HDCVI Series DVR User's Manual

Version 1.0.0

Welcome

Thank you for purchasing our HDCVI DVR!

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

Here you can find information about this series DVR 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

1．Electrical safety

All installation and operation here should conform to your local electrical safety codes.

The product must be grounded to reduce the risk of electric shock.

We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.

2．Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3．Installation

Keep upwards. Handle with care.

Do not apply power to the DVR before completing installation.

Do not place objects on the DVR.

4．Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers.

We are not liable for any problems caused by unauthorized modifications or attempted repair.

5．Environment

The DVR should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.

This series product shall be transported, storage and used in the specified environments.

6. Accessories

Be sure to use all the accessories recommended by manufacturer.

Before installation, please open the package and check all the components are included.

Contact your local retailer ASAP if something is broken in your package.

7. Lithium battery

Improper battery use may result in fire, explosion, or personal injury!

When replace the battery, please make sure you are using the same model!

MENU

1. FEATURES AND SPECIFICATIONS

1.1 Overview

This series product is an excellent digital monitor product designed for security field. It adopts embedded Linux OS to maintain reliable operation. It is easy to use and can realize surveillance function after some simple setups. It has various functions such as record, playback, monitor at the same time and can guarantee audio video synchronization. This series product has advanced technology and strong network data transmission function.

This series device adopts embedded design to achieve high security and reliability. It can work in the local end, and at the same time, when connecting it to the professional surveillance software (PSS), it can connect to security network to realize strong network and remote monitor function. It can realize HD montiror without changing current cable laytout

This series product can be widely used in various areas such as banking, telecommunication, electric power, interrogation, transportation, intelligent resident zone, factory, warehouse, resources, and water conservancy.

1.2 Features

This series product has the following features:
- **Real-time monitor**

It has analog output port, VGA port and HDMI port. You can use monitor or displayer to realize surveillance function.

System supports VGA/HDMI output at the same time.

- **Storage function**

Special data format to guarantee data security and can avoid vicious data modification.

- **Compression format**

Support multiple-channel audio and video. An independent hardware decodes the audio and video signal from each channel to maintain video and audio synchronization.

- **Backup function**

Support backup operation via USB port (such as flash disk, portable HDD, burner).
Client-end user can download the file to local HDD to backup via network.

- **Record playback function**

Support each channel real-time record independently, and at the same time it can support search, forward play, network monitor, record search, download and etc.

Support various playback modes: slow play, fast play, backward play and frame by frame play.

Support time title overlay so that you can view event accurate occurred time

Support specified zone enlargement.

●**Network operation**

Support network remote real-time monitor, remote record search and remote PTZ control.

● **Alarm activation function**

Several relay alarm outputs to realize alarm activation and on-site light control.

The alarm input port and output has the protection circuit to guarantee device safety.

● **Communication port**

RS485 port can realize alarm input and PTZ control.

RS232 port can connect to keyboard to realize central control, and can also connect to PC COM to upgrade system and realize maintenance, and matrix control.

Standard Ethernet port can realize network access function.

● **PTZ control**

Support PTZ decoder via RS485.

Support various decode protocols to allow the PTZ to control the speed dome.

● **Intelligent operation**

Mouse operation function

In the menu, support copy and paste setup function

● **UPnP**
It is to establish the mapping relationship between the LAN and the WAN via the UPnP protocol.

Slight function differences may be found due to different series.

2. Overview and Controls

2.1 HDD Installation

This series DVR has only one SATA HDD. Please use HDD of 7200rpm or higher.

You can refer to the User's Manual for recommended HDD brand.

Please follow the instructions below to install hard disk.

1. Loosen the screws of the upper cover and side panel.	2. Fix four screws in the HDD (Turn just three rounds).	3. Place the HDD in accordance with the four holes in the bottom.

4. Turn the device upside down and then turn the screws in firmly.	5. Fix the HDD firmly.	6. Connect the HDD cable and power cable.

7. Put the cover in accordance with the clip and then place the upper cover back.	8. Secure the screws in the rear panel and the side panel.

Note:

- You can connect the HDD data cable and the power cable first and then fix the HDD in the device.
- Please pay attention to the front cover. It adopts the vertical sliding design. You need to push the clip first and then put down.

2.2 Front Panel

2.2.1**CVR**
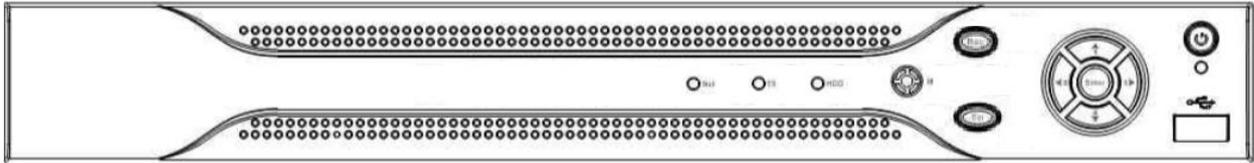
Figure2-1

Please refer to the following sheet for front panel button information.

Name	Icon	Function
Power button	⏻	Power button, press this button for three seconds to boot up or shut down DVR.
Up Down	▲、 ▼	Activate current control, modify setup, and then move up and down.
		Increase/decrease numeral.
		Assistant function such as PTZ menu.
Left Right	◀▶	Shift current activated control,
		When playback, click these buttons to control playback bar..
ESC	ESC	Go to previous menu, or cancel current operation.
		When playback, click it to restore real-time monitor mode.
Enter	ENT ER	Confirm current operation
		Go to default button
		Go to menu
Assistant	Fn	One-window monitor mode, click this button to display assistant
		Backspace function: in numeral control or text control, press it for 1.5seconds to delete the previous character before the cursor.
		In motion detection setup, working with Fn and direction keys to realize setup.
		In text mode, click it to switch between numeral, English character(small/capitalized) and etc.
		Realize other special functions.
USB port	⛗	To connect USB storage device, USB mouse.

Network abnormal indication light	Net	Network error occurs or there is no network connection, the light becomes red to alert you.
HDD abnormal indication light	HD D	HDD error occurs or HDD capacity is below specified threshold value, the light becomes red to alert you.
IR Receiver	IR	It is to receive the signal from the remote control.

2.3 Rear Panel

2.3.1 CVR

Here we take the 4-channel series product rear panel as an example
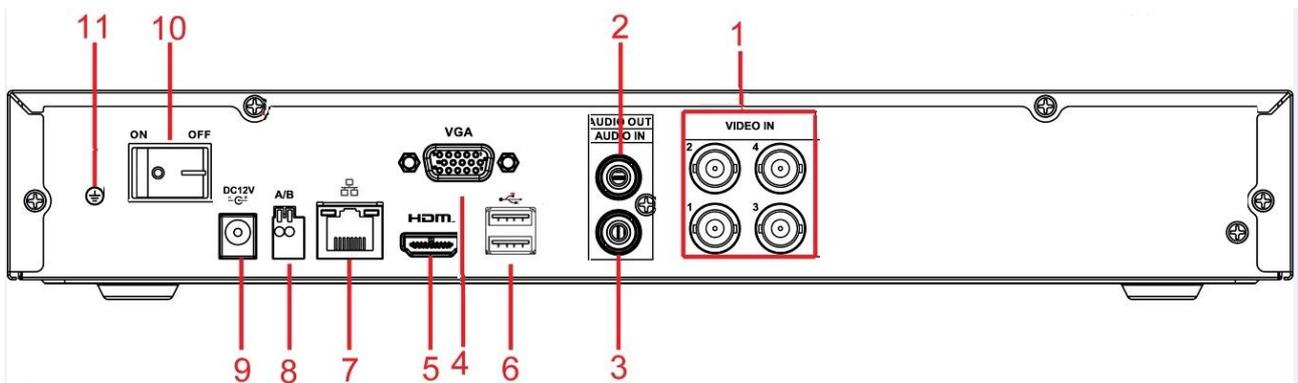
Figure2-2 CVR

The 8-channel series rear panel is shown as below
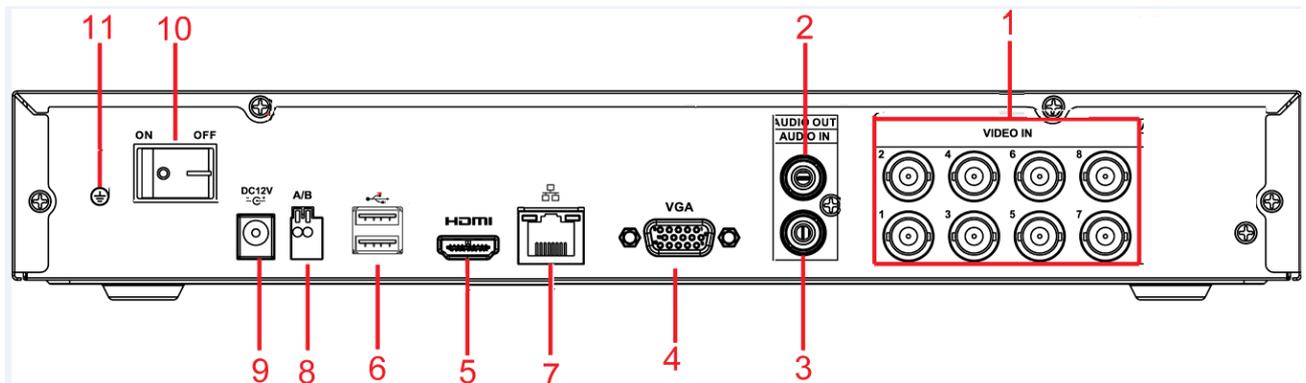
Figure2-3 CVR5108HG

Please refer to the following sheet for detailed information.

SN	Name	SN	Name	SN	Name

1	Video input	2	Audio output	3	Audio input
4	Video VGA output	5	HDMI port	6	USB port
7	Network port	8	RS-485 input port	9	Power socket
10	On/Off button	11	GND port		

2.4 Connection Sample

2.4.1 CVR

Please note the following contents are based on our 1U 720P series product. For detailed operation instruction of other series products, please refer to the User's Manual included in the resources CD.

The following figure is based on the 4-channel series product.
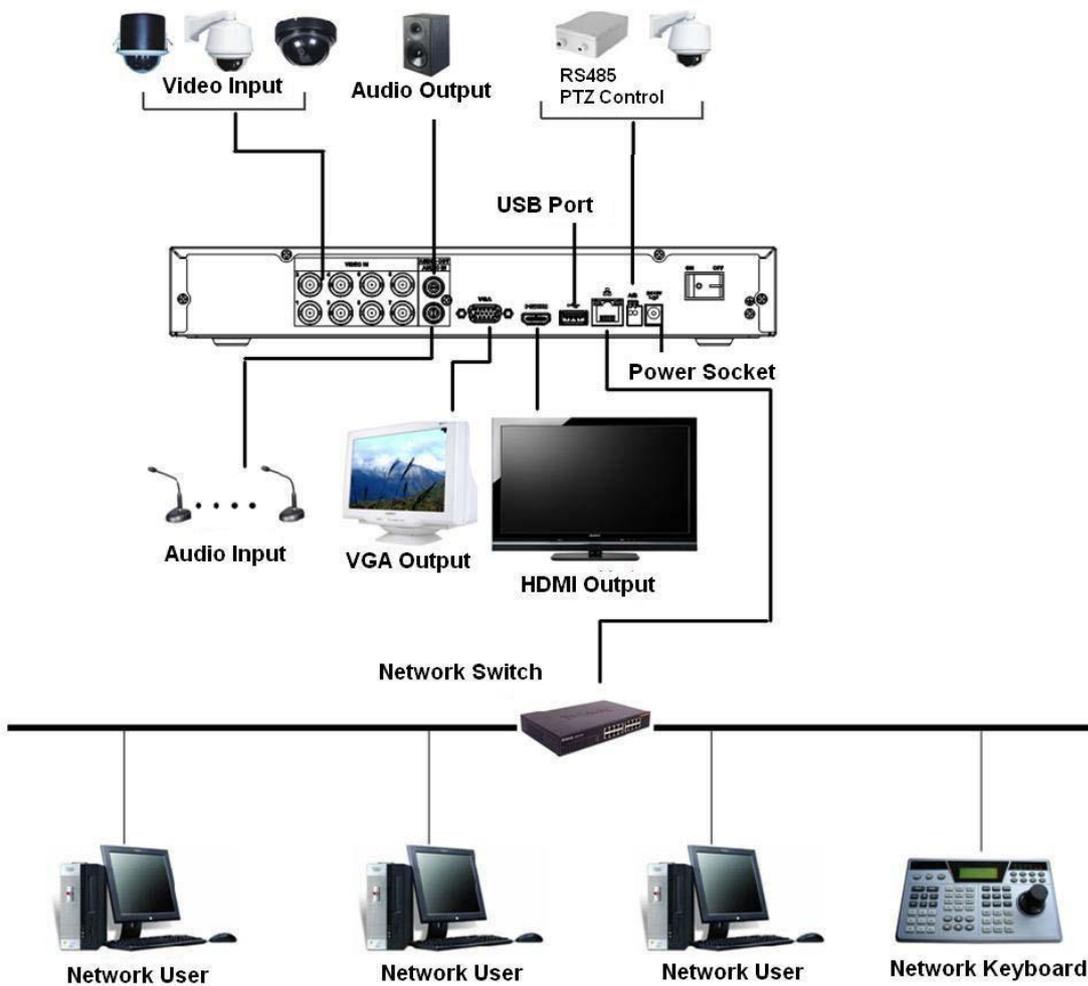
Figure 2-4

2.5 Connecting Audio Input & Output, Bidirectional Audio

2.5.1 Audio Input

These series products audio input port adopt BNC port.

Due to high impedance of audio input, please use active sound pick-up.

Audio transmission is similar to video transmission. Try to avoid interference, dry joint, loose contact andit shall be away from high tension current.

2.5.2 Audio Output

The audio output signal parameter is usually over 200mv 1KΩ (BNC or RCA). It can directly connect to low impedance earphone, active sound box or amplifier-drive audio output device.

If the sound box and the pick-up cannot be separated spatially, it is easy to arouse squeaking. In this case you can adopt the following measures:

- Use better sound pick-up with better directing property
- Reduce the volume of the sound box.
- Using more sound-absorbing materials in decoration can reduce voice echo and improve acousticsEnvironment.
- Adjust the layout to reduce happening of the squeaking.

2.6 RS485

When the DVR receives a camera control command, it transmits that command up the coaxial cable to the

PTZ device. RS485 is a single-direction protocol; the PTZ device can't return any data to the unit. To enable

Since RS485 is disabled by default for each camera, you must enable the PTZ settings first. This series

DVRs support multiple protocols such as Pelco-D, Pelco-P.

To connect PTZ devices to the DVR:

1. Connect RS485 A,B on the DVR rear panel.

2. Connect the other end of the cable to the proper pins in the connector on the camera.

3. Please follow the instructions to configure a camera to enable each PTZ device on the DVR.

3. Overview of Navigation and Controls

3.1 Boot up and Shutdown

3.1.1 Boot up and Shutdown

Boot up

Before the boot up, please make sure:

- The rated input voltage matches the device power on-off button. Please make sure the power wireconnection is OK. Then click the power on-off button.
- Always use the stable current, if necessary UPS is a best alternative measure.Please follow the steps listed below to boot up the device
- Connect the device to the monitor and then connect a mouse.
- Connect power cable
- Click the power button at the front or rear panel and then boot up the device. After device booted up,the system is in multiple-channel display mode by default.

Shutdown

Note

When you see corresponding dialogue box "System is shutting down…" Do not click power on-offbutton directly.

- Do not unplug the power cable or click power on-off button to shutdown device directly when deviceis running (especially when it is recording.)

There are three ways for you to log out.
a)Main menu (**RECOMMENDED**)

　From Main Menu->Shutdown, select shutdown from dropdown list.

　Click OK button, you can see device shuts down.

b)From power on-off button on the front panel or remote control

Press the power on-off button on the DVR front panel or remote control for more than 3 seconds toshutdown the device.

c)From power on-off button on the rear panel

Replace Button Battery

Please make sure to use the same battery model if possible.

We recommend replace battery regularly (such as one-year) to guarantee system time accuracy.

Note:

Before replacement, please save the system setup, otherwise, you may lose the data completely!

3.1.2 Startup Wizard

After device successfully booted up, it goes to startup wizard.

Click Cancel/Next button, you can see system goes to login interface.

Tips

Check the box Startup button here, system goes to startup wizard again when it boots up the next time.

Cancel the Startup button, system goes to the login interface directly when it boots up the next time.
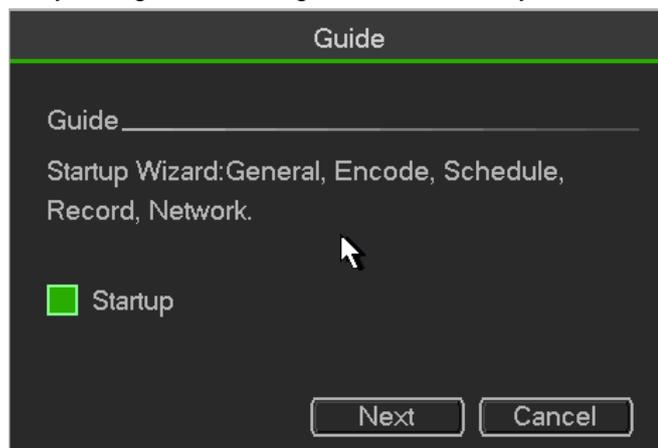

Figure 3-1

Click Cancel button or Next Step button, system goes to login interface. See Figure 3-2.

System consists of four accounts:

- **Username**: admin. **Password**: admin. (administrator, local and network)
- **Username**: 888888. **Password**: 888888. (administrator, local only)
- **Username**: 666666. **Password**: 666666(Lower authority user who can only monitor, playback, backup and etc.)
- **Username**: default. **Password**: default (hidden user). Hidden user "default" is for system interior use only and can not be deleted. When there is no login user, hidden user "default" automatically login. You can set some rights such as monitor for this user so that you can view some channel view without login.
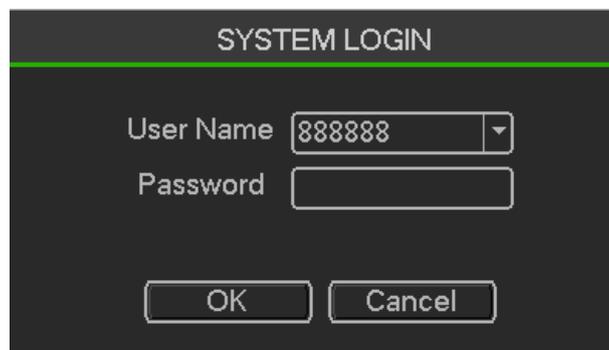

Figure 3-2

Note:

For security reason, please modify password after you first login.

Within 30 minutes, three times login failure will result in system alarm and five times login failure willresult in account lock!

3.2 Right-Click Menu

On the preview interface, right click mouse, you can view menu interface shown as in Figure 3-3.
Tips

After you go to the corresponding interface, right click mouse to go back to the upper-level。

```
Main Menu
PTZ
Color Setting
PlayBack
Record
Alarm Output
Logout
View 1          ▶
View 4
```
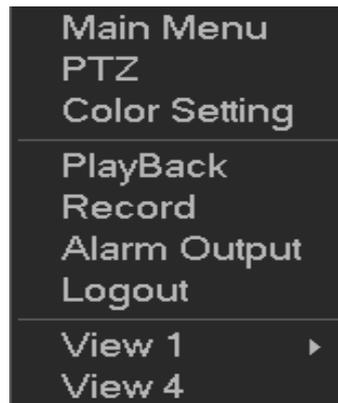
Figure 3-3

3.2.1 Preview

After you logged in, the system is in live viewing mode by default. You can see system date, time and channel name. If you want to change system date and time, you can refer to general settings (Main Menu->Setting->System->General). If you want to modify the channel name, please refer to the display settings (Main Menu->Setting->Camera->CAM Name)。

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

<u>Tips</u>
- Preview drag: If you want to change position of channel 1 and channel 4 when you are previewing, you can left click mouse in the channel 1 and then drag to channel 4, release mouse you can switch channel 1 and channel 4 positions.
- Use mouse middle button to control window split: You can use mouse middle button to switch window split amount.

Preview Control

he preview control function has the following features.
- Support preview playback.
  - ✧ In the preview desktop, system can playback previous 5-60 minutes record of current channel.

Please go to the Main Menu->Setting->->System->General to set real-time playback time.
 ✧ Support drag and play function. You can use your mouse to select any playback start time.
 ✧ Support playback, pause and exit function.
 ✧ Right now, system does not support slow playback and backward playback function.
● Support digital zoom function.
● Support real-time backup function.

You can follow the contents listed below for the operation instruction.

Preview control interface

Move you mouse to the top centre of the video of current channel, you can see system pops up the preview control interface. If your mouse stays in this area for more than 6 seconds and has no operation, the control bar automatically hides.
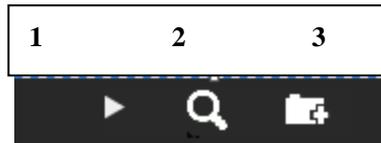
Figure 3-4

You can refer to the following sheet for detailed information.

SN	Name	Function
1	Realtime playback	It is to playback the previous 5-60 minutes record of current channel. Pleasego to the Main Menu->Setting->->System->General to set real-time playback time. System may pop up a dialogue box if there is no such record in current channel.
2	Digital zoom	It is to zoom in specified zone of current channel. It supports zoom in function of multiple-channel. Clickbutton , the button is shown asDrag the mouse or use the middle button to select a zone, you can view. Right click mouse to cancel zoom and go back to the original interface.
3	Real-time backup function	It is to backup the video of current channel to the USB device. System can not backup the video of multiple-channel at the same time. Clickbutton ,system begins recording. Click it again, system stops recoridng. You can find the record file on the flash disk.

playback control

The playback control has the following features.
 ● Support play, pause, and exit and drag function.

- During the preview playback process, you can not see the channel title and record status of current channel. It will display the channel title and the record status once you exit the preview playback.
- During the preview playback, you can not switch the displayed channel or change current window-display mode.
- System closes preview control interface when you are switching split mode.
- Please note the tour function has the higher priority than the preview playback. You can not control the preview playback until the tour function ended.

3.2.2 PTZ Control

Please note the commend name is grey once device does not support this function.
The PTZ operation is only valid in one-window mode.

PTZ Setup

In the main menu, from Setting->System->PTZ, you can see the following interface. The pan/tilt/zoom setup includes the following items. Please select channel first.

- Protocol: Select corresponding PTZ protocol such as PELCOD.
- Address: Input corresponding PTZ address.
- Baud rate: Select baud rate.
- Data bit: Select data bit. Default value is 8.
- Stop bit: Select stop bit.Default value is 1.
- Parity: There are three choices: none/odd/even. Default value is none.
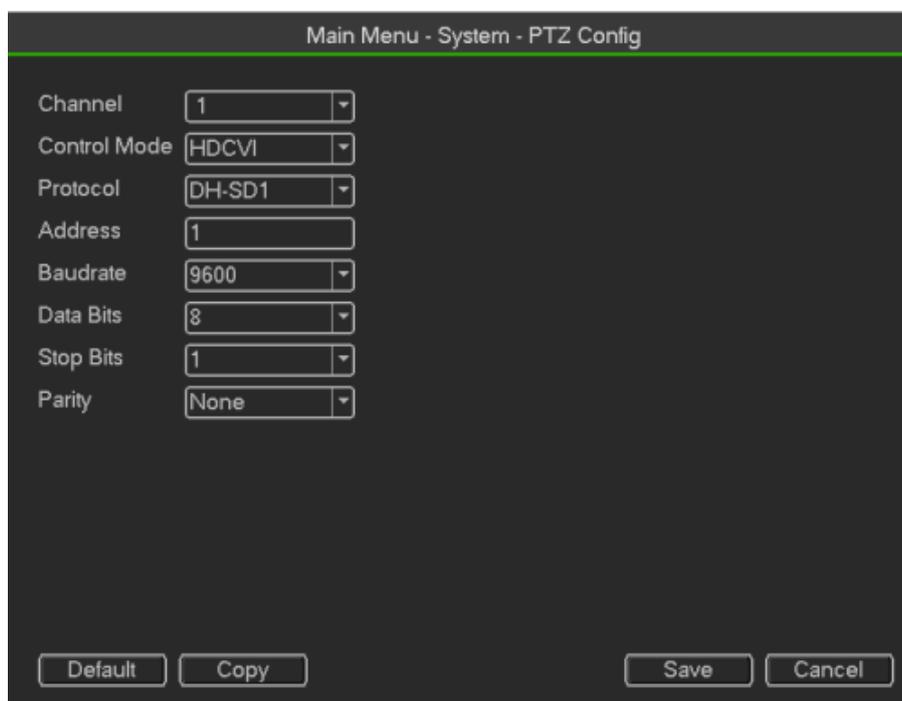
Figure 3-5

In one window display mode, right click mouse (click "Fn" Button in the front panel or click "Fn" key in the remote control).

Click Pan/Tilt/Zoom, the interface is shown as below.

Here you can set the following items:

Step: value ranges from 1 to 8.Zoom.Focus .Iris
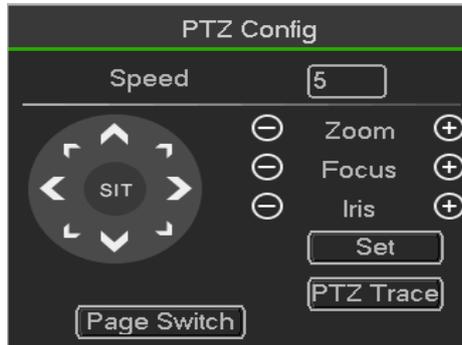
Figure 3-6

PTZ set

Here you can control PTZ direction, speed, zoom, focus, iris, preset, tour, scan, pattern aux function, light and wiper, rotation and etc

Speed is to control PTZ movement speed. The value ranges from 1 to 8.The speed 8 is faster than speed 1. You can use the remote control to click the small keyboard to set.

You can click ⊖ and ⊕ of the zoom, focus and iris to zoom in/out, definition and brightness.

The PTZ rotation supports 8 directions. If you are using direction buttons on the front panel, there are only four directions: up/down/left/right.

Here is a sheet for you reference.

Name	Function key	function	Shortcut key	Function key	function	Shortcut Key
Zoom	⊖	Near	►	⊕	Far	▶▶
Focus	⊖	Near	◀	⊕	Far	►
Iris	⊖	close	❚❚ ◀	⊕	Open	► ❚❚

In the middle of the eight direction arrows, there is a 3D intelligent positioning key. .

Please make sure your protocol supports this function and you need to use mouse to control.

Click this key, system goes back to the single screen mode. Drag the mouse in the screen to adjust section size. The dragged zone supports 4X to 16X speeds. It can realize PTZ automatically. The smaller zone you dragged, the higher the speed.

PTZ Function Setup
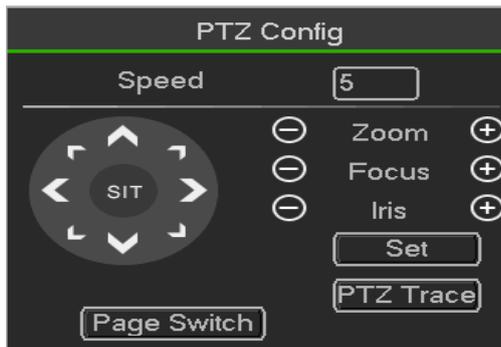
Figure 3-7

Click Set , you can go to the following interface to set preset, tour, pattern, and scan
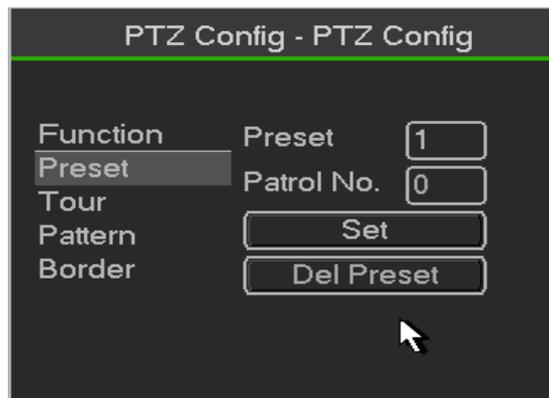
Figure 3-8

Preset Setup

click preset button and use eight direction arrows to adjust camera to the proper position..

Click Set button and then input preset number.

Click Set button to save current preset.
Tour Setup

click tour button.

Input tour value and preset No. Click Add preset button to add current preset to the tour.

Tips

Repeat the above steps to add more presets to the tour. Click Del preset button to remove it from the

tour. Please note some protocols do not support delete preset function.
Pattern Setup

click Pattern button and input pattern number.

Click Begin button to start direction operation. Or you can go   to operate

zoom/focus/iris/direction operation.

click End button
Scan Setup

click Scan button.

Use direction buttons to set camera left limit and then click Left button.

Use direction buttons to set camera right limit and then click Right button. Now the scan setup process is

complete.

3.2.3 **Figure**Color

Here you can set hue, brightness, contrast, saturation, gain, white level, color mode and etc 。

Figure4- 1

Please refer to the following sheet for detailed information.

Item	Note
Period	There are two periods in one day. You can set different sharpness, brightness, and contrast setup for different periods.
Effective Time	Check the box here to enable this function and then set period time.
Contrast	The value here is to adjust the edge of the video. The value ranges from 0 to 100. The larger the value is, the clear the edge is and vice versa. Please note there is noise if the value here is too high. The default value is 50 and the recommended value ranges from 40 to 60.
Brightness	It is to adjust monitor window bright. The value ranges from 0 to 100. The default value is 50.
	The larger the number, the bright the video is. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The recommended value ranges from 40 to 60.

3.2.4 **Playback**
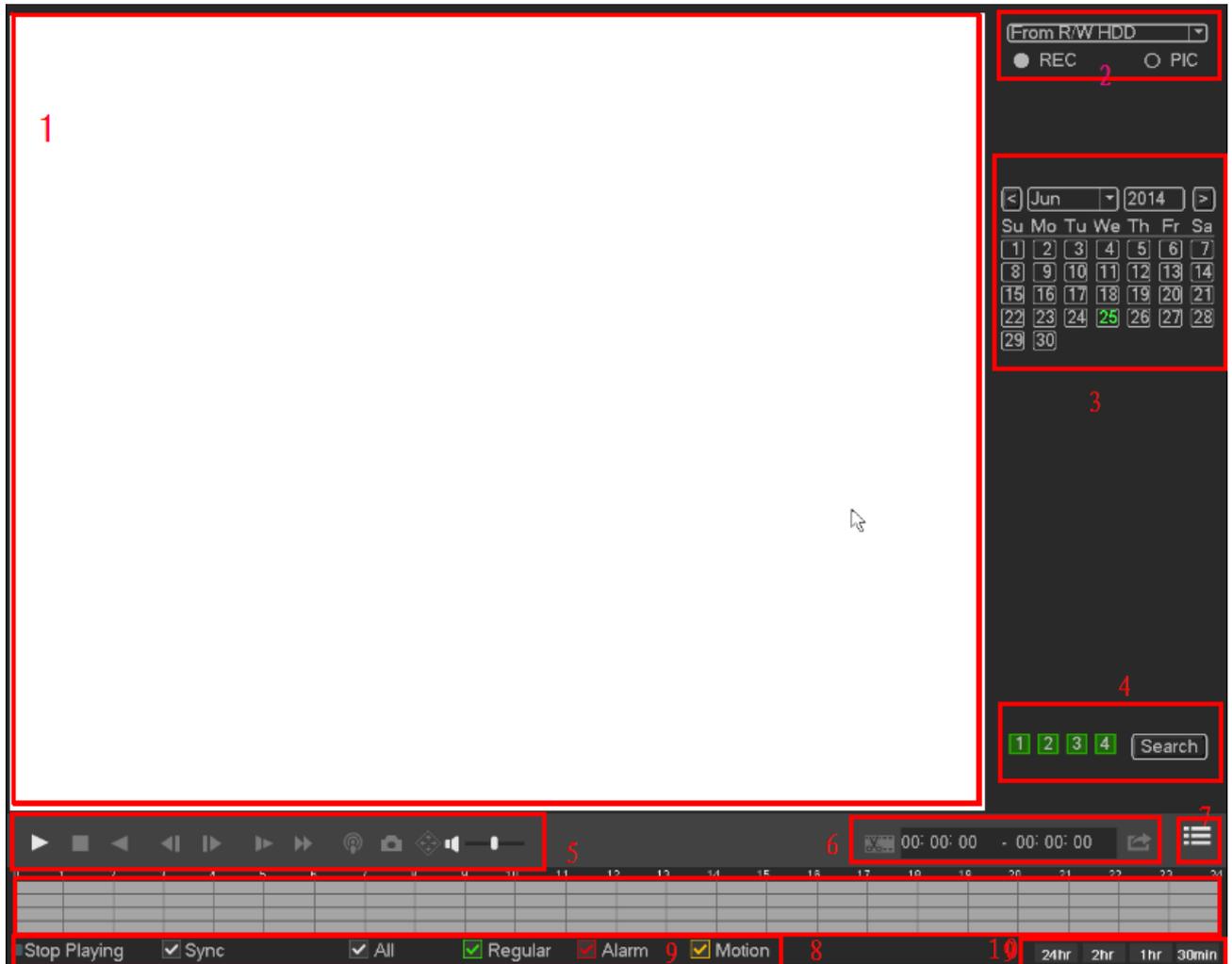
Figure 3-9

1	Displaywindow	2	Searchtype	3	Calendar	4	Channelselection	5	Playback control
6	Clip	7	Smartsearch	8	Time bar	9	Recordtype	10	Time bar unit

Displaywindow

Here is to display the searched picture or file.
Support 1/4/8-window playback.

Searchtype

Here you can select to search the picture or the recorded file".

Record search

You can select to play from the read-write HDD, from peripheral device or from redundancy HDD

Important
Redundancy HDD does not support picture backup function, but it
supports picture playback function. You can select to play from redundancy
HDD if there are pictures on the redundancy HDD.

Figure search

Before you select to play from the peripheral device, please connect the corresponding peripheral device. You can view all record files of the root directory of the peripheral device. Click the Browse button; you can select the file you want

Calendar

The blue highlighted date means there is picture or file. Otherwise, there is nopicture or file.
In any play mode, click the date you want to see, you can see the correspondingrecord file trace in the time bar.

Channelselection

Playback mode：1/4/9. (It may vary due to different series.)
✧ In 1-window playback mode: you can select 1-16 channels.
✧ In 4-window playback mode: you can select 4 channels according to your requirement.
✧ In 9-window playback mode, you can switch between 1-8 and 9-16 channels.
●The time bar will change once you modify the playback mode or the channel

Playback control

Figure 3-10

►/ ‖	Play/Pause There are three ways for you to begin playback. ● The play button ● Double click the valid period of the time bar. ● Double click the item in the file list. In slow play mode, click it to switch between play/pause.
■	Stop
♦	Backward play In normal play mode, left click the button, the file begins backward play. Click it again to pause current play. In backward play mode, click ►/ ‖ to restore normal play.
|♦/ ♦|	In playback mode, click it to play the next or the previous section. You can click continuously when you are watching the files from the same channel. In normal play mode, when you pause current play, you can click ♦| and |♦ to begin frame by frame playback. In frame by frame playback mode, click ►/ ‖ to restore normal playback.

►	Slow play In playback mode, click it to realize various slow play modes such as slow play 1, slow play 2, and etc.
⏵⏵	Fast forward In playback mode, click to realize various fast play modes such as fast play 1,fast play 2 and etc.
Note: The actual play speed has relationship with the software version.	
	Smart search
	The volume of the playback
	Click the snapshot button in the full-screen mode, the system can snapshot 1 picture. System supports custom snap picture saved path. Please connect the peripheral device first, click snap button on the full-screen mode, you can select or create path. Click Start button, the snapshot picture can be saved to the specified path.
	Mark button. Please note this function is for some series product only. Please make sure there is a mark button in the playback control pane. You can refer to chapter 4.8.1.3 for detailed information.

Smart Search

- When system is playing, you can select a zone in the window to begin smartsearch. Click the motion detect button to begin play.
- Once the motion detect play has begun, click button again will terminatecurrent motion detect file play.
- There is no motion detect zone by default.
- If you select to play other file in the file list, system switches to motion detectplay of other file.
- During the motion detect play process, you can not implement operations suchas change time bar, begin backward playback or frame by frame playback.

Smart search step

During the multiple-channel playback mode, double click one channel and then click th, system begins smart search.

System supports 396(22*18 PAL) and 330(22*15 NTSC) zones. Please left

click mouse to select smart search zones

Click the, you can go to the smart search playback. Click it again, system stops smart search playback。

Important

System does not support motion detect zone setup during the full-screen mode.

During the multiple-channel playback, system stops playback of rest channels if you implement one-channel smart search.
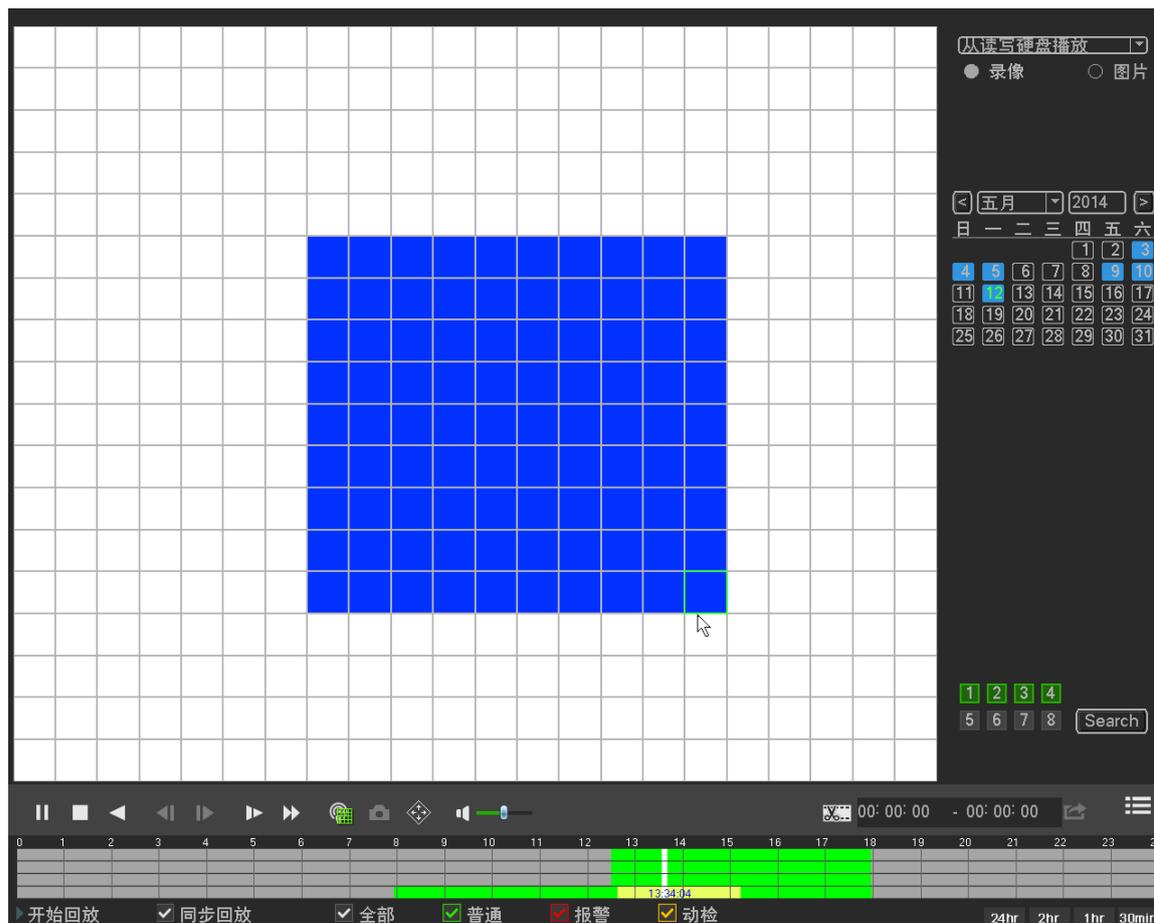
Figure 3-11

Clip

1,Please play the file you want to edit and then click this button when you want to edit. You can see the corresponding slide bars in the time bar of the corresponding channel. You can adjust the slide bar or input the accurate time to set the file end time.

