

# Hybrid Digital Video Recorder



AHD/TVI/CVI/CVBS/IP

## USER MANUAL



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## Chapter 1 Safety Use Instructions

**Thanks for using our products, if you have any questions or requirement, please feel free to contact us**

**The manual is for 8ch AHD DVR.**

**There may be some inaccurate information in technique, functions, operations or printing in this manual.**

We reserve the rights to make changes without further notice to a product or system described herein to improve reliability, function or design.

### **Important safety notice:**

Do not expose this unit to rain, moisture and liquid.

Make sure good ventilation openings to avoid product overheating damage.

Make sure the DVR work on the allowable temperature and humidity.

The dust on the board may cause short-circuit problem, please clean the dust on the circuit board, connector, case, fan by banister brush regularly.

Changing the battery improperly may cause explosion, Please don't change it without professional guidance. If battery needs to be changed, please use the same type or equivalent type battery.

## Chapter 2 Product Introduction

### 2.1 Product Features :

- ① P/N self-adaption, no need to setup, Recognize input AHD 1080P/720P/CVBS automatically. P2P TUTK server makes it more stable.
- ② With UTC function, 3X AF and zoom lens and OSD parameter can be adjusted by DVR
- ③ OSD is available in 6 languages, Free to reboot after changing languages, resolution changing only needs 4 seconds; You can move windows around the display screen and zoom image;
- ④ One-step to remote monitoring via P2P/APP, easy and simple to operate, Support RS-485 and backup AVI format. Boot with guide, more intelligent.
- ⑤ With VGA and HDMI (1920\*1080) Output, 4ch audio input; 1ch audio output; with 4A power surge protector and 2KV video lightning protection.

### 2.2 Product Specification



Each channel supports dual-stream compression, the maximum resolution for main stream is Full HD (1920\*1080). The sub-stream is up to D1.

The parameters of video coding for each channel can be adjusted independently, including resolution, frame rate, bitrates, image quality and so on.

Each channel supports two compression parameters: Normal compression and event compression, and also support local sub-stream compression parameter.

Support composite stream, video stream, Audio and video synchronized when it's composite stream.

Output can be up to 1080P

Output HDMI, VGA

The resolution of output HDMI and VGA can be up to 1920x1080

Support 1/4/6/8/9ch preview screen, The sequence of preview channel can be adjusted.

Preview supports grouping switching, manual switching, cruise(cycle period can be set)

Preview channel can be assigned.

Support privacy preservation

Support motion detection, video loss detection

### **Compress Format**

H.264 is used, with lower compression rate and better image quality

### **Storage**

Max. 2 SATA hard disk

### **Backup**

You can backup via USB, remote backup via network, or editing the backup when it's playback.

### **Video/Screenshot and playback**

Support recurrent writing and non-recurrent writing

Support timing and event compression parameters.

Trigger mode: Manual, timing, alarm, motion detection.

Digital zoom to any arbitrary area when it's playback.

Record can play reversely.

Can search and playback by channel No., type, event and so on.



Support HD 1080P, SD D1 real-time record.

The backup files can be playback locally.

### **Alarm and Exception management**

Support time set for the defense of alarm in/out.

Support video loss alarm, motion detection, privacy protection alarm, illegal log-in alarm, network off alarm, IP collision alert, Hard disk error or hard disk running full alarm.

When the alarm is triggered, picture, sound, alarm out and preview hint will be pop-up. Besides, the motion detection and switching value can trigger record/capture of any channel, All the exception issue can trigger the sound alarm, sending email and alarm triggered output

Support active PTZ setting, the corresponding channel auto cruise and tract.

### **Other local functions**

You can operate through front panel, mouse, remote-controller and special keyboard.

Three level user management, Administrator can setup several username and set permission, which can be refined to the channel

Complete information and index regarding operation, alarm, exception and log record.

Trigger and clear alarm manually.

Import and export the device's configuration information.

### **Network function**

Support TCP/IP、DHCP、PPPoE、NTP and DDNS

Preview via IE browser remotely

Obtain and configure the parameters, import and output device's parameters remotely.

Obtain devices running status, system log and alarm condition remotely.

Support system maintenance remote operation, such as: Formatting the harddisk, upgrading the software upgrading and reboot.

Support RS-485

Support PTZ remote control

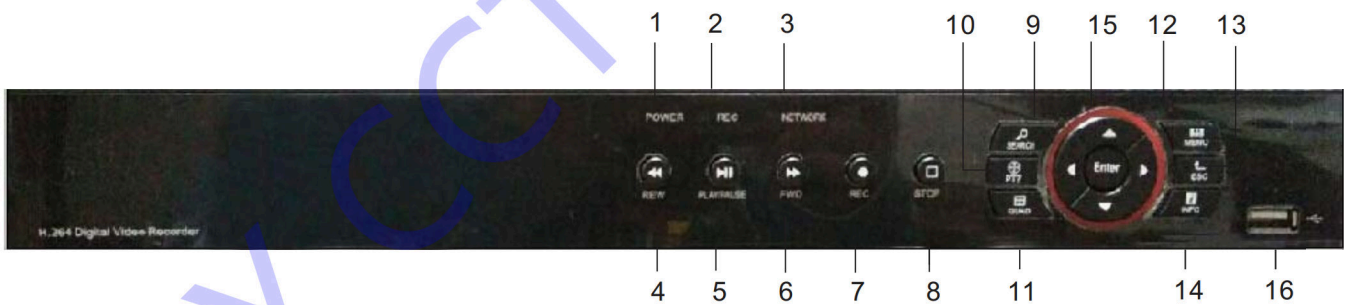
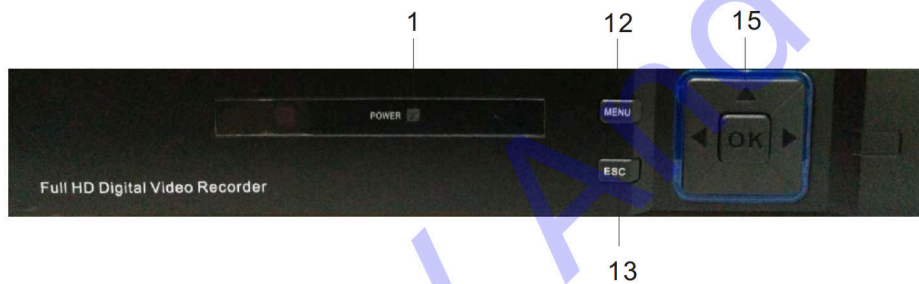
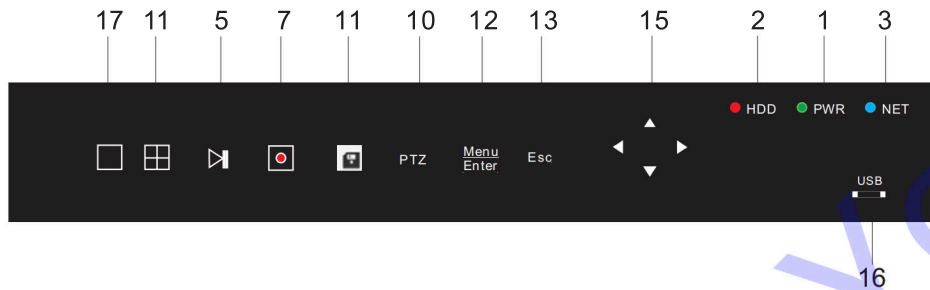
Support remote monitoring via mobile app, such as Windows Mobile、Symbian、IOS、Blackberry、Android

Several devices can be managed by CMS management via internet.



## Chapter 3 Product picture and Interface definition

### 3.1 Front Panel

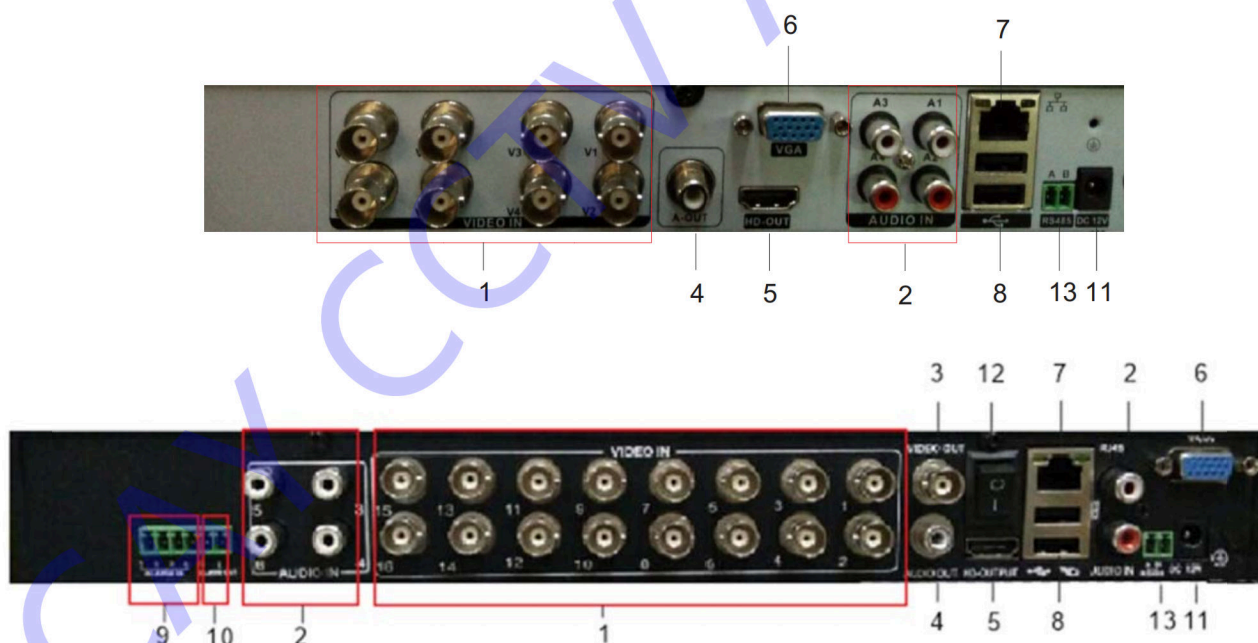


| No. | Item               | Description                                   |
|-----|--------------------|-----------------------------------------------|
| 1   | <b>Power LED</b>   | LED ON when power ON                          |
| 2   | <b>REC LED</b>     | LED ON when recording                         |
| 3   | <b>Network LED</b> | LED ON when connect with LAN                  |
| 4   | <b>REW</b>         | Rewind record view in playback mode           |
| 5   | <b>PLAY/PAUSE</b>  | Access to playback interface in playback mode |
| 6   | <b>FWD</b>         | Fast forward record view in playback mode     |
| 7   | <b>REC</b>         | Access to manual record interface             |



|    |                            |                                                     |
|----|----------------------------|-----------------------------------------------------|
| 8  | <b>STOP</b>                | Click to stop recording                             |
| 9  | <b>SEARCH</b>              | Access to search interface                          |
| 10 | <b>PTZ</b>                 | Access to PTZ control interface                     |
| 11 | <b>QUAD</b>                | Live view in quad mode                              |
| 12 | <b>MENU</b>                | Accesses to main menu interface                     |
| 13 | <b>ESC</b>                 | Exit and back to previous menu                      |
| 14 | <b>INFO</b>                | Access to device info. interface                    |
| 15 | <b>DIRECTION</b>           | Use up/down/left/right to move the highlight of OSD |
| 16 | <b>USB Port</b>            | USB port for additional devices                     |
| 17 | <b>Full Screen Display</b> | Live view in full screen mode                       |

