# Network Digital Video Recorder

# *H.264*
# User manual

Please read instructions thoroughly before operation and retail it for future reference.

## Notes:

! Do not place objects on this device!

! Do not let any solid or liquid enter the DVR!

! Clean the circuit board, connectors, fans and case with a brush regularly but remember to turn off the power and pull the plug before cleaning .

! Do not disassemble, maintain the device, or replace parts by yourself.

! Avoid knocking this DVR. Do not drop the device.

## Operational Environment

! Place and use the product at a temperature of 0 ℃ ~ 40 ℃ . Avoid direct sunlight and be away from heat sources.

! Do not install the device in a damp environment;

! Do not expose the device  to smoky and dusty environment.

! Keep the device be installed horizontal and in a stable place. Take care to prevent it from falling.

# Directory

# 1 Production Introduction

## 1.1 Product overview

The series DVR is designed specially for security and defence field and is an outstanding digital surveillance product. It introduces embedded LINUX operating system which is very stable. It introduces standard H.264 mp video compressed format and unique temporal and spatial filtering algorithm which insures the high quality image and low bit rate synchronous audio and video surveillance. It introduces TCP/IP network technology which achieves the strong network data transmission capability and remote control capability.

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

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

# 2 Open-package check and cable connections

## 2.1 Open-package check

When you receive the product, please confirm whether it is consistent with the product model you ordered and check carefully whether there is any obvious damage of the product. After opening the casing, check whether the connection between the internal data wire, power wire, fan power wire and so on and the main board are firm .Please protect the labels affixed to the floor or rear panel , which is very important to our after-sales service work. When you contact our company for after-sales service, we need you to provide the model and serial No. on the label.

## 2.2 Remote controller operation

***The operating steps to control multiple DVRs by remote control:***

The default device number of the DVR is zero, you can operate directly without resetting when using the remote controller to control a single DVR.. But if you use one remote control to operate multiple DVRs, please refer to the following steps.

**Step one:** Enter DVR to see the device number: [System configuration]-[Basic configuration]-[Device Number]. The device number of different DVR can be set the same. For easy operation, we suggest to set the device number not too large.

**Step two:** Activate the remote control: Aim the remote control to the DVR you will control, press the "ADD" button, then input the device number [between 1-65535], and then press "ENTER" to confirm.

**Step three:** Cancel the remote control : You can lock the DVR when you press any button with "ADD" button, or do no action on the buttons,  it will be locked after 30 seconds.

# 3. Basic Operation

### 3.1 Turn on

Plug the power supply, the power indicator light will illuminate and the video recorder turns on, you will hear a beep at this time. After startup, the default setting of the system is multiple-screen output mode and video recording starting up automatically.

### 3.2 System login

When the DVR boots up, the user must login and the system provides the corresponding functions with the user purview.
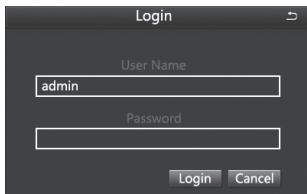


### 3.3 Preview

After entering the preview status , double-click the left mouse button to choose the switch between the windows.

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

| | | | | |
|---|---|---|---|---|
| (Green) | Manual recording or Trigger recording | | (Red) | Alarm recording |
| (Yellow) | Motion detection recording | | (Blue) | Timing recording |
| 🔝 | Network disconnection | | | |

Table 3.1 Preview page icon

### 3.4 Desktop shortcut menu

In preview mode you can right click mouse to get a desktop shortcut menu and right click mouse again to ESC the desktop shortcut menu.

Picture 3.2 Shortcut Menu

### 3.4.1 Start Scan

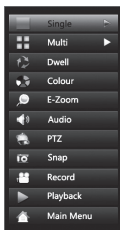Start Scan means the system will show each live picture in order automatically according to the order of the video devices in the channel grouping.

Only when the user selects the channel grouping under the display mode[main menu]>[configuration management]>[live], and it  can not show all channels completely under the current preview,  this button is available.

### 3.4.2 Colour

Set image parameters for all channels. The image parameters include: brightness, contrast, saturation and hue.

### 3.4.3 E -Zoom

E-Zoom for big picture of single channel

### 3.4.4 Audio

Set startup, turn-off and silent mode of audio for the channel, and adjust the volume ..After select (automatic), it will start up audio of the big picture channel automatically.

### 3.4.5 PTZ

Control the RS485 device of all channels. It can set address, Baud rate, Protocol, Preset, trail patrol , track and so on of the RS485 device under [Main menu]>[Configuration Management]>[PTZ].
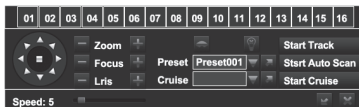




Adjust direction of the PTZ.



Wiper control.



Control the external infrared devices.



Function hidden bar,  right-click to cancel hidden.

### 3.4.6 Playback

Play the video files in the hard disk. You can also search the video according to time and event under [main menu] →[data retrieval] to enter the playback interface.



(1)Playback control (2)Channel audio switch (3)function Hidden key (4)Operate playback

*Playback control* details as follow:

| Button | Function | Button | Function |
|--------|----------|--------|----------|
| | Play/Pause | | Play according to frame |
| | Fast motion play | | Playback |
| | Play previous file | | Play next file |
| | Single-screen display | | Multi-screen display |

