

Hard Disk Video Recorder Installation Manual V1.3

Statement:

Thanks for purchasing from us. Please feel free to contact our service whenever you need help.

This manual is applicable for NVR products. Features and functions vary with different products, please refer to our physical commodity and the fast manual.

This manual is your reference for operations and encodings. Related functions, specific orders, detailed menu-tree as well as fast manual are included. Please read it before installation or use.

This manual might contain some technical or print errors. Any enhancement in product features shall be added into the manual consistently without further notice.

Safety Instruction

This manual is intended to ensure that user can use the product properly without danger or any property loss. Please read it carefully and take care of it for further reference.

Precaution measures are divided into “warnings” and “cautions” ,as below:

Warnings:Neglecting any of the warnings may cause death or serious injury.

Cautions:Neglecting any of the cautions may cause injury or equipment damage.

 Warning Follow these safeguards to avoid death or serious injury	 Caution Follow these precautions to prevent potential injury or property loss
--	---



Warnings

- 1.Electrical safety regulations of the nation and the region must be strictly followed during installation or use.
- 2.Please use the matched power adapter from standard company.
- 3.Do not connect multiple NVRs with one single power adapter(Overload for adapter may lead to over-heat or fire hazard.
- 4.Shut down the power while connecting or dismounting the speed dome.Do not operate with power on.
- 5.Shut down the power and unplug the power cable immediately when there is smoke,odor or noise rising from the NVR.Then contact the dealer or service center.
- 6.Please contact the local dealer or latest service center when NVR works abnormally.Do not attempt to disassemble or modify the device yourself.(We shall shoulder no responsibility for problems caused by unauthorized repair or maintenance.

Cautions

- 1.Do not drop anything onto the dome,avoid it from physical strike. Keep it away from high electromagnetism radiation surroundings.Do not install it at vibration surface or places subjecting to strike.(Ignorance can cause equipment damage)
- 2.Keep it away from rain and moisture
- 3.Avoid exposing to direct sunlight,poor-ventilation or heat source such as heater,radiator.(Ignorance can cause fire hazard)
- 4.To avoid physical damage,extreme environment such as lampblack,water vapour,too hot or dusty are not allowed.
5. Please use soft and dry choth to clean the shell.Use neutral cleaner instead of alkaline when the dirt is difficult to get rid of.



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1 Product Introduction

1.1 Product overview

The series NVR is designed specially for security and defence field which is an outstanding digital surveillance product. It introduces embedded LINUX operating system which is more stable. It introduces standard H.264mp video compressed format and unique space-time filtering algorithm which insures the high quality image, low error coding ratio and single frame playing. It introduces TCP/IP network technology which achieves the strong network communication ability and telecommunication ability.

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

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

1.2 Main functions

Real-time surveillance

With VGA and HDMI port, some models has spot port, analog out port, able to monitor through display or monitor.

Storage

- non-working hard disk dormancy processing which is convenient to radiate heat, reduce power and extend the life-span
- special storage format which insures the data safety

Compression

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

Backup

- through SATA interface and USB interface such as USB equipment, removable hard disk and so on
- through net download the files in the hard disk

Playback

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

- multi-playback mode
- zoom at arbitrary region

Net operating

- through net (including telephone) tele-surveillance in the real time
- tele-PTZ control
- tele-recording check and real-time playback

Alarm linkage

- Alarm activated video record,tour ,message,buzzer,e-mail,ftp, cell phone to report,log write

Communication interface

- RS485 interface which fulfills the alarm input and PTZ control
- RS232 interface which can extend keyboard connection to realize master,as well as with computer serial port connection for system maintenance and upgrade,and matrix control and so on.
- standard ethernet network interface which fulfills the telecommuting function

Intelligent operating

- mouse action function
- fast copy and paste operating for the same setting

2 Open-package check and cable connections

2.1 Out of box audit

When you receive the product,

Materials used for the package of the NVR can protect most accidental clashes during transportation.Then, please open the box and get rid off the plastic protective materials. Check whether there is any visible damage to the NVR appearance.

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

1.Front panel and rear panel

- ◆ The key function specification in the front panel and the interface specification in the rear panel are in the specification.
- ◆ Please check the product type in the front panel whether is accordant with the product type you order.

The label in the real panel is very important for the after service. Please protect it carefully. When you contact us for after service, please provide the product type and serial number in the label.

2.Check

After open the cover,you should check if it has obvious damage trace,also please check the front panel data cable,power cord and motherboard's connection are loose or not.

2.2 Hard disk installation

For the first use, please install the hard disk, this machine box can install two hard disk(no limited capacity).



①disassemble the screw



②disassemble the cover



③fix the screw of hard disk



④fix the screw of hard disk



⑤connect the data wire



⑥connect the power wire



⑦cover the machine



⑧fix the cover

2.3 Shelf installation

This product chassis specification for the standard 1u,so it can be installed in the standard shelf.

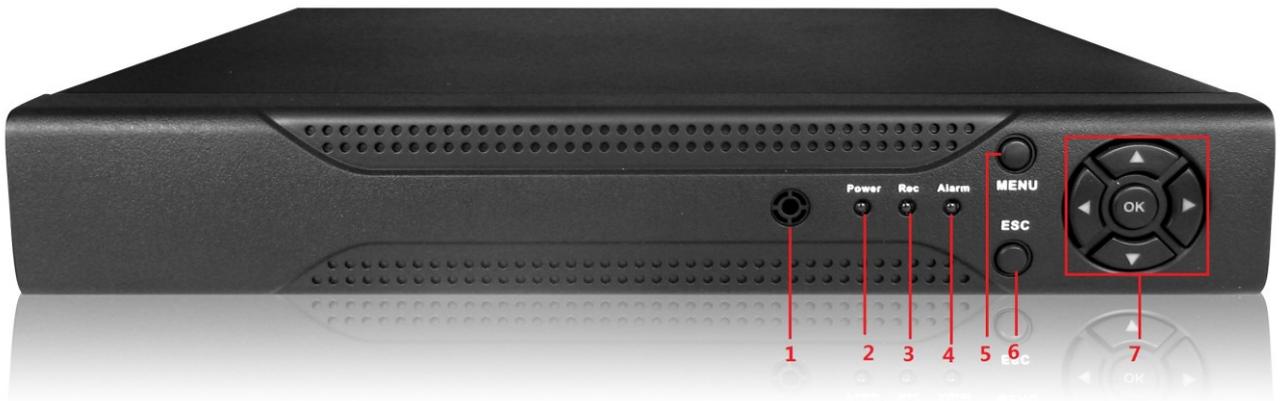
Installation steps and attention items:

- 1、 Make sure the temperature in the room lower than 35°C (95°F).

- 2、 Keep the equipment have 15cm(6 inches)space around in order to air's circulation.
- 3、 From bottom to shelf installation.
- 4、 When multiple components install in the frame, please take preventive measures to avoid power socket overload..

2.4 Front panel

The front panel of economical equipment



(1)	IR	(2)	Power indicator light	(3)	Record indicator light	(4)	Alarm indicator light
(5)	Menu	(6)	ESC	(7)	Direction &Enter		

The front panel of standard equipment

:



(1)	红外接收灯	(2)	电源灯	(3)	报警灯	(4)	HDD灯
(5)	录像灯	(6)	网络灯	(7)	红外状态灯	(8)	开机状态灯
(9)	主菜单键	(10)	云台控制键	(11)	录像查询键	(12)	画面后退切换键
(13)	画面前进切换键	(14)	录像控制键	(15)	慢放键	(16)	倒放暂停键
(17)	停止回放键	(18)	方向键/确认键	(19)	USB鼠标	(20)	播放暂停键
(21)	取消键	(22)	快放键	(23)	电源开关键		

The front panel of enhanced equipment

:



(1)	Shuttle	(2)	Play Pause/5	(3)	Slow Play/6	(4)	Fast Play/7
(5)	Backwards	(6)	Backwards Pause/9	(7)	Record	(8)	Power switch
(9)	USBmouse	(10)	Indicator light	(11)	Main menu/0	(12)	Scene switch/1
(13)	Record check/2	(14)	PTZ/3	(15)	Assist/4	(16)	Shift
(17)	ESC	(18)	IR remote receiver	(19)	Direction		

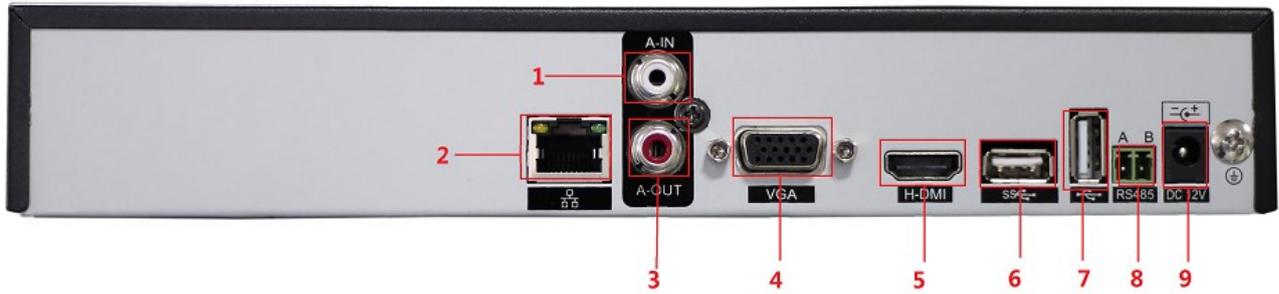
The front panel of high-end equipment:



(1)	Direction	(2)	Play	(3)	Previous	(4)	Next File/3
			Pause/1		File/2		
(5)	Backwards	(6)	Play back	(7)	Record	(8)	Alarm output
	Pause/4		Stop/5		check/6		/7
(9)	Camera	(10)	Camera	(11)	Preset	(12)	USB mouse
	narrow/8		zoom/9		point set		
					0		
(13)	ESC	(14)	Scene	(15)	Record	(16)	PTZ
			switch				
(17)	Menu	(18)	Assist	(19)	shift	(20)	Power
							switch
(21)	Indicator	(22)	IR remote	(23)	Shuttle		
	light		receiver				

2.5 Rear panel

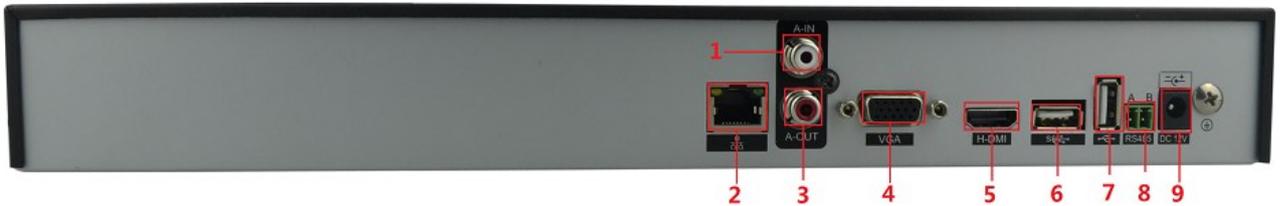
The rear panel of economic and standard equipment



(1)	Audio input	(2)	Network	(3)	Audio output	(4)	VGA
(5)	HDMI	(6)	USB 3.0	(7)	USB 2.0	(8)	RS485
(9)	Power						

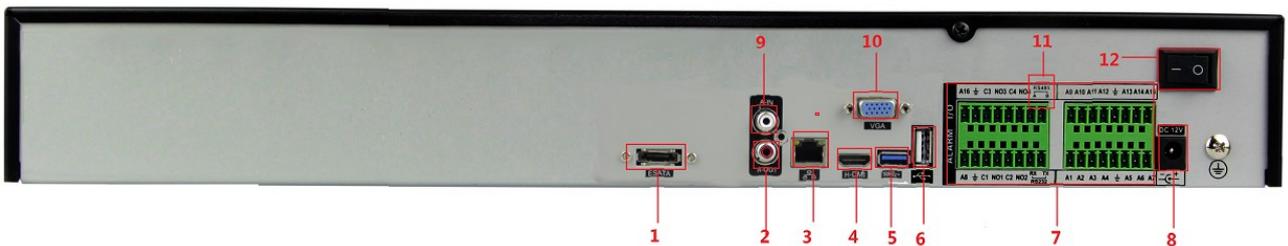
The rear panel of enhanced equipment

:



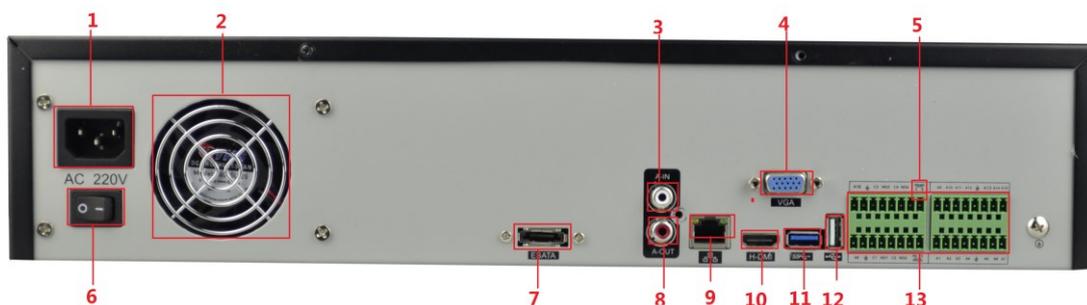
(1)	Audio Input	(2)	Network	(3)	Audio Output
(4)	VGA	(5)	HDMI	(6)	USB 3.0
(7)	USB 2.0	(8)	RS485	(9)	Power

The rear panel of high-end equipment:



(1)	SATA	(2)	Audio Output	(3)	Network	(4)	HDMI
(5)	USB 3.0	(6)	USB 2.0	(7)	External port	(8)	Power
(9)	Audio input	(10)	VGA	(11)	RS485	(12)	Power switcher

Audio and video input and output connections :



- | | | | | | |
|------|---------------|------|--------------|------|-------------|
| (1) | Power | (2) | Heat | (3) | Audio input |
| | | | dispassion | | |
| (4) | VGA | (5) | RS485 | (6) | Power |
| | | | | | switcher |
| (7) | SATA | (8) | Audio Output | (9) | Network |
| (10) | HDMI | (11) | USB 3.0 | (12) | USB 2.0 |
| (13) | External port | | | | |

2.6 Audio and video input and output connections

2.6.1 Video input connection

No video input connection

NVR connect IPC through network cable for video. NVR has to be in to the same local network with IPC.

2.6.3 Audio signal input

Audio port is BNC connection (primary for speak function) .

The input impedance is high so the tone arm must be active.

The audio signal line should be firm and away from the electro magnetic Interference and connected credible which avoid false and joint welding and oxidation. The high voltage current should be avoided especially.

2.6.4 Audio signal output

Network Commonly the output parameter of NVR audio signal is greater than 200mv 1KΩ(BNC) which can connect the low impedance earphone and active sound box or other audio output

equipments through power amplifier. If the sound box and the tone arm can not be isolated, howling phenomena is often existed. There are some methods to deal with the above phenomena.

- 1、 Adopt better directional tone arm.
- 2、 Adjust the sound box volume to be under the threshold that produces the howling phenomena.
- 3、 Use fitment materials that absorb the sound to reduce reflection of the sound.
- 4、 Adjust the layout of the sound box and the tone arm.

2.7 Alarm input and output connections

Before connecting the device, please pay attention to follow situations:

***note: Some products have no alarm input/output functions.**

1 .Alarm input

- A. Alarm input is grounding alarm input.
- B. Alarm input demand is the grounding voltage signal.
- C. When the alarm is connected with two NVR or connected with NVR and other equipment, it should be isolated by relay.

2.Alarm output

Alarm output of NVR can not be connected with high-power load(no more than 1A).When forming the output loop it must prevent the big current from relay damage. Use the contact NVR when there is a high-power load

3.PTZ decoder connections

- A. The grounding of the PTZ decoder and NVR must be shared otherwise the common-mode voltage will lead to the PTZ control failure. The shielded twisted pair is recommended.
- B. Avoid the entrance of high voltage. Make the layout reasonably. Take precaution from the thunder.
- C. In the outlying end connect 120Ω resistance paralleled to reduce the inflection and insure the signal quality.
- D. The 485 AB lines of NVR can not connected with other 485 output nvr paralleled.
- E. The voltage between the AB lines of the decoder must be less than 5V.

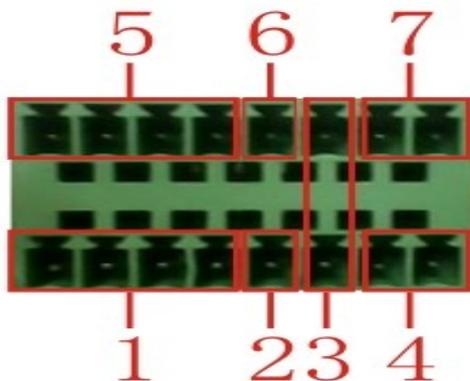
4.Front equipment grounding note

Bad grounding can lead to the burnout of the chip.

5.Alarm input type unlimited

The NVR alarm output port is constant opening type.

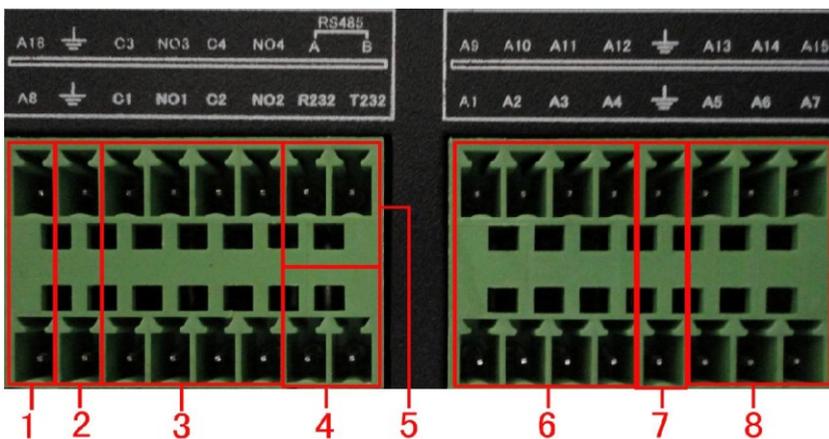
eight external alarm interface



(1) Alarm input 1,2,3,4 (2) GND (3) RS232

(4) RS485 (5) Alarm input 5,6,7,8 (6) GND (7) alarm output

sixteen external alarm interface



①⑥⑧alarm input ②⑦ground ③alarm output ⑤RS485 ④RS232

Parameter	meaning
G	grounding
R、T	RS232 port
A、B	485communciate interface which is connected with the recording control equipments such as the decoder

2.7.1 报警输入端口说明

8 channels alarm input. Alarm input type unlimited.

