Multifunctional Digital video recorder
User Manual
ENG V5.0
Please read instructions thoroughly before operation and retail it for future reference.

Important Safeguards and Warnings

Do not place the heavy object on the DVR.

Do not let any solid or liquid fall into or infiltrate the DVR.

Please brush the printed circuit boards, connectors, fans, machine box and so on regularly. Before the dust cleaning please switch off the power supply and unplug it.

Do not disassemble or repair the DVR by yourself. Do not replace the electronic components by yourself.

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1. Production Introduction

1.1 Product overview

The series DVR is designed specially for security and defense field which is an outstanding digital surveillance product. It introduces embedded LINUX operating system which is more stable. It introduces standard H.264mp video compressed format and G.711A audio compressed format which insures the high quality image, low error coding ratio and single frame playing. It introduces TCP/IP network technology which achieves the strong network communication ability and telecommunication ability.

The series DVR can be used individually or online applied as a part of a safety surveillance network. With the professional network video surveillance software it achieves the strong network communication ability and telecommunication ability.

The series DVR can be applied in the bank, telecom, electric power system, judicial system, transportation, intelligent housing, factory, storehouse, water conservancy and so on.

1.2 Main functions

Real-time surveillance

·Analog interface VGA interface and HDMI interface .

·Surveillance functions through monitor or display.

. The phone wireless monitor function.

Storage

·Non-working hard disk dormancy processing which is convenient to radiate heat, reduce power and extend the life-span.

·Special storage format which insures the data safety.

Compression

·Real-time compression by individual hard disk which insures the audio and video signal stable synchronization.

Backup

·Through SATA interface and USB interface such as USB equipment, removable hard disk and so on.

·Through net download the files in the hard disk.

Playback

· Individual real-time video recording as well as searching, playback, network surveillance, recording check, downloading and so on.

·Multi-channel playback mode.

·**Z**oom at arbitrary region.

Net operating

·Through internet to real time surveillance, operate Settings menu, video download backup operation, etc.

·Remote control PTZ.

·**R**emote checks the recording and real-time playback.

Alarm linkage

·Only one channel relay alarm output which is convenient for the alarm linkage and light control at the spot. **(**Optional**).**

· protecting circuits at the alarm input and output interface which protects the main machine from damage.

Communication interface

·RS485 interface which fulfills the alarm input and PTZ control.
·Standard Ethernet network interface which fulfills the telecommuting function.
. IPC signal input function.
·With USB interface, 3G and WIFI wireless network connection
Intelligent features
·Mouse action function.
·Fast copy and paste operating for the same setting.
. Support cloud access technology, Make network monitoring more easily (Optional).
. DVR/HVR/NVR function 3-in-1 design, (optional function)A video signal input can receive multi-mode.
. Support analog signal, network HD signal.

2. Open-package check, Products understanding and cable connection

2.1 Open-package check

When you receive the DVR, please check first.

First, please check whether there is any visible damage to the package appearance.

Then, please open the machine crust and check the data wire in the front panel, power wire, the connection between the fan power and the main board.

Note: Please carefully check the bottom or back on the product type and consistency. Label affixed by the base plate or on the rear panel, Label, has a very important significance, please protect. When contact with our customer service, will need you to provide label type and serial number.

2.2 Understanding of the front panel

Front panel button operation function table (Note: This manual is a generic manual, Please prevail in kind).

No.	Button name	Mark	Function
1	Shift function button	SHIFT	Shift in the number button, character button and other function button during the user under input state
2	Direction button	∨ ∧	Remove the cursor
			Add or decrease number during the user edit state
			Change the setting in the menu
			Surveillance pictures, into the single channel or multi-channel image surveillance.
		< >	Remove the cursor when the main menu or sub menu is popped
			Remove the cursor during the playback mode
			Enter former or after channel surveillance during single surveillance image
	Main menu/Confirm button	ENTER	Confirm
			Enter main menu or next grade menu

3	Cancel button	**ESC**	Back to the above level menu or cancel operation in the operation menu
			Back to the real-time surveillance during the playback state
4	Play previous file button	I◀	Play previous video during the playback state
5	Play next file button	▶I	Play next video during the playback state
6	Slow play	▸	Play in the multi-low or regular speed video during the playback state
7	Fast play	▶▶	Play in the multi-fast or regular speed video during the playback state
8	Playback/pause button	II/◀	Playback the video or pause during the playback state
9	Play/pause button	▶/II	Play the video or pause during the playback state
10	Recording button	REC	Start/stop the video recording manually. With the direction button choose the channel in the recording control menu
11	Recording search button	SEARCH	Search recording files
12	PTZ control button	PTZ	Enter PTZ setting, PTZ control
13	USB interface	USB	Connect USB device. Eg: USB flash drive, mouse etc.
14	Power switch button	POWER	Power switch button
15	Menu Switch	FN	Switch back and forth to the main menu
16	Remote controller receiver	IR	Receiving remote control signal
17	HDD indicator light	HDD	HDD is during working state if lighted
18	HDD information button	INFO	Check HDD information, state
19	Alarm indicator light		Trigger alarm if lighted
20	Pause button	STOP	Stop playing recording file
21	Channel 1 button		Display channel 1 image
22	Channel 2 button		Display channel 2 image
23	Channel 3 button		Display channel 3 image
24	Channel 4 button		Display channel 4 image
25	All channels button		Display all channels
26	Single channel display button	/……	Single surveillance image preview according to referred number
27	Network connection indicator light	/LINK	Network connects normally if lighted
28	Backup button	BACKUP	Back up recording files
29	Power indicator light		Power is connected if lighted
30	Recording indicator light		DVR is recording if lighted

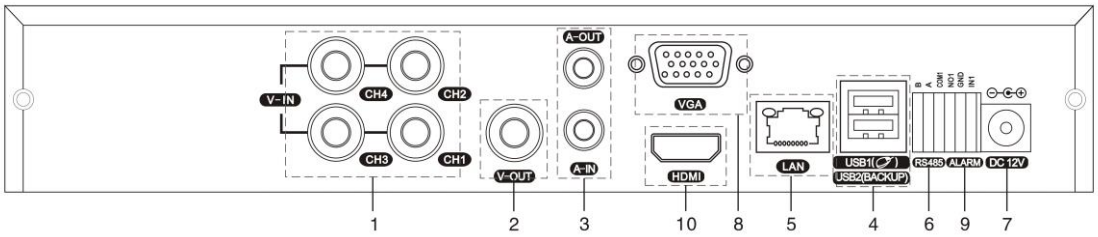
Table 2.1 Front panel button operation function table

2.3 Understanding of the rear panel

Note: Below are rear panels of some of our representative models. Pls take the real object as final, these are

Just for reference.

4CH DVR panel 1



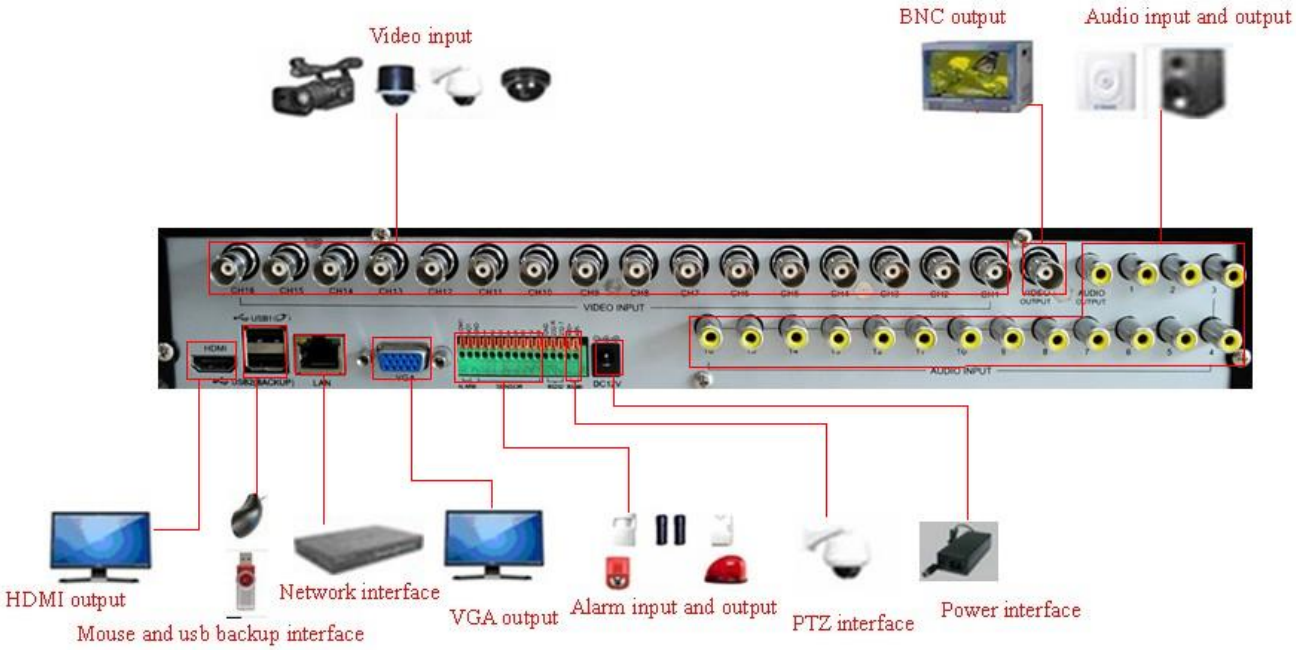
（1） Video input （2） Video output （3） Audio input/ audio output （4） USB interface

（5） Network interface （6） RS-485 interface video （7） Power jack （8） VGA output

（9） Alarm input/alarm output （10） HDMI interface

Note: Some models have front panel USB interface, this interface with the top of the rear panel USB port are mutually exclusive, only one interface is effective at the same time. USB at the bottom of rear panel is independent and effective.

