
15" TFT-LCD MONITOR WITH DVR

USER'S MANUAL



*Manual for H.264
Series*
CIF 4CH DVR

Caution

1. Installation Environment

- 1.1 Keep away from heat sources and high-temperature places
- 1.2 Avoid direct sunlight
- 1.3 Keep away from humid places
- 1.4 Be horizontally placed
- 1.5 Avoid violent vibration
- 1.6 Be installed in ventilated environment and do not block the fan

2. Installation Precaution

- 2.1 Confirm the right position of the toggle switch near the power socket according to the input voltage
- 2.2 At the first installation, make sure whether the HDD is installed and right jumped
- 2.3 You must cut off power before changing HDD
- 2.4 High speed HDD 7200 rpm or plus is strongly recommended

3. Accessories

Unwrap the external packaging and check the accessories:

Refer to the particular packing list

Items	Quantity	Items	Quantity
Power Cord	1pc	Installation CD	1pc
Switching Power Adapter	1pc	Acceptance Certificate	1pc
Installation Fixings	1package	Remote Control	1pc
User Manual	1pc	USB Mouse	1pc

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Chapter 1

Features and Specifications

1.1 Specifications

1.2 Main Features

1.1 Specifications

Parameter	Indicator
Operation System	Embedded PSOS operation system
Interface	Friendly graphical user interface, Front panel, USB mouse, remote control and network simulator
Video Input	4CH composite video input:(NTSC/PAL) BNC (RCA optional)(1.0VP- P , 75Ω)
Audio Input	4CH video Input BNC (RCA optional) (2.828VP- P , 30KΩ)
Audio Output	1CH audio output BNC (RCA optional) (3.25VP- P , 100Ω)
Video Display	Full screen mode or Quad split mode
Display	PAL 625 line, 50f/s , NTSC (525line, 60f/s)
System Resources	Multi-task operation: Multi-channel recording, playback and network operation simultaneously
Resolution	Real-time monitor: D1 704×576/704×480
PAL/NTSC	Record playback: CIF 352×288/ 352×240
Motion Detection	192(16x12) area configurable; multi-level detection sensitivities
Video Compression	H.264
Audio Compression	PCM
Recording Speed	PAL 1f/s to 25f/s per channel and NTSC 1f/s to 30f/s per channel
Image Quality	6 level image quality
Hard Disk	1 built-in IDE port
Hard Disk Consumption	Audio: PCM 28.8MByte/Hour, Video: 56 900MByte/Hour
Alarm Input	4 channel grounding alarm input
Alarm Output	2 channel relay output
Alarm Relay	30VDC 2A , 125VAC 1A (relay output)
USB Port	2 USB2.0 high speed ports
Network Interface	RJ45 10M/100M adaptive Ethernet port
RS485	Pan-tilt control interface, multiple protocols supported
Power Supply	100-240VAC±5% 0Hz-60Hz±2%
Power Consumption	55W(MAX)
Working Temperature	0℃ -40℃
Working Humidity	10℃ -90℃
Working Atmosphere	86kpa — 106kpa
Size	400mmX400mmX70mm
Weight(Include HDD)	5KG

1.2 Main Features

Note Features may differ due to different models and hardware/software versions.

Real-time Monitor Compression	<ul style="list-style-type: none"> · 1/4 multiple windows monitoring · Display of real-time bit rate and hard disk consumption · Local view of system log
Mode	<ul style="list-style-type: none"> · Video Compression: H.264
Storage	<ul style="list-style-type: none"> · 1 built-in IDE port and supports up to 1 capacity HDD · Overwrite mode and stop mode selectable when hard disk is full
Backup	<ul style="list-style-type: none"> · USB port backup, including USB flash memory, USB removable Hard disk and USB CD-RW · Download and backup through network
Recording and Playback	<ul style="list-style-type: none"> · Multi-task operation: real-time recording, single channel playback, remote monitoring, records search and download, etc · Multiple recording mode: manual recording, schedule recording, alarm recording, motion detection · Record playback through network · Fast classified record research function · Multiple playback mode: fast-forward, slow-forward, single frame and backward · Display of accurate recording time
Network Operation	<ul style="list-style-type: none"> · Remote real-time monitoring via network · Record search and playback · DVR parameter configuration and software update · Embedded TCP/IP protocol enables Web browser control · Two-level user management: power configurable for different users and groups
Alarm Relay	<ul style="list-style-type: none"> · 4 channel ground alarm input and motion detection alarm supported; panalarms include smoke detector, thalposis detector, IR detector etc. · 2 channel relay output, enables alarm relay and onsite lighting control · Protective circuit for both alarm input and alarm output
Communication Interface	<ul style="list-style-type: none"> · Special interface for alarm input and pan-tilt control · One RJ-45 port for network control · Two USB2.0 ports to support equipment connection

Chapter 2

Installation

- 2.1 Installation
- 2.2 Front Panel
- 2.3 Table of key functions
- 2.4 Back Panel
- 2.5 Mouse Control
- 2.6 Remote Controller
- 2.7 Connection of alarm input
and output devices

2.1 Installation

At the first installation, make sure whether the HDD is installed and is set as master disk. The user can use 10G-infinite HDD, but for better stability, 120G-250G HDD is recommended.

Installation Steps:



1. Remove the outer case of the DVR



2. Install the HDD.



3. Dismantle the upper HDD bracket



4. Connect the HDD with IDE port through data communication cable

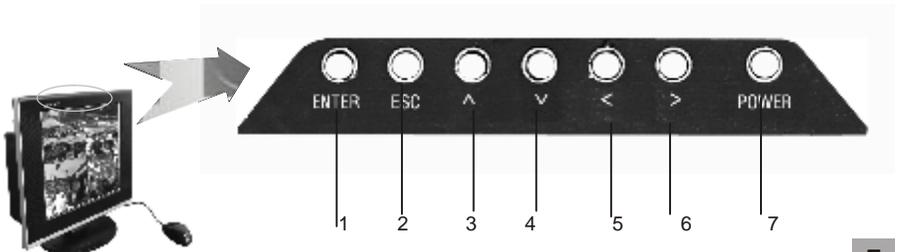


5. Place the HDD bracket back on



6. Place the outer case back on

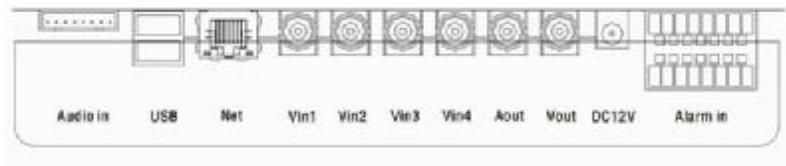
2.2 Front Panel



2.3 Table of key functions

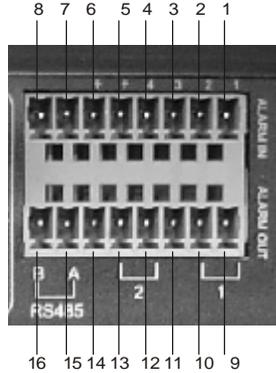
No.	Key	Sign	Function
1.	ENTER	ENTER	Operation confirmation Enter to sub-menu under main menu or up menu Enter login menu when boot-strap or logout Enter main menu under monitoring mode Playback the selected file under search and playback menu Press Enter to assist direction key to set the motion detection area
2.	Exit	ESC	Cancel menu and control Switch to quad split screen mode from signal screen monitoring Switch to real-time monitoring from playback mode
3./4.	Up/Down	▲ ▼	Lengthways moving: change set-up information, Pan-tilt control, delete number under the input textbox and playback control
5./6.	Left/Right	◀ ▶	Transverse moving: change set-up information, Pan-tilt control, delete number under the input textbox and playback control
7	Power	POWER	Press this button for 2 seconds, the screen display will be closed and enter into screen saver; Press this button for more than 3 seconds, the monitor will be on stand-by status

