# ― **4/8/16CH DVR** ―

This document contains preliminary information and subject to change without notice.

**CAUTION**
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of unprotected "Dangerous voltage" within the product's enclosure that may be strong enough to cause a risk of electric shock.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

**WARNING**

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

**NOTE:** This equipment has been tested and found to comply with the limits for a class digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)**

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.
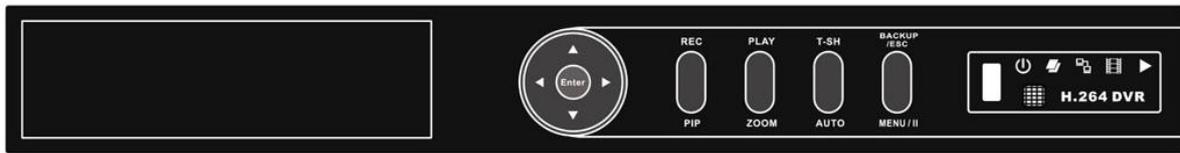
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6. Hard Disk Mount x2



7. Screws x20



8. Power Adaptor



9. Power Cord



10. SATA Cord 2pcs



11. DB25 Connecter

**Note: Standard shipping products include neither HDD nor DVD R/W**

## 1-2 Hard Disk Installation

**Step 1) Fix the HDD to rack mount with the screws as indicated.**
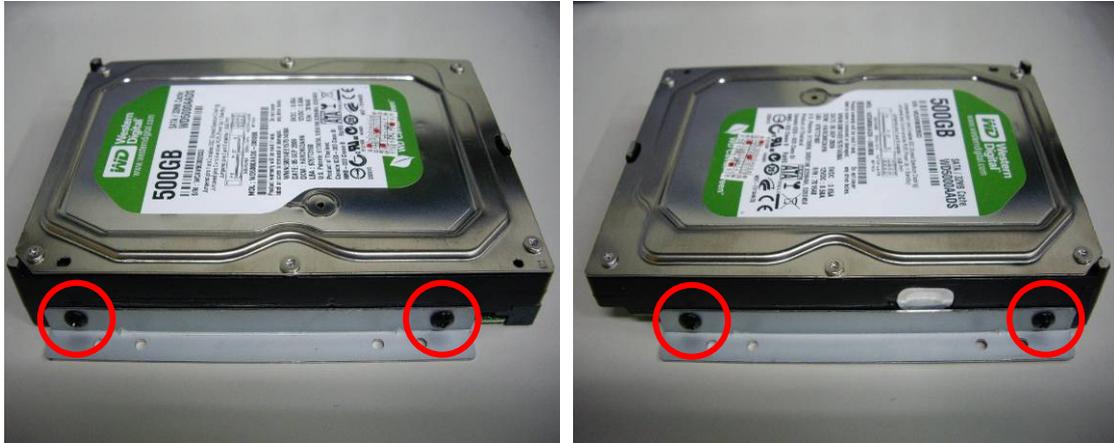
**Step 2) Place the HDD on the HDD plate and screw it as indicated.**

**Step 3) Connect the power and the SATA cables as indicated.**

Note: After installation, please initialize Hard Disk before starting to record. For more detailed information, please check out User Manual 4-9 System Tools for reference.

### 1-3 DVD-RW Installation(Only Support DVD/RW)

**Step 1) Remove the front cover from DVR.**



**Step 2) Put the DVD-RW into the DVR as indicated by the arrow.**
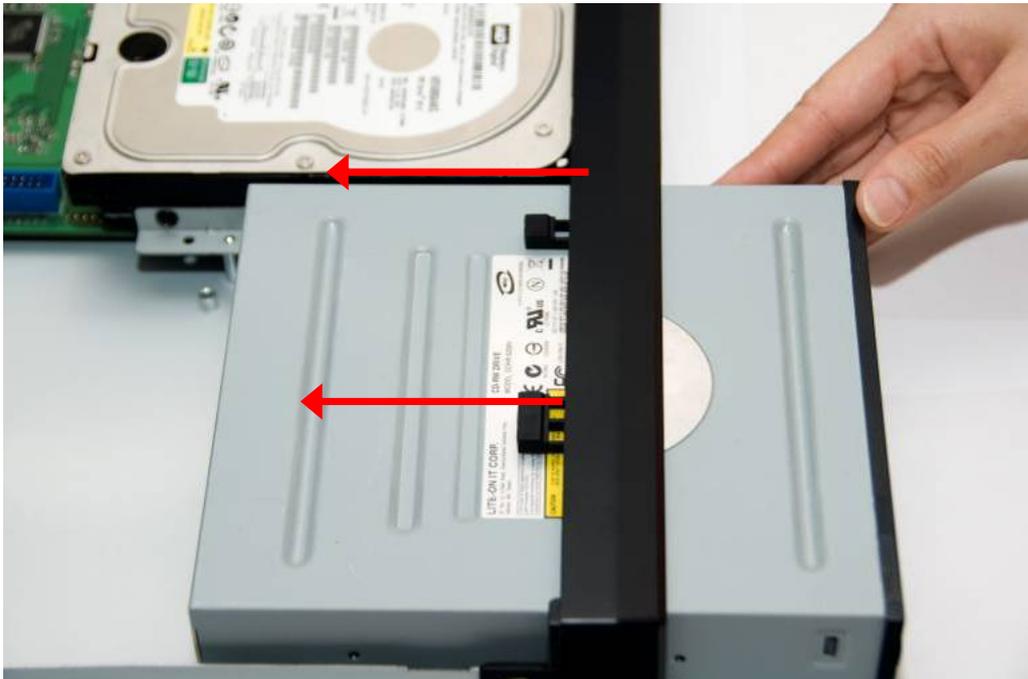
**Step 3) Screw the bottom of the DVR as indicated to fix the DVD-RW.**
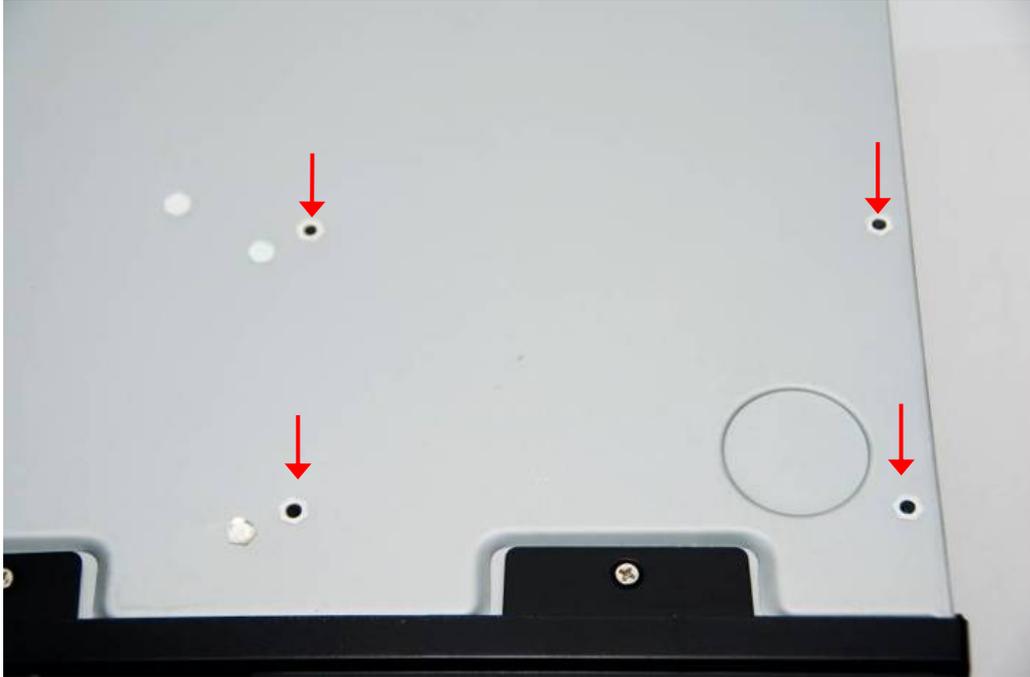


**Step 4) Connect the power and the SATA cables.**

# CHAPTER 2 PANEL LOCATION
## 2-1 FRONT PANEL CONTROLS
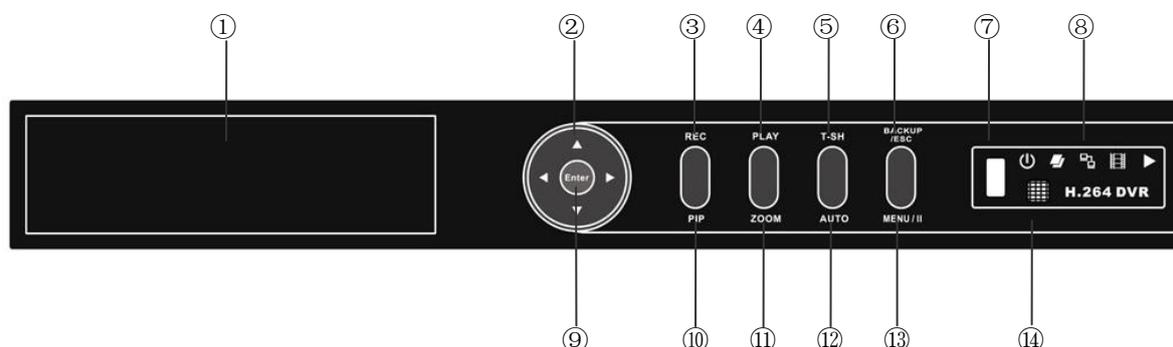
| Control Keys | Description |
|---|---|
| ① DVD Writer | Optional DVD-RW backup device. |
| ② ▼ / ■ | In SETUP mode, press to move cursor down. In PLAYBACK mode, press to stop playing back. |
| ▲ / SLOW | In SETUP mode, press to move cursor up. In PLAYBACK mode, press to slow down. |
| ► /►► | In SETUP mode, press to increase value. In PLAYBACK mode press to play forwards. |
| ◄ /◄◄ | In SETUP mode, press to reduce value. In PLAYBACK mode, press to play rewind. |
| ③ REC | Start or stop recording. |
| ④ PLAY | Play back in normal speed. |
| ⑤ T-SRH | Display the search menu. |
| ⑥ BACKUP/ESC | In LIVE mode, press to display the BACKUP menu. In SETUP mode, press to return to previous page. |
| ⑦ USB 2.0 Port | Port for USB external devices (USB flash drive devices use, the mouse behind the back of the USB ports installed).. |
| ⑧ LED Display (From left to right) | **Power**: Power is on.<br>**HDD**:  Hard disk is in use.<br>**LAN**:  Connected to the internet  *(in red)*: Remote user logged in.<br>**REC**:  Recording.<br>**PLAY**: Playing back. |
| ⑨ ENTER/MODE | In SETUP mode, press to enter values. In PLAYBACK mode, switch between full, quad, 9-channel, 16-channel display in order. |
| ⑩ PIP | In LIVE mode, display with picture in picture format. |
| ⑪ ZOOM | In LIVE or PLAYBACK mode, enlarge the display of a channel. |
| ⑫ AUTO | Auto Sequence display. |
| ⑬ MENU/ | In LIVE mode, press to display menu. In PLAYBACK mode, press to pause playback. |
| ⑭ IR Sensor | Input sensor for the remote control. |

## 2-2  16CH REAR PANEL CONNECTORS
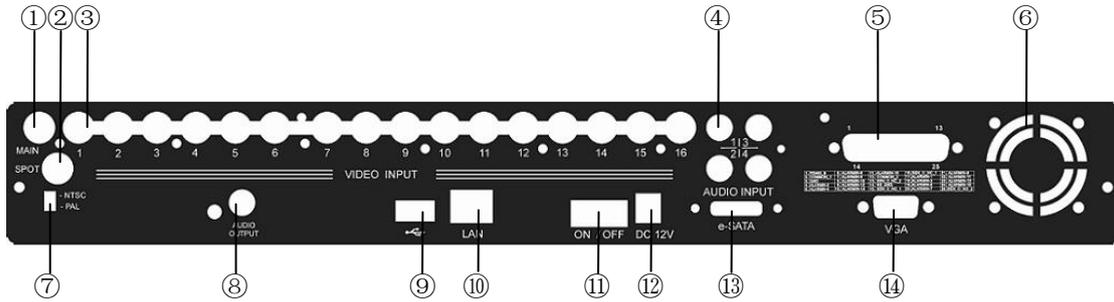


| ① MAIN monitor | BNC port for the main monitor. |
|---|---|
| ② SPOT monitor | BNC port to display full screen image of all installed cameras in sequence. |
| ③ VIDEO IN | BNC input ports for cameras, 8 in total. |
| ④ AUDIO IN | RCA input port for audio signal. There are 4 ports available. (corresponding to channel 1 to 4) |
| ⑤ EXTERNAL I/O | EXTERNAL I/O port   *(see below for pin definition)* |
| ⑥ Fan | DC 12V 40mm X 40mm fan |
| ⑦ NTSC/PAL | Switch between NTSC and PAL format. |
| ⑧ AUDIO OUT | RCA output port for audio signal. |
| ⑨ USB | USB port(Device USB Mouse) |
| ⑩ LAN | Network Port |
| ⑪ ON/OFF | Power Switch |
| ⑫ DC 12V | Socket for a DC 12V input. |
| ⑬ e-SATA | External SATA hard disks port for expanding recording space |
| ⑭ VGA | VGA port |

### DB 25   DEFINITION
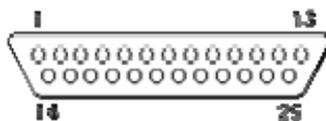


| 1. RS485_B | 6. ALARMIN-6 | 11. ALARMIN-16 | 16. SEN_O_NC_1 | 21. ALARMIN-9 |
|---|---|---|---|---|
| 2. COMMON_1 | 7. ALARMIN-8 | 12. COMMON_2 | 17. ALARMIN-1 | 22. ALARMIN-11 |
| 3. GND | 8. ALARMIN-10 | 13. SEN_O_NC_2 | 18. ALARMIN-3 | 23. ALARMIN-13 |
| 4. ALARMN-2 | 9. ALARMIN-12 | 14. RS_485A | 19. ALARMIN-5 | 24. ALARMIN-15 |
| 5. ALARMN-4 | 10. ALARMIN-14 | 15. SEN_O_NO_1 | 20. ALARMIN-7 | 25. SEN_O_NO_2 |

## 2-3 8CH REAR PANEL CONNECTORS
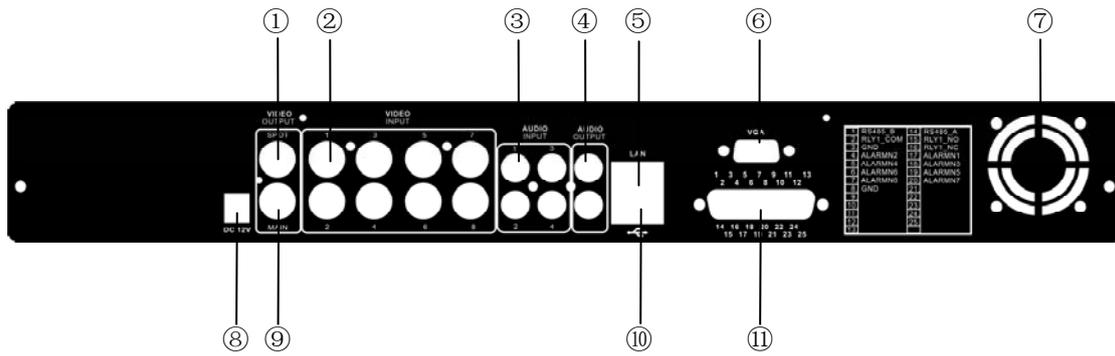


| ① SPOT monitor | BNC port to display full screen image of all installed cameras in sequence. |
|---|---|
| ② VIDEO IN | BNC input ports for cameras, 8 in total. |
| ③ AUDIO IN | RCA input port for audio signal. There are 4 ports available. (corresponding to channel 1 to 4) |
| ④ AUDIO OUT | RCA output port for audio signal. |
| ⑤ LAN | Network port |
| ⑥ VGA | VGA port |
| ⑦ Fan | DC 12V 40mm X 40mm fan |
| ⑧ DC 12V | Socket for a DC 12V input. |
| ⑨ MAIN monitor | BNC port for the main monitor. |
| ⑩ USB | USB port(Device USB Mouse) |
| ⑪ EXTERNAL I/O | EXTERNAL I/O port   *(see below for pin definition)* |

