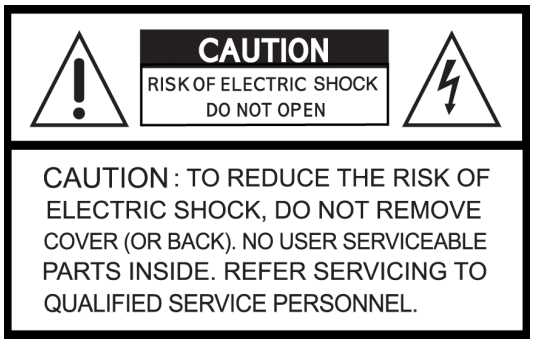
4CH H.264 Multiplex DVR

User Manual

VER.:1.0, P/N: R040199A





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 ones 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.

All the safety and operating instructions must be read before the unit is operated.

- **Make sure to switch the power off before you install the DVR.**
- **There is the danger of an electric shock if the DVR is opened by an unqualified service engineer or installer.**
- **Avoid using the DVR outside of the reference temperature and humidity indicated in the specification.**
- **Avoid exposing the DVR to violent movement or vibration.**
- **Do not use or store the DVR in direct sunlight or near to any source of heat.**
- **Do not place any object into the holes used for air circulation.**
- **Always use the DVR in a well ventilated location to prevent overheating.**
- **Risk of explosion if battery is replaced by an incorrect type.**
- **Dispose of used batteries according to the instructions.**

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The author assumes no responsibility for any errors or omissions that may appear in this document nor does the author make a commitment to update the information herein.

Chapter 1 FEATURES

- Two USB ports (for mouse usage and backup).
- Dual streaming enhances the speed of network transmission
- Built-in VGA output up to 1280x1024 resolution
- Individual setup of resolution, frame rate and video quality for each channel
- Still image snapshot
- AVI converter with time stamp
- H.264 compression ideal for saving HDD space
- Real time live display
- Live display, record, backup, playback and network access simultaneously
- Picture-in-picture monitoring and 2X to 8X digital zoom display
- Control Methods: front panel, USB mouse, IR remote controller, client viewer
- Intuitive GUI for easy configuration and menu driven operation
- Pan / Tilt / Zoom camera control
- Data backup: USB devices, network and DVD-RW
- Event triggered with email notification: motion detection, alarm, video loss
- Supports Internet Explorer with same GUI as DVR site
- Multi-language OSD
- Central Management System (CMS)
- 3G/ GPRS mobile phone monitoring

Chapter 2 MAIN MENU OPERATION

2.1 Quick Setup

Graphic Icons	
	Resting the cursor on this icon will bring up the four (Main Menu/ Search/ Backup/ PTZ) menu icons.  MAIN MENU.  SEARCH SETUP.  BACKUP.  PTZ CONTROL.
	Turn On/Off recording.
	PLAYBACK
	Resting the cursor on this icon will bring up five (PAUSE/ PIP/ ZOOM/ AUTO SEQ/ LOCK) display icons.  PAUSE, to pause LIVE image  PIP, picture in picture  ZOOM, 2X to 8X digital zoom in / out the screen size  AUTO-sequence  LOCK, activate the key lock.
	Full screen display, multiple clicking to switch channels
	Quad display.

GUI Hints and Tips	
	Recording is on
	Number represents the current selected LIVE audio channel (available to 8/ 16CH DVR and option to 4CH DVR).
	Live Audio is off
	Motion detected on the channel
	Sensor triggered on the channel
	Video loss detected on the channel
	USB device detected
	DVR has been connected onto the Internet.
	AUTO-SEQ is on
	FREEZE is on, screen is frozen
	LOCK is on
	PTZ control is on
	Shows the current hard disk space used-up (99% means that the HDD space has been used up 99%, and the remaining HDD space is 1%)
	Current time which is used when providing the conversion of AVI files is shown on the bottom lower right of each DVR screen.

2.2 Network Remote Instructions

Same user and DVR-site interface, the only difference is network toolbar which is situated on the lower bottom right.



Icon	Description
	Low Video Quality (LQ) High Video Quality (HQ) * Please refer to 4.7.2 HTTP setup
	Full Screen
	Record
	Capture Image
	Record and captured files storage path settings
	Open / Close this tool bar

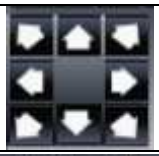
2.3 Playback Mode

Playback – Quick Function Icon	
	Press「◀◀ / ◀ 」button to Fast Rewind Speed : 2x, 4x, 8x, 16x, 32x, 64x
	Press「▶▶ / ▶ 」button to Fast Forward Speed : 2x, 4x, 8x, 16x, 32x, 64x
 / 	Press「**PLAY**」/ 「▮▮ 」button to Play/ Pause Playback
	「**▲/ SLOW**」slow playback Speed : 1/2x, 1/4x, 1/8x
	「▼ /■」stop playback
	Playback channel by channel with snap shot display
	Full screen display
	Quad display
	Zoom in video image
	Snap shot image

