




— DVR —

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<p>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.</p>	
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Notice: Ghosting or fractured images may occur on the screen when there is a suddenly surge or lightning stroke which cause damage on IC in the DVRs.

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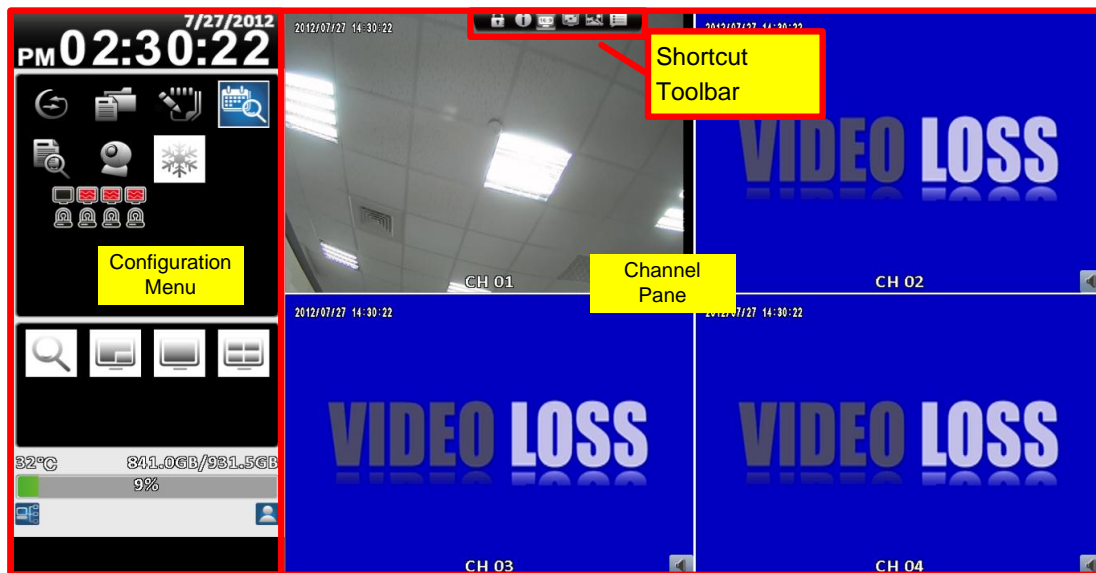
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Note : The number of channels, sensors, relays, split screen, and the resolution in the following figures are for reference. The actual screen output may be different among different models.

Chapter 1 LIVE OPERATIONS

In the live mode, you may monitor all channels of the DVR, listen to live audio from cameras, and configure the DVR. The DVR can support 4:3 and 16:9 aspect ratio of the screen layout. There is a shortcut toolbar on the top of the screen for users to logout, to access system information, to change screen aspect ratio, to make the DVR window full-screen, and to configure network stream quality. In the 16:9 mode, there are two major panes. The left one is the configuration menu and the right one is the channel pane, for video output of channels. In the 4:3 mode, a user may access the configuration pane by right-click the mouse on the screen and a channel status pane will appear when the mouse cursor in move to the bottom of the screen.



















16 : 9 display - Operation screen



4 : 3 display - Operation screen

Table 1-1 Icon description in live mode

Icon	Description
	Recording is activated
	Live audio is activated
	Live audio is not activated
	Video signal is available
	Event recording is active in this channel
	Motion detection is triggered in this channel
	Alarm is triggered in this channel. The number of available alarm depends on models.
	Alarm is not triggered in this channel
	The channel video-loss alarm has been triggered
	USB device has been detected
	DVD device has been detected
	Network connection is available
	Network connection is not available
	Displays the current user
	Displays the current disk space and usage. (The figure shows 99% of the disk space has been used, and 1% is available.). The current disk temperature is also shown.
	Local playback, remote live, remote playback, backup video, each channel shows the time stamp.

Chapter 2 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 2-1 Definition of keys of virtual keyboard








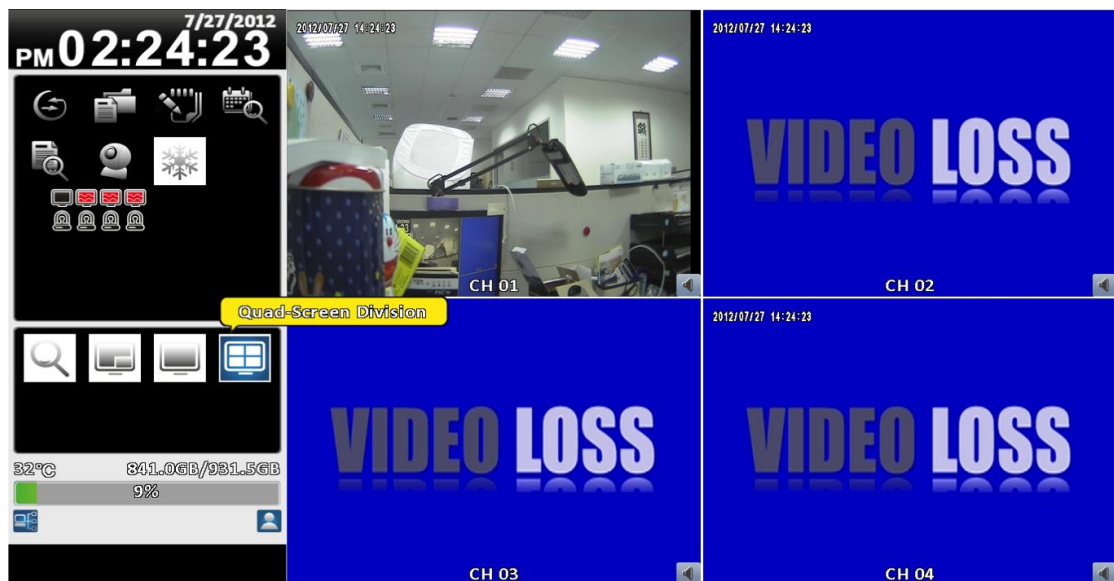
Icon	Description
 / 	Switch between capital letters and lower-case letters.
 / 	Switch between numbers and letters
	Delete the last character °
	Enter to verify the password. The setup menu shows, if the password is accepted.
	Space key

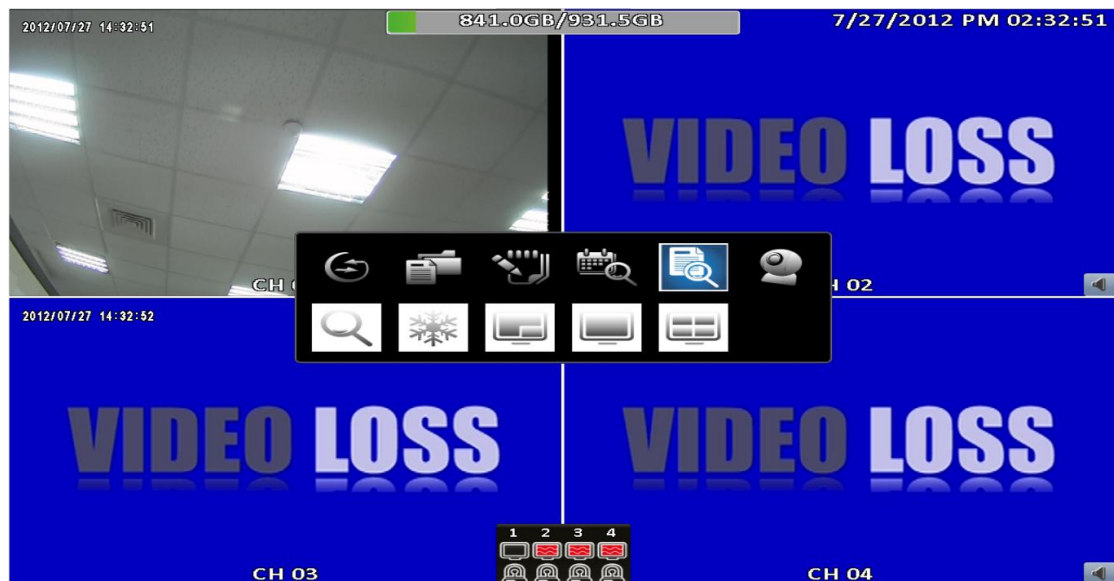
Table 2-2 Available keys on the remote control in the main menu mode

Item	Description
◀ ▶	Switch to previous or next options of an item
▲ ▼	Switch to different items
MENU	Save setup and back to the LIVE mode
ESC	Back to upper level of menu without saving
ENTER	Enter the menu, or display virtual keyboard

There are icons within the configuration pane on the live mode for operating different features of the DVR. The configuration pane is always on the left of the screen in the 16:9 mode and need to be evoked by right-click in the 4:3 mode.















16:9 display, the main menu is on the left of the screen







4:3 display, right-click on the screen to evoke the main menu.¹

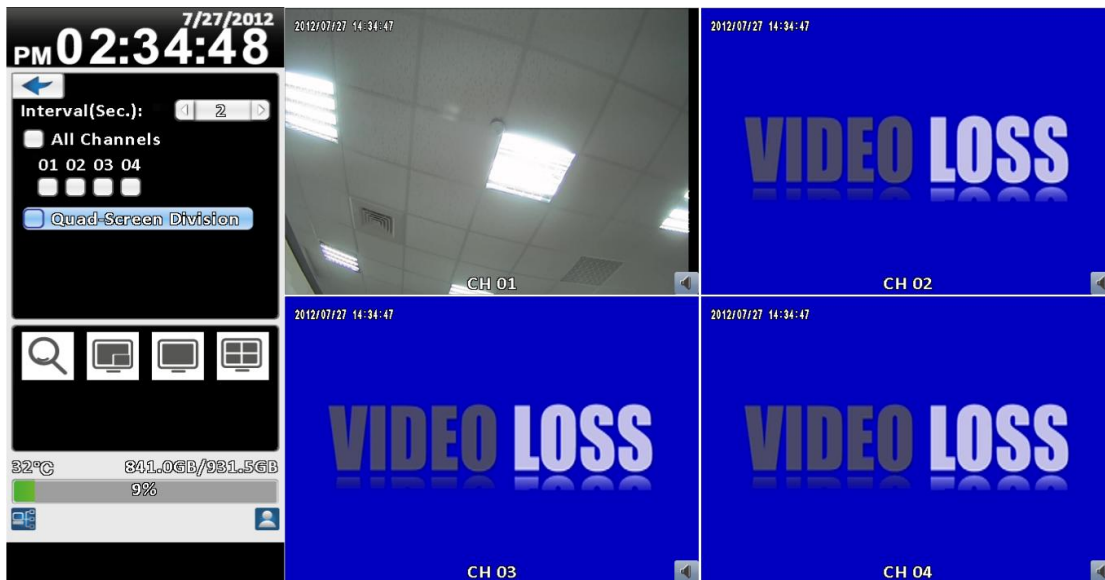
¹ Icons may be slightly different for different models

Table 2- 3 Description of icons

Icon	Description
	Auto sequential menu
	Backup menu Backup video data from DVR HDD
	Configuration menu Recording settings, event settings, camera settings, account settings, network settings, storage settings, system configuration, and information
	Time search menu Choose a specific time of the recorded video to playback
	Event search menu The list of events recorded by the DVR. The event list will show the event occurred time, event category, channel events, and other information.
	Enable PTZ mode
	SPOT mode ◦ SPOT on the second monitor
	Zoom in Enlarge video image, 2x to 8x digital zoom
	Enable image freeze function
	Disable image freeze function
	Enable/Disable PIP
	Switch to single split

	Switch to 4-split display
	Switch to 9-split display
	Switch to 13-split display
	Switch to 16-split display

2-1 Auto Sequential



16:9 display

Item	Description
Interval	In SPOT mode, the number of seconds to stay
Single Screen Division	Automatic sequential switch channel by setting the number of seconds, each channel is displayed in a single screen
Video Loss	Mask the loss channels if this option is checked.
Quad-Screen Division	Automatic sequential switch channel by setting the number of seconds, displays in quad-screen division
9-Screen Division	Automatic sequential switch channel by setting the number of seconds, displays in 9-screen division
16-Screen Division	Automatic sequential switch channel by setting the number of seconds, displays in 16-screen division

2-2 Backup

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

2-2.1 Selection

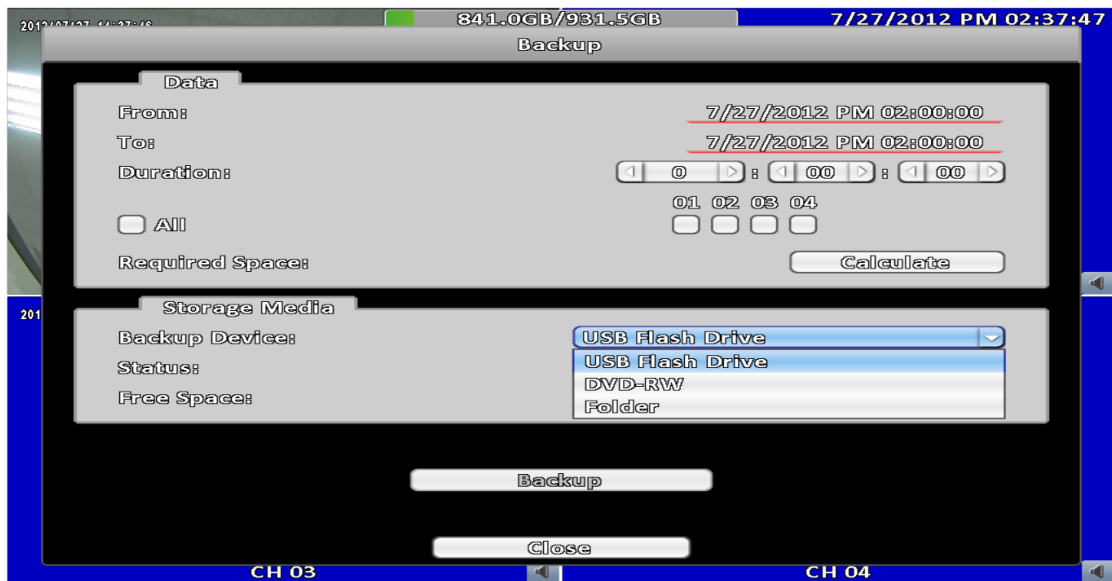
Item	Description
From	The start time of backup file
To	The end time of backup file
Duration	The time of backup file
All	It can select the desired all or part of the channel to backup
Required Sapce	Show the size of the backup file

The screenshot shows the 'Backup' configuration window. At the top, it displays '841.0GB/931.5GB' and the time '7/27/2012 PM 02:36:18'. The window is divided into two main sections: 'Data' and 'Storage Media'.
 In the 'Data' section, the 'From' time is set to '7/27/2012 PM 02:00:00' and the 'To' time is '7/27/2012 PM 03:00:00'. The 'Duration' is set to '1 : 00 : 00'. There are four radio buttons labeled '01', '02', '03', and '04', with '01' selected. An 'All' checkbox is also present. A 'Required Space:' field is followed by a 'Calculate' button.
 In the 'Storage Media' section, the 'Backup Device:' is set to 'USB Flash Drive'. The 'Status:' is 'Unplugged' and the 'Free Space:' is '0.0MB'.
 At the bottom, there are 'Backup' and 'Close' buttons. The screen also shows 'CH 03' and 'CH 04' indicators.

This screenshot is similar to the previous one but includes a date selection calendar overlay. The 'From' time is now '7/27/2012 PM 02:00:00'. The calendar shows the month of July 2012, with the 27th selected. The days of the week are labeled 'Sun', 'Mon', 'Tue', 'Wed', 'Thu', 'Fri', and 'Sat'. The numbers 1 through 31 are displayed in a grid. Below the calendar, there are time selection controls showing '14 : 00 : 00'. The 'Close' button is visible at the bottom. 'CH 03' and 'CH 04' indicators are also present.

2-2.2 Select Backup Device

Item	Description
Backup Device	Select backup device (USB/DVD-RW) ◦
Status	Backup device status
Free Space	The available space in your backup device. (not available for PC backup)
Backup	Start backup operation. Be sure to calculate the size of backup file BEFORE operating backup.



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

2-3 Configure

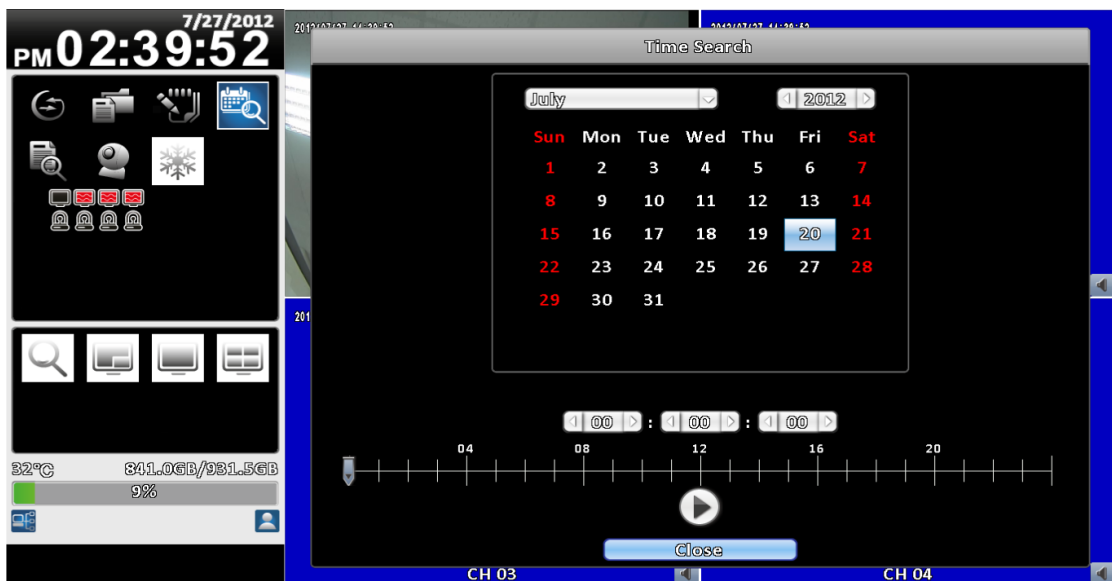
Invoke the configuration menu, recording settings, event settings, camera settings, account settings, network settings, storage settings, system configuration, and information. Please refer to chapter 3 for detail.





2-4 Time Search

TIME SEARCH can search for the specific time of recording data to playback. Note that dates with recording data are marked with a blue 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.



選項	說明
	Playback button, start playback.
	Select playback time, the timeline scale of 24 for 24 hours, by sliding the position of the cursor to the specified time, a blue box represents video data.
















Playback configuration


Table 2-4 Available keys on the remote control functions in the PLAYBACK mode

Button	Description
ENTER/ MODE	Switch to full screen or multi split 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, by each pressing of the button till the slowest limitation of the normal speed.
◀◀ / ◀	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 2-5 The mouse operation under the PLAYBACK mode.

Icon	Description
	Stop play, back to previous page
	Play
	Pause
	Fast rewind, speed 4x, 8x, 16x, 32x
	Fast forward, speed 4x, 8x, 16x, 32x
	Slow playback, speed 1/2x, 1/4x, 1/8x
	Step plaback
	Zoom-in display, 2x~8x digital zoom
	Full screen display
	Quad display
	9 screen display ²
	10 screen display ²
	13 screen display ²

² Only available on some models.

	16 screen display ²
-----------------------------------------------------------------------------------	--------------------------------

If you want to monitor single channel, please choose a channel and click left button of mouse two times.



