H.264

Digital Video Recorder

Operation Instruction
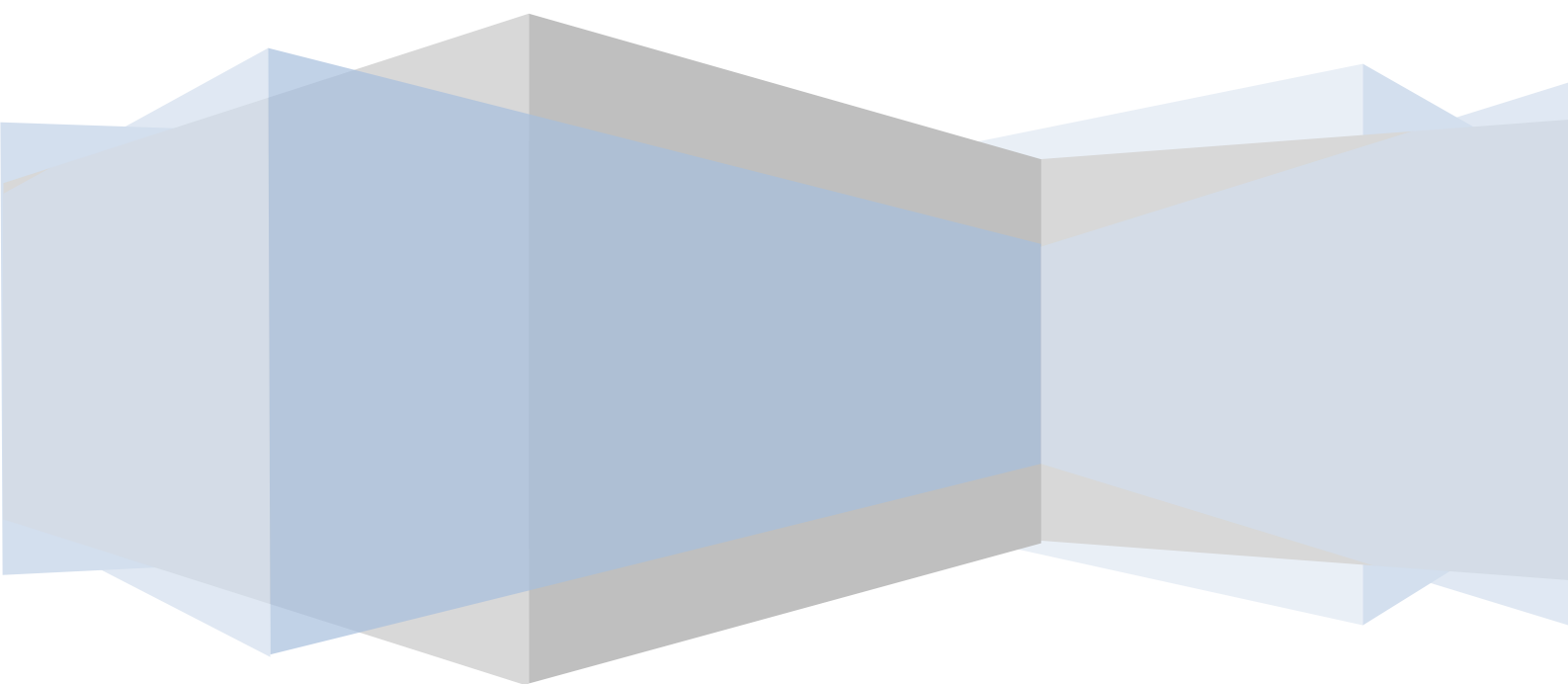
Statement:

Precautions：

1. This video recorder is powered by utility power through DC12V adapter, please check the power supply of power socket to see if it meets the requirement of the adapter before installation is carried out;

2. Never place the video recorder at humid place or place subject to rain;

3. The video recorder should be installed at a place without strong vibration;

4. The video recorder should be installed at a place without direct sunlight and far away from heat source and high temperature;

5. When the video recorder is installed, its rear panel should be more than 15cm away from other object or wall to facilitate heat emission by fan;

6. Allow the video recorder to work within the temperature, humidity, and voltage ranges permitted by the technical criteria;

7. Never store chemicals from which corrosive and volatile gas may be created in the place where the video recorder is installed, lest the service life of video recorder will be affected;

8. The video recorder should not installed where there are many dusts, and the surrounding environment should be kept clean;

9. When the video recorder is used, correct grounding should be ensured;

10. When the video recorder is installed, correct connection to other devices should be ensured;

11. Please purchase hard disk from formal channel, so as to suit long term, mass data read-write requirement of DVR;

Contents

Foreword

Introduction

This manual describes a 24/32 channel embedded digital video recorder and its detailed specifications, details the functions and application precautions for each module of the device, as well as the definitions for the signals of each connector on the rear panel.

Chapter I   Product Introduction. Product functions, main features and environmental adaptation are briefly introduced.

Chapter II   Environmental adaptation.

Chapter III   Operation manual of main frame. Including functional introduction for the press keys of remote control, and the operation function corresponding to each menu interface and the meaning of each option setting are explained in details.

Chapter IV   Remote monitoring software. The operation function corresponding to each IE menu interface and the meaning of each option setting are explained in details.

Chapter V   DVR installation guidance. Signal arrangement and connectors of rear panel are detailed; the definition for the signal of each external cable; the definition of front panel and the definition of each interface are also detailed.

Chapter VI   FAQ.

Chapter I: Introduction

1.1 Main features

This DVR series is a 4/8/16/24/32 channel real time CIF high resolution digital video recorder. It features real time monitoring, local recording and playback, supporting 3 bitstreams remote network monitoring, data backup, parameter setting, supporting motion detection alarm, supporting USB mouse etc functions.

1.2 Product features

✧ Video compression format is standard H.264
✧ Two USB interfaces
✧ 16-bit true color translucent graphic menu interface, menu option notation prompt
✧ 24/32 channel synchronous playback
✧ Two-stage user authority management
✧ Support multi-Video real time browse, parameter setting, backup or record playback to local device by network

1.2.1 Performance parameters

General version 24CHs and 32CHs specification

Type	24 channel	32 channel
Compression standard	H.264	
Video input	1.0Vp-p/75Ω，BNC×24	1.0Vp-p/75Ω，BNC×32
Video output	1.0Vp-p/75Ω，BNC×1；VGA×1；spot×1；HDMI×1	
Resolution	Preview: D1 Record: 24 channel CIF full real time	Preview: D1 Record: 32 channel CIF full real time
Frame rate	PAL : 800 Fps(CIF) NTSC : 960 Fps(CIF)	
Audio input	RCA×16	
Audio output	BNC×1	
Audio codec	G.711A	
Alarm input	Default low level alarm, can be set as normal open or normal close, 16 channel input	Default low level alarm, can be set as normal open or normal close, 16 channel input
Alarm output	2 channel output	
Record mode	Manual record, scheduled record, motion detection record and external alarm record	
Simplex/duplex/triplex	Triplex (record, playback, network transmission)	
Network interface	RJ45(10M/100M self-adapting)	
PTZ control	Support	

Communication interface	RS485×1，USB2.0×2，RS232×1
Number of hard disk	4 pieces of high capacity SATA hard disks（300GB-2TB）
Mouse	USB mouse
Remote control	Yes
Power supply	12V/6A

Table 1.1 Performance parameters

General version 4CHs、8CHs and 16CHs specification

Module	4CH	8CH	16CH
Video compression	H.264		
Video in	1.0Vp-p/75Ω，BNC×4	1.0Vp-p/75Ω，BNC×8	1.0Vp-p/75Ω，BNC×16
Video out	1.0Vp-p/75Ω，BNC×1；VGA×1		1.0Vp-p/75Ω，BNC×1；SPOTX1;VGA×1
Resolution	Live：D1 Record：2CH D1, 2CH CIF	Live：D1 Record：8CH CIF	Live：D1 Record：1CH D1，15CH CIF
frame rate	PAL : 100 Fps(CIF) NTSC :120 Fps(CIF)	PAL :200 Fps(CIF) NTSC :240 Fps(CIF)	PAL : 400 Fps(CIF) NTSC : 480 Fps(CIF)
Audio input	RCA×4	RCA×8	RCA×16
Audio output	RCA×1		
Audio codec	G.711A		
Alarm input	4 alarm input	8 alarm input	16 alarm input
Alarm output	1 alarm output	2 alarm output	2 alarm output
Video mode	Manual recording , Scheduled recording，Movement alarm video and External alarm recording		
Network interface	RJ45,100M/1000M		
PTZ	support		
communication interface	RS485×1， USB2.0×2		RS485×1， RS232×1，USB2.0×,3
Data storage	Support 1 SATA HDD（300GB-2TB）		Support 2 SATA HDD（300GB-2TB）
Mouse	USB Mouse		
Remote control	Support		
voltage input	12V/3A		12V/5A

Simple version 4CHs 、8CHs and 16CHs specification

Module	4CH	8CH	16CH
Video compression	H.264		
Video in	1.0Vp-p/75Ω，BNC×4	1.0Vp-p/75Ω，BNC×8	1.0Vp-p/75Ω，BNC×16
Video out	1.0Vp-p/75Ω，BNC×1；VGA×1		1.0Vp-p/75Ω，BNC×1；SPOTX1;VGA×1

Resolution	Live：D1 Record：4CH CIF	Live：D1 Record：8CH CIF	Live：D1 Record：16CH CIF
frame rate	PAL : 100 Fps(CIF) NTSC :120 Fps(CIF)	PAL :200 Fps(CIF) NTSC :240 Fps(CIF)	Non-real time ， Max PAL :320 Fps(CIF)，NTSC :400 Fps(CIF)
Audio input	RCA×1	RCA×4	
Audio output	RCA×1		
Audio codec	G.711A		
Alarm input	4 alarm input		8 alarm input
Alarm output	1 alarm output		2 alarm output
Video mode	Manual recording , Scheduled recording，Movement alarm video and External alarm recording		
Network interface	RJ45,100M/1000M		
PTZ	support		
communication interface	RS485×1， USB2.0×2		
Data storage	Support 1 SATA HDD（300GB-2TB）		Support 2 SATA HDD（300GB-2TB）
Mouse	USB Mouse		
Remote control	Support		
voltage input	12V/2A (3A)		12V/3.6A

Chapter II: Environmental adaptation

In order to ensure safe application of DVR and obtain satisfactory service performance, prolong the service life of device, customer should fully consider the following factors when install the device:

1) When the device is installed and operated, all specifications of electronic product and the requirements of vehicle and other connecting device should be followed.

2) Power supply and grounding:

   ◆ Never use wet hand to touch power supply and video recorder.

   ◆ Never drop liquid on video recorder, otherwise short circuit inside device or fire may be resulted.

   ◆ Never pile other object on video recorder.

   ◆ Use soft dry cloth to clean video recorder, never use chemical solvents.

   ◆ After the power cable of video recorder is connected to power socket, there is still voltage inside the device even if the video recorder has not been started.

   ◆ If the device is not to be used for long term, it is preferred to fully disconnect the power supply of video recorder, and unplug the power cable from the power socket.

Chapter III: Operation manual of main frame

In the operation of this device, the Enter key on remote control has the same function as the left click of mouse.

3.1 Remote control

Remote control is a minor input device to browse system interface.

The usage of function keys of remote control:

1. **Standby:** standby mode;

2. **Login/lock:** obtain operation authority when enter the system. If "Safety" operation has been enabled in setting menu, press this key to open user login interface; this can also be used for the selection of remote device.

3. **Number keys or video channel buttons:** pressing number key 0~9 in setting interface means the input of number 0~9; in monitoring state, pressing number key means switching the output Video to video single Video of each channel;

4. **Multi-Video:** switch output Video to 4-channel video Video or multi-channel video display;

5. **Menu:** press this key in preview picture to display main menu;

6. **PTZ:** call out PTZ control interface;

7. **ESC:** close menu window or return to previous menu;

8. **Browse or Enter:**

▲：Press to move mouse cursor upwards in menu interface, and add 1 for video channel value

▶：Press to move mouse cursor rightwards in menu interface, and add 1 for video channel value, in playback, 2X, 4X, 8X, 16X, 32X speed fast play is supported;

◀：Press to move mouse cursor leftwards in menu interface, and minus 1 for video channel value, in playback, 2X, 4X, 8X, 16X, 32X speed fast backward is supported;

▼：Press to move mouse cursor downwards in menu interface, and minus 1 for video channel value;

·Enter: It is used to confirm the selection and setting of system parameters, playback etc operations;

9.**+/-:** It is used to adjust analogue quantity parameters, increase/ decrease parameter value of system setting parameter;

10. **Record:** enable manual record;

11. **Stop record:** stop manual record; (this function can't stop starting record or timing record being carried out)

12. **Auxiliary:** preserved key;

13. **Playback control:**

◀◀ **Fast backward:** fast play back Video backwards, support 2X, 4X, 8X, 16X, 32X speed fast backward; press 【 ▶ 】 key to restore normal playback speed;

▶ **Play:** it is used to play back record data in normal speed;

▶▶ **Fast forward:** fast play back Video forwards, support 2X, 4X, 8X, 16X, 32X speed fast play; press 【 ▶ 】 key to restore normal playback speed;
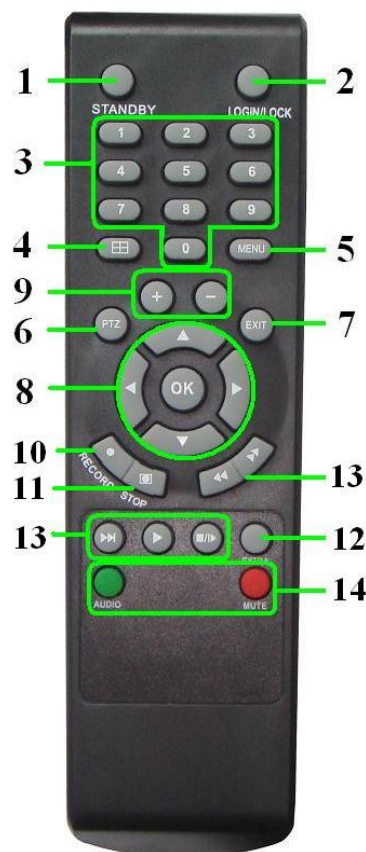
Figure 3.1 remote control

Prompt: when using remote control to input password and camera name, please use the key area to press Enter key, and then press Numbers key.

▶▶ **Slow play:** play back Video in slow speed, support 1/2, 1/4, 1/8, 1/16, 1/32 speed slow play; press 【▶】key to restore normal playback speed;

◼▶ **Pause/play frame by frame:** pause or play back Video frame by frame; press firstly to pause the playback of Video; then press continuously, each press will play back 1 frame of Video; press 【▶】key to restore normal playback speed;

14. **Sound control:** enable and disable sound.

Select device number setting by remote control: after【Login/lock】key is pressed, input device number in【Password setting】to control the device. For example: select the device with device number of "000001". After【Login/lock】key is pressed, input number "1" (that is【Login/lock】＋1), then the remote control can control the machine with device number of "000001".

Note: when the device number is 000000, the remote control can control by default,

【Login/lock】+0, the remote control can control machine with any number

**The number of machine can be set as up to 000255**

3.2 Mouse operation

Mouse is the main input device to browse system menu.

Note: except stated otherwise, all system functions in this manual are described by using mouse input operation.

Mouse application of this system:

1）Insert USB mouse to the USB mouse port on the front panel of this system or the USB interface at the bottom of rear panel.
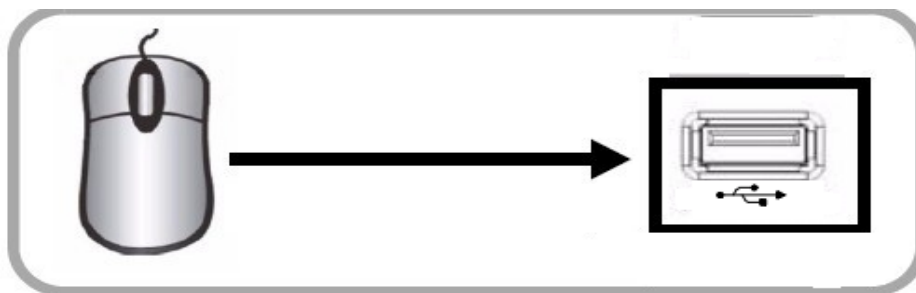

Figure3.2 Connect USB mouse to the bottom USB port of rear panel

2) The operation of mouse key is as follow:

Left key: single click left mouse key on the functional menu option icon to enter the setting page of the menu; double click left mouse key in real time monitoring Video or playback Video will zoom in the image of certain channel, double click left key again to return to the monitoring and playback of multi-channel Video.

Right key: in real time preview Video, single click right mouse key to enter the main menu of system. In menu page, single click right mouse key to return to previous page.
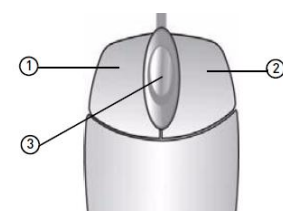
3）Roller in the middle of mouse: No function at all.

Figure 3.2.1 Mouse key operation

Virtual keyboard (mouse operation)

Application of virtual keyboard:

Figure 3.2.2 virtual keyboard

1. Click input box, such as user number and user password box.
2. Click the corresponding number of 0~9 key input.
3. Left click 123 to switch input methods: digit, capital letter, small letter, punctuation character and Pinyin input method (different input method switch available depending on the property of the input box).
4. Left click ← to delete character.
5. Click ← key to conform/input and close virtual keyboard.

Note: when mouse cursor moves to the selected button, the keyboard button will be shown in orange.

3.3 System operation

3.3.1 User login

1. **Start the system**

Power ON/OFF:

Connect power cable to the DC12V port on the rear panel of this system. When the system is started, it will execute a basic system inspection and run initial load sequence. After few minutes, the system will load real time display diagram.

Password

**Note:** the system will enable password by default. You can disable it manually in password setting. The default password is: 123456.

Note:

1）When the main frame is powered on, if no hard disk is installed on the device, or the installed hard disk is not detected during starting up, or the installed hard disk hasn't been formatted on the local device, 【H】mark will be displayed on video preview Video after starting up.

2）Newly installed hard disk can be used normally only after being formatted through local device. New hard disk can be detected automatically during starting up and it will prompt you to format hard disk; if it is required to format hard disk in the system, the procedure is as follow: main menu>hard management>format hard disk.

2. **System login**

Open main menu: right click any position on screen to display toolbar, select the first main menu button (mouse operation) at the left most of toolbar, or press [MENU] on remote control or panel to enter into login box, as shown below:
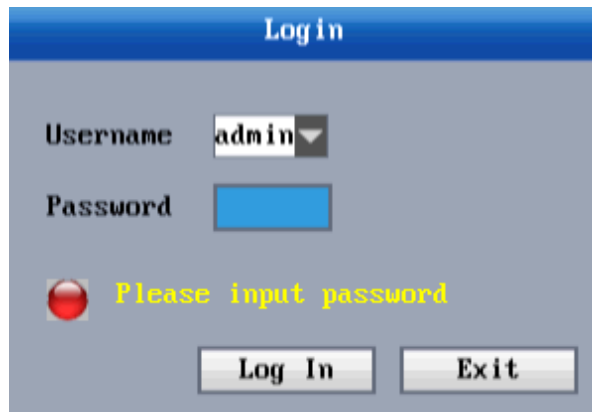
User name: user can select your user name in the pull-down box of user name. If it is required to enable other user to log in, please use admin to log in and enter: main menu > system function > user password, so as to open other account.

User password: input the corresponding password of the user

Note: the system has enabled password by default, when the system is entered at each startup, only after the corresponding password is entered according to the user name, the system can be entered. (The default password for admin is 123456) or general user password (the default password for system general user1 is: 123456)

3.3.2 The right mouse button operating instructions

1. Click the right mouse button into the right menu。
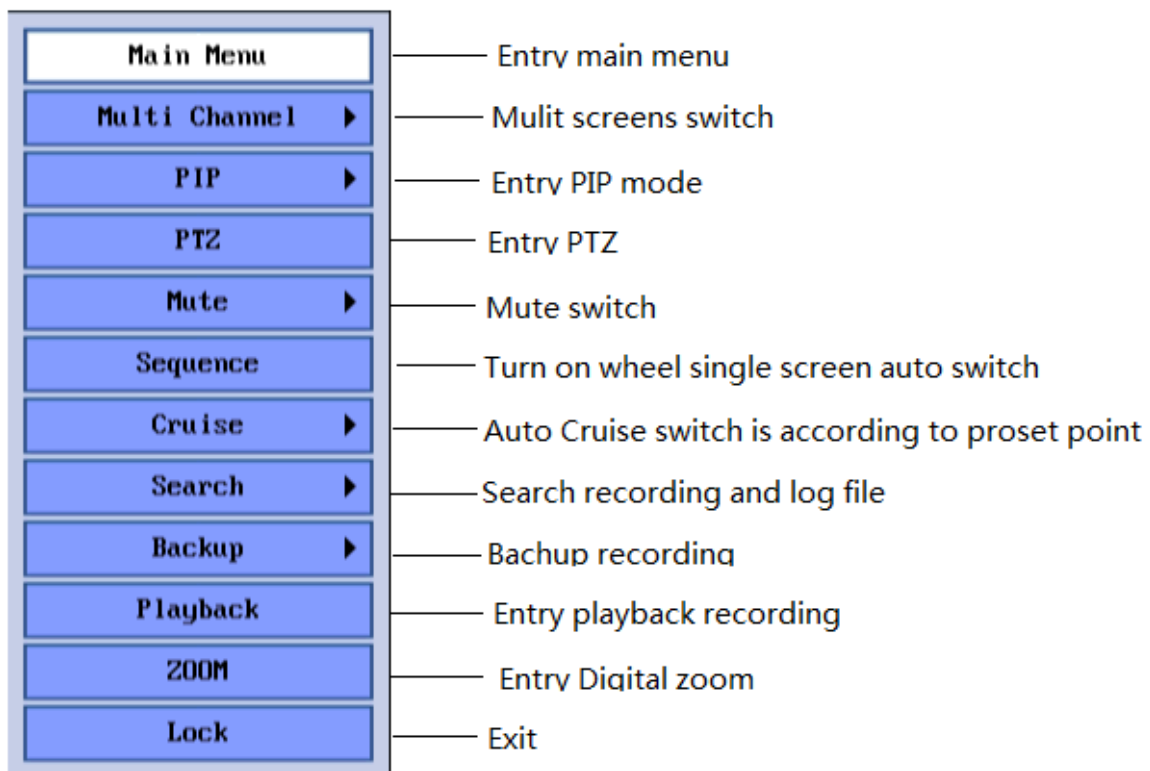
3.3.3 Menu operation

Main menu consists of 『DISPLAY』, 『RECORD』, 『NETWORK』, 『DEVICB』, 『SYSTEM』 items, as shown below:

Prompt: the settings to all submenus below are valid only after 【Apply】 is pressed; The settings are invalid when you exit this page directly without pressing OK.
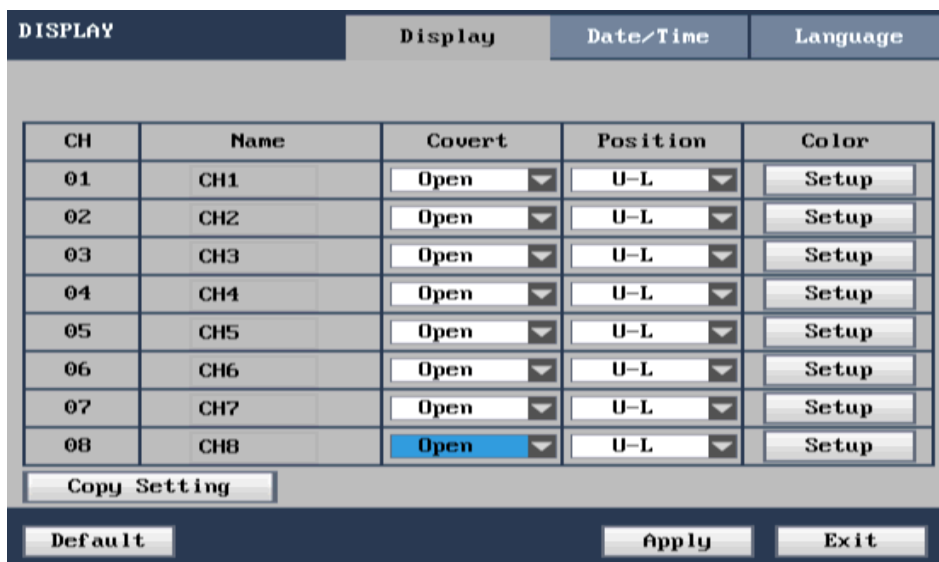
This product has an obvious feature: when mouse cursor moves to any option, the remark prompt information of the option will be displayed automatically at the bottom of the interface.

3.34. Display Setup

Display

Move mouse cursor to 『Display』 item, single left click mouse to enter the setting interface of the item. As shown below:

CH01-**CH08:** click to pop up pull-down box to switch to other channel to carry out setting

Name: move mouse cursor to the channel name to be modified, single left click mouse to pop up soft keyboard so as to modify channel name.

Convert: "Open" means the Video of the channel can be seen on video preview Video.

Position: left click the pull down menu for the channel where the name position is required to be modified, there are 5 setting options: left-top, left-bottom, right-top, right-bottom and close.

Color: move mouse cursor the 【Setup】 of corresponding channel, single click mouse to enter the setting interface of color, as shown below:
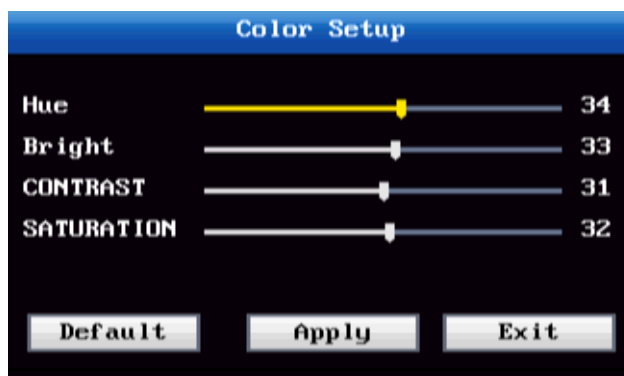
Drag mouse cursor to carry out the setting of Video color, including 4 options: Hue, bright, contrast and saturation.Click【Apply】to exit and the set parameters are saved.