2.4 PTZ Mode

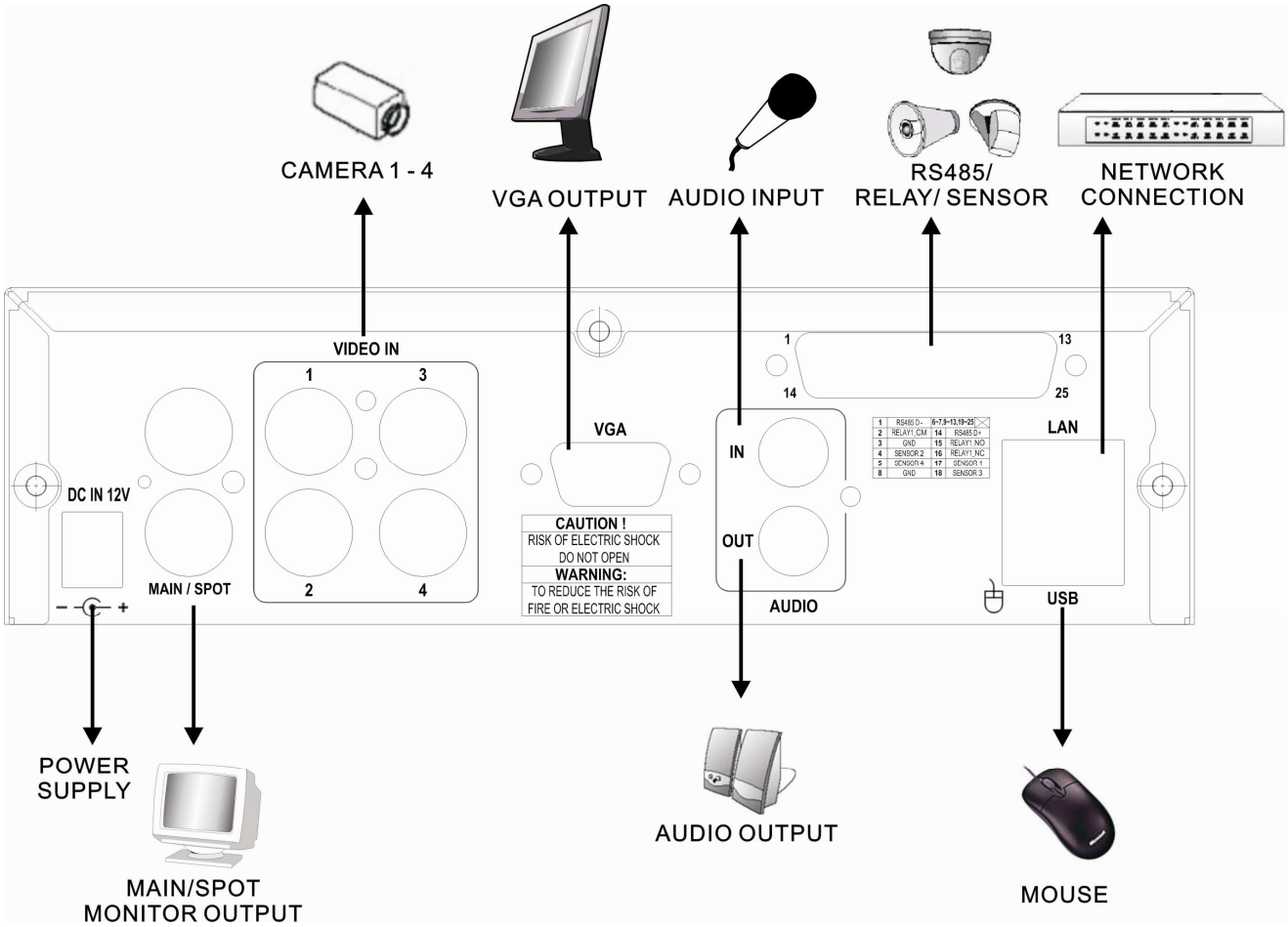
PTZ – Remote Controller Control	
▲ / SLOW	Move PTZ up.
▼ / ■	Move PTZ down.
◀◀ / ◀	Move PTZ to the left.
▶▶ / ▶	Move PTZ to the right.
ZOOM +	PTZ zoom-in.
ZOOM -	PTZ zoom-out.
FOCUS +	PTZ focus-in.
FOCUS -	PTZ focus-out.
IRIS +	PTZ iris-open.
IRIS -	PTZ iris-close.
TOUR	Activate PTZ pre-set tour. *
PRESET + NUMBER	To save a preset location Press PRESET and a number key. DVR will save the current location.
PLAY + NUMBER	To go to a preset location Press PLAY and a number key. DVR will move to the preset location.
ZOOM	Set current PTZ location as the start of the line-scan. *
PIP	Set current PTZ location as the start of the line-scan. *
FREEZE	Activate line-scan. *

*：Different brands of PTZ protocol sometimes may not be 100% compatible with each other. Therefore, these functions may not be applicable.

PTZ – Quick Function Icon	
	
	Exit PTZ Mode and back to the LIVE mode
	Preset number N. (1~64)
	Go to preset number N.
	Set current PTZ location at preset number N.
	[TOUR] icon, click to activate preset tour
	Same as [PIP]. Set current PTZ location as the starting point of the line-scan.
	Same as [FREEZE]. Activate line-scan.
	Same as [ZOOM]. Set current PTZ location as the ending point of the line-scan.
	To move PTZ in 360°
	PTZ zoom in or PTZ zoom out.
	PTZ focus in or PTZ focus out.
	PTZ IRIS open or PTZ IRIS closes.

Chapter 3 INSTALLATION

3.1 System Configuration – 4CH



3.2 Hard Disk Installation

First, remove the three screws from the DVR machine (Pic 1).

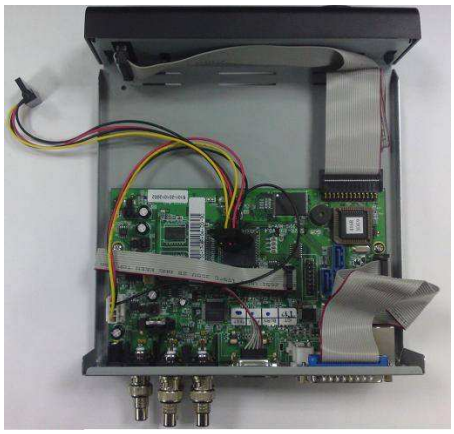


(PIC 1)

Open the upper case (Pic 2, Pic 3).

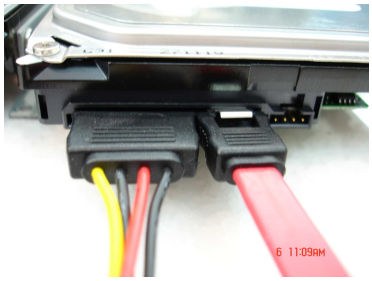


(Pic 2)



(Pic 3)

Insert the SATA cable and power cable onto the SATA HDD (Pic 4).



(Pic 4)

Lock the HDDs onto the DVR machine. Insert the SATA cables into the sockets on the main board. Make sure that the HDD cable has been properly inserted into HDD socket. Now, the installation has been completed. (Pic 5)



(Pic 5)

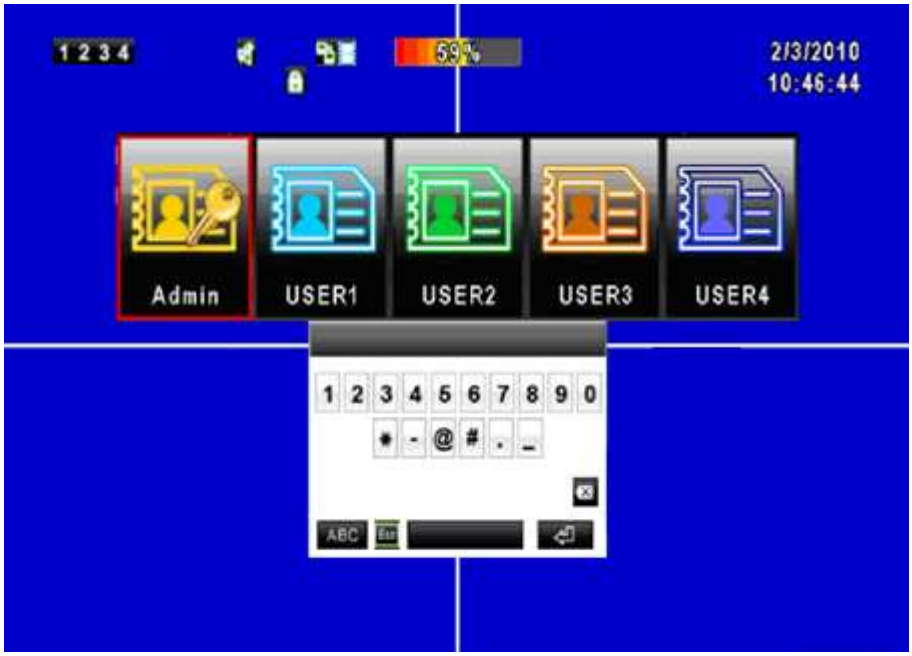
Put the upper case back and tighten the screws. (Pic 6)



(Pic 6)

Chapter 4 BASIC OPERATION and MENU SETUP

4.1 Main Menu Setup



To enter the main menu and setup the DVR, please log-in account and enter user password. The default password of the administrator is “123456”. Please refer to “4.6 Account Setup” for related setup of other log-in users.

