DVR User Manual

For H.264 4-channel digital video recorder All rights reserved



CAUTION

- Please read this user manual carefully to ensure that you can use the device correctly and safely.
- This device should be operated only from the type of power source indicated on the marking label. The voltage of the power must be verified before using the same. Kindly remove the cables from the power source if the device is not to be used for a long period of time.
- Do not install this device near any source of heat such as radiators, heat registers, stoves or any other devices that produces heat.
- Do not install this device near any source of water. Clean only with a dry cloth.
- Do not block any ventilation openings and ensure proper ventilation around the machine.
- Do not power off the DVR when the device is functioning. The correct procedure to shut down the DVR is to first stop recording and then use 'Shut Down' button from the menu, and finally switch off the main power.
- This equipment is for indoor use only. Do not expose the machine to rain or moist environment. Please turn off the DVR immediately if any solid or liquid gets inside the machine's case, and get it checked by a qualified technician.
- Do not try to repair the unit by yourself. Refer all servicing to qualified service personnel.
- This manual is suitable for 4-ch of digital video recorders. All examples and pictures used in the manual are from 4-channel DVR.



Warranty

We warrant that the new DVR will be free from defects in material and workmanship as per the standard warranty term. If a defect is discovered, our sole obligation shall be to repair or replace the product(s) at its sole discretion, provided it is returned during the warranty period and that the fault is covered under warranty as per the standard warranty policy.

This warranty shall not apply to any product or any part of a product, which in the judgment of our company, has been subjected to misuse, negligence, alteration, accident, improper maintenance, or damage by excessive physical or electrical stresses. Tampering, such as opening the housing of the DVR or replacing parts will void this warranty. The warranty is void if the serial number of the product has been defaced, altered, or removed or if the product has been modified. All replaced parts or products become the property of our company.

The warranty is not applicable to:

- · Abnormal wear and tear.
- Damage caused during installation.
- Damage caused by the equipment or system with which the DVR is used.
- Damage caused by modification or repairs not made or authorized by our company.
- Damage caused by improper packaging.
- Damage caused by lack of grounding protection.
- Merchandise that is determined to be stolen.
- Power supplies and accessories.

For any warranty related issue or further details, please contact your dealer, supplier or point of sale.



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1 Introduction

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. It utilizes most advanced technologies, such as H.264 with low bit rate, Dual stream, SATA interface, VGA output, USB mouse support, IE browser support 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.

1.1 Main Features

COMPRESSION FORMAT

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

LIVE SURVEILLANCE

- Supports VGA output.
- User specific monitoring rights.
- Display the recording status with date, time and camera name.
- User friendly GUI supported by USB mouse.

RECORD MEDIA

- Supports one SATA HDD
- Supports USB 2.0 flash drive for backup.
- Supports saving recorded files with AVI standard format at a remote computer through internet.



RECORD & PLAYBACK

- Record modes: Manual, Schedule, Motion detection and Sensor based alarm recording.
- Supports overwriting when HDD is full.
- Adjustable resolution, frame rate and picture quality.
- 4 audio channels.
- Time, event and image based search
- Supports 4 screen playback simultaneously.
- Supports deleting and locking the recorded files one by one.
- Supports remote playback in Network Client through LAN or internet.

ALARM

- 1 channel alarm output and 4 channel alarm input available.
- Schedule for motion detection and sensor alarm.
- Pre and post event recording.
- Flexible channel mapping for alarm recording.
- PTZ preset, auto cruise and track for corresponding channels.

PTZ CONTROL

- Supports various PTZ protocols.
- Supports with 128 presets and 8 cruise tracks.
- Remote PTZ control through internet.

SECURITY

- Customizable user rights: log search, system setup, two way audio, file management, disk management, remote login, live view, manual record, playback, PTZ control and remote live view.
- Supports 1 administrator and 63 users.



- Event log recording and checking, unlimited events.
- Watermark

NETWORK

- Supports TCP/IP, DHCP, PPPoE, DDNS protocols.
- IE browser for remote viewing.
- User can define the number of client connections (maximum of 5 users).
- Dual stream operation. Network stream is adjustable independently to fit the network bandwidth and environment.
- Snapshot and color adjustment when viewing live video remotely
- Time, Event and Image search, and channel playback.
- PTZ control with preset and auto cruise.
- Complete menu configuration, changing the DVR parameters remotely.
- Supports mobile surveillance by smart phones, Symbian, WinCE, iPhone, Gphone, Blackberry, 3G network.
- CMS to manage multiple devices over the internet.



2 Hardware Installation

Note: Please ensure not to power up the unit till the physical installation is complete.

2.1 Install Hard Drive

Note: 1. Support one SATA hard drive. Please select the hard drive as per the manufacturer's recommendation. Refer to 'Appendix C Compatible Devices'

- 2. Please calculate HDD capacity according to the record setting. Please refer to 'Appendix B Calculate Recording Capacity'.
- Unscrew and Open the top cover.
- Connect the power and data cables. Place the HDD onto the bottom case as Fig 2-1,
- Mount the HDD as shown in Fig 2-2.



Fig 2-1 Connecting HDD



Fig 2-2 Connecting HDD

Note: For installation convenience, please connect the power and data cables first, and then wind the screws to fix the HDD.

2.2 Front Panel Descriptions

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



Item	Name	Description	
1	1-9	Input number 1-9 or choose camera	
2	0/10+	0/10+ Input number0, 10 and the above number together with other digital keys	
3	MENU/+	1. Enter Menu. 2. Increase the value in setup.	
4	BACKUP/-	1. Decrease the value in setup. 2. Enter Backup Mode.	
5	≪	Rewind Key	
6	►II	Pause/Play	
7	▶	Fast Forward	
8	/ESC	1. Quit Play mode. 2. Exit the current tab or status.	
9	•	Record Manually.	
10	Q	Zoom in	
	REC	The light turns blue when recording.	
	HDD	The light turns blue when reading/writing HDD.	
11	Backup	The light turns blue when backing up files and data.	
11	Net	The light turns blue when it is able to access the network.	
	Play	The light turns blue when playing video.	
	Power	Power LED.	
12	Enter button	er button Confirm selection	
13	Multi-screen	Change screen display mode.	
13	Direction key	Change direction to select items	
14	USB port	To connect external USB devices like USB flash drive, USB HDD for backup, or updating firmware; or connecting USB mouse	
15	IR	For remote controller	



2.3 Rear Panel Instructions



Item	Name	Description
1	Video Out	Video Output
2	Spot	Connect to monitor as an AUX output to display channel by channel. Video would be displayed without OSD.
3	Audio Out	Audio Output.
4	VGA Port	VGA Output.
5	LAN	Network Port.
6	USB port	To connect external USB devices like USB flash drive, USB HDD for backup or updating firmware.
7	P/Z	Connect to Speed Dome, Y is TX+, Z is TX-
8	K/B	Connect to Keyboard, A is TX+, B is TX-
9	Alarm Out	Relay Output. Connect to external alarm.
10	Alarm In	Alarm Inputs for connecting sensors
11	+ 5V and GND	+5 V and Grounding (Reserved for future)
12	Video In	Video Inputs
13	Audio In	4 Audio Inputs.
14	Power Input	DC12V.



2.4 Remote Controller

It uses two AAA size batteries,

- Open the battery cover of the Remote Controller.
- Place batteries. Please take care of the polarity (+ and -).
- Replace the battery cover.

Note: Key points to check in case the remote doesn't work.

- 1. Check batteries polarity.
- 2. Check the remaining charge in the batteries.
- 3. Check IR controller sensor for any masking.
- 4. Check the ID of the remote with respect to the DVR.

If it still doesn't work, please try using a good known remote, or contact your dealer.

The interface of remote controller is shown in Fig 2-7 Remote Controller.

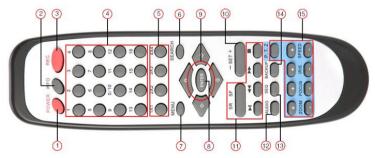


Fig 2-3 Remote Controller



Item	Name	Function
1	Power Button	Switch off - to stop DVR. Use it before turning off the power.
2	INFO Button	Get information about the DVR like firmware version, HDD information.
3	REC Button	To record manually.
4	Digital Button	Input number or choose camera.
5	Multi Screen Button	To choose multi screen display mode.
6	SEARCH Button	To enter search mode.
7	MENU Button	To enter menu.
8	ENTER Button	To confirm the choice or setup.
9	Direction Button	Move cursor in setup or pan/tilt PTZ.
10	+/- Button	To increase or decrease the value in setup.
11	Playback Control Button	To control playback, Fast forward/rewind/stop/single frame play.
12	AUDIO Button	To enable audio output in live mode.
13	SEQ Button	To enter auto dwell mode.
14	BACKUP Button	To enter backup mode.
15	PTZ Control Button	To control PTZ camera, Move camera/ZOOM/FOCUS/IRIS/SPEED control.

Operation processes with remote controller to control multi-DVR

The default device ID of the DVR is 0. It's not necessary to reset the device ID when a remote is to be used to control a single DVR. However when controlling multiple DVRs with multiple remote controllers, the user would need to configure the device ID, please refer to below steps:

- Activate remote controller to control the DVR: Turn the IR sensor of the remote controller towards the IR receiver on the front panel, press the number key 8 twice on the remote, then input device ID of the DVR to be controlled (Range from: 0-65535; the default device ID is 0) and press ENTER to confirm.
- User can check the device ID of a DVR from System Setup→Basic→Device ID. User can also set multiple DVRs with the same device ID however this can cause interference if the DVRs are kept close to each other.



2.5 Control with Mouse

2.5.1 Connect Mouse

It supports USB mouse through the port on the rear panel.

Note: If the mouse is not detected or doesn't work, check below mentioned steps:

- 1. Make sure the mouse is plugged in the USB mouse port not the USB port on the front panel.
- 2. Try with a good know mouse.

2.5.2 Use Mouse

During live:

Double-click on any camera window for the full screen mode. Double-click again to return to the previous screen mode. Right click to reveal the control menu on the screen. Right click to hide the control menu.

In Configuration:

Click to enter a particular option. Right click to cancel the option or to return to the previous menu.

In order to input a value in a particular screen, move cursor to the input box and click. An input window will appear as Fig 2-4. It supports digits, alphabets and symbols as inputs.

