

The  Range of Digital Video Recorders



**CCT723 – 4 Way DVR**

**CCT726 – 8 Way DVR**

**CCT727 – 16 Way DVR**

The DVR365 is an MPEG 4 Digital Video Recorder.

With three different models in the DVR365 range there's a DVR for every application.

Choose the 4-way DVR for those small but demanding CCTV installations, or the 8-way DVR will suit most businesses requirements, for the large CCTV installations choose the 16-way DVR.

The DVR365 will allow you to record video and sound in real time on every channel.

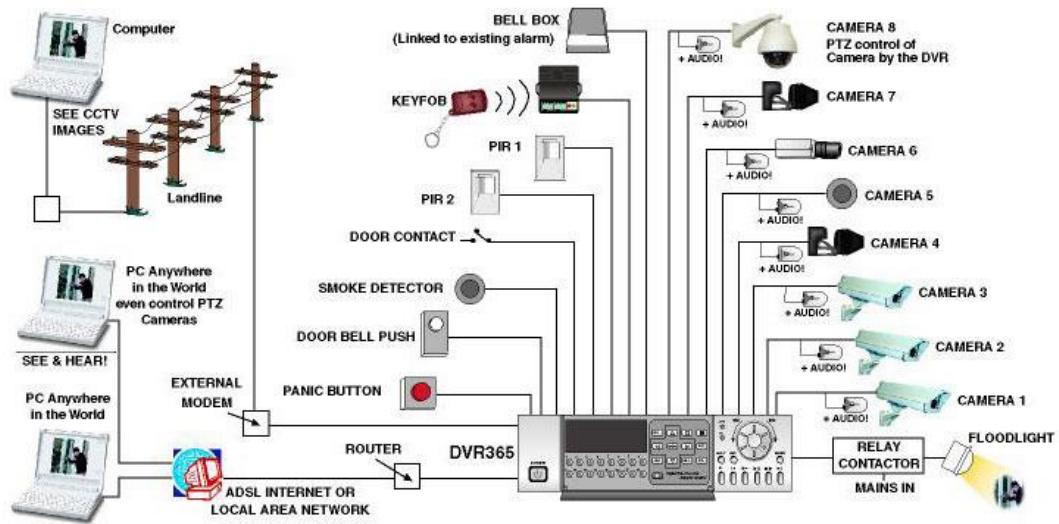
The DVR also acts as a "video server" so you can now keep an eye on your property from anywhere in the world by logging onto the DVR via the Internet.

Whether you use the DVR365 for simple unattended automatic recording of camera pictures in a small corner shop or you monitor the live activity of high street stores worldwide, the DVR365 really is a fantastic all-round product.

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# 1 DVR365 Applications



Note – for live video and sound the DVR365 must be connected through a fast Internet connection e.g. An ADSL connection

## **2 Operation Precautions**

- | All the safety and operating instructions should be read before the DVR365 is operated.
- | All the safety and operating instructions should be retained for future reference.
- | Ensure all operating instruction and warning notes are complied with at all times.
- | Do not use strong or abrasive detergents when cleaning the DVR365.
- | There are no user-serviceable parts inside. Please contact a qualified engineer for servicing
- | Do not expose the DVR365 to water or moisture and do not try to operate it in wet areas.
- | Please make sure that both ends of the power lead are plugged in.
- | Do not drop foreign objects through the DVR365's case or expose it to moisture.
- | Do not attempt to disassemble the DVR365.
- | Contact a qualified engineer if the following situation happens:
  - ÿ The power lead or plug is damaged.
  - ÿ The DVR365 has been exposed to rain or water.
  - ÿ The DVR365 does not operate normally by following the operating instructions.
  - ÿ The DVR365 falls to the ground or its cover is damaged.
- | When replacement parts are required, make sure that the service engineer has used replacement parts specified by System Q Ltd or that these parts have the same characteristics as the original ones. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- | Use only with a mounting accessory recommended by System Q Ltd.
- | Never push objects of any kind into the case of the DVR365 as they may touch dangerous voltage points or short cut parts that could result in a fire or electric shock.
- | If an outside cable system is connected to the DVR365, be sure that the cable system is grounded so as to provide some protection against voltage surges and built-in static charges.
- | All normal precautions to avoid component damage due to electrostatic discharge should be taken during installation and operation.
- | To prevent electric shock, do not remove screws or the unit's cover.
- | Do not cover the radiator fan

### **2.1 Accessories Check List**

1. One Power Cable
2. One Remote Controller
3. Four HDD Data Cables
4. One Standard Cat 5 Network Patch Lead (Not a crossover lead)
5. One Packet Of Installation Fixings
6. One CD For Installation of the Client software and the Player software
7. One User Manual
8. Audio Leads (with the 16-Way DVR)

### 3 Product Features And Specifications

#### 3.1 Product Features

- **Real-time Monitor**  
There are two video outputs:  
1) Composite video output, for use on a standard CCTV monitor (BNC)  
2) VGA output port, for displaying the DVR's output on a PC monitor  
Both outputs can display single or multiple channels
- **Storage**  
The DVR has space internally that allows you to install up to eight large capacity hard disc drives (HDD).  
The DVR software allows you to decide what to do when the hard disc(s) is full i.e. stop recording or start overwriting the oldest data first.
- **Back-up**  
There are various ways in which you can back up records that are stored on the DVR to an external device:  
The unit comes with a Universal Serial Bus (USB) port for connecting external backup devices.  
You can also connect the DVR to a Local Area Network (using a standard network cable) or directly to another PC (using a network crossover lead), for downloading data to your computer.
- **Record & Playback Mode**  
The DVR has a built in multiplexer which allows you to view all the cameras simultaneously on the monitor, you can also view individual cameras at the same quality as when in multi screen mode i.e. the images are not digitally enhanced.  
There are various different recording modes that you can set: -  
Manual recording i.e. you control the recording manually by turning it on/off as and when you want.  
Timed recording i.e. you can set the DVR to record and stop for given times during the day e.g. 09.00AM to 05.00PM.  
Event recording i.e. the unit will start to record when it has been triggered, this is a good way to reserve hard disc space. When the DVR is set for alarm / motion recording it will record the previous four seconds to the alarm being activated.  
The DVR supports triplex operation i.e. you can view live images whilst recording, searching, playing back (on one channel) and transmitting over a network.  
The DVR offers multiple playback modes: X2, X4, X8 fast play, stop, 15F/S, 5F/S slow play and frame-by-frame playback.
- **Alarm Input**  
The DVR has eight external alarm inputs that allow devices such as PIR's, doorbell, door contacts etc to start the DVR recording.  
The DVR has a built in protection circuit for Alarm input and output.
- **Pan Tilt & Zoom Control**  
The DVR can control pan-tilt-zoom equipment using its RS485 communication port. It also allows you to control various protocols for different PTZ equipment connected to the unit.
- **Communication connection port**  
RS232 port supports a standard dial up Modem connection, keyboard for central control, or connection to a computer via serial port for system upgrading.  
Standard Ethernet port for remote connection and control. Connect the DVR to a router using this port for connection to the Internet (ADSL)

## Specification Table

Parameter	4 Channel	8 Channel	16 Channel
Processor	AMD ELANSC520/133 embedded microprocessor		
Operation system	Real-time operation system (RTOS)		
Model	CCT723	CCT726	CCT727
Video input	4 Channel (PAL) BNC 1.0V <sub>pk-pk</sub> 75Ω	8 Channel (PAL) BNC 1.0V <sub>pk-pk</sub> 75Ω	16 Channel (PAL) BNC 1.0V <sub>pk-pk</sub> 75Ω
Video output	1 Channel PAL BNC (1.0V <sub>p-p</sub> 75Ω) video signal 1 channel VGA output port		
Audio input	4 Channel 200- 1000mv10KΩ(BNC)	8 Channel 200- 1000mv10KΩ(BNC)	16 Channel 200- 1000mv10KΩ(RCA)
Audio output	1 Channel 2000mv 1KΩ(RCA)	8 Channel 200- 1000mv10KΩ(RCA)	16 Channel 200- 1000mv10KΩ(RCA)
Video display	1&4 window display	1,4,9 window display	1&16 window Display
Video standard	PAL - 625 line, 50f/s		
System resource	Real-time recording, one channel playback and network operation simultaneously (Triplex Operation)		
Image resolution	Real-time monitor 704×576, playback 352×288, VGA output 720×576		
Motion detection	Area setting: 396 detection areas on the screen; 3 different sensitivity levels: Low, Medium & High		
Video compression	MPEG-4 CBR (fixed frame rate); MPEG-4 VBR (variable frame rate)		
Audio compression	Audio: ADPCM 28.8Mbyte/hour; G.729: 3.6Mbyte/hour; Video: 40- 460Mbyte/hour		
Image compression rate	352×288CIF format; 176×144QCIF format; 704×576 4CIF format		
Video recording speed	Real-time mode: PAL 1fs-25f/s per channel 100fps                      200fps                      400fps		
Image quality	6 selectable levels		
Hard disc	Inside equipped with 4 IDE ports, enabling you to install 8 internal HDDs		
Alarm input	8 channel voltage alarm input (+5 - +15V DC. Needed for the alarm input)		
Alarm output	3 output channels (output in open/close contact or controllable 12V output)		
Alarm relay	30VDC 1A, 125VAC 0.5A (relay output)		
MODEM connection	RS232 (Serial Port)		
Network connection	RJ45 10Mb Ethernet connection		
Pan-tilt control	RS485 (4 / 8 Way DVR) A B Connection Terminal (16 Way DVR)		
Power	230VAC		
Power consumption	60W	70W	80W
Working temperature	-10°C - +55°C		
Size	441 (Width) x430 (depth) x89mm (height)		

## 4 Installation

### 4.1 Hard Disc Drive Installation

The DVR is supplied without HDDs installed, thus one should be fitted before operating the DVR. The maximum HDDs that can be installed internally is eight 10Gb to 200Gb sized drives.

Note: .If you install an internal CD-RW or a removable HDD, you will only be able to install five internal HDDs.

#### 4.1.1 Installation Steps

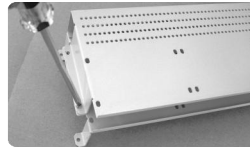
Note: The CCT723, CCT726 and CCT727 are supplied with silver cases.



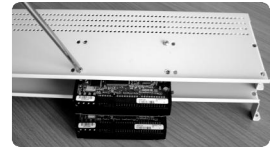
1



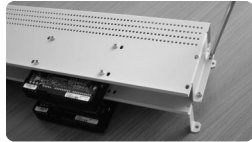
2



3



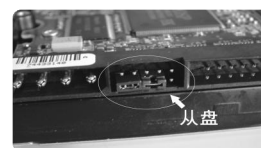
4



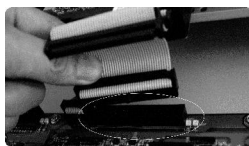
5



6



7



8



9



10

See below for the Key

#### Key for installing the HDD

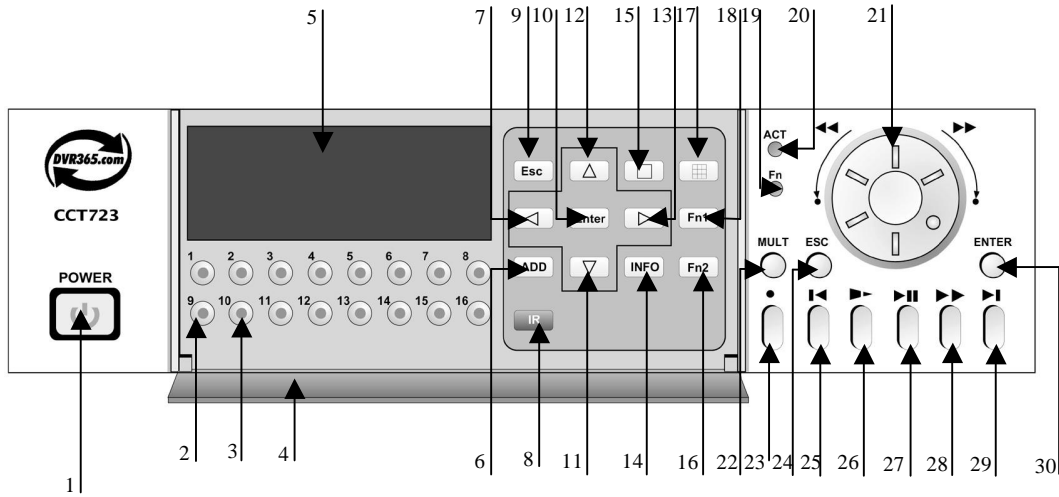
1. Remove the outer case of the DVR
2. Remove the HDD bracket from inside the unit
3. Separate the top and bottom part of the bracket
4. Install the HDD. Note the HDD is installed upside down, ensuring bracket is in correct position
5. Screw the two bracket parts together
6. Set jumper / slave settings on the HDD. The master HDD is connected to the end of the IDE data cable; the slave is connected to the middle connector.

