

4 Channel 960H High Performance
Standalone DVR with HDMI
1080p Output

User Manual



Statement:

This manual may contain several technical inaccuracies or typographical errors, or places that do not match the product. If you have any unsolved problems in the process of using product according to this manual, please contact our technical support department.

The content of this manual may be updated at irregular intervals without prior notice.

This manual is for reference only. DVR's functions and operations with different models may be different, please regard the actual product as the truth.

Caution:

- Please read this user manual carefully before using the DVR, and keep it well for future reference.
- Please comply with all instructions and notice that all warning signs.
- Must observe all electrical safety standards; make sure the power supply voltage is correct before using the DVR.
- Please avoid heavy stress or violent vibration.
- To reduce the risk of fire or electrical shock, do not expose this product near the water, moisture or dust.
- Do not install this device near any heat sources such as radiators, heat registers, stoves or other device that produce heat.
- Do not block any ventilation openings and provide good ventilation around the machine.
- Please disconnect any cables during an electrical storm or the DVR will not be used for an extended period of time.
- If cleaning is necessary, use a clean, dry cloth and wipe it gently.
- If the product does not work properly, please contact your dealer or the nearest service center. Never attempt to disassemble the DVR yourself.
- Do not power off the DVR when the device is working. The correct procedure to shut down DVR is to stop recording firstly, and then use "Shut Down" button from the menu, and finally switching off the main power.

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Chapter 1 Product Introduction

1.1 Overview

This model of DVR (Digital Video Recorder) is designed for high performance CCTV solutions. It adopts state of the art video processing chips and embedded Linux system. Meanwhile, it utilizes most advanced technologies, such as standard H.264 with low bit rate, Dual stream, HDMI interface, SATA interface, VGA output, mouse supported, IE browser supported with full remote control, mobile view(by phones), etc., ensuring powerful functions and high stability. Due to these distinctive characteristics, it is widely used in banks, telecommunication, transportation, factories, warehouse and other related applications.

1.2 Main Features

COMPRESSION FORMAT

- Standard H.264 compression with low bit rate and better image quality

LIVE SURVEILLANCE

- Support HDMI 1080P output
- Support channel security by hiding live display
- Display the local record state and basic information
- Support USB mouse to make full control

RECORD MEDIA

- Support a SATA HDD to record (HDD file system is FAT32 format) for a longer time without any limitation

BACKUP

- Support USB 2.0 devices to backup
- Support saving recorded files to a remote computer through internet

RECORD & PLAYBACK

- Record modes: Manual, Schedule, Motion detection and Sensor alarm recording
- Support recycle after HDD full
- Support high-definition 1080P video output, and D1/960H video recording
- Resolution, frame rate and picture quality are adjustable
- 4 audio channels available
- Support multi-channel playback simultaneously
- Support deleting and locking the recorded files one by one
- Three record search mode: time search, event search and image search
- Support remote playback in Network Client through LAN or internet

ALARM

- Support multi-channel alarm input and alarm output available
- Support schedule for Motion detection and Sensor alarm
- Support pre-alarm recording and post-alarm recording
- Support linked channels recording once motion or alarm triggered on certain channel
- Support linked PTZ preset, auto cruise and track of the corresponding channel
- Support linked snap picture
- Support linked send alarm email

PTZ CONTROL

- Support various PTZ protocols
- Support 128 PTZ presets and 8 auto cruise tracks
- Support remote PTZ control through internet

SECURITY

- Customize user right: log search, system setup, shut down, two way audio, file management, disk management, remote login, live view, manual record, playback, backup, PTZ control and remote live view
- Support 1 administrator and 63 users
- Support event log recording and checking

NETWORK

- Support TCP/IP, DHCP, PPPoE, DDNS protocol
- Support IE browser to do remote view
- Support setup client connection amount
- Support dual stream. Network stream is adjustable independently to fit the network bandwidth and environment
- Support picture snap and color adjustment in remote live
- Support remote time and event search, and channel playback with picture snap
- Support remote PTZ control with preset and auto cruise
- Support remote full menu setup, changing all the DVR parameters remotely
- Support mobile surveillance by Iphone, Ipad and Android phone
- Support CMS to manage multi devices on internet

Chapter 2 Installation Guide

2.1 Open-package Check

When you receive the DVR, please check the unit and the accessories:

First, please check whether there is any visible damage to the package appearance. The protective materials used for the package of the DVR can protect most accidental clashes during transportation.

Then, please open the box and get rid of the plastic protective materials. Check whether there is any visible damage to the DVR appearance.

At last, please open the machine crust and check the data wire, power wire, the connection between the fan power and the main board.

Front panel and rear panel

- ◆ The key function specification in the front panel and the interface specification in the rear panel are in the user manual.
- ◆ Please check the product type in the front panel whether is accordant with the product type you order.

Notice:

- 1. The label in the rear panel is very important for the after-sale services. Please protect it carefully. When you contact us for after-sale service, please provide the product type and serial number in the label.***
- 2. Please disconnect the power before being connected to other devices. Don't hot plug in/out.***

2.2 Install Hard Drive

Notice:

- 1. This series support a SATA hard drive. Please use the hard drive recommended by the manufacturers for security and safe field. Please refer to “Appendix C Compatible Devices 2”.**
- 2. Please calculate HDD capacity according to the recording setting. Please refer to “Appendix B Calculate Recording Capacity”.**

Step1: Disassemble the screw and open the top cover.

Step2: Connect the power and data cables. Place the HDD onto the bottom case as Fig 2-1.

Step3: Mount the HDD.



Fig 0-1 Connect HDD



Notice:

- 1. For installation convenience, please connect the power and data cables first, and then wind the screws to fix the HDD.**
- 2. After the hard drive installation is complete, user needs to format the HDD before using.**

2.3 Front Panel Description

Note: The front panel descriptions are only for reference; please make the object as the standard.

The descriptions of front panel interface are shown as follows:

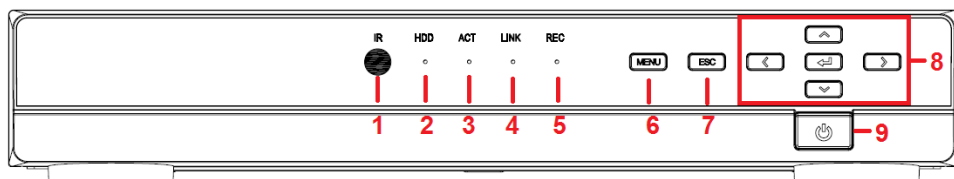


Fig 0-2 Front Panel

Item	Name	Description
1	IR	Receive the signal of remote controller.
2	HDD	Hard disk status indicator. When HDD is writing or reading, the light is white.
3	ACT	Network data indicator. When exchanging data in the network, the light is white.
4	LINK	Network connection indicator. When the network connection is successful, the light is white.
5	REC	Recording status indicator. When recording, the light is white.
6	MENU	Enter menu mode.
7	ESC	Return to the previous menu or interface.
8	Direction and Enter	Direction keys: change direction to select items.
		Enter key: confirm selection.
9	Power	Power on/off the DVR.

2.4 Rear Panel Description

Note: The rear panel descriptions are only for reference; please make the object as the standard.

The descriptions of rear panel interface are shown as follows:

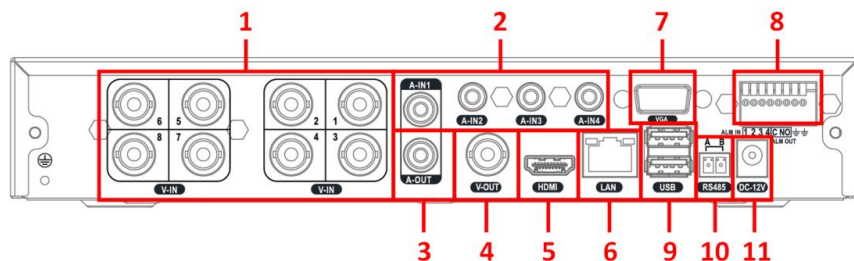


Fig 0-3 Rear Panel

Item	Name	Description
1	V-IN	Video signal input.
2	A-IN	Audio input: connect to pickup and other audio collecting equipment.
3	A-OUT	Audio output: connect to sound box and other audio output equipment.
4	V-OUT	CVBS video signal output: connect to monitor with BNC interface.
5	HDMI port	HD 1080P video signal output: connect to high-definition display.
6	LAN port	Network connector.
7	VGA port	VGA output: connect to monitor.
8	ALM IN	Alarm input: connect to external alarm sensor.
	ALM OUT	Alarm output: connect to external alarm output device.
	GND	Grounding
9	USB port	USB connector: connect to USB mouse, USB disk, mobile HDD, etc.
10	RS-485	RS-485 communication port: connect to PTZ, keyboard, etc.
11	DC 12V	Power input: DC 12V

2.5 Remote Controller

The remote controller of this product series uses two AAA size batteries and works after loading batteries:

Step1: Open the battery cover of the remote controller

Step2: Place batteries. Please take care the poles (+ and -)

Step3: Replace the battery cover



Notice: Frequently defect checking as following:

1. Check batteries poles
2. Check the remaining charge in the batteries
3. Check IR controller sensor is mask

If it still doesn't work, please change a new remote controller to try, or contact your dealers.

The interface of remote controller is shown in Fig 2-4:

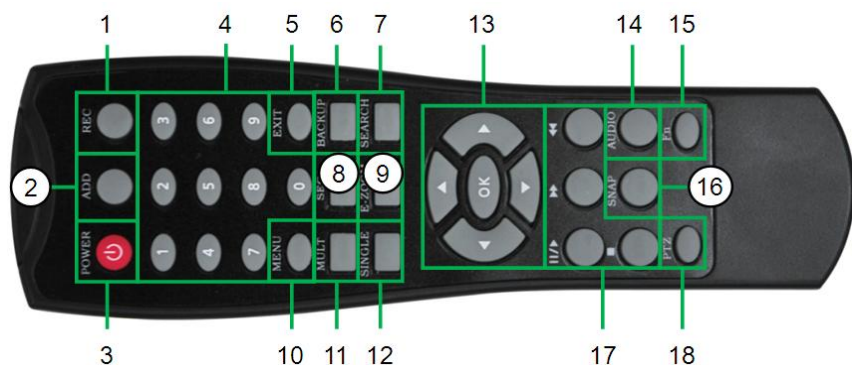


Fig 0-4 Remote Controller

Item	Name	Function
1	REC Button	To start the manual recording.
2	ADD Button	Input the number of DVR to control it.
3	POWER Button	To turn on/off the device.
4	Digital Button	Code input/number input/channel switch.
5	EXIT Button	Return to the previous interface.
6	BACKUP Button	To enter the backup mode.
7	SEARCH Button	To enter the video playback interface.
8	SEQ Button	To enter the auto dwell mode.

Item	Name	Function
9	E-ZOOM Button	To electronic amplify the single channel.
10	MENU Button	To enter the sub menu.
11	Multi Screen Button	To choose multi-screen display mode.
12	Single Screen Button	To choose single -screen display mode.
13	Direction and Enter Button	Direction Button: move cursor to select items. Enter Button: confirm the selection.
14	AUDIO Button	To enter the audio adjustment interface.
15	Fn Button	Reserved function keys.
16	SNAP Button	To snap the live pictures.
17	Playback Control Button	To control playback, pause/play, single-frame play, rewind, stop, fast forward.
18	PTZ Button	To enter the PTZ control interface.

Operation processes with remote controller to control multi-DVR

The default device ID of the DVR is 0. When using a remote controller to control single DVR, it's not necessarily to reset the device ID, user can do operation directly; when using a remote controller to control multiple DVR, please refer to below steps:

Step1: Activate remote controller to control DVR: enable DVR, turn the IR sensor of the remote controller to the IR receiver that on the front panel, press "add" key and then input device ID (Range from: 1-65535) with other digital keys, after that, press ENTER button to confirm.

Step2: User can check the device ID by enter into System configuration→Basic configuration→device ID. User also can set other DVRs with the same device ID. For more convenient to operate, we don't recommend user to set the device ID too long.

Step3: Cancel controller to control DVR: without any action on keys about half a minute later, the DVR will not be controlled by remote controller.

2.6 Control with Mouse

2.6.1 Connect Mouse

It supports USB mouse through the USB ports.

Note: *If mouse is not detected or doesn't work, user can change a mouse to try.*

2.6.2 Use Mouse

In live: Double-click left button on one camera to be full screen display. Double-click again to return to the previous screen display.

Click right button to show the control menu at the bottom right of cursor. Here are all control and setup. Click right mouse again to hide the control menu.

In setup: Click left button to enter.
Click right button to cancel setup, or return to the previous.

If want to input the value, move cursor to the blank and click. An input window will appear as Fig2-5. It supports digitals, letters and symbols input.

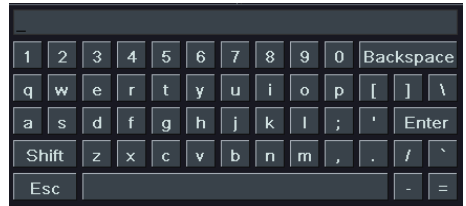


Fig 0-5 Input Window

It supports drag mouse. I.e. Set motion detection area: click customized, hold left button and drag to set motion detection area.

In playback: Click left button to choose the options. Click right button to return to live mode.

In backup: Click left button to choose the options. Click right button to return to previous picture.

In PTZ control: Click left button to choose the buttons to control the PTZ. Click right button to return to live mode.

Note: *Mouse is the default tool in all the operation below unless exceptional indication.*

Chapter 3 Basic Function Instruction

3.1 Power On/Off

3.1.1 Power On


Before you power on the unit, please make sure all the connection is good.

Step1: connect with the source power; switch on the power button near the power port in the rear panel.

Step2: the device will be loaded, and the power indicator will display red.

Step3: a WIZARD window will be pop-up and show some information about device name, language, date and time, network, record, etc.

User can setup here and refer to the setup steps from the corresponding chapters. If users don't want to setup Wizard, please click Exit button and enter into the login interface.

 **Notice:** *This series can only display menu on VGA monitor, BNC monitor or HDMI monitor at the same time. After the device power on, if there is live image display without menu display, please check up whether other device has menu display firstly, or long press Exit /ESC button to switch the output among BNC, HDMI and VGA.*

3.1.2 Power Off

User can power off the device by using remote controller, keyboard and mouse

➤ **By remote controller:**

Step1: press Power button of remote controller to pop up Shut Down window.

Step2: click OK, the unit will power off after a while.

Step3: disconnect the power.

➤ **By mouse:**

Step1: enter into Main Menu and select Shut Down button to pop up Shut Down

window.

Step2: click OK, the unit will power off after a while.

Step3: disconnect the power.

3.2 Login

User can login and logout the DVR system. User cannot do any other operations except changing the multi-screen display once logout.

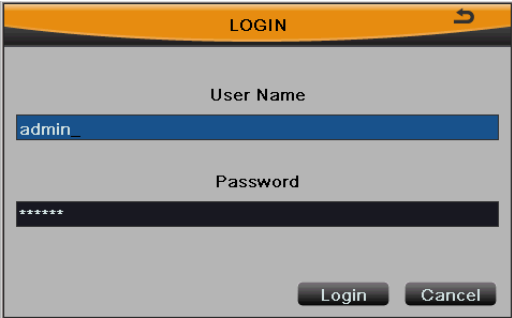





Fig 3-1 Login

Notice:

-  **The default user name and password is “admin” and blank.**
-  **The operation steps for change password, add or delete user: please refer to 4.8 User Management Configuration for more details.**
-  **User permissions can be customized. Only administrators can customize other user's permissions. The user name and password consists of numbers, letters or symbols (1~32 characters).**

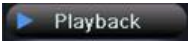
3.3 Live Preview



Fig 3-2 live preview interface

Symbol	Meaning
Green	Manual record
Yellow	Motion detection record
Red	Alarm record
Blue	Schedule record

3.4 Live Playback

Click  of control menu to playback the record, refer to Fig3-3. User can click the relevant buttons on the screen to do operation.

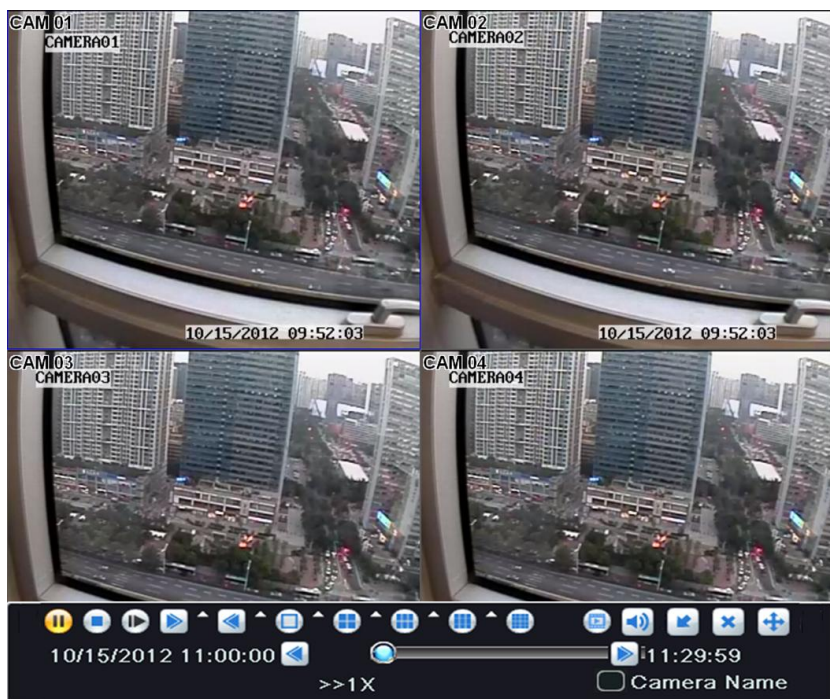


Fig 3-3 live playback

Chapter 4 Main Menu Setup Guide

4.1 Control Menu

Right click to display the control menu, refer to Fig 4-1:

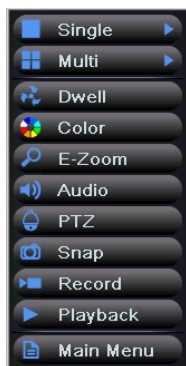


Fig 4-1 control menu

Single: Click this button to pop up the single channel selection box.

Multi: Click this button to pop up the multi-channel selection box. The range of options synchronizes with configured device. Images can be dragged to any place to display in the live interface.