2.4 Back Panel



No.	Description	Function
1	DC power outlet	DC 12V/4A
2	Alarm input, Alarm output, Rs485	4CH alarm signal input 2CH alarm output, RS485 port, see details as below content
3	BNC Audio Input	1st CH video signal input
4	BNC Audio Input	3rd CH video signal input
5	BNC Audio Output	Audio signal output
6	RCA Audio Input	1 st CH audio signal input
7	RCA Audio Input	3 rd CH audio signal input
8	Network Port	RJ4510M/100M adaptive Ethernet port
9	USB Port	Connect with external USB2.0 devices (flash memory, USB removable Hard disk, USB CD-RW) and mouse .
10	Power switch	DC power switch
11	BNC Video Input	2nd CH video signal input
12	BNC Video Input	4th CH video signal input
13	RCA Audio Input	2nd CH audio signal input
14	RCA Audio Input	4th CH audio signal input

- 1. Alarm Input 1
- 2. Alarm Input 2
- 3. Alarm Input 3
- 4. Alarm Input 4
- 5. Ground
- 6. Ground
- 7. 8. Controllable +12V output (optional)
- 9. Alarm Output 1-1
- 10. Alarm Output 1-2
- 11. N/A
- 12. Alarm Output 2-1
- 13. Alarm Output 2-2
- 14. N/A
- 15. 485A
- 16. 485B



Channel Information:

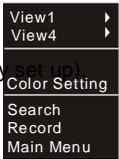
1		Recording	3		Video loss
2		Motion detection			

2.5 Mouse Control

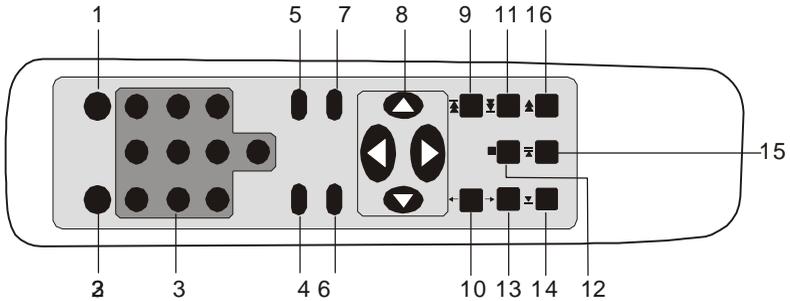
Note Take right hand operation as an example

Except the front panel and remote controller, USB mouse is supported for DVR operation. Connect USB mouse to the USB port on DVR and start mouse operation.

Click Left-key of the Mouse	'User and Password' dialog pops up if the user has not logged in; Enter main menu under real-time monitoring
	Click menu icon to enter
	Execute operation
	Change status of check-box and motion detection area

Click Left-key of the Mouse	Number input, English input and Chinese input(optional) supported;Click the relative icon to finish input: click X to reset and ✓ to confirm input or close input panel		
	Pop up drop-down frame		
Double-click left-key of the Mouse	Execute special operation, like double-click the specific record in the record list to start playback		
	Switch between full screen and multi-screen;		
Click right-key of the Mouse	Shortcut menu popup under real-time monitoring: Multi-screen (related to the number of channels Supported: single-screen/four-screen for 4CH DVR), pan-tilt control (if protocol correctly image color, record search, manual record, main menu and etc. Pan-tilt control and image color set up under corresponding channel screen.		
	Cancel the setup and exit.		
Wheel	Increase and decrease numerical value		
	Switch between options in combo box		
	Page-up and page-down		
Cursor Moving	Cursor moving		
Cursor Dragging	Motion detection area selection		
	Area covering selection		

2.6 Remote Controller



- | | | | |
|-----------------------|------------------------|-------------------|------------------|
| 1: Remote Address | 2: Multi-screen Switch | 3: Number | 4: Record |
| 5: Function Assistant | 6: Enter/Menu | 7: Cancel | 8: Direction |
| 9: Jump-forward | 10: Play Last Record | 11: Jump-backward | 12: Stop |
| 13: Play Next Record | 14: Slow-forward | 15: Play/Pause | 16: Fast-forward |

2.7 Connection Of Alarm Input and Output Devices

Before connection, please pay attention to the following points:

1. Alarm Input

- Firstly confirm if the alarm input is grounding alarm input or voltage alarm input.
- Alarm input: grounding signal is needed for voltage alarm input.
- The relays are needed when alarm devices are connected with two HDD recordings, or one HDD recording and other devices together.

2. Alarm Output

The alarm output port should not be connected to high power load (up to 1A) directly to avoid heavy current which will destroy the relay, but you can use the contactor to realize the connection between the alarm output port and the load.

3. How to connect PTZ decoder

- Ensure the decoder has the same grounding with DVR combo, otherwise possible common mode voltage may fail to control the PTZ. Shielded twisted wire is recommended and the shielded layer is used to connect to the grounding.

- b. Avoid the entry of high voltage. Ensure proper wiring and some thunder protection measures.
- c. For too long signal wires, 120 Ω should be parallel connected between A, B lines on the far end to reduce reflection and guarantee the signal quality.
- d. "485 A, B" of DVR combo cannot parallel connect with "485 port" of other device.
- e. The voltage between A, B lines of the decoder should be less than 5V

4. Incorrect grounding connection of alarm device will destroy the chip.

The input type of Alarm device is not restricted. (Both Normal Open and Normal Close type)

2.7.1 Instruction about alarm input end :

- ◆ 4CH voltage alarm input (Both Normal open and Normal close type).
- ◆ Please parallel connect the Ground of the DVR with the ground of the alarm detector (The power of the alarm detector should be provided by outside power) .
- ◆ Please parallel connect the Ground of the alarm detector with the ground of the HDD recording
The ground between alarm device and HDD recording should be connected when the power of alarm device is provided by outside power.

