

## **Digital Video Recorder (AHD DVR/HVR)**

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# **User Manual**

For H.264 4ch/ 8ch/16ch/32ch AHD DVR/HVR  
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Version 16.8

## Caution

To prevent damage to your product or injury to yourself or to others, read the following safety precautions in their entirety before installing or using this equipment. Keep these safety instructions where all those who use the product will read them.



- Never insert anything metallic into the DVR. Insert anything into the DVR or its case can be a source of dangerous electric shock.
- Do not operate in dusty areas. Avoid placing the DVR in places that are dusty.
- Do not expose this product to rain or use near water. If this product accidentally gets wet, unplug it and contact an authorized dealer immediately.
- Keep product surfaces clean and dry. To clean the outside case of the DVR, gently wipe using a lightly dampened cloth (only use water, do not use solvents).
- Do not attempt to remove the DVR cover. If there are any unusual sounds or smells coming from the DVR, unplug it immediately and contact an authorized dealer or service center. Warning: Do NOT remove the DVR cover as it may result in severe electrical shock.
- Handle DVR box carefully. If you accidentally drop your DVR on any hard surface, it may cause a malfunction. If the DVR doesn't work properly due to physical damage, contact an authorized dealer for repair or exchange.
- Use standard lithium cell battery (pre-installed). The standard lithium cell 3v battery, located on the motherboard, should be replaced if the time clock resets during a power outage. Warning! Unplug the DVR before replacing the battery or it may result in severe electrical shock. Properly dispose of old batteries.
- Make sure there is proper air circulation around the unit. This DVR system uses a hard drive for video storage which generates heat during operation. Do not block air holes located on the bottom, top, sides and back of the DVR as they are designed to keep the system cool while running. Install or place this product in an area where there is ample air circulation.
- To protect the main chipset from thunder damage, please make sure the ground wire is correctly connected before using DVR.
- Handle with care; avoid the collision or strong fall.

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## Chapter 1- Introduction

### 1.1 DVR/AHD DVR Introduction

#### DVR Introduction

This DVR (Digital Video Recorder) is designed especially for CCTV system. It adopts high performance video processing chips and embedded Linux system. Meanwhile, it utilizes many most advanced technologies, such as standard H.264 with low bit rate, Dual stream, SATA interface, VGA output mouse supported, IE browser supported with full remote control, mobile view(by phones), etc., which ensure its powerful functions and high stability. Due to these distinctive characteristics, it is widely used in banks, telecommunication, transportation, factories, warehouse, and irrigation and so on.

#### AHD DVR Introduction

##### What is AHD?

AHD is a newly developed solution for transmitting full HD digital video in a surveillance system. The core concept of AHD is to deliver high definition video using digital TV (DTV) transmission. With AHD, high definition digital video can be transmitted easily over coaxial cables.

AHD DVR is Analog High Definition DVR; this DVR is compatible with traditional analog cameras system, And AHD (analog high definition) Cameras.

### 1.2 Main Features

Function	Description
<b>Compression Format</b>	H.264 High profile compression with low bit rate and better image quality
<b>Live Surveillance</b>	Support monitor, VGA and HDMI output Display the local record state and basic information
<b>Video Function</b>	Video quality, record resolution, video frame rate adjustable. Support different record modes: Record when power on, Manual, Schedule, Motion Detection, Alarm, Timing etc.
<b>Video Storage</b>	Support large capacity hard disk with SATA interface
<b>Playback</b>	Set recording search, recording play , video file storage Multi-mode playback mode
<b>Backup</b>	Support Backup from DVR to USB, removable hard disk, DVD writer; and backup from network to hard disk
<b>Alarm</b>	Alarm activate video record, tour, message, buzzer, email, ftp function Support external alarm signal input
<b>Network</b>	Support cloud access (www.dvrcenter.net),mobile view, Multi-kinds of browser remote view

<b>Mouse Operation</b>	Support USB mouse operation
<b>PTZ configuration</b>	Support RS485 decoder to control PTZ function Support various PTZ protocols, remote PTZ control through internet Support PTZ auto cruise tracks

Chart 1-1

### Feature:

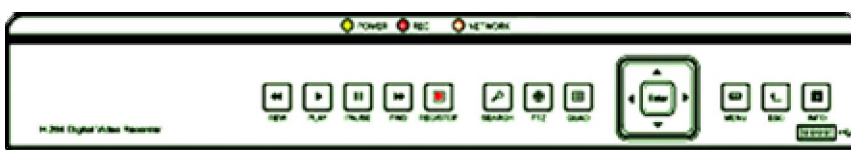
- H.264 High profile Video compression format
- G.711 Audio compression format
- Windows Style GUI, embedded real-time Linux operating system
- Combines the function of AHD DVR/NVR/HVR together.(not all models support this function, depending on actual machine)
- Full real-time Multi-operation(preview, record, playback, backup, network surveillance, mobile monitor)
- Support Dual stream network transmission(Main stream for local storage, sub-stream for network transmission)
- Support Cloud service, P2P function, easy to do remote control
- Support 3G & Wi-Fi extension
- Support Mobile phone view (Android\ iPhone\ iPad)
- HDMI and VGA output at 1920×1080P resolution
- Support Multi-browser, including Windows IE\Firefox\Chrome\Safari
- USB 2.0 interface support backup, CD/DVD writer, software upgrade, mouse operation
- Support multi-kinds of language menu
- CMS Software Supported

## 1.3 Front Panel instructions

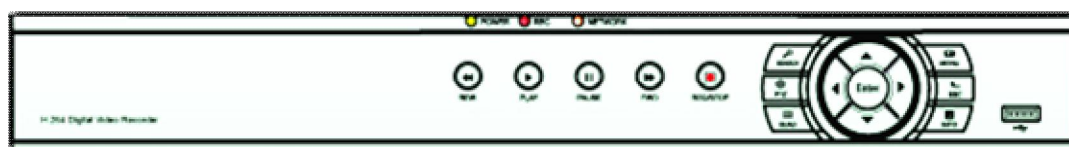


**Notice:** The pictures are only for reference; please take the real machine as standard.

### 4-8-16 channel



## 8-16 channel



### 1.3.1 Front panel button operation function list.







No.	Button name	Mark	Function
1	Main menu button	<b>MENU</b>	Enter the main menu settings
2	Direction button		To move up or down of the selection setting in the menu
			To move left/right of the selection setting in menu Playback :x2/ x4/ x8/ x16 Multiple Speed
	Main menu/Confirm button	<b>ENTER</b>	Confirm Enter main menu or next submenu
3	Cancel button	<b>ESC</b>	Back to the previous menu or exit the menu operations
			Back to the real-time surveillance during playback
4	Back play		Back playback
5	Fast play		Play in the multi-fast or regular speed during playback
6	Stop playback		Stop playback
7	Play/pause button		Play the record or pause during playback
8	Recording button	<b>REC</b>	The LED lights on when the DVR is recording
9	Recording search button	<b>SEARCH</b>	Search recording files
10	PTZ control button	<b>PTZ</b>	Enter PTZ setting, PTZ control
11	System information	<b>INFO</b>	Enter the DVR system information interface
12	Quad	<b>QUAD</b>	Switch single or multi channels
13	REC/NETWORK/POWER Led Lights	<b>REC NETWORK POWER</b>	DVR is recording, the light is bright Network connects normally if lighted, Otherwise the light isn't bright Power light

Chart 1-2



## 1.4 Rear Panel instructions

### 1.4.1 4CH AHD-LM DVR panel



ITEM	NAME	FUNCTION
1	ALARM IN/OUT	Alarm devices input and output ports
2	VIDEO IN	Video input from cameras
3	AUDIO OUT	BNC Audio output for amplified speaker
4	VGA	VGA output for larger monitor
5	HD-OUTPUT	HDMI video output
6	AUDIO IN	4 Channels of audio input
7	RJ45	Network (Ethernet) Port
8	USB PORTS	For the USB mouse and external USB backup devices
9	RS485	PTZ interface
10	DC 12V	Power input for 12V DC power supply

(Above picture for reference only, please take real machine as standard)



### 1.4.2 8CH AHD-LM DVR panel



ITEM	NAME	FUNCTION
1	ALARM IN/OUT	Alarm devices input and output ports
2	VIDEO IN	Video input from cameras
3	AUDIO OUT	BNC Audio output for amplified speaker
4	VGA	VGA output for larger monitor
5	HD-OUTPUT	HDMI video output
6	USB PORTS	For the USB mouse and external USB backup devices
7	RS485	PTZ interface
8	AUDIO IN	4 Channels of audio input
9	RJ45	Network (Ethernet) Port
10	DC 12V	Power input for 12V DC power supply

(Above picture for reference only, please take real machine as standard)

### 1.4.3 16CH AHD-LM DVR panel



ITEM	NAME	FUNCTION
1	VIDEO IN	Video input from cameras
2	VGA	VGA output for larger monitor
3	RJ45	Network (Ethernet) Port
4	AUDIO IN	4 Channels of audio input
5	AUDIO OUT	BNC Audio output for amplified speaker
6	HD-OUTPUT	HDMI video output
7	USB PORTS	For the USB mouse and external USB backup devices
8	RS485	PTZ interface
9	DC 12V	Power input for 12V DC power supply

(Above picture for reference only, please take real machine as standard)

### 1.5 DVR Remote controller

It uses two AAA size batteries and works after loading batteries as following:

Step1: Open the battery cover of the Remote controller

Step2: Place batteries, please take care the poles (+ and -)

Step3: Replace the battery cover



**Notice:** Frequently defect checking as following

1. Check batteries poles



2. Check the remaining charge in the batteries

3. Check IR controller sensor is mask

If it doesn't still work, Please change a new remote controller to try, or contact your dealers

The interface of Remote controller showed as below:



Serial number	Name	Function
1	POWER Button	Same as POWER button on the front panel
2	SEARCH Button	Enter playback mode
3	Numeric button	Code input/number input/channel switch "10+"(press 0 and 1-6 to switch from channel 11 to 16 )
4	QUAD	Same function as QUAD button on the front panel
5	Direction button	Same function as direction button on the front panel
6	MUTE	Close the audio
7	INFO	Enter system information
8		Previous frame
		Next frame
9		Back Play
		Fast Play
10		Record
		Stop Playback
11		Play/Pause
12	PTZ	PTZ control

## Chapter 2- DVR Installation



**Notice:** Check the unit and the accessories after getting the DVR.

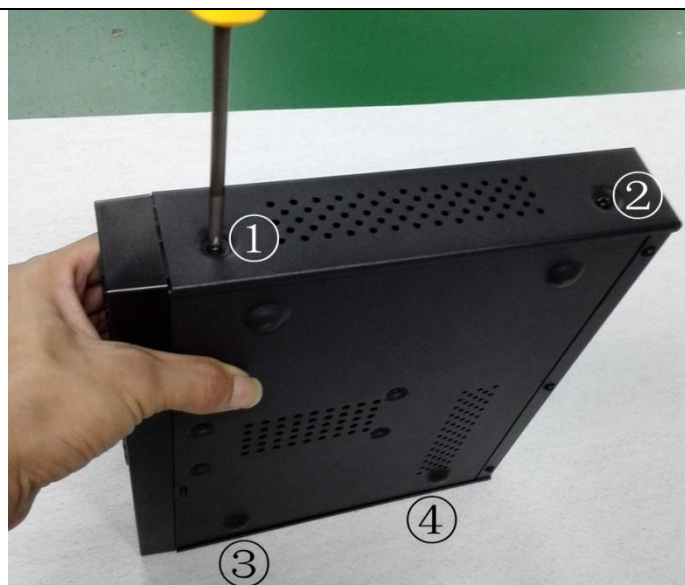
Please disconnect the power before connected to other devices.

### 2.1 Install the Hard Disk Drive

1 .Please don't install the hard disk when the DVR power is turned on. Be sure unplug the power before installation.

2. If the user has high demand on HDD, we suggest using the hard disk special for security and protection.





**Step1:** Loosen number ①②③④ screws



**Step2:** Loosen number ⑤⑥ screws



**Step3:** Open the top cover



**Step4:** Put the Hard disk inside, Connect the power cable of hard disk with the DVR motherboard.



**Step5:** Connect the data cable of hard disk with the DVR motherboard.



**Step6:** Fix the HDD to the bracket using 4 screws.





**Step7:** Put the top cover.



**Step8:** Install number ①②③④⑤⑥ screws

## 2.2 Connect the cameras

### 2.2.1 How to connect AHD/CVBS Cameras to AHD DVR/HVR?



**Step1:** If you have power split cable, connect 12V/2A power supply to this cable. If no power split cable, go to setp2 directly

**Step2:** Connect the DC power male connector to Video/Power Cable DC female connector

**Step3:** Connect BNC male connector of Video/Power cable to DVR video input

**Step4:** Connect the BNC and power supply connector of Video/Power cable to Camera

## 2.2.2 If you have PTZ camera, How to connect it to AHD DVR/HVR?



Connect the cable 485A+ of camera with DVR RS485A input ,cable 485B- with DVR RS485B input via the green connector. Please take above picture as reference.

 **Notice:** 1.PTZ setting of DVR please refer to “Main Menu- System-RS485 Device”.

2. When the setting of DVR and camera are same, PTZ is working

## Chapter3-Basic Operation Instructions

### 3.1 Power On/Off your DVR

 **Notice:** 1.Before you power on the unit, please make sure all the connection is good.

2. Proper startup and shutdown procedures are crucial to expanding the life of your DVR

3. Suggest using UPS to protect the power supply under allowable conditions

#### 3.1.1 Power on your DVR

Plug the power supply and turn on the power supply switch. Power supply indicator light shining indicates turning on the DVR. After startup you will hear a beep. The default setting of video output is multiple window output modes. If the startup time is within the video setting time, the timing video recording function will start up automatically. Then the video indicator light of corresponding channel is shining and the DVR is working normally.

#### 3.1.2 Power off your DVR

There are two ways to shut down your DVR:

Option 1: Standard Shutdown (soft switch)

Enter the main menu, click on Menu→Shutdown

Option 2: Manual Shutdown (hard switch)

Pressing the power supply switch, plug off the power supply

### 3.2 Login DVR

When the DVR boots up, the user must login and the system will provide the corresponding function according to the user authority. There are 3 user settings: **Admin**, **Guest** and **Default**. If the user name default **Admin**, there is no password. **Admin** is as super user. **Guest** and **default** are the common users under factory settings.



Pic.3-1

**Password protection:** There is no password, just knock the “ok” and you will enter.









After you set a password, 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. (Through Reboot or after half an hour, the account will be unlocked automatically)

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

### 3.3 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.

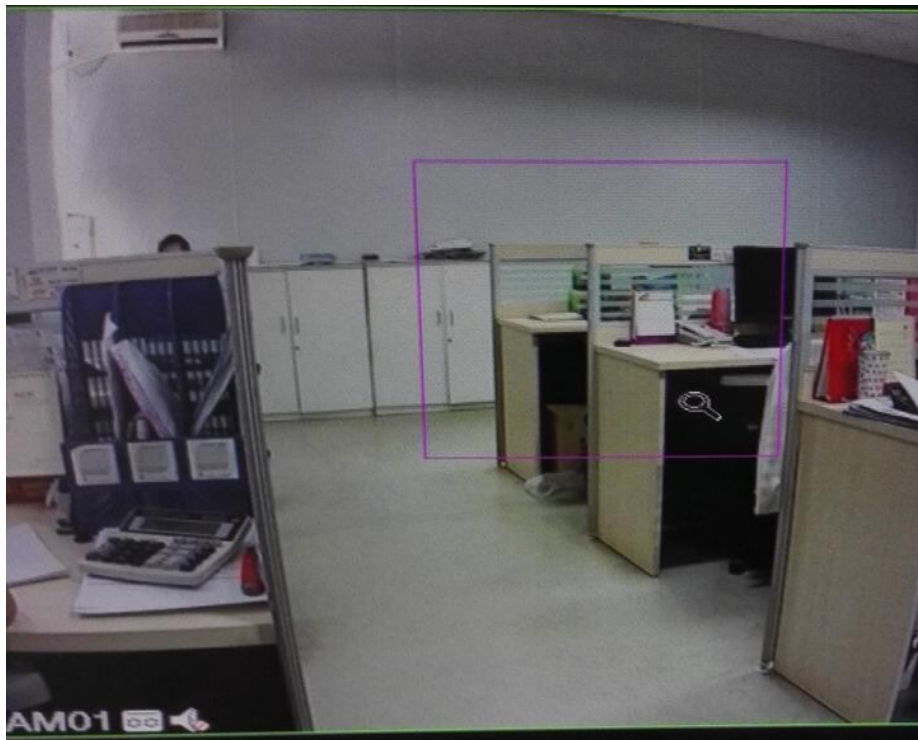
1		Recording status	7		Video loss
2		Motion detection	8		Camera lock
3		Mute	9		Open audio
4		Video Blind	10		Digital Zoom
5	<b>AHD-H</b>	1080P	11	<b>AHD-M</b>	720P-960P
6	<b>AHD-NH</b>	1080N	12	<b>CVBS</b>	Analog



### Digital Zoom function:

When preview or playback, left click the mouse, and move meantime, it will display a rectangle area. Then move the mouse into this area, left click anywhere in this area it will amplify

**Quit Digit Zoom:** Quick double left click the mouse



Pic.3-2 Digital Zoom

## 3.4 Shortcut menu

In Preview mode you can right click mouse to get the shortcut menu, picture as below:



Pic.3-3 Shortcut Menu

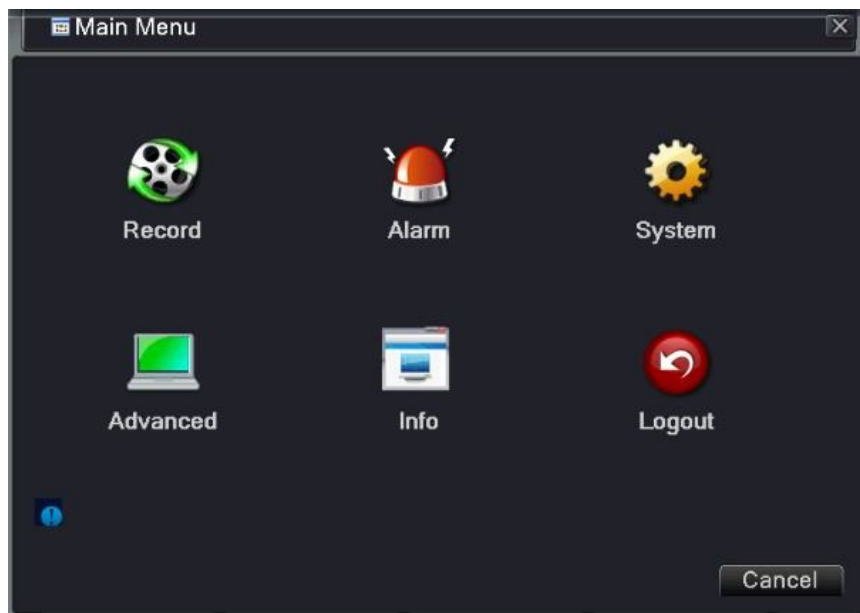
The shortcut menu includes: Main Menu, Guide, PTZ control, Color Setting, Output Adjust, Playback, Record Mode, and Logout

### 3.4.1 Main Menu




**Main Menu**: Access main menu to adjust all settings

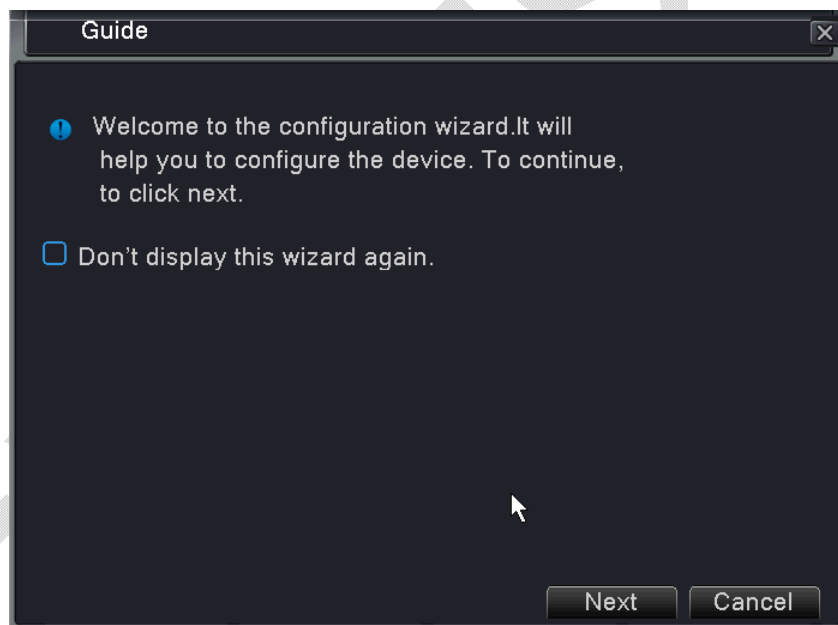
When you login, the system main menu is shown as below:



Pic.3-4 Main menu

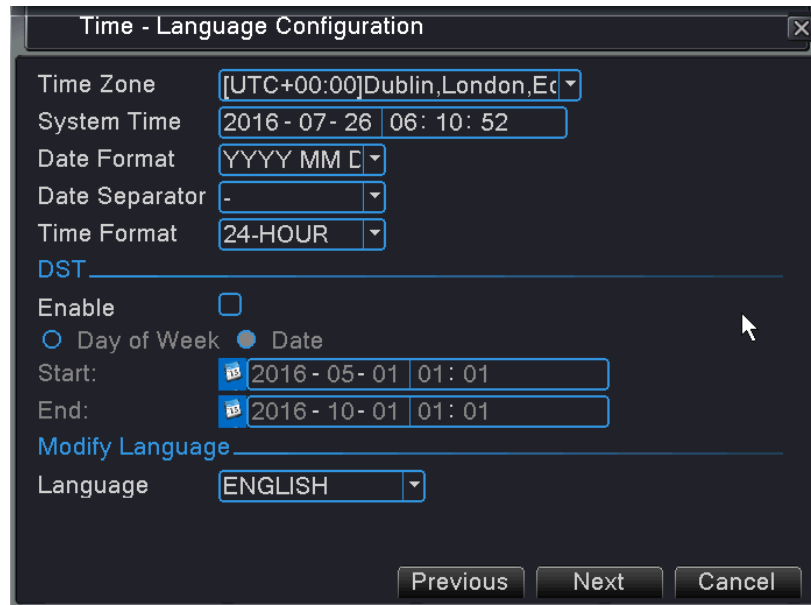
### 3.4.2 Guide

Guide : Can set some frequently used functions



Pic.3-5 Guide

Click "Next" button, can set Language, Time zone, System Time, Daylight saving time etc.



Pic.3-6 Guide-Time Language configuration

Click "Next" button, it is Network Test, If the status is OK, please go to next step, If network has problem, please click "Network" to set the correct parameters and test again



Pic.3-7 Guide-Network Test

Click Next button, it will display the download QR code of Mobile App. Scan the QR code via your Smartphone, download the Mobile App.