The grounding and the com port of the alarm sensor are parallel (The alarm sensor is external power

supply) .

The grounding of the alarm and the NVR should be shared.

The NC port of the alarm sensor must be connected with the NVR alarm input port.

The grounding of the power supply and the alarm sensor must be shared when used in external power supply.

2.7.2 Alarm output port specification

2 channels alarm output. There is external power supply when using the external alarm equipment.

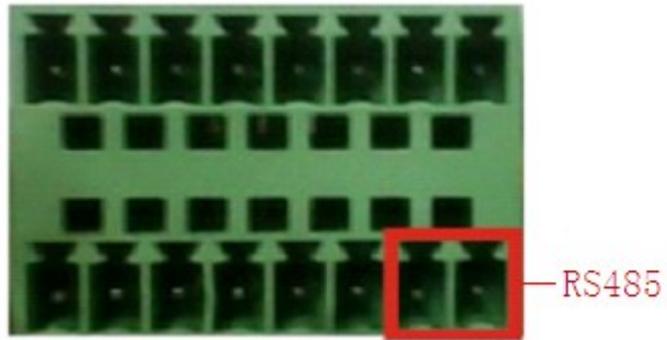
Please refer to the relay relevant parameters to avoid the overload that damages main machine.

2.7.3 Alarm output port relay parameters

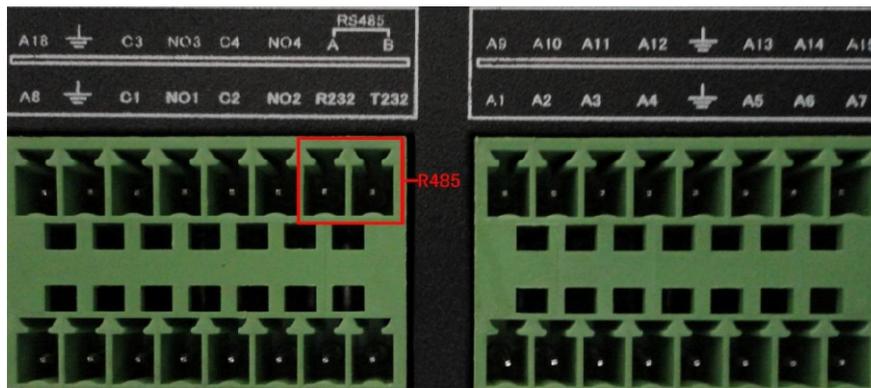
Type: JRC-27F		
Interface material	silver	
rating (resistance load)	Rating switch capacity	30VDC 2A, 125VAC 1A
	maximal switch power	125VA 160W
	maximal switch voltage	250VAC, 220VDC
	maximal switch current	1A
isolation	Homo-polarity interface	1000VAC 1minute
	Inhomo-polarity	1000VAC 1 minute
	Interface and winding	1000VAC 1 minute
Surge voltage	Homo-polarity interface	1500VAC (10×160us)
Turn-on time	3ms max	
Turn-off time	3ms max	
longevity	mechanical	50×10 ⁶ MIN (3Hz)
	electric	200×10 ³ MIN (0.5Hz)
Environment	-40~+70℃	

2.8 Device attachment

1.Connect the 485 lines of the speed dome with the NVR 485 interface.



the 485 interface of eight external alarm



the 485 interface of sixteen external alarm

3 Basic operation

Note: The button in gray display indicates nonsupport.

3.1 Turn on

Plug the power supply and turn on the power supply switch. Power supply indicator light shining indicates turning on the video recorder. After the startup you will hear a beep. The default setting of video output is multiple-window output mode. 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 NVR is working normally.

Note: 1. Make sure that the input voltage corresponds with the switch of the NVR power supply.

2. Power supply demands: 220V±10% /50Hz.

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

3.2 Turn off

There are two methods to turn off the NVR. Entering [main menu] and choosing [turn off] in the [turn off the system] option is called soft switch. Pressing the power supply switch is called hard switch.

Illumination:

1、 Auto resume after power failure

If the NVR is shut down abnormally, it can automatically backup video and resume previous working status after power failure.

2、 Replace the hard disk

Before replacing the hard disk, the power supply switch in the real panel must be turned off.

3、 Replace the battery

Before replacing the battery, the setting information must be saved and the power supply switch in the real panel must be turned off. The NVR uses button battery. The system time must be checked regularly. If the time is not correct you must replace the battery, we recommend replacing the battery every year and using the same battery type.

Note: The setting information must be saved before replacing the battery otherwise information will lose.

3.3 System Login

When the NVR boots up, the user must login and the system provides the corresponding functions with the user purview. There are two user settings. The names are **admin**, and **default** and these names have no password. **Admin** is the super user purview; **default**'s permissions are preview and video playback. User **admin** password can be revised, while their permissions can't be revised; user **default** is the default login user whose permission can be revised but not its password.



Picture 3.1 System Login

Password protection: If the password is continuous wrong five 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).

Find password: when users forget password, click '?' button on the log in window, get into security answer interface, type in right answers, then reset password. if type a wrong answers, system pop-up prompt with "answers wrong, please type in right answer", continually type in 6 times will cased block of interface and no long get into (reboot and fix this issue)

For security, user first time login, please reset users id and password, and set security answers to find password in necessary.

3.4 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	④		Video loss
②		Motion detect	⑤		Video Blind
③		open/close audio	⑥		Camera lock

Table Preview icon

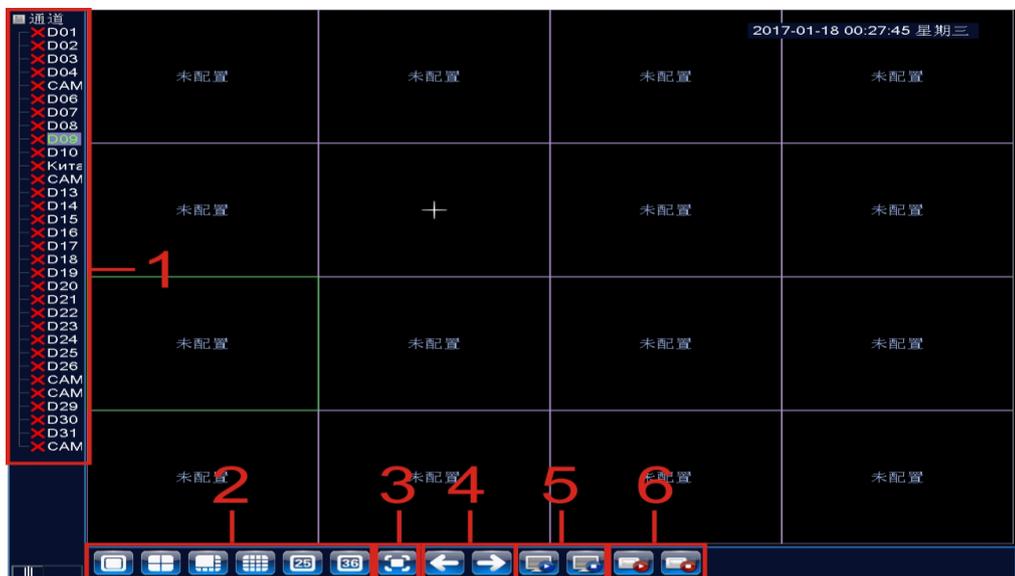


image Preview icon

1	Channel name and status display, click on the "channel" can be folded up.	2	More than one scene changes
3	Full screen	4	Page flip up and down, when choosing a 16 channel, operation can be performed.
5	Play/close all channel	6	Full channel video/close full video

3.5 Boot wizard



开机向导 图

Boot wizard

For configuring the parameters provides quick setup wizard as shown in figure 3.5. It includes boot wizard and digital channel configuration wizard, click next to enter the digital channel configuration wizard.



时间-语言设置 图

【Cloud services enable】: reverse display choose, means enabling cloud services.
 【No longer prompt】: reverse display choose, means after reboot, no longer automatically pop up on the wizard.

【Next】 : Enter into the digital channel configuration wizard interface.

【Cancel】 : Save the Settings and exit the wizard interface.

Digital channel configuration wizard:

Click on the next step in figure 3.5, the pop-up digital channel configuration wizard, as shown in figure 3.6 can be set up in fast digital channel.

Note: use this feature, all configuration parameters in digital channel will be updated, please be careful to the configuration which are not for the first time digital channels.

Label meaning:

① The list of equipment area

The area displays the search equipment. Click on the selected box, the show of said the equipment is selected, and then double-click the device, the pop-up channel Settings interface, as shown in figure 3.7 for the devices for remote access Settings, user name and password; Click the network Settings button, the selected equipment for network Settings, including IP, subnet mask, default gateway.



②Equipment list

Optional equipment list, which include three kinds of display mode, respectively are showing the selected, the display for the selected, and showing of all.

③ Rest not selected channel number display area

The remaining not choose channel number is shown here.

④ The position of device button

Click on the equipment list, click on the up and down button, can move the equipment up and down.

3.6 Desktop shortcut menu

In preview mode you can right click mouse to get a desktop shortcut menu,as the picture 3.2 shows.The menu includes: **main menu, record mode, playback, PTZ control, High Speed PTZ, Alarm Output, color Setting, Output adjust, Logout, view mode shift ,spot.**

***Only partial model of 6000 series support Spot**



Picture Shortcut Menu

3.6.1 Main menu

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



Main Menu

3.6.2 开机向导

Read "section 3.5 boot wizard".

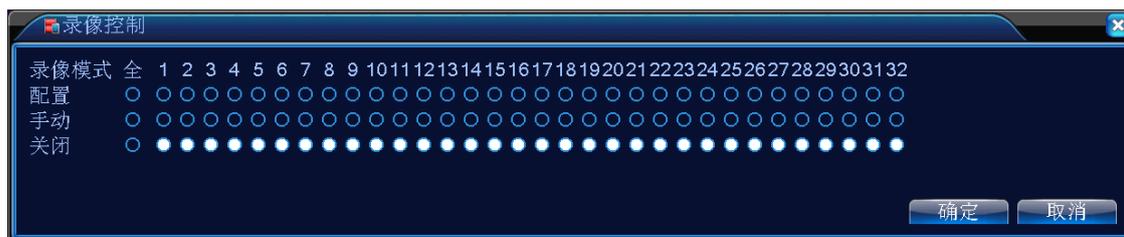
3.6.3 一键设置

一键设置功能请阅读“3.5 节开机向导”中的模式选择中的一键设置。

3.6.4 录像控制

操控各通道的录像状态，反显“●”表示各通道当前录像状态。可通过桌面快捷菜单，也可在【主菜单】>

【录像功能】>【录像设置】，进入录像控制界面。



录像控制 图

【配置】根据配置参数，进行录像；

【手动】无论该通道录像设置处于什么状态，选择“手动”按钮后，对应通道进行录像；

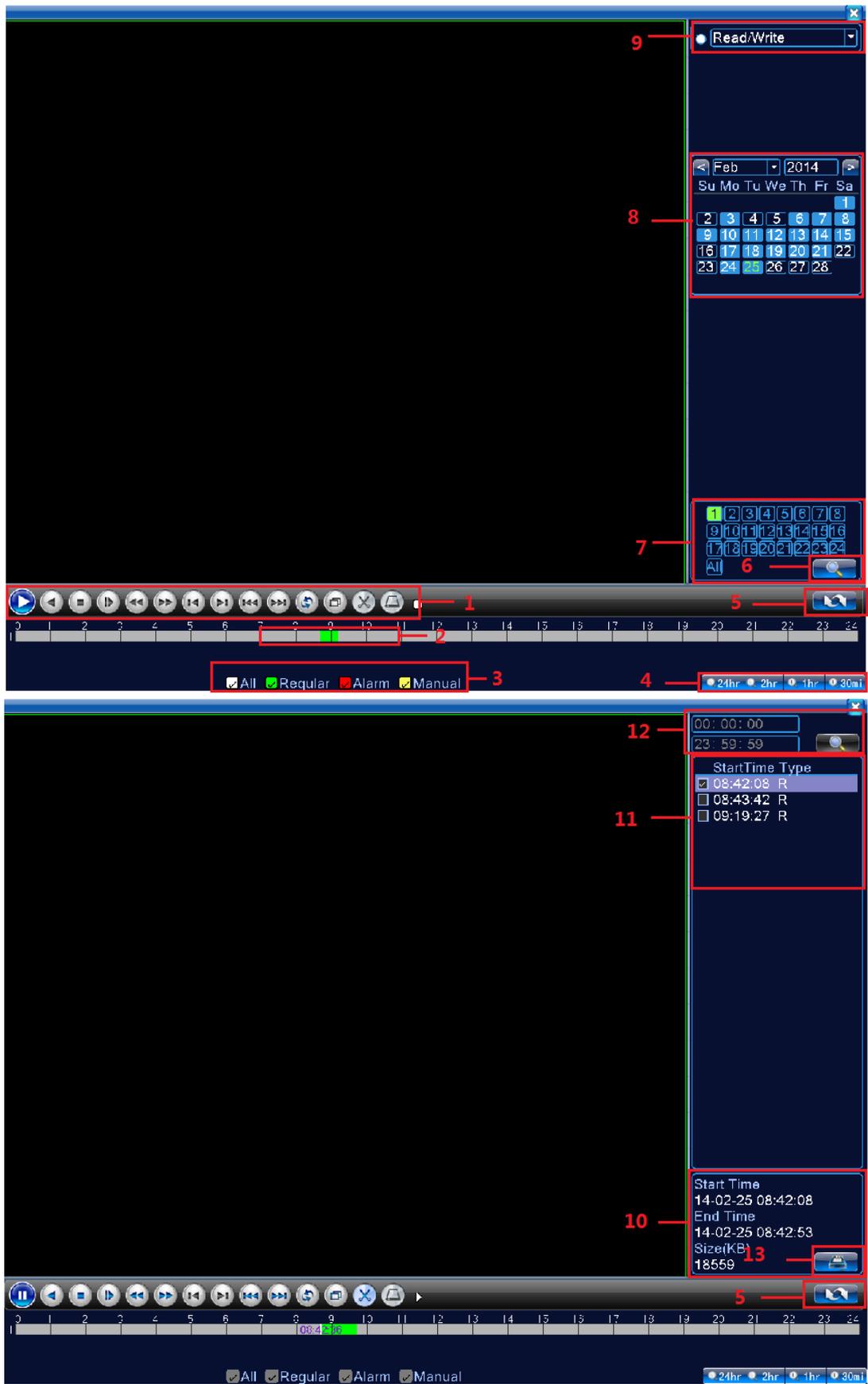
【关闭】无论该通道录像设置处于什么状态，选择“关闭”按钮后，对应通道停止录像。

3.6.5 3.5.3 Playback

There are two methods for you to play the video files in the hard disk.

- 1、In the desktop shortcut menu.
- 2、Main menu>Record->Playback

Note: The hard disk that saves the video files must be set as read-write or read-only state.(4.5.1).



Picture 3.4 video playback

1. Playback control	2. Time display	3. Video type	4. Time schedule options
5. Switch by time/file/mode	6. File search	7. Selected by channel	8. Selected by time
9. search by storage location	10. Files information	11. Listed files	12. search by time
13. File backup	14. file info	15. video backup	

【Listed files】 Look up the listed files that accord with the searching criteria.

【File Attributes】 Look up the found file information.

【Playback control】 See detail in below chart

Button	Function	Button	Function
	Play/Pause		Backward play
	Slow play		Fast Forward
	Previous frame		Next frame
	Round play		Full screen
	Stop		Begin/end to edit
	backup		

Picture 3.2Table Playback control key

Note: play under frame by frame, the playback status should be paused firstly.

【Operation tips】 show function of the key that cursor placed.

Special functions:

Accurate playback: Input time (h/m/s) in the time column and then click play  button. The system can operate accurate playback according to the searching time.

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

Note: When current resolution of the channel is over Max resolution, to playback this channel,

will show a Red "X".

3.6.6 IPC parameter

IPC parameter, NVR can remotely control IPC parameter, Grey characters means not support.

PS:NVR successfully use this function only with IPC of XM, third party camera is not supported

【exposure mode】 The length of exposure can be set to auto or manual 1/50 to 1/10000s for switch, preview will be darker when exposure time shorter

【day/night】 Manual set:

auto: auto control the image WB or color

color: light is enough, camera keeps color;

WB: light is enough, camera switch to WB.

【BLC】 Turn on this function to cover the light to see more clear of the scenery

【auto Iris】 open/close to support camera with auto zoom of lens

【scenery】 indoor, outdoor, and auto environment.

【AE reference】 0-100, number bigger, image darker

【Dnc Threshold】 and IR_CUT:

IR_CUT auto stitch mode: day/night mode is auto, it is the margin between color and WB, the level higher the brightness bigger

IR_CUTIR synchronize mode: day night switch threshold 10-20, close shaking prevent function, 21-30 with 3seconds, 31-40 with 4seconds, 41-50 with 5 seconds.