2.4 Installation connections sketch map (16CH DVR as an example the following, please prevail in kind).



3. Basic operation

3.1 Login

When the DVR boots up, the user must login and the system provides the corresponding functions with the user right. There are 3 user settings: ***Admin, Guest*** and ***Default***. *Admin* default have no PW. ***Admin*** as super user. ***Guest and default are*** the common users at the factory presetting.

Picture 3.1 SYSTEM LOGIN

Password protection: If the password is continuous wrong three times, the alarm will start. If the password is continuous wrong five times, the account will be locked. (After reboot or half an hour, the account will be unlocked automatically).

For your system security, please modify the username & password after first login.

3.2 Preview

You can right click mouse to choose the switch between the windows.

The system date, time and channel name are shown in each viewing window. The surveillance video and the alarm status are shown in each window.

1		Recording status	**3**		Video loss
2		Motion detect	**4**		Camera lock

List 3.1 Preview icon

3.3 Desktop shortcut menu

In preview mode you can right click mouse to get a desktop shortcut menu, as picture 3.2. The menu includes: **Main Menu, Playback, Record Mode, PTZ control, High-speed PTZ, Color Setting, Output Adjust, Info, Logout, View 1, View 4, View 9, View 16 and Hide.**

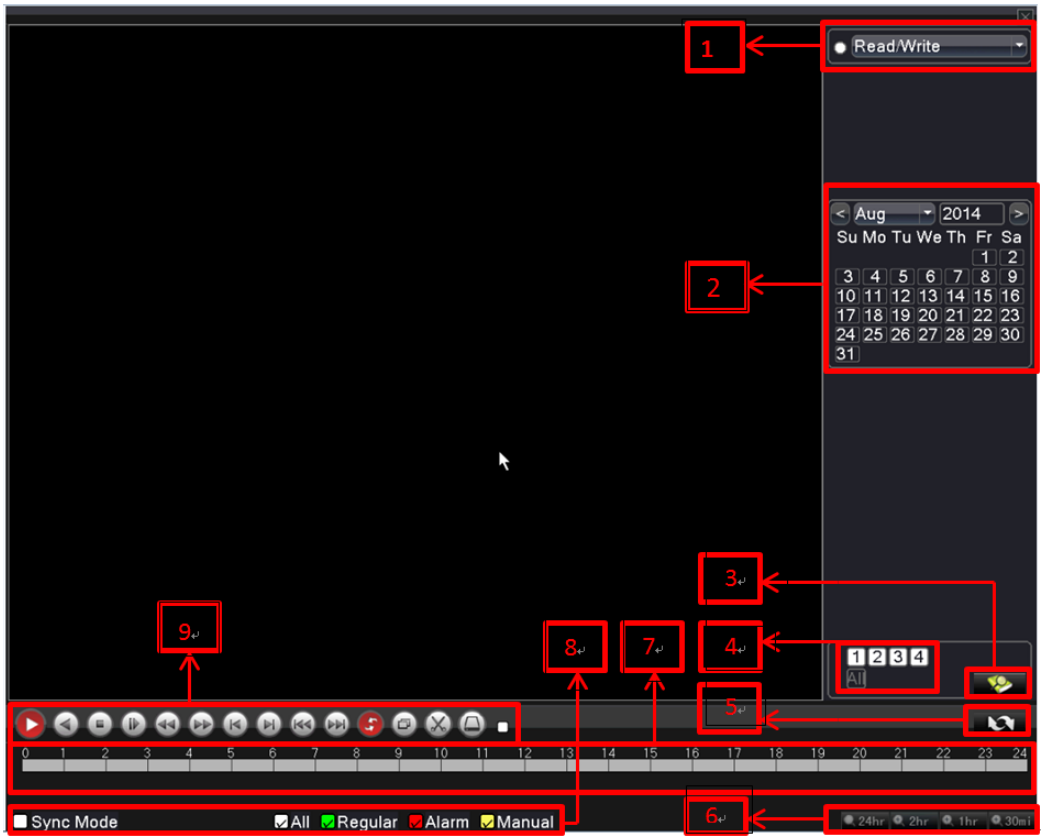
Picture 3.2 Desktop shortcut menu

3.3.1 Playback

Play the video files in the hard disk.

Select " desktop shortcut menu "→ "playback"→ "search"→"play" appear as shown in Figure 3.3; in the video file list select the file will appear "backup" button, the selected files to be backed up.

Note: The hard disk that saves the video files must be set as read-write or read-only state.



Picture 3.3 Playback

1. HDD switch 2. recording search calendar 3.recording search 4.playback channel selection 5. playback page switch 6. playback time selection 7. Playback time period, click progress bar then can playback 8. playback file type（the period with recording file is opposite status) 9. playback control keys recording file search calendar**:** Search recent recording file.

file information: Search recent recording file.

Synchronization Mode: to realize multi-channel playback synchronously.

【playback control】Refer to the following sheet for more information.

Button	Function	Button	Function
/	Play/Pause		Backward
	Stop/Close		Fast back play
	Full screen		Fast play
	Previous frame		Next frame
	Previous file		Next file
	Circulation		Cut (some models without)

Form 3.2 Playback control key list

Note: Frame by frame playback is only performed in the pause playback state.

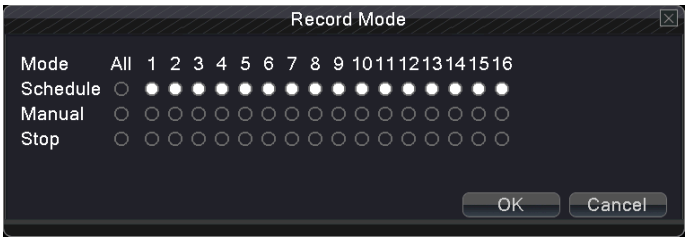
Operation hint: Display the function of the cursor place.

Special Functions:

Local zoom： When the system is in single-window full-screen playback mode, you can drag your mouse in the screen to select a section and then left click mouse to realize local zoom. You can right click mouse to exit.

3.3.2 Record Mode (take 16CH DVR for example)

Please check current channel status: “●” means it is in recording status.



Picture 3.4 record mode

Schedule: It records according to the set parameters in “main menu” and “record”→“record plan”.

Manual: Click the all button and the according channel is recording no matter the channel in any state.

Stop: Click the stop button and the according channel stops recording no matter the channel in any state.

3.3.3 PTZ Control

Operation interface is as followed. The functions include: PTZ direction control, step, zoom, focus, iris, and setup operation, patrol between spots, trail patrol, boundary scan, assistant switch, light switch, level rotation and so on.

Note: 1. Decoder 485+、485- line connects with DVR 485+、485− line. The connection is right.

2. Click “main menu”→“system”→“PTZ Config ” to set the PTZ parameters.

3. The PTZ functions are decided by the PTZ protocols.

Picture3.5 PTZ Control

Speed: Set the PTZ rotation range. Default range: 1 ~ 8.

Zoom: Click − / + button to adjust the zoom multiple of the camera.

Focus: Click − / + button to adjust the focus of the camera.

Iris: Click − / + button to adjust the iris of the camera.

Direction control: Control the PTZ rotation. 8 directions control is supportive. (4 directions in Front panel is supportive).

PTZ Trace: Full-screen show channel image. Left press mouse and control PTZ to rotate orientation. Left press mouse and then rotate the mouse to adjust the zoom multiple of the camera.

Set: Enter the function operation menu.

Page Switch: Switch between different windows.

3.3.4 High-Speed PTZ (some models without this function)

After choosing, it displays the chosen channel to full screen. Click left button of mouse, can control the PTZ to fast move and orientation. And can adjust camera's magnification factor by move mouse roller

3.3.5 Color Setting

Set the selective image parameters (current channel for single window display and cursor place for multi-window display). You can use the desktop shortcut menu and enter the interface. The image parameters include: tonality, brightness, contrast, saturation. You can set different parameters at different time sections.

Picture 3.6 Color Setting

3.3.6 Output Adjust

Adjust output area parameters (some models with this function only for CVBS output).

Picture 3.7 Output adjust

3.3.7 Version Info

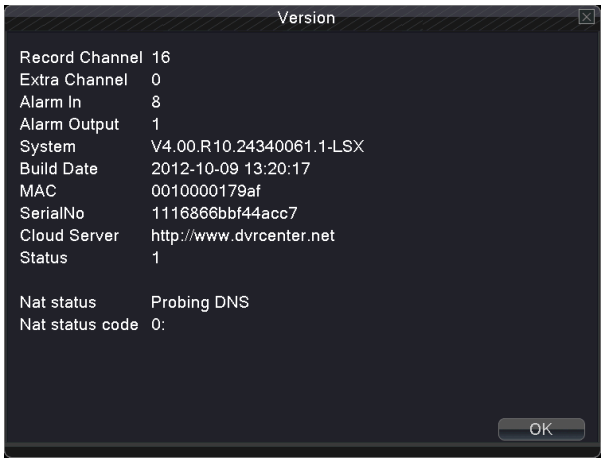
System Information menu items include: **Version, HDD Info, BPS, LOG, Online Users.**

3.3.7.1 Version

Display the basic information such as hardware information, software version, MAC,issue data and SerialNo and so on.

Note 1: The Serial No is needed when using cloud technology, please enter the Serial No correctly when using cloud technology to do remote control, or you can't login.

Note 2: MAC is the MAC address of the device, also is the device mark when login by device with ARSP service; please enter the MAC address correctly when using ARSP service to do remote control, or you can't login.