Table 3.2 Playback control key

**Note:** Frame by frame play back is achieved using the pause function.

# 4 Main menu

## 4.1 Main menu navigation

| Main menu | Submenu | Function |
|---|---|---|
| Configuration management | Basic configuration | Set the system time, date format, time format, language, the device number, video format, standby time, daylight saving time |
| | Live configuration | Set the channel name, output mode, block area of each channel, etc |
| | Recording configuration | Start up video recording , set up the video stream, position of channel name, video circulation, snapshot, etc |
| | Recording Plan | Set timer recording, motion alarm recording, period of sensor alarm recording |
| | Alarm configuration | Set sensor alarm of each channel, motion detection, video loss, other alarms, alarm output, etc |
| | Network configuration | Set basic network parameters, and set network sub-stream, email, WIFI and Dynamic Domain Name Service |
| | User management | Modify users, change passwords, add users and delete users |
| | P.T.Z | Set the PTZ address, baud rate, protocol, preset, cruise , track, etc. |
| | Advanced configuration | Restore the factory settings, import and export the device parameters |
| Data retrieval | Time search | Search specified period of time recording , playback the video of this period |
| | Event search | Search motion detection, sensor alarm and all videos, play back the video of this period |
| | File management | Delete and lock the video files of specified time period |
| | Image | Delete, lock and save the image of specified time period |
| View information | System Info | Display the device name, serial number, version, release date |
| | Event Info | Inquiry and export of motion detection, video loss, sensor alarm and other events |
| | System log | Search equipment operation log according to time, it can also be exported |
| | Network status | Display information of network settings and dynamic DNS settings |
| | Online users | Display the current network users accessing the device |
| Hard disk management | | Show hard disk's total space, free space, read and write status and to format. the hard disk |
| Upgrade maintenance | | Upgraded with an external device ( eg: USB) |
| User log-off | | After log-off , exit system and log in |
| System shutdown | | |

## 4.2 Configuration Management

Set every function parameters for the device, including: **basic configuration, live configuration, recording configuration, recording plan, alarm configuration, network configuration, user management, PTZ configuration, advanced configuration**

### 4.2.1 Basic Configuration

Basic configuration includes three sub menus: system, date and time, daylight saving time



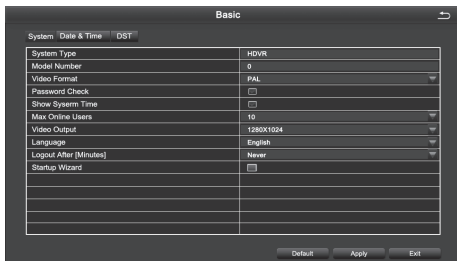| Basic | |
|---|---|
| System Date & Time DST | |
| System Type | HDVR |
| Model Number | 0 |
| Video Format | PAL |
| Password Check | ☐ |
| Show Syserm Time | ☐ |
| Max Online Users | 10 |
| Video Output | 1280X1024 |
| Language | English |
| Logout After [Minutes] | Never |
| Startup Wizard | ☐ |

Figure 4.10 Basic settings

1.The system

[System Type] Client or system name displayed by IVSS
[ Model Number] used when a remote control controls multiple DVR
[Video Format] Support PAL and NTSC format
[Password Check] Choosing this item means user must enter user name and password in the system Settings, and have corresponding purview before corresponding operations
[Show System Time] Choose whether to display time in the field or not
[Max Online Users] Set the number of network users visiting the device
[Video Output] User can select VGA 800 * 600, VGA 1024 * 768, VGA 1280 * 1024, HDMI, etc. output mode
[Logout After (Minutes)] When there is no action exceeding the set time, the system will automatically log out
[Startup Wizard ] Whether to display wizard or not when turn on the machine

2.Date & Time

In this interface, set the date format, time format, time zone; you can also adjust the system time manually
**Note: the default time zone of the system is GMT**
You can select [Time Synchronization] to correct time. Network time server can be set

3.DST(Day Light Saving)

Set the start and end time of daylight saving time by week or date.  As Figure 4.11,

Daylight saving time setting Figure 4.11

**4.2.2 Live Configuration**

Live configuration includes three submenu: Live, Main Monitor, Video Blind.

1.Live



[Camera Name] Click channel Name, the system will pop up a soft keyboard, users can change the channel name if necessary. Clicking the "shift " key to switch input methods

[Colour] Users can adjust the brightness, hue, saturation, and contrast of the corresponding channel

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## 2. Main Monitor

[Interval] The time interval between one channel picture and the next one channel



## 3. Video Blind

Users can cover up some areas of the live picture, maximum of four areas per channel

[Setting] After entering the live picture , press and hold the left mouse button, drag the mouse to set the blocked area , then click [apply]to save the settings; Double-click on the area you want to delete, later changed into a black area, right-click, Exit. then click [apply] can delete the blocked area
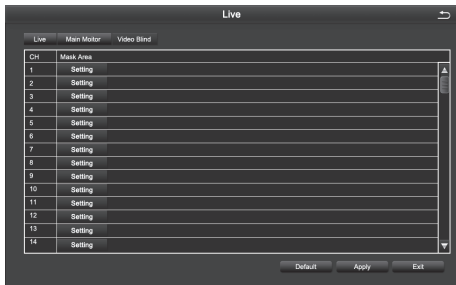
#### 4.2.3 Recording Configuration.

Record configuration includes six submenus: Enable,Record Bitrate,Stamp,Recycle Record,Snap

1. Enable



2. Record Bitrate

**Note: Detailed parameters, to prevail in kind.**



[Resolution] 4 channel device supports 4-CH D1; 8 channel device supports 8-CH D1; 16 channel device supports 16-CH D1.

[FPS] Range of choice : 1-30[NTSC] 1-25 (PAL)

[Encode] Support VBR and CBR

[Quality] The higher the quality is, the clearer the video images are

Optional quality levels: Lowest, Lower, Low, Medium, Higher, Highest

[Max Bitrate] Range of Choice : 256kbps~2048kbps

| CH | Resolution | FPS | Encode | Quality | Max Bitrate | |
|----|-----------|-----|--------|---------|-------------|---|
| | | | | | | |
| 1 | 720P | 25 | VBR | Higher | 1024 kbps | ▲ |
| 2 | 720P | 25 | VBR | Higher | 1024 kbps | |
| 3 | 720P | 25 | VBR | Higher | 1024 kbps | |
| 4 | 720P | 25 | VBR | Higher | 1024 kbps | |
| 5 | 720P | 25 | VBR | Higher | 1024 kbps | |
| 6 | 720P | 25 | VBR | Higher | 1024 kbps | |
| 7 | 720P | 25 | VBR | Higher | 1024 kbps | |
| 8 | 720P | 25 | VBR | Higher | 1024 kbps | |
| 9 | 720P | 25 | VBR | Higher | 1024 kbps | |
| 10 | 720P | 25 | VBR | Higher | 1024 kbps | |
| 11 | 720P | 25 | VBR | Higher | 1024 kbps | |
| 12 | 720P | 25 | VBR | Higher | 1024 kbps | ▼ |
| | | | All | | | |
| | 720P | 25 | VBR | Higher | 1024 kbps | |

Enable  Record Bitrate  Stamp  Recycle Record  Snap

Default   Apply   Exit

[Resolution] 4CH device supports both 4CH 720P (AHD Camera) and 4CH 960H(Analog Camera); 8CH device supports both 8CH 720P(AHD Camera) and 8CH 960H(Analog Camera).

