

H.264 DVR



USER MANUAL

16-CH Embedded Digital Video Recorder

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Notes

- ◎The power supply of this DVR is provided through DC12V adapter, please check the power outlet before installation and ensure it can meet the requirements of adaptor;
- ◎Do not place the DVR at a place subject to rain or moisture;
- ◎Do not install the DVR at a place subject to violent vibration;
- ◎Do not install the DVR at a place subject to direct sunlight, and be far away from heat and high temperature environment;
- ◎The DVR's back panel shall be 15cm or more away from other objects or wall, to facilitate fan cooling;
- ◎The DVR shall work under temperature, humidity and voltage according to its technical specifications;
- ◎The space where DVR installed shall not be stored with corrosive chemicals that may produce volatile gases, to avoid to affect the DVR's life;
- ◎The DVR shall be installed in a space without much dust, and the environment should be kept clean and tidy;
- ◎Proper grounding shall be installed during operation;
- ◎DVR should be installed to ensure the proper connectivity with other devices.

Please buy hddisk from official channel to meet DVR's long time and much data reading and writing requirements.

Packaging and Accessories

Following parts are included in the package:

- ◎ One IR remote controller
- ◎ A pair of remote controller batteries
- ◎ One piece of product certificate
- ◎ One piece of product warranty card
- ◎ One piece of product instruction
- ◎ Several SATA hddisk data cables
- ◎ One DC12V5A power adapter
- ◎ HDD support (already installed) and a set of mounting screws.
- ◎ One piece of CD.

Chapter 1 DVR Instruction

Real-time Monitoring	Analog output, realize monitor functions through monitor.
Record Storage	Support HDD to save real-time record.
Backup	Support USB flash drive, removable drive, network backup to HDD.
Playback	Enable single CH and multiple CH to search playback via DVR or Network.
Network Operation	Support remote access by authorized users to increase expansibility and security of system.
Alarm Setting	Support HDD & Video input alarm Management and external alarm signal inputs.
Mouse Operation	Support Mouse operation for flexible system setup.
PTZ Control	Support PTZ camera operations via RS-485.

Table 1-1

Technical Specifications

- ◎H.264 compression format, but currently 16 CH only supports CIF resolution H.264;
- ◎Linux operation system, graphical interface, supports mouse, front panel and IR remote control operation;
- ◎Support IE browse, real-time network monitor and DVR parameter setting, audio network transmission;
- ◎Support 4 CH audio recording inputs, audio channel bonding, recording, playback, network transmission and real-time record.
- ◎Multiple recording modes: manual recording, timing recording, alarm recording(motion or sensor input), timing & alarm recording(low frame rate recording before alarm, if in motion or sensor input alarm, frame rate is increased) .
- ◎Supports playback of event categories and accurate time; RS-485 port to support PTZ control;
- ◎Support video signal loss alarm; automatic password protection for the sake of illegal operation;
- ◎Support USB flash drive and HDD backup;
- ◎Support 2 SATA HDD, capacity of single one is to 1024 G;
- ◎Support auto recovery when power off or reset.

Video compression format	Main profile H.264
Video output	NTSC/PAL : 16 channel BNC input 2 channel BNC output(1 channel CVBS, 1 channel SPOT)

Audio	4 channel input/1 channel output/one channel intercom
Display resolution	800*600 60HZ、1024*768 60HZ、1280*1024 60HZ
Record frame rate	PAL: 5/6/12/25 fps NTSC: 5/6/15/30 fps
Record resolution	CIF/Half-D1/D1 are optional
OSD output	VGA/CVBS
Image Quality	Lowest, Low, Normal, High, Highest
HDD	Support SATA port
Video standard	PAL/NTSC
Alarm input/output	16 channel input/4 channel output

Chapter 2 DVR Introduction

2.1 Front Panel (only for reference)

Functions of front panel shown as followed:



Item	Key title/ Indicator	Marks	Function
1	Power switch		On/ Off
2	Power indicator	POWER	The “Green” indicator is on as normal power supply
3	HDD indicator	HDD	The “Red” indicator means that at least one HDD is mounted successful to be normally used
4	Alarm indicator	ALARM	“Alarm” indicator is on when event triggers the alarm
5	Network indicator	NET	Network is connected, “network” indicator is on; network is disconnected, “network ” indicator is off
6	Recording Indicator	REC	REC will flash when start recording
7	IR receiver		Receives IR signal from Remote Control
8	Numeric key 1		For 16 channel, press numeric key 1 to switch to channel 1 when in the menu

9	Numeric key 2		For 16 channel, press numeric key 2 to switch to channel 2 when in the menu
10	Numeric key 3		For 16 channel, press numeric key 3 to switch to channel 3 when in the menu
11	Numeric key 4		For 16 channel, press numeric key 4 to switch to channel 4 when in the menu
12	Numeric key 5		For 16 channel, press numeric key 5 to switch to channel 5 when in the menu
13	Numeric key 6		For 16 channel, press numeric key 6 to switch to channel 6 when in the menu
14	Numeric key 7		For 16 channel, press numeric key 7 to switch to channel 7 when in the menu
15	Numeric key 8		For 16 channel, press numeric key 8 to switch to channel 8 when in the menu
16	Numeric key 9		For 16 channel, press numeric key 9 to switch to channel 9 when in the menu
17	Numeric key 0		For 16 channel, press the combination of numeric key 10+ and 0 to switch to channel 10 when in the menu
18	Numeric key 10+		For 16 channel, press the combination of numeric key 10+ and 0-6 to switch to channel 10 -16 when in the menu
19	PLAY_B		Fast reverse
20	STEP_B		One Frame back forward play
21	SEARCH/STOP		Enter record search interface/ Stop playback
22	STEP_F		One Frame fast forward play
23	PLAY_F		Normal play/Fast forward
24	DISPLAY		Display switch/ Menu's options switch
25	REC		Start /Stop manual record
26	MENU/ESC		Enter right click menu/ ESC
27	UP	▲	For the focus transfer of plug-ins in the menu' s interface; move up
28	DOWN	▼	For the focus transfer of plug-ins in the menu' s interface; move down
29	LEFT	◀	For the focus transfer of plug-ins in the menu' s interface; move leftwards
30	RIGHT	▶	For the focus transfer of plug-ins in the menu' s interface; move rightwards
31	PTZ		Enter PTZ control interface

2.2 Rear Panel (only for reference)

1	CH1-16 video input	6	RS-485
2	Audio output	7	Power port
3	Intercom input	8	Alarm module (sensor input/alarm output port) and keyboard port
4	Audio input	9	VGA output
5	LAN: Network port	10	CVBS output/SPOT output

2.3 Remote controller (only for reference)



◀	One frame back forward
LOG	Enter log search interface
F1	Spare key
SPOT	SPOT output
0	Combination of 0 and 10 switch to channel 10
10+	Combination of 0-6 and 10+ switch to 10-16 respectively
⊞	Display switch
▲	For the focus transfer of plug-ins in the menu's interface; move up
▼	For the focus transfer of plug-ins in the menu's interface; move down
PTZ	Enter PTZ interface/Enter
◀	For the focus transfer of plug-ins in the menu's interface; move leftwards
▶	For the focus transfer of plug-ins in the menu's interface; move rightwards
SYSINFO	View basic information of system
MENU/ESC	Pop up right click menu
●	Manual record
■	Stop
▶	Fast forward
◀	Fast reverse
▶▶	One frame fast forward

Chapter 3 Installation

3.1 HDD Installation

Notice: Don't take out the HDD while the DVR in operation.

HDD Setup:

- (1) Open the upper cover of DVR.
- (2) Connecting HDD wire and power wire to the mainboard.
- (3) Put the upper cover back.

3.2 Connecting Cameras and Monitor

Connect camera cable to video input of DVR, and attach the video output cable from DVR to monitor via BNC connector (refer to section 2.2-Rear Panel). If the camera is PTZ dome, connect RS485 A & B to the port of DVR respectively.

3.3 Connecting power

Please use the supplied power adapter to connect DVR.

Chapter 4 Basic Operations

4.1 System Initialization

After connecting the power adapter and pressing the power button, the system will be turned on.

4.2 Main interface

After turning on the system will enter main interface. Picture 4-1 is the main interface defaulted by system. Once there are video inputs, the interface will display live images from the channel; if not video input, interface is defaulted blue. In the main interface, double-click any channel, the image will be maximized to full screen, by double-click again, image will come back to multiple display mode; clicking the right button of mouse then will enter Pop-up Menu, move the cursor to select menu, then click the left button to enter the selected menu or carry out the functions.



Picture 4-1

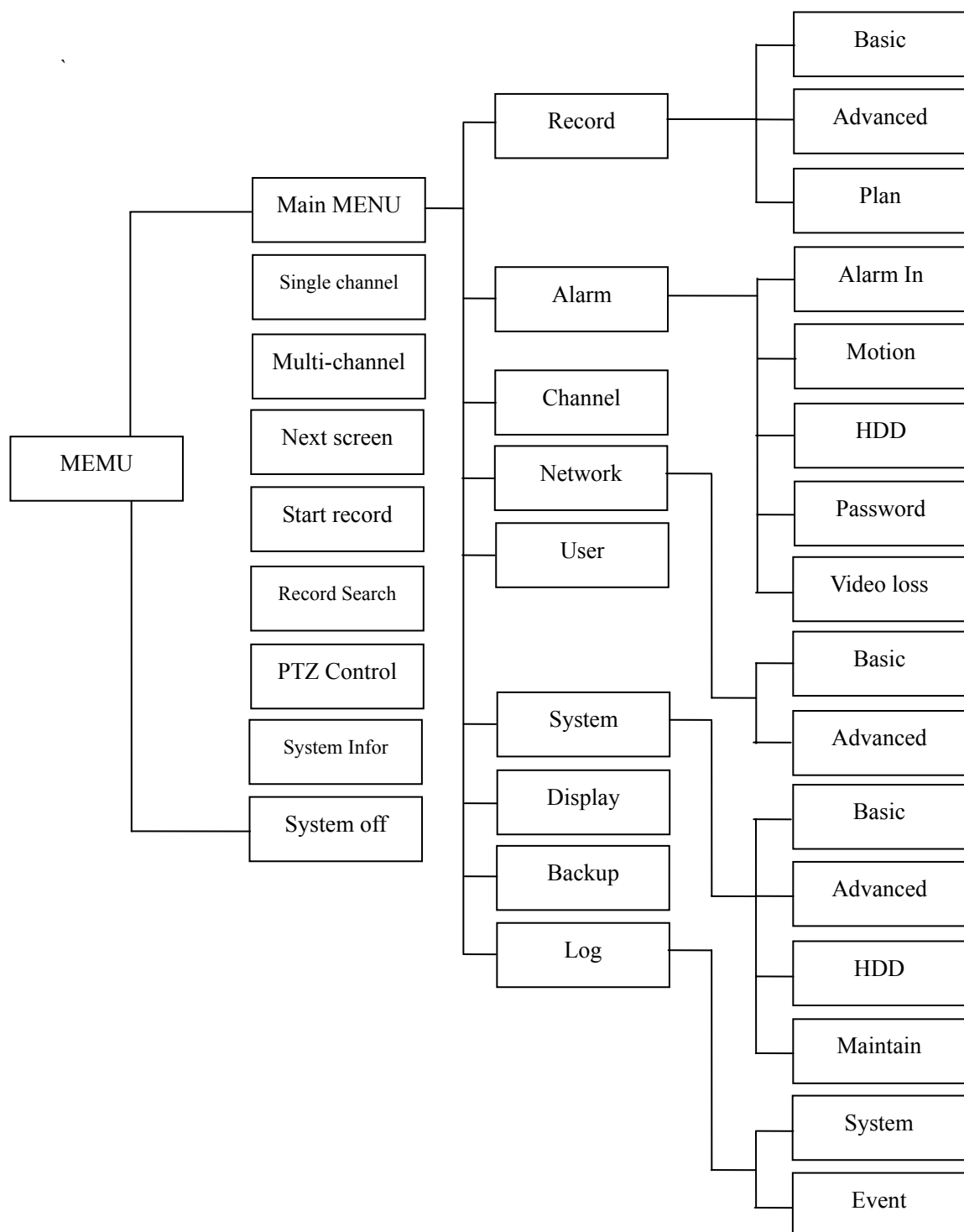
4.3 Right-click Menu

After start-up of the system, click right button of mouse in the main interface, through pop-up main menu, user could perform parameter setting and operate on the main menu, e.g., main menu, video search, PTZ control, manual record, switch of single channel and multi-channel, shown as picture 4-2.