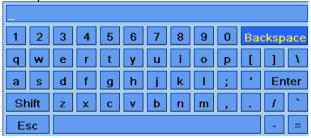


Fig 2-4 Input Window



Users can change some values using the mouse wheel, such as time. Move cursor onto the value and roll the wheel when the value blinks.

It supports mouse drag. For e.g. setting up motion detection area, click customized, hold down the left button and drag to set motion detection area.

Setting up Schedule: hold left button and drag to set schedule time.

In Playback:

Click to choose the options. Right click to return to live mode.

In Backup:

Click to choose the options. Right click 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.

Note: Mouse is the default tool for all operations unless an exception, as indicated.



3 Basic Function Instruction

3.1 Power On/Off

Please make sure all the connections are done properly before you power on the unit.

3.1.1 Power On

- Connect with the power source, switch on the power button near the power port on the rear panel. The device will boot the power LED would turn blue.
- A WIZARD window will pop up and would display some information about Time Zone, Time Setup, Network Setup, Record Setup and Disk Management. User can use this wizard for the preliminary configuration or can choose to exit from the tab.

On powering up, if there is no menu displayed or only has live image display, then the user can long press ESC button to switch between VGA and BNC output.

Note: This DVR can only display options on either VGA monitor or BNC monitor at a given point of time, if there is live image display without menu options then please check if there is display on other device/monitor, or long press ESC key to wait for login dialog box to appear. Long press ESC key can switch the output between BNC and VGA.

3.1.2 Power Off

User can power off the device by using IR remote controller and mouse.

By IR Remote Controller:

- Press Power button. Then the Shut Down window will appear. The unit will power off in some time by clicking OK button.
- Disconnect the main power.

By Mouse:



- Enter into Main Menu and select 'Shut Down' icon. This will bring up a Shut down window.
- The unit will power off in some time by clicking OK button.
- Disconnect the main power.

3.2 Login

User can login or log off the DVR system. Once logged off the user cannot do any other operation except changing the multi-screen display.

Note: The default user name and password is 'admin' and 123456'

For complete operational steps for changing password, adding or deleting users please refer to section 4.7 User Management Configuration.



Fig 3-1 Login

3.3 Live View



Fig 3-2 Live View Interface

Symbol	Meaning
Green	Man Record
Yellow	Motion Detection record
Red	Alarm based recording
Blue	Schedule based recording



3.3.1 Playback

Right click on the display window to show the menu toolbar, then click button to playback the record. Refer to Figure 3-3. User can do complete operation by clicking the buttons on screen.

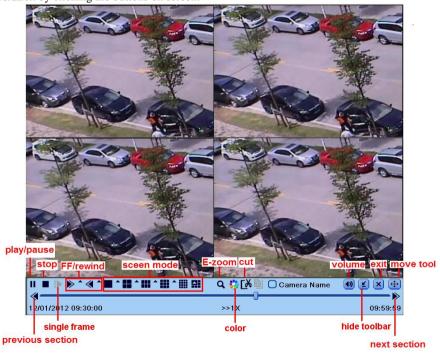


Fig 3-3 Playback



4 Main Menu Setup Guide

Right click or press Stop/ESC button on the front panel to access the Control Menu. Refer to Fig 4-1:

- **Single**: Choose a channel from the list to be displayed in the full screen mode.
- Multi: Choose the display mode for viewing multiple channels.
- PIP: Choose a single channel and then right click to show the menu bar. Then a PIP button will
 display. Now clicking this button and choosing another single channel can realize the effect of
 picture in picture.
- Click the icon beside the screen display mode to display a channel selection box. 4-channels can realize single channel big screen. Images can drag to any place to display in the live interface.
- **Dwell**: Dwell means to display live images from different cameras in a sequence. The images may be displayed as a single channel or in a grid fashion from different cameras. Dwell mode is enabled only when the chosen display mode is not able to display all the available cameras.
- Color: If this button is enabled, you can adjust the color of live images.
- **E-Zoom:** Single channel large screen electronic amplification.
- Audio: Enable sound.
- PTZ: Click the PTZ button to control rotation position, speed and auto scan of the PTZ connected to the IP camera.
- **Record:** Click this button to start manual record.
- **Playback:** Click this button to playback the record files.



Fig 4-1 Control Menu

Click main menu button, the interface will pop-up as Fig 4-2; The Main Menu can also be accessed by pressing the Menu button on IR remote controller or the Menu button on the front panel. Click Setup icon, it will pop-up the configuration menu:







Fig 4-2(a) Main Menu

Fig 4-2(b) Setup Menu

4.1 Basic Setup

Basic Configuration includes three sub menus: System, Date & Time and DST.

4.1.1 System

- Enter into System Setup→Basic →System. Refer to Fig 4-3:
- In this tab the user can setup the Device Name, Device ID, Video Format, Max Network Users, VGA Resolution and Language. The definition for every parameter is as below

Device Name: The name of the device as it may display on the client end or on CMS, this would help the user to recognize the device remotely.

Device ID: This ID is used to map the DVR with IR remote controller and speed dome cameras.

Video Format: Two modes: PAL and NTSC. User can select the video format according



Fig 4-3 Basic Setup-System



to the cameras being used.

Password Check: If enabled the user would need to input the user name and the password for performing corresponding operations.

Show System Time: If selected, displays the current time during live monitoring...

Max Online Users: To set the maximum number of concurrent user logins in the DVR.

Video Output: The resolution of live display interface, ranges from: VGA800*600, VGA1024*768, VGA1280*1024 and CVBS.

Note: The user can switch between CVBS and VGA mode by pressing and holding the Esc key from the front panel. When switching between VGA and CVBS the DVR will change the output mode. Please connect to the relevant monitor/output as while switching between the two modes the menu display would also change.

Language: Setup the menu language.

Note: After changing the language and video output options, the user needs to login again.

Logout After (Minutes): A user can setup the screen interval time (30s, 60s, 180s, 300s). If there is no any operation within the setting period, the device will auto logout and return to login interface.

Startup Wizard: If selected, the GUI would launch the startup wizard on every boot, allowing the user to do basic setup.

No Image When Logout: If this item is selected, there will be no image showing when logout.

4.1.2 Date & Time

- Enter into System Setup Basic Date & Time. Refer to Fig 4-4:
- Set the Date Format, Time Format, and Time Zone in this tab. Select 'Sync Time With NTP Server' to refresh NTP server date. User can also adjust system date manually.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.



Fig 4-4 Basic Setup-Date & Time



4.1.3 DST

- Enter into System Setup→Basic→DST. Refer to Fig 4-5:
- In this tab, user can enable Daylight Savings Time, and enter Time Offset, Mode, Start & End month/week/date, etc.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.



Fig 4-5 Basic Setup-DST

4.2 Live Setup

Live Setup includes four submenus: Live, Main Monitor, Spot and Mask.

4.2.1 Live

In this tab, user can setup camera name, adjust colors: brightness, hue, saturation and contrast.

- Enter into System Setup→Live →Live. Refer to Fig 4-6:
- For a particular channel/camera settings, click 'Setting' button, a window will pop-up as Fig 4-7:
- In this tab, user can adjust brightness, hue, saturation and contrast for Live view. Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

 User can setup all channels with same parameters by selecting 'All'.





Fig 4-6 Live Setup→Live



Fig 4-7 Live-Color Adjustment

4.2.2 Main Monitor

- Enter into System Setup→Live→Main Monitor. Refer to Fig 4-8:
- Select Display Mode: 1×1 , 2×2 , 2×3 , 3×3 , 4×4 and map the channels.
- Dwell Time: Set the dwell time.
- Select the split mode and setup current picture group. Click button to setup the previous channel group. Click button to set the latter channel group.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click the 'Exit' button to exit the current tab.

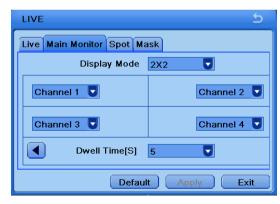


Fig 4-8 Live Setup-Main Monitor



4.2.3 Spot

- Enter into System Setup→Live→Spot. Refer to Fig 4-9:
- Select Display Mode: 1×1 and map the channel
- Dwell Time: Set the dwell time.
- Select the display mode and setup current picture group. Click button to setup the previous channel group, click button to set the latter channel group.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.



Fig 4-9 Live Setup-Spot

4.2.4 Mask

User can setup private mask area on the image.

Setup Mask Area: Click 'Settings' button, Enter into Live image, click mouse button and drag mouse to set the mask area. Refer to picture below. Click 'Apply' button to save the settings.

Delete Mask Area: Select a certain mask area, double click to delete that mask area and then click 'Apply' button to save the settings. Each channel is allowed to set 3 mask areas.









Fig 4-10 Live Setup-Mask

Setup Mask Area

Live Image Mask Area

4.3 Record Setup

Record setup includes six sub menus: Enable, Record Bit Rate, Time, Stamp, Recycle Record and Snap.

4.3.1 Enable

- Enter into System Setup→Record →Enable. Refer to Fig 4-11:
- Select to enable video and audio recording for individual channels.
- Select 'All' button to set same settings for all channels.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.





Definitions and descriptions of Record:

Parameter	Meaning	
Record	To enable / disable recording	
	for the channel	
Audio	To enable/disable audio	
	recording for the channel	

Fig 4-11 Record Setup-Enable

4.3.2 Record Bit rate

- Enter into System Setup→Record→Record Bit Rate. Refer to Fig 4-12:
- Setup Resolution, fps and Quality.
- User can setup all channels with same parameters, check 'All', and then do relevant setup.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

Note: If the parameter is outside the available resources of the device then the value will be adjusted automatically





Parameter	Meaning	
Rate	Range from: 1-30 (NTSC) 1-25(PAL)	
Resolution	Support CIF, HD1 and D1	
Quality	The higher the value is, the clearer the recorded	
	image is. Six options: lowest, lower, low,	
	medium, higher and highest.	
Encode	VBR and CBR	
Max bit	Range from: 256 Kbps, 384Kbps,512 Kbps,	
stream	768 Kbps, 1Mbps, 1.5MBps, 2 Mbps	

Fig 4-12 Record Setup-Record Bitrate

4.3.3 Time

• Enter into System Setup→Record→ Time. Refer to Fig 4-13:

Pre-alarm Record Time: The record time prior to actual triggering of an alarm i.e. record time before motion detection or a sensor alarm was triggered.

