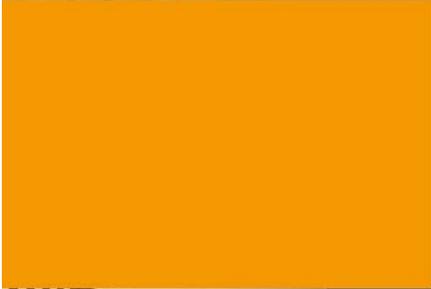




Super Stand-alone Digital Video Recorder



USER MANUAL

Ver 2.1

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Preface

Attentions:

The following contents are about the proper use of the product, the prevention of danger and loss of property etc.. Please be sure to abide.

1. Installation Environment

- Please place and use this product under the temperature of 0°C-40°C.
- Please do not place this product under a wet environment.
- Please do not place it in direct sunlight or near any heat producing appliance.
- Do not install it in the wet, dusty and sooty places.
- Please keep the level installation of this product.
- Please install it in a stable place. Pay attention to prevent it from falling.
- Do not place any other device on this product.
- Please install it in a well-ventilated place. Be sure not to block its air vent.
- It can only be used within the rated input and output range.
- Please do not demount this product randomly.

2. Instruction

- The instruction book is for reference only. The real object is the standard.
- The product will be updated in real time. It is subject to update without notice.
- For the latest program and supplementary instruction document, please contact the technical support department of the company.
- If there is any doubt or dispute on the product instruction, it is subject to the final interpretation of the company.

This instruction book is for reference of the operation of several series of products. The specific operation of each product will not be listed one by one. Please contact the technical support department of the company if there is any doubt or question.

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1 Product Introduction

1.1 Product Summary

This device is a digital monitoring and recording product specially designed for the security field. It adopts standalone processor and standalone Linux operating system.

The device combines with the latest technologies in the IT field, such as video and audio compression/decompression, large capacity HDD record, TCP/IP network etc.. The code is embedded in the FLASH chip, which makes the system running more steadily. This device has both features of digital video and audio recording(DVR) and digital video and audio server(DVS). It can not only work locally and independently but also compose of a powerful security monitoring net with networking. With the use of professional network video surveillance platform (network) software, it can fully reflect its strong networking and remote monitoring capability.

It can be used for the security protection in the fields of banking, telecommunications, electronic power, justice, traffic, residential, factory, warehouse, water conservancy facilities and other areas and departments.

1.2 Main Functions

Note: The following functional characteristics will be different due to the different series of products and their different hardware versions.

1.2.1 Real-time Monitoring

- It is with analogue video output port, VGA port. It can realize the monitoring function through the monitor or display. It supports simultaneous TV and VGA output.

1.2.2 Storage Function

- It adopts special format to save data which cannot be tampered with and will be secured.

1.2.3 Compression Method

- It supports multi-channel audio and video signal. The audio and video signal of each channel is compressed in real time by independent hardware. The sound and image keep stabilized synchronization.

1.2.4 Backup Function

- It backups through USB port(such as common U disk, mobile hard disk, SATA Combo etc.)
- The client computer can download and backup the files on the hard disk via the internet.

1.2.5 Video Play Function

- Each channel can realize independent and real-time recording, while retrieval, reverse play, network monitoring, video search and download etc. can realize simultaneously.

- Multiple playback modes: slow forward, fast forward, reverse play and frame-by-frame play.
- When playing back the video, the exact time of the event can be displayed.
- You can choose any area of the screen and enlarge it partly.

1.2.6 Network Operation Function

- Through the internet, you can realize remote and real-time monitoring, remote video search and playback, and remote PTZ control.

1.2.7 Alarm Link Function

- It is with multi-channel relay switching alarm output, facilitating alarm link and on-site lighting control.
- Alarm input and alarm output ports are both with protection circuit which make sure that the main device will not be damaged.

1.2.8 Communication Port

- With RS485 port, realizing alarm input and PTZ control.
- With standard Ethernet port, realizing network remote access function.

1.2.9 PTZ Control

- Support the PTZ decoder which communicates through RS485.
- Can expand multiple decoding protocols, facilitating the realization of PTZ and dome camera control.

1.2.10 Intelligent Operation

- Mouse operation function.
- For the same settings on the menu, you can copy and paste quickly.

1.3 Technical Data

1.3.1 Technical Data of the D1 2U/1U Case Series

1	Device Parameter	D1 2U 16CH	D1 2U 8CH	D1 1.5U 4CH
System	Main Processor	High performance industrial embedded microcontroller		
	Operating System	Embedded LINUX		
	System Resources	Multi-tasking operation, simultaneous multi-channel recording, simultaneous video playback and simultaneous network operation.		
	Operation Interface	User-friendly graphical menu conversation interface.		
	Input Device	Front panel buttons, mouse operation, remote control operation.		
	Input Method	Number, English, mark, Chinese input can be expanded.		
	Shortcut Function	For the same settings on the menu, you can copy quickly; commonly used functions such as screen split are listed when right-click menu; double-click mouse to switch screen directly.		
Compression Standard	Image Compression	H.264		
	Audio Compression	ADPCM		
Video	Video Input	16 channel composite video (NTSC/PAL) BNC(1.0VP-P, 75Ω)		
		8 channel composite video (NTSC/PAL) BNC(1.0VP-P, 75Ω)		
		4channel composite video (NTSC/PAL) BNC(1.0VP-P, 75Ω)		
	Video Output	1 channel PAL/NTSC, BNC(1.0VP-P, 75Ω) composite video signal output		
		1 channel VGA output		

	Support TV/VGA video output simultaneously.
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2	Device Parameter	D1 2U 16CH	D1 2U 8CH	D1 1.5U 4CH
Video	D1 Video Resolution	PAL(704x576) format total recording resources is 400/200/100 frames and each channel can realize independent hardware compression at the speed of 25 frames(adjustable) per second. NTSC(720x480) format total recording resources is 480/240/120 frames and each channel can realize independent hardware compression at the speed of 30 frames(adjustable) per second.		
	Bit Stream	64Kbps~2Mbps(adjustable)		
	Video Standard	PAL(625 TVL, 50fields/second, NTSC(525 TVL, 60fields/second)		
	Video Recording Speed	Real-time mode: PAL each channel 1 frame/second-25 frames/second adjustable; NTSC each channel 1 frame/second-30 frames/second adjustable;		
	Screen Split	Screen 1, 4, 9,16	Screen 1, 4, 9	Screen 1, 4
	Monitor and Cruise in Turn	Support monitor and cruise in turn functions including alarm, dynamic monitoring and timing control.		
	Image Resolution	PAL/NTSC: Real-time monitoring D1 704×576/720×480 Video playback channel 1/16: D1: 704×576/720×480 Half D1: 704×288/720×240 CIF: 352×288/ 360×240, Support double-bit stream function		
	Image Quality	Image quality is adjustable by 6 levels.		
	Area Blocks	Within the full screen, one area protection at any size can be set. Support 2 area blocks. D1 1.5U 4ch can set 4 area blocks.		

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	Screen Information	Channel information, time information, confidential coverage of area.
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3	Device Parameter	D1 2U 16CH	D1 2U 8CH	D1 1.5U 4CH
Video	Channel Status Display	The channel name, recording status, channel lock status, video loss status, motion detection status etc. can be displayed at the lower left corner of the channel screen.		
	Color Setting	Set the hue, brightness, contrast, saturation, and gain of the video input signal of each channel		
Audio	Audio Input	16 channel 200-2000mV 10KΩ (BNC)	8 channel 200-2000mV 10KΩ (BNC)	4 channel 200-2000mV 10KΩ (BNC)
	Audio Output	1 channel audio output 200-3000mv 5KΩ (BNC)		
	Voice Talkback	1 channel voice talkback input 200-3000mv 10KΩ (BNC)		
HDD	HDD	8 SATA ports inside; can connect 8 HDDs		2 SATA HDDs
	HDD Space Consumption	Audio: PCM 28.8M bytes/hour Video: 56~900M bytes/hour		
Recording and Playback	Recording Mode	Manual recording, motion detection recording, timing recording and alarm recording.		
	Cycle Way of Recording	Support hard disk cycle recording.		
	Video Search	Searching video according to time, type and channel number.		
	Playback Mode	Multiple kinds of slow forward rates, multiple kinds of fast forward rates, manual single-frame play, reverse play etc.		

	Multi-channel Playback	4 channel mode and full channel mode can be chosen. When choose 4 channel mode, it support 1-4 channel simultaneous video play back; when choose full channel mode, playback according to the actual channel number.
	Screen Zoom	Playback screen can be switched freely between adaptive window state/full screen state.

4	Device Parameter	D1 2U 16CH	D1 2U 8CH	D1 1.5U 4CH
Storage Function	Backup Way	Support common HDD storage backup. Support external USB storage device(such as common U disk, mobile HDD). Support network download storage.		
Network Function	Network Control	Remote access the monitoring screen of the front-end channel. Visit and set the system parameters through network client software and browser. Realize remote maintenance through client or browser network upgrade program. Check the alarm information including external alarm, motion detection and video loss etc. through network. Support network PTZ control. Support recording files download storage and video playback. Matching with related softwares(multi-device version client), it can realize multiple devices sharing information with network connection. Double-duplex transparent SATA. Network alarm input and output. Voice talkback		
Dynamic Detection and Alarm Input	Motion Detection	Area setting: Every screen can set any detection area freely; sensitivity detection setting: the area can set multi-level sensitivity; can link video or link external alarm.		
	Video Loss	Can link external alarm output.		
	External Alarm	Can link video or link external alarm during the set period of time.		

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	Manual Alarm Control	You can enable or disable an alarm input channel. It can analog and generate alarm signal and output to an alarm output channel.
	Alarm Input	16/8/4 channel alarm input(choose the alarm generation type by setting normally open or normally closed switch)
	Alarm Output	4/2/1 channel relay output
	Alarm Relay	30V DC 2A, 125V AC 1A(link output)

5	Device Parameter	D1 2U 16CH	D1 2U 8CH	D1 1.5U 4CH
Port	USB Port	3 USB ports		2 USB ports
	Network Port	RJ45 10/100/1000M self-adapt Ethernet port		RJ45 10/100M
	RS485	PTZ control port; support multiple protocols.		
	RS232	Used for common SATA debugging (non-standard fixed)		
System Information	HDD Information	Hard disk usage and other related information display.		
	Log Search	Display up to 1024 system logs and support log information search by time and type.		
	System Version	Display recording channel number, alarm input and output channel number, system version number, release date etc.		
User Management	User Management	Multi-level user management. Multi-level management mode, unified management of the local, SATA and network users; special user authority can be set. Support user and group adding and authority modification; the maximum number of the user and group is 8.		
	Password Security Protection	Support password modification; the user who has user management authority can set the password for other users.		
Program Upgrade		Through IE, client or USB disk		

Log out and Shutdown	Login using password in order to ensure the security.
	User-friendly menu conversation when the system menu is closed: provide options of menu user log out, device shutdown and device restart etc.
	You can set shutdown authority, ensuring that the user who has authority shuts down the device.

6	Device Parameter	D1 2U 16CH	D1 2U 8CH	D1 1.5U 4CH
General Parameter	Power Supply	AC100~240V 50+2% Hz (maximum power 300W can be provided)		DC12V5A
	Power Consumption	25W(without HDD)	22W(without HDD)	15W(without HDD)
	Operating Temperature	0°C ~+55°C		
	Operating Humidity	10%~90%		
	Atmospheric Pressure	86kpa~106kpa		
	Dimension	2U standard industrial chassis, 440x450x90mm		1.5U standard chassis, 350x240x70mm
	Weight	7.4KG (without HDD)		1.7KG (without HDD)
	Installation Method	Rack-mount, desktop installation		

1.3.2 Technical Data of the CIF 2U Case Series

1	Device Parameter	CIF 2U 16CH	CIF 2U 8CH
System	Main Processor	High performance industrial embedded microcontroller	
	Operating System	Embedded LINUX	
	System Resources	Multi-tasking operation, simultaneous multi-channel recording, simultaneous video playback and simultaneous network operation.	
	Operation Interface	User-friendly graphical menu conversation interface.	
	Input Device	Front panel buttons, mouse operation, remote control operation.	
	Input Method	Number, English, mark, Chinese input can be expanded.	
Compression Standard	Shortcut Function	For the same settings on the menu, you can copy quickly; commonly used functions such as screen split are listed when right-click menu; double-click mouse to switch screen directly.	
	Image Compression	H.264	
	Audio Compression	ADPCM	

Video	Video Input	16 channel composite video (NTSC/PAL) BNC(1.0VP-P, 75Ω)
		8 channel composite video (NTSC/PAL) BNC(1.0VP-P, 75Ω)
	Video Output	1 channel PAL/NTSC, BNC(1.0VP-P, 75Ω) composite video signal output
		1 channel VGA output
		Support simultaneous TV/VGA video output.

2	Device Parameter	CIF 2U 16CH	CIF 2U 8CH
Video	D1 Video Resolution	PAL(352x288) format total recording resources is 400/200 frames and each channel can realize independent hardware compression at the speed of 25 frames(adjustable) per second. NTSC(360x240) format total recording resources is 480/240 frames and each channel can realize independent hardware compression at the speed of 30 frames(adjustable) per second.	
	Bit Stream	64Kbps~2Mbps(adjustable)	
	Video Standard	PAL(625 TVL, 50fields/second, NTSC(525 TVL, 60fields/second)	
	Video Recording Speed	Real-time mode: PAL each channel 1 frame/second-25 frames/second adjustable; NTSC each channel 1 frame/second-30 frames/second adjustable;	
	Screen Split	Screen 1, 4,8, 9,16	Screen 1, 4,8, 9
	Monitor and Cruise in Turn	Support monitor and cruise in turn functions including alarm, dynamic monitoring and timing control.	

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	Image Resolution	PAL/NTSC: Real-time monitoring D1 704×576/720×480 Video playback channel 1/16: CIF: 352×288/ 360×240, QCIF 176×144/180×120 Support double-bit stream function, auxiliary bit stream resolution QCIF 176×144/180×120
	Image Quality	Image quality is adjustable by 6 levels.
	Area Blocks	Within the full screen, one area protection at any size can be set. Support MAX 4 area blocks.
	Screen Information	Channel information, time information, confidential coverage of area.

3	Device Parameter	CIF 2U 16CH	CIF 2U 8CH
Video	Channel Status Display	The channel name, recording status, channel lock status, video loss status, motion detection status etc. can be displayed at the lower left corner of the channel screen.	
	Color Setting	Set the hue, brightness, contrast, saturation, and gain of the video input signal of each channel.	
Audio	Audio Input	16 channel 200-2000mV 10KΩ (BNC)	8 channel 200-2000mV 10KΩ (BNC)
	Audio Output	1 channel audio output 200-3000mv 5KΩ (BNC)	
	Voice Talkback	1 channel voice talkback input 200-3000mv 10KΩ (BNC)	
HDD	HDD	4 SATA ports inside; can connect 4 HDDs	
	HDD Space Consumptio	Audio: PCM 28.8M bytes/hour Video: 56~300M bytes/hour	
Recording	Recording Mode	Manual recording, motion detection recording, timing recording and alarm recording.	

and Playback	Cycle Way of Recording	Support hard disk cycle recording.
	Video Search	Searching video according to time, type and channel number.
	Playback Mode	Multiple kinds of slow forward rates, multiple kinds of fast forward rates, manual single-frame play, reverse play etc.
	Multi-channel Playback	4 channel mode and full channel mode can be chosen. When choose 4 channel mode, it supports 1-4 channel simultaneous video play back; when choose full channel mode, playback according to the actual channel number.
	Screen Zoom	Playback screen can be switched freely between adaptive window state/full screen state.

4	Device Parameter	CIF 2U 16CH	CIF 2U 8CH
Storage Function	Backup Way	Support common HDD storage backup. Support external USB storage device(such as common U disk, mobile HDD). Support network download storage.	
Network Function	Network Control	Remote access the monitoring screen of the front-end channel. Visit and set the system parameters through network client software and browser. Realize remote maintenance through client or browser network upgrade program. Check the alarm information including external alarm, motion detection and video loss etc. through network. Support network PTZ control. Support recording files download storage and video playback. Matching with related softwares(multi-device version client), it can realize multiple devices sharing information with network connection. Double-duplex transparent SATA. Network alarm input and output. Voice talkback	

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Dynamic Detection and Alarm Input	Motion Detection	Area setting: Every screen can set any detection area freely; sensitivity detection setting: the area can set multi-level sensitivity; can link video or link external alarm.
	Video Loss	Can link external alarm output.
	External Alarm	Can link video or link external alarm during the set period of time.
	Manual Alarm Control	You can enable or disable an alarm input channel. It can analog and generate alarm signal and output to an alarm output channel.
	Alarm Input	16/8/4 channel alarm input(choose the alarm generation type by setting normally open or normally closed switch)
	Alarm Output	4/2 channel relay output
	Alarm Relay	30V DC 2A, 125V AC 1A(link output)

5	Device Parameter	CIF 2U 16CH	CIF 2U 8CH
Port	USB Port	3 USB ports	
	Network Port	RJ45 10/100M self-adapt Ethernet port	
	RS485	PTZ control port; support multiple protocols.	
	RS232	Used for common SATA debugging (non-standard fixed)	
System Information	HDD Information	Hard disk usage and other related information display	
	Log Search	Display up to 1024 system logs and support log information search by time and type.	
	System Version	Display recording channel number, alarm input and output channel number, system version number, release date etc.	

