

4CH DVR



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CHAPTER 1 PACKING DETAIL AND INSTALLATION

1-1 PACKING



1. DVR



2. Quick Start



3. IR Remote Control



4. Batteries x2



5. CD



6. SATA Cord x1



7. Screws x4



8. Power Adaptor



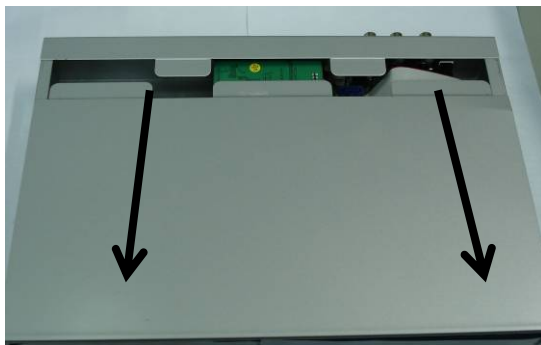
9. Power Cord

▪ **1-2 Hard Disk Installation**

Step 1) Remove the 3 screws from DVR as cycled below.



Step 2) Remove the front cover from DVR as indicated by the arrow.



Step 3) Place the HDD on the HDD plate and connect the power and the SATA cables.



Step 4) Screw the bottom of the DVR as indicated as cycled.

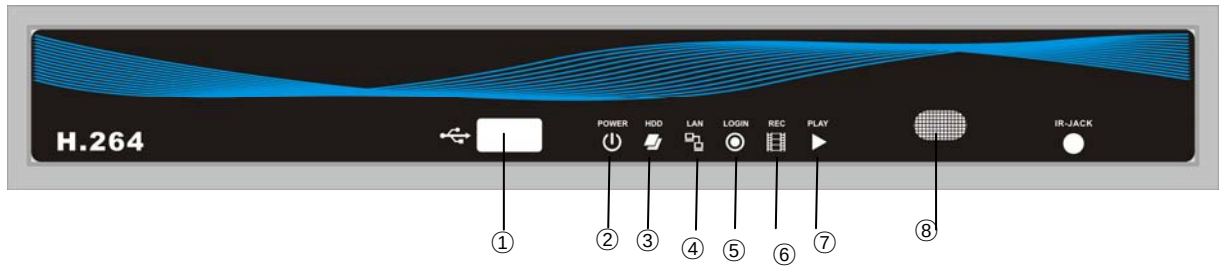


Step 5) Place the bottom of DVR and screw.



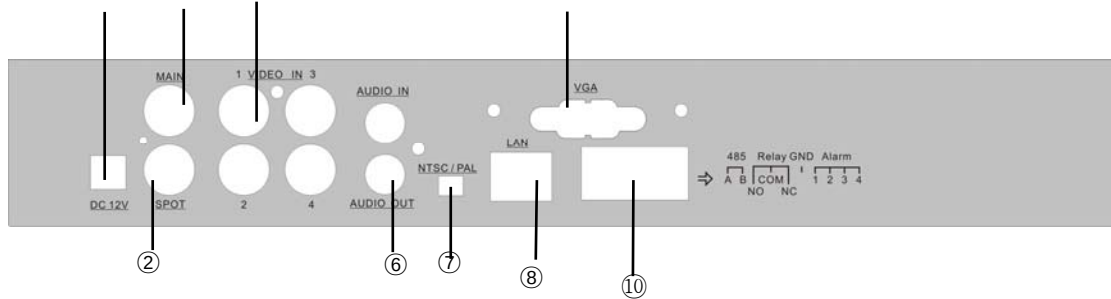
▪ CHAPTER 2 PANEL LOCATION

▪ 2-1 FRONT PANEL CONTROLS

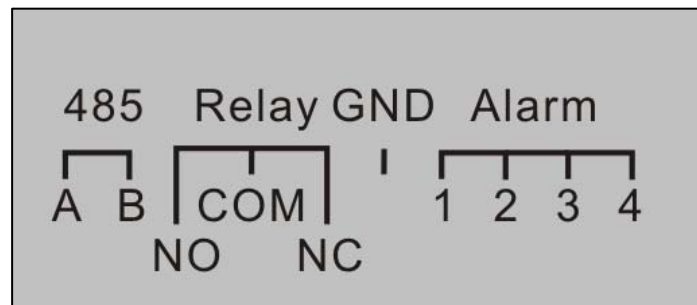


① USB 2.0 Port	Port for USB external devices.
② LED Display- Power	DVR Power is on.
③ LED Display - HDD	Hard disk is in use.
④ LED Display - LAN	Connected to the internet.
⑤ LED Display- LOGIN	Remote user logged in.
⑥ LED Display - REC	DVR Recording.
⑦ LED Display - PLAY	DVR Playing back.
⑧ IR Sensor	Input sensor for the remote control.

2-2 4CH REAR PANEL CONNECTORS



① DC 12V	Socket for a DC 12V input.
② SPOT monitor	BNC port to display full screen image of all installed cameras in sequence.
③ MAIN monitor	BNC port for the main monitor.
④ VIDEO IN	BNC input ports for cameras, 16 in total.
⑤ AUDIO IN	RCA input port for audio signal.
⑥ AUDIO OUT	RCA output for audio signal.
⑦ NTSC/PAL Switch	Switch between NTSC and PAL format.
⑧ LAN	Network port.
⑨ VGA	VGA port.
⑩ EXTERNAL I/O	EXTERNAL I/O port (see below for pin definition)



CHAPTER 3 LIVE, PLAYBACK AND PTZ OPERATIONS

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 Remote control functions under the *LIVE* mode

Button	Description
REC	Start/Stop recording.
LOCK	Enable/Disable the Keypad function.
PLAY	Start playing back.
T-SRH	Display search menu.
AUTO	In <i>AUTO</i> mode, all available channels will be cycled through in full screen.
PTZ	Start/Stop PTZ control.
	Switch to quad display.
	Switch to 9-channel display. 4-CH doesn't support this function.
	Switch to 13-channel display. 4-CH doesn't support this function.
	Switch to 16-channel display. 4-CH doesn't support this function.
MENU	Enable/ Disable Menu.
MUTE	Switch to 1-CH audio out/Turn off live audio.
BK-UP	Display backup menu.
ENTER/MODE	Switch to full screen and quad screen.
ZOOM+	Zoom in to double the screen size by keypad or mouse operation.
ZOOM-	Zoom out from double screen size.
ZOOM	Enable/ Disable double screen size display. You can click on the channel name for choosing a specific channel.
STATUS	Display Status.
1,2,3,4	Select the channel to monitor in full screen from channel 1 to 4.
FREEZE	Turn on/off screen freeze function.
PIP	Turn on picture-in-picture format. Click on the channel name can switch to other channels.
OSD	Turn on/off the screen 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.

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

Icon	Description
	Recording is on
	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
	Remote user currently logging into DVR
 	Timer recording is on Red : Timer is set and recording has been started White : Timer is set but recording has not yet been started
	AUTO-seq is on
2X	2X zoom in is on
	Freeze is on, screen is frozen
	LOCK is on
	PTZ control is on
 1~8	IR remote signal has been set to 1-8 to correspond to your 1-to-8 remote controller; the standard remote controller can't control this DVR under this situation. It can only be controlled by 1-to-8 remote controller (optional device).

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」、 「■■」 Play/pause
	「▲ / SLOW」 slow playback
	「▼ / ■」 stop playback
	Playback channel by channel with snap shot display
	Full screen display
	Quad display

3-3 PTZ Mode

Switch to the PTZ mode by pressing “PTZ” button under the LIVE mode. The PTZ icon  will appear on upper left of the screen but it can be re-located on any place of your screen by dragging the mouse.



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	To go to a preset location, press PRESET and a number key. DVR will save the current location.
PRESET + NUMBER	To go to a preset location, press PRESET and a number key. DVR will save the current location.
PLAY + NUMBER	Move to a preset location, press PLAY and a number key. DVR will move to the current location.
PIP	Set current PTZ location as the start of the line-scan.
FREEZE	Activate line-scan.
ZOOM	Set current PTZ location as the end of the line-scan.