Post-alarm Record Time: The record time post triggering of the alarm, five options: 20s, 30s, 60s,120s,180s and 300s.

Expire [Days]: The time till which the records would be retained. If the set date is overdue, the recorded files will be deleted automatically.

 User can setup all channels with same parameters by selecting 'All' option and then doing the relevant setup. Click 'Default' button to restore default settings.



Fig 4-13 Record Setup Time



• Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

4.3.4 Stamp

Stamp: This provides an option to enable or disable the Camera Name and the Time stamp on the video. The user can also choose a position for the stamp on the screen.

- Enter into System Setup→ Record→ Stamp. Refer to Fig 4-14:
- Check the Camera Name & Time Stamp options; use the 'Setting' button for positioning of the stamps. The user can use mouse to drag the camera name and time stamp at random positions. Refer to below figures:



Fig 4-14 Record Setup-Stamp





- User can setup all channels with same parameters by selecting the 'All' checkbox and then doing the relevant setup.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.



4.3.5 Recycle Record

This option is used to recycle the HDD space once it is full, if enabled the system will automatically delete the old records (FIFO, recycling space) and recycle the space if it is completely utilized.

- Enter into System Setup→Record→Recycle Record;
- Check the 'Recycle Record' box to activate the auto recycling.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

Note: If the option is disabled or not selected, the DVR would stop recording once the HDD is full.

4.3.6 Snap

In this interface, user can set up Resolution, Quality, Snap interval and Snap number.

4.4 Schedule Setup

Schedule Setup includes three sub menus: Schedule, Motion and Sensor.

.

4.4.1 Schedule

This tab allows defining schedule for normal recording for seven days of a week, 24 hours of a day. Every row denotes an hourly timeline for a day. Click the grid to do relevant setup. A highlighted area denotes selected timeline.

- Enter into System Setup→Schedule→Schedule. Refer to Fig 4-15:
- Select channel and double-click to pop up a dialog box as Fig 4-16. Now user can edit week's schedule:





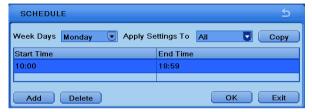


Fig 4-15 Schedule Setup-Schedule

Fig 4-16 Schedule-Week Schedule

Click 'Add' button to add a certain day schedule; click 'Delete' button to delete the selected schedule.

Copy: user can copy the specify schedule to other dates. Click 'OK' button to save the settings, click 'Exit' button to exit the current tab.

User can copy the schedule settings of a channel to other, or all channels, just select channel and click 'Copy' button.

 Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

4.4.2 Motion

This tab allows to setup schedule for motion based recording.

• Enter into System Setup→Schedule→Motion. Refer to Fig 4-17:



Fig 4-17 Schedule Setup-Motion



The configuration steps for schedule for motion based recording are similar to normal Schedule setup. User can refer to 4.4.1
 Schedule for details.

Note: The default schedule of motion based recording is 24X7, that is, the color of schedule settings interface is dark blue. This enables motion based recording for 24X7.

4.4.3 Sensor

This tab allows to setup schedule for sensor based recording.

- Enter into System Setup→Schedule→Sensor. Refer to Fig 4-18:
- The configuration steps for schedule for sensor based recording are similar to normal Schedule setup. Users can refer to 4.4.1 Schedule for details.

Note: The default schedule of sensor based recording is 24X7, that is, the color of schedule settings interface is dark blue. This enables sensor based recording for 24X7.

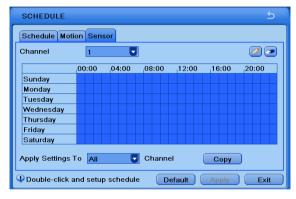


Fig 4-18 Schedule Setup-Sensor

4.5 Alarm Setup

Alarm Setup includes five sub menus: Sensor, Motion, Video Loss, Other Alarm and Alarm Out.

4.5.1 Sensor

Sensor includes three sub menus: Basic, Alarm Handling and Schedule.

- (1) Basic
- Enter into System Setup→Alarm→Sensor→Basic. Refer to Fig 4-19:



- Enable Sensor Alarm, set the alarm type according to required alarm type. Two
 option: NO and NC.
- User can setup all channels with same parameters by selecting the 'All' box and then doing the relevant setup.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

② Alarm Handling

- Enter into System Setup→Alarm→Sensor→Alarm Handling. Refer to Fig 4-20:
- Select Holding Time and click 'Setting' button under Trigger option. This will let you see a dialog box shown as Fig 4-21:



Fig 4-19 Alarm Setup-Sensor-Basic



Fig 4-20 Alarm Setup Sensor-Alarm Handling



Fig 4-21 Alarm Handling-Trigger



• Buzzer – If selected the local buzzer would be activated on an alarm.

Show Full Screen: When chosen would display the chosen channel on the monitor on an alarm trigger. The user can choose 'None' for disabling this feature.

Email: If selected, the DVR will send an email alert to the preconfigured email address in case of a sensor based alarm from the particular input.

To Alarm Out: If selected, this would trigger the inbuilt relay on detecting a sensor based alarm (from the particular input),

Click 'OK' button to save the settings. Click 'Exit' button to exit the current tab.

To record: This tab allows the user to select the channels to be recorded in case of an alarm

Click 'OK' button to save the settings. Click Exit button to exit the current tab.

To P.T.Z: Allows the user to set Preset, Cruise & Track options for a PTZ in case of a sensor based alarm. Single or multiple PTZ units could be programmed to perform this function on the same alarm.

- Click 'OK' button to save the settings. Click 'Exit' button to exit the current tab.
- For Alarm Handling the user can setup all channels with same parameters in one step by selecting the 'All' option and then doing the relevant setup.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

Sensor Schedule

- Enter into System Setup→Alarm→Sensor→Schedule. Refer to Fig 4-22:
- The configuration steps of Sensor Schedule are similar to normal Schedule setup. User can refer to 4.4.1 Schedule for details.

Note: The default schedule for sensor is 24X7, that is, the color of schedule settings interface is dark blue. This means that the sensors would be activated 24X7.



Fig 4-22 Sensor-Schedule



4.5.2 Motion

Motion includes two sub menus: Motion and Schedule.

(1) Motion

• Enter into System→Alarm→Motion. Refer to Fig 4-23:

Using this tab the user can enable motion based alarms. Set the alarm holding time – Please refer to the time till which the system will wait for further detection of motion. For e.g. if this is set to 30 seconds, once the system detects a motion it will go into alarm but would not detect any other motion alarm (specific to channel) until 30 seconds. If there is other motion detected during this period, it is considered it as continuous movement, otherwise it will consider a single motion as multiple alarms. Click Trigger button, a dialog box will pop-up:



Fig 4-23 Alarm Setup-Motion

• The setup steps of motion trigger are similar to 'Alarm Handling'. User can refer to 4.5.1 for details.

• Click 'Setting' button under the Area, a dialog box will pop-up as Fig 4-24



Fig 4-24 Motion-Area



• In the Area tab, user can drag slide bar to set the sensitivity value (1-8), the default value is 4. The higher the value the more sensitive it is to motion. Since the sensitivity is influenced by color and time (day or night), you can adjust its value according to the practical conditions. Click icon to set the whole area as detection area. Click icon to clear the set detection area. Click icon to test the sensitivity as per the local conditions. Once motion is sensed, it displays a figure icon. Click icon to save the setting. Click icon to exit the current interface.

Note: Prior to setting motion detection field it is recommended that the user clicks icon to clear the existing field and set afresh.

- User can configure all channels with same parameters by selecting 'All' option and then doing the relevant setup.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

2 Schedule

• Enter into System Setup→Alarm→Motion→Schedule. Refer to Fig 4-25:



Fig4-25 Alarm Setup-Schedule

 The configuration steps of Motion Schedule are similar to normal Schedule configuration. User can refer to 4.4.1 Schedule for details.



4.5.3 Video Loss

- Enter into System Setup→Alarm→Video Loss. Refer to Fig 4-26:
- The Configuration steps for Video Loss trigger are similar to alarm handling, please refer section 4.5.1 Sensor → Alarm Handling for further details.
- User can configure all channels with same parameters for Video Loss by selecting the 'All' box, and then doing the relevant configuration.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings.
 Click 'Exit' button to exit the current tab.



Fig 4-26 Alarm Setup-Video Loss

4.5.4 Other Alarm

This tab gives a choice to configure alarm for Disk Full , IP Conflict, the Disconnect event, Disk Attenuation or Disk Lost.

- Enter into System Setup→Alarm→Other Alarm. Refer to Fig 4-27:
- Use the dropdown menu and select the event for the alarm.
- Check the required trigger options.

Buzzer – If selected the local buzzer would be activated on an alarm.

Email: If selected, the DVR will send an email alert to the preconfigured email address.

To Alarm Out: If selected would trigger the inbuilt relay on the set event alarm.

If the selected event is 'Disk Full' then use the drop down box for 'Disk Shortage Alarm' Fig4-27 Other Alarm to choose a threshold value for remaining HDD space. If the threshold value is reached the system will trigger the Disk Full Alarm.





• Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

4.5.5 Alarm Out

Alarm out includes three sub menus: Alarm Out, Schedule and Buzzer

(1) Alarm Out

- Enter into System→Alarm Out. Refer to Fig 4-28:
- In this tab the user can set the name of the alarm output (inbuilt relay). Hold Time- refers to the time for which the relay would remain activated, the relay would wait for the set duration before it energizes again (the system would not queue up the relay trigger in case another alarm goes off during the set time duration). For e.g. if this is set to 30 seconds, once the system detects an alarm, the relay remain energized for 30 seconds and would not queue another trigger in case of another alarm during in these 30 seconds.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.



Fig 4-28 System Setup-Alarm Out

② Schedule

- Enter into System→Alarm Out →Schedule;
- The configuration steps for Alarm Out Schedule are similar to alarm handling, please refer section 4.4.1 Sensor → Alarm Handling for further details.

Note: The default schedule for Alarm Out is set to 24X7, that is the color of schedule setting interface is dark blue. This means that the Alarm Out or the relay can be triggered 24X7 on an alarm.

3 Buzzer

Enter into System Setup→ Alarm Out → Buzzer;



 Select the 'Buzzer' checkbox and select the Buzzer Hold Time. This would trigger the buzzer for the set time when the system is in alarm.