User Management	User Management	Multi-level user management. Multi-level management mode, unified management of the local, SATA and network users; special user authority can be set. Support user and group adding and authority modification; the maximum number of the user and group is 8.
	Password Security Protection	Support password modification; the user who has user management authority can set the password for other users.
Program Upgrade		Through IE, client or USB disk
Log out and Shutdown		Login using password in order to ensure the security.
		User-friendly menu conversation when the system menu is closed: provide options of menu user log out, device shutdown and device restart etc.
		You can set shutdown authority, ensuring that the user who has authority shuts down the device.

6	Device Parameter	CIF 2U 16CH	CIF 2U 8CH
General Parameter	Power Supply	AC100~240V 50+2% Hz (maximum power 250W can be provided)	
	Power Consumption	20W(without HDD)	
	Operating Temperature	0°C~+55°C	
	Operating Humidity	10%~90%	
	Atmospheric Pressure	86kpa~106kpa	

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	Dimension	2U standard industrial chassis, 440x390x90mm
	Weight	6KG(without HDD)
	Installation Method	Rack-mount, desktop installation

1.3.3 Technical Data of the CIF 1.5U/1U Case Series

1	Device Parameter	CIF 1.5U 16CH	CIF 1.5U 8CH	CIF 1U 4CH 4T/4S
System	Main Processor	High performance industrial embedded microcontroller		
	Operating System	Embedded LINUX		
	System Resources	Multi-tasking operation, simultaneous multi-channel recording, simultaneous video playback and simultaneous network operation.		
	Operation Interface	User-friendly graphical menu conversation interface.		
	Input Device	Front panel buttons, mouse operation, remote control operation.		

	Input Method	Number, English, mark, Chinese input can be expanded.
	Shortcut Function	For the same settings on the menu, you can copy quickly; commonly used functions such as screen split are listed when right-click menu; double-click mouse to switch screen directly.
Compression Standard	Image Compression	H.264
	Audio Compression	ADPCM
Video	Video Input	16 channel composite video (NTSC/PAL) BNC(1.0VP-P, 75Ω)
		8 channel composite video (NTSC/PAL) BNC(1.0VP-P, 75Ω)
		4channel composite video (NTSC/PAL) BNC(1.0VP-P, 75Ω)
	Video Output	1 channel PAL/NTSC, BNC(1.0VP-P, 75Ω) composite video signal output
		1 channel VGA output
		Support TV/VGA simultaneous video output.

2	Device Parameter	CIF 1.5U 16CH	CIF 1.5U 8CH	CIF 1U 4CH 4T/4S
Video	CIF Video Resolution	PAL(352x288) format total recording resources is 400/200/100 frames and each channel can realize independent hardware compression at the speed of 25 frames(adjustable) per second. NTSC(360x240) format total recording resources is 480/240/120 frames and each channel can realize independent hardware compression at the speed of 30 frames(adjustable) per second.		
	D1 Video Resolution	CIF 1.5U 8CH: Total resources 200 frames, you can set 4ch D1 100 frames CIF 1U 4CH 4S: Total resources 100 frames, you can set 1ch D1 25 frames		

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	Bit Stream	64Kbps~2Mbps(adjustable)		
	Video Standard	PAL(625 TVL, 50fields/second, NTSC(525 TVL, 60fields/second)		
	Video Recording Speed	Real-time mode: PAL each channel 1 frame/second-25 frames/second adjustable; NTSC each channel 1 frame/second-30 frames/second adjustable;		
	Screen Split	Screen 1, 4, 8,9,16	Screen 1, 4,8, 9	Screen 1, 4
	Monitor and Cruise in Turn	Support monitor and cruise in turn functions including alarm, dynamic monitoring and timing control.		
	Image Resolution	PAL/NTSC: Real-time monitoring D1 704×576/720×480 Video playback channel 1/16: CIF: 352×288/ 360×240, Support double-bit stream function, auxiliary bit stream resolution QCIF 176×144/180×120.		
	Image Quality	Image quality is adjustable by 6 levels.		
	Area Blocks	Within the full screen, one area protection at any size can be set. Support MAX 4 area blocks.		

3	Device Parameter	CIF 1.5U 16CH	CIF 1.5U 8CH	CIF 1U 4CH 4T/4S
Video	Screen Information	Channel information, time information, confidential coverage of area.		
	Color Setting	Set the hue, brightness, contrast, saturation, and gain of the video input signal of each channel		
	Channel Status Display	The channel name, recording status, channel lock status, video loss status, motion detection status etc. can be displayed at the lower left corner of the channel screen.		

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Audio	Audio Input	4 channel 200-2000mV 10KΩ (BNC)	8 channel 200-2000mV 10KΩ (BNC)	4 channel 200-2000mV 10KΩ (BNC) 4T doesn't support.
	Audio Output	1 channel audio output 200-3000mv 5KΩ (BNC) 4T doesn't support.		
	Voice Talkback	1 channel voice talkback input 200-3000mv 10KΩ (BNC) , 7000-4T doesn't support.		
HDD	HDD	2 SATA ports inside		
	HDD Space Consumptio	Audio: PCM 28.8M bytes/hour Video: 56~300M bytes/hour		
Recording and Playback	Recording Mode	Manual recording, motion detection recording, timing recording and alarm recording.		
	Cycle Way of Recording	Support hard disk cycle recording.		
	Video Search	Searching video according to time, type and channel number.		
	Playback Mode	Multiple kinds of slow forward rates, multiple kinds of fast forward rates, manual single-frame play, reverse play etc.		
	Screen Zoom	Playback screen can be switched freely between adaptive window state/full screen state.		

4	Device Parameter	CIF 1.5U 16CH	CIF 1.5U 8CH	CIF 1U 4CH 4T/4S
Recording and Playback	Multi-channel Playback	4 channel mode and full channel mode can be chosen. When choose 4 channel mode, it supports 1-4 channel simultaneous video play back; when choose full channel mode, playback according to the actual channel number, such as the CIF 1.5U 8ch simultaneous playback.		

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Storage Function	Backup Way	Support common HDD storage backup. Support external USB storage device(such as common U disk, mobile HDD). Support network download storage.
Network Function	Network Control	Remote access the monitoring screen of the front-end channel. Visit and set the system parameters through network client software and browser. Realize remote maintenance through client or browser network upgrade program. Check the alarm information including external alarm, motion detection and video loss etc. through network. Support network PTZ control. Support recording files download storage and video playback. Matching with related softwares(multi-device version client), it can realize multiple devices sharing information with network connection. Double-duplex transparent SATA. Network alarm input and output. Voice talkback
Dynamic Detection and Alarm Input	Motion Detection	Area setting: Every screen can set any detection area freely; sensitivity detection setting: the area can set multi-level sensitivity; can link video or link external alarm.
	Video Loss	Can link external alarm output.
	External Alarm	Can link video or link external alarm during the set period of time.

5	Device Parameter	CIF 1.5U 16CH	CIF 1.5U 8CH	CIF 1U 4CH 4T/4S
Dynamic Detection and Alarm Input	Manual Alarm Control	You can enable or disable an alarm input channel. It can analog and generate alarm signal and output to an alarm output channel.		
	Alarm Input	16/4/4 channel alarm input(choose the alarm generation type by setting normally open or normally closed switch).		
	Alarm Output	4/1/1 channel relay output.		
	Alarm Relay	30V DC 2A, 125V AC 1A(link output)		

Port	USB Port	2 USB ports
	Network Port	RJ45 10/100M self-adapt Ethernet port
	RS485	PTZ control port; support multiple protocols.
	RS232	Used for common SATA debugging (non-standard fixed)
System Information	HDD Information	Hard disk usage and other related information display
	Log Search	Display up to 1024 system logs and support log information search by time and type.
	System Version	Display recording channel number, alarm input and output channel number, system version number, release date etc.
User Management	User Management	Multi-level user management. Multi-level management mode, unified management of the local, SATA and network users; special user authority can be set. Support user and group adding and authority modification; the maximum number of the user and group is 8.
	Password Security Protection	Support password modification; the user who has user management authority can set the password for other users.
Program Upgrade		Through IE, client or U disk

6	Device Parameter	CIF 1.5U 16CH	CIF 1.5U 8CH	CIF 1U 4CH 4T/4S
Log out and Shutdown		Login using password in order to ensure the security. User-friendly menu conversation when the system menu is closed: provide options of menu user log out, device shutdown and device restart etc. You can set shutdown authority, ensuring that the user who has authority shuts down the device.		
General	Power Supply	DC12V 5A		DC12V4A

Digital Video Recorder User Manual

Parameter	Power Consumption	15W(without HDD)	
	Operating Temperature	0°C~+55°C	
	Operating Humidity	10%~90%	
	Atmospheric Pressure	86kpa~106kpa	
	Dimension	1.5U standard industrial chassis, 350x240x70mm	1U standard chassis, 310x225x50mm
	Weight	1.9KG(without HDD)	1.3KG(without HDD)
	Installation Method	Rack-mount, desktop installation	

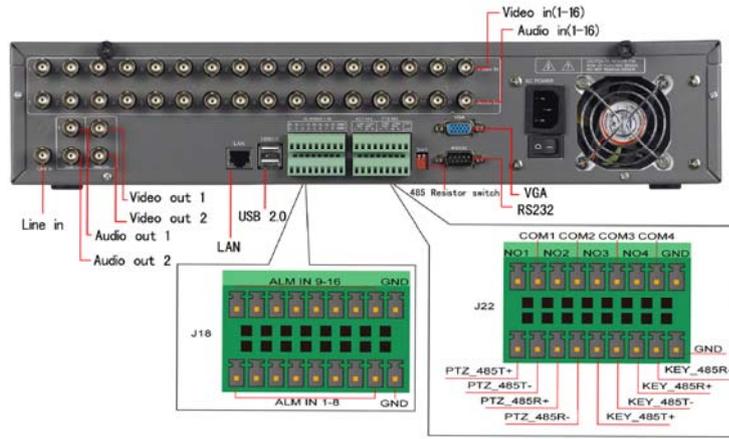
2 Product Outside Structure Introduction

2.1 The Panel Instruction of the D1 2U/1U Case Series

2.1.1 The 8/16 Channel Front Panel Instruction of the D1 2U Case Series

2.1.2 The 8/16 Channel Rear Panel Instruction of the D1 2U Case Series

Number	Icon	Button Instruction	Number	Icon	Button Instruction
1		Power Button	11		Play Button
2		Power Supply Led	12		PTZ Control Up
3		HDD Led	13		PTZ Control Down
4		Network Led	14		PTZ Control Left
5		Data Transmission Led	15		PTZ Control Right
6		Alarm Status Led	16		Menu Button
7		Number Button 1-10	17		ESC Button
8		+10 Button	18		Enter Button
9		Multi-Screen Button	19		Shuttle
10		Recording Button			



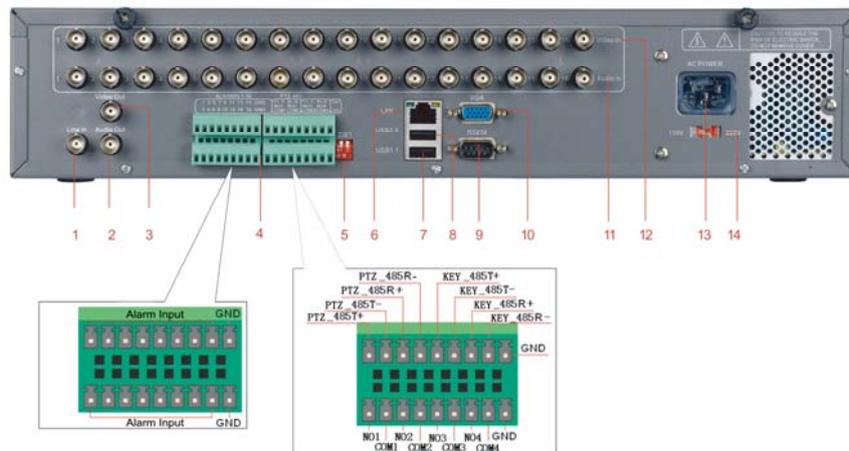
- ◆ 1 Video Input: 16 BNC
- ◆ 2 Audio Input: 16 BNC
- ◆ 3 Voice Talkback: 1 BNC
- ◆ 4 Audio Output: 2 BNC
- ◆ 5 Video Output: 2 BNC
- ◆ 6 Network Port: 1 RJ45 10/100/1000M self-adaptive Ethernet port
- ◆ 7 USB 2.0 Port: 2
- ◆ 8 Alarm Input: 16-switch Input
- ◆ 9 Alarm Output: 4-COM Switch Output
- ◆ 10 Keyboard Control: Send(T+, T-), Receive (R+, R-)
- ◆ 11 PTZ Control: Send(T+, T-), Receive (R+, R-)
- ◆ 12 485 Switch: Enabled when the Distance is too Long
- ◆ 13 VGA Port: 1 Channel
- ◆ 14 RS232 Port: 1 Channel

2.2 The Panel Instruction of the CIF 2U Case Series

2.2.1 The 8/16 Channel Front Panel Instruction of the 8000 Series

Number	Icon	Button Instruction	Number	Icon	Button Instruction
1		Power Button	13		PTZ Control
2		Power Supply Led	14		Menu Button
3		HDD Led	15		ESC Button
4		Network Led	16		Up
5		Data Transmission Led	17		Left
6		Alarm Status Led	18		Down
7		Number Button 1-10	19		Right
8		+10 Button	20		Enter Button
9		Multi-Screen Button	21		Play Button
10		Channel 1-16 Led	22		Recording Button
11		IR Receiver Module	23		Shuttle
12	Open Cover	CD-ROM Installation Position	24		Lightly Push Position

2.2.2 The 8/16 Channel Rear Panel Instruction of the CIF 2U Case Series



- ◆ 1 Voice Talkback
- ◆ 2 Audio Output
- ◆ 3 Video Output
- ◆ 4 PTZ Keyboard, Alarm Port
- ◆ 5 485 Matching Resistor Switch
- ◆ 6 Network Port
- ◆ 7 USB 1.0 Port
- ◆ 8 USB 2.0 Port
- ◆ 9 RS232 Port
- ◆ 10 VGA Port
- ◆ 11 16 Channel Audio Input Port
- ◆ 12 16 Channel Video Input Port
- ◆ 13 Power Supply Port
- ◆ 14 110V/220V Switching

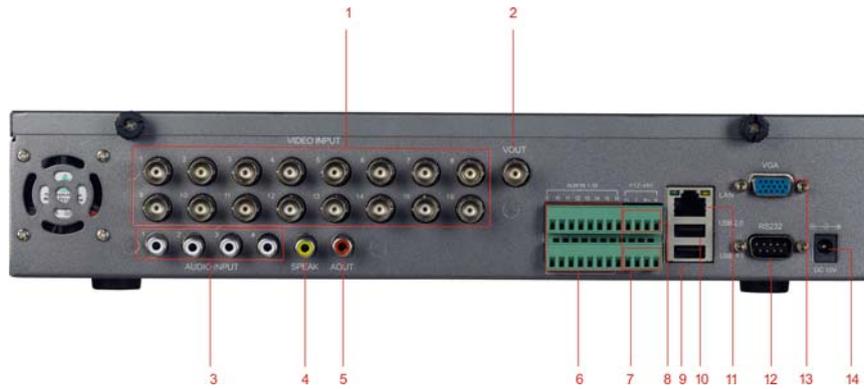
2.3 The Panel Instruction of the CIF 1.5U Case Series

2.3.1 The 8/16 Channel Front Panel Instruction of the CIF 1.5U Case Series

Number	Icon	Button Instruction	Number	Icon	Button Instruction
1		Power Button	12		PTZ Control Up
2		Number Button 1-10	13		PTZ Control Down
3		Power Supply Led	14		PTZ Control Left
4		HDD Led	15		PTZ Control Right
5		System Status Led	16		PTZ Control
6		Network Led	17		Auxiliary Function Button
7		Data Transmission Led	18		Menu Button
8		Alarm Status Led	19		Recording Button
9		+10 Button	20		Play Button
10		Multi-Screen Button	21		Enter Button
11		Auxiliary Function Button	22		ESC Button

2.3.2 The 8/16 Channel Rear Panel Instruction of the CIF 1.5U

Case Series



- ◆ 1 Video Input: 16 Channel
- ◆ 2 Video Output: 1 Channel
- ◆ 3 Audio Input: 4 Channel
- ◆ 4 Voice Talkback: 1 Channel
- ◆ 5 Audio Output: 1 Channel
- ◆ 6 Alarm Input: 16 Channel: 16 Channel Alarm Input
8 Channel: 8 Channel Alarm Input
- ◆ 7 Alarm Output: 1 Channel
- ◆ 8 485 Port: Used for PTZ Keyboard Control
- ◆ 9 USB 1.1 Port: 1
- ◆ 10 USB 2.0 Port: 1
- ◆ 11 Network Port: 1 RJ45, 10/100M Self-adaptive
- ◆ 12 RS232 Port: 1
- ◆ 13 VGA Port: 1
- ◆ 14 Power Supply Port: 1

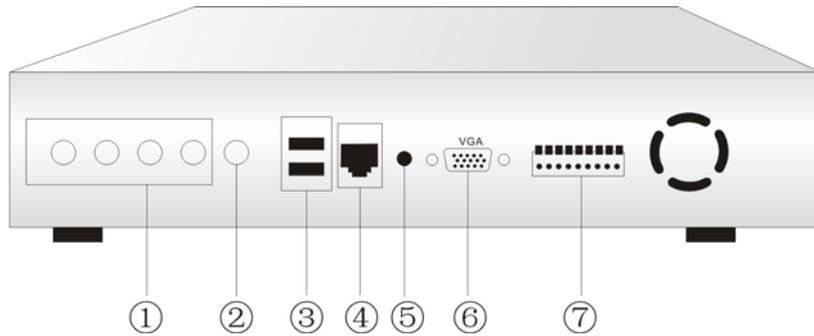
2.3.3 The 4 Channel(4T/4S) Front Panel Instruction of the CIF