Dwell: Display the preview pictures in the dwell mode. The range of options synchronizes with configured device. Only take effect on when user has selected channel grouping and preview mode cannot display all channels.

Color: Click this button, select channel and adjust the brightness, hue, saturation and contrast of live pictures. Click “Default” button to resort default setting; click “Save” button to save the setting.

E-Zoom: Zoom in to the video of channel (optional), double click the left button or click the right button to return to the previous interface.

Audio: Open or close the live sound of channel (optional), and adjust the volume.

PTZ: Control PTZ rotational position and speed; zoom, focus and iris are adjustable; run the preset, cruise and auto scan.

Snap: Click this button to snap current image.

Record: Click this button to record current video.

Playback: Click this button to playback the recorded files; click the relevant buttons on the screen to control playback.


Main Menu: Click  Main Menu button to pop up the window shown in Fig 4-2; then click Setup button to pop up the window shown in Fig 4-3.



Fig 4-2 main menu



Fig 4-3 setup menu

Press MENU button on the front panel or operate with remote controller also can display the main menu.

SETUP configuration includes nine submenus: basic, live, record, schedule, alarm, network, users, P.T.Z and advanced.

Note: When switching among BNC, VGA and HDMI, it will change the menu output mode, please connect to the corresponding device for control.

Language: Select the menu language; built-in multi-languages.

Note: Change the language or video output, the device needs to login again.

Screensaver[S]: Set the screensaver interval time. If there is no any operation within the period specified, the device will automatically logout and return to login interface.

Startup Wizard: Enable this option to display a wizard window when powered up for the next time.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

4.2.2 Date & Time

Enter into Main Menu→Setup→Basic→Date & Time; refer to Fig 4-5:

User can set the date format, time format and time zone; enable “Sync Time With NTP Server” and click “Update Now” button to synchronize device time with NTP server (optional); or manually set the device time and click “Save Now” button.



Fig 4-5 basic configuration-date & time

Note: Time zone is GMT by default; please select your local time zone in the drop-down box, such as GMT+8:00.

Click “Default” button to restore the default setting; click “Apply” button to save the

setting; click “Exit” button to exit current interface.

4.2.3 DST

Enter into Main Menu→Setup→Basic→DST; refer to Fig 4-6:

Enable “Daylight Saving Time”, and set time offset, mode, start & end time.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

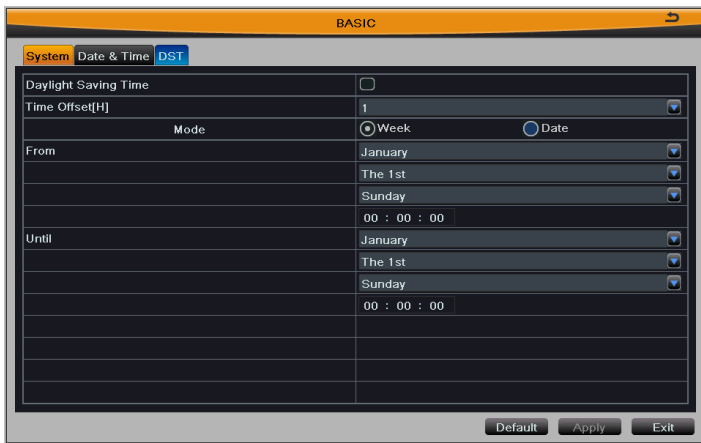


Fig 4-6 basic configuration-DST

4.3 Live Configuration

Live configuration includes three submenus: live, main monitor and mask.

4.3.1 Live

Enter into Main Menu→Setup→Live→Live; refer to Fig 4-7:

Camera Name: Click camera name to pop up a soft keyboard, click Shift button to switch the input state, user can self-define the channel name.

Color: Click “Setting” button to display a window as Fig 4-8. User can adjust the

brightness, hue, saturation and contrast of channel video, click “default” button to resort default setting; click “OK” button to save the setting.

All: Tick off “all” and then do relevant setup, user can set all channels with same parameters.

Live Rec Status: Tick off it, the upper left corner of the screen will appear a status icon when manual recording or trigger recording.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.



Fig 4-7 live configuration-live



Fig 4-8 live-color adjustment

4.3.2 Main Monitor

Enter into Main Menu→Setup→Live→Main Monitor; refer to Fig 4-9:



Select the display mode (synchronize with configured device); set the channel combination of current picture group, click  or  button to set the previous/ latter channel groups of dwell picture; set dwell time: the time interval for a certain dwell picture display switching to next dwell picture display.



Fig 4-9 live configuration-main monitor

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

4.3.3 Mask

Enter into Main Menu→Setup→Live→Mask, user can set private mask area on the live image, refer to Fig 4-10:



Fig 4-10 live configuration-mask

Set mask area: Click “Setting” button, then click and drag cursor to set the privacy

area of video image. An image can be entirely or partially masked, it supports 4 areas (superposable) at maximum. Click right mouse to return to the previous interface. Refer to Fig 4-10(a) and Fig 4-10(b):

Delete mask area: Select a certain mask area, double click left mouse to delete that area, click right mouse to return to previous interface.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

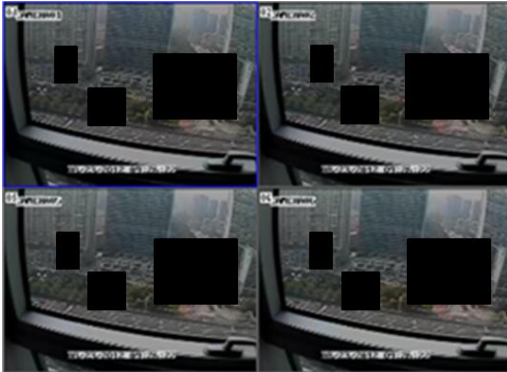


Fig 4-10(a) Setup mask area



Fig 4-10(b) Live image mask area

4.4 Record Configuration

Record configuration includes six submenus: enable, record bitrate, time, stamp recycle record and snap.

4.4.1 Enable

Enter into Main Menu→Setup→record→enable; refer to Fig 4-11:

Tick off “Record” and “Audio” to open the record and audio switch of every channel.

Tick off “all” and then do relevant setup, user can set all channels with same parameters.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.



Fig 4-11 record configuration-enable

4.4.2 Record Bitrate

Enter into Main Menu→Setup→record→record bitrate; refer to Fig 4-12:



Fig 4-12 record configuration-record bitrate

Set the resolution, frame rate, encode, quality and max bitrate.

Tick off “all” and then do relevant setup, user can set all channels with same parameters.

Click “Default” button to restore the default setting; click “Apply” button to save the

setting; click “Exit” button to exit current interface.

Note: *If frame rate surpasses the maximum resources of device, the value will be adjusted automatically.*

Parameter	Meaning
Resolution	The range of options: synchronize with configured device, such as CIF
Fps	Range from 1~30 (NTSC) or 1~25(PAL) (Resolution and frame rate are determined by the parameter specifications of specific type)
Encode	Two options: VBR and CBR
Quality	The higher the grade is, the clearer the recorded image is. Six grades: lowest, lower, low, medium, higher and highest.
Max Bitrate	The range of options: synchronize with configured device, such as 256~2048kbps

4.4.3 Time

Enter into Main Menu→Setup→record→time; refer to Fig 4-13:



Fig 4-13 record configuration-time

Pre-alarm Record Time: Alarm signal needs a little time to process and trigger recording, it may not record some important information before alarm activation. This function can save pre-recording and improve monitoring reliability. Set the record time before event happen (motion detection or sensor alarm).

Post-alarm Record Time: Set the delay time to stop the record after the alarm is finished.

Expire [Days]: The hold time of recorded files. If the recorded files are overdue, they will be deleted automatically.

Tick off “all” and then do relevant setup, user can set all channels with same parameters.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

4.4.4 Stamp

Enter into Main Menu→Setup→record→stamp; refer to Fig 4-14:



Fig 4-14 record configuration-stamp

Tick off Camera Name, Time Stamp to overlap the camera name and time stamp on video.

Click “Setting” button, then drag the camera name and time stamp in random position. Please refer to below Fig 4-14(a) and Fig 4-14(b):

Tick off “all” and then do relevant setup, user can set all channels with same parameters.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.



Fig 4-14(a) Before drag



Fig 4-14(b) After drag

4.4.5 Recycle Record

Enter into Main Menu→Setup→record→recycle record.

When the storage space is full, “Recycle Record” will cover the earliest storage files and keep recording, otherwise it will stop recording and generate alarm automatically.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

Note: The space size of recorded files is mainly determined by the image quality, frame rate and resolution, the higher their parameter settings, the greater the disk space required.

4.4.6 Snap

Enter into Main Menu→Setup→record→snap.

In this interface, user can set up the resolution, quality, snap time interval and snap number of snap pictures.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

4.5 Schedule Configuration

Enter into Main Menu→Setup→schedule. Schedule configuration includes four

submenus: schedule, motion, sensor and reboot the system; refer to Fig 4-15:

4.5.1 Schedule

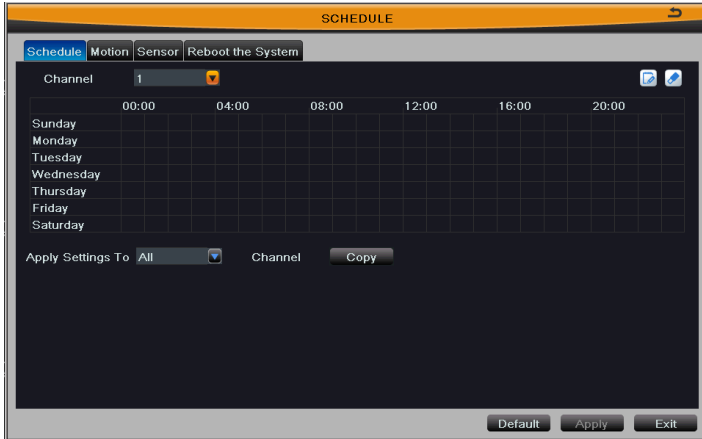





Fig 4-15 schedule configuration-schedule

The column means the seven days of a week from Monday to Sunday; the row means 24 hours of a day.

Step1: Select channel;

Step2: Click  button, then click and drag cursor to add recording time in the grid area; click  button, then click and drag cursor to delete recording time. Blue means selected area, black means unselected area.

Step3: Double-click the grid area and a dialog box will pop-up; user can edit week schedule of recording, refer to Fig 4-16:

Select a week day; click “Add” button, then set the start & end time of recording plan, click  to add a certain day schedule; select a plan in the week schedule list, click “Delete” button to delete the selected plan.

You can copy and apply time settings to the other date or every day. Click “Copy” button to copy the specified day schedule to other dates.

Click “OK” button to save the setting, click “Exit” button to exit current interface.

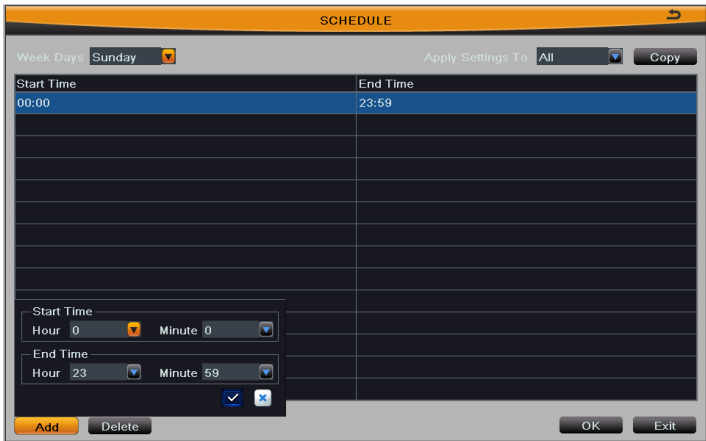


Fig 4-16 schedule configuration-week schedule

Step4: User can copy and apply channel settings to the other channel or all channels. Click "Copy" button to copy the specified channel schedule to other channel.

Step5: Click "Default" button to restore the default setting; click "Apply" button to save the setting; click "Exit" button to exit current interface.

4.5.2 Motion

The interface of motion detection configure is shown in Fig 4-17:

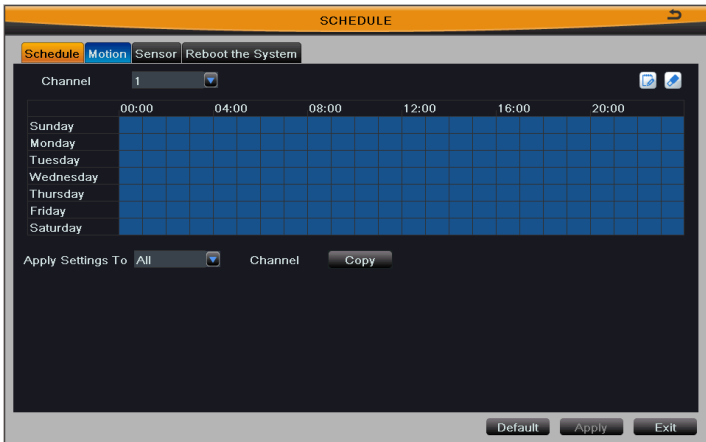


Fig 4-17 schedule configuration-motion

The setup steps of motion are familiar with schedule; user can refer to 4.5.1 Schedule for details.

Note: *The default schedule of motion detection is full-selected, that is, the color of schedule setting interface is blue.*

4.5.3 Sensor

The interface of sensor alarm configure is shown in Fig 4-18:

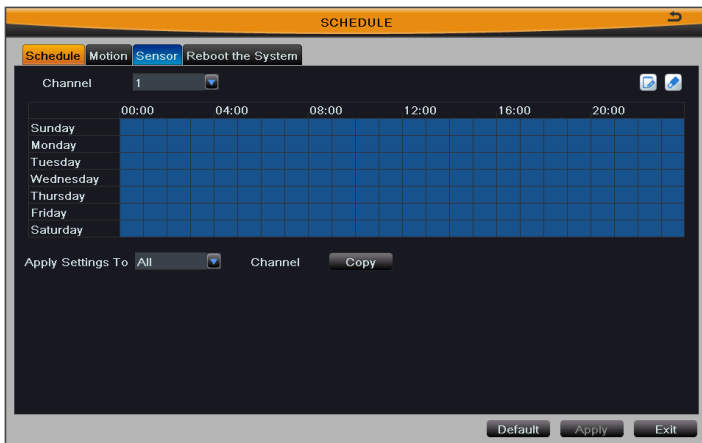


Fig 4-18 schedule configuration-sensor

The setup steps of sensor are familiar with schedule; user can refer to 4.5.1 Schedule for details.

Note: *The default schedule of sensor alarm is full-selected, that is, the color of schedule setting interface is blue.*

4.5.4 Reboot the System

The interface of timing reboot configure is shown in Fig 4-19. User can open the timing reboot function of device, set reboot date and time, it supports 3 time configuration.

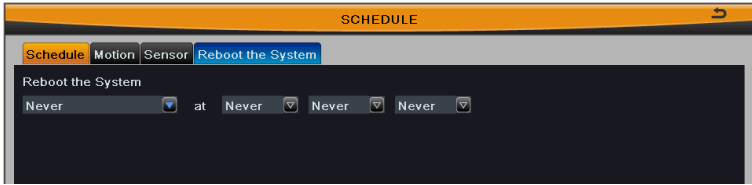


Fig 4-19 schedule configuration-reboot the system

4.6 Alarm Configuration

Enter into Main Menu→Setup→alarm. Alarm configuration includes five submenus: sensor, motion, video loss, other alarm and alarm out.

4.6.1 Sensor

Sensor includes three submenus: basic, alarm handling and schedule.

① Basic

Refer to Fig 4-20. User can enable sensor alarm of alarm input; select the alarm type according to alarm trigger type: N.O. (normally open) and N.C. (normally closed).

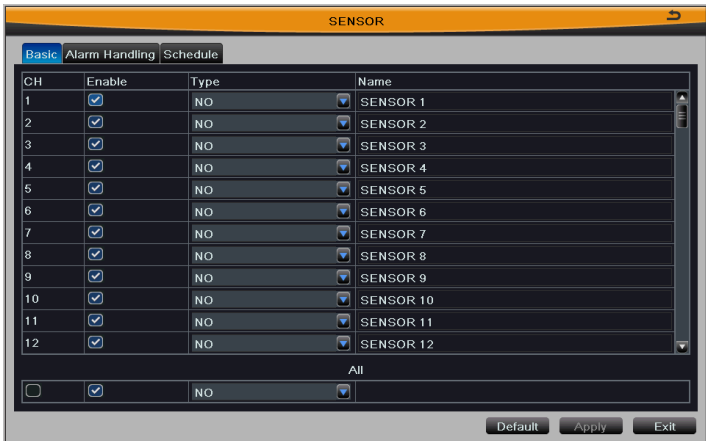


Fig 4-20 alarm configuration-sensor-basic

Tick off “all” and then do relevant setup, user can set all channels with same

parameters.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

② Alarm Handling

Refer to Fig 4-21. Select the holding time of sensor alarm; click “Setting” button to pop up a window, refer to Fig 4-22:

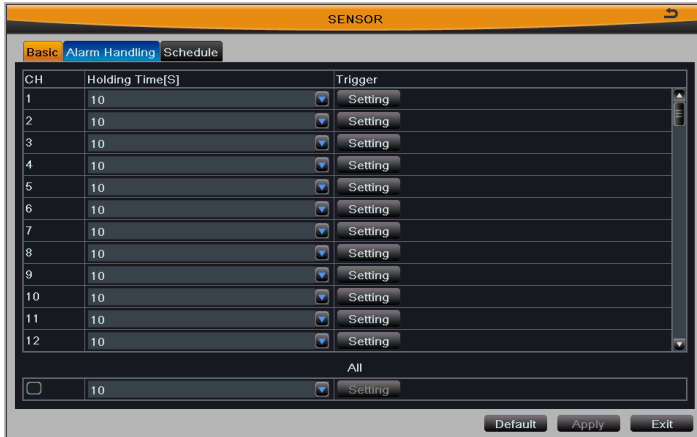


Fig 4-21 alarm configuration-sensor-alarm handling



Fig 4-22 alarm handling-trigger

Buzzer: After selecting Buzzer alarm, there will be triggered the buzzer buzzing when alarm is triggered;

Show Full Screen: Pop up full screen of channel video (optional) when alarm is triggered;

To Alarm Out: Linkage specified alarm output with built-in relay when alarm is triggered.