Main Menu – Mouse Control (Right mouse click to enter Quick Setup Menu)	
⇧	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 setup menu if the password is verified.
	Space key



Main Menu – Remote Controller and Front Pannel Control (Click MENU button to enter Quick Setup Menu)	
◄ ►	Switch to different options under one item
▲ ▼	Switch to different items
MENU	Press to confirm setup (OK)
ESC	Press to cancel setup (CANCEL)
ENTER	Enter the menu, or display virtual keyboard

4.2 Record Setup



Item	Description
HDD FULL	Select STOP to stop recording or OVERWRITE to reuse the HDD when HDD is full. **[Stop]**：Stop Recording **[Overwrite]**：Start to overwrite beginning from the oldest data of HDD, and continue to record.
OSD Position X	Set time stamp of OSD position X
OSD Position Y	Set time stamp of OSD position Y
OSD Position Setup	OSD position time stamp setup
Video Preservation (Hours)	Information stored within the HDD is preserved for only a specified length of time.
Quality & Frame Rate Setup…	Setup the quality and frame rate for each channel under normal recording and event recording type.

4.2.1 Quality & Frame Rate Setup



Item	Description
View Normal / View Event	Setup resolution, quality and FPS separately for different record type.
No.	Check/ Uncheck the box will enable/ disable recording of that channel.
Resolution	Choose record resolution, this value will be used by each channel.
Quality	Choose from Below Basic / Basic/ Normal/ High/ Highest.
FPS	Choose recording frame rate (1~30).
Auto	The maximum recording frames available by the average distribution of each channel.

＊Number of “Auto” means the DVR processing ability. Recording data depends on “FPS”.

Ex: If channel 1 to channel 8 set to 15 FPS, the sum will be 120 FPS. (8 x 15 = 120)

4.3 Event Setup



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

4.3.1 Motion Setup



Item	Description
Alarm Duration(Seconds)	Alarm duration time (1~60 seconds).
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 popup in full screen display.
Enable	Check the box to Enable/ Disable motion detection for each channel.
Sensitivity	Drag the bar or press ◄► to set up Sensitivity from value 0 to 10 for each channel. The lower value you set lower the sensitivity it will be
Motion Area Setup	Enter to setup motion detection area
Apply to All	Set all the channels to the same setting.

4.3.1.1 Motion Area Setup



There are partitions in motion detection area (22x15 blocks). Under initializing status, motion detection area is in the entire screen. Red colored area is undetected; yet the detected area is transparent.

Item	Description
Mask Mouse Selection	Select to mask the mouse selected area.
All Area Detection	Select all the images as motion detection area.
Mask All Area	Cancel all motion detection images on the screen.
Continue	Continue setup.
Exit & Save	Save setup and exit setup page.
Exit & Discard	Cancel setup and exit setup page.

4.3.2 Sensor Setup



Item	Description
Alarm Duration(Seconds)	Alarm duration time (1~60 seconds).
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.
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 (N.O.→N.C.). **High** Polarity：Sensor has been triggered. When connected, sensor status will be turned off (N.C.→N.O.). **Off**：Sensor is deactivated, and will not be turned on/off.
All off	Set all sensors polarity to off.
All Low	Set all sensors polarity to low level.
All High	Set all sensors polarity to high level.

4.4 Schedule Setup



Apart from manual recording, you can also setup the recording time by weeks and schedule recordings include: normal, motion detection, and sensor detection.

Item	Description
Page	Click or press ▼ to select Page. Each page provides 10 schedules for setup. 5 pages in total.
Holiday Setup	Enter to setup holiday, maximum up to 50 days.
View Event Setup	View Normal/ Motion / Sensor Setup.