16:9 zoomed playback screen



4:3 zoomed playback screen


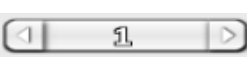

2-5 System Logs

DVR will record the event automatically. The event list will show the incident occurred at a time, event category, and channel events and other information. If

the event video recorded, there is a gray video symbol " " on the left of the date. Move the cursor to the line and press "ENTER", or left click mouse button, DVR playback this record video.

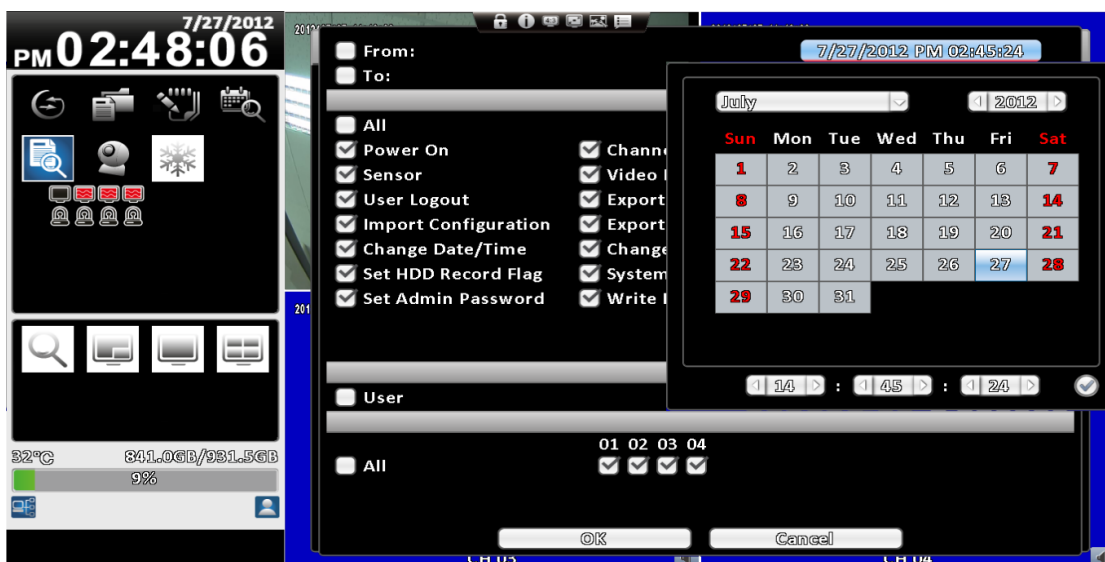


Note: If the hard disk is not installed or has not started recording, the DVR will produce the event list, but the user can not playback the video of a specific event by clicking the event.

Item	Description
Criteria	Set the conditions for the event search
	Hold down the control box and sliding the event log the number of pages to display. The right numbers will show the corresponding page numbers
	Press left and right arrow keys or enter the page number directly. It will go to the event log of the specified number of pages
	Refresh system log

2-5.1 Search Criteria

The number of event is up to thousands, therefore, to set "conditions" to facilitate rapid classification of events. If the start time and end time is checked, the event list will only display the events within the time record. If you uncheck the event and press the "OK ", the lists will only appear at this time which has been checked the event log. If you uncheck the channels, the event list will filter out uncheck the channels automatically.



2-6 PTZ Operation

Set up the camera PTZ settings in advance (refer to 3-3.1). Enter the PTZ mode, PTZ control panel will appear the camera PTZ setting. There is a red cross on the center of the screen. Move the mouse and hold down the left mouse button on the screen to move in any direction. It can control the PTZ camera in the direction.

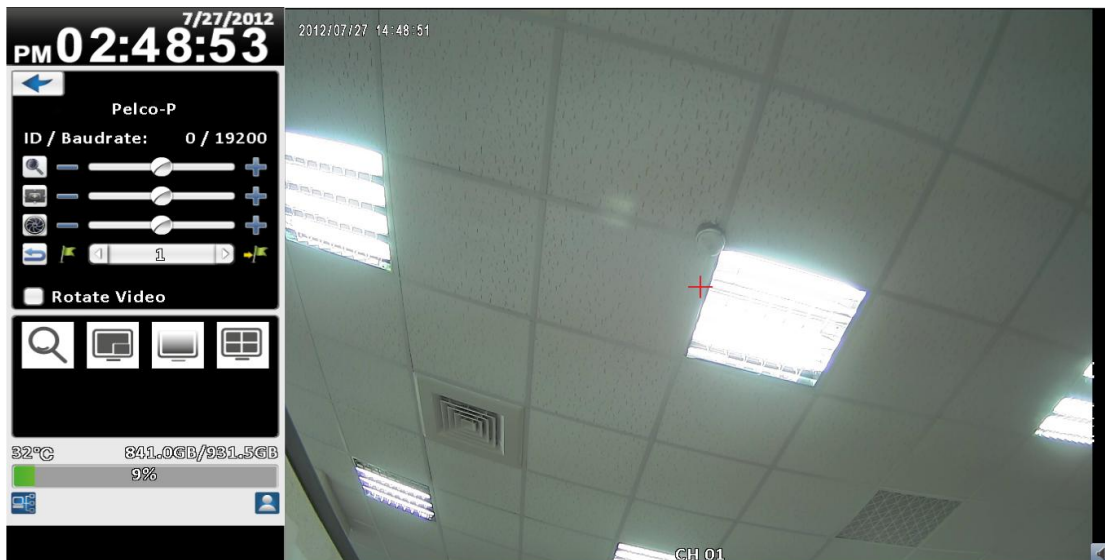












Table 2-6 Function description




Item	Description
	ZOOM. Press + / - or move  the circle to adjust the PTZ focal length
	FOCUS. Press + / - or move  the circle to adjust the PTZ focus
	IRIS. Press + / - or move  the circle to adjust the PTZ iris
	Press left and right arrow keys to select the default point number, and then press  to set the default point
	Press left and right arrow keys to the preset points, and then press forward  to the default point
Rotate Video	Male the image upside down

2-7 Zoom

Into the digital zoom mode. Using the mouse to move the red rectangle control screen showing the zoom area.

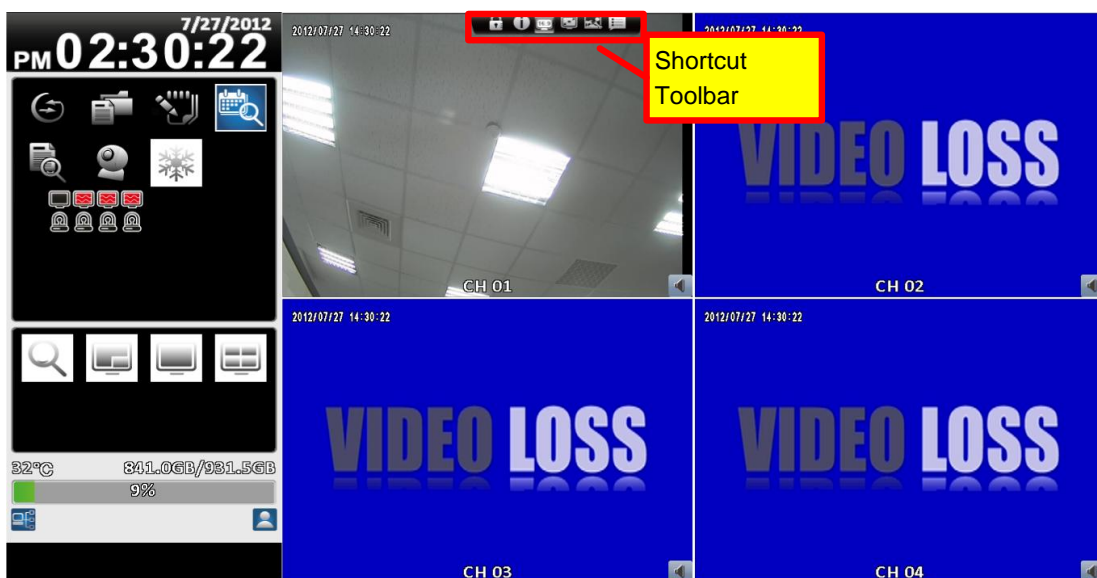


16:9 display zoom








Item	Description
	Screen enlarges range of the area circled in red rectangle.
	Screen reduces range of the area circled in red rectangle.
	Exit zoom mode

2-8 Shortcut toolbar

In live mode, describe the operation of the shortcut toolbar which moves the mouse above the window.



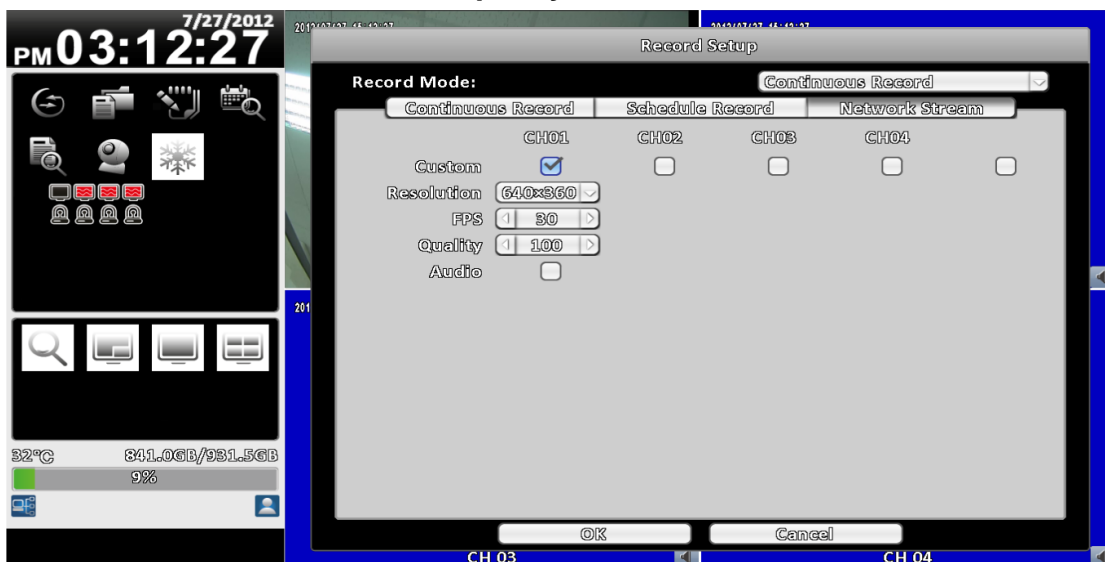
16 : 9 display

Icon	Description
	User login / out: using auto-lock
	System Information: The model name, version, IP address, MAC, and hard disk information
	Wide-screen switching: switch 4:3 / 16:9 display.
	Full screen
	Network stream quality: Adjust the video bandwidth based on PC network bandwidth
	Popup Setup: The user may change the display of the alarm window. Available options are, always show, triggered, or hide by mouse approaching the bottom of the screen.
	Dual monitor switch: The user may switch from one monitor to the other monitor. The digit on the icon shows the monitor number.

※ Note: Video recording, Full screen, Options, Network stream quality are only for remote use

※ Screenshots, Recording, Options are only for "iWcatchDVR" use, IE 7/8/9 NOT support

2-8.1 Network stream quality



Item	Description
Custom	Users may select custom to enable customization of network streams
Resolution	Resolution of network stream
FPS	How many frames per second.
Quality	Quality factor of the network stream
Audio	Mix audio into network streams.

✘ **Image fluency: depends on actual network environment**

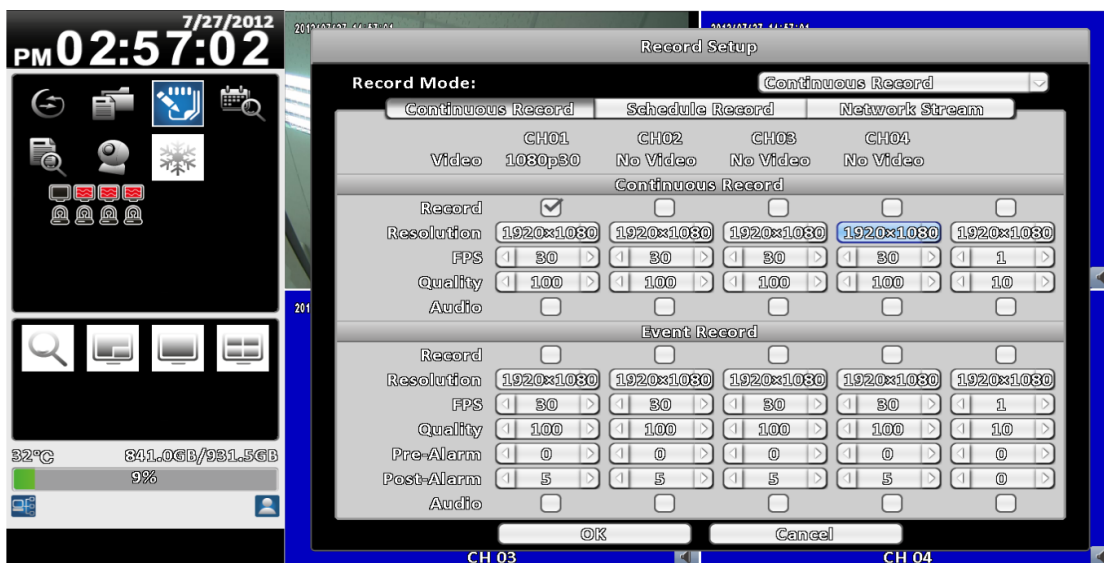
Chapter 3

CONFIGURATION MENU






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

3-1 Record Setup



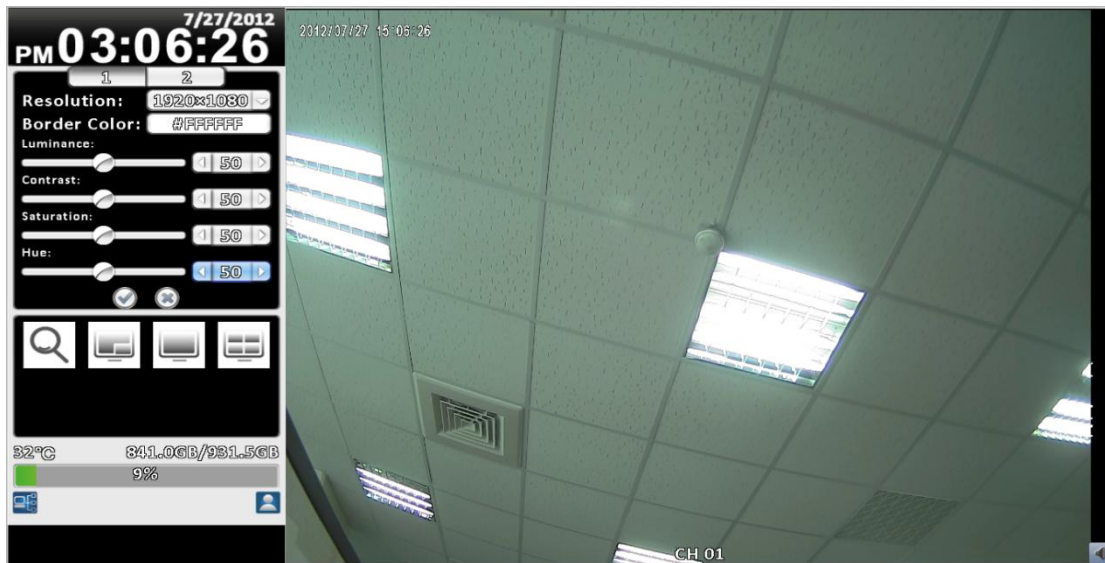
Item	Description
Record Mode	Continuous Record/ Schedule Record/ Stop Record

3-1.1 Continuous Record

Item	Description
Video	Click  icon, it will go to the image screen of this channel (below). In settings menu, press  to save, press  go

	back to the original video settings menu
Record	Enable/Disable recording for this channel
Resolution	Recording resolution selection NTSC: 352x240 · 704x240 · 704x480 PAL: 352x288 · 704x288 · 704x576
FPS	Select recording frame rate, from 1 to 30
Quality	Recording quality, from 10 to 100. The larger number the better quality
Audio	Enable/Disable recording audio

3-1.1.1 Video Settings



16:9 display video settings

Item	Description
Sharpness	Adjust sharpness from 0 to 255
Brightness	Adjust brightness from 0 to 255
Contrast	Adjust contrast from 0 to 255
Saturation	Adjust saturation from 0 to 255
Hue	Adjust hue from 0 to 255
Volume	Adjust volume from 0 to 255

3-1.1.2 Event Recording

Item	Description
Record	Enable/Disable recording for this channel
Resolution	Recording resolution selection NTSC: 352x240 · 704x240 · 704x480 PAL: 352x288 · 704x288 · 704x576

FPS	Select recording frame rate, from 1 to 30
Quality	Recording quality, from 10 to 100. The larger number the better quality
Pre-Alarm	Set the playback seconds before the event, from 0 to 5.
Post-Alarm	Set the playback seconds after the event, from 0 to 100
Audio	Enable/Disable recording audio

3-1.2 Schedule Recording

Schedule recording can configure recording time by week and time. Provided A, B, C, D four settings, users can set different recording in accordance with the configuration requirements. In the week and time grid map, select the schedule time zone, and then press A, B, C, D one of the buttons to specify the video settings.



3-1.2.1 Configuration



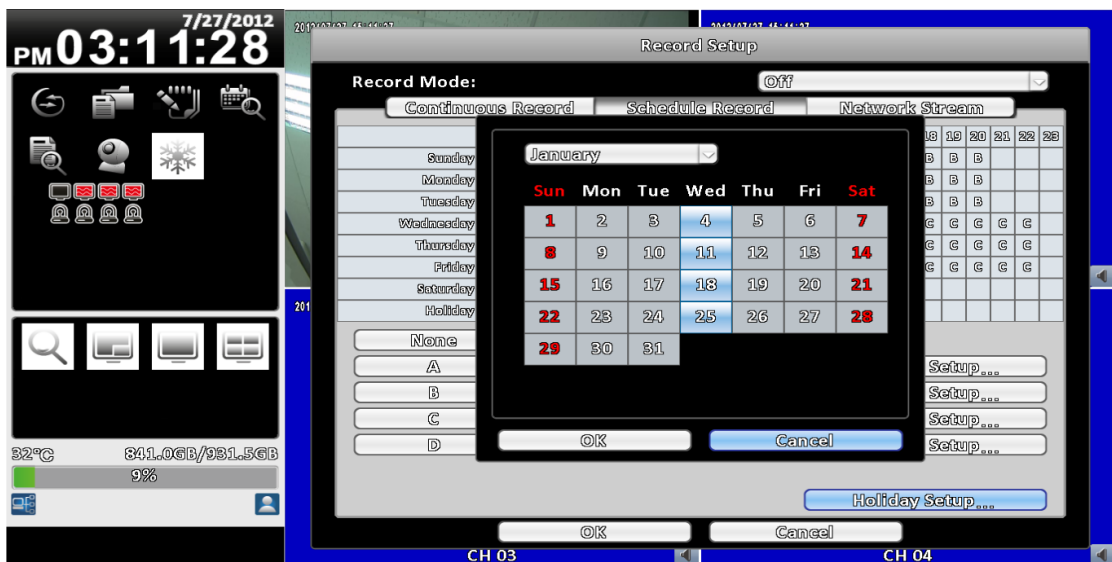
Item	Description
Name	Change the recording name of the channel

For the rest, please refer to 3-1.1 Continuous Record

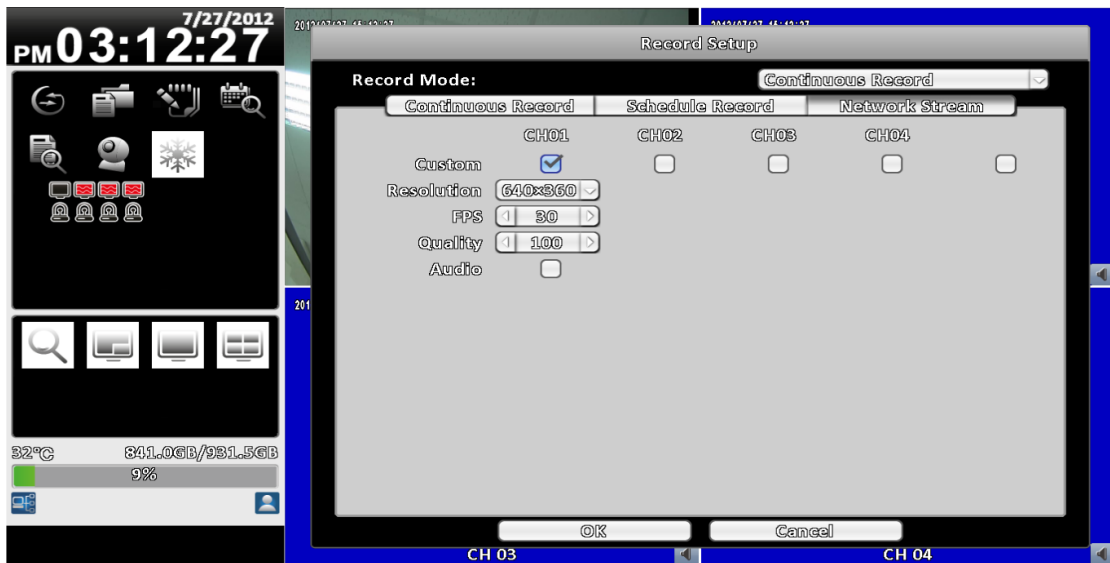
3-1.2.2 Holiday Configuration

The number of holiday is up to 50. When the time comes to specify the holidays, it will record by holiday configuration.

