

Dear Customer!

By selecting this VC product you have chosen a professional device, which guarantees highest possible quality and reliability.

Please read the following instructions carefully before commissioning the product in order to be able to take full advantage of all quality features regarding this product line.

Digital Video Recorder

Art. no. 13145

Art. no. 13146

Art. no. 13147

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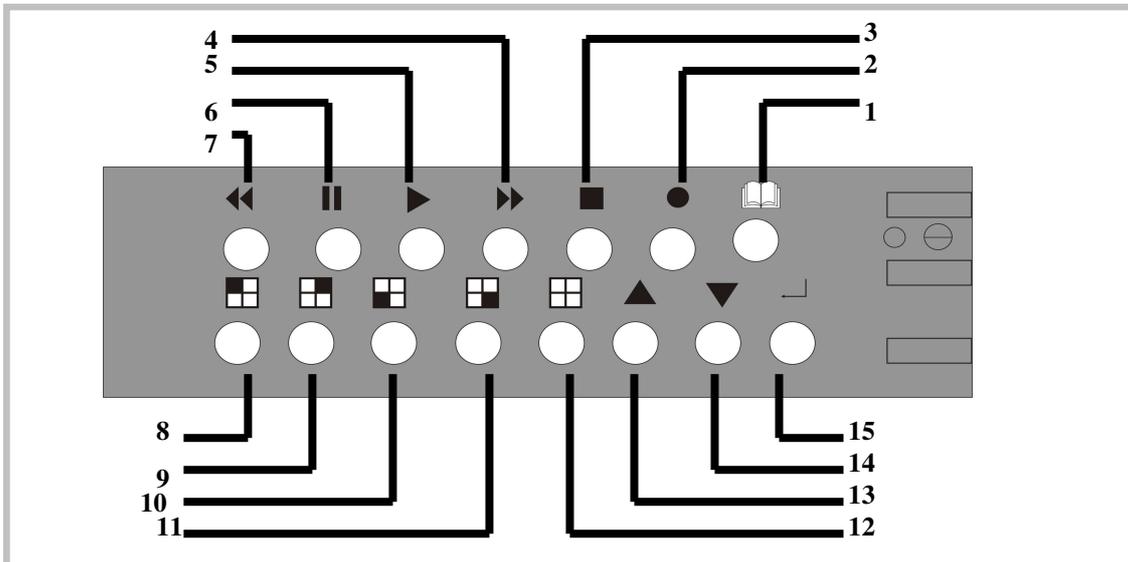
Introduction to Digital Video Recorder (DVR)

The digital video recorder (DVR) is for recording/retrieving video streams from up to 4 channels at the same time. It adopts a digital image compression technology to compress the input channel video streams, and uses HDD to record the compressed video stream.

The following operation guide explains how to operate/manage the DVR, and the following installation guide explains how to install DVR at your home or HDD into the DVR.

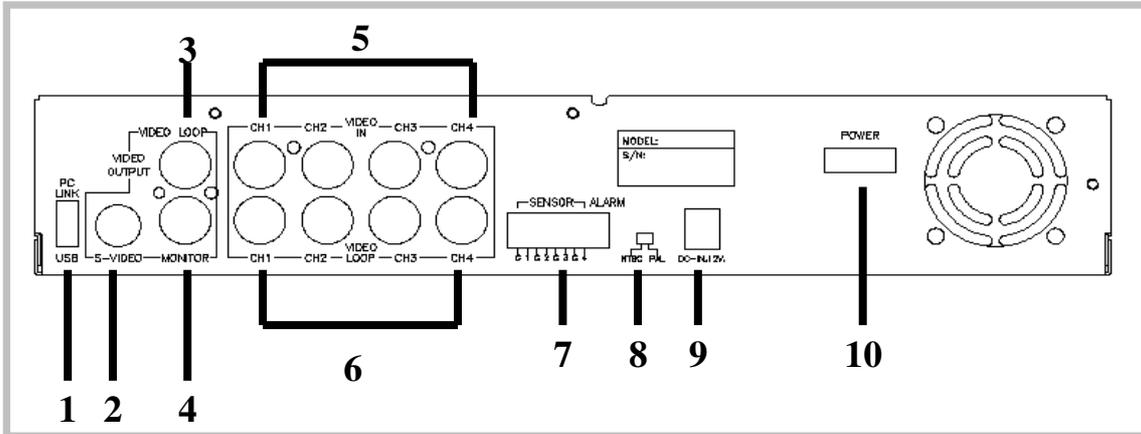
Hope you enjoy it, use it to protect your home, and eventually make your home as SAFE HOME.