【AE sensitivity】 environmental light changing, camera is able to adjust time length, AE sensitivity smaller, adjust takes more time

【AGC】 Open/close, to auto adjust sensitivity of light to adjust the light

【AWDR】 Open/close to adjust the limitation of seeing image of scenery

【fog filter】 adjust level of filter to make image more clean in foggy

【corridor mode】 only supported in some models with corridor view

【slow shutter】 set of slow shutter, closed, weak, mid, strong, to pull over the exposure time by accumulate frame to get more light when in low illumination mode

【IR_CUT】 auto switch or IR synchronize:

Auto switch: ICUT switch according to the light of environment;

Ir synchronization: ICUT decide。

【DayNTlevel】 Enough light,to reduce noisy level,higher level better effects

【NightNTlevel】 Not Enough light,to reduce noisy level,higher level better effects

【Mirror】 : left right turn 90°。

【reflection】 : up-down turn 90°。

【day light filter】 : filter the day light。

【IR Swap】 : IR_CUT anti tone, using when preview IR_CUT on anti tone

3.5.6 PTZ control

***PTZ control is a little different between hybrid mode & full digital mode:**

Digital channel – the digital channel need link PTZ, the remote device should connect with PTZ and with protocol correctly set also.

Analog channel – Only when the device is connect with PTZ and configure protocol correctly is ok.

Operation interface is as followed. The functions include: 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.

Note1. Decoder A(B)line connects with NVR A(B)line. The connection is right.

2. Click [main menu] >[system configuration] >[PTZ setup] to set the PTZ parameters.
3. The PTZ functions are decided by the PTZ protocols.



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

【Zoom】 Click  /  button to adjust the zoom multiple of the camera.

【Focus】 Click  /  button to adjust the focus of the camera .

【Iris】 Click  /  button to adjust the iris of the camera.

【Hide】 Current interface will be temporarily hidden after click it.

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

【High speed PTZ】 Full-screen show channel image. Left press mouse and control PTZ to rotate orientation. Left press mouse and then rotate the mouse to adjust the zoom multiple of the camera.

【Set】 Enter the function operation menu.

【Page switch】 Switch between different pages.

3.6.8high speed Template

High speed template,mouse move can quick set to exact position,roll the mouse will change the zoom.

3.6.9Alarm output

Please check current channel status: “○” means it is not in alarming status, “●” means it is in alarming status.

You can use desktop shortcut menu or click [main menu]> [alarm function]> [alarm output] to enter the alarm output interface.



Alarm output image

【Configuration】 Alarm is on according to the configuration.

【Manual】 Click the all button and the according channel is alarming no matter the channel in any

state.

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

3.6.10 Color setting

****Color config:analog channel can config its own color,digital channel can config front-end image(only NETIP-conformed device is supported,ONVIF-conformed device is not supported)**

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

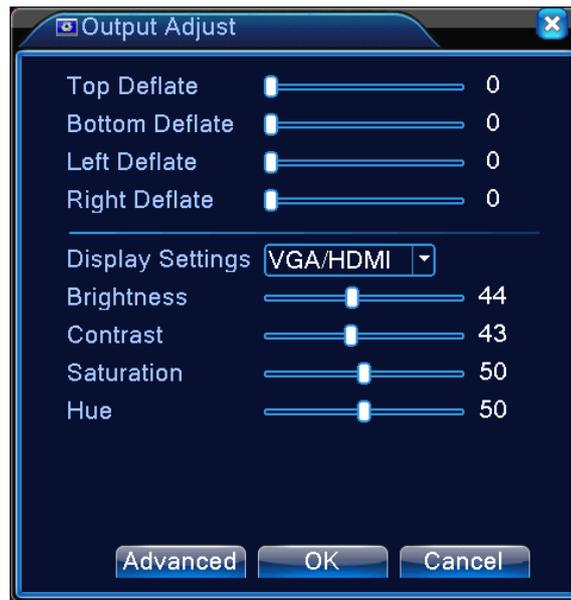


Color setting image

3.6.11 Output Adjust

***Hybrid mode is with black margin vertical & horizontal, while full digital mode without.**

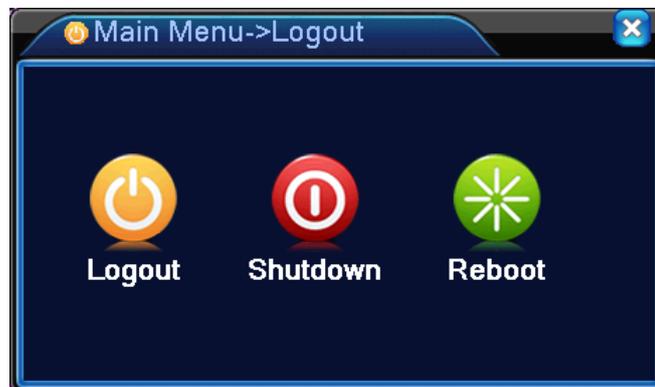
Adjust TV output area parameters. You can use the desktop shortcut menu or enter [main menu]> [management tools]> [Output adjust].



Output adjust image

3.6.12 Logout

Logout, shut down the system or reboot up. You can use the desktop shortcut menu or enter [main menu].



Log out

【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.

3.6.13 Full screen(exit full screen)

Can choose full screen and not full screen according to demand

3.6.14 quick add and delete

Quick add and delete, use this function can remotely add NVR or delete any channel

Digital channel not configure, mouse not aim to configure character, preview shows"+",click "+"to pop up digital configure page, at this page, remotely add device to recorder channel.

Digital channel already remotely add device, mouse goes to up right corner, it will auto pop up two button,configure and delete



: Configure button,click this button to get into digital channel and configure guide page;



: delete button,click this button to pop up "sure to delete channel configure?",after click,to quick delete configure

info

4 Main menu

4.1 Main menu navigation

Main menu	Sub menu	Function
Record	Config	Set the recording configuration, recording type, recording time section
	playback	Set recording search, recording play, video file storage
	backup	Detect backup device, format device, back the selective files
	Motion detection	Set motion detect alarm channel, sensitivity, area, linkage parameters: defending time section, alarm output, screen hint, recording, screen shot, PTZ, patrol, buzz, email , PMS and FTP upload, mobile upload
Alarm	Video blind	Set camera mask alarm channel, sensitivity, linkage parameters: defending time section, alarm output, screen hint, recording, screen shot , PTZ, patrol, buzz, email , PMS and FTP upload, mobile upload
	Video loss	Set video loss alarm channel, linkage parameters: defending time section, alarm output, screen hint, recording, screen shot , PTZ, patrol, buzz, email , PMS and FTP upload
	Alarm input	Set alarm input channel, equipment type, linkage parameters: defending time section, alarm output, screen hint, recording, screen shot , PTZ, patrol, buzz, email , PMS and FTP upload Note: T series have no this function
	Alarm output	Set alarm mode: configuration, manual, shut down Note: T series have no this function
	Exception handling	No HDD, HDD error, HDD capacity not enough, network cut, IP Conflict, linkage parameters, screen hint or buzz.

	Intelligent analysis	Set algorithm rule: trajectory display、sensitivity、minimum pixel、alert mode, and setting linkage parameters:period、alarm output、the screen prompt、record、PTZ、tour、buzzer、EMAIL、FTP upload. Note: 6000 series support this function
	General configuration	Set system time, data format, language, hard disk full time operation, machine number, video format, output mode, summertime, stay time
System configuration	Network configuration	Set basic network parameters, DHCP and DNS parameters, network high speed download
	Net Service	PPPOE、NTP、Email、IP purview、DDNS parameter、PMS
	Output mode	Set the channel names, preview icon of the status, transparency, and VGA (HDMI) resolution is preferred
	RS485 Device	Set serial port function, baud rate, date bit, stop bit, check Note: Full digital mode shows : RS485 Device
	Serial port Configuration (RS232)	Set serial port function, baud rate, date bit, stop bit, check Note: T series have no this function
	Tour	Set patrol mode and interval time
	Channel management	Set the channel mode, check channel status, and set the parameter of digital channels
Management tools	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 Note: only analog channel have 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).
System information	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
Shut down		Logout, shut down or reboot

4.2 Record

Operations related to record, including: Record, Playback, Backup, Screen shot(only Hybrid mode and full analog have)

4.2.1 Record Configuration

Set the recording parameters in the surveillance channel. The system is set 24 hours consecutive recording in the first startup. You can enter [main menu]> [recording function]> [recording setup] to set.

Note: There is at least one read-write hard disk. (refer to chapter 4.5.1)



Picture 4.1 Record Configuration

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

【Redundancy】 Choose the redundancy function option to implement the file double backup function. Double backup is writing the video files in two hard disks. When you do the double backup, make sure that there are two hard disks installed. One is read-write disk and the other is redundant disk. (refer to 4.5.1)

【Length】 Set the time length of each video file. 60minutes is default value.

【Pre-Record】 Record 1-30 seconds before the action. (time length is decided by the code stream)

【Record mode】 Set video state: schedule, manual or stop.

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

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

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

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

【Record type】 Set recording type: regular, detection or alarm.

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

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

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

Note: Refer to chapter 4.3 to set corresponding alarm function.

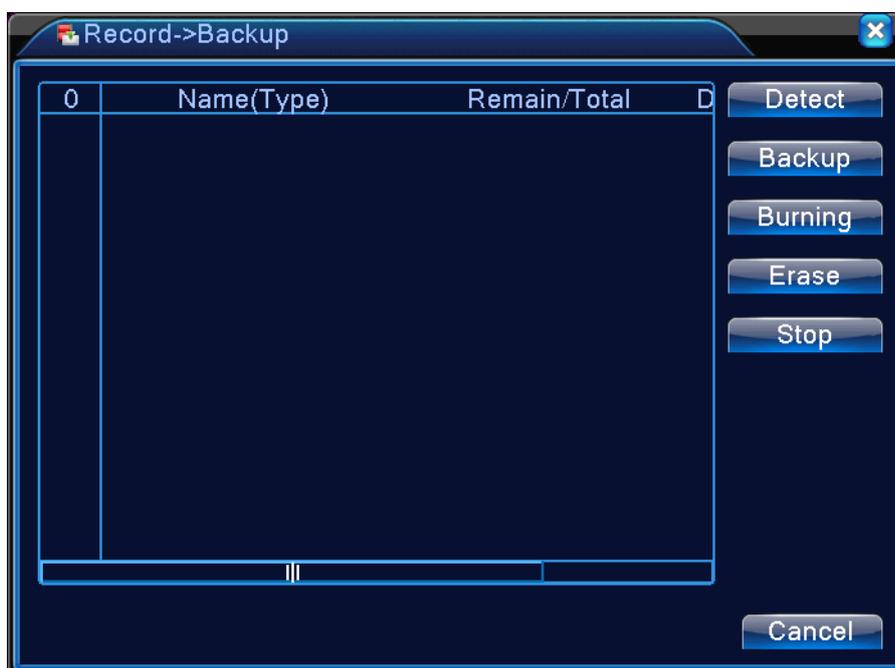
4.2.1 Playback

Refer to chapter 3.5.2.

4.2.2 Backup

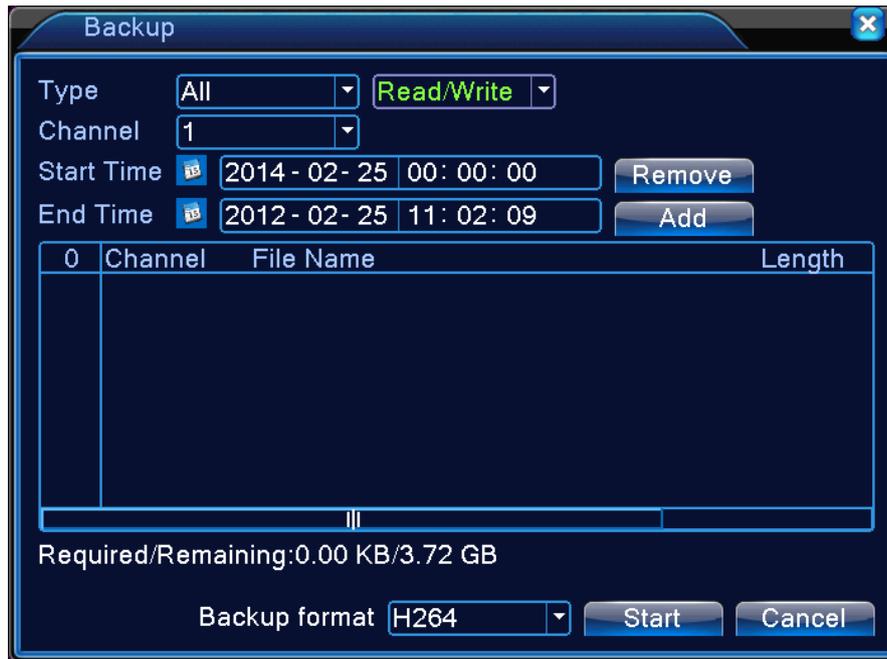
You can backup the video files to external storage through setup.

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



【Detect】 Detect the storage connected with the NVR such as hard disk or universal disk.

【Backup】 Click backup button and the dialog box is popped up. You can choose the backup file according to the type, channel and time.



Picture 4.3 Backup

Remove: Clear the file information.

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

Backup format configure the backup file format, according to require, can choose



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

Note: During backup you can exit the page layout to carry out other functions.

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

【Erase】 Choose the file to delete and click erasure to delete the file.

【Stop】 Stop the backup.

4.3 Alarm Function

Alarm functions include: motion detect, video blind, video loss, alarm input and alarm output, abnormality, intelligent analysis.

4.3.1 Motion Detect

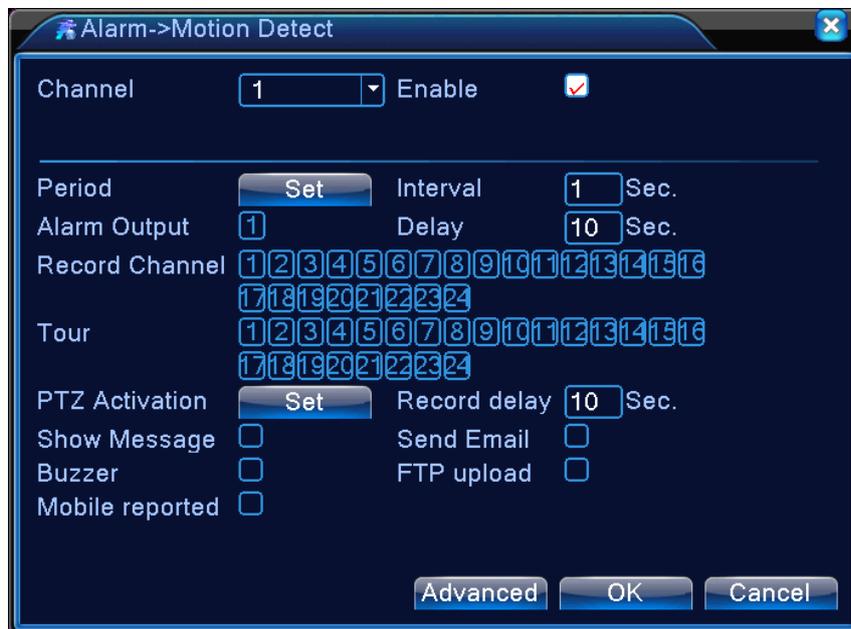
When system detects the motion signal that reaches the set sensitivity, the motion detect alarm is on and the linkage function is turned on.

Note: "Advanced" button is the same as right click.

***Motion detect function is different between Hybrid mode & Full digital mode:**

Digital channel: not only to enable motion detect function at local side, but also to enable the remote device that was connected. when remote device detect motion movement, local side will start alarm recording, otherwise this function is not enable.

Hybrid mode: only need to enable motion detect function at local side.

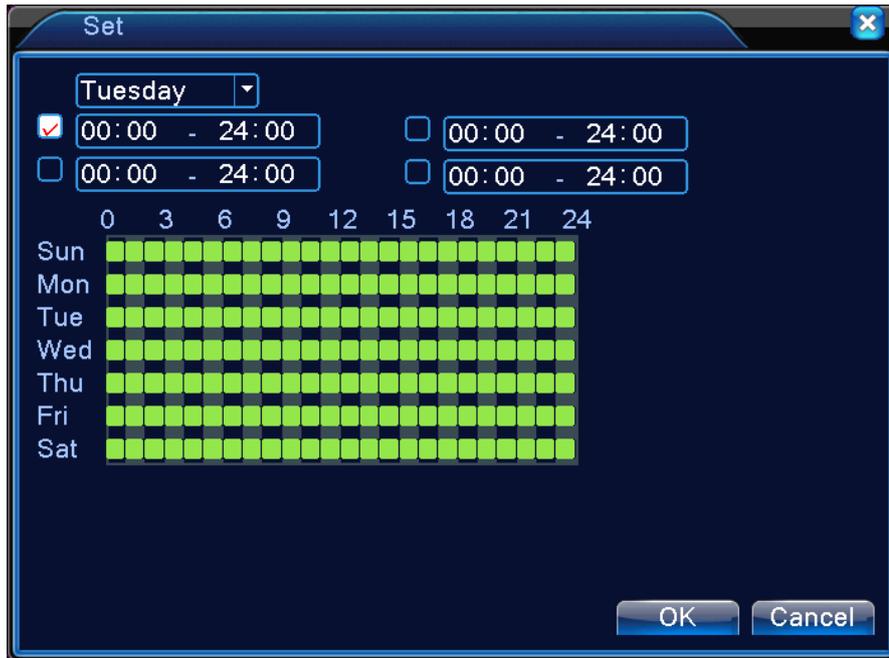


移动侦测 图

【Channel】 Choose the set motion detect channel.

【Enable】 ■ means that the motion detect function is on.

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



valid.

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

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

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

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

Note: Set in the [recording setup] and perform the linkage recording. Start detecting video files in the corresponding time section.

【Tour】 ■ means that the selective channel is single window alternate patrol preview. The interval is set in the [Main Menu]>[System] > [Tour].

【PTZ Activation】 Set the PTZ activation when the alarm is turned on.

***Hybrid mode, PTZ link to the related PTZ information of analog channel, While digital channel model, the PTZ is link to the related PTZ information on the remote device connected.**

Note: to link PTZ, need go [Shortcut menu]->[PTZ control] to set preset point, cruise between points & interval time, etc.



Picture 4.6 PTZ Activation under hybrid mode

【Delay】 When alarm is over, recording will last some seconds(10~300sec), then stop.