2,After you set, you can click Clip button again to edit the second period. You can see the slide bar restore its previous position.

3,Click Backup button after clip, you can save current contents in a new file.

4, You can clip for one channel or multiple-channel. The multiple-channel click operation is similar with the one-channel operation.

Please note:

● **System max supports 1024 files backup at the same time.**

● **You can not operate clip operation if there is any file has been checkedin the file list.**

Smart search

Select records from one day, click the list, you can go to the file list interface. You can input time at thetop right corner to search records by time.

input time 11:00.00 and then click Search buttonyou can view all the record files after 11:00.00(The records includes current time.)

Double click a filename to playback
Note

After you searched files, system implement accurate playback once you click Play for the firsttime. System does not support accurate playback for picture

System supports synchronization playback and non-synchronous playback. The synchronization

playback supports all channels and non-synchronous playback only supports accurately

playback of current select channel.
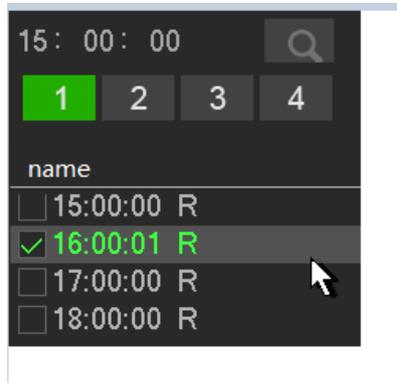
Figure 3-12

Time bar
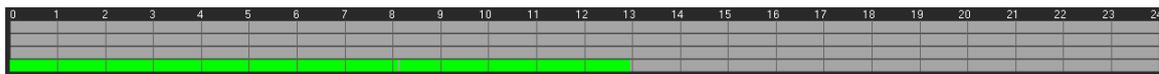
Figure 3-13

- It is to display the record type and its period in current search criteria.In 4-window playback mode, there are corresponding four time bars. In otherplayback mode, there is only one time bar.
- Use the mouse to click one point of the color zone in the time bar, system beginsplayback.
- The time bar is beginning with 0 o'clock when you are setting the configuration.
- The time bar zooms in the period of the current playback time when you areplaying the file.
- The green color stands for the regular record file. The red color stands for theexternal alarm record file. The yellow stands for the motion detect record file

File type

File type： R—regular record； A—external alarm record； M—Motion detect record.

Figure 3-14

Time bar unit

Figure 3-15

The option includes: 24H, 12H, 1H and 30M. The smaller the unit, the larger the zoom rate. You can

accurately set the time in the time bar to playback the record.

The time bar is beginning with 0 o'clock when you are setting the configuration.

The time bar zooms in the period of the current playback time when you areplaying the file.

3.3 Main Menu

3.3.1 Main Menu

The main menu interface is shown as below。
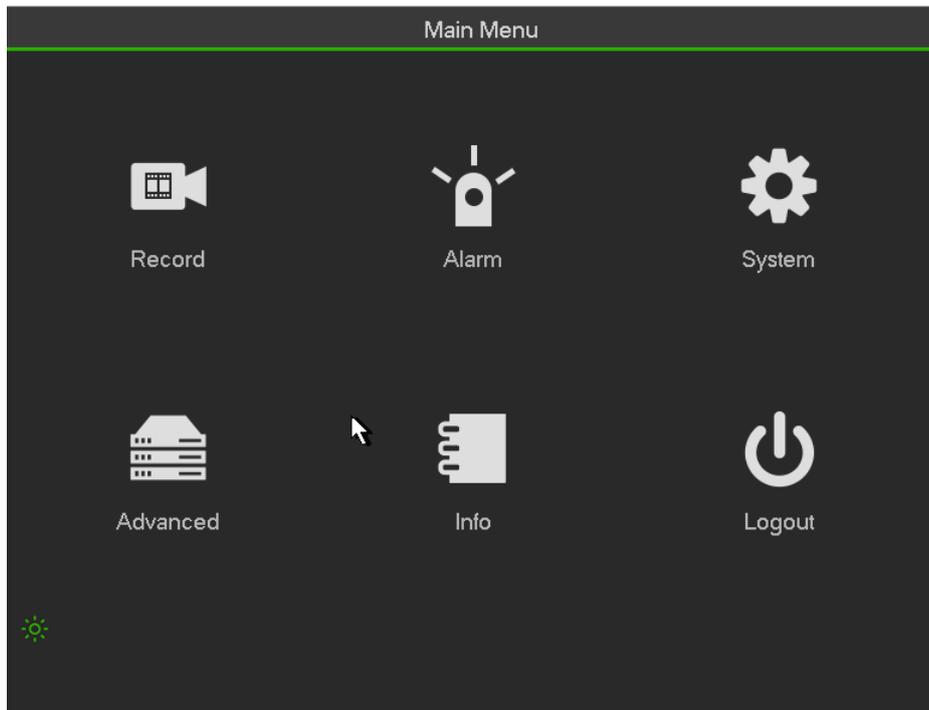
Figure 3-16

Main	Second menu
Record	Schedule
	Play back
	Record
	Backup
Alarm	Motion
	Abnormaliti
System	General
	Encode
	Network
	Network server
	Display
	PTZ
Advanced	HDD
	User
	Online User

Main	Second menu
	Auto Maintain
	ATM/POS
	Default
	Export/inport
Info	HDD Info
	BPS
	LOG
	Version
	NETWORK
Logout	-

3.3.2 Record

Record

Note:

You need to have proper rights to implement the following operations. Please make sure the HDDshave been properly installed.

After the system booted up, it is in default 24-hour regular mode. You can set record type and time inschedule interface.
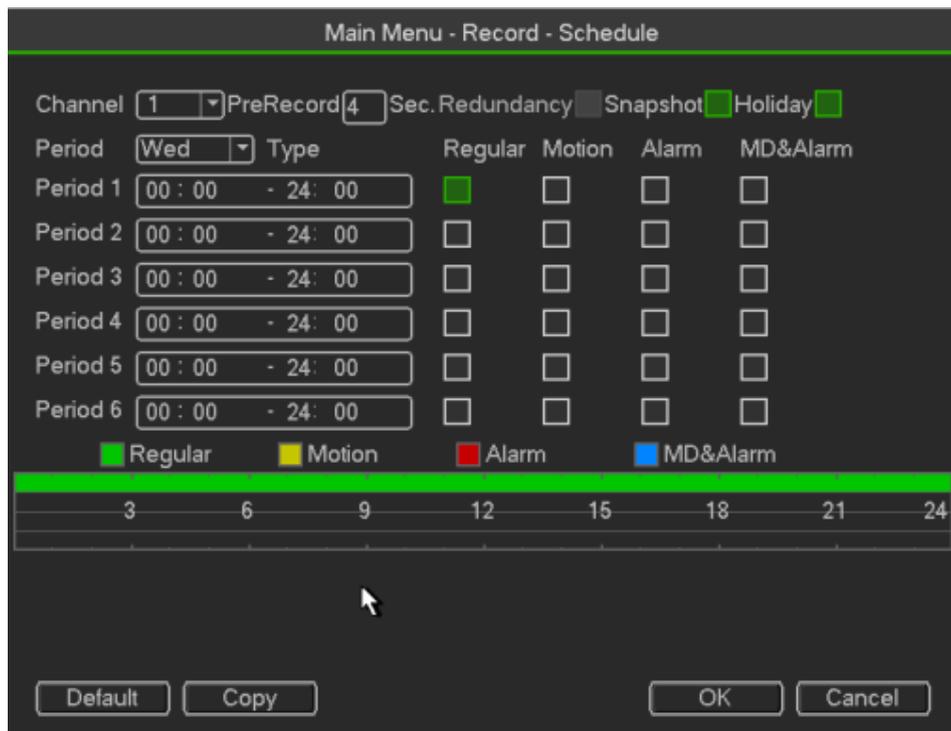
Figure 3-17

- Channel: Please select the channel number first. You can select "all" if you want to set for the whole channels.
- Record Type: Please check the box to select corresponding record type. There are four types:

- Regular/MD (motion detect)/Alarm/MD&Alarm.
- Week day: There are eight options: ranges from Saturday to Sunday and all.
- Holiday: It is to set holiday setup. Please note you need to go to the General interface (Main Menu ->System->General) to add holiday first. Otherwise you can not see this item.
- Pre-record: System can pre-record the video before the event occurs into the file. The value rangesfrom 1 to 30 seconds depending on the bit stream .
- Redundancy: System supports redundancy backup function. You can highlight Redundancy buttonto activate this function. Please note, before enable this function, please set at least one HDD asredundant. (Main menu->Setting->Storage->HDD Manager).

Please note this function is null ifthere is only one HDD.

Backup

DVR support CD-RW, DVD burner, USB device backup, network download and eSATA. Here weintroduce USB, eSATA backup. You can refer to Chapter 5 Web Operation for network downloadbackup operation.

Click backup button, you can see an interface is shown as in Figure 3-21. Here is for you to viewdevices information.

You can view backup device name and its total space and free space. The device includes CD -RW,DVD burner, USB device, flash disk, eSATA backup.
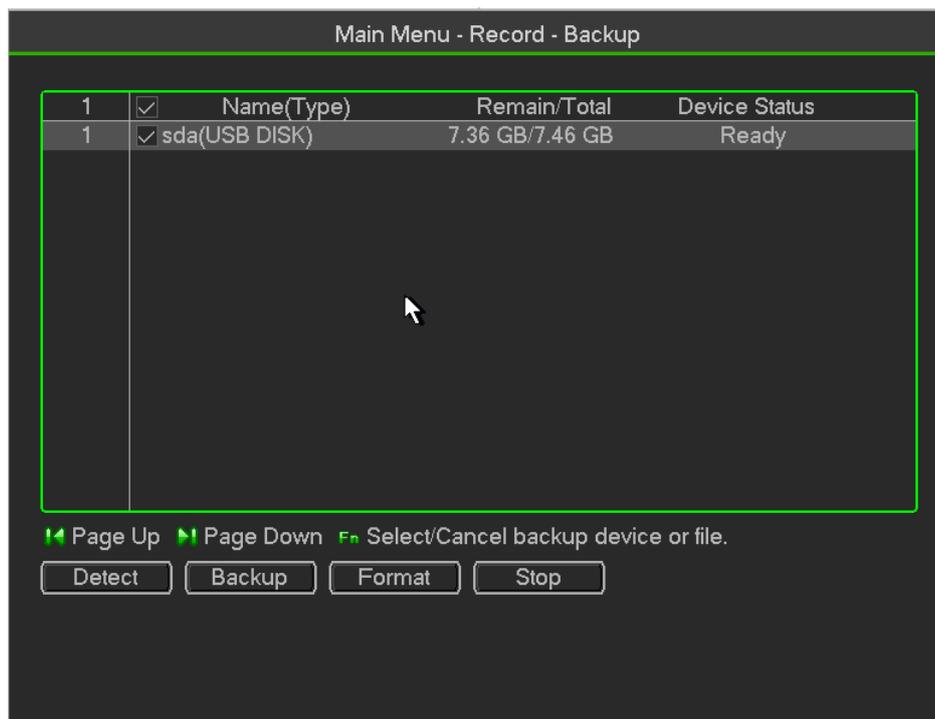
Figure 3-18

Select backup device and then set channel, file start time and end time.

Click add button, system begins search. All matched files are listed below. System automaticallycalculates the capacity needed and remained

System only backup files with a √ before channel name. You can use Fn or cancel button to delete√ after file serial number.

Click Start button, system begins copy. At the same time, the backup button becomes stop button.You can view the remaining time and process bar at the left bottom
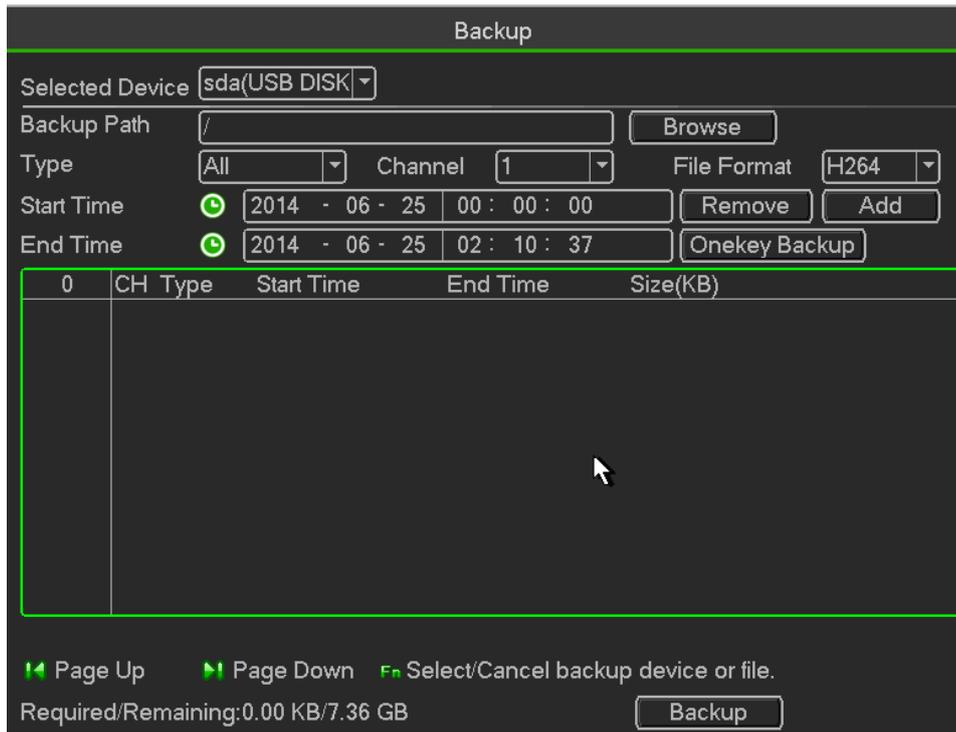
Figure 3-19

When the system completes backup, you can see a dialogue box prompting successful backup

File format: Click the file format; you can see there are two options: DAV/ASF.

The file name format usually is: Channel number+Record type+Time. In the file name, the YDM format is Y+M+D+H+M+S. File extension name is .dav.

Tips:

During backup process, you can click ESC to exit current interface for other operation. The systemwill not terminate backup process

Note:

When you click stop button during the burning process, the stop function becomes activatedimmediately.

For example, if there are ten files, when you click stop system just backup five files,system only save the previous 5 files in the device (But you can view ten file names).

Alarm

Detect

In the main menu, from Manu->Alarm->Detect, you can see motion detect interface. There is three detection types: motion detection, video loss, tampering

● The video loss has no detection region and sensitivity setup and tampering has no detectionregion setup.

● You can see motion detect icon if current channel has enabled motion detect alarm.

● You can drag you mouse to set motion detect region. Please click OK button to save current.region setup.

Right click mouse to exit current interface.

3.3.2.4.1Motion Detect

After analysis video, system can generate a video loss alarm when the detected moving signal reachedthe sensitivity you set here.

- Event type: From the dropdown list you can select motion detection type.
- Channel: Select a channel from the dropdown list to set motion detect function.
- Enable: Check the box here to enable motion detect function.
- Region: Click select button, the interface is shown as in Figure 3-25. Here you can set motiondetection zone. There are four zones for you to set. Please select a zone first and then left drag themouse to select a zone. The corresponding color zone displays different detection zone. You canclick Fn button to switch between the arm mode and disarm mode. In arm mode, you can click thedirection buttons to move the green rectangle to set the motion detection zone. After you completedthe setup, please click ENTER button to exit current setup. Do remember click save button to savecurrent setup. If you click ESC button to exit the region setup interface system will not save yourzone setup.

Sensitivity: System supports 6 levels. The sixth level has the highest sensitivity.

Figure 3-20

- Anti-dither: Here you can set anti-dither time. The value ranges from 5 to 600s. The anti-dither timerefers to the alarm signal lasts time. It can be seem as the alarm signal activation stays such as thebuzzer, tour, PTZ activation, snapshot, channel record. The stay time her e does not include thelatch time. During the alarm process, the alarm signal can begin an anti-dither time if system detectsthe local alarm again. The screen prompt, alarm upload, email and etc will not be activated. Forexample, if you set the anti-dither time as 10 second, you can see the each activation may last 10sif the local alarm is activated. During the process, if system detects another local alarm signal at thefifth second, the buzzer, tour, PTZactivation, snapshot, record channel will begin another 10swhile the screen prompt, alarm upload, email will not be activated again. After 10s, if system detectsanother alarm signal, it can generate an alarm since the anti -dither time is out.
- Period: Click set button, you can see an interface. Here you can setmotion detect period. System only enables motion detect operation in the specified periods. It is notfor video loss or the

tampering. There are two ways for you to set periods. Please note system onlysupports 6 periods in one day
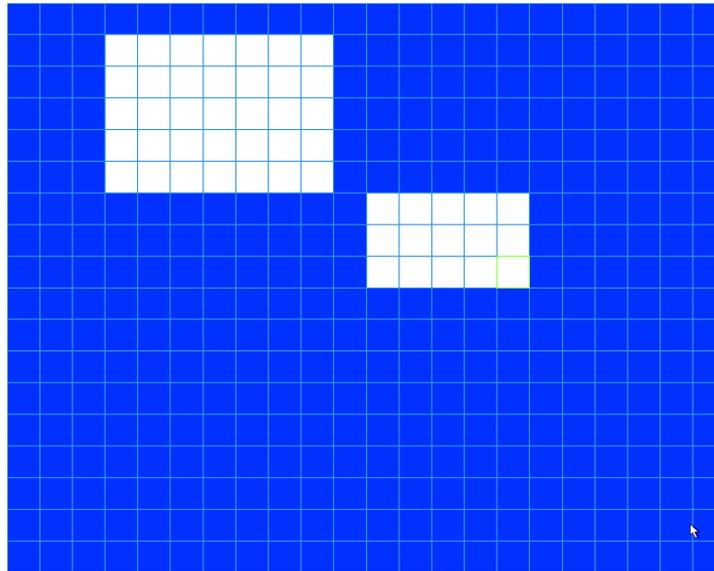
Figure 3-21

There are four record types: regular, motion detection (MD), Alarm, MD & alarm.

● Alarm output: when an alarm occurs, system enables peripheral alarm devices.

● Latch: when motion detection complete, system auto delays detecting for a specified time. Thevalue ranges from 1-300(Unit: second)Show message: System can pop up a message to alarm you in the local host screen if you enabledthis function.

● Alarm upload: System can upload the alarm signal to the network (including alarm centre) if you

● enabled current function.

● Send email: System can send out email to alert you when an alarm occurs.

● Record channel: System auto activates motion detection channel(s) to record once an alarm occurs.

● Please make sure you have set MD record in Schedule interface(Main Menu->Setting->Schedule)and schedule record in manual record interface(Main Menu->Advanced->Manual Record)PTZ activation: Here you can set PTZ movement when an alarm occurs. Such as go to preset, tour&pattern when there is an alarm. Click "select" button, you can see an interface is shown as in

● Record Delay: System can delay the record for specified time after alarm ended. The value rangesfrom 10s to 300s.

● Tour: Here you can enable tour function when alarm occurs. System one-window tour.

● Snapshot: You can enable this function to snapshoot image when a motion detect alarm occurs.

● Video matrix Check the box here to enable this function. When an alarm occurs, SPOT OUT portdisplays device video output. It displays video (1-window tour) from alarm activation channel youselect at the Record channel item.

● Buzzer: Highlight the icon to enable this function. The buzzer beeps when alarm occurs.

● Test: Click it to test current motion detect setup (do not need to save). Click Select button afterRegion, you can set motion detect area.

Please highlight iconto select the corresponding function. After all the setups please click savebutton, system goes back to the previous menu.

Note:

In motion detection mode, you can not use copy/paste to set channel setup since the video in eachchannel

may not be the same, you can left click mouse and then drag it to set a region for motion detection. Click Fn toswitch between arm/withdraw motion detection. After setting, click enter button to exitMotion detect here only has relationship with the sensitivity and region setup. It has no relationshipwith other setups.
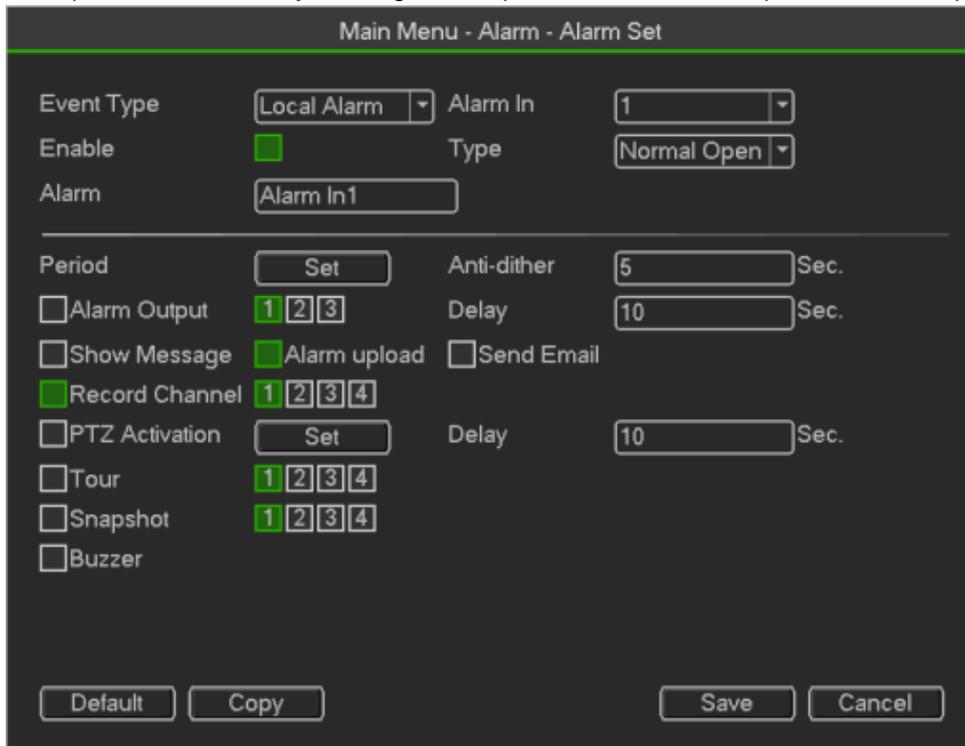
Figure 3-22
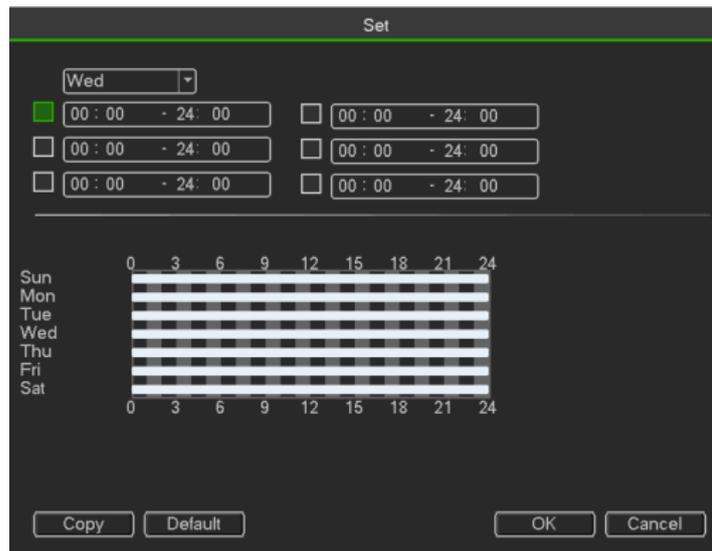
Figure 3-23

Video Loss
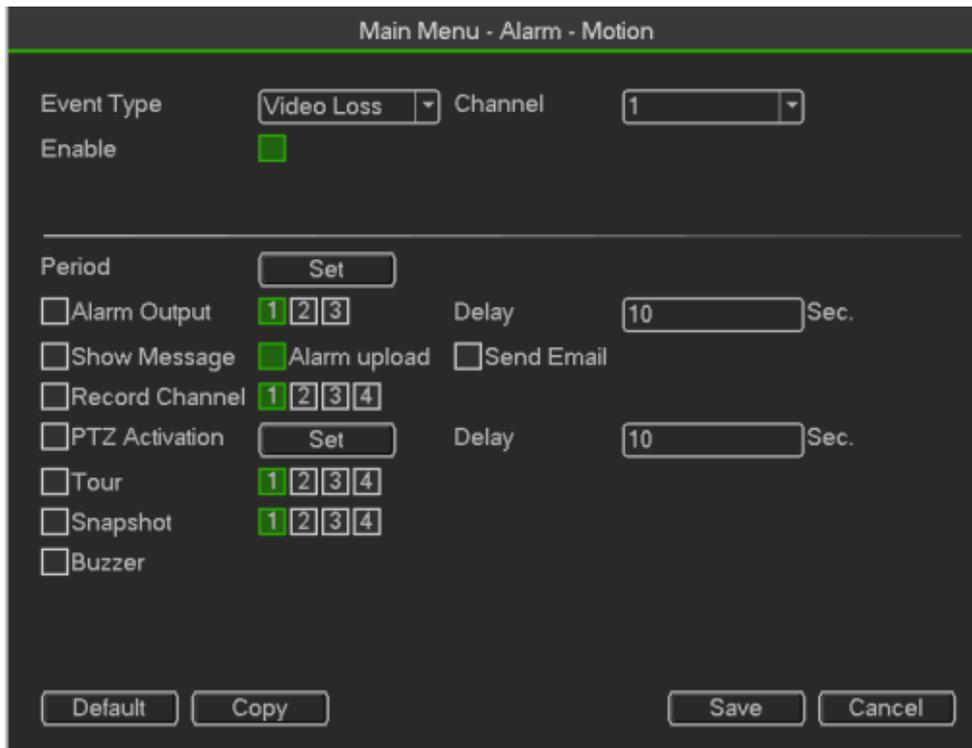
Figure 3-24

Select video loss from the type list. You can see the interface is shown This function allows you to be informed when video loss phenomenon occurred. You canenable alarm output channel and then enable show essage function.

Tips:

You can enable preset/tour/pattern activation operation when video loss occurs.

Please refer to chapter 4.10.3.1.1 motion detection for detailed information.

Tampering

When someone viciously masks the lens, or the output video is in one-color due to the environmentslight change, the system can alert you to guarantee video continuity. Tampering interface is shownYou can enable "Alarm output "or "Show message" function when tamperingalarm occurs

● Sensitivity: The value ranges from 1 to 6. It mainly concerns the brightness. The level 6 has thehigher sensitivity than level 1. The default setup is 3

Tips:

You can enable preset/tour/pattern activation operation when video loss occurs.

Please refer to chapter 4.10.3.1.1 motion detection for detailed information.

Note:

In Detect interface, copy/paste function is only valid for the same type, which means you cannot copy a channel setup in video loss mode to tampering mode.

About Default function. Since detection channel and detection type may not be the same,system can only restore default setup of current detect type. For example, if you click Defaultbutton at the tampering interface, you can only restore default tampering setup. It is null for otherdetect types.

System only enables tampering function during the period you set here. It is null for motion detect or video loss type.

3.3.3 System

Figure 3-25

General

Figure 3-26

- Device ID: Please input a corresponding device name here.
- Device No: Here you can set device number.
- Language: System supports various languages: Chinese (simplified), Chinese (Traditional), English,Italian, Japanese, French, Spanish (All languages listed here are optional. Slight difference may befound in various series.)
- Video standard: There are two formats: NTSC and PAL.
- HDD full: Here is for you to select working mode when hard disk is full. There are two options: stoprecording or rewrite. If current working HDD is overwritten or the current HDD is full while the nextHDD is no empty, then system stops recording, If the current HDD is full and then next HDD is notempty, then system overwrites the previous files.
- Pack duration: Here is for you to specify record duration. The value ranges from 1 to 120 minutes.
- Default value is 60 minutes.
- Real-time playback: It is to set playback time you can view in the preview interface. The valueranges from 5 to 60 minutes.
- Auto logout: Here is for you to set auto logout interval once login user remains inactive for aspecified time. Value ranges from 0 to 60 minutes.
- Navigation bar: Check the box here, system displays the navigation bar on the interface.
- Startup wizard: Once you check the box here, system will go to the startup wizard directly when thesystem restarts the next time. Otherwise, it will go to the login interface.

> - Mouse property: You can set double click speed via dragging the slide bard. You can Click Defaultbutton to restore default setup.

Date and Time:
- Date format: There are three types: YYYYY-MM-DD: MM-DD-YYYYY or DD-MM-YYYY.

- Date separator: There are three denotations to separate date: dot, beeline and solidus.
- DST: Here you can set DST time and date. Here you can set start time and end time by settingcorresponding week setup or by setting corresponding date setup.
- NTP: It is to set NTP server information
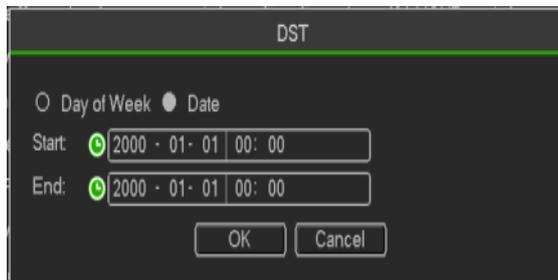
Figure 3-27

Holiday:

Holiday setup interface is shown as in Figure 4-100. Click Add new holiday button, you can input newholiday information. See Figure 4-101. Here you can set holiday name, repeat mode and start/end time

Note

- When you enable Holiday settings and schedule setup at the same time, holiday setting has thepriority. If the selected day is a holiday, then system records as you set in holiday s etting. If it is nota holiday, system records as you set in Schedule interface.
- Please notePlease note, there is no year setup on the holiday setup. For example, if you set 30th Oct, 2012 asa holiday, then the date of 30th Oct in each year will be set as a holiday.
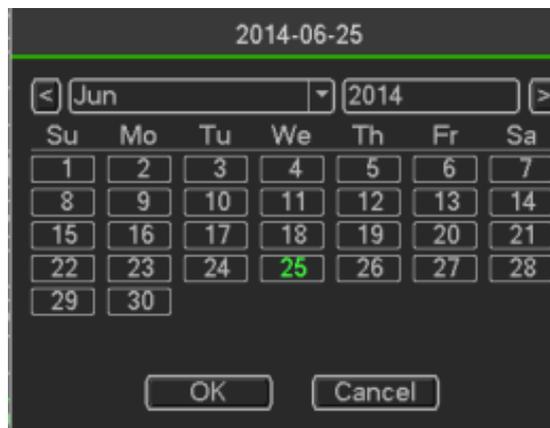
Figure 3-28

Encode

It is to set video bit stream, picture bit stream, video overlay parameter and etc
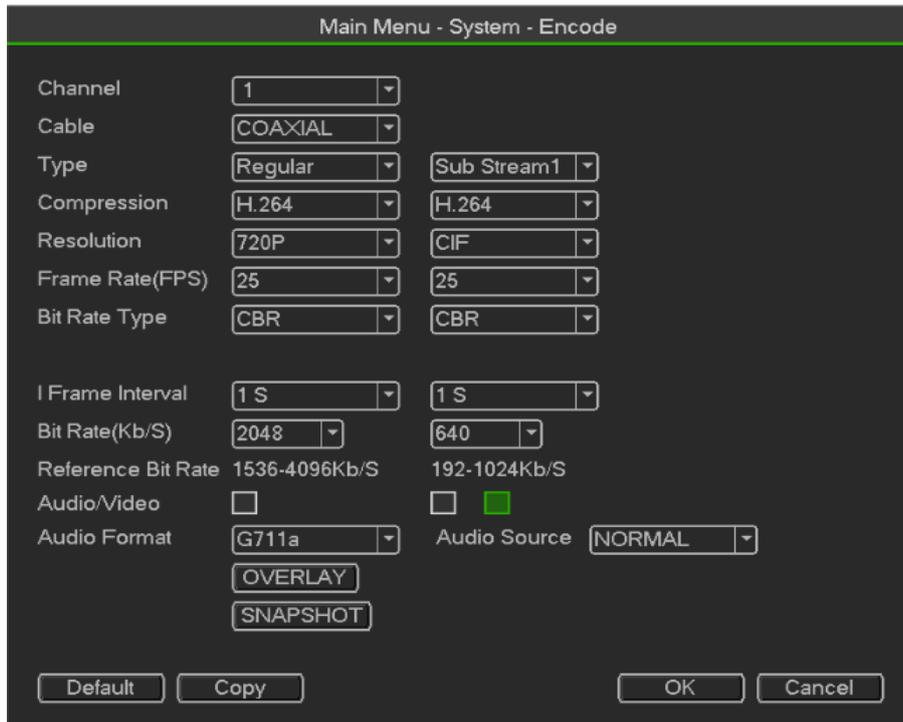
Figure 3-29

- Channel: Select the channel you want.
- Type: Please select from the dropdown list. There are three options: regular/motion detect/alarm.
- You can set the various encode parameters for different record typesCompression: System supports H.264 and MJPEG.
- Resolution: System supports various resolutions, you can select from the dropdown list. Please notethe option may vary due to different series.
- Frame rate: It ranges from 1f/s to 25f/s in NTSC mode and 1f/s to 30f/s in PAL mode.
- Bit rate type: System supports two types: CBR and VBR. In VBR mode, you can set video quality.
- Quality: There are six levels ranging from 1 to 6. The sixth level has the highest image quality.
- Video/audio: You can enable or disable the video/audio.

Audio: Please select from the dropdown list.

3.3.3.4.1Overlay
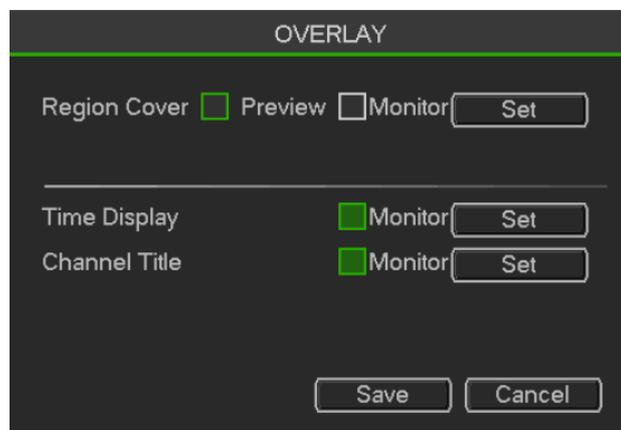
Figure 3-30

- Cover area: Here is for you to set cover area. You can drag you mouse to set proper section size. Inone

channel video, system max supports 4 zones in one channel.