*Note the jumper settings will be given by the HDD manufacture, most manufacture's settings vary.*

7. Fix in the HDD bracket into the unit.
8. Connect HDD data cable to IDE port ensuring the first connection is used first i.e. IDE1 for first master/slave HDD, the IDE2 for second master/slave etc.
9. Connect power cable to the HDD.  
*Tip look for the red cable on the power and the red cable on the data bus, when connected correctly these two cables reside next to each other.*
10. Place the cover back on.



## 4.2 Front Panel Operation



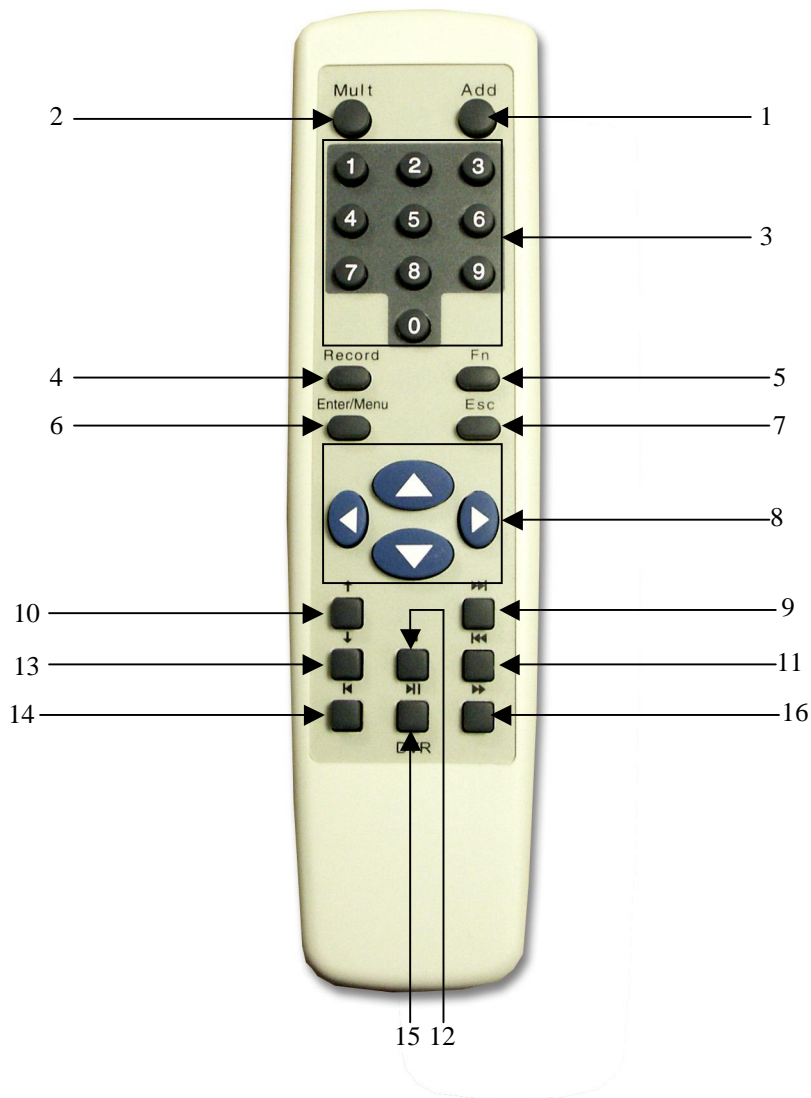
- |                                      |                                     |
|--------------------------------------|-------------------------------------|
| 1) Power switch and indication light | 16) Function assistant 2            |
| 2) Number                            | 17) Multi-window splitting          |
| 3) Recording light                   | 18) Function assistant 1            |
| 4) Perspex cover                     | 19) Assistant indication light      |
| 5) CD-RW Bay                         | 20) Indicator light for standing by |
| 6) Address                           | 21) Flying shuttle                  |
| 7) Direction                         | 22) Multi-window shifting           |
| 8) Remote receiver                   | 23) Record                          |
| 9) Cancel                            | 24) Cancel                          |
| 10) Enter                            | 25) Play last section               |
| 11) Direction                        | 26) Slow play                       |
| 12) Direction                        | 27) Play/pause                      |
| 13) Direction                        | 28) Fast play                       |
| 14) Information                      | 29) Play next section               |
| 15) Single window display            | 30) Enter                           |

### Schedule of key functions

Order	Key Name	Logo	Function	Comments
1	Power switch and indication light	Power	Power Switch Indication Light	Power off by pressing the key for 4secs
2	Numbers	1 2 3.... 16	Password input, window shift or number input	As number input, 10 is equal to 0
3	Recording Light	Red on numbers	If the light is red, that channel is being recorded	
4	Perspex Cover	Black Plastic	Dust protection	
5	CD-RW	CD-RW	Back – up records	May not be available
6	Address	ADD	Input remote control address for operation of DVR	
7, 13	Left Right	t u	Transverse moving; shifting level 1 and level 2 menu; pan-tilt control	
11, 12	Up down	p q	Lengthways moving; change set-up; change number; pan tilt control	
8	Remote receiver		Used to receive the remote signal	
9, 24	Cancel	ESC	Cancel During playback, restore to real-time monitor	
10	Enter	ENTER	Enter Enter main menu	
14	Information	INFO	Press to show the system information	
15	Single window display		Shift the window to single window	
16	Function assistant 1	Fn1	In the state of single window monitor Press the key to display the menu of the pan-tilt moving and camera lens control  When setting Motion Detection areas, help	

			to complete the setting	
			During playback, display the playback status bar	
17	Function assistant 2	Fn2	During playback work with number key to realise PIP for the playback and real-time monitor	
18	Multi-window splitting		During monitor shift to multi-window display	
19	Assistant indication for standing by		Indication light for the function assistant	
20	Indicator light for standing by		Light on when DVR in stand by	
21	Flying Shuttle		Directional control: outer circle for left and right, inner circle for up and down; When playback, outer circle can control back play and fast play	
22	Multi-window shifting	MULT	Multi-window shifting during real-time monitor; during playback, shift between playback and monitor window	
23	Record	REC	Start/stop recording, apply together with direction key	
25	Play last section	9	Play the recording file before the current file	
26	Slow Play	▶	3 levels of slow play speed(15f/S,5f/S,frame by frame)	
27	Play / Stop	"/;	Play/stop	
			When in monitor, press it to enter recording search menu	
28	Fast Play	8	3 levels of fast play speed,X2,X4,X8	
29	Play next section	:	Play the recording file next to the current file	
30	Enter	Enter	Enter	
			Enter main menu	

### 4.3 Remote Controller

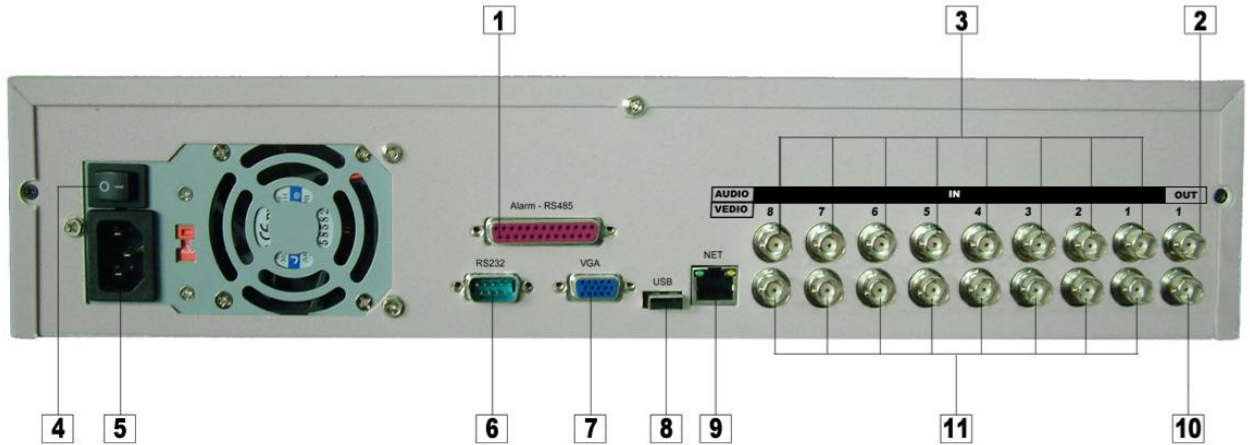


- |                           |                        |
|---------------------------|------------------------|
| (1) Address               | (9) Jump forwards      |
| (2) Multi-window shifting | (10) Play last section |
| (3) Number                | (11) Jump backwards    |
| (4) Record                | (12) Pause             |
| (5) Function assist       | (13) Play next section |
| (6) Enter / menu          | (14) Slow motion       |
| (7) Cancel                | (15) Play / Pause      |
| (8) Direction             | (16) Fast Play         |

## 5 Rear View of the DVR

### 5.1 4 / 8 Way DVR

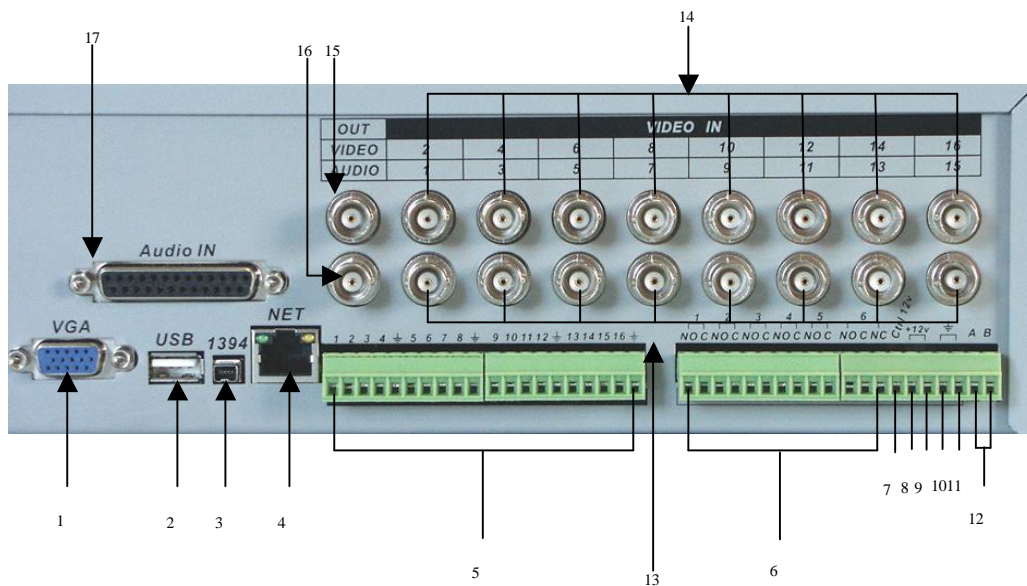
On the 4 / 8 way DVR the audio and video inputs are both BNC connections



- |                          |                                      |
|--------------------------|--------------------------------------|
| 1 Alarm-RS485 connection | 7 VGA connection                     |
| 2 Audio output (BNC)     | 8 USB port                           |
| 3 Audio input (BNC)      | 9 Local Area Network connection RJ45 |
| 4 Power switch           | 10 Composite Video output (BNC)      |
| 5 230VAC Mains           | 11 Composite Video input (BNC)       |
| 6 RS232 connection       |                                      |

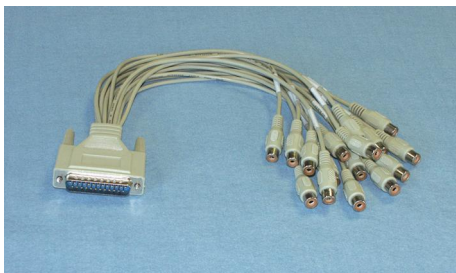
### 5.2 16Way DVR

Due to the size restrictions on the rear of the DVR on the 16 way model the audio inputs are through a 'flying lead' as shown on the next page.



