 Device Maintain	
			Save Cancel

Figure 4-112

- Input email information and then click Save, it is to set/change email address.
- Check the box to enable unlock pattern and then click , click Save to change unlock pattern.
- Set security question

Step 1 Click Security question, enter the following interface. See Figure 4-113.

		SETTING		
ST CAMERA		To EVENT	STORAGE	SYSTEM
GENERAL DISPLAY VOICE PROMPT ACCOUNT	User Please set a sec	Group Secure C urity question so that y	Que rou can find the passwor	rd of (admin) again.
SECURITY AUTO MAINTAIN IMP/EXP DEFAULT	Answer	nat is your favorite child nat was the first name o		
UPGRADE	Answer Question 3 Wr	nat is the name of your	favorite fruit?	
				Set Delete

Figure 4-113

Step 2 Input answers and then click Save button.

After successfully set security questions, you can answer the security questions to reset admin password.

D Note

Select security questions from the dropdown list and then input the proper answers, click Delete button to reset security questions and answers again.

4.10.1.1.3 Change Password

In Figure 4-111, check the Modify password box, you can change password. Please input old password, and then input new password twice to confirm.

Password/confirm password: The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "i", "i", ";", ":", "&"). The password shall contain at least two categories. Usually we recommend the strong password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

4.10.1.2 Modify Group

Step 1 From main menu->Setting->System->Account->Group. Enter add group interface. See Figure 4-114.

	SETTING
CAMERA	👼 NETWORK 🛛 👼 EVENT 🛛 🛃 STORAGE 🛛 🛃 SYSTEM
GENERAL DISPLAY	User Group Secure Que
VOICE PROMPT	2 Group Modify Delete Memo
ACCOUNT	1 admin 🦯 🗙 administrator group
SECURITY	2 user 🖌 🗙 user group
AUTO MAINTAIN	
IMP/EXP	
DEFAULT	
UPGRADE	
OFGRADE	
	(Add Group)

Figure 4-114

Step 2 Click add group button in Figure 4-114.

Enter Add group the interface. See Figure 4-115.

Step 3 Input group name and then input some memo information if necessary. Check the box to select authorities.

Authority	Playback	Monitor		
	т	SYSTEM		MANUAL CONTROL
STORAG	E	EVENT M	NETWORK MAN	
		🔲 File Backup	Device Maintain	

Figure 4-115

4.10.1.3 Security Question

Note

This function is for **admin** user only.

Here you can change security questions. After you successfully answered security questions, you can reset admin account password.

From main menu->Setting->System->Account->Security question, the interface is shown as below. See Figure 4-116. Input correct security answers and then click Delete button at the bottom of the interface, you can reset security questions and answers.

			SETTING			
CAMERA		🔂 EV	'ENT	STORAGE	SYSTEM	
GENERAL DISPLAY VOICE PROMPT	User	Group	Secure Qu	ıe u can find the passwo	rd of (admin) again	
ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP	Question 1(Answer (What is your fa	avorite childr	· · ·		
DEFAULT UPGRADE	Answer (What is the na				
					Set) (Delete	

Figure 4-116

4.10.1.4 Online User

Here is for you manage online users connected to your NVR. See Figure 4-117.

You can click button **I** to disconnect or block one user if you have proper system right.

System detects there is any newly added or deleted user in each five seconds and refresh the list automatically.

		INFO		
SYSTEM	📆 EVENT		🕼 LOG	_
ONLINE USERS LOAD TEST	User Name	IP Address	User Login Time	Block
	Block Time 60	s s		

Figure 4-117

4.10.2 System Info

4.10.2.1 Version

From main menu->Info->System->version, you can go to version interface.

It is to view NVR version information. Slight different may be found on the user interface. 4.10.2.2 BPS

Here is for you to view current video bit rate (kb/s) and resolution. See Figure 4-118.

	_	INFO		
SYSTEM	📆 EVENT		📕 LOG	
HDD RECORD		olution Kb/S)*1080 1767 2*2048 3953	Wave	ŀ
BPS VERSION	D3 1920)*1080 3816)*960 6822		
VERSION	U4 128(F96U 6822	1E	L

Figure 4-118

4.10.2.3 Event Information

4.10.2.3.1 Alarm Status

From main menu->info-Event, here you can view the channel status of the remote device, connection log and etc. See Figure 4-119.



Figure 4-119

4.10.3 Security

4.10.3.1 IP Filter

IP filter interface is shown as in Figure 4-120. You can add IP in the following list. The list supports max 64 IP addresses. System supports valid address of IPv4 and IPv6. Please note system needs to check the validity of all IPv6 addresses and implement optimization.

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

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

- Enable: Highlight the box here, you can check the trusted site function and blocked sites function. You cannot see these two modes if the Enable button is grey.
- Type: You can select trusted site and 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, you can input IP address in the start address and end address. Now you can click Add IP address or Add IP section to add.
 - a) For the newly added IP address, it is in enable status by default. Remove the $\sqrt{}$ before the item, and then current item is not in the list.
 - b) System max supports 64 items.
 - c) Address column supports IPv4 or IPv6 format. If it is IPv6 address, system can optimize it. For example, system can optimize aa:0000: 00: 00aa: 00aa: 00aa: 00aa: 00aa as aa:: aa: aa: aa: aa: aa: aa: aa.
 - d) System automatically removes space if there is any space before or after the newly added IP address.
 - e) System only checks start address if you add IP address. System check start address and end address if you add IP section and the end address shall be larger than the start address.
 - f) System may check newly added IP address exists or not. System does not add if input IP address does not exist.
- Delete: Click it to remove specified item.
- Edit: Click it to edit start address and end address. See Figure 4-121. System can check the IP address validity after the edit operation and implement IPv6 optimization.
- Default: Click it to restore default setup. In this case, the trusted sites and blocked sites are both null.

Note

- If you enabled trusted sites, only the IP in the trusted sites list can access the device.
- If you enabled blocked sites, the IP in the blocked sites cannot access the device.
- System supports add MAC address.

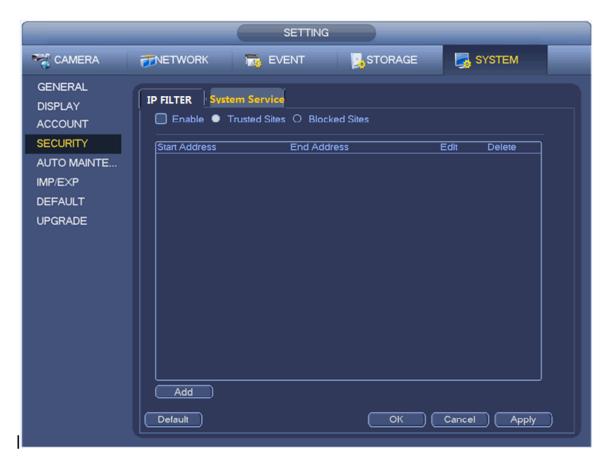


Figure 4-120

Edit
Start Address 10.15.6.140 123
End Address (10.15.6.145
OK Cancel

Figure 4-121

4.10.3.2 System Service

The device supports to enable and disable various system internal services.

Step 1 From main menu->System->Security ->System Service.

The System Service interface is displayed. See Figure 4-122.



Figure 4-122

Step 2 Configure the parameters. For details, see the below table.

Parameter	Description					
Password Reset	Enabled by default.					
	If it is disabled, the user can only use the security questions to reset					
	the password.					
Mobile Phone Push	Enabled by default.					
	The snapped pictures triggered at the device can be push to the					
	mobile app.					
CGI	Enabled by default.					
	The device can be connected via this protocol when enabled.					
Audio/VideoEncryption	The stream transmission is encrypted when this function is					
	enabled. The associated device or software shall support decryption.					

Step 3 Click OK to complete the configuration.

4.10.4 Auto Maintain

Here you can set auto-reboot time and auto-delete old files setup. You can set to delete the files for the specified days. See Figure 4-123.

You can select proper setup from dropdown list.

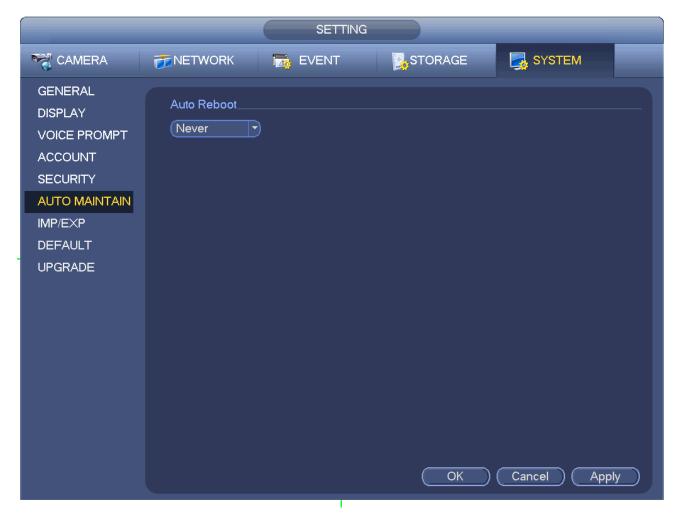


Figure 4-123

4.10.5 Backup

4.10.5.1 File Backup

In this interface, you can backup record file to the USB device.

- a) Connect USB burner, USB device or portable HDD and etc to the device.
- b) From Main menu->Backup, you can go to the Backup interface. See Figure 4-124

	BACKUP		
(🔚 sdb1(USB DISK)/NVR/2017-	·11-12/		Browse
0.00 KB(Space Needed)	1.92 GB/7.52 GB(Free/Total)		
Type 🛛 🖌	Main Str 🔻 Record CH	(D1 🔻	
	00 : 00 : 00		
	19 : 39 : 08 File Forma		Add Remove
0 Channel Type S	Start Time End Ti	me Size(KB)	Play
			Start

Figure 4-124

- c) Select backup device and then set channel, file start time and end time.
- d) Click add button, system begins search. All matched files are listed below. System automatically calculates the capacity needed and remained. See Figure 4-125.
- e) System only backup files with a $\sqrt{}$ before channel name. You can use Fn or cancel button to delete $\sqrt{}$ after file serial number.
- f) Click backup button, you can backup selected files. There is a process bar for you reference.
- g) When the system completes backup, you can see a dialogue box prompting successful backup.

				BACKUP	_	
(🔁 sdb	o1(USB DISI	K)/NVR/20	17-11-12/			Browse
787.38	MB(Space I	Needed)	1.92 GB/7.52 G	B(Free/Total)		
Туре	All	\Box	(Main Str 🔻)Record CH (All		
Start Tir	me 💽 201	7 - 11 - 11	00:00:00)		
End Tir	ne 🔇 201	7 - 11 - 13	00:00:00) File Format(ASF		dd Remove
2	🗸 Chann		Start Time	End Time	Size(KB)	Play
1	✓ D1	R(M)	17-11-12 20:26:28	17-11-12 20:43:24	542208 263424	
	✓ D4	R(M)	17-11-12 20:26:28	17-11-12 20:43:24	263424	
						(<u>Start</u>

Figure 4-125

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



- During backup process, you can click ESC to exit current interface for other operation (For some series product only). The system will not terminate 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. File extension name is .dav.

4.10.5.2 Import/Export

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

From Main menu->Setting->System->Import/Export, you can see the configuration file backup interface is shown as below. See Figure 4-126.

		SETTING		_	
SAMERA		D EVENT	STORAGE	SYSTEM	
GENERAL DISPLAY VOICE PROMPT ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	Device Name Total Space Address Name System	sda1(USB DISK) 7.53 GB (sd Volume Information III Format Import	Refresh Free Space	(702.56 MB Size	Ty A Apply

Figure 4-126

- Export: Please connect the peripheral device first and then go to the following interface. Click Export button, you can see there is a corresponding "Config_Time" folder. Double click the folder, you can view some backup files.
- Import: Here you can import the configuration files from the peripheral device to current device. You need to select a folder first. You can see a dialogue box asking you to select a folder if you are

selecting a file. System pops up a dialogue box if there is no configuration file under current folder. After successfully import, system needs to reboot to activate new setup.

• Format: Click Format button, system pops up a dialogue box for you to confirm current operation. System begins format process after you click the OK button.

D Note

- System cannot open config backup interface again if there is backup operation in the process.
- System refreshes device when you go to the config backup every time and set current directory as the root directory of the peripheral device.
- If you go to the configuration backup interface first and then insert the peripheral device, please click Refresh button to see the newly added device.

4.10.5.3 Backup Log

a) From Main menu->Info->Log, the interface is shown as below. See Figure 4-127.

SYSTEM 🔂 EVENT SNETWORK 🚺 LOG
LOG Start Time 2017 - 11 - 11 00 : 00 : 00 End Time 2017 - 11 - 12 00 : 00 : 00 Type All Search 1 2017 - 11 - 11 21:30 : 80 AuthFailed <login failed!="" invalid<="" td=""> Play 2 2017 - 11 - 11 21:32:48 Adjust Channel Sequence </login>

Figure 4-127

b) Select log type and then set start time/end time, click Search button, you can see log time and

event information. Click E to view detailed log information.

c) Select log items you want to save and then click backup button, you can select a folder to save them. Click Start to backup and you can see the corresponding dialogue box after the process is finish.

4.10.5.4 USB Device Auto Pop-up

After you inserted the USB device, system can auto detect it and pop up the following dialogue box. It allows you to conveniently backup file, log, configuration or update system. See Figure 4-128. Please refer to chapter 4.10.5.1 file backup, chapter 4.10.5.3 backup log, chapter 4.10.5.2 import/export, and chapter 4.6.2 search for detailed information.

Find USB device	
Name: sdb1(USB DISK) ✤ Capa 1.92 GB/7.52 GB(Free/Total)	
File Backup Log Backup Config Backu System Upgrade	ıp

Figure 4-128

4.10.6 Default



After you use default function, some your customized setup may lose forever! Please think twice before you begin the operation!

You can restore factory default setup to fix some problems when the device is running slowly. Configuration error occurred.

From Main menu->Setting->System->Default, you can go to the default interface. See Figure 4-129.

Check an item you want to restore default setup, or check the All to select all items.

Click OK or apply button, system pops up a dialogue box. Click OK to restore.



Figure 4-129

4.10.7 Upgrade

4.10.7.1 File Update

From Mani menu->Setting->Info->Update, you can go to the following interface. See Figure 4-130.

Step 1 Insert USB device that contain the upgrade file.

Step 2 Click Start button and then select the .bin file.

Step 3 You can see the corresponding dialogue box after the update process is complete.

	SETTING
	👼 NETWORK 🛛 👼 EVENT 🛛 💁 STORAGE
GENERAL DISPLAY VOICE PROMPT ACCOUNT SECURITY AUTO MAINTAIN IMP/EXP DEFAULT UPGRADE	File Upgrade Please insert USB device and then click update button to begin update, or you can select update file and then begin upgrade operation. Do not turn off the device during the upgrade process! Upgrade Online Upgrade Muto-check for updates Save System V 3.215.0000000.0 Build Date 2018-02-09 Manual C

Figure 4-130

4.10.7.2 Online Upgrade

When the NVR is online, you can use the online upgrade to update the firmware.

Before the online upgrade, system needs to detect if any new version is available. It includes auto check and manual check.

- Auto check: System automatically detects if any new version is available once in a while.
- Manual check: Detect new version at real time.