1U Case Series

Number	Icon	Button Instruction	Number	Icon	Button Instruction
1		HDD Led	9		Video Playback Button
2		Power Supply Button	10		ESC Button
3		Channel Button	11		Menu Button
4		4 Split Screen Button	12		Enter Button
5		IR Receiving Window	13		PTZ Control Up
6		Auxiliary Function Button	14		PTZ Control Down
7		PTZ Control Button	15		PTZ Control Left
8		Recording Button	16		PTZ Control Right

2.3.4 The 4 Channel(4T/4S) Rear Panel Instruction of the CIF

1U Case Series



- ◆ 1 Video Input: 4 Channel
- ◆ 2 Video Output: 1 Channel
- ◆ 3 USB 1.1 Port: 1 USB 2.0 Port: 1
- ◆ 4 Network Port: 1 RJ45, 10/100M Self-adaptive
- ◆ 5 Power Supply Port: 112V5A
- ◆ 6 VGA Port: 1
- ◆ 7 Alarm Port: Input 4 Channel, Output 1 Channel

2.4 Remote Control Instruction

2.4.1 Remote Control Instruction of 8/16 Channel

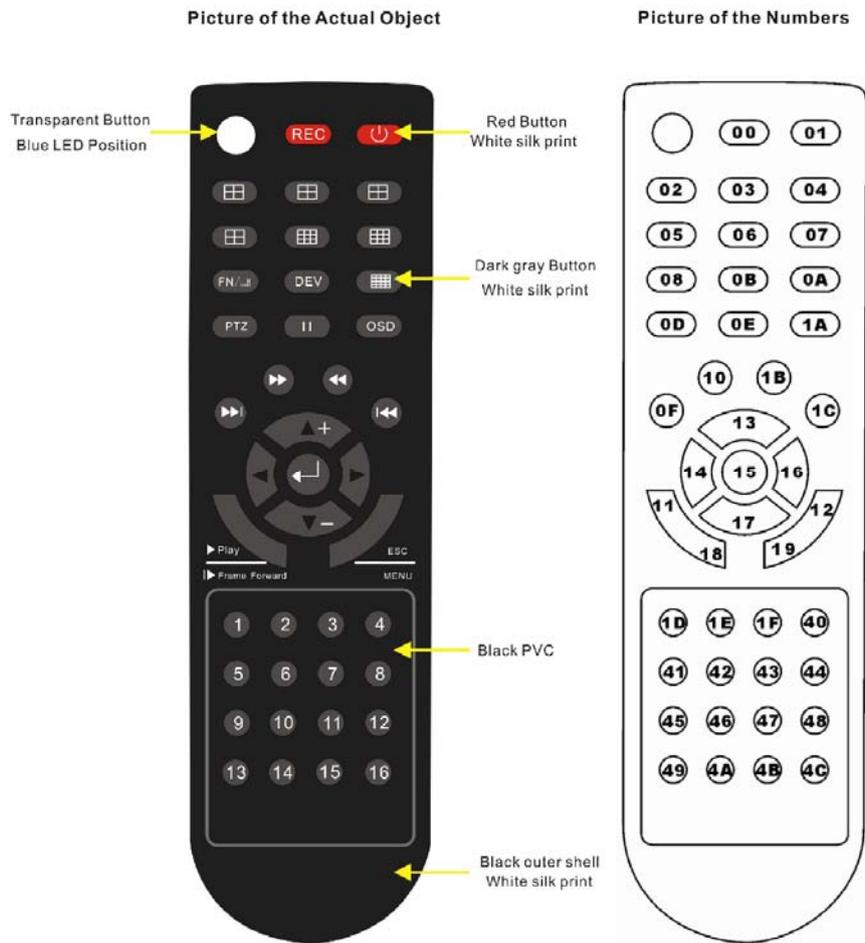
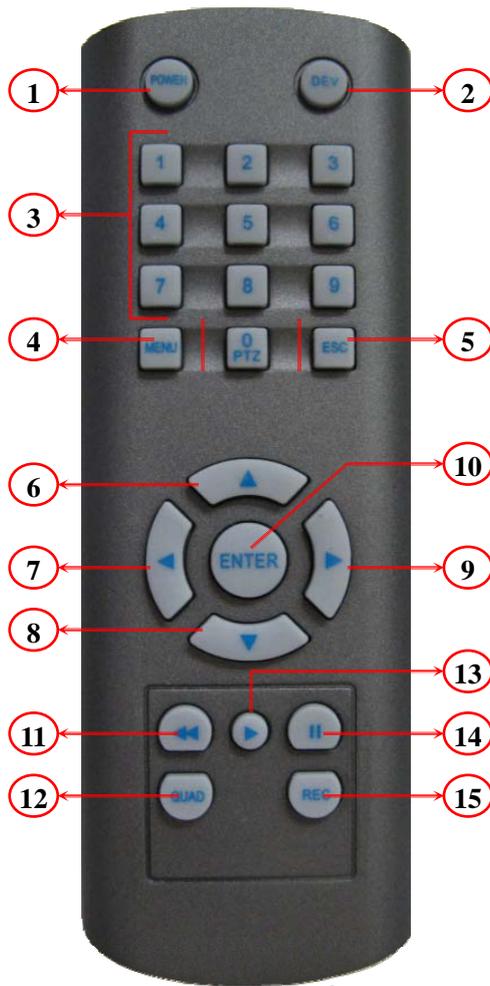


Figure ID Numbers are Defined as Follows:

00: Recording	14: Left
01: Power on/off	15: Enter
02: Split Screen 1—4	16: Right
03: Split Screen 5—8	17: Down
04: Split Screen 9—12	18: Fast Playback
05: Split Screen 13—16	19: Main Menu
06: Split Screen 1—9	1D: Channel 1
07: Split Screen 9—16	1E: Channel 2
08: Split Screen 1—8 for the First Time	1F: Channel 3
Split Screen 9—16 for the Second Time	40: Channel 4
Or Choose Area	41: Channel 5
0A: Split Screen 1—16	42: Channel 6
0B: STATUS/DEV Button	43: Channel 7
0D: PTZ Control	44: Channel 8
0E: Pause	45: Channel 9
0F: Next Section	46: Channel 10
1A: Display on / off	47: Channel 11
1B: Fast Reverse	48: Channel 12
1C: Last Section	49: Channel 13
10: Fast Forward	4A: Channel 14
11: Video Playback	4B: Channel 15
12: Return	4C: Channel 16
13: Up	

2.4.2 4 Remote Control Instruction



1. Power turn on/off
2. DEV: After pressing the DEV button, press the number button and input the device number which is consistent with the host. Press 【ENTER】 and save the setting. Then the control operation on this device comes into effect.
3. Number button 1-4 or the channel button of the channel 1-4.
4. Menu button
5. ESC button
6. Up
7. Left
8. Down
9. Right
10. Enter/PTZ control button
11. Fast forward button
12. Four split screen button
13. Play button
14. Stop button
15. Recording button

Note: When there are multiple devices in a same place, the remote control should choose a device first according to the device number. Therefore, you should define one unique device number for each machine, otherwise, the remote control operation may simultaneously affect the multiple devices which are with the same device number.

2.3.1 Remote Control Battery

1. Open the battery cover of the remote control.
2. Put into 2 pieces of No.7 batteries. Make sure that the positive and negative polarity correspond with each other rightly.
3. Close the battery cover.

2.3.2 Code Corresponding Operation of the Remote Control

Press the **【STATUS】** / **【DEV】**  button on the remote control, then input the DVR device number (default device number is "255". It can be modified under Management Tools→System Parameter). The maximum device number which can be set is 255. Input the 3-digit device number on the remote control, adding 0 in front if the number is not up to 3-digit, then press the **【ENTER】**  button. After completing the code corresponding operation, you can operate the DVR according to the functions on the remote control.

2.3.3 Turn on by Remote Control

When the device is under the status of being selected by the remote control, keep pressing 【POWER】  button on the remote control can turn off the device so that it will be under standby mode.

When the device is under the standby mode status of being selected, flicking on the 【POWER】  button can turn on the device and enter normal working condition.

2.3.4 Disable Remote Control Operation

When the device is under the status of being selected by the remote control, press the 【DEV】  button and the remote control will terminate the control on the DVR.

2.3.5 Abnormal Checking of the Remote Control

Check the positive and negative polarity of the batteries.

Check whether the power of the batteries has run out.

Check whether the remote control sensor is blocked.

Check whether there is fluorescent light being used in the nearby.

3 Operating System Instruction

3.1 Turn on/off DVR

Please confirm the access AC voltage matches the requirements of the DVR and ensure that the middle earth terminal of the outlet connected to the ground well. After accessing to the power, the device will startup and the 【POWER】 led will become green. Input the initial password: 888888. Pressing the 【POWER】 button for 5 seconds will soft-off the device, and the led will become red. Pressing the 【POWER】 again will restart the device.

3.2 Preview



The device will enter the preview screen when it starts normally. The

date, time and channel name of the system will be indicated on the preview screen. Pressing the code corresponding button on the panel or clicking the left mouse button can start single-screen preview. Pressing the 【MULTI】  button on the panel again or clicking the left mouse button can return to the state of multi-screen preview.

3.3 Login



Click the right mouse button, enter into the 【User Login】 window, then enter initial Password: 888888 (some models are blank). Then user can log in to manage and operate the DVR.

3.4 Menu Component Instruction

Press 【MENU】 or click right mouse button to popup the main menu. The main menu consists of the following three components:



- **Preview Mode:** Choose the corresponding preview screen mode in the menu bar.
- **Shortcut Menu:** There are video playback, manual recording and PTZ control shortcut menu in the menu bar, from which you can enter the corresponding menu page directly.
- **Main Menu Bar:** After entering the menu bar, there will be the menu page of management tools, system setting, log search, shut down system.

The component units of the menu mainly include the following kinds:

- (1) **Checkbox:** Provide two kinds of state options. “√” means valid, while “□” means invalid. Use the **【ENTER】** button or **【↑】**, **【↓】** button or click the left mouse button to choose.

For example, the “Channel” and “Type” select box on the

page of the file search menu.

- (2) Select box: Provide more than 2 options, but only one option can be chosen. Use **【↑】** , **【↓】** button or click left mouse button to turn up and click right mouse button to turn down.

For example, the “Storage Device” select box on the page of the file search menu.

- (3) List box: Display the search result information in the list. You can choose one item and carry out corresponding operation.

For example, press the **【ENTER】** button on the list of playback search result or click left mouse button to play this file information. Click right mouse button can select/cancel this video file in order to backup this video file.

- (4) Edit Box: Input target name through edit box.

For example, on the page of the system configuration menu, numbers, English letters and Chinese etc. can be input into the “Device Name” edit box.

a) Single-clicking left mouse button on “  ” can switch input type, including number, upper-alpha and lower-alpha, punctuation, Chinese input method. There will be current input method indicated following the activity box.

b) After moving the location of the edit box placecursor by **【←】**, **【→】** button on the panel or by mouse, pressing the

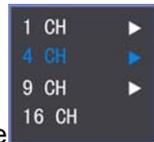
【ENTER】 button or single-clicking left mouse button, the input keyboard will appear. Then select the target characters by direction buttons or single-clicking the left mouse button.

c) Delete the character before the cursor by the 【MENU】 button or single-clicking the right mouse button.

d) After the input is complete, exit the edit status by pressing the 【ESC】 button or clicking the right mouse button.

(5) Button: Used for the implementation of a specific function or entering the second-level set menu. Press 【ENTER】 or click left mouse button to confirm access.

3.4.1 Screen Split



Click this interface, split the screen into 1, 4, 9, 16 screens.

3.4.2 Video Playback



Single-click the “Playback” in the main menu bar to enter the file search operation interface.

3.4.2.1 File Search

- **Channel:** Select the target channel to be searched and click the checkbox to select.
- **Type:** Select the recording type to be searched. “√” means selected; “□” means unselected.
- **Duration:** Input the start and stop times of the video to be searched in the edit box.
- **Store To:** Select the target backup storage device in the select box.

- **Search:** When the settings of the above search conditions are complete, clicking this button, the system will start searching the corresponding video information and entering the search result interface.

Note: If the quantity of the video files which meet the search conditions is bigger than 4000, the system will only indicate the latest 4000 video files. If you want to search for the updated files, please modify the search conditions.

- **Play by Time:** Start playing back the video according to the set start and stop times (regardless of recording type)

For the playback tool control, please refer to 3.5.3.

- **Backup:** Backup all the videos which are within the set start and stop times to the designated storage device.

3.4.2.2 Search Results

When the setting of the search conditions is complete, single-clicking the **【Search】** button will enter the search results interface.

- **Video File Playback:** In the list box of search results, positioning the target file by the up and down button or moving mouse, click **【ENTER】** or left mouse button to play this file.
- **Page Turning:** The searched video files are page displayed. Single-click **【Pre】**, **【Next】** button or input the target page number in the page number box and then press “Goto” button or

scroll the middle button of the mouse to turn the page.



- **Backup:** In the list of search result, positioning the target file by the up and down button or by moving mouse and then use the **【FN】** button or right mouse button to select the file. In the storage device select box, selecting the target storage device, then clicking the **【Backup】** button will backup the selected video file to the target storage device.
- **Cancel Button:** Return to the previous menu.

3.4.2.3 Playback Tool Control

Choosing file playback or play by time will enter the video playback interface.

- **Playback Toolbar:** Playback toolbar will appear at the bottom of the playback interface. Click right mouse button can

hide/display the toolbar. When multi-screen playing back simultaneously, clicking right mouse button to hide the toolbar, then the corresponding channel video can be enlarged or diminished by single-click left mouse button.

- **Stop playing:** Click , the system will stop playing and return to the playback interface.
- **Pause/Play:** Click  to pause playback; click  to go on playback.
- **Single-frame Playback:** Under the pause mode, click  can start single-frame play; click once will play one frame forwards.
- **Slow Forward:** Click  to start slow forward; click it again to set the slow forward multiple.
- **Fast Forward:** Click  to start fast forward; click it again to set the fast forward multiple.
- **Last Section/Next Section:** Click  or , each click last section or next section, the video will forward or backward 10%.
- **Turn off/on Sound:** Click  or  to turn off or turn on the sound of the playback file.
- **Playback Status Information:** The right side of the toolbar will respectively show the play speed, play progress, playing time and total time of the video file.
- **Exit Playing:** Clicking **【ESC】** or  can exit the playback

screen at any time; when finishing playing all the video files, it will return to the playback screen automatically.

3.4.3 Manual Recording



Single-click **【Record】** in the main menu bar to enter the setting interface.

Press the **【REC】** button or click **【Record】** in the main menu bar by mouse can enter the manual recording setting interface.

Manual Recording Interface Instruction

Manual recording operation interface consists of the following parts:

- **Channel:** Correspond with the video channel of the device.
- **Status:** Indicates the recording status of the corresponding channel. When the status led is green“”, it means unopened

video; the status led is red "●", it means open video; when there is a coil around the status led "●", "●" means the corresponding channel opening the network video transmission.

When the system is under the status of recording (regardless of recording type), "●" will appear at the bottom left corner of the channel preview screen which means the system is recording.

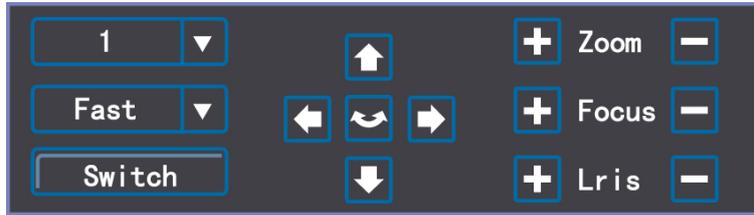
- **Start All/Stop All:** Single-click this button to stop or start the video setting of all the channels.
- **Exit:** Single-click the exit button to exit manual recording interface and return back to the main menu bar.

Note: If the recording is enabled manually, you can only stop it manually, otherwise, the recording will continue all the time.

Attention: Manual recording operation requires that the user has the "recording" operation authority. Before the operation, please confirm with the administrator that the hard disk has been installed in the DVR and it has been formatted correctly.

3.4.4 PTZ Control

Single-click 【PTZ】 in the main menu bar to enter the setting interface.



The main operations of the PTZ control are direction control, horizontal scanning, ZOOM control, focal adjustment, aperture adjustment and PTZ speed.

After switching the page, the preset point can be invoked; start up/stop automatic cruise; wiper control; light control; auxiliary device control.

Note: The invoked preset points must have be set up well. For the setting methods of the cruise path, please refer to 3.8.2.8 PTZ setting. If the cruise path number is less than 2 digits, you need to add 0 before the corresponding cruise path number to make up for 2 digits.

3.5 Main Menu Introduction



Click **【Menu】** in the main menu bar to enter the main menu page.

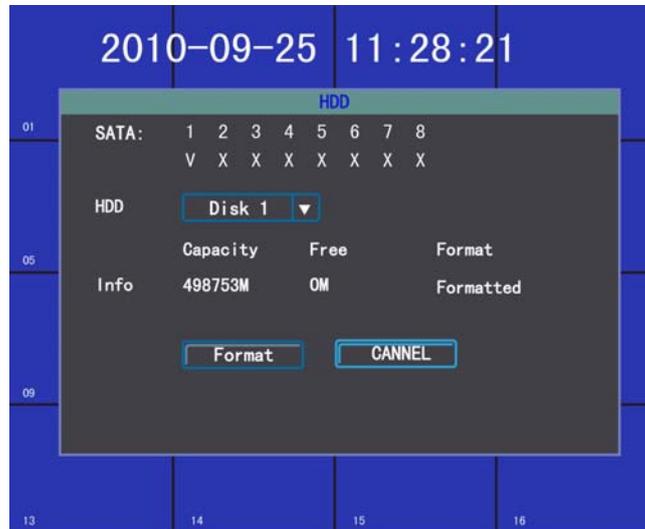
The first-level menu includes management tools, system setting, log search, system shutdown.