[FPS] Range of choice : 1-30[NTSC] 1-25 (PAL)

[Encode] Support VBR and CBR

[Quality] The higher the quality is, the clearer the video images are

Optional quality levels: Lowest, Lower, Low, Medium, Higher, Highest

[Max Bitrate] Range of Choice : 256kbps~2048kbps



| CH | Resolution | FPS | Encode | Quality | Max Bitrate | |
|----|-----------|-----|--------|---------|-------------|---|
| | | | | | | |
| 1 | 1080P | 25 | VBR | Higher | 1024 kbps | ▲ |
| 2 | 1080P | 25 | VBR | Higher | 1024 kbps | |
| 3 | 1080P | 25 | VBR | Higher | 1024 kbps | |
| 4 | 1080P | 25 | VBR | Higher | 1024 kbps | |
| 5 | 1080P | 25 | VBR | Higher | 1024 kbps | |
| 6 | 1080P | 25 | VBR | Higher | 1024 kbps | |
| 7 | 1080P | 25 | VBR | Higher | 1024 kbps | |
| 8 | 1080P | 25 | VBR | Higher | 1024 kbps | |
| 9 | 1080P | 25 | VBR | Higher | 1024 kbps | |
| 10 | 1080P | 25 | VBR | Higher | 1024 kbps | |
| 11 | 1080P | 25 | VBR | Higher | 1024 kbps | |
| 12 | 1080P | 25 | VBR | Higher | 1024 kbps | ▼ |
| | | | All | | | |
| | 1080P | 25 | VBR | Higher | 1024 kbps | |

Enable  Record Bitrate  Stamp  Recycle Record  Snap

Default   Apply   Exit

[Resolution] 4CH device supports both 4CH 1080P (AHD Camera) and 4CH 960H(Analog Camera); 8CH device supports both 8CH 1080P(AHD Camera) and 8CH 960H(Analog Camera).

[FPS] Range of choice : 1-30[NTSC] 1-25 (PAL)

[Encode] Support VBR and CBR

[Quality] The higher the quality is, the clearer the video images are

Optional quality levels: Lowest, Lower, Low, Medium, Higher, Highest

[Max Bitrate] Range of Choice : 256kbps~2048kbps

3. Stamp



| Record | | | | |
|--------|--|--|--|--|

| CH | End Time | End Time | End Time | |
|----|----------|----------|----------|---|
| 1 | ☑ | ☑ | Setting | ▲ |
| 2 | ☑ | ☑ | Setting | |
| 3 | ☑ | ☑ | Setting | |
| 4 | ☑ | ☑ | Setting | |
| 5 | ☑ | ☑ | Setting | |
| 6 | ☑ | ☑ | Setting | |
| 7 | ☑ | ☑ | Setting | |
| 8 | ☑ | ☑ | Setting | |
| 9 | ☑ | ☑ | Setting | |
| 10 | ☑ | ☑ | Setting | |
| 11 | ☑ | ☑ | Setting | |
| 12 | ☑ | ☑ | Setting | ▼ |
| All | | | | |
| ☐ | ☑ | ☑ | Setting | |

Default   Apply   Exit

[Camera Name] Choose whether to display the channel name or not

[Time Stamp] Choose whether to display time on this channel or not

[Position] After clicking this button, Users can use mouse to drag the channel name and time   stamp to any position on the live image

4. Recycle Record

After selecting this item , When the hard disk is full, it will automatically cover the earliest files and continue recording ; Otherwise, it will automatically stop recording and prompt "The remaining space is insufficient" on the screen

5. Snap

In this interface, the user can set the resolution, image quality level, time interval of snapshot and the number of snapshot for one time

#### 4.2.4 Schedule

Schedule includes three submenus: timing recording, motion alarm recording, and sensor alarm recording

1. Timing Recording

[Copy] Apply the schedule of a channel to the other or all channels

Select the channel: Double click the left mouse button, edit the week plan, as shown in the picture.



[Add] To add a recording schedule of some day

[Delete] To delete the selected schedule

[Copy] Copy the schedule of a specified date to another date.

2. Motion Alarm Recording

The setting method is the same to the timing recording setting, please refer to the timing recording settings
Note: The default Schedule for Motion alarm is all selected

3. Sensor Alarm Recording

The setting method is the same to the timing recording setting, please refer to the timing recording settings
**Note: The default schedule for sensor alarm is all selected**

#### 4.2.5 Alarm Configuration

Alarm configuration includes five submenus: Sensor alarm, motion detection, video loss, other alarm and alarm output

**1. Sensor**

1-1 Basic



[Enable] To open sensor alarm function of the corresponding channels
[Type] To choose alarm type: Normally open and normally closed
[Name] Set the alarm name.

1-2 Alarm Handling



[Holding Time] To select alarm delay time for the channel , optional time: 5 s, 10 s, 20 s, 30 s, 60 s 120 s, always

[Trigger] After clicking you can set alarm Configuration, trigger recording, PTZ linkage, etc
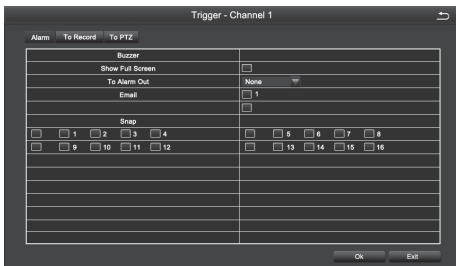
[Buzzer] After selecting the alarm, when an alarm is triggered, the buzzer will alarm

[Show Full Screen] When an alarm is triggered, the alarm channel screen will activate

[To Alarm Out] Select this item, it will trigger an alarm on the specified alarm output

[Email] When an alarm is triggered, the system will send the relevant information to the user-specified mailbox, such as alarm event, snapshot, device name, device number, etc.

