

# User manual

## NVR PNI House PTZ720P



# Welcome

Thank you for purchasing our NVR!

This manual is designed to be a reference tool for the installation and operation of your system.

Here you can find information about this series NVR features and functions, as well as a detailed menu tree.

Before installation and operation please read the following safeguards and warnings carefully!

## Important Safeguards and Warnings

Do not place heavy objects on the NVR.

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

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

Do not disassemble or repair the NVR by yourself. Do not replace the components by yourself.

## Environment

Please place and use the NVR between 0 and 40 degrees C. Avoid direct sunlight. Stay away from heat source.

Do not install the NVR in damp environment.

Do not use the NVR in smoky or dusty environment.

Avoid collision or strong fall.

Please insure the NVR level installation in a stable workplace.

Please install in ventilated place. Keep the vent clean.

Use within the rating input and output scope.

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# 1 Production Introduction

## 1.1 Product overview

The series DVR 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 G.711A audio compressed format which insures the high quality image, low error coding ratio and single frame playing. It introduces TCP/IP network technology which achieves the strong network communication ability and telecommunication ability.

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

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

## 1.2 Main functions

### Real-time surveillance

analog interface and VGA interface (VGA interface is equipped selectively)

surveillance function through monitor or display

### 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 tele-surveillance in the real time

tele-PTZ control

tele-recording check and real-time playback

### **Communication interface**

RS485 interface which fulfills the alarm input and PTZ control

standard ethernet network interface which fulfills the telecommuting function

### **Intelligent operating**

mouse action function

fast copy and paste operating for the same setting

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## 2 Open-package check and cable connections

### 2.1 Open-package check

When you receive the DVR, please check first .

First, please check whether there is any visible damage to the package appearance. The protective materials used for the package of the DVR 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 DVR 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.

#### 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 rear 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.**

### 2.2 Hard disk installation

For the first use, please install the hard disk.



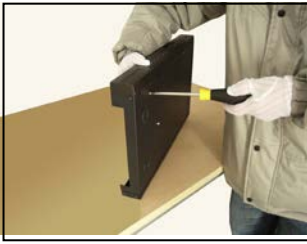
① disassemble the screw



② disassemble



③ fix the screw of hard disk



④fix the screw of hard disk



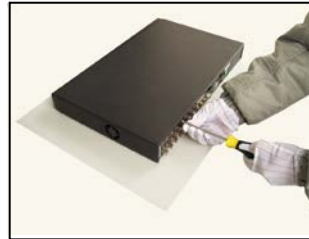
⑤connect the data wire



⑥connect the power wire



⑦cover the machine



⑧fix the cover

## 2.3 Audio and video input and output connections

### 2.3.1 Video input connections

The video input port is BNC connector plug. The demand of input signal is PAL/NTSC BNC( $1.0V_{P-P}, 75\Omega$ ).

### 2.3.2 Video output connections and options

The video output is divided into PAL/NTSC BNC( $1.0V_{P-P}, 75\Omega$ ) and VGA output(selective configuration).

Audio port is BNC connection.

### 2.3.4 Audio signal output

## 2.4、 PTZ decoder connections

A. The grounding of the PTZ decoder and DVR 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  $120\Omega$  resistance paralleled to reduce the inflection and insure the



signal quality.

D. The 485 AB lines of DVR can not connected with other 485 output equipments paralleled.

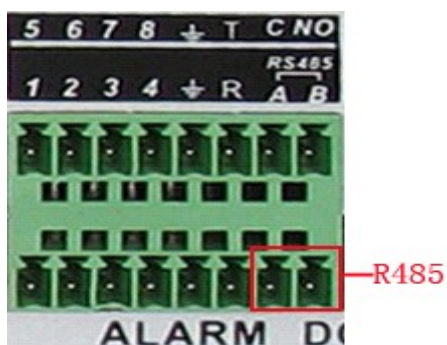
E. The voltage between the AB lines of the decoder must be less than 5V.

## 2.5、 Front equipment grounding note

Bad grounding can lead to the burnout of the chip.

## 2.6 Speed dome connections

1、 Connect the 485 lines of the speed dome with the DVR 485 interface.



2、 Connect the video line with the DVR video input.

3、 Electrify the speed dome.

---

## 3 Basic operation

Note: The button in gray display indicates nonsupport.

### 2.7 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 DVR is working normally.

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

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

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

### 2.8 Turn off

There are two methods to turn off the DVR. 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 DVR is shut down abnormally, it can automatically backup video and resume previous working status after power failure.

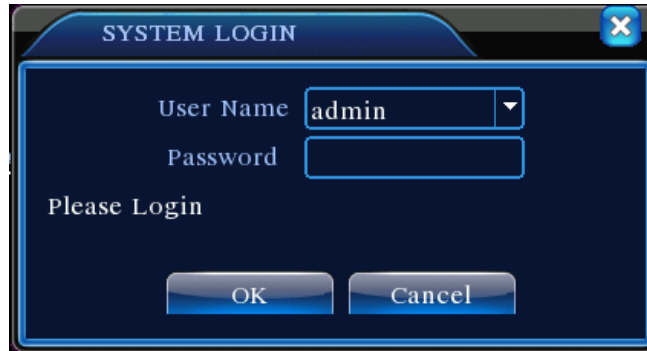
2、 Replace the hard disk

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

### 2.9 System Login

When the DVR boots up, the user must login and the system provides the corresponding functions with the user purview. There are three user settings. The names are **admin**, **guest** and **default** and these names have no password. **Admin** is the super user purview; guest and **default**'s permissions are preview and video playback. User **admin** and **guest**'s 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 three times, the alarm will start. If the password is continuous wrong five times, the account will be locked. (Through reboot or after half an hour, the account will be unlocked automatically).

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

### 3.0 Preview

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

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





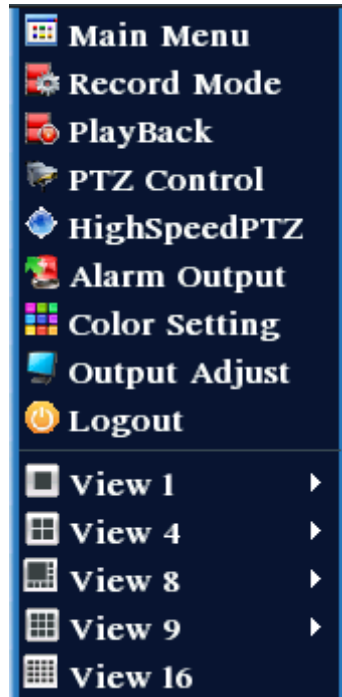
1		Recording status	3		Video loss
2		Motion detect	4		Camera lock

Table 3.1 Preview icon

### 3.1 Desktop shortcut menu

In preview mode you can right click mouse to get a desktop shortcut menu. The menu includes: **main menu,record mode,playback,PTZ control,High Speed PTZ,Alarm Output,color Setting,Output adjust,Logout,view1/4/8/9/16 screens.**



Picture 3.2 Shortcut Menu

### 3.1.1 Main menu

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



Picture3.3 Main Menu

### 3.1.2 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

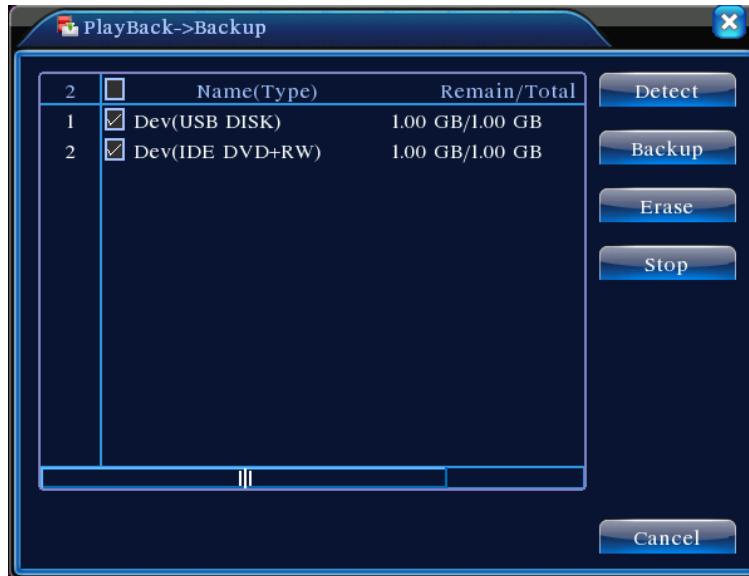
**Note: The hard disk that saves the video files must be set as read-write or read-only state.(4.5.1)**