Front Panel



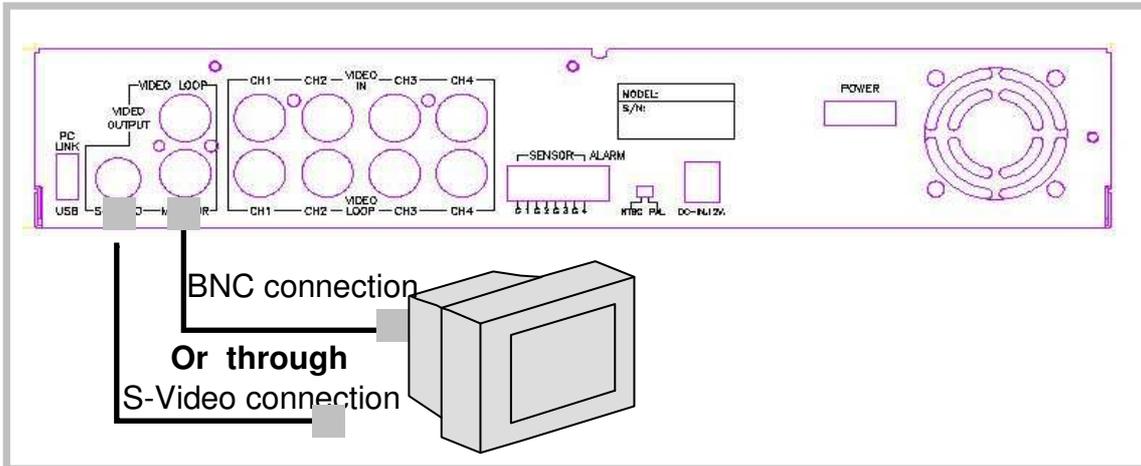
1. & (Menu) button: press to display Operation menu option
2. ●(Recording button): press to start recording.
3. ■ (Stop recording/playback button):press stop recording/playback (the authorized password is requested upon stopping record; the default password is 111111)
4. ►►(Fast forward button): press to play the recorded stream faster.
5. ► (Playback button): press to start playback
6. || (Pause button): press to pause the video playback
7. ◀◀Reverse:press to playback backward
8. ▣Channel 1 button: press to select channel 1
9. ▣Channel 2 button: press to select channel 2
10. ▣Channel 3 button: press to select channel 3
11. ▣Channel 4 button: press to select channel 4
12. ▣ All channels button: press to select all channels display
- 13,14. ▲ ▼ up down buttons: press to change menu field
15. ←(Select) button: press to change the setting value or enter into a sub menu

Rear Panel



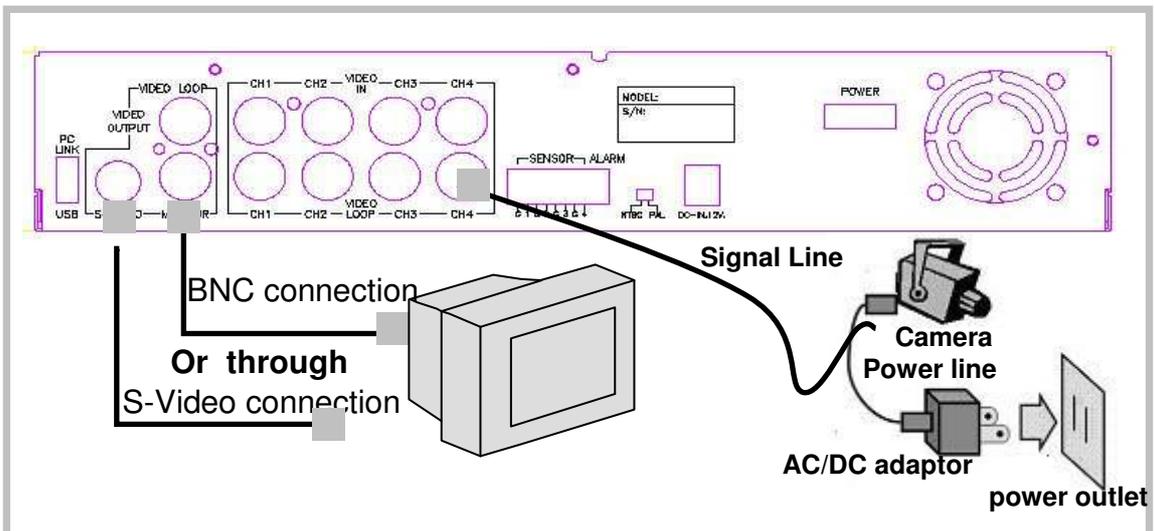
1. PC Link : USB device interface (2.0)
2. S Video
3. Video output
4. Monitor : Second Video output
5. Video loop-through
6. Video input
7. Sensor input/alarm output: 4 sensor inputs and one alarm output
8. NTSC/PAL switch
9. DC-in (12Voltage)
10. Power switch

DVR Installation



1.Video input connection (TV or monitor)

Please connect TV(monitor) to the unit over the Video output connector. The unit provides 1 x S-Video input and 2 x BNC connector. The above Figure shows the video signal line connection.



