

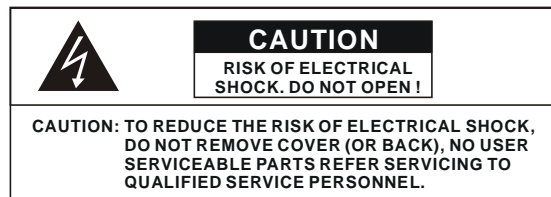
Thank you for purchasing our product.
Please read this User's Manual before
using the product. Change without Notice

4 Channel DVR

User's Manual



Safety Precautions



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of insulated dangerous Voltage within the product's enclosure that may be sufficient magnitude to constitute risk of electrical shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE UNITS NOT SPECIFICALLY DESIGNED FOR



Attention: installation should be performed by qualified service Personnel only in accordance with the National Electrical Code or applicable local codes.



Power Disconnect. Units with or without ON-OFF switches have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON-OFF switch is the ON position. The power cord is the main power disconnect for all unites.

Warranty
and Service

There are no serviceable parts for this unit, call for your agent for details.

About this document

Before installing stand alone DVR, be sure to thoroughly review and follow the instructions in this User's Manual. Pay particular attention to the parts that are marked **NOTICE**.

Also, when connecting with external application, first turn the power OFF and follow manual instruction for appropriate installation.

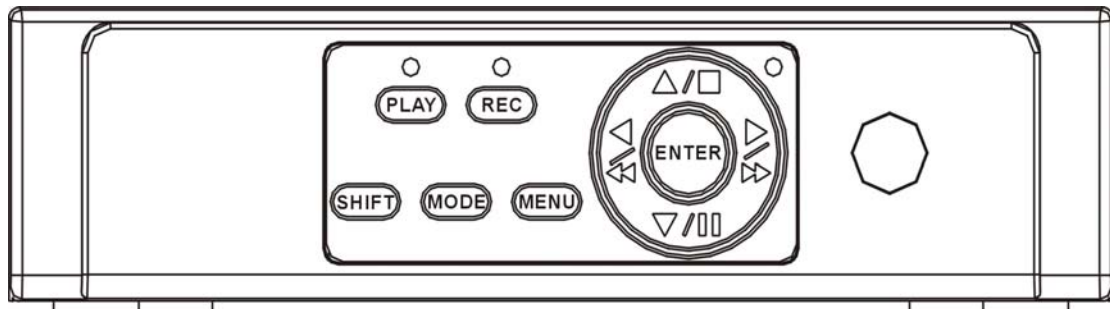
Before reading this document










1. This document is intended for both the administrator and users of stand alone DVR Model.
2. This manual contains information for configuring, managing and using stand alone DVR Model.
3. To prevent fire or electrical shock, do not expose the product to heat or moisture.
4. Be sure to read this manual before using stand alone DVR Model.
5. For questions and technical assistance of this product, contact your local dealer.

► Strong recommendation on installation of the DVR unit

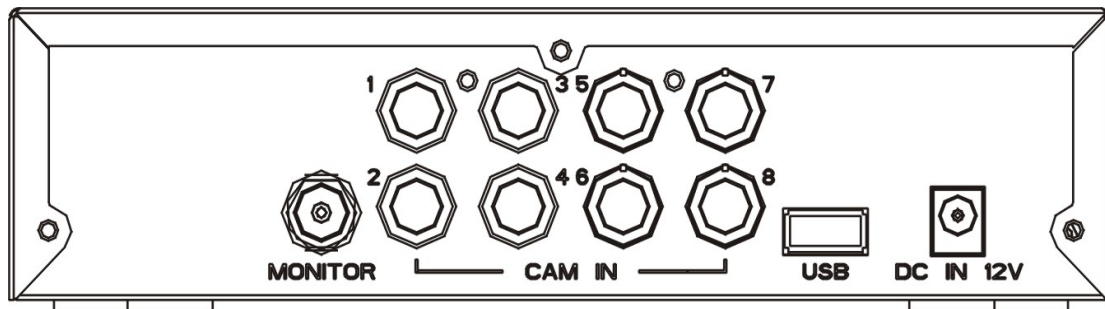
1. Check electricity at the place you want to install the DVR unit is stable and meets our electricity requirements. Unstable electricity will cause malfunction of the unit or give critical damage to the unit.
2. Several chips on the main board of the DVR unit and hard disk drive inside the unit generate heat, and it must be properly discharged. Do not put any objects just beside exhaust port(fan) on the left side of the unit and do not close up an opening (fresh air in-take) on the right side of the unit..