Picture 4-2

4.4 Overview of main menu



4.5 Main Menu

In the main interface, right-click to pop up the menu, click “main menu” (shown as picture 4-3), where could set the following items: Record, Alarm, Channel, Network, User Management, System, Record Backup and Log Search setting.



Picture 4-3

4.5.1 Record Setup

1) Basic setting

Click [Main menu]→ [Record] to enter [record] menu (Shown as picture4-4)

There are options of Resolution, Image Quality, Frame Rate, Audio, Pre-record available in the interface.

Note: [Exit] menu means exit the current interface for returning to previous menu or main interface.

Just now the resolution of 16 CH only supports CIF. There are five grades of IMAGE QUALITY: lowest, low, normal, high, highest, the comparative result shown as the following table:

Image Quality	Resolution	Maximum rate	Capacity to HDD per hour
lowest	CIF	64K	900M
Low	CIF	256K	1. 76G
Normal	CIF	512K	3. 51G
High	CIF	768K	7. 03G
Highest	CIF	1024K	10. 55G

- Frame rate is the number of frame per second, if less than 25 fps, image is not successive, but could save minor stream and decrease data size. There are four standards, PAL: 5/6/12/25 frame and NTSC: 5/6/15/30 frame.
- Recording is the audio channel relative to video record. If without input audio source, it doesn't need to set up this item. Through left-click or front panel button to enter the interface of record, pop-up the menu, select the audio channel with the four options of 1-4 audio channels. If choose [Close], stop recording.
- Pre-record: when one channel in timing alarm, the number of fps between the beginning of the channel is triggered by alarm and end of event alarm, two options: 5 frame, 6 frame.

- d. Copy to channel: after the setting of parameter of one channel, parameters of other channels are accordance with the first one channel, and then could use this item to copy the parameters of first one channel to other channels.



Picture 4-4

2) Advanced setting

To get to the ADVANCED SETUP, left click to the interface or via DISPLAY of front panel to other tags. There are two options: Override & Time and Date override

Setting method:

Note: Please note that PTZ also functioned as Enter.

- (1) Overwrite: Press the arrow key to select [Overwrite], popup dropdown menu with PTZ, and then press the arrow key to choose YES/NO. If select YES, this will make the new record file will overwrite the former record file when the capacity of HDD is full. If select NO, the new record file won't be stored in HDD when the capacity of HDD is full.
- (2) Time and Date Overwrite: Press the arrow key to select [Time and Date Overwrite], popup dropdown menu with PTZ, and then press the arrow key to choose YES/NO. If select YES, this will display time and date in the video playback, if select NO, the time and date won't be displayed in the video playback.



Picture 4-5

3) Record Plan

“Record Plan” includes setup of Off, Schedule Record, Alarm Record, and Schedule & Alarm Record. Record Plan has seven days: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday and Sunday. There are 24 time periods and one hour per time period.

Setting method:

- (1) Press the arrow key to “Channel” and enter PTZ to popup the interface.
- (2) Move cursor to any options: such as Off, Schedule Record, Alarm Record, and Schedule & Alarm Record, press PTZ to tick “√”.
- (3) Move cursor to any time options; press the combination of right & left keys and PTZ to select time area.
- (4) If apply all settings to other channels, just move cursor to “Copy to” and press PTZ to copy the settings to one channel or all channels.
- (5) Move cursor to “Enter” and PTZ to save above settings.



Picture 4-6

4.5.2 Alarm Setup

1) Alarm Input

Setting method:

- (1) Designated Event Channel: Press the arrow key to select channel, popup dropdown menu with click of PTZ, and then press the right and left keys to choose channel. Channel 1-16 and all channels are available, while the default channel is channel 1. After selecting channel, enter PTZ to apply the selected channel.
- (2) Set the sensor type: Press the arrow key to enter [Sensor Type], popup dropdown menu with click of PTZ, and then choose “Normal on” or “Normal off”, finally, press PTZ to apply the selected options. Normal off refers to that the external alarm circuit is closed at ordinary times, and open when there is an alarm. Normal on refers to that the external alarm circuit is open at ordinary times, and closed when there is an alarm.
- (3) Alarm record channel setup: Move the cursor to [Record], press PTZ to enter the setting interface, using the PTZ to choose alarm record channel or choose all channels.
- (4) Alarm output setup: The device for the alarm output while set event trigger. The default is No. In this interface, press the arrow key to choose action port and PTZ to enter, and press OK to exit.
- (5) Buzzer setup: To check DVR whether enable beep when set event trigger. Select “Buzzer”, press PTZ to open dropdown menu and arrow key to choose ON/OFF. If select ON, the buzzer is activated; if select OFF, the buzzer is invalid. When the event is finished, the buzzer is off automatically.
- (6) PTZ Action Setup: When the event is triggered, the preset position will be linkaged. Event is triggered that PTZ will be moved to front preset position, and move PTZ to back preset position after event is ended.
 - (a) Enter PTZ interface, press the arrow key to [Channel], and popup dropdown menu with click of PTZ, moving arrow key to select channel, finally enter PTZ to apply the selected channels.
 - (b) Move cursor to [front preset position], press PTZ to popup menu and arrow key to choose preset position number and press Enter. Move cursor to [back preset position], press PTZ to popup menu and arrow key to choose preset position number and press Enter. At last, press Enter to save parameters.
- (7) The display screen pop-up has two types: Main display switch channel and SPOT switch channel. Main display switch channel setup is the channel displays that popup automatically in the display screen of event trigger setup.
 - (a) Enter display screen interface, press arrow key to select main display switch channel, popup the menu with click of PTZ, and select channel number(options of 1 to 16 channel are available, the default is OFF. Setting OFF, event trigger won't linkage alarm screen displayed in main display screen automatically. Enter PTZ to apply the selected channels. When event work time is ended, main display screen will automatically restore pre-split screen of main display screen.
SPOT switch channel setup is the automatic popup channel screen when the setting event is triggered.
 - (b) Enter display screen interface, press arrow key to select SPOT switch channel, popup the menu with click of PTZ, and select channel number(options of 1 to 16 channel are available, the default is OFF. Setting OFF, event trigger won't linkage alarm screen displayed in SPOT display screen automatically. Enter PTZ to apply the selected channels.
- (8) Event duration means the duration of alarm when the start of event setup.
 - (a) Press the arrow key to select [Event Duration], popup dropdown menu with PTZ, and then press the arrow key to choose working time. There are following options:
(3/5/10/20/30/60/120/180/300/600/900/1200 S), while the default is 10 seconds.
 - (b) Finally, press ON/OFF to apply selected time with PTZ.



Picture 4-7

2) Motion Detection

In motion detection, except the setup of sensitivity and MD area, settings of other functions as same as alarm input, users could follow the former sections. Next mainly introduce the setting of sensitivity and MD area.

- a. Sensitivity refers to corresponding sensitivity in motion detection when the event record mode is motion detection or alarm record.

Setting method:

(1) Press the arrow key to select [Sensitivity], popup dropdown menu with PTZ, and then press the arrow key to choose [Sensitivity].

(2) Enter PTZ to apply the selected sensitivity.



Picture 4-8

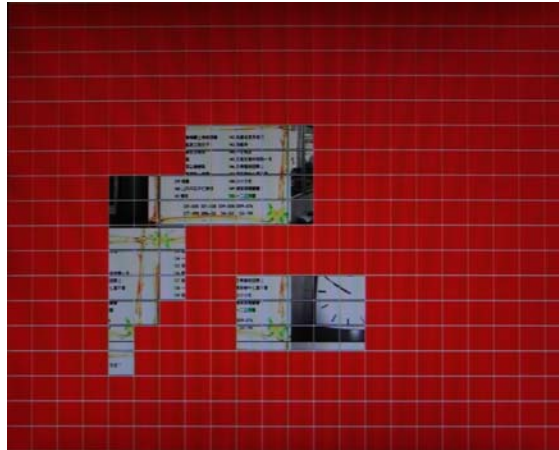
MD Area Setup

MD Area refers to corresponding MD area in motion detection when the event record mode is motion detection or alarm record.

- (1) Press the arrow key to select [MD Area], popup dropdown menu with PTZ, and then press the arrow to

choose some part, and enter the interface with the click of PTZ. (Shown as picture 4-9)

- (2) Press the arrow key to select the starting point of motion detection and PTZ to apply the choice, and move the cursor to choose desired motion area, then enter “ESC” to exit the interface, at last, press “Enter” to save above settings.



Picture 4-9

3) HDD Error

Click DISPLAY to “HDD Error”, shown as picture 4-9.

HDD mistake is that when there is mistake of HDD, DVR will alarm to remind the user.

Setting method:

- (1) Press the arrow key to select [Alarm Output], enter PTZ to choose action port, and press “Enter” to exit.
- (2) Buzzer setup: To check DVR whether enable beep when set event trigger. Select “Buzzer”, press PTZ to open dropdown menu and arrow key to choose ON/OFF. If select ON, the buzzer is activated; if select OFF, the buzzer is invalid. When the event is finished, the buzzer is off automatically.
- (3) Event duration means the duration of alarm when the start of event setup. Press the arrow key to select [Event Duration], popup dropdown menu with PTZ, and then press the arrow to choose working time. There are following options: (3/5/10/20/30/60/120/180/300/600/900/1200 S), while the system default is 10 seconds. Finally, press ON/OFF to apply selected time with PTZ.
- (4) Setting the above parameters, press the arrow key to Enter and PTZ to save the parameters.



Picture 4-10

4) Password Error

Click DISPLAY to “Password Error”, shown as picture 4-11.

Password Error means that the current user or other users input wrong password, DVR will alarm to remind the user.



Picture 4-10

5) Video Loss

Click DISPLAY to “Video Loss”, shown as picture 4-12.

Video Loss: When there is video loss of one channel, DVR will alarm to remind the user.

- (1) Press the arrow key to select [Alarm Output], enter PTZ to choose action port, and press “Enter” to exit.
- (2) Buzzer setup: To check DVR whether enable beep when set event trigger. Select “Buzzer” ,

press PTZ to open dropdown menu and arrow key to choose ON/OFF. If select ON, the buzzer is activated; if select OFF, the buzzer is invalid. When the event is finished, the buzzer is off automatically.

- (3) Event duration means the duration of alarm when the start of event setup. Press the arrow key to select [Event Duration], popup dropdown menu with PTZ, and then press the arrow to choose working time. There are following options: (3/5/10/20/30/60/120/180/300/600/900/1200 S) , while the system default is 10 seconds. Finally, press ON/OFF to apply selected time with PTZ.
- (4) Setting the above parameters, press the arrow key to Enter and PTZ to save the parameters.