Table 3-3.2 Mouse operation under the PTZ mode

Icon	Description
	Leave PTZ Mode , back to the LIVE mode
	Pre-set number N. (1~64)
	Go to pre-set number N.
	Set current PTZ location at pre-set number N.
	「TOUR」, press to activate pre-set tour
	Same as 「PIP」. Set current PTZ location as the start of the line-scan.
	Same as 「FREEZE」. Activate line-scan.
	Same as 「ZOOM」. Set current PTZ location as the end of the line-scan.
	To move PTZ in 360°
	PTZ zoom in; PTZ zoom out
	PTZ focus in; PTZ focus out.
	PTZ IRIS open, PTZ IRIS close.
Below functions need support from specific PTZ. Please check user manual of your PTZ manufacturer for detail.	
	AUX 1. 「AUTO」 + 「1」
	AUX 2. 「AUTO」 + 「2」
	AUX 3. 「AUTO」 + 「3」
	AUX 4. 「AUTO」 + 「4」
	AUX 5. 「AUTO」 + 「5」
	AUX 6. 「AUTO」 + 「6」
	AUX 7. 「AUTO」 + 「7」
	AUX 8. 「AUTO」 + 「1」
	「Backup」, Customized function。

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.

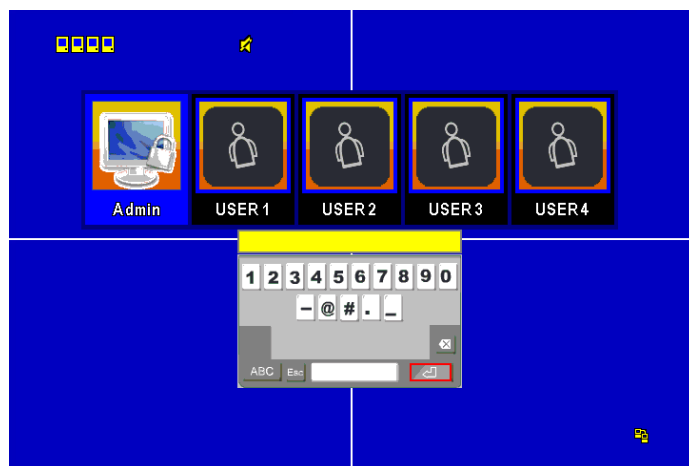


Table 4-0.1 Some definition of virtual keyboard.

Item	Description
	Switch between capital and small letters.
	Switch between numbers and letters.
	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.



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

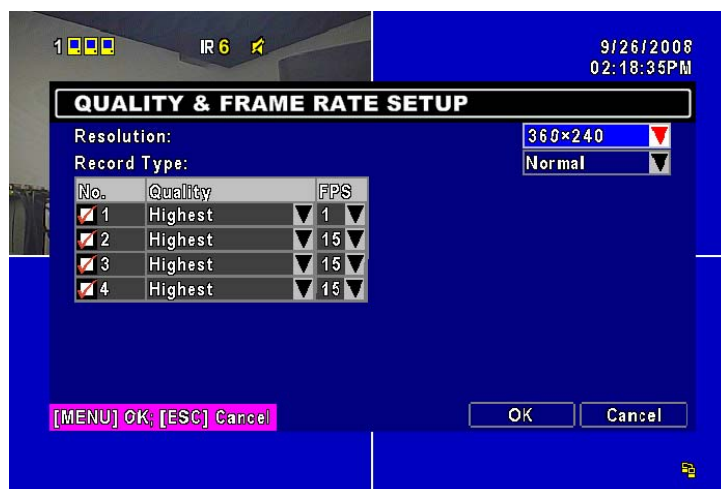
Item	Description
◀ ▶	Switch to different options under one item
▲ ▼	Switch to different items
MENU	Save setup and back to LIVE mode
ESC	Back to Upper level of the menu
ENTER	Enter the menu, or display virtual keyboard

4-1 RECORD SETUP



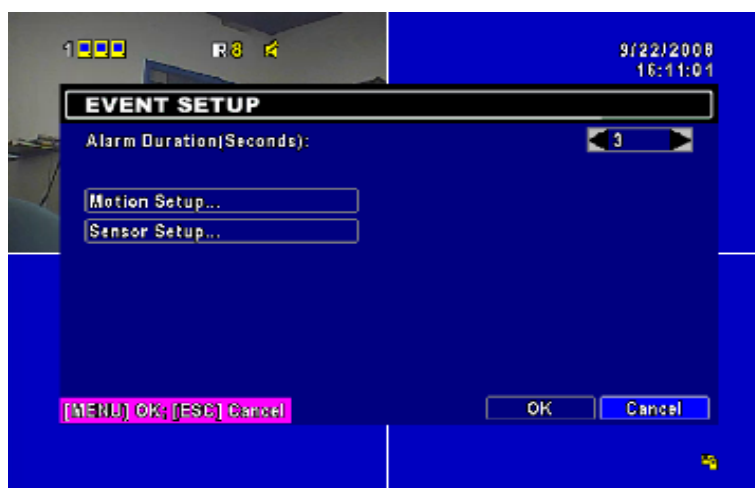
Item	Description
HDD FULL	Select STOP to stop recording or OVERWRITE to reuse the HDD when HDD is full 「 Stop 」: Stop Recording 「 Overwrite 」: Start to overwrite that begin from the oldest data of HDD, and continue to record.
Record Normal	Enable/Disable normal recording
Pre Alarm Record	Enable/Disable pre-event recording while motion or sensor is triggered but not in the recording mode. This option decides if save the pre-recording time 10 seconds data or not.
Audio Record	Enable/Disable Audio recording.
Record Motion	Enable/Disable recording while Motion is detected
Record Sensor	Enable/Disable recording while Sensor is triggered
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



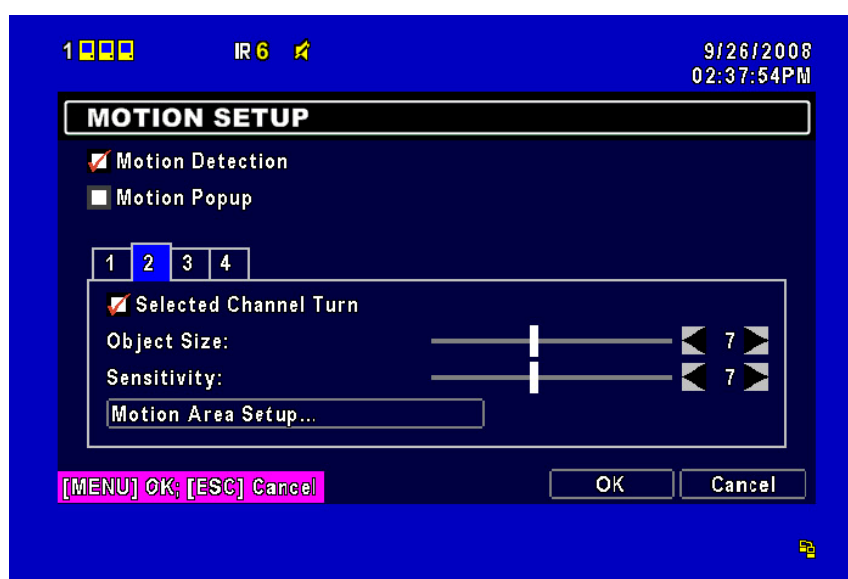
Item	Description
Resolution	Choose record resolution from : CIF / HD1(2CIF) / D1.
Record Type	You can setup quality and FPS separately for record type.
No.	Check/uncheck the box will enable/disable recording of that channel.
Quality	Choose from Lowest/ Low/ Normal/ High/ Highest
FPS	Choose recording frame rate.