## 3.2 Rear Panel



| No. | Item             | Description                          |
|-----|------------------|--------------------------------------|
| 1   | <b>Video In</b>  | BNC interface for Analog video input |
| 2   | <b>Audio In</b>  | RCA connector                        |
| 3   | <b>Video Out</b> | Spot monitor                         |
| 4   | <b>Audio Out</b> | RCA connector                        |



|           |                          |                                                                     |
|-----------|--------------------------|---------------------------------------------------------------------|
| <b>5</b>  | <b>HDMI</b>              | HDMI video output connector                                         |
| <b>6</b>  | <b>VGA</b>               | DB15 connector for VGA output. Display local video output and menu. |
| <b>7</b>  | <b>Network Interface</b> | Connector for network                                               |
| <b>8</b>  | <b>USB Port</b>          | USB port for additional devices                                     |
| <b>9</b>  | <b>Alarm In</b>          | Connectors for alarm input                                          |
| <b>10</b> | <b>Alarm Out</b>         | Connectors for alarm input                                          |
| <b>11</b> | <b>Power supply</b>      | DC12V power supply                                                  |
| <b>12</b> | <b>Power Switch</b>      | Switch for turning on/off the device                                |
| <b>13</b> | <b>RS-485 interface</b>  | Connector for RS-485 device                                         |



## Chapter 4 Operating Instructions

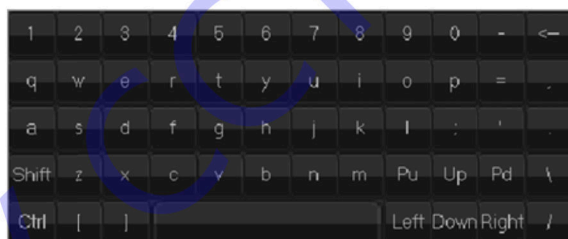
### 4.1 Mouse operation instruction

| Name         | Action         | Description                                                                                                                                                           |
|--------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Left-Click   | Single-Click   | Live view: Select channel and show the quick set menu.<br>Menu: Select and enter.                                                                                     |
|              | Double-Click   | Live view: switch between single-screen and multi-screen.                                                                                                             |
|              | Click and Drag | PTZ control: Wheeling<br>Privacy mask and motion detection: Select target area.<br>Digital zoom-in: Drag and select target area.<br>Live view: Drag channel/time bar. |
|              | Single-Click   | Live view: Show menu.<br>Menu: Exit current menu to upper level menu                                                                                                  |
| Right-Click  | Scrolling up   | Live view: Previous screen<br>Menu: Previous item.                                                                                                                    |
| Scroll-Wheel | Scrolling down | Live view: Next screen<br>Menu: Next item.                                                                                                                            |

Notice: If the mouse can't be detected after plug in, that means the mouse and DVR is not compatible.

Then please try to change the mouse.

### 4.2 Input operation instruction



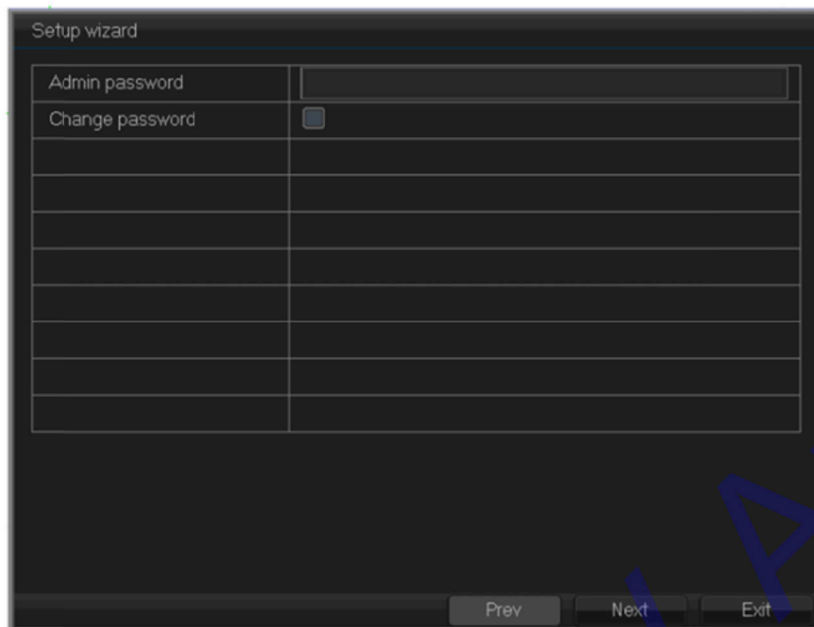
| Icon  | Description                               |
|-------|-------------------------------------------|
| Shift | Capital letter and small letter switching |
| Ctrl  | Shift between various input ways          |
| Pu    | Page Up                                   |
| Pd    | Page Down                                 |



## 4.3 Guide

After start, wizard page will be pop-up.

Wizard 1: Enter password and click "Next" (Default password for admin is null)



The screenshot shows a 'Setup wizard' window with a dark background. It contains a table with two columns. The first column has labels 'Admin password' and 'Change password'. The second column has a text input field and a checkbox. Below the table are three buttons: 'Prev', 'Next', and 'Exit'.

| Admin password  |                          |
|-----------------|--------------------------|
| Change password | <input type="checkbox"/> |
|                 |                          |
|                 |                          |
|                 |                          |
|                 |                          |
|                 |                          |
|                 |                          |
|                 |                          |

Prev Next Exit

Wizard 2: P2P default is open; The UID is showed, set the network state. You can add the device's UID manually or scan the UID, or download the APP.



The screenshot shows a 'Setup wizard' window with a dark background. It contains a table with four rows. The first row has 'P2P' and a checked checkbox. The second row has 'UID' and a text input field containing 'HH7W3C6HVP11856111A'. The third row has 'Status' and 'Internet Ready'. Below the table are two QR codes. The first QR code is labeled 'Scan To Get UID' and the second is labeled 'Scan To Download APP'. At the bottom are three buttons: 'Prev', 'Next', and 'Exit'.

|        |                                     |
|--------|-------------------------------------|
| P2P    | <input checked="" type="checkbox"/> |
| UID    | HH7W3C6HVP11856111A                 |
| Status | Internet Ready                      |

Default Settings

Scan To Get UID Scan To Download APP

Prev Next Exit



### Wizard 3:

DVR Name: Showed device name

DVR ID number: Device ID is needed when remote control.

Language: Showed language, 6 language optional

Set time & date: If you need to setup the time, click "setup"

Settings

Date format: 6 format to be chosen according to different regions

Time format: 24 hrs or 12 hrs

Time Zone: Choose the corresponding time zone according to the regions

Setup wizard: If setup wizard is needed or not, when the DVR starts

The screenshot shows a 'Setup wizard' window with the following fields and options:

| Setup wizard    |                                     |
|-----------------|-------------------------------------|
| DVR name        | 68                                  |
| DVR ID number   | 0                                   |
| Language        | English ▼                           |
| Set time & date | 2000-01-01 Sat 17:00:37             |
|                 | Settings                            |
| Date format     | YYYY-MM-DD W hh:mm:ss ▼             |
| Time format     | 24-Hour ▼                           |
| Time zone       | [GMT +08:00] ▼                      |
| Setup wizard    | <input checked="" type="checkbox"/> |

At the bottom of the window, there are three buttons: 'Prev', 'Next' (highlighted in blue), and 'Exit'.



#### Wizard 4:

Network setting, you can check the network IP and network port. Notice: Some operations may need HTTP port and mobile port, you can check it here.

| Setup wizard  |                          |
|---------------|--------------------------|
| Interface     | 10M/100M Auto Adapter    |
| Enable DHCP   | <input type="checkbox"/> |
| IP address    | 192 . 168 . 1 . 222      |
| Subnet mask   | 255 . 255 . 255 . 0      |
| Gateway       | 192 . 168 . 1 . 1        |
| MAC address   | 5a:57:f5:0e:1f:2c        |
| Primary DNS   | 223 . 5 . 5 . 5          |
| Secondary DNS | 223 . 6 . 6 . 6          |
| HTTP port     | 80                       |
| Mobile port   | 10000                    |

Prev Save Exit

Click Save.




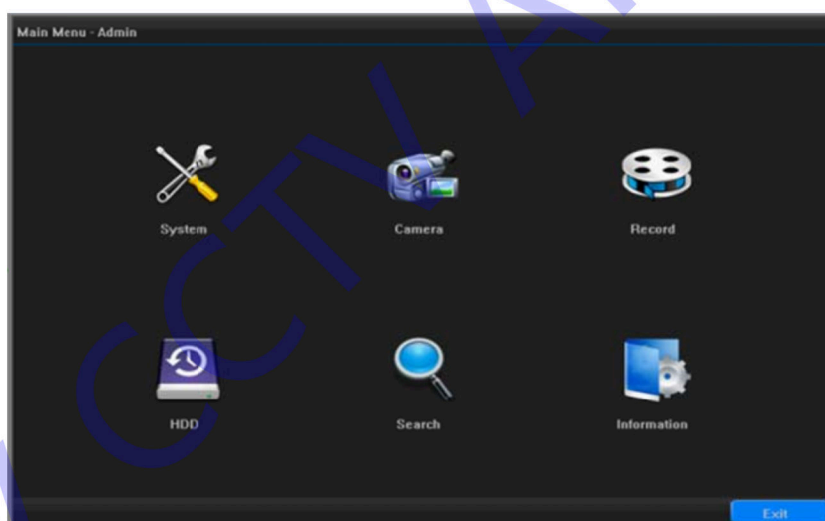
## Chapter 5 Menu Description


### 5.1 Toolbar description


After the guide is finished, Right-click anywhere, the following menu will be showing




**1.Main Menu**  (Click the icon to enter the corresponding sub-menu)



**2. Single screen**  After click it, it will turn to single screen.

**3. 4 split screen**  After click it, it will turn to four split screen; click it again, it will turn to next four channel

**4. 6 split screen**  After click it, it will turn to 6 split screen; click it again, it will turn to next 6 channel

**5. 8 split screen**  After click it, it will turn to 8 split screen.

**6. 9 split screen**  After click it, it will turn to 9 split screen.





**7.Cruise** After click this icon, it will cruise sequentially as it sets on the view setting

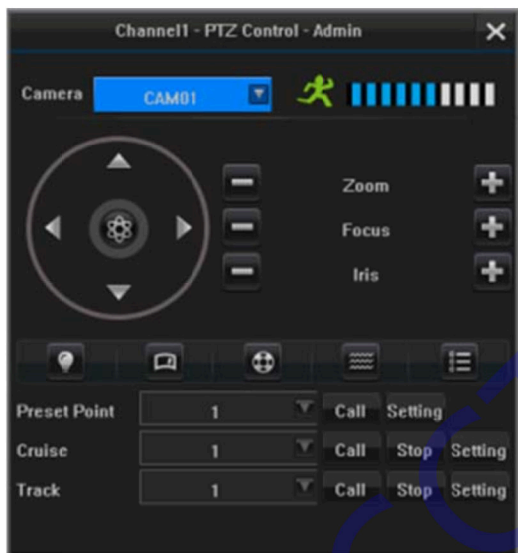










**8. Digital Zoom** After click, you can make it 4 times zoom, you can drag the coordinate on the bottom right corner to show the zoom area.






**9.P.T.Z**: Description: You can operate via "PTZ"

Click the icon on the toolbar, the UI will be pop-up, Click  to show the advanced setting section, see the following picture:



|                                                                                     |                                             |
|-------------------------------------------------------------------------------------|---------------------------------------------|
|  | Up, Down, Left, Right<br>Zoom the live view |
|  | Zoom +, Focus+, Iris+                       |
|  | Zoom -, Focus-, Iris-                       |
|  | Light                                       |
|  | Wiper                                       |
|  | Fan                                         |
|  | Heater                                      |
|  | OSD                                         |



|                                                                                   |         |
|-----------------------------------------------------------------------------------|---------|
|  | Call    |
|  | Stop    |
|  | Setting |

### Call of Preset point

Click the icon on the toolbar, "PTZ Control" will be showing, Choose the Number of preset point, and click "Call", it will be back to the preset point.

### Call of Cruise

Click the icon on the toolbar, "PTZ Control" will be showing, Choose the Number of cruise, and click "Call", it will be back to the cruise

Click "Stop", cruise will stop.

### Call of Track

Click the icon on the toolbar, "PTZ Control" will be showing, Choose the Number of track, and click "Call", it will be back to the track

Click "Stop", Track will stop.