Copy Setting：Will a channel set parameters copied to the other channels.

2. Time setting

Move mouse cursor to『Date/Time』item , single left click mouse to enter the setting interface of the item. As shown below:
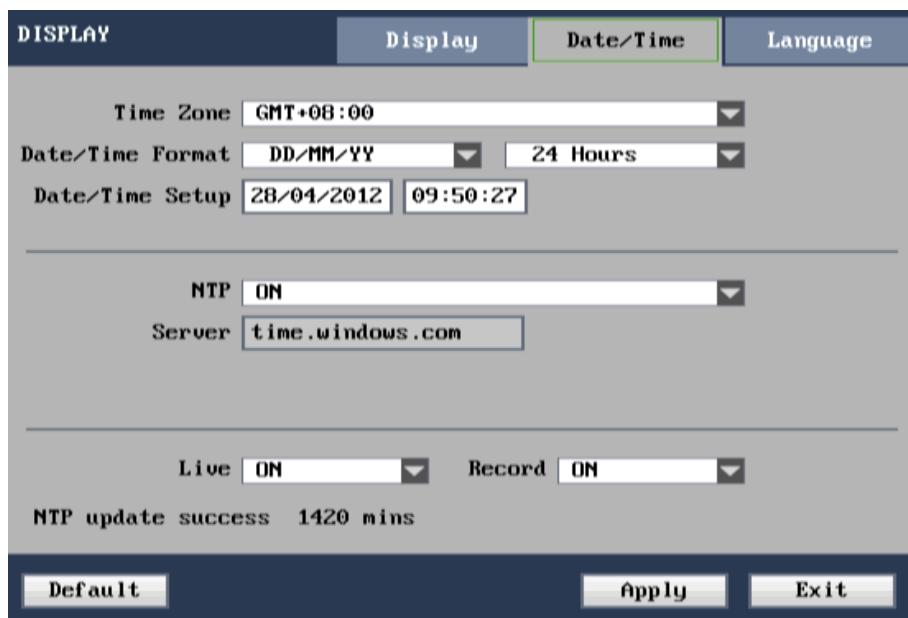
Time Zone：Press 【▼】 keys are used to the time zone switching, please choose where you are and the corresponding time zone

    Date/Time Format: Press 【▼】 Key to time format of switching, MM/DD/YY, YY-MM-DD and DD/MM/YY three options. Can choose the 24 hours to make or 12 hours to make.

Date/date set: Modification date and time,Click on the 【apply】 after the modification effect.Change may cause video file is missing, recommend that users don't easily modified time.

NTP:Open/close,Mainly used for time synchronization, open NTP after the system automatic correction DVR time.

server :The server for the default, may not be installed

Live：Preview screen time on/off.

Record：Video screen time stack on/off.

4 .System language

Move mouse cursor to 『Language』 item, single left click mouse to enter the setting interface of the item. As shown below:
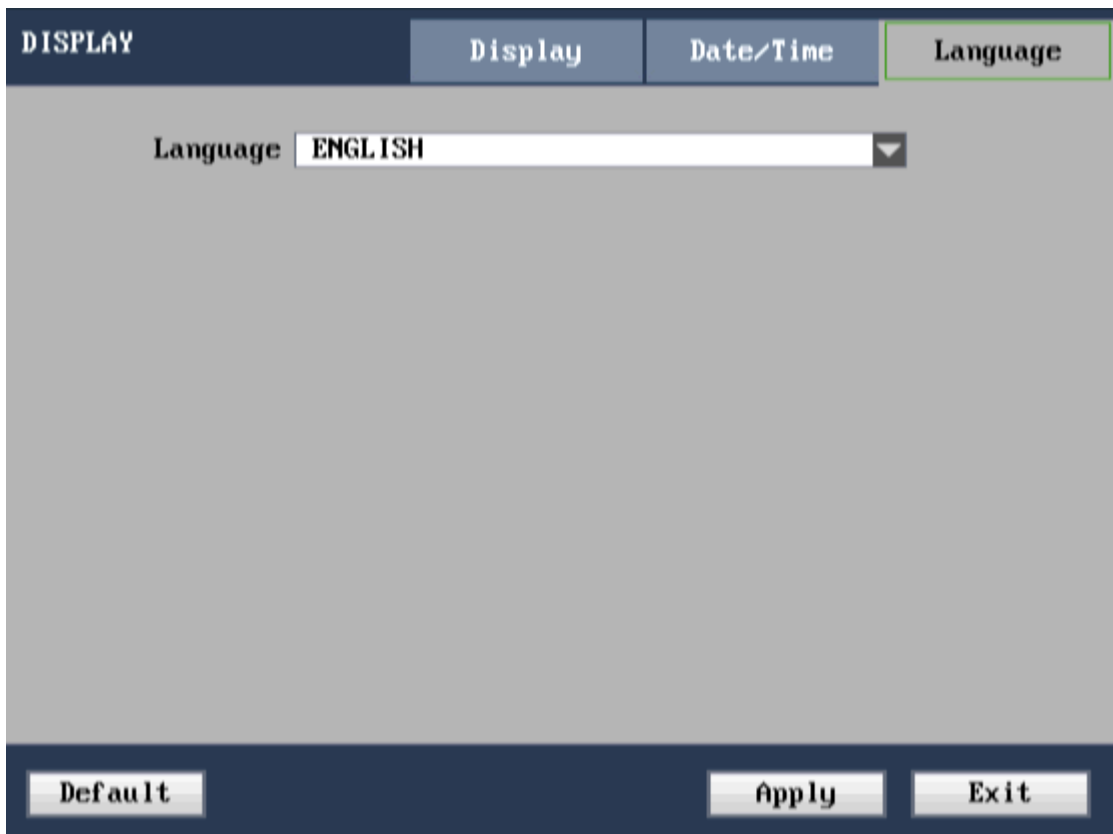
There are multiple options in system language: Chinese, English, Portuguese and so on.

Note: the system will restart after system language is modified.

3.3.5 Record setting

1.**Record setting**

Move mouse cursor to『Record』item , single left click mouse to enter the setting interface of the item (as shown below).

CH	Record	Quality	Resolution	Audio	FPS
01	Open ▼	Best ▼	CIF ▼	Open ▼	25 ▼
02	Open ▼	Best ▼	CIF ▼	Open ▼	25 ▼
03	Open ▼	Best ▼	CIF ▼	Open ▼	25 ▼
04	Open ▼	Best ▼	CIF ▼	Open ▼	25 ▼
05	Open ▼	Best ▼	CIF ▼	Open ▼	25 ▼
06	Open ▼	Best ▼	CIF ▼	Open ▼	25 ▼
07	Open ▼	Best ▼	CIF ▼	Open ▼	25 ▼
08	Open ▼	Best ▼	CIF ▼	Open ▼	25 ▼

RECORD — Record / Schedule

Copy Setting   Pack Time 60 Min ▼

Default   Apply   Exit

CH01-**CH04/CH09-CH16:** click the button to switch to other channel to carry out setting.

Record : "Open" means the record function of corresponding record channel is enabled.

Quality: there are 3 types: excellent, good and medium corresponding to 3 data stream standards: very high bit rate, higher bit rate and medium bit rate.

Resolution: there are three corresponding resolutions: D1, HD1, CIF.(Some models can not be set D1 and HD1, the specific parameters to prevail in kind).

Audio : "Open" means all channels have audio recording enabled; "Close" means all channels have audio recording disabled.

FPS: Set the number of frames per second video, P system: 1 frame/seconds-25 frames per second can choose; N system: 1 frame/seconds-30 frames per second can choose**Schedule Setup**

Move mouse cursor to 『Schedule』 item , single left click mouse to enter the setting interface of the item (as shown below).

Mode: there 2 methods: Always and Schedule.

● Always: the record is started when the device is powered on.

● Schedule:: Video of video set according to plan，As shown below:
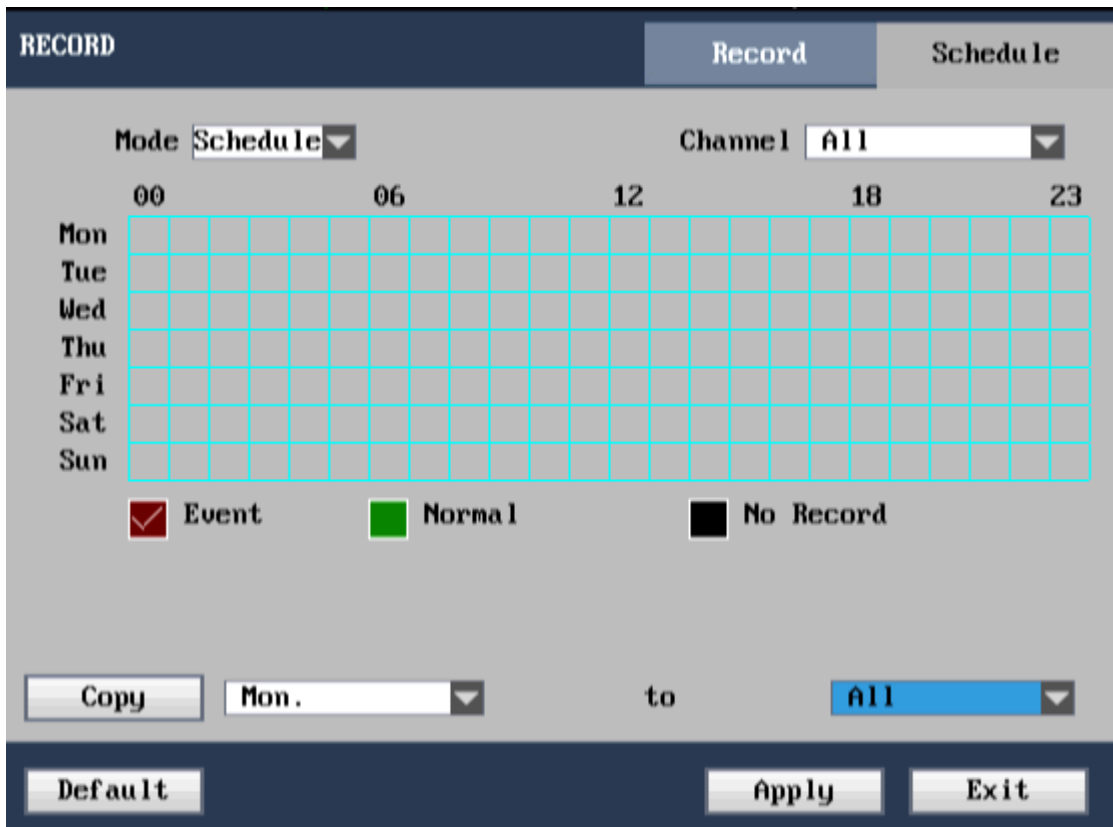
Channel: you can select【All channels】, you can also select single channel.

Record Schedule Setup: firstly select the record method configuration carried out aiming at certain pane; there are 3 types of option: alarm record, conventional record and no record; so as to carry out configuration to specific record time pane (each pane represents 1 hour). Each pane can be configured as different record method, which represents as different color marked on each pane: red, green, base color that represents alarm record, conventional record and no record respectively within the hour.

Packing time: single left click its pull down menu to carry out selection of packing time, there are 4 options: 15 minutes, 30 minutes, 45 minutes, and 60 minutes.

Event Setting

Configuration alarm event video parameters, please refer to the video Settings.

3.3.6 Network setting

1. Network setting

Move mouse cursor to『Network』item, single left click mouse to enter the setting interface of the item. As shown below:

Address type: there are 3 types of optional address: DHCP, PPPOE, Static IP (manual configure)

> Static IP

Press Select static IP in Address type to enter manual static IP, as shown above.

Media port: port number adopted by private communication protocol between DVR device and PC end; in general case, the default value is: 8200. If the port on PC is occupied by other service, please change it to an idle port.

WEB port: HTTP port, in general, default value is adopted: 80. If administrator has change the WEB port to other port such as: 8235, then add port number after IP, when it is required to access the device through IE, input in address field:http://172.20.80.53:8235.

IP address: fill in IP address according to the network where the device is located.

Subnet mask: fill in subnet mask according to the network where the device is located.

Gateway: set gateway according to the network where the device is located. If there is no router device in the network, please configure IP address of the same network segment; if there is router device in the network, then it is required to set well corresponding gateway.

Special function：E-Video

> DHCP

Select DHCP in address type to enter its setting interface, as shown below:

Media port: it is the same as static IP

WEB port: it is the same as static IP

Note: after DHCP method is selected, restarts the system after confirm. After startup, the system will automatically establish connection with DHCP server; after the connection is successful, the device will be configured with an IP address and displayed on the interface.

➤ PPPOE

Select PPPOE in address type to enter its setting interface, as shown below:

Media port: it is the same as static IP

WEB port: it is the same as static IP

PPPOE user name and password: fill in PPPOE user name and password provided by internet service supplier, restarts the system after confirm. After startup, the system will automatically establish network connection in PPPOE method; after the connection is successful, the IP on IP address will be automatically modified as dynamic IP address obtained on WAN.

DNS: set the IP address of domain name server; refer to the configuration of domain name server on computer.

2. DDNS setting

Move mouse cursor to『DDNS』item, single left click mouse to enter the setting interface of the item. As shown below:

DDNS: there are 2 options:『Open/Close』; You can select DDNS Enabled when there is domain name resolution server.

Server: user can select required DDNS server, there are 4options: 3322, dyndns, nightowldvr, no-ip;

Registration and method of use see appendix 1

Host Name: input the host name registered on dynamic domain name resolution server.

User name: input user name registered on dynamic domain name resolution server.

Password: input password registered on dynamic domain name resolution server.

E-Video：The user can review the DVR IE from http://www. dvripc.net   directly .(For more operation step please refer to   Chapter VII appendix)

3. Mobile phone monitoring

Move mouse cursor to 『Mobile』icon, single left click mouse to enter the setting interface of mobile phone monitoring; if it is required to input user name and user password in mobile phone software, then the corresponding user name and password should be consistent with the user name and password of IE setting, the default user name is: admin, the corresponding password is: 123456. As shown below:

Service port: port number adopted by private protocol communication between DVR device and mobile phone; in general condition, default value is adopted: 15961. If the port of mobile phone is occupied by other service, then change it to an idle port.

Network type: WIFI, 3G, 2.75G, 2.5G.

4. Email Setup

Move mouse cursor to 『E-mail』 item, single left click mouse to enter the setting interface of the item. As shown below:

SSL	:	Except for gmail that should be set ON, it is set as OFF for other mailbox.
SMTP port .	:	It is 465 for gmail, and 25 for other mailbox.
SMTP server	:	It is generally: smtp.xxx.com, such as smtp.gmail.com, smtp.sina.com.
Sender Mail	:	Corresponding mailbox address of above smtp server.
Sender PW	:	Password of above mailbox.
Receiver mail	:	Mailbox address of receiver.
Interval	:	Time interval of sending alarm email, options are: 3 min, 5 min and 10 min.

3.3.7 Record Search, playback and backup

1. Search and playback

Click the mouse button, select the 【 Search 】 button, into the file query interface.

The first: file query

File Search

Start Time	2012-04-27	00:00:00
End Time		23:59:59
Type	All ▼	
	Channel	

Search	Exit

Users to set up Search terms, click on the 【Search 】 button Search out video files, as the chart：

File Search

First	Prev	Next	Last

Ch	Time	Size	Type
1	10:45:59-10:46:06	0.7M	Norm
2	10:45:59-10:46:07	0.7M	Norm
3	10:45:59-10:46:07	0.7M	Norm
4	10:45:59-10:46:04	0.4M	Norm
4	10:46:05-10:47:24	5.3M	Alarm
1	10:46:07-10:47:25	6.3M	Alarm

● Go to the first page

Exit

Mouse the left key click video files can play

The second: events search (file query operation with the same)

2. Video files backup operation

Click the right mouse button choice 【 backup 】 button to enter the video backup search interface,Video files backup through USB storage devices can be copied or access equipment means,Can according to the file backup, can also according to the time the backup.In the video files backup before, the user must first will storage peripherals inserted into the device USB2.0 slot or connected to the recording equipment,This product support USB plug and play equipment operation.When USB storage devices and burn equipment and access DVR, system priority backup to burn equipment,Backup search interface is shown below

```
File Backup

                    Calendar
    Start Time  2012-04-27   00:00:00
    End Time                 23:59:59
                    Channel
  Backup Device  No thumb drive
    Total Space  0MB
           Type  All ▼


                                Search    Exit
```

Calendar: click on the【Calendar 】, into the playback search interface, video playback. Backup search conditions, including: time, the channel, type. Set up the Search terms, click on the 【Search 】 button, will Search the video files to list are form, content.

Backup

First	Prev	Next	Last	All	Inverse

Ch	Time	Size	Type	Sel
1	10:45:59-10:46:06	0.7M	Norm	☐
2	10:45:59-10:46:07	0.7M	Norm	☐
3	10:45:59-10:46:07	0.7M	Norm	☐
4	10:45:59-10:46:04	0.4M	Norm	☐
4	10:46:05-10:47:24	5.3M	Alarm	☐
1	10:46:07-10:47:25	6.3M	Alarm	☐

Backup	Exit
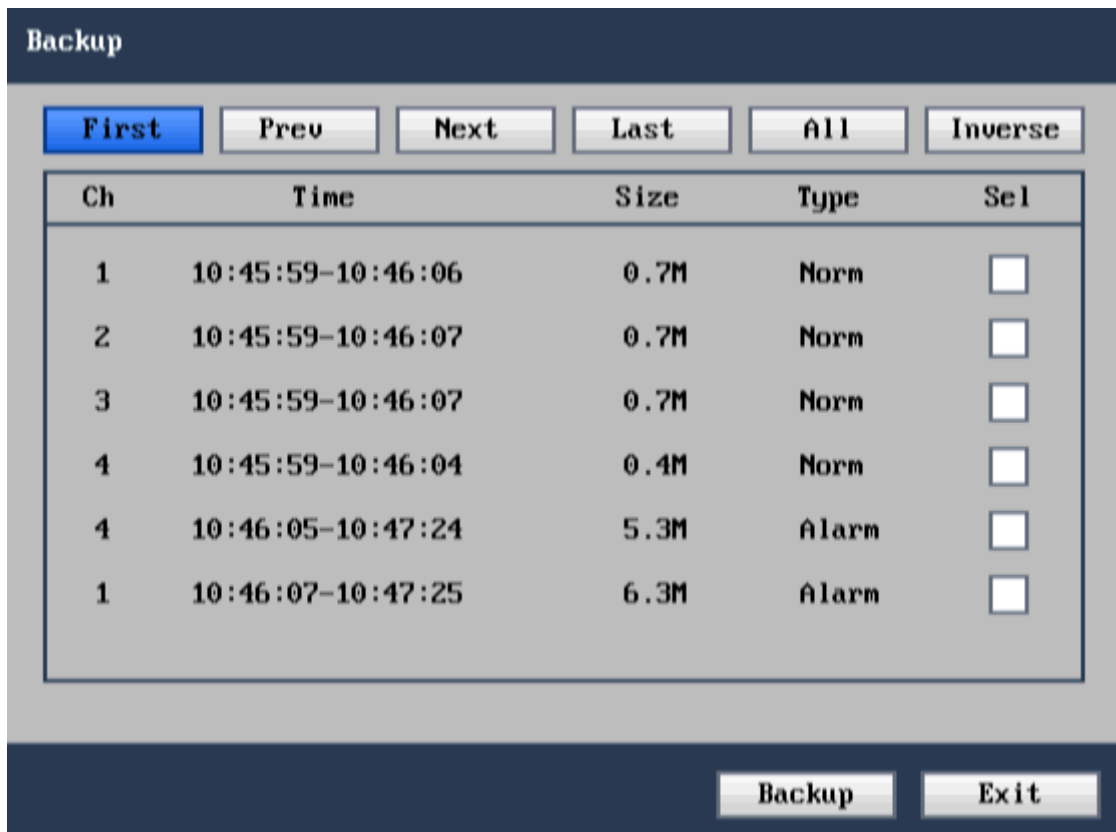
below:

In detailed list interface file on a choice for a video files, in the selection box click the mouse left key after, this box will be the emergence of a "appropriate", said the video files are selected, to move the mouse to the【 backup 】 button and click the 【backup 】 button, right now the interface may display file backup schedule information, see below:
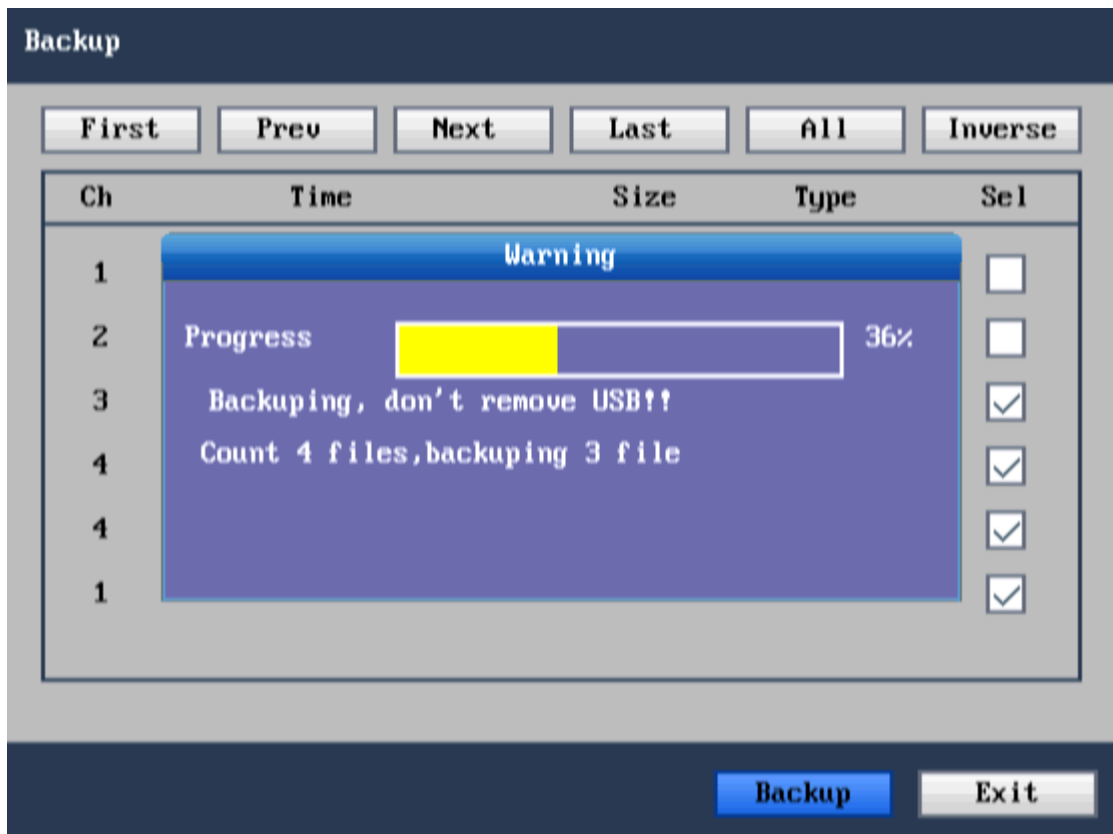
Note:

1. If the space of backup device is less than the capacity of the record file, then when user carry out backup, the system will prompt: not enough space;

2. After the backup of record file is completed, directly pull out the backup device.

3. Video playback

Click the right mouse button, click the 【video playback 】 button to enter the video playback interface is shown below:

Note:

　　1>. In『Month』column, the record situation of everyday of that month is displayed. Green block indicates that there is normal record on that day; red block indicates that there is alarm record on that day; base color indicates that there is no record on that day. Click certain date on this column to directly search the record situation of detailed hour, the result of search will be displayed directly on【Day】column below.

　　2>. In『Day』column, the record time interval of that day is displayed. Each pane represents 1 hour, the record state is represented in 0.5 hour size; the represent method of record state is the same as above. Directly click certain 0.5 hour time interval of this day to display "Select playback channel" page, select corresponding channel to enter the record playback of this time interval.