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



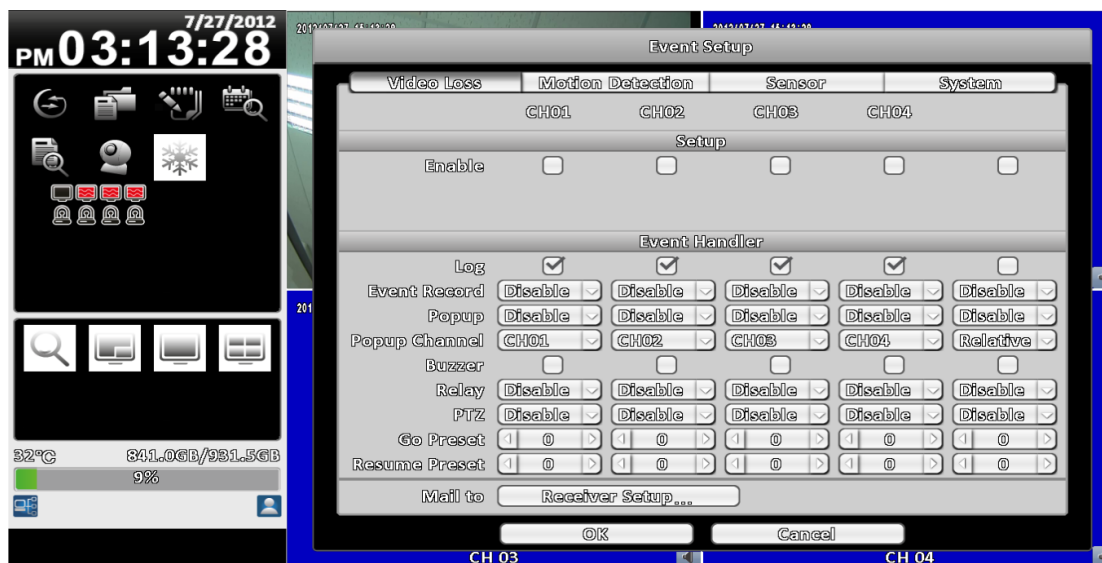
3-1.3 Network Stream



Item	Description
Record	Enable/Disable recording the network stream for this channel
Resolution	Recording resolution selection NTSC for HD Channel: 640x360, 320x180 NTSC for D1 Channel: 352x240, 176x240, 176x120 PAL: 352x288, 176x288, 176x144
FPS	Select recording frame rate, from 1 to 30
Quality	Recording quality, from 10 to 100. The larger number the better quality
Audio	Enable/Disable recording audio

3-2 Event Setup

3-2.1 Video Loss



3-2.1.1 Configuration

Item	Description
Enable	Enable/Disable video loss detection function

3-2.1.2 Event Handling

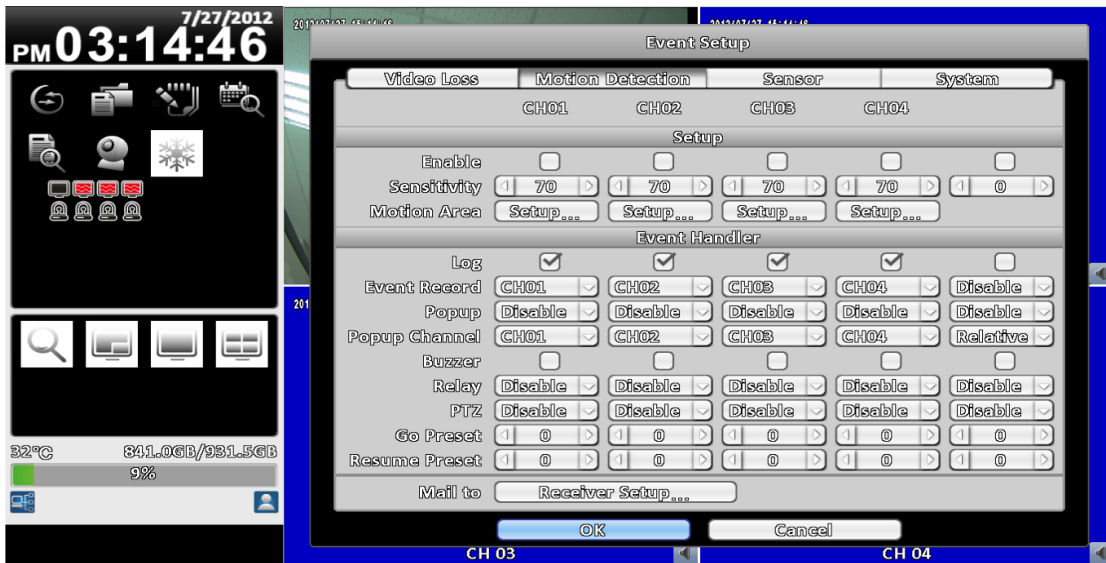
Item	Description
Log	Event occurs, whether written to the event log
Event Record	Select channel for event recording when event occurs. The video setup corresponds to the "Configuration → Recording Settings → Event Video Recording" (refer to 3-1-1-2 Event Record)
Popup	In live mode, if motion detection is detected, it will pop up the channel full screen. You can specify a warning window display. 1: the main screen, 2: the second screen
Popup Channel	Event occurs, pop up the channel display
Buzzer	Event occurs, whether to activate the buzzer
Relay	Event occurs, to activate the relay.
PTZ	Event occurs, the display switches to the PTZ.
Go Preset	Event occurs, the display switches to the PTZ preset point, values from 0 to 255.
Resume Preset	After event, the display switches to the PTZ preset point, values from 0 to 255.

3-2.1.3 Receiver Setup



Item	Description
Enable	Event occurs, whether enable send e-mail notifications.
Admin / Users	To activate the selected account

3-2.2 Motion Detection

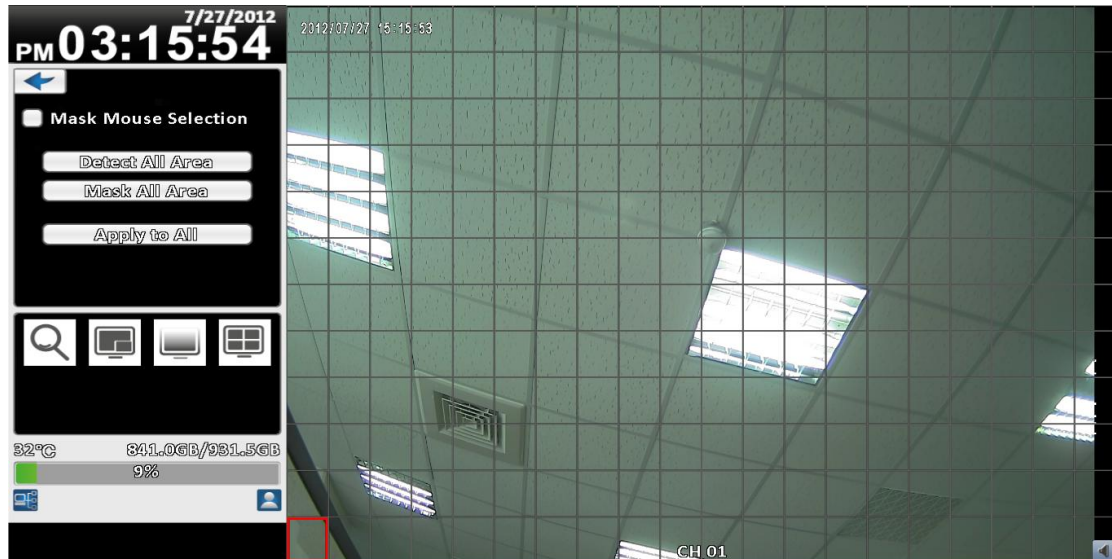


3-2.2.1 Configuration

Item	Description
Enable	Enable/Disable the motion detection function of this channel
Sensitivity	Value from 0 to 100 for each channel. The higher value you set the higher sensitivity it will be.
Motion Area	Enter to setup motion detection area

3-2.2.1.1 Motion Area Setup

The motion detection has been divided into 22x18 grids. The default detection area is full screen as it marked in transparent for local DVR and purple for remote access. Areas deselected not for motion detection are marked in grey for both local and remote site.



16 : 9 display

Item	Description
CH01~CH16	Select channel for motion detection
Mask Mouse Selection	Switch between “select” and “deselect” for cursor-dragging function
Detect All Area	Select entire screen as detection area.
Mask All Area	Deselect entire detection area.
Apply to All	Apply the current settings to all channels
Exit	To leave and save settings, and back to motion detection menu.
Close	To leave and save settings

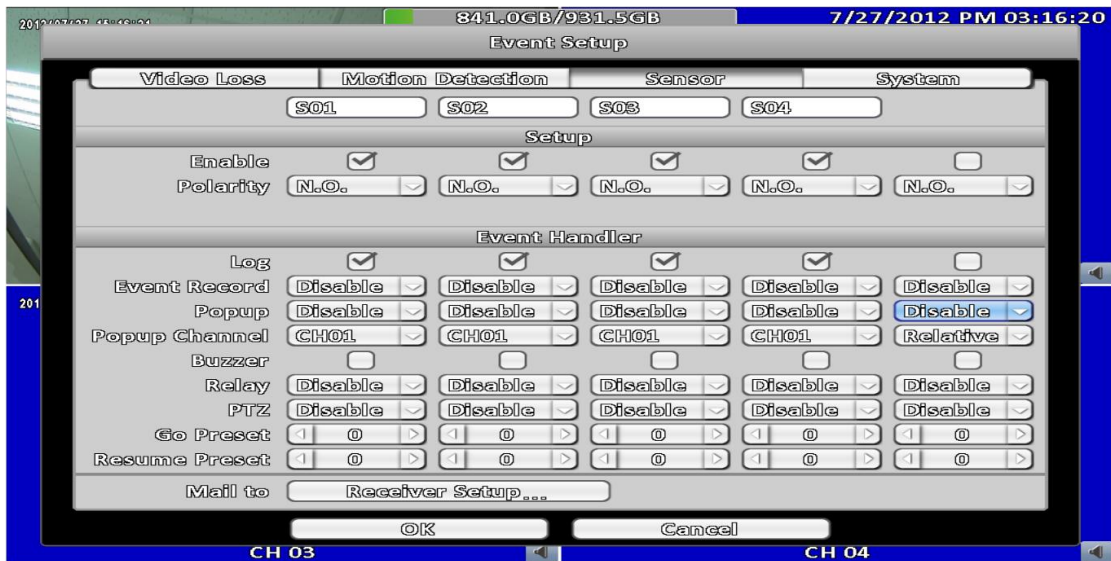
3-2.2.2 Event Handling

Please refer to 3-2.1.2 Event Handling

3-2.2.3 Receiver Setup

Please refer to 3-2.1.3 Receiver Setup

3-2.3 Sensor



※The name of each sensor can be modified to any languages remotely

3-2.3.1 Configuration

Item	Description
Enable	Enable/Disable sensor
Polarity	N.C: Sensor has not been triggered. When connected, sensor will be turned on
	N.O: Sensor has been triggered. When connected, sensor status will be turned off

3-2.3.2 Event Handling

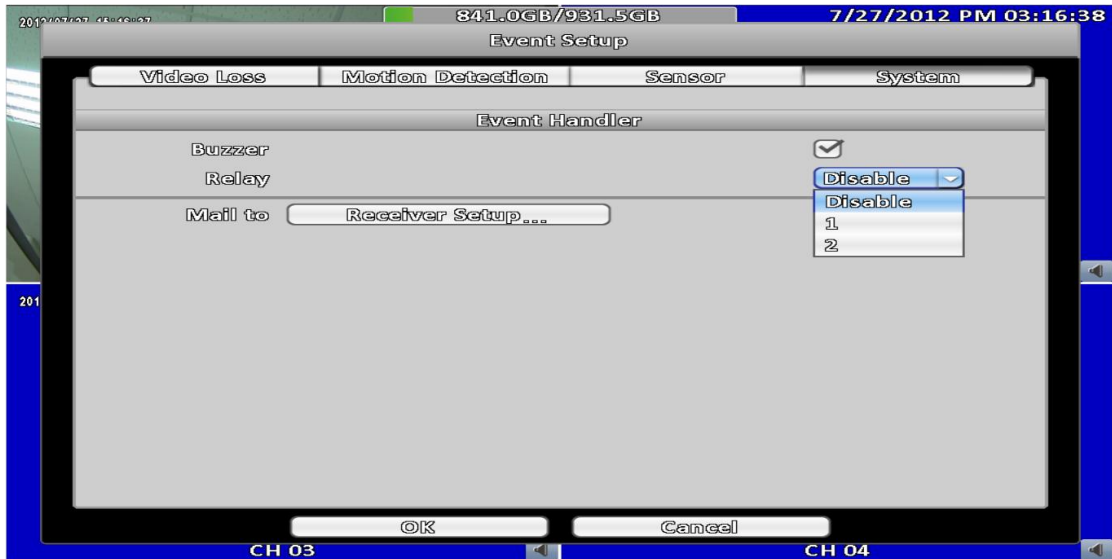
Please refer to 3-2.1.2 Event Handling

3-2.3.3 Receiver Setup

Please refer to 3-2.1.3 Receiver Setup

3-2.4 System

When the system event occurs, give a notice or warning by the settings of relay and e-mail. If the buzzer is enabled, only an error in the video (such as hard drives can not write or not install the hard drive), it will continue to sound the alarm. Other system events (such as login, log out or boot, etc.) will not respond.

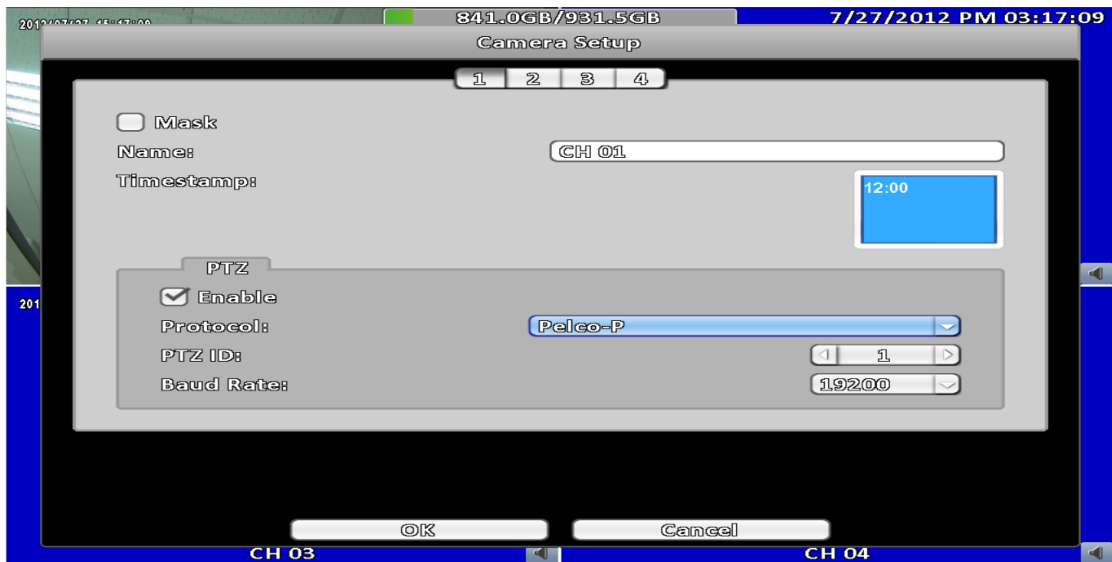


Item	Description
Buzzer	Enable buzzer alarm when recording error
Relay	When system event occurs, whether enable relay

3-2.4.1 Receiver Setup

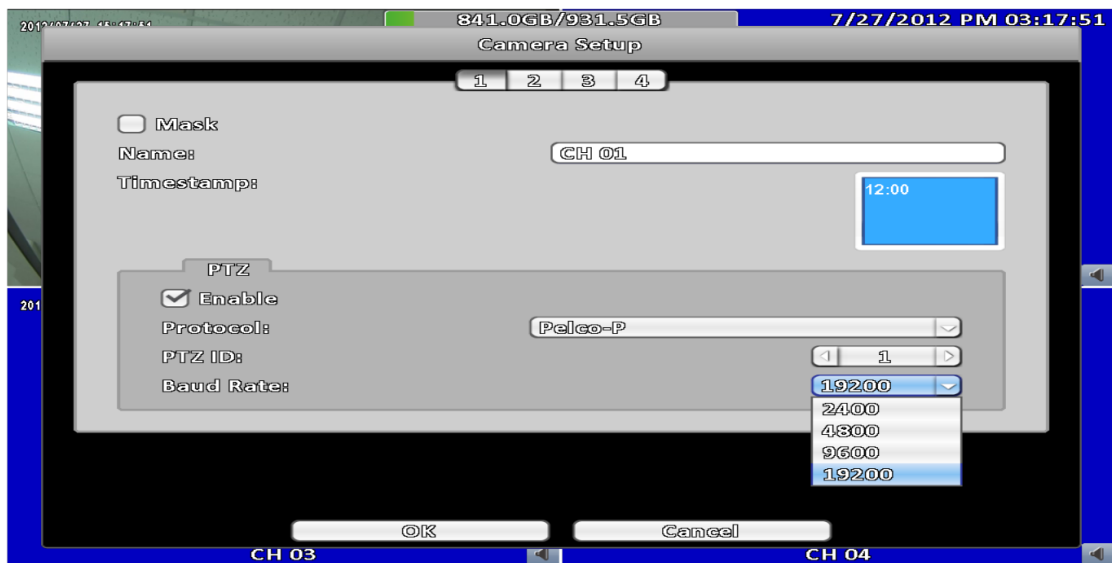
Please refer to 3-2.1.3 Receiver Setup

3-3 Camera Setup



Item	Description
Mask	Check the box to Enable/Disable mask function for LIVE mode
Name	Channel name
Timestamp	Click on the right screen to set position

3-3.1 PTZ Setup



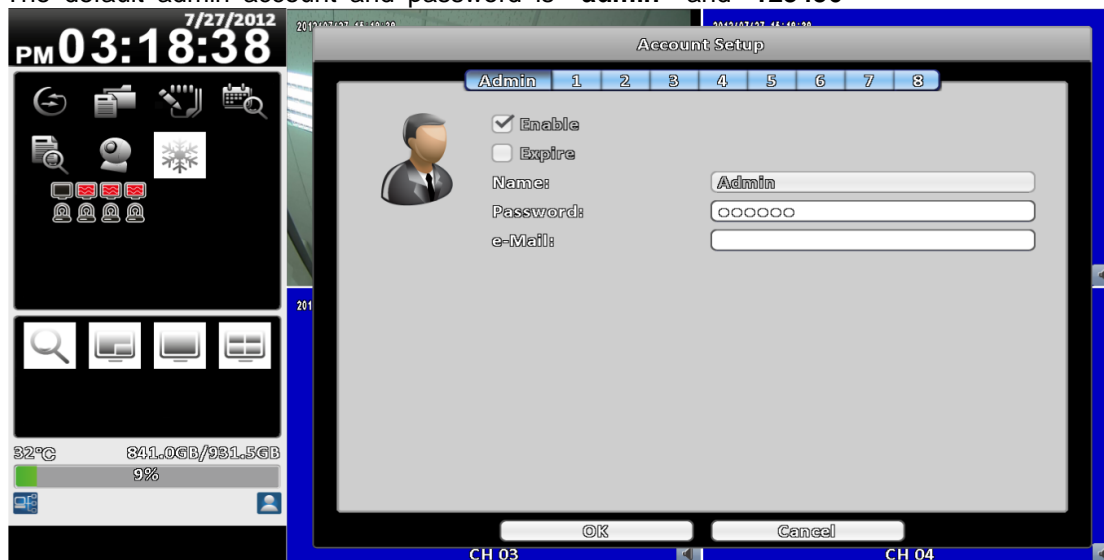
Item	Description
Enable	Click the box to Enable/Disable PTZ function.
Protocol	Set up the protocol of PTZ cam. The supported protocol are: PELCO-D 、 PELCO-P 、 Merit LiLin 1 、 Merit LiLin 2 、 SAMSUNG 、 LG-MultixE
PTZ ID	Set up PTZ ID. The valid ID value is from 0 to 255.
Baud Rate	Select Baud Rate for PTZ from 2400, 4800, 9600,19200

3-4 Account Setup

You can set the user password and permissions in 9 groups. DVR local operation, remote applications login DVR, CMS login DVR, mobile device application software login DVR, you can log in by these accounts to distinguish between different permissions.