3.5.1 Tools



Management tools include HDD management, user management, default configuration, alarm clear, software update, date and time, system information.

3.5.1.1 HDD



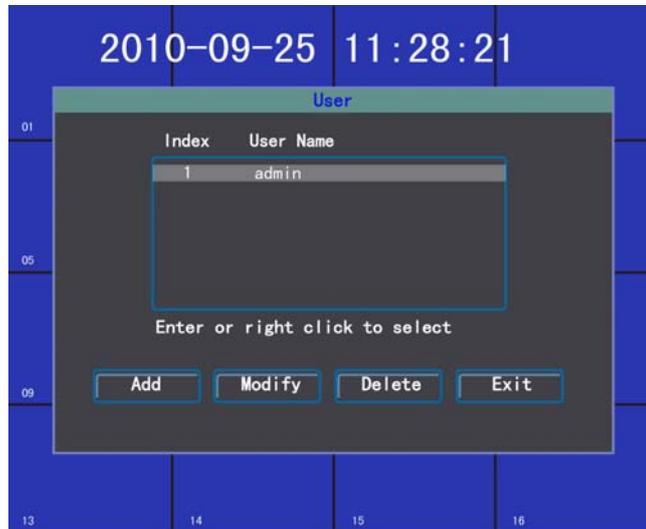
- SATA: Displays the current system HDD information; “√” means HDD detected successfully; “X” means no hard disk detected.
- HDD Format: In the HDD select box, selecting the target disk can view the information of the corresponding disk; clicking the **【Format】** button will show the confirmation page; clicking the **【OK】** button will start formatting the HDD; after the HDD formatting is complete, the hard disk can be used normally.

Note: All the videos must be stopped before the HDD formatting.

3.5.1.2 User

Create, add and delete user and modify the user information. (No one has the right to set other user authority except the admin.)

➤ **Create New User**



Enter the “User” operation interface, click **【Add】** button and enter the add user interface.

Note: For the input methods, please refer to 3.3.2 (4) edit box.

1) Input New User Name

Input a new user name in the user name edit box (such as: user) .

Note: For the input methods, please refer to 3.3.2 (4) edit box.

2) Setup Password of New User

Click the “Password” button in the “Add/Modify User” interface and input the new password on the password setup page. The

password is within 6 digits.



3) Setup the Rights of the New User



Setup the operation rights for the new user on the "Add/Modify User" interface, and then make selection in the checkbox with

corresponding functions. “√” means that the user can use this right; “□” means that the user cannot use this right.

4) Save the Setup Information of the New User

Single-clicking the **【OK】** button, the setup information of the new user will be saved while clicking the **【CANCEL】** button, the setup information of the new user will not be saved.

➤ Modify User

Enter the “User” operation interface, single-click the right mouse button or press **【ENTER】** on the panel in the user list to select the target user, then single-click the **【Modify】** button, enter the “Modify User” page to modify the user information.

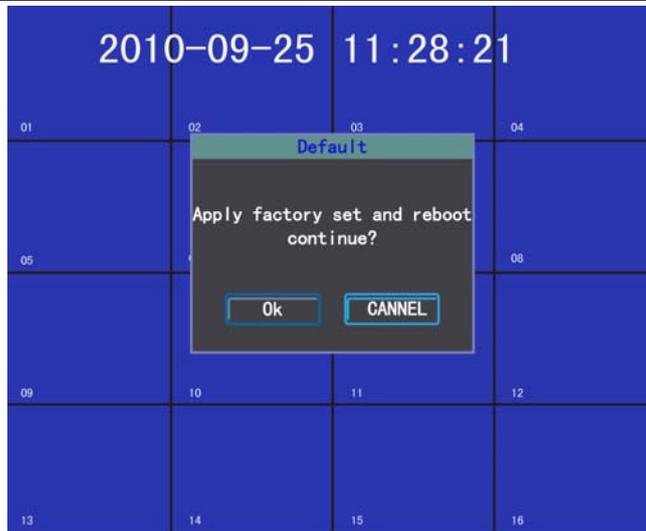
Note: Admin administrator can modify the right of other users.

➤ Delete User

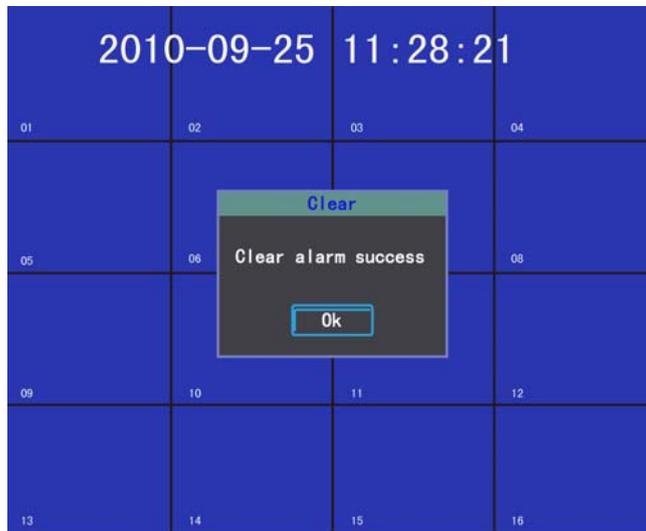
Enter the “User” operation interface, single-click the right mouse button or press **【ENTER】** on the panel in the user list to select the target user, then click **【Delete】** to delete the user.

3.5.1.3 Default

Restore the system configuration parameters to factory configuration. The system will restart after the restore is complete.



3.5.1.4 Clear



Clear all the alarm information manually. When the alarm is cleared successfully, the system will indicate "Clear alarm success. Confirm and return to the page of management tools.

3.5.1.5 Software Upgrade



Choose the “Upgrade” on the management tools interface to enter the operation interface.

Select the target to be updated in the update select box, then select the update mode in the update method select box: FTP or USB.

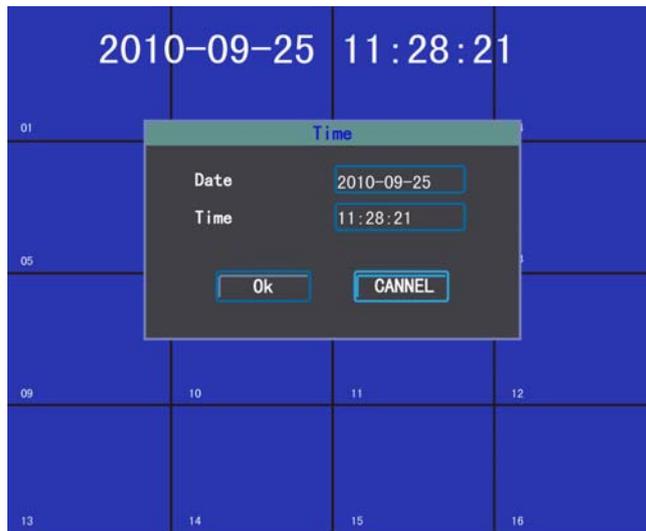
- **USB Upgrade:** Copy the file to be updated to the USB root catalogue, insert USB and click **【OK】** to upgrade the system.
- **FTP Update :** Put the file to be upgraded to the FTP server root catalogue and set the IP address of the server as the designated address, then press **【OK】** to update the system.

After the update is complete, the system will restart automatically.

Note: The upgrade name of the main board should be: mainboard.bin; the upgrade name of the panel should be: panel. bin.

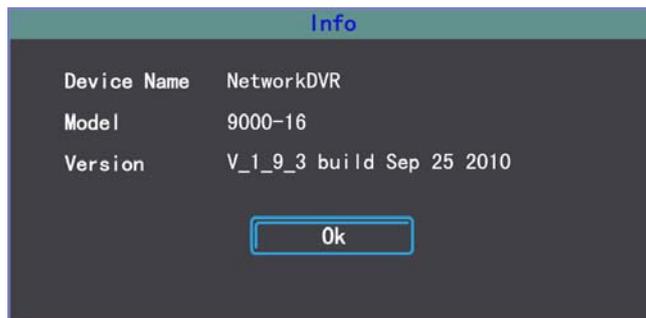
When the system is being updated, do not disconnect the power so as to avoid device failure.

3.5.1.6 Time



Enter the date and time page, input the exact date and time in the “Date”, “Time” edit box, then confirm and save or cancel and exit.

3.5.1.7 Information



Check the relevant information of the device name, item number and the version number.

3.5.2 Setup



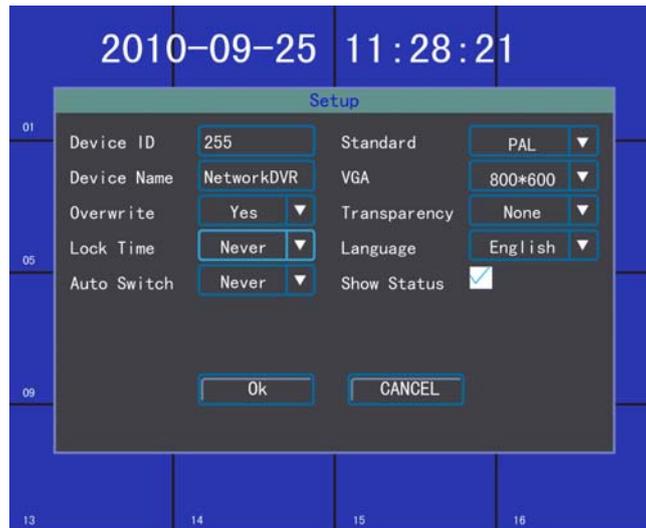
Click "Setup" to enter the sub-menu interface on the main menu interface, including system parameter setup, video parameter, alarm input, alarm output, schedule, motion detection, PTZ configuration and network.

3.5.2.1 System Parameter

Click "Setup" and enter its setting interface on the system setup interface.

- **Device ID:** When using the remote control to operate the device, the communications with the remote control is realized y the device number. To realize the remote control operation, the remote control must correspond to the device number. **For the settings of the remote control device ID, please refer to 2.3**

remote control instruction.



- **Device Name:** Device name is normally defined as the area name of the monitoring point. When remote access, you can find the monitoring point to be visited intuitively. The default device name is "H.264 NDVR". **For the edit method, please refer to 3.3.2 (4) edit box.**
- **Overwrite:** When all the hard disks inside the device are full, choose "Yes", the system will overwrite the earliest video information to achieve the purpose of cycle recording.
- **Lock Time:** There is no operation within the keypad lock time. The system will cancel the current user automatically. To operate, you need to relogin the system.
- **Auto Switch:** Switch time means the cycle time indicated on the

single-channel preview.

- **VGA:** Adjust the VGA video output resolution. There are 800*600/60Hz, 1024*768/60Hz and 1280*1024/60Hz options.
- **Standard:** The device supports PAL and NTSC video output. The default video output is “NTSC”.
- **Transparency:** When the user enters the menu operation interface, you can realize the transparency between the screen preview and menu by adjusting the level of the menu transparency.
- **Language:** 12 kinds of commonly used languages including simplified Chinese, English, etc.. According to the user's needs, any menu language type can be setup(language pack is needed)
- **Show Status:** Setup if the information icons of the recording mode, state and motion detection will be indicated on the screen preview. When the mark is changed into “√”, it means state displayed; when the sign is changed into “□”, it means state not displayed.

The explanations for the lower left corner icons on the channel screen preview.

“  ” The system is recording(regardless of recording type).

 Timing recording state.

 Manual recording state.

 Motion detection state.

3.5.2.2 Video

Choose “Video” on the system setting interface to enter its setting interface.



- **Channel:** Select the target channel to be set and click the select box to select.
- **Name:** In the edit box, the user is free to edit the channel name.
For the edit method, please refer to 3.3.2. (4) edit box.
- **Show:** “√” means show; “□” means not show. Click **【Position】** button and enter the setting interface. Setting can be realized by

the direction buttons on the panel or by mouse dragging the red channel. When the setting is complete, press the **【ENTER】** button or click right mouse button to save and exit. Clicking the **【ESC】** button will exit without saving.

- **Show Time:** “√” means show; “□” means not show. Click “position” button and enter the setting interface. Setting can be realized by the direction buttons on the panel or by mouse dragging the red channel. When the setting is complete, press the **【ENTER】** button or click right mouse button to save and exit. Clicking the **【ESC】** button will exit without saving..
- **Image Parameter:** The brightness, contrast, hue and saturation of the channel image can be configured. Use the **【↑】 【↓】** button on the panel or mouse dragging the scroll bar to adjust.
- **Blind:** Set the "Blind" option mark to be "√" to activate the “Area” button and enter the envelop zone setting interface.
- **Set Blind Area:** On the blind area setting interface, a small yellow box will appear in the middle of the area namely blind setting box. Area Creation: move the yellow box to the start position of the setting area by the direction buttons of the
- panel; Press **【FN】** button (switching between yellow box and red box) to change it into red box (red box is the effective cover area box), then adjust the zone size by direction buttons. The

minimum size can be set up is a small box while maximum 4 blind areas can be set up. Single-click or long press left mouse button and move the mouse can choose zone. After the setting is complete, press the **【ENTER】** or click the middle mouse button to exit and save. Clicking the **【ESC】** button will exit without saving.

- **Local Clear:** Move the yellow box to the start position(uptleft) of the zone to be cleared. Press **【FN】** , it will change into a small black box(local clear box), local is cleared. After the clear is complete, press **【ENTER】** button to save and exit. If press **【ESC】** , the clear operation will be invalid. Clicking the left mouse button in the red box or long pressing the left mouse button and moving mouse can clear the zone. Click the middle mouse button to exit and save.
- **Clear All:** Press **【MENU】** to clear all the blind areas of the channel.
- **Default:** The image parameter setting can be restored to the system default value(only the restore of image parameters by clicking this button).
- **Copy to:** Selecting the target channel in the select box on the right side of the **【Copy to】** button, single-clicking the **【Copy to】** button, the setting information of the current channel will be

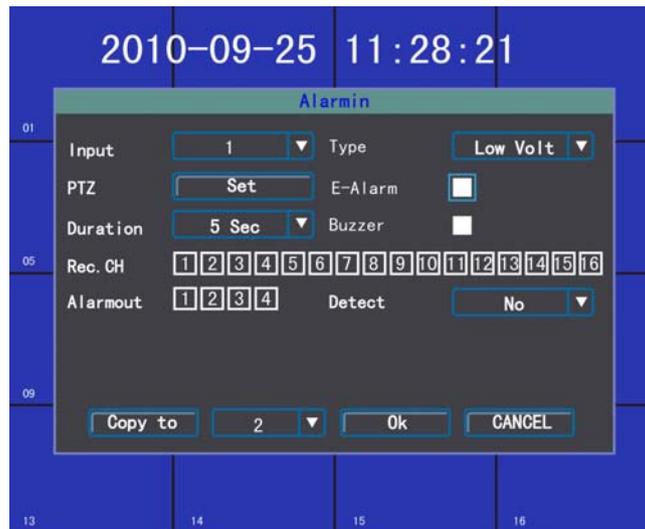
applied to other target video channels by the system.

Note: The channel name cannot be copied.

When the page setting is complete, single-clicking the 【OK】 button, the setting information will be saved and it exits; single-clicking the 【CANCEL】 button, it will exit without saving the setting information.

3.5.2.3 Alarm Input

Choose the “Alarmin” on the system setup interface to enter its setting interface.



- **Input:** Select the target channel to be set and click select box to select.
- **Type:** High voltage and low voltage can be set up. Please choose the appropriate voltage for the alarm connected to the alarm input channel.

- **Detect:** You can set up if the system detect alarm input signal.
Choose “Yes”, the following setting functions will take effect;
choose “No”, nothing is conducted.
- **PTZ :** Single-click **【PTZ】** button to enter the PTZ link interface.
Choose the channel number and conduct related settings of PTZ
link: preset point, cruise, track. **For the setting methods,
please refer to 3.8.2.8.**
- **E-Alarm:** If E-alarm is needed. “√” means display; “□” means
not display.
- **Duration:** When the alarm input is complete, set up the delay
time needed for dealing with each point.
- **Buzzer:** If buzzer alarm is needed. “√” means enable; “□”
means invalid.
- **Buzzer Recording:** You need to trigger the designated
recording channel number when you are setting up the alarm
input.
- **Alarm Out:** You need to trigger the designated alarm output
channel number when you are setting up the alarm input.
- **Copy to:** Selecting the target channel in the select box on the
right side of the **【Copy to】** button, single-clicking the **【Copy to】**
button, the setting information of the current channel will be
applied to other target video channels by the system.

When the page setting is complete, single-clicking the 【OK】 button, the setting information will be saved and it exits; single-clicking the 【CANCEL】 button, it will exit without saving the setting information.

3.5.2.4 Alarm Output



Choose the “Alarmout” on the system setup interface to enter its setting interface.