Picture 3.4 video playback

- 1. listed files
- 2. file information
- 3. file searching
- 4. file backup
- 5. Operation hint
- 6. Playback control

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



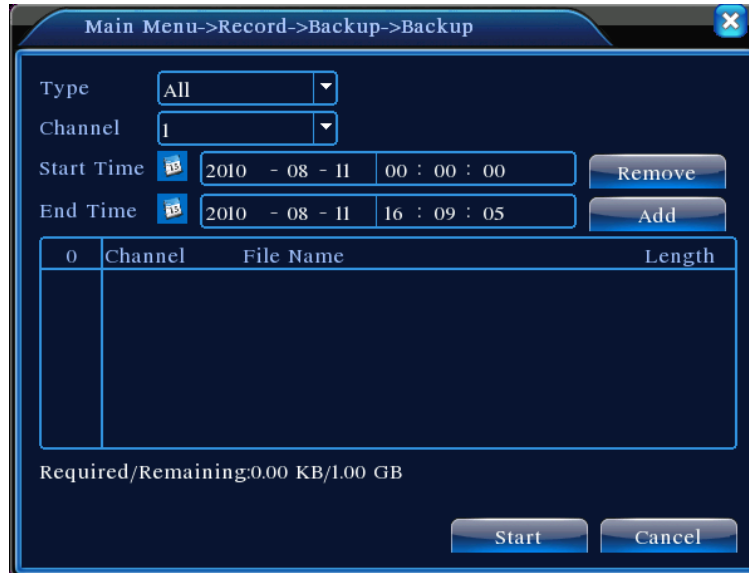
Picture 3.5 detect the storage

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

**Erasure:** Choose the file to delete and click erasure to delete the file.

**Stop:** Stop the backup.

**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 3.6 recording backup

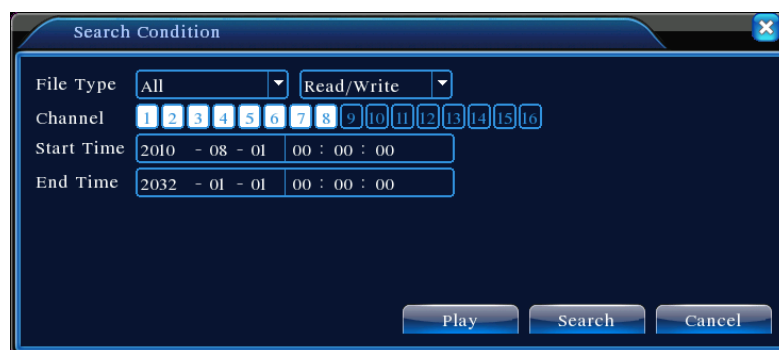
**Remove:** Clear the file information.

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

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

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

【File searching】 Search the file according to the searching parameter.



Picture 3.7 file searching

**File type:** Set the searching file type.

**Channel:** Set the searching channel.

**Start Time:** Set the searching time scan.


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

Button	Function	Button	Function
	Play/pause		Backward
	Stop		Slow play
	Fast play		Previous frame
	Next frame		Previous file
	Next file		Circulation
	Full screen		

Table 3.2 Playback control key

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

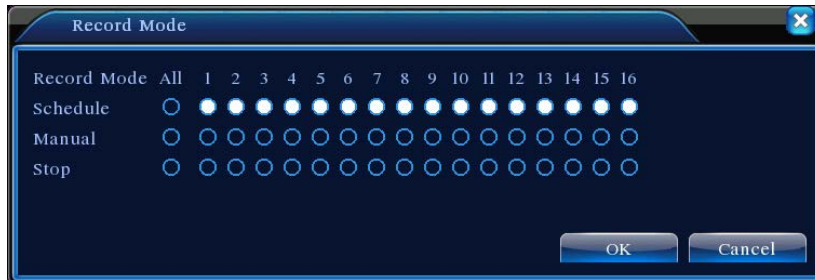
**Special functions:**

**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.

### 3.1.3 Record Mode

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



Picture 3.8 Record Mode

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

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

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

### 3.1.4 PTZ control

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 DVR 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.







Picture 3.10 PTZ setup



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

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

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

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

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

【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.

## Special functions:

### 1、Preset

Set a location for the preset, calls the preset points, PTZ automatically turns to the setting position

#### 1) Preset option

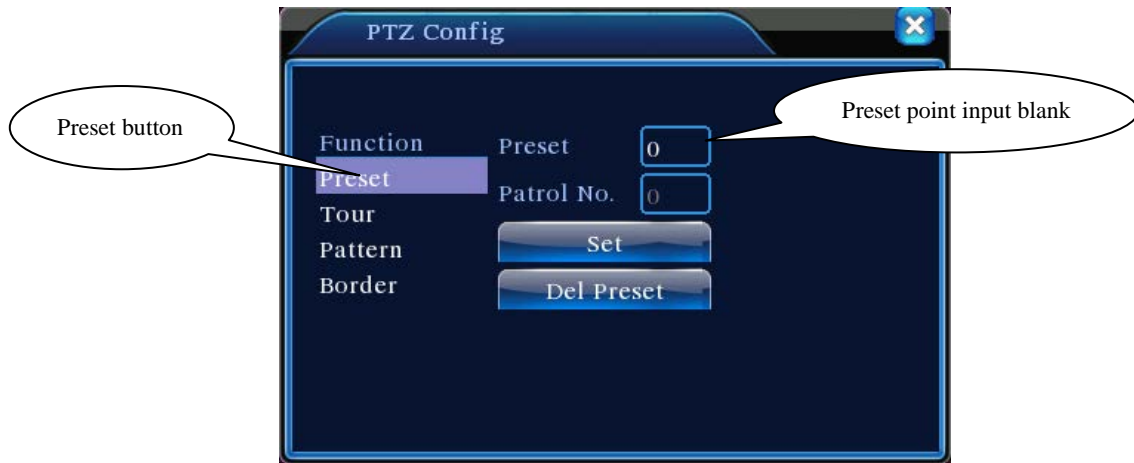
Set a location for the preset, procedure is as follows:

Step1: in Picture 3.10, click the Direction button will turn into preset position , click the Settings button to enter Picture 3.11.

Step 2: click the Preset button , then write the preset points in the input blank,

Step 3: click Settings button, return the Picture 3.10 Complete setup, that is the preset points and preset position corresponds.

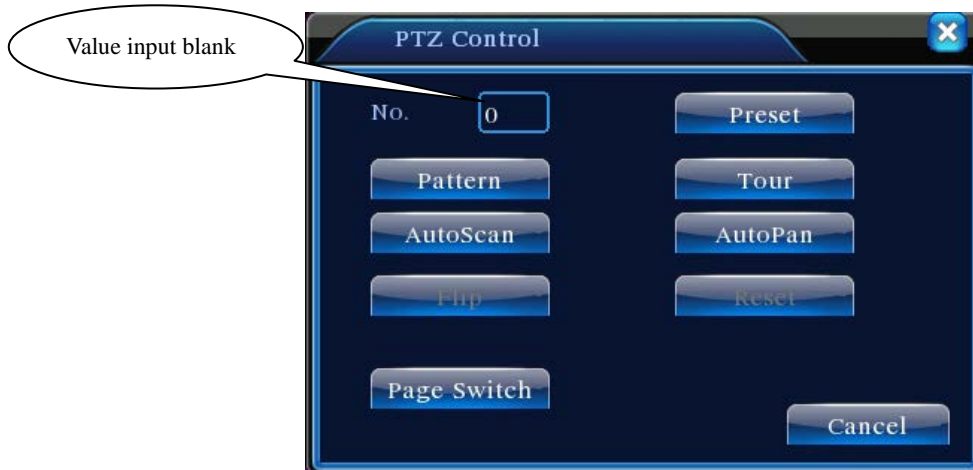
**Clear Preset:** Input preset points, click Remove button, remove the preset.