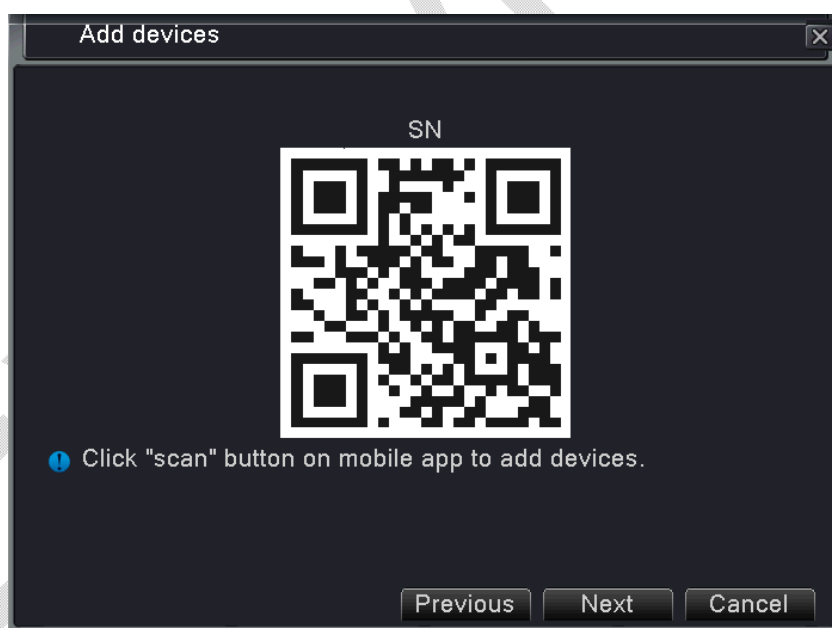
Default Mobile App is **XMeye**, You also can search **Evidevision** from App store or Google play store to download, or copy from software CD



Pic.3-8 Guide-Install Mobile App

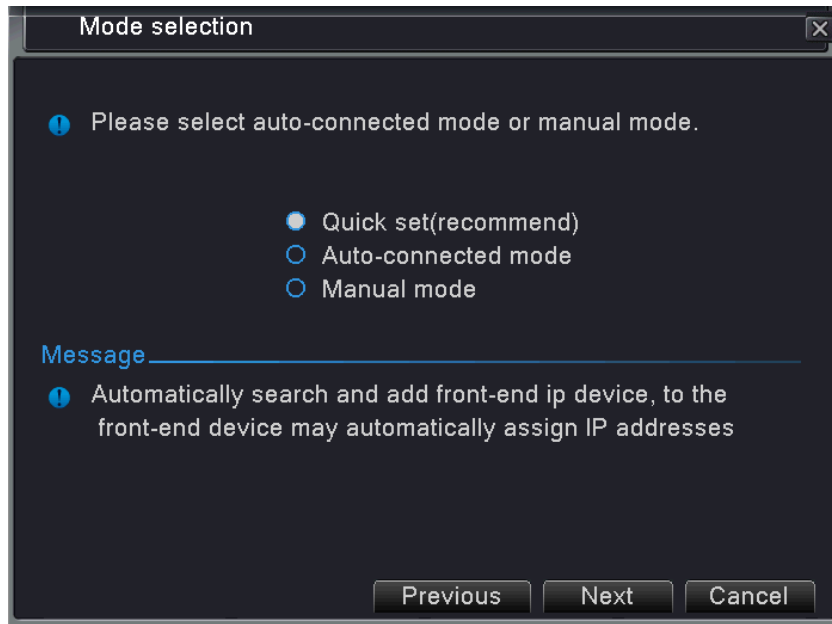
Click Next button, it will display Cloud ID Number (SN) of this machine, Use Smartphone App scan the QR code, you shall access this DVR and achieve remote surveillance.

 **Notice:** You should make sure the network setting is ok before access the DVR via your Smartphone



Pic.3-9Guide-Add devices

If the DVR is in HVR/NVR Mode, click next button, you shall choose the IPC connection mode



Pic.3-10 Guide-Mode selection

**Quick set (recommend):** After choose this option, click Next button, HVR/NVR will add the IP Cameras in same LAN fast, this option won't change the IP address of IP Camera

**Auto-connected mode:** After choose this option, click Next button, HVR/NVR will change the IP address of IP Cameras in same LAN, and connect the IPC automatically

**Manual mode:** After choose this option, HVR/NVR will search the IP Cameras in same LAN, and list them on the screen, you can add IP Cameras or modify the parameters manually

### 3.4.3 PTZ Control



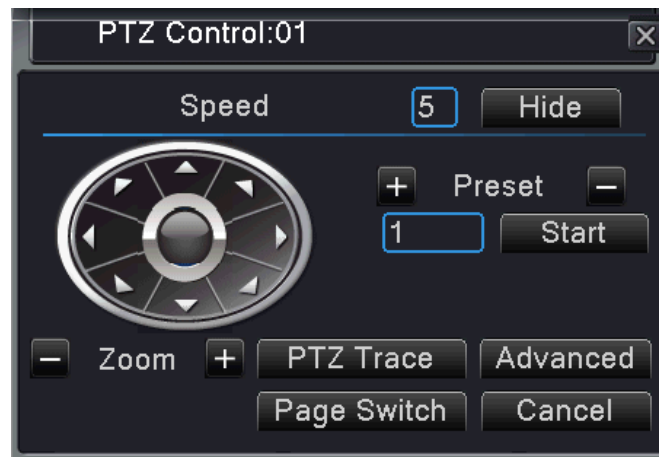
**PTZ Control**: Functions including PTZ direction control, step, zoom, focus, iris, setup operation, patrol between spots, trail patrol, boundary scan, assistant switch, light switch, level rotation and so on etc.



#### **Notice:**

1. Before operation, please make sure the Decoder 485+, 485- line well connected with DVR 485+, 485- line.
2. Before operation, click main menu-> system-> PTZ config to set the PTZ parameters.
3. The PTZ functions are decided by the PTZ protocols.

## 1. PTZ Normal setting



Pic3-11 PTZ control

**【Speed】** : Set the PTZ rotation range, Default range 1-8

**【Zoom】** : Click -/+ button to adjust the zoom of cameras

**【Focus】** : Click -/+ button to adjust the focus of cameras

**【Hide】** : Current interface will be hidden after click it, right click the mouse will display again

**【Direction control】** : Control the PTZ rotation. 8 directions control is supportive.


**【PTZ Trace】** : Full screen show channel image. Press the left mouse button, can control PTZ to rotate. Press the left mouse button and rotate the mouse, can adjust the zoom of cameras.

**【Advance】** : Enter the function operation menu.

**【Page switch】** : Switch between different setting pages.

**【Cancel】** : Close PTZ control submenu

**【Preset】** :Set a location for the preset, which named **preset points**, PTZ automatically turns to the setting position

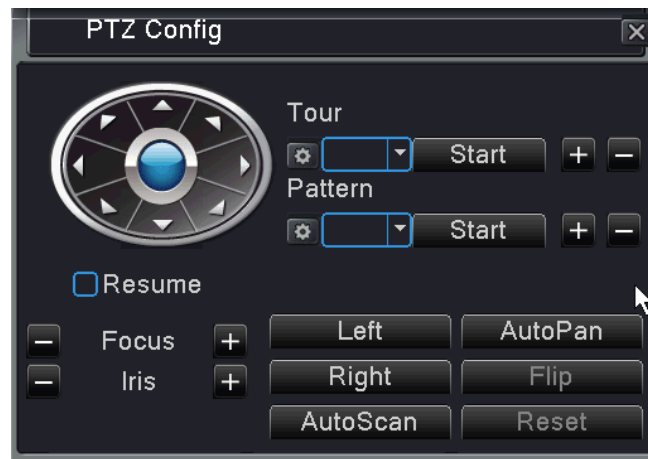
**Preset setting:** In Pic3-11 Input preset points, click the Direction button, PTZ camera will turn to preset position, click  set the preset points

**Delete Preset:** Input preset points, click  delete the preset points.

**Call Preset Point:** In Pic3-11 Input preset points , click  PTZ will go to the preset points.

## 2. Tour and Pattern

Multiple preset points connect cruise lines, is called cruise between points, the PTZ rotates around the line



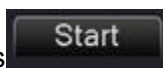
Pic3-12 Cruise between points settings


### Cruise between Points Settings

Cruise lines are connected by multiple preset points, setting steps as follows:

Step 1: In Pic.3-11, click , and show Pic.3-12

Step 2: click  set the preset points, click  delete the preset points and then input the Patrol No.

Step 3: click Start buttons 

**【AutoScan】** : click , PTZ can work on the preset scan line repeatedly.

**【AutoPan】** : click , PTZ can auto work in a horizontal line

 **Notice:** When the left and right scan in one horizontal line, PTZ will cycle rotate from left scan along the reverse direction to the right scan.

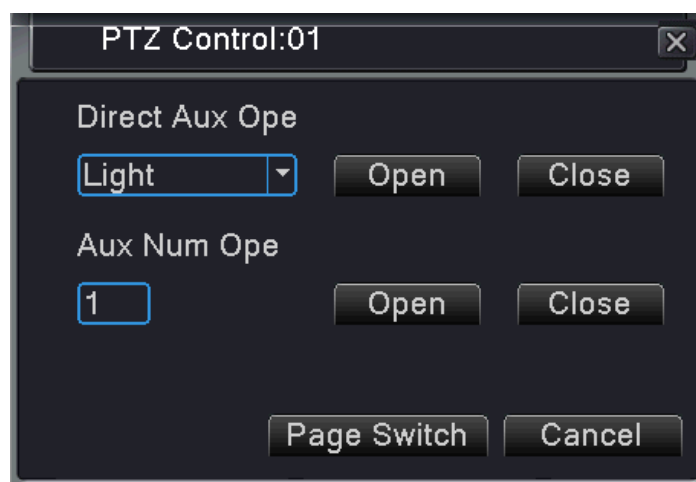
When the left and right scan not in the same horizontal line, PTZ will regard the end of horizontal line which connect to left scan as right scan, cycle rotate from left scan along the reverse direction to the right scan.

**【Reset】** : all the data clears to 0.

### 3. Auxiliary function

In Pic3-11 click Page Switch button, will display auxiliary function (pic3-13). Auxiliary number corresponding to auxiliary switch on the decoder.





Pic.3-13 Auxiliary functions

**【Direct Aux Ope】** choose auxiliary equipment, select Open or Close button, switch control.

**【Aux Num Ope】** The operation of corresponding auxiliary switch according to PTZ agreement.

#### 4. PTZ Menu

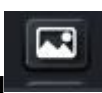
Click page switch button will display PTZ menu, you can set PTZ parameters



Pic.3-14

#### 3.4.4 Color Setting

 **Notice:** Color setting only applies for Hybrid (HVR)/DVR mode, and only analog channel can set colors.

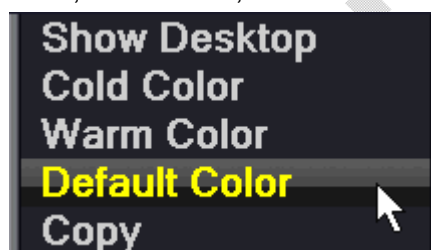
**Color Setting** : Set the parameters of current channel

You can use the shortcut menu to enter the interface. The image parameters include: Brightness, Contrast, Saturation, Hue, Gain, Horizon sharpness, Vertical sharpness. You can set different parameters for different time



Pic.3-15 Color settings

Click Advanced: You can choose Cold color, Warm Color, Default Color



### 3.4.5 Output Adjust



**Output Adjust**: Adjust output parameters.

You can use shortcut menu or enter main menu→management tools→Output adjust.

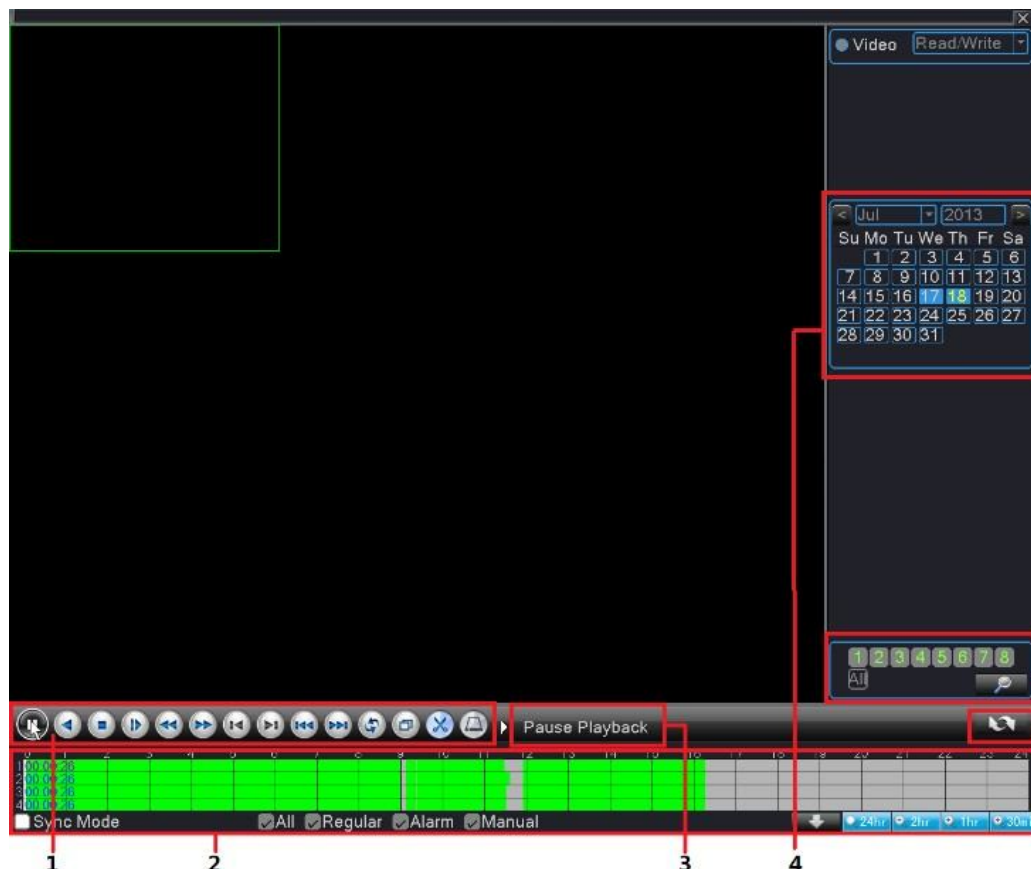


Pic.3-16 Output adjust

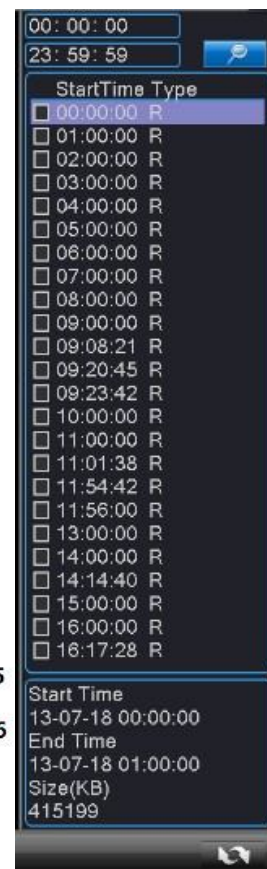
### 3.4.6 Playback



**Playback**: Access playback mode, Set recording search, recording play, video file storage















Pic.3-17 Playback



Pic.3-18 Listed files

1. Playback control
2. Recording files time and status
3. Operation Hints
4. Date
5. Files searching
6. Switch to recording files information

#### Playback control details

Key	Functions	Key	Functions
	Play/Pause		Backward play
	Stop		Slow play
	Fast backward		Fast forward
	Previous frame		Next frame
	Previous file		Next file
	Repeat Play		Full screen



**Time Mode:** Different time interval, you shall choose 24H, 2H, 1H or 30min for playback. Left click the mouse for selection, or you shall put the mouse on the time selection area, scroll the mouse wheel for switch

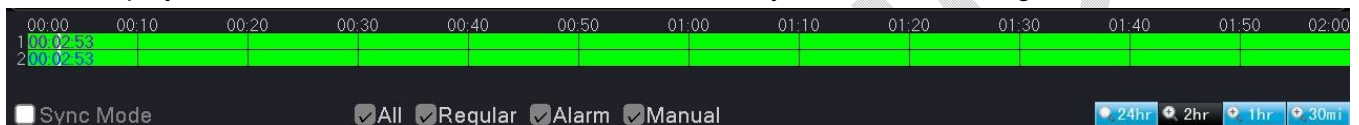


**24H mode:** Playback show time from 0 to 24H, one grid is one hour



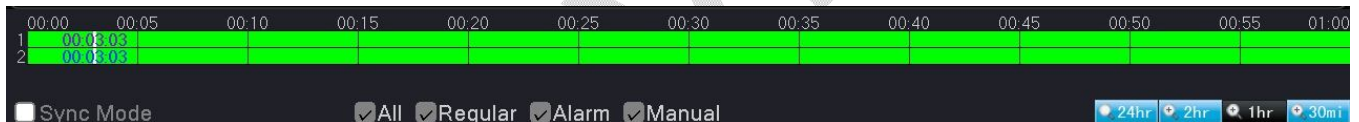
**2H mode:** Playback show time from 0 to 2H, one grid is 10mins

**2~24H display:** Move the mouse on timetable, hold the left key and move left or right for switch



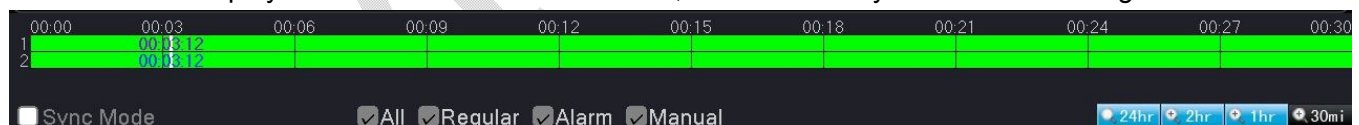
**1H mode:** Playback show time from 0 to 1H, one grid is 5mins

**1~24H display:** Move the mouse on timetable, hold the left key and move left or right for switch

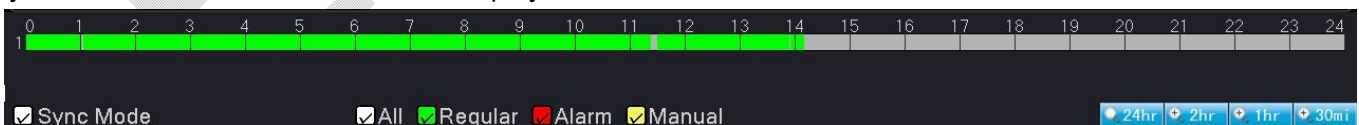


**30min mode:** Playback show time from 0 to 0.5H, one grid is 3mins

**0.5~24H display:** Move the mouse on timetable, hold the left key and move left or right for switch



**Sync Mode:** After tick it, Multi channels playback time is same



### 3.4.7 Record Mode



**Record Mode:** Check current channel record status

You can use shortcut menu or click main menu→recording function→recording set to enter the recording control interface.



Pic.3.19 Record

You can check current channel status: ○ means it is not in recording status, ● means it is in recording status.

**【Schedule】** : Record according to the configuration.

**【Manual:】** Click the all button and the corresponding channel is recording no matter the channel in any state.

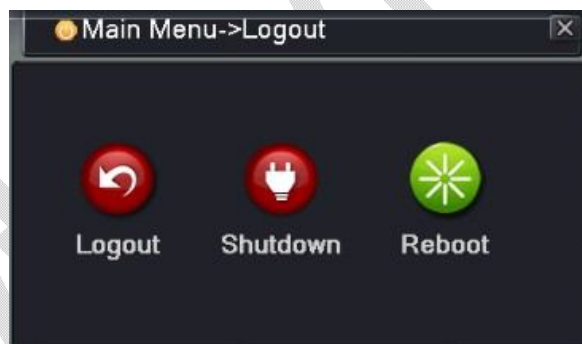
**【Stop】** : Click the stop button and the corresponding channel stops recording no matter the channel in any state.

### 3.4.8 Logout



**Logout**: Logout, Shutdown the system or Reboot.

You can use shortcut menu or enter main menu→logout



Pic.3.20 Logout/Shutdown/Reboot DVR

**【Logout】** Quit the menu. Offer password next entrance.

**【Shut down】** 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.

## Chapter4-Main Menu

### 4.1 Main Menu Navigation

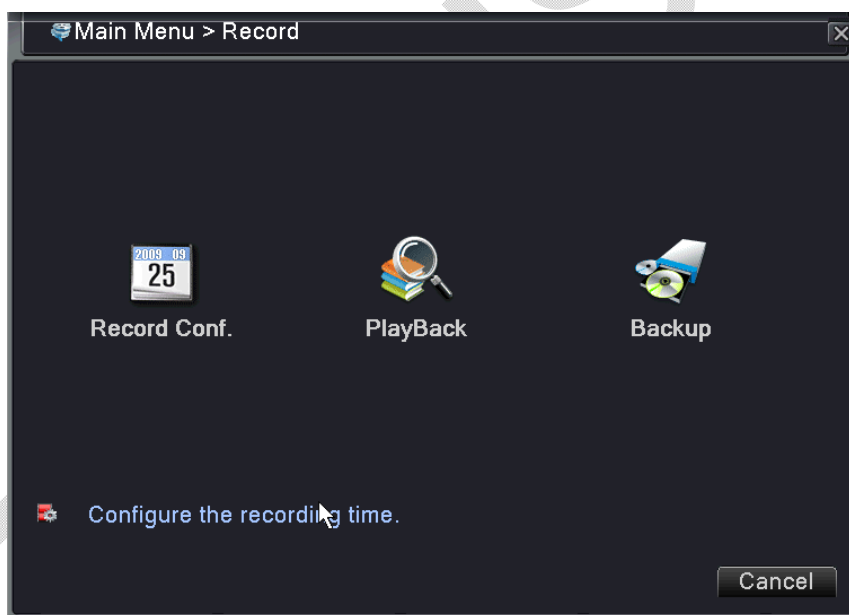
Main Menu	Sub Menu	Function
Record	Configuration	Set recording parameters, like recording type, recording time etc.
	Playback	Recording search, recording playback, recording files storage



	Backup	Detect backup device, format backup device, backup files
<b>Alarm</b>	Motion Detection	Set motion detection channel, sensitivity, area, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol, buzzer, email and FTP upload
	Video Blind	Set video blind channel, sensitivity, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol, buzzer, email and FTP upload
	Video Loss	Set video loss alarm channel, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol, buzzer, email and FTP upload
	Alarm Input	Set Alarm input channel, device type, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol, buzzer, email and FTP upload
	Alarm Output	Set Alarm mode: configuration, manual, stop etc.
	Exception handling	No HDD, HDD error, HDD capacity not enough Network cut, IP conflict, linkage parameters: screen hint or buzzer
	Intelligent Analysis	Set algorithm rule: trajectory display, sensitivity, minimum pixel, alert mode, and set linkage parameters: period, alarm output, record, PTZ, Tour, buzzer, Email, FTP upload
<b>System Configuration</b>	General Configuration	Set System time, data format, language, hard disk full time operation, machine number, video format, output mode, summertime, stay time
	Encode Configuration	Set main stream and sub stream parameters: code mode, resolution, frame, code stream control, image quality type, code stream value, frame between value, video/audio enable
	Network Configuration	Set basic network parameters, DHCP and DNS parameters etc.
	Net Service	PPPOE, NTP, EMAIL, IP purview, DDNS parameters
	GUI Display	Set channel title, preview hint icon state, transparency, cover area, time title, channel title fold (only for analog channel)
	PTZ Configuration	Set channel, PTZ protocol, address, baud rate, date bit, stop bit, check
	RS485 Device	Set serial port function, baud rate, date bit, stop bit, check
	Serial port Configuration(RS232)	Set serial port function, baud rate, date bit, stop bit, check
	Tour	Set patrol mode and interval time
	Spot	Set Spot tour mode and interval time
	Digital	Set channel mode, check channel status and configure the digital channel, etc.
<b>Management Tools (Advanced)</b>	Hard disk Management	Set appointed hard disk as read-write disc, read-only disc or redundant disc, clear data, resume date and so on
	User Management	Modify user, team or password. Add user or team. Delete user or team.
	Online User	Break the connection with the already login user. Lock the account after break until booting up again
	Output Adjust	Adjust upside, downside, nearside, starboard distance, black margin

		vertical & horizontal
	Automatic Maintenance	Set automatic reboot system and automatic deleting files
	Restore	Resume setup state: common setup, code setup, recording setup, alarm setup, network setup, network service, preview playback, serial port setup, user management
	Upgrade	upgrade with external device(like USB)
	Device Info	device hardware configuration and message
	Import/Export	Export the device's log or configuration to external device(like USB flash disk);Input the configuration with external device(like USB flash disk).
<b>System Information</b>	Hard disk Information	Display hard disk capability and recording time
	BPS	Display code stream information
	Log Information	Clear all log information according to the log video and time
	Edition Information	Display edition information
<b>Shut Down</b>		Logout, shut down or reboot

## 4.2 Record Function



Pic4-1

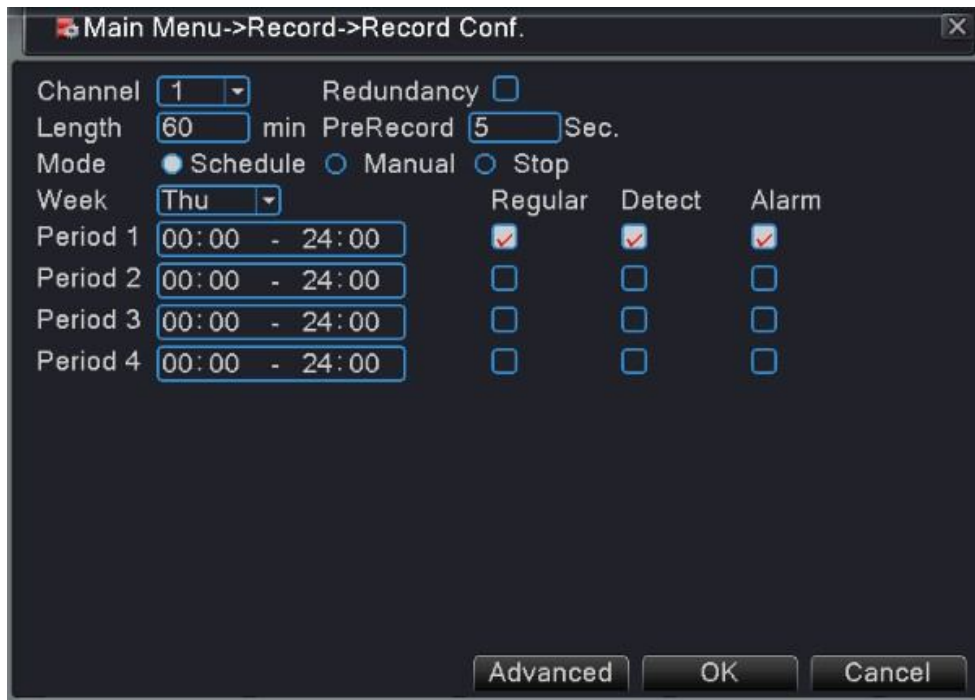
### 4.2.1 Record configuration



Set recording parameters, the system default setting is 24 hours consecutive recording. You can enter main menu→record function→record configuration to set.