- Preview/monitor: privacy mask has two types. Preview and Monitor. Preview means the privacymask zone can not be viewed by user when system is in preview status. Monitor means the privacymask zone can not be view by the user when system is in monitor status.
- Time display: You can select system displays time or not when you playback. Please click setbutton and then drag the title to the corresponding position in the screen.
- Channel display: You can select system displays channel number or not when you playback. Pleaseclick set button and then drag the title to the corresponding position in the screen.
- Copy：After you complete the setup, you can click Copy button to copy current setup to otherchannel(s). You can see an interface is shown as in Figure 3-43. You can see current channelnumber is grey. Please check the number to select the channel or you can check the box ALL.
- Please click the OK button in Figure 3-43 and Figure 3-41 respectively to complete the setup.
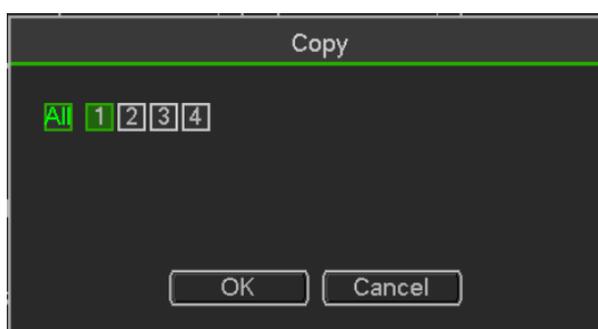
Figure 3-31

Snapshot

Here you can set snapshot mode, picture size, quality and frequency.
- Snapshot mode: There are two modes: regular and trigger. If you set timing mode, you need to setsnapshot frequency. If you set trigger snapshot, you need to set snapshot activation operation.
- Image size: Here you can set snapshot picture size.
- Image quality: Here you can set snapshot quality. The value ranges from 1 to 6.
- Interval: It is for you to set timing (schedule) snapshot interval.
- "Menu > Record > Record Set" ,Open "Snapshot"。
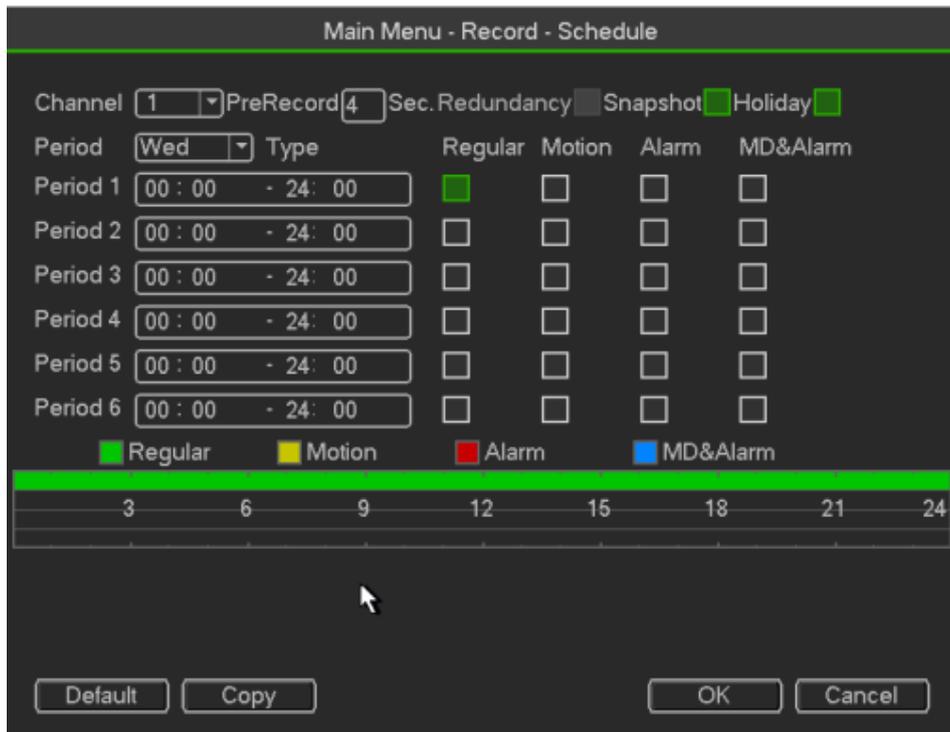
Figure 3-32

Trigger Snapshot

Please follow the steps listed below to enable the activation snapshot function. After you enabledthis function, system can snapshot when the corresponding alarm occurred
In main menu, from Menu->Record->Record set, here you can input snapshotmode as regular, size, quality and frequency
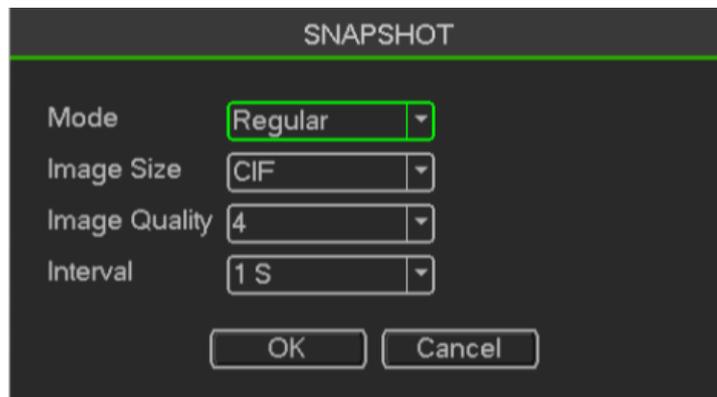
Figure 3-33

In main menu, from Menu->Alarm->Detect, please enable snapshot function for specified channels
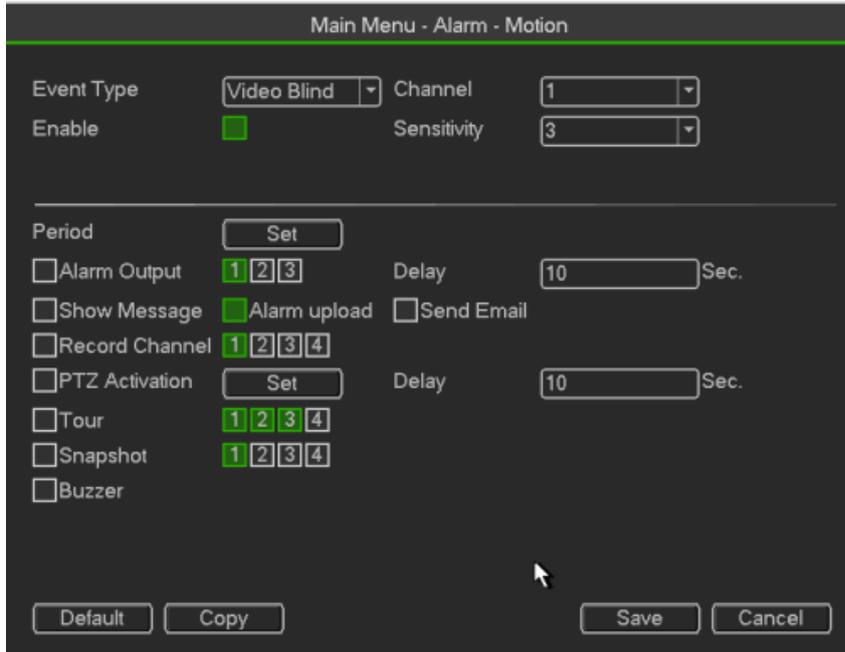
Figure 3-34

Image FTP

In the main menu, from Setting->Network->FTP, you can set FTP server information. Please enableFTP function and then click save button
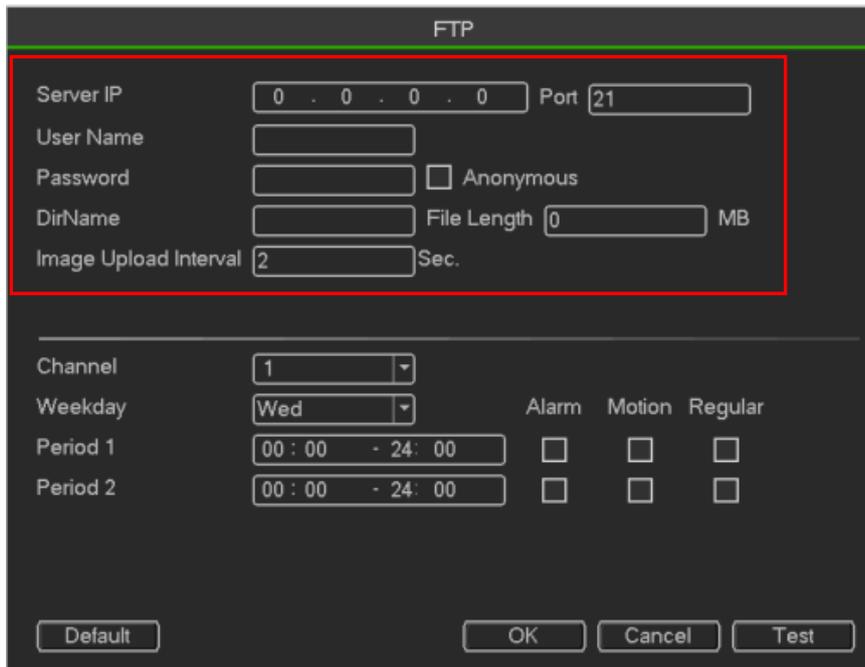
Figure 3-35

Network

Figure 3-36

- IP Version: There are two options: IPv4 and IPv6. Right now, system supports these two IP addressformat and you can access via them.
- MAC address: The host in the LAN can get a unique MAC address. It is for you to access in the LAN. Itis read-only.
- IP address: Here you can use up/down button (□□) or input the corresponding number to input IPaddress. Then you can set the corresponding subnet mask the default gateway.
- Default gateway: Here you can input the default gateway. Please note system needs to check thevalidity of all IPv6 addresses. The IP address and the default gateway shall be in the same IP
- section. That is to say, the specified length of the subnet prefix shall have the same string.
- DHCP: It is to auto search IP. When enable DHCP function, you can not modify IP/Subnet mask/Gateway. These values are from DHCP function. If you have not enabled DHC P function,
- IP/Subnet mask/Gateway display as zero. You need to disable DHCP function to view current IPinformation. Besides, when PPPoE is operating, you can not modify IP/Subnet mask /Gateway.
- MTU: It is to set MTU value of the network adapter. The value ranges from 1280-7200 bytes.

Thedefault setup is 1500 bytes. Please note MTU modification may result in network adapter reboot andnetwork becomes off. That is to say, MTU modification can affect current network service. Systemmay pop up dialog box for you to confirm setup when you want to change MTU setup. Click OKbutton to confirm current reboot, or you can click Cancel button to terminate current modification.Before the modification, you can check the MTU of the gateway; the MTU of the DVR shall be thesame as or is lower than the MTU of the gateway. In this way, you can reduce packets and enhancenetwork transmission efficiency.
The following MTU value is for reference only.

- 1500: Ethernet information packet max value and it is also the default value. It is the typicalsetup when

there is no PPPoE or VPN. It is the default setup of some router, switch or thenetwork adapter.

● 1492: Recommend value for PPPoE.

● 1468: Recommend value for DHCP.

● Preferred DNS server: DNS server IP address.

● Alternate DNS server: DNS server alternate address.

● Transfer mode: Here you can select the priority between fluency/video qualities.

● LAN download: System can process the downloaded data first if you enable this function. Thedownload speed is 1.5X or 2.0X of the normal speed.

● LAN download: System can process the downloaded data first if you enable this function. Thedownload speed is 1.5X or 2.0X of the normal speed.

After completing all the setups please click save button, system goes back to the previous menu.

Network service
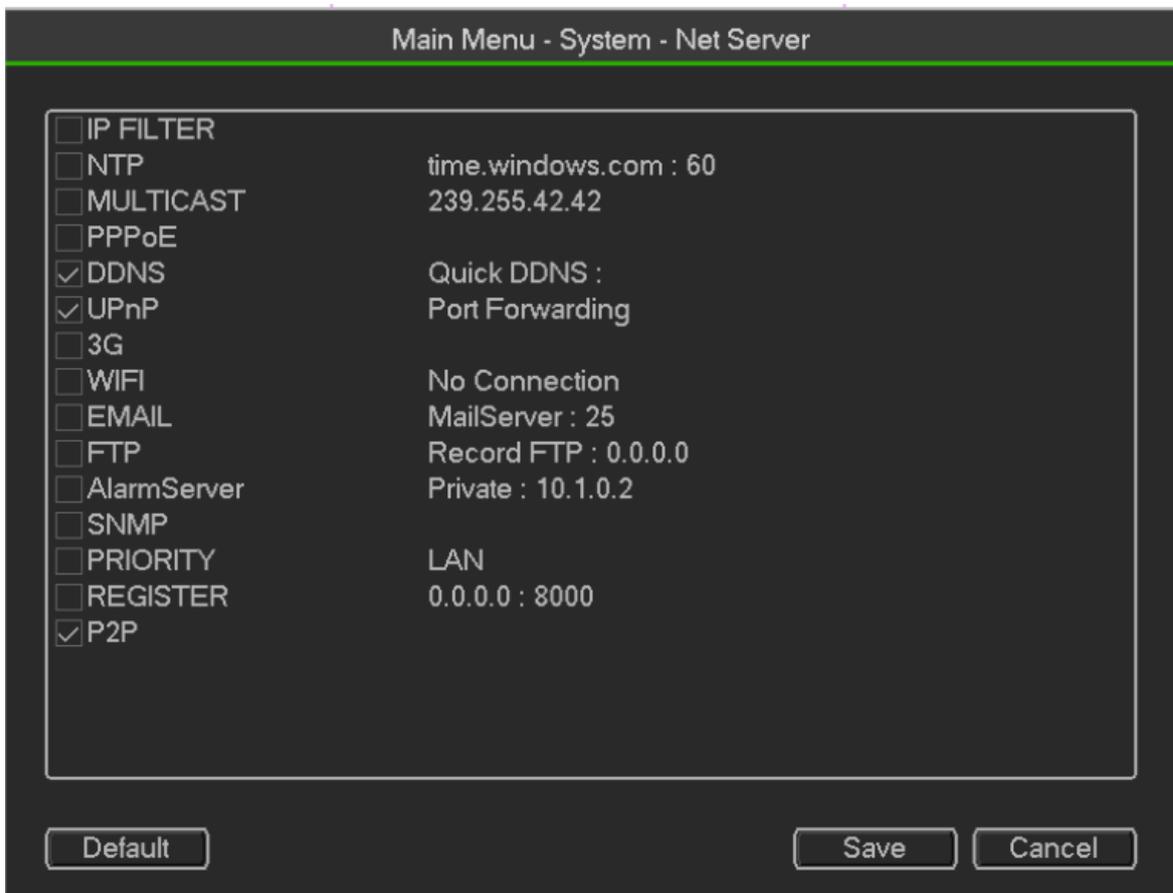
Figure 3-37

IP Filter

IP filter interface is shown as in Figure 4-61. You can add IP in the following list. The list supports max64 IP addresses. System supports valid address of IPv4 and IPv6. **Please note system needs tocheck the validity of all IPv6 addresses and implement optimization.**

After you enabled trusted sites function, only the IP listed below can access current DVR.

If you enable blocked sites function, the following listed IP addresses can not access current DVR

● Enable: Highlight the box here, you can check the trusted site function and blocked sites function.

- You can not see these two modes if the Enable button is grey.
- Type: You can select trusted site and blacklist from the dropdown list. You can view the IP addresson the following column.
- Start address/end address: Select one type from the dropdown list, you can input IP address in the

start address and end address. Now you can click Add IP address or Add IP section to add

- ✧ For the newly added IP address, it is in enable status by default. Remove the √ before the item,and then current item is not in the list.
- ✧ System max supports 64 items.
- ✧ Address column supports IPv4 or IPv6 format. If it is IPv6 address, system can optimize it. Forexample, system can optimize aa:0000: 00: 00aa: 00aa: 00aa: 00aa: 00aa as aa:: aa: aa: aa:aa: aa: aa.
- ✧ System automatically removes space if there is any space before or after the newly added IPaddress.
- ✧ System only checks start address if you add IP address. System check start address and endaddress if you add IP section and the end address shall be larger than the start address.
- ✧ System may check newly added IP address exists or not. System does not add if input IPaddress does not exist.
- Delete: Click it to remove specified item.
- Edit: Click it to edit start address and end address. See Figure 4-62. System can check the IPaddress validity after the edit operation and implement IPv6 optimization.
- Default: Click it to restore default setup. In this case, the trusted sites and blocked sites are both null.

Note:
- If you enabled trusted sites, only the IP in the trusted sites list can access the device.
- If you enabled blocked sites, the IP in the blocked sites can not access the device.
- System supports add MAC address.

Figure 3-38

Multicast
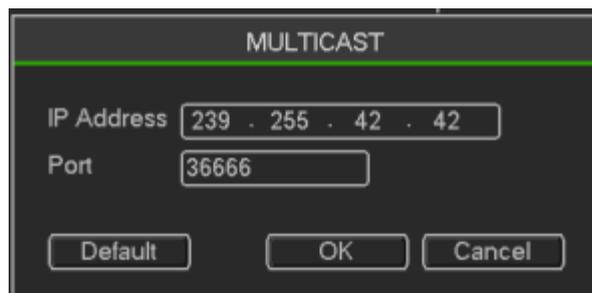
Figure 3-39

Here you can set a multiple cast group. Please refer to the following sheet for detailed information.

● IP multiple cast group address

-224.0.0.0-239.255.255.255

- " D" address space

The higher four-bit of the first byte= " 1110"

● Reserved local multiple cast group address

-224.0.0.0-224.0.0.255

-TTL=1 When sending out telegraph

-For example

224.0.0.1All systems in the sub-net

224.0.0.2All routers in the sub-ne

224.0.0.4DVMRP router

224.0.0.5OSPF router

224.0.0.13 PIMv2 router

● Administrative scoped addressees

-239.0.0.0-239.255.255.255

-Private address space

　　● Like the single broadcast address of RFC1918

　　● Can not be used in Internet transmission

　　● Used for multiple cast broadcast in limited space.

Except the above mentioned addresses of special meaning, you can use other addresses. For example:

Multiple cast IP: 235.8.8.36

Multiple cast PORT: 3666.

After you logged in the Web, the Web can automatically get multiple cast address and add it to themultiple

cast groups. You can enable real-time monitor function to view the view.

Please note multiple cast function applies to special series only.

PPPoE

Input "PPPoE name" and "PPPoE password" you get from your ISP (Internet service provider).

Click save button, you need to restart to activate your configuration.

After rebooting, DVR will connect to internet automatically. The IP in the PPPoE is the DVR dynamicvalue.

You can access this IP to visit the unit.

Figure 3-40

DDNS

You need a PC of fixed IP in the internet and there is the DDNS software running in this PC. In otherwords, this PC is a DNS (domain name server).

In network DDNS, please select DDNS type and highlight enable item. Them please input your PPPoEname you get from you IPS and server IP (PC with DDNS). Click save button and then reboot system.

Click save button, system prompts for rebooting to get all setup activated.

After rebooting, open IE and input as below:

http：//(DDNS server IP)/(virtual directory name)/webtest.htm

e.g.: http：//10.6.2.85/DVR _DDNS/webtest.htm.)

Now you can open DDNSServer web search page.

Figure 3-41

Please note NNDS type includes: CN99 DDNS, NO-IP DDNS, Quick DDNS, Dyndns DDNS and sysdnsDDNS. All the DDNS can be valid at the same time, you can select as you requirement.

Private DDNS function shall work with special DDNS server and special Professional Surveillance Software (PSS).

Quick DDNS and Client-end Introduction

1) Background Introduction

Device IP is not fixed if you use ADSL to login the network. The DDNS function allows you to access theDVR via the registered domain name. Besides the general DDNS ,the Quick DDNS works with thedevice from the manufacturer so that it can add the extension function.

2) Function Introduction

The quick DDNS client has the same function as other DDNS client end. It realizes the bonding of thedomain name and the IP address. Right now, current DDNS server is for our own devices only. Youneed to refresh the bonding relationship of the domain and the IP regularly. There is no user name,password or the ID registration on the server. At the same time, each device has a default domain name(Generated by MAC address) for your option. You can also use customized valid domain name (has notregistered.).

3) Operation

Before you use Quick DDNS, you need to enable this service and set proper server address, port valueand domain name.

● Server address：www.quickddns.com

● Port number：80

● Domain name：There are two modes: Default domain name and customized domain name.

Except default domain name registration, you can also use customized domain name (You can inputyour self-defined domain name.) After successful registration, you can use domain name to logininstalled of the device IP.

Do not register frequently. The interval between two registrations shall be more than 60 seconds.

Too many registration requests may result in server attack.

System may take back the domain name that is idle for one year. You can get a notification emailbefore the cancel operation if your email address setup is OK.

UPnP

The UPNP protocol is to establish a mapping relationship between the LAN and the WAN. Please inputthe router IP address in the LAN
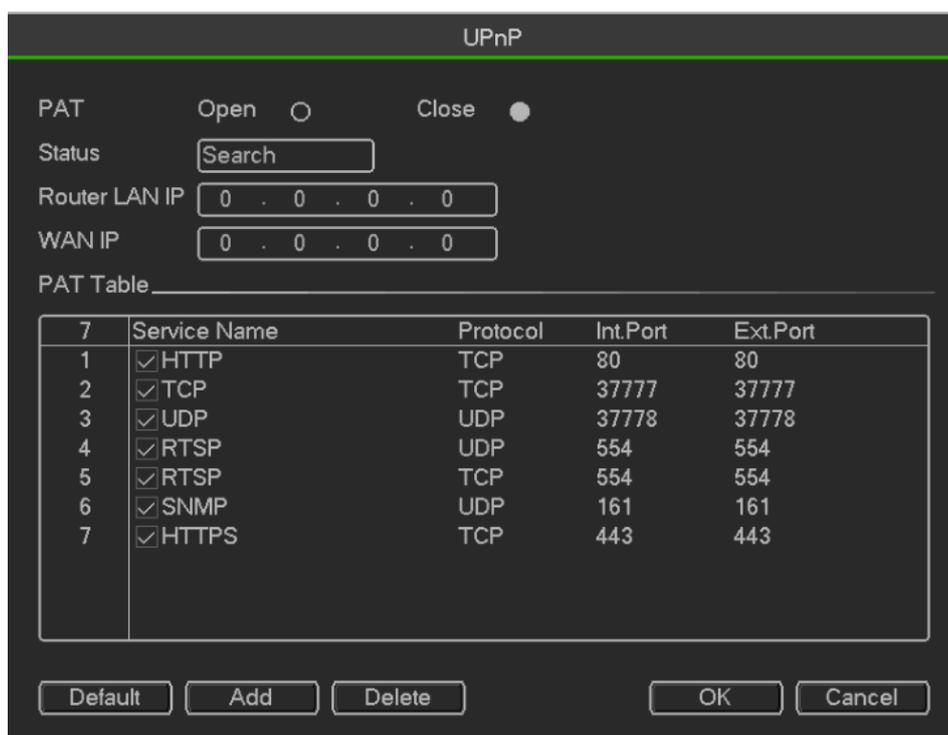
Figure 3-42

- UPNP on/off：Turn on or off the UPNP function of the device.
- Status: When the UPNP is offline, it shows as "Unknown". When the UPNP works it shows"Success".
- Router LAN IP: It is the router IP in the LAN.
- WAN IP: It is the router IP in the WAN.
- Port Mapping list： The port mapping list here is the one to one relationship with the router's portmapping setting.

List：

- ◇ Service name：Defined by user.
- ◇ Protocol： Protocol type
- ◇ Internal port：Port that has been mapped in the router.
- ◇ External port：Port that has been mapped locally.

Default: UPNP default port setting is the HTTP, TCP and UDP of the DVR.

Add to the list: Click it to add the mapping relationship.

Delete: Click it to remove one mapping item.

Double click one item; you can change the corresponding mapping information.

Important:

When you are setting the router external port, please use 1024~5000 port. Do not use well-known

port 1~255 and the system port 256~1023 to avoid conflict.

For the TCP and UDP, please make sure the internal port and external port are the same toguarantee the proper data transmission.

PORT INFO

Service Name

Protocol   TCP

Int.Port   0

Ext.Port   0

OK   Cancel

Figure 3-43

3G

Please refer to the following contents for the parameter information

3G

NoSignal

3G Network   3G Enable/Disable

Network Type   NOSERVICE

APN

AUTH   NO_AUTH

Dial Number

User Name

User Password

Pulse Interval   0   Sec.   Dial

3G Wireless Network

Module State :   IP Address -

SIM State -   Subnet Mask -

PPP State -   Gateway -

Default   OK   Cancel   Apply

Figure 3-44

- Pane 1: Display 3G signal intensity after you enabled 3G function.
- Pane 2: Display 3G module configuration information after you enabled 3G function.
- Pane 3: Display 3G module status information after you enabled 3G function.

It is to display current wireless network signal intensity such as EVDO, CDMA1x, WCDMA, CDMA,EDGE and etc.

- 3G module: It is to display current wireless network adapter name.
- 3G Enable/Disable: Check the box here to enable 3G module.
- Network type: There are various network types for different 3G network modules. You can selectaccording to your requirements.
- APN: It is the wireless connection server. It is to set you access the wireless network via whichmethod.

- AUTH: It is the authentication mode. It supports PAP/CHAP.
- Dial number: Please input 3G network dialup number you got from your ISP.
- User name: It is the user name for you to login the 3G network.
- Password: It is the password for you to login the 3G network.
- Pulse interval: You can set dialup duration. Once you disable the extra stream, the connection timebegins. For example, if you input 5 seconds here, then 3G network connection period is 5 seconds.
- The device automatically disconnect when time is up. If there is no extra stream, 3G networkconnection is valid all the time. **If the alive time is 0, then the 3G network connection is valid allthe time.**
- Dial: Here you can enable or disable 3G network connection/disconnection manually.
- 3G wireless network: Here is to display wireless network status, SIM card status, dial status. If the3G connection is OK, then you can see the device IP address the wireless network automaticallyallocates.

WIFI
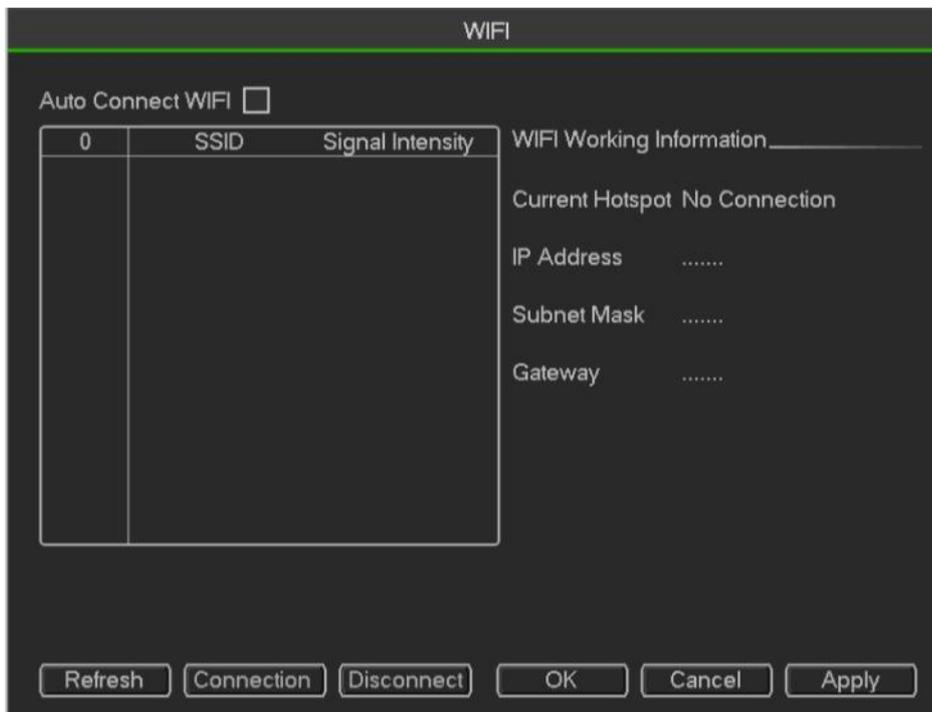
Figure 3-45

The WIFI interface is shown as below.

- Auto connect WIFI: Check the box here, system automatically connects to the previous WIFIhotspot.
- Refresh: You can click it to search the hotspot list again. It can automatically add the informationsuch as the password if you have set it before.
- Disconnect: Here you can click it to turn off the connection.
- Connect: Here you can click it to connect to the hotspot. System needs to turn off currentconnection and then connect to a new hotspot if there is connection of you selected one.

WIFI working status: Here you can view current connection status.

Please note:

- After successful connection, you can see WIFI connection icon at the top right corner of the previewinterface.
- When the hotspot verification type is WEP, system displays as AUTO since the device can notdetect its encryption type.
- System does not support verification type WPA and WPA2. The display may become abnormal forthe verification type and encryption type.

After device successfully connected to the WIFI, you can view the hotspot name, IP address, subnetmask, default gateway and etc

Email

- SMTP server: Please input your email SMTP server IP here.
- Port: Please input corresponding port value here.
- User name: Please input the user name to login the sender email box.
- Password: Please input the corresponding password here.
- Sender: Please input sender email box here.
- Title: Please input email subject here. System support English character and Arabic number. Max32-digit.
- Receiver: Please input receiver email address here. System max supports 3 email boxes. Systemautomatically filters same addresses if you input one receiver repeatedly.
- SSL enable: System supports SSL encryption box.
- Interval: The send interval ranges from 0 to 3600 seconds. 0 means there is no interval.
- Health email enable: Please check the box here to enable this function. This function allows thesystem to send out the test email to check the connection is OK or not.
- Interval: Please check the above box to enable this function and then set the corresponding interval.
- System can send out the email regularly as you set here. Click the Test button, you can see thecorresponding dialogue box to see the email connection is OK or not.

Please note system will not send out the email immediately when the alarm occurs. When the alarm,motion detection or the abnormity event activates the email, system sends out the email according to theinterval you specified here. This function is very useful when there are too many emails activated by theabnormity events, which may result in heavy load for the email server.
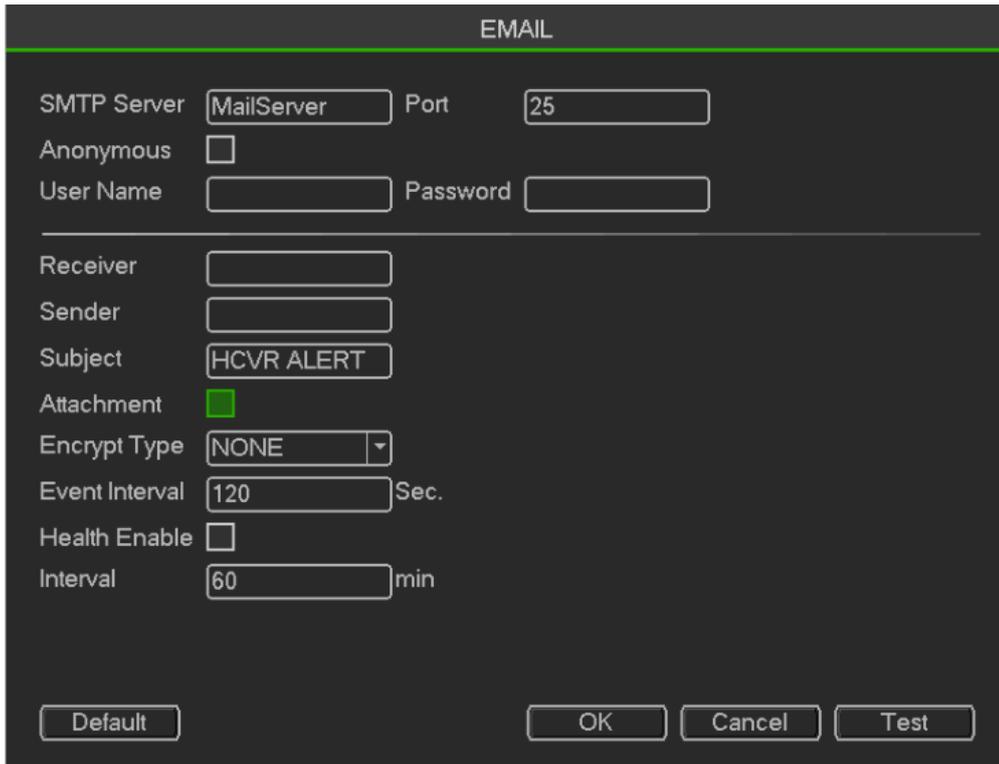
Figure 3-46

FTP

You need to download or buy FTP service tool (such as Ser-U FTP SERVER) to establish FTP service.Please install Ser-U FTP SERVER first. From "start" -> "program" -> Serv-U FTP Server -> Serv-UAdministator. Now you can set user password and FTP folder. Please note you need to grant write rightto FTP upload user

Figure 3-47
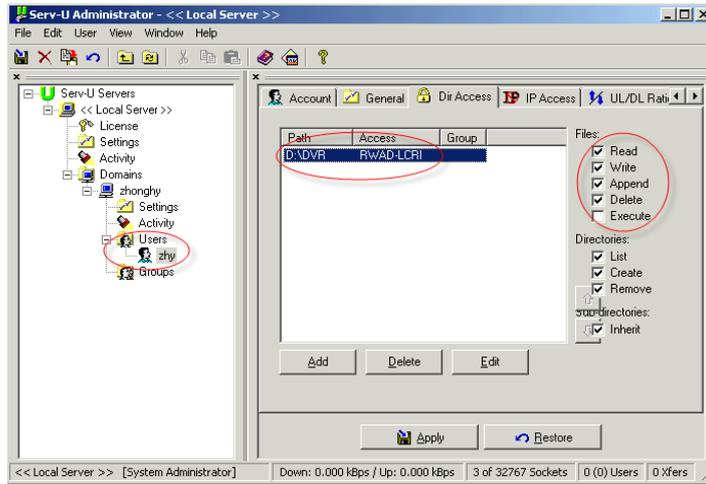
Figure 3-48
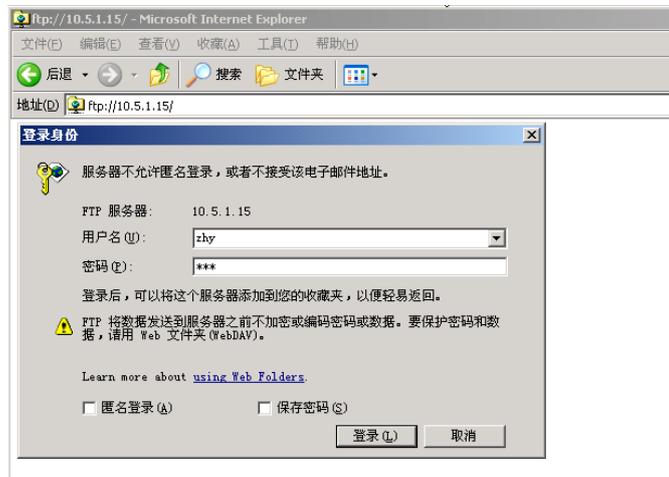
Figure 3-49

You can use a PC or FTP login tool to test setup is right or not.For example, you can login user ZHY to H140H140H140HTUFTP://10.10.7.7UTH and then test it can modify or delete folder or not.

System also supports upload multiple DVRs to one FTP server. You can create multiple folders underthis FTP.

Please highlight the iconn front of Enable to activate FTP function.

Here you can input FTP server address, port and remote directory. When remote directory is null, system automatically create folders according to the IP, time and channel.

User name and password is the account information for you to login the FTP.

File length is upload file length. When setup is larger than the actual file length, system will upload thewhole file. When setup here is smaller than the actual file length, system only uploads the set length andauto ignore the left section. When interval value is 0, system uploads all corresponding files.After completed channel and weekday setup, you can set two periods for one each channel.Click the Test button, you can see the corresponding dialogue box to see the FTP connection is OK ornot.

Figure3- 1
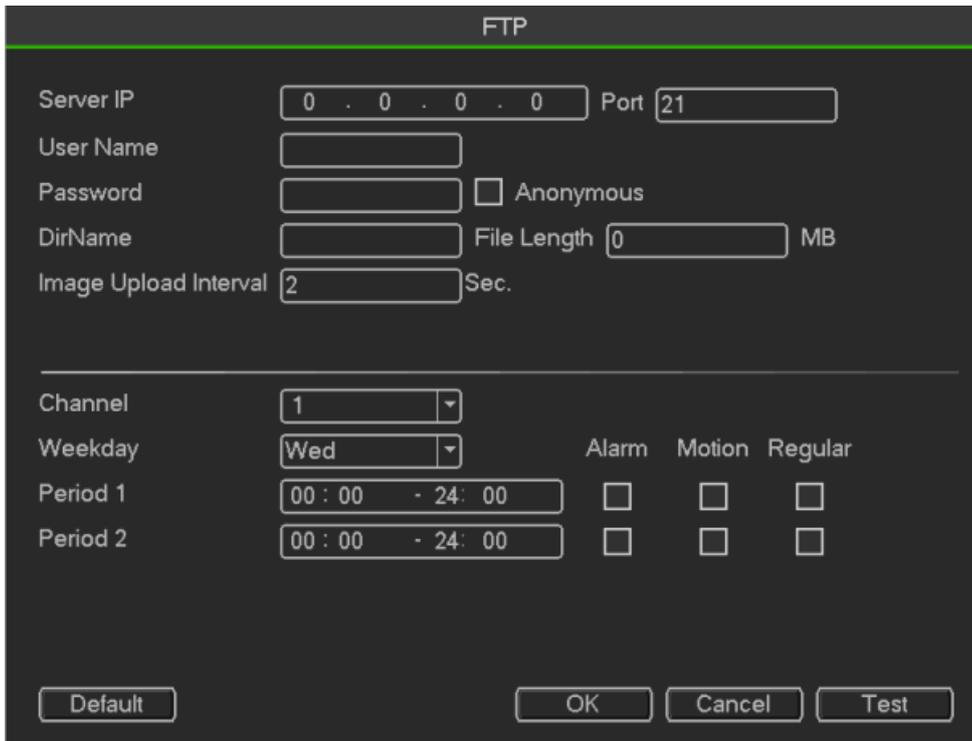
Figure3- 2

Alarm Centre

This interface is reserved for you to develop.
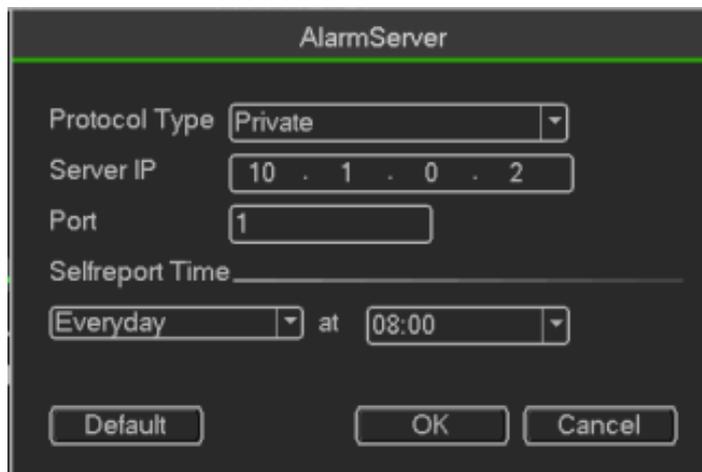
Figure 3-50

SNMP

SNMP is an abbreviation of Simple Network Management Protocol. It provides the basic networkmanagement frame of the network management system. The SNMP widely used in many environments.It is used in many network device, software and system.

You can set in the following interface。

Figure 3-51

Please enable the SNMP function. Use the corresponding software tool (MIB Builder and MG-SOFT MIBBrowser. You still need two MIB file: BASE-SNMP-MIB, DVR-SNMP-MIB) to connect to the device. Youcan get the device corresponding configuration information after successfully connection.

- Please follow the steps listed below to configure.
- Check the box to enable the SNMP function. Input the IP address of the PC than isrunning the software in the Trap address. You can use default setup for the rest items.
- Compile the above mentioned two MIB file via the software MIB Builder.
- Run MG-SOFT MIB Browser to load the file from the previous step to the software.
- Input the device IP you want to manage in the MG-SOFT MIB Browser. Please set thecorresponding version for your future reference.
- Open the tree list on the MG-SOFT MIB Browser; you can get the device configuration. Here youcan see the device has how many video channels, audio channels, application version and etc.

Note

Port conflict occurs when SNMP port and Trap port are the same.

Register

This function allows the device to auto register to the proxy you specified. In this way, you can use theclient-end to access the DVR and etc via the proxy. Here the proxy has a switch function. In the networkservice, device supports the server address of IPv4 or domain.

Please follow the steps listed below to use this function.

Please set proxy server address, port, and sub-device name at the device-end. Please enable the autoregister function, the device can auto register to the proxy server.

Important

Do not input network default port such as TCP port number

Figure 3-52

The proxy server software developed from the SDK. Please open the software and input the globalsetup. Please make sure the auto connection port here is the same as the port you set in the previousstep.

Now you can add device. Please do not input default port number such as the TCP port in themapping port number. The device ID here shall be the same with the ID you input in Figure 4-71. ClickAdd button to complete the setup.

Now you can boot up the proxy server. When you see the network status is Y, it means yourregistration is OK. You can view the proxy server when the device is online.

Important

The server IP address can also be domain. But you need to register a domain name before you runproxy device server.

Display
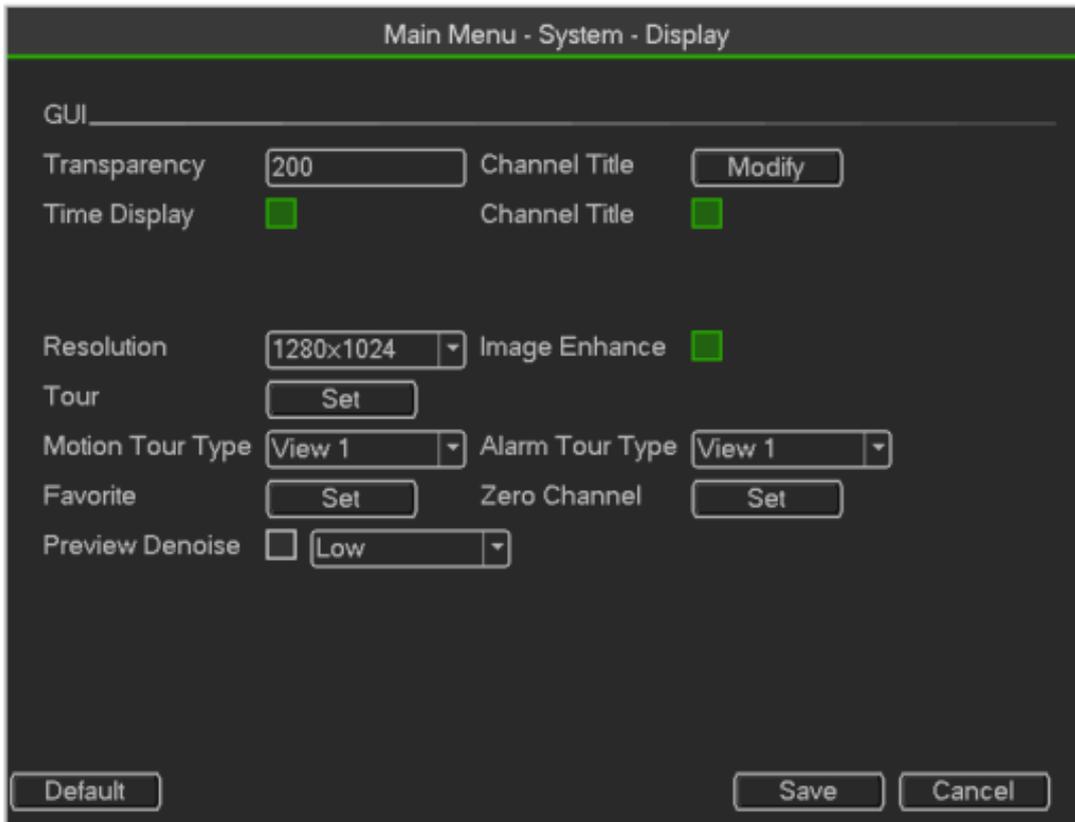
Figure 3-53

Display

● Transparency: Here is for you to adjust transparency. The value ranges from 128 to 255.
● Channel name: Here is for you to modify channel name. System max support 25-digit (The valuemay vary due to different series). Please note all your modification here only applies to DVR localend. You need to open web or client end to refresh channel name.
● Time display: You can select to display time or not when system is playback.
● Channel display: You can select to channel name or not when system is playback.
● Resolution: There are four options: 1920×1080, 1280×1024(default),1280×720,1024×768. Pleasenote the system needs to reboot to activate current setup.
● Image enhance: Check the box; you can optimize the margin of the preview video.
● Preview denoise: It is to reduce the video noise and make it clearer. You can set denoise level. Thehigher the level is, the clearer the video is.
  Please highlight iconto select the corresponding function. After completing all the setups please click save button, system g oes back to the previous menu.
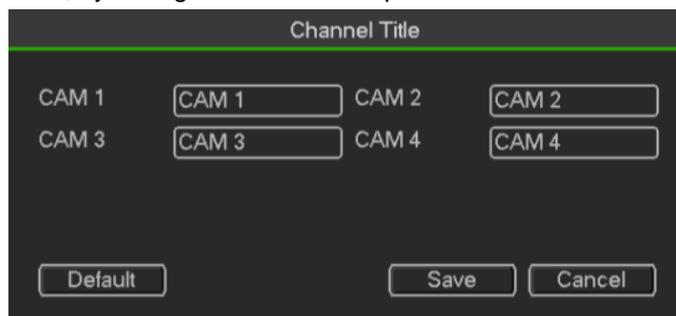
Figure 3-54

It is to modify channel name.

