

USER MANUAL

08/16 CHANNELS

DIGITAL VIDEO RECORDER

INSTRUCTION MANUAL

To obtain the best performance and ensure device function correctly, please read this instruction manual carefully and completely.

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FCC Compliance

USER-INSTALLER CAUTION: YOUR AUTHORITY TO OPERATE THIS FCC VERIFIED EQUIPMENT COULD BE VOIDED IF YOU MAKE CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE TO PART 15 OF THE FCC RULES.

NOTE: THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

THIS CLASS A DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATIONS.



WARNINGS, CAUTIONS & COPYRIGHT

WARNINGS



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

DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

CAUTION

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
<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>		

Explanation of Graphical Symbols

	The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of insinuated "dangerous voltage" within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.
	The exclamation point within an equilateral rhombus is intended to alert the user to the presence of important operating and maintenance (servicing) instruction in the literature accompanying the product.

USERS OF THE SYSTEM ARE RESPONSIBLE FOR CHECKING AND COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND STATUTES COIPCERNING THE MONITORING AND RECORDING OF VIDEO AND AUDIO SIGNALS. ULTRAK SHALL NOT BE HELD RESPONSIBLE FOR THE USE OF THIS SYSTEM IN VIOLATION OF CURRENT LAWS AND STATUTES.

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1 INTRODUCTION

1.1 FEATURE

- H.264 video compression.
- 240 PPS
- Recording quality/ rate adjustment per channel available.
- Support CMS (Central Management System) and 3GPP.
- Audio Backup / Audio Streaming.
- Graphic User Interface (GUI).
- Support time-point backup function under Ethernet remote control mode. User can select any time period to process backup from remote side.
- Support time-search & event-search function under Ethernet remote control mode.
- Up to four online clients for independent remote control; individual live-time, play-back & time-search function available.
- Support PPPoE/ Static/ DHCP IP & DDNS.
- Real Triplex, recording/ live-time & playback operation at the same time available.
- ID function supplied from IR remote controller. User can control different DVRs at the same time by using one IR remote controller.

1.2 SPECIFICATION

VIDEO		
MODE	Triplex	
IMAGE SYSTEM	CH-D2085 (8CH)	CH-D2165 (16CH)
LIVE-TIME RESOLUTION & DISPLAY RATE	NTSC: 720x480 ; 16 × 30 Frame / Sec	
	PAL: 720x576 ; 16 × 25 Frame / Sec	
SPLIT SCREEN	1, 4, 8, 9	1, 4,9,13,16
VIDEO INPUT	BNC × 8	BNC × 16
VIDEO LOOPING	BNC × 8	BNC × 16
VIDEO OUTPUT (BNC)	BNC × 1	
VIDEO OUTPUT (SPOT MONITOR)	BNC x 1	
VIDEO OUTPUT (S-VIDEO)	Yes	
VIDEO OUTPUT (VGA)	Yes	
AUDIO		
AUDIO INPUT	RCA × 1	
AUDIO OUTPUT	RCA × 1	
AUDIO BACKUP	Yes	
AUDIO STREAMING	Yes	

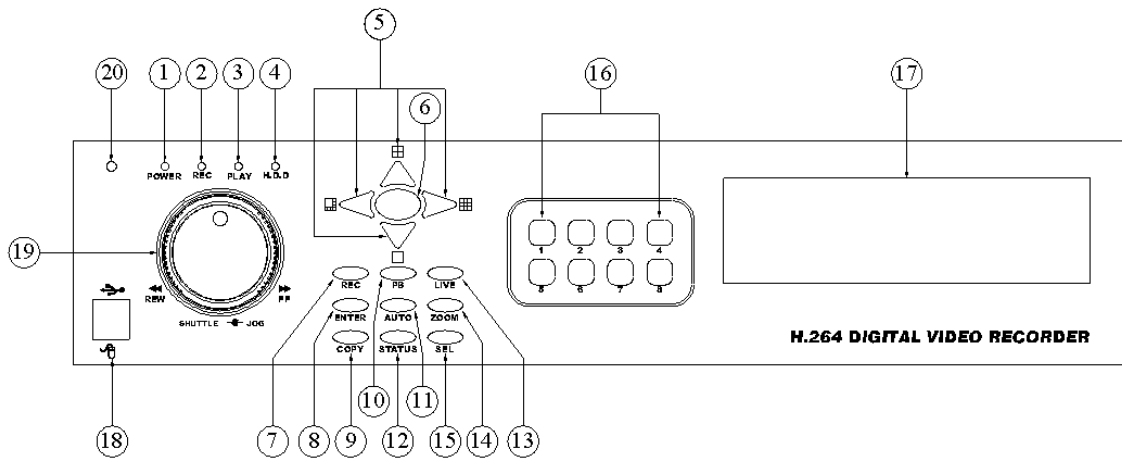
RECORDING	
COMPRESSION TYPE	H.264
RECORDING RESOLUTION (HALF D1) & RATE NTSC	720 x 240 up to 120 FPS
RECORDING RESOLUTION (CIF) & RATE NTSC	360 x 240 up to 240 FPS
RECORDING RESOLUTION (HALF D1) & RATE PAL	720 x 288 up to 100 FPS
RECORDING RESOLUTION (CIF) & RATE PAL	360 x 288 up to 200 FPS
COMPRESSION RATE	Low: 1K Bytes Medium: 2.2K Bytes High: 3.2K Bytes Best: 6K Bytes
RECORDING MODE	Manual / Schedule / Alarm
PLAYBACK & SEARCH	
PLAYBACK SPEED	Fast Forward X 2 X 4 X 8 Fast Backward X 2 X 4 X 8 field by field Playback Pause
TIME SEARCH	Yes
EVENT SEARCH	Yes
EVENT LIST	3000 records per H.D.D (Maximum)
OSD & CONTROL INTERFACE	
TITLE	8 Characters
ON SCREEN DISPLAY & SETUP	Time / Date / Setup Menu
GRAPHIC USER INTERFACE (GUI)	Yes
DVR CONTROL PANEL	Yes
MOUSE	Yes
IR REMOTE CONTROLLER	Yes
3D / 2D Controller	Yes
IE BROWSER	Yes
PLAYER	Yes
STORAGE & BACKUP DEVICE	
INTERNAL HDD SUPPORT	SATA HDD x 2
USB BACKUP	Yes
DVD RW BACKUP	Yes (DVD-RW)
NETWORK	
ETHERNET	Yes
ETHERNET COMPRESSION FORMAT	H.264

IE REMOTE CONTROL	Yes	
NTP	Yes	
DDNS	Yes	
E-MAIL & FTP	Yes	
NETWORK IP	Static/ Dynamic/ PPPoE	
MULTI-REMOTE CLIENT	Yes (4 Clients at the same time available)	
3GPP	Yes (MPEG-4)	
ALARM		
ALARM INPUT	8 In (NO/ NC)	16 In (NO/ NC)
ALARM OUTPUT	1 Out (NO/ NC)	1 Out (NO/ NC)
MOTION DETECTION	Yes	
MOTION DETECTION AREA	30 x 24 grids	
MOTION DETECTION SENSITIVITY	1-100	
VIDEO LOSS DETECTION	Yes	
ALARM RECORDING	Yes	
BUZZER	Yes	
SETUP & OTHER FUNCTIONS		
DAYLIGHT SAVING TIME	Yes	
PTZ CONTROL	Yes	
RS-232	Yes	
RS-485	Yes	
DIGITAL ZOOM	Yes	
PASSWORD CONTROL	Three levels, one for system, one for HDD format and the other for Network Password.	
KEY-LOCK	Yes	
MULTI-LANGUAGE	Yes	
FIRMWARE UPDATE	USB Host & Update on line	
OTHERS		
POWER INPUT	AC 100V~240V	
POWER CONSUMPTION (W)	24W (Without HDD)	
DIMENSIONS (W x H x D)	430mm (W) × 88mm (H) × 382mm (D)	
WEIGHT (kg)	6.3	
OPERATION TEMPERATURE	0 - 45 °C	

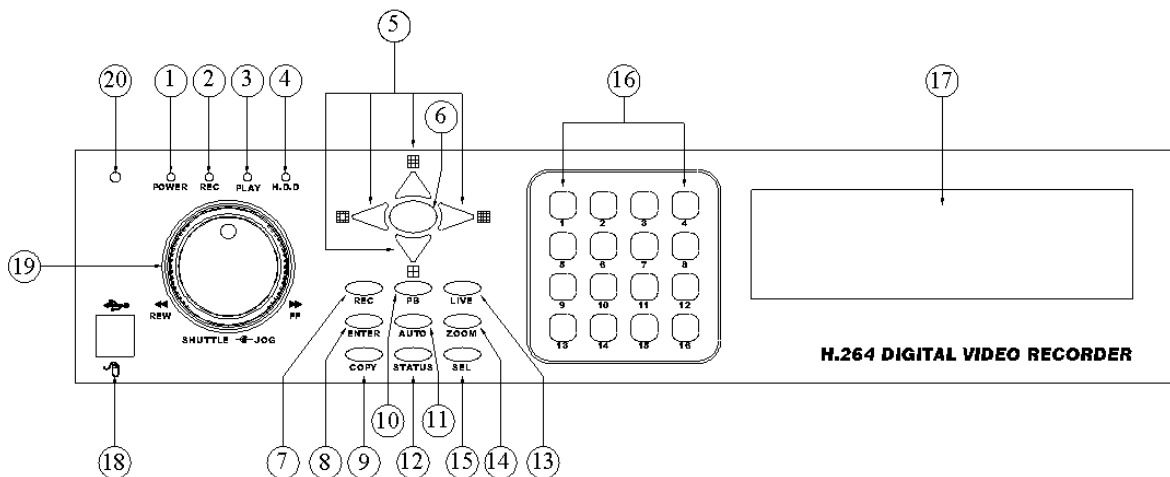
*** SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE**

2 HARDWARE OVERVIEW

2.1 FRONT PANEL



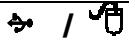
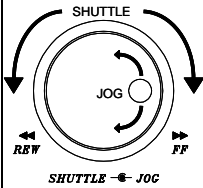

08-CH DVR FRONT PANEL



16-CH DVR FRONT PANEL

DVR OPERATION

NO.	LABEL	OPERATION	PTZ
1	POWER	Power LED Indicator	
2	REC	Recording LED Indicator	
3	PLAY	Play LED Indicator	
4	H.D.D	H.D.D LED Indicator	
5	▲ ▼ ◀ ▶	Button Of Controller. Button Of Switching Channel.	UP, DOWN, LEFT & RIGHT
6	MENU	Press MENU to entry or exit main menu	
7	REC	Press REC to start recording. Press again to stop	
8	ENTER	Press ENTER button to make choose or move cursor forward or make confirm in MENU system	
9	COPY	Backup video or picture to USB or CDRW	Narrow key
10	PB	Playback for TIME SEARCH or EVENT LIST.	

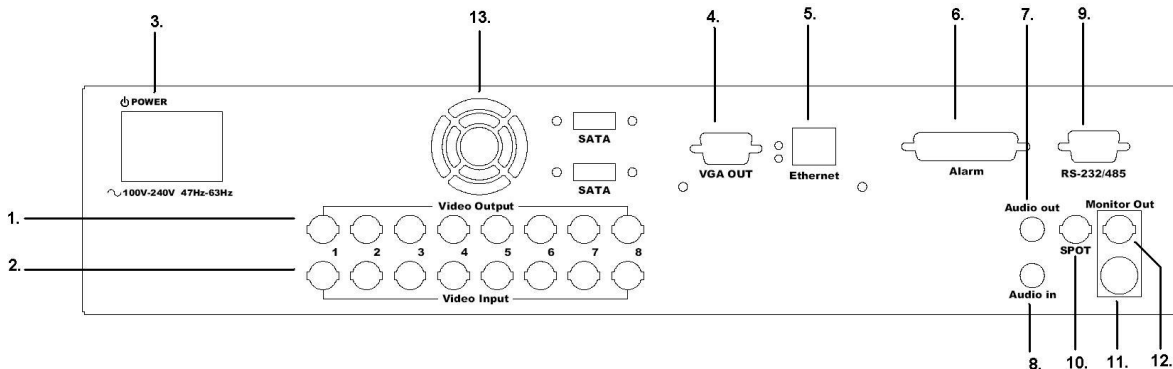
11	AUTO	Press AUTO to switch channel by channel automatically	
12	STATUS	Display the status of H.D.D. and USB devise	Zoom button
13	LIVE	Live viewing	
14	ZOOM	Zooming	
15	SEL	Press this button to select the different assembled of camera formats.	
16	1-8 / 1-16	Press the button to display full screen.	
17	CDRW	Slot for CDRW	
18		USB or Mouse connector	
19	SHUTTLE & JOG	 <p>SHUTTLE: FAST FORWARD ×2 ×4 ×6 ×8 FAST BACKWARD ×2 ×4 ×6 ×8</p> <p>JOG: PICTURE BY PICTURE PLAYBACK</p>	
20		IR Sensor for remote control	

Note: 1. User can select camera by using the channel keys on DVR front panel. For example, user can press “+10” key and then press “6” key to see the 16th channel camera image.

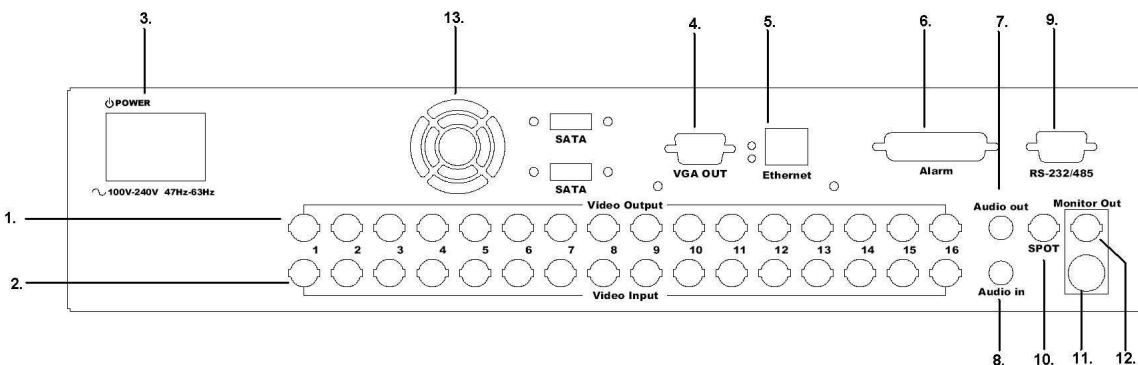
2. Under the Full and 16 split screen condition, press SELECT button to switch AUDIO ON/OFF.

3. Please plug in the supplied mouse to DVR mouse connector before turn on the DVR. DO NOT REMOVE and PLUG IN the supplied mouse while DVR is operating.

2.2 BACK PANEL



08-CH DVR BACK PANEL



16-CH DVR BACK PANEL

NO.	LABEL	OPERATION
1	VIDEO OUTPUT	Video output with BNC connector.
2	VIDEO INPUT	Video input with BNC connector.
3	POWER	Power switcher: AC100V~AC240V / 47-63Hz input.
4	VGA D-SUB OUT	Connect to CRT or LCD monitor.
5	ETHERNET	RJ-45 connector for network.
6	ALARM	25 pin D-Sub connector for Alarm input/ output.
7	AUDIO OUT	Audio output.
8	AUDIO IN	Audio input.
9	RS-232 / RS-485	9 pin D-Sub connector for external control unit.
10	SPOT	SPOT video output.
11	MONITOR OUT	Video output with S-Video connector.
12	MONITOR OUT	Video output with BNC connector.
13	FAN	Cooling fan.

2.3 ADVANCED AUTO SWITCH ZOOM, PTZ, COPY KEY CONTROL & USB INFORMATION

AUTO SWITCH : In the split screen mode, use the “AUTO” key in the front panel to enable auto switch function. Moreover, press “AUTO” key again to disable it.

ZOOM :In the full screen mode, user can use “ZOOM” button on the front panel to perform ZOOM function. Press ▲ ▼ ◀ ▶, located on the front panel, to move the zoom window.

PTZ : When camera supported PTZ function, user can use “PTZ” button, located on the front panel, to perform PTZ function. Press ▲ ▼ ◀ ▶ to select and change setup value.

COPY : Within the playback mode, press “COPY” button to start backup record and press “COPY” again to end backup. The user can see the backup image approx. 3 ~5 sec.

USB INFORMATION: Within the LIVE VIEWING, press “ENTER” key in the front panel will present the USB information. **(NOTE: Please confirm that USB Device has plugged into DVR.)**

2.4 CAMERA & MONITOR LOOPING

Here recommend link cameras by sequence to avoid unexpected image broken, from CH1, CH2, CH3, CH4.....

2.5 EXTERAL ALARM

There are three types of alarms that the system can be configured to handle. They are Motion detection Alarm, External Alarm and Video Loss Alarm.

A. Motion detection Alarm and External Alarm:

When motion detection or External Alarm was triggered, there are 5 possible actions will be taken.

- a. Changes recording speed as alarm recording speed.
- b. Monitor will display corresponding full screen alarm channel, it will switch automatic mode to manual mode if buttons pressing activity occurred in 5 seconds.
- c. Relays can be activated by motion detection or external alarm when turning on.
- d. External alarm will be recorded in the event list. Motion detection can be set to yes or no.
- e. The camera title will be transformed into color of yellow when motion is happening, “ALARM” text will show up when external alarm is triggered.

B. Video Loss Alarm:

The default setting of Video Loss alarm is enabled and cannot be changed. Although buzzer action can be disabled, an ALM record will still be added to the Event List that indicates the precise time of video loss.