FRONT PANEL



1.PLAY	Video playback function .
2.REC	Record button (Start / Stop)
3.SHIFT + MODE	Change the record quality level . (HST / HIG / NOR / LOW / LST).
4.SHIFT	Video backup function.
5.MODE	Change display mode (quad mode ) / Full channel select
6.MENU	Display menu setup
7.ENTER	Change the setting value .
8. UP / STOP	Direction button UP / Playback stop button  / 
9. DOWN / PAUSE	Direction button down / Playback pause  / 
10. REW	Direction left button/ Reverse playback / play speed  / 
11. FF	Direction right button/ Forward playback / play speed  / 


















REAR PANEL



1. DC IN	Power code in 12V/ 5A
2. USB	USB device slot
3. CAM IN	Camera 1 ~ 4 input BNC type
4. MONITOR	Monitor out

REMOTE Controller

The key on the remote controller function control is same as the front keypad of the unit.


	 REC	Record button (Start / Stop)
	 MENU	Display menu setup
	 BACKUP	Video backup function.
	 SEARCH	Video search function
	 HST	Video record quality level (Highest)
	 HIG	Video record quality level (High)
	 NOR	Video record quality level (Normal)
	 LOW	Video record quality level (Low)
	 LST	Video record quality level (Lowest)
	 ENTER	Change the setting value .
		Direction button UP / Playback stop button
		Direction button down / Playback pause
		Direction right button / Forward playback / play speed
		Direction left button / Reverse playback / play speed
	 ~ 	Channel 1 ~ channel 4 Full screen display
		Quad display screen

1 . OPERATION

Power on the DVR system , the real-time video can be seen by 4 quad screen or full screen display .
User can press "MODE" button to switch the display mode .

Playback mode : Press "PLAY" button , user can search date-time to playback .

Record mode : Press "REC" button start to record . User can press "SHIFT" + "MODE" button to change the record quality .Record quality level have 5 types : HST / HIG / NOR / LOW / LST .

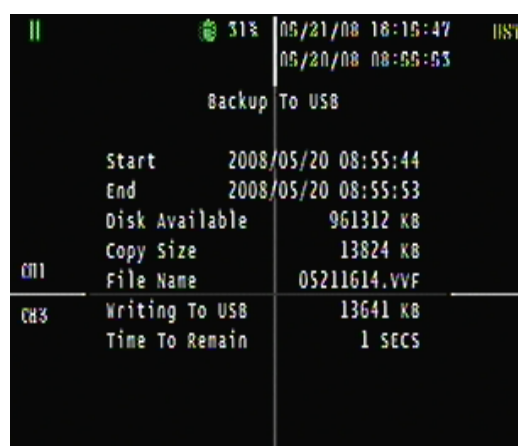
Press "SHIFT" button , it will show an icon  at top line on screen then press "MODE" button to change record frame rate and quality level and it will show a message **HST** on top-right screen .
User change the different record level , it means that user change the record quality , below table show the mapping .

Level	HST	HIG	NOR	LOW	LST
FPS	60 (15/each)	60 (15/each)	16 (4/each)	8 (2/each)	8 (2/each)
Quality	High	Normal	Normal	Normal	Low

Backup mode :











Before backup, USB device is required. User need insert USB device into USB slot before backup.
Backup file size can not exceed 3GB

1. On playback mode, press "SHIFT" button to start backup.
2. When user press "SHIFT" button , it means the start time of backup .
3. When user press "SHIFT" button second time , it means the end time of backup .
4. The system will auto reading USB device then start to backup data .



Icon Indicator:

In live mode or playback mode , the icons show at top line on screen to notify user the system status , below are the icons status .

	Live mode		Forward
	Recording		Pause
	Video loss		Reverse
	Motion detect		SHIFT mode
	Display Channel		Hard disk usage

2. SYSTEM SETUP

When user first time use admin menu setup , please press direction key

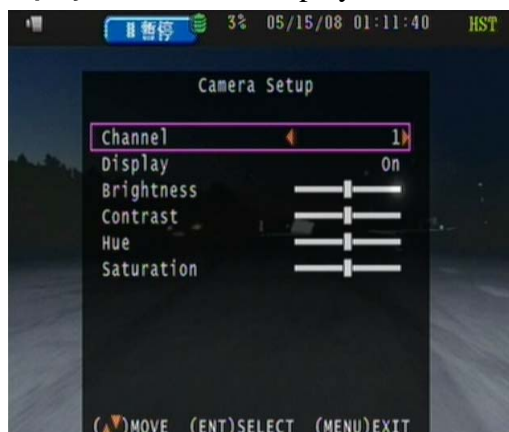
▲▲▼▼◀▶◀▶ and "MENU", then user can into admin menu setup successful.