Picture 3.11 Preset Settings

## 2) Preset Point Calls

In Picture 3.10, click Page Shift button, enter PTZ control interface as shown in Picture 3.12. In the input blank, write the preset points, then click Preset button, PTZ turn to the corresponding preset point.



Picture 3.12 PTZ Control

## 2、Cruise between Points

Multiple preset points connected cruise lines, call cruise between points, the PTZ run around on the line

### 1) Cruise Between Points Settings

Cruise lines is connected by multiple preset points, setting procedure is as follows:

Step1: In Picture 3.10, the Direction key will turn PTZ to designated location , click Settings button to enter Picture 3.13,

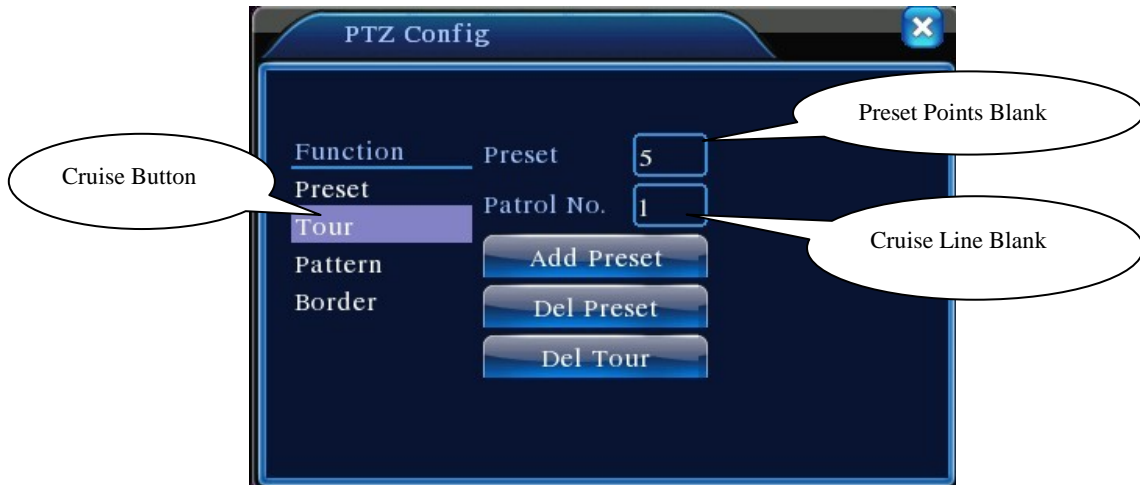
Step 2: click Cruise buttons, the write proper value into the Cruise Line and Preset Points blank, then click Add Preset Points button, complete setting (also can add and delete cruise line which has

been set up)

Step 3: repeat step1 and step2 , until set out all the preset designated cruise lines。

**Remove Preset:** Please input preset value in the blank, click Remove Preset button, then remove the preset points.

**Remove Cruise Line:** Input the number of cruise line, click Remove Cruise Lines button, then remove the cruise lines set.



Picture 3.13 Cruise Between Points Settings

## 2) The Calls of Cruise between Points

In Picture 3.10, click Page Shift button, enter PTZ control menu as shown in Picture 3.12. Please input the number of cruise in the value blank, then click Cruise between Points button, PTZ begins to work on the cruise line. Click Stop button to stop cruise.

## 3、 Scan

PTZ also can work on the preset scan line repeatedly.

### 1) Scan setup

Step1: In Picture 3.10, click Setup button , enter Picture 3.14;

Step2: Click Scan button, the input proper value in the scan value blank;

Step3: Click Start button, enter Picture3.10, here you can set the following items: Zoom、 Focus、 Aperture、 Direction and so on. Click Setup button to go back Picture 3.14;

Step4: Click End button to complete setup。 Click the right button of the mouse to exit.



Picture 3.14 Scan Setup

## 2) Scan Calls

In Picture 3.10, click Page Shift button, then enter PTZ control menu as shown in Picture 3.12. Please input the number of scan in the value blank , then click Scan button, PTZ begins to work on the scan line . Click Stop button to stop.

## 4、 Boundary Scan

### 1) Boundary Scan setup

Step1: In Picture 3.10, click Direction button to turn the PTZ to preset direction, then click Setup button enter Picture 3.15, select the left boundary, return to Picture 3.10;

Step2: Please click direction arrows to adjust PTZ direction, click Setup button enter Picture3.15, then select the right boundary ,return to Picture 3.10;

Step3: Complete setup, that is the position of left and right boundary



Picture 3.15 Boundary Scan Setup

## 2) Boundary Scan Calls

In Picture 3.10, click Page Shift button, then enter PTZ control menu as shown in Picture 3.12. Please input the number of scan in the value blank , then click Scan button, PTZ begins to work on the scan line . Click Stop button to stop.

## 5、 Horizontal Rotating

Click Horizontally Rotating button, PTZ begins to rotate horizontally (relative to the original position of the camera). Click the Stop button to stop.

## 6、 Rotate

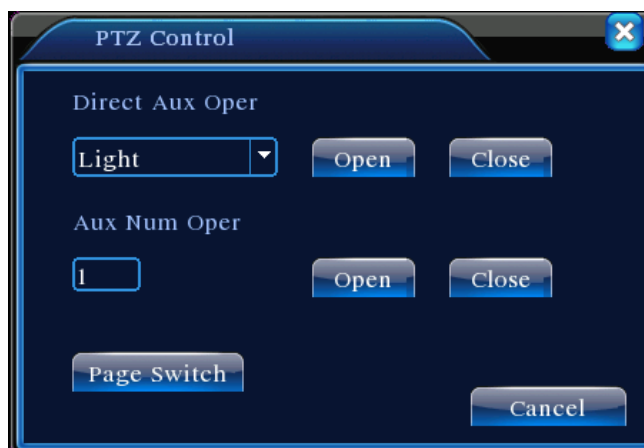
Click on horizontal Rotating button, PTZ turn around.

## 7、 Reset

PTZ restart, all the data clears to 0.。

## 8、 Page Shift

In Picture 3.12, click Page Shift button into Picture3.16, setting auxiliary function. Auxiliary number corresponding to auxiliary switch on the decoder.



Picture 3.16 Auxiliary Function Control

【Intuitive Auxiliary Operation】 choose auxiliary equipment, select Open or Close button, switch control;

【Auxiliary Number】 The operation of corresponding auxiliary switch according to PTZ agreement;

【Page Shift】In Picture 3.16, click Page Shift button enter the Picture 3.17 PTZ Main Menu , the menu itself can be control by the menu control buttons

### 3.1.5 Color setting

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



Picture 3.18 Color Setting

### 3.1.6 Output Adjust

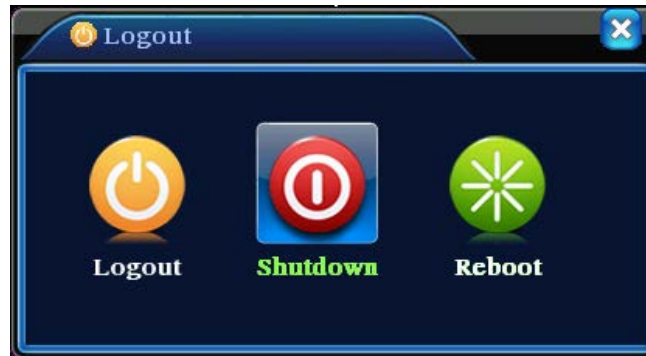
Adjust TV output area parameters. You can use the desktop shortcut menu or enter [main menu]> [management tools]> [Output adjust].



Picture 3.19 Output Adjust

### 3.1.7 Logout

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



Picture 3.20 Logout/Shutdown/Reboot the system

**【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..

#### 3.0.9 Window switch

Preview in single window/four windows/eight windows/nine windows/sixteen windows according to your choice.

