

# DVR-0414 Digital Video Recorder

## Operation Manual

### IMPORTANT SAFETY INSTRUCTIONS

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- Keep away from extremely hot places
- Avoid direct sunshine
- Keep away from humid places
- Unit must be horizontally installed
- Avoid violent vibrations around the unit
- Do not place other devices on top of unit
- Keep in well ventilated places, not to block the radiator fan setting in the back of the recorder

### INSTALLATION PRECAUTIONS

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Please make sure the power selection switch is in the right position to correspond to the power supply. After confirming the connection of power lines, power the unit on. When powered ON for the first time, ensure the Hard Disk is installed, and the master-slave jumper switch is set correctly.

**TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR ANY TYPE OF MOISTURE**

### INCLUDED WITH YOUR DVR

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Your DVR packaging box should contain:

- One power cable
- One network connection line and one serial port connection cable
- One package of installation fittings and screws
- One operation manual and a Software CD
- Quality Certification of the product

# Chapter 1 Product Features and Specifications

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## 1. Product Specifications

Parameter	4 Channel
Processor	Trimedia PNX1302/200MH
Operation system	Real Time Operating System (PSOS)
Model	0414 DVR
Video input	4 Channels (NTSC/PAL) BNC (1.0V <sub>P-P</sub> , 75 Ω)
Video output	1 Channel PAL/NTSC, BNC (1.0V <sub>P-P</sub> , 75 Ω) video signal
Audio input	1 Channel 200-1000mv10K Ω (RCA)
Audio output	1 Channel 2000mv 1K Ω (RCA)
Video display	1 or 4 window display
Video standard	NTSC (525 line, 60f/s), PAL (625 line, 50f/s)
System resource	Real-time recording, one channel playback and simultaneous network operation
Image resolution	Real-time monitor 704×576, playback 352×288,
Motion detection	Area setting: 192 detection areas on the screen; detection sensitivity setting: 3 levels detection sensitivity for each area
Video compression	MPEG-4 CBR (fixed frame rate); MPEG-4 VBR (variable frame rate)
Audio compression	G. 729、ADPCM
Image compression rate	352×288CIF format, 176×144QCIF format, 704×576 4CIF format
Video recording speed	Real-time mode: PAL 1frame/10second-25f/s for each channel adjustable; NTSC 1frame/10second-30f/s for each channel adjustable
Image quality	6 levels selectable
Hard disk	2 IDE ports (Internal), 1USB port for additional backup
HDD space used	Audio: 14.4Mbyte/hour Video: 60-460Mbyte/hour
Alarm input	4 channel voltage alarm input (+5~+15V D. C. Needed for the alarm input)
Alarm output	3 channels output, (output in open/close contact or controllable +12V output)
Alarm relay	30VDC 1A, 125VAC 0.5A (relay output)
MODEM connection	Installed, Internal
Network connection	RJ45 10M/100M Ethernet connection
Pan-tilt control	RS485, RS232
Power	220±25%VAC / 50±2% HZ
Power consumption	60W
Working temperature	-10℃ - +55℃
Working humidity	10% - 90%
Barometric pressure	86kpa - 106kpa
Size	2U standard industrial case, 441 (breadth)x430 (depth)x89mm (height)
Weight	5KG (Without HDD)

## 2. Product Features

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### Real-time Monitor

- Analog Video output port, ability to monitor on a computer display or a TV monitor
- Single window / 4 windows monitor

### Compression Method

Multiple video compression modes: MPEG4 fixed frame, MPEG4 adjustable (variable) frame, single channel or 4 split audio/video real-time recording or multi-channel non-real time audio/video recording

### Storage

- 1-2 IDE-connected large capacity HDD inside (Maximum capacity 200GB per drive)
- Alternate HDD working method, reduce the power consumption and heat emission
- Overwrite and Stop modes selection when HDD is full

### Back-up

- USB port to back up records
- Download recordings from DVR to local PC via network or Internet

### Play and Record

- Support multiplex operation: live monitoring, recording, searching for download, one channel play-back, and remote transmissions, simultaneously
- Multiple recording modes: manual, timed (scheduled), alarm, motion detection
- Playback: PIP or multi-channel real-time monitor during playback
- Fast search for timed (scheduled) recording and alarm recording
- Multiple play-back modes: fast play, pause, X1/2, X1/5 slow play and frame by frame playback
- Display the event occurrence time when playing back

### Alarm relay

- 4 channel external alarm input, video lost alarm and motion detection alarm
- Multi channel relay switch alarm output (for quick alarm relay and on-spot light control)
- Protection circuit for Alarm input and output to assure the safety of the DVR

### Pan-Tilt Control

- Support for a pan-tilt decoder using RS485 communication
- Able to integrate multiple decoding protocol so as to control various pan-tilt and speed dome cameras

### Communication connection port

- 15-pin port to realize alarm input and pan-tilt lens control
- RS232 port for the connection with keyboard for central control and matrix control
- Standard Ethernet port for remote monitoring and control

### Network operation

- Remote real-time monitor via network
- Pan-tilt control
- Records search and real-time playback (playback quality depends on network speed), downloading video recordings to files
- System setting modification and system software upgrading via network connection
- Remote alarm process and system log review
- Embedded TCP/IP protocol, supports Web server (direct connection through Internet Browser for all of the above functions)
- Administration mode: Multi-level user administration on network; password mode verifies each user

## Reference Chart:

The recording length depends on the capacity of the installed HDDs and the selected image level.

**The following storage time is based on the average used HDD space for single channel real-time recording (30f/s)**

**Audio recording not included in this chart.**

Coding	Image level	Resolution	Frames	TV Frames	Maximum data flux	Average used HDD space (/hour)
Fixed Baud rate	1	352*288	25	330line	128Kb/S	40MB
	2	352*288	25	330line	256Kb/S	80MB
	3	352*288	25	330line	384Kb/S	120MB
	4	352*288	25	330line	512Kb/S	160MB
	5	352*288	25	330line	768Kb/S	240MB
	6	352*288	25	330line	1Mb/S	320MB

**Note:** Under adjustable baud rate 1f/10s-25f/s selectable, fit for all kinds of occasions  
Under adjustable baud rate, if static images prevail it can save more HDD space.

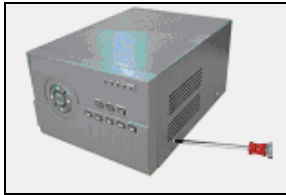
# Chapter 2 Installation

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## 1. Hard disk installation

Because there is no built-in hard disk in the machine, check the hard disk equipment for the first installation. Maximum is 2 hard disk drives installed internally. User can decide the capacity of hard disks according to required image quality, recording time (maximum capacity is 200GB per drive).

### *Installation Steps*



1. Dismantle the fixed screws of the top cover



2. Dismantle the HD Bracket



3. Install the first HD



4. Install the second HD



5. Assemble HD Bracket



6. Close the top cover and screw it back on

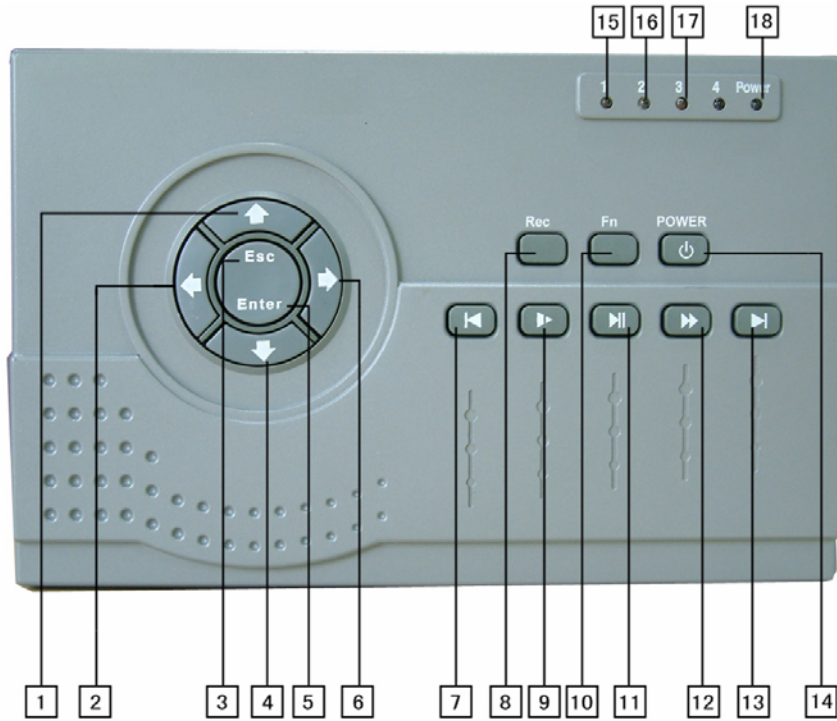
### **INSTALLATION PRECAUTIONS**

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Please make sure the power selection switch is in the right position to correspond to the power supply. After confirming the connection of power lines, power the unit on. When powered ON for the first time, ensure the Hard Disk is installed, and the master-slave jumper switch is set correctly.

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## 2. Front panel introduction



- |                               |                               |                            |
|-------------------------------|-------------------------------|----------------------------|
| 1. Up / Camera 1              | 2. Left / Camera 3            | 3. Cancel                  |
| 4. Down / Camera 2            | 5. Enter                      | 6. Right / Camera 4        |
| 7. Play last section          | 8. Recorder                   | 9. Slow play               |
| 10. Function assistant        | 11. Play/pause                | 12. Fast play              |
| 13. Play next section         | 14. Power switch              | 15. Channel 1 recording    |
| 16. Channel 2 recording light | 17. Channel 3 recording light | 18. Power indication light |

### 3. Back panel introduction



- 1: Alarm-RS485 connection
- 2: Fan
- 3: RS232 connection
- 4: MODEM telephone line connection
- 5: USB connection
- 6: NET network connection (RJ45)
- 7: Audio output
- 8: AUDIO IN audio input
- 9,10: VEDIO OUT video output
- 11,12,13,14: VEDIO IN vedio input
- 15: Power switch
- 16: Power socket

**Ethernet connection note:** When connecting to the network card of the computer, please use a reverse line; when connecting to the computer through an exchanger or Modem, please use a positive line.