DVR Installation

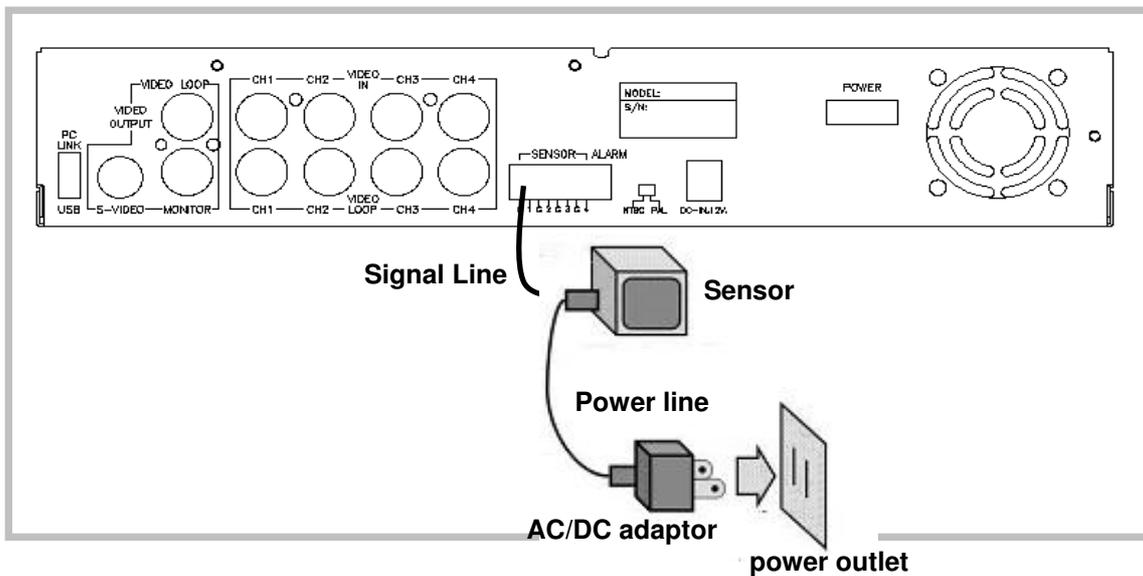
2. Video output connection (Camera)

Please connect Camera to the unit over the Video input connector.

The unit provides 4 x BNC connectors. The camera installation

Procedures are as following:

- i. Connect the video signal line: connect the video signal line to the unit
- ii. Connect camera power line: Connect camera's adaptor to camera, and plug in the adaptor. The complete connection with a camera will be shown as figure below



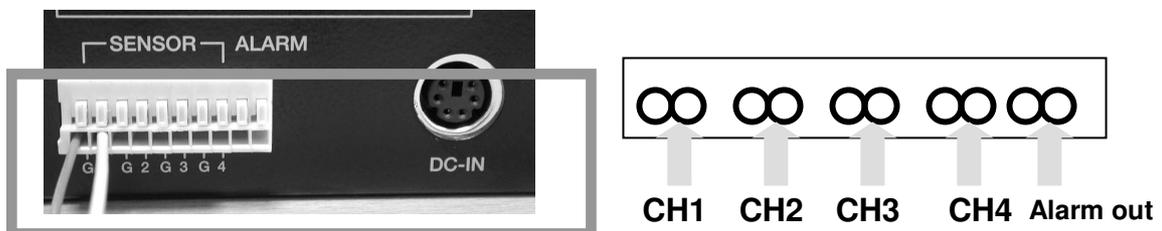
3. Sensor Installation

The unit provides 4 sensor input for 4 channels. The sensor

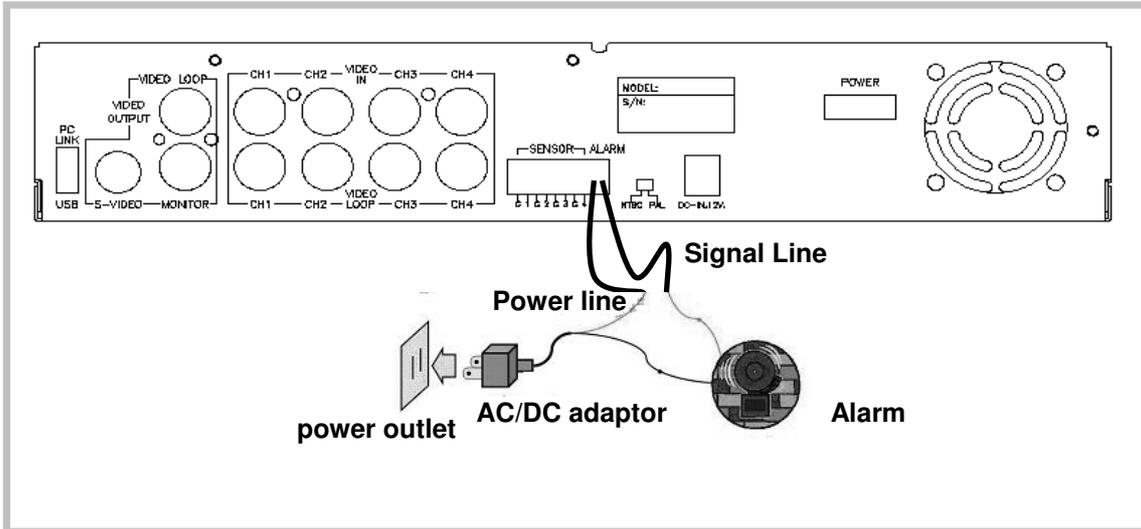
Installation procedures are as follows. There are two simple steps

For the installation of the sensors.