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

【Send EMAIL】 ■ means sending an email to user when the alarm is turned on.

Note: Set in the [NetService] and send email.

【FTP upload】 to tick it, the video & picture of related record channel & snapshot channel will be uploaded to assigned position.

Note: FTP upload need be set at [Netservice]

【Buzz】 When alarm happens, device will come out with buzz.

4.3.2 Video Blind

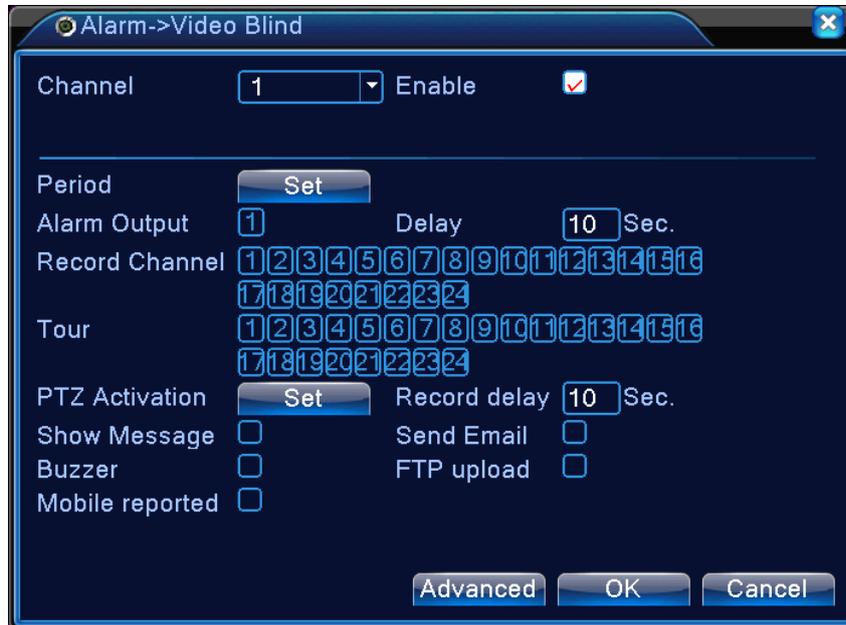
When the video image is influenced by the environment such as bad brightness or reaching the set sensitivity parameter, the camera mask function is turned on and the linkage function is turned on.

***Same as motion detect function, video blind is different between Hybrid mode & Full digital mode:**

Digital channel: not only to enable video blind function at local side, but also to enable the remote device that was connected. when remote device with video blind, local side will start alarm recording, otherwise this function is not enable.

Hybrid mode: only need to enable video loss function at local side.

Note: "Advanced" button is the same as right click.



Video blind

Set method: refer to chapter 4.3.1. Motion detect

4.3.3 Video Loss

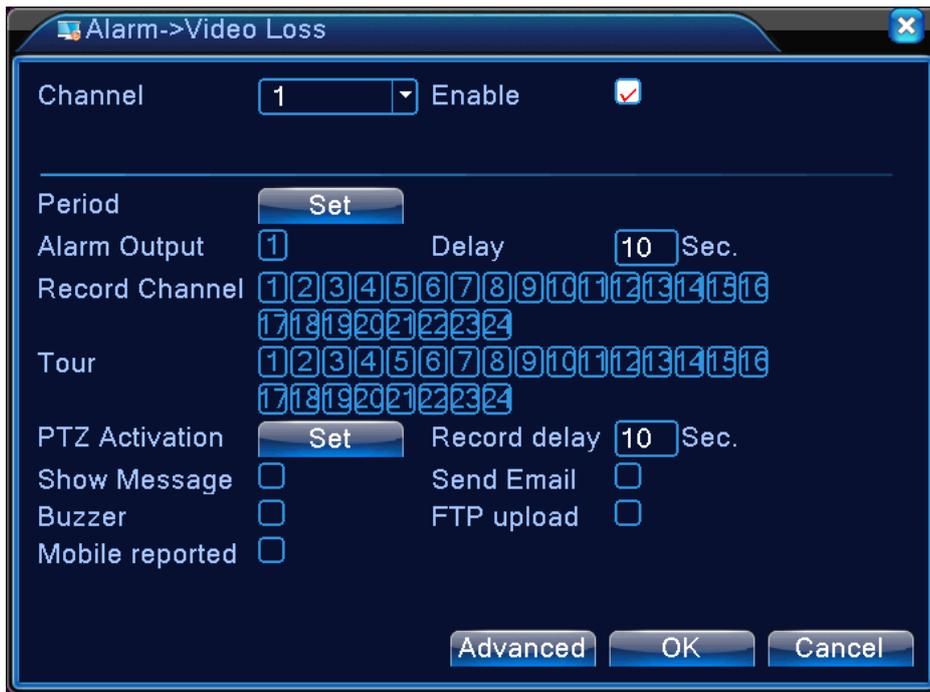
When the equipment can not obtain the channel video signal, the video loss alarm is turned on and the linkage function is turned on.

***Same as motion detect function, video loss is different between Hybrid mode & Full digital mode:**

Digital channel: not only to enable video loss function at local side, but also to enable the remote device that was connected. when remote device with video loss, local side will start alarm recording, otherwise this function is not enable.

Hybrid mode: only need to enable video loss function at local side.

Note: "Advanced" button is the same as right click.



Video blind

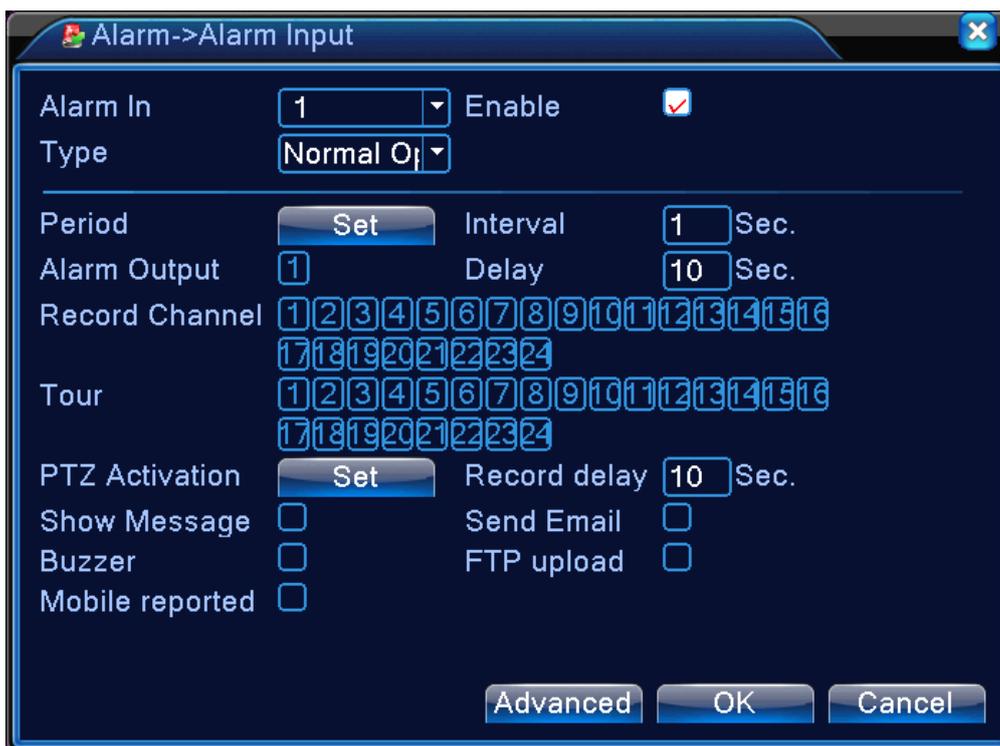
Set method: refer to chapter 4.3.1. Motion detect

4.3.4 Alarm input

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

***Alarm input is the same between hybrid mode & full digital mode, function enable, when it was set normal, only need to connect alarm sensor at alarm input port on local side, the alarm information is occurring, and will link to related setting functions at the same time**

Note: "Advanced" button is the same as right



click.

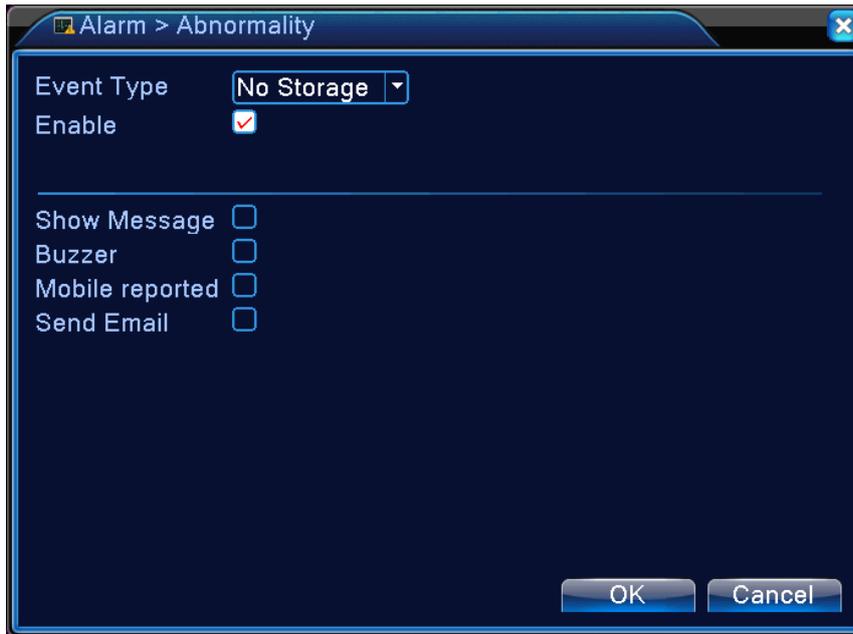
Set method: refer to chapter 4.3.1. Motion detect

4.3.5 alarm output

Refer to chapter3.6.9

4.3.6 Abnormal

Analysing and inspecting current software and hardware of the device: When some abnormal events happen. the device will make a relative answer such as show message and buzzer.

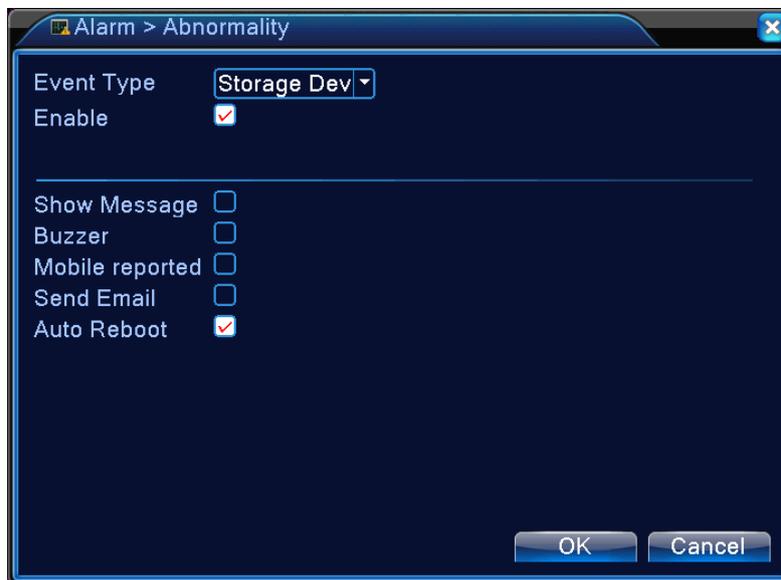


Abnormal

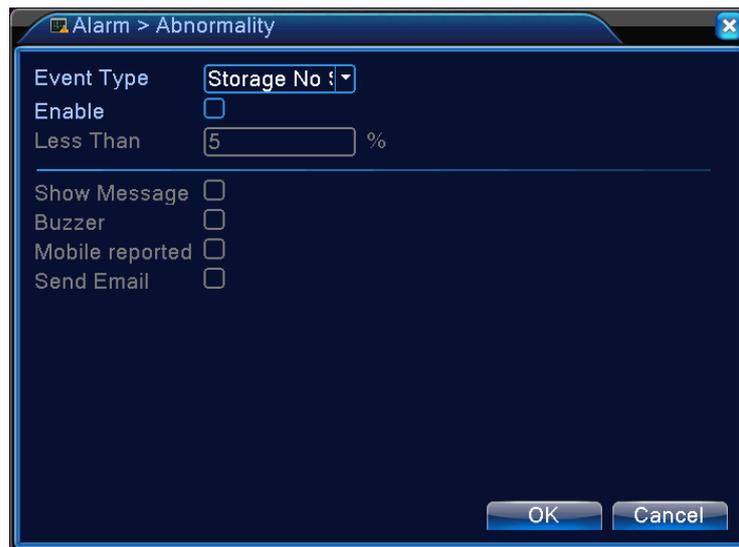
【Event Type】 there are five selections in pull-down menu

1.No Storage: Hard disk storage devices could not be detected. The reason:(1)the cable was loose (2)the cable was damaged (3)the hard disk device was damaged

2.Storage Error: Hard disk storage devices could be detected but the storage devices were damaged



No Storage and Storage Error

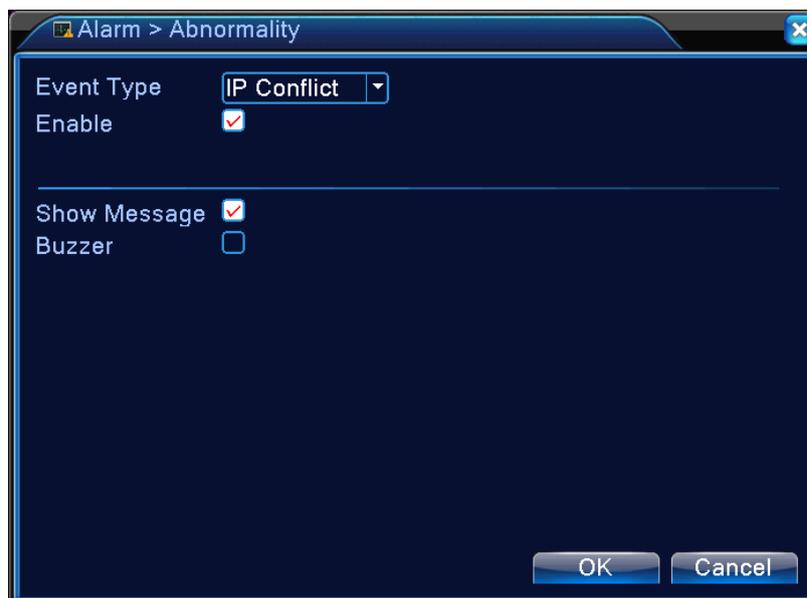


Storage No Space

3.Storage No Space: set a lower limit value of the spare storage space,the alarm will be triggered when the spare storage space is lower than preset value the alarm will be triggered

4.Net Disconnection: the alarm will be triggered when the network connection is disconnected

5.IP Conflict: the alarm will be triggered when there is an IP conflict.



IP Conflict

【Enable】 Select it to make sure abnormal function workable

【lower limit value】 set a lower limit value of the spare storage space

【Show message】 Automatically alarm cue dialog box come out of the main screen

【Buzze】 Device will have one long nosie “di” while alarm is happening

【Mobile report】 when this function is enabled , it will send alarm message to mobile phone which had installed APP while the alarm was triggered.

Note: if you want to have this function,you need to enabled ‘Mobile report’ in **【Main Menu】** >

【System】 > **【Netservice】** ,Add the device to App which was installed in phone/Pad.

【Swnd Email】 when this function is enabled , it will send alarm message to designated Mailbox while the alarm was triggered.

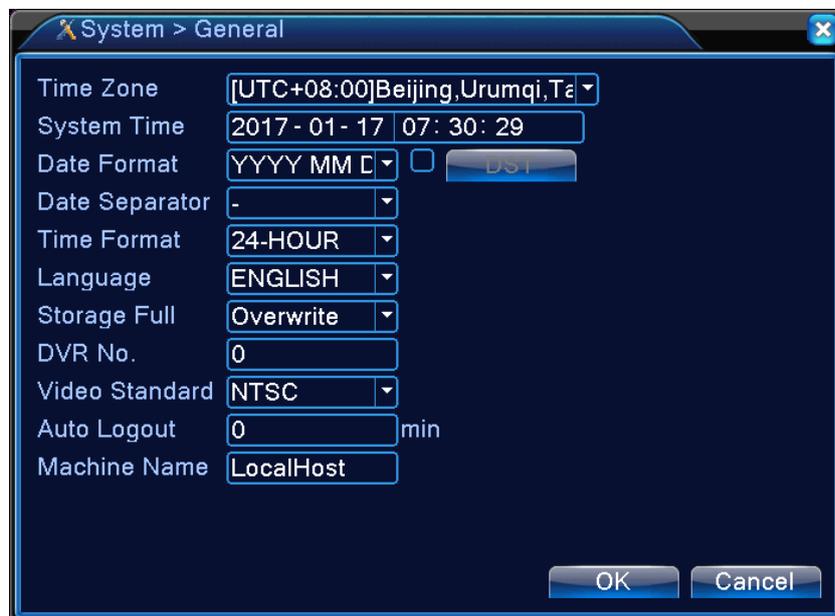
Note:if you want to have this function,you need to enabled ‘Send Email’ in **【Main Menu】** >

【System】 > **【Netservice】** ,set outbox and inbox and the device must connect to outbox server.

4.4 System setup

System setting menu:General,Encode,Network,Net service,GUI display,RS485 device,RS232,Tour setup,channel manage and IPC parameters.

4.4.1 General



General setup

【System time】 Set the system data and time.

【Date format】 Choose the data format: YMD, MDY, DMY.

【Date Separator】 Choose list separator of the data format.

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

【Language】 support 29 language at present:

Arabic ,Czech,English,Finnish,Greek,Indonesian,Italian,,Japanese,Portuguese,Russian,Thai,T-Chinese,S-Chinese,Turkish,Brazilian,Bulgarian,Farsi,French,German,Hebrew,Hungarian,Polish,Romanian,Spanish,Swedish,Vietnamese

【HDD full】 Choose stop record: Stop recording when the hard disk is full. Choose overwrite : Cover the earliest recording files and continue recording when the hard disk is full.