When choose playback

Users can choose the date of the inquires, input digital, year, month, day of adjustment, the next input box to enter the hours and minutes after query, click the 【 Play 】 buttons, appear "choose playback channel" page. See below：
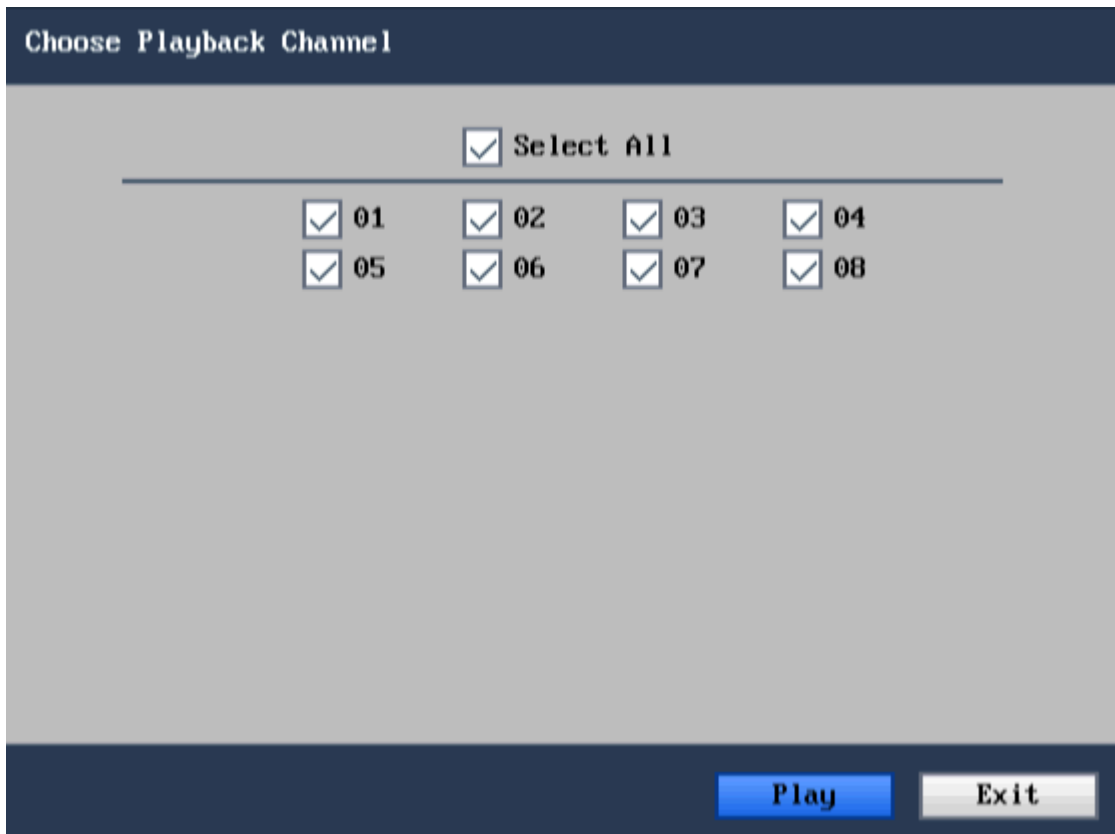
Choose channels, click the 【Apply】 can playback video files.

Explanation:

Choose playback channel, can choose different channel single replay, also can choose a multi-channel and many road replay. (the above parameters for reference only, and the specific in kind prevail)

3.3.8 Device management

Move mouse cursor to 『Device』 icon , single left click mouse to enter the interface of the item (as shown below):

Advanced function includes 6 items: hard disk management, alarm setting, mobile phone monitoring, motion detection, PTZ setting and exit.

1. Hard disk management

Move mouse cursor to 『HDD』item , single left click mouse to enter the setting interface of the item (as shown below).

DEVICE	HDD	Alarm	PTZ	MD

No	Information	Total/Avail	Avail Time	Select
1	OK	953G/919G	649Hour	☐
2	No Disk	0/0	0Hour	
3	No Disk	0/0	0Hour	
4	No Disk	0/0	0Hour	

Overwrite Open ▽

Format HDD   Format USB

Default   Apply   Exit

Information: there are 3 states: normal, unformatted and no hard disk; if all hard disks do not work normally (including unformatted and no hard disk states), a symbol【H】will be displayed on video preview interface.

Total/Avail: indicate total capacity and current available capacity on hard disk.

Avail time: indicate the time available for recording on current hard disk.

Select: ticked indicate that the selected number of hard disk will be formatted.

Overwrite: Automatic: when the residual space of hard disk is less than 10G, the earliest 2G record file on hard disk will be deleted; Close: when the residual space of hard disk is less than certain space, then stop recording; 1 hour: only keep the latest 1 hour record file; 3 hours: only keep the latest 3 hours record file; 1 day: only keep the latest 1 day record file; 7 days: only keep the latest 7 days record file; 30 days: only keep the latest 30 days record file; 90 days: only keep the latest 90 days record file.

Format HDD: carry out hard disk format to the ticked hard disk, single format can be carried out.

Format USB: move mouse cursor on this button and press【OK】key to format U-disk.

Note: hard disk format and U-disk format will clear all data, please back up your important data.

2. Alarm setting

Move mouse cursor to『Alarm』icon, single left click mouse to enter the interface of the item (as shown below):

CH01~CH04 ▼	CH1	CH2	CH3	CH4
I/O Alarm	NO ▼	NO ▼	NO ▼	NO ▼

HDD Loss ON ▼	No Space ON ▼
Video Loss ON ▼	Motion OFF ▼

Output 10sec ▼	Buzzer Close ▼
Duration 1min ▼	Pre Rec Open ▼

Default   Apply   Exit

CH01-**CH04**：Click to pop up pull-down box to switch to other channel to carry out setting.

I/O Alarm: each channel corresponds to an I/O state alarm, that is, when the IO input of certain channel is valid, start the alarm record of corresponding channel.

　　　NO (Normal open): indicate that external alarm circuit is open circuit normally; it is closed circuit when there is alarm.

　　　NC (Normal close): indicate that external alarm circuit is closed circuit normally; it is open circuit when there is alarm.

**HDD Loss:** Enabled indicates that when the system can't identify hard disk, an alarm will be created;【H】will be displayed at the left bottom of channel 1 in video preview Video.

NO Space : Enabled indicates that when the residual space of hard disk is less than 10G, an alarm will be created.

Video loss : Enabled indicates that when video loss occurred at certain channel, the channel in video preview Video will display: video loss

Alarm control: there are 4 items: alarm output, buzzer, record time length and prerecording time.

　　　➢ output: time for external output of alarm signal by DVR when alarm occurs. Options are: close, 10 sec, 20 sec, 40 sec and 60 sec.

　　　➢ Buzzer: time for the sounding of buzzer when alarm occurs. Options are: close, 10 sec, 20 sec, 40 sec and 60 sec.

　　　➢ Duration: time to prolong recording after alarm ends. Options are: 30 sec, 1 min and 5 min.

　　　➢ Pre Rce: enable and disable alarm prerecording.

3. PTZ setting

Move mouse cursor to 〖PTZ〗 item, single left click mouse to enter the setting interface of the item (as shown below). Each parameter of each channel can be set individually.

Channel: select the channel where ball machine camera is connected.

Protocol: select ball machine protocol of corresponding brand type, there are 12 optional protocols.

Baud rate: select the baud rate used by corresponding ball machine, there are 8 optional baud rates: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200.

Data bit: there are 4 options: 5, 6, 7, 8, the default is 8.

Stop bit: there are 2 options: 1, 2, the default is 1.

Parity: there are 5 options: None/Odd/Even/Mark/Space, the default is None.

Cruise: ON means automatic cruise function is enabled.

Address: fill in the PTZ code of corresponding channel.

DEVICE	HDD	Alarm	PTZ	MD
CH01~CH04 ▼	CH1	CH2	CH3	CH4
Protocol	Pelco-D ▼	Pelco-D ▼	Pelco-D ▼	Pelco-D ▼
Baud Rate	4800 ▼	9600 ▼	9600 ▼	9600 ▼
Data Bit	8 ▼	8 ▼	8 ▼	8 ▼
Stop Bit	1 ▼	1 ▼	1 ▼	1 ▼
Parity	None ▼	None ▼	None ▼	None ▼
Cruise	On ▼	Off ▼	Off ▼	Off ▼
Address	001	002	003	004

| Default | | | Apply | Exit |

PTZ control

Click 【PTZ】 button of toolbar to enter the interface of PTZ control. As shown in figure 3.7.4:

Figure 3.7.4 PTZ control

The buttons for PTZ operation are shown in the following table:

All Functions		
	Pointer **Auto Pan**	**To select the direction of PTZ** **The middle circle is for auto pan of PTZ.**
	Zoom in/zoom out	
	Focus	

	Iris	
	Volume	PTZ control the speed
	Channel select	For selecting the channels of PTZ camera.
	Go to preset point	Allow you to go to a specific preset point.
	Set Point	Allow you set a set of specific preset points of a PTZ camera. Also it can Adjust the camera in a fix point.
	Clear	Allow you to delete the selected preset
	Cur Point	It indicates the starting point cruised. System default point is 01.
	Hold time	Sets the stop time at each point
	Save	Save the changed and the preset point.2

Table 1.3 PTZ control buttons

Automatic cruise (PTZ)

Enable automatic cruise in PTZ setting.

Corresponding channel all set up the right mouse button at the preset began to be automatic cruise,Automatic cruise open and set up the channel access to preset point cruise states.Set up automatic cruise the preset point,Need to check the preset away old pan and tilt,And then reset

preset points,Can automatic cruise.

Main Menu

| Multi Channel ▶ |
| PIP ▶ |
| PTZ |
| Mute ▶ |
| Sequence |
| Cruise ▶ |
| Search ▶ |
| Backup ▶ |
| Playback |
| ZOOM |
| Lock |

Start

Stop

28/04/2012 10:06:59
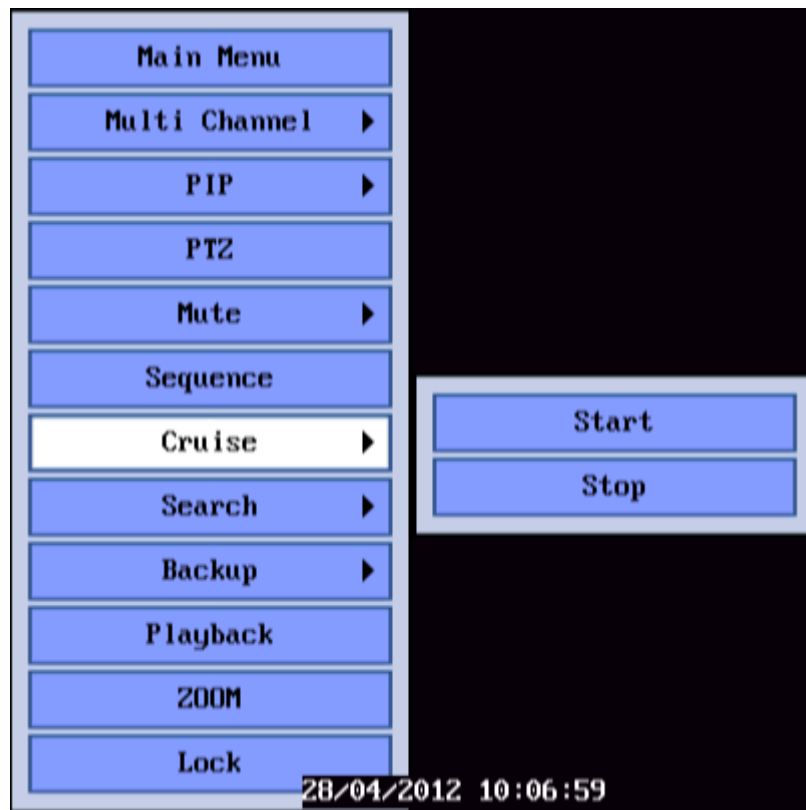
5. Motion detection

Move mouse cursor to 『Motion detection』icon (white boxed icon means selected), single left click mouse to enter the setting interface of motion detection, as shown below:

CH01~CH04 ▼	CH1	CH2	CH3	CH4
Chn	ON ▼	ON ▼	ON ▼	ON ▼
Sensitivity	High ▼	High ▼	High ▼	High ▼
Area	Setup	Setup	Setup	Setup

DEVICE HDD Alarm PTZ MD

Default Apply Exit

CH01-**CH04:** click to pop up pull-down box to switch to other channel to carry out setting.

Chn: corresponding channel switch of each channel, you can select to enable or disable motion detection.

Sensitivity: corresponding channel sensitivity setting of each channel, there are 4 standards: highest, high, medium, and low.

Area: each channel has corresponding motion detection zone setting, move mouse cursor to the 【Setup】 of corresponding channel, single left click mouse to enter the interface of motion detection zone of this channel; red panes represent motion detection initiated in this zone, transparent panes represent motion detection not initiated, as shown below:
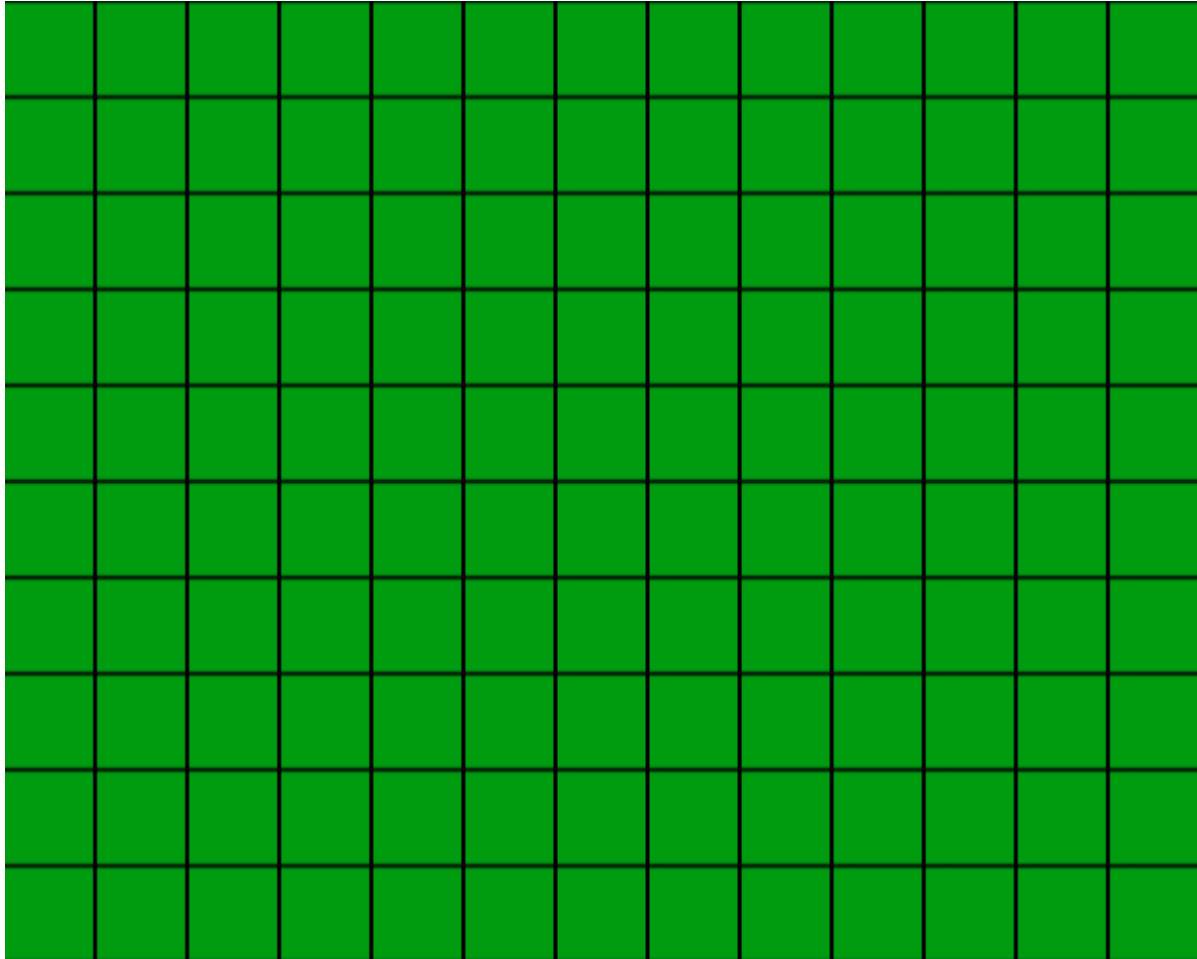
You can press mouse left key and drag to select the zone of motion detection, after the selection of zone is completed, single click right mouse to exit and return to 『Motion detection』 interface, click OK to complete the setting.

Prompt of operation:Remote control operation: use【Menu】key to select the zone.

3.3.9 System function

Move mouse cursor to 『SYSTEM』 item, single left click mouse to enter the setting interface of the item. As shown below:

System function consists of 4 options: system information, user password, audio-video, and system maintenance (device maintenance).

1. system information

Move mouse cursor to『Information』item (white boxed icon means selected), single left click mouse to enter system information interface. As shown below:

SYSTEM	Information	Password	A/V	Maintain

Device ID	DMS8208
Software Version	T120424
MAC Address	00-18-A8-43-25-02

Export | Import

System Log

Default | Apply | Exit

Export：Insert U disk, system configuration parameters can be imported to U disk, U dish in the root directory will automatically generate a sysparam files

Inport：will sysparam files with directory insert U dish after U dish, can will system configuration parameters to import DVR

System Log: Log inquires ,Inquires the alarm information,System operation information,DVR start information.

Log Search

Log Type	All
Start Time	2012-04-27
End Time	2012-04-28

Search   Exit

Log Search: Type has all, alarm, the operation of three options. Alarm log records, mobile detection, video IO lost, hard disk drawback of alarm information, operation journal record parameters modification, equipment to restart and other information. Input for the inquires "start time", "the end of time", click start after the search, the content of the search in the form of automatic list shows. See chart;

System Log

Ch	Type	Content	Time	Record
07	ALARM	MD	12-04-27 16:20:01	NO
08	ALARM	MD	12-04-27 16:20:01	NO
02	ALARM	MD	12-04-27 16:20:04	YES
02	ALARM	MD	12-04-27 16:20:04	YES
02	ALARM	MD	12-04-27 16:20:04	YES
02	ALARM	MD	12-04-27 16:20:04	YES

First Prev Next Last

Export Exit

Click on the 【Export 】 but will log information to notepad file Export to U disk, used to open a tablet computer。

2. User password

Move mouse cursor to『Password』item, single left click mouse to enter the setting interface of the item. As shown below:

Device ID: direct press the number keys for equipment Numbers setting. Set good equipment Numbers, remote control needs to enter

【 landing/locking 】 + equipment Numbers, corresponding to the machine control, (see chapter 3 introduction of remote control)

Password: the on/off. Close said not need password DVR landing, the proposal does not shut down the password.

Admin: administrator users, the highest authority, all of the operating system.

User1-User4: ordinary users, access by the administrator configuration.

User permissions: "PTZ control" to control the limits of pan and tilt

"Settings" refers to modify system parameter Settings

"The system is safeguarded" means to maintain the system of access (such as upgrade factory, restore Settings etc)

"The video playback" for specified users have a video playback operation permissions**3. Audio-video setting**

Move mouse cursor to 『Audio-video』item, single left click mouse to enter the setting interface of the

item. As shown below:
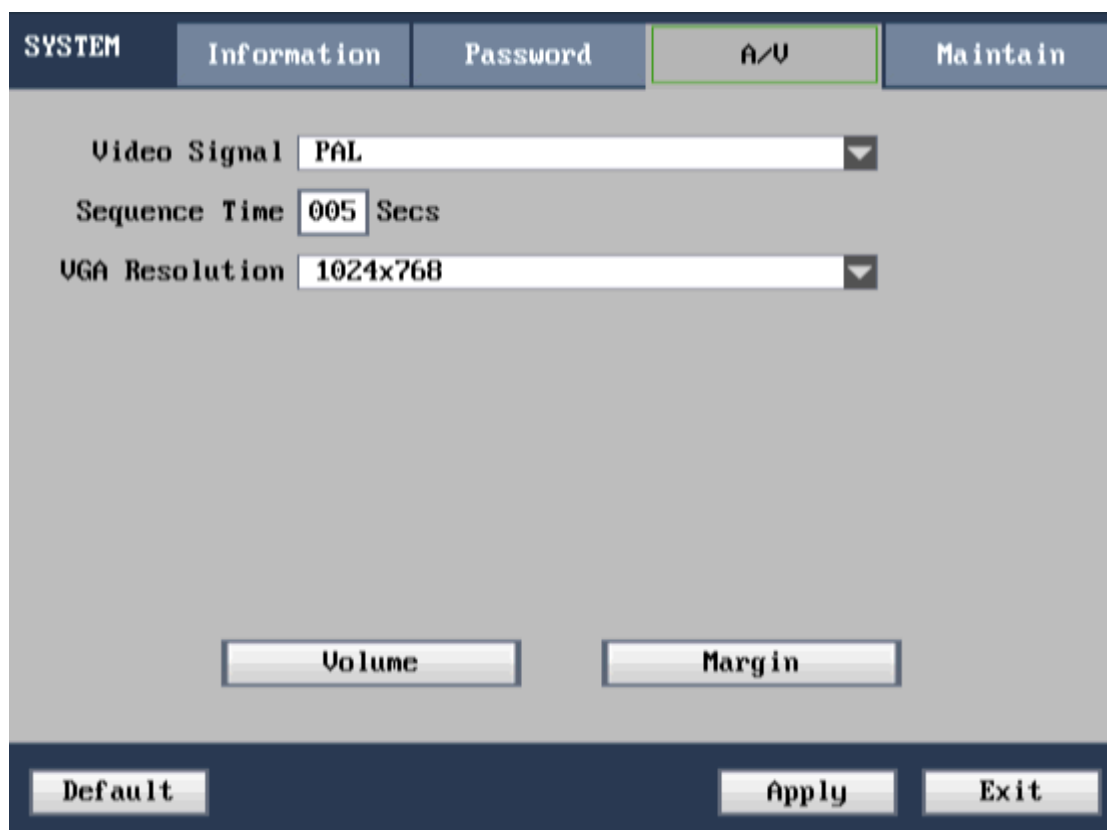
video Signal: there are 2 options: PAL system and NTSC system.

Sequence time: time interval of polling Video; when the time is set as 0, video output has no polling; after the default is restored, the polling time of the channel is 5 sec.

VGA Resolution: there are 5 options: 800×600, 1280×1024, 1024×768, 1920×1080, 1440×900.

Generic 16CHs, 24CHs and 32CHs：800×600、1280×1024、1024×768、1920×1080、1440×900 5 kinds of resolution.(It will be 1920*1080 in HDMI mode.)

Generic 4CHs and 8CHs：800×600、1280×1024、1024×768、1440×900 4 kinds resolution.

Simply 4CHs, 8CHs and 16CHs：800×600、1280×1024、1024×768 3 kinds of resolution.

Volume: move mouse cursor to【Volume】, single click to enter the interface of volume adjust, directly drag mouse cursor to adjust volume.

Note: the system will restart after camera system is modified.

Margin adjust: move mouse cursor to【Margin】, single click to enter the interface of margin adjust, use mouse to drag process bar to adjust top, bottom, left and right margins of multi-Video.

4. System maintenance

Move mouse cursor to『Maintain』item, single left click mouse to enter the setting interface of system maintenance, as shown below:
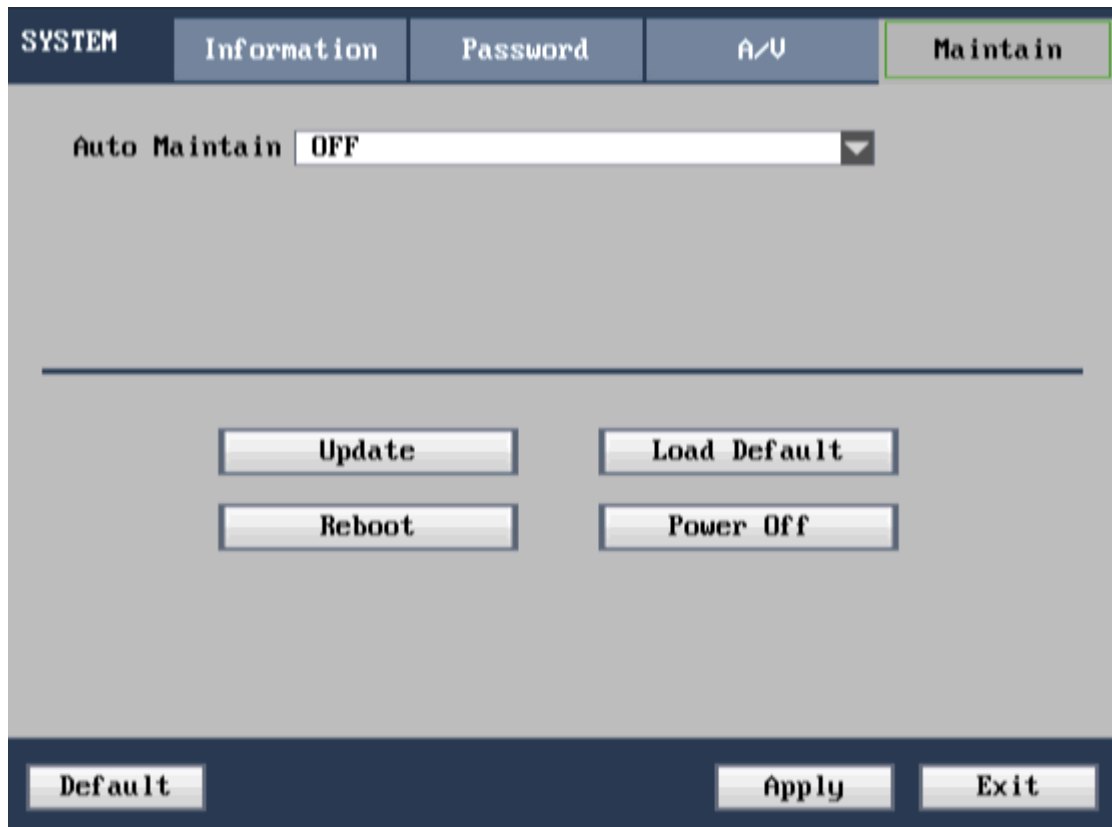
Auto Maintain: when the item is set as "Enable", user can set the restart time of device.

Upgrade: Will upgrade file copy to U plate "dvrupgrade" folder list, again will U plate inserted into the device USB slot, the 【confirmation 】 this button, carries on the system upgrade。

Load Default : restore system parameters to factory default state.

Reboot: click this button to restart the device.

Power Off: click this button to pop up a prompt box of safe shutdown, click OK to shutdown.

Note: ensure the stability of U-disk and power supply during the process of upgrade.

Chapter IV: Network control and management at PC end

4.1 Remote access setting

4.1.1 Network security level setting

Before controls are installed, please set network security level, which is detailed as follow:

（1）Open IE browser, select "Internet Options" of "Tool" menu.