- i. Connect the sensor signal line: Connect the video signal line to the unit. The Sensor signal terminal is at the unit's back panel
- ii. Connect the sensor adaptor jack into the sensor, and plug in the adaptor.



DVR Installation

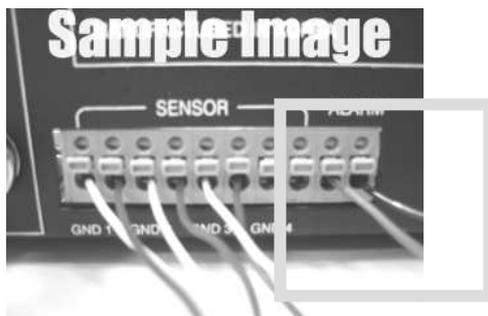


4. Alarm installation

The unit provides 1 internal switch for sounding alarm when the sensor is Activated due to the unwanted entrance of anonymous visitor. The switch is open at normal state, but, when the alarm is activated, the switch is closed So that the alarm gets the power. The circuitry is shown as above figure.

There are two simple steps for the installation of the alarm

- i. Prepare the power supply:the alarm needs a power supply, the power supply comes with the alarm
- ii.Connect the alarm power line:the alarm power line is connected to the alarm switch terminal.



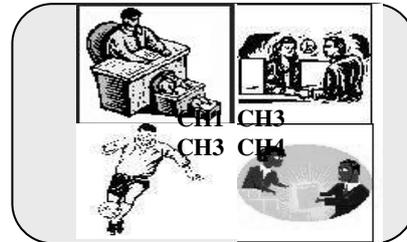
Power up the unit

After the unit is properly installed (please refer to Page 15-17 for more detailed on DVR installation.), the unit is ready to record and play. Then apply power and switch on.

After the unit is powered on, the unit is checking HDD for several seconds, the information will be displayed on the screen as right:

HDD CHECKING
OK

The unit will enter into real-time display mode shown as the right figure:



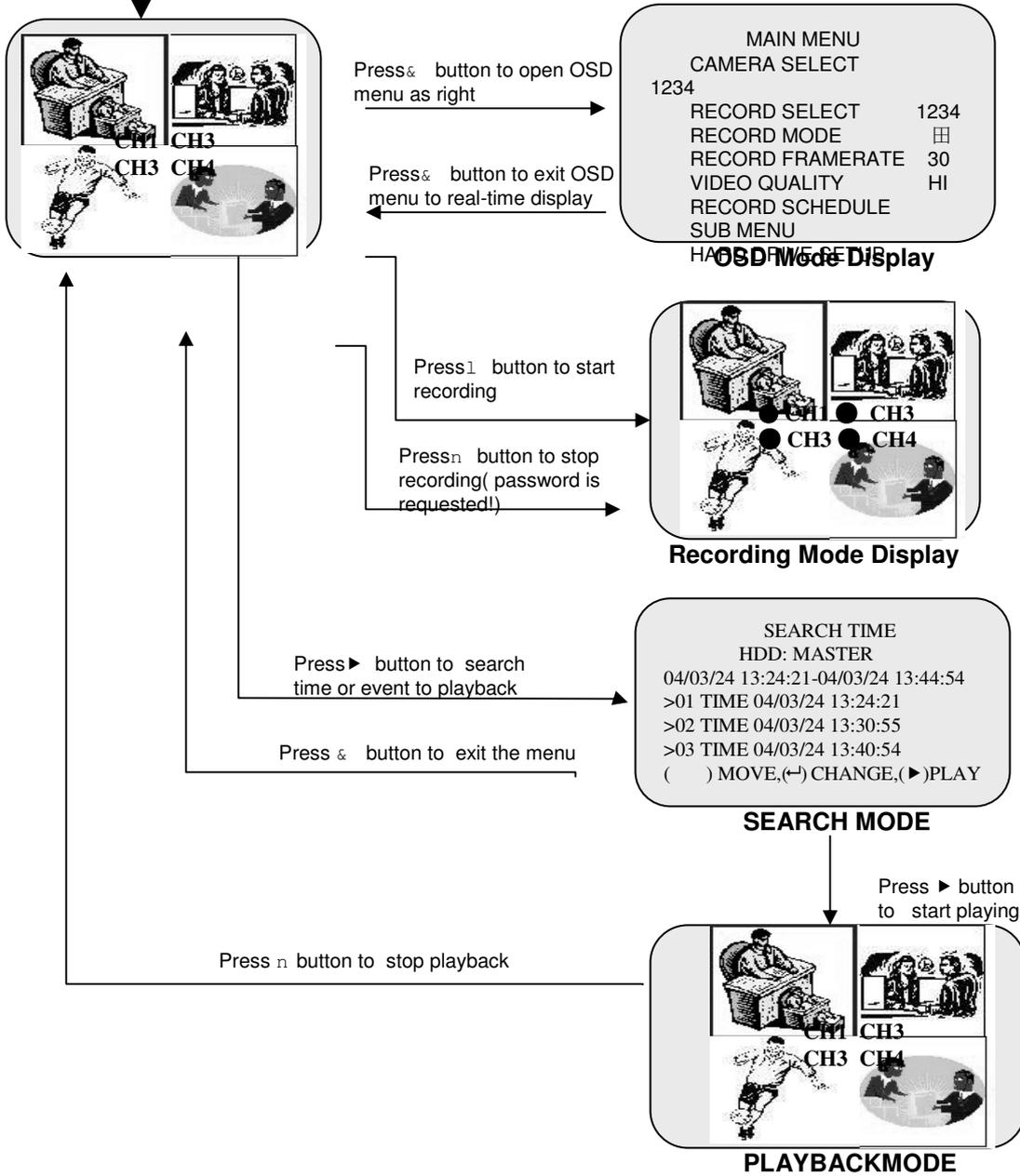
NOTICE

Once you resume the initial setting, the right information will be displayed on the screen. Then turn off the unit and re-power on it.

Turn off and on the DVR!

On-Screen Display

1. Power on the system



Operation guide

MAIN MENU

Press & to display menu option shown as right figure.

```
MAIN MENU
CAMERA SELECT
1234
RECORD SELECT      1234
RECORD MODE        HI
RECORD FRAMERATE   30
VIDEO QUALITY      HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
```

Operation Buttons

& --- press to display menu option.
▲▼--- press to change menu field or change the unit's configuration values.
↵ --- press to select menu item or confirm the selection.

Please stop recording or playback before you enter into OSD menu.
You will be requested to enter password, while stopping recording.

CAMERA SELECT

```
MAIN MENU
CAMERA SELECT      1234
RECORD SELECT      1234
RECORD MODE        HI
RECORD FRAMERATE   30
VIDEO QUALITY      HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
```

The unit provides 4 camera inputs.
You can use channel buttons on the front panel to select specified channel for real-time display.

You can use “↵” button or channel buttons for different combinations for channel display.

Example:

1. When you choose (---), all cameras are off
2. When you choose (1234), all cameras are displayed.
3. When you choose (---4), only the fourth channel is displayed.

NOTICE

VIDEO LOSS !

“VIDEO LOSS” signal will be displayed, and the built-in alarm buzzer will be triggered to sound, while no video connection or connection failure.

NOTICE

Channel Display Control

In each mode(回) mode, you can use the following buttons to display Full-screen format of each channel.

-  Channel 1 button: Full screen display of channel 1
-  Channel 2 button: Full screen display of channel 2
-  Channel 3 button: Full screen display of channel 3
-  Channel 4 button: Full screen display of channel 4

RECORD SELECT

```

MAIN MENU
CAMERA SELECT 1234
RECORD SELECT 1234
RECORD MODE   回
RECORD FRAMERATE 30
VIDEO QUALITY HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
    
```

Selecting channel on this menu option is same as “CAMERA SELECT” options.
Only selected camera will record real-time events during recording period

RECORD MODE

```

MAIN MENU
CAMERA SELECT 1234
RECORD SELECT 1234
RECORD MODE   回
RECORD FRAMERATE 30
VIDEO QUALITY HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
    
```

The unit provides 4 camera inputs. You can use channel buttons on the front panel to select specified channel for real-time display.

```

MAIN MENU
CAMERA SELECT 1234
RECORD SELECT 1234
RECORD MODE   田
RECORD FRAMERATE 30
VIDEO QUALITY HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
    
```

There are two kinds of recording mode : 回(each mode; full screen mode)&田 (quad screen mode). when you set to 回mode, you can view the full-screen display of one specified channel. When you set to 田 mode, quad-screen will be displayed. Please use buttons of front panel to select mode and then enter ↵ to confirm the selection

RECORD FRAMRATE

```

MAIN MENU
CAMERA SELECT 1234
RECORD SELECT 1234
RECORD MODE   田
RECORD FRAMERATE 30
VIDEO QUALITY HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
    
```

There are 9 different frame rate settings for operation: (30fps,15fps,10fps,7fps,5fps,4fps,3fps,2fps,1fps; But the unit is set to 30fps in the factory)

Please use buttons of front panel to select mode and then enter ↵ to confirm the selection

NOTICE

RECORDING FRAME RATE TABLE

The higher the record frame rate is, the more natural look will be displayed on the screen on playback mode.

But the lower the record frame rate is, the more you can save the space on HDD.