2.7.2 Instruction about alarm output end :

- ◆ 2 ways relay alarm output (normal open contacts). Should provide the power supply to the alarm detector.
- ◆ To avoid over loading, please read carefully about the related parameters of the relay. (See below table)

2.7.3 Relay's parameter of the alarm output end

Model:	JRC-27F	
Material of the contacts	Sliver	
Rating(resistance load)	Rated switch capacity	
	Maximum switch power	125VA 160W
	Maximum switch voltage	250VAC, 220VDC
	Maximum switch electric current	1A
Insulation	Between touches with same polarity	1000VAC 1m
	Between touches with different polarity	1000VAC 1m
	Between touch and loop	1000VAC 1m
Surge voltage	Between touches with same polarity	1500VAC (10 \times 160us)
Length of open time	3ms max	
Length of close time	3ms max	
Longevity	Mechanical	50 \times 06 MIN (3Hz)
	Electric	200 \times 103 MIN (0.5Hz)
Temperature	-40~+70 $^{\circ}$ C	

Chapter 3

System operation

Note Please make sure HDD and wires are well connected before power on(See installation chapter for more connection details)

- 3.1. Power on/off
- 3.2. Recording
- 3.3 Playback operation
- 3.4 Record file back up
- 3.5. PTZ and image color control

3.1 Power on/off

3.1.1 Power on

Plug in power cable; press the power button on the back of your DVR; then power indicator light is on and DVR start up. Default video output mode is multi-window. Schedule record will start if your DVR power automatically on at the time during schedule period. Press this button for 2 seconds, the screen display will turn off, at this time press any button or move the mouse, the screen display will lighten; press this button for more than 3 seconds, the monitor will be on stand by status, press it again, the monitor restart.

3.1.2 Enter system menu

Press Enter(left mouse key) to pop-up login box, enter user name and password.
 Operation: User Name: Switch arrow keys ▲ ▼ to choose user name, or dragging by mouse.
 User Password: Input digital and English mode by mouse. Steps : Mouse select code textbox and turn it into blue. Text input button appears on the right hand of the textbox. Press the button and switch into digital and English modes. Both capital form and small letter are supported, then appears the digital panel and small letter English key board. Input figure or small letter English, use mouse select. Switch into capital form English, mouse select ">" key on the left corn of English key board. Switch back to small letter English by mouse selecting "<" key on the left corn of capital form English key board.



3-1

Two levels of Users: Normal Users and Administrator

The default admin password is admin. User with admin power will not be restricted by system. Normal users are allowed to use few functions, when they use some functions like setting/Advanced, the system will clue on to input macro code.

Main Menu After User Login:



3-2

Note: Please change default password in time to ensure security. And create other user names for normal users. See Chapter 4 Mouse, Panel, and Remote Control for more details.

3.1.3 User Logout

Suggest to logout after finishing operation to ensure security; if you need to login again, please re-enter your name and password.

3.1.4 Power off

Note: You must cut off power before changing HDD*

You must stop all recording work before switching off.

3.1.5 Power off recovery

If power is cut off in record/schedule/alarm mode , system will save records and continue previous mode to work when power supply recovers.

3.1.6 Change DVR battery

We recommend you change battery annually with the same type of battery.

Note: Please set system time and record mode again if DVR is not in record mode when you change battery.

3.2 Recording

Select your record mode. There is a record symbol when recording. See 2.4

- **Recording Control:** Press mouse right key.
Look up channel record mode, recording channels are marked with “●”

	Steps	Instruction	display
Menu instruction	1. Select “Record”	Switch record on/off, recording channels are marked with “●”, closing channels are marked with “○”.	
	2. Direction Key ◀ ▶	Shift recording channel.	
	3. Save	Press ok to save setting.	

3.2.1 Schedule Record Setup

Default setting is 24-hour record, please set in **menu>setting>schedule**. Set record mode (Regular /MD/Alarm/), **channel**, **week day** (multiple).

(max 2 periods, range: 00:00—24:00). Press ok to save all the settings.

In the Recording mode of “MD” and “Alarm”, there is 3~5 seconds pre-recording



3.2.2 Motion detection record

There is a motion detection symbol when recording. See 2.4 , Please set in **MENU> SETTING> MOTION DETECT** .

- **Channel:** Choose the channel(1,2,3,4 ,ALL) you want to set.
- **Latch:** Delay time of recording(10~300 seconds optional) after motion detection.
- **Region:** Set the area of motion detection, There are totally 192(16X12) positions, Red area is under M.D status.
- **Sensitivity:** Choose defection sensitivity(1~6 level)
- **Alarm Out:** "■" means that in the setting time, when motion detection happens, there is a linkage alarm output.
- **Show Message:** "■" means when motion detection happens, the screen will appear related hint.



3.2.3 Alarm relay and setup

See **MENU>ADVANCED>ALARM**

And see device connection chapters for more details.

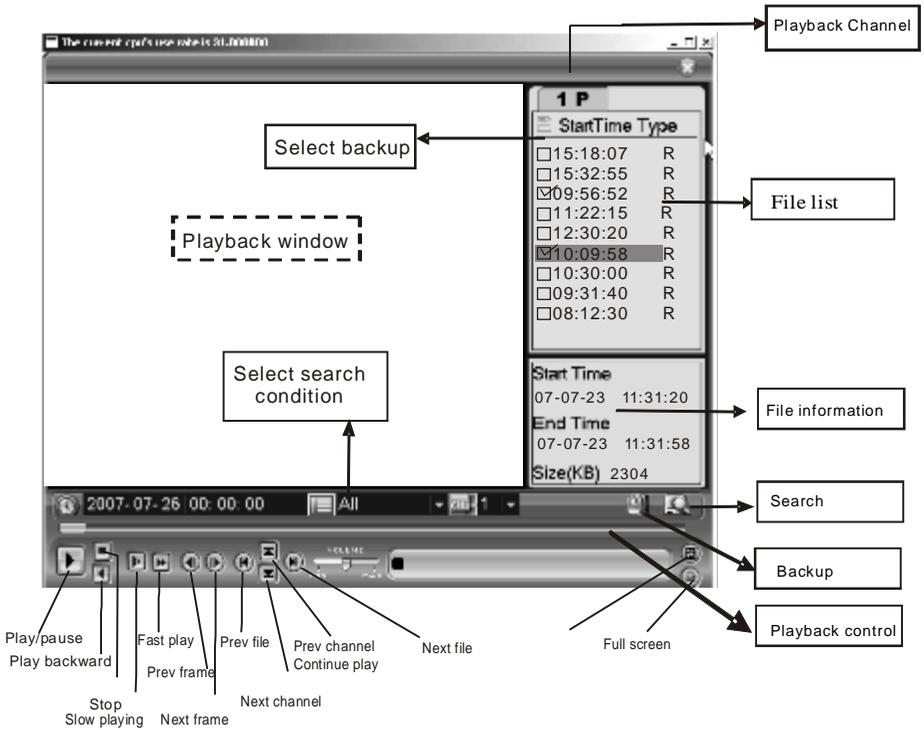
Connect correctly alarm output to DVR, this equipment supports low power alarm.

