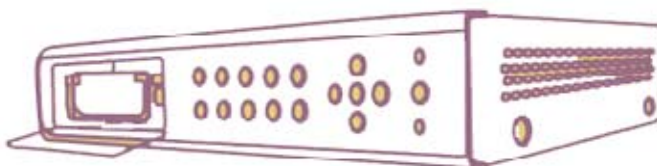


Digital Video Recorder



16CH LAN/USB MODEL

www.acornfiresecurity.com

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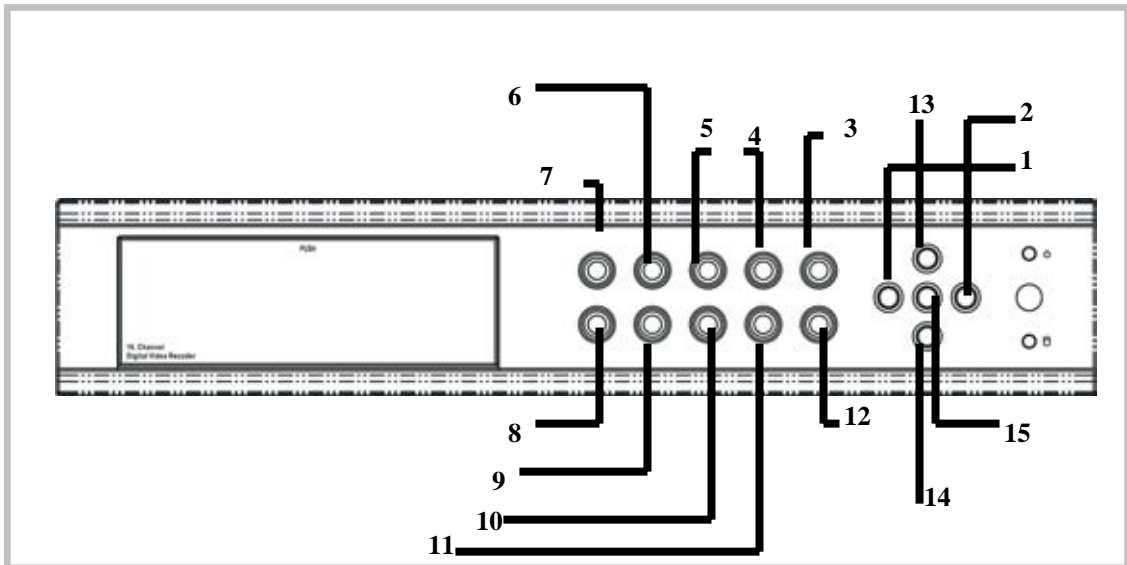
Introduction to Digital Video Recorder (DVR)

The digital video recorder (DVR) is for recording/retrieving video streams from up to 16 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.

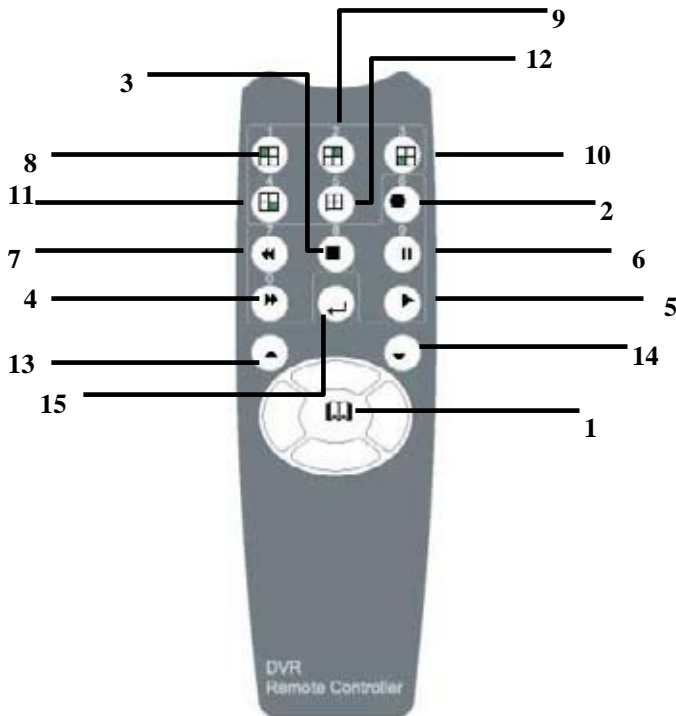
Hope you enjoy it, use it to protect your home, and eventually make your home as SAFE HOME.

Front Panel



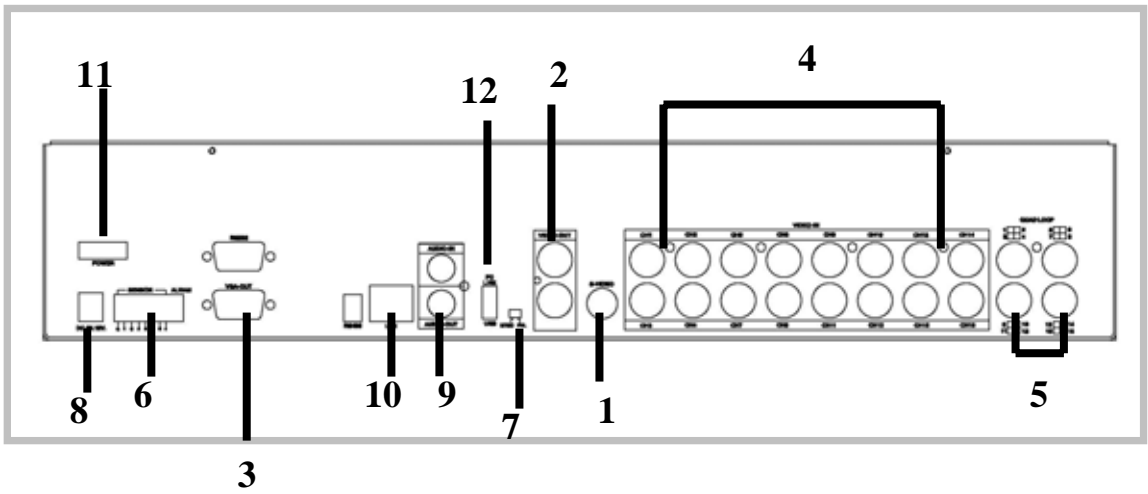
1. (Menu) button: press to display Operation menu option
2. (Recording button): press to start recording.
3. (Stop recording/playback button): press stop recording/playback (the authorized password is requested upon stopping record; the default password is 111111)
4. (Fast forward button): press to play 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. Group 1 button: press to select group 1
9. Group 2 button: press to select group 2
10. Group 3 button: press to select group 3
11. Group 4 button: press to select group 4
12. All groups button: press to select all groups 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