- |   |   |
|---|---|
| 1. VGA Connection                         | 10. Ground (0V)   |
| 2. USB port                               | 11. Ground (0V)   |
| 3. IEEE 1394 (Fire wire) port             | 12. PTZ Control Inputs (A an B)                               |
| 4. Local Area Connection RJ45             | 13. Composite Video Inputs (1, 3, 5, 7, 9, 11, 13,15) - BNC   |
| 5. Alarm Inputs                           | 14. Composite Video Inputs (2, 4, 6, 8, 10, 12, 14, 16) - BNC |
| 6. Alarm Outputs (Normally Open / Closed) | 15. Composite Video Output (to monitor) - BNC                 |
| 7. Controllable +12V output               | 16. Audio Output (to loud speaker) - BNC                      |
| 8. +12V                                   | 17. Audio Input Port (Via phono leads)                        |
| 9. +12V                                   |   |

On the 16 - way DVR a made up lead is supplied for the audio input port with phono inputs see below.

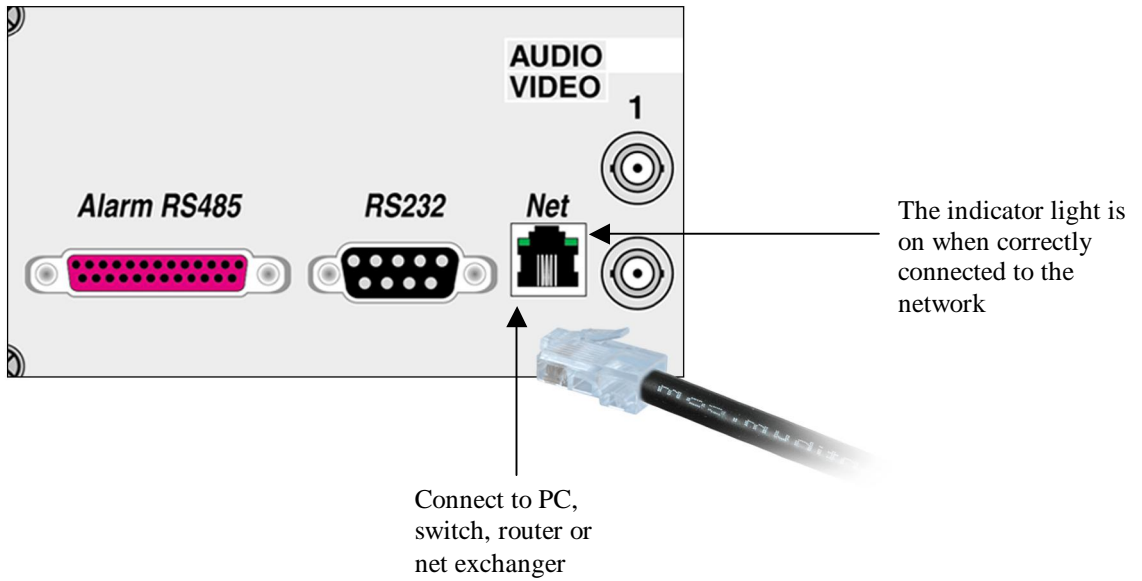


Note: - ensure that you terminate your audio units into phono plugs.

### 5.3 Ethernet LAN port connection

The DVR can be connected to a local area network (LAN) by utilising the Ethernet connection port provided on the rear of the unit. The connecting cable should be category 5 cable terminated into an RJ45 connector (which is the standard for Ethernet LAN's). If connected to the network correctly, the indicator light of the RJ45 input port will be on.

Note: When connecting directly to a PC via the Network connection, ensure that a crossover lead is used, if connecting through a switcher/hub use a standard LAN lead.



Note: Direct connection to PC is possible by bypassing an Ethernet switch, however, one end of the cable is required to be crossed over. See below for connections.

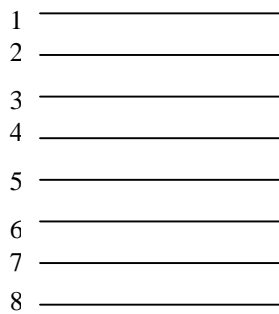


Fig 3.4.1  
Straight Cable

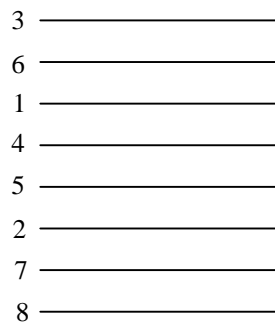
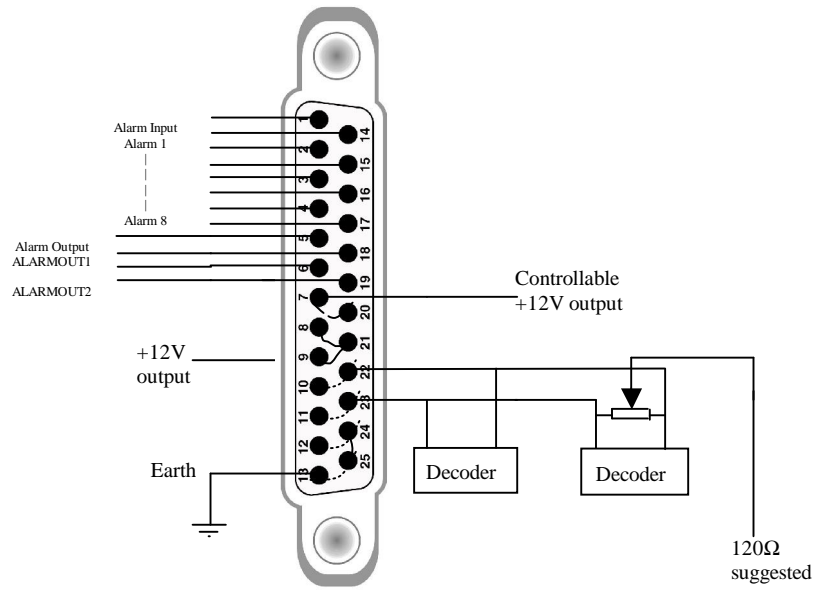


Fig 3.4.2  
Crossover Cable

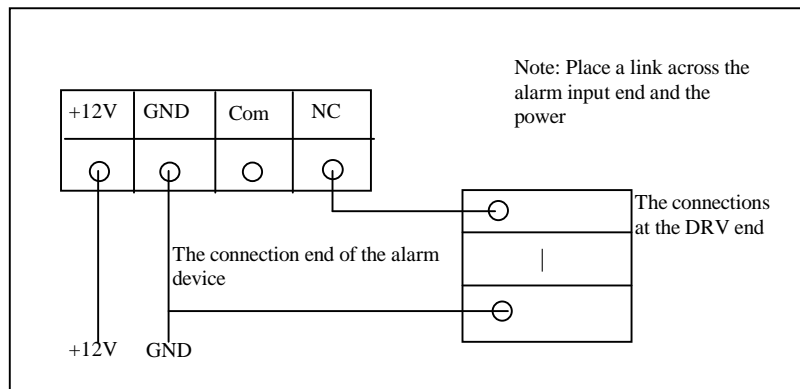
CAT 5 Cable Core Number	1	2	3	4	5	6	7	8
Colour Representation	WH/OR	OR	WH/GR	B	WH/B	G	WH/BR	BR

Table 1.0 – Core Number with respect to Core Colour

## 5.4 RS485 Port (4 / 8 Way DVR)



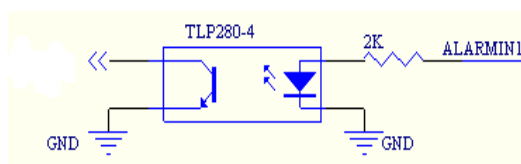
1. 1, 14, 2, 15, 3, 16, 4, 17 connects to alarm input: ALARM1~ALARM8;
2. 5, 18-OUT1, 6, 19-OUT2 two linked normally open output (alarm outputs)
3. 7, 20-OUT3 are two attached inner lines, either pin is controllable +12V output;
4. 8, 9, 21 are +12V power output, able to be taken as the power supply for an alarm sensor;
5. Pins 10 & 22 are the B line of RS485, 11 & 23 are the A line RS485;
6. Pins 12, 13, 24 and 25 are earth lines



### Alarm Input

The DVR has 8 alarm inputs, either normally open or normally closed type. The power for the alarm sensor can be provided by the DVR (if the DVR powers too many alarm sensors, it may affect the normal working operation of the DVR).

When you look at the diagram below you can see how you apply 12V to an alarm input to cause the unit to alarm on that particular input.

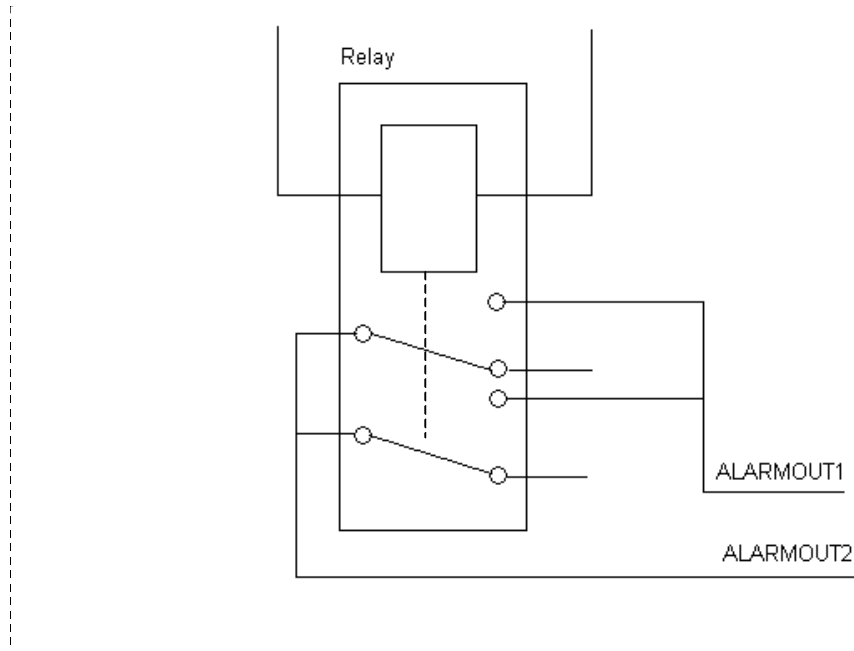




### Diagram of the alarm input

#### Alarm Output

The DVR has two alarm outputs (normally open). In order to avoid overworking the DVR, please refer to the parameters of the relay being used.