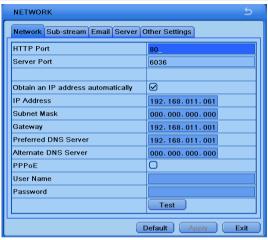
4.6 Network Setup

Network Setup includes five submenus: Network, Sub-stream, Email, Server and Other settings.

4.6.1 Network

- Enter into the System Setup Network. Refer to Fig4-29:
- HTTP Port: The default value is 80. If the value is changed then the user would need to modify the IP address in the IE address bar .i.e. if HTTP port is set to 82 & IP address is 192.168.0.25 then the user would have to input the IP address as http://192.168.0.25:82 in IE address bar.
- · Server Port: Communication Port
- For DHCP configuration check the check box for 'Obtain IP address automatically', the device would then try to get the required settings from the network.
- If this box is not checked the user will have to put the IP Address, Subnet Mask, Gateway DNS server details for a non DHCP configuration.
- PPPoE: If enabled, this would provide the ability to connect the DVR directly to internet via ADSL. This would also need the username and password
 - Test The Test button is used to check if the DVR is able to apply the set options.
- Click 'Default' button to restore the default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.





Parameter Meaning The port number of accessing IE browser. **HTTP** port The default port is 80. The port number for data transmission. The Server port default port is 6036. Static IP IP address The IP address of the DVR Subnet mask The subnet mask of the network. The gateway of the network. Gateway **DNS** server The address of DNS server. **PPPoE** User name Username of broad band account. **Password** Password of broad band account.

Fig 4-29 Network Setup-Network

4.6.2 Sub Stream

- Enter into System Setup→Network→Sub Stream. Refer to Fig 4-30:
- User can configure all channels with same parameters by selecting the 'All' box, and then doing the relevant configuration.
- Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.





Meaning		
Range from: 1-6 (PAL)		
Support CIF		
The quality of the clients' image. The higher the value is, the clearer the record image. Six options: lowest, lower, low, medium, higher and highest.		
VBR and CBR		
Range from: 64 Kbps, 128 Kbps, 256 Kbps, 512		
Kbps、768 Kbps、1Mbps、2 Mbps		

Fig 4-30 Network Setup-Sub Stream

4.6.3 Email

Enter into System Setup→Network →Email. Refer to Fig 4-31:

The tab is used for email setup for the DVR

SMTP Server/Port: The name and port number of SMTP server.

Check the SSL Checkbox if the server requires a secure connection (SSL)'; user can setup mail servers (such as Gmail) according to the requirement,

Send Address/Password: Mention the email address/password of the configured account.

Receive Address 1/2/3: Mention the receiving email addresses. Here user can add three email addresses.

Click TEST button to test the validity of the mailbox.

Attaching image: If selected, images will be attached when sending emails.



Fig 4-31 Network Setup-Email



4.6.4 Server

This function is mainly used for connecting ECMS.

Step 1: In the server interface, select "enable" as shown in the Fig 4-32.

Step 2: Check the IP address and port of the transfer media server in the ECMS. The default server port for auto report is 2009. If it is modified, please enter into the transfer media interface to check

Step 3: Enable the auto report in the ECMS when adding a new device. Then input the remaining information of the device in the ECMS. After that, the system will auto allot a Device ID. Please check it in the ECMS.



Fig 4-32 Network Configuration-Server

Step 4: Input the above-mentioned server IP, server port and device ID in the server interface .Then click "Apply" button to save settings. Now, the ECMS system will automatically connect this device.

4.6.5 Other Settings

- Enable DDNS server: user needs to select server from the dropdown box such as www.dyndns.com and then input user name, password and host domain name of the registered website. Set up the update interval time, Click TEST to test the settings.
- Click 'Default' button to restore the default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

Note: The domain name server elected by user is a binding domain name of the DVR. A user should logon to the website provided by the server supplier to register a user name and password first, and then apply a domain name online for the server. Once applied, user can access the server from the IE by using the host domain name.

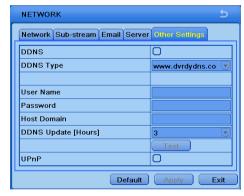


Fig 4-33 Network Setup-Other Settings



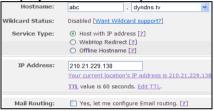
Enable UPnP: User may select UPnP and then enable UPnP function in the user's router. Then there is no need for user to forward its IP address and port in router in connection of internet.

• How to apply for a domain name?

Here we take www.dyndns.com for example.

Step 1: Input www.dyndns.com in the IE address bar. Click "Free Trial of DynDNS Pro"→"Start the trial" to register.

Step 2: Input hostname, select service type and input your IP address. The picture is shown as follows:



Step 3: Click "Add to cart". Then Dynamic DNS Hosts dialog box will be displayed.

Step 4: Create user account. For example, the username is "bcd", password is "123456".

Username	bcd
Password	•••••
Confirm password	
Email	abc@yahoo.com.cn
Confirm Email	abc@yahoo.com.cn
Security Image	52517
	Enter the numbers from the above image:
	52517
Subscribe to	☐ DynDNS.com newsletter (1 or 2 per month) ☐ Dyn Inc. press releases
▼ I agree with the state of the state o	ne acceptable use policy (AUP) and privacy policy.
Create Account	



Click" Create Account" button to create user account. After that, you shall provide your card number, card expiration and security code as well as billing address. Finally click "sign up for trial" button.

Now, according to the domain name registration of "DDNS", the domain name for DVR is "abc.dyndns.tv", username is "bcd" and password is "123456"

Connect DVR via network:

Step 1: Enter into Main menu Network other settings, checkmark DDNS, select "Dyndns" at the DDNS Sever pull down list box and input user name and password.

Step 2: Enter into configuration interface of the router to map the server port and IP address (if the user enables UPnP function, he can skip this step). Click Save button to save the setting

Step 3: Login IE browser and input registered domain name "http://www.abc.dyndns.tv" to connect DVR.

Definitions and description for network configuration:

DDNS server		
DDNS server	Website provided by dynamic domain name supplier e.g. www.meibu.com, www.dyndns.com, www.no-ip.com and mintdns type	
Username	Username for logging in to the DDNS website.	
Password	Password for log in to the DDNS website.	
Host domain	The domain name registered on the DDNS website.	
Update interval	The interval time of upgrading DVR IP address.	

4.7 User Management Setup

• Enter into System Configuration→User Management. Refer to Fig 4-34:



- Click 'Add' button, a dialog box will pop-up as Fig 4-35:
- ① General: Input username, password, select User Type: Normal or Advance, input the MAC address of the PC to bind with. Click OK button, this user will be added into the user list box, click 'Exit' button to exit the current tab.

Note: When the default value of binding PC MAC address is 0, the user is not bound with the specify computer. If the bind option is used then the user would be able to log into the DVR only through the specific computer (carrying the MAC address)



Fig 4-34 User Management Setup



Fig 4-35 Add-General

- ② Authority:
- Enter into Add user→Authority. Refer to Fig 4-36:
- In the authority tab, assign the operation rights for the particular user.
- In the user management tab, click 'Setup' button to modify user name, user type and binding computer MAC address.
- Select the user that user wants to delete in the user list box, then click 'Delete' button to delete this user.
- Click 'Change Password' button to modify the password; click 'Exit' button to exit the current tab.



Fig 4-36 Add User-Authority



4.8 P.T.Z Setup

P.T.Z Setup includes two sub menus: Serial Port and Advanced

Serial Port

- Enter into System Setup→P.T.Z→Serial Port;. Refer to Fig 4-37:
- Select the 'Enable' check box, select the address value of the camera, baud rate and protocol.
- User can configure all channels with same parameters by selecting the 'All' box, and then doing the relevant setup.
- Click 'Default' button to restore default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

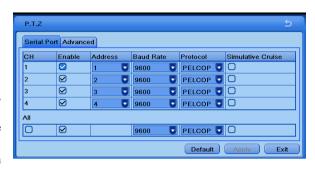


Fig 4-37 P.T.Z Setup-Serial Port

Parameter	Meaning
Address	The address of the PTZ device
Baud rate	Baud rate of the PTZ device.
Protocol	Communication protocol of the PTZ device. Range from: NULL, PELCOP, PELCOD, LILIN, MINKING, NEON, STAR, VIDO, DSCP, VISCA, SAMSUNG, RM110, HY, N-control.
Simulative Cruise	If enabled, no matter whether the PTZ device supports cruise or not, the presets will cruise.

Advanced

- Enter into System Setup→ P.T.Z → Advanced. Refer to Fig 4-38:
- In this tab, click preset 'Setting' button, a dialog box will pop-up as Fig 4-39:







Fig 4-38 P.T.Z Setup-Advanced

Fig 4-39 Advance-Preset Setting

- a. In the Preset tab, click Settings button, a dialog will pop-up as Fig 4-40:
- b. User can control the dome by rotating up down left right, can adjust the rotating speed, zoom, focus and iris of the dome.
- c. Select the serial number of the preset point. Click button to enable the PTZ wiper and click button to enable the PTZ light.

Note: PTZ must support wiper and light function and these two buttons are just available when selecting PELCOP or PELCOD.

Select the serial number of the preset point set the preset name. Click 'Save' button to save the settings, click icon to hide the toolbar, right click to view the toolbar again icon to exit the current tab.



Fig 4-40 Preset Set-Setting

d. In the Preset tab, click OK button to save the settings. Click 'Exit' button to exit the current tab

In the 'Advanced' tab, click Cruise 'Settings' button to pop up a dialog box shown as Fig 4-41: Click 'Add' button to add cruise line in the list box (max 8 cruise line can be added); select a cruise line and click 'Setup' button to



display a dialog box as Fig 4-42:



Fig 4-41 Cruise Set

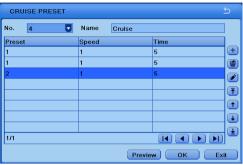


Fig 4-42 Cruise Set-modify Cruise Line

b. Click Add icon to set the speed and time of preset point; select a preset point, click Delete icon to delete that preset point. Click Modify icon to modify the settings of a preset point. User can click icons to adjust the position of preset point. Click 'Preview' button to preview the cruise line, OK button to

c. Select a preset point in the cruise line list box, click Delete button to delete that cruise line. Click 'Clear All' button to clear all cruise lines from the list box, 'OK' button to save the settings & 'Exit' button to exit the current tab.

save the settings, 'Exit' button to exit the current tab.