4-2 EVENT SETUP



Item	Description
Alarm Duration (Seconds)	Set up alarm duration in seconds. Drag the white bar or press ◀ ▶ to adjust value.
Motion Setup	Enter to set up motion detection
Sensor Setup	Enter to set up sensor detection

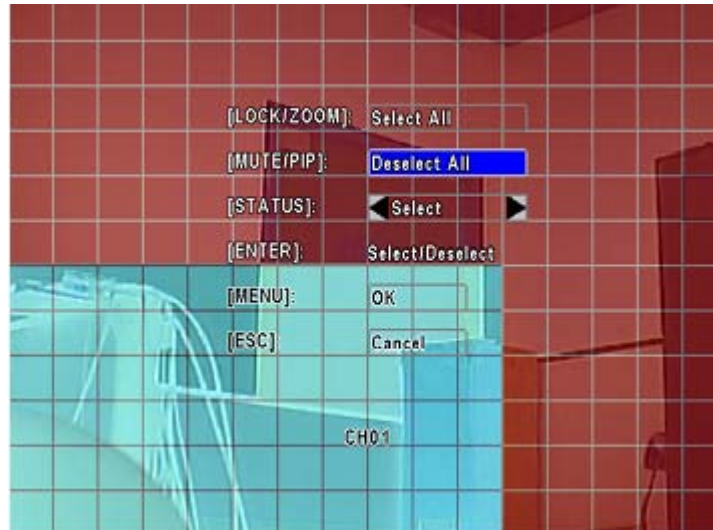
4-2.1 MOTION SETUP



Item	Description
Motion Detection	Check the box to Enable/Disable Motion Detection for all channels.
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.
1~4	You can setup independently for each channel.
Selected Channel Turn	Check the box to Enable/Disable motion detection for each channel.
Object Size	Drag the white bar or press ◀ ▶ to set up Object Size from value 1 to 15 for each channel. The lower value you set the higher sensitivity it will be.
Sensitivity	Drag the white bar or press ◀ ▶ to set up Sensitivity from value 1 to 15 for each channel. The lower value you set the higher sensitivity it will be
Motion Area Setup	Enter to setup motion detection area

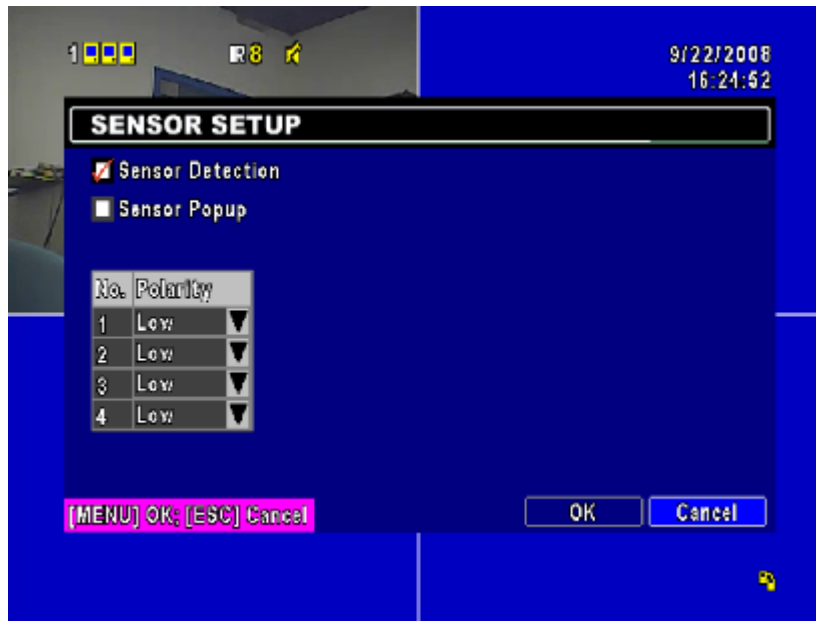
4-2.1.1 MOTION AREA SETUP

There are 16x12 partitions in motion detection area. Under initializing status, motion detection area is in entire screen. Red colored area is detected; yet the undetected area is transparent. It is purple while network connected.



Item	Description
LOCK/ZOOM	Press LOCK/ZOOM to select entire screen as detection area.
MUTE / PIP	Press MUTE/PIP to deselect entire screen as detection area.
STATUS	Switch between “select” and “deselect” for cursor-dragging function
ENTER	Press to function on the selected area with assigned status
MENU	Press to save the setup and leave
ESC	Press to cancel the setup and leave

▪ 4-2.2 SENSOR SETUP



Item	Description
Sensor Detection	Check the box to Enable/Disable sensor detection for all channels.
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.. 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.

4-3 SCHEDULE SETUP

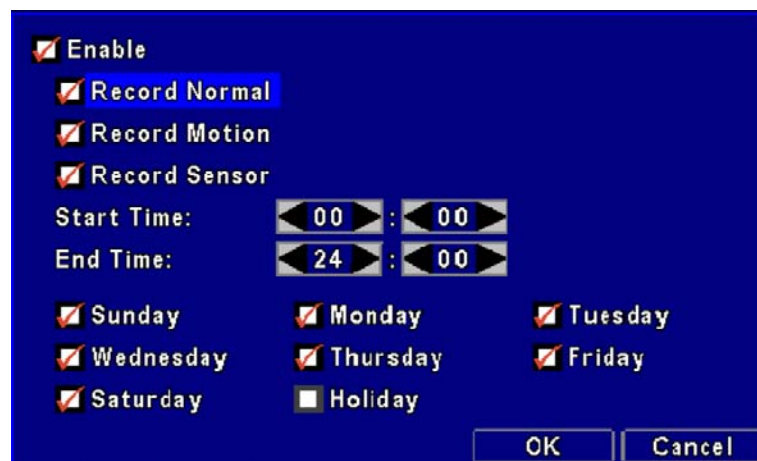
Except from starting recording manually, you can also setup the recording time by weeks and schedule including normal, motion detect, and sensor detect recording type.



Item	Description
Page	Click or press ▼ to select 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 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.

