

USER MANUAL

DVR

Digital Video Recorder

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Safety Instructions

1. Use proper power source.

Do not use this product with a power source that applies more than specified voltage (100-240V AC).

2. Never insert anything metallic into the DVR case.

Putting something into the DVR case can be a source of dangerous electric shock.

3. Do not operate in wet & dusty area or use near water.

Avoid places like a damp basement or dusty hallway.

4. Do not expose this product to rain or use near water.

If this product accidentally gets wet, unplug it and contact an authorized dealer immediately.

5. Keep product surfaces clean and dry.

To clean the outside case of the DVR, use a cloth lightly dampened with water (no solvents).

6. Provide proper ventilation.

This DVR has a built in fan that properly ventilates the system.

7. Do not attempt to remove the top cover.

If there are any unusual sounds or smells coming from the DVR, unplug it immediately and contact an authorized dealer or service center.

8. Do not attempt to remove the top cover.

Warning: You may be subjected to severe electrical shock if you remove the cover of the DVR.

9. Handle DVR box carefully.

If you accidentally drop your DVR on any hard surface, it may cause a malfunction. If the DVR doesn't work properly due to physical damage, contact an authorized dealer for repair or exchange.

10. Use standard lithium cell battery. (NOTE: Manufacturer has preinstalled battery.)

The standard lithium cell 3v battery located on the mother board should be replaced if the time clock does not hold its time after the power is turned off. Warning: unplug the DVR before replacing battery or you may be subjected to severe electrical shock. Properly dispose of old batteries.

11. Make sure there is good air circulation around the unit.

This DVR system uses a hard drive for video storage, which generates heat during operation. Do not block air holes (bottom, upper, sides and back) of the DVR that cool down the system while running. Install or place this product in an area where there is good air circulation.

Chapter 1: DVR Features

Real time monitoring	Supports real time surveillance via Monitor
Saves Recordings	DVR saves real-time recording image to HDD
Backup Recordings	Supports DVR backup via USB flash drive and hard drive.
Playback Recordings	4CH Supports DVR single CH and multiple CH playback of recorded files 8CH Supports DVR single CH playback of recorded files
Network operation	Supports remote surveillance by multiple users simultaneously
Alarm Setting	Supports HDD & video input alarm management
Mouse Operation	Supports Mouse operation for faster menu navigation.
PTZ Control	Supports PTZ camera operations through RS-485.

List 1-1

Other Features :

H. 264 video compression format : 4CH supports D1, HD1, and CIF resolution

8CH supports CIF resolution

ADPCM audio compression format

Windows Graphical interface

BNC and VGA video out ports

Supports remote live viewing via 3G mobile networks

Supports sending email alerts when motion is detected by system

Triplex (recording, playback and net transmitting at the same time)

Supports USB mouse, IR remote control operation

Rear USB2.0 ports for backup, upgrade and mouse operation.

Supports Double Encode bit network transmission

The video package time is adjustable

Multiple alarm record modes

Multiple languages OSD

Supports auto maintenance

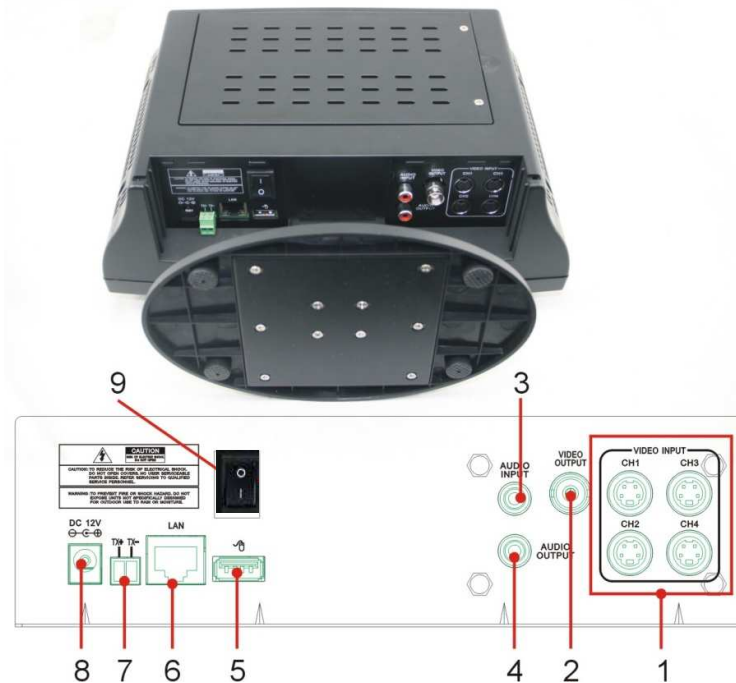
Chapter 2:Layout





2.1 Front Panel



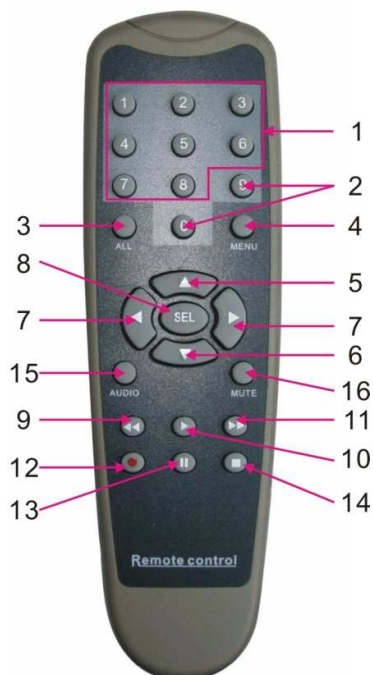
Item Number	Button Name / Symbol	Function
1	POWER	On: The LCD screen is displayed in a basic activation status; Off: The LCD screen enters into sleep mode.
2	MENU	Press once to display LCD main menu. Press again to exit LCD main menu.
3	UP	When pressed while the Main Menu is not displayed, the UP arrow button allows you to scroll through the video feeds transmitted from each camera hooked up to your system.
4	down	When pressed while the Main Menu is not displayed, the down arrow button allows you to scroll through the video feeds transmitted from each camera hooked up to your system.
5	IR Receiver	Receives Signal from Remote Control
6	HDD.	When the "Red" Indicator Light Flashes, it Means the Hard Drive is Being Read or Written to
7	PWR	If the "Green" Indicator Light is on, the System is Getting Power.
8	USB 2.0 Port	USB Device (Flash Drive, Hard Drive) Connection

2.2 Rear Panel



Item Number	Name / Symbol	Description	Function
1	CH1-CH4	VIDEO INPUT	Ch1-4 (BNC Interface) Connection
2	VIDEO OUTPUT	VIDEO OUTPUT	Connect Monitor Output (BNC Interface)
3	AUDIO INPUT	Audio Input	Audio Signal Input (RCA Interface) Connection
4	AUDIO OUTPUT	Audio Output	Audio Signal Output (RCA Interface) Connection
5		USB Port	USB Mouse Connection
6	LAN	Ethernet Port	Intranet and Internet Connection (RJ-45 Interface)
7	 RS485	RS485 Alarm Port	RS485 Interface
8	 DC12V	Power Port	Power Supply - DC12V 3A
9	Power Switch		Turn Power On And Off



2.3 Remote Control



1	1-8	Channel Select 1-8 ; Numeric key
2	9、 0	Numeric Key
3	ALL	Preview all Channel
4	Menu	Enter/Exit Main Menu
5	▲	Up Key
6	▼	Down Key
7	◀ / ▶	Left / Right Key
8	SEL	Select Key/ Edit Key
9	◀◀	Rewind key
10	▶	Play Key, Enter to recording search menu
11	▶▶	Forward Key
12	●	Manual Recording
13		Pause / Frame Play
14	■	Stop manual recording; Stop Playback
15	Audio	Undefined
16	Mute	Undefined

Mouse Operation

You can use a mouse instead of front panel buttons or remote control.

Click left key of Mouse	In menu lock mode, Enter into pop-up menu and clicking any sub menu to pop up Log-in window; on menu unlock mode, enter into pop-up menu, and then clicking left key to enter into any sub menu directly.
	After entering main menu, clicking left key could enter into any sub menu; On[Detailed file] menu mode, clicking left key could playback one recording file.
	Change the status of check box and motion detection area.
	Clicking combo box to access pull-down menu
	By clicking left key you can adjust Color control bar and volume control bar.
	By clicking left key you can select values in edit boxes or pull-down menu and supports Chinese word input, special symbol, numeric and character input, use instead of [Enter- ] or [Backspace ]
	In the [Detailed file] menu mode, clicking left key will playback one recording file.
Click right key of Mouse	In live display mode, clicking right key will display pop-up menu (shown as Picture 5-1).
	In Main menu or sub menu mode, clicking right key will exit current menu.
Double-click Left key of Mouse	In live display or playback mode, double-clicking left key will maximize the screen.
Moving Mouse	Select menu item
Sliding Mouse	On motion mode, sliding mouse will select motion area; On [Color set] menu mode, sliding mouse will adjust color control bar and volume control bar.

List 2-3

Chapter 3: DVR Installation

3.1 Hard Drive Installation

Caution: NEVER Install or remove the hard drive while the DVR is running!

The model has a Hard Disk Drive (HDD) drawer. Please use key provided to open the drawer and insert the HDD as follows:

- (1) Remove screws and open DVR upper cover carefully;
- (2) Insert Power Cord and data cable securely into matching ports on hard drive;
- (3) Put the upper cover back carefully, re-attach screws.

3.2 Connecting Your DVR to Cameras and a Monitor

Connect camera cable to the Video Input port of the DVR. Connect the monitor to the Video Output port of the DVR using a BNC connector (See Rear Panel Section 2.2).

To connect a PTZ speed dome to your DVR System, connect your PTZ Camera data cables to your RS485 A & B ports. See Chapter 5 for a more detailed account of PTZ Camera configuration instructions.

3.3 Connecting the Power Supply

Only use the power adapter supplied with your DVR System. Failure to do so may result in unforeseen system failures.

Chapter 4: DVR Boot up

4.1 System Initialization



Picture 4-1

After connecting the power adapter , the system will boot-up and start initializing.