**10.UTC:** You can adjust the camera's parameter and also control motorized lens.

After click the icon, the following picture will be showed, click the middle "OSD" button



You can adjust the camera's parameter via DVR'S UTC function





### 11. System status



Notice: You can check the signal loss, motion detection, alarm input, alarm output and system status at this page. Enter toolbar-main menu-alarm setting-alarm output to setup the delay of alarm make the alarm open until you click "clear alarm" to clear it.



The icon on the toolbar: means no alarm, mean alarm on.



Click the icon on the toolbar, system status will pop-up, you can check information regarding the signal loss, motion detection, alarm input, system status

If you want to clear alarm, you need to click 【clear alarm】

### 12. Snapshot

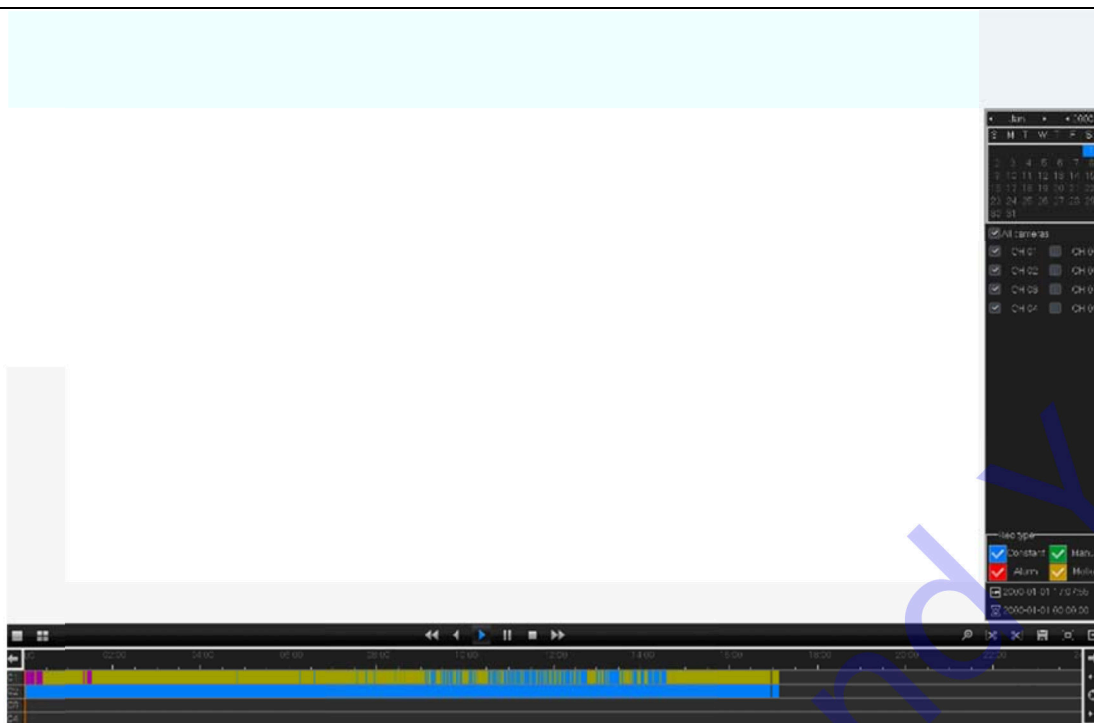


After you choose the channel, and click this icon, the snapshot will be seen on the **Data Retrieval**

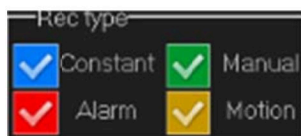
### 13. Playback







1. Choose the playback channel, single and multi-channel playback supported.
2. Choose the playback date, the whole day's video will be shown on the time axis.
3. Click "play" to play the chosen channel.



Different colors show different types of record.


Blue—Constant video, Green—Manual video, Red-Alarm, Yellow—Motion video.

#### 14. Backup

User name and password will be needed.

After you log-in, backup device will be checked automatically, you can also click to detect manually.

检测

Click  to choose the time of backup

File type supports H.264AVI, H.264Raw

Choose all channels or part of channels to backup according to your request.

Format

Format backup device,

Copy

start to backup,

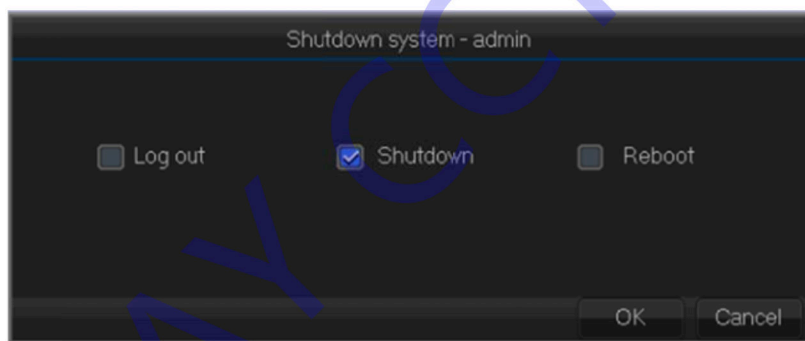
Exit

And Exit.





#### 15. Shutdown system







## 5.2 System setting (Click this icon to enter sub-menu.)

| Sub menu     |                                                         |
|--------------|---------------------------------------------------------|
| Basic        | Device's parameter, Date and Time, Daylight saving time |
| Preview      | Basic and view setting                                  |
| User         | User management                                         |
| Network      | Basic setting, PPOE,DDNS,EMAIL,IP blacklist, uPnP,P2P   |
| System alarm | System alarm setting                                    |

### Setup:

DVR Name: Click to set the DVR name

Device ID number: Change the camera ID

Language: System language switching

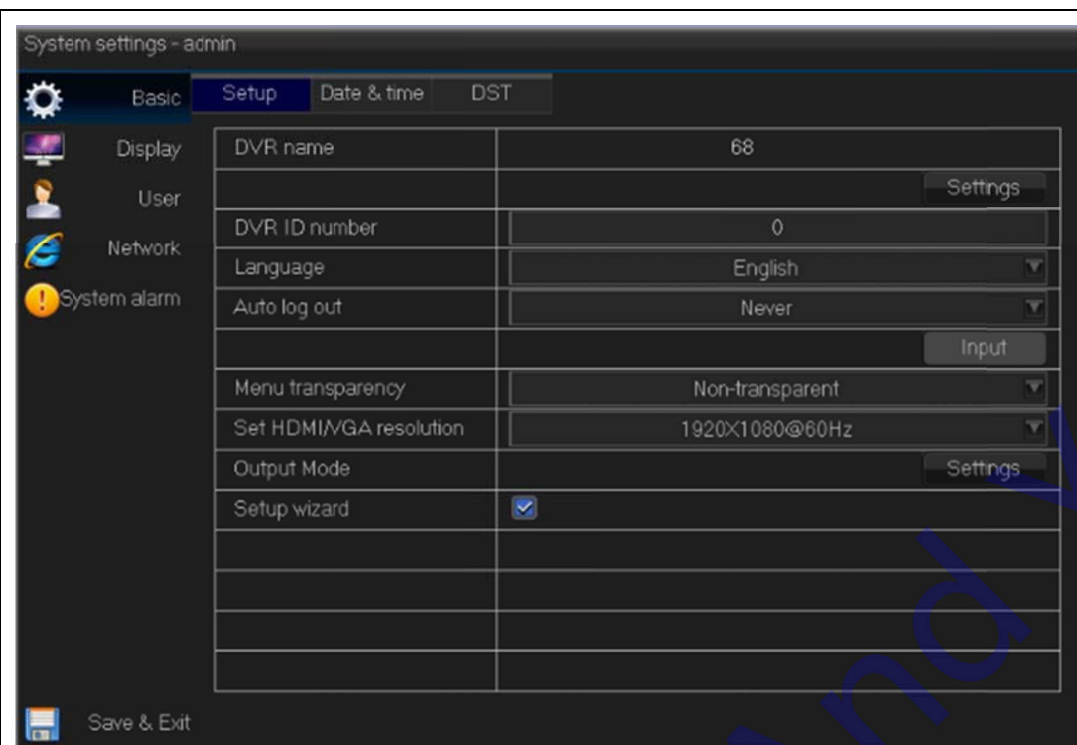
Auto Logout: Set the auto logout time, custom support

Menu Transparency: Adjust the mean transparency

Resolution: Adjust the resolution of HDMI and VGA(Maximum 1920\*1080)

Output mode: Various output modes are optional, customs support.

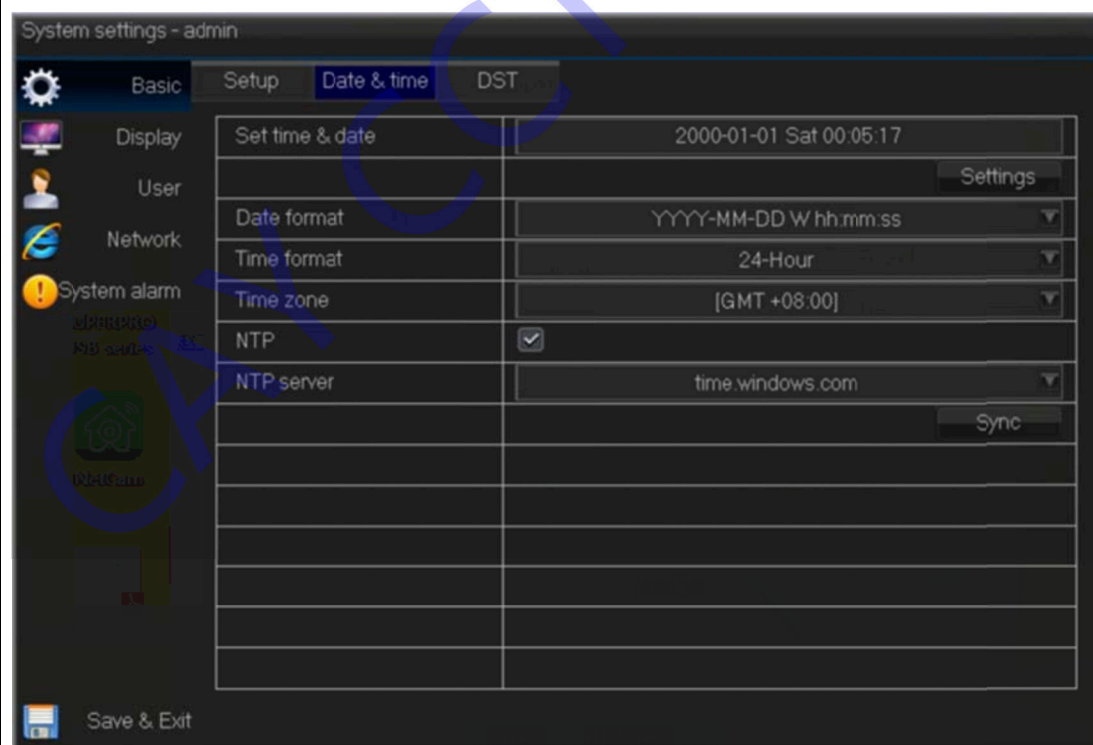




#### Date & Time:

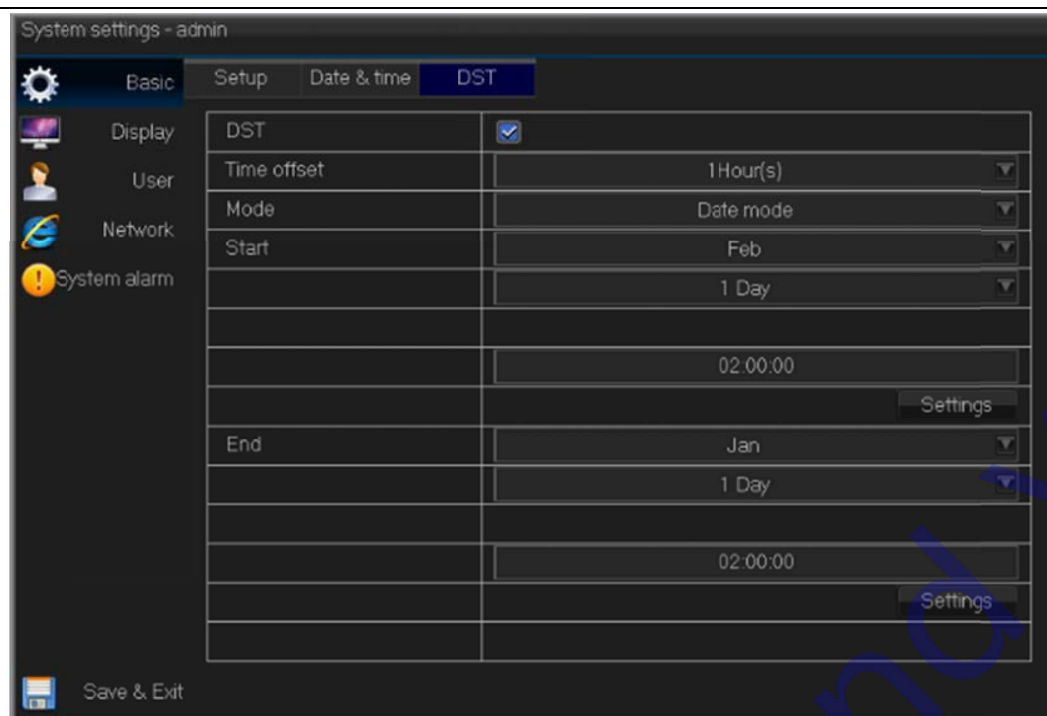
Click this icon to set Date & Time manually or Click "Network time synchronization"

