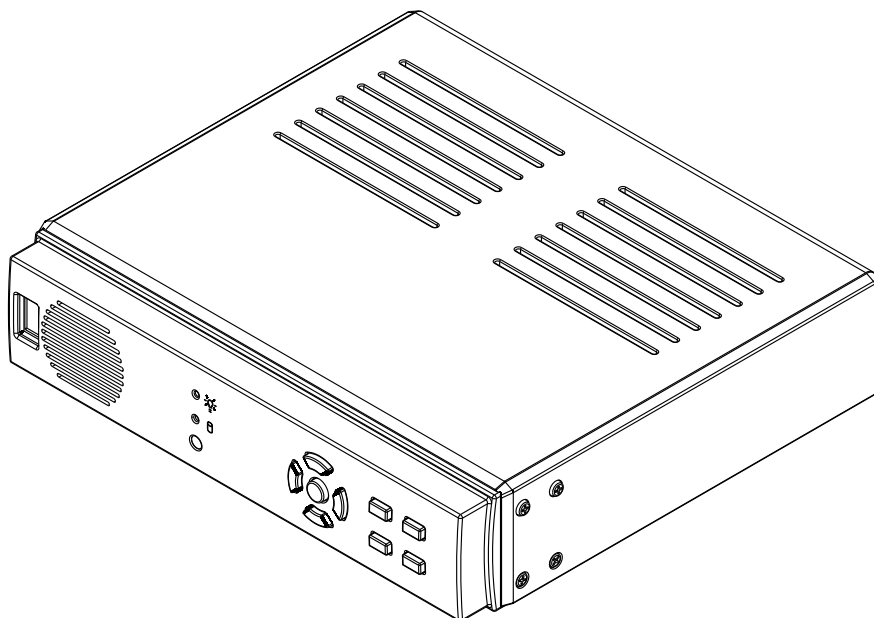


4CH STANDALONE DVR

USER MANUAL



2009 AUG. Ver 1.1



HDD SUPORT LIST



Warning:

For maximum performance and compatibility, always use the recommended hard drivers listed below.

SATA

Brand	Maxtor	Seagate	HITACHI	WD
Capacity /Model Number	250GB	250GB	250GB	250GB
	STM3250318AS	ST3250824AS	HDT725025VLA380	WD2500AVVS
	320GB	320GB	320GB	320GB
	STM3320418AS	ST3320310CS	HDT725032VLA360	WD3200AVVS
	500GB	500GB	500GB	500GB
	STM3500418AS	ST3500320SV	HDT725050GLA360	WD5000AVVS
750GB	750GB		750GB	
STM3750528AS	ST3750330SV		WD7500AACS	
1TB	1TB	1TB	1TB	
STM31000528AS	ST31000528AS	HDT721010SLA360	WD10EVVS	



Warning:

The hard drive listed below is NOT recommended for this unit.

SATA

Brand	HITACHI	Seagats	WD
Capacity /Model Number	750GB	250GB	250GB
	HDS721075KLA330	ST3250310SV	WD2500AAJS
			320GB
			WD3200AAKS
		500GB	500GB
		ST3500312CS	WD5000AAKS

USB SUPORT LIST



Warning:
For maximum performance and compatibility, always
use the recommended hard drivers listed below.

Brand/Capacity
Transcend / 4G
Transcend / 8G
SanDisk / 4G
SanDisk / 8G



Warning:
The hard drive listed below is NOT recommended for this unit.

Brand/Capacity
A-Data / 1G
A-Data / 4G
A-Data / 8G

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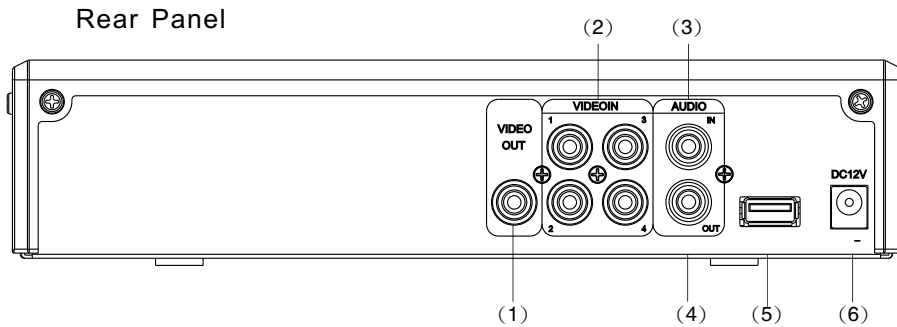
1.FEATURES :