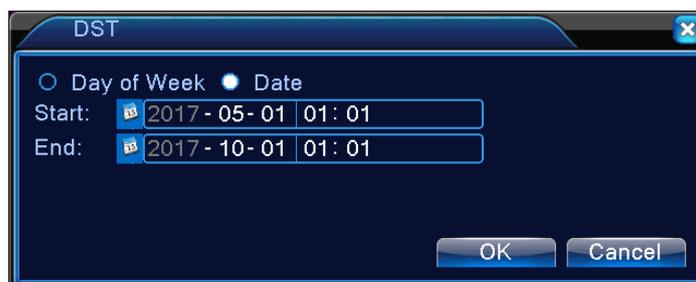
【NVR No.】 Only when the address button in the remote controller and the corresponding NVR number is matched, the remote operation is valid.

【Video Standard】 PAL or NTSC.

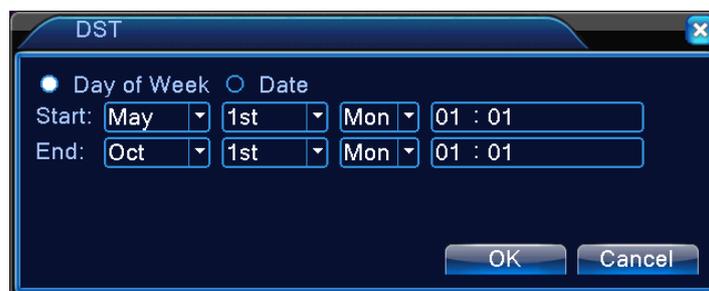
【Auto Logout】 Set the latency time in 0-60. 0 means no latency time.

【Machine Name】 Can setting the device's name.

【DST】 Choose the summer time option and pop the dialog box as followed.



Date



Day of week

4.4.2 Encode

Encode setting works on single connection channel.it can't work on the following situations:Not connected,user name error or password error,not config,not online,etc(Note:if connected device is NVR,it wouldn't work on encode setting)

At present our NVR only supports Dahua,Hikvision devices in IPC encode setting

Set up main stream of each channel on the left side. Set up extra stream of each channel on the

right side. Multi stream break through the network bottleneck with image quality and transmission quality. To select the stream format suitably and have a local HD storage with lower stream network transmission according to the network status. Extra stream is mainly used in multi-channel real-time monitoring, mobile monitoring with the poor network environment.



Encode

【Channel】 select the channel

【compression】 Standard H.264MP, Standard H.265MP; the part of device models support H.265

【Resolution】 click pull-down menu to select the resolution, 5M/4M/3M/1080P/720P/960H

【Frame Rate】 click pull-down menu to select the frame rate, PAL:1-25 fps/s, NTSC:1-30 fps/s;

Note:If frame rate are reduced,the fluency and bit rate will be reduced and

【Bit Rate Type】 VBR and CBR

【Quality】 image quality selection; the more clear the image is,the more the bate rate is. The size of the rate value changes with the change of scene.the rate value of motion scene is more than the rate value of stationary scene. the rate value of complex scene is more than the rate value of simple scene.

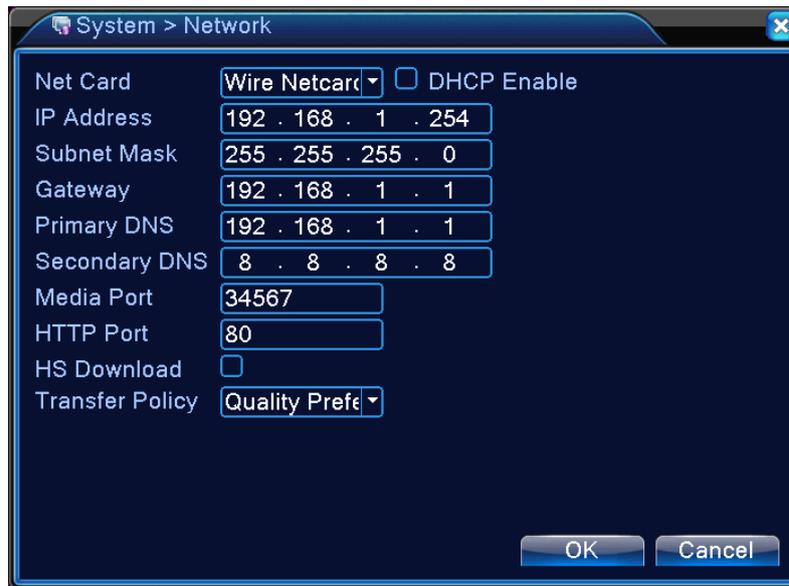
【Bit Rate】 Bit rate selection; limited bit rate was stable and would not be changed obviously

【I Frame Interval】 I frame interval, 2-12, the less I frame interval turns,the more the bite rate is,the more clear the image quality is.

【Video/Audio】 Click audio logo to listen in preview after enabling the Audio function.select 'Extra stream' to Preview by extra stream.

Note:The encode parameter of each channel which shows in encode setting gained from encode of the remote device of each channel.

4.4.3 Network



Network

【DHCP Enable】 Obtain IP address automatically

Note: Need to make sure that there is only one router which enabled DHCP function in the lan

【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】 improve the speed of downloading record files

【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 functions or double click the service button to configure the parameters.

Some models only support parts of functions.



Net Service

1. PPPoE setup

Recorder connects to the WAN by PPOE.To Remote access,this function needs private PPOE Dial-Up network.



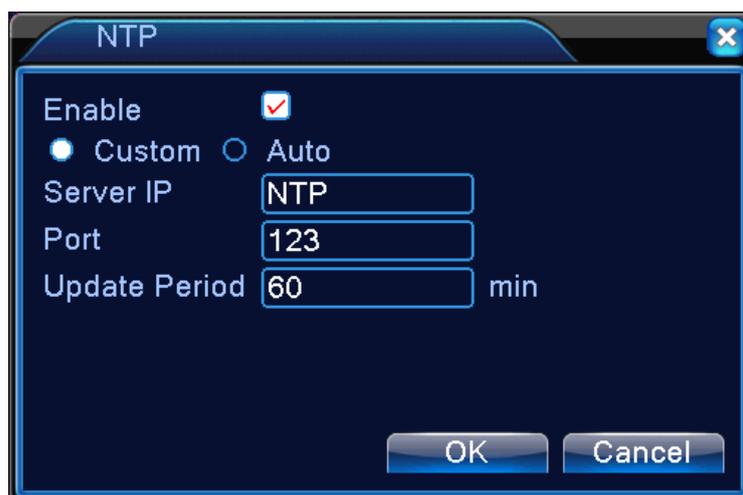
PPPOE

【Enable】 enable PPPoE function

【User name /Password】enter PPPoE user name and password, restartthe device after saving.then the device will establish a network connection automatically, IP address bar will show IP address obtained by WAN automatically

2. NTP setup

Time synchronization with designated time server



NTP setup

【Enable】 click it to enable NTP function.

【custom/Auto】 custom: Set server IP and Port; Auto: Server IP and port will be assigned automatically.

【Server IP】 enter server IP

【Port】 this port needs to be same as the server port

【Update Period】 Time synchronization interval time, default: 60 min

3. 【EMAIL setup】

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



EMAIL

【SMTP server】 Email server address. It could be an IP address or domain name. Domain name can be translated only if it is the correct DNS configuration.

【Port】 Email server port number.

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

【User Password】 Apply the email server user name and password

【Sender】 Set the email sender address.

【Receiver】 Send the email to appointed receivers when the alarm is turned on. You can set three receivers at most.

【Title】 topic of the mail

【Mail test】 。 click 'Mail test',it will test for setting and network environment.if successful,the inbox will receive the test mail,otherwise it will show the test failed.Please check the configuration and network.

4. IP Filter setup

When choosing the white list, only the listed IP address can connect the NVR. The 64 IP addresses are supportive in the list.

When choosing the black list, the listed IP address can not connect the NVR. The 64 IP addresses are supportive in the list.

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

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



IP Filter setup

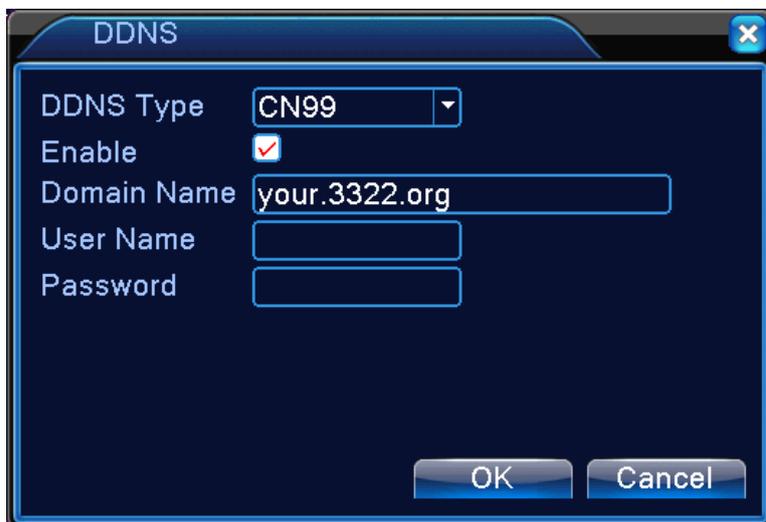
【Restricted Type】 choose black list or white list

【Add】 enter IP and click 'add'

【Delete】 delete IP which has been added

5.DDNS

It is the abbreviation of dynamic domain name server.



The screenshot shows a dialog box titled "DDNS" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- DDNS Type:** A dropdown menu currently set to "CN99".
- Enable:** A checked checkbox.
- Domain Name:** A text input field containing "your.3322.org".
- User Name:** An empty text input field.
- Password:** An empty text input field.
- Buttons:** "OK" and "Cancel" buttons at the bottom right.

DDNS

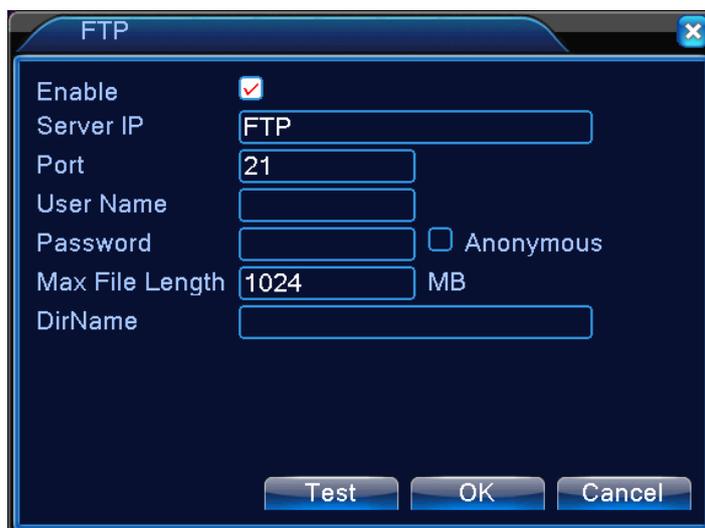
【DDNS Type】 choose dynamic domain

【Local domain name】 Provide the domain name registered by DDNS.

【User name /Password】 Provide the account and password registered by DDNS.

6. FTP setup

FTP is available only when alarm happens,or alarm activates record and snapshot,it will upload related record and snapshot pictures to FTP server.



The screenshot shows a dialog box titled "FTP" with a close button (X) in the top right corner. The dialog contains the following fields and controls:

- Enable:** A checked checkbox.
- Server IP:** A text input field containing "FTP".
- Port:** A text input field containing "21".
- User Name:** An empty text input field.
- Password:** An empty text input field, with an "Anonymous" checkbox to its right.
- Max File Length:** A text input field containing "1024" followed by "MB".
- DirName:** An empty text input field.
- Buttons:** "Test", "OK", and "Cancel" buttons at the bottom.

FTP

【Server IP】 IP address for FTP server

【Port】 Domain Port of FTP,default 21

【User name/Password】 User name of FTP and password of user

【Anonymous】: enable anonymous,no need setting user name and password

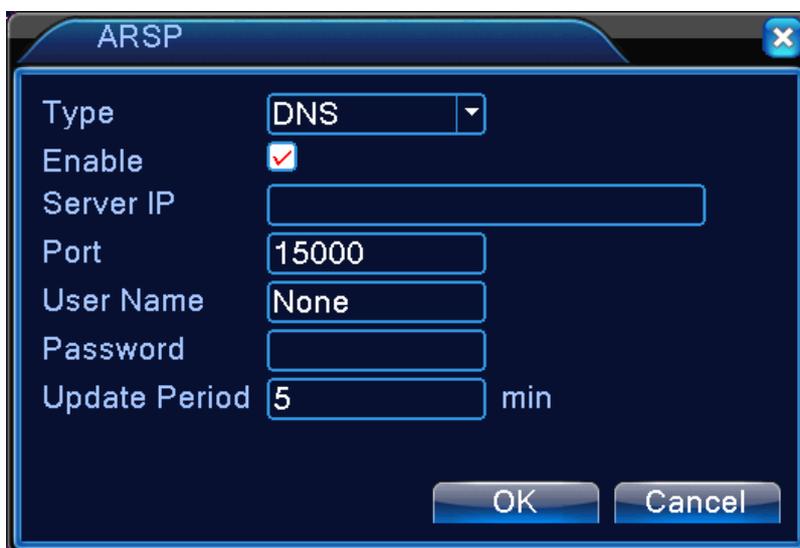
【Max File Length】 Max length for upload files at every packed,default 1024M

【Dir Name】: The directory of upload file.

Note: The user should be with authority to upload files.

7.ARSP

Startup DDNS server to add devices and manage it in the DDNS server



ARSPsetup

【Sever IP】 IP address of DDNS server

【Port】 Port No. of device, related DDNS server listen port

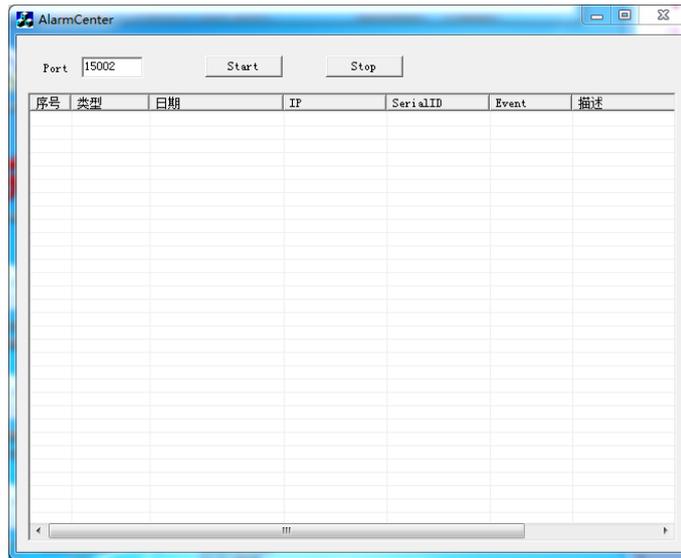
【User name/Password】 : the user name that device can log in DDNS server and the password related to the user name.

【Refresh cycle】 Time interval between device and DDNS when chynchronously.

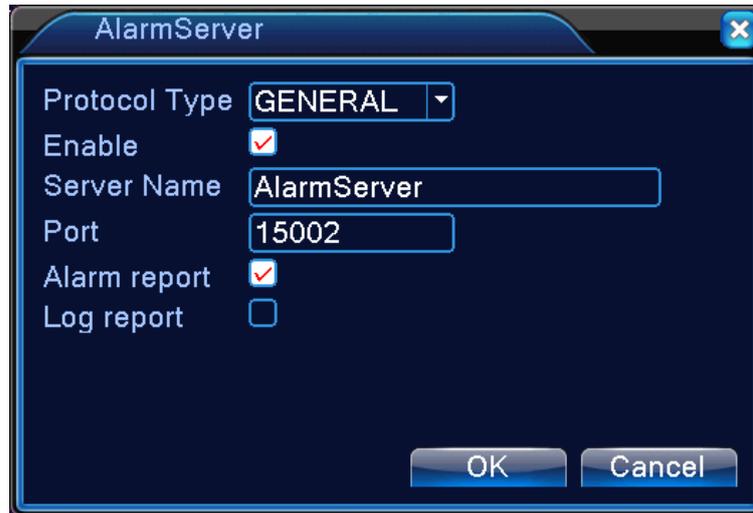
Note: Please set up server before using DDNS.

8. Alarm center

When alarm occurring, report alarm information to alarm server.



Alarm server software



Alarm Server

【Server Name】 IP address of Alarm Server

【Port】 Device Port No.

【Alarm Report】 Tick it means to report alarm information to server.

【Log Report】 Tick it, means to report log to server.

9. Wireless Config

ADSL through 3G/4G net card to use CMS to access by remote.



Wireless config

【Type】 Dial type,default AUTO

【Wireless AP】 3G access point

【Dial Number】 3G Dial Number

【User name/Password】 Password of dial user and password of dial user

【IP Address】 IP address,got from dial

10.UPNP

UPNP protocol is to realize auto port forwarding on router, precondition of using this function is to make sure the UPNP function of router is enabled.