Remote IR Controller

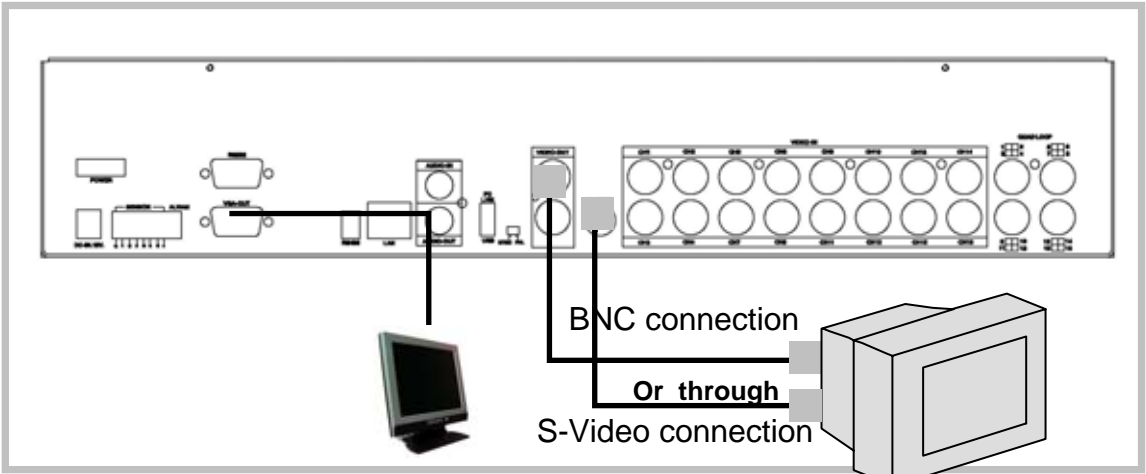


1. (Menu) button: press to display Operation menu option
2. (Recording button): press to start recording.
3. (Stop recording/playback button): press stop recording/playback (the authorized password is requested upon stopping record; the default password is 111111)
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10. Group 3 button: press to select group 3
11. Group 4 button: press to select group 4
12. All groups button: press to select all groups 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



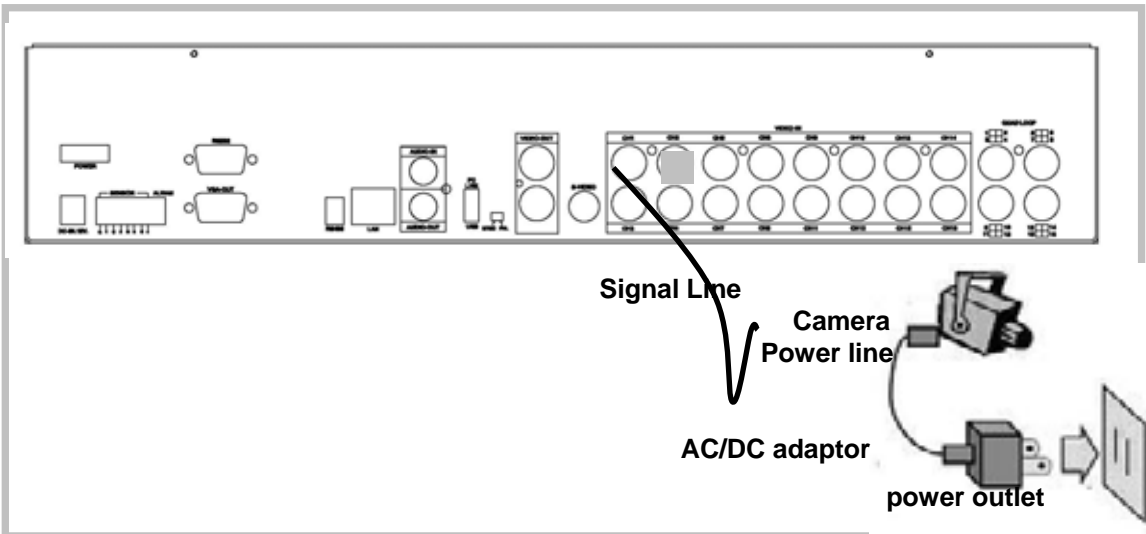
1. S Video
2. Video output
3. VGA output
4. Video input
5. Video Quad loop-through
6. Sensor input/alarm output: 4 sensor inputs and one alarm output
7. NTSC/PAL switch
8. DC-in (12Voltage)
9. Audio input/output
10. LAN
11. Power switch



1.Video Output connection (TV or monitor, LCD monitor)

Please connect TV(monitor) or LCD monitor to the unit over the Video output connector.

The unit provides 1 x S-Video input, 2 x BNC connector and 1 x VGA output.
The above Figure shows the video signal line connection.



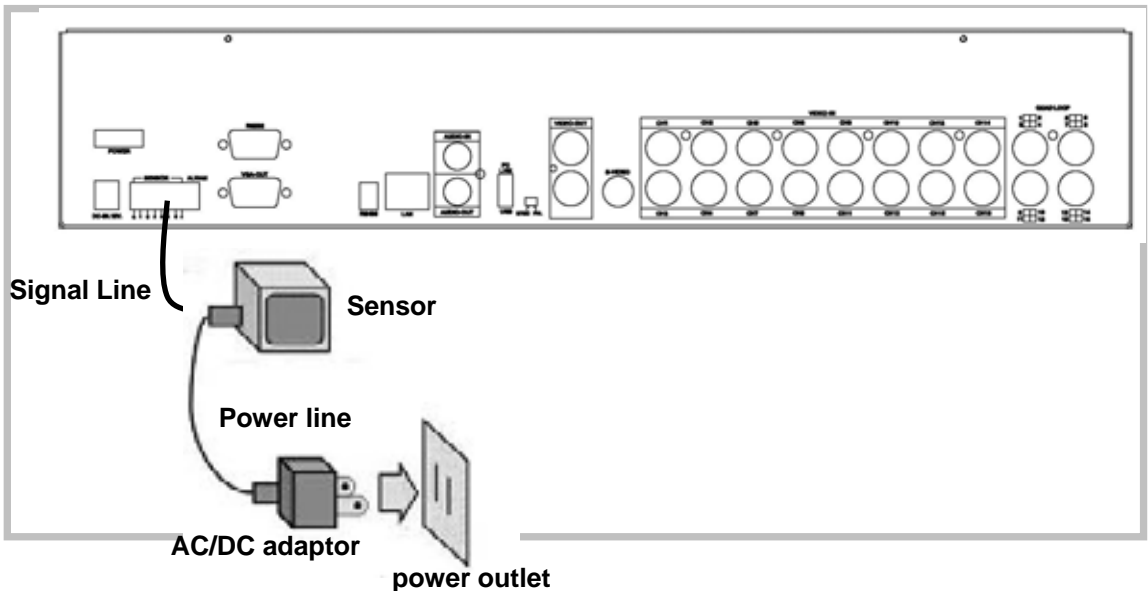
2. Video Input connection (Camera)