- 1、Duplex(Recording, Playback).
- 2、Up to 60fps Recording Speed.
- 3、USB flash disk backup.
- 4、Adjust Up/Down/Left/Right screen position.
- 5、Video Input Signal: N T S C / P A L.
- 6、Video Compression: Modified MJPEG.
- 7、Manual, Motion & Programmed.
- 8、Motion Detection with Adjustable Time Duration.
- 9、Search Data by Date and Time.
- 10、Power Recover Auto Restore Record Mode.
- 11、Hard Disk LED Indicator When Recording.
- 12、Motion Detection.
- 13、Audio Recording.
- 14、Support upto 1 SATA Hard Disk.
- 15、Remote Control (Optional).

2.SPECIFICATIONS

Video Format	NTSC/PAL		
Operating System	Embedded RTOS		
Video Input	RCA x 4		
Audio Input	RCA x 1		
Video Output	RCA x 1		
Audio Output	RCA x 1		
Display	Multi-Language		
Display Frame	NTSC	120 fps (4x30 fps)	
	PAL	100 fps (4x25 fps)	
Recording Frame	NTSC	60 fps	
	PAL	50 fps	
Video Operation	Duplex (Record / Playback)		
Resolution	Display	NTSC	640x448
		PAL	640x544
	Recording	NTSC	640x224
		PAL	640x272
Compression	Modified MJPEG	Normal	12K Bytes / Frame
		High	15K Bytes / Frame
		Highest	20K Bytes / Frame
HDD	SATA HDD X 1		
Archiving	USB		
Search	Mode	Time, Date, Event	
	Full Screen	Yes	
Motion Detect	Yes		
Loss Detect	Yes		
Auto Switching	Yes		
Buzzer Ouput	Yes		
Brightness Adjust	Yes		
Contrast Adjust	Yes		
System Monitor	Watch dog		
Power Supply	DC 12V / 3A(AC100V~240V 50/60HZ)		
Dimension	224x208x51.8(mm)		
Weight	700g(Without HDD)		

3.INSTALLATION:



(1)Video Output : RCA x 1

(2)Video IN : RCA x 4

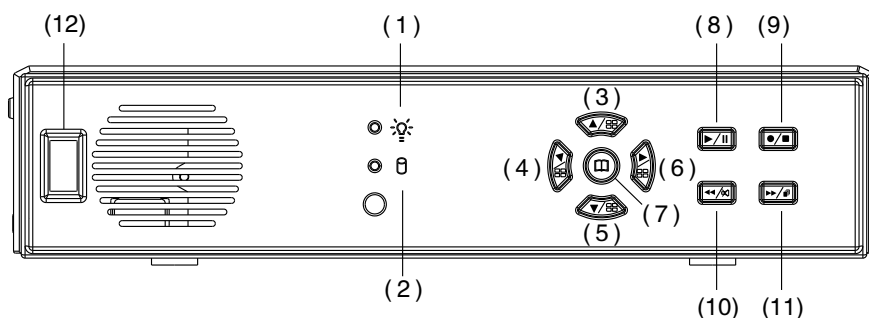
(3)Audio Input : RCA x 1

(4)Audio Out : RCA x 1

(5)USB Port

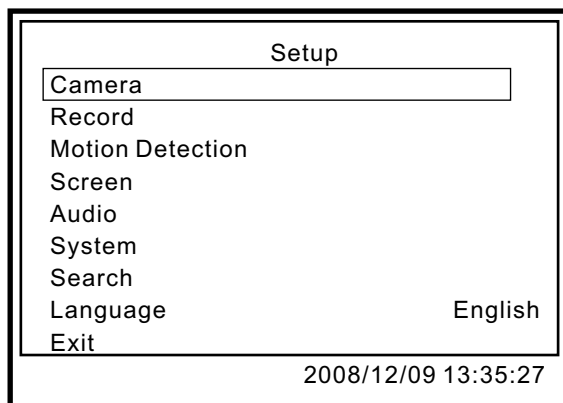
(6)Power Input : For safety reasons, always use the original
factory power adaptor attached DC-12V / 3A .