UPNP

【HTTP】 Route will automatically distribute HTTP port for the device,when IE viewing,it need this port

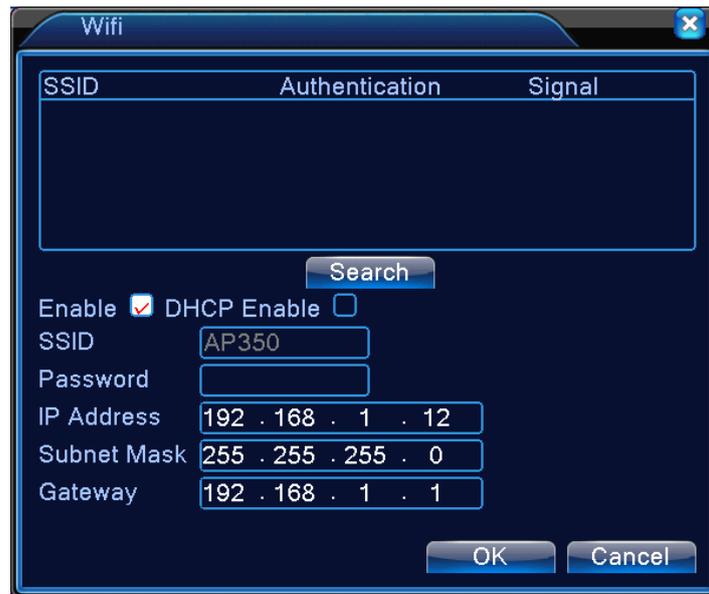
【TCP】 Router will automatically distribute TCP port for the device,when monitoring via CMS,it need this

port.

【Mobile Port】 Router will automatically distribute Mobile Port for the device,when mobile monitor,it need this port.

11.wifi

NVR connect to wireless router via WIFI module, then to visit it through IP address, the precondition of using this function is to make sure the NVR have connected with WIFI modern.



Wifi configure

【Search】: click 【search】 to search all the available wireless device in current range.

【auto obtain IP address】: tick it to enable, device will auto obtain a WIFI IP.

【SSID】: wireless LAN name, auto match to the wireless device u connected.

【Password】: wireless network password of router;

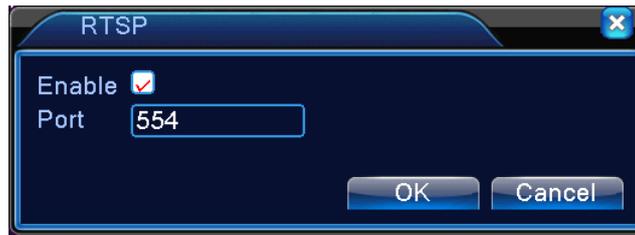
【IP address】 : to set the IP address of device, default is 192.168.1.12

【subnet mask】 :set subnet mask of device, default is 255.255.255.0

【gateway】: set gateway of device, default is 192.168.1.1

12.RTSP

To do surveillance via cross-browser (Safari, Firefox, Google chrome) and VLC software. **This function only for monitor but can not control the device.**

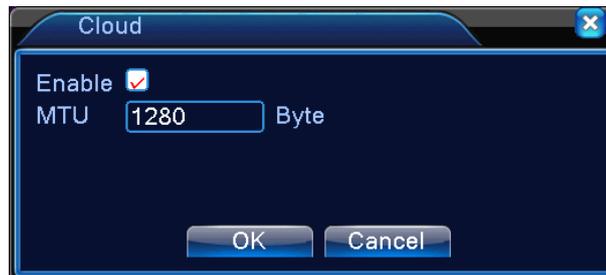


RTSP setting

【Port】: the default port is 554

13.Cloud

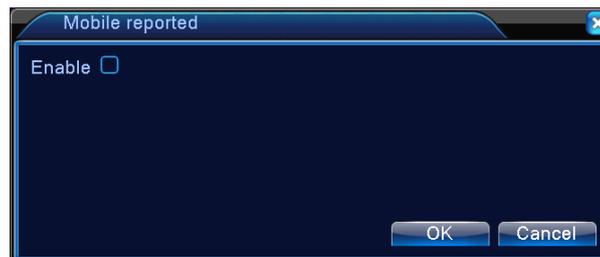
Check the cloud services, male cloud service is enabled, the user can visit <http://www.xmeye.net>



Cloud setting

14.Mobile reported

Recorder and mobile client enabled this function and enable 'mobile reported' in alarm interface.the mobile phone will receive message from server when alarm was triggered.Firstly you need to install App and add the device into client before enabling this function.the recorder need to connectthe server at the same time.



Mobile reported

4.4.5 Output mode

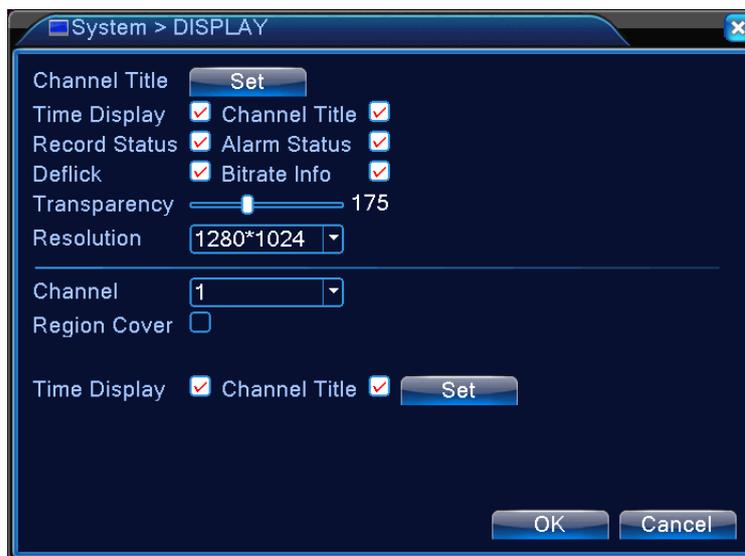
Configure the video output parameters including the front output mode and encode output mode.

Front output: In the local preview mode include: channel title, time display, channel display, record status, alarm status, transparency and region cover.

Encode output: In the network surveillance and video file mode include: channel title, time display,

channel display, record status, alarm status, transparency and region cover.

***Remark:Only 6000 series product support preview resolution - 1920*1280(1080P)**



output mode

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

【Time Display】 means the selective state. Display the system data and time in the surveillance window.

【Channel display】 means the selective state. Display the system channel number in the surveillance window.

【Record Status】 means the selective state. Display the system recording status in the surveillance window.

【Alarm Status】 means the selective state. Display the system alarm status in the surveillance window.

【Deflick】 enable Deflick function

【Transparency】 Choose the background image transparency. The range is 128~255.

【Resolution】 set display resolution.

4.4.6 RS485

when RS485 parameter setting need to be the same as setting of RS485 device,the camera can be controlled.

Some models do not support this feature



RS485

【Protocol】 click pull-down menu to select RS485 protocol

【Adres】 set address for controlling RS485 default:1;

【Baudrate】 click pull-down menu to select RS485 baurate, default:115200;

【Data Bits】 efault:8 you choose 5-8.

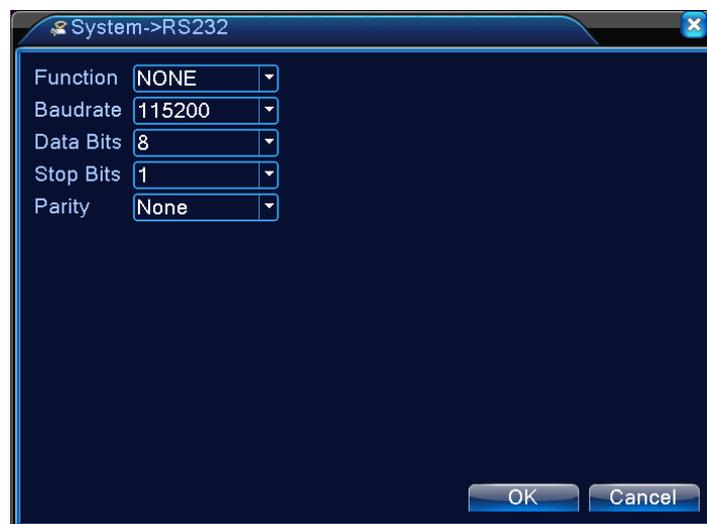
【Stop Bits】 default: 1; you can choose 1 or 2

【Parity】 Odd、 Even、 Mark、 Space, default:None.

The protocol,address and baudrate must be the same as RS485 device,otherwise the device can not be controlled.

4.4.7 RS232

Some models do not support this feature



serial port setting

【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. means that the tour mode is enable. You can choose the single-view, four-view, six-view of single mode tour or hybrid mode tour.



tour configure

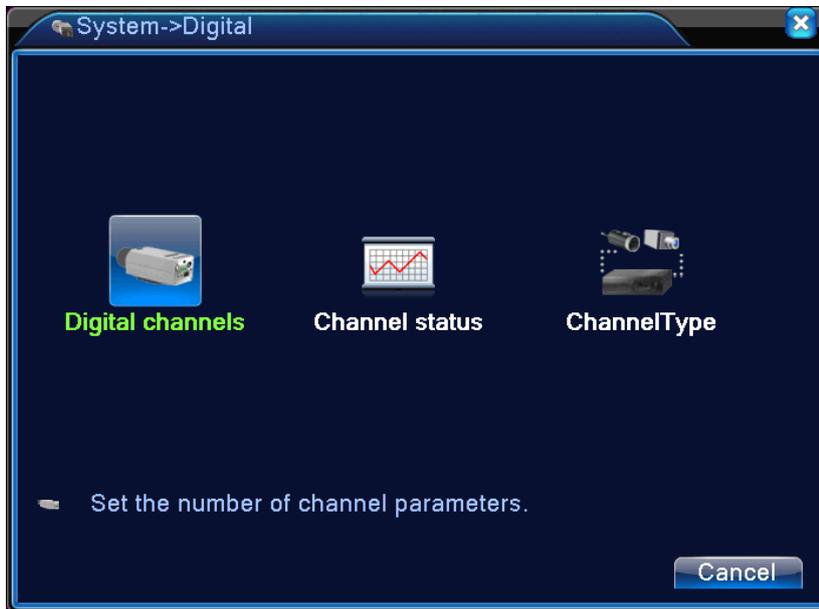
【interval】 Set the patrol switch interval. The set range is 5-120 seconds.

【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.

Remark: at preview mode, click upper right icon  /  can turn on / off tour ( mean turn on,  mean turn off.

4.4.9 Channel manage

Digital manage including digital channel, channel status, and channel mode



channel manage interface

1. Digital channel:

Add or delete the remote equipment in the lan



Single link page of digital channel



Multi-linkage page of Digital channel

【Channel】 select channel title

【Time Synchronization】 click pull-down menu it will have four selections to sync time, Type: Off,UTC Time,Local Time,Timeand TimeZone.

UTC Time: Noly Sync the time of remote device except of zone

Local Time: Sync the system time of remote device.No matter whether the zone of remote device is the same as recorder's

Time and Zone: Sync the time and zone of remote device.

【Enable】 Real time1, Real time 2, Middle, Fluency Preferred 1, Fluency Preferred 2, Fluency Preferred 3, Fluency Preferred 4, select a type to decode.实时性优先画面延时较小但是可能会出现卡顿等现象。when you choose 'Fluency preferred',the fluency is better and the image will decline in quality. when you choose 'Real time',the delay will eb reduced but the fluency may be a liitle bad.

【Connection Mode】 Single connection and Multi-link :

Single connection: only add a network device in each channel.when you enable 'sync resolution' function when current resolution exceed maximum resolution of NVR,it will sync resolution of the remote device and make current resolution not exceed maximum resolution of NVR.

Multi-link: add one or more network devices in each channel,you can set the time interval of display in this channel.

【Delete】 select the existing device, click it to delete the device IP

【Add】 click add will come out below page to add new device

0	Device Name	Device Info.	IP Address	Port

Remote access configuration

【Configure Name】 edit the configure name.

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

【Device Type】 3 types: IPC、NVR、HVR, user can choose as you want, default is IPC;

【Protocol】 support NETIP and ONVIF, Default :NETIP ,Used to connect to the company network cameras, ONVIF Used to connect to the network cameras of the third party

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

【Stream】 use Mian stream or Sub stream to connect the device.Default: main stream

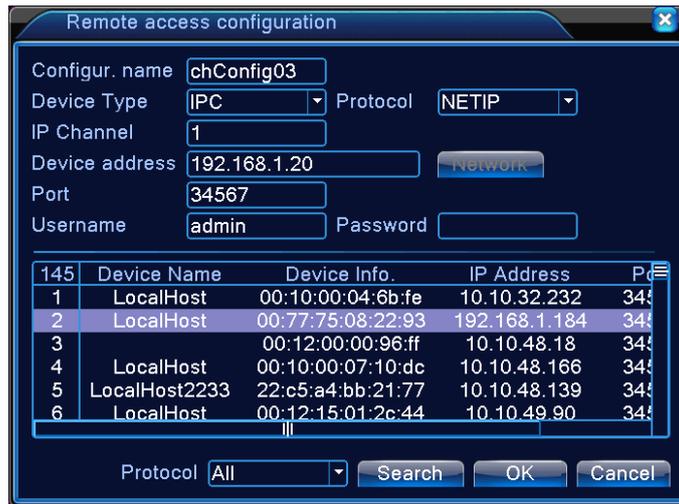
【Device address】 Add the remote device IP. Default:192.168.1.20

【Port】 TCP port, Default:34567; the port is onvif port when the connection by onvif ptocol

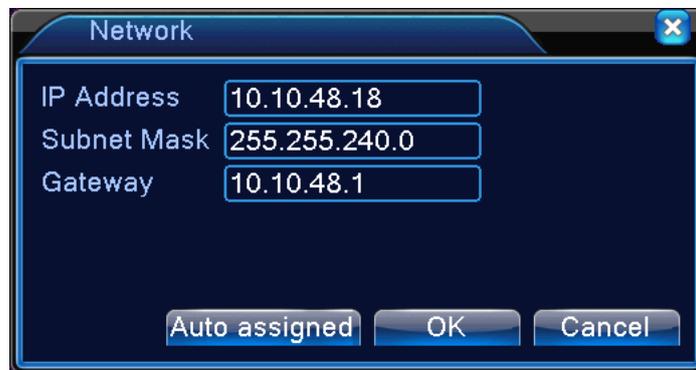
【User name ,password】 user name of the remote device and password of the user.

【Protocol】ALL、NETIP、ONVIF three protocols, ALL:search for all ddevice online. NETIP:search for only company's device, ONVIF:search for remote device which support onvif.

【Search】 click 'search', search for online device in the LAN.



the device list searched under remote channel setting



Network

【Network set】 change the IP,subnet mask and gateway.click ‘Auto assigned’,the device IP,subnet mask and gateway will be assigned automatically.

2.Channel Status

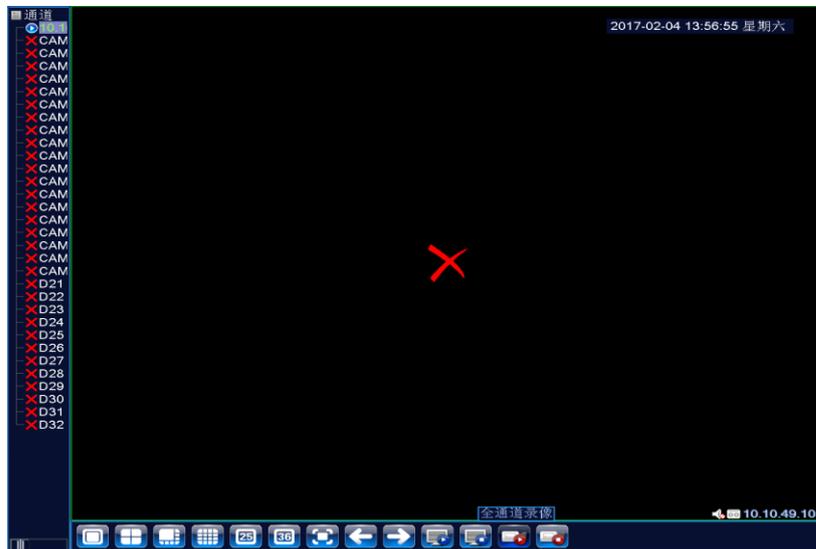
channel status is to show the status of all the digital channel When there is what existing, status including Max Resolution, This Resolution, Connection Status.

Connection status includes:User or password error,connected,not connected,not configured,not online.etc

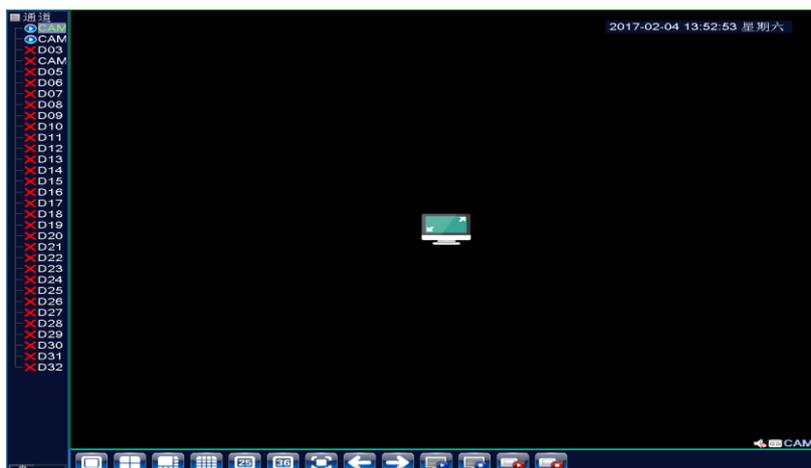
Channel	Stream	Mainstream/Sub-Stream	Connection Sta
D01	1080P	Unknown	Not logged in
D02	1080P	720P/CIF	Connected
D03	1080P	720P/CIF	Connected
D04	1080P	720P/CIF	Connected
D05	1080P	720P/CIF	Connected
D06	1080P	720P/CIF	Connected
D07	1080P	720P/CIF	Connected
D08	1080P	720P/CIF	Connected
D09	1080P	720P/CIF	Connected
D10	1080P	720P/CIF	Connected
D11	1080P	720P/CIF	Connected
D12	1080P	720P/CIF	Connected
D13	1080P	720P/CIF	Connected
D14	1080P	720P/CIF	Connected
D15	1080P	720P/CIF	Connected

Channel status

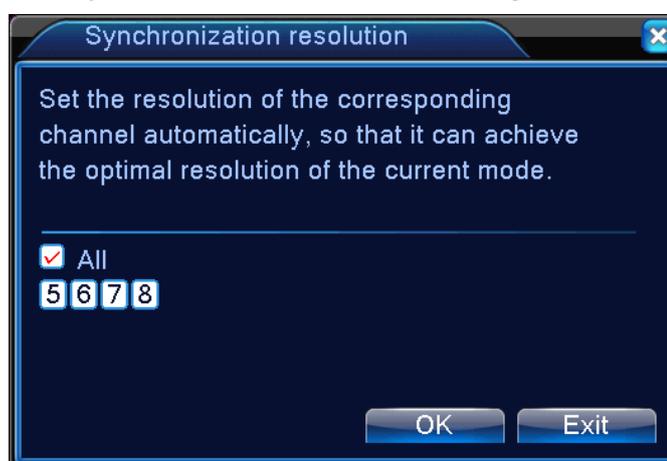
when the current resolution is over the max resolution that the channel supported, then a red “X” will be shown on the preview image. Click this icon, enter Synchronous resolution Settings interface, the channel number which was not selected indicates that synchronization resolution functions is not enabled on this channel



the current resolution is over the max resolution



synchronization resolution configuration



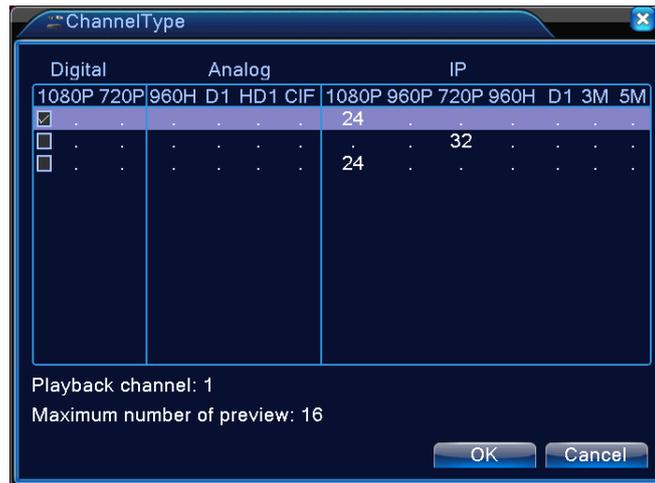
synchronization resolution configuration interface

Note:you can enable or disable **synchronization resolution function**, when the connection is **single connection**, you can also you can enable or disable **synchronization resolution function** in **【Main Menu】 > 【System】 > 【Digital】 > 【Digitalchannels】** .this function can not be supported when the connection is Multi-Link or onvif .