- **Alarmout:** Select the target channel to be set up and click the select box to select.
- **Type:** “Close” Type and “Open” Type. Choose the corresponding type.
- **Copy to :** Selecting the target channel in the select box on the right side of the 【Copy to】 button, single-clicking the 【Copy to】

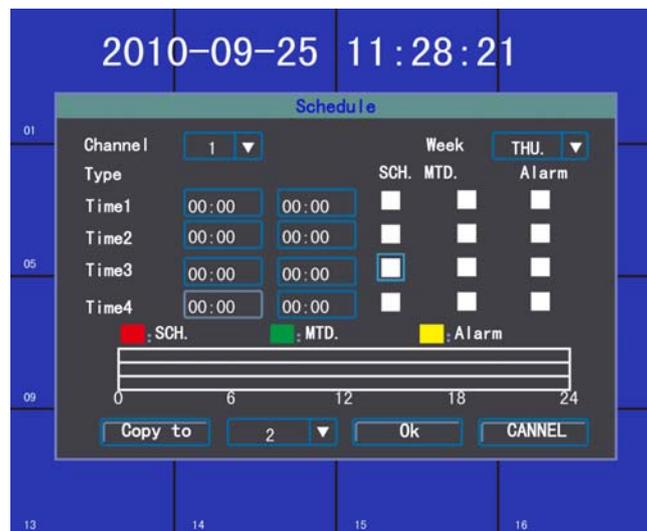
button, the setting information of the current channel will be applied to other target video channels by the system.

- **Email:** Input E-mail on the right of the alarm mail. When local alarm occurs, it will send a prompt message to the corresponding E-mail.

When the page setting is complete, single-clicking the **【OK】** button, the setting information will be saved and it exits; single-clicking the **【CANCEL】** button, it will exit without saving the setting information.

3.5.2.5 Schedule

Choose “Schedule” on the system setup interface to enter its setting interface.



- **Channel:** Select the target channel to be set up and click the

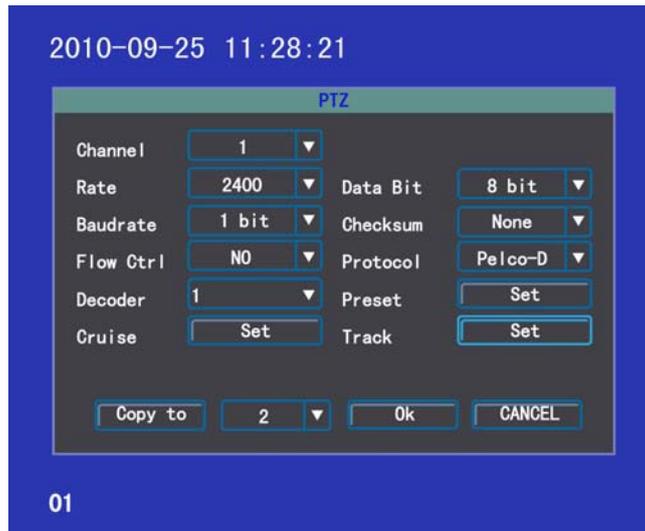
select box to select.

- **Week:** Select the date to be set up. You can set up respectively; "All" means all the dates.
- **Type and Time:** Within the four time buckets, each time bucket can set up different recording types: timing recording(red), motion detection recording(green), alarm recording(yellow). "√" means enable; "□" means invalid. There is time bucket status indicated at the bottom. It is a whole plan of 0 to 24 hour.
- **Copy to:** Selecting the target channel in the select box on the right side of the **【Copy to】** button, single-clicking the **【Copy to】** button, the setting information of the current channel will be applied to other target video channels by the system.

When the page setting is complete, single-clicking the **【OK】** button, the setting information will be saved and it exits; single-clicking the **【CANCEL】** button, it will exit without saving the setting information.

3.5.2.6 PTZ

Click “PTZ” to enter its setup interface.



- **Channel:** Select the target channel to be set up and click the select box to select.
- **Baudrate:** Select the rate which matches the connected PTZ.
- **Data Bit:** Select the data bit which matches the connected PTZ.
- **Stop Bit:** Select the stop bit which matches the connected PTZ.
- **Flow Control:** The selected items must match the PTZ flow control setting.
- **Protocol:** The selected items must match the PTZ protocol.
- **Decoder:** Input designated decoder address.
- **Preset:** Preset point is to preset and memorize the position, focus, aperture and zoom of the camera and use a number to

identify these settings at the same time.

- ✧ **Add Preset Point:** Input a preset point in the preset point edit box, ranging from 1-128, then adjust the camera to the target position. When the adjustment is complete, pressing “set”, the preset point will be saved.
- ✧ **Delete Preset Point:** Input a preset point to be deleted in the preset point edit box, click **【Delete】**.
- **Cruise Path Setting:** Cruise path is a path on which a camera running at a certain speed. It passes various cruise points with numbers. Each cruise point includes stay preset points and retention time. Thus, the settings of cruise path include the parameters setting for the cruise point, preset point, retention time and cruise speed etc. Corresponding information can be set up on the “Setting” interface. At present, one device supports the setting of 16 cruise path numbers.
- **Track:** Track is a line which is used to record the predefined irregular movement of the camera. Entering “Setting” can set track.
- **Copy to:** Selecting the target channel in the select box on the right side of the **【Copy to】** button, single-clicking the **【Copy to】** button, the setting information of the current channel will be applied to other target video channels by the system.

When the page setting is complete, single-clicking the 【OK】 button, the setting information will be saved and it exits; single-clicking the 【CANCEL】 button, it will exit without saving the setting information.

3.5.2.7 Motion Detection

Click “Motion Detection” on the system setup interface to enter its setting interface.

The screenshot shows the Motion Detection (MTD) settings screen. The background is blue with a grid pattern. The top bar displays the date '2010-09-25' and time '11:28:21'. The main content area is a dark grey panel with the title 'MTD.' in green. The settings are as follows:

Channel	1	Type	MTD.
Rec. CH	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Buzzer	<input type="checkbox"/>
Alarmout	1 2 3 4	Area	Set
Sensi.	None	Send Mail	<input type="checkbox"/>
Duration	5 Sec		

At the bottom of the panel, there are four buttons: 'Copy to', '2', 'Ok', and 'CANCEL'.

- **Channel:** Select the target channel to be set up and click the select box to select.
- **Type:** Motion detection, video loss and video block can be chosen.

- **Recording Channel:** When the detection occurs, the designated recording channel number needs to be triggered.
- **Alarm Out:** When the detection occurs, the designated alarm output channel number needs to be triggered.
- **Buzzer:** If buzzer alarm is needed. “√” means enable; “□” means invalid.
- **Sensitivity:** Choose triggering motion detection sensitivity. “No Detection” means the above setting parameters are invalid.
- **Area:** Setting up the motion detection area. **For the setting methods, please refer to 3.8.2.3 envelop zone setting.**
- **Duration:** When the signal detection is complete, set up the duration needed for dealing with each point.
- **Send Mail :** Mail Alarm: If mail alarm is needed. “√” means display; “□” means not display.
- **Copy to:** Selecting the target channel in the select box on the right side of the **【Copy to】** button, single-clicking the **【Copy to】** button, the setting information of the current channel will be applied to other target video channels by the system.

When the page setting is complete, single-clicking the **【OK】** button, the setting information will be saved and it exits; single-clicking the **【CANCEL】** button, it will exit without saving the setting information.

3.5.3 Video Recording

Detail on P44 3.4.3 manual recording

3.5.4 Backup and Playback

Detail on P40 3.4.2 manual recording

3.5.5 Log Information

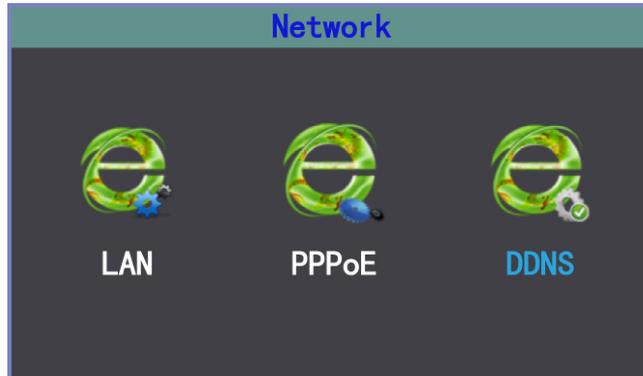


Click "Log" on the main menu page to enter its operation interface.

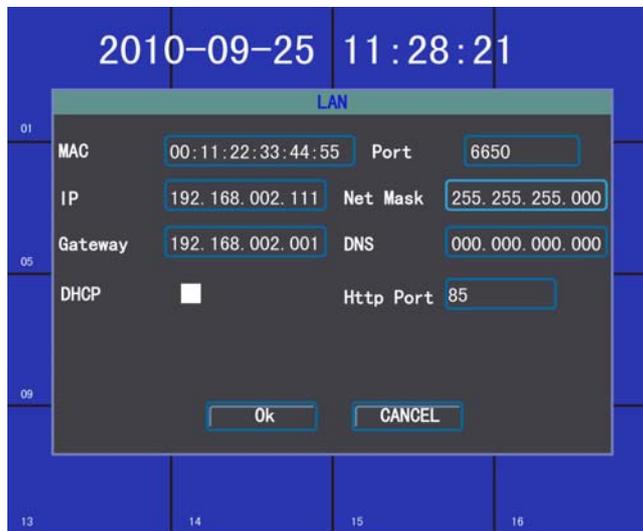
- **Type:** Select the target log type in the select box.
 - **Duration:** Input the duration of viewing in the edit box.
- Single-click **【Search】**, the corresponding log information will appear in the log list at the bottom. You can turn page by inputting target page number in the page number box or by single-clicking **【OK】** button.

3.8.6 Network

Click "Network" on the system setting interface to enter its setup interface. There are "LAN, PPPoE, DDNS".



3.5.6.1 LAN Configuration



- **LAN Configuration:** Click "LAN" on the network configuration interface to enter its setting interface.

- **MAC:** Indicate the physical address number of the device.
- **Port:** The default port number is 6650.
- **IP :** The IP address must be exclusive, which can not be conflict with any other host or workstation during the same network segment.
- **Net Mask:** It is used to divide subnet segment.
- **Gateway:** Realizes the communications between different network segments. Gateway address needs to be set.
- **DNS:** When the device is connected to the network using PPPoE protocol, it will gain a dynamic IP address.
- **DHCP:** Choose whether to enable DHCP to obtain IP automatically.
- **Http Port:** The port number which the IE browser visit. The default port is 80.

When the page setting is complete, single-clicking the **【OK】** button, the setting information will be saved and it exits; single-clicking the **【CANCEL】** button, it will exit without saving the setting information.

3.5.6.2 PPPOE Configuration

- **PPPOE:** Click "PPPoE" on the network configuration interface to enter its setup interface.
- **Enable:** "√" means enable PPPoE protocol and dial-up

internet access; " " means do not enable this function.



- **User Name and Password:** Input the user name and password provided by ISP in the edit box. **For the edit methods, please refer to 3.3.2 (4) edit box.**

When the page setting is complete, single-clicking the **【OK】** button, the setting information will be saved and it exits; single-clicking the **【CANCEL】** button, it will exit without saving the setting information.

3.5.6.2 DDNS Configuration

- **DDNS Configuration:** Click "DDNS" on the network configuration interface to enter its setup interface.
- **Enable:** " " means enabling DDNS dynamic domain name service; " " means do not enable this function.

- **Provide:** Choose the corresponding provider.

- **User Name, Password and Domain Name:** Input the user name, password and domain name applied from the internet.

For the edit methods, please refer to 3.3.2 (4) edit box.

When the page setting is complete, single-clicking the **【OK】** button, the setting information will be saved and it exits; single-clicking the **【CANCEL】** button, it will exit without saving the setting information.

3.5.7 Recording Setting

Click **【Record】** in the main Menu to enter its setup interface.

- **Channel:** select the target channel, then click the select box.
- **Stream:** select the stream which needs to be set. There are “main stream” and “sub stream”

- Stream Type: select the bit stream type, “Video” means the system will only encode the video when it is recording. “A/V” means the system will encode the audio and video at the same time when it is recording.



- Bitrate Type: user can setup “CBR” and “VBR”, “CBR” means that system will encode the image according to the bitrate and video frame rate set by the user. “VBR” means that system will encode according to the image quality and video frame rate set by the user, but the bitrate will be auto-adjusted according to the video scene.
- Bitrate: user can select the bitrate as needed. The higher bitrate, the better image effect but takes up more space of hard disk.

- **Frame rate:** user can select the video frame rate as needed.
The higher frame rate, the more fluent image but takes up more space of hard disk too.
- **Deinterlace:** select the deinterlace which needs to be set.
There are disable, weak, moderate, strong and super for choosing.
- **Copy to:** Selecting the target channel in the select box on the right side of the **【Copy to】** button, single-clicking the **【Copy to】** button, the setting information of the current channel will be applied to other target video channels by the system.
- When the page setting is complete, single-clicking the **【OK】** button, the setting information will be saved and it exits; single-clicking the **【CANCEL】** button, it will exit without saving the setting information.

3.5.8 Shutdown System



Click "Shutdown" on the main menu interface to enter its operating system.

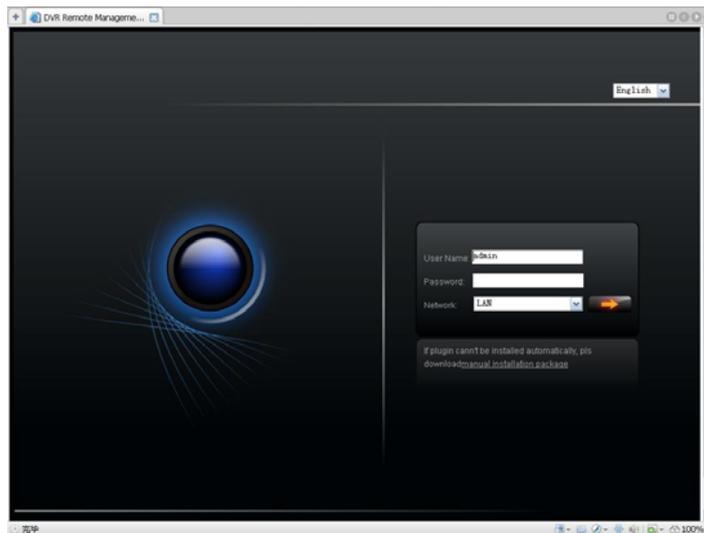
Choose the corresponding operation contents in the select box.

- **Menu User Logout:** It is used to cancel the current user. After log out, if you want to continue to use the device, you need to login the system again.
- **Restart:** Restart the device. After confirmation, the device will be restarted.
- **Shutdown:** Shutdown the device. After confirmation, the device will be shut down.

4 Client Operation Instruction

When you use the client on PC, please conduct the following settings:

- **IE Setting:** If it is used for the first time, the activex cannot be loaded, the IE must be set as follows: Tools→Internet Options→Security-Internet→Custom Level→Enable all the activexs and plugins. Click “OK” finally.
- **Login:** Open IE and input the IP address of the host network setting in the address bar(the factory IP address is: http://192.168.1.63), then enter the login page. Input the user name and login password. If the user name and password match with the ones of the host-side, and the input user information is correct, then the login will be successful.



4.1 The Main Page of the Video Monitoring

After login, the main page of the monitoring consists of preview window, PTZ control, preview mode, bit stream selection, channel open, talkback open, configuration and playback.

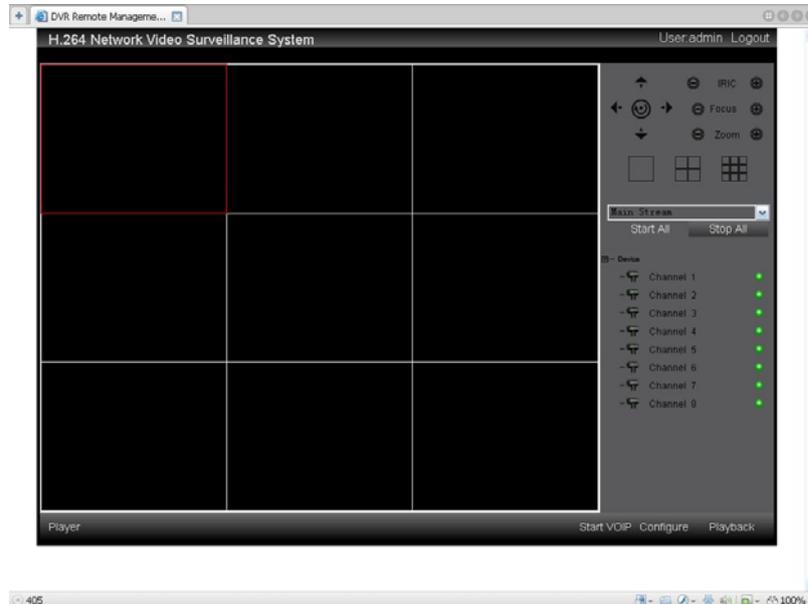
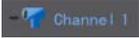
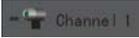


Figure 4-1

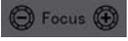
- **Open Preview:** Click left mouse button to select the target channel in the preview window (red channel box means selected). Double-clicking the channel number by mouse in the channel open box can open or close the video image of the corresponding preview window.  means open,  means close.

- **Preview Mode:** Click  or double-click the preview window screen by mouse in the switch box under preview mode to switch between single-screen or multi-screen preview mode.

4.2 Bit Stream Selection

This device supports double bit stream. Choose the bit stream type of video preview in the bit stream select box.

4.3 PTZ Control

- A.  PTZ direction control button. You can control the PTZ operation direction by the up, down, left, right button.
- B.  The aperture button. You can control the PTZ aperture by enlarge and diminish button.
- C.  Focus button. You can control the PTZ focus by the farther adjustment or nearer adjustment.
- D.  Zoom button. You can control the PTZ position by zoom out and zoom in.

4.4 Advanced Setting Box

When the preview window opens the video preview, this function will be activated. Click right mouse button to open the advanced setting box.