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

The unit provides 16x 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

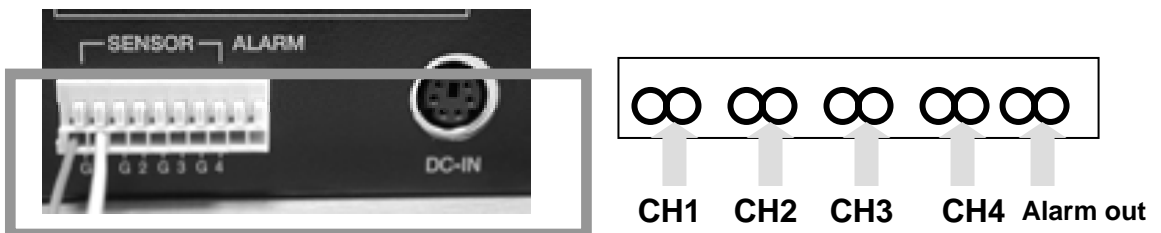
The unit provides 4 sensor inputs for 4 channels. The sensor

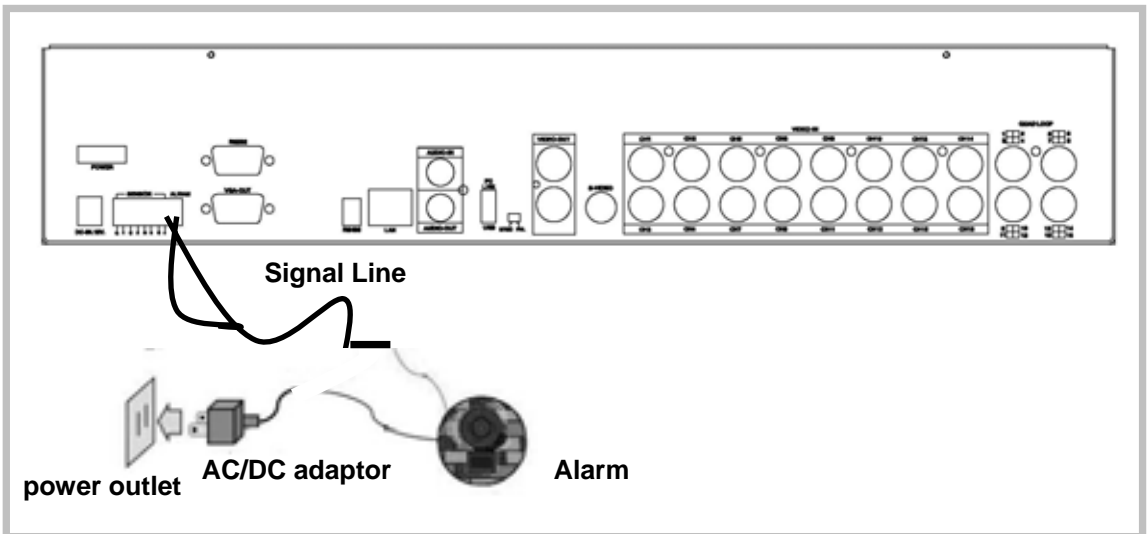
Installation procedures are as follows. There are two simple steps

For the installation of the sensors.

The Max. power requirement of the sensor device is up to 1.5V, 50mA

- 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.



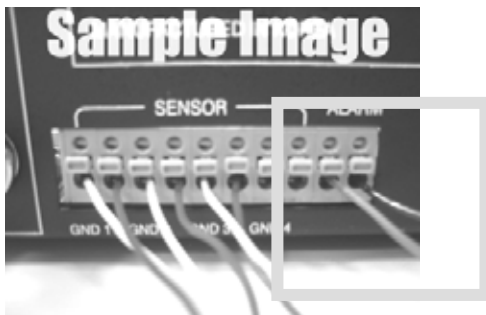


4. Alarm installation

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

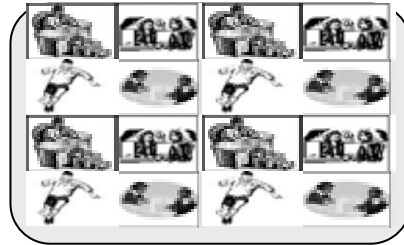
After the unit is properly installed (please refer to Page 15-17 for more detailed on DVR installation.), the unit is ready to record and play. Then apply power and switch on.

Notice: Make sure the HDD is powered off before removing the drive

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:



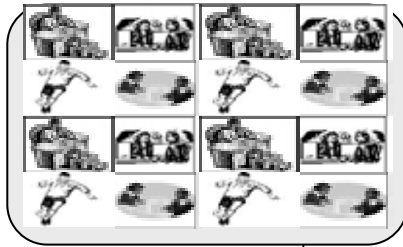
NOTICE

- 1. Make sure the HDD is off before removing the drive**
- 2. 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

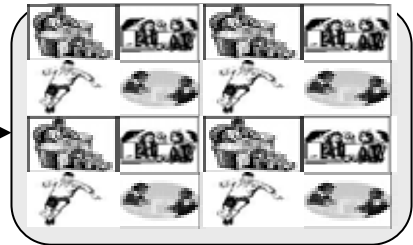


Press button to open OSD menu as right

Press button to exit OSD menu to real-time display

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

OSD Mode Display



Press button to start recording

Press button to stop recording (password is requested!)

