

AVerMedia[®] AVerDiGi EB3004 MD

User Manual



FCC NOTICE (Class A)



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

.Federal Communications Commission Statement

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 in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

Class A ITE

Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. Such equipment should not be restricted in its sale but the following warning shall be included in the instructions for use:

Warning --This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

European Community Compliance Statement (Class A)



This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2004/108/EEC.

Warning - This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures to correct this interference.

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The mark of Crossed-out wheeled bin indicates that this product must not be disposed of with your other household waste. Instead, you need to dispose of the waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. For more information about where to drop off your waste equipment for recycling, please contact your household waste disposal service or the shop where you purchased the product.

Battery Safety Information

- Store the batteries in a cool dry place.
- Do not dispose of used batteries in domestic waste. Dispose of batteries at special collection points or return to point of sale if applies.
- Remove the batteries during long periods of non-use. Always remove exhausted batteries from the remote control. Battery leakage and corrosion can damage this remote control, dispose of batteries safely.
- Do not mix old and new batteries.
- Do not mix different types of batteries: alkaline, standard (carbon-zinc) or rechargeable (nickel-cadmium).
- Do not dispose of batteries in a fire. The batteries may explode or leak.
- Never short circuit the battery terminals.

**WARNING**

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

**CAUTION**

IF THERE IS ANY DAMAGE, SHORTAGE OR INAPPROPRIATE ITEM IN THE PACKAGE, PLEASE CONTACT WITH YOUR LOCAL DEALER. WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION

**NOTICE**

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- THE INFORMATION CONTAINED HEREIN IS TO BE CONSIDERED FOR REFERENCT ONLY.

**LIGHTNING WARNING**

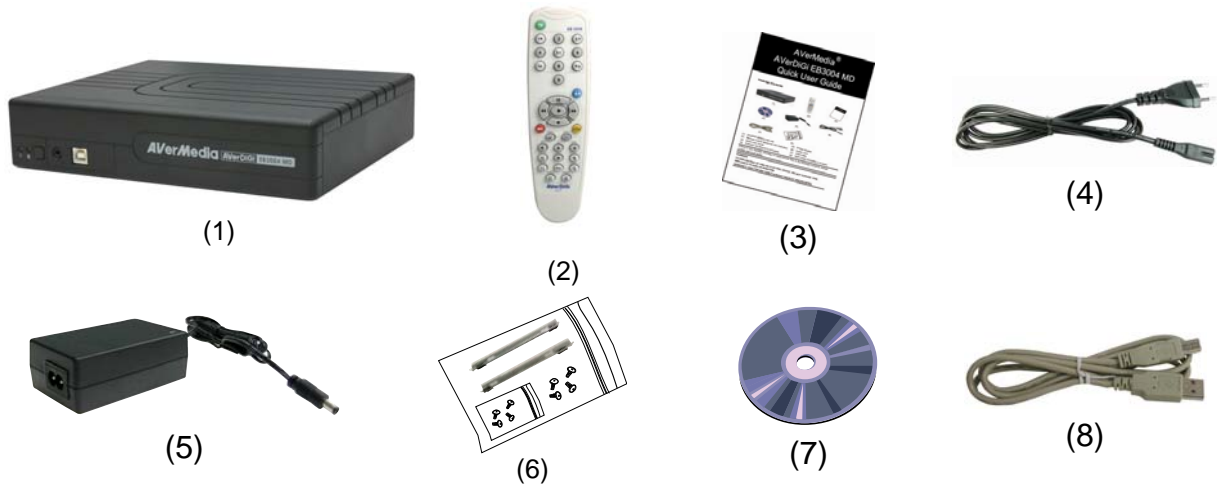
- TO AVOID THE LIGHTNING STRIKE, STRONGLY SUGGEST INSTALLING THE LIGHTNING ROD AT LIGHTNING FREQUENTLY AREA.
- FOR ADDED PROTECTION, UNPLUG THE DVR UNIT DURING THE LIGHTNING STORM. THIS MAY PREVENT TO DAMAGE THE DVR UNIT DUE TO THE LIGHTNING.

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Chapter 1 Introduction

1.1 Package Content



- (1) AVerDiGi EB3004 MD unit
- (2) Remote Control (batteries included)
- (3) Quick User Guide
- (4) Power Cord
 - * The power cord varies depending on the standard power outlet of the country where it is sold.
- (5) Power Adapter
- (6) Internal HDD holder (8 screws are included)
- (7) Software CD (User Manual included)
- (8) USB Cable



1.2 Features and Specifications

- Fire resistance material
- Non-PC stand-alone digital video recorder
- 4 composite video inputs and 1 composite output
- VGA output for LCD or CRT monitor display
- On Screen Display(OSD) control menu
- MPEG4 video compression
- Auto-detect NTSC or PAL video system
- Supports 1 hard disk drive (not included)
- Full-screen resolution:
 - Display: 720 x 480 (NTSC) / 720 x 576 (PAL)
 - Recording: 720 x 480 (NTSC) / 720 x 576 (PAL)
- Recording frame rate:
 - D1 mode:** 60fps (NTSC) / 50fps (PAL)
 - CIF mode:** 120 fps (NTSC) / 100fps (PAL)
 - D1 Enhance mode:** 30fps (NTSC) / 25fps (PAL)

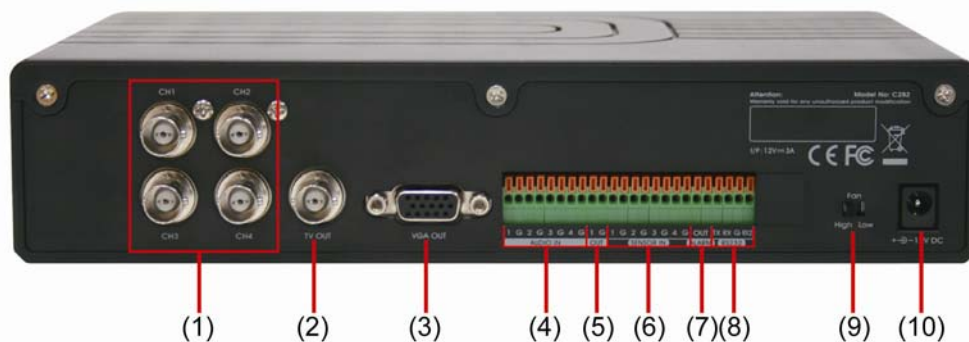
- Scheduled recording (00:00~23:00 set by hour)
- Search for recorded video files by date/time/event
- Input/Output: 4 sensor inputs and 1 relay output control
- Audio In/Out: 4 audio in and 1 audio out



1.3 Front Panel





Name	Function
(1) DVR Power LED 	Light when the unit is power on
(2) HDD LED 	Indicate the hard disk running state. Light when the HDD is running (Read/Write)
(3) IR Sensor	Receive signal from the remote control to operate the unit
(4) IR Sensor Port	To connect extended IR sensor cable(optional)
(5) USB 2.0 Port	Connect to PC for video transfer or playback

1.4 Back Panel



Name	Function
(1) CH1/CH2/CH3/CH4	Input the video camera signal and display it on channel 1/2/3/4
(2) TV Out	Output the video signal to other video output device through BNC port
	 The DVR unit support 2 video output ports and you can only select to output the video either from the VGA OUT or VIDEO OUT
(3) VGA OUT	Output the video signal to a CRT or LCD monitor
(4) Audio Out	Input the audio signal from audio output device such as microphone
	 The audio input device has its own power supply is necessary.

Name	Function
(5) Audio Out	Output the audio signal to a audio out device such as speaker
	 The audio output device has its own power supply is necessary.
(6) Sensor In	Support 4 sensor devices
(7) Alarm Out	Support 1 relay device (Relay: 1A @ 125V AC/30V DC)
(8) RS-232	For PTZ camera connection and firmware update
(9) FAN speed Switch	Adjust fan speed(High/Low) according to the actual environment situation
	 We do strong recommend that adjust the fan speed to High when the operating environment is over 30 °C.
(10)12V DC	Power cable connection

1.5 Setting Up the DVR Unit

1.5.1 Installing the Hard Disk



For hard disk spec, please referring to <http://www.avermedia.com/AVerDiGi/Product/> → **AVerDiGi EB3004 MD** → **Hardware Recommendations**



The “compatible hard disks” indicated in the above recommendation list only means that these commercially available hard disks were tested with AVerMedia products and functioned well under normal operation conditions. AVerMedia does not guarantee or provide warranties, explicitly, implied or statutory with respect to the reliability of the hard disk function or its compatibility. In no event AVerMedia shall be liable for damages, with respect to any business interruption of clients, lost profits, loss of programs or other data on your information handling system or otherwise. This includes direct, indirect, incidental, special, or consequential damages, resulting from the incompatibility caused by the usage of these hard disks, even if AVerMedia has expressly advised about the risk of such damages. The entire risk arising out of the use of any information attached here with is borne by the recipient.

The DVR unit allows user to install one hard disk. Follow the illustrated instructions below to install the hard disk:

1. Loosen all screws



2. Push the cover backward and lift



3. Secure the brackets on the hard disk



4. Connect the the SATA cable and the power connector to the hard disk




5. Secure the hard disk inside the unit then place unit cover



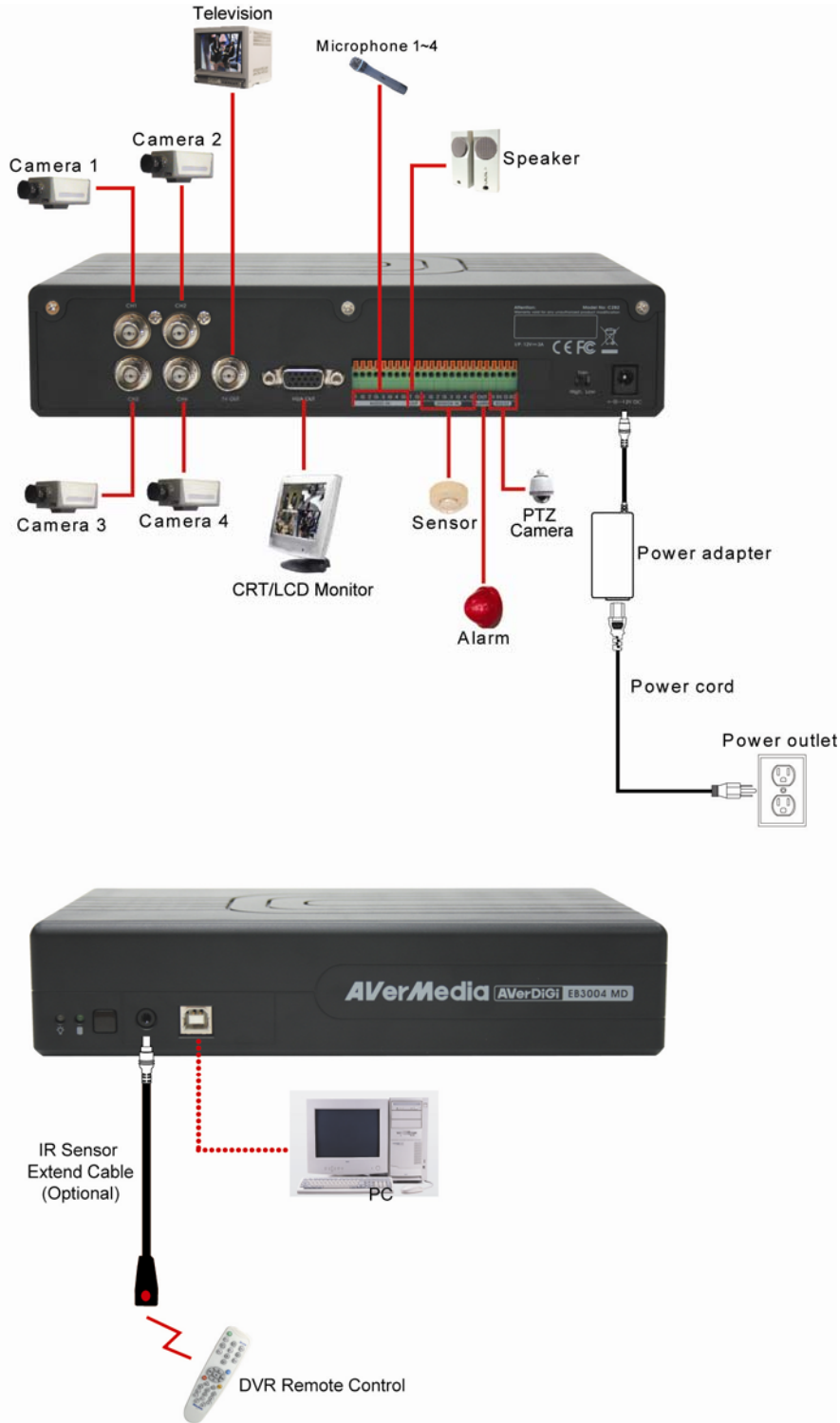
6. Push the cover forward and secure the cover



7. You may now connect all the cables. When the power is connected, the Power LED light  turns on

1.5.2 Connecting Devices

The back panel of the DVR unit, user can connect up to 4 video cameras, 4 sensor devices, 1 alarm device and output video to a TV or CRT/LCD monitor. Connecting the unit to the PC, then use the bundled software enables user to transfer, playback and segment the video. Follow the illustration below to make the connection:

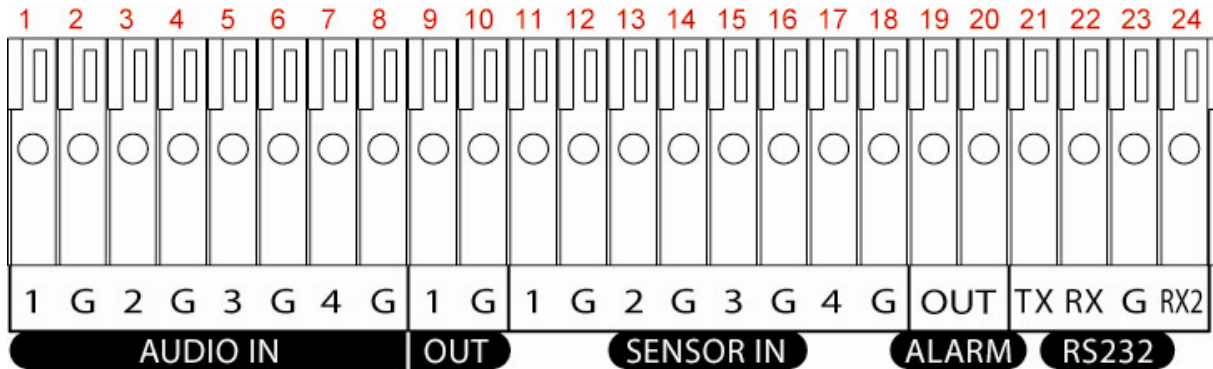


Each time you change the video display output or video system (NTSC/PAL), the power must be turned **off** and **on** to reset the DVR unit.