Picture 4-12

4.5.3 Channel Setup

Click “Main Menu” → “Channel Setup”, the interface is shown as picture 4-13. There are following options: Channel number, Channel name, PTZ protocol, Baud rate, PTZ address code and color setup.

1. Channel number: Press the arrow key to select “Channel number”, and press PTZ to apply the selected channel.
2. Channel name: Press the arrow key to select “Channel name” and PTZ to popup the edit menu(Chinese, English, Numeric, Special character can be input as channel name), if input numeric or lower case, just use the arrow key to select directly; if input capital letters, user should press “Caps” of edit menu to switch to capital input; if input special character, press the “,” of edit menu to switch to special character input; if input Chinese, press “En” of edit menu to switch to Chinese input. 16 characters are supported.
3. PTZ Protocol: This protocol is used to realize the communication with PTZ. In order to control PTZ cameras, PTZ should be connected with PTZ port of DVR. Press the arrow key to select “PTZ Protocol” and PTZ to popup the dropdown menu, with the click of arrow key to choose appropriate protocol and enter PTZ to apply the selected protocol.

There are a number of protocols could be used: PTZ-NULL, LG LPT-A100L, DRX-502A(Demo), PELCO D, NK-97CHE, SAMSUNG SCC-641, PELCO P, SJ2819RX, SAMSUNG MRX-1000,

Techwin SPD1600/2500, Wonwoo Eng: SBO-201P1, Panasonic WV-CS850.

4. Baud Rate: Press the arrow key to select [Baud Rate], popup dropdown menu, and then press the arrow key to choose appropriate baud rate, at last, enter PTZ to apply the selected baud rate.
5. PTZ ID: Press the arrow key to select [PTZ ID], popup dropdown menu with click of PTZ, and then press the arrow key to choose the number, finally enter PTZ to apply the selected number. PTZ IP ranges from 0-255.



Picture 4-13

6. Color Setup: Through the setup of color, bright contrast, saturation, hue to set the display of channel. Press the arrow key to select [Color setup] and PTZ to enter the interface. With the click of arrow key to choose bright, contrast, saturation, hue respectively and use the right and left keys to adjust number. After the adjustment, press ESC to exit the interface, in the end, press the arrow key to select “enter” and save the settings with the click of PTZ. (shown as picture 4-14)



Picture 4-14

4.5.4 Network setup

Enter [main menu]→ [network setup], the interface shown as picture4-15.

- 1) **Basic setup:** Connection Mode, IP address, Netmask , Gateway, NTP Server, HTTP Port, Media Port, Intercom Port.

(1) Connection Mode: Dynamic IP and Static IP

Static IP refers to the IP address, Netmask and Gateway assigned manually, this requires that we're going to apply for an IP address from network administrator. Dynamic IP refers to IP address assigned by the Dynamic Host via DHCP, you don't need to set IP, Gateway or Netmask manually.

Setting method: Press the arrow key to select [Connection mode], popup dropdown menu of PTZ, and then press the arrow key to choose the connection mode with PTZ key.

(2) IP/ GATEWAY /NETMASK Setup

Only when the Static IP is selected as network connection mode, then IP/GATEWAY/NETMASK could be activated.

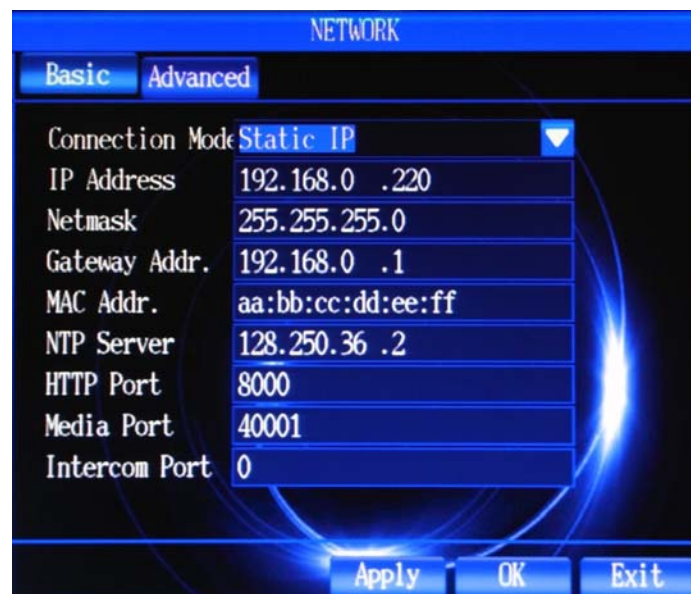
Setting method: Move down to IP, and press the PTZ to popup the edit menu, enter the desired IP. Setup of Netmask and Gateway is same way.

(3) NTP Server address setup: Set the address of time correction server is to realize DVR' s time synchronization.

Setting method: Press arrow key to select "NTP Server" → enter PTZ→ select NTP Server→ enter the address in the interface, finally, click "Enter".

(4) Port Number Setup: HTTP Port, Media Port and Intercom Port.

Setting method: Press the arrow key, enter "HTTP Port", and press the PTZ to popup the edit menu, input port number (between 1024-65535) , finally, click "Enter". Setup of Media Port and Intercom Port is the same way.



Picture 4-15

2) Advanced Setup

Press "DISPLAY" to switch to "Advanced Setup" .

In this interface, there are following options: code stream, select channel, resolution, quality, frame rate, Email setup, DDNS setup, DNS setup. In the former chapters have introduced how to select channel and set resolution, image quality, frame rate, therefore, the following sections only introduce the setup of code stream,

Email, DDNS and DNS.

- (1) Minor stream (currently parameters could not be changed)



Picture 4-16

a) Email Setup is shown as the picture 4-17:

- (1) Press the arrow key to select [email] and enter the interface with PTZ, and then tick “√” with the combination of arrow key & PTZ, open the [Email] menu.
- (2) Input SMTP port number, SMTP server, Sender address and password, recipient’ s address respectively, at last, press Enter and PTZ to save above settings.



Picture 4-17

b) DDNS Setup (shown as picture 4-18)

Setting method:

- (1) Press the arrow key to select [DDNS] and enter the interface with PTZ, and then tick “√” with the

combination of arrow key & PTZ, open the [DDNS] menu.

- (2) Set DDNS type, server address, domain name, user name, password and password confirmation respectively, at last, press Enter and PTZ to save above settings.



Picture 4-18

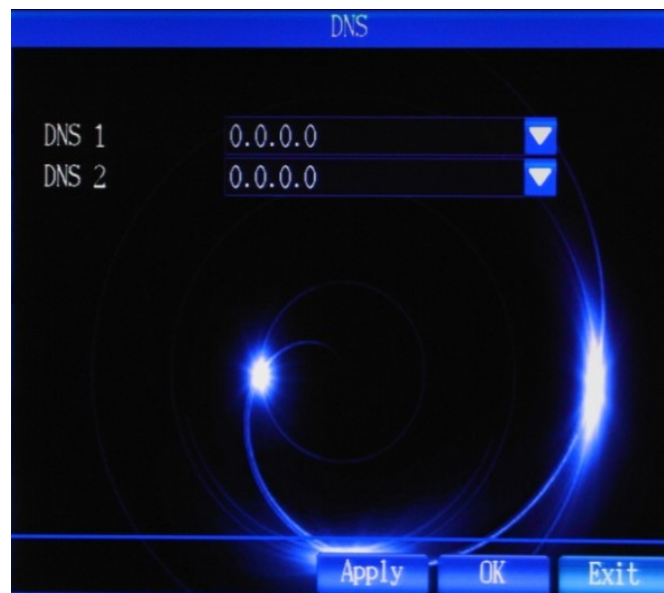
C) DNS setup as shown in picture 4-19

Setting Method

- (1) Press the Arrow keys to select the DNS Setup button, click PTZ button to enter DNS screen, then press the Arrow keys to select DNS1 or DNS2.

Press PTZ button to enter edit menu, then set the DNS.

- (2) Click “OK” button after the setup of DNS, then press PTZ button to save the above settings.



Picture 4-19

4.5.5 User Management

Enter "Main Menu"→ "User Management", the menu screen as shown in picture 4-20

User Manage is referred as the adding, modifying and deleting of users in addition with the setup of users' grades.

Setting Method:

- (1) Press Arrow keys to click Add button, then press PTZ button, set the name, password and grades of the added user.
- (2) Click OK button after adding the new users, press PTZ button to save the set parameters.
- (3) If one of the users is to be edited or deleted, press the Arrow Keys to select this user, then press PTZ key to set the user as the selected status. Move the cursor to the User-delete button or edit button, press PTZ button to delete or edit users.

Notice	In the user management interface, you could only add 15 users at most.
--------	--



Picture 4-20

4.5.6 System Setup

Click "Main Menu"→ "System Setup" to enter System Setup menu interface as shown in Picture 4-21

1) Basic Setup

Setting Method:

- (1) System Date Format: YYYY/MM/DD,DD/MM/YYYY,MM/DD/YYYY

Setting Method: press the Arrow Key to select the System Date Format Column, press PTZ button to pop up the drop-down menu, then press the Arrow Key to select the appropriate format, press PTZ button to apply the selected format.

- (2) Time Zone

Setting Method: Press the Arrow Key to select the Time Zone Column, press PTZ Button to pop up the drop-down menu, then press the Arrow Key to select the appropriate Time Zone, press PTZ button to apply the

selected time zone. (At present, this function is not available)

(3) System Date Setup

Setting Method : Press the Arrow Key to select the System Date Setup Column, press PTZ Button to pop up the drop-down menu, then press the Arrow Key plus PTZ button to set the date, press Enter button on the edit menu to apply the selected date.

(4) System Time Setup

Setting Method : Press the Arrow Key to select the System Time Setup Column, press PTZ Button to pop up the drop-down menu, then press the Arrow Key plus PTZ button to set the time, press Enter button on the edit menu to apply the selected time.

(5) DST Time

Setting Method: Press the Arrow Key to select DST Time Setup Column, press PTZ button to pop up the drop-down menu, and then press the Arrow Key to select the corresponding DST, press PTZ button to apply the selected DST. The modes include none, Europe, USA, Australia mode, and the default mode is none. (At present, this function is not available)

(6) Device ID:

When using special keyboard or IR remote control to dominate several DVRs, the machine ID is needed. (At present, this function is not available in remote control)

Setting Method :

Press the Arrow Key to select Machine ID Column, press PTZ button to pop up the drop-down menu, then press the Arrow Key plus PTZ key to set the ID, press the "Enter" key to apply the selected ID. The range of Device ID is 0-255.

After the setting of the parameters, press the Arrow Key to click OK button, then press PTZ button to save the above settings.



Picture 4-21

2)Advanced Setup

Press DISPLAY key to switch into the interface of Advanced Setup.

Advanced Setup Interface indicates three functions: System Language, Format Selection, Auto lock

(1) System Language: set the system display language

Setting Method : press the Arrow Keys to select system language column, press PTZ key to pop up the drop-down menu, then press the Arrow Keys to select the system display language, press PTZ button to apply the selected language. The system supports the following languages: Simplified Chinese, Traditional Chinese, English, Korean and so on.

(2) Format Selection: NTSC and PAL

Setting Method : press the Arrow Keys to select format column, press PTZ key to pop up the drop-down menu, then press the Arrow Keys to select the format, press PTZ key to apply the selected format.