During the upgrade process, make sure that the network connection and power supply are normal. Step 1 Enter from main menu > Setup > System > Upgrade.

The Upgrade interface is displayed. See Figure 4-131.



Figure 4-131

Step 2 Version check.

• Auto check: Select the Auto check for updates check box and click Save.

🛄 Note

System enables this function by default.

- Manual check: Click Manual Check.
 System starts to search new version and displays the result after the check is completed.
- When system displays that it is the latest version, the current version is the latest one and you do not need to upgrade it.
- When system displays the new version information (including release date and upgrade notes), new version is available and go to Step 3.

Step 3 Click Upgrade to upgrade the system.

4.10.7.3 Uboot

When NVR boots up, during the uboot process, NVR automatically detects there is USB device and there is upgrade file on the USB device or not. If the detection result is OK, NVR automatically begins upgrade.



- The USB device shall contain two files: u-boot.bin.img and update.img.
- The USB device shall connected to the USB port at the front panel. Otherwise, NVR cannot properly
 detect the file or upgrade.

4.11 Logout /Shutdown/Restart

From Mani menu->Operation->Shutdown, you can see an interface shown as in Figure 4-132.

- Shutdown: System shuts down and turns off power.
- Logout: Log out menu. You need to input password when you login the next time.
- Restart: reboot device.

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

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



Figure 4-132

5 Web Operation

5.1 General Introduction

If it is your first time to login the device, please initialize your device first. Refer to chapter 5.2 Device Initialization for detailed information.

The device web provides channel monitor menu tree, search, alarm setup, system setup, PTZ control and monitor window and etc.

Note

- Slight difference may be found on user interface. Please refer to the actual product for detailed information.
- Device supports various browsers such as Safari, Chrome and etc.
- Use ChromeApp to login the WEB if the Chrome version is 45 or higher. Go to the Chrome online store to download the ChromeApp installation package.

5.1.1 Preparation

- Step 1 PC and NVR connection is OK.
- Step 2 Set PC IP address, NVR IP address, subnet mask and gateway.
 - Set the IP address of the same section for the PC and NVR. Input corresponding gateway and subnet mask if there are routers.)
 - The device default IP address is 192.168.1.108.
- Step 3 Check the PC and device connection is OK or not. Refer to the following two ways to check the network connection is OK or not. When the PC and device network connection is OK, login the WEB via the PC.
 - On PC, use order ping ***.***.***(NVR IP address) to check connection is OK or not. Login Usually the TTL value is 255.
 - Login the device local menu, from setting->Network->Network test and then input PC IP address. Check the connection is OK or not.
- Step 4 Login the WEB. Refer to chapter 5.9 Login for detailed information.

5.2 Device Initialization

If it is your first time to use the device, please set a login password of **admin** (system default user).

D Note

For your device safety, please keep your login password of **admin** well after the initialization steps, and change the password regularly.

Please follow the steps listed below.

- Step 1 Open the IE and then input the NVR IP address in the address column.
- Step 2 Click Enter button.

Device displays device initialization interface. See Figure 5-1.

Enter Password 2	Password Protection 3 Successful
Username	admin
New Password	
	Low Middle High
	It is 8 to 32-digit containing letter(s), number (s),symbol(s). It contains at least two types.
Confirm Password	(o,o)mon(o), it contains at reast two types.



- Step 3 Set login password of **admin**.
 - User name: The default user name is **admin**.
 - Password/confirm password: The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "!", "!", ";", ":", "&"). The password shall contain at least two categories. Usually we recommend the strong password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

Step 4	Click Next,	device	goes to	the following	interface.	See Figure 5-2.

Device Initialization					
vord 2 Password Protection 3 Successful					
(To reset password)					
What is your favorite children's book?					
What was the first name of your first boss?					
What is the name of your favorite fruit?					
Next					

Figure 5-2

Step 5 Set security questions.

D Note

- After setting the security questions here, you can use the email you input here or answer the security questions to reset **admin** password Refer to chapter 5.4 Reset password for detailed information.
- Cancel the email or security questions box and then click Next button to skip this step.
- Email: Input an email address for reset password purpose. Scan the QR code to reset the password, you need to receive the security code by the email. Input the security code to reset the password of **admin**. In case you have not input email address here or you need to update the email information, please go to the main Setup->System->Account to set. Refer to chapter 5.10.5.4 for detailed information.
- Security question: Set security questions and corresponding answers. Properly answer the questions to reset admin password. In case you have not input security question here or you need to update the security question information, please go to the main menu->Setting->System->Account->Security question to set. Refer to chapter 4.10.1.3 Security question for detailed information.

D Note

If you want to reset password by answering security questions, please go to the local menu interface.





Figure 5-3

5.3 Log in

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

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 5-4.

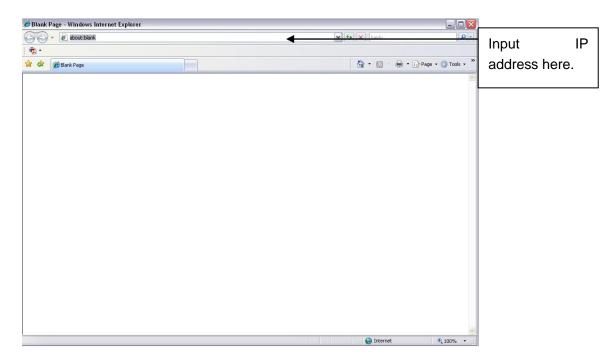


Figure 5-4

System pops up warning information to ask you whether install Web plug-in or not. Please click yes button.

After installation, the interface is shown as below. See Figure 5-5.

EZ-IP		
User Name:]
Password:		🔲 Plain Text
Туре:	ТСР	Forgot password?
	• LAN O WAN	
	Login Cancel]

Figure 5-5

Please input your user name and password.

Factory default user name is **admin** and password is what you set in chapter 5.2 Device initialization.

5.4 Reset Password

If you forgot **admin** password, you can reset the password by email or by answering the security questions (local menu only).

- When the password reset function is enabled, you can scan the QR code on the Web to reset the password.
- When the password reset function is disabled, you can reset password via the security questions

configured before. If the secury questions are not configured, system displays that Password reset is closed! You need to contact the customer service for help.

Step 1 Go to the device login interface. See Figure 5-6.

EZ-IP		
User Name:		
Password:		Plain Text
Туре:	ТСР	Forgot password?
	• LAN O WAN	
	Login Cancel	

Figure 5-6

- Step 2 Click Forgot password.
 - If you have set the reserved email, system displays a notice before the password reset. See Figure 5-7.
 - If you have not set the reserved email, a dialogue box pops up that asks you to reset the password by clicking Forgot password on the local interface.



Figure 5-7

System enters the following interface. See Figure 5-8.



After clicking OK, we will collect your personal information such as cell phone number, MAC address and device serial number. The collected information is used for verifying device legality and sending security code. Please read the notice carefully and confirm if you agree with the collection or not.

Reset(1/2)	Please scan the QR code on the actual interface	
	and follow the prompts on the actual interface on the actual interface continue.	
Input security co	The security code will be delivered to 1***@qq.com.	
	Cancel Next	

Figure 5-8

Step 4 Follow the prompts on the interface and then scan the QR code to get the security code.



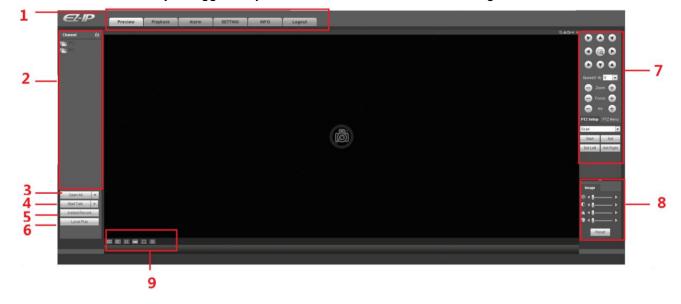
- For the same QR code, max scan twice to get two security codes. Refresh the QR code if you want to get security code again.
- ♦ The security code on you email is only valid for 24 hours.
- After five times security code failure, the **admin** account will be locked for 5 minutes.
- Step 5 Input the security code on the email and then click Next button.
- Step 6 Input new password and then confirm.



The password can be set from 8 characters through 32 characters and contain at least two types from number, letter and special character (excluding"", """, ";", ":" and "&"). It is recommended to set password of high security according to the prompts.

Step 7 Click OK button to complete the setup.

5.5 LAN Mode



For the LAN mode, after you logged in, you can see the main window. See Figure 5-9.



This main window can be divided into the following sections.

- Section 1: there are six function buttons: Live(chapter 5.6), setup (chapter 5.10), info (Chapter 5.11), playback (chapter 5.12), alarm (chapter 5.13), and logout (chapter 5.14).
- Section 2: There are monitor channels successfully connected to the NVR.

Please refer to Figure 5-10 for main stream and extra stream switch information.

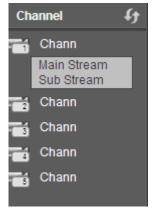


Figure 5-10

• Section 3: Open all. Open all button is to enable/disable all-channel real-time monitor. Here you can select main stream/sub stream too. See Figure 5-11.

(Ψ.			
	Main Stream	۱		
	Sub Stream			
Instant Record				

Figure 5-11

• Section 4: Start Talk button.

You can click this button to enable audio talk. Click 【▼】 to select bidirectional talk mode. There are four options: DEFAULT, G711a, G711u and PCM. See Figure 5-12.

After you enable the bidirectional talk, the Start talk button becomes End Talk button and it becomes

yellow. Please note, if audio input port from the device to the client-end is using the first channel audio input port. During the bidirectional talk process, system will not encode the audio data from the 1-channel.

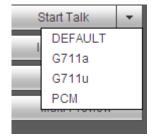


Figure 5-12

• Section 5: Instant record button. Click it, the button becomes yellow and system begins manual record. See Figure 5-13. Click it again, system restores previous record mode.



Figure 5-13

• Section 6: Local play button.

The Web can playback the saved (Extension name is dav) files in the PC-end.

Click local play button, system pops up the following interface for you to select local play file. See Figure 5-14.

Open			? 🗙
Look jn: Desktop		` ■ + `	* +
 My Documents My Computer My Network Places Access IBM AOL Double-Click to Sta EarthLink Internet 30 Double 	¶∑ TF ای w 20 rt 1 € 1	orton AntiVirus inkVantage Technologies ireless Manager)08_04_08 CF09042008_00000	∑n10C ∑Secu
	Ш		•
File name: Files of type: Record files	s (*.*)		<u>O</u> pen Cancel

Figure 5-14

- Section 7: PTZ operation panel. Please refer to chapter 5.7 for detailed information.
- Section 8: Image setup and alarm setup. Please refer to chapter 5.8 for detailed information.
- Section 9: From the left to the right, you can see video quality/fluency/ full screen/1-window/4-window.
 You can set video fluency and real-time feature priority.

5.6 Real-time Monitor

In section 2, left click the channel name you want to view, you can see the corresponding video in current window.

On the top left corner, you can view 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 5-15.

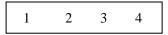




Figure 5-15

On the top right corner, there are six unction buttons. See Figure 5-16.

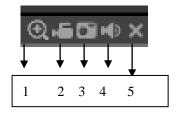


Figure 5-16

- 1: Digital zoom: Click this button and then left drag the mouse in the zone to zoom in. right click mouse system restores original status.
- 2: Local record. When you click 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 snapshot important video. All images are memorized in system client folder PictureDownload (default).
- 4: Audio :Turn on or off audio.(It has no relationship with system audio setup)
- 5: Close video.

5.7 PTZ

There are eight direction keys. In the middle of the eight direction keys, there is a 3D intelligent positioning key.

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

Please refer to the following sheet for PTZ setup information.

Parameter	Function
Scan	Select Scan from the dropdown list.
	 Click Set button, you can set scan left and right limit.
	• Use direction buttons to move the camera to you desired location
	and then click left limit button. Then move the camera again and
	then click right limit button to set a right limit.
Preset	Select Preset from the dropdown list.
	 Turn the camera to the corresponding position and Input the
	preset value. Click Add button to add a preset.
Tour	Select Tour from the dropdown list.
	 Input preset value in the column. Click Add preset button, you
	have added one preset in the tour.
	• Repeat the above procedures you can add more presets in one
	tour.
	• Or you can click delete preset button to remove one preset from
	the tour.

Parameter	Function
Pattern	 Select Pattern from the dropdown list.
	• You can input pattern value and then click Start button to begin
	PTZ movement such as zoom, focus, iris, direction and etc. Then
	you can click Add button to set one pattern.
Aux	 Please input the corresponding aux value here.
	• You can select one option and then click AUX on or AUX off
	button.
Light and wiper	You can turn on or turn off the light/wiper.

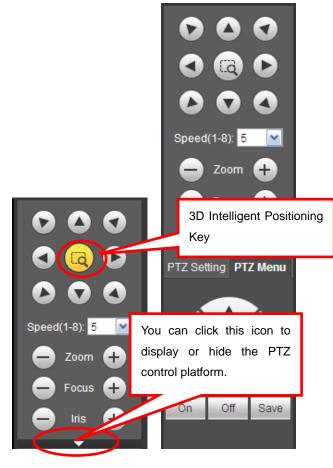


Figure 5-17

5.8 Image/Alarm-out

Select one monitor channel video and then click Image button in section 9, the interface is shown as Figure 5-18.

5.8.1 Image

Here you can adjust its brightness, contrast, hue and saturation. (Current channel border becomes green).

Or you can click Reset button to restore system default setup.

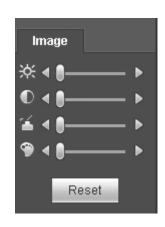


Figure 5-18

5.9 WAN Login

In WAN mode, after you logged in, the interface is shown as below. See Figure 5-19.

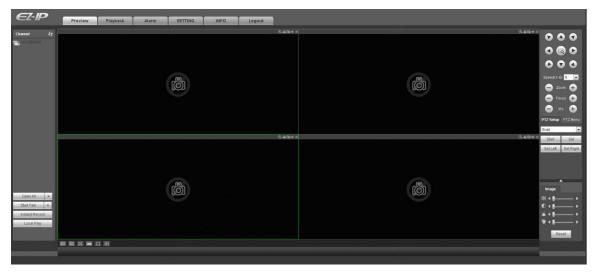


Figure 5-19

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

1) In the WAN mode, 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.

Important

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

3) Multiple-channel monitor, system adopts extra stream to monitor by default. Double click one channel, system switches to single channel and system uses main stream to monitor. You can view 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, system does not support alarm activation to open the video function in the Alarm setup interface.

Important

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

5.10 Setup

5.10.1 Camera

5.10.1.1 Registration

5.10.1.1.1 Registration

From Main menu->Setup->Camera->Registration->Registration, you can see the following interface. See Figure 5-20.

Devic	ce Search	IP Address		•			_	Search			🗌 Un	initialized Initial	IZe
		Status	IP Addre	ess	Port	Device Na	me	Manufactur	er	Туре	1	MAC Address	
•	Add	Manual Camera Name		Delete	Modify IF Status	IP Address	Port	Device Name	Remot Chann No.		WER	ter None Type	•
	D19	&conf_img	2	0		10.15.21.36	37777	2F0424BPAN00 074	1	Prvate	е		_
	D20	CAM 20	1	•	-	10.15.6.168	37777	NVD	1	Prvate	e		
	D21	CAM 21	2	•	-	10.18.117.22	37777	ITC102-IR	1	Prvate	e		
	D22	CAM 22	2	•	-	10.15.5.88	40007	1K024B5YAZ00 004	1	Prvate	e		
	D23	CAM 23	2	•		10.15.9.108	37777	EVS	1	Prvate	e	EVS5000	
	D24	IPC	2	•		10.15.114.254	37777	2A018CFFAZ00 040	1	Prvate	e	P2s	

Figure 5-20

Please refer to the following sheet for parameter information.