Picture 3.8 Edition information

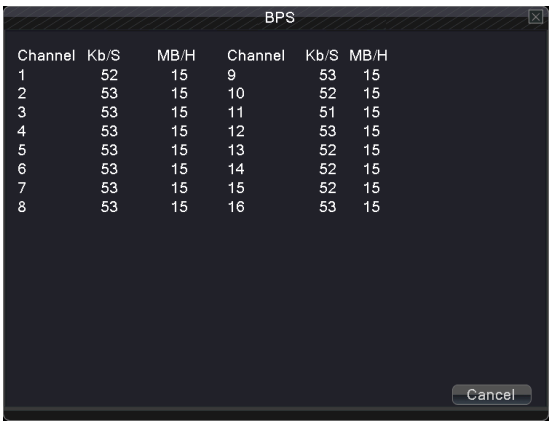
3.3.7.2 HDD Info

Display the hard disk state: hard disk type, overall capability, residual capability, the recording time and so on.

Picture 3.9 hard disk information

3.3.7.3 BPS

Display the code stream（Kb/S）and hard disk capability （MB/H）in real time.

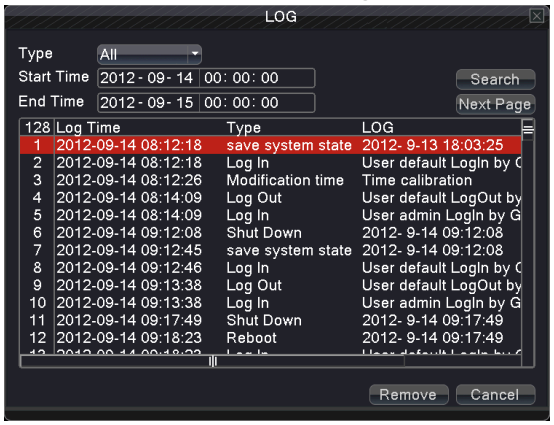


Picture 3.10 Code stream statistics

3.3.7.4 LOG

Look up system log according to the set mode.

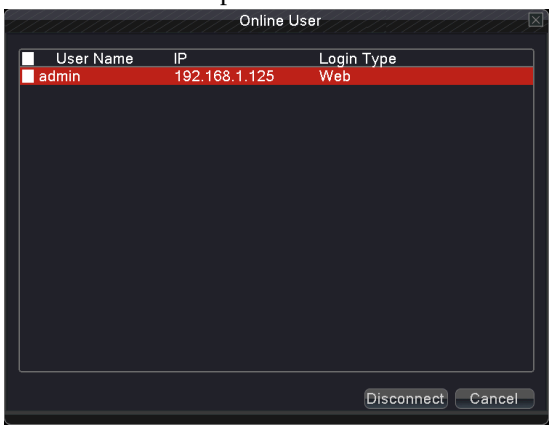
Log information include: system operation, configuration operation, data management, alarm affair, recording operation, user management, and file management and so on. Set the time section to look up and click the look up button. The log information will display as a list. (One page is 128 items) Press **Page up** or **Page down** button to look up and press **delete** button to clear all the log information.



Picture 3.11 log information

3.3.7.5 Online User

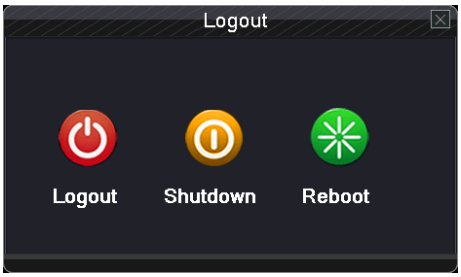
Look up the network user information in the local DVR. You can choose the network user and cut the connection. Then the user is locked until next boot-strap.



Picture 3.12 online user.

3.3.8 Logout

Logout, shutdown the system or reboot up.



Picture 3.13 shutdown

Logout: Quit the menu. Offer password next entrance.

Shutdown: Quit the system. Turn off the power supply.

When press the shut down button, there is schedule hint. After three seconds, the system is shut down. Cancel midway is of no effect.

Reboot: Quit the system. Reboot up the system..

4. Main Menu

When User login, right click mouse, the shortcut menu will appear at the bottom of the screen, then left click the first item to enter the main menu interface. As picture 4.1 shows.

Picture 4.1 Main menu

Note: Click "FN" on remote controller can shift different setting interface of main menu.

4.1 Quick setting

On the system of general information configuration.（Picture 4.1 Main menu）

Language: choose related operating language

Video standard: Set DVR's video system (PAL or NTSC are optional)

Resolution: Set output resolution

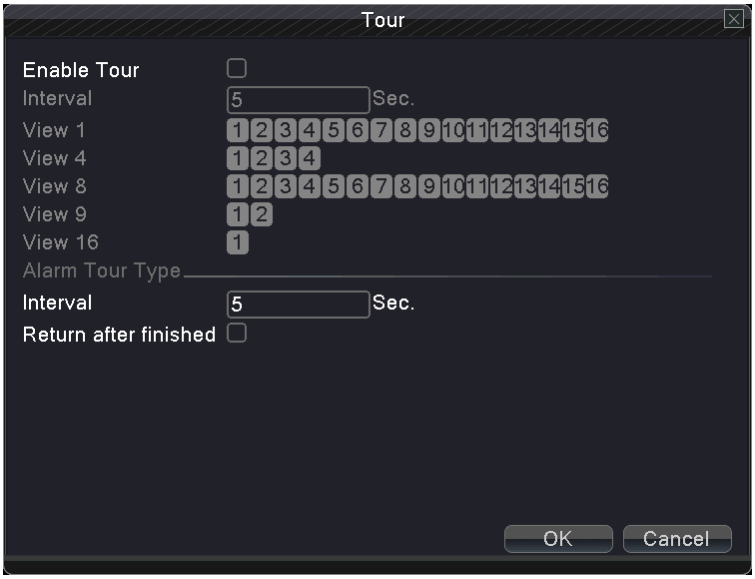
System time: Set DVR's current system date &time, time format

HDD full: Select Stop: the hard drive is full, stop recording.
Select overwrite: when the hard drive is full, overwrite the earliest recording files..

DVR No: using under the situation that one remote controller control many DVRs. Only click "ADD"on remote control and enter local number, the related DVR can respond.
Re: when "Local No "is "0",it will response the same series DVRS's operation

Transparency: Adjust the transparency or operating menu

Tour: set screen tour display, ☑ shows tour was opened. Single screen, four screens, eight screens, nine screens, sixteen screens etc. separate mode and mixed mode tour are optional.(as below 16ch picture)



Picture 4.2 Tour setting

4.2 Record

Set recording parameter (main stream) and network parameter (extra stream) of video and audio signal.

Set DVR's recording plan.

Note: There is at least one read-write hard disk.

Picture 4.3 Record config

Channel: Choose the corresponding channel number to set the channel. Choose the all option to set the entire channels.

Set: Recording parameter (main stream) and network parameters (extra stream) illustrate

Video/Audio: Set whether to record video and audio simultaneously.

Resolution: Set recording resolution. The Higher resolution, the better recording quality, occupies more HDD capacity. Conversely, the lower resolution, the worse recording quality, occupies less HDD capacity.

Frame Rate (FPS): set recording FPS; the higher recording FPS, the better fluency of recording images and occupies more HDD capacity. Conversely, the lower recording FPS, the worse fluency of recording images and occupies less HDD capacity.

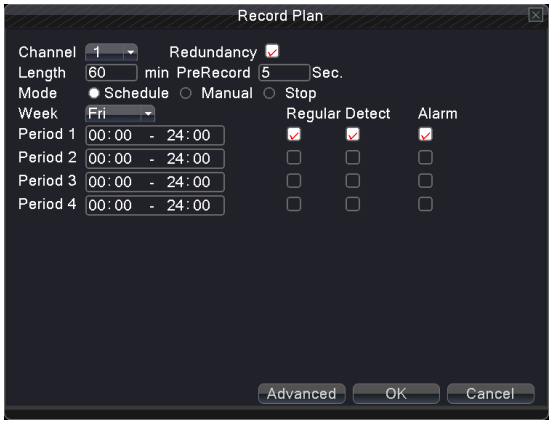
Bit Rate Type: Set whether recording stream changes automatically according to image changes

Adjust recording quality, six grades are optional

Quality: Adjust the video quality, six grades are optional

Bit Rate (Kb/S): set recording stream statics under fixed stream state; The Higher Stream statics, the better recording quality and occupies more HDD capacity. Conversely, the lower Stream statics, the worse recording stream statics quality and occupies less HDD capacity.

Recording plan: Set DVR's recording plan and trigger mode



Picture 4.4 Recording Plan

Channel: Choose the corresponding channel number to set the channel. Choose the all option to set the entire channels.

Redundancy: Choose the redundancy function option to implement the file double backup function. Double backup is writing the video files in two hard disks. When you do the double backup, make sure that there are two hard disks installed. One is read-write disk and the other is redundant disk.

Length: Set the time length of each video file. 60minutes is default value (A maximum of 120 minutes).

Pre Record: Record 1-30 seconds before the action. (Time length is decided by the code stream)

Mode: Set video state: Schedule, Manual and stop.

Schedule： Record according to the set video type (common, detection and alarm)and time section.

Manual: after choosing manual button, the related channel will carry common recording whatever state the current channel is.

Stop： Click the stop button and the according channel stops recording no matter the channel in any state.

Week: set (Monday to Sunday) or full week to record, it will just record in set days

Period: Set the time section of common recording, the recording will start only in the set range.

Recording type: Set recording type: regular, detection or alarm.