Channel Type

It is to set channel type. It supports coaxiable/UTP.
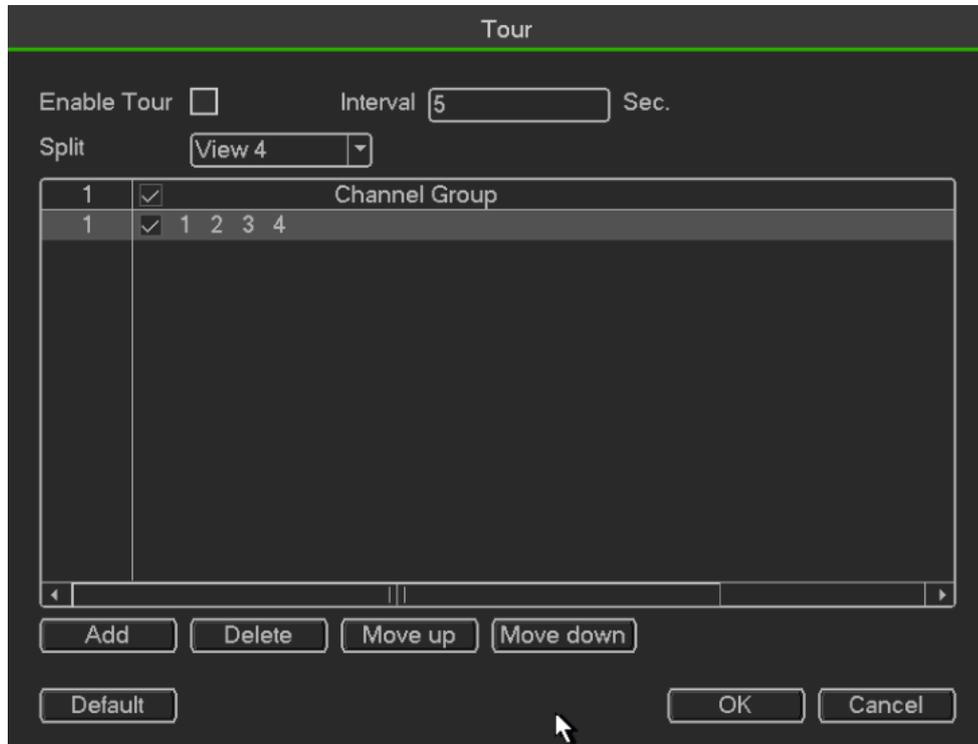
Figure 3-55

3.3.4 Information
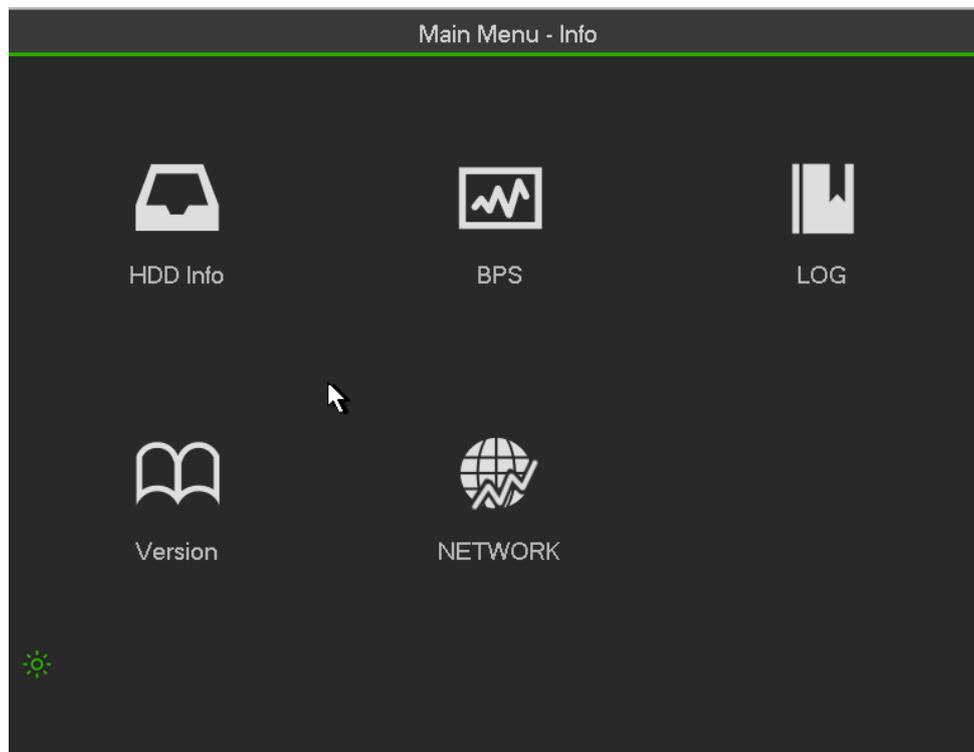
Figure 3-56

HDD Information

Here is to list hard disk type, total space, free space, video start time and status.

SATA: 1 here means system max supports 1 HDD. ○ means current HDD is normal. X means there is error. - means there is no HDD. If disk is damaged, system shows as "?". Please remove the broken hard disk before you add a new one.

SN: You can view the HDD amount the device connected to. ＊ means the second HDD is current working HDD

Type: The corresponding HDD properties

Total space: The HDD total capacity

Free space: The HDD free capacity.

Status: HDD can work properly or not.

SMART: Display HDD information
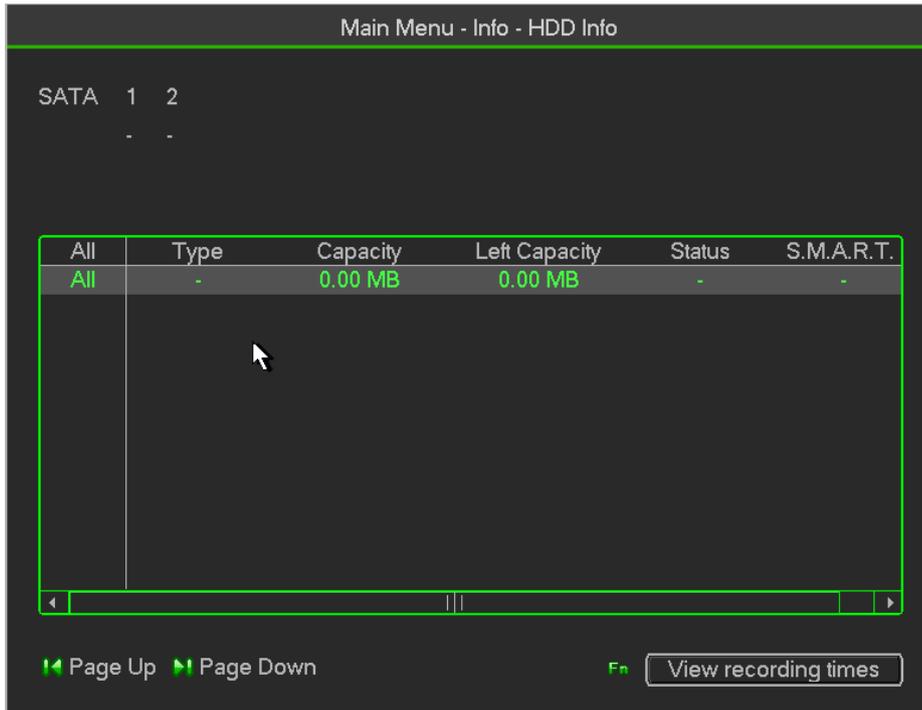
Figure 3-57

Double click one HDD information; you can see the HDD SMART information

BPS

Here is for you to view current video data stream (KB/s), resolution and etc.
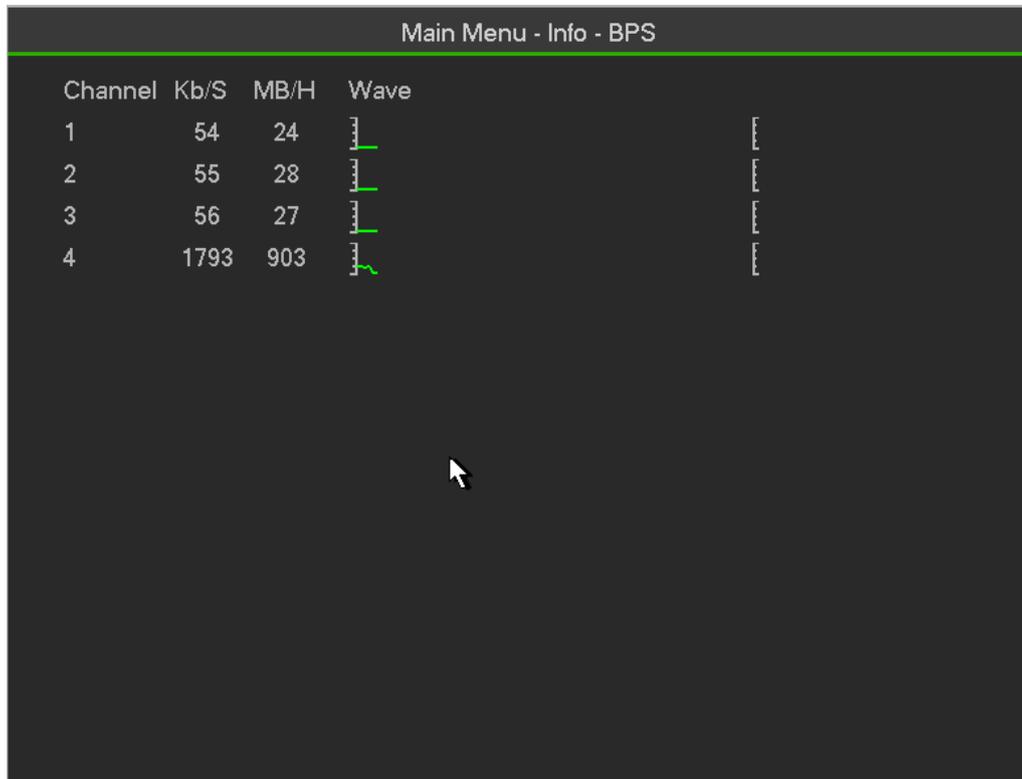
Figure 3-58

Log

Here is for you to view system log file. System lists the following informationLog types include system operation, configuration operation, data management, alarm event, recordoperation, account manager, log clear, file operation and etc. It optimized reboot log. There are onlythree types: normal reboot, abnormal reboot and protection reboot. 0x02、0x03、0x04 is included in theprotection reboot type.

- Start time/end time: Pleased select start time and end time, then click search button. You can viewthe log files in a list. System max displays 100 logs in one page. It can max save 1024 log files.Please use page up/down button on the interface or the front panel to view more.
- Backup: Please select a folder you want to save; you can click the backup button to save the logfiles. After the backup, you can see there is a folder named Log_time on the backup path. Double
- click the folder, you can see the log file
- Details: Click the Details button or double click the log item, you can view the detailed information. Here you can use rolling bar to view information, or you can use Page up/Pagedown to view other log information.

```
Main Menu - Info - LOG

Type        All        ▼
Start Time  2014 - 06 - 25  00: 00: 00
End Time    2014 - 06 - 26  00: 00: 00        Details    Search

82   Log Time        Event
72   2014-06-25 02:07:09   <Video Loss : 3>
73   2014-06-25 02:07:09   HDD totals<0>, Current working HDD<->
74   2014-06-25 02:07:09   Log In<888888>
75   2014-06-25 02:10:49   Shut down at [14-06-25 02:08:30]
76   2014-06-25 02:10:49   Reboot with Flag [0x01]
77   2014-06-25 02:10:49   <Video Loss : 1>
78   2014-06-25 02:10:49   <Video Loss : 2>
79   2014-06-25 02:10:49   <Video Loss : 3>
80   2014-06-25 02:10:49   HDD totals<0>, Current working HDD<->
81   2014-06-25 02:12:29   Log In<888888>
82   2014-06-25 02:15:49   Save PTZ Config Config

I◄ Page Up  ►I Page Down              Backup    Remove
Pre Page   Next Page  1/1(Current Page/Total Page)   Jump To  1   GO
```

Figure 3-59

Select an item on the list and then click the Details button or double click the log item, you can view thedetailed information such as log time, log type, log user, IP address and etc
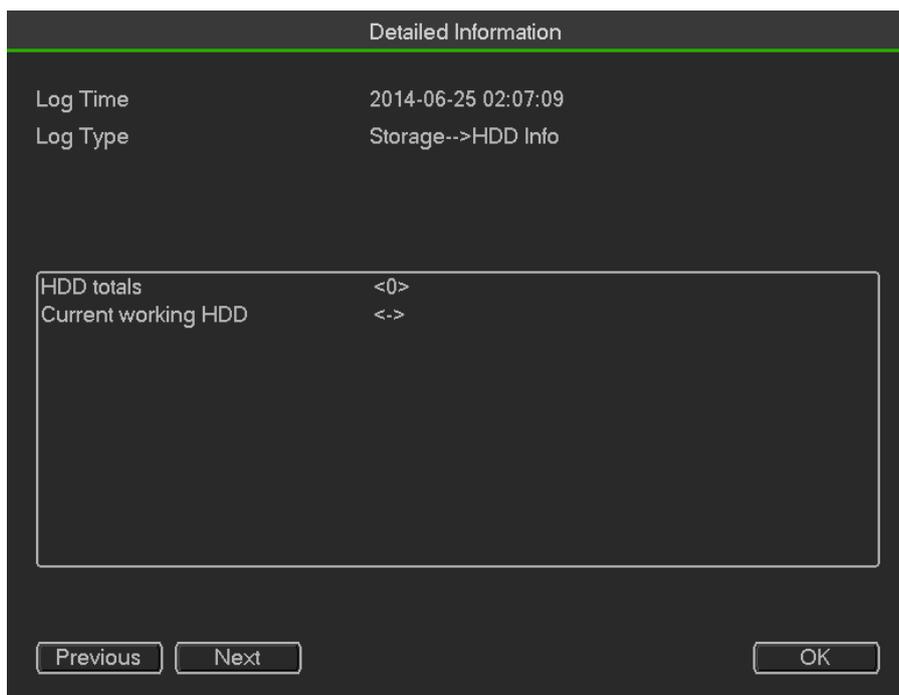
Figure 3-60

Version

Here is for you to view some version information such as version number, built date, serial number andetc
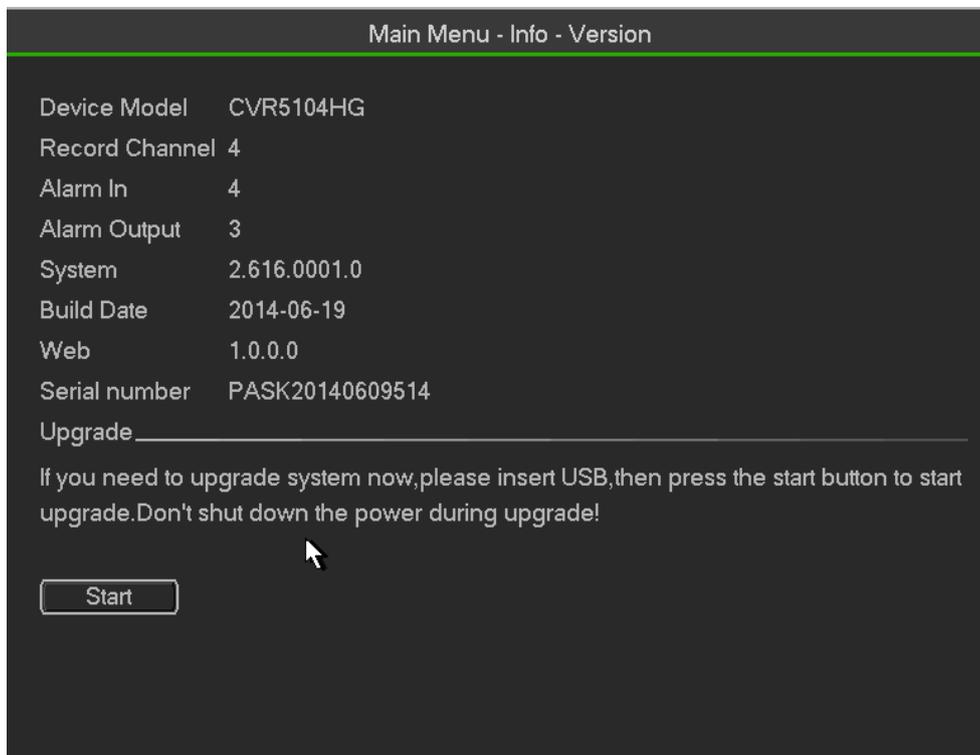
Figure 3-61

Network

Network Test
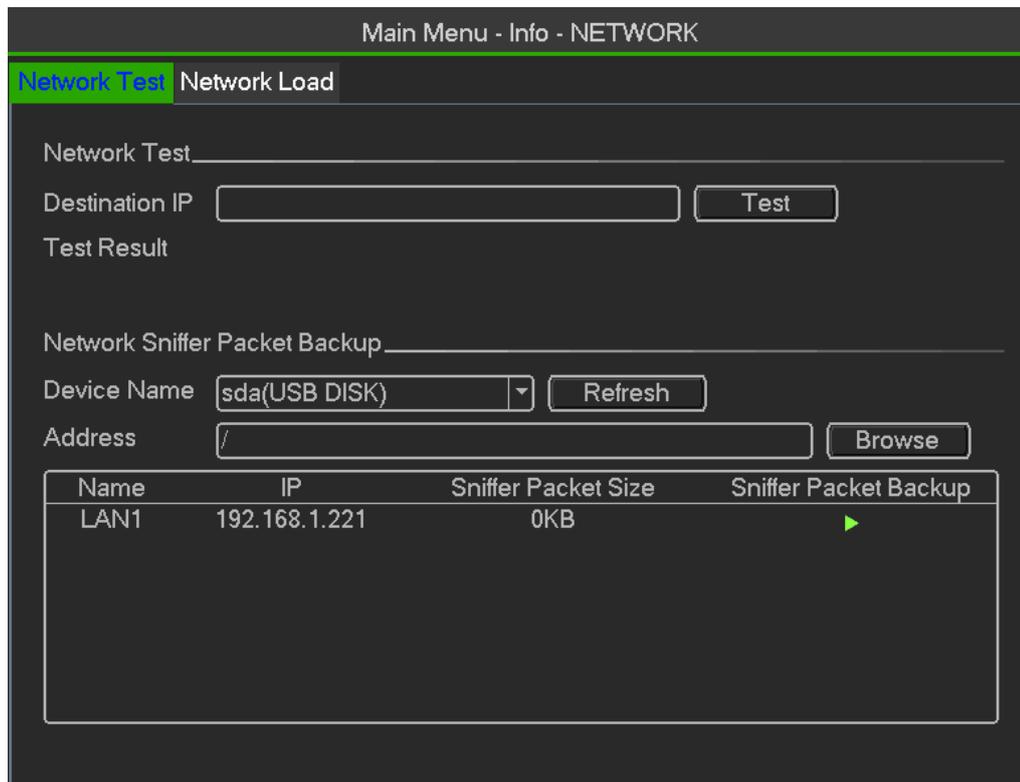
Figure 3-62

Network test interface is shown。

● Destination IP: Please input valid IPV4 address or domain name.

● Test: Click it to test the connection with the destination IP address. The test results can displayaverage delay and packet loss rate and you can also view the network status as OK, bad, noconnection and etc

● Network Sniffer backup: Please insert USB2.0 device and click the Refresh button, you can view thedevice on the following column. You can use the dropdown list to select peripheral device. ClickBrowse button to select the snap path. The steps here are same as preview backup operation.

You can view all connected network adapter names (including Ethernet, PPPoE, WIFI, and 3G), you canclick the buttonon the right panel to begin Sniffer. Click the grey stop button to stop. Please note.system can not Sniffer several network adapters at the same time.After Sniffer began, you can exit to implement corresponding network operation such as login WEBmonitor. Please go back to Sniffer interface to clickstop Sniffer. System can save the packets to thespecified path. The file is named after "Network adapter name+time". You can use software such asWireshark to open the packets on the PC for the professional engineer to solve complicated problems.

Network Load

Network load is shown as in Figure 4-44. Here you can view the follow statistics of the device networkadapter.
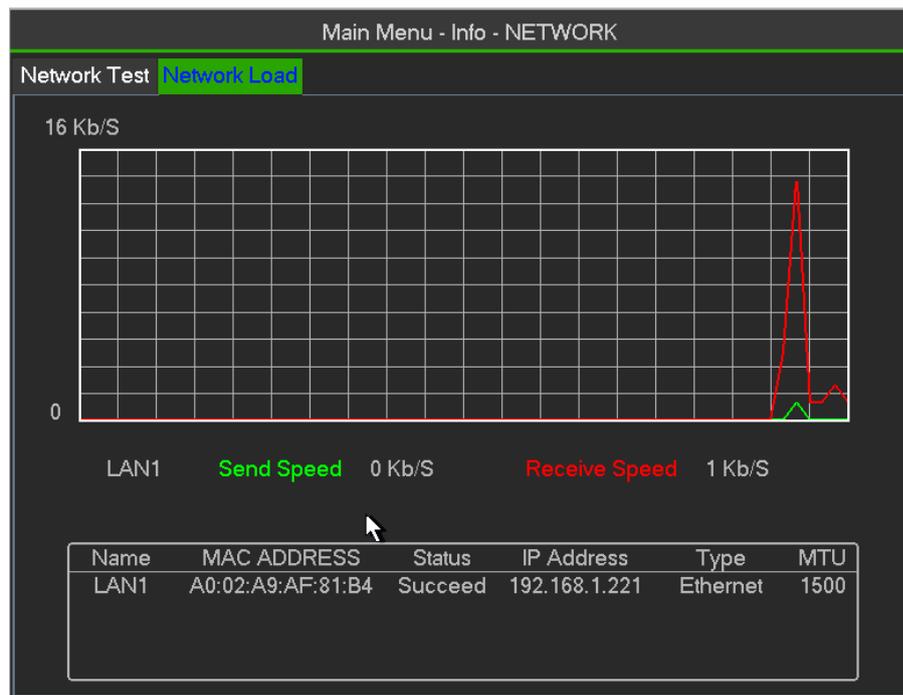
Figure 3-63

Here you can view information of all connected network adapters. The connection status is shown asoffline if connection is disconnected. Click one network adapter, you can view the flow statistics such assend rate and receive rate at the top panel

3.3.5 Advanced

You can see HDD Manager,Account,Oline User,Auto Maintain,Text Overlay,Default,Config backup.
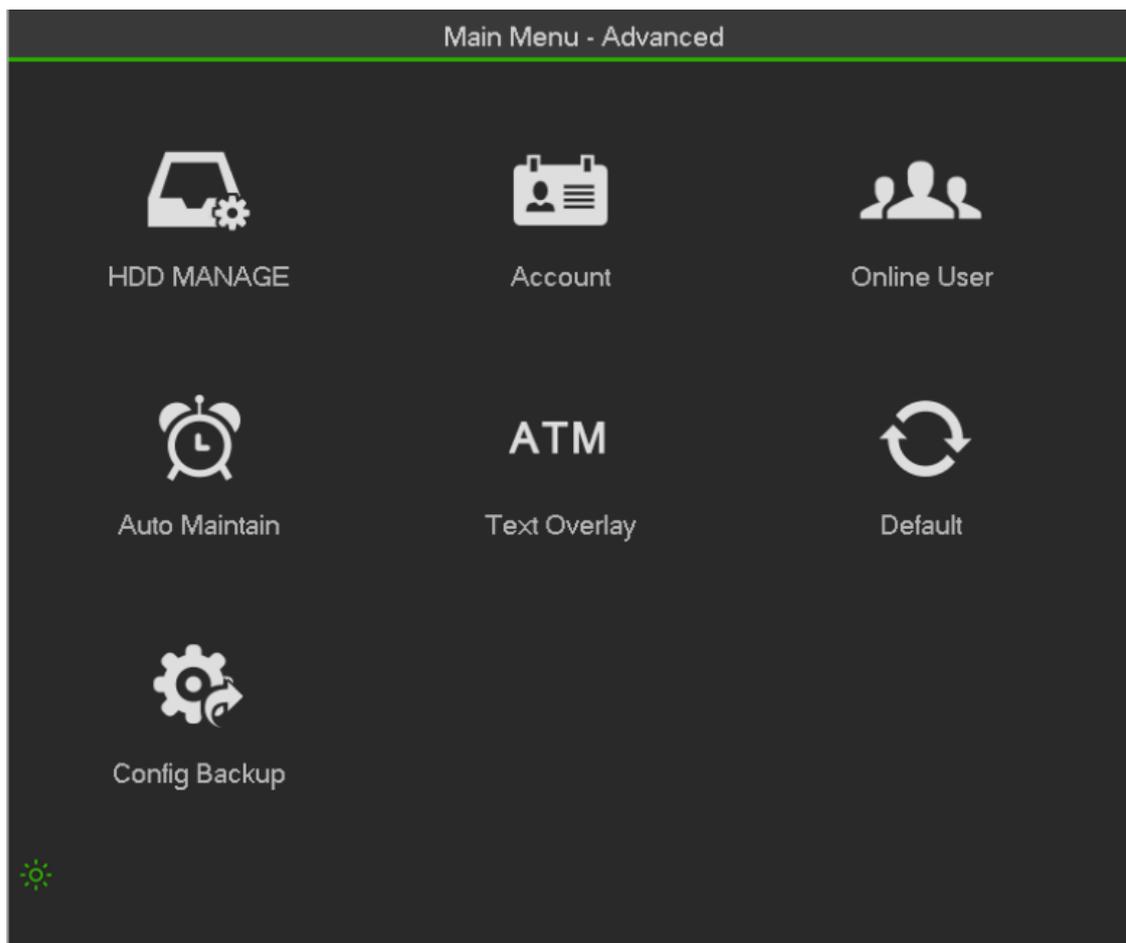
Figure 3-64

HDD Manager

Here is to list hard disk type, total space, free space, video start time and status.

- SATA: 1 here means system max supports 1 HDD. ○ means current HDD is normal. X means there is error. - means there is no HDD. If disk is damaged, system shows as "?". Please remove the broken hard disk before you add a new one.
- SN: You can view the HDD amount the device connected to. ＊ means the second HDD is current working HDD.
- Type: The corresponding HDD properties.
- Total space: The HDD total capacity.
- Free space: The HDD free capacity.
- Status: HDD can work properly or not.
- SMART: Display HDD information
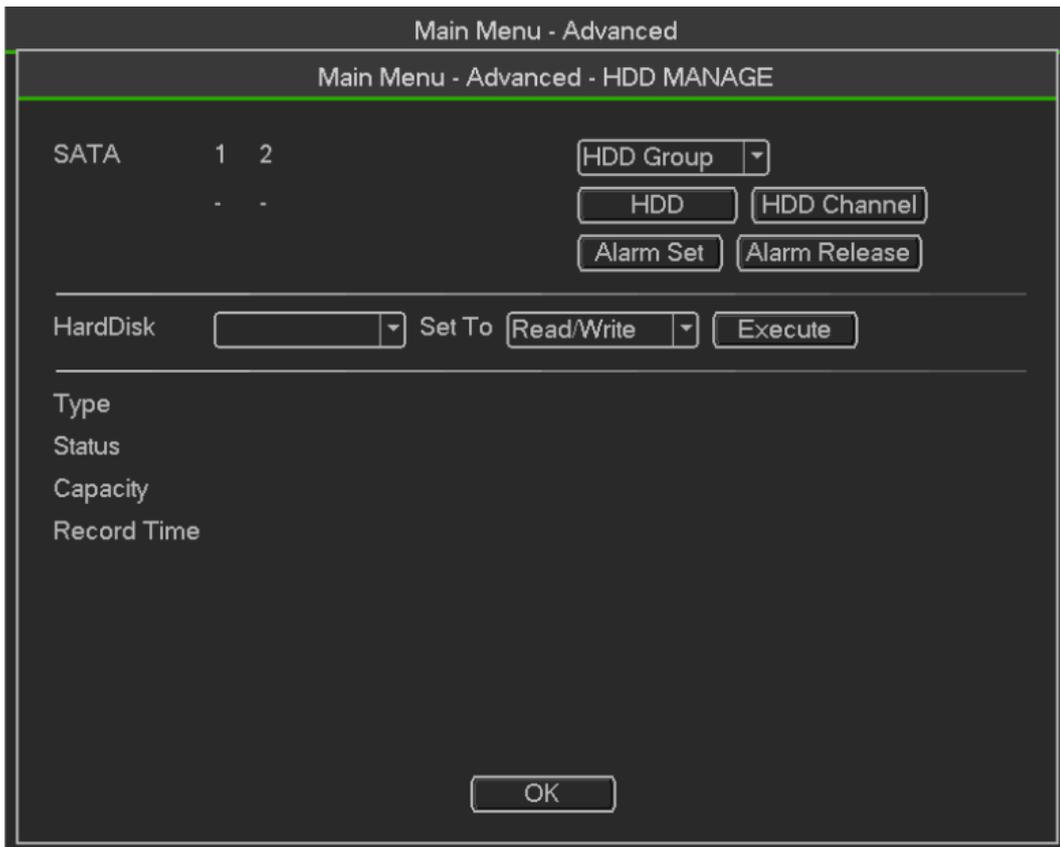
Figure 3-65

Double click ⬛HDD⬛ ,Set HDD Group.
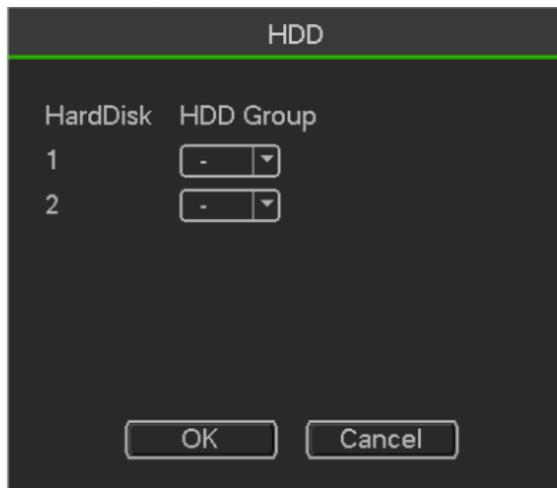
Figure 3-66

Double click ⬛HDD Channel⬛ ,Set HDD Channel.

Figure 3-67

Account

Here is for you to implement account management.

- Add new user
- Modify user
- Add group
- Modify group
- Modify password

For account management please note:

- For the user account name and the user group, the string max length is 6-byte. The backspace infront of or at the back of the string is invalid. There can be backspace in the middle. The stringincludes the valid character, letter, number, underline, subtraction sign, and dot.
- The default user amount is 64 and the default group amount is 20. System account adopts two-levelmanagement: group and user. No limit to group or user amount.
- For group or user management, there are two levels: admin and user.
- The user name and group name can consist of eight bytes. One name can only be used once.
- There are four default users: admin/888888/666666 and hidden user "default". Except user 6666,
- other users have administrator right.
- Hidden user "default" is for system interior use only and can not be deleted. When there is no loginuser, hidden user "default" automatically login. You can set some rights such as monitor for thisuser so that you can view some channel view without login.
- One user should belong to one group. User right can not exceed group right.
- About reusable function: this function allows multiple users use the same account to login.
- About user account and MAC. When you add a new user, you can input the MAC address of currentuser. Only the user of the same MAC address can access the device remotely.(MAC address is forthe device of the same LAN.) If you leave MAC address item in blank when you add a new user, theuser of any MAC address can access the device remotely. You can set or change MAC addresswhen you add or modify a user. The MAC address function is also valid for PSS login. **Please notecurrent function does not support IPV6.**

After all the setups please click save button, system goes back to the previous menu
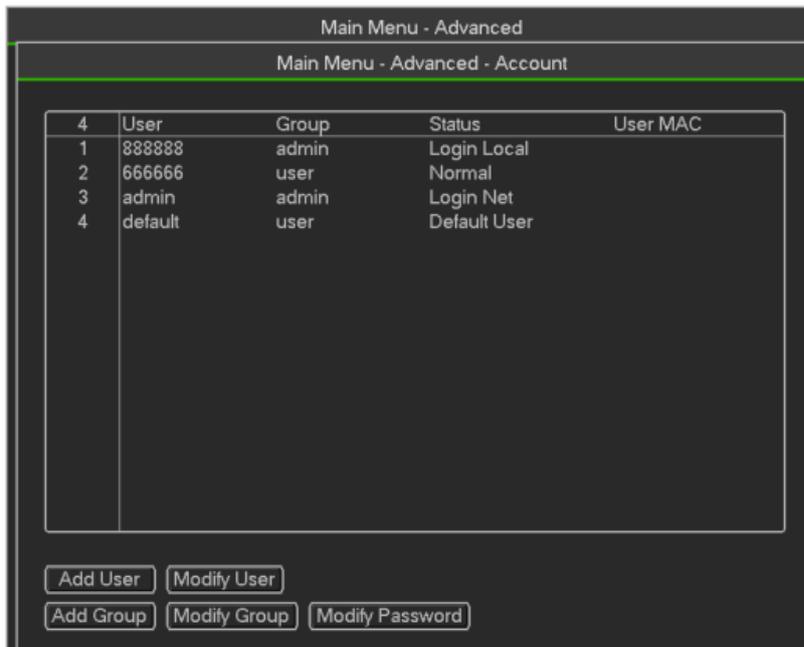
Figure 3-68

Add/Modify User
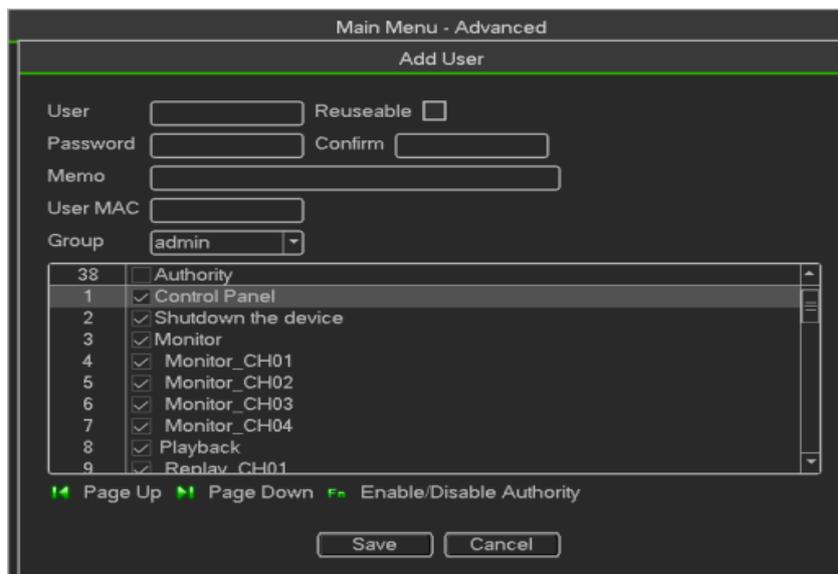
Figure3-94

Click add user button in Figure 3-93 , the interface is shown as in Figure 3-94.

Please input the user name, password, select the group it belongs to from the dropdown list.

Then you can check the corresponding rights for current user.

For convenient user management, usually we recommend the general user right is lower than the admin account.

When you create a new user, you can input the corresponding MAC address of current user. If you leavethis item in blank, any MAC address user can share this user account to login. Please note systemneeds to check the validity of MAC. Only the 12-digit 0-f format address can pass the validity verification。

System only saves small character even you input capitalized one. You can see the correspondingprompt if there is any illegal input.

Add/Modify Group
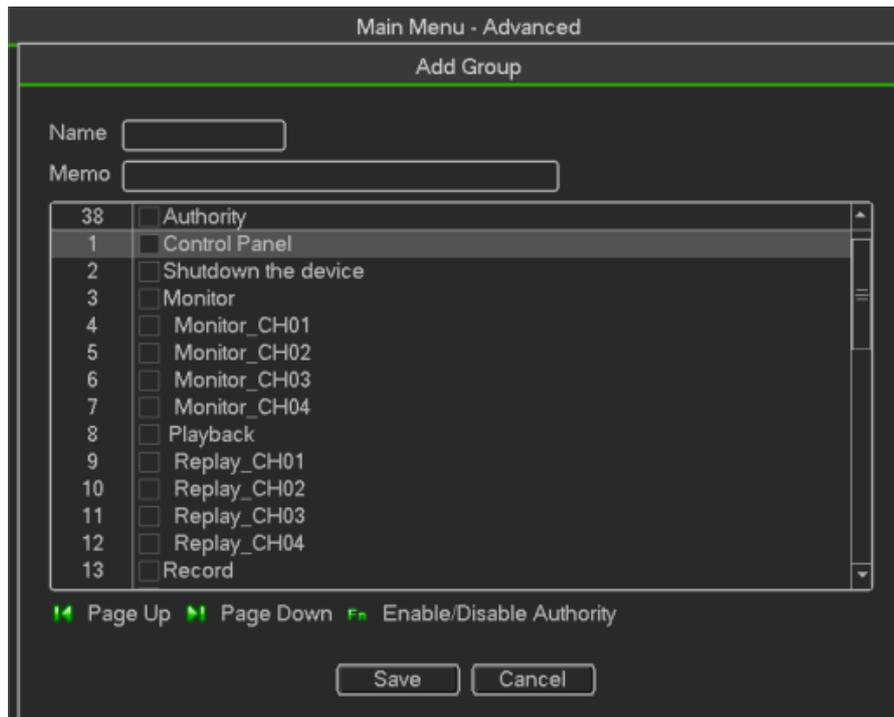
Figure4- 2

Click add group button in Figure 4-65 , the interface is shown as below. See Figure 4-.68 Here you can input group name and then input some memo information if necessary.

There are total 98 rights such as control panel, shut down, real-time monitor, playback, record, recordfile backup, PTZ, user account, system information view, alarm input/output setup, system setup, logview, clear log, upgrade system, control device and etc.

Online Users

Here is for you to manage online users.