Parameter	Function				
IP Address	Select IP address or the MAC address from the dropdown list				
	and then input the corresponding information, click Search				
	button to view the results.				
Search	Click Search button, you can view the searched device				
	information on the list. It includes device IP address, port, device				
	name, manufacturer and type.				
Uninitialized	Click to search the initialized devices. Select an uninitialized				
	device and then click the Initialize button to set the account.				

Parameter	Function
Preview	Click b to view the preview video of the remote device.
State	It is to display the device has been initialized or not. That is to say, the remote device has set the initial account information or
	not. 🖾 means the remote device has initialized, 💌 means
	the remote device has not been intialized.
Add	Select a device in the list and then click Add button, 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, you can change
	the corresponding channel setup.
Delete	Click 🔕 , you can delete the remote connection of the
	corresponding channel.
Туре	There are two connection types. You can use the network to connect to the camera or use the WIFI. The means
	connect to the camera of use the WIFI. The means
	current network camera connection mode is general; the 🛜
	means current network camera mode is hotspot.
Delete	Select a device in the Added device list and then click Delete button, system can disconnect the device and remove it from the Added device list.
Manual Add	Click it, the interface is shown as in Figure 5-26. Here you can add network camera manually.
	You can select a channel from the dropdown list (Here only
	shows disconnection channel.)

Initialize Camera

It is to initialize connected remote device and change its login password and IP address.

Steps:

- Step 1 From main interface->Setting->Camera->Registration. Enter Registration interface. See Figure 5-21.
- Step 2 Click IP search and check the Uninitialized box. Device displays uninitialized camera.

					IP Address 🔺	Port 🔺		vice Name 🔺	Manufacturer -	Туре –		ress ·
1		•	(e)		10.15.112.13	37777	2C05	052PAX00788	Dahua	IPC-HDW5221S	3c:ef:8c:75	:8e:e6
2					10.15.112.14	37777	2E005	39PAG00149	Dahua	IPC-HDW5221S	3c:ef:8c:be	:cd:6e
3					10.15.23.107	37777	2F009	83YAW00003	Dahua I	PC-HDBW4431C-AS	3c:ef.8c:c4	:e2:e0
4					10.15.114.161	8005	2F046	A4PAW00010	Dahua IF	C-HDBW7221F-MPC	3c:ef:8c:c5	:55:6d
5					192.168.1.108	37777	APOIP	CUB_300005	Dahua	IPC-K100	90:02:a9:10	1:03:da
6			S		10.15.5.248	37777	PZC3	FV08800141	Dahua	IP Camera	90:02:a9:1	e:31:f1
7					10.15.114.156	37777	YZC4E	Z001W00010	Dahua	IP Camera	90:02:a9:42	2:12:a6
8			S 1	•	10.15.7.205	40003	PFC40	SZ007W00001	Dahua	IPC-HDBW8281	90:02:a9:4	2:38:fc
9		•		1.0	10.15.23.211	37777	1F008	306YAZ00003	Dahua	IPC-HFW81200E-Z	90:02:a9:42	2:dd:29
evice \$	Search	Add	Manual Ac	Id							Dis	play Filter IPC
	Chanr	nel 🔺	Modify	Delete	Status	IP Address	Port -	Device Name	Remote Channel No.	Manufacturer	Camera Name	Туре 🔺
				•	76	10.15.7.205	40003	PFC4GZ007W00001	1	Dahua		
	17		1	•								
	17 18		1			10.15.23.211	37777	1F00806YAZ00003	1	Dahua	Channel 2	IPC-HFW81200
				-				1F00806YAZ00003 PZC3FV08800141	1	Dahua Dahua	Channel 2	IPC-HFW81200
	18		1	•	15	10.15.23.211	37777				Channel 2	IPC-HFW81200
	18 19		1	•	16 16	10.15.23.211 10.15.5.248	37777 37777	PZC3FV08800141		Dahua	Channel 2 Channel 2	IPC-HFW81200

Figure 5-21

Step 3 Select a camera to be initialized and then click Initialize button. Device displays password setup interface. See Figure 5-22.

Enter Password	
	✓ Using current device password and email info.
	Next Cancel

Figure 5-22

Step 4 Set camera password.

• Using current device password and email: Check the box to use DVR current admin account and email information. There is no need to set password and email. Please go to step 7.

• User name/password: The user name is **admin**. The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "", "", ";", ":", "&"). The password shall contain at least two categories. Usually we recommend the strong password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

Enter input email interface. See Figure 5-23. Email: Input an email address for reset password purpose.

Note

Cancel the box and then click Next or Skip if you do not want to input email information here.

Password Protection	
Email Address	To reset password, please input properly or update in time
Back	Next Skip

Figure 5-23

Step 6 Click Next button.

Enter Modify IP address interface. See Figure 5-24.

O DHCP ST/	ATIC 192.168.1.108	Incremental Value 1
Subnet Mask	255. 255. 255. 0	
Default Gateway	192.168.1.1	
No.	IP Addres	S
1	172.8.7.1	10

Figure 5-24

- Step 7 Set camera IP address.
 - Check DHCP, there is no need to input IP address, subnet mask, and default gateway.
 Device automatically allocates the IP address to the camera.

 Check Static, and then input IP address, subnet mask, default gateway and incremental value.

D Note

- If it is to change several devices IP addresses at the same time, please input incremental value. Device can add the fourth address of the IP address one by one to automatically allocate the IP addresses.
- If there is IP conflict when changing static IP address, device pops up IP conflict dialogue box. If batch change IP address, device automatically skips the conflicted IP and begin the allocation according to the incremental value

Step 8 Click Next button.

Device begins initializing camera. See Figure 5-25.

Device	Initializ	ation			_
	Finishe				
	No.	SN	IP Address	Results	
	1	000000000000000000000000000000000000000	172.8.7.110	Initialize:Success Modify IP:Succe SS	
				0	к

Figure 5-25

Step 9 Click OK to complete the initialization.

Manual Add

Manual Add	Ε	X
Manufacturer	Onvif 💌	
IP Address	192.168.0.0	
RTSPMode	Self-adaption	
HTTP Port	80	
Username	admin	
Password	Connect	
Channel No.	1 Setup	
Remote Channel No.	1	
Channel	D1 💌	
Decode Buffer	Default	
Encrypt		
	OK Cancel	

Figure 5-26

Please refer to the following sheet for parameter information.

Parameter	Function
Manufacturer	Please select from the dropdown list.
	Note
	Different series products may support different manufacturers, please refer
	to the actual product.
IP address	Input remote device IP address.
	Input RTSP mode of the remote device, including self-adaptive and customized.
RTSP mode	Note
	Skip this item if the manufacture is private or customized.
HTTP port	Input HTTP port of the remote device. The default setup is 80.
	Skip this item if the manufacture is private or customize.
TCP port	Input TCP port of the remote device. The default setup is 37777.
User name/password	The user name and password to login the remote device.

Parameter	Function			
Channel No.	Input channel amount or click the Connect button to get the channel amount of the remote device.			
	We recommend click Connect button to get remote device channel amount, the manual add operation may result in failure if the input channel amount is not right.			
Remote channel No.	After getting the remote device channel amount, click Setup to select a channel. Note			
Channel	Click to select one or more remote channel numbers here. The local channel number you want to add. One channel name has corresponding one channel number.			
Decode buffer	There are three item: realtime, local, fluent.			
Service type	 There are four items: auto/TCP/UDP/MULTICAST(ONVIF device only) Note The default connection mode is TCP if the connection protocol is private. There are four items including Auto, TCP, UDP and MULTICAST if the connection protocol is ONVIF. There are two items: TCP/UDP if the connection protocol is from the third-party. 			
Encrypt	When the connection protocol is ONVIF, enable the encryption function and system transmits data in the encrypted mode. Note System supports this function when HTTPS is enabled in IPC.			

Change IP

On the searched devices list, check one or more device(s) at the same time. Click Modify IP button, you can see the following interface. See Figure 5-27

Please refer to the following sheet for log parameter information.	
--	--

Parameter		Function
DHCP		Check the box here, system can auto allocate the IP
		address. The IP address, subnet mask, default
		gateway are reference only.
Static		Check the box here, you can set IP address, subnet
		mask, default gateway manually.
IP	address/subnet	You can input corresponding information here.
mask/default gateway		

Parameter	Function
User name/password	The account you login the remote device. Please
	input here to password verification to change the
	remote device password.
Incremental value	When you want to change several IP addresses,
	once you input the IP address of the first device, the
	IP address of the next device will increase
	accordingly. For example, when the incremental
	value is 1, if the IP address of the first device is
	172.10.3.128, the IP address of the second device
	will auto be set as 172.10.3.129.

Note

For the static IP address, system will alert you if there is any IP conflict. If you are changing several IP addresses at the same time, system auto skip the conflicted IP and auto allocate again according to the incremental value you set.

Modify IP			×
Checked Device No.:	1		
○ DHCP	User	admin	
STATIC	Password		
IP Address	172 . 11	. 2 . 50 Incremental Value	1
Subnet Mask	255 . 255	. 0 . 0	
Default Gateway	172 . 11	. 0 . 1	
	ОК	Cancel	
SN	IP Address		
1	172.11.2.50		~
			Ŧ

Figure 5-27

Export IP

System supports to export the registered device list and save it in the USB device.

Step 1 Inset the USB device and click Export.

The File Backup Encryption interface is displayed. See Figure 5-28.



Figure 5-28

Step 2 File backup encryption is enabled by default. Click OK to select the save path.

Step 3 Click Save. After the export is completed, system pops up a dialogue box to show that backup is completed.

Note

Backup encryption is enabled by default when exporting IP. The file contains information such as IP address, port, remote channel number, manufacturer, username and password.

- If file backup encryption is enabled, the extension name of the exported file is .backup. Except the NVR device, any other software cannot open and edit the file.
- If the backup encryption is disabled, the extension name of the exported file is .csv. It might lead to data leakage.

Import IP

You can import the added device list to add the device conveniently. Click Import button, and then select the import file.

Note

If the imported IP is already in the added device list, system pops up dialogue box for you to confirm overwrite or not.

- Click OK button, the new IP setup can overwrite the old one.
- Click Cancel button, system adds the new IP setup.

Important

- You can edit the exported file. Please make sure the file format is the same. Otherwise you cannot import the file again!
- System does not support customized protocol import/export.
- The import/export function is for the devices of the same language.

5.10.1.1.2 IPC Upgrade

This interface is to upgrade network camera.

From Main menu->Setting->Camera->Registration->IPC upgrade, enter the following interface. See Figure 5-29.

Click Browse button to select upgrade file. Or you can use filter to select several network cameras at the

same time.

Select Firmware File			Browse					
vice Upgrade							Display Filter Null	•
	Channel	Status	IP Address	Version	Upgrade Status	Port	Manufacturer	Туре
8	D1		10.15.5.248		-	80	ONVIF	IP Camer
	D2	5	10.15.108.203		-	37777	Private	DH-SD-E56E230UB-H
	D3		10.1.1.67	2.460.000000.16.R,2017-09-04		3	Private	IP Camera
	D4	5	10.15.108.205		-	37777	Private	DH-8D-E56E230UB-HI

Figure 5-29

5.10.1.2 Image



Slight difference may be found since the connected network camera may not be same model. Here you can view device property information. The setups become valid immediately after you set. See Figure 5-30.

Conditions		
2013-10-24 1	6156.432117u Channel 1	
	Saturation Mirror O Enable O Disable Brightness Contrast Sharpness	
	Flip No Flip	
	Light Close	
IPDome	DayLight Auto	
Default Save	Refresh	

Figure 5-30

Parameter	Function
Channel	Please select a channel from the dropdown list.
Period	It divides one day (24 hours) to two periods. You can set different hue, brightness, and contrast for different periods.
Hue	It is to adjust monitor video brightness and darkness level. The default value is 50.
	The bigger the value is, the large the contrast between the bright and dark section is and vice versa.
Brightness	It is to adjust monitor window brightness. The default value is 50.
	The larger the number is , the bright 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		It is to adjust 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 bright is OK but the contrast			
		this function when the whole video bright is OK but the contrast is not proper. 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.			
Saturati	on	It is to adjust 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 low the noise is. But the brightness is also too low in the dark environments. It can enhance the video brightness if the value is high. But the video noise may become too clear.			
White level		It is to enhance video effect.			
Color mode		It includes several modes such as standard, color. You can select corresponding color mode here, you can see hue, brightness, and contrast and etc will adjust accordingly.			
Auto Iris	5	It is to enable/disable auto iris function.			
Flip		It is to switch video up and bottom limit. This function is disabled by default.			
Mirror		It is to switch video left and right limit. This function is disabled by default.			
BLC BLC Mode		The device auto exposures according to the environments situation so that the darkest area of the video is cleared			
WDR		For the WDR scene, this function can lower the high bright section and enhance the brightness of the low bright section. So that you can view these two sections clearly at the same time. The value ranges from 1 to 100. When you switch the camera from no-WDR mode to the WDR mode, system may lose several seconds record video.			
HLC		After you enabled HLC function, the device can lower the brightness of the brightest section according to the HLC control level. It can reduce the area of the halo and lower the brightness of the whole video.			

	Off	It is to disable the BLC function. Please note this function is disabled by default.		
Profile		It 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 mode such as auto, sunny, cloudy, home, office, night, disable and etc to adjust the video to the best quality.		
		• Auto: The auto white balance is on. System can auto compensate the color temperature to make sure the vide color is proper.		
		• 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 channel. The value reneges from 0 to 100. 		
Day/Nig	ht	It is to set device color and the B/W mode switch. The default setup is auto.		
		Color: Device outputs the color video.		
		 Auto: Device auto select to output the color or the B/W video according to the device feature (The general bright of the video or there is IR light or not.) 		
		• B/W: The device outputs the black and white video.		
		 Sensor: It is to set when there is peripheral connected IR light. 		

5.10.1.3 Encode

5.10.1.3.1 Encode

The encode interface is shown as below. See Figure 5-31.