## 3.2 Main menu

### 3.2 Main menu navigation

Main menu	Sub menu	Function
Record	Config	Set the recording configuration, recording type, recording time section
	playback	Set recording look-up, recording play, video file storage
	backup	Detect or format backup equipment, back the selective files
Alarm	Motion detection	Set motion detect alarm channel, sensitivity, area, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol
	Video blind	Set camera mask alarm channel, sensitivity, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol
	Video loss	Set video loss alarm channel, linkage parameters: defending time section, alarm output, screen hint, recording, PTZ, patrol
System configuration	General configuration	Set system time, data format, language, hard disk full time operation, machine number, video format, output mode, summertime, stay time
	Encode configuration	Set main(assistant)coding parameter: code mode, resolving ability, frame rate, code stream control, image quality type, code stream value, frame between value, video/audio enable
	Network configuration	Set basic network parameters, DHCP and DNS parameters, network high speed download
	NetService	PPPOE、NTP、Email、IP purview、DDNS parameter
	GUI display	Set channel name, preview hint icon state, transparency, cover area, time title, channel time fold
	PTZ configuration	Set channel, PTZ protocol, address, baud rate, date bit, stop bit, check



	Serial port Configuration (RS232)	Set serial port function, baud rate, data bit, stop bit, check
	Tour	Set patrol mode and interval time
Management tools	Hard disk management	Set appointed hard disk as read-write disc, read-only disc or redundant disc, clear data, resume data 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.
	TV adjust	Adjust TV upside, downside, nearside, starboard distance
	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
System information	Hard disk information	Display hard disk capability and recording time
	Code stream statistics	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

### 3.3 Record

#### 3.3.1 Record Config

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 Config

**【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.

**【PreRecord】** 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".

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

### 3.3.2 Snapshot Storage

Setup snapshot parameters for different channels.At first time it's set for 24hours snapshot continuously, pls go to Main Menu->Record->Snapshot Storage for appropriate settings.

**Note:**If normal snapshot storage,pls setup Snap at Main Menu->Advanced->Snapshot(pls refer to chapter 4.5.1 HDD Manage)



Picture 4.2

**【Channel】** Select the related channel to set,click "all" to set all channels.

**【Presnap】** Setup presnap picture quantity before recording,default is 5 pieces.

**【Record】** Set record status,"Schedule","Manual" and "Stop"

**Schedule:**Realise snapshot according to record type(regular,detect and alarm) and period.

**Manual:**No matter what the present channel is in a state,once choose "manual" button,it will have snapshot at related channels.

**Stop:**No matter what the present channel is in a state,once choose "stop" button,it will stop snapshot at related channels.

**【Period】** Set normal record period,it only startup Snapshot Storage at set period.

**【Type】** Three types:regular,detect and alarm

【Record type】 Three types:regular,detect and alarm

Regular: snapshot at set period

Detect:snapshot at set period when motion detect,video blind and video loss which are preset for snapshot enable.

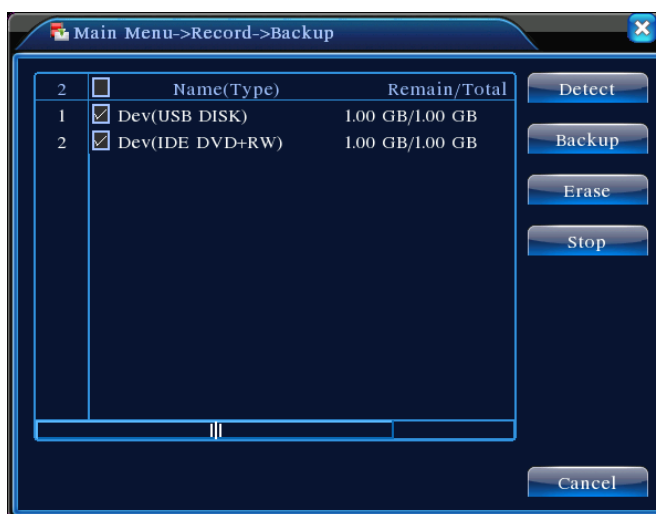
### 3.3.3 Playback

Refer to chapter 3.5.2.

### 3.3.4 Backup

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

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



Picture 4.3 Backup

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

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

【Stop】 Stop the backup.

【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 4.4 File Backup

**Remove:** Clear the file information.

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

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

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

### 3.4 Alarm Function

Alarm functions include: motion detect, video blind, video loss,

#### 3.4.1 Motion Detect

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



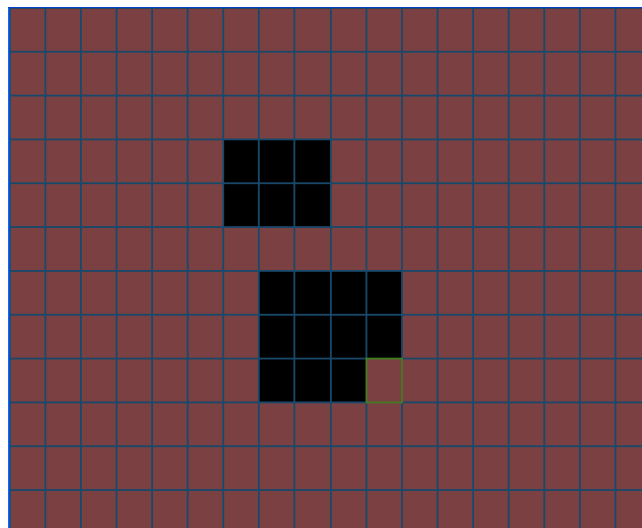
Picture 4.4 Motion Detect

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

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

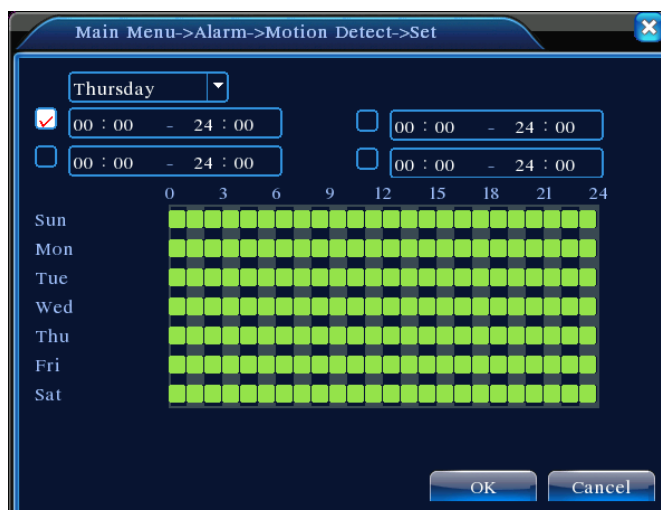
**【Sensitivity】** Choose in the six options according to the sensitivity.

**【Region】** Click setup and enter the set area. The area is divided into PAL22X18. Green block means the current cursor area. Yellow block means the dynamic detect defensive area. Black block means the unfenced area. You can set the area as followed, Drag the mouse and draw the area.



Picture 4.5 Region

**【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.



Picture 4.6 set the time section

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

**【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.

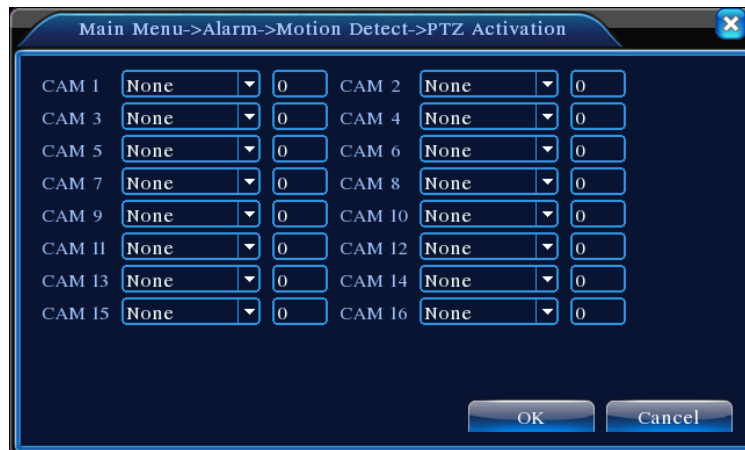
**【Tour】** ■ means that the selective channel is single window alternate patrol preview. The interval is set in the [MainMenu]>[System] > [Tour].

**【Snapshot】** Choose record channels,when alarm happens,system triggers related channels for snapshot signal.

**Note:**For Snapshot activation,pls go to set period,detect and alarm enable at MainMenu->Record->Record config,

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

**Note:**PTZ activation is set in the [shortcut menu] >[ PTZ control]. Set the patrol between spots, trail patrol and so on.