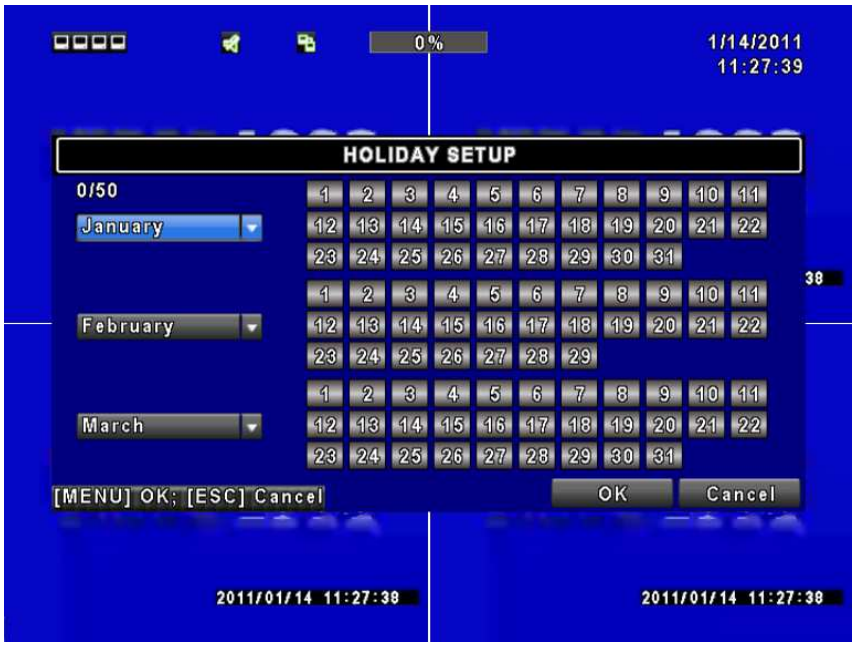
4.4.1 Schdule Record Setup



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

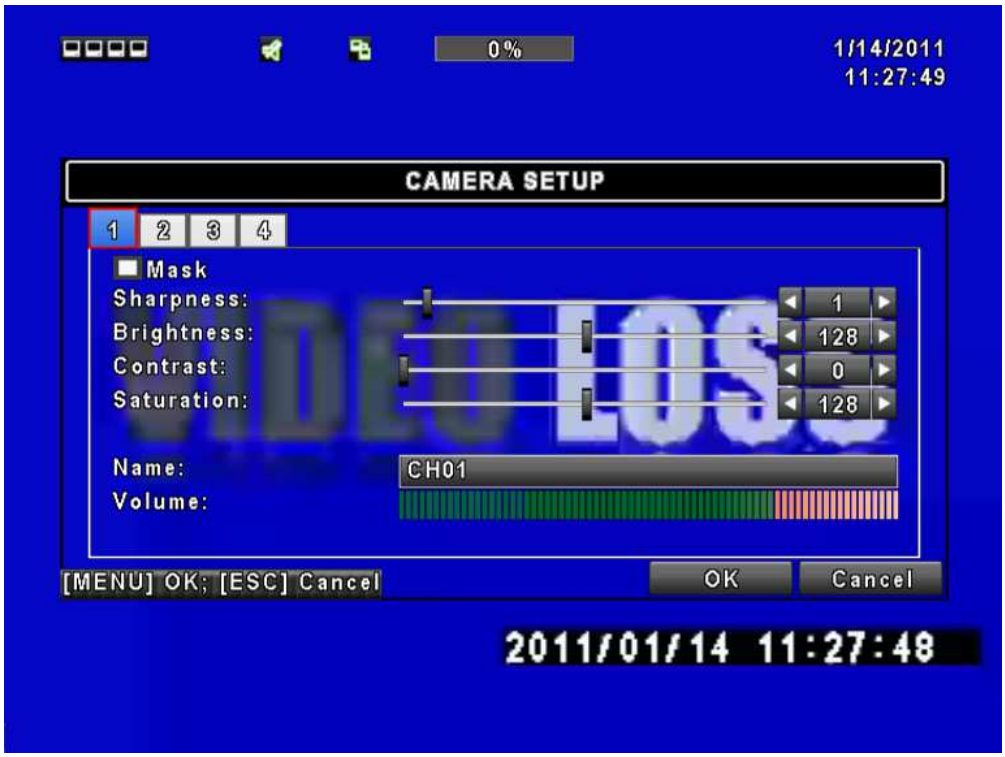
Item	Description
Enable Schedule Record	Enables schedule recording according to the time schedule (shown above).
Enable Schedule Motion Detect	Enables schedule motion detection recording according to the time schedule (shown above).
Enable Schedule Sensor Trigger	Enables schedule sensor trigger recording according to the time schedule (shown above).

4.4.2 Holiday Setup



Since holidays are different between countries and regions, you can setup the holiday of your location accordingly (Maximum Setup: 50).

4.5 Camera Setup



Item	Description
Mask	Check the box to Enable/ Disable mask function for LIVE mode
Sharpness	Drag the white bar or press ◄► to adjust Sharpness of your camera from value 0 to 15. The default value is 1.
Brightness	Drag the white bar or press ◄► to adjust Brightness of your camera from value 0 to 255. The default value is 128.
Contrast	Drag the white bar or press ◄► to adjust Contrast of your camera from value 0 to 255. The default value is 0.
Saturation	Drag the white bar or press ◄► to adjust Saturation of your camera from value 0 to 255. The default value is 128.
Hue	Drag the white bar or press ◄► to adjust Hue of your camera from value 0 to 255. The default value is 150. (**This function is ineffective in PAL system**).
Name	Set up name of each channel.
Volume	Select to adjust audio volume under LIVE mode and recording mode.

P.S. Mask function can not turn the network live image function off. Please use the Playback Mask under master account to turn it off.

4.6 Account Setup



The Account Setup menu is used to provide role-based permission independently for each user (maximum of 4 users) to access the DVR over network. The default admin account is [admin] and password is “123456”.

Item	Description
No.	Check to activate the user’s account.
User Name	Edit the user name.
Password	Enter to set up password for each user.
Permissions	Enter to setup Permissions for each user.
Change Admin Password	Enter to change administrator’s password.

4.6.1 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 and Mask on specific channels while playing back.

4.7 Network Setup



Item	Description
Connect type	Setup mode for network connection: **ADSL**、**DHCP**、**LAN**.
HTTP Setup	Enter to set up HTTP for remote access into DVR.
DDNS Setup	Enter to Enable/ Disable DDNS function and set up.
Mail Setup	Enter to Enable/ Disable Email notification and setup.

4.7.1 Networking Setup

The DVR supports DHCP, LAN and ADSL access for network connection.

4.7.1.1 DHCP



If the DHCP option is used for DVR network connection, an IP address is assigned by the DHCP server automatically.

4.7.1.2 LAN

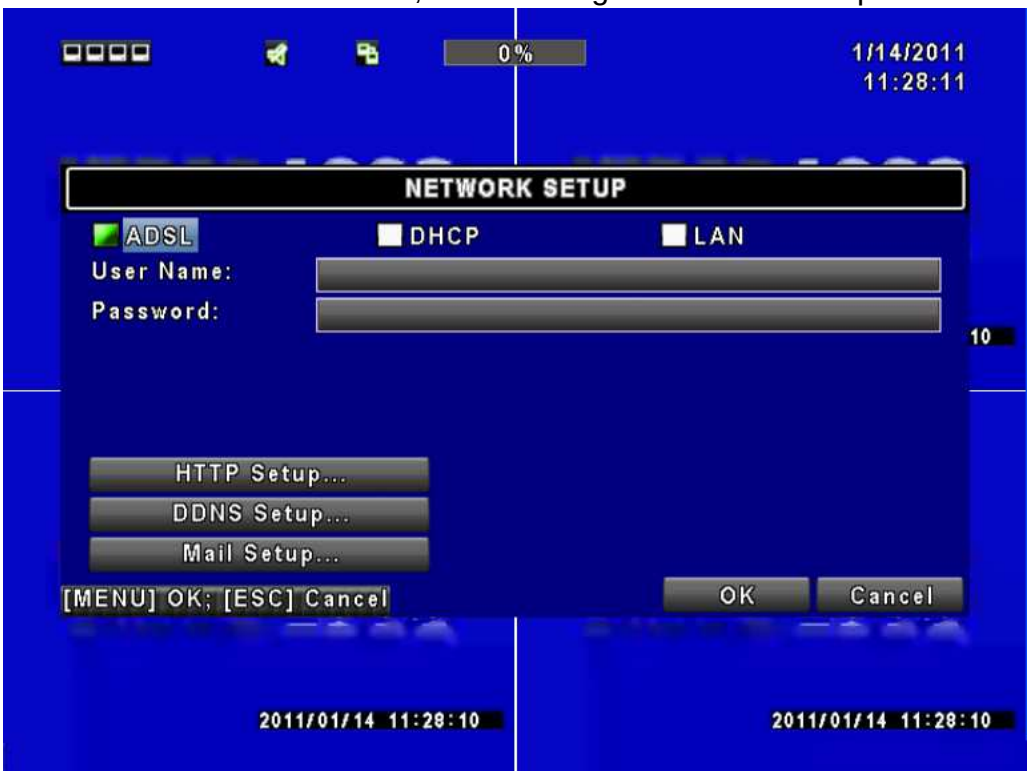


Select LAN for network connection, the following information is required.