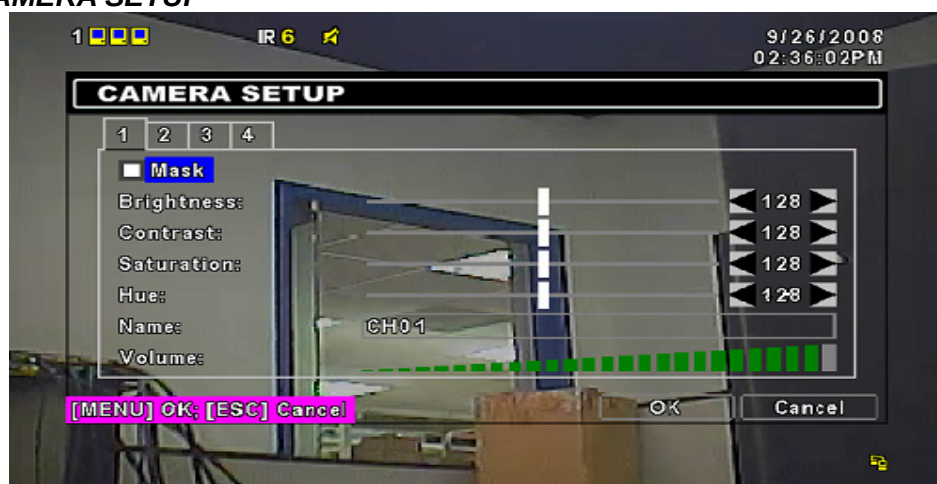


4-3.2 Holiday Setup

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



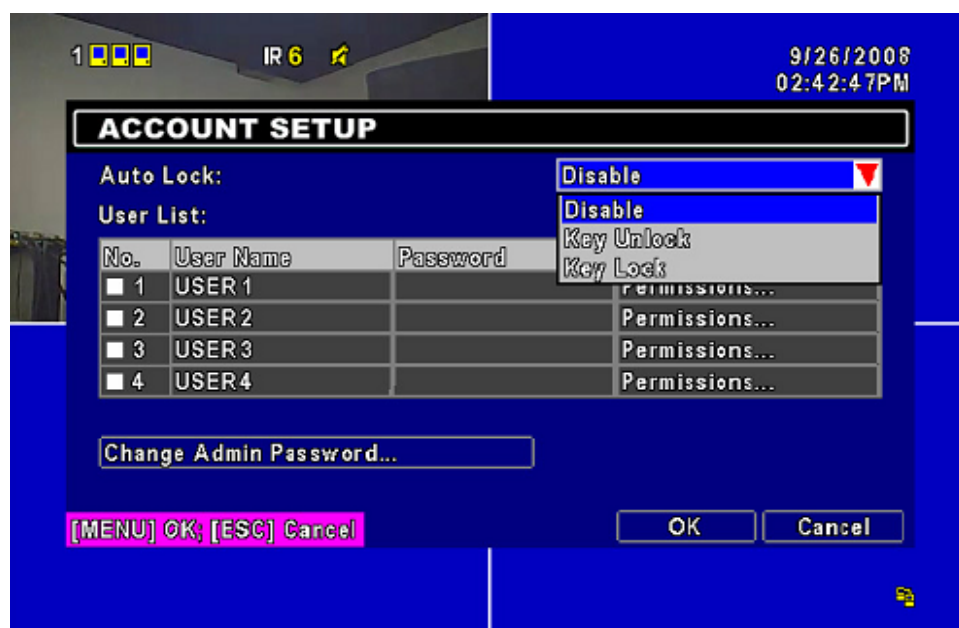
4-4 CAMERA SETUP



Item	Description
1~4	You can setup independently for each channel.
Mask	Check the box to Enable/Disable mask function for LIVE mode
Brightness	Drag the white bar or press ◀ ▶ to adjust Brightness of your camera from value 1 to 255. The default value is 128.
Contrast	Drag the white bar or press ◀ ▶ to adjust Contrast of your camera from value 1 to 255. The default value is 128.
Saturation	Drag the white bar or press ◀ ▶ to adjust Saturation of your camera from value 1 to 255. The default value is 128.
Hue	Drag the white 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	Select to adjust audio volume for CH1 to CH 4 under LIVE mode and recording mode.

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 is 「admin」 and password is "123456".



Item	Description		
Auto Lock	After one minute without any action, the DVR will switch to <i>LIVE</i> mode automatically. Auto lock can function differently according to the setting below.		
	Function Setting	Auto Logout	Key Lock
	Key lock	○	○
	Key unlock	○	×
	Disable	×	×
No.	Check to activate the user's account.		
Password	Enter to set up password for each user. Password can be set up to 8 characters mixed by letters and numbers with case-sensitive.		
Permissions	Enter to set up Permissions for each user.		
Change Admin Password	Enter to change administrator's password		

P.s.1: When logged out automatically, you will have to operate in limited authority such as operations like: Freeze the screen, Picture in picture, Zoom in/ out, switch between channels...etc. If you need to enter the Setup menu, Search menu, backup menu, Record...etc, user's account and password are required.

P.s.2: When the key lock automatically, remote control and mouse can't function before entering verified password.

P.s.3: 「○」: Enable the function, 「×」: Disable the function

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 and Mask on specific channels while playing back.



A dialog box with a blue background. It contains two columns of checkboxes. The first column has 'Setup', 'PTZ', and 'Utility'. The second column has 'Network', 'Playback', and 'Backup'. Below these is the text 'Playback Mask:' followed by four checkboxes labeled 'CH01', 'CH02', 'CH03', and 'CH04'. All checkboxes are currently checked. At the bottom right are 'OK' and 'Cancel' buttons.

☒ Setup	☒ Network
☒ PTZ	☒ Playback
☒ Utility	☒ Backup
Playback Mask:	
☒ CH01	☒ CH02
☒ CH03	☒ CH04
OK Cancel	

4-6 NETWORKING SETUP



A dialog box titled 'DHCP SETUP'. It has a 'Type:' label and a dropdown menu showing 'DHCP'. Below are three buttons: 'HTTP Setup...', 'DDNS Setup...', and 'Mail Setup...'. At the bottom left is a pink box with the text '[MENU] OK; [ESC] Cancel'. At the bottom right are 'OK' and 'Cancel' buttons.

DHCP SETUP

Type: DHCP ▼

HTTP Setup...

DDNS Setup...

Mail Setup...

[MENU] OK; [ESC] Cancel

OK Cancel

Item	Description
Connect type	Setup mode for network connection: DHCP 、 LAN 、 ADSL .
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.

4-6.1 NETWORKING SETUP

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

4-6.1.1 DHCP

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



4-6.1.2 LAN

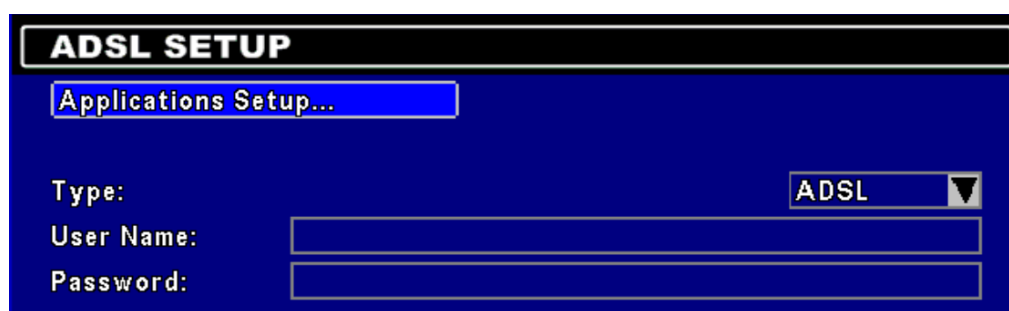
Select LAN for network connection, the following information is required.



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. (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.

4-6.3 Mail Setup

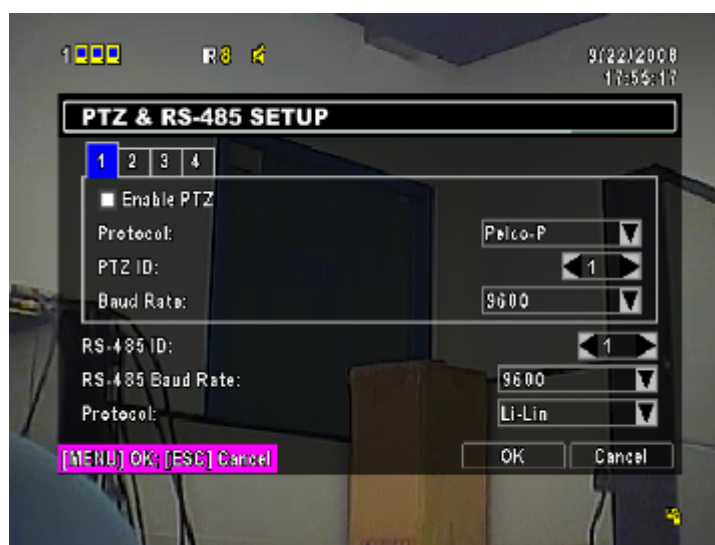
E-mail can be used as a form of notification when an event occurs (VLOSS, MOTION, SENSOR).

The image shows a 'MAIL SETUP' screen from a device's configuration menu. At the top, there's a status bar with '100%' battery, 'R8' signal strength, and the date/time '9/22/2008 17:53:54'. The main title is 'MAIL SETUP'. Below it, there's a checkbox labeled 'Enable E-mail Notification' which is checked. Underneath are four text input fields: 'SMTP Server:', 'User Name:', 'Password:', and 'Sender E-mail:'. Below these is a row of 10 small boxes numbered 1 to 10, representing individual receiver email addresses. Below that is a larger text input field labeled 'Receiver E-mail:' and a button labeled 'Trigger Events...'. At the bottom, there are three buttons: '[MENU] OK; [ESC] Cancel' (highlighted in pink), 'OK', and 'Cancel'.

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.
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.
E-mail address	Enter to set up e-mail addresses for up to 10 receivers individually.
Trigger Event	Enter to select events to send out E-mail notifications when below circumstances happen: Motion, Sensor and Vloss (Video Loss).