1.5.3 Connecting the Audio, Sensor and Relay device

The Sensor, Alarm, and audio port enable you to connect 4 sensor inputs, 1 relay outputs, and 4 audio in and 1 audio out device. Just connect the external sensor, relay, and audio in/out device pin directly to the pinhole. The RS-232 port can be used for PTZ camera connection through a RS-232 to RS-485 converter.

Check the table below and locate which pinhole is assigned to sensor input, relay output, and audio in/out.



The signal from the sensor (i.e., infrared sensors, smoke detectors, proximity sensors, door sensors, etc.) is being transmitted to the unit and this triggers the system to respond and send signal to relay device (i.e., alarm, telephone etc).

Audio in and out pinhole:

Pin #	Definition
1	Audio input signal
2	Audio Ground signal
3	Audio input signal
4	Audio Ground signal
5	Audio input signal
6	Audio Ground signal
7	Audio input signal
8	Audio Ground signal
9	Audio output signal
10	Audio Ground signal

Sensor in and Alarm pinhole:

Pin #	Definition
11	Sensor 1 signal
12	Sensor 1 Ground signal
13	Sensor 2 signal
14	Sensor 2 Ground signal
15	Sensor 3 signal
16	Sensor 3 Ground signal
17	Sensor 4 signal
18	Sensor 4 Ground signal
19	Relay signal
20	Relay signal

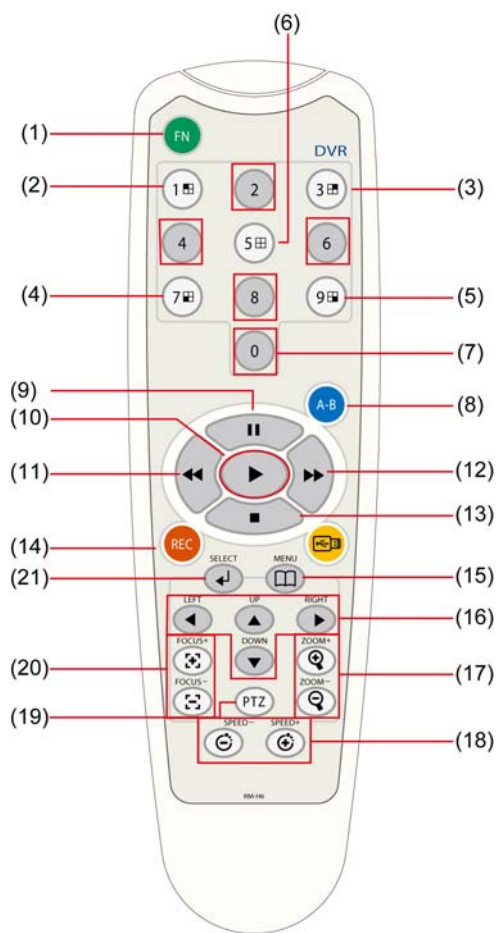
RS-232 pinhole:

Pin #	Definition
21	RS-232 TX signal
22	RS-232 RX signal
23	RS-232 Ground signal
24	RS-232 RX signal

Chapter 2 Operating the DVR unit


















2.1 Familiarizing the Remote Control Buttons

Use the Remote control to operate the OSD menu on surveillance screen.







Button	Function
(1)	A functional key for multiple DVR system remote control
(2)	Switch to Channel 1 As a number key for entering password
(3)	Switch to Channel 2 As a number key for entering password
(4)	Switch to Channel 3 As a number key for entering password
(5)	Switch to Channel 4 As a number key for entering password
(6)	Switch to QUAD mode As a number key for entering password
(7)	As a number key for entering password

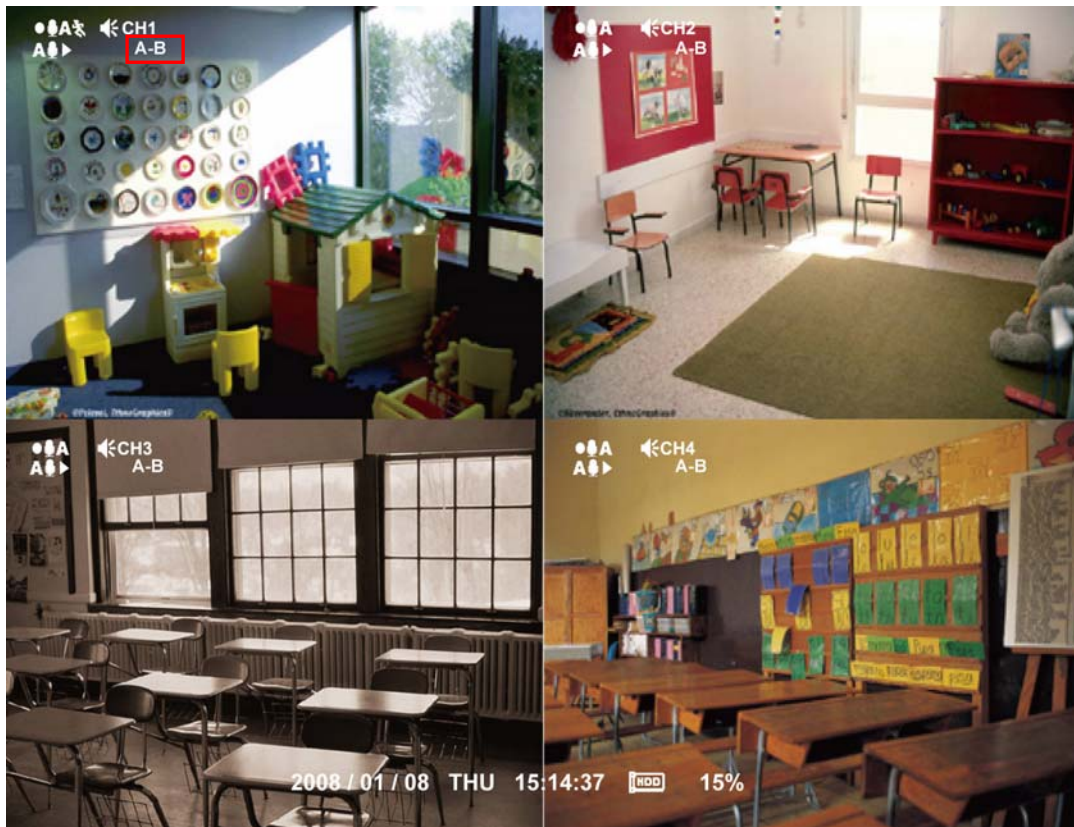
Button	Function
(8)	Set a playing recorded video from A point to B point segment and repeat playing on surveillance screen(See 2.1.1)
(9)	Pause the playing
(10)	To play the video
(11)	Decrease the video playback at the speed of 2x, 4x, 8x or 16x
(12)	Fast play the video playback at the speed of 2x, 4x, 8x or 16x
(13)	Stop playing / Stop recording
(14)	Start video recording
(15)	To enter the OSD Main menu / Exit from the main menu or sub-menu display

Button	Function	
(16)		To move the selection to the left and right
		
		
		
(17)	ZOOM+ 	To zoom in view of PTZ camera
	ZOOM- 	To zoom out view of PTZ camera
(18)		PTZ camera control button. Press  + camera channel button(   )can enter PTZ mode to control PTZ camera.(see 2.1.3)
(19)	SPEED+ 	To speed up movement of PTZ camera lens
	SPEED- 	To speed down movement of PTZ camera lens
(20)	FOCUS + 	To focus in PTZ camera lens
	FOCUS - 	To focus out PTZ camera lens
(21)		Make a selection
		Enter sub-menu

2.1.1 Using AB Repeat Function

AB Repeat function allow user to set a video segment from A to B point and play on the surveillance screen until user stop.

1. Press  (play button) to call out the **SEARCH MODE** menu to find the recorded video that user wants to playback.
2. Select **TIME SEARCH** or **EVENT LIST**.
 - **TIME SEARCH** (search by date and time): select the date and time from where you want to begin the video playback.
 - **EVENT LIST** (search by condition): select from the list.
3. During the playback, press  to set the A point of video segment. And then, press  again to set the B point of video segment. On the surveillance screen will display "A-B" and repeat playing the AB point video segment which user has set. To cancel AB repeat, press  again.



2.1.2 Controlling PTZ Camera

Using remote control, user can easily control PTZ camera at local site. Before starting, make sure the PTZ camera is connected with the DVR unit. And then, please go to OSD menu to enable PTZ control (see also [3.1 Menu Function: PTZ Setup](#)).



Use the RS-232 to RS-485 converter to connect the PTZ camera with the DVR unit.



2.1.2.1 To Enter the PTZ Mode










To control PTZ camera, user need to enter the PTZ mode first. Press **PTZ** button, and camera channel number button (**1** **2** **3** **4**). The surveillance monitor will switch to single screen PTZ mode.



To exit PTZ mode, press **PTZ** and **0** button. Also, when the DVR system is idle over 1 minute, the DVR system will automatically exit PTZ mode.











2.1.2.2 To Set Preset Position

User can set 9 preset positions for PTZ camera. Using  to  button to set the preset position.

1. Press  and camera channel number button (   ) to enter PTZ mode.
2. Using , ,  and  to adjust the lens of the PTZ camera to the position that user wants.
3. Press any number button over 3 seconds and the position will be saved.
4. To move the PTZ camera to preset position, just press the number button.

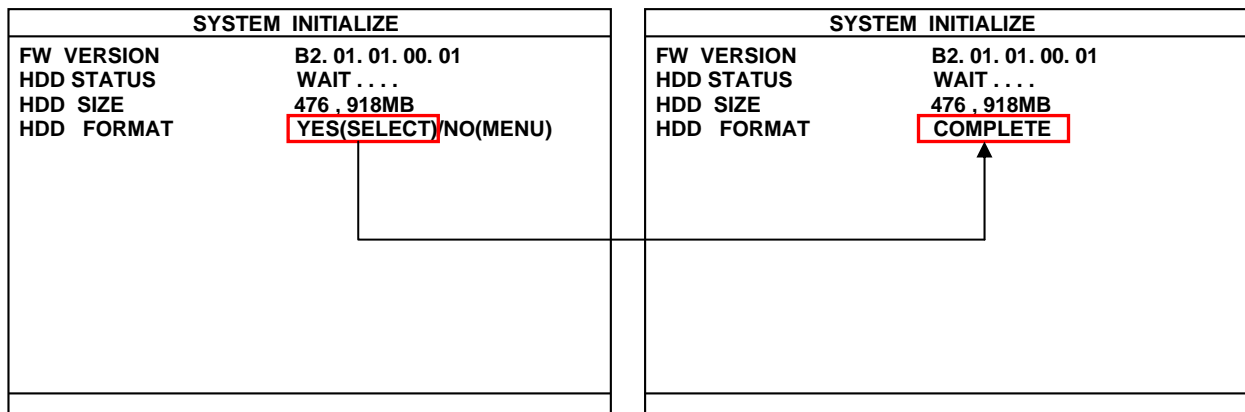
2.1.2.3 To Control PTZ Camera

To move, adjust focus, and zoom in/out camera lens can be done by using some function buttons on the remote control.

-  To move the PTZ camera lens to the right
-  To move the PTZ camera lens to the left
-  To move the PTZ camera lens to go up
-  To move the PTZ camera lens to go down
- ZOOM+
 To zoom in PTZ camera
- ZOOM-
 To zoom out PTZ camera
- SPEED-
 To speed down movement of PTZ camera lens
- SPEED+
 To speed up movement of PTZ camera lens
- FOCUS +
 To focus in PTZ camera lens
- FOCUS -
 To focus out PTZ camera lens

2.2 Using the DVR for the First Time

1. Make sure all devices and power cables are well connected.
2. Turn on the DVR unit by connecting the power cable into the power plug.
3. User should see the **SYSTEM INITIALIZE** windows appear on the surveillance screen. The system will do hard disk detection automatically.
4. For the first time use hard disk, please format the hard disk. Using and to go up and down and press to make a selection. Select **HDD FORMAT** and press (**YES**) to format hard disk. If user doesn't want to format hard disk, press (**NO**).
5. When is done, **HDD FORMAT** will show **COMPLETE**.