（2）Select "Security" tab in the dialog box appeared. (Figure 4-1)
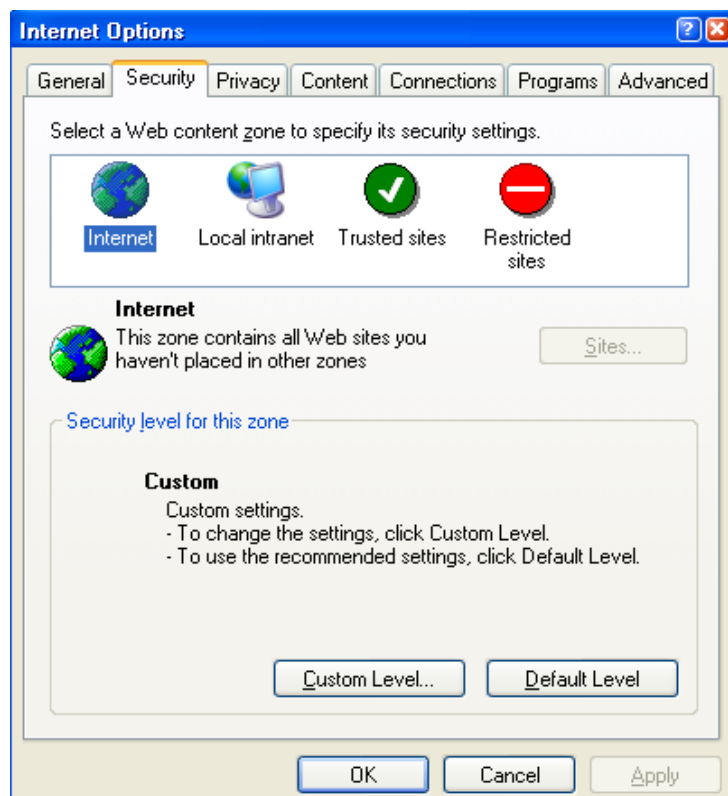
Figure 4-1

（3）Click "Custom Level" to enter Security Settings. (Figure 4-2)
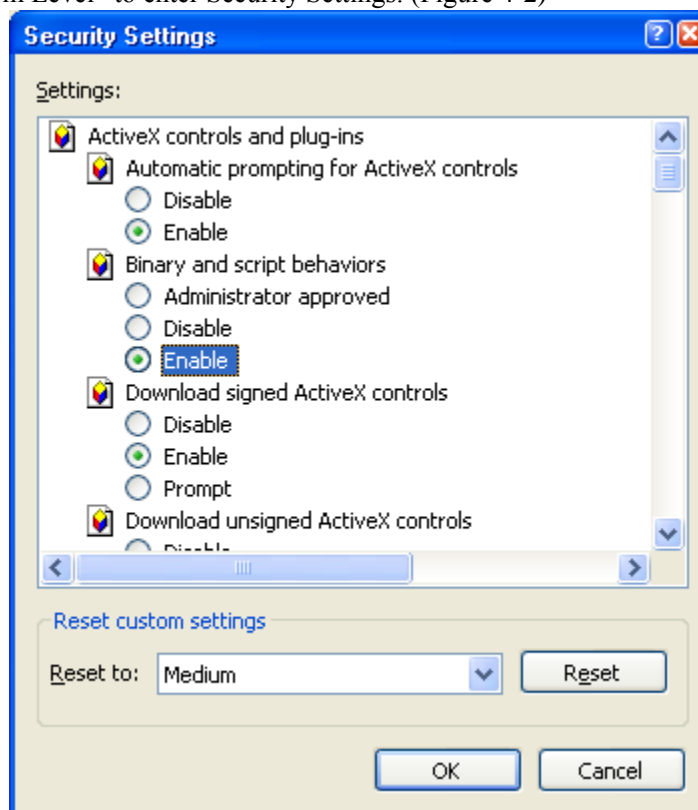
Figure 4-2

Set ActiveX controls and plug-ins

1) Automatic prompting for ActiveX controls

2) Script ActiveX controls marked safe for scripting

3) Initialize and script ActiveX controls not marked as safe

4) Binary and script behaviors

5) Download unsigned ActiveX controls

6) Download signed ActiveX controls

7) Run ActiveX controls and plug-ins

Set above items as "Enable", this is very important.

Prompt: before controls are installed, please close fire wall and virus-killing software.

4.1.2 Connection setting

The remote access of hard disk video recorder is carried out through network; when LAN connection is used, the IP addresses of client end computer and hard disk video recorder should be within the same network segment; when WAN connection is used, connection can be realized through IP address or dynamic domain name, ensure that both sides can access the public network. The connection setting method of LAN is mainly introduced as follow.

Step 1: right click "Network Neighborhood", click "Property" in pop up menu, so as to open "Network Connection".

Step 2: double click to open "Local Area Connection". (Figure 4-3)
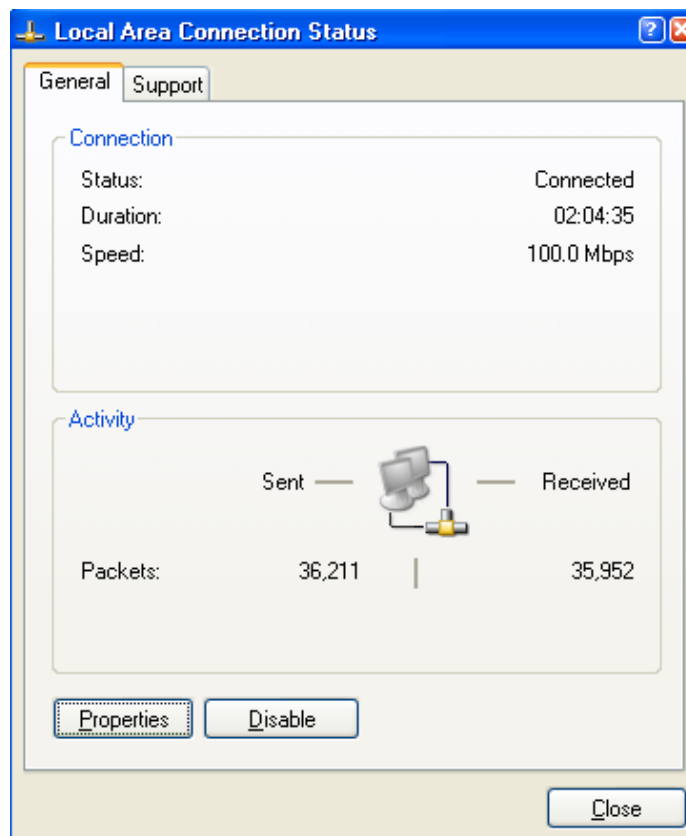
Figure 4-3

Step 3: click "Property". (Figure 4-4)
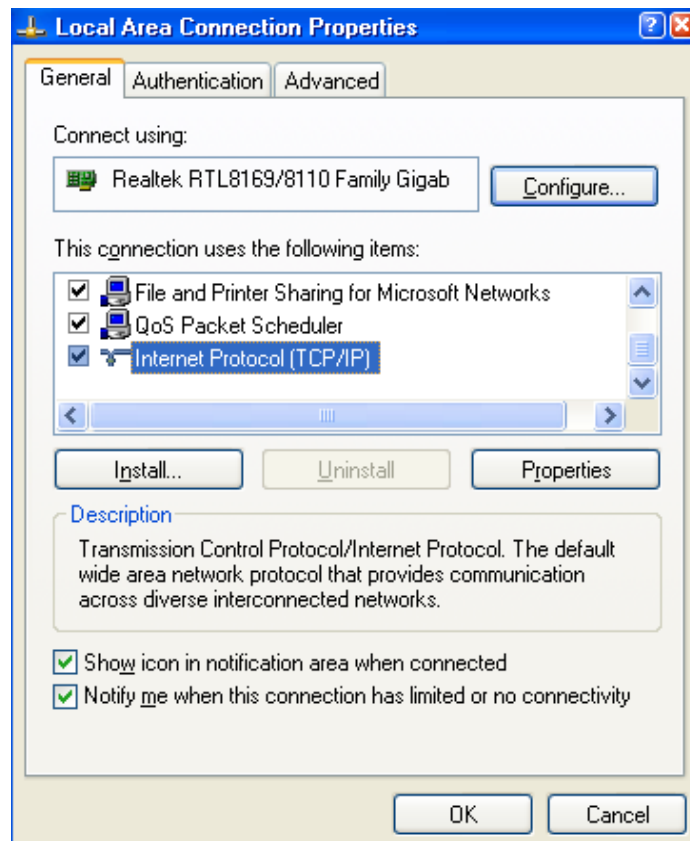
Figure 4-4

Step 4: double click "Internet Protocol (TCP/IP)". (Figure 4-5)
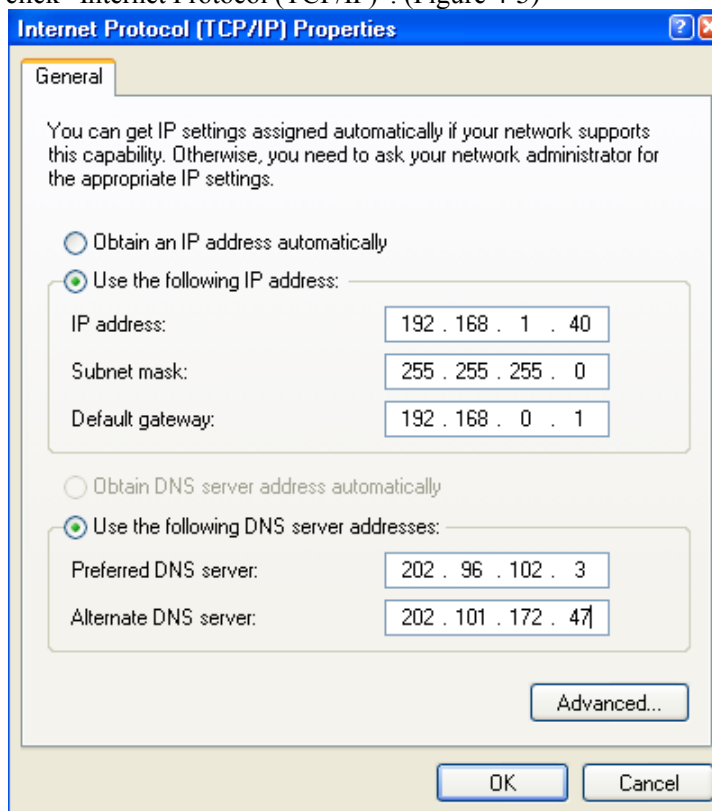
Figure 4-5

Step 5: examine IP address, subnet mask, default gateway on PC. (The parameters shown in figure 8-5 depend on specific using situation of user)

Step 6: set corresponding IP address, subnet mask, default gateway of hard disk video recorder (see section 3.3.5 network setting). Therein the subnet mask and default gateway of hard disk video recorder should be the same as PC, ensure that their IP addresses must be in the same network segment, but the IP address can't be the same as used IP address, otherwise IP address conflict will be resulted. Take above figure for example, the IP address should be: 192.168.0.X, therein X can't be 40 or 1 (including other used IP address), and can't exceed 255, the subnet mask is 255.255.255.0, the gateway is 192.168.0.1.

4.2 Functional characteristics

Network operation is used to install software through IE browser of the operation system, which is simple and easy; DVR supports C/S, B/S structure, LAN and WAN access, and supports IP and domain name access at the same time.

Support user to modify service port, and support PPPOE, DHCP functions at the same time.

4.3 Constraint condition

In order to ensure PC to stably access this DVR product, it is recommended to use Windows XP, Windows Vista operation system; and IE6.0, IE7.0 browsers are recommended.

4.4 User login

Input current IP of the device in IE, if the WEB port number is set as (80), then directly input IP address in IE address field; if the WEB port is modified as a port other than 80, then the port number should be added after IP address; for example: the IP of device is 192.168.1.118, set the port as 8088, then input: http://192.168.1.118:8088 to access the device.

Under the condition that the network is connected, IE will prompt you to install control to be downloaded to your PC, as shown below:
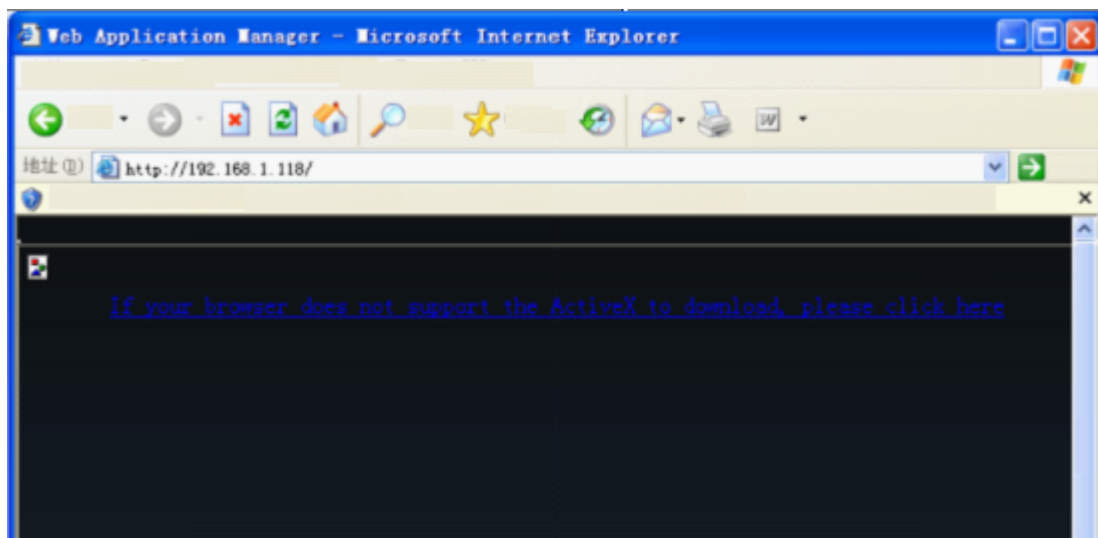
Figure 4-6

This process may last 1~2 minutes depending on network status.

The download may not be successful because of PC configuration problem, please click:

"If your browser does not support the ActivX to download, please click here".

"If your browser does not support the ActivX to download, please click here" means "If your browser does not support the ActiveX to download, please click here".

After the download and installation of control is successful, the login interface will be entered automatically, as shown below:
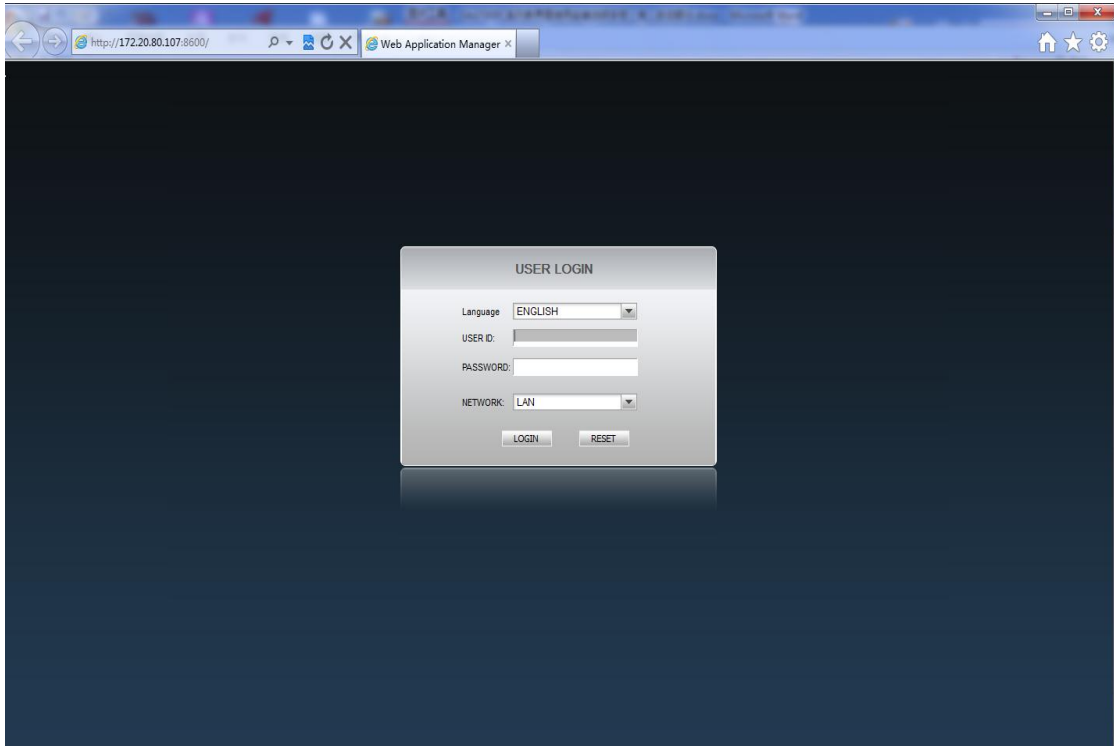
Figure 4-7

You can select between three language interfaces: English/Simplified Chinese/Italian

User ID and password: it is divided into administrator and general user, the default administrator ID is: admin, the administrator password is: 123456; general user ID is: user, the corresponding password is: 123456. Corresponding user has corresponding user ID and authority, therein the administrator has highest all authorities; general user only has monitoring and playback authority.

Network environment: LAN/WAN, select according to the network type of connection between your computer and DVR.

After input is completed, click ⎡LOGIN⎤ to enter the interface of IE end. If the input is wrong, then click ⎡RESET⎤ to clear, and input again.

4.5 Interface operation

Interface operation consists of 5 items: real time preview, record playback, remote setting, local setting and log-off, click these 5 buttons to switch.

4.5.1 Real time preview

Click [LIVE] to enter real time preview interface, as shown below:
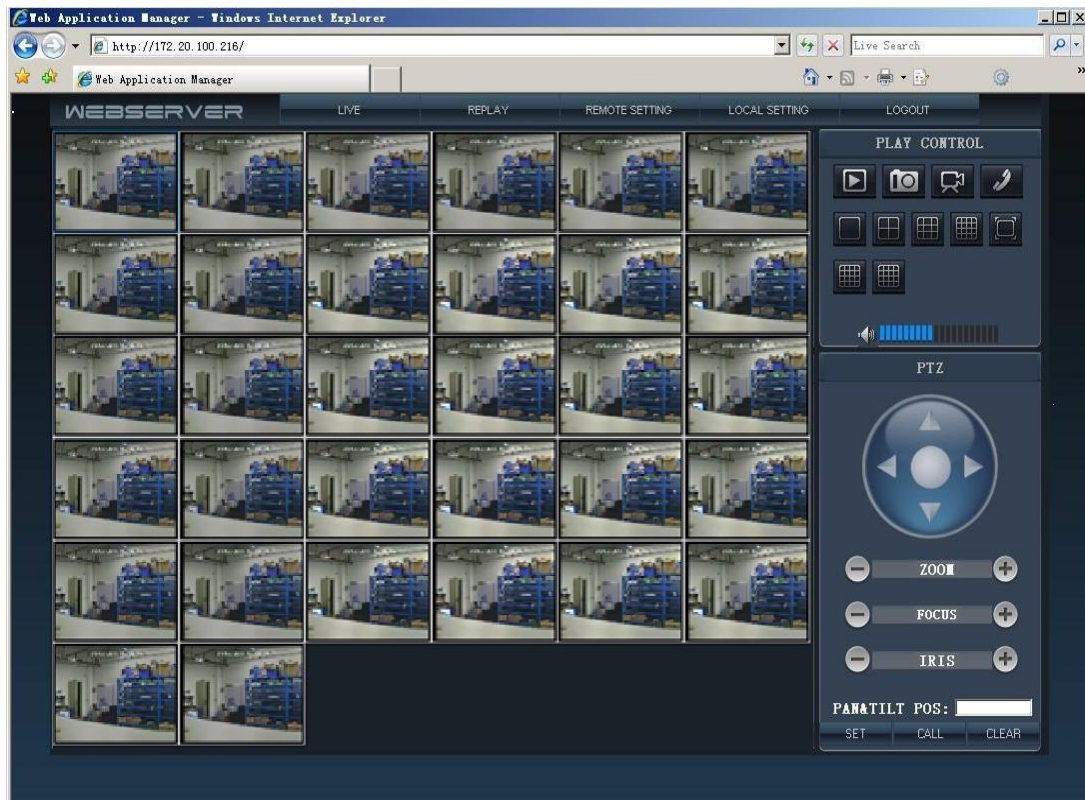
Figure 4-8

Play control

Move mouse cursor to the icon will display corresponding operation prompt.

[▶] Open all Video.

[📷] Snapshot picture, and save it on local hard disk, system default save path is C:/DVR.

[📹] Quickly start the records of all channels, now normal record symbol【R】will be displayed on the top left corner of each channel, system default save path is C:/DVR.

Click icons to carry out switch between [▢] /1-Video, [▦] /4-Video, [▦] /9-Video, [▦] /16-Video and, [▢] /full screen, [▦] /25-Video, [▦] /32-Video

[🔊 ▮▮▮▮▮▮▮▮▯▯▯▯▯] Adjust volume button

PTZ control

It can control PTZ focus, iris, preset positions etc.

Click to control PTZ strike upward, downward, leftward, and rightward; because the protocol of some PTZ has slight difference, if the observation direction of PTZ rotates always along this direction when certain direction key is clicked, then click the middle stop key of this icon to stop rotation.

1）.Zoom

 "+" "-" are used to adjust zoom in and zoom out of lens

2）.Focus

 "+" "-" are used to realize focus function

3）.Iris

 "+" "-" are used to adjust the size of iris

4）.Preset position of PTZ

 is used to set PTZ preset

Adjust the following 3 keys: to complete preset of PTZ.

Other operation

1）. Select certain channel in preview interface (edge of the channel becomes red means selected), double left click mouse to enter single Video display of the channel.

2）. Left click mouse to select certain channel in preview interface, then right click mouse to display window shortcut operation menu, as shown below:
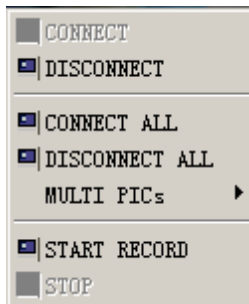
Figure 4-9

Click to quickly close and open the record of the channel.

3）. Single click right mouse at certain place of preview interface, click "Open all windows" and "Close all windows" to quickly open/close all windows.

4）. Single click right mouse at certain place of preview interface, and move mouse to "Multi-Video" to carry out switching of multiple Video.

4.5.2 Record playback

Click to enter the interface of record playback, so as to remotely play back

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historic record in DVR hard disk, up to 16 channels can be played back at the same time, as shown below:
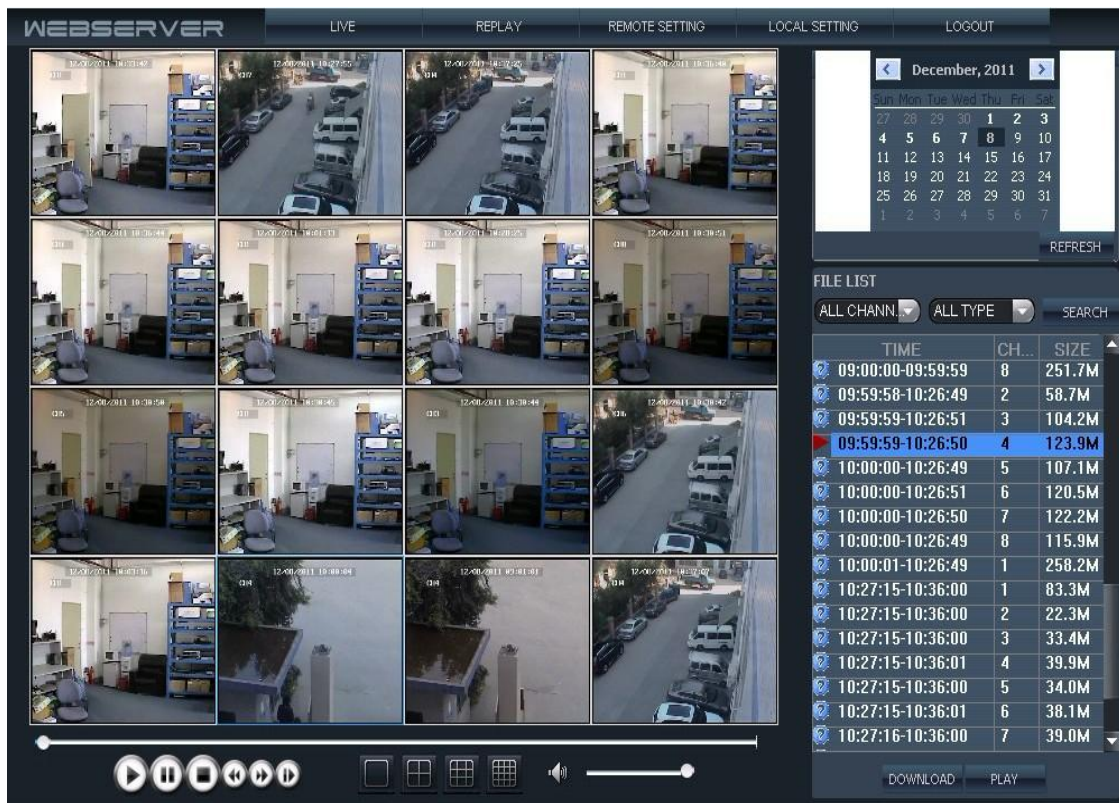
Figure 4-10

Click ◄ and ► at right top of the interface to set the month to be searched, click "Refresh" to display the record condition of that month on calendar interface.

Therein the date displayed in boldface indicates that there is video recording record on that day; directly click the date to search the record file list of the same day.

Select channel and type below the calendar, press "Search" to display the result of search on file list, as shown below:

Figure 4-11

Double click certain segment of record on play list to play back this segment of record, the icon of file

being played back becomes ▶, the following play buttons will appear during playback.
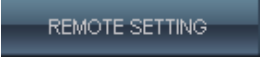
Figure 4-12

The blue process bar shown above displays the process of download, the position of the round
white point displays the process of play.