4.2 Main Interface



Picture 4-2

After finishing system initialization, the system will enter into main interface. Picture 4-2 is the main interface displayed by system, which is showing no video input status. Once there are video inputs, the interface will display live images from the cameras. In main interface mode, if you use the mouse to double-click the live image of any channel, the image will be maximized to full screen, by double-clicking again, the display will be come back to display all cameras; clicking the right button of the mouse, will enter into Pop-up Menu; by clicking the left button of the mouse, you select menu items; when clicking any area outside the menu, you will exit the Pop-up menu.

Chapter 5: DVR Menu

Pop-up Menu

After system initialization finishes, click right button of mouse on main interface display to enter into Pop-up Menu. You can also use the Remote Control or the buttons on the front panel of the DVR. Now you can set parameters and control Main Menu, Menu lock, Recording search, PTZ control and recording etc.



Picture 5-1

On Main interface mode, double-click one single channel and right-click button of Mouse to enter into pop-up Menu, and now you could highlight and click [Digital Zoom] menu to enlarge live image of

the channel (details please refer to Picture 5-1).

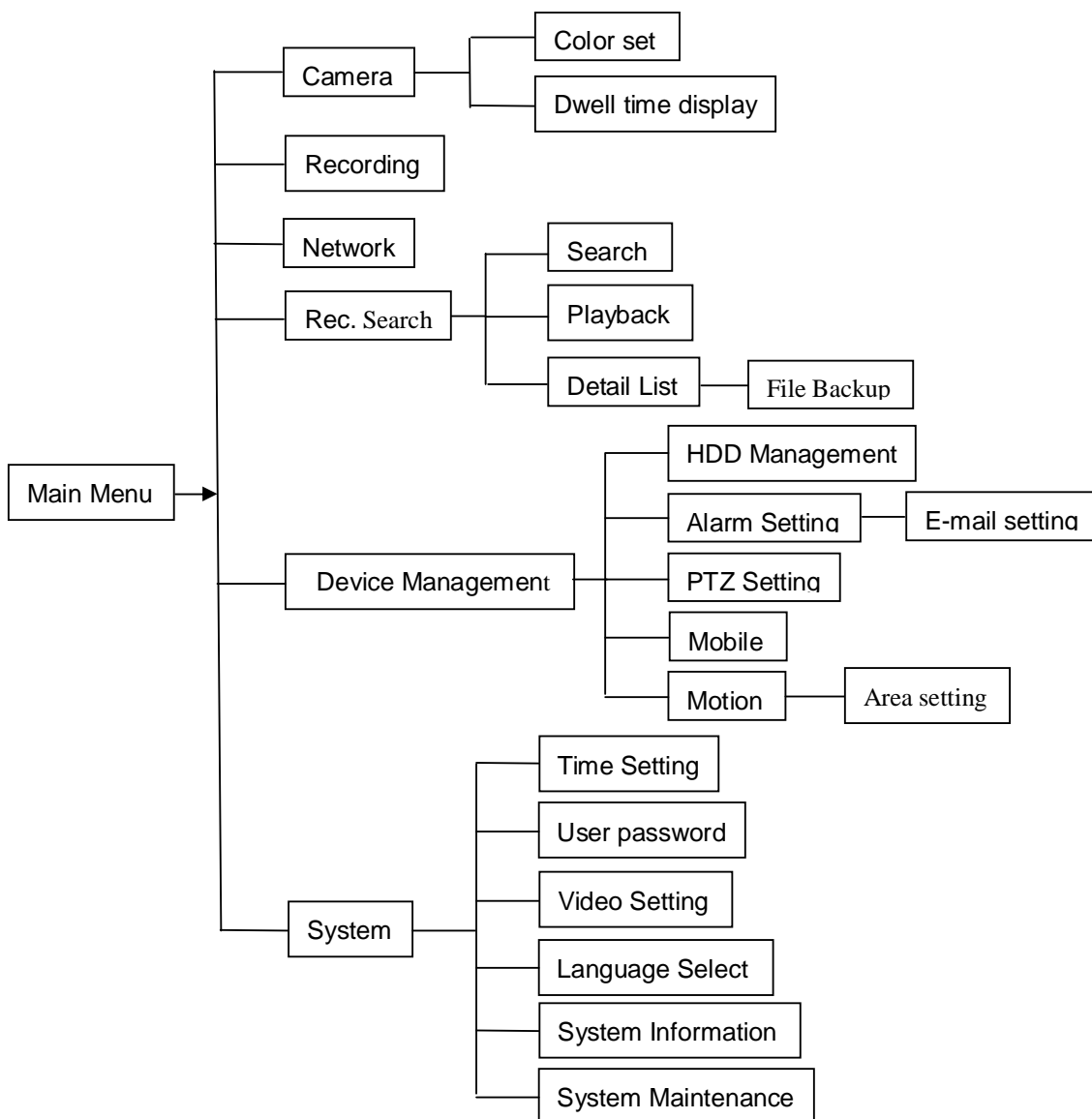


Picture 5-2



Picture 5-3

5.1 Main Menu Preview



5.2 Main Menu

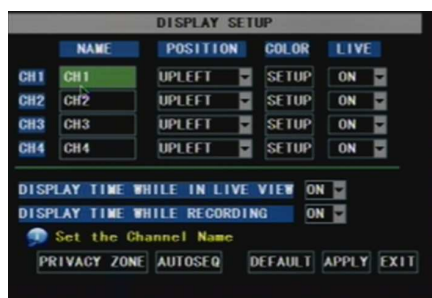


Picture 5-4

After clicking right button of mouse, pop-up menu will be displayed on the screen. You can click [main menu] button on pop-up menu to enter into Main menu interface (Shown as Picture 5-4). You can also use the Menu button on the front panel to bring up the window, when using the front panel buttons use the FWD and REW button to move in the menu, and the SEL button to select the icon. You use the ESC button to return to previous window. In Main Menu mode, you can control device management settings, such as Camera, Recording, Network, Recording search, HDD, Alarm, PTZ Control, Mobile Phone

& motion detection etc, you can also set system function settings, such as Time setting, User password, Audio/Video setting, Language select, and access system information, system maintenance etc.

5.2.1 Camera setup

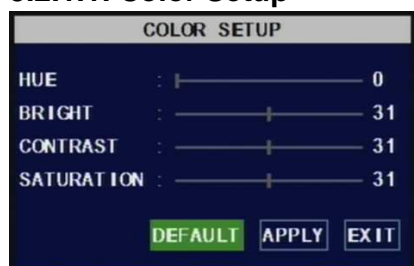


Picture 5-5

Go to [Main Menu → Camera] to set up the name display and position display of each channel (Shown as Picture 5-5), You can also adjust image brightness, saturation, contrast and hue settings of each channel after entering into [Color] Menu and set up whether each channel can be previewed or not under Live display and/or Recording mode.

Please note that the name of each channel supports up to eight characters.

5.2.1.1. Color Setup



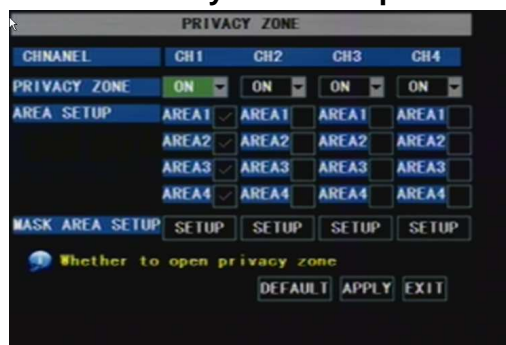
Picture 5-6

Below is the Color Menu where you can adjust image brightness, saturation, contrast and hue parameters of each channel.(shown as picture 5-6)

Explanation :

- 1, The modifications will be available after clicking [APPLY] button on
- 2, If you want to cancel the modification, click [Exit] button to exit the menu.
- 3, When clicking [DEFAULT] button, all system default values will be reset to default value.
- 4, System default value indicates the value pre-set at the factory.

5.2.1.2. Privacy Zone Setup

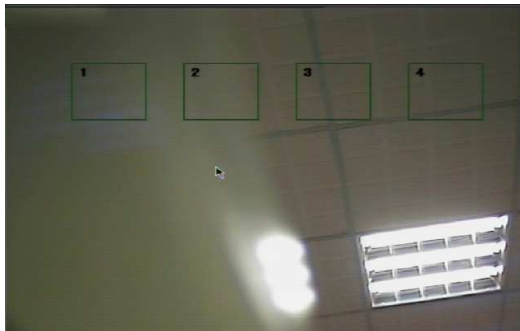


Picture 5-7

Privacy zone function allows you to cover the private area, such as password input area on ATM machines. The covered areas will not be able to see in live view mode or in playback mode.

You can select maximum 4 privacy zones for each channel.

1. Select the No. of area (AREA1 – AREA4) you want to set



Picture 5-8

2. Press **SETUP** button to adjust the position of the privacy zones
3. After finishing the position adjustment, press **ESC** key on front panel or click right button of mouse to exit and return to **PRIVACY ZONE** page.
4. Press [**APPLY**] button to save you settings.

5.2.1.3. Autoseq Setup



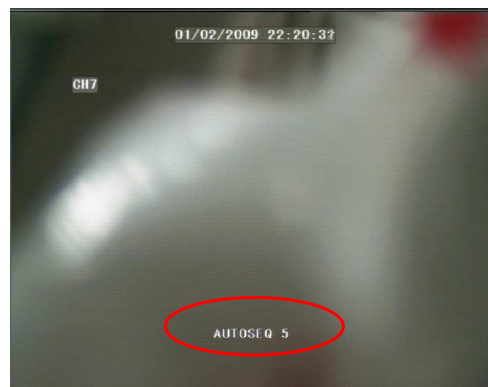
Picture 5-9

AUTOSEQ allows system to display every selected channel in full screen by certain dwell time, and auto-switch in sequence.

Default dwell time: 5 second

Selectable time range: 0~10 seconds

Go to main interface and trigger the pop-up menu bar, you will find the **START AUTOSRQ** menu. Click it and the DVR will enter auto sequence display mode. Press any key will exit autoseq mode.