Fig 4-43 Track Setting

• In the Advance tab, click Track 'Setting' button. This will take you to see a dialog box shown as Fig 4-43:
User can control the dome, can rotate up, down, left right, and adjust the rotation speed, zoom, focus and iris of the dome. Click 'Start Record' button and move the PTX in the required manner to record the track by the DVR. Click this button again to stop recording.



Click 'Start Track' button to play recorded track, click this button again to stop the playback.

Click icon to hide the tool bar, right click to access it again, click icon to exit the current tab.

Click 'Default' button to restore the default settings. Click 'Apply' button to save the settings. Click 'Exit' button to exit the current tab.

4.9 Advanced

'Advanced' Setup includes three submenus: Reset, Import/Export and Black/White list.

4.9.1 Reset

This would reset the system to factory defaults and reboot the DVR.

4.9.2 Import/Export

User can export the data files into mobile storage devices as backup and can also import specified data files from mobile storage device to DVR.

.

4.9.3 Block/Allow List

Here an authorized user can prohibit computer users within a certain IP address range from accessing DVR or allow access of DVR to computer users of a certain IP address range. For example, if an admin doesn't want computer users within IP address range from 196.168.000.002 to 196.168.000.004 to access the DVR, he can check the 'Block list' option, and then input such IP address range. If it is required to provide access to computer users within a certain IP address range, they can check 'Allow list' option, and then do the required configuration.



Fig 4-44 Black/White List



5 Search, Playback and Backup

Search Setup includes following submenus: Time Search, Event Search, File Management and Image.

5.1 Time Search

• Enter into Search Setup→Time Search. Refer to Fig 5-1:

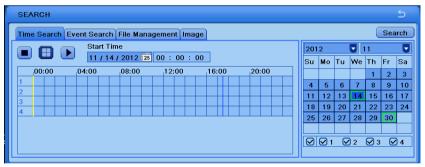


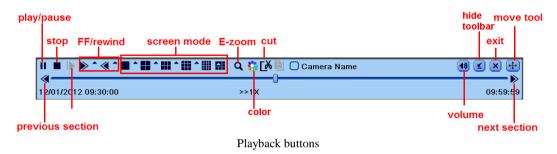
Fig 5-1 Search Setup-Time Search

- To search a record select date and channels on the right hand side and press the 'Search' button. A date with highlighted borderline indicates presence of data.
- Use the grid on the left hand side to identify the presence of data as per the required time. Blue patches indicate presence of data. This can be selected by clicking a particular grid or by entering the specific value in the time field.

Note: The column refers to hours, a row denotes to channel.



• Select the channel display mode and click button to playback. Use the playback toolbar to control the playback.



Note: When the monitor resolution is set to VGA800*600, the time search interface would be hidden, click the 'Expand to' button to expand the interface.

The method of record backup during a certain period in the playback interface:

Select the start time by dragging the slider and click icon. Then select the end time and click this icon again to confirm the record period. Next, click icon to backup the record during this period.

5.2 Event Search

- Enter into Search Setup→Event Search. Refer to Fig 5-2
- To search a record select date and channels on the right hand side and press the 'Search' button. A date with highlighted borderline indicates presence of data. The user can search for event based recording, the tab provides option to search for motion and sensor based recording. Choose from Motion, Sensor & All options then click 'Search' button, the result of search would be displayed in



the event list box.

• Double click on the required clip from the list



Fig 5-2 Search Setup-Event Search

Note: When the monitor resolution is VGA800*600, the event search interface would be in hidden mode, click the 'Expand to' to expand the interface.

5.3 File Management

• Enter into Search Setup→File Management. Refer to Fig 5-3:





Fig 5-3 Search Setup-File Management

- Click Search button, the searched files will be displayed in the file list box, the user can select date, channels accordingly.
- ① Lock: Select a file and click the Lock button to lock the file. Once locked the file cannot be deleted.
- 2 Unlock: Select a locked file and click on the 'Lock' button to unlock the file
- 3 Delete: Select an unlocked file and click 'Delete' to delete the file.
- Use the 'All' check box to lock and unlock all files in one go.
- Users can playback an unlock file by double clicking on the same.

5.4 Image

- Enter into Search Setup→Image. Refer to Fig 5-4.
- To search a record select date and channels on the right hand side and press the 'Search' button search for a recorded image.
- Once an alarm image has been identified, the user can double click the image to playback the recording.



• Use the 'Lock' button to lock the image, 'Save' button to copy the image on the flash drive and 'Save All' to copy all the images on the flash drive.

Note: In order to take images on alarm, the snapshot feature should be activated in 'Alarm Handling' for different kind of alarms.

Please refer to section 4.5 'Alarm Setup' for details



Fig 5-4 Search by Image

5.5 Backup

This unit supports backup by USB flash drive, through the USB port on the front panel. User also can take backup using IE via internet. Refer to section 7.3.2 Remote Backup.

• Enter into Backup Setup. Refer to Fig 5-5:





Fig 5-5 Backup Setup

- Set the start & end time, channels and click 'Search' button, the searched data will be displayed.
- Select a required file or check 'All' to select all data files, click 'Backup' button, a dialog box will pop-up as Fig 5-6:
- In the backup information tab, user can select the relevant options for backing up files, storage type, save file type, etc. click 'Apply' button to start the backup process.

Note: If the backup files are saved in DVR format, please check backup player. Only this player can play these files in DVR format. If the backup files are saved in AVI format, you can play these files with common media player.



Fig 5-6 Backup Information



6 System Information

6.1 System Information

The tab includes six submenus: System, Event, Log, Network, Online users and Record.

6.1.1 System Information

In this tab, user can check the Device Name, Device ID, Hardware Version, MCU Version, Kernel Version, Firmware Version etc.

6.1.2 Event Information

In this tab, user can search for events like motion, sensor and video loss. The utility provides an interface to have a date based and a channel based search. This report can further be saved on a USB flash drive as an html file using the export button.

6.1.3 Log Information

In this tab, user can search for relevant logs according to the set date and event which includes Operation, Setup, Playback, Backup, Search, Check Information and Error. This report can further be saved on a USB flash drive as an html file using the export button.

6.1.4 Network Information

In this tab, user can check relevant parameters for network settings.

6.1.5 Online Information

In this tab, user can check the details of the connected online users.

Refresh: Refresh the current interface.



Disconnect: If used by the administrator, the particular PC will not be able to access the device for five minutes.

6.1.6 Record Information

In this tab, a user can check resolution, ftp and record status including sensor alarm recording, motion recording, manual recording or schedule recording.

6.2 Manual Alarm

Using this interface the user can trigger a manual alarm.

6.3 Disk Management

Format the disk

Step1: Enter into disk management interface

Note: Please format the hard disk before recording.

Step2: Click Refresh button to refresh the disk information of the list box and set the property of the disk.

Step3: Select a hard disk and click Format button to start format.

Note: All recorded files in the hard disk will be lost after formatted.

Advanced

User may check model, S/N, firmware, health status of the disk in this interface. User also can monitor the temperature, internal circuit, dielectric material of the disk, analysis the potential problems of the disk and warn so as to protect its data.

6.4 Upgrade

The DVR can be upgraded using USB flash drive. Get the firmware updates from your vendor, and make sure it is a correct file, meant for the particular model of the DVR. Select the firmware file and click on the 'Upgrade' button to initiate the up gradation procedure. User can check the USB information in Disk Management.



Note: Please ensure that during firmware upgrade, there are no power interruptions to the DVR or else it can cause irreparable damage to the DVR.

6.5 Logoff

Click Logoff icon, a log off dialogue box will popup, click OK button to log off. To log back in, click Menu icon to enter username and password.



7 Remote Surveillance

7.1 IE Remote Surveillance

In order to view the DVR from a network it must be connected to a LAN/WAN or internet. The network setup should be done accordingly. Please refer to 4.6 Network Setup. This DVR supports IE browser, on Windows XP and Vista platform.

7.1.1 On LAN

Step 1: Enter into the DVR's Main Menu→Setup→Network interface to input IP address, Subnet Mask, etc. If using DHCP, please enable DHCP in both the DVR and the router.

Step 2: Enter Record Setup to set network video parameters like resolution, frame rate etc.

Step 3: Open IE on a computer on the same network. Input the IP address of the DVR in IE address bar and press enter.

Step 4: IE will download ActiveX component automatically. Enter the username and password in the subsequent window

Notice: If HTTP port is not 80, other number instead, need add the port number after IP address. For example, set HTTP port as 82, need input IP address like 192.168.0.25:82.

User name and password here are the same with that used on the DVR. The default is admin and 123456.

7.1.2 On WAN

There are two ways for the DVR to connect to internet.

1. Connect the DVR to internet through router or virtual server

Step 1: Enter into the DVR's Main Menu→Setup→Network interface to input IP address, Subnet Mask, etc. If using DHCP, please enable DHCP in both the DVR and router.

Step 2: Forward IP address and port number in Virtual Server setup of the router or virtual server. Configure the firewall to allow accessing the DVR. (If the user has enabled the UPnP function in both the DVR and router, he can skip this step.)

Step 4: If users want to utilize dynamic domain name, please apply for a domain name in a DNS server supported by the DVR or router. Then add to the DVR or router.

This unit supports www.dns2p.com, www.meibu.com, www.dyndns.com, and www.no-ip.com.

Step 5: Open IE browser, input IP address, or dynamic domain name and enter. If HTTP port is not 80, add the port number



after IP address or domain name.

Step 6: IE will download ActiveX automatically. Then a window pops up and asks for user name and password. Input name and password correctly, and enter to view.

Note: If you cannot download and install ActiveX, please refer to Appendix A Q8

2. Connect the DVR to internet directly.

Step 1: Enter into the DVR's Main Menu->Setup->Network interface to enable PPPoE and then input user name and password received from your ISP. Next, click 'Apply'. The DVR will connect to the server and would give a confirmation message.

Step 2: When accessing the remote interface of DVR, user can input WAN IP to access directly (user can enter into Main menu->Information->Network interface to check IP address). The browser will download Active X control

Step 3: The following setting steps are as the same as Step4, Step 5 and Step 6 in Point 1.