### DB 25   DEFINITION
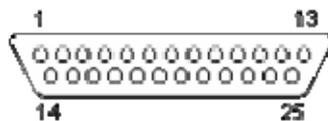


| 1. RS485_B | 14. RS485_A |
|---|---|
| 2. RLY1_COM | 15. RLY1_NO |
| 3. GND | 16. RLY1_NC |
| 4. ALARMN2 | 17. ALARMN1 |
| 5. ALARMN4 | 18. ALARMN3 |
| 6. ALARMN6 | 19. ALARMN5 |
| 7. ALARMN8 | 20. ALARMN7 |
| 8. GND | 21. |
| 9. | 22. |
| 10. | 23. |
| 11. | 24. |
| 12. | 25. |
| 13. | |

## 2-4 4CH REAR PANEL CONNECTORS
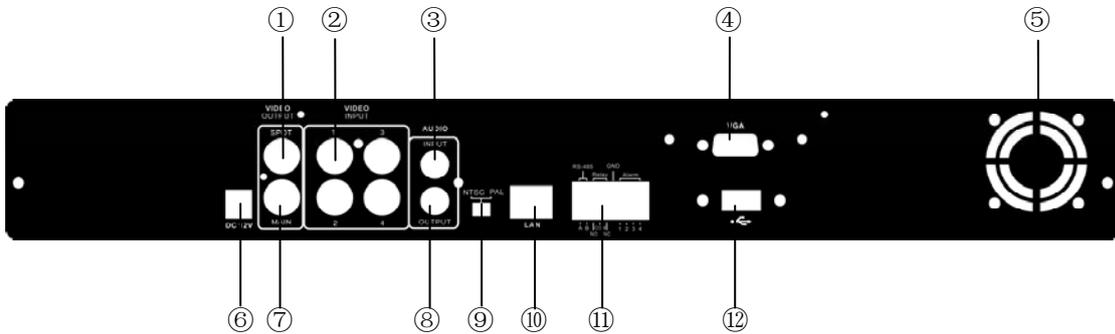


| ① SPOT monitor | BNC port to display full screen image of all installed cameras in sequence. |
|---|---|
| ② VIDEO IN | BNC input ports for cameras, 4 in total. |
| ③ AUDIO IN | RCA input port for audio signal. There are 1 ports available. |
| ④ VGA | VGA port |
| ⑤ Fan | DC 12V 40mm X 40mm fan |
| ⑥ DC 12V | Socket for a DC 12V input. |
| ⑦ MAIN monitor | BNC port for the main monitor. |
| ⑧ AUDIO OUT | RCA output port for audio signal. |
| ⑨ NTSC／PAL Switch | Switch between NTSC and PAL format. |
| ⑩ LAN | Network port |
| ⑪ EXTERNAL I/O | EXTERNAL I/O port   *(see below for pin definition)* |
| ⑫ USB | USB port(Device USB Mouse) |
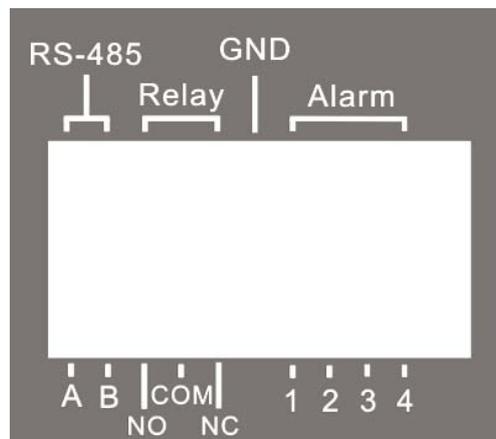
# CHAPTER 3    LIVE, PLAYBACK AND PTZ OPERATIONS

The IR remote control and mouse operate differently under each mode; this chapter describes the functions of them under three different modes: LIVE, PLAYBACK and PTZ.

## 3-1 LIVE Mode

You can monitor all the channels, listen to audio signal and have some related operations under *LIVE* mode. This paragraph describes the IR remote control, mouse operation and on screen graphical icons under LIVE mode.

**Table 3-1.1** Functions of remote control under LIVE mode

| Button | Description |
|--------|-------------|
| REC | Start/Stop recording. |
| PLAY | Start playing back the most recently recorded segment. |
| LOCK | Enable/Disable the Keypad function |
| 1,2,3,4 | Select the channel to monitor in full screen |
| FREEZE | Turn on/off screen freeze function. |
| ⊞ | Switch to quad display. |
| ⊞ | Switch to 9-channel display. 4ch DVR doesn't feature this function. |
| ⊞ | Switch to 13-channel display. 4ch DVR doesn't feature this function. |
| ⊞ | Switch to 16-channel display. 4ch DVR doesn't feature this function. |
| ENTER/MODE | Switch to full screen, quad display. |
| MENU/ | Enable/ Disable setup Menu. |
| BK-UP/ESC | Enable/ Disable backup menu. |
| SRH | Enable/ Disable search menu. |
| MUTE | Switch channel 1 output audio / turn off LIVE audio |
| STATUS | Enable/ Disable Status. |
| OSD | Turn on/off the screen display |
| Zoom/Zoom - | Enable/ Disable double screen size display. You can click on the channel name for choosing a specific channel. |
| PIP/Zoom + | Turn on picture-in-picture format. Click on the channel name can switch to other channels. |
| PTZ | Enable PTZ control. |
| AUTO | In AUTO mode, all available channels will be cycled through in full screen. |
| DVR1,2,3,4 | Switch DVR ID1~4 |

**Note：4CH will show quad display; 8 CH will show quad and 9-channel display.**

**Table 3-1.2**   Graphical icons that will display after right-clicking your mouse under LIVE mode.

| Icon | Description |
|---|---|
| | Resting the cursor on this icon will bring up the following four menu icons. |
| | Main menu. |
| | Search menu. |
| | Backup menu. |
| | PTZ mode. |
| | Turn on/off recording. |
| | Playback. |
| | Resting the cursor on this icon will bring up the following five display icons. |
| | FREEZE. |
| | PIP, picture in picture |
| | ZOOM, double the screen size |
| | AUTO-sequence |
| | LOCK, activate the key lock. |
| | Full screen display. |
| | Quad display. |
| | 9-channel display. |
| | 13-channel display. |
| | 16-channel display. |

**Note：4CH will show quad display; 8 CH will show quad display and 9-channel display.**

**Table 3-1.3** Description of on screen graphical icons in LIVE mode

| Icon | Description |
|------|-------------|
| | Recording is on |
| | Schedule Recording is on |
| 1~4 | Live Audio is on |
| | Live Audio is off |
| | Motion detected on the channel |
| | Sensor triggered on the channel |
| | Video loss detected on the channel |
| | USB device detected |
| | DVD burner is detected |
| | Connected to the LAN cable. |
| | AUTO-seq is on |
| | Freeze is on, screen is frozen |
| | LOCK is on |
| | PTZ control is on |
| 1~4 | Remote control ID has been set to 1 ~ 4. At this point, only by 1 to 4 remote control. |
| 99% | Shows the current hard disk space has been used (99% mean used 99%, remain 1%) |
| 2009/09/23 14:05:02 | Lower right of each CH will show the current time |

| Icon | Description |
|------|-------------|
| HQ / LQ | Image quality (High/Low) |
| / | Full screen |
| | Record |
| | Snap shot |
| | Record and snap shot file saving path setup |
| | Enable / Disable Shortcut Toolbar |

### 3-2 PLAYBACK Mode

Switch to PLAYBACK mode by pressing "PLAY" under the LIVE mode, the graphical icon
will show up on the upper center of the screen and the operation panel ( see below picture) will
show up at right lower corner of the screen. You can drag the panel by mouse to place it on
any location of your screen.



**Table 3-2.1** Remote control functions under the PLAYBACK mode

| Button | Description |
|---|---|
| ENTER / MODE | Switch to full screen, quad, 9-channel or 16-channel display. |
| MENU / ▮▮ | Turn on/off PAUSE. |
| PLAY | Play back at normal speed. |
| ▲ / SLOW | Play back at slower speed. The speed will be slowed to 1/2, 1/4, 1/8, 1/16 by each pressing of the button till the slowest limitation of 1/16 of the normal speed. Current playback speed is shown in the upper center of the screen. |
| ◄◄ / ◄ | Fast rewind. Each press increases the speed to the next level. There are six speeds: 2x, 4X, 8X, 16x, 32X and 64X. |
| ►► / ► | Fast forward. Each press increases the speed to the next level. There are six speeds: 2x, 4X, 8X, 16x, 32X and 64X. |
| ▼ / ■ | Stop playback. |

**Table 3-2.2** The mouse operation under the PLAYBACK mode.

| Icon | Description |
|:---:|:---|
|  | 「◄◄ / ◄」 Fast rewind |
|  | 「►► / ►」 Fast forward |
|  /  | Play/pause |
|  | 「▲ / SLOW」，slow playback |
|  | 「▼ / ■」 stop playback |
|  | Playback channel by channel with snap shot display |
|  | Full screen display |
|  | Quad display |
|  | 9-channel display |
|  | 16-channel display |
|  | Zoom-in display |

**Note：4CH will show quad display; 8 CH will show quad display and 9-channel display.**

### 3-3 PTZ Mode

Switch to the PTZ mode by pressing "PTZ" button under the LIVE mode. The PTZ icon ![icon] will appear on upper left side of screen and the control panel will appear on the down right side of screen.



**Table 3-3.1** Remote Control functions under the PTZ mode

| Button | Description |
|---|---|
| ▲ / SLOW | Move PTZ up. |
| ▼ / ■ | Move PTZ down. |
| ◄◄ / ◄ | Move PTZ to the left. |
| ►► / ► | Move PTZ to the right. |
| ZOOM + | PTZ zoom-in. |
| ZOOM - | PTZ zoom-out. |
| FOCUS + | PTZ focus-in. |
| FOCUS - | PTZ focus-out. |
| IRIS + | PTZ iris-open. |
| IRIS - | PTZ iris-close. |
| TOUR | Activate PTZ pre-set tour. ＊ |
| PRESET+ Number | Setup the Preset location<br>Press "**PRESET**" key first then two-digit number; DVR will set the current PTZ location at entered preset number. |
| PLAY+ Number | Go to Preset location<br>Press "**PLAY**" key first then two-digit number, PTZ will go to the correspondent preset number location. |
| PIP | Set current PTZ location as the start of line-scan. ＊ |
| FREEZE | Activate auto line-scan. ＊ |
| ZOOM | Set current PTZ location as the end of line-scan.＊ |

＊ PTZ communication protocols from different brands aren't compatible 100% sometimes. Therefore, some of these functions may be unavailable.

**Table 3-3.2** Mouse operation under the PTZ mode

| Icon | Description |
|---|---|
| ✕ | Leave PTZ Mode，back to the LIVE mode |
| ◀1▶ | Pre-set number N. (0~255) |
| | Go to pre-set number N. |
| | Set current PTZ location at pre-set number N. |
| | 「TOUR」，press to activate pre-set tour＊ |
| | 「PIP」，Set current PTZ location as the start of line-scan. ＊ |
| | 「FREEZE」， Activate line-scan. ＊ |
| | 「ZOOM」，Set current PTZ location as the end of line-scan. ＊ |
| | To move PTZ in 360° |
| ＋ ZOOM ▬ | PTZ zoom in; PTZ zoom out |
| ＋ FOCUS ▬ | PTZ focus in; PTZ focus out. |
| ＋ IRIS ▬ | PTZ IRIS open, PTZ IRIS close. |
| Below functions need support from specific PTZ manufacturer.　　　Please check user manual of your PTZ for more detail. | |
| 1 to 8 | AUX 1~8,「AUTO」Key ＋ Number key「1~8」 |
| | 「Backup」, Customized function。 |

＊PTZ communication protocols from different brands aren't compatible 100% sometimes. Therefore, some of these functions may be unavailable.

## CHAPTER 4    MAIN MENU SETUP

To enter the main menu and set up DVR, log-in account and user password are required.
The default password of the administrator is "**123456**". Please check the "Account Setup" for related setup of other log-in users.



**Table 4-0.1**    Some definition of virtual keyboard.

| Item | Description |
|---|---|
| ⇧ | Switch between capital and small letters. |
| .?123 / ABC | Switch between numbers and letters. |
| Esc | Press to cancel the setup, and re-choose the login account. |
| ⊠ | Delete the last character. |
| ⏎ | Enter to identify the password. It will enter the set up menu, If the password is verified. |
|  | Space key |

**Table 4-0.2** The operation of remote control under the setting menu

| Item | Description |
|---|---|
| ◄ ► | Switch to different options under one item |
| ▲ ▼ | Switch to different items |
| MENU | Save setup and back to LIVE mode |
| ESC | Back to Upper level of menu without saving |
| ENTER | Enter the menu, or display virtual keyboard |

*PS. The initialization of new-installed HD is required before recording, please refer to "4-9 UTILITY SETUP" for detail.*

## 4-1 RECORD SETUP



| Item | Description |
|---|---|
| HDD FULL | Select STOP to stop recording or OVERWRITE to reuse the HDD when HDD is full<br>「**Stop**」：Stop Recording<br>「**Overwrite**」：Start to overwrite that begin from the oldest data of HDD, and continue to record. |
| OSD position X | Setup OSD X axis |
| OSD position Y | Set up OSD y axis |
| OSD position setup | Set up OSD axis |
| Video Preservation | Setup the video preservation period. Recorded video will be deleted automatically after expiry of preservation period. |
| Quality & Frame Rate Setup | Setup the quality and frame rate for each channel under normal recording and event recording type. |

## 4-1.1 Quality & Frame Rate Setup



**Note：4CH DVR will display 4 channels and 8CH DVR will display 8 channels.**

| Item | Description |
|------|-------------|
| **Normal setup/ event setup** | Select recording mode |
| **Resolution** | Select recording resolution: NTSC:352x240, 704x240, 704x480 PAL:352X288,704X288,704X576 |
| **Record Type** | You can setup quality and FPS separately for record type. |
| **No.** | Check/uncheck the box enable/disable selected channel recording |
| **Quality** | Select quality: Lowest/ Low/ Normal/ High/ Highest |
| **FPS** | Select recording frame rate. |
| **Auto** | Assign each channel with its maxima accessible fps |

## 4-2 EVENT SETUP



| Item | Description |
|------|-------------|
| **Motion Setup** | Enter to set up motion detection |
| **Sensor Setup** | Enter to set up sensor detection |

### 4-2.1 MOTION SETUP



| Item | Description |
|---|---|
| **Alarm Duration(Seconds)** | When motion detect，the number of seconds continuous alarm |
| **Motion Popup** | Check the box to Enable/Disable popup screen function for all channels. When motion is detected in LIVE mode, the detected channel image will pop up in full screen display. |
| **1~16** | You can setup independently for each channel. |
| **Enable** | Check the box to Enable/Disable motion detection for each channel. |
| **Sensitivity** | Drag the white bar or press ◄ ► to set up Sensitivity from value 1 to 10 for each channel. The lower value you set the higher sensitivity it will be |
| **Motion Area Setup** | Enter to setup motion detection area |

### 4-2.1.1 MOTION AREA SETUP

The motion detection has been divided into 16x12 grids. The default detection area is full screen as it marked in transparent for local DVR and purple for remote access. Areas deselected for motion detection are marked in red for both local and remote site.

| Item | Description |
|---|---|
| **Mask Mouse Selection** | Switch between "select" and "deselect" for cursor-dragging function |
| **All Area Detection** | Select entire screen as detection area. |
| **Mask All Area** | Deselect entire detection area. |
| **Continue** | Continue setup |
| **Exit & Save** | Save setup and leave |
| **Exit & Discard** | Cancel setup and leave |

### *4-2.2 SENSOR SETUP*



| Item | Description |
|---|---|
| **Sensor Popup** | Check the box to Enable/Disable popup screen function for all channels. When Sensor is detected in LIVE mode, the detected channel image will pop up in full screen display. |
| **All Off** | Set all sensor off |
| **All Low** | Set all sensor polarity low |
| **All High** | Set all sensor polarity high |
| **Sensor Polarity** | Click or press ▼ to select between HIGH, LOW voltage for triggering sensor detection or OFF to turn off polarity for each channel |
| | **Low** Polarity：Sensor has not been triggered. When connected, sensor will be turned on.. |
| | **High** Polarity：Sensor has been triggered. When connected, sensor status will be turned off.. |
| | **Off**　　　　　：Sensor is deactivated, and will not be turned on/off. |

**Note：4CH DVR will display 4 channels and 8CH DVR will display 8 channels.**

## 4-3 SCHEDULE SETUP

Except from starting recording manually, you can also setup the recording time by weeks and schedule including normal, motion detect, and sensor detect recording type.



| Item | Description |
|------|-------------|
| **Page** | Each page provides 10 schedules for setup. 5 pages in total. |
| **Holiday Setup** | Enter to setup holiday, up to 50 days, other than weekends,. |
| **View Event/ Motion/ Sensor Setup** | View Normal/ Motion / Sensor Setup |

### 4-3.1 Schedule Record Setup

Click on the time on the left side. The setup menu will be displayed. You can have detail setup by dates, Time and event.