Note: If network time synchronization is failure, pls change the network time of server and restart.:




DST(Daylight Saving Time): After DST is chosen, you can set

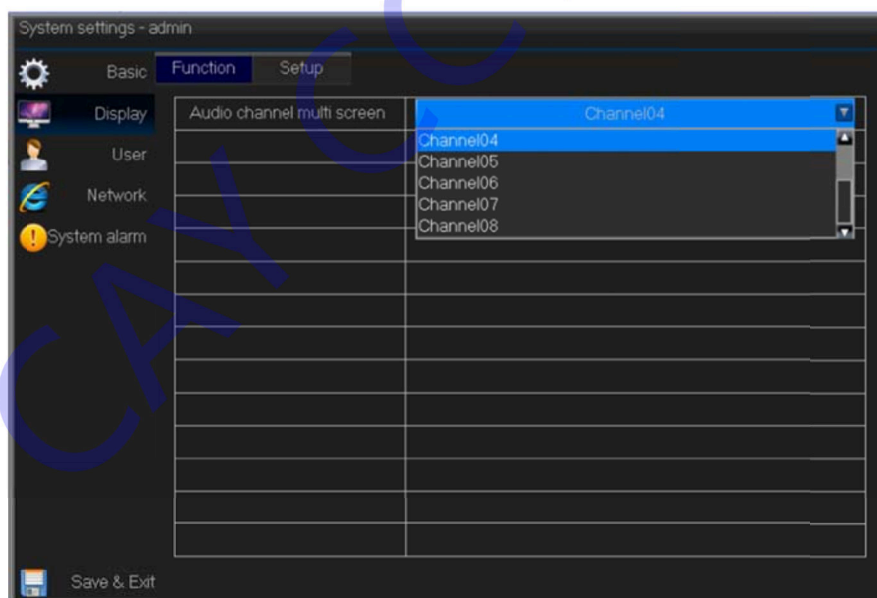




## Preview setting


### Basic:

**Audio preview:** Choose , Audio preview will be back to this channel, so you can preview the chosen audio

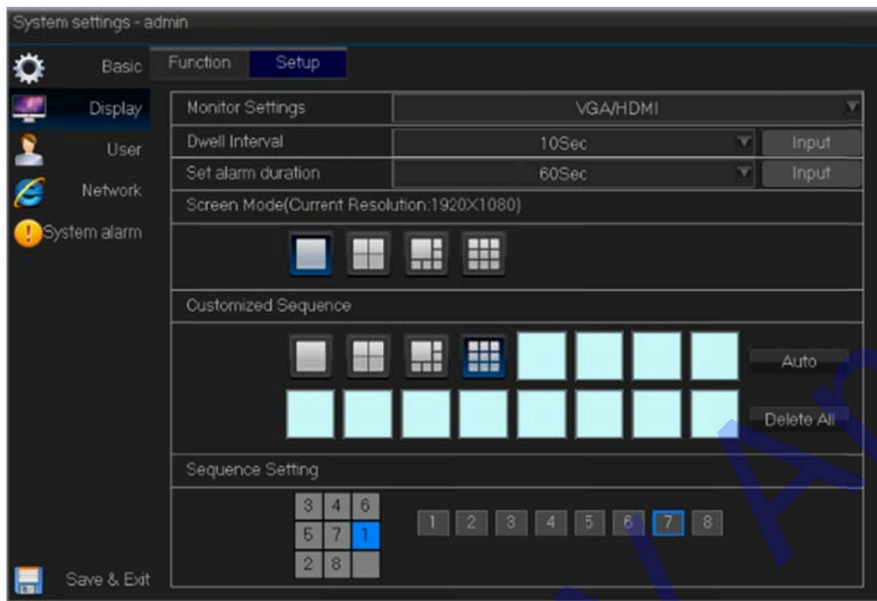


**Display setup:** Set up dwell interval. Users can customize each screen's display.



Customized sequence: Left-click the blank box, and choose the screen mode . Then the screen mode will be added to the customized sequence. Click "Auto", the screen mode will be used automatically. Click "Delete All", All the customized sequence will be deleted.

Sequence Setting: Choose the screen in customized sequence, and click 1-8 channel on the right side to sequence randomly



### User Management:

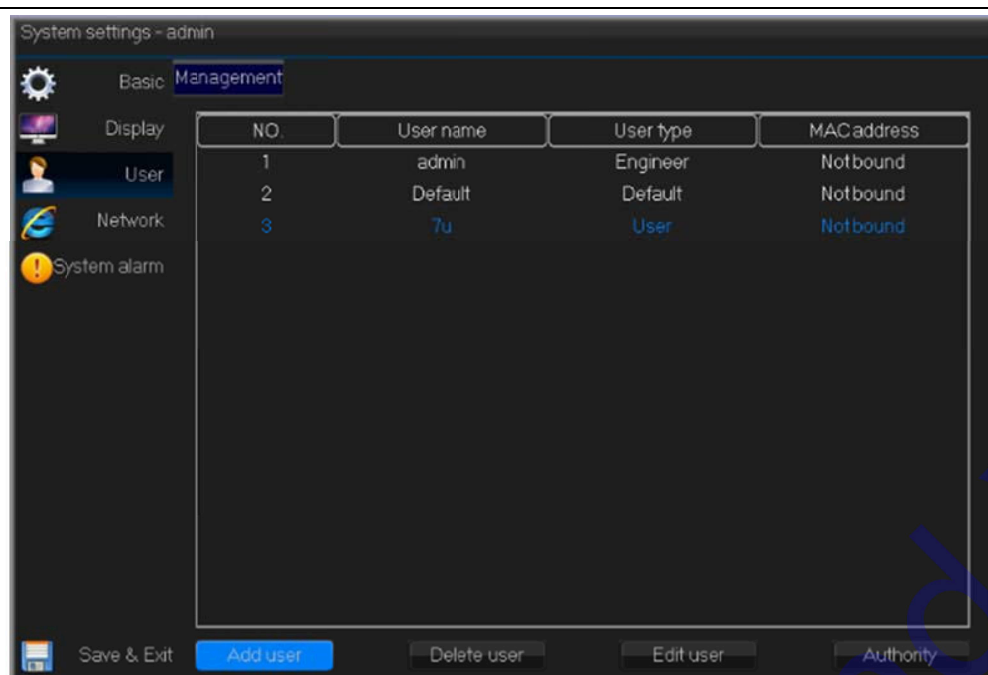
Administrator can add user, delete user, edit user and set the authority.

**Notice:** Common user can only edit their own password

Click **【Add user】** to add user, Enter username and password; If Mac address is bounded, you need to enter the MAC address.

**Notice:** After the MAC address is bounded, you can only log-in the user remotely on the PC with this MAC address.



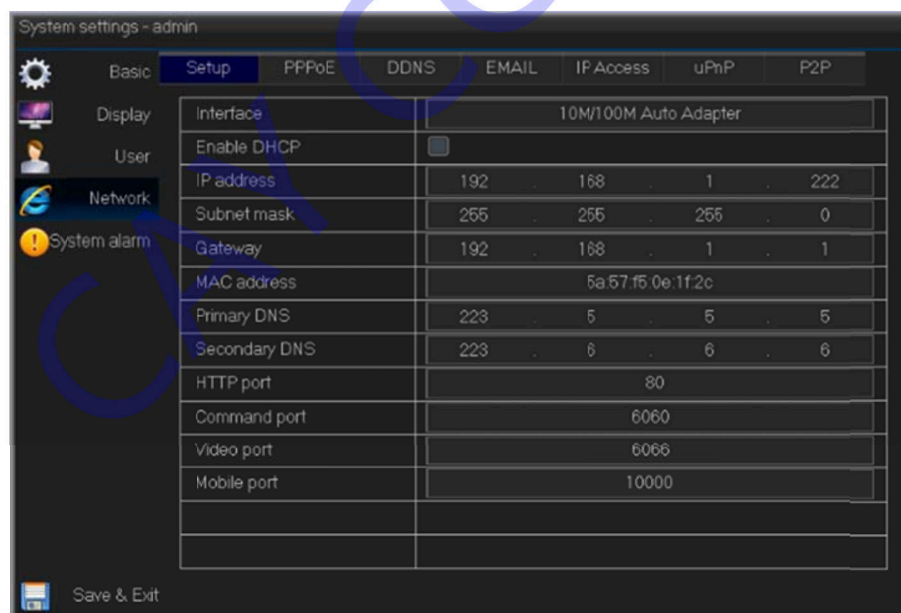


#### Network:

#### Basic setup:

Setup device's parameters, such as: IP address, Gateway, Port, DNS and so on. After setup, Click【Save & Exit】it will be valid immediately.

Notice: If there's DHCP server, pls choose "obtain IP automatically", then it will be valid immediately.

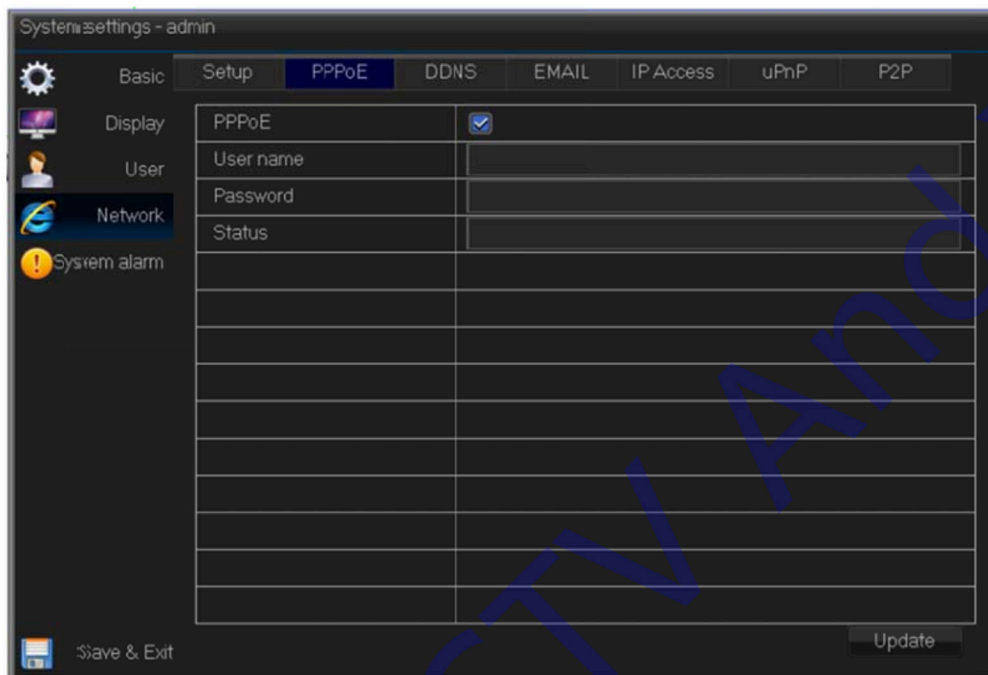




## PPPOE:

When you connect via ADSL, User can dial via PPPoE, Choose to use PPPoE, enter username and password, Click **【Update】**, and then click **【Save & Exit】**, and finish the setting. Check the following picture

➤ Notice: Pls get the user name and password of PPPoE from service provider, and finish the setup. After restart, the device will dial the network automatically. After dialing, the network information will be shown on network status.