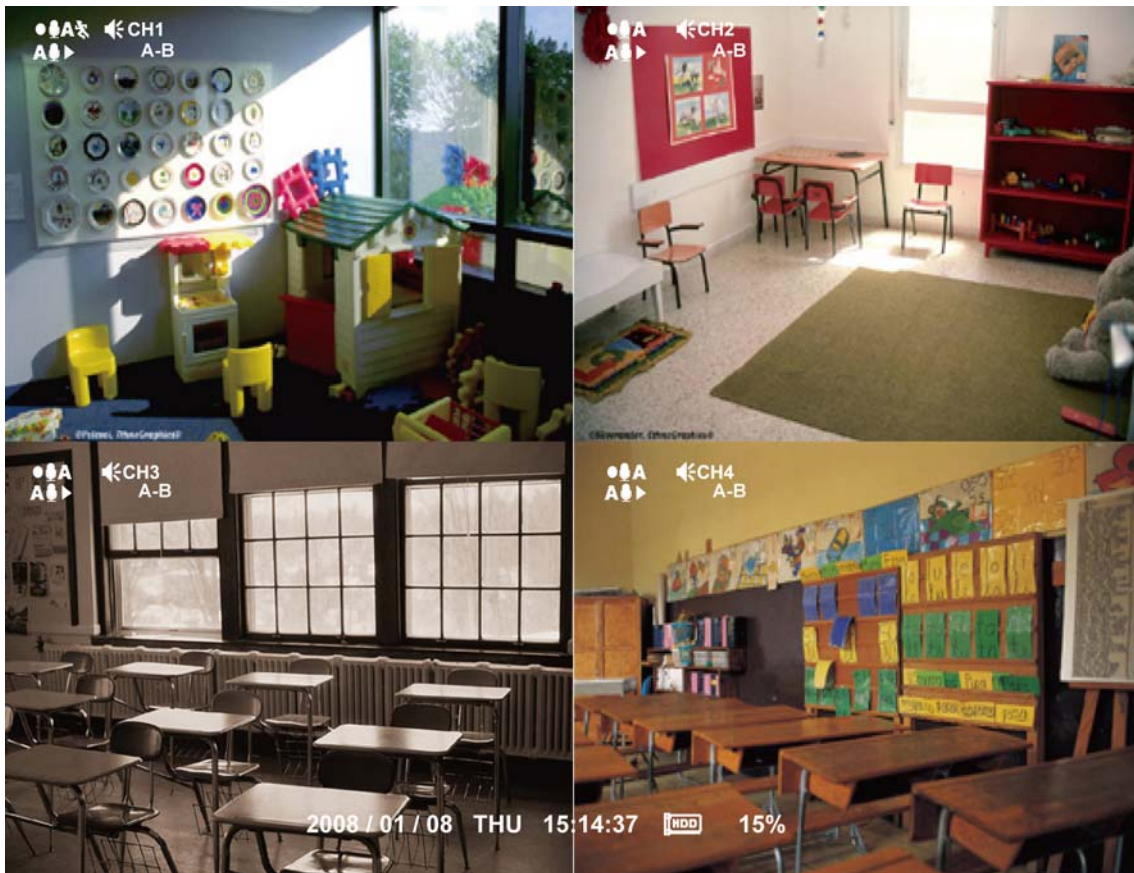
6. When hard disk format is done, please adjust the system date and time in order to have the correct recording date and time.
7. Press to call up the OSD menu, and then, use and to select **SYSTEM** → **DATE/TIME** and press to make a selection.
8. Press and use and to select the **DATE FORMAT**.
9. And then, adjust the **DATE** and **TIME** by using to make a selection and using and to adjust the date and time.

DATE / TIME SETUP	
DATE FORMAT	YYYY/MM/DD
DATE	2009 / 05 / 18
TIME	15 : 19 : 09
DAYLIGHT SAVING	<input type="checkbox"/>
START	2009 / 01 / 01 00 : 00 : 00
END	2009 / 01 / 01 00 : 00 : 00
OFFSET	00 : 00

10. When is done, the DVR system is ready to record.






2.3 Surveillance Screen

This chapter will describe the symbols on the surveillance screen and screen display mode. While DVR is playback, the record action will keep working and the surveillance screen will playback the recorded video.







Surveillance Screen

■ Preview Mode

Symbol	Description
	DVR is recording
	Audio is enabled
	Speaker is available
	Motion recording
 5%	Hard disk capacity

■ Playback Mode

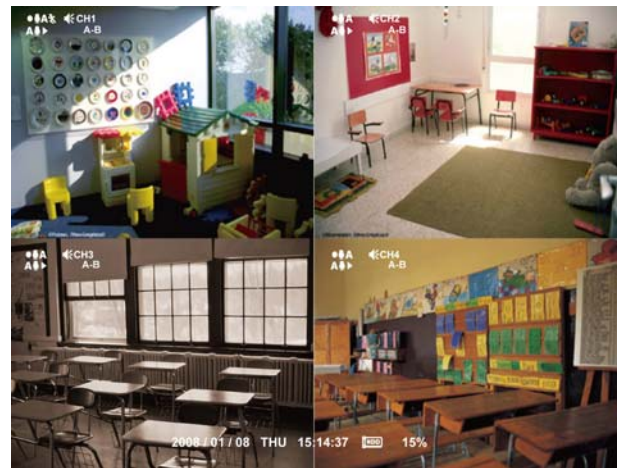
Symbol	Description
	Playback the recorded video
	Audio is enabled
A-B	AB segment is set and playing
	Recorded video is playback at backward speed(2x, 4x, 8x, 16x, 32x, or 64x)
	Recorded video is playback at faster forward speed(2x, 4x, 8x, 16x, 32x, or 64x)
A	Always Recording
B	Button Recording
M	Motion Recording

■ Screen type

User can switch to display each channel in full screen or 4 channels in D1, D1 Enhanced, or CIF record mode.



Full Screen Mode



QUAD Screen Mode

When you are in full screen preview, press the following buttons on the remote control and control panel to switch to different channel, or preview all 4 channels:



CH1: Camera 1



CH2: Camera 2



CH3: Camera 3













CH4: Camera 4




QUAD:4-Channel

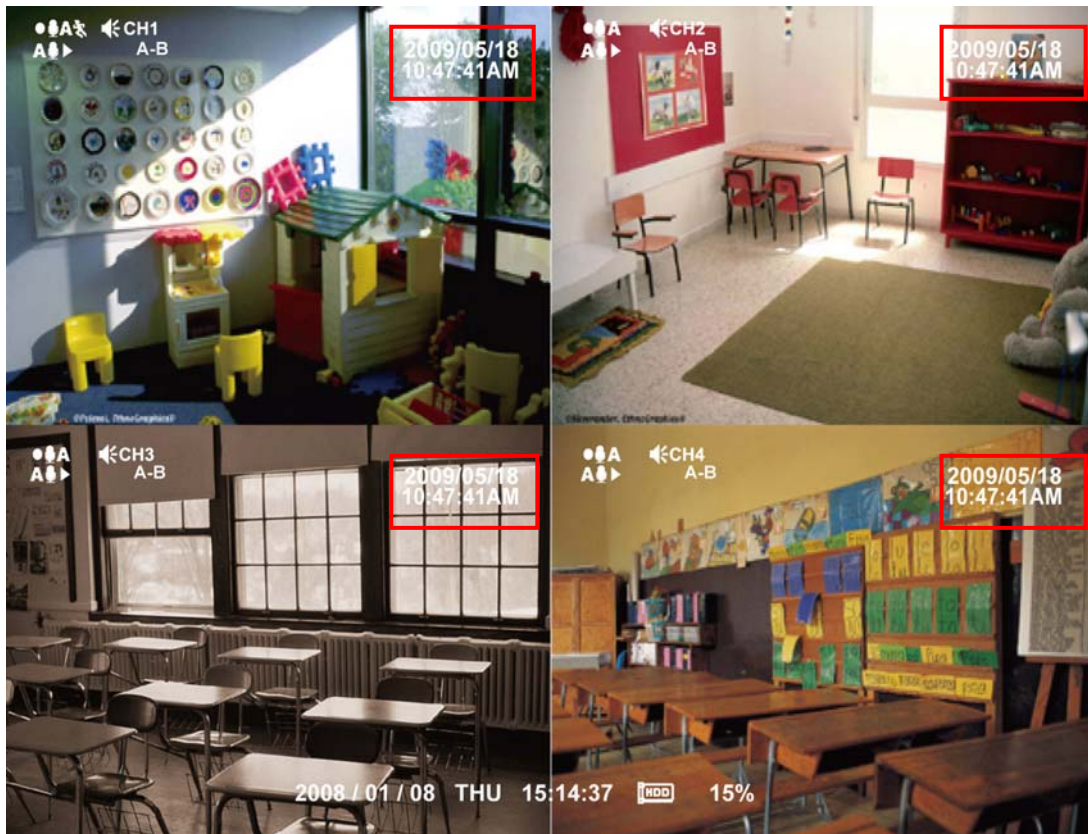
2.3.1 Setup the Time Stamp

Current date and time could be displayed on each channel screen by enabling **TIME STAMP** function. Please follow the below steps to enable **TIME STAMP**.


1. Press  to call out OSD menu.
2. Using  and  move the highlight to **CAMERA/RECORD** and press  to make a selection.
3. Select **GENERAL** and press  to make a selection.
4. And then, select **TIME STAMP** by pressing  button.
5. Using  and  to select the disable/enable of TIME STAMP and press  or  to confirm.

GENERAL SETUP	
RECORD MODE	CIF
DVR NAME	COMPANY
TIME STAMP	<input checked="" type="checkbox"/>
WATERMARK	<input checked="" type="checkbox"/>
AUTO RECORD	<input checked="" type="checkbox"/>
PRE RECORD	00 SEC

6. Press  to exit from OSD menu.
7. The current date and time will display on upper right corner of each channel screen and will be recorded.






2.4 Playback the Video

If the unit is recording the video, you may have to stop video recording in order to do video playback. To stop video recording, press .


1. Press  (play).
2. Use the  and  buttons to go up and down and select **TIME SEARCH**, **FILE LIST**, or **SMART MOTION SEARCH**. And then, press  to make a selection.

SEARCH METHOD	
TIME SEARCH	
FILE LIST	
SMART MOTION SEARCH	










TIME SEARCH (search by date and time):

1. In **TIME SEARCH** window, the **START TIME** and **END TIME** show the date and time from when the recording begins and ends.
2. Press  and use the  and  buttons to set the **SEARCH TIME**.

TIME SEARCH	
START	TIME: 2009 / 05 / 08 11:36:21
END	TIME: 2009 / 05 / 18 11:36:21
SEARCH TIME	2009 / 05 / 08 11:36:21
SEARCH EXECUTION	

3. After **SEARCH TIME** has set, select **SEARCH EXECUTION** and press  to start searching.
4. When the playback file is found, the DVR system will start playback automatically.













FILE LIST (search by condition):

1. In **FILE LIST** window, press  and use the  and  buttons to set the date and time for searching. And then, select the **EXECUTION** to start searching.
2. The searching result will be list out. Using the  and  buttons to go up and down and press  to make a selection.
3. After make a selection, the **EVENT LIST** of each channel will list out. Use the  and  buttons to the selection and press  to make a selection.
4. The selected event will start to playback.

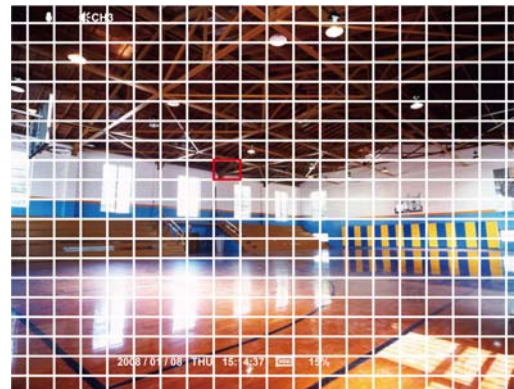
FILE LIST		
MULTITIME SEARCH	2009/05/09 11:36:21	EXECUTION

EVENT LIST			
CH1	NORMAL	14:23:25 - 14:23:33	
CH2	NORMAL	14:23:25 - 14:23:33	
CH3	NORMAL	14:23:25 - 14:23:33	
CH4	NORMAL	14:23:25 - 14:23:33	
			1/1
			2009/05/09

SMART MOTION SEARCH (search by motion event):

1. In SMART MOTION SEARCH window, the **START TIME** and **END TIME** show the date and time from when the recording begins and ends.
2. Use the  and  press  to set **SEARCH START TIME** and **SEARCH END TIME** for searching period.
3. Then, Select the **CHANNEL** that wants to search.
4. And then, select **SEARCH AREA** to mark an area to search. Use the , , , and  to move the block and press  to confirm. To exit, press .
5. To start searching, select the **SEARCH EXECUTION**.
6. The searching result will be list out. Using the  and  buttons to go up and down and press  to make a selection.
7. After make a selection, the DVR system will start playback automatically.