Encode	Snapshot	Overlay	Pa	ath			
Channel	D1 💌						
Main Stream		S	Sub Stream				
Code-Stream Type	Regular 💌		Video Enable				
Compression	H.264H 💌		Compression	H.264H		·	
Resolution	1280x960(1.3M)		Resolution	352x288(C	IF) 💌	·	
Frame Rate(FPS)	1		Frame Rate(FPS)	1	-	·	
Bit Rate Type	CBR		Bit Rate Type	CBR	-	•	
Bit Rate	512 • K	b/S	Bit Rate	Customize	d 🔻		
Reference Bit Rate	1-24576Kb/S		Bit Rate	112		Kb/S	
			Reference Bit Rate	e 1-24576Kb/	s		
🔲 Watermark Enable			Watermark String				
[Copy Save	Re	efresh				

Figure 5-31

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

Channel	Please select a channel from the dropdown list.
Video enable	Check the box here to enable extra stream video. This item is
	enabled by default.
Code stream type	It includes main stream, motion stream and alarm stream. You can select different encode frame rates form different recorded events. 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	Video encode mode.
	 H.264: Main Profile encode mode. H.264H: High Profile encode mode.
	• H.264B: Baseline Profile encode mode.
	• H.265: Main Profile encode mode.
	 MJPEG: System needs high bit streams to guarantee video definition. Use the recommended max bit stream value to get the better video effect.
Smart Codec	This function is to reduce bit streams.
	Note
	• Some series products support smart codec function.
	 After changing smart code, please reboot network camera and some network camera functions (such as IVS, ROI, SVC, lobby mode and etc.) becomes null. Please think twice before the operation.
Resolution	The resolution here refers to the capability of the network camera.
Frame Rate	The video frame amount displayed in each second. The higher the frame rate is, the clearer and more fluent the video is. The frame rate may vary depending on the resolution.
Bit Rate	 Main stream: You can set bit rate here to change video quality. The large the bit rate is, the better the quality is. Please refer to recommend bit rate for the detailed information.
	• Extra stream: In CBR, the bit rate here is the max value. In dynamic video, system needs to low frame rate or video quality to guarantee the value. The value is null in VBR mode.
Bit rate type	System supports two types: CBR and VBR.
	• Main stream: It is to set frame rate to change video quality. The higher the frame rate is, the better the video quality is. The referenced bit rate is the recommended value.
	 Sub stream: In CBR mode, the bit stream is near the specified value. In VBR mode, the video quality changes

	according to the bit stream value. But its max value is near the specified value. Reference bit rate: The reference bit rate depends on the resolution and frame rate you set.
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. Default value is 50.
	Recommended value is frame rate *2.
Video/audio	You can enable or disable the video/audio. The main stream is enabled by default. After enable the audio function, the record f is composite file consisting of the video and audio. For the sub stream 1, please enable video first and then enable audio
	function.
Audio format	Set audio encode format.
	Different series products support different audio encode mode.
	Please refer to the actual interface for detailed information.
Sampling rate	Audio sampling rate refers to the sampling amount within 1 second. The higher the value is, the better the audio is. The default setup is 8K.
Watermark	This function allows you to verify the video is tampered or not.
enable	Here you can select watermark bit stream, watermark mode and watermark character. Default character is DigitalCCTV. The max length is 85-digit. The character can only include number, character and underline.

5.10.1.3.2 Snapshot

The snapshot interface is shown as in Figure 5-32.

Encode Mode	Snapshot	Overlay	Path	
Channel	D8	*		
Mode	Timing	•		
Image Size	1920*1080(1080P)	Y		
Image Quality	5	•		
Interval	1 SPL	•		
	ОК	Refresh		

Figure 5-32

Parameter	Function
Snapshot type	 There are two modes: Regular (schedule) and Trigger. Regular snapshot is valid during the specified period you set. Trigger snapshot only is valid when motion detect alarm, tampering alarm or local activation alarm occurs.

Image size	It is the same with the resolution of the main stream.			
Quality	It is to set the image quality. There are six levels.			
Interval	It is to set snapshot frequency. The value ranges from 1s to 7s. Or you can set customized value. The max setup is 3600s/picture.			
Сору	Click it; you can copy current channel setup to other channel(s).			

5.10.1.3.3 Video Overlay

The video overlay interf	ace is shown as in Figure 5-33.
--------------------------	---------------------------------

Encode	Snapshot	Overlay	Path
IPC		2013-11-12	10:50:54 Channel 1 Cover-Area Monitor Channel Display Setup Time Display Setup
	Сору	ave Refresh	Default

Figure 5-33

Please refer to the following sheet for detailed information.

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

5.10.1.3.4 Path

The storage path interface is shown as in Figure 5-34.

Here you can set snap image saved path (in the preview interface) and the record storage path

(Image in the preview interface). The default setup is C:\PictureDownload and C:\RecordDownload. Please click the Save button to save current setup.



Figure 5-34

5.10.1.4 Channel Name

Here you can set channel name. See Figure 5-35.

Camera	Name							
D1	IPC	D2	Channel 2	D3	IPC	D4	Channel 4	
		Save	Refresh	Default				



5.10.2 Network

5.10.2.1 TCP/IP

The TCP/IP interface is shown as in Figure 5-36.

TCP/IP						
Ethernet Card	IP Address	Network Mode	NIC Member	Edit	Unbond	
Ethernet Port1	10.15.23.100	Single NIC	1	2		
IP Address: 10.15.23.100	Default Gateway	:10.15.0.1 MTU: 1500	0			
MAC Address: 14:a7:8b:5e:ff.4c	Subnet Mask:	255.255.0.0 Mode: STAT	nc.			
Version IPv4	•					
		DHCP				
		DHCP				
emate DNS 8, 8	. 4 . 4					
afault Card Ethernet Po	t1 💌					
OK	Refresh	Default				

Figure 5-36

Parameter	Function
Mode	There are two modes: static mode and the DHCP mode.
	 The IP/submask/gateway are null when you select the DHCP mode to auto search the 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.
	 Besides, IP/submask/gateway and DHCP are read-only when the PPPoE dial is OK.
Mac Address	It is to display host Mac address.
IP Version	It is to select IP version. IPV4 or IPV6. You can access the IP address of these two versions.
IP Address	Please use the keyboard to input the corresponding number to modify the IP address and then set the corresponding subnet mask and the default gateway.
Preferred DNS	DNS IP address.
Alternate DNS	Alternate DNS IP address.
	s of IPv6 version, default gateway, preferred DNS and e input value shall be 128-digit. It shall not be left in blank.
LAN load	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.

5.10.2.2 Port

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

PORT	,	
Max Connection	on 128	(1~128)
TCP Port	37777	(1025~65535)
UDP Port	37778	(1025~65535)
HTTP Port	80	(1~65535)
HTTPS Port	443	(1~65535) 🗍 Enable
RTSP Port	554	(1~65535)
RTSP Format	rtsp:// <username>:<passw< th=""><th>vord>@<ip address="">:<port>/cam/realmonitor?channel=1&subtype=0</port></ip></th></passw<></username>	vord>@ <ip address="">:<port>/cam/realmonitor?channel=1&subtype=0</port></ip>
	channel: Channel, 1-4; subt	type: Code-Stream Type, Main Stream 0, Sub Stream 1.
	OK R	efresh Default

Figure 5-37

Parameter	Function
Max connectionThe max client login amount (such as WEB, platform, cell and etc). The value ranges from 1 to 128(default).	
TCP port	The default value is 37777. You can input the actual port number if necessary.
UDP port	The default value is 37778. You can input the actual port number if necessary.
HTTP port	The default value is 80. You can input the actual port number if necessary.

HTTPS	Select the Enable check box and configure the port according to your actual needs. The default value is 443. After HTTPS is enabled, HTTP will be switched to HTTPS by force to transmit data in a safer way.
RTSP port	The default value is 554.

5.10.2.3 HTTPS

In this interface, you can set to make sure the PC can successfully login via the HTTPS. It is to guarantee communication data security. The reliable and stable technology can secure the user information security and device safety. See Figure 5-38.

Note

- You need to implement server certificate again if you have changed device IP.
- You need to download root certificate if it is your first time to use HTTPS on current PC.

HTTPS	
Create Server Certificate	Download Root Certificate



5.10.2.3.1 Create Server Certificate

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

Create Server Certificate In Figure 5-38, click button, input country name, state name and etc. Click

Create button. See Figure 5-39.

Note

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

Create Server Certificate				
Country	AU			
State				
Locatity				
Oragnization				
Oragnization Unit				
IP or Domain Name	10.10.6.238			
	Create Cancel			

Figure 5-39

You can see the corresponding prompt. See Figure 5-40. Now the server certificate is successfully created.

HTTPS	
Create Server Certificate Download Root Certificate	
Create Succeed	

Figure 5-40

5.10.2.3.2 Download Root Certificate

In Figure 5-38, click	Download Root Certificate button, system pops up a dialogu	e box. See Figure 5-41.
	File Download - Security Warning	
	Do you want to open or save this file?	
	Name: ca.crt Type: Security Certificate From: 10.10.6.238	
	<u>O</u> pen <u>S</u> ave Cancel	
	While files from the Internet can be useful, this file type can potentially harm your computer. If you do not trust the source, do not open or save this software. <u>What's the risk?</u>	

Figure 5-41

Click Open button, you can go to the following interface. See Figure 5-42.

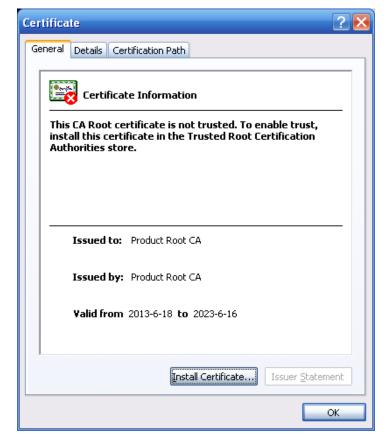


Figure 5-42

Click Install certificate button, you can go to certificate wizard. See Figure 5-43.



Figure 5-43

Click Next button to continue. Now you can select a location for the certificate. See Figure 5-44.

Ce	ertificate Import Wizard	×
_	Certificate Store Certificate stores are system areas where certificates are kept.	
	Windows can automatically select a certificate store, or you can specify a location for	
	Automatically select the certificate store based on the type of certificate	
	O Place all certificates in the following store	
	Certificate store;	
	< <u>B</u> ack <u>N</u> ext > Cancel	

Figure 5-44

Click Next button, you can see the certificate import process is complete. See Figure 5-45.

Certificate Import Wizard			×
	Completing the (Wizard	Certificate Import	
	You have successfully compl wizard.		
	You have specified the follow	ving settings:	
	Certificate Store Selected Content	Automatically determined by t Certificate	
	< <u>B</u> ack	Finish Cancel	

Figure 5-45

Click Finish button, you can see system pops up a security warning dialogue box. See Figure 5-46.

Security	Warning
	You are about to install a certificate from a certification authority (CA) claiming to represent:
<u></u>	Product Root CA
	Windows cannot validate that the certificate is actually from "Product Root CA". You should confirm its origin by contacting "Product Root CA". The following number will assist you in this process:
	Thumbprint (sha1): CD20E4B2 A52D50B8 8447BD20 5C67B033 397E3F81
	Warning: If you install this root certificate, Windows will automatically trust any certificate issued by this CA. Installing a certificate with an unconfirmed thumbprint is a security risk. If you click "Yes" you acknowledge this risk.
	Do you want to install this certificate?
	<u>Y</u> es

Figure 5-46

Click Yes button, system pops up the following dialogue box, you can see the certificate download is complete. See Figure 5-47.



Figure 5-47

5.10.2.3.3 View and Set HTTPS Port

From Setup->Network->Port, you can see the following interface. See Figure 5-48. You can see HTTPS default value is 443.

PORT		
Max Connection	128	(1~128)
TCP Port	37777	(1025~65535)
UDP Port	37778	(1025~65535)
HTTP Port	80	(1~65535)
HTTPS Port	443	(1~65535) 🔲 Enable
RTSP Port	554	(1~65535)
RTSP Format	rtsp:// <username>:<passwo< td=""><td>ord>@<ip address="">:<port>/cam/realmonitor?channel=1&subtype=0</port></ip></td></passwo<></username>	ord>@ <ip address="">:<port>/cam/realmonitor?channel=1&subtype=0</port></ip>
	channel: Channel, 1-4; subty	pe: Code-Stream Type, Main Stream 0, Sub Stream 1.
	OK Re	fresh Default

Figure 5-48

5.10.2.3.4 Login

Open the browser and then input https://xx.xx.xx.xx:port.

xx.xx.xx.xx: is your device IP or domain mane.

Port is your HTTPS port. If you are using default HTTPS value 443, you do not need to add port information here. You can input <u>https://xx.xx.xx</u> to access.

Now you can see the login interface if your setup is right.

5.10.2.4 DDNS

DDNS (Dynamic Domain Name Server) is to dynamically refresh the DNS domain name and IP address if the device IP address has changed frequently. The user can use the domain to access the device.

Preparation

Before the operation, check the DDNS type that the device supports.

- If the DDNS type is Quick DDNS. You do not need to register the domain name.
- If the DDNS is some other type, log in the website of the DDNS provider and register information like domain name.
- After you register the device and log in the DDNS website, you can view all connected device information of the current user.

• Before you use this function, please make sure your purchased device support current function.

Step 1 Enter from main memu > Setup > Network > DDNS. DDNS setup interface is shown as in Figure 5-49.

DDNS	
Enable	After enabling DDNS function, third-party server may collect your device info.
DDNS Type	NO-IP DDNS
Host IP	dynupdate.no-ip.com
Domain Nam	Test
Username	
Password	
Interval	1440 Min. (1440~2880)
	OK Refresh Default

Figure 5-49

- Step 2 Select the Enable check box. $\overbrace{}^{\sim}$

After enabling DDNS, the third-party server might collect your device information.

Step 3 Select the DDNS type and configure the parameters. For details, see the below table.

Parameter	Function
DDNS Type	You can select DDNS protocol from the dropdown list and then enable DDNS function.
Host IP	DDNS server IP address
Domain Name	Your self-defined domain name.
Username	The username you input to log in the server.
Password	The password you input to log in the server.
Test	 After the configuration, click Test and system saves the configuration and check if the domain name can be registered successfully. If succeeded, go to step 4.
	 If failed, check if the domain information is correct and clear the browser buffer.
	D NOTE
	System supports this function when DDNS type is NO-IP DDNS.
Interval	The time interval to send update request. Unit: Minute.

Step 4 After setting, click Save button.

Step 5 Input full domain name on the browser and click Enter button. The setting is right if you can view device WEB interface. Otherwise, please check the parameters.

5.10.2.5 Email

The email interface is shown as in Figure 5-50.

Email	
🗌 Enable	
SMTP Server	MailServer
Port	25 (1~65535)
Anonymous	
User Name	
Password	
Sender	
Encryption Type	NONE
Subject	NVR ALERT I Attachment
Receiver	+
Interval	120 Sec. (0~3600)
🔲 Health Enable	60 Min. (30~1440)
	Email Test
	OK Refresh Default

Figure 5-50

Parameter	Function
Enable	Please check the box here to enable email function.
SMTP Server	Input server address and then enable this function.
Port	Default value is 25. You can modify it if necessary.
Anonymity	For the server supports the anonymity function. You can auto login anonymously. You do not need to input the user name. password and the sender information.
User Name	The user name of the sender email account.
Password	The password of sender email account.
Sender	Sender email address.
Authentication (Encryption mode)	You can select SSL or none.
Subject	Input email subject here.
Attachment	System can send out the email of the snapshot picture once you check the box here.
Receiver	Input receiver email address here. Max three addresses. It supports SSL, TLS email box.
Interval	The send interval ranges from 0 to 3600 seconds. 0 means there is no interval. Please note system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormity event activates the email, system sends out the email according to the interval you specified here. This function is very useful when there are too many emails activated by the abnormity events, which may result in heavy

Parameter	Function
	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 the test email to check the connection is OK or not. Please check the box to enable this function and then set the corresponding interval. The value ranges from 30 minutes to 1440 minutes. System can send out the email regularly as you set here.
Email test	The system will automatically sent out a email once to test the connection is OK or not .Before the email test, please save the email setup information.