### 4-3.2 Holiday Setup

Since holidays are different by different country and region, you can setup the holiday of your location accordingly.



### 4-4 CAMERA SETUP



| Item | Description |
|------|-------------|
| **1~16** | You can setup independently for each channel. |
| **Mask** | Check the box to Enable/Disable mask function for LIVE mode |
| **Sharpness** | Drag the bar or press ◄ ► to adjust Sharpness of your camera from value 1 to 255. The default value is 1. |
| **Brightness** | Drag the bar or press ◄ ► to adjust Brightness of your camera from value 1 to 255. The default value is 128. |
| **Contrast** | Drag the bar or press ◄ ► to adjust Contrast of your camera from value 1 to 255. The default value is 100. |
| **Chroma(U)/(V)** | Drag the bar or press ◄ ► to adjust Chroma of your camera from value 1 to 255. The default value is 128. |
| **Hue** | Drag the bar or press ◄ ► to adjust Hue of your camera from value 1 to 255. The default value is 128. ( **This function doesn't support at PAL system**) |
| **Name** | Set up name of each channel |
| **Volume** | Audio volume for CH1 under LIVE mode and recording mode can be adjusted. |

## 4-5 ACCOUNT SETUP

The Account Setup menu is used to provide role-based permission independently setting for each user (maximum of 4 users) to access DVR over network. The default admin account and password is **"admin"** and "**123456**" The default password remains the same after firmware upgrade, however, it requires 8-digits for password length when you setup a new one



| Item | Description |
|------|-------------|
| **No.** | Check to activate the user's account. |
| **Username** | Set up username |
| **Password** | Set up password for each user. Password is 8-digits required and can be mixed by letters and numbers with case-sensitive. Letters can be mixed with capitals or lowercases. |
| **Permissions** | Set up Permissions for each user |
| **Change Admin Password** | Change administrator's password |
| **Picture** | Change user's picture |

## 4-5.1 Permission Setup

The Account Setup is set to provide individual user (maximum of 4 users) role-based permissions, including access to Setup menu, Network operation, PTZ function, Playback, Utility, Backup, Password expiry date and Mask on specific channels while playing back.

### 4-5.2 User Picture Setup

User can select picture wished to be changed to from hard drive.



### 4-6 NETWORKING SETUP



| Item | Description |
|------|-------------|
| **Connect type** | Setup mode for network connection: (**DHCP**、**LAN**、**ADSL**). |
| **HTTP Setup** | Enter to set up HTTP |
| **DDNS Setup** | Enter to set up DDNS |
| **Mail Setup** | Enter to set up mail |

### 4-6.1 NETWORKING SETUP

There are three ways to connect to the network as followed.

### 4-6.1.1 DHCP

When DHCP is selected, IP address will be assigned by DHCP server automatically.



### 4-6.1.2 LAN

Select LAN for network connection, the following information is required.



| Item | Description |
|---|---|
| **IP Address** | Enter IP address provided by ISP |
| **Subnet Mask** | Enter IP address of Subnet Mask provided by ISP |
| **Gateway** | Enter IP address of Gate way provided by ISP |
| **DNS** | Enter DNS address provided by ISP.<br>**(Note: The correct DNS address must be entered for DDNS function).** |

### 4-6.1.3 ADSL
Select ADSL for network connection, the following information is required.



| Item | Description |
|------|-------------|
| **User Name** | Enter user name provided by ISP |
| **Password** | Enter password provided by ISP |

### 4-6.2 HTTP Setup



| Item | Description |
|------|-------------|
| **Enable HTTP Server** | Check to enable HTTP server. Users can remotely access into the DVR over the network if the HTTP function is activated. |
| **Port** | Enter a valid port value from 1 up to 65000. The default value is 80. |
| **Auto** | Assign each channel with its maxima accessible fps |
| **No.** | Chanel number |
| **Quality** | Set up record quality. There are below basic, basic, normal, high, highest |
| **FPS** | Set up record FPS |

### 4-6.3 DDNS Setup



| Item | Description |
|------|-------------|
| **Enable DDNS** | Enable/disable DDNS function. |
| **DDNS Server** | Enter the registered SMTP Server:<br>**ez-dns、I-DVR.NET＊ 、DYNDNS.ORG、NO-IP.ORG、3322.ORG** |
| **SMTP Server** | Enter the completed registered SMTP Server. (Including username + Server) If the user name is h.264 and you choose i-dvr as your server, you should enter: h.264.i-dvr.net |
| **User Name** | Enter user name. |
| **Password** | Enter password. |

＊ **For more detailed I-DVR.NET operation instruction, please refer to appendix I.**

### 4-6.4 Mail Setup

When event occurs (VLOSS, MOTION, SENSOR), email will be sent to the receiver account automatically.

| Item | Description |
|------|-------------|
| **Enable E-mail Notification** | Check the box to enable/disable E-mal Notification function. |
| **SMTP Server** | Enter to set up SMTP Server name.<br>(Varies according to the user) |
| **User Name** | Enter to set up User Name. |
| **Password** | Enter to set up Password. |
| **Sender E-mail** | Enter to set up e-mail address of receivers. |
| **Trigger Event** | Enter to select events to send out E-mail notifications when below circumstances happen: Motion, Sensor and Vloss (Video Loss). |
| **Receiver E-mail** | Enter to set up e-mail addresses for up to 10 receivers individually. |

### 4-7 PTZ & RS485 SETUP

The DVR allows users to control PTZ functions of your camera. To enable PTZ function, the 485 cable should be connected to the RS-485 port of DVR.

| Item | Description |
|------|-------------|
| **Enable PTZ** | Click the box to Enable/Disable PTZ function for each channel. |
| **Protocol** | Set up the protocol of PTZ cam. The supported protocol are **PELCO-P, PELCO-D, KND, LI-LIN, SAMSUNG, LG, AVTECH.** |
| **PTZ ID** | Click or press ◄ ► to set up PTZ ID. The valid ID value is from 1 to 64. |
| **Baud Rate** | Select Baud Rate for PTZ from 2400, 4800, 9600,19200 |
| **RS-485 ID** | Select RS-485 ID from 1 to 64 |
| **RS-485 Baud Rate** | Select RS-485 Baud Rate from 2400. 4800, 9600,19200 |
| **Keyboard** | Select Keyboard. (Li-Lin) |

**Note：4CH DVR will display 4 channels and 8CH DVR will display 8 channels.**

*4-8 SYSTEM SETUP*



| Item | Description |
|------|-------------|
| **DVR Name** | The name of DVR will be shown when users login from remote access. |
| **DVR Location** | The location of DVR will be shown when users login from remote access |
| **Language** | Click or press ▼ to select OSD language from English, Traditional Chinese, Simplified Chinese, Japanese, Greek, Portuguese |
| **Remote ID** | Default ID is 1. When DVR is controlled by standard remote control, please press "DVR1＊" before using it. When more than one DVRs are purchased, the DVRs can be numbered from 1 to 4. For instance, standard remote control can't operate DVR numbered 3. It only responds when "DVR3" button has been pressed beforehand. |
| **Display Setup** | Enter to set up Display |
| **Date/Time Setup** | Enter to set up Date/Time |
| **Device Setup** | Enter to set up Buzzer & Relay |
| **Spot Setup** | Enter to set up Spot |

＊ **Default ID is ID1. If remote control malfunctions, please press, "DVR1" button to renew corresponding DVR ID.**

### 4-8.1 DISPLAY SETUP



| Item | Description |
|---|---|
| **Auto-Seq Interval** | Set up duration time in seconds for the interval between channels under Auto-Seq mode. |
| **Show OSD** | Turn On / Off OSD display |
| **Show DVR Status** | Turn On / Off DVR illustration and record status display |
| **Show Date/Time** | Turn On / Off date and time display |
| **Show Channel Name** | Turn On / Off channel name display |
| **CRT** | Deflicker(only for CRT monitor) |
| **Border Color** | Set up the color of border in LIVE , PLAYBACK mode.（Red, Green, Blue） |

### 4-8.2 DATE/TIME SETUP

| Item | Description |
|------|-------------|
| Hour Format | 12HOURS/ 24HOURS |
| Date Format | MM-DD-YY/DD-MM-YY/YY-MM-DD |
| Date/Time Position | Choose the position of Time and Date display |
| Change Date & Time | Setup time and date of DVR |
| Time Zone Setup | Set up GMT and Daylight Saving Time. |
| Internet Time Setup | Setup automatic synchronization with internet server |

### 4-8.2.1 CHANGE DATE & TIME

Setup date and time of DVR manually according to user's local time.



### 4-8.2.2 TIME ZONE AND DAYLIGHT SAVING TIME SETUP

Set up time zone and activate Daylight Saving Time function according to user's DVR location.



| Item | Description |
|------|-------------|
| Select Time Zone | Enter to modify GMT from GMT- 13 to GMT+ 13 |
| Daylight Saving Time | Turn on/ off Daylight Saving Time |

### 4-8.2.3 INTERNET TIME SETUP

Synchronize your DVR time with internet time server.



| Item | Description |
|------|-------------|
| **Automatic Synchronization** | Check to enable DVR automatic synchronization function. Effective by this option selected, DVR will automatically synchronize the time upon rebooting or by every 24 hours after booting. |
| **Update Now** | Effectively, Date and Time show on DVR will immediately correspond with those in internet server. |

### 4-8.3 BUZZER & RELAY SETUP

| Item | Description |
|------|-------------|
| **Key Tone** | Enable/Disable keystrokes. |
| **Buzzer** | Enable/Disable buzzer operation when the alarm is triggered for sensor, motion and vloss (Video Loss). |
| **Relay** | Enable/Disable the signal to be sent to the RELAY OUT blocks when the alarm is triggered for sensor, motion and vloss. |

### 4-8.4 SPOT SETUP



The DVR has two modes of video output; one is main video output, the other is spot video output. SPOT setup is for controlling the order of channels the system cycles through in SPOT mode. User can monitor every channel in the SPOT mode.

| Item | Description |
|------|-------------|
| **SPOT MODE** | Channels display in spot for three different modes:<br>**MANUAL:** select channels to display manually.<br>**SEQUENCE:** Auto-sequence for all channels in order.<br>**EVENT:** Display channels with event occurred. |
| **Interval (Seconds)** | The duration time in seconds for the interval between channels under SPOT mode. |
| **Skip Video Loss Channel** | Whether to skip channels without video signal. |

### 4-9 UTILITY SETUP



| Item | Description |
| --- | --- |
| **HDD Initialization** | Select to enter hard disk initialization menu. **Please stop recording before entering this menu.** Enter the menu, system will show all the data (model ,volume ) of HDD that installed in DVR. Check the HDD you'd like to initialize then press "Start". HDD initialization is successful when the status shows "Succeed" |
| **USB Initialization** | Clean up all data on USB. Enter USB initialization and press YES to clean up all data on your USB. The initialization is done when it's showed "Succeed". |
| **System Recovery** | Restore system default values |
| **Reset System Events** | Reset all the recording events in DVR. |
| **Copy Setup to USB** | Copy configuration to a USB device. There will be a file named 「sdvr_conf.dat」 on your USB. |
| **Download Setup from USB** | Download configuration from a USB device into DVR. |
| **Upgrade** | Upgrade DVR through USB. Please stop recording and backup setup configuration before upgrading. **System will reboot automatically when the upgrade is completed.** |

**Notice! DO NOT TURN OFF POWER OR UNPLUG USB DEVICE DURING THE UPGRADE as it may cause incomplete firmware upgrade and damage to the DVR.**

*4-10 DIAGNOSTIC*



| Item | | Description |
|---|---|---|
| **Version** | | The current firmware version of DVR |
| **IP** | | The connected IP address of DVR. If disconnected from network, the screen will display" NETWORK DISCONNECT". |
| **MAC** | | MAC Address of DVR |
| **HDD Status** | **No.** | HDD number |
| | **Volume** | HDD Capacity |
| | **Used Rate** | Percentage of space used on HDD. |
| | **Status** | Shows HDD status.<br>**USING** means the HDD is being used for recording now<br>**GOOD/BAD** means the HDD has a known/unknown format for the DVR. (Note: Please initialize your newly-installed HDD before using it.) |
| | **Format Time** | The latest format time of HDD |

# CHAPTER 5   BACKUP & SEARCH

## *5-1 BACKUP SETUP*

User can backup any segment of recorded data in a specified time frame. To do so, either a CD R/W or storage device, like USB, must be connected to the DVR. Recorded data can also backup into NB/PC through our remote access software: 「DVRemoteDesktop.exe」 and be saved in your assigned path. The format of backup file is *IRF* file that can be played by both "DVRemoteDesktop.exe" and "CMS"



| Item | Description |
|---|---|
| **From** | The start time of backup file |
| **To** | The end time of backup file |
| **Device** | Select USB, CD/RW or PC as the backup device |
| **Free Space** | The available space in your backup device. (not available for PC backup) |
| **Refresh** | Recalculate the available space of backup device. (not available for PC backup) |
| **Required Space** | Show the size of the backup file |
| **Calculate** | Calculate the size of backup file |
| **Start** | Start backup operation.<br>**Be sure to calculate the size of backup file BEFORE operating backup.** |

**Note!   Do not unplug the USB device or turn off the DVR during the backup process to avoid unrecoverable error.**

## 5-2 SEARCH SETUP



| Item | Description |
|------|-------------|
| **Event Search** | Event search menu |
| **Time Search** | Enter time search menu |

### 5-2.1  EVENT  SEARCH



The DVR automatically records events with type, time and channel information included. If there is recording data for an event, a yellow signal ▷ will be shown on the left side of time information. Rest your cursor under the line and press "enter", or left click your mouse to playback the recording data.

**P.S. Event Records will still be generated even when hard disk is not installed or the record function is not activated. However, the record can't be viewed after selecting it.**

| Item | Description | |
|---|---|---|
| **Criteria** | Setup conditions of event search | |
| **Page** | Switch between pages of events | |
| **Date/Time** | Date/time when event occurred. | |
| **Event Type** | Event type, defined as following | |
| | **MOTION** | Motion Detected |
| | **SENSOR** | Sensor Detected |
| | **Video Loss** | Video Loss |
| | **Remote Login** | user log-in over the network |
| | **Remote Logout** | user log-out over the network |
| | **Power On** | DVR Power on |
| | **HDD Full** | HDD Space FULL |
| | **HDD Error** | Detect HDD error |
| | **Reboot** | DVR Reboot |
| **Info** | The channel where event occurs or login user | |

### 5-2.1.1 CRITERIA SETUP FOR EVENT SEARCH

The amount of events can be numerous. Therefore, you can facilitate event sorting by setting up "criteria". Setup "start time" and "end time" for event search, then the search result will be limited to this specific period of time. Only checked events and channels will be sorted in event search.



**Note：4CH DVR will display 4 channels and 8CH DVR will display 8 channels.**

### 5-2.2 TIME SEARCH

TIME SEARCH can search for the specific time of recording data to playback. Press "Enter" or left click on the desired date to playback. Note that dates with recording data are marked with a red square " □ "System will start playing back according to the date you selected. Calendar will be shown by using mouse to click on "year" and "month".



Click "date" to display recording time of that specific date with time bar. You can change time (hour/minute/second) or click on a specific time of time bar by mouse then press "**ok**". DVR will playback the selected recording data.



AP software:「DVR Remote Desktop」can allow you to remotely access and control the DVR from PC.

# CHAPTER 6　Remote Software Installation and Setup

## 6-1 AP Software Installation and instruction

　AP software:「DVR Remote Desktop」can allow you to remotely access and control the DVR from PC.