C.25 PIN D-Sub connector is used for external alarm input. It will accept TTL/CMOS type trigger signals where the **16ch DVR** alarm inputs will be set by signal polarity. It also accepts contact type devices. For example, N.O. relay input, the Alarm Polarity should set to LOW in the ALARM SETUP menu. For N.C. relay input, the Alarm Polarity should set to HIGH in the ALARM SETUP menu.

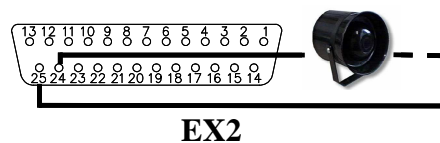
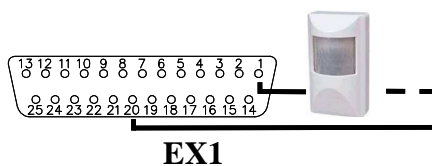
Connector pins 1-16 are for TTL/CMOS compatible alarm signals or for connect one side of the contact type devices. Connector pins 20-21 are for input signal grounding or the remaining side of the contact type devices.

The alarm hold input accept TTL/COMS alarm signal as well as contract device. The connector pin 22 connected to Alarm Reset. The Alarm Reset signal return connects to ground pin (pin 20-21).

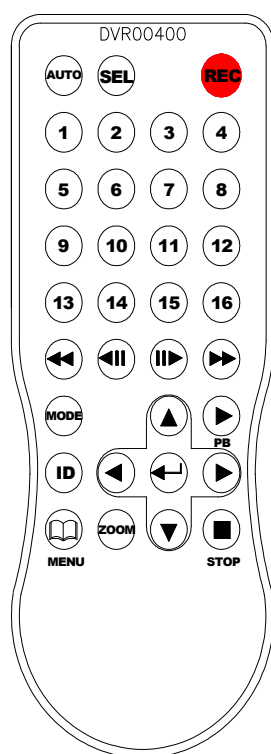
Alarm output is Relay Type, Pin 24 is Normal Close and Pin 25 is Normal Open. These outputs can be used to control external devices.











D-SUB25	PIN	DEFINE
	1-16	Alarm 1-Alarm 16 Camera alarm input
	17-19	N/A
	20, 21	GND (Connecting to Ground, Alarm Input)
	22	Alarm Reset
	23	Relay COM (Alarm Output)
	24	Alarm output, N.C.
	25	Alarm output, N.O.

EXAMPLE 1: Connect with PIR (Passive Infrared) device from ALARM1 INPUT.
 EXAMPLE 2: A Normal off (Normal Open) alarm siren at Alarm Output.



2.6 IR REMOTE CONTROL



ITEM	
AUTO	Press AUTO to switch channel by channel automatically.
SEL	Press this button to select the different assembled of camera formats or perform PTZ functions. Moreover, under the 16 split screen and full screen modes, press this button for switching Audio ON/ OFF.
.REC	Press REC to start recording & again to stop.
1-16	Press the button to select the channel for full screen.
	Fast backward
	Picture by picture backward play
	Picture by picture forward play
	Fast forward
	Play video forward
MODE	Split Screen Switch
ID	**ID setup to control DVRs
	Switch split screen & Move upward or increase.
	Switch split screen & Move right or increase.
	Switch split screen & Move downward or decrease.
	Switch split screen & Move left or decrease.
	To enter item or make choose.
MENU	To into or exit main menu
STOP	Stop play and playback

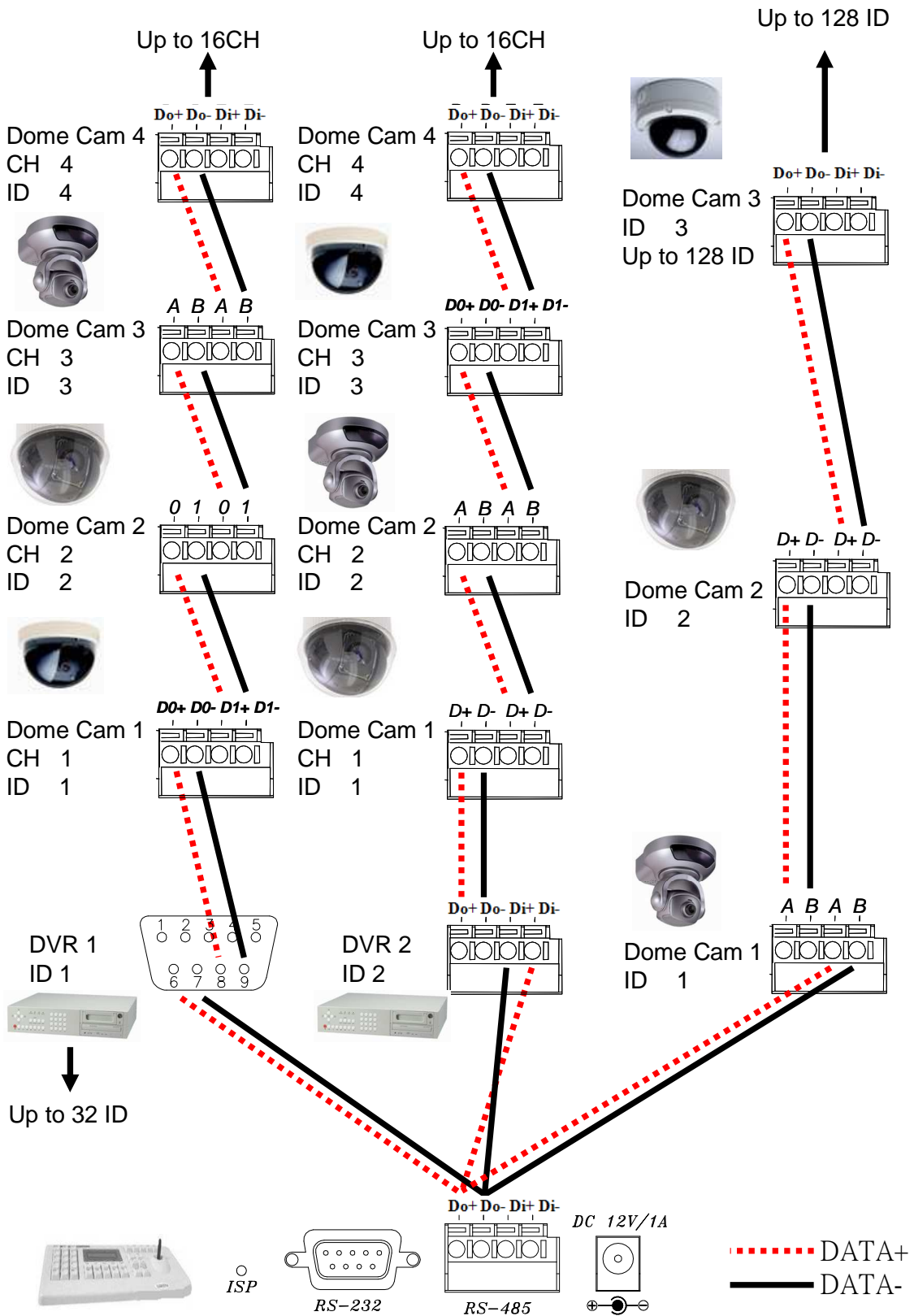
****Each DVR can setup its own ID number. The user can control DVR via remote controller by pressing ID button first and then ID number of DVR and ID button again of remote controller.**

For example, if DVR is set to 1, the user has to press ID button+ 1+ ID button again of remote controller to control this DVR.

****Click ID button first and then number 99 and ID button again to control multi-DVR(s) on the same time.**

2.7 PTZ (PAN, TILT AND ZOOM) CAMERA

Following diagram for DVR connect between PTZ camera & joystick controller, for DVR to control PTZ camera please make sure the CAMERA ID, BANDRATE (default at 9600 bps) and RS-485 cable.

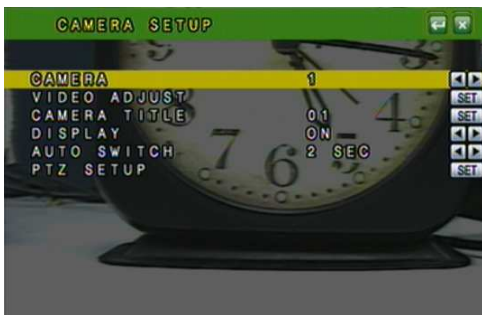


3 SYSTEM SETUP

3.1 MENU SETUP INTERFACE(GUI)



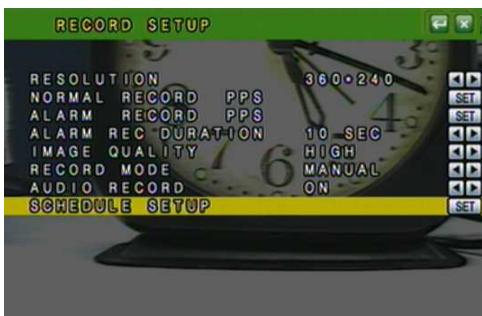
A. CAMERA SET



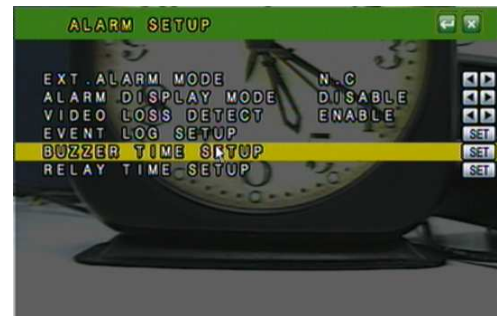
B. MOTION SETUP



C. RECORD SETUP



D. ALARM SETUP



E. HARD DISK SETUP

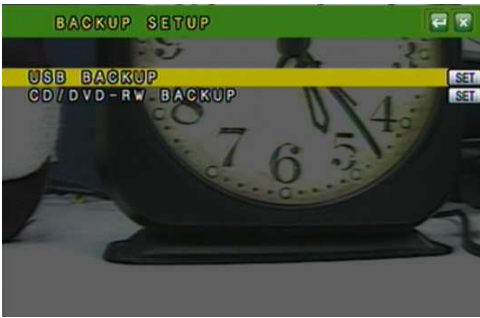


F. NETWORK SETUP

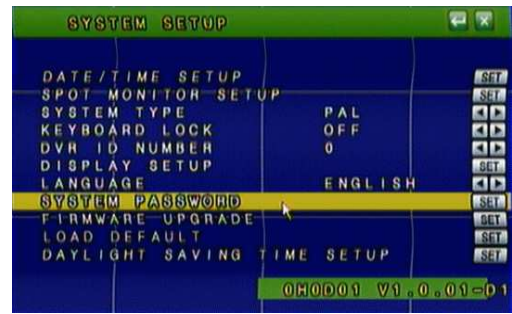




G. BACKUP SETUP







H. SYSTEM SETUP



3.2 LIVE VIEWING AND POP-UP MENU





NOTE : The pop-up menu can be activated by moving the mouse cursor to the bottom of the live viewing screen.

- A.  **GUI MENU BAR**
With live viewing mode, press this button to get into the GUI menu.
- B.  **DISK INFORMATION**
With live viewing mode, press this button to display disk information.
- C.  **DIGITAL ZOOM**
In the live full screen mode, left-click the button of the mouse to pull a range to zoom in or zoom out the image. User can right-click the button of the mouse to disable this function. (NOTE: Using the mouse to operate digital zoom can zoom in to max. 16 times.) Moreover, user can also use ZOOM key on the front panel to perform this function. (First, click ZOOM Key and then click ▲▼◀▶ key to select zoom in or zoom out position. Finally, click ENTER key to complete the setting. Moreover, click ZOOM Key again can disable digital zoom function. Using the panel key to perform zoom in function is fixed at 2 times.)
- D.  **PTZ CONTROLLER**
Within live-viewing mode, Clicks this button to get into the PTZ setup menu. User can also use PTZ key on the front panel to perform this function. Moreover, user can right-click the button of the mouse or press the PTZ key on the front panel again to exit PTZ Setup.

**NOTE : Only for the camera supported PTZ function.
PTZ CONTROL**



Press  to process Preset Point setup and press  to exit setting



Under PTZ control mode, press



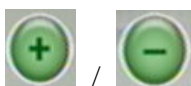
into PTZ setup menu.

User can also press the "MENU" key on the DVR front panel to get into PTZ setup menu.

To process AUTO function.

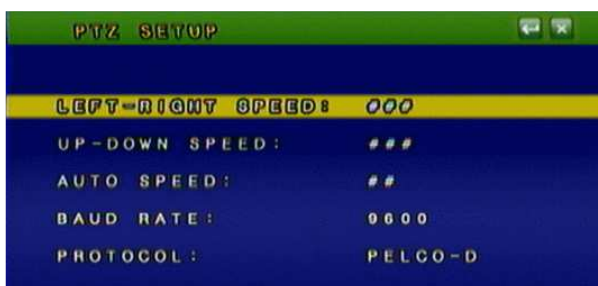


Direction key



Zoom In ("▶▶" Key)/Out ("◀◀" Key) key

PTZ SETUP MENU




LEFT-RIGHT SPEED: Use the mouse wheel to change the left-right speed.


UP-DOWN SPEED: Use the mouse wheel to change the up-down speed.


AUTO SPEED: Use the mouse wheel to change the auto patrol speed.

BAUD RATE: Use the mouse wheel to change the BAUD rate.

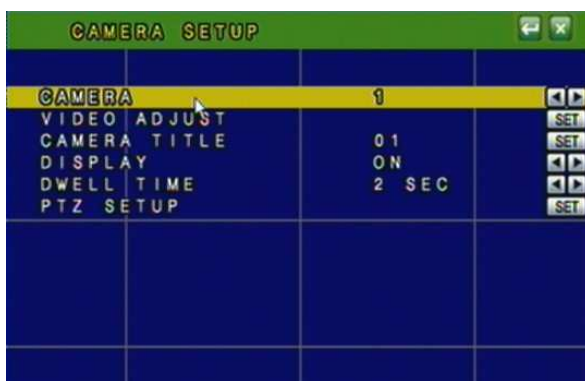
PROTOCOL: Use the mouse wheel to change the connection protocol

- E.**  **AUDIO CONTROL**
Press this button to turn the audio on or off ◦

- F.**  **DISPLAY CONTROL**
Within live-viewing or playback mode, use display control to switch the camera channel.

- G.**  **RECORD AND PLAYBACK CONTROL**
Same as front panel controller and remote controller.

3.3  **CAMERA SETUP**



Press ▲ or ▼ to select items.
Press ◀ or ▶ to change values.
Press SET to see more options.

- A. CAMERA**
Press ◀ or ▶ / mouse wheel to switch channels.

B. VIDEO ADJUST



- B-1. CONTRAST**
Press ◀ or ▶ / mouse wheel to change contrast level.

- B-2. BRIGHTNESS**
Press ◀ or ▶ / mouse wheel to change brightness level.

- B-3. HUE**
Press ◀ or ▶ / mouse wheel to change HUE level.

B-4. COLOR

Press ◀ or ▶ / mouse wheel to change color level.

B-5. SHARPNESS

Press ◀ or ▶ / mouse wheel to change sharpness level.

C. CAMERA TITLE



Use mouse to select and change character.

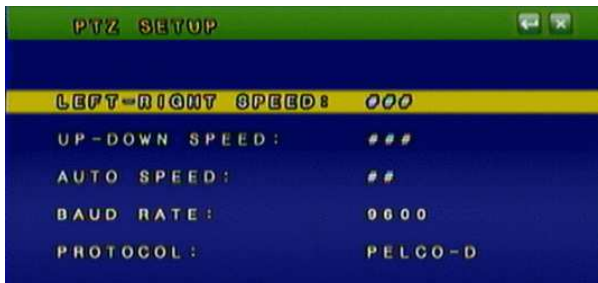
D. DISPLAY

Press ◀ or ▶ to / mouse wheel change value for the corresponding camera would be displayed on the screen or not.

E. DWELL TIME

Press ◀ or ▶ / mouse wheel to ON/OFF auto switch and the switch sec..

F. PTZ SETUP



LEFT-RIGHT SPEED: Use the mouse wheel to change the left-right speed.

UP-DOWN SPEED: Use the mouse wheel to change the up-down speed.

AUTO SPEED: Use the mouse wheel to change the auto patrol speed.

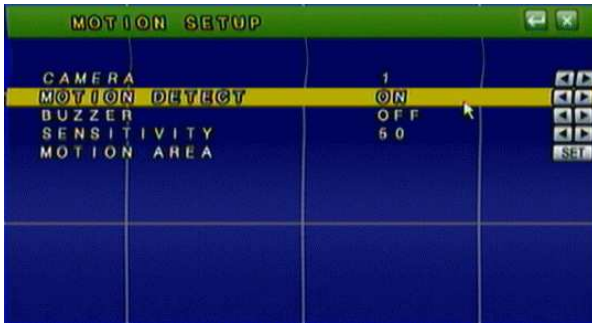
BAUD RATE: Use the mouse wheel to change the BAUD rate °

PROTOCOL: Use the mouse wheel to change the connection protocol.

3.4



MOTION SETUP



Press ▲ or ▼ to select items.
Press ◀ or ▶ to change values.
Press SET to see more options.

A. CAMERA

Press ◀ or ▶ / mouse wheel to switch channels.

B. MOTION DETECT

Press ◀ or ▶ / mouse wheel to change value for motion detect function.

C. BUZZER

Press ◀ or ▶ / mouse wheel to change value for buzzer while motion detected.