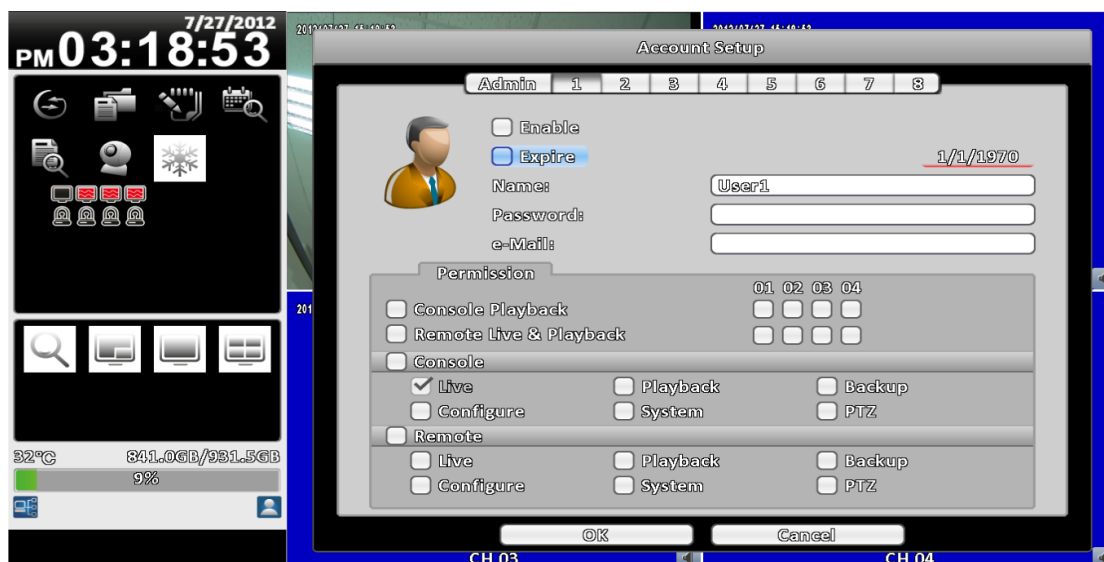
3-4.1 Administrator

The default admin account and password is “admin” and “123456”



Item	Description
Enable	Check to activate the user's account.
Expire	Enable and set the user account is valid, expired can not login
Name	Set up username
Password	Set up password for each user Password can be mixed by letters and numbers with case-sensitive. Letters can be mixed with capitals or lowercases.
e-Mail	Set up user email

3-4.2 Other Users



Item	Description
Enable	Check to activate the user's account.
Expire	Enable and set the user account is valid, expired can not login

Name	Set up username
Password	Set up password for each user Password can be mixed by letters and numbers with case-sensitive. Letters can be mixed with capitals or lowercases.
e-Mail	Set up user email

3-4.2.1 Permission

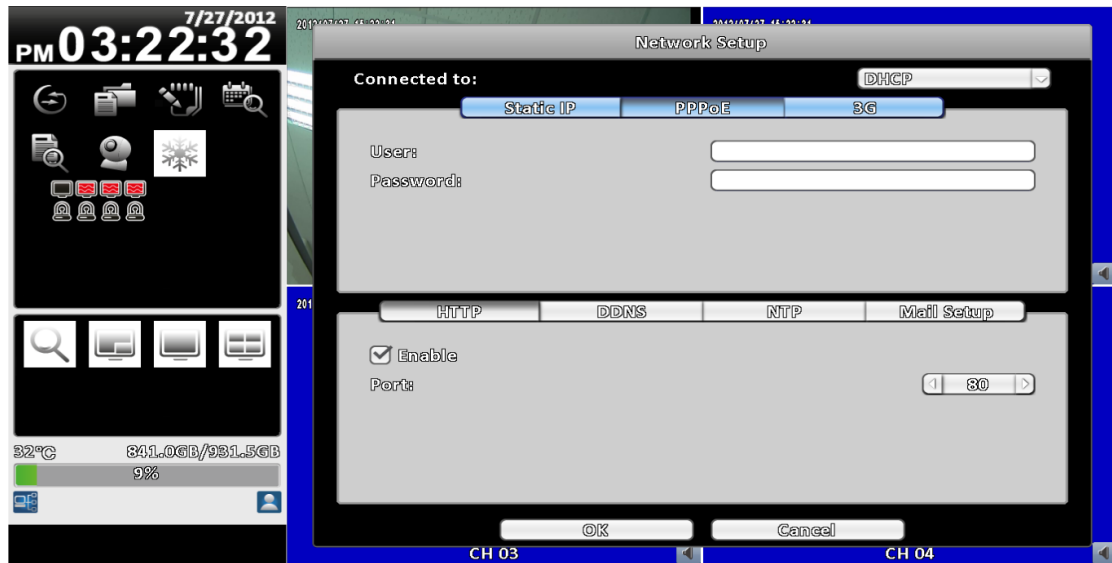
The Account Setup is set to provide individual user role-based permissions, including access to Setup menu, Network operation, PTZ function, Playback, Utility, Backup, Password expiry date and Mask on specific channels while playing back.

Item	Description
Console Playback	Select the permissions to playback channel in local side
Remote Live & Playback	Select the permissions to live monitor/playback channel in remote side
Console	Select the permissions to operate in local side (Live, Playback, Backup, Configure, System, PTZ)
Remote	Select the permissions to operate in remote side (Live, Playback, Backup, Configure, System, PTZ)



※ Be sure to check the option respectively in the local, remote permission

3-5 Network Setup



Item	Description
Connected to	Setup mode for network connection: (DHCP · Static IP · PPPoE · 3G)
DHCP	IP address will be assigned by DHCP server automaticall
Static IP	Enter to set up Static IP
PPPoE	Enter to set up PPPoE
3G Setup	Enter to set up 3G
HTTP Setup	Enter to set up HTTP
DDNS	Enter to set up DDNS
NTP	Enter to set up NTP
Mail Setup	Enter to set up mail

3-5.1 Networking Setup

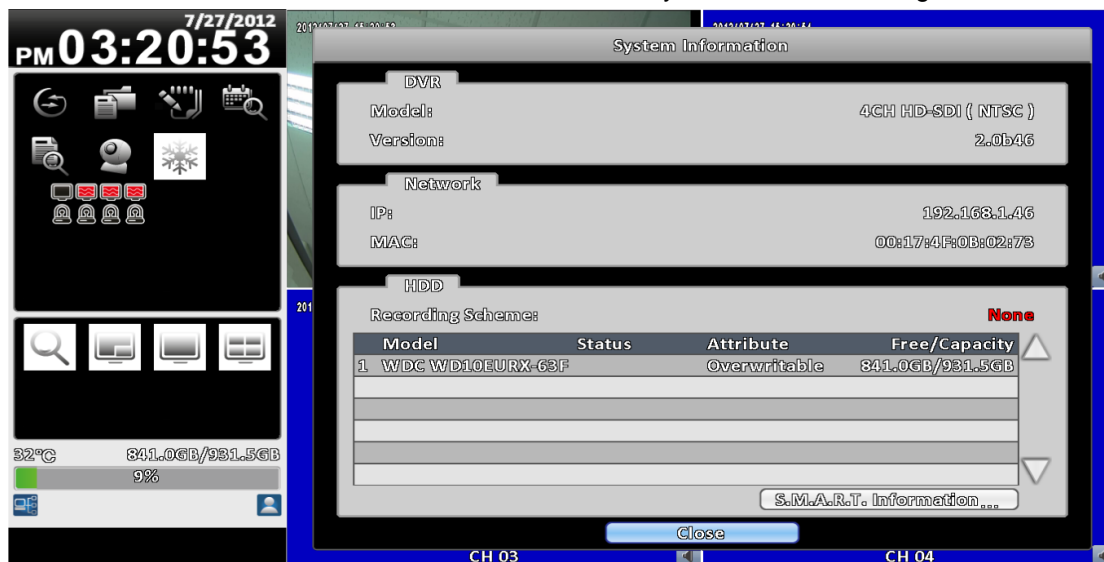
There are three ways to connect to the network as followed.

3-5.1.1 DHCP Setup

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

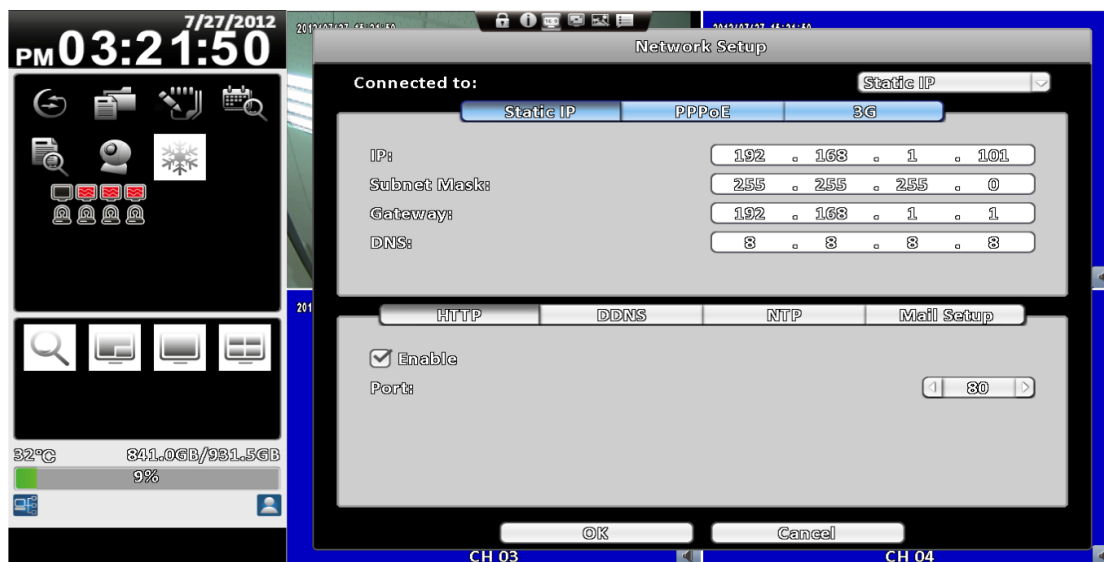
Notice: The IP address shown in this page is not the IP address obtained from the DHCP server.

The IP obtained from the DHCP server is shown in the System Information Page.



3-5.1.2 Static IP Setup

Select Static IP for network connection, the following information is required.



Item	Description
IP	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

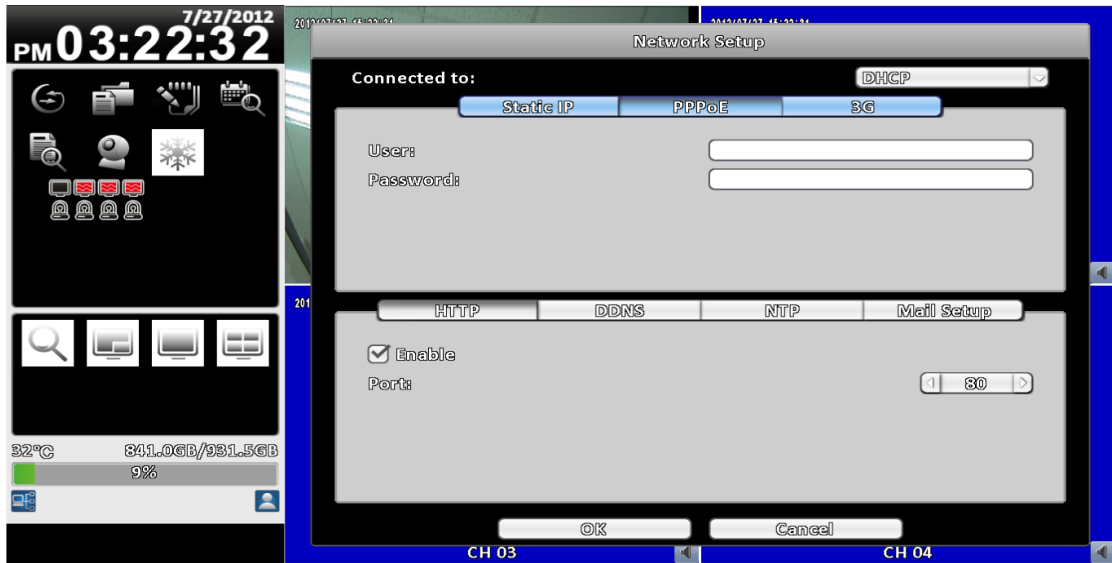
DNS

Enter DNS address provided by ISP.

(Note: The correct DNS address must be entered for DDNS function).

3-5.1.3 PPPoE Setup

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

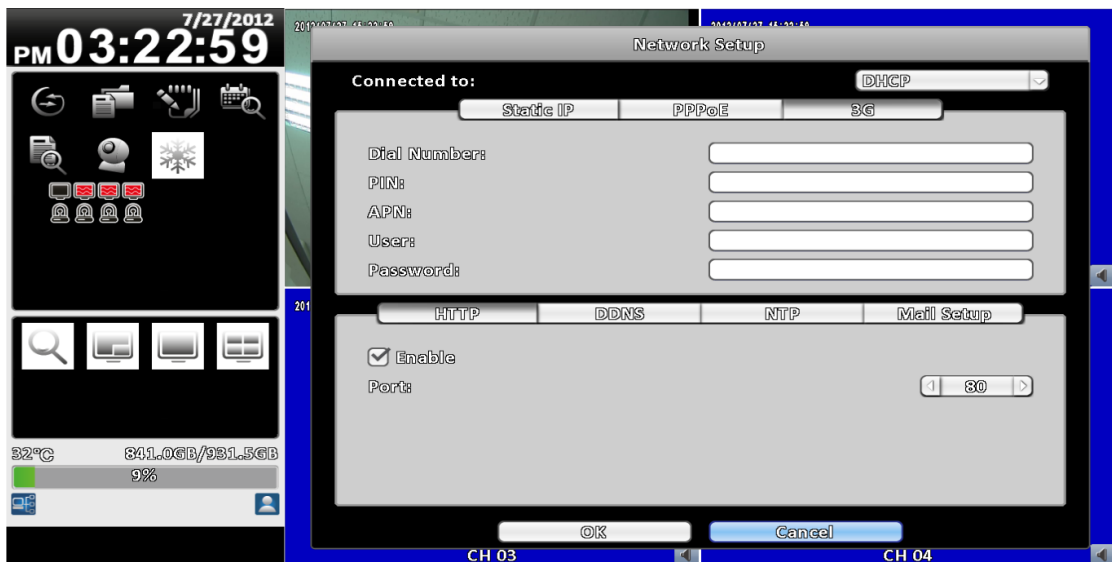


Item	Description
User	Enter user name provided by ISP
Password	Enter password provided by ISP

3-5.1.4 3G Setup

Using the USB wireless card and a 3G mobile phone SIM card network services to link the network

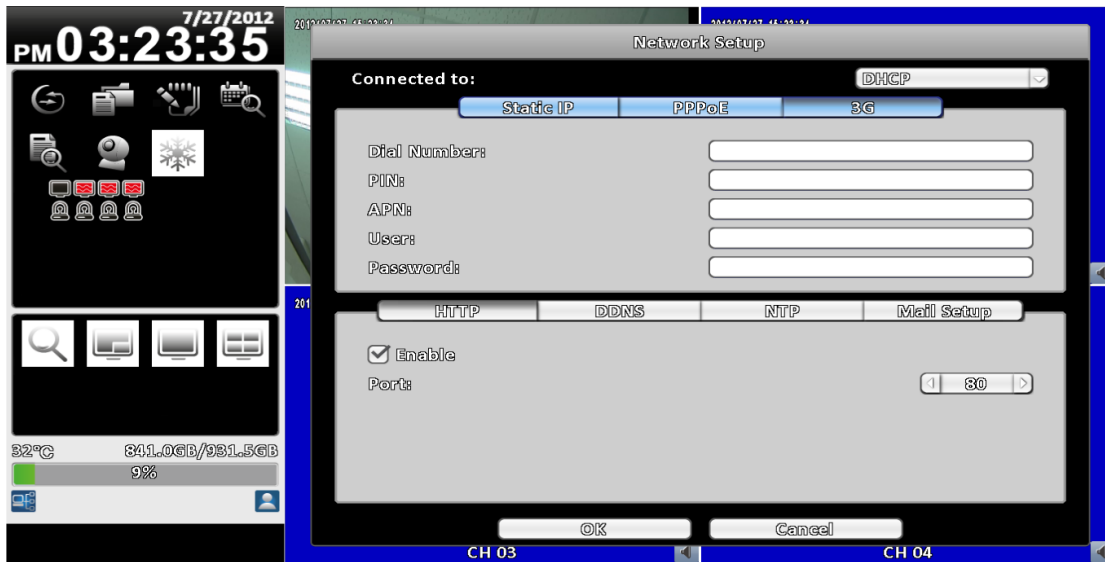
PS: only specific chip of 3G dongle is supported and the 3G diap-up features may not be compatible to some ISPs.