Recording Mode Display

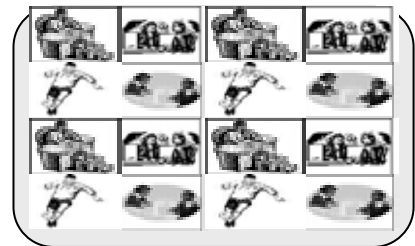
Press button to search time or event to playback

Press button to exit the menu

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

SEARCH MODE

Press button to start playing




PLAYBACKMODE

Press button to stop playback


Operation guide

MAIN MENU

Press  to display menu option shown as right figure.

```
MAIN MENU
GROUP SELECT      1234
RECORD SELECT     1234
RECORD FRAMERATE  30
VIDEO QUALITY     HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
SENSOR SETUP
NETWORK 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.

GROUP SELECT

```
MAIN MENU
➤ GROUP SELECT    1234
RECORD SELECT     1234
RECORD FRAMERATE  30
VIDEO QUALITY     HI
RECORD SCHEDULE
SUB MENU
HARD DRIVE SETUP
SENSOR SETUP
NETWORK SETUP
```

The unit provides 16 camera inputs. Every 4 channels are grouped for easily and prompt display operation. For example, 1ch, 2ch, 3ch and 4ch are set for Group 1, 5ch, 6ch, 7ch and 8ch are for Group 2, e.c.t.

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

Example:

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

RECORD SELECT

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

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

RECORD FRAMRATE

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

There are 5 different frame rate settings for operation: (25fps,12fps,8fps,6fps,4fps; But the unit is set to 25fps 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.

VIDEO QUALITY

```
MAIN MENU
GROUP SELECT 1234
RECORD SELECT 1234
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.

PS: you can refer the appendix III The following is the recording time vs video quality settings table for your reference

RECORD SCHEDULE

```

MAIN MENU
GROUP SELECT 1234
RECORD SELECT 1234
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

PRESS (▲▼), THEN (←)
PRESS (□) TO EXIT
    
```

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.

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
    
```



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.

SUB MENU

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

PRESS (▲▼), THEN (←)
PRESS(□) TO EXIT

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

PRESS (▲▼), THEN (←)
PRESS(□) TO EXIT

Enter into this option to change password, time /date setting, date format.

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 “b”
 means “2”	 means “6”	 means “C”
 means “3”	 means “7”	 means “D”
 means “4”	 means “8”	 means “E”
	 means “9”	 means “F”
	 means “0”	

TIME SET

TIME
2004/03/21 03:23:21

PRESS (▲▼), THEN (←)
PRESS(□) TO EXIT

Enter into this option to change date and hour.

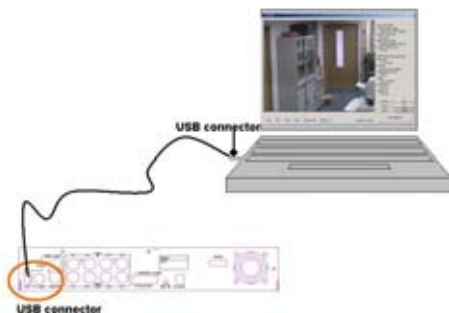
DATE DISPLAY FORMAT

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.

Backup through USB port



The unit provides one USB port to simple backup over the connection with PC. Please mind the following steps to successful link.

Step 1. Connect the USB cable between the unit and PC

Step 2. Select “LINK TO PC” under submenu of the unit

Step3. The “linking” will take around 30sec.

Step4. The connection is ready for PC backup as “Linked” indicates on the screen.

Step 5. Open the PC viewer on PC, once PC identifies one unknown Hardware device

Step6. Press”Menu” button back to “Main Menu”

Warning: Please don't press “MENU” button during linking status, it would likely lead to unpredictable Error on your PC

REMARKS: Please refer to Page.22 for the PC viewer installation and operation guide.

Notice: 1.the unit employs USB 2.0, so it will take around 5 min to hand shake with USB 1.0.

2. Before operating backup over USB, please install PC viewer software into your PC.

GROUP DISPLAY TIME

GROUP DISPLAY TIME

PRESS (▲▼), THEN (←)
PRESS(⏏) TO EXIT

Use this menu to specify group display and multi-screen dwell time.

Dwell time settings determine the time interval between displays for all groups and multi-screen.

HDD SETUP

HARD DRIVE SETUP
OVERWRITE ENABLED YES
MASTER HDD SIZE 4000MB
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" .

SENSOR SETUP

```

      SENSOR SETUP
SENSOR RECORD TIME      15
ALARM OUT TIME         20
MOTION SENSITIVE SETUP
GROUP1 TYPE:MOTION + N-C
GROUP2 TYPE:MOTION + N-O
GROUP3 TYPE:NORMAL CLOSE
GROUP4 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.

```

      MOTION SENSITIVE SETUP

      2 2 4 2 2 2 2 2 2 2 2 2 2 2 2 2
      : : : : : : : : : : : : : : : :
      1  4  7  10 13 16

      O:MORE  9:LESS(SENSITIVE)

      PRESS (▲▼), THEN (←)
      PRESS(⏏) TO EXIT

```

MOTION SENSITIVE SETUP
Use this menu to adjust the sensitivity of
each channel.

The first bar shows the current
sensitivity of each channel, then use the
“←” to set higher sensitivity or lower
Sensitivity. (0 stands for highest
Sensitivity, but 9 is for lowest
sensitivity.) .

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

How to operate Motion detection recording

SENSOR SETUP
SENSOR RECORD TIME 15
ALARM OUT TIME 20
GROUP1 TYPE:MOTION + N-C
GROUP2 TYPE:MOTION + N-O
GROUP3 TYPE:NORMAL CLOSE
GROUP4 TYPE:NOT INSTALLED
PRESS (▲▼), THEN (←)
PRESS(⏏) TO EXIT

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

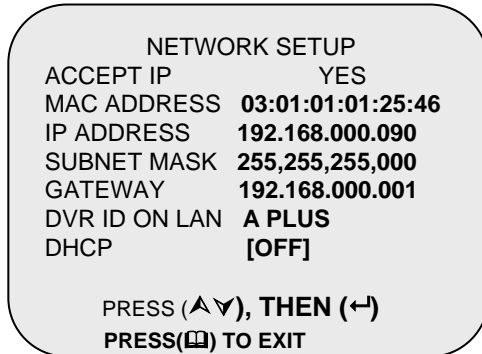
PRESS (▲▼), THEN (←)
PRESS(⏏) TO EXIT

Follow the steps as below to activate motion-detection recording.

1. Please go to “SENSOR SETUP” menu as the left figure shown.
2. Select out the motion option.
3. After the selection, please be back to MAIN MENU and go to “PROGRAMMED RECORD” to power on the alarm setting.

Notice: The setting under “PROGRAMMED RECORD” is necessary for starting the operation of motion detection recording.

NETWORK SETUP



Notice:

1. PC Minimum requirements of Networking :

CPU: 1 GHZ or above

System Memory: 256MB

or above

VGA memory: 32MB

OS: Window2000/XP

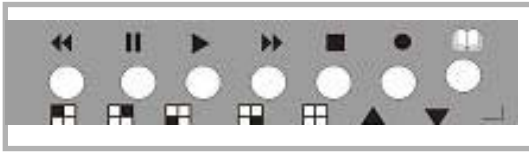
2. Please assign 14337, 14338 to the Port to install DVR in a LAN with a static IP address under a router (with firewall) for sharing with other equipments like PC.