3. Channel mode

Display and set the channel mode which the recorder supports,it shows the maximum playback channel and the maximum number of preview at the same time.

The mode which was selected is current channel mode.



Channel Type

4.4.10 IPC parameter setting

IPC parameter setting, please refer to “3.6.6 IPC parameter”

4.5 Advanced

Manage tools menu including: HDD manage, account manage, online user, output adjust, auto maintain, upgrade.



Advanced

4.5.1 HDD Manage

Configure and manage the hard disk

there will be one more snapshot button while the device supports snapshot.



Pic.HDD manage

【Read/Write Disk】 The equipment can write or read data.

【Read-only Disk】 The equipment can read data but can not write data.

【Redundant Disk】 Double backup the video files in the write-read disk.

【hard disk format】Select a hard disk or partition in the catalogue bar, click it to format the hard disk you selected.

Note: All data will be empty after hard disk format .please operate cautiously.

【resume default】 select the hard disk which shows error.click it to recover the error in hard disk

【partition】 select the hard disk to partition

Note: The hard disk will be formatted before the partition, please operate cautiously.

4.5.2 Account

Modify User,ModifyGroup,Modify Pwd,Add User,AddGroup,DeleteUser,Delete .Group,Update,Qusetion.

you can set security question and reset the password when you forgot the password. (you can only set question by logining as admin) 。



Account

1. Modify User

Modify the existed user attribute.



Modify User

【User】 click pull-drop menu to select a existing user

Note: admin user is system user and not permitted to be modified

【User name】 modify the user name with less than 16characters

【Reuseable】 it allows serval user to use this user name to login.

【Memo】 remark for user name

【Group】 set the permittions for group.

【Authority】 set the permittions for user.user can not operate without permittions

2.Modify Group

Modify the existing group attribute.



Modify group

【Group】 click pull-drop menu to select a existing group

Note: admin group is system group and not permitted to be modified

【Group name】 modify the user name with less than 8 characters

【Memo】 remark for group

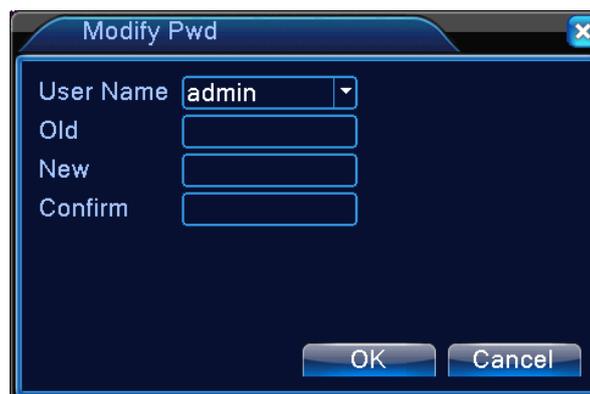
【Authority】 set the permissions for group.user can not operate without permissions

Note:when adding user in group ,the user only can select permission in group permissions

1.Modify Password

Modify the user password. You can set 1-6 bit password. The blank ahead or behind the char string is invalid. The middle blank in the char string is valid.

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



Modify password

【User name】 click pull-drop menu to select a existing user

【Old】 original password

【New】 set new password

【confirm】 confirm the new password

Note:if the old password is wrong, you cannot modify the password.

4.Add user

Add a user and set the user permissions



Add user

【User name】 modify the user name with less than 16characters

【Reuseable】 it allows serval user to use this user name to login.

【Password/Confirm】 enter the password and confirm it.

【Memo】 remark for user name

【Group】 set the permissions for group.

【Authority】 set the permissions for user.user can not operate without permissions

5.Add group

Add a user group and set the group permission



Add Group

【Group name】 modify the user name with less than 8 characters

【Memo】 remark for group

【Authority】 set the permissions for group.user can not operate without permissions

Note:when adding user in group ,the user only can select permission in group permissions

6.Delete user

Delete the current user. Choose the user and click delete user button.

Note:Admin and default can not be deleted.

7. Delete group

Delete the current group. Choose the group and click delete group button.



Delete Group

【Group】 click pull-drop menu to select a group to delete

【Group name, Memo】 modify group name and remark.

【Delete】 delete group

Note:Admin and default can not be deleted.

8.Update

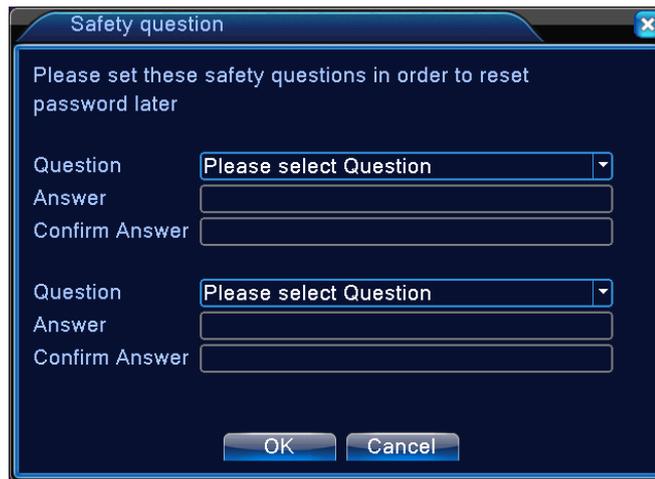
Refresh the current user management interface

9.Question

Set one or two different questions and enter answer,confirm it and save it. you can set security question and reset the password when you forgot the password.

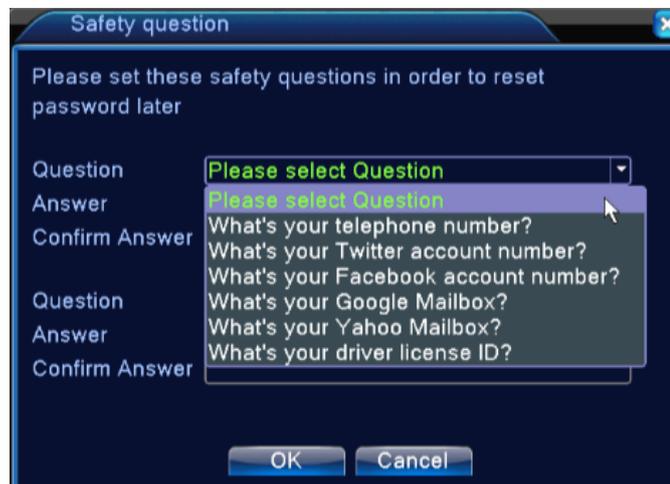
Refer to chapter 3.3

Note:The user can not reset the password in login interface when the question was not set.



Question

【Question】 select the question



Quesiton selection

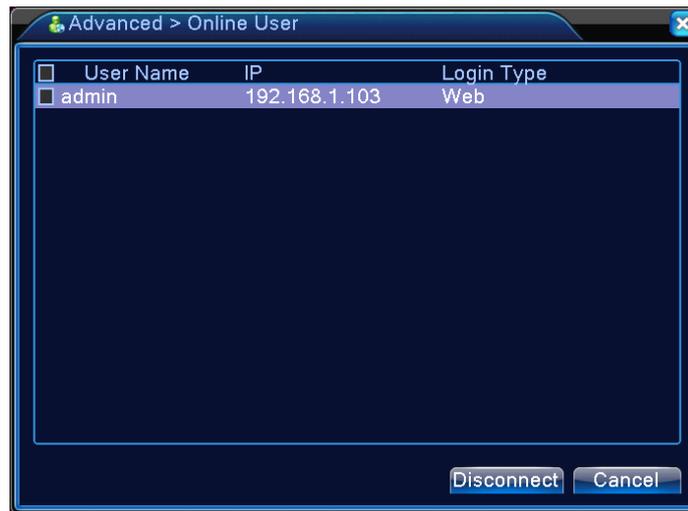
【answer】 enter the answer, 1-40 character

【confirm answer】 confirm the answer you have set.

Note: when the answer is different from the confirmed answer, it will show that the answer is not matched. The answer can not be null.

4.5.3 Online User

To check the information of network user that connected with local device ,also can tick the selected user to break up connection



Onlin user

【disconnect】 it can force user to disconnect the device.

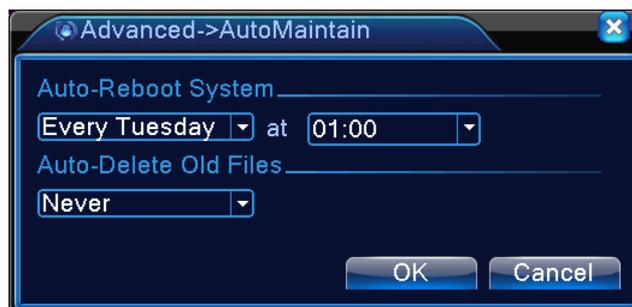
【IP login】 the user logins by IP address

4.5.4 Output adjust

Refer to chapter 3.6.11

4.5.5 Auto Maintain

The user can set the time to auto reboot and auto delete file.



Auto maintain

【Auto-Reboot System】 set the time of automaintain to auto reboot.

【Auto Delete Old Files】 auto delete file before 1-255 day

4.5.6 Restore

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



Restore

【Select all】 reset all configuration

【item selection】 reset the configuration which you selected

4.5.7 Upgrade



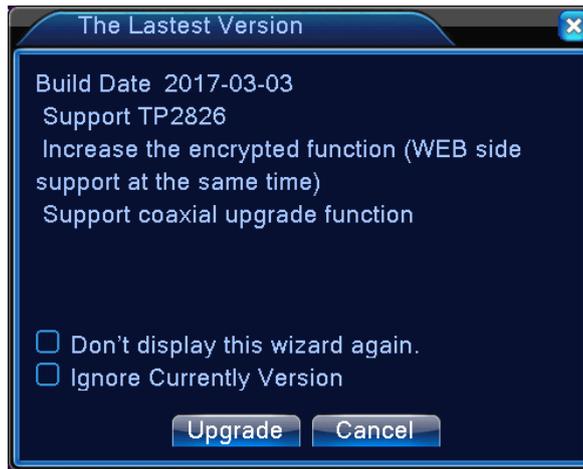
Upgrade

【Upgrade Position】 put the upgrade file into the U disk and connect it to USB interface.

【Upgrade file】 select the file to upgrade.

【Online upgrade】 The recorder connects to WAN and click 'command'. If there is new firmware, it will prompt you to upgrade. Otherwise it will show 'this is the latest version'

【Tips Latest updates】 If there is new firmware, it will prompt you to upgrade. Otherwise it will show 'this is the latest version'



Automatic upgrade critical updates

【Automatic upgrade critical updates】 The recorder connects to WAN and click 'command'. If there is new firmware, it will prompt you to upgrade.



【Camera upgrade】 select the remote device to upgrade

【Device info】 Select channel and it shows the info of remote device.

Note:

1. Please do not power off during updating. otherwise it will cause serious consequences. Please check if the firmware matches the device model.

2. Only Primary DNS and Secondary DNS are 115.29.13.4, online upgrade can work normally.

4.5.8 Device info

Provide device interface info like audio in, alarm in/out to be conveniently used for user. Set the password of maintain and maintain day



Device info

【Audio/Alarm in Channel】 the number of the audio/alarm input channel

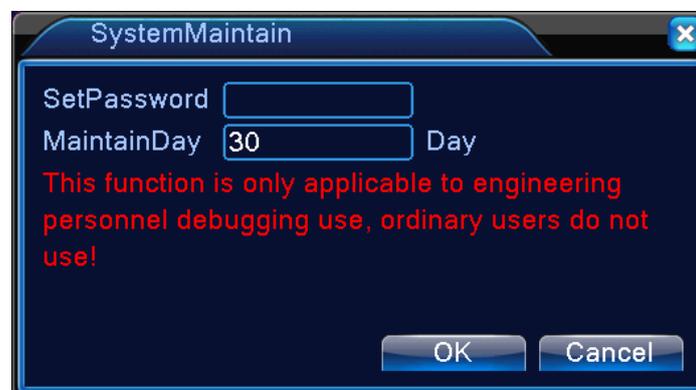
【Alarm Out Channel】 the number of the alarm output channel

【Remote control type】 control trpe.if the control type didn't match the type you select,the controller will be unable to control the recorder.

【Maximum Playback large】 maximum number of playback and number of default playback

【Enable RS232/Enable PTZ】 enable this function,the user can use RS232and PTZ.

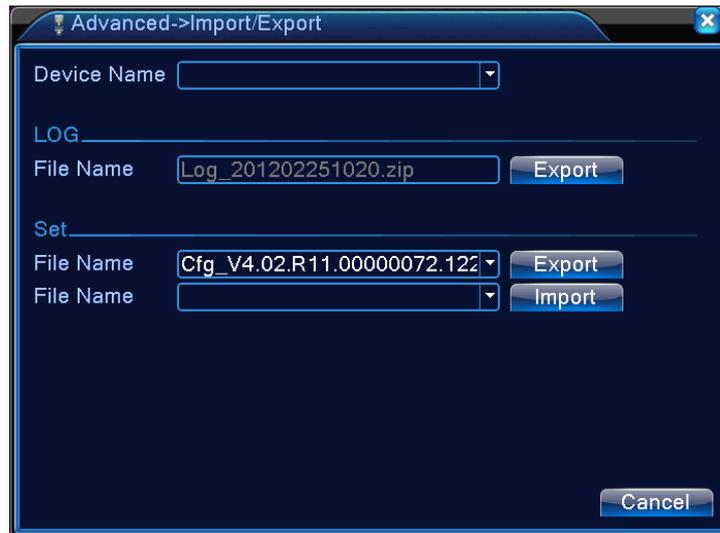
【Maintain】 Set password and maintain day. Default maintain day:30 days



System Maintain

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 configuration file from flash stick to settings, which greatly bring convenience to the customers.



Import / Export interface

【Device Name】 click Pull-down Menu to select the external storage device

【Log info-file name】 click 'export',export log to external storage device

【Set-Export】 click 'export',export configuration file to external storage device

【Set-Import】 click Pull-down Menu to select the file needs to import on the external storage device and then click 'Import'

Note:the configuration file of different models can not be used each other.

4.6 Info

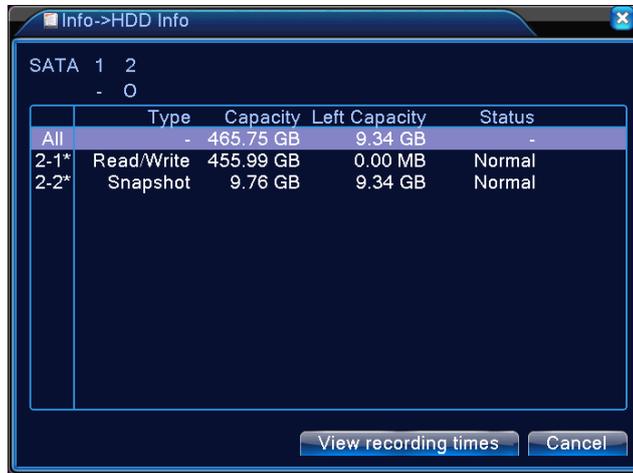
Display the hard disk information, including HDD info, code stream statistic, log info, version info



info

4.6.1 HDD info

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



Pic.HDD info

Tips: ○ means that the hard disk is normal. X means that the hard disk is broken-down.- means that there is no hard disk. If the user need to change the damaged hard disk, you must shut down the NVR and take up all the damaged hard disks, then install a new one.