▶ Play

⏸ Pause

⏹ Stop play

⏩ Fast forward play

⏪ Slow play

⏯ To next frame and pause

🔊 ──────── Playback sound control

4.5.3 Remote setting

Click REMOTE SETTING to enter the setting interface; this interface consists of 7 items: code setting,

record setting, alarm setting, PTZ control, network setting, advanced setting, and system information.

1. Code setting

Click **ENCODE SETTING** to enter the setting interface of code setting; code setting consists of video parameter setting, audio-video binding and color adjust: click **VIDEO PARA** to enter video parameter setting, as shown below:
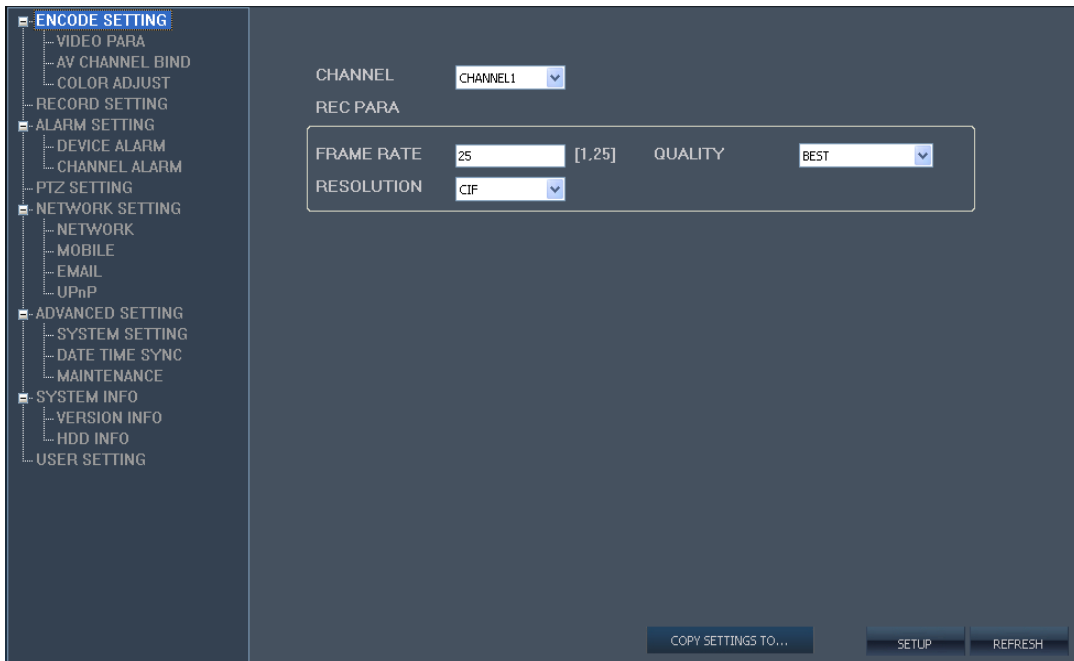
Figure 4-13

Click **AV CHANNEL BIND** to enter the setting of audio-video parameters, you can remotely modify the settings of channel name and preview switch and OSD position (channel name position), as shown below:
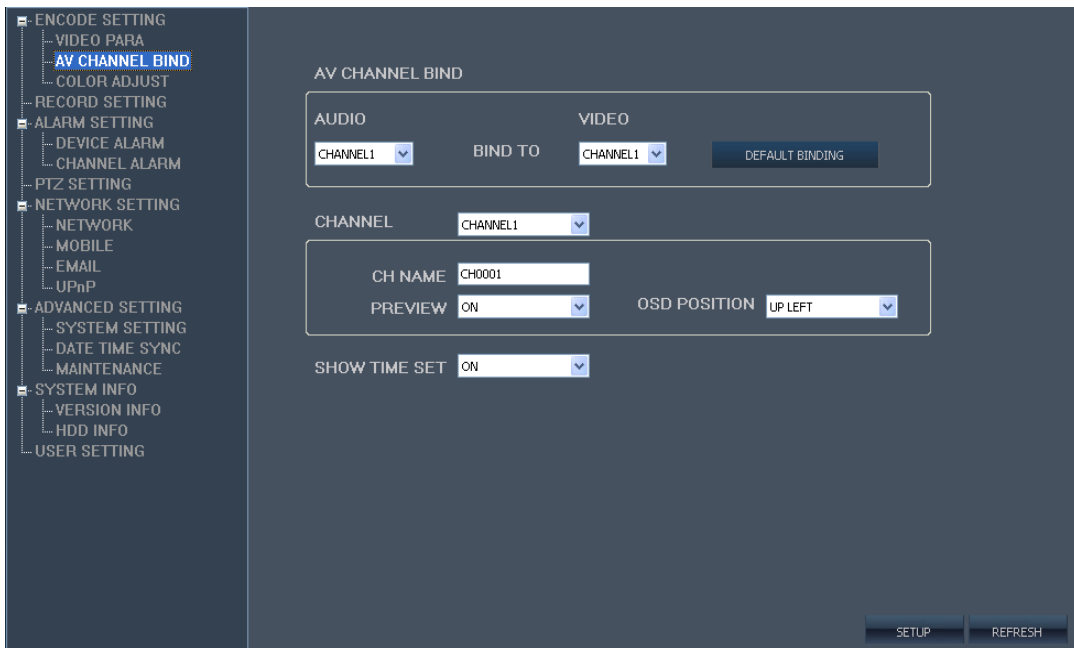
Figure 4-14

Click **COLOR ADJUST** to enter the setting of color adjust, you can remotely modify the brightness, contrast, saturation, and chromaticity, as shown below:
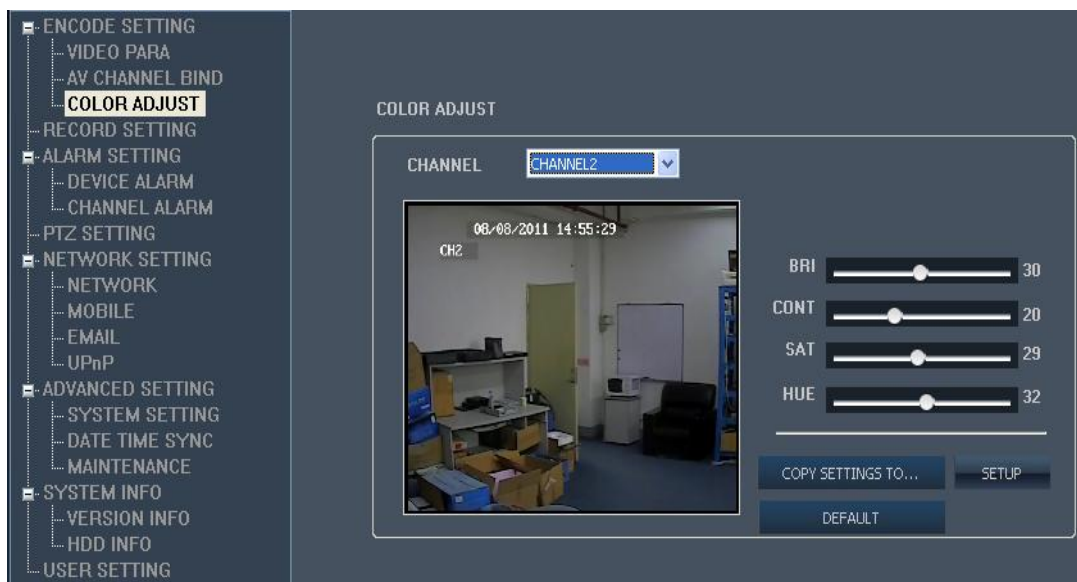
Figure 4-15

when you see " COPY SETTINGS TO… " button, you can copy the setting to the channel which you would like to copy.
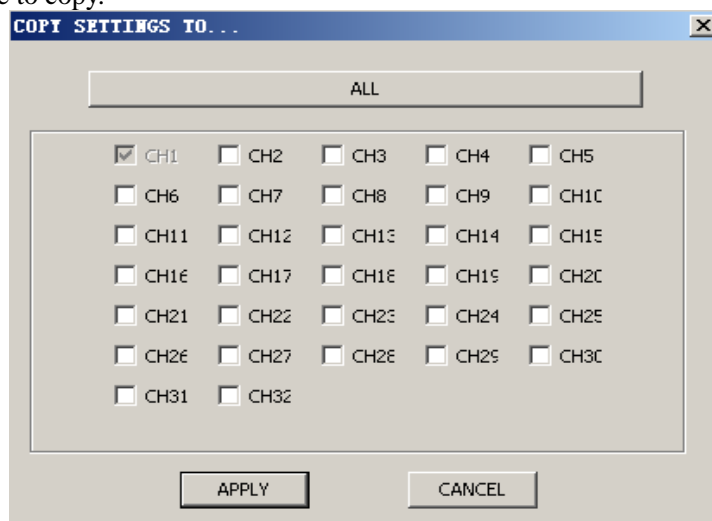
Figure 4-16

2. Record setting

Click **RECORD SETTING** to enter the setting interface of record mode, as shown below:
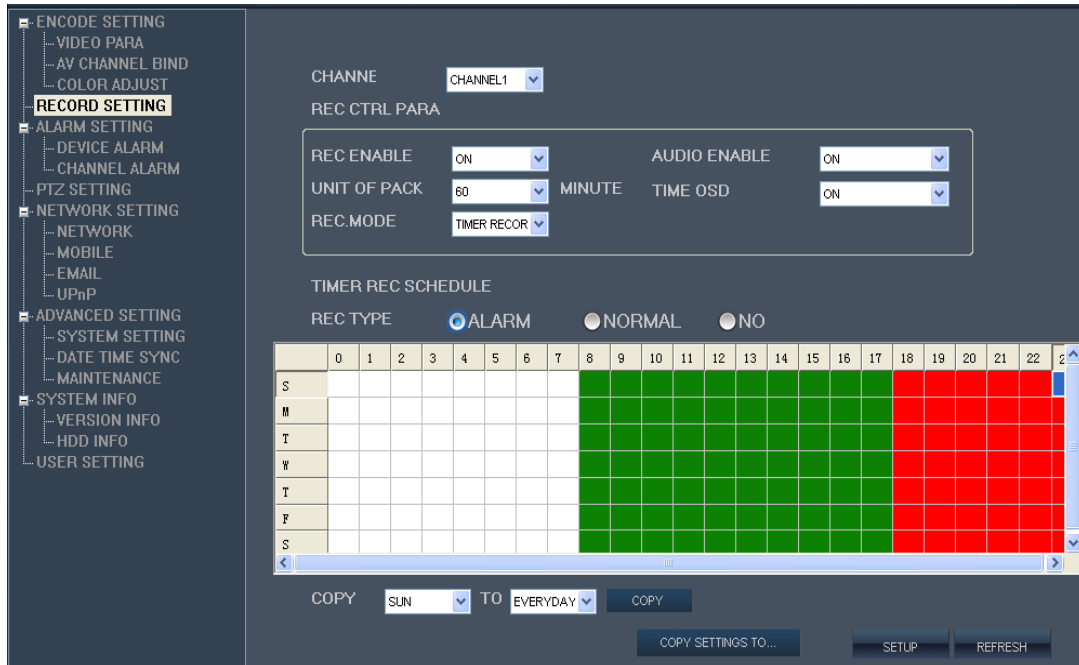
Figure 4-17

For the setting of parameters, refer to device end.

3. Alarm setting

Click ![ALARM SETTING], there are 2 types of alarm setting: device level alarm and channel level alarm;

click ![DEVICE ALARM] to enter the interface of device level alarm, event types include hard disk

failure alarm and hard disk full alarm, as shown below:

Figure 4-18

Click ![CHANNEL ALARM] to enter the interface of channel level alarm, as shown below:
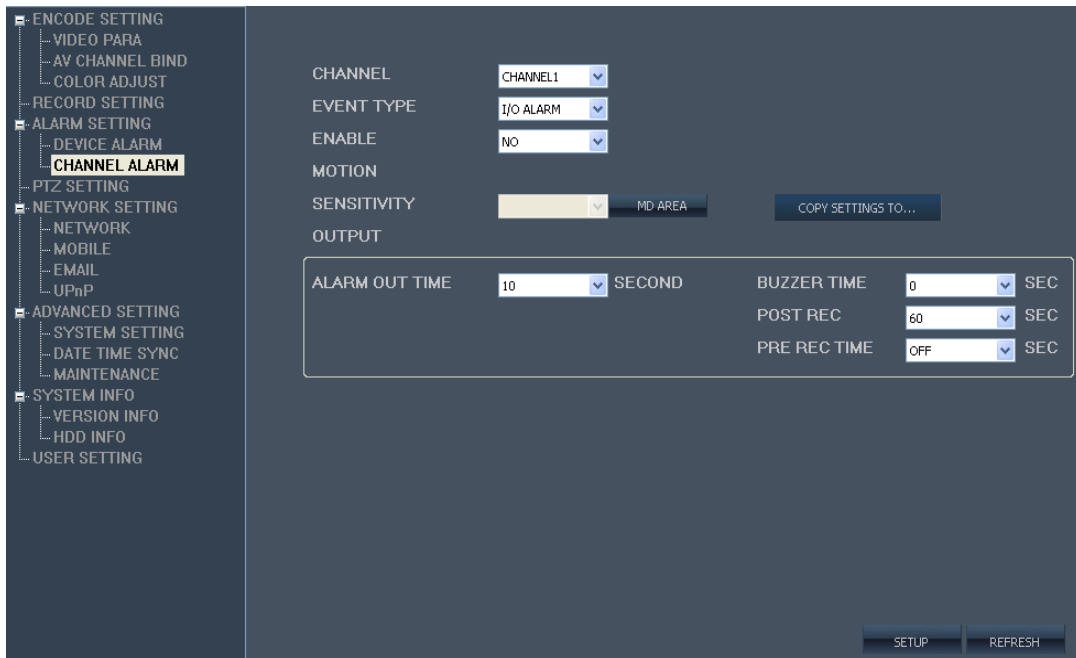
Figure 4-19

For the setting of parameters, refer to device end.

4. PTZ setting

Click **PTZ SETTING** to enter the interface of PTZ setting, as shown below:
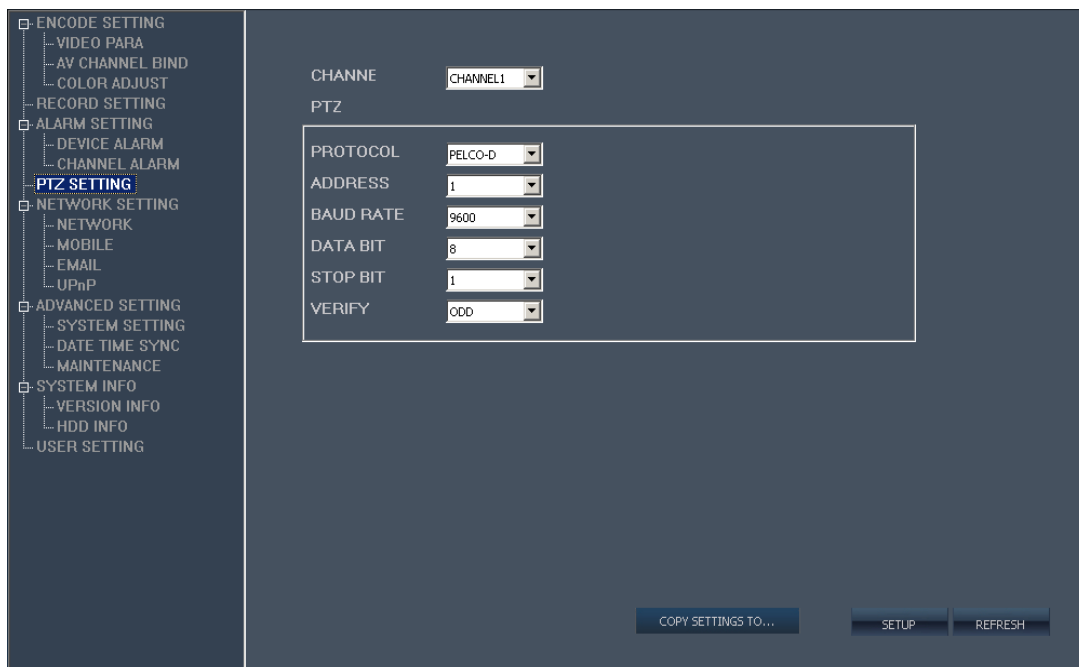
Figure 4-20

For the setting of parameters, refer to device end.

5. Network setting

Click **NETWORK SETTING**, there are 3 options: wired network, mobile phone network and EMAIL.

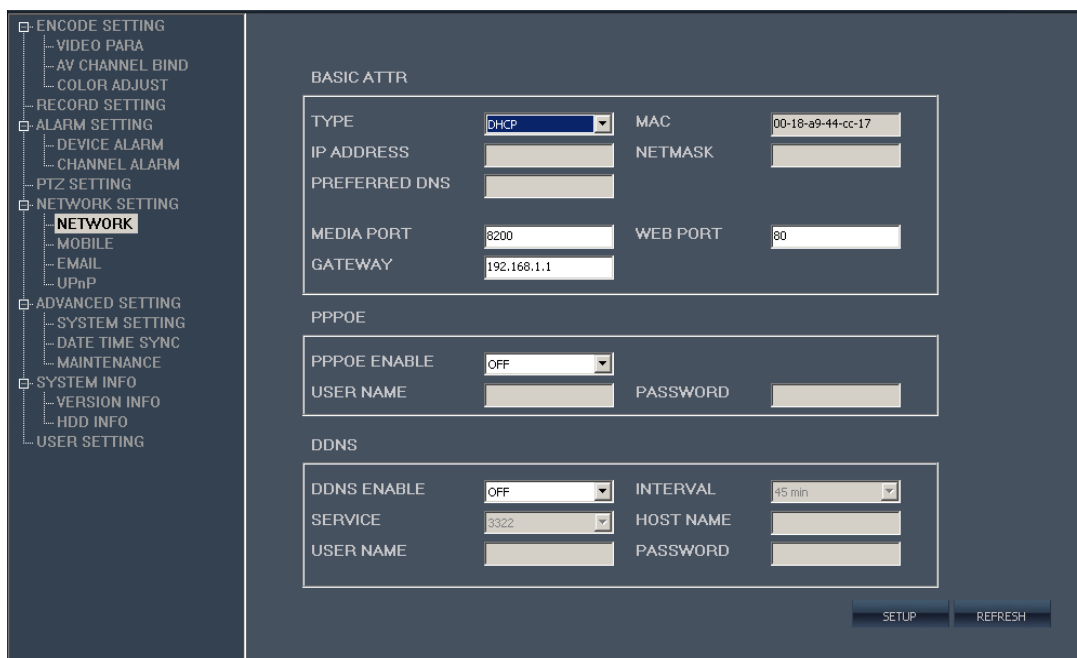Click **NETWORK** to enter the setting interface of wired network, as shown below:

Figure 4-21

Click ![MOBILE] to enter the setting interface of mobile phone network, as shown below:
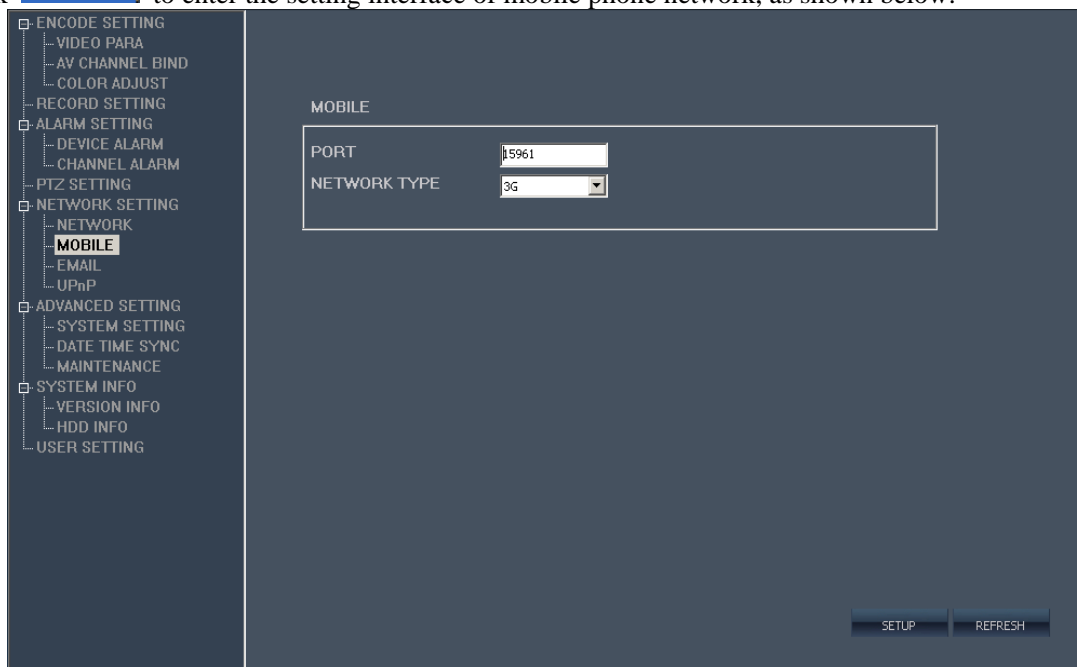
Figure 4-22

For the setting of parameters, refer to device end.

Click ![EMAIL] to enter the setting interface of EMAIL, as shown below:

Figure 4-23

For the setting of parameters, refer to device end.

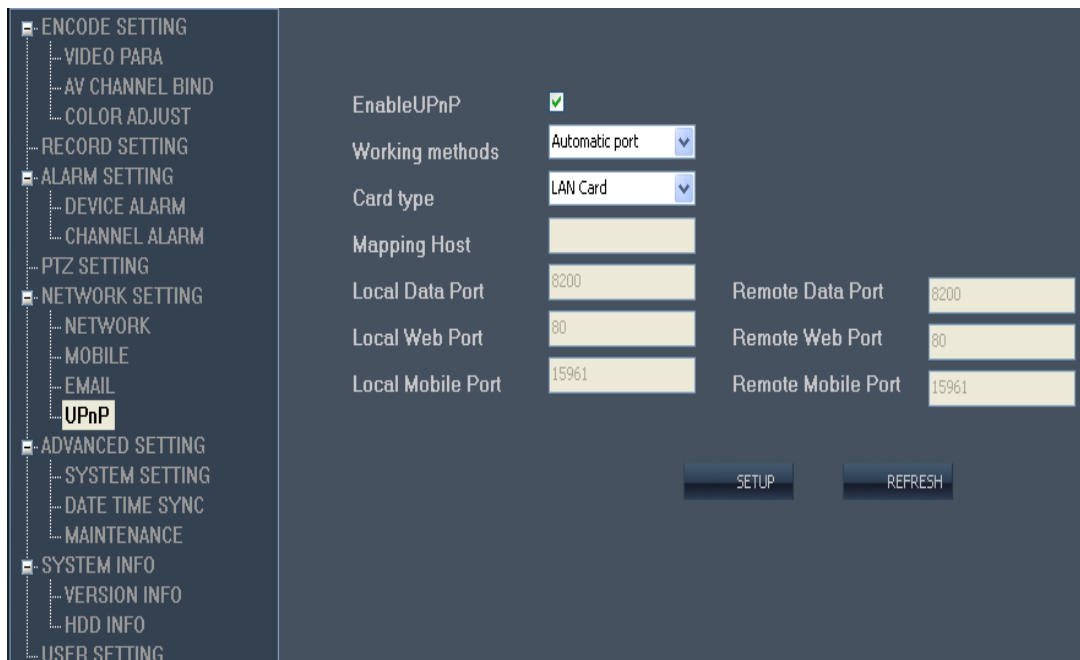Click **UPnP** to enter the setting interface of UPNP, as shown below:

Figure 4-24

After UPNP is enabled, device IP will be mapped automatically to the router, it is not required to map IP on the router (this function needs the support of router and has UPNP function enabled).

6.   Advanced setting

Click **ADVANCED SETTING** to enter the interface of advanced setting, which consists of 3 items: system setting, date-time synchronization and system maintenance; click **SYSTEM SETTING** to enter

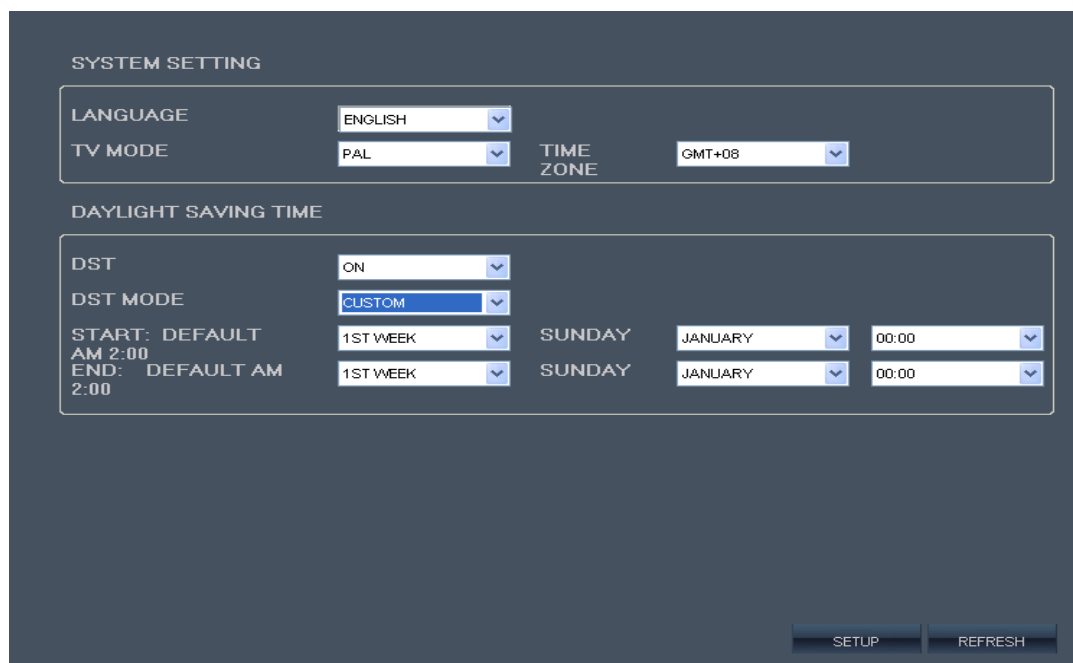the interface of system setting, as shown below:

Figure 4-25

Note: when language and video system are modified, it is required for the front-end equipment to restart to validate.

