



## Models

**ALIEN716 ALIEN708 ALIEN704**

## Operations Manual

**Version 2.0.1**

## Regulatory Information

### EU Conformity Statement



This product complies with the European standards listed under the Low Voltage Directive 2006/95/EC and the EMC Directive 2004/108/EC.



WEE/CG0783SS

This symbol on the products and/or accompanying documents means that used electronic equipment must not be mixed with general household waste. For treatment, recovery and recycling please return this unit to your trade supplier or local designated collection point as defined by your local council.

### Preventive and Cautionary Tips

Before connecting and operating your device, please note the following:

Ensure unit is installed in a well-ventilated, dust-free environment.

Unit is designed for indoor use only.

Keep all liquids away from the device.

Ensure environmental conditions meet factory specifications.

Ensure unit is properly secured to a rack or shelf. Major shocks or jolts to the

unit as a result of dropping it may cause damage to the sensitive electronics within the unit.

Use the device in conjunction with a UPS if possible.

Power down the unit before connecting and disconnecting accessories and peripherals.

A factory recommended HDD should be used for this device.

Improper use or replacement of the battery may result in a fire hazard.

Replace

with the same or equivalent type only. Dispose of used batteries according to the

instructions provided by the battery manufacturer.

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## 1. Introduction

The Alien MAX Digital Video Recorder is supplied in 4, 8 and 16 channel models. It has 7 video outputs that include HDMI, VGA, Main Composite and 4 spot monitors and all outputs can be multi-channel. It can hold up to 8 x 4Tb HDDs (16 channel model without a DVD Writer) and all channels run at 4CIF. The unit has 16 audio inputs and 16 channel loophroughs. The unit hosts full networking, alarm activation, continuous and event recording and provides the new Instant Detective feature.

### Key Features

#### Compression

- PAL/NTSC adaptive video inputs.
- H.264 video compression with high reliability and superior definition.
- Each channel supports dual-stream.
- Independent configuration for each channel, including resolution, frame rate, bit rate, image quality, etc.
- The quality of the input and output video is configurable.
- Each channel supports two kinds of compression parameters, the normal continuous and event. Substream can be configured locally.
- Encoding for both audio/video composite stream and video stream; audio and video synchronisation during composite stream encoding.
- Watermark technology.

#### Local Monitoring

- Simultaneous HDMI, VGA and CVBS outputs.
- HDMI output and VGA output at up to 1920×1080p resolution.
- 1/4/6/8/9/16-division live view is supported, and the display sequence of screens is adjustable (depends on model purchased).
- Live view screen can be switched in group, and manual switch and automatic cycle review is also provided. The automatic sequencing time can also be adjusted.
- Quick setting menu is provided for live view.
- The selected live view channel can be covered.
- Motion detection, tamper-proof, video exception alert and video loss alert functions.
- Privacy mask.
- Several PTZ protocols supported; PTZ preset, patrol and pattern.
- Zooming in by clicking the mouse and PTZ tracing by dragging the mouse.

#### HDD Management

- Up to 8 SATA hard disks, 8 network disks (8 NAS disks, or 7 NAS disks+1 IP SAN disk) and 1 eSATA disk can be connected, each disk with a maximum of 4TB storage capacity.
- Supports eSATA disk for recording or backup.

HDD group management.  
Supports HDD standby function.  
HDD property: redundancy, read-only, read/write (R/W).  
HDD quota management; different capacity can be assigned to different channels.

### **Recording, Capture and Playback**

Holiday recording schedule configuration.  
Normal and event video encoding parameters.  
Multiple recording types: manual, normal, alarm, motion, motion | alarm, motion & alarm.  
8 recording time periods with separated recording types.  
Pre-record and post-record for alarm, motion detection for recording and pre-record time for schedule and manual recording.  
Searching record files and captured pictures by events (alarm input/motion detection).  
Customisation of tags, searching and playing back by tags.  
Locking and unlocking record files.  
Local redundant recording and capture.  
Searching and playing back record files by channel number, recording type, start time, end time, etc.  
Smart search for the selected area in the video (this feature is supported by analogue cameras only).  
Zooming in when in playback.  
Playing back in reverse mode.  
Supports pause, rewind, play fast, play slow, skip forward, and skip backward when in playback, locating by dragging the mouse.  
Up to 16-ch synchronous playback at 4CIF real time.  
Manual capture, continuous capture of video images and playback of captured pictures.

### **Backup**

Export video data by USB, SATA or eSATA device.  
Export video clips when in playback.  
Management and maintenance of backup devices.

### **Alarm and Exception**

Configurable arming time of alarm input/output.  
Alarm for video loss, motion detection, tampering, abnormal signal, video input/output standard mismatch, illegal login, network disconnected, IP conflict, abnormal record/capture, HDD error, and HDD full, etc.  
Alarm triggers full screen monitoring, audio alarm, notifying surveillance center, sending email and alarm output.  
Automatic restore when system is abnormal.

### **Other Local Functions**

Users can operate by front panel, mouse, remote control, and control keyboard.

Three-level user management; admin user is allowed to create many operating accounts and define their operating permission, which includes the limit to access any channel.

Operation, alarm, exceptions and log recording and searching.

Manually triggering and clearing alarms.

Import and export of device configuration information.

### **Network Functions**

2 self-adaptive 10M/100M/1000M network interfaces and working mode is configurable: multi-address, load balance, network fault tolerance, etc. IPv6 is supported.

TCP/IP protocol, PPPoE, DHCP, NTP, SADP, SMTP, SNMP, NFS, and iSCSI are supported.

Remote search, playback, download, locking and unlocking the record files and resuming failed file downloads.

Remote parameters setup; remote import/export of device parameters.

Remote viewing of the device status, system logs and alarm status.

Remote keyboard operation.

Remote locking and unlocking of control panel and mouse.

Remote HDD formatting and program upgrading.

Remote system restart.

RS-232, RS-485 transparent channel transmission.

Alarm and exception information can be sent to the remote host

Remotely start/stop recording.

Remotely start/stop alarm output.

Captured pictures can be sent via FTP (available on specific models only) and the device can be upgraded by remote FTP server.

Remote PTZ control.

Remote JPEG capture.

Two-way voice talk and voice broadcasting.

Embedded WEB server.



## 1.1 Front Panel



**Table 1.1a Description of Control Panel Buttons**

No.	Name	Function Description
1	<b>ALARM</b>	Alarm indicator turns red when a sensor alarm is detected.
	<b>READY</b>	Ready indicator is normally blue, indicating that the device is functioning properly.
	<b>STATUS</b>	Status indicator turns blue when device is controlled by an IR remote.
		Indicator turns red when controlled by a keyboard and purple when IR remote and keyboard is used at the same time.
	<b>HDD</b>	HDD indicator blinks red when data is being read from or written to HDD.
	<b>MODEM</b>	Reserved for future usage.
	<b>TX/RX</b>	TX/RX indicator blinks blue when network connection is functioning properly.
<b>GUARD</b>	Guard indicator turns blue when the device is in armed status; at this time, an alarm is enabled when an event is detected.	
	The indicator turns off when the device is unarmed. The arm/disarm status can be changed by pressing and holding in the ESC button for more than 3 seconds in live view mode.	
2	<b>IR Receiver</b>	Receiver for IR remote
3	<b>DVD-ROM</b>	Slot for DVD-ROM. (Optional)
4	<b>Alphanumeric Buttons</b>	Switch to the corresponding channel in Live view or PTZ Control mode.
		Input numbers and characters in Edit mode.
		Switch channels in All-day Playback mode.
		The light of the button is blue when the corresponding channel is recording; it is red when the channel is in network transmission status; it is pink when the channel is recording and transmitting.
5	<b>USB Interfaces</b>	Universal Serial Bus (USB) ports for additional devices such as USB mouse and USB Hard Disk Drive (HDD).

6	<b>ESC</b>	Back to the previous menu.
		Press for Arming/disarming the device in Live View mode.
	<b>REC/SHOT</b>	Enter the Manual Record setting menu.
		In PTZ control settings, press the button and then you can call a PTZ preset by pressing Numeric button. It is also used to turn audio on/off in the Playback mode.
	<b>PLAY/AUTO</b>	The button is used to enter the All-day Playback mode.
		It is also used to auto scan in the PTZ Control menu.
	<b>ZOOM+</b>	Zoom in the PTZ camera in the PTZ Control setting.
	<b>A/FOCUS+</b>	Adjust focus in the PTZ Control menu.
		It is also used to switch input methods (upper and lowercase alphabet, symbols and numeric input).
	<b>EDIT/IRIS+</b>	Edit text fields. When editing text fields, it will also function as a Backspace button to delete the character in front of the cursor.
		On checkbox fields, pressing the button will <i>tick</i> the checkbox.
		In PTZ Control mode, the button adjusts the iris of the camera.
		In Playback mode, it can be used to generate video clips for backup. Enter/exit the folder of USB device and eSATA HDD.
	<b>MAIN/SPOT/ZOOM-</b>	Switch main and spot output.
		In PTZ Control mode, it can be used to zoom out the image.
	<b>F1/ LIGHT</b>	Select all items on the list when used in a list field.
		In PTZ Control mode, it will turn on/off PTZ light (if applicable).
		In Playback mode, it is used to switch play and reverse play.
	<b>F2/ AUX</b>	Cycle through tab pages.
		In synchronous playback mode, it is used to switch channels.
	<b>MENU/WIPER</b>	Press the button will help you return to the Main menu (after successful login).
		Press and hold the button for 5 seconds will turn off audible key beep.
		In PTZ Control mode, the MENU/WIPER button will start wiper (if applicable).
In Playback mode, it is used to show/hide the control interface.		
<b>PREV/FOCUS-</b>	Switch single screen and multi-screen mode.	
	In PTZ Control mode, it is used to adjust the focus in conjunction with the A/FOCUS+ button.	
<b>PTZ/IRIS-</b>	Enter the PTZ Control mode.	
	In the PTZ Control mode, it is used to adjust the iris of the PTZ camera.	
7	<b>DIRECTION</b>	The DIRECTION buttons are used to navigate between different fields and items in menus.
		In the Playback mode, the Up and Down button is used to speed up and slow down recorded video. The Left and Right button will select the next and previous record files.
		In Live View mode, these buttons can be used to cycle through channels.
		In PTZ control mode, it can control the movement of the PTZ camera.
	<b>ENTER</b>	The ENTER button is used to confirm selection in any of the menu modes.
It can also be used to <i>tick</i> checkbox fields.		
In Playback mode, it can be used to play or pause the video.		

		In single-frame Playback mode, pressing the button will advance the video by a single frame.
		In Auto-switch mode, it can be used to stop /start auto switch.
8	<b>JOG SHUTTLE Control</b>	Move the active selection in a menu. It will move the selection up and down.
		In Live View mode, it can be used to cycle through different channels.
		In the Playback mode: For Alien716 series, the outer ring is used to speed up or slow down the record files and the inner ring is used to jump 30s forward/backward in records files.
		In PTZ control mode, it can control the movement of the PTZ camera.
9	<b>POWER ON/OFF</b>	Power on/off switch.

Note: If GUARD indicator is blue (default), all the alarm event and exception settings are valid. Otherwise, alarm event and exception settings are invalid, but normal recording is still available.

**Note:** It is important to note that you must press the EDIT button on either the remote or front panel on a text field before you're able to edit its content. After you're done entering text, you must hit the ENTER button to be able to move on to the next field.

## 1.2 IR Remote Control Operations

The device may also be controlled with the included IR remote control, shown in Figure 1.2.

**Note:** Batteries (2×AAA) must be installed before operation.

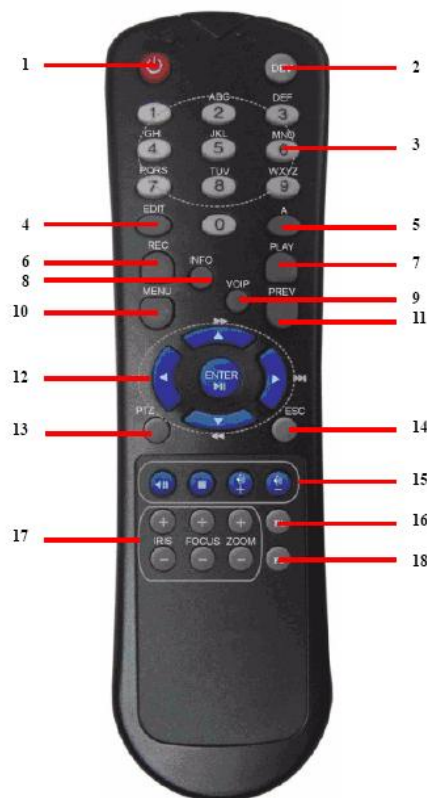


Figure 1.2a Remote Control

The keys on the remote control resemble the ones on the front panel. See Table below.

Table 1.2b Description of the IR Remote Control Buttons

No.	Name	Description
1	<b>POWER</b>	Power on/off the device.
2	<b>DEV</b>	Enables/Disables Remote Control.
3	<b>Alphanumeric Buttons:</b>	Same as Alphanumeric buttons on front panel.
4	<b>EDIT Button</b>	Same as EDIT/IRIS+ button on front panel.
5	<b>A Button</b>	Same as A/FOCUS+ button on front panel.
6	<b>REC Button</b>	Same as REC/SHOT button on front panel.
7	<b>PLAY Button</b>	Same as the PLAY/AUTO button on front panel.
8	<b>INFO Button</b>	Reserved for future usage.
9	<b>VOIP Button</b>	Same as the MAIN/SPOT/ZOOM- button on front panel.
10	<b>MENU Button</b>	Same as the MENU/WIPER button on front panel.
11	<b>PREV Button</b>	Same as the PREV/FOCUS- button on front panel.
12	<b>DIRECTION/ENTER Buttons</b>	Same as the DIRECTION/ENTER buttons on front panel.
13	<b>PTZ Button</b>	Same as the PTZ/IRIS- button on front panel.
14	<b>ESC Button</b>	Same as the ESC button on front panel.
15	<b>RESERVED</b>	Reserved for future usage.
16	<b>F1 Button</b>	Same as the F1/LIGHT button on front panel.
17	<b>PTZ Control Buttons</b>	Buttons to adjust the iris, focus and zoom of a PTZ camera.
18	<b>F2 Button</b>	Same as the F2/AUX button on front panel.

**Troubleshooting Remote Control:**

**Note:** Make sure you have installed batteries properly in the remote control and you need to aim the remote control at the IR receiver in the front panel.

If there is no response after you press any button on the remote, follow the procedure below to troubleshoot.

**Steps:**

Go to **Menu > Setup > General > More Settings** by operating the mouse or via the front panel using the Menu button, Down arrow key, Edit, <password of DVR>, A, Enter, Down arrow key, Enter, Setup using arrow keys, Enter, F2 and F2 to access More Settings.

Check and remember the device ID number. The default ID number is 255. This ID number is valid for all the IR remote controls.

Press the DEV button on the remote control.

Enter the device ID number from step 2.

Press the ENTER button on the remote.

If the Status indicator on the front panel turns blue, the remote control is operating properly. If the Status indicator does not turn blue and there is still no response from the remote, please check the following:

Batteries are installed correctly and the polarities of the batteries are not reversed.

Batteries are not flat.

IR receiver is not obstructed.

### 1.3 USB Mouse Operation

A regular 3-button (Left/Right/Scroll-wheel) USB mouse can also be used with this device. To use a USB mouse:

Plug USB mouse into one of the USB interfaces on the front panel of the device.

The mouse should automatically be detected. If in a rare case that the mouse is not detected, the possible reason may be that the two devices are not compatible, please refer to the recommended device list from your provider.

**Table 1.3a Description of the Mouse Control**

Name	Action	Description
Left-Click	Single-Click	Live view: Select channel and show the quick set menu. Menu: Select and enter.
	Double-Click	Live view: Switch between single-screen and multi-screen.
	Click and Drag	PTZ control: pan, tilt and zoom. Tamper-proof, privacy mask and motion detection: Select target area. Digital zoom-in: Drag and select target area. Live view: Drag channel/time bar.
Right-Click	Single-Click	Live view: Show menu. Menu: Exit current menu to upper level menu.
Scroll-Wheel	Scrolling up	Live view: Previous screen. Right-click Menu: Previous item.
	Scrolling down	Live view: Next screen. Right-click Menu: Next item.

## 1.4 Input Method Description



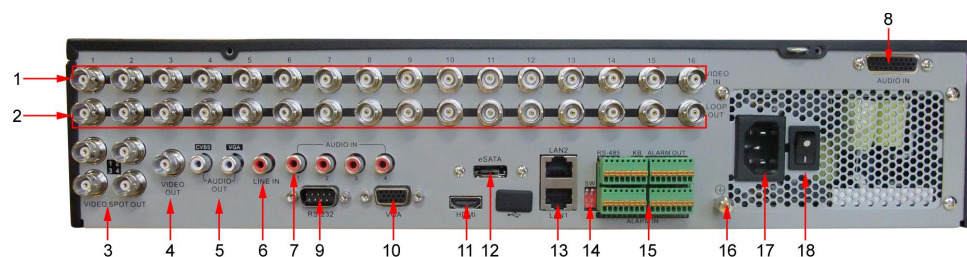
Figure 1.4a Soft Keyboard

Description of the buttons on the soft keyboard:

Table 1.4b Description of the Soft Keyboard Icons

Icons	Description	Icons	Description
	English		Capital English
	Numbers		Symbols
	Lowercase/Uppercase		Backspace
	Space		Enter
	Exit		

## 1.5 Rear Panel



**Table 1.5a Description of Rear Panel**

No.	Item	Description
1	<b>VIDEO IN</b>	BNC connectors for analogue video inputs.
2	<b>LOOP OUT</b>	BNC connectors for video loop outputs.
3	<b>VIDEO SPOT OUT</b>	4 x BNC connectors for video output.
4	<b>VIDEO OUT</b>	BNC connector for video output. 1. When both HDMI and VGA are connected, it is used for live view only; 2. When either HDMI or VGA is connected, it is used as the spot video output for live view, playback, recording and PTZ controls; 3. When neither HDMI nor VGA is connected, it is used as the main video output for live view and menu operations.
5	<b>AUDIO OUT</b>	Phono connector for audio output. This connector is synchronised with VIDEO OUT.
6	<b>LINE IN</b>	Phono connector for voice talk.
7	<b>AUDIO IN</b>	Phono connector for audio input.
8	<b>AUDIO IN</b>	DB26 connector for audio input.
9	<b>RS-232 Interface</b>	Connector for RS-232 devices.
10	<b>VGA</b>	DB9 connector for VGA output. Display local video output and menu.
11	<b>HDMI</b>	HDMI video output connector.
12	<b>eSATA (Optional)</b>	Connects external SATA HDD, CD/DVD-RM.
13	<b>LAN Interface</b>	Connector for LAN (Local Area Network).



14	<b>Termination Switch</b>	RS-485 termination switch. Up position is not terminated. Down position is terminated with 120Ω resistance.
15	<b>RS-485 Interface</b>	Connector for RS-485 devices. T+ and T- pin connects to R+ and R- pin of PTZ receiver respectively.
	<b>Controller Port</b>	D+, D- pin connects to Ta, Tb pin of controller. For cascading devices, the first device's D+, D- pins should be connected with the D+, D- pins of the next device.
	<b>ALARM IN</b>	Connector for alarm input.
	<b>ALARM OUT</b>	Connector for alarm output.
16	<b>GROUND</b>	Ground (needs to be connected when device starts up).
17	<b>AC 100V ~ 240V</b>	AC 100V ~ 240V power supply.
18	<b>POWER</b>	Switch for turning on/off the device.

## 1.6 Starting Up and Shutting Down the Device

### Purpose:

Proper startup and shutdown procedures are crucial for extending the life of the device.

### Starting up the device:

#### Steps:

Check the power lead is plugged into an electrical outlet providing the correct voltage for the DVR. It is **HIGHLY** recommended that an Uninterruptible Power Supply (UPS) be used in conjunction with the device. The Power indicator LED on the front panel should be red, indicating the device is getting power.

Press the **POWER** button on the front panel. The Power indicator LED should turn blue indicating that the unit is starting up.

After startup, the Power indicator LED remains blue. A splash screen with the status of the HDD appears on the monitor. The row of icons at the bottom of the screen shows the HDD status. 'X' means that the HDD is not installed or cannot be detected.

### Shutting down the device:

#### Steps:

There are two proper ways to shut down the device. To shut down the device:

- **OPTION 1: Standard shutdown**

Enter the Shutdown menu.

**Menu > Turn Off****Figure 1.6a Shutdown Menu**

Click the **Shutdown** button.

Click the **Yes** button.

**• OPTION 2: By operating the front panel**

Press and hold the POWER button on the front panel for 3 seconds.

Enter the administrator's username and password in the dialogue box for authentication.

Click the **Yes** button.

**Note:** Do not press the POWER button again when the system is shutting down.

**Rebooting the device**

In the Shutdown menu you can also reboot the device.

**Steps:**

Enter the shutdown menu by clicking **Menu > Turn Off**.

Click the **Logout** button to logout the device or the **Reboot** button to reboot the device.

## 2. Using the Smart Setup for Basic Configuration

By default, the Smart Setup starts once the device has loaded, as shown below. Note that it is recommended that if the unit has been setup and fitted with a hard drive/s then the Smart Setup can be cancelled and amendments made later.



Figure 2a Smart Setup Interface

### Operating the Smart Setup:

The Smart Setup can walk you through some important settings on the device. If you do not want to use the Smart Setup immediately, click the **Cancel** button. You can also choose to use the Smart Setup next time by leaving the “Start Smart Setup when DVR starts?” checkbox checked.

Click **Next** button on the Smart Setup window to enter the **Login** window, as shown in Figure 2b.

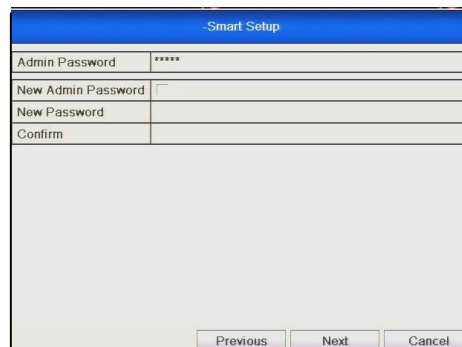
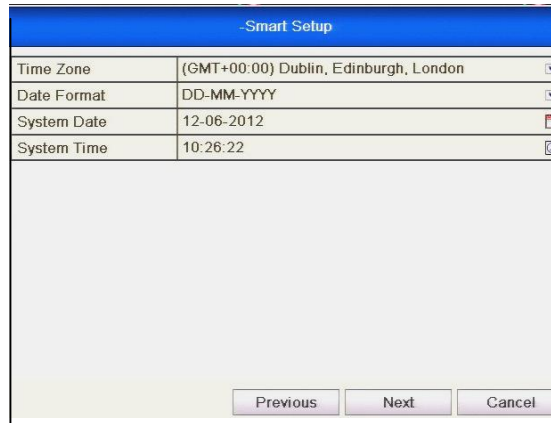
A screenshot of the 'Login' window. The title bar is blue and contains the text '- Smart Setup'. Below the title bar, there are four input fields: 'Admin Password' (with a masked password '\*\*\*\*'), 'New Admin Password' (with a checkbox to its left), 'New Password', and 'Confirm'. At the bottom right, there are three buttons: 'Previous', 'Next', and 'Cancel'.

Figure 2b Login Window

Enter the admin password. By default, the password is 12345.

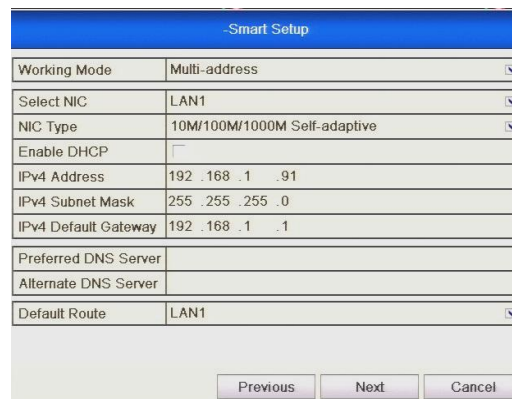
To change the admin password, check the **New Admin Password** checkbox. Enter the new password and confirm the password in the given fields.

Click the **Next** button to enter the date and time settings window, as shown in Figure 2c.



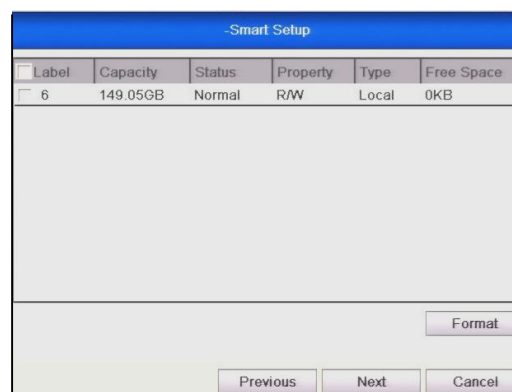
**Figure 2c Date and Time Settings**

After the time settings, click **Next** button which takes you back to the Network Setup window, as shown in Figure 2d.



**Figure 2d Network Configuration**

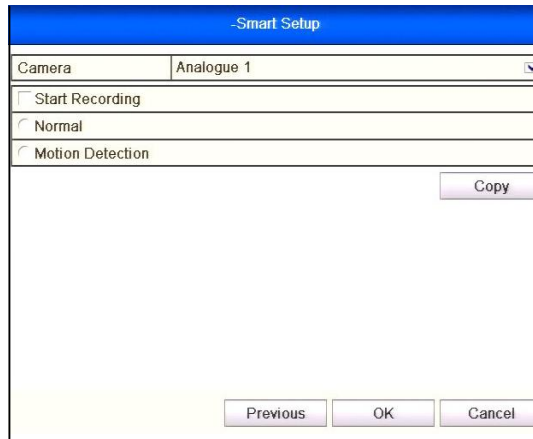
Click **Next** button after you configured the network parameters, which takes you to the **HDD Management** window, shown in Figure 2e.



**Figure 2e HDD Management**

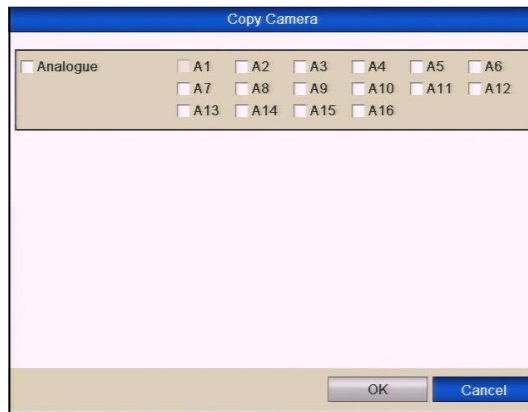
To initialise (format) the HDD, click the **Init** button. Initialisation removes all the data saved on the HDD.

Now click **Next** button to enter the **Record Settings** window, as shown below.



**Figure 2f Record Settings**

Click **Copy** to copy the settings to other channels, as shown in Figure 2g.



**Figure 2g Copy Record Settings**




### 3. Live View

Live view shows you the video image for each camera in real time. The device automatically enters Live View mode when powered up. It is also at the very top of the menu hierarchy, thus pressing the ESC button a number of times (depending on which menu you're on) always brings you the Live View mode.

#### 3.1 Live View Icons

In the live view mode, there are icons at the top right of the screen for each channel showing the status of the record and alarm for each channel. This enables you to confirm when the unit is triggering an alarm/motion and whether the unit is recording for that channel.

**Table 3.1a Description of Live View Icons**

Icons	Description
	Alarm (video loss, tampering, motion detection or sensor alarm)
	Record (manual record, schedule record, motion detection or alarm triggered record)
	Alarm & Record

#### 3.2 Operations in Live View Mode

There are many functions provided. The functions are listed below.

**Single Screen:** showing only one screen on the monitor.

**Multi-screen:** showing multiple screens on the monitor simultaneously.

**Auto-switch:** the screen is auto switched to display single or multiple screens. You must set the dwell time for each screen in the configuration menu before enabling Auto-switch.

**Menu>Setup>Live View>General>Dwell Time**

**All-day Playback:** play back the recorded videos for current day.

**Aux/Main output switch:** the device checks the connection of the output interfaces to define the main and auxiliary output interfaces. The priority level for the main and aux output is HDMI>VGA>CVBS. This means if the HDMI is used, it will be the main output. If the HDMI is not used, the VGA output will be the main output. See the table below.

**Table 3.2a Priorities of Interfaces**

	HDMI	VGA	CVBS	Main output	Auxiliary output
1	✓	✓	✓	HDMI	VGA
2	✓	×	✓	HDMI	CVBS
3	×	✓	✓	VGA	CVBS
4	×	×	✓	CVBS	

✓ means the interface is in use, × means the interface is not in use or the connection is invalid. The HDMI, VGA and CVBS can be used at the same time.

When the Aux output is enabled, the main output can't do any operation, but you can do some basic operations in the live view mode for the Aux output. To return to main press the MAIN/SPOT button on front panel.

### 3.2.1 Front Panel Operation

**Table 3.2.1a Front Panel Operation in Live View**

Functions	Front Panel Operation
Show single screen	Press the corresponding Alphanumeric button. E.g. Press 2 to display only the screen for channel 2.
Show multi-screen	Press the PREV/FOCUS- button.
Manually switch screens	Next screen: right direction button. Previous screen: left direction button.
Auto-switch	Press <b>Enter</b> button.
All-day playback	Press <b>Play</b> button.
Switch between main and aux output	Press <b>Main/Aux</b> button.

### 3.2.2 Using the Mouse in Live View

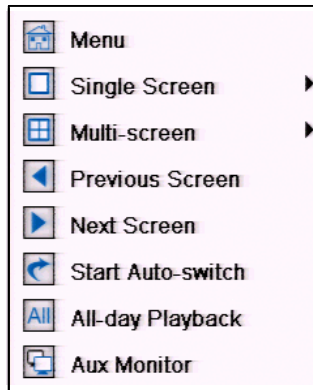
**Table 3.2.2a Mouse Operation in Live View**

Name	Description
Menu	Enter the main menu of the system by right clicking the mouse.
Single Screen	Switch to the single full screen by choosing channel number from the dropdown list.
Multi-screen	Adjust the screen layout by choosing from the dropdown list.
Previous Screen	Switch to the previous screen.
Next Screen	Switch to the next screen.
Start/Stop Auto-switch	Enable/disable the auto sequencing of the screens.
All-day Playback	Playback the video from the selected channel.
Aux Monitor	Switch to the auxiliary output mode and the operation for the main output is disabled.

**Note:** The **dwel time** of the live view configuration must be set before using **Start Auto-switch** - **Menu> Setup>Live View>General>Dwell Time**

If you enter Aux monitor mode and the Aux monitor is not connected, the mouse operation is disabled. You need to switch back to the Main output with the **MAIN/AUX** button and **Enter** button on the front panel or remote.

If the corresponding camera supports the intelligent function, the Reboot Intelligence option is included when right-clicking mouse on this camera.



### 3.2.3 Using an Auxiliary Monitor

Certain features in the Live View are also available in the Aux monitor. These features include:

**Single Screen:**

Switch to a full screen display of the selected camera. Camera can be selected from a dropdown list.

**Multi-screen:**

Switch between different display layout options. Layout options can be selected from a dropdown list.

**Next Screen:**

When displaying less than the maximum number of cameras in Live View, clicking this feature will switch to the next set of displays.

**Playback:**

Enter into Playback mode.

**PTZ:**

Enter PTZ Control mode.

**Main Monitor:**

Enter Main operation mode.

**Note:** In the live view mode of the main output monitor, the menu operation is not available while Aux output mode is enabled.

### 3.2.4 Quick Setting Toolbar in Live View Mode









On the screen of each channel, there is a quick setting toolbar which shows when you right-click the mouse on the camera.



Figure 3.2.4a Quick Setting Toolbar



**Table 3.2.4b Description of Quick Setting Toolbar Icons**

Icons	Description	Icons	Description	Icons	Description
	Enable Manual Record		Instant Playback		Mute Audio
	Capture		PTZ Control		Digital Zoom
	Image Settings		Close		



Instant Playback only shows the recording of the last five minutes. If no recording is found, it means there is no recording during the last five minutes.



Digital Zoom can zoom in to the selected area of the full screen. You can left-click and draw to select the area for zooming in, as shown in Figure 3.2.4c.



**Figure 3.2.4c Digital Zoom**

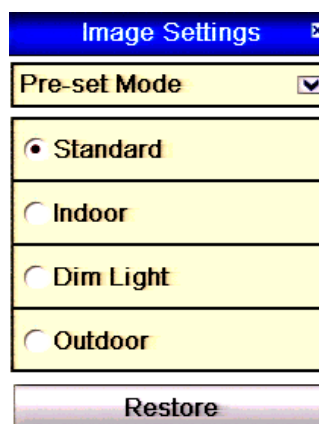


Image Settings icon can be selected to enter the Image Settings menu. There are four preset modes for selection.

**Indoor:** the image is relatively smoother.

**Dim Light:** the image is smoother than the other two modes.

**Outdoor:** the image is relatively clearer and sharper. The degree of contrast and saturation is high.



**Figure 3.2.4d Image Settings- Preset**

You can also choose the **Customise** mode to set the image parameters like brightness, contrast, saturation and hue. Click the **Restore** button to restore the previous settings.

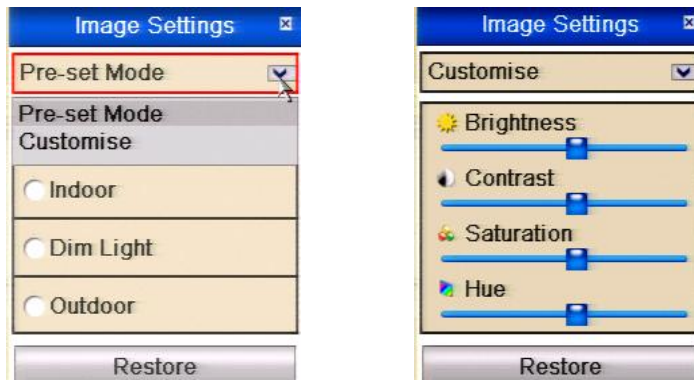


Figure 3.2.4e Image Settings- Customise

### 3.3 Adjusting Live View Settings

**Purpose:**

Live View settings can be customised according to different needs. You can configure the output interface, dwell time for screen to be shown, mute or turning on the audio, the screen number for each channel, etc.

Enter the Live View Settings interface.

Menu> Setup> Live View

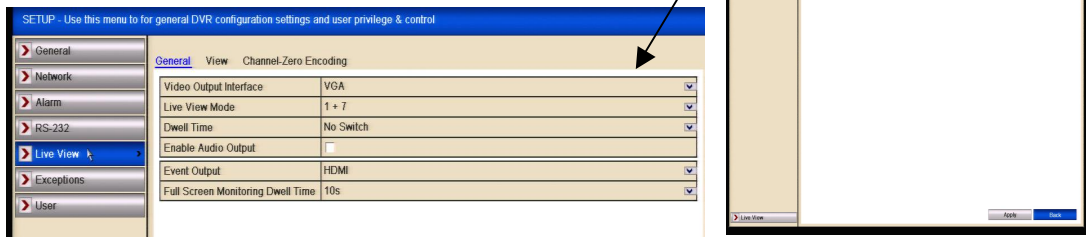


Figure 3.3a Live View-General

The settings available in this menu include:

**Video Output Interface:** Designates the output to configure the settings for. Outputs include HDMI (depends on the model), VGA, Main CVBS and Spot Output.

**Live View Mode:** Designates the display mode to be used for Live View.

**Dwell Time:** The time in seconds to hold between switching of channels when enabling auto-switch in Live View.

**Enable Audio Output:** Enables/disables audio output for the selected video output.

**Event Output:** Designates the output to show event video.

**Full Screen Monitoring Dwell Time:** The time in seconds to show alarm event screen.

#### Setting Camera Order

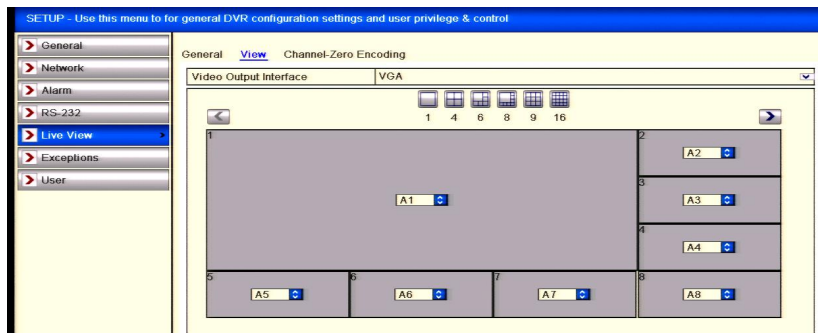


Figure 3.3b Live View- Camera Order

To set the camera order:

Select **View**.

Click the up and down button at each screen to select the channel you would like to display. Setting an 'X' means the channel will not be displayed. Click the **Apply** button to save the setting.

### 3.4 Channel zero encoding

#### Purpose:

Sometimes you may need to get a remote view of many channels in real time from the web browser or client software using minimal bandwidth requirement without affecting the image quality. Channel-zero encoding is an option whereby a number of channels can be displayed within the confines of a single channel display without the overhead of a large network bandwidth.

Enter the **Live View** Settings interface.

**Menu> Setup> Live View**

Select the **Channel-Zero Encoding** tab.

Check the checkbox after **Enable Channel-Zero Encoding**.

Configure the Frame Rate, Max. Bitrate Mode and Max. Bitrate. After you set the Channel-Zero encoding, you can get a view in the remote client or IE browser of all the channels in one screen.

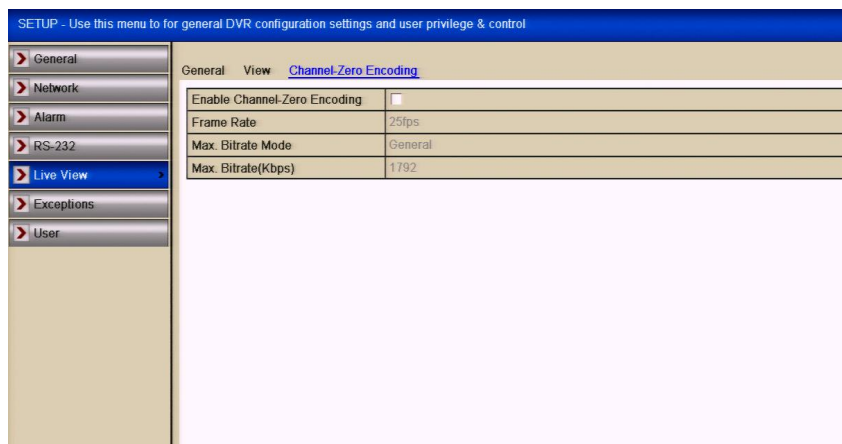