 **Notice:** Before set record configuration, you need to install at least one read-write hard disk in DVR.





Pic4-2

Record configuration set the record plan for each channel

**【Channel】** : Choose the corresponding channel number to set the channel. Choose “all” option to set all channels.

**【Redundancy】**: Choose the redundancy function to make the recording files double backup. 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. (default value is 60min)

**【Pre Record】** : Record 1-30 seconds before the action occurs.

**【Record Mode】** : Schedule, Manual or Stop.

**【Schedule】**: Record according to the set record type (regular, detection and alarm)and time section.

**【Manual】**: After choosing manual button, the related channel will do the regular recording whatever the state of current channel is.

**【Stop】**: Click the stop button and the channel stops recording

**【Week】** : Set Monday to Sunday or full week to record

**【Period】** : Set the time section of regular recording, the recording will start only in the set range.

**【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”, “video blind” or “video loss” signal. The above alarm function is set as follows: when starting recording, the “detection recording” state is on. The video file type is “M”.


**【Alarm】**: Trigger the external alarm signal in the set time section. The above alarm function is set as follows: when starting recording, the “detection recording” state is on. The video file type is “A”.

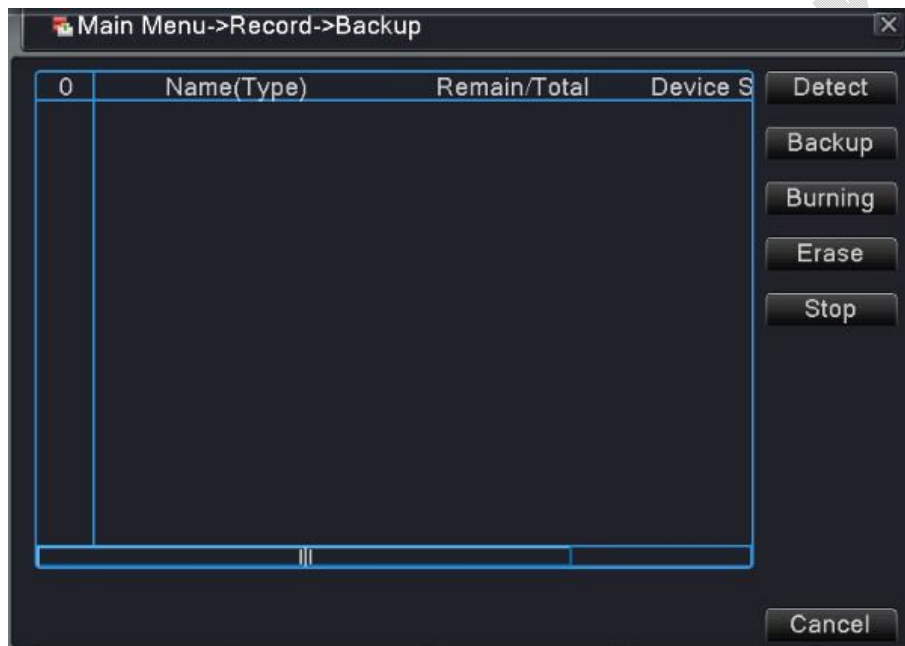
#### 4.2.2 Playback (Please refer to chapter 3.4.6)

#### 4.2.3 Backup



You can back up the video files to external storage through setup

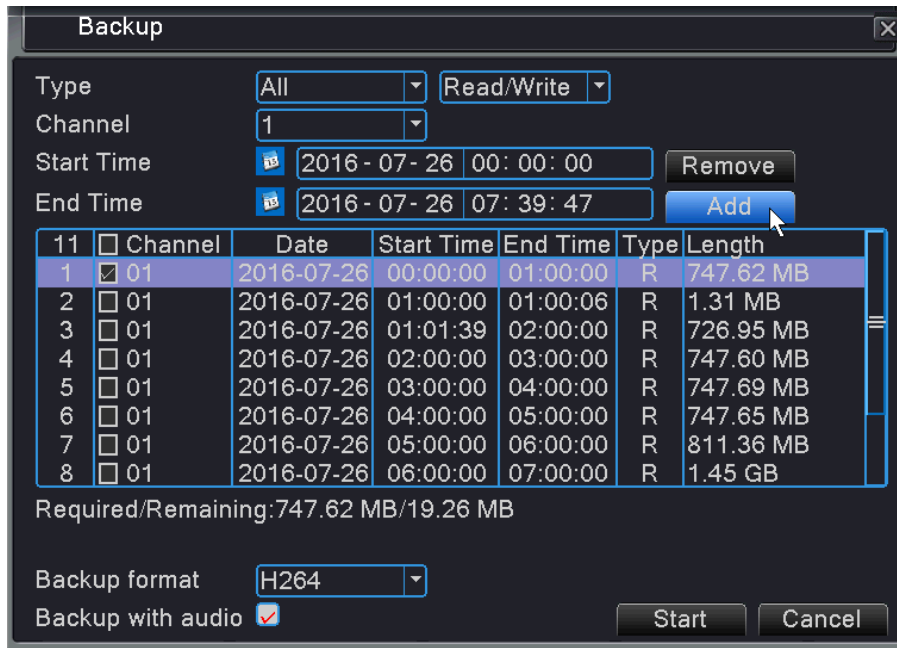
 **Notice:** You need to install storage device before backup. If the backup is terminated, the files already backup can playback individually.



Pic4-3

**【Detect】** : Detect the storage device connected with the DVR

**【Backup】**: Click backup button you will get below submenu (Pic4-4). You can choose the backup files according to the type, channel and time.



Pic4-4

**【Remove】** : Clear the file information

**【Add】**: Show the file information satisfying the set file attributes.

**【Backup format】** : Choose the backup files format, there are two options: H.264 and AVI.

**【Start/Stop】**: Click Start button to start backup, Click stop button to stop the backup

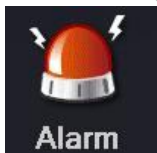
 **Notice**: During backup you can exit this page to carry out other functions

**【Burning】** the file will be burned synchronously after click it.

**【Erase】** Choose the file to delete and click erase to delete the file.

**【Stop】** Stop the backup

### 4.3 Alarm Function




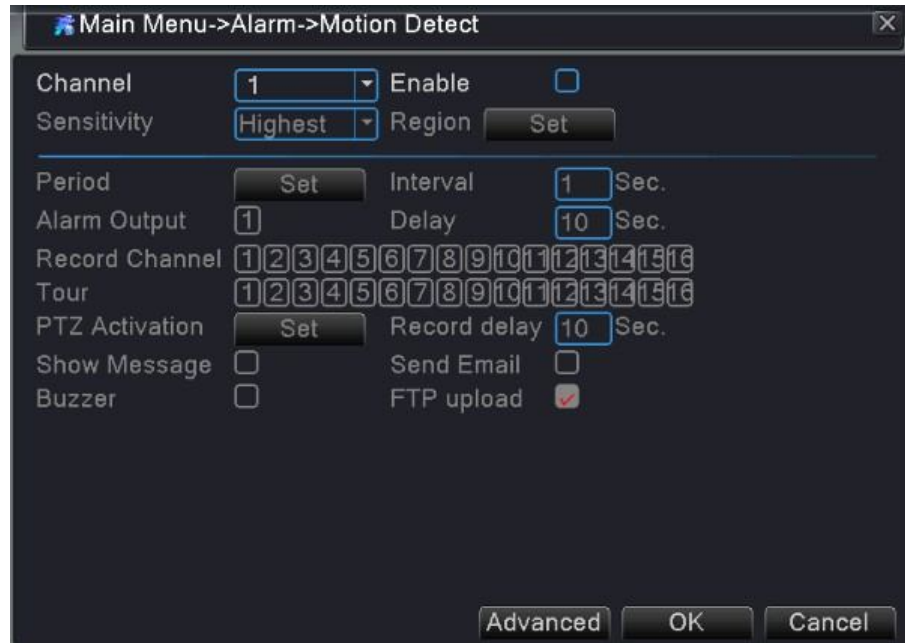
Alarm function includes: Motion Detect, Video Blind, Video Loss, Alarm Input, Alarm Output, Abnormality, and Intelligent

#### 4.3.1 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.

 **Notice:** When you connect IP cameras with your Hybrid DVR, Not only enable motion detect function at DVR side, but also need to enable it at IP Camera side



Pic4-5

**【Channel】** : Choose the set motion detect channel.

**【Enable】** : Tick enable means the motion detect function is on.

**【Sensitivity】** : Choose from the six levels (Lowest, Lower, Middle, High, Higher, Highest) to set the sensitivity.


**【Advanced】** : Click advanced button, have four functions: **copy**, **paste**, **default** and **record config**.

**Copy:** copy current channel setting

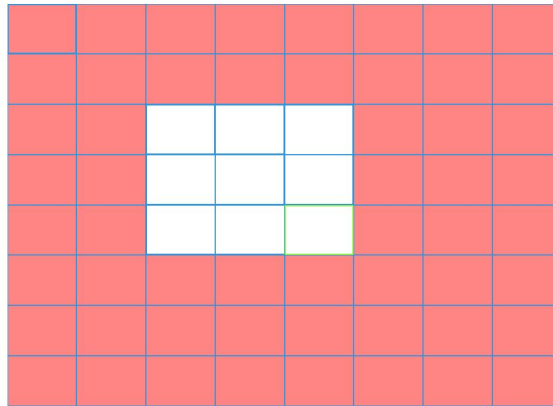
**Paste:** Paste the setting to other channels

**Default:** set current channels to default setting

**Record config:** click it will go to Record configuration setting page

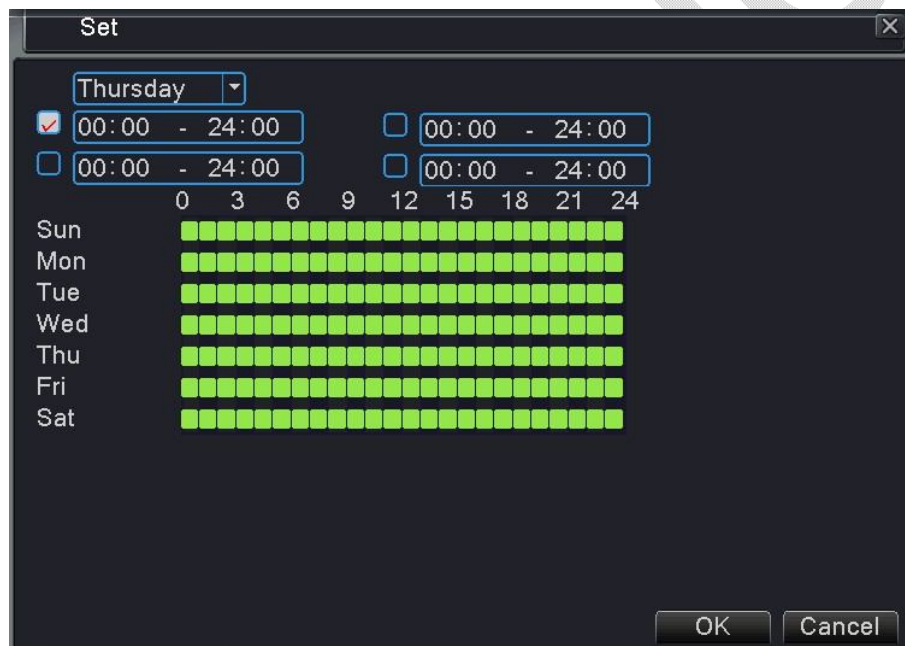
 **Notice:** Only the motion detect under Hybrid mode/Full analog mode can set the sensitivity, and only the analog channel can set region.

**【Region】**: Clicks set and enter the setting area. The area is divided into PAL16X12. Red block is motion detect defensive area, White block is unfenced area. You can set the area by mouse, drag the mouse and draw the area. Default: all selected blocks are detection area.



Pic4-6 Motion detect area setting

**【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 setting is valid.



Pic4-7

**【Interval】** : Only one alarm signal is triggered even there are several motion detect signals in the set interval

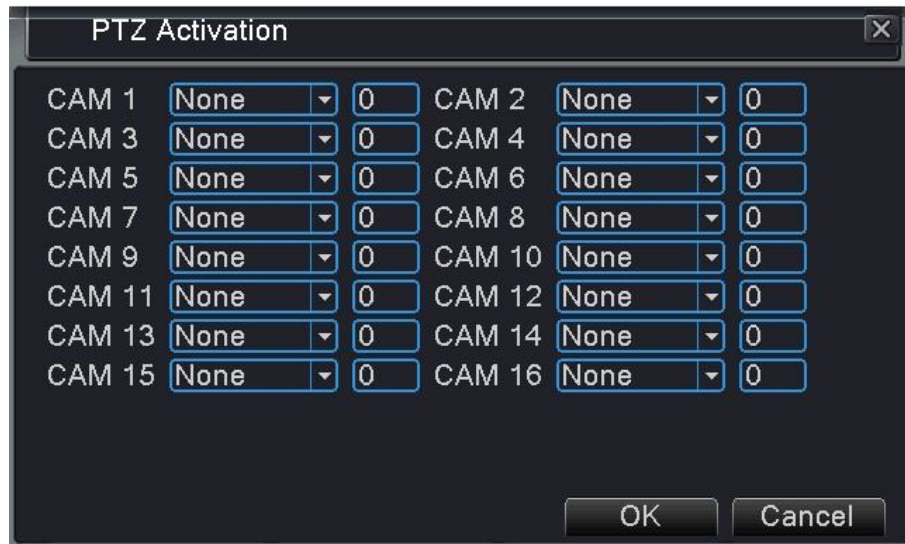
**【Alarm Output】** : Start the external equipment of corresponding linkage alarm when the motion detect alarm is turned on

**【Delay】** : Alarm lasts a few seconds when the alarm state is turned off. The time range is 10-300 seconds

**【Record Channel】** : Choose the recording channel; Trigger the video signal when alarm is turned on.

**【Tour】** : Tick tour means that the selective channel is single window alternate patrol preview. The interval is set in the main menu→system→tour

**【PTZ Activation】** : When alarms on, set PTZ activation.



Pic4-8

**【Delay】** : When alarm is over, recording will last some seconds (10-300sec), and then stop

**【Show message】** : Pop the alarm information dialog box in the local host computer screen.

**【Send Email】** :Tick it means sending an email to user when alarms on

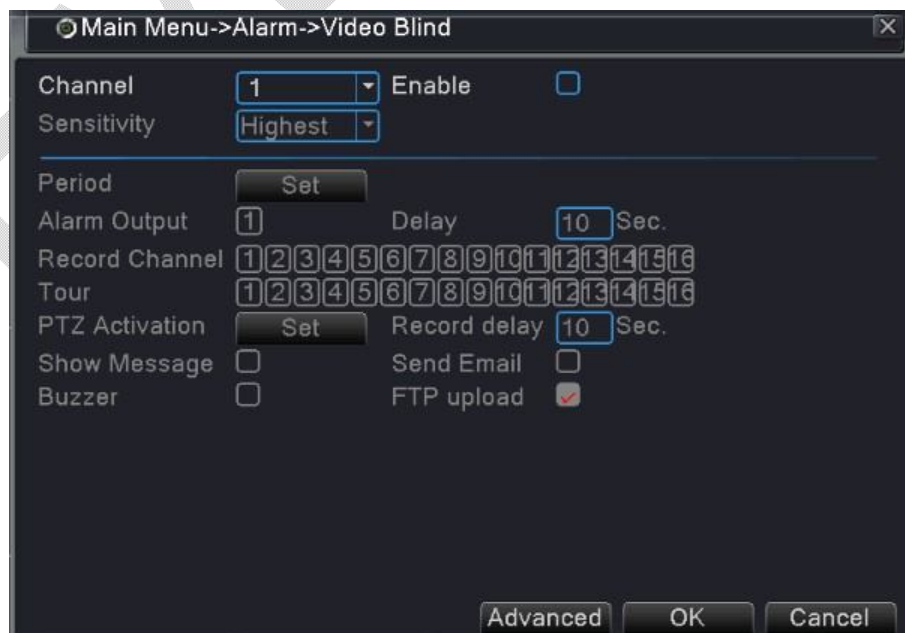
**【FTP upload】** :Tick it means, the video and picture of related record channel & snapshot channel will be uploaded to assigned position

**【Buzzer】** :When alarm happens, device will buzz

#### 4.3.2 Video Blind



When the video image is influenced by the environment such as bad brightness or reaching the set sensitivity parameter, the camera mask function and the linkage function is turned on.

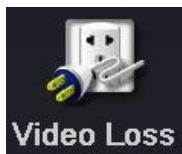


Pic4-9

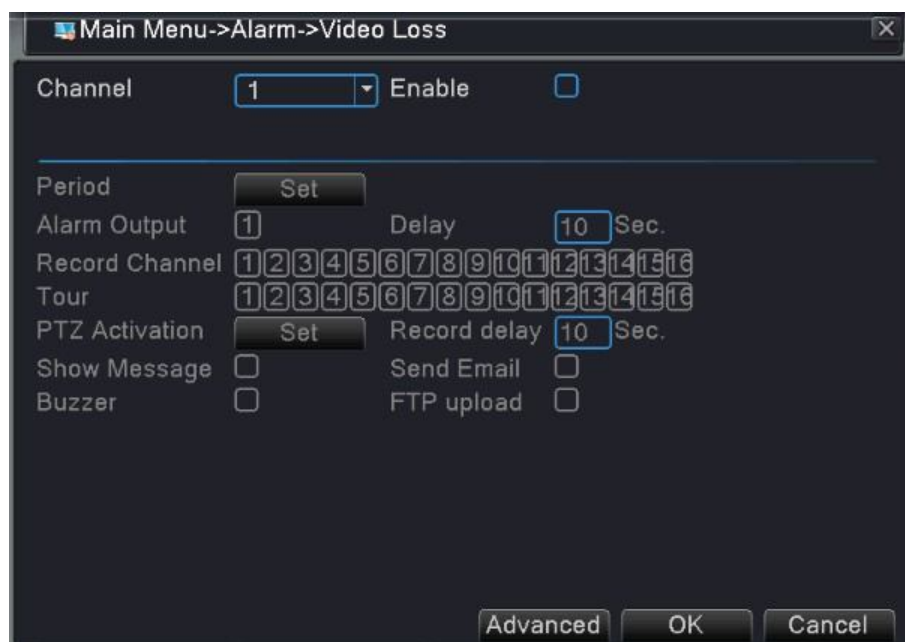


Video Blind setting method please refer to chapter 4.3.1 Motion detect

### 4.3.3 Video Loss



When the equipment cannot obtain the video signal, the video loss alarm and the linkage functions is open



Pic4-10

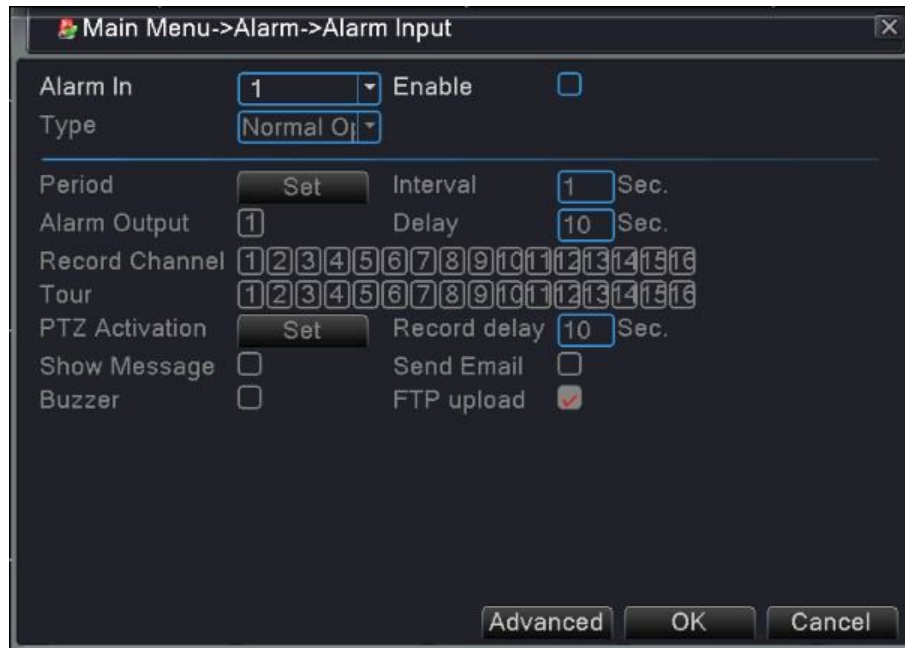
Video Loss setting method please refer to chapter 4.3.1 Motion detect

### 4.3.4 Alarm Input



When the DVR obtains the external alarm signal, the alarm functions is turned on.





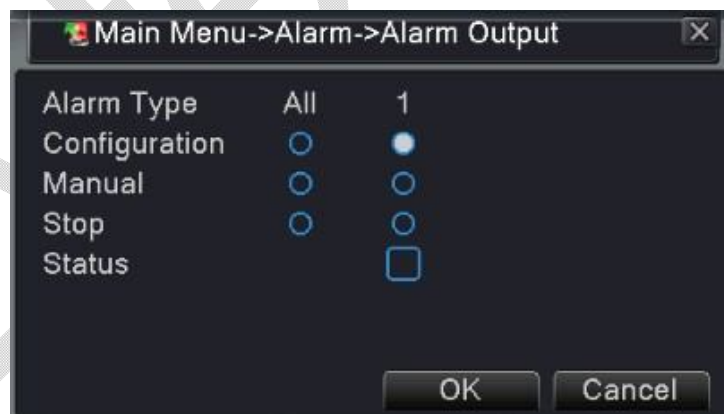
Pic4-11

Alarm Input setting method please refer to chapter 4.3.1 Motion detect

#### 4.3.5 Alarm Output



You can click main menu→alarm function→alarm output to enter the recording control interface.



Pic4-12

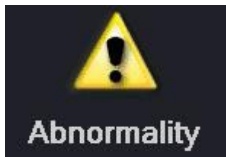
You can check current channel status: ○ means it is not in alarming status, ● means it is in alarming status.

**【Configuration】** Alarm is on according to the configuration.

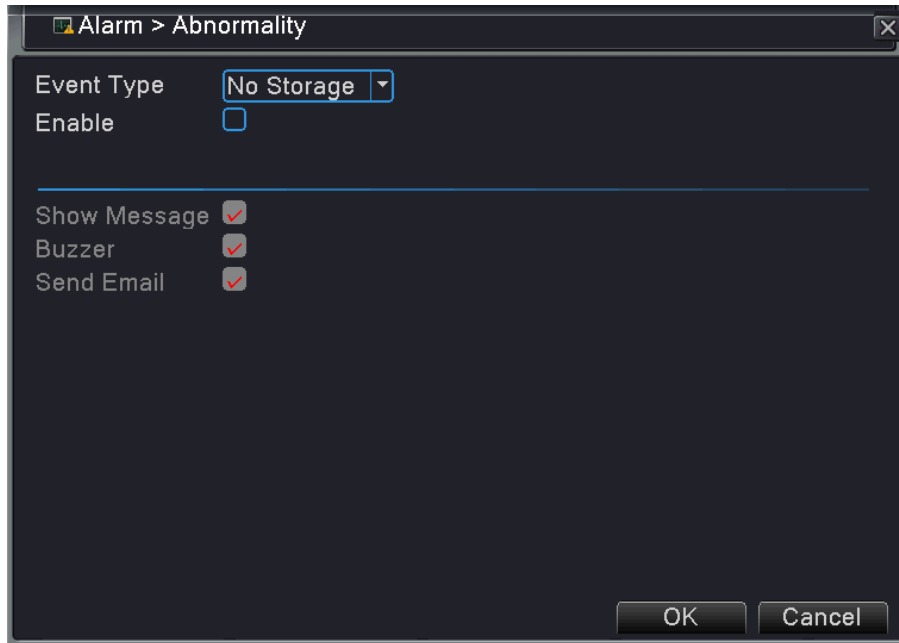
**【Manual】** Click the all button and the corresponding channel is alarming no matter the channel in any status.