Picture 5-10

5.2.2 Record setup



Picture 5-11

Functions :

CHANNEL: ON/OFF option decides to record or not.

RESOLUTION: (4-CH only) decides the recording video resolution. About the definition of resolution, please refer to the specification chapter.

QUALITY: select recording video quality, higher quality will need more HDD space to save the video

AUDIO REC.: DVR supports to record 1 channel audio signal. Here you can bind the audio channel to an appointed video channel for together recording.

FILE SIZE: System record and save the videos to HDD by separate files. It indicates the maximum recoding length for every single continuous recording file (15, 30, 45, 60 minutes).

5.2.2.1. Record Mode



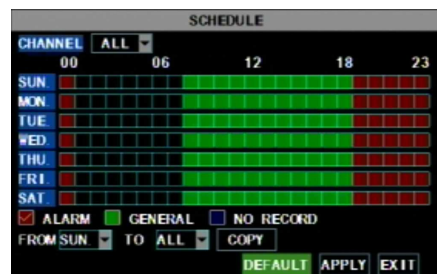
Picture 5-12

There are 2 record modes: **ALWAYS** & **TIME SCHEDULE RECORD**.

When you select **ALWAYS** record mode, DVR will execute continuous recording without stop.

When you select **TIME SCHEDULE RECORD** mode, DVR will execute recording according to your schedule.

5.2.2.2. Record Schedule Setup



Picture 5-13

Select **TIME SCHEDULE RECORD**, a **SCHEDULE** button will display. Click it and enter schedule setup interface.

There are 3 recording status options:

ALARM [RED]: Motion detection mode

GENERAL [GREEN]: Continuous record mode

NO RECORD [Transparent]: Do not record

You are able to configure 24 hours recording schedule for every channel or all channel from Sunday to Saturday.

Steps:

1. Select Channel
2. Select a recording status among **ALARM**, **GENERAL** and **NO RECORD**
3. Move the cursor to the time point you want to set, click on the box in the schedule time line that you want to apply the selected record type to.
4. If you want to change another recording status, repeat step 2 & step 3.
5. You can use copy function to fast complete your settings.
6. Press **APPLY** button to save your settings.

On the main interface, you will be able to check the recording status:

R: normal recording

M: motion detection recording

5.2.2.3. Manual Recording



Picture 5-14

There are 2 short cut menus listed in the Pop-up menu: **START RECORD** and **STOP RECORD**. They are Manual record & manual stop record buttons and the **START RECORD** function only work when current recording mode is as following recording status:

1. NO RECORD
2. ALARM, but the motion is no happening now.

The **STOP RECORD** function can only stop manual recording.

5.2.3 Network Set

Enter into [Main Menu→Network Set] to proceed network set (Shown as picture 5-15):

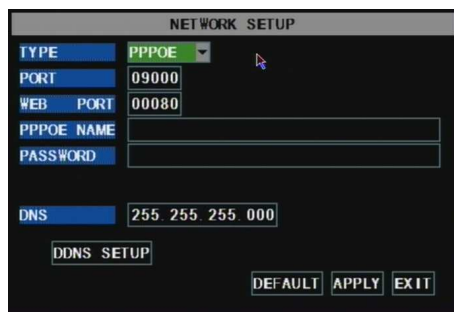


Picture 5-15

After selecting network mode - such as DHCP、PPPOE and static allocation and setup web port, you could visit DVR remotely via network.

When selecting DHCP, DHCP server will allocate DVR IP address automatically.

When selecting PPPoE, you need to input user and password provided by ISP supplier and set up web port (details please refer to the below picture 5-16).



Picture 5-16



Picture 5-17

When selecting static allocation, you need to setup IP address, net-mask, and gateway and web port (shown as picture 5-17).



Picture 5-18

If you apply for DDNS service and set up net parameter of DVR accordingly, you could visit DVR remotely via IE browser. (Shown as picture 5-18)

ID	Service Port	IP Address	Protocol	Enable
1	9000	192.168.1.101	ALL	<input checked="" type="checkbox"/>
2	8080	192.168.1.101	ALL	<input checked="" type="checkbox"/>
3	554	192.168.1.101	ALL	<input checked="" type="checkbox"/>
4		192.168.1.	ALL	<input type="checkbox"/>
5		192.168.1.	ALL	<input type="checkbox"/>
6		192.168.1.	ALL	<input type="checkbox"/>
7		192.168.1.	ALL	<input type="checkbox"/>
8		192.168.1.	ALL	<input type="checkbox"/>

Common Service Port: DNS(53) Copy to ID 1

Buttons: Clear All, Save

If you need to visit DVR via Internet, you should setup the inflection of video port at the public Router located in the DVR (shown as Picture 5-19).

Host Port: 9000

Web Port: 8080

LAN IP address of DVR: 192.168.1.101

Input http:// router IP:8080 (192.168.1.101:8080) to you computer IE browser, then you will visit your DVR freely.

Picture 5-19

5.2.4 Recording Search

You can enter search & playback interface by pop-up menu bar or main menu.

5.2.4.1. Search

Click [Main menu→ search] to enter into [Video Search] menu (shown as the below picture 5-20).

Play back by exact date & time:

Modify the date & time, press **PLAYBACK** button to play back video which is started from your appointed date & time.



Picture 5-20



Picture 5-21

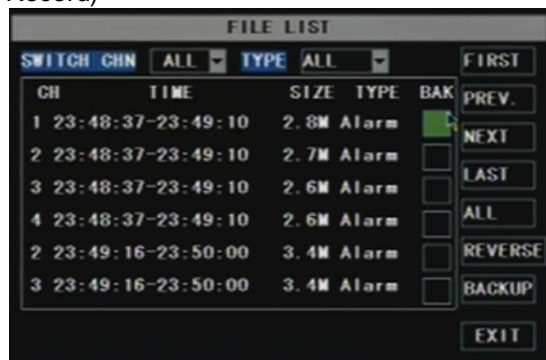
Search All Recorded File:

Press **SEARCH** button, system will search and show you the recorded status. RED color indicates ALARM recoding, GREEN color indicates continuous recording.

You can click the time point to play back.

File list

To check recoding event list, you can sort the files by Channel / Record Type (Normal Record / Alarm Record)



Picture 5-22

FIRST: Turn to the first page

PREV: Turn to previous page

NEXT: Turn to next page

LAST: Turn to the last page

ALL: Select all files in current page

REVERSE: Allows you to revert the selected and unselected events on the current page except those you have currently selected.

5.2.4.2. Playback Interface



You can play video Forward at 2x, 4x, and 8x speeds, Slow play at 1/2x, 1/4x, 1/8x, or normal play, pause and play frame by frame using the playback control bar, and adjust volume by clicking or sliding tune control bar. When playback is finished, system will return to previous menu.

5.2.4.3. Video Backup

1. Insert your USB device (USB hard disk, USB thumb drive) into the bottom USB port on the rear panel.
2. Select one or more files.
3. Press BACKUP button on the menu.

NOTE: Do not remove your USB device during making backup.

Note: Backup files will be in H.264 format; you can play them with Net viewer program or Multi player, and convert them to AVI format using the Netviewer program that comes with the DVR, so you can use any player that supports AVI format. (Introduced on Chapter 6)



Picture 5-24

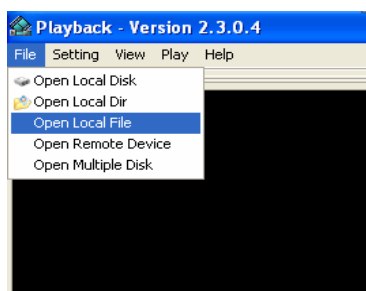


Picture 5-25

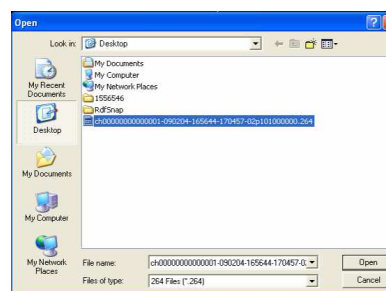
5.2.5 Multi player

1. Copy backup file to your PC.
2. Open multimedia player and click [File→ Local (F)] to find/select the backup file, and then click [open] button

Note: the file type you have selected should be *.264 format.



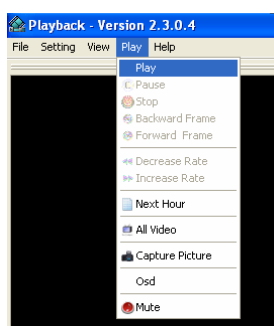
Picture 5-26





Picture 5-27

3. Open backup file:

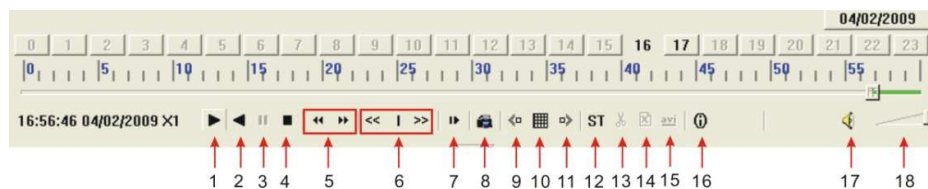
(1). Click [Play] menu (P) on the top of multimedia player interface to select playing the backup file;



Picture 5-28

(2). Click pop-up menu button  on the bottom of multimedia player and [Play- ] button, then the backup file will be played on the according channel.

(3). The Menu brief on the bottom of multimedia player:



Date: **04/02/2009** recording date for the current backup file shown as right corner;
 24H recording time: lie under [Date] menu. Black number button stands for current recording playback is normal recording for the time line.



0~60 Minute recording time quantum: Green part on play processing bar stand for recording length for one hour recording.