D. SENSITIVITY

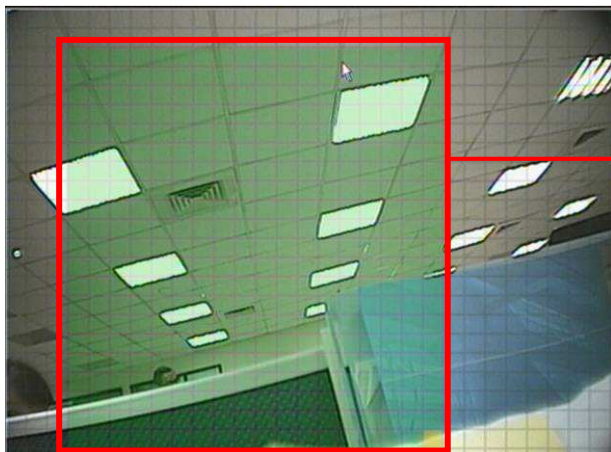
Press ◀ or ▶ / mouse wheel to change sensitivity value from 001 (minimum) to 100 (maximum).

E. AREA SETUP

1. Press **SET** to enter Motion Area Setting. (**Note: The default setting of all area is “MOTION ON”.**)

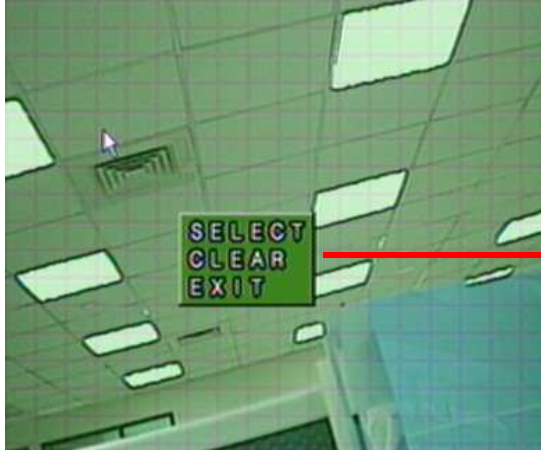


2. Use the mouse to select which block is needed.



The green area shows the area without motion detection.

- Left-Click the mouse to see more options or exit the setup.

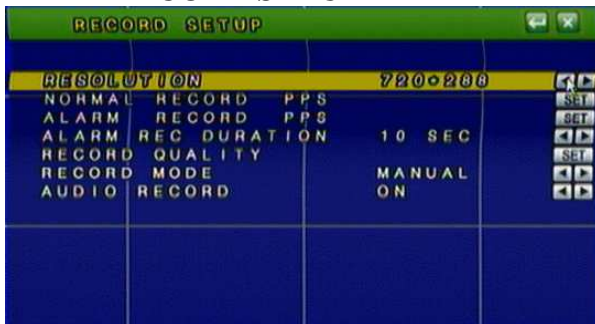


SELECT: Cancel the selected area.

CLEAR: Select the area without motion detection.

EXIT: Exit the motion detection setup.

3.5 RECORD SETUP



Press ▲ or ▼ to select items.
 Press ◀ or ▶ to change values.
 Press SET to see more options.

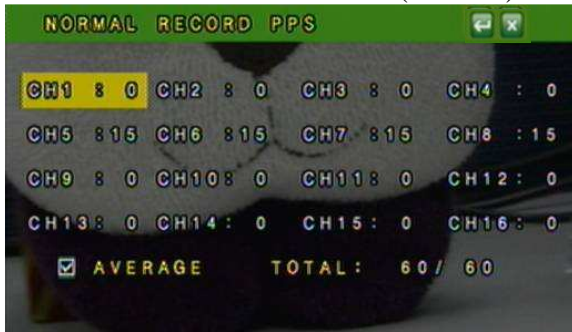
A. RESOLUTION

Press ◀ or ▶ / mouse wheel to switch record resolution.
 720 x 240 (NTSC)/ 720 x 288 (PAL).
 360 x 240 (NTSC)/ 360 x 288 (PAL).

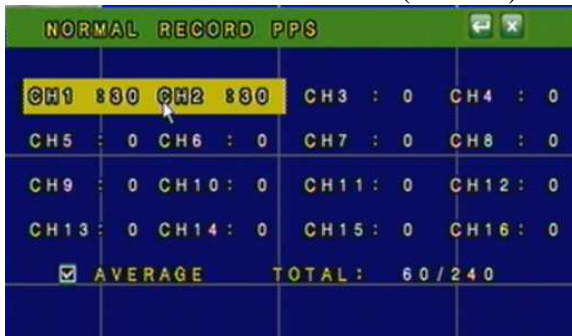
B. NORMAL RECORD PPS

Press **SET** to change the PPS in normal recording. User can click “AVERAGE” to set PPS automatically by system or change the PPS for each channel manually.

Record Resolution: 720 × 240 (NTSC) / 720 × 288 (PAL)



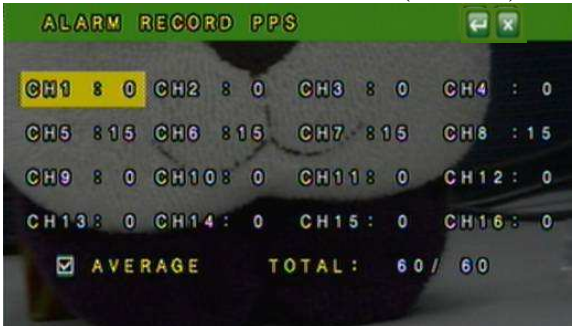
Record Resolution: 360 × 240 (NTSC) / 360 × 288 (PAL)



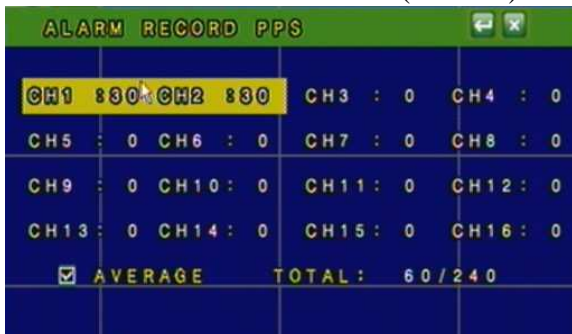
C. ALARM RECORD PPS

Press **SET** to change the PPS in alarm recording. User can click “AVERAGE” to set PPS automatically by system or change the PPS for each channel manually.

Record Resolution: 720 × 240 (NTSC) / 720 × 288 (PAL)



Record Resolution: 360 × 240 (NTSC) / 360 × 288 (PAL)



D. ALARM RECORD DURATION

Press ◀ or ▶ to set dwell time of alarm recording.

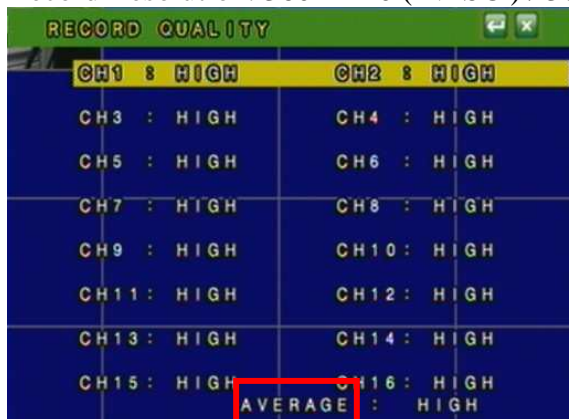
E. RECORD QUALITY

Press **SET** to switch image quality of each channel (720 × 240 (NTSC) / 720 × 288 (PAL)) or each two channels (360 × 240 (NTSC) / 360 × 288 (PAL)). User can use mouse wheel to change the image quality of each single channel: LOW/ MEDIUM/ HIGH/ BEST, or use “AVERAGE” to switch the image quality of all channels at once.

Record Resolution: 720 × 240 (NTSC) / 720 × 288 (PAL)



Record Resolution: 360 × 240 (NTSC) / 360 × 288 (PAL)



F. RECORD MODE

Press ◀ or ▶ to switch record mode to ALWAYS/ MOTION/ SCHEDULE / OFF.


G. AUDIO RECORD

Press ◀ or ▶ to switch AUDIO RECORD ON or OFF.

H. SCHEDULE SETUP

Press **SET** to get into schedule setup menu ◦

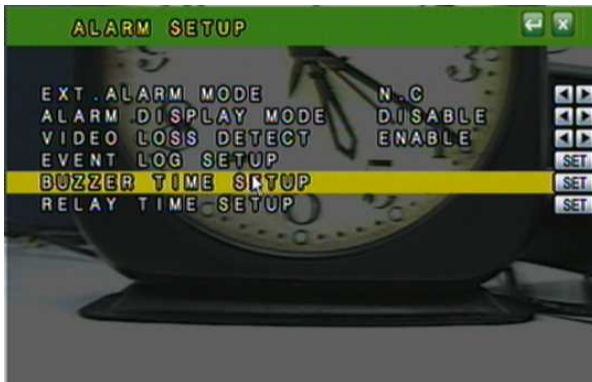


1. Use mouse to select schedule day/ time/ mode.
2. Click  to save change and exit.

3.6



ALARM SETUP



Press ▲ or ▼ to select items.
 Press ◀ or ▶ to change values.
 Press SET to see more options.

A. EXT. ALARM MODE

Select N.C for “normal close” alarm input, or select N.O for “normal open” alarm input.

B. ALARM DISPLAY MODE

Press ◀ or ▶ / mouse wheel to change value for ALARM DISPLAY MODE with full screen.

C. VIDEO LOSS DETECT

Press ◀ or ▶ / mouse wheel to switch VIDEO LOSS ALARM ON or OFF.

D. EVENT LOG SETUP

Press **SET** to change value for MOTION EVENT / VIDEO LOSS EVENT to ON / OFF.

E. BUZZER TIME SETUP

Press **SET** to set dwell time of BUZZER/ ALARM.

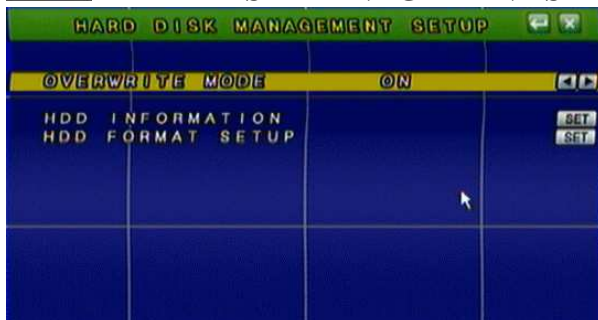
F. RELAY TIME SETUP

Press **SET** to set dwell time of RELAY.

3.7



HARD DISK MANAGEMENT SETUP



Press ▲ or ▼ to select items.
 Press ◀ or ▶ to change values.
 Press SET to see more options.

A. OVERWRITE MODE

Press ◀ or ▶ to change value OVERWRITE MODE ON or OFF.

B. CAPACITY WARNING (When Overwrite Mode is OFF, Capacity Warning will enable)

Press ◀ or ▶ to change value to 20/ 15/ 10 or 5% with non-overwrite mode. When LEFT RATIO is below the setting, it will enable AUDIBLE ALARM (If AUDIBLE ALARM of BUZZER of ALARM SETUP is ON).

C. HDD INFORMATION

Press SET to display HDD information.

D. HDD FORMAT SETUP



D-1. HDD PASSWORD PROTECT

Press ◀ or ▶ / mouse wheel to change value for hard disk format password protection.

D-2. HDD PASSWORD

Press **SET** then use mouse to change password.
Default password : 1111

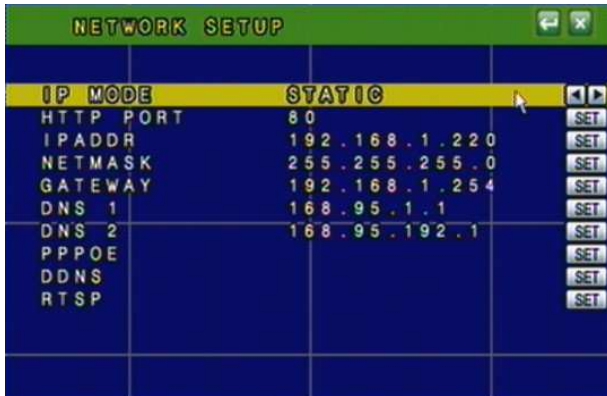
D-3. HDD FORMAT

Press **SET** to get into FORMAT setup.
Press YES or NO to execute.

3.8



NETWORK SETUP



Press ▲ or ▼ to select items.
 Press ◀ or ▶ to change values.
 Press SET to see more options.

A. IP MODE

Press ▲ or ▼ to select items and ◀ or ▶ / mouse wheel to change to STATIC IP or DHCP.

B. HTTP PORT

Press ▲ or ▼ to select items and ◀ or ▶ / mouse wheel to change WEB PAGE PORT.

C. IP ADDR

Press ▲ or ▼ to select items and **SET** to change IP ADDRESS.

D. NETMASK

Press ▲ or ▼ to select items and **SET** to change SUBNET MASK.

E. GATEWAY

Press ▲ or ▼ to select items and **SET** to change Default GATEWAY.

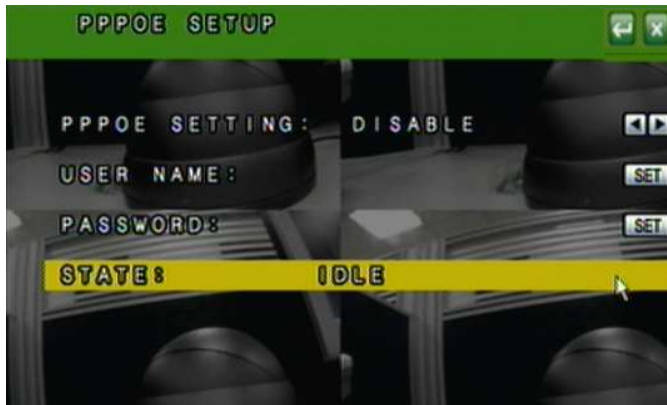
F. DNS1

Press ▲ or ▼ to select items and **SET** to change DNS.

G. DNS2

Press ▲ or ▼ to select items and **SET** to change OTHER DNS.

H. PPPoE



H-1. PPPoE SETTING

Press ◀ or ▶ / mouse wheel to ENABLE / DISABLE PPPoE.

H-2. USER NAME

Use mouse to setup user name for ADSL account.

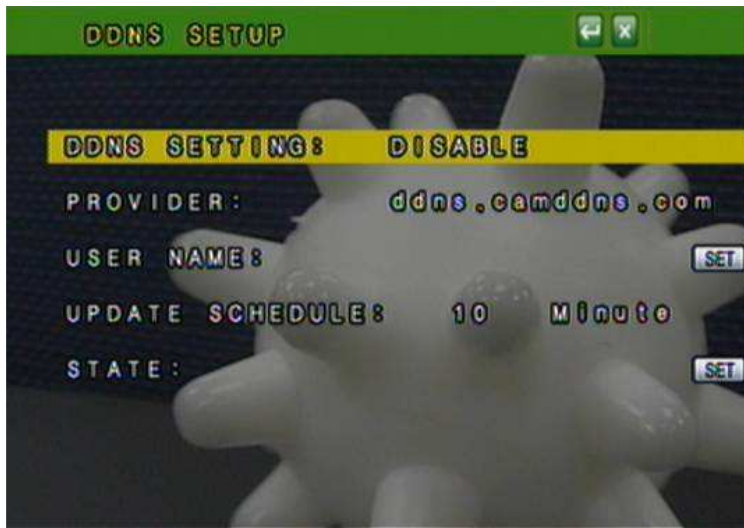
H-3. PASSWORD

Use mouse to setup password for ADSL account.

H-4. STATE

Press SET to display status of PPPoE ◦

I. DDNS SETUP



I-1.DDNS SETTING : Press ◀ or ▶ / mouse wheel to set DDNS ENABLE / DISABLE.

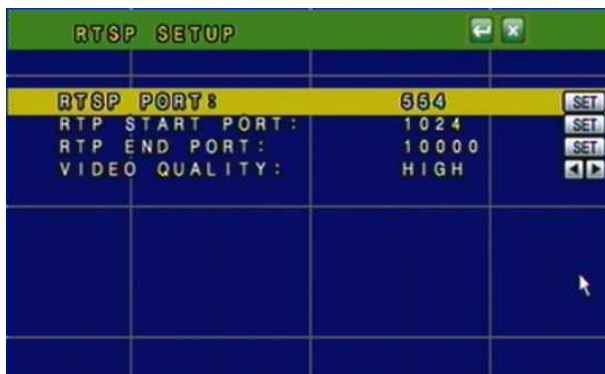
I-2 PROVIDER : Press ◀ or ▶ / mouse wheel to select DDNS provider.

I-3 USER NAME : Press **SET** to setup user name.

I-4 UPDATE SCHEDULE : Use **SET** to dwell time of updating schedule.

I-5 STATE : Press **SET** to display status of DDNS ◦

J. RTSP SETUP



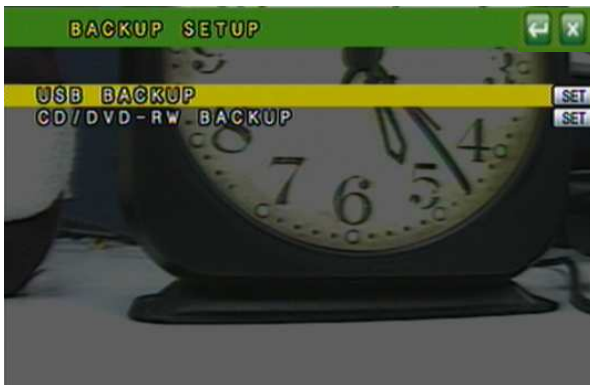
J-1. RTSP PORT: Press **SET** to setup RTSP port. The default value is 554.