**【Stop】** Click the stop button and the corresponding channel stops alarming no matter the channel in any status.

#### 4.3.6 Abnormality



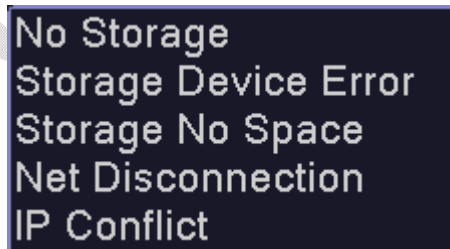
It will buzz and appear screen prompts once no disk, HDD wrong, disk full, network cut, IP conflict and other events, which is convenient for customers to know DVR abnormality.



Pic4-13

**【Event Type】** : Choose abnormality type, support five events:

NO Storage, Storage Device Error, Storage NO Space, Network Disconnection, IP conflict.



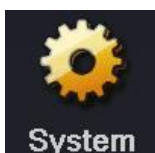
Pic4-14

**【Enable】** : Tick it to enable these settings.

**【Show Message】** :Pop up message on DVR screen

**【Buzzer】** : DVR will buzz when abnormality occurs

#### 4.4 System management



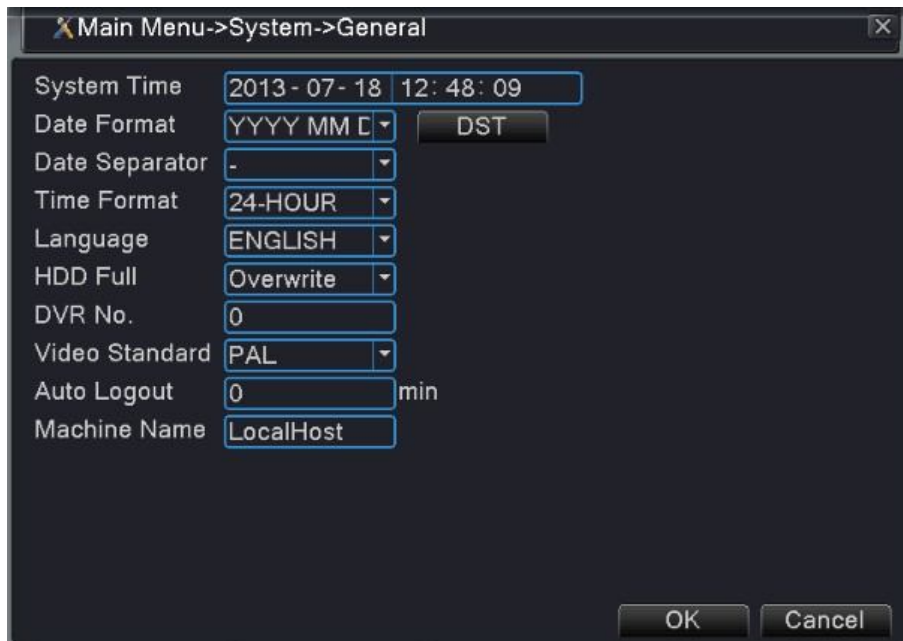
System settings includes: General, Encode (under Hybrid/full analog mode) , Network,

Net service, GUI display, PTZ configure/RS485 device, RS232, Tour setup, Spot and digital

#### 4.4.1 General



**General:** General information configuration in the system



Pic4-15

**【System Time】** : Set the system date and time..

**【Date Format】** : Choose the data format: YMD, MDY, and DMY

**【Data Separator】** : Choose list separator of the data format

**【Time Format】** : Choose time format: 24-hour or 12-hour

**【Language】** : Choose your using language

**【HDD Full】** : When the hard disk is full, stop recording or choose overwrite

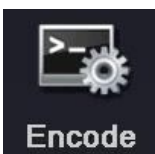
**【DVR No.】** : Only when the address button in the remote controller and the corresponding DVR number is matched, the remote operation is valid

**【Video Standard】** : PAL or NTSC

**【Auto Logout】** : Set the latency time in 0-60. 0 means no latency time.

**【Machine Name】** : Can set the DVR's name

#### 4.4.2 Encode



Extra stream introduces video compression technique which was applying for multi-channel playback simultaneously, Dial-up multi-channel real-time monitor under poor bandwidth, or mobile monitor and so on.

Encode set the video/audio code parameter: video file, remote monitoring and so on. Set every main stream



Pic.4-16

**【Channel】** :Choose the channel number.

**【Compression】** : Standard H.264 main profile.

**【Resolution】** :Resolution type: 1080P/720P/960H/D1/ HD1/CIF / QCIF.

**【Frame Rate】** :PAL: 1 fps~25 fps; NTSC: 1 fps~30 fps

**【Bit Rate Type】** :You can choose limited code stream or variable code stream. When you choose the variable code stream there are six image quality levels. Under the limited code stream, you can choose the code stream manually

**【Bit Rate】** :Set the code stream value to modify the image quality. The larger code stream value the better image quality.

1080P (1024~8192kbps)    720P (1024~4096kbps)    960H (869~4096kbps)

D1 (512~2560kbps)    HD1 (384~2048kbps)    CIF (64~1024kbps)    QCIF (64~512kbps)

**【Frame Interval】** :Can choose the range 2~12s

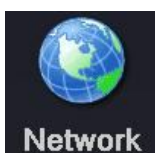
**【Video/Audio】** :When the icons are all ticked, the video file is video and audio multiplex stream.

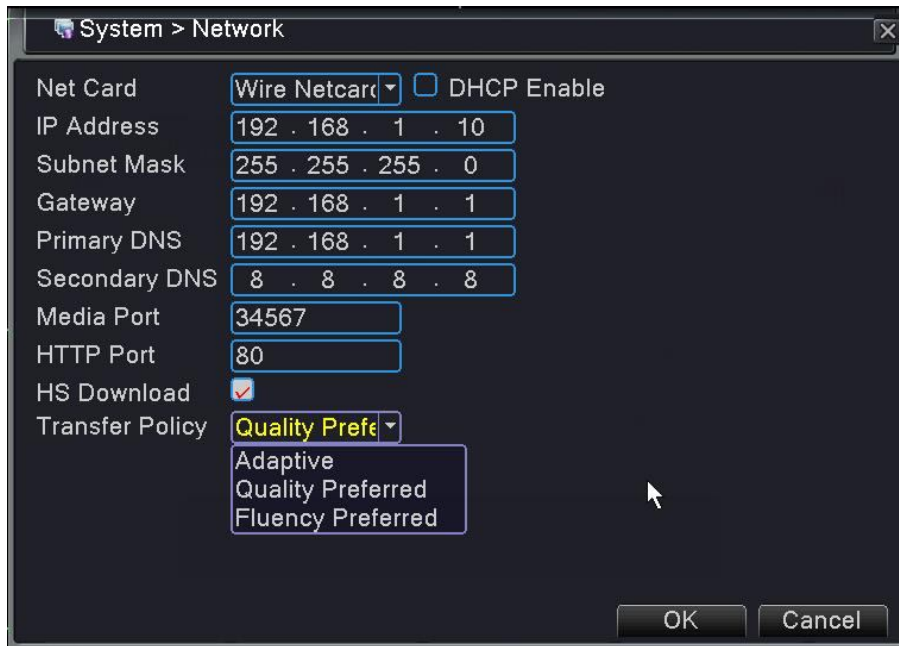
### Extra stream Settings

**【Extra stream】** : Used for client side monitor & mobile monitor.

**【Channel title】** : Select channel title and then to choose whether need enable video & audio. The resolution, frame rate, bit rate type settings is the same as main stream.

### 4.4.3 Network





Pic.4-17

**【Net Card】** :You can choose cable network card or wireless network card.

**【DHCP Enable】** :Obtain IP address automatically (not suggested)

Note: DHCP server is preinstalled.

**【IP address】** :Set the IP address. Default: 192.168.1.10.

**【Subnet mask】** :Set the subnet mask code. Default: 255.255.255.0.

**【Gateway】** :Set the default gateway. Default: 192.168.1.1.

**【DNS setup】** : Domain Name Server. It translates the domain name into IP address. The IP address is offered by network provider. The address must be set and reboot then it works.

**【Media port】** :Default: 34567.

**【HTTP port】** :Default: 80.

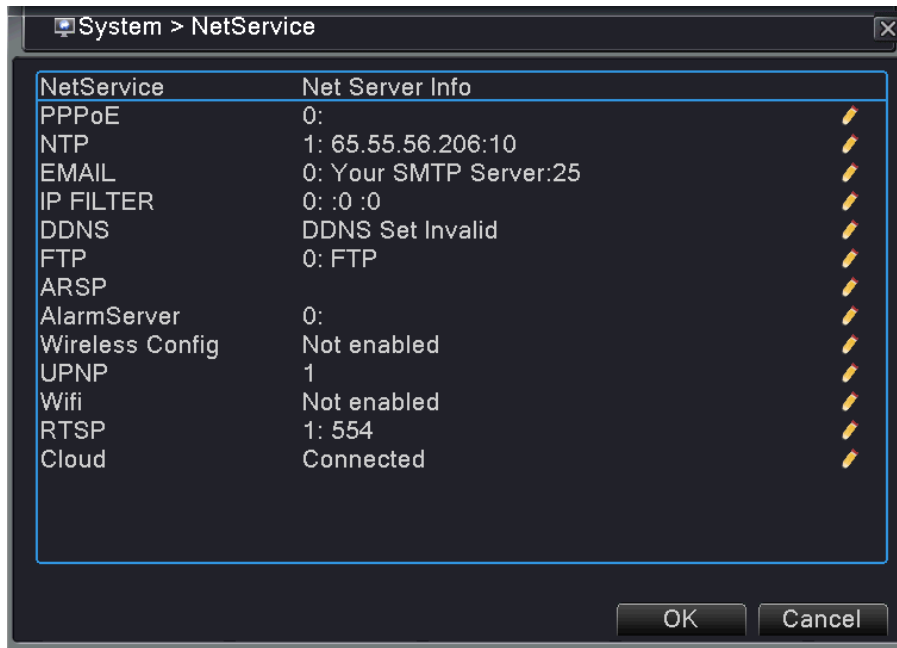
**【HS Download】** : High Speed Download

**【Transfer Policy】** :There are three strategies: self-adaption, image quality precedence and fluency precedence. The code stream will adjust according to the setup. Self-adaption is the tradeoff between the image quality precedence and fluency precedence. Fluency precedence and self-adaption are valid only when the assistant code stream is turned on. Otherwise image quality precedence is valid.

#### 4.4.4 Net Service



Choose the network service option and click the set button to configure the advanced network function or double click the service button to configure the parameters.



Pic.4-18

## 1. PPPOE setup

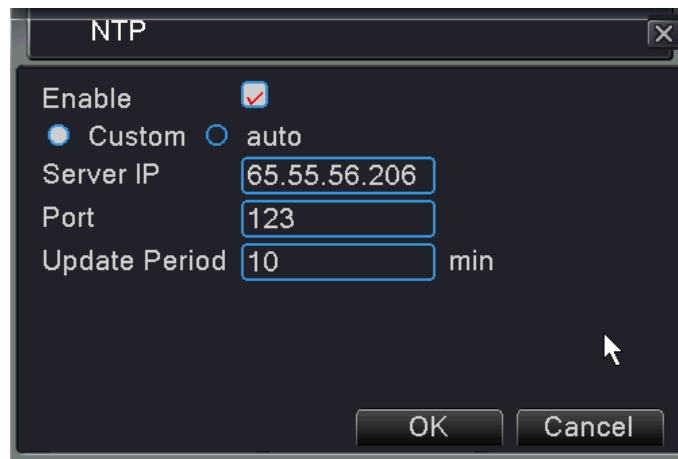


Pic.4-19

Tick enable, Input the user name and password that ISP (Internet service provider) provides. After saving it reboot your system, and 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 dials successfully, please look up the IP address. Then use this IP address to visit the DVR through user port or browser.

## 2. NTP Setup



Pic.4-20

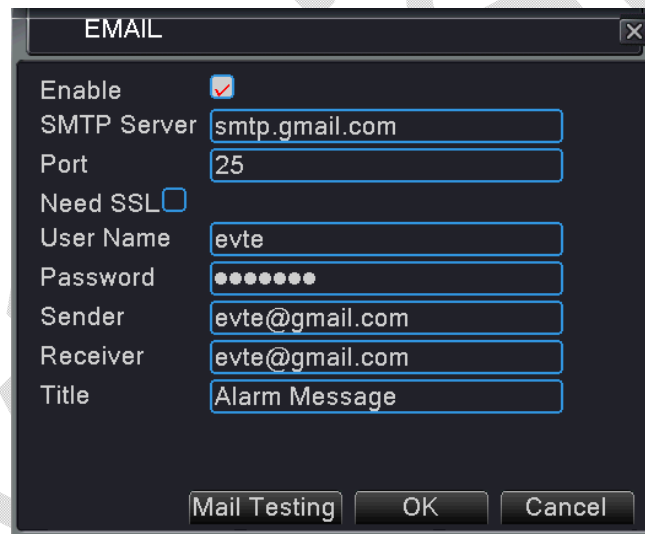
**【Server IP】:** Enter the NTP server address.

**【Port】:** 123. You can set the port according to NTP server.

**【Update Period】:** 10 minutes Interval of adjusting same time as the NTP server.

### 3. Email Setup

If the alarm occurs or the alarm linkage photos are taken, it will send an email to appointed address.



Pic.4-21

**【SMTP server】:** For example, SMTP server address of 126 email is: smtp.126.com.

**【Port】:** Email server port number.

**【Need SSL】:** Decide whether using Secure Socket Layer protocol to login.

**【User Name】:** Input the applied user name of email server.

**【Password】:** Input the password corresponding to the user.

**【Sender】:** Set the email sender address.

**【Receiver】:** Send the email to appointed receivers when the alarm occurs. You can set three receivers at most, and each receiver separate by “;”.

**【Title】:** The subject of the message, you can set by yourself.


### 4. IP Filter

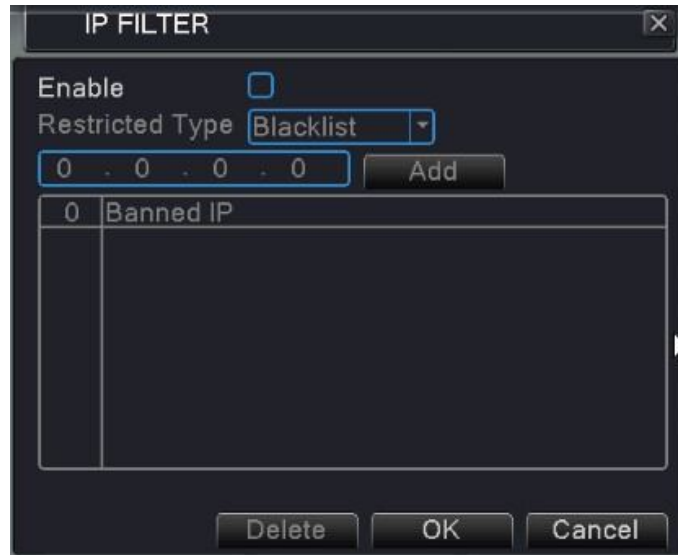
When choosing the white list, only the IP address in the list can connect the DVR. You can set 64 IP addresses in the list.



When choosing the black list, the IP address in the list cannot connect the DVR. You can set 64 IP addresses in the list.

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

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



Pic.4-22

## 5. DDNS



Pic.4-23


**【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 starts, you can input the domain name in the IE address column to visit.

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

## 6. FTP

FTP is used when alarm occurs, or alarm linkage to recording, snap pictures, you can upload videos and capture images to the specified FTP server.



Pic.4-24

**【Enable】** : Tick it to 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.

**【Max File Length】** : The max length of uploading file of each package, default is 128M.

**【Dir Name】** : Upload file directory.

## 7. ARSP



Pic.4-25

**【Enable】** : Tick to enable the ARSP function.

**【Type】** : Default type is DNS

**【Server IP】** : IP address of DDNS server.

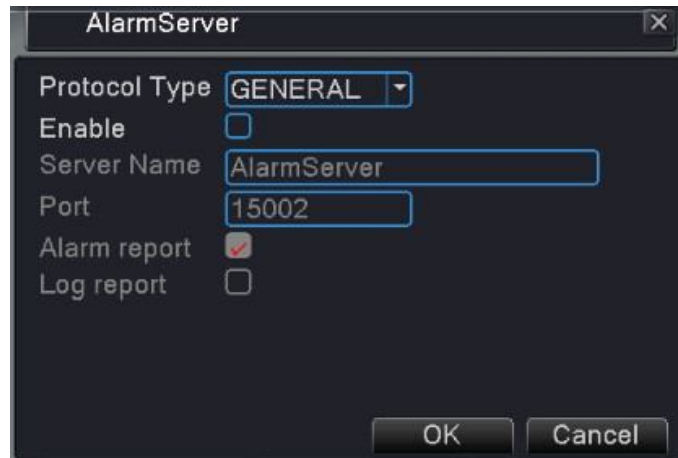
**【Port】** : Device service default port: 15000.

**【User name】** : Input ARSP server registered user name.

**【Password】** : Input user's password.

**【Update Period】** : Synchronize with ARSP server time, default: 1 minute.

## 8. Alarm Server



The 'AlarmServer' dialog box contains the following fields and controls:

- Protocol Type**: A dropdown menu currently set to 'GENERAL'.
- Enable**: An unchecked checkbox.
- Server Name**: A text input field containing 'AlarmServer'.
- Port**: A text input field containing '15002'.
- Alarm report**: A checked checkbox.
- Log report**: An unchecked checkbox.
- Buttons**: 'OK' and 'Cancel' buttons at the bottom right.

Pic.4-26

**【Enable】** : Tick it to enable the alarm server function.

**【Protocol Type】** : Set default alarm protocol type to be GENERAL.

**【Server Name】** : Set alarm server domain name.

**【Port】** : Set port number.

**【Alarm report】** : Tick it means this function can send alarm information to alarm server.

**【Log report】** : Tick it means this function can send alarm log to alarm server.

## 9. Wireless config

Dial-up through 3G card to access Internet and realize the client access device and configure device



The 'Wireless Config' dialog box contains the following fields and controls:

- Enable**: An unchecked checkbox.
- Type**: A dropdown menu currently set to 'EVDO'.
- Wireless AP**: A text input field containing 'ChinaNet'.
- Dial Number**: A text input field containing '#777'.
- User Name**: A text input field containing 'ctnet@mycdm'.
- Password**: A text input field with masked characters (dots).
- IP Address**: A text input field containing '0 . 0 . 0 . 0'.
- Buttons**: 'OK' and 'Cancel' buttons at the bottom right.

Pic.4-27

**【Enable】** : Tick it to 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】** : Dialed-up 3G User Name.

**【Password】** : Dialed-up user's password.

**【IP Address】** : IP address obtained by Dialed-up

## 11. UPNP

UPNP protocol will be auto port forwarding on the Router, before using it, make sure UPNP feature is enabled on the router.



Pic.4-28

**【Enable】** : Tick it to enable the UPNP.

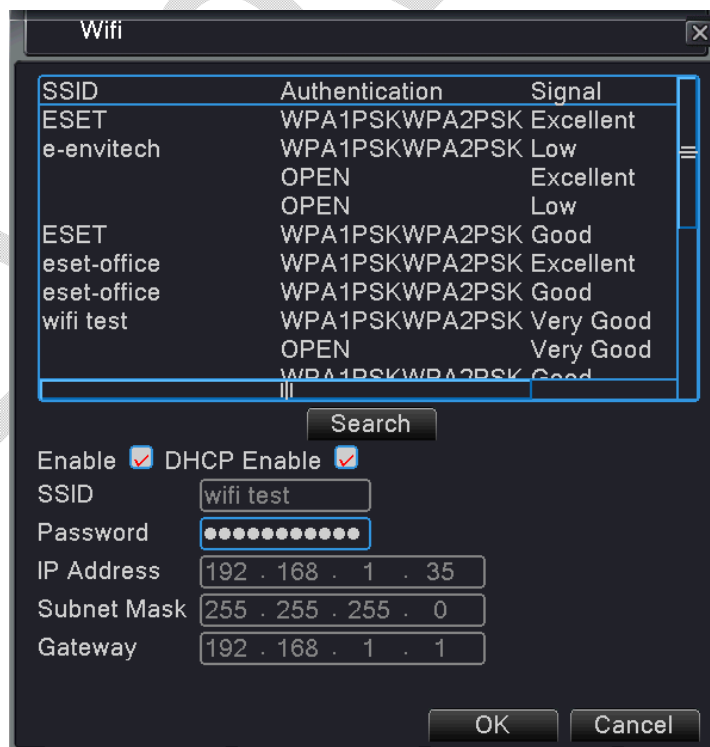
**【HTTP port】** : Router will distribute Http port for DVR automatically, when view from IE, need this port.

**【TCP port】** : Router will distribute TCP port for DVR automatically, when view from CMS, need this port.

**【Mobile Port】** : Router will distribute port for DVR automatically, when mobile monitor, need this port.

## 12. Wi-Fi

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



Pic.4-29

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

**【Enable】** : Tick it to enable the Wi-Fi function

**【SSID】** : Name of wireless LAN automatically fitted the connected wireless device

**【Password】** : Wireless network password

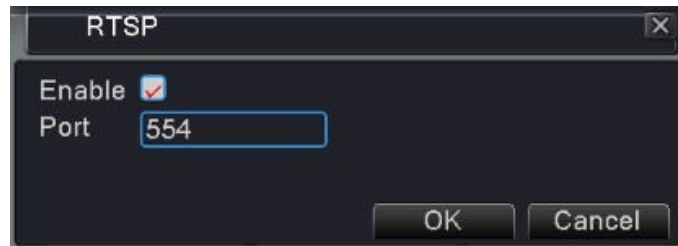
**【IP address】** : Set the IP address. Default: 192.168.1.10.

**【Subnet mask】** : Set the subnet mask code. Default: 255.255.255.0.

**【Gateway】** : Set the default gateway. Default: 192.168.1.1.

### 13. RTSP protocol

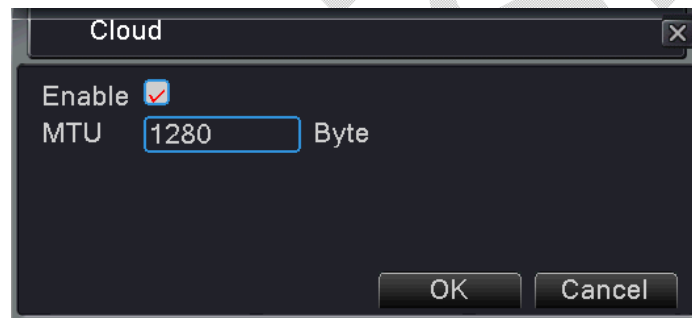
Monitor via cross-browser (Safari, Firefox, and Chrome) and VLC software, this function only can view, cannot control the device



Pic.4-30

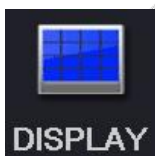
**【Enable】** : Tick it to enable the RTSP function.