- **Turn on/off Audio:** Turn on or turn off the audio of the previewing by this button channel.
- **Screenshot:** Capture the current video image and save it as image format. **For the settings of directory storage, please refer to the figure 4-6-5 video screenshot directory storage.**
- **Recording/Turn off Recording:** Turn on/off the remote recording of the video of this channel and save this recording. **For the settings of directory storage, please refer to 1.5.5 video screenshot directory storage.**
- **PTZ Setting:** Conduct the settings of PTZ preset point, cruise path, track. **For the setting methods, please refer to 3.8.2.8 host-side PTZ setting.**
- **OSD Setting:** Set up the channel of OSD layer, time display position. Mouse drags the position and saves after confirmation.
- **Motion Detection:** Setting the motion detection area: First, “√” displays motion detection area. Choosing “Add Area”, pressing left mouse button and dragging on the screen, there will be a latticed area with white lines namely motion detection area. Choosing “Clear Area”, pressing left mouse button on the

screen of the latticed area with white lines and mouse dragging the latticed area, the white lines will disappear. The motion detection area is cancelled. Choose the corresponding parameter in the sensitivity and output delay box.

- **Screen Adjustment:** Set the brightness, contrast, hue, saturation. Click left mouse button or adjust by dragging. It will save automatically when exit.

4.5 Talkback Control

Click to open voice and initiate the talkback actively.

4.6 Configuration

4.6.1 Sever Parameter Configuration

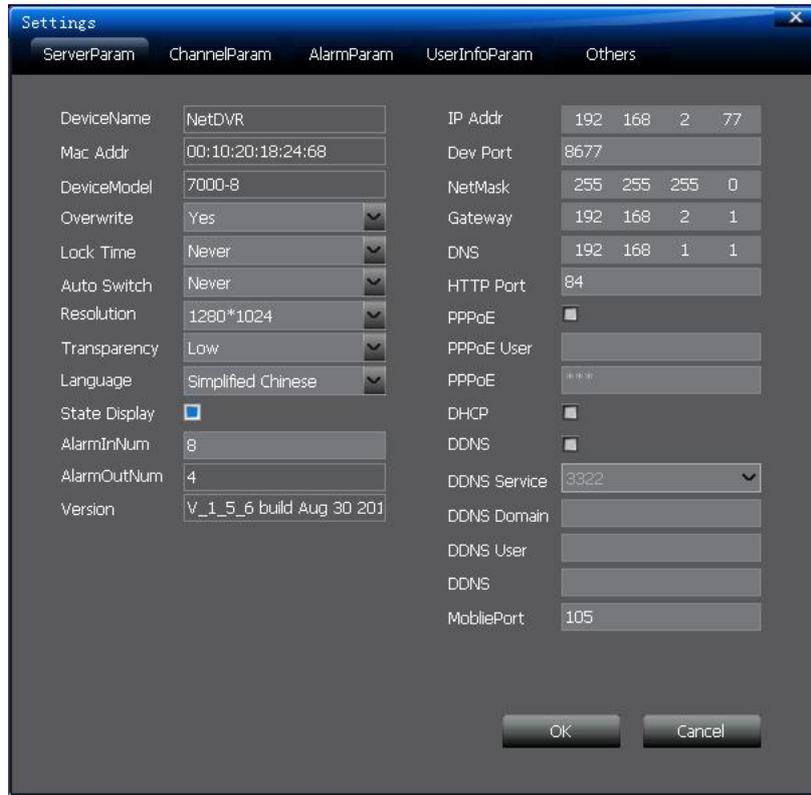


Figure 4-6-1

On this setting interface, you can set the corresponding parameters of the host-side. Figure 1-5-1. The setting parameters match with the host-side.

For the setting methods and notes, please refer to the host-side system configuration, system information and network operation instruction.

4.6.2 Channel Parameter Configuration

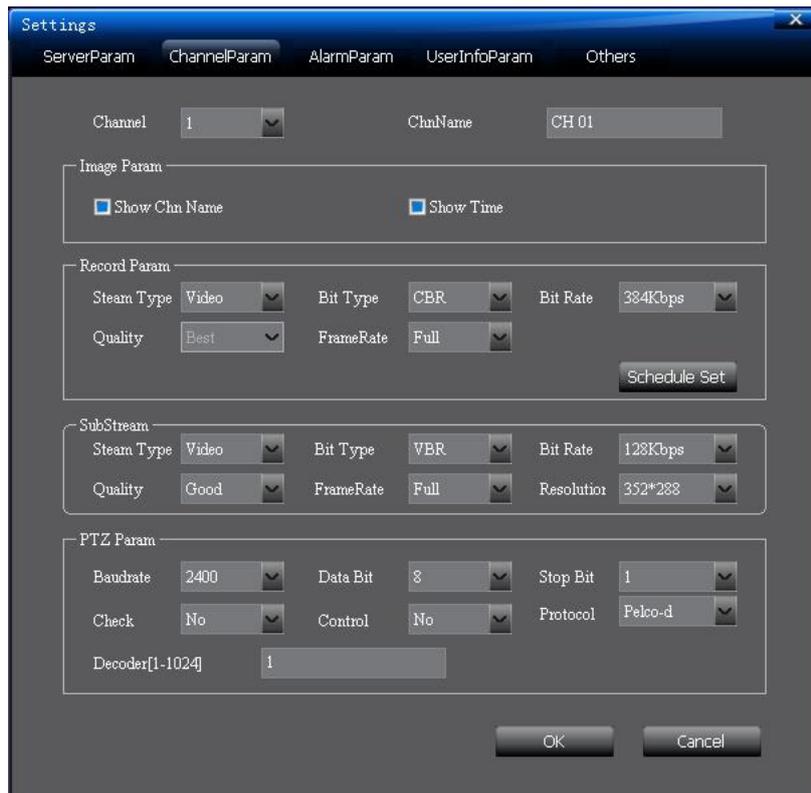


Figure 4-6-2

On this setting interface, you can set the corresponding parameters of the host-side. Figure 4-6-2. The setting parameters match with the host-side.

For the setting methods and notes, please refer to the host-side image setting, recording setting and PTZ setting operation instruction.

4.6.3 Alarm Parameter Configuration

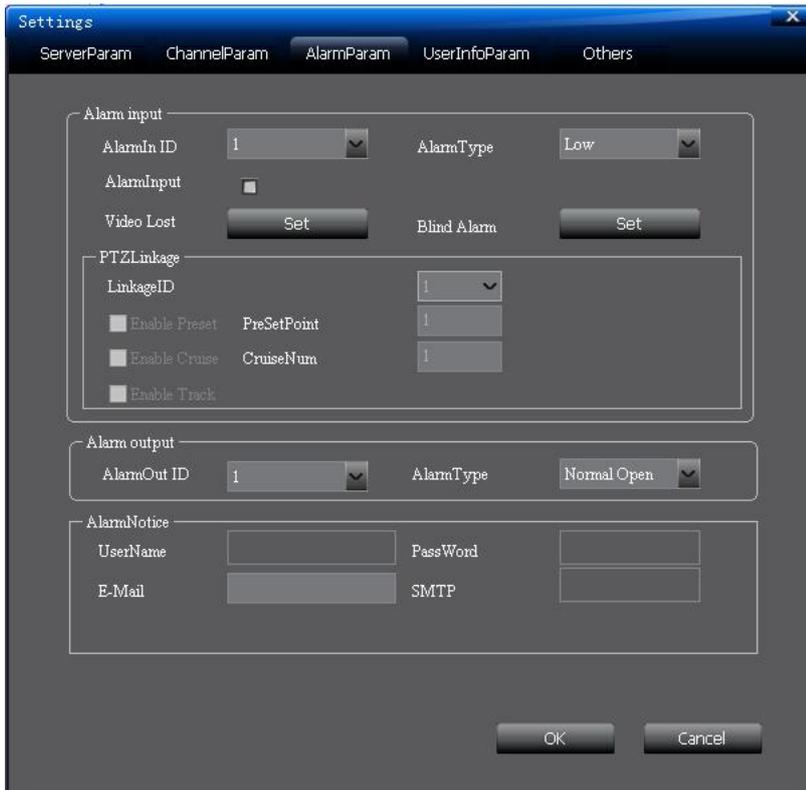


Figure 4-6-3

On this setting interface, you can set the corresponding parameters of the host-side. Figure 1-5-3. The setting parameters match with the host-side.

For the setting methods and notes, please refer to the host-side alarm input and alarm output operation instruction.

4.6.4 User Configuration Information

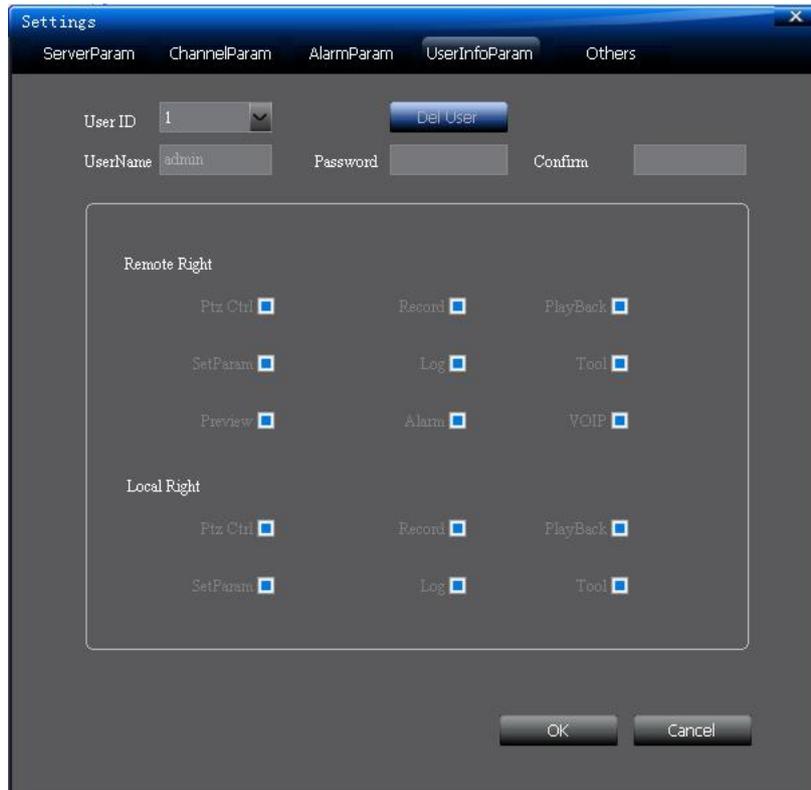


Figure 4-6-4

For the user information of the setting device the setting parameters match with the host-side. For the setting methods and notes, please refer to the host-side user management operation instruction.

4.6.5 Others

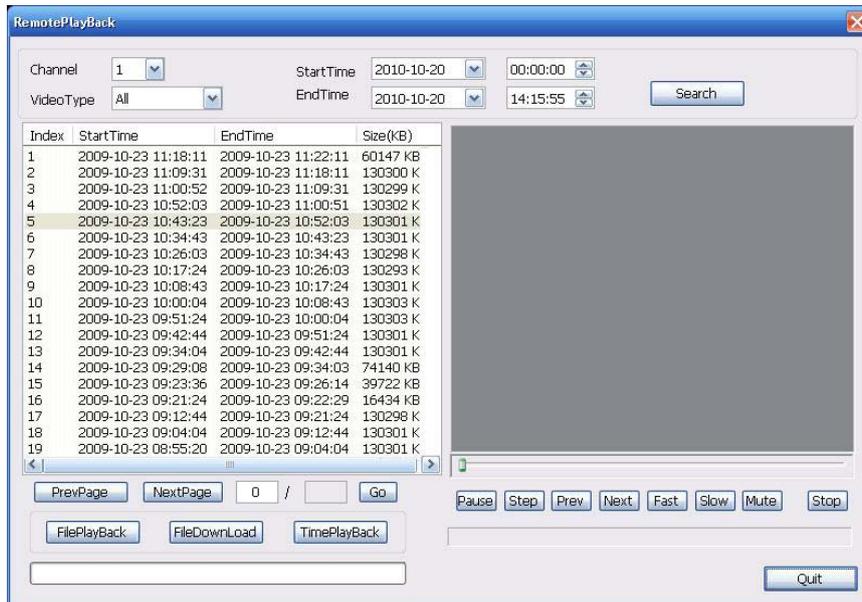


Figure 4-6-5

On this setting interface, you can set the corresponding parameters of the host-side. Figure 4-6-5. The setting parameters match with the host-side. For the setting methods and notes, please refer to the host-side manual recording, date and time, HDD management, alarm clear, log search, software update and restore default operation instruction.

Recording and screenshot directory storage: Set the storage path of the recording and screenshot.

4.7 Remote Playback



Choosing video playback channel number, recording type, time condition and clicking the search button, a list of search results will appear on the left box. You can turn up and down page or input the page number and jump to view the video files (one page displays 20 file messages and maximum supports 4000 messages) .

- **File Playback:** Selecting the target file in the search list box, double-clicking the file or clicking the **【FilePlayback】** button, the playback window on the right will play the target file. Playback control matches with the host-side.

- **Time Playback:** Clicking the **【TimePlayback】** button, the playback window will start playing the video file which has been set the start time.
- **File Download:** Selecting the target file in the search list box and clicking the **【FileDownload】** button, the target file will start downloading after setting the storage path. The progress bar at the bottom indicates the file downloading status.

5 Client Software User Manual

5.1 Brief Introduction

5.1.1 System Requirements

- Operating System: window 2000 and above
- CPU: Inter Pentium 4 2.4G and above
- Internal Memory: 512M and above
- Display: Support 1024*768 and higher resolution
- Video Card: Support direct draw acceleration and start

5.1.2 Agreements:

- In order to simplify the descriptions in this manual, some descriptions are described as follows:
- Client software is described as software
- DVR, DVS are collectively referred to as device
- Click is left mouse button click
- Double-click is left mouse button double-click
- Right mouse single-click is right mouse button click

5.2 Install and Uninstall

5.2.1 Install

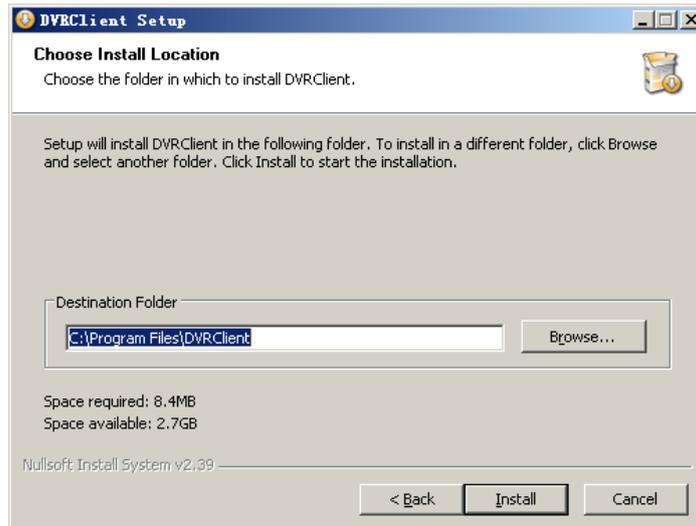
- Double-click “DVRClientSetup.exe” procedure,
- click “OK” button,



- Click “Next” button,



- Click “Install”



- Click “Finish”. Successfully install.

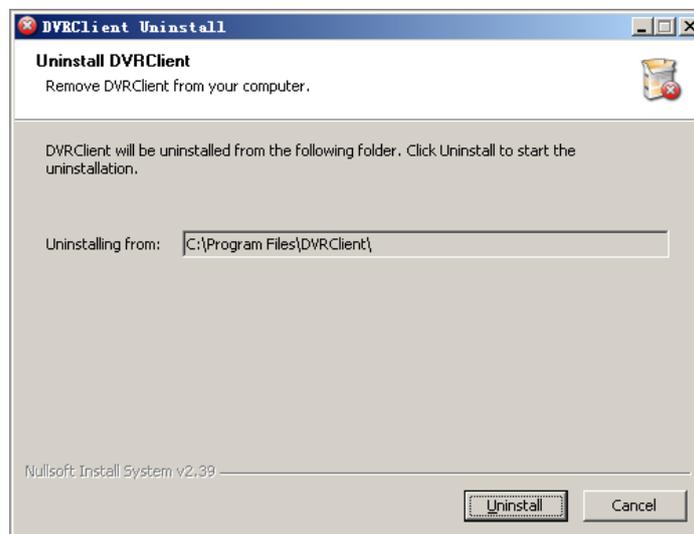


5.2.2 Uninstall

- Click “Start” → “Procedure” → “DVRclient” → “Uninstall” in the lower left corner of the computer.
- Click “OK” button.



- Click "Uninstall" button.



- Click “Close” button. Uninstallation is complete.

5.3 Software Running

5.3.1 Running and Login

5.3.1.1 Run the Software

- Double-click the “DVRclient” shortcut to run the software.

5.3.1.2 Register Super User

- When using the software for the first time, you need to register a super-user. A dialogue box will be displayed as follow:



The image shows a Windows-style dialog box titled "Register Super User". Inside the dialog, there is a message: "First Use Software Must Register a Super User!". Below this message are three text input fields. The first is labeled "User Name:", the second is labeled "PassWord:", and the third is labeled "Confirm". At the bottom of the dialog, there is a "Language" dropdown menu, an "OK" button, and a "Cancel" button.

- Input user name, user password and confirm password. The password is at least 6 digits and must match with the confirm password, and then click “OK”.
- A dialogue box will pop-up if the registration is successful.