4.FRONT CONTROL PANEL :



- (1) Power indicator .
- (2) HDD indicator .
- (3) Up Arrow/CH1: Camera 1 full screen display .
- (4) Left Arrow/CH2 : Navigate left through menu options/
Camera 2 full screen display .
- (5) Down Arrow/CH3 : Camera 3 full screen display.
- (6) Right Arrow/CH4: Navigate right through menu options/
Camera 4 full screen display.
- (7) Menu: Main menu/ Show percentage of the hard disk used.
- (8) Play/ Pause
- (9) Record/ Stop
- (10) Fast Reverse/ Mute
- (11) Fast Forward/ Sequence Switch.
- (12) Reserved for future expansion.

5. OPERATING MANUAL (MAIN MENU)

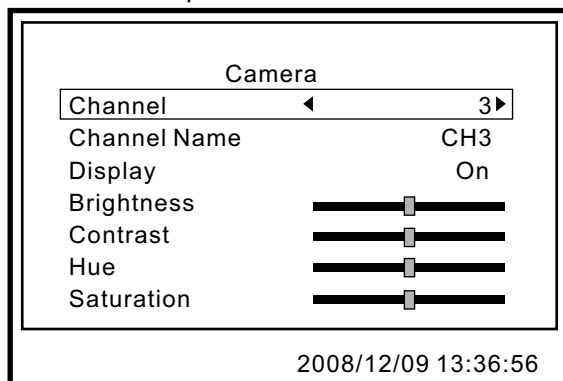


Press ▲▼ to select items

use ◀▶ to enter

Press MENU (Ⓜ) to exit.

Camera Setup



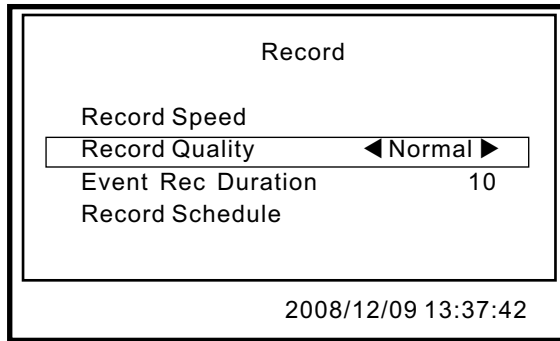
Press ▲▼ to select items

use ◀▶ to enter

Press MENU (Ⓜ) to exit.

- (1) Channel : The diagram above shows Channel 1.
- (2) Channel Name : The name of channel is changeable.
- (3) Display : Turn On/Off the camera signal.
- (4) Brightness/Contrast/Hue/Saturation: Adjust brightness, contrast, hue, and saturation of channel display. The center point is factory default.

Record Setup

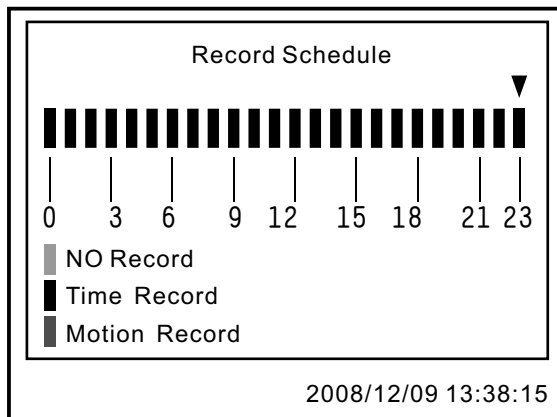


Press ▲▼ to select items

use ◀▶ to enter

Press MENU (Ⓜ) to exit.

- (1) Record Speed : Set the number of frame per second (fps).
NTSC : default: 15 fps , maximum total frame: 60 fps.
PAL : default: 12 fps , maximum total frame:50 fps.
- (2) Record Quality : Choose video record quality: Highest, High, or Normal.
- (3) Event Rec Duration : 5 、 10 、 15 、 20 、 25 、 30 seconds , default:
10 seconds.



- (1) Press to ▲▼ change record method.
- (2) Range: 0-24 hours.
- (3) Set "red" for continuous recording.
- (4) Set "green" for motion recording.
- (5) Set "grey" to disable the recording.