## DDNS:

First: Basic: Setup device's parameters, such as: IP address, Gateway, Port, DNS and so on. After setup, Click **【Save & Exit】** it will be valid immediately.

Second: Setup DDNS, check DDNS.

If DDNS is chosen, the server IP is: members.dyndns.org

Host domain: Users can apply host domain by themselves( go to websit of dyndns to apply ), Username and password is the one you registered on the website of dyndns, After finishing, Click **【Save & Exit】**, as following picture:

Third: Click **【Update】**, it's registering, the status will be shown as the pictures, after finish register, the status will be "register successfully" If failure, the status will be "register failure"

Notice: When register is failure, check the DDNS to see if the setup is correct or not, and then check the network to see if Ethernet and DNS is chosen or not.



System settings - admin

Basic Setup PPPoE **DDNS** EMAIL IP Access uPnP P2P

Display

User

**Network**

System alarm

|                       |                                     |
|-----------------------|-------------------------------------|
| DDNS                  | <input checked="" type="checkbox"/> |
| DDNS server           | members.3322.org                    |
| Host domain           |                                     |
| User name             |                                     |
| Password              |                                     |
| Refresh time[Minutes] | 30                                  |
| Status                |                                     |
|                       |                                     |
|                       |                                     |
|                       |                                     |
|                       |                                     |
|                       |                                     |
|                       |                                     |
|                       |                                     |
|                       |                                     |

Save & Exit

Update

**EMAIL:**

When email is checked, alarm will be sent via email, you can set the information, such as: SMTP server, SMTP sender, SMTP receiver's email and so on. If snapshot is reported via email, Authentication needs to be chosen.

➤ Notice: You can set SMTP port (Pls confirm SMTP server port), Pls check “SSL check” according to your email, (Some SMTP server may need it)

Test: Click **【Test】** to check the email.

If it email test is failure, pls check email's setup and also the Ethernet's connection and DNS server's setup.



System settings - admin

Basic Setup PPPoE DDNS **EMAIL** IP Access uPnP P2P

Display User Network System alarm

|                       |                                     |
|-----------------------|-------------------------------------|
| Email                 | <input checked="" type="checkbox"/> |
| SMTP server           |                                     |
| SMTP port             | 25                                  |
| SSL check             | <input type="checkbox"/>            |
| Authentication        | <input checked="" type="checkbox"/> |
| Sender address        |                                     |
| Password              |                                     |
| Receiver address1     |                                     |
| Receiver address2     |                                     |
| Receiver address3     |                                     |
| Attach image to email | <input type="checkbox"/>            |
| Alarm schedule        | Alarm active all day                |
|                       |                                     |
|                       |                                     |

Save & Exit Settings Test

## IP Access:

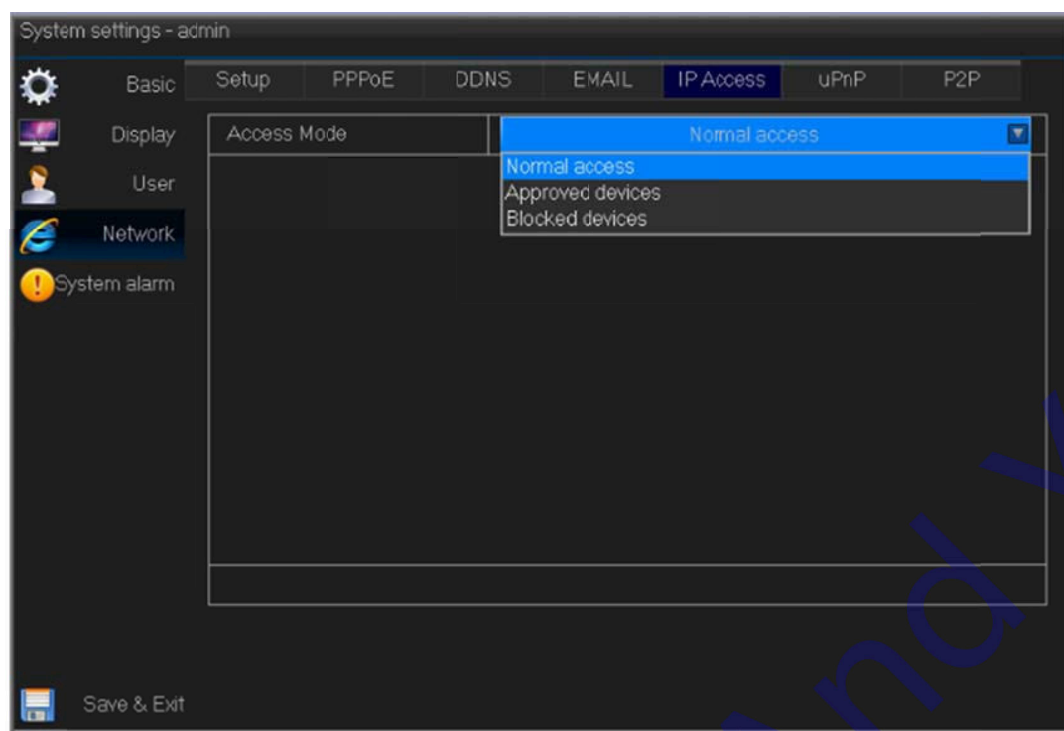
Access Mode: Normal Access, Approved devices, Blocked devices.

Normal access: No restriction in the LAN

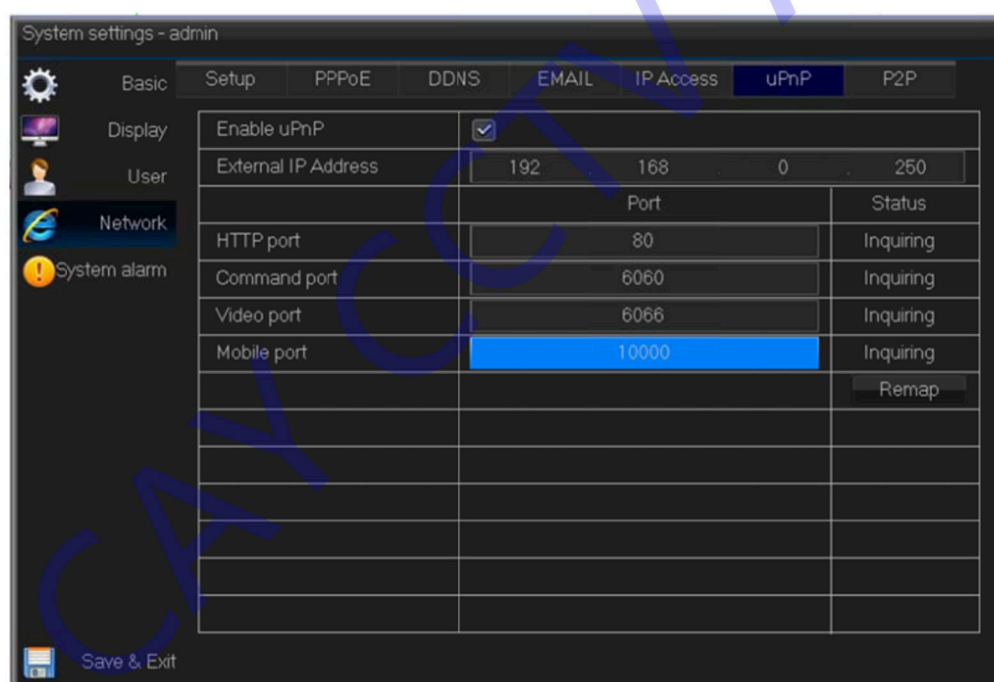
Approved devices: Only IP in the approved list can access in the LAN.

Blocked devices: IP in the blocked list can't access.





**UPnP:** After setup, UPnP can map to Ethernet directly.



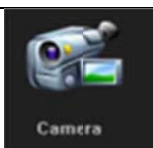
**P2P:**

The default P2P is chosen, The UID and UID 2D barcode is correspondently matched. Setup network status. You can get UID manually or scan to get UID when remote login. Or you can also scan to download app when you use mobile to control remotely.





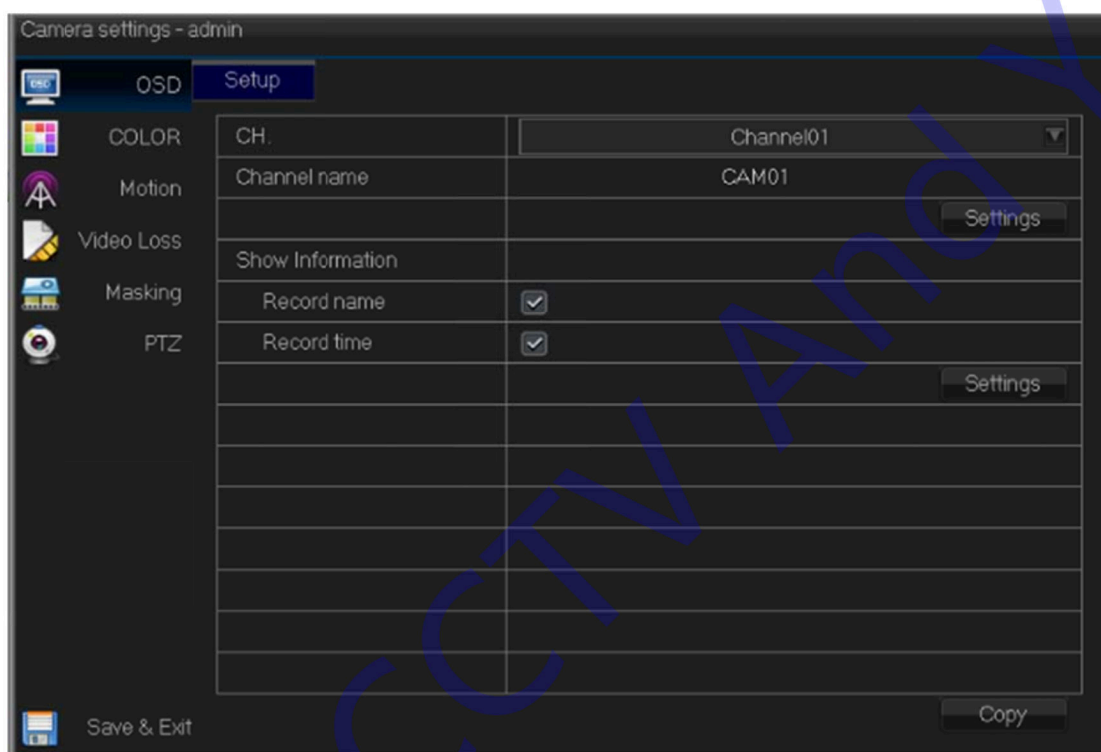




## 5.3 Camera Settings

### OSD

You can set up each channel's name, The position of showing name and time can be adjusted by your own request. Click **Settings** , After finishing, pls click **Save & Exit**





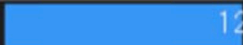
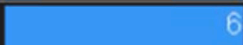
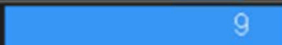
**Color setting:** Adjust the camera's brightness, contrast, etc.