J-2. RTP START PORT: Press **SET** to setup RTP start port.

J-3. RTP END PORT: Press **SET** to setup RTP end port.

J-4. VIDEO QUALITY: Press ◀ or ▶ / mouse wheel to select video quality. There are BEST, HIGH, STANDARD, MEDIUM & LOW five options.

3.9 BACKUP SETUP



NOTE: *For function stability, Ethernet remote control function (IE) will be stopped when processing backup function.
*USB DEVICE BACKUP : 3.2MB/ per sec.

A. USB BACKUP

Due to each USB device with different USB driver ICs, their compatibilities differ, too. This system is compatible with most of USB flash memory. If there is compatible issue, please refer to **APPENDIX B**. In addition, please format USB flash memory with FAT32.



BEFORE BACKUP

- A. In live viewing mode, insert USB device into a USB port of the DVR.
- B. Get into playback mode by PLAY TIME SEARCH or EVENT LIST SEARCH and play back videos that are going to be as backup.

VIDEO BACKUP

In multiplexer or full screen mode, press  to start backup and press  to end backup. The system will backup automatically.

PICTURE BACKUP


In multiplexer or full screen mode, press  and press . The system will start backup picture by picture.

USB BACKUP MENU



- User can use the mouse wheel to change the backup Start/ End time ◦



- Click  to start backup, the total process will be shown on screen.



BACKUP FILE NAME

Each backup file will be named as START TIME.

EXAMPLE: 174624.264 is 17:46:24

AFTER BACKUP

After backup, the system will copy "R6VIEWER.EXE" automatically on USB device for the user to play back backup file.

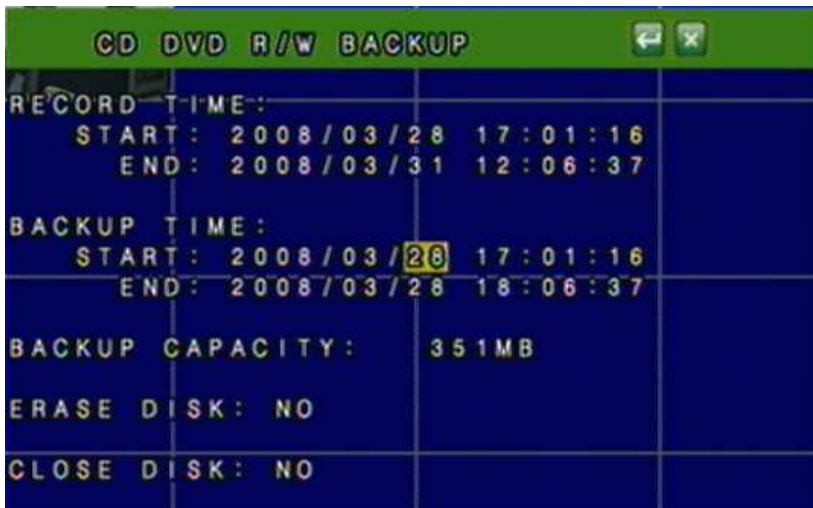
B. CD/DVD BACKUP

BEFORE BACKUP

Please insert a blank CD or DVD into the CD or DVD /RW.

Note: Please DO NOT use blank CD to backup records while using DVD/RW.

CD/DVD BACKUP MENU



- User can use the mouse wheel to change the backup Start/ End time.



- Click  to start backup.



BACKUP FILE NAME

Each backup file will be named as START TIME.

EXAMPLE: 03311041.264 is March 31st 10:41

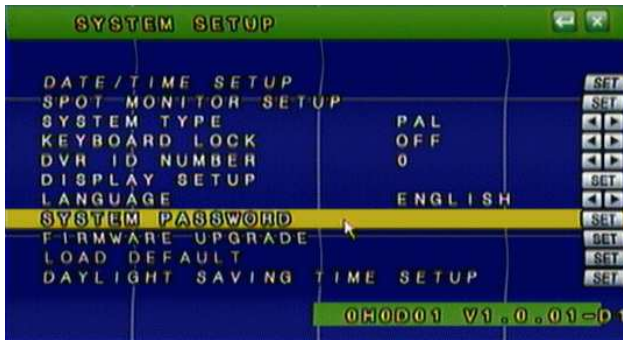
AFTER BACKUP

After backup, the system will copy “R6VIEWER.EXE” automatically on USB device for the user to play back backup file.

3.10



SYSTEM SETUP



Press ▲ or ▼ to select items.
 Press ◀ or ▶ to change values.
 Press SET to see more options.

A. DATE / TIME SETUP

Press **SET** to set DATE / TIME.

A-1. TIME

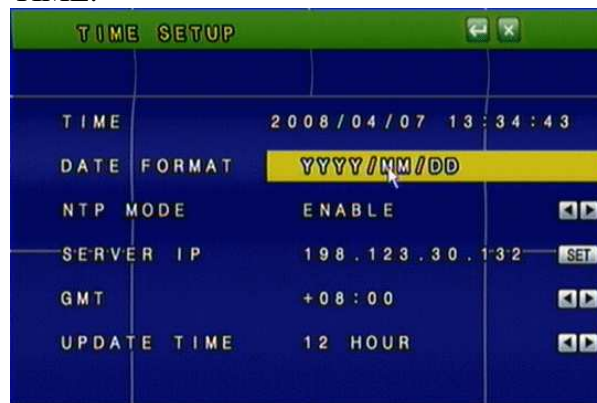
Use mouse wheel to change DATE/ TIME.

A-2. DATE FORMAT

Use mouse wheel to change DATE. There are DD/MM/YYYY, YYYY/MM/DD and MM/DD/YYYY three modes.

A-3. NTP MODE

Use mouse wheel to change NTP. When NTP is enable, use **SET** to change SERVER IP and use ◀ or ▶ / mouse wheel to change GMP and UPDATE TIME.



B. SPOT MONITOR SETUP

There are FULL SWITCH、QUAD SWITCH and OFF options for spot monitor display.



FULL SWITCH MODE



QUAD SWITCH MODE

C. SYSTEM TYPE

Press ◀ or ▶ / mouse wheel to change the system type.

D. KEYBOARD LOCK

Press ◀ or ▶ / mouse wheel to switch ON/ OFF. There are OFF, TYPE 1 and TYPE 2 three options.

OFF : UNLOCK.

TYPE 1 : Only can switch split screen and full screen. The user can operate AUTO and MENU functions as well. However, the password has to be filled in to implement playback mode.

TYPE 2 : LOCK (Except MENU button). The password has to be filled in to implement playback mode.

After KEYBOARD LOCK mode setup, please set up **PASSWORD**

Without password, un-authorized users could access into SYSTEM SETUP and make changes of settings easily.

E. ID NUMBER

Press ◀ or ▶ / mouse wheel to change values.

ID NUMBER is required to make difference of each DVR.

F. DISPLAY SETUP

Press SET to ENABLE or DISABLE display of CAMERA TITLE / DVR STATUS / DATE / TIME.

G. LANGUAGE

Press ◀ or ▶ to change on-screen-display (OSD) language.

H. PASSWORD PROTECTION

Press ▲ or ▼ to select items and ◀ or ▶ to change values.

Default password: 1111.

I. FIRMWARE UPDATE

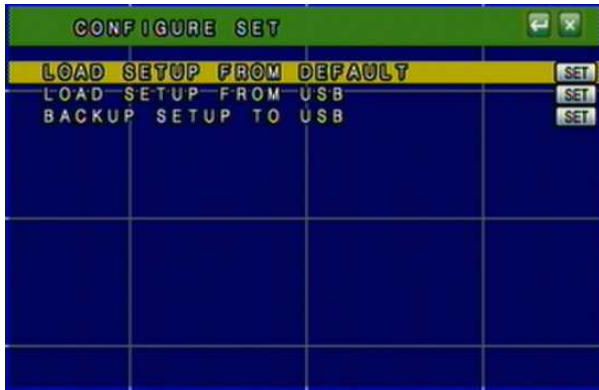
Press **YES** to start firmware update. After updated, the DVR will reboot automatically. At this moment, please do not turn off the DVR manually.

NOTE: 1. Please format USB flash memory with FAT32.

2. For function stability, we suggest user to STOP recording function before processing firmware update function.

J. LOAD DEFAULT

Press **SET** button to entry CONFIGURE SET screen. There are LOAD SETUP FROM DEFAULT, LOAD SETUP FROM USB and BACKUP SETUP TO USB three parts.



J-1. LOAD SETUP FROM DEFAULT: Press **SET** button to load the setting back to factory default.

J-2. LOAD SETUP FROM USB: Press **SET** button to load the pen drive setting to the current DVR.

J-3. BACKUP SETUP TO USB: Press **SET** button to backup the current DVR setting into pen drive.

K. DAYLIGHT SAVING TIME SETUP

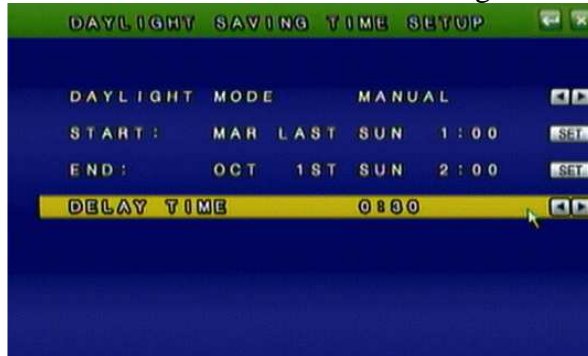
Press ◀ or ▶ / mouse wheel to change the DAYLIGHT MODE option: Disable, Manual and Auto.



K-1. MANUAL MODE

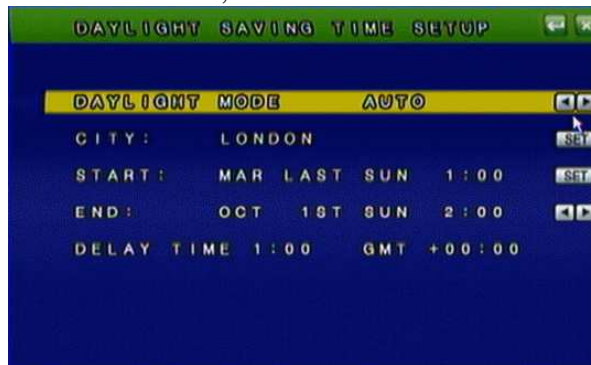
Use **SET** to change the Day Light Saving start and end time.

Press ◀ or ▶ / mouse wheel to change DELAY TIME



K-2. AUTO MODE

Press ◀ or ▶/ mouse wheel to change CITY option. Different CITY will have different START, END and DELAY TIME.



4 DVR PLAYBACK



Click the playback button on the pop-up menu.





Note: the pop-up menu can be activated by moving the mouse cursor to the bottom of the live viewing screen.

Note: Under playback mode, it will output sound when switch to full screen mode.



Live-Time Image

Note: Under 13 split screen mode, user can see the live-time image from the middle channel and select the channel number by using mouse wheel.

- A.  **DISK INFORMATION**
With playback mode, press this button to display disk and pen drive information.
- B.  **RECORD BACKUP**
With playback mode, press this button to backup record (.264 video backup) and press this button again to finish backup. For performing the single image backup (.Y42 single image backup), press  first and then click this button to backup the necessary image.
- C.  **AUDIO CONTROL**
Press this button to turn the audio on or off

D.  **DISPLAY CONTROL**

Within playback mode, use display control to switch the camera channel.

E.  **RECORD AND PLAYBACK CONTROL**

Same as front panel controller and remote controller.

4.1 TIME SEARCH

Double click Left button of mouse to trigger play time search.



Please set the start and end time to search.



4.2 EVENT SEARCH

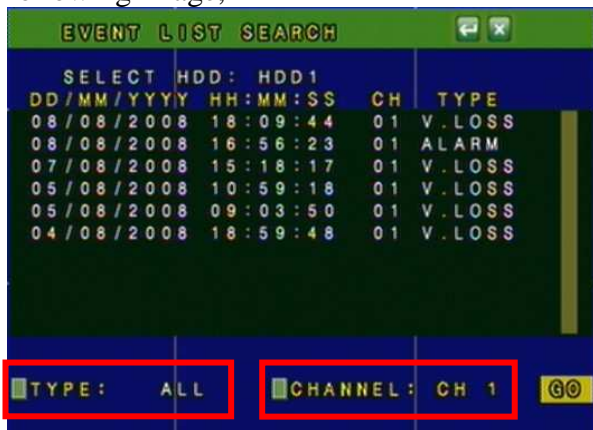
Double click Left button of mouse to trigger event search.






Please select the event to playback ◦



Moreover, use TYPE and CHANNEL two options to perform the advanced search. As the following image,



NOTE: Display the type of the event as follows.

POWER	If the DVR got power loss, it will record the date and time of rebooting.
RECORD	If REC button has been pressed, it will record the date and time in the event list.
V.LOSS	When a camera signal is lost, it will record the date, time, and corresponding channel. Moreover, the  icon will display on the corresponding channel.
ALARM	When ALARM is triggered, it will record the date, time, and corresponding channel. Moreover, the  icon will display on the corresponding channel.
MOTION	When MOTION is detected, it will record the date, time, and corresponding channel. Moreover, the  icon will display on the corresponding channel.

5 BACKUP PLAYBACK

SYSTEM REQUIREMENT

CPU: Intel Celeron 1.6G

MEMORY: 256MB.

VGA: 32MB

VGA RESOLUTION: 1024 x 768.

OS: Windows XP / 2000

SUGGESTED REQUIREMENT

CPU: Intel P4 2.8G

MEMORY: 512MB or above

VGA: 64MB or above

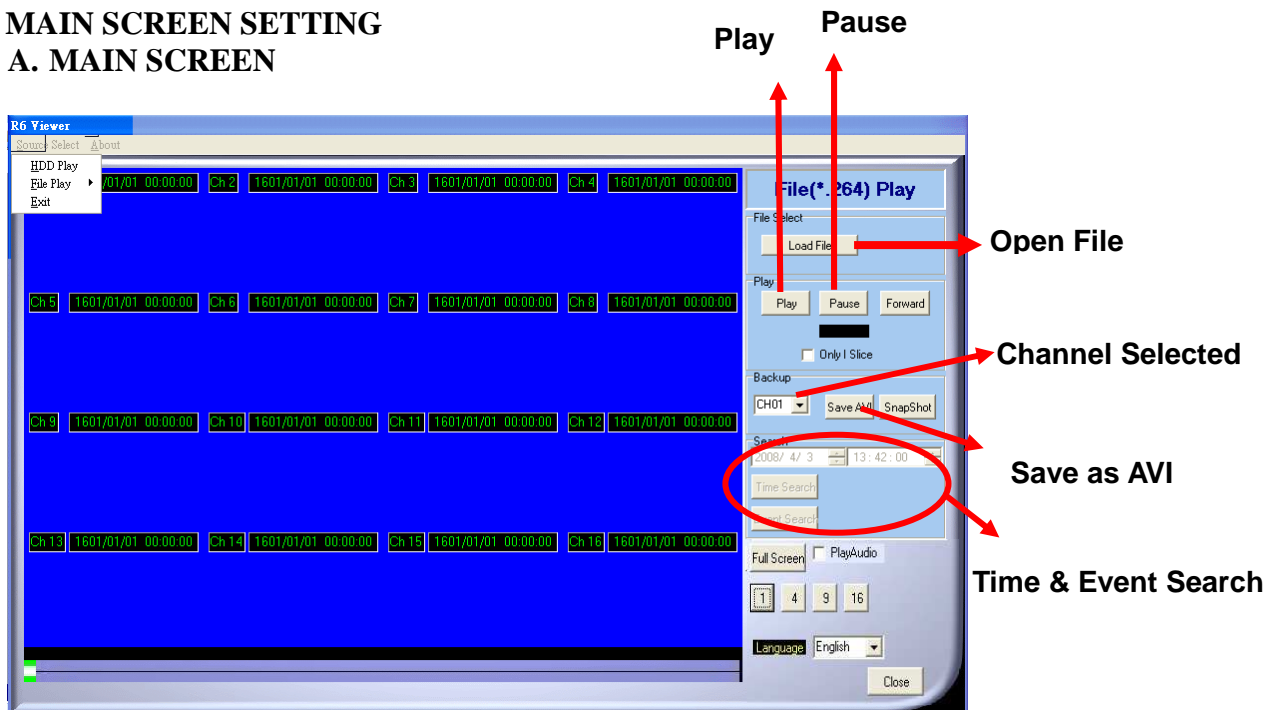
VGA RESOLUTION: 1024 x 768

OS: Windows XP / 2000

NETWORK BANDWIDTH: Upload Speed is 256kbps or above

5.1 MAIN SCREEN SETTING


A. MAIN SCREEN



B. HDD PLAY

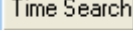
Play about all the data from the Hard disk of DVR or perform the specific Time and Event Search to play.

Note: Unload the DVR HDD first and connect to the PC to play the HDD. DVR

software  (R6Viewer.exe) can get from USB Playback, DVD-RW Playback and “Player” within “Others” blank of Network viewing.



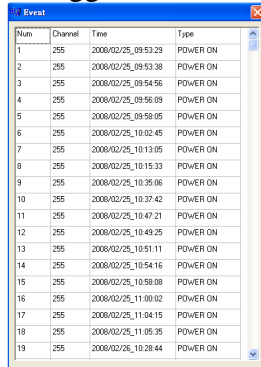
B-1. TIME SEARCH

Insert search Date and Time and then click  to play all the searched film.