### Diagram of the alarm output

#### The controllable +12V

This can be used for the alarm output; you can also use it to restore power to a smoke alarm sensor.

#### RS485 A, B line

Used to connect the A and B line for PTZ equipment.

## 6 System operation

### 6.1 Start/Stop the recorder

#### 6.1.1 Start the recorder.

When starting the DVR ensure that the power indicator on the front is illuminated.

The system performs a self-diagnostic operation on start up.

If the starting time is within the schedule recording time, the system will start recording automatically. Note: - if there is no HDDs installed, the unit will start and you will be able to access menus, there will however, be no recording.

#### 6.1.2 Stop the DVR

To turn the DVR off press and hold the power key on the front panel for approximately four seconds; the unit will power down in the correct manner. Then switch off the machine with the power button to the rear of the unit.

Note: - Please try to avoid turning the DVR off by removing the mains as this does not allow the unit shut down correctly which could cause the HDDs to develop faults.

#### 6.1.3 Power off recovery

In the event of a power cut when the DVR is in the state of normal/timing/alarm recording, the recorder will remember what state it is currently in and carry on when the power is returned. Note that the state indicator light is the same as it was before the power was lost.

Note: If the power is cut in the state of recording, the system will not store the last 5—15 seconds of recordings.

#### 6.1.4 Password

Before you can enter the menu system, you must input a password. There are two levels of password: - user password and administrator password

User password                               **666666**

Administrator password                   **888888**

The user password limits you to what functions you can use i.e. it allows you to search video footage, playback and view system information.

The Administrator password gives you access to all of the software e.g. you can change system settings etc.

### 6.2 Recording operation

The default recording mode for the DVR is 24hour continuous recording on all channels. The administrator user can choose the suitable recording mode required. Instructions for the different recording modes are as follows: -

#### (a) Timing recording

Enter the menu, now you can navigate to the Timing and set the timing period for the recording. Note when you go into the timing menu you will see that Sunday is highlighted, to change each day you must go to the required day e.g. Monday, highlight it, you will now notice that both Sunday and Monday are highlighted. To change the times for Monday you must go back to Sunday and un-highlight it. Once you have changed Monday ensure that you save your settings before progressing onto Tuesday. This process must be done for each day See Appendix B for complete details of how to set it up

See details at Menu>System setting>Timing

#### (b) Manual recording

Press “Record” button on the remote controller or “Record” on the front panel  
 Check the status of each channel in the recording menu; the highlighted channel is the recording channel.

For recording on the required channel, simply press the related number key to highlight it. Then press Enter to begin the recording.

To stop recording of a particular channel press the related number key.

Press Cancel or ESC to return

(c) Alarm Recording

Alarm recording allows you to increase the recording time of the DVR, as it will only start recording when the PIR etc picks up any movement.

Connect the alarm input device to the DVR according to the device connection i.e. Normally Open or Normally Closed detector.

Set the correct setting in the menu to start Alarm recording. See details at Menu>System setting>Alarm setting

(d) Video Motion Detection (VMD) recording

Motion detection recording will also increase the recording time of the DVR, as it will only start the DVR recording when it picks up any movement.

Points to consider when using Video Motion Detection: - It is important to remember that the DVR’s VMD circuits look for movement in the camera’s picture, therefore if it is so dark that the camera cannot see any movement nor will the VDM circuits. However, if you were using VMD in a darkened room as soon as the light is turned on, the VDM would cause the DVR to record, as the change in light would be seen as movement. When you are using the VDM with external cameras, sudden changes of bright sunlight to cloud over may cause the VDM circuits to trigger the DVR. With this in mind outdoor use of VDM needs careful planning.

In order for VDM to trigger the DVR you need to turn of 24h recording on the channel that requires VDM, ensuring that you do this for each day. Now you can turn VMD on.

Set up the required times and required motion detection setting in the menu. See details at Menu>System setting>Motion detection

**6.3 Alarm output**

The alarm output can be used to control an external device such as a buzzer to tell the user that that the unit has been alarmed. Or it allows you to remotely control a floodlight e.g. you could turn the light on/off from the other side of the world.

The alarm output is directly proportional to the length of the recording time. After an alarm activation the unit will record for a user defined length of time and the output relay will be latched for the same period of time. So if the recording is set at 30secs, the alarm output will be active for 30secs.

See details Menu>System setting>Alarm setting

**6.4 Pan-tilt control operation**

The DVR365 range allows you to control Pan Tilt & Zoom Equipment. It is possible to control PTZ equipment from the DVR, using the Remote Controlled Unit provided or you can operate it over a network connection.

Confirm the correct connection of the PTZ and the decoder then set the correct decoder address. You should enter the corresponding protocol of the PTZ equipment that you are using, from the Menu>System setting>Control menu

NONE	JT1641
V9KPP	BOGA
INV	DSCP2-8
YAAN	SHARP
TC-615	WV-CS850
DRAGON	TUOXIN
MULTI-AD	XS600
TCSTD-PP	PIH-717

TCSTD-PD	XCY-RC02
PANASONIC	SYTT
EE	PIH-1016
SDA	SAE
KALATEL	SAMSUNG
HHX2000	PELCO-D
PELCO-P	AD
JEC	DH-CC440

The above table shows the protocols that are compatible with the DVR.

Confirm the right connection of decoder's A, B line and the DVR's 25-pin port's A, B line  
Set the correct setting in the menu.

To have control over the PTZ equipment you need to ensure that the monitor is in single window mode (with the camera you require displayed). You should now press the function1 key (Fn1), this gives you the control interface, and if you press it again the next menu will pop up. Use the direction keys to move the PTZ equipment.

Please note – The PTZ protocols are of a limited range, therefore some functions that you can control on a PTZ keypad will not be available on the DVR.

## 6.5 Network connection operation

You can connect the DVR365 range to a Local Area Network (LAN) using the connection port on the rear of the DVR. It is possible to connect the DVR directly to a PC (that has a Network Interface Card (NIC)).

You must give the DVR an Internet Protocol (IP) number (Enter main menu > system settings > networking). Note if you are not using a router then leave the Default Gateway blank, if you are using one; enter its IP number in the Default Gateway

For a class C Network the subnet mask should be 255.255.255.0

In order to confirm the correct network connection between DVR and computer, you can use the PING command that comes with Microsoft Windows systems. To access the PING command, follow the sequence below:

Start > Programs > Accessories > Command Prompt

Once Command Prompt is open type (assuming 192.168.001.108 is the IP address of the DRV):

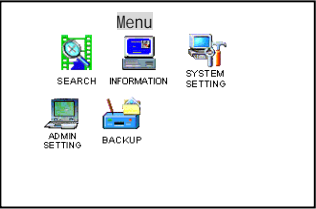
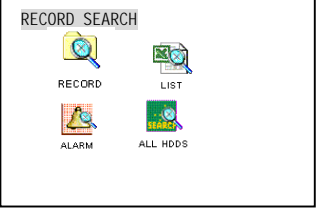
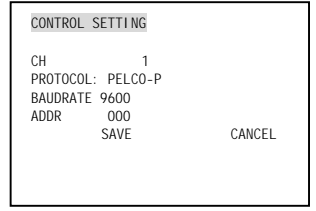
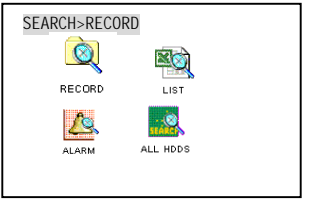
PING 192.168.1.108

If it comes back and says 'Request Timed Out' then the two devices are not talking correctly










If it comes back and says 'Reply from 192.168.001.108' the two devices are talking correctly.






## 7 Front panel and remote controller operation











### 7.1 Operation Menu Introduction

Operation step	Button-pressing order	Instruction	Screen display
Enter main menu and level 1 submenu	1, <b>Enter</b>	During real-time monitor, press enter to prompt for the password (default six 6's or six 8's), now enter the menu.	
	2, Direction (flying shuttle) $\rho$ $q$ $u$ $t$	Press to shift among the six options	
	3, Confirm <b>Enter</b>	Enter the selected level 1 submenu	
Enter level 2 submenu	4, Direction (flying shuttle) $\rho$ $q$ $u$ $t$	Press to shift among the level 2 submenu	
	5, Confirm <b>Enter</b>	Enter the selected level 2 submenu	
Set menu contents	1, Direction (flying shuttle) $u$	Select the option to be revised, flashing means being chosen	
	2, Direction $\rho$ $q$	Press to revise the settings	
	3, Confirm <b>Enter</b>	Save is flashing, choose to confirm whether you want to keep the revised setting.	
Exit the current menu	Direction (flying shuttle) $t$	Return to the last option of the current menu	
	Cancel <b>ESC</b>	Exit to the last level menu	






## 7.2 Menu option schedule

Main menu	Menu level 1	Menu level 2	Remarks
<b>SEARCH</b> 	<b>RECORD</b> 	CH 1 DATE 24-10-2003 TIME 02:20 PM PLAY START	Use DIRECTION key to perform setting in menu level 2 See details at 7.3.1
	<b>LIST</b> 	CH 1 DATE 24-10-2003 TIME 02:20 PM LIST SEARCH	Use DIRECTION key to perform setting in menu level 2. See details at 7.3.1
	<b>ALARM</b> 	DATE 24-10-2003 SEARCH START	Not able to search motion detection records. See details at 7.3.1
	<b>ALL HDDS</b> 	CH 1 DATE 24-10-2003 TIME 02:20 PM PLAY START	This accurate search can be used when data in hard drive is in turbulence.
<b>INFORMATION</b> 	<b>SYSTEM INFO</b> 	HDD NUM-0 2 HDD CAP-0 1 6 0 0 8 6M FILE START 2003-04-12 19:00:22 FILE END 2003-05-13-17:00:44 PRESS ENTER INTO BITRATE INFORMATION	Displayed information can only be referred to; i.e. it is not modifiable
	<b>HDD STATE</b> 	INDEX MASTER √- - - - - SLAVE √- - - - - CDR STATE NO USB STATE NO	
	<b>VERSION</b> 	VERSION ID-1.00 ISSUE DATE-03:01:2003 WEB VERSION 1.23	

Main menu	Menu level 1	Menu level 2	Remarks
SYSTEM SETTING 	GENERAL 	DATE 01 - 10 - 2003 TIME 16: 45: 45 PM SAVE SAVETIME HDDFULL OVERWRITE RECORDLEN 60 MIN REMOTEADDR 008 COMMCTRL NONE SAVE CANCEL	
	TIMING 	CH 1 WEEK S M T W T F S TIME1 00: 00 - 24: 00 STATE ON TIME2 00: 00 - 24: 00 STATE ON SAVE CANCEL	
	IMAGE 	CH 1 MODE CBR AV FRAMERATE REAL BITRATE 1024K ALARM: OFF VIDEO: SET DEFAULT TITLE 01 ON SAVE CANCEL	
	ALARM 	CH 1 TYPE NC RECORD 1 2 3 4 5 6 7 8 ALMOUT 1 2 3 4 5 6 7 8 DELAY 60 SEC TIME1 00: 00 - 24:00 ON TIME2 00: 00 - 24 00 OFF ALMSVR IP <b>192.168.000.118</b> OFF SAVE CANCEL	