Item	Description
Dial Number	Dial-up Number · Determined as the ISP
PIN	Enter SIM card password

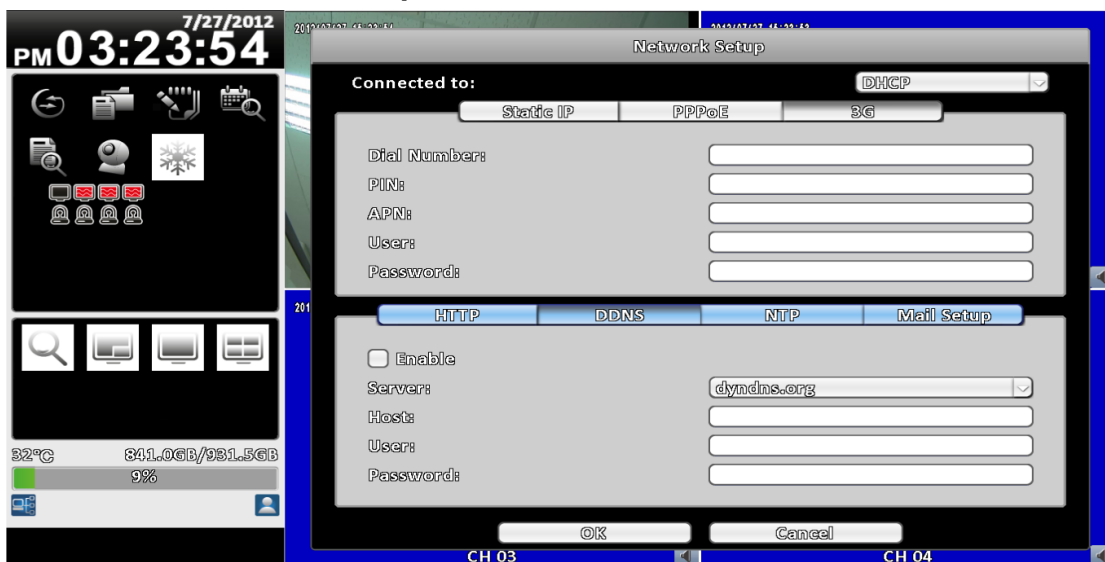
APN	Enter "internet"
User	Enter ISP username
Password	Enter ISP password

3-5.2 HTTP Setup



Item	Description
Enable	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

3-5.3 DDNS Setup



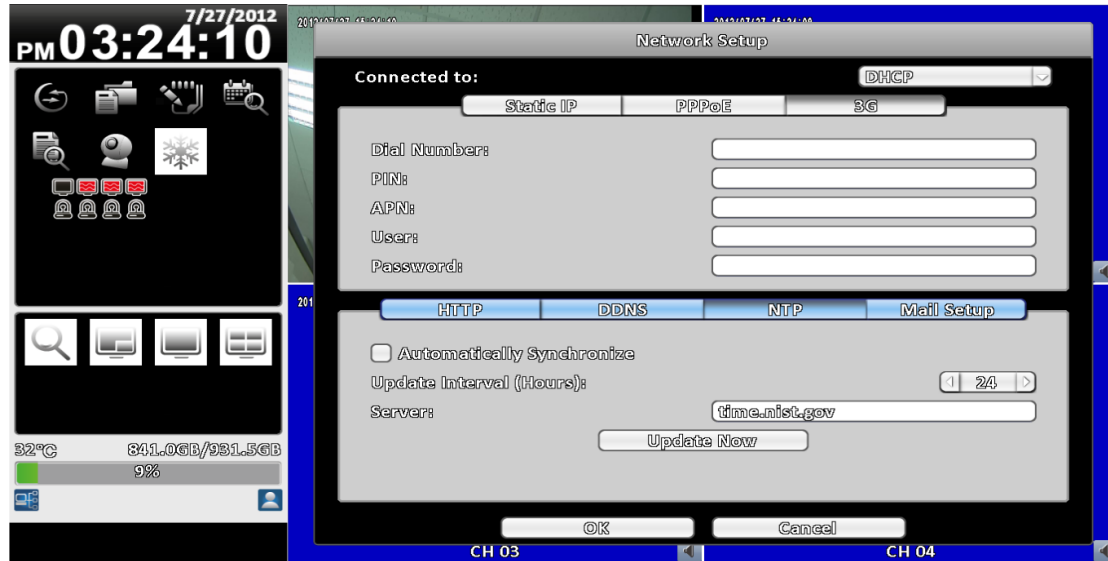
Item	Description
Enable	Enable/disable DDNS function.
Server	Enter the registered SMTP Server: ez- dns.com \ i-dvr.net \ dyndns.org

Host	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	Enter user name.
Password	Enter password.

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

3-5.4 NTP Setup

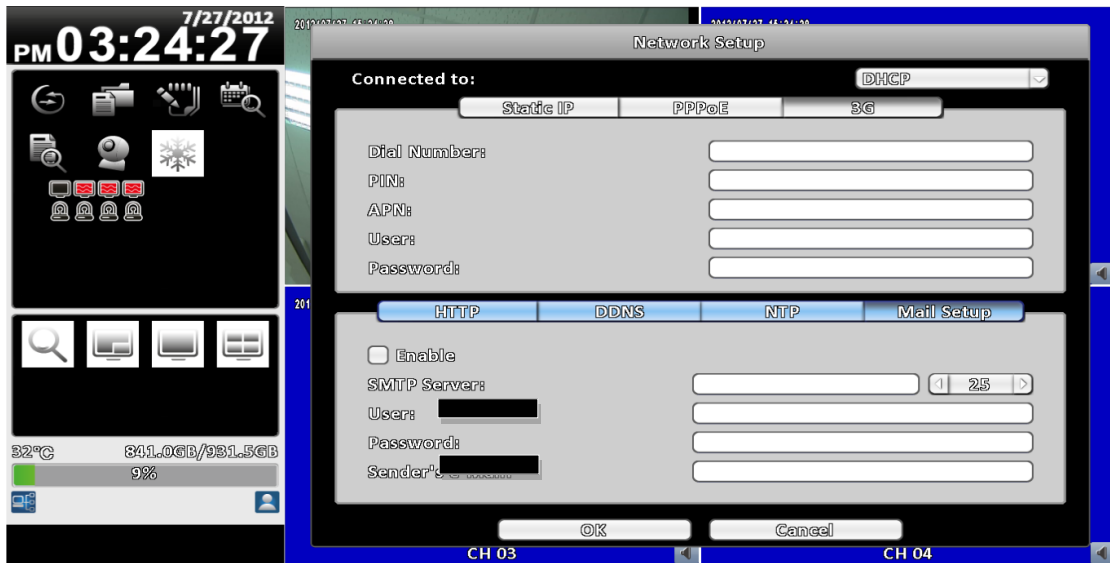
Setup DVR time and network time synchronization.



Item	Description
Automatically Synchronize	Check to enable DVR automatic synchronization function when rebooting
Update Interval (Hours)	Setup interval for time synchronization
Server	Setup time server address
Update Now	Effectively, Date and Time show on DVR will immediately correspond with those in internet server

3-5.5 Mail Setup

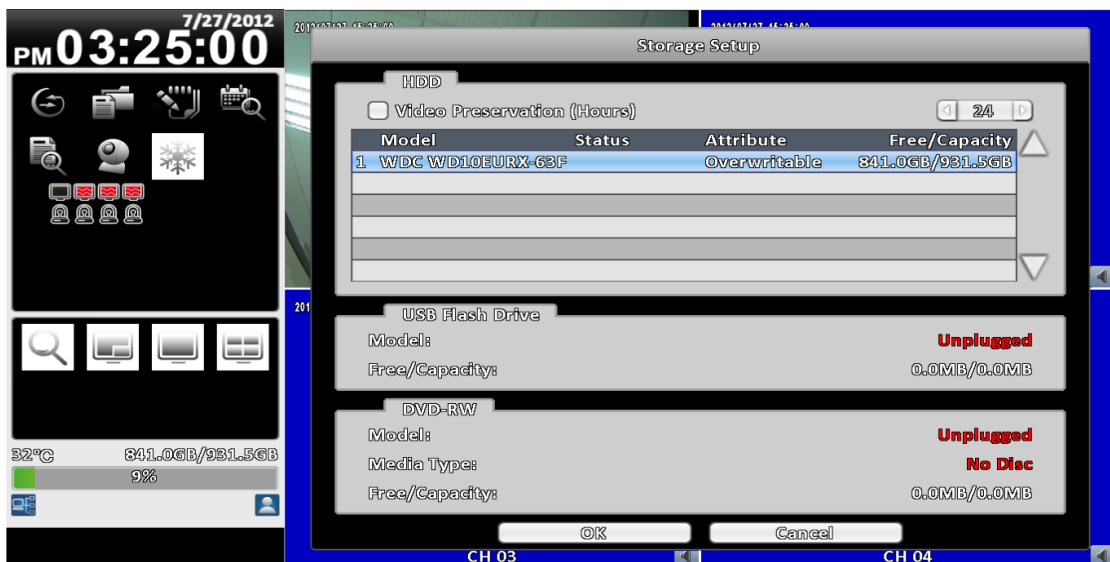
When event occurs, email will be sent to the receiver account automatically.



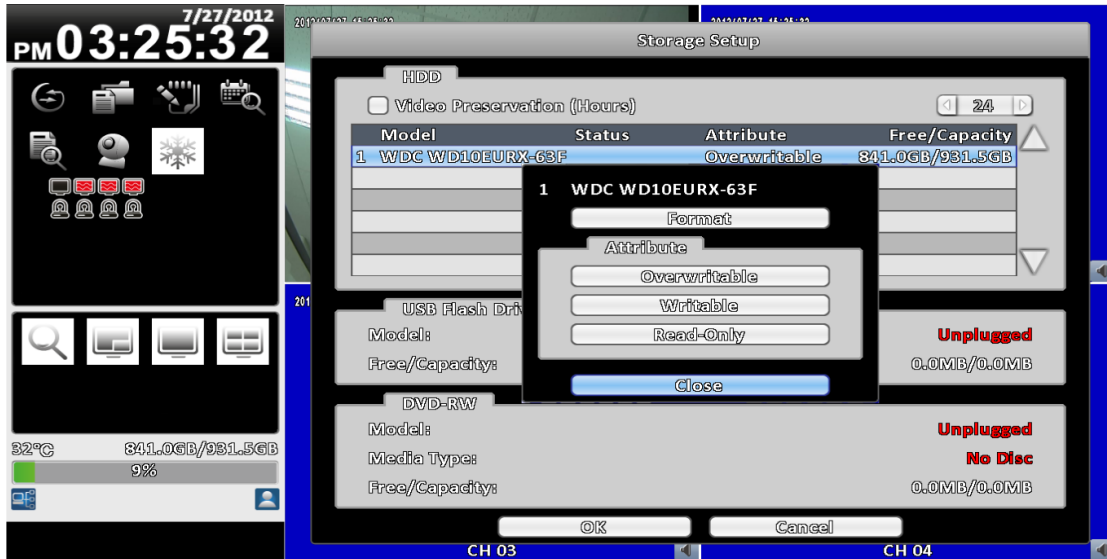
Item	Description
Enable	Check the box to enable/disable E-mal Notification function
SMTP Server	Set up SMTP Server name and port
User	Enter to set up User Name.
Password	Enter to set up Password.
Sender's e-Mail	Enter to set up e-mail address of receivers.

3-6 Storage Setup

3-6.1 HDD Setup



※ Click the status bar to change the properties of the hard disk



Item	Description
Video Preservation (Hours)	Setup the video preservation period. Recorded video will be deleted automatically after expiry of preservation period.
Format	All the data on the hard drive will be deleted and the hard drive will be formatted into a proprietary format.
Model	Display HDD model
Status	Display HDD status (Recording/Error)
Attribute	Display HDD Attribute (Overwritable/Writable/Read-Only)
Free/Capacity	Display HDD capacity (Free/Capacity)

3-6.2 USB Flash Drive Setup



Item	Description
Model	Display USB flash drive model
Free/Capacity	Display USB flash drive capacity (Free/Capacity)

3-6.3 DVD-RW Setup

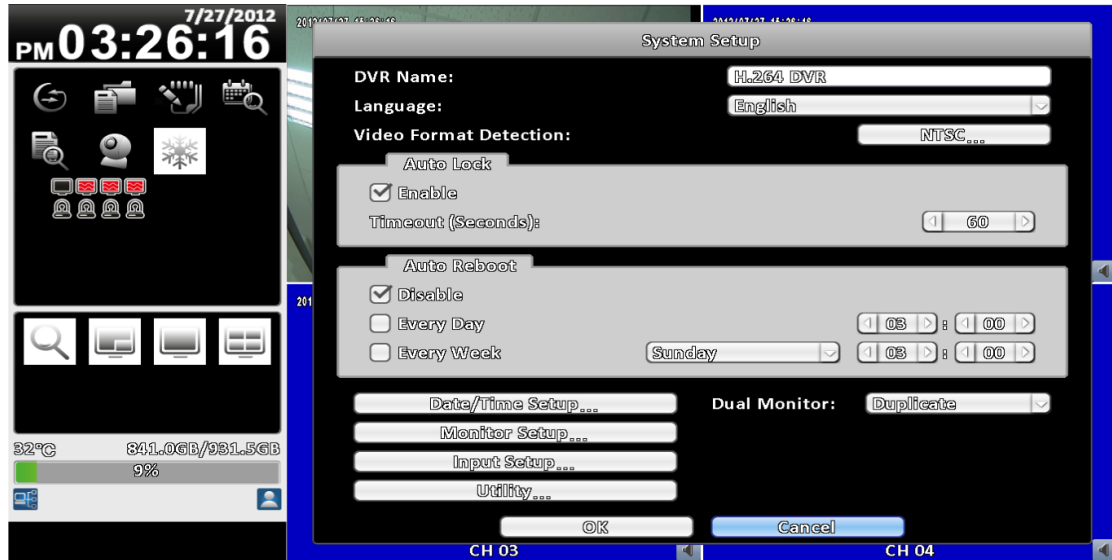


Item	Description
Model	Display DVD-RW model
Media Type	Display disk type

Free/Capcaity

Didplay DVR-RW capacity (Free/Capacity)

3-7 System Setup



Item	Description
DVR Name	The name of DVR will be shown when users login from remote access
Language	Click or press ▼ to select OSD language.
Video Format Detection	DVR specified video format detection (auto-detect, NTSC, PAL), and require a reboot to take effect

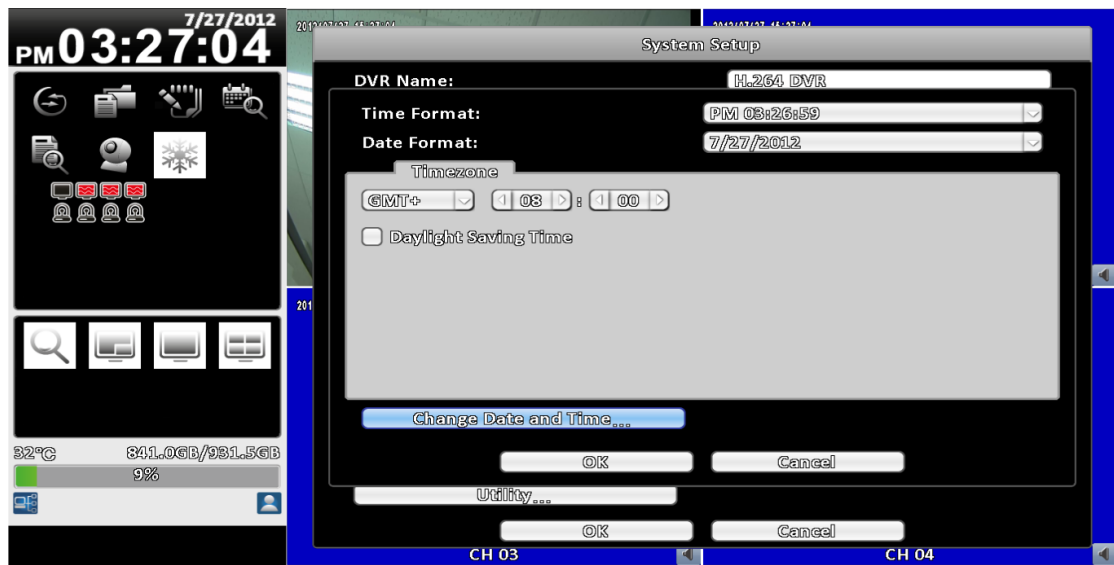
3-7.1 Auto Lock

Item	Description
Enable	Enable/Disable Auto Lock
Timeout (Seconds)	Set the number of seconds to wait. If there is no action, the panel will be automatically locked and the switch to log out. When the automatic log out, it only supports basic operations, such as picture freezing, PIP, picture, zoom, auto switch channel, split window switch ... and so on. To enter the setup menu, search menu, backup menu, status query, playback, and other operations, you need to select the identity and password. 10 to 9999 seconds

3-7.2 Auto Reboot

Item	Description
Disable	Enable/Disable Auto Reboot
Every day	Setup auto reboot time everyday
Every Week	Setup auto reboot time everyweek

3-7.3 Date/Time Setup



Item	Description
Hour Format	12HOURS/ 24HOURS
Date Format	MM-DD-YY/DD-MM-YY/YY-MM-DD

3-7.3.1 Timezone

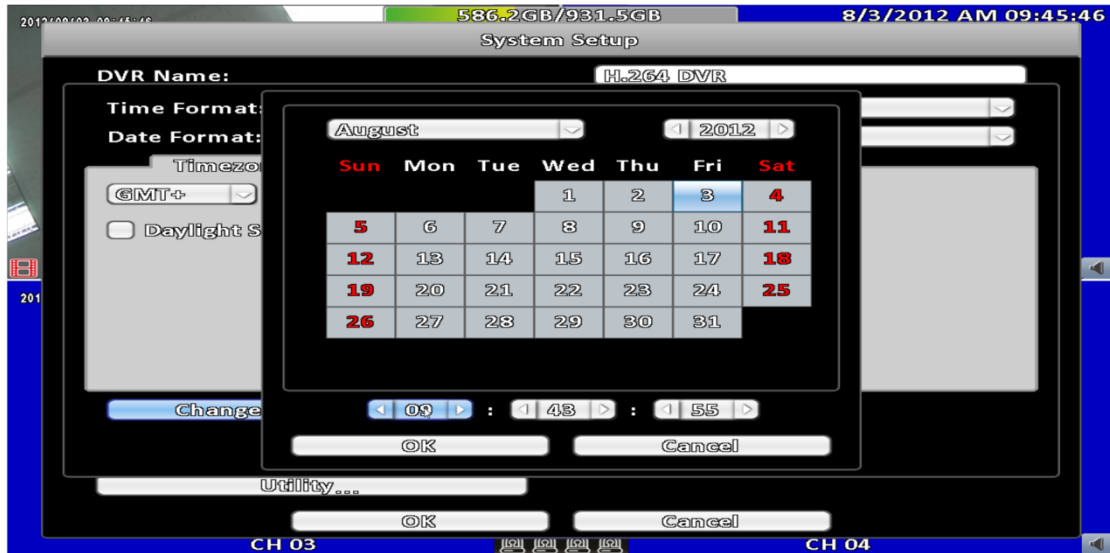
Item	Description
Time Zone Setup	Set up GMT, from GMT - 13 ~ GMT+ 13 °
Daylight Saving Time	Enable/Disable Daylight Saving Time

3-7.3.2 Daylight Saving Time Setup

Item	Description
Beginning	Setup Daylight Saving Time beginning time
Ending	Setup Daylight Saving Time ending time

3-7.3.3 Change Date and Time

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



3-7.4 Monitor Setup

The DVR-1613 V2, RHD-413 V2, HHD-1013 V2, HHD-2013 V2, RHD-813 V2, and RHD-1613 V2 can support independent dual monitor configuration.