Picture 4.8 PTZ Activation

**【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.

### 3.4.2 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.



Picture 4.9 Video Blind

Set method: refer to chapter 4.3.1. Motion detect

**Note:** "Advanced" button is the same as rightclick.



### 3.4.3 Video Loss

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



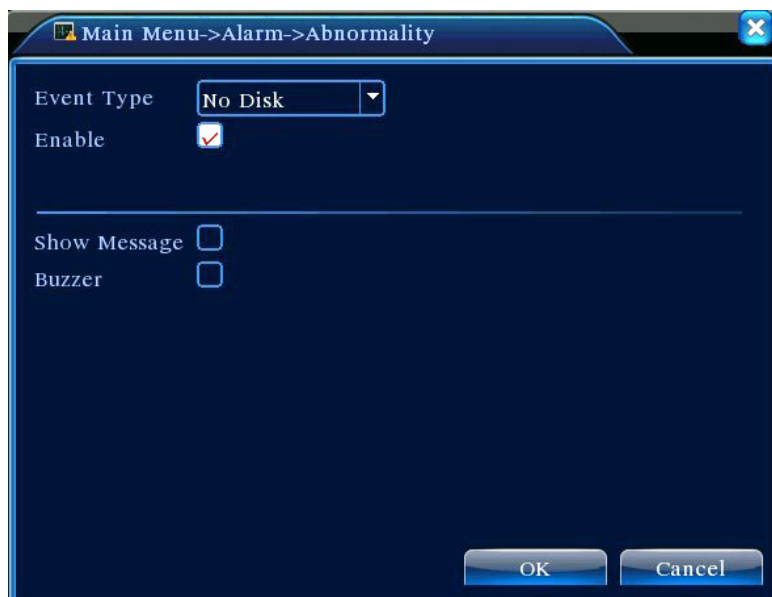
Picture 4.10 Video loss

Set method: refer to chapter 4.3.1. Motion detect

**Note:**"Advanced" button is the same as rightclick.

### 3.4.4 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.



Picture 4.12 Abnormal

- 【Event Type】 selecting abnormality you want to inspect
- 【Enable】 Select it to make sure abnormal function workable
- 【Show message】 Automatically alarm cue dialog box come out of the main screen
- 【Buzzer】 Device will have two long noise “di di” while alarm is happening

### 3.5 System setup

Set the system parameters such as **General,Encode,NetWork,NetService,GUI display,PTZ configure, RS232 and Tour setup.**

#### 3.5.1 General



Picture 4.13 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】 English,French,Portugueses,Russian,Italian,S-Chinese,

T-Chinese,Spanish,Thai,Greek,Japanese,German,Polish,Romaina

【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.

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

【Video Standard】 PAL or NTSC.

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

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



Picture 4.14 DST (week)



Picture 4.15 DST (date)

### 3.5.2 Encode setup

Set the video/audio code parameter: video file, remote monitoring and so on. Set every independent channel's coding parameter in the left part, and set the combine encode parameter in the right part.



Picture 4.16 Encode setup

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

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

**【Resolution】** Resolution type:D1/ HD1/CIF / QCIF.

**【Frame Rate】** P:1 frame/s~25 frame/s; N: 1 frame/s~30 frame/s

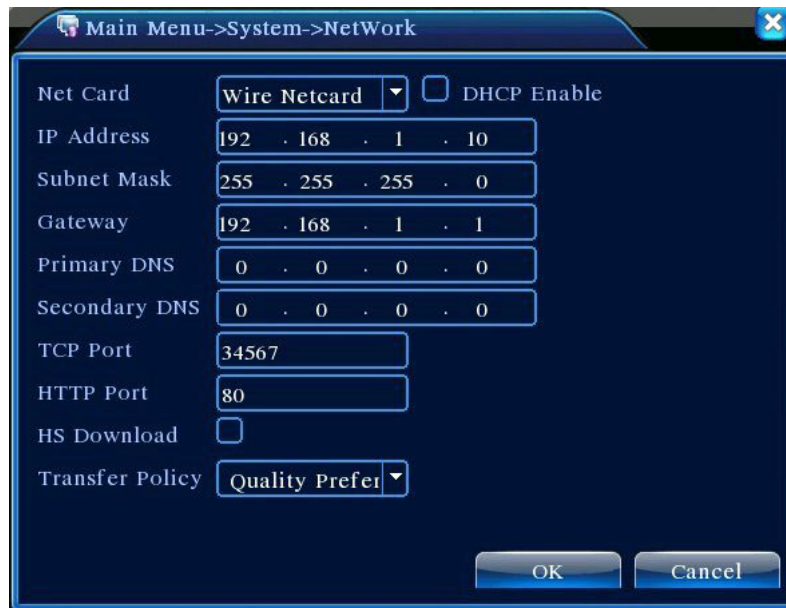
**【Bit Rate Type】** You can choose limited code stream or variable code stream. When you choose the variable code stream there are six image quality options.

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

D1 (1000~1500kbps) ,CIF (384~1500kbps) , QCIF(64~512kbps)

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

### 3.5.3 Network setup



Picture4.17 Network

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

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

**Note:** DHCP server is preinstalled.

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

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

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

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

**【TCP port】** Default: 34567.

**【HTTP port】** Default: 80.

**【HS Download】**

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

### 3.5.4 NetService

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.



Picture 4.18 NetService

**【PPPoE setup】**

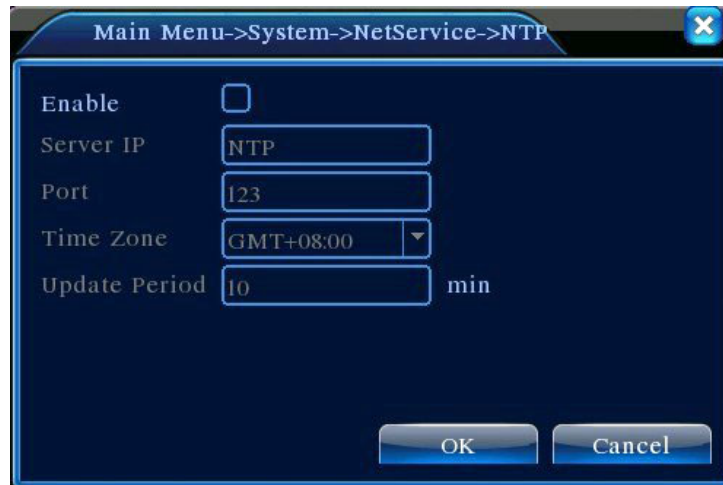


Picture4.19 PPPOE

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

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

**【NTP setup】**



Picture 4.20 NTP

The NTP server must be installed in the PC.

**Host computer IP:** Input the IP address installed NTP server.

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

**Time zone:** select your local time zone

**Update Period:** The same with the NTP server check interval. Default: 10minutes.

**【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.



Picture 4.21 EMAIL

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

**Port:**Email server port number.

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

**User Name:**Apply the email server user name.

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

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

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

**Title:**You can set as you wish.

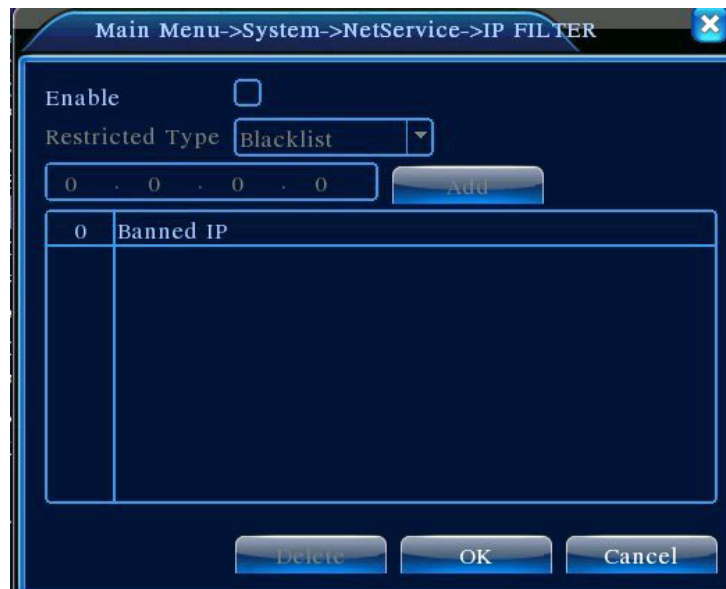
### 【IP Filter setup】

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

When choosing the black list, the listed IP address can not connect the DVR. The 64 IP addressed 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.