Click **DATE TIME SYNC** to enter the setting interface of system time; you can set time synchronization between the front-end equipment and computer, as shown below:
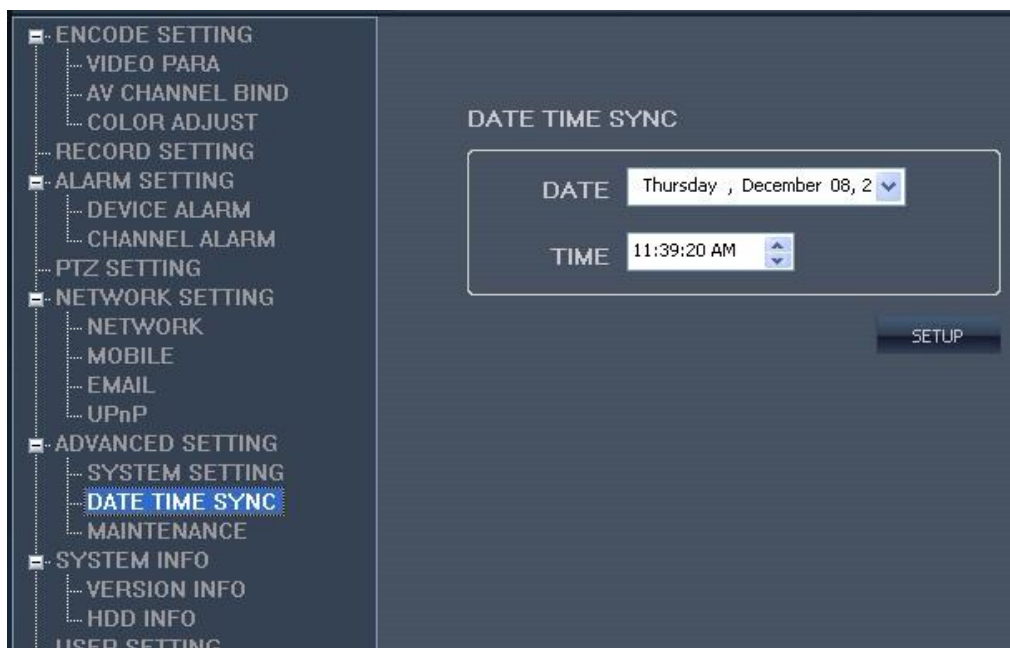

Figure 4-26

Click **MAINTENANCE** to enter the setting interface of system maintenance; you can remotely restart and restore factory default setting to front-end equipment, you can also remotely carry out software upgrade to the system, as shown below:
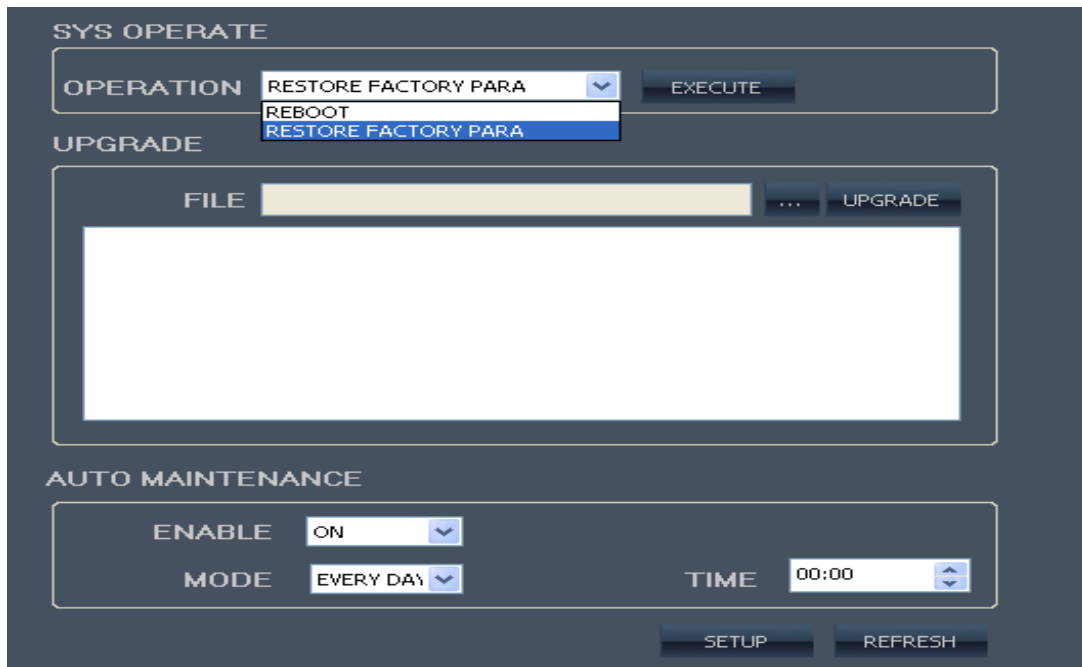
Figure 4-27

7. System information

Click , then click the first option to enter the interface of version information of system information (as shown below), this interface directly shows device serial number, device type and application version, these information can't be modified.
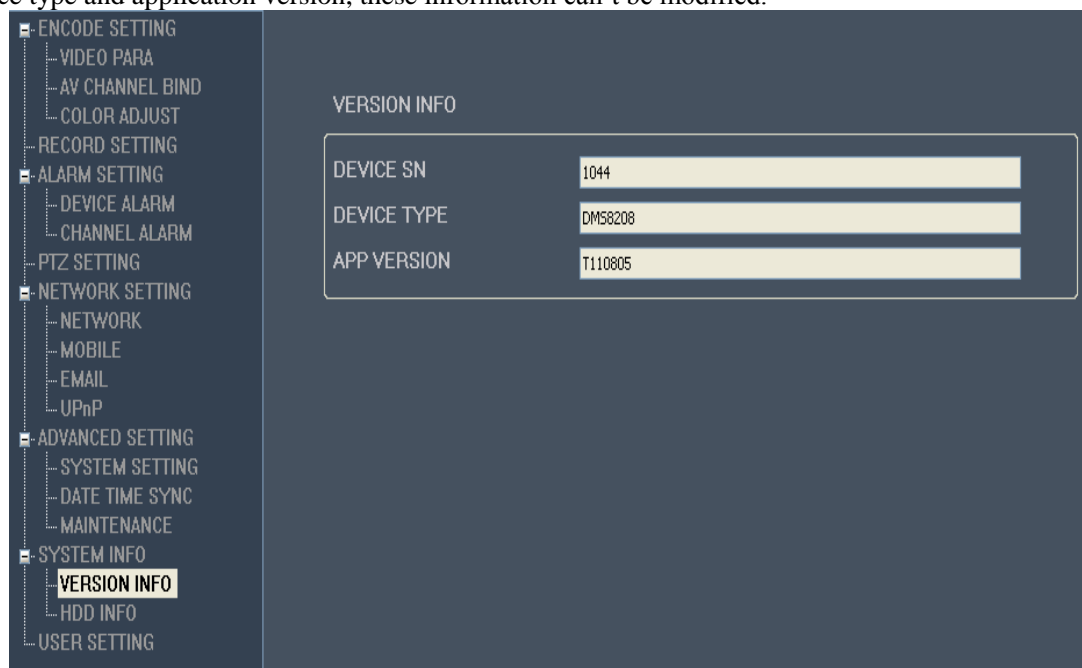

Figure 4-28

Click to enter the interface of hard disk information (as shown below), this interface directly shows hard disk state, total capacity of hard disk and residual capacity of hard disk etc, these information can't be modified.
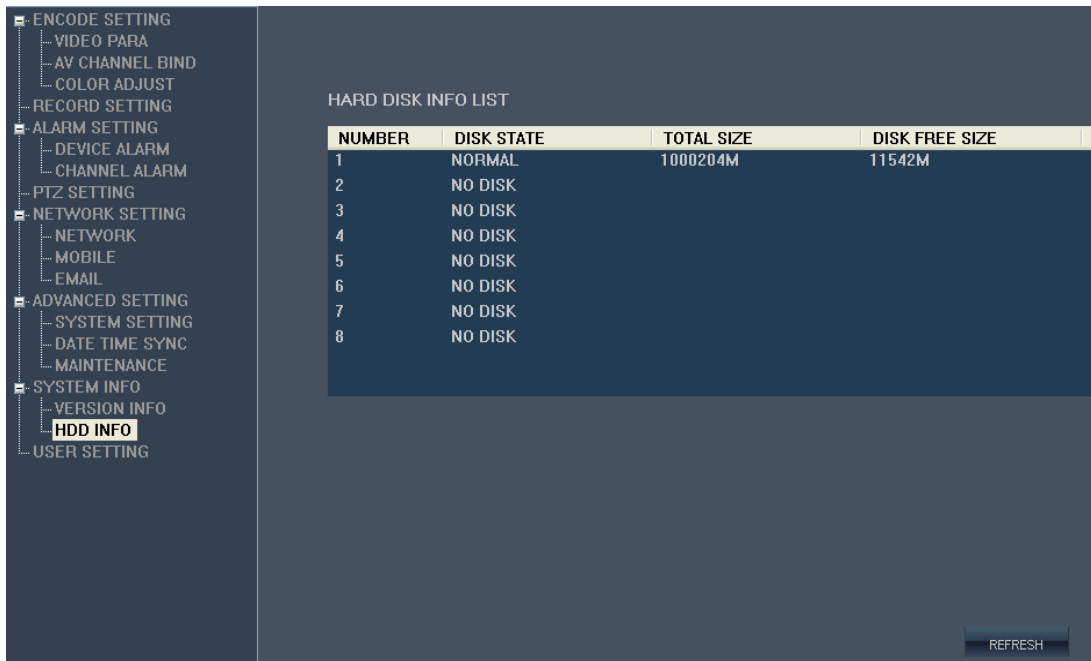
Figure 4-29

8. User management

Click **USER SETTING** to enter the interface of user management (as shown below), only admin has the right to add new user and user password and give corresponding authority; all user passwords must be 6 digits. After the password login of front-end equipment is enabled, the newly added user password on IE end can also log in the front-end equipment, so as to synchronize with front-end equipment management setting.
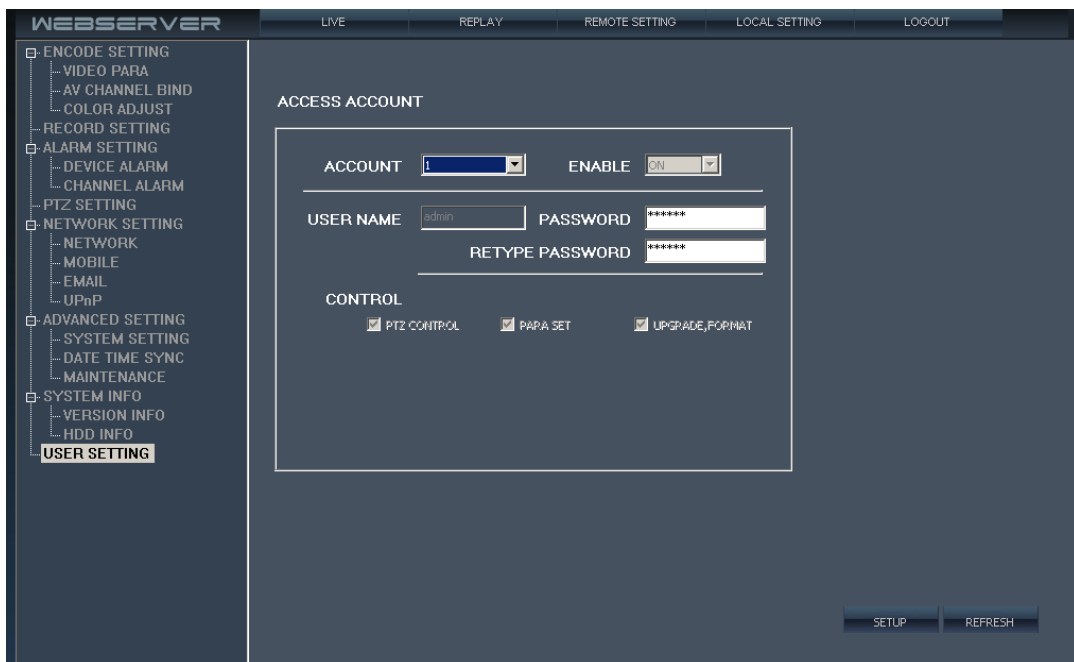

Figure 4-30

New User :
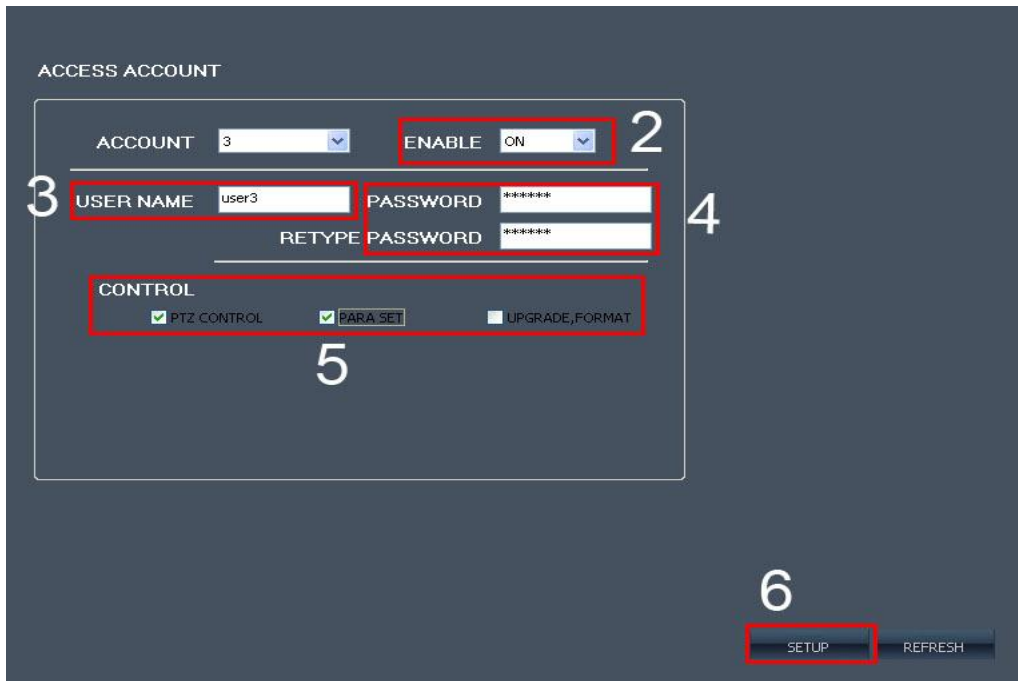Step 1. choose new user or change user and password

Figure 4-31

Step 2.   Enable：ON
Step 3.   Enter new user（can not use the same user）
Step 4.   enter the password（must be 6 digitals）
Step 5:   Set corresponding limits，PTZ CONTROL:control scanning；PARA SET：can change   the
             technical parameter in far away place
             Upgrade format：have upgrade and format HDD limit.
Step 5: Chick "SETUP" button save added user。

4.5.4 Local setting

Click   to enter the interface of local setting, this interface shows local save

path for downloaded record, snapshot, and record files on computer end, click after the path
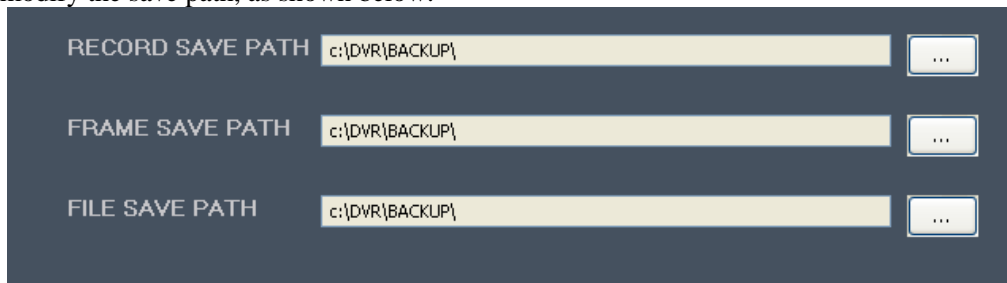display to modify the save path, as shown below:
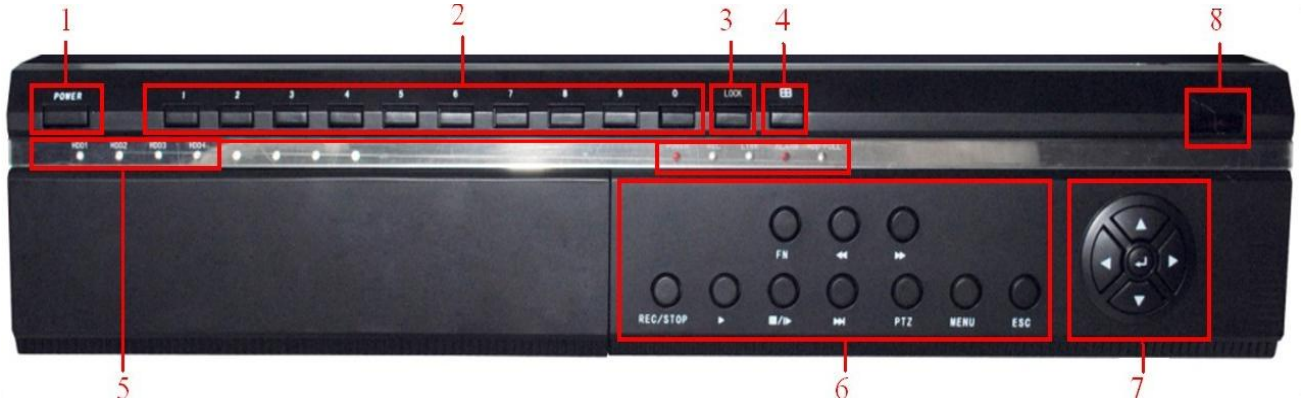

Figure 4-32

4.5.5 Log-off and exit

Click   button to exit to IE login interface.

Chapter V: DVR installation guidance

5.1 Definition for interfaces of front and rear panels

    5.1.1 Definition for interfaces of front panel

        1.   #18 housing face board buttons definition (Normally for 24CHs and 32CHs)


No.	Type	Name	Description
1	Shut down	POWER	System shutdown key
2	Channel	0-9	Select channel
3	Log off	Lock	Log off the user logged in
4	Multi-Video	田	Multiple Video switch
5	Status lamp	HDD1-HDD4	Lit means hard disk is recording
		POWER	Power indicator
		REC	Record indicator
		LINK	Network indicator
		ALARM	Alarm indicator
		HDD FULL	Hard disk full indicator
6	Function key	REC/STOP	Enable/disable manual record
		◄◄ ►►	Playback fast forward/fast backward
		FN	Display/hide playback toolbar
		►	Playback/play
		■/I►	Playback pause/play frame by frame
		ESC	Exit key
		►►I	Slow play at playback
		MENU	System main menu
		PTZ	Initiate PTZ control interface
7	Control keys	Direction keys	Direction keys consists of 4 keys: Up 【▲】, Down
8	Remote control	IR	Receive the signal sent by remote control

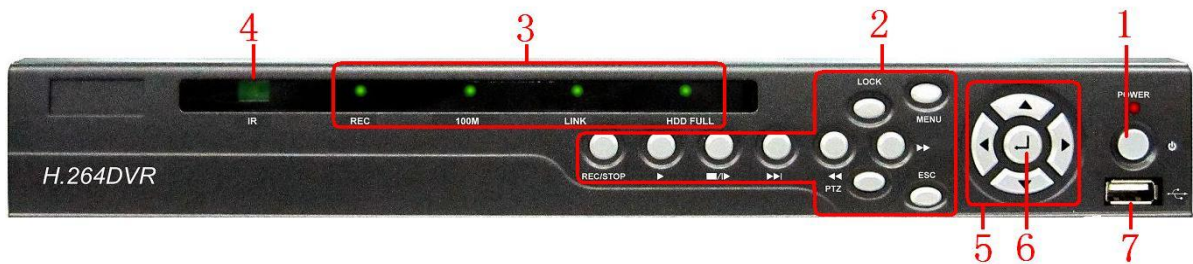**Figure 5-1 front panel parameters**

2. #07 housing (Normally for 4CHs and 8CHs)
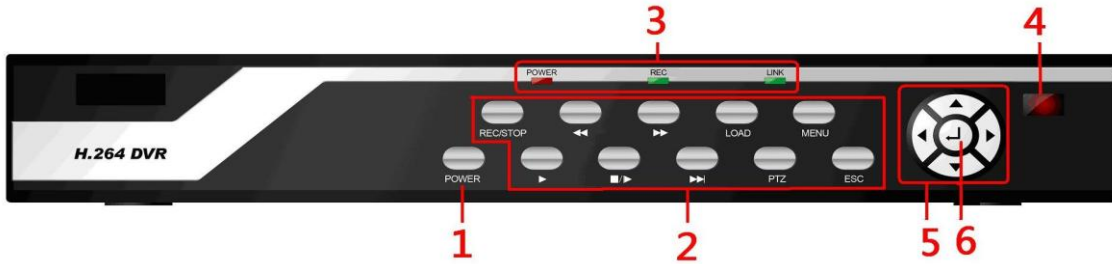
3. #15 housing (Normally for 16CHs)
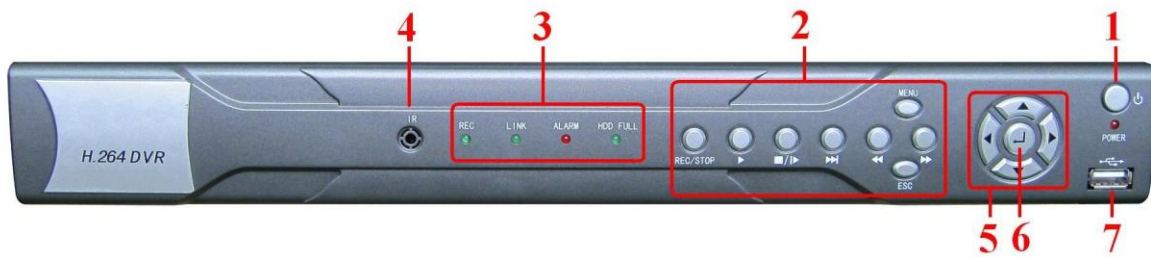

4. #22 housing (Normally for 16CHs)

5. #04 housing (Normally for 16CHs DVR, or DVR with DVD-RW)


Buttons on Front Panel

NO.	TYPE	NAME	Instruction
1	Power	POWER	Shutdown system

2	Function keys Menu	REC/STOP	Recording control buttons
		◄◄ ►►	Fast forward/backward playback
		LOAD	Users Logout
		►	Playback/play
		■/►	Playback/play by frame
		ESC	Exit
		►►|	Slowly playback
		PTZ	PTZ Controler
		MENU	Main menu
3	Status indicator	POWER	Power
		REC	Recording
		LINK	On means network has connected
4	IR receiver	IR	Remote control receiver
5	Control button	Direction key	direction key include: up 【▲】、down 【▼】、left 【◄】、right 【►】 four buttons.
6	OK	Confirm operation	Enter

6. #20 housing face board and button introduction
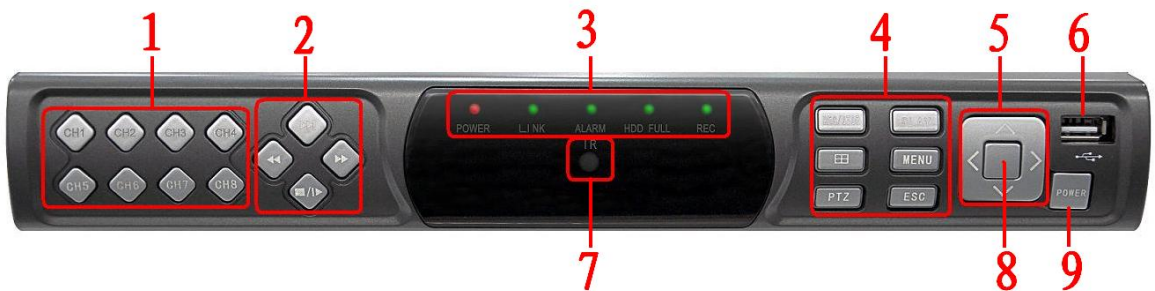
NO.	TYPE	NAME	Instruction
1	CH1-CH8		Quick Select Channel
2	Playback buttons	►►|	Slowly playback
		►►	Fast forward playback
		◄◄	Fast backward playback
		■/►	Playback/play by frame
3	Status indicator	POWER	Power

		LINK	On means network has connected
		ALARM	Alarm
		HDD FULL	Hard drive full of light
		REC	Recording
4	Function keys	REC/STOP	Recording control buttons
		PLAY	Playback/play
		田	Multi-screen switching
		MENU	Main menu
		PTZ	PTZ Controler
		ESC	Exit
5	Control button	Direction key	direction key include: up 【▲】、down 【▼】、left 【◀】、right 【▶】 four buttons.
6	USB	USB	Mouse or storage device connected
7	IR receiver	IR	Remote control receiver
8	OK	Confirm operation	Enter
9	Power	POWER	Shutdown system