Fig 7-1 View with IE Browser



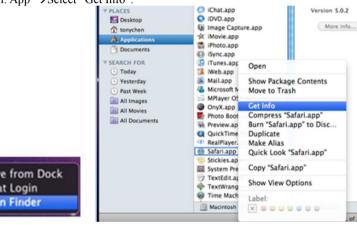
7.2 Remote Surveillance through Apple PC

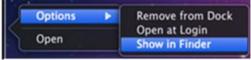
Note: Because the current plug-in version of client end just only supports 32-bit mode, so the safari browser shall start 32-bit mode. If the browser is the earlier MACOS version, the default setting is 32-bit mode and the setting can be skipped.

The Setting steps are as follows:

First: Right click safari icon and select "Show in Finder".

Second: Select Applications→Right click "Safari, App"→Select "Get Info".





Third: Select "open in 32- bit mode".





7.2.1 On LAN

Step 1: After starting Apple computer, click "Apple" icon. The following window will pop up. Please select "System Preferences"→"Internet &Wireless"→click "Network"



Step 2: Enter into Network interface and then click "Ethernet Connected" to check the internet connection of Apple PC.



Status:	Connected	
	Ethernet is currently active and has the IP address XXX. XXX. XXX. XXX	
Configure IPv4:	Manually	‡
IP Address:	XXX. XXX. XXX. XXX	
Subnet Mask:	XXX. XXX. XXX. XXX	
Router:	XXX. XXX. XXX. XXX	
DNS Server:	XXX. XXX. XXX. XXX	
Search Domains:		
	Advanced	. ?
her changes.	Assist me Revert	Apply

Step 3: After acquiring the IP address, Subnet Mask and so on, please enter into the DVR's Main Menu >Setup >Network interface to manually input IP address, Subnet Mask and Gateway according to the configuration of PC. The network segment should be the same as the PC. If using DHCP, please enable DHCP in the DVR and router.

Step 4: After finishing the above information, users can enter LAN IP and http port in the Safari browser. For example: input http://192.168.1.100:81(here 192.168.1.100 is LAN IP of DVR, 81 is the http port of DVR). Click "©"button, the browser will download Active X control as shown below:





Step 5: Click icon and then select the Active X control, the welcome interface will be shown. Click "Continue"→"Install" button, the following window will pop up:





Input the name and password of Apple PC and then click "OK" to install this Active X control.

Step 6: After finishing installing the Active X control, please quit from the Safari browser. Right click "Safari" icon on the desktop and then select "Quit" button to quit the browser. Then restart Safari browser. Input the IP address and http port to enter into the login interface of DVR.

7.2.2 On WAN

There are also two ways for DVR to connect to Internet.

1. Connect the DVR to internet through router or virtual server

Step 1: The network setups are the same as step one to step four of point 1 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port in the Safari browser to install the Active control. The concrete steps are the same as step 5 and 6 of Chapter 7.2.1.

2. Connect the DVR to internet directly.

Step 1: The network setups are the same as step one of point 2 on WAN of IE remote surveillance.

Step 2: Enter WAN IP and http port in the Safari browser to install the Active control. The concrete steps are the same as step 5 and 6 of Chapter 7.2.1.



7.3 The Remote Live Preview



Fig 7-2 Remote Live Preview Interface

Symbol and function Definitions:

1	Channel indicator	2	Screen display mode	3	Volume
4	Snapping picture	(5)	Start manual record	6	Start IE record
7	Bidirectional talk	8	Playback	9	Color
10	PTZ control	11)	Master/sub stream status		

Note: click button to record manual and the record file will be saved in user's PC.



Color adjustment:

Drag the slide bar to adjust Brightness, Contrast, Hue, and Saturation. Click Default to reset them to original value.

Buttons	Description
	Drag the scroll bar to adjust the brightness of channel
6 0	Drag the scroll bar to adjust the contrast of channel
III 0	Drag the scroll bar to adjust the saturation of channel
0 0-	Drag the scroll bar to adjust the hue of channel
0	Click this button to recover the default value of brightness, contrast, saturation and hue.
	Save the adjustment

PTZ control

Please connect speed dome to the device via RS485 firstly, make sure the protocol of the speed dome is supported by the device and set the relative parameters manually. User can control the dome up, down, right, left or stop rotating on Control Center, adjust rotation speed, Iris and zoom, focus on the dome, and set the presets, etc.

Buttons definition:

Buttons	Description
	▲to rotate the dome upwards. ➤ to rotate the dome diagonally up-left. ▼to rotate the dome
	diagonally up-right v to rotate the dome downwards. b to rotate the dome diagonally
	down-right ◀ to rotate the dome diagonally down-left ◀to rotate the dome towards left.
	▶to rotate the dome towards right ■ to stop rotating the dome.
	Drag the scroll bar to adjust rotating speed of the dome.
- () +	'Iris' button. Click button near 'Iris' button to increase light of the dome. Click button
	near 'Iris' button to decrease light of the dome.



-	Zoom' button. Click button near 'Zoom' button to zoom in the locale picture of this
	camera. Click button near 'Zoom' button to zoom out the locale picture of this camera.
- •	Focus' button. Click button near 'Focus' button to have long focus. Click button near
	'Focus' button to have short focus.
7.	Go to the Preset
×	Select and do auto cruise
\(\)	Track
	Auto scan
	Wiper button
%	Light button

Click the right mouse on the live interface, a pull-down menu will appear as right.

Stream: This DVR supports master stream and sub stream. Master stream has higher frame rate, max 25FPS(PAL)/30 FPS(NTSC) for every channel, but it needs higher network bandwidth simultaneously;

second stream has low frame rate, max 6FPS (PAL)/7FPS(NTSC) for every channel, it requires low network bandwidth. Therefore, users can select the stream according to their bandwidth.

All to master/sub stream: set all channel to master stream or sub stream.

Enable audio: enable or disenable audio

Full screen: In full screen status, the live preview picture will display with full screen and the tool bar will be hided; double click left mouse or click right mouse to return

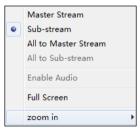


Fig 7-3 Right Key Sub Menu

Zoom in: Single channel large screen electronic amplification. Click the channel which needs to be zoomed. Right click to select zoom in button to zoom in the image. Double click or right click to exit.



7.4 Remote Playback & Backup

7.4.1 Remote Playback

Click button to enter into record playback interface. Refer to Fig 7-4:

Select the record date and channels and double-click the file name in the record file list box. Then user can play that file and preview the picture.

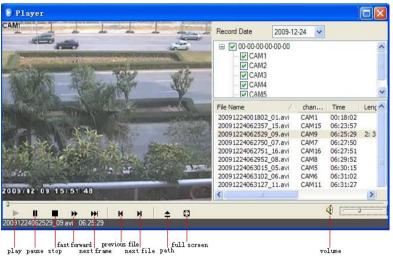


Fig 7-4 Play Record File Interface

This DVR supports remote time search, event search and file management.

By Time Search:



▼ ▼9 ▼10 ▼11 ▼12

☑ ☑ 13 ☑ 14 ☑ 15 ☑ 16

Start time 2010-01-12 25 2 □ 3 **4** 00 : 00 : 00 8 **6** □ 7 Search □ 10 □ 11 12 14 15 **1**6 13 Play v Jan 2010 Sun Mon Tue Wed Thu Fri Sat 00:00 04:00 08:00 16:00 Channel 1 10 11 12 13 Channel 2 17 18 19 20 21 22 23 Channel 3 24 25 26 27 28 29 30 Channel 4 31 Channel 5 Channel 6 Channel 7 Channel 8 W W1 W2 W3 W4 Channel 9 Channel 10 V7 V8 Channel 11

Step1: Enter into Search→time search. Refer to Fig 7-5:

Channel 12

Channel 13 Channel 14 Channel 15 Channel 16

Fig 7-5 Time Search Interface

Step2: Click "Search" button. The record data will be displayed in the data information list box; the highlight date in the area means have record data, click those data; select the record channels in area.

Step3: User can set the data playing time and display mode in the area① as required.

Step4: Select certain item from the data information list box. Click "play" button to playback.

Step5: Click the relevant buttons in the interface; user can do some operations such as: FF, pause, change channel mode, research, etc. refer to Fig 7-6:



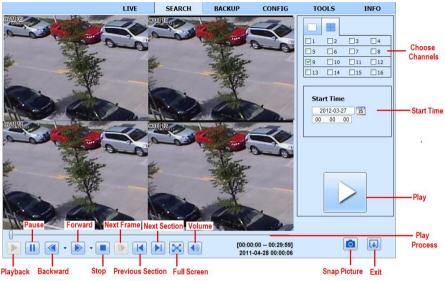


Fig 7-6 Time Search Playback

By Event Search:

Step1: Enter into Search→event search. Refer to Fig 7-7:



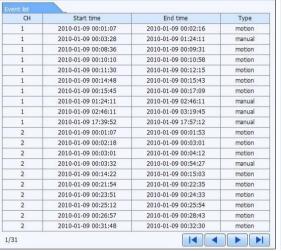




Fig 7-7 Event Search Interface

Step2: click the highlight date and select record channels and then tick off the event type: motion and sensor. Click "search" button **Step3:** the events will be display in the event list box. Double-click certain item to playback.

File Management

Step1: Enter into Search→file management. Refer to Fig 7-8:





Fig 7-8 File Management Interface

Lock: Select certain file item in the file list box and click "Lock" button to lock this file that ca not be deleted or overlaid.

Unlock: Select a locked file and click "unlock" button to unlock this file.

Delete: Select an unlock file and click "delete" button to delete this file from file list.



7.4.2 Remote Backup

Click Backup button to enter into backup interface. Refer to Fig 7-9:

		LIVE	SEARCH	BACKUP	CONFIG	TOOLS	INFO
ata List						0	
Check	CH	Start Time	End 7	Time	Status	9	5
V	1	2011-04-27 23:50:35	2011-04-28	00:12:48		Sea	rch
~	1	2011-04-28 00:12:48	2011-04-28	00:34:58		эеа	icii
~	1	2011-04-28 00:34:58	2011-04-28	00:57:07			
	1	2011-04-28 00:57:07	2011-04-28	01:19:16			
	1	2011-04-28 01:19:16	2011-04-28	01:41:34		Start Time	
	1	2011-04-28 01:41:34	2011-04-28	02:03:47		2011-04-	Manager 1
	1	2011-04-28 02:03:47	2011-04-28	02:25:52		00 : 00 :	00
	1	2011-04-28 02:25:52	2011-04-28	02:48:02		End Time	
	1	2011-04-28 02:48:02	2011-04-28	03:10:11		2011-04-	28 25
	1	2011-04-28 03:10:11	2011-04-28	03:32:20		23 : 59 :	
	1	2011-04-28 03:32:20	2011-04-28	03:54:25			
	1	2011-04-28 03:54:25	2011-04-28	04:16:35			
	1	2011-04-28 04:16:35	2011-04-28	04:38:44		Channel	
	1	2011-04-28 04:38:44	2011-04-28	05:00:53		☑ ☑ 1 ☑ 2	V 3 V 4
All	Inverse	1/16	5			✓ ✓ 5✓ 6✓ ✓ 9✓ 10	✓7✓8✓11✓1
ile Path				Browse	Backup	☑ ☑ 13 ☑ 14	

Fig 7-9 Remote Backup Interface

Step1: select channels, set the start and end time and then click "search' button to display the file information in the file list box Step2: select backup 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.