Picture 4.22 IP IP FILTER

### 【DDNS】

It is the abbreviation of dynamic domain name server.



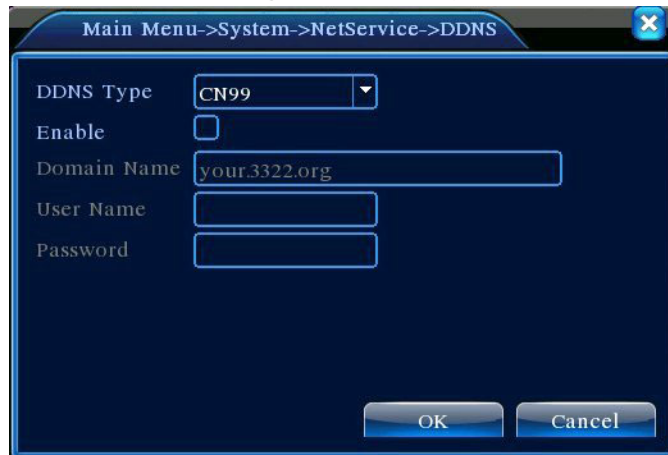
**Local domain name:** Provide the domain name registered by DDNS.

**User name:** Provide the account registered by DDNS.

**Password:** Provide the password registered by DDNS.

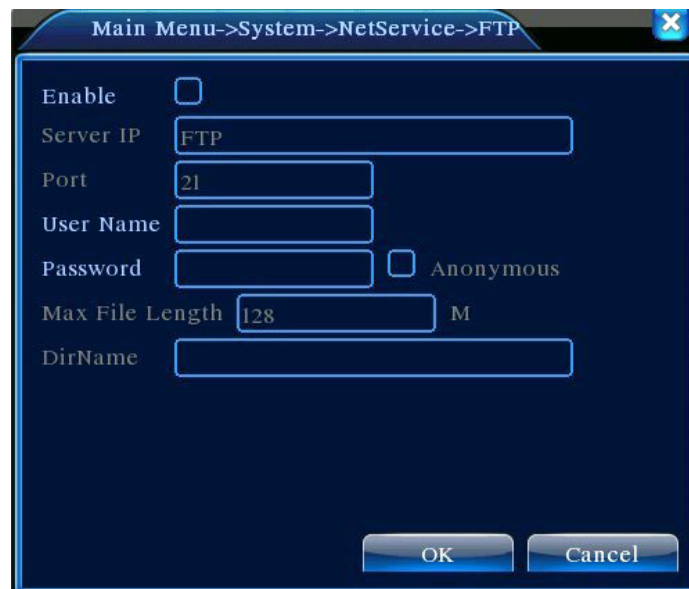
When the DDNS is successfully configured and start, you can connect the domain name in the IE address column to visit.

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



Picture 4.23 DDNS setup

**【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.



Picture 4.24 FTP setup

**【Enable】** Click Enable, then all settings will be available

**【Server IP】** IP address for FTP server

**【Port】** Domain Port of FTP, default 21

【User Name】 User name of FTP

【Password】 Password of user

【Max File Length】 Max length for upload files at every packed,default 128M

【DirName】 Directory of uploading files

【Wireless Config】 ADSL through 3G net card,use CMS to visit and config the device



Picture 4.25 Wireless Config

【Enable】 Choose Enable to make all settings available

【Type】 Dial type,default AUTO

【Wireless AP】 3G access point

【Dial Number】 3G Dial Number

【User Name】 User name of 3G

【Password】 Password of dial user

【IP Address】 IP address,got from dial

#### 【Mobile Monitor Setup】

To visit the device by mobile,pls make a router mapping of this port and use CMS to monitor and operate it by protocol.

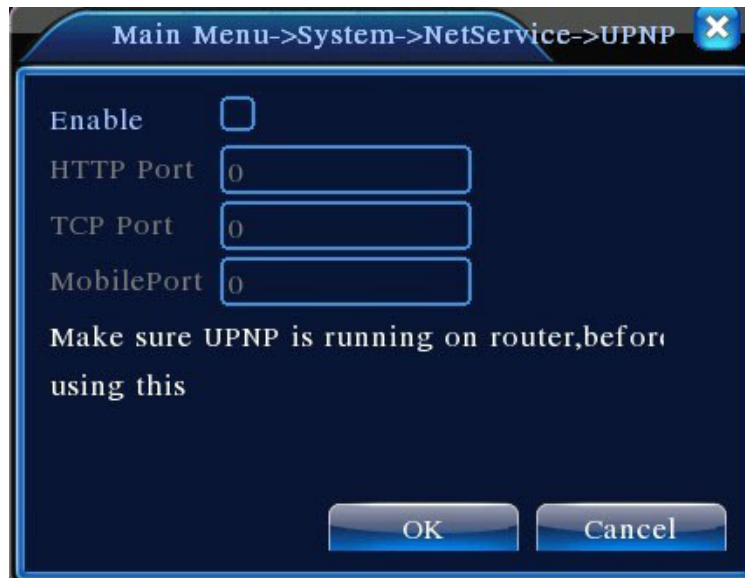


Picture 4.26 Mobile Monitor Setup

**【Enable】** Select it to make sure abnormal function workable

**【Port】** It's a port of mobile monitoring which you need to make a router mapping of if want to visit it by mobile

**【UPNP】** UPNP protocol can auto port forwarding on router,make sure UPNP is running on router before use it.



Picture 4.27

**【Enable】** Choose Enable to make sure all UPNP settings available

**【HTTP】** Router will automatically distribute HTTP port for the device,when IE viewing,it need this port(eg. 60.12.9.26:66)

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

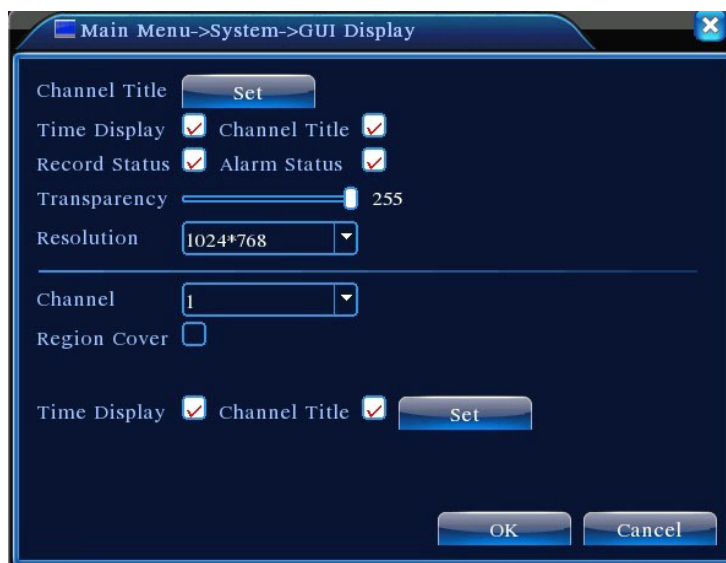
**【MobilePort】** Router will automatically distribute Mobile Port for the device,when mobile monitor,it need this port.

### 3.5.5 GUI Display

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

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

Code output: In the network surveillance and video file mode include: channel title, time display, channel title, record status, alarm status, bitrate info, transparency and region cover.



Picture 4.28 GUI Display

**【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 Title】** 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.

**【Bitrate info】** means the selective state. The ninth window displays the code stream information in the nine-window preview status.

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

【Resolution】 set display resolution.

【Channel】 Choose the set code output channel number.

【Region Cover】 means the selective state. Click the cover area button and enter the corresponding channel window. You can cover the arbitrary using mouse. (Black region is for output)

【Time display】 and 【Channel Title】

### 3.5.6 PTZ setup



Picture 4.29 PTZ setup

【Channel】 Choose the dome camera input channel.