5.10.2.6 Register

The register interface is shown as below. See Figure 5-51.

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

Please follow the steps listed below to use this function.

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

REGISTER	
🗖 Enable	
Host IP	1.0.0.1
Port	8000 (1~65535)
Sub-device ID	0
	OK Refresh Default

Figure 5-51

5.10.2.7 P2P

You can use your cell phone to scan the QR code and add it to the cell phone client.

Via the SN from scanning the QR code, you can access the device in the WAN. Please refer to the P2P operation manual included in the resources CD.

The P2P interface is shown as in Figure 5-52.

P2P
Enable
To assist you in remotely managing your device, the P2P will be enabled.
After enabling P2P and connecting to Internet, we need to collect IP address,
MAC address, device name, device SN, etc. All collected info is used only for
the purpose of remote access. If you don't agree to enable P2P function,
please deselect the check box
Status Offline
Cellphone client SN
· · · · · · · · · · · · · · · · · · ·
Scan the QR code on the actual interface.
53.78 641 21 (12.74452
同学说明 的 高速波电路
Scan QR to download 1J00811YAZL9793
Save Refresh



Check the Enable box to enable P2P function and then click the Save button. When the Status shows Online, the P2P registration is successful.

- P2P is enabled by default.
- To enable you to manage the device on the mobile APP, we will collect device information like IP address, MAC address, device name and device SN. The collected information is only used for remote device access.

5.10.2.8 SWITCH

When connect a network camera to the PoE port of the NVR, NVR can automatically allocate the IP address according to the specified IP segment. The network camera can automatically register to the NVR.

It is for you to set IP address, subnet mask, gateway and etc of the Switch. See Figure 5-53.



- This function is for product of PoE port.
- Do not connect switch to the PoE port, otherwise the connection may fail.
- The SWITCH function of the NVR is enabled by default. The IP segment is 10.1.1.1. Usually we recommend the default setup.
- For the camera from the third party, make sure the camera supports ONVIF and DHCP function is enabled.

Switch	
IP Address	10 . 1 . 1 . 1
Subnet Mask	255 . 255 . 255 . 0
Default Gateway	10 . 1 . 1 . 1
	OK Refresh Default

Figure 5-53

5.10.3 Event

5.10.3.1 Video detect

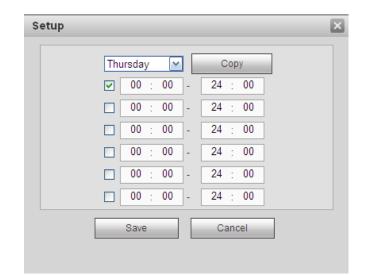
5.10.3.1.1 Motion Detect

After analysis video, system can generate a video loss alarm when the detected moving signal reached the sensitivity you set here.

The motion detect interface is shown as in Figure 5-54.

Motion Detect	/ideo Loss	Tampering
🗹 Enable	D1	
Period Anti-dither Region	Setup 5 Setup	Sec.(0-600)
 Record Channel Post Record PTZ Activation Tour Snapshot 	Setup 10 Setup Setup Setup	Sec.(10~300)
Voice Prompts	File Name	None
Show Message	Copy	ail 📄 Buzzer 📄 Log

Figure 5-54





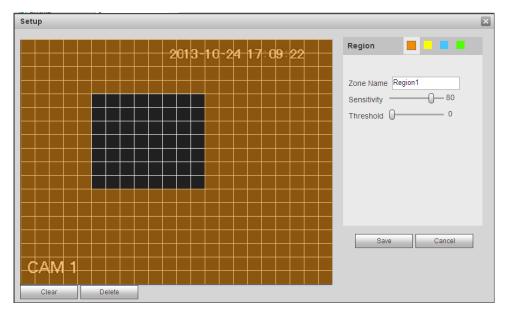


Figure 5-56

PTZ AG	tivation	×
D1	None O	
D2	None O	
D3	None 🔹 O	
D4	None O	
	Save Can	cel

Figure 5-57

Tour			×
AII D1 D2 D3 D4			
	Save	Cancel	



Snapshot	×
All D1 D2 D3 D4 Save	Cancel

Figure 5-59

Parameter	Function
Enable	You need to check the box to enable motion detection function. Please select a channel from the dropdown list.
Period	Motion detection function becomes activated in the specified periods. See Figure 5-55.
	There are six periods in one day. Please draw a circle to enable corresponding period.
	Click OK button, system goes back to motion detection interface, please click save button to exit.
Anti-dither	System only memorizes 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	If you select motion detection type, you can click this button to set motion detection zone. The interface is shown as in Figure 5-56. Here you can set motion detection zone. There are four zones for you to set. Please select a zone first and then left drag the mouse to select a zone. The corresponding color zone displays different detection zone. You can click 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 completed the setup, please click ENTER button to exit current setup. Do remember click save button to save current setup. If you click ESC button to exit the region setup interface system will not save your zone setup.
Record channel	System auto activates motion detection channel(s) to record once an alarm occurs. Please note you need to set motion detect record period and go to Storage-> Schedule to set current channel as schedule record.

Parameter	Function
Record Delay	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
Latch	System can delay the alarm output for specified time after an alarm ended. The value ranges from 1s to 300s.
Show message	System can pop up a message to alarm you in the local host screen if you enabled this function.
Tour	You need to click setup button to select tour channel. System begins 1-wiindow or multiple-window tour display among the channel(s) you set to record when an alarm occurs. See Figure 5-58.
PTZ Activation	Here you can set PTZ movement when alarm occurs. Such as go to preset X. See Figure 5-57.
Snapshot	Click setup button to select snapshot channel. See Figure 5-59.

5.10.3.1.1 Video Loss

The video loss interface is shown as in Figure 5-60.

Please note video loss does not support anti-dither, sensitivity, region setup. For rest setups, please refer to chapter 5.10.3.1.1 motion detect for detailed information.

Motion Detect	ideo Loss	Tampering			
🔽 Enable	D1	-			
Period	Setup				
Record Channel	Setup				
Post Record	10	Sec.(10~300)			
PTZ Activation	Setup				
Tour	Setup				
🔲 Snapshot	Setup				
Voice Prompts	File Name	None	•		
🔲 Show Message	🔲 Send Ema	iil 🔲 Buzzer 🔽 Lo	g		
	Сору	ОК	Refresh	Default	

Figure 5-60

5.10.3.1.2 Tampering

The tampering interface is shown as in Figure 5-61.

After analysis video, system can generate a tampering alarm when the detected moving signal reached the sensitivity you set here.

For detailed setups, please refer to chapter 5.10.3.1.1 motion detect for detailed information.

Motion Detect	Video Loss	Tampering
🔽 Enable	D1	•
Period	Setup	
Record Channe	I Setup	
Post Record	10	Sec.(10~300)
PTZ Activation	Setup	
🗖 Tour	Setup	
🔲 Snapshot	Setup	
Voice Prompts	File Name	None
🔲 Show Message	📃 Send Emai	il 🔲 Buzzer 🔽
	Сору	ок

Figure 5-61

5.10.3.2 Alarm

Before operation, please make sure you have properly connected alarm devices such as buzzer. The input mode includes local alarm and network alarm.

5.10.3.2.1 IPC External Alarm

The IPC external alarm interface is shown as in Figure 5-62. Network alarm refers to the alarm signal from the network.

PC External Alarm	C Offline Alarm
Channel	D1 Alarm Name
Period	Setup
Anti-dither	0 Sec.(0-600) Type NO 💌
Record Channel	Setup
Post Record	10 Sec.(10~300)
PTZ Activation	Setup
Tour	Setup
🔲 Snapshot	Setup
Voice Prompts	File Name None
🔲 Show Message	Send Email Buzzer Log
	Copy OK Refresh Default

Figure 5-62

Setup		×
	Thursday 🕑 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 5-63

D1	None 🔹 O	
D2	None 🔽 O	
D3	None 💌 O	
D4	None O	

Figure 5-64

Parameter	Function
Enable	You need to check the box to enable this function.
	Please select a channel from the dropdown list.
Period	This function becomes activated in the specified periods.
	There are six periods in one day. Please draw a circle to enable corresponding period.
	Select date. If you do not select, current setup applies to today only. You can select all week column to apply to the whole week.
	Click OK button, system goes back to local alarm interface, please click save button to exit.
Anti-dither	System only memorizes one event during the anti-dither period. The value ranges from 5s to 600s.
Sensor type	There are two options: NO/NC.

Parameter	Function
Record channel	System auto activates motion detection channel(s) to record once an alarm occurs. Please note you need to set alarm record period and go to Storage-> Schedule to set current channel as schedule record.
Record Delay	System can delay the record for specified time after alarm ended. The value ranges from 10s to 300s.
Latch	System can delay the alarm output for specified time after an alarm ended. The value ranges from 1s to 300s.
Show message	System can pop up a message to alarm you in the local host screen if you enabled this function.
Tour	You need to click setup button to select tour channel. System begins 1-wiindow or multiple-window tour display among the channel(s) you set to record when an alarm occurs. See Figure 5-58.
PTZ Activation	Here you can set PTZ movement when alarm occurs. Such as go to preset X. See Figure 5-64.
Snapshot	Click setup button to select snapshot channel. See Figure 5-59.

5.10.3.2.2 IPC Offline Alarm

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

System can generate an alarm once the network camera is offline. For setup information, please refer to chapter 5.10.3.2.1.

IPC External Alarm	Offline Alarm
Channel	D1 •
Record Channel	Setup
Post Record	10 Sec.(10~300)
PTZ Activation	Setup
Tour	Setup
Snapshot	Setup
Voice Prompts	File Name None
📃 Show Message	🗌 Send Email 🔲 Buzzer 🔽 Log
[Copy OK Refresh Default

Figure 5-65

5.10.3.3 Abnormality

From main menu->Setup->Event->Abnormality, it includes four types: HDD/Network/User/Device. See Figure 5-66 through Figure 5-68.

HDD	Network User N	ame
Event Type	No HDD	
🔽 Enable		
Voice Prompts	File Name None	
📃 Show Message	🔲 Send Email 🔲 Buzze	er 📝 Log
	OK Refr	esh

Figure 5-66

HDD	Network	User Name
Event Type	Disconnect	•
🔽 Enable	2.5555	Service and the service of the servi
Voice Prompts	File Name	None
🔲 Show Message	🔲 Send Em	ail 🔲 Buzzer V Log
	ок	Refresh



HDD	Network	User Name
Event Type	Illegal Login	•
Enable	<u> </u>	
Attempt(s)	5	Times (1~10)
Lock Time	5	Min. (1~30)
Voice Prompts	File Name	None
Send Email	Buzzer 🗹 Log	
	OK	Refresh

Figure 5-68

Parameter	Function
Event	The abnormal events include:
Туре	 HDD: No HDD, HDD error, disk no space;
	 Network: Net disconnection, IP conflict, MAC conflict.
	User: Illegal login.
	You can set one or more items here.
	• Less than: You can set the minimum percentage value here. The
	device can generate an alarm when capacity is not sufficient. This

Parameter	Function
	item is for disk no space type only.
Enable	Check the box here to enable selected function.
Latch	The alarm output can delay for the specified time after an alarm stops.
	The value ranges from 0s to 300s. The default setup is 10 seconds. The
	o second means there is no delaying time.
Attempt(s)	It is to set login attempt times. Once the login attempt exceeds the
	threshold you set here, current account will be locked. This function is
	for illegal login only.
Lock time	It is to set account lock time once its login attempt has exceeded the
	threshold you set. This function is for illegal login only.
Show	System can pop up a message to alarm you in the local host screen if
message	you enabled this function.
Log	Check the box here, system can record the network event alarm log.

5.10.4 Storage

5.10.4.1 Basic

- It is to manage HDD storage space.
- Step 4 From main menu->Setup->Storage->Basic.
 - Enter Basic interface. See Figure 5-69.

BASIC				
HDD Full	Overwrite	•		
Pack Duration	60	Minute		
Auto Delete Old Files	Never 💌			
	Save	Refresh	Default	

Figure 5-69

Step 5 Set parameters.

Parameter	Function
HDD full	It is to select working mode when hard disk is full. There are two optior stop recording or overwrite.
Pack duration	It is to specify record duration. The max value is 120 minutes.
Auto delete old files	 Never: Do not auto delete old files. Customized: input customized period here, system can auto delete corresponding old files

5.10.4.2 Schedule

In this interfaces, you can add or remove the schedule record setup. See Figure 5-70.

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 color bar.

- Green color stands for the general record/snapshot.
- Yellow color stands for the motion detect record/snapshot.
- Red color stands for the alarm record/snapshot.
- Blue color stands for MD&alarm record/snapshot.

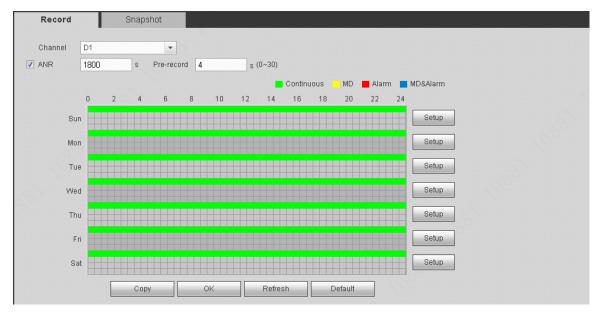


Figure 5-70

Setup						
Time Period 1	00:00	24:00	Regular		🗌 Alarm	MD&Alarm
Time Period 2	00:00	24:00	Regular	🗆 MD	🗌 Alarm	MD&Alarm
Time Period 3	00:00	24:00	Regular	🗆 MD	🗌 Alarm	MD&Alarm
Time Period 4	00:00	24:00	Regular	D MD	🗌 Alarm	MD&Alarm
Time Period 5	00:00	24:00	Regular	🗆 MD	🗌 Alarm	MD&Alarm
Time Period 6	00:00	24:00	Regular	🗆 MD	Alarm	MD&Alarm
🗆 All 🗌 Su	unday 🗌 Mo	nday 🗌 Tuesday 🗌	Wednesday] Thursda	y 🗌 Friday	Saturday
🗹 Holiday						
		Save	Cancel			

Figure 5-71

	×
🗖 All	
☑ D1	D2
🗖 D3	D4
Save	Cancel
de la companya de la	

Figure 5-72

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Please select a channel from the dropdown list.
Pre-record	Please input pre-record time here. The value ranges from 0 to 30.
Redundancy	Check the box here to enable redundancy function. Please note this function is null if there is only one HDD.
Snapshot	Check the box here to enable snapshot function.
Holiday	Check the box here to enable holiday function.
Setup	Click the Setup button, you can set record period. See Figure 5-71. There are six periods in one day. If you do not check the date at the bottom of the interface, current setup is for today only. Please click Save button and then exit.
Сору	Copy function allows you to copy one channel setup to another. After setting in channel, click Copy button, you can go to interface Figure 5-72. You can see current channel name is grey such as channel 1. Now you can select the channel 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 OK button to save current copy setup. Click the OK button in the Encode interface, the copy function succeeded.

5.10.4.3 HDD Manager

5.10.4.3.1 Local Storage

The local interface is shown as in Figure 5-73. Here you can see HDD information. You can also operate the read-only, read-write, redundancy (if there are more than on HDD) and format operation.