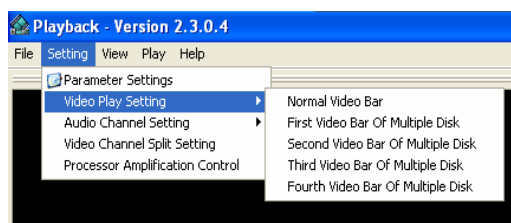


Recording date and time processing for the current recording file

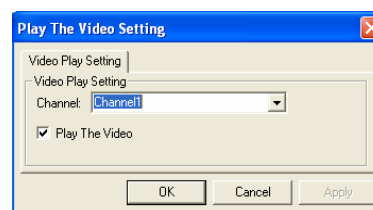
1	Play	10	All the windows
2	Previous recording file	11	Add window
3	Pause	12	Start
4	Stop	13	Cut
5	Previous frame / Next frame	14	Delete
6	Slow play, Normal play, Fast Play	15	Convert AVI
7	Next Hour	16	OSD
8	Capture picture	17	Mute switch
9	Reduce window	18	Volume adjust

4、 Please refer to the below [Video on] setting procedure (System default - video for every channel is on)

Setting→Video play setting →Normal video Bar→Select the channel you want to display→ Select to play the video→Apply→OK



Picture 5-29

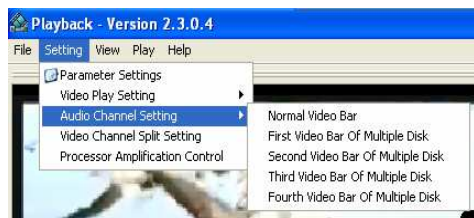


Picture 5-30

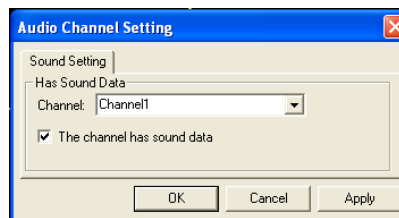
5、 Refer to the below for [Audio on] setting procedure. (Setting parameter will be available after re-starting multimedia player after [Audio on] set up.)

Setting→Audio channel setting → Normal video Bar→Select the channel you want to playback the

audio→Select the channel has audio files→Apply→OK.



Picture 5-31



Picture 5-32

After successfully setting the above, when you playback the current channel, you can open the channel's audio function at the same time as the video

5.2.6 Device Management



Picture 5-33

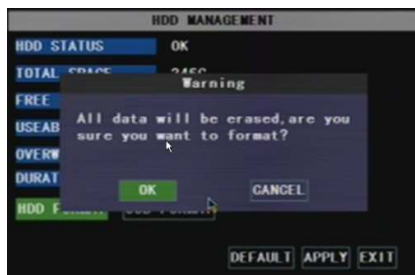
Options in device management include Hard drive, External Alarm, PTZ control, Mobile Phone Monitoring, and Motion Detection.

5.2.6.1 HDD Management



Picture 5-34

Click [Main Menu→Device → HDD] to enter [HDD Management] menu (shown as Picture 5-34)



Picture 5-35

When you install a HDD, the system will automatically detect if HDD is formatted or not; If HDD needs to be formatted, HDD status will be shown as "Not format", otherwise, the HDD status will be shown as "OK" (refer to Picture 5-34)

TOTAL SPACE: Indicates total space available on Hard Drive.

FREE SPACE: Indicates unused space available on the Hard Drive.

USEABLE REC TIME: Based on current image detail/quality and frame rate, system will show you how recording time you have left on the Hard Drive.

OVERWRITE: If you select "on" the system will automatically overwrite the oldest recordings once the hard drive is full; if you select "off", recording will stop once the hard drive is full.

DURATION DAYS: the option allows HDD auto-overwrite previous data after the duration days you set herein.

HDD FORMAT: You use this option to format the hard drive, you can not record files to the hard drive until it has been formatted. Click [Format HDD] button to start formatting. When selecting [Format HDD] option the system will prompt you – "Format HDD will loss all the data, do you confirm?" ; click "OK", system will prompt you – "Is formatting..." and "successful format"; and then system will restart automatically.

USB FORMAT: Use this option to format USB devices.

5.2.6.2 Alarm Set



Click [Main Menu→Device → Alarm] to enter into [Alarm setup] menu to setup Alarm warnings (shown as Picture 5-36).

I/O STATUS : Options include NO (Normal-open), NC (Normal-close) and OFF. Set to “Normal-open” if you use external sensor alarms that are normally open, Set to “Normal-close” if you use external sensor alarms that are normally closed, set to “off” if you are not going to use external sensor alarms. You can use the DVRs

not external sensors to record on motion detection.

BUZZER: Option to turn off the built-in buzzer alarm, or set the buzzer alarm time.

OUTPUT: Option to turn on/off external sensor.

MD ALARM: Option for buzzer to alarm or not when the motion detection happens

I/O ALARM: Option for buzzer to alarm or not when the I/O is tripped happens

HDD LOSS: Option for buzzer to alarm or not when there is no HDD installed in the DVR, or the HDD is in abnormal working condition.

HDD SPACE: Option for buzzer to alarm or not when HDD space is full (if you have turned off the HDD overwrite function).

VIDEO LOSS: Option for buzzer to alarm or not when video signal loss.

FULL SCREEN: Option to pop up the channels to full screen display or not when motion detection happens.

ALARM TIME : It determines the motion detection recording length, which means how long the motion detection recording will still record after motion stops.

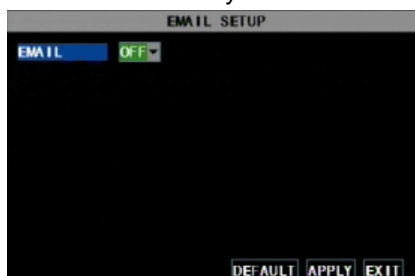
EMAIL: Option to send live images by email when motion detection happens.

Alarm Type	Function
Video Loss	Sends alarm when DVR can't receive video signal (such as camera damage, cable broken or damaged)
Motion Detection	When an object moves into motion detection area, alarm will be triggered. You can adjust sensitivity
I/O Status	System can convert alarm signal triggered by external sensor into signal identified by system.
HDD loss	When Hard Drive is not detected (HDD damage, power supply malfunction), or HDD auto-overwrite is

List 5-1

Email Alarm Notification

Warning: We don't promise every email server is compatible with the DVR alarm notification function. Please make sure your DVR is well connected to Internet if you want to realize Email alarm function.



Click the [Email setup] menu to enter into its sub menu (shown as Picture 5-37).

Picture 5-37

Take GMAIL for example to demonstrate the email setting:



Picture 5-38

SSL : Set SSL to “On” via Gmail.com server, and set to “Off” via other mail server.. SSL is a security link transport protocol. You can encrypt your communication info (including your email) using SSL to prevent hackers from monitoring your email or communication info and even your password. Please confirm with your email service provider if your email server support SSL or

SMTP Port: indicates sender port of SMTP server. Generally the SMTP port value is 25, SMTP port of G-mail server is 465.

SMTP: indicates server address you use.

Sender email: indicates sender’s email address. The email address should be consistent with the server you use. That is to say, when you use email address – aaa@gmail.com, the according server should be smtp.gmail.com.

SEND PW: enter the login password of send email.

RECV EMAIL: indicates receiver’s email address. The email address is used to receive image transmitted from motion detection or I/O triggered alarm of DVR. Please clear the images you have received as soon as possible to avoid overloading your email account.

For detailed SMTP protocols settings refer to the below picture 5-35A.If your setting is still not right, please contact the web site where you have applied for your email box to get SMTP server and SSL of mail box.

Note: Sender email is required to enable IMAP/POP3/SMTP function (details please refer Picture 5-39 & Picture 5-40, which is IMAP/POP3/SMTP Enable setting for Gmail and QQ mail)

Login your GMAIL ID and turn to **Settings** page. Find out **Forwarding and POP/IMAP** option and then enable IMAP function.

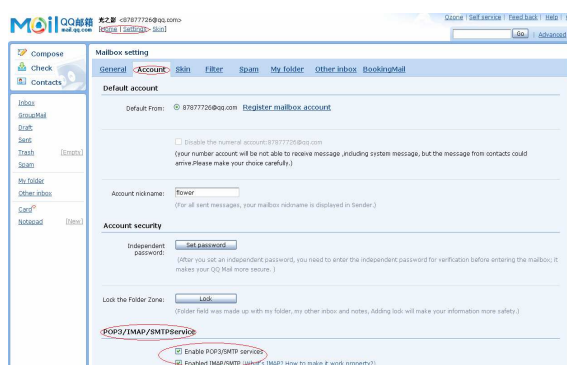


Picture 5-39

Note: Some mail server not support IMAP/POP3/SMTP enabling function freely. Please consult if the site server you located will support SMTP and SSL service before using the enabling function.

If you fail to receive Email alarm message, please check below setting and DVR connection status:

- DVR network connection is normal or not;



Picture 5-40

- Receiver and sender email support SMTP protocol freely or not;
- You have correctly set email alarm parameter or not;
- DVR is on the I/O alarm or Motion detection status or not (system will send/receive the alarm email only when DVR is on the alarm status).

5.2.6.3 PTZ Setup



Enter into [Main menu→Device→ PTZ Setup] to select the channel you want to control and set PTZ protocol (Pelco-D or Pelco-P), Baud Rate (1200, 2400, 4800, 9600), Stop bit (1, 2), Parity Check (None, Odd, Even Mark Space), Address Code and Cruise status respectively. Please note the above mentioned channel settings must match the settings of the PTZ camera.



You can find the PTZ control menu on the pop-up menu bar and open the PTZ control interface. You can click Z+ & Z- keys to zoom In or out, click F+ & F- keys to control camera focus and click I+ & I- to adjust the focus point.

Picture 5-42

Open auto cruise function on PTZ setting menu if you want to setup cruise function, and set up cruise channel, cruise point, total quantity and stop time (by second) etc.



You can find the PTZ control menu on the pop-up menu bar and open the PTZ control interface. You can click Z+ & Z- keys to zoom In or out, click F+ & F- keys to control camera focus and click I+ & I- to adjust the focus point.