Motion Detection Setup

Motion Detection	
Channel	◀ 3 ▶
Sensitivity	Off
Alarm Duration	Off
Motion Area	
Smart Record	Off

2008/12/09 13:39:05

Press ▲▼ to select items

use ◀▶ to enter

Press MENU  to exit.

- (1) Channel : The diagram above shows Channel 1.
- (2) Sensitivity : To set Off, or 1 to 4 , default: Off.
- (3) Alarm Duration : To set alarm duration when alarm is triggered by a moving object: Off, 5, 10, 15, 20, 25, 30 seconds, or continuous.
- (4) Motion Area : To select motion detect area.
 - ★If you want to enable motion recording, please finish the setup procedure a and b. a Motion Detection Setup : Set SENSITIVITY level from 1 to 4 in the menu option . b Record Schedule Setup : Set MOTION RECORDING to GREEN at the time you wish to enable motion.
- (5) Smart Record : Disable in default setting. After enable the setting, system will start recording in 3fps when the motion detection has not been triggered. After the motion detection has been triggered, the recording fps will switch back to the user's setting. The smart record only can set as enable when the motion detection enable.

SCREEN SETUP

Screen	
Border	◀ Off ▶
Video Adjustment	
AUTO Switching	05

2008/12/09 13:39:41

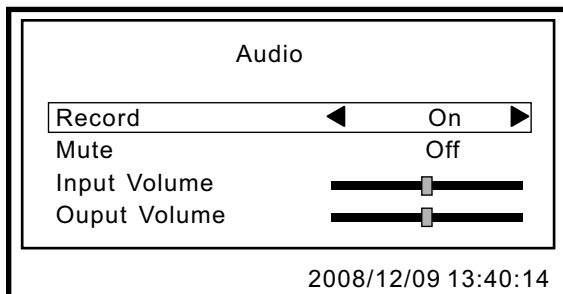
Press ▲▼ to select items

use ◀▶ to enter

Press MENU  to exit.

- (1) Border : Turn On/Off the divided lines in quad mode.
- (2) Video Adjustment : Adjust the position of screen display shown.
- (3) Auto Switching : Set the duration of each channel: Off, 1 to 10 seconds.

Audio Setup



Press ▲▼ to select items

use ◀▶ to enter

Press MENU to exit.

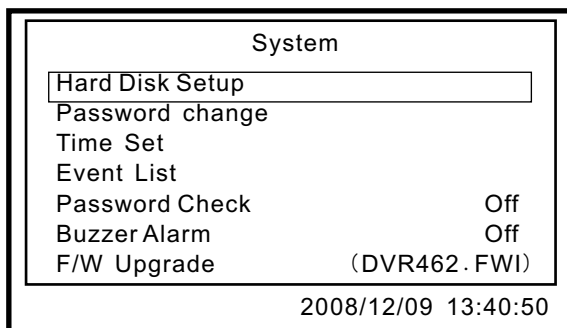
(1) Record : On/Off

(2) Mute : On/Off

(3) Input Volume : Adjust input volume

(4) Output Volume : Adjust output volume.

System Setup

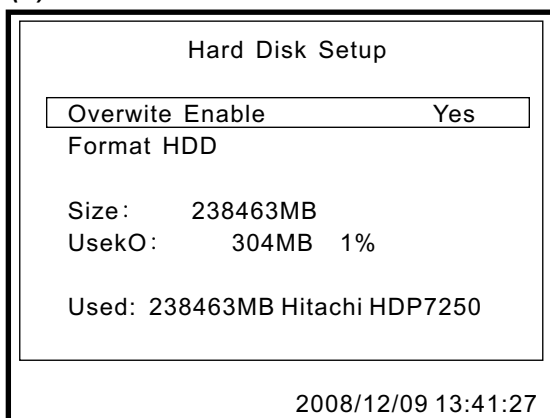


Press ▲▼ to select items

use ◀▶ to enter

Press MENU to exit.

(1)Hard Drive Disk



(1.1) Overwrite Enable:

Enable overwrite when HDD capacity is full:

Yes: When HDD overwrite is taking place, the data is stored in duration of 4 hours per event and being recorded continuously.