SMART MOTION SEARCH	
START	TIME: 2009 / 05 / 09 11:36:21
END	TIME: 2009 / 05 / 18 11:36:21
SEARCH START TIME	2009 / 05 / 09 11:36:21
SEARCH END TIME	: 2009 / 05 / 18 11:36:21
CHANNEL	: 01
SEARCH AREA	
SEARCH EXECUTION	



SEARCH AREA SETUP SCREEN

Listed below are the symbols of recording condition that will display on surveillance screen while playback mode and record mode:

A – Always Recording

It records non-stop and automatically continue recording when interrupted.

S – Sensor Recording

It records when the sensor has activated.

M – Motion Recording

It records when any movement is detected

B – Button Recording


It records when the  record button is pressed.

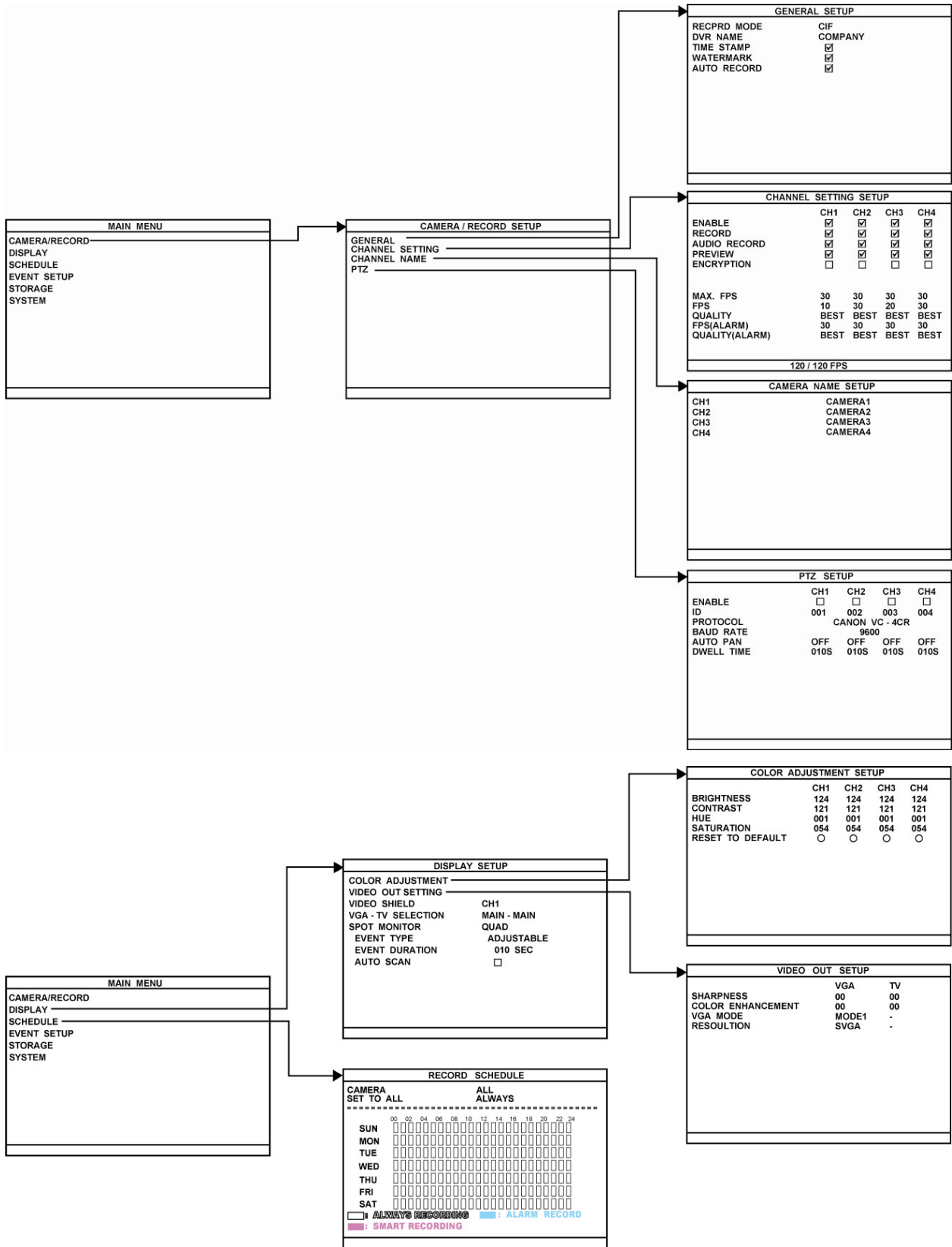
N – NO Recording

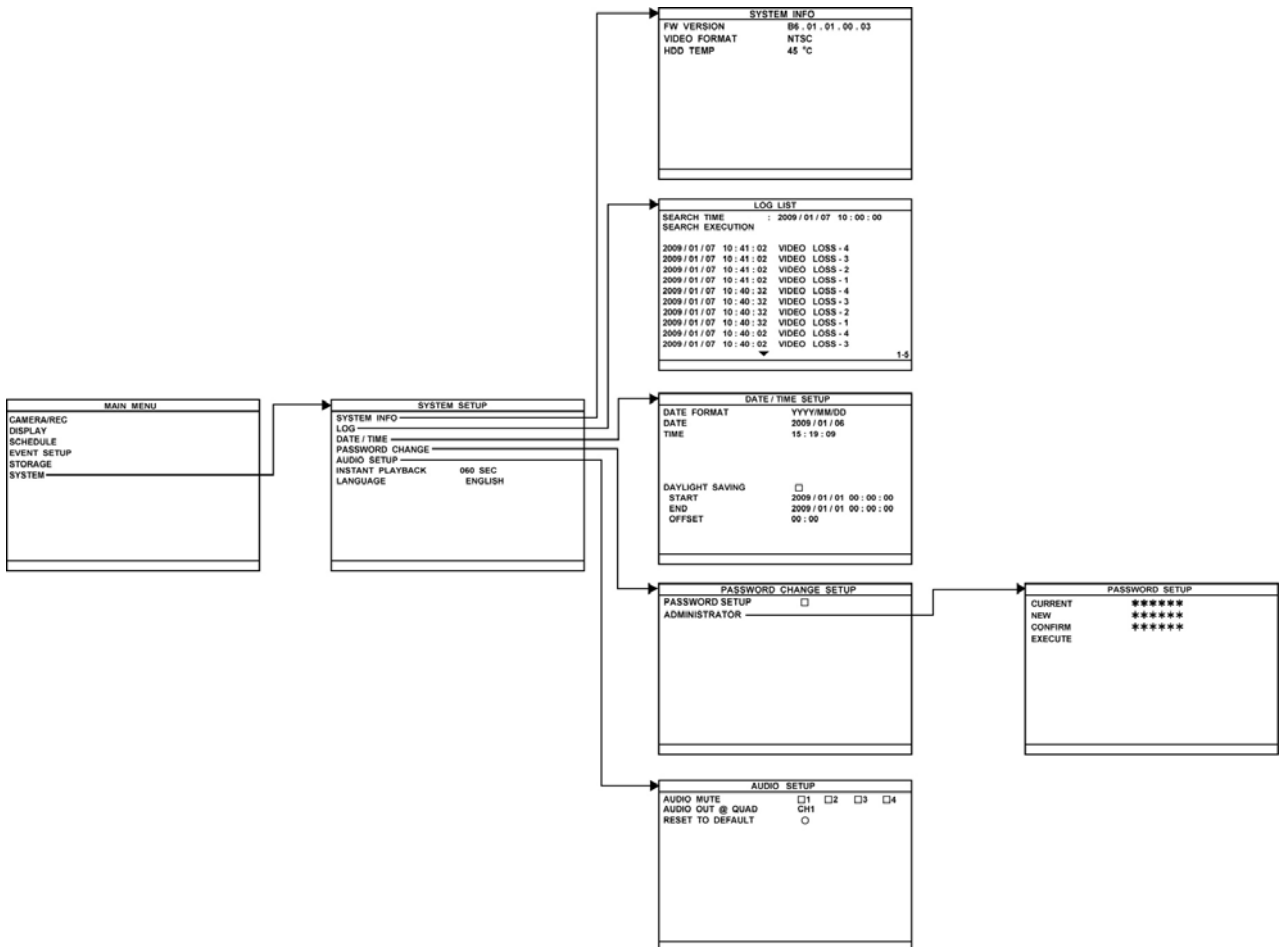
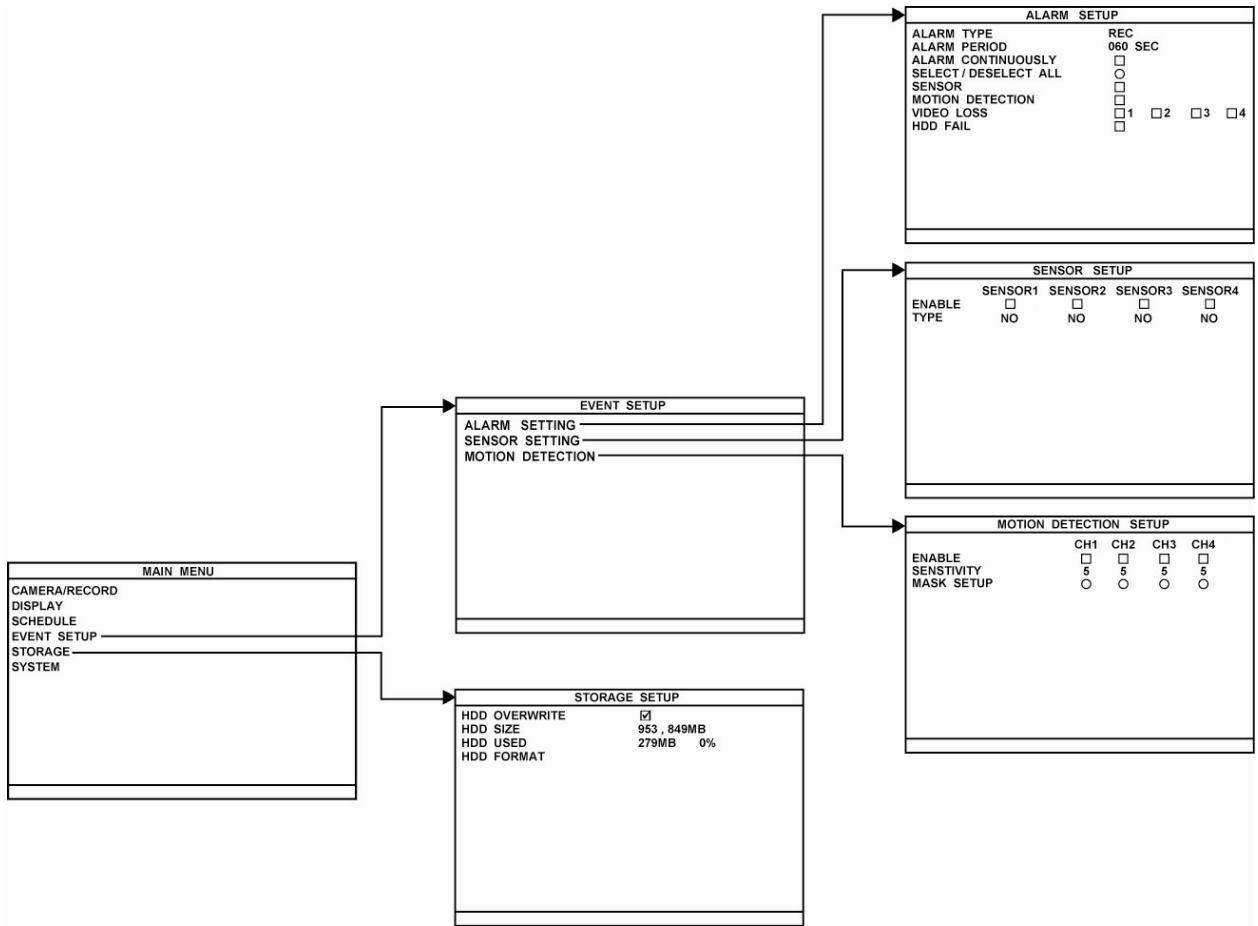
It doesn't record at all

The “▶” play symbol would appear beside the channel number when you are in playback mode.

Chapter 3 OSD Navigation Tree

The follow figure is an OSD menu tree map. To call out the OSD menu, press  on the remote control.





3.1 Menu Function

Use remote control to navigate in the OSD menu. The red frame turns yellow when you are making a selection.



Each time you change the video display output or video system (NTSC/PAL), the power must be turned **off** and **on** to reset the DVR unit.