Device Name	HDD Operation	Status	Free Space/Total Space
SATA-2	Read-Write	Normal	129.77GB/1862.88GB
Save Refresh Fi	ormat		

Figure 5-73

5.10.4.3.2 HDD

The HDD interface is to set HDD group. See Figure 5-74.

HDD	HDD Group
1	· V
2	1
Save Refresh	

Figure 5-74

5.10.4.4 Record Control

The interface is shown as in Figure 5-75.

Record					
Main Stream	AII	D1	D2	D3	D4
Auto	۲	۲	۲	۲	۲
Manual	\odot	\odot	\odot	\odot	O
Stop	\odot	\odot	\odot	\odot	O
Sub Stream1					
Auto	\odot	\odot	\odot	\odot	O
Manual	\odot	\odot	\odot	\odot	O
Stop	۲	۲	۲	۲	۲
Sub Stream2					
Auto	\odot	\odot	\odot	\odot	O
Manual	\odot	\odot	\odot	\odot	O
Stop	۲	۲	۲	۲	۲
Snapshot					
Open	O	\odot	\odot	\odot	O
Stop	۲	۲	۲	۲	۲
		014			Defrech
		OK			Refresh

Figure 5-75

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Here you can view channel number. The number displayed here is the max channel amount of your device.
Status	There are three statuses: schedule, manual and stop.
Schedule	System enables auto record function as you set in record schedule setup (general, motion detect and alarm).
Manual	It has the highest priority. Enable corresponding channel to record no matter what period applied in the record setup.
Stop	Stop current channel record no matter what period applied in the record setup.
Start all/ stop all	Check the corresponding All button, you can enable or disable all channels record.

5.10.5 System

5.10.5.1 General

The general interface includes general, date/time and holiday setup.

5.10.5.1.1 General

The general interface is shown as in Figure 5-76.

General Date&Time Holiday	
Device Name NVR	
Device No. 8	
Language ENGLISH 💌	
✓ IPC Time Sync 24 Hour	
OK Refresh	Default



Please refer to the following sheet for detailed information.

Parameter	Function
Device ID	It is to set device name.
Device No.	It is device channel number.
Language	You can select the language from the dropdown list.
	Please note the device needs to reboot to get the modification
	activated.
IPC Time	You can input an interval here to synchronize the DVR time and IPC
Sync	time.

5.10.5.1.2 Date and time

The date and time interface is shown as in Figure 5-77

General	Date&Time Holiday	
Date Format	YYYY MM DD	
Fime Format	24-HOUR	
Date Separator	-	
Fime Zone	GMT+08:00	
System Time	2018 - 03 - 22 16 : 13 : 14 Sync PC	
DST		
OST Type	 Date	
Begin Time	Jan 💌 Last Week 💌 Sunday 💌 00 : 00	
End Time	Jan 💌 Last Week 💌 Sunday 💌 00 : 🔟	
NTP		
Berver	time.windows.com Manual Update	
Port	123 (1~65535)	
nterval	60 Min. (0~65535)	

Figure 5-77

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	It is to set system time. It becomes valid after you set.
Sync PC	You can click this button to save the system time as your PC current time.
DST	Here you can set day night save time begin time and end time. You can set according to the date format or according to the week format.
NTP	You can check the box to enable NTP function.
NTP server	You can set the time server address.
Port	It is to set the time server port.
Interval	It is to set the sync periods between the device and the time server.

5.10.5.1.3 Holiday Setup

Holiday setup interface is shown as in Figure 5-78.

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

		Duration		
1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 - 1949 -		and the second secon		

Figure 5-78

5.10.5.2 Display

Display interface includes GUI, TV adjust, Tour and Customized split.

5.10.5.2.1 Display

Here you can set background color and transparency level. See Figure 5-79.

Resolution	1280*1024	-		
Transparency	Ξ0	+ 0%		
Time Display				
Channel Display				
Image Enhance				
Original Scale	Setup			

Figure 5-79

Parameter	Function		
Resolution	There are four options: 1920×1080, 1280×1024(default),		
	1280×720, 1024×768. Please note the system needs to reboot to		
	activate current setup.		
Color mode	Please select from the dropdown list.		
Transparency	Here is for you to adjust transparency. The value ranges from 128		
	to 255.		
Time	Check the box here, you can view system time and channel		
title/channel	number on the monitor video.		
title			
Image	Check the box; you can optimize the margin of the preview video.		
enhance			
Startup	Once you check the box here, system will go to the startup wizard		
wizard	directly when the system restarts the next time. Otherwise, it will go		
	to the login interface.		
Navigation	Check the box here, system displays the navigation bar on the		
bar	interface.		
Original scale	Click the Set button to select a channel, it can restore original scale.		
Auto logout	Here is for you to set auto logout interval once login user remains		

inactive for a specified time. Value ranges from 0 to 60 minutes. 0
means there is no standby time. After the auto logout, the user
needs to input user name and password to login again.

5.10.5.2.2 Tour

The tour interface is shown as in Figure 5-80. Here you can set tour interval, split mode, motion detect tour and alarm tour mode.

Display	Tour
🔽 Enable	
Interval	5 s(5-120)
Window Split	View 1
	4 🗹 Channel Group 🔺 🕂
	I ■ I = 1
	2 🗷 2 🛞
	3 🗹 3 👻
	4 🗹 4
Video Data d	
Video Detect	View 1
Alarm	View 1
	OK Refresh Default

Figure 5-80

Please refer to the following sheet for detailed information.

Parameter	Function
Enable tour	Check the box here to enable tour function.
Interval	Here is for you to adjust transparency. The value ranges from 5 to 120s. The default setup is 5s.
Split	Here you can set window mode and channel group. System can support 1/4/8/9/16/25/36-window according to device channel amount.
Motion tour/Alarm tour	Here you can set motion detect tour/alarm tour window mode. System supports 1/8-window now.

5.10.5.3 Voice

The audio function is to manage audio files and set schedule play function. It is to realize audio broadcast activation function.

5.10.5.3.1 File List

From main menu->Setup->System->Voice->File list, here you can add audio file, or delete audio file. See Figure 5-81.

File List	Schedule			
File List				
No.		File Name	File Size(Byte)	Delete
1		When You Know.mp3	3953561	۵
		Select audio OK		

Figure 5-81

Click Add button, you can add audio file and import the audio file via the local computer. See Figure 5-82.

Choose File to	Upload	? 🔀
Look in:	🚱 Desktop 💽 🕥 🤣 📂 🖽 -	
My Recent Documents	My Computer My Documents My Network Places Adobe Acrobat 7.0 Professional Microsoft Office Access 2003 Microsoft Office PowerPoint 2003 Microsoft Office FrontPage 2003	
My Documents		
My Computer		>
My Network		<u>O</u> pen Cancel

Figure 5-82

5.10.5.3.2 Schedule

It is to set schedule broadcast function. You can play the different audio files in the specified periods. From main menu->Setup->System->Voice->.Schedule, you can see the following interface. See Figure 5-83.

	P	eriod	Schedule	interva	al	Repeat Playback	Output	
Enable	00 : 00 -	- 24 : 00	None	▼ 60	min.	0	Mic 💌]
Enable	00 : 00 -	- 24 : 00	None	▼ 60	min.	0	Mic 💌]
📄 Enable	00 : 00 -	- 24 : 00	None	▼ 60	min.	0	Mic 💌]
Enable	00 : 00 -	- 24 : 00	None	▼ 60	min.	0	Mic 💌]
Enable	00 : 00 -	- 24 : 00	None	▼ 60	min.	0	Mic 💌]
Enable	00 : 00 -	_ 24 : 00	None	▼ 60	min.	0	Mic -	1

Figure 5-83

Please refer to the following sheet for detailed information.

Parameter	Function
Period	There are six periods. Check the box to enable current setup.
Repeat	It is to set audio file repeat times in the specified period.
Interval	It is the audio file repeated interval in the specified period.
Output port	There are two options: MIC (default)/audio. When reuse the MIC port and bidirectional talk port, the bidirectional port has the higher priority. Please note some series product does not support audio function.

D Note

- The audio file end time depends on the audio file size and the interval setup.
- Priority: Bidirectional talk>Event trigger alarm>Trial listening>Audio schedule broadcast.

5.10.5.4 Account

D Note

- For the user name, the string max length is 31-byte, and for the user group, the string max length is 15-byte. The user name can only contain English letters, numbers and "_", "@", ".".
- The default user amount is 64 and the default group amount is 20. System account adopts two-level management: group and user. The user authorities shall be smaller than group authorities (The **admin** user authorities are set by default).
- For group or user management, there are two levels: admin and user. The user name shall be unique and one user shall only belong to one group.
 - 5.10.5.4.1 User name

From main menu->Setup->System->Account->Account, enter account interface. See Figure 5-84.

	Group User Name	Conver Manua	Memo	Modify	Datata
SN	admin	Group Name admin	admin 's account		Delete
	admin	admin	admin's account	2	8

Figure 5-84

Add user

It is to add a name to group and set the user rights.

- Step 1 Click Add user button.
 - Enter add user interface. See Figure 5-85.
- Step 2 Here you can input the user name and password and then select one group for current user.

Add User						×
User Name Password Confirm Password Group Memo	Low Middle Hi	gh T				
Authority System	Playback		Real-Time Mo	nitor		
VAII VACCOUNT VSYS VFILE BACKUP VSTC	STEM MANAGEMENT DRAGE CURITY	SYSTEM	IANAGEMENT		AL CONTROL ORK MANAGEMEN	*
	Sav	re	Cancel]		

Figure 5-85

Step 3 Click Save to complete the setup.

III Note

Please note the user rights shall not exceed the group right setup. For convenient setup, please make sure the general user has the lower rights setup than the admin.

Modify user

It is to modify the user property, belonging group, password and rights. See Figure 5-86.

Mo	dify User						X
	User Name User Name Group Memo Modify Passwor	test test admin		•			
	Authority System		Playback		Real-Time Mo	onitor	
₹F	CCOUNT	SYSTEM MAN/ STORAGE SECURITY	GEMENT	SYSTE VEVENT VDevice	MANAGEMENT	MANUAL CONTROL	*
			Sav	e	Cancel		

Figure 5-86

Note

For admin, you can change the email information. See Figure 5-87.

Modify User						
User Name	admin		-			
User Name	admin					
Group	admin		-			
Memo	admin 's	account				
Modify Passw	/ord					
Email Addres	s					
Authority						
System		Playback		Real-Time Mo	nitor	
			o.ot			
ZACCOUNT ZFILE BACKUP	SYSTEM MANA			EM INFO T MANAGEMENT		JAL CONTROL WORK MANAGEMENT
	SECURITY			e Maintain		NOTICE MAIL AND EMETAT
					_	
		Save		Cancel		

Figure 5-87

Modify password

It is to modify the user password.

Step 1 In Modify user interface, click Modify password box. See Figure 5-88.

Modify User					1
User Name	admin	•			
User Name	admin				
Group	admin				
Memo	admin 's account				
Modify Password					
Old Password					
New Password					
Confirm Password	A second s	ligh			
Email Address					
Authority					
System	Playbac	k	Real-Time Mo	nitor	
FILE BACKUP	YSTEM MANAGEMENT TORAGE ECURITY	✓ SYSTE#	MANAGEMENT	MANUAL CONTROL	
	Sa	ave	Cancel		
	diservice in the second				

Figure 5-88

- Step 2 Input old password, and then input new password and confirm.
- Step 3 Click Save button.

[⊥] Note

The password ranges from 8 to 32 digitals. It can contain letters, numbers and special characters (excluding "!", "!", ";", "&"). The password shall contain at least two categories. Usually we recommend the strong password.



STRONG PASSWORD RECOMMENDED-For your device own safety, please create a strong password of your own choosing. We also recommend you change your password periodically especially in the high security system.

5.10.5.4.2 Group

It is to add/remove group, modify group password and etc. From main menu->Setup->System->Account->Account. Click Group tab, the interface is shown as in Figure 5-89.

SN	Group	Group Name	Memo	Modify	Delete
1		admin	administrator group	2	0
2		user	user group	2	0

Figure 5-89

Add group

It is to add group and set its corresponding rights.

Step 1 Click Add group button. Enter add group interface. See Figure 5-90.

Add Group						×
Group Nar Memo Authority	ne					
Syste	em	Playback	<	Real-Time Monitor		
AII ACCOUNT STORAGE		M MANAGEMENT MANAGEMENT ACKUP		'EM INFO VORK MANAGEMENT e Maintain	MANUAL CONTROL	4
		Sa	ve	Cancel		

Figure 5-90

- Step 2 Input the group name and then check the box to select the corresponding rights. It includes: system, playback, and monitor.
- Step 3 Click Save button.

Modify group

Step 1 Select a group and then click. See Figure 5-91.

Modify Grou	р					X
Group Nan	ne	admin	-			
Group Nan	ne	admin				
Memo		administrator group				
Authority						
Syste	em	Playback		Real-Time Monitor		
 ✓AII ✓ACCOUNT ✓STORAGE ✓SECURITY 		M MANAGEMENT MANAGEMENT ACKUP	⊘ NET	FEM INFO WORK MANAGEMENT ce Maintain	IMANUAL CONTROL ICAMERA	^
		Sav	e	Cancel		-

Figure 5-91

Step 2 Change corresponding information and then click Save button.

5.10.5.5 Security

5.10.5.5.1 IP filter

To enhance device network security and protect device data, please set the access right of the IP host (IP host here refers to the IP PC or the server). After you enabled trusted sites function, only the IP listed below can access current DVR.

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

Step 1 From main menu->Setting->System->Security.

Enter security interface. See Figure 5-92.

Step 2 Check the Enable box.

Select trusted sites/block sites.

- Enable trusted site function and then add the whitelist.
- Enable blocked site function and then add the blacklist.

Step 3 Set parameters.

- Start address/end address: Select one type from the dropdown list, you can input IP address in the start address and end address. Now you can click Add IP address or Add IP section to add. System supports max 64 IP addresses.
 - a) For the newly added IP address, it is in enable status by default. Remove the $\sqrt{}$ before the item, and then current item is not in the list.
 - b) System max supports 64 items.

- d) System automatically removes space if there is any space before or after the newly added IP address.
- e) System only checks start address if you add IP address. System check start address and end address if you add IP section and the end address shall be larger than the start address.
- System may check newly added IP address exists or not. System does not add if input IP f) address does not exist.
- Delete: Click it to remove specified item.
- Edit: Click it to edit start address and end address. See Figure 5-93. System can check the IP address validity after the edit operation and implement IPv6 optimization.
- Default: Click it to restore default setup. In this case, the trusted sites and blocked sites are both null. Step 4 Click Save to complete setup.
- - If you enabled trusted sites, only the IP in the trusted sites list can access the device.
 - If you enabled blocked sites, the IP in the blocked sites cannot access the device.

IP FILTER	Reset Password			
Enable				
Trusted Sit	es Blocked Sites			
_		IP Address	Edit	Delete
69				
0.77070200				
Add				
OK	Refresh Default			
00000000				
10.21.202.202.http://doi.org/2.2.2				

Figure 5-92

Add	×
IP Address 💌 IPv4 💌	
Save Cancel	

Figure 5-93

5.10.5.5.1 Reset password

Note

- The reset password function is enabled by default. If you forgot admin password, click Forgot password on the login interface to reset password. Refer to chapter 5.4 Reset password for detailed information.
- If you disabled reset password function, you cannot use the email to reset password. You need to answer the security question to reset. If you have not set security question, system prompts "Reset password is disabled!"