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 Gateway provided by ISP
DNS	Enter DNS address provided by ISP. (Note: The correct DNS address must be entered for DDNS function).

4.7.1.3 ADSL

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



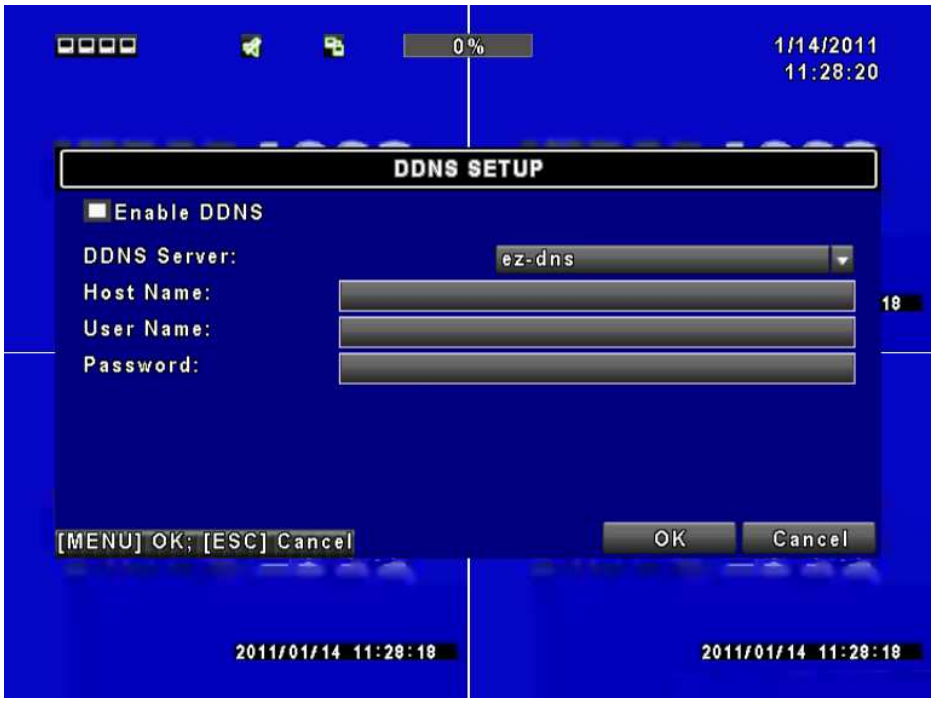
Item	Description
User Name	Enter user name provided by ISP
Password	Enter password provided by ISP

4.7.2 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 65535. The default value is 80.
Quality and Frame Rate Setup for Network Transmission	
No.	Check to activate the transmission of each camera.
Quality	Choose from Below Basic / Basic/ Normal/ High/ Highest.
Resolution	Set recording resolution. 352x240 / 176x120
FPS	Choose recording frame rate (1~30FPS).
Auto	The maximum recording frames available by the average distribution of each channel (totally 60FPS).
This video streaming is used for network transmission; setting is LQ (low quality). Under a low bandwidth capacity, this stream can send out small picture and keep a good video quality and smooth display rate. If the bandwidth is large enough, it can be adjusted to HQ (high quality). Thus, the network streaming will be switched to the condition which this DVR is recording. Therefore, a larger video image can be sent to remote site.	

4.7.3 DDNS Setup



Item	Description
Enable DDNS	Check/ Uncheck to Enable/ Disable DDNS function.
DDNS Server	Select the DDNS Server wanted.
Host Name	Enter the registered host name.
User Name	Enter user name.
Password	Enter password.

4.7.4 Mail Setup





E-mail can be used as a form of notification when an event occurs (VLOSS, MOTION, and SENSOR).

Item	Description
Enable E-mail Notification	Check the box to enable/disable E-mail Notification function.
SMTP Server	Enter to set up SMTP Server name.
Port	Default is 80. Maximum number of port is 65535.
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 sender.
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.

4.8 PTZ & RS-485 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.
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	Reserved.
RS-485 Baud Rate	
Keyboard	

4.9 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.		
Remote ID	Setting remote controller ID to match the remote code definition resrepectively to particular DVR.		
Auto Lock	After one minute without any action, the DVR will switch to *LIVE* mode automatically. Auto lock can function differently according to the setting below. Button automatically Auto Lock: The front panel function keys are ineffective only until using the mouse and please re-enter the password again.		
	Function / Setting	**Auto Logout**	**Key Lock**
	Key lock	○	○
	Key unlock	○	×
	Disable	×	×
Display Setup	Enter to set up Display		
Date/Time Setup	Enter to set up Date/Time		
Buzzer & Relay Setup	Enter to set up Buzzer & Relay		
Spot Setup	Enter to set up Spot		