Camera1 - Color Settings

|                    |                                                                                   |     |
|--------------------|-----------------------------------------------------------------------------------|-----|
| Time Section       | DefaultTime Section ▼                                                             |     |
| EnableTime Section | <input checked="" type="checkbox"/>                                               |     |
|                    | 00 ▼ : 00 ▼ - 24 ▼ : 00 ▼                                                         |     |
| Brightness         |  | 128 |
| Contrast           |  | 64  |
| Chroma             |  | 128 |
| Saturation         |  | 64  |
| H-Sharpness        |  | 9   |
| V-Sharpness        |                                                                                   | 0   |

Default OK Cancel

#### Motion Detection:

1. Choose the channel which need to start motion detection.
2. Choose sensitivity. (Low/Middle/High sensitivity)
3. Choose Protection Time. (Protection whole day/ The custom time)
4. Choose the linkage option when the motion detection channel being triggered.

Big picture alarming---- Preview page of DVR pop up alarming image.

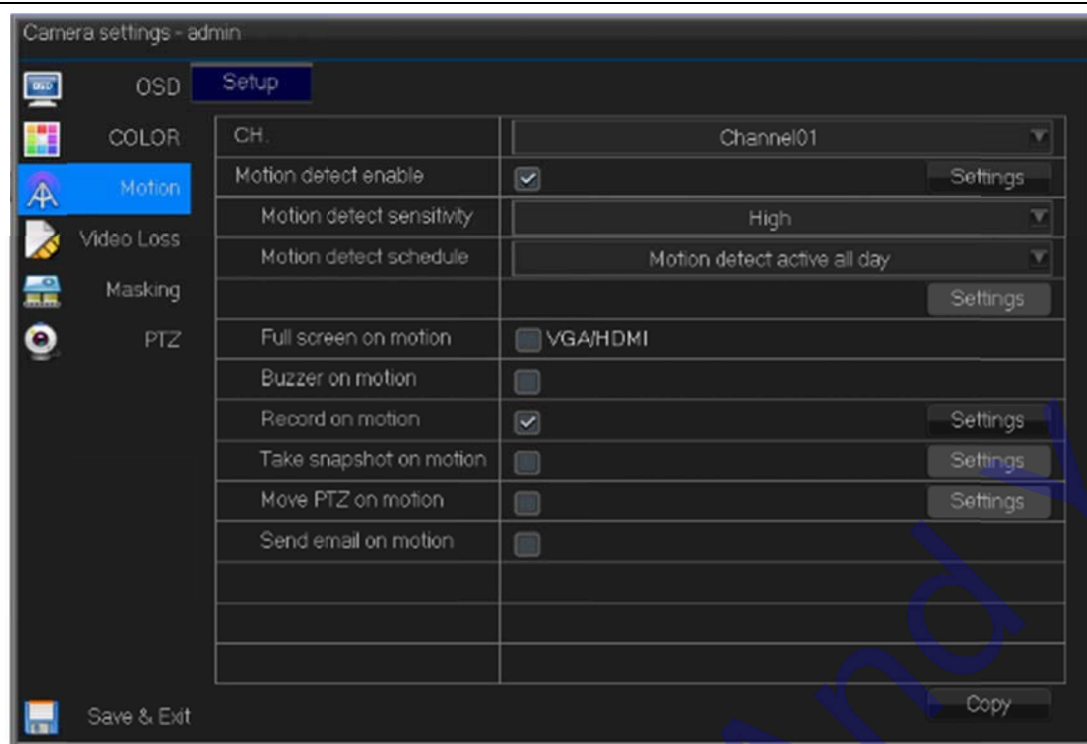
Trigger channel recording---- Select the channel which need to be triggered recording.

Trigger screenshot---- Select the channel which need to screenshot.

Trigger PTZ---- Can trigger the preset position/cruise/locus of fast ball in the equipment.

Send email---- Can trigger the Email option of Network Setting to alarm. (Set Email and send to System Configuration--Network Setting-- EMAIL )





#### Video Loss:

1. Choose the channel which alarming for video loss, check and deal with video loss, take some relative settings to this channel.

2. Have linkage voice to alarm, trigger PTZ and send email functions.

----Protection time---- Support Protection Whole Day and The Custom Time.

----Trigger PTZ--- Can trigger the preset position/cruise/locus of fast ball in the equipment after the Video Loss.





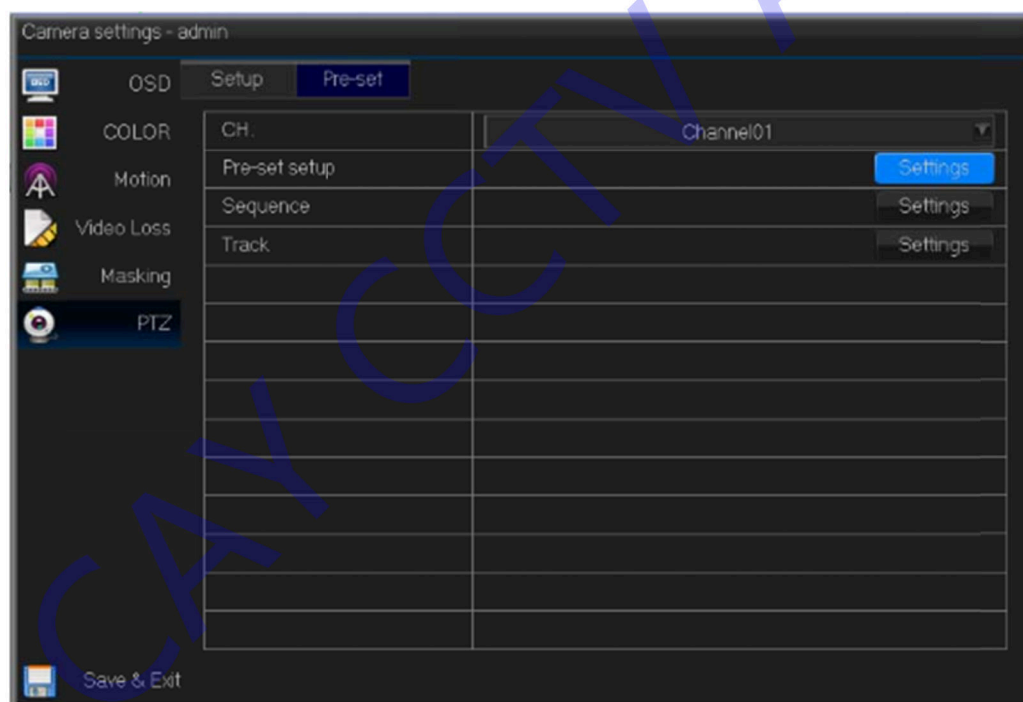








More configuration: you can set preset positions, sequence and track.



Tick PTZ Auto Run, click the **【Set】** button which is at the right side of PTZ Auto Run, the interface is as below:

Choose the Cycle, you can only tick one to set from preset positions, cruise and track; once finished, click **【Preview】** button to enter into preview interface, right-key to return back to <Channel Configuration> interface; click **【Ensure】** button to return back to <Basic Configuration> , succeed.



**Note: PTZ Auto Run only can use one of preset positions, cruise and track. (Linkage state mutually exclusive setting)**

If other channels need to be changed, repeat the above steps; if has same setting, click **【Copy】** button, which will be copied to other channels.

#### Setting of preset positions:

Click right side **【Setting】** button to enter into <PTZ Control> interface, and select the channel and preset positions number , click **【Setting】** button to enter into <Setting> interface, use PTZ control-key to adjust orientation, click **【Ensure】** button to return back to <PTZ Control> interface, succeed.

If you want to set more preset positions, repeat the above operations.



#### Setting of Sequence:

Select the channel and sequence number to set, click right side **【Setting】** button to enter into <Edit> interface of this number sequence.

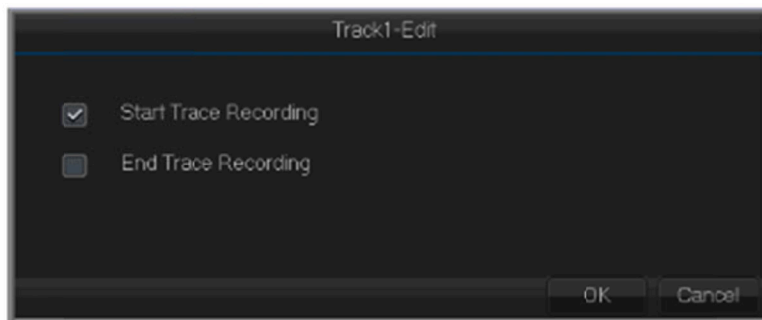


#### Setting of Track:



Track is being used to record the traveling routine of PTZ, choose the setting channel, click the right side **【Setting】** button and tick to start track recording, click **【Ensure】** button to return back to <PTZ control> interface and make all kinds of control operations to PTZ, for example: make up, down, left, right orientation controls and etc.

Setting finished, click **【Setting】** button of right side of Locus to enter into <Track Edit> interface, tick to end the track recording, then click **【Ensure】** button to return back to PTZ control interface.





## 5.4 Video Configuration



### Coding Parameters:

**Main stream:** Select channel

**Stream type:** Integrated flow (with audio), video stream.

**Resolution:** 1080P

**Frame rate:** 1080P is defaulted 15fps, others can be up to 25/30fps maximum.

**Bit rate type:** Constant stream, VBR.

**Bit rate:** Maximum support 5415kbs

| CH                          |                   |
|-----------------------------|-------------------|
| Record type                 | Video & Audio     |
| Resolution                  | 1080P             |
| Frame Rate                  | 15fps             |
| Normal record bit rate type | Constant bit rate |
| Normal record bit rate      | 2707Kbps          |
|                             |                   |
|                             |                   |
|                             |                   |
|                             |                   |
|                             |                   |
|                             |                   |
|                             |                   |
|                             |                   |
|                             |                   |

### Sub-stream:

**Channel:**

**Resolution:** Default stream is CIF

**Frame rate:** Maximum support 25/30fps

**Code rate:** Maximum is up to 507kbs







## Video Schedule:

Can set various video schedule of channels. Support timing video, motion video, alarming video.

Copy button can make copy to other channels.