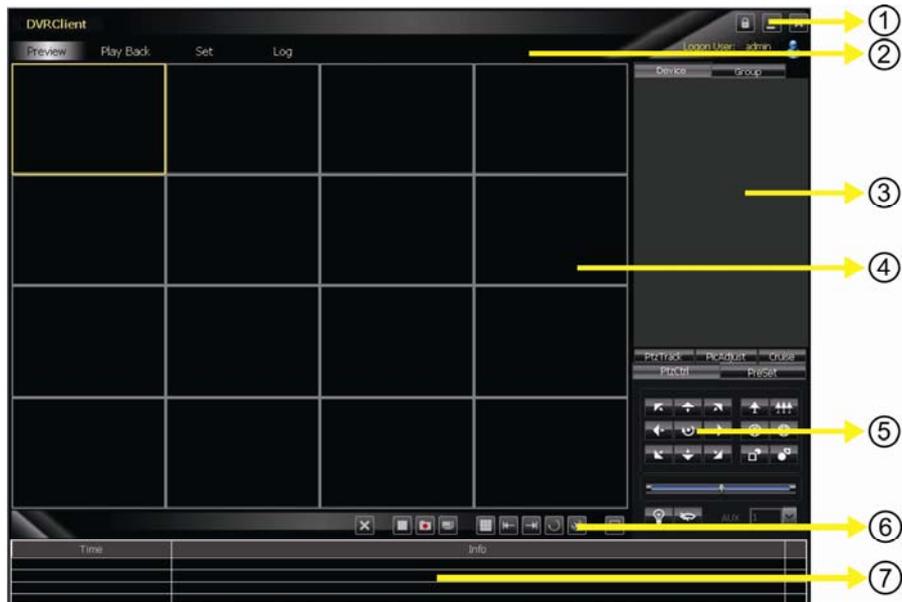


5.3.1.3 Login

- Choosing the user name and inputting the password and then clicking "OK", you will enter the procedure. Ticking off "Auto logon", the login window will not appear next time.



5.3.2 Software Interface Introduction



Software Interface Instruction

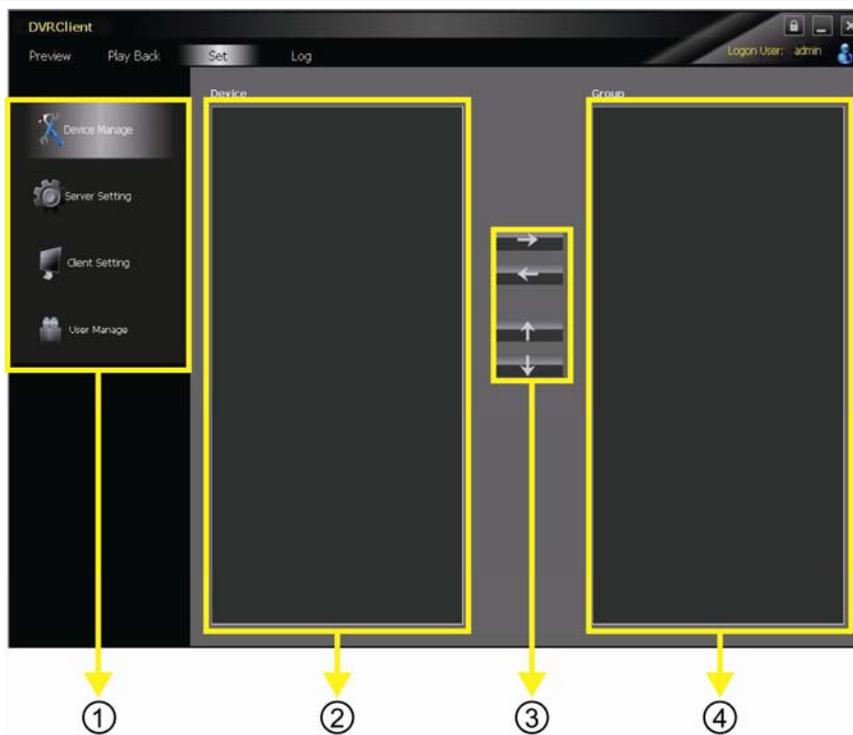
- ① **System Button Bar:** You can lock the interface, minimize the window to the task bar and close the procedure.
- ② **Tab Bar:** Includes each functional module of the software
 - ✧ **Preview:** You can preview the device in real time.
 - ✧ **Playback:** Remote playback and local video playback.
 - ✧ **Configuration:** Device management, remote device configuration and local parameter setting
 - ✧ **Log:** Local and remote log search.
 - ✧ **Map:** E-map
- ③ **Device Tree:** Display each device and group which is used

to add management.

- ④ **Preview Display Window:** Preview display window of each device channel in real time.
- ⑤ **PTZ Control Window:** You can control the PTZ and adjust the image.
- ⑥ **Preview Control Bar:** Controls preview stop, client recording, screenshot, switching screen mode, full screen display, rotation training, etc..
- ⑦ **Alarm Information List:** Displays the short line information of the device and other alarm information

5.4 Device Management

- Before operating by using the software, you need to operate adding and configuration on the device. Click “Configuration” on the tab bar and enter the configuration mode.
- Click “Device Manage” on the left navigation bar and you can enter the device management interface.

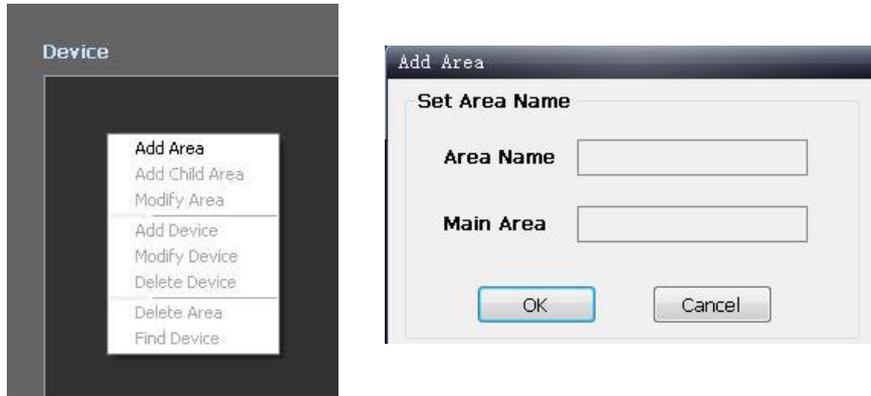


Interface Instruction:

- ① Navigation Bar
- ② Device Tree
- ③ Group Control
- ④ Group Tree

5.4.1 Device Tree Configuration

- When the software runs at the first time, the list tree is empty by default. Right-clicking any blank area on the list tree, you can add area.



- Fill in the name on the area name bar and click “OK”, you can add an area to the list tree. As the area added is the first area, there is no superior area in this area, so the superior area name bar is empty.
- When adding the area is complete, right-clicking the nodal point of the area, you can add sub-area and device.
- Right-click the area added and pop-up the area management menu.
- Choose “Add Sub-area”, you can add sub-area.
- Choose “Delete Area”, the selected area will be deleted.

Note: If there are other areas, devices and channels under the delete area, the delete operation will not only delete the selected area but also delete all the areas, devices or channels under this area; if there is any channel which is previewing or recording under this area,

a warning message will send out.

5.4.1.1 Add Device Manually

- Right-click the area added, pop-up the area management menu, and choose “Add Device”.

Option	Instruction
Device Name	The device name added can be user-defined
Device Address	The IP or domain address of the device
Device Port	The number of the device port
Channel Number	Please fill in the channel number of the device according to the actual situation
User Name	The registered user name of the device
User Password	The user name and password of the device
Area	The area name where the device exists



Add Device

Device Information

Device Name

Device

Device Port

Channel

UserName

User

In Area

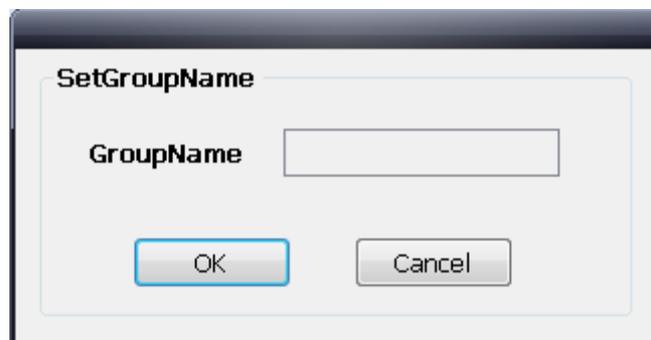
- Modify the device name in the pop-up device information box so that the device name will not appear repeatedly.
- Fill in the user name and password of the device which will login and click "OK".
- Then add other devices continuously.

5.4.2 Group Tree Configuration

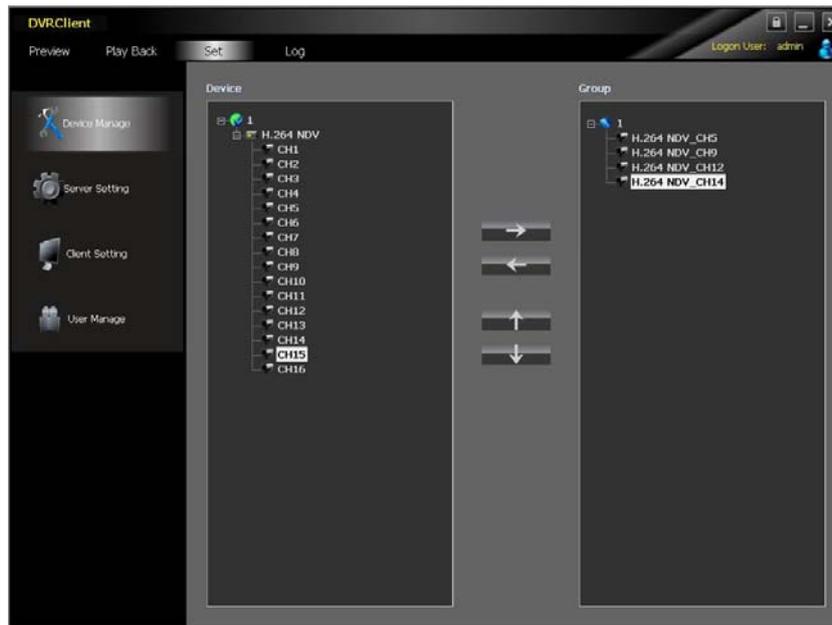
- If there is no any nodal point on the group tree, you need to add the nodal point first.
- Right-click the display group management menu on the blank area of the group bar, click “Add Group”.



- Fill in the group name, click “OK” to add group.



- After successfully adding the group, you can add the nodal point of the channel on the list tree to the selected group.



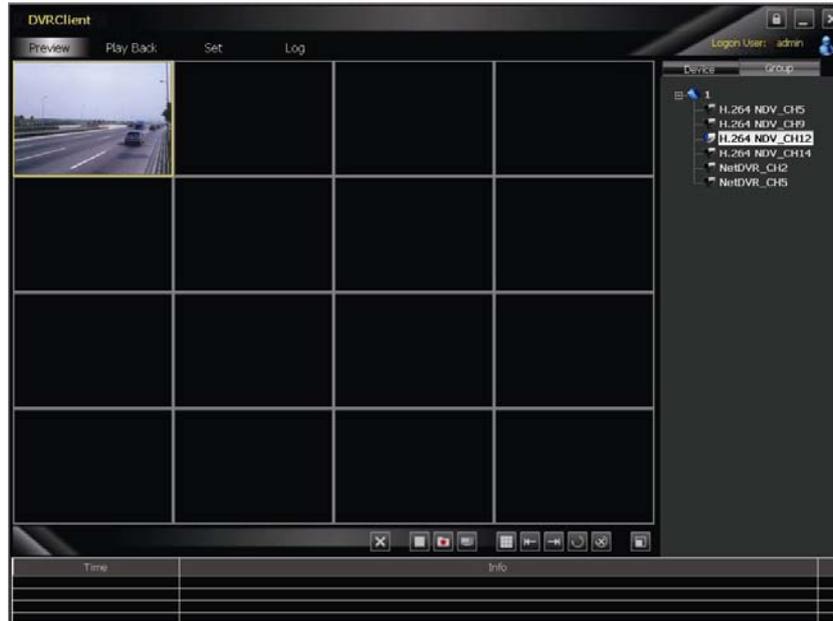
- Select the nodal point of the channel on the list tree; clicking “Add” on the configurable button bar of the device configuration window will add the selected channel to the selected group of the group tree. The channel name will display in the form of “Device Channel Name”. After a channel added successfully, the list tree will select the nodal point of the next channel automatically.
- Select the device on the list tree; clicking “Add” on the configurable button bar of the device configuration window will

- add all the channels of the selected device to the selected group. After add all the channels of device successfully, select the window and then select the next nodal point of the device of the list tree.
- Use the “Up” and “Down” button on the configurable button bar of the device configuration window to adjust the order of the nodal point of the channel under the group.
- Select the nodal point of the channel on the group tree; clicking “Delete” button on the configurable button bar of the device configuration window will delete the selected channel from the group. After the channel is deleted, the group tree will select the next channel of the group automatically.
- Select the nodal point of the group on the group tree, click “Delete” button on the configurable button bar of the device configuration window to display warning message dialog box. Click “OK”, then the nodal points of all the channels of the selected group will be deleted.

Note: A group cannot add a same channel repeatedly, but can be added to different groups at the same time.

5.5 Image Preview

5.5.1 Preview by Non-cruise in Turn



- **Double-click to Start Preview:** Clicking a play window on the play panel, the frame of the selected window will become light blue. Double-click a channel on the device list or group; this channel will play on this window.
- **Drag to Start Preview:** Drag a channel on the device list or group to any play window, this channel will play on this window and it will be under selected status.
- **Stop Preview:** Right-clicking play window, the menu appears, click "Stop Preview" or click "Stop" button on the preview

control bar.

5.5.2 Preview by Cruise in Turn

- Drag the nodal point of the device or the group directly to the play window to start playing by cruise in turn.
- Whether start cruise in turn and time of cruise in turn are set on the client setting page.

5.5.3 Preview Control

- **Stop:** Stop the preview of the current selected window.
- **Recording:** Click the recording button and start the client recording of the current selected play window, click again to stop recording.
- **Screenshot:** Save the screenshot of the current selected play window.

5.5.4 Sound Control

- Right-click on the play window, pop-up the play menu; choosing "Turn on Sound", the audio preview of this window will be opened. Right-clicking and choosing "Turn off Sound" will close the preview.

Note: The software can only open the audio of one window at the same time. If turning on the sound of the next window, the audio of the last window will be turned off automatically.

5.5.5 Other Functions:

- **Double-click to Enlarge:** Under the multi-screen mode, double-clicking the play window will enlarge the window; clicking again will return.
- **Screen Mode:** Can switch multi-screen mode.
- **Full Screen:** Hide part of the program in order to maximize the panel of the play window.
- **Last Page, Next Page:** Displays the remaining windows under the current window mode. There are 64 preview windows totally. One page displays each time. The number of the window on each page depends on the screen mode.

5.6 PTZ Control

5.6.1 PTZ Control

- Controls the auxiliary functions including the PTZ rotation direction, speed, aperture, focal length, focus, light and windshield wiper etc.

5.6.2 Track

- Set and control the PTZ track

5.6.3 Preset Point Setting

- Set PTZ preset point

5.6.4 Cruise

- Set the PTZ cruise point and path

5.6.5 Screen Adjustment

- Set the screen brightness, contrast ratio, chromaticity and saturation

5.7 Recording and Playback

5.7.1 Client Local Recording

- Client recording includes manual client recording and plan recording
- **Client Manual Recording:** Click recording on the preview control bar will start recording.
- **Plan Recording:** Set the plan recording time on the client configuration page.
- Set the path and package size of all the client recording on the client setting page.



5.7.2 Remote Playback

- Clicking the “Playback” button on the software tab bar, choosing “Remote Playback”, you will enter the remote playback interface.

5.7.2.1 Remote Video File Search

- Selecting the device to be searched from the right device tree, and selecting the channel to be searched on the below search panel, then choosing the recording type and start time, clicking “File Search”, the file search result will appear. On the right of the search result, you can control page turning and jumping.



5.7.2.2 Remote File Playback

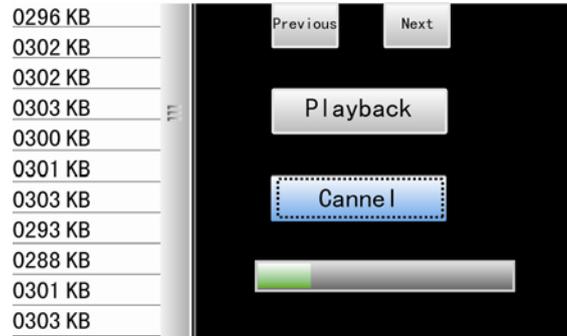
- Select the window which will play playback file. Selecting file in the search result, double-clicking or clicking the “File Playback” on the right, the file will start to playback.
- Choosing the search condition, clicking “Playback by Time”, the video can playback by time.



Note: Maximum support 4 channels when playback by time. When switching to playback from the start time, all the playback windows will be stopped and it will start playing back again.

5.7.2.3 Remote File Download

- Selecting file in the search result, clicking the “File Download” on the right, the file will start downloading. The progress bar will appear below.



5.7.2.4 Playback Control

- Selecting the window to be controlled, the playback control bar will display the current progress and rate of the current video. Drag, pause, stop, screenshot, mute, rate control can be operated on the selected playback file. Clicking “Stop All” will stop all the playback windows.