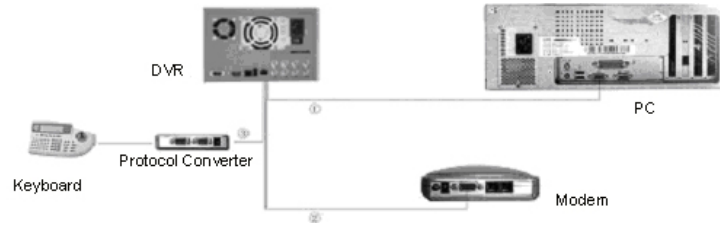
### Key Functions

Order	Key name	Logo	Function	Remarks
14、19	Power switch and indication light	POWER	Power switch (Power off by pressing the key for 4 seconds)	
			Indication light	
15、16、17	Recording lights	Red	When the light is RED, channel is recording	
2、6	Left and right	◀ ▶	Transverse moving, shifting level 1 and level 2 menus; pan-tilt control shift when monitoring audio/video, change to channel 3 and channel 4	
1、4	Up and down	▼ ▲	Lengthways moving; change setup; change number; pan-tilt control; when monitoring audio/video change to channel 1 and channel 2	
3	Cancel	ESC	Cancel	
			During playback of recording, restores to real-time monitor	
5	Enter	ENTER	Enter	
			Enter main menu	
10	Function assistant	Fn	<p>During monitoring, switches between single / four window</p> <p>Press the key to display the menu of the pan-tilt control and camera lens control.</p> <p>When setting Motion Detection areas, completes the setting.</p> <p>During playback, displays the playback status bar</p>	
8	RECORD	Rec	Manual start/stop recording, apply together with number key, shadow numbers to start recording	RECORD 1 2 3 4
			Shadow single channel: shadowed channel real time recording; shadow5, four channels real time recording. Shadow multi-channels, shadowed channels non real time recording 2 channel 12 frame/channel, 3 channel 8 frame/channel, 4 channel 6 frame/channel	SELECT CHANNEL



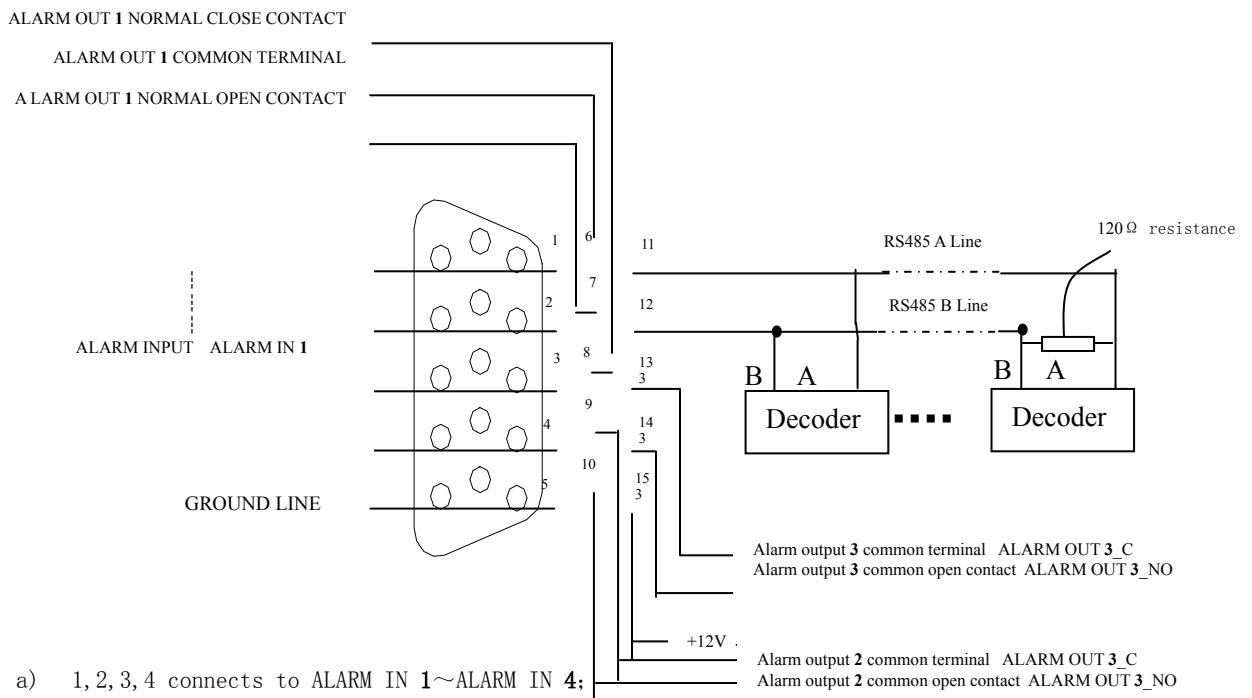
7	Play Previous	⏮	Play the file recorded previously to the one playing at the moment	
9	Slow play	▶	3 Speeds of slow play speed (×1/2、×1/5、×1/25)	
11	Play/pause	▶/⏸	Play/pause	
			When monitoring, press to enter Recording Search menu	
12	Fast play	▶▶	Different speeds of fast play speed	
13	Play Next	▶▶	Play the next recorded file	

## 4.1 Serial port connection and extension



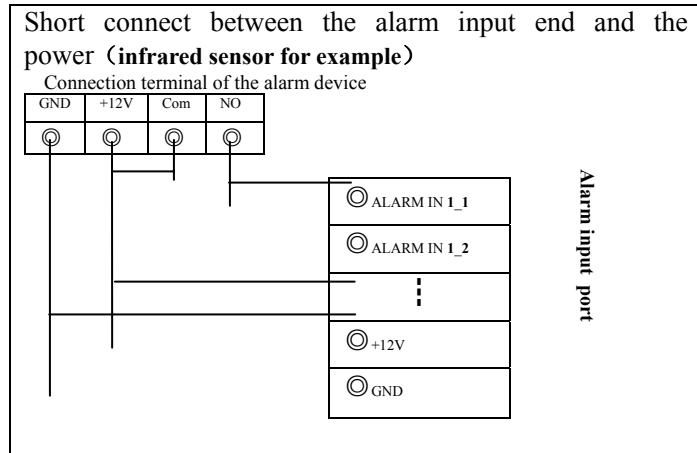
Note: ① The connection for program upgrading or debugging through serial port ② The connection for dial-up login through MODEM ③ The connection for DVR control through keyboard

If you want to control P/T/Z and process the relay of the alarm-IN signals by the DVR, you have to do so through the alarm relay connection (the 15 pin plug at the back panel.) This connection can control various pan-tilt decoders, and the specific type of the decoder can be selected from the Control of the System setting in the menu. The foot's serial number is marked on the DB15 plug. The definition of the foot is as follows.



- a) 1, 2, 3, 4 connects to ALARM IN 1~ALARM IN 4;
- b) 6, 7, 8 - ALARM OUT 1, 9, 10 - ALARM OUT 2 two group relay output (digital) ;
- c) 15 +12V power output, can be used as the power supply for alarm sensors;
- d) 11 - A line of RS485 , 12 - B line of RS485 ;
- e) 5 - Ground line
- f) 13\14 - ALARM OUT 3 normal open contact

## Connection of the alarm input:



### Alarm input end:

4 channels of alarm inputs, no limits on the input type (normally open or normally close type). The power of the alarm sensors can be provided by the DVR (Note: If the DVR provides power to too many alarm sensors, it may affect the normal working of the DVR.).

**Note:** When the alarm sensor is powered by external supply, the ground line must be connected with that of the alarm output port of the DVR.

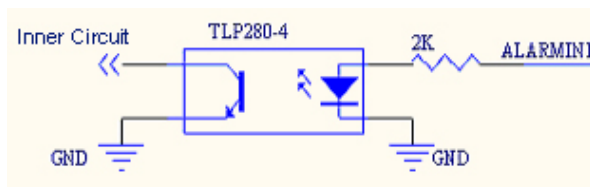
### Alarm output end:

3 channels for alarm outputs (normally open contact). In order to avoid overloading the DVR, please refer to the related parameter of the relay, and see the attached form for the related relays' parameter.

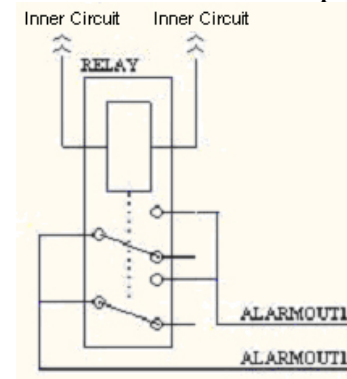
### RS485 (A/B lines):

Used to connect the A and B line of the pan-tilt decoder

### Model sketch of the alarm input end:



### Model sketch of the alarm output end:



**Parameters of the alarm output relay:**

<b>Model: G6H</b>		
<b>Contact Material</b>	Silver	
<b>Rating (resistance load)</b>	Rated switch capacity	30VDC 1A, 125VAC 0.5A
	Maximum switch power	62.5VA 33W
	Maximum switch voltage	125VAC, 110VDC
	Maximum switch current	1A
<b>Insulation</b>	between touches with same polarity	750VAC 1minute 50/60Hz
	between touches with different polarity	1000VAC 1minute 50/60Hz
	between touch and winding	1000VAC 1minute 50/60Hz
<b>Surge voltage</b>	between touches with same polarity	1500V (10×160us)
<b>Length of open time</b>	3ms max	
<b>Length of close time</b>	3ms max	
<b>Temperature</b>	-40~+70℃	

## **Chapter 3: Quick-Start (Turning the DVR ON for the First Time)**

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**Before starting the machine, make sure that a Hard Drive has been installed and all the lines are connected correctly (refer to Chapter 2 for more information).**

### **Start the DVR:**

Plug the power line in; switch power button at the back of the recorder to ON; power indicator will light on; DVR is starting.

The default four windows for the video output will appear on the monitor.

If the DVR was turned on during the set “Timed Recording” times, recording will start automatically.

To change the “Timed Recording” settings, go into **Menu -> System Setting -> Timing**.

Default “Timed Recording” is preset to 00:00 AM – 00:00 AM; ON (recording 24 hours a day).

### **Enter the Settings menu**

Press **Enter** (password prompt will appear)

There are two levels of password (Guest, and Manager). At this point you need to enter the Manager password.

Default password is “555555”. To enter this password press the “**Play Next**” button (▶▶) **6 times**.

**For security reasons, we recommend you change the password.**

To change the Manager password go to **Menu -> Admin Settings -> Password**

In the “**Manage**” field, enter your **Manager** password (any combination of the Playback Control buttons).

Press **Enter**

Enter this password again in the “**Confirm**” field.

Press **Enter** twice.

**MAKE SURE TO REMEMBER THIS PASSWORD!**

### **Power Blackout Recovery:**

When the power is cut off during the DVR’s operation, the DVR will preserve the recorded information and settings. When the power is back online, the unit will power itself up and continue recording. To avoid Hard Disk failures, and for security reasons, we recommend the DVR to be connected through a UPS (Uninterruptible Power Supply) device.

## **Recording Operations**

The default recording mode of the DVR is 24-hour continuous recording; but it is also possible to change this setting. The 0414 DVR supports four recording modes..

**To change Recording Modes:**

### **A) Timed Recording:**

To change the “Timed Recording” settings, go into **Menu -> System Setting -> Timing**.

Default “Timed Recording” is preset to 00:00 AM – 00:00 AM; ON (recording 24 hours a day).

Navigate the different settings using the **Left** and **Right** buttons. To change values, use the **Up** and **Down** buttons, and set the recording times for each day.

### **B) Manual Recording:**

Press “**Record**” on the front panel. A recording menu will appear on the screen, with channels 1,2,3,4. The channels that are highlighted are the ones that will be recorded. To toggle channel recording, use the Playback Control buttons on the front panel.