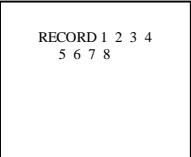
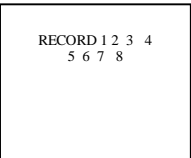
Main menu	Menu level 1	Menu level 2	Remarks
<b>SYSTEM SETTING</b> 	<b>CONTROL SETTING</b>  CONTROL	CH 1 PROTOCOL NONE BAUDRATE 4800 ADDR 000 SAVE CANCEL	
	<b>NETWORK</b>  NETWORK	IP 192.168.001.108 SUBNETMASK 255.255.255.000 GATEWAY 192.168.000.001 MONITOR TCP PLAYBACK TCP SAVE CANCEL	
	<b>MOTION DETECTION</b>  MOTION DETECTION	CH 1 TIMING 30SEC ALMOUT OFF SENS MID AREA SET TIME1 00: 00 – 00: 24 OFF TIME2 00: - 00 – 24:00OFF SAVE CANCEL	
<b>ADMIN SETTING</b> 	<b>PASSWORD</b>  PASSWORD	GUEST * * * * * CONFIRM * * * * * MANAGE * * * * * CONFIRM * * * * *	The passwords can only be changed by administrator
	<b>OTHERS</b>  OTHERS	ALARM TIP ON SHUT PASSWORD OFF OUTPUT X POINT 000 OUTPUT Y POINT 000 MONITOR HEIGHT 480 PLAYBACK HEIGHT 480 CONFIRM	Able to set the colour of words on the menu. Able to set the starting point of the monitor screen and the size of the monitor screen, playback screen.
	<b>DATA DEL</b>  DATA DEL	PASSWORD -----	
	<b>DEFAULT</b>  DEFAULT	ARE YOU SURE YOU WANT TO LOAD DEFAULT CONFIGURATION? YES NO	
	<b>LOGOUT</b>  LOGOUT		



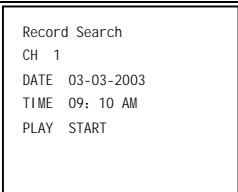

Main menu	Menu level 1	Menu level 2	Remarks
<b>BACKUP</b> 	<b>SEARCH BACKUP</b> 	DEVICE HDD CH 1 REMOTE ADDR 008 TYPE NORMAL DATE 2003-3-18 TIME 05: 18PM PLAY START	
	<b>LIST BACKUP</b> 	DEVICE HDD CH 1 REMOTE ADDR 008 TYPE NORMAL DATE 2003-3-18 TIME 05: 18PM LIST SEARCH	
	<b>BACKUP RECORDS</b> 	DEVICE HDD CH 1 BACKUP SPEED NORMAL STARTING DATE 2003-3-18 STARTING TIME 18: 18 ENDING DATE 2003-3-18 ENDING TIME 19:18 BACKUP START	
	<b>DELETE BACKUP</b> 	DEVICE HDD DELETE CONFIRM	

## 8 Menu Operation

### 8.1 Recording Operation


Button-pressing order	Instruction	Display
1, Record <b>REC</b>	Press to enter screen display	
2, Direction <b>▷ ◁</b> or the related number key	Press to shift the recording state on/off. The shadowed means On.	
3, Direction <b>↵ ↶</b>	Press to shift recording channels. The shadowed means On.	
4, Record <b>REC</b> <b>OR Enter</b>	Press to save the setting.	

### 8.2 Playback operation


Button-pressing order	Instruction	Display
1, Play/Pause	Press the button to enter screen display. (If the current state is logged out, please enter password)	
2, Play/Pause	Press twice to begin the playback (on the screen shows channel, date, time). If it shows no record found, the operation will not take effect. After the completion of the playback, it shows "The End".	

Record information display during playback, press **Fn** to display or hide the playback state bar.

### 8.3 Playback fast play

Button-pressing order	Instruction	Display
1, Fast play <b>⌘</b>	During playback press this key to shift between 2 times speed, 4 times speed, 8 times speed.	
2, Play/Pause	During fast play press this key to shift between play and pause.	
3, Play next section, play last section	During playback state it takes effect. Press <b>⏪</b> : to view the next or last record of the same channel.	

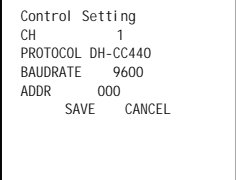
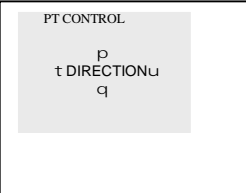

#### 8.4 Playback slow play

Button-pressing order	Instruction	Display
1, Slow play ►	During playback press to shift among 25f/s, 15f/s, 1f/s speed.	CH1: PLAY  15F/S
2, Play/Pause	During slow play of the playback record press to shift between play and pause.	
3, Play next section, play last section	During playback state it takes effect. Press ◀ : to view the next or last record of the same channel.	

- 1f/s speed slow play is frame by frame.

#### 8.5 Control of PTZ equipment

For control of the PTZ camera, ensure that you have the required camera in the single screen mode

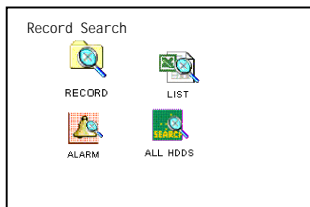
Button-pressing order	Instruction	Press Fn to display
1, Refer to menu operation	In Control Setting select the related Channel and Protocol, see the right picture. Set the conformed Baud rate and Address with the decoder. Press Enter to save.	
2, Assistant function <b>Fn1</b>	Under the state of single window monitor, press Fn1 to enter the screen display. Press again to shift amongst: PT Control DIRECTION LENS Control ZOOM FOCUS IRIS Light Control (OFF ON).	
3, Direction p q t u	Control the related pan-tilt, lens and light.	

## 8.6 Menu operation

\*Please refer to 'Menu option schedule'; button operation refers to the above form\*

\*All the below settings of the menu must be saved before taking effect. \*

### 8.6.1 Record Search



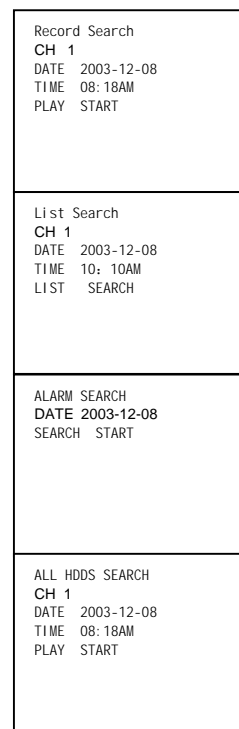
**Record** First set the channel, date and time you want to search, then select **START**

**List** First set the channel, date and time you want to search, and then select **SEARCH**, the screen shows the 8 recording files following the searching time. Use **⏪** **⏩** to select the file to be played. Press **ENTER** to begin the playback.

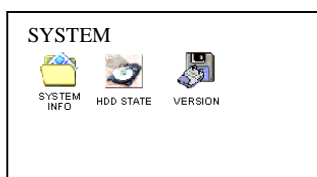
Note: the letters before the record are equal to following: R - Record: M - Motion detection: A - Alarm

**Alarm** First set the searching date, then select **START**, all the alarm records will be displayed. Press **⏪** **⏩** to select the record. Press **ENTER** to play the alarm record. Note motion detection alarm cannot be searched in this category, but can be searched in **RECORD** and **LIST**.

**All HDD** This search method is specially used for the case of data turbulence. By inputting the exact date and time, you can retrieve the records lost under the normal searching.



### 8.6.2 Information

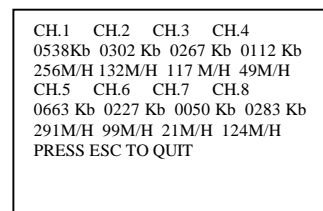
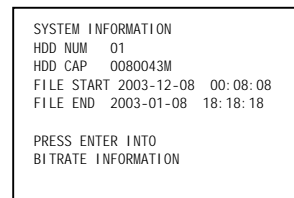


**System Info** Displays HDD number, HDD capacity, remaining space, recording start time (the earliest recording time among all the HDDs) and recording end time. All this information is non-editable.

Press Enter to enter the bit rate information sub-menu

Display the frame rate of the current channels.

Frame rate (Kb/s)  
HDD space occupied (Mb/h)

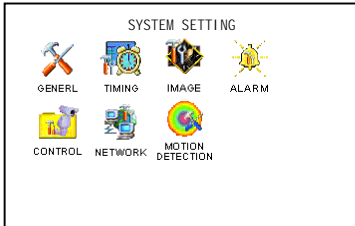


**HDD** Display HDD index and the conditions of master drive and slave drive. Note: If the HDD is in operation, it will show as “W”.

**Version** The issuing date and ID of the operation system. This information is not modifiable.

```
HDD STATE
INDEX 12345678
MASTER -W-----
SLAVE -----
CDR STATE NO
USB STATE NO
```

### 8.6.3 System Settings Menu



#### General

This sub menu allows you to change the DATE & TIME and format that it is displayed in e.g. DD-MM-YYYY or MM-DD-YYYY etc. When you have changed the time & date please ensure that you press the SAVETIME function, otherwise the time will not be changed.

```
GENERAL SETTING
DATE 12-23-2003
FORMAT MM-DD-YYYY
TIME 02:20:22 PM
FORMAT AM/PM
SAVE SAVETIME
HDDFULL OVERWRITE
RECORDLEN 60 MIN
REMOTEADDR 008
SAVE CANCEL
```

#### HDDFULL

This allows you to choose what to do when the HDD is full i.e. you can stop the DVR from recording or you can make it start recording again. The DVR’s software will look at the earliest recorded date on the HDD and it will start recording from that point.

#### RECORDLEN

To make it easier to search for video footage the DVR stores records in blocks. You can choose what length these blocks are i.e. on the 4 / 8 Way DVR the blocks are 15Min, 30Mins and 60Mins. On the 16 Way DVR the blocks range from 120mins – 5mins

#### REMOTEADDR

This allows you to set the address of the remote control; its default address is 008

#### COMMCONTROL

When you are using the RS232 port (Serial Port), this menu allows you to select the control software for the port i.e. if you are using a modem you would set modem in this menu.

- NONE (Upgrading system through serial port)
- DH (Keyboard control)
- DOME (Serial Protocol for DOME camera control)
- SANTACHI (Serial Protocol)
- PEARMAIN (Serial Protocol)
- MODEM (Dial-up connection through modem)

When you have changed the details in this sub menu please press the save function.

Note: System time cannot be changed freely; otherwise it would cause the malfunction of recording search.

#### Timing

This is a very powerful menu; it is where you set up your required recording schedules. It allows you to set different recording times for

```
TIMING RECORDING
CH 1
WEEK S M T W T F S
TIME 1 08:00 AM -
08:00 PM
STATE OFF
TIME 2 08:00 AM -
08:00 PM
STATE OFF
```

different cameras on different days of the week e.g. you could set Channel 1 to be recording for 24hours a day, 7 days a week whilst cameras 2, 3, and say 6 are recording between the hours of 0900 – 1700. Channels 4, 5 & 8 may be set up as event only recording. You may not be using all your channels, so therefore to save recording time on your HDD you can stop the DVR from recording on these channels.

To set up your DVR to record all channels 24/7 please follow the operation given:  
 Select your required channel e.g. 1  
 In WEEK you can select each day simultaneously e.g. **S M T W T F S**  
 Now set TIME1 to 00.00 – 24.00  
 Change STATE1 to ON  
 Ignore TIME2 & STATE2  
 Press the SAVE option at the end of the menu.  
 Note if you do not change the time in TIME1 to 00.00 – 24.00 then no action will be taken by the DVR.  
 To turn off recording follow the above procedure but change STATE1 to OFF.

Tip it is a lot simpler & quicker to change these settings when the DVR is connected to a PC using the client / web software.

**Image**

**Mode**

This sub menu allows you to change the rate at which the DVR records video footage.

The CBR (Constant Baud Rate) setting will only allow to record in real time (25f/s), you can however, change the bit rate (Resolution) from: 128k, 256k, 384k, 512k, 768k, 1024k.

The VBR (Variable Baud Rate) automatically varies the baud rate for better use of hard disc space and makes the DVR better to use over a network, as the file sizes are smaller. A final setting is the time lapse one. This will reduce file sizes, which make a good setting to have on when using dial up to access the DVR. Remember that in time lapse mode audio is not possible. You can set the recording rate from 20f/s – 1f/s i.e. it will record at a lower frame per second which will save HDD space. You can change the video quality from 1 – 6, where 6 is the highest quality.