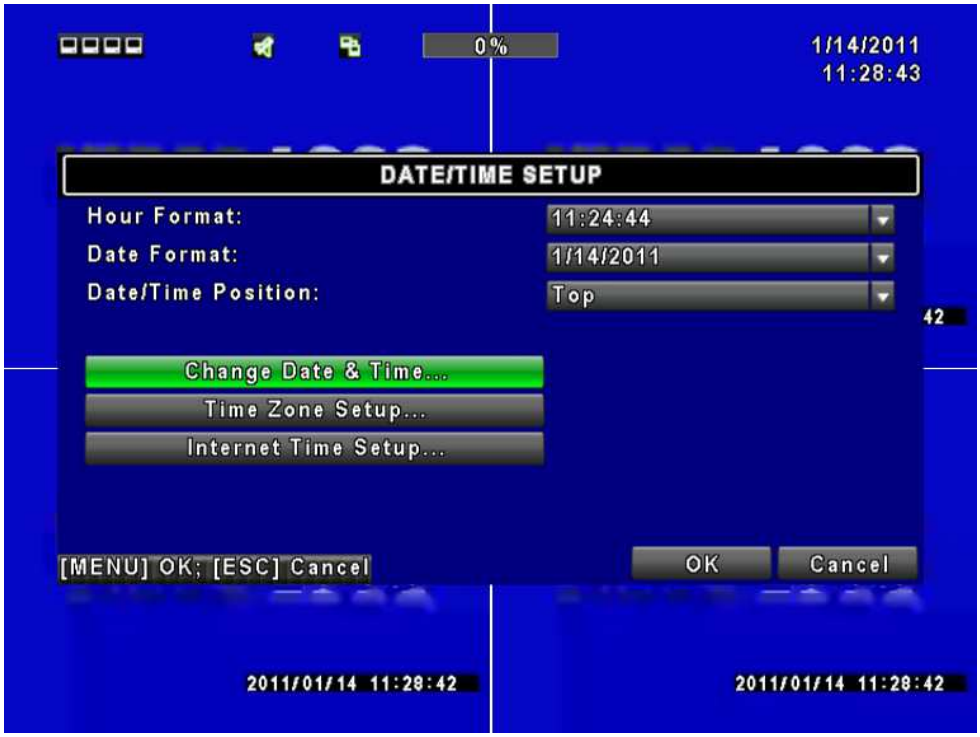
4.9.1 Display Setup



Item	Description
Auto-Seq Interval (Seconds)	Click or press ◄ ► to set up duration time in seconds for the interval between channels under Auto-Seq mode (1~999 seconds).
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
Video System	Auto / NTSC / PAL video system setting (available to 4CH & 8CH DVR)
CRT	Make the display more suitable for CRT monitor. (available to 16CH DVR)
Border Color	Set up the color of border in LIVE , PLAYBACK mode.（black, dark grey, light grey, and white）

※Time tolerance of **Auto-Seq Interval** is ±2 seconds.

4.9.2 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

4.9.2.1 Change Date & Time

Users are allowed to setup date and time of the DVR.



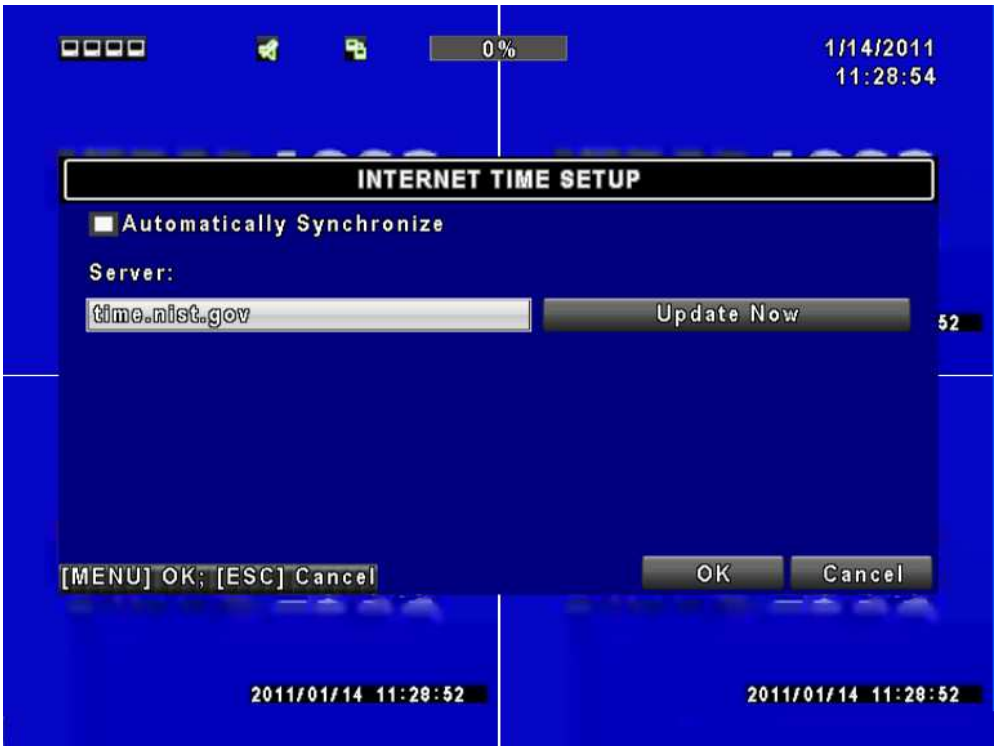
4.9.2.2 Time Zone Setup



In time zone setup, users can change the time zone and activate Daylight Saving Time function according to your 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

4.9.2.3 Internet Time Setup



Synchronize your DVR time with internet time server.

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

4.9.3 Device Setup





Item	Description
Mouse Speed	Adjust the mouse moving speed
Buzzer & Relay Setup	
Key Tone	Enable/ Disable keystrokes.
Alarm Buzzer	Enable/ Disable buzzer operation when the alarm is triggered for HDD error, sensor, motion and vloss (Video Loss).
Alarm Relay	Enable/ Disable the signal to be sent to the RELAY OUT blocks when the alarm is triggered for HDD error, sensor, motion and vloss.

4.9.4 Spot Setup



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

Item	Description
Auto-Seq. Interval (Seconds)	The duration interval time between channels is in seconds under SPOT mode (1~999 seconds).
Enable Spot	When setting “Enable Spot”, the “MAIN/SPOT” BNC terminal will be confined/restricted to Spot output port only.
Skip Video Loss Channel	Whether to skip channels without video signal.
Channels	Select which channels will be displayed in the sequence.

4.10 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 is installed in the DVR. Check the HDD you'd like to initialize, and 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 shows "Succeed".
System Recovery	Restore system default values.
Reset System Events	Reset all the recording events in the DVR.
Copy Setup to USB	Copy configuration to a USB device. There will be a file named "sdvr.config" 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.**

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

4.11 Diagnostic



Item	Description
Version	The current firmware version of DVR
IP Address	The connected IP address of DVR. If disconnected from network, the screen will display" NETWORK DISCONNECT".
MAC Address	MAC Address of DVR
HDD Volume	The capacity of HDD
HDD Used Rate	Percentage of space used on HDD.
HDD Status	Shows HDD status. **USING** means the HDD is now used for recording. **GOOD/ BAD** means the HDD has a known/ unknown format for the DVR. (Note: Please initialize your newly-installed HDD before using it, otherwise it can be recognized as BAD by the DVR).
Format Time	The latest format time of HDD

Chapter 5 SEARCH & BACKUP

5.1 Search Setup



Item	Description
Event Search	Press to enter event search menu.
Time Search	Press to enter time search menu.

5.1.1 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  icon 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.

Item	Description
Criteria	Setup conditions of the event search function
Page	Convert pages of events
Date/Time	Date/ time when the 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** : System Rebooting **HDD Full** : HDD is FULL **HDD Error** : HDD is error
Channel	The channel where the event occurred.

5.1.1.1 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 each event search, then the search result will be limited to this specific period of time. Only events and channels that are ☑ checked will be sorted in event search as well.

5.1.2 Time Search



TIME SEARCH, you can search for a specific time of the recording data to playback. Dates with recording are shown by data marked with a red square [□]. System will start playing back according to the date that you’ve 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 “**YES**”. DVR will playback the selected recording data.

5.2 Backup Setup

User can back-up any segment of recorded data in a specified time frame using USB, CD, or DVD-R/RW. To do so, for example using an USB, connect a USB flash driver to the DVR. The format of backup file is *IRF* file and a file player is also saved in the USB driver.