The buttons are listed here, starting from the first button to the LEFT.

Use “**Previous Play**” button as Channel **1**, Use “**Play**” button as Channel **2**, Use “**Slow Play**” button as Channel **3**, Use “**Fast Play**” button as Channel **4**. Press **Enter** to begin recording

If you wish to reset the settings to what they were before, press the “**Esc**” button.

### C) Alarm - Triggered Recording:

Connect the alarm input according to the device connections instructions in Chapter 2

To setup the alarm recording, go to: **Menu -> System Setting -> Alarm**

Select the wanted variables for each channel.

To save your settings, press **Enter** twice, press **Esc** twice to exit menu and return to monitoring.

### D) Motion Detection - Triggered Recording:

Before using motion detection on any channel, you should **disable** the Timed Recording settings for that channel.

To start setting up the motion detection, go to: **Menu -> System Setting -> Motion Detection**. Set the proper motion detect settings for each channel. To set up the Detection Area, navigate your cursor to “Area” and then to “Set”, press **Enter**.

**After changing settings to motion detection (turning it on/off as well), you must manually shut down the recording on the channels you wish to record by motion. The DVR will turn the channels back on when it detects motion.**

## 3. Alarm Trigger

The **0414** can trigger an external alarm system when either motion is detected or video is lost (any problem with the camera, recording, wires, or vandalism will be considered by the unit as “Video Loss”, and can trigger an alarm).

Connect the alarm input according to the device connection instructions in Chapter 2.

Connect the related alarm output to the proper Alarm Out ports on the DVR (see chapter 2 for details).

## 4. Pan-Tilt Control

The **0414** supports Pan-Tilt control (PTZ) through the RS232 port on the back of the unit. To enable this control, connect your decoder to this port, and respectively to the PTZ device. Please make sure the decoder is properly wired (confirm the right connection of the decoder’s A/B lines and DVR’s 15-pin port’s A/B lines – see chapter 2 for more details).

You then need to setup the protocols and other control settings by going into **Menu -> System Setting -> Control**

In order to control the PTZ camera, switch to Single-Window view of the camera (by pressing the corresponding “Direction” button).

When in single-window view, use the direction buttons to move the camera around.

## Network Connection Operation

You can install software updates, download recordings, modify settings, and control a Pan-Tilt camera and the DVR through TCP (network or the Internet remote connection)

To establish a TCP-IP connection, please make sure the LAN connector on the back of the unit is properly wired to the computer or router. You will need to setup the DVR’s server IP address, subnet mask and gateway, prior to connecting to it. If there is no router on the network, you only need to set the IP address. If there are routers on the network, please set the proper gateway and subnet mask.

To setup the network properties for the DVR, go to **Menu -> System Setting -> Network**.

**Please make sure the DVR’s IP is unique on your network. We recommend restarting the DVR after setting up its IP.**

**To test if the DVR is online:** On your computer, open Command Prompt (usually in the Accessories folder in your start menu).

When command prompt opens, type the following (without the quote marks):

“PING \*\*\* \*\*\*.\*\*\*.\*\*\*” (the \* stands for the numbers you chose to be the DVR’s IP address)

If your ping response is successful, you will get a reply from the DVR. If it is not, a “Request timed out” message will appear (if this message appears, please double-check all proper connections and settings, restart the DVR, and try the PING again).

**To connect to the DVR:** Open your Internet Explorer browser. Input the DVR’s IP address into the Address field, press **Enter**.

Click the “Login” button on the top-left side of the loaded page.

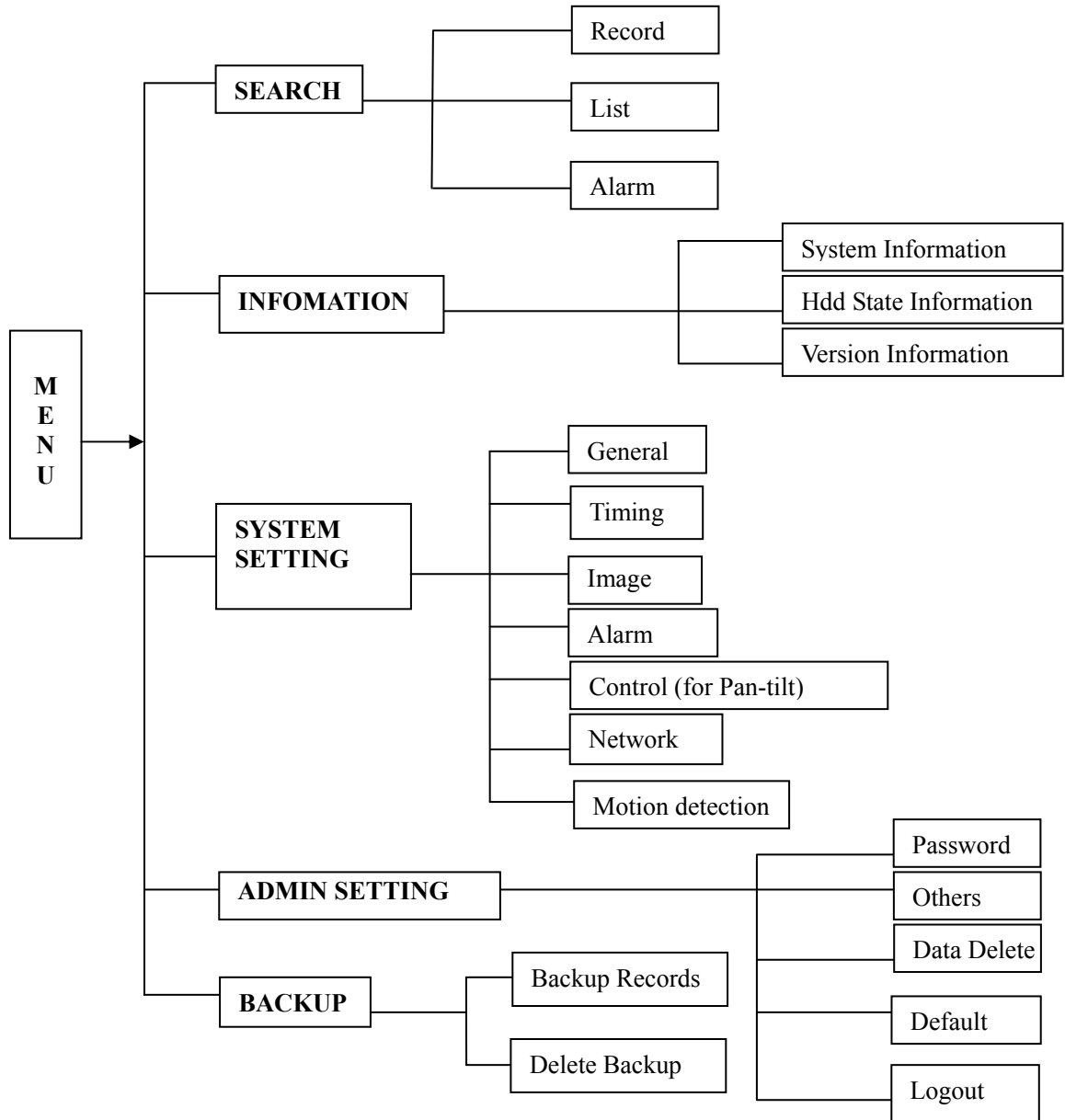
Default login is “admin” and password is “admin”.

**It is important to change this password!** To change passwords and manage users, click on “Assistant” on the top-right of the screen, choose “User Manage”. Click “Admin”. Click “Modify”. You may now enter a new password. Click “OK” then “Save”.

## Chapter 4 Front Panel and Menu Operations

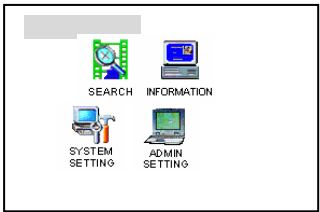

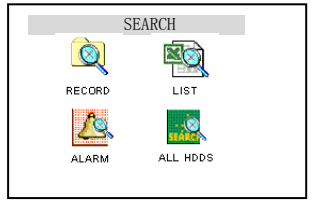
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### System Menu Structure:



**Note: Flashing item is the current item selected.**






### Navigating Menu Items and Settings




Operation	Button Order	Description	Screen display
Enter main menu and level 1 submenu	<b>Enter</b>	During real-time monitor, press to open menu	
	Direction ▲▼▶◀	Press to select one of the icons	
	<b>Enter</b>	Enter the selected level 1 submenu	
Enter level 2 submenu	Direction ▲▼▶◀	Press to navigate the level 2 submenu	
	<b>Enter</b>	Enter the selected level 2 submenu	
Set menu contents	Direction ▶	Select the option you want to change (option flashing when selected)	<pre> CH          1 PROTOCOL  NONE BAUDRATE  4 8 0 0 ADDR      0 0 0 SAVE      CANCEL           </pre>
	Direction ▲▼	Change setting value	
	<b>Enter</b>	<u>Save</u> is flashing; Press <b>Enter</b> again to save the settings you changed. *	
Exit the current menu	Direction ◀	Return to the previous option of the current menu	
	<b>ESC</b>	Exit to the last level menu / Cancel	











\* You can perform setting changes to multiple channels before exiting menu, and save the settings altogether.



## Menu Options

Main menu	Menu level 1	Menu level 2	Remarks
<b>SYSTEM SETTING</b> 	<b>GENERAL</b> 	DATA 07-22-2003 FORMAT 16-11-2 0 0 3 TIME 1 8 : 1 8 : 1 8 AM FORMAT AM/PM SAVE <input type="checkbox"/> SAVETIME HDDFULL OVERWRITE RECORDLEN 60 MIN REMOTEADDR 008 COMMCTRL DONE SAVE CANCEL	See details on Appendix 2.6.3
	<b>TIMING</b> 	CH 1 WEEK S M T W T F S TIME1 0 0 : 0 0 - 2 4 : 0 0 STATE ON TIME2 0 0 : 0 0 - 2 4 : 0 0 STATE OFF SAVE CANCEL	See details on Appendix 2.6.3
	<b>IMAGE</b> 	CH 1 MODE CBR FRAMERATE REAL BITRATE 1024K ALARM OFF SAVE CANCEL	See details on Appendix 2.6.3
	<b>ALARM</b> 	CH 1 TYPE NO RECORD 1 2 3 4 ALMOUT 1 2 3 ADDR 008 DELAY 60 SEC TIME1 0 0 : 0 0 - 2 4 : 0 0 OFF TIME2 0 0 : 0 0 - 2 4 : 0 0 OFF SAVE CANCEL	See details on Appendix 2.6.3

Main menu	Menu level 1	Menu level 2	Remarks
<b>SYSTEM SETTING</b> 	<b>Pan-tilt control</b> 	CH 1 PROTOCOL NONE BAUDRATE 4 8 0 0 ADDR 0 0 0 SAVE CANCEL	See details on Appendix 2.6.3
	<b>Network setting</b> 	I P 192.168.000.58 SUBNETMASK 255.255.255.000 GATEMAY 192.168.000.001 NONITOR MULTICAST PLAYBACK MULFICAST SAVE CANCEL	See details on Appendix 2.6.3