- **Alarm:** Choose the setting alarm channel(1,2,3,4,ALL)
- **Type:** According to the type of alarm system to choose "NO" or "NC" .
- **Record channel:** Choose record channel after alarm happens "■" means choosing.
- **Latch:** Delay time of recording (10~300 seconds) of alarm finished.
- **Alarm out:** "■" means that in the setting time the alarm will make linkage output.
- **Show message:** "■" means when alarm happens, the screen will appear related hint.



3.3 Playback operation

3.3.1 Search and playback.



search	Instruction
Enter SEARCH menu	1.Press right-key of the mouse to enter record search menu. 2,enter record search menu in main menu interface. Note: You must login to operate.
Playback	Search by type (All, Alarm, Motion detection, All alarm),time and channel. Then ,select file you desired and Press ENTER or double left click to start the playback Note: records types Rrecords Aalarm Mmotion detection
Control bar	playback(display channel ,date, time, speed and progress),control speed, circle playback and full screen. Control bar is hidden in full screen, click mouse to display.
Partial zoom-in	Use mouse to select an area and click to zoom-in in full screen mode, click right button to zoom-out.

3.3.2 Fast/slow paly operation

Steps	Instruction	remark
Fast play: press ►►	Press to shift fast play modes. Fast play key is the reverse shift key of Slow play key.	Speed according to your DVR version
slow play: press ►►	Press to shift slow play modes. Slow play key can be the reverse shift key of Fast play key.	
Play/pause ►	Shift play/pause	
Play next/previous section	press ◀ and ▶ in playback mode.	

3.3.3 forward, rewind, frame by frame playback operation(jog shuttle special functiuon)

Steps	Instruction	remark
Backward II◀	Click II◀ to play backward, click again to normal speed playback.	Press ▶▶ to normal speed playback.
frame by frame playback	press play/pause in playback mode, and slowly switch inner ring in clockwise direction. Switch in counterclockwise direction to start I frame playback.	

Note:

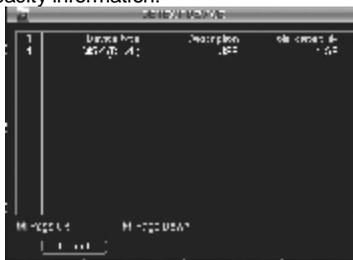
- 1, Control bar displays speed , channel time and progress during above operations.
- 2, Some functions, such as backward , frame by frame playback and playback speed , depend on DVR versions. Please contact our technical support engineers.

3.4 Record file back up

Our DVR products supports CD-RW , USB storage and network download backup. Take USB storage backup operation as example, you could refer to web server software for network backup operation.

3.4.1 Device detect

Look up backup device capacity information.



3.4.2 Backup fileSlect device , press delete if you want to delete device

files. Operation.steps select device,channel name start/stop time click add to search. The results will be shown in list with in front of record type.You could set search conditions and add again. New results will be added to the list. You can tick off () if you don't want to backup the file. Click backup to backup files.A processing bar with occupation space will be shown during backup. **Note** You can quit backup menu during backup.

Cancel: You could click **cancel** to cancel backup during the process if you use USB storage device, and the records before you click cancel will be stored in the device. For example, if you click cancel

on the 5th minute during a 10-minute long record backup, a 5-minute long record will be stored in the device. Recording files will be invalid if you cancel backup with USB CD-RW.

Press Fn to select backup files.

You could look up backup files on your PC, which are named as: Serial number_CH +channel number+time+ymdhms.DAV.



Tips for CD-RW backup:

1. Select CBR mode;
2. Disconnect network to avoid error
3. Please visit our website to check our approved CR-RW brands and types.

3.5 PTZ and image color control

Note Please shift to camera input video to operate

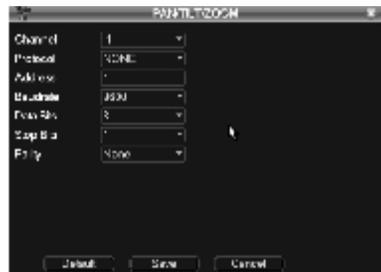
In single monitor mode, press FN to shift “PTZ control” and “image color”.

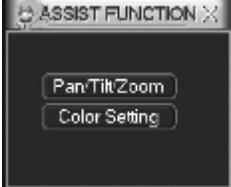
PTZ Control

- Connect PTZ with decoder, set decoder address.
- Connect decoder A, B lines with DVR A B lines correctly.
- Settings are in **MENU>ADVANCED>PAN/TILT/**

ZOOM

Select **channel**, PTZ decoder **protocol**, **address**, **bit rate**, press ok to save setting and FN to set PTZ control in single window mode.



Steps	instruction	Press Fn
1.Fn	In single monitor mode, press FN to enter menu: "PTZ control"and "image color". Select"PTZ control"	
2. ◀▶▶▶▼	Set directions (up, down, left, right (mouse or panel button), top-left, top-right, bottom-left, bottom-right(only mouse))ZOOM (zoom in (or click ▶) /out(or click▶),foucs ("-" or click◀ "+" or click ▶), IRIS ("-" or click ◀ "+" or click ▶), step (ranged from 1-8),when you click "set"and enter sub-menu, to set prearrange points; auto cruise; border pattern	
	color setting: you can set or change hue, brightness, contrast, saturation and gain. In specified period. Note: you must select one period of 24 hours.	