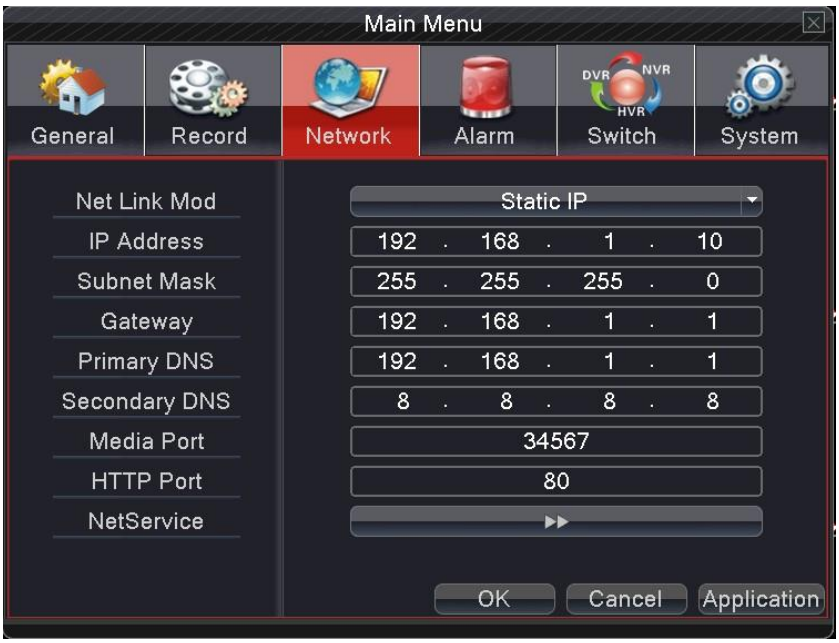
Regular： Perform the regular recording in the set time section. The video file type is "R".

Detect： Trigger the "motion detect", "camera mask" or "video loss" signal. When above alarm is set as opening recording, the "detection recording" state is on. The video file type is "M".

Alarm： Trigger the external alarm signal in the set time section. When above alarm is set as opening recording, the "detection recording" state is on. The video file type is "A".

Note: related alarm function setting, pls refer 4.4 alarm function to have detailed setting ways

4.3. Network



Picture 4.5 network setup

Net Link Mode: Set automatically gets or manually enters IP address

IP address: Set the IP address.

Subnet Mask: Set the subnet mask code.
Gateway: Set the default gateway.
Primary DNS: Set Preferred DNS
Secondary DNS: Set spare DNS
Media port: Set port for recording network transmission
HTTP port: Set http port for the Browser
Net Service: set all network service. Pls refer 4.3.1 network service to have detailed setting ways.

4.3.1 Network Service

Advanced network functions on the configuration, double-click the Net Service button to enter the Picture 4.6 interface, first select the Network Services entry and click the Settings button, or double-click the service parameter configuration items.

4.6 network service

【PPPoE setup】

4.7 PPPOE

Input the user name and password that ISP（Internet service provider）provides. After saving it reboot up your system. Then the DVR will build a network connection based on PPPoE. The IP address will change into dynamic IP address after above operation is well done.

Operation：After PPPoE dialing successfully look up the IP address in the IP address and obtain the current IP address. Then use this IP address to visit the DVR through user port.

【NTP setup】

Picture 4.8 NTP

Server IP：Enter the NTP server address..

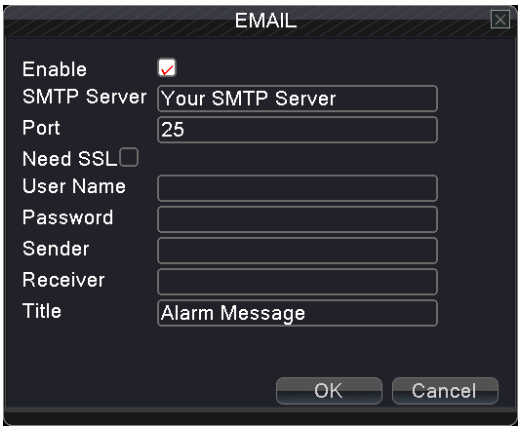
Port：Default: 123. You can set the port according to NTP server.

Time zone：London GMT+0 Berlin GMT +1 Cairo GMT +2 Moscow GMT +3 New Delhi GMT +5 Bangkok GMT +7 Hong Kong Beijing GMT +8 Tokyo GMT +9 Sydney GMT +10 Hawaii GMT-10 Alaska GMT-9 Pacific time GMT-8 American mountain time GMT-7 American mid time GMT-6 American eastern time GMT-5 Atlantic time GMT-4 Brazil GMT-3 Atlantic mid time GMT-2.

Update Period：The same with the NTP server check interval.

【EMAIL setup】

If the alarm is turned on or the alarm linkage photos are taken, send an email about the alarm information and the photos to appointed address.



4.9 Email

SMTP server：for example, SMTP server address of 126 email is: smtp.126.com.

Port：Email server port number.

SSL：Decide whether using (Secure Socket Layer) protocol to login.

User Name：Apply the email server user name.

Password：Input the password corresponding to the user.

Sender：Set the email sender address.

Receiver：Send the email to appointed receivers when the alarm is turned on. You can set three receivers at most, and each receiver separate by ";"(Semicolon + Space), receiver and sender can use the same email.

Title：The subject of the message, you can set your own.

【IP FILTER】

When choosing the white list, only the listed IP address can connect the DVR. If not in the list ,can not connect the DVR.

You can delete the set IP address by √ in the options.

Note：When the same IP address is in the white and black list at the same time, the black list precedence is higher.

Picture 4.10 IP purview

【DDNS】

Picture 4.11 DDNS

DDNS Type: choose DDNS supplier

Domain name：Input the domain name registered by DDNS.

User name：Input the account registered by DDNS.

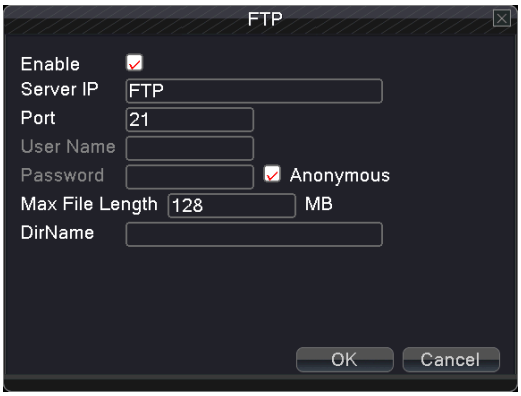
Password：Input the password registered by DDNS.

When the DDNS is successfully configured and start, you can connect the domain name in the IE address column to visit.

Note：**The DNS setup must be configured correctly in the network setup.**

【FTP】

FTP used when there get alarm, or alarm linkage to recording, snap pictures, you can specify the FTP server to upload video and capture specific images.



Picture 4.12 FTP

Enable: Select☑, enable the FTP function.

Server IP: FTP server's IP address

Port: FTP port, default port 21.

User name: Permission to log FTP user name.

Password: User's password.(Note:If for anonymous user can be select☑)

Max File Length: Upload files for each package the max length, default is 128M.

Dir Name: Upload file directory.

【ARSP】(Some model without this function)

After enable this function, when login ARSP server and choose "login by device", you just need to enter MAC to do remote network viewing. No need to apply domain name

Note 1: MAC can be got in "shortcut menu"-"info"- "version"

Note 2: after setting ARSP, also need to do relative port forward setting (it can be done in router, to realize by enabling DMZ function and directing to this device, or by setting port forward manually, also can enable router and UPNP function synchronously to realize port forward)

Picture 4.13 ARSP

Enable: select☑, enable the ARSP function.

Type: Default type is DNS

Server IP: set default server address

Port: device service default port: 15000.

User name: Enter the ARSP server registered user name.

Password: enter user's password.

Update Period: Synchronize with ARSP server time, default: 5minute.

【Wireless config】

Dial-up Internet access through 3G card to realize the client access device, the device configuration (**Note: only for some models**)

Picture 4.14 Wireless config

Enable: Select☑, enable the Wireless function.

Type: Dial type, the default EVDO .

Wireless AP: 3G access point, the default OK.

Dial Number: 3G dial-up number, the default OK

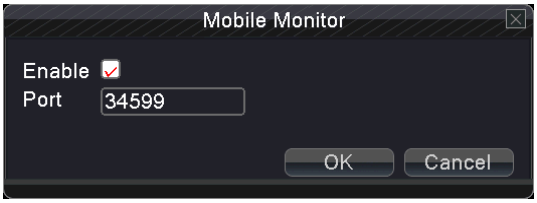
User Name: Dial-up of 3G User Name.

Password: Dial-up user's password.

IP Address: Dial-up IP address number obtained.

【Mobile monitor】

Accessing by mobile phone need to map the port on the Router. Monitoring and operating DVR with protocol.

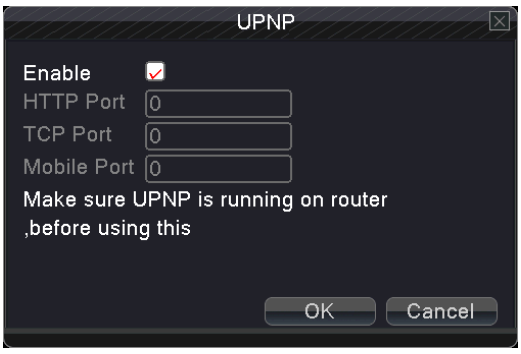


Picture 4.15 Mobile monitor

Enable: Select☑, enable the Mobile phone function.

【UPNP】

UPNP protocol will be automatic port forwarding on the Router, before use this feature, make sure UPNP feature is enabled on the router.