	<p>Motion detection</p>  <p>MOTION DETECTION</p>	<p>CH 1  STATE OFF  TIMEING 30SEC  ALMOUT OFF  SENS MID  AREA SET  TIME1 12:00A-12:00A OFF  TIME2 12:00A-12:00A OFF  SAVE CANCEL</p>	<p>See details on Appendix 2.6.3</p>
<p>ADMIN SETTING</p>  <p>ADMIN SETTING</p>	<p>Password</p>  <p>PASSWORD</p>	<p>GUEST * * * * *  CONFIRM * * * * *  MANAGE * * * * *  CONFIRM * * * * *</p>	<p>If you used the Manager Password to login (Chapter 2) you can change it here.  See details on chart 2.6.4</p>
	<p>Others</p>  <p>OTHERS</p>	<p>PLAYMODE AUDIO SYNC  ALARM TIP OFF  SHUT PASSWORD OFF  MONITOR OSD ON  MAINTENANCE WEEK <b>S M T W T F S</b>  MAINTENANCE TIME 02:00AM</p>	<p>During Maintenance Time, unit will reboot for 6 seconds, then go back to normal operation. Set this to a time when recording is not critical. Reboot is needed to prevent HDD problems.</p>
	<p>Data delete</p>  <p>DATA DEL</p>	<p>PASSWORD - - - - -</p>	<p>Input the administrator's password, then select to delete data or not</p>
	<p>Default</p>  <p>DEFAULT</p>	<p>ARE YOU SURE YOU WANT TO  LOAD DEFAULT CONFIGURES?  YES NO</p>	<p>Confirm if you would like to reset configuration to default factory settings</p>
	<p>Logout</p>  <p>LOG-OUT</p>		<p>Press <b>ENTER</b> to logout</p>
<p>BACKUP</p>  <p>BACKUP</p>	<p>Backup data</p>  <p>BACKUP RECORDS</p>	<p>DEVICE USB  CH 1  BACKUP SPEED NORMAL  STARTING DATE 08-21-2003-8-21  STARTING TIME 09:02AM  ENDING DATE 08-21-2003-8-21  ENDING TIME 09:02AM  BACKUP ADD START</p>	
	<p>Delete backup</p>  <p>DELETE BACKUP</p>	<p>DEVICE USB  DELETE CONFIRM</p>	

## Recording and Playback Operations: Summary

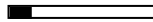
### 2.1 Recording

Button Order	Description	Display
Record <b>REC</b>	Manual start/stop recording, apply together with number key (see chapter 3). Highlighted channels will record. If only one channel is highlighted, it will be recorded at REAL TIME (30 FPS); If 2 channels highlighted: 12 frames/channel 3 channels: 8 frames/channel 4 channels: 6 frames/channel	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> RECORD 1 2 3 4 SELECT CHANNEL </div>
<b>Enter</b>	Press to save the settings and continue	


### 2.2 Playback: Play a Recording

Key Order	Description	Display
Play/pause	Press to open the “Record Search” menu (to playback recorded records).	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> RECORD SEARCH CH 1 DATA 2002-12-08 TIME 09:10 SEARCH START </div>
Play/pause	Press again to begin playback (the screen will show channel, date, time). If near “Start” it says “NOREC” that means that there is no record found that matches the date/time you entered. When the recording finished playing, the DVR will display “End”.	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> RECORD SEARCH CH 1 DATA 2002-08-08 TIME 09:10 START NOREC </div>
Direction ▲▼▶◀	Used during playback to toggle between cameras. ▲ Camera 1 ▼ Camera 2 ▶ Camera 3 ◀ Camera 4	
<b>Fn</b>	During playback, this button shows / hides the live monitoring frame on the right.	

### 2.3 Playback: Fast Play / Fast Forward

Button Order	Description	Display
Fast play ▶▶	During playback, press this key to shift between 2X speed, and 4X speed	01 REC 25F/S 
Play/Pause	Press this key to pause; press again to play at <b>normal speed</b> .	
Play Next, Play Previous	During playback, Press◀◀ ▶▶ to view the next or previous recording of the channel being viewed.	

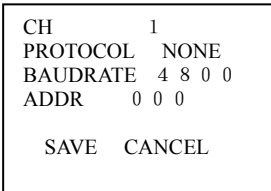
## 2.4 Playback: Slow Play

Button Order	Description	Display
Slow play ▶	During playback, press to toggle between: 25f/s, 15f/s, 1f/s speeds and    to pause.	01 REC 25F/S 
Play/Pause	Press to pause the recording / continue the recording	
Play Next, Play Previous	During playback, Press◀▶ to view the next or previous recording of the channel being viewed.	

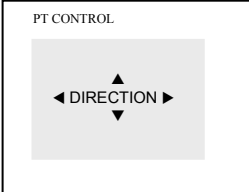
Note: 1f/s speed shows the recording frame by frame.

## 2.5 Controlling Pan-Tilt and Lens (P/T/Z)

### Setup of the Pan-Tilt and Lens Controller

Button Order	Description	Press <b>Fn</b> to display
<b>Enter</b> (Open Menu), then go to “System Settings” and into “Control”	Select the <b>Channel</b> you installed the PTZ camera onto. Choose the <b>Protocol</b> to use (see camera documentation or ask your dealer). Set the <b>Baud rate</b> and <b>Address</b> to that of the decoder (see decoder documentation for correct values). Press <b>Enter</b> . “SAVE” will start flashing. Press <b>Enter</b> again to save.	 The display shows a menu with the following text: CH 1, PROTOCOL NONE, BAUDRATE 4800, ADDR 000, and SAVE CANCEL.

### Controlling the PTZ

Button Order	Description	Display
Direction ▲▼◀▶	Select the camera you wish to control and go to single channel view. To select your camera, press: ▲ for Camera 1 ▼ for Camera 2 ◀ for Camera 3 ▶ for Camera 4	
<b>Fn</b>	Press this button to open Function Assistant. You will get two options “Pan Control” and “Image Set” Select Pan Control, press <b>Enter</b> . A screen similar to the one on the right will appear.	 The display shows a grey box with the text PT CONTROL at the top and a central area with the text DIRECTION and four arrows pointing up, down, left, and right.
Direction ▲▼◀▶	Use the direction buttons to control Pan-Tilt	
<b>Fn</b>	Press this button again to toggle between PT Control, Lens Control, Zoom, Focus, Iris, and Light Control (on/off).	

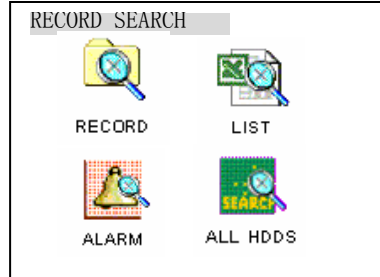
## 2.1 Appendix

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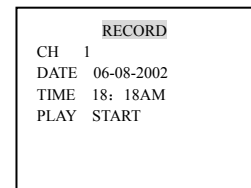
Please note: all the settings described below must be saved before they take effect.

### 2.6.1 Record Search

The menu for record search is as follows:



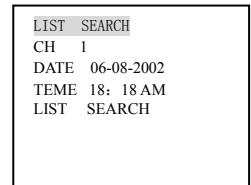
**RECORD** Choose the Channel you would like to playback (enter date and time), then press **ENTER TWICE**. The playback will begin.



**LIST** Select the Channel you would like to list recordings for. Then enter the date and time you wish to locate. Press **ENTER TWICE**.

The DVR will show all of the recording files that were made following the time you specified.

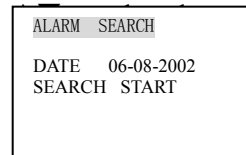
Use ▲▼ to select the file to be played. Press **ENTER** to begin the playback.



**Note:** the letters before the record mean the following:  
R—Record; M—Motion detection; A—Alarm

**ALARM** First set the date you wish to search. Press **ENTER TWICE**. Press record.

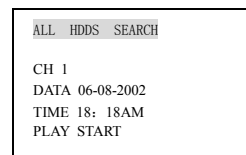
Press **ENTER** to play the alarm record.



### **ALL HDDS**

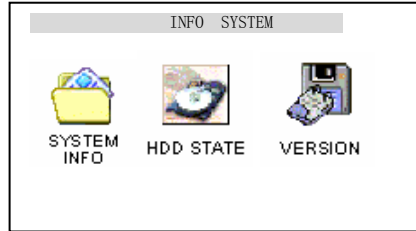
This search method is used when data turbulence has happened.

By inputting the exact date and time, you can retrieve the records lost or the records you can not find with regular searches.



## 2.6.2 Information

The menu for Information is as follows:



### System Info

Displays how many HDDs are installed, HDD capacity, remaining space, recording start time (the earliest recording time on the HDDs) and recording end time. This information is only for reference.

```
HDD NUM    01
HDD CAP    0083886M
FREE SPACE 0040832M
FILE START 06-10-2003 00: 36
PM
FILE END   06-10-2003 02: 28  PM
```

Press **Enter** to view bit rate information:

Display the frame rate of the current channels:

Frame rate (Kb/s)

HDD space occupied (MB/h)

### HDD State

Displays HDD index and the conditions of master drive and slave drive.

**Note:** √ = normal, × = malfunction, -- = not installed, √ = current working HDD. If the HDD in the system goes out of order, a window warning will pop up on the screen every half an hour. To change the bad HDD, turn to chapter 2 (Installation).

```
HDD STATE
INDEX      1 2
MASTER    - W
SLAVE     - R
```

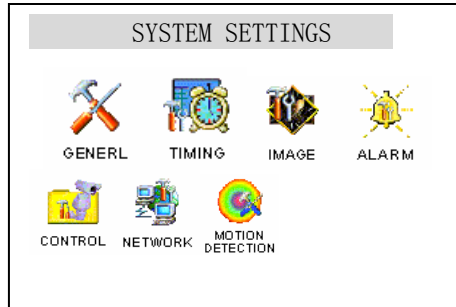
### Version

Shows the DVR issuing date, Operating System Version, and Web Server Version.

```
VERSION INFORMATION
VERSION ID  1.00
ISSUE DATE 07-29-2003
```

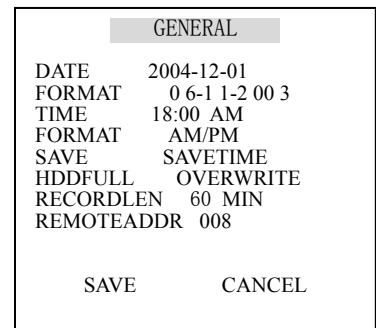
## 2.6.3 System Settings

The menu for System Settings is as follows:



### GENERAL

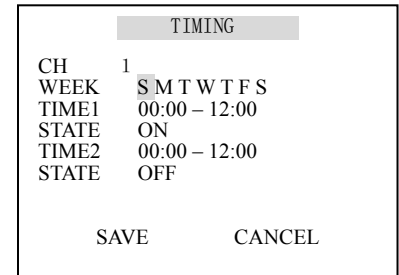
**DATE** and **TIME** are used to modify the current system date and time; after the modification save the change by selecting **SAVETIME**.  
**HDDFULL** – instruct the DVR what to do when the HDD is full.  
**OVERWRITE** will tell the system to overwrite existing recordings; **STOP** will tell the system to stop recording when HDD is full.  
**RECORDLEN** – will set the length of the recording files the DVR will generate (15, 30, or 60 minutes).  
**REMOTEADDR** – Remote Address is used when multiple DVR's are controlled by a remote control board. When setting this option, press the "Address" key on the remote control board, and input the address you just set for this DVR.