You can disconnect one user or block one user if you have proper system right. Max disconnectionsetup is 65535 seconds.

System detects there is any newly added or deleted user in each five seconds and refresh the listautomatically.
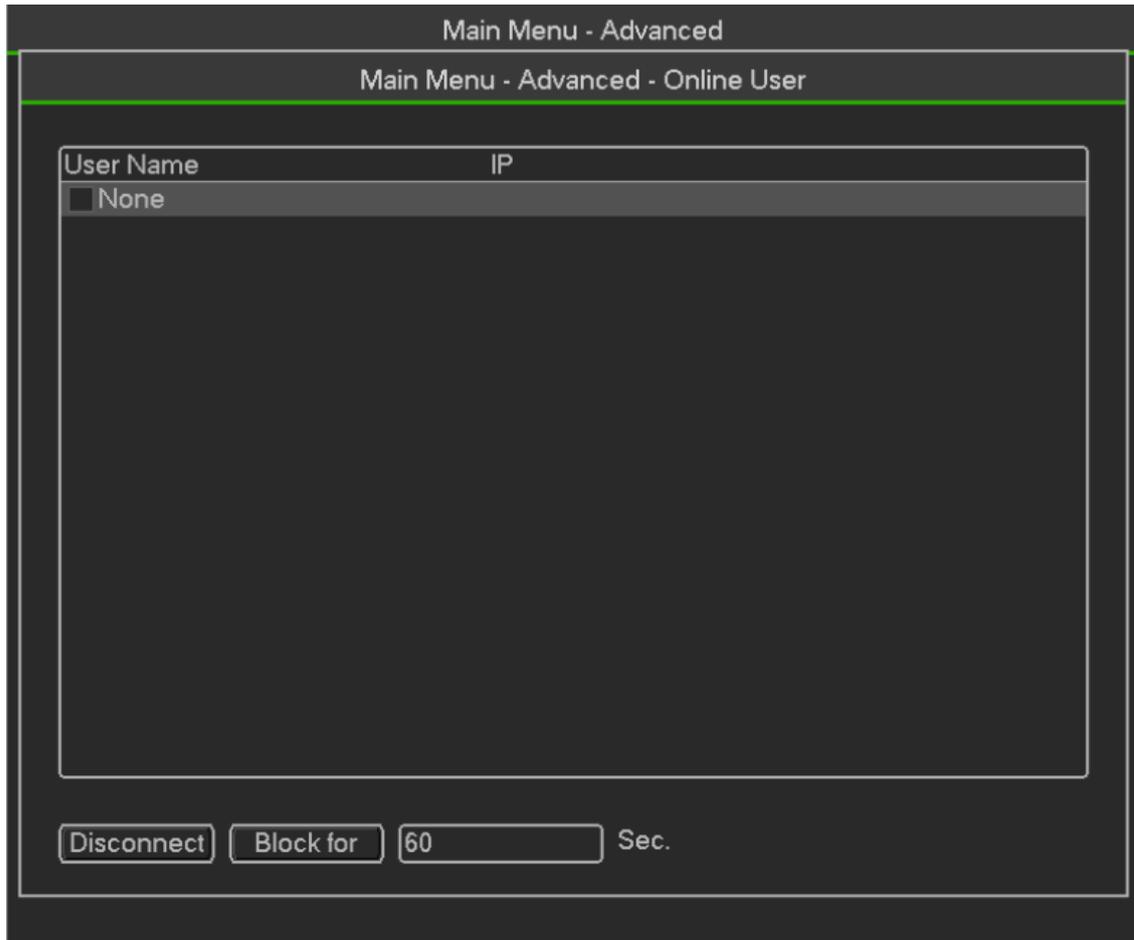
Figure 3-69

Auto Maintain

Here you can set auto-reboot time and auto-delete old files setup. You can set to delete the files for thespecified days
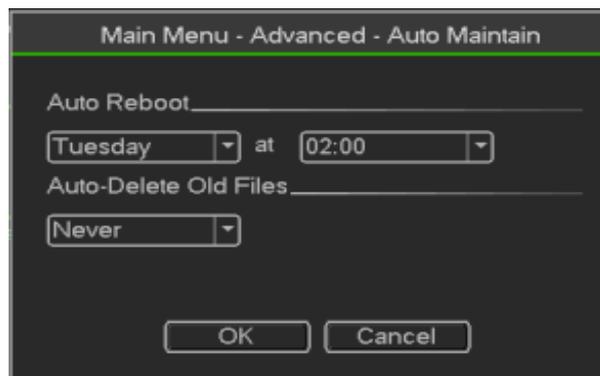
Figure 3-70

ATM/POS

The ATM/POS function is for financial areas. It includes Sniffer, information analysis and title overlay

function. The Sniffer mode is network.

The network type interface is shown as below.

Here we take the ATM/POS protocol to continue.

There are two types: with or without the protocol according to client's requirements.

With the protocol

For ATM/POS with the protocol, you just need to set the source IP, destination IP (sometimes you need to input corresponding port number).
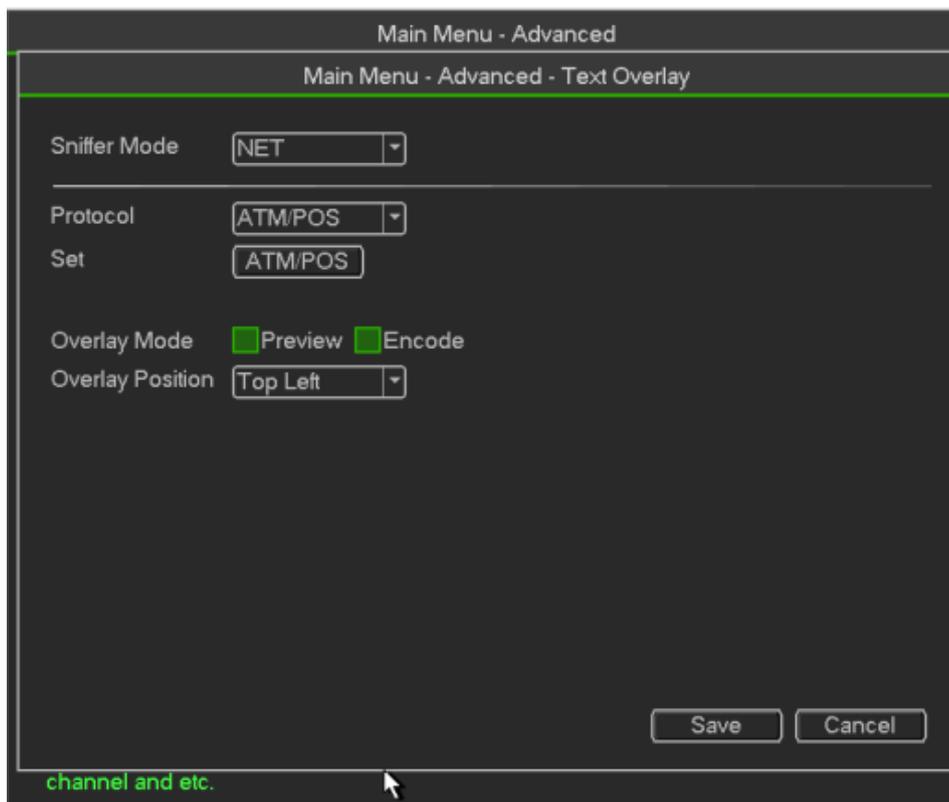
Figure 3-71

Without the protocol

For the ATM/POS without the protocol, the interface is shown.

Source IP refers to host IP address that sends out information (usually it is the device host.)

Destination IP refers to other systems that receive information.

Usually you do not need to set source port and target port.

There are total four groups IP. The record channel applies to one group (optional) only.

Six frame ID groups verification can guarantee information validity and legal.

| Main Menu - Advanced |
| Main Menu - Advanced - Text Overlay |

Sniffer Mode   NET

Protocol   POS
Set   Network
Overlay Channel 1 2 3 4
Overlay Mode   Preview Encode
Overlay Position Top Left

Save   Cancel

channel and etc.
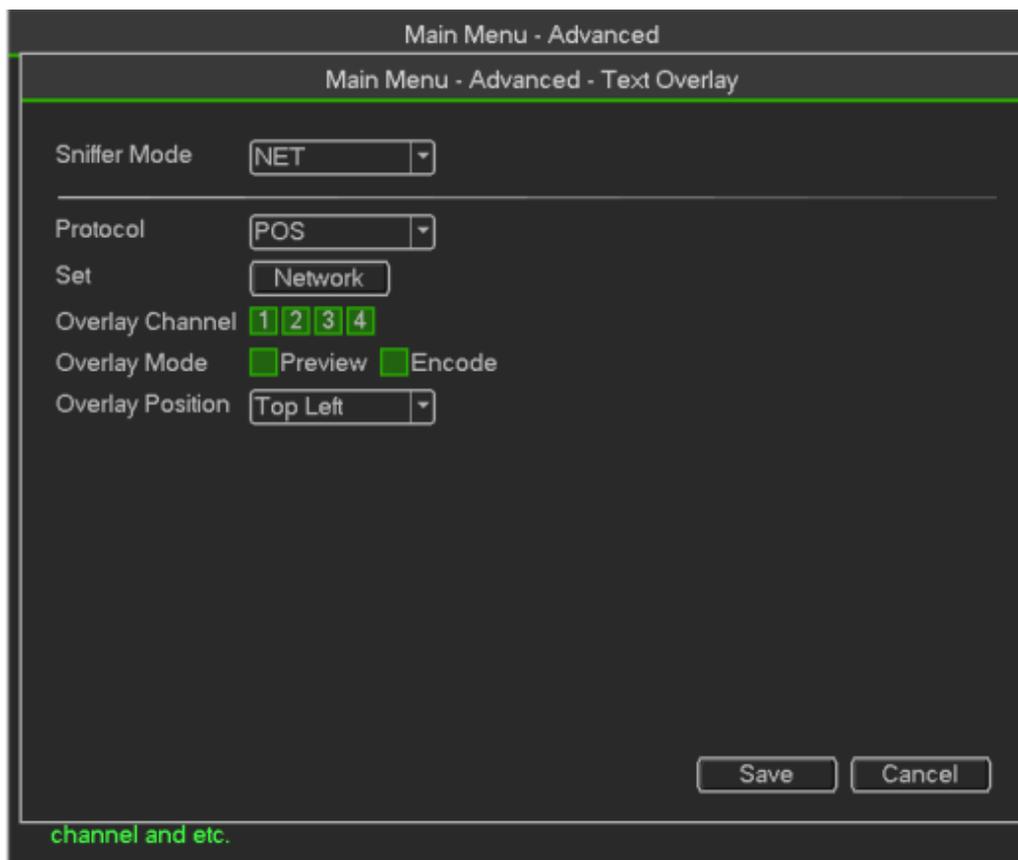
Figure 3-72

Default

Click default icon, system pops up a dialogue box. You can highlighto restore default factory setup.

- Camera
- Network
- Event
- Storage
- System

Please highlight iconto select the corresponding function.

After all the setups please click save button, system goes back to the previous menu.

Warning!

System menu color, language, time display mode, video format, IP address, user account will notmaintain previous setup after default operation!
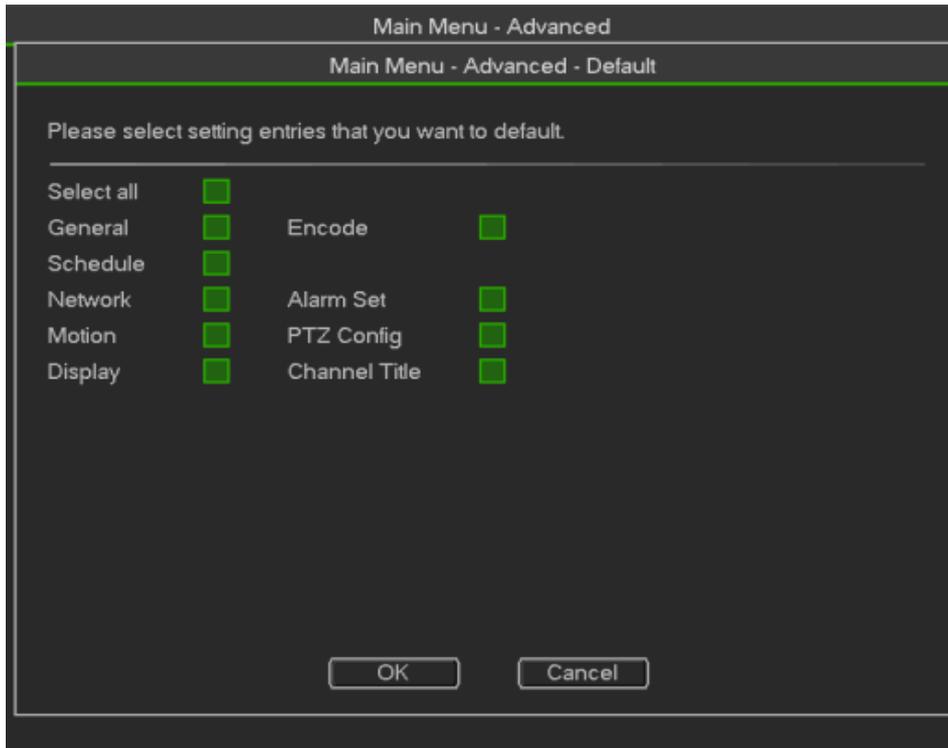
Figure 3-73

Backup

DVR support CD-RW, DVD burner, USB device backup, network download and eSATA. Here weintroduce USB, eSATA backup. You can refer to Chapter 5 Web Operation for network downloadbackup operation。
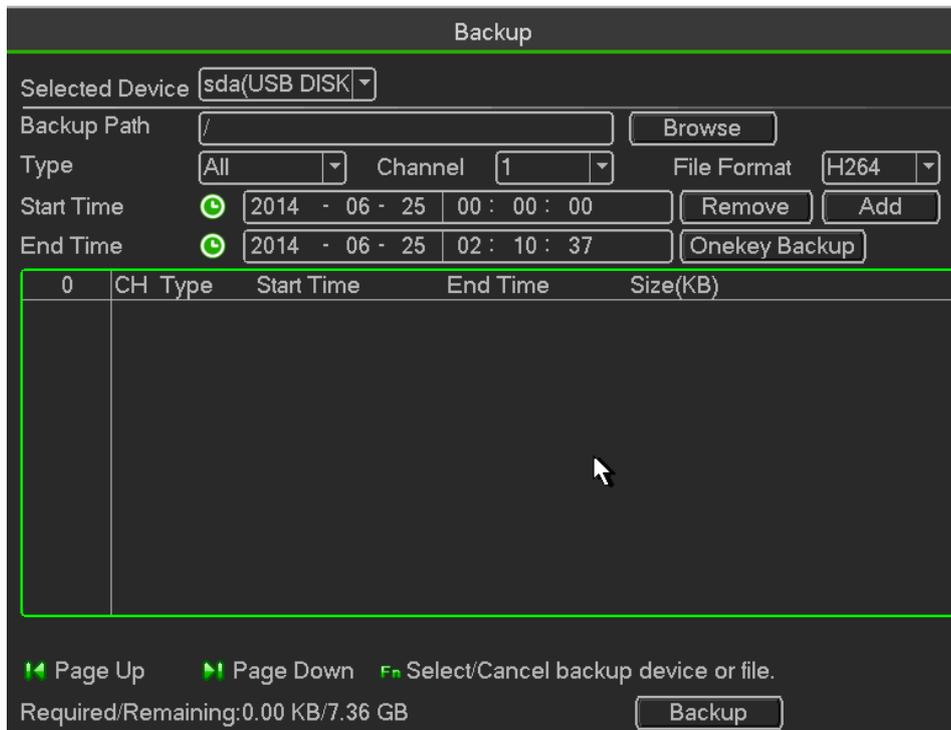
Figure 3-74
Click backup button, you can see an interface is shown as in Figure 4-32. Here is for you to viewdevices

information.

You can view backup device name and its total space and free space. The device includes CD -RW,DVD

burner, USB device, flash disk, eSATA backup

Select backup device and then set channel, file start time and end time.

Click add button, system begins search. All matched files are listed below. System

automaticallycalculates the capacity needed and remained.

System only backup files with a √ before channel name. You can use Fn or cancel button to delete

√ after file serial number

Click Start button, system begins copy. At the same time, the backup button becomes stop button.

You can view the remaining time and process bar at the left bottom

When the system completes backup, you can see a dialogue box prompting successful backup

● File format: Click the file format; you can see there are two options: DAV/ASF

The file name format usually is: Channel number+Record type+Time. In the file name, the YDM

format is Y+M+D+H+M+S. File extension name is .dav

Tips:

During backup process, you can click ESC to exit current interface for other operation. The systemwill not

terminate backup process.

Note:

When you click stop button during the burning process, the stop function becomes activatedimmediately.

For example, if there are ten files, when you click stop system just backup five files,system only save the

previous 5 files in the device (But you can view ten file names).

3.3.6 Shut Down

select Shut Down, you can go to the following interface..

There are three options: Shutdown/logout/reboot.

For the user who does not have the shut down right, please input corresponding password to shut down
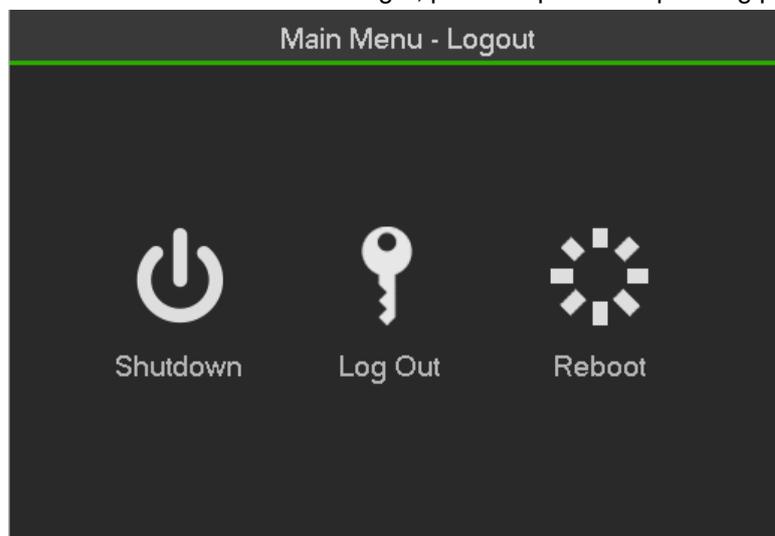
Figure 3-75

4. WEB OPERATION

Slightly difference may be found in the interface due to different series.

4.1 Network Connection

Before web client operation, please check the following items

Network connection is right.

DVR and PC network setup is right. Please refer to network setup(main menu->Setting->Network)

Use order ping ***.***.***.***(* DVR IP address) to check connection is OK or not. Usually the return TTL value should be less than 255.

Current series product supports various browsers such as Safari, fire fox browser, Google browser.

Device supports multiple-channel monitor, PTZ control, DVR parameter setup on the Apple PC.

4.2 Login

Open IE and input DVR address in the address column. For example, if your DVR IP is 10.10.3.16, thenplease input http:// 10.10.3.16 in IE address column.

System pops up warning information to ask you whether install control or not. Please click Install button.See Figure 4-1.
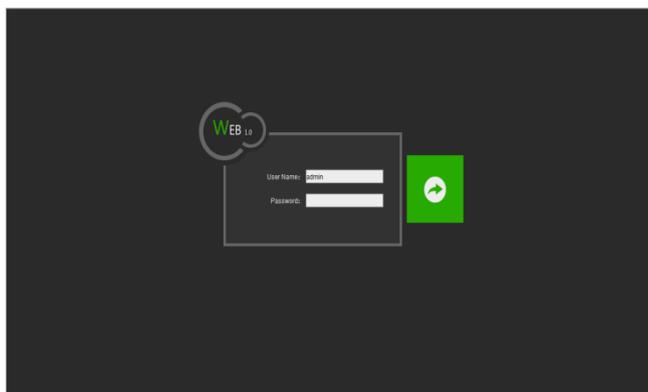
Figure4- 3

After installation, the interface is shown as below. See Figure 5-2.

Please input your user name and password.

Default factory name is admin and password is admin.

Note: For security reasons, please modify your password after you first login.
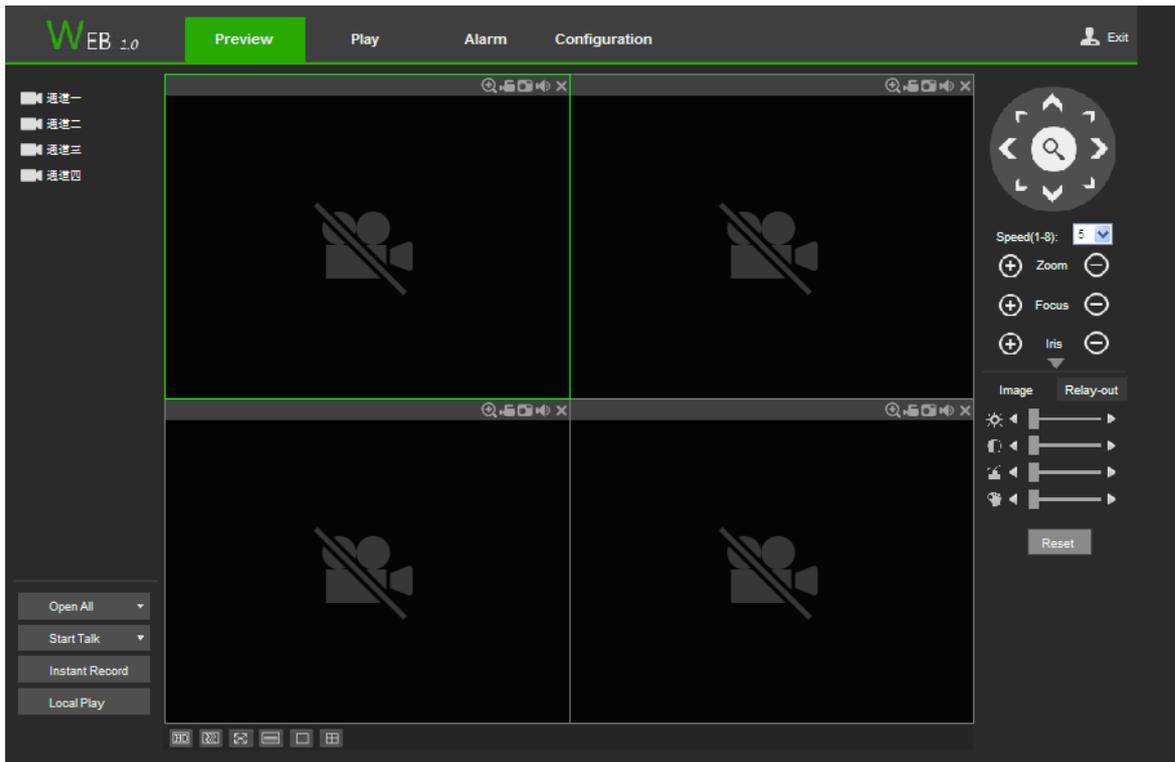
Figure4- 4

4.3 System menu
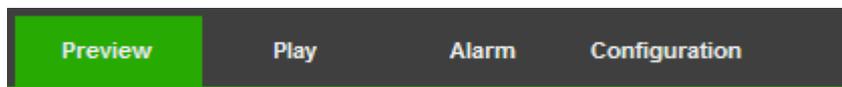
Figure4- 5

4.3.1 Live

In section 2, left click the channel name you want to view, you can see the corresponding video incurrent window.On the top left corner, you can view device IP (10.15.6.144), channel number (1), network monitor bit stream (61Kbps) and stream type: M (Main stream)/S (Sub stream).
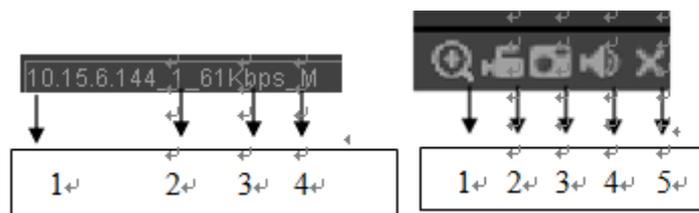
Figure4- 6

On the top right corer, there are six unction buttons
- 1: Digital zoom: Click this button and then left drag the mouse in the zone to zoom in. right clickmouse system restores original status.

- 2: Local record. When you click local record button, the system begins recording and this buttonbecomes highlighted. You can go to system folder RecordDownload to view the recorded file.
- 3: Snapshot picture. You can snapshoot important video. All images are memorized in system clientfolder PictureDownload (default).
- 4: Audio :Turn on or off audio.(It has no relationship with system audio setup)
- 5: Close video.

There are channel number and one button: Start all. Start all button is to enable/disable,all-channel real-time monitor. Click it the button becomes yellow.
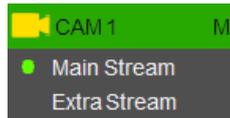
Figure4- 7

4.3.2 **Start dialogue button**
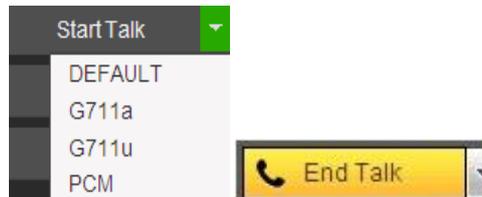
Figure4- 8

You can click this button to enable audio talk. Click 【▼】 to select bidirectional talk mode. There arefour options: DEFAULT，G711a，G711u and PCM. After you enable the bidirectional talk, the Start talkbutton becomes End Talk button and it becomes yellow

4.3.3 **Instant record button**
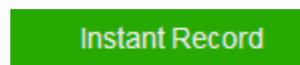
Figure4- 9

Click it, the button becomes yellow and system begins manualrecord. See Figure 4-7. Click it again, system restores previous record mode

4.3.4 **Local play button**

The Web can playback the saved (Extension name is dav) files in the PC-end,Click local play button, system pops up the following interface for you to select local play file.

Figure4- 10

4.3.5 Window change

Figure4- 11

From left to right, it is to set video quality, video latency, full screen, 1-window, 4-window.。

4.3.6 PTZ control

Before PTZ operation, please make sure you have properly set PTZ protocol

There are eight direction keys. In the middle of the eight direction keys, there is a 3D intelligentpositioning key.

Click 3D intelligent positioning key, system goes back to the single screen mode. Drag the mouse in thescreen to adjust section size. It can realize PTZ automatically.

Please refer to the following sheet for PTZ setup information.
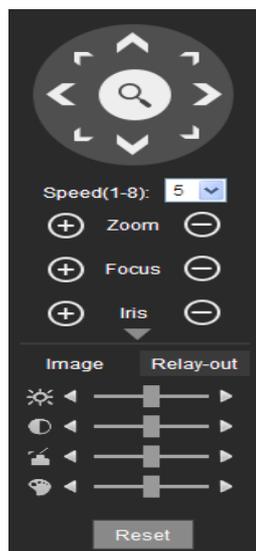
Figure4- 12

Parameter	Function
Scan	● Select Scan from the dropdown list. ● Click Set button, you can set scan left and right limit. ● Use direction buttons to move the camera to you desired location and then click left limit button. Then move the camera again and then click right limit button to set a right limit.
Preset	● Select Preset from the dropdown list. ● Turn the camera to the corresponding position and Input the preset value. Click Add button to add a preset.
Tour	● Select Tour from the dropdown list. ● Input preset value in the column. Click Add preset button, you have added one preset in the tour. ● Repeat the above procedures you can add more presets in one tour. ● Or you can click delete preset button to remove one preset from the tour.
Pattern	● Select Pattern from the dropdown list. ● You can input pattern value and then click Start button to begin PTZ movement such as zoom, focus, iris, direction and etc. Then you can click Add button to set one pattern.
Aux	● Please input the corresponding aux value here. ● You can select one option and then click AUX on or AUX off button.
Light and wiper	You can turn on or turn off the light/wiper.

4.3.7 Image

Here you can adjust its brightness, contrast, hue and saturation. (Current channel border becomesgreen).Or you can click Reset button to restore system default setup
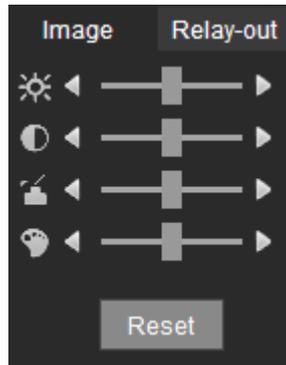
Figure4- 13

4.4 Setup

4.4.1 Camera

Conditions

Here you can view device property information. The setups become valid immediately after you set. See Figure 4-12.
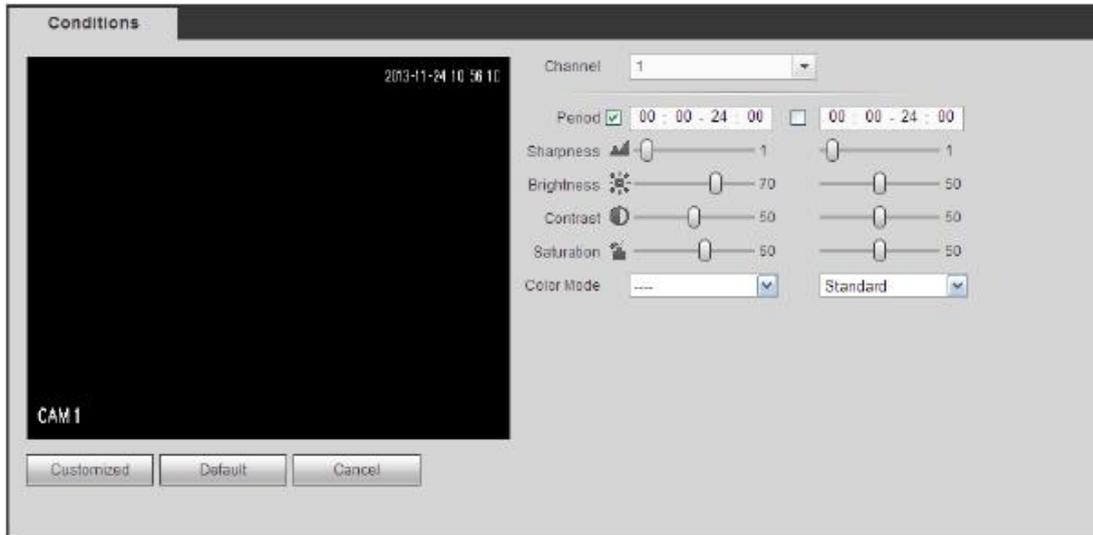
Figure 4-12

Please refer to the following sheet for detailed information

Parameter	Function
Channel	Please select a channel from the dropdown list.
Period	It divides one day (24 hours) to two periods. You can set different hue, brightness, and contrast for different periods.
Hue	It is to adjust monitor video brightness and darkness level. The default value is 50. The bigger the value is, the large the contrast between the bright and dark section is and vice versa.
Brightness	It is to adjust monitor window brightness. The default value is 50. The larger the number is , the bright the video is. When you input the value here, the bright section and the dark section of the video will be adjusted accordingly. You can use this function when the whole video is too dark or too bright. Please note the video may become hazy if the value is too high. The value ranges from 0 to 100.The recommended value ranges from 40 to 60.
Contrast	It is to adjust monitor window contrast. The value ranges from 0 to 100. The default value is 50. The larger the number is, the higher the contrast is. You can use this function when the whole video bright is OK but the contrast is not proper. Please note the video may become hazy if the value is too low. If this value is too high, the dark section may lack brightness while the bright section may over exposure .The recommended value ranges from 40 to 60.
Saturation	It is to adjust monitor window saturation. The value ranges from 0 to 100. The default value is 50. The larger the number is, the strong the color is. This value has no effect on the general brightness of the whole video. The video color may become too strong if the value is too high. For

.

4.4.2 Encode

The encode interface is shown as below
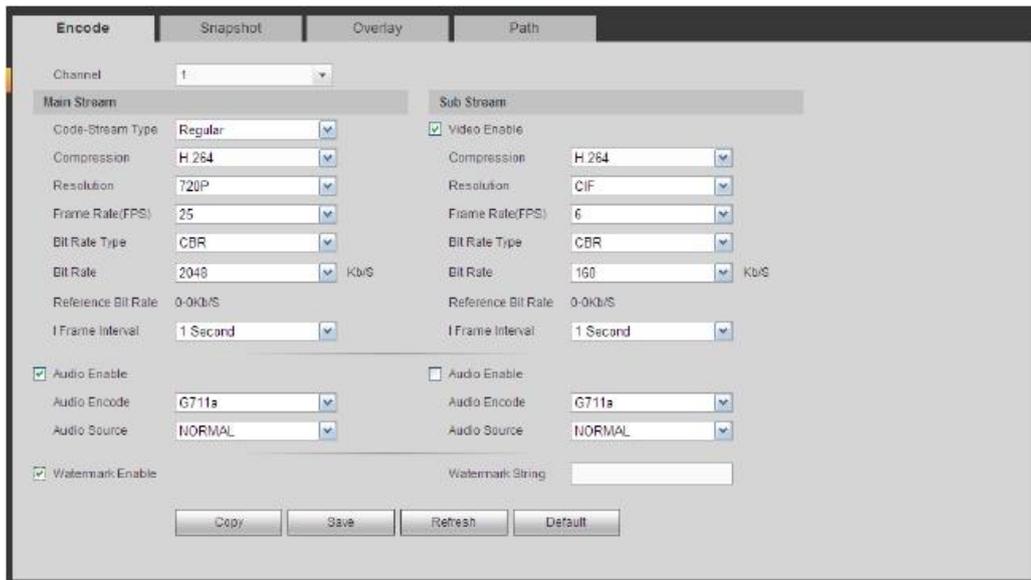
Figure 4-13

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Please select a channel from the dropdown list.
Video enable	Check the box here to enable extra stream video. This item is enabled by default.
Code stream type	It includes main stream, motion stream and alarm stream. You can select different encode frame rates form different recorded events. System supports active control frame function (ACF). It allows you to record in different frame rates. For example, you can use high frame rate to record important events, record scheduled event in lower frame rate and it allows you to set different frame rates for motion detection record and alarm record.
Compression	The main bit stream supports H.264. The extra stream supports H.264, MJPG.

Resolution	System supports various resolutions, you can select from the dropdown list. Please note the option may vary due to different series.
Frame Rate	PAL：1～25f/s；NTSC：1～30f/s.
Bit Rate	● Main stream: You can set bit rate here to change video quality. The large the bit rate is , the better the quality is. Please refer to recommend bit rate for the detailed information. ● Extra stream: In CBR, the bit rate here is the max value. In dynamic video, system needs to low frame rate or video quality to guarantee the value. The value is null in VBR mode.
Reference bit rate	Recommended bit rate value according to the resolution and frame rate you have set.
I Frame	Here you can set the P frame amount between two I frames. The value ranges from 1 to 150. Default value is 50. Recommended value is frame rate *2.
Audio source	Please select from the dropdown list. There are two options: Normal/HDCVI. In the normal mode, the audio signal comes from the Audio In. In the HDCVI mode, the audio signal comes from the coaxial cable of the camera.
Watermark enable	This function allows you to verify the video is tampered or not. Here you can select watermark bit stream, watermark mode and watermark character. Default character is DigitalCCTV. The max length is 85-digit. The character can only include number, character and underline.

Snapshot

Figure 4-14

Please refer to the following sheet for detailed information.

Parameter	Function
Snapshot type	There are two modes: Regular (schedule) and Trigger. ● Regular snapshot is valid during the specified period you set. ● Trigger snapshot only is valid when motion detect alarm, tampering alarm or local activation alarm occurs.
Image size	It is the same with the resolution of the main stream.

Quality	It is to set the image quality. There are six levels.
Interval	It is to set snapshot frequency. The value ranges from 1s to 7s. Or you can set customized value. The max setup is 3600s/picture.
Copy	Click it; you can copy current channel setup to other channel(s).

Video Overlay

he video overlay interface is shown
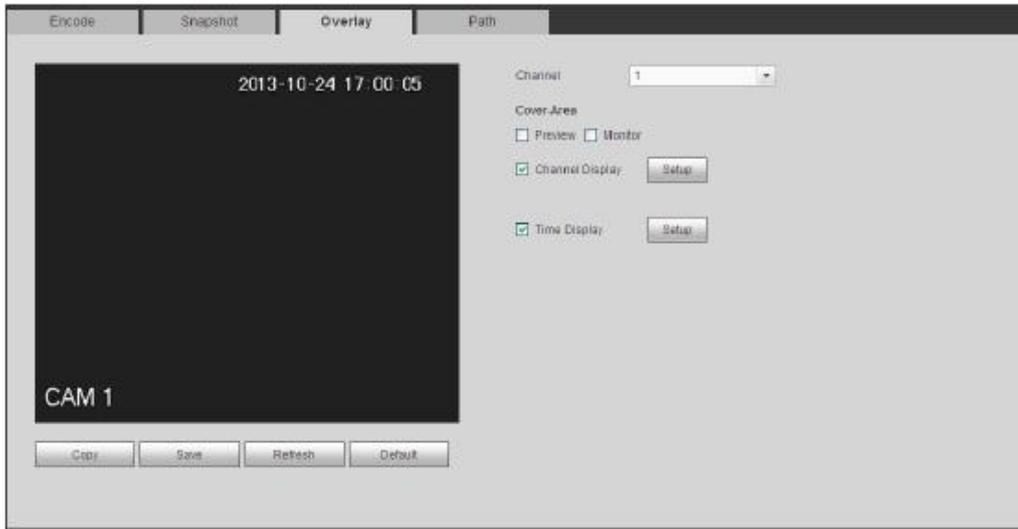
Figure 4-15

Please refer to the following sheet for detailed information

Parameter	Function
Cover-area	Check Preview or Monitor first.
	Click Set button, you can privacy mask the specified video in the preview or monitor video.
	System max supports 4 privacy mask zones.
Time Title	You can enable this function so that system overlays time information in video window.
	You can use the mouse to drag the time title position.
	You can view time title on the live video of the WEB or the playback video.
Channel Title	You can enable this function so that system overlays channel information in video window.
	You can use the mouse to drag the channel title position.
	You can view channel title on the live video of the WEB or the playback video.

Path

The storage path interface is shown

Here you can set snap image saved pathand the record storage path.The default setup is C:\PictureDownload

and C:\RecordDownload.Please click the Save button to save current setup.
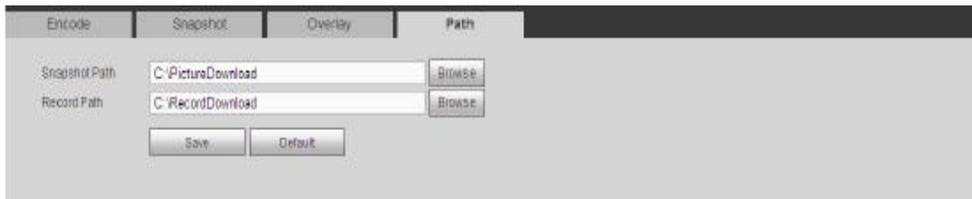
Figure 4-16

Channel Name

Here you can set channel name. See Figure 4-17
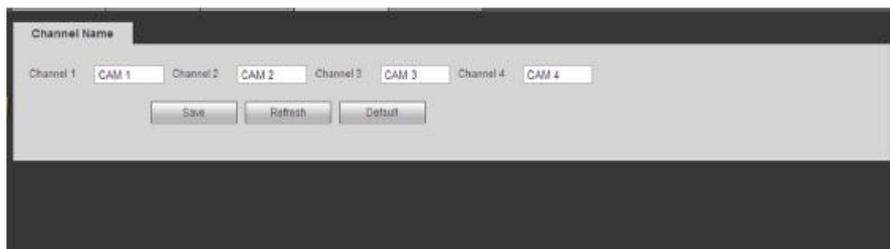
Figure 4-17

4.4.3 Network

TCP/IP

The TCP/IP interface is shown as in Figure 4-18

Please refer to the following sheet for detailed information.