(3)Auto lock: the system would be automatically locked when having no operation of system function during a particular period. (At present, this function is not available)

Setting Method:

Press the Arrow Keys to select auto lock column, press PTZ key to pop up the drop-down menu, and then press the Arrow Keys to select the intervals. The intervals are optional (0/1/3/5/10/30/) minutes, the default setting is 0 minute.



Picture 4-22

3)Hard disk management

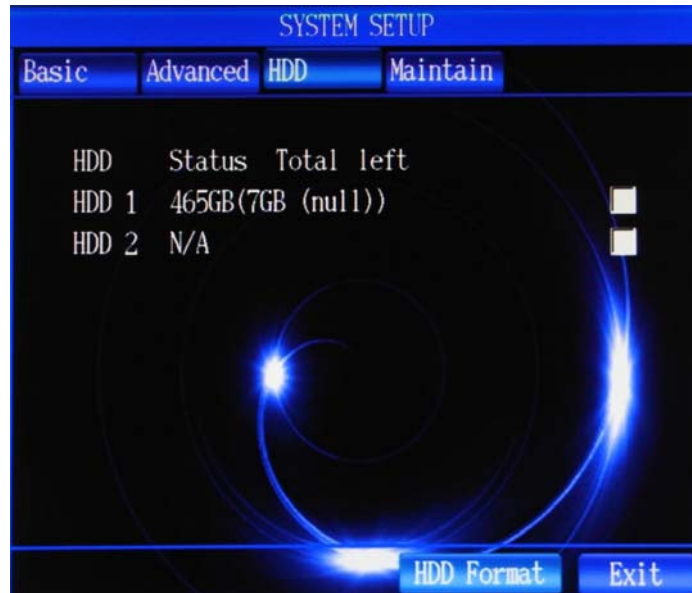
Press DISPLAY key to switch to the Hard Disk management interface.

Hard disk management interface mainly displays hard disk information (Hard disk Status, total capacity and remaining capacity) and the operation of hard disk formatting.

Hard Disk Formatting

Setting Method:

Press the Arrow Keys to select hard disk format and PTZ key to tick √, press the Arrow Keys to click the hard disk format button, then press PTZ key to execute the formatting.



Picture 4-23

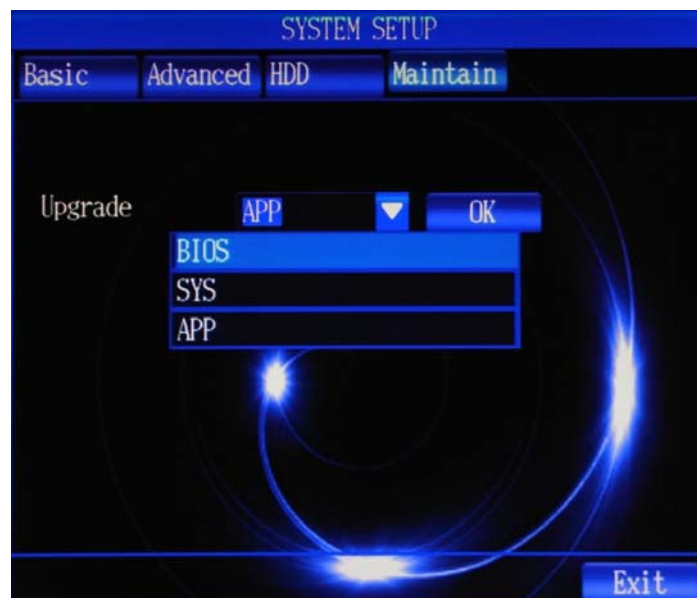
4)System Maintain

Press DISPLAY key switching to the system maintain interface as shown in Picture 4-24

The system maintain interface mainly deal with the updating of DVR. Upgrade indicates: System BIOS, System Image, and System APP.

Note

- 1) The power supply should not be interrupted when updating; you could also not restart the machine during this period; or the machine can not start.
- 2) The lower left of the screen would appear "Upgrading Successfully" after the successful upgrade. Then you can restart the machine.
- 3) Unplugging and plugging the USB disk is forbidden during the updating process, or the device could not continue updating or start.



Picture 4-24

4.5.7 Display Setup

Click "Main Menu"→ "Display Setup" to enter Display Setup menu interface as shown in Picture 4-25
The display setup interface mainly indicates: Main display switching interval (Main Interval), SPOT switching interval(Spot Interval),video loss ignore(Camera Loss),display resolution.

(1) Main display switching interval (Main Interval) is referred as the setup of the interval between the switching of the main displaying screen.

Setting Method: press the Arrow Keys to select main display switching interval (Main Interval) column, press PTZ key to pop up the drop-down menu, finally, press the PTZ key to apply the selected intervals. The optional numerical value indicates (1/2/3/5 second etc.), the default value is 2 seconds.

(2) SPOT Switching Interval (Spot Interval) is referred as setup of the interval between the switching of the SPOT displaying screen.

Setting Method :

Press the Arrow Keys to select SPOT switching interval(Spot Interval) column, press PTZ key to pop up the drop -down menu, press the Arrow Keys to select the intervals, then press PTZ key to apply the selected intervals. The optional numerical value indicates (1/2/3/5 second etc.), the default value is 2 seconds.

(3)Video Loss Ignoring (Camera Loss) is referred as the skipping of the channel without video signal input.

Setting Method : Press the Arrow keys to select video loss ignoring(Camera Loss) column, then press PTZ key to pop up the drop-down menu, press the arrow key to select on/off, press PTZ key to apply the selected settings. If the setting is on, then the channel without video input will be skipped. While the setting is off, all the channels will be displayed whether any video input or not.

(4)Display Resolution: the resolution setup of VGA or CVBS output port

Setting Method : Press the Arrow Keys to select display resolution(Resolution) column, press PTZ key to pop up the drop -down menu, press the Arrow Keys to select the video output resolution, then press PTZ key to apply the selected settings.

Notice	Display Output:800*600 60HZ, 1024*768 60HZ, 1280*1024 60HZ
--------	--



Picture 4-25

4.5.8 Recording Backup

Click "Main Menu"→ "Backup" to enter the menu interface as shown in Picture 4-26

Setting Method:

(1) Set the backup device, file size, channel and some other functions in the recording backup interface

Backup device: Display of the backup device information start

Date and time of the file: setup of start date and time of the backup file

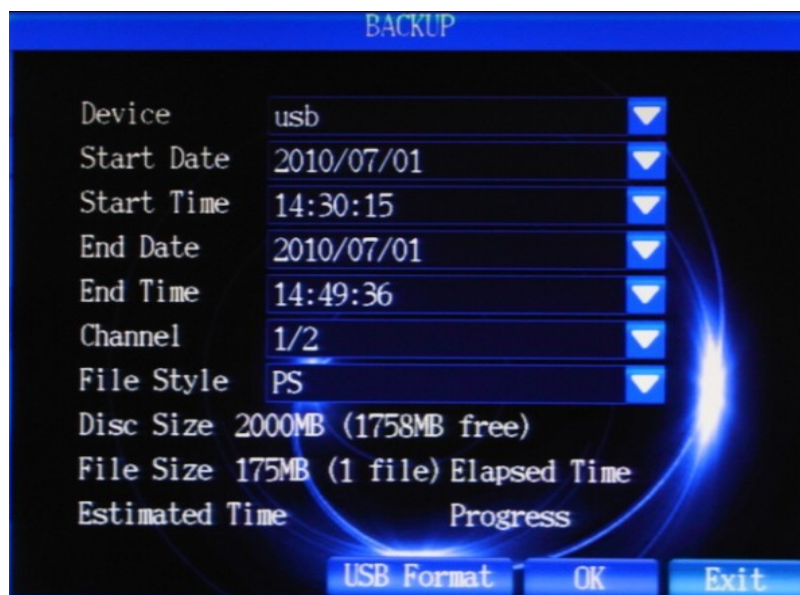
End date and time of the file: setup of end date and time of the backup file

(2) Format selection of the back-up files: press the arrow keys to select format of the back-up file. The PS files is supported. Then press the arrow keys to click the "OK" button, then backup starts. (The PS-format file could only be opened and played with our client software)

(3) The capacity of external device (and remaining capacity) could be automatically detected and displayed at the bottom of the window. Meanwhile, the file size and back-up time could be evaluated automatically. The usage time and backup speed could also been on display.

Notice

1. The evaluated remaining time(estimated time) may be a bit different from the actual time.
2. When choosing the channels, the default setting is all 1-16 channels.
3. To identify U disk or USB disk, the back-up device should be formatted by FAT32 format.
4. The recording back-up should not be crossed files.



Picture 4-26

4.5.9 Log Search

Click "Main Menu"→ "Log " to enter the interface as shown in Picture 4-27



Picture 4-27

The login and startup of the device would leave a log message. Users could check the log information.

(1) System Log

The system log indicates: the record of the normal start, local system login, remote login, system updating.

Setting Method:

- (1) In the system log interface, press the arrow keys to select the category query column, press PTZ key to pop up the drop down menu, then press the arrow keys to select the queried log type, press the PTZ key to apply the settings.
- (2) Setup of the queried time: press the arrow keys to select search button, press PTZ button to enter log list interface as shown in the below picture

(2) Event Log

Event log indicates: the records of triggered event deletion, video loss, linkage alarm, dynamic detection, wrong password, HDD error.

Setting Method:

- (1) In the system log interface, press the arrow keys to select the category query column, press PTZ key to pop up the drop down menu, and then press the arrow keys to select the queried log type, press the PTZ key to apply the settings.
- (2) Setup of the queried time: press the arrow keys to select "search" button, press PTZ button to enter log list interface as shown in the above picture.

4.5.10 Record Playback

Click the right mouse button→ select "record playback" in the right mouse button menu, enter "record query" interface as shown in picture 4-28



Picture 4-28

Record query is classified as two styles: query by file type and by recording time.

Query by file type: All Recording, Manual Recording, Timing Recording, Alarm Recording, and Timing & Alarm Recording.

Setting Method:

(1) In the record query interface, press the arrow keys to select record file type query column, press PTZ key to pop up the drop-down menu, press the arrow keys to select the record types, move the cursor to search button, press PTZ key to enter the record file lists as shown in picture 4-27

(2) In the record file list, press the arrow keys to select the date of the record, press PTZ key to expand the record file lists of the selected date. Move the cursor to the file lists to select the particular record files, then press PTZ key to play back the file.

Query by time

Setting Method :

(1) In the record query interface, press arrow keys to select the date column in time query interface. Press PTZ key to pop up edition menu, and then enter the date of queried record.

(2) Move the cursor to time column, press PTZ key to pop up the edition menu, and then enter the detailed time of the record

(3) Move the cursor to playback button after the entry of the date and time, press PTZ button to play back the record. If no record exists during the particular date and time, then it would come out a notice: File opening failure

The record playback interface indicates the functions of fast forward, fast backward, frame by frame forward, frame by frame backward, stop, 16 channels segmentation playback, 9 channels segmentation playback, 4 channels segmentation playback and single channel playback. (You can double click the mouse to operate the single channel playback during the file playback. Meanwhile, double click again to return to the previous segmentation modes) as shown in picture 4-30.



Picture4-29



Picture 4-30

4.5.11 PTZ Control

Click the right mouse button→ select the "PTZ control" in the right button menu to enter PTZ control interface.