**【Port】** : Set RTSP server port number, default is 554



Pic.4-31

### 4.4.5 GUI Display

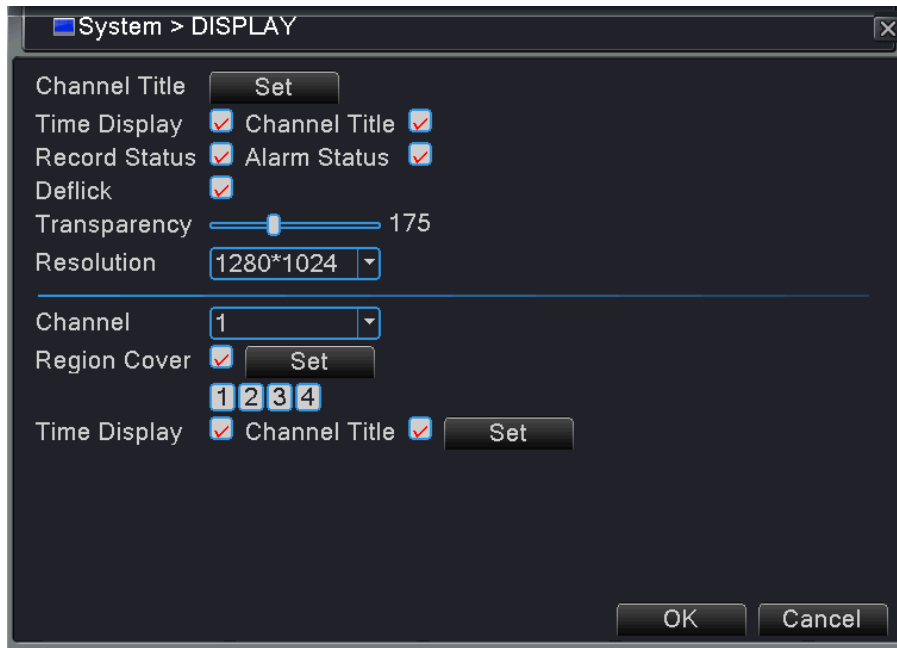


Configure the output parameters, including front output mode and encode output mode.

Front output mode: the local preview mode including channel name, time, title, record status, alarm status, transparency and region cover.

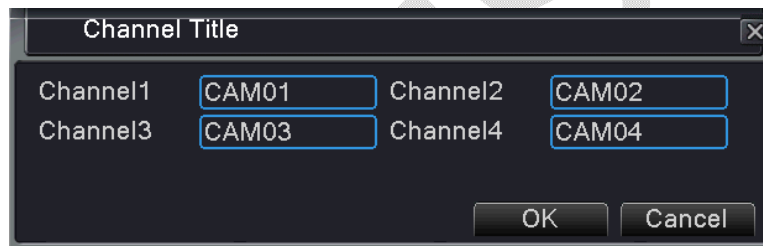
Encode output mode: network surveillance and video file mode including channel name, time, title, record status, alarm status, region cover.





Pic.4-32

**【Channel Title】**:You can set the channel name you want. The 16 Chinese characters and 25 letters are supportive



Pic.4-33

**【Time Display】**:Tick it means time will show on the monitor channel

**【Channel display】**: Tick it means channel number will show on the monitor channel

**【Record Status】**:Tick it means the record status will show on the monitor channel

**【Alarm Status】**: Tick it means the alarm status will show on the monitor channel

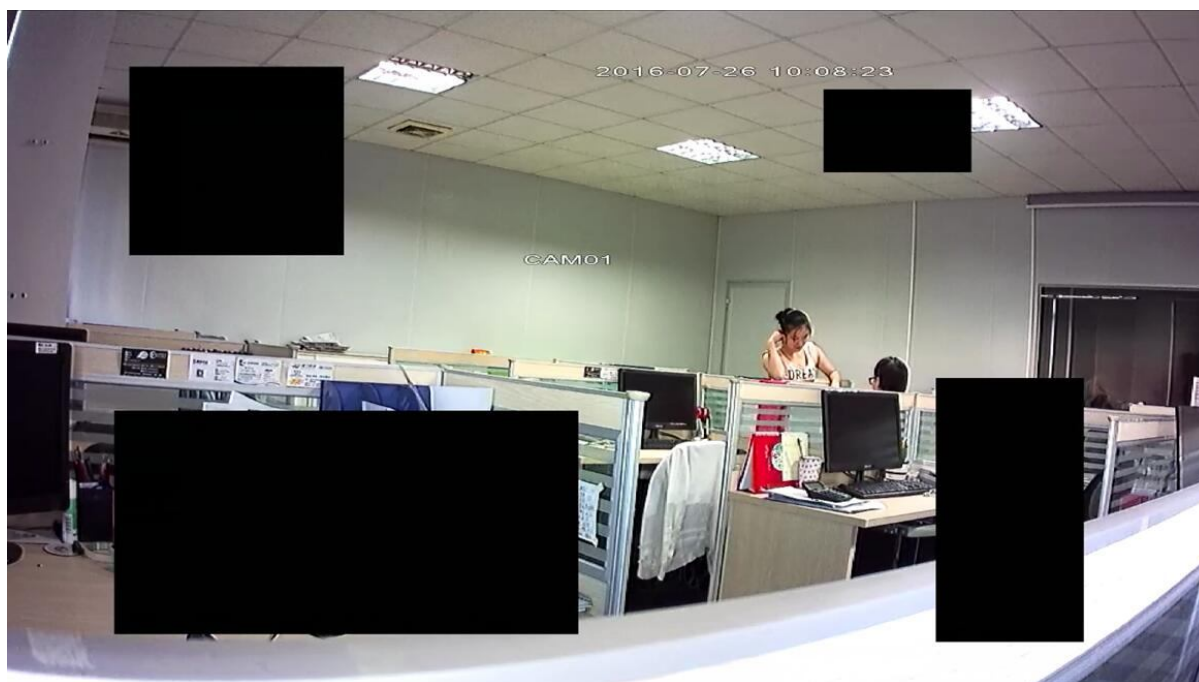
**【Transparency】**:Set the background image transparency. The range is 128~255.

**【Resolution】**:Set display resolution.

1024\*768  
1280\*720  
1280\*1024  
1440\*900  
1920\*1080

**【Channel】**:Choose the set code output channel number.

**【Region Cover】**: You can select the area to blind. Tick it to enable, and click set button to enter the corresponding channel window, you can choose the blind area by mouse (the video output is black of the covered region)



Pic.4-34

**【Time display】** : Set the display position of channel title and time title.

#### 4.4.6 PTZ Configuration



When system is under hybrid mode/DVR mode, it shows with PTZ device and RS485 device

Main Menu->System->PTZ Config

PTZ Device		RS485 Device	
Channel	1		
Protocol	PELCOD	NONE	
Address	1	1	
Baudrate	9600	9600	
Data Bits	8	8	
Stop Bits	1	1	
Parity	None	None	

OK Cancel

Pic.4-35

**【Channel】** : Choose the High speed dome camera input channel.

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

**【Address】** :Set as the corresponding dome address. Default: 1. ( The address must be consistent with the dome address. )

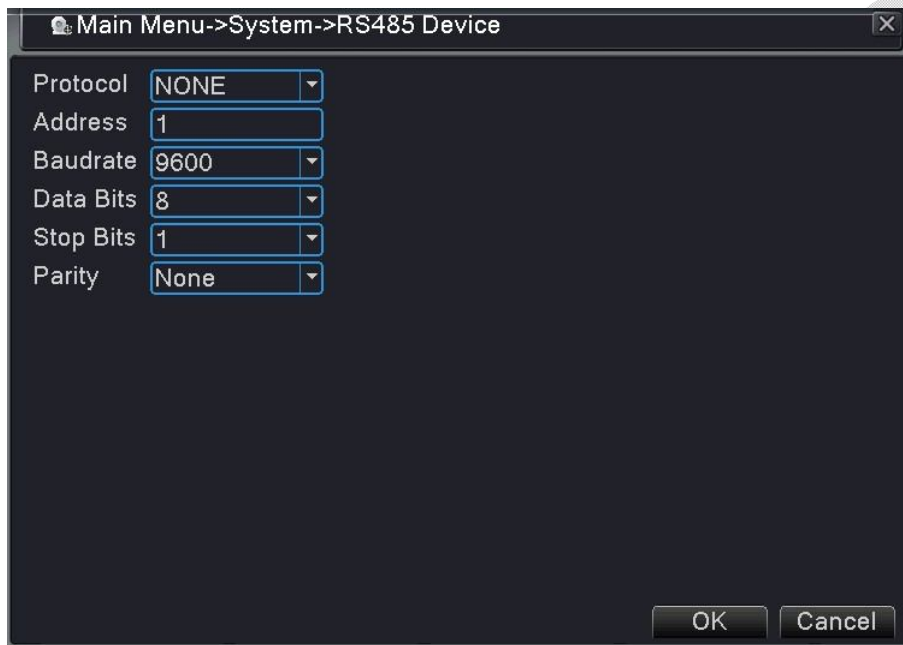
**【Baud rate】** : Choose the corresponding dome baud rate length. You can control the PTZ and vidicion. Default: 115200.

**【Data bits】** :Include 5-8 options. Default: 8.

**【Stop bits】** :Include 2 options. Default: 1.

**【Parity】** :Include odd check, even check, sign check, blank check. Default: void.

When system is under NVR mode, it shows RS485 device



Pic.4-36

**【Protocol】** :choose related protocol of brand model( for example: DaHua);

**【Address】** :set with corresponding address, default is 1;

**【Baud rate】** : choose bard rate that related device use, default is 115200;

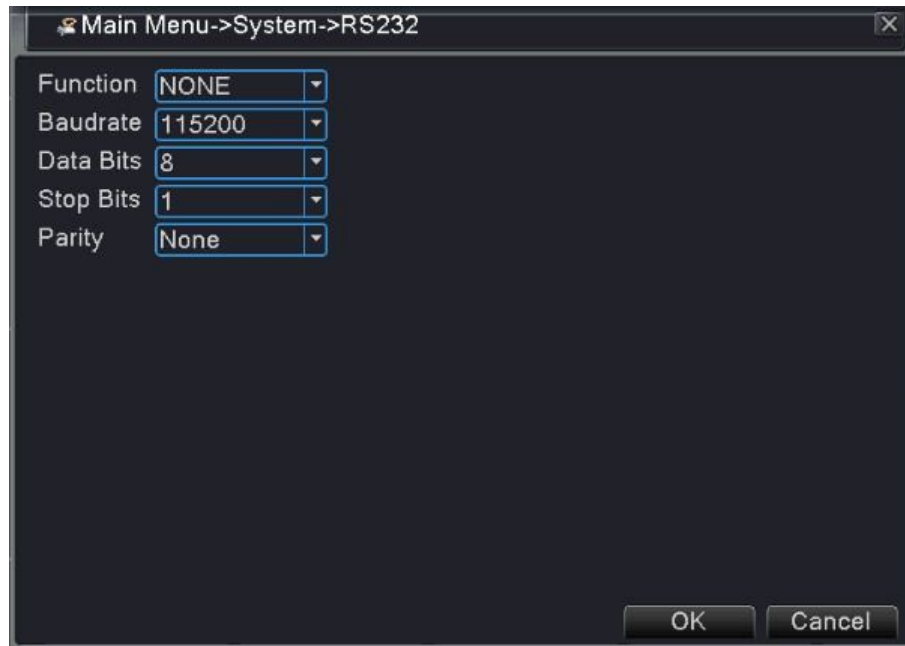
**【Data bits】** : including 5-8 options, default is 8;

**【Stop bits】** : including 2 options, default is 1;

**【Parity】** : Include odd check, even check, sign check, blank check. Default: void.

#### 4.4.7 RS232





Pic.4-37

**【Serial Port Function】**:Common serial port is used to debug and update program or set up specific serial port.

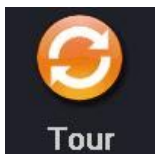
**【Baud rate】**:Choose the corresponding baud rate length.

**【Data bits】**:Include 5-8 options.

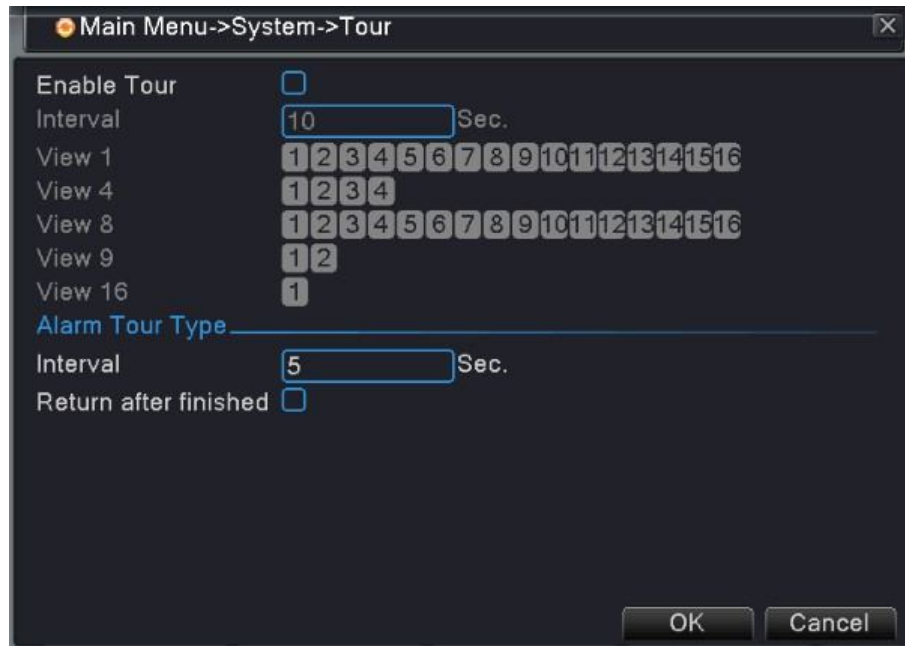
**【Stop bits】**:Include 2 options.

**【Parity】**:Include odd, even, mark, space, default is none.

#### 4.4.8 Tour



Set the patrol display. Tick it to enable tour function. You can choose the single-view, four-view, six-view of single mode tour or hybrid mode tour.



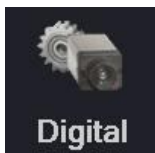
Pic.4-38

**【interval】** :Set the patrol switch interval. The set range is 5-120 seconds.

**【alarm tour】** :Set the interval to shift alarm tour, range is 5-120 seconds, choose return when alarm ends, when alarm link to tour, system will auto shift to six-view after alarm finished.

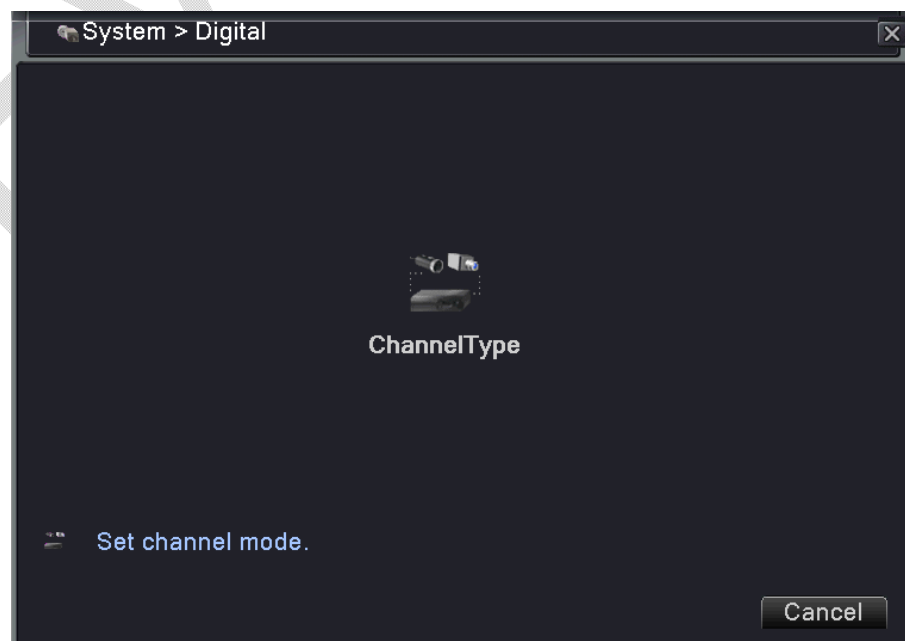
**【interval】** :Set the patrol switch interval. The set range is 5-120 seconds.

#### 4.4.9 Digital (Channel type management)



##### Channel Type:

All channel modes will show here, including HVR, DVR, and NVR. User can change the mode according to their demands





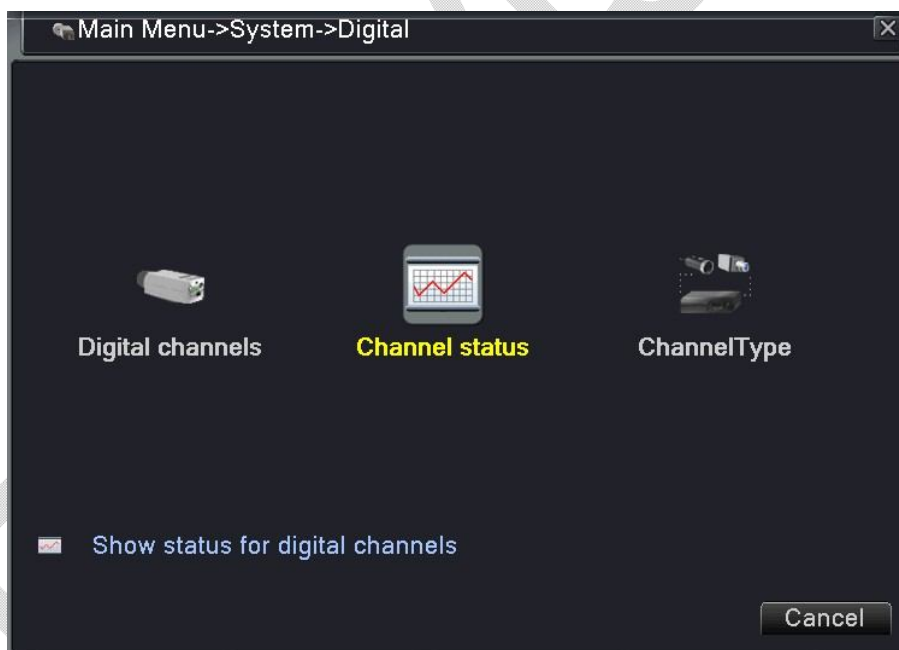
**ChannelType**

Local			IP	
AHDNH/1080N	AHDM/720P	AHDL/960H	1080P	720P
<input checked="" type="checkbox"/> 4	.	.	.	.
<input type="checkbox"/> .	4	.	.	.
<input type="checkbox"/> .	4	.	.	.
<input type="checkbox"/> .	.	4	.	.
<input type="checkbox"/> .	2	.	.	2
<input type="checkbox"/> .	.	.	8	.
<input type="checkbox"/> .	.	.	.	8
<input type="checkbox"/> .	.	.	4	.
<input type="checkbox"/> .	.	.	.	4
<input type="checkbox"/> .	.	.	1	.

Playback channel: 4  
Maximum number of preview: 4

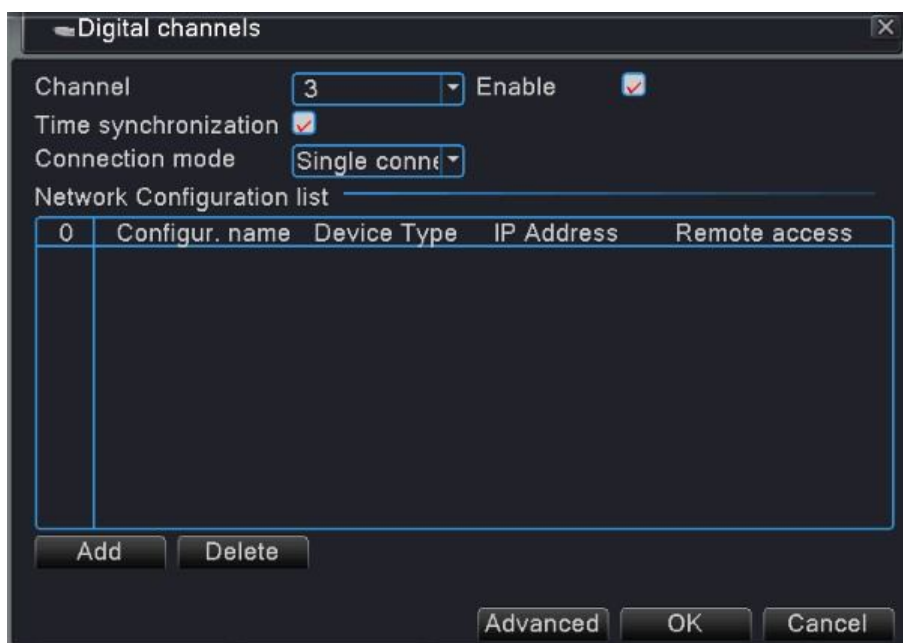
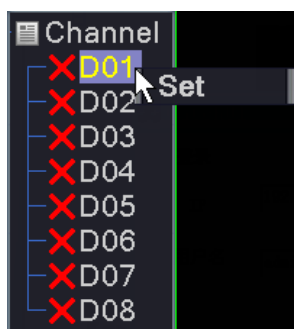
OK Cancel

Channel management page under Hybrid/NVR mode including digital channels, channel status, and Channel Type (Pic4-41)

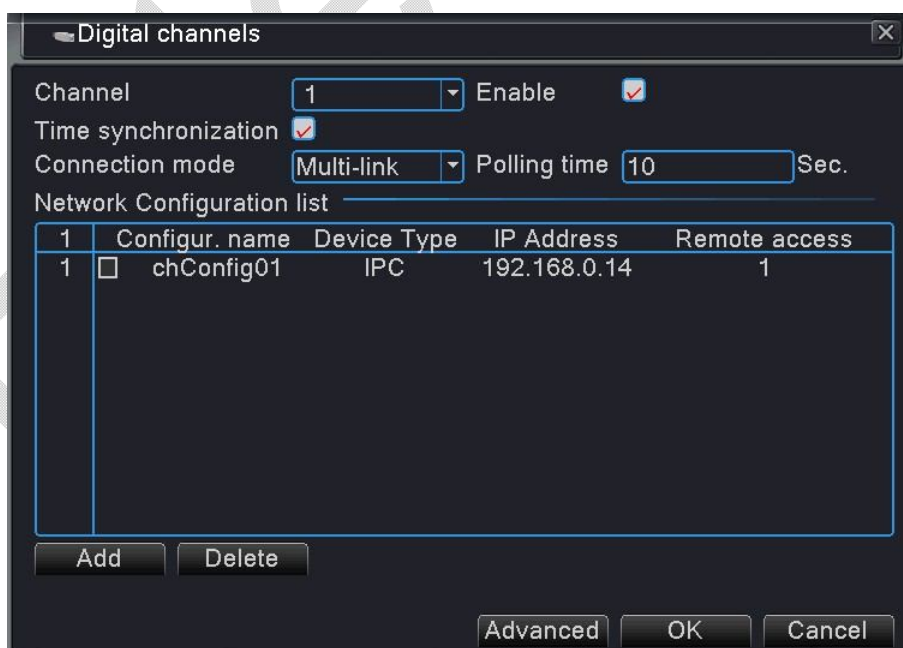


Pic.4-41 Channel management page under Hybrid/NVR mode

Use left key of mouse double click the channel numbers can enter Digital channels menu, or move the mouse to channel numbers, click the right key and choose **“set”**



Pic.4-42 Single link page of digital channel



Pic.4-43 Multi-link page of digital channel

**【Channel】** :Select channel title

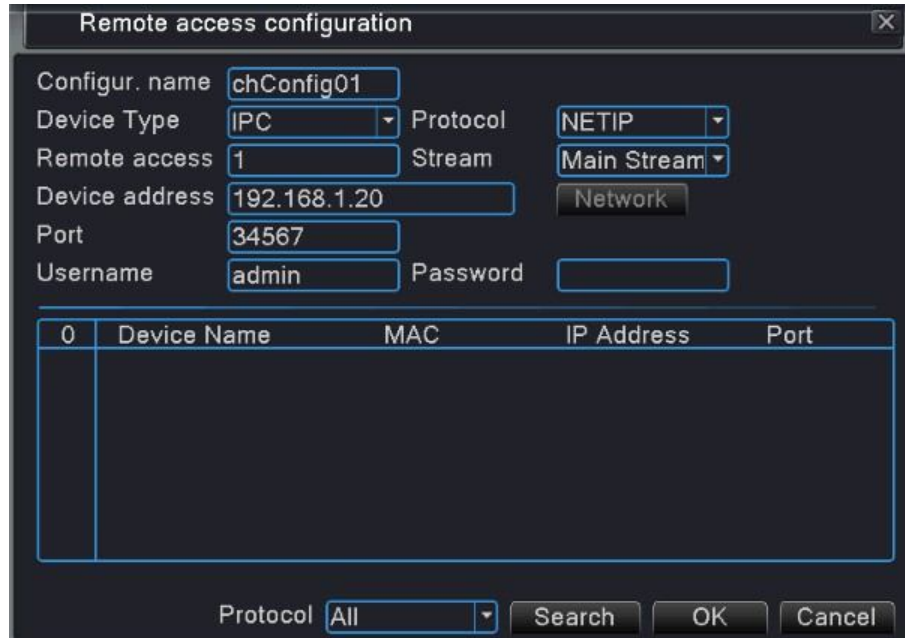
**【Enable】** :Open digital channel, tick enable, then can do related settings

**【Time Synchronization】**:Tick it means the time of this channel and device is the same.

**【Connection Mode】**:Can be single connect or multi-link, multi-link modes can connect with several devices, device will be tour displayed one by one, tour interval can be set, no less then 10s;

**【Delete】**:If the user wants to change device, select the existing device, click delete will be ok.

**【Add】**:Click add button will come out below page to add new device



The dialog box titled "Remote access configuration" contains the following fields and controls:

- Configur. name**: Text box with value "chConfig01".
- Device Type**: Dropdown menu with value "IPC".
- Protocol**: Dropdown menu with value "NETIP".
- Remote access**: Text box with value "1".
- Stream**: Dropdown menu with value "Main Stream".
- Device address**: Text box with value "192.168.1.20".
- Port**: Text box with value "34567".
- Username**: Text box with value "admin".
- Password**: Empty text box.
- Network**: Button.
- Table**: A table with 5 columns: "0", "Device Name", "MAC", "IP Address", and "Port". The table is currently empty.
- Protocol**: Dropdown menu with value "All".
- Search**: Button.
- OK**: Button.
- Cancel**: Button.