OSD MENU	Description								
<div style="text-align: center; border-bottom: 1px solid black;">MAIN MENU</div> <div style="border-bottom: 1px solid black; background-color: red; color: white; padding: 2px;">CAMERA/RECORD</div> <div style="padding: 2px;"> DISPLAY SCHEDULE EVENT SETUP STORAGE SYSTEM </div>	<p>CAMERA/RECORD SETUP Configure camera parameters, name and PTZ camera.</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <div style="text-align: center; border-bottom: 1px solid black;">CAMERA / RECORD SETUP</div> <div style="border-bottom: 1px solid black; background-color: red; color: white; padding: 2px;">GENERAL</div> <div style="padding: 2px;"> CHANNEL SETTING CHANNEL NAME PTZ </div> </div> <p>GENERAL SETUP</p> <div style="border: 1px solid black; padding: 5px;"> <div style="text-align: center; border-bottom: 1px solid black;">GENERAL SETUP</div> <div style="border-bottom: 1px solid black; background-color: red; color: white; padding: 2px;">RECORD MODE</div> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">DVR NAME</td> <td style="padding: 2px;">CIF</td> </tr> <tr> <td style="padding: 2px;">TIME STAMP</td> <td style="padding: 2px;">COMPANY</td> </tr> <tr> <td style="padding: 2px;">WATERMARK</td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;">AUTO RECORD</td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> </table> </div>	DVR NAME	CIF	TIME STAMP	COMPANY	WATERMARK	<input checked="" type="checkbox"/>	AUTO RECORD	<input checked="" type="checkbox"/>
DVR NAME	CIF								
TIME STAMP	COMPANY								
WATERMARK	<input checked="" type="checkbox"/>								
AUTO RECORD	<input checked="" type="checkbox"/>								
	<p>RECORD MODE Three type of recording mode -- D1/CIF/D1 Enhance.</p> <p>Under D1 mode, the video recording is in full screen resolution and takes turns from one channel to the next one when Auto Scan enables. Each channel is recorded only at a maximum frame rate of 15fps. User can switch to view the video in single full screen or QUAD screen.</p> <p>Whereas in CIF mode, video recording is at a lower resolution, but each video is recorded in 30fps/25fps (NTSC/PAL). User can switch to view the video in single full screen or QUAD screen.</p> <p>In D1 Enhance mode, video is recorded in 30/25fps (NTSC/PAL). User also can switch to view the video in single full screen or QUAD screen.</p> <p>DVR NAME Assign a name for the DVR unit. Maximum is 12 characters that can include A~Z, 0~9, !, ", #, \$, %, &, ', (,), *, +, -, /, :, ;, <, >, ?, @, and space.</p> <p>TIME STAMP Enable/disable the time and date display on the each channel.</p>								

OSD MENU	Description
----------	-------------

GENERAL SETUP	
RECORD MODE	CIF
DVR NAME	COMPANY
TIME STAMP	<input checked="" type="checkbox"/>
WATERMARK	<input checked="" type="checkbox"/>
AUTO RECORD	<input checked="" type="checkbox"/>

WATERMARK

Enable/disable the recorded image authenticates protection. User can use ImageVerification application to identify the image that has been watermark protected.

AUTO RECORD

Enable/disable auto continue recording when interrupted (i.e., power breakdown, video playback or configuration setup). It starts to record after 10 second of idleness. This is applicable in Always Record mode.

CHANNEL SETTING SETUP				
	CH1	CH2	CH3	CH4
ENABLE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
RECORD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
AUDIO RECORD	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
PREVIEW	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ENCRYPTION	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MAX. FPS	30	30	30	30
FPS	30	30	30	30
QUALITY	BEST	BEST	BEST	BEST
FPS(ALARM)	30	30	30	30
QUALITY(ALARM)	BEST	BEST	BEST	BEST

CHANNEL SETTING

Configure the parameters of each channel.

ENABLE

Enable/disable the channel to display the video on the surveillance screen. If the channel is disabling, there won't be any video display and recording.

RECORD

Enable/disable the channel number to record video.



The channels are enabled in the **ENABLE** can be set for video recording.

120 / 120 FPS

Current total fps value that user has set

Total fps value that user can set

AUDIO RECORD

Enable/disable audio recording. To record sound, make sure the audio input device (ex: microphone) is connected to the DVR unit.

PREVIEW

Enable/disable the video preview on the surveillance screen.

MAX. FPS

Display the maximum frame rate of recording that user has set. Maximum fps total value depends on the RESOLUTION that user has chosen.

FPS

Set the number of frames per second to be recorded. The higher the frame rate, it uses more hard disk space.

QUALITY

Select the video quality setting from BEST, HIGH, GOOD, MEDIUM, NORMAL or LOW. Choosing higher quality allows user to record less hours but the quality of the recorded video is better.

FPS(ALARM)

Set the number of frames per second to be recorded when alarm has occurred. The higher the frame rate, it uses more hard disk space.

QUALITY(ALARM)

Select the video quality (BEST, HIGH, GOOD, MEDIUM, NORMAL or LOW) of alarm recording. Choosing higher quality allows user to record less hours but the quality of the recorded video is better.

OSD MENU	Description
----------	-------------

CAMERA NAME SETUP	
CH1	CAMERA1
CH2	CAMERA2
CH3	CAMERA3
CH4	CAMERA4

CHANNEL NAME

Give a name for the channel 1 ~ 4. Maximum is 12 characters and can enter A~Z, 0~9, !, ", #, \$, %, &, ', (,), *, +, -, /, :, ;, <, >, ?, @, and space.

PTZ SETUP				
	CH1	CH2	CH3	CH4
ENABLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ID	001	002	003	004
PROTOCOL	CANON VC - 4CR			
BAUD RATE	9600			
AUTO PAN	OFF	OFF	OFF	OFF
DWELL TIME	010S	010S	010S	010S

PTZ SETUP

To enable PTZ camera control by remote control and setup PTZ camera parameters.

ENABLE

Select the channel of PTZ camera. If the PTZ camera is connecting on channel 1, then select the camera 1 for PTZ video to be display on channel 1.

ID

Assign an ID to PTZ camera. The ID range is from 001 to 255 but is limiting by protocol of PTZ camera. Please refer to your PTZ camera user's manual for more detail of PTZ ID assignment.



We suggest assigning PTZ camera ID star from 5 to avoid conflict with ID of camera channels.

PROTOCOL

Select the protocol of PTZ camera. The protocol will be different that depends on the brand of PTZ camera. The DVR system currently supports 3 protocols — PELCO-D, PELCO-P, and CANON VC-C4R. Please refer to your PTZ camera user manual to make sure which protocol is using for.

BAUD RATE

To setup the baud rate of PTZ camera. For more detail, please refer to your PTZ camera's user manual.

AUTO PAN

Select the preset number to assign an auto move direction for the PTZ camera. For example: 1-4 means the PTZ camera will auto move from preset position 1, 2, 3 to 4.

DWELL TIME

Set a time that how long the PTZ camera stays in that position before it moves to the next one.

OSD MENU	Description
----------	-------------

MAIN MENU
CAMERA/RECORD
DISPLAY
SCHEDULE
EVENT SETUP
STORAGE
SYSTEM

DISPLAY
 Configure the parameters of video and setting of spot monitor.

DISPLAY SETUP	
COLOR ADJUSTMENT	
VIDEO OUT SETTING	CH1
VIDEO SHIELD	MAIN - MAIN
VGA - TV SELECTION	QUAD
SPOT MONITOR	ADJUSTABLE
EVENT TYPE	010 SEC
EVENT DURATION	<input type="checkbox"/>
AUTO SCAN	

DISPLAY SETUP	
COLOR ADJUSTMENT	
VIDEO OUT SETTING	CH1
VIDEO SHIELD	MAIN - MAIN
VGA - TV SELECTION	QUAD
SPOT MONITOR	ADJUSTABLE
EVENT TYPE	010 SEC
EVENT DURATION	<input type="checkbox"/>
AUTO SCAN	

COLOR ADJUSTMENT
 To adjust the brightness, contrast, hue, and saturation value of channel video. To reset the setting, select **RESET TO DEFAULT VALUE**.

COLOR ADJUSTMENT SETUP				
	CH1	CH2	CH3	CH4
BRIGHTNESS	124	124	124	124
CONTRAST	121	121	121	121
HUE	001	001	001	001
SATURATION	054	054	054	054
RESET TO DEFAULT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

VIDEO OUT SETTING
 To select the sharpness, color enhancement, VGA mode, resolution of VGA and TV out setting.

VIDEO OUT SETUP		
	VGA	TV
SHARPNESS	00	00
COLOR ENHANCEMENT	00	00
VGA MODE	MODE1	-
RESOLUTION	SVGA	-

SHARPNESS
 Adjust the sharpness of VGA and TV video output.

COLOR ENHANCEMENT
 Adjust the color enhancement of VGA and TV video output.

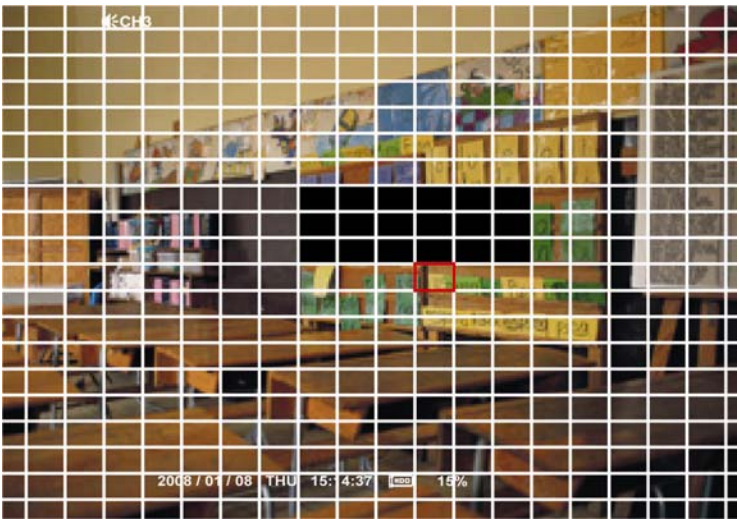
VGA MODE
 Select the VGA output mode.

RESOLUTION
 Select the resolution of VGA video output.

OSD MENU	Description
----------	-------------

VIDEO OUT SETUP		
	VGA	TV
SHARPNESS	00	00
COLOR ENHANCEMENT	00	00
VGA MODE	MODE1	-
RESOLUTION	SVGA	-

VIDEO SHIELD
 Select the channel and set an area that will be blocking for particular security issue when DVR unit is recording such as enter password for entrance guard.



DISPLAY SETUP	
COLOR ADJUSTMENT	
VIDEO OUT SETTING	
VIDEO SHIELD	CH1
VGA - TV SELECTION	MAIN - MAIN
SPOT MONITOR	QUAD
EVENT TYPE	ADJUSTABLE
EVENT DURATION	010 SEC
AUTO SCAN	<input type="checkbox"/>

VGA - TV SELECTION
 Select the VGA and TV output order.

- **MAIN - MAIN:** Both VGA and TV output surveillance video on screen.
- **MAIN – SPOT:** VGA output surveillance video and TV output the alarm event video.
- **SPOT – MAIN:** VGA output alarm event video and TV output the surveillance video.

SPOT MONITOR
 Enable/disable to display channel alarm event in QUAD screen mode or the selected channel (1, 2, 3, or 4) when the sensor is activated or motion is detected. When there are multiple alarm events, DVR system will display the last alarm event.

EVENT TYPE
 Select the way of the event video to be display. **STEADY** means the event video will be display until next event is coming in. **ADJUSTABLE** means the event video will be replace according to the time that user has setup in **EVENT DURATION**.

EVENT DURATION
 Set a period time (0 ~ 255 sec) for alarm event to display on screen.

AUTO SCAN
 Enable/disable auto cycle switch to display the next channel when in full screen mode.

MAIN MENU
CAMERA/RECORD
DISPLAY
SCHEDULE
EVENT SETUP
STORAGE
SYSTEM

RECORD SCHEDULE

By default, in 24 hours, the recording schedule is set to always record every hour. Refer to the table below to customize the recording condition.

Condition	Description
ALWAYS	Record non-stop.
SMART	Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting.
ALARM	Start recording when the sensor is activated.

CAMERA

Select a channel (1, 2, 3, or 4) or **ALL** for record schedule setup.

SET TO ALL

Select a recording condition – **ALWAYS**, **SMART** or **ALARM**. Please refer to the above table for record condition description.

RECORD SCHEDULE

CAMERA **ALL**

SET TO ALL **ALWAYS**

	00	02	04	06	08	10	12	14	16	18	20	22	24
SUN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MON	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TUE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
THU	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
FRI	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SAT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

: ALWAYS RECORDING : ALARM RECORD
: SENSOR RECORDING

MAIN MENU
CAMERA/RECORD
DISPLAY
SCHEDULE
EVENT SETUP
STORAGE
SYSTEM

EVENT SETUP
 Configure alarm, sensor, and motion.

EVENT SETUP
ALARM SETTING
SENSOR SETTING
MOTION DETECTION

ALARM SETTING
 Configure parameters of alarm.

ALARM SETUP	
ALARM TYPE	RECORD
ALARM PERIOD	005 SEC
ALARM CONTINUOUSLY	<input type="checkbox"/>
SELECT / DESELECT ALL	<input type="radio"/>
SENSOR	<input type="checkbox"/>
MOTION DETECTION	<input type="checkbox"/>
VIDEO LOSS	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
HDD FAIL	<input type="checkbox"/>

ALARM TYPE
 Select the way of alarming – **RECORD**, **BUZZER**, or **RELAY**.

ALARM PERIOD
 Set the amount of time (in second) to sending the alarm once triggered.

ALARM CONTINUOUSLY
 Set the amount of time (in second) to continue sending the alarm once triggered.

SELECT/DESELECT ALL
 To enable/disable all below selections.