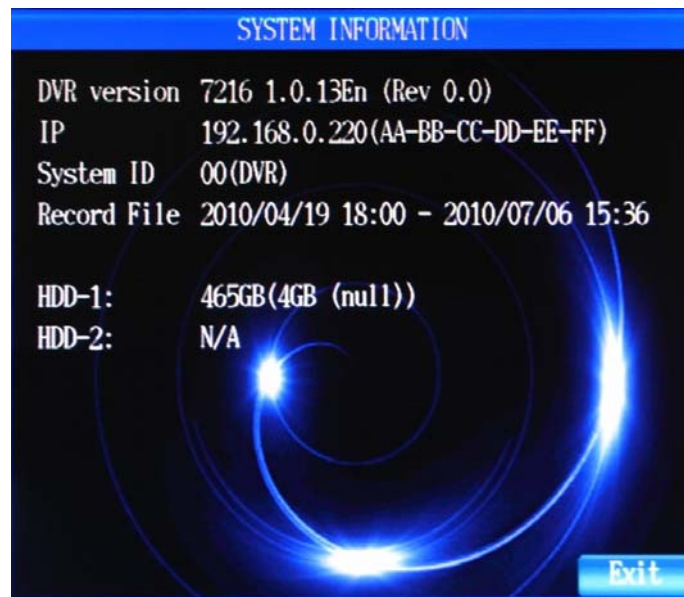
After entering the PTZ control interface, it is very convenient to control the PTZ. The PTZ control interface is as shown in picture 4-31. The speed of PTZ could be set. The arrow buttons is used to control the direction of the high-speed ball movement, press "+", "-" button to control zoom, focus, iris.



Picture 4-31

4.5.12 System Information

Press ESC key→ select the "system information" in the right mouse button menu to enter the system information interface as shown in picture 4-32



Picture 4-32

System information interface mainly indicates the DVR Version, web address, system ID, the information of record files and the information of the built-in HDD.

Chapter 5 IE Login

5.1 Plug-in download and installation

Open your web browser, enter the IP address and web port of DVR. Etc:<http://192.168.xxx.xxx:8000/> then press ENTER key, if your computer is connected to internet, you will be prompted to download and install "Active X Control"

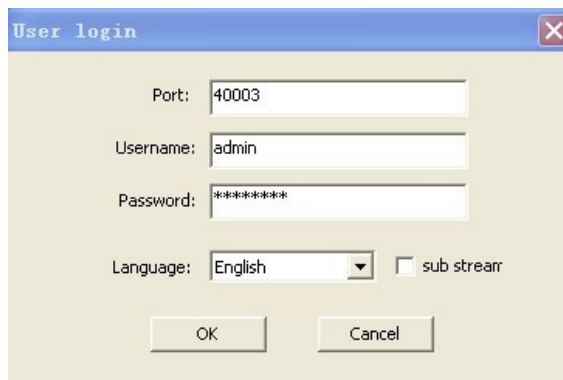
Notice

Unable to download the plug-in problem

1. Please check if the safety levels or firewall setting are set too advanced.
2. Select IE Tools→ Internet Option to enter the security interface, click the custom levels and set the "downloading unsigned Active X plug-in" Options as "prompt" click "OK" button to exit.

5.2 Login

After the plug-ins installation, (the login interface as shown in picture 5-1)enter the port, user name and password, then click "LOGIN" to view DVR remotely.



Picture 5-1

The successful login leads to live preview interface as shown in picture 5-2. Click the right mouse button into "preview control" to choose channel number to have the video link.



Picture5-2

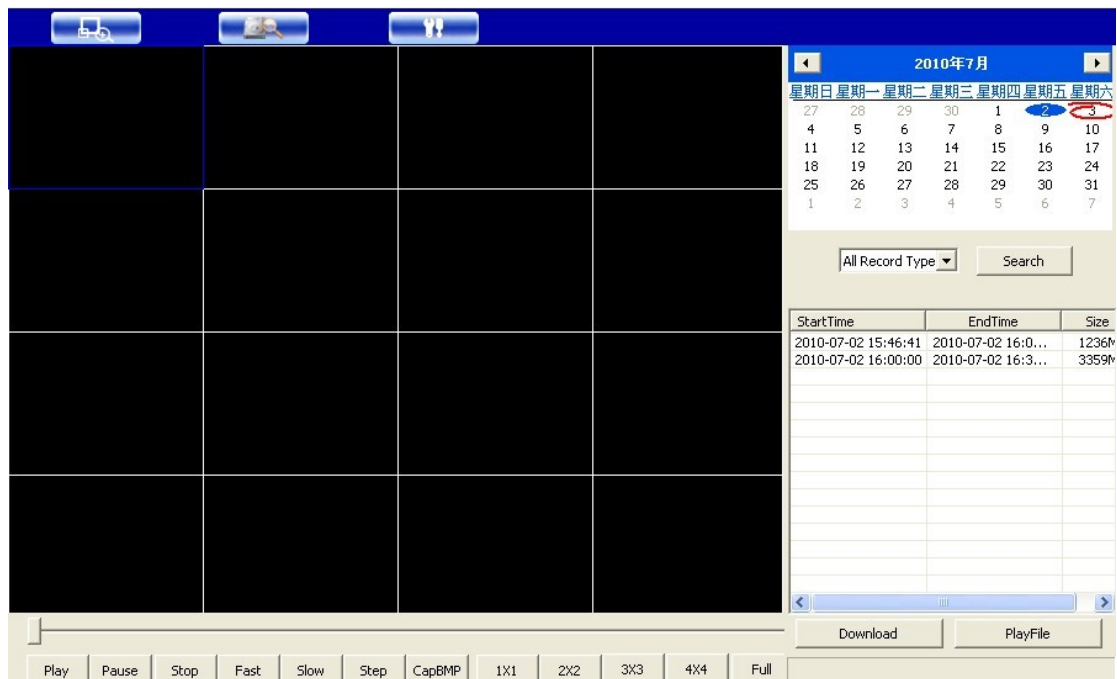
5.3 IE interface

After logging in the client end successfully, the interface is as shown in picture

5.3.1 Menu Bar

Preview: After PC client end log in the system, enter the default live preview interface as shown in picture 5-2

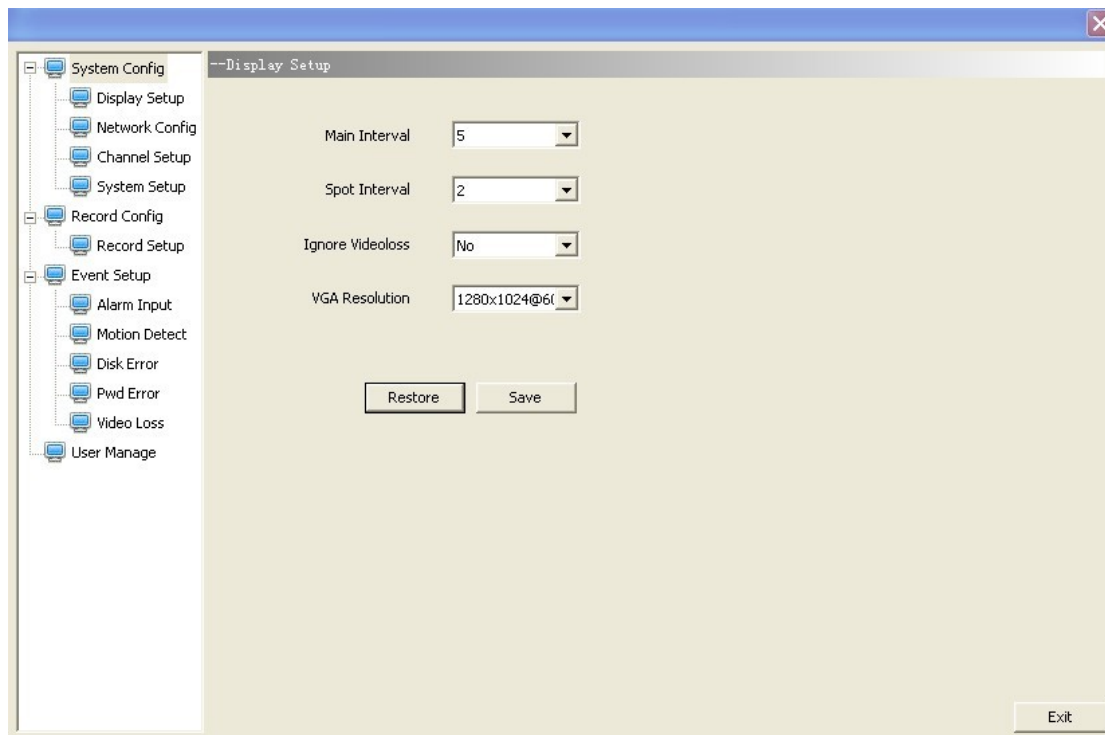
Retrieval: Click "Retrieval" to review the DVR video files remotely and select to play some files. Click "Retrieval" after selecting the date and record type, and then select the event play in the event lists of the search results, meanwhile, use the play control bar at the bottom of the interface to control. As shown in picture 5-3, users could pause, stop, fast forward, slow play of the selected files. To download the retrieval files, tick and select the files ,then click "download" button, the files saving path is set in the local setting interface as shown in picture 5-5.



Picture 5-3

Setup: Click "setup" to pop up secondary menu: remote configuration and local configuration.

1)select the remote configuration, as shown in picture 5-4



Picture 5-4

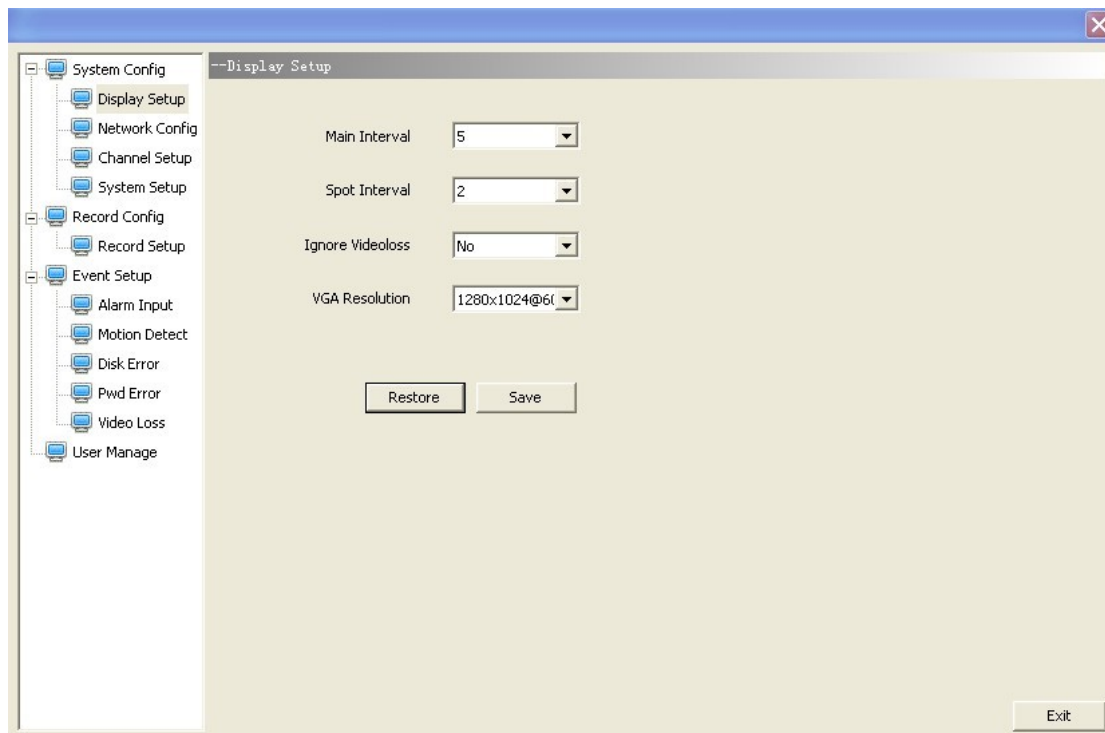
Notice

Only when DVR is in the preview main interface, its parameters can be modified remotely. The settings come into effect after the parameter savings are submitted to DVR end. The parameter modification in IE is consistent with the same modification in DVR end.