No: Stop recording

(1.2)Format HDD : When choose this item, DVR will request for 6 numbers password. If the password is accepted, the DVR will start formatting the HDD. A message, "wrong password" would appear in the screen when the password is entered incorrectly.

(1.3)HDD Status

Indicates current HDD status, including total capacity and percentage of space being used.

* Factory default password setting: 111111

* The HDD must be formatted when first time in use.

(2).Password Change : Password Setup

Password Change	
Current Password	
1 2 3 4 5 6 7 8 9 0 - = +	
q w e r t y u i o p []	
a s d f g h j k l ; Shift	
z x c v b n m , . / Enter	
2008/12/09 13:41:58	

Current Password: _____

New Password: _____

Confirm Password: _____

- When current password is entered incorrectly, a message, "Wrong Password" will appear in the screen.
- Factory default Password Setting: 111111.

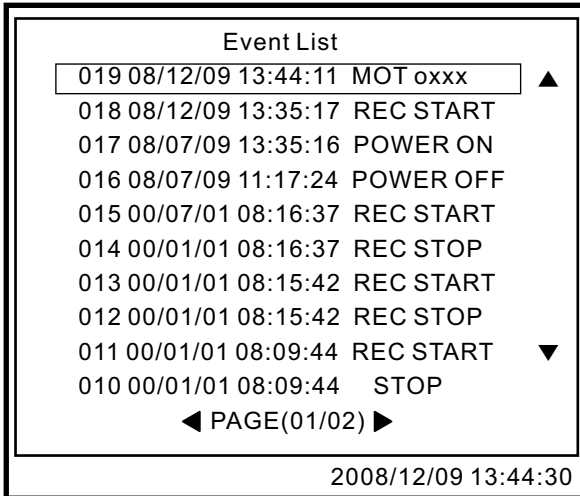
(3).Time Set :

Time Set	
Time Set	2008/12/09 13:42:37
Apply	
2008/12/09 13:42:37	

(3.1) Time Set : YYYY/MM/DD HH:MM:SS

(3.2) Apply : Update and save all changes

(4). Event List:

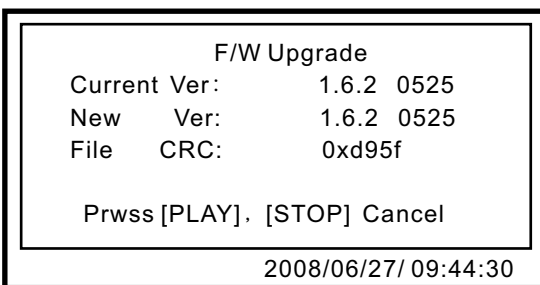


- (4.1) You may choose an individual event from the recorded event list.
- (4.2) In Live Mode › you can Go to the event list when you press Record.
- (4.3) Record: the DVR automatically records and saves events in duration of 4 hours.
- (4.4) Motion: Motion event list. The symbols, 0 and X represent whether the motion detected function is being activated on each channel. O-area with motion detection set. X – area without motion detection set.

(5).Password Check: Default is off, User need to enter the password to enter “Menu”, or Stop Recording when it is enable.

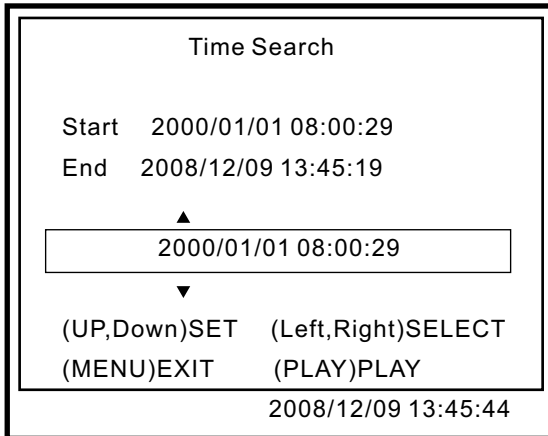
(6).Buzzer Alarm: Default is off, The buzzer will be trigged and sounded during video lose or motion detection when it is enable.

(7).Firmware (F/W) Upgrade :




- Please save updated firmware on a USB flash drive. Stick it into USB port. The screen will show both current version and new version of firmware.
- ▶ When update is in progress, please DO NOT operate the unit or remove the USB flash drive to prevent malfunction or system error. After it is completed, please turn off and restart the DVR.
 - ▶ There must have a hard drive to store new firmware. Be sure a hard drive must be installed.