SENSOR
 Enable/disable to send out the alarm when sensor has been triggered.

MOTION DETECTION
 Enable/disable to send out the alarm when motion has been detected

VIDEO LOSS
 Select the channel that will send out the alarm when video is lost.

HDD FAIL
 Enable/disable to send out alarm when hard disk is failed.

OSD MENU **Description**

SENSOR SETUP				
	SENSOR1	SENSOR2	SENSOR3	SENSOR4
ENABLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TYPE	NO	NO	NO	NO

SENSOR
 Customize the initial state of the attached sensor.

ENABLE
 Active/deactivate the sensor.

TYPE
 Select the state of the sensor.

- **NO:** Indicates that the initial state of the sensor is normal open. Video recording initiates when there is a changes in the sensor state
- **NC:** Indicates that the initial state of the sensor is normal close. Video recording initiates when there is a changes in the sensor state

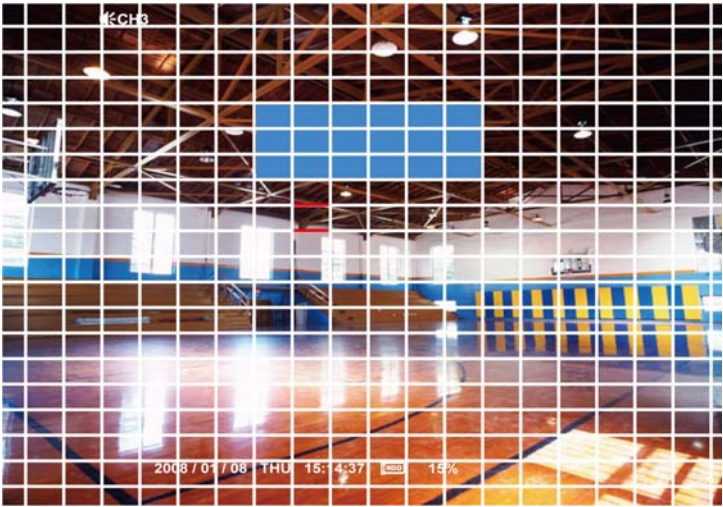
MOTION DETECTION SETUP				
	CH1	CH2	CH3	CH4
ENABLE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SENSIVITY	5	5	5	5
MASK SETUP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

MOTION DECTECION
 Setup motion detection.

ENABLE
 Enable/disable the channel to detect motion.

SENSIVITY
 Set the sensitivity level. The sensitivity is from HI (High), 9~ 2 and LO (Low).

MASK SETUP
 Select a specific area for motion recording. The DVR system will start recording when the selected area has been detected motion.



MAIN MENU
CAMERA/RECORD
DISPLAY
SCHEDULE
EVENT SETUP
STORAGE
SYSTEM

STORAGE SETUP

To format hard disk and enable/disable hard disk spaces recycle.

STORAGE SETUP	
HDD OVERWRITE	<input checked="" type="checkbox"/>
HDD SIZE	953,849MB
HDD USED	279MB 0%
HDD FORMAT	

HDD OVERWRITE

Enable/disable replacing the earliest recorded file when the hard disk space runs out. By default, the HDD overwrite setting is enabled. If user has enable the **PASSWORD SETUP** in **SYSTEM SETUP**, and then, a password entered is required when change the **HDD OVERWRITE** status. The default password is **111111**.

HDD SIZE









Shows the total capacity of the hard disk.

HDD USED shows the amount of space that has been used.

HDD FORMAT

For security purpose, you may have to enter the password to format hard disk (The default password is **111111**).

To format hard disk:

1. Use the  and  buttons to go up and down and select **HDD FORMAT**. Then press .
2. In the **CHECK PASSWORD** screen, press . Then use  and  buttons to select the security combination number. Press button again to make the selection.
3. To move the selection to the left and right, use , and  buttons.

CHECK PASSWORD	
ENTER PASSWORD	*****
EXECUTE	

OSD MENU	Description
----------	-------------

STORAGE SETUP	
HDD OVERWRITE	<input checked="" type="checkbox"/>
HDD SIZE	953,849MB
HDD USED	279MB 0%
HDD FORMAT	

4. After entering the last number, the “**PASSWORD CORRECT**” appears, you are now authorized to format the hard disk.
5. It is done when the “**FORMAT DISK SUCCESS**” appears.

Formatting the hard disk will permanently delete all the recorded files. The recorded files will be no longer for retrieving.

MAIN MENU
CAMERA/RECORD
DISPLAY
SCHEDULE
EVENT SETUP
STORAGE
SYSTEM

SYSTEM SETUP

To configure the parameters that relate with DVR system.

SYSTEM SETUP	
SYSTEM INFO	
LOG	
DATE / TIME	
PASSWORD CHANGE	
AUDIO SETUP	
INSTANT PLAYBACK	060 SEC
LANGUAGE	ENGLISH

SYSTEM INFO

Display system software version, video system type, and hard disk temperature.

SYSTEM INFO	
FW VERSION	B2 . 01 . 01 . 00 . 01
VIDEO FORMAT	NTSC
HDD TEMP	45 °C

LOG SETUP

To search event log.
 Select the SEARCH TIME and select SEARCH EXECUTION to start searching. The search result will be list out. User can select the log to view but some of logs are not viewable.

LOG LIST	
SEARCH TIME	: 2009 / 05 / 09 10 : 00 : 00
SEARCH EXECUTION	
2009 / 01 / 07 10 : 41 : 02	VIDEO LOSS - 4
2009 / 01 / 07 10 : 41 : 02	VIDEO LOSS - 3
2009 / 01 / 07 10 : 41 : 02	VIDEO LOSS - 2
2009 / 01 / 07 10 : 41 : 02	VIDEO LOSS - 1
2009 / 01 / 07 10 : 40 : 32	VIDEO LOSS - 4
2009 / 01 / 07 10 : 40 : 32	VIDEO LOSS - 3
2009 / 01 / 07 10 : 40 : 32	VIDEO LOSS - 2
2009 / 01 / 07 10 : 40 : 32	VIDEO LOSS - 1
2009 / 01 / 07 10 : 40 : 02	VIDEO LOSS - 4
2009 / 01 / 07 10 : 40 : 02	VIDEO LOSS - 3

OSD MENU	Description
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SYSTEM SETUP	
SYSTEM INFO	
LOG	
DATE / TIME	
PASSWORD CHANGE	
AUDIO SETUP	
INSTANT PLAYBACK	060 SEC
LANGUAGE	ENGLISH

DATE FORMAT
 Select the display format of the date -- YYYY/MM/DD, MM/DD/YYYY, or DD/MM/YYYY

DATE
 Set the current date

TIME
 Set the current time
 Display the latest time synchronization date and time.

DAYLIGHT SAVING
 To enable/disable daylight saving function.

START
 Setup daylight startup date and time.

END
 Setup daylight stop date and time.

OFFSET
 Assign a time that it is for daylight saving time offset in your time zone. For example: if the time zone is in U.S. Eastern, the time offset is 1 hour.

DATE / TIME SETUP	
DATE FORMAT	YYYY/MM/DD
DATE	2009 / 05 / 18
TIME	15 : 19 : 09
DAYLIGHT SAVING	<input type="checkbox"/>
START	2009 / 01 / 01 00 : 00 : 00
END	2009 / 01 / 01 00 : 00 : 00
OFFSET	00 : 00

SYSTEM SETUP	
SYSTEM INFO	
LOG	
DATE / TIME	
PASSWORD CHANGE	
AUDIO SETUP	
INSTANT PLAYBACK	060 SEC
LANGUAGE	ENGLISH

PASSWORD CHANGE

PASSWORD CHANGE SETUP	
PASSWORD SETUP	<input type="checkbox"/>
ADMINISTRATOR	

Enable/disable full system password protection. This would prevent unauthorized user to stop video recording, change system settings and formatting the hard disk.

ADMINISTRATOR

Administrator has the authority of formatting hard disk, changing system settings, remote monitor the DVR system and changes the system settings. The factory default password is **111111**.

PASSWORD SETUP	
CURRENT	*****
NEW	*****
CONFIRM	*****
EXECUTE	

OSD MENU **Description**

SYSTEM SETUP	
SYSTEM INFO	
LOG	
DATE / TIME	
PASSWORD CHANGE	
AUDIO SETUP	
INSTANT PLAYBACK	060 SEC
LANGUAGE	ENGLISH

AUDIO SETUP

AUDIO SETUP	
MUTE	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
AUDIO OUT @ QUAD	CH1
RESET TO DEFAULT	○

MUTE

Enable/disable to hear audio sound while playback. To hear sound, make sure the unit is connected to a speaker.

i If you want to hear the voice when you playback the recorded file on this DVR, please make sure that you have selected Audio Mute Off.

AUDIO OUT

Select the channel to output the audio signal While QUAD mode. Please make sure the audio output device (such as a speaker) is connected to DVR unit.

i Audio output device has its own power supply is necessary.

RESET TO DEFAULT

Set all configurations back to factory default.

SYSTEM SETUP	
SYSTEM INFO	
LOG	
DATE / TIME	
PASSWORD CHANGE	
AUDIO SETUP	
INSTANT PLAYBACK	060 SEC
LANGUAGE	ENGLISH

INSTANT PLAYBACK

To set the time in seconds for automatically playback the video that has just recorded.

LANGUAGE

Display the language of the system

Chapter 4 Using the USB Playback Console

4.1 Recommended system requirements

- Pentium®4 2.4GHZ or above
- Windows®2000/ XP
- DDR 256 MB
- Graphic function must support DirectDraw
- Audio card or built-in
- Speaker
- 1 available USB2.0 port

4.2 Installing the USB Playback Console

To install the USB Playback Console:

1. Place Installation CD into the CD-ROM drive. When the installation main screen appears, click **Install USB Playback Console** and then follow the on screen instructions




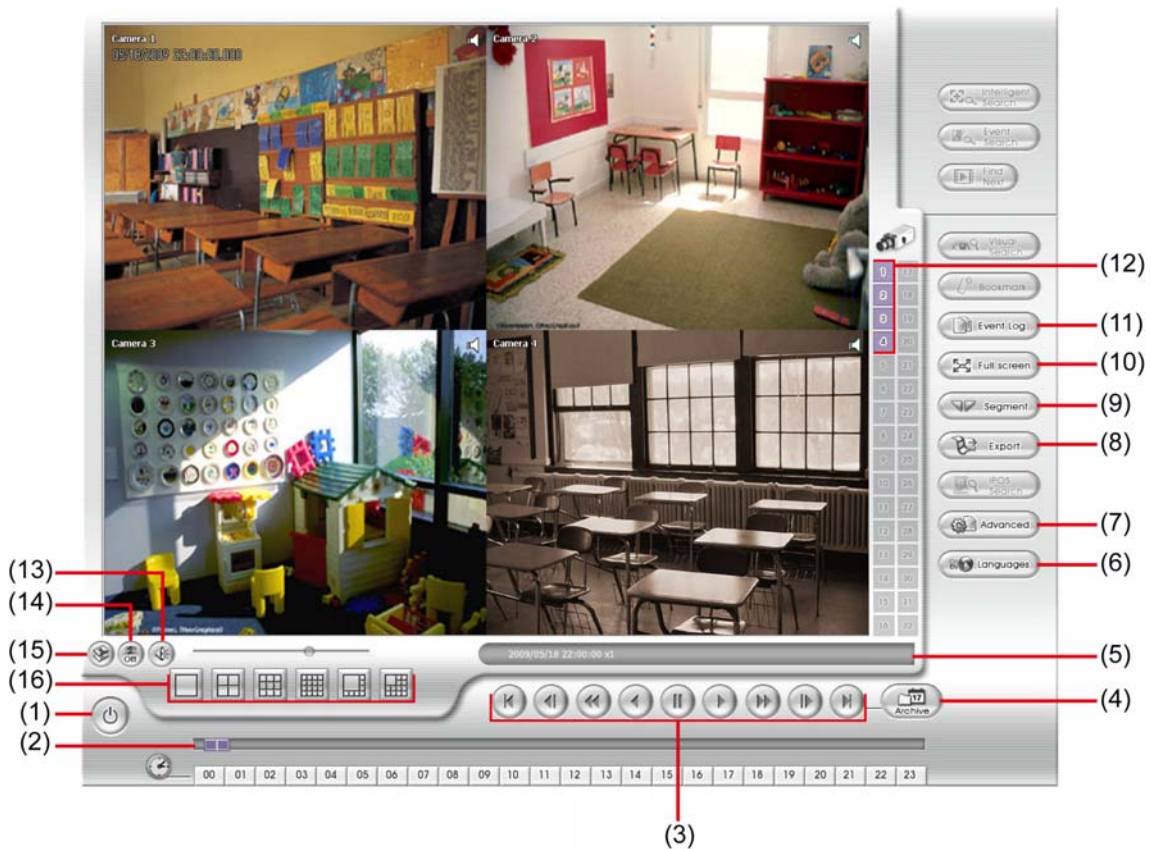
2. Select the language you prefer












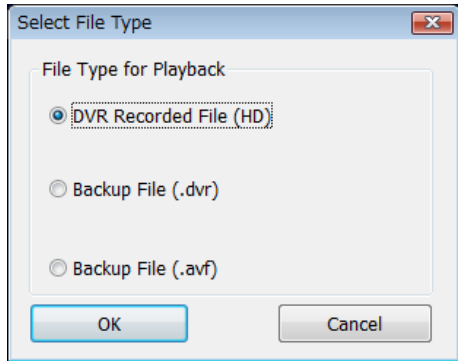
3. Click **OK** to install the application
4. Click **Exit** to close the installation main screen.
5. You may now connect the DVR unit to PC by using USB cable.