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

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

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

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

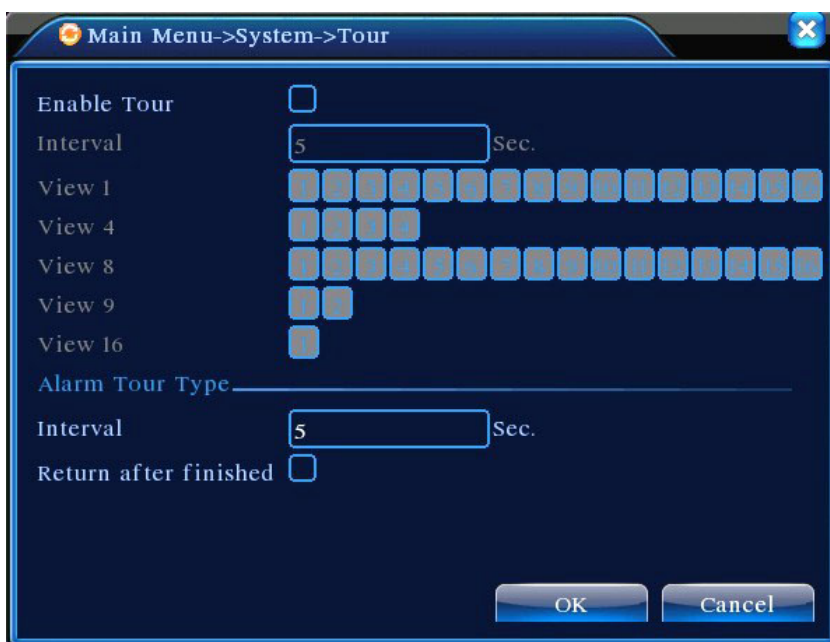
【Stop bits】 Include 2 options. Default: 1.

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

### 3.5.7 Tour setup

Set the patrol display. ■ means that the tour mode is turned on. You can choose the single window,

four windows, nine windows, sixteen windows patrol display or single display.



Picture 4.31 tour setup

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

**Note:**  /  means turn off/on the patrol.

### 3.6 Advanced

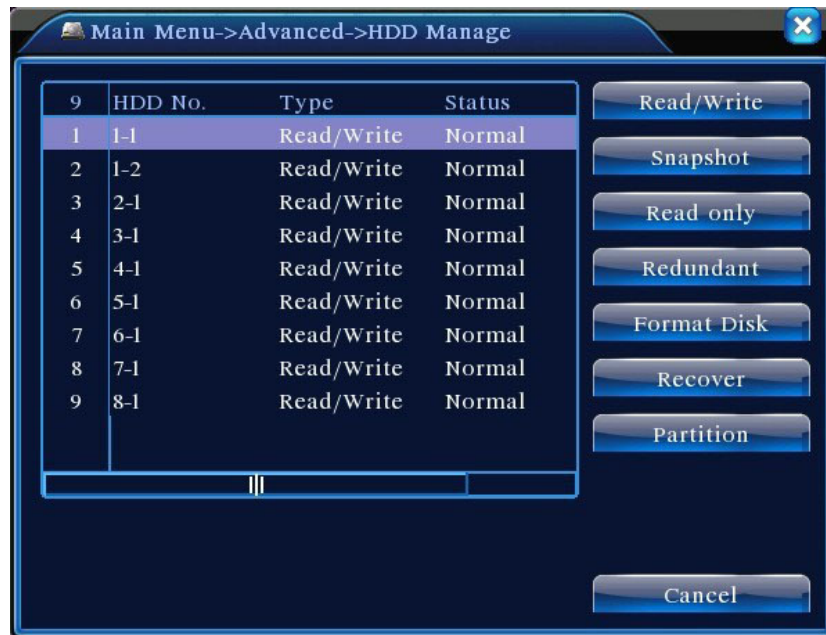
#### 3.6.1 HDD Manage

Configure and manage the hard disk. The menu displays current hard disk information: hard disk number, input port, type, status and overall capability. The operation include: setup the write-read disk, read-only disk, redundant disk, hard disk format, resume default. Choose the hard disk and click the right function button to execute.

**Note:** 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.

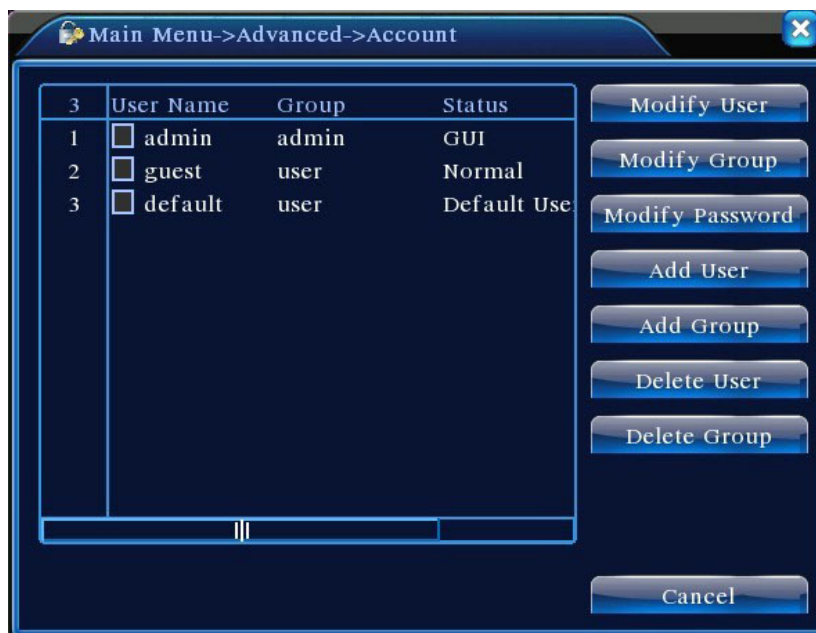


Picture4.32 HDD Manage

### 3.6.2 Account

Manage the user purview.

- Note:**
1. The character length is 8 bytes at most for the following user and user team name. The blank ahead or behind the character string is invalid. The middle blank in the character string is valid. Legal characters include: letter, number, underline, subtraction sign, dot.
  2. There is no limit in the user and user group. You can add or delete the user group according to user definition. The factory setup include: user\admin. You can set the team as you wish. The user can appoint the purview in the group.
  3. The user management include: group/ user. The group and user name can not be the same. Each user only belongs to one group.



Picture 4.33 Account

【Modify User】 Modify the existed user attribute.

【Modify Group】 Modify the existed team attribute.

【Modify Password】 Modify the user password. You can set 1-6 bit password. The blank 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**



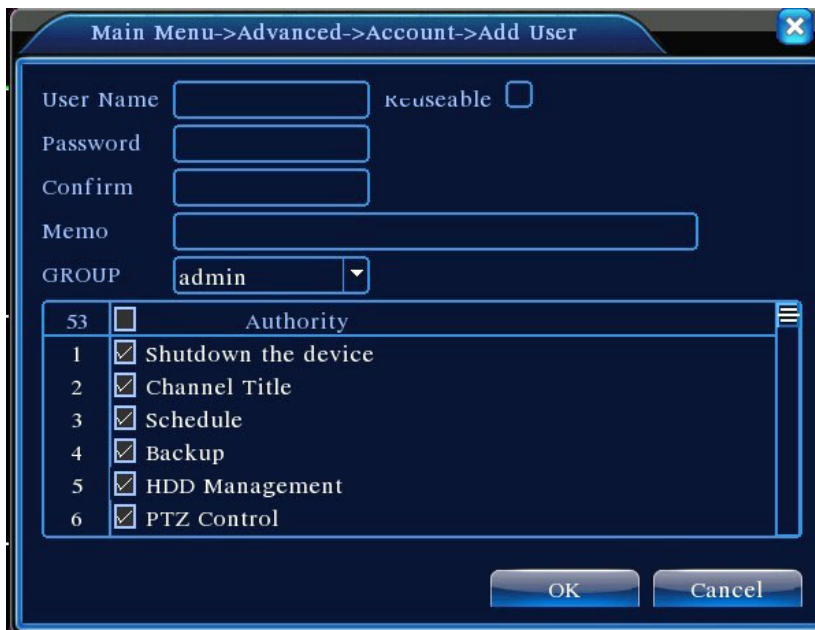
Picture 4.34 Modify Password

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

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



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



Picture 4.35 add user

**【Add Group】** Add a user team and set the purview. There are 36 different purviews: shut down the equipment, real time surveillance, playback, recording setup, video file backup and so on.