- 1) The first option "enabled network client", please make sure is set to YES
- 2) MAC setting will not need to be altered.
- 3) *IP address (a static IP address) will need to be set to the DVR IP address you planning to allocate to, while you connect to Internet.
- 4) Subnet mask will need to be obtained from the routing device.
- 5) #Gateway IP address (IP address A) will need to be obtained from the routing device.

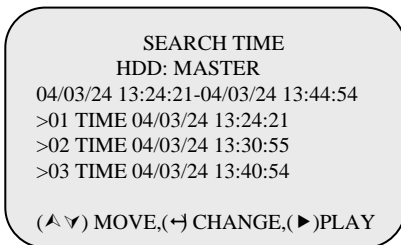
Please check with your M.I.S staff or administrator to enter the setting of MAC ADDRESS, IP ADDRESS, SUBNET MASK and GATEWAY Or please refer the left figure as a example for your reference

- 6) DVR ID on LAN : use "←" button to specify the DVR's identification. 26 alphabets will appear in sequential order.
- 7) DHCP [ON] : press "←" to confirm the installation as [ON].(the default setting :OFF), and re-power on the DVR. Then the DVR will automatically get dynamic IP.

PLAYBACK



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



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.

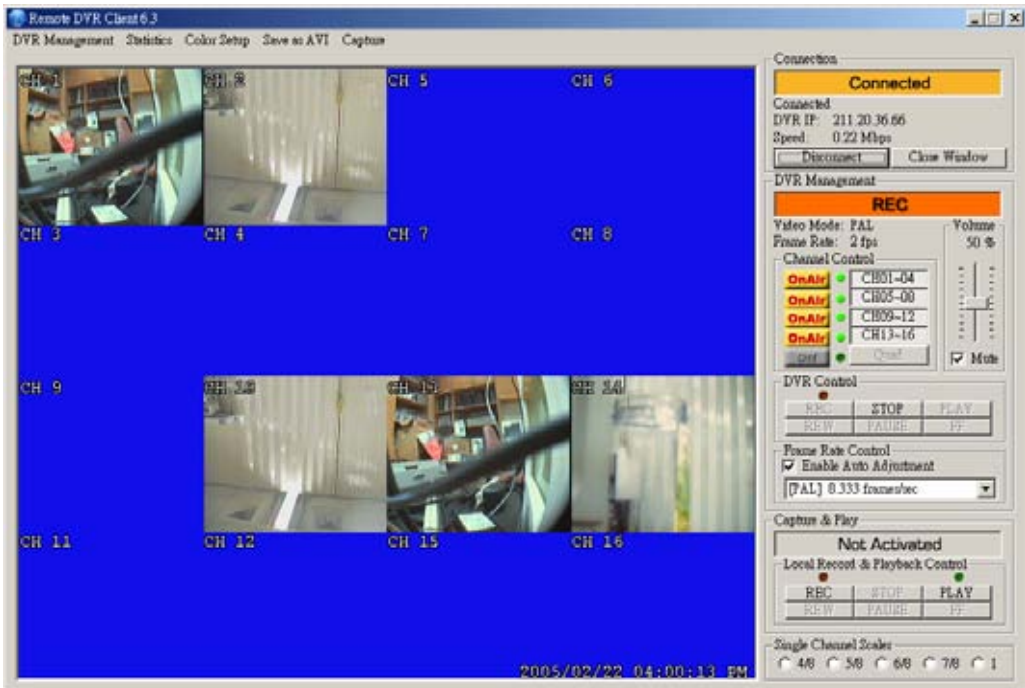
CE Mark

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

Networking

This Unit with the dedicated remote PC client software allows you from a remote location to view live and recorded video over Internet. Also, you can capture, convert the video from the unit into AVI file or JPEG file, or play the stored video later on. Please follow the instructions below to use PC client.

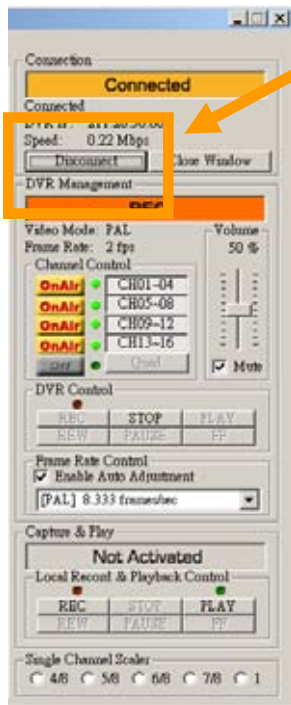
After you install PC client software into your PC, the Main window will appear on screen:



Main Window of PC client software

Networking

1. How to connect to the DVR
click on "Connect" option on Main window



Click on "Connect " to enter into
"DVR Client connection manager"
As the following dialog window:

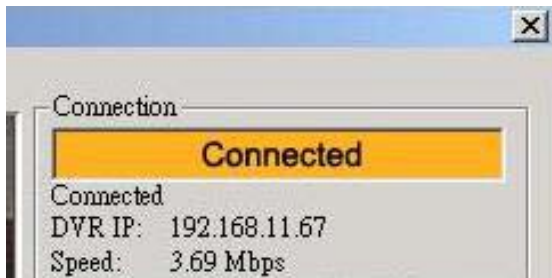


1. DVR IP: The DVR IP address is the IP address of the remote DVR.
2. Password : The password is same password used for formatting the DVR's Hard Drive. The default value is 111111
3. Nickname: If you have configured DHCP settings in DVR, you can connect to DVR by click on "Search DVR". There will be a list of DVR in Nickname list box. Select one you want to connect with from the list.
click on "OK" to create connection.

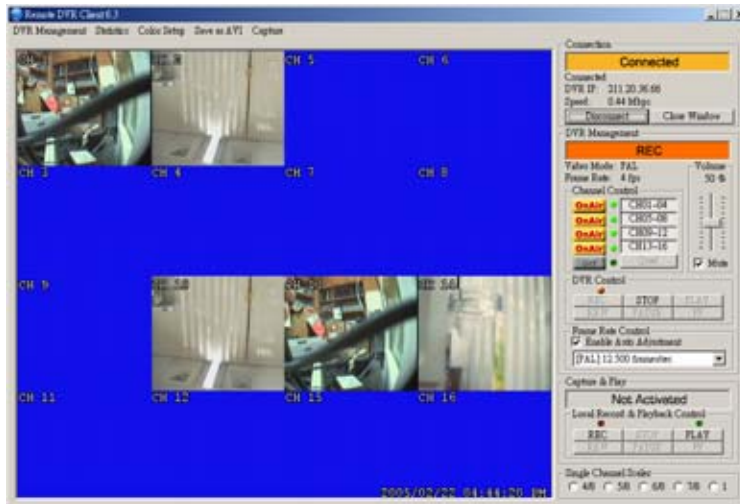
Networking

2. Connection Status:

When successfully connected, you would see "Connected" sign. This window also displays DVR IP address and shows changes of connection speed.