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.
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

4-8 SYSTEM SETUP



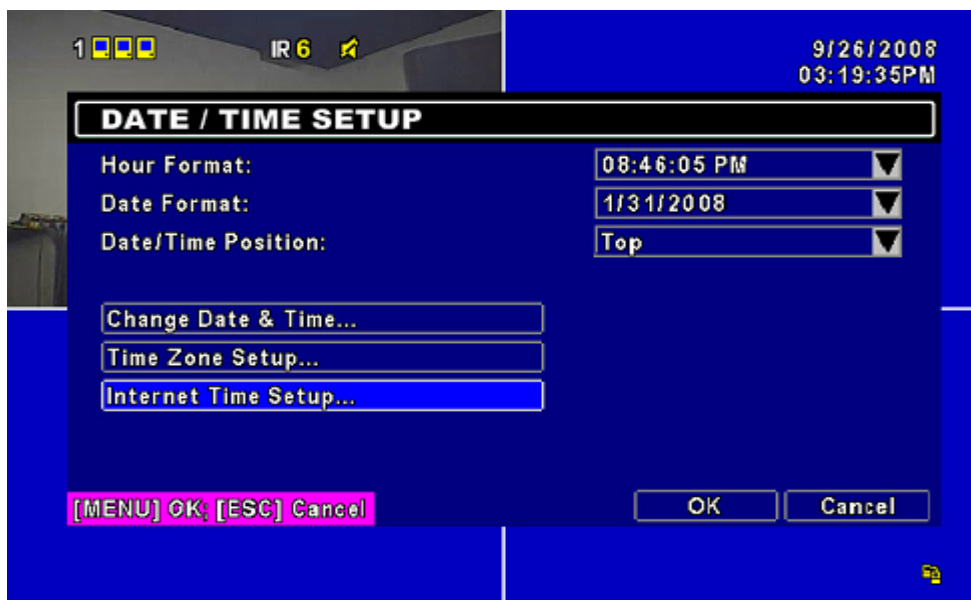
Item	Description
DVR Name	The name of DVR will be shown when users login from remote access.
DVR Location	The location of DVR will be shown when users login from remote access
Language	Click or press ▼ to select OSD language.
Auto-Seq Interval (Seconds)	Click or press ◀ ▶ to set up duration time in seconds for the interval between channels under Auto-Seq mode.
Remote ID	The default Remote ID is 0, when DVR is controlled by standard remote controller. To operate DVR by optional 1-to-8 remote controller, the Remote ID from 1 to 8 is required for recognition corresponding to 1-8 remote controllers and press DVR-1 button.
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

▪ 4-8.1 DISPLAY SETUP



Item	Description
OSD	Turn On / Off OSD display
DVR Status	Turn On / Off DVR illustration and record status display
Date/Time	Turn On / Off date and time display
Channel Name	Turn On / Off channel name display
Border Set	Set up the color of border in LIVE , PLAYBACK mode. (black 、 dark grey 、 light grey 、 white)

4-8.2 DATE/TIME SETUP



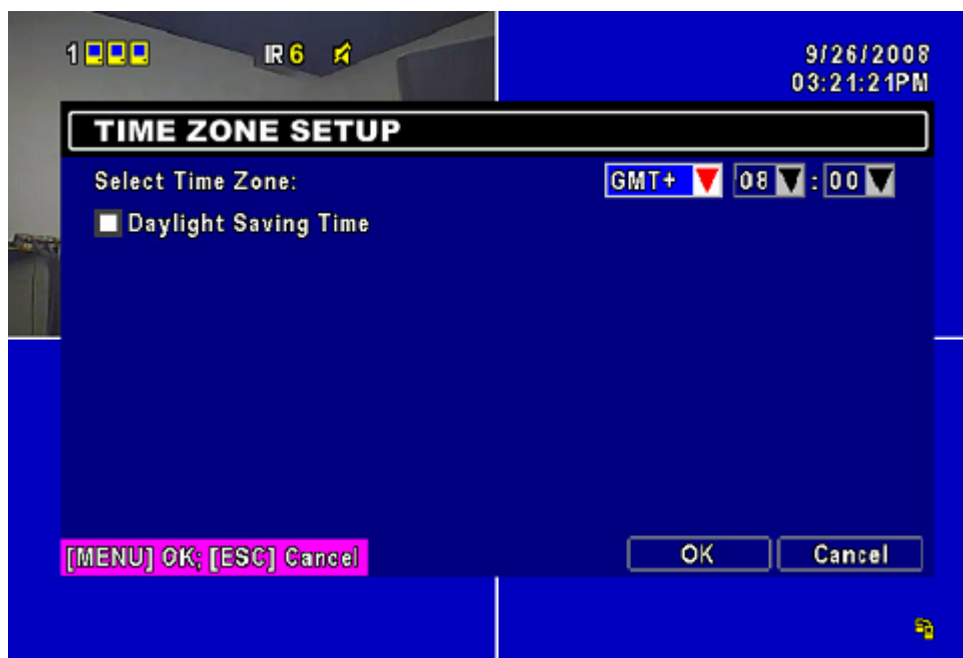
Item	Description
Hour Format	12HOURS/ 24HOURS
Date Format	MM-DD-YY/DD-MM-YY/YY-MM-DD
Date/Time Position	Choose the position of Time and Date display
Change Date & Time	Setup time and date of DVR
Time Zone Setup	Set up GMT and Daylight Saving Time.
Internet Time Setup	Setup automatic synchronization with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

4-8.2.1 CHANGE DATE & TIME

Users are allowed to setup date and time of DVR.

4-8.2.2 TIME ZONE SETUP

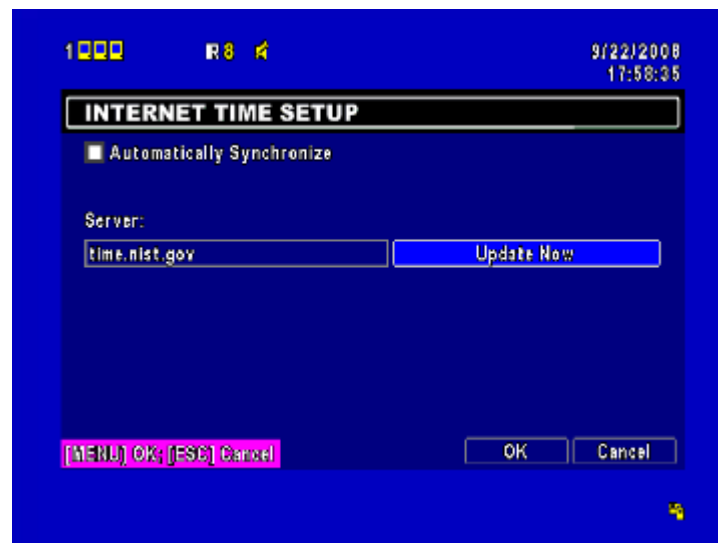
In time zone setup, users can change your time zone and activate Daylight Saving Time function according to your DVR location.



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

4-8.2.3 INTERNET TIME SETUP

Synchronize your DVR time with internet time server.



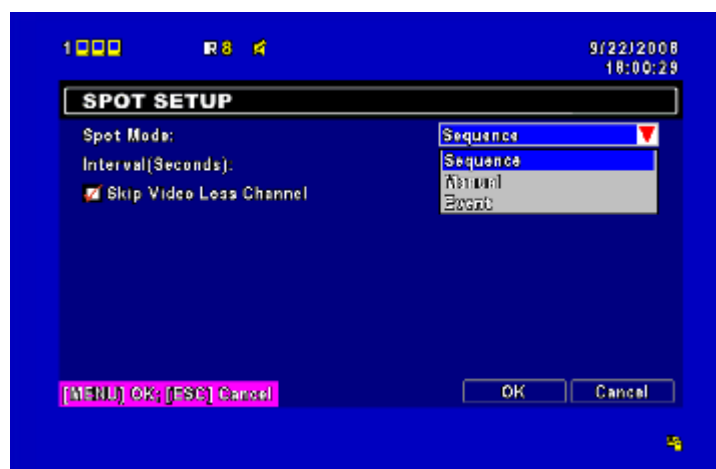
Item	Description
Automatic Synchronization	Check to enable DVR automatic synchronization function. Effective by this option selected, DVR will automatically synchronize the time upon rebooting or by every 24 hours after booting.
Update Now	Effectively, Date and Time show on DVR will immediately correspond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

4-8.3 BUZZER & RELAY SETUP



Item	Description
KEY TONE	Enable/Disable keystrokes.
Relay Switch Connection	Set relay signal to be Normal Close (N.C.) or Normal Open (N.O.).
Buzzer Duration	Set up the duration from 1~999 seconds.
ALARM BUZZER	Enable/Disable buzzer operation when the alarm is triggered for 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 sensor, motion and vloss.