Email: Enable this function, the information of sensor alarm will be sent to mailbox. The notification email can contain text messages and images.

To Snap: Linkage specified channel to capture the image when alarm is triggered. If user enable the Email function, these pictures will be sent to user's designed email box.

To Record: Linkage specified channel to record the video when alarm is triggered.

To P.T.Z: Set the action type of linkage PTZ when alarm is triggered: no, preset, cruise and track; refer to Fig 4-23. Click OK button to save the setting; click Exit button to exit the current interface.



Fig 4-23 alarm handling-to PTZ

Tick off "all" and then do relevant setup, user can set all channels with same parameters.

Click "Default" button to restore the default setting; click "Apply" button to save the setting; click "Exit" button to exit current interface.

③ Schedule

The detecting schedule of sensor alarm is shown in Fig 4-24.

The setup steps of detecting schedule are familiar with schedule; user can refer to

4.5.1 Schedule for details.

Note: The default schedule of sensor alarm is full-selected, that is, the color of schedule setting interface is blue.

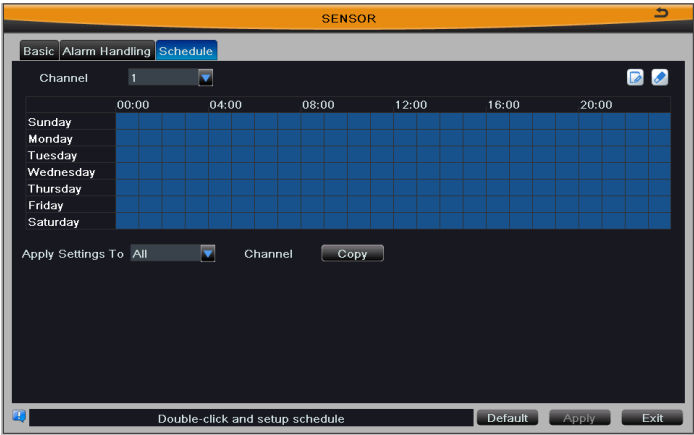


Fig 4-24 alarm configuration-sensor-schedule

4.6.2 Motion

Motion includes two submenus: motion and schedule.

① Motion

The interface of motion detection configure is shown in Fig 4-25.



Fig 4-25 motion-motion

Step1: Enable motion detection alarm; select the alarm holding time.

Step2: Click “Setting” button of motion trigger to pop up a window, as shown in Fig 4-26. The setup steps of motion trigger are familiar with sensor alarm handling; user can refer to Chapter 4.6.1 Sensor→alarm handling for more details.

Step3: Click “Setting” button of motion area to pop up a window, as shown in Fig 4-27:

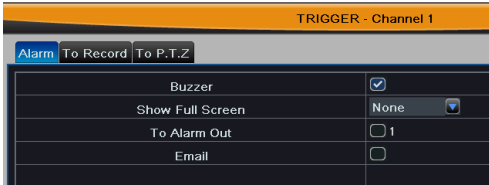


Fig 4-26 motion-trigger setting



Fig 4-27 motion-area setting

Due to the sensitivity is influenced by color and time (day or night), user can drag slider to adjust the sensitivity of motion detection (1-8) according to the practical situation.

Click button to set the whole area as detection area; click button to clear detection area; click button to test whether the sensitivity and motion area are suitable; click button to save the setting; click button to exit current interface.

Step4: Tick off “all” and then do relevant setup, user can set all channels with same parameters.

Step5: Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

② Schedule

The schedule of motion detection is shown in Fig 4-28.

The setup steps of motion detection schedule are familiar with schedule; user can refer to 4.5.1 Schedule for details.

Note: *The default schedule of sensor alarm is full-selected, that is, the color of schedule setting interface is blue.*

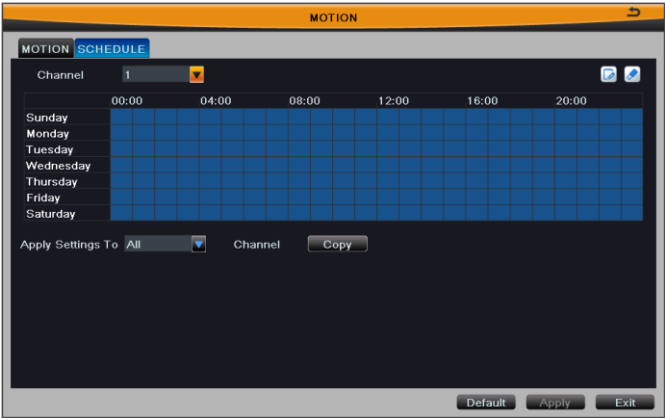


Fig 4-28 motion-schedule

4.6.3 Video Loss

The interface of video loss configure is shown in Fig 4-29. Click “Trigger” button to pop up a window, as shown in Fig 4-30, the setup steps of trigger are familiar with sensor alarm handling; user can refer to Chapter 4.6.1 Sensor→alarm handling for more details.



Fig 4-29 alarm configuration-video loss

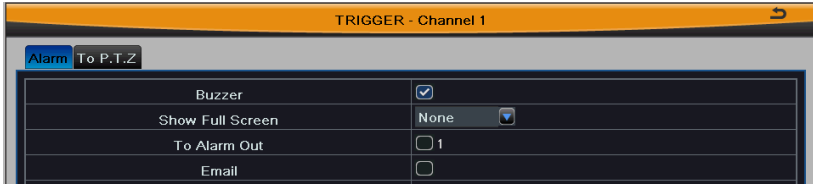


Fig 4-30 video loss-trigger

4.6.4 Other Alarm

Step1: Refer to Fig 4-31, select the alarm type, set the trigger options. When the selected alarm is triggered, it will trigger the relevant alarm.



Fig4-31 alarm configuration-other alarm

Select "Disk Full": set a threshold value for remaining HDD space. If the threshold value is reached, the system will display prompt.

Select "IP Conflict": when IP address conflict with other network device's IP address on the same segment, the system will trigger alarm prompt if you have set the trigger options.

Select "Disconnect": the system will trigger alarm prompt if you have set the trigger options when disconnected from the network.

Select "Disk Attenuation Warning": trigger the relevant alarm when HDD is bad.

Select "Disk Lost": trigger the relevant alarm when HDD dropped off.

Step2: Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

4.6.5 Alarm Out

Alarm out includes three submenus: alarm out, schedule and buzzer.

① alarm out

Refer to Fig 4-32, user can self-define relay name and select holding time of alarm out. Tick off “all” and then do relevant setup, user can set all channels with same parameters.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

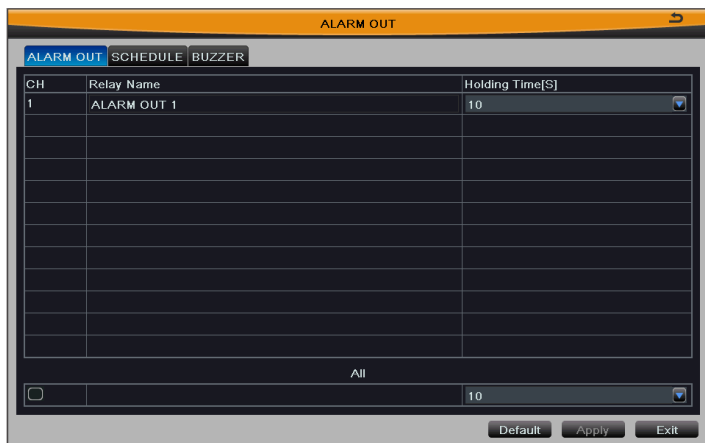


Fig4-32 alarm configuration-alarm out

② Schedule

The detecting schedule of alarm out is shown in Fig 4-33.

The setup steps of alarm out schedule are familiar with schedule; user can refer to 4.5.1 Schedule for details.

Note: The default schedule of alarm out is full-selected, that is, the color of schedule setting interface is blue.

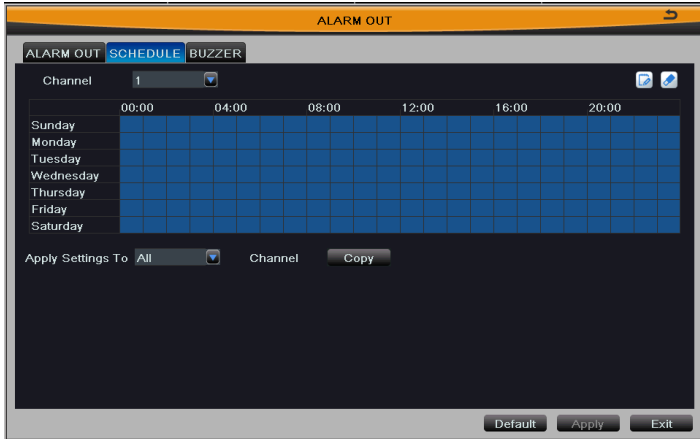


Fig4-33 alarm configuration-schedule

③ Buzzer

Tick off “Buzzer” to turn on the switch of alarm sound, set buzzer alarm hold time. It will trigger the sound alarm when alarm is triggered.

4.7 Network Configuration

Enter into Main Menu→Setup→Network. Network configuration includes five submenus: network, sub-stream, Email, WIFI setup and other settings.

4.7.1 Network

Refer to Fig4-34, user can set the device's HTTP port and server port. If DHCP function of router is enabled, selecting “Obtain an IP address automatically” will automatically obtain IP address, subnet mask and gateway from the router.

Using DDNS function outside this area needs to set the address of DNS server as their local DNS address. Enable PPPoE dial-up function, user needs to enter the user name and password of ADSL dial-up obtained from the internet service provider. Click “Test” button to test the effectiveness of the relevant information.



Fig 4-34 network configuration-network

Note: You may want to use a different port than the default HTTP port 80. If so, you need to configure your DVR to use the port you want. After configured, remember that you have to specify its port number in the URL (e.g. if you select port 88, you access it using `http://192.168.1.10:88`).

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

4.7.2 Sub-stream

The interface of network sub-stream configure is shown in Fig 4-35. Select the sub-stream parameters of each channel according to the following table.

Tick off “all” and then do relevant setup, user can set all channels with same parameters.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

Note: When you select resolution and fps, the system will display free CIF frame rate.



Fig 4-35 network configuration-sub-stream

Parameter	Meaning
Resolution	The range of options: synchronize with configured device, such as QCIF
Fps	The range of options: synchronize with configured device. (Resolution and frame rate are determined by the parameter specifications of specific type)
Encode	Two options: VBR and CBR
Quality	The higher the grade is, the clearer the recorded image is. Six grades: lowest, lower, low, medium, higher and highest.
Max Bitrate	The range of options: synchronize with configured device, such as 32~768kbps

4.7.3 Email

The interface of email configure is shown in Fig 4-36.



Fig 4-36 network configuration-email

SMTP Server: Outgoing Mail Server Address. Mail server addresses are different for different Email service providers, e.g. the SMTP server of 163 mailbox is smtp.163.com, the SMTP server of Gmail mailbox is smtp.gmail.com.

Port: Port number of SMTP server, usually is 25, or it may be 587, 993 or 465, etc.

SSL Check: Enable mail encryption function.

Send Address/Password: Sender's email address/password.

Receive Address: Receiver's email address. Here user can add three mail addresses at most. Click "Test" button to test the validity of the mailbox.

Click "Default" button to restore the default setting; click "Apply" button to save the setting; click "Exit" button to exit current interface.

4.7.4 WIFI Setup

The interface of WIFI configure is shown in Fig 4-37. User can enable WIFI function, click "Search Signal" button to automatically search router, and the router's information are displayed in the list. Select a router, enter the password and click OK button. With a successful connection to the router, we can set up a wireless IP.

Click "Default" button to restore the default setting; click "Apply" button to save the setting; click "Exit" button to exit current interface.

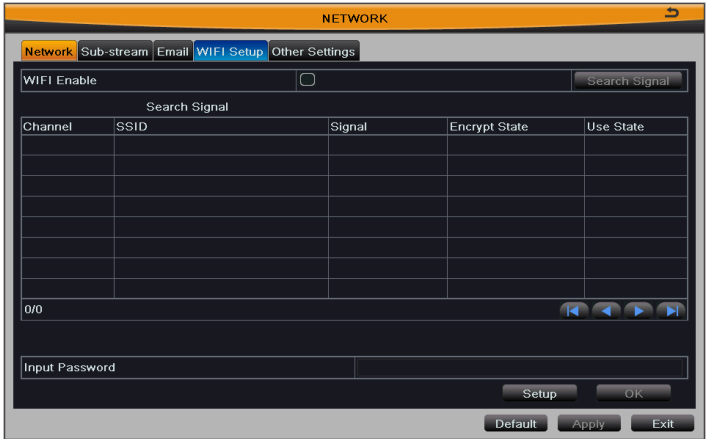


Fig 4-37 network configuration-WIFI setup

4.7.5 Other Settings

Bind the device with a fixed domain name, so that user can visit the device no matter how the public IP changes. Enable DDNS function, select the DDNS server and update interval, enter the user name, password and host domain name registered in DDNS server, such as MyDVR.no-ip.org. Click “Test” button to test the effectiveness of the relevant information; refer to Fig 4-38:

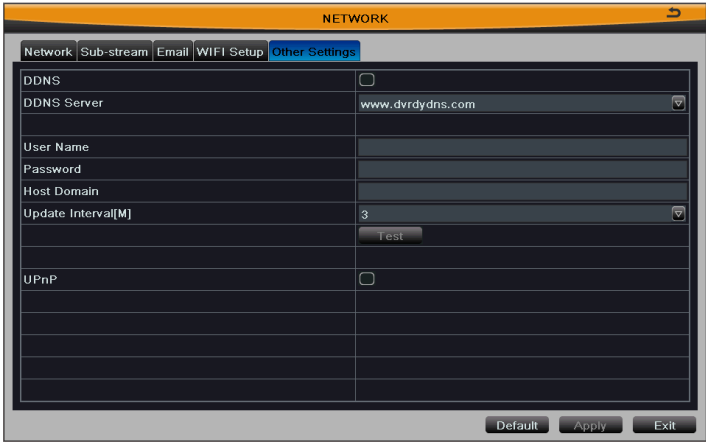


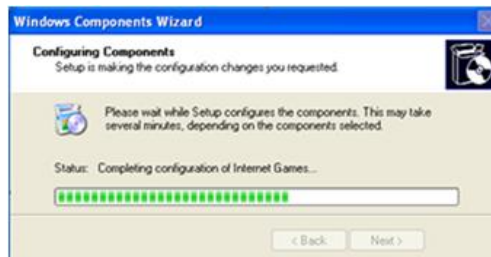
Fig 4-38 network configuration-other settings

Enabling UPnP function can automatically map the port currently in use to router.

Click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

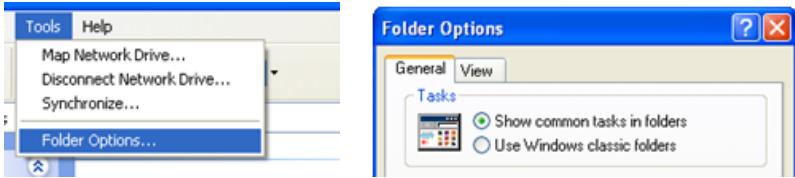
Note: *The domain name server that selected by user is a banding domain name of DVR. User should logon the website which provided by the server supplier to register a user name and password firstly, and then apply a domain name on line for the server. After the successful apply, user can access the server from the IE client by inputting that domain name.*

Enable UPnP: User may select UPnP and then enable UPnP function in the user’s router. You can access DVR through WAN. When accessing the DVR through IE, user can check the IP address by the following method: Double-click the “My Network Places” icon on the desktop in PC, select “Show icons for networked UPnP devices” in the “Network Tasks” list box, a information window will pop up, click “YES” button, “Windows Components Wizard” dialog box will pop up as shown as below picture, press “Next” to continue. After finished the installation of configuring components, the UPnP icons will display. Users can double-click it and check the IP address of the device.



If “Show icons for networked UPnP devices” can’t display in the “Network Tasks” list box, please operate as follows:

- Click “Tools”-- “Folder options”
- Select the “Show common tasks in folders” in the “Tasks” check box to display the UPnP icon.



1. Domain Name Registration (Take www.no-ip.com for example)

Open the web browser (Internet Explorer by default) and enter <http://www.no-ip.com> in the address bar.

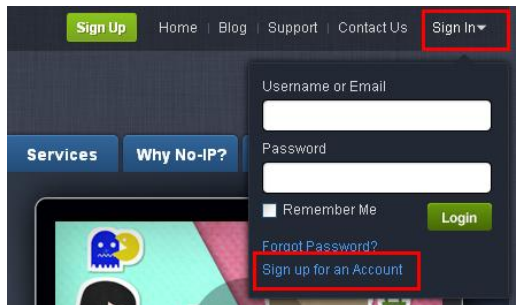
Step1: create an account

Click the “Sign-up for an Account” link at drop-down menu of “Sign In”.

Select the type of registration according to the features introduced. In this paper, we take “FREE DNS” for example. Click “SIGN UP>” button below the “FREE DNS”.

Fill in the required fields on the new account form.

Once you've filled in the required information and agreed to Terms of Service, click “Sign Up” button at the bottom of the page.



Note: *Terms of Service requires valid contact information on file in order to maintain your account. Any accounts found with incomplete or fraudulent information will be terminated.*

Step2: confirm your account

Once you have submitted your account information into the new user form, it will send a confirmation email to the address you provided. You will need to check that account and look for the email from No-IP.com. The email contains a link you must click in order to confirm your account.

So please click the URL link to activate your account in the confirmation email, and then automatically enter the "Account Confirmed!" interface.

Step3: login to your account

Select "Sign In" on the top of No-IP home page to pop up drop-down menu, or click "Sign In" button to enter "Client Login" interface. Enter email address and password that you signed up and click Login button. As shown below:

If you are not currently a registered user of No-IP.com, and would like to be for **FREE**, [register](#) as a new user.

Step4: add a host or domain to your account

In order to add a host to your account, select the "Add" link from the "Hosts/Redirects" menu. This will bring up the Add a Host page. And now you're ready to fill in the details of your new hostname.

Note: For more detailed guide of No-ip service, please visit <http://support.no-ip.com/>

2. Enable DDNS on the DVR

Enter into Main Menu→Setup→Network→other settings.