B-2. EVENT SEARCH

It will display all the events which are reserved within the DVR HDD after press **Event Search** (Shown in the following) and double click left button of mouse to trigger event.



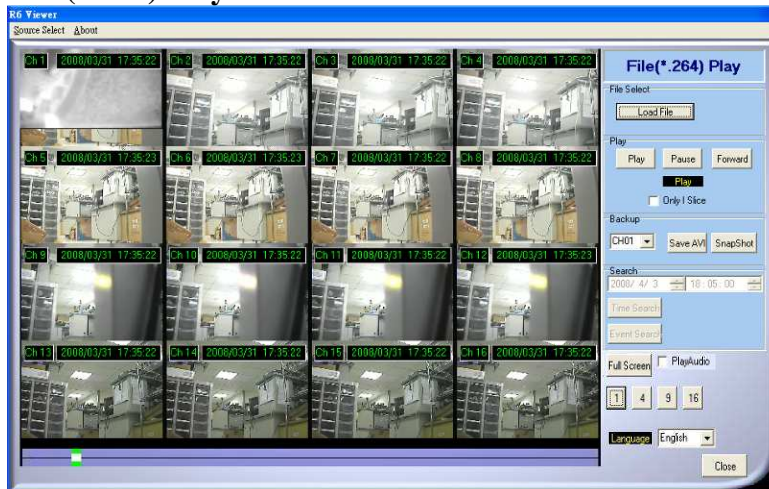
Num	Channel	Time	Type
1	255	2008/02/25_09:53:29	POWER ON
2	255	2008/02/25_09:53:38	POWER ON
3	255	2008/02/25_09:54:56	POWER ON
4	255	2008/02/25_09:56:09	POWER ON
5	255	2008/02/25_09:58:05	POWER ON
6	255	2008/02/25_10:02:45	POWER ON
7	255	2008/02/25_10:13:05	POWER ON
8	255	2008/02/25_10:15:33	POWER ON
9	255	2008/02/25_10:35:06	POWER ON
10	255	2008/02/25_10:37:42	POWER ON
11	255	2008/02/25_10:47:21	POWER ON
12	255	2008/02/25_10:49:25	POWER ON
13	255	2008/02/25_10:51:11	POWER ON
14	255	2008/02/25_10:54:15	POWER ON
15	255	2008/02/25_10:58:08	POWER ON
16	255	2008/02/25_11:00:02	POWER ON
17	255	2008/02/25_11:04:15	POWER ON
18	255	2008/02/25_11:05:35	POWER ON
19	255	2008/02/25_10:28:44	POWER ON



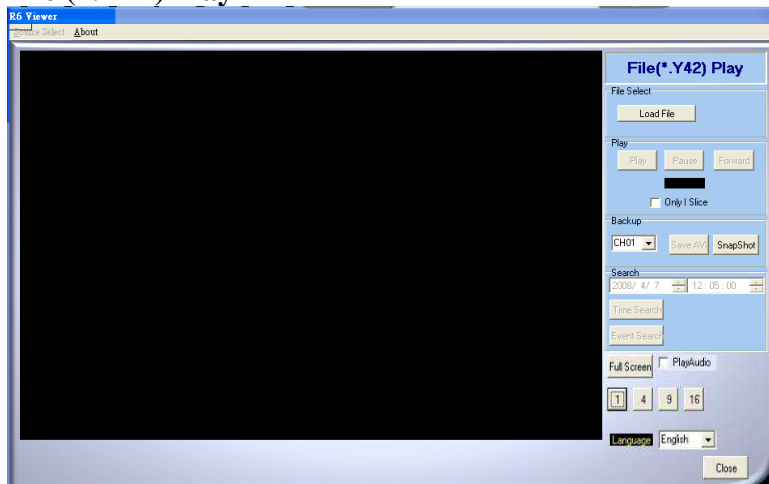
R6 Viewer.exe

(R6 Viewer.exe) can play not only DVR H.D.D. but also the *.264 and *.Y42 files which are reserved within the data storage devices. (i.e. CD/DVD disc, pen drive and the PC H.D.D which the data backup from DVR H.D.D)

C. File (*.264) Play

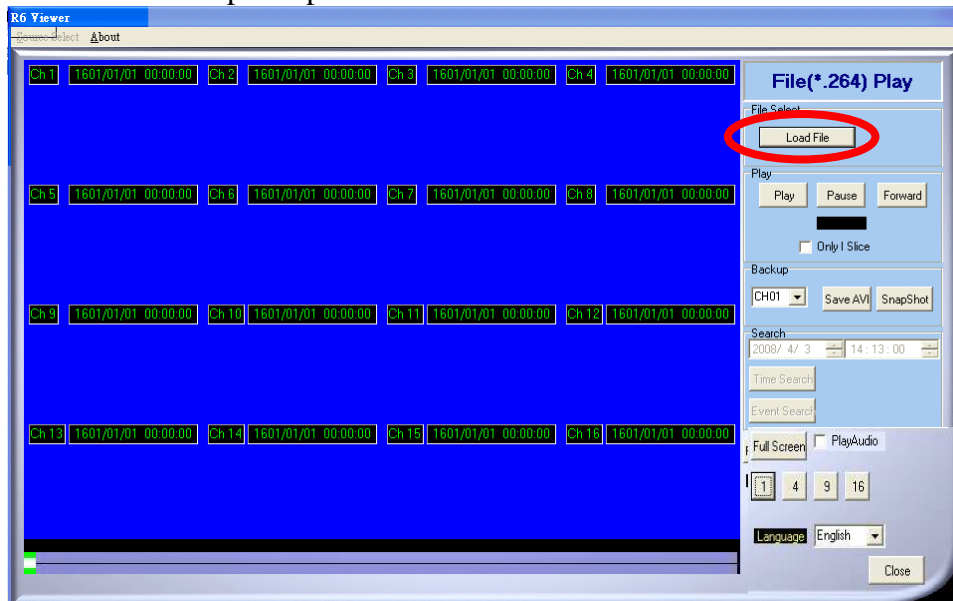


D. File (*.Y42) Play

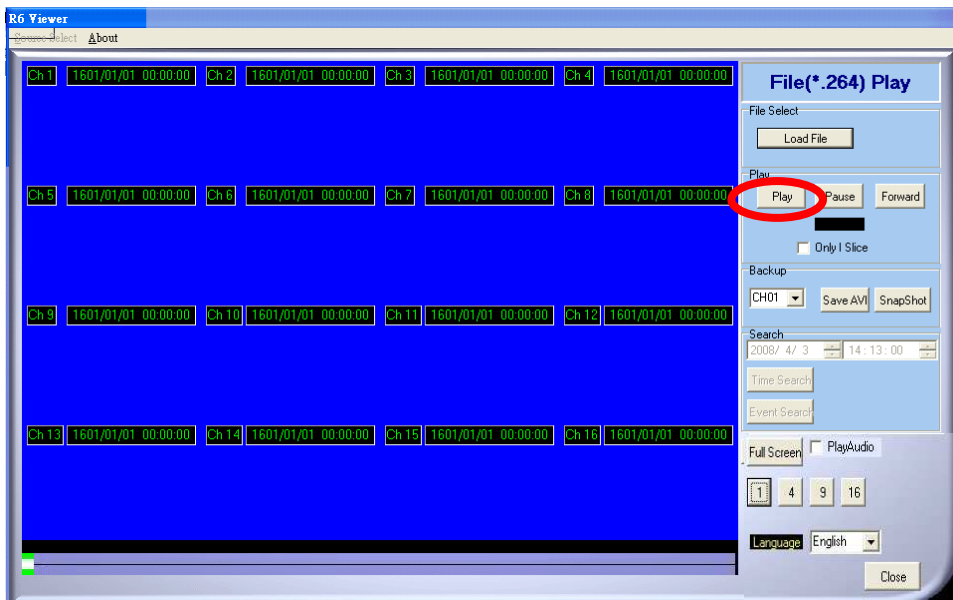


5.2 CD/DVD BACKUP PLAYBACK

- A. Insert the CD/DVD disk into CD/DVD ROM, the software will auto pop out, and select "Load File" and pick up the file.



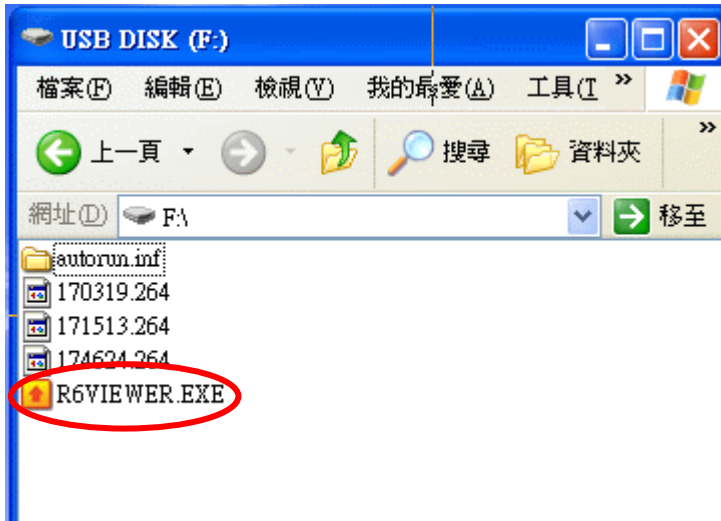
- B. Press "Play" button to play the video.



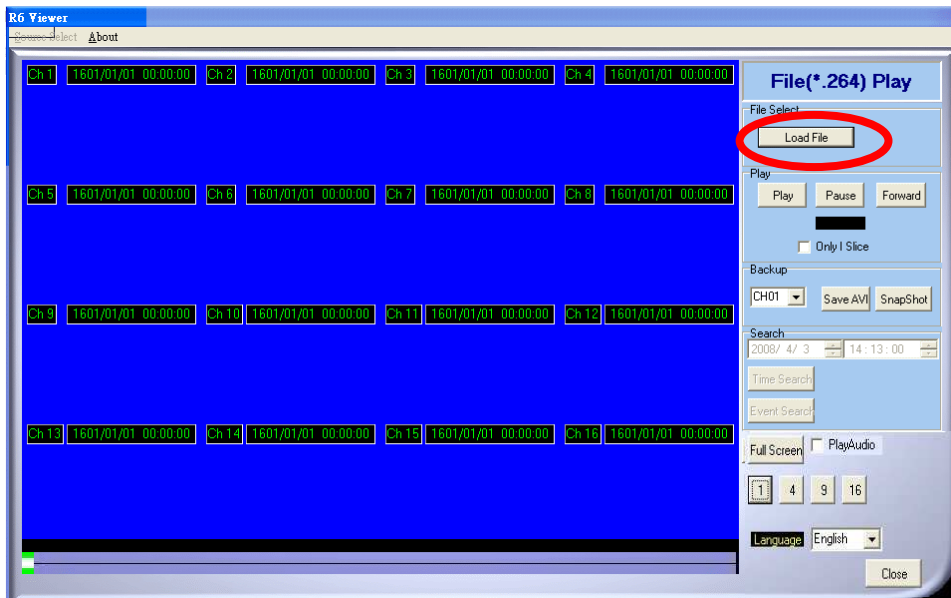
5.3 USB & LOCAL BACKUP FILE PLAYBACK

A. Plug the USB disk into PC or check the local backup folder.

If using USB mode, please double click the player.exe from the pop-up diagram. (As below)

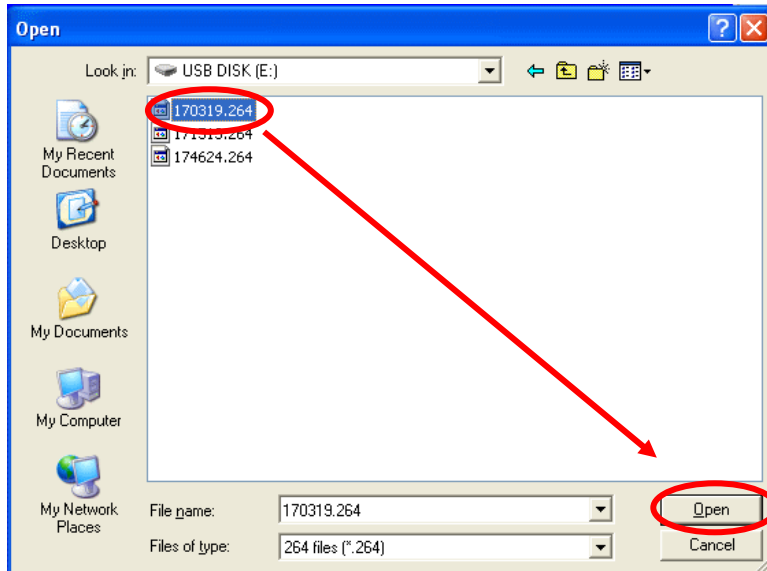


B. The play backup program would appear on the screen, select "Load File".

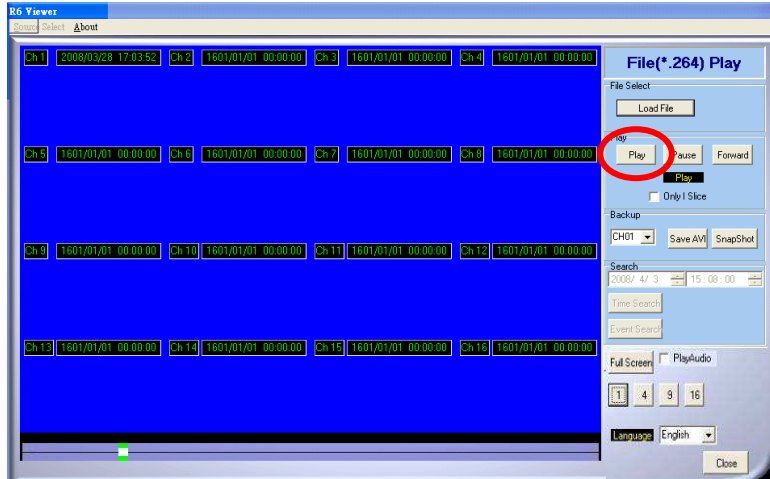


C. Open the USB disk located driver letter. (Example E:) or the local backup folder, and pick the file to playback.

The backup file will named as the time when backup, as like:
170319.264 will be 17:03:19

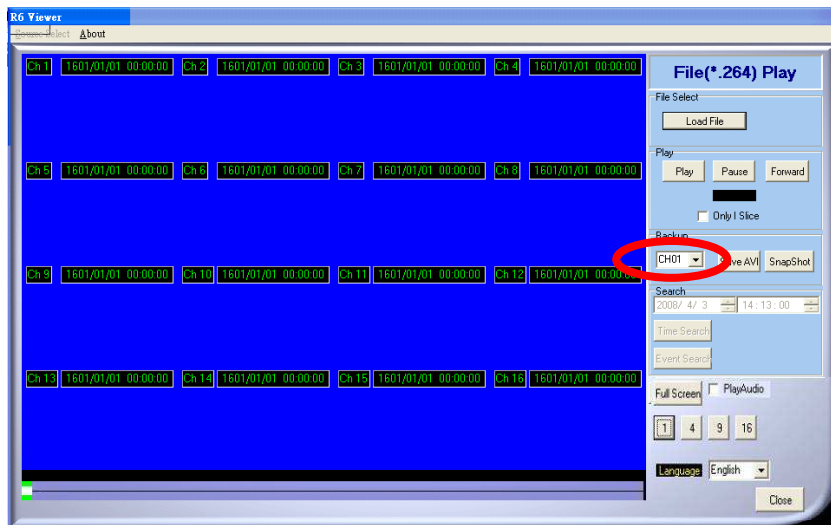



D. Press the play icon to play the video or still picture.



5.4 BACKUP FILE TO AVI

A. Please select specific channel to backup.



B. During video playback mode please press AVI bottom  to start.

C. Make up a filename and path than press  bottom to start AVI backup.

D. Press AVI bottom  to finish backup.

6 NETWORK VIEWING & PLAYBACK

SYSTEM REQUIREMENT

CPU: Intel Celeron 1.6G

MEMORY: 256MB.

VGA: 32MB

VGA RESOLUTION: 1024 x 768.