Item	Description
From	Backup file starting time
To	Backup file ending time
Device	Select USB, CD, or DVD-R/RW as the backup device (From remote site, the device will be PC.)
Free Space	The available space in your backup device
Refresh	Recalculate the available space of backup device
Required Space	Calculate the required size of backup file
Calculate	Calculate the size of backup file
Start	Start backup operation. **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. When backup is completed, you need to re-plug in order to insure proper function.**

Chapter 6 SPECIFICATION

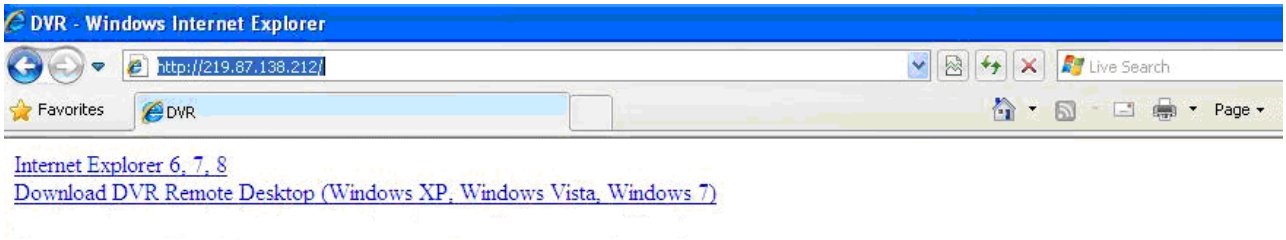
Model	4 Channels
CONNECTOR	
Video System	NTSC / PAL Auto Detect
Video Input	4CH BNC
Video Output	1CH BNC（MAIN / SPOT）
SPOT Output	1CH BNC（MAIN / SPOT）
VGA Output	1280x1024
Audio Input	1CH RCA
Audio Output	1CH RCA
Audio Backup	YES
Sensor	4 input / 1 output
RS-485	Pan / Tilt / Zoom camera
USB Port	2 ports
Mouse	USB mouse
IR Remote Controller	YES
STORAGE	
HDD Support	SATA HDD x1 (Max. 2TB)
OSD	
Display Division	1,4
Title	14 characters
RECORDING	
Video Compression	H.264
Audio Compression	ADPCM
Resolution	720x480, 720x240, 360x240 (NTSC) 720x576, 720x288, 360x288 (PAL)
Frame Rate	120, 120, 120 (NTSC) 100, 100, 100 (PAL)
Quality	Highest, High, Normal, Basic, Below Basic
Record Mode	Manual, Schedule, Event(motion detection/sensor)
Pre-Alarm Recording	16MB (around 10 sec)

Post-Alarm Recording	1-60 sec
Motion Detection	22X15 (sensitivity 0~10)
PLAYBACK	
Search Mode	Time, Event
Playback Speed	fast forward/backward 2X/4X/8X/16X/32X/64X slow forward/backward 1/2X,1/4X,1/8X play/pause
Backup Mode	USB flash driver / Network
NETWORK	
Network Compression	H.264
Network Software	Internet Explorer / CMS / 3G Mobile Phone
Network Users	5
Remote Notification	Email message
Service	TCP/IP, SMTP, DHCP, DDNS, PPPoE
OTHER	
Daylight Saving	YES
Password	5 users including 1 administrator user authority selectable
Event List	10000
Key Lock	YES
Firmware Update	USB device
Dimension	430mm (W) x 70mm (H) x 360mm (D)
Power Source	DC12V
Operating Environment	30 ~ 80% RH, 5℃ ~ 40℃ (41℉ ~ 104℉)

Chapter 7 NETWORK SURVEILLANCE

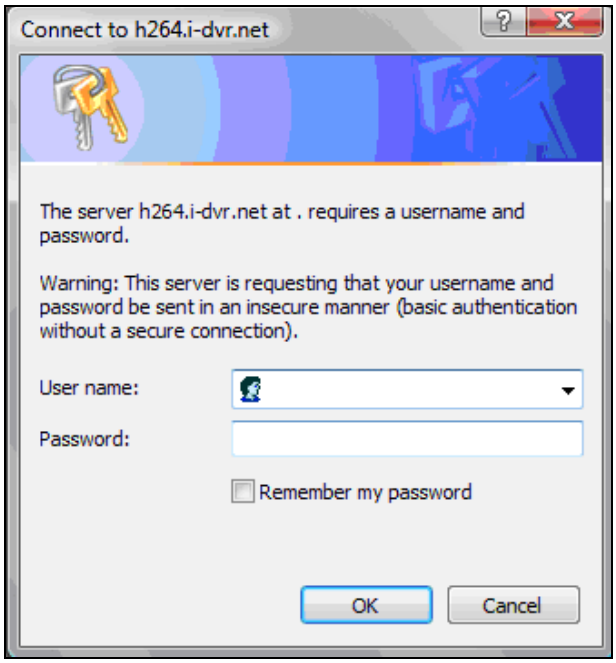
7.1 Remote Connection

Step 1：Enter the IP address of the DVR in the IE browser.

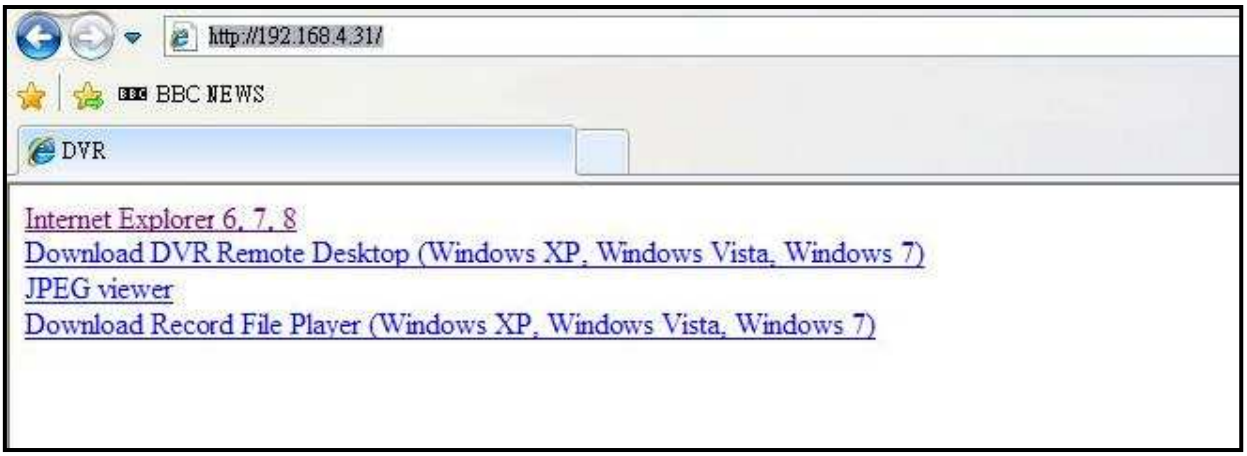


Provides two different ways of DVR connection, one is the use of Internet Explorer; the other is to download and install the software to the PC.