The main difference between CBR & VBR is that CBR records all of the image all of the time, VBR only records the image when there is movement i.e. VBR saves on HDD space and is the better setting for transmission over a network.

**Alarm**

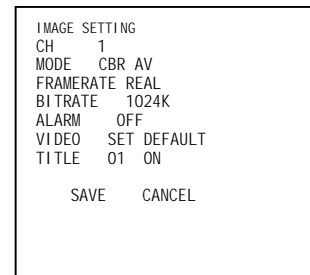
If you turn the Alarm on in this menu, the DVR will sound and trigger the alarm output when there is video loss.

**Video**

This allows you to set up the HUE, Contrast, Brightness and Saturation of the channels.

**Title**

This setting allows you to give names to the channels.



**Alarm Settings**

This sub menu allows you to add up your external alarm inputs such as PIRs, door contacts, doorbells etc to your DVR

You can set each alarm input individually by setting the required channel in CH. The TYPE allows you to select Normally Open (NO) or

Normally Closed (NC) depending on your input type.

After the external input you would want your DVR to start recording, The RECORD allows you to select which channels to record i.e. you may want to record the channel that was activated or you may want to record every channel after an alarm activation.

DELAY is the time that the DVR will record for after an alarm input, 10,20,30 90seconds

Select the relevant channel in CH. TYPE has NO (normal Open) or NC (normal closed) electrical outputs. If the number in RECORD were selected, recording would be started automatically when there is an alarm input. If the alarm output port is chosen, it will trigger corresponding equipment when there is alarm input. DELAY means to lengthen the recording time after receiving alarm signals (10, 20, 30,.....90SEC). When the outside alarm is cancelled, the system will lengthen the recording time automatically before closing the alarm and relay output. When Time 1 & Time 2 are open, within the time of the setting the recording will be triggered by alarm signals. The beginning time should be earlier than the ending time; the setting in Time 2 should be later than the setting in Time 1

ALMSVR IP is used to transmit the alarm signals to the designated IP server.

```

ALARM SETTING
CH          1
TYPE       NO
RECORD     1 2 3 4
ALMOUT     1 2 3
ADDR       008
DELAY      60SEC
TIME 1     08:00 AM - 08:00 PM
STATE      OFF
TIME 2     08:00 AM - 08:00 PM
STATE      OFF
ALMSVR     IP 192.168.000.117
          SAVE          CANCEL
    
```

### Pan – Tilt Control

Select the channel in the PTZ camera is connected to in CH and choose the protocol of the brand name of corresponding PTZ decoder in PROTOCOL. ADDR is the address of the corresponding platform decoder.

Tip If the PTZ does not work try setting the PTZ address 1 less than that of the address of the PTZ decoder card

```

CONTROL
CH          1
PROTOCOL    NONE
BAUDRATE    1200
ADDR        000
          SAVE          CANCEL
    
```

### Network

The IP address is set by using p q or input the exact numbers to change the IP address.

The related SUBNETMASK and GATEWAY should be set according to the IP address. MONITOR and PLAYBACK can be changed by using p q (TCP/IP, MULTICAST).

Reserve the setting in SAVE and RESTART the recorder.

```

NETWORK SETTING
IP          192-168-000-141
SUBNETMASK 255-255-255-000
GATEWAY    192-168-000-001
MONITOR    MULTI CAST
PLAYBACK   TCP
          SAVE          CANCEL
    
```

### Note:

MULTICAST: This means that as a user views the DVR remotely, subsequent

users who logon simply see the first users screen and action so they are literally watching slave monitors. Up to 5 users can operate like this.

TCP Protocol: All users are able to monitor any channel. User shall select according to necessity. If you want to transmit over the Internet then TCP should be chosen. 2 users at maximum.

## Motion Detection

The DVR365 range comes with built in video motion detection circuits on each camera input – this can save you having to install external alarm input devices. For the video motion to be operational please turn off recording in the TIMING menu for the hours you wish VMD recording to be active.

### TIMING

This allows you to set how long the DVR will record for after alarm activation i.e. 5Mins, 3Mins, 60secs, 30secs or 10secs. Note the DVR will record the first 4seconds before it was sent into alarm.

### ALMOUT

With this set to ON, when the alarm is activated the DVR will operate the output relay, the relay stays on for the duration of the alarm i.e. if you set it to record for 60secs the relay will be on for 60secs.

### SENS

You can set how sensitive you want the VMD to be i.e. HIGH, MEDIUM or LOW

### AREA

It is possible to set areas of the camera image up for VMD i.e. you may only want the DVR to start recording when a vehicle drives through a gateway. This is set up by going into the SET sub menu.

The blue squares represent active VMD areas; clear squares are when there is no VMD active. You will see a pink square that you can move across the screen using the cursor keys; to toggle the squares press the Fn key (the cursor square will now be white). As you now move it around it toggles the blue area to clear, thus turning off VDM and vice a versa.

### TIME 1

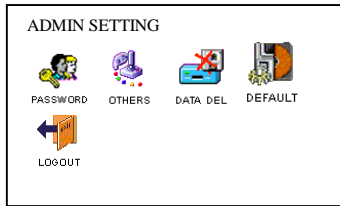
### TIME 2

Set these for the hours you want VMD to be active.

MOTION DETECTION SETUP	
CH	1
TIMING	30SEC
ALMOUT	OFF
SENS	MID
AREA	SET
TIME 1	08:00 AM – 08:00
PM	
TIME 2	08:00 AM – 08:00
PM	
SAVE	CANCEL

## Admin setting



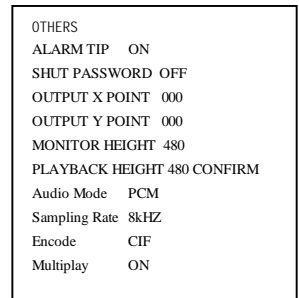


**Password**

To change the GUEST or ADMINISTRATORS password simply move across to the required one and enter your new password using the number keys and confirm by entering your new password again.  
 Note only the Administrator can change the password.

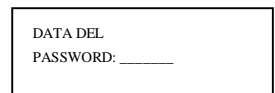
**Others**

With ALARM TIP on, when there is an alarm input from an external device, the DVR will display the alarm information on screen.  
 If SHUT PASSWORD is on, you need to input the right manage level password before turning off the DVR; if it is off, you need to press and hold the power button for 4 seconds for the DVR to power down.  
 OUTPUT X POINT and OUTPUT Y POINT are set for the starting point of the window on the screen, and MONITOR HEIGHT is to set the window height during monitoring, and PLAYBACK HEIGHT is to set the window height during playback.  
 Audio Mode can be set to either PCM (Pulse Code Modulation) or ADPCM (Adaptive Pulse Code Modulation)  
 Sampling Rate can be set to 8kHz, 16kHz, 22kHz and 32kHz.  
 Encode can be set to either CIF or 2CIF  
 Multiplay can be set to ON or OFF



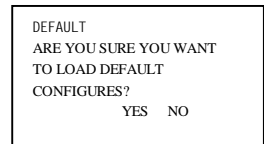
**Data delete**

This is used to clear the data on the HDD. Be careful with this item. Before you delete the data, you have to input the administrator's password.

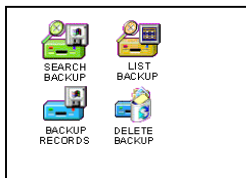


**Default**

This allows you to reset all the settings to the factory default. Note only use as a last resort.



**Record backup**



**Search backup**

Search the records in the backup device. Move the cursor to select the backup device (HDD/USB/CDR), channel number, DVR address, type (normal

file, alarm file), date, time and so on. CDR and USB device can be directly connected to the computer for the data reading

#### List backup

Search the records in the backup device. Move the cursor to select the backup device (HDD/USB/CDR), channel number, DVR address, type (normal file, alarm file), date, time and so on. After the successful searching system will list all the found files on the screen.

```
LIST BACKUP
DEVICE  CDR
CH      1
REMOTE ADDR  008
TYPE      NORMAL
DATE      2003-3-18
TIME      11: 18AM
LIST      SEARCH
```

#### Backup records

Move the cursor to select the backup device, channel number, backup speed, starting date and time, ending date and time, and then select to start the backup, and system will display the backup processing. If the user does not connect the backup device right, system will give the hint: **No backup disk**; if the device is full, it will hint: **Disk is full**: During the backup, it will display the left time. For the backup device you can choose between HDD/USB/CDR. If HDD is chosen as the device, the backup speed can be selected between **Fast** and **Normal**. If the backup speed is **fast**, system will stop the current recording.

```
BACKUP RECORDS
BACKUP DEVICE  CDR
CH             1
BACKUP SPPED  FAST
STARTING DATE  2003-3-18
STARTING TIME  9 : 18AM
ENDING DATE    2003-3-18
ENDING TIME    10 : 18AM
BACKUP        START
```

#### Delete backup

Select the backup device you want to delete the records from first, and then confirm the deletion by selecting **Yes**

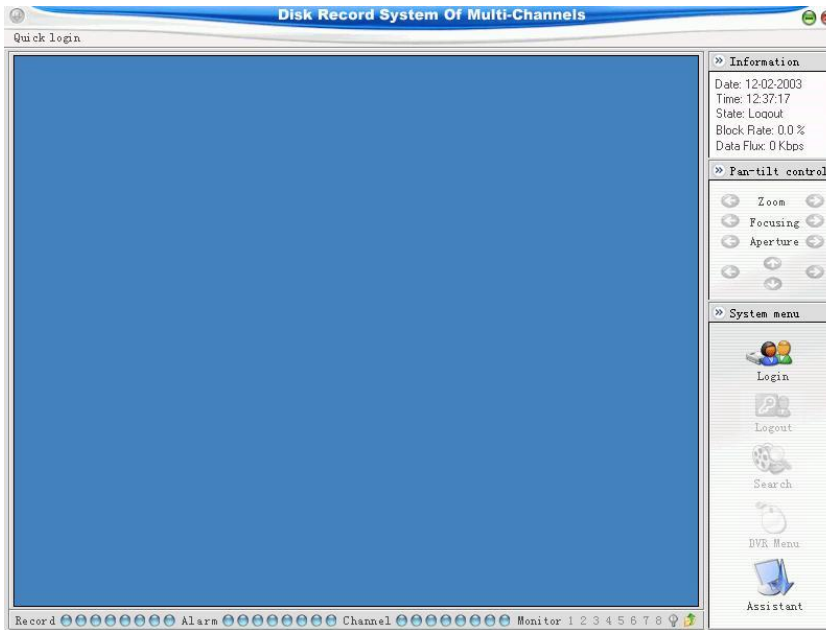
## 9 Operation Using Client Software

There are two ways in which you can access the DVR over a network; one way is to use the client software that is provided on the CD, the other way is to use Internet Explorer.

### 9.1 Using the client software

Once you have installed the software on your PC, there should be an icon on your desktop that points to the software.

Once you have opened the software you will see the following interface on your monitor:



Now click on the Login icon

The following menu is now opened.



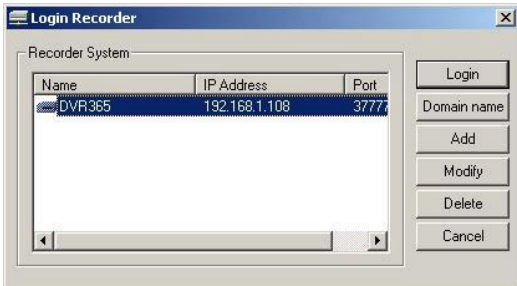
Click on the Network Login then click OK



This menu allows you to add the IP number of the DVR you are accessing  
Click on the Add button.