Channel: select the channel with the PTZ camera

TOTAL: set up presetting bit (angle) quantity. Please refer to your camera's manual for detail

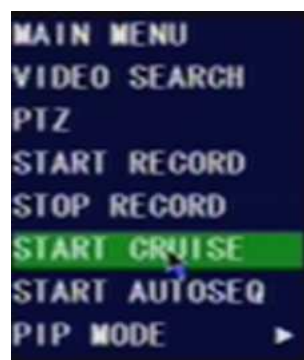
CUR POINT: System has default starting (current) cruise point as 01. You can use this option to set additional cruise points

STOP TIME: sets the dwell time at each cruise point

GOTO: Select this option to go to specific preset points

Picture 5-43

START CRUISE: Go to main interface and trigger the pop-up menu bar, you will find the **START CRUISE** menu. Highlight and click [Start Cruise] menu, and now camera with PTZ control will turn into cruise function, at the same time the [Start Cruise] menu on the Pop-up menu bar will change to [Stop Cruise] Menu. Click [Stop Cruise] menu will stop Cruise function.



Picture 5-44



Picture 5-45

5.2.6.5 Mobile



Click [Main menu→Device→Mobile] to enter into [Mobile] menu.
 User Name: indicate user name of DVR.
 User password: indicate user password of DVR
 Server port: Mobile monitoring port. Setting range is between 1024 and 65535. Please note that

Explanation: Please connect DVR to Internet before setting DVR port number and the server port no is not equal to network menus.

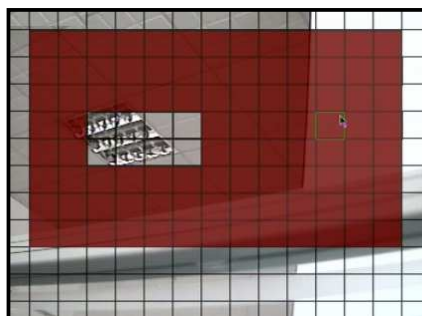
Click [Main→Device→Motion] to enter into the [Motion Detection] menu to setup motion detection recording.

The [Motion detection] Menu has three sections, including Channel Status, Sensitivity and Motion area.

Channel STATUS: This option allow you enable motion detection on any channel.

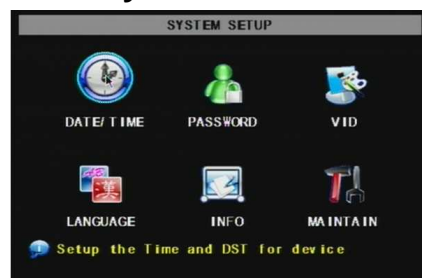
SENSITIVITY: This option allows you to set sensitivity level of motion detection from 1 to 4 with 4 being the most sensitive.

MD AREA: This option allows you select the area you want to be sensitive to motion. The channel is separated into a 13*10 area. When any object moves into the motion detection area, and the area where the object is located is displayed in red recording will be triggered. In the semi-transparent area the motion detection is off.



Picture 5-47

5.2.7 System Function



Picture 5-48

The [System] Menu includes the below sub-menus: Time Set, User Password, Audio/Video Setting, Language select, System Info and System Maintenance.

After entering into the [System], you can configure the system to meet your needs.

5.2.7.1 Time Set



DATE: config the day, month, and year
DATE FORMAT: Select DD/MM/YYYY, MM/DD/YYYY, or YYYY/MM/DD
TIME: config the time
TIME FORMAT: Use the drop-down menu and select 12HOURS or 24HOURS
DST: (day saving time) Use the drop-down menu to select ON/OFF to enable/disable Daylight Savings Time.
 Click **APPLY** button to save your settings.

Picture 5-49

5.2.7.2 Password



This option allows you set the device ID for the DVR and set the system password if you want to use one. The new passwords will be available after clicking [APPLY] button.

Picture 5-50



Difference of **USER PASSWORD** and **ADMIN PASSWORD**:

Login with **USER PASSWORD**, you can only operate Search & Playback function, and view the live images. You're limited to check & change any system settings.

Login with **ADMIN PASSWORD**, you will have the authority to operate all menus.

Picture 5-51



Picture 5-52

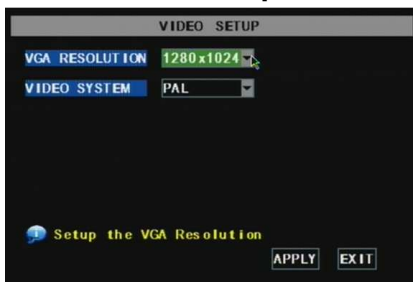
5.2.7.2.1. Menu Lock



MENU LOCK menu only displays on the pop-up menu bar when password protection is enabled.

When you exit the main menu, the system will remember your login information for a while so that you don't need to input the password for your repeat login in a short time. You can use this menu to lock your system menu immediately.

5.2.7.3 Video Setup

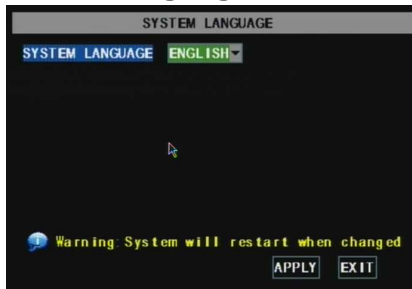


Click [Main Menu→System→VIDEO] to setup Video, here you can set Camera system (PAL, NTSC) In the USA we use NTSC.

You can also set the resolution for the VGA video out port. Your options are 600x480, 800x600, or 1024x768, or 1280x1024.

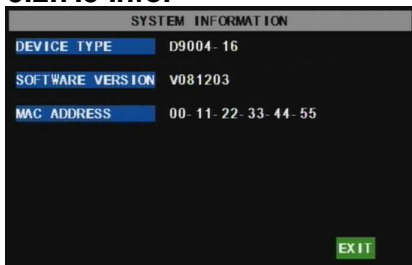
Picture 5-54

5.2.7.4 Language



Enter into [System Language] menu to select the language you want to use on the DVR (shown as Picture 5-55) and click [APPLY] button. The selection will be available after system Auto restarts.

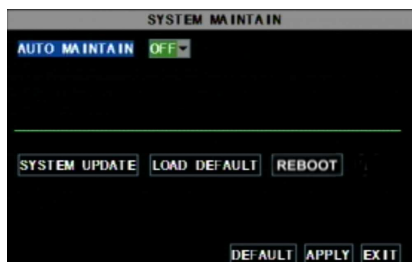
5.2.7.5 Info.



Picture 5-55

Click [Main Menu→ System→Info] to enter into [System Information] menu to view system info, including Device type, Software (firmware) version and MAC address etc.

5.2.7.6 System Maintenance



Picture 5-56

This option allows you reset the DVR to default settings, update system software (firmware), and config system auto-maintenance.

When the auto-maintain function is enabled, you can set system to restart regularly to clear up some temporary storage memory.

Chapter 6: Net-Viewer Program

6.1 IE & Netviewer Access

6.1.1. IE Setup

For the first time you are using the IE to access the DVR, you need to modify your browser controls. Take IE 7 for example to demonstrate how to modify your browser controls:

1. Turn OFF “Pop Up Blocker”

Go to Tools → Blocker, and then select “Turn Off Pop-up Blocker”.

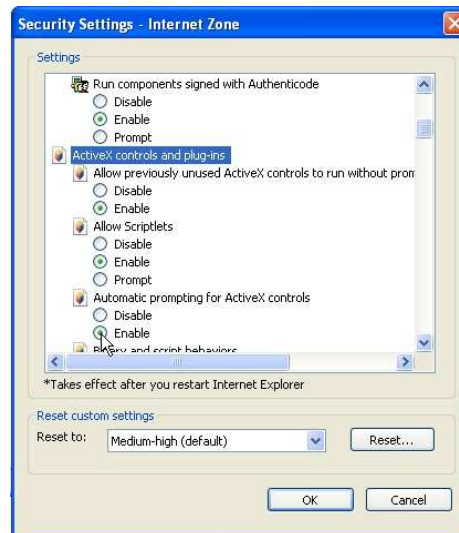


2. Access & Enable all ActiveX Controls

Go to “Tools” → “Internet Options” → “Security” tab, then click “Custom level...” button.



On this page scroll down to the ActiveX Controls and Plug Ins, and set all to either **PROMPT** or **ENABLE**.



Warning! It is strongly recommended to return all Internet Explorer Security to its default settings after the ActiveX Control has been installed. Enabling all ActiveX controls put your computer at risk of being attacked by computer virus.

6.1.2. Connect to DVR

To connect to the DVR from a remote computer, you would then open an Internet Explorer browser window and enter the Internet IP of your router that you received by going to www.myipaddress.com.

If you get an error message “Program cannot load because the Publisher is unknown” or the program is unsigned, then go to Internet Explorer --> Tools --> Internet Options, then click on the ADVANCED tab on the top right. This will open the window in, scroll down to “Security”, and select on the options to “Allow software to run or install even if the signature is invalid”, and “Allow Active Content to Run Files on My Computer”.

Open Internet Explorer and enter the IP Address or DDNS address of your DVR. A pop-up will ask you to install an ActiveX (plug-in) to your computer. Please confirm the download and install the software.

Reminder: If the ActiveX (plug-in) is not downloaded successfully, please check if your browser’s safety level or firewall setting is set properly (as stated above). Please also make sure all of the setup of your modem or router is setup properly.

6.2 IE Plug-in & NetViewer



Open the DVR IP address or DDNS domain name with IE, or run the Netviewer software, the LOGIN interface will load.