The screenshot shows a window titled "NETWORK" with a tabbed interface. The "Other Settings" tab is selected. The DDNS section is active, showing a table with the following fields:

DDNS	<input checked="" type="checkbox"/>
DDNS Server	www.no-ip.com
User Name	myname
Password	*****
Host Domain	MyDVR.no-ip.com
Update Interval[M]	3
Test	
UPnP	<input type="checkbox"/>

At the bottom of the window are three buttons: "Default", "Apply", and "Exit".

DDNS: tick off;

DDNS type: choose www.no-ip.com;

User Name: the account you created at no-ip.com;

Password: the password of your account at no-ip.com.

Host Domain: enter the host name you created at no-ip.com;

DDNS Update: Choose the DDNS update period.

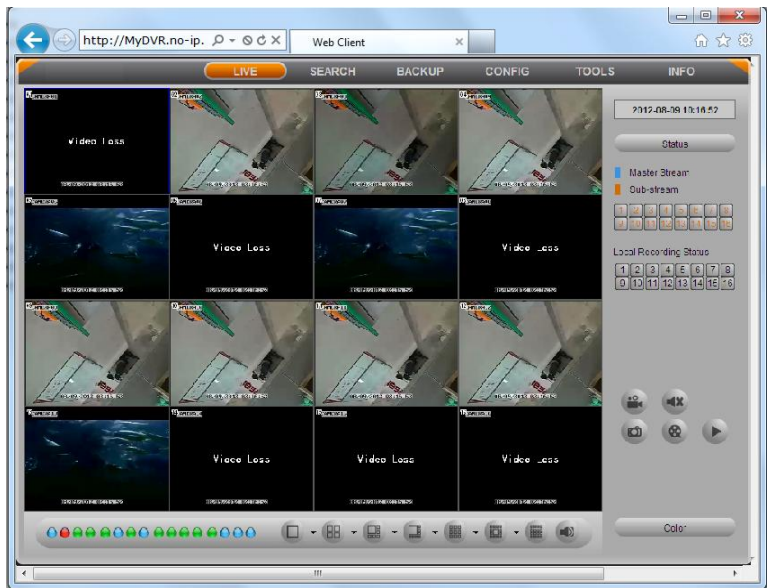
Click Apply button to save the setting.

Enter into configuration interface of the router to map the server port and IP address (if the user enables UPnP function of device and router, he can skip this step).

Note: Please allow 10~15 minutes for the DDNS service to update with your new DDNS address. This is normal for the DDNS system.

3. Accessing your DVR remotely

Open Internet Explorer and enter the host name (e.g. <http://MyDVR.no-ip.org>) in the address bar to access it.



4.8 User Management Configuration

Enter into Main Menu→Setup→Users; refer to Fig 4-39. Click “Add” button to pop up a window, as shown in Fig 4-40:



Fig 4-39 user management configuration

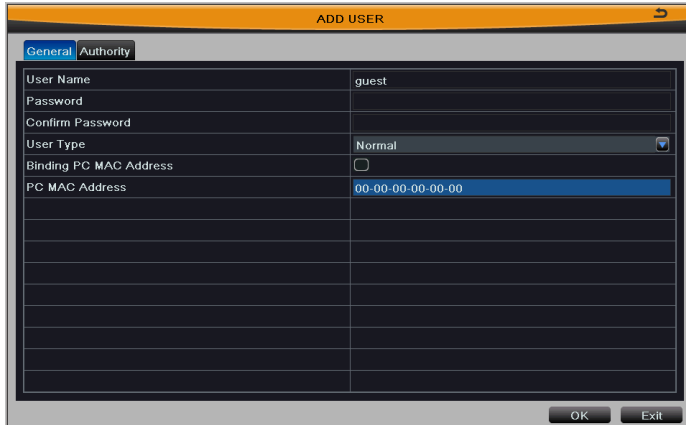


Fig 4-40 add-general

- ④ **General:** Enter the new user's name and password; select user type: normal and advance; or tick off "Binding PC Mac Address", input the MAC address of the PC as required; click OK button to add this user into the user list; click Exit button to exit the current interface.

Note: When the value of binding PC MAC address is 0, user is not binding with the specified computer; if you set the binding Mac address for the user, only the PC with this Mac address can visit the device through network.

- ② **Authority:** Refer to Fig 4-41, assign the appropriate user right for that user, click OK button to save the setting; click Exit button to exit the current interface.



Fig 4-41 add user-authority

In the user management interface, select a user in the user list, click “Setup” button to modify user type, binding PC MAC address and user authority. Select a user in the user list, click “Delete” button to delete this user. Select a user and click “Change Password” button to modify the password of this user. Click Exit button to exit the current interface.

Note: The administrator cannot be modified and deleted. User can only modify their own password.

4.9 P.T.Z Configuration

Enter into Main Menu→Setup→PTZ. P.T.Z configuration includes two submenus: serial port and advanced.

4.9.1 Serial Port

Refer to Fig 4-42, enable P.T.Z control of any channel; select the correct PTZ settings according to the external communication device, the meaning of PTZ parameters is shown in the table below. Tick off “all” and then do relevant setup, user can set all channels with same parameters.

CH	Enable	Address	Baud Rate	Protocol	Simulative Cruise
1	<input checked="" type="checkbox"/>	1	9600	PELCOP	<input type="checkbox"/>
2	<input checked="" type="checkbox"/>	2	9600	PELCOP	<input type="checkbox"/>
3	<input checked="" type="checkbox"/>	3	9600	PELCOP	<input type="checkbox"/>
4	<input checked="" type="checkbox"/>	4	9600	PELCOP	<input type="checkbox"/>
5	<input checked="" type="checkbox"/>	5	9600	PELCOP	<input type="checkbox"/>
6	<input checked="" type="checkbox"/>	6	9600	PELCOP	<input type="checkbox"/>
7	<input checked="" type="checkbox"/>	7	9600	PELCOP	<input type="checkbox"/>
8	<input checked="" type="checkbox"/>	8	9600	PELCOP	<input type="checkbox"/>
9	<input checked="" type="checkbox"/>	9	9600	PELCOP	<input type="checkbox"/>
10	<input checked="" type="checkbox"/>	10	9600	PELCOP	<input type="checkbox"/>
11	<input checked="" type="checkbox"/>	11	9600	PELCOP	<input type="checkbox"/>
12	<input checked="" type="checkbox"/>	12	9600	PELCOP	<input type="checkbox"/>
All					
<input type="checkbox"/>	<input checked="" type="checkbox"/>		9600	PELCOP	<input type="checkbox"/>

Default Apply Exit

Fig 4-42 P.T.Z configuration-serial port

Click “Default” button to restore the default setting; click “Apply” button to save the

setting; click “Exit” button to exit current interface.

Parameter	Meaning
Address	Address of the PTZ device
Baud rate	Baud rate of the PTZ device; synchronize with configured device
Protocol	Communication protocol of the PTZ device; synchronize with configured device
Simulative Cruise	If enabled, whether the PTZ device supports or not, the presets will cruise

4.9.2 Advanced

The interface of P.T.Z advanced configure is shown in Fig 4-43:



Fig 4-43 P.T.Z configuration-advanced

Preset

1) Click “Setting” button of preset to pop up a window, as shown in Fig 4-44. User can enable the preset function, self-define the preset name, and click “Setting” button to pop up the preset interface, as shown in Fig 4-45.



Fig 4-44 advanced-preset setting

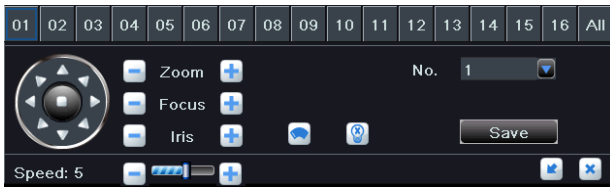






Fig 4-45 preset

2) Select a channel or all channels which need to configure PTZ parameters; control the dome rotates up, up left, left, left down, down, right down, right, up right and stop rotating; drag the slider to adjust the rotate speed; zoom, focus and iris are adjustable; select the serial number of preset point, which allows up to 128 presets to be included, then click “Save” button to save the preset position; click  button to enable the PTZ wiper, click  button to enable the PTZ light.

Note: Wiper and light buttons can take effect with support from PTZ function. At the same time these two buttons are just available when selecting PELCOP or PELCOD.

3) Click  button to hide the tool bar, click the right mouse button to revert back; click  button to exit the current interface.

4) In the preset setting interface, click OK button to save the setting; click Exit button to exit current interface.

Cruise

1) Click “Setting” button of cruise in Fig 4-43, then click “Add” button to add cruise line in the list (8 cruise lines can be added at most), as shown in Fig 4-46.



Fig 4-46 advanced-cruise setting

2) Select a cruise line and click “Setup” button, refer to Fig 4-47.

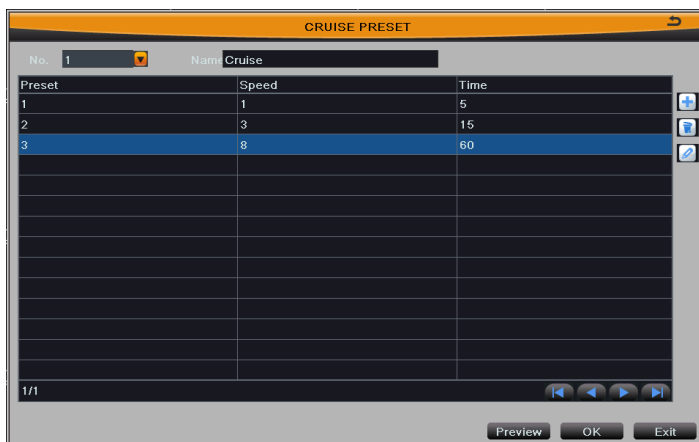







Fig 4-47 cruise setting-modify

3) Click add  button, choose which preset to use, and set its speed and time, then click  button to add this preset point; select a preset point and click delete  button to delete it; select a preset point and click set  button to modify the settings. User can

click  button to adjust the order of selected preset.

4) Click “Preview” button to preview the selected cruise line, click OK button to save the setting, click Exit button to exit current interface.

5) Select a cruise line in the list, click “Delete” button to delete it; click “Clear All” button to clear all cruise lines; click OK button to save the setting; click Exit button to exit current interface.

Track

1) Click “Setting” button of track in Fig 4-43 to pop up a window, as shown in Fig 4-48.

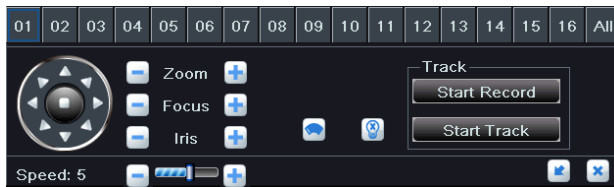






Fig 4-48 advanced-track setting

2) Select a channel or all channels which need to configure PTZ parameters; control the dome rotates up, up left, left, left down, down, right down, right, up right and stop rotating; drag the slider to adjust the rotate speed; zoom, focus and iris are adjustable; click  button to enable the PTZ wiper, click  button to enable the PTZ light.

Note: Wiper and light buttons can take effect with support from PTZ function. At the same time these two buttons are just available when selecting PELCOP or PELCOD.

3) Click “Start Record” button to record the track of PTZ movements, click this button again to stop recording; click “Start Track” button to play recorded track, click this button again to stop playing.

4) Click  button to hide the tool bar, click the right mouse button to revert back; click  button to exit the current interface.

In the advanced interface, click “Default” button to restore the default setting; click “Apply” button to save the setting; click “Exit” button to exit current interface.

4.10 Advanced Configuration

Enter into Main Menu→Setup→Advanced. Advanced configuration includes two submenus: reset and import/export.

4.10.1 Reset

Click “Reset” button to pop up a warning window, then click OK button to restore factory settings and restart the device automatically, click Cancel button to exit the warning window.

4.10.2 Import/Export

User can export the data files into mobile storage device as backup function, or import specified data files from mobile storage device to DVR.

Chapter 5 Manage DVR

5.1 Search and Playback

Search configuration includes four submenus: time search, event search, file management and image.

5.1.1 Time Search

Step1: Enter into Main Menu→Search→Time Search; refer to Fig 5-1:

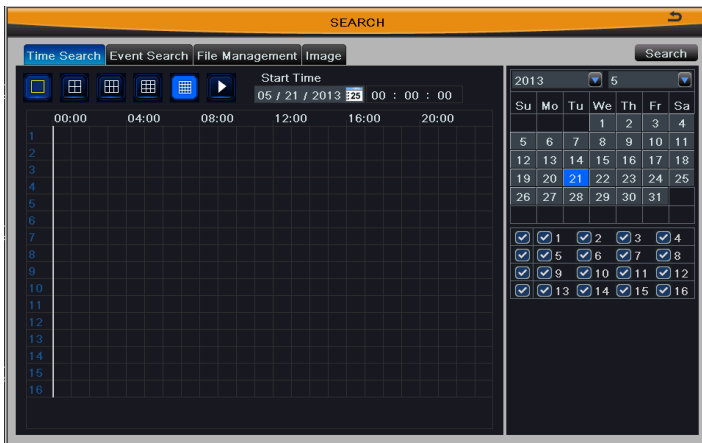


Fig 5-1 Search configuration-time search


Step2: Select the channels which need to search data, set screen display mode; select a date, the highlight date in the calendar means have record data.

Step3: Press Search button, the searched record information will be displayed in the timeline panel. The blue grid means have record. Click the time grid to set the playback start time or input this time manually.

Note: The vertical column means hours, the horizontal column means channels.

Note: When the resolution of monitor is VGA800*600, the time search interface

will appear a hide button, click it to expand the whole interface.

Step4: Click Play  button to playback record from the selected time; click the relevant buttons on the screen to do operation. The range of options synchronizes with configured device; refer to Fig 5-2:

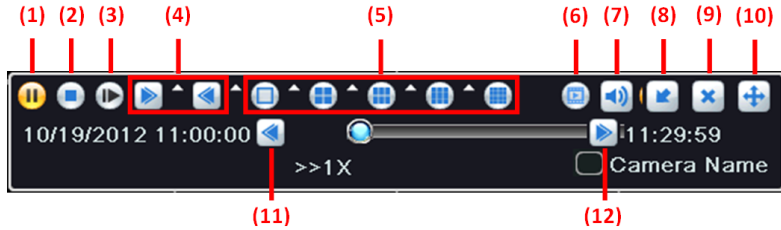


Fig 5-1 Playback buttons

(1) play/pause	(2) stop	(3) next frame	(4) fast forward/ rewind
(5) screen mode	(6) clip backup	(7) volume	(8) hide toolbar
(9) exit	(10) move tool	(11) last segment of record	(12) next segment of record

5.1.2 Event Search

Step1: Enter into Main Menu→Search→Event Search; refer to Fig 5-3:

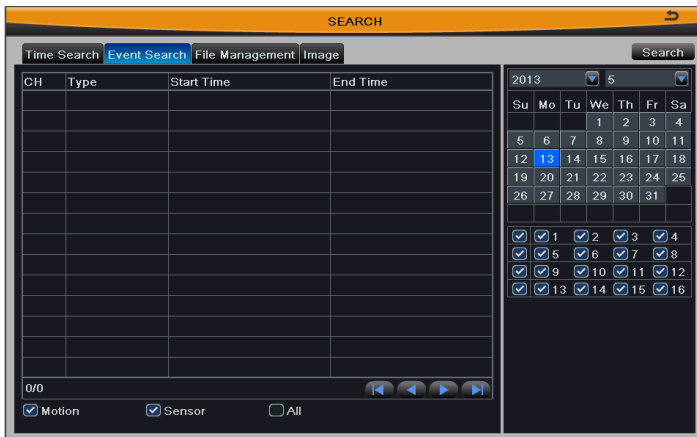


Fig 5-3 Search configuration-event search

Step2: Select the channels which need to search data, set event type (motion, sensor); select a date, the highlight date in the calendar means have record data.

Step3: Press Search button, the searched event information will be displayed in the event list. Double click an event file to playback. Click the relevant buttons on the screen to do operation.

Note: *When the resolution of monitor is VGA800*600, the time search interface will appear a hide button, click it to expand the whole interface.*

5.1.3 File Management

Step1: Enter into Main Menu→Search→ File Management; refer to Fig 5-4:

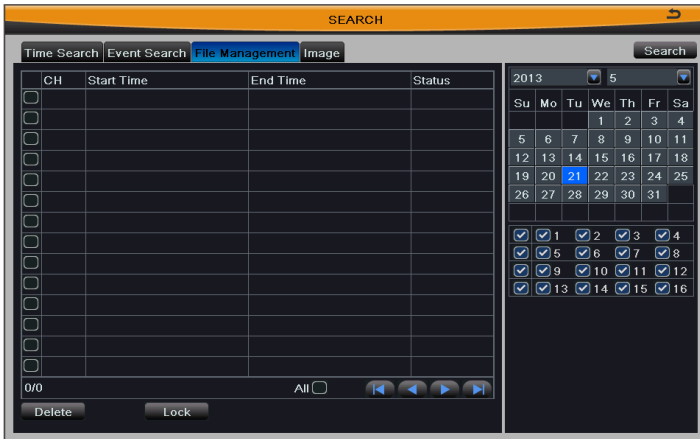


Fig 5-4 Search configuration-file management

Step2: Select the channels which need to search data; select a date, the highlight date in the calendar means have record data.

Step3: Press Search button, the searched file information will be displayed in the file list.

Lock: Select a file and click “Lock” button, then click OK button in the pop-up message box to lock this file, after that, that file will not be deleted or covered.

Note: *Once the file is locked, it will not be hidden or deleted, but format will clear the locked file.*

Unlock: Select a locked file and click “Lock” button again, then click OK button in the

pop-up message box to unlock this file.

Delete: Select an unlocked file and click “Delete” button, then click OK button in the pop-up message box to delete this file.

Tick off “All”, user can lock/unlock or delete all files.

Step4: Double click a file to playback. Click the relevant buttons on the screen to do operation.