OS: Windows XP / 2000

SUGGESTED REQUIREMENT

CPU: Intel P4 2.8G

MEMORY: 512MB or above

VGA: 64MB or above

VGA RESOLUTION: 1024 x 768

OS: Windows XP / 2000

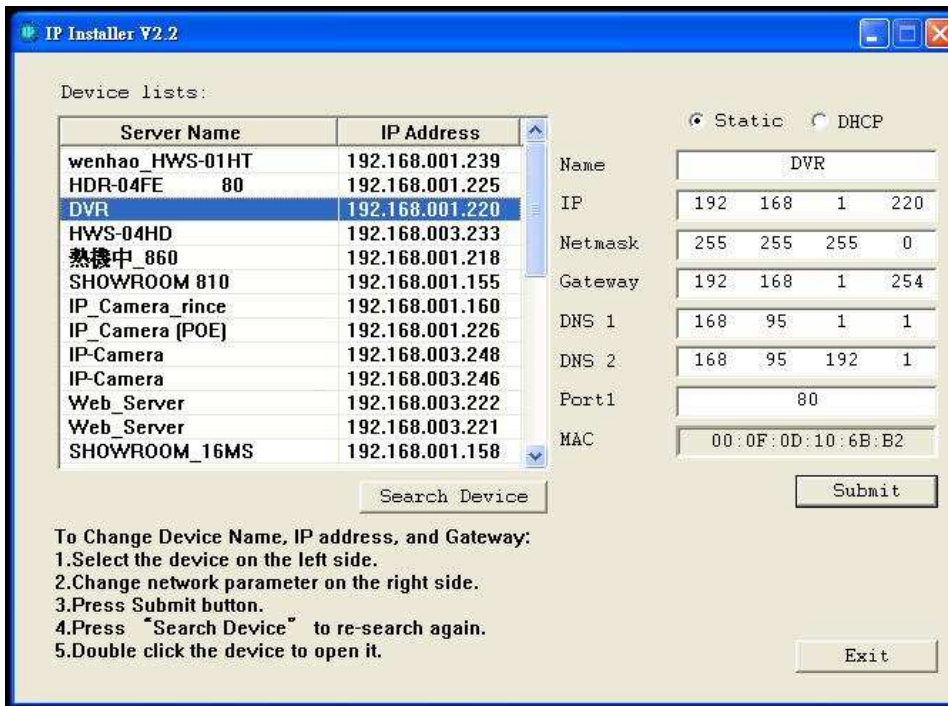
NETWORK BANDWIDTH: Upload Speed is 256kbps or above

6.1 IP ADDRESS SETUP ON PC SITE

Install cameras inside in LAN or use network cable to connect with PC. This is for IPInstallerEng.exe to set up IP address of cameras. If OS is Windows XP SP2 or above, the following Windows Security Alert will popup. Then, please click on **Unblock**.

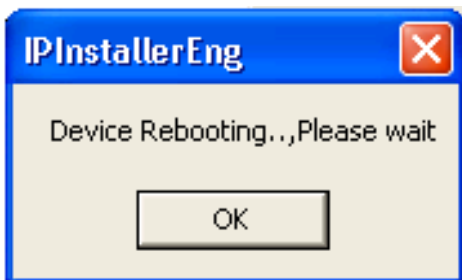


Then, IPInstallerEng.exe will popup:
DVR default IP address is 192.168.1.220



NOTE: Please input correct network parameters without blank spaces.

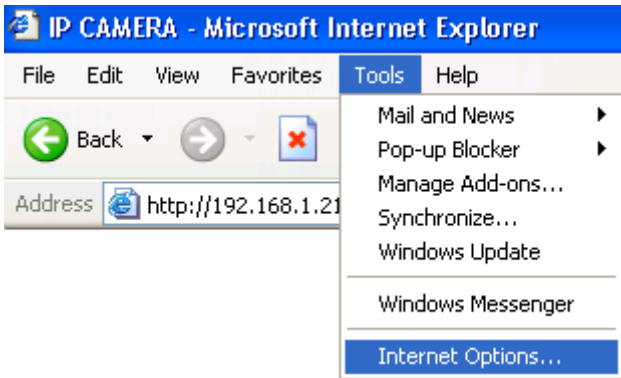
On Device Lists, it lists all servers. Click on one server and then its IP setting will show on the right side. After editing the parameters and clicking on Submit, the following dialogue box will popup. And, it will reboot the device with new parameters.



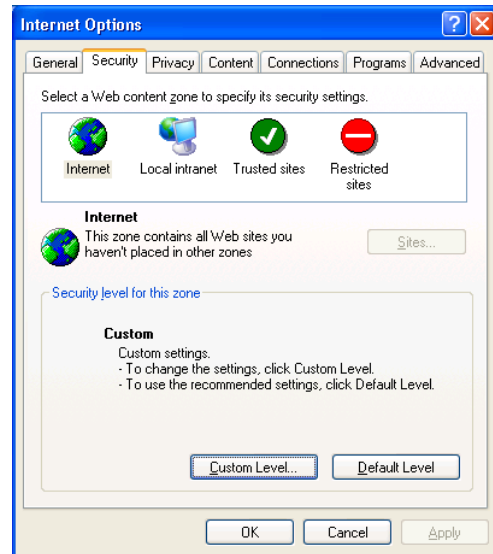
6.2 OPTIONAL MICROSOFT INTERNET EXPLORER SETUP OPTION 1: DISABLE ACTIVEX WARNING

- A. IE → Tools → Internet Options → Security → Custom Level → Security Settings → Download unsigned ActiveX controls → Enable or Prompt (recommend).
- B. IE → Tools → Internet Options → Security → Custom Level → Security Settings → Initialize and script ActiveX controls not marked as safe → Enable or Prompt (recommend).

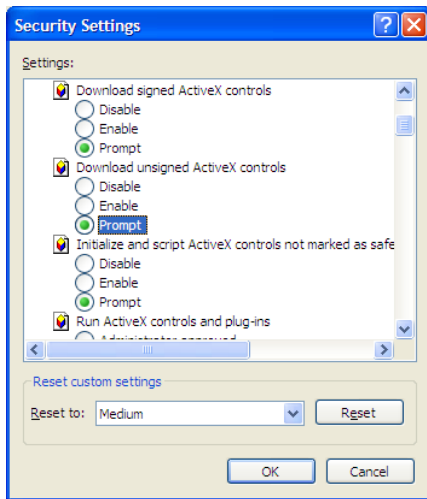
1



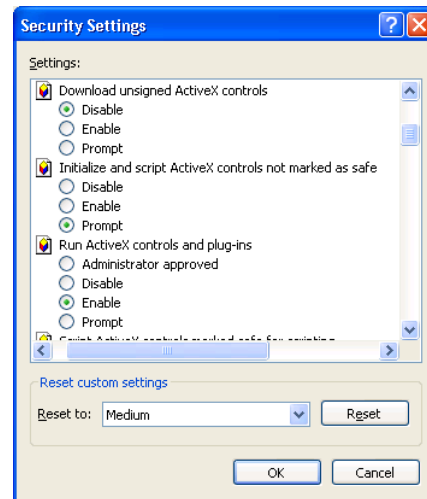
2



3

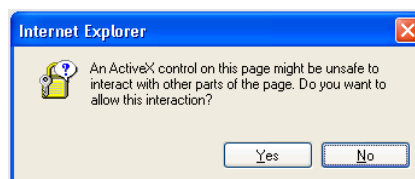


4



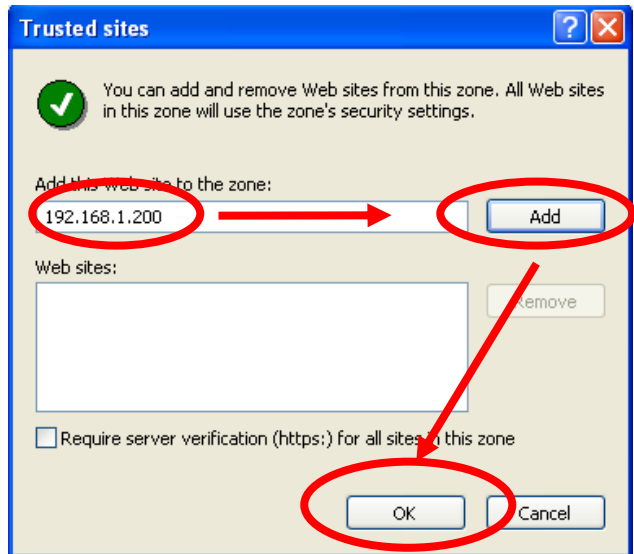
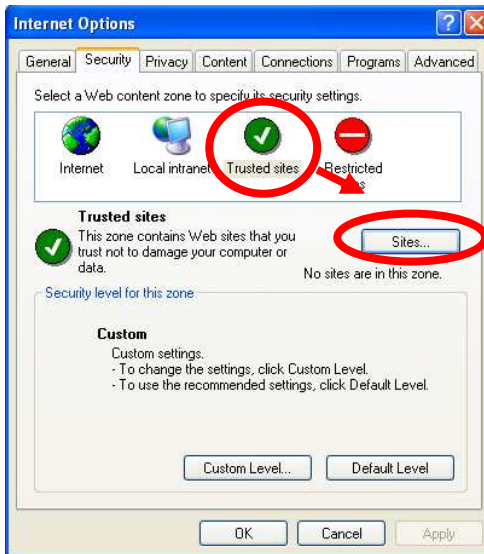
5

Above three options are all based on select as the prompt.
As indicated in the dialogue box. Please select "YES."



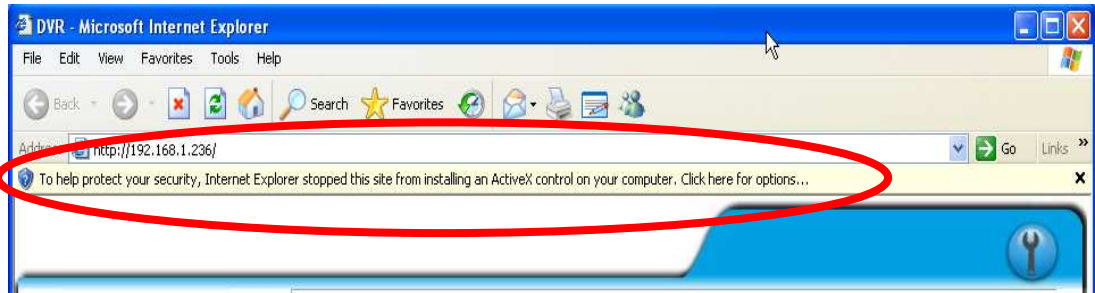
OPTION 2: ADD TO TRUSTED SITES

IE → Tools → Internet Options → Security → Trusted sites → Sites

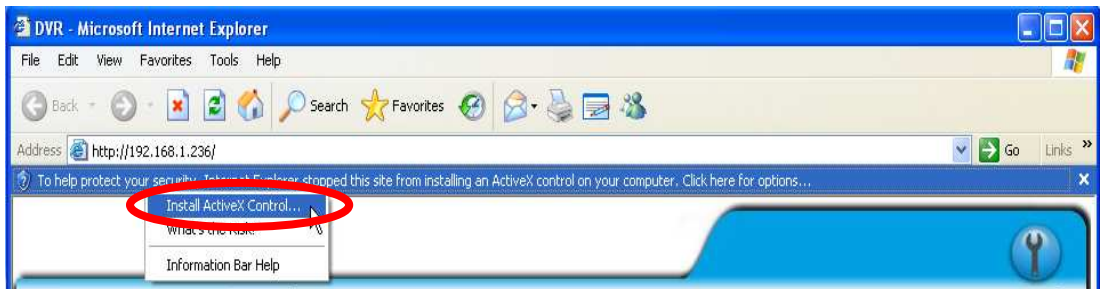


6.3 LOGIN

A. INSTALL ACTIVEX



B. START INSTALL ACTIVEX



C. ACCOUNT & PASSWORD LOGIN

After IP setup and connect to network or LAN, type IP address on IE Browser directly. The following User name & Password Login window will popup.

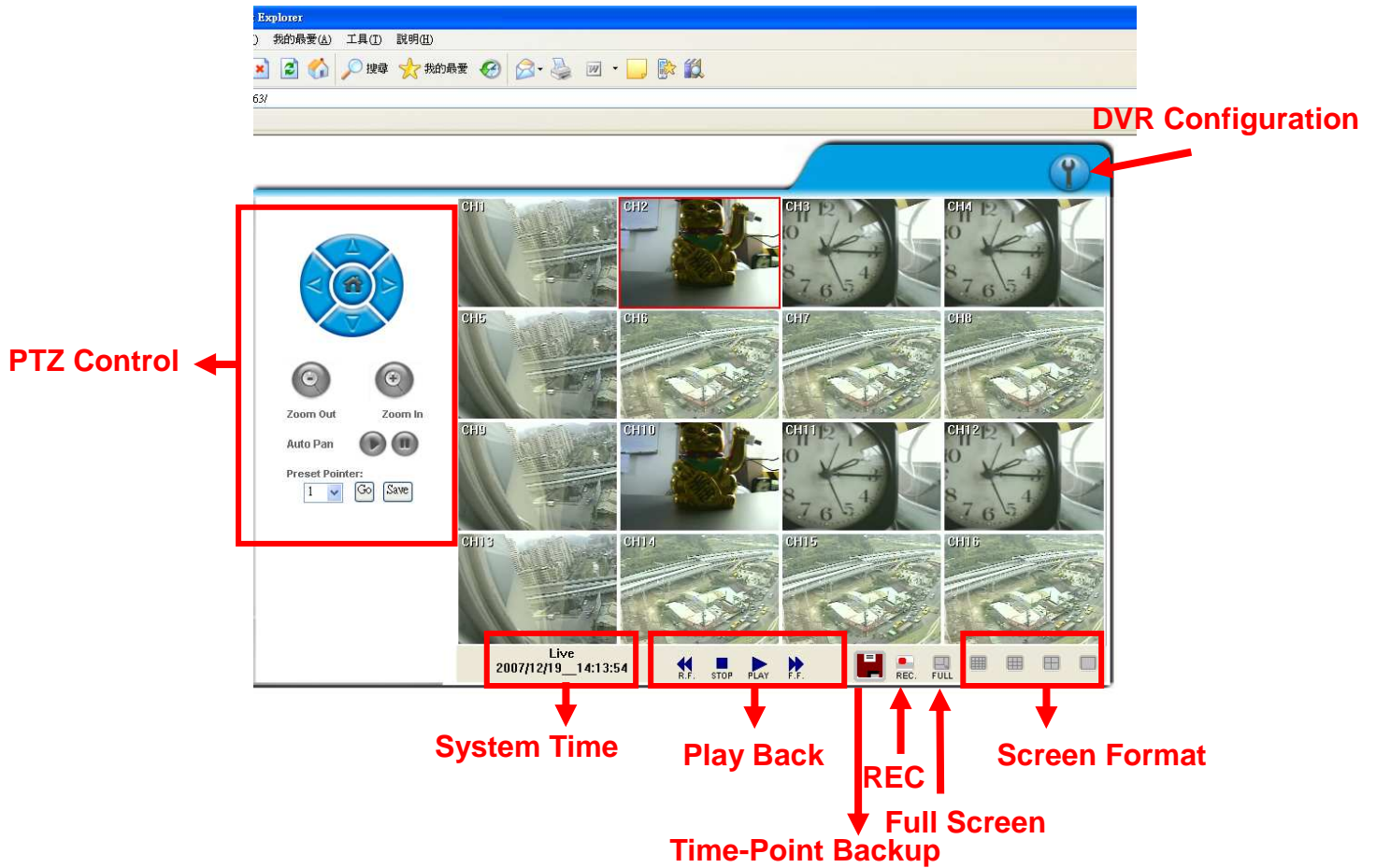


Default user name: admin

Default password: admin

6.4 REMOTE CONTROL

LIVE VIEWING

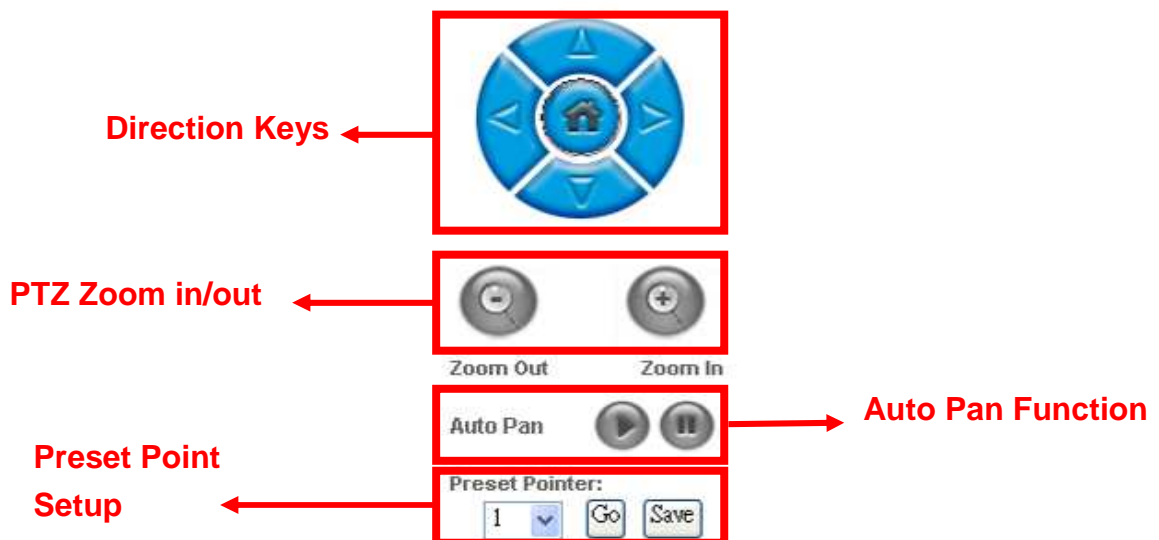


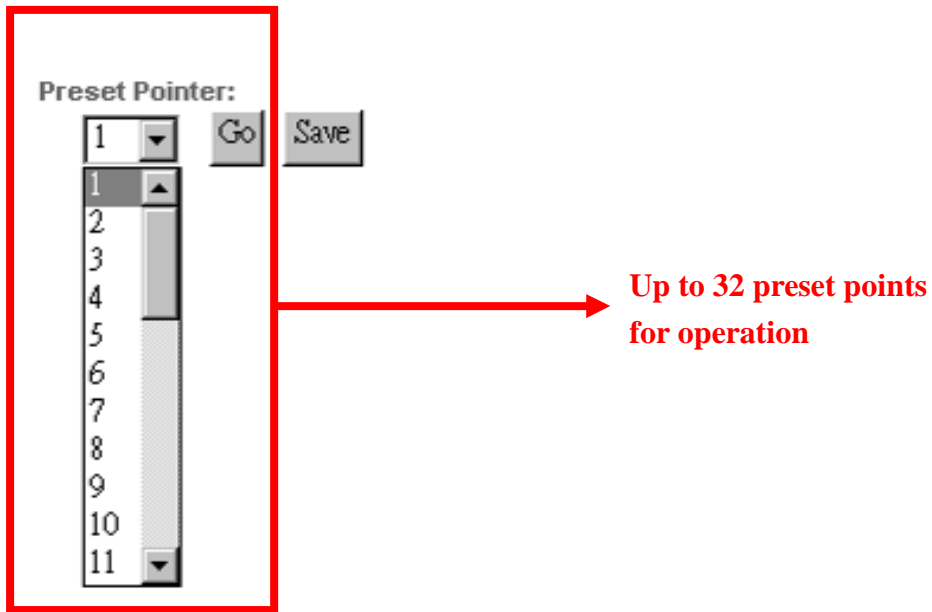
A. DVR Configuration

Get into DVR network menu.