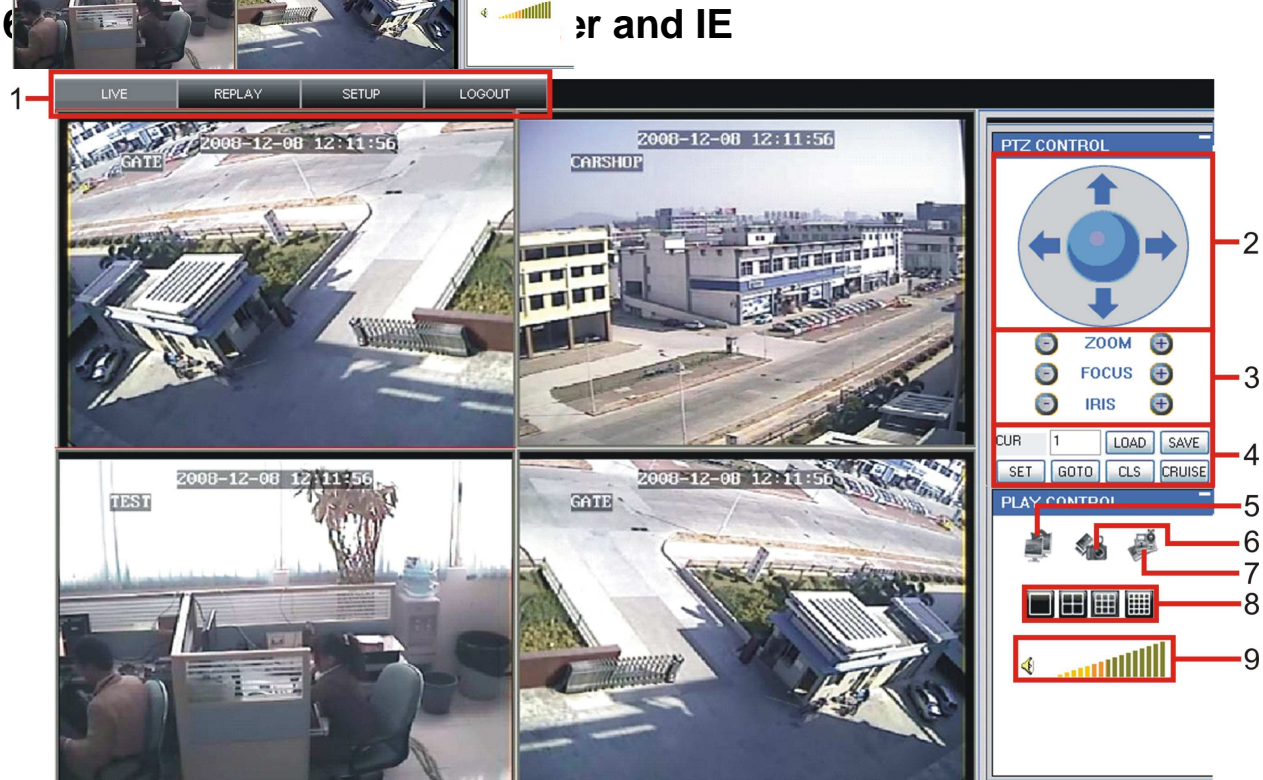
Input the login information, and then press LOGIN button. Please note default password is empty. System allows Administrator to set new password as per instructions in section 5.2.6.2 - [Password set] menu.

Note: If you want to delete old IE webcam at DVR system update,²⁵run the command characters: “regsvr32/u dvrocx.ocx”

Picture 6-1



After successful Log-in to Net-viewer, system will enter into live display interface and connect to audio/video feed automatically (shown as Picture 6-2).



Picture 6-3

Log in Net-viewer and show the interface as follows

6.3.1 Menu column (Section 1 on Picture 6-3)

6.3.2 PTZ Control (Numbers 2, 3, 4 on Picture 6-3)

6.3.3 Live Play Control (Numbers 6 through 10 on Picture 6-3)

6.3.1 Menu column (Section 1 on Picture 6-3)

Menu column include [Live] menu, [Replay] menu and [Setup] menu and [Logout] menu.

6.3.1.1 Live

After Logging-in to system, system will enter into Live display (shown as Picture 6-3).

6.3.1.2 Replay



This option allows you to playback recordings remotely.

First select the day, channel and type and proceed searching and refreshing; second select any event from search result list to playback.

Please note you can control playing speed by sliding the playing-control bar on the bottom of the

Play button: [Play]/[Pause]

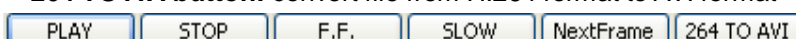
Stop button: stop playing recording.

F.F. button: fast forward playback recording

Slow button: slow playback recording.

Next Frame: play frame by frame.

264 TO AVI button: convert file from H.264 format to AVI format



The native format of the backup files is H.264, you can convert H.264 format into more familiar AVI format by clicking the key of 264 to AVI.

6.3.1.2.1 Convert 264 file to AVI file

The native format of the backup files is H.264, you can convert H.264 format into AVI format by clicking the key of 264 to AVI.

1. Click the “**264 TO AVI**” button, the AVI Convert window will open.
2. Determine the source H.264 file & the destination to save the avi file.
3. Click **CONVERT**. File conversion begins. The progress bar indicates the status of the conversion.
4. Click **OK** in the confirmation window.

6.3.1.2.2 Remote Backup

You can backup recorded video files from DVR to your PC using the Replay menu in the remote surveillance software.

To backup files remotely:

1. Click **REPLAY** at the top of the main screen.
2. Select a date on the calendar and click **RELOAD**.
3. Double-click a file from the File List to begin playback.
4. Click **BACKUP**. Backup begins to C:/DVR/[ip address]/Backup

NOTE: If you playback a file, you must wait for the file to load before backing it up, otherwise you may receive an error message



When file backup is complete, click **OK** in the confirmation window. The confirmation window show the save path of the backup file. The backup files are saved as .264 files.

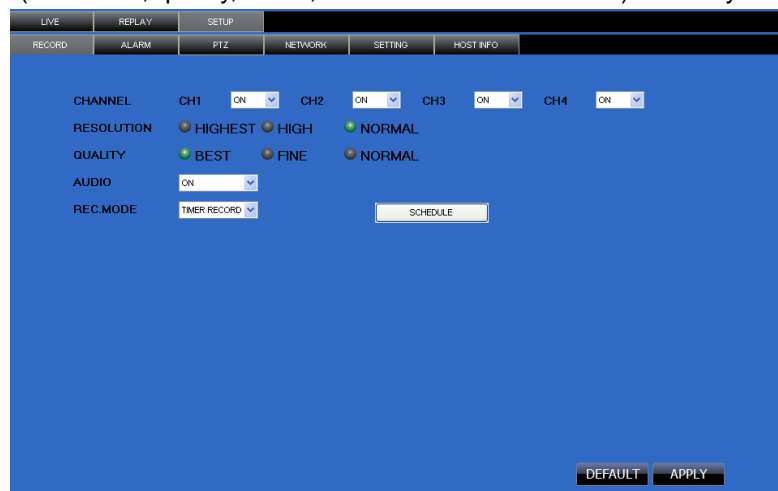
6.3.1.3. Setup

Click [Setup] menu to enter into its sub menu, including [Recording Mode] menu, [Alarm Mode] menu, [PTZ Control] Menu, [Network Setting] menu, [System Setting] menu and [Host Info] menu.

Explanation: Only when DVR is on the status of live display, you could modify and save its parameters remotely at this moment, the settings are available. The modification method to DVR via Net-viewer is the same as local adjustment of DVR.

① Record

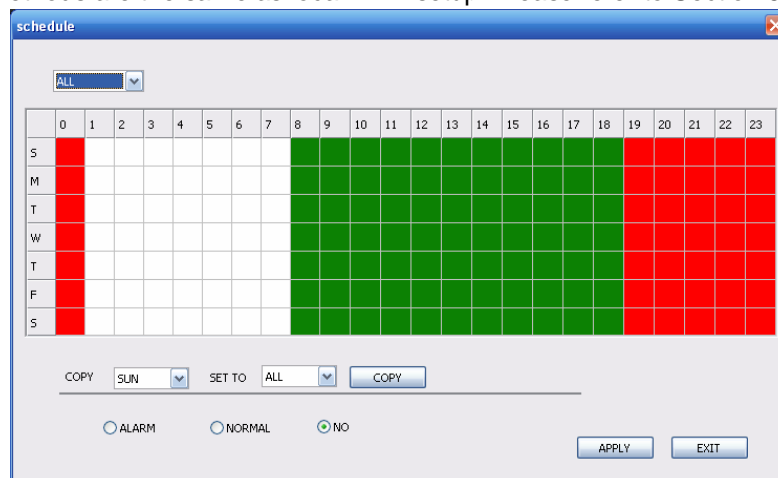
Enter into sub menu – [Recording Mode] menu, you can select on/off for every channel, and adjust recording parameters (resolution, quality, audio, REC mode and Schedule) remotely via Net-viewer.



Picture 6-5

Click the [Schedule] menu to enter into its sub menu (shown as Picture 6-6).

Remote setup methods are the same as local DVR setup. Please refer to Section 5.2.2 Record Setup



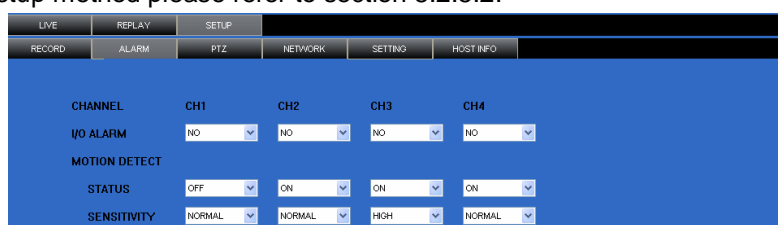
Picture 6-6

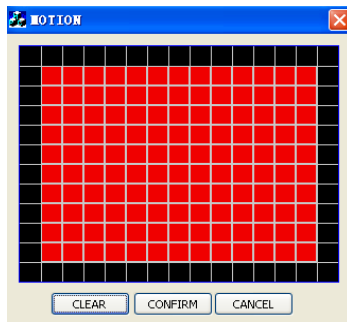
□ Alarm

Click [Alarm] menu to enter into its sub menu (shown as Picture 6-7).

You can set I/O alarm for every channel, motion detection alarm, motion recording, motion trace, motion sensitivity, video loss alarm, HDD not enough space alarm, HDD not found alarm and alarm output time etc.

For details on setup method please refer to section 5.2.5.2.





Picture 6-8

System allows you setup motion detection settings for each channel of DVR remotely (shown as Picture 6-8)

PTZ Control

Click [PTZ control] to setup PTZ cameras. Remote setup methods are the same as local DVR setup. Please refer to Section 5.2.5.3 (shown as Picture 6-9).



Picture 6-9

Network

Click [Network] to enter into [Network] menu. Remote setup methods are the same as local DVR setup. Please refer to Section 5.2.3. – Network Set.