### TIMING

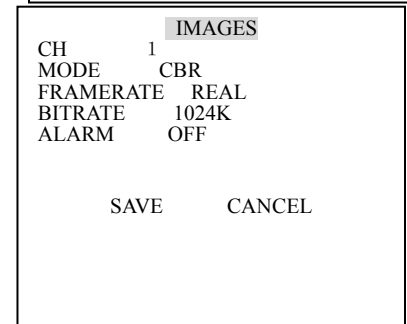
This is used to setup times for the DVR to start or stop recording. To setup the Timed Recording, select a channel you wish to set. The day of the week you are setting is highlighted. Time1 and Time 2 are two times you can set for the DVR to record or stop recording. ON = Record OFF = Do Not Record.

**Note:** If you need record all day long, set Time1 as 00:00-00:00, and State ON. Set Time2 state to OFF



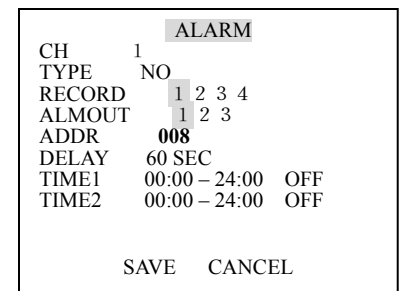
### IMAGES

In **CH** option select the channel whose settings you wish to edit.  
 In **MODE** there are CBR (audio/video) and VBR (audio/video) options.  
**AV** is audio and video synchronization, **Video** will make the DVR record only video (saves HDD space). When in **CBR**, **Framerate** is Real time, **Bitrate** is the related maximum data flux. You can use the direction keys **▲▼** to select the different bit rate.: 1024K, 768K, 512K, 256K, 128K. When in **VBR** mode, **Image quality** is selectable between 6 different levels, the image quality of the sixth level is the best. **ALARM** ON means alarm will sound if the DVR detects video loss, and will also trigger the relay device (port1). If Alarm mode is OFF, the DVR will not trigger alarms on video loss.



### ALARM

In **CH** option select the channel whose settings you wish to edit.  
**TYPE** will have a default setting to "NO" (normal on). You can set this to "NC" (normal close) – Normal Close is the Electronic



Output Method.

If the number in **RECORD** is selected, recording will start automatically when the DVR senses an alarm trigger input. **ALMOUT** – Alarm Output. If the alarm output port is chosen, it will trigger any connected equipment (on the chosen port) when there is alarm input. **DELAY** is the length of recording time after receiving an alarm trigger (possible settings of 10, 20, 30... 90 seconds). When the external alarm is canceled, the system will lengthen the recording time automatically before closing alarm and relay outputs. When **Time 1** and **Time 2** are set to ON, the DVR will record during the set time ONLY if triggered by an alarm. The beginning time should be earlier than the ending time; the time set in **Time 2** should be later than the setting in **Time 1**.

## CONTROL

This is the P/T/Z Control settings of this DVR.

In **CH** option select the channel whose settings you wish to edit, and on which a PTZ camera is installed.

Choose the protocol of the corresponding pan-tilt decoder in **PROTOCOL**.

**ADDR** is the address of the corresponding platform decoder.

**BAUDRATE** select baud rate of the corresponding decoder.

**SAVE** your settings, and you can now control your cameras. (Note: If controlling multiple PTZ cameras, you must use a PTZ Decoder-Splitter)

CONTROL	
CH	1
PROTOCOL	NONE
BAUDRATE	4 8 0 0
ADDR	0 0 0
SAVE	CANCEL

## NETWORK

This is the setup of remote Network (TCP) connections to the DVR.

For details on how to set the DVR on the network, go to Page 17 (Network Operations).

### Playback Options Description:

**MULTICAST:** “Manager” users can monitor each channel freely, and other users can only view after them. Maximum of 5 users.

**TCP Protocol:** Any user can monitor any channel. If the transmission is via Internet, TCP should be chosen. Maximum of 2 users.

NETWORK	
IP	192.168.000.111
SUBNETMASK	255.255.255.000
GATEWAY	192.168.000.001
NONITOR	MULTICAST
PLAYBACK	MULFICAST
SAVE	CANCEL

## MOTION DETECTION

CH - Choose the channel you wish to edit.

TIMING – The amount of time the DVR will wait before triggering the alarm.

ALMOUT – (Alarm out) this sets the external alarm trigger by the DVR on/off.

SENS – Sensitivity will determine how sensitive the DVR will be to motion.

AREA – Navigate to ‘SET’ and press Enter, this will set up the masked / non-masked areas (masked areas will not respond to motion, non-masked will be monitored for motion). The setting area can be divided in 396 sections. Red section means the current cursor position, and green section is the motion detection area. The no color area is masked from motion detection. To mask / unmask areas, press the **Fn** button. Then use the Direction buttons to move cursor around the grid. Any grid-square you move over will be masked from motion detection. Press **Fn** again to set the area. For un-masking areas, do the same.

TIME 1 – Between the times you set, the DVR will record and monitor motion (if set to ON)

Time 2 – You can set two different times of the day when the DVR will monitor motion.

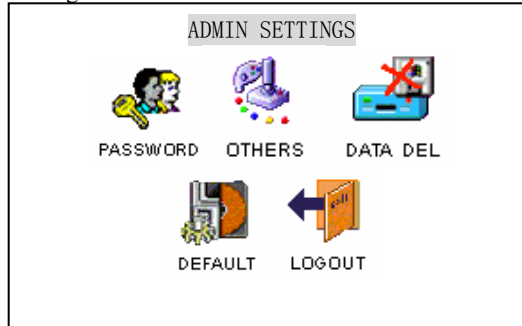
MOTION DETECTION		
CH		1
TIMING	30 SEC	
ALMOUT	OFF	
SENS		MID
AREA	SET	
TIME 1	12:00A-12:00A	
OFF		
TIME 2	12:00A-12:00A	
OFF		

**After changing settings to motion detection (turning it on/off as well), you must manually shut down the recording on the channels you wish to record by motion. The DVR will update the settings, and turn the channels back on when it detects motion.**



## 2.6.4 ADMIN SETTINGS

The menu for System Settings is as follows:



Select “Password” and press Enter to change passwords. Guest users have limited control abilities on the DVR, whereas Manager users can fully control/erase/change data on the DVR.

### OTHERS

**PLAYMODE** – has two modes, **VIDEO BEST** (the best video flow) and **AUDIO SYNC** (the best synchronization.)

**ALARM TIP** – When this option is ON, the DVR will act as an Alarm-Thru (when receiving a trigger from an external alarm, the DVR will send out the same trigger through its alarm-out ports as well).

**SHUT PASSWORD** – When this option is ON, the DVR will ask for the “Manager” User password when turning off; if password is incorrect, the DVR will not shut off.

**MONITOR OSD** – When set to ON, this function will display the Date, Time, and Cam No. on the monitors (turn this option to OFF when playing back an existing recording, to avoid “Time-over-Time” displaying).

**MAINTENANCE WEEK / MAINTENANCE TIME** – This function must be enabled on all DVR’s. This is an important function, and is needed to avoid HDD failures, resets the Web-Server to protect against exploits and hackers, clears caches for faster performance, and sets the password prompt back on. During maintenance time, the DVR will perform all of these functions and then restart itself. This means that the **recording will be OFF for about 15 seconds**. We recommend setting this option to a time of the day when recording can be interrupted for a few seconds, such as when a security guard is present.

To set the maintenance time, highlight the “Maintenance Week” day you wish to set, and then set the time. You can set all days to their maintenance time, and then save once – this will save all of the settings. The highlighted days are the ones that are set to ON.

PLAYMODE	AUDIO SYNC
ALARM TIP	OFF
SHUT PASSWORD	OFF
MONITOR OSD	ON
MAINTENANCE WEEK	<b>SMTWTFS</b>
MAINTENANCE TIME	02:00AM

### DATA DEL

This function lets you erase all recorded data from the HDD.

**CAUTION: DATA THAT WAS DELETED CAN NOT BE RECOVERED!**

Before the DVR will let you delete the HDD, you will be prompted for the “Manager” password.

A confirmation screen will then appear. To clear the HDD, choose “yes”.

PASSWORD -----

ARE YOU SURE YOU WANT  
TO DELETE FILES?

YES NO

### DEFAULT

This function will set all configuration of the DVR to the factory default configuration. To do this, navigate over to this function, press Enter.

A Confirmation screen will appear. Choose “Yes”.

ARE YOU SURE YOU WANT TO  
LOAD DEFAULT CONFIGURES?

YES NO

## LOGOUT

This will log the user out, and next time the user wishes to access the menu, they will need to enter the password again. This must be done every time in order to avoid others meddling with configurations of the DVR, or disabling it.

Navigate over the function, press **Enter**, and then confirm log-out.

## 2.6.5 BACKUP

### BACKUP DATA

**DEVICE** – chooses the backup device the DVR will use.

**CH** – chooses which channel to back-up.

**BACKUP SPEED** – chooses the backup speed the DVR will use.

**STARTING TIME** – will back up all clips after this date (inclusive).

**STARTING TIME** – will backup all clips after this time (inclusive).

**ENDING DATE** – will backup all clips UP-TO this date (inclusive).

**BACKUP** – choose “**Start**” to start backup. The DVR will show a progress indicator box on the monitor. If the device is not connected, or if there is a problem with the connection the DVR will display “**NO BACKUP DEV**”. If the backup device is full, the DVR will indicate the volume of the device is full. During the backup operation, the DVR will display the time remaining for backup.

REVICE	USB
CH	1
BACKUP SPEED	NORMAIL
STARTING DATE	08-21-2003-8-21
STARTING TIME	09:02AM
ENDING DATE	08-21-2003-8-21
BACKUP	ADD      START

### BACKUP DELETE

Will clear the backup device connected to the DVR, and erase all information on it.

## Chapter 5 Network Operation (LAN / Internet)

The 0414 DVR does not need any client software (although client software can be used, and is included with the DVR) You can install software updates, download recordings, modify settings, and control a Pan-Tilt camera and the DVR through TCP (network or the Internet remote connection)

To establish a TCP-IP connection, please make sure the LAN connector on the back of the unit is properly wired to the computer or router. You will need to setup the DVR's server IP address, subnet mask and gateway, prior to connecting to it. If there is no router on the network, you only need to set the IP address. If there are routers on the network, please set the proper gateway and subnet mask.