Note: *When the resolution of monitor is VGA800*600, the time search interface will appear a hide button, click it to expand the whole interface.*

5.1.4 Image

Step1: Enter into Main Menu→Search→Image; refer to Fig 5-5:

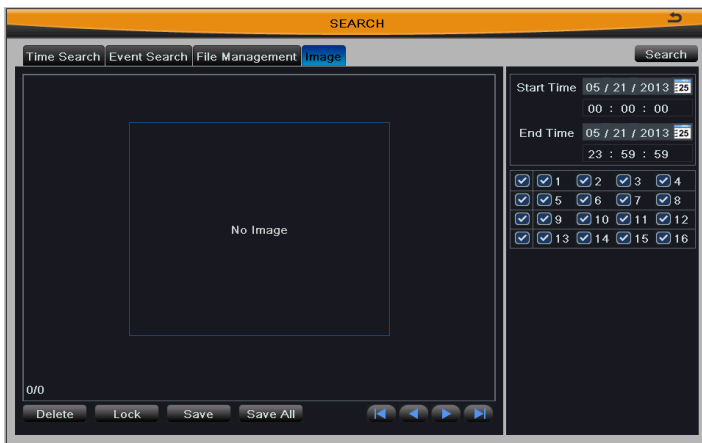



Fig 5-5 Search configuration-image

Step2: Select the channels which need to search data and the start & end time.

Step3: Press Search button, the searched image will be displayed in the picture box.

Click  button to browse images. There are at most 2000 images saved in the SATA disk. If exceed 2000 images, it will cover the earliest storage images.

Lock: Select an image, click “Lock” button to lock this image, after that, that image will not be deleted or covered, but format will clear the locked images.

Unlock: Select a locked image, click “Lock” button again to unlock this image.

Delete: Select an unlocked image, click “Delete” button to delete this image.

Save/ Save All: Save the current image / all images to the USB disk and other removable storage devices.

Step4: Double click the image to playback record from the time when it was captured.

5.2 Backup

This unit supports backup DVR data files by USB disk through the USB port. User can also remote backup data by IE browser via internet.

Step1: Insert a USB disk on the DVR. Enter into Main Menu→Backup; refer to Fig 5-6:

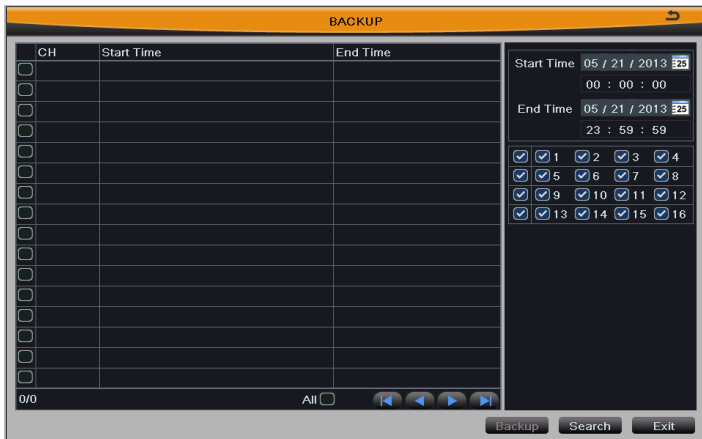


Fig 5-6 backup configuration

Step2: Select the channels which need to backup data and the start & end time. Press Search button, the searched data will be displayed in the data backup list.

Step3: Select any data file or tick off “All” to select all data files, click “Backup” button to pop up the backup information dialog box.

Step4: Check the information of backup files, including storage type, save file type, etc. Click “Start” button to start backup.

Note: When the resolution of monitor is VGA800*600, the data backup interface will appear a hide button, click it to expand the whole interface.

5.3 Information

User can check the device information, including system, event, log, network and online users.

5.3.1 System Information

Enter into Main Menu→Information→System. In this interface, user can check the device name, firmware version, launch date, etc.

5.3.2 Event Information

Enter into Main Menu→Information→Event. In this interface, select the channels which need to check event information and the start & end time, set the event type (motion, sensor, video loss). Press Search button, the searched event information will be displayed in the event list. User can check the recorded event information, and export these informations to a removable storage device if needed.

5.3.3 Log Information

Enter into Main Menu→Information→Log. In this interface, select the start & end time and log type (operation, setup, playback, backup, search, check information, error). Press Search button, the searched log information will be displayed in the log list. User can check the recorded log information, and export these informations to a removable storage device if needed.

5.3.4 Network Information

Enter into Main Menu→Information→Network. In this interface, user can check the network parameters, including HTTP port, server port, IP address, DDNS server, status, etc.

5.3.5 Online Users Information

Enter into Main Menu→Information→Online Users. In this interface, check all user information. Click “Refresh” button to refresh the current online user list. User can remote view and operate device through IE browser, ISS, CMS.

5.4 Manual Alarm

Enter into Main Menu→Manual Alarm. Click "Alarm" button to trigger alarm, click "Clear" button to stop alarm. If user ticks off “Trigger”, it will alarm in accordance with the setting of alarm out (refer to 4.6.5 Alarm Out); click Exit button to exit the current interface.

5.5 Disk Management

5.5.1 Format Disk

Please format the hard disk before recording.

Step1: Enter into Main Menu→Disk Management→Disk.

Step2: Select a hard disk which needs to format, click “Format” button.

Note: *All recorded files (including locked files) in the hard disk will be lost after formatted.*

In the disk management interface, user can modify the property of selected disk; click “Refresh” button to refresh the disk information. Click "Browse" button to enter the system information interface, user can see the hard disk's system information and the number of save picture, click "Clear" button to clear all pictures stored in the hard disk; click “Apply” button to save the setting.

Note: *when clear all pictures in the hard disk, read-only pictures and locked pictures cannot be deleted.*

5.5.2 Advanced

Enter into Main Menu→Disk Management→Advanced. User can check the hard disk's model, S/N, firmware, health status and S.M.A.R.T information. S.M.A.R.T function can monitor the disk's temperature, internal circuit and dielectric material, analysis the potential problems and warn so as to protect its data.

5.6 Upgrade

User can get the upgrade file from your dealers to upgrade system once they have the new software version.

Upgrade steps:

- 1) Copy the upgrade software into the USB disk, then connect USB disk to the USB port of DVR.
- 2) Enter into Main Menu→Upgrade. Click "Refresh" button to refresh the list, and the name of upgrade software is displayed in the upgrade list.
- 3) Select this name, click "Upgrade" button to start upgrading. Please wait for a while when the system is restart.

Note: Don't cut off the power in the process of formatting! The device supports USB update only when the USB is compatible with DVR (refer to Appendix C Compatible Devices). After the upgrade is complete, restart the system to activate.

Note: There can only be one upgrade package in USB disk; if no device or file exists in the upgrade list, it is caused by the incompatible USB disk.

5.7 Logoff

Enter into Main Menu→Logoff. Click OK button to log off, click Cancel button to exit the warning window. If wants to log in again, user needs to enter the user name and password in the login screen to log in device.

Chapter 6 Remote Surveillance

6.1 IE Remote Surveillance

In order to view the DVR from network, it must be connected to a LAN/WAN or Internet. The following introduces the connection and use of Internet. Remote access to the Internet has two types according to their online behavior.

6.1.1 On LAN

Step1: Right-click "My Network Places" to pop-up a drop-down menu, then click "Properties" to open the "Network connection".

Step2: Double-click "Local Area Connection ", then click "Properties" button.

Step3: Double-click "Internet Protocol (TCP / IP)".

Step4: Obtain IP address, subnet mask and gateway of local computer.

Step5: Set the IP address, subnet mask and gateway of DVR.

Enter into the DVR's Main Menu→Setup→Network configuration to enter IP address, subnet mask and gateway. Subnet mask and gateway must be same as the parameters of "Internet Protocol", and IP address should be in the same field as your computer.

E.g. if your computer is 192.168.1.8, then the IP address of DVR can be 192.168.1.X ("X" is an arbitrary integer between 0 and 255 in addition to 8 and 1), subnet mask is 255.255.255.0, and gateway is 192. 168. 1. 1.

Step6: After finish the above settings, input the IP address of DVR in browser address bar to enter the login page, such as: 192.168.1.X. The network will download control automatically (the settings of browser must allow to download control, refer to Appendix -1).

Step7: After the download is complete, interface will pop up a login window.

User Name	<input type="text" value="admin"/>
Password	<input type="password"/>
Language	<input type="text" value="English"/> ▼
<input type="button" value="LOGIN"/>	

Step8: Enter your user name and password. The default username is "admin", password is blank. Click "OK" to enter into preview interface, as shown below:



IE browser preview

6.1.2 On WAN

There are two ways for the DVR connect to internet.

1. Connect the DVR to internet through ADSL dial-up

Step1: Enter into the DVR's Main Menu→Setup→Network configuration→Network. Enable PPPoE, and do not set the DVR's network address, subnet mask and gateway, then fill in the user name and password provided by the telecom operators in, click Apply button.

Step2: Enter into the DVR's Main Menu→Information→Network information to obtain IP address, then input it in the browser, such as: <http://210.21.229.138>, user can enter the control download interface.

Step3: The following setup steps are the same as steps 6-8 of Chapter 6.1.1 on LAN.

2. Connect the DVR to internet through router

Step1: Enter into the DVR's Main Menu→Setup→Network configuration→Network to input IP address, subnet mask and gateway, or tick off "Obtain an IP address automatically."

Step2: Make sure the LAN can be connected; access your router by entering the gateway address, then log on the router management interface to map port.

In this paper, we take Linksys router for example. Specify the IP address and port to be forwarded from the internal/local IP address of your DVR to the Internet in router "Port Range Forwarding" of "Applications & Gaming". Each DVR has two ports. (LAN IP address of DVR can be added to the DMZ host, different router's configuration is different, and user can refer to the router manual.)

After mapping the port, user can check the WAN IP address in the "running" of router, directly access to the DVR through the WAN IP address and HTTP port, such as: <http://113.108.119.20:HTTP port number>. Then enter into the control download interface.

LINKSYS
A Division of Cisco Systems, Inc. Firmware Version: 1.05.00

Applications & Gaming Etherfast® Cable/DSL Router BEFSR41 V3

Setup **Security** **Applications & Gaming** **Administration** **Status**

Port Range Forwarding Port Triggering UPnP Forwarding DMZ

Application	Start	End	Protocol	IP Address	Enabled
dvr1	80	80	Both	192.168.1.100	<input checked="" type="checkbox"/>
dvr2	1600	1610	Both	192.168.1.100	<input checked="" type="checkbox"/>
dvr3	37260	37270	Both	192.168.1.100	<input checked="" type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>
	0	0	Both	192.168.1.0	<input type="checkbox"/>

Port Range Forwarding

Port Range Forwarding can be used to set up public services on your network. When users from the Internet make certain requests on your network, the Router can forward those requests to computers equipped to handle the requests. If, for example, you set the port number 80 (HTTP) to be forwarded to IP Address 192.168.1.2, then all HTTP requests from outside users will be forwarded to 192.168.1.2. **It is recommended that the computer use static IP address.**

You may use this function to establish a web server or FTP server via an IP Gateway. Be sure that you enter a valid

[More...](#)

Save Settings **Cancel Changes**

Cisco Systems

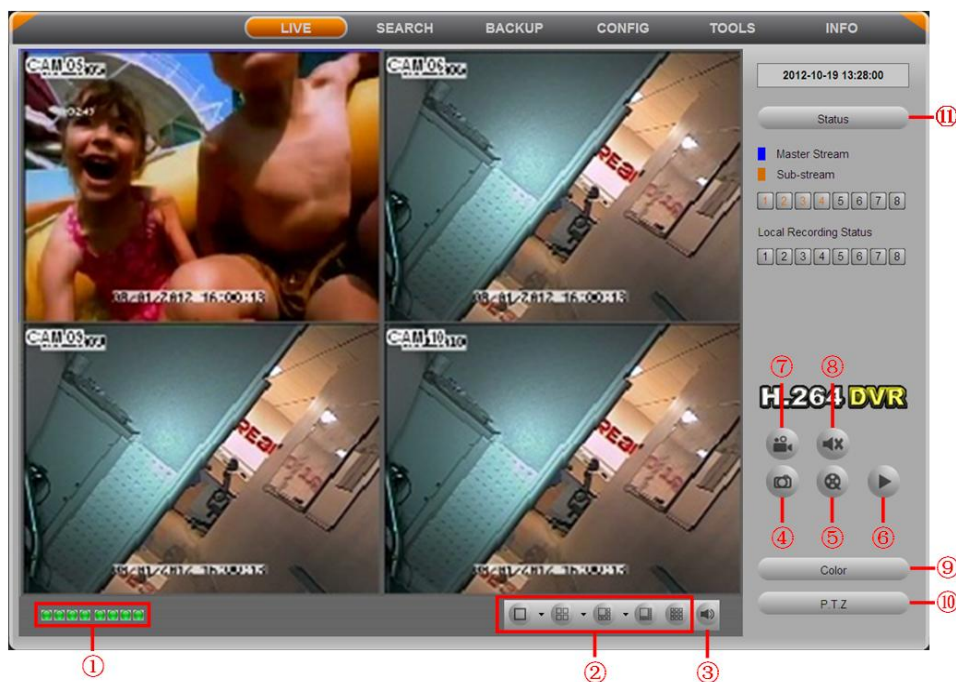
Step3: The following setup steps are the same as steps 6-8 of Chapter 6.1.1 on LAN.

Owing to WAN address will change frequently, remote access is not very convenient, and users can access DVR by domain name.

For example: enter into DVR's Main Menu→Setup→Network configuration→Other Settings, tick off "DDNS", select DDNS Server, enter the user name, password and host domain name registered in DDNS server (refer to network configuration), user can use the domain name to directly access DVR in the WAN access.

6.2 Remote Live Preview

Open the webpage, the first interface is to load the live preview screen. As shown below:



Remote live preview interface


6.2.1 Symbol and Function Definition

(1) Channel Indicator	(2) Screen Display Mode
(3) Volume Adjustment	(4) Snap Picture
(5) Client Record: Record current video, and save them in user's PC.	
(6) Local Playback	(7) Remote Manual Recording
(8) Talkback Switch	(9) Color Adjustment
(10) PTZ Control	
(11) Channel Status: Display the status of main stream, sub-stream and local video state.	

Channel Indicator:

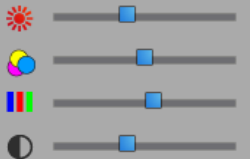
Green light indicates the manual recording or schedule recording; red light indicates the sensor alarm recording; yellow light indicates the motion detection recording; blue light indicates the video loss. Indicators only show the first recording for a single channel has a variety of recording modes. The priority is as follows: video loss > sensor alarm > motion-detection > schedule recording = manual recording, 16 indicators represent the 16 channels.



6.2.2 Snap Picture

Click "Snap"  button to capture current image, and save it in user's PC.

Note: User should set up the snap parameters in the Remote Preview interface → CONFIG → Local config.

6.2.3 Color Adjustment

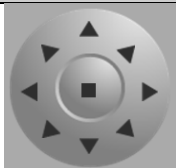














Buttons	Description
	Drag the slider to adjust the brightness of video.
	Drag the slider to adjust the hue of video.
	Drag the slider to adjust the saturation of video.

	Drag the slider to adjust the contrast of video.
	Restore the default values.
	Save the adjustment.

6.2.4 PTZ Control

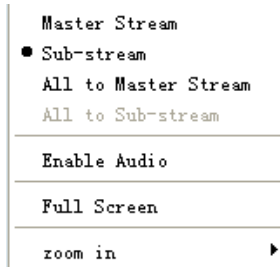
When DVR is connected to PTZ or communication device, user can control it on the client side. User can control the dome rotates up, up left, left, left down, down, right down, right, up right and stop rotating; drag the slider to adjust the rotate speed; zoom, focus and iris are adjustable; call any preset, cruise, track and auto scan.

The function description of remote PTZ operation panel follows below:

Button	Description
	Direction keys: control the dome rotates up, up left, left, left down, down, right down, right, up right and stop rotating;
	Drag the slider to adjust the rotate speed.
	'Iris' button. Click  button to increase lighting. Click  button to decrease lighting.
	'Zoom' button. Click  button to zoom in the live picture of channel. Click  button to zoom out the live picture of channel.
	'Focus' button. Click  button to lengthen focal length. Click  button to shorten focal length.
	Call preset
	Call cruise
	Track
	Auto scan

6.2.5 Preview Control

Click the right mouse on the live preview interface to pop up a pull-down menu, as shown below:



Right-click menu

Stream: DVR support dual stream: master stream and sub-stream. Master stream is HD channel with higher frame rate for every channel, but it needs higher network bandwidth; Sub-stream is SD channel with low frame rate for every channel, it requires low network bandwidth.

All to Master/Sub Stream: Set all channels as master stream or sub-stream.

Enable Audio: Enable or disable the sound of live video.

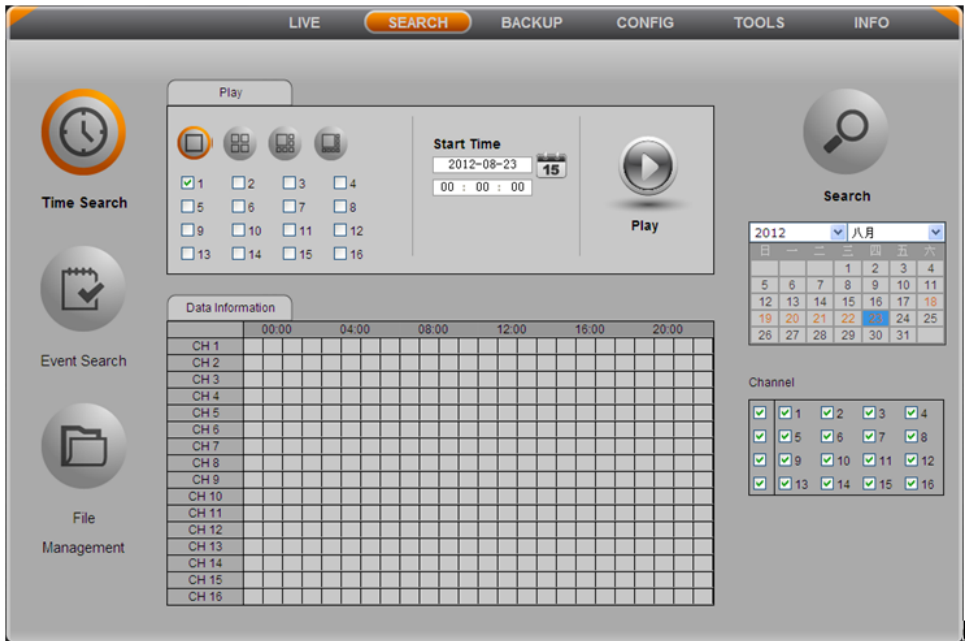
Full Screen: Display the video in full-screen, and the tool bar will be hidden; double-click left mouse button again or click right mouse button to exit full screen mode.