Follow the steps listed below to disable reset password.

Step 1 From Setting->System->Security->Reset password.

Enter reset password interface. The reset password is enabled by default. See Figure 5-94.

OK	Refresh	Default	
	OK	OK Refresh	OK Refresh Default

Figure 5-94

- Step 2 Check the box to disable reset function.
- Step 3 Click OK button.
- Step 4 System pops up a dialogue box to remind you to answer security question to to reset password. Click OK to complete settings.
- 5.10.5.6 Auto maintain

The auto maintain interface is shown as in Figure 5-95.

Here you can select auto reboot and auto delete old files interval from the dropdown list.

If you want to use the auto delete old files function, you need to set the file period.

Click Manual reboot button, you can restart device manually.

Never 02:00
Manual Reboot
Save Refresh

Figure 5-95

5.10.5.7 Import/Export

The interface is shown as in Figure 5-96. This interface is for you to export or import the configuration files.

\ddress		 Browse	Config Import
Config Export			

Figure 5-96

Please refer to the following sheet for detailed information.

Parameter	Function
Browse	Click to select import file.

Parameter	Function
Import	It is to import the local setup files to the system.
Export	It is to export the corresponding WEB setup to your local PC.

5.10.5.8 Default

The default setup interface is shown as in Figure 5-97.

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

DEFAULT		t to see	
🔽 All			
CAMERA	VETWORK	V EVENT	
STORAGE	SYSTEM		
Default	Factory Reset		

Figure 5-97

5.10.5.9 Upgrade



- During the upgrade process, do not unplug the power cable, network cable, or shutdown the device.
- Improper upgrade program may result in device malfunction!

There are two upgrade modes: file upgrade and online upgrade.

5.10.5.9.1.1 File Upgrade

The upgrade interface is shown as in Figure 5-98.

Please select the upgrade file and then click the update button to begin update. Please note the file name shall be as *.bin.

File Upgrade		
Select Firmware File	Browse Upgrade	
Online Upgrade		
✓ Auto-check for updates Save		
System Version: 3.215.0000000.0 Build Date: 2018-02-09	Manual Check	
System Version: 3.215.0000000.0 Build Date: 2018-02-09	Manual Check	
System Version: 3.215.0000000.0 Build Date: 2018-02-09	Manual Check	
System Version: 3.215.0000000.0 Build Date: 2018-02-09	Manual Check	

Figure 5-98

5.10.5.9.1.2 Online Upgrade

When the NVR is online, you can use the online upgrade to update the firmware.

Note

Make sure the NVR has properly connected to the network.

Version Detection

The version detection includes auto detection and manual detection. It displays current system version and application released date.

• Enable auto detection, NVR interacts with the cloud every day to detect if there is a new version available. When there is a new version, system marks a red point on the Upgrade tab.

Note

To inform you upgrading firmware timely, we will collect your device information such as IP address, device name, firmware version and serial number. The collected information is used for verifying device legality and pushing upgrade notice.

- Click manual detection to view the latest new version on the cloud.
 - > If current version is the latest one, system prompts that "It is the latest version".
 - If there is new version available, system displays new version information such as release date and corresponding release note.

Upgrade System

Click Start to upgrade the system.

5.11 Information

5.11.1 Version

The version interface is shown as in Figure 5-99. Please note the following information for reference only. Here you can view record channel, alarm input/output information, software version, release date and etc. When there is any new version, it prompts found new version. Click it, NVR goes to upgrade interface.

Version	
Туре	NVR
Record Channel:	4
SN:	QHH12345QWERQWER
Web Version:	3.1.0.66469
System Version:	3.205.0000001.0
Build Date:	2017-11-11
Onvif Client Version	2.4.1

Figure 5-99

5.11.2 Log

Here you can view system log. See Figure 5-100.

Type All 🔹 Sea	rch Matched 55 logs Record Time 2017-11-15 11:29:36 2017-11-15 09:50:16	
No.	Time	Event
1	2017-11-15 11:29:36	Illegal Login
2	2017-11-15 11:29:16	AuthFailed
3	2017-11-15 11:27:16	Add User
4	2017-11-15 11:24:16	AuthFailed
5	2017-11-15 11:19:16	AuthFailed
6	2017-11-15 11:13:56	AuthFailed
7	2017-11-15 11:08:36	AuthFailed
8	2017-11-15 11:06:16	AuthFailed
9	2017-11-15 11:03:36	Illegal Login
10	2017-11-15 10:57:56	AuthFailed
tem Log Info		

Figure 5-100

Please refer to the following sheet for log parameter information.

Parameter	Function
Туре	Log types include: system operation, configuration operation, data
	operation, event operation, record operation, user management, log
	clear.
Start time	Set the start time of the requested log.
End time	Set the end time of the requested log.
Search	You can select log type from the drop down list and then click search
	button to view the list.
	You can click the stop button to terminate current search operation.
Detailed information	You can select one item to view the 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 current PC.

5.11.3 Online User

The online user interface is shown as in Figure 5-101.



Figure 5-101

5.11.4 HDD

From main menu->Info->HDD, the HDD interface is shown as in Figure 5-102. Here you can view HDD information.

	HDD					
	Device Name	Physical Position	Status	Free Space/Total Space	S.M.A.R.T.	Path
	sda	host_1	Normal	0GB/930.51GB		-
						~
[HDD Time Refresh					
l						

Figure 5-102

5.12 Playback

Click Playback button, you can see an interface is shown as in Figure 5-103.



Figure 5-103

5.12.1 Search Record

Please set record type, record date, window display mode and channel name.

Select Date

You can click the date on the right pane to select the date. The green highlighted date is system current date and the blue highlighted date means it has record files.

Window Split

Select window split mode. Click 🔤 to display in full screen. Click ESC button to exit. See Figure 5-104.



Figure 5-104

- Select Channel
- $1{\sim}4~$ means main stream and A1 ${\sim}A4$ means sub stream.
- Select Record Type

Check the corresponding box to select record type. See Figure 5-105.





5.12.2 File List

Click File list button, you can see the corresponding files in the list. See Figure 5-106.



Figure 5-106

5.12.3 Playback

Select a file you want to play and then click Play button, system can begin playback. You can select to playback in full-screen. Please note for one channel, system cannot playback and download at the same time. You can use the playback control bar to implement various operations such as play, pause, stop, slow play, fast play and etc. See Figure 5-107.



Figure 5-107

5.12.4 Download

Select the file(s) you want to download and then click download button, you can see an interface shown as in Figure 5-108. The Download button becomes Stop button and there is a process bar for your reference. Please go to you default file saved path to view the files.



Figure 5-108

5.12.5 Load more

It is for you to search record or picture. You can select record channel, record type and record time to download. Or you can use watermark function to verify file.

5.12.5.1 Download By File

Select channel, record type, bit stream type and then input start time and end time. Click Search button, the download by file interface is shown as in Figure 5-109.

lit Stream Type Main	Sub 🔽							
	No.	File Size	Start Time	End Time	File Type	Bit Stream Type	Channel	
	1	403699KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	1	
	2	19227KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	2	
	3	23348KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	3	
	4	18728KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	4	
	5	18974KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	5	
	6	19211KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	6	
	7	18653KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	7	
	8	19170KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	8	
ownload to Local Do	wnload to USB					H4 -4	[1/18 ▶ ▶ Goto 1	
Back								

Figure 5-109

Check the file(s) you want to download and there are two options for you to save the file(s).

Download to local

Click Download to local, system pops up the following interface for you to set record format and saved path. See Figure 5-110.

Record Format	DAV	~	
Save Path	C:\RecordDownload\		Browse
	ОК	Cancel	

Figure 5-110

You can click OK to download and view the download process. After the download operation, you can see corresponding dialog box.

Download to USB

Connect the corresponding p peripheral device, and then click Download to USB button, you can see the following interface. See Figure 5-111.

	Records 💌	Start Time End Time		00 : 00 Sear	ch			
	No.	File Size	Start Time	End Time	File Type	Bit Stream Type	Channel	
	1	403699KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	1	
	2	19227KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	2	
	3	23348KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	3	
	4	18728KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	4	
	5	18974KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	5	
	6	19211KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	6	
	7	18653KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	7	
	8	19170KB	2014-07-25 15:24:47	2014-07-25 16:00:00	Regular	Main Stream	8	
ackup Device sdb1(t Start backup	ownload to USB	Search	Backup Type DAV 💌		7.416		1 / 24 ▶ ▶ Goto 1	1
Name		Backup Type	BUS	Left Space	Total Space		rectory	
sdb1(USB D	ISK)	DISK	USB	12.79GB	14.43GB	Na	r/sdb1	

Figure 5-111

Select Backup device and backup type first and then click Start backup button.

After the download operation, you can see corresponding dialogue box.

5.12.5.2 Download by Time

Select channel, bit stream type, start time and end time.

Click Download to Local button, you can see download by time interface is shown as in Figure 5-112.

WEB SERVICE	e Playback	Alarm	Setup	Info	Logout	
Download by File Download	id by Time Waterm	ark				
Channel 1 Bit Stream Type Main Stream		2014 - 02 - 14 2014 - 02 - 17	00 : 00 : 00 23 : 59 : 59]		
Download to Local						
	Rocar	d Format DAV			×	
	Save		ordDownload\		Browse	
			ок	Cancel		
Back						

Figure 5-112

Set record format and saved path, you can click OK to download and view the download process. After the download operation, you can see corresponding dialog box.

5.12.5.3 Watermark

Watermark interface is shown as In Figure 5-113. Please select a file and then click Verify button to see the file has been tampered with or not

Download by File	Download by Time Waterm	ark	
Local File			
C:\record\root\Centre pla	atform	Verify	
Watermark Info			
Vatermark Revised Info			
No. 1	Malfunction type Normal	Watermark Time	
		v	
Back			

Figure 5-113

5.13 Alarm

Click alarm function, you can see an interface is shown as Figure 5-114.

Here you can set device alarm type and alarm sound setup (Please make sure you have enabled audio function of corresponding alarm events.).

		No.	Time	Alarm Type	Channel
larm Type					
Motion Detect	Tampering				
HDD Error	🗇 Video Loss				
HDD Full	🖂 IPC Ext Alarm				
IPC Offline Alarm	UserLock				
eration					
Message					
rm Sound					
Play Alarm Sound					
und Path	Solect				

Figure 5-114

Please refer to the following sheet for detailed information.

Туре	Parameter	Function				
	Motion detection	System alarms when motion detection alarm				
		occurs.				
	Tampering	System alarms when camera is viciously masking.				
	Disk full	System alarms when disk is full.				
	Disk error	System alarms when disk error occurs.				
	IPC external	It refers to the on-off signal from the network				
	alarm	camera. It can activate the NVR local activation				
		operation.				
	IPC offline alarm	System can generate an alarm when the network				
		camera and the NVR are disconnected.				

Туре	Parameter	Function
Operation	Prompt	Check the box here, system can automatically pops
		up an alarm icon on the Alarm button in the main
		interface when there is an alarm.
Alarm	Play alarm	System sends out alarm sound when an alarm
Sound	sound	occurs. You can specify as you wish.
	Sound path	Here you can specify alarm sound file.

5.14 Log out

Click log out button, system goes back to log in interface. See Figure 5-115. You need to input user name and password to login again.

EZ-IP	
User Name:	admin
Password:	📃 Plain Text
Туре:	TCP T Forgot password?
	• LAN O WAN
	Login Cancel

Figure 5-115

5.15 Un-install Web Control

You can use web un-install tool "uninstall web.bat" to un-install web control.

Please note, before you un-installation, please close all web pages, otherwise the un-installation might result in error

6 Glossary

- **DHCP:** DHCP (Dynamic Host Configuration Protocol) is a network protocol. It is one of the TCP/IP protocol cluster. It is principally used to assign 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 and 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 AT) is an interface that provides fast data transfer for external storage devices. It is the extension specifications of a SATA interface.
- **GPS:** GPS (Global Positioning System) is a satellite system, protected by the US military, safely orbiting thousands of kilometers above the earth.
- **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 PPPoE protocol.
- WIFI: Wi-Fi is the name of a popular wireless networking technology that uses radio waves to provide wireless high-speed Internet and network connections. The standard is for wireless local area networks (WLANs). It is like a common language that all the devices use to communicate to each other. It is actually IEEE802.11, a family of standard The IEEE (Institute of Electrical and Electronics Engineers Inc.)
- **3G:** 3G is the wireless network standard. It is called 3G because it is the third generation of cellular telecom standards. 3G is a faster network for phone and data transmission and speed Is over several hundred kbps. Now there are four standards: CDMA2000, WCDMA, TD-SCDMA and WiMAX.
- Dual-stream: The dual-stream technology adopts high-rate bit stream for local HD storage such as QCIF/CIF/2CIF/DCIF/4CIF encode and one low-rate bit stream for network transmission such as QCIF/CIF encode. It can balance the local storage and remote network transmission. The dual-stream can meet the difference band width requirements of the local transmission and the remote transmission. In this way, the local transmission using high-bit stream can achieve HD storage and the network transmission adopting low bit stream suitable for the fluency requirements of the 3G network such as WCDMA, EVDO, TD-SCDMA..
- **On-off value:** It is the non-consecutive signal sampling and output. It includes remote sampling and remote output. It has two statuses: 1/0.

7 FAQ

Questions	Solutions
NVR cannot boot up	Input power is not correct.
properly.	Power connection is not correct.
	• Power switch button is damaged.
	Program upgrade is wrong.
	• HDD malfunction or something wrong with HDD ribbon.
	• Seagate DB35.1, DB35.2, SV35 or Maxtor 17-g has compatibility
	problem. Please upgrade to the latest version to solve this
	problem.
	Front panel error.
	Main board is damaged.
	 Input voltage is not stable or it is too low.
NVR often automatically	• HDD malfunction or something wrong with the ribbon.
shuts down or stops	• Button power is not enough.
running.	 Front video signal is not stable.
	 Working environment is too harsh, too much dust.
	Hardware malfunction.
System cannot detect	• HDD is broken.
hard disk.	HDD ribbon is damaged.
	HDD cable connection is loose.
	Main board SATA port is broken.
There is no video output	• Program is not compatible. Please upgrade to the latest version.
whether it is one-channel,	• Brightness is 0. Please restore factory default setup.
multiple-channel or	Check your screen saver.
all-channel output.	NVR hardware malfunctions.
	• HDD ribbon is damaged.
I cannot search local	• HDD is broken.
records.	 Upgraded program is not compatible.
	 The recorded file has been overwritten.
	 Record function has been disabled.
	 Video quality setup is too low.
Video is distorted when	• Program read error, bit data is too small. There is mosaic in the full
searching local records.	screen. Please restart the NVR to solve this problem.
J	HDD data ribbon error.
	HDD malfunction.
	NVR hardware malfunctions.
Time display is not	Setup is not correct
correct.	 Battery contact is not correct or voltage is too low.
	Crystal is broken.