[Snap] When an alarm is triggered, the system will automatically capture the images of the selected channel and store them to the hard disk.

[To PTZ] To set the action type and serial number of the linkage

1-3, Schedule
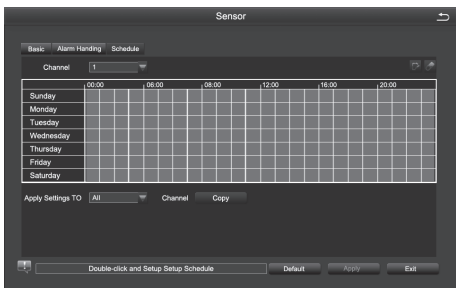


The method of setting the schedule of sensor alarm is the same to timing recording. For the detailed setting steps, pls refer to 4.2.4 [Recording Schedule] [Timing Recording]

**Note: The default schedule for sensor alarm is all selected**

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## 2. Motion Detection

Motion detection includes two submenus: motion detection and schedule

2-1, Motion Detection

By analyzing the video image, when the system detects a mobile signal which reaches a preset sensitivity, motion detection alarm and the linkage function are initiated



[Enable] After selected, the motion detection function of the corresponding channel will be opened.

[Holding Time] To select alarm delay time of the channel .Optional time: 5/10/20/30/60/120s   always

[Trigger] The setting method is the same to that of sensor alarm, pls refer to 4.2.5

[Alarm Configuration], [Sensor Alarm Processing]

[Area] In this interface, the user can drag the scrollbar to adjust the sensitivity value (1-8). The default value is 6, the smaller the value is, the higher the sensitivity is. Since the sensitivity is affected by the color, time (day or night) and etc, so the user should adjust the value according to the actual situation.

Zoom  **No.** 1
Focus  Save
Lris

Speed: 5

| | Set all areas to be detection area | | Clear the set detection areas |
|---|---|---|---|
| | Drag the mouse to test whether the sensitivity value and the detection area are appropriate or not | | Save the settings |
| | Exit | | |

2-2, Recording Schedule

The setting of Motion Detection Schedule is the same to that of Timing Recording, For the detailed steps please refer to 4.2.4 - [Recording Schedule] [Timing Recording].

Note: The default schedule of motion detection is all selected

**3.Video Loss**

The setting of video loss alarm processing is the same to that of sensor alarm processing. For the detailed steps, please refer to 4.2.5 [Alarm Configuration] [Sensor Alarm Processing]

**4.Other Alarm**

[Alarm Type] Including hard disk full, network address conflict, disconnection, HDD attenuation warning and disk loss

[Buzzer ] When an alarm occurs, the device will emit "didi" two long beeps

[Email] When an alarm is triggered, the system will send the relevant information to the user-specified mailbox, such as alarm events, snapshot, device name, device number, etc.

[To Alarm Out] To select this item, it will trigger an alarm on the specified alarm output

[Disk Shortage Alarm] When the remaining capacity of the disk reaches the set value, an alarm will be triggered

**4.2.6 Network Configuration**

Network Configuration includes five submenu: Network, Sub-Stream, Email, WiFi Setup, DDNS

## 6-1 Network



[HTTP Port] Default value is 80

[Server Port] Default value is 5000

[Mobile Port] Default value is 5001

[Obtain an IP Address Automatically] To obtain the IP function automatically

[IP Address] To set the IP address of the device

[Subnet Mask] To set the subnet mask of the device

[Gateway] To set the default gateway of the device

[Preferred DNS Server] The address is provided by your network operator and must be filled in when using mobile monitoring.

[Alternate DNS Server] The address is provided by your network operator.

[PPPOE] When enabled, the DVR will automatically establish a network connection in the form of PPPOE, then the IP address can be seen through [Main Menu]-[View Information]-[Network Status]

[User Name] Enter the ISP (Internet Service Provider)

[Password] The set password

[Test]Test whether the entered IP address and PPPOE information are valid or not

## 6-2 Sub-Stream

[Resolution] Support CIF
[FPS] Range of Choice: 1-30[NTSC]1-25(PAL)
[Encode] Support VBR and CBR
[Quality] Optional: Highest, Higher, Medium, Low, Lower, Lowest
[Max Bitrate] Range of Choice: 32kbps ~ 768kbps

**6-3 Email**

| Network | | | | |
|---|---|---|---|---|
| Network | Sub-Stream | Email | WiFi Setup | DDNS |
| SMTP Server | | | | |
| Port | | 465 | | |
| SSL Check | | ☐ | | |
| Send Address | | | | |
| Password | | | | |
| Receive Address1 | | | | |
| Receive Address2 | | | | |
| Receive Address3 | | | | |
| | | Test | | |

Apply    Exit

[SMTP Server] Mail server address can be IP address and domain name (if it is domain name ,it is required to confirm that the DNS setting is right ,then it can be correctly resolved) e.g.: smtp.gmail.com
[Port] Mail server port number, the default port is 465
[SSL Check] Provide secure socket layer to login on
[Send Address] E-mail address of the mail server
[Password] The corresponding password of the Sender's E-mail
[Receive Address] When an alarm is generated ,the system will send email to the set mailbox , but the number of the set recipient mailbox can be no more than 3
[Test] Test whether the current mailbox configuration is successful or not.

**6-4 WiFi Setup**

| Network | | | | |
|---|---|---|---|---|
| Network | Sub-Stream | Email | WiFi Setup | DDNS |
| WiFi Enable | ☐ | | | Search Signal |
| Search Signal | | | | |
| Channel | SSID | Signal | Encrypt State | Connect State |
| 0/0 | | | | |
| Input Password | | | | |

Apply    Exit

[Wifi Enable] Tick this item to enable WIFI connection.