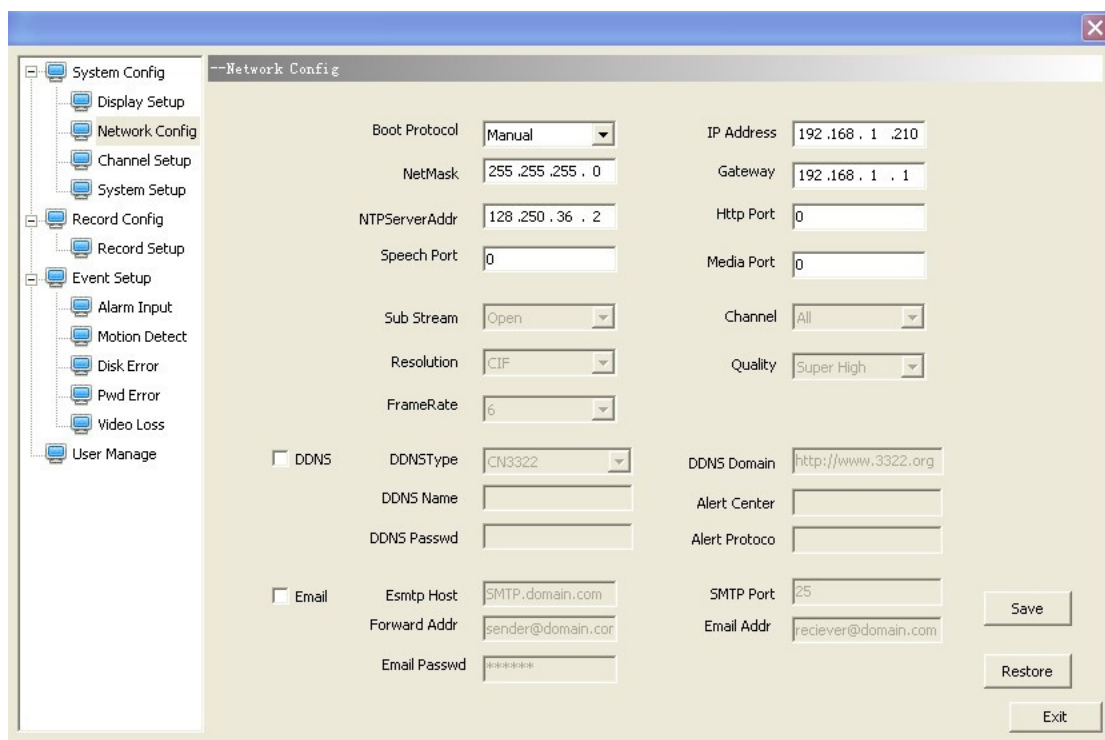
The remote configuration interface mainly indicates system configuration, recording configuration, events configuration, User Manage.

a. System configuration includes display setting, web setting, channel setting, log query, system setting. Click "System Configuration"→ "Display Setting" to enter display setting interface as shown in the below picture. Users can set the main display switching time, SPOT switching time, HDD loss ignoring, display resolution and OSD output device in the interface.

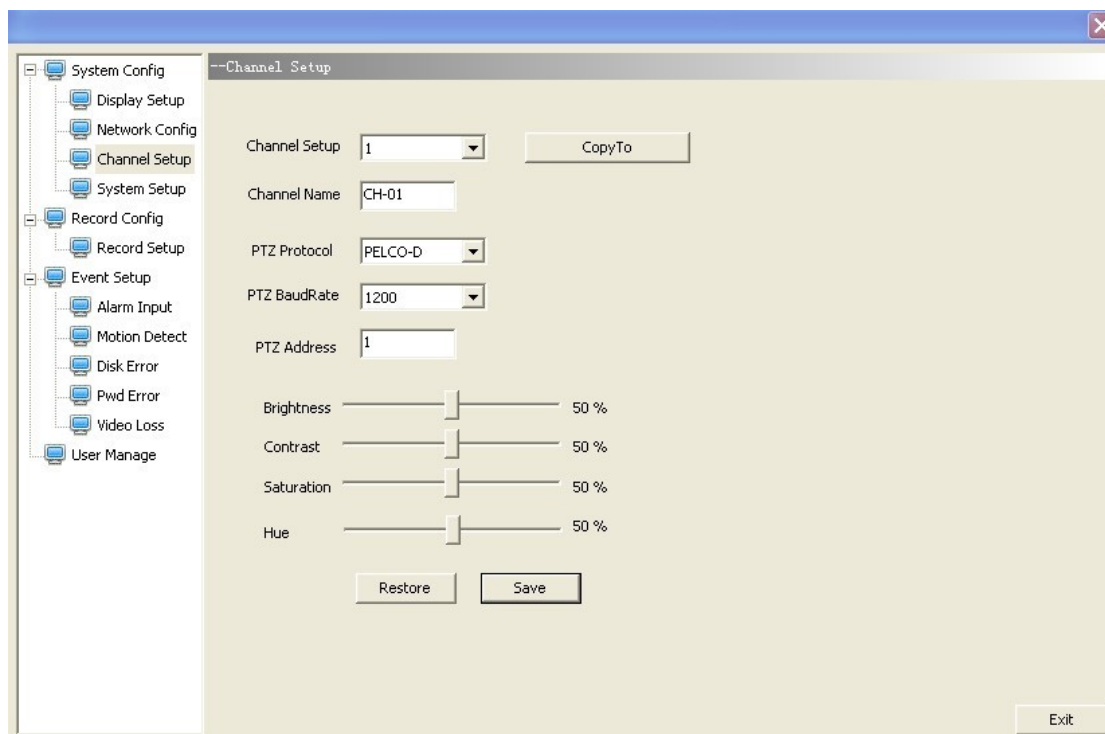
Setting Method is the same with that of DVR, please refer to 4.2.7.



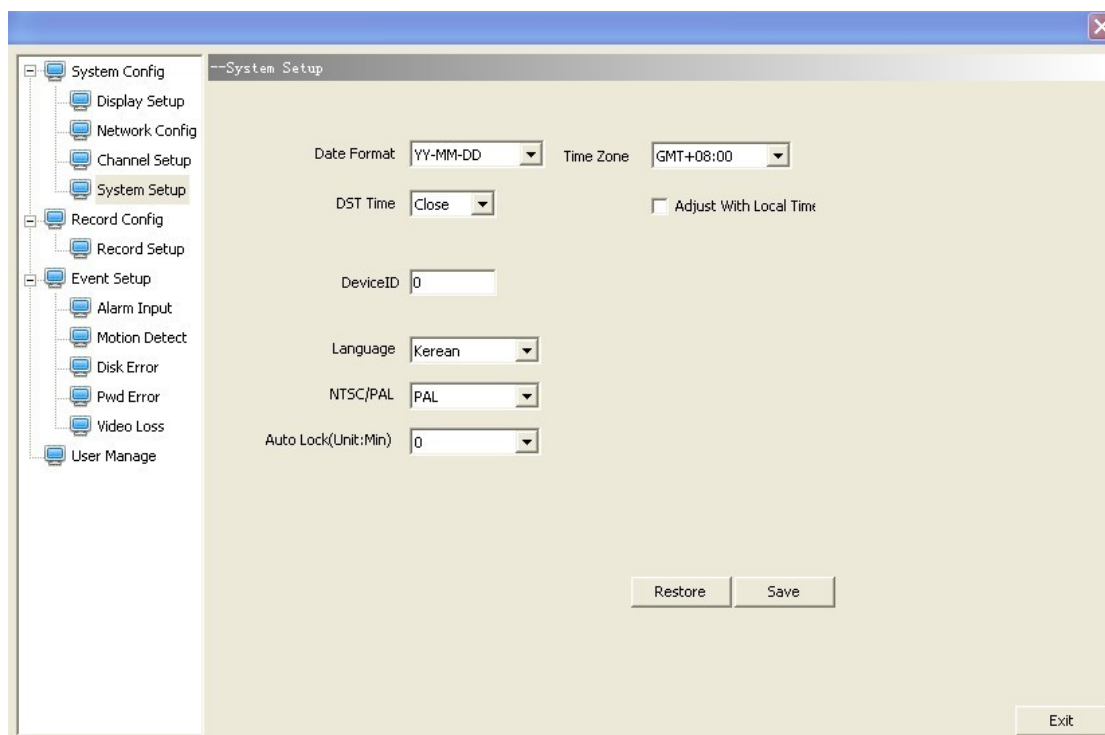
Click "System Configuration"→ "Web Setting" to enter web setting interface as shown in below picture. Users can set the network mode in the interface; the relevant parameters are consistent with those of DVR end. Please refer to 4.2.4.



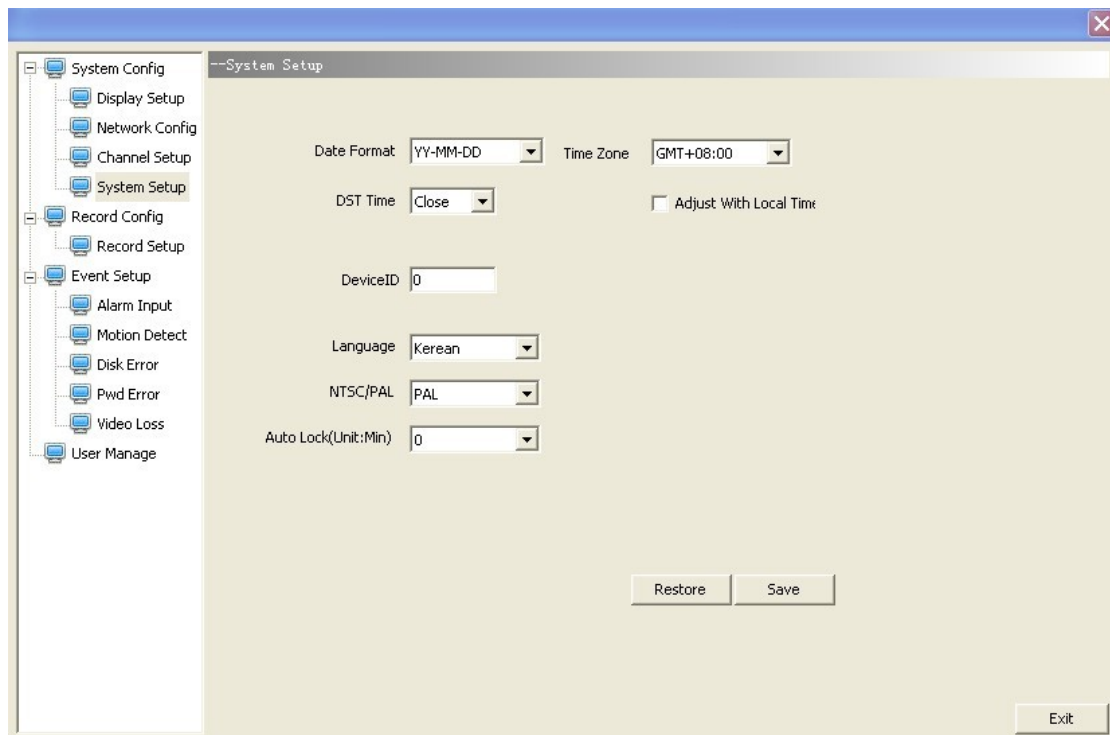
Click "System Configuration"→ "Channel Setting" to enter channel setting interface as shown in below picture. Users can set the channel name, PTZ protocol, PTZ Baud rate, PTZ address and the color in the interface. The Setting Method is consistent with that of DVR end.