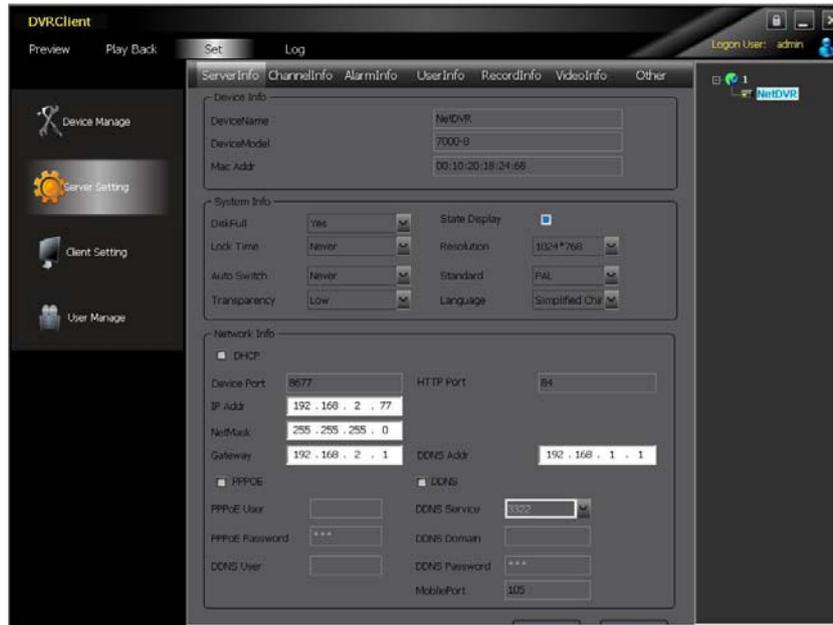
5.7.3 Local Playback

- Clicking the “Play Back” button on the software tab bar, choosing “Local Playback”, you will enter the local playback interface. Search playback and control are consistent with the remote playback operation. Local playback file cannot

download and the file type is not optional.

5.8 Server-side Configuration

- Click “Configuration”-“Server-side Configuration” and enter the server-side configuration interface.
- Select the page to be configured on the right device tree. After modifying the configuration, click **【save】** on the page will save the parameters.



- System Information Configuration
- Channel Information Configuration
- Alarm Information Configuration
- User Management Configuration

- Recording Defnec
- Video Detection Configuration
- Other Configuration

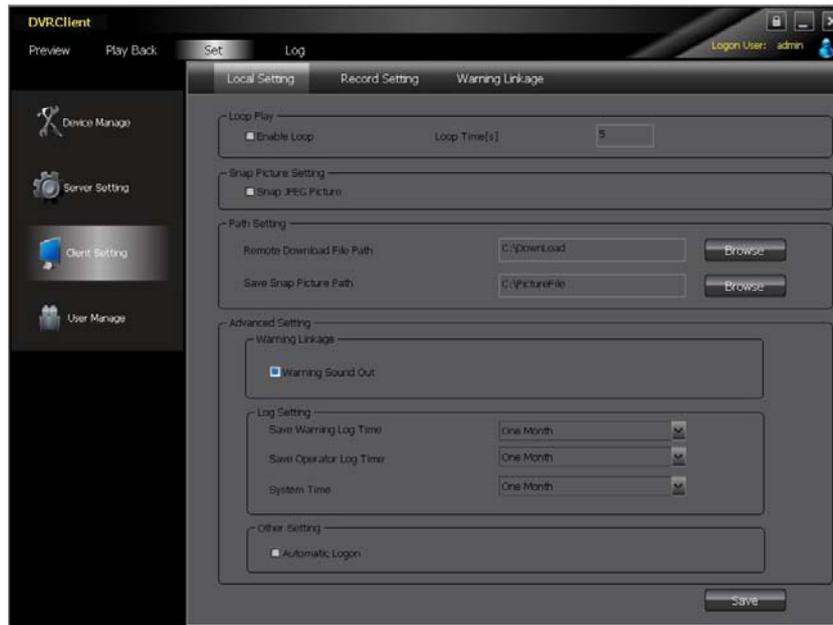
5.9 Client Configuration

5.9.1 Local Configuration



Local configuration can configure cruise in turn, screenshot, storage path, client alarm configuration, log maintenance and auto-logout option.

5.9.2 Recording Configuration



Note: The local recording configuration Parameters will come into effect only when the client is restarted after they are saved.

The prerequisite of plan recording is that there must be preview bit stream.

5.9.2.1 Video Storage Path

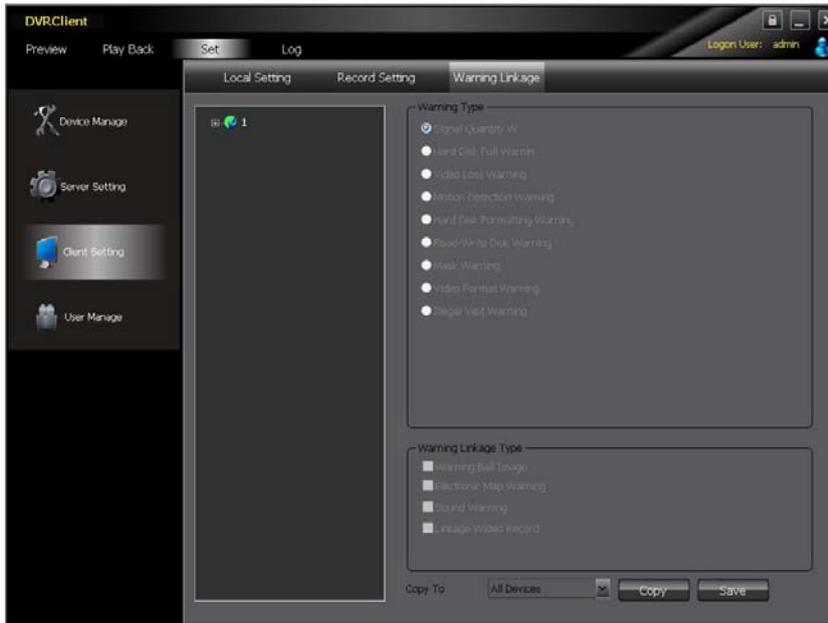
- Set start and stop drive, set video save path, set the size of file package. Can limit the maximum size of a single file.

5.9.2.2 Plan Recording

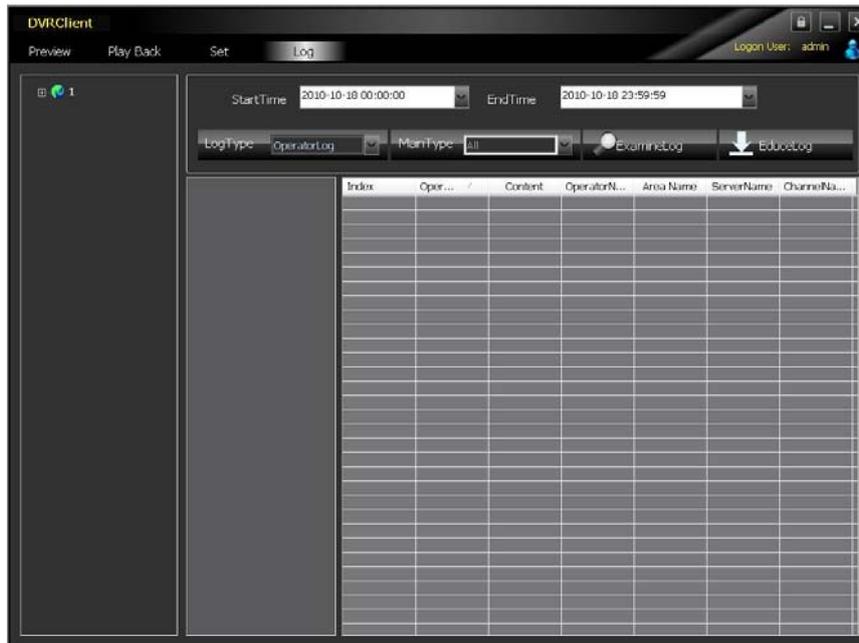
- Tick off “Plan Recording” to start plan recording.
- Select the channel which will plan recording from the left device tree and set the time bucket of recording on the right and then click save.

5.9.3 Alarm Link

- Set the options of client alarm link.



5.10 Log



- **Operation Log:** Search the client operation log.
- **Alarm Log:** Search the client alarm log.
- **System Log:** Search the client system log.
- **Remote Log:** Search the remote device log, you need to select the device on the left list tree.

6 Frequently Asked Questions and Maintenance

6.1 Frequently Asked Questions

If your question is not included in the following contents, please contact the local customer service or call the customer service of the headquarter for consultation. We will try our best to offer you our best service.

1. **Q:** The digital video recorder cannot startup normally after boot-strap.

A: Possible causes:

- 1 Input incorrect power supply.
- 2 The power wire of the switch contacts badly.
- 3 The power supply of the switch is broken.
- 4 Program upgrade error.
- 5 The HDD is broken or the problem of the HDD line.
- 6 Front panel fault.
- 7 The mainboard of the digital video recorder is broken.

2. **Q:** The digital video recorder will restart automatically or often crash after starting up for several minutes.

A: Possible causes:

- 1 The input voltage is not stable or too low.

- 2 The HDD has bad track or the HDD line is broken.
 - 3 The power of the switching power supply is insufficient.
 - 4 The front-end video signal is not stable.
 - 5 Poor heat elimination, too much dust, and the device operating device is too bad.
 - 6 The hardware fault of the digital video recorder.
3. **Q:** The HDD cannot be found after starting up.
- A:** Possible causes:
- 1 The HDD power supply is not connected
 - 2 The HDD cable is broken.
 - 3 The power line is broken
 - 4 The HDD is broken.
 - 5 The SATA port of the mainboard is broken.
4. **Q:** There is no single-channel, multi-channel and full-channel video output.
- A:** Possible causes:
- 1 The program does not match, reupgrade correct program.
 - 2 The brightness of all the images becomes 0, restore default settings.
 - 3 There is no video input signal or the signal is too poor.
 - 4 The hardware fault of the digital video recorder.

5. **Q:** The problem of real-time image, like the color and the brightness of the video image distort seriously etc.

A: Possible causes:

- 1 NTSC and PAL formats are not chosen correctly when using BNC output. The image will become black and white.
- 2 The digital video recorder does not match the monitor impedance.
- 3 The video transmission distance is too far or the attenuation of the video transmission line is too big.
- 4 The settings of the color, brightness etc. of the digital video recorder are incorrect.

6. **Q:** Local playback cannot find video.

A: Possible causes:

- 1 The HDD data line error.
- 2 The HDD is broken.
- 3 The file system of the upgrade program is different from the original program.
- 4 The video you want to check has already been covered.
- 5 The video is not open.

7. **Q:** The screen of the local video is scratching.

A: Possible causes:

- 1 The setting of the image quality is too low.
- 2 Reading error of program data; the bit stream shown is too small; the screen is full of mosaic when playback; normally it will become normal when shut down and restart the device.
- 3 The HDD data line error.
- 4 The HDD fault.
- 5 The device hardware fault.

8. **Q:** There is no sound during monitoring

A: Possible causes:

- 1 It is not an active pickup.
- 2 It is not an active acoustics.
- 3 The audio line is broken.
- 4 The hardware fault of the digital video recorder .

9. **Q:** There is sound when monitoring but no sound when playback.

A: Possible causes:

- 1 The problem of setting: the audio option is not open.
- 2 The corresponding channel is not connected with video.
The playback will be intermittent when the image becomes blue screen.

10. Q: The time is displayed incorrectly.

A: Possible causes:

- 1 Incorrect setting.
- 2 Poor battery connection or too low voltage.
- 3 Bad crystal.

11. Q: The digital video recorder cannot control the PTZ.

A: Possible causes:

- 1 The front-end PTZ fault.
- 2 Incorrect setting, connection, installation of PTZ decoder.
- 3 Incorrect wiring.
- 4 Incorrect PTZ setting in the digital video recorder.
- 5 The PTZ decoder does not match the protocol of the digital video recorder.
- 6 The PTZ decoder does not match the address of the digital video recorder.
- 7 When connecting multiple decoders, the farthest end of the A B lines of the PTZ decoder must be added 120ohm resistor in order to eliminate reflection and impedance matching, otherwise it will cause unstable PTZ control.
- 8 The distance is too long.

12. Q: Dynamic detection does not work.

A: Possible causes:

- 1 Incorrect time interval setting.
- 2 Inappropriate setting of dynamic detection area.
- 3 Too low sensitivity.
- 4 Hardware limitation of individual versions.

13. Q: The client or IE browser cannot login.

A: Possible causes:

- 1 The client cannot install or display normally. win98 or win me operating system: recommend to update the operating system to be above win2000sp4 version or install low version client software.
- 2 ActiveX control is prevented.
- 3 Do not install dx8.1 or above version and upgrade the video card driver.
- 4 Network connection fault.
- 5 Network setting problem.
- 6 Incorrect user name and password.
- 7 The client version does not match the program version of the digital video recorder.

14. Q: There is mosaic or no image when network previewing screen or playing back recording files.

A: Possible causes:

- 1 Bad network smoothness.
- 2 Whether there is resource constraint in the client device.
- 3 This device sets area block or channel protection.
- 4 The login user does not have monitoring authority.
- 5 The digital video recorder outputs bad real-time image.

15. Q: The network connection is unstable.

A: Possible causes:

- 1 The network is unstable.
- 2 IP address conflicts.
- 3 MAC address conflicts.
- 4 The network card of the computer or digital video recorder is not good.

16. Q: Burning/USB backup error.

A: Possible causes:

- 1 The CD-R and the HDD are hung with the same data line.
- 2 The data amount is too large which consumes too much resource of CPU. Please stop recording and back up again.

- 3 Data amount exceeding the capacity of the backup device will lead to burning error.
- 4 Backup device is not compatible.
- 5 Backup device is broken.

17. Q: The keyboard cannot control the digital video recorder.

A: Possible causes:

- 1 The SATA setting of the digital video recorder is incorrect.
- 2 The address is incorrect.
- 3 When multiple converters are connected and the power is insufficient, you need to supply each converter with power.
- 4 The transmission distance is too long.

18. Q: The alarm signal cannot be withdrawn from protection.

A: Possible causes:

- 1 Incorrect alarm setting.
- 2 Open the alarm output manually.
- 3 Input device fault or incorrect connection.
- 4 The program problem of individual versions. It can be solved by upgrading program.

19. Q: The alarm does not work.

A: Possible causes:

- 1 Incorrect alarm setting.

- 2 Incorrect alarm wiring.
- 3 Incorrect alarm input signal.
- 4 One alarm device is connected with 2 loops.

20. Q: The remote control does not work

A: Possible causes:

- 1 Incorrect remote control address.
- 2 The remote control distance is too long or the remote control angle is relatively partial.
- 3 The batteries of the remote control run out.
- 4 The remote control or the front panel of the video recorder is broken.

21. Q: Video storage time is inadequate.

A: Possible causes:

- 1 Bad quality front-end camera, too dirty lens, backlighting installation, and unadjusted iris lens etc. lead to relatively big bit stream.
- 2 HDD capacity is insufficient.
- 3 The HDD is broken.

22. Q: The downloaded file can not play.

A: Possible causes:

- 1 Do not install player.

- 2 Do not install DX8.1 or the above version of graphics acceleration software.
- 3 The converted file with AVI format should be played by MEDIA PLAYER. The computer does not install "DivX503Bundle.exe" plug-in.

23. Q: The operation advanced password or network password of the local menu is forgotten.

A: Solution:

- Please contact your local customer service or call the customer service of the headquarter and we will guide you how to solve the problem according to the item number and the program version which you provide.

6.2 Maintenance

- 1 The dust on the circuit board affected by damp can cause short circuit which will affect the normal work of the digital video recorder even damage it. In order to make the digital video recorder work stably for a long time, please remove the dust on the circuit board, socket connector, chassis by brush regularly.
- 2 Please make sure that the project is well grounded so as to prevent the video and audio signal from interference and to

avoid damage of the digital video recorder by static electricity or induced voltage.

- 3 Please do not plug or pull out the ports of video and audio signal lines, RS-232, RS-485 etc. with electricity, otherwise, these ports will be easily damaged.
- 4 Try not to use TV on the local video output (VOUT) port of the digital video recorder, otherwise, the video output circuit of the recorder will be easily damaged.
- 5 When shutting down the digital video recorder, please do not turn off the power switch directly. You should use the shutdown function on the menu or the shutdown button on the panel (press for more than three seconds) until the digital video recorder turn off the power automatically so that the HDD will not be damaged.
- 6 Please make sure that the digital video recorder is far away from the heat source and places at high temperatures.
- 7 Please keep good ventilation around the chassis of the digital video recorder in order to facilitate heat elimination.
- 8 Please check and maintain the system regularly.

Attachment 1: HDD Capacity Calculation

Install the digital video recorder for the first times, please make sure whether the HDD is installed inside the host.

1. The Own Capacity of the HDD

For the capacity of single HDD, the digital video recorder chooses the capacity of above 160G. In order to obtain better stability, we recommend the HDD with 250G ~ 1TG capacity.

2. The selection of the Total Capacity

The calculation formula of HDD capacity is as follow:

Total HDD capacity (M) = channel number × required time (hour) × HDD space consumption per hour (M/hour).

Similarly, we can get the calculation formula of recording time:

$$\text{Recording time (hour)} = \frac{\text{Total HDD capacity (M)}}{\text{HDD space consumption per hour(M/hour)} \times \text{channel number}}$$

The digital video recorder adopts H.264 compression technology whose own dynamic range is rather large, therefore, the calculation of HDD capacity needs to count the valuation of the file size generated per hour by each channel according to the bit stream.

For example: single-channel recording takes up HDD space 200M/hour. When using 4 channel digital video recorder to record, it requires continuous recording one month (30 days) and 24 hours one day. The required HDD space is as follow:

$$4 \text{ channels} \times 30 \text{ days} \times 24 \text{ hours} \times 200\text{M/hour} = 576\text{G},$$

Then it normally needs to install 1 750G HDD or 2 320G HDDs.

H.264 NETWORK DIGITAL RECORDER