[Search Signal] Search the WIFI signal nearby after enabling WIFI.

[Input Password] Select the WIFI you have searched , enter the corresponding password;

[Setup] To set dynamic IP or static IP.

### 6-5 DDNS



[DDNS Server] DNS service provider URL, options are *www. meibu.com* and *www.no-ip. com.*

[User Name] Account used when registering domain names.

[Password] The corresponding password of registered account.

[Host Domain] Domain name of the DNS server.

Save and exit, you can visit the device directly through IE.

### 4.2.7 User Management



The default administrator name is admin, there is no password set.

**Note: The length of the user name and password is no more than 32 characters**

[Add] Add a user name and set the user's permissions. The following dialog box appears after clicking:





**NOTE: When the computer's physical address is 0, It means that the device does not bind to a specific computer, and user can use any computer to log on client to remotely view the DVR; However, once setting a specific computer's physical address, User can only log on client on the bound computer for visiting DVR.**

**4.2.8 PTZ**

**1. Serial Port**

[Address] Address of PTZ device

[Baud Rate] The baud rate of the PTZ device. The options are: 110,300,600,1200,2400,4 800,9600,19200,34800,57600,115200,230400,460800,921600

[Protocol] Communication Protocol of the PTZ device. The options are: PELCOP, PELCOD, LILIN, MINKING, NEON, STAR, VIDO, DSCP, VISCA, SAMSUNG, RM110, HY, N-control
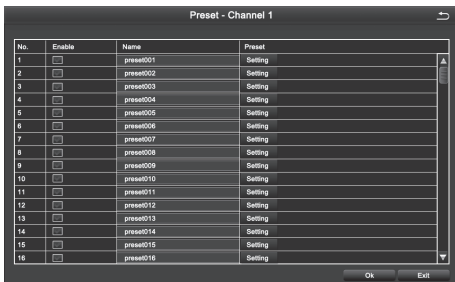
[Simulative Cruise] After ticking and adding preset points in the cruise line configuration, ,it can achieve preset cruise regardless of whether the device supports PTZ cruise line function or not.

**2. Advanced**





[Preset] Click [Setting] button, pop up the window as picture below.



Users can adjust PTZ to the appropriate location through toolbar button. Click [Save]and the preset points are setting successfully. You can set maximum 128 preset points

[Cruise ] Click [Setting] button, pop up the window as picture below:
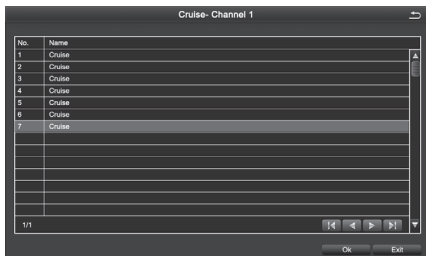
[Add] Add cruise lines (can add maximum eight cruise lines);

[Setup] Selecting a cruise line and clicking this button, the interface of adding preset points will appear, as picture below:
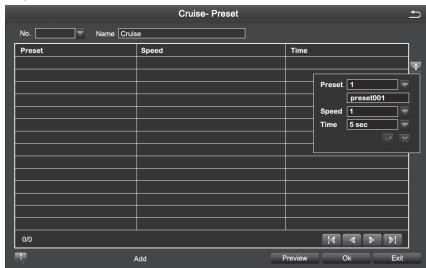


Icon Definition:

| | | | |
|---|---|---|---|
|  | Add preset point |  | Delete the preset point |
|  | Modify the selected preset point | | |

[Track ]

[Start Recording] By controlling the PTZ up, upper left, down, lower right, left, lower left , right, upper right, or stop recording track of PTZ.

[Start Track] To execute the recorded tracks.

Note: Each channel can record only one track, and auto-save after recording is completed. When you call the track, you can directly select the channel to start track.

**4.2.9 Advanced Configuration**

Advanced setting includes two submenus: Reset, Import/Export

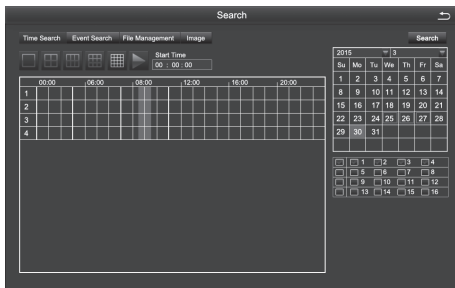[Reset] Reset all settings to the factory settings status.

[Import/Export]  (1)Through "Import/Export", you can export the parameters to other devices directly. There is no need to reconfigure other devices.

(2)The system language can be changed by import language files.

## 4.3 Data Retrieval

Mainly includes Time Search, Event Search, File Management and Image.

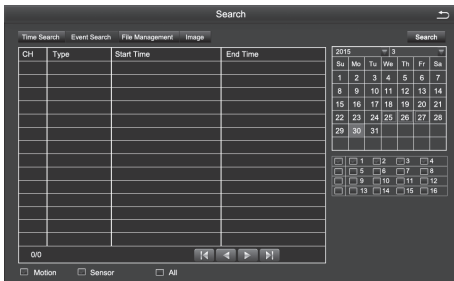**4.3.1 Time Search**



 Select the channel

 Start playing

[Search] Search the video file of set channel and time, then click the play button to start playback.
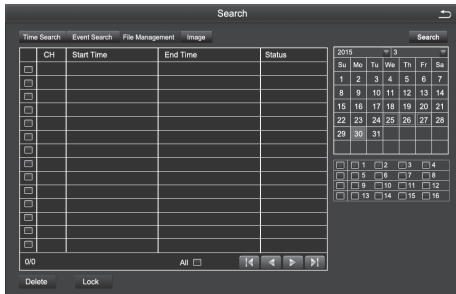
**Note: The highlighted date in the calendar indicates there is video file on that day .**

**4.3.2 Event Search**



[Search] Search the video file of set channel and time, after selecting the file, double click to start playback.