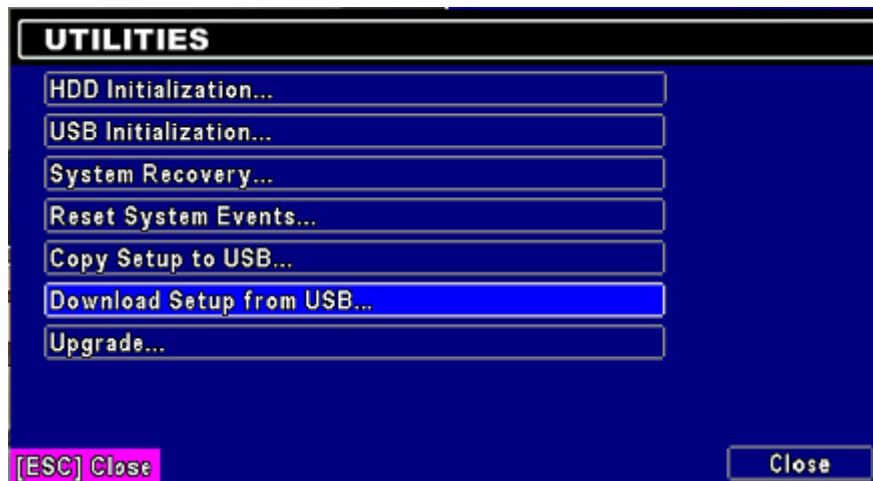
4-8.4 SPOT SETUP



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: MANUAL: select channels to display manually. SEQUENCE: Auto-sequence for all channels in order. 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.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.

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 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 being used for recording now 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 DVR.)
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. The format of backup file is *IRF* file that can be played by "DVRRemoteDesktop.exe"



Item	Description
From	The start time of backup file
To	The end time of backup file
Device	Select USB or CD/RW as the backup device
Free Space	The available space in your backup device
Refresh	Recalculate the available space of backup device
Calculate	Calculate the size of backup file
Start	Start backup operation. Be sure to calculate the size of backup file BEFORE operating backup.

Notice! 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	Press to enter event search menu
Time Search	Press to 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.



Item	Description
Criteria	Setup conditions of event search
Page	Convert pages of events
Date/Time	Date/time when event occurred.
Event Type	Event type, defined as following
	VLOSS Video Loss
	MOTION Motion Detected
	SENSOR Sensor Detected
	REMOTEIN user log-in over the network
	REMOTEOUT user log-out over the network
	POWER ON System Rebooting
	KEY LOCK System key are locked
	KEY UNLOCK System key are unlocked
	HDD FULL HDD is FULL
Channel	The channel where event occurred.

▪ 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 as well.

☐ From: 2000/01/01 00:00:00
☐ To: 2000/01/01 00:00:00

☒ Motion ☒ Sensor
☒ Video Loss ☒ Remote Login
☒ Remote Logout ☒ Power On
☒ Key Lock ☒ Key Unlcok
☒ HDD Full

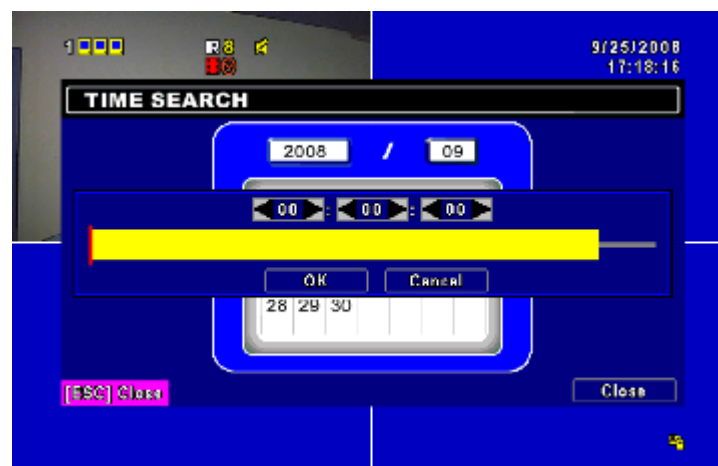
☒ CH01 ☒ CH02 ☒ CH03 ☒ CH04

▪ 5-2.2 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 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 “YES”. DVR will playback the selected recording data.



CHAPTER 6 NETWORK SURVEILLANCE

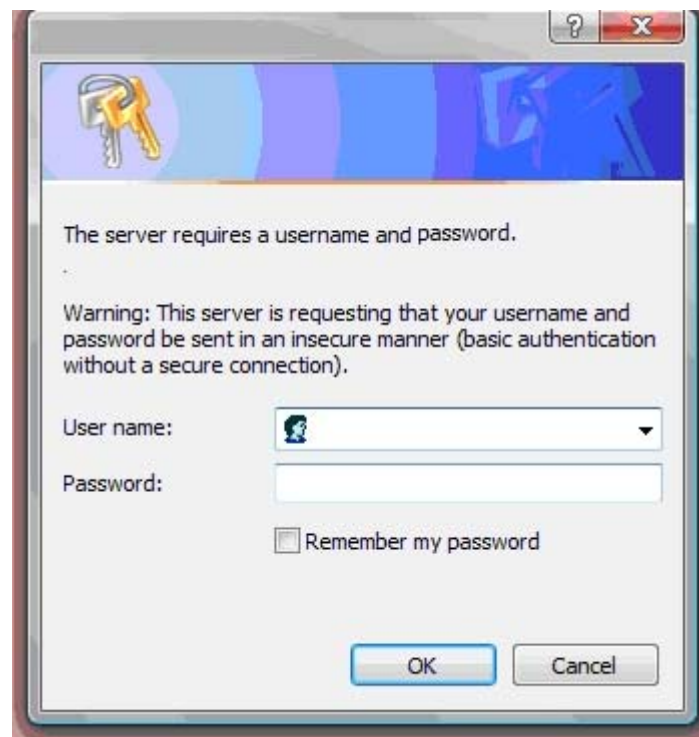
AP software: 「DVR Remote Desktop」 can allow you to remotely access and control the DVR from PC.

▪ 6-1 AP Software Installation and Setup

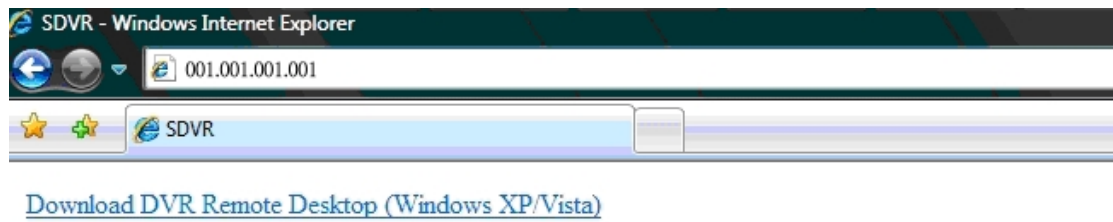
Step One : Enter the IP address of DVR in IE browser



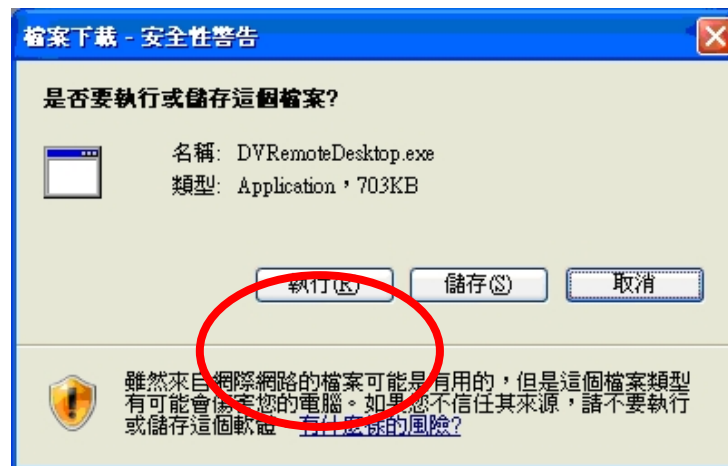
Step Two: Below windows will be shown up. Please enter the user name and password. Default user name is **admin** and password is **123456**. Other related setup about user account and password, please check “**4-5 Account Setup**. “



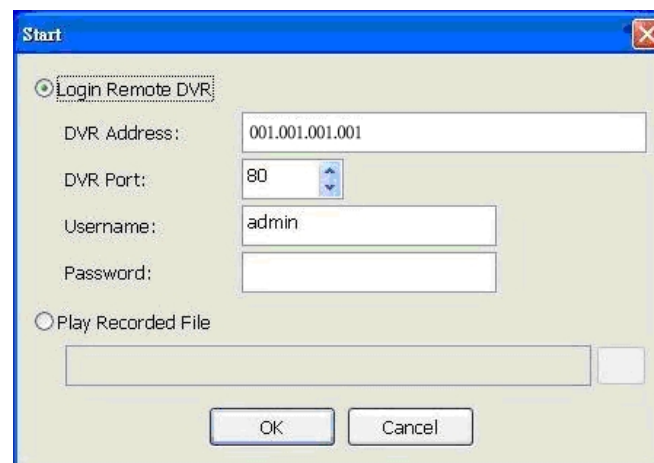
Step Three: Click on the link to start downloading the AP software.