Zoom in: Select the magnification to amplify the video. Hold the left mouse button, and drag the cursor to view the video.

6.3 Remote Playback & Backup

6.3.1 Time Search

Click "SEARCH" button to enter the time search interface, as shown below:



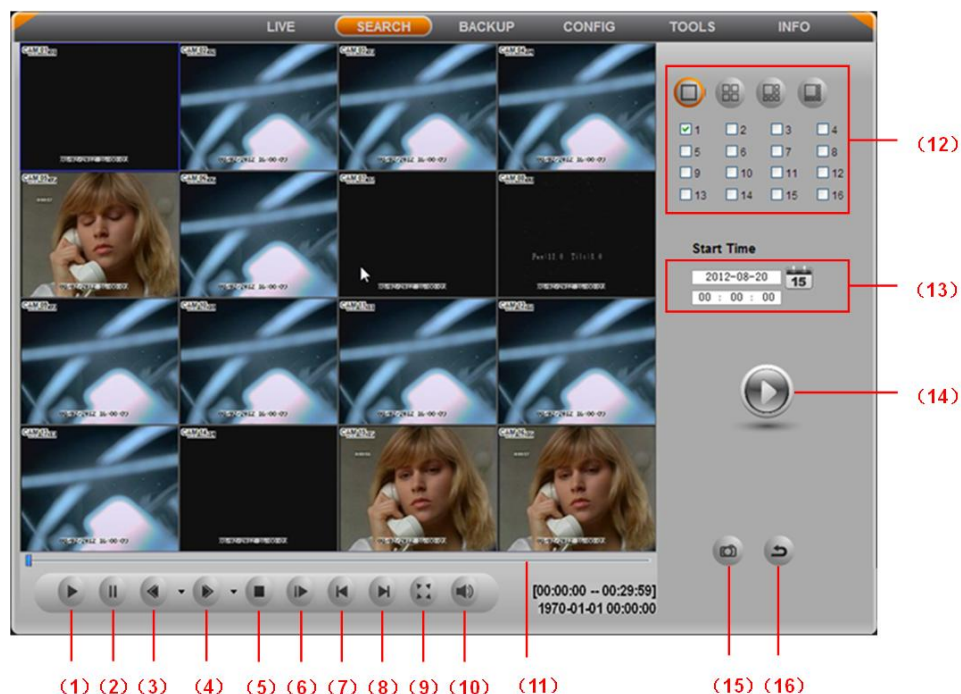
Remote playback interface

Step1: Select the channels which need to search data, set screen display mode; select a date, the highlight date in the calendar means have record data.

Step2: Press Search button, the searched record information will be displayed in the data information panel.

Step3: Click Play button to playback record from the selected time.

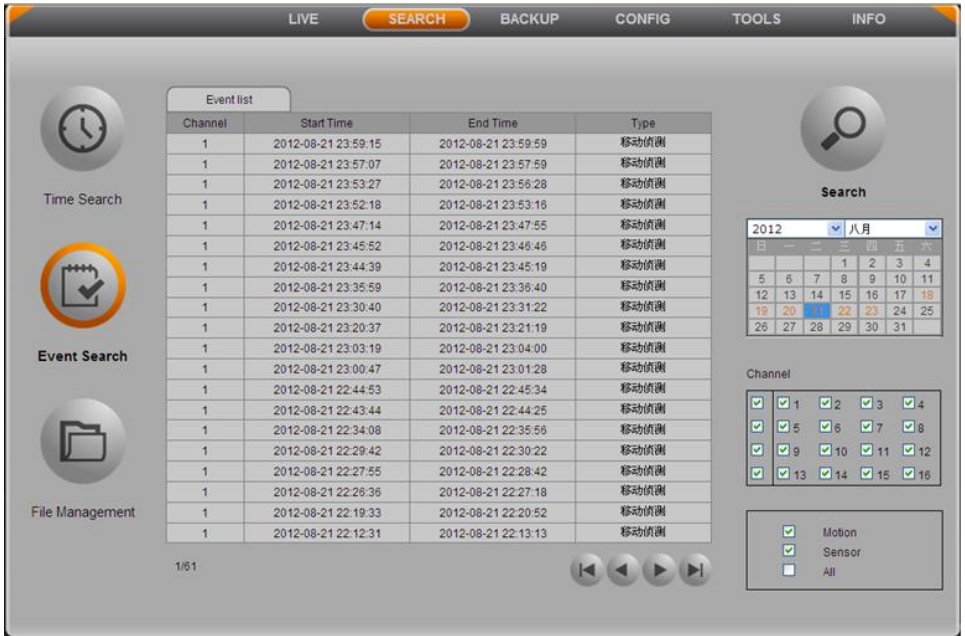
Step4: Click the relevant button on the screen; user can do some operations such as: pause, rewind, fast forward, stop, single-frame playback, change channel mode, research, etc. As shown below:



(1) Play	(2) Pause	(3) Backward / Rewind	(4) Fast Forward
(5) Stop	(6) Next Frame	(7) Previous Section	(8) Next Section
(9) Full Screen	(10) Volume	(11) Process Bar	(12) Channel Mode
(13) Play Mode	(14) Play Button	(15) Snap Picture	(16) Exit

6.3.2 Event Search

Click "Event Search" button to enter the event search interface, as shown below:



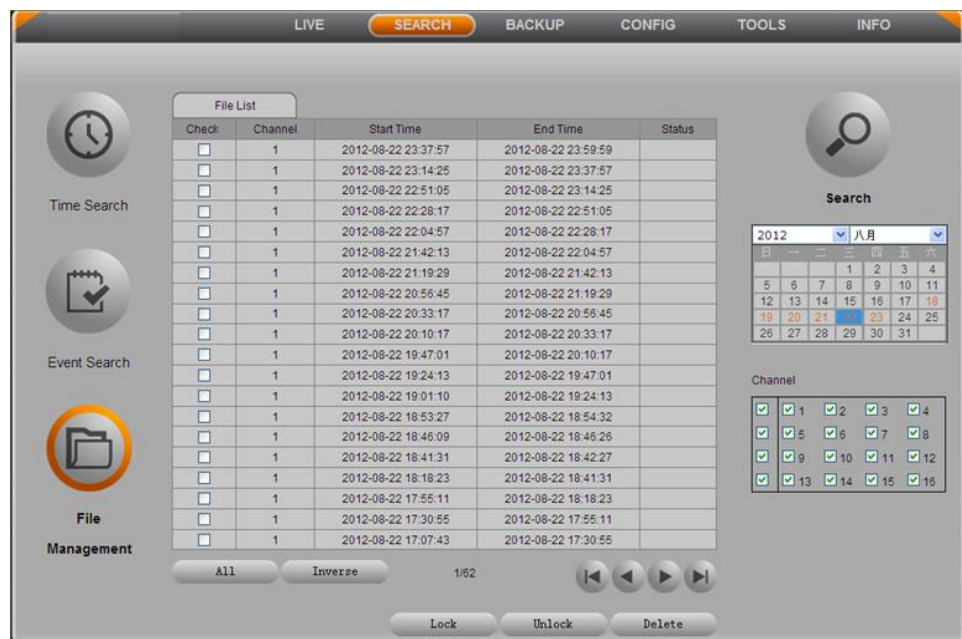
Remote Event Search

Step1: Select the channels which need to search data, set event type (motion, sensor); select a date, the highlight date in the calendar means have record data.

Step2: Press Search button, the searched event information will be displayed in the event list. Double click an event file to playback. Click the relevant buttons on the screen to do operation.

6.3.3 File Management

Click "File Management" button to enter the file management interface, as shown below:



Remote file management

Step1: Select the channels which need to search data; select a date, the highlight date in the calendar means have record data.

Step2: Press Search button, the searched file information will be displayed in the file list.

Lock: Select any file and click “Lock” button to lock it, after that, that file will not be deleted or covered.

Unlock: Select any locked file and click “Unlock” button to unlock it

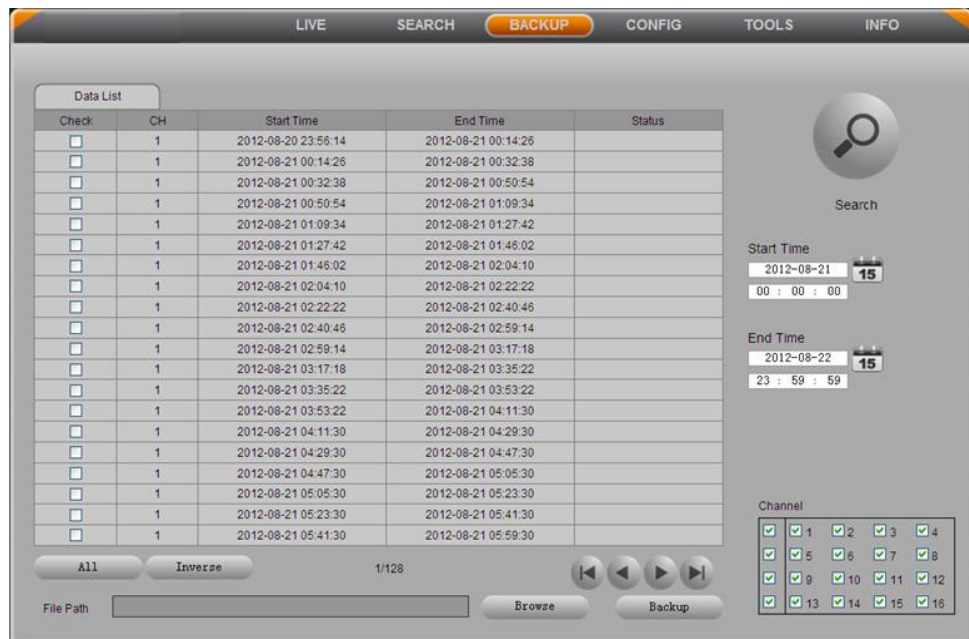
Delete: Select any unlocked file and click “Delete” button to delete it.

Click “All”, user can lock/unlock or delete all files.

Step3: Double click a file to playback. Click the relevant buttons on the screen to do operation.

6.3.4 Remote backup

User can backup data by IE browser via internet. Click “BACKUP” button to enter the backup interface, as shown below:



Remote backup interface

Step1: Select the start & end time and channels, then click Search button to view the searched data information in the data list.

Step2: Select any data file or tick off “All” to select all data files, click “Browse” button to set the save path, and then click “Backup” button to start backup. The backup files will be saved on user’s PC.

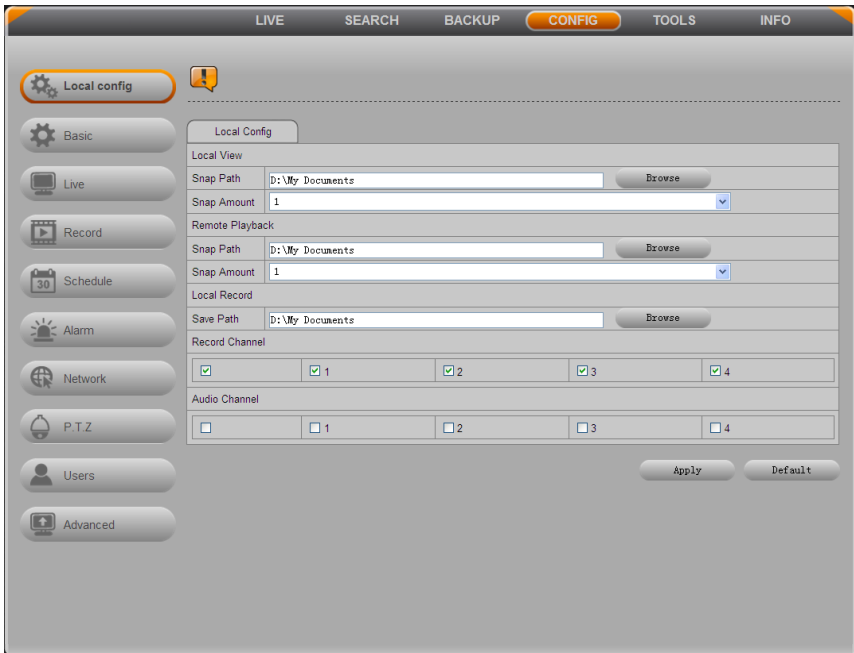
Note: *The backup file is AVI format; they can be played through universal player.*

6.4 Remote Configuration & Management

6.4.1 Remote Configuration

User can configure the device remotely. It not only can set up the network configuration parameters, but also can set up other parameters through the network.

Click “CONFIG” button to enter the system configuration interface, as shown below. Remote users can easily set up all the parameters, its options and functions are the same as the settings of DVR.



Remote menu setup

6.4.2 Remote Management

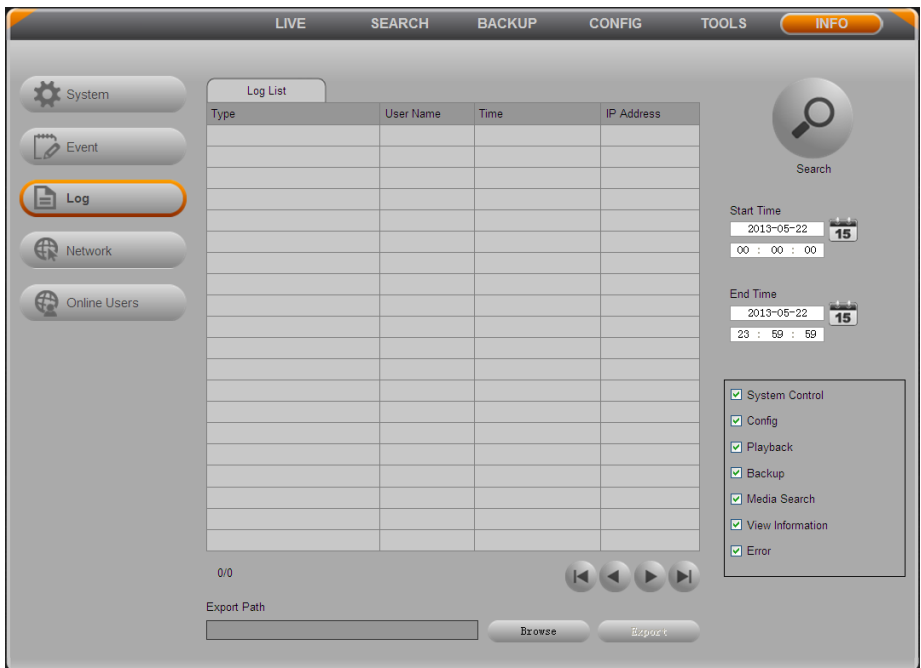
In the Disk Management interface, user can change the properties of hard disk; check the hard disk's information, and format it.

In the Upgrade interface, user can remotely upgrade the device system.
You can also reboot the device.

6.4.3 Remote Check Information

The system records the work status and operating procedure automatically. User can check the information about system, event, log, network and online users.

Enter into INFO→Log; user can set the start & end time and log type, press “Search” button to search the log records. As shown in the figure below:



Remote Log Search

Note: The log records are saved in the HDD. It will not have any record if HDD has not been installed. There is no limit on the number of log files, but only with regard to the storage space of hard disk.

Chapter 7 Mobile Surveillance

You can remotely view Camera streams from your DVR, IPC and IP Dome on your iPhone™ , iPad™, or Android™ device.

Compatible Mobile Viewing Devices

- iPhone (4.0 and above)
- iPad (4.0 and above)
- Android(1.6 and above)

NOTE: Instant Mobile Viewing on an iPhone™ using an iPhone™ App. Free download available from Apple™ Store under the name “ISSMOBILE”. Compatible with iPhone™ version 4.0 and above. Selectable 4 channels live viewing. Mobile phone data plan is required (not included).

Router port forwarding is required.

NOTE: Instant Mobile Viewing on an iPad™ using an iPad™ App. Free download available from Apple™ Store under the name “ISSMOBILE HD”. Compatible with iPad™ version 4.0 and above. Selectable 9 channels live viewing. Mobile phone data plan is required (not included).

Router port forwarding is required.

NOTE: Instant Mobile Viewing on Android™ 1.6 and above . Free download available from Google™ play store under the name “ISSMOBILE”. Selectable 4 channels live viewing. Mobile phone data plan is required (not included).

Router port forwarding is required.

Before You Begin

- You will need the following before you can start mobile viewing on your iPhone or Android device:
- The IP address or DDNS host name of your DVR or IP Camera: For details, please refer to the user manual.
- The TCP Port Number of your DVR or IP Camera: By default, the port number is 5000.
- User name and Password of your DVR: By default, the ID is admin, no password.

For Android

7.1 Main Functions

- Support Chinese and English;
- View the Cameras on real time via wifi and 3G;
- Support multi-channel switching;
- Support remote play;
- Support device configuration, modification and delete;
- Support photo view and save;
- Support video view and save;
- Support IP and DDNS access;
- Support Pan, Tilt & Zoom control;
- Support Snap-shot;
- Support video records;
- Adopt direct connection device, without any third party server transit;

7.2 Installation

Users can free download this app from Google™ play store on Android™ 1.6 and above, you may first search “ISSMOBILE”, like Fig 7-1 as below. Router port forwarding is required.

Then click “Install”, the application will be automatically installed into your mobile phone, like Fig 7-2 as below:



Fig 7-1

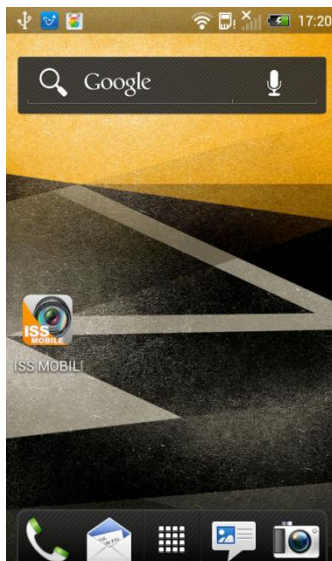



Fig 7-2

7.3 Application Running

7.3.1 Interface Description

After successfully installed the application into mobile phones, it is ready to run, just

click the ISS MOBILE  icon in the main menu. The main interface looks like Fig 7-3:


Click “” icon on top right, then you can access the main menu interface and see corresponding operation options, including device list, local video, photos, about, etc; refer to Fig 7-4:



Fig 7-3

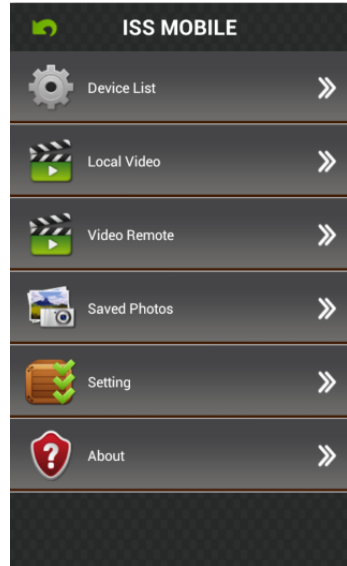


Fig 7-4

Device List: Add a new device, or modify the device settings.