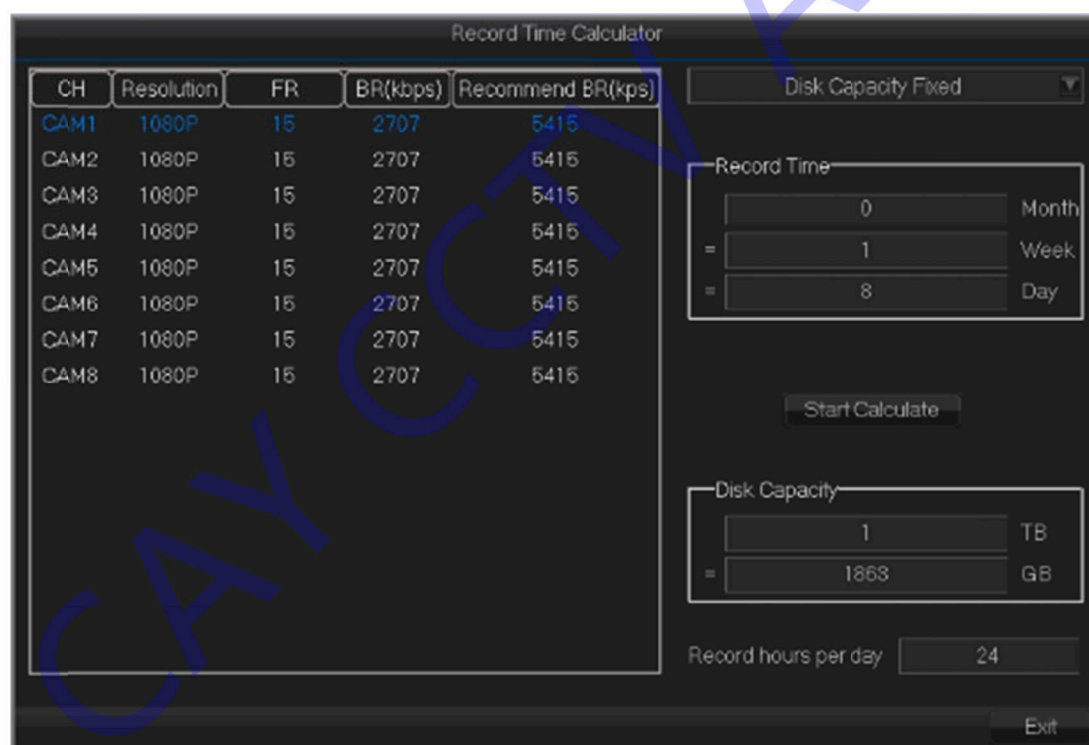
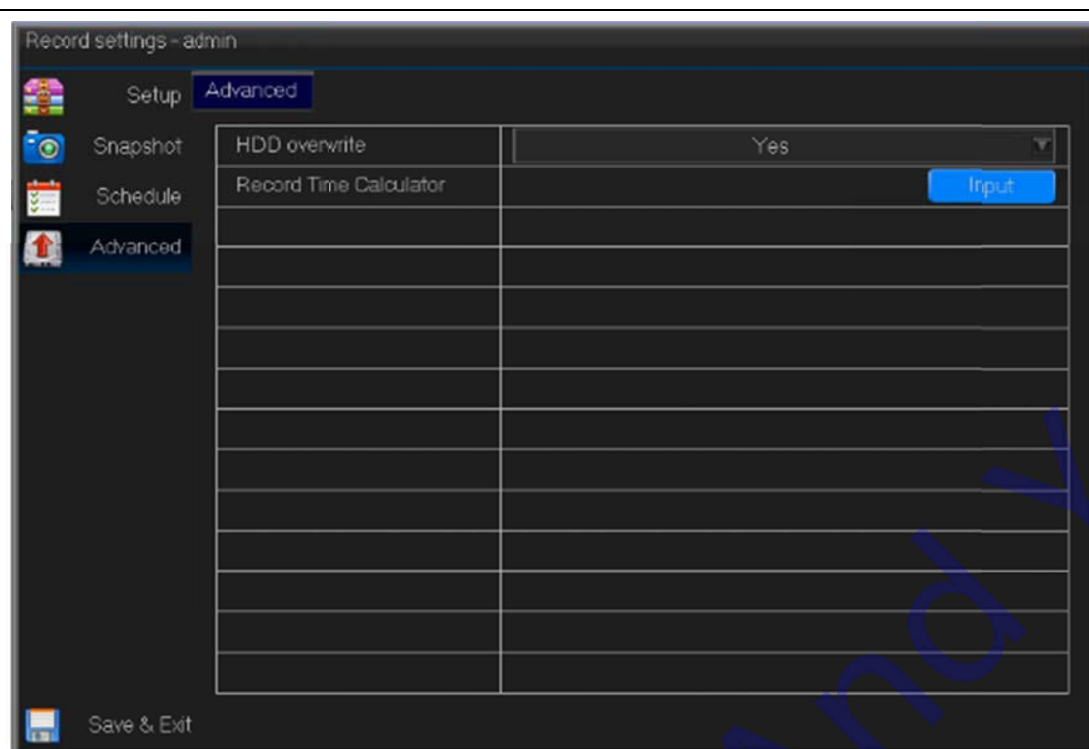


## Advanced configuration:

Recurrent writing: Whether the hard disk is in recurrent writing.

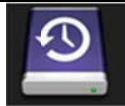
Video computer: Click the input button to calculate the recording time.







## 5.5 Disk management



(click to enter into the matched sub-menu)

|                        |                                                    |
|------------------------|----------------------------------------------------|
| Basic configuration    | Check all hard disks of DVR, which you can format. |
| Advanced configuration | S.M.A.R.T detection can check the disk condition.  |

### Basic configuration :

Reveal all hard disks on the DVR.



click this button to format hard disk.



### Advanced configuration:

After S.M.A.R.T detection, you can check the condition of hard disk.



HDD setup - admin

Basic Information

Advanced

S.M.A.R.T. ☒

HDD ID number 1

Details: ST2000DM001-1CH1 Serial NO.: W340B4NN

Firmware Version: CC29 Status: Warning

S.M.A.R.T.

| ID   | Attribute Name           | Threshold | Current | Worst | Raw Value | Status |
|------|--------------------------|-----------|---------|-------|-----------|--------|
| 0x1  | Read Error Rate          | 6         | 101     | 91    | 20840784  | OK     |
| 0x3  | Spin_UP Time             | 0         | 96      | 94    | 0         | OK     |
| 0x4  | Start/Stop Count         | 20        | 96      | 96    | 4582      | OK     |
| 0x5  | Reallocated Sector Count | 10        | 99      | 99    | 1264      | OK     |
| 0x7  | Seek Error Rate          | 30        | 65      | 51    | 14748364  | OK     |
| 0x9  | Power_On Hours           | 0         | 89      | 89    | 9823      | OK     |
| 0xa  | Spin Retry Count         | 97        | 100     | 100   | 0         | OK     |
| 0xc  | Power Cycle Count        | 20        | 100     | 100   | 413       | OK     |
| 0xb7 | 0xb7                     | 0         | 98      | 98    | 2         | OK     |
| 0xb8 | 0xb8                     | 00        | 100     | 100   | 0         | OK     |

Exit



## 5.6 Data Retrieval

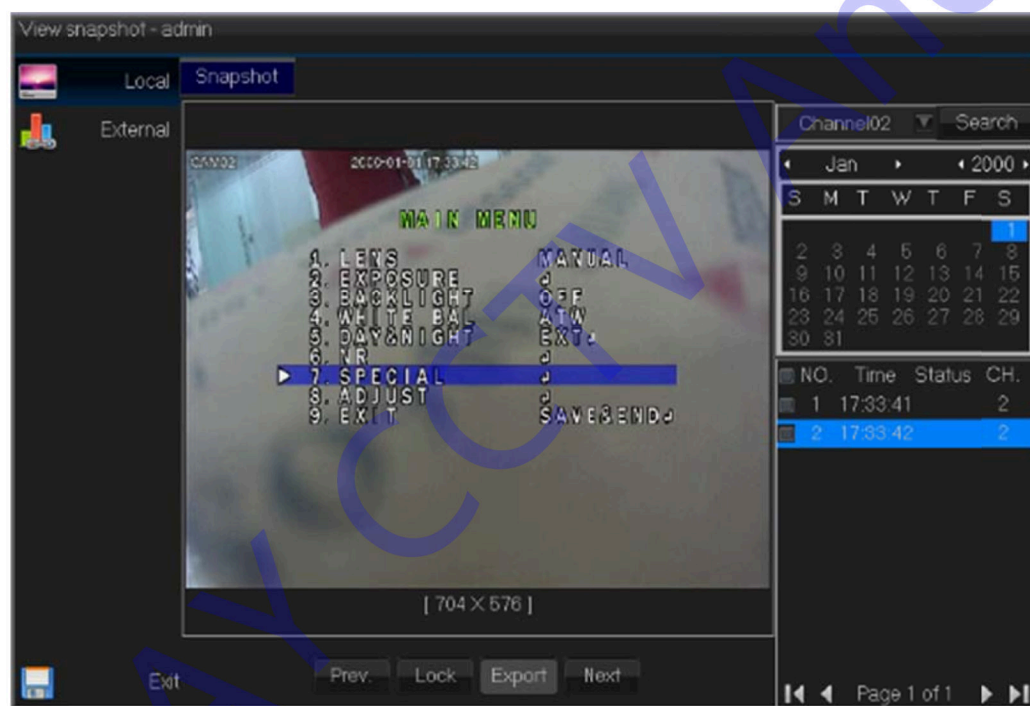


(click to enter into the matched sub-menu)

|               |                               |
|---------------|-------------------------------|
| Local image   | Retrieve DVR local screenshot |
| External file | Retrieve USB files            |

### Local image:

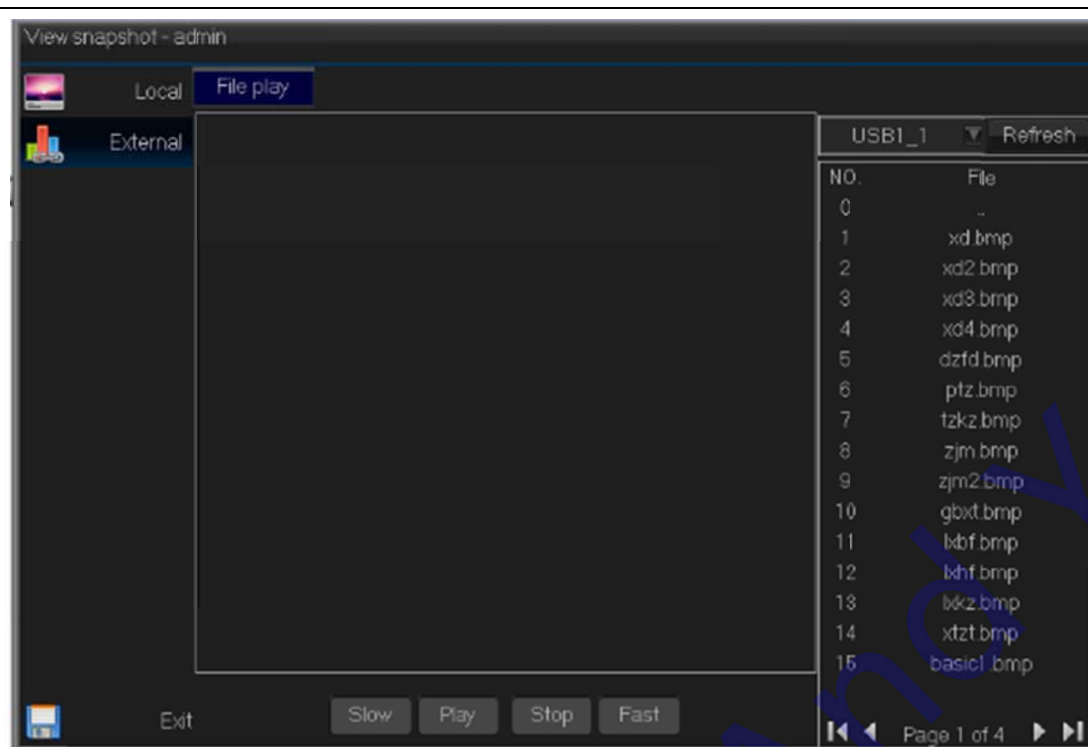
Can check the images inside of the equipment.(Click the pictures captured by main page screenshot button or playback screenshot button)



### External file:

Can read the file inside of USB and play the pictures and videos from the USB equipment.







## 5.7 System Maintenance



(click to enter into the matched sub-menu)

Description of sub-menu:

|                          |                                            |
|--------------------------|--------------------------------------------|
| System information       | Reveal equipment's system information      |
| Log information          | Check equipment's log information          |
| Configuration management | Backup/ recover setting of equipment       |
| Version upgrade          | Equipment software upgrade                 |
| Default configuration    | Equipment recover default setting          |
| Automatic maintenance    | Equipment maintain functions automatically |

### System information:

Reveal present system condition and information of DVR.

Basic information: Reveal equipment name, model NO and version.



Information - admin

|             |                     |                  |        |         |     |              |
|-------------|---------------------|------------------|--------|---------|-----|--------------|
| Information | DVR                 | Camera           | Record | Network | HDD | User On Line |
| Log         | DVR name            | 68               |        |         |     |              |
| Settings    | DVR model           | AHB-8008HFX      |        |         |     |              |
| Upgrade     | Serial number       | DVR5XA-183623892 |        |         |     |              |
| Default     | Software version    | 1.0.4-20151026   |        |         |     |              |
| Maintenance | Firmware version    | 1.0.4-20151026   |        |         |     |              |
|             | Video input number  | 8                |        |         |     |              |
|             | Audio input number  | 8                |        |         |     |              |
|             | Alarm input number  | 0                |        |         |     |              |
|             | Alarm output number | 0                |        |         |     |              |
|             | Disk ports          | 2                |        |         |     |              |
|             | Talk back           | Supported        |        |         |     |              |
|             |                     |                  |        |         |     |              |

Exit

Channel condition: Reveal the present conditions of all channels.