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



▪ 6-2 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 」

After successful login, the operation and interface are the same as local DVR.

Table 6-2.1 describe some operations on your tool bar only for remote users.

Table 6-2.1 Toolbar of AP software

File - Record to Local	Record data to your PC, including <i>LIVE</i> and <i>Playback</i> .
File - Play Recorded Files	Play recorded files ".irf"
File - Exit / Alt + F4	Close the AP software.
Edit - Channel Name / F2	Edit channel name of your DVR including font, size italic, and boldface of characters. .
Edit - Reset Channel Name	Reset channel name back to default.
View - Hide Caption & Menu / F9	Hide the Caption and
View - Disable resizing / F10	Disable resizing the window.
View - Full screen / F11	Switch it to full screen
Help – About	Show information about software and information

▪ CHAPTER 7 SPECIFICATIONS

1. VIDEO		
Input Level		1.0 Vp-p±10% Composite, 75Ω Balanced
Display Speed	NTSC	120 FPS
	PAL	100 FPS
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	720 X 480, 720 X 240, 352 X 240
	PAL	720 X 576, 720 X 288, 352 X 288
Quality	Independent for each channel	Lowest/ Low/ 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	1 HDDs
Type		SATA / SATA II compatible
4. ALARM		
Sensor Input		4(4CH)
Alarm Out		1 Alarm out
Motion Detection		Available per each camera/ Multi-detection level
5. CONNECTIONS		
Video Input		4 ports (4CH)
Video Output		BNC 2 port, VGA 1 port (Optional)
Audio Input		RCA 1 CH
Audio Output		RCA 1 CH
USB 2.0		USB memory stick, USB Mouse, USB Touch Panel
Remote		Remote control, 1-to-8 remote control (optional)
External I/O		1 RS-485, 4(4CH) sensor input, 1 Relay Output
Ethernet		1 RJ45 connector, 10/100 Mbps
6. ELECTRICAL		
Power Source		DC 12V / 4A

7. ENVIRONMENTAL		
Operation Temperature		-5℃ ~ + 40℃
Humidity		Less than 90%
8. PHYSICAL		
Dimension		300(W) x 175(D) x 46(H) mm
Weight		1.3 KG (not including HD)
9. BACKUP		
BACKUP	USB Stick	Video Data, Audio
	Network	Video Data, Audio
10. SEARCHING & PLAYBACK		
Searching Method		Searching Method
Speed		120 FPS
11. MULTI-REMOTE SURVEILLANCE		
Monitoring Environment		Web/AP/CMS
Max. client		Supporting multi-client (5 clients accessible)
12. OTHERS		
OS		Embedded Linux
Multi Task	Pentaplex	Live 、Record 、Playback 、Network 、Data Backup
Control Device		Remote Control / 1-to-8 Remote Control (Optional) Virtual Keyboard / Mouse / AP Software
PC Viewer		Direct monitoring of DVR's HDD on PC
Numbers of event list		10240

Table 7-1

Recording Speed (Independent setting for each channel)	NTSC	352 x 240	120 FPS
		720 x 240	60 FPS
		720 x 480	30 FPS
	PAL	352 x 288	100 FPS
		720 x 288	50 FPS
		720 x 576	25 FPS
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.

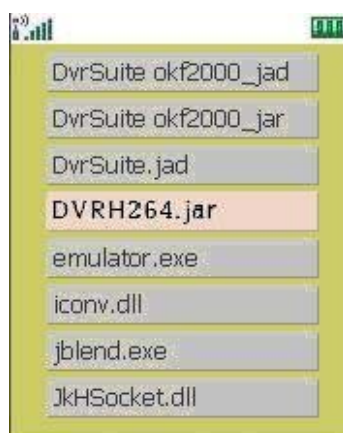
Mobile device that support GPRS/ 3G protocol and Java cldc1.0/midp 2.0 environment.

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.

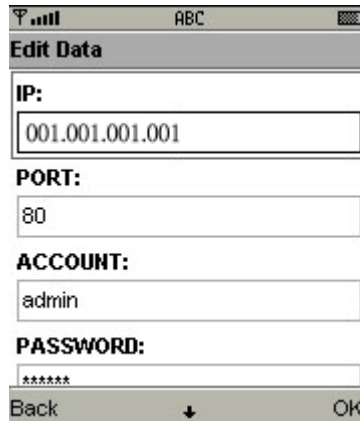
Step 2: Install the application software “**DVRH264.jar**” in your mobile device. It might be installed automatically after downloading; otherwise, select it from the downloading file for installation.



8-1.2 Mobile Application Operation

After the installation, enter the Program Files menu in your mobile device to run a file called "H264 MIDlet".

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

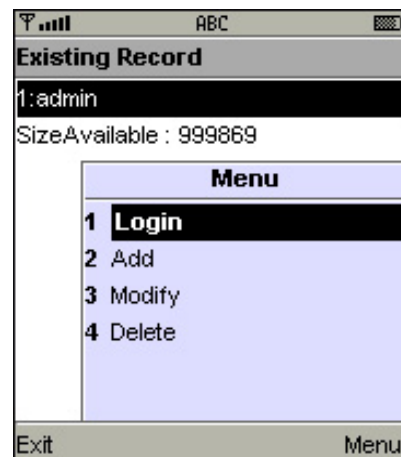
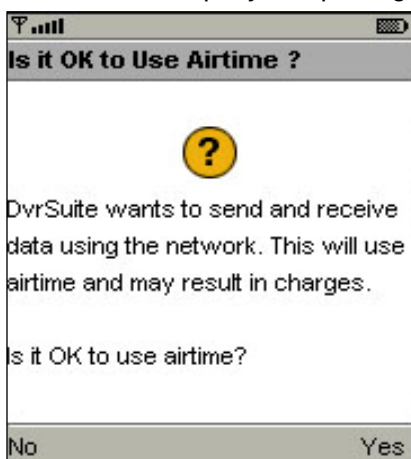
enter logging-in DVR's IP address, Port number, account name and password.

Press "**Add**" to save this information after entering.

8-1.2.2 Logging Onto the DVR

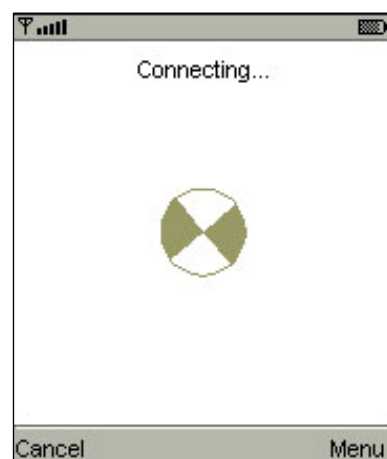
Use the Login command to log onto a DVR and monitor live images. If multiple DVRs have been added to the mobile application, they will be listed by name, you can select one to log onto.

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 will be affected by networking environment and bandwidth flow.