Picture 4.16 UPNP

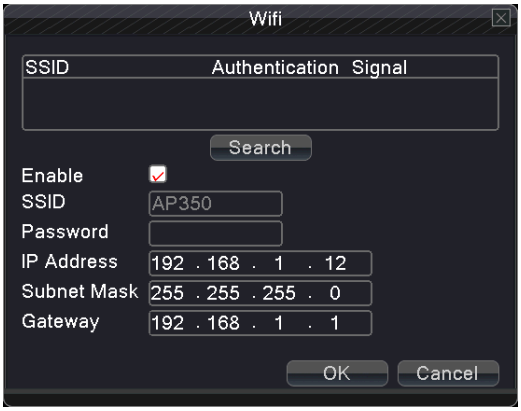
Enable: Select☑, enable the Mobile phone function.

HTTP Port: Need to add the port number while browsing by IE

TCP Port: While use the client software to monitor, required by the port number

【Wi-Fi】

Connect to wireless router by wireless module. View the device with IP under the condition that DVR has been connected to WIFI module.



Picture 4.17 Wi-Fi

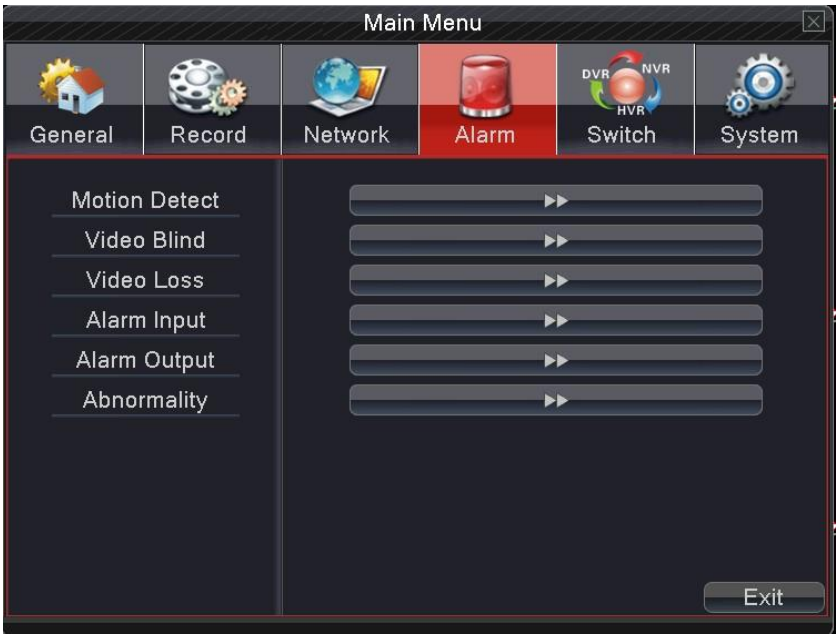
Search: Click “search” button to get available wireless network.

Enable: Select☑, enable the Wi-Fi function

SSID: name of wireless LAN automatically fit the connected wireless device
Password: wireless network password
IP address: Set the IP address.
Subnet mask: Set the subnet mask code.
Gateway: Set the default gateway.

4.4 Alarm

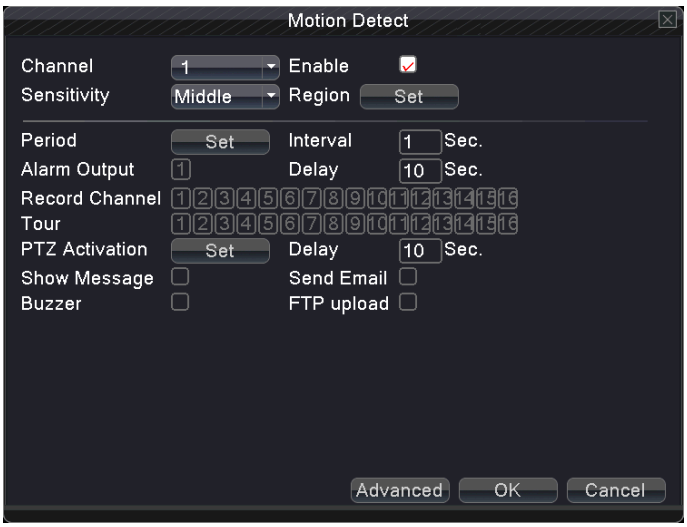
Alarm functions include: **Motion Detect, Video Blind, Video Loss, Alarm Input, Alarm Output and Abnormality.**



Picture 4.18 Alarm

4.4.1 Motion Detect

When system detects the motion signal that reaches the set sensitivity, the motion detect alarm is on and the linkage function is turned on.
Note: click advanced button can back to upper page, to display surveillance screen, copy, default, recording setup



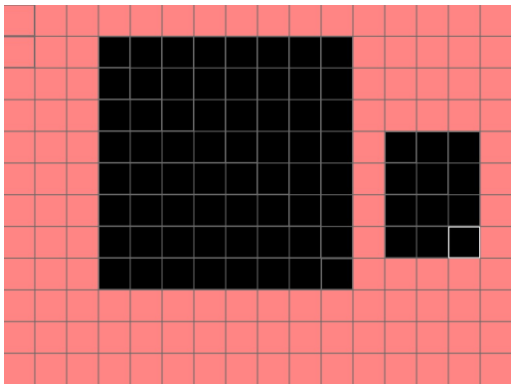
Picture 4.19 motion detect

Channel: Choose the set motion detect channel.

Enable: ☑ means that the motion detect function is on.

Sensitivity: Choose in the six options according to the sensitivity.

Region: Click setup and enter the set area. White block means the current cursor area location. Yellow block means the dynamic detect defensive area. Black block means the unfenced area. You can set the area as Picture 4.20 followed, Drag the mouse and draw the area.



Picture 4.20 set the area

Period: Trigger the motion detect signal in the set time section. You can set according to week or set uniformly. Each day is divided into four time sections. ☑ means the set is valid.

Interval: Only one alarm signal is turned on even there are several motion detect signals in the set interval.

Alarm output: Start the external equipment of corresponding linkage alarm when the motion detect alarm is turned on.

Delay: Delay a few moments and stop when the alarm state is turned off. The range is 10~300 seconds.

Record channel: Choose the recording channel (multiple option supportive). Trigger the video signal when the alarm is turned on.

Note：Set in the "main menu" →"record" →"record plan" and perform the linkage recording. And set "desktop shortcut menu" →"record mode" to be configured, motion detect linkage recording can work

Tour: choose the recording channel (multiple option supportive), which will tour preview with single screen when have alarm signal

【PTZ Activation】Set the PTZ linkage when the alarm is turned on. As Picture 4.22

Note: using PTZ linkage, need to set preset, cruise between points and scan etc. parameters in "desktop shortcut menu" →"PTZ control"→"setting".

Picture 4.22 PTZ activation

Delay: After alarm stop, the extended period of time to stop alarm recording, the range is 10~300 seconds.

Show Message: Select☑,means Pop the alarm information dialog box in the local host computer screen.

Send Email: ☑ means sending an email to user when the alarm is turned on.

Note: if sending email, need to do relative setting in "main menu" → "network setting" → "network service"

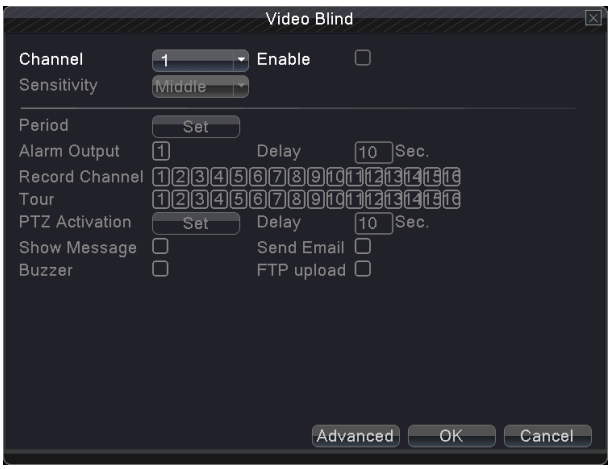
Buzzer: Select☑,means when Alarm occurs, the equipment issue "Didi" the sounds of two long ring.

FTP upload: Select☑,means Alarm occurred while sending alarm events to the FTP server.

Note: if FTP sending, need to do relative setting in "main menu" → "network" → "net service"

4.4.2 Video Blind(some model without this function)

When the video image is influenced by outer environment or bad brightness and reaches the set sensitive parameter, the video blind function is turned on and the linkage function is turned on.

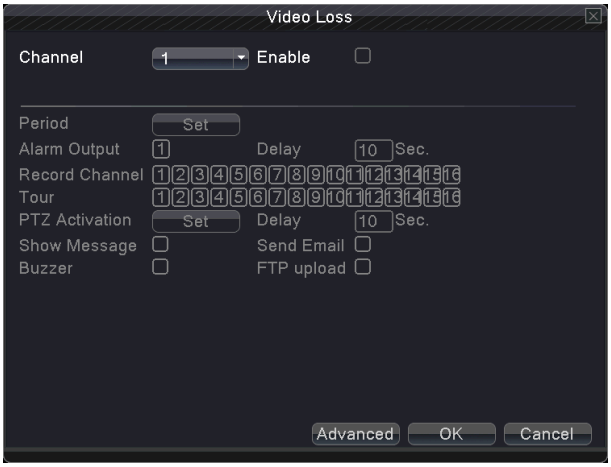


Picture 4.23 Video Blind

Set method: refer to Chapter 4.4.1. Motion Detect.

4.4.3 Video Loss

When the equipment can not obtain the channel video signal, the video loss alarm is turned on and the linkage function is turned on.