4.3 Running the USB Playback Console

To run the application, click the  icon on the PC desktop

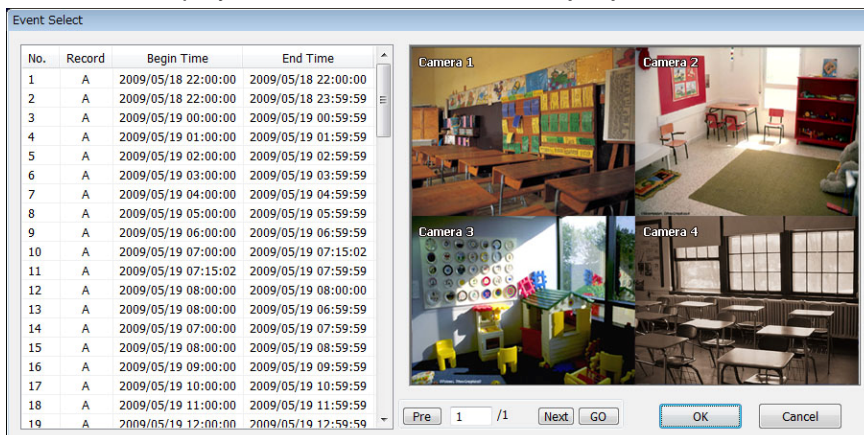


Name	Function
(1) Exit	To close the application.
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Playback Controller	<ul style="list-style-type: none">  Begin: Move at the beginning of the recorded video file.  Previous: Go back to the previous frame by frame.  Slower: Play the recorded video file at the speed of 2x, 4x, or 8x.  Rewind: Wind back the recorded video file.  Pause: Briefly stop playing the recorded video file.  Play: Play the recorded video file.  Faster: Play the recorded video file at the speed of 2x, 4x, 8x, or 16x  Next: Go to the next frame by frame.  End: Go to the end of the recorded video file.

Name	Function
(4) Open File	To select the video file source for playing.
	
	<ul style="list-style-type: none"> - DVR Recorded File (HD): To playback the recorded video from the hard disk which was recording video on the DVR system. (see also Chapter 4.3.2) - Backup File(.dvr): The file is backup and save in *.dvr file format. (see also Chapter 4.3.3) - Backup File (.avf): The file is backup and save to external USB storage device in *.avf format. Select the file source folder and click OK to playback.
(5) Status bar	Display the recorded date, time and play speed.
(6) Language	To switch language of function tips.
(7) Advanced	Advanced function is including :
	<ul style="list-style-type: none"> ■ HDD Backup: to call out HDD Backup application. (see also Chapter 5) ■ iEnhance: to call out iEnhance application. (see also Chapter 7) ■ AVF to AVI: save *.avf file format into *.avi file format.
(8) Export	Export includes Snapshot, Print, Output Video Clip, and Export KML function.
	<ul style="list-style-type: none"> ■ Snapshot: Capture and save the screen shot either in *.jpg or *.bmp format. ■ Print: Print the screen shot. ■ Output to AVI: Save the segmented file in *.avi format ■ Export KML: Save the segmented video in *.KML format and use the Google Earth to view the actually road direction from virtual map(Only available on MOB DVR)
(9) Segment	Keep a portion of the recorded video (see also Chapter 4.3.1)
(10) Full screen	Use the entire area of the screen to only display the video. To return, press the right button of the mouse or ESC on the keyboard.
	When you switch to full screen in multiple-screen mode, Left click to toggle to only display one of the video in the multiple-screen mode or all.

Name	Function
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(11) Event List Select the event you want to playback. The event list only available when user select to playback in **DVR Recorded File(HD)**.



(12) Camera ID Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.

(13) Sound /Sound bar Turn on and off the sound
Increase and decrease the volume

(14) De-interlace To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

(15) Watermark

- When playback *.dvr file, click watermark button to verify the correction of playback video.
- When playback file from **hard disk** and *.avf file, click watermark to call out ImageVerification application. (see also [Chapter 6](#))

(16) Split Screen Mode Select from different screen view to playback the recorded video file of the entire camera or one camera on screen.

4.3.1 To Cut and Save the Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.



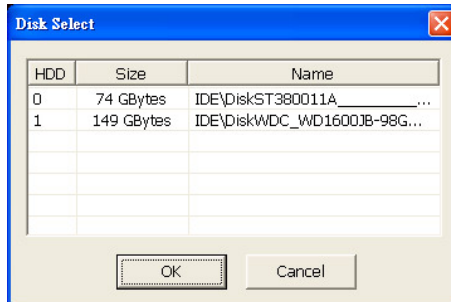
2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation, click **Segment** button again.



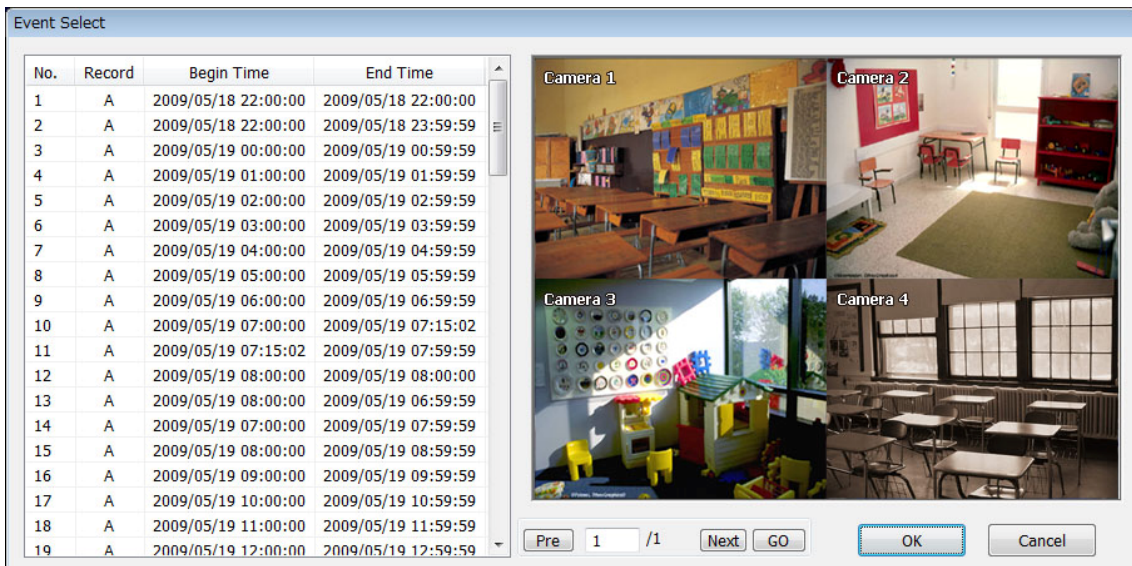
3. Click **Output** button to save the wanted portion.
4. In the **Save As** dialog box, locate on where user wants to save the file, type the filename, and select the video format.

4.3.2 Playback DVR Recorded File from Hard Disk

1. Please have the hard disk which containing of recorded video data install on your PC or using external USB enclosure to connect to your PC.
2. Click **Open File** button
3. Select **DVR Recorded File(HD)** and click **OK**.
4. Select the hard disk drive from **Select Disk** window and click **OK**.



5. And then, the **Event List** window appears. Select the event that user wants to play and click **OK**.



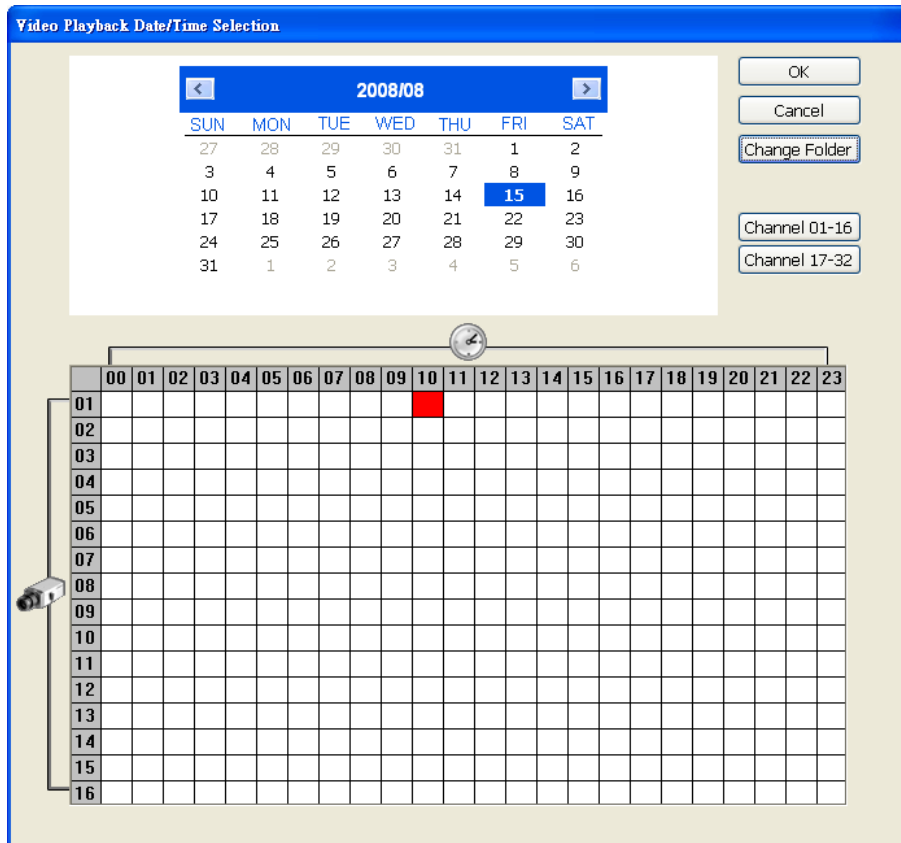
4.3.3 Playback Backup File(*.dvr)

1. Click Open File button.
2. Select **Backup File(*.dvr)** and click **OK**.
3. Locate the backup file folder and click **OK**.



When open the backup video file, just locate the where backup file folder is.

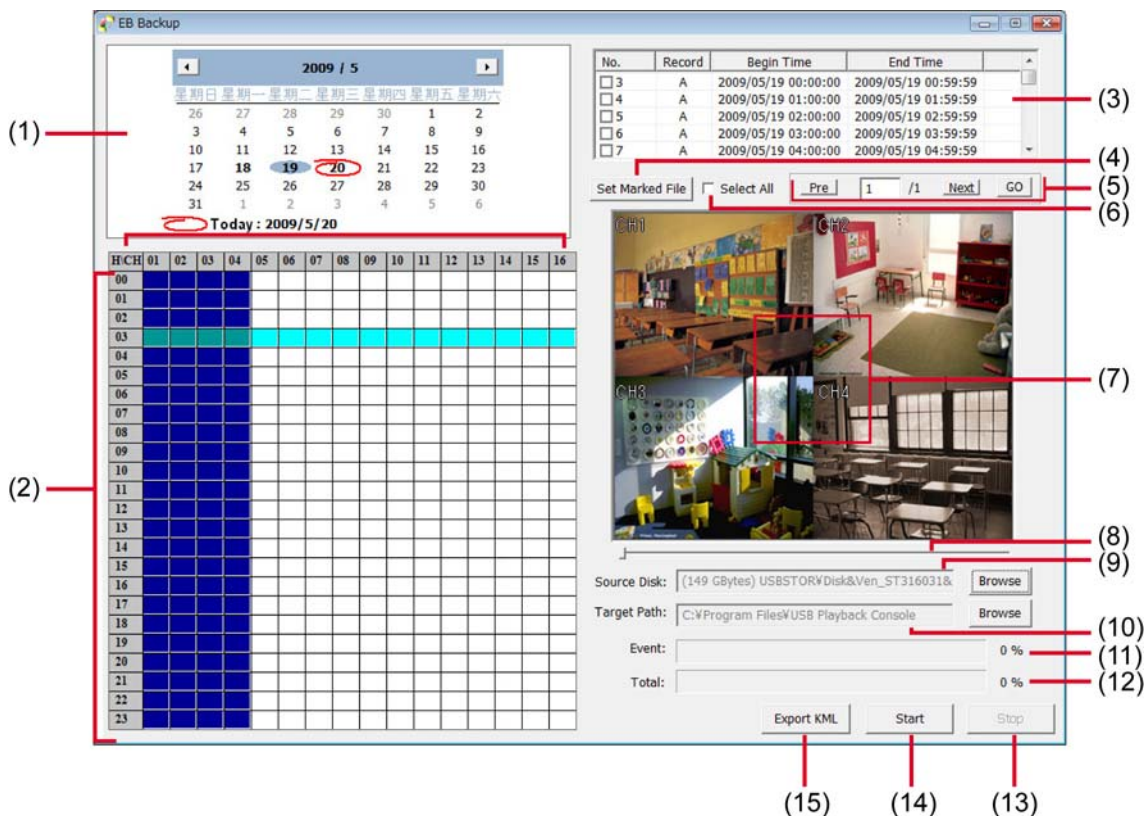
4. And then, Playback Date/Time Selection window appears. Select the date and time and click **OK**.



