



DVR4-Alert™ Plus

4CH Digital Video Recorder



SW242-DAL / SW244-DAO

User Manual

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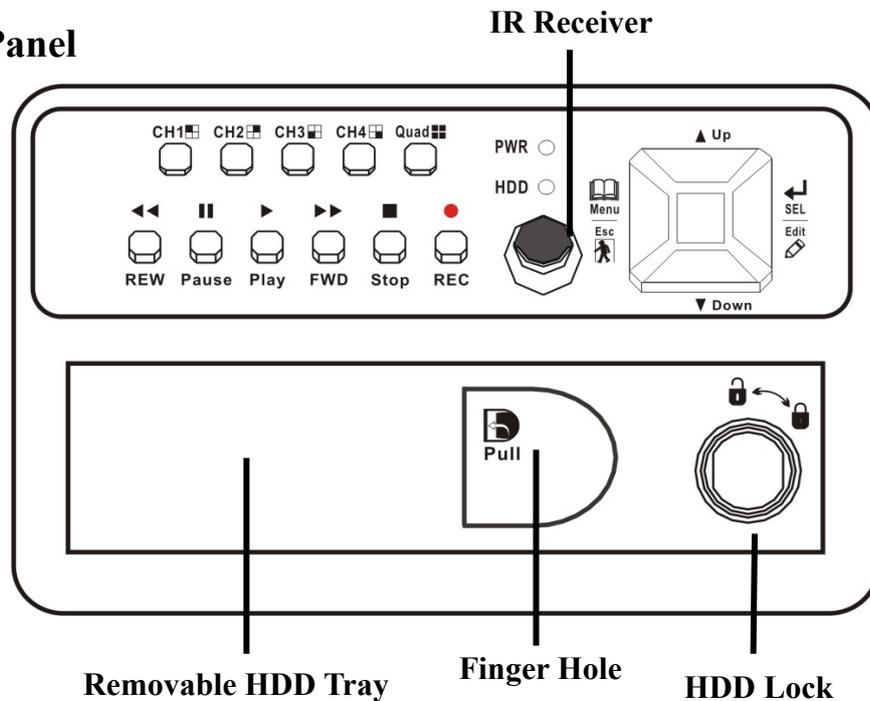
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Chapter 1: DVR Features

- 4 Channel BNC Camera Inputs
- 1 Channel BNC Video Output
- Video Format: NTSC / PAL
- Motion Detection with Sensitivity and Area Settings
- Time Schedule Recording / Motion Triggered Recording
- One ATA-100 (IDE) Hard Disk Interface
- USB 2.0 Back up to computer
- Remote Control & Removable Hard Drive Tray

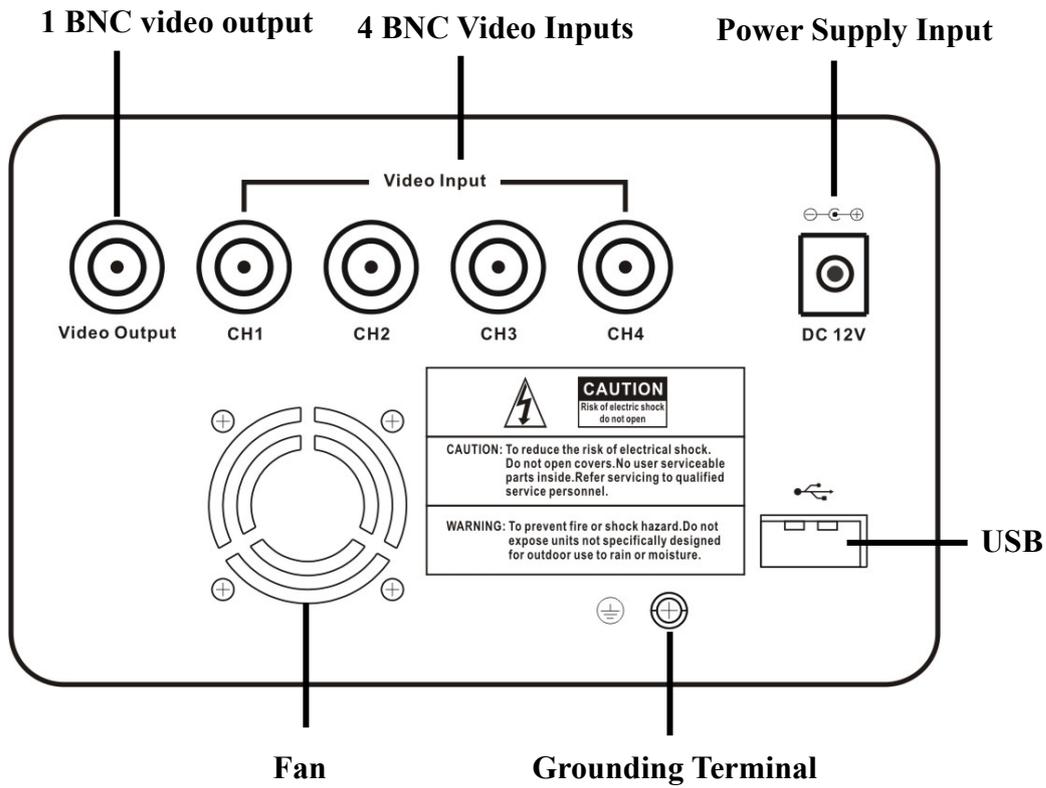
Chapter 2: Overview

2.1 Front Panel

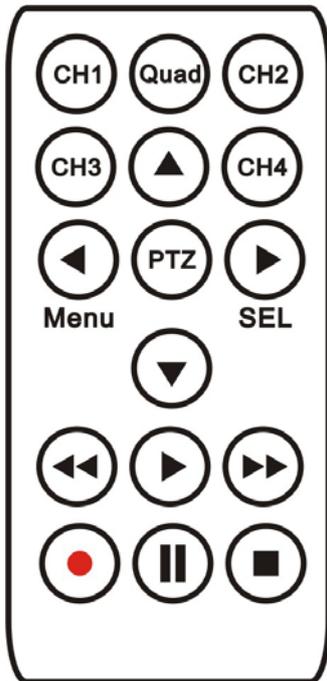


CH1	Channel 1	■ Stop	Stop Playing/Recording
CH2	Channel 2	● REC	Record
CH3	Channel 3	Menu/Esc	Enter / exit setup menu
CH4	Channel 4	SEL/Edit	Confirm Selection / Edit
Quad	Quad View	▲ Up	Move up / left cursor
◀◀ REW	Rewind	▼ Down	Move down / right cursor
▬▬ Pause	Pause	PWR	Power indicator
▶ Play	Playback Video	HDD	Hard disk drive indicator
▶▶ FWD	Fast Forward		

2.2 Rear Panel



2.3 Remote Control

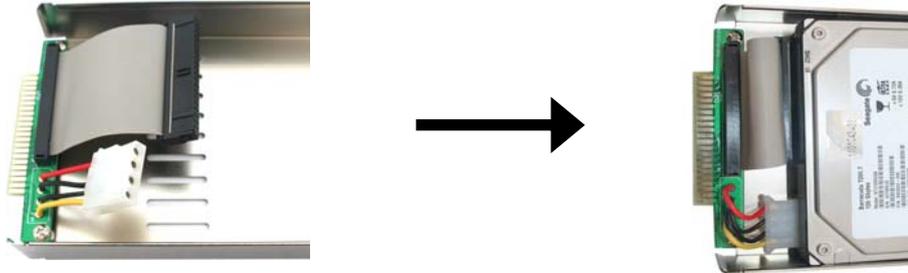


CH1	Select or enlarge Channel #1
CH2	Select or enlarge Channel #2
CH3	Select or enlarge Channel #3
CH4	Select or enlarge Channel #4
Quad	Quad View (4 Camera View)
◀◀	Rewind
▶	Playback Recording
▶▶	Forward
●	Record
⏸	Pause
■	Stop recording / playback
Menu	Enter or exit setup menu
▲	Move up / left cursor
SEL	Select / modify item
▼	Move down / right cursor
PTZ	Not Used

3.1 Installing Hard Drive

1. Unplug the power supply. Never install or uninstall HDD when DVR is on.
2. Pull the HDD tray from the unit using the finger hole.
3. Connect the power cord and data cable to hard disk drive.

Make sure the HDD is set to be MASTER according to the hard drive manual.



The 4 pin connection is the DC power cable for HDD, and the wider cable is the standard hard drive IDE type connection.

4. Firmly insert the HDD tray into DVR body.
5. Lock the HDD tray.

Lock the caddy by turning the key clockwise.

If you need to unlock the tray, turn the key counter-clockwise.

CAUTION:

1. If HDD tray is not locked, the DVR system may not function properly.
2. Do not remove the HDD tray while the DVR is on.

3.2 Connecting Camera and Monitor

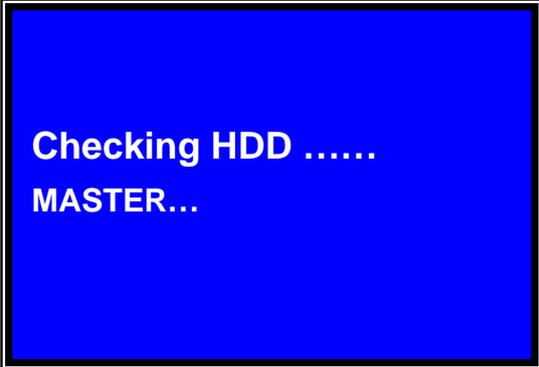
There are 4 camera inputs and 1 video output with BNC connectors (*Refer to 2.2 Rear Panel*).

3.3 Connecting the Power Supply

Please only use the power adapter supplied with the DVR. The standard power supplied to the DVR is DC 12 Volt, 3.0 Amp.

Chapter 4: Starting the DVR

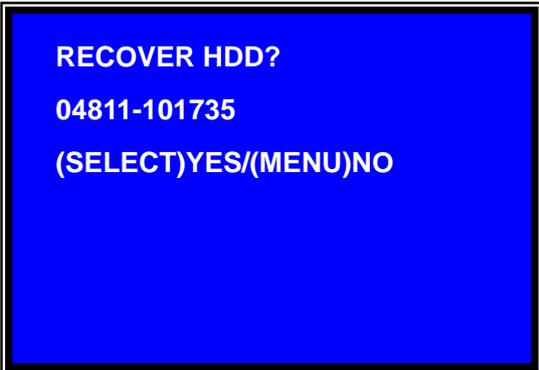
4.1 Detecting Installed Hard Drive



After connecting the power, the system will boot-up and detect the installed hard drive.

On the screen it will show the hard drive information. If no hard drive is detected, check that the HDD is set to master and the tray is locked.

4.2 Recovering Lost Data



A power failure can cause data to be lost, however the DVR system will automatically recover lost data after power is reconnected.

4.3 Restore Recording Feature



If a power error occurs during recording process, the system will automatically resume recording after power is reconnected.

4.4 Main Screen



When the DVR is turned on the following display will appear with your connected cameras:

Upper left: Percentage of hard drive space used

Middle: Channel number (CH1 through CH4)

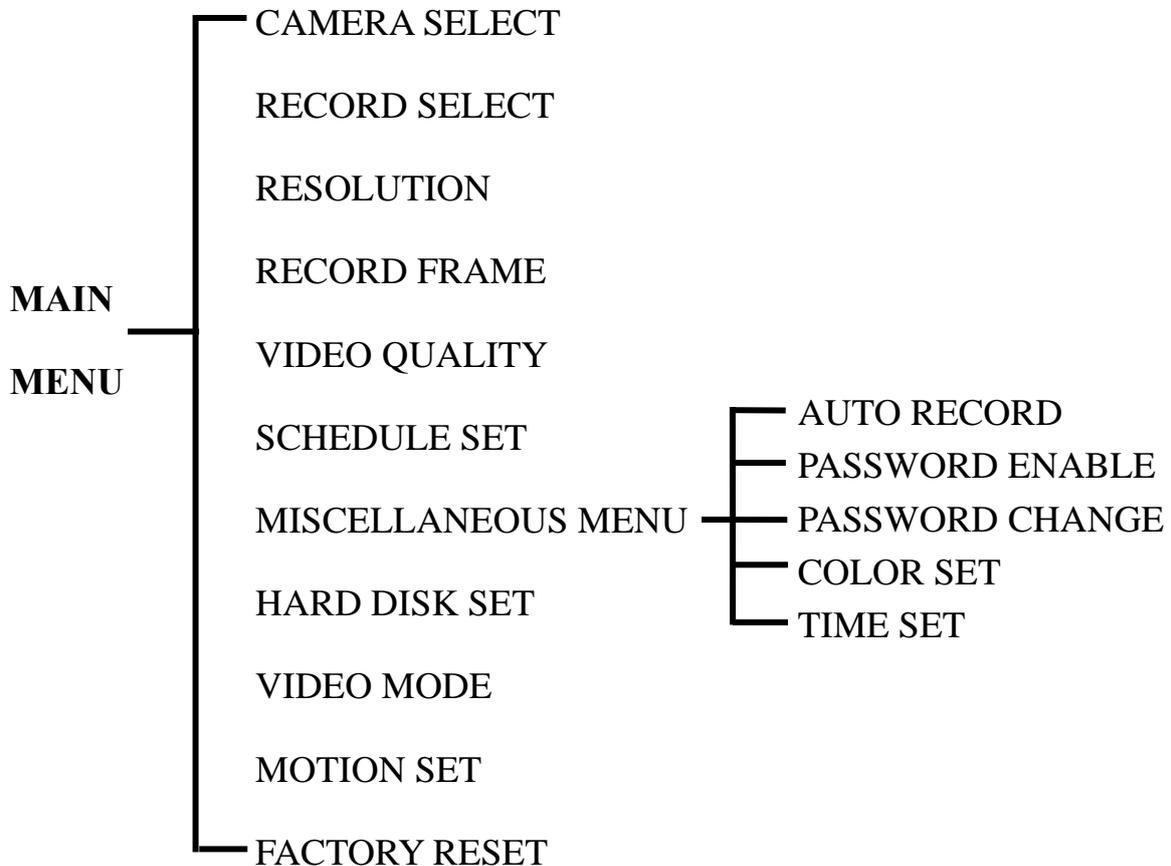
Bottom right: Date and Time

Bottom left: System/recording status. *(Refer to 6.1 Start Recording)*

Chapter 5: DVR Setup

5.1 Setup Menu

Menu Directory





[Menu]: Push to enter system menu

[▲Up] and [▼Down]: Move the cursor

[←SEL]: Select/modify settings

[Menu]: Press exit/previous menu

5.2 Camera Select



The DVR system can display 4 cameras at once or you can limit the number of cameras displayed to save HDD space.

Press [←SEL] to modify setting, or press [CH1], [CH2], [CH3] and [CH4] to set each channel separately.

If a channel is disabled, the system will display “OFF” on the monitor; this channel will not be recorded. (*Refer to 5.3 Record Select*)

5.3 Record Select

Manually set which channels are allowed to record.

Note: If no channels are selected, an error message will appear briefly on the screen when record is selected. “1234” indicates all cameras are set to record.

5.4 Resolution

There are two modes of resolution for video recording:

EACH Mode:

The DVR compresses and records each video channel separately so you can enlarge a single channel to full screen display and still be recording on all channels. You can also record on specific channels, for example, you can turn off the record function of CH1 and CH2 and then the system will only record video on CH3 and CH4.

Press [CH1], [CH2], [CH3], and [CH4] enlarge relative channel to full screen display.

In **EACH Mode** you can use the **Auto Switch Function**.

Auto Switch Function:

When the system is in live mode or recording mode, press and hold the [QUAD] button for three (3) seconds to make each video channel enlarge to full screen. Each camera will appear in full screen for three (3) seconds, including Quad view. The switch will last until any button is pushed.

NOTE: Pushing the [■ Stop] button will stop the switch feature but also may stop the recording depending on Record Schedule Settings (5.7 Schedule Set).

QUAD Mode:

The DVR will compress and record all 4 video channels into one file however recordings will be limited to quad view and you will be unable to view full screen images in playback mode.

Auto Switch Function is not available in QUAD Mode.

5.5 Record Frame

Record frame indicates the frames or images recorded per second. More frames per second gives smoother movement but uses more hard disk space.

The system default is 30fps (frames per second) for NTSC (PAL is 25fps). This means the system will record 30 frames per second shared by the active cameras. You can set frame rate for NTSC to 30,15,10,7,5,4,3,2,1 frames per second (PAL is 25,12,8,6,4,3,2,1)

5.6 Record Quality

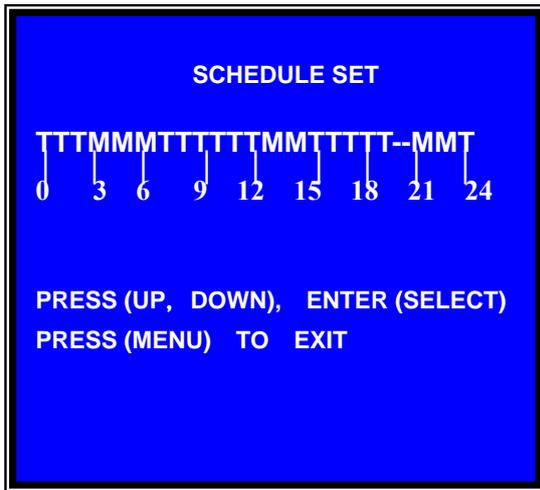
There are three levels of recording quality: High, Normal, and Low.

Higher quality records the best images but uses more hard drive space.

Record frame rate, record quality and available hard drive space will affect the total recording time of the DVR system.

5.7 Schedule Set

You can preset video recording modes by Time and Motion Detection Recording.



“-” No Recording

“T” Time (or manual recording: Default)

“M” Motion Detection Record

[▲Up] and [▼Down]: To move the cursor

[←SEL]: To modify record method

Numbers along bottom indicate the 24 hours of a day

For example:

If you want to record by motion detecton during 3 to 6 o'clock, set the time points (3, 4, 5) to “M”; if you want to continuous record from 7 to 12 o'clock, set the time points (7, 8, 9, 10, 11) to “T”.

Both of the recording methods need to be triggered by pressing the [●REC] button. After pressing [●REC] button, if the schedule is set to “T” at that time, the DVR will start to record immediately; if the schedule is set to be “M”, the DVR will not record until motion (movement) is detected by system.

Force Record :

When the DVR is set to record by motion detection, the DVR will not record if there is no motion. If you want to record immediately, please press and hold [●REC] button for 3 to 5 seconds to begin manual recording.

5.8 Miscellaneous Menu-Auto Record

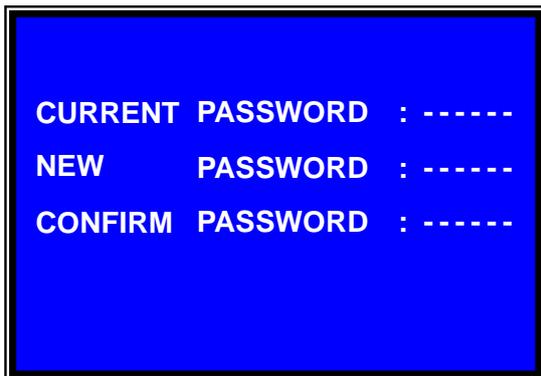
When this option is set to “ON”, the DVR will automatically continue with the current Record Schedule if no actions occur for 5 minutes. If you choose “OFF”, the DVR will not record until you press the [●REC] button.

5.9 Miscellaneous Menu-Password Enable

This DVR is equipped with password protection features. Set this feature to “ON” to enable password protection. When this option is set to “ON”, you will be required to enter a password if you want to stop recording or enter the menu.

System default password: Press [CH1] button six (6) times.

5.10 Miscellaneous Menu-Password Change



All keys can be used as password key **except** the [Menu] key, which is used to exit.

If you forget your password, please refer to 5.16 Factory Reset.

5.11 Miscellaneous Menu-Color Set



HUE: 0-99
 SATURATION: 0-99
 CONTRAST: 0-99
 BRIGHTNESS: 0-99

[▲Up] and [▼Down]: move the cursor
 [REW]: Increase value
 [FWD]: Reduce value
 [CH1-CH4, QUAD]: Select channel
 [Menu]: Exit

5.12 Miscellaneous Menu-Time Set



Configure system date and time:

[▲Up] and [▼Down]: move the cursor

[↔SEL]: modify the value

[📖Menu]: exit and save

5.13 Hard Disk Set



OVERWRITE ENABLED:

If you choose “**YES**”, recording continues and overwrites oldest recordings when the hard drive is full.

If you choose “**NO**”, the recording process will stop when the hard drive is full.

HDD SIZE:

Indicates the total capacity of the hard drive installed in the DVR.

HDD USED:

Indicates the actual space used on the hard drive and the percentage of hard drive space used.

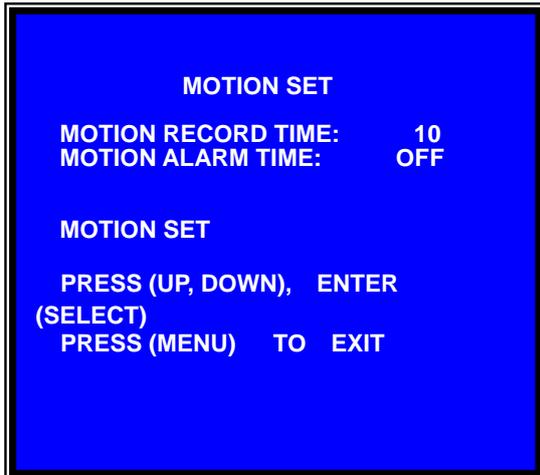
HDD FORMAT:

Choose this option to delete all data on a hard drive.

You will be prompted to input your password when formatting the HDD.

Note: When you install a new hard drive in the DVR, please use this function to format the hard drive for use with the DVR.

5.14 Motion Set



MOTION RECORD TIME:

This number indicates how many seconds the motion detection recording lasts after the DVR has detected motion.

MOTION ALARM TIME:

This number indicates how many seconds the buzzer/alarm inside the DVR will sound after the DVR has detected motion.

CONT: Continuous alarm until press any key is pressed when motion detected.

OFF: No alarm

MOTION SET:



SENSITIVITY:

Use [**▲Up**] and [**▼Down**] button to highlight the channel you want to modify and press [**←SEL**] to adjust sensitivity of motion detection on each channel.

High (1-----9, OFF) Low

When “**OFF**”, the channel will not detect motion or trigger motion recording.

AREA SET:

Use [**▲Up**] and [**▼Down**] button to select the channel you want to modify and press [**←SEL**] button to enter the sensitive area of each camera. The picture of the selected channel is divided into 144(12*12) blocks, press [**REW**] to move left, press [**FWD**] to move right, press [**▲Up**] and [**▼Down**] to move the cursor up and down, press [**←SEL**] to set the highlighted block active or disabled.

When the block is transparent, it's active or set to detect motion. When the block is covered by a shadow, it is not active and motion will NOT be detected.

Make sure *Record Schedule* is set to Motion for the times required.

5.15 Video Mode

Select NTSC (North America) or PAL (Europe/Australia) video system.

5.16 Factory Reset

Press [**←SEL**] button to reset the DVR to factory defaults. The DVR will reboot and all custom settings (including password) will be restored to default.

Caution: There is no confirmation dialog box for this selection after you press [←SEL**] button.**

If you have forgotten your password and would like to reset, press [**Pause**] button 10 times to reset DVR to factory default. Then the default password is now: [**CH1**] button 6 times.

If you are unable to stop recording, you must unplug the power supply and remove the HDD, then reboot the DVR and press [**Pause**] button for 10 times.

Chapter 6: Recording

6.1 Start Recording

Press [**●REC**] to start recording (as set in 5.7 *Schedule Set*).
DVR will display system information on screen.



1. Hard Drive Usage (Displayed as a percentage)
2. Recording symbol (channel is currently recording)
3. Camera Number
4. Record Mode (QUAD or EACH)
5. Status (REC, Play, FF1, FF2, FF3, REW, PAUSE)
6. HDD Info. ([M] Master Hard disk)
7. Record Schedule: (T) Time or Manual Record (M) Motion Detection (-) No Recording
8. The date and time on the DVR

6.2 Stop Recording

Press [■Stop] button to stop recording. If you have already activated the password protection, you will be prompted to input the password.

6.3 Recording Time on Hard Drive

System	Quality	Frame Rate	30	15	7	1
NTSC	HIGH	20 K Bytes	58	117	251	1748
	NORMAL	15 K Bytes	78	155	332	2330
	LOW	12 K Bytes	97	194	416	2913

System	Quality	Frame Rate	25	12	6	1
PAL	HIGH	20 K Bytes	70	146	291	1748
	NORMAL	15 K Bytes	93	194	388	2330
	LOW	12 K Bytes	117	243	485	2913

Estimated record time based on a 120GB Hard Drive (Quad Mode) in hours:

You can calculate and estimate record hours by below formula:

$$\frac{120 \text{ (G Byte)} \times 1024 \text{ (M Byte)} \times 1024 \text{ (K Byte)}}{15 \text{ (Kbyte/frame)} \times 7 \text{ (frame/sec.)} \times 60 \text{ (sec.)} \times 60 \text{ (min.)}}$$

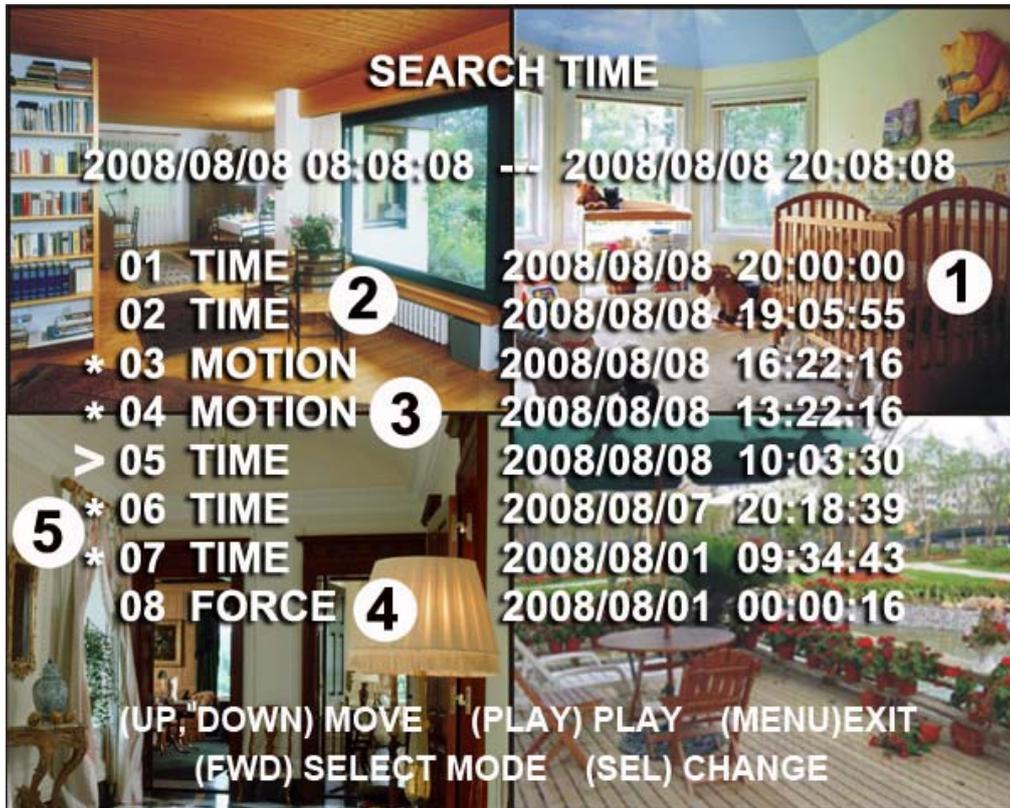
Estimated time would be 332 Hours.

Chapter 7: Playback

Press [▶Play] button to play the last recording.

During playback, press the [📖Menu] button to list all recorded video clips from the hard drive. Newest video will be listed at the top.

Press [▲Up] and [▼Down] to move the cursor and select an event, press [▶Play] button to start playback.



1. Starting time of the event	2. TIME: continuous record
3. MOTION: Motion Triggered event	4. FORCE: Force Record event
5. "*" marks un-played video recording	

You can also play recorded video by searching the exact date and time as follows:

1. Press [FWD] button to change the select mode
2. Press [▲Up] and [▼Down] button to select date starting time or ending time
3. Press [←SEL] to edit time value
4. Press [▶Play] to play the video



Search Date and Time

Chapter 8: USB Programming

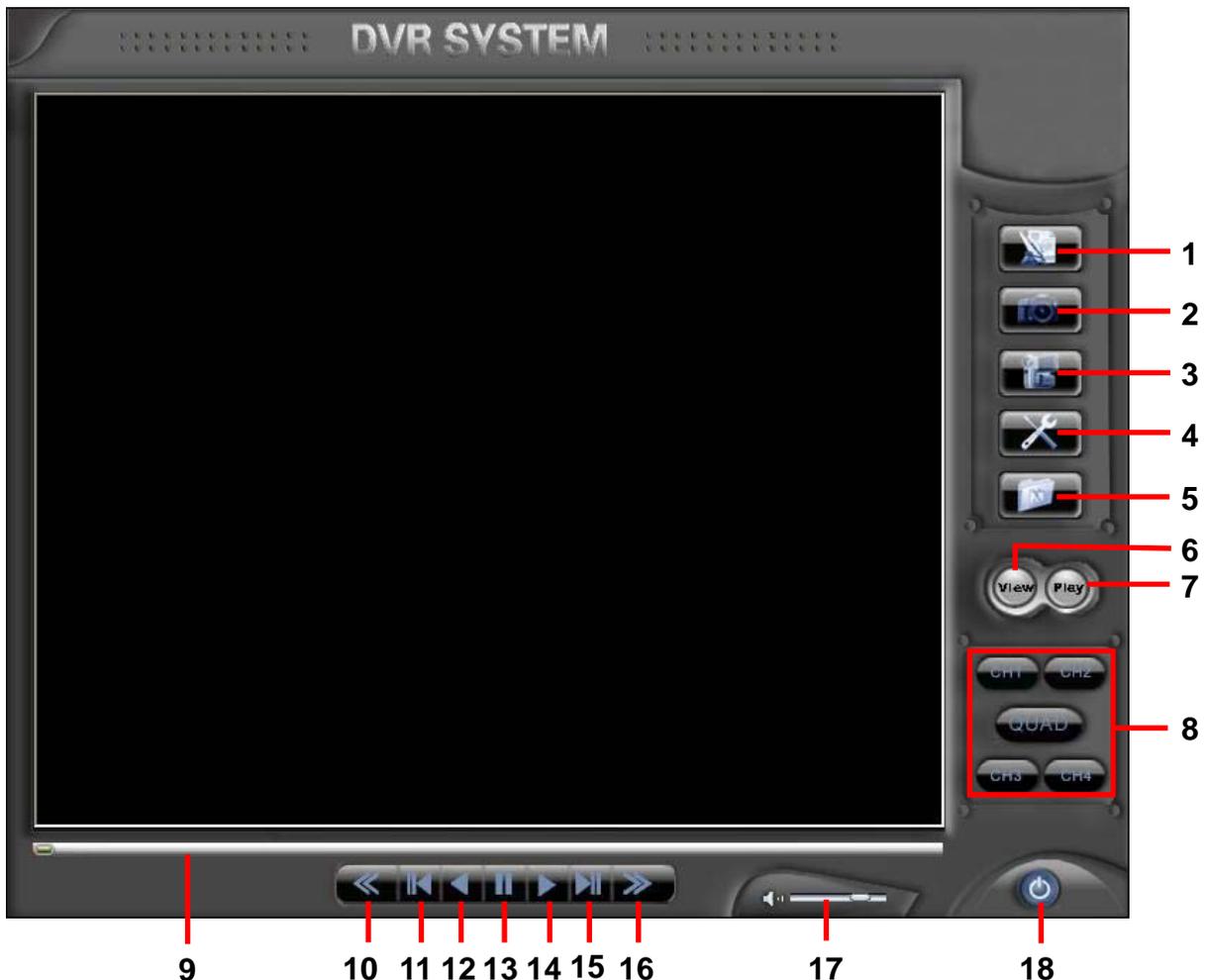
Using the provided DVR PC Viewer software, you can connect the DVR Alert to your PC to playback or backup footage.

8.1 PC Viewer Program

1. Insert the CD into your CD-ROM Drive
2. Open CD directory
3. Double click on the “PCViewerInstall.exe” file to install the PC Viewer software
4. Run the installed PC Viewer program

PC Viewer will detect the hard drive installed in the DVR automatically when you connect the USB cable from DVR to PC.

8.2 Program buttons



Item	Remark
1. DVR event list	Open event list recorded in DVR
2. Capture picture	Save an image of current frame
3. Save video clip	Save DVR's video clip to PC in .mys/.avi file
5. Load video file saved in PC	Load .mys file saved in PC
6. DVR Mode*	To switch working mode between PC viewer mode and DVR viewer mode
7. PC Mode*	
8. Channel selection keys	CH1, CH2, CH3, CH4, QUAD
9. Playing scroll bar	Video progress
10. Fast backward	Play backward with fast speed
11. Previous frame	Move to previous frame
12. Play backward	Play backward with normal speed
13. Pause	Pause playing
14. Play	Play forward with normal speed
15. Next frame	Move to next frame
16. Fast forward	Play forward with fast speed
17. Volume scroll bar	Not available for this model
18. Exit	Exit PC Viewer

★ **DVR Mode: play video clips saved on DVR's HDD.**

★ **PC Mode: play video clips (.mys file) saved on PC**

8.3 PC Backup

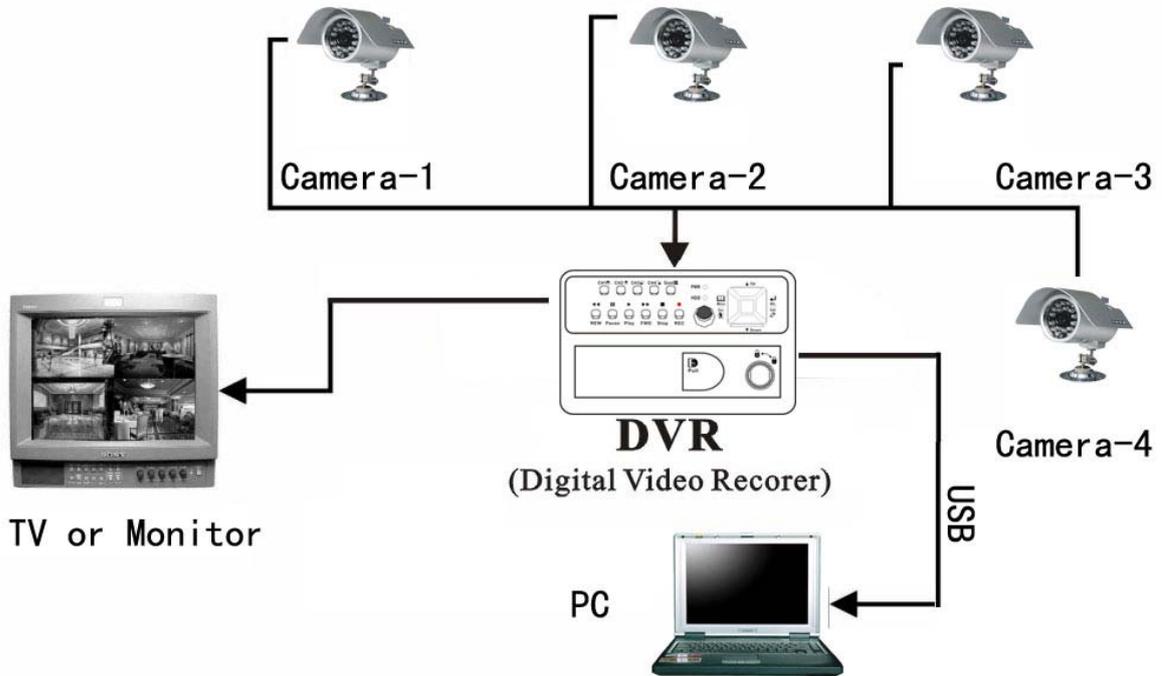
Press  button to open the DVR recorded event list and select an event. Press  to begin backup. Backup video files can be saved as “.avi” files or “.mys” files.

Chapter 9: Specifications

ITEM		DESCRIPTION	NOTE
Video Format		NTSC / PAL	
Operation System		None	Stand-alone
Camera Input Channel		4 channel Composite BNC	
Video Output Channel		1 channel Composite BNC	
Display Frame Rate	NTSC	120 frames/second	4×30 frames/second
	PAL	100 frames /second	4×25 frames/second
Recording Frame Rate	NTSC	Max.30 fps (Quad)	Quad Mode
	PAL	Max.25 fps (Quad)	Quad Mode
Recording Frame Rate (Each Mode)	NTSC	Each Channel = 30 fps ÷ Number of Cameras	Max. 30 frames/s (Total)
	PAL	Each Channel = 25 fps ÷ Number of Cameras	Max. 25 frames/s (Total)
Record Mode		Continuous, Time Schedule, Motion Triggered.	
Resolution	Display	NTSC: 720×480 PAL: 720×576	
	Record	NTSC: 320×112, 640×224 PAL : 320×136, 640×272	Quad: 640×224 (total) Each: 640×224
Video Compression Format		Motion-JPEG (12-20K bytes/frame)	Low : 12K Byte Normal: 15K Byte High : 20K Byte
HDD Support		Over 500G Byte	ATA -100 Interface
Estimated Record Length		120GB Hard drive @ 7 frames per second @ Normal Quality (120×1024×1024 Kbyte) ÷ (7×15×60×60) = 332 Hours	
USB		For PC playback & backup	USB 2.0
Remote Control		Included	
Search	Method	Time、Date、Event	
	Full Screen	YES	
Dimension (L × W × H)		250 × 235 × 38mm	

Chapter 10: Appendix

10.1 System Connection Diagram



10.2 DVR Accessories (included)



Power Cord

The shape of the plug might be different from different countries or regions.



Power Adaptor



User's Manual



Software CD



Remote Controller



USB Cable