Enter a Name for your DVR, then enter the IP number and press OK (the Port number is defaulted to 37777)



You can now click on the Login button; you will be prompted for the username and password:  
The default Username is admin  
The default Password is admin



You should now be logged into the DVR.  
The first task you should complete is to change the default administrator User & Password and add a general user. This is done through the Assistant>User Manage

The software allows you to have full control over the DVR.

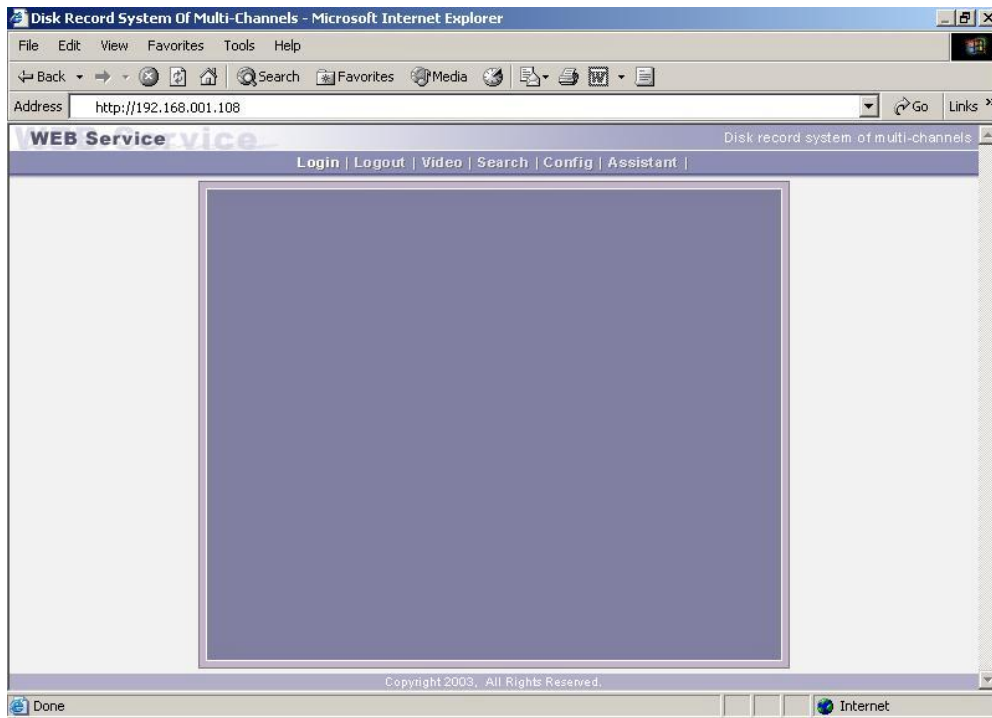
## 9.2 Operation using the Web software

You can log on to the DVR from anywhere in the world by accessing it over the Internet. The DVR sends software to the Internet browser that is trying to access it. All you have to do is type the IP address in the address bar of an Internet browser; the DVR will then send the program to the browser. You can now logon to the system and have the same control over it as you would when using the Client software.

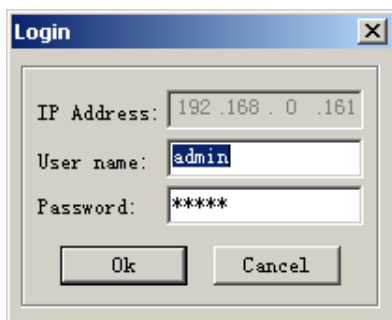
*Note this software does not need to be manually installed. Please check the connection of the network, for example, ping the IP address of the DVR.*

## 9.3 Login and logout

Please input the IP address of the DVR in the address bar of an Internet browser. Take the DVR's IP address: 192.168.001.108 as an example: Input http://192.168.001.108. At the first time of visiting this DVR the system will pop up the dialogue box to ask whether you accept ActiveX or not, and please choose Yes, then the system will install the software automatically.

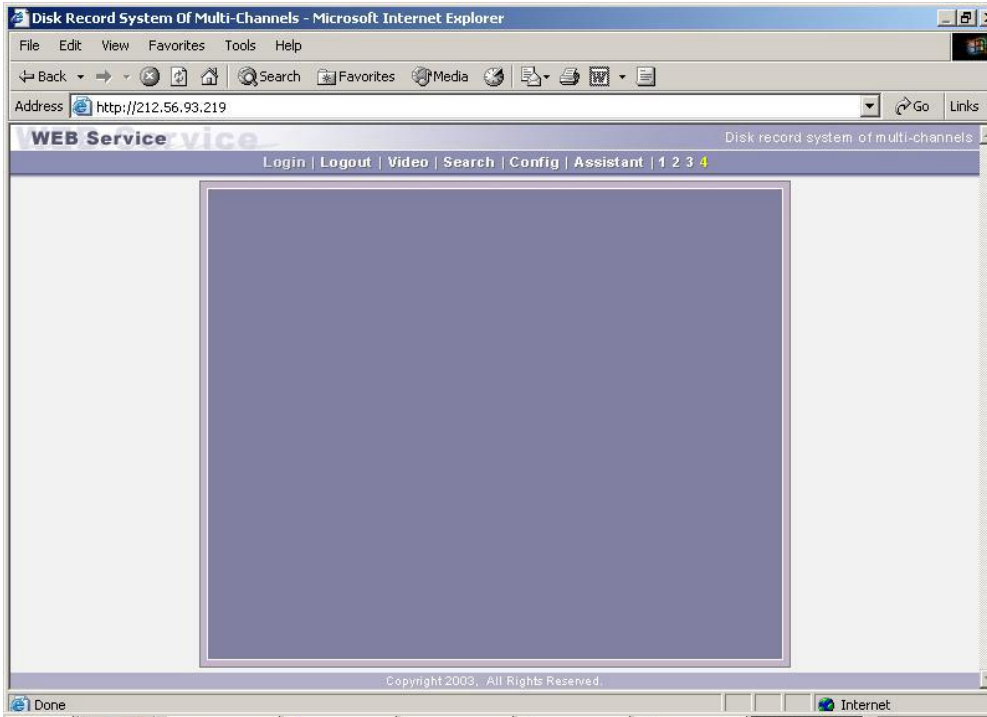


You will now see an interface where you can choose to Login:



Enter the user name and password for your DVR and click OK.

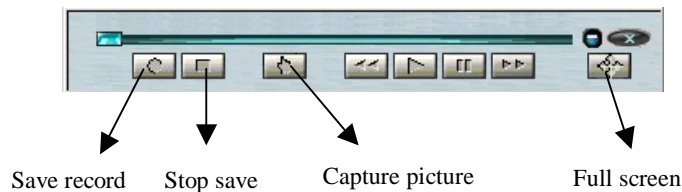
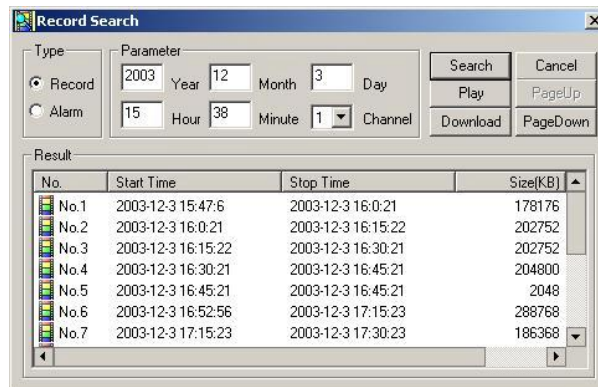
You can now view the cameras in live mode by clicking on the relevant number at the top of the screen.



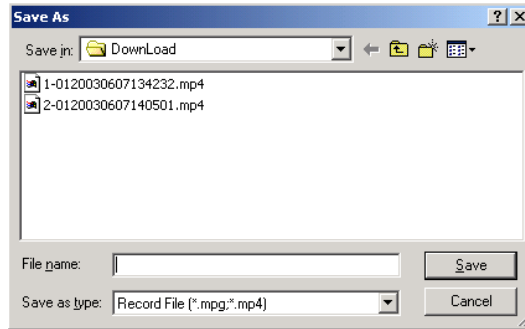
Note: depending which model you have will determine how many cameras are displayed i.e. 4-way gives you 4, 8-way gives you 8 and the 16-way gives you 16 cameras that you can view.

### Records Search

Click on search icon, the following box will open and allow you to enter time parameters for searching the DVR.



During playback of video, you can record part of the video to your local HDD by pressing the Save record button, followed by the Stop button when you have enough of the video saved. Note this video is saved to C:\download

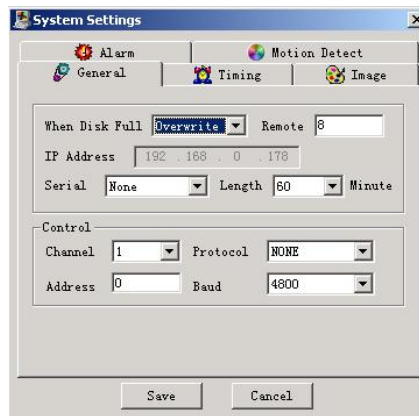


### Configure the System setting

The **Config** menu gives you five sub-menus; General, Timing, Image, Alarm, and Motion Detection

Note: The menus that are ghosted mean that you can only change them on the DVR.

The General sub-menu includes the recording length setting. In the Control Column you set up the DVR to control PTZ equipment.



The Timing menu allows you set up schedule recording for each channel. There are two time periods you can set, **Time 1** and **Time 2**. This allows you to set two different times (during one 24h period) that the DVR is to record.

Note to turn OFF all the channels all week select ALL in the drop down CHANNEL menu, then tick all the days in week, ensure that you change the end time to 24.00. Change the state to OFF. Now save the channel and finally press the save button at the bottom of the menu. Note that the recording will extinguish..

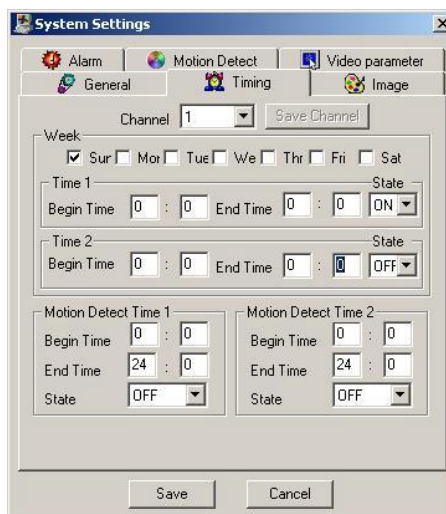
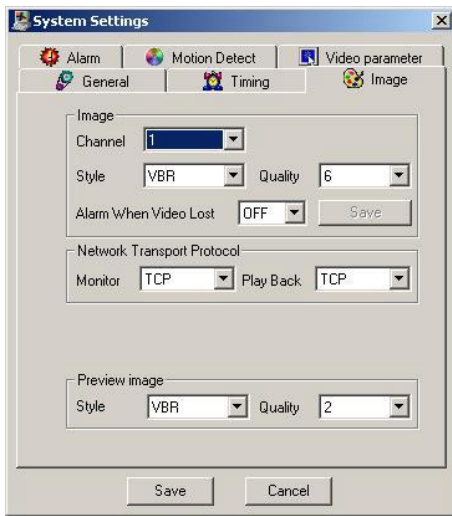


Image: In this menu you can select the image quality and protocols for each channel.