Time Search




(1) Set Search of time, then press “play” button to start playback.

(2) Playback:

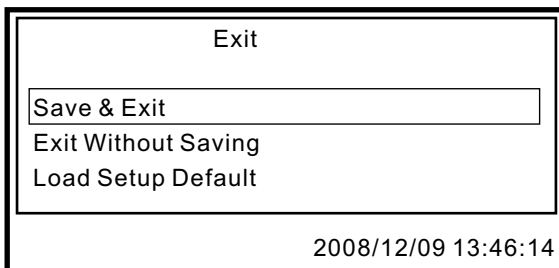
* Press  button for fast forward. Press one more time for faster speed. Total three variable speeds.

* Press  button for fast reverse. Press one more time for faster speed. Total three variable speeds.

* Press  button to pause.

* Press  button to stop playback.

Exit





(1) Save & Exit : Save and exit.

(2) Exit without Saving : Exit without saving changes.

(3) Load Setup Default: Load factory default setup.

6. BACK UP PROCEDURE:

CH1	CH2
Start	2008/12/09 13:45:18
End	2008/12/09 13:45:18
Size	0KB
CH3	CH4
USB BACKUP MODE	
(CH1)Start Time , (CH2)End Time	
(CH4)Start Backup . (STOP)Exit	
	2008/12/09 13:45:18

- (1) Stick USB flash Drive into USB port
- (2) Press “  ” button to enter event list and play back you choose.
- (3) Press “  ” button to enter backup menu.
- (4) Press “  ” button to setup start time.
- (5) Press “  ” button to setup end time. After setting up both start and end time, the machine will indicate the size of the file.
- (6) Press “  ” button to search for a USB flash drive.
- (7) Press “  ” button to proceed backup process.
- (8) When complete, press “  ” button to return to LIVE mode.

7. RECORDING PROCEDURE :

- (1) Press ● button to start recording. The symbol, ● will appear on the top right hand corner of each channel in the screen that indicates it is recording live.

8. 4CH CONTINUOUS RECORDING HOURS ON 400GB HDD

- * The chart of estimated record time listed below is for reference only.
The length of time recorded can be varied due to variation in image size may be somewhat different.

Recording Results in NTSC Format		60 fps	30 fps	15 fps	1 fps
Video Format	Video Quality				
NTSC	High	50Hrs	100Hrs	200Hrs	3000Hrs
	Normal	80Hrs	160Hrs	320Hrs	4800Hrs
	Low	150Hrs	210Hrs	420Hrs	6300Hrs
Recording Results in PAL Forma		50 fps	25 fps	12 fps	1 fps
Video Format	Video Quality				
PAL	High	45Hrs	90Hrs	180Hrs	2250Hrs
	Normal	75Hrs	150Hrs	300Hrs	3750Hrs
	Low	100Hrs	200Hrs	400Hrs	5000Hrs

9.DVR VIEWER USER GUIDE

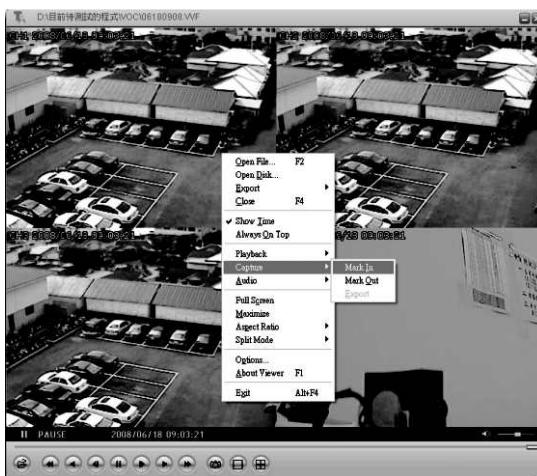
1.Playback Recorded File



(1.1) Start VVF SLPlayer

(1.2) Point the cursor in the screen and right-click "Open File". Pick and choose the file you want to view in (.v vf format) and play.

2、Capture an image



(2.1) During the playback of the specific file, click "Pause", located on the bottom of the screen.