The administrator needs to decide which monitor is the monitor 1 and the other monitor will be assigned to the monitor 2.

There are three available configurations for the dual monitor configuration. In the duplicate mode, the two monitors will show the same content. In the HDMI(1) VGA(2) mode, the HDMI output will be the monitor 1 and the VGA will be the monitor 2. In the VGA(1) HDMI(2) mode, the HDMI output will be the monitor 2 and the VGA monitor will be the monitor 1. The BNC output of the DVR is bound to the monitor 1. It means that the BNC output always shows the same content as the monitor 1, and the the monitor 1 can be either HDMI or VGA. The 2 different monitors can have independent monitor configurations. The top-left of the video output pane shows the number of the monitor.

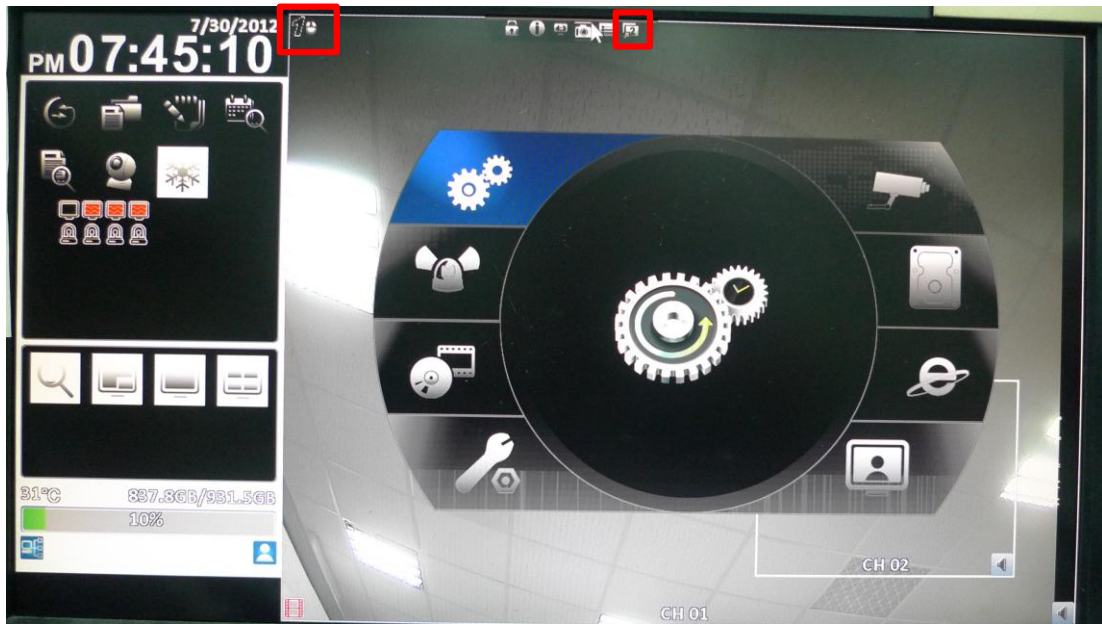


16 : 9 monitor setup

Item	Description
1、2	Setup the main screen(1), sub-screen (2) the setting of screen display respectively
Resolution	Setup resolution
Border Color	Setup border color
Luminance	Setup screen luminance, form 0 to 100
Contrast	Setup screen contrast, form 0 to 100
Saturation	Setup screen saturation, form 0 to 100
Hue	Setup screen hue, form 0 to 100

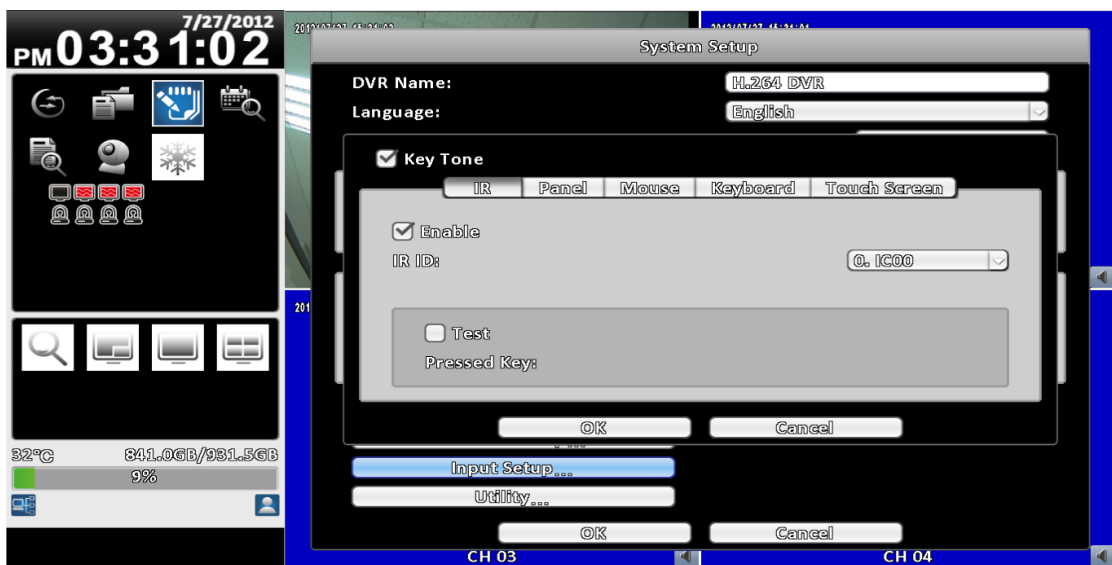
The administrator can configure the two monitor independently and the two monitor can have different split configuration. When the administrator is configured one screen, there will be a mouse icon shown on the bottom-left CH1 of the monitor being configured.

The administrator may switch the other monitor by clicking the dual-monitor switch icon on the shortcut bar.



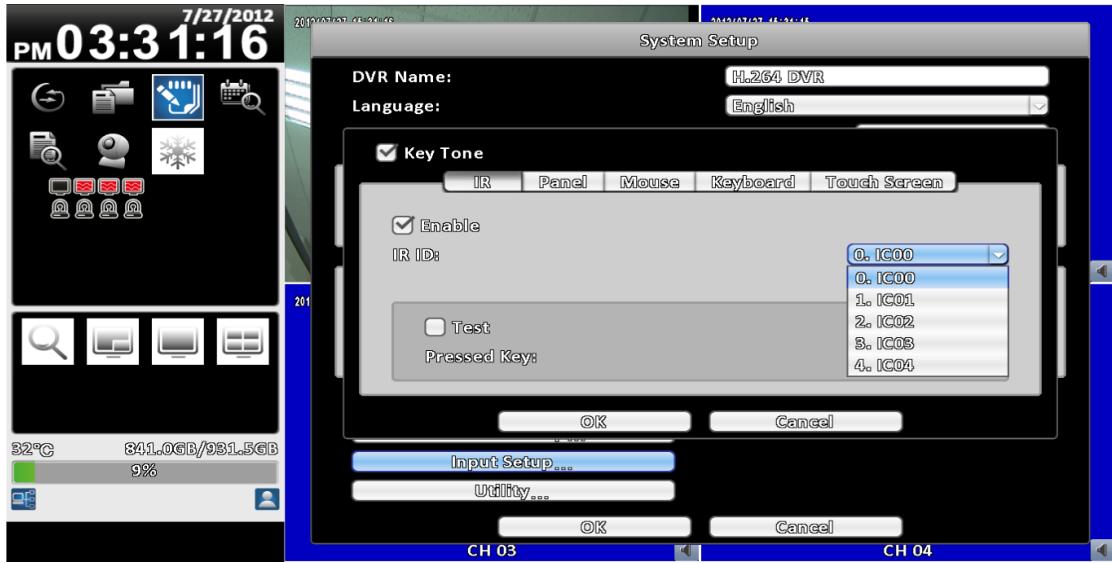
3-7.5 Input Setup

Setup input device (Key Tone, Remote control, Panel, Mouse, Keyboard, Touch screen)



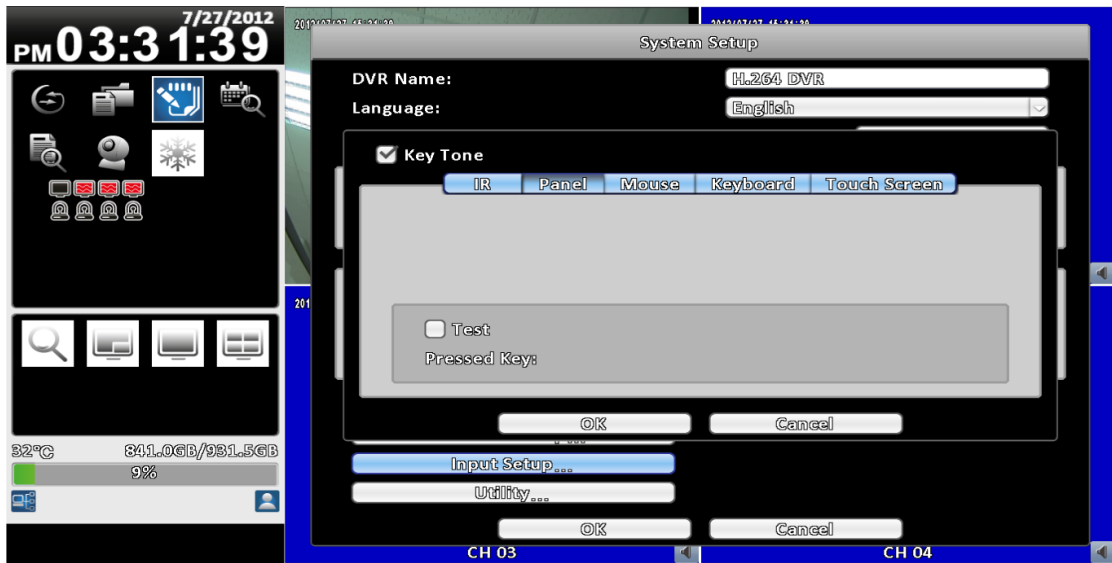
Item	Description
Key Tone	Enable/Disable Key Tone

3-7.5.1 Remote Control Setup



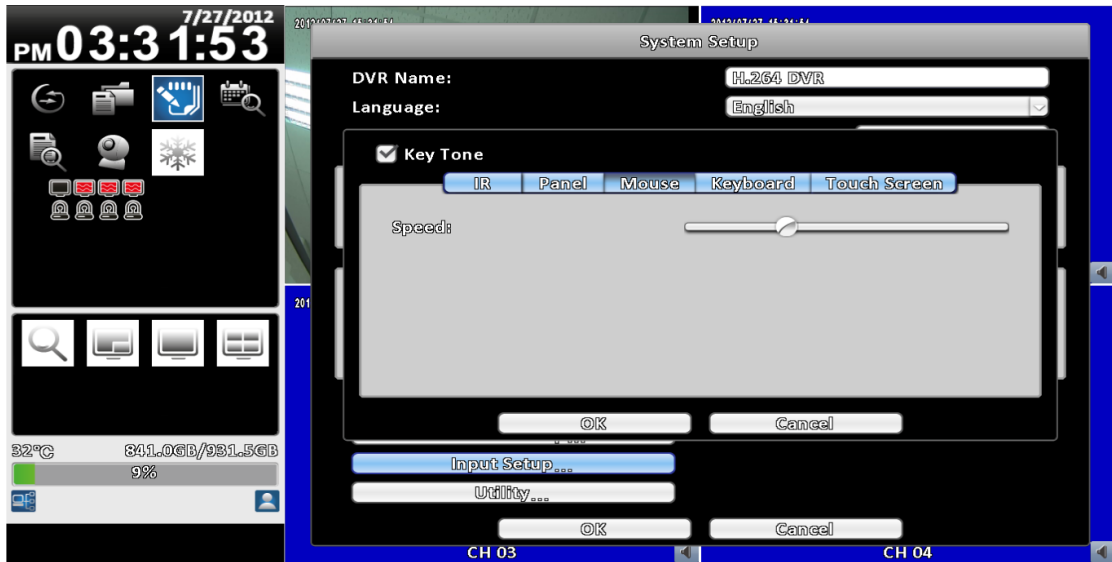
Item	Description
Enable	Enable/Disable remote control
IR ID	Default ID is 0. DVR is controlled by standard remote control; For one to many remote control, remote control on the number corresponding to the DVR numbers (DVR1 → IC01, DVR2 → IC02)
Test	Enable/Disable test function
Pressed Key	Display pressed key information

3-7.5.2 Panel Setup



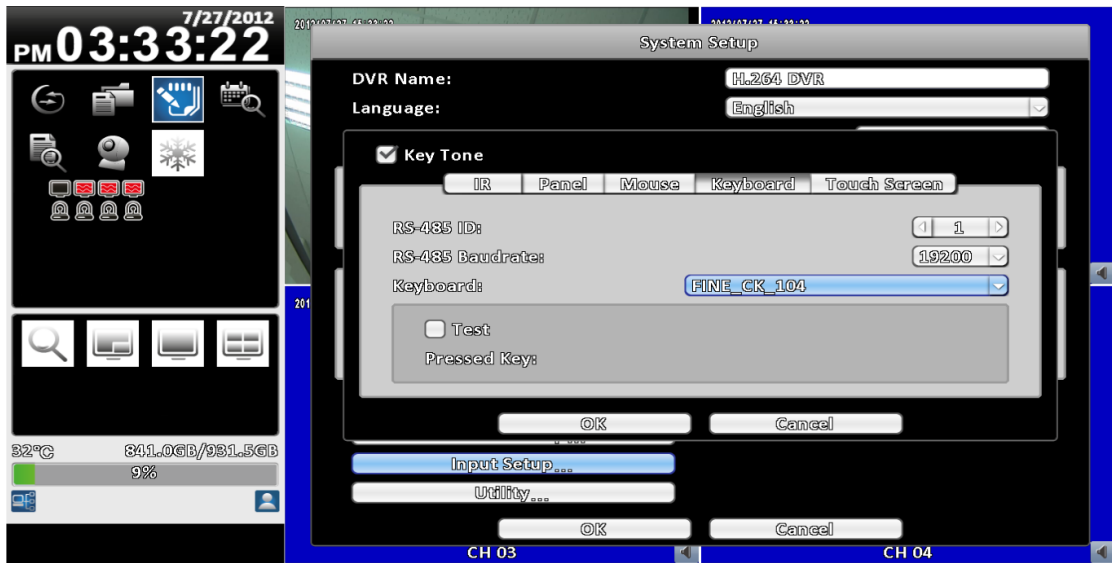
Item	Description
Panel ID	DVR Panel ID
Test	Enable/Disable panel button test function
Press Key	Display press key information

3-7.5.3 Mouse Setup



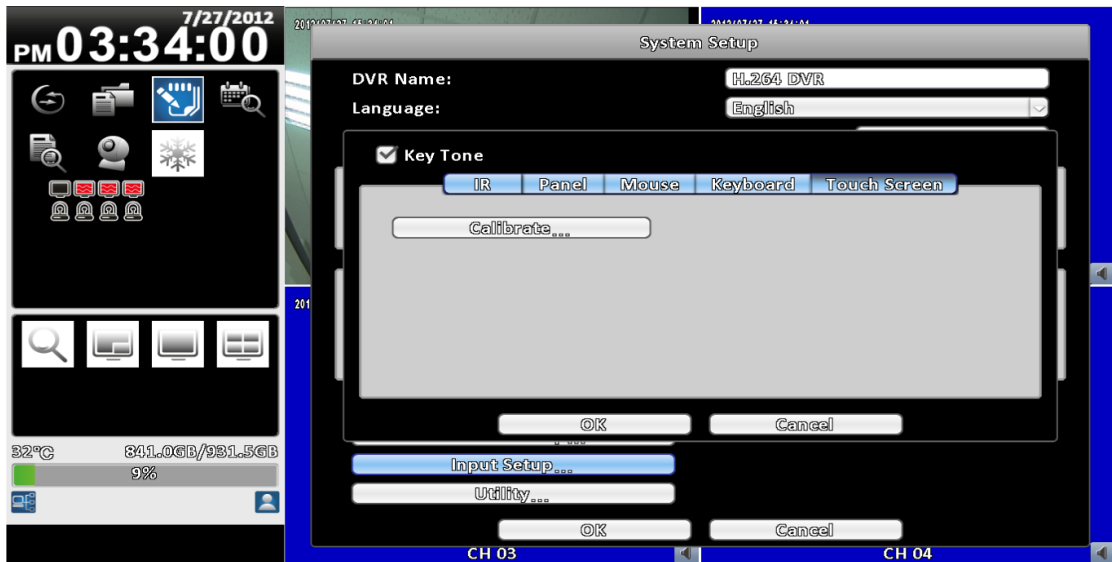
Item	Description
Speed	Setup the mouse cursor speed, the more the faster to the right. (Only valid when operating local)

3-7.5.4 PTZ Keyboard Setup

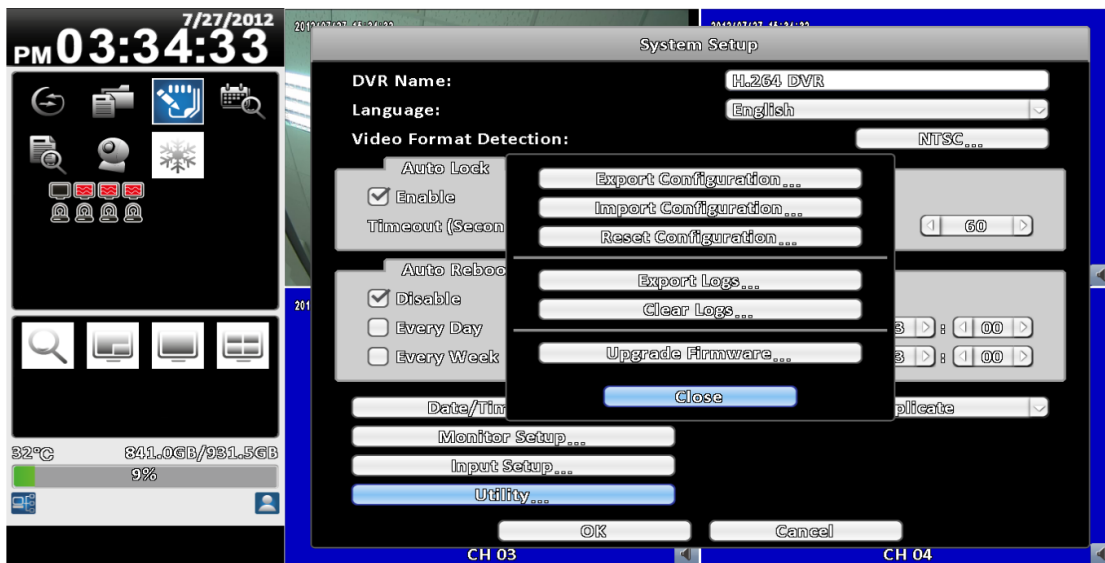


Item	Description
RS-485 ID	RS-485 ID, valid values range from 1 to 64
RS-485 Baudrate	RS-485 Baudrate , 2400, 4800, 9600, 19200
Keyboard	Select PTZ Keyboard
Test	Enable/Disable keyboard test function
Press Key	Display press key information