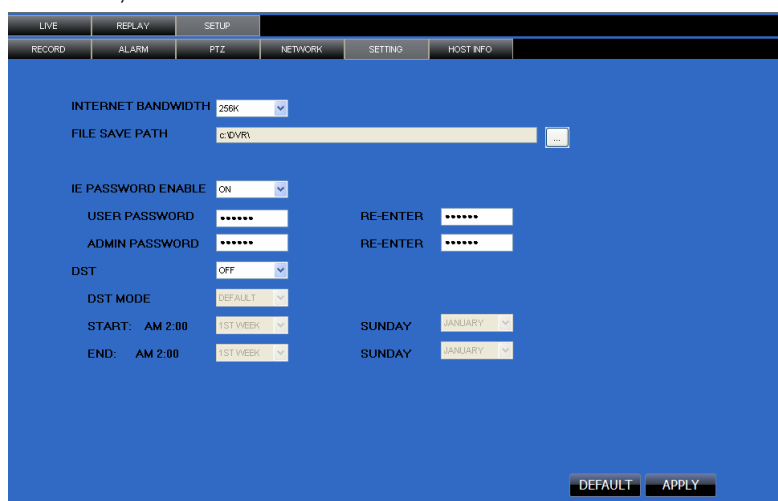


□ **Setting**

Click [setting] menu to enter into the menu interface (shown as Picture 6-11);

Click [...] button to preview net-viewer recording saving path and screen capture saving path.

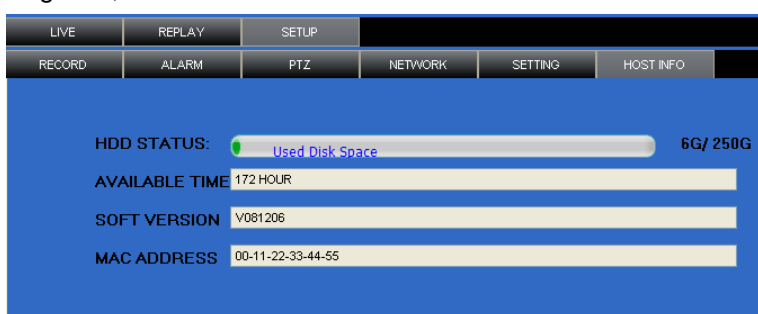
The menu also allows you to set a lower bandwidth for Internet video transmission, set user password, turn daylight saving time on/off, etc.



Picture 6-11

□ **Host Info**

Click [Host Info.] to enter into the sub menu (shown as Picture 6-12). Here you can check Usage rate of HDD, available recording time, software version and MAC address.



Picture 6-12

6.3.1.4 Log out

Log out of the system.

6.3.2 PTZ Control (Numbers 2, 3, 4 on Picture 6-3)

Note: below-mentioned series no will be consistent with the remark no shown as Picture 6-2.

2. **PTZ direction control:** Control PTZ moving direction

3. **Zoom, Focus and Iris Control:** control direction, zoom, focus and iris of PTZ.

4. **Presetting bit Control**

CUR : display current presetting bit or input a presetting bit you want to fix at according edit box.

Load : Load one presetting bit setting you have saved last time.

Save: Save presetting bit.


Set: set presetting bit parameter (Details setting method please refer to section 5.5- cruise set.

GOTO: on the preview mode, please input one presetting bit no and click [GOTO] button, you could fix the presetting bit quickly.


Clean: clean presetting bit setting.

Cruise: control cruise status (including on and off).


6.3.3 Live Play Control (Numbers 6 through 10 on Picture 6-3)


Ⓞ On / Off Live display [] : When Live display status is “On”, Clicking the button closes Live display.

When “Off” clicking the button opens the Live display.

Capture [] : Capture Screen image and save to PC as *.bmp image.

Recording [] : Operate DVR recording remotely

Channel display [] : The icons stand for Single Channel display, Quad Channel display, 3x3 Channel display and 4x4 Channel display respectively.

Volume control [] Click or slide the control bar to adjust sound volume.

6.3.3.1. Playback Local File with Netviewer

Run the Netviewer software, you will see the **OFFLINE** button displayed on the Login interface. Press this button to enter local file playback mode.



Picture 6-13

Press the **ADD** button to add backup H.264 files or folder saved in your computer, you will see the files will be listed in the queue window, select a file then press **PLAYFILE** button to play.



Picture 6-14

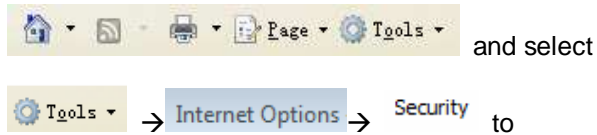
Chapter 7 Specifications

Model	4CH
Video System	NTSC / PAL(Optional)
Compression Format	Video : H.264 / Audio : 8kHz*16bit ADPCM
Video Output	4-CH BNC Input/ 2-CH BNC Output / 1-VGA output (Optional)
Audio I/O	1-CH RCA audio input/ 1-CH RCA audio output
Display Resolution	D1 : 704×576(PAL) 704×480 (NTSC)
Frame rate	Single CH PAL : 25 fps , NTSC : 30 fps
Recording Resolution	PAL: CIF(352*288), HD1(704*288) D1 (704*576) NTSC:CIF(352*240),HD1(704*240) D1 (704*480)
Recording Frame Rate (shared)	PAL : 25 fps@D1, 50 fps@HD1, 100 fps@CIF NTSC : 30 fps@D1, 60 fps@HD1,120 fps@CIF)
HDD	1 SATA HDD, up to 1024GB ; USB removable HDD
Video Mode	Always / schedule / manual /motion detection
Record Pack Time	15/30/45/60min
Video backup	USB flash disk / removable HDD , USB Burner, Network backup to AVI File Format
Playback Mode	PLAY /SLOW /FWD/Frame by Frame
Alarm Type	Motion/Video loss/HDD Space/HDD Loss
PTZ Control	Built-in RS-485 port, supports PELCO-P & PELCO-D
USB 2.0 Port	Supports USB mouse , removable HDD , USB flash drive to backup to AVI file and upgrade system
Ethernet	One RJ-45 10M/100M self-adaptable Ethernet interface
Network Protocol	Supports TCP/IP, DHCP, UDP, DDNS, PPPOE network Protocol
Network Function	Support preview live display remotely via mobile phone and real time monitoring via IE-based browser and/or network, and support parameter setting of DVR remotely.
Power consumption	10 ~ 15W (exclude HDD)
Power Adapter	DC 12V / 3A
Working Temperature	50°F to 104°F (10°C to 40°C)
Working humidity	10%~90%
Dimension (W x D x H)	

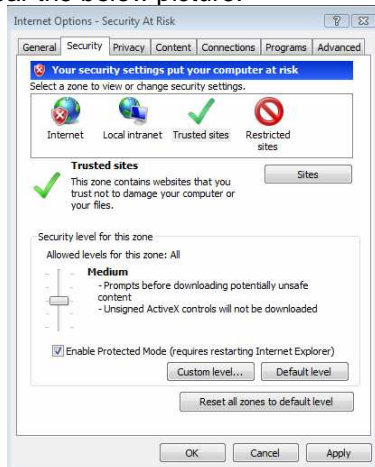
List 7-1

Chapter 8: Windows Vista User

1、Open IE browse firstly, then enter into Tool bar-

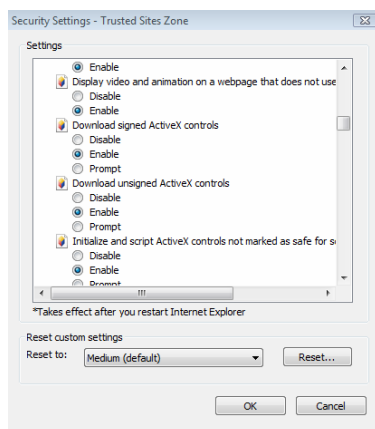


appear the below picture:

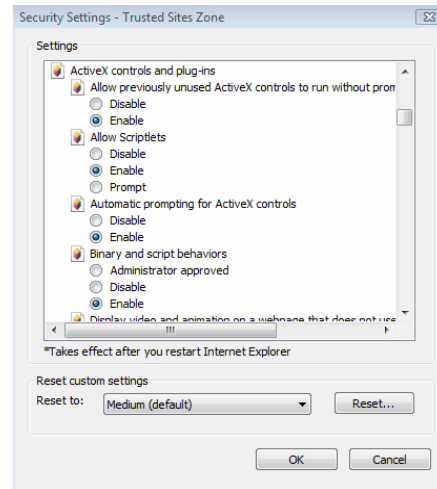


2、Second, select **Custom level...** icon

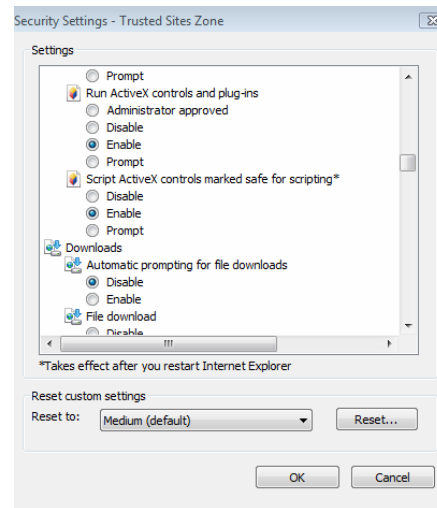
and tick the settings of “ActiveX controls and plug-ins” to Enable, details as follows:



3.



4.



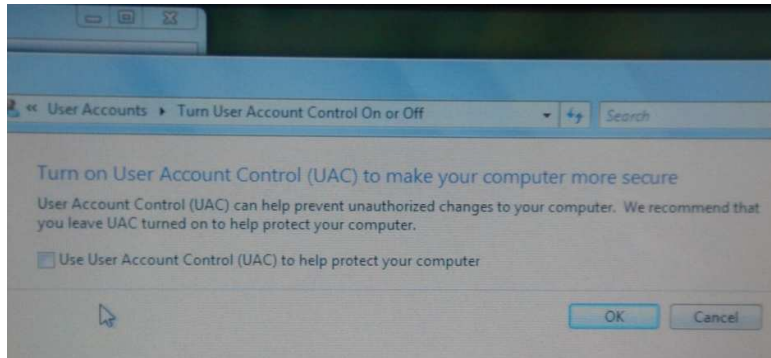
Lastly after tick all the “Enable”, please

click **OK** to exit. At this moment, you could input IP address to run your programme.

Open IE browser and input IP address and web port of DVR...computer will auto download and install the widget.

We suggest Vista user set user access authority in order to make your PC safer. Setting processing as follows:

Click [Start→Set→Control panel→User account] to set user access authority shown as below picture.



Remind: If the widgets are not downloaded successfully, please check if your browser's safety level or firewall setting is too advanced.

Open IE browser to enter into [tool→ Internet Option→Internet user-defined level→enable widgets.

Downloading and auto running install widgets need one minute, please wait...patiently.

Chapter 9 Appendix

9.1 Operation Function Table

Type	Title	Description	Page
Principle Setting	Time setting	Setting system date, time and format and day-light saving time setting	21
	Language Select	Setting system language	22
	CH Setting	Setting CH title and position; adjusting image color parameter value; setting CH display to ON / Off and time display/recording time overlaying to On/Off.	11
	Rec. Setting	Setting image quality, resolution, volume, recording mode and pack time	12
	Rec. Search	Time based search, channel based search and rec. mode based search.	14
	Rec. Playback	Specified time playback, scheduled playback, file list playback	14
	Playback mode	Play, play frame by frame, multi-speed forward and multi-speed rewind	14
	File backup	U flash disk and removable HDD backup, DVD recorder backup and network download backup	15
	HDD Manage	Check HDD status, usage space, setting HDD auto-overwrite	16
	VID/AUD Setting	Adjust VGA resolution, select system and volume control	22
Advanced Setting	User password	Setting or modifying user password	21
	Alarm setting	Setting HDD lost, HDD space, video loss, alarm management and Email alarm	26
	Motion detection	Setting on/off status of MD; select sensitivity and setting motion detection area.	20
	PTZ control	Selecting CH and setting PTZ protocol, baud rate and PTZ address for the CH	27
	MP Monitor	Setting user name, password and server port.	
	System Maintenance	Setting system auto maintenance, maintenance time regularly, system upgrade, ex-factory default value recovery and manual restart system	22
Network Setting	Network and Port setting	Selecting network mode and setting net-viewer port, web port, DNS and DDNS parameters.	27
Network Function	Live display	Real time video input remotely	25
	Remote recording	Setting recording mode and status of DVR remotely	28
	Remote playback	Check local recording history via network	25
	PTZ control	Remotely control PTZ camera, position, focus, zoom and iris etc.	28
	parameter set of DVR remotely	Setting local CH display, recording, alarm, PTZ control parameter value via network	26
	Network download	Backup recording file via network	25
Auxiliary function	System info	Check device model, software version and MAC address	28
	()	In addition to illustrating picture, Parenthesis generally indicate optional parameter value of previous menu.	
Menu button	Confirm	The button allows you save the modification of parameter value.	
	Recover default	The button allows you recover default value of current menu or system	
	Exit	The button allows you exit the current menu.	
	Next	On multi-channel mode, the button allows you check or modify other channel's parameter; on [File list] mode, the button allows you display next page.	

List 9-1

9.2 Recording Alarm setting

Please refer the below matrix: “1” stand for “only alarm but no recording”; “AMR” stand for “alarm recording”; “NLR” stand for “normal recording”; and “NOR” stand for “ no recording”. Once alarm is triggered, alarm icon will occur, and when many alarms are triggered, alarm remarks will occur on the screen.

Recording alarm setting		Alarm icon	Recording Mode				
			Recording after power on	Timing recording			Manuel Recording
				AMR	NLR	NOR	
Alarm mode	MD alarm	M	AMR	AMR	NLR	⊥	NLR
	HDD loss, HDD space full	H	⊥	⊥	⊥	⊥	⊥
	Video Loss	Video Loss	⊥	⊥	⊥	⊥	⊥

List 9-2

When DVR is in recording mode, [**R**] icon or [**M**] icon will appear on the screen. But when the [**M**] icons on the screen it indicates a motion was triggered. When [**H**] icon appears on the screen, that mean a hard drive alarm has occurred.

9.3 Troubleshooting

1. Q: What can I do if the system does not detect the HDD?

A: Check the data and power cables and make sure they are securely connected.

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

A: If you forget system password, please contact your supplier for technology support.

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

A: Check to make sure the cables are securely connected to the BNC ports on the DVR. You can also try another cable to make sure there is not a problem with the cable. Make sure you have selected the correct video format for your country (NTSC or PAL), is the USA we use NTSC.

4. Q: Can the DVR have problems if it gets too hot, how can I prevent this?

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

5. Q: My remote control does not work when the DVR is in Live mode but the front panel buttons are working, what is wrong?

A: Make sure nothing is blocking the LED on the remote, or the receiver on the DVR, if both are ok, check the batteries.

6. Q: Can I use the hard drive from my PC in the DVR?

A: You can if the hard drive is the same type and the size is supported by the DVR. If you install it in the DVR it will be formatted for use in the DVR and the PC will not be able to read it.

7. Q: Do I have to stop recording to playback files on the DVR?

A: No you do not have to stop recording, the DVR will support both functions at the same time.

8. Q: Can I erase files from the hard drive of the DVR?

A: You can not erase individual files; you would need to format the hard drive which will erase all of the files

9. Q: Why can't I log-in to the Net-viewer program?

A: Please verify that the Net mode is correct, the cable to the RJ-45 port is well connected to the DVR and the router, and that you are using the correct password.

10. Q: We have attached a PTZ camera but can not control it, what is wrong?

A: Verify that the Protocol, baud rate, address, and other settings on the PTZ camera match the settings you have put into the DVR. Make sure the data cables are attached firmly to the RS485 port on the DVR.

11. Q: Why does the Buzzer keep sounding?

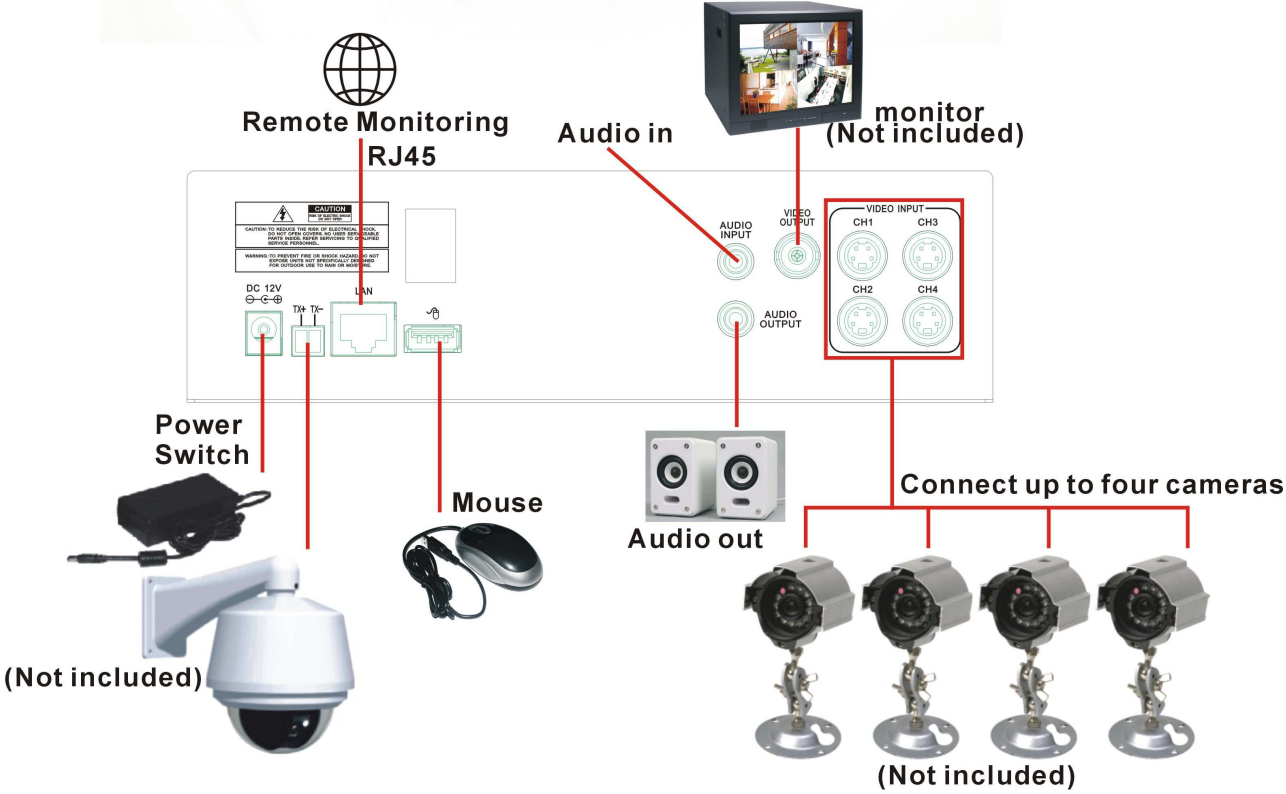
A: Please check to see if motion detection is on and the system has detected motion, make sure the hard drive is being detected and has sufficient space available and that none of your cameras have lost video. You can turn off the buzzer in the Alarm setup option.

9.4 Usage Maintenance

1. Please make sure DVR keep away from heating source.
2. Clean the internal dust regularly, keep DVR aeration well and be easy to heat dissipate.
3. Please not plug in RS-232 and RS-485 when power is on to avoid any damage to the port.
4. Please check the HDD cable and data cable to avoid the cable aging.
5. Please avoid other electronics device interfere video/audio signal of DVR a.s.a.p., or static electricity and induced voltage damage to DVR.
6. Suggest user replace BNC cable regularly to keep signal input stable.

9.5 System connection Configuration

(Diagram is for reference only to show where to attach various devices to the DVR, the cameras, external alarms, USB flash drives, monitors and computers are not included with the standard DVR package)





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