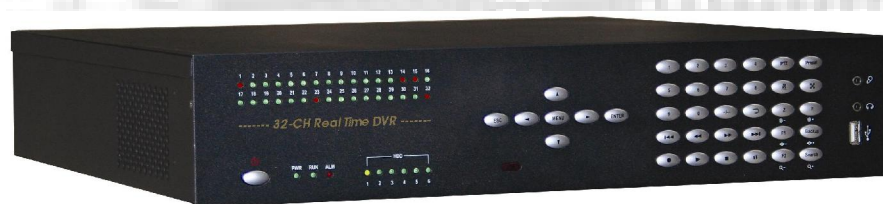

Model - *DSD32R*

32 channel REALTIME DVR



User Instruction Manual

VERSION 1.0

INSTALLATION & SAFEGUARDS

- Please read these instructions before operating the unit.

Installation.

1. To prevent electric shock or other hazards, do not expose DVR to rain, moisture or dust.
2. Place the DVR in a well-ventilated place and do not place heat-generating objects on the unit.
3. The DVR should not be located in an area where it is likely to be subjected to vibration.

Before You Start.

1. Ensure that the power switch is in the off position prior to starting.
2. Do not attempt to open or remove the covers. This may expose you to dangerous voltage or other hazards.
3. Installation should be performed by a qualified service person only.
4. This unit should be operated only from the type of power source indicated on the manufacturer's label.

Special Note.

If you need to change the TIME/DATE always clear the Hard Drive. If you don't follow this step first, it may cause erratic behaviour of the DVR and possible loss of recordings.

1. It is recommended to use the same manufacturer when installing Hard Drives.
2. For Motion Detection recording the channel needs to be turned off in the time Schedule.
3. When backing up data to a USB stick, ensure that the USB stick is formatted to FAT32 in a PC before data backup is attempted.

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Chapter I Introduction

Thank you for choosing our standalone 32 channel H264 Digital Video Recorder System. Please pay attention to these instructions before using the DVR.

The contents of this manual are applicable to the DSD32R series 32-channel DVR. The manual explains the operation modes and performance criteria of our standalone H264 DVR.

Please read the manual carefully before using the DSD32R stand alone H264 DVR, and install the system according to the instructions.

The instructions are compiled according to the V2.2 edition of mainframe software.

Mainframe software is subject to renewal without prior notice.

Chapter II System Installation

Section 1 Accessory listing

Please ensure the items listed below are included when you unpack this unit.

Table 1 Packing List

Serial No.	Items	Qty
1	DVR	1
2	Power cable	1
3	HDD connection cable	6
4	Crossover Cable	1
5	Serial cable	1
6	Screws to fix HDD	24
7	DB25	1
8	RJ11 cable	1
9	Audio cable	1
10	User's Manual	1
11	Software CD	1
12	Remote Controller	1
13	Battery supply for remote controller	2
14	Package list	1

Section 2 Operating Environment

The following operating environment for this DVR must be adhered to:

Table 2 DVR Operating Environment

Items	Instructions	
Electromagnetism	DVR' complies with National Electromagnetism Radiation Standards.	
Temperature	-10 to 55 deg Celsius	
Humidity	10 % to 95 %	
Power Supply	AC100-240V 50/60Hz	
Power	32ch Model	<70W

Please pay particular attention to the following:

Keep away from heat sources and high temperatures and avoid direct sunlight.

Do not leave in humid places and never touch with wet hands.

Never spill liquids of any kind on the unit.

The unit is only to be opened by qualified persons.

Do not place other equipment on the DVR.

Section 3 HDD Installation

Installation of Hard Drive/ Hard drives.

1. Remove DVR Lid (Five screws).
2. Remove HDD mounting bracket.
3. Fit HDD's onto bracket using supplied mounting screws. (up to Six HDD's).
4. Replace HDD mounting bracket.
5. Plug HDD cable into SATA port on the main board.
6. Plug HDD cable into SATA port on HDD.
7. Connect the ATX power cable to the power connection on the HDD. Pay attention to the correct orientation.
8. Replace the top of the DVR enclosure (five screws).

Section 4 Back panel Layout

Back panel layout of the standalone series 32-channel DVR is as follows.

The height of the case is 2U and the dimensions of the unit are 460×440×100mm.

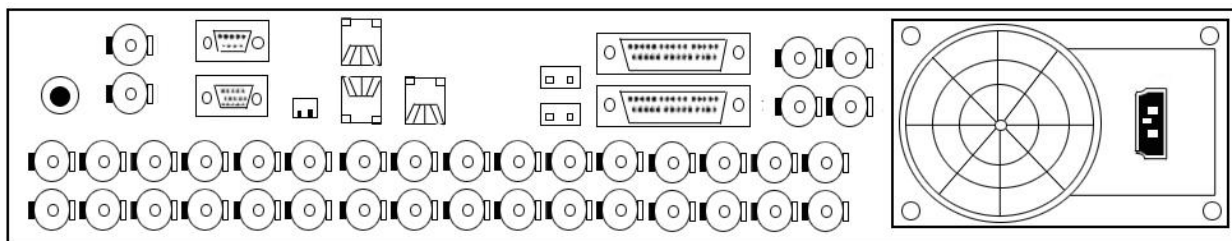


Figure 1. 32-channel DVR back layout

Detailed illustration of the audio, video, PTZ control and alarm input/output of the 32channel DVR:

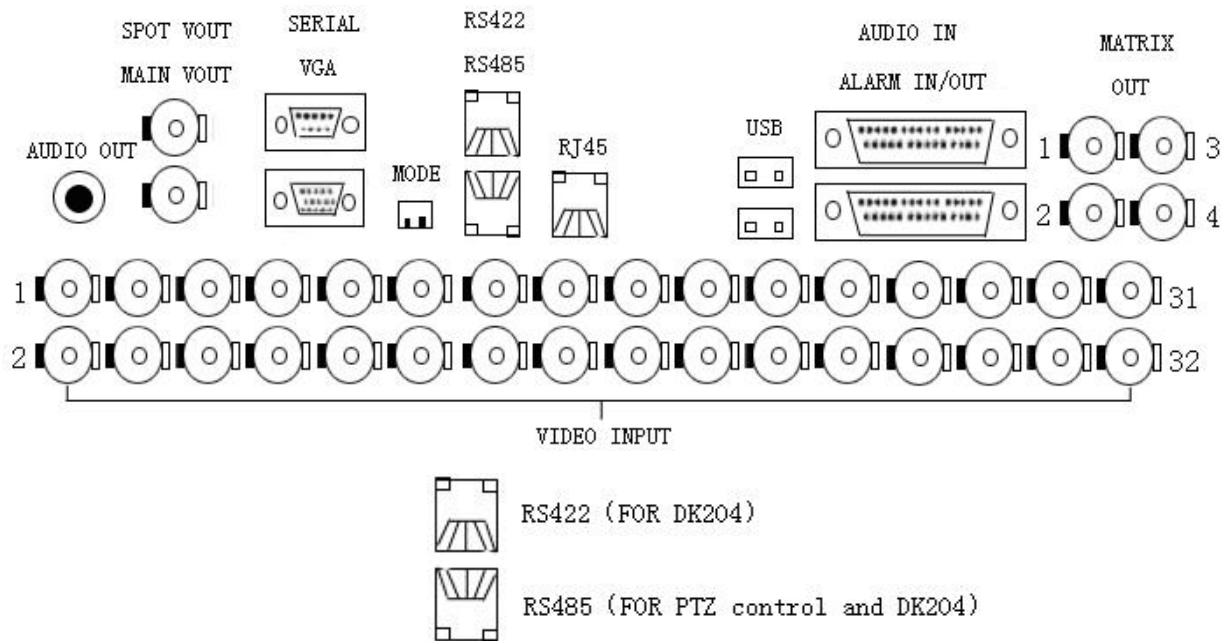


Figure2 32-channel DVR Input/Output details

Section 5 Video Connections

32-channel DVR has 32 BNC video input ports at the back panel for direct connection with cameras.

Section 6 Monitor and Display Connections

The 32-channel DVR has two composite video and a VGA video outputs,

“ SPOT VOUT ” does not include the OSD menu display.

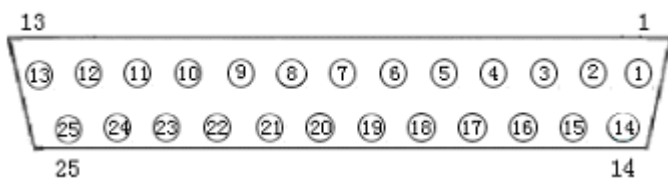
“ MAIN VOUT ” includes the OSD menu display.

Section 7 Audio Input Connections

Audio/Video recording synchronisation is available for this DVR.

The DVR has its own audio connection cable, which is plugged into the 25-way D type connector on the back panel of the DVR.

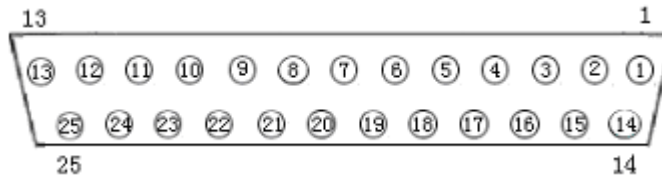
The pin-out definition of the 25 way D-type is as follows:



PIN No.	Function	PIN No.	Function
1	AUDIO IN1	14	GND
2	AUDIO IN3	15	AUDIO IN2
3	GND	16	AUDIO IN4
4	AUDIO IN5	17	GND
5	AUDIO IN7	18	AUDIO IN6
6	GND	19	AUDIO IN8
7	AUDIO IN9	20	GND
8	AUDIO IN11	21	AUDIO IN10
9	GND	22	AUDIO IN12
10	AUDIO IN13	23	GND
11	AUDIO IN15	24	AUDIO IN14
12	GND	25	AUDIO IN16
13			

Section 8 Sensor Input Connections

When the alarm input (MENU->RECORDER->ALARM-REC) is set to “OPEN”, low (0) level alarms will be detected. When the alarm input (MENU->RECORDER->ALARM-REC) is set to “CLOSE”, high level (1) alarms will be detected. Below is the pin out configuration of the 25 way Alarm D-type and an example of the alarm connections.



PIN#	Definition	PIN#	Definition
1	ALARM IN1	14	GND
2	ALARM IN2	15	NO1
3	ALARM IN3	16	NC1
4	ALARM IN4	17	COM1
5	ALARM IN5	18	NO2
6	ALARM IN6	19	NC2
7	ALARM IN7	20	COM2
8	ALARM IN8	21	NO3
9	ALARM IN9	22	NC3
10	ALARM IN10	23	COM3
11	ALARM IN11	24	GND
12	ALARM IN12	25	GND
13	+12V		

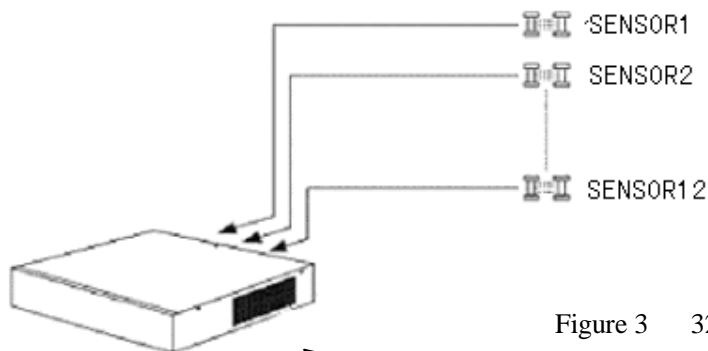
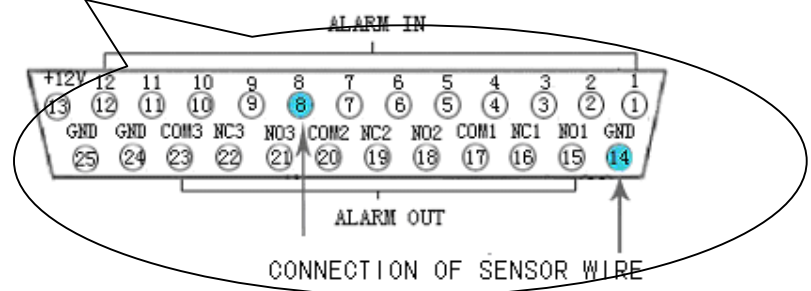


Figure 3 32-channel DVR Exterior Sensor

Two pins are used in the connection between the sensor and DVR. One connects to the ALARM IN pin and another connects to the GND pin.



Note

12V DC power is provided for most sensors and alarm output equipment for easier system construction.