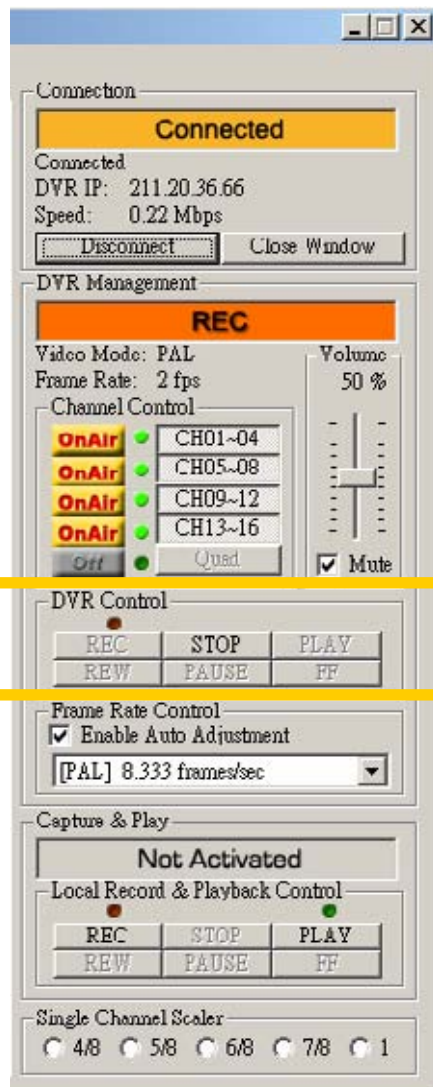
- To disconnect, simply click " Disconnect "
- To close the application, click " Close Window " button



Networking

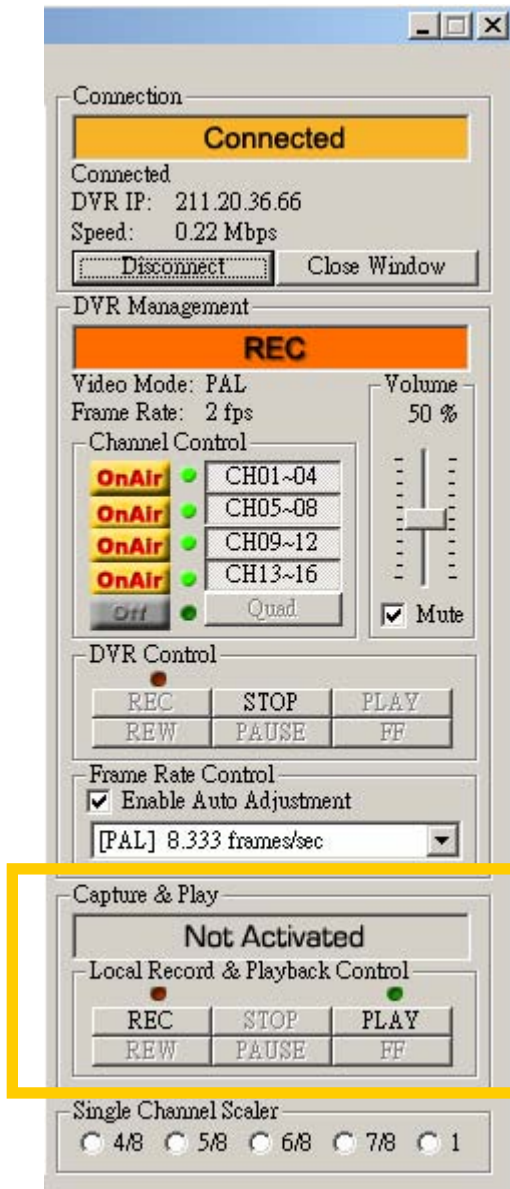
3. DVR control

The panel shown as the following figure operates exactly as the remote DVR operational button allow you to control remote DVR to live view, record and playback as well.



Networking

4. Capture & Playback on you PC



4-1 Capture video data
When you click “REC” button, it will start to record the incoming video on your PC hard disk. The DVR client creates “steam_files” folder where the execution file is located. When the client is recording, the Capture & Play status indicator would show the current status, REC.

4-2 Playback
After recording is finished, click” Play” button to play the recorded video stream. Then you will see a stream file list of the video stream files previously captured.

Networking

5. DVR management

Remote DVR Control Panel

DVR Basic Information

DVR Record Mode: EACH

Hard Disk Information: 1 HDD, 75 GBytes Detailed HDD Info.

Video Quality: High

Record Frame Rate: 30 frames/sec

Alarm On Duration: Off

Alarm Record Duration: 5 sec

Audio Recording: Enable

DVR Speaker: Enable

	CH1	CH2	CH3	CH4
Input Channels:	ON	ON	ON	ON
Record Channels:	ON	ON	ON	ON

DVR Time: 2004 / 05 / 24
12 PM : 33 : 42

Record Schedule

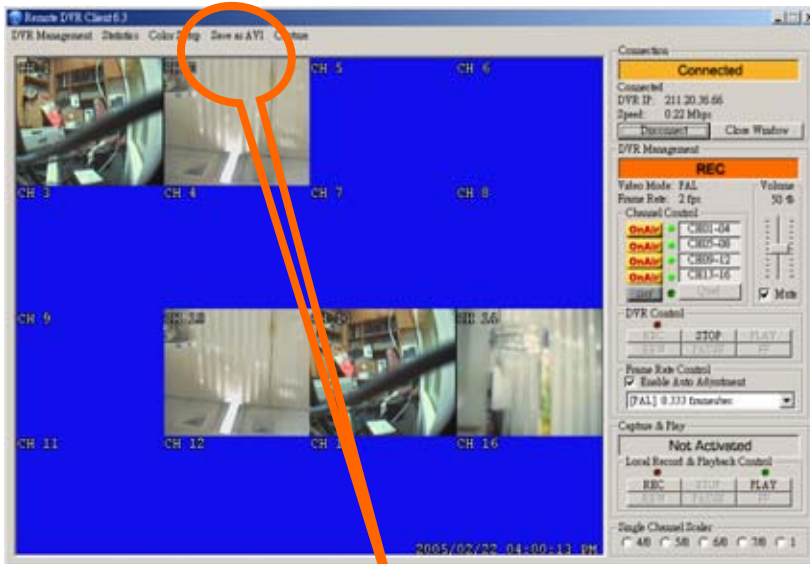
12 AM	1 AM	2 AM	3 AM	4 AM	5 AM
ON	ON	ON	ON	ON	ON
6 AM	7 AM	8 AM	9 AM	10 AM	11 AM
ON	ON	ON	ON	ON	ON
12 PM	1 PM	2 PM	3 PM	4 PM	5 PM
ON	ON	ON	ON	ON	ON
6 PM	7 PM	8 PM	9 PM	10 PM	11 PM
ON	ON	ON	ON	ON	ON

Update Setting Close Window

This option enables you to adjust remote DVR's operation setting : Video Quality, Record Frame rate, Alarm On Duration, Alarm record Duration, Input Channels, Record Channels, DVR system time setting and Record Schedule. All of settings operate as you do with DVR itself. Notice: For the record mode change can be made only on DVR, so the display shows the current DVR record mode on connection.