The following is the recording fps table for your reference

Frame/Second		1	2	3	4	5	7	10	15	30
回 MODE	CH1	1	2	3	4	5	7	10	15	30
	CH2	0.5	1	1.5	2	2.5	3.5	5	7.5	7.5
	CH3	0.33	0.67	1	1.33	1.7	2.33	3.33	5	10
	CH4	0.25	0.5	0.75	1	1.25	1.75	2.5	3.75	7.5
田MODE		1	2	3	4	5	7	10	15	30

VIDEO QUALITY

```

MAIN MENU
CAMERA SELECT 1234
RECORD SELECT 1234
RECORD MODE    田
RECORD FRAMERATE 30
VIDEO QUALITY  HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
    
```

There are 3 different video quality settings for operation: Normal, Low, High

Please use buttons of front panel to select mode and then enter ↵ to confirm the selection

NOTICE

DIFFERENT VIDEO QUALITY SETTINGS ON HDD CAPACITY

The higher the video quality is, the clearer images the unit plays.

But the lower the video quality is, the more you can save the space on HDD.

The following is the recording time vs video quality settings table for your reference

Frame/Second		1	2	3	4	5	7	10	15	30
田 MODE	HI	733 H	366 H	244 H	183 H	146 H	104 H	73H	48H	25H
	NORMAL	992 H	496 H	331 H	248 H	198 H	141 H	99H	66H	33H
	LO	115 3H	576 H	384 H	288 H	230 H	153 H	115 H	76H	39H
田 MODE	HI	556 H	279 H	185 H	139 H	111 H	80H	56H	37H	19H
	NORMAL	763 H	382 H	255 H	190 H	152 H	110 H	76H	51H	25H
	LO	877 H	438 H	292 H	220 H	175 H	125 H	88H	58H	29H

RECORD SCHEDULE

MAIN MENU
 CAMERA SELECT 1234
 RECORD SELECT 1234
 RECORD MODE 田
 RECORD FRAMERATE 30
 VIDEO QUALITY HI
 RECORD SCHEDULE
 SUB MENU
 HARD DRIVE SETUP
 SENSOR SETUP

Enter into this option to change a recording schedule during a day (24-hour period) .

PROGRAMMED RECORD
 + T T T S S T T T T T T T T T +
 0 3 6 9 12 15 18 21 24

Numbers above indicate the time duration of 24 hours.

(T) Letter indicates recording.
 (S) Letter indicates sensor recording. It means the unit starts recording as the attached sensors being triggered during this period.
 (-) Recording is off during this duration.

PRESS (), THEN (←)
 PRESS(&) TO EXIT

SETTING EXAMPLE:

0:00 ~ 7:00 SENSOR RECORDING
 7:00 ~11:00 RECORDING DISABLED
 11:00 ~18:00 RECORDING
 18:00 ~24:00 SENSOR RECORDING

+ S S S S S S - - - - T T T T T T T S S S S S S +
 : : : : :
 0 6 11 18 24

NOTICE

SENSOR RECORDING INSTALLATION

The unit provides 4 alarm inputs which can be configured as normal close, normal open, motion detection +NC and motion detection+NO over "SENSOR SETUP" menu option. (Please refer to P. 18 for the sensor setup). After the sensor configuration, please go back to " RECORD SCHEDULE" menu to enable sensor recording.

Operation guide

SUB MENU

SUB MENU
PASSWORD CHANGE
TIME SET
DATE DISPLAY FORMAT
LINK TO PC

PRESS (), THEN (←)
PRESS(&) TO EXIT

Enter into this option to change password, time /date setting, date format and enable the connection between the unit and PC over USB interface.

PASSWORD CHANGE
CURRENT PASSWORD: -----
NEW PASSWORD:-----
PASSWORD CONFIRM:-----

PRESS (), THEN (←)
PRESS(&) TO EXIT

PASSWORD CHANGE .

You enter into "PASSWORD CHANGE", a password change input menu replaces the "SUB MENU" (The default password is 111111)

When the new password is accepted, the board will flash the following screen message:

PASSWORD changed!!!

The message will blink 5 times. Then the display goes back to SUB MENU.

If the password was not accepted, the unit will automatically return to SUB MENU.

NOTICE

FRONT PANEL BUTTONS DEFINITION

	means "1"		means "5"
	means "2"		means "6"
	means "3"		means "7"
	means "4"		means "8"
			means "9"
			means "0"

Operation guide

TIME SET

TIME
2004/03/21 03:23:21

PRESS (), THEN (←)
PRESS(&) TO EXIT

Enter into this option to change date and hour.

DATE DISPLAY FORMAT

DATE DISPLAY FORMAT

PRESS (), THEN (←)
PRESS(&) TO EXIT

The unit provides yyyy/mm/dd or dd/mm/yyyy variant which depends on the regional preference.

LINK TO PC

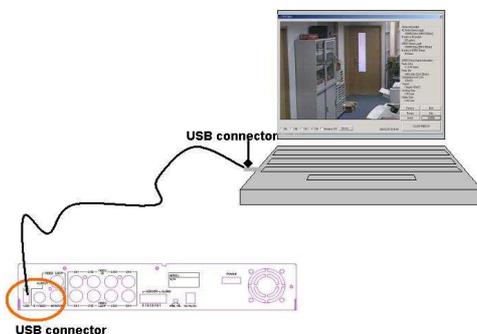
Display will be off in 10 sec.
Control transferred to PC!