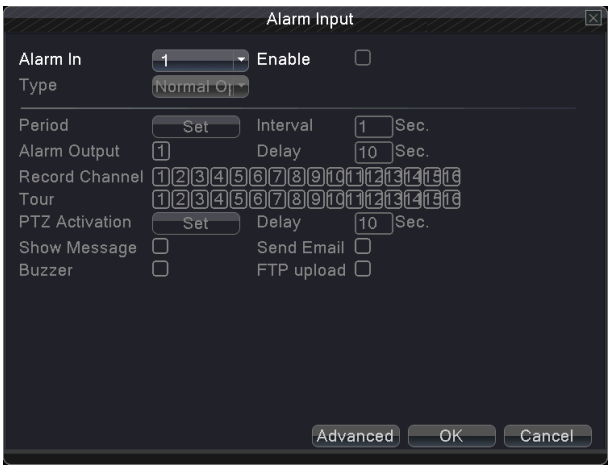


Picture 4.24 video loss

Set method: refer to Chapter 4.4.1. Motion Detect

4.4.4 Alarm input

When the equipment obtains the external alarm signal, the alarm function is turned on.

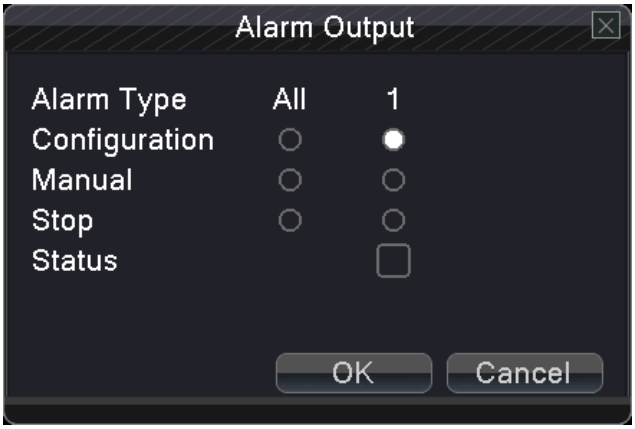


Picture 4.25 alarm input

Set method: refer to Chapter 4.4.1. Motion Detect

4.4.5 Alarm output

Control alarm output state of all channels



Picture 4.26 alarm output

Configuration: Alarm is on according to the configuration.

All: Click the all button and the according channel is alarming no matter the channel in any state.

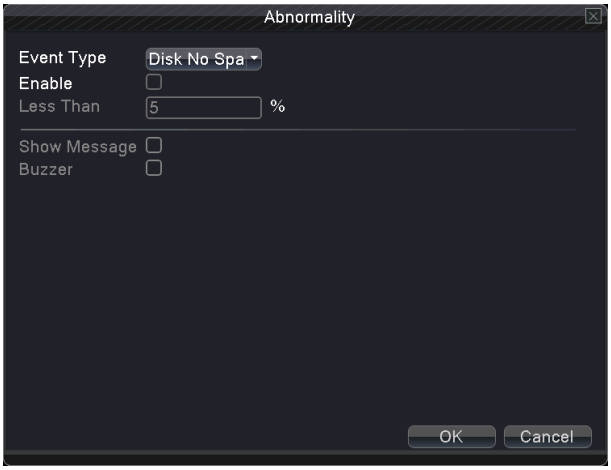
Manual: whatever state it is, the relative channel output alarm signal after choosing manual button

Stop: Click the stop button and the according channel stops alarming no matter the channel in any state.

Status: ☑ means this channel has alarm output, otherwise without.

4.4.6 Abnormality

It will buzz and appear screen prompts once no disk, HDD wrong, no disk space, network cut, IP conflict etc. happens, which is convenient for customers to know DVR abnormality.



Picture 4.27 Abnormality

Event Type： Choose abnormality type, support five matters

Enable: Select☑, enable these three settings

Less than: this item can be set only when matter type choose no disk space, set percent (1-99). When HDD space reach this setting limitation, DVR will have cue as following two ways:

Show Message： Show message: pop up message frame on DVR screen

Buzzer: DVR will buzz when alarm occurs

4.5 Switch（Some model without this function）

This combines the functions of DVR/HVR/NVR together, can receive multi-type signal input

Support:

1. Support pure analog input (DVR type)

2. support analog + network HD video input(HVR type)

3. Support pure network HD video input (NVR type)

Customers can switch DVR/HVE/NVR type according to their demands

Warning

1：Don't switch the channel mode if not necessary , once changed , the original related date maybe lost even cause the machine to normal use

2: Pls don't operate this function if non-professional

Channel Type

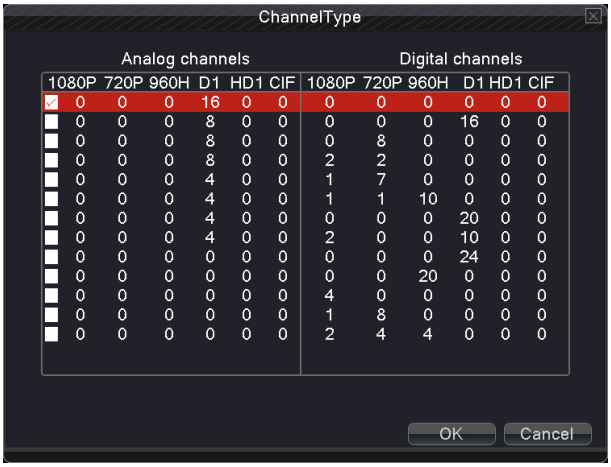
Switch among DVR/HVR/NVR type(the following NVR mode for example)

Operating process as below:

1. Choose "main menu" →"switch", show as picture 4.28

Picture 4.28 Switch

2. In channel type list, there are many channel type combination ways available (as picture 4.29)；In analogue channels, the numbers under resolutions means the maximum analogue channels which can be connected under that resolution. In digital channels, the numbers under resolutions means the maximum IP camera or other network device channels which can be connected under that resolution. Customers can choose any of the combination according to their demands. Click “OK” to finish DVR/HVR/NVR type shift (needs restart when shifting)



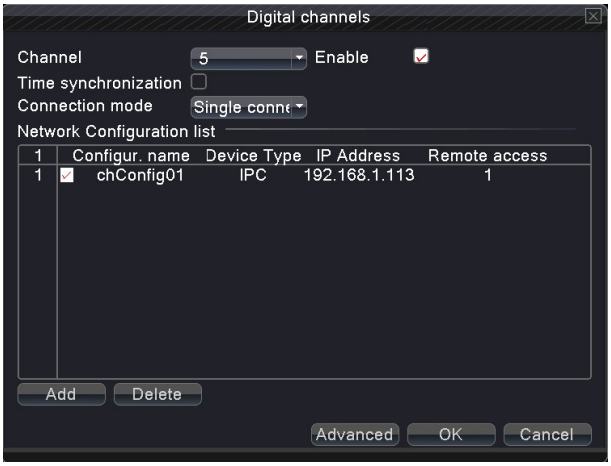
Picture 4.29 Channel Type

2. After DVR restart, “switch” menu as picture 4.30.

Picture 4.30 Switch

【Digital channels】(Some models without this function)

Used to bind signals of the channels which video input type is digital network HD signal (signal can be IPC, DVR, NVR etc.).



Picture 4.31 Digital Channel

Channel: choose the channel number which needs to be bind

Enable: select☑, enable this function

Time synchronization: set local device time to be synchronized with bind device

Connection mode:

Single connection: only can bind one network device to display that channel

Multi- connections: can bind many network devices to tour display the channel.

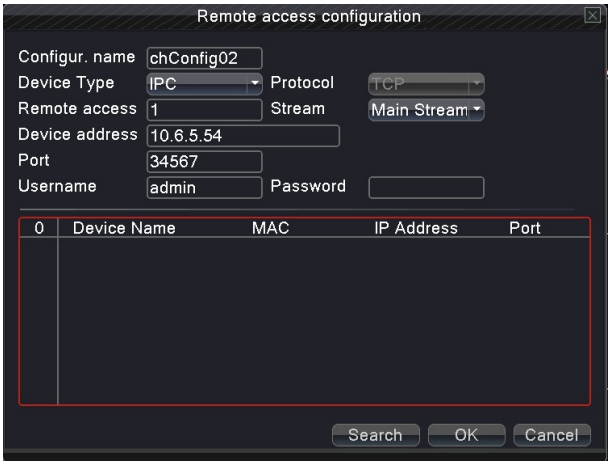
After choosing connection, you also can set interval between tours of different network device.

Network configuration list: shows that have added all network device name, type, IP address, remote channel information to that channel.

Note: Network device be chosen in ☑ network configuration list, ， which stand for device was bind with this channel; conversely, it means unbinding (it needs to bind many network device under multi-connection type.)

Add: add new network device for this channel (show as picture 4.32)

Delete: delete network device which is unnecessary to be bind



Picture 4.32 remote access configuration

【remote access configuration】

To configure remote network device name, device type, channel, address, port, user name and password.

Configuration name: set network device name.

Device type: set network device type.

Remote access channel: when device type is DVR or NVR, you need to set specific DVR or NVR

channel number which signal get. When device type is IPC, default “1”.

Stream: set main stream or sub stream to connect the network device.

Device address: set IP address of the network device.

Port: set port number of the network device.

User name: set user name to log in the network device.