Networking

6. AVI file



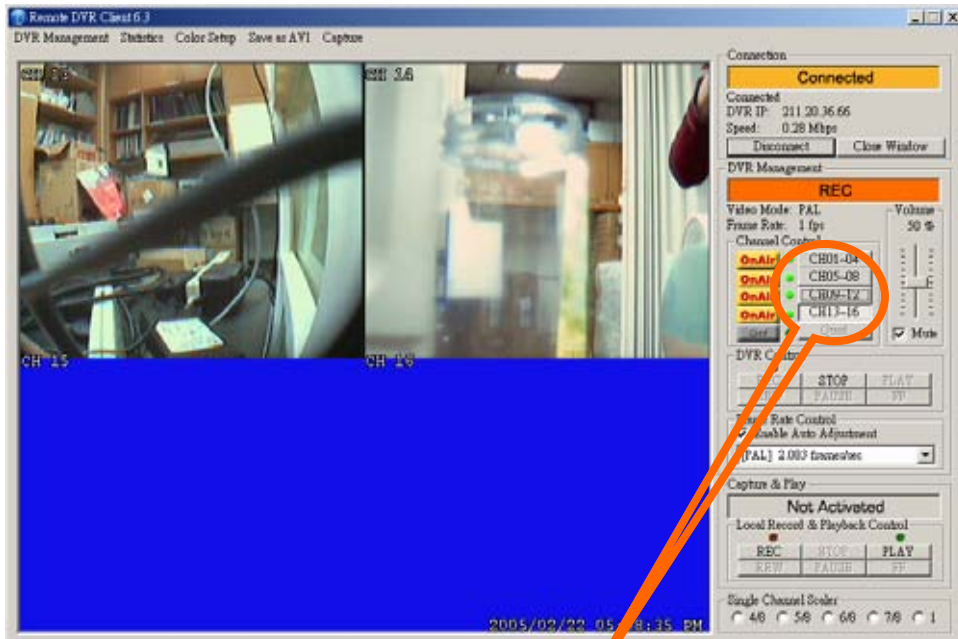
Click on this button to convert the real-time video data or the recorded data into AVI file

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.



Networking

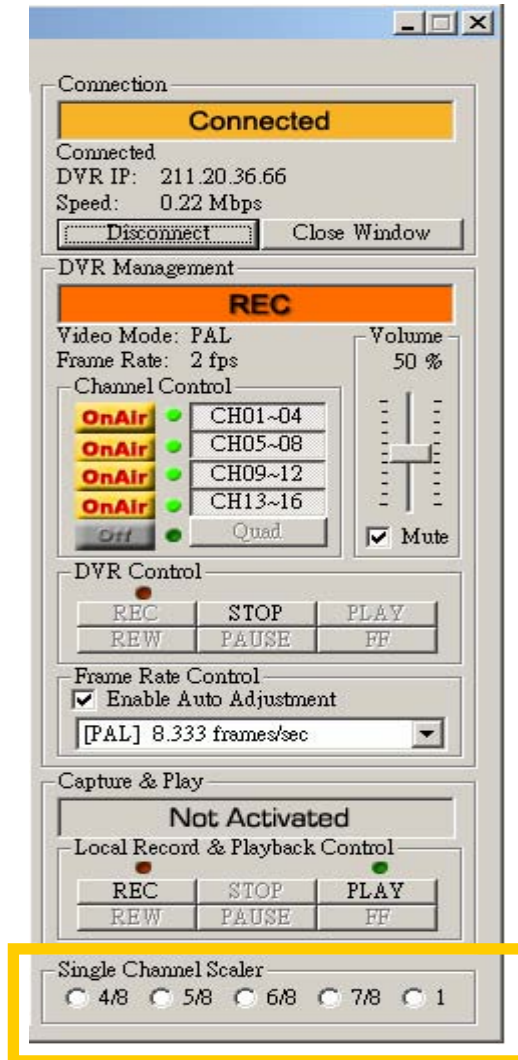
7. Channel Control



If you want to see single channel, for example, CH13, please press CH13~CH16 button and release others. The CH13, CH14, CH15, CH16 will display on screen concurrently. Move mouse cursor on CH13 and double click. Then CH13 will be scaled up. On the contrary to see CH13~CH16 multi channels again, just click on CH13~CH16 button.

Networking

8. Single Channel Scaler



Single channel scaler is effective only in single channel mode. If you are viewing single channel, you can scale it up/down by selecting these options.

Appendix III.