After the confirmation on the selection of "LINK TO PC", the following information as the left figure will appear on the screen" Display will be off in 10sec. Control transferred to PC!"

How to link to PC

1. Please connect the unit to PC over USB interface.
2. Install the PC viewer application into your PC.
3. After the installation, you can easily access to the recorded data over PC

REMARKS: Please refer to Page.21 for the PC viewer installation and operation guide.



HDD SETUP

HARD DRIVE SETUP
OVERWRITE ENABLED YES
MASTER HDD SIZE 40000MB
MASTER HDD USED 0MB 0%
MASTER HDD FORMAT
SLAVE HDD SIZE

PRESS (), THEN (←)
PRESS(&) TO EXIT

OVERWRITE ENABLED:

If you choose "YES", the unit will continue recording and overwrite the recorded data when HDD's space is full

If you choose "NO", the unit will stop recording while HDD's space is full

MASTER HDD SIZE:

It indicates the capacity of the primary HDD installed in the unit

MASTER HDD USED:

It indicates how percentage of HDD's capacity has been occupied.

MASTER HDD FORMAT:

It erases all of the recorded data in Master HDD

The authorized password is requested before formatting, after the unit formatted, the following information will appear on the screen "HARD DISK FORMATTED".

REMARKS: The unit is featured with one HDD only for the time being!

SENSOR SETUP

SENSOR SETUP
SENSOR RECORD TIME 15
ALARM OUT TIME 20
CHANNEL-1 TYPE:MOTION + N-C
CHANNEL-2 TYPE:MOTION + N-O
CHANNEL-3 TYPE:NORMAL
CLOSE
CHANNEL-4 TYPE:NOT
INSTALLED
PRESS (), THEN (←)
PRESS(&) TO EXIT

SENSOR RECORD TIME:
Recording duration once sensor
Being triggered.

ALARM OUT TIME:
It controls how long (in second)
the alarm sounds after being triggered.

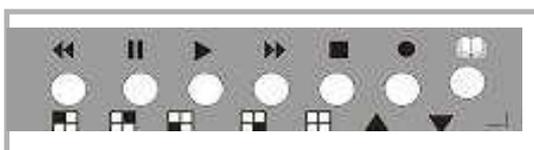
SENSOR TRIGGER MODES:
The unit provides 5 different modes for
variant uses:
1.Not installed. 2. Normal open.
3. Normal close. 4. Motion +N-C
5. Motion + N-O

In normal open mode, the cable line
Connected between the sensor and
the unit is cut off by an intruder, the unit
starts recording.

In normal close mode, the cable line
connected between the sensor and the
Unit is cut off by an intruder , the unit
stops recording

Operation guide

PLAYBACK



Please use the front panel buttons to operate various playback functions.

SEARCH TIME
HDD: MASTER
04/03/24 13:24:21-04/03/24 13:44:54
>01 TIME 04/03/24 13:24:21
>02 TIME 04/03/24 13:30:55
>03 TIME 04/03/24 13:40:54

() MOVE,(←) CHANGE,(▶)PLAY

Press “▶” button, then the playback time /events selection menu as the left figure appears on the screen. Or you can simply press “▶” twice to directly start playing.

You can either enter the specified time/date to playback or select the event or even view the playback over PC (you can refer to page.13)

NOTICE

1. Please stop recording before playback.

2. Because the events selection is default setting, so you need to press “▶▶” button to switch to time selection.

CONTROL BUTTONS

1. ▶▶ (fast forward button):

Press this button to play the recorded stream faster.

The unit provides three levels of fast forward playback speed:

- ▶▶1: play one time faster (x1), press “▶▶” button
- ▶▶2: play two times faster (x2) than the normal play
- ▶▶3: play four times faster (x4) than the normal play
- ▶▶4: play thirty-two times faster (x32) than the normal play
- ▶▶5: play sixty-four times faster (x64) than the normal play

2. ◀◀ (reverse button):

Press this button to play the recorded stream backward.

Remarks: the reverse playback speed depends on the fps, the number of the recorded channel, the video quality.

3. || (pause button) :

Press this button to pause the playback, or to advance one single frame upon pause mode.