2.1 Camera Setup

User can setup each channel display status and adjust the cameras Brightness , contrast, hue and saturation . Right adjustment of each element will increase picture quarterly displayed. We recommend you to adjust each element of cameras and monitor to be connected to the DVR .

Display : On / Off, if display set off , the channel will be hidden



2.2 Record Setup Use this function to setup the record frame rate of each channel



Totally frame rate is
60 fps(NTSC) / 50 fps (PAL)

2.2.1 Schedule Record Frame rate

User can use the direction left button to decrease the frame rate or direction right button to increase the frame rate value .

After changed the frame rate value , press “MENU” button to exit the setup menu .

Schedule record will follow these frame rate values .

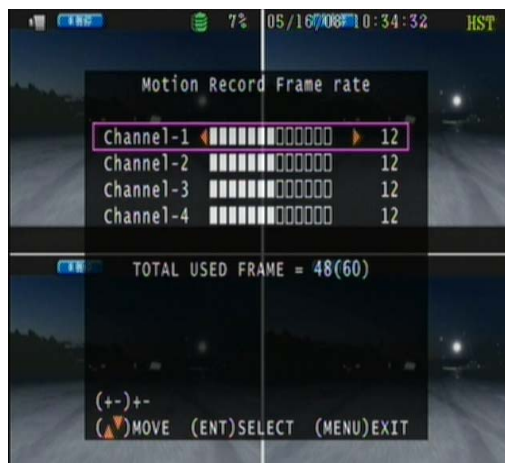


2.2.2 Motion Record Frame rate

User can use the direction left button to decrease the frame rate or direction right button to increase the frame rate value .

After changed the frame rate value , press “MENU” button to exit the setup menu .

Motion record will follow these frame rate values .



2.2.3 Record Quality:

Low / Normal / High (See record time table page 11)

2.2.4 Event Rec Duration:

5/ 10/ 15/ 20/ 25/ 30 seconds. Duration time recording after event

2.2.5 Auto Record:

Off / 1 ~ 8 minutes selectable

When auto record is set to 1 ~ 8 minutes , the DVR will start recording after 1~ 8 minutes no operation .

2.2.6 Data Retention:

OFF / 1 ~ 15 days selectable

2.2.7 Schedule Record

Use the left button or right button to select time and use the "Enter" button to change record type .



Notice:

1. Each channel has own frame rate adjustment in different recording mode.
2. In 24 hours, user can adjust each channel frame rate in different record mode. Such as schedule, motion detection, and alarm record mode
3. Press "ENTER" button to change different record mode

Record Time Table: 80GB HD

Record Quality: Low. Average: 5 KB;

REC FPS(total)	60	30	15	10
REC Hour	72 hr	148 hr	296 hr	444 hr

Record Quality: Normal. Average 10 KB;

REC FPS(total)	60	30	15	10
REC Hour	36 hr	74 hr	148 hr	222 hr

Record Quality: High. Average 20 KB;

REC FPS(total)	60	30	15	10
REC Hour	18 hr	37 hr	74 hr	111 hr

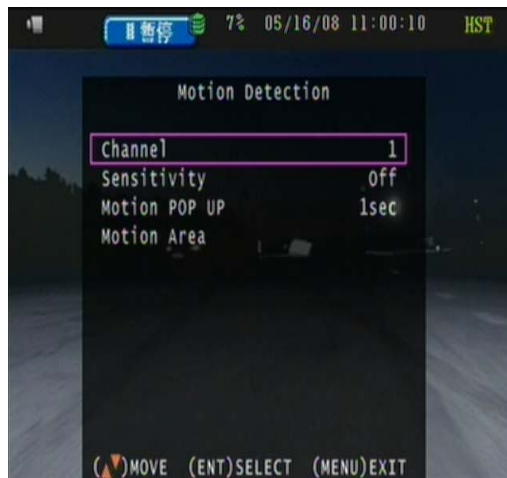
****Actual recording time is base on live environment. This table is only for reference.****

20 K x 30 (frame rate) x 60 (mins) x 60 (secs) = 2160000 K = 2160 M / hr

2160 M / hr x 24 = 51840000 K = 51840 M = 51.84 G / (1 Day)

2.3 Motion Detection

User can setup each channel with different motion detection .



2.3.1 Channel :

User can setup different motion detection of channels (1~ 4)

2.3.2 Sensitivity :

Off / Low / Normal / High

2.3.3 Pop up :

OFF/ 1 ~ 30 Seconds /CONT

Alarm POP UP: Each channel jumps to full screen when alarm triggered. Quad screen display if more than two cameras alarm triggered.

2.3.4 Motion Area

Use direction button Left or Right to move position then press "ENTER" button , start to select the motion area and finally press "ENTER" button to stop .



2.4 SCREEN

Let user setup the screen display

2.4.1 SCREEN: Split border on or off .

2.4.2 Video Adjustment: Video screen position movement. Use direction button to move.

2.4.3 Video system : NTSC/ PAL/ AUTO



2.5 System Setup



2.5.1 Hard Disk Setup :

Overwrite Enable : Yes -> When Hard Disk full , DVR continue to record

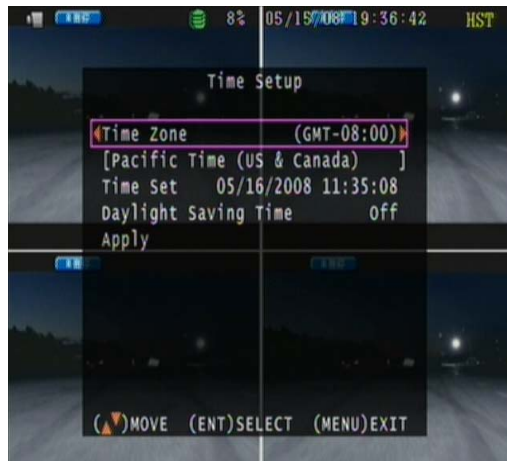
No -> When Hard Disk full , DVR stop record .

Format HDD : Initial the HDD , Please format hard disk before starting record



2.5.2 Time Setup

User can setup time zone and daylight saving time in this menu , also can use up-down button move to time set change the date and time.



2.5.3 Buzzer Setup



System Buzzer:	OS operating
Key Press Buzzer:	Button operating
Motion Buzzer:	Motion detection warning
Video Loss Buzzer	Video loss warning

2.5.5 F/W Upgrade

Stop all hard disk working before update, select F/W upgrade and then press ENTER to search firmware.

1. Searching Firmware
 2. Press PLAY upload, press STOP cancel
 3. Firmware Reading
 4. Firmware uploading
- DVR auto reboot after F/W upgrade finished .



2.5.6 Load Player Software

Stop all hard disk working and insert USB device into USB slot before load Player Software then press ENTER . After press ENTER, the system will search software file from USB device. After the file is detected, the system auto load player file when finished it return to setup menu.



Player Software is loaded in hard disk as factory default. Just in case if user change a new hard disk.

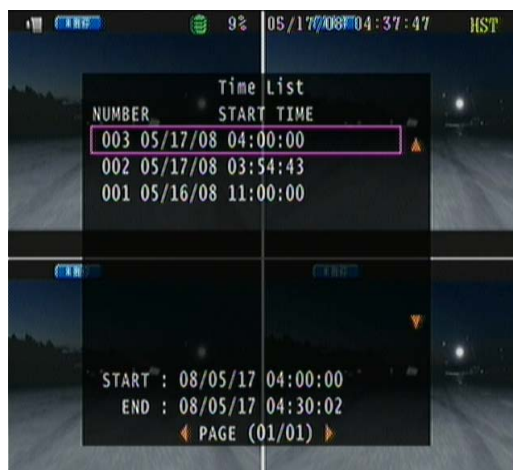
2.6 Search

User can search video image by Time list , Event list and Time search .



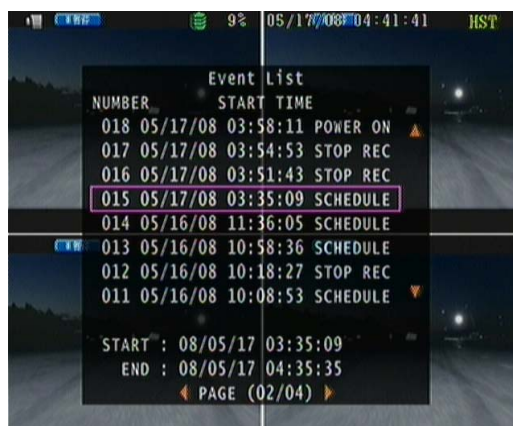
2.6.1 Time List mode

Use direction button up and down to select date and time section, and then press ENTER start to playback. Time list total can save 120 records



2.6.2 Event List mode

Each event will list on event list , user can use direction button up and down to move and it will show the event start time and end time for user reference . After select an event press "ENTER" start to playback. Event list total can save 120 records



2.6.3 Time Search:

1. Press "ENTER" into time search menu .
2. Use direction left or right button to move the cursor position .
3. Press "ENTER" to change date and time .



4. Press "MENU" return to the previous screen and move cursor to Search.
5. Press "ENTER" to start the searching.
6. Wait until the unit starts to playback.



Playback mode

Forward speed: x 2 / x 3 / x 4

(Direction right button)

Reverse speed: x 8 / x 16 / x 32

(Direction left button)

Press "STOP" button return to live mode.

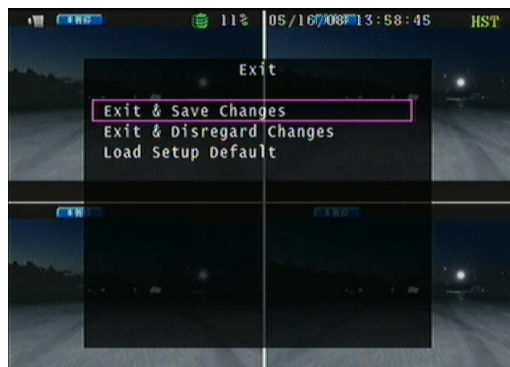
2.7 Language

Standard is English / Chinese



2.8 Exit


User needs to save changes if any function value has changed then exit menu.



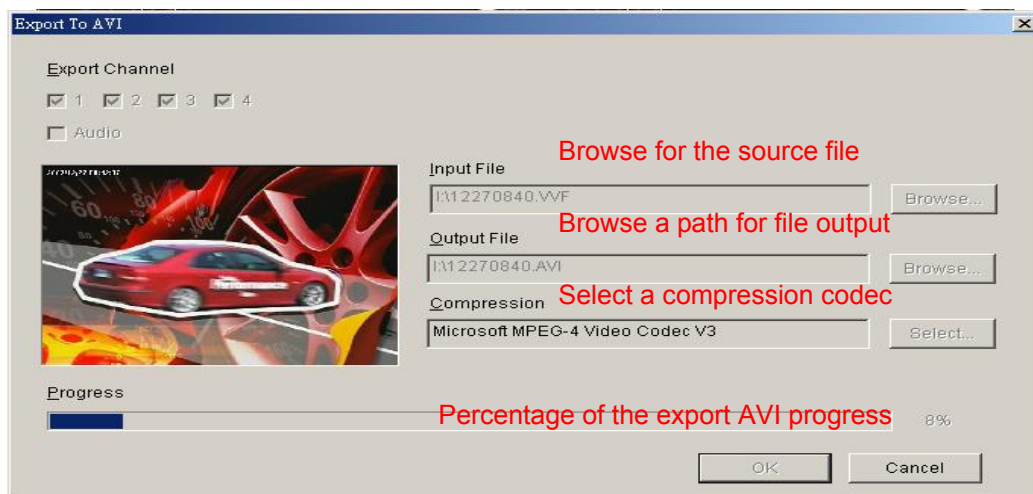
3 . Player Software

Start to play :



1	Fast Reverse	6	Play
2	Play Reverse	7	Fast Forward
3	Previous Frame	8	Full Screen (manual switch)
4	Pause	9	Quad Screen 
5	Next Frame	10	Capture image 

AVI Button: .vvf files export to .avi format



4 . Specification	
Model	4 CH Digital DVR
Input	4 CH Inputs 1.0Vp-p, 75ohm unbalanced (BNC Type)
Output	Main monitor x 1
S/N Ratio	More than 40dB
Color	6.7 Million
Monitoring Method	
Channel Display	Single / Quad channel
Screen Quality	640(H) x 448(V) Active Pixels(NTSC); 640(H) x 544(V) Active Pixels (PAL)
Display Rate	120 fps (NTSC) / 100 fps (PAL)
Recording/ Play Function	
Recording (Max) NTSC	Max 60 fps(NTSC); Max 50 fps(PAL)
Record Quality	High, Normal, Low
Compressed Picture	Storage: M-JPEG
Recording Control	Normal / Schedule / Event
Motion detect Record	5 ~ 30 seconds
Playback Mode	Time list / event list / Date & Time search
Backup and Copy	
Backup	Event Backup / Video Data backup via USB device
Backup file play	Client software to play files
Other Function	
Operation Mode	Record / Play
Monitoring	Firmware Watchdog
Recovery	Auto-Reboot by Watchdog
Operation Mode	Duplex (Record +Playback)
Control Device	Front key/ Remote controller
Daylight Saving	Supported
Language	English / Chinese
Motion Detect	16 x16 grids camera for all channel
Storage	3.5 inch HDD x 1 SATA
Firmware Upgrade	Support USB firmware upgrade
HDD Record Mode	Full stop / overwrite
Power Supply	DC12V
Operating Temperature	0 ℃ ~ + 55 ℃