PC Viewer

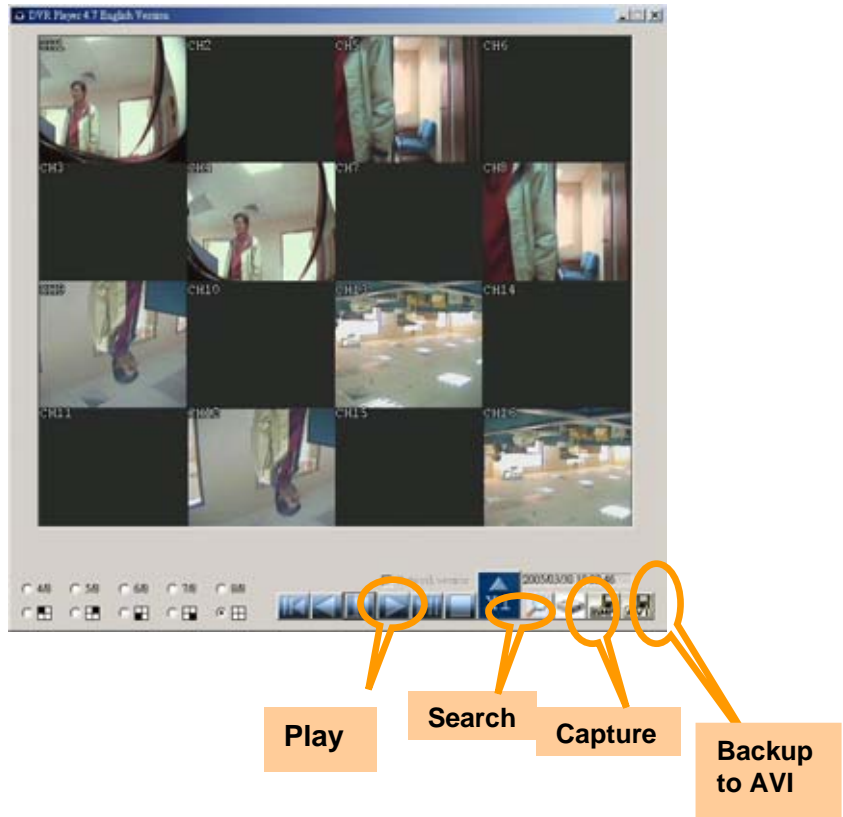


Figure 1

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

1. You can access Video data via the connection between PC and DVR or directly install HDD into PC
2. Please install PC viewer software into your PC (*This software currently supports Windows2000 and Windows XP!*) and enter into the software, then you will see a dialog box as above(figure 1) appear on the screen.
(The software can't be activated until the HDD is connected to PC!!!)
3.
 - 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
 - Button for Fast forward playback speed : 5 levels of playback speed: 1, 4, 16, 32,64
 - Button for advancing one single frame
 - Button for one single frame backward
 - b. Click to start the playback after data-search
 - c. Backup to AVI button : click to create a new file to save AVI file in PC and start to convert the data into AVI file
 - d. Capture button: click to snapshot the data as BMP file.
 - e. HDD selection:click to select the specified HDD among multiple HDDs installed (either in DVR or in PC system)

Appendix III.

PC Viewer

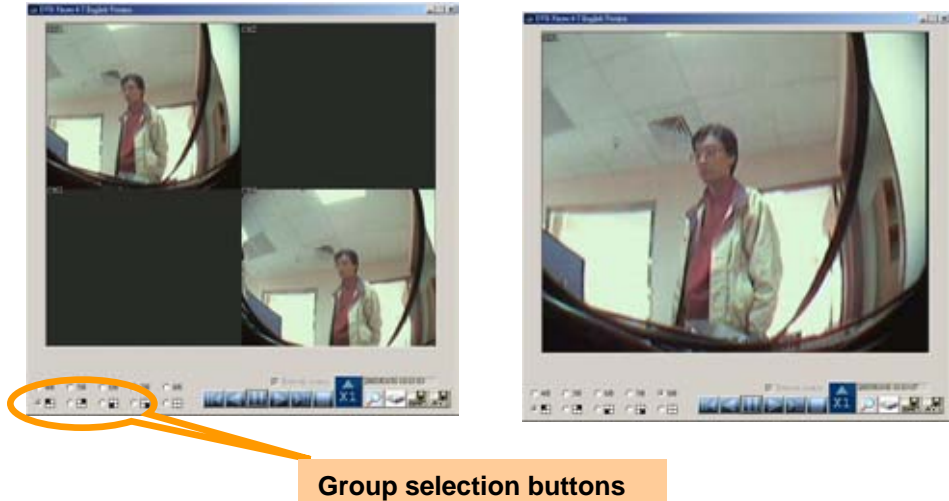
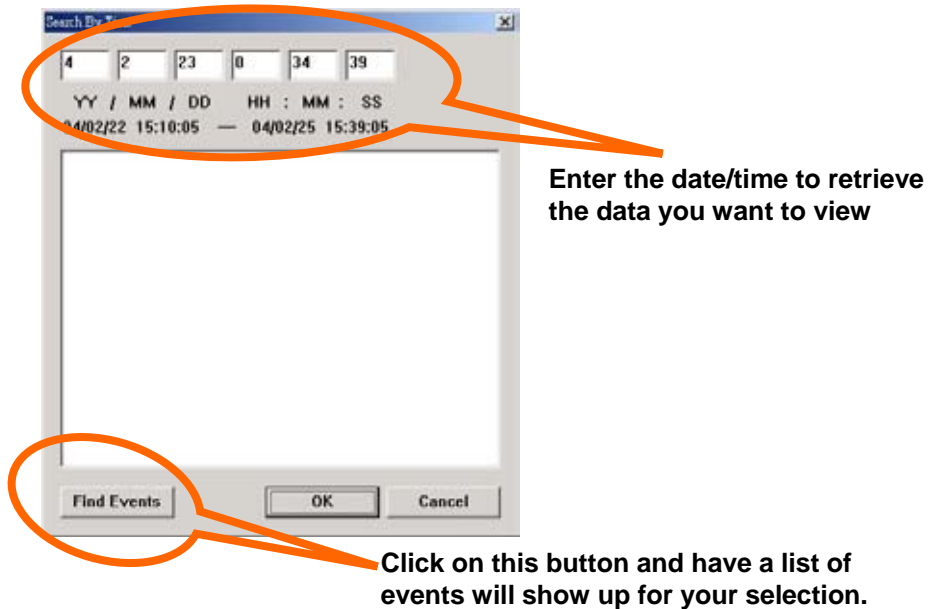


Figure 2 & Figure 3

4.Screen display format operation: The PC viewer displays either 16 channels, quad screen or full screen of each channel at user's will. You press one of group selection buttons to display quad screen of one group(4channels), or you can directly double-click on the display of one desired channel to get the full screen of the desired channel.

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.



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 “Backup to AVI” 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, the conversion starts.



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

Frame/Second		4	5	7	10	15	30
☐ MODE	HI	223 H	179 H	104 H	89H	59H	29H
	NORMA L	273 H	218 H	152 H	109 H	72H	36H
	LO	340 H	273 H	191 H	136 H	91H	45H
☒ MODE	HI	172 H	138 H	96H	69H	46H	23H
	NORMA L	210 H	168 H	117 H	84H	56H	28H
	LO	262 H	210 H	147 H	105 H	70H	35H

NTSC format

Frame/Second		4	6	8	12	25
☐ MODE	HI	179 H	104 H	89H	59H	29H
	NORMA L	218 H	152 H	109 H	72H	36H
	LO	273 H	191 H	136 H	91H	45H
☒ MODE	HI	138 H	96H	69H	46H	23H
	NORMA L	168 H	117 H	84H	56H	28H
	LO	210 H	147 H	105 H	70H	35H

PAL format

PS: The recording hours on 80GB HDD