Click "System Configuration"→ "Log Query" to enter log query interface as shown in below picture. Users can inquire the system log and time log separately, the query method is consistent with that of DVR end. Please refer to 4.2.9 section.

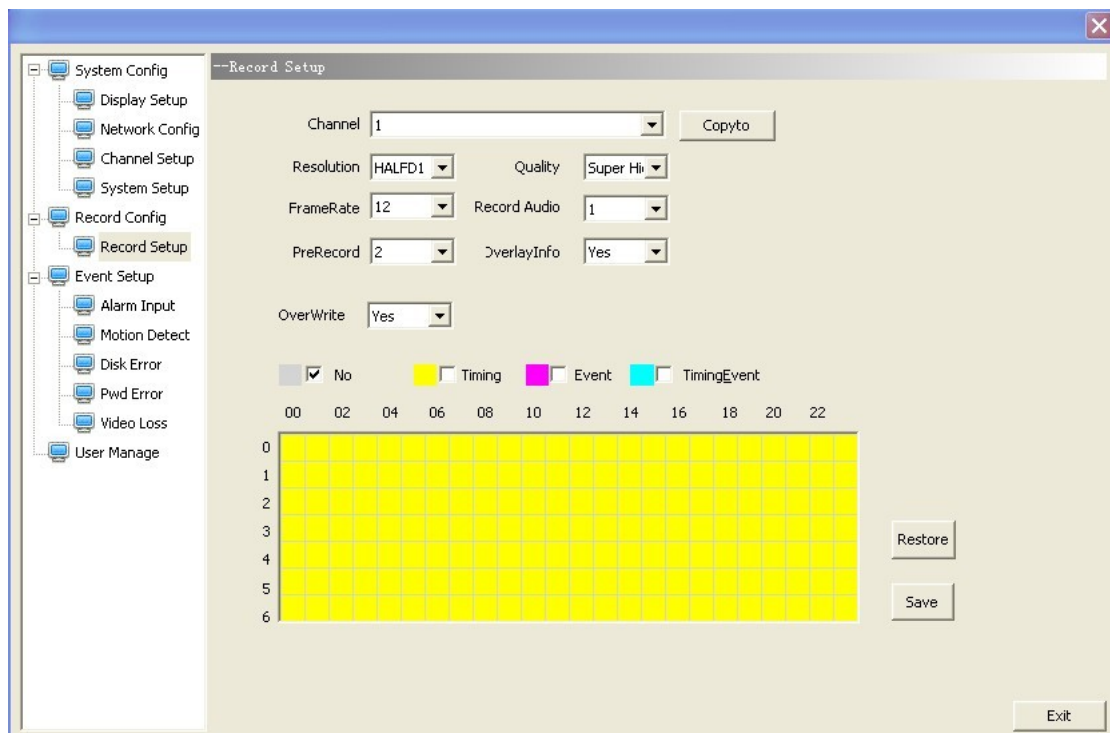


Click "System Configuration"→ "System Setting" to enter log query interface as shown in below picture. Users can set system date format, time zone, system time setting, daylight saving time, device ID, system language, format option, auto lock in this interface. The Setting Method is consistent with that of DVR end.



The recording configuration includes recording setting and recording schedule.

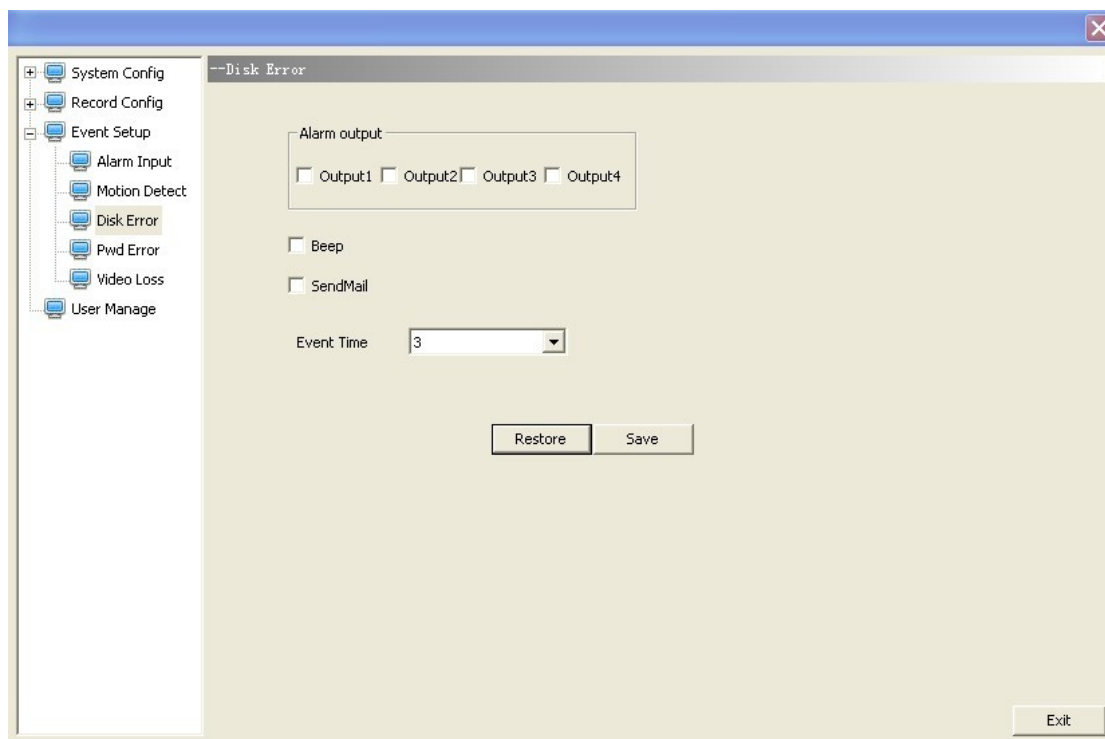
Click "Recording Configuration"→ "Recording Setting" to enter recording setting interface as shown in below picture. Users can set recording resolutions, definition, frame rate, sound recording, pre-recorded frame rate, superposition information and cycle covering in this interface. The Setting Method is consistent with that of DVR end. Please refer to 4.2.1 Basic Setting.



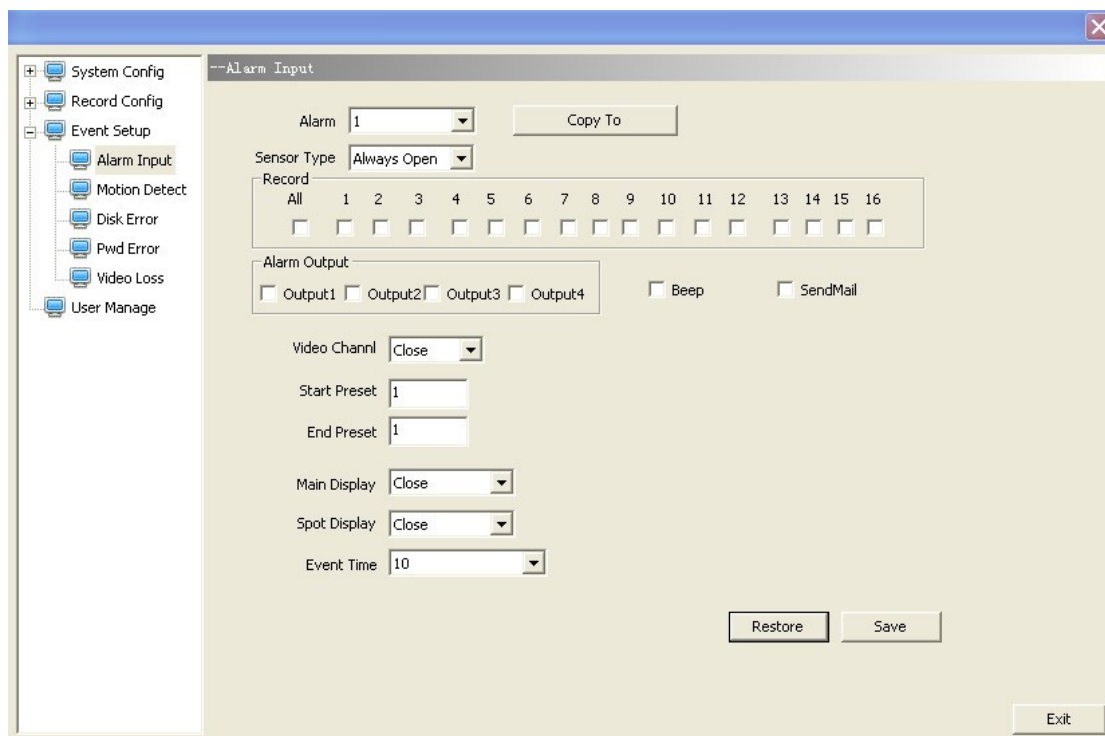
Click "Recording Configuration"→ "Recording Schedule" to enter recording schedule interface as shown in

below picture. The recording schedule is mainly set to the recorder. The Setting Method is consistent with that of DVR end. Please refer to 4.2.1 Recording Schedule.

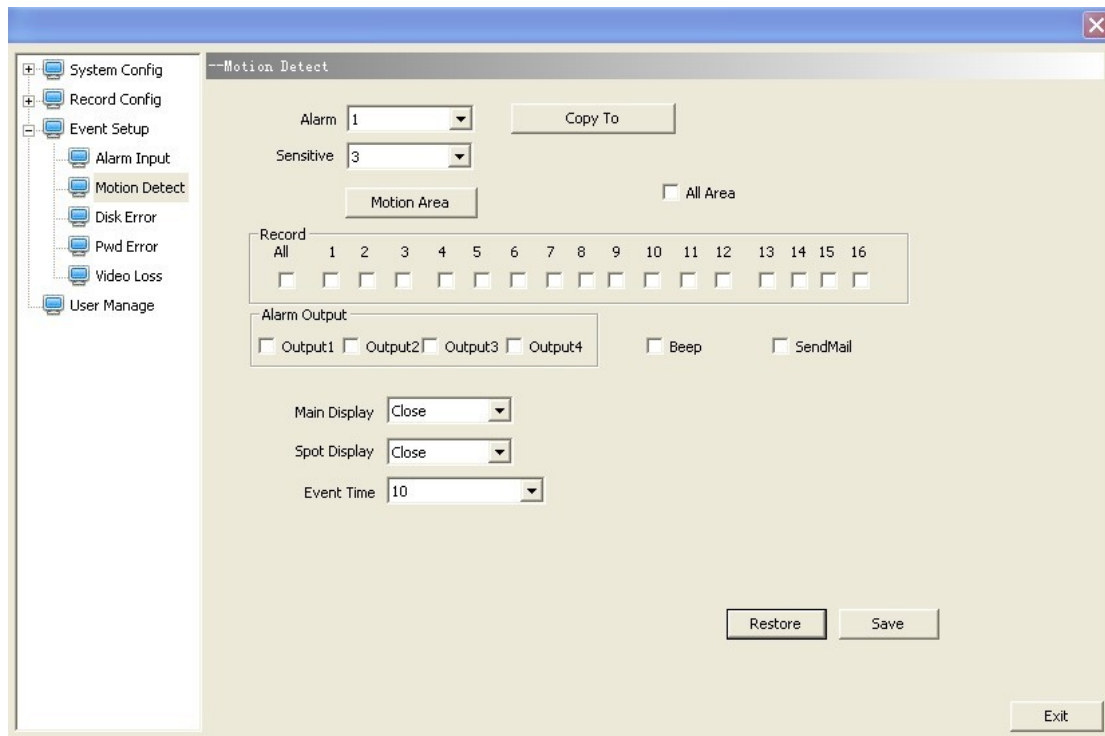
b. Event configuration interface mainly indicates HDD error, password error, video loss, alarm input, motion detection. The HDD error, password error and video loss interfaces are almost consistent shown as the below picture.