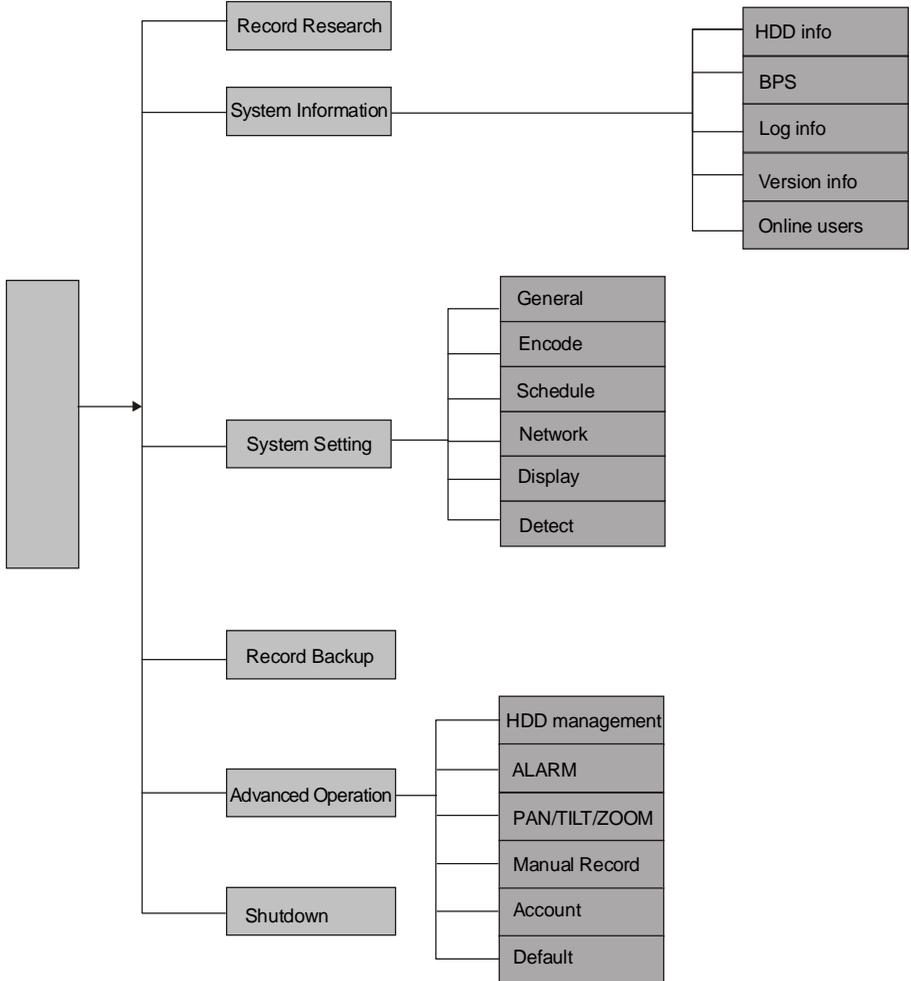
☆You must save before quitting to previous level menu.

Chapter 4

Advanced Operations

- 4.1. Menu operation structure
- 4.2 Menu maneuver
- 4.3 Menu operation

4.1 Menu operation structure



4.2 Menu maneuver

Main menu	Menu level 1	Remarks
SEARCH 		Records search and playback. You can search the records according to Type (All, Alarm, Motion detection, All alarm), Channel and Time. The matched records will display on the list. Choose a record and start playback. R-record A-alarm M-motion detection
Info 	HDD info 	Display the IDE ports' state, the total and free space for all HDDs and every HDD, the record starting and ending time The HDD being used will show as '*' following the HDD serial number. Press Fn to check the recording time of HDDs
	Bit rate statistics 	Display the current BPS and the estimate for HDD space occupied per hour, and the Waveform displays the visualized BPS
	Log info 	Display the important system events' log
	Version info 	Display the information about operation system version, issue date and so on
	Online user 	Check online user information
Setting 	General 	Set system time, recording parameter, the machine No., video format and so on. Set LCD close time and enable.
	Encode 	Set image quality, frame rate, coding style and so on
	Schedule 	Set schedule for General, Motion Detection, Alarm recording. Be able to set 6 different periods everyday
	Network 	Set network IP address and video data transfer protocol
	Display 	Set parameters of menu output and monitor tour
	Detect 	Detect back-up devices List found devices and display the type and capability

Main menu	Menu level 1	Remarks
Backup 		Detect back-up devices, list found devices and display the type and capability. Back up records that were selected through partition, channel, time and type on the USB storage devices.
Advanced 	HDD management 	HDD management. clear HDD data.Restatr to activate.
	Alarm 	Set alarm output and the linked recording channels.
	PTZ control 	Set protocol and baudrate
	Record control 	Manually start or end recording
	User account 	Add, modify and delete user group and user account.
	Default 	Restore all default setting except menu color, language, time format and video format
Shutdown 		Log out, shutdown system or restart system

4.3 Menu operation

Note * Please press ok to activate settings.*
* Mark ■ to select function*

Menus: SEARCH, INFO, SETTING, ADVANCED BACKUP and SHUT DOWN.



4.3.1 Record search

Search (by record type, channel or time) and palyback record files. See 3.3 for more details.

4.3.2 System info

Submenus: HDD info. bit rate statistics log.info version info and online user.

HDD info

Look up IDE ports status. HDD capacity(total,useable) record time(start,stop) and status.

Note: IDE port information:0 normal X error - no HDD installed.If you want to install new HDD, please cut off power and take out broken HDD.



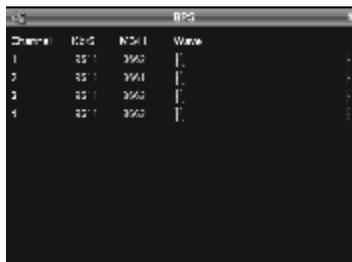
Port	Type	Total	Used	Free Space	Status
0		819144	819144		
1	IDE	819144	819144	819144	Normal

Working HDD will be marked with *, and a " ? " will be seen if there is collision. System will turn to HDD info interface when collision is detected after starting up. You could check up and if collision really occurs, please enter **setting** → **general** to change system time or format HDD and restart DVR. **Note** press Fn or click left mouse button to shift record time / HDD type and capacity.

Bit rate statistics

Bit rate(Kb/s) and HDD space occupation (MB/h) .

Waveform of Space occupation.



Channel	Bit Rate	NSD	Wave
1	32	3962	[]
2	32	3962	[]
3	32	3962	[]
4	32	3962	[]

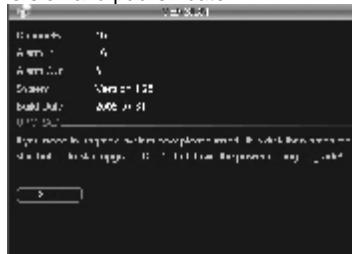
Log info

Look up user login information.



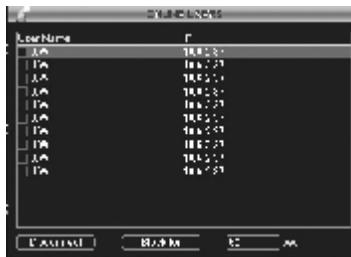
Version info

Look up hardware/software version and publish date.



Online user:

Look up online user information.



4.3.3 Setting

Submenus: GENERAL, ENDOCDE, SCHEDULE, NETWORK, DETECT, DISPLAY.

Note: For empowered user only



GENERAL

Set **system time**, **date format** (yymmdd/mmddy/ddmmyy); **data separator**(./-); **time format** (12/24hours); **pack duration** (default 60minutes); **dvr umber** (for 1 remote controls multi-DVR condition); **auto logout** (0-60, login user will automatically be logged out when out of setting time. Press ok to save settings. **LCD close** (1-60min), LCD will automatically be logged out when out of setting time.

Note: Avoid any unnecessary changes on system time; otherwise records might be malfunctioned.



ENDOCDE

Select **channel**, **coding mode**(H.264), **resolution** (CIF); **bit rate control**(CVR/VBR); **frame rate**1f/s-25f/s(6 levels); **image quality** (6 levels); mark **audio encode** to activate audio and video synchronization.