To setup the network properties for the DVR, go to **Menu -> System Setting -> Network**.

**Please make sure the DVR's IP is unique on your network. We recommend restarting the DVR after setting up its IP.**

**To test if the DVR is online:** On your computer, open Command Prompt (usually in the Accessories folder in your start menu).

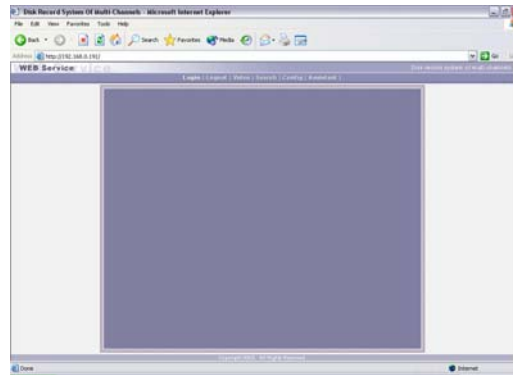
When command prompt opens, type the following (without the quote marks):

“PING \*\*\*.\*\*\*.\*\*\*.\*\*\*” (the \* stands for the numbers you chose to be the DVR's IP address)

If your ping response is successful, you will get a reply from the DVR. If it is not, a “Request timed out” message will appear (if this message appears, please double-check all proper connections and settings, restart the DVR, and try the PING again).

**To connect to the DVR:** Open your Internet Explorer browser. Input the DVR's IP address into the Address field, press **Enter**.

The first time you visit the DVR, the system will pop up the dialogue box to ask whether you accept ActiveX or not. You should then choose “Yes”. The system will install the control automatically, and Web interface will appear.



6-1 – The Web Interface

Click the “**Login**” button on the top-left side of the loaded page.

Default login is “**admin**” and password is “**admin**”.

**It is important to change this password!** To change passwords and manage users, click on “Assistant” on the top-right of the screen, choose “User Manage”. Click “Admin”. Click “Modify”.

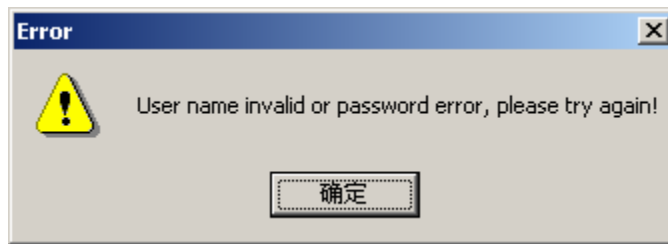
You may now enter a new password. Click “**OK**” then “**Save**”.

The interface will have a menu of buttons on the top.  
Options are 1) Login 2) Logout 3) Search 4) Config 5) Assistant.

If after the input of the username and password, the following box pops up; system is warning that some other user has used this name and logged in. Please use another name to log in.



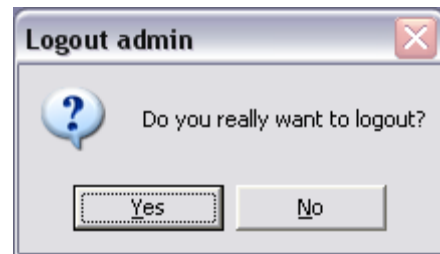
If after the input of the username and password, the following message appears (6-4), it means that the username or password were not entered correctly. Please make sure the "CAPS LOCK" button is off on your keyboard (if your username and password have lower-case letters) and try again.



6-4 – Password Error Message

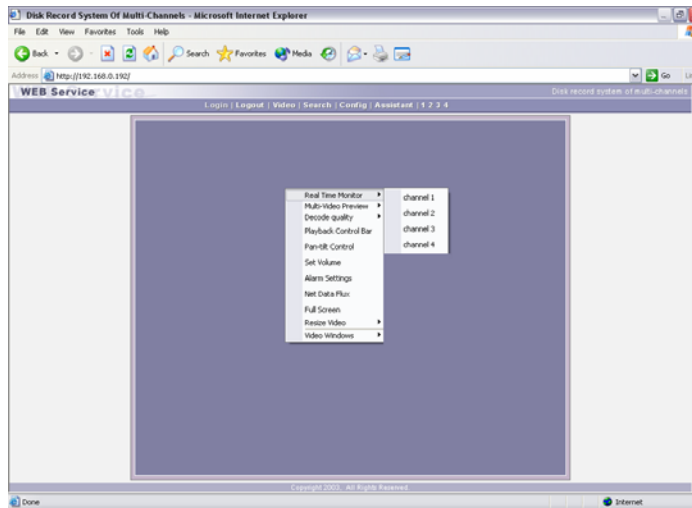
## 2. Log out

Use this function to log yourself out of the DVR (stop monitoring). If you forget to log out, the DVR will automatically time-out the user after some period of inactivity (30 minutes). When logging out, a confirmation dialogue box will appear.



### 3. Operating the Right-Click Menus

After you log in as Administrator, the Click the right button on your mouse, and the following menu will show:



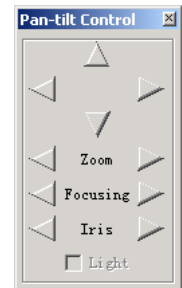
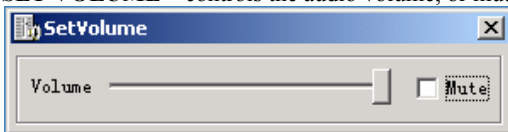
The Right-Click menu includes: **Real time monitor**, **Playback control bar**, **Pan-tilt control**, **Set volume**, **Net data flux**, **Full-screen**, **Resize video**... These options will not be discussed in detail.

**REAL TIME MONITOR** – lets you select which channel you would like to display full screen.

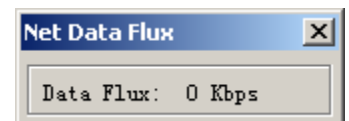
**PLAYBACK CONTROL BAR** – lets you open a window to playback recordings.

**PAN-TILT CONTROL** – lets you control and move the p/t/z camera (if installed). Note that before you can control a PTZ camera, you must set it up on the DVR itself.

**SET VOLUME** – controls the audio volume, or mute the sound.



**NET DATA FLUX** – will show the amount of data transmitted by the DVR over the network. When no network data was transmitted, the statistics shows zero.



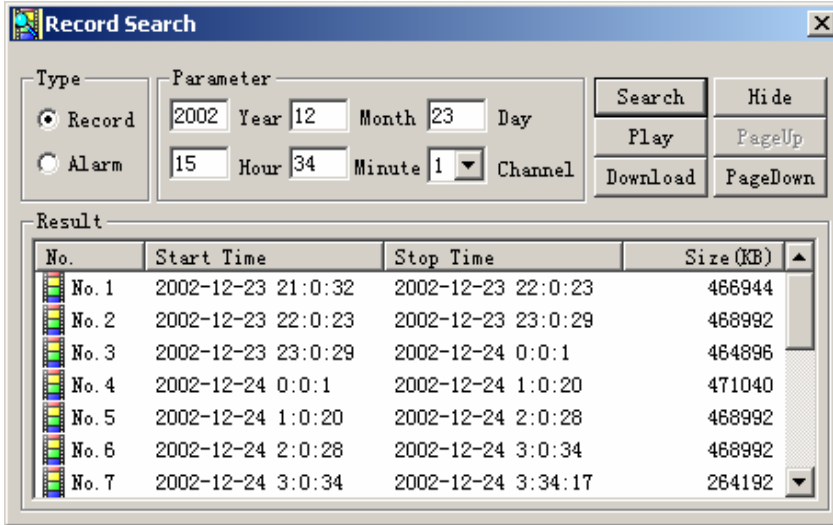
**FULL SCREEN** – there are two ways to monitor the DVR: regular console or full screen. You can choose between the modes by either double-clicking the window directly, or by choosing this option in the menu. During multi-channel monitoring, you can choose any channel to display full-screen by double-clicking on it.

**Resize Video / Zoom** – it is possible to make the monitoring window larger or smaller. Smaller window will display at higher resolution, with a clearer image. If monitoring more than one channel, each channel can be adjusted.

4. **Video** – pops up the same menu as Right-Clicking on the screen will.

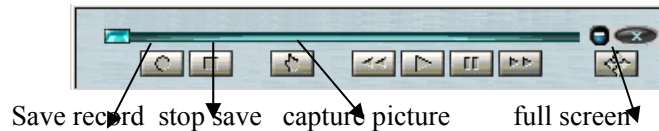
### 5. Records Search

Click on the **Search** button on the top, a dialogue will popup that looks like this:



Input the recording time, channel number and searching type (Record or Alarm), then click “Search”. The results will show up. The window will only show 15 records at a time. To view more records, click the “Page Up” and “Page Down” buttons.

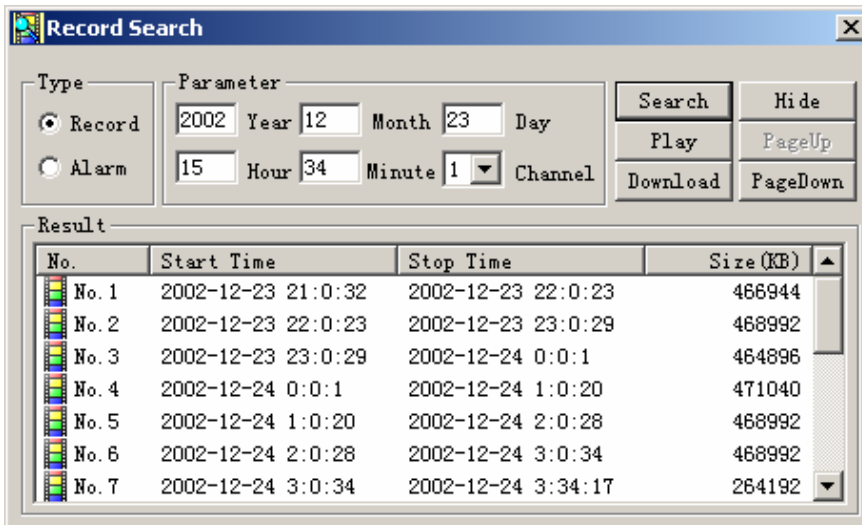
Double click the record you want to play, and the DVR will play the selected record. Records can be played at full screen.



During the playback, you can operate by the buttons in the playback bar like save record, stop save, capture picture, fast play, pause, full screen. During the playback on the video screen it shows the channel number, time and data flux of the record.

You can also download the records onto your computer for later viewing. To do this, you can either choose “Save Record” from the playback menu (record will automatically be saved into C:\Downloads on your computer).

Or, you can use the Download function in the Records Search dialogue box.



It is possible to download more than one record at a time. Simply select the records you wish to download, and click "Download". Records will be automatically saved into C:\Downloads on your computer.