3-7.5.5 Touch Screen Setup



3-7.6 Utility Setup

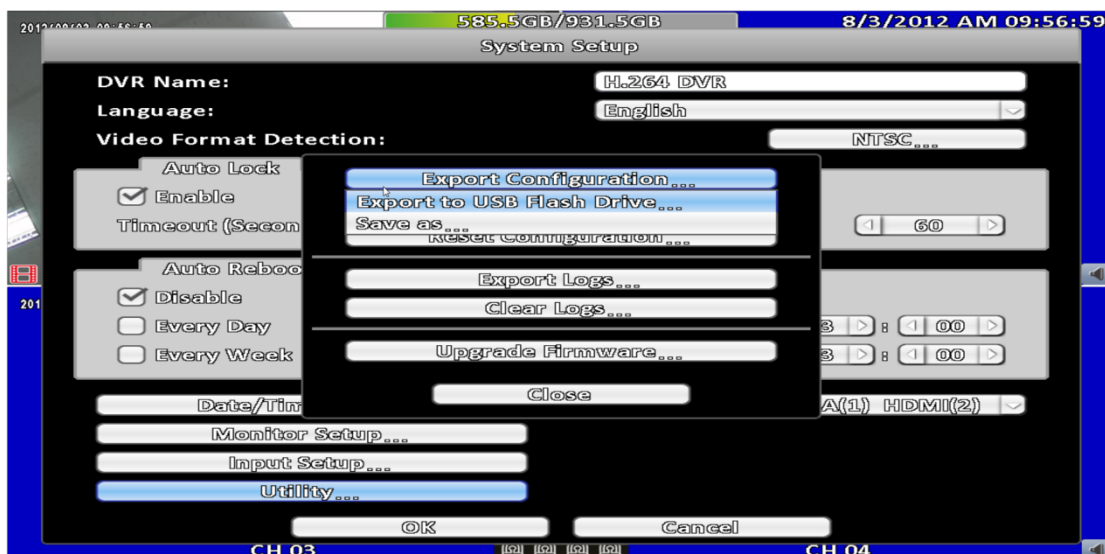


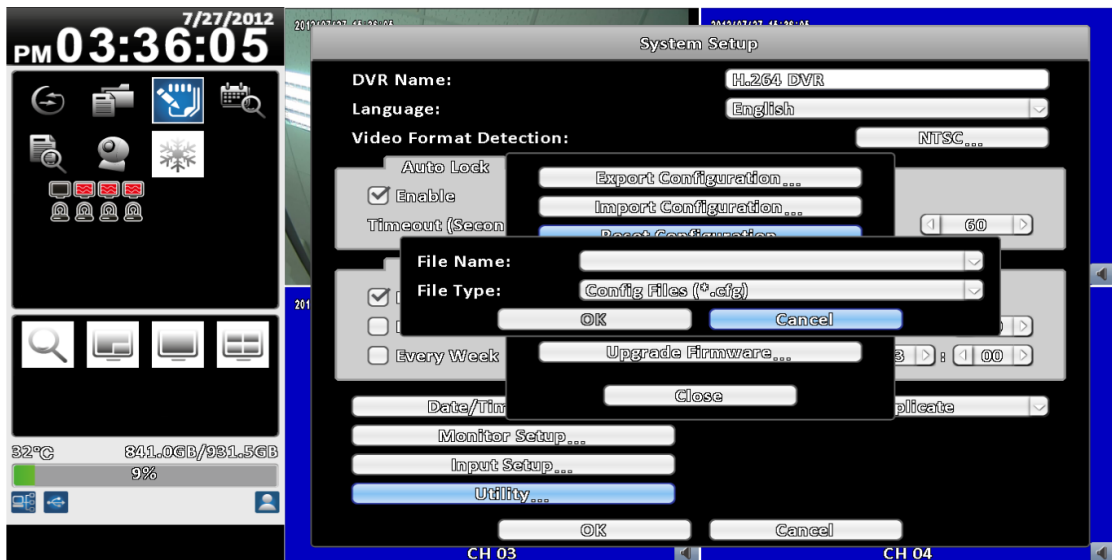
Item	Description
Export Configuration	Save DVR configuration to USB flash drive or PC
Import Configuration	Store USB flash drive or PC configuration to DVR
Reset Configuration	Reset system configuration
Export Logs	Save DVR system log to USB flash drive or PC
Clear Logs	Clear all DVR system log
Upgrade Firmware	Upgrade DVR through USB Please stop recording and backup setup configuration before upgrading System will reboot automatically when the upgrade is completed.

3-7.6.1 Export Configuration

Save DVR system log to USB flash drive

- a. Export to USB Flash Drive: The default filename is “dvr.cfg”

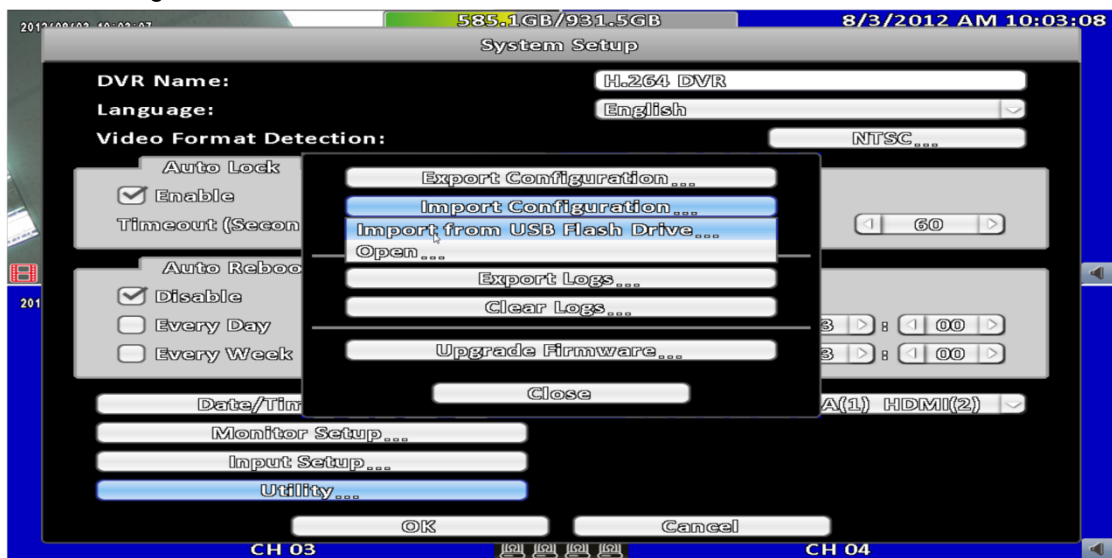


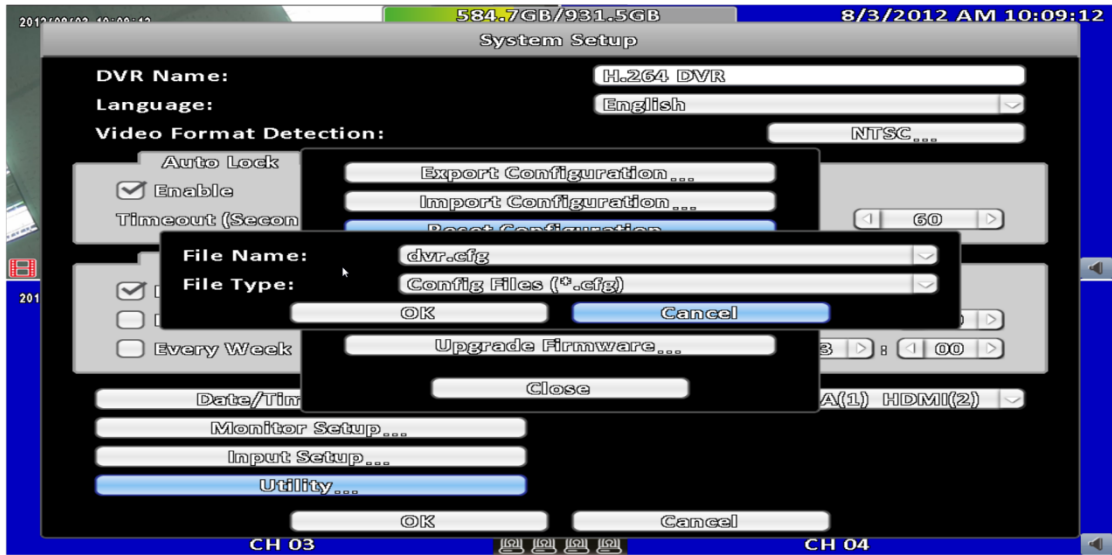


3-7.6.2 Import Configuration

Store USB flash drive configuration to DVR.

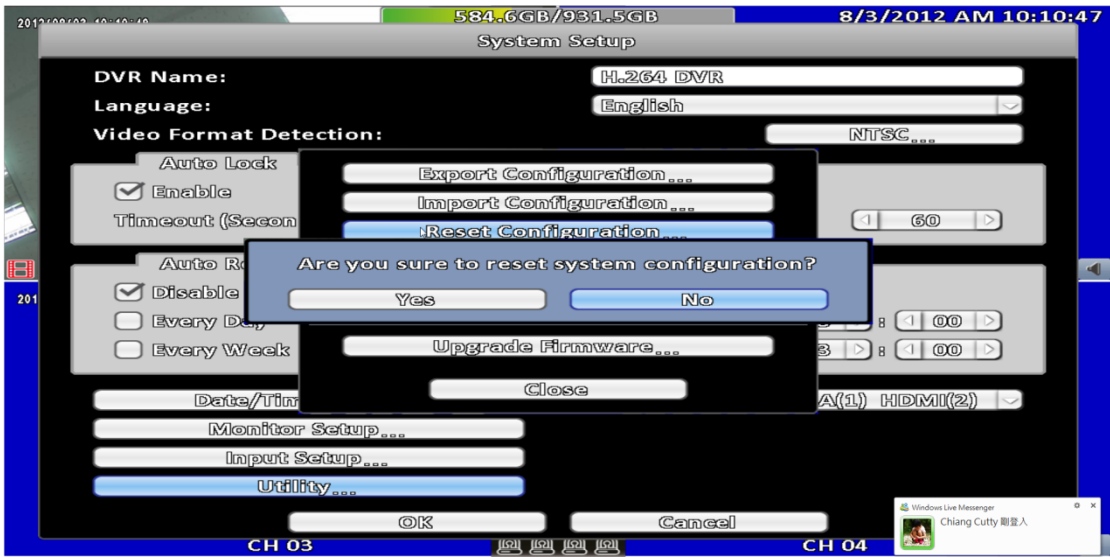
- a. Import from USB Flash Drive: Choose from a USB flash drive to import the configuration file "*.cfg"





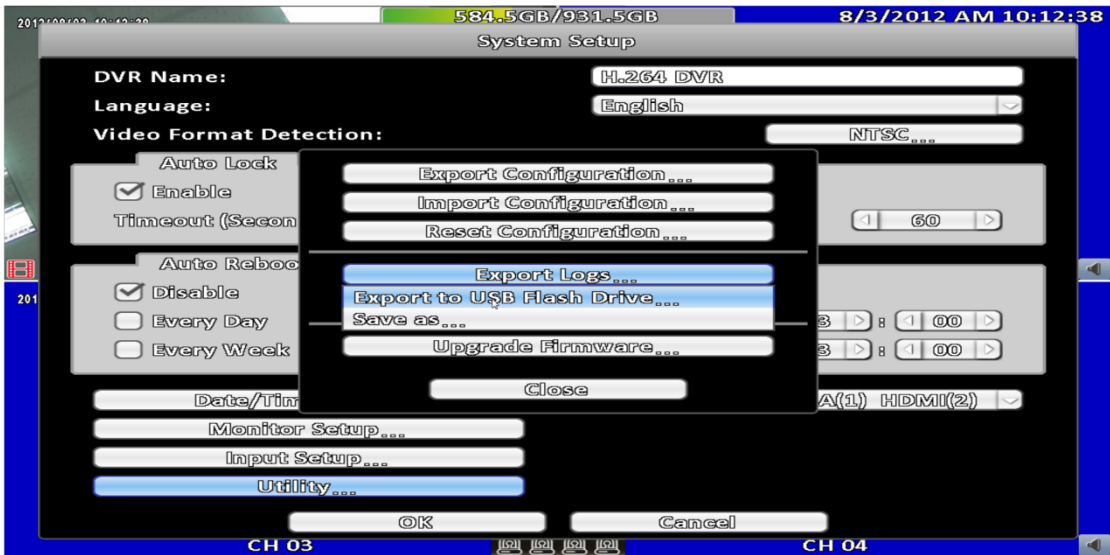
3-7.6.3 Reset Configuration

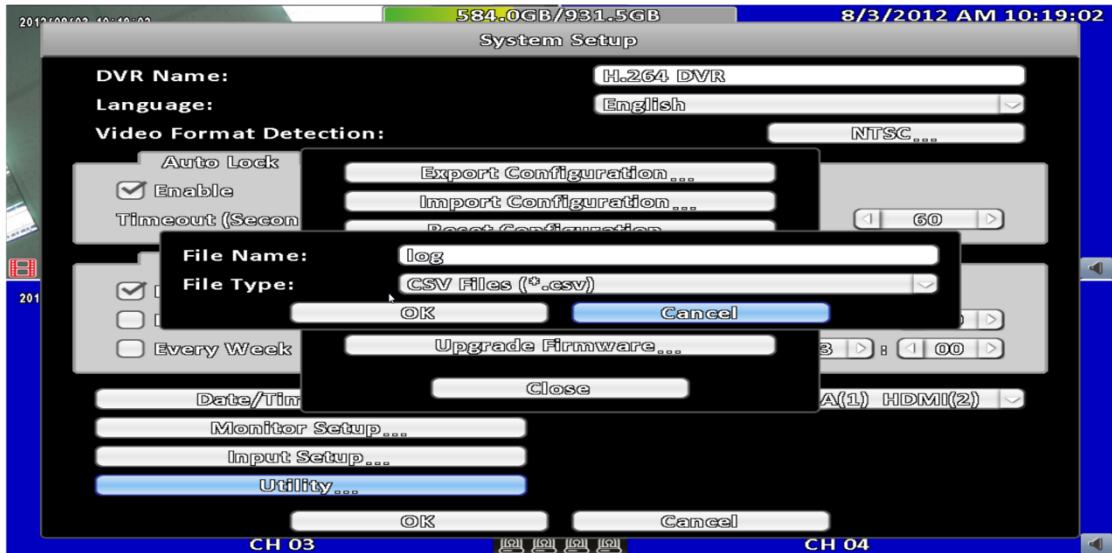
Reset system to default settings.



3-7.6.4 Export Logs

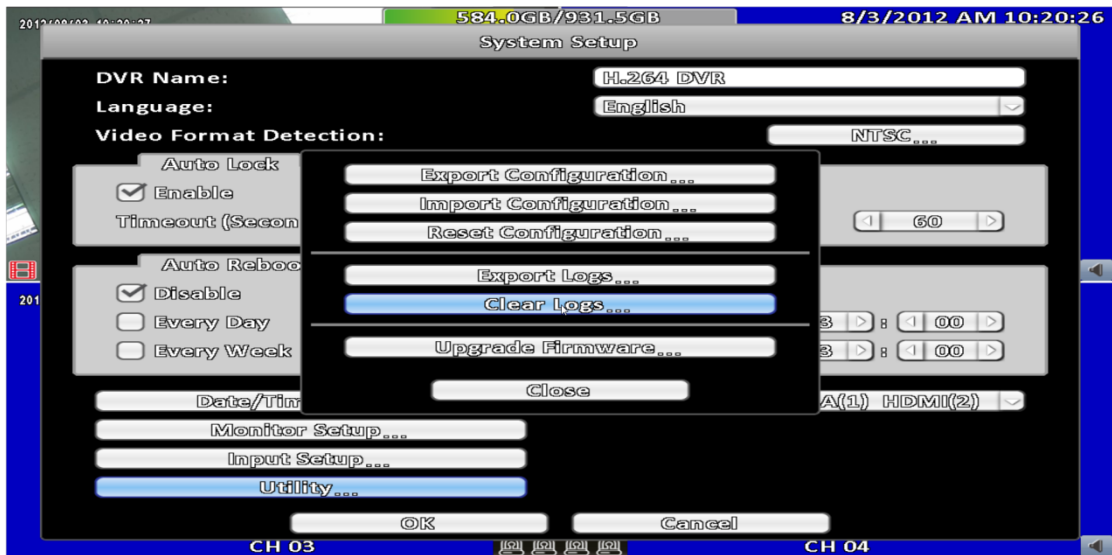
- a. Export to USB Flash Drive: Export logs to USB flash. The default file name is "log.csv"

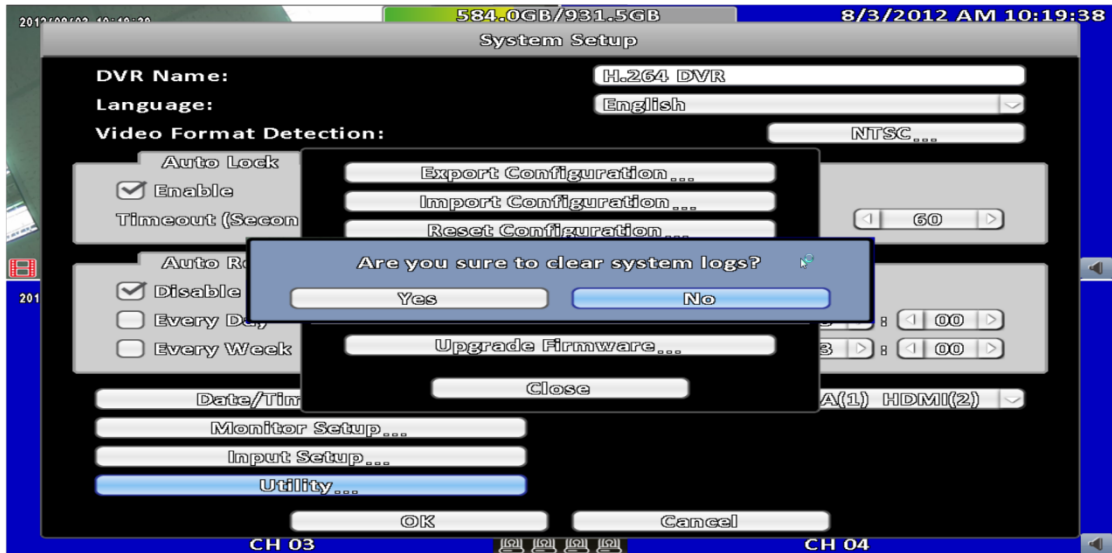




3-7.6.5 Clear Logs

Clear system logs.