SCHEDULE

Time period setting for schedule, motion detection and alarm relay. see 3.2.1 for more details.

NETWORK

Set IP address , subnet mask , gateway , service port (default 37777), protocol HTTP port and Max connection number(0-4).

LAN Connection

Step 1, Set DVR

Set IP address, subnet mask, gateway, service port (default 37777), protocol, HTTP port and Max connection number (0-4).

Step 2, Testing

Use PC to ping DVR IP to check condition. If reply TTL is less than 255, it is well connected.



ID	Service port	IP address	Protocol	start
1	80	192.168.0.20	ALL	<input checked="" type="checkbox"/>
2	37777	192.168.0.20	ALL	<input checked="" type="checkbox"/>

Step 3, Visit DVR from LAN

Open PC input DVR IP address on IE browser address bar to visit DVR via LAN.

WAN Connection.**Step 1, Set DVR**

Set IP address, subnet mask, gateway, service port (default 37777), protocol, HTTP port (for example 80) and Max connection number (0-10).

Step 2, Set Router

Input two same service port of DVR to router. And point this two service port to DVR IP address (for example DVR IP is 192.168.0.20).

Step 3, Visit DVR from WAN

If using static IP, open PC input registered Static IP address on IE browser address bar to visit DVR via WAN.

If using dynamic IP, find dynamic IP from router and input it on IE browser address bar to visit DVR via WAN. Or visit DDNS website to download DDNS software, apply DDNS account and Dynamic domain name. Use local PC to run DDNS software to point Dynamic domain name to the dynamic IP. When the PC and DDNS software are running, you can input the Dynamic domain name on IE browser address bar to visit DVR via WAN.

DISPLAY

Click **transparency** to set transparency (128-255) Mark to display time title. Mark to select tour mode, time, time interval (5-120s) and video windows (1, 4,) in Monitor tour .



Channel name: Press modify button to rename channel.

You should open channel name menu on web or client end to upgrade channel names if you revise them on DVR.



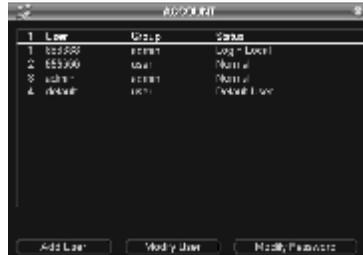
DETECT: See 3.2.2 for more details.

Account

user account management

Note: Max 8 digits for user/group name, the first/last digit mustn't use blank.

Default 2-level groups are: USER\ADMIN. There are no limits for user/group numbers. users in the same group shares the same power limit.



Modify password

Select user name, input new password (1-8 digits) and confirm, click save to save setup. The first/last digit mustn't use blank. User with user account control power can change other user's password.

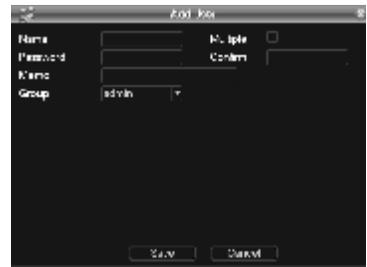
Security measure: System will lock if you input wrong password 5 times in half an hour.



Add User

Add user and select group, including Admin, user

Admin occupies all rights and user occupies part rights



Modify User

Modify User attribute.

Modify user: modify user name, group, authority, and memo Enter menu,input user name and password, select group.Your user power is restricted to your group power. We suggest you set higher power for admin group users.



4.3.6 Shut down

Logout menu user: quit menu enter password to login again

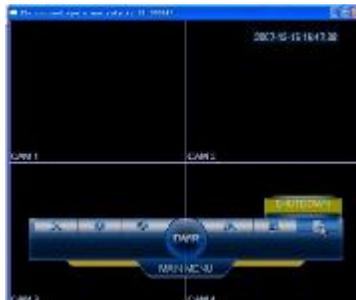
shut down: quit system,shut down power supply

Restart: Quit system, restart DVR.

Restart application: exit application, and then restart it

Press power off button for 3 seconds to turn off DVR power.

You must input password to shut down DVR if your user ID doesn't have the power.



Chapter 5

Network operation

- 5.1. Network connection
- 5.2. Log in and out
- 5.3. Right button menu and its
operation
- 5.4 Search
- 5.5 Config
- 5.6. Assistant

5.1 Network Connection

- ◆ Please make sure your DVR and network are well connected, You could turn to device connection chapters for reference.
- ◆ Set IP address, subnet mask and gateway for your host and DVR, If there is no router in the network, please assign IP addresses within the same network segment. Otherwise set the relevant gateway and subnet mask. Please turn to System **setup>network** setup for more details.
- ◆ Use ping ***.***.***.*** DVR IP to check condition if reply TTL is less than 255.
- ◆ Open IE browser input DVR IP on address bar.
- ◆ WEB server will download and upgrade automatically. Delete the old version WEB before upgrading new version.
- ◆ Operation: [Start]-> [Run], Input 'regsvr32 -u WebRec.ocx' and delete the old version.

5.2 Log in and out

Take DVR IP address 192.168.0.76 as example. Just input http:// 192.168.0.76 on address bar, The system will pop up a warning dialogue box to ask you whether you accept DVR web control software

webrec.cab on the first time you visit your DVR via web. Please select Yes and the system will install this software automatically.

Upgrade to new version: [Start]-> [Run], Input 'regsvr32 -u WebRec.ocx' and delete the old version.



5-1

If the following dialog box pops-up (picture 5-2) please check your password and input the correct password.



5-2

Log out: Click Log out , and choose 'Yes' on the pop-up box.

5.3 Right Button Menu and Its Operation

Logout, video, search, config and assistant buttons are activated after login. Click right button to see the following Interface :



5-3

Take 4 channels DVR BL1700T4 as example:

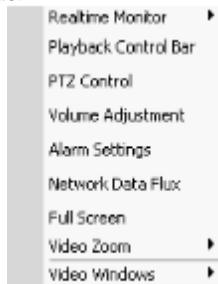
Monitor menu includes the following submenus '**Real Time Monitor , Playback Control Bar, Set Volume, Net Data Flux, Full Screen, Resize Video, Video Windows**'

Video: The same functions are as the right key menu.

Real Time monitor: You can select the channel you want to see among the displaying channels. If you want to change channel name, please set in **Assistant->Channel Name**. Click the right button in monitor mode and you will find 2 more options in the menu: **Prearrange Set** and **Pan Tilt Control**.

Note: You must have the control power to set these 2 menu options. And you can't set these 2 menu options if your PTZ doesn't have these protocols.

Right button menu in monitor mode:



5-4

Playback control bar: See record playback for more details.

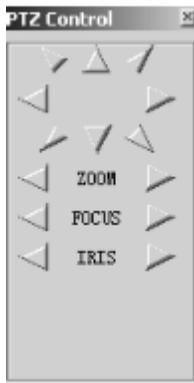
PTZ control: Control PTZ direction, move, zoom, focal length and iris range, see picture 6-8.