B. PTZ Control

PTZ control function panel






C. SYSTEM TIME

Live viewing mode: The current live viewing time.

D. SCREEN FORMAT


Switch screen format and click twice to switch different channels with full screen.

E.  **Full Screen.** Click again to return.

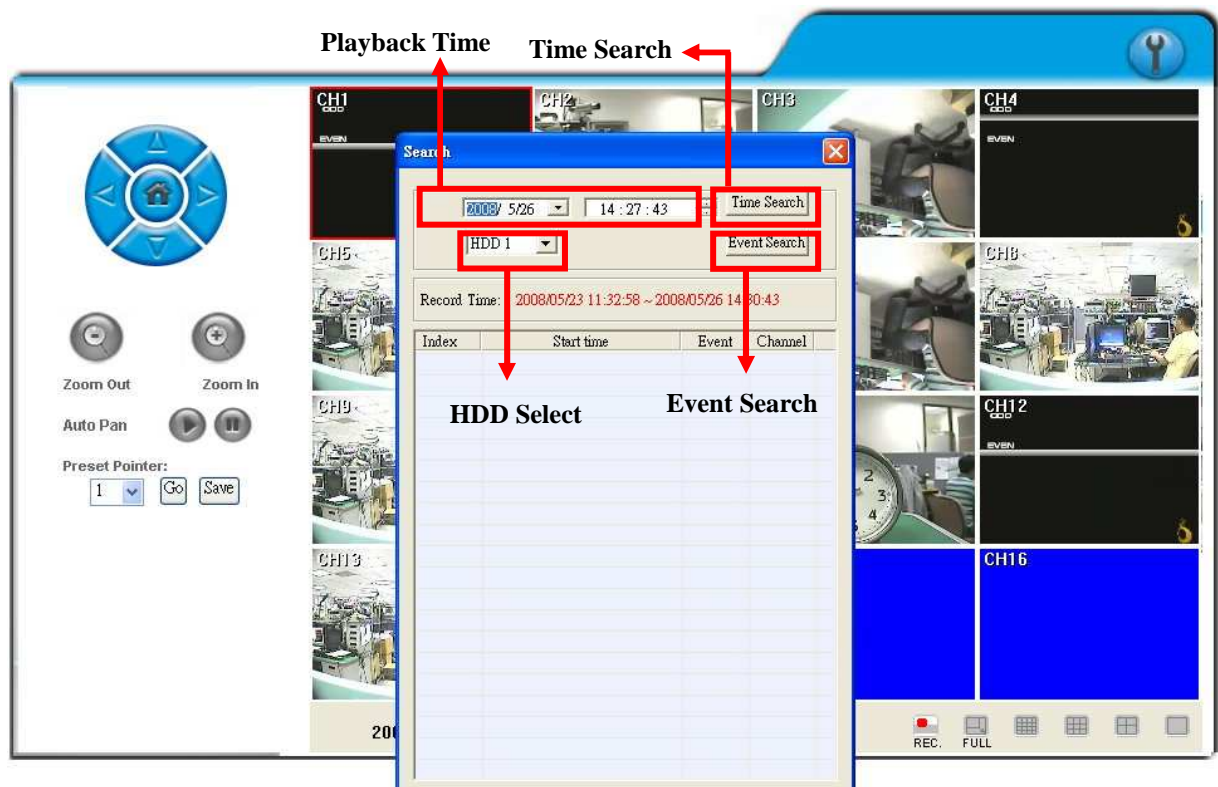
F.  **REC.** Videos are saved as AVI file.

G.  **Playback**

H.  **Time-Point Backup**

Click  and playback window will popup

PLAYBACK by TIME SEARCH & EVENT SEARCH



A. HDD Select

User can select HDD1 or HDD2 for playback

B. Playback Time


User can select the time then press “Time Search” for playback.

C. Time Search

User can select the time then press “Time Search” for playback.

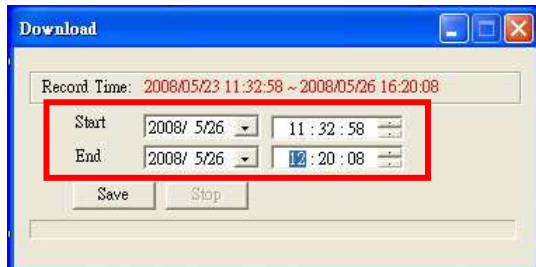
D. Event Search

User can select event item by pressing “Event Search” for playback.

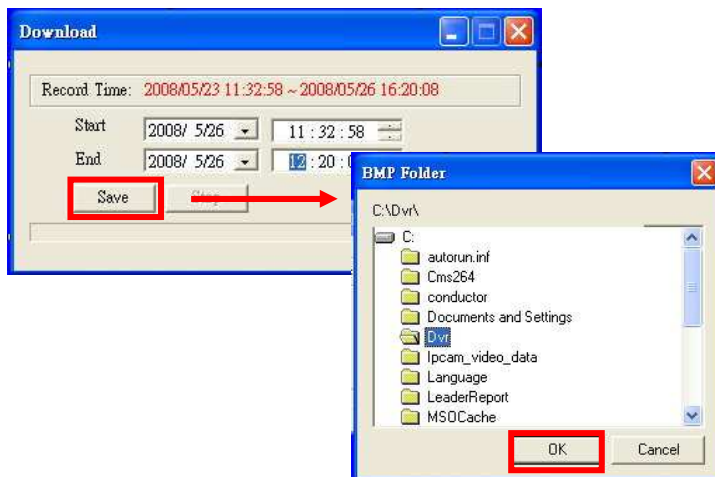
Click  to operate Time-Point backup.

TIME-POINT BACKUP

First, select Start and End backup time which have to among the Record Time.



Then, click **Save** button to select the position on PC where the user is going to backup the data. After that, press **OK** button to start the backup.

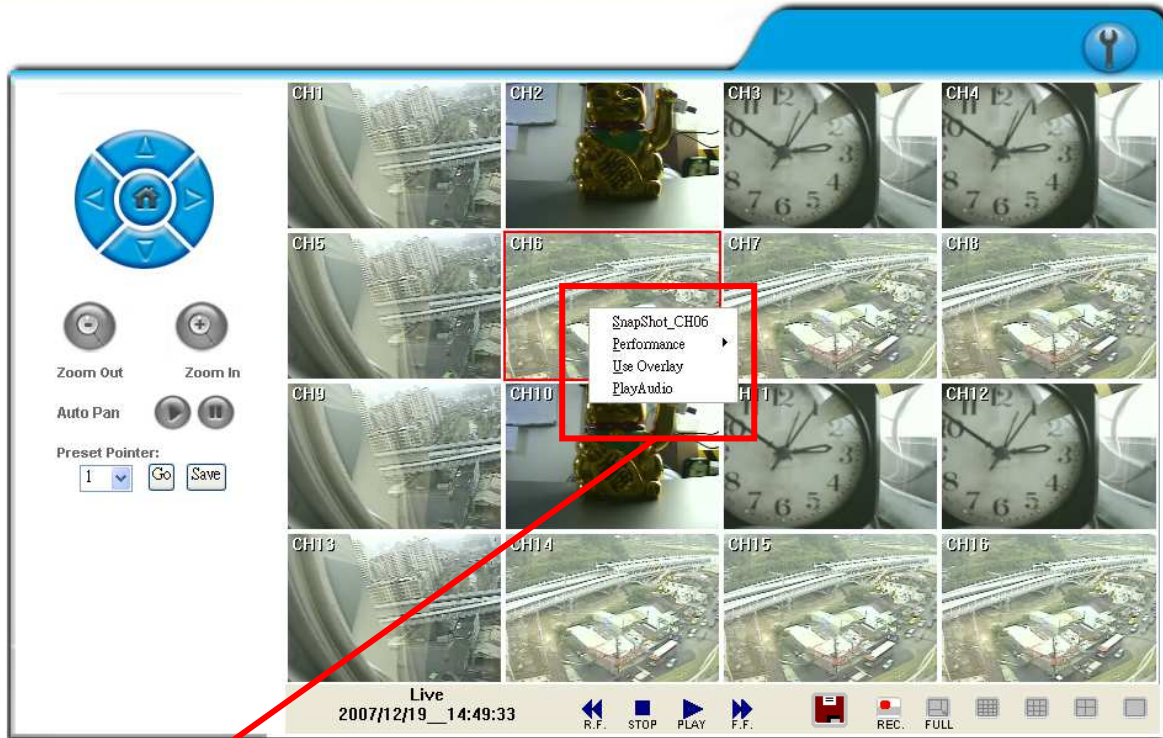


Finally, double-click the left button of the mouse to open the saved backup file. The backup file

will named as the time when start to backup, such as, (20080526113258.264) will be 2008/05/26 11:32:58.



OTHER FUNCTIONS



User can use other functions by clicking the left of mouse

A. Snapshot:

User can save any single picture from image.

B. Performance:

User can select image quality (high, medium & low).

C. Use Overlay:

User can use Overlay function.

D. Play audio:

User can play audio function by channel.

Note: remote user can receive audio from DVR & the audio will be saved with image when processing video backup.

6.5 CONFIGURE

A. System - System Information

System Information	
Server Information	
Server Name:	<input type="text" value="DVR-16CH"/>
MAC Address:	<input type="text" value="00:0f:0d:ff:00:02"/>
Language :	<input checked="" type="radio"/> English <input type="radio"/> 繁體中文 <input type="radio"/> 简体中文
NTP Setting	
Time zone:	<input type="text" value="GMT+08:00"/>
NTP Server:	<input type="text" value="198.123.30.132"/>
Interval:	<input type="text" value="12Hours"/>
<input type="button" value="Apply"/>	

A-1 SYSTEM INFORMATION

SERVER NAME: This name will show on the IP Installer.

LANUGAGE : There are English, Traditional Chinese, and Simplified Chinese.

A-2 NTP Setting

NTP SERVER: Revise the time of DVR via different NTP Server.

Note: Time zone and Interval cannot adjust in here (User can adjust both in DATE and TIME SETUP option of DVR Menu).

B. SYSTEM – USER MANAGEMENT

User Management			
Anonymous User Login			
<input checked="" type="radio"/> YES <input type="radio"/> NO			<input type="button" value="Setting"/>
Add User			
Username:	<input type="text"/>		
Password:	<input type="text"/>		
Confirm:	<input type="text"/>		
UserGroup:	<input type="radio"/> User <input checked="" type="radio"/> Guest		
<input type="button" value="Add/Set"/>			
User List			
Username	User Group	Modify	Remove
admin	Administrator	Edit	
aaaaa	User	Edit	Remove

User Management provides 3 levels of limits of authority: Administrator (the highest), User, and Guest.

Administrator: Possessing the highest level of authority to operate full functions within network.

User: Having Live Image and Video Playback authority. Moreover, PTZ controlled is included as well.

Guest: Only have Live Image authority.

Default administrator account: Username: admin Password: admin

B-1 ANONYMOUS USER LOGIN:

YES: Accept anonymous user login without password as guest login.

NO: Anonymous login unacceptable.

B-2 USER MANAGEMENT:

Add: Input Username and Password and then click on **Add/Set** to save.

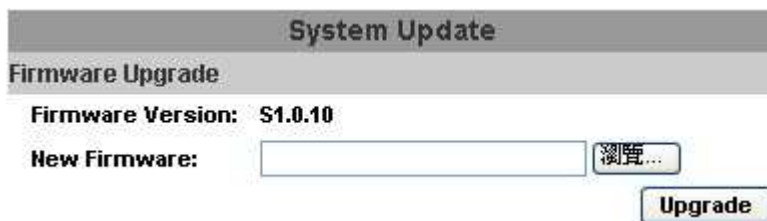
Modify: Click on selected User name on User List and the following window will popup. After inputting Password and Confirm Password, click on **OK**.

Remove: Click on selected User name on the user list and click on **Remove**.



C. SYSTEM / SYSTEM UPDATE

Click on the "Browse" button to select the latest firmware and then press "Upgrade" button to upgrade the firmware.



D. NETWORK – IP SETTING

IP Setting	
IP Assignment	
<input type="radio"/> DHCP	
<input checked="" type="radio"/> Static	
IP Address:	192.168.1.164
Subnet Mask:	255.255.255.0
Gateway:	192.168.3.254
DNS 0:	168.95.1.1
DNS 1:	168.95.192.1
Port Assignment	
Web Page Port:	80
<input type="button" value="Apply"/>	

D-1 IP ASSIGNMENT

DHCP: In Dynamic Host Configuration Protocol (DHCP) mode, DHCP server will get setting done automatically.

STATIC IP: Please input IP address, Subnet Mask, and Gateway based on network environment.

D-2 PORT ASSIGNMENT

With IP Share (Router), the following Ports needed to be adjusted in case of conflict.

E. NETWORK – PPPoE

PPPoE	
PPPoE Setting	
<input type="radio"/> Enabled	<input checked="" type="radio"/> Disabled
Username:	<input type="text"/>
Password:	<input type="text"/>
Send mail after dialed	
<input type="checkbox"/> Enabled	
Subject:	<input type="text"/>
<input type="button" value="Apply"/>	

E-1 PPPoE SETTING

Click on Enabled to enable ADSL dial function.

Username: Username for ADSL account.

Password: Password for ADSL account.

After dialed successfully, new IP address will appear.

E-2 SEND MAIL AFTER DIALED

Click on Enabled to enable SEND MAIL AFTER DIALED function.

E-3 SUBJECT

Mail subject.

F. NETWORK / DDNS SETTING

DDNS

DDNS Setting

Enabled Disabled

Provider:

Hostname:

Username:

Password:

Schedule Update: Minutes

State

Note:

1. Schedule Update: Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.
2. Please note that the hostname will be blocked by DynDNS.org if schedule update is more than once every 5 minutes to 60 minutes. In general, schedule update in every 1440 minutes is recommended.

Click on Enabled to enable DDNS function.

F-1 DYNDNS.ORG

DDNS	
DDNS Setting	
<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled	
Provider:	<input type="text" value="dyndns.org"/>
Hostname:	<input type="text"/>
Username:	<input type="text"/>
Password:	<input type="text"/>
Schedule Update:	<input type="text" value="0"/> Minutes
State	
<input type="text"/>	
<input type="button" value="Apply"/>	

DDNS SETTING - DYNDNS.ORG

PROVIDER: Select dyndns.org

HOSTNAME: The registered hostname in DYNDNS.ORG.

USERNAME: The registered username in DYNDNS.ORG.

PASSWORD: The registered password in DYNDNS.ORG.

SCHEDULE UPDATE: A period of time to update IP address.

STATE

1. Updating: Information update.
2. Idle: Stop service.
3. DDNS registered successfully, now log by
<http://<username>.ddns.camddns.com>: Registered successfully.
4. Updating Failed, the name is already registered.
5. Updating Failed, please check your internet connection.

F-2 DDNS.CAMNDS.COM

DDNS	
DDNS Setting	
<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled	
Provider:	<input type="text" value="ddns.camddns.com"/>
Username:	<input type="text"/>
Schedule Update:	<input type="text" value="5"/> Minutes
State	
<input type="text" value="Idle"/>	
<input type="button" value="Apply"/>	

Schedule Update: Feature of DDNS schedule update is designed for IP products which installed behind the ICS or NAT devices. Update range from every 5 (minutes) to 5000 (minutes) and 0 remain to off.

DDNS SETTING – DDNS.CAMDDNS.COM

PROVIDER: Select ddns.camddns.com

USERNAME: The registered username in DDNS.CAMDDNS.COM.

SCHEDULE UPDATE: A period of time to update IP address.

STATE

1. Updating: Information update.
2. Idle: Stop service.
3. DDNS registered successfully, now log by
<http://<username>.ddns.camddns.com>: Registered successfully.
4. Updating Failed, the name is already registered.
5. Updating Failed, please check your internet connection.

DDNS Setting Steps:

Press ① “ENABLE” option to enable DDNS function and select ②

“**ddns.camddns.com**” of the provider drop down list which is suggested to use. In

the following, insert ③ the username which the user wants to apply

(i.e. **DVR_GODDNS** in here). After that, click ④ “Apply” button to apply a

DDNS domain name.

The screenshot shows the DDNS configuration interface. It is divided into two main sections: 'DDNS Setting' and 'State'. In the 'DDNS Setting' section, there are two radio buttons: 'Enabled' (selected) and 'Disabled'. Below this, there are three fields: 'Provider' (a dropdown menu showing 'ddns.camddns.com'), 'Username' (a text input field containing 'DVR_GODDNS'), and 'Schedule Update' (a text input field containing '60' followed by 'Minutes'). In the 'State' section, there is a text area displaying 'Updating...'. At the bottom right of the interface, there is an 'Apply' button. Red boxes and numbers 1 through 4 are overlaid on the image to highlight the 'Enabled' radio button, the 'Provider' dropdown, the 'Username' text field, and the 'Apply' button respectively.