Local Video: If ISS MOBILE has record function, after clicking video records, you will see the details of the records. The name of the record file will be generated by system default according to recording time.

Video Remote: Access the device recorded clips and view the video.

Saved Photos: Save the snapshot on the phone when viewing the IP Camera through the phone; after clicking it, you will see the photos as thumbnail. Enlarge the photos by clicking it.

Setting: After clicking it, you can set password protection, alarm sound, etc; refer to Fig 7-5:

About: The related information of the application.

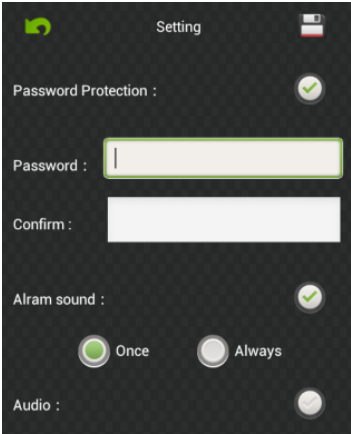


Fig 7-5

7.3.2 Live Preview

Click back key on top left in the main menu interface, back to display interface, refer to Fig 7-6:

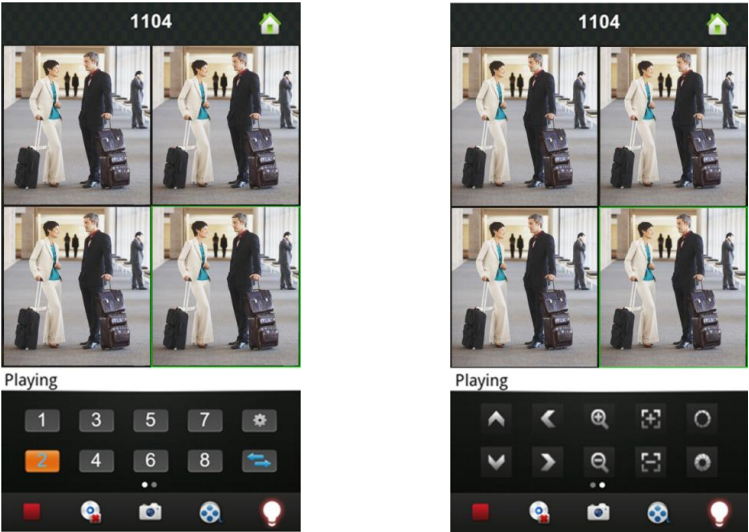















Fig 7-6

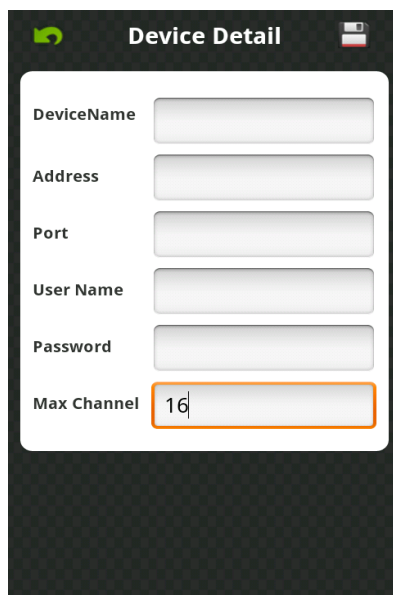
Instructions of the functions on “Live Preview” interface as below:

Function Key	Description
	Channel selecting: You can select the channels playing
	Select the group of channels
	Play / Stop
	Snapshot
	Video Records
	Quick Access Device List, edit and select the device
	Alarm function
	Left Slip to Display PTZ Control Button
	Control the directions of the Camera
	Zoom in / Zoom out
	Change focus and aperture

7.3.3 Add Device

If this is the first time to use ISS MOBILE app, you need to put in all the information needed. Steps as below:

- Click “” to access “Device List” interface, the list is blank as this time.
- Click “” on “Device List” on bottom left to access “Detail” interface, like Fig 7-7 as below:



The screenshot shows a mobile application interface for editing device details. The title bar is black with a green back arrow on the left, the text 'Device Detail' in the center, and a battery status icon on the right. Below the title bar is a white rounded rectangle containing six input fields. The fields are labeled 'DeviceName', 'Address', 'Port', 'User Name', 'Password', and 'Max Channel'. The 'Max Channel' field is currently selected, indicated by an orange border, and contains the number '16'.

Fig 7-7

Device Name: The names of equipment, which can help you identify different devices, for examples, you can type the names based on the location of the equipment. The name will be showed on the topside title bar of display interface.

Address: DVR IP address (must be an Internet address) or DDNS.

Port: It means mobile phone port, and you can acquire port number in the setting information of the device. Please use the fixed port: 554 here.

User Name: The user name of terminal device.

Password: The password of terminal device, match with user name.

Max Channel: The channels of your DVR supported, 32 channels max.

After editing, please click “Save” to save the information. Click “Back”, turn back to “Device List”, you will see the name, channels, address, etc, like Fig 7-8 as below:

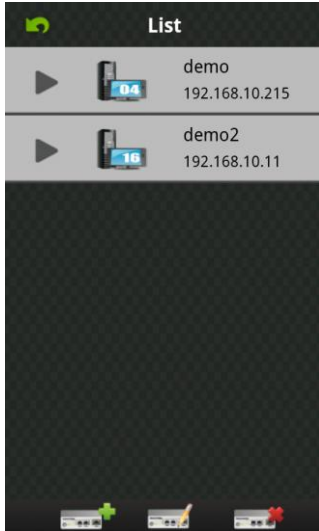


Fig 7-8

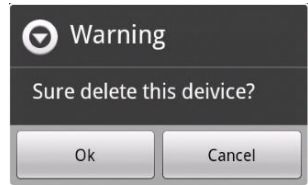





Fig 7-9

- Click “” and Device to edit setting information. For example, click “device 66” in “Device List”, you could modify the settings of “device 66”.
- Click “” to delete the selected device. For example, click “device 64” in “Device List”, will show notice like Fig 7-9, select “OK”, and delete “device 64”.

7.3.4 Switch Channel

- Select the numbers showed in Area 3 in Figure 7-10 to switch channels; select Area 2 to switch channel-group, and then select the numbers in this channel-group to switch the channels.
- Switch the channels within different devices:

If you want to switch to the channels on other devices, steps as below:

- 1) Press “” to stop or turn the playing video off;
- 2) Click “+” on display interface, like Area 1 in Fig 7-10, then access device list interface, like Fig 7-11:

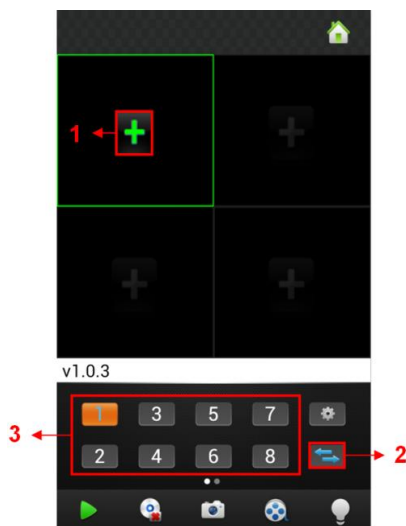


Fig 7-10

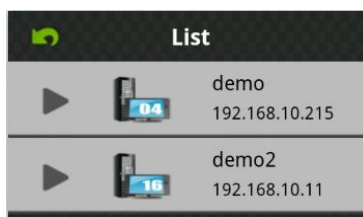


Fig 7-11

- 3) Select the device which switched to, will show the channel list of this device, like Fig 7-12 as below:

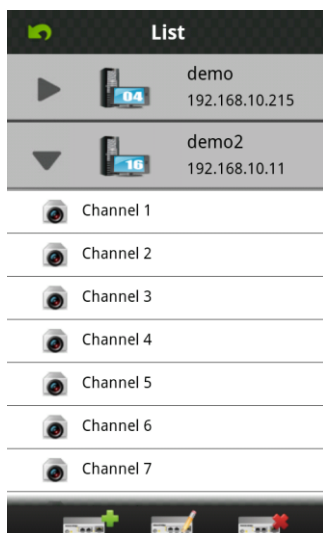


Fig 7-12

- 4) Select the channels in the channel list of this device, turn back to display interface to view the Camera of this channel.











7.3.5 PTZ Control

Left slip “” to “PTZ Control”, like Fig 7-13 as below:



Fig 7-13

Function keys of PTZ control as below:


-    : Control PTZ direction;
-  : Zoom in and zoom out;
-  : Change focus;
-  : Change aperture.

7.3.6 Local Video

The videos will be saved on the phone after recording the videos. Steps as below:

Note: If there is no memory card on phone, the record function will not work.

- **Play Video:**

- 1) Click “” to access main menu interface, select “local video” to access “local video” list interface, like Fig 7-14:
- 2) Click the video record, for example 20121022145057.mp4, to view this video record.

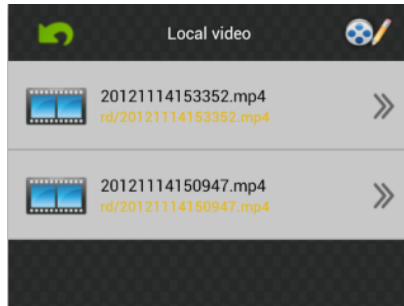


Fig 7-14

● **Delete:**


- 1) Click “

Fig 7-15

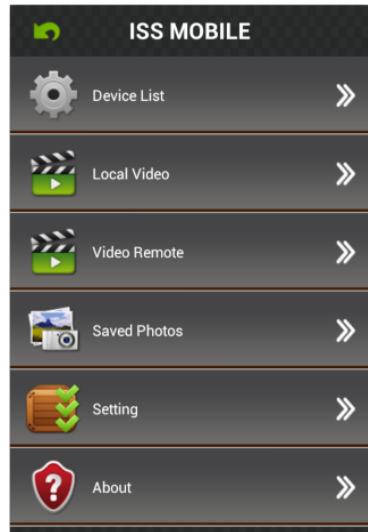


Fig 7-16

Note: 1) In the all operation steps, you could click “Done” to end up, cancel the operation and back the last step.

2) You have to make sure there are video records, so that you could search the records; if not, you cannot search it.

7.3.7 Saved Photos

The photos are the snap-shot when viewing the Cameras which saved on the album. You also can check and batch save and delete etc. The steps are the same as 4.3.6.

7.3.8 Switch Language

When you switch the language on your phone, the language of the application will be changed as well. For example, it's switched to English on your phone, the language of the application will be switched to English as well.

7.3.9 Video Remote

You can access the device recorded clips with the app and view the video clips. Select the right device, channel and time then tap search, like Fig 7-17:

7.3.10 Real-Time Alarm

When any channel has any alarming info, the app will show up in the main interface, like Fig 7-18:



Fig 7-17

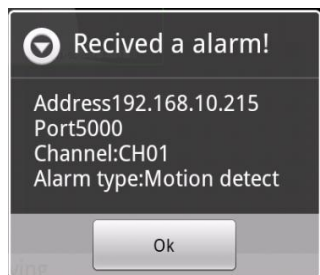


Fig 7-18

For Iphone

7.4 Main Functions

- Support Chinese and English;
- View the Cameras on real time via wifi and 3G;
- Support multi-channel switching;
- Support remote play;
- Support device configuration, modification and delete;
- Support photo view and save;
- Support video view and save;
- Support IP and DDNS access;
- Support Pan, Tilt & Zoom control;
- Support Snap-shot;
- Support video records;
- Adopt direct connection device, without any third party server transit;

7.5 Installation

Users can free download this app from Apple™ Store on iPhone™ version 4.0 and above, you may first search “ISSMOBILE”, like Fig 7-19 as below. Router port forwarding is required.

Then click “Install”, the application will be automatically installed into your mobile phone, like Fig 4-20 as below:



Fig 7-19



Fig 7-20

7.6 Application Running

7.6.1 Interface Description

After successfully installed the application into mobile phones, it is ready to run, just



click the ISS MOBILE icon in the main menu. The main interface looks like Fig

7-21 as below:


Click “” icon on top right, then you can access the main menu interface and see corresponding operation options, including device list, photos, video records, about & help, etc; refer to Fig 7-22:



Fig 7-21

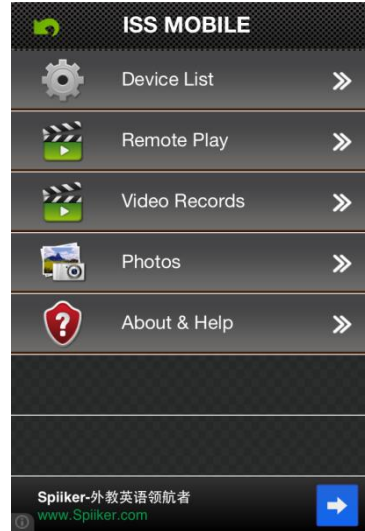



Fig 7-22

Device List: Add a new device, or modify the device settings.

Remote Play: Access the device recorded clips and view the video.

Video Records: If ISS MOBILE has record function, after clicking video records, you will see the details of the records. The name of the record file will be generated by system default according to recording time.

Photos: Save the snapshot on the phone when viewing the Cameras through the phone; after clicking it, you will see the photos as thumbnail. Enlarge the photos by clicking it.

Settings: After clicking “”, you can set Auto play, screen, priority type, etc; refer to Fig 7-23:

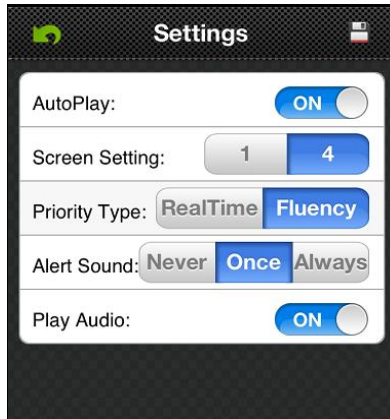


Fig 7-23

- a) Auto play: Turn on “AutoPlay” to display the video surveillance automatically on your next login. If turn it off, it will not display your last time video on the next login.
- b) Screen Setting: Select “1” means only one player window in player interface; select “4” means four player windows in player interface.
- c) Priority Type: Select the desired type: Real Time and Fluency.
- d) Alert Sound: Select the voice prompts when the device alarm is triggered.
- e) Play Audio: Open and close the device output sound.

About & Help: The related information of the application.

7.6.2 Live Preview

Click back key on top left in the main menu interface, back to display interface, like Fig 7-24 as below:

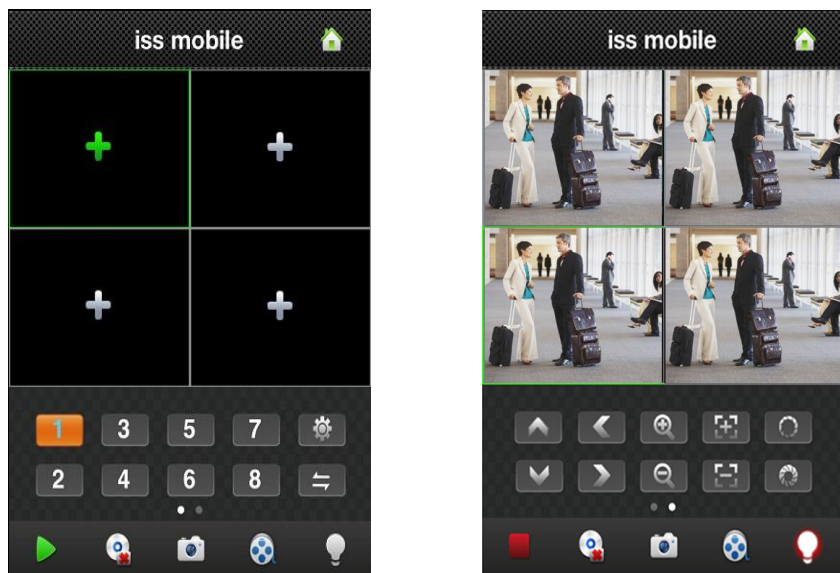







Fig 7-24

Instructions of the functions on “Live Preview” interface as below:

Function Key	Description
	Channel selecting: You can select the channels playing
	Select the group of channels
	Play / Stop
	Delete Display Records
	Snapshot
	Video Records
	Real-time Alarm
	Quick Access Device List, edit and select the device

	Left Slip to Display PTZ Control Button
	Control the directions of the Camera
	Zoom in / Zoom out
	Change focus
	Control aperture

7.6.3 Add Device

If this is the first time to use ISS MOBILE app, you need to put in all the information needed. Steps as below:



- Click “


Fig 7-25

Name: The name of equipment, which can help you identify different devices, for examples, you can type the names based on the location of the equipment. The name will be showed on the topside title bar of display interface.

Address: DVR IP address (must be an Internet address) or DDNS.

Port: It means mobile phone port, and you can acquire port number in the setting information of the device. Please use the fixed port: 554 here.

User ID: The user name of terminal device.

Password: The password of terminal device, match with user name.

Max Channel: The channels of your DVR supported, 32 channels max.

After editing, please click “Save” to save the information. Click “Back”, turn back to “Device List”, you will see the name, channels, address, etc, like Fig 7-26 as below:

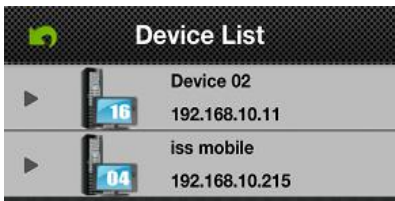


Fig 7-26

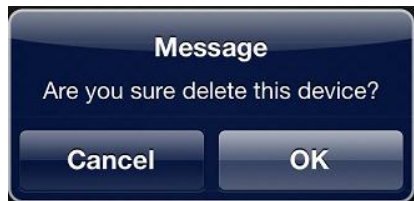





Fig 7-27

- Click “” and Device to edit setting information. For example, click “device 66” in “Device List”, you could modify the settings of “device 66”.
- Click “” to delete the selected device. For example, click “device 64” in “Device List”, will show notice like Fig 7-27, select “OK”, and delete “device 64”.