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

【view recording times】 view recording start time and stop time

4.6.2 BPS

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

Channel	Kb/S	MB/H	Channel	Kb/S	MB/H
1	0	0	13	1472	504
2	1472	504	14	1472	504
3	1472	504	15	1472	504
4	1472	504	16	1472	504
5	1472	504	17	1472	504
6	1472	504	18	1472	504
7	1472	504	19	1472	504
8	1472	504	20	1472	504
9	1472	504	21	1472	504
10	1472	504	22	1472	504
11	1472	504	23	1472	504
12	1472	504	24	1472	504

BPS

4.6.3 LOG

Type:

Start Time:

End Time:

67	Log Time	Type	LOG
1	2014-02-25 01:00:05	Shut Down	2014- 2-25 01:00:05
2	2014-02-25 01:00:49	Reboot	2014- 2-25 01:00:05
3	2014-02-25 01:00:49	Log In	User default LogIn b
4	2014-02-25 08:27:34	Log In	User admin LogIn by
5	2014-02-25 08:27:54	Log Out	User admin LogOut
6	2014-02-25 08:42:01	save system state	2014- 2-25 08:32:04
7	2014-02-25 08:42:01	Log In	User default LogIn b
8	2014-02-25 08:42:08	Modification time	Time calibration
9	2014-02-25 08:42:10	Log Out	User default LogOut
10	2014-02-25 08:42:10	Log In	User admin LogIn by

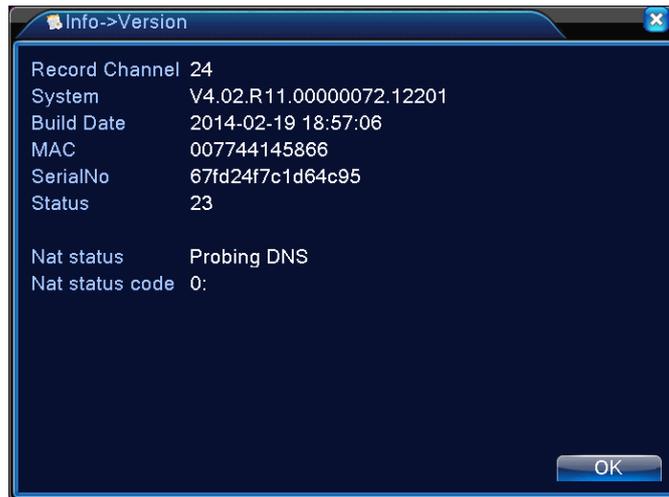
Pic.Log info

To search log information base on the set search mode.

Log information include: system operation, configuration operation, data management, alarm affair, recording operation, user management, 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.

4.6.4 Version

Display the basic information such as system version, MAC, NAT status and note if there is the latest firmware,etc.



Version

【Record channel】 The number of record channel the current mode supports

【System info】 the code means the product model and functions

【Build date】 the date of the current firmware version

【MAC/SerialNo】 The only identification code of recorder.

【Status】 the time status of the device, if the device runs 1 hour, the status will increase 1;

【Nat Status】 cloud connection status, if connection is successful,it means cloud function can be enabled.

【 Nat Status code 】 the information of cloud connection status.it is composed of 'number:IP address/number/ three digits'

【Tips】check if firmware is the latest from remote server,if it had tips,click it to upgrade.otherwise there is no tips.

4.7 Shut down system

Refer to chapter3.6.12

5 Cloud Technology Basic Operation

5.1 Cloud technology monitor

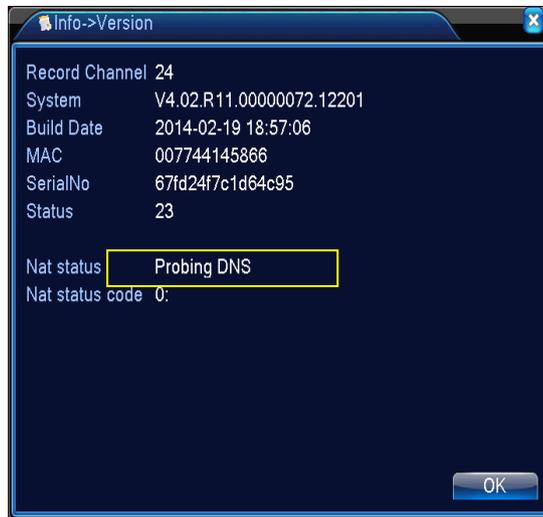
Cloud technology make the device one step on net, greatly bring convenience for customer to monitor via wide area network, this technology is using the serial no to visit device.

***Remark:** the device that using cloud technology should be in the WAN(Wide Area

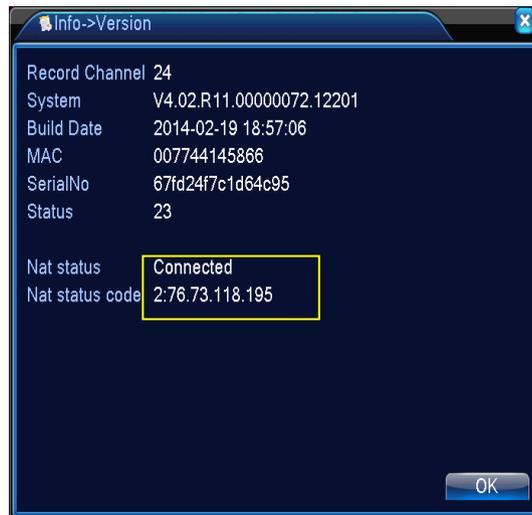
Network)firstly.

➤ **Check the connecting status of cloud technology**

Connect device to WAN firstly, then enter **【Main menu】 > 【Info】 > 【Version】** to check whether the device successfully connect to the cloud server or not.



Connect failed interface



successfully connect interface

Access <http://xmeye.net>, Please click 'Enter Guid' to register account and uninstll IE Plugin,if you access device for the first time.

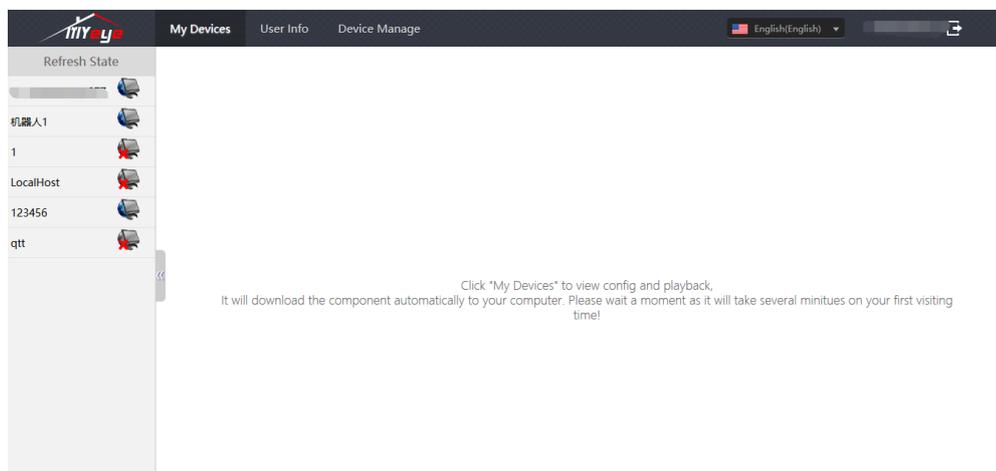
The image shows a login interface with two tabs: "By User" and "By Device". The "By User" tab is selected. Below the tabs is a form with the following elements:

- A "Username" input field with a person icon.
- A "Password" input field with a lock icon.
- A "Verify" button.
- A CAPTCHA image showing the number "2214".
- A "Remember" checkbox.
- A "Forget Password?" link.
- A large blue "Login and Preview" button.
- A note: "Please Click 'Enter Guide' if you visit first".
- A black "Register" button at the bottom right.

Cloud login interface

1.Login by user

Use registered user name and password which to login, you can not manage several device in the meantime.



Login by User

【My Device】 the device Information which were added in user management.Red cross means the device is not online.double-click to access the device.

【Device Manage】 Add ,modify and delete the device

Device Manage				
NO.	SerialNO.	Device Name	Username	Operation
1	6cc18	6cc18	admin	

Device manage

Add device: enter the device serial NO ,Device name,Username and password.

SerialNO.	<input type="text"/>	
Device Name	<input type="text"/>	
Username	<input type="text" value="admin"/>	(default is "admin")
Password	<input type="text"/>	(default is null)
		<input type="button" value="Ok"/> <input type="button" value="Cancel"/>

Add device

Modify device: modify the device name, user name and password.

Delete device: click the device to delete.

2. Login by Device

Use device serial number to login.you can not manage several device in the meantime.

By User
By Device

96. SerialNO.

admin Username

Password

Login and Preview

Please Click "Enter Guide" if you visit first

Register

By Device

6 FAQ and maintenance

6.1 FAQ

If the problems are not listed, please contact the local service or call the HQ service. We are willing to offer the service.

1、 The NVR can not boot up normally.

Possible reasons are as followed:

- 1 The power supply is not correct.
- 2 Switch power supply line is not in good connection.
- 3 Switch power supply is damaged.
- 4 The program updating is wrong.
- 5 The hard disk is damaged or the hard disk lines are broken.
- 6 The front panel is damaged.
- 7 The main board of the NVR is damaged.

2、 The NVR reboots automatically or stops working after boot up a few minutes.

Possible reasons are as followed:

- 1 The input voltage is not stable or too low.
- 2 The hard disk is damaged or the hard disk lines are broken.
- 3 The power of the switch power supply is low.
- 4 Frontal video signal is not stable.
- 5 Bad heat radiator or too much dust or bad running circumstance for the NVR.
- 6 The hardware of the NVR is damaged.

3、 System can not detect hard disk.

Possible reasons are as followed:

- 1 The hard disk power supply line is not 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.

4、 **There are no video outputs in single channel, multiple channels and all channels.**

Possible reasons are as followed:

- 1 The program is not matched. Please update the program.
- 2 The image brightness is all 0. Please restore 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 NVR is damaged.

5、 **Real-time image problems such as the image color or the brightness distortion.**

Possible reasons are as followed:

- 1 When using the BNC output, the option between the N mode or PAL mode is wrong and the image becomes black and white.
- 2 The NVR is not matched 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 NVR is wrong.

6、 **I can not find the video files in local playback mode.**

Possible reasons are as followed:

- 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 look up are covered.
- 5 The recording is not on.

7、 **The local video is not clear.**

Possible reasons are as followed:

- 1 The image quality is too bad.
- 2 The reading program is wrong. Reboot up the NVR.
- 3 The data line of the hard disk is damaged.
- 4 The hard disk is damaged.

The hardware of the NVR is damaged.

8、 There is no audio signal in the surveillance window.

Possible reasons are as followed:

- 1 It is not an active tone arm.
- 2 It is not an active sound box.
- 3 The audio lines are damaged.

The hardware of the NVR is damaged

9、 There is audio signal in the surveillance window but no audio signal in the playback state.

Possible reasons are as followed:

- 1 Setting issues: the audio option is not chosen.
- 2 The according channel is not connected with the video.

10、 The time is wrong.

Possible reasons are as followed:

- 1 Setting is wrong..
- 2 The battery is in bad connection or the voltage is too low.
- 3 The oscillation is damaged.

11、 The NVR can not control the PTZ.

Possible reasons are as followed:

- 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 NVR is not correct.
- 5 The protocols of the PTZ decoder and the NVR are not matched.
- 6 The address of the PTZ decoder and the NVR are not matched.

- 7 When multiple decoders are connected, the far port of the PTZ decoder line A(B) must connect a 120Ω resistance to reduce the reflection otherwise the PTZ control is not stable.
- 8 The distance is too far.

12、 The motion detect is not working,

Possible reasons are as followed:

- 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.

13、 I can not login via web or CMS.

Possible reasons are as followed:

- 1 The system is windows 98 or win me. We recommend updating to windows 2000sp4 or higher Version or installing the software for low edition.
- 2 ActiveX is hold back.
- 3 The version 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 CMS is not matched the NVR program version.

14、 The image is not clear or there is no image in network preview state or video file playback state.

Possible reasons are as followed:

- 1 Network is not stable.
- 2 The user machine is resource limited.
- 3 Choose the play-in-team mode in the network setup of NVR.
- 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.

15、 Network connection is not stable.

Possible reasons are as followed:

- 1 Network is not stable.
- 2 IP address is conflicted.
- 3 MAC address is conflicted.
- 4 The net card of the NVR is bad.

16、 There is something wrong with the USB backup or writing a CD.

Possible reasons are as followed:

- 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.

17、 The keyboard can not control the NVR.

Possible reasons are as followed:

- 1 The serial port of the NVR 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.

18、 Alarm can not be recessional.

Possible reasons are as followed:

- 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.

19、 Alarm is not working.

Possible reasons are as followed:

- 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 A alarm is connected with two loops synchronously.

20、 The remote controller is not working,

Possible reasons are as followed:

- 1 The remote control address is not correct.
- 2 The remote control distance is too far or the angle is too large.
- 3 The battery is used up.
- 4 The remote controller or the front panel of the recording machine is damaged.

21、 The storage time is not enough.

Possible reasons are as followed:

- 1 Front vidicon quality is bad. The lens is too dirty. The vidicon is in backlighting installation.
- 2 The hard disk capability is not enough.
- 3 The hard disk is damaged.

22、 The downloading files can not play.

Possible reasons are as followed:

- 1 There is no media player.
- 2 There is no DX8.1 software or higher edition.
- 3 There is no DivX503Bundle.exe file to play AVI video files.
- 4 The DivX503Bundle.exe and ffdshow-2004 1012 .exe files must be installed in the windows xp system.

23、 I can not remember the advanced password or network code in the local menu operation.

Please contact the local service or call the HQ service. We will offer the service according the machine type and the program edition.

24、 Can not see the preview picture the digital channel

Possible reasons are as followed:

- 1 Did not add device
- 2 The device of related channel was not enable
- 3 The device of related channel was not selected.

- 4 The selected device did not connect to video sources
- 5 The channel title of selected remote device is not exist.
- 6 Stream for remote channel was set by extra stream.
- 7 User name & password not matched
- 8 directly input with IP address or port No. incorrectly when adding device.
- 9 The resolution of added device is too large to display by the monitor.

Click “search” why not search out any of the device.

Possible reasons are as followed:

- 1 There is no other device exist in the Local area network
- 2 The subnet mask setting incorrectly on Network settings.

26、 The snapshot at alarm function was enable, why not catch picture

Possible reasons are as followed:

- 1 HDD manage without partition for snapshot.
- 2 Partition for snapshot is 0
- 3 The snapshot function is not enable on record-> storage of related channel.

27、 The time shows on digital channel is not the same as local side:

Enable the time synchronous function of digital channel.

28、 Can not see preview picture of analog channel

Possible reasons are as followed:

- 1 The camera did not connect to video interface
- 2 The device did not connect to video source
- 3 Video source is broken.

29、 Picture will be frozen when multi-connection and shift devices.

Picture come out from digital channel need few seconds, shift device means to show new picture, so it needs several seconds to buffer.

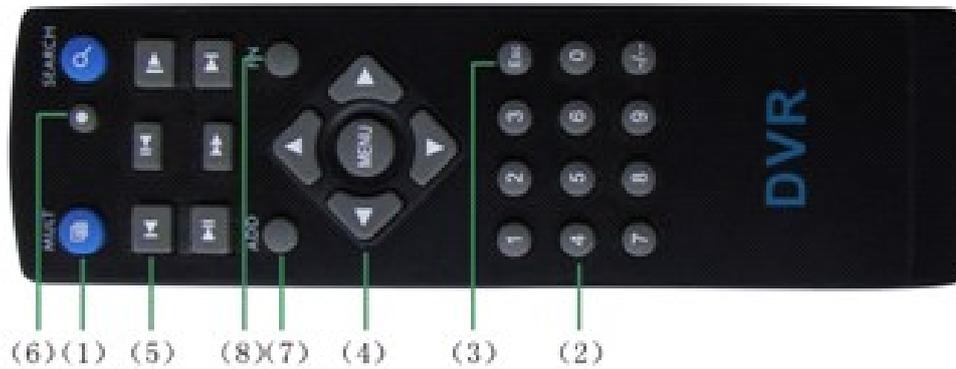
6.2 Maintenance

- 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 NVR 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 NVR. 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 NVR away from heat resource.
- 7 Please keep the NVR ventilated for better heat radiator.

Please check the system and maintain regularly.

Appendix 1.Remote controller operation



Serial number	Name	Function
1	Multi-window button	Same function as Multi-window button in the front panel
2	Numeric button	Code input/number input/channel switch
3	【Esc】	Same function as 【Esc】 button in the front panel
4	Direction button	Same function as direction button in the front panel
5	Record control	Control the record
6	Record mode	Same function as “Record mode”
7	ADD	Input the number of NVR to control it
8	FN	Assistant function

Appendix 2. Mouse operation

*Take right hand as an example

The mouse in USB connection is supported.

Operation	Function
Double left click	Double click one item in the file list to playback the video Double click the playback video to zoom in or out the screen
	Double click the channel to make it full screen display double click again to resume the multi-window display
Left click	Choose the according function in the menu
Right click	Pop desktop shortcut menu in preview state
	Current shortcut menu in the menu
Press middle button	Add or subtract number in the number setting
	Switch the items in the combo box
	Page up or down in the list
Move mouse	Choose the widget or move the item in the widget
Drag mouse	Set the motion detect area
	Set the cover area

Appendix 3.Hard disk capability calculation

Make sure the hard disk installed to the NVR for the first time. Pay attention to the IDE hard disk lines connection.

1、 Hard disk capability

There is no limit for recording machine. We recommend 120G~250G size to keep better stability.

2、 Overall capability option

The hard disk capability formula is:

Overall capability (M) =channel number*time (hour) *capability in an hour (M/hour)

The recording time formula is:

$$\text{Recording time (hour)} = \frac{\text{overall capability (M)}}{\text{Capability in an hour (M/hour) *channel number}}$$

The NVR introduces the H.264 compression technology. Its dynamic range is very large so the hard disk capability calculation is based on the estimation values of each channel creating files in an hour.

Example:

For one piece 500G HDD,real time CIF for recording,it will keep recording for about 25 days.HDD spaces per channel is 200M/H,if 4channels real time CIF at 24hours recording uninterrupted,it can last: $500G/(200M/H*24H*4ch)=26$ days