Parameter	Function
Mode	There are two modes: static mode and the DHCP mode. ● The IP/submask/gateway are null when you select the

	DHCP mode to auto search the IP. ● If you select the static mode, you need to set the IP/submask/gateway manually. ● If you select the DHCP mode, you can view the IP/submask/gateway from the DHCP. ● If you switch from the DHCP mode to the static mode, you need to reset the IP parameters. ● Besides, IP/submask/gateway and DHCP are read-only when the PPPoE dial is OK.
Mac Address	It is to display host Mac address.
IP Version	It is to select IP version. IPV4 or IPV6. You can access the IP address of these two versions.
IP Address	Please use the keyboard to input the corresponding number to modify the IP address and then set the corresponding subnet mask and the default gateway.
Preferred DNS	DNS IP address.
Alternate DNS	Alternate DNS IP address.
For the IP address of IPv6 version, default gateway, preferred DNS and alternate DNS, the input value shall be 128-digit. It shall not be left in blank.	
LAN load	System can process the downloaded data first if you enable this function. The download speed is 1.5X or 2.0X of the normal speed.

Connection

The connection interface is shown as in Figure 4-19.
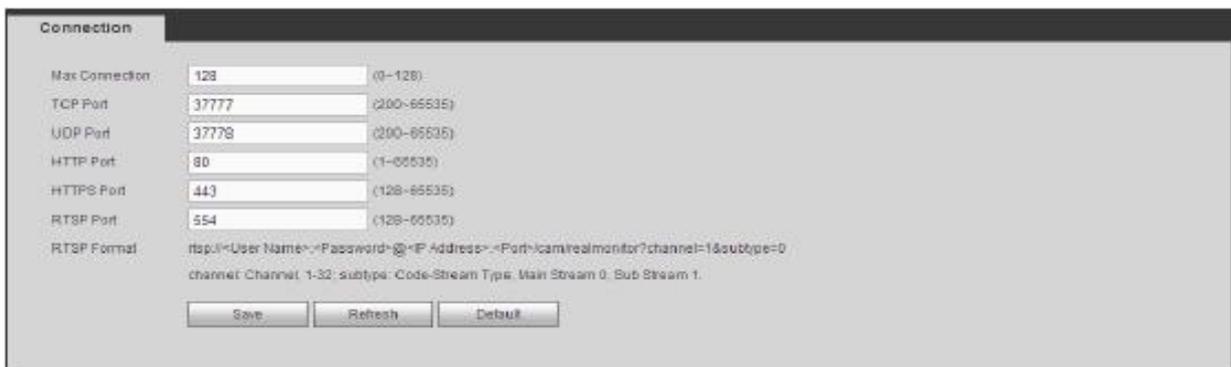
Figure 4-19

Please refer to the following sheet for detailed information.

Parameter	Function
Max connection	It is the max Web connection for the same device. The value ranges from 1 to 120. The default setup is 120.
TCP port	The default value is 37777. You can input the actual port number if necessary.
UDP port	The default value is 37778. You can input the actual port number if necessary.

HTTP port	The default value is 80. You can input the actual port number if necessary.
HTTPS	The default value is 443. You can input the actual port number if necessary.
RTSP port	The default value is 554.

WIFI

Please note this function is for the device of WIFI module.
The WIFI interface is shown as in Figure 4-20.

Figure 4-20

Please check the box to enable WIFI function and then click the Search SSID button. Now you can view all the wireless network information in the following list. Double click a name to connect to it. Click Refresh button, you can view latest connection status.

3G

CDMA/GPRS
The CDMA/GPRS interface is shown as in Figure 4-21.
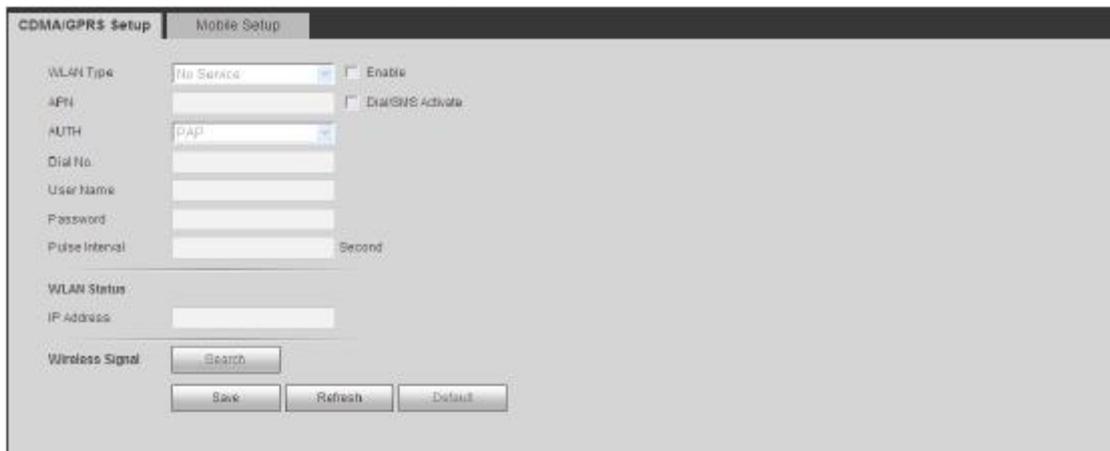
Figure   4-21

Please refer to the following sheet for detailed information.

Parameter	Function
WLAN type	Here you can select 3G network type to distinguish the 3G module from different ISP. The types include WCDMA， CDMA1x and etc.
APN/Dial No.	Here is the important parameter of PPP.
Authorization	It includes PAP,CHAP,NO_AUTH.
Pulse interval	It is to set time to end 3G connection after you close extra stream monitor. For example, if you input 60 here, system ends 3G connection after you close extra stream monitor 60 seconds.

Mobile

The mobile setup interface is shown as in Figure 4-22.

Here you can activate or turn off the 3G connected phone or mobile phone, or the phone you set to get alarm message.
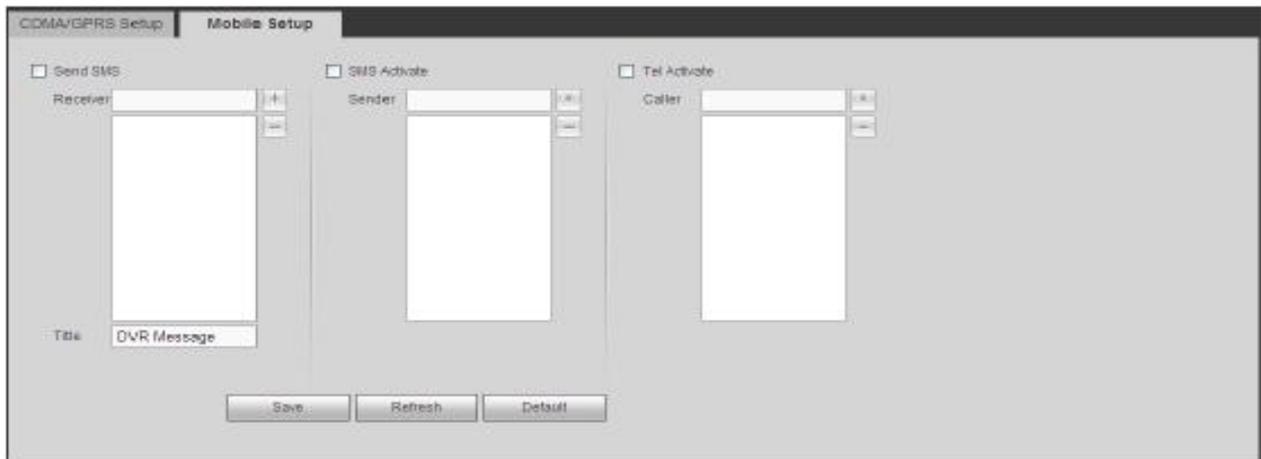
Figure   4-22

PPPoE

The PPPoE interface is shown as in Figure   4-23

Input the PPPoE user name and password you get from the IPS (internet service provider) and enable PPPoE function. Please save current setup and then reboot the device to get the setup activated.

Device connects to the internet via PPPoE after reboot. You can get the IP address in the WAN from the IP address column.

Please note, you need to use previous IP address in the LAN to login the device. Please go to the IP address item to via the device current device information. You can access the client-end via this new address.
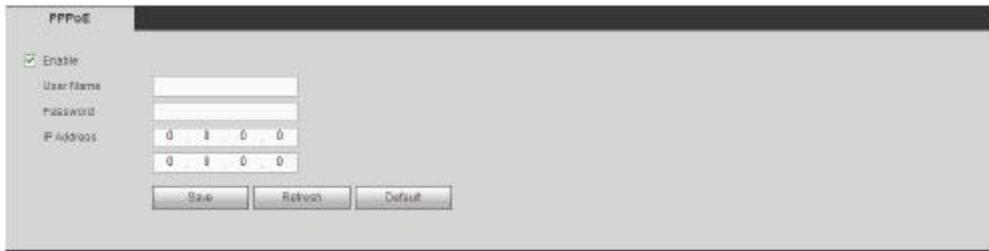
Figure   4-23

DDNS

The DDNS interface is shown as in Figure   4-24.

The DDNS is to set to connect the various servers so that you can access the system via the server. Please go to the corresponding service website to apply a domain name and then access the system via the domain. It works even your IP address has changed.

Please select DDNS from the dropdown list (Multiple choices). Before you use this function, please make sure your purchased device support current function.

Figure 4-24

Please refer to the following sheet for detailed information.

Parameter	Function
Server Type	You can select DDNS protocol from the dropdown list and then enable DDNS function.
Server IP	DDNS server IP address
Server Port	DDNS server port.
Domain Name	Your self-defined domain name.
User	The user name you input to log in the server.
Password	The password you input to log in the server.
Update period	Device sends out alive signal to the server regularly. You can set interval value between the device and DDNS server here.

Quick DDNS and Client-end Introduction

1) Background Introduction

Device IP is not fixed if you use ADSL to login the network. The DDNS function allows you to access the DVR via the registered domain name. Besides the general DDNS, the quick DDNS works with the device from the manufacturer so that it can add the extension function.

2) Function Introduction

The quick DDNS client has the same function as other DDNS client end. It realizes the bonding of the domain name and the IP address. Right now, current DDNS server is for our own devices only. You need to refresh the bonding relationship of the domain and the IP regularly. There is no user name, password or the ID registration on the server. At the same time, each device has a default domain name (Generated by MAC address) for your option. You can also use customized valid domain name (has not registered.).

3) Operation

Before you use Quick DDNS, you need to enable this service and set proper server address, port valueand domain name

- Server address：www.quickddns.com

- Port number：80

- Domain name：There are two modes: Default domain name and customized domain nameExcept default domain name registration, you can also use customized domain name (You can inputyour self-defined domain name.) After successful registration, you can use domain name to logininstalled of the device IP.

- User name: It is optional. You can input your commonly used email address.

Important

- Do not register frequently. The interval between two registrations shall be more than 60 seconds.Too many registration requests may result in server attack.

- System may take back the domain name that is idle for one year. You can get a notification emailbefore the cancel operation if your email address setup is OK.

IP filter

The IP filter interface is shown as in Figure   4-25

After you enabled trusted sites function, only the IP listed below can access current DVR.

If you enable blocked sites function, the following listed IP addresses can not access current DVR.
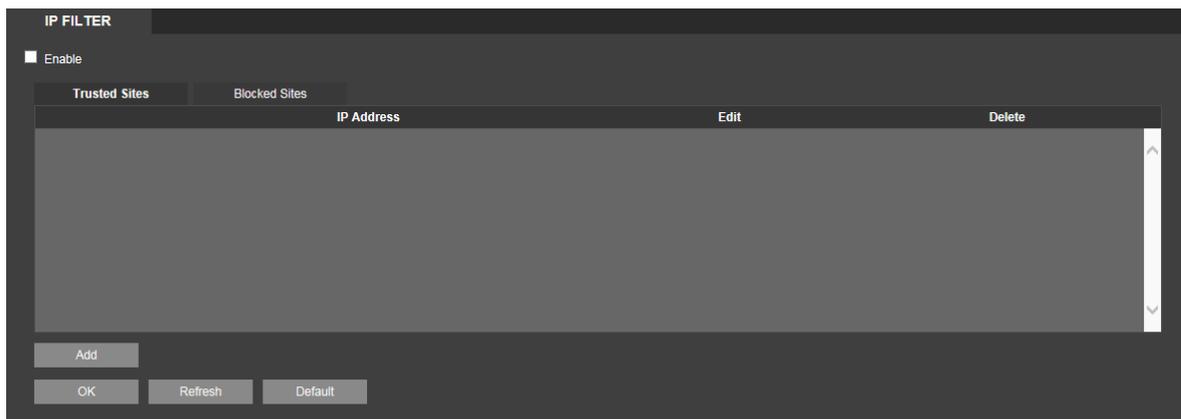
Figur 4-25

Email

The email interface is shown as in Figure   4-26.
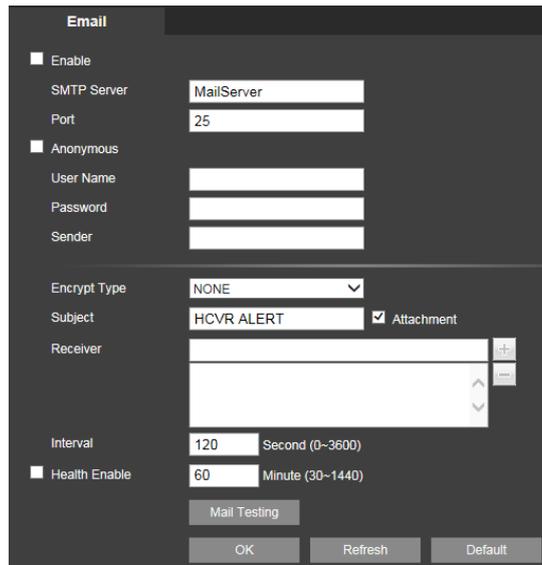
Figure   4-26

Please refer to the following sheet for detailed information.

Parameter	Function
Enable	Please check the box here to enable email function.
SMTP Server	Input server address and then enable this function.
Port	Default value is 25. You can modify it if necessary.
Anonymity	For the server supports the anonymity function. You can auto login anonymously. You do not need to input the user name. password and the sender information.
User Name	The user name of the sender email account.
Password	The password of sender email account.
Sender	Sender email address.
Authentication (Encryption mode)	You can select SSL or none.
Subject	Input email subject here.
Attachment	System can send out the email of the snapshot picture once you check the box here.
Receiver	Input receiver email address here. Max three addresses. It supports SSL, TLS email box.
Interval	The send interval ranges from 0 to 3600 seconds. 0 means there is no interval. Please note system will not send out the email immediately when the alarm occurs. When the alarm, motion detection or the abnormity event activates the email, system sends out the email according to the interval you specified here. This function is very useful when there are too many

	emails activated by the abnormity events, which may result in heavy load for the email server.
Health mail	Please check the box here to enable this function.
Parameter	**Function**
Enable	Please check the box here to enable email function.
SMTP Server	Input server address and then enable this function.
Health mail enable	Please check the box here to enable this function.
Update period (interval)	This function allows the system to send out the test email to check the connection is OK or not. Please check the box to enable this function and then set the corresponding interval. System can send out the email regularly as you set here.
Email test	The system will automatically sent out a email once to test the connection is OK or not .Before the email test, please save the email setup information.

FTP

The FTP interface is shown as in Figure   4-27.
It is to set FTP IP, port and etc for remote storage.
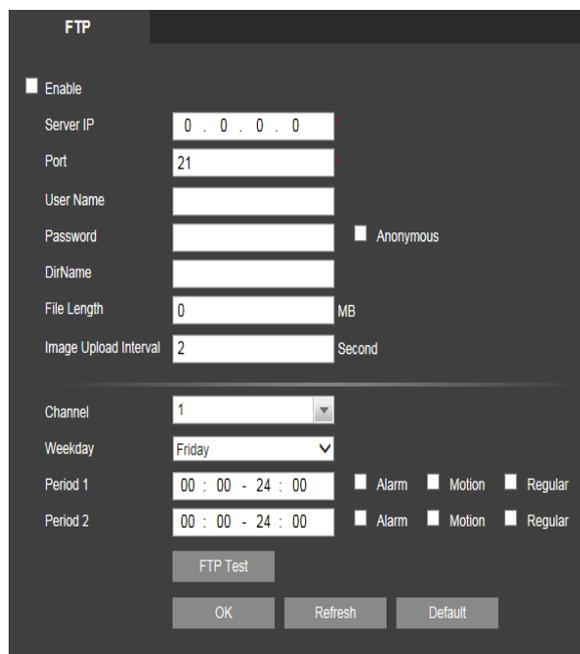
Figure   4-27

UPnP

It allows you to establish the mapping relationship between the LAN and the public network.

Here you can also add, modify or remove UPnP item. See Figure   4-28.

● In the Windows OS, From Start->Control Panel->Add or remove programs. Click the "Add/RemoveWindows Components" and then select the "Network Services" from the Windows ComponentsWizard.

● Click the Details button and then check the "Internet Gateway Device Discovery and Control client"and "UPnP User Interface". Please click OK to begin installation.

● Enable UPnP from the Web. If your UPnP is enabled in the Windows OS, the DVR can auto detectit via the "My Network Places"
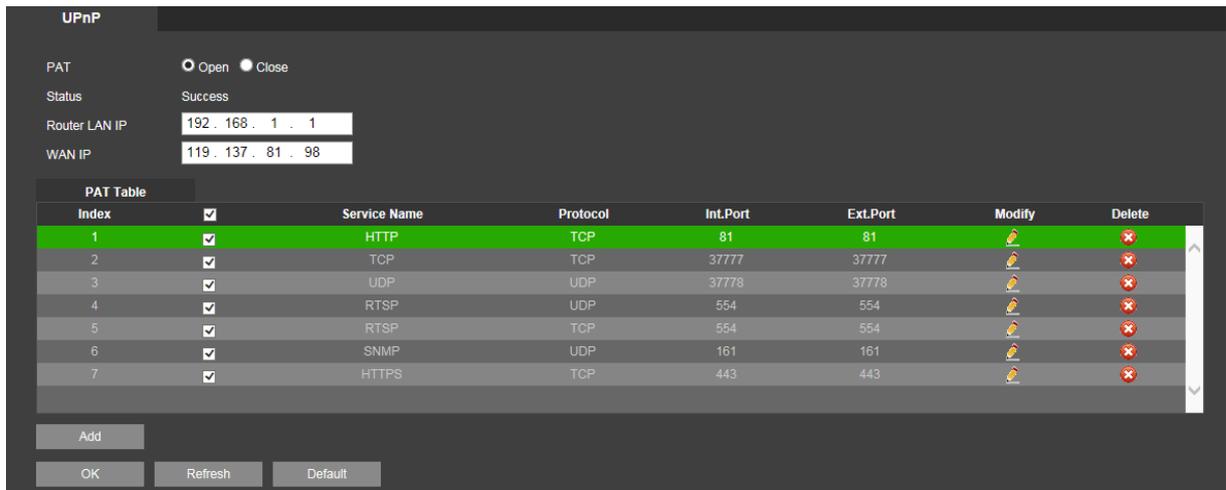
Figure   4-28

SNMP

The SNMP interface is shown as in Figure   4-29.

The SNMP allows the communication between the network management work station software and the proxy of the managed device. It is reserved for the 3rd party to develop.

Figure   4-29

Please refer to the following sheet for detailed information.

SNMP Port	The listening port of the proxy program of the device. It is aUDP port not a TCP port. The value ranges from 1 to 65535.The default value is 161

Read Community	It is a string. It is a command between the manage processand the proxy process. It defined the authentication, accesscontrol and the management relationship between one proxyand one group of the managers. Please make sure the deviceand the proxy are the same.The read community will read all the objects the SNMPsupported in the specified name. The default setup is public.
Write Community	It is a string. It is a command between the manage processand the proxy process. It defined the authentication, accesscontrol and the management relationship between one proxyand one group of the managers. Please make sure the deviceand the proxy are the same.The read community will read/write/access all the objects the
SNMP Port	The listening port of the proxy program of the device. It is aUDP port not a TCP port. The value ranges from 1 to 65535.The default value is 161SNMP supported in the specified name. The default setup iswrite.
Trap address	The destination address of the Trap information from theproxy program of the device.
Trap port	The destination port of the Trap information from the proxyprogram of the device. It is for the gateway device and theclient-end PC in the LAN to exchange the information. It is anon-protocol connection port. It has no effect on the network applications. It is a UDP port not TCP port. The value rangesfrom 1 to 165535. The default value is 162.
SNMP version	● Check V1, system only processes the information of V1. ● Check V2, system only processes the information of V2.

Multicast

The multicast interface is shown as in Figure 4-30.

Multicast is a transmission mode of data packet. When there is multiple-host to receive the same data packet, multiple-cast is the best option to reduce the broad width and the CPU load. The source host can just send out one data to transit. This function also depends on the relationship of the group member and group of the outer.
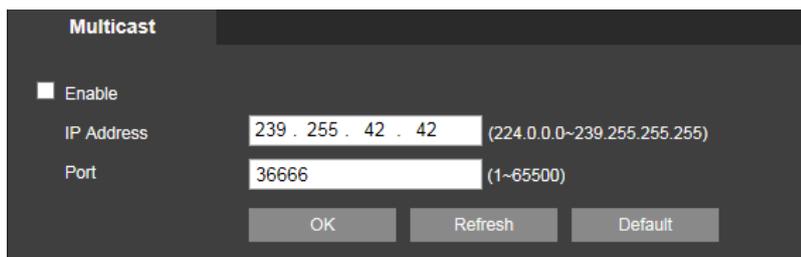
Figure   4-30

Auto Register

The auto register interface is shown as below. See Figure 4-31.

This function allows the device to auto register to the proxy you specified. In this way, you can use the client-end to access the DVR and etc via the proxy. Here the proxy has a switch function. In the network service, device supports the server address of IPv4 or domain.

Please follow the steps listed below to use this function.

Please set proxy server address, port, and sub-device name at the device-end. Please enable the auto register function, the device can auto register to the proxy server.

Figure 4-31

Alarm Centre

The alarm centre interface is shown as below. See Figure 4-32

This interface is reserved for you to develop. System can upload alarm signal to the alarm centre whenlocal alarm occurs.

Before you use alarm centre, please set server IP, port and etc. When an alarm occurs, system cansend out data as the protocol defined, so the client-end can get the data.

Figure4-32

HTTPS

In this interface, you can set to make sure the PC can successfully login via the HTTPS. It is toguarantee communication data security. The reliable and stable technology can secure the userinformation security and device safety. See Figure 4-33

Note:

● You need to implement server certificate again if you have changed device IP.

● You need to download root certificate if it is your first time to use HTTPS on current PC
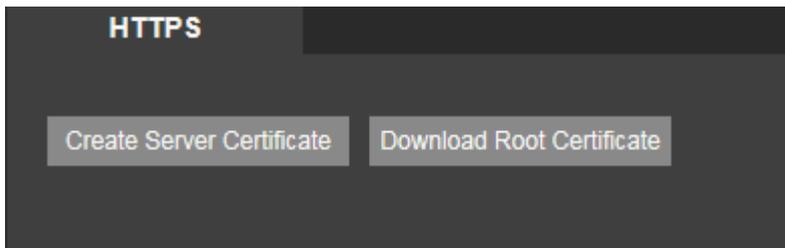
Figure4-33

Create Server Certificate

If it is your first time to use this function, please follow the steps listed below.

In Figure 5-36, click [Create Server Certificate] button, input country name, state name and etc. ClickCreate

button. See Figure 4-34

Note:

Please make sure the IP or domain information is the same as your device IP or domain name.
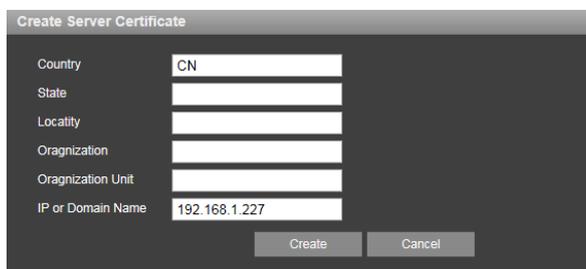
Figure 4-34

You can see the corresponding prompt. See Figure 4-35. Now the server certificate is successfullycreated.
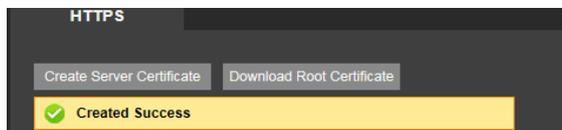
Figure 4-35

Download root certificate

In Figure 5-33, click [Download Root Certificate] button, system pops up a dialogue box. See Figure 4-36

Figure 4-36

Click Open button, you can go to the following interface. See Figure 4-37.

Figure4-37

Click Install certificate button, you can go to certificate wizard. See Figure 4-38

Figure 4-38

Click Next button to continue. Now you can select a location for the certificate. See Figure 4-39.

Figure4-39

Click Next button, you can see the certificate import process is complete. See Figure 4-40.

Figure 4-40

Click Finish button, you can see system pops up a security warning dialogue box. See Figure 4-41.

Figure 4-41

Click Yes button, system pops up the following dialogue box, you can see the certificate download is complete. See Figure 4-42.

Figure4-42

View and set HTTPS port

From Setup->Network->Connection, you can see the following interface. See Figure 4-43.

You can see HTTPS default value is 443.
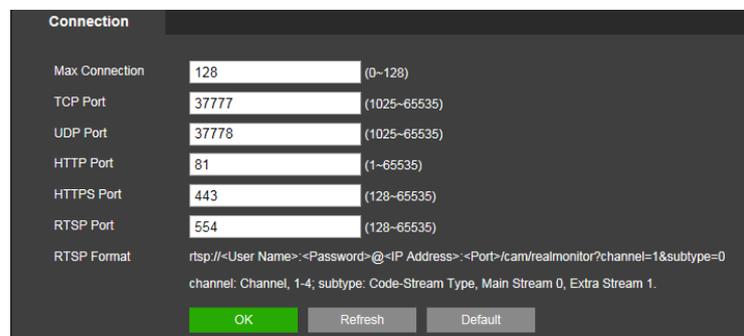
Figure 4-43

Login

Open the browser and then input https://xx.xx.xx.xx:port.

xx.xx.xx.xx: is your device IP or domain mane.

Port is your HTTPS port. If you are using default HTTPS value 443, you do not need to add port information here. You can input https://xx.xx.xx.xx to access.

Now you can see the login interface if your setup is right.

4.4.4 Event

Video detect

1.   Motion Detect

The motion detect interface is shown as in
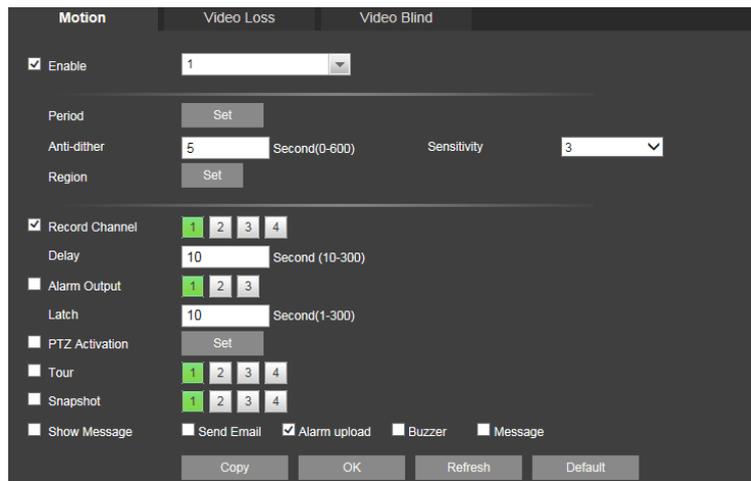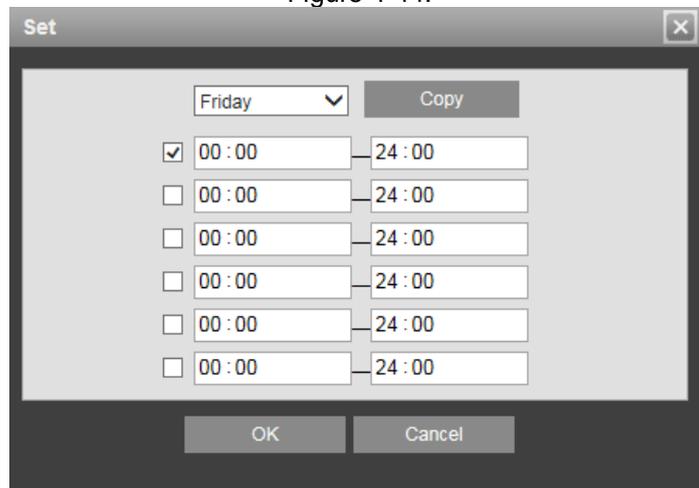
Figure 4-44.

Figure4-45
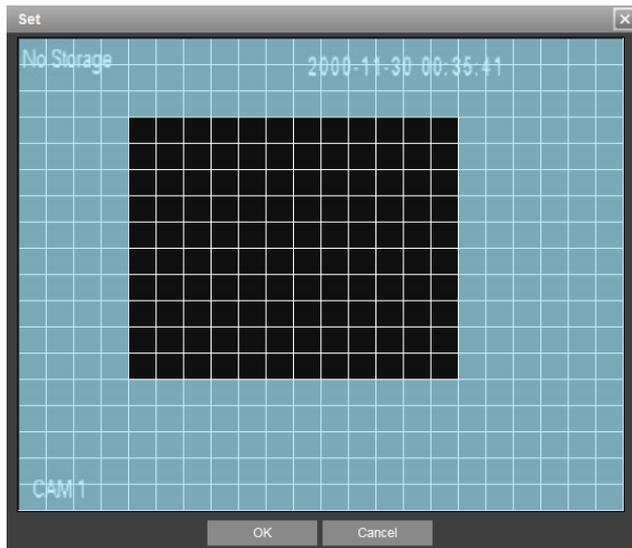
Figure 4-46
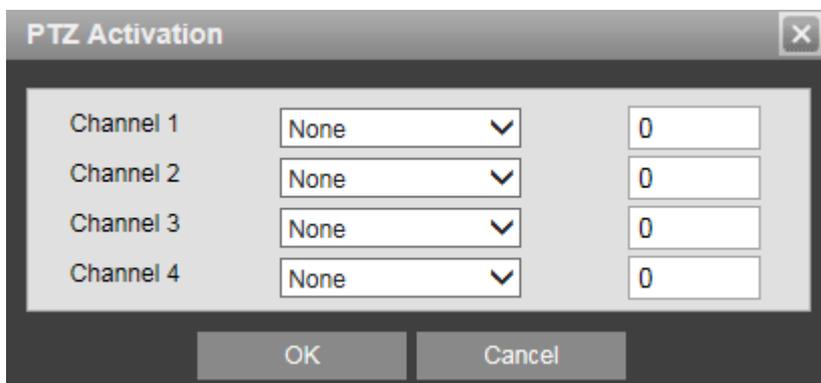
Figure 4-47

Please refer to the following sheet for detailed information.

Parameter	Function
Enable	You need to check the box to enable motion detection function.Please select a channel from the dropdown list.
Period	Motion detection function becomes activated in the specifiedperiods. See Figure 5-48. There are six periods in one day. Please draw a circle to enablecorresponding period. Click OK button, system goes back to motion detection interface,please click save button to exit.
Anti-dither	System only memorizes one event during the anti-dither period. The value ranges from 5s to 600s.
Sensitivity	There are six levels. The sixth level has the highest sensitivity.
Region	If you select motion detection type, you can click this button to setmotion detection zone. The interface is shown as in Figure 5-49. Here you can set motion detection zone. There are

	four zones foryou to set. Please select a zone first and then left drag the mouseto select a zone. The corresponding color zone displays differentdetection zone. You can click Fn button to switch between thearm mode and disarm mode. In arm mode, you can click thedirection buttons to move the green rectangle to set the motiondetection zone. After you completed the setup, please click ENTER button to exit current setup. Do remember click savebutton to save current setup. If you click ESC button to exit theregion setup interface system will not save your zone setup.
Record channel	System auto activates motion detection channel(s) to record oncean alarm occurs. Please note you need to set motion detectrecord period and go to Storage-> Schedule to set currentchannel as schedule record.
Record Delay	System can delay the record for specified time after alarm ended.The value ranges from 10s to 300s.
Alarm out	Enable alarm activation function. You need to select alarm outputport so that system can activate corresponding alarm device whenan alarm occurs.
Latch	System can delay the alarm output for specified time after analarm ended. The value ranges from 1s to 300s.
Show message	System can pop up a message to alarm you in the local hostscreen if you enabled this function.
Buzzer	Check the box here to enable this function. The buzzer beepswhen an alarm occurs.
Alarm upload	System can upload the alarm signal to the centre (Including alarmcentre.
Message	When 3G network connection is OK, system can send out amessage when motion detect occurs.
Send Email	If you enabled this function, System can send out an email to alertyou when an alarm occurs.
Tour	You need to check the box here to enable this function. Systembegins 1-wiindow or multiple-window tour display among thechannel(s) you set to record when an alarm occurs.

Video Loss

The video loss interface is shown as in Figure4-48.

After analysis video, system can generate a video loss alarm when the detected moving signal reachedthe sensitivity you set here.

Please note video loss does not support anti-dither, sensitivity, region setup. For rest setups, pleaserefer to chapter 5.8.3.1.1 motion detect for detailed information.
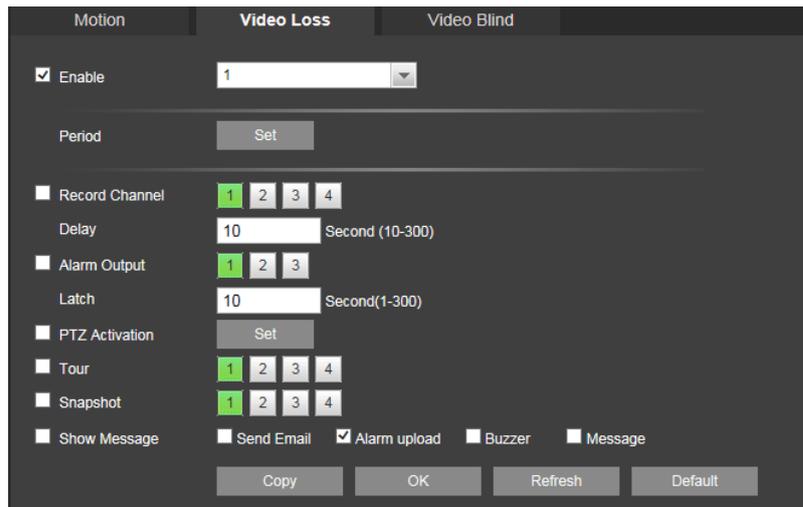
Figure 4-48

Tampering

The tampering interface is shown as in Figure4-49.

After analysis video, system can generate a tampering alarm when the detected moving signal reachedthe sensitivity you set here.

For detailed setups, please refer to chapter 5.8.3.1.1 motion detect for detailed information.
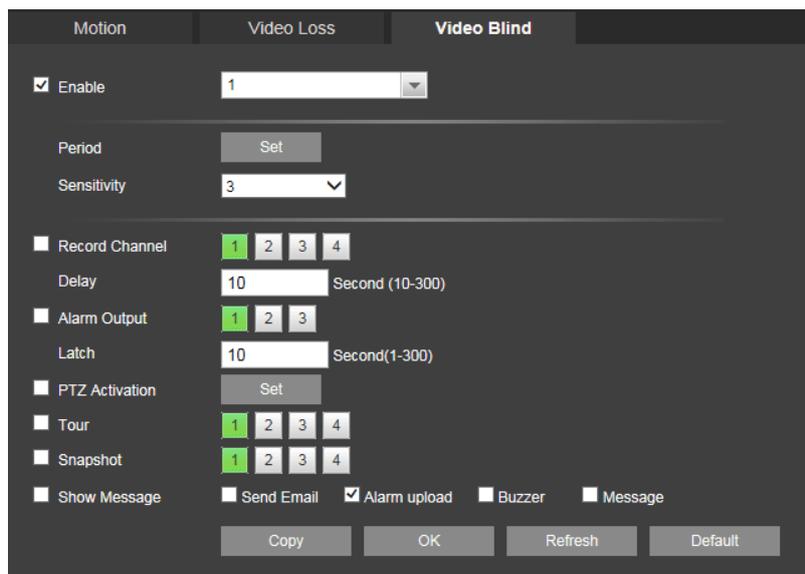
Figure 4-49

Abnormality

It includes two types: No Storage, Storage error, HDD no space, net disconnection, IP conflict and MAC conflict.See Figure4-60
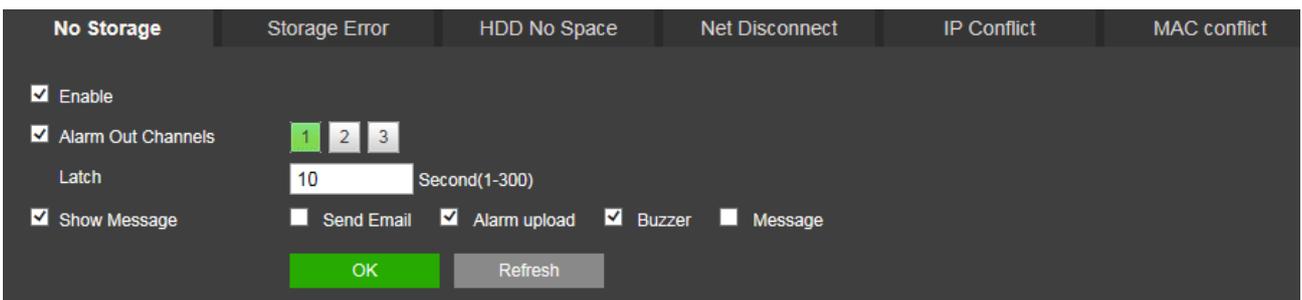
Figure 4-60

Please refer to the following sheet for detailed information.

Parameter	Function
Event Type	The abnormal events include: No disk, disk error, disk no space, netdisconnection, IP conflict and MAC conflict.You can set one or more items here. Less than: You can set the minimum percentage value here (For disk not space only). The device can alarm when capacity is not sufficient. You need to draw a circle to enable this function.
Enable	Check the box here to enable selected function.
Alarm Out	Please select corresponding alarm output channel when an alarmoccurs. You need to check the box to enable this function.
Latch	The alarm output can delay for the specified time after an alarm stops.The value ranges from 1s to 300s.
Show message	System can pop up a message to alarm you in the local host screen ifyou enabled this function.
Alarm upload	System can upload the alarm signal to the centre (Including alarmcentre.
Send Email	If you enabled this function, System can send out an email to alert youwhen an alarm occurs.
Buzzer	Check the box here to enable this function. The buzzer beeps when analarm occurs.

4.4.5 Storage

Schedule

In this interfaces, you can add or remove the schedule record/snapshot setup. See Figure 4-61.

There are three record modes: general (auto), motion detect and alarm. There are six periods in one day.

You can view the current time period setup from the color bar.

● Green color stands for the general record/snapshot.

● Yellow color stands for the motion detect record/snapshot..

● Red color stands for the alarm record/snapshot.