7.6.4 Switch Channel

- Select the numbers showed in Area 2 in Figure 7-28 to switch channels; select Area 3 to switch channel-group, and then select the numbers in this channel-group to switch the channels.
- Switch the channels within different devices:

If you want to switch to the channels on other devices, steps as below:

- 1) Press “” to stop or turn the playing video off;
- 2) Click “+” on display interface, like Area 1 in Fig 7-28 then access device list interface, like Fig 7-29:

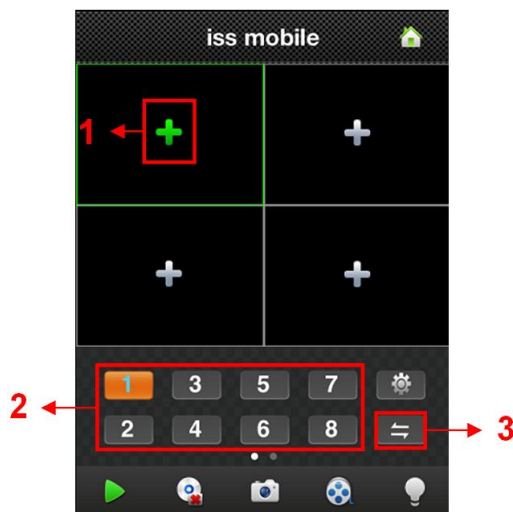


Fig 7-28



Fig 7-29

- 3) Select the device which switched to, will show the channel list of this device.
- 4) Select the channels in the channel list of this device, turn back to display interface to view the Camera of this channel.

7.6.5 PTZ Control

Left slip "●●" to "PTZ Control", like Fig 7-30 as below:





Fig 7-30

Function keys of PTZ control as below:





: Control PTZ direction;



: Zoom in and zoom out;



: Change focus;




: Change aperture.



7.6.6 Local Video

The videos will be saved on the phone after recording the videos. Steps as below:

- **Play Video:**

- 1) Click “” to access the main menu interface, select “local video” to access “local video” list interface, like Fig 7-31:
- 2) Click the video record, for example 20121011134721.mp4, to view this video record.

- **Batch Save:**

- 1) Click “” to access the main menu interface, select “local video” to access “local video” list interface, like Fig 7-31:
- 2) Click “”, then select the needed video, like Fig 7-32:
- 3) Click “Save to photos album”, will show “Saved successfully”, like Fig 7-33(a) and (b):
- 4) Click “OK”, back to the list interface like Fig 7-31:

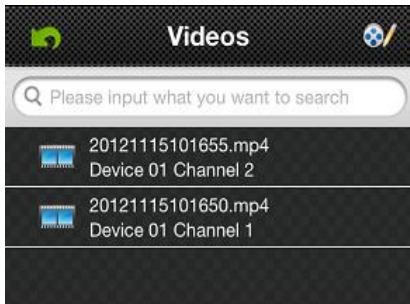


Fig 7-31

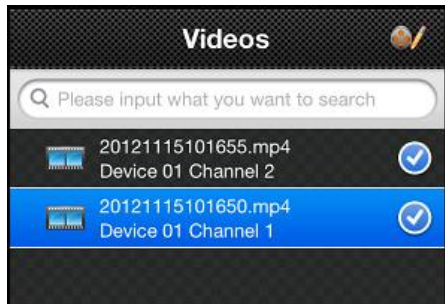


Fig 7-32

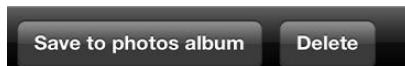


Fig 7-33(a)

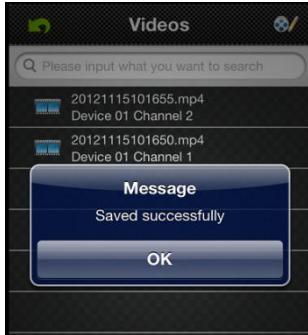


Fig 7-33(b)

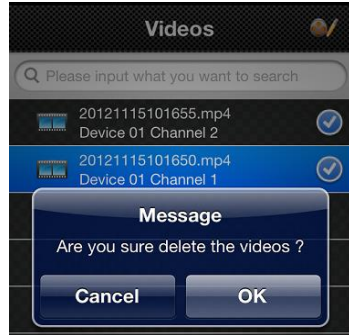



Fig 7-33(c)

- **Delete :**

- 1) Click “

Note: 1) In the all operation steps, you could click “Done” to end up, cancel the operation and back the last step.

2) You have to make sure there are video records, so that you could search the records; if not, you cannot search it.

7.6.7 Saved Photos

The photos are the snap-shot when viewing the Cameras which saved on the album. You also can check and batch save and delete etc. The steps are the same as 4.6.6.

7.6.8 Switch Language

When you switch the language on your phone, the language of the application 当 will be changed as well. For example, it's switched to English on your phone, the language of

the application will be switched to English as well.

7.6.9 Video Remote

You can access the device recorded clips with the app and view the video clips. Select the right device, channel and time then tap search, like Fig 7-34:

7.6.10 Real-Time Alarm

When any channel has any alarming info, the app will show up in the main interface, like Fig 7-35:



Fig 7-34

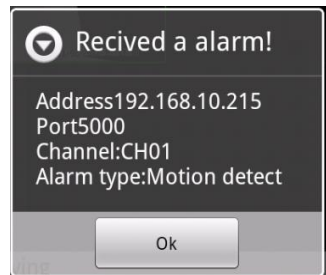


Fig 7-35

Appendix A FAQ

Q1. Why the DVR cannot start after connected to the power?

- a. The adapter has been damaged. Please change an adapter.
- b. The power of the adapter is not enough. Please remove the HDD to check.
- c. Hardware problem.

Q2. There is not menu output or only has live image display.

- a. Check up whether other devices can display menu or long press Exit/ESC button to wait for login dialog box to appear.

Q3. The indicator of the DVR lights, but no output. Why?

- a. The power of the adapter is not enough. Please remove the HDD or change an adapter to try.
- b. The video format of the DVR is different from that of the monitor.
- c. Connection problem. Please check the cable and the ports of monitor and DVR.

Q4. Why are no images displayed on parts or all of the channels of the DVR?

- a. Connection problem. Please check the cable and the ports of camera and DVR.
- b. Camera problem. Please check the cameras.
- c. The video format of the DVR is different from that of the cameras. Please change DVR system format.

Q5. Cannot find HDD

- a. The power of the adapter is not enough. Please change an adapter to try.
- b. Connection problem. Please check the power cables and data cables.
- c. The HDD is damaged. Change a new one.

Q6. Cannot record

- a. Don't format HDD. Please format it manually first.
- b. Don't enable record function or incorrect setup. Please refer to 4.3 Record configuration and 4.4.1 Schedule.
- c. HDD is full and not enables recycle function. Change a new HDD or enable recycle. Please refer to 4.3.5 Recycle record.
- d. The HDD is damaged. Change a new one.

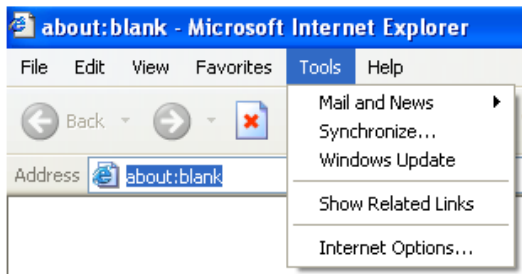
Q7. Cannot use mouse

- a. Please wait 1-2 minutes after mouse connected.
- b. Not detected. Plug/unplug several times.
- c. The mouse is incompatible. Please change a compatible mouse.

Q8. Cannot download ActiveX control

a. IE browser blocks ActiveX. Please proceed as follows:

- ① Open IE browser, then click Tools→Internet Options...;



- ② Select Security tab→Custom Level...; Refer to Fig 8-1:
- ③ Enable all the sub options under “ActiveX controls and plug-ins”; refer to Fig 8-2:
- ④ Click OK to finish setup;
- b. Other plug-ins or anti-virus software blocks ActiveX. Please uninstall or close them.

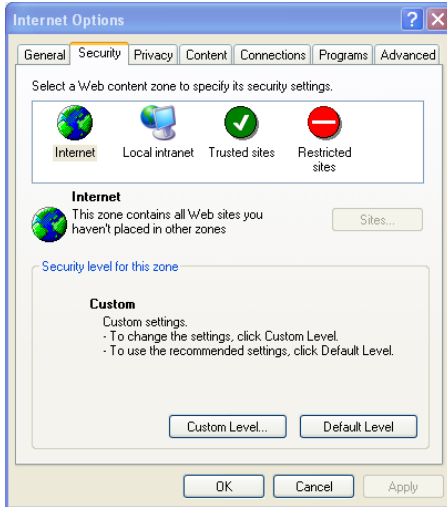


Fig 8-1

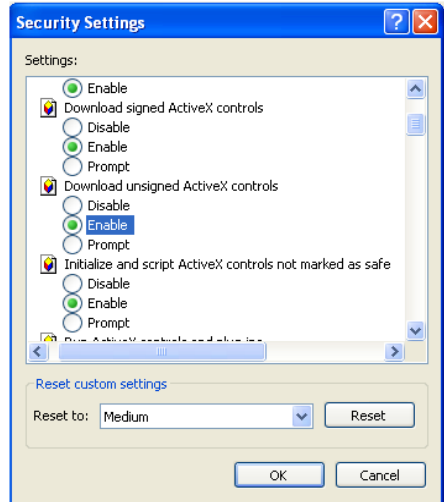


Fig 8-2

Q9: How to deal with when DVR starts, it displays “please wait...”all the time?

The first possible reason: hard-disk cable or data cable are not connected well.

Solution: please check the connection of hard-disk cable and data cable to make sure they are connected well; if still not working, please unplug them and re-plugging again.

The second possible reason: it is forced to stop because hard disk has disabled track which causes the system checking hard disk cannot skip.

Solution: change another new hard disk or reformat the broken one.

Q10: How to input password and digital numbers?

The method of input password and digital numbers is to click the blank box behind password or items needing to input numbers, and then the small keyboard will appear. Please select number or letter to input (the initial password is 123456), you can also use the digital keys in the front panel, or the digital keys on the remote controller.

Q11: Why is the hard disk used in a DVR identified a new hard disk if directly used

to another same type DVR? And why must we format it again?

When DVR only uses one hard disk, the hard disk removed from one to another same type DVR can work normally without format. However, when a DVR adds to a new hard disk, it will identify the hard disk as a new one and inquire whether to format no matter whether this hard disk used or not in another same type DVR before. In this condition, it can be used normally after formatted according to the guide; if two or more hard disks used in different DVRs, when used in another DVR with the same type, they will be identified to be two or more new hard disks, and all of them need to format. In general, please do not try using more disks removed from different DVRs into another one in case the data lose.

Q12: What are the minimum configurations of PC for clients connecting?

PC Module	Parameters
CPU	Intel Celeron 2.4G
Motherboard	Intel 845
HDD	80G
RAM	512M
VGA	NVIDIA GeForce MX440/FX5200; ATIRADEON 7500/X300
OS	Windows 2000(SP4 above) /Windows XP(SP2 above) /VISTA
DirectX	9.0

Q13: How to handle the situation when codec control is blocked in the VISTA or Win7 system?

If user has encountered this problem, there are two solutions to fix it we may have:

a. Enter the Control Panel→User Account and Family Safety → User Account Control; click Turn User Account on or off. Cancel “Use User Account Control (UAC) to help protect your computer” (refer to Fig 8-3).

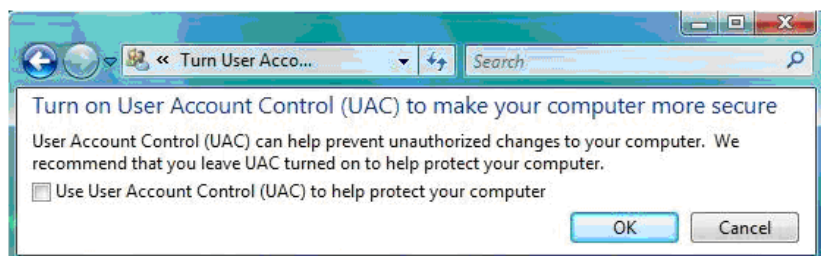


Fig 8-3

- b. Right click IE browser (refer to Fig 8-4), select “Run as administrator” to run browser.

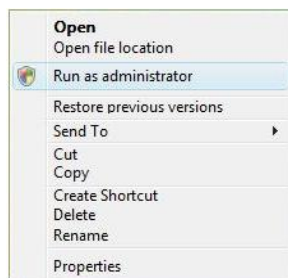


Fig 8-4

Appendix B Calculate Recording Capacity

Make sure the hard disk formatted and installed to the DVR for the first time.

1、 Hard disk capability

There is no limit for recording machine. We recommend 500G~2048G size to keep better stability.

2、 Overall capability option

The hard disk capability formula is:

Overall capability (M)=channel number*time (hour)*capability in an hour (M/hour)

The recording time formula is:

$$\text{Recording time (hour)} = \frac{\text{overall capability (M)}}{\text{Capability in an hour (M/hour)*channel number}}$$

The DVR introduces the H.264 compression technology. Its dynamic range is very large so the hard disk capability calculation is based on the estimation values of each channel creating files in an hour.

Example:

For one piece 500G HDD, real time CIF for recording, it will keep recording for about 25 days.HDD spaces per channel is 200M/H, if 4channels real time CIF at 24hours recording uninterrupted, it can last: $500G/(200M/H*24H*4ch)=26$ days

Appendix C Compatible Devices

1. Compatible USB drive after test.

Brand	Capacity
SSK	512MB, 1G, 2GB
Netac	4GB
Kingston	2GB
AIGO	2GB
Smatter vider	1GB
SanDisk	4GB

2. Compatible SATA CD/DVD writers after test

Brand	Model
TECLAST	GH22NP20/TL-22XD
BENQ	DW220S-0K4
LITEON	DH—20A6S01C
LITEON	DH-20A4P02C
SAMSUNG	TS-H653B

3. Compatible HDD list after test

Brand	Capacity
Seagate Barracuda LP ST3200542AS	2TB
Seagate Barracuda 7200.11 ST31500341AS	1.5T
Seagate SV35.3 ST31000340SV	1T
Seagate Pipeline HD.2	500G
Seagate Barracuda 7200.10	320G
Seagate Barracuda 7200.10 ST3250310AS	250G

Seagate Barracuda 7200.11 ST3160813AS	160G
Seagate Barracuda 7200.10 ST380815AS	80G
Maxtor Diamondmax 21 STM3160215AS	160G
HITACHI Deskstar HDS721616PLA380	160G
HITACHI Deskstar	80G
WD WD1600JS	160G
Samsung HD161HJ	160G

Appendix D Specifications

Channel number	4CH	8CH
OPERATION SYSTEM	LINUX	
VIDEO		
VIDEO SYSTEM	NTSC/PAL Switch Selectable	
INPUT	BNC*4,1.0Vp-p,75ohm	BNC*8,1.0Vp-p,75ohm
Video Output	1 CH BNC(1.0Vp-p,75Ω); HD VGA Output;	
SPOT	NO	
LOOP OUT	NO	
VGA OUTPUT	800 x 600, 1024 x 768, 1280x 1024	
HDMI OUTPUT	OPTIONAL	
AUDIO		
INPUT	4CH , RCA	
OUTPUT	1CH,RCA	
TALK BACK	YES	
CONTROL		
MOUSE	2 * USB2.0	
IR CONTROLLER	YES	
STORAGE		
BUILD IN INTERFACE	SATA 2.6 * 1(1*HDD 2TB)	
DISPLAY		
DIVISION	1, 4	1,4,6,8,9
ZOOM	Preview and Playback Zoom Support	

RECORDING		
COMPRESSION	H.264 Main Profile	
RECORDING MODE	Manual/Schedule/Motion Detection/Sensor	
RESOLUTION	NTSC:704*480,352*240	
	PAL:704*576,352*288	
RECORD FRAME RATE	NTSC: 120FPS@D1	NTSC: 240FPS@CIF
	PAL: 100FPS@D1	PAL: 200FPS@CIF
QUALITY	Worst, Worse, General, Good, Better, Best	
MOTION DETECTION	Sensitivity: Multi Level, 22*15Grid	
WATER MARK	YES	
PLAYBACK		
PLAYBACK FRAME RATE	120(100)FPS@D1	240(200)FPS@CIF
MULTI CHANNEL PLAYBACK	1, 4	1,4,8
SPEED	Normal, FF(1X, 2X, 4X, 8X, 16X), Slow (1/2X, 1/4X), RW (8X, 16X, 32X)	
SEARCH METHOD	Time, Event, Channels and Calendar	
COMMUNICATION		
REMOTE SOFTWARE	Remote Client, IE Brower, Mobile, CMS	
REMOTE OPERATION	Remote view, remote playback, remote setup	
NETWORK SERVICE	TCP/IP, UDP, HTTP, DDNS, SMTP(SSL), LAN, DHCP, PPPOE	
3G DEVICE	iPHONE,iPAD, Android	
3G External Module	YES, with USB 2.0 Port, WCDMA Signal (The first edition will not support)	
WAN RJ45	10/100 Mbit/s	
WIFI External Module	Yes, with USB 2.0 Port, 100 Meters	

GUI INTERFACE	Supported GUI 16 Bit True Color
PTZ PROTOCOL	1*RS485, Support multi Protocols
BACKUP	
INTERNAL	NO
EXTERNAL	2 * USB2.0; Removable DVD-RW
NETWORK	YES
FILE	.dat / AVI
GENERAL	
ALARM IN/OUT	8CH / 1CH Optional
RS-485	1 Optional
RS-232	NA
UNIT DIMENSION(mm)	W220xD260xH47.5mm
OPERATION TEMPERATURE	10°~ 40°
WORKING HUMIDITY	10% ~ 90%
POWER CONSUMPTION	DC 12V, 2A, 10~15W (Exclude HDD)