Pic.4-44 Remote channel configuration

**【Configure Name】**:device is with default configure title, user can revise it if necessary;

**【Device Type】**:3 types: IPC、DVR、HVR, user can choose it, default is IPC;

**【Protocol】**:Default is TCP

**【Remote channel】**:User can input remote channel title from the device that you want to connect remotely

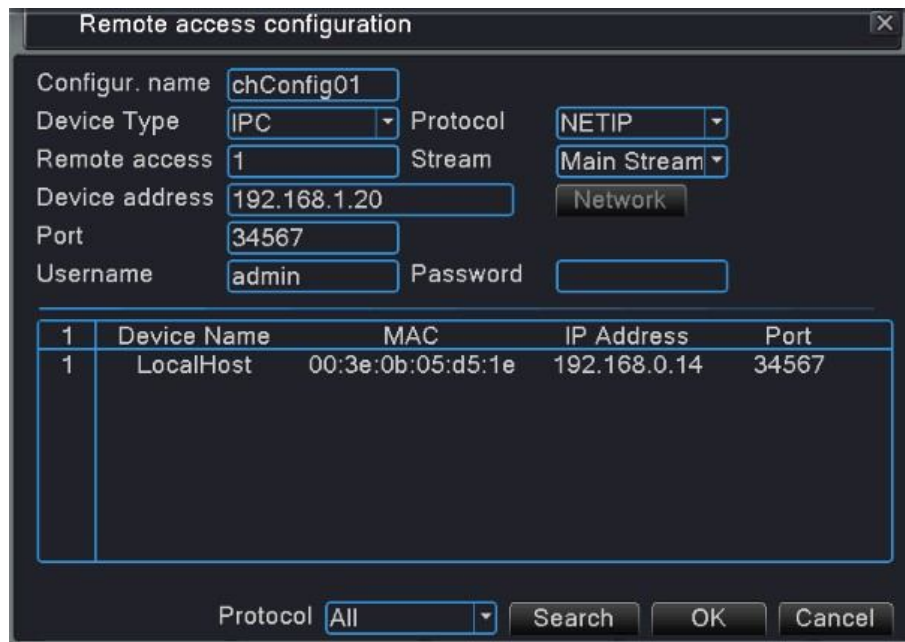
**【Stream】**:Default is main stream, do not support extra-stream at present;

**【Device address】**:IP address of device.

**【Port】**:Default is 34567

**【User name】**:Default is admin

Click search button will show all the devices that searched out, user can choose any of the devices that you like.

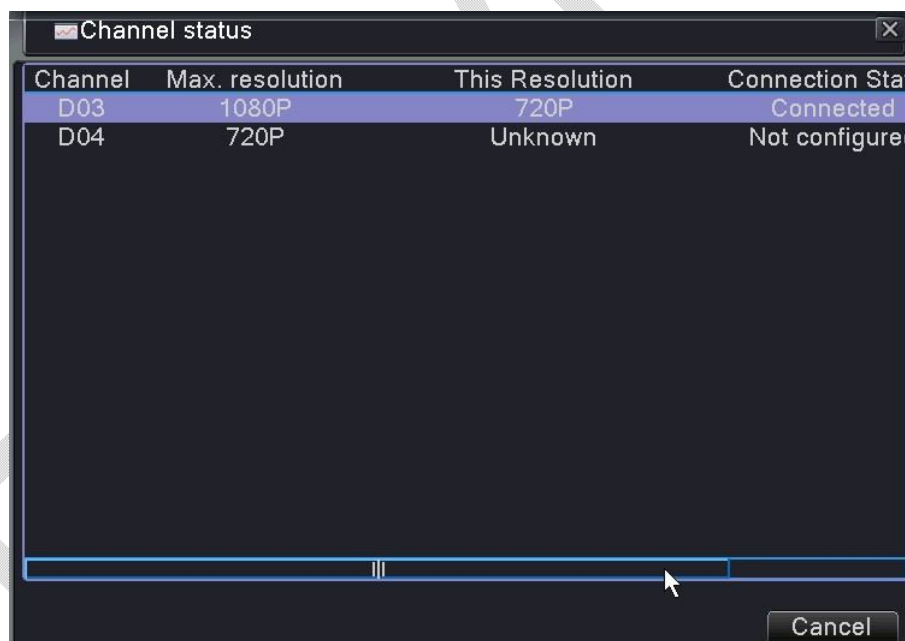


Pic.4-45 the device list searched under remote channel setting

#### Channel Status:

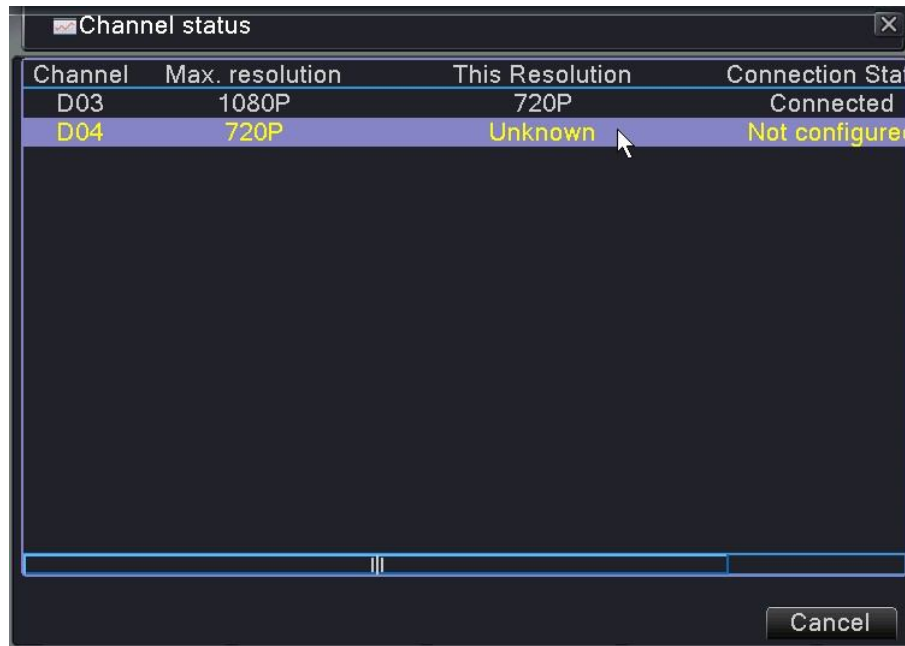
Channel status is to show the status of all the digital channels when there is what existing, status including Max Resolution, This Resolution, and Connection Status.

For example: The channel status for 4+2 mode is as below:



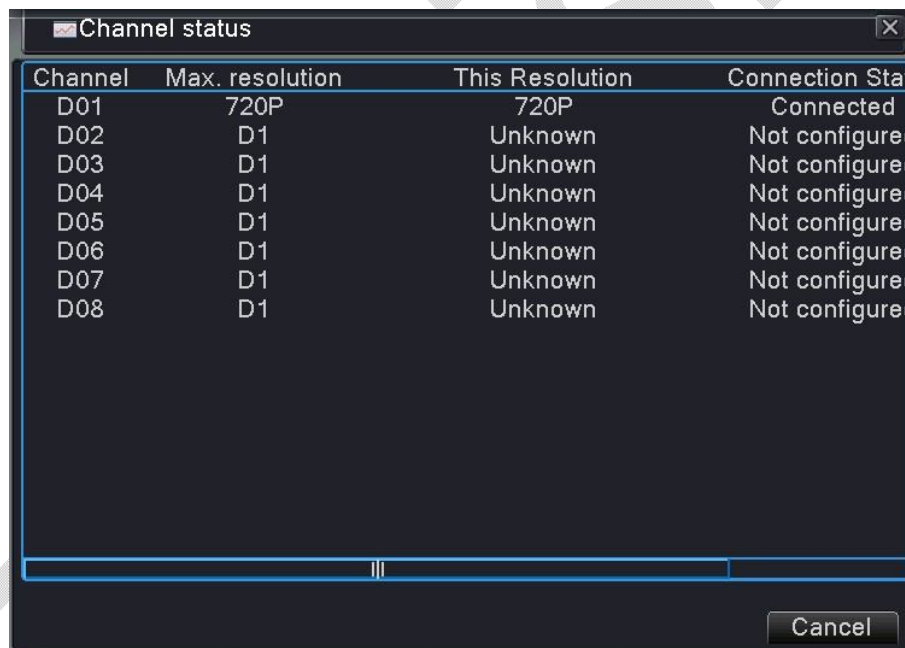
Pic.4-46

When a channel is added with device but it is not enable, you will see as below:



Pic.4-47

Channel status interface under full digital (NVR) mode (One of the channel without device):



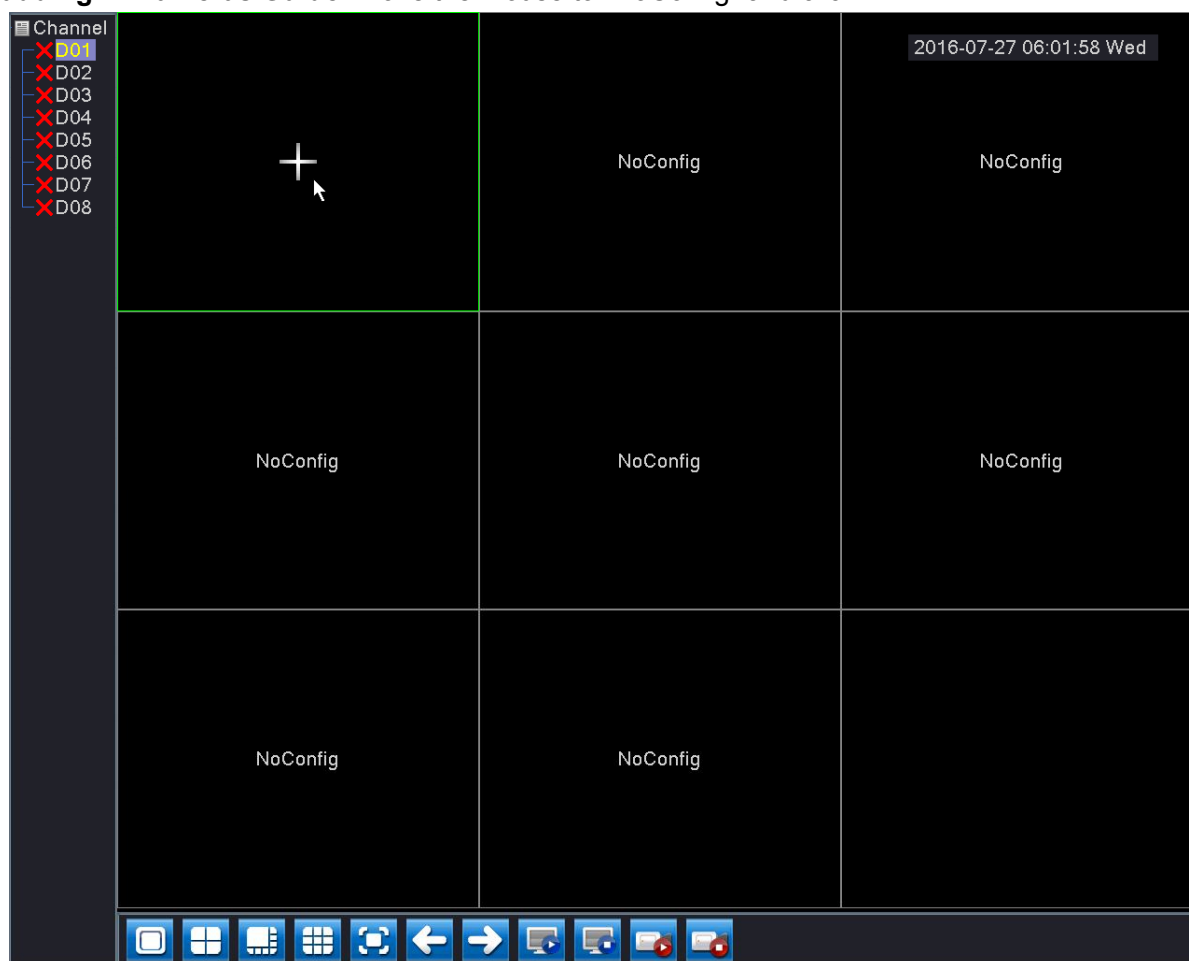
Pic.4-48

When the current resolution is over the max resolution that the channel supported, then a red "X" will be shown on the preview channel, for example: Under full digital channel mode, Max resolution of channel 3 is D1, if it was connected to a device with resolution over D1 ( such as 960H), you will see below pic:



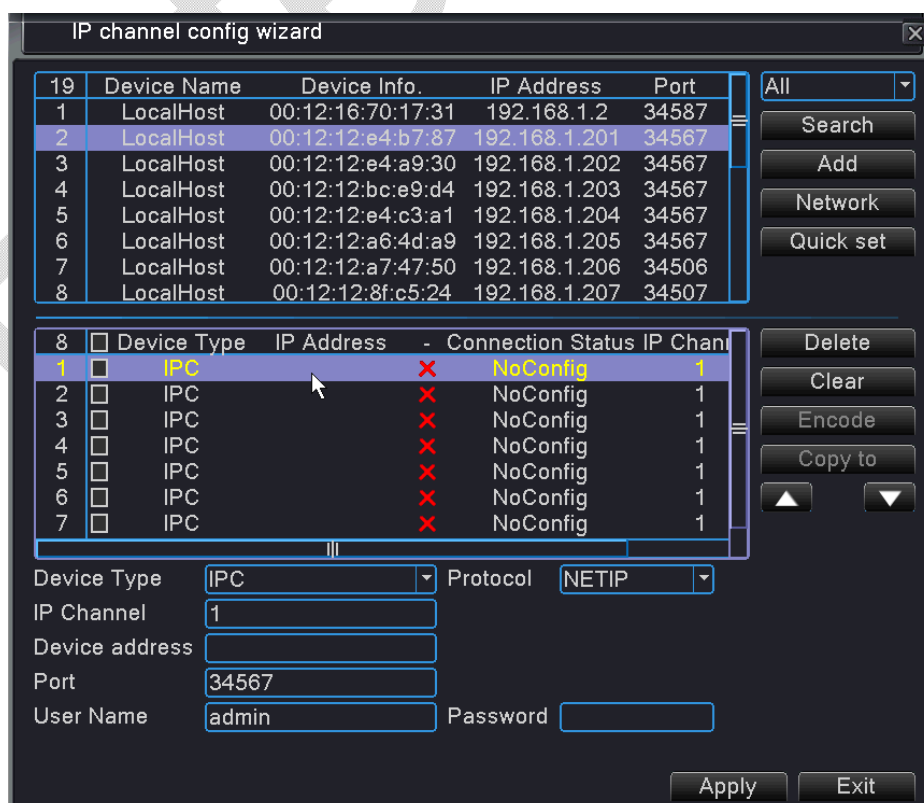


**Quick adding IP Cameras Guide:** Move the mouse to “NoConfig” and click “+”.



Pic.4-49

**IP channel config wizard:**



Pic.4-50

**[ ALL ]** : Search all IP Cameras support NETIP/Onvif in same LAN

**[ NETIP ]** : Search IP Cameras support NETIP in same LAN

**[ ONVIF ]** : Search IP Cameras support Onvif in same LAN

**[ Search ]** : Search IP Cameras in same LAN and list them on the left

**[ ADD ]** : Move the mouse to choose the IP Camera listed on the left, click ADD can add IPC into NVR. Or quick double click the listed IPC

**[ Network ]** : Choose the IPC, click Network can change the parameters of IPC

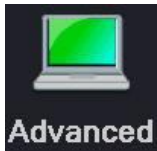
**[ Quick Set ]** : Quick adding IP Cameras to all channels of NVR

**[ Delete ]** : Delete the selected IP Cameras, or click "X"

**[ Clear ]** : Delete all IP cameras connect to NVR already

**[ Encode ]** : Set the coding parameters of IP Cameras

## 4.5 Advanced

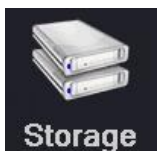


Management tools including: HDD Manage, Account, Online User, Output Adjust, Auto Maintain, Restore, Upgrade, Device info. Import/Export.



Pic.4-51

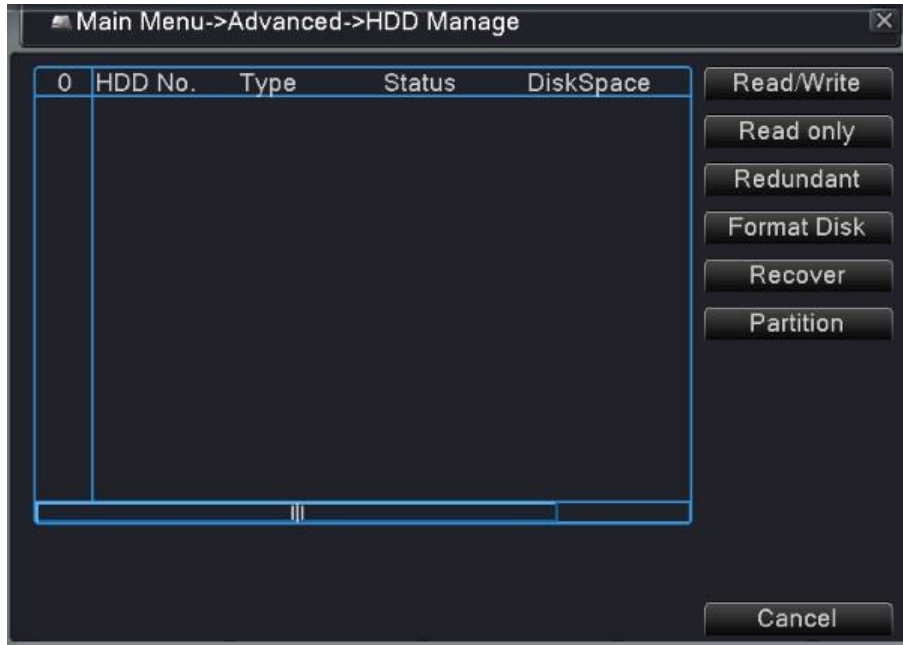
### 4.5.1 HDD Manage



Configure and manage the hard disk. The menu displays current hard disk information: hard disk number, input

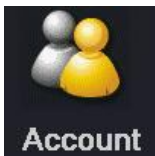
port, type, status and overall capability.

The 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.



Pic.4-52

#### 4.5.2 Account



Manage the user authority.

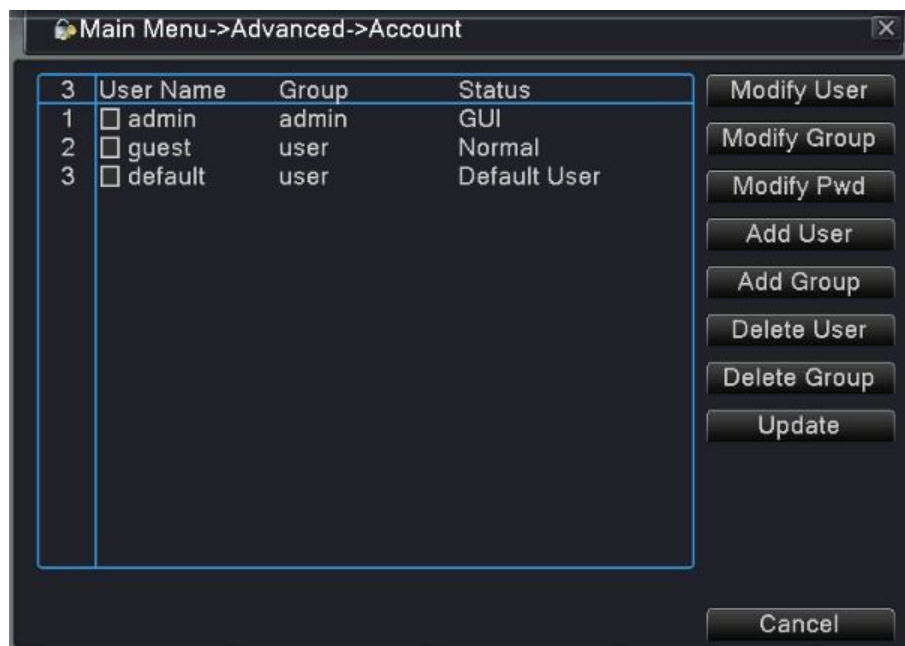
##### **Notice:**

1. the character length is 8 bytes at most for the following user and the group name. The blank ahead or behind the character string is invalid; the middle blank in the character string is valid.

Legal characters include: letter, number, underline, subtraction sign, and dot.

2. There is no quantity limit in the user and group. You can add or delete the group according to user definition. The default setting include: user/admin. You can set the team as you wish. Can appoint the function authority of the group for the users.

3. The user management include: team/user. The group and the user name cannot be same. Each user only belongs to one group.



Pic.4-53

**【 Modify user 】** : Modify the existed user attribute.

**【 Modify group 】** : Modify the existed team attribute.

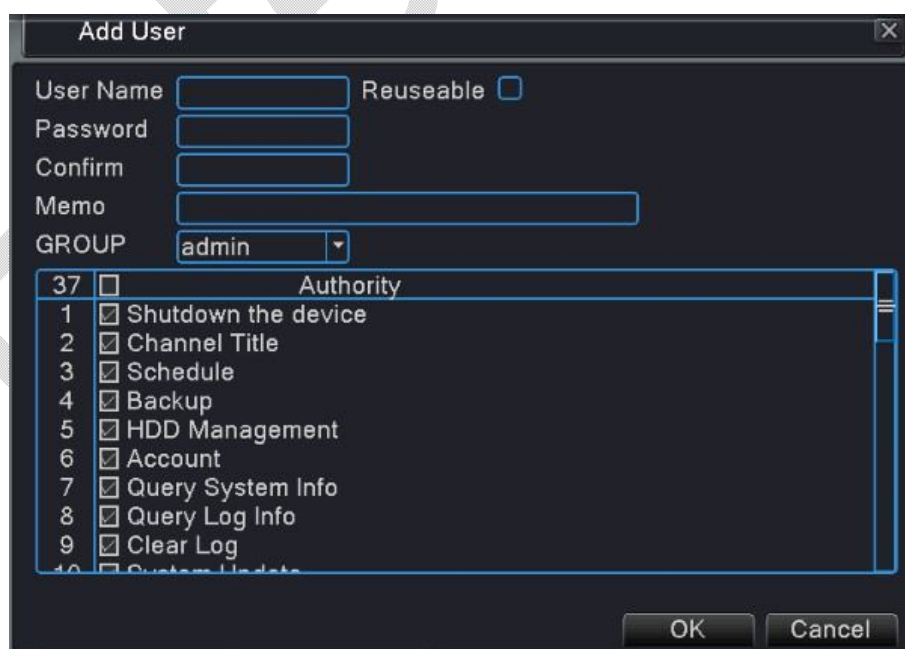
**【 Modify password 】** : Modify the user password. You can set 1-6 bit password. The blank at the ahead or bend of the character string is invalid. The middle blank in the character string is valid.

**Notice**: The user who possess the user control authority can modify his/her own or other users' password

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

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

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



Pic.4-54

**【 Add group 】** : Add a user Group and set the authority. There are 52 different kinds of authority: shut down the equipment, real time surveillance, playback, recording setup, video file backup and so on.