**p.s. Operation system currently supports Windows XP SP2 and above and Windows Vista, Windows 7**

**Step One**：Enter the IP address of DVR in IE browser

> **D** DVR ×
>
> http://h264demo.i-dvr.net/

**Step Two**: Windows as below will show up. Please enter the user name and password. Default user name and password is **admin/123456**. Other related setup about user account and password, please check **"4-5 Account Setup**. "

> Connect to h264demo.i-dvr.net
>
> User name: admin
> Password: ••••••••
> ☐ Remember my password
>
> OK    Cancel

**Step Three**: Click on the link to start downloading the AP software.

> **D** DVR ×
>
> http://h264demo.i-dvr.net/
>
> Internet Explorer 6, 7, 8
> Download DVR Remote Desktop (Windows XP, Windows Vista, Windows 7)
> JPEG viewer
> Download Record File Player (Windows XP, Windows Vista, Windows 7)
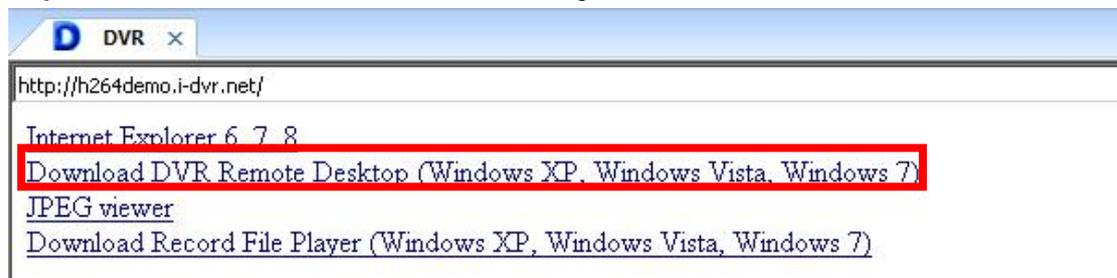
**Step Four**:    Run or Save our AP software.



**Step Five**: If you choose to run the software, Start window will be shown up. Please enter information of login DVR: IP, Port, Username and Password, or choose "Play Recorded File" to open backup files in your PC.
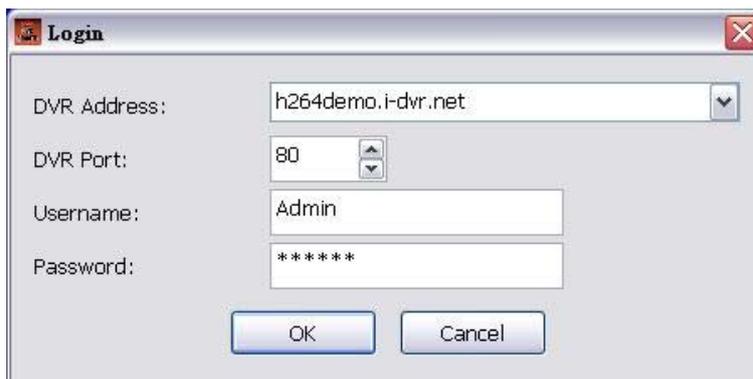


**Step Six**: You've logged into the DVR



Note：4CH  DVR  will  display  4  channels  and  8CH  DVR  will  display  8  channels.

## 6-2 How to do remote monitoring through IE

**Step One**：Enter the IP address of DVR in IE browser. The address appeared in this image is only for demonstration. Actual address is depending on the setup of on-site DVR.



**Step Two**: Windows as below will show up. Please enter the user name and password. Default user name and password is **admin/123456**. Other related setup about user account and password, please check **"4-5 Account Setup**. " The user name and password appeared in this image is only for demonstration. Actual user name and password depend on the setup of on-site DVR.



**Step Three**: Click on "Internet Explorer 6, 7, and 8"to start downloading the AP software. ( The first option is for IE view, please refer to next chapter for more information)

**p.s. There will be IE connection security issue when clicking this link for the first time. Please refer to index II for Remote Monitoring IE ActiveX Control Installation Instruction.**
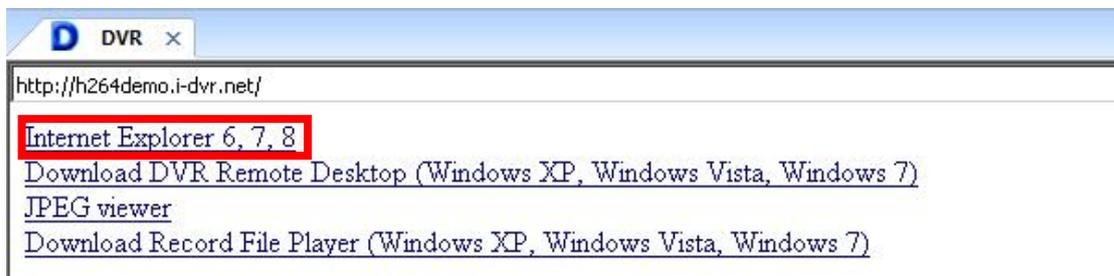
**Step Four**:   DVR images appear.
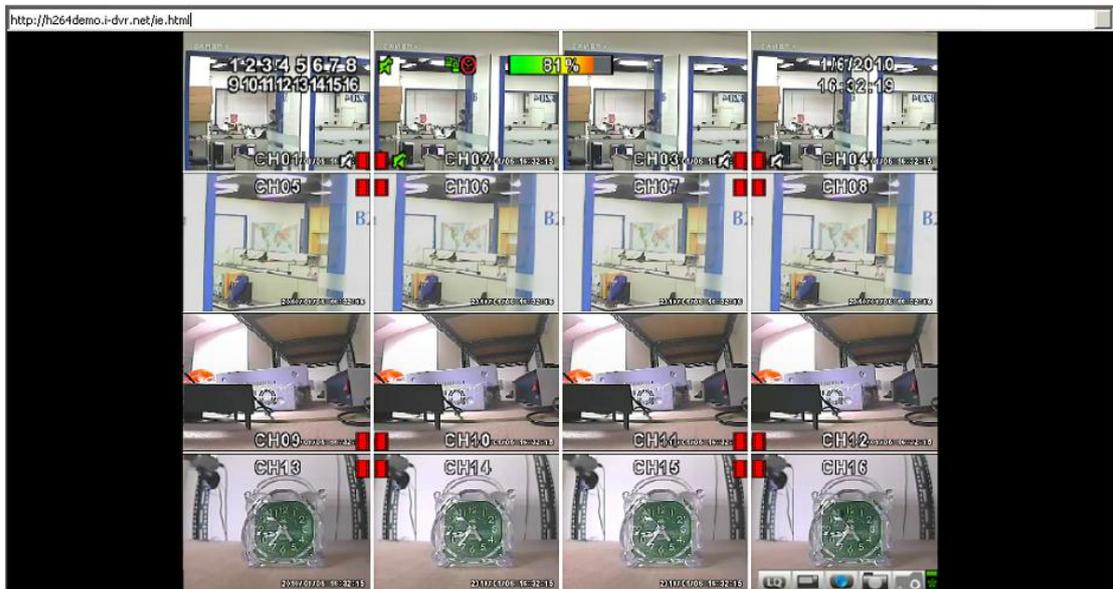
## 6-3 AP Software Operation

Open the file "DVRemoteDesktop.exe"; enter the information of DVR "IP address", "Port" "Username" and "Password" and click "OK". You should be able to login DVR successfully and start to use the software. The default username and password is 「admin/ 123456」

"DVRemoteDesktop.exe" AP software provides some extra functions for remote users. Please check **Table 6-3.1** for minimum system requirements for "DVRemoteDesktop.exe" operation.

**Table 6-3.1** System Requirements for AP software

| CPU | Intel Pentium 4 above |
| --- | --- |
| OS | Microsoft Windows 7、Windows Vista、Windows XP SP2 above |
| RAM | 512M above |
| VGA Card | Needed to support DirectX9.0 (Above) Note 1 |
| Others | DirectX 9.0 above |

Note 1:

Known VGA card that support DirectX9.0 currently:

NVIDIA: Geforce FXseries, Geforce 6series, Geforce 7series, Geforce 8series, Geforce 9series, Geforce 200series, etc.
Or
visit:http://en.wikipedia.org/wiki/Comparison_of_Nvidia_graphics_processing_units

ATI:    Radeon R300series, Radeon R400series, Radeon R500series, Radeon R600series, Radeon R700series, Radeon HD 3xxx IGPseries, Mobility Radeonseries (9500 above), Mobility Radeon Xseries, Mobility Radeon HDseries, or FireGL Vseries etc.
Or visit: http://en.wikipedia.org/wiki/Comparison_of_ATI_graphics_processing_units

SiS:    SiS 67Xseries, or SiS 77Xseries etc.
Or visit: http://www.sis.com/support/support_compare.htm

Intel:   91Xseries, 94Xseries, 96Xseries, G3Xseries, or G4Xseries, etc.
Or visit: http://en.wikipedia.org/wiki/Intel_GMA

## CHAPTER 7   SPECIFICAITONS

| 1. VIDEO | | |
|---|---|---|
| Input Level | | 1.0 Vp-p±10% Composite, 75Ω Balanced |
| Display Speed | NTSC | 480 fps(16CH), 240fps(8CH), 120fps(4CH) |
| | PAL | 400 fps(16CH), 200fps(8CH) , 100fps(4CH) |
| Display Resolution | NTSC | 720(H) X 480(V) |
| | PAL | 720(H) X 576(V) |
| Monitor Output | | 2Vp-p Composite, 75Ω Balanced |
| **2. RECORDING** | | |
| Compression Method | | H.264 |
| Recording Speed | | Refer to table 7-1 |
| Recording Resolution | NTSC | 704 X 480, 704 X 240, 352 X 240 |
| | PAL | 704 X 576, 704 X 288, 352 X 288 |
| Quality | Independent for each channel | Below Basic/ Basic/ Normal/ High/ Highest |
| Schedule | | Setup by "minute" as unit |
| Mode | | Manual / Event (Motion, Sensor) / Schedule |
| Method | | By resolution, fps and quality Setup fps and quality separately for normal and event recording |
| **3. SATA DEVICE** | | |
| Capacity | Internal Storage | 3 HDDs or 2 HDDs + 1DVD-RW |
| | External Storage | 1 HDD |
| Type | | SATA / SATAⅡ  compatible |
| External Bay Interface | | E-SATA |
| **4. ALARM** | | |
| Sensor Input | | 16(16CH), 8(8CH), 4(4CH) |
| Loop Out | | 2 Relay out(16CH), 1 Relay out(8CH,4CH) |
| Motion Detection | | Available per each camera/ Multi-detection level |
| **5. CONNECTIONS** | | |
| Video Input | | BNC 16 ports (16CH), 8 ports (8CH), 4 ports (4CH) |
| Video Output | | BNC 2 port, VGA 1 port |
| Audio Input | | RCA 4 port (16CH, 8CH) RCA 1port (4CH) |
| Audio Output | | RCA 2 port (16CH, 8CH) RCA 1port (4CH) |
| USB 2.0 | | USB memory stick, USB Touch Panel |
| USB 1.1 | | USB Mouse |
| Remote | | 1-to-4 remote control |
| External I/O | | 1 RS-485, 16(16CH) / 8(8CH) / 4(4CH) sensor input, 2 Relay Output (16CH) 2 Relay Output (8CH , 4CH) |
| Ethernet | | 1 RJ45 connector, 10/100 Mbps |
| **6. ELECTRICAL** | | |
| Power Source | | DC 12V / 6A (16CH) , DC 12V / 5A (8CH/4CH) |

| 7. ENVIRONMENTAL | | |
|---|---|---|
| Operation Temperature | | 5℃ ~ + 40℃ |
| Humidity | | Less than 90% |
| **8. PHYSICAL** | | |
| Dimension | | 430(W) x 293(D) x 55(H) mm |
| Weight | | 2.5kg (3.5kg including 1 HDD and DVD-RW) |
| **9. BACKUP** | | |
| BACKUP | USB Stick | Video Data, Audio |
| | DVD±RW | Video Data, Audio |
| | Network | Video Data, Audio |
| **10. SEARCHING & PLAYBACK** | | |
| Searching Type | | Event/ Time |
| Playback speed | | 120 FPS |
| **11. MULTI-REMOTE SURVEILLANCE** | | |
| Monitoring Environment | | Web / Client Software(CMS) |
| Max. client | | Supporting multi-client (5 clients accessible) |
| **12. OTHERS** | | |
| OS | | Embedded Linux |
| Multi Task | Pentaplex | Live、Record、Playback、Network、Backup |
| Control Device | | Front Keys / 1-to-4 Remote Control<br>Virtual Keyboard / Mouse / AP Software |
| PC Viewer | | Direct monitoring of DVR's HDD on PC |
| Numbers of event list | | 10000 |

**Table 7-1**

| Recording Speed (Independent setting for each channel) | NTSC | 352 x 240 | 480fps(16CH) . 240fps (8CH), 120fps (4CH) |
|---|---|---|---|
| | | 704 x 240 | 240fps(16CH) . 120fps (8CH), 120fps (4CH) |
| | | 704 x 480 | 120fps(16CH) . 60fps (8CH), 60fps (4CH) |
| | PAL | 352 x 288 | 400fps(16CH) . 200fps (8CH), 100fps (4CH) |
| | | 704 x 288 | 200fps(16CH) . 100fps (8CH), 100fps (4CH) |
| | | 704 x 576 | 100fps(16CH) . 50fps (8CH), 50fps (4CH) |
| Compression Method | | | H.264 |

## CHAPTER 8 MOBILE APPLICATION INSTALLATION AND USAGE

You can remotely monitor all channels of DVR through your mobile device. The required mobile application is from DVR manufacturer and it supports mobile OS for both Windows mobile 5.0 above and Symbian.

Please confirm network function of DVR has been activated before mobile connection:
Main menu → Network Setup → HTTP Setup → Check the "Enable HTTP Server"

### 8-1 Mobile Application Installation and Operation for Symbian System

Mobile Device: Nokia, SonyEricsson…etc.

System requirement:
GPRS/ 3G must be provided from your telecom service.
Mobile device that supports GPRS/ 3G protocol and Java cldc1.0/midp 2.0 environment

＊**Please download both" DVRH264.jar" and "DVRH264.jad" to operate the function. Note that users with Sony Ericsson will only need to download "DVRH264.jar."**

### 8-1.1 Mobile Application Installation

Please follow the steps cited below to perform the mobile device surveillance function.

Step 1: The mobile application called "**DVRH264.jar**" need to be installed in your mobile device. The application can be downloaded directly from the manufacturer's website to your mobile or; alternatively, it can be transferred to your mobile device from the CD that packed with DVR through Bluetooth or USB cable.

Step 2: Install the application software "**DVRH264.jar**" in your mobile device. It might be installed automatically after downloading; otherwise, select it from the downloading file for installation.

### 8-1.2 Mobile Application Operation

After the installation, enter the Program Files menu in your mobile device to run a file called "**DVRH264**".

Select "Menu" at the right lower corner of your mobile screen, 4 commands, **Login Add Modify** and **Delete**, will show up.

### 8-1.2.1 Add New Login  DVR

To log into the DVR, you need to enter the logging-in DVR information. Find "**Add**" under the "Menu" then enter logging-in DVR's IP address, Port number, account name and password. Press "**Add**" to save this information after entering.

### 8-1.2.2 Logging Onto the DVR

Use the Login command to log onto a DVR and monitor live images. If multiple DVRs have been added to the mobile application, they will be listed by name, you can select one to log onto.
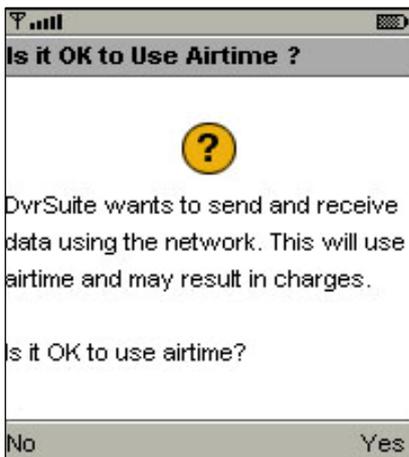
A confirmation message might show up for network charge before connection. The fee rate will depend on the telecom company and package fee you go with.

Network connectivity will take some time. It'll be affected by networking environment and bandwidth flow.
Live image will show up after a successful connection.