**4.3.3 File Management**



[Search] To search the video file of set channel and time

[Lock] When the file is locked ,it can not be deleted or overwritten, but can be deleted when formatting the disk

[Unlock] To unlock the selected file

[Delete] To delete the selected files

[All] When tick this item,  you can do operation of lock, unlock, and deletion to all the files you have searched.

### 4.3.4 Image



[Search] To search the image file of set channel and time.

[Delete] To delete the currently displayed image.

[Lock] Lock the currently displayed image so that it can not be deleted or overwritten, but it can be deleted when formatting the disk.

[Save] Save the currently displayed image to a removable storage device.

[Save All] Save all the captured images to a removable storage device.

**Note: 1. The default number of storage image is 2000. If it is more than 2000, the system will automatically overwrite the previously unlocked images.**

   **2. Double-click the image, you can playback the video from the time when the image was captured.**
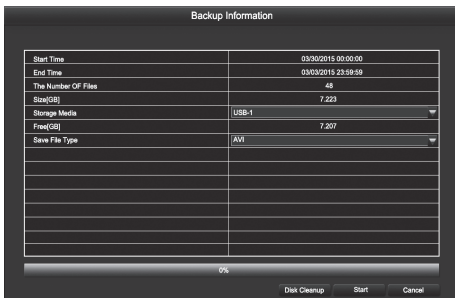
### 4.4 Backup
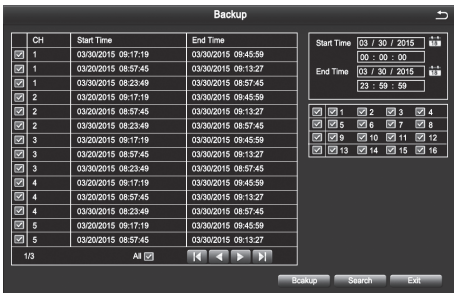


By setting, you can backup the video file to the external storage device

**Note: You need to install the storage device capable of accommodating the storage**

**files before backuping the files.**

[Search] To select the files that need backup according to time and channel.

[Backup] Select files in the list and click "backup", then it will popup a dialog box of backup information, as shown in figure:
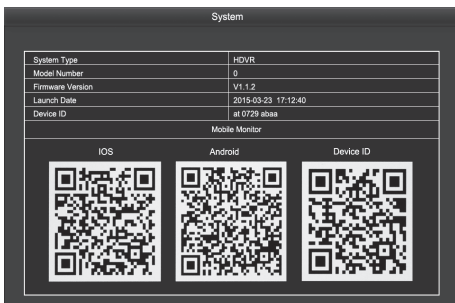
| Backup Information | |
|---|---|
| Start Time | 03/30/2015 00:00:00 |
| End Time | 03/03/2015 23:59:59 |
| The Number OF Files | 48 |
| Size[GB] | 7.223 |
| Storage Media | USB-1 |
| Free[GB] | 7.207 |
| Save File Type | AVI |

0%

Disk Cleanup    Start    Cancel

Disk cleanup: to delete all files in the external storage device.

## 4.5 View Information

Including five submenus: system information, event information, system log, network status, and online users and other relevant information

### 4.5.1 System

| System | |
|---|---|
| System Type | HDVR |
| Model Number | 0 |
| Firmware Version | V1.1.2 |
| Launch Date | 2015-03-23  17:12:40 |
| Device ID | at 0729 abaa |
| Mobile Monitor | |

| IOS | Android | Device ID |
|---|---|---|

To display the basic information about this device, including hardware information, software version number, release date, and phone port number .

### 4.5.2 Event list



Users can select the event information of motion detection alarm, sensor alarm, video loss alarm and so on which users need to inquire about according to time and channel.
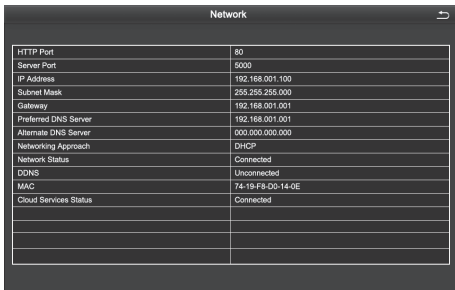
### 4.5.3 Log list



Users can search the operation information of the login user based on time and the operation type. After formatting the hard disk, the information will be cleared.
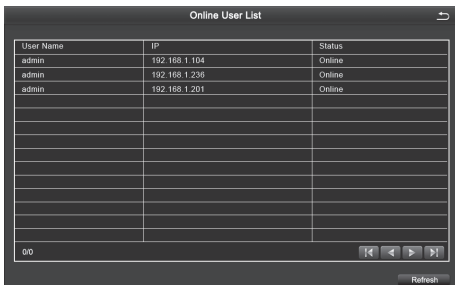
**4.5.4 Network**

| Network | |
|---|---|
| HTTP Port | 80 |
| Server Port | 5000 |
| IP Address | 192.168.001.100 |
| Subnet Mask | 255.255.255.000 |
| Gateway | 192.168.001.001 |
| Preferred DNS Server | 192.168.001.001 |
| Alternate DNS Server | 000.000.000.000 |
| Networking Approach | DHCP |
| Network Status | Connected |
| DDNS | Unconnected |
| MAC | 74-19-F8-D0-14-0E |
| Cloud Services Status | Connected |
| | |
| | |
| | |
| | |

Users can view the related parameters of the network settings.

**4.5.5 Online Users list**

| Online User List | | |
|---|---|---|
| User Name | IP | Status |
| admin | 192.168.1.104 | Online |
| admin | 192.168.1.236 | Online |
| admin | 192.168.1.201 | Online |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| 0/0 | | |

Refresh

See the network user information connecting the local DVR.

## 4.6 Disk Management

[Refresh] To re-check the disk that can be indentified.

[Browse] To check the information of the selected hard disk, including hard disk capacity, free space, hard disk status, properties, the total number of pictures that can be stored, stored number of pictures.

[Format] To delete the data on the selected hard disk, including locked files and images.

## 4.7 Upgrade Maintenance

[Refresh] To check the removable storage devices that can be indentified.