Finally, the DVR domain name ⑤ (http://DVR_GODDNS.ddns.camddns.com)

will be shown on the state block.

DDNS

DDNS Setting

Enabled Disabled

Provider:

Username:

Schedule Update: Minutes

State

5.

- NOTE:**
1. If the user selects another provider which is ddns2.ydsdvr.com, all of the setting steps are the same with ddns.camddns.com setting.
 2. However, if dyndns.org provider is selected, please go to www.dyndns.org website to register the account first. The user has to fill in the username, password and hostname for applying the account. After the user applied the account successfully, the dyndns.org will give the user a complete DDNS domain name.
 3. If setting up IP schedule update too frequently, the IP may be blocked. In general, schedule update every day (1440 minutes) is recommended.

G. NETWORK / Mail & FTP

Click on “Motion” or “Alarm” option to enable Mail Setting and FTP Setting function.

Mail & FTP	
Mail Setting: <input type="checkbox"/> Motion <input type="checkbox"/> Alarm	
Mail Server:	<input type="text"/>
Username:	<input type="text"/>
Password:	<input type="text"/>
Sender's Mail:	<input type="text"/>
Receiver's Mail:	<input type="text"/>
Bcc Mail:	<input type="text"/>
Event Subject:	ALARM MAIL
FTP Setting: <input type="checkbox"/> Motion <input type="checkbox"/> Alarm	
FTP Server:	<input type="text"/>
Username:	<input type="text"/>
Password:	<input type="text"/>
Port:	21 <input type="text"/>
Path:	<input type="text"/>
<input type="button" value="Apply"/>	

Mail Server: The IP address of Mail Server (i.e. mail.huntelec.com.tw).

Username: The username while log in to the mail server.

Password: The password while log in to the mail server.

Sender's Mail: The sender's account when send the mail via this mail server.

Receiver's Mail: The receiver's mail address.

Bcc Mail: The receiver's mail address for Bcc Mail.

Event Subject: The subject of this mail. (Default value is ALARM MAIL)

FTP Server: The IP address of FTP Server.

Username: The username while log in to the ftp server.

Password: The password while log in to the ftp server.

Port: The port number of file transmission. (Default value is 21)

Path: The ftp path where the user wants to reserve the information.

Finally, click on **Apply** button to reserve the setting.

H. OTHERS / Player Downloaded

User can click “Run” button to download the player to local PC.



I. OTHERS / RTSP

User can click Video Quality drop down list to change the video quality. There are Best, High, Standard, Medium and Low options.

RTSP Setting	
Video Format:	MPEG4
Video Quality:	High
3GPP Path:	CH-
For Example:	
rtsp://IP/CH01	The Live CH1 Stream
rtsp://IP/CH02	The Live CH2 Stream
.....	
rtsp://IP/CH16	The Live CH16 Stream
<input type="button" value="Apply"/>	

7. 3GPP APPLICATION & SETTING

3GPP (also known as 3rd Generation Partnership Project) is a corporation which formulate 3rd-generation communication standard specification. Via this wireless communication protocol, the 3G mobile can perform the remote control. The following example is operated by Sony Ericsson 3G mobile phone:

<p>1. Press MENU KEY to get into menu.</p>	<p>2. Select Internet services</p>
	
<p>3. In the Internet services page, press More KEY</p>	<p>4. Select Enter address, and press Select KEY</p>
	
<p>5. Select New address , and press Enter KEY</p>	<p>6. Fill in address <code>rtsp://<<IP>>/channel</code> (<code>rtsp://220.137.65.246/CH03</code>) and press Go To KEY.</p>
	

7. **“Connected to media server”** will appear



8. Success with vivid image



- * 1. 3GPP BANDWIDTH: Minimum 30kbit /sec. per channel.
- 2. CONNECTION NUMBERS: Maximum 16 people per channel.

APPENDIX A: RECORDING TIME LAPSE (HOURS)

Half D1- 720x240

80 GB Hard Disk													Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)												
	LOW			MEDIUM			HIGH			BEST			
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average	
	1.00	3.80	2.40	2.00	6.00	4.00	5.00	10.00	7.50	6.00	17.00	11.50	
120	194	51	122	97	32	64	38	19	28	32	11	21	
60	388	102	245	194	64	129	77	38	57	64	22	43	
30	776	204	490	388	129	258	155	77	116	129	45	87	
15	1553	408	980	776	258	517	310	155	232	258	91	174	
8	2912	766	1839	1456	485	970	582	291	436	485	171	328	
4	5825	1533	3679	2912	970	1941	1165	582	873	970	342	656	

160 GB Hard Disk													Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)												
	LOW			MEDIUM			HIGH			BEST			
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average	
	1.00	3.80	2.40	2.00	6.00	4.00	5.00	10.00	7.50	6.00	17.00	11.50	
120	388	102	245	194	64	129	77	38	57	64	22	43	
60	776	204	490	388	129	258	155	77	116	129	45	87	
30	1553	408	980	776	258	517	310	155	232	258	91	174	
15	3106	817	1961	1553	517	1035	621	310	465	517	182	349	
8	5825	1533	3679	2912	970	1941	1165	582	873	970	342	656	
4	11650	3066	7358	5825	1941	3883	2330	1165	1747	1941	685	1313	

250 GB Hard Disk													Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)												
	LOW			MEDIUM			HIGH			BEST			
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average	
	1.00	3.80	2.40	2.00	6.00	4.00	5.00	10.00	7.50	6.00	17.00	11.50	
120	606	159	382	303	101	202	121	60	90	101	35	68	
60	1213	319	766	606	202	404	242	121	181	202	71	136	
30	2427	638	1532	1213	404	808	485	242	363	404	142	273	
15	4854	1277	3065	2427	809	1618	970	485	727	809	285	547	
8	9102	2395	5748	4551	1517	3034	1820	910	1365	1517	535	1026	
4	18204	4790	11497	9102	3034	6068	3640	1820	2730	3034	1070	2052	

400 GB Hard Disk													Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)												
	LOW			MEDIUM			HIGH			BEST			
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average	
	1.00	3.80	2.40	2.00	6.00	4.00	5.00	10.00	7.50	6.00	17.00	11.50	
120	970	255	612	485	161	323	194	97	145	161	57	109	
60	1941	511	1226	970	323	646	388	194	291	323	114	218	
30	3883	1022	2452	1941	647	1294	776	388	582	647	228	437	
15	7767	2044	4905	3883	1294	2588	1553	776	1164	1294	456	875	
8	14563	3832	9197	7281	2427	4854	2912	1456	2184	2427	856	1641	
4	29127	7665	18396	14563	4854	9708	5825	2912	4368	4854	1713	3283	

500 GB Hard Disk													Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)												
	LOW			MEDIUM			HIGH			BEST			
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average	
	1.00	3.80	2.40	2.00	6.00	4.00	5.00	10.00	7.50	6.00	17.00	11.50	
120	1213	319	766	606	202	404	242	121	181	202	71	136	
60	2427	638	1532	1213	404	808	485	242	363	404	142	273	
30	4854	1277	3065	2427	809	1618	970	485	727	809	285	547	
15	9709	2555	6132	4854	1618	3236	1941	970	1455	1618	571	1094	
8	18204	4790	11497	9102	3034	6068	3640	1820	2730	3034	1070	2052	
4	36408	9581	22994	18204	6068	12136	7281	3640	5460	6068	2141	4104	

750 GB Hard Disk													Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)												
	LOW			MEDIUM			HIGH			BEST			
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average	
	1.00	3.80	2.40	2.00	6.00	4.00	5.00	10.00	7.50	6.00	17.00	11.50	
120	1820	479	1149	910	303	606	364	182	273	303	107	205	
60	3640	958	2299	1820	606	1213	728	364	546	606	214	410	
30	7281	1916	4598	3640	1213	2426	1456	728	1092	1213	428	820	
15	14563	3832	9197	7281	2427	4854	2912	1456	2184	2427	856	1641	
8	27306	7185	17245	13653	4551	9102	5461	2730	4095	4551	1606	3078	
4	54613	14371	34492	27306	9102	18204	10922	5461	8191	9102	3212	6157	

1T Hard Disk												Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)											
	LOW			MEDIUM			HIGH			BEST		
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average
	1.00	3.80	2.40	2.00	6.00	4.00	5.00	10.00	7.50	6.00	17.00	11.50
120	2427	638	1532	1213	404	808	485	242	363	404	142	273
60	4854	1277	3065	2427	809	1618	970	485	727	809	285	547
30	9709	2555	6132	4854	1618	3236	1941	970	1455	1618	571	1094
15	19418	5110	12264	9709	3236	6472	3883	1941	2912	3236	1142	2189
8	36408	9581	22994	18204	6068	12136	7281	3640	5460	6068	2141	4104
4	72817	19162	45989	36408	12136	24272	14563	7281	10922	12136	4283	8209

CIF-360x240

80 GB Hard Disk												Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)											
	LOW			MEDIUM			HIGH			BEST		
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average
	0.50	1.90	1.20	1.00	3.00	2.00	2.50	5.00	3.75	3.00	8.75	5.88
240	194	51	122	97	32	64	38	19	28	32	11	21
120	388	102	245	194	64	129	77	38	57	64	22	43
60	776	204	490	388	129	258	155	77	116	129	44	86
30	1553	408	980	776	258	517	310	155	232	258	88	173
15	3106	817	1961	1553	517	1035	621	310	465	517	177	347
8	5825	1533	3679	2912	970	1941	1165	582	873	970	332	651
4	11650	3066	7358	5825	1941	3883	2330	1165	1747	1941	665	1303

160 GB Hard Disk												Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)											
	LOW			MEDIUM			HIGH			BEST		
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average
	0.50	1.90	1.20	1.00	3.00	2.00	2.50	5.00	3.75	3.00	8.75	5.88
240	388	102	245	194	64	129	77	38	57	64	22	43
120	776	204	490	388	129	258	155	77	116	129	44	86
60	1553	408	980	776	258	517	310	155	232	258	88	173
30	3106	817	1961	1553	517	1035	621	310	465	517	177	347
15	6213	1635	3924	3106	1035	2070	1242	621	931	1035	355	695
8	11650	3066	7358	5825	1941	3883	2330	1165	1747	1941	665	1303
4	23301	6132	14716	11650	3883	7766	4660	2330	3495	3883	1331	2607

250 GB Hard Disk													Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)												
	LOW			MEDIUM			HIGH			BEST			
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average	
	0.50	1.90	1.20	1.00	3.00	2.00	2.50	5.00	3.75	3.00	8.75	5.88	
240	606	159	382	303	101	202	121	60	90	101	34	67	
120	1213	319	766	606	202	404	242	121	181	202	69	135	
60	2427	638	1532	1213	404	808	485	242	363	404	138	271	
30	4854	1277	3065	2427	809	1618	970	485	727	809	277	543	
15	9709	2555	6132	4854	1618	3236	1941	970	1455	1618	554	1086	
8	18204	4790	11497	9102	3034	6068	3640	1820	2730	3034	1040	2037	
4	36408	9581	22994	18204	6068	12136	7281	3640	5460	6068	2080	4074	

400 GB Hard Disk													Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)												
	LOW			MEDIUM			HIGH			BEST			
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average	
	0.50	1.90	1.20	1.00	3.00	2.00	2.50	5.00	3.75	3.00	8.75	5.88	
240	970	255	612	485	161	323	194	97	145	161	55	108	
120	1941	511	1226	970	323	646	388	194	291	323	110	216	
60	3883	1022	2452	1941	647	1294	776	388	582	647	221	434	
30	7767	2044	4905	3883	1294	2588	1553	776	1164	1294	443	868	
15	15534	4088	9811	7767	2589	5178	3106	1553	2329	2589	887	1738	
8	29127	7665	18396	14563	4854	9708	5825	2912	4368	4854	1664	3259	
4	58254	15330	36792	29127	9709	19418	11650	5825	8737	9709	3328	6518	

500 GB Hard Disk													Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)												
	LOW			MEDIUM			HIGH			BEST			
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average	
	0.50	1.90	1.20	1.00	3.00	2.00	2.50	5.00	3.75	3.00	8.75	5.88	
240	1213	319	766	606	202	404	242	121	181	202	69	135	
120	2427	638	1532	1213	404	808	485	242	363	404	138	271	
60	4854	1277	3065	2427	809	1618	970	485	727	809	277	543	
30	9709	2555	6132	4854	1618	3236	1941	970	1455	1618	554	1086	
15	19418	5110	12264	9709	3236	6472	3883	1941	2912	3236	1109	2172	
8	36408	9581	22994	18204	6068	12136	7281	3640	5460	6068	2080	4074	
4	72817	19162	45989	36408	12136	24272	14563	7281	10922	12136	4161	8148	

750 GB Hard Disk												Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)											
	LOW			MEDIUM			HIGH			BEST		
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average
	0.50	1.90	1.20	1.00	3.00	2.00	2.50	5.00	3.75	3.00	8.75	5.88
240	1820	479	1149	910	303	606	364	182	273	303	104	203
120	3640	958	2299	1820	606	1213	728	364	546	606	208	407
60	7281	1916	4598	3640	1213	2426	1456	728	1092	1213	416	814
30	14563	3832	9197	7281	2427	4854	2912	1456	2184	2427	832	1629
15	29127	7665	18396	14563	4854	9708	5825	2912	4368	4854	1664	3259
8	54613	14371	34492	27306	9102	18204	10922	5461	8191	9102	3120	6111
4	109226	28743	68984	54613	18204	36408	21845	10922	16383	18204	6241	12222

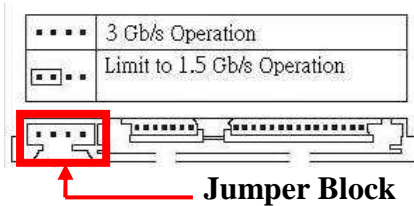
1T Hard Disk												Unit: Hour
Recording Speed (FPS)	PICTURE QUALITY (KB)											
	LOW			MEDIUM			HIGH			BEST		
	simple	complex	average	simple	complex	average	simple	complex	average	simple	complex	average
	0.50	1.90	1.20	1.00	3.00	2.00	2.50	5.00	3.75	3.00	8.75	5.88
240	2427	638	1532	1213	404	808	485	242	363	404	138	271
120	4854	1277	3065	2427	809	1618	970	485	727	809	277	543
60	9709	2555	6132	4854	1618	3236	1941	970	1455	1618	554	1086
30	19418	5110	12264	9709	3236	6472	3883	1941	2912	3236	1109	2172
15	38836	10220	24528	19418	6472	12945	7767	3883	5825	6472	2219	4345
8	72817	19162	45989	36408	12136	24272	14563	7281	10922	12136	4161	8148
4	145635	38325	91980	72817	24272	48544	29127	14563	21845	24272	8322	16297

* The value is for reference only

APPENDIX B: HDD COMPATIBLE TABLE

Brand	Model	Capacity	Speed (RPM)
SEAGATE	ST380815AS	80G	7200 10
	ST3160815AS	160G	7200 10
	STM3250820AS	250G	7200 10
	ST3400620AS	400G	7200 10
	ST3750640AS	750G	7200 10
	ST310005N1D1AS-RK	1000G	7200
WD	WD2500AAKS	250G	7200
HITACHI	HDS721616PLA380	160G	7200
	HDT725025VLA380	250G	7200
	HDT725032VLA360	320G	7200
	HDP725050GLA360	500G	7200
Last Update Date	2008/3/24		

* Please use **SATA I** Hard Disk and setup the **Jumper Block** to 1.5 Gb/s Operation. As the following image,



* This H.D.D. compatible table is for reference only.

APPENDIX C: ERROR MESSAGE LIST

ERROR MESSAGE	ERROR STATUS & REASON	NOTE
DISK ACCESS ERROR!	H.D.D. Data structure Un-normal. Data does not record into DVR or bad sector on DVR H.D.D. Please install another H.D.D. and perform the record again.	
UPDATE FILE ERROR!	Please re-download the update file and update again.	
FIRMWARE UPGRADE FAILED	Please reboot the DVR and upgrade the firmware. Please send the DVR back to repair when DVR is disability.	
MEDIA ACCESS FAIL!	The USB file format is incorrect (Please format the pen drive to FAT32) or Pen Drive is setup to ONLY READ mode (Please annul ONLY READ mode) when reserve the data by using Pen Drive. The data cannot be burn into CD/DVD disc. Please change another CD/DVD disc and backup the file in CD/DVD disc storage.	
NO FILE!	There is no upgrade file within Pen Drive or the name of upgrade file does not correspond with DVR format. Please adjust the upgrade file name based on the following information. 16CH -> UpdateR.bin 08CH -> Update8.bin 04CH -> Update4.bin	
USB DEVICE NOT FOUND NO USB	Pen Drive undetected. Please Unplug the Pen Drive and plug it again.	
BACKUP START TIME ERROR	Backup start time error.	
BACKUPEND TIME ERROR	Backup end time error.	
DISK ERROR	The data cannot be burn into CD/DVD disc. Please change another CD/DVD disc and backup the file.	
FAN FAILED	Fan Error Warning.	
NO LOG DATA	No Events Record.	
SCHEDULE RECORD	The condition is caused by trying to stop recording when perform the schedule record. Please setup the record to manual mode and then stop the record.	
PLEASE SELECT ONE CAMERA	The message will be shown while using the ZOOM function under split screen condition. Please switch the screen into full screen mode and then operate the ZOOM function.	