**PS. The *Live* can not be displayed in your mobile when the recoding is off in local DVR**.
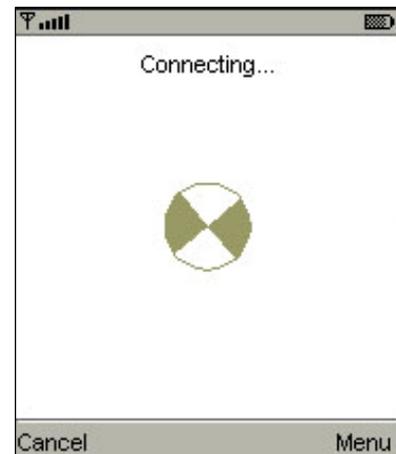
### 8-1.2.3 Modify the Login Information of DVR

You can use the "**Modify**" command to change the login information of DVR. The dialogue is identical to that of the "Add" command.
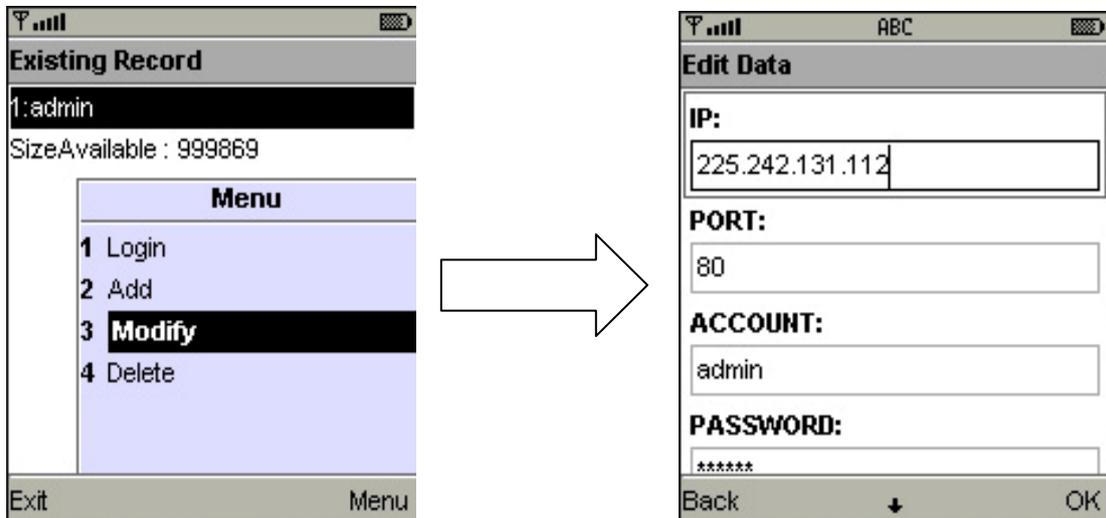


### 8-1.2.4 Delete the Login Information of DVR

"**Delete**" command can be used to remove the DVR information if it is no longer useful. Select the DVR on the name list then choose "**Delete**"
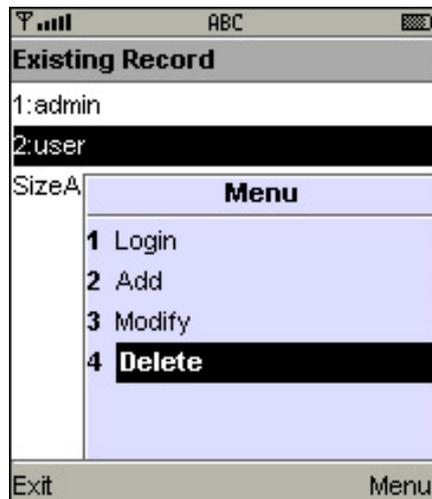


### 8-1.3 Live Monitoring Operation

This paragraph describes some operation under the LIVE monitoring mode in  your  mobile device.

### 8-1.3.1 Scroll the Image

You can use the keypad on your mobile device to scroll the image if it's oversized.

| Key | Action |
| --- | --- |
| 2 | Scroll Up |
| 4 | Scroll Left |
| 6 | Scroll Right |
| 8 | Scroll Down |

### 8-1.3.2 Image Quality Setup



Select "**Quality**" under the "Menu"



There will be 5 levels for your to choose: **Low**、
**Normal**、**Middle**、**High** and **Highest**.

### 8-1.3.3 Channel Display



Select "**Single**" under the "Menu", there will be all channels of your DVR in list for you to choose.

**PS. The *Live* can not be displayed in your mobile when the recoding is off in local DVR.**

### 8-1.3.4 Size of Image

The screen size of different mobile device can be different. You can select "**Size**" under the "Menu" to choose from "**Original**" or "**Fit Screen"** to resize the display image.

| Item | Description |
|------|-------------|
| Original | The image will be shown in original size. |
| Fit Screen | The image will be shown to fit the screen. |

### 8-1.3.5 Rotate the image

The Live image can be displayed in normal or rotate to 90 degrees. Select "**Rotate**" under the "Menu" for this operation.
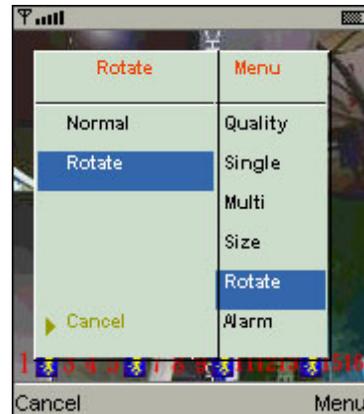
### 8-1.3.6 Alarm

This application not only allows you to remotely monitor through mobile device but receive the alarm that has been triggered by events such as Motion Detected, Sensor Triggered and Vloss.

Graphical icons below will be shown on the status:

: Motion detected

: Sensor triggered

: Video loss

Select the "**Alarm**" under the "Menu" to switch this function on or off.

### 8-2 Mobile Application Installation and Operation for Windows Mobile System

There are two kinds of applications for Window Mobile OS: JPEG compression and H.264 compression. The one for H.264 compression can transfer both audio and video signal to your mobile device.

System Requirement:

Mobile device OS：Windows mobile system 5.0 above.

Mobile device need to support internet: GPRS／3G／Wifi… etc.

### 8-2.1 Mobile Application Installation

Please follow the steps cited below to perform the mobile device surveillance function on your mobile device (mobile phone, PDA ...etc).

Step 1: The mobile application called **"Jrviewer.CAB"** and "**H264Pocket.CAB**" need to be installed in your mobile device. The application can be downloaded directly from the manufacturer's website to your mobile or; alternatively, it can be transferred to your mobile device from the CD that packed with DVR through Bluetooth or USB cable.

Step 2: Install the application software **"Jrviewer.CAB"** and "**H264Pocket.CAB**" in your mobile device, two folders named "**Jrviewer**" and "**H264Pocket**" will be created. It might be installed automatically after downloading; otherwise, select it from the downloading file for installation.

### 8-2.2 Mobile Application Operation

After the installation, enter the Program Files menu in your mobile device to run files named "**Jrviewer**" and "**H264Pocket**".



This application allows you to remotely logon and monitor DVR. Press "**OK**" to bring up the operation menu, see below chart to further information.

| Item | Function | Description |
|------|----------|-------------|
| Add | Add login DVR | Enter DVR's name, IP address, Port, Account user, Password then press "**OK**" |
| Login | Logon DVR | ・Choose the DVR that you'd like to log on , then press "**OK**"<br>・ **PS. The *Live* can not be displayed in your mobile when the recoding is off**.<br>・ **PS. Network connectivity will be affected by networking environment and bandwidth flow. The fee rate will depend on the telecom company and package fee you go with.** |
| Modify | Modify Login DVR | Choose DVR, press "**Modify**", and press"**OK**" to save change. |
| Delete | Delete Login DVR | Choose DVR and press "**Delete**" to delete the DVR info. |

### 8-2.3 Operation under the LIVE monitoring.

After successful logon the DVR, press "View" to bring up operation menu. You can choose the channel, resize the image, choose the quality, and turn on/off the status bar, alarm, full screen display….etc

| Item | Function | Description |
|------|----------|-------------|
| Channel 1~16 | Display for CH 1~16 | Choose from CH1~16 to display. (Show only supports a single partition) |
| Status Bar | Status Bar | Graphical icons indicated below will be shown on the status bar if there is event such as motion detected, sensor triggered and video loss to be detected on any channel. You can also uncheck the "**Status Bar**" to inactivate this function. <table><tr><th>Icon</th><th>Description</th></tr><tr><td></td><td>Motion Detect</td></tr><tr><td></td><td>Sensor Trigger</td></tr><tr><td></td><td>V-Loss</td></tr></table> |
| Alarm | Alarm | Alarm through your mobile device can be triggered if there is event to be detected. You can also uncheck the "**Alarm**" under the "View" to inactivate this function. |
| Sound | Sound | If the channel video with sound input, turn this option to hear the real sound. |
| Full Screen | Full screen display | You can choose one channel to display in full screen by check this function. |

# CHAPTER 9 CMS INSTALLATION AND USAGE GUIDE

## 9-1 CMS Installation

System Requirement:
＊Intel Pentium 4 processor or equivalent.
＊Microsoft Windows Vista、Windows XP、Windows 2003 Server.
＊Besides OS and other required APs, there will be 512MB remaining memory needed or above.
＊512MB memory above.(500M requested for group DVR connection and 180M for single DVR)
＊20MB HD space. Recording and image capturing require extra space for storage.
＊VGA Card needs to support DirectX9 and function well while running it. Please refer to p47 Note 1.

Installation:
1.  Connect to the manufacturer's website and download the CMS software.
2.  Decompress and execute "**setup.exe**".
3.  If "Visual C++ Runtime Libraries" has not been installed before in the operating PC, the following sign will suggest an installation automatically.



4.  Select "**Next**", and then select "**Browse**" to change installation path if needed. To check available space on hard disk, please select "**Disk Cost**" then please select "**Next**" to the next step.

5."**Confirm Installation**" window shows. Select '**Next'** then the installation starts.
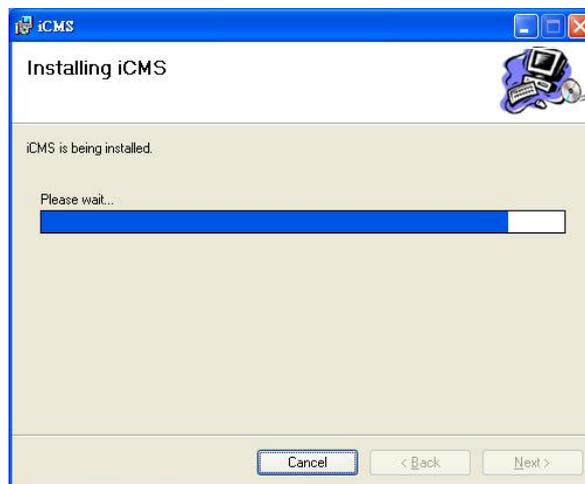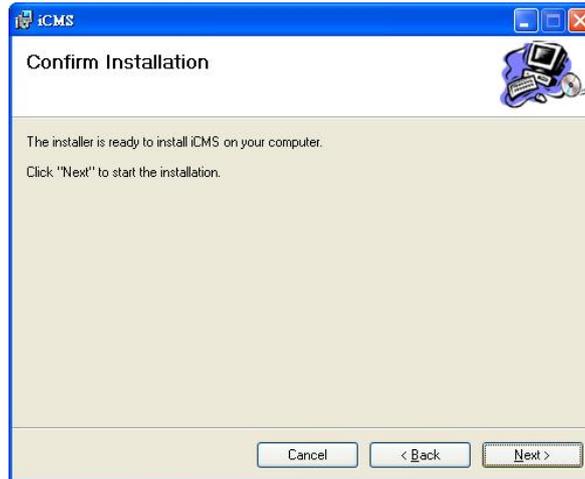




6. Select '**Close'** to finish installation when the "**Installation Complete**" window shows.

# Instruction for Log-in Failure to CMS After Upgrade

Log in to CMS with the default account and password after CMS upgrade. If an error message occurs as shown in the image, please follow the instruction to solve the error.
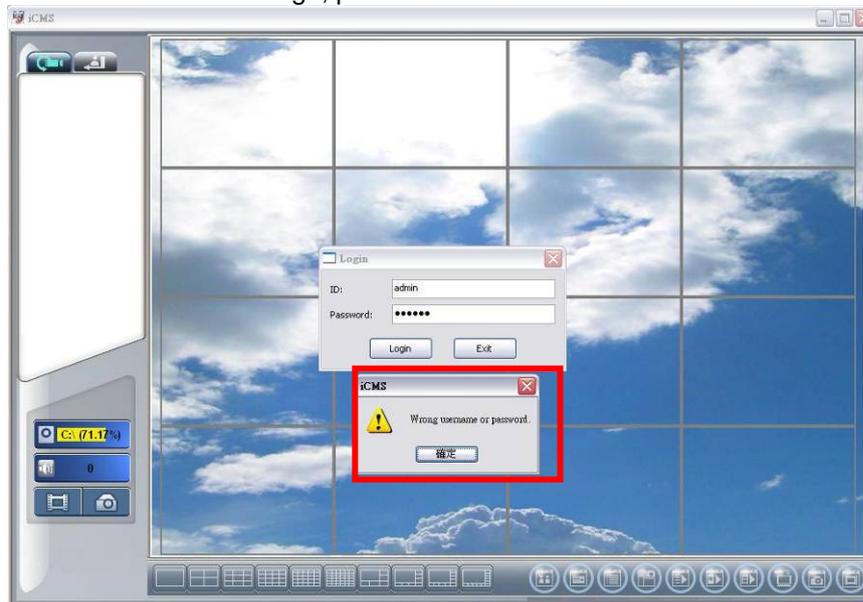


Step 1: Please enter file manager to enter folder, "Windows" and then folder "Systme32" (ex:C:\Windows\System32)



Step 2: Locate file, "iCMS.dat" and delete it.



Step 3: Restart CMS. Log-in successfully.
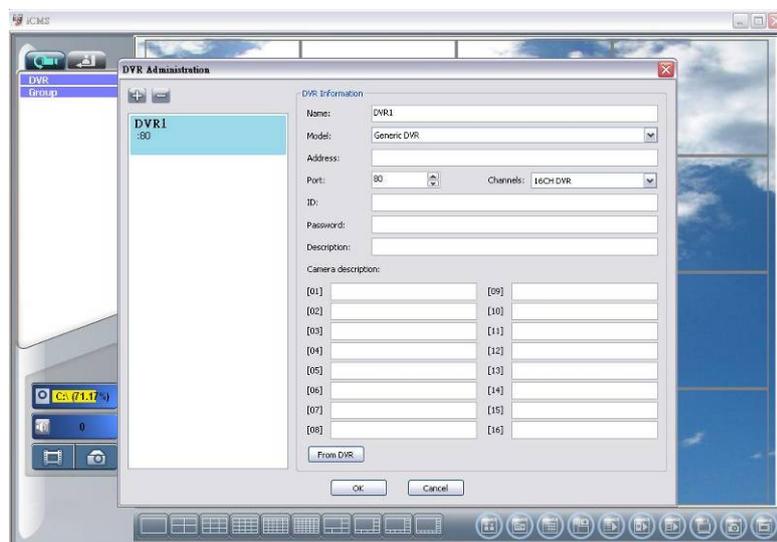
### *9-2 CMS LOGIN AND ENVIRONMENT*

To enter CMS, the administrator's user name and password are required. The defaults are 'admin' and '123456'.
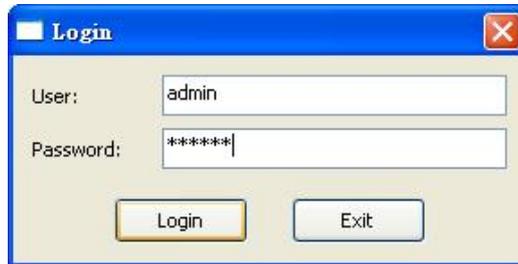
After successful login, the following image shows on your screen:
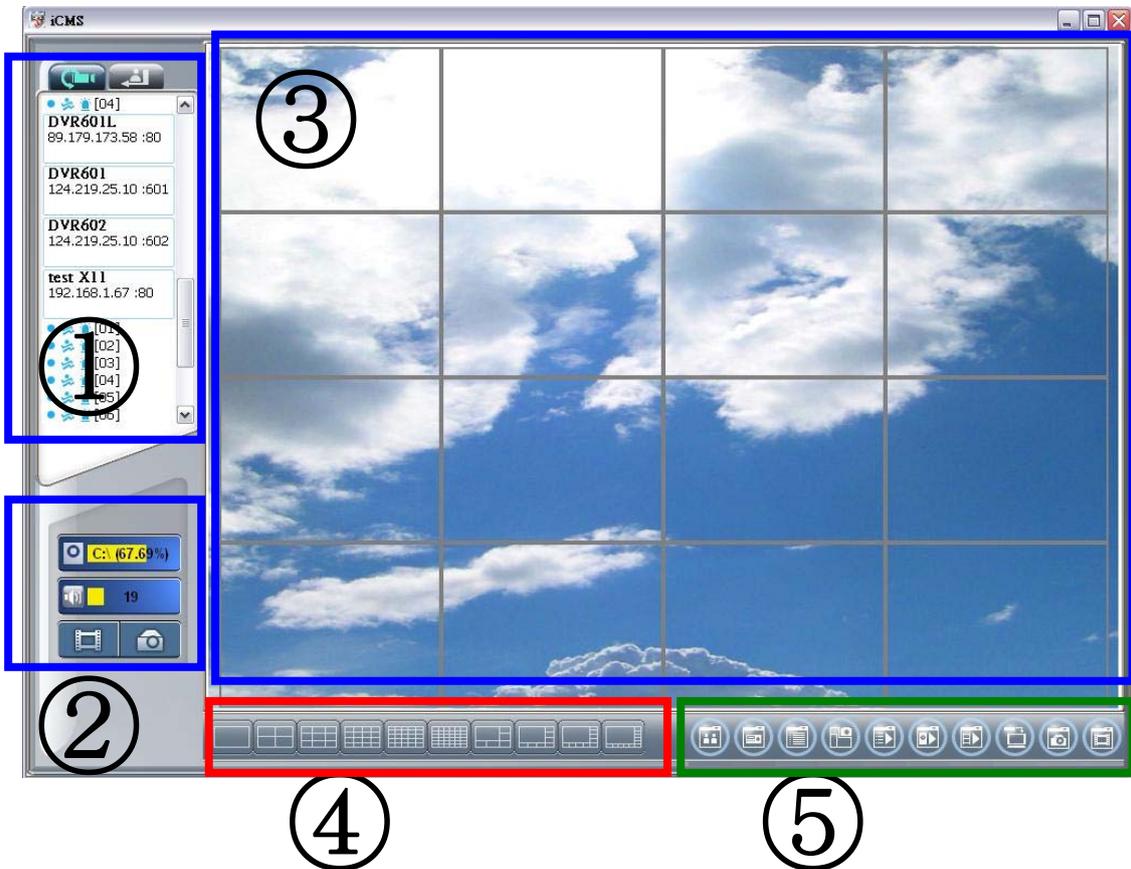
| ① **DVRs, Groups & Events** | Information about DVRs, groups and events. See "9-3 Information List" for more detail. |
|---|---|
| ② **PC information and control** | Information about local PC's hard disk, volume, recording...etc. See "9-4 PC Information and Control" for more detail. |
| ③ **Main Display** | Live image display area. See "9-5 Main Display" for detail. |
| ④ **Display Modes** | Several choices of display modes supported by CMS. |
| ⑤ **Operation Bar** | A set of 10 operations are provided by CMS. See " 9-6 Operation Bar" for detail. |

### 9-3 DVRs, Groups & Events

| Icon | Description |
|---|---|
| | View list of logged in DVR／ Group. |
| | View Logs: list all the event information of DVR |

### 9-3.1 View DVR／Group List

Single left click on '**DVR**' or '**Group**' will expand/collapse the entire DVRs and groups list.