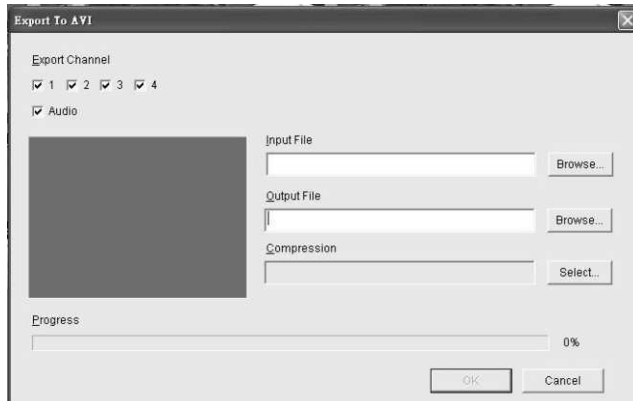
(2.2) When the image is staying still in the screen, press the right button on the mouse, then pick and choose 「Capture」 / 「Mark In」 . It will set the starting time.

(2.3) Press the "Pause" button to start playing and recording the images.

(2.4) To end recording, click "Pause". Press right button on the mouse, then pick and choose 「Capture」 / 「Mark Out」 .

(2.5) Final step, press right button of the mouse, then pick and choose 「Capture」 / 「Export」 .

3.Convert File to AVI Format

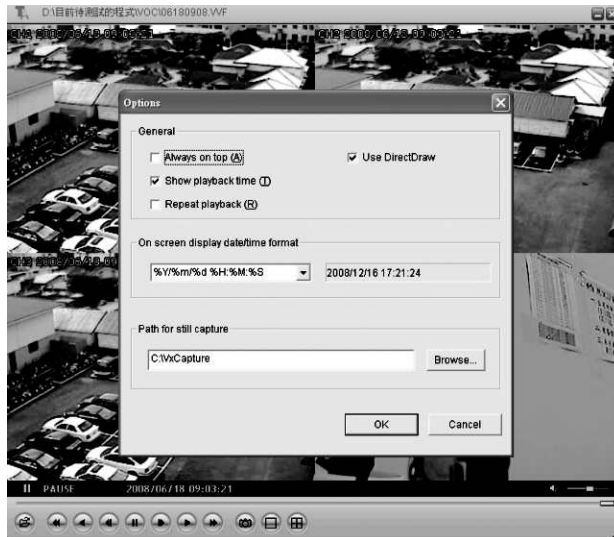


(3.1) Point the mouse cursor to the screen, and press the right button on the mouse, pick and choose 「Export」 / 「AVI」

(3.2) Set Input/Output File 、 Compression 、 Export Channel and Audio.

(3.3) Click “OK” to start converting file to AVI format.

4 、 Option



(1) Always on top : The sub window always stays on top.

(2) Use DirectDraw : DirectDraw, a part of Microsoft 's DirectX is used to render graphics in applications where top performance is important.

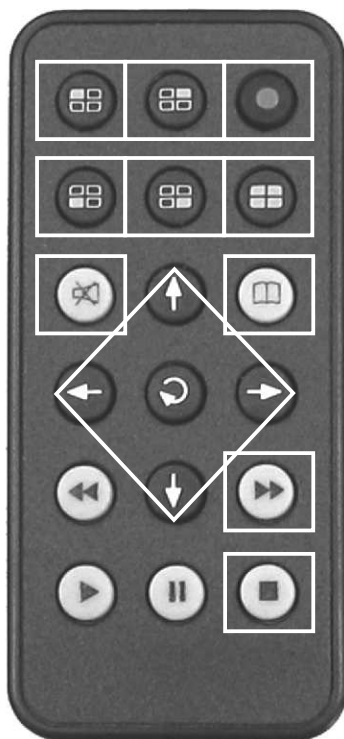
(3) Show playback time : Indicates the length of playback time.

(4) Repeat playback

(5) On screen display date/time format : Indicates date/time.

(6) Path for still capture : Indicates the directory and path name of the file.

10.REMOTE CONTROL USER GUIDE (OPTIONAL)



CH1 Display	CH2 Display	Record
CH3 Display	CH4 Display	Quad Display/ Auto Switching
Mute	Up	Menu
Left	Set	Right
Fast Reverse	Down	Fast Forward
Play	Pause	Stop Record/ Stop Playback

4CH STANDALONE DVR
===== USER MANUAL

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