● Blue color stands for MD&alarm record/snapshot.
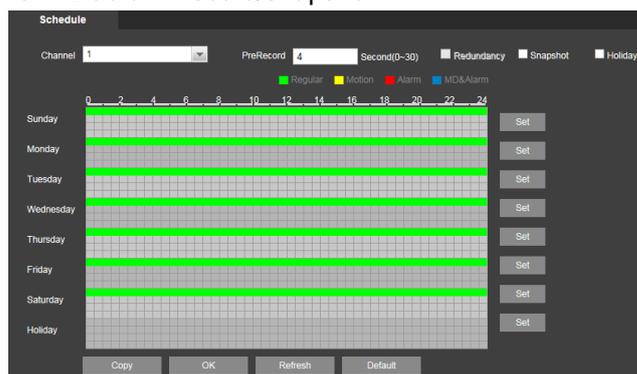
Figure4-61
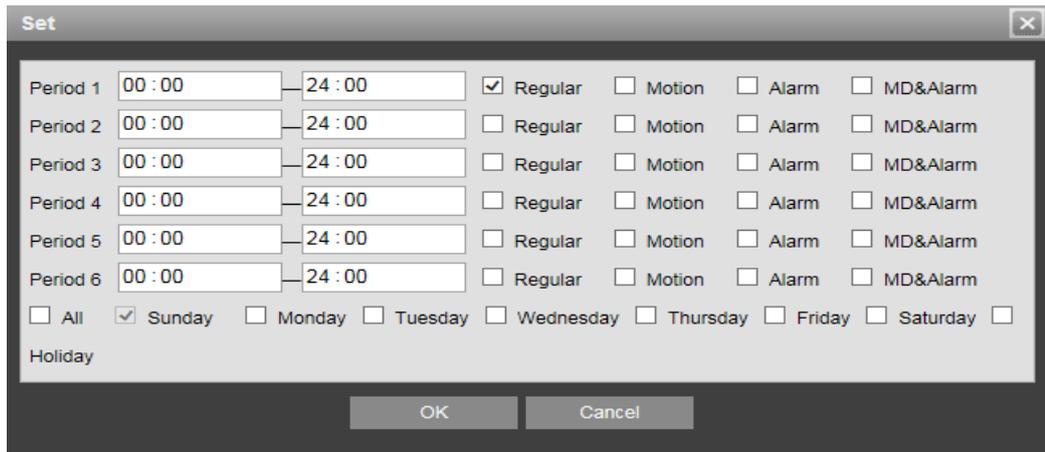
Figure 4-62
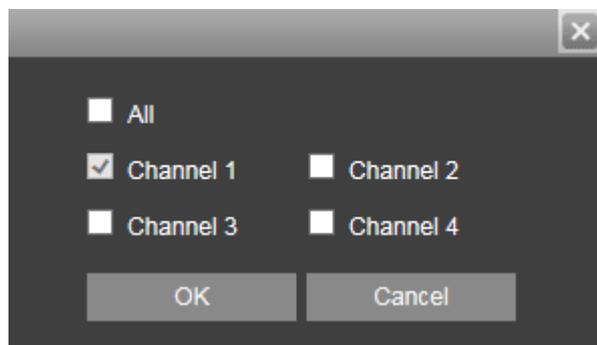
Figure 4-63

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Please select a channel from the dropdown list.
Pre-record	Please input pre-record time here. The value ranges from 0 to 30.
Redundancy	Check the box here to enable redundancy function. **Please note this function is null if there is only one HDD.**
Snapshot	Check the box here to enable snapshot function.
Holiday	Check the box here to enable holiday function.
Setup (Sunday to Saturday)	Click the Setup button, you can set record period. See Figure 5-56. There are six periods in one day. If you do not check the date at the bottom of the interface, current setup is for today only. Please click Save button and then exit.
Setup (Holiday)	Click the Setup button, you can set record period. See Figure 5-56. There are six periods in one day. If you check Holiday box, current channel shall record as your holiday setup here.
Copy	Copy function allows you to copy one channel setup to another. After setting in channel, click Copy button, you can go to interface Figure 5-57. You can see current channel name is grey such as channel 1. Now you can select the channel you wan to paste such as channel 5/6/7. If you wan to save current setup of channel 1 to all channels, you can click the first box "ALL". Click the OK button to save current copy setup. Click the OK button in the Encode interface, the copy function succeeded.

4.4.6 Local Storage

The local interface is shown as in Figure 4-64. Here you can see HDD information. You can also operate the read-only, read-write, redundancy (if there are more than on HDD) and format operation.
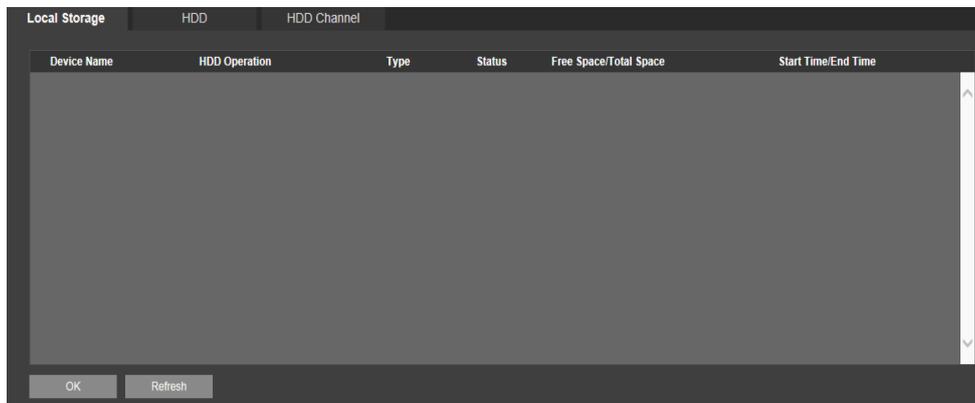
Figure 4-64

4.4.7 Record

The interface is shown as in Figure 4-65.
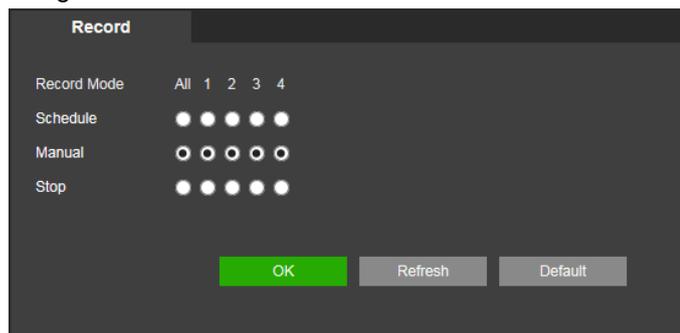
Figure 4-65

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Here you can view channel number. The number displayed here is the max channel amount of your device.
Status	There are three statuses: schedule, manual and stop.
Schedule	System enables auto record function as you set in record schedule setup (general, motion detect and alarm).
Manual	It has the highest priority. Enable corresponding channel to record no matter what period applied in the record setup.
Stop	Stop current channel record no matter what period applied in the record setup.
Start all/ stop all	Check the corresponding All button, you can enable or disable all channels record.

4.4.8 Setting

General

The general interface includes general, date/time and holiday setup.

5.8.5.1.1General

The general interface is shown as in Figure 4-66.

Figure4-66

Please refer to the following sheet for detailed information.

Parameter	Function
Device ID	It is to set device name.
Device No.	It is device channel number.
Language	You can select the language from the dropdown list. **Please note the device needs to reboot to get the modification activated.**
Video Standard	This is to display video standard such as PAL.
HDD full	Here is for you to select working mode when hard disk is full. There are two options: stop recording or rewrite. If current working HDD is overwritten or the current HDD is full while the next HDD is no empty, then system stops recording, If the current HDD is full and then next HDD is not empty, then system overwrites the previous files.
Pack duration	Here is for you to specify record duration. The value ranges from 1 to 120 minutes. Default value is 60 minutes.

Date and time

The date and time interface is shown as in Figure 4-67
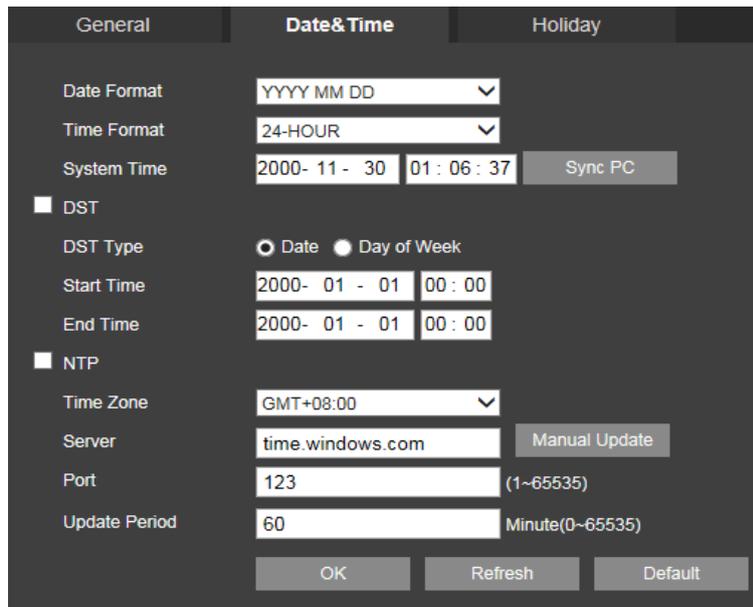
Figure4-67

Please refer to the following sheet for detailed information.

Parameter	Function
Date format	Here you can select date format from the dropdown list.
Time Format	There are two options: 24-H and 12-H.
Time zone	The time zone of the device.
System time	It is to set system time. It becomes valid after you set.
Sync PC	You can click this button to save the system time as your PC current time.
DST	Here you can set day night save time begin time and end time. You can set according to the date format or according to the week format.
NTP	You can check the box to enable NTP function.
NTP server	You can set the time server address.
Port	It is to set the time server port.
Interval	It is to set the sync periods between the device and the time server.

Holiday Setup

Holiday setup interface is shown as in Figure 4-68

Here you can click Add box to add a new holiday and then click Save button to save.
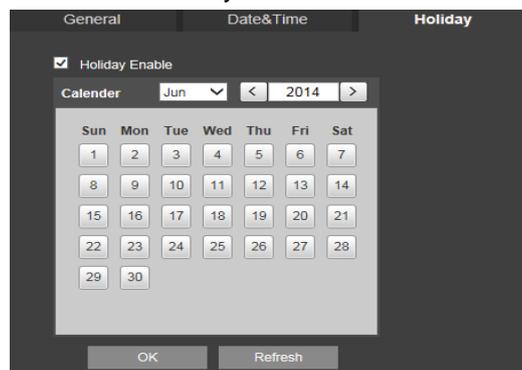
Figure 4-68

Display

Display interface includes GUI, TV adjust, Tour and zero-channel encoding.

Display

Here you can set background color and transparency level. See Figure 4-69.
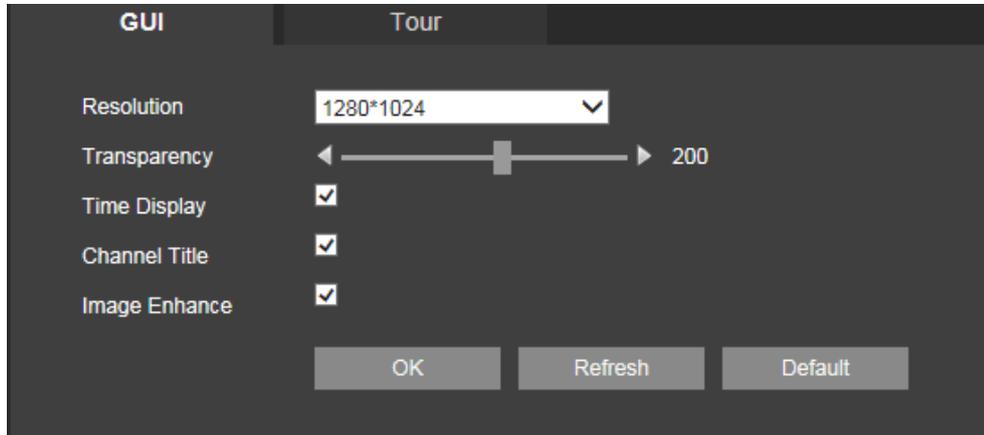
Figure 4-69

Please refer to the following sheet for detailed information.

Parameter	Function
Resolution	There are four options: 1920×1080,1280×1024(default),1280×720,1024×768. Please note the system needs to reboot to activate current setup.
Transparency	Here is for you to adjust transparency. The value ranges from 128 to 255.
Time title/channel title	Check the box here, you can view system time and channel number on the monitor video.
Image enhance	Check the box; you can optimize the margin of the preview video.

Tour

The tour interface is shown as in Figure 4-70. Here you can set tour interval, split mode, motion detect tour and alarm tour mode.
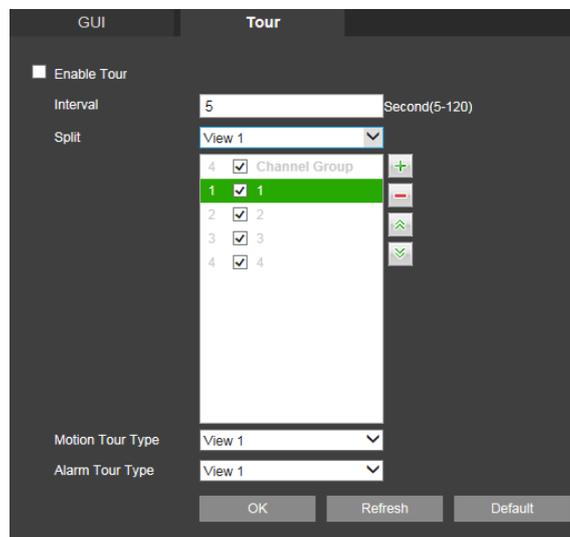
Figure 4-70

Please refer to the following sheet for detailed information.

Parameter	Function
Enable tour	Check the box here to enable tour function.
Interval	Here is for you to adjust transparency. The value ranges from 5 to120s. The default setup is 5s.
Split	Here you can set window mode and channel group. System cansupport 1/4/8-window according to device channel amount.
Motion tour/Alarm tour	Here you can set motion detect tour/alarm tour window mode.System supports 1/8-window now.
Enable	Check the box here to enable zero-channel function.
Compression	System supports H.264.
Resolution	Please select from the dropdown list. System supports D1/CIF/QCIF and etc.
Frame rate	Please select from the dropdown list. The value ranges from 1-25(PAL) or 1-30(NTSC).
Bit rate	Please select from the dropdown list.

PTZ

The PTZ interface is shown as in Figure4-71.

Before setup, please check the following connections are right
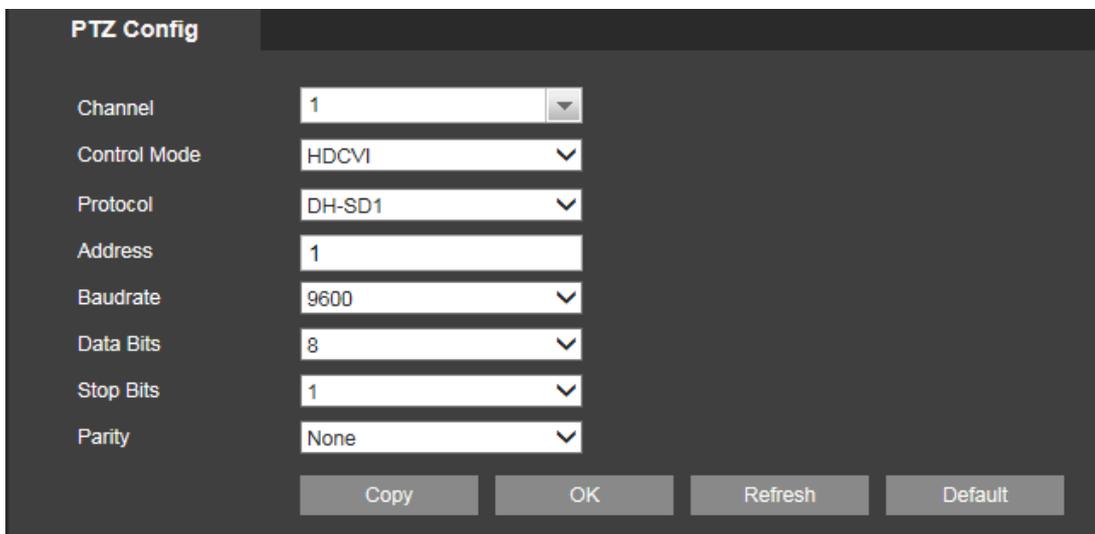
Figure 4-71

Please refer to the following sheet for detailed information.

Parameter	Function
Channel	Select speed dome connected channel.
Control mode	You can select control mode from the dropdown list. There are two options: Serial/HDCVI. For HDCVI series product, please select HDCVI. The control signal is sent to the PTZ via the coaxial cable. For the serial mode, the control signal is sent to the PTZ via the RS485 port.

Protocol	Please select protocol as DH-SD1 if you are using HDCVI mode.
Address	Set corresponding dome address. Default value is 1. **Please note your setup here shall comply with your dome address; otherwise you can not control the speed dome.**
Baud Rate	Select the dome baud rate. Default setup is 9600.
Data Bit	Default setup is 8. Please set according to the speed dome dial switch setup.
Stop bit	Default setup is 1. Please set according to the speed dome dial switch setup.
Parity	Default setup is none. Please set according to the speed dome dial switch setup.

ATM/POS

The ATM/POS function is for financial areas. It includes Sniffer, information analysis and title overlay function. The Sniffer mode is network.

The network type interface is shown as below. See Figure 4-72.

Here we take the ATM/POS protocol to continue.

There are two types: with or without the protocol according to client's requirements.

With the protocol

For ATM/POS with the protocol, you just need to set the source IP, destination IP (sometimes you need to input corresponding port number).

Figure 4-72

Without the protocol

For the ATM/POS without the protocol, the interface is shown

Source IP refers to host IP address that sends out information (usually it is the device host.)

Destination IP refers to other systems that receive information.

Usually you do not need to set source port and target port.

There are total four groups IP. The record channel applies to one group (optional) only.

Six frame ID groups verification can guarantee information validity and legal.

Account

Note：

● For the character in the following user name or the user group name, system max supports 6-digits.The space in the front or at the end of the string is null. The valid string includes: character, number,and underline.

● The user amount default setup is 64 and the group amount default setup is 20. The factory defaultsetup includes two levels: user and admin. You can set the corresponding group and then set therights for the respective user in the specified groups.

● User management adopts group/user modes. The user name and the group name shall be uniqueOne user shall be included in only one group.

User name

In this interface you can add/remove user and modify user name. See Figure4-73.
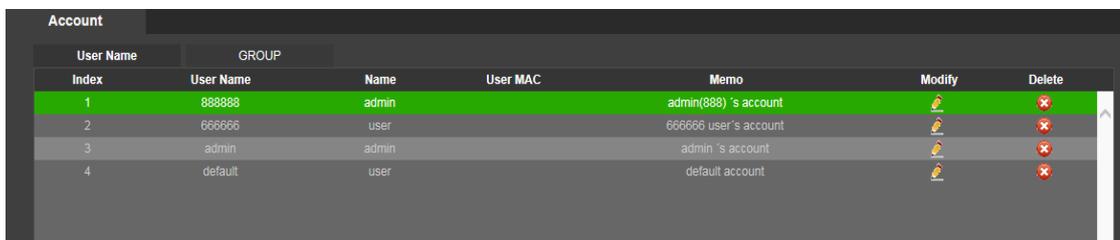
Figure4-73

Add user: It is to add a name to group and set the user rights. See Figure 4-74.

There are four default users: admin/888888/666666 and hidden user "default". Except user 6666, otherusers have administrator right. The user 666666 can only have the monitor rights,.Hidden user "default" is for system interior use only and can not be deleted. When there is no login user,hidden user "default" automatically login. You can set some rights such as monitor for this user so thatyou can view some channel view without login.

Here you can input the user name and password and then select one group for current user.

Please note the user rights shall not exceed the group right setup.

For convenient setup, please make sure the general user has the lower rights setup than the admin
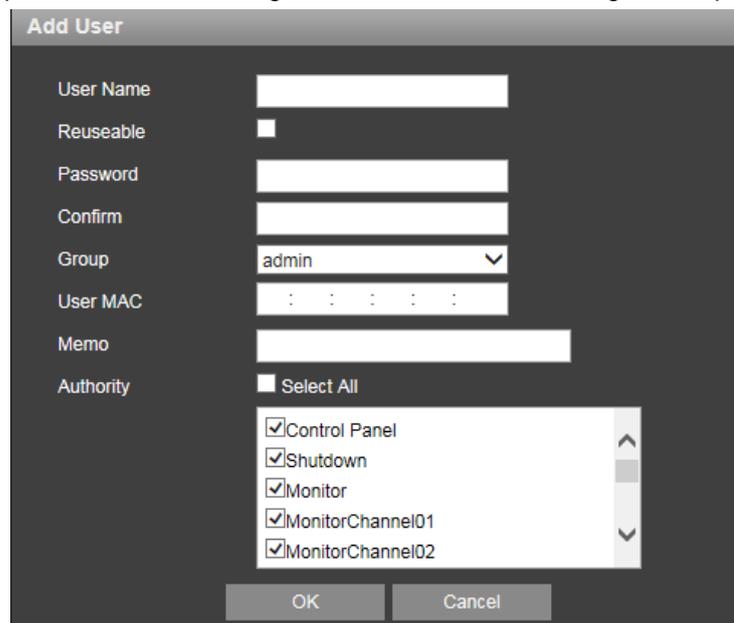
Figure 4-74

Modify user

It is to modify the user property, belonging group, password and rights. See Figure 4-75.

Modify password

It is to modify the user password. You need to input the old password and then input the new password twice to confirm the new setup. Please click the OK button to save.

Please note, the password ranges from 1-digit to 6-digit. It shall include the number only. For the user of the account rights, he can modify the password of other users.
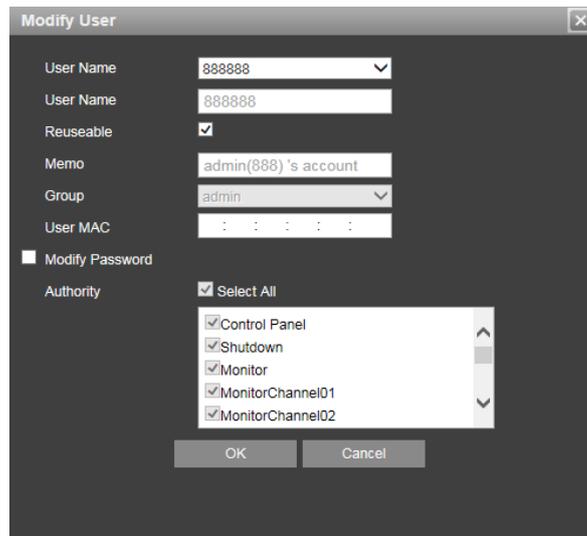
Figure 4-75

Group

The group management interface can add/remove group, modify group password and etc.

The interface is shown as in Figure 4-76.
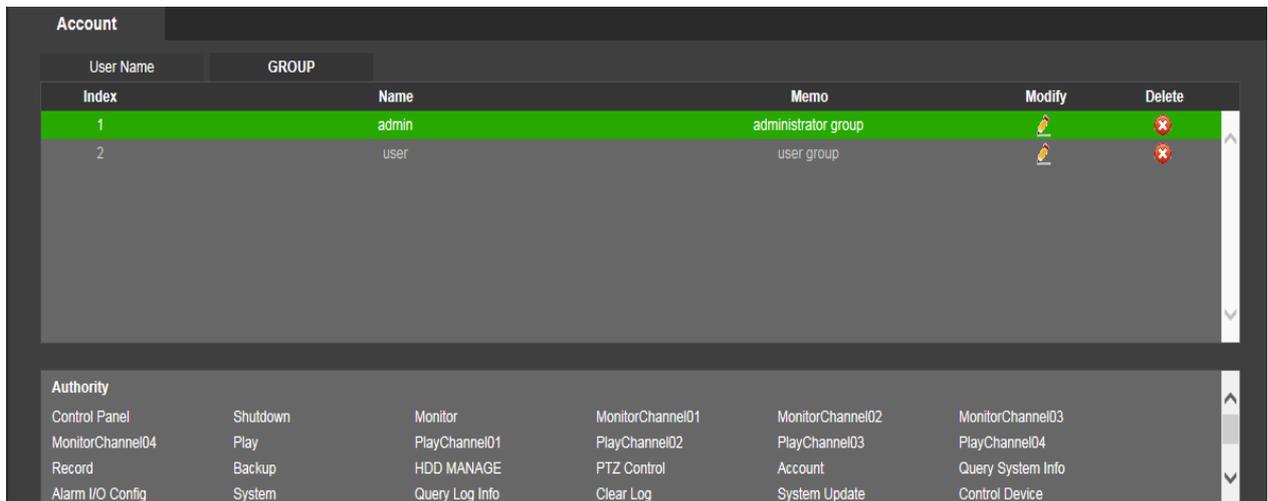
Figure 4-76

Add group: It is to add group and set its corresponding rights. See Figure 5-73.

Please input the group name and then check the box to select the corresponding rights. It includes: shutdown/reboot device, live view, record control, PTZ control and etc.
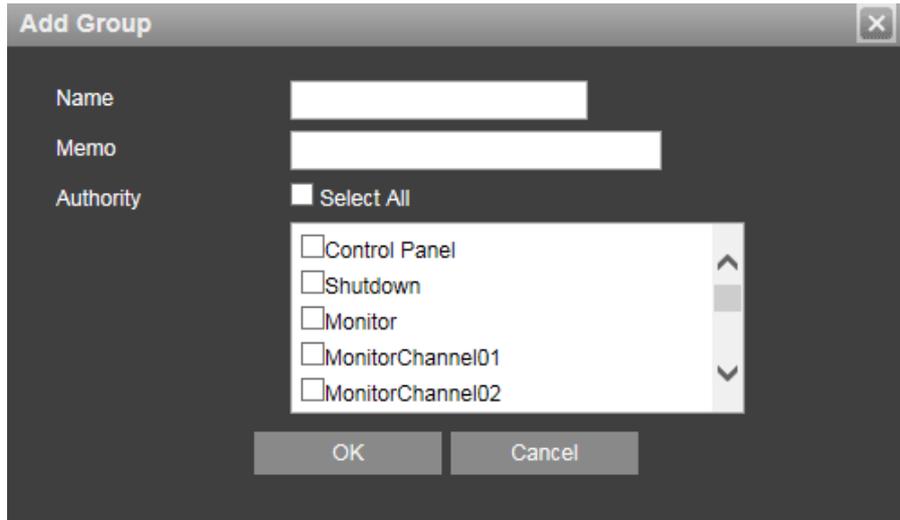
Figure 4-76

Modify group

Click the modify group button, you can see an interface is shown as in Figure4-77.

Here you can modify group information such as remarks and rights.
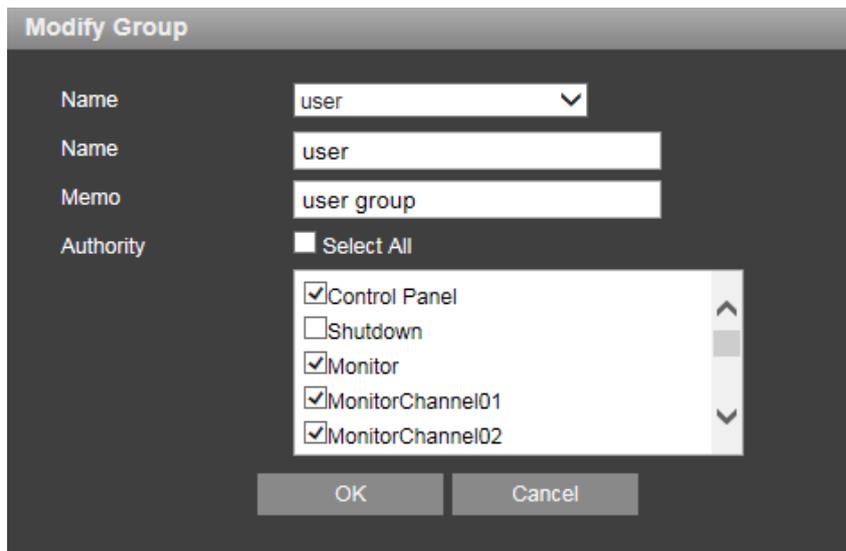
Figure 4-77

Auto maintain

The auto maintain interface is shown as in Figure4-78

Here you can select auto reboot and auto delete old files interval from the dropdown list.

If you want to use the auto delete old files function, you need to set the file period.

Click Manual reboot button, you can restart device manually.
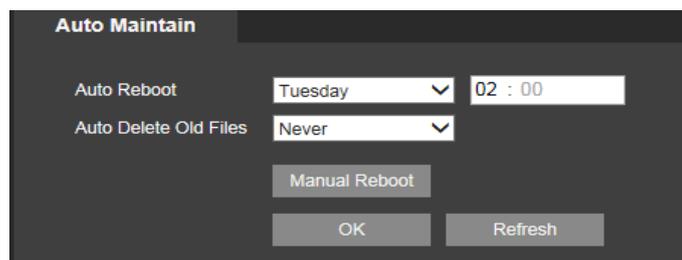
Figure 4-78

Import/Export

The interface is shown as in Figure4-79.
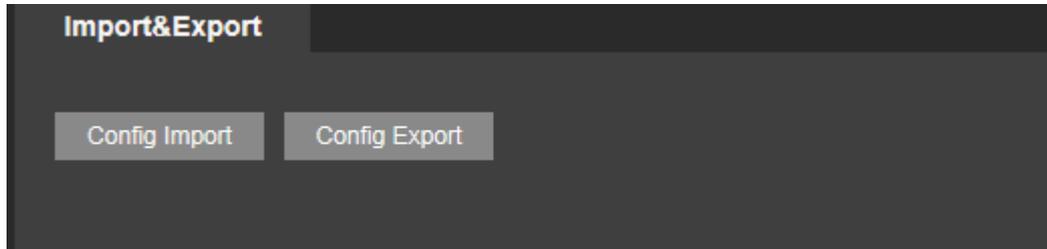
Figure 4-79

Please refer to the following sheet for detailed information.

Parameter	Function
Import	It is to import the local setup files to the system.
Export	It is to export the corresponding WEB setup to your local PC.

Default

The default setup interface is shown as in Figure 4-80.
Here you can select Channel/Network/Event/Storage/System. Or you can check the All box to select all items.
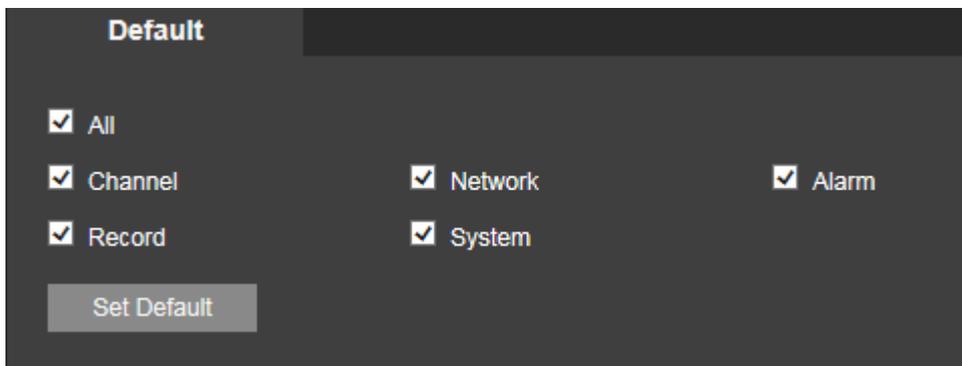
Figure 4-80

Upgrade

The upgrade interface is shown as in Figure 4-81
Please select the upgrade file and then click the update button to begin update. Please note the file name shall be as *.bin. During the upgrade process, do not unplug the power cable, network cable, or shutdown the device.

Important

Improper upgrade program may result in device malfunction!
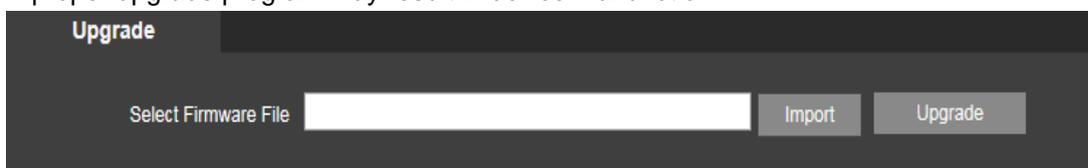
Figure 4-81

Version

The version interface is shown as in Figure 4-82

Here you can view record channel, alarm input/output information, software version, release date and etc. Please note the following information is for reference only.

Version	
Record Channel:	4
Alarm In:	4
Alarm Output:	3
Serial number:	000000000000000000
System:	2.616.0001.0, Build Date: 2014-06-19

Figure 4-82

Log

Here you can view system log. See Figure 4-83.

Log		
Start Time 2014- 06 - 01 00 : 00 : 00 End Time 2014- 06 - 28 00 : 00 : 00		
Type All Search Matched 48 logs Log Time 2014-06-26 14:00:22 -- 2014-06-26 23:32:10		
Index	**Time**	**Event**
1	2014-06-26 14:00:22	Synchronize system time
2	2014-06-26 14:40:42	Log In
3	2014-06-26 14:40:42	Log Out
4	2014-06-26 14:40:42	Log Out
5	2014-06-26 14:41:22	Log In
6	2014-06-26 17:29:01	Log In
7	2014-06-26 17:30:21	Log In
8	2014-06-26 17:31:01	Log In
System Log Info		

Figure 4-83

Please refer to the following sheet for log parameter information.

Parameter	Function
Type	Log types include: system operation, configuration operation, dataoperation, event operation, record operation, user management,
Start time	Set the start time of the requested log.
End time	Set the end time of the requested log.
Search	You can select log type from the drop down list and then click searchbutton to view the list. You can click the stop button to terminate current search operation.

Detailed information	You can select one item to view the detailed information.
Clear	You can click this button to delete all displayed log files. Please notesystem does not support clear by type.
Backup	You can click this button to backup log files to current PC.

Online User

The online user interface is shown as in Figure 4-84.
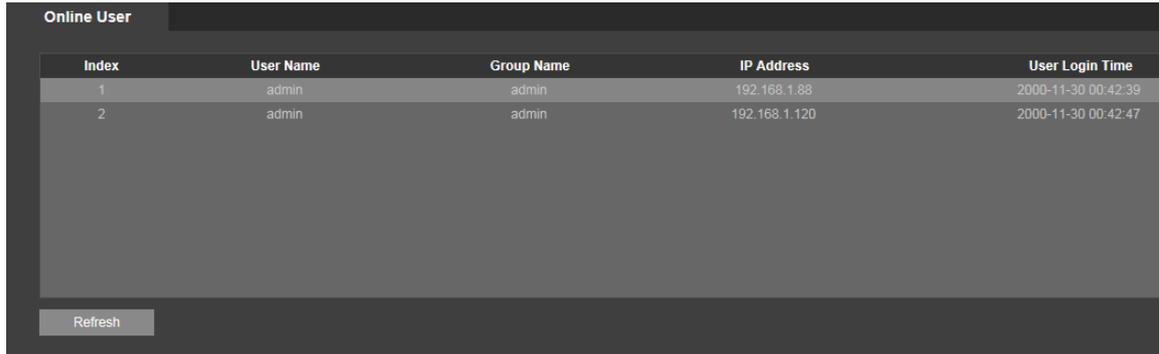
Figure 4-84

Playback

Click Playback button, you can see an interface is shown as in Figure 4-85.

Please set record type, record date, window display mode and channel name.

You can click the date on the right pane to select the date. The green highlighted date is system current date and the blue highlighted date means it has record files.
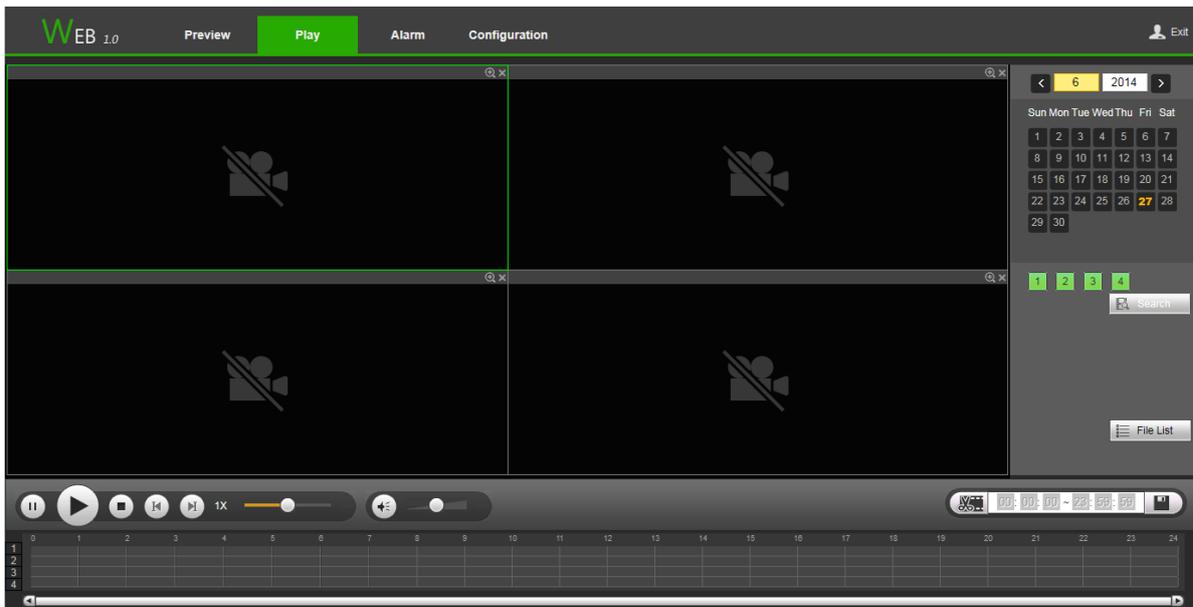
Figure 4-85

Then please click File list button, you can see the corresponding files in the list. See Figure 4-86.
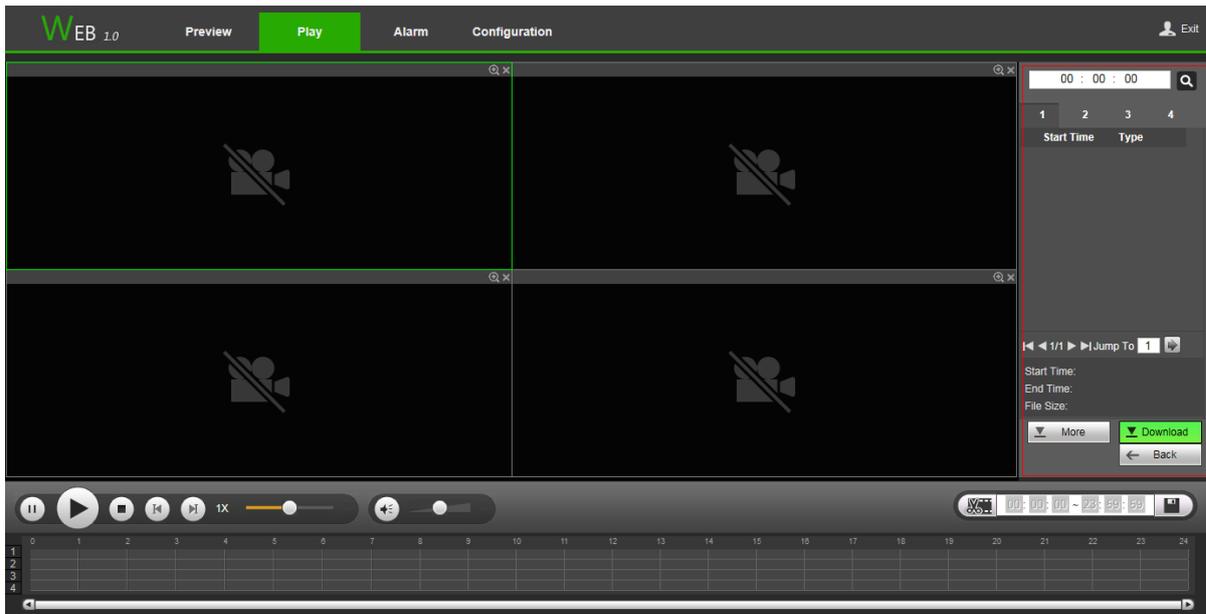
Figure4-86

Select a file you want to play and then click Play button, system can begin playback. You can select to playback in full-screen. Please note for one channel, system can not playback and download at the same time. You can use the playback control bar to implement various operations such as play, pause, stop, slow play, fast play and etc. See Figure 4-87.