7. 3507 **The Definition of Buttons and Connectors on Front Panel**

Buttons on Front Panel

NO.	TYPE	NAME	Instruction
1	Power	POWER	Shutdown system

2	Function keys Menu	MENU	Main menu
		REC/STOP	Recording control buttons
		◄◄ ►►	Fast forward/backward playback
		►	Playback/play
		■/►	Playback/play by frame
		►►|	Slowly playback
		PTZ	PTZ Controller
		ESC	Exit
3	Status indicator	POWER	Power
		REC	Recording
		LINK	On means network has connected
		ALARM	Alarm
		HDD FULL	On means the HDD is full.
4	IR receiver	IR	Remote control receiver
5	Control button	Direction key	direction key include: up 【▲】、down 【▼】、left 【◄】、right 【►】 four buttons.
6	OK	Confirm operation	Enter
7	Lcd power	LCD POWER	LCD POWER

8. #16 housing face board introduction (Normally fit for 4CHs simply DVR)

TYPE	NAME	Instruction
Status indicator	POWER	Power
	REC	Recording
	NET	On means network has connected
IR receiver	IR	Remote control receiver

5.1.2 Definition for interfaces of rear pane

1. Generic 24CHs and 32CHs back board interface introduction.
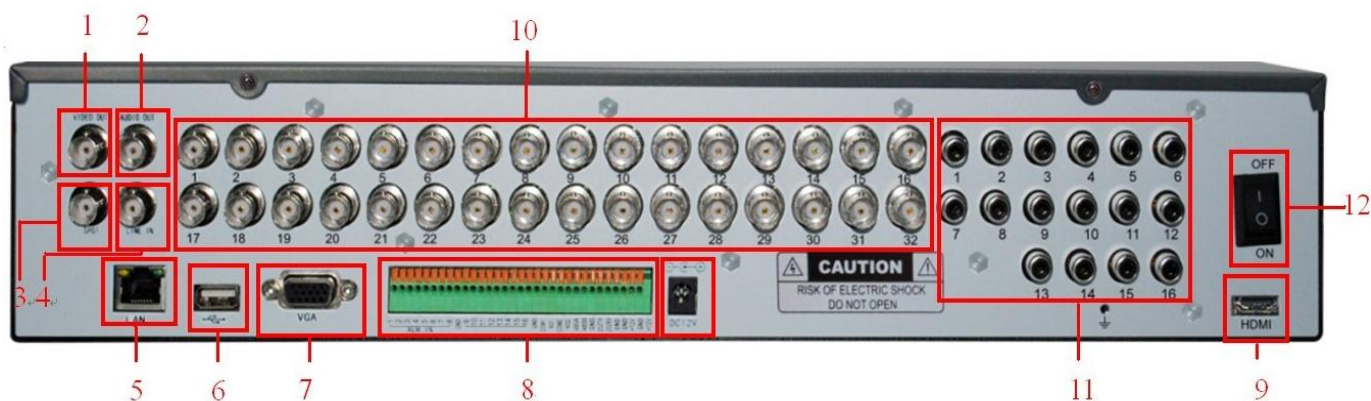
| No.	Physical interface	Interface description
1	VIDEO OUT	Video output connecting TV or monitor, standard BNC connector
2	AUDIO OUT	Audio output
3	SPOT	Auxiliary video output, used as auxiliary display device
4	LINE IN	Used for talkback function
5	LAN	Network interface
6	USB	Used to connect mouse or back up
7	VGA	VGA interface
8	ALARM IN	Alarm on-off input
	ALARM OUT	Alarm relay output
	RS485	Used to control PTZ
	RS232	Used for serial port configuration
9	HDMI	High definition interface
10	VIDEO IN	Connecting analog video (camera) signal input, standard BNC
11	AUDIO IN	Audio input
12	ON/OFF	Power switch

Table 5-2 rear panel parameters

2. Generic 4CHs and 8CHs DVR back board interface definition

Generic 4CHs and 8CHs DVR back board fit for face board of #04, #07, #11, #15, #20, and #22 housing.
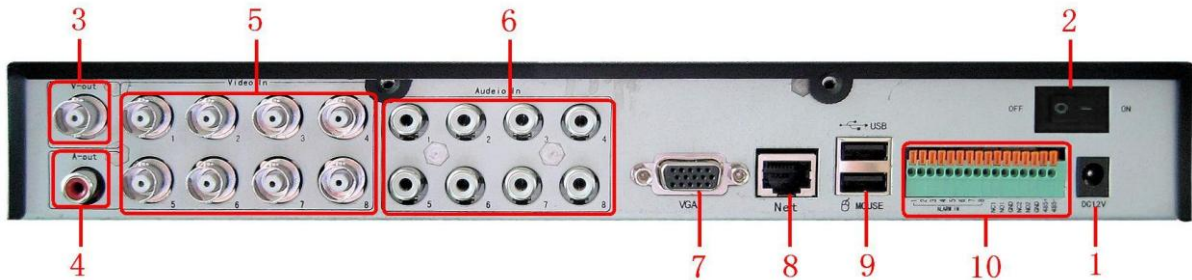
3. Generic 16CHs DVR back board interface definition

Generic 16CHs DVR back board fit for face board of #04 and #15 housing.
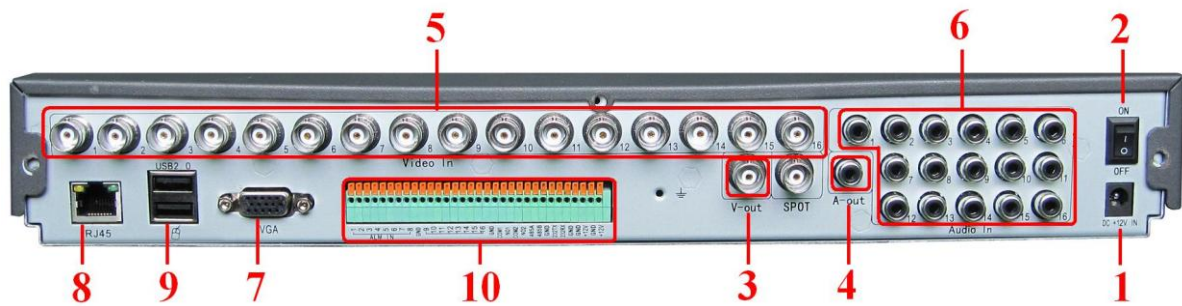
Connectors on Rear Panel

Item	Physical connector	Connector description
1	12V IN	DC 12V/3.42A
2	OFF	Power ON/OFF
3	t	One video output for connecting TV or monitor (BNC)
4	t	For connection audio output
5	o In	For connecting analog video signal input (BNC)
6	o in	For connecting audio signal
7		For connecting VGA monitor
8		For connecting Ethernet
9	2.0/MOUSE	USB2.0/USB mouse
10	RM IN	8 I/O alarm input
	NO GND	I/O output for alarm
	85+ RS485-	RS 485 for connecting PTZ

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4. Simply 16CHs DVR back board interface introduction.

Simply 16CHs DVR back board fit for face board of #15, #19, #20 and #22 housing.

Connectors on Rear Panel

Item	Physical connector	Connector description
1	V-OUT	One video output for connecting TV or monitor (BNC)
2	Video In	For connecting analog video signal input (BNC)
3	DC12	DC 12V
4	ON/OFF	POWER ON/OFF
5	A-OUT	For connection audio output
6	Audio In (A-IN)	For connecting audio signal
7	VGA	For connecting VGA monitor
8	Net	For connecting Ethernet
9	USB	USB2.0/USB mouse
10	ALARM IN	8 I/O alarm input
	COM NO GND	I/O output for alarm
	RS485+ RS485-	RS 485 for connecting PTZ

5. 3507 back board interface definition (Normally fit for 4CHs Generic DVR and 4CHs simply DVR)
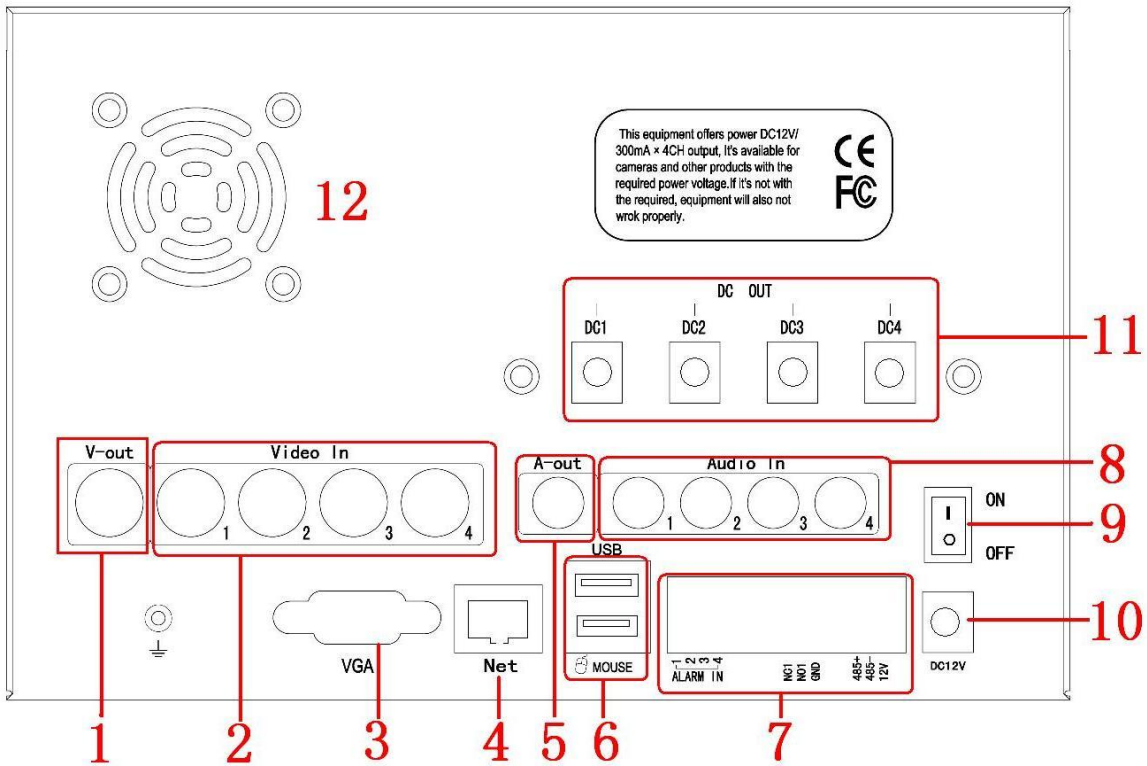
Connectors on Rear Panel

Item	Physical connector	Connector description
1	V-out	One video output for connecting TV or monitor (BNC)
2	Video In	For connecting analog video signal input (BNC)
3	VGA	For connecting VGA monitor
4	Net	For connecting Ethernet
5	A-out	For connection audio output
6	USB/MOUSE	USB2.0/USB mouse
7	ALARM IN	4 I/O alarm input
7	COM NO GND	I/O output for alarm
7	RS485+ RS485-	RS 485 for connecting PTZ
8	+12V	For connecting audio signal
9	Audio In	Power On/Off
10	ON/OFF	DC 12V
11	DC12V	4 DC out
12	FAN	cooling fan

6. Simply 4CHs and 8CHs DVR back board interface definition

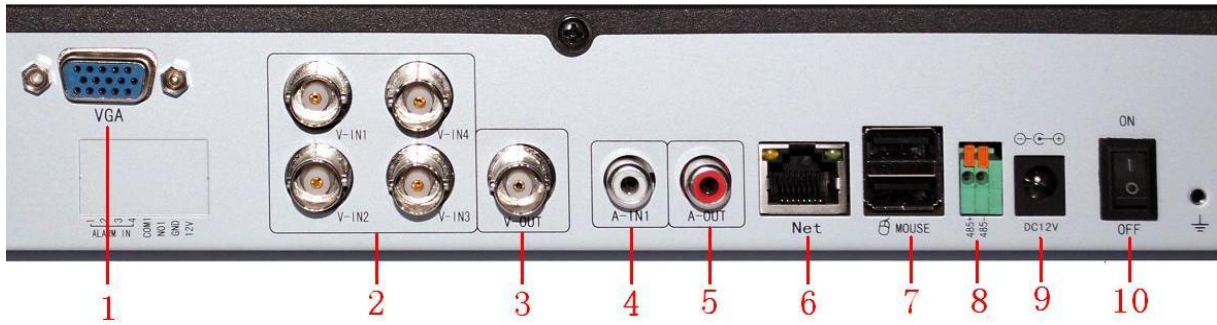Simply 4CHs and 8CHs DVR back board fit for face board of #07, #16, #20 and #22 housing.

Figure 5-10 Simply 4CHs DVR back board

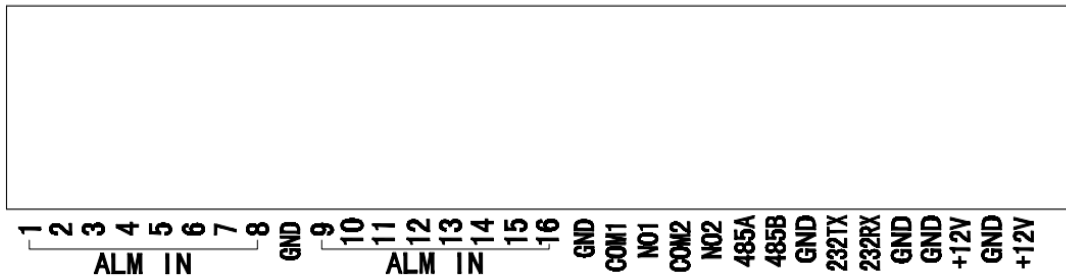Figure 5-11 Simply 8CHs DVR back board

Item	Physical connector	Connector description
1	VGA	For connecting VGA monitor
2	Video In（V-IN）	For connecting analog video signal input (BNC)
3	V-OUT	One video output for connecting TV or monitor (BNC)
4	A-OUT	For connection audio output
5	Audio In (A-IN)	For connecting audio signal
6	NET	For connecting Ethernet
7	USB/MOUSE	USB2.0/USB mouse
8	RS485+ RS485-	RS 485 for connecting PTZ
9	DC12	DC 12V
10	ON/OFF	Power On/Off

5.2 Alarm post interface

Connection method of alarm post: firstly strip the cable to be connected, then use a small screwdriver to jack up orange part, put the cable into the receptacle then loosen the screwdriver to fasten.

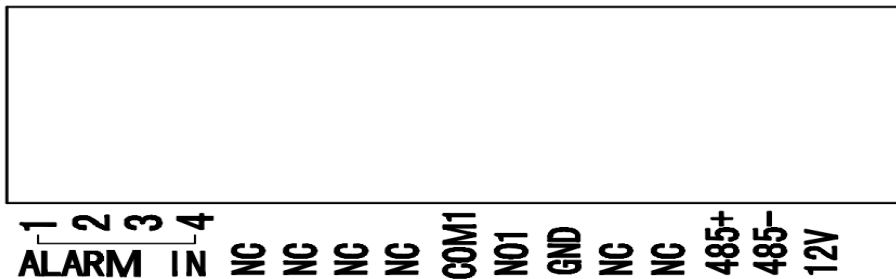### 5.2.1 Alarm interface definition diagram

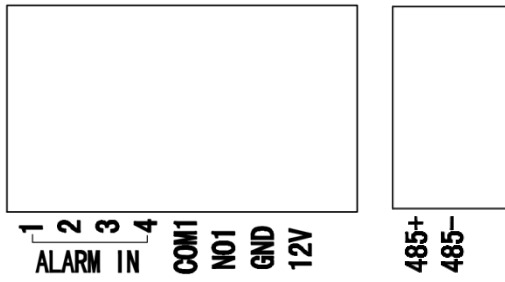1. General 16CHs、24CHs and 32CHs (Alarm input.Alarm output,RS232 interface,RS485 interface)

```
1 2 3 4 5 6 7 8  GND  9 10 11 12 13 14 15 16  GND COM1 NO1 COM2 NO2 485A 485B GND 232TX 232RX GND GND +12V GND +12V
    ALM IN                  ALM IN
```

2. General 8CHs and Simple version 16CHs (Alarm input , Alarm output , RS485 interface)

```
1 2 3 4 5 6 7 8   COM1 NO1 GND COM2 NO2 485+ 485- 12V
    ALARM IN
```

3. General 4CHs (Alarm input , Alarm output , RS485 interface)

```
1 2 3 4   NC NC NC NC COM1 NO1 GND NC NC 485+ 485- 12V
ALARM IN
```

4. Simple 4CHs and 8CHs (Optional) (Alarm input，Alarm output，RS485 interface)

ALARM IN 1 2 3 4   COM1 NO1 GND 12V   485+ 485−

5.2.2 Alarm input and output

The alarm input can connect to infrared alarm, smoke transducer etc.
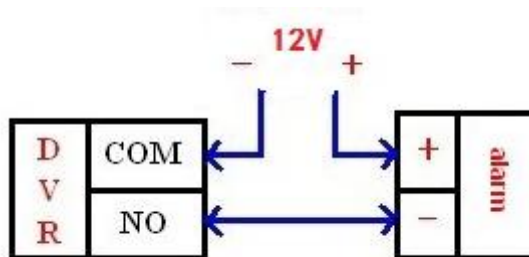
The alarm input wiring of external power source of detector is shown in the following diagram.
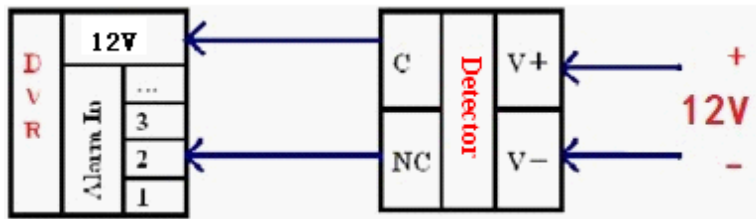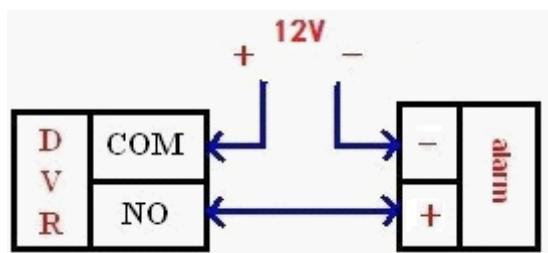

5.2.2 Wiring diagram of alarm output

The wiring of external power source of alarm output is shown in the following diagram.

Alarm output loop (low level):

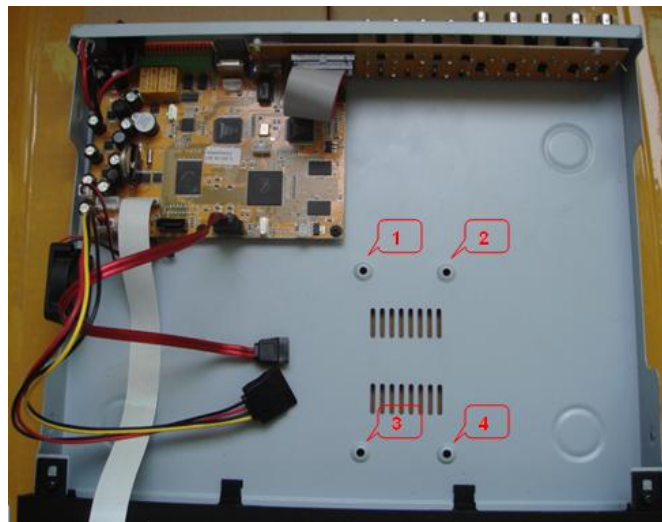Wiring diagram of alarm output

Alarm output loop (high level):

Wiring diagram of alarm output

5.3 Hard disk installation
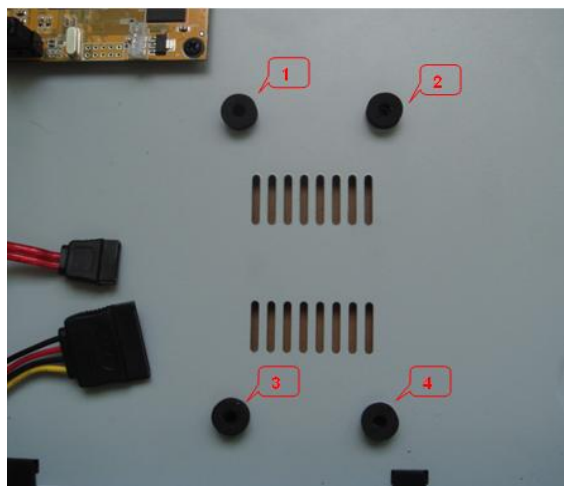
Please installation the HDD as the following steps:

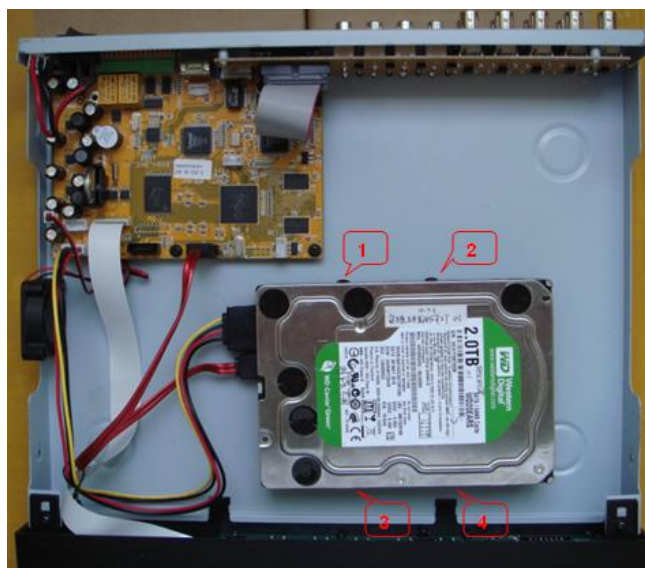1）Open the machine, there are 4 screw holes used to fix the HDD as below;

2）Take out the fixed screws and cotton pads used to protect HDD; As below picture;

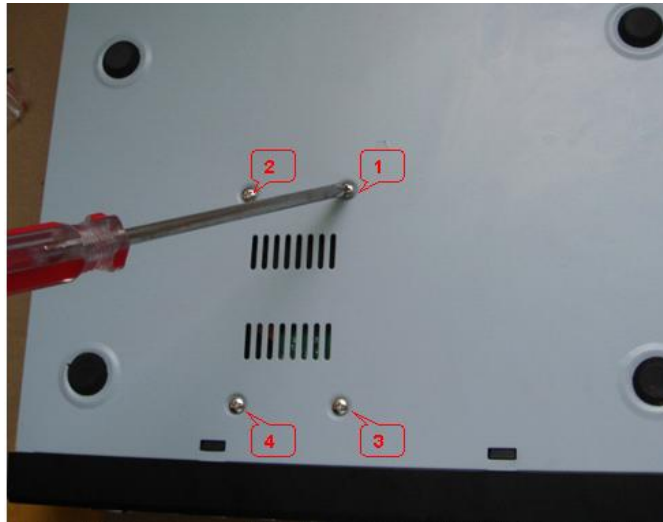3）Tear the cotton pads and post in the screw holes as shown;

4）Put the circuit side of HDD on the board, and make the screw holes correspond to the cotton

pads；

5）Fix the HDD from the bottom; Make sure screws had gotten through the cotton pads, as below picture；

Notice: Newly installed HDD should format before recording

Chapter VI: FAQ

If the problem you met is not listed in the content below, please contact local customer service personnel or call the customer service of headquarter to consult, we will serve for you with all our heart.

1.   Ask: after starting up, digital video recorder can't start normally?

Answer: possible reasons:

1   Input power supply is incorrect

2   The contact of switching power cable is bad

3   Switching power supply is bad

4   Program update is wrong

5   The main board of digital video recorder is bad

2.   Ask: digital video recorder will restart automatically or often down several minutes after starting up

Answer: possible reasons:

1   Input voltage is unstable or too low

2   Hard disk has bad track or hard disk cable is bad

3   The power of switching power supply is not enough

4   The video signal of front end is unstable

5   Bad ventilation, too much dust, the operating conditions of machine are too severe

6   The contact between main board and other auxiliary board is bad

7   Hardware failure of digital video recorder

3.   Ask: single channel, multiple channels, all Video have no output

Answer: possible reasons:

1   Please check the power supply connecting camera for loose

2   Please check the connecting wire of video output and input on the rear panel of DVR

3   Directly insert the video source into display device to judge if it is the problem of video source or display device

4   Check image brightness to see if it becomes 0, restore to default setting

5   No video input signal or the signal is too weak

6   Preview closed is set in display setting

7   Hardware failure of digital video recorder

4.   Ask: can't record normally after starting up, a "H" is prompted on the interface

Answer: possible reasons:

1   Check if DC12V power adapter is adopted by the machine

2   Check if new hard disk has been formatted on the local host

3   The contacts of hard disk power cable, data cable are bad or damaged

4   Hard disk is damaged

5   SATA port of main board is damaged

5.   Ask: what's the meanings of "R" "M" "I" "H" "W" prompted on direct connection picture

Answer:

1   "R" means that record is being carried out on the channel

2   "M" means that motion detection is triggered on the channel

3   "I" means that external I/O alarm is triggered on the channel

4   "H" means that the device has no hard disk connected or hard disk failure or disk full

5   "W" means that current system time conflicts with time of record file existed on hard disk

6.   **Ask: real time image problem, such as video image color, brightness have serious distortion**

> Answer: possible reasons:

1   When BNC is used for output, the selection of PAL system and NTSC system is incorrect, the image will become black and white

2   Digital video recorder and the impedance of monitor not matched

3   Video transmission distance is too long or the fading of video transmission cable is too high

4   The settings of color, brightness etc of digital video recorder are incorrect

7.   **Ask: no sound in listening**

> Answer: possible reasons:

1   Check if active pickup and active sound box are adopted, you can judge by directly short the signal cables of both

2   Whether the video channel with audio source connected is activated, you can single click the channel to be in full screen to judge

3   Hardware failure of digital video recorder

8.   **Ask: there is sound in monitoring, but no sound in playback**

> Answer: possible reasons:

1   Setting problem: audio record option has not been opened

2   Whether mute is set in playback interface

9.   **Ask: time display is wrong**

> Answer: possible reasons:

1   Setting is wrong, or the time is modified but "Modify date & time" is not pressed to validate

2   The contact of battery is bad

3   The service time of battery is too long, please replace the battery

10.   **Ask: why "Stop record" by clicking right mouse has no function, how to stop record**

> Answer:

1   The "Stop record" key of right mouse is used to stop manual record, it can't be used to stop the record set in starting record or record schedule

2   If it is required to stop record, please enter into record schedule, set the time interval as no record

11.   **Ask: motion detection has no function**

> Answer: possible reasons:

1   The setting of motion detection zone is not appropriate

2   The sensitivity is too low

12.   Ask: error in DVD/CD rewritable drive/USB device

Answer: possible reasons:

1   Data quantity exceeds the capacity of backup device, which will result in CD burning error

2   Backup device is not compatible

3   Backup device is damaged

13.   Ask: the remote control can't control

Answer: possible reasons:

1   The address of remote control is wrong

2   The distance of remote control is too far or the angle is too deflective

3   The battery of remote control is used up

4   The remote control is damaged or the front panel of video recorder is damaged

14.   Ask: can't login WEB

Answer: possible reasons:

1   Check if the network is connected, check if the LINK or 100M LED on panel displays correctly; use ping xxx.xxx.xxx.xxx (the IP address of the DVR) to check if the network is connected

2   Windows XP or Vista operation system is recommended, IE6.0 or IE7.0 browser is adopted

3   ActiveX control is inhibited, please install ActiveX control manually

4   No dx8.1 or above version is installed, upgrade the driver of display card

15.   Ask: there is mosaic in network preview Video and record file playback or no image at all

Answer: possible reasons:

1   If DVR is accessed through Internet, when IE is used to login, please select "WAN" in "Network environment", and select appropriate network bandwidth in "Setting > System setting > Network environment" option.