Note: 1. Please make sure that you have set PTZ control protocol.

2. If the dictate is not support, the screen shows gray.

Select PTZ control, box 5-5 pops up. This box supports move and IRIS control. 8 directions, up, down, left, right, up left, up right, bottom left, bottom right.

Prrrange set: Set prrrrange points. Tick Cruise to make your camera cruise these prrrrange points automatically. If it is set many points, camera cruise between this points automatically.



5-5

Fast orientation :

SIT button is the fast orientation button. It is available when the PTZ has this function. And it can only be controlled by mouse. Press it to enter the fast orientation window. Press one point on the window, the PTZ will point to this point automatically and this point goes to the center of the screen. It also supports zoom function. Use the mouse to drag. Drag down to zoom in. Drag up to zoom out. It supports 4~16 times zoom.

Volume set: Set your PC (not your DVR) volume. Tick mute to turn off sound.



5-6

Net data flux: Network transmission data flux statistics. Shows 0 when no network transmission



data flux.

5-7

Full screen: In 1 video mode, double click mouse left button on preview window or click mouse right button to select full screen.

In multi video mode, double click mouse left button of one of the channels to full screen. Or click mouse right button to select this channel to full screen.

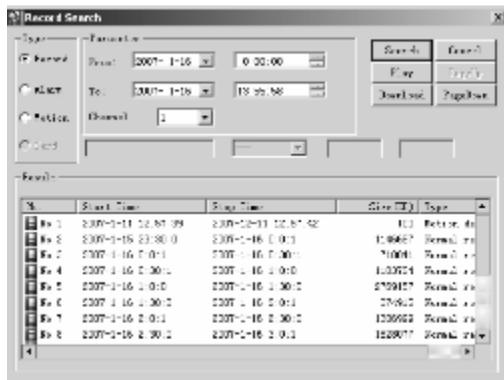
In full screen mode, double click mouse left button or click mouse right button to select resize video to return to preview mode.

Resize Video: User can select different proportion. Video window size changes according to the proportion. In 1 video mode, when selected real time monitor, video window changes according to proportion. In multi video mode, even when not selected real time monitor, video window changes according to proportion.

Video Windows: Can select 1 video window and 4 video windows.

5.4 Search

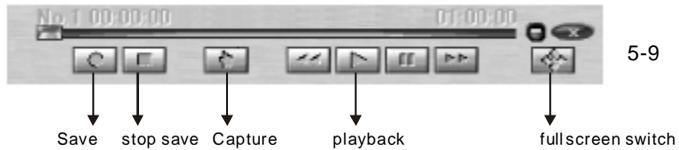
Click **search** to pop up record search box:



5-8

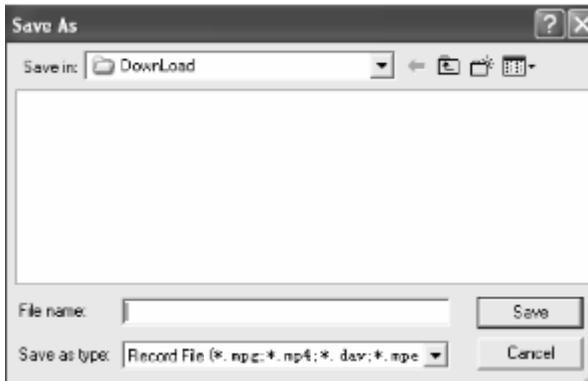
Input "recording date/time, channel number and search type (**Record ,Alarm or Motion** ", and the results will be shown in the dialogue box(16 results per page). Click **page up** or **page down** button to

turn over. Double click record file to palyback and backup simultaneously. System will automatically save record files in your Download file. and you could select file to save destination as you like. **Note** Use your mouse to choose record time when setup parameters.



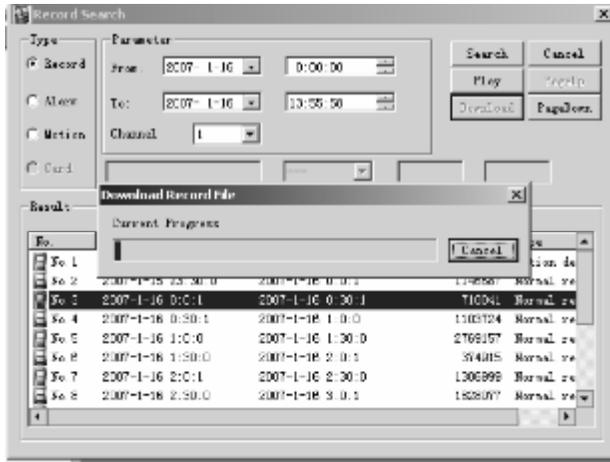
You could use tool bar to **save record, stop saving file, image capture, full screen shift** ,and look up channel name. Time and network data flux information.

Download: Select record files and click **download**



*.dav 5-10

Input selected file name and click save to start downloading, there will be a download progress bar hown on screen:



5-11

Default file name format file name: user name +date+time+channel No., extension name: "dav or MP4"(Take Gate-0120060907144228 [4]. Dav as example: Gate-01means channel 01 in the gate 20060907 means 7th Sept. 2006, 144228means 14:42:28).Support multi-task download.

5.5 Config

Click to set **general, record schedule, image, alarm, motion detecting, network and video parameter** and such as submenu options.

Note: The gray-colored menus could only be set on your DVR.

General : Including record length set. Select channel, PTZ decoder protocol and address in Control to control PTZ. (5-12)



5-12



5-13

Record Schedule: Including 3 modes: record, motion detection and alarm. You can set different time periods in different date and channels. (5-13)

Image: Set channel coding mode, image quality and network transmission protocol, click save when finishing 1 channel setup. And do save again when you finish all the setup. Frame rate (PAL): 1f/s, 2f/s, 3f/s, 6f/s, 12f/s, 25f/s. Coding mode LIMIT(CBR) AUTO(VBR). Level 6 enjoys the best image quality, at the cost of high bit rate. Video lost alarm: frame rate 1-25f/s. You can look up network transmission, monitor and playback protocols here.(5-14)



5-14
5-15



Alarm: Select alarm port and channels (multiple choices). Click save when finishing 1 port setup, and save again when you finish all the setup.(5-15)

Motion detection: Please make sure your motion detection time period and recording period are different, because recording mode has priority.

You could select purple area as motion detection area. Set channel motion detection time lag and sensitivity.

Click **full screen** or right mouse button to make motion detection area full screen. In multi-video mode, it means recording will be shown on the window you have set motion detection .Please turn off schedule recording if you want to make certain channel totally in motion detection recording mode. The purple area is the selectable motion detection area. User can move the cursor to choose the area and can also set the sensitivity of the area due to the need. Click **Full screen** or press right key on the area to display the motion detection area at full screen. After setting up the area, the user can **Save channel** or **Clear** the area.