The alarm input interface is as shown in the below picture

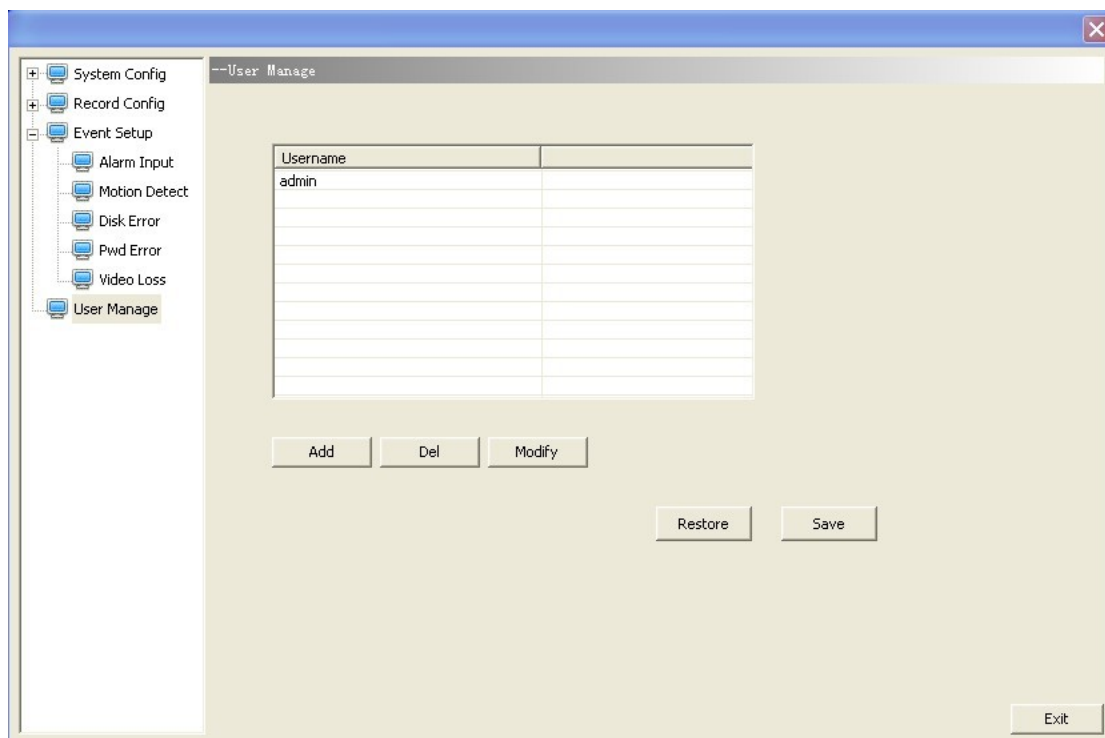


The motion detection interface is as shown in the below picture



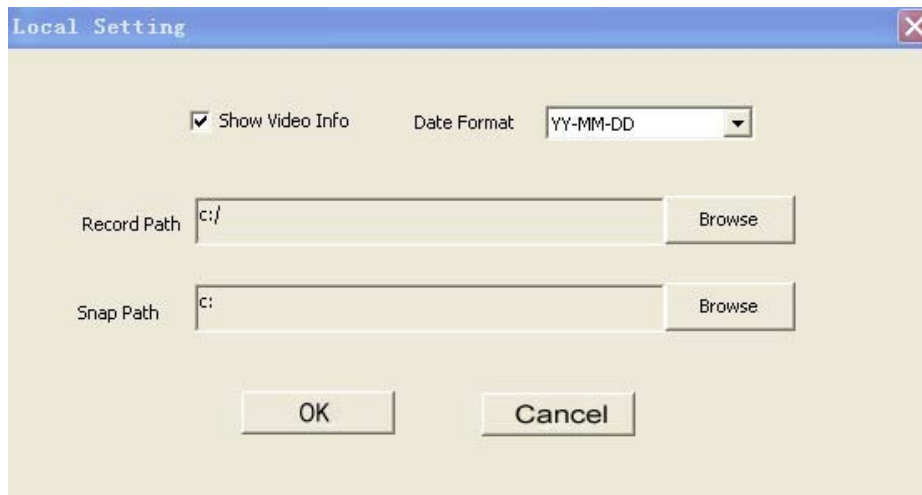
- c. User Management indicates the adding, deletion and modification of the users.

User management interface is as shown in the below picture



The above Setting Method of the interface is consistent with that of DVR. Please refer to the Setting Method of DVR.

- 1) Select the local configuration, the interface is as shown in picture 5-5



Picture 5-5

The local configuration includes spot overlay characters, record path and snap path

- A.Live overlay characters indicate the displaying channel name set during the live preview.
- B.The record path indicates the saving path of the downloading record videos
- C.The snap path indicates the saving path of the screenshot images.

5.3.2PTZ Control

PTZ Control: the zoom, focus and iris control of PTZ.As shown in picture 5-2

5.3.3 Video Switch

Under the state of live preview, the preview screen can be split by pressing the switch button of video window. It supports single screen, four screens, nine screens, 16 screens and full screen operation. As shown in picture 5-2.

5.3.4 Photograph

Under the state of live preview, click the "retrieval" button to enter record query interface. Click "retrieval" button again after selecting the date and type of the files. Then select the particular event in the searched event lists to play. Meanwhile, users can operate the play control bar at the bottom of the screen to control (as shown in picture5-3) the pause, stop, fast forward, slow forward and so other operations. During the course of playback, the screen could be split. The device support single screen, four screens, nine screens, sixteen screens and full screen playback at present.

Chapter 6 Troubleshooting

1. What can I do if the system cannot detect the HDD?

A: Check if the power supply system is properly connected and data cord and power cables accurately connected.

2. We have changed the password but do not remember the new password, how can we access the system?

A: If you forget system password, please consult with the service personnel. Setting a easy-to-remember and safe password is much recommended. (If any security requirements, please do not try to set the simple passwords such as 000000)

3. We are not getting any video signal on the DVR, what is wrong?

A: Check camera video cable and connections; or check monitor video cable and connections; or confirm that the camera has the power and / or check camera lens setting.

4. What is the affect to equipment by DVR's heat?

A: The DVR has a fan to help it dissipate heat while it is running. Please place the DVR in a place where there is good air circulation and away from heat sources to increase stability and life of the DVR.

5. Why the Remote Controller can't work normally?

A: If the controller is pointing to the IR signal on equipment front panel, but the operation is still invalid, please check the batteries in remote controller, if above problems are excluded, please check the health of the remote controller

6. When my PC HDD is installed into DVR, does it work?

A: It works as long as the DVR system supports the HDD. But note that the data of the HDD will be lost when DVR is operating.

7.Can we record while playing-back?

A: Yes, you can do it. The system supports that you record while playing-back.

8.Can we erase some recorded file from DVR?

A: Considering the safety factor, you can't delete the recorded file directly from the device. When you actually erase all the recorded files, please select HDD format function

9.Why can't login DVR client end?

A: Please check if the web connection configurations are all right and the RJ-45 interface connection is ok. Or when the web password switch is on, check if the account and password are right or not.

10. There is drag mark on screen when real-time monitoring in client end, even short delay?

A: It's normal if less than 5 seconds;

11. Cannot find any information record during the playback?

A: please check the harddisk data cable connection, and whether system time is adjusted illegally. Try it several times, and test whether the harddisk is damaged if above still appears.

12. DVR cannot control the PTZ after setup?

A: Please test for the following reasons:

- ① Front PTZ failure
- ② PTZ decoder setting, connection and installation is incorrect
- ③ PTZ incorrect setup in the DVR
- ④ PTZ protocol decoder and DVR does not match each other

⑤ PTZ decoder and DVR address does not match each other

⑥ When multiple decoders are connected, 120 ohm resistance is needed on the most remote end of PTZ decoder AB line, to eliminate reflex and impedance matching, or PTZ control will not be stable.

13. Motion detection does not work?

A: Check the motion detection time and motion detection zone and make sure that they are right setup, and check the sensitivity setting.

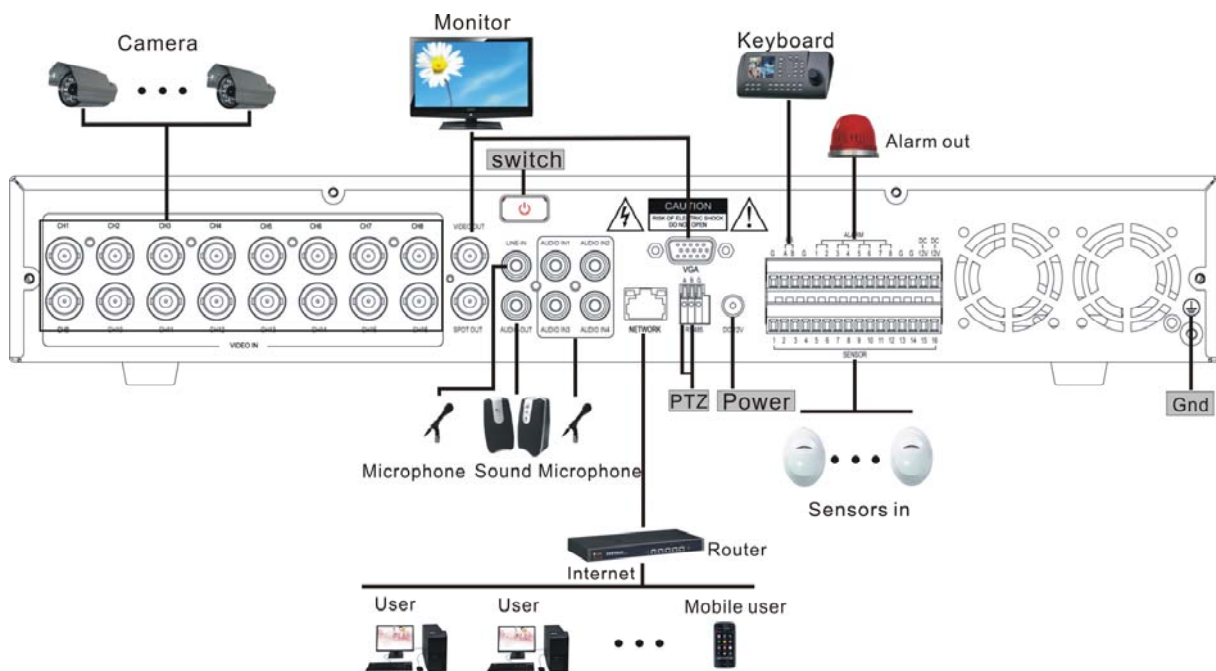
14. Alarm does not work?

A: Check the correctness of alarm setting and alarm connection, and make sure that alarm signal input is correct.

15. Why does the Buzzer keep sounding?

A: Please check if motion detection is on and the system has detected motion, make sure the HDD is being detected and has sufficient space available; check if video has lost etc.

Appendix System connection diagram



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