7.5 Tools

Click on the tool's tab to access the Disk Management tool. The user can view the status of the hard drive(s), can view/change the read write properties and can also format the hard drive(s).



7.6 Remote Information

Remote Information

The Info tab provides a web based interface to access the general information pertaining to the DVR's settings. The interface includes five submenus: System, Event, Log, Network and Online users.

7.6.1 System information

In this interface, user can check the Device Name, Device ID, Hardware Version, MCU Version, Kernel Version, Firmware Version etc.

7.6.2 Event information

In this interface, user can search for events like motion, sensor and video loss. The utility provides an interface to have a date based and a channel based search.

7.6.3 Log Information

In this interface, user can search for relevant log information according to selected date, and event which includes Operation, Setup, Playback, Backup, Search, Check Information & Error.

7.6.4 Network Information

In this interface, user can check the relevant parameters of network settings.

7.6.5 Online Information

In this interface, user can check the details of the current connection of online users.

Note: There may be slight differences with respect to functions of remote surveillance between through IE and through Apple PC. Here we only take IE remote access for example.



8 Mobile Surveillance

This DVR supports mobile surveillance by Iphone, Gphone , blackberry or smart phones with Windows mobile and symbian OS. At the same time, it supports 3G network. We tested Dopod D600 (WM5) and Dopod S1 (WM6), which work fine with the DVR. It wants to make mobile surveillance, need first enable network service on the DVR, and refer to Chapter 4.6 Network configuration. The below is the use instructions on mobile client end for five OS.

8.1 By Phones with Windows mobile

Step1: Firstly activate the network access on mobile phone and then run "Internet Explorer". Input the server's address and the connection is built up shown as below picture on the left:

Step2: Click on the software name. A dialog box pops up as below picture in the middle:

Step3: Click "Yes" to start downloading and installing:

Step4: PCam will be opened automatically after installed. Refer to the picture on the right:







Step5: Input the server's address, ID and password respectively in the columns of "Server", "User" and "Password", and click "Go"



to log on the server. It will show the picture if access successfully. Refer to the below picture on the left:

Step6: Camera 1 is the default channel after login. Change the channel in rolling-down menu of "Channel": Refer to the below picture on the right:





Notice: User name and password here are the same with that used on the DVR. The default is admin and 123456.

8.2 By Phones with Symbian

Please use the smart phones with symbian version supported by this unit. The detail information is as follows:

Symbian S40	support
Symbian UIQ	support
Symbian S80	support
Symbian S60	support
Symbian S60 3 rd Edition-Symbian OS v9.1	support
Symbian S60 3 rd Edition with FP 1-Symbian OS v9.2	support
Symbian S60 3 rd Edition with FP2-Symbian OS v9.3	support
Symbian S60 5 th Edition-Symbian OS v9.4	support
Symbian S60 5.1 Edition-Symbian OS v9.5	support

Step1: Firstly enable the network access on mobile phone. Then run Web browser.



Step2: Input the DVR server's IP address in a new-built bookmark. Click this bookmark to connect to the DVR.

Step3: A welcome window will pop up and requires a package. Click the software name to download.





Live view: to do mobile live view. **Image view:** to check the pictures Snapped in live view.

System setting: Login setting And Alarm setting.

Help: function indication and help

Step4: A security windows will pop up after downloading and ask if install the package. Click YES to install.

Step5: A Scam shortcut icon appears on the system menu after finished.

Step6: Run Scam program. It will enter a function interface. Refer to the picture on the left:

Step7: Click System setting--->Login Setting to enter login interface. Refer to the picture on the right:







Step8: Input the server's address, ID and password respectively. Then save.

Notice: About Access point, there may be different access points in different countries or from service providers.

Step9: Enter Live View, it will connect the server and display pictures. Refer to the picture on the left:

Notice: User name and password here are the same with that used on the DVR. The default is admin and 123456.

Step10: In Live View, users can do snapshot, change channels and control PTZ. Refer to the picture on the right:





8.3 By Phones with Iphone OS

1. Install through Iphone.

Step 1. Open App Store function of iphone

Step 2. Enable "search" step function to search "Superlive"







Step 3: Click Superlive-pro, enter into "introduce" interface and then click "FREE", it will change into "INSTALL"











Step 4: Input iTunes Store password and then click "OK", the software will be installed automatically. **Note: If it was the first time for user to operate, please enter user ID; if there is no Store account, user needs to apply one.**

2. Install through PC.







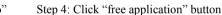




Step 2: Connect iPhone and PC



Step 3: Enable "search" function to search "Superlive-pro"







Step 5: Input apple ID and password, then click "acquire"

Step 6: Tick off "synchronously apply program" and "Superlive-pro", and then click "apply" button



• Operation Instruction for Superlive-pro

1. Login interface



Enter server's IP address (or domain name), user name and password

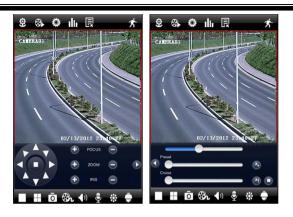
Click "Remember server" to save the setting; click button can quick input saved server address, user name and password.

2. Main Interface



9	Image view	==	Four channel
8	Playback	Ô	Snap
ø	Setting	€	Record
dh	Information view	4))	Audio
艮	Server list	•	Talk
★	Logoff	*	Color
	Single channel	-	PTZ





	Upward rotates the PTZ	_	Downward rotates the PTZ
	Leftward rotates the PTZ		Rightward rotates the PTZ
	Stop rotating the PTZ	①	Zoom In/Focus In/Iris Add
Θ	Zoom Out/Focus Out/Iris Sub	0	To enter into the next interface
0	To return to the previous interface	Preset	select the preset point
Cruise	Set the cruise line	Speed	Rotate speed of the PTZ

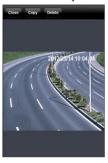
3. Image View

After the image is snapped, you can click it to amplify this



image. Then you can copy or delete the image. Click 'close' button to return to the previous interface.





4. Playback

Click icon to enter into the playback interface. Then click 'Search' button, select the time and channel to playback and click button. Now you can see the local file list. Select a file and click play button to playback. You can also copy or delete the file. Finally, click 'Close' button to return to the previous interface.











You can also search file to playback through time search, event search and remote file search. Please click the related button.

5. Server List



Click button to enter into server list interface. You can click icon to add a server list. After you add the list, you can click icon to edit the server information and click icon to delete this server information.

6. Configuration Interface



Click icon to enter into Settings interface. You can set many properties, such as local, basic, live, record, schedule, alarm, network, etc. Please see chapter four in respect of setting steps for more details.



8.4 By Phones with Android OS

Software Installation



Step 1: Run Google Market program









Step 3: Press "Install" button
December 17, 2009 In II S Q 4:51 PM

Clear notifications

Ongoing

USB connected
Select to copy files to/from your computer.

Notifications

SuperCam
Finish install
4:51 PM

Add E-mail
4:00 PM

1 10655111
5 unread messages.
2009-12-14



Step 5: User can view the download and install process in notifications; finished download, the software will install automatically.

Login



Enter into server's IP address (or domain name), user's ID and password.



Click "Remember server" to save the setting; click who button can quick input saved server address, user name and password.

Main menu



[Playback]	playback record file	【Image】	image view
[Log]	log record	[Server List]	device list
[Live]	live view	[Settings]	software setting
【Information】 device information view		【Help】	software help center
[Logoff] logoff and return to login interface			

Live view



	Stop playing		Single channel display
\Box	Screen mode	III	Four channels display
Ô	Snap	-	PTZ
<i>(2)</i>	Talk	REC	Record
4 0	Live audio	M	Hide



Image view



I-4	The first picture	
■	The previous picture	
•	Next picture	
₩I	The last picture	
Q	Zoom in	
Q	Zoom out	
₩	Delete	

Record playback







	Play/Pause		
	Stop		
≥	Fast forward		
≪	Slow play		



Click Playback icon in the Main Menu interface to enter into the playback interface. First, choose channel. Second, select the record file and click it to playback. Finally, click 'Return' button to return to the previous interface.

Server list



☆ Add	Add a server list	
₽ Modify	Modify a server list	
☆ Delete	Delete a server list	
Return	Return to the previous interface	

Config interface



	If Audio alarm is enabled, when Video				
	Loss/Sensor/Motion happen , sound alarm will be				
Alarm setting	triggered; If shake Alarm is enabled, when Video				
	Loss/Sensor/Motion happen , shake alarm will be				
	triggered.				
C4	User can setup the relevant parameters of mobile				
Storage setting	video. This function can be valid only insert SD card.				
Display setting	User can setup display order or display mode.				



Information view



8.5 By Phones with Blackberry OS

- Installation instruction for BlackBerry Mobile phone Client
 - 1. Open the browser of BlackBerry phone and enter sever address
 - 2. Click "SuperCam" to link





3. Click "Download" button on the popup interface and the download progress will be shown.







4. Finished downloading, the software will be installed automatically.



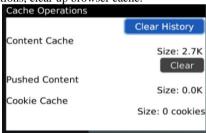
Note: If the software fails to download, please check in accordance with the following steps:

- 1. Check whether the network of mobile phone is normal or not.
- 2. Check whether DVR server connect network normally or not.
- 3. Modify the option of Browser Configuration.
- 1) Enter into Menu->Option->Browser Configuration. Refer to the following figure.





2) Enter into Menu->Option->Cache Operations, clear up browser cache.



Note: When user used the SuperCam software in mobile phone with touch screen, there will be compatible problem.

Solution: Enter into Options Menu->Advance options->Applications->SuperCam and click "Disable Compatibility" button. This problem will be solved.