[Upgrade] Click this button after selecting the upgrade file on mobile storage device, then the system will start upgrading. The upgrade process takes about 5 minutes.

### 4.8 Log User off

The system will exit the current logged-on user.

### 4.9 System Shutdown

To save the data and exit system.

# 5 Remote Monitoring

### 5.1Remote Access

Remote Access to DVR needs the Ethernet, usually using LAN and Internet.

### 5.1.1 LAN

1. Pop up the pull-down menu, click "properties", open the "local connection", and then double-click the "local connection".
2. Click "properties"
3. Double click the "Internet protocol (TCP/IP)"
4. Obtain the IP address, subnet mask and gateway
5. Set the corresponding IP address, subnet mask and gateway of the DVR. Enter the video recorder's [Main Menu] [Configuration Management] [Network Configuration]. Input the IP address, subnet mask and gateway.  Among them, the subnet mask and gateway are the same to the Internet protocol (TCP/IP) parameters. The last one of the IP addresses must be different while all the previous figures should be the same to ensure the same network segment. For example, IP address: 192.168. 2. X, X can be any integer between 0-255 except 255 and 1, subnet mask is: 255.255.255.0. Gateway is: 192. 168. 2. 1.6. After completing the above settings, open the IE browser and input the IP address set in the DVR network settings, for example, 192.168.1.X, click "enter", then the network will automatically download controls (The settings property of IE browser must allow control download. For specific settings pls refer to appendix -1)
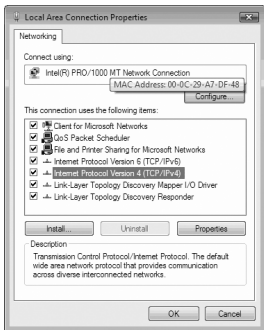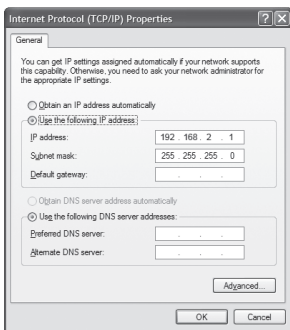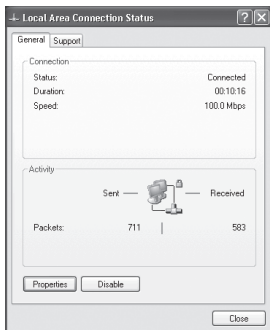
7. After the controls download is completed, pop up login in dialog.



Pic 5-4 log in

| User Name | admin |
| Password | |
| Language | English |
| LOGIN | |

8. Enter username of the device and password In the login window, click "ok" and you can enter the preview interface as following below.



### 5.1.2 WAN

1.Connecting DVR by PPPOE

Step 1: Enter DVR Main Menu ➤Configuration Management ➤ Network Configuration ➤ Network, as shown in figure 4-34, tick and select PPPOE directly. It's no need to set the DVR's network address, address mask, gateway, just fill in the user name and password which are provided by telecom operators in the user name and password fields

Step 2: Enter DVR ➤main menu➤ Information View➤Network View to obtain the IP address and then enter the PC browser interface, input the IP address, for example,http://210.21.229.138, to enter the control download interface.

2. Connecting DVR through a Router.

Step 1: Enter DVR Main Menu ➤ Configuration Management ➤ Network Configuration ➤ Network, as shown in figure 4-34, manually input the IP address, subnet mask and gateway or tick and select "automatically obtain IP".

Step 2: When the user confirms LAN can be connected, enter the router to do port mapping and log in the management interface of the router through the browser. In this user manual, let's take Linksys router as an example, In the router "Applications & Gaming" ➤ "Port Range Forwarding" map the corresponding DVR's IP address and port, and each DVR has two corresponding ports. (You can add the LAN IP address of the DVR to the DMZ host. Different router configuration method is different, for detail, you can view the router manual).

After mapping the port, you can find the present WAN IP address in the "running status" of

the router. You can access DVR via WAN IP address plus http port number directly, such as http://113.108.119.20, HTTP port number: then enter the control download interface.
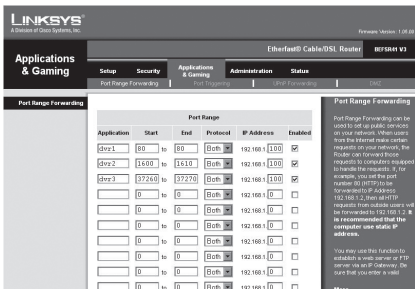


## 5.2 Remote Live Preview

After open the page, the remote preview picture will show as below:



1. Camera Indicator

A green light indicates manual recording or scheduled recording; red light indicates sensor alarm recording; yellow light indicates motion detection recording; blue light indicates video loss. For a single channel having several recording mode, the indicating light only displays the preferred recording mode. The priorities are: Video Loss > Sensor Alarm> Motion

Detection>Schedule Recording= Manual Recording, the 8 lights are respectively represent 8 channels.

2. Screen display mode (synchronization with the configured device)

3. Volume adjustment          4. Snapshot

5. The Local recording      6. Playback

7. Remote Recording manually        8. Voice Intercom Switch

9. Color Conditioning          10. PTZ control        11. Channel Status

# Appendix-1   FAQ

**1. After turning on, the DVR can not switch on normally.**

Possible reasons:

1. The power supply is not correct.

2. Incorrect power connection.

3. Power supply is defective.

4. A program error has occurred .

5. The hard disk is damaged or something is wrong with the hard disk cables

6. The control panel is damaged.

7. The main board of the DVR is damaged.

**2.The DVR reboots automatically or frequently stops working after booting up for a few minutes**

Possible reasons

1. The input voltage is not stable or too low.

2. The hard disk is damaged or the hard disk cables are broken.

3  The power supply is faulty.

4. The front-end video signal is not stable.

5. Poor heat dissipation, too much dust, bad running environment for the DVR.

6. Something is wrong with the hardware of the DVR .

**3. Can not detect hard disk after switch on.**

Possible reasons

1. The hard disk power supply cable is not connected.

2 . The cables of the hard disk are damaged.