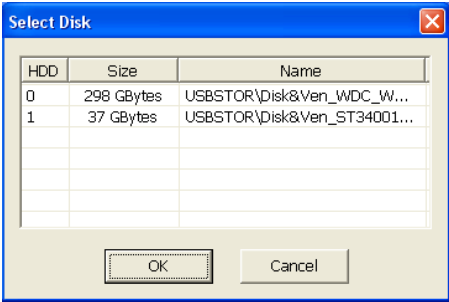
Chapter 5 Backup Recorded Video File

HDD Backup application provides user an interface to view recorded video from hard disk and backup it.

5.1 Familiarizing with HDD Backup Application

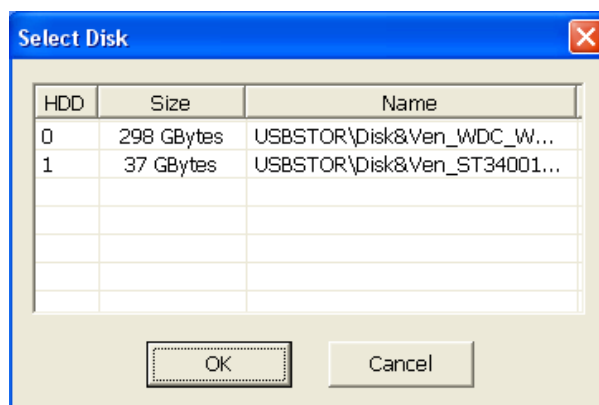


Name	Function
(1) Date	Select the date for events
(2) Hour and Channel	User can select the hour and channel for events. <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="width: 15px; height: 15px; background-color: #800000; border: 1px solid black;"></div> : All events in this hour and channel have been selected. <div style="width: 15px; height: 15px; background-color: #000080; border: 1px solid black;"></div> : In this hour and channel has events <div style="width: 15px; height: 15px; background-color: #008000; border: 1px solid black;"></div> : Partial of events in this hour and channel has been selected. </div>
(3) Event list	All recorded video events list No.: the list order number Record: the record type(see also Chapter 2.4) Begin Time: the beginning of record time End Time: the end of record time
(4) Set Marked File	Use Ctrl and mouse to select the multiple events from event list, and then click Set Marked File to mark multiple events. When click Set Marked File button, the marked event will turn to un-mark and un-mark event will turn to marked.
(5) Page Switch	Pre: go back last page Next: go to next page Page column: enter the page number and click Go button to go to the page
(6) Select All	Select all listed recorded video events. Click the check box again to cancel for selecting all events.

Name	Function
(7) Video display	Display first frame of each recorded video channel from 4 selected.
(8) Progress bar	Show the progress of the event being played. User may move the bar to seek at any location of the track
(9) Source Disk	To select the hard disk drive
	
(10) Target Path	To locate on where user wants to save the file
(11) Event (%)	Display the backup progress rate of event in percentage
(12) Total (%)	Display the total backup progress rate in percentage
(13) Stop	Stop backup progress
(14) Start	Start backup progress
(15) Export KML	Save the select event file into KML file format(Only support on mobile DVR)

5.2 To Backup Recorded Video File

1. Please have the hard disk which was recording video on the DVR system install on your PC or using external USB enclosure to connect to your PC.
2. To run the HDD Backup application, click the **HDD Backup** button on USB Playback Application main interface.
3. Click **Browse** in **Source Disk** to locate the recorded video file.
4. And then, the **Select Disk** windows will appear as below:



5. Select the hard disk drive from **Select Disk** windows. All available hard disk will list on the **Select Disk** windows with size and name
6. Select the hard disk drive and click **OK**
7. And then, all the recorded video files will list out.
8. Select the event which user wants to backup. Or mark the **Select All** to select all listed recorded video event

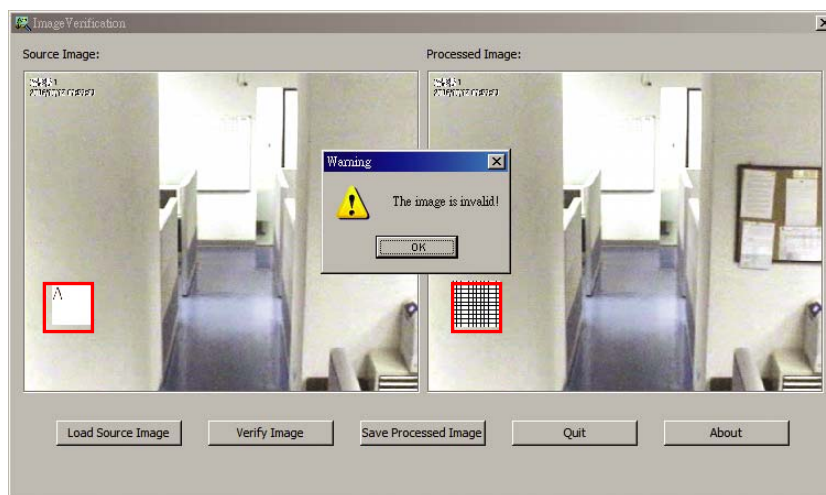
9. Locate on where user wants to save the backup file
10. Click **Start** to process backup
11. To stop the backup progress, click **Stop**
12. To play the backup file, see [4.3.3](#).

Chapter 6 ImageVerification

Image Verification is a watermark-checking program to identify the authenticity of a saved image (e.g. by snapshot). This program can only verify uncompressed bmp image files.

6.1 To Run the ImageVerification

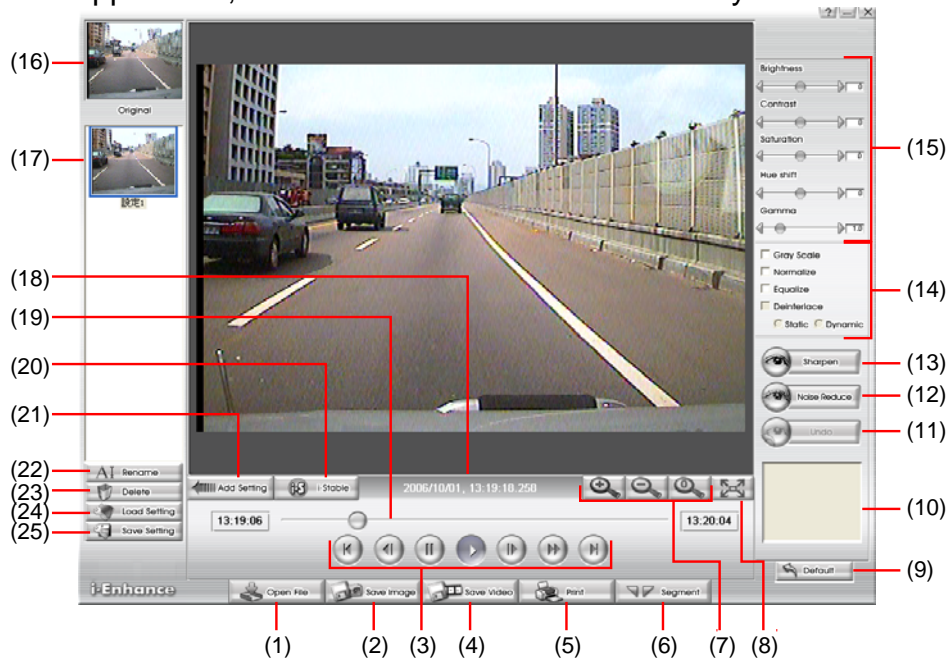
1. To run the ImageVerification application, click the **Watermark** button on USB Playback Application main interface.
2. In the ImageVerification screen, click **Load Source Image** and locate the image source.
3. Click **Verify Image** to begin the process.
4. Check the result in the **Processed Image** screen. If the picture is unmodified, the image in the **Source Image** and **Processed Image** screen would be exactly the same. If the picture is being modified, a warning dialog box would prompt and the modified area is highlighted.



Chapter 7 iEnhance

The bundled iEnhance is a video editing tool and can only be used with *.dvr video file. It allows you to adjust the video picture quality, segment and save the selected portion of the video, zoom in and out the image, and print or save the screen shot. You can also save the setting and apply it on other files.

To run iEnhance application, click **iEnhance** button on USB Playback Console interface.



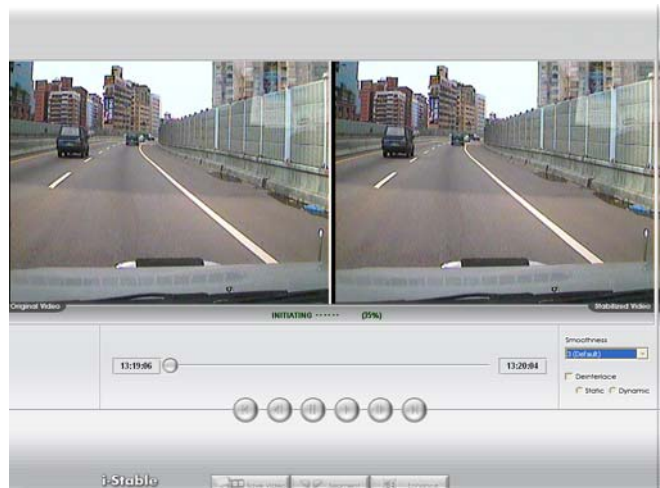
Name	Function
(1) Open File	Access *.dvr video file.
(2) Save Image	Capture and save the screen shot in *.bmp format.
(3) Playback Control Buttons	<p>⏪ Begin: Move at the beginning of the video file.</p> <p>⏮ Previous: Go back to previous frame.</p> <p>⏸ Pause: Briefly stop playing the video file.</p> <p>▶ Play: Play the video file.</p> <p>⏩ Faster: Play the video file at the faster speed.</p> <p>⏭ Next: Go to the next frame.</p> <p>⏹ End: Go to the end of the video file.</p>
(4) Save Video	Save the edited or segmented video in *.avi format.
(5) Print	Print the screen shot.
(6) Segment	Mark the beginning and the end of the selected portion of the video. Two triangle marks will appear on the slider. To cancel video segmentation, click this button again.
(7) Zoom Buttons	Enlarge, reduce, and set the image back to normal size.

Name	Function
(8) Full Screen	Use the entire screen to only display the video.
(9) Default	Set the video back to original state and delete all the changes in the history box.
(10) History Box	List all the actions.
(11) Undo	Delete the last action.
(12) Noise Reduce	Adjust the softness and repair the damaged colours.
(13) Sharpness	Improve the overall image by enhancing edges. This gives the image more depth.
(14) Effects	<p>Gray Scale: convert the image into black and white (monochrome).</p> <p>Normalize: adjust the brightness intensity.</p> <p>Equalize: automatically adjust the images that are too dark.</p> <p>De-interlace: smooth out the overlying frames.</p> <ul style="list-style-type: none"> ■ Static: de-interlace for motionless scene. ■ Dynamic: de-interlace for moving scene.
(15) Picture Adjustment	Adjust the Brightness, Contrast, Saturation, Hue and Gamma.
(16) Original Screen	Display the original state of the image.
(17) Temporary Setting Block	Display the sample settings. Click the sample to apply the setting on the current video.
(18) Status Bar	Display the date, and time of the video.
(19) Progress Bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(20) iStable	To reduce the jolt in the recorded video.(also see Chapter 7.1)
(21) Add Setting	Include the new setting to the temporary setting block.
(22) Rename	Change the name of the selected setting in the temporary setting block.
(23) Delete	Permanently remove the selected setting in the temporary setting block.
(24) Load Setting	Call the saved settings.
(25) Save Setting	Store the settings in the temporary setting block.

7.1 To Use iStable

The iStable function can reduce the jolt in the recorded video.

1. Click **Open File** button and select the recorded video.
2. And then, click **iStable** button.
3. iStable windows will show up.
4. Select the **smoothness** level – 1(Low), 2, 3, 4, and 5(High). The default value is 3.
5. Click Play button, and then iStable function will start to initial the recorded video.
6. When the initialize is done, user will see the original and stabilized recorded video play in two windows.



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AVerMedia TECHNOLOGIES, Inc. warrants this product to be free of defects resulting from faulty manufacture or components under the following terms:

WARRANTY LENGTH

Labor is warranted for (1) one year from the date of purchase

Parts are warranted for (1) one year from the date of purchase

Replacement products will be warranted for the remainder of the one year warranty period or (30) thirty days, whichever is longer

WHO IS PROTECTED

This warranty is enforceable only by the first consumer purchaser

WHAT IS AND IS NOT COVERED

Except as specified below, this warranty covers all defects resulting from faulty manufacturing of this product. The following are not covered by the warranty.

1. Any product on which the serial number has been defaced, modified, or removed
2. Damage, deterioration, or malfunction resulting from:
 - Accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification, or failure to follow instructions included with the product.
 - Misapplication of service by someone other than the manufacturer's representative
 - Any shipment damages (Claims must be made with carrier)
 - Any other cause which does not relate to a product defect
3. Cartons, cases, batteries, cabinets, tapes, or accessories used with product
4. AVerMedia does not warrant that this product will meet your requirements; it is your responsibility to determine the suitability of this product for your purpose

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1. Removal or installation charges
2. Shipping charges
3. Any incidental charges

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