Pic.4-55

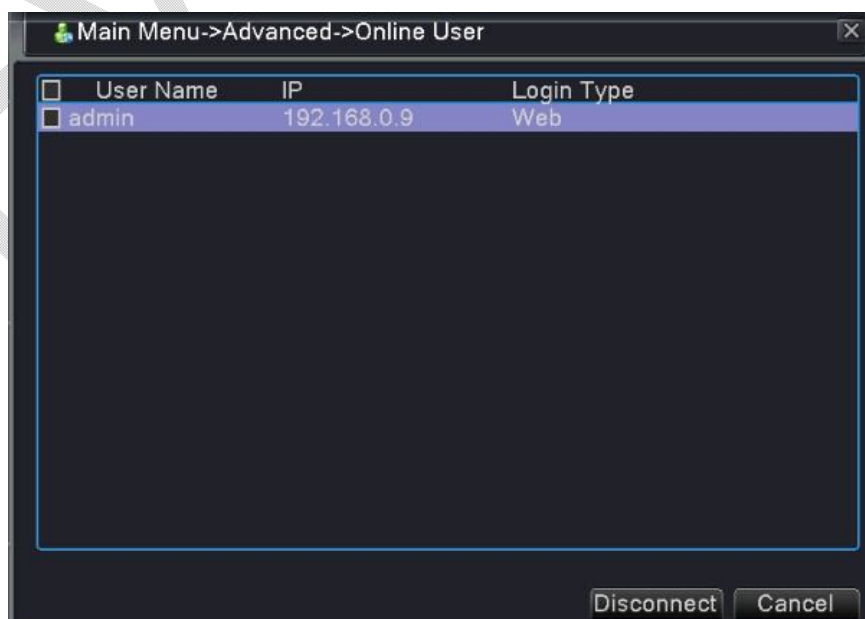
**【 Delete user 】** : Delete the current user. Choose the user which needs to be deleted. (The default user cannot delete).

**【 Delete Group 】** : Delete the current group (ensure that there is no user in the group).

### 4.5.3 Online User



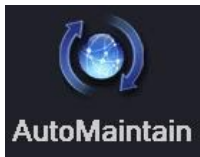
Check the information of network user that connect with local device, also can tick the selected user to break up connection, ( mark √ at the box ) ,then the user will be frozen after connection stopped, and will not log in until device reboot.



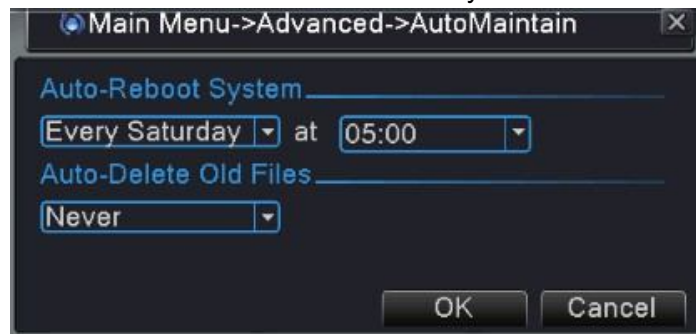
Pic.4-56

#### 4.5.4 Output Adjust (Please refer to chapter 3.4.5)

#### 4.5.5 Auto Maintain

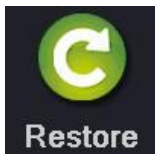


Users can set the time to reboot and delete the files automatically.

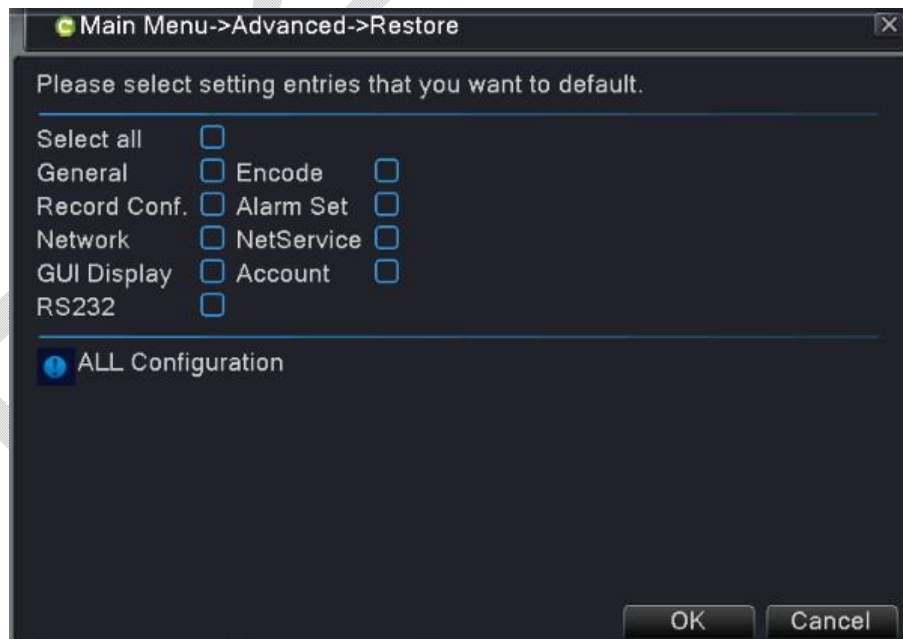


Pic.4-57

#### 4.5.6 Restore



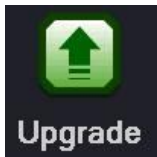
The system restores to the default settings. You can choose the items according to the menu.



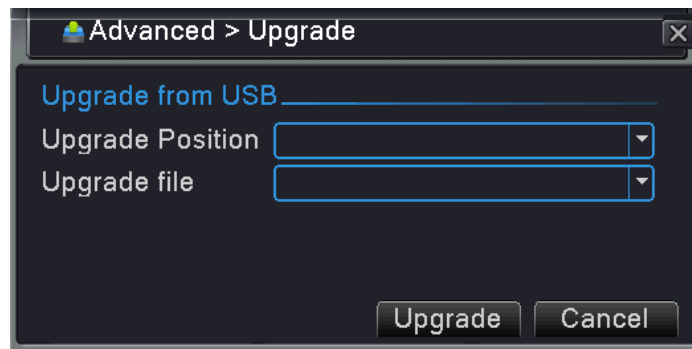
Pic.4-58



#### 4.5.7 Upgrade



Upgrade DVR software system



Pic.4-59

**[ Upgrade ]** : Choose USB interface.

**[ Upgrade file ]** : Choose the file which needs to be upgraded

#### 4.5.8 Device Info.

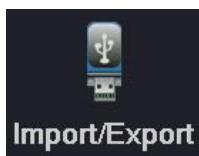


Provide device interface information like audio in, alarm in/out to be conveniently used for user.

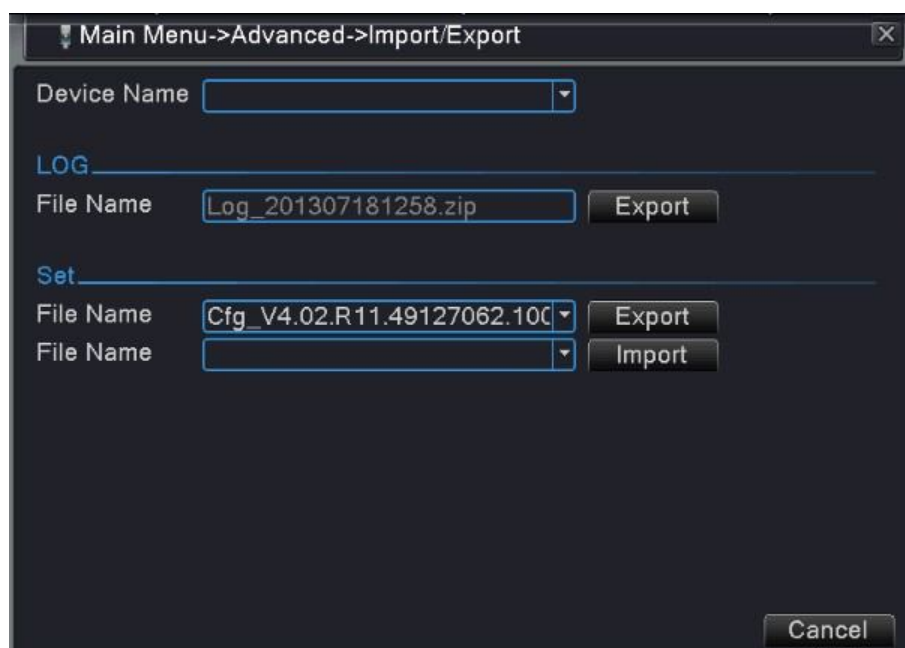


Pic.4-60

#### 4.5.9 Import/Export

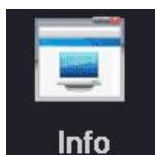


Users can export the log info and the configure file from device to connected flash stick, and also can import related configure file from flash stick to settings, which greatly bring convenience to the customers

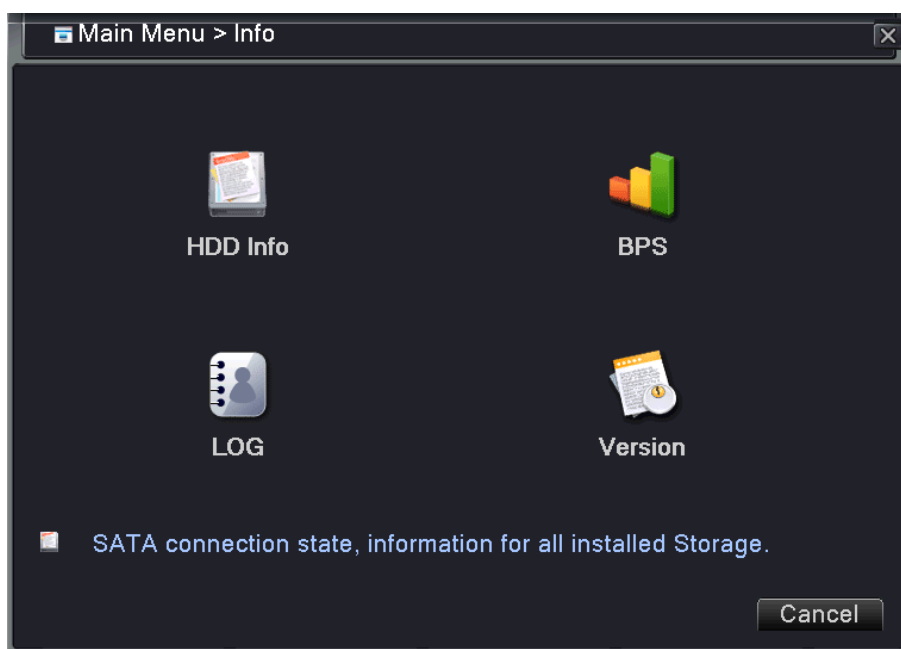


Pic.4-61

#### 4.6 System information



Display the hard disk information, including HDD info, code stream statistic, log info, version info

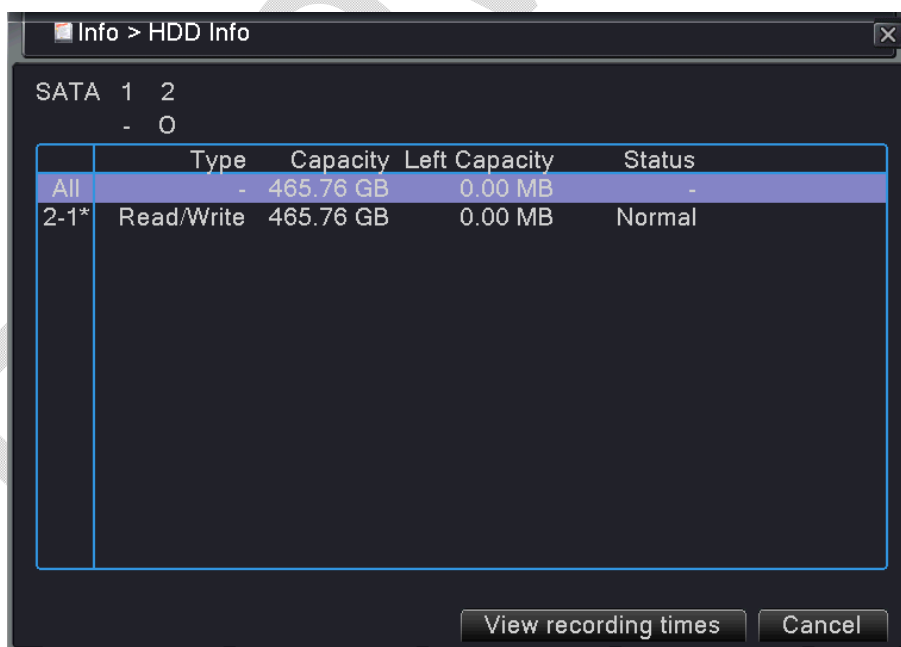


Pic.4-62

#### 4.6.1 HDD information

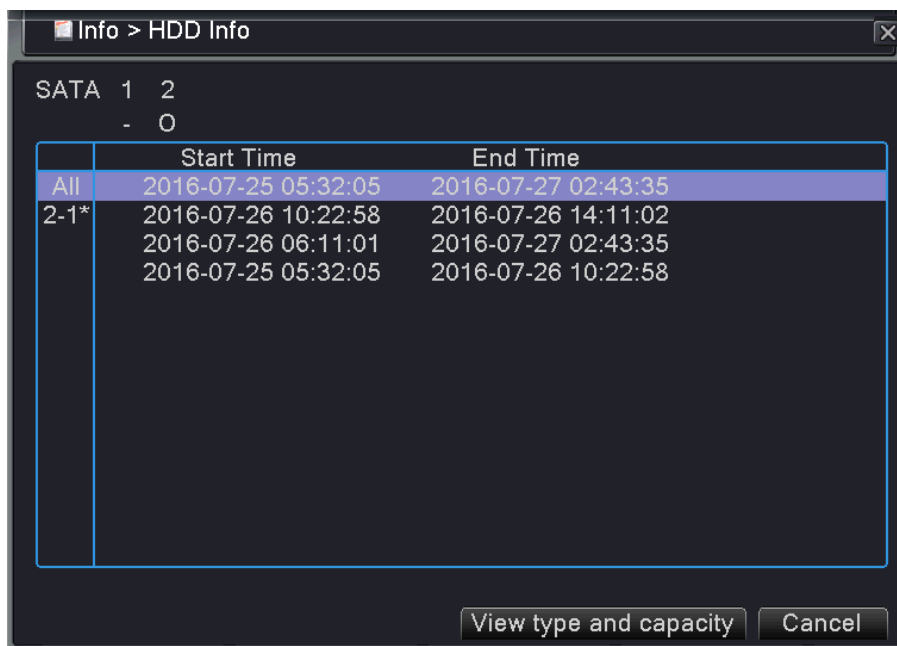


Display the hard disk status: hard disk type, capability, Left capability, Status.



Pic.4-63

**View recording times:** Display record time from starting to ending

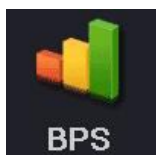


Pic.4-64

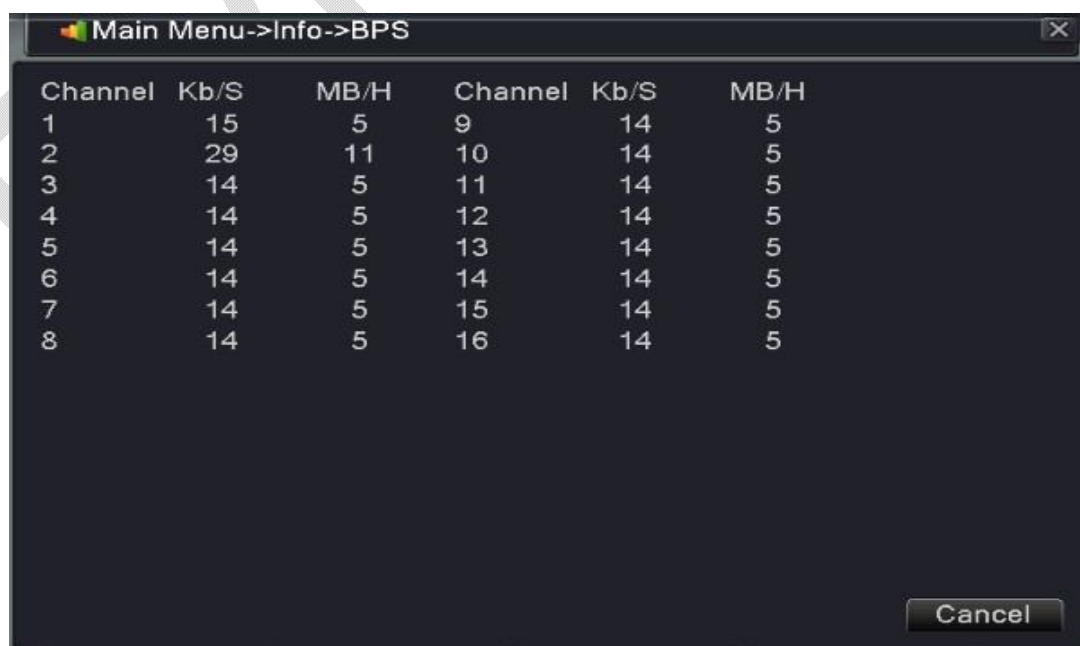
○ means the hard disk is normal, X means the hard disk is broken-down, — means there is no hard disk. If the user needs to change the damaged hard disk, you must shut down DVR first.

\* Behind serial number means the current working disk such as 1\*. If the corresponding disk is damaged, the information will show “?” .

#### 4.6.2 BPS

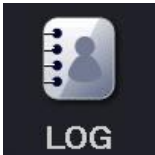


Display the code stream ( Kb/S ) and hard disk capability ( MB/H ) in real time. It displays as the wave map.



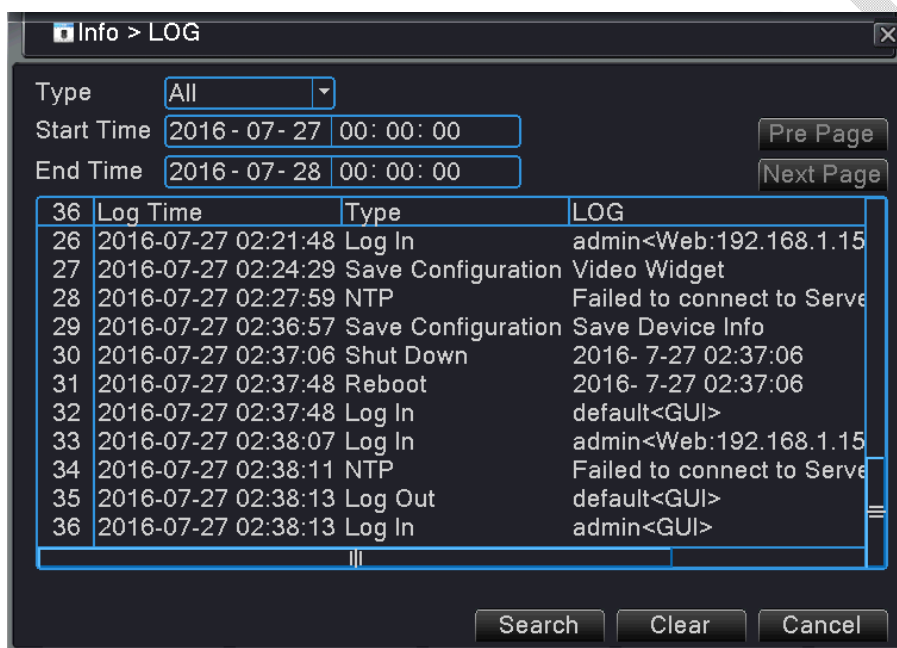
Pic.4-65

### 4.6.3 LOG



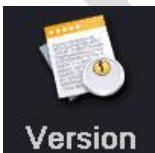
Search log information base on the set search mode.

**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.

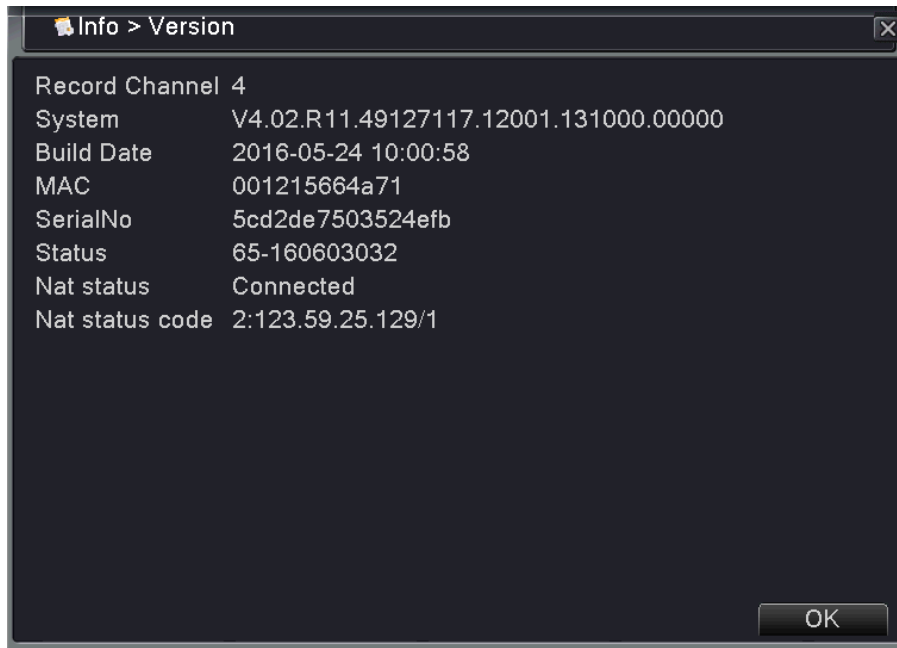


Pic.4-66

### 4.6.4 Version



Display the basic information such as hardware information, software version, issue date, serial number, NAT status and so on.



Pic.4-67

#### 4.7 Logout (Please refer to chapter 3.4.8)

## Chapter 5-Network access settings and cloud technology introduction

### 5.1 LAN access settings

#### 5.1.1. Network connection

1. Before the WEB operation, need to connect this device with the network.
2. Enter DVR "main menu" → "system" → "network" to set correct IP address, subnet mask, DNS and gateway port, default is ok (the IP segment of the device should be the same with that on PC computer, if disconnected, please check device IP was successfully connected or not .)

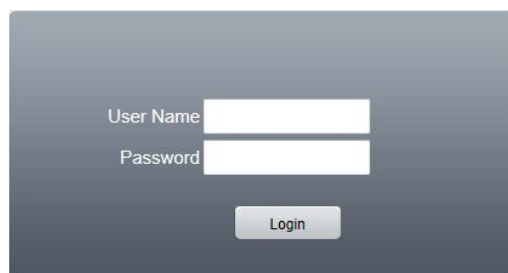
#### 5.1.2. Login

**Step 1:** After connecting successfully, you can login to view.

Open a web browser, input the IP address of the login device in the address bar. For example the device IP address is [192.168.1.10](http://192.168.1.10); HTTP port is 80. Then input <http://192.168.1.10> in the address bar and connect. If HTTP port is not 80, such as 81, then need to add port when viewing, as: <http://192.168.1.10:81>

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, 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 other prohibited controls to download plug-ins, and lower the IE security level, permit unsigned plug-in to operate. The following interface will pop up after successfully connected.

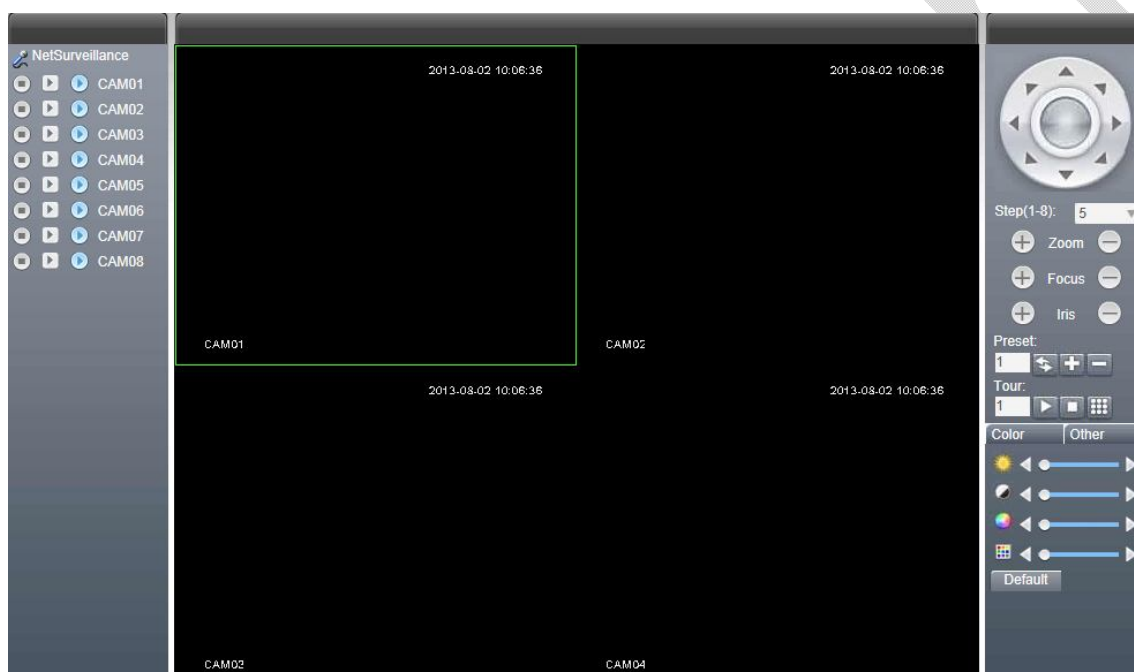




Pic.5-1 WEB Login interface

**Step 2:** Login. Enter the user name and password, the administrator user name of factory default is **admin**, password is **blank**. After login, please promptly modify the administrator password.