Section 9 Alarm Output Connections

The DVR provides 3 alarm output ports, with "NO" and "NC" available for each alarm output. The three alarm signals can be output through a 25 way D-type connector. The connections are as follows:

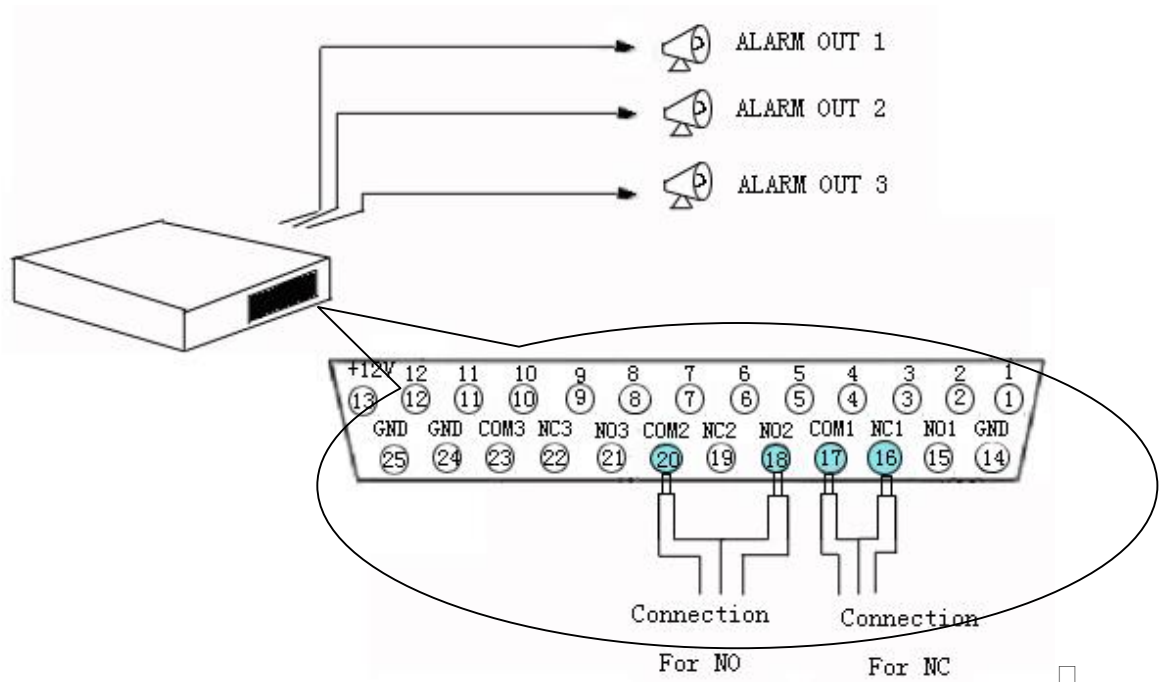


Figure 4. 32-channel DVR Alarm Output Linkage

Note

When alarm output is inactive, "NC" is connected with "COM", "NO" is disconnected with "COM"

When alarm output is active, "NO" is connected with "COM", "NC" is disconnected with "COM"

Section 10 PTZ Control Connections

The DVR can control the actions of many PTZs simultaneously through the RS-422 bus, and identify the PTZ through the address set up by the decoder.

1. RS422

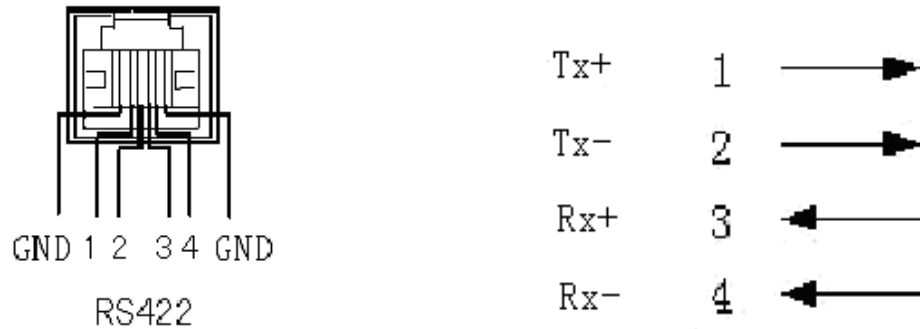


Figure 5. Standard RS-422 detail specification

Cable 1, 2 are positive and negative cable for transmission; Cable 3, 4 are positive and negative cable for receive.

2. RS485

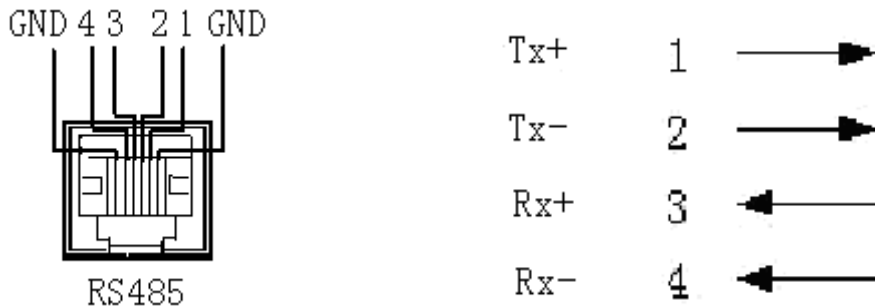


Figure 6 Standard RS-485 detail specification

Cable 1, 2 are positive and negative cable for transmission and can connect to Rx+, Rx- in PTZ or Speed dome respectively; Cable 3, 4 are positive and negative cable for receive.

Note

PTZ address in system is the same as the camera number, namely::

- Camera 1 has PTZ address of 1
- Camera 2 has PTZ address of 2
-
- Camera 32 has PTZ address of 32.

PTZ address configurations have to follow the above rule

Section 11 Matching resistance



The switch allows the insertion of a 120 Ohm resistance in the transmission and receive lines.

Switch to the down position means the resistance is **NOT** in circuit.

Switch to the up position means resistance **IS IN** parallel connection.

This only applies to the RS422.

Section 12 Network Connections

There is a 100/10M Ethernet network port in the DVR to help connection through a LAN or direct through a PC.

Network connections for the DVR are as follows:

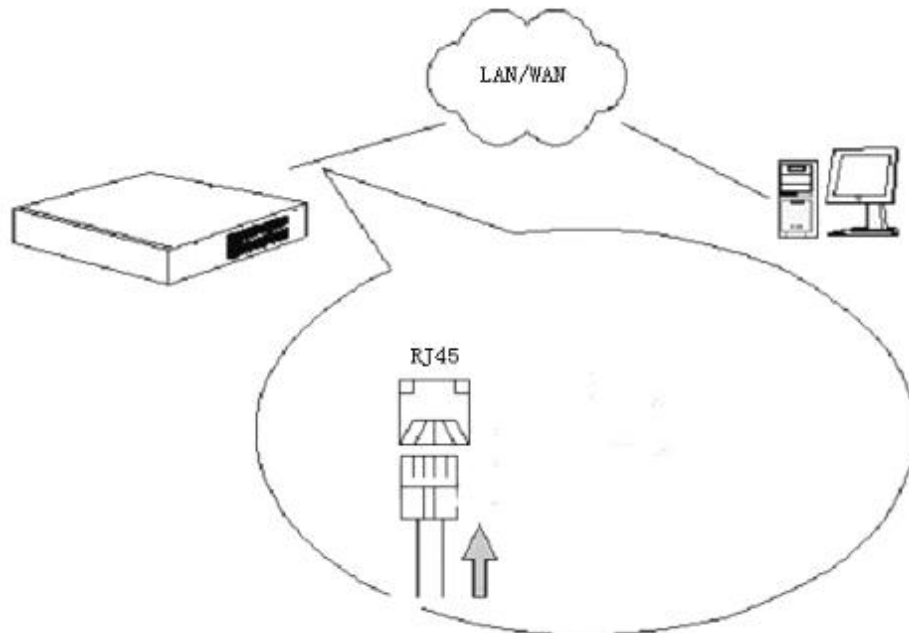


Figure 7 32-channel DVR Network Connections

Section 13 Getting Started

1. Plug the mains lead into the DVR.
2. The Power indication light then comes on and the following display is shown on the monitor.

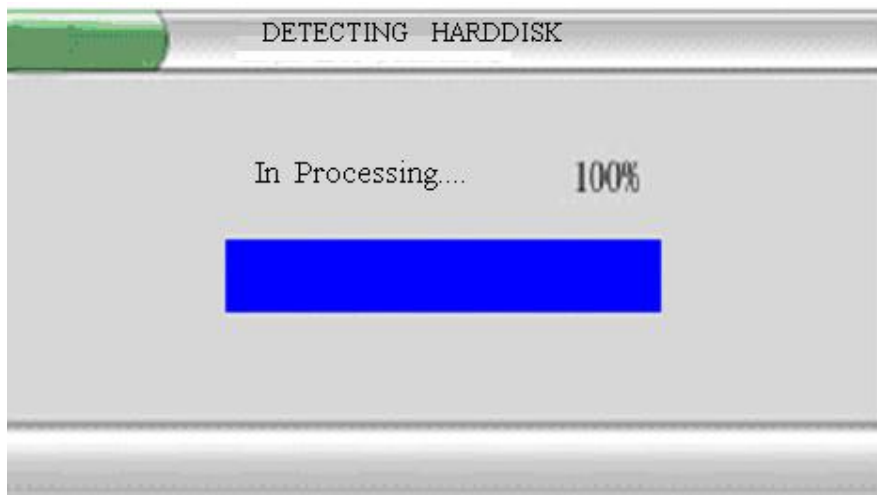


Figure 8. System Startup Graphic

After a short while the start-up graphic disappears. The video from cameras will be displayed on the monitor and the DVR enters into normal working mode.

Section 14 Network Software Installation

Instructions for installing network browser ‘ Netclient ‘ .

The following instructions are for Windows2000/WindowsXP.
The netclient has 3 languages, English, CHS, and CHT.

Network Browser Installation Steps:

Insert the ‘ Netclient ‘ cd into the P.C. optical disc drive and follow the on screen instructions. It is good practice to remove any previous versions of ‘ Netclient ‘ software.

Chapter III DVR Operation

Section 1 DVR Front Panel

The front panel on the DVR includes operational keys and indicator lights. The next section deals in detail with the function of each key and indicator light on the front panel.

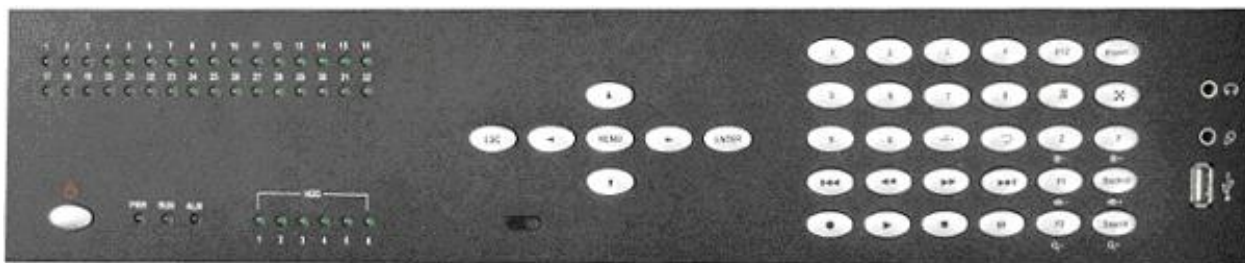


Figure 9. 32 - channels DVR Operation Panel

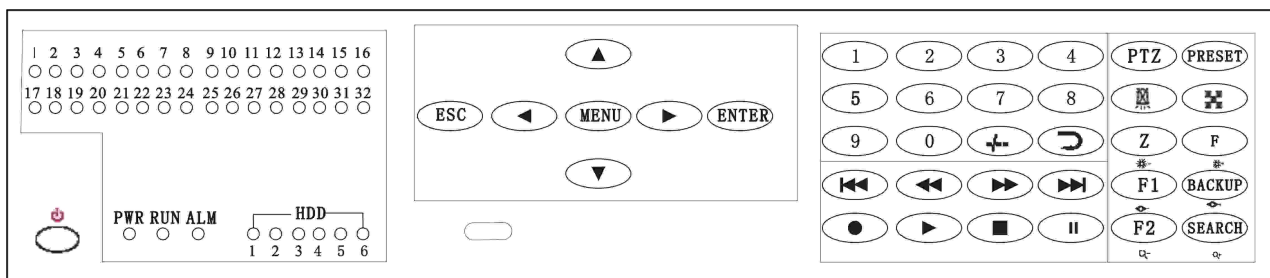


Figure 10.

From left to right the front panel is divided into five function zones: Status indicator zone, System control zone, Numbers zone, Record/playback zone, and window control zone.

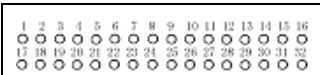


























	1-32ch record indicator (it lights when corresponding channel is recording)
PWR	Power indicator
RUN	Working indicator
ALM	Alarm indicator
HDD	6 SATA HDD indicators
 Headphone	Audio output
 Microphone	Audio input
 USB	USB port (support mouse and removable USB memory stick)

Table 3. Panel Function Definition

Name	Function Description
	Power switch
0	Number key '0'
1~9	1. Number key '1'~ '9' ; 2. Switch from multi-screen mode to channels 1- 9 single-screen
	Plus 10
	Channel auto-switching (sequencing).
	Cancel alarm output.
	Split screen mode switch, switch between 32\25\16\13\9\6\4 mode
PTZ	PTZ enable switch.
Preset	Set PTZ preset position for current channel. NB Must be in ' PTZ ' mode.
Z/ 	1. Digital zoom; 2.Brightness - in PTZ mode
F/ 	1. Freeze picture of current channel; 2.Brightness+ under PTZ mode
F1/ 	1. Reserved for future use; 2. Focus- In PTZ mode
Backup/ 	1. Entering " Video Backup" ; 2.Focus+ In PTZ mode
F2/ 	1. Reserved for future use; 2. Zoom – In PTZ mode
Search/ 	1. Entering "Video Search"; 2. Zoom + In PTZ mode
RECORD 	1. Activate manual recording of current channel 2. Save PTZ preset position of current channel 3. HDD directory check
STOP 	1. Stop recording of current channel 2. Stop playback operation 3. Place PTZ position of current channel back to initial position
PLAY 	1. Activate playback of current channel 2. Back to normal playback from fast forward & backwards play 3. Step frame by frame when in PAUSE.

	4. Slow play the video at half normal speed
PAUSE 	Pause current playback
FORWARD 	Play video forward at a speed of 2, 4, and 8 times
BACKWARD 	Play video backward at a speed of 2, 4 and 8 times
NEXT 	Jump to next recorded file.
PREVIOUS 	Jump to previous recorded file.
ENTER	<ol style="list-style-type: none"> 1. Confirm key when in menu operation or window prompt mode 2. Single image\four image play back mode switch 3.Set up Video Mask. 4.P/T/Z, lens, aperture and vacancy switch
ESC	<ol style="list-style-type: none"> 1. Cancel key when in menu operation or window prompt mode 2. Back to menu/window state from motion detection area setup state 3. Exit Video Mask setup. 4. Set up mute mode and cancel mute mode
Menu	Entering system menu mode
	<ol style="list-style-type: none"> 1. Direction key 'UP' 2. PTZ up direction control 3. Control and zoom the lens closer 4. Set up and move the Video Mask upward
	<ol style="list-style-type: none"> 1. Direction key 'DOWN' 2. PTZ down direction control 3. Control and zoom the lens out. 4. Set up and move the Video Mask downward
	<ol style="list-style-type: none"> 1. Direction key 'LEFT' 2. Control the PTZ to shift left 3. Lens focus near 4. Set up and move the Video Mask left 5. Playback data backward at *2, *4, *8
	<ol style="list-style-type: none"> 1. Direction key 'RIGHT' 2. Control the PTZ to shift right 3. Lens focus far 4. Set up and move the Video Mask right 5. Playback data forward at *2, *4, *8

Section 2 DVR Remote Control

The appearance and functions of the keys on the remote control are as follows:



Figure 11. Remote Control

Refer to the section of 'Panel' for the detailed description of the keys function on remote control unit.

Here are the function buttons on the remote control:

Table 4. Remote controller function Definition

Buttons	Functions
Select	Input Remote Control Address (000 ~ 999). Remote control address can be the same as the ID of the DVR system, or remote control address is 000, while the ID of DVR system is random.
P/Z	PTZ enable switch.
SETUP	1.Plus 10 2. Set up the origin of current channel PTZ and lens
SAVE	Save PTZ pre-setup position of current channel
RETURN	Return the PTZ back to origin position.
FORWARD ►►	1.Play video forward at a speed of 2, 4, and 8 times 2."Focus+" In PTZ mode

BACKWARD ◀◀	1. Play video backwards at a speed of 2, 4 and 8 times 2. "Focus-" In PTZ mode
NEXT ▶	1. Jump to next recorded segment; 2. "Brightness+" In PTZ mode
PREVIOUS ◀	1. Jump to previous recorded segment; 2. "Brightness-" In PTZ mode
STOP ■	1. Stop recording of current channel 2. Stop playback operation 3. "Zoom-" In PTZ mode
PLAY ▶	1. Activate playback of current channel 2. Back to normal playback from fast forward & backward 3. Playback frame by frame under PAUSE mode 4. Slow play the video at half of normal speed
PAUSE	1. Pause current playback; 2. "Zoom+" In PTZ mode
⊞	Split screen mode switch. Switch between 32 \ 25 \ 16 \ 13 \ 9 \ 6 \ 4 split screen modes.
CANCEL	1. Cancel key when in menu operation or window prompt mode 2. Back to menu/window state from motion detection area setup state 3. Exit shelter area setup 4. Cancel intercom 5. Set up mute mode and cancel mute mode

Section 3 Mouse Operation

This DVR supports a USB mouse:

After plugging in the mouse the mouse cursor will appear on the screen.

- The mouse can adjust the window size of any video channel.
- The mouse can also relocate the window

Log In.

To Log In right click to bring Menu onto the screen and then left click over the 'Main Menu' button.

Next Right Click in the password window and enter the password using the mouse and Left Click over the correct numbers.

Mouse Operation of the menus.

1. Number Input. Move the mouse cursor to the number box and then right click. You can then choose the numbers required from the pop – up box.
2. Edit Parameters. Move the mouse cursor to the option box and then by right or left clicking the mouse you can cycle through the numbers.
3. Button Operation. When the cursor is over the desired button, left click to confirm.
4. Page up and down. Move the mouse cursor to the up or down arrows on the top left corner of the window. Select up or down with a left click.
5. Exit or Return Move the mouse cursor to the ‘ X ‘ or close button. Left click to exit or return.

Adjusting the Monitor views.

1. Single/Multi-image switch. Click the right key of mouse and select split screen mode either 32/25/16/13/9/6/4/1 in the window by clicking the left key of mouse.
2. Full screen image. Double click the mouse left key over the required channel to display full screen image.
3. Split screen Adjustment Adjust the position and size of any split screen as follows:
Lateral adjustment.
Hold the left key of mouse and drag the right edge of the split screen.

Vertical adjustment.
Hold the left key of mouse and drag the button fringe of split screen.

Size adjustment.
Hold the left key of mouse and drag the right Edge.

Section 4 Menu Navigation

Table 5. Menu navigation table

Main Menu	Branch Menu	Functions
Device management	System setup	Record mode. Auto record when start up. Manual record quality. VGA resolution setup, etc.
	HDD management	HDD information. HDD format.
	System reset	Reset system.
	Image adjust	Adjust the image contrast, brightness, colour, etc.
	Language setup	Select language.
	System time	Setup time and date.
	Version inquiry	Information of system firmware version.
	Assistant setup	Alarm output. Video Mask. HDD error display setup.
	Video matrix	Matrix output setup.
Search play back		Search play by time, channel and event
Record parameter	Time record	Setup Record quality, Record frame rate, Record duration, etc.
	Alarm record	Setup Alarm input/output ports, alarm time, PTZ movement etc.
	Motion detect record	Setup Sensitivity, Record duration, record quality etc.
	Record Segment length setup	Record Segment length setup.
	Record with audio	Setup Record with audio for a required channel
	Record parameter	Set record resolution for a required channel
PTZ parameter	PTZ parameter	PTZ address, PTZ protocol, baud rate etc.
	Set PTZ preset	Set PTZ preset under alarm, record and motion detect modes.
	RS485 port setup	Baud rate, data bits, stop bit etc.
Video channel		Video Mask. Reservation Days.
Communication setup	Network parameter	DVR IP address, Server port, Alarm center, port etc.
Log inquiry	Operation log	Device information
	Alarm log	Alarm information
	Earliest Record	Time of the Earliest Record
User management	Operational authority	Set the required channel monitor or playback rights for a non-administrator
	Online user inquiry	Inquiry and cut off the connection of a remote viewer
	Edit Password	Edit Password
	Keyboard lock	Keyboard lock
Data management	Return to default setting	Return to default setting
	Record data backup	Record data backup

Section 5 Menu and Window Interface

The user interface for this DVR is composed of the menu and window interfaces. It's through these that the user controls the system. Basic operation is described below.

1. Menu

The basic format of the menu is per following display. The user may use the direction keys, Up/Down or Left/Right to shift cursor and select the menu. Press 'Enter' to enter the main menu.



Figure 12. Menu

2. Window

Below is an example of a window interface.



Figure 13. Window Interface

Press “ **up** ” and “ **down** ” to move the cursor.

Table 6. Operation Methods of different Controls

Objects	Operation Methods	Remarks
Number Input <input type="text" value="123"/>	1. Press number keys to input numbers 2. Use ‘Left’ and ‘Right’ to shift the cursor position	
Date Input <input type="text" value="2002-12-06 16:20:32"/>	1. Use number keys to input desired numbers 2. Use ‘ Left ’ and ‘ Right ’ to shift the cursor position	Cursor is locked when illegal date input.
Time Input <input type="text" value="12:00"/>	1. Use number keys to input desired numbers 2. Use ‘Left’ and ‘Right’ to shift the cursor position	Cursor is locked when illegal time input.
SelectionTable <input type="text" value="Common"/>	Use ‘Left’ or ‘Right’ to select items	
Selection Bar <input type="text" value="0-2 40.0G 20.2G"/>	Press ‘Enter’ to select current items	It is used for list box.
Buttons <input type="text" value="Cancel"/>	Press ‘Cancel’ to cancel current items	It is located at the bottom of the window

Chapter IV Basic Operation

Section 1 Login System

Before operating the DVR, you should login to get relevant operational authority. The recorder has three password levels: Administrator (333333), Operator (222222) and Viewer/Browser (111111); the administrator is the top level and Viewer the lowest level. The security level will be verified according to the input password. If passwords of different levels are the same, then highest operation level is granted. Different password levels lead to different operational restrictions.

Note

- 1 Viewer/Browser —111111
2. If wrong password is inputted 3 times, DVR will turn on Alarm
3. To ensure system security, modify the system default password

Steps for system login:

1. Press any keys except Split screen mode key and number key and the entry window will appear.
2. Input the password.
3. Press 'OK' to confirm your Password.
4. After password verification, system will remind you of your level after successful login.

Log On Screen:



Figure 14. Log On Screen

Log On Successful:



Figure 15. Successful Log On

Log On Fail Screen



Figure 16. Log On Fail Screen

Section 2 Basic Screen

Definition of Screen Partition

The following Split screen modes are available.

Single screen, 4-screen, 6-screen, 9-screen, 13-screen, 16-screen, 25-screen and 32-screen.

Detailed display modes and demand arrangements are as follows.

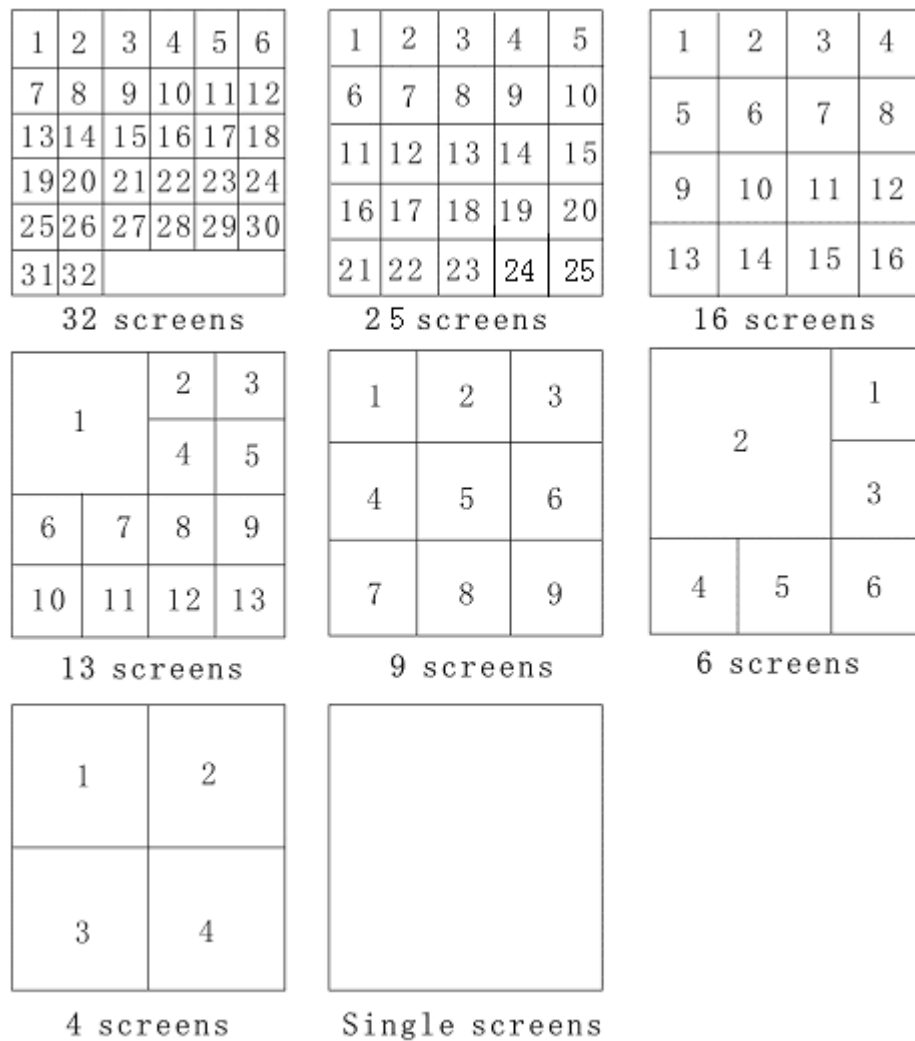


Figure 17 Screen Display Modes

Display Information Prompt

The distribution of all the information on the display screen is as follows:

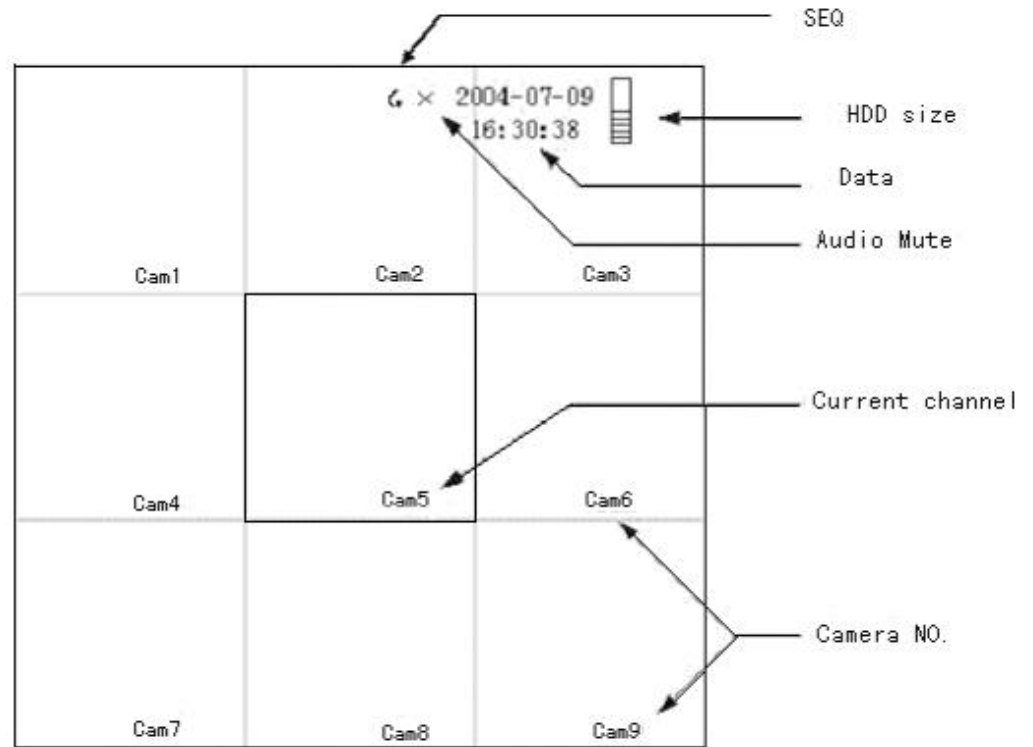


Figure 18. System Screen Information

Single channel is as follows:

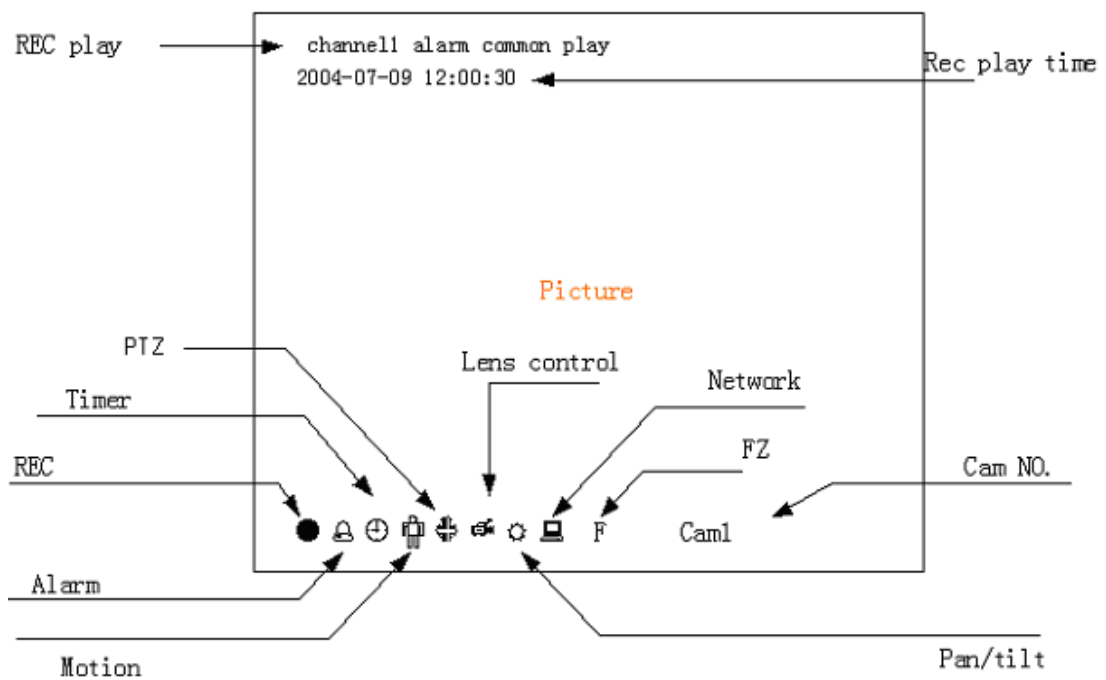



Figure 19. Information on single Channel

Section 3 Monitor Control

Screen Switch

Split screen and single screen mode may be switched by pressing “Screen split ” or the number buttons.

For sequencing interval please refer to “System / System / Seq. Dwell”.

Then right click to bring up the number selection pad and then enter the dwell time in seconds.

Operation of Split Key.  and Sequence Key 





1. Press  and the system enters single screen mode if current mode is 32, 25 or single screen mode; system enters 16, 13, 9, 6 or 4 screens modes if current mode is 16, 13, 9, 6 or 4 screen mode. A “” symbol will be displayed beside system time.
2. Press  again and the sequence mode will be canceled. The  symbol beside the system time will disappear.

Image freeze

“Image freeze” is used to freeze current video image for detail analysis when in live monitoring mode. Other functions such as recording are not affected by freezing.

Operation Steps:

1. Freeze current video channel by pressing **F**, with an icon **F** shown on the left bottom corner of the channel.
2. When in freeze mode press **F** again to return to normal mode, icon **F** disappears.

Note

When in single Image freeze mode, the recorder will automatically return to the normal running mode if you have selected the Sequencing function.

Audio Monitor

System provides the option to monitor audio. Only the audio from one channel at a time can be monitored. User may move the cursor to change the channel being monitored.

- Press " CANCEL" (remote) or " ESC" (Panel) to cancel the audio.
" ✕" will be displayed beside system time.

- Press " CANCEL" (remote) or " ESC" (Panel) again to resume the audio output and the " ✕" will disappear from system time.

Section 4 PTZ Control

PTZ Control.

Provides control of PTZ operations such as PTZ preset position settings and PTZ original position setting.

Set Up for PTZ Control.

Access the PTZ setup menu as follows.

Main Menu / PTZ Set Up / PTZ SetUp













You then select the PTZ channel, PTZ address, Baud Rate and Protocol.

Select Connect and then when the channel is selected you have control of the PTZ (PTZ mode must be selected).

Controlling a P.T.Z.

1. Select a channel with a PTZ.
2. Press ‘ **PTZ** ’ (panel), or ‘ **P/Z** ’ (remote control) to enter PTZ. control mode.
3. Use the ‘ **Up** ’ and ‘ **Down** ’ keys to adjust the vertical angle of PTZ.
4. Use the ‘ **Left** ’ and ‘ **Right** ’ keys to pan the PTZ. left and right horizontally.
5. To define the current PTZ location as the ‘ original ’ position, press ‘ ● ’ (panel) or ‘ **setup** ’ (remote control).
6. To return to the ‘ original ’ position from current location rapidly, press Stop ‘ ■ ’ (panel) or ‘ **Return** ’ (remote control).
7. Press ‘ **PTZ** ’ (panel) or ‘ **P/Z** ’ (remote control)and the system will quit PTZ control mode and return to the normal surveillance mode.

Camera control.

1. Press 'PTZ' (panel) or 'P/Z' (remote control) to enter PTZ. control mode.
2. User can adjust Focus near and far by use of  /  (panel) or  /  (remote control).
3. User can adjust lens to zoom in and zoom out by use of  /  (panel) or  /  (remote control).
4. User can adjust lens aperture by use of  /  (panel) or  /  (remote control).

NOTE

When the system is in PTZ control mode, other buttons will not be available except the mentioned buttons. Quit PTZ control mode and they will be normal.

Section 5 Intercom

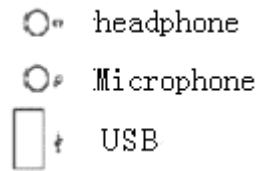


Figure 20, Front panel

Connect mike and earphone as shown in Figure 20, connect host with Netclient software, and click intercom mark to start direct audio communication.

Audio from PC and host will be synchronised.

Section 6 Manual Record

The system provides a manual override video recording function on one channel.

Manual recording will run continuously until the user stops the function.

Operational steps:

1. User presses '**Record ●**' to enter manual record control interface.
2. User selects channel by pressing "UP" or "DOWN" button, then marking this channel "■" or "□" by pressing the "LEFT" or "RIGHT" buttons. Select "■" to start record; select "□" to end record; user may select all channels by select "ALL"; select "NONE" to cancel all channels.
3. The user must press "APPLY" to make the modification effective.
Selecting "BACK" deletes all modification.

 Note:

Manual recording will be ineffective if the HDD is fully occupied.

Section 7 Stop Record

If the system is in automatic recording mode, the user can stop recording immediately through this function. The modes of recording, which can be stopped, include manual, timing, alarm and motion detect.

Operational steps:

When in manual recording mode, the user can press “stop■” for **2 seconds continuously** to stop the channel recording. If the user presses “stop■” **continuously for 5 seconds** all channels recording will stop.

As for timing, alarm and motion detect records when these are active (please refer to the sections on “Timer Recording,” “Alarm Recording” and “Motion Detect Recording” for the specific exiting conditions), user can press “stop■ ” for **2 seconds continuously** to stop recording the current channel. As soon as record is triggered again, the recording for this channel will be restarted. Press “stop■” for **5 seconds continuously** to stop recording of all channels. When record of all channels is activated again, the recording of all channels will be restarted. If the PTZ adjusts automatically at the time of recording, the system will command the PTZ to return to the original position automatically.

Note

If it's under the event trigger recording, this function can only stop recording. It will not affect alarm output. Please refer to section” Alarm Release” for simultaneous alarm stopping

Section 8 Playback Control

Playback

For designated channel to enter playback status, this DVR provides two types of playback: Video search playback and Video direct playback.

Video search playback: Refer to the section on '**Video Search**', maximum 4 channels playback synchronously.

Video direct playback: User presses '**Play ▶**' of one channel, and the system will enter 4 channel playback interface with the first screen playing back the newest data of current channel, but remaining 3 screens will not play back. Note that other screens may playback through video search.

Move to a certain screen, then press "ENTER" to make this screen a full screen, then press "ENTER" again to return to a 4 split screen mode.

4 split screen play interface is as follows:

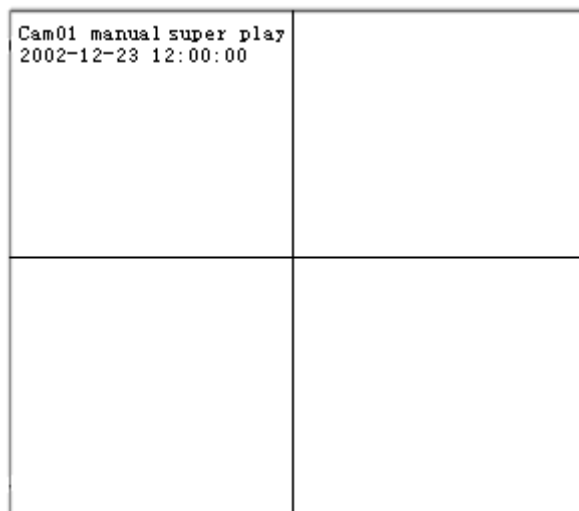





Figure 21 Playback

Slow play

When playback is running, user can press '**play** ' again to enter half normal speed playback.

If user presses '**play** ' once again, the system will resume to normal play status.

Stop


In the course of playback, user can press '**Stop** ' to terminate the current play and transfer to monitoring mode.




Note


1. Record stop is available under following modes; Step playback/forward/backward/play. Press " Stop" to end current playing;
2. If it's under recording and playing modes simultaneously, the function of stop playback takes priority.



Step Playback

Under the status of playback, user can press '**Pause** ' to enter '**Step playback**' status.


Under this status, user can view frame-by-frame playback video data by pressing '**Play** ' or direction key of '**Right**'. If pressing '**Pause**' again, it will return to normal play status.


Fast Forward


Under playback status, when user presses '**Fast Forward** ' or direction key of '**Right**', the system will enter fast forward status

The system provides three speeds to play video. User can switch between three speeds by use of '**Fast forward** ' . If user presses '**Play** ' , the system will return to normal play status.

Fast Reverse

Under playback status, when user presses '**Fast Reverse** ' or direction key of '**Left**', the system will enter fast reverse status

The system provides three speeds to play video. User can switch among three speeds by use of '**Fast Reverse** ' .

If user presses '**Play** ' , the system will return to normal play status.

Previous

At playback status, when user presses '**Previous** ' , the system will skip to previous section and play automatically.

Next

At playback status, when user presses '**Next** ' , the system will skip to next section and play automatically.

Section 9 Alarm Release

This function is for user confirmation that an alarm output by the system has been acknowledged. When the system outputs an alarm, the system will terminate all alarm output including inner buzzer if user presses '☒'.

Note

Alarm release is only used to stop current alarm output. Re-triggered alarm output and other functions, such as recording, will not be affected.

Section 10 Remote Control Address Selection

This DVR can be controlled by remote control with the same effect as inputting by the keyboard panel. The remote control can control one or more DVRs simultaneously. The DVR identifies the object controlled by the remote control according to system identification. If the address selected by remote control is not local, all the remote control commands will be automatically neglected. Remote control address selection provides the function for user to select and operate the designated DVR. When the DVR is powered, the DVR defaults to accept remote control commands. If the address is '000', it will be labeled as a broadcast address and remote control will control all equipment.

Operation steps:

1. User presses '**Select**' button on remote control.
2. All DVRs within the range controlled by the remote control will pop up an address selection window. If one DVR within the range controlled by remote control is in non-idle status such as menu operation or PTZ control etc., this address selection will not be effective for this machine and it can continue to accept other remote control commands when it is idle.
3. User inputs the required address. If user selects '**Enter**', the address selection will become effective. Otherwise, the address modification will be of no effect.

Section 11 Video Data Backup

This function will back up the current HDD data to the storage facilities except host computer through USB interface.

Operational process:

1. Insert backup device into USB port.
2. User can select 'Backup' through the panel or "Data Backup" through menu (refer to chapter "Video Data Backup").
3. Input the search terms for backup and select 'Enter'.

Backup device note:

1. Remote disk: remote disk has to be formatted as FAT32 format. (A remote disk more than 32G needs to create sub-regions smaller than 32G, and record files will be backed up to those sub-regions with FAT32 format).
2. Flash disk: flash disk needs to be formatted with FAT32 format before backup.

 Note

If there is non-MP4 format data in USB disk, the original documents will be deleted when video records backup.

Section 12 Auto Lock

Keypad auto-locking works after a long idle period. A re-login is required for further operation. Keypad auto-locking starts timing when no system operation is in progress and stops when user operates the system. The system will display the following prompt if the time of keyboard automation lock is due:



Figure 22 Keyboard Automatic Lock

Section 13 Power off

Push the power button on front panel and system powers off after password has been confirmed.

 Note

After power off, restart after 10 seconds to protect disk.

Chapter V Advanced setup

The following functions can only be operated by the administrator or the users with “**Parameters Setup**” rights. After the confirmation of parameter modifications that take effect without rebooting the system, parameters that need a reboot to take effect will display a special reminder.

Section 1 System Equipment Management

System Parameter Setup

Providing basic parameter function for users to configure system.

- 1、 Select ‘**System**’ in the main menu. Refer to the following.



Figure 23 System Management Menu

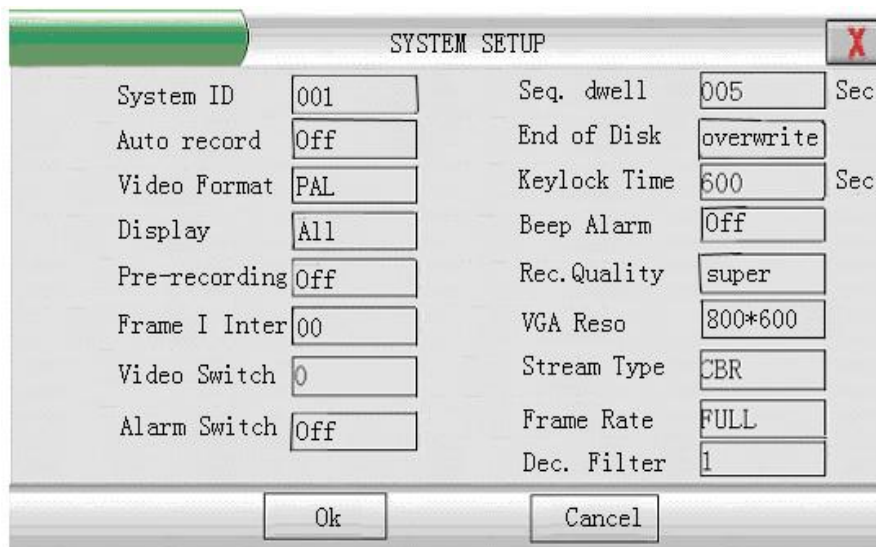


Figure 24 System Parameters Menu

2. Select ‘**System**’ as shown in Figure 24.
3. Amend the parameters according to the needs or basic operation requirements.

The functions of each parameter are as follows.

Table 7 System Parameters Setup

Items	Description	Remarks
System ID	Define the ID of DVR for control through remote controller	Default [001], Range:[001-999]
Seq. dwell (Single channel auto-switching interval)	Define single channel auto-switching interval	Default [005s] Range:[001-999] time interval can not be set to “0”
Auto Record (Power on auto-recording select)	Auto-recording or not when the system is powered on	Yes or No Default No
End of Disk (Record overwrite)	Auto/manual overwrite mode when disk is full	Auto: System overwrites Manual: user to decide overwrite or not Default: Auto overwrite
Video format	Select the current video format	PAL or NTSC Default: PAL
Keylock Time (Keypad auto-lock interval)	Length of idle time before keypad auto locks	Default [600s] Range:[005-999] ≥ 5 s 999: never lock
Display	Whether to display the channel title and other information and icon or not	All, cancel, title and status can be selected Default: ALL

Beep Alarm (Buzzer when alarm)	Buzzer on/off when alarm triggered	Yes or No Default: No
Pre-recording	Startup pre-record or not	ON or Off Default: Off
Rec. Quality (Image quality when manual record)	Select manual record image quality level	SUPER、HIGH、STANDARD、BASIC、LOW Default: STANDARD
Frame I Inter	Define record I-frame interval	Suggestion: use default value 00
VGA Reso (VGA resolution setting)	Setup VGA output resolution	800×600、1024×768 or 1280×1024 Default: 800×600 (Need to reboot when changing)
Video Switch (Trigger source for video switching)	Only for ATM special machine, not for DV-MP 32 and 24 DVR	Suggestion: Default: 0
Stream Type	Define the stream of manual record variable or not	CBR or VBR Default: CBR
Alarm switch	Define single channel display or not when the channel is alarm recording.	ON or OFF Default: OFF
Frame Rate	manual record frames (FULL means 25fps)	FULL、1/2F、1/4F、1/8F or 1/16F Default: Full
Dec. Filter (Playback filtering parameters)	Playback filtering parameters setup	Range [0~9] Default 1

4. Select '**ENTER**' to confirm your setting, and select '**Esc**' "Cancel" to give up.

DISK (HDD Management)

Providing the function of inquiry and management of the HDD installed in the DVR. User must format the new HDD before using it to save the data.

Operational steps:

- 1 Select **Disk**.
- 2 "**Disk Information**" window will popup, information of all connected HDD's is displayed.
- 3 When formatting is required, move the select bars to the HDD required and press "**ENTER**" button. Formatting status will be displayed on the screen.



Warning

Formatting a HDD will delete all the data in it.

4. When repairing the HDD index is required, move the select bar to the HDD and press “**Record**” button.
5. Selecting ‘**Previous**’ and ‘**Next**’ will turn the display information back and forward.
6. Selecting ‘**Return**’ will close the HDD management window.

REBOOT (System Reboot)

User may use this function to reboot system.

Operational steps:

1. Click **Reboot**.
2. A dialogue box will popup for the operation.
3. Press “**ENTER**” to reboot system; Press “**Cancel**” to cancel instruction.

ADJUST (Display Adjustment)

Video parameter of each current channel can be adjusted separately, with values ranging from 0-99. Adjustable figure is displayed below.

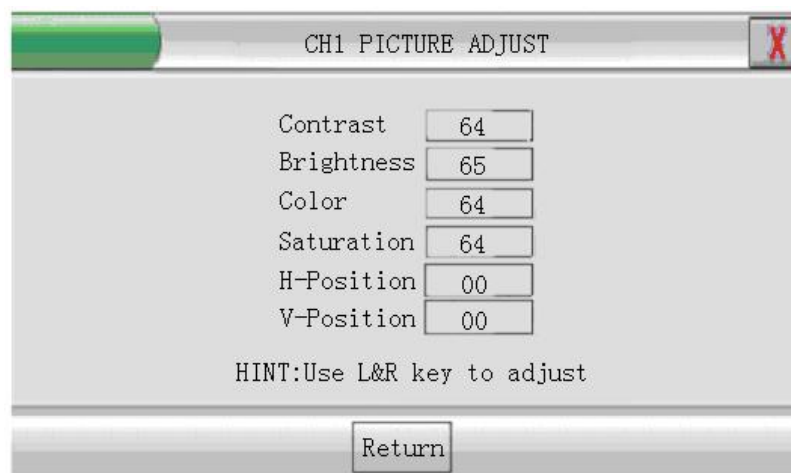


Figure 25 Display Adjustment

 **Note**

The adjustment screen is the current channel of current focus. If the channel is in playback mode the video, the screen contrast, brightness and colour can't be adjusted.

Operational steps:

- Move cursor to the desired channel.
- Click **Picture adjust**.
- Click "Enter" to enter screen adjust window. Select different item using "Up" and "Down"; Change numbers using "Left" or "Right".
- Press "**Return**" to finish the adjustment.

Note: There should be a video signal on the channel; otherwise the screen will not be adjusted

LANGUAGE (Language Setup)

User can select his own language to operate the system.

Operational steps:

1. Select "**Language Setup**".
2. Press "**ENTER**", use "**LEFT**" and "**RIGHT**" keys to select.
3. Press "**OK**" to confirm the selection or press "**Cancel**" to end the selection

TIME (System Time)

Set the system time of DVR.

Operational steps:

1. Select "**Time**".
2. Press "**ENTER**" to display current system time, set new time using number keys.
3. Press "**ENTER**" to activate new time; Press "**Cancel**" to give up modification.

 **Warning**

System time is very important for the whole system. If you need to modify system time please close all other functions otherwise exceptions may occur.

VERSION (Version Inquiry)

Software version can be queried from system menu.

Operation step:

1. Select **Version**.
2. Press “**OK**”, version information will be displayed.
3. Press”**OK**”, again to close the window.

OTHER (Auxiliary Setup)



Figure 26 Auxiliary setup menu

Remote V User (Video Users No.): Providing the channel No.of the DVR users. Define the network users to connect to the DVR (Max. 32, default: 8);

Alarm Out (alarm output): Refer to “**Alarm Record**”

Blind Alarm (Video Shelter): The DVR provides the functions that, user can select whether to start up alarm input when the menu of camera with channel connection is sheltered or partly sheltered, and also provides motion detect video.

Blind Value (Shelter Sensitivity): range is 00~99, the level of 99 is the highest and 00 is the lowest.

Disk Error (HDD Error): Hidden or displayed

HDD Sleep: Sleep modes can be MODEA or MODEB with MODEA by default.

shows the time interval from system power on to disk check, range from 00~99. When the HDD cannot be found during system startup, this interval may be set longer, normally is 16~20 (depends on different HDD, 16 is suggestion).

Maintain (System maintain): For more stable operation, may start system auto maintenance, user input a time for each day for system maintenance (24 hrs). System will be rebooted at the time.

DST Setting (Summer time setup): Offer summer time setup, press “Setup” to enter time setup window.

Operational Steps

1. Select **Auxiliary Setup**;
2. Enter Auxiliary Parameters Setup, amend the types by using ‘**Up**’ and ‘**Down**’, and parameters by using ‘**Left**’, ‘**Right**’ and number keys;
3. Press ‘**Enter**’ to make current setup effective, and ‘**Cancel**’ to cancel it.

MATRIX SETUP

This function is an optional function. The DVR contains 32x4 Matrix, 4 channels Matrix output, which makes real time switch surveillance more convenient for user.

Operation Steps:

1. Select Devices Management->Matrix
2. Click “**OK**”, enter into Matrix Setting Menu, user can choose the different Option by “**Up**” and ”**Down**”, and configure each Option by “**Left**” and “**Right**”. Just as Figure 27 shows:



Figure 27 VIDEO MATRIX

3. Channel: 01-04, Default Setting: 01
4. Camera: 01-32, choose the video you want by enter into “**Set**”, and multiple choice is available.
5. Seq. Dwell: 05-999Sec. Default Setting: 000)

Attention: Any Matrix output applied for Multi-Channel switch, the time of switch must last for more than 5 Seconds or otherwise Auto-Switch will be unavailable.

Section 2 PLAYBACK (Video Search)

As for the recorded video data, user can rapidly search and play the needed video according to different conditions. The DVR provides 3 modes of video search, they are searching according by time, by channel or by events and the 3 modes can be combined to search appointed video data.

Operation Steps:

1. Select '**Search**' according to the menu.
2. The dialog box of video search will appear and permit the user to input search conditions.
3. User can input channel number, the starting and completing time or the type of video. The DVR support multiple channels playback synchronously, single channel search operations: input "**Input channel number**" number and 00 for other channels, press "**Confirm**" and select a file in "**Video file search result**"; other channels playback are the same. If all channel numbers are set as 0, files of all channels are searched and default will be displayed in channel one.
- 4 channel playback operation steps: input 4 different channel numbers, press "**Playback**" and latest video of all channels will be displayed.


VIDEO SEARCH

Camera No.	00	Camera No.	00
Camera No.	00	Camera No.	00
From	2007-07-27 10:03:38		
To	2007-08-01 10:03:38		
Event Video	Off		
Card No.			

HINT:0 means search all channel

Play Ok Cancel

Figure 28 Window of Video Search Input

 Explanation

When event record search is selected, only event recording data is searched. Otherwise all type of data is searched.

Event video includes three modes:

1. External alarm event
2. Motion detection event
3. Timing event

4. After inputting search terms, user can press '**Enter**' to carry out search or press '**Cancel**' to terminate the video search function.
5. System will pop up video searching results and latest records will be displayed in front.
6. User can select different video data by shifting cursor with the help of '**Up**' / '**down**'.
When there are data of more than one page, user can turn pages to look over by selecting '**Previous**' and '**Next**'. If user selects some data and presses '**Enter**', the system will playback the video data from the selected record. The starting and stopping time is in accordance with the search terms input by user.
7. For control during playing video, please refer to '**Video Control**' Section 3.

 Note

Max. 5000 files will be displayed by search; the records over 5000 will not be displayed. User may change search criteria to get expected record files.

During playback, when current segment is over, system will continue playback by jumping to the next segment.

Section 3 RECORDER (Record Setup)

Users can select “**Recorder Setup**” through the menu as shown in the following Figure :



Figure 29 RECORDER SETUP

SCHEDULE (Schedule Record)

To provide the automatic recording function according to the video time set by user.

Timer Record function can set the video quality, video frame rate, video stream and video time of each channel separately with the following operational steps:

1. User selects ‘**SCHEDULE**’ through the menu.
2. Press ‘**Enter**’ and enter into **Timer Record** parameters setup menu, then user can select or input parameters to shift the cursor through direction keys ‘**Up**’ and ‘**Down**’ or ‘**Left**’ and ‘**Right**’. The menu is shown in following Figure:

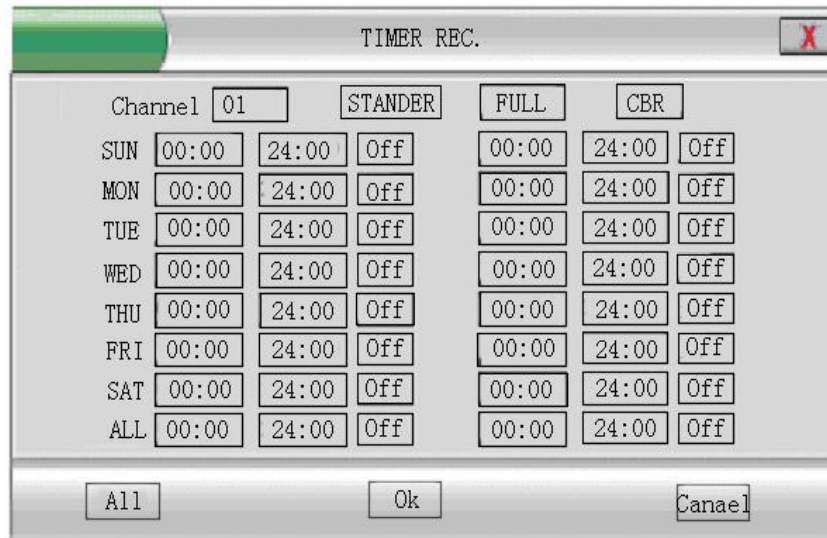


Figure 30 Timer Record Menu

3. **Channel number:** channel from **01** to **32**.
4. **Video quality:** **LOW, BASIC, STANDARD, HIGH, SUPER**. The default is **STANDARD**.
5. **Video rate:** **FULL, 1/2F, 1/4F, 1/8F, 1/16F**. The default is **FULL**.
6. **Stream type:** **CBR** or **VBR**. The default is **CBR**.
7. **Video time interval:** **Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, ALL**. Two time intervals can be set in each day. 'ALL' means to record according to the set time interval in each day. The default is Timer Record **Off**. Set the 'OFF' time interval selection to 'ON' after each time interval setup is completed.
8. In the course of setting up the Timer Recording parameters, if the parameters needed to be set the same in all Channels, user can select 'ALL' at the bottom of the menu after finishing the setup of parameters of one channel. The system will prompt the following dialog box. When pressing 'OK', parameters setup for all Channels will be achieved.



Figure 31 'ALL' Prompt Box

9. Select '**OK**' to finish the setup. User can select '**Enter**', the current parameters setup will come into force. If user selects '**Cancel**', the current change will be lost.

Note

- 24 Channel DVR selects channel from 01 to 24
- 32 Channel DVR selects channel from 01 to 32

ALARM-REC (Alarm Record)

According to alarm input signals generated by external sensors, system can start auto-recording and output related alarm signals. Users can setup following parameters: alarm input port、alarm output port、alarm time length, alarm recording time length、P/T/Z action、recording channel、recording quality、recording interval.

Operational steps:

1. Select **Alarm-REC**.

2. “**Alarm-REC**” dialogue box pops up. Press” **Up**” or “**Down**” to move the cursor for setting, press” **Left**” or “**Right**” to select terms and input parameters. The menu looks like following:

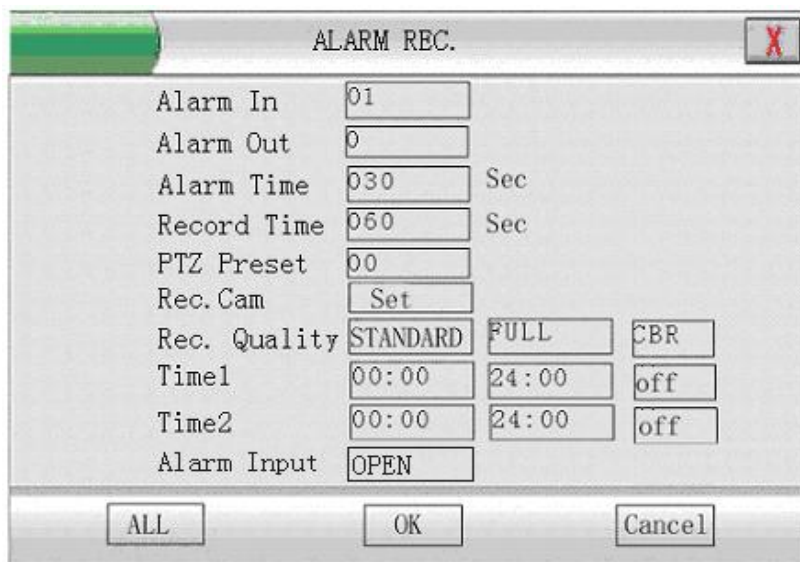


Figure 32 Alarm Recording Setup

3. **Alarm In** (Alarm input port): from 1 to 16. default as: 1.
4. **Alarm Out** (Alarm output port): from 1 to 4. default as: 0.
5. **Alarm Time** (Alarm time length): from 000 to 999. Default as: 030s.
6. **Record Time** (Alarm recording time length): From 000 to 999. Default as: 060s.
7. **PTZ Preset** (P/T/Z action: 00.) Default as: 00. PTZ preset can be activated for corresponding input port.
8. **Rec. Cam** (Recording channel no.): from 1 to 16. Default as: 1.
9. **Rec. Quality** (Recording quality): **LOW, BASIC, STANDARD, HIGH, SUPER**. The default is **STANDARD**.
Recording frame rate: **FULL, 1/2F, 1/4F, 1/8F, 1/16F**. The default is **FULL**.
Stream type: **CBR** or **VBR**. Default as: **CBR**.
10. **Time1 / Time2** (Recording interval 1 and 2): two intervals can be set for each day within the setup interval external alarm inputs. Leave Time option set to **off** if not used.
11. **Alarm Input** (Alarm Input) Open or Close. Default as: Open

12. If all Channels have the same alarm recording parameters, after setup of one channel press “**ALL**” below the menu and system will pop up “**All setting is applied to all Channel**”, press “**Enter**” for all Channels to set these parameters automatically.
13. When user selects ‘**Enter**’, the current parameter setup will come into force. If user selects ‘**Cancel**’, the current change will be lost.

 **Note**

If the P/T/Z output is set at 0, it means that P/T/Z will not follow up the preset

MOTION-REC (Motion detection record)

By detecting the motion in the video, recorder can start motion detection recording.

Parameters like sensitivity of motion detection, motion detection zone, P/T/Z movement, alarm recording duration, record quality, alarm output port, alarm output duration can be configured individually.

Operational Steps:

1. Select **Motion REC**.
2. Press “**OK**” to pop up a dialogue box for parameter setting. Press “**Up**” or “**Down**” to move the cursor for setting, press “**Left**” or “**Right**” to select terms and input parameters.

Sensitivity adjustment and motion detection zone setup are described below in detail:

3. **Channel:** Channel selected for motion detection.



Figure 33 Motion Detect Record Setup

4. **Sensitivity:** motion detection sensitivity is from 00 to 99. Default is 50.
5. **Area Setup:** Click "set" on certain channel, motion detection zone setup interface appears:

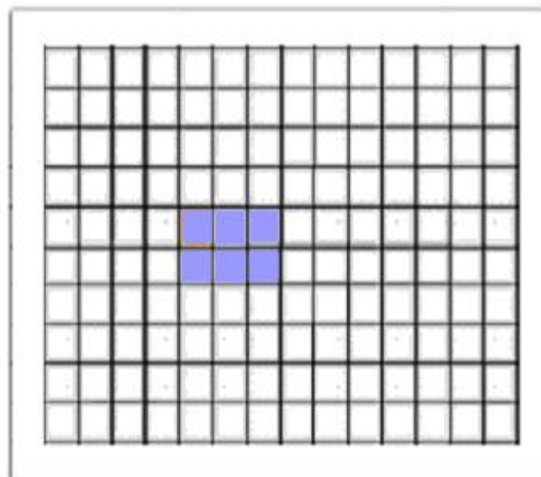


Figure 34 Motion Detect Area setup

Motion detection setting is only available in the green area, in which the green area represents the selected area. White area represents the unselected area.

Move the cursor using **up/down/right/left** keys. Press "**OK**" for area setup /clearance. Press "**Cancel**" to return to the dialogue box. Maximum 192 individual areas can be set. Press "**OK**" to make all settings effective. Press "**Cancel**" to cancel any changes.

6. **PTZ Preset:** (P/T/Z action: 00.) Default as: 00. PTZ preset can be activated for corresponding input port.
7. **Record Time** (Recording time in seconds)
8. **Rec. Quality** (Recording quality): **LOW, BASIC, STANDARD, HIGH, SUPER.** The default is **STANDARD**. Recording frame rate: **FULL, 1/2F, 1/4F, 1/8F, 1/16F.** The default is **FULL**. Stream type: **CBR** or **VBR**. Default as: **CBR**.
9. **Alarm No.** Specify alarm number and alarm time in seconds.
10. **Time1 / Time2** (Recording interval 1 and 2): two intervals can be set for each day within the setup interval external alarm inputs. Leave Time option set to **off** if not used.

REC-TIME (Record length setup)

Operation steps:

1. Select **REC-TIME**.
2. Press “**OK**”, to pop up a dialogue box for record segment length setting.
3. Input the new length, effective values are between 5~240 seconds/ segment.
4. Press “**OK**” to activate new settings; Press “**Cancel**” to cancel changes.

AUDIO (Audio Record)

Audio recording along with video recording can be selected for each channel.

 Note

We suggest not to select audio recording when audio is not used.

Operational Steps:

1. Click “**Audio recording**”.
2. Move the cursor using “**Up**” and “**Down**”; Select item using “**Left**” or “**Right**”.

Press”**OK**” to save the setting; Press”**Cancel**” to cancel any changes made.

Section 4 RECORD (Re-record Resolution Config.)

Record resolution config to set record resolution for each channel.

Operational Steps:

1. Click “**RECORD**”.
2. Press “OK”, enter “**Record resolution config**” menu. Move the cursor using “Up” and “Down”; Set resolution using “Left” or “Right”, the channel group can be set 01 to 08, each group has 4 channels, and each channel can be set to CIF, HD1, or NULL, the default is: CIF. If you set any channel resolution to HD1 in any group, only the first and third channel can be set to HD1, then set other channel to NULL make all settings effective. Please refer to Figure 35:

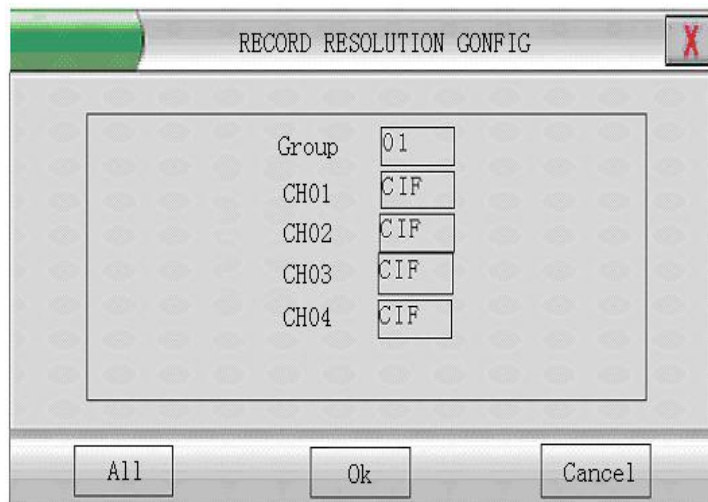


Figure 35 Record Resolution Config

3. If all Channels have the same video channel parameters, after setup of one group, press “All” below the menu and system will display “**All setting is applied to all Channel**”, then press “Enter” and all Channels will set these parameters automatically.

Section 5 PTZ SETUP (Parameter Setup)

Enter PTZ Setup menu through main menu and the system display the following:



Figure 36 PTZ Setup Menu

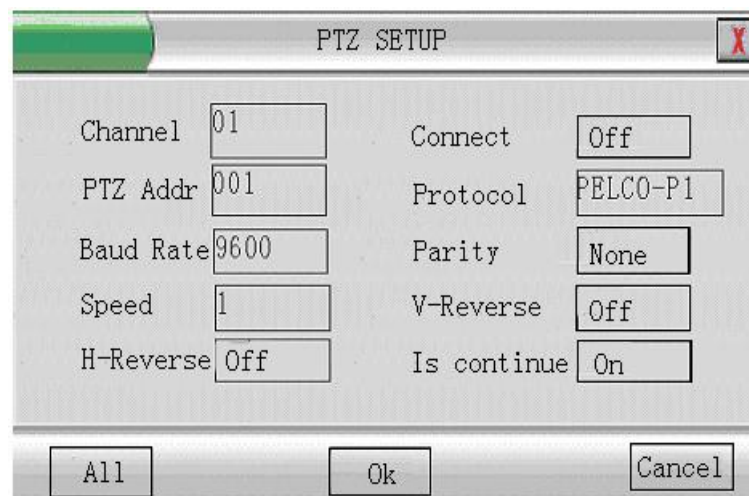


Figure 37 PTZ setup

1. Select **PTZ Setup**.
2. Press **“OK”** to enter PTZ setup window.
3. Move the cursor using **“Up”** and **“Down”**; Select item using **“Left”** or **“Right”**.
4. Press **“OK”** to activate new configurations; Press **“Cancel”** to give up modification.
5. Set **Channel** number
6. Set connect to **On** if this is a PTZ
7. Set **PTZ Address** in menu
8. Select **Protocol**
9. Set **Baud Rate & Parity**
10. Set **Speed**
11. Set up/down V-Reverse & left/right H-Reverse (**On** switches direction)
12. Set Is continue to **On**

Pan/Tilt/Zoom Preset Management

PTZ preset positions are used in alarm recording and motion detection record, PTZs can be directly tuned to the preset positions when needed. Preset position management function includes inquire and deletion of preset positions.

Operational steps:

1. Select **PTZ preset**. Press “**OK**” to enter preset position management window

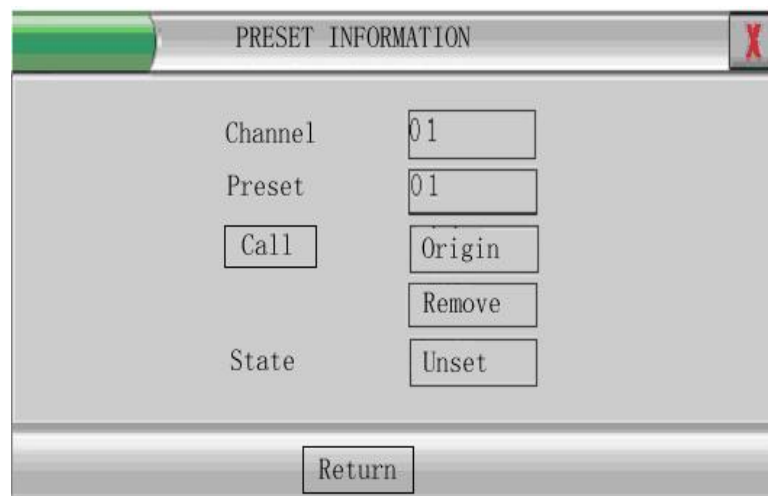


Figure 38 P/T/Z Preset Management

2. Move the cursor using “**Up**” and “**Down**”; Select item or input parameters using “**Left**” or “**Right**”.
3. Channel no.: select the channel to be managed.
4. Preset position: select the preset position to be managed.
5. Call: order the P/T/Z of current channel to needed preset position.
6. Original position: order the P/T/Z of current channel to its original position.
7. Delete: delete current preset position.
8. Status: show whether current preset position was set or not.
9. Return: return to its top layer menu.

RS485 Communication Port Setup

Baud rate setup: 9600 (default);

Data bit: 8;

Stop bit: 1;

Check: none;

Section 6 CAMERA (Camera Setup)

Providing functions such as configuration of each video channel connections, displaying channel location, shelter zone activation and PTZ protocol setup for user.

Operational steps:

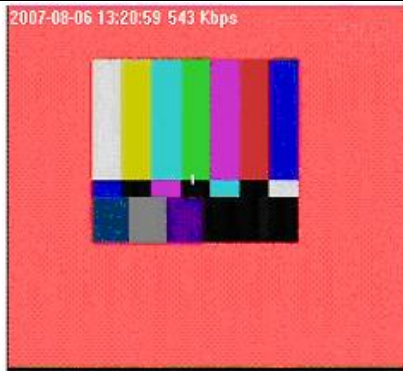
1. User selects '**Camera**' through main menu.
2. Pressing '**Enter**' key and entering video channel setup menu. User can shift cursor through '**Up**' and '**Down**' and configure each option through "**Left**" and "**Right**". The menu is shown in the following figure:



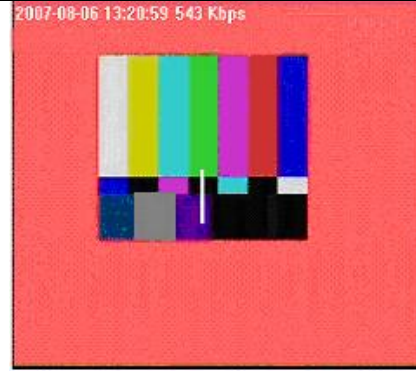
Figure 39 Video Channel Connections Setup

3. Channel no: select the channel to be controlled. Default as: **01**
4. Connect: whether to display current channel or not. Default as: **On**.
5. Mask Area: setup the area to be sheltered in current channel.
6. Mask Active: whether to activate the sheltered area in current channel or not. Default is: **Off**.
7. Rec. Reserve: Recording reserved when overwrite. When the disk is full, records of current channel are not deleted for period of days set.
8. Channel name: display current channel name
9. If all of the channels have the same video channel parameters, after setup of one channel, press "**All**" below, system will display "**All setting is applied to all Channel**", then press "**Enter**" and all Channels will set these parameters automatically.
10. Press "**OK**" to activate new configurations; Press "**Cancel**" to cancel changes.

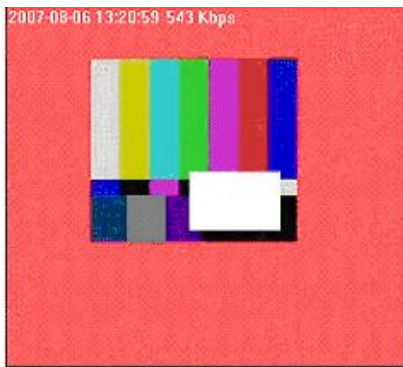
Detailed operation steps shelter area setup is shown as follows:
After user enters video area setup, menu will appear



Shelter Area Setup 1



Shelter Area Setup 2



Shelter Area Setup 3

Now, first press **‘Enter’** to separate the cursor of two colors in the figure. Now user can move the red cursor through direction keys to adjust the area size. Then, user can press number key **‘1’** to display the profile of shelter area (interface 2) and press **‘2’** to display all set shelter area (interface 3).

Use direction key to move whole area or adjust area size. If user controls the start position then move the area; if user controls the end position then adjust the area size. Press number key **“1”** and **“2”** to show its outline or fill the whole area.

Press **“OK”** to change start position or end position; Press **“Cancel”** to quit area setup mode

Note

When applying **“All”**, the shelter zone setup doesn't apply to all channels; it needs to be set individually for each channel.

Section 7 NETWORK

Operational Steps:

1. Enter main menu and select '**NETWORK Setting**'. Press '**Enter**' to enter and select '**Network Setup**'. The menu is shown as the following figure:

NETWORK SETTING	
IP Address	010.000.000.187
Subnet Mask	000.000.000.000
Gateway	000.000.000.000
Server Port	9998
Protocol	TCP
Alarm Center IP	000.000.000.000
Alarm Port	4000
Alarm Enable	off
Link Speed	Auto Mode

Ok Cancel

Figure 40 Network Setup Menu

2. User can shift cursor through '**Up**' and '**Down**' and configure each option through '**Left**' and '**Right**'.
3. Select '**Enter**' to save the modification or select '**Cancel**' to cancel changes.
4. Set IP Address: Example **192.168.001.100**
5. Set Subnet Mask: Example **255.255.255.000**
6. Set Gateway: Example **192.168.001.001** (Modem/Router local address)
(If the Subnet Mask is set as above, then the first three levels of the IP address and the Gateway address must be identical. Use the Gateway address first.)
7. Set Server Port Example **9998**
8. Set Protocol Usually **TCP**
9. Alarm Centre IP IP Address for Alarm
10. Alarm Port Example **4000**
11. Alarm Enable Set to **On** if used
12. Link Speed **Auto Mode**



Note:

IP address of local and gateway cannot be set as 255.255.255.255.

Server port number cannot be set as 0.

Reboot the recorder to make modification valid if Netclient or IE browser can't connect to DVR, and network is OK.

Section 8 REPORT (System Log Operation)

Enter system log inquiry menu, the system will display the following menu



Figure 41 System Log Menu

System Log

Main system events are recorded in the system log. Records are kept in time sequence. When the log has 300 system entries, the earliest event will be overwritten.

Operational steps:

1. Select System log
2. Press **“Enter”** to view current system log information.
3. Click **”PgDn”** / **”PgUp”** to view next/ previous page.
4. Press **”Return”** to end the search.

Event Log (Alarm Events)

Alarm events are recorded in the Event Log. Records are kept in time sequence. When the log has 300 alarm entries, the earliest event will be overwritten.

Operational Steps:

1. Select Event Log.
2. Press **“Enter”** to view current alarm log information
3. Click **”PgDn”** / **”PgUp”** to view next/ previous page.
4. Press **”Return”** to end the search.

Oldest Data (Earliest Video)

Entering earliest video, user can inquire time interval of the earliest video on hard disc and press **‘Enter’** to return.

Section 9 USER INFO User Information Management

Entering user management menu, the system will display the following menu



Figure 42 User Safety Management

USER RIGHTS

The system can set the access rights of non-administrator to monitor or playback appointed channel. If the appointed channel set is 'No Permission', the operation personnel or browsing personnel will not be permitted to monitor or playback the images of the channel.

Operation steps:

1. User selects '**User Rights**' through the menu.
2. Press '**Enter**' and enter management window of user's operation rights
3. Set up corresponding operation rights of non-administrators.
4. When selecting '**All**', it will prompt that '**All setting has applied for all Channel**'.
5. Selecting '**Enter**' will save the setup. Selecting '**Cancel**' will cancel the modification.

REMOTE USER (Online User)

To provide the connections of remote user in the current system for user's inquiry. Local user can terminate the connection of remote user forcedly according to requirement.

Operational steps:

1. Select '**Online User**' in the menu.
2. Press '**Enter**' and enter online user information window.
3. User can shift the selection bar by use of '**Up**' and '**Down**' direction keys

-
4. If user presses '**Enter**' key on one item in list box, the selected remote user will be terminated.
 5. When user selects '**Enter**', the system will terminate the remote user. Selecting '**Cancel**' will cancel any changes.
 6. User can select '**Return**' to end the current inquiry.

PASSWORD (Password Modification)

Provides the function for renewing password. The system will decide the kinds of password that can be reset by a user according to the user's rights. Viewer/Browser can only reset the password of Viewer/Browser, Operator can reset the password of Operator and Viewer/Browser, and the Manager can reset the password of Manager, Operator and Viewer/Browser.

Note: If different rights set the same password, the system will prompt the one with biggest right to enter when inputting password to log on Host.

Administrator : Default password = 333333
Operator: Default password = 222222
Viewer/Browser: Default password = 111111

Operational steps:

1. User selects '**password**' in the menu.
2. Press '**Enter**' and enter the window of renew password.
3. User can use the number keys '**Up**'/'**Down**' to reset password. If the user selects '**Enter**', the reset password will become effective. Selecting '**Cancel**' will cancel any changes.

AUTO LOCK

This provides the function to exit the system and lock the keypad for user. After keypad is locked, it can prevent unlawful user from operating the system to ensure the safety of the system.

Operational steps::

1. User can select '**Auto lock**' through the menu.
2. Press '**Enter**' and enter affirmation dialog box.
3. If user selects '**Enter**', the system will lock the keypad. If user selects '**Cancel**', any changes made are cancelled.

 Note:

The key lock function will be performed automatically after long-time absence. Please refer to chapter "auto-key lock". Manual key lock is also available. If you configure "999" in **System Setting**, key lock does not lock anymore.

Section 10 DATA MANAGE (Data Management)

Menu is found on lower section of the Initial Menu page.
The system will display the following menu after entering Data Manage

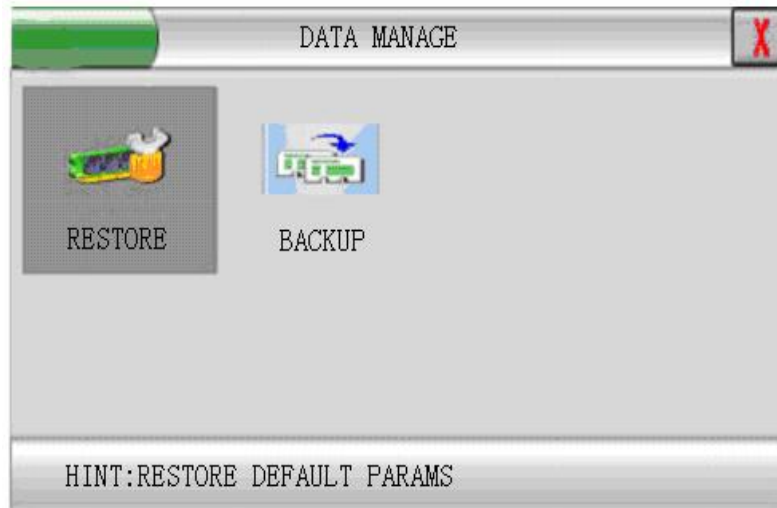


Figure 43 Data Management Menu

RESTORE (Restore factory settings)

This function can help user restore the system parameters to factory settings rapidly.

Operational steps:

1. User can select '**Restore**' through the menu.
2. Press '**Enter**' and the system parameters will be restored to factory settings. Pressing '**Cancel**' will cancel any changes made.

BACKUP (Video Data Backup)

Access is through this menu or by pressing Backup button.

This function will achieve the backup of current HDD data to the storage facilities except host computer through USB interface.

Operation steps:

1. User can select '**Backup**' in the menu.
2. Press '**Enter**' and the video backup terms window will popup.
3. Input the search terms of needed backup data and select '**Enter**'.

Backup device Notes:

1. Mobile HDD: The Mobile HDD must format to FAT32.
2. Memory disk: The Memory disk must format to FAT32.

Chapter VI Product Specifications

Technical Specification

MODEL	32(M)	
Main Processor	Embedded 32 Dual CPU	
VIDEO		
FORMAT	PAL/NTSC	
COMPRESSION	MPEG4/H.264	
INPUT	32 CH BNC (1.0Vp-p,75Ω)	
MAIN OUTPUT	2 CH BNC (1.0Vp-p,75Ω), 1CH VGA	
MATRIX OUTPUT	4 CH BNC(1.0Vpp,75Ω) , Group Circular Monitoring	
AUDIO		
FORMAT	G.723/ADPCM	
Input	DB25, 16CH input (100mv-500mv,10KΩ),1CH Mini Jack two way talk	
Output	1CH BNC output(100mv-500mv,600Ω) 1CH Mini Jack for intercom (100mv-500mv,1KΩ)	
DISPLAY		
Resolution	D1: 704×576(PAL) 704×480 (NTSC)	
Frame Rate	PAL (625 lines,50f/s),NTSC (525lines,60f/s)	
Division	1/4/6/9/13/16/25/36CH , electronic Zoom	
RECORDING		
Resolution	CIF(352*288)PAL, CIF (352*240) NTSC	
Frame Rate	25(P)/30(N) FPS Custom Frame supported	
Video Quality	5 Levels	
Record Mode	Manual/Schedule/Events(Motion Detection/Alarm Sensor)	
Playback	Max.4 CH Playback	
HDD		
Capability	6 HDD, Max.500G/HDD	
Port	SATA	
ALARM		

Model DSD32R

Input	12 CH(NO/NC Programmable)
Output	3CH(NO/NC Programmable), 1A 24VDC/120VAC
OTHER	
Work mode	Multiplex (Record, Playback, Netview, Netplayback, Monitor)
Network	RJ45, 10/100M T Ethernet, support PPPoE
Backup Device	3 USB2.0 ports Memory disk, USB HDD, USB CD/DVDRW
Series port	1 RS232 , 1 RS485 , 1 RS422
Mouse	USB mouse supported
Power Supply	AC100-240V 50/60Hz
Power consumption; (without HDD)	<70W
Weight	12.5KG
Dimensions(W×D×H)	460×440×100 mm (2U)
Colour	Black
Operating Environment	Operating Humidity 10%~95% -10°C ~ +55°C (14°F-131°F)

Appendix 1: HDD Capability Calculate

1. Required HDD capacity for one channel one hour:

$$\text{HDD capacity} = \text{bit rate} / 8 \times 3600 / 1024$$

2. Required one channel HDD capacity:

$$\text{HDD capacity} = \text{required HDD capacity of one channel for one hour} \times \text{daily recording time} \times \text{number of recording days.}$$

3. Required HDD capacity for all channels timing record

$$\text{HDD capacity} = \text{required one channel HDD capacity} \times \text{the number of channels}$$

4. Required HDD capacity for all channel alarm records:

$$\text{HDD capacity} = \text{required one channel HDD capacity} \times \text{the number of channels} \times \text{Alarm rate}$$

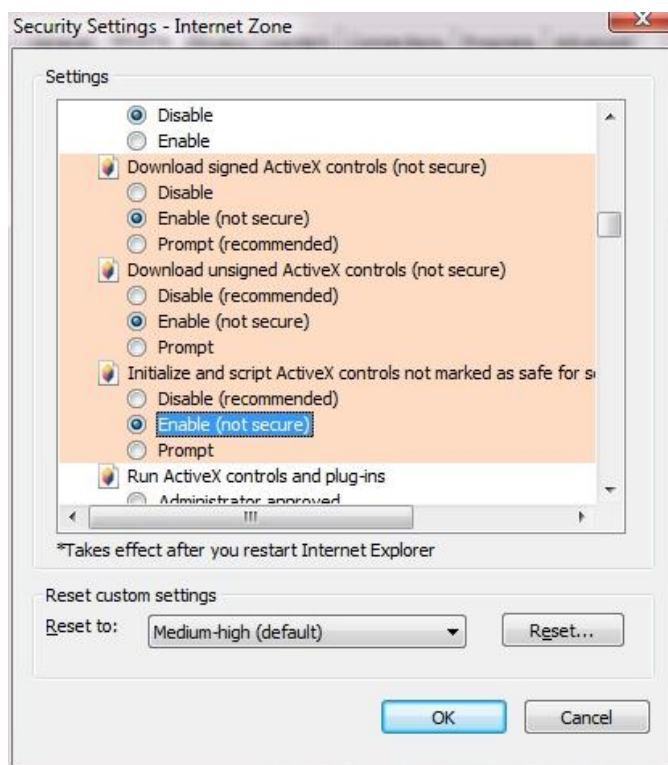
Appendix 2 Operation Notes

- ◆ Audio input must use active audio sensor. Keep audio sensor away from audio power amplifier.
- ◆ When the DVR is in the menu operation mode, remote user can't modify the parameters through the network.
- ◆ Set motion detection sensitivity at 40-70 to effectively detect moving objects.
- ◆ Following parameters won't be active unless system reboots after save: **auto-recording when power on**、**network parameter setup**、**VGA resolution**.
- ◆ Never attempt to format the hard disk when DVR is recording.
- ◆ If the buzzer beeps when DVR is in startup, maybe no hard disk is connected or some video input channel is not connected. Please check these situations.
- ◆ If no hard disk is connected successfully, no operation related to data storage on hard disk is allowed.
- ◆ If unformatted hard disk is connected, user should enter into main menu to format this disk.
- ◆ When the hard disk is full, and “**recording auto overwrite**” function is not active, the message “**Hard disk full, recording with overwrite?**” will be displayed. Press “**OK**” to start overwrite or press “**Cancel**” to stop recording.
- ◆ When the video signal from one channel is lost, the interface for this channel will prompt ‘**No signal**’.
- ◆ When channels from 1 to 4 are displayed in a 4 partition screen, channels from 5 to 8 and onwards can also be switched by successive pressing of the 4 partition key.
- ◆ Never change the date or time during recording as it will cause file corruption.

Windows Internet Explorer setup

When using Internet Explorer to login DVR for the first time ensure the following operational steps are taken:

1. To ensure that you have Microsoft Explorer version 6 of Internet Explorer or higher, and install DirectX v9.0 or higher.
2. Please find in IE “Tools”→“Internet Option”→“Security”→ in “The Custom Security for Internet” menu-→“ActiveX controls and plug-ins”, use “Enable” for “Download signed ActiveX Controls” “Download unsigned ActiveX Controls” “Initialize and script ActiveX controls not marked as safe for scripting”, please refer following Figure :



Other Options please use default.

3. When you login via the DVR, Internet Explorer will automatically download ActiveX. You can view the 16 channel display. After successful install, the active user can use “**Default Level**” button to return the default level.

When using Web function, please modify the server port of the DVR network parameter as 9998, input the IP of the host in the INTERNET EXPLORER address bar, and add afterward":998".

For example, for an IP address of "10.0.0.188", please input “http://10.0.0.188:998” in the INTERNET EXPLORER address bar.

Frequency Asked Questions

- **Why there is nothing displayed on the monitor when turning on the DVR?**
First of all, check if the DVR and monitor have been connected correctly and power is on. DVR has its own power switch so make sure it has been switched on.
- **What can we do if the real time monitor image is not clear?**
Check all connectors have been connected tightly and are not loose. If the problem is caused by cables, then they should be replaced or re-soldered.
Check if the aperture and focus of the camera have been correctly adjusted.
Also adjust the brightness and contrast from the DVR system menu.
- **Why is the motion detection alarm not working correctly. Sometimes there is a person moving in the motion detection zone but this does not trigger recording?**
The accuracy of the motion detection alarm is related to the image from the camera. Try setting the sensitivity in the DVR to provide a more accurate setting. The value should be between 40-70.
- **Why the video records cannot be overwritten automatically?**
Reason one: “**Auto overwrite record**” has not been set on.
Reason two: Disk errors, need to format the disk.
- **How many recording modes are available?**
Schedule/motion detection/alarm/manual recording
- **Why there is no audio for one channel?**
Check if ports and cable connections are correctly connected. If not, try another cable.
Check if the sound monitor works normally.
Check if the mute button on the remote controller has been enabled, and if yes, press it again to disable.
- **Why the remote controller does not work?**
Check battery is working and has not run down.
Check if the remote controller has been properly setup. If there is a symbol “F” in the left hand corner of the video, click “F” once more to disable the “F”.
See whether the control address of the remote controller is the same as the ID of the DVR.
If not, then change the address to 000 or ID of DVR.

➤ **What should I do if I hear the buzzer when starting up the DVR?**

This product is set to trigger the alarm when there is a wrong operation or parameter setting, so this buzzer is mainly because of no video input. Login as the Manager and cancel the buzzer. Check if there is a read/write mistake on the HDD and if so, stop recording and format the HDD.

➤ **Why PTZ movements can not be controlled?**

Check if the PTZ control parameters in DVR system menu such as protocol, baud rate and the address have been set the same as the PTZ.

Check whether the RS485 connecting cable (Tx+、Tx-) of the decoder are correct, and measure if there is a voltage change between the Tx+、Tx- cables (if the connection is correct and no voltage change between the cables, it might be a problem with the 485 control chip).

➤ **How to use USB to backup the data?**

Make sure the backup device has been formatted to FAT32.

 Note

1. The password consists of Max. 6 numbers, factory default configuration is set as:

Administrator —— 333333

Operator —— 222222

Browser —— 111111

2. If wrong password is inputted 3 times, DVR will turn on Alarm

3. To ensure the system security, modify system default password in time