Picture 4.36 Add Group

**【Delete User】** Delete the current user. Choose the user and click delete user button.

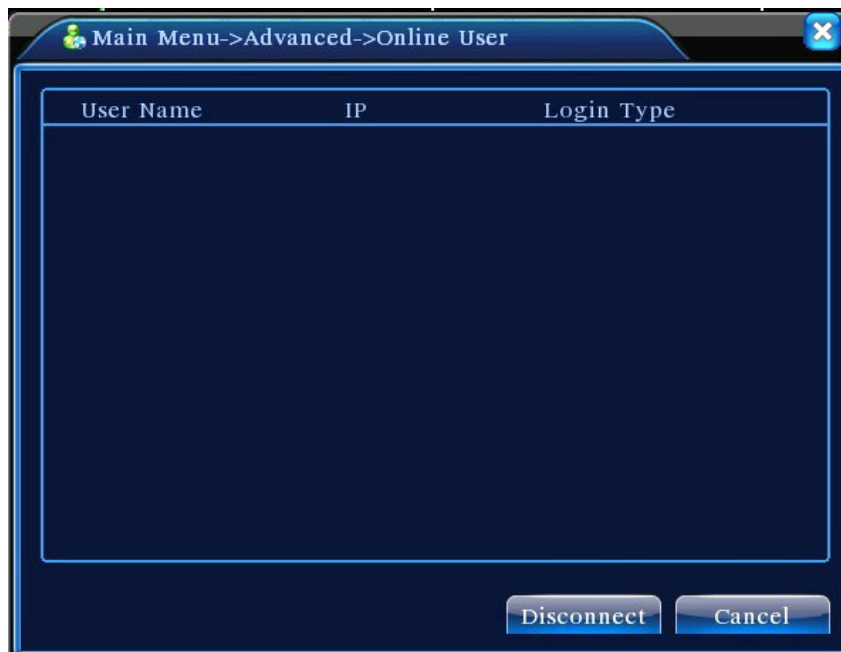
**【Delete Group】** Delete the current group. Choose the group and click delete group button.



Picture 4.37 Delete Group

### 3.6.3 Online User

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



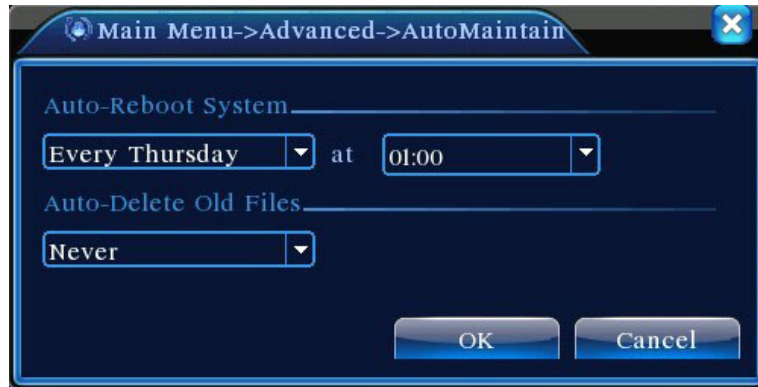
Picture 4.38 Online User

### 3.6.4 TV adjust

Refer to chapter 3.5.7 .

### 3.6.5 Auto Maintain

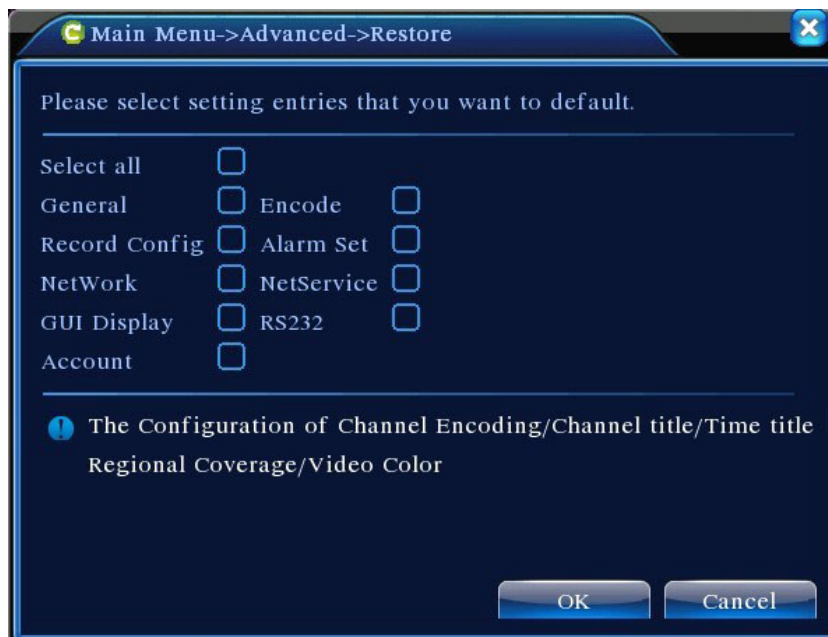
The user can set the auto reboot time and auto file deleting time limit.



Picture 4.39 Auto maintain

### 3.6.6 Restore

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



Picture 4.40 Restore

### 3.6.7 Upgrade



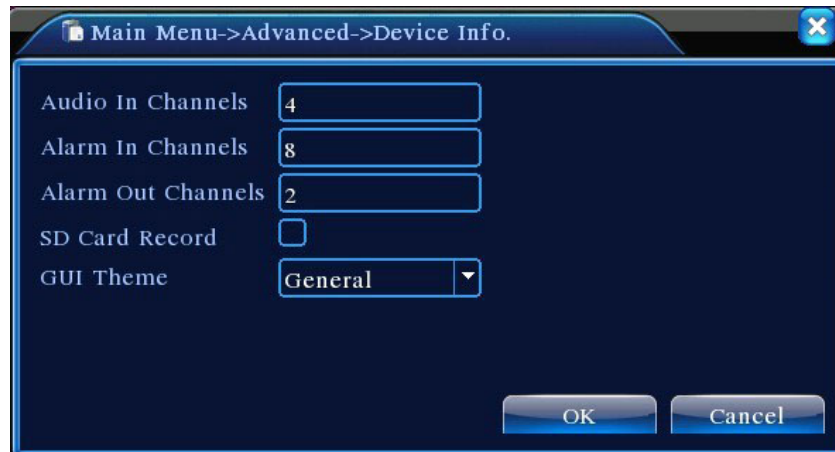
Picture 4.41 Upgrade

**【Upgrade】 choose USB interface.**

**【Upgrade file】 choose the file which needs upgraded.**

### 3.6.8 Device Info

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



Picture 4.42 Device Info.

## 3.7 Info

### 3.7.1 HDD info

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



Picture 4.43 HDD Info

**Clue:**○ 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 DVR 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 "?".

### 3.7.2 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	1054	441	9	1043	440
2	1054	441	10	1043	440
3	1054	442	11	1043	440
4	1043	440	12	1043	440
5	1043	440	13	1043	440
6	1043	440	14	1043	440
7	1043	440	15	1043	440
8	1043	440	16	1043	440

Picture 4.44 BPS

### 3.7.3 LOG

Look up system log according to the set mode.

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

30	Log Time	Type	LOG
1	2010-08-12 10:31:49	Reboot	2000- 0-00 00:00:00
2	2010-08-12 10:31:49	Log In	User default Log
3	2010-08-12 10:31:50	RecoverTime	2010-07-31 11:44:28
4	2010-08-12 10:32:30	Log Out	User default Log
5	2010-08-12 10:32:30	Log In	User admin LogI
6	2010-08-12 10:32:38	Save Configuratio Location	
7	2010-08-12 10:32:38	Save Configuratio Regular	
8	2010-08-12 10:32:39	Shut Down	2010- 8-12 10:32:39

Picture4.45 LOG

### 3.7.4 Version

Display the basic information such as hardware information, software edition, issue data and so on.



Picture 4.46 Version

### 3.8 Shut down system

Refer to chapter 3.5.