Figure 4-87

Select the file(s) you want to download and then click download button, you can see an interface shown as in Figure4-88. The Download button becomes Stop button and there is a process bar for your reference. Please go to you default file saved path to view the files.
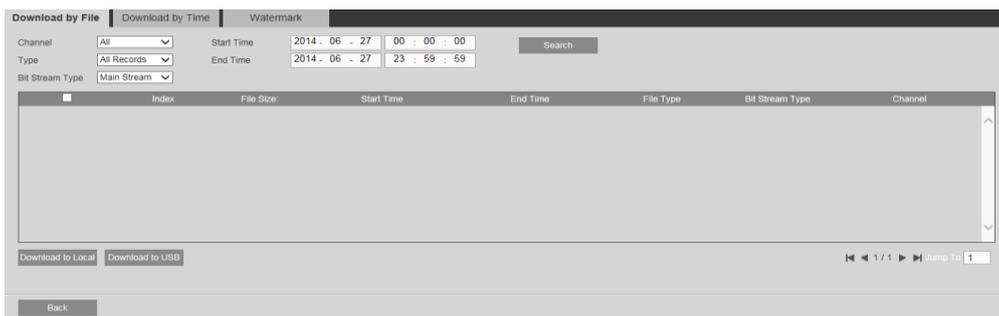
Figure 4-88

Load more

It is for you to search record or picture. You can select record channel, record type and record time to download. There are two download types. The download by file interface is shown as in Figure 4-86 and the download by time interface is shown as in Figure 4-89.
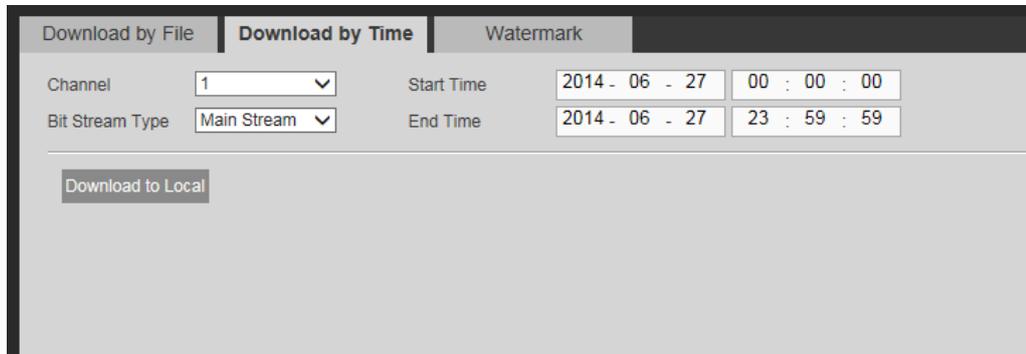
Figure 4-89

Watermark

Watermark interface is shown as In Figure 4-91. Please select a file and then click Verify button to see the file has been tampered with or not
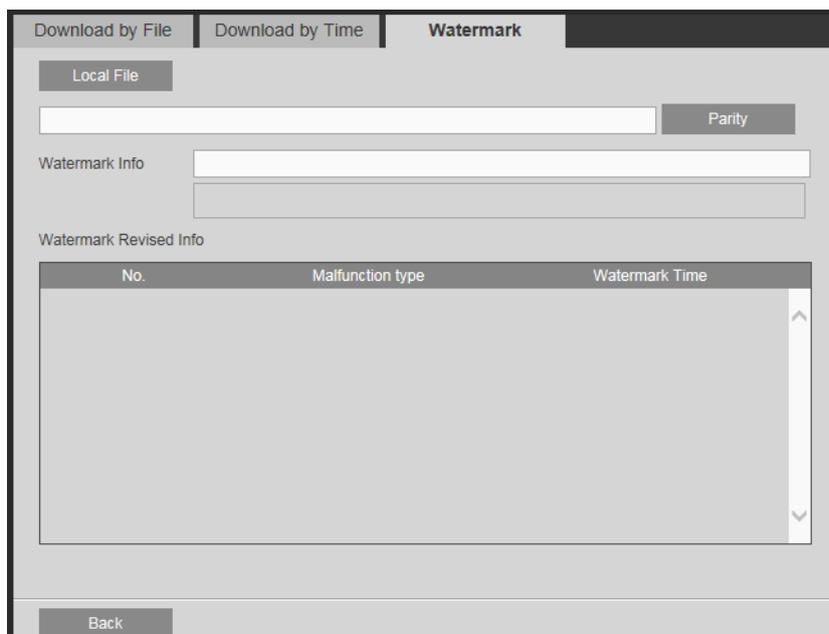
Figure 4-91

4.6 Alarm

Click alarm function, you can see an interface is shown as Figure 4-92.

Here you can set device alarm type and alarm sound setup (Please make sure you have enabled audio function of corresponding alarm events.).
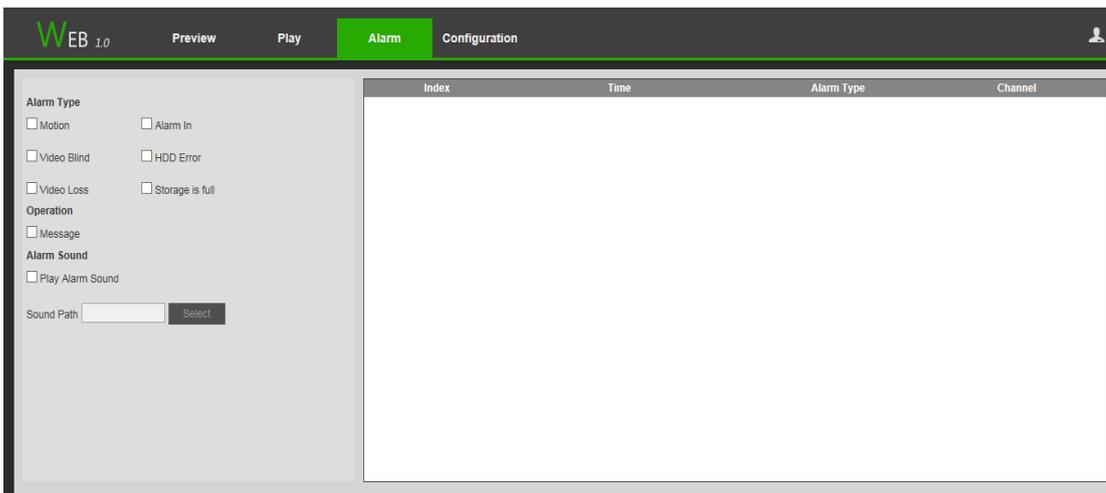
Figure 4-92

Please refer to the following sheet for detailed information.

Type	Parameter	Function
Alarm	Video loss	System alarms when video loss occurs.
Type	Motion detection	System alarms when motion detection alarm occurs.
	Tampering	System alarms when camera is viciously masking.
	Disk full	System alarms when disk is full.
	Disk error	System alarms when disk error occurs.
	External alarm	Alarm input device sends out alarm.
Operation	Prompt	Check the box here, system can automatically pops up an alarm icon on the Alarm button in the main interface when there is an alarm.
Alarm Sound	Play alarm sound	System sends out alarm sound when an alarm occurs. You can specify as you wish.
	Sound path	Here you can specify alarm sound file.

4.7 Log out

Click log out button, system goes back to log in interface. See Figure 4-93.

You need to input user name and password to login again.
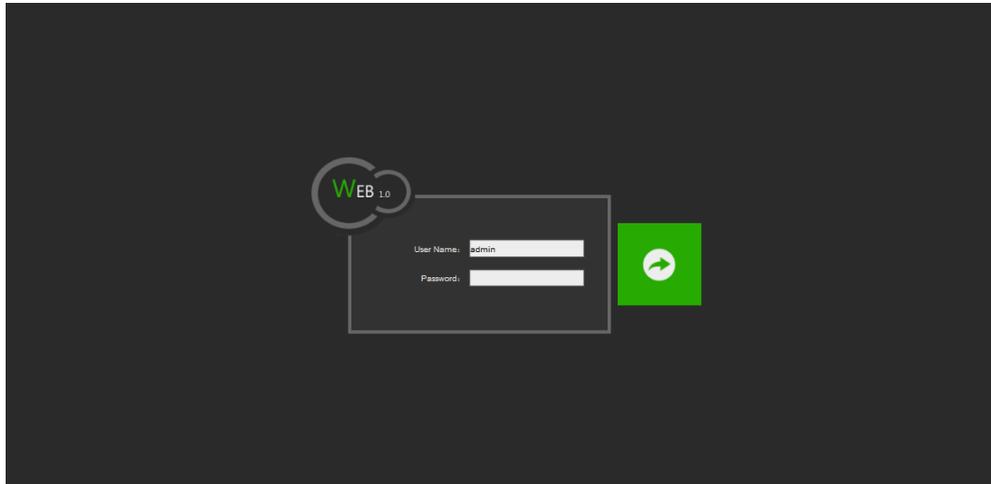
Figure4-93

4.8 Un-install Web Control

You can use web un-install tool "uninstall web.bat" to un-install web control.

Please note, before you un-installation, please close all web pages, otherwise the un-installation might result in error.

5. Professional Surveillance System

Besides Web, you can use our Professional Surveillance Software (PSS) to login the device.For detailed information, please refer to *PSS user's manual.*

6.1 FAQ

1.DVR can not boot up properly.

There are following possibilities:

- Input power is not correct.
- Power connection is not correct.
- Power connection is not correct.
- Program upgrade is wrong.
- HDD malfunction or something wrong with HDD ribbon.
- Seagate DB35.1，DB35.2，SV35 or Maxtor 17-g has compatibility problem. Please upgrade to the latest version to solve this problem.
- Front panel error.
- Main board is damaged.

2. DVR often automatically shuts down or stops running.

There are following possibilities

Input voltage is not stable or it is too low.

- HDD malfunction or something wrong wit the ribbon.
- Button power is not enough.
- Front video signal is not stable.
- Working environment is too harsh, too much dust.
- Hardware malfunction.

3. System can not detect hard disk.

There are following possibilities:

- HDD is broken.
- HDD ribbon is damaged.
- HDD cable connection is loose.
- Main board SATA port is broken.

4. There is no video output whether it is one-channel, multiple-channel or all-channel output.

There are following possibilities:

- Program is not compatible. Please upgrade to the latest version.

- Brightness is 0. Please restore factory default setup.
- There is no video input signal or it is too weak.
- Check privacy mask setup or your screen saver.
- DVR hardware malfunctions.

5. Real-time video color is distorted.

There are following possibilities:

- When using BNC output, NTSC and PAL setup is not correct. The real-time video becomes
- black and white.
- DVR and monitor resistance is not compatible.
- Video transmission is too long or degrading is too huge.
- DVR color or brightness setup is not correct.

6. Can not search local records.

There are following possibilities:

- HDD ribbon is damaged.
- HDD is broken.
- Upgraded program is not compatible.
- The recorded file has been overwritten.
- Record function has been disabled

7. Video is distorted when searching local records.

There are following possibilities:

- Video quality setup is too low.
- Program read error, bit data is too small. There is mosaic in the full screen. Please restart the
- DVR to solve this problem.
- HDD data ribbon error.
- HDD malfunction.
- DVR hardware malfunctions.

8. There is no audio when monitor.

There are following possibilities.

- It is not a power picker.
- It is not a power acoustics.
- Audio cable is damaged.
- DVR hardware malfunctions.

9. There is audio when monitor but there is no audio when system playback.

There are following possibilities:

- Setup is not correct. Please enable audio function

- Corresponding channel has no video input. Playback is not continuous when the screen is blue.

10. Time display is not correct.

There are following possibilities:

- Setup is not correct

- Battery contact is not correct or voltage is too low.

- Crystal is broken.

11. DVR can not control PTZ.

There are following possibilities:

- Front panel PTZ error

- PTZ decoder setup, connection or installation is not correct.

- Cable connection is not correct.

- PTZ setup is not correct.

- PTZ decoder and DVR protocol is not compatible.

- When there are several decoders, please add 120 Ohm between the PTZ decoder A/B cablesfurthest end to delete the reverberation or impedance matching. Otherwise the PTZ control is

  not stable.

- The distance is too far.

12. Motion detection function does not work.

There are following possibilities:

- Period setup is not correct.

- Motion detection zone setup is not correct.

- Sensitivity is too low.

- For some versions, there is hardware limit.

13. Can not log in client-end or web.

There are following possibilities:

- For Windows 98 or Windows ME user, please update your system to Windows 2000 sp4. Or

  you can install client-end software of lower version. Please note right now, our DVR is not

  compatible with Windows VISTA control.

- ActiveX control has been disabled.

- No dx8.1 or higher. Please upgrade display card driver.

- Network connection error.

- Network setup error.

- Password or user name is invalid.

- Client-end is not compatible with DVR program.

14. There is only mosaic no video when preview or playback video file remotely.

There are following possibilities:

- Network fluency is not good.
- Client-end resources are limit.
- There is multiple-cast group setup in DVR. This mode can result in mosaic. Usually we do not recommend this mode.\
- There is privacy mask or channel protection setup.
- Current user has no right to monitor.
- DVR local video output quality is not good.

15. Network connection is not stable.

There are following possibilities:

- Network is not stable.
- IP address conflict.
- MAC address conflict.
- PC or DVR network card is not good.

16. Burn error /USB back error.

There are following possibilities:

- Burner and DVR are in the same data cable.
- System uses too much CPU resources. Please stop record first and then begin backup.
- Data amount exceeds backup device capacity. It may result in burner error.
- Backup device is not compatible.
- Backup device is damaged.

17. Keyboard can not control DVR.

There are following possibilities:

- DVR serial port setup is not correct.
- Address is not correct.
- When there are several switchers, power supply is not enough.
- Transmission distance is too far.

18. Alarm signal can not been disarmed.

There are following possibilities:

- Alarm setup is not correct.

- Alarm output has been open manually.

- Input device error or connection is not correct.

- Some program versions may have this problem. Please upgrade your system.

19. Alarm function is null.

There are following possibilities.

- Alarm setup is not correct.

- Alarm cable connection is not correct.

- Alarm input signal is not correct.

- There are two loops connect to one alarm device.

21. Record storage period is not enough.

There are following possibilities:

- Camera quality is too low. Lens is dirty. Camera is installed against the light. Camera aperture setup is not correct

- HDD capacity is not enough.

- HDD is damaged.

22. Can not playback the downloaded file.

There are following possibilities:

- There is no media player.
- No DXB8.1 or higher graphic acceleration software.
- There is no DivX503Bundle.exe control when you play the file transformed to AVI via mediaplayer.
- No DivX503Bundle.exe or ffdshow-2004 1012 .exe in Windows XP OS

23. Forgot local menu operation password or network password

Please contact your local service engineer or our sales person for help. We can guide you to solve thisproblem.

24. When I login via HTTPS, a dialogue says the certificate for this website is for other address.
Please follow chapter 5.8.2.15.1 to create server certificate.

25. When I login via HTTPS, a dialogue says the certificate is not trusted.
Please follow chapter 5.8.2.15.2 to download root certificate.

26. When I login via HTTPS, a dialogue says the certificate has expired or is not valid yet.
Please make sure your PC time is the same as the device time.

6.2 Daily Maintenance

- Please use the brush to clean the board, socket connector and the chassis regularly.
- The device shall be soundly earthed in case there is audio/video disturbance. Keep the device awayfrom the static voltage or induced voltage.
- Please unplug the power cable before you remove the audio/video signal cable, RS232 or RS485cable.
- Do not connect the TV to the local video output port (VOUT).It may result in video output circuit.
- Always shut down the device properly. Please use the shutdown function in the menu, or you canpress the power button in the rear pane for at least three seconds to shut down the device.
- Otherwise it may result in HDD malfunction.
- Please make sure the device is away from the direct sunlight or other heating sources. Please keepthe sound ventilation.
- Please check and maintain the device regularly.

Appendix A HDD Capacity Calculation

Calculate total capacity needed by each DVR according to video recording (video recording type andvideo file storage time).

Step 1: According to Formula (1) to calculate storage capacity q_i that is the capacity of each channel needed for each hour, unit Mbyte.：

$$q_i = d_i \div 8 \times 3600 \div 1024$$

In the formula: d_i means the bit rate, unit Kbit/s

Step 2: After video time requirement is confirmed, according to Formula (2) to calculate the storage

capacity m_i , which is storage of each channel needed unit Mbyte.

$$m_i = q_i \times h_i \times D_i$$

In the formula:

h_i means the recording time for each day (hour)

D_i means number of days for which the video shall be kept

Step 3: According to Formula (3) to calculate total capacity (accumulation) q_T that is needed for all channels in the DVR during **scheduled video recording**.

$$q_T = \sum_{i=1}^{c} m_i$$

In the formula: c means total number of channels in one DVR

Step 4: According to Formula (4) to calculate total capacity (accumulation) q_T that is needed for all

channels in DVR during **alarm video recording (including motion detection)**.

$$q_T = \sum m_i \times a\%$$

In the formula：$a\%$ means alarm occurrence rate

Appendix B Compatible Backup Device List

Compatible USB drive list

NOTE: Please upgrade the DVR firmware to latest version to ensure the accuracy of the table below. Ifyou use the USB drive, please confirm the format FAT or FAT32.

Manufacturer	Model	Capacity
Sandisk	Cruzer Micro	512M
Sandisk	Cruzer Micro	1G
Sandisk	Cruzer Micro	2G
Sandisk	Cruzer Freedom	256M
Sandisk	Cruzer Freedom	512M
Sandisk	Cruzer Freedom	1G
Sandisk	Cruzer Freedom	2G
Kingston	DataTravelerⅡ	1G
Kingston	DataTravelerⅡ	2G
Kingston	DataTraveler	1G
Kingston	DataTraveler	2G
Maxell	USB Flash Stick	128M
Maxell	USB Flash Stick	256M
Maxell	USB Flash Stick	512M
Maxell	USB Flash Stick	1G
Maxell	USB Flash Stick	2G
Kingax	Super Stick	128M
Kingax	Super Stick	256M
Kingax	Super Stick	512M
Kingax	Super Stick	1G
Kingax	Super Stick	2G
Netac	U210	128M
Netac	U210	256M
Netac	U210	512M
Netac	U210	1G
Netac	U210	2G
Netac	U208	4G
Teclast	Ti Cool	128M
Teclast	Ti Cool	256M
Teclast	Ti Cool	512M
Teclast	Ti Cool	1G
SanDisk	cruzer mirco	2G
SanDisk	cruzer mirco	8G
SanDisk	Ti Cool	2G
SanDisk	Hongjiao	4G

Lexar	Lexar	256MB
Kingston	Data Traveler	1G
Kingston	Data Traveler	16GB
Kingston	Data Traveler	32GB
Aigo	L8315	16GB
Sandisk	250	16GB
Kingston	Data Traveler Locker+	32GB
Netac	U228	8GB

Compatible SD Card Lis

Brand	Standard	Capacity	Card type
Transcend	SDHC6	16GB	SD
Kingston	SDHC4	4GB	SD
Kingston	SD	2GB	SD
Kingston	SD	1GB	SD
Sandisk	SDHC2	8GB	Micro-SD
Sandisk	SD	1GB	Micro-SD

Compatible Portable HDD List

Please refer to the following sheet for compatible portable HDD brand.

Brand	Model	Capacity
YDStar	YDstar HDD box	40G
Netac	Netac	80G
Iomega	Iomega RPHD-CG" RNAJ50U287	250GB
WD Elements	WCAVY1205901	1.5TB
Newsmy	Liangjian	320GB
WD Elements	WDBAAR5000ABK-00	500GB
WD Elements	WDBAAU0015HBK-00	1.5TB
Seagate	FreeAgent Go(ST905003F)	500GB
Aigo	H8169	500GB

Compatible USB DVD Burner List

NOTE: Please upgrade the DVR firmware to latest version to ensure the accuracy of the table below.

And you can use the USB cable with the model recommended to set USB burner.

Compatible SATA DVD Burner List

NOTE: Please upgrade the DVR firmware to latest version to ensure the accuracy of the table below.

Brand	Model
Pioneer	DVR-215CHG
Panasonic	SW-9588-C
Sumsung	TS-H653
Sony	DRU-V200S
Sony	DRU-845S
Sumsung	TS-H653

Pioneer	DVR-217CHG
LG	GH22NS30

Compatible SATA HDD List

NOTE: Please upgrade the DVR firmware to latest version to ensure the accuracy of the table below.

And SATA HDD should be used for the DVR with SATA port. Here we recommend HDD of 500G to 4Tcapacity.

Manufacturer	Series	Model	Capacity	Port Mode
Seagate	Seagate SV35.1	ST3250824SV	250G	SATA
Seagate	Seagate SV35.1	ST3500641SV	500G	SATA
Seagate	Seagate SV35.2	ST3250820SV	250G	SATA
Seagate	Seagate SV35.2	ST3320620SV	320G	SATA
Seagate	Seagate SV35.2	ST3500630SV	500G	SATA
Seagate	Seagate SV35.2	ST3750640SV	750G	SATA
Seagate	Seagate SV35.3	ST3250310SV	250G	SATA
Seagate	Seagate SV35.3	ST3500320SV	500G	SATA
Seagate	Seagate SV35.3	ST3750330SV	750G	SATA
Seagate	Seagate SV35.3	ST31000340SV	1T	SATA
Seagate	Seagate SV35.4	ST3320410SV	320G	SATA
Seagate	Seagate SV35.4	ST3250311SV	250G	SATA
Seagate	Seagate SV35.5	ST3500410SV	500G	SATA
Seagate	Seagate SV35.5	ST3500411SV	500G	SATA
Seagate	Seagate SV35.5	ST31000525SV	1T	SATA
Seagate	Seagate SV35.5	ST31000526SV	1T	SATA
Seagate	Seagate SV35.5	ST1000VX000	1T	SATA
Seagate	Seagate SV35.5	ST2000VX003	2T	SATA
Seagate	Seagate SV35.5	ST2000VX002	2T	SATA
Seagate	Seagate SV35.5	ST2000VX000	2T	SATA
Seagate	Seagate SV35.5	ST3000VX000	3T	SATA
Seagate	Seagate Pipeline HD	ST3320410CS	320G	SATA
Seagate	Seagate Pipeline HD	ST3320310CS	320G	SATA
Seagate	Seagate Pipeline HD	ST3500422CS	500G	SATA
Seagate	Seagate Pipeline HD	ST3500321CS	500G	SATA
Seagate	Seagate Pipeline HD2	ST3250412CS	250G	SATA
Seagate	Seagate Pipeline HD2	ST3320311CS	250G	SATA
Seagate	Seagate Pipeline HD2	ST3500414CS	500G	SATA
Seagate	Seagate Pipeline HD2	ST3500312CS	500G	SATA
Seagate	Seagate Pipeline HD2	ST31000424CS	1T	SATA
Seagate	Seagate Pipeline HD2	ST31000322CS	1T	SATA
Seagate	Seagate Pipeline HD2	ST1000VM002	1T	SATA
Seagate	Seagate Pipeline HD2	ST1500VM002	1T	SATA
Seagate	Seagate Pipeline HD2	ST2000VM002	2T	SATA
Seagate	Seagate Pipeline HD2	ST2000VM003	2T	SATA

Seagate	Seagate Constellation ES	ST3500514NS	500G	SATA
Seagate	Seagate Constellation ES	ST31000524NS	1T	SATA
Seagate	Seagate Constellation ES	ST32000644NS	2T	SATA
Seagate	Seagate Constellation ES	ST2000NM0011	2T	SATA
Seagate	Seagate Constellation ES	ST1000NM0011	1T	SATA
Seagate	Seagate Constellation ES	ST500NM0011	500G	SATA
Seagate	Seagate Constellation ES	ST2000NM0031	2T	SATA
Seagate	Seagate Constellation ES	ST1000NM0031	1T	SATA
Seagate	Seagate Constellation ES	ST500NM0031	500G	SATA
Seagate	Seagate Constellation ES	ST2000NM0051	2T	SATA
Seagate	Seagate Constellation ES	ST1000NM0051	1T	SATA
Seagate	Seagate Constellation ES	ST500NM0051	500G	SATA
Seagate	Seagate Constellation ES.2	ST33000650NS	3T	SATA
Seagate	Seagate Constellation ES.2	ST32000645NS	2T	SATA
Seagate	Seagate Constellation ES.2	ST33000651NS	3T	SATA
Seagate	Seagate Constellation ES.2	ST32000646NS	2T	SATA
Seagate	Seagate Constellation ES.2	ST33000652NS	3T	SATA
Seagate	Seagate Constellation ES.2	ST32000647NS	2T	SATA
Westem Digital	Cariar SE	WD3200JD	320G	SATA
Westem Digital	Cariar SE	WD3000JD	300G	SATA
Westem Digital	Cariar SE	WD2500JS	250G	SATA
Westem Digital	Cariar SE16	WD7500KS	750G	SATA
Westem Digital	Cariar SE16	WD5000KS	500G	SATA
Westem Digital	Cariar SE16	WD4000KD	400G	SATA
Westem Digital	Cariar SE16	WD3200KS	320G	SATA
Westem Digital	Cariar SE16	WD2500KS	250G	SATA
Westem Digital	WD Caviar SE16	WD2500YS-01SHB0	250G	SATA

Westem Digital	WD Caviar RE16	WD3200YS-01PGB0	320G	SATA
Westem Digital	WD Caviar RE2	WD5000YS-01MPB0	500G	SATA
Westem Digital	WD AV—AVJS	WD2500AVJS-63WDA0	500G	SATA
Westem Digital	WD AV—AVJS	WD3200AVJS-63WDA0	320G	SATA
Westem Digital	WD AV—AVJS	WD5000AVJS-63YJA0	500G	SATA
Westem Digital	WDAV-GP—AVCS	WD5000AVCS-63H1B1	500G	SATA
Westem Digital	WDAV-GP—AVCS	WD7500AVCS-63ZLB0	750G	SATA
Westem Digital	WDAV-GP—AVCS	WD3200AVCS	320G	SATA
Westem Digital	WDAV-GP—AVCS	WD2500AVCS	250G	SATA
Westem Digital	WDAV-GP—EVCS	WD10EVCS-63ZLB0	1T	SATA
Westem Digital	WDAV-GP—EVCS	WD20EVCS-63ZLB0	2T	SATA
Westem Digital	WDAV-GP—AVVS	WD3200AVVS-63L2B0	320G	SATA
Westem Digital	WDAV-GP—AVVS	WD5000AVVS-63ZWB0	500G	SATA
Westem Digital	WDAV-GP—AVVS	WD7500AVVS-63E1B1	750G	SATA
Westem Digital	WDAV-GP—AVVS	WD7500AVVS-63E1B1	750G	SATA
Westem Digital	WDAV-GP—EVVS	WD10EVVS-63E1B1	1T	SATA
Westem Digital	WDAV-GP—EVDS	WD10EVDS-63N5B1	1T	SATA
Westem Digital	WDAV-GP—EVDS	WD15EVDS-63V9B0	1.5T	SATA
Westem Digital	WDAV-GP—EVDS	WD20EVDS-63T3B0	2T	SATA
Westem Digital	WDAV-GP—AVDS	WD5000AVDS-63U7B0	500G	SATA
Westem Digital	WD AV-GP	WD30EURS	3T	SATA
Westem Digital	WD AV-GP	WD25EURS	2.5T	SATA
Westem Digital	WD AV-GP	WD20EURS	2T	SATA
Westem Digital	WD AV-GP	WD15EURS	1.5T	SATA
Westem Digital	WD AV-GP	WD10EURS	1T	SATA
Westem Digital	WD AV-GP	WD10EURX	1T	SATA
Westem Digital	WD AV-GP	WD7500AURS	750G	SATA
Westem Digital	WD AV-GP	WD7500AVDS	500G	SATA
Westem Digital	WD AV-GP	WD500AVDS	500G	SATA
Westem Digital	WD AV-GP	WD10EUCX	1T	SATA
Samsung	Samsung—HA	HA500LJ/CE	500G	SATA
Samsung	Samsung—HA	HA751LJ	750G	SATA
Samsung	Samsung—HA	HA101UJ/CE	1T	SATA
Samsung	Samsung—HD	HD502HI/CEC	500G	SATA
Samsung	Samsung—HD	HD103SI/CEC	1T	SATA
Samsung	Samsung—HD	HD154UI/CE	1.5T	SATA
Hitach	HitachCinemaStar™ 5K500	HCP725050GLA380	500G	SATA
Hitach	HitachCinemaStar™ 7K1000.B	HCT721050SLA360	500G	SATA
Hitach	HitachCinemaStar™ 7K1000.B	HCT721075SLA360	750G	SATA
Hitach	HitachCinemaStar™ 7K1000.B	HCT721010SLA360	1T	SATA

Maxtor	DiamondMax 20	STM3320820AS	320G	SATA
Maxtor	DiamondMax 20	STM3250820AS	250G	SATA

APPENDIX C Compatible CD/DVD Device List

Manufacturer	Model	Port Type	Type
Sony	DRX-S50U	USB	DVD-RW
Sony	DRX-S70U	USB	DVD-RW
Sony	AW-G170S	SATA	DVD-RW
Samsung	TS-H653A	SATA	DVD-RW
Panasonic	SW-9588-C	SATA	DVD-RW
Sony	DRX-S50U	USB	DVD-RW
BenQ	5232WI	USB	DVD-RW

Appendix D Compatible Displayer List

Brand	Model	Dimension (Unit: inch)
BENQ（LCD）	ET-0007-TA	19-inch (wide screen)
DELL（LCD）	E178FPc	17-inch
BENQ（LCD）	Q7T4	17-inch
BENQ（LCD）	Q7T3	17-inch
LENOVO（LCD）	LXB-L17C	17-inch
SANGSUNG（LCD）	225BW	22-inch (wide screen)
HFNOVO (CRT)	LXB-FD17069HB	17-inch
HFNOVO (CRT)	LXB-HF769A	17-inch
HFNOVO (CRT)	LX-GJ556D	17-inch
Samsung（LCD）	2494HS	24-inch
Samsung（LCD）	P2350	23-inch
Samsung（LCD）	P2250	22-inch
Samsung（LCD）	P2370G	23-inch
Samsung（LCD）	2043	20-inch
Samsung（LCD）	2243EW	22-inch
Samsung（LCD）	SMT-1922P	19-inch
Samsung（LCD）	T190	19-inch
Samsung（LCD）	T240	24-inch
LG（LCD）	W1942SP	19-inch
LG（LCD）	W2243S	22-inch
LG（LCD）	W2343T	23-inch
BENQ（LCD）	G900HD	18.5-inch
BENQ（LCD）	G2220HD	22-inch
PHILIPS（LCD）	230E	23-inch
PHILIPS（LCD）	220CW9	23-inch
PHILIPS（LCD）	220BW9	24-inch
PHILIPS（LCD）	220EW9	25-inch

Appendix E Compatible Switcher Lis

Brand	Model	Network working Mode
D-LinK	DES-1016D	10/100M self-adaptive
D-LinK	DES-1008D	10/100M self-adaptive
Ruijie	RG-S1926S	There are five network modes： 1、AUTO 2、HALF-10M 3、FULL-10M 4、HALF-100M 5、FULL-100M
H3C	H3C-S1024	10/100M self-adaptive
TP-LINK	TL-SF1016	10/100M self-adaptive
TP-LINK	TL-SF1008+	10/100M self-adaptive

Appendix F Compatible Wireless Mouse List

Brand	Model
	V80
Rapoo	3500
Logitech	M215
Shuangfeiyan	Tianyao G7-630

● CVR Series

	Parameter	4-ch	8-ch
System	Main Processor	High-performance industrial embedded micro controller	
	OS	Embedded LINUX	
	System Resources	Multiplex operations: Multiple-channel record, multiple-channel playback and network operation simultaneously	
	Interface	User-friendly graphical user interface	
	Input Devices	USB mouse	
	Input Method	Arabic number, English character, donation and extension Chinese (optional)	
	Shortcut Function	Copy/paste operation, USB mouse right-key shortcut menu, double click USB mouse to switch screen.	
Compression Standard	Video Compression	H.264	
	Audio Compression	G711A, G711U, PCM	
	Video Input	4-CH composite video input: (NTSC/PAL) BNC (1.0V P-P, 75Ω)	8-CH composite video input: (NTSC/PAL) BNC (1.0V P-P, 75Ω)
Video monitor	Video Output	1-ch VGA output. 1-ch HDMI output. Support VGA/HDMI video output at the same time.	
	Video Standard	Support PAL/NTSC.	
	Record Speed	Real-time Mode: PAL 1f/s to 25f/s per channel and NTSC 1f/s to 30f/s per channel	
	Video Partition	1/4 windows(Optional)	1/4/8/9 windows
	Monitor Touring	Support monitor tour functions such as motion detection, and schedule auto control.	

	Resolution (PAL/NTSC)	PAL/NTSC Real-time monitor： 720P 1280*720
	Resolution (PAL/NTSC)	Playback： All-ch: 720P 1280*720, 960H 960 ×576/960×480, D1 704×576/704×480, HD1 352×576/352×480, 2CIF 704×288/704×240, CIF 352×288/ 352×240 , QCIF 176×144/176×120
	Resolution (PAL/NTSC)	Support dual streams: extra stream resolution CIF 352×288/ 352×240, QCIF 176×144/176×120.
	Image Quality	6-level image quality (Adjustable)
	Privacy Video monitor mask	Support one privacy mask of user-defined size in full screen. Support max 4 zones.
	Image Information	Channel information, time information and privacy mask zone.
	TV Adjust	Adjust TV output zone suitable to anamorphic video.
	Channel Lock	Cover secret channel with black screen though system is encoding normally. Screen-lock function to prevent unauthorized user seeing secret video.
	Channel Information	Channel name, recording status, screen lock status, video loss status and motion detection status are shown on the bottom left of display screen.
	Color Configuratio n	Hue, brightness, contrast, saturation and gain setup for each channel.
Audio	Audio Input	1-ch 200-2000mv 10KΩ(RCA)
	Audio Output	1-ch audio output 200-3000mv 5KΩ(RCA)
	Bidirectional Audio	Reuse the audio input/output channel.
Hard disk	Hard Disk	1 built-in SATA port. Support 1 HDD.
	One HDD Space	4T
	Hard Disk Occupation	Audio：PCM 28.8MByte/h Video：56-900MByte/h
	Recording Mode	Manual recording, motion detection recording, schedule recording and alarm recording Priority: Manual recording> alarm recording>motion detection recording>schedule recording.

Record and playback	Storage Mode	Support channel record quota setup	
	Recording Length	1 to 120 minutes single record duration (Default setup is 60 minutes)	
	Playback Repeat Way	When hard disk is full, system can overwrite previous video file.	
	Record Search	Various search engines such as time, type and channel.	
	Playback Mode	Various fast play, slow play speeds, manual frame by frame playback and reverse play mode.	
	Various File Switch Ways	Can switch to previous or next file or any file in current play list. Can switch to file on other channel of the same time. (If there is a file) Support file continuous play, when a file is end system auto plays the next file in the current channel	
	Playback Way	Support mark playback	
	Multi- channel Playback	There is 1/4-channel playback mode.	
	Window Zoom	Switch between self-adaptive screen/full screen when playback	
	Partial Enlargemen t	When in one-window full-screen playback mode, you can select any zone to activate partial enlargement function.	
Backup function	Backup Mode	HDD backup	
		Support peripheral USB backup device. (Flash disk, portable disk and etc.)	
		Support network download and save	
Network function	Network control	View monitor channel remotely.	
		DVR configuration through client-end and web browser	
		Upgrade via client or browser to realize remote maintenance.	
		View alarm information such as motion detection and video loss via client.	
		Support network PTZ lens control	
		File download backup and playback	
		Multiple devices share information via corresponding software such as professional surveillance software (PSS)	
		Duplex transparent COM	
		Network alarm input and output	
		Zero-channel encoding.	
		Bidirectional audio.	
Motion Detection and Alarm	Motion Detection	Zone setup: support 396((PAL 22×18, NTSC 22×15)) detection zones. Various sensitivity levels. Alarm can activate record or external alarm or screen message prompt.	
	Video Loss	Alarm can activate screen message prompt.	
	External Alarm	N/A	
	Manual	N/A	

	Alarm Control	
	Alarm Input	N/A
	Alarm Output	N/A
	Alarm Relay	N/A
System Information	USB Interface	2 USB 2.0 port.
	Network connection	RJ45 10M/100M self-adaptable Ethernet port
	RS485	PTZ control port Support various PTZ control protocols.
	RS232	N/A
System Information	Hard Disk Information	Display HDD current status
	Data Stream Statistics	Data stream statistics for each channel (in wave mode)
	Log statistics	Backup to 1024 log files. Support various search engines such as time and type.
	Version	Display version information: channel amount, system version and release date.
	On-line user	Display current on-line user
User Management	User Management	Multi-lever user management; various management modes Integrated management for local user, serial port user and network user. Configurable user power.
		Support user /group and its corresponding rights modification. No limit to the user or group amount.
	Password Authentication	Password modification Administrator can modify other user's password.
		Account lock strategy Five times login failure in thirty minutes may result in account lock.
Upgrade		Web browser, client-end and update tool.
Login, Logout and Shutdown		Password login protection to guarantee safety
		User-friendly interface when login. Provide the following options: Logout /shutdown/ restart.
		Right authentication when shut down to make sure only those proper people can turn off DVR
General Parameter	Power	DC 12V
	Power Consumption	≤15W (With adapter, exclude HDD)
	Working Temperature	-10℃－＋55℃
	Working Humidity	10%－90%
	Air Pressure	86kpa－106kpa
	Dimension	325(W) x245 (D) x45mm(H)
	Weight	1.25KG(Exclude HDD)
	InstallationMode	Desktop installation

Appendix H Toxic or Hazardous Materials or ElementS

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Sheet Metal(Case)	○	○	○	○	○	○
Plastic Parts（Panel）	○	○	○	○	○	○
Circuit Board	○	○	○	○	○	○
Fastener	○	○	○	○	○	○
Wire and Cable/Ac Adapter	○	○	○	○	○	○
Packing Material	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

Note

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in theparts is

below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneousmaterials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During theenvironmental-friendly use period (EFUP) period, the toxic or hazardous substance or elementscontained in products will not leak or mutate so that the use of these (substances or elements) will notresult in any severe environmental pollution, any bodily injury or damage to any assets. The consumeris not authorized to process such kind of substances or elements, please return to the correspondinglocal authorities to process according to your local government statutes

Note:

● **This manual is for reference only. Slight difference may be found in the user interface.**

● **All the designs and software here are subject to change without prior written notice.**

● **All trademarks and registered trademarks mentioned are the properties of their respectiveowners.**

● **If there is any uncertainty or controversy, please refer to the final explanation of us.**

● **Please visit our website or contact your local retailer for more information.**