- Operation method for Blackberry mobile phone client
 - 1. Login





Enter server's IP address (or domain name), user's ID and password.

Click "Remember server" to save the setting; click button can quick input saved server address, user name and password.

2. Main interface



Playback	playback record file	Image	image view	
Log	log record	Server List	device list	
Information device information		Help	software help	
	view		center	
Logoff logoff and return to		Settings	software setting	
	login interface			
Live	live view			

3. Live view









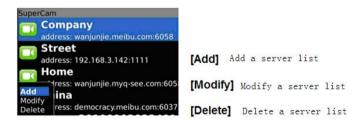


Note: User can click Return button on the Blackberry phone to return the previous interface.



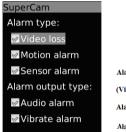
Mark 1	Current viewing channel	Mark 2	Channel status
52	Switch channels	•	PTZ, click to switch to Fig 2 interface
Ō	Snap	X	Full screen
\leq	Background alarm		Stop rotating the PTZ
	Upward rotates the PTZ	_	Downward rotates the PTZ
	Leftward rotates the PTZ		Rightward rotates the PTZ
①	Zoom In/Focus In/Iris Add	Θ	Zoom Out/Focus Out/Iris Sub
Preset	Select the preset point	Group	Set the cruise line

4. Server list



5. Software configuration





Alarm type: Setup the type of background alarm

(Video Loss/Sensor/Motion)

Alarm output type: Setup prompt type of backgound

Alarm (sound alarm/ bibrate alarm)

6. Information view

SuperCam
Device:
Device name: EDVR
Device ID: 0
Software version: 3.1.2.P
Build date: 19740305
Phone:
Software version: 2.1.0
Build date: 2010.08.16

Device ID: the current connection device ID

Software version: the current connection device

software version

Build date: the current connection device build date

 ${\bf Software}\ \ {\bf version:}\ \ {\bf the}\ \ {\bf software}\ \ {\bf version}\ \ {\bf of}\ \ {\bf mobile}$

phone in use

 ${\bf Software\ build\ date:\ } the\ software\ build\ date\ of$

mobile phone in use



Appendix A FAQ

Q1. Why the DVR doesn't turn on even after connecting the power?

- a. The power adapter could have gone bad, check with a good know adapter.
- b. The power from the adapter may not be enough for operating the DVR. Please use the power adaptor supplied along with the DVR.
- c. It could be a hardware problem.

Q2. There is no menu displayed and only has live image display.

a. Check if the monitor is connected to the main Video Out and not the Spot Out. The monitor might be connected to VGA port whereas the DVR may be set for output through BNC or vice versa. Long press ESC key to toggle the output modes.

Q3. The DVR LED turns on, however there is no output.

- a. The power from the adapter may not be enough for operating the DVR. Please use the power adaptor supplied along with the DVR.
- b. It could be a wiring issue. Please check the connection for the same.
- c. Check the monitor settings.

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

- a. It could be a wiring issue. Please check the cable and the ports of the cameras and DVR.
- b. The problem can also be related to cameras. Please check the same.
- c. Please make sure that the channels are not programmed as hidden channels and check the status from admin login.

Q5. Cannot find HDD

- a. The power from the adapter may not be enough for operating the DVR. Please use the power adaptor supplied along with the DVR.
- b. It could be a wiring issue. Please check the power and data cables of the HDD.
- c. The HDD could have gone bad, crosscheck with a good know HDD.



Q6. Cannot record

- a. Make sure the HDD was formatted prior to use.
- b. This could be because the user hasn't enabled the record function or has done incorrect setup. Please refer to chapter 5.
- c. There is a possibility that HDD has is full and thus the DVR in not able to record. Check HDD information from Disk Management and if required enable the recycle function.
- d. Check the attributes of the HDD, it might be set to read only mode.
- e. The HDD could have gone bad, crosscheck with a good know HDD.

Q7. Mouse not functioning.

- a. The mouse should be connected to the USB port at the rear side.
- b. After connecting the mouse, allow the DVR to detect the mouse for few seconds. If not detected try restarting the DVR.
- c. The mouse may be incompatible or faulty. Please try with good known mouse (the one that comes with the DVR).

O8. Cannot download ActiveX control.

- a. IE browser blocks ActiveX. Please do setup as per the steps mentioned below,
- ① Open IE browser. Click Tools-----Internet Options....



- 2 Select Security-----Custom Level....Refer to Fig 8-1 below
- 3 Enable all the sub options under 'ActiveX controls and plug-ins' refer to Fig 8-2
- 4 Then click OK to finish the setup.



b. Other plug-ins or anti-virus may block ActiveX. Please disable or do the required settings.





Fig 8-1

Fig 8-2

Q9: DVR displays 'please wait...' all the time

- 1. HDD power cable and data cable may not be connected properly. Please check the connections for HDD.
- 2. It is also possible that the DVR was forced to stop because hard disk has a bad sector and it may have caused the system to halt. Check with a good known HDD or try formatting the existing HDD.

Q10: How to input passwords and numbers in the interface?

Click the password or the input box a small keyboard will popup. Please select characters to be input (the initial password is 123456), or you can use the digital keys on the front panel, or the digital keys on the remote controller.



Q11: How to upgrade the DVR with a new firmware.

Ensure uninterrupted power supply for the DVR. Copy the firmware received from the manufacturer to a USB drive and connect the same to the DVR. Select '*Upgrade*' in the menu the system will upgrade kernel procedure automatically. Once finished, the DVR would restart automatically.

Note: Do not power off the system during the up gradation process else it may cause irreparable damages.

Q12: What is the minimum PC configuration required for remote monitoring?

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

Q13: What is the PC configuration for real time viewing of mainstream?

PC Module	Parameters
CPU	Intel Core(TM)2 Duo CPU E4600
Motherboard	G31/P31 chip
HDD	80G
RAM	1GB
VGA	GMA3100/NVIDIA GeForce 8400/ATI RADEON HD3450
OS	Windows 2000(SP4 above) /Windows XP(SP2 above) VISTA



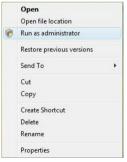
DirectX	9.0
DirectA	9.0

Q14: How to handle the situation that the codec control is blocked when downloading in the VISTA or Windows 7 system? This problem can be fixed in two ways.

a. Enter Control Panel \(\rightarrow\) User Account and Family Safety \(\rightarrow\) User Account Control(refer to below picture). Click 'Turn User Account on or off'. Unselect 'Use User Account Control (UAC) to help protect your computer.'



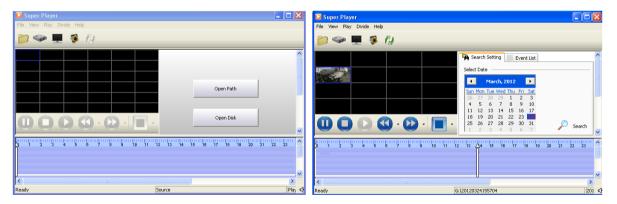
b. Right click IE browser icon (refer to Fig 14-2), select 'Run as administrator' to run browser.





Q15. How to play the backup file?

- a. Insert your USB device where the backup files are saved in the USB port of PC. If your files are saved in DVR format, you must have already downloaded the backup player box before doing backup. Then double click to open your USB disk to find your
 - backup files and backup player. Double click icon to install backup player.
- b. After you install it, open this player and click "Open Path" button to open your backup file. Next, click play button to play the backup file. Double click the image and then right click to enable audio. If you save your backup files in AVI format, you can directly open your file by using the media player which supports this format.





Appendix B Calculate Recording Capacity

Users can calculate the required size of hard disk according to the total recording duration required and DVR recording settings. The

DVR uses fixed video bit rate. The below are the details at different settings for CBR.

Video Format	Resolution	Frame Rate Totally(FPS)	Video Quality	Bit Rate (kbps)	Used Space(MB/h)
NTSC	CIF	30	Highest	2M	915
			Higher	1.5M	700
			Medium	1M	465
			Low	768K	297
			Lower	512K	241
			Lowest	256k	115
PAL	CIF	25	Highest	2M	910
			Higher	1.5M	712
			Medium	1M	468
			Low	768K	297
			Lower	512K	241
			Lowest	256K	112

The calculation format is: Total Recording capacity =Used space per hour (MB/h) (coverage rate of hard disk) \times recording time (hour) \times channel numbers

For instance, one customer uses PAL cameras, set resolution to CIF, video quality to Lowest, frame rate to 25 fps for enabling total 4-channels. He wants the unit to record continuously in a month. Below is the calculation:

Total Recoding capacity =112 (mb/h) X 24(hours/day) X30(days) X4(channels)= 322560 (MB)=315GB)

Therefore, customers just install one SATA HDDs with 500GB, it can almost record for one month.



Appendix C Compatible Devices

1. Compatible USB drive.

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

2. Compatible HDD list

Brand	Capacity	
Seagate Barracuda	80G/160G/250G/320G /1.5T/2TB	
Seagate SV35.3	1T	
Seagate Pipeline HD.2	500G	
Maxtor Diamondmax	160G	
HITACHI Deskstar	80G/160G	
WD WD1600JS	160G	
Samsung HD161HJ	160G	



Appendix D 4-CH Specifications

Compression format	H.264 Main Profile
Video Output	Composite: $1.0V \text{ p-p/75}\Omega \text{ BNC}\times 2$, VGA
Video Output	Composite: 1.0V p-p/75Ω BNC×4
VGA Resolution	1280*1024 /1024*768/ 800*600
Record Resolution	352*288/704*576 (PAL), 352*240/704*480(NTSC)
Display Frame Rate	100fps (PAL), 120fps (NTSC)
Record Frame Rate (CIF/D1)	100/25fps (PAL), 120/30fpps (NTSC)
Audio Input	RCA X4
Audio Output	RCA X1
Alarm Input	NO or NC 4CH
Alarm Output:	1CH
Record Mode	Manual / Sensor /Schedule / Motion detection
Simplex/Duplex/Triplex	Pentaplex
Network Interface	RJ45 (LAN, INTERNET)
PTZ Control	YES
Communication Interface	RS485, USB2.0 x 2(one for backup, another for USB mouse)
Disk Info	SATA x 1
Remote Controller	YES
Power Supply	12VDC 3A
Temperature	0°C-50°C
Humidity	10%-90%
Average Operating Power	≤20W