Questions	Solutions
	Front panel PTZ error
	• PTZ decoder setup, connection or installation is not correct.
	Cable connection is not correct.
	• PTZ setup is not correct.
NVR cannot control PTZ.	 PTZ decoder and NVR protocol is not compatible.
	• PTZ decoder and NVR address is not compatible.
	• When there are several decoders, please add 120 Ohm between
	the PTZ decoder A/B cables furthest end to delete the
	reverberation or impedance matching. Otherwise the PTZ control
	is not stable.
	The distance is too far.
	• For Windows 98 or Windows ME user, please update your system
	to Windows 2000 sp4. Or you can install client-end software of
	lower version. Please note right now, our NVR is not compatible
I cannot log in client-end	with Windows VISTA control.
or web.	ActiveX control has been disabled.
	 No dx8.1 or higher. Please upgrade display card driver.
	Network connection error.
	Network setup error.
	 Password or user name is invalid. Client and is not compatible with NV(D program.
There is an hermonois no	Client-end is not compatible with NVR program.
There is only mosaic no	• Network fluency is not good.
video when preview or	Client-end resources are limit.
playback video file remotely.	 Current user has no right to monitor.
	Network is not stable.
Network connection is	IP address conflict.
not stable.	 MAC address conflict.
	 PC or device network card is not good.
	 Burner and NVR are in the same data cable.
Duran aman (UOD haali	 System uses too much CPU resources. Please stop record first
Burn error /USB back	and then begin backup.
error.	 Data amount exceeds backup device capacity. It may result in
	burner error.
	Backup device is not compatible.
	Backup device is damaged.
Keyboard cannot control	 NVR serial port setup is not correct
NVR.	 Address is not correct When there are accord quitebore power supply is not accord.
	 When there are several switchers, power supply is not enough. Transmission distance is too for
	Transmission distance is too far.

Questions	Solutions			
Alarm signal cannot been disarmed.	 Alarm setup is not correct. Alarm output has been open manually. Input device error or connection is not correct. Some program versions may have this problem. Please upgrade your system. 			
Alarm function is null.	 Alarm setup is not correct. Alarm cable connection is not correct. Alarm input signal is not correct. There are two loops connect to one alarm device. 			
Record storage period is not enough.	 Camera quality is too low. Lens is dirty. Camera is installed against the light. Camera aperture setup is not correct. HDD capacity is not enough. HDD is damaged. 			
Cannot playback the downloaded file.	 There is no media player. No DXB8.1 or higher graphic acceleration software. There is no DivX503Bundle.exe control when you play the file transformed to AVI via media player. No DivX503Bundle.exe or ffdshow-2004 1012 .exe in Windows XP OS. 			
Forgot local menu operation password or network password	 Please contact your local service engineer or our sales person for help. We can guide you to solve this problem. 			
There is no video. The screen is in black.	 IPC IP address is not right. IPC port number is not right. IPC account (user name/password) is not right. IPC is offline. 			
The displayed video is not full in the monitor.	Please cheek current resolution setup. If the current setup is 1920*1080, then you need to set the monitor resolution as 1920*1080.			
There is no HDMI output.	Displayer is not in HDMI mode.HDMI cable connection is not right.			
The video is not fluent when I view in multiple-channel mode from the client-end.	 The network bandwidth is not sufficient. The multiple-channel monitor operation needs at least 100M or higher. Your PC resources are not sufficient. For 16-ch remote monitor operation, the PC shall have the following environment: Quad Core, 2G or higher memory, independent displayer, display card memory 256M or higher. 			

Questions	Solutions			
I can not connect to the IPC	 Please make sure the IPC has booted up. IPC network connection is right and it is online IPC IP is in the blacklist. The device has connected to the too many IPC. It cannot transmit the video. Check the IPC port value and the time zone is the same as the NVR. Make sure current network environment is stable. 			
After I set the NVR resolution as 1080P, my monitor can not display.	Shut down the device and then reboot. When you reboot, please press the Fn button at the same time and then release after 5 seconds. You can restore NVR resolution to the default setup.			
My admin account has been changed and I can not log in.				
After I login the Web , I can not find the remote interface to add the IPC.				
There is IP and gateway, I can access the internet via the router. But I can not access the internet after I reboot the NVR.	or not. Use telnet to access and then use command "ifconfig –a" to check device IP address. If you see the subnet mask and the gateway			
I use the VGA montior.I want to know if I use the multple-window mode, I see the video from the main stream or the sub stream?	 For 32-channel series product, the 9/16-window is using the sub stream. For 4/8/16 series product, system is using the main stream no matter you are in what display mode. 			

Daily Maintenance

- Please use the brush to clean the board, socket connector and the chassis regularly.
- The device shall be soundly earthed in case there is audio/video disturbance. Keep the device away from the static voltage or induced voltage.
- Please unplug the power cable before you remove the audio/video signal cable, RS232 or RS485 cable.
- Do not connect the TV to the local video output port (VOUT). It may result in video output circuit.
- Always shut down the device properly. Please use the shutdown function in the menu, or you can press the power button in the rear pane for at least three seconds to shut down the device.

Otherwise it may result in HDD malfunction.

- Please make sure the device is away from the direct sunlight or other heating sources. Please keep the sound ventilation.
- Please check and maintain the device regularly.

8 Appendix A HDD Capacity Calculation

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

Step 1: According to Formula (1) to calculate storage capacity q_i that is the capacity of each channel needed for each hour, unit Mbyte.

$$q_i = d_i \div 8 \times 3600 \div 1024 \tag{1}$$

In the formula: d_i means the bit rate, unit Kbit/s

Step 2: After video time requirement is confirmed, according to Formula (2) to calculate the storage capacity m_i , which is storage of each channel needed unit Mbyte.

$$m_i = q_i \times h_i \times D_i \tag{2}$$

In the formula:

 h_i means the recording time for each day (hour)

 D_i means number of days for which the video shall be kept

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

$$q_T = \sum_{i=1}^{c} m_i \tag{3}$$

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

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

$$q_T = \sum_{i=1}^{c} m_i \, \star a\% \tag{4}$$

In the formula: a% means alarm occurrence rate

9 Appendix B Compatible Network Camera List

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

Manufact	Model	Version	Video Encode	Audio/Vid	Protocol
ure				eo	
AXIS	P1346	5.40.9.2	H264	\checkmark	ONVIF/Private
	P3344/P3344-	5.40.9.2	H264	\checkmark	ONVIF/Private
	E				
	P5512	—	H264	\checkmark	ONVIF/Private
	Q1604	5.40.3.2	H264	\checkmark	ONVIF/Private
	Q1604-E	5.40.9	H264	\checkmark	ONVIF/Private
	Q6034E	—	H264	\checkmark	ONVIF/Private
	Q6035	5.40.9	H264	\checkmark	ONVIF/Private
	Q1755	—	H264	\checkmark	ONVIF/Private
	M7001	—	H264	\checkmark	Private
	M3204	5.40.9.2	H264	\checkmark	Private
	P3367	HEAD LFP4_0	H264	\checkmark	ONVIF
		130220			
	P5532-P	HEAD LFP4_0	H264	\checkmark	ONVIF
		130220			
ACTi	ACM-3511	A1D-220-V3.12	MPEG4	\checkmark	Private
		.15-AC			
	ACM-8221	A1D-220-V3.13	MPEG4	\checkmark	Private
		.16-AC			
Arecont	AV1115	65246	H264	\checkmark	Private
	AV10005DN	65197	H264	\checkmark	Private
	AV2115DN	65246	H264	\checkmark	Private
	AV2515DN	65199	H264	\checkmark	Private
	AV2815	65197	H264	\checkmark	Private
	AV5115DN	65246	H264	\checkmark	Private
	AV8185DN	65197	H264	\checkmark	Private
Bosch	NBN-921-P	—	H264	\checkmark	ONVIF
	NBC-455-12P	—	H264	\checkmark	ONVIF
	VG5-825	9500453	H264	\checkmark	ONVIF
	NBN-832	66500500	H264	\checkmark	ONVIF
	VEZ-211-IWT	—	H264	\checkmark	ONVIF
	EIVA				
	NBC-255-P	15500152	H264	\checkmark	ONVIF
	VIP-X1XF		H264	\checkmark	ONVIF
Brikcom	B0100	—	H264	\checkmark	ONVIF
	D100	—	H264	\checkmark	ONVIF
	GE-100-CB	—	H264	\checkmark	ONVIF
	FB-100A	v1.0.3.9	H264	\checkmark	ONVIF
	FD-100A	v1.0.3.3	H264	\checkmark	ONVIF

Manufact	Model	Version	Video Encode	Audio/Vid	Protocol
ure				ео	
Cannon	VB-M400	—	H264	\checkmark	Private
CNB	MPix2.0DIR	XNETM112011 1229	H264	\checkmark	ONVIF
	VIPBL1.3MIR VF	XNETM210011 1229	H264	\checkmark	ONVIF
	IGC-2050F	XNETM210011 1229	H264	\checkmark	ONVIF
CP PLUS	CP-NC9-K	6.E.2.7776	H264		ONVIF/Private
	CP-NC9W-K	6.E.2.7776	H264		Private
	CP-ND10-R	cp20111129AN S	H264		ONVIF
	CP-ND20-R	cp20111129AN S	H264	N	ONVIF
	CP-NS12W-C R	cp20110808NS	H264	\checkmark	ONVIF
	VS201	cp20111129NS	H264	\checkmark	ONVIF
	CP-NB20-R	cp20110808BN S	H264	\checkmark	ONVIF
	CP-NT20VL3- R	cp20110808BN S	H264	\checkmark	ONVIF
	CP-NS36W-A R	cp20110808NS	H264	\checkmark	ONVIF
	CP-ND20VL2- R	cp20110808BN S	H264	\checkmark	ONVIF
	CP-RNP-1820	cp20120821NS A	H264	\checkmark	Private
	CP-RNC-TP2 0FL3C	cp20120821NS A	H264	\checkmark	Private
	CP-RNP-12D	cp20120828AN S	H264	\checkmark	Private
	CP-RNC-DV1 0	cp20120821NS A	H264	\checkmark	Private
	CP-RNC-DP2 0FL2C	cp20120821NS A	H264	\checkmark	Private
Dynacolor	ICS-13	d20120214NS	H264	\checkmark	ONVIF/Private
	ICS-20W	vt20111123NSA	H264	\checkmark	ONVIF/Private
	NA222	—	H264	\checkmark	ONVIF
	MPC-IPVD-03 13	k20111208ANS	H264	\checkmark	ONVIF/Private
	MPC-IPVD-03 13AF	k20111208BNS	H264	N	ONVIF/Private
Honeywell	HIDC-1100PT	h.2.2.1824	H264	\checkmark	ONVIF
-	HIDC-1100P	h.2.2.1824	H264	\checkmark	ONVIF

Manufact	Model	Version	Video Encode	Audio/Vid	Protocol
ure				eo	
	HIDC-0100P	h.2.2.1824	H264	\checkmark	ONVIF
	HIDC-1300V	2.0.0.21	H264	\checkmark	ONVIF
	HICC-1300W	2.0.1.7	H264	\checkmark	ONVIF
	HICC-2300	2.0.0.21	H264	\checkmark	ONVIF
	HDZ20HDX	H20130114NS	H264	\checkmark	ONVIF
		А			
LG	LW342-FP	_	H264	\checkmark	Private
	LNB5100	_	H264	\checkmark	ONVIF
Imatek	KNC-B5000	_	H264	\checkmark	Private
	KNC-B5162	—	H264	\checkmark	Private
	KNC-B2161	_	H264	\checkmark	Private
Panasonic	NP240/CH	—	MPEG4	\checkmark	Private
	WV-NP502	—	MPEG4	\checkmark	Private
	WV-SP102H	1.41	H264	\checkmark	ONVIF/Private
	WV-SP105H	—	H264	\checkmark	ONVIF/Private
	WV-SP302H	1.41	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SP306H	1.4	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SP508H	—	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SP509H	_	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SF332H	1.41	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SW316H	1.41	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SW355H	1.41	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SW352H	_	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SW152E	1.03	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SW558H	_	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SW559H	—	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SP105H	1.03	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SW155E	1.03	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SF336H	1.44	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SF332H	1.41	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SF132E	1.03	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SF135E	1.03	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SF346H	1.41	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SF342H	1.41	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SC385H	1.08	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SC386H	1.08	H264、MPEG4	\checkmark	ONVIF/Private
	WV-SP539	1.66	H264、MPEG4	\checkmark	ONVIF
	DG-SC385	1.66	H264、MPEG4	\checkmark	ONVIF
PELCO	IXSOLW	1.8.1-20110912 -1.9082-A1.661 7	H264	N	Private
	IDE20DN	1.7.41.9111-O3 .6725	H264	\checkmark	Private

Manufact	Model	Version	Video Encode	Audio/Vid	Protocol
ure				eo	
	D5118	1.7.8.9310-A1. 5288	H264	\checkmark	Private
	IM10C10	1.6.13.9261-O2 .4657	H264	\checkmark	Private
	DD4N-X	01.02.0015	MPEG4	\checkmark	Private
	DD423-X	01.02.0006	MPEG4	\checkmark	Private
	D5220	1.8.3-FC2-2012	H264	\checkmark	Private
		0614-1.9320-A			
		1.8035			
Samsung	SNB-3000P	2.41	H264、MPEG4	\checkmark	ONVIF/Private
	SNP-3120	1.22_110120_1	H264、MPEG4	\checkmark	ONVIF/Private
	SNP-3370	1.21_110318	MPEG4	\checkmark	Private
	SNB-5000	2.10_111227	H264、MPEG4	\checkmark	ONVIF/Private
	SND-5080	_	H264、MPEG4	\checkmark	Private
	SNZ-5200	1.02_110512	H264、MPEG4	\checkmark	ONVIF/Private
	SNP-5200	1.04_110825	H264、MPEG4	\checkmark	ONVIF/Private
	SNB-7000	1.10_110819	H264	\checkmark	ONVIF/Private
	SNB-6004	V1.0.0	H264	\checkmark	ONVIF
Sony	SNC-DH110	1.50.00	H264	\checkmark	ONVIF/Private
	SNC-CH120	1.50.00	H264	\checkmark	ONVIF/Private
	SNC-CH135	1.73.01	H264	\checkmark	ONVIF/Private
	SNC-CH140	1.50.00	H264	\checkmark	ONVIF/Private
	SNC-CH210	1.73.00	H264	\checkmark	ONVIF/Private
	SNC-DH210	1.73.00	H264	\checkmark	ONVIF/Private
	SNC-DH240	1.50.00	H264	\checkmark	ONVIF/Private
	SNC-DH240-T	1.73.01	H264	\checkmark	ONVIF/Private
	SNC-CH260	1.74.01	H264	\checkmark	ONVIF/Private
	SNC-CH280	1.73.01	H264	\checkmark	ONVIF/Private
	SNC-RH-124	1.73.00	H264	\checkmark	ONVIF/Private
	SNC-RS46P	1.73.00	H264	\checkmark	ONVIF/Private
	SNC-ER550	1.74.01	H264	\checkmark	ONVIF/Private
	SNC-ER580	1.74.01	H264	\checkmark	ONVIF/Private
	SNC-ER580	1.78.00	H264	\checkmark	ONVIF
	SNC-VM631	1.4.0	H264	\checkmark	ONVIF
	WV-SP306	1.61.00	H264、MPEG4	\checkmark	SDK
	WV-SP306	1.61.00	H264	\checkmark	ONVIF
	SNC-VB600	1.5.0	H264	\checkmark	Private
	SNC-VM600	1.5.0	H264	\checkmark	Private
	SNC-VB630	1.5.0	H264	\checkmark	Private
	SNC-VM630	1.5.0	H264	\checkmark	Private
SANYO	VCC-HDN400	—	H264	\checkmark	ONVIF
	0PC				