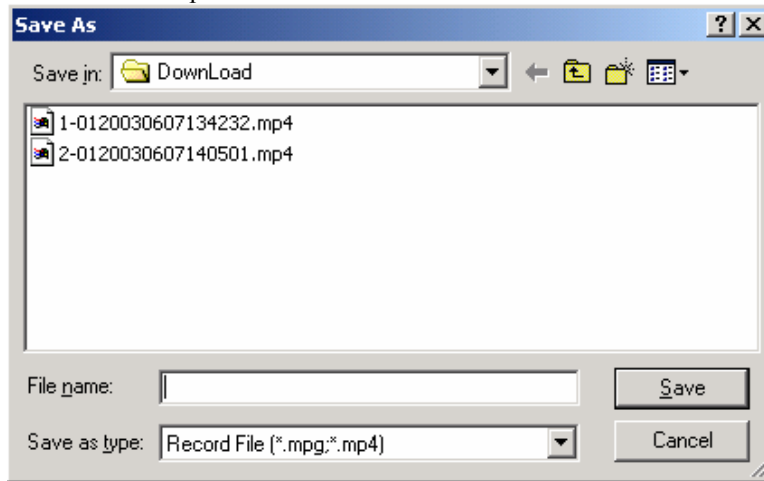
When a record is saved onto your computer, the DVR will give it a name. The name format is as follows:

File name + channel number + date + time.**mp4**

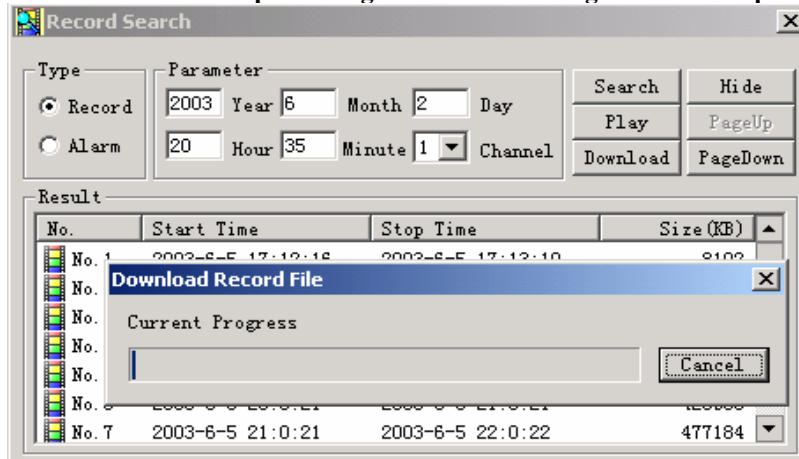
File extension will always be **".mp4"**.

Example: a-0120021205071028.mp4, 01 means channel 1, 20021205 means December 5<sup>th</sup> of 2002, 071028 means 7 o'clock 10 minutes 28 seconds.

After clicking the "Download" button, a dialogue box will appear that will let you name the clip you are about to save. Input the file name and choose **Save**.



The screen shows the processing of the downloading until the completion:



## 5. Config (System Settings)

Click the **Config** button on the top of the screen.

A dialogue box will popup that lets you configure the DVR.

Your options will be: General, Timing, Image, Alarm, and Motion Detection.

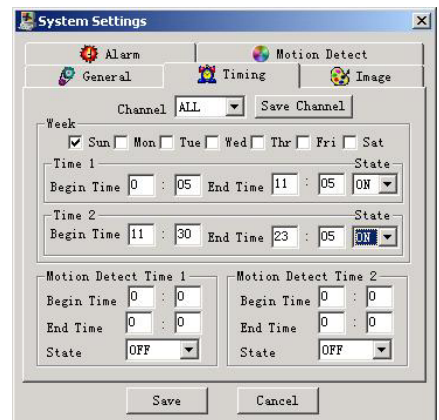
If a part of the menu (or a whole menu) is disabled (gray color), that means you have to set the setting up **LOCALLY** on the DVR itself.

**GENERAL** – main controls of the DVR. Lets you instruct the DVR what to do when HDD is full (overwrite existing recordings or stop recording), the way a PTZ is controlled (protocol, address, baud) for each channel, and Recycle Monitoring (instead of displaying one channel constantly, the monitoring console will switch the channel viewed every X-seconds (set in the Interval drop-down box).



**TIMING** – this is where you can set up the timed recording for the DVR. As well as timed motion detection recording. There are two time periods for recording. The set time in **Time 1** and **Time 2** is independent with the set time in Motion detection. There is no week setting for Motion detection.

**Timing of motion detection:** User can set two time periods during which the DVR will use motion detection (and trigger recording / external alarm). The set time will only be taken into effect when it is set to ON. If both motion detection times are set to OFF, the DVR will not use motion detection.



**IMAGE** – this menu is used to set up the image-controls such as quality and transmission protocols.

**Net Transmission Protocol** - There are two types of protocol: **TCP** and **Multicast**. If you want to be able to visit the DVR via internet, you must select TCP; if monitoring will be done via Intranet (LAN) a Multicast protocol is applicable.

**Multicast:** the user with control power can view the image at will and other users can only follow this user to view the image. 5 users are allowed to view at the same time. Able to monitor 4 channels at the same time. **TCP:** each user can view the image at will. According to the need, user can choose the different protocol.



If it is through outer Ethernet you must choose TCP. 2 users are allowed to view at the same time.

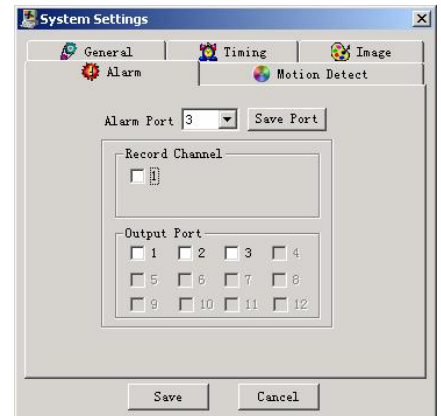


**Style** - there are two options for video encoding, and they are VBR (Variable Baud Rate) and CBR (Consistent Baud Rate). For VBR, the higher the level number (1 – 6) the better the quality of video. For CBR, you can choose different frame-rates.



VBR Image Level	Data Flux (Kb / S)
Level 1	128
Level 2	256
Level 3	384
Level 4	512
Level 5	768
Level 6	1000

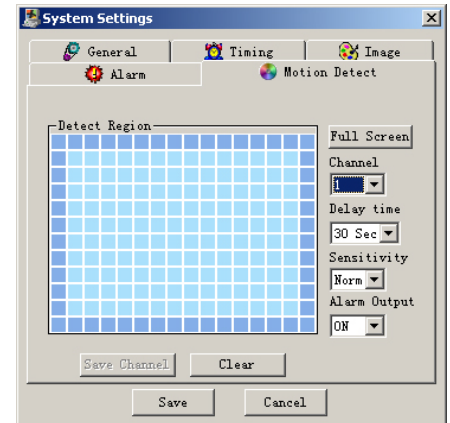
**ALARM** – when there is an alarm connected to the DVR, this menu lets you select the output ports and channels the DVR will record, depending on the alarm trigger received by the DVR’s alarm-in ports. Selectable for each i/o port.



**MOTION DETECTION** - The blue area is the selectable motion detection area. You can use the cursor to choose the area to be masked or un-masked. You can also adjust the sensitivity of any area. Click the “Full Screen” button (or right-click on the area) to display the motion detection area full screen. After setting the area you can either Clear (reset to what it was previously) or Save settings.

**Alarm output:** This instructs the DVR to trigger an alarm-out port, and lets you select a port. The default setting is Port #2. If you want to use this channel as a motion detection channel at ALL TIMES, then you have to turn off any Timed Recording settings for the channel (see TIMING above).

**After changing settings to motion detection (turning it on/off as well), you must manually shut down the recording on the channels you wish to record by motion. The DVR will turn the channels back on when it detects motion.**



## 7. Assistant

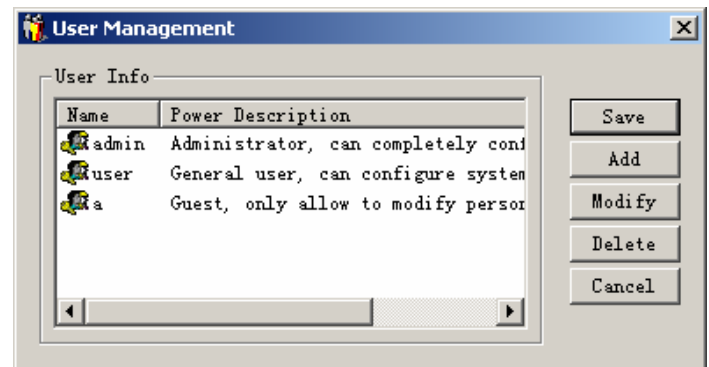
When clicking on the Assistant button on the top of the screen, you will get the following options:

User Manage, Record Control, Apply for Control Right, Log Information, System Info, Channel Name, and Upgrade Bios.

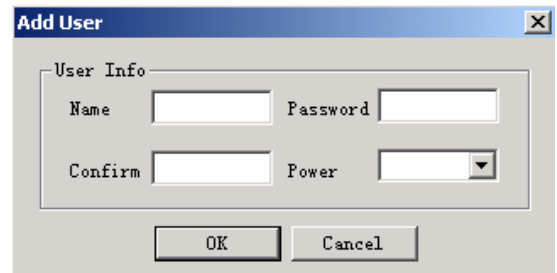


**USER MANAGE** – will display the user information of the DVR. In here, you can save, add, modify, and delete users. The DVR supports 3 levels of users:

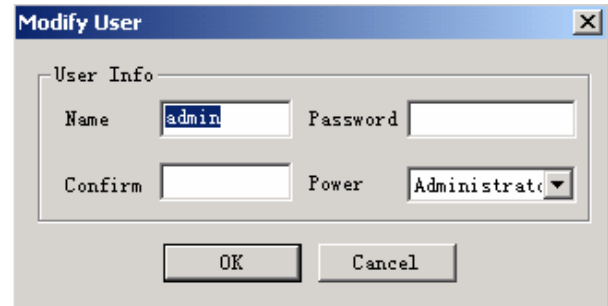
- **Administrator** – allows the user to modify user information, and change DVR settings (this is the “Manager” user locally).
- **User** – user can monitor and download recordings, but can not change DVR settings or user information.
- **Guest** – can ONLY modify his/her own personal information and commence live monitoring (record searching, system settings, and all other controls are disabled).



**Add a new user:** click the “Add” button on the right of the User Management panel. A dialogue box appears like the one on the right. Fill out the user information, and select the User Power (this is the same as the User Level discussed above).



**Modify an Existing User:** click the “Modify” button on the right of the User Management panel. You will now be able to modify user details and power.



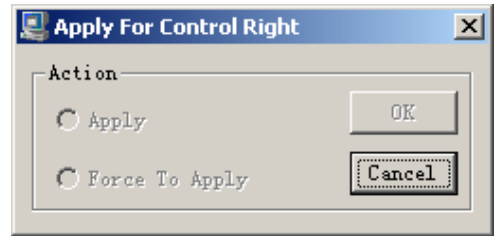
## RECORD CONTROL (assistant menu option)

This option allows you to start and stop recording of any channel.