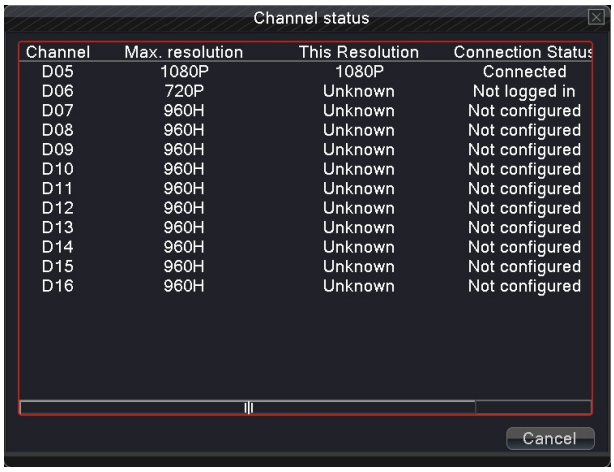
Password: set password of network device.

Search: system automatically search available network device in LAN (which is convenient to add new network device).

Note: when binding signal to all digital channels, need to make sure resolution of the bind network device is lower than the maximum resolution of the digital channel, or the images can’t be displayed.。

【Channel status】

Show the maximum resolution of all digital channels, connected signal resolution and connection status. See picture 4.33



Picture 4.33 channel status

4.6 System management

Set the system parameters such as **HDD Manage、PTZ Config、GUI Display、Backup、Account、Device Info、Restore、Auto Maintain、Upgrade and Import/Export..**

Picture 4.34 System

4.6.1 HDD Management

Configure and manage the hard disk.

The menu displays current hard disk information: hard disk number, input port, type, status and overall capability.

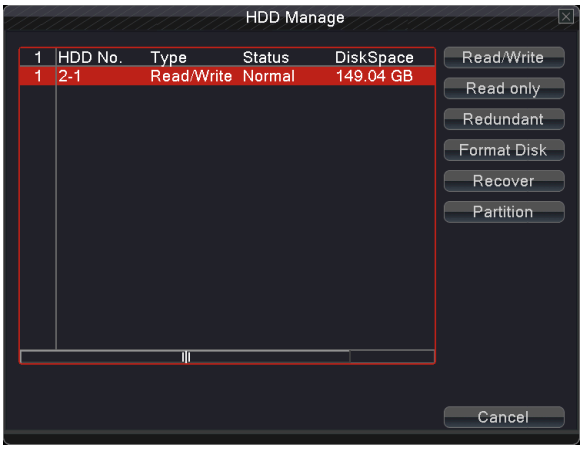
The HDD operation include: setup the write-read disk, read-only disk, redundant disk, hard disk format, resume default. Choose the hard disk and click the right function button to execute.

Read/Write: The equipment can read data and write data.

Read only: The equipment can read data but can not write data.

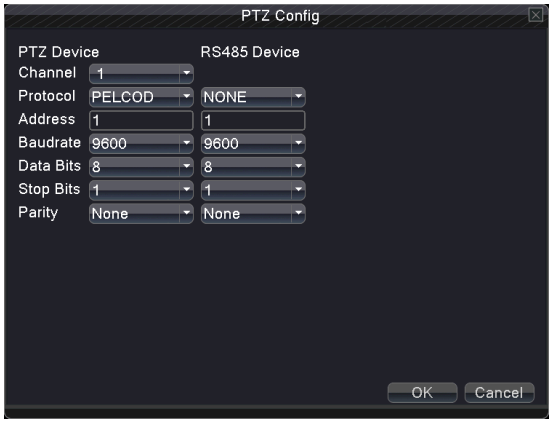
Redundant: Double backup the video files in the write-read disk.

Format Disk: All statics lose after format disk



Picture 4.35 HDD Management

4.6.2 PTZ Config



Picture 4.36 PTZ Config

Channel: Choose the dome camera input channel.

Protocol: Choose the corresponding dome protocol. (PELCOD as an example).

Address: Set as the corresponding dome address. Default: 1.

Baud rate: Choose the corresponding dome baud rate length. You can control the PTZ and camera. Default: 9600.

Date bit: Include 5-8 options. Default: 8.

Stop bit: Include 2 options. Default: 1.

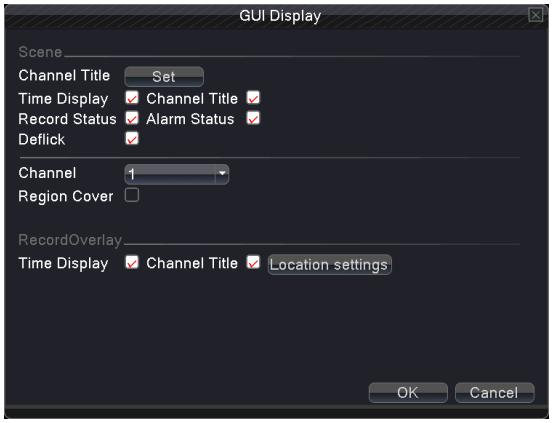
Check: Include odd check, even check, sign check, blank check. Default: void.

Note: parameters of protocol, address, baud rate should be consistent with relative PTZ or dome. Or PTZ and dome can be controlled..

4.6.3 GUI Display

Video output configuration .GUI display includes scene and record overly.

【**Scene**】the information in local preview: including channel name, time title, channel title, recording status, alarm status, deflick, and channel region cover.



Picture 4.37 GUI display

Channel name: Click the channel name modify button and enter the channel name menu. Modify the channel name. The 16 Chinese characters and 25 letters are supportive.

Time title: ☑ means the selective state. Display the system data and time in the surveillance window

Channel title: ☑ means the selective state. Display the system channel number in the surveillance window.

Recording status: ☑ means the selective state. Display the system recording status in the surveillance window.

Alarm status: ☑ means the selective state. Display the system alarm status in the surveillance window.

Deflick: ☑ means the selective state. Enable it to keep surveillance window anti-jitters.

Channel: select the channel number which needs to have region cover.

【region cover】(This function is moved to "recording setting" of main menu for some models.)

Region cover: select☑, enable this function. Click region button, enter relative channel, user can choose the size of region cover, each channel can maximum set 2 regions (the video output is black of the covered region).

【record overlay】(This function is moved to "recording setting" of main menu for some models.)

Time tile: select☑, enable this function. Show time and date on screen overlay.

Channel title: select☑, enable this function, show channel title on screen overlay.

Position setting: adjust position of time title and channel title of screen.

4.6.4 Backup

You can backup the video files to external storage through setup.

Note：The storage must be installed before the file backup. If the backup is terminated, the already copy files can be playback individually. If the backup is stop midway, the already copy files also can be playback individually.

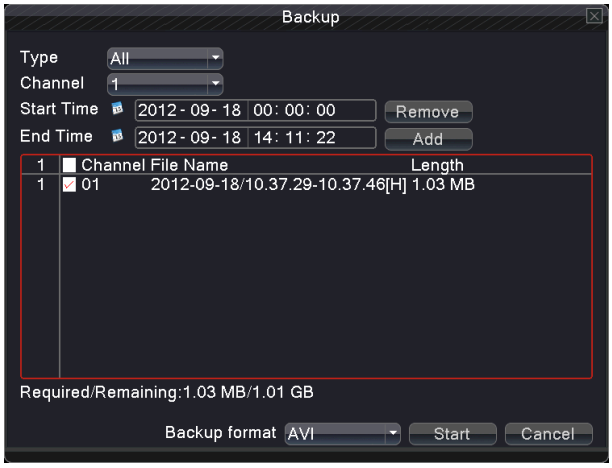
Picture 4.38 Storage device detect

Detect: Detect the storage connected with the DVR such as hard disk or universal disk.

Backup: Click "backup" button and the dialog box is popped up as picture 4.38. You can choose the backup file according to the type, channel and time.

Erase: Choose the file to delete and click erasure to delete the file.

Stop: Stop the backup.



Picture 4.39 Backup

Remove： Clear the file information.

Add： Show the file information satisfying the set file attributes.

Start/pause： Click the play button to start the backup and click the pause button to stop the backup.

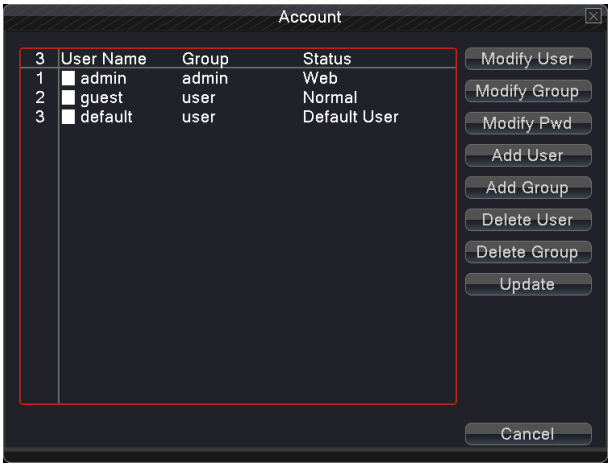
Backup format: h.264 and AVI are optional

4.6.5 User management

Manage the user purview。

Note ： 1. **There is no limit in the user and user team. You can add or delete the user team according to user definition. The factory setup include: user\admin. You can set the team as you wish. The user can appoint the purview in the team.**

2. **The user management include: team/ user. The team and the user name can not be the same. Each user only belongs to one team.**



Picture 4.40 user management

Modify user: Modify the existed user attribute.

Modify team: Modify the existed team attribute.

Modify password: Modify the user password.

Note：The user who possess the user control purview can modify his/her own or other user password

Picture 4.41 modify password

Add user: Add a user in the team and set the user purview. Enter the menu interface and input the user name and password. Choose the team and choose whether cover using the user. Cover using means that the account can be used by multiple users at the same time.

Once choose the team the user purview is the subclass of the team.

We recommend that the common user's purview is lower than the advanced user.

Picture 4.42 add user

Add Group: Add a user Group and set the purview. In picture 4.43 .shut down the equipment, real time surveillance, playback, recording setup, video file backup and so on.