Information - admin


|             |     |              |               |            |         |              |
|-------------|-----|--------------|---------------|------------|---------|--------------|
| Information | DVR | Camera       | Record        | Network    | HDD     | User On Line |
| Log         | CH  | Channel name | Motion detect | Video loss | Mask    |              |
| Settings    | 1   | CAM01        | Enable        | Disable    | Disable |              |
| Upgrade     | 2   | CAM02        | Disable       | Disable    | Disable |              |
| Default     | 3   | CAM03        | Disable       | Disable    | Disable |              |
| Maintenance | 4   | CAM04        | Disable       | Disable    | Disable |              |
|             | 5   | CAM05        | Disable       | Disable    | Disable |              |
|             | 6   | CAM06        | Disable       | Disable    | Disable |              |
|             | 7   | CAM07        | Disable       | Disable    | Disable |              |
|             | 8   | CAM08        | Disable       | Disable    | Disable |              |


Exit


Video state: Reveal the present video states of all channels.





Information - admin


 Information


 Log

 Settings

 Upgrade

 Default

 Maintenance

 Exit

DVR

Camera

Record

Network

HDD

User On Line

| CH | Record | Record type   | Frame Rate | Main Stream (kbps) | Sub Stream (kbps) | Resolution |
|----|--------|---------------|------------|--------------------|-------------------|------------|
| 1  | Motion | Video & audio | 15fps      | 2784               | 68                | 1080P      |
| 2  | Plan   | Video & audio | 15fps      | 2724               | 69                | 1080P      |
| 3  | Close  | Video & audio | 15fps      | 174                | 21                | 1080P      |
| 4  | Close  | Video & audio | 15fps      | 175                | 21                | 1080P      |
| 5  | Close  | Video & audio | 15fps      | 176                | 21                | 1080P      |
| 6  | Close  | Video & audio | 15fps      | 178                | 21                | 1080P      |
| 7  | Close  | Video & audio | 15fps      | 175                | 21                | 1080P      |
| 8  | Close  | Video & audio | 15fps      | 178                | 21                | 1080P      |

Network condition: Reveal the network information of DVR, which involves DHCP condition and MAC address.

Information - admin

| Information | DVR           | Camera                | Record | Network | HDD | User On Line |
|-------------|---------------|-----------------------|--------|---------|-----|--------------|
| Log         | Interface     | 10M/100M Auto Adapter |        |         |     |              |
| Settings    | Enable DHCP   | Disable               |        |         |     |              |
| Upgrade     | IP address    | 192.168.1.222         |        |         |     |              |
| Default     | Subnet mask   | 255.255.255.0         |        |         |     |              |
| Maintenance | Gateway       | 192.168.1.1           |        |         |     |              |
|             | MAC address   | 6a:57:f5:0e:1f:2c     |        |         |     |              |
|             | Primary DNS   | 223.5.5.5             |        |         |     |              |
|             | Secondary DNS | 223.6.6.6             |        |         |     |              |
|             | PPPoE         | Disable               |        |         |     |              |
|             | DDNS          | Disable               |        |         |     |              |

Exit

Disk status: Reveal all present disks installed on DVR and display the status.




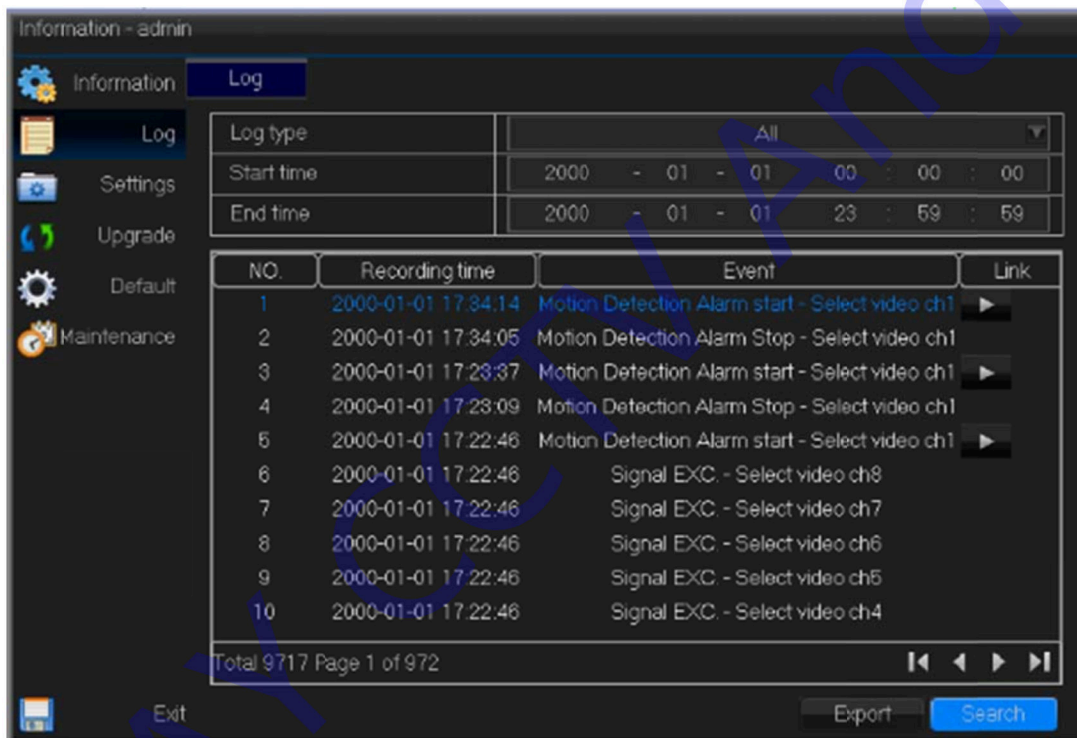




Can check operation, alarming and error messages of equipment.

1. Choose log type. (the default is all)
2. Choose start time and end time.
3. Click Query Button to inquire the log information.
4. If need backup, you can insert USB flash disk and click Export button, after recognized the USB flash disk, click Backup will be okay.

Note: It has easy operation here: The hint of motion detection alarm log, click the play button  and can playback the motion detection recording of this time directly.



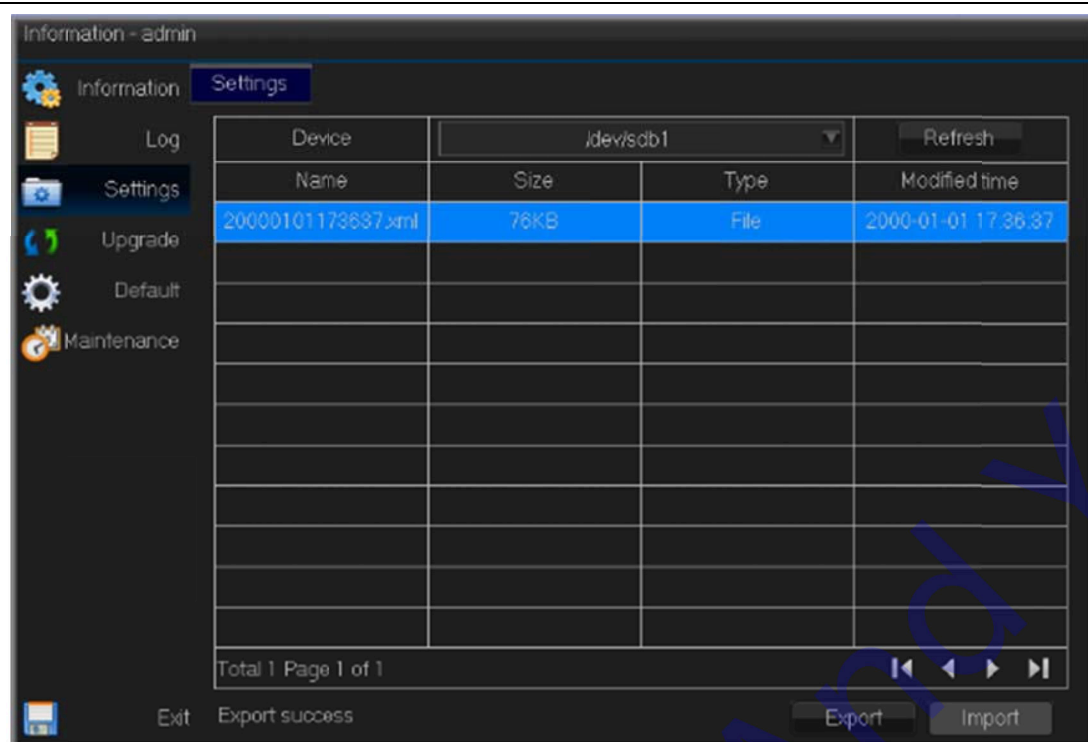
### Configuration management:

Can backup current device settings and recover setting backups of former device.

1. Insert USB flash disk and click export button, then you can export all current settings from DVR to USB flash disk.
2. Insert USB flash disk and pick on exported files, click import button and import the former exported setting data, the device will prompt to reboot after importing. DVR setting will be recovered as the imported setting data after restarted.

Note: USB flash disk need to be recognized, it should have backups before if you want to import. Please don't import or export between different devices.





#### Version upgrade:

Can make upgrading for device version, the left side upgrade button can reveal full name of selected files.

1. Can double-click the file to upgrade.
2. Can select the file with left-key and click upgrade button to make upgrading.

The equipment will reboot automatically after upgrade, which will remind error information of file if upgrade failure.

Note: USB flash disk need to be recognized and should have upgrade software inside. (Format the USB flash disk in advance will be better)







Note: IP address and user name won't recover to settings.

The device can restart the maintenance automatically in a certain time after enabling the feature.

Disable: Cannot use the function

Every week: Can set timing maintenance at single day, and set specific date maintenance from Monday to Sunday.

Once: This mode will become Forbidden mode after Single-pass maintenance.

The screenshot shows the 'Maintenance' tab selected in the left sidebar. The main area displays the following configuration:

|                  |                                            |
|------------------|--------------------------------------------|
| Maintenance Mode | Every week                                 |
| Weekly Schedule  | Disable<br>Every day<br>Every week<br>Once |
| Maintenance Time |                                            |
| Next Maintenance | 2000 - 01 - 08 00 : 00                     |

At the bottom right, there are 'Ok' and 'Cancel' buttons.



## Chapter 6 Appendix

### Frequently Asked Questions:

#### 1. Why cannot start when connect power ?

- Power adapter problems, change another one and try again.
- Low battery of adapter, please remove the hard disk and restart to examine.
- Hardware problems.

#### 2. Why no menu and image output after starting ?

Check the display device whether can work normally or not, or touch&hold [Fn] until menu appear.

#### 3. Why has “di-di-di-di” warning voice when opening new buy machine ?

- No have hard disk in DVR
- Have hard disk in DVR but no make initialization for hard disk.
- Broken hard disk.

If no need hard disk, please choose abnormal menu setting and remove No Linkage Sound Alarming from Error HDD; if installed HDD, please choose HDD management menu and initialize the hard disk; if the HDD is broken, please change another one.

#### 4. Why monitor no have response when operate remote control ?

Please refer to Chapter 3.4 for the right way to use remote control.

#### 5. Why cannot control the fast ball ?

- PTZ control function of the matched channel cannot work.
- RS-485 port cable connection is wrong.
- Fast ball decoder type is wrong.
- Fast ball decoder Baud Rate setting is wrong.
- Fast ball decoder address bit setting is wrong.
- RS-485 of main board is broken.



## **6. Why cannot record?**

- No initialization for HDD, please initialize HDD first.
- Video function cannot start or error configuration.
- HDD is full but no start circle function, please refer to chapter 6.1 for Video Configuration, or change another new initialized HDD and try again.
- Broken HDD, change new one.

## **7. How to input password and number?**

Mouse: The approaches of local machine to input password and number is clicking any space bar which need to input character, then keypad will pop-up automatically; user can choose letter and number to input arbitrarily. For example, input password, please click "Password" inputting bar, keypad will pop-up automatically.

Front panel or remote control: Move cursor to space bar which need to input character by front panel or remote control, then press [Enter] or [OK] to export virtual keyboard, user can choose letter or number to input arbitrarily.

## **8. Why the time become 2009-1-1 when start device next time?**

- Check the battery installed or not on main board.
- Check the battery power is exhausted or not, if exhausted, please change new battery