After Login successfully, display the interface as shown below.

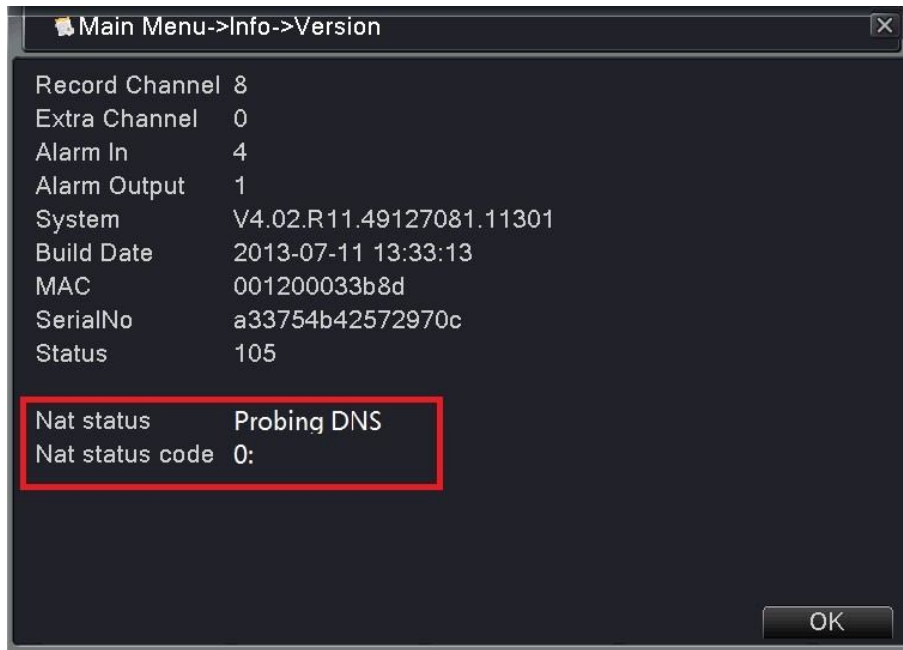


Pic.5-2 WEB control interface

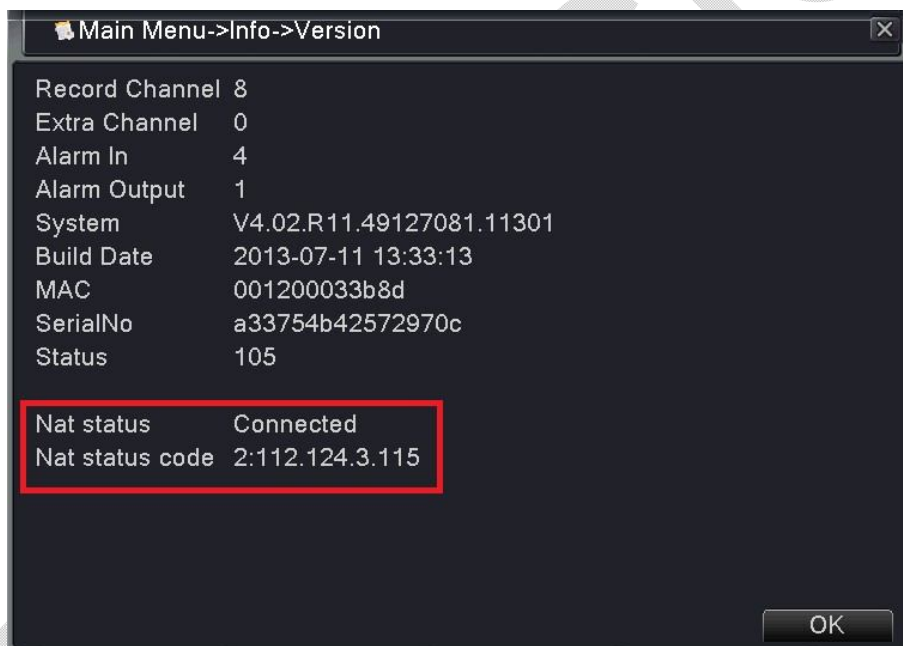
## 5.2 Cloud technology functions and use introduction

**Cloud technology** is the latest network remote access technology; Using cloud technology, you don't need to set the complex router and network settings to achieve remote access easily.

Before using cloud technology, Make sure your device connect to WAN successfully. You can check the connection status of cloud technology from version submenu.



Pic.5-3 Connect failed interface



Pic.5-4 Connect successfully interface

Open web browser, enter cloud access website: [www.xmeye.net](http://www.xmeye.net) . Login interface as picture 5.5:



Pic.5-5 login

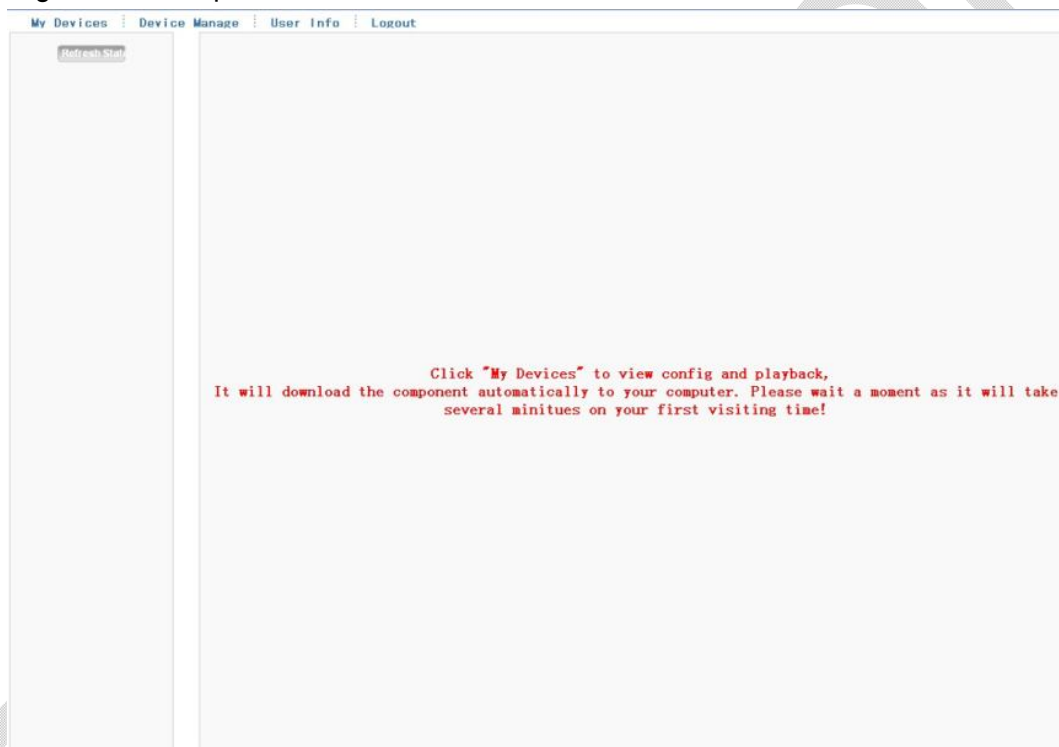
There are two ways to remote control the device with cloud technology: By device serial No. and By User

### 5.2.1. Login by Device serial no.

Input Serial No. of DVR and verify code can achieve remote access (where to get Serial No: “main menu” → “info” → “version”)

### 5.2.2. Login by User

Customers use their registered user name and password to log in (first time use need to register). After login, needs to add the device (enter “device management” page can finish adding device); after finish adding device, the added device will appear in the left column of “my devices”. Click on the current equipment for preview, playback, configuration and operation

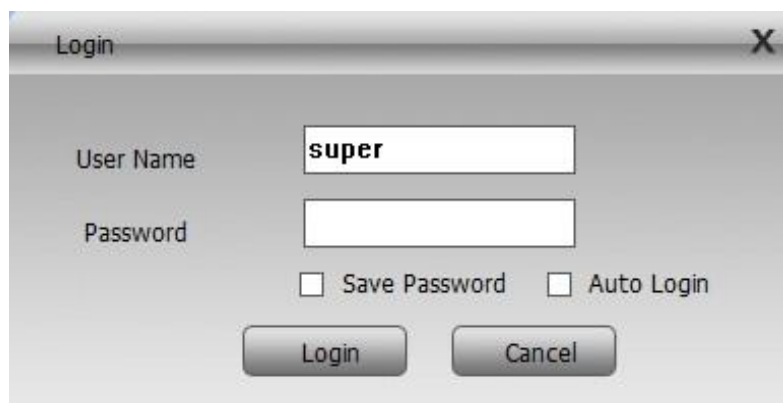


Pic.5-6 Remote operation

## 5.3 Client CMS software operation

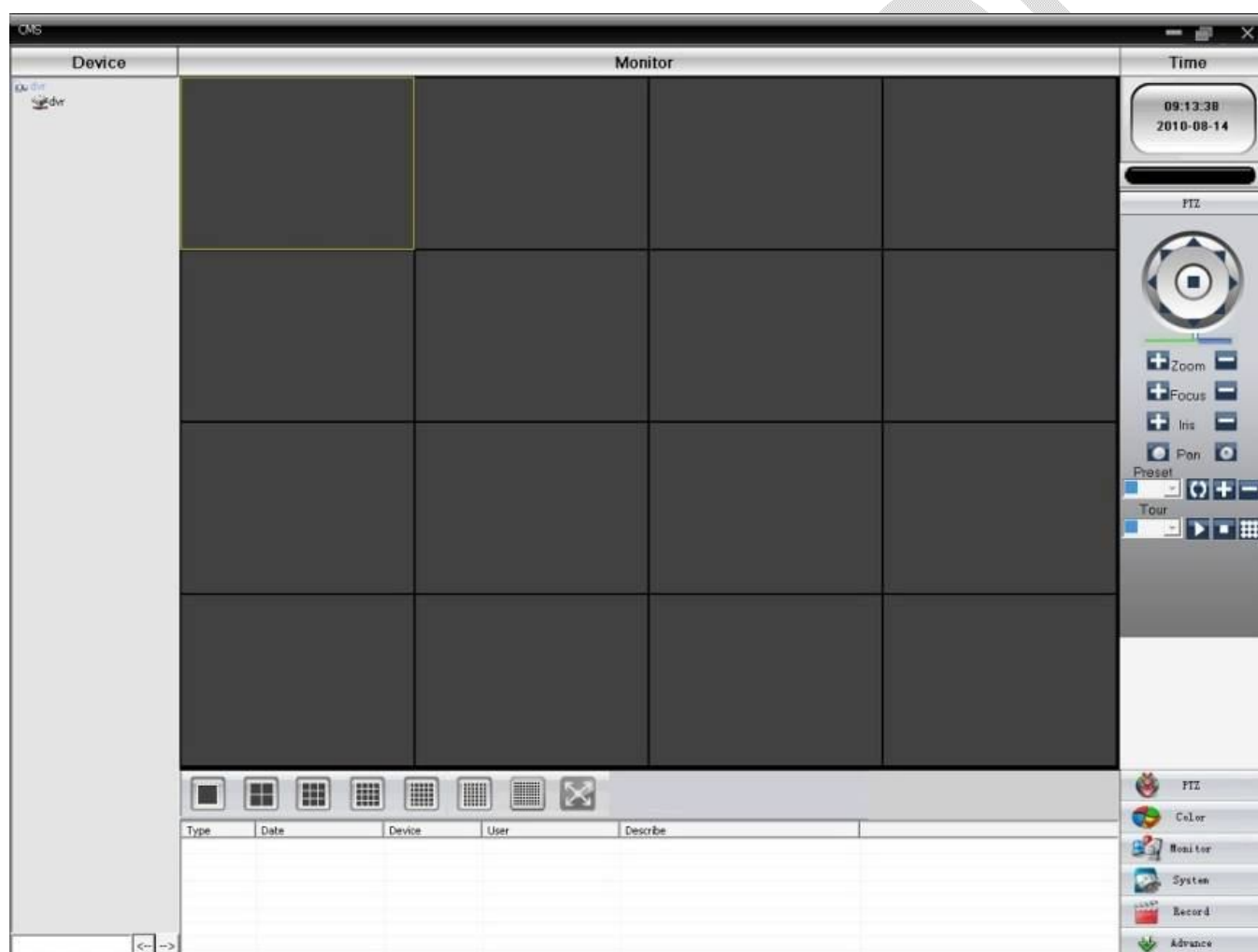
CMS software is used on the same PC, support control multiple DVRs at the same time.

Please take out the software CD in the accessory box, copy the CMS installation software from the CD. After installation on the local PC, double click the “CMS”, open the control interface appears in Picture 5.7, default without password, the client can set the login password (**Note: The password is password of CMS client, non-DVR login password**).



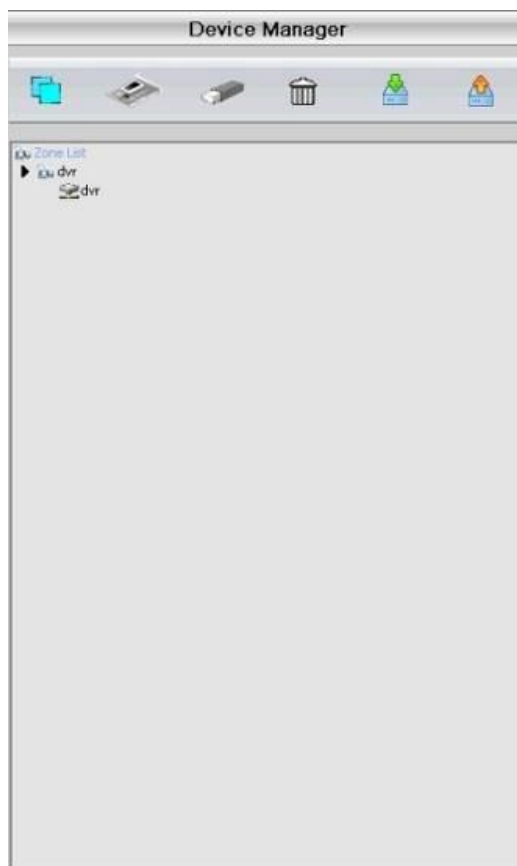
Pic.5-7 CMS login

After enter into CMS interface, shown in Picture 5-8:





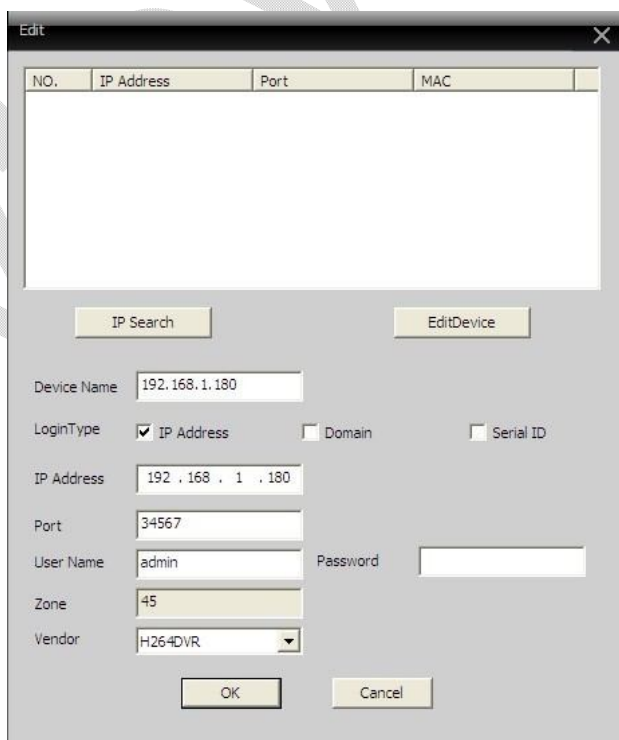
Pic.5-8 CMS control interface

Click the right corner of "System" settings, switch to the control of management options as below:



Pic.5-9 manage

First click  to add a domain, region name are free to take, after determining the list of selected regional areas to create a domain name, select  add device as shown below:



NO.	IP Address	Port	MAC

Device Name:

LoginType: ☒ IP Address ☐ Domain ☐ Serial ID

IP Address:

Port:



User Name:  Password:

Zone:

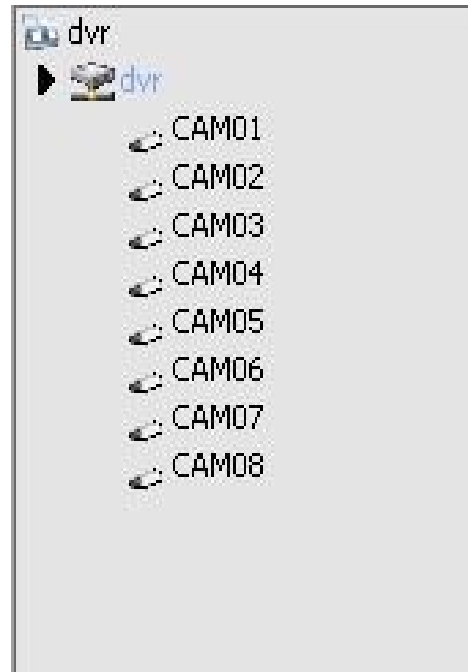
Vendor:

Pic.5-10 edit

As the follow prompts to input required information of the DVR device, confirmed and added successful, repeat the above operation, can add multiple DVR equipments, management and monitoring operations.

If you want to modify the equipments which have been added before, selected the needed DVR at first, then click the  icon to modify the parameters, but also can delete the DVRs which have been added on the regional list through click  deletion.

After completed these steps to add DVR, click the label at the right corner for real-time monitoring, switch to multi-monitor screen interface, double-click the top left column of the DVR channel device can carry out real-time monitoring.



Pic.5-11 device

## Chapter 6-FAQ and Maintenance

### 6.1 FAQ

#### 1. System cannot detect hard disk

Possible reasons are as follows:

- (1)The hard disk power supply line is not well connected.
- (2)The cables of the hard disk are damaged.
- (3)The hard disk is damaged.
- (4)The SATA port of main board is damaged.

#### 2 There are no video outputs in single channel, multiple channels and all channels.

Possible reasons are as follows:

- (1)The program is not matched. Please update the program.
- (2)The image brightness is all 0. Please resume the default setup.
- (3)There is no video input signal or the signal is too weak.
- (4)The channel protection or the screen protection is set.
- (5)The hardware of the DVR is damaged.

#### 3. Real-time image problems such as the image color or the brightness distortion.

Possible reasons are as follows:



(1)When using the BNC output, the option between the NTSC mode or PAL mode is wrong and the image becomes black and white.

(2)The DVR is not matched with the monitor impedance.

(3)The video transmission distance is too far or the loss of the video transmission line is too large.

(4)The color and brightness setting of the DVR is wrong.

#### **4. I cannot find the video files in local playback mode.**

Possible reasons are as follows:

(1)The data line of the hard disk is damaged.

(2)The hard disk is damaged.

(3)Update the different program with the origin program files.

(4)The video files to search are covered, or search time is wrong, please refer to the device display time.

(5)The recording stopped.

#### **5 The local playback video is not clear.**

Possible reasons are as follows:

(1)The recoding image quality is too bad.

(2)The reading program is wrong. Reboot up the DVR.

(3)The data line of the hard disk is damaged.

(4)The hard disk is damaged.

(5)The hardware of the DVR is damaged.

#### **6 There is no audio signal in the surveillance window.**

Possible reasons are as follows:

(1)It is not an active tone arm.

(2)It is not an active sound box.

(3)The audio lines are damaged.

(4)The hardware of the DVR is damaged.

#### **7. There is audio signal in the surveillance window but no audio signal in the playback state.**

Possible reasons are as follows:

(1)Setting issues: the audio option is not chosen.

(2)The according channel is not connected with the video.

#### **8. The time is wrong**

Possible reasons are as follows:

(1)Setting is wrong.

(2)The battery is in bad connection or the voltage is too low.

(3)The oscillation is damaged.

#### **9. The DVR cannot control the PTZ.**

Possible reasons are as follows:

(1)There is something wrong with the frontal PTZ.

(2)The setting, connection or the installation of the PTZ decoder is not correct.

(3)The connections are not correct.

(4)The PTZ setting of the DVR is not correct.

(5)The protocols of the PTZ decoder and the DVR are not matched.

(6)The address of the PTZ decoder and the DVR are not matched.

(7)When multiple decoders are connected, the far port of the PTZ decoder line A (B) must connect a 120  $\Omega$  resistance to reduce the reflection otherwise the PTZ control is not stable.

(8)The distance is too far.

#### **10. The motion detect is not working**

Possible reasons are as follows:

- (1)The time range set is not correct.
- (2)The motion detect area set is not correct.
- (3)The sensitivity is too low.
- (4)Limited by some hardware edition.

#### **11 I cannot login via web.**

Possible reasons are as follows:

- (1)The system is windows 98 or windows me. We recommend updating to windows 2000sp4 or higher edition or installing the software for low edition.
- (2)ActiveX is hold back.
- (3)The edition is not exceeded dx8.1. Update the display card driver.
- (4)Network connection failure.
- (5)Network setting issues.
- (6)Invalid password or user name.
- (7)The user edition is not matched the DVR program edition.

#### **12 The image is not clear or there is no image in network preview state or video file playback state.**

Possible reasons are as follows:

- (1)Network is not stable.
- (2)The user machine is resource limited.
- (3)Choose the play-in-team mode in the network setup of DVR.
- (4)The region shelter or channel protection is set.
- (5)The user has no surveillance purview.
- (6)The real-time image of the hard disk recording machine itself is not clear.

#### **13 Network connection is not stable.**

Possible reasons are as follows:

- (1)Network is not stable.
- (2)IP address is conflicted.
- (3)MAC address is conflicted.
- (4)The network card of the computer or the hard disk recording machine is bad.

#### **14 There is something wrong with the USB backup or writing a CD.**

Possible reasons are as follows:

- (1)The rewritable machine and the hard disk are shared the same data lines.
- (2)The data is too much. Please stop recording and backup.
- (3)The data exceeds the backup storage.
- (4)The backup equipment is not compatible.
- (5)The backup equipment is damaged.

#### **15 The keyboard cannot control the DVR.**

Possible reasons are as follows:

- (1)The serial port of the DVR is not set correctly.
- (2)The address is not correct.
- (3)When multiple transformers are connected, the power supply is not large enough. Please give each transformer individual power supply.
- (4)The distance is too far.

#### **16 Alarm cannot be recessional.**

Possible reasons are as follows:

- (1)The setting of the alarm is not correct.

- (2)The alarm output is turned on manually.
- (3)The input machine is damaged or the connections are not correct.
- (4)There are some problems for specific program edition, Please update the program.

**17 Alarm is not working.**

Possible reasons are as follows:

- (1)The setting of the alarm is not correct.
- (2)The connection of the alarm is not correct.
- (3)The alarm input signal is not correct.
- (4)An alarm is connected with two loops synchronously.

**6.2 Maintenance**

- 1- Please brush printed circuit boards, connectors, fans, machine box and so on regularly.
- 2- Please keep the grounding well done to prevent the video or audio signal interfered and the DVR from static or inductive electricity.
- 3- Do not pull out the video signal line or RS-232 port or RS-485 port with the power on.
- 4- Do not use the TV in the local video output port (VOUT) of DVR. It will damage the video output circuit easily.
- 5- Do not turn off the switch directly. Please use the turn-off function in the menu or press the turn-off button in the panel (3 seconds or longer) to protect the hard disk.
- 6- Please keep the DVR away from heat resource.
- 7- Please keep the DVR ventilated for better heat radiator.

**Thank you for choosing our DVR!**