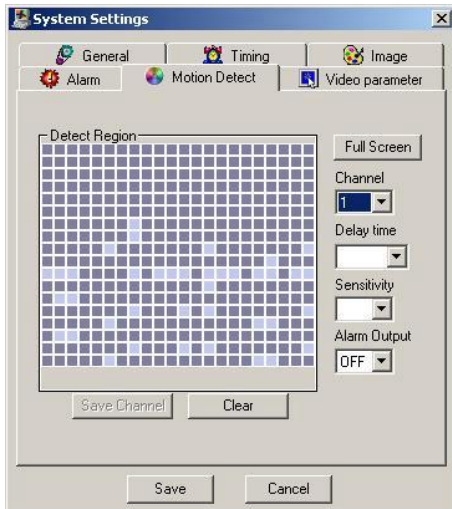
There are two types of Network transmission Protocols available: TCP and Multicast.

Multicast protocol: the user with admin control power can view the images at will, other users can only view what the admin user is viewing. 5 users are allowed to view at the same time.

TCP protocol: each user can view the image at will. According to the need, user can choose the different protocol. If it is through the Internet you must choose TCP. 2 users are allowed to view at the same time.

Alarm: When there are alarm input signals, you can select the recording channel and the output port

Motion Detection: This menu allows you to select which area of the cameras you wish motion detection to be active on. The coloured area is the selectable motion detection area. The user can highlight areas to select the detection area and set the sensitivity of the area due to the requirement.





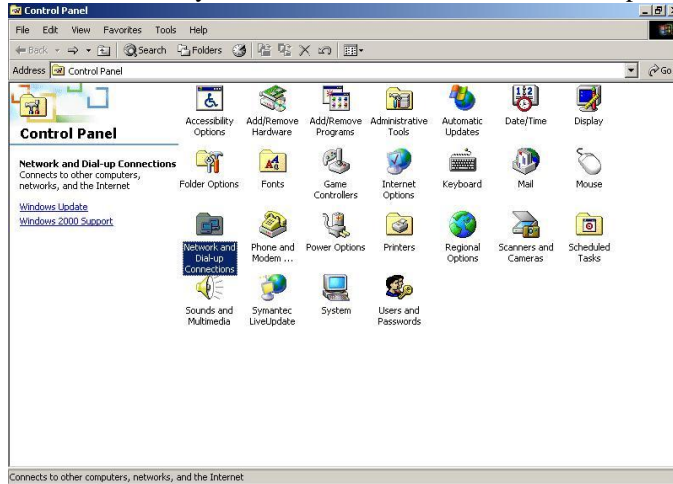
## 10 A guide to giving your PC an IP number.

In order for you to control the DVR from a PC you need to give your PC an address that is similar to the IP number of the DVR.

1. Ensure that you have a Ethernet Network card installed in your PC
2. In order to give it a number you need to point to:

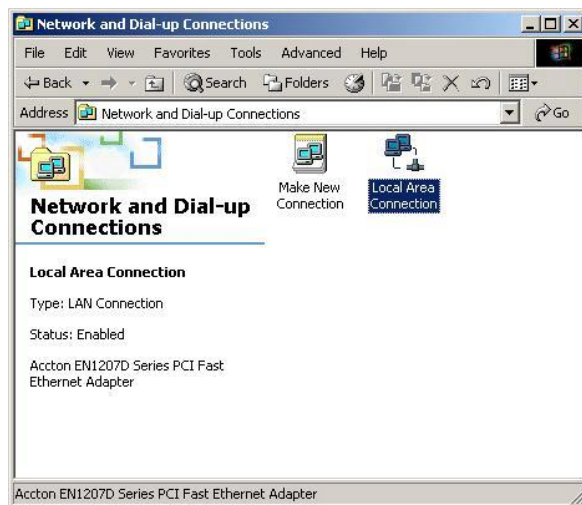
Start>Settings>Control Panel

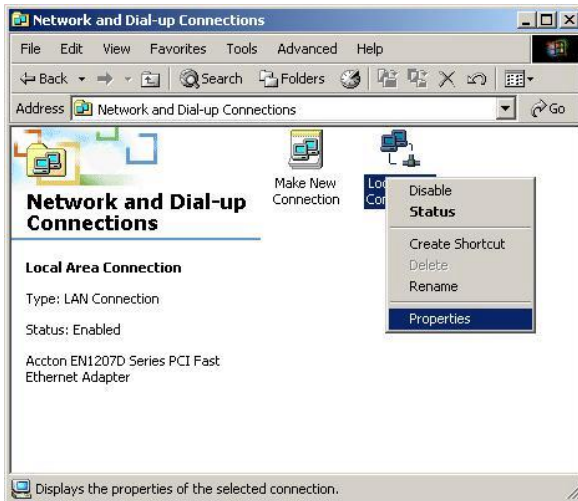
In Control Panel you should look for Network and Dial-up connections,



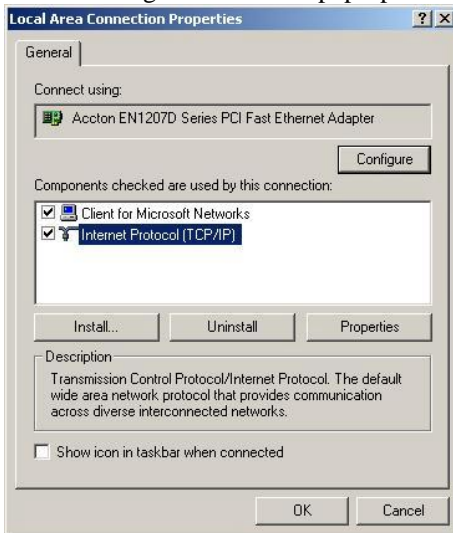
Double click on the icon.

In this folder you should see an icon that says Local Area Connection. Highlight it and Right Click on it:

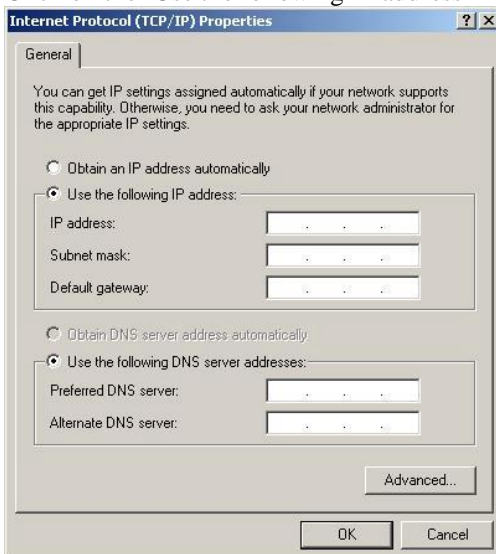




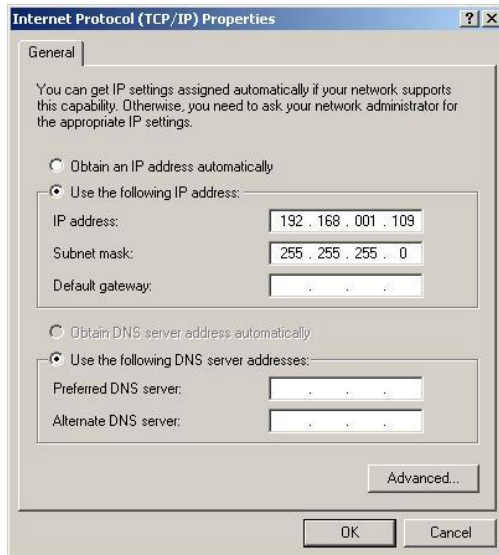
Click on Properties  
The following screen should pop-up



Highlight the Internet Protocol (TCP/IP) and the click properties.  
The next box that you see shall be the one where you put all the IP numbers.  
Click on the 'Use the following IP address'



Now enter your IP address and Subnet mask.



Press OK and then restart your PC.

Note – if you are installing the DVR on a Local Area Network and want to connect it to a PC on the same network you must give them both the same subnet mask. It is this mask that distinguishes that they are on the same network. This is usually 255.255.255.000

## 11 Frequently Asked Questions

1. How to set up the infrared remote controller.  
Via the DVR menu system, go into system setting then general; now make a note of the remote address number e.g. 008.  
Point the remote controller at the DVR and press the ADD button, a small window will appear on the screen: ADD ---, now enter the three digit code that was noted, the remote control should now be operational.
2. How do I cascade more than one DVR?  
Where an application of seventeen or more cameras is required, two DVR's can be used to view the cameras. It is possible to set up more than one DVR on a network. By dedicating each DVR on the network an individual IP address makes it possible to view the DVR's via the network software.
3. How to do the first step?  
With the power switched off, confirm that the inner wire connection is correct and at least one HD is connected (the capacity of it should be over 3GB). Then connect the power cable; the DVR would check the function state of last time. If it were shut off normally, the DVR would enter into the stand-by state. (The light of ACT is on, POWER is off, and the system only responds to the key of POWER), otherwise, the system would restore the function state of last time and continue it.
4. What recording methods are available  
Timed recording, there are other recording manners as dynamic detection recording, manual recording, external event triggering recording. Confirm each setting of them is correct
5. The indicator light is flashing while recording:  
Check the external video inputting signal, the light would flash when the video input signal is non-standard  
This problem can also be caused by the HDD speed being too slow, if this is the case the HDD should be changed.
6. What kind of external equipment would match the DVR  
It can operate with various matrix and decoders.
7. Why is there no ventilation fan?  
The DVR's IC's all have low power consumption thus they generate little heat. The DVR has intelligent software programming i.e. if there is no operation for 10mins, the un-working disc's would enter its standby state.
8. How do I know if the DVR has had alarm activation?  
It is possible to set the DVR to display an on screen message to notify the user of an alarm.  
To set this up you must: go into the menu, then into admin settings and others, now set "ALARM TIP" to on.  
You can also set the network software to display the alarm by: In the software go into Assistant, then into Systems Settings, tick the Alarm Prompt yes button, it can also play an audio alarm, the user must enter the audio browse menu and find a .wav file
9. Can I set up multiple screen over the network?  
When logged into the DVR using the Internet browser it is possible to view 1 - 4 channels over the network simultaneously. Log in and right click in the blue screen the menu gives you the ability to view one or two channels, by adding a new channel you can add two more channels. It is also possible to view all four channels in large screen by using right hand click menu and selecting full screen arrangement in video windows.
10. What is the procedure I must follow to set up the record timer?  
In order to set up the DVR to record certain cameras at certain times please follow the following instructions:
  1. Enter the menu system as normal.
  2. System Settings

### 3. Timing

This menu allows you to set which channels the DVR is to record at desired times e.g. you may wish the recorder only to record when the office is closed, or you may want to record when staff are about. This menu gives you two recording times i.e. you may want to record between the hours of 0900 – 1200 and 1300 – 1700; the recorder would not record between 1200 and 1300.

In order to set the recording times to your individual requirements please follow the instructions below carefully.

Set which channel that you require to control (1-8 or ALL).

Now scroll down to WEEK S M T W T F S. The letters represent the day of the week.

Sunday will be highlighted every time you enter this menu as default. To change this you must scroll along to the desired day, highlight it (the corresponding letter will change from white to red), then go back to Sunday and deselect it. You can now set up the desired time for that day by scrolling down to the times below.

You must treat the recording times on a day by day every day basis i.e. you cannot highlight Sunday through Saturday and set the recording times, likewise you cannot set for example, Monday and Wednesday simultaneously. Although the DVR will let you select more than one day at a time it will not perform the desired operation.

If you do not use all the channels provided by the DVR, then you should turn the channels off in this menu for each day of the week.

Always save the settings before exiting so they are stored by the DVR.

#### Note

If you do not turn the channels off in this menu but manually stop the DVR from recording, after the user changes a setting the DVR will start recording all the channels again automatically, as the setting was not saved to memory. The timing menu stores the instructions, so that even when the DVR has been subjected to power loss it remembers its settings.

## 12 Appendix A

The recording length is determined by 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 (25f/s) (Audio recording not included)

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

The above table shows some average storage times that use fixed baud rate coding techniques. If you used the Variable baud rate coding technique that is available, and your cameras were to be monitoring areas where there are few movements, this would save more HDD space.