3. The hard disk is damaged.

4. The SATA port of the main board is damaged.

**4. No video output  in single channel, multiple channels and all channels.**

Possible reasons

1. The program is not matched. Please upgrade the program again

2. The image brightness is all 0. Please restore the default setup.

3. There is no video input signal or the signal is too weak.

4. The hardware of the DVR is damaged.

**5. Real-time image problems such as serious distortion of the image color or the brightness and so on**

Possible reasons

2. The DVR is not matched with the impedance of the monitor.

3. The video transmission distance is to long, or the video loss within the cable is too great.

4. The setting of color and brightness for the DVR is wrong.

**6. Can not find video files in local playback.**

Possible reasons:

1. Something is wrong with the data cable or the jumper of the hard disk

2. The hard disk is damaged or no video data.

3. Upgraded software has been installed which is not compatible.

4. The video files you want to see are overwritten.

**7. Appear blurred screen when see the local video**

Possible reasons

1. The video quality is set too low.

2. The program data reads wrongly,  may be restored after rebooting the DVR.

3. Something is wrong with the data cable or the jumper of the hard disk.

4. The hard disk is damaged.

5. The hardware of the DVR is damaged.

**8. No audio signal in the surveillance window.**

Possible reasons

1. Channel not activated for audio recording.

2. The audio cable is damaged.

3. The hardware of the DVR is damaged.

**9. There is audio signal in the surveillance window but no audio signal when playback**

Possible reasons

1. The audio option is not chosen.

2. The corresponding channel is not connected with the video. When the image appear blue screen the playback will be intermittent

**10. The time display is wrong.**

Possible reasons

1. The setting is wrong.

2. The battery is loose or the battery voltage is too low.

**11. DVR can not control the PTZ.**

Possible reasons

1. Something wrong with the PTZ camera.

2. The baud rate, address, protocol settings of the front-end PTZ and device PTZ not matched

3. RS485 cable is incorrectly connected (reversed)

4. When multiple decoders are connected, the far end of AB cable of the PTZ decoder must add a 120 ohm resistor to remove reflection and aid impedance matching, otherwise it may make the PTZ control unstable.

**12. The motion detection is not working**

Possible reasons:

1. The time period is not correct.

2. The wrong motion detection area has been selected.

3. The sensitivity is too low.

**13. Can not login via web or client.**

Possible reasons

1. ActiveX is held back.

2. Something is wrong with network connection.

3. Network setting problems

**14. No Image or poor quality image when previewing image or playback files**

Possible reasons

1. Interference on, or poor quality network.

2. The user does not have preview privileges.

3. The device has no image output

**15. Something wrong with the USB backup.**

Possible reasons

1. The data size is to large. Stop recording and carry out a backup.

2. The data volume exceeds the backup storage capacity and it will cause burning errors

3. The backup device is not compatible.

4. The backup device is damaged.

**16. Alarm is not working.**

Possible reasons

1. The alarm settings are incorrect.

2. The connection of the alarm is not correct.

3. The alarm input signal is not correct.

**17. The remote controller can not control.**

Possible reasons

1. The remote control address is not correct.

2. The remote control distance is too far or the angle is too offset.

3. The battery is flat.

4. The remote controller or the front panel of the DVR is damaged.

**18. If you forget your password**

Please contact the local customer service or call service phone of the head office. We will tell you how to solve the problem according to the device model and the program version.

**19. When use IE browsering, the controls can not be downloaded**

Please follow the following steps to operate:

1. When IE browser prevent downloading controls, please do the following setting operation

(1) Open the IE browser and click the "tool" button [icon], pop up the figure below:
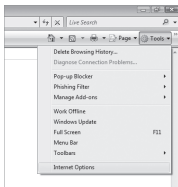


(2) Click on the "Internet ",pop up the following figure 8-1 window ,and then select "security"

(3) Click "custom level" and pop-up the setting window, please refer to the pic"8-2 and enable all the function of "ActiveX controls and plug-ins" ,and then Click "finish", confirm the settings.

2. If you want to prevent other plug-ins or virus control, please close the firewall and all antivirus softwares.

**20. In the operating system of VISTA and Win7, how to solve the problem when downloading codec control is prevented?**

There are two solutions:

Go to Control Panel \ User Accounts and Family Safety \ User Accounts \ Change User Account Control Setting Interface (as shown in pic 13-1), just select never notice.

Or you can right-click the IE browser and select "run as an administrator". As shown in pic 13-2:
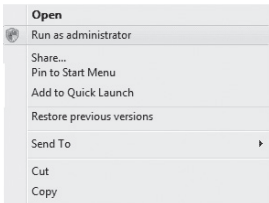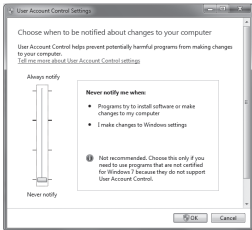
# Appendix 2.Hard Disk Capacity Calculation

Make sure the hard disk is installed and successfully formatted when install the DVR for the first time.

1. The capacity of the Hard disk itself

There is no capacity limit of single hard disk for DVR. You can choose 10G or more.. We recommend hard disk of 500G~2T for better stability.

2. Total Capacity Option

The calculation formula of hard disk capacity is:

Total capacity(M) =channel numbers*time(hour)*occupied capacity for an hour(M/hour)

Similarly, the calculation formula of recording time is:

$$\text{Recording time(hour)} = \frac{\text{Total capacity(M)}}{\text{Occupied Capacity for an hour(M/hour)*the channel numbers}}$$

The DVR introduces theH.264 compression technology. Its dynamic range is very large so the hard disk capacity calculation is based on the stream to count the estimated values of files created by each channel in an hour.

Example:

 For a 500G HDD, real -time CIF recording, it can keep recording for about 25 days. The occupied space of HDD for single channel is 200M/H, if 4channels real-time CIF recording for 24hours, the estimated recording days is: 500G/(200M/H*24H*4ch)=26 days