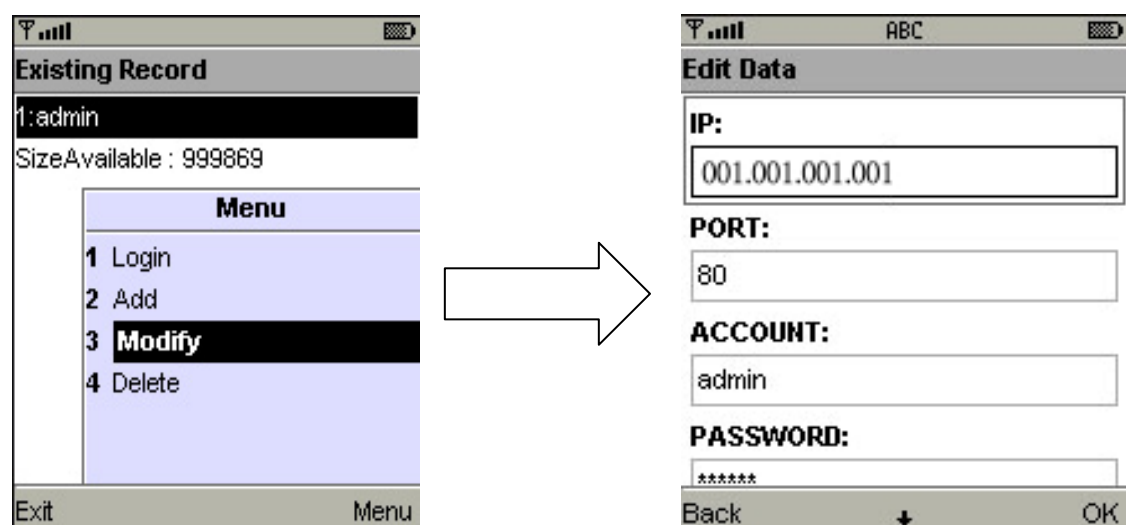
Live image will show up after a successful connection.



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

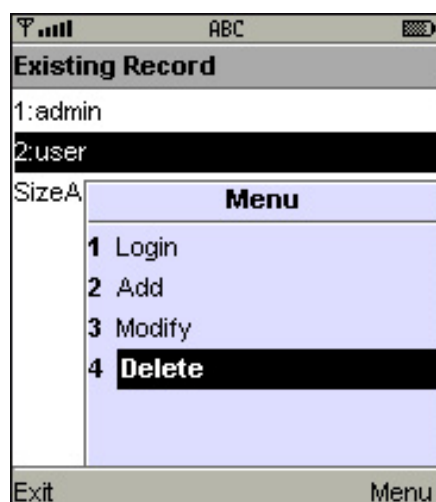
▪ 8-1.2.3 Modify the Login Information of DVR

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

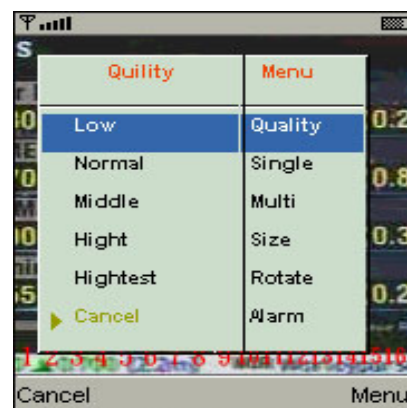
You can use the keypad on your mobile device to scroll the image if it's oversized.

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

8-1.3.2 Image Quality Setup



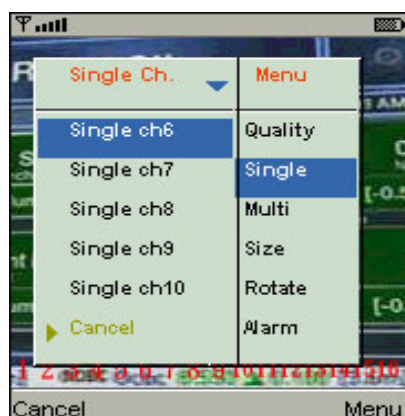
Select **"Quality"** under the **"Menu"**



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

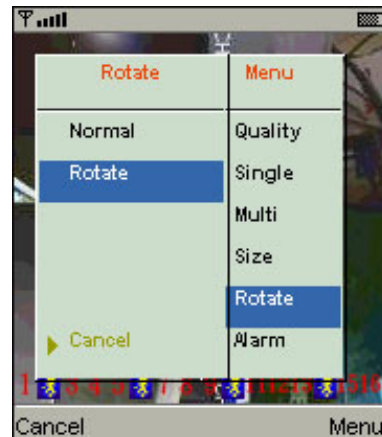
The screen size of different mobile device can be different. You can select “**Size**” under the “Menu” to choose from “**Original**” or “**Fit Screen**” to resize the display image.

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 and 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.



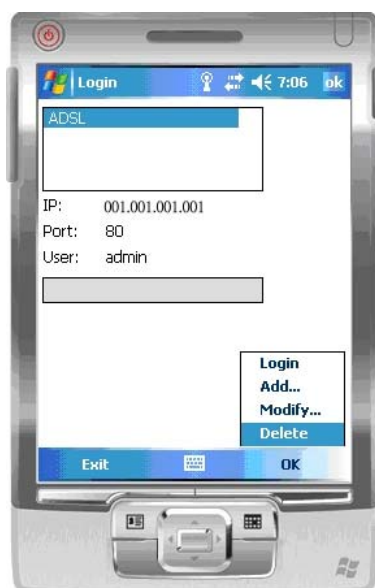
▪ 8-2.2 Mobile Application Operation

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” • PS. The Live can not be displayed in your mobile when the recoding is off. • 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.

The operation of Jrviewer



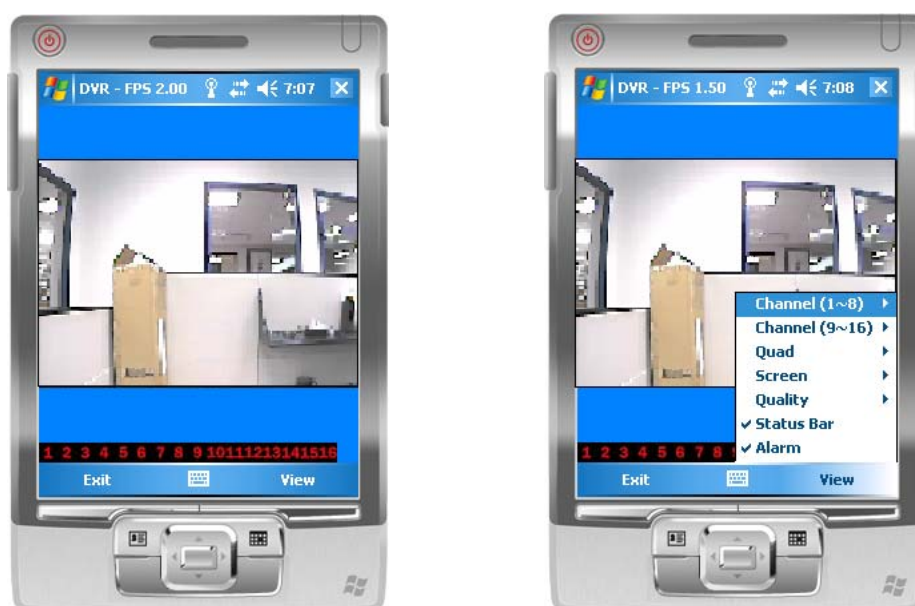
The operation of H264Pocket



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

8-2.3.1 Operation under the LIVE monitoring for Jrviewer



Item	Function	Description								
Channel 1~16	Display for CH 1~16	Choose from CH1~16 to display								
Screen	Size of image	Original : image size as original Stretch : stretch the size as full screen Fit: resize the image to fit the screen								
Quality	Quality	Change the quality of image. Please note the better quality, the slower data transfer rate.								
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>	Icon	Description		Motion Detect		Sensor Trigger		V-Loss
Icon	Description									
	Motion Detect									
	Sensor Trigger									
	V-Loss									
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.								

8-2.3.2 Operation under the LIVE monitoring for H264 Pocket



Item	Function	Description								
Channel 1~16	Display for CH 1~16	Choose from CH1~16 to display. CH1~4 can receive audio signal.								
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>	Icon	Description		Motion Detect		Sensor Trigger		V-Loss
Icon	Description									
	Motion Detect									
	Sensor Trigger									
	V-Loss									
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.								
Full Screen	Full screen display	You can choose one channel to display in full screen by check this function.								