Step 2: A window will pop-up. Please enter the user name and password. Default user name is **admin** and password is **123456**. Other related setup about user account and password, please refer to section on **"Account Setup**".



Step 3: Remote connection option appears.



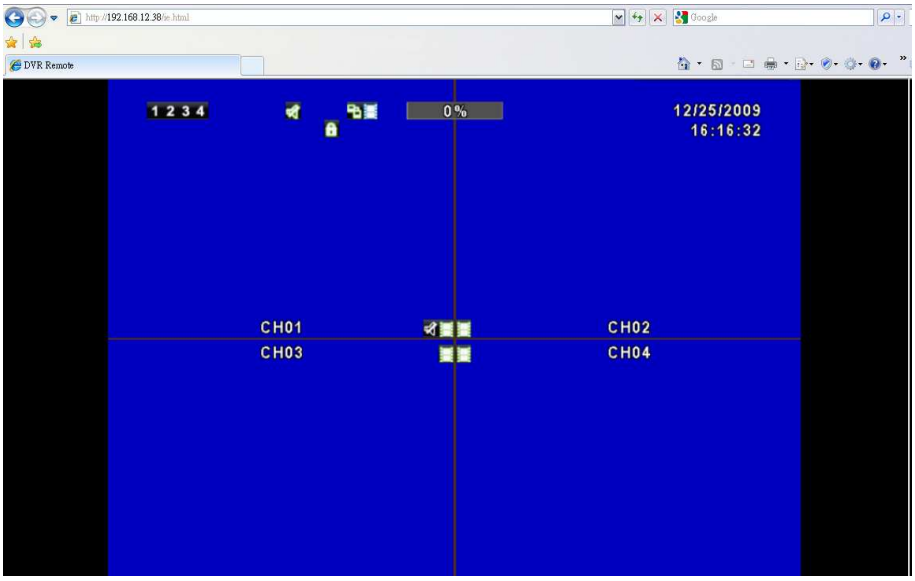
Internet Explorer 6, 7, 8:
Precede connection using Microsoft Internet Explorer.

Download DVR Remote Desktop (Windows XP, Windows Vista, Windows 7):
Continue connection operation by downloading the software and install it to the PC.

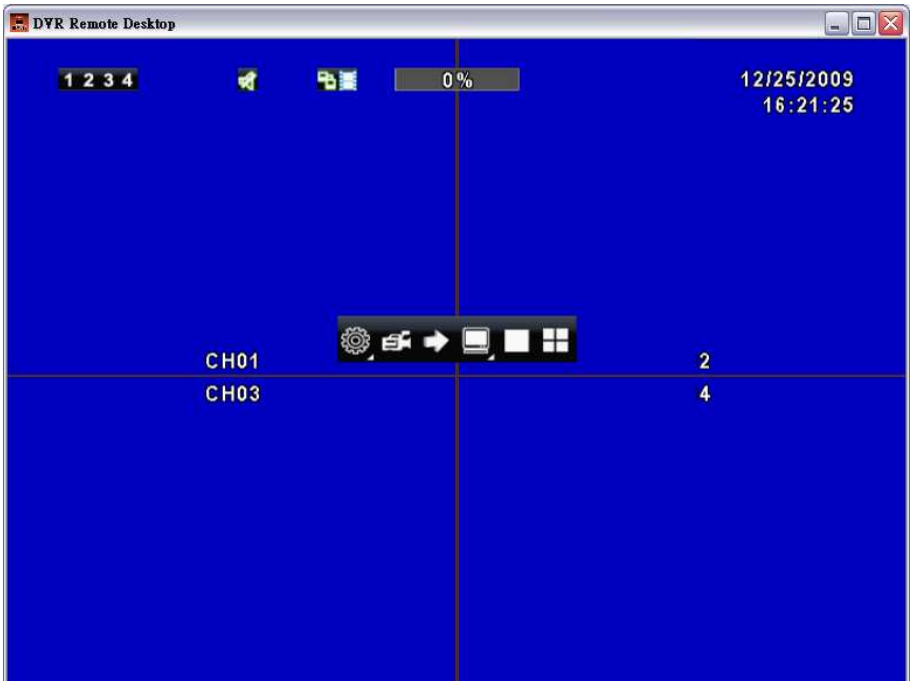
JPEG viewer: Applies only to LIVE connection monitoring.

Download Record File Player (Windows XP, Windows Vista, Windows 7):
Download software to backup playback files.

Step 4: You've logged into the DVR

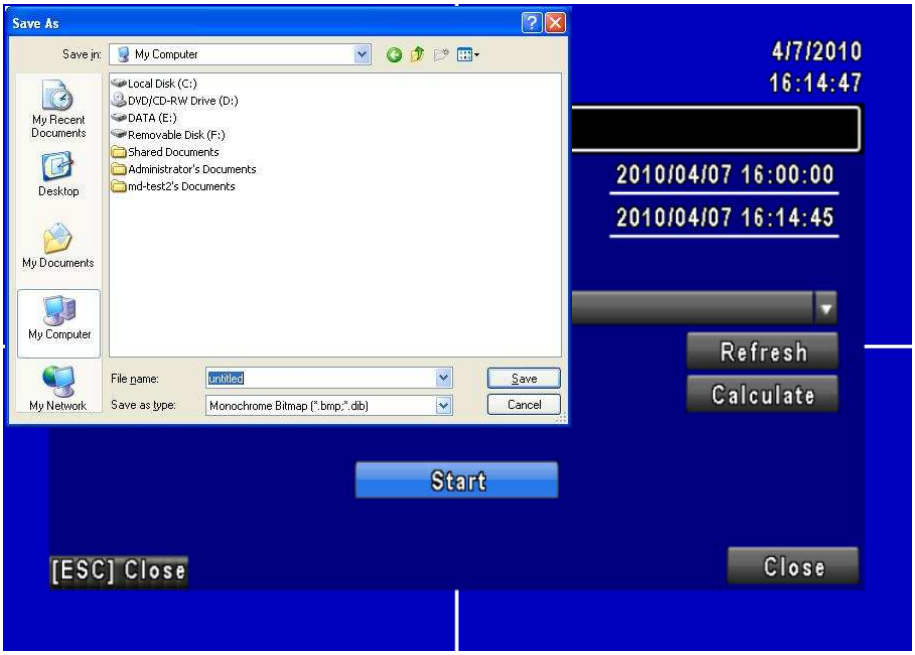


Internet Explorer



Software Application

7.2 Remote Backup



You need to select a folder location on the PC for remote backup purposes.