2   Please try right key "Close window", then "Open window"

16.   Ask: when setting is carried out at IE end, why "Other user is configuring…" window pops up

Answer: possible reasons:

1   This may means that others are setting DVR. Please check if the configuration interface of DVR end is in open state, please exit.

17.   Ask: digital video recorder can't control PTZ

Answer: possible reasons:

1   Front end PTZ failure

2   PTZ decoder setting, wiring, installation are incorrect

3   Wiring is incorrect

4   The setting of PTZ in digital video recorder is incorrect

5   PTZ decoder and the protocol of digital video recorder not matched

6   PTZ decoder and the address of digital video recorder not matched

7   When multiple decoders are connected, the farthest end of A B lines of PTZ decoder should be added with a 120 Ω resistor to eliminate reflection and make impedance matching, otherwise unstable PTZ control may be resulted.

8   The distance is too far

18.   Ask: how much capacity is occupied in hard disk by record per hour

Answer:

1   For audio record, about 14Mbyte capacity is occupied for each channel

2   The capacity occupied in hard disk by video record depends on the selection of "Record mode > bit rate": excellent, good, medium, and also depends on the motion amount of pictures within the time interval; if the picture is still, then the consumption of hard disk is lower; if the picture is motive, then the consumption is higher. When "excellent" is selected, about 320Mbyte capacity is occupied for each channel of video per hour; when "good" is selected, and the pictures are still or small motive, then about 50~100Mbyte capacity is occupied for each channel of video per hour; if the pictures are large motive or many small motive, then about 100~200Mbyte capacity is occupied for each channel of video per hour; when "medium" is selected, and the pictures are still or small motive, about 50~100Mbyte capacity is occupied for each channel of video per hour; if the pictures are large motive or many small motive, then about 100~150Mbyte capacity is occupied for each channel of video per hour;

19.   Ask: I/O alarm has no function
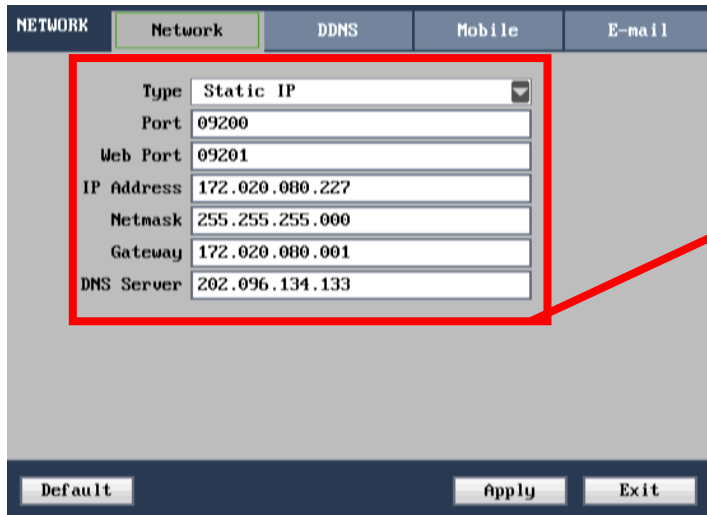
Answer: possible reasons:

1   Alarm setting is incorrect

2   Alarm wiring is incorrect

3   Alarm input signal is incorrect

4   One alarm device connects to 2 circuits at the same time

Chapter VII: APPENDIX

Pppendix 1   E-Video

Operation Steps：

1、In the domain name applications before, first set DVR's IP address, ne mask, gateway, DNS


Note:
When setup IP Address, the Gateway, DNS must be consistent with the local network. For example: the local gateway 172.20.80.1,DNS: 202.96.134.133, then the DVR gateway should be 172.20.80.1, the DNS: 202.96.134.133. The DVR IP address setting does not conflict with other computers or network devices in the network

2、Test DVR network connectivity, to detect whether the DVR normal connected.
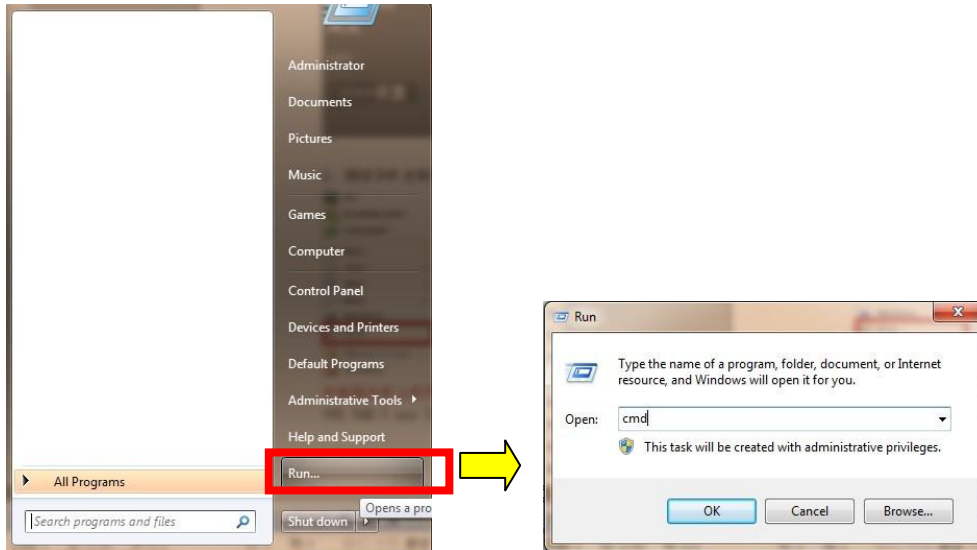
In computer host start menu-run inside, in input CMD ping command input. For example: ping 192.168.1. XXX (this IP for the DVR set IP address)
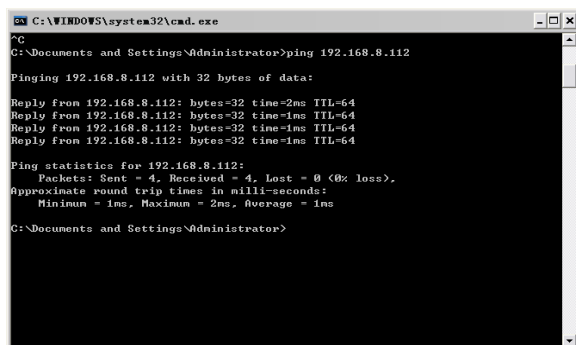
As shown in figure: appear figure shown on character, says DVR has normal local network connection

As shown in figure: appear figure shown on Request timed out, says characters DVR network connection is not normal, please check the network Settings, etc

a) Entry E-Video, there are two styles of it one is Manual , the other is automatic

b) Automatic

c) The main menu-> network Settings-> E-video Settings-> > choose automatic enable domain name-(pictured)
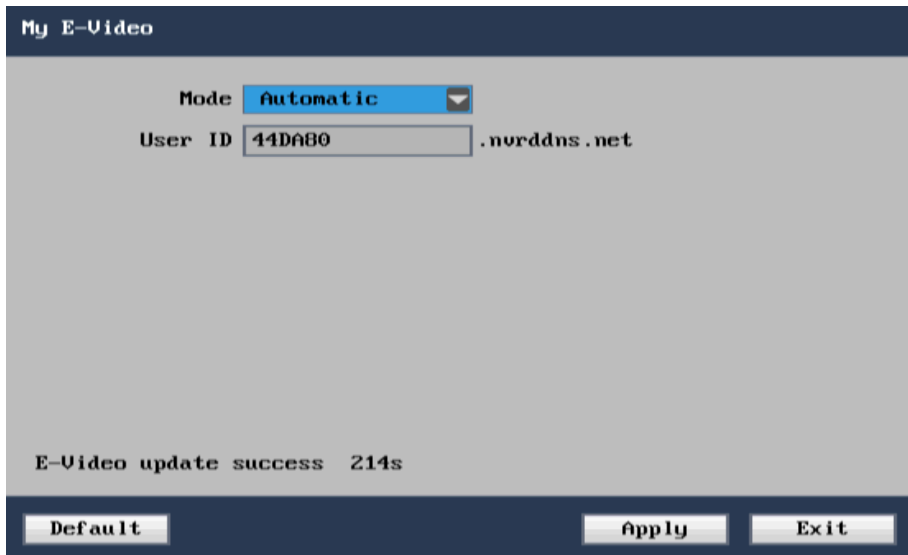
Step 1 : Log in DVR

First open IE browser address bar in the application of success in input domain name: http://44DA80.dvripc.net/ , Click Enter.
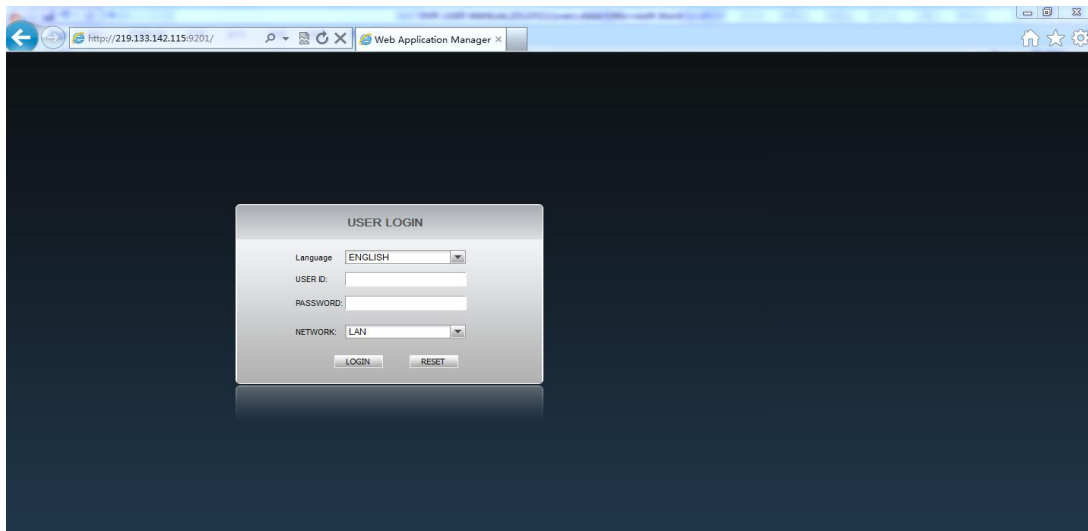
Remark：**If access failure please visit router, Check the UPNP feature.**

d) UPNP Feature：

Step 1：input IP add of router,

Step 2：forwarding rules-virtual server ->UPNP setting，turn on UPNP。

After that, Make sure DVR's IP and Mapping port.

Manual

Main Menu->Network setting ->E-Video->Manual（as follow）
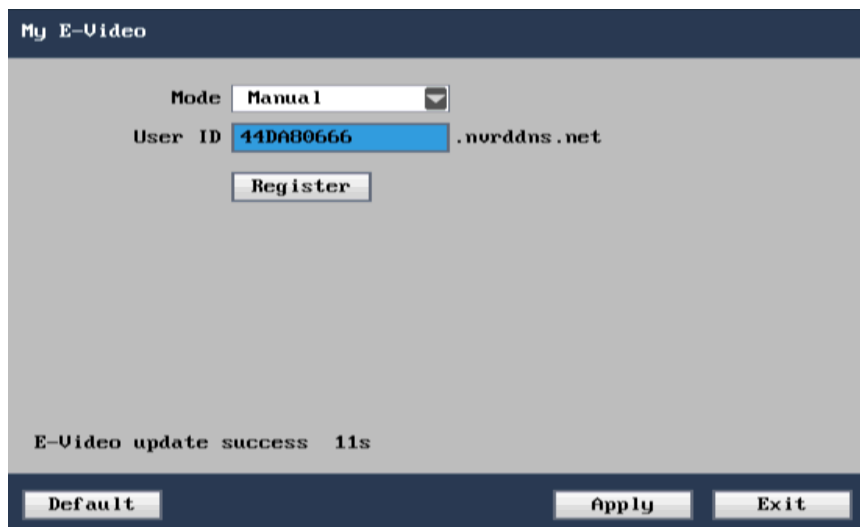
Automatic style allow revise the user ID, Click【register】 "E-video Update Success" can be used it，

Log in：as follow above of user ID，input the address on IE: http://44DA8033.dvripc.net/ （as picture show 44DA8033 is manual style user ID），Press"Enter"button input DVR user name and password 。

e) Enter by user ID

Input the http://www.dvripc.net on IE enter into Domain name site management

As follows，Choose【**Login Device**】
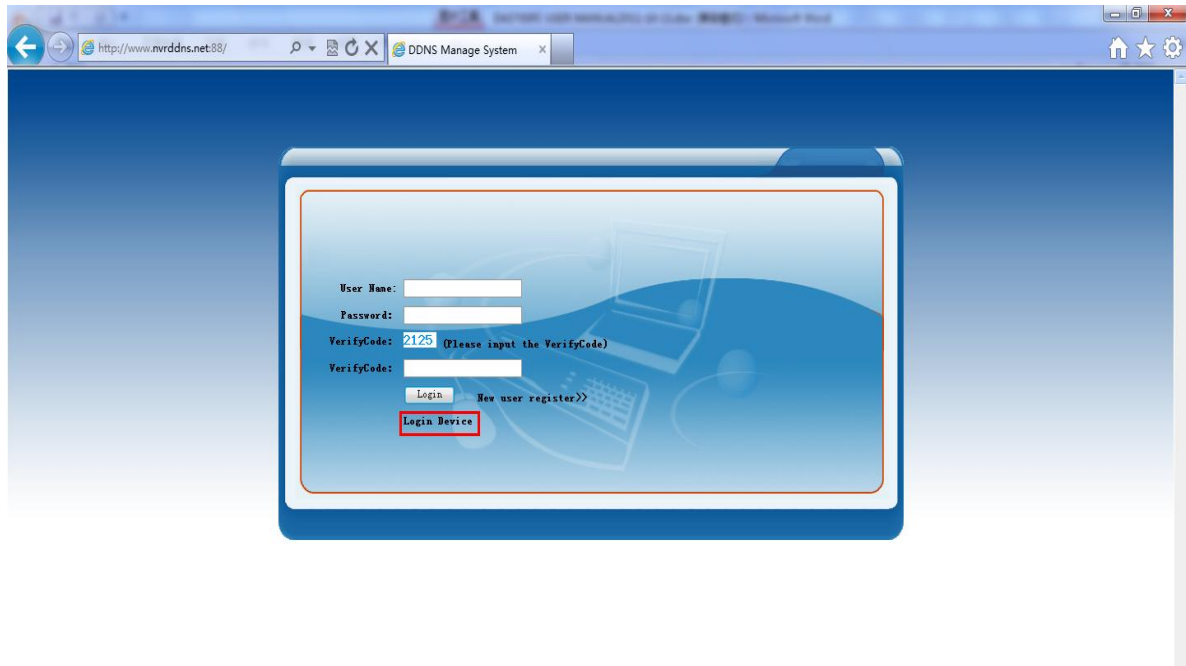
Input the user ID of automatic style of E-Video，and DVR user name and passwork，can be log into the DVR。

Remark：

The first open web will pop up a sign not confirm tip box, this time control, please click "installation" or "is" button to determine the installation. If or not installed plugin, please click the following operations: in the client computer opens up a window, IE selection tools-Internet options-security-custom ActiveX control level, and to enable all

elected and plug-ins, complete set determined after exit. Then refresh website, can be automatically download and install the plugin。
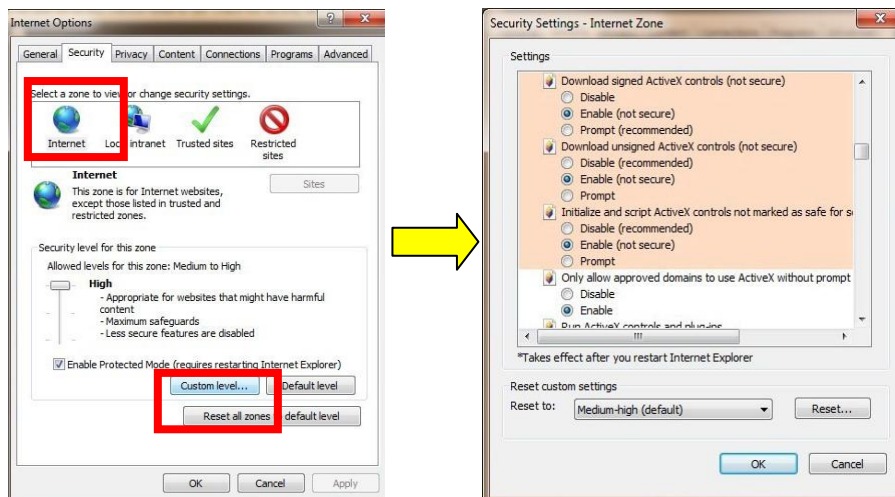
After the completion of the plugin installation will be automatically popup land casing: enter your user name: admin password: 123456 (default) choose network environment (LAN or WAN)

When finished, click on the login screen to enter IE, click on the icon to open the   window,   you   can   monitor   the   video
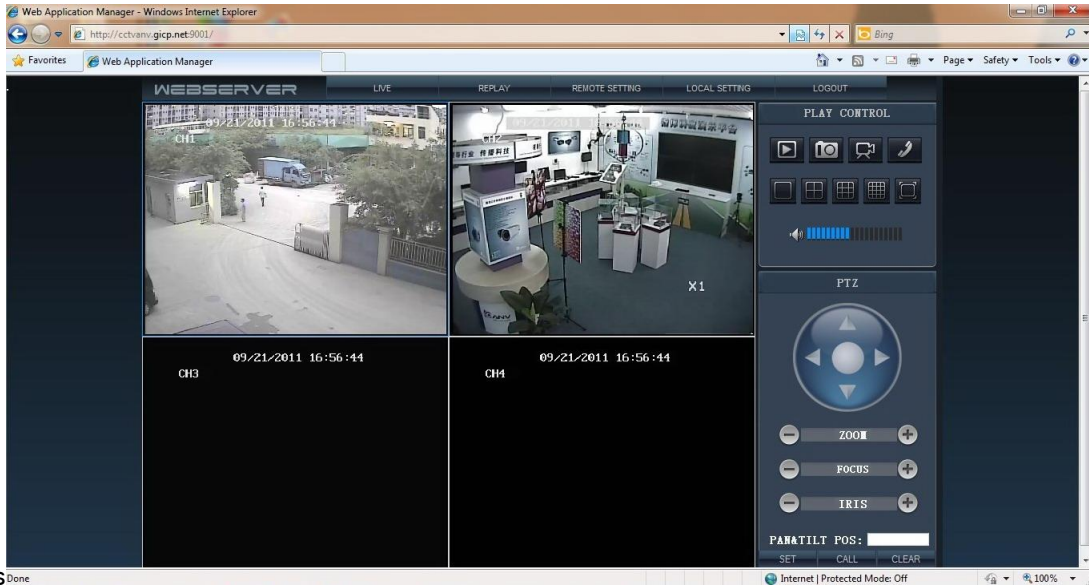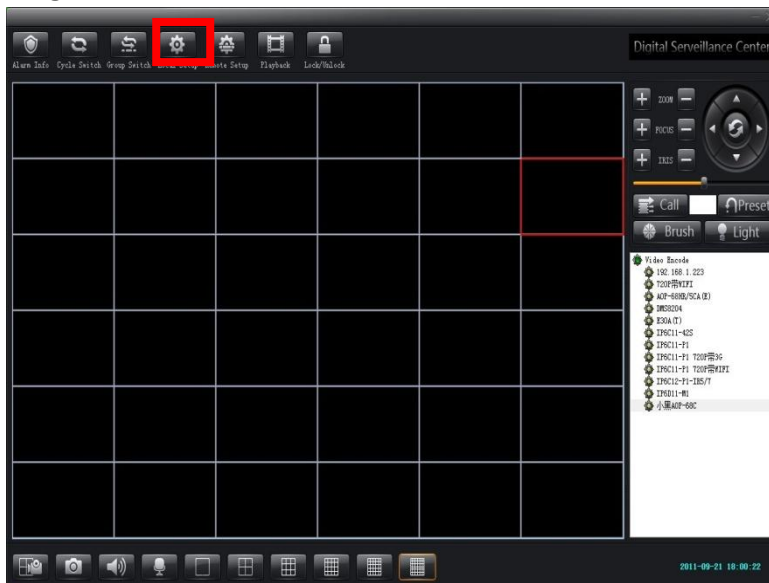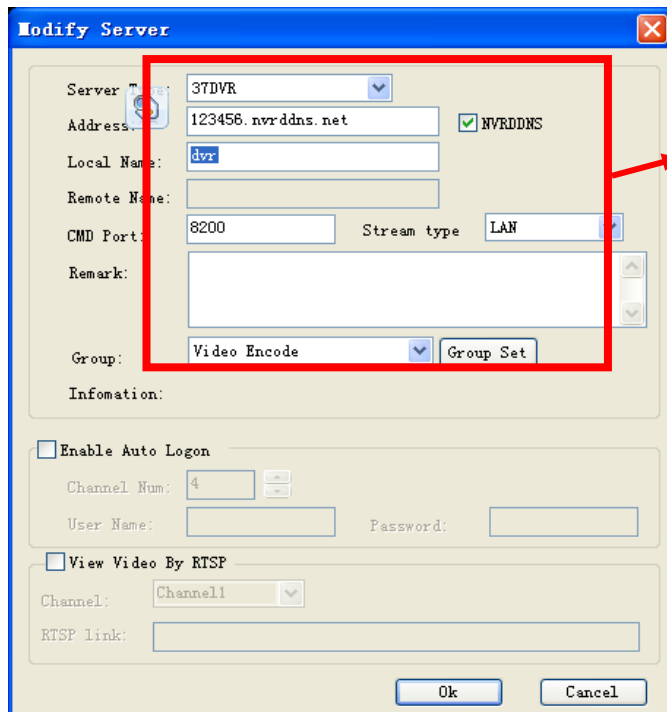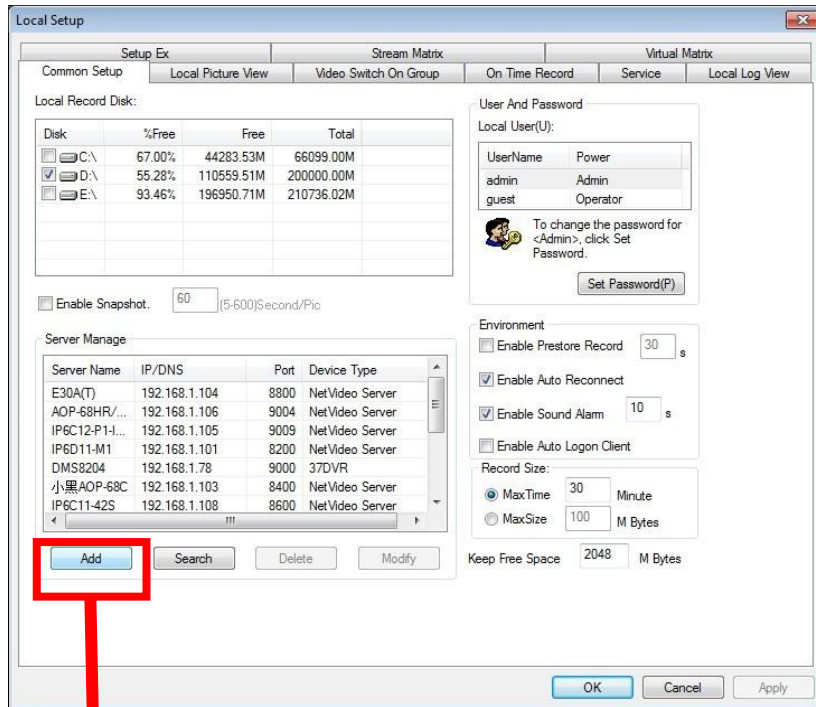
images

The client visit:

The remote computer first installed on the client software, after installation, double

click into [NVClient] to the client the main menu-> Settings-> general local Settings-> add
server (choose good hosting type, set up IP address, name, port, etc.), as shown in the
diagram

Select hosting type: according to the corresponding host machine type selection type (such as machine model 37xx choose corresponding 37 DVR)

Address: fill in the application domain name, do not need to add http:// and port

Add good server, return to the main interface, and then login server can。