On the DVR list, **double left click on a connected DVR will show its image in main display.** See "9-6.2 DVR Administration" for further information.

On the Group list, **double left click on a group will show live image from the channels of the group in the main display.** See "9-6.3 for Group Administration" for further information.

Left-clicking on a connected DVR will expand/collapse status of its all channels as below:

| Icon | Description |
|---|---|
| | Video Loss |
| | Motion Detected |
| | Sensor Triggered |
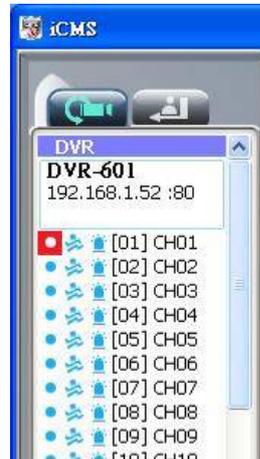
### 9-3.2 View Event Logs

Under this page, all the events of a DVR can be expanded/collapsed in the order of Remote in/Remote out, Video Loss, Motion, Sensor, Others (Power Reset, Key Lock, Key Unlock, HD Full).
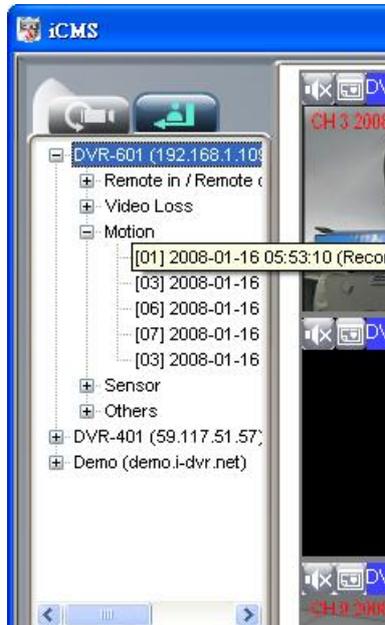


### 9-4 Local PC Information and Control

Located at the left lower corner of the screen, please see the chart below:

| Icon | Function | Description |
|------|----------|-------------|
| C:\ (79.56%) | **HDD info** | Shows the ratio of available space / HDD capacity of C:\ drive (where CMS is installed). |
| | **Recording Directory** | Setting Recording Directory. (Default is C:\Program files\iCMS) |
| C:\ (74.92%) | **Recording Cycle** | Set the capacity size of the Recording space. (minimum is 10MB) |
| 35 | **Volume** | PC volume or playback volume control bar. |
| | **Recording** | Record live image to local PC storage. To view    locally stored data, use "Record" under the       operation bar. Also see "9-6.6 recording data" for detail. |
| | **Snapshot** | Take snapshot to save in local PC storage. To   view all the snapshots you've taken, please go   to " Snapshot" under the operation bar. See "9-6.5 Snapshot data" for detail. |

### 9-5 Main Display

The main display area is where the live image of DVR is shown. You can drag to change the location of screen for each channel and turn on/off audio signal with mouse-click.



### 9-5.1 Audio Control

In live mode, you can turn on/off the audio signal of Ch1~Ch4:

「」 Audio signal is On

「」 Audio signal is Off

Turn on/off by clicking on the graphical icon, please note there can allow only one chan nel's audio signal to be on at one time.
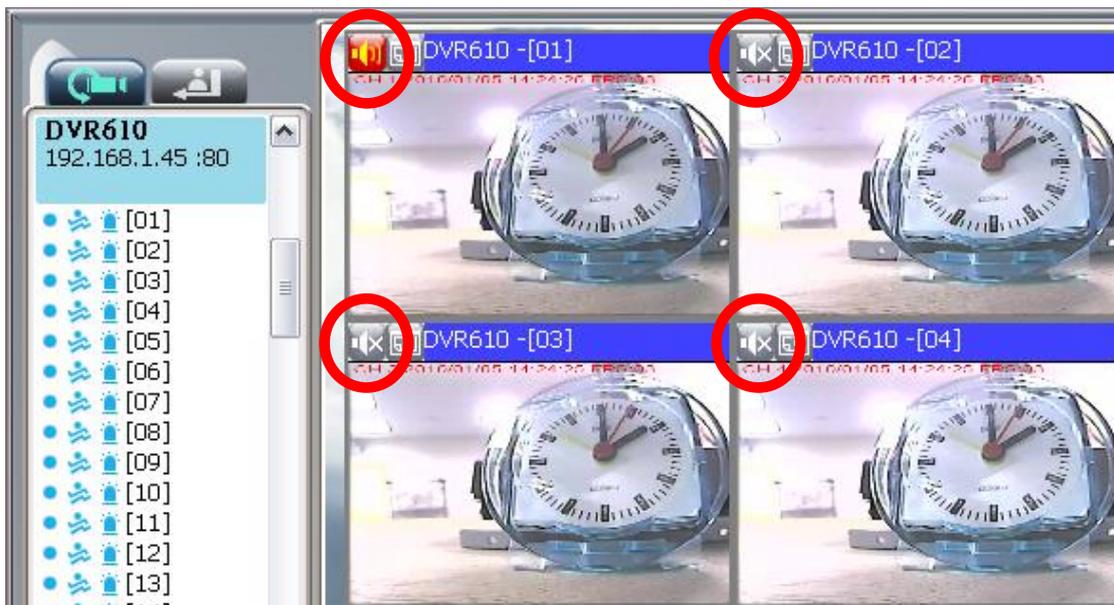
### *9-5.2 eMAP Display*

In Live mode, pressing  will bring the e-MAP drag-down menu. If the channel has been set up to use e-MAP, the menu will show all the e-MAP titles that have been entitled to this channel; otherwise, "No eMaps" will be shown. Please check "**9-6.4 eMAP administration"** for setup information.

### 9-5.3 PTZ Control

In the main display, right click on the channel will bring up PTZ control panel as below.



| Icon | Description |
|------|-------------|
| 8 direction key | Rotate the PTZ |
| ZOOM+ icon | ZOOM+：Zoom in |
| ZOOM- icon | ZOOM ：Zoom out |
| Preset setup icon | Setup the PTZ spot as pre-set N. |
| FOCUS+ icon | FOCUS+：Focus in |
| FOCUS- icon | FOCUS-：Focus out |
| Move to preset icon | Move to pre-set N. |
| Set PTZ Preset | Setup 16 pre-set N. |
| Goto PTZ Preset | Move to specific pre-set N. |
| Auto Tour | Activate auto pre-set tour＊ |
| PTZ Sensitivity | Setup PTZ sensitivity＊ |
| [  ] | Setup the "start" and "end" of liner scan.＊ |
| Cruise | Activate the liner scan cruise.＊ |
| B | Adjust the Brightness (Down is +) |
| C | Adjust the Contrast (Down is +) |
| S | Adjust the Sharpness (Down is +) |

＊PTZ communication protocols from different brands aren't compatible 100% sometimes. Therefore, some of these functions may be unavailable.

### 9-6 Operation Bar

10 Operations to be listed as below:



**Table 9-6.1** description of 10 operations:

| Icon | Description |
|------|-------------|
| | User Administration. Please see "9-6.1 User administration" |
| | DVR Administration. Please see "9-6.2 DVR Administration" |
| | Group Administration. Please see "9-6.3 Group Administration" |
| | eMap Administration. Please see "9-6.4 eMap Administration". |
| | Remote Playback. Please see "9-6.5 Remote Play". |
| | HDD Playback. Please see "9-6.6 HDD Play" |
| | File Playback. Please see "9-6.7 File Play" |
| | Event Playback. Please see "9-6.8 Event Play" |
| | Snapshot Data. Please see "9-6.9 Snapshot" |
| | Recording Data. Please see "9-6.10 Recording" |

### 9-6.1 User administration

Before the CMS can be used on a PC, user accounts should be added with proper authority. Each user should also be assigned a password and optionally a description. If a user does not have certain authority assigned, he/she will not be able to operate the corresponding function on the Operation Bar. The default is none of the authority is assigned. The administrator should assign proper authority to each user. These user accounts can be deleted or edited later on.

Select "**OK"** to save the setup.

| Icon | Description |
|---|---|
| ![+] | Add a user account. The default authority is with none permission. |
| ![-] | Delete a user account. |
| Language | Switch display language |
| systray | If the turn on this feature, when the program reduced, it will be based in the system tray icon.<br>(This feature is switched on / off, the need to re-open the CMS until after the program in force) |
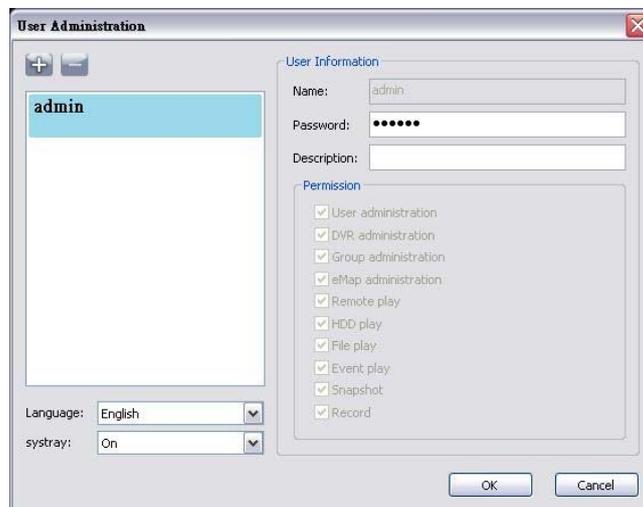


### 9-6.2 DVR Administration

DVR connections can be added to or deleted from the CMS and their information can be edited.
DVR's channel names can be entered here or downloaded from the DVR by pressing '**From DVR**'.    Select "**OK**" to save the information.
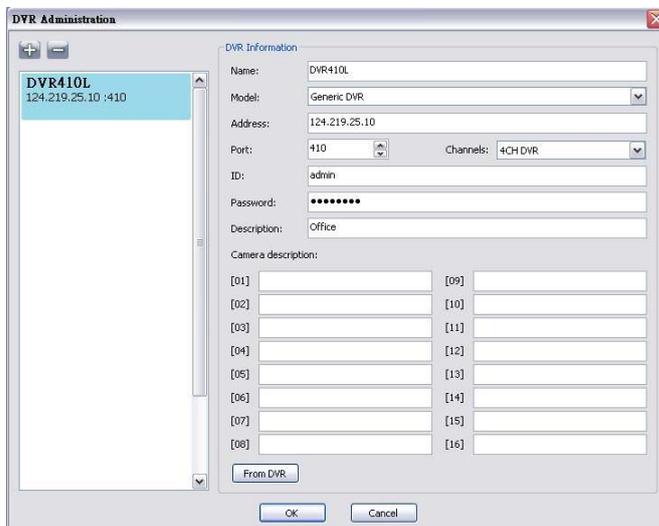


**Name:** DVR Name(Unrepeatable)
**Model:** DVR Model
Generic: For General Models
Generic MainStream: For DualStream Model
DUAL SDVR: For MPEG4 2U Models
**Address:** DVR IP Address
**Port:** DVR Network Port
**Channel:** DVR Camera Number
**ID:** DVR Login Account
**Password:** DVR Login Password
**Description:** Other Description
**Camera Description:** Carera Description
**From DVR:** Load Camera name from DVR

### 9-6.3 Group Administration

A 'Group' means a set of video channels from one or many DVRs, which means, user can organize channels from different DVRs to be set in a group. This function allows you to monitor and manager channels from multiple DVRs easily and flexible.

Steps:
1. Add a new group and set its name and description.
2. Click '**Select'** which will bring up a new window.
3. Check the specific channels that you'd like them to be included in the group. To include all channels of a DVR, just check the DVR.(1 Group up to select 36 camera)
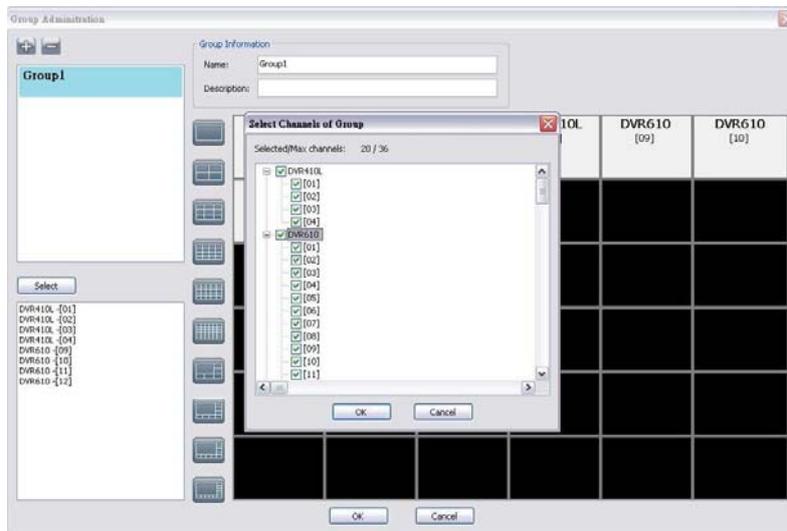


4. Click "**OK**" to return to the previous window.
5. Select a display mode.
6. Drag a channel from the lower left panel into the main display to a preferred location. Or, change the channel location in the main display by mouse dragging.
7. You can '**Select'** again to add other channels, but the un-saved channel locations will be lost.
8. Click "**OK"** to save the setup.
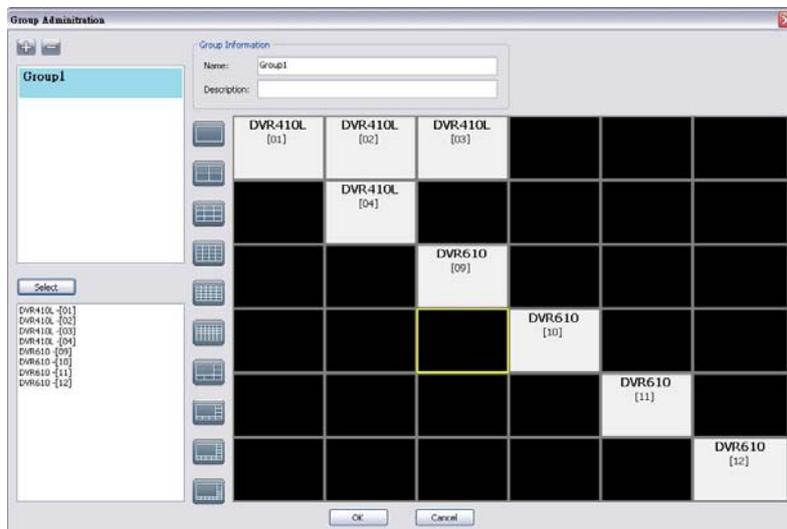
### 9-6.4 eMap Administration

If geographical locations are relevant, or if it is desired to use a picture as the background, eMap can be used for the purpose. With eMap, the background picture can be picked by the user and channels from multiple DVRs can be placed and dragged around on the picture.

