Swann

DVR4-1150™
4CH Digital Video Recorder

SW242-2LP

User Manual

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- Motion Detection with Sensitivity and Area Settings
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- Remote Control

Chapter 2: Overview

2.1 Front Panel

IR Receiver

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

USB

1 BNC video output

4 BNC Video Inputs   **Power Supply Input**   **Fan**

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

Chapter3: Installation

3.1 Installing Hard Drive

1. Unplug the power supply. Don't install or uninstall HDD when DVR is on.

2. Remove the DVR cover carefully.

3. Connect the power cord and data cable to HDD.

4. Use the provided screws to fix hard drive on the rack, and then replace the cover.

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

Checking HDD ……

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

RECOVER HDD?
04811-101735
(SELECT)YES/(MENU)NO
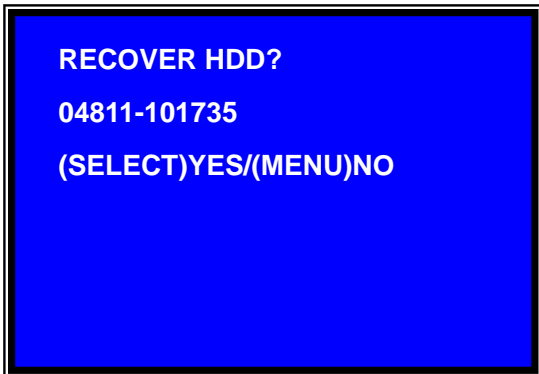
A power failure can cause data to be lost, however the DVR system will automatically recover lost data after power is reconnected.

4.3 Restore Recording Feature

Power Error Detected
Restore Hard Disk   OK
Restore REC Mode............OK

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

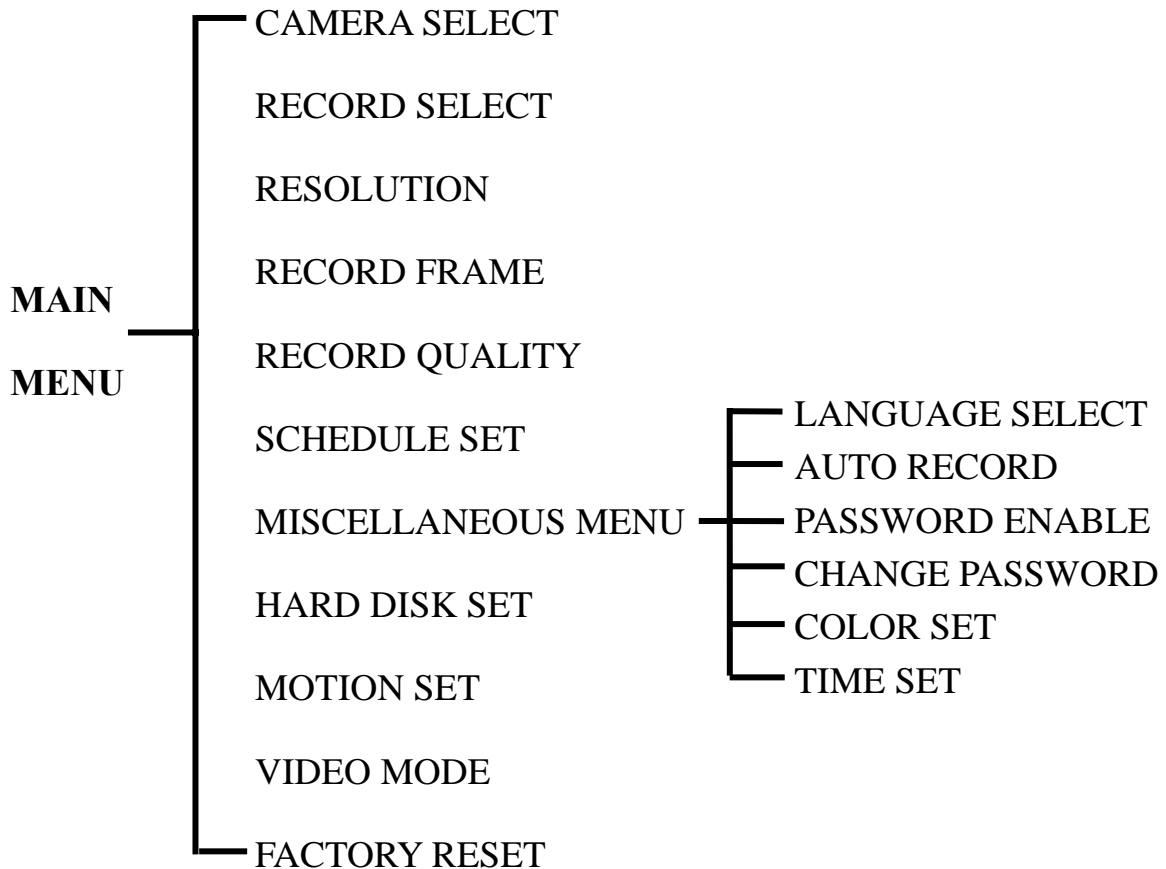**Middle:** Channel number (CH1 through CH4)

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

```
                    ┌── CAMERA SELECT
                    │
                    ├── RECORD SELECT
                    │
                    ├── RESOLUTION
                    │
                    ├── RECORD FRAME
                    │
MAIN                ├── RECORD QUALITY
                    │                                    ┌── LANGUAGE SELECT
MENU                ├── SCHEDULE SET                     ├── AUTO RECORD
                    │                                    ├── PASSWORD ENABLE
                    ├── MISCELLANEOUS MENU ──────────────┼── CHANGE PASSWORD
                    │                                    ├── COLOR SET
                    ├── HARD DISK SET                    └── TIME SET
                    │
                    ├── MOTION SET
                    │
                    ├── VIDEO MODE
                    │
                    └── FACTORY RESET
```

```
              MAIN MENU

   CAMERA SELECT         1 2 3 4
   RECORD SELECT         1 2 3 4
   RESOLUTION            EACH
   RECORD FRAME             25
   RECORD QUALITY        HIGH
   SCHEDULE SET
   MISCELLANEOUS MENU
   HARD DISK SET
   MOTION SET
   VIDEO MODE            PAL
   FACTORY RESET


   (UP,DOWN) MOVE (SELECT) CHANGE
      PRESS (MENU) TO EXIT
```

[📖**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

```
11%

     OFF           OFF


              1  2
              3  4
     OFF           OFF

              2008/08/08 08:08:08
```

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 lasts 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)
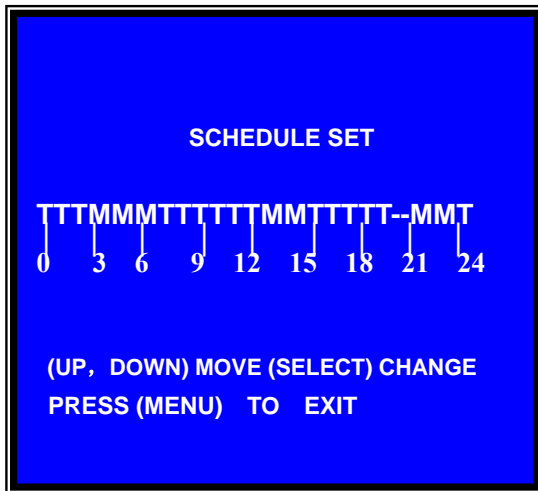
5.6 Record Quality

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.

SCHEDULE SET

TTTMMMTTTTTMMTTTTT--MMT
0   3   6   9   12   15   18   21   24

(UP，DOWN) MOVE (SELECT) CHANGE
PRESS (MENU)   TO   EXIT

"-" 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-Language Select

You can select the SEVEN different OSDs from English, Italian, French, German, Polish, Spanish to Portuguese.

5.9 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.

5.10 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.

5.11 Miscellaneous Menu- Change Password


```
CURRENT  PASSWORD  : - - - - - -
NEW        PASSWORD  : - - - - - -
CONFIRM  PASSWORD  : - - - - - -
```
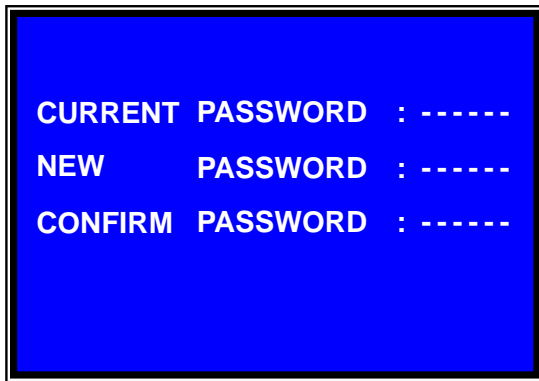
All keys can be used as password key **except** the [🖵**Menu**] key, which is used to exit.

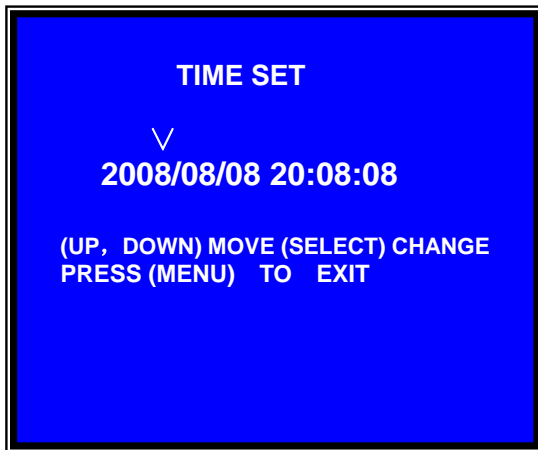If you forget your password, please *refer to 5.16 Factory Reset*.

5.12 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

5.13 Miscellaneous Menu-Time Set

```
        TIME SET

            ∨
    2008/08/08 20:08:08

 (UP，DOWN) MOVE (SELECT) CHANGE
 PRESS (MENU)  TO  EXIT
```

Configure system date and time:

[▲**Up**] and [▼**Down**]: move the cursor

[↵**SEL**]: modify the value

[📖**Menu**]: exit and save

5.14 Hard Disk Set

```
        HARD DISK SET

 OVERWRITE ENABLE    [YES]
 HDD SIZ              120042MB
 HDD USED        80865MB  77%
 HDD FORMAT



  (UP，DOWN) MOVE (SELECT) CHANGE
  PRESS (MENU)    TO   EXIT
```

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:

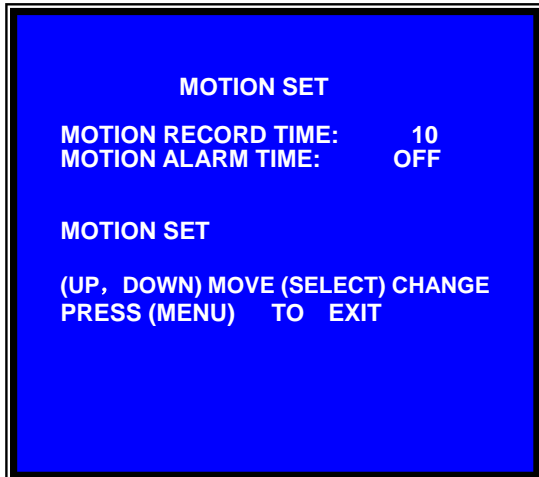Indicates the actual space used on the hard drive and the percentage of hard drive space used.

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.

5.15 Motion Set

```
              MOTION SET

MOTION RECORD TIME:        10
MOTION ALARM TIME:        OFF

MOTION SET

(UP，DOWN) MOVE (SELECT) CHANGE
PRESS (MENU)    TO   EXIT
```

MOTION SET:

```
       MOTION DETECTION SET
>CHANNEL  1  SENSITIVITY    4
 CHANNEL  2  SENSITIVITY    4
 CHANNEL  3  SENSITIVITY    4
 CHANNEL  4  SENSITIVITY    4

 CHANNEL  1  AREA  SET
 CHANNEL  2  AREA  SET
 CHANNEL  3  AREA  SET
 CHANNEL  4  AREA  SET

 (UP，DOWN) MOVE (SELECT) CHANGE
 PRESS (MENU)    TO   EXIT
```

MOTION RECORD TIME:

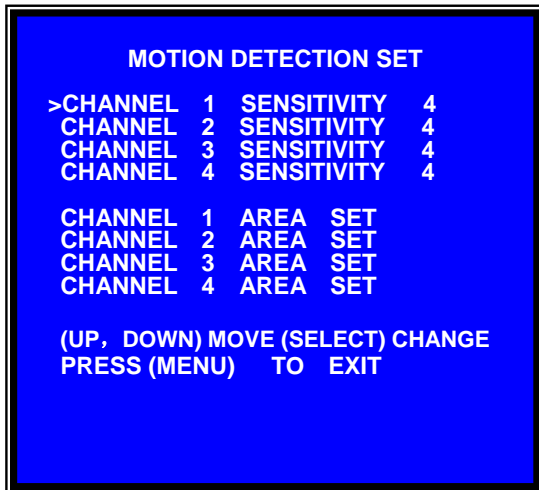This number indicates how many seconds the motion detection recording lasts after the DVR has detected motion.

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

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 16(4*4) 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.

5.16 Video Mode

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

5.17 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.

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, >>1, >>2, >>3, REW, PAUSE)

6. HDD Info. ([1] 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

Estimated record time based on a 160GB Hard Drive (Quad Mode) in hours:

You can calculate and estimate record hours by below formula:

160 (G Byte) × 1024 (M Byte) × 1024 (K Byte)
Divided by:
15 (Kbyte/frame) × 7 (frame/sec.) × 60 (sec.) x 60 (min.)

System	Quality	Frame Rate	30	15	7	1
NTSC	HIGH	20 K Bytes	78	156	333	2331
	NORMAL	15 K Bytes	104	208	444	3107
	LOW	12 K Bytes	130	259	555	3884

System	Quality	Frame Rate	25	12	6	1
PAL	HIGH	20 K Bytes	94	195	389	2331
	NORMAL	15 K Bytes	125	259	518	3107
	LOW	12 K Bytes	156	324	648	3884

Estimated time would be 444 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

2008 /0 1 / 0 8   08 : 30 : 3 2   ---   2008/0 1 / 0 8   16 : 00 : 05

Search Date and Time

Chapter 8: USB Programming

Using the provided DVR PC Viewer software, you can connect the DVR 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
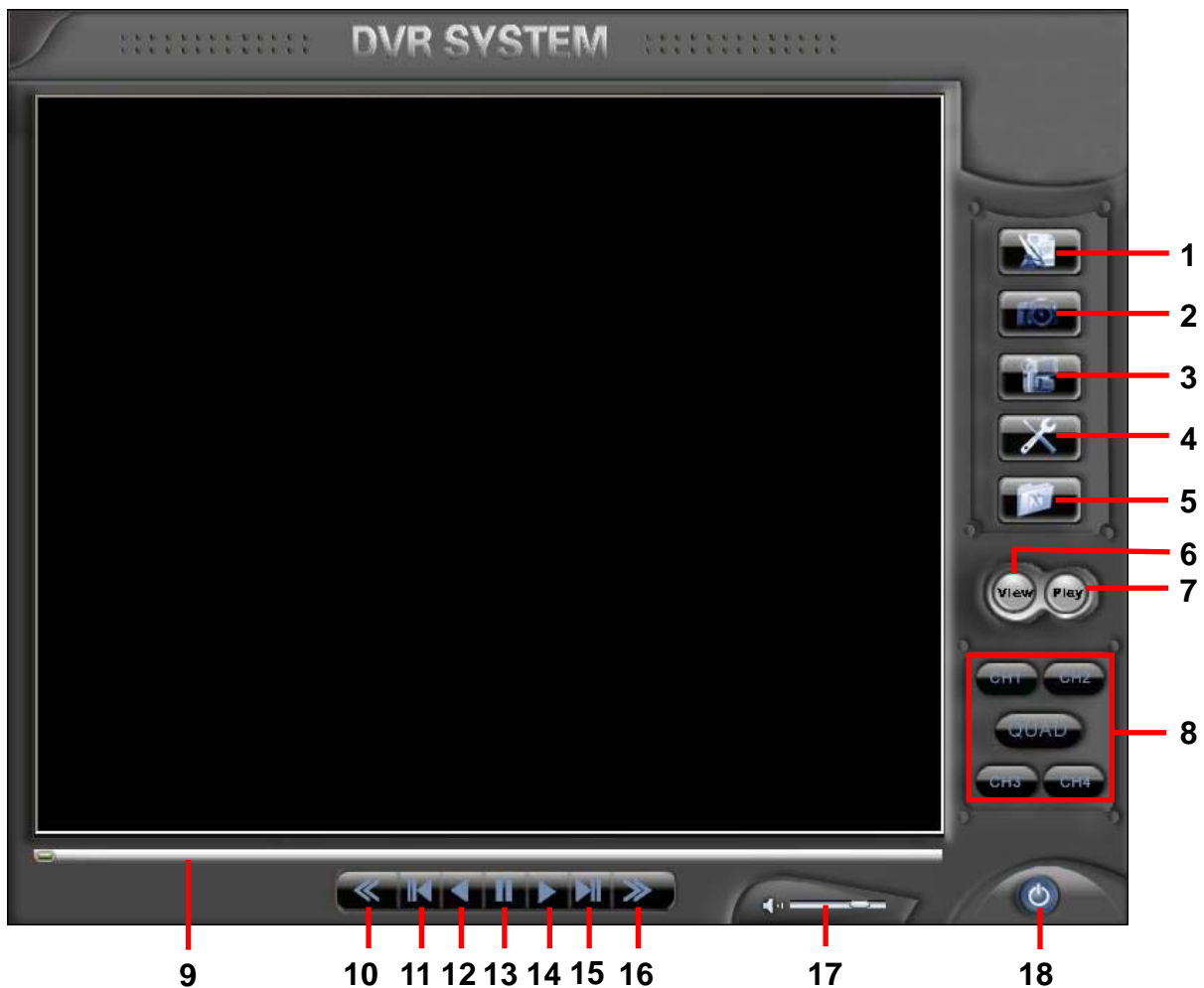
Item	Remark
1. DVR event list	Open event list recorded in DVR
2. Capture picture	Save an image of current frame
3. Save video clip	Save DVR's video clip to PC in .mys/.avi file
5. Load video file saved in PC	Load .mys file saved in PC
6. DVR Mode*	To switch working mode between PC viewer mode and DVR 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.**

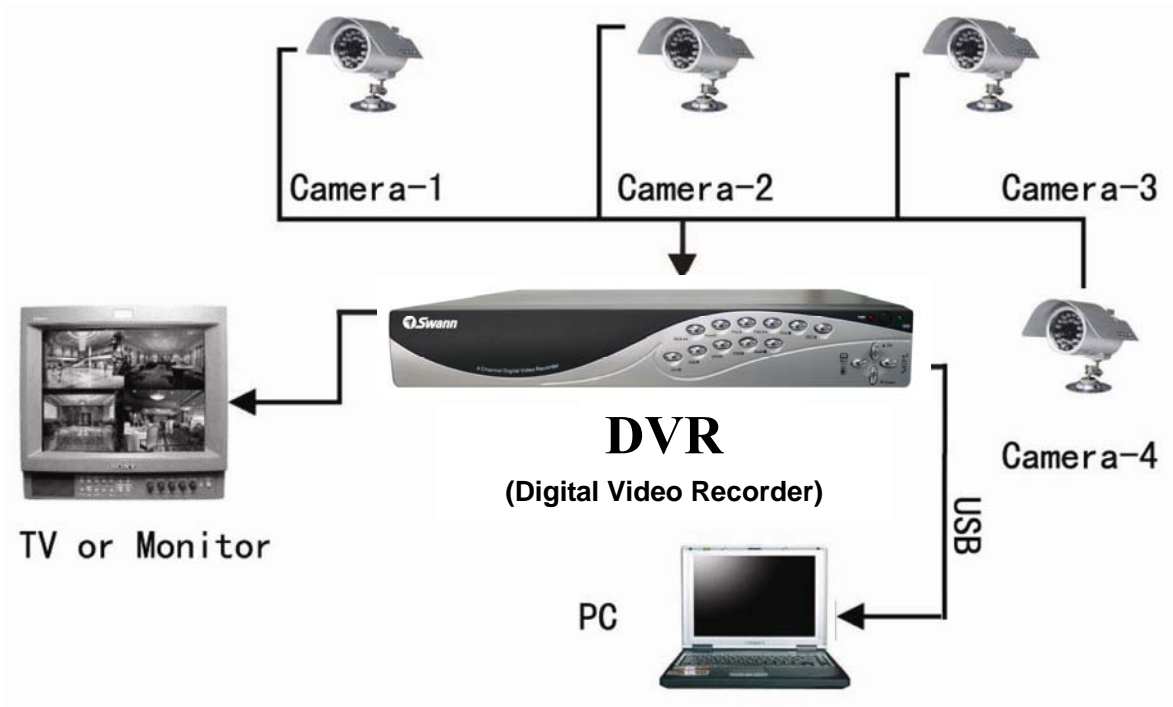✦ **PC Mode: play video clips (.mys file) saved on PC**

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 400G Byte	
Estimated Record Length			160GB Hard drive @ 7 frames per second @ Normal Quality (160×1024×1024 Kbyte) ÷ (7×15×60×60) = 444 Hours	
USB			For PC playback & backup	USB 2.0
Remote Control			Included	
Search	Method		Time、Date、Event	
	Full Screen		YES	
Dimension (L × W × H)			9.84″×9.05″×1.57″ (250㎜×230㎜×40㎜)	

Chapter 10: Appendix

10.1 System Connection Diagram

Camera-1

Camera-2

Camera-3

Camera-4

DVR
(Digital Video Recorder)

TV or Monitor

USB

PC

10.2 DVR Accessories (included)

Power Cord

Design may vary depending
On country

Power Adaptor

User Manual

Software CD

Remote Controller

USB Cable

WARRANTY INFORMATION

Swann Communications warrants this product against defects in workmanship and material for a period of one (1) year from its original purchase date. You must present your receipt as proof of date of purchase for warranty validation. Any unit which proves defective during the stated period will be repaired without charge for parts or labour, or replaced at the sole discretion of Swann. The repair or replacement will be warranted for either ninety days or the remainder of the original one year warranty period, whichever is longer. The end user is responsible for all freight charges incurred to send the product to Swann's repair centres. The end user is responsible for all shipping costs incurred when shipping from and to any country other than the country of origin. The warranty does not cover any incidental, accidental or consequential damages arising from the use of, or the inability to use this product. Any costs associated with the fitting or removal of this product by a tradesman or other person, or any other costs associated with its use are the responsibility of the end user. This warranty applies to the original purchaser of the product only, and is not transferable to any third party.

Unauthorised end user or third part modifications to any component or evidence of misuse or abuse of the device will render all warranties void.

FCC Notice

We, Swann Communications of 10612 Shoemaker Avenue, Bldg B, Santa Fe Springs, CA 90670 USA, declare under our sole responsibility that the product:

SW242-2LP

To which this declaration relates:

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.