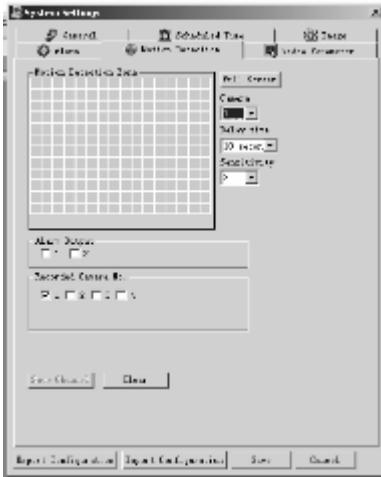
Alarm output: Set alarm output when motion detection works.

Recording channels: Tick to record when motion detection works.

Save: Save your setups on the channel.

Clear: Clear up your choice.

Please click **Save** again when all setups are finished.



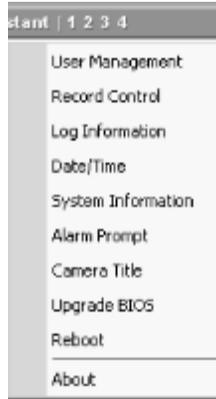
5-16
5-17



Video Parameter: Set video parameters: Hue, Contrast, Brightness, Saturation, channel and enable audio. Click Reset to default.(5-17)

5.6 Assistant

The following functions are included in this menu: **User Manage, Record Control, Log Information Datetime, System Information, Alarm Information, Channel Name, Upgrade Bios, Reboot and About**



5-18

User manage: Set DVR user group and user information.

Group operation

Initial interface is as follows:



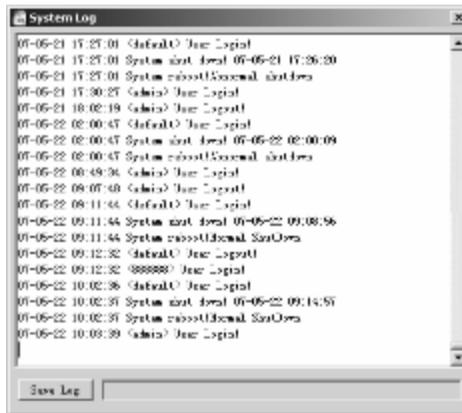
5-19

Record control :Manual record control: Presses confirm to save setup.



5-20

Log information: Record all system operations.



5-21

Equipment date and time: Entitled user can edit the date and time if they are in the box as follows.



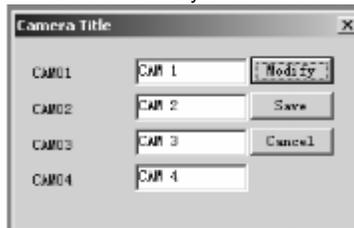
5-22

System info: Check the basic system information. In this menu, you could shut down audio if you don't need it and choose extract frame(non-real time) or real time network video transmission modes according to your bandwidth; choose PAL or NTSC mode; set preview image quality; open auto cycling to shift all channels and set time intervals. Network data flux Show data flux statistics in real-time monitor mode.



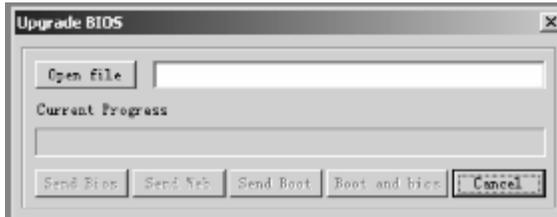
5-23

Channel name: You can rename channel names displayed on screen, and the channel names will be Channel No.1 to Channel No.8 if you click default button. You can open channel name menu on web or client end to upgrade channel names if you revise them on DVR.



5-24

Upgrade BIOS: You can upgrade BIOS WEB version simply via WEB. Click open file button to open the program file you want to upgrade and you can get upgrade programs from our technical support department or download from our website ,and click send button. System will reboot automatically after successful upgrading. You could also upgrade via client end software.



5-25

About :Here is for you to view basic system information.

Chapter 6

Frequently Asked Questions

1. What factors should be considered if my operation system is WINDOWS 98

DIRECTX 7.0 or version above for graphic speed-up should be installed in advance, while this tool is included in WINDOWS 2000 or XP package.

2. Why no HDD is detected?

Firstly, please check whether HDD is in good condition. Check whether HDD jumper wire, IDE wire and power cable are well connected, HDD must be set as master disk when only 1 HDD is connected with 1 IDE port.

3. Why recording time is not controllable?

The recording time unit is 1 day. Besides schedule recording, there are other recording modes such as motion detection, manual and alarm. Please confirm the setups are correct and time period should be set within 1 day. Please refer to manual for more details.

4. About heat dispersion

Our DVR products use low power dissipation chips and smart HDD management. If there is no operation in 1 minute, non-working HDD will automatically be in standby mode, thus reducing heat volumes and prolong HDD life.

5. Why is there 1 channel without video signal?

Please check whether the video wire is well connected. Or put the camera's video wire into the monitor directly to see if there is any video signal. If no signal, please contact your equipment supplier; if not, there are some problems with the camera or video wire. Not Digital Video Recorder

6. Why doesn't remote control work?

If the ACT light on the front panel is on, it might be caused by low battery energy, just change for new ones, If not, please press ADD button on the remote controller toward the DVR, and there will be a remote control address menu on screen. Just input the correct address (default address is 008) ACT light is on and remote control is useable again.

7. Why couldn't I control PTZ or speed dome?

Please confirm the wire connection is in good condition. Please check the setups via path: System Setup ">PTZ control". Please check if the address setups are matched? Please check protocol is matched. Please contact your equipment supplier.

8. Why does my DVR fail to connect the network?

If 'fail to connect to IP address' dialog box pops up, please check IP setup on your computer and DVR, and make sure network wire is well connected. Check ping via path cmd >run(input 'ping <DVR ip> t' login again if it is connected. If the 'This user has logged in' or 'User name or password error' dialog box pops up, please check whether this user has logged in or your user name/password matches.

9. After login the DVR via client end, why is not the image quality good and sometimes there is drag marks at the beginning?

It is normal if the image can recover within 5 seconds.

10. Why doesn't schedule recoding work?

Incorrect time setup. Time period must be in 1 day Or time period status has not been changed.

11. What could be kind of external equipment connected to the DVR?

Our DVR products can work together with special keyboard, various matrix units, various control decoders, alarm input and output devices, access control and so on.

Note:

**This user guide is only for reference.

**The product will upgrade any time without notice.

**All rights are reserved.

**Please contact with our technical service for downloading any upgraded program or supplemental software.

**This user guide is applicable for series of products, and the operation for each product is not specified separately. Please contact with technical service for any questions.

**This user guide is applicable for 4CH hardware version V1.02 and software version V1.00.05 and above.

**All basic features listed in this guide is suitable for the model as above. The features will be changed if any update accordingly.