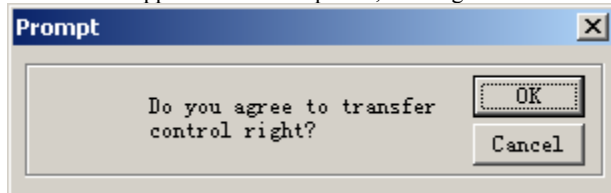


## APPLY FOR CONTROL RIGHT (assistant menu option)

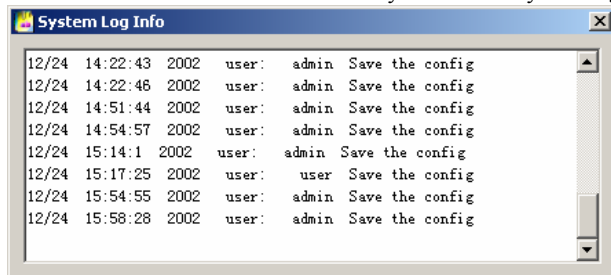
When a user of a lower power level wishes to gain a higher control power, it is possible through this function. If a user wants to have the control power, the user has to apply and gain the authorization of the user who already has a higher control power (such as an Administrator). If the logged-in users are all normal users, the first logged-in user gains the control power automatically. If an Administrator logs in later, they can gain the control power by selecting "Force to apply". If only one user logs in, or the logged-in user is the user with control power, the box is disabled.



When a user applies for control power, a dialog box such as this will appear on the superior user's screen:



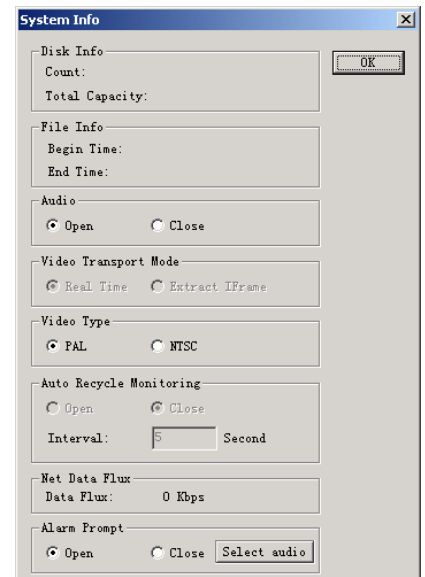
## LOG INFORMATION – lets you view the system log. With any actions taken by anyone who was logged in.



## SYSTEM INFORMATION (assistant menu option)

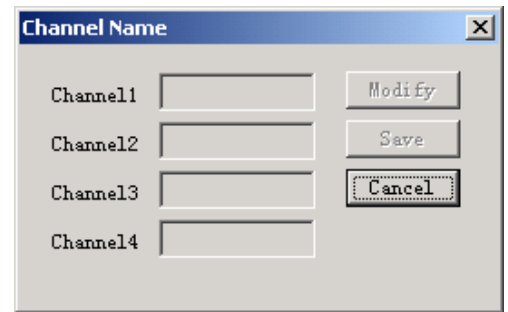
Lets any user check the basic system information and configuration. You can: control audio on/off, change Video modes (PAL/NTSC, choose network transmission protocols, change non-real time recording transmissions (Default is Extract I Frame), and turn Auto Cycle on/off (when ON, the DVR will switch between the channels automatically while monitoring).

**Net data flux:** during real-time monitor it shows the statistics of the network data transmitted.



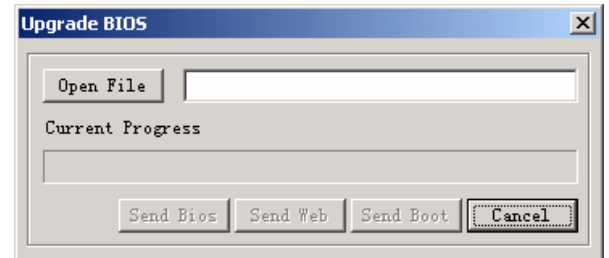
### **CHANNEL NAME** (assistant menu option)

Lets you change the name of channels (Default settings is Channel 1, Channel 2, Channel 3, Channel 4; respectively).



### **UPGRADE BIOS** (assistant menu option)

Lets you update the DVR software remotely. (**CAUTION!** Only use authentic and official **N-Patrol Inc.** updates for the DVR software! If you have any questions about this function, please consult your dealer before proceeding with an upgrade) To update bios, please make sure to open the file corresponding to the button you press (Web updates should ONLY be sent by pressing the "Send Web" button. BIOS updates should ONLY be sent using the "Send Bios" button; Boot updates should ONLY be sent using the "Send Boot" button.)



### **CAUTION!**

Incorrect software updates may result in fatal system failure and permanent damage to the DVR!

## Chapter 6 BIOS / Web File UPDATE Over LAN

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**CAUTION!** Incorrect software updates may result in fatal system failure and permanent damage to the DVR!

At times, N-Patrol Inc. will release updates for the DVR software to increase DVR efficiency, functionality, and other aspects of the DVR's operation. These updates are ONLY available through the N-Patrol website, or directly from your dealer. When an update is available, and you choose to install it into the DVR, please use great caution. Please do not accept any updates from anyone that is not an **authorized N-Patrol dealer**. Should you have any questions, please contact the person who sold you the DVR.

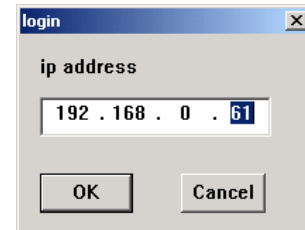
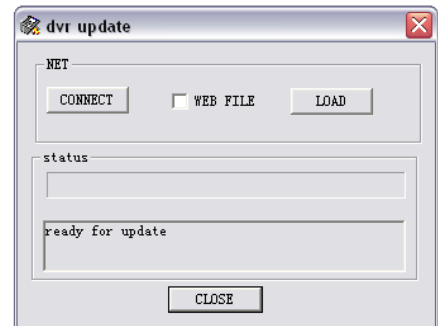
**When updating the system, caution must be taken to differentiate the two different possible system updates:**

**BIOS Update** – Updates the operating system, functions, security, and other aspects of the DVR's core systems. The BIOS is the “brain” of the DVR, and is used to store its Operating System, critical settings, security information, and other operation-related data.

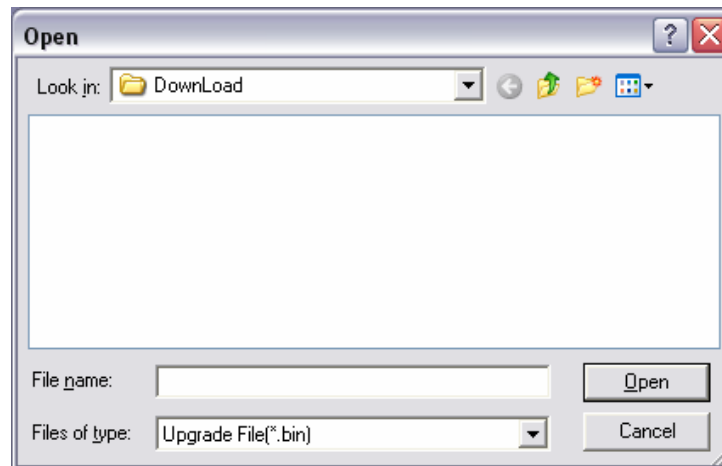
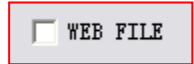
**Web File** – Updates the DVR's Web Client, and compatibility of remote connection through TCP/IP.

Before starting the update, please make sure the DVR is connected to the network, and all network settings are correct (refer to Chapter 2, Page 17 – “Network Operations” for more details). When all network connections are established you can now update the DVR.

1. Run “Upgrade.exe” from the computer you connected to the DVR via LAN.
2. When the program loads, it will show its interface as follows:
3. Open the DOS Command Prompt window, and Ping the DVR. If you are unsure as to how to do this, refer to Chapter 2, Page 17 – “Network Operations”. If Ping was successful and a reply was received from the DVR, go back to the Update.exe program, and proceed to the next step.
4. Click the “CONNECT” button; a dialogue box will appear where you will need to enter the DVR's IP. (This is the IP you set up in the DVR locally, when setting up its network settings.)
5. Click “Ok” to connect; the program's status window will now say “Connect-Mode.” (this means the computer and the DVR are in Connect-Mode.)



6. **ATTENTION!** Make sure you **check** the “WEB FILE” box prior to loading the **Web File** update and **UNCHECK** this box if you are loading the BIOS Update!
7. **If you are loading a Web-File, please go to step 9.**
8. Loading BIOS Update – make sure the “Web File” check-box is **UNCHECKED**, and click “Load”. Choose the file containing the new Bios version. Click “Open”. The program will show a progress-bar, and when finished the DVR will restart itself automatically with the new update. You should now close the program. Or **go to step 9 to update the Web File.**
9. **Loading Web File Update** – make sure the “Web File” check-box is **CHECKED**, and click “Load”. Choose the WEBFILE update file, and click “Open”. A progress bar will appear, and DVR will restart when finished updating.



10. Close the update program. **Your DVR is now updated.**

## **Chapter 7 Frequently Asked Questions (FAQ)**

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**1. When I start the DVR it beeps – what does that mean?**

When the machine is powered up and started recording, it will sound a short beep, to confirm that everything is good.

If the HDD can not be read, or there is a problem with the HDD the DVR will sound a long beep.

If communication with the controller panel is abnormal, or interrupted, the DVR will sound one long beep followed by two short beeps.

**2. The indicator light is flashing while recording – what does that mean?**

When the indicator light is flashing, the DVR is having difficulties with the input signal from the Camera (there is Video Loss). Check the video connections and wires. If the light is still flashing, the problem then is with the HDD, and means the HDD read speed is too slow. You will need to change the HDD.

**3. My Hard Drive has bad Clusters/Sectors or was damaged. What do I do?**

If the bad sector of the HDD is not too large, the machine would quarantine that sector and ignore it (no recording will be made to the bad clusters). If a large segment of the Hard Drive is damaged, the machine will shut the HDD off, and display a warning on the monitor. In this case, it is recommended to change the HDD.

**4. What kind of decoders and controllers can I use with this DVR?**

This machine supports and will work with all decoders, and most control board / matrix devices available on the market.

**5. Can I connect more than one PTZ camera to the DVR?**

Yes, the DVR will support PTZ control on all channels. To connect more than one camera as PTZ, you will need to get a Protocol Decoder Splitter. Ask your dealer for more information.

**6. Can the DVR support a CD-RW?**

Yes, the DVR will write onto an external CD-RW, if connected through the machine's USB port.

**7. I want to operate this DVR off a car / boat battery. How can I do this?**

This machine can run off a battery only if you connect it through an external power converter unit.