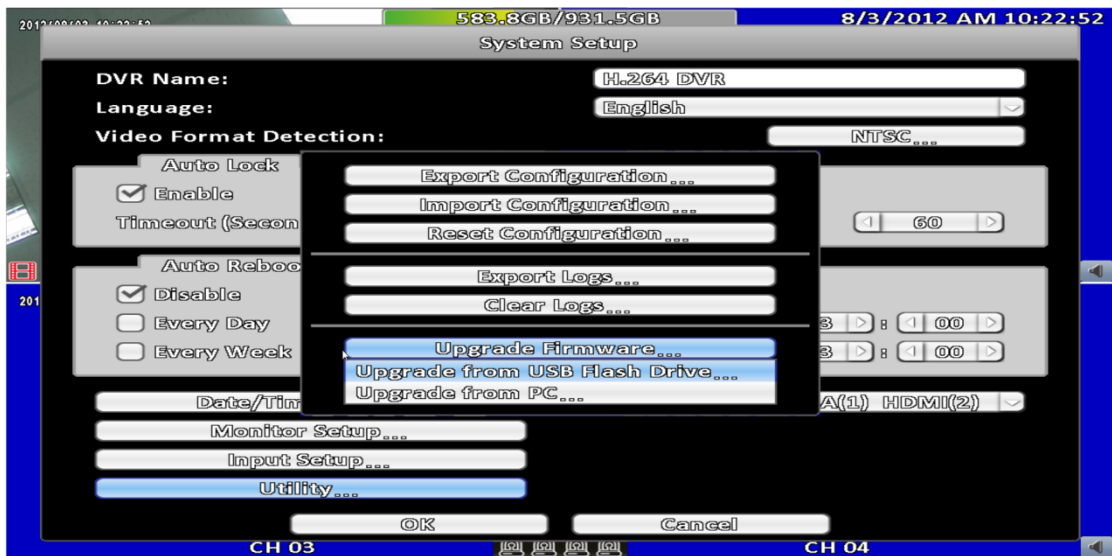


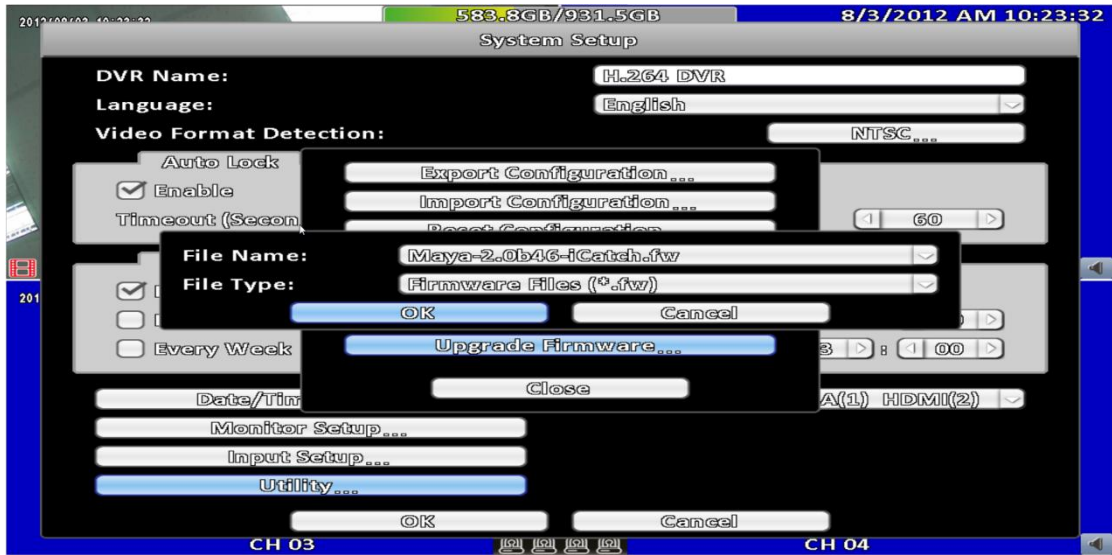


3-7.6.6 Upgrade Firmware

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.

- a. Upgrade from USB Flash Drive...: Choose the firmware from USB flash drive to upgrade





3-8 System Information

System Information

DVR
Model: 4CH HD-SDI (NTSC)
Version: 2.0b46

Network
IP: 192.168.1.46
MAC: 00:17:4F:0B:02:73

HDD
Recording Scheme: **None**

Model	Status	Attribute	Free/Capacity
1 WDC WD10EURX-63F	Overwritable		841.0GB/931.5GB

S.M.A.R.T. Information...

Close

CH 03 CH 04

3-8.1 DVR Information

Item	Description
Model	DVR model name and video type
Version	DVRFirmware version

3-8.2 Network Information

Item	Description
IP	DVR IP address. If no connection, it will show "Network is not connected."
MAC	DVR MAC address

3-8.3 HDD Information

Item	Description
Recording Scheme	Display installed HDD recording type
Model	Display installed HDD model
Status	Display installed HDD recording status
Attribute	Display installed HDD attribute (Overwritable/Writable/Read-Only)
Capacity	Display installed HDD capacity (Free/Capacity)

3-8.4 S.M.A.R.T Information

The screenshot shows the 'System Information' menu of a DVR. At the top, it displays '583.7GB/931.5GB' and the date '8/3/2012 AM 10:24:56'. The menu is divided into three sections: 'DVR', 'Network', and 'HDD'. The 'DVR' section shows 'Model: 4CH HD-SDI (NTSC)' and 'Version: 2.0b46'. The 'Network' section shows 'IP: 192.168.1.46' and 'MAC: 00:17:4F:0B:02:7B'. The 'HDD' section shows 'Recording Scheme: Continuous Record' and a table of installed HDDs. The table has columns for 'Model', 'Status', 'Attribute', and 'Free/Capacity'. One HDD is listed: '1 WDC WD10EURX-63F Recording Overwritable 583.7GB/931.5GB'. At the bottom of the menu, there is a 'Close' button and a 'S.M.A.R.T. Information...' button. The bottom of the screen shows 'CH 03' and 'CH 04'.

7/27/2012 PM 03:40:11

System Information

DVR
Model: 4CH HD-SDI (NTSC)

ID	Value/Worst/Threshold	Raw
01 Raw Read Error Rate	200 / 200 / 51	7
03 Spin Up Time	142 / 141 / 21	3333
04 Start/Stop Count	100 / 100 / 0	81
05 Reallocated Sector Count	200 / 200 / 140	0
07 Seek Error Rate	200 / 200 / 0	0
09 Power-On Hours Count	93 / 93 / 0	2133
0A Spin-up Retry Count	100 / 253 / 0	0
0B Calibration Retry Count	100 / 253 / 0	0
0C Power Cycle Count	100 / 100 / 0	81
0D Power-Off Retract Cycle	200 / 200 / 0	80

32°C 841.0GB/931.5GB
9%

CH 03 CH 04

S.M.A.R.T. Information...

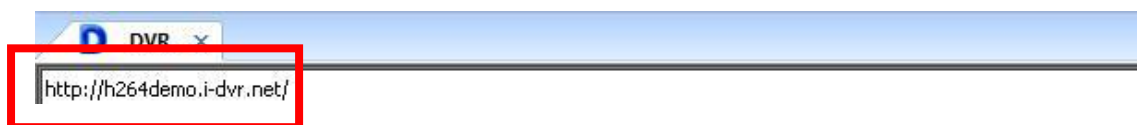
Chapter 4 REMOTE SOFTWARE INSTALLATION and SETUP

It can allow you to remotely access and control the DVR from PC by 「iWatchDVR」 or IE v6.0 or above.

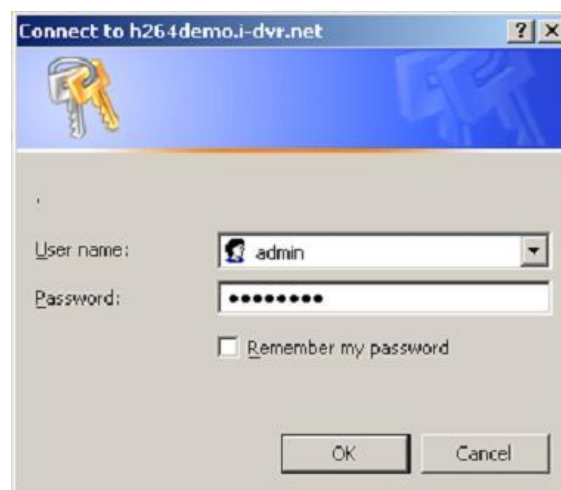
p.s. Operation system currently supports Windows XP SP2 or above and Windows Vista, Windows 7.

4-1 Application Software Connection

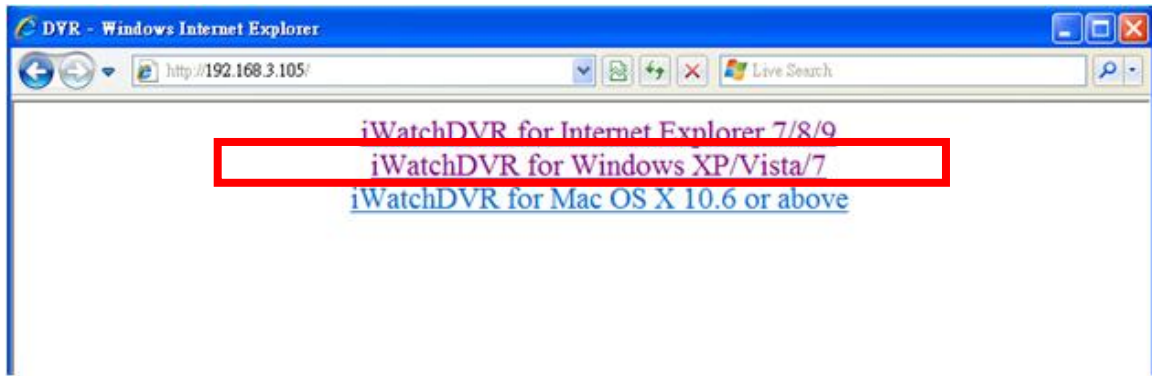
Step 1 : Enter the IP address of DVR in IE browser.



Step 2 : 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 "**Account Setup**".



Step 3 : Click on the link "**iWatchDVR for Windows XP/Vista/7**" to start downloading the AP software.

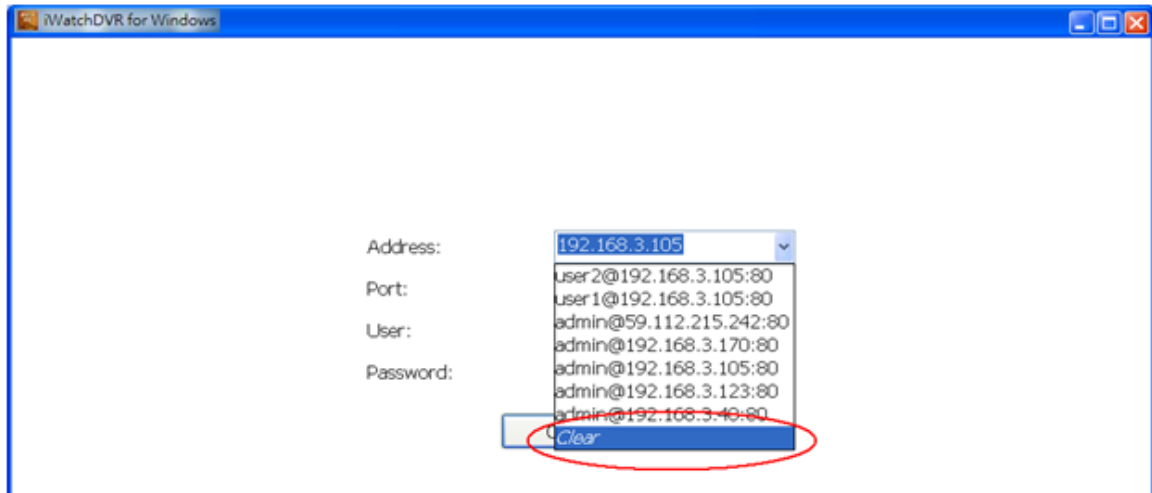


Step 4 : Click on the link to start downloading the AP software.



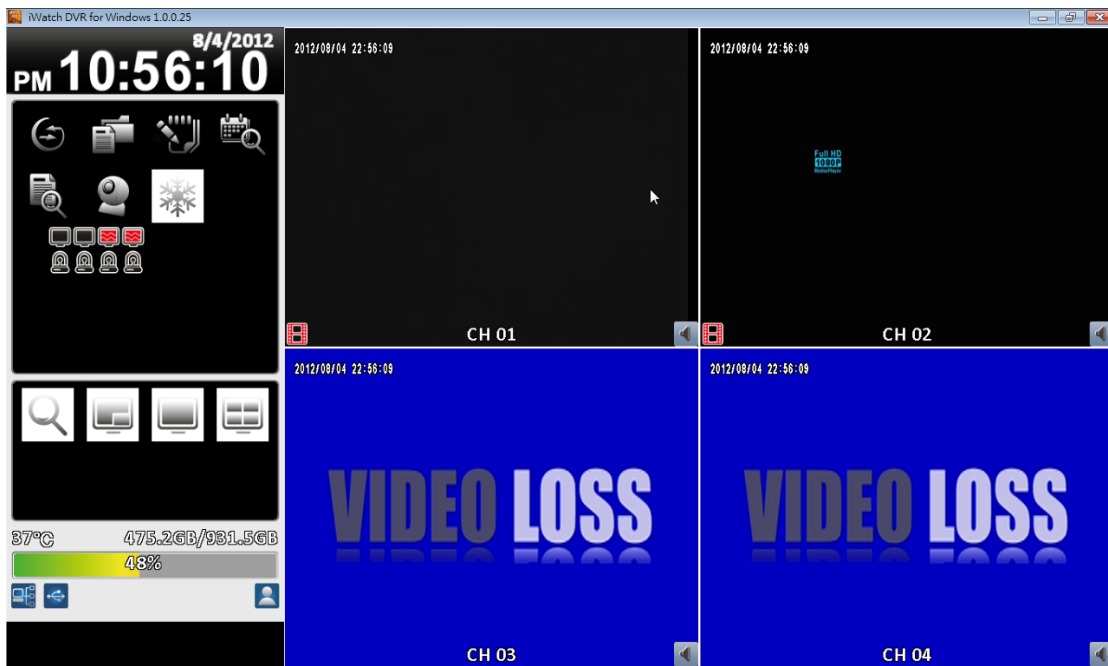
Step 5 : If you choose to run the software, Start window will be shown up. Please enter information of login DVR: IP, Port, Username and Password.





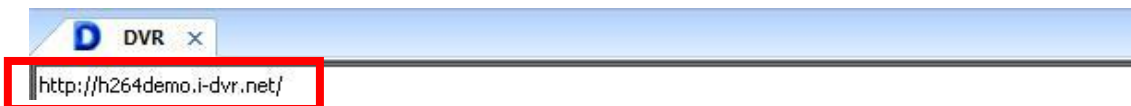
The drop-down menu can be used to record IP address. Press “Clear” to clear IP address.

Step 6 : You’ve logged into the DVR

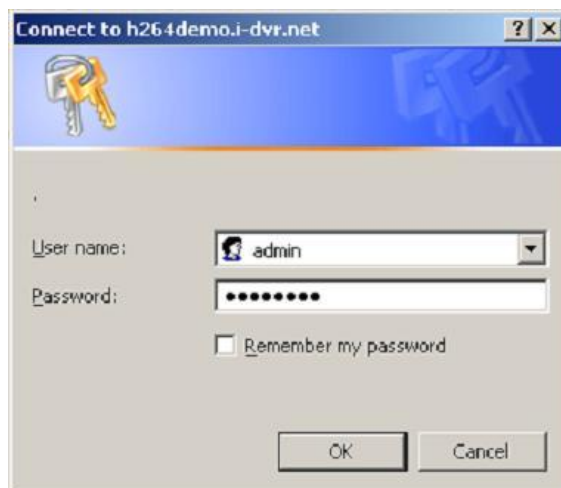


4-2 IE Connection

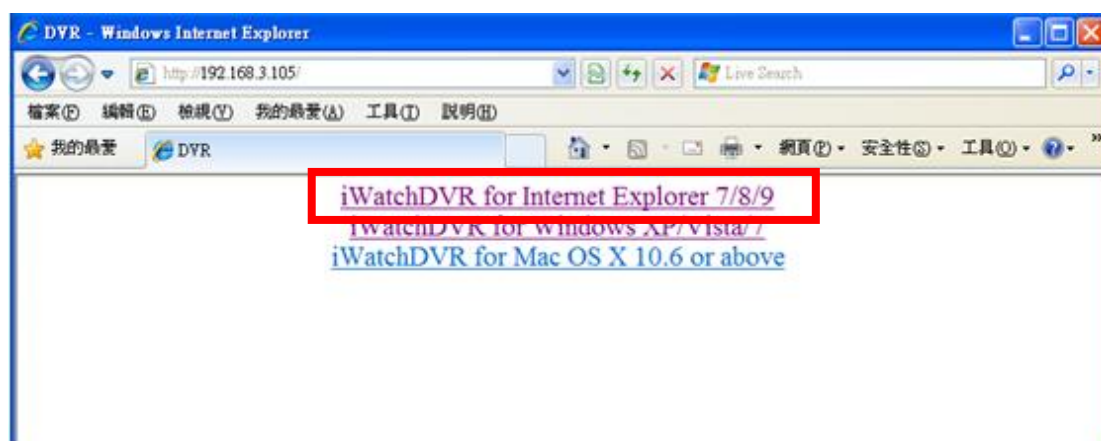
Step 1 : Enter the IP address of DVR in IE browser. The address appeared in this image is only for demonstration. Actual address is depending on the setup of on-site DVR



Step 2 : 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 “**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.**

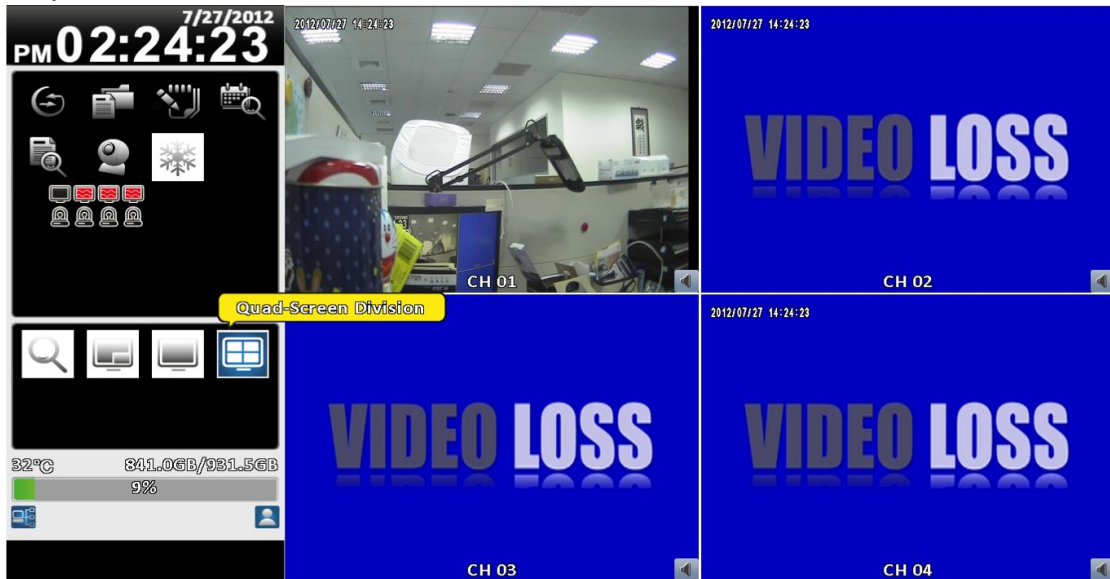


Step 3 : Click on” **iWatchDVR for Internet Explorer 7/8/9** ”.



p.s. There will be IE connection security issue when clicking this link for the first time. Please refer to index III for Remote Monitoring IE ActiveX Control Installation Instruction.

Step 4 : DVR images appear. ◦ Default is 16:9 display.



4-3 AP Software and IE Connection Operation

Table 4-3.1 System Requirements

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
Anti-virus software (firewall)	Connection to be open IE and AP PORT 80 (according to the HTTP PORT settings)
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

vis-

it: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