Picture 4.43add group

Delete user: Delete the current user. Choose the user which need to delete.(The default user cannot delete).（Like Admin、User、Default）。

Delete Group: Delete the current team (there is no need to ensure that the team users). In Picture 4.40， click the delete team button in Picture 4.44， select the need to remove the team, click the delete button. Choose the team and click delete team button.

Pictures 4.44 delete Group

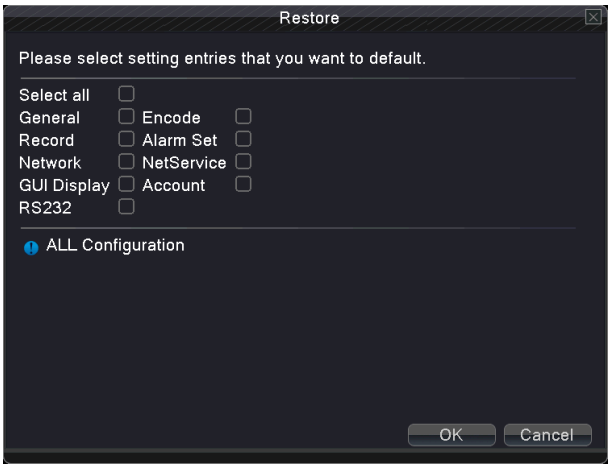
4.6.6 Device Info

Provide information of device port.。

Picture 4.45 Device Information

4.6.7 Restore

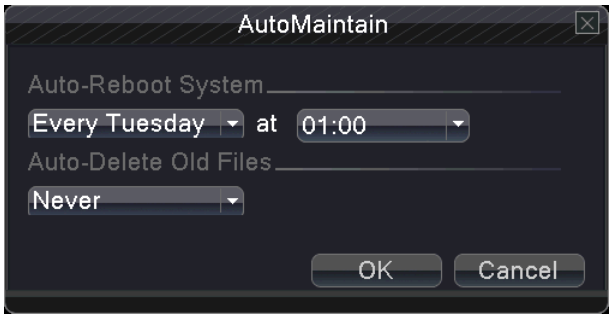
The system resume to the default setup（Able to restore the selected options）



Picture 4.46 resume default

4.6.8 Auto Maintain

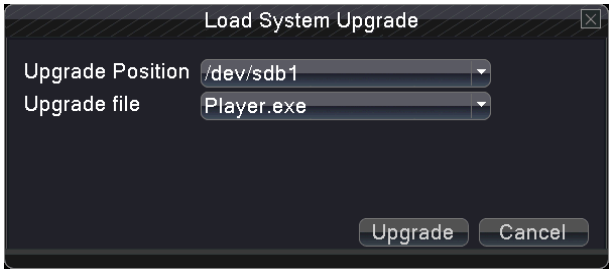
Users can set the device to automatically reboot the system and automatically delete the file set time period.



Picture 4.47 Auto Maintain

4.6.9 Upgrade

To upgrade the equipment software system



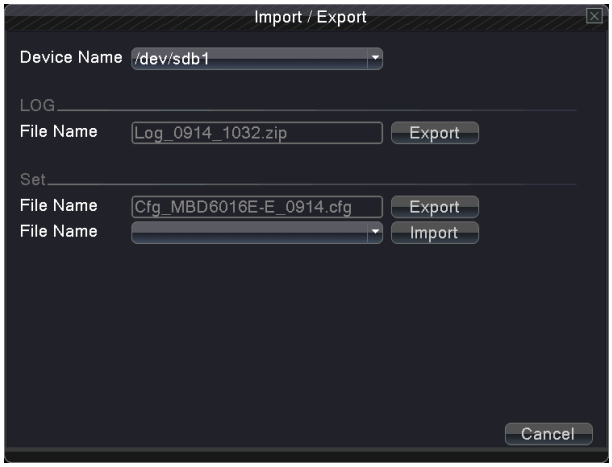
Picture 4.48 upgrade

Where to upgrade： Choose USB interface

Upgrade file: choose the file which need upgraded

4.6.10 Import/Export (Some models are without this function)

Import /export log information and system setting parameter



Picture 4.49 Import/Export

Device name: choose USB interface

File name: choose the importing file

5. Network access settings and cloud technology introduced

5.1 LAN access settings

1、Network connection

1. Before the WEB operation, need to connect this device with the network..

2. Enter DVR "main menu" →"network" to set correct IP address, subnet mask and DNS and gateway or set to obtain IP address automatically by the DHCP. Port keeps factory default. (The IP segment of the device should be the same with PC computer, if disconnected, pls check device IP was connected successfully.)

2、Login

Step 1: after connecting successfully, then you can login to view.

Open a web browser; enter the IP address of the login device in the address bar. As the device with IP address 192.168.1.10, HTTP port 80 for example, then enter: http://192.168.1.10 in the address bar and connections. If HTTP port is not 80, such as 81, then need to add port when viewing, as: http://192.168.1.10:81

Note: If the PC connects the device at first time, when open system, the security warning will pop up whether to accept the WEB control web. cab, please choose to accept the user, the system will automatically identify the installation. (If the system is prohibited to download, please confirm whether you have closed other prohibited controls to download software and reduce the IE security level, permit unsigned plug-in to operate. Connection as shown below will pop up after the success of the interface.

Step 2: Login. Enter the user name and password, the company factory default administrator user name admin, password is blank.

5.2 Cloud technology functions and using introduction

Cloud technology is the latest network remote access technology; with cloud technology, without any complex network settings to achieve remote access easily.

Note: Some of the devices don't have this function, pls prevail in kind.

一、Main features of cloud technology

One step to realize DVR Internet, operating easily and conveniently. No need to have professional network knowledge, DDNS and port mapping; instantly connect just use and review.

二、WAN remote access & Cloud technology use

1. Open a web browser, enter cloud access address(The method of looking at cloud server address: Boot and select "desktop shortcut menu" →"System information " →"Version information "→"Cloud server"）.

There are two ways to remote control the device with cloud technology:

2.By Serial number ： Device: enter Serial No of DVR can realize remote access (way to get Serial No: start up and choose "desktop shortcut menu" →"info" →"version")

3. By user: need to register a user name, and then enter the user name and password to login; need to add the device after login , when finish adding device ,Click on the current equipment for preview, playback, configuration and operation

According to the user access, multi device can be added and remote access at the same time

5.3 Client CMS software operation

CMS is a powerful center control software. It is distributed architecture combining with the functions of multi window, multi user, multi languages, voice intercom and alarm center all in one. With friendly interface and simple operation, it's convenient to permission settings.

Please take out the CD-ROM in the accessories, copy the CMS install software in the CD-ROM After installation on the local PC, double click the "CMS", open the control interface appears in Picture 5.3, default without password, the client can set the login password **(Note: The password for the CMS client password, non-DVR login password)**.

Details please refer to the 《CMS operation manual》in the CD or CMS software help information

5.4 Mobile Phone Monitoring

This device supports the user to use the phone for remote video surveillance operation. Use extra stream technology to do mobile phone monitoring. Support channel switching and multi-channel monitoring simultaneously. Convenient and simple to use, preview once network connected.

There are two ways to download the mobile phone monitor software:

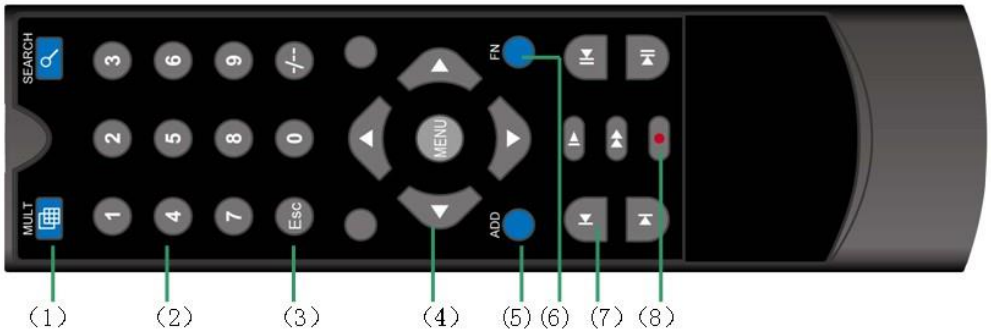
1. Accessories package CD: English/Tool/mobile phone monitor. Find corresponding mobile app package for installation .
2. Download mobile app through scanning the QR code. Find the QR code from the device and scan the corresponding QR code to download and install the mobile app.

For more details please refer to cell phone monitoring software help information..

Device can only be visited by mobile phone after the mobile phone connect with the wireless router if the device are on LAN.

Note: Device can also be visited via cloud technology by mobile phone APP.

Appendix 1. Remote controller operation



Serial number	Name	Function
1	Multi-window button	Enter into multi-window preview interface
2	Numeric button	Code input/number input/channel switch
3	【Esc】	Return to previous page
4	Direction button	Direction and confirm button
5	ADD	Input the number of DVR to control it
6	FN Assistant button	Switch different setting pages of main menu/Enter the corresponding secondary function of the main menu
7	Playback control button	Basic operation in playback
8	Record control button	Enter into video record control menu

Appendix 2. Mouse operation

***Take right hand as an example**

The mouse in USB connection is supportive.

Operation	Function
Double left click	Double click one item in the file list to playback the video Double click the playback video to zoom in or out the screen
	Double click the channel to make it full screen display in preview state double click again to resume the multi-window display
Left click	select the corresponding function under the menu page

Right click	Pop-up desktop shortcut menu in preview state
	Current shortcut menu in the menu
Press middle button	Add or subtract number in the number setting
	Switch the items in the combo box
	Page up or down in the list
Move mouse	Choose the widget or move the item in the widget
Drag mouse	Set the motion detect area
	Set the cover area