Steps to follow:

1. Click ![plus icon] and a path for the picture will be prompted.
2. Select a picture, click OK and the picture will show in the right panel.
3. Drag channels in the left lower corner onto the picture to any position.
4. To delete a channel already on the picture, right click the channel and click 'Remove'.
5. Click OK to save.
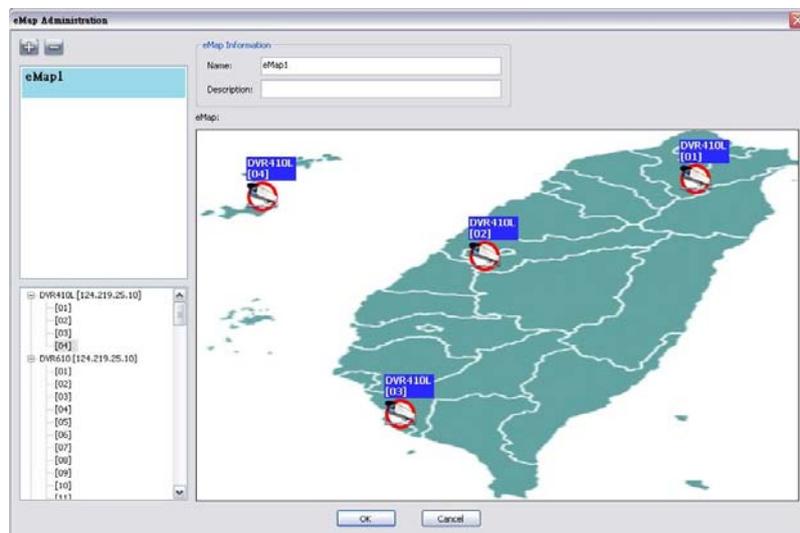
### 9-6.5 Remote Play

Video images recorded on a DVR can be displayed on a remote CMS. With Remote Play function, select a DVR and a display mode on top of the screen. After the recorded segments are listed below, double click on one to show its image on the right.





| Icon | Description |
|---|---|
| (play button) | Start playing. |
| (pause button) | Pause. |
| (fast forward button) | Fast forward. |
| (fast rewind button) | Fast rewind. |
| Min. Sec. (time selector with play button) | Select the clip you want to watch the number of minutes and seconds,Press the right button (play button) is set to start playing |

### 9-6.6 HDD Playback

You can directly play the recording data in the HDD that's uninstalled from DVR by CMS. See the picture below, the left part of screen is recording data in list that's separated by hour and the right part is main display. You can change the display modes and play files fast forward or rewind.
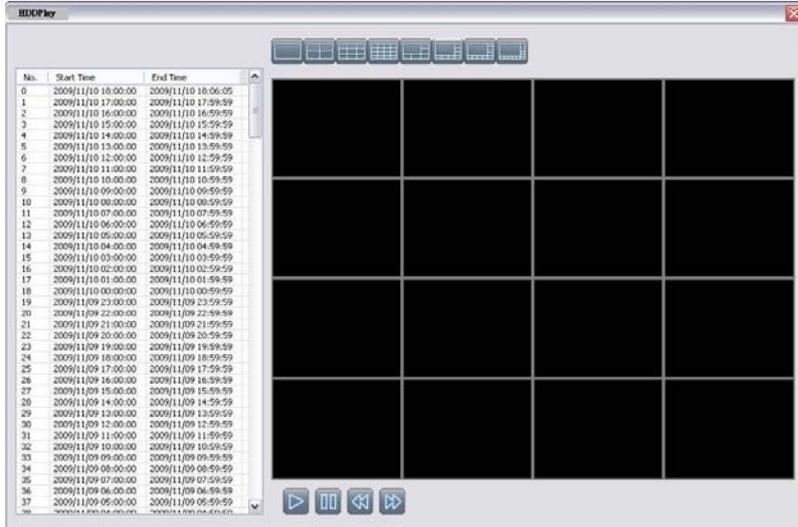


### 9-6.7 File Playback

You can play the recorded **.irf** files by "File Play" in CMS. It allows you to change the display mode, forward or rewind the file and drag the time bar.
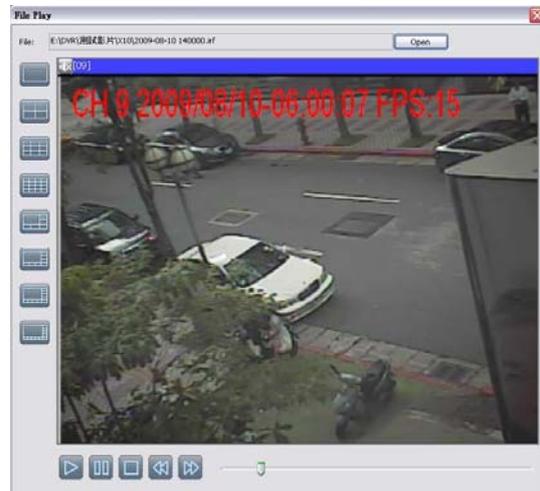


| Icon | Description |
|------|-------------|
| ▷ | Start Playback. |
| 〓 | Pause. |
| □ | Stop playback. |
| ◁◁ | Fast forward. |
| ▷▷ | Fast rewind. |

### 9-6.8 Event Playback

Event recordings on the DVR can be played back in CMS.

Steps to follow:
1. Select a DVR and a display mode.
2. Select a date.
3. Double click an event and play back the images on the right.

Use buttons at the bottom to control the playback.
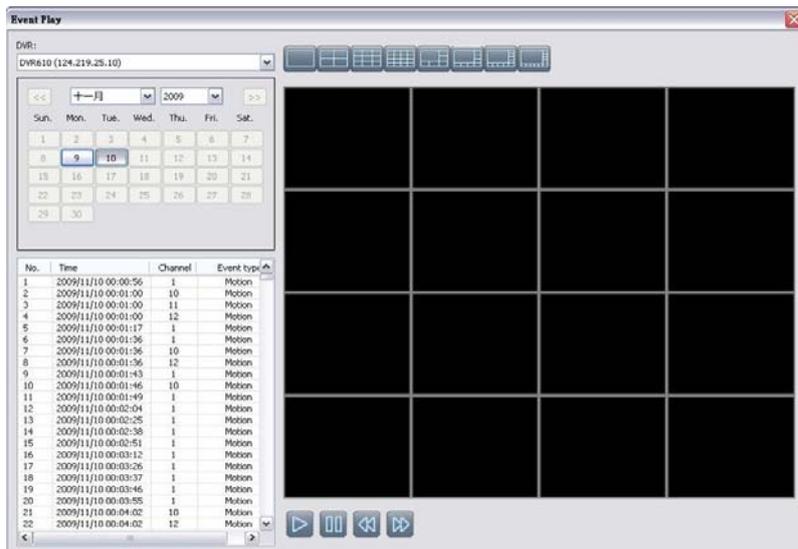


### 9-6.9 Snapshot Data
It can display all the snapshots you've taken in line in "Snapshot Data". You can review, delete or save as other files here.
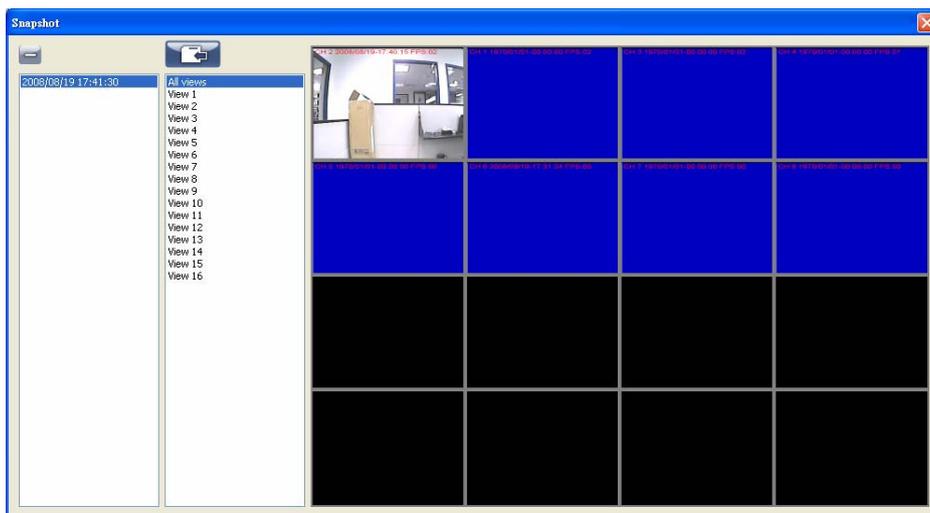


*Capture images of the date and time will follow the PC-time display

### 9-6.10 Recording Data

It can play all the recording files you've recorded in line in "Recording Data". You can play or delete them here.

Steps to follow:

1.  Choose the recording time at upper left corner, it will be played on the main display.
2.  You can choose the display mode.
3.  Time bar will be shown at right lower corner, please drag the time bar to specify the recording time you'd like to play.
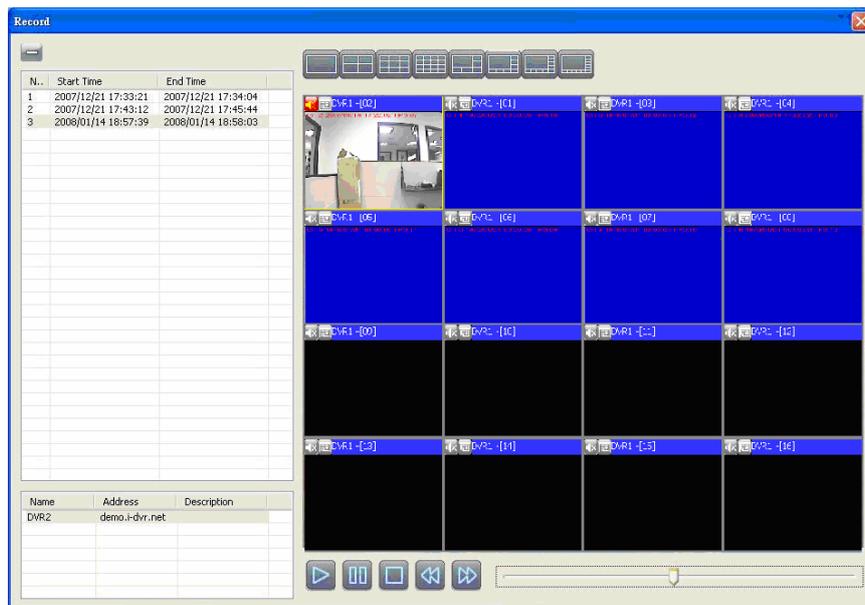
# APPENDIX I    I-DVR.NET  REGISTRATION

**DDNS Registration on I-DVR.NET**

In the package of each DVR, you will find a sticker shows account information including username and password that allows users to login I-DVR.NET for registration.

To register DDNS on I-DVR.NET, please follow the steps as shown.

**Step 1.** Please open IE browser and then enter " http://i-DVR.NET/logon.asp " in IE browser bar. Next, "Control Panel Logo" dialog will appear. Enter the username and password provided by the sticker and then press, "Logon."
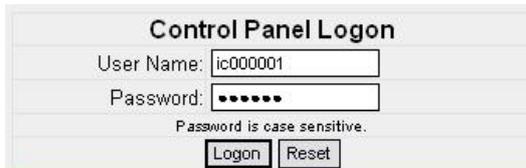
**Step 2.** After login successfully, enter name at "host" in "Add New Record" dialog. For example, "icatchddns" is the host name, and then the address will be "icatchddns.idvr.net." Select "Standard" type and enter an IP address of the DVR. Input known IP address if any, or press the "Add New" button if none.

**Please enter any name by your choice at Column, "host.domain"**
**For example, "hostname"**
**Therefore, IE address will be "hostname.i-dvr.net"**
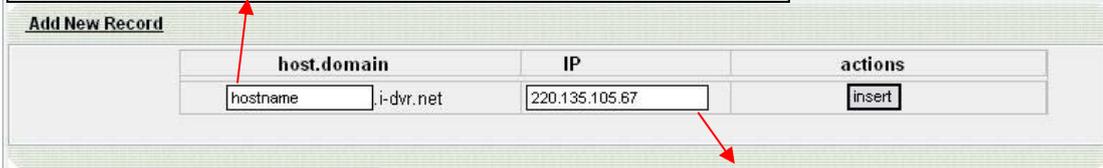
**System will automatically show the current computer IP.**
**If the DVR IP is known, you can type it in the column.**
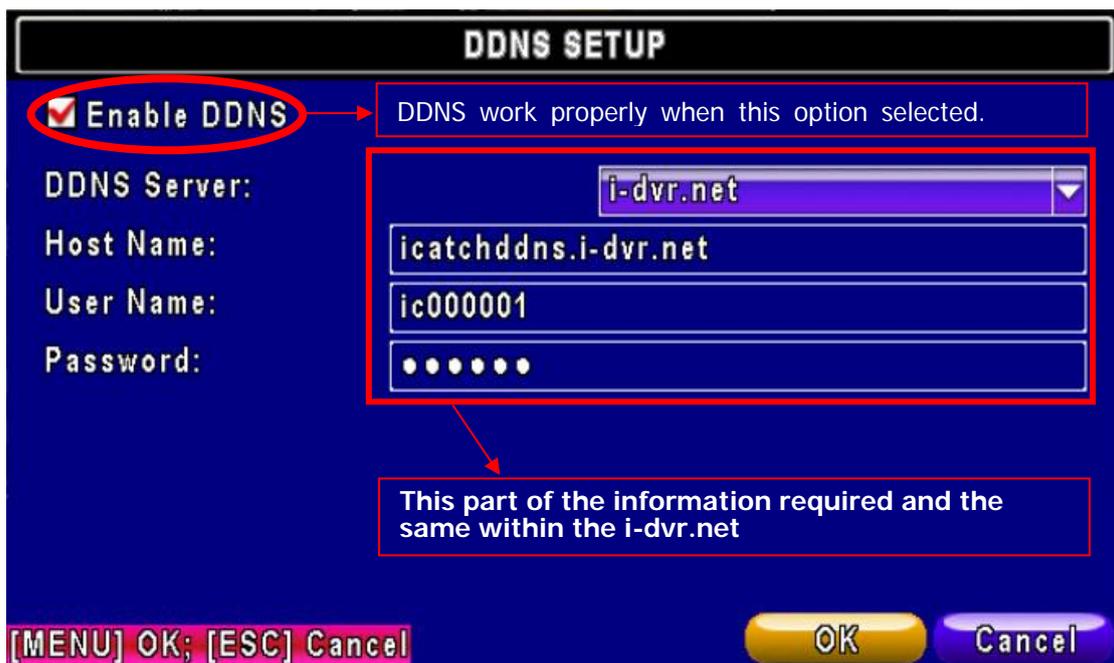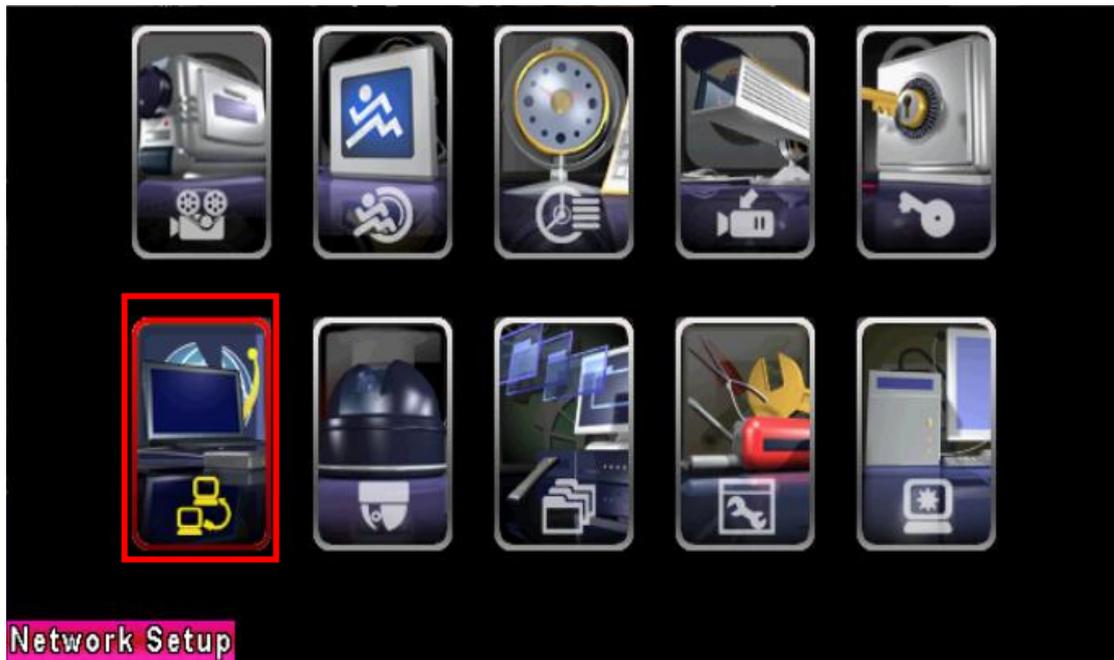**If not, you can press "insert" button.**

**Step 3.** The "Host Manager" dialog will show "insert succeed" when user setup successfully. The "**host.domain**" column will show up the setup just entered.
Next, enter the DVR the same time setting the DDNS client machine information
If DDNS set up at DVR side successfully, the website will update the IP information in one minute. The IP column will be renewed to the corresponding IP address by pressing "F5: refresh" button.
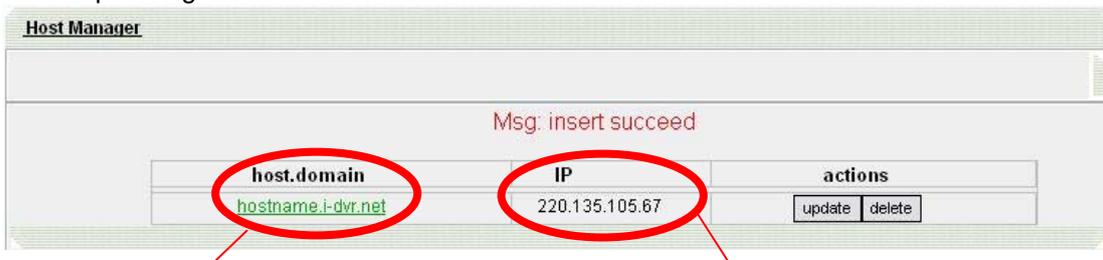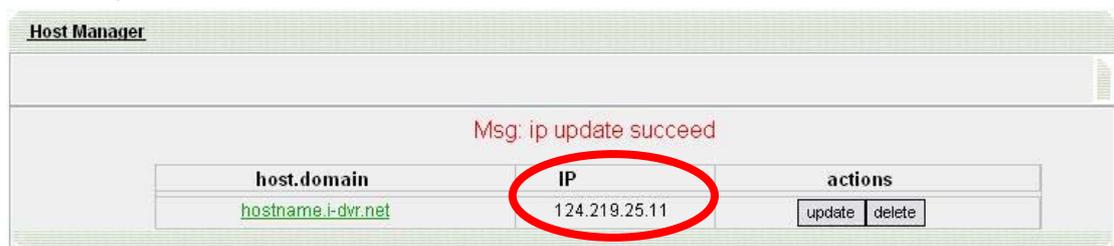
**"host.domain" is named by your choice.**
**"icatchddns.idvr.net" is what the main server generates**

**If DVR IP has any changes, there are updates Here at the same time. Press, "F5: Refresh" And then IP column will update automatically to it's real IP Address.**

**Step 4.** Enter DVR →Main Menu → Network Setup → DDNS. Activate DDNS functions and input related information.



Network Setup



DDNS SETUP

✓ Enable DDNS → DDNS work properly when this option selected.

DDNS Server: i-dvr.net
Host Name: icatchddns.i-dvr.net
User Name: ic000001
Password: ●●●●●●

This part of the information required and the same within the i-dvr.net

[MENU] OK; [ESC] Cancel         OK    Cancel

**Step 5.**Back to the i-dvr.net, on this page by pressing "F5: Refresh", IP will be automatically updated into the DVR of the real IP location.



Host Manager

Msg: ip update succeed

| host.domain | IP | actions |
|---|---|---|
| hostname.i-dvr.net | 124.219.25.11 | update \| delete |

**APPENDIX II Remote Monitoring IE ActiveX  Control  Installation Instruction**

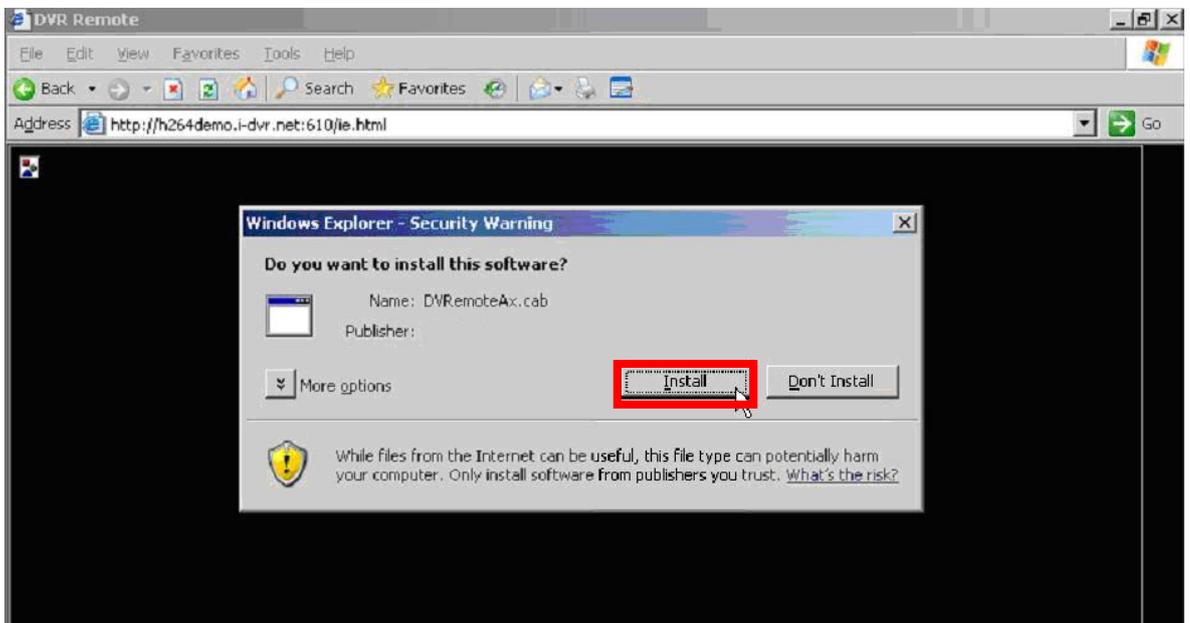When using IE for remote monitoring for the first time, IE ActiveX Control is needed to be downloaded.

1.  When remote monitoring on IE for the first time, an alert message occurs "Install ActiveX control" on the tool bar.
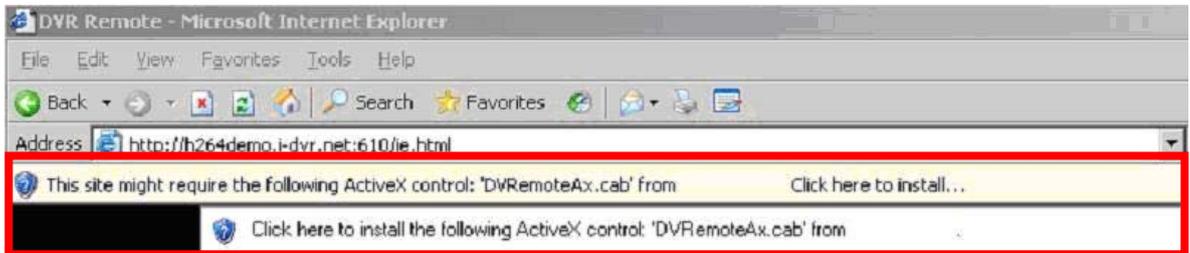


2.  Click at this alert message and select "Install ActiveX Control"
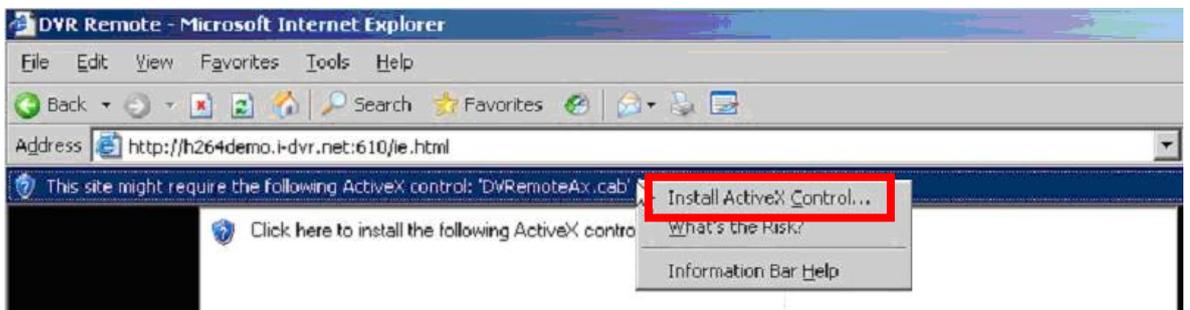


3.  "Do you want to install this software" alert pops up. Select "Install"

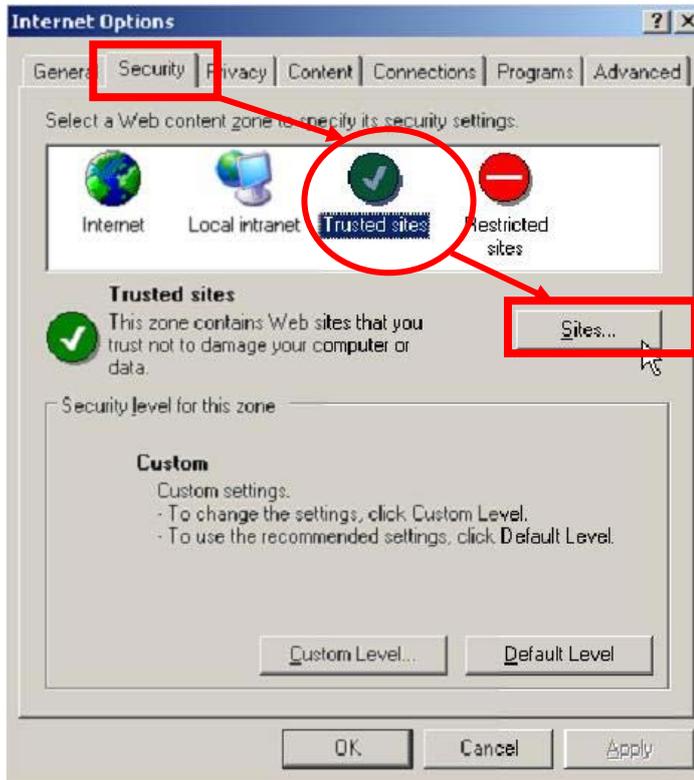4.  After installation, IE remote monitoring image appears.



5.  If message, "Your security Settings do not allow web sites to use ActiveX controls installed on your computer." pops on when logging in, please follow the next instruction.
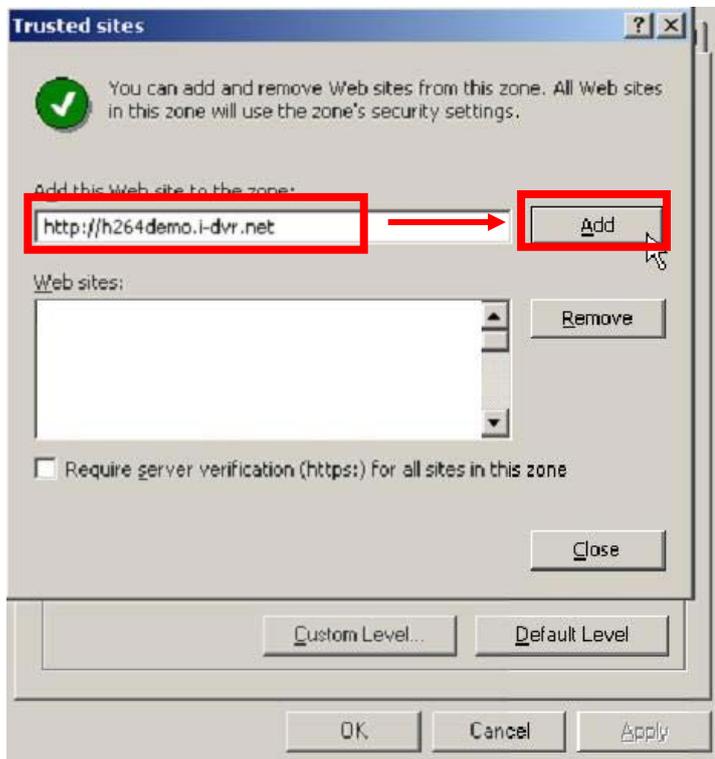


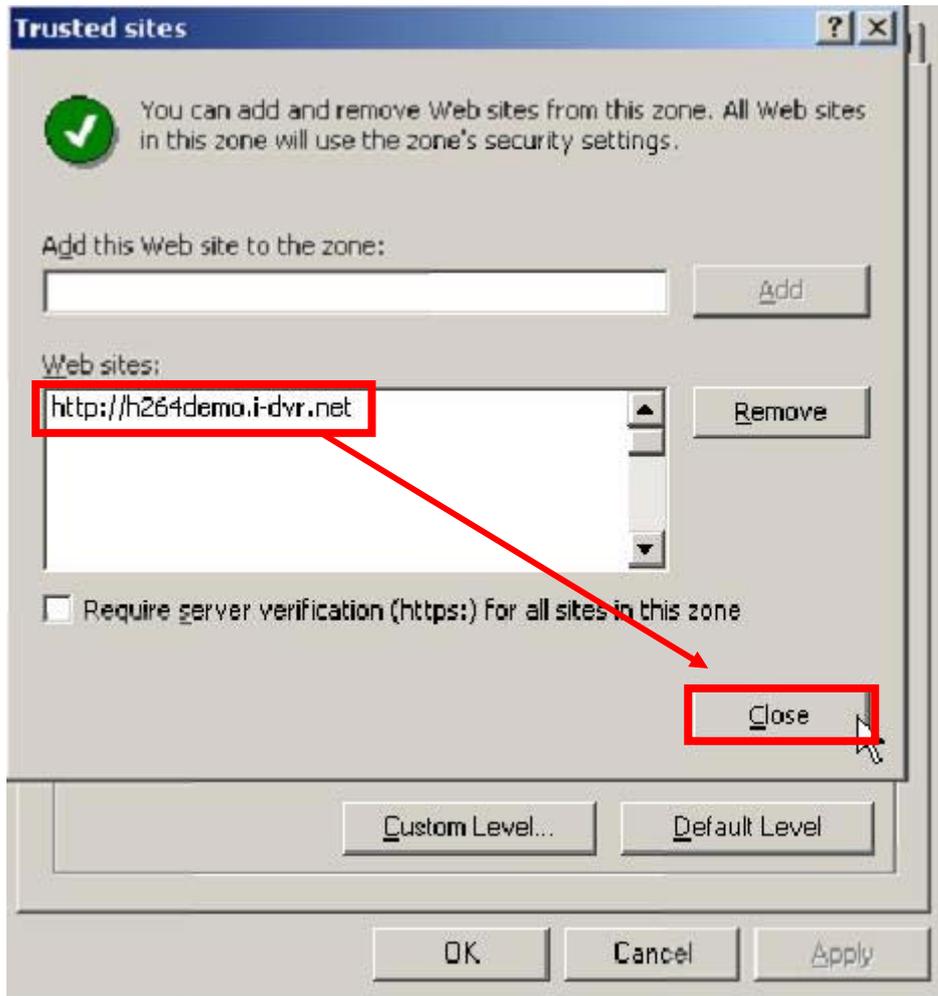6.  First select "Tools" on the tool bar and then select "Internet Options"

7. Select Security →Trusted Sites → Sites



8. Enter DVR address (This address is only for demonstration. Please use the address depends on the setup of on-site DVR.) into the blanks shown in picture, and then press "add."

9. Newly added website will appear at the trusted web sites list. Press close.



10. Go back to IE window, press refresh button or F5.