Regulatory

FCC Certification

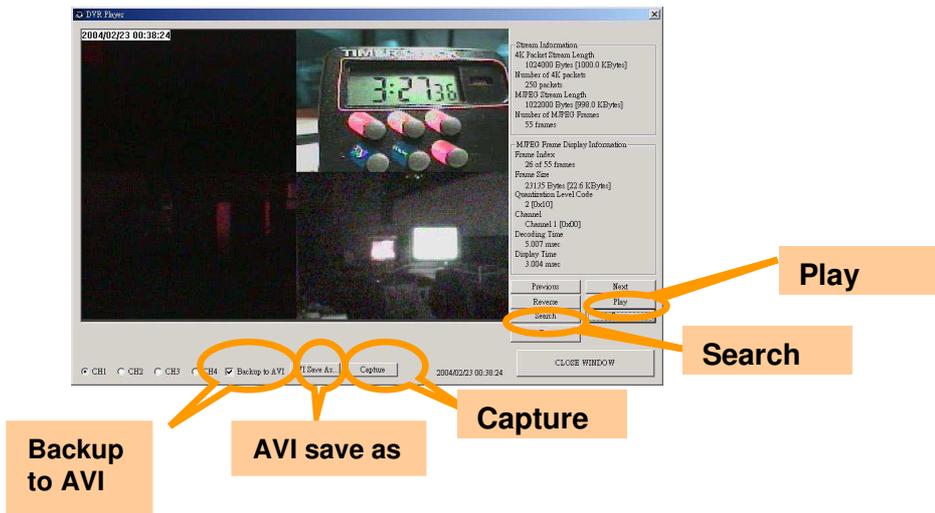
This equipment has been tested and found to comply with the limits for a class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the own expense.

CE Mark

This product is marked with the CE symbol and indicates compliance with all applicable directives.

Appendix II.

PC Viewer

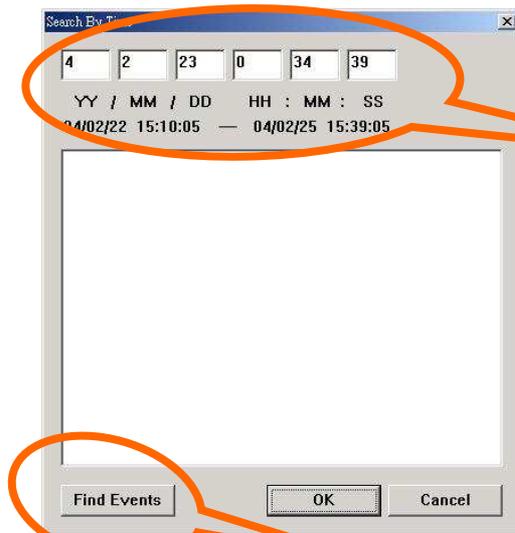


Please follow the steps below to complete the installation of pc viewer:

1. Please power off DVR system, open the upper cover and carefully take HDD out of the case (please mind the connection with Flat cable and power cord)
2. Install the HDD into your PC (Please make sure the exact jumper setting beforehand!)
3. Please install Panacom's PC viewer software into your PC (*This software currently supports Windows2000 and Windows XP!*) and enter into the software, then you will see the following dialog box (shown as figure 1) appears on the screen.
(The software can't be activated until the HDD is connected to PC!!!)
4. a. Search button : click to open the submenu for selecting data to playback
Play button: a. directly click to start the first beginning of the data
b. Click to start the playback after data-search
c. AVI save As: click to create a new file to save AVI file in PC
d. Backup to AVI button: click to start to convert the data into AVI file
e. Capture button: click to snapshot the data as JPEG file.

PC Viewer

1. Click on “Search” key to retrieve the desired video to view through entering the time/date or selecting event, then you will see the dialog box as below.



Enter the date/time to retrieve the data you want to view

Click on this button and have a list of events will show up for your selection.

b. Please click on “Play” button to start the playback after your confirmation on the retrieval. (*This is a must step to initially activate the playback!!!*)

6. Click on “ AVI save as” button to convert the desirable data into AVI file, then you will see the following dialog box for saving the AVI file. After specifying the file name and confirmation, please click on “ Backup to AVI” to start the conversion.



HDD INSTALLATION



STEP 1. REMOVE THE 3 SREWS AS FOLLOWINGS FROM THE REAR SITE AND OPEN THE UPPER COVER



SCREW 1



SCREW 2



SCREW 3



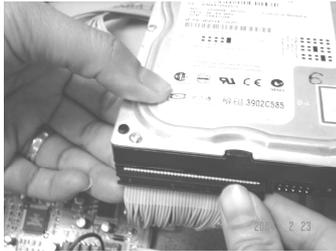
JUST DRAW THE COVER OUT



STEP 2: EASILY PUT HDD INTO THE RACK

NOTE: PLEASE MAKE SURE THE JUMPER SETTING BEFORE CONFIGURATION !!!

STEP 3: CONNECT THE FLAT CABLE AND POWER CORD TO HDD



FLAT CABLE'S CONNECTION



POWER CORD'S CONNECTION



HDD'S PLACEMENT FINISHED!!



VC Videocomponents GmbH
Brachenfelder Str. 45
D-24534 Neumünster
Tel.: ++ 49 (0) 4321 - 39 05 40
Fax: ++ 49 (0) 4321 - 28 04 82
e-mail: mail@vcvideo.de
Internet: www.vcvideo.de

Service
Tel.: ++ 49 (0) 4321 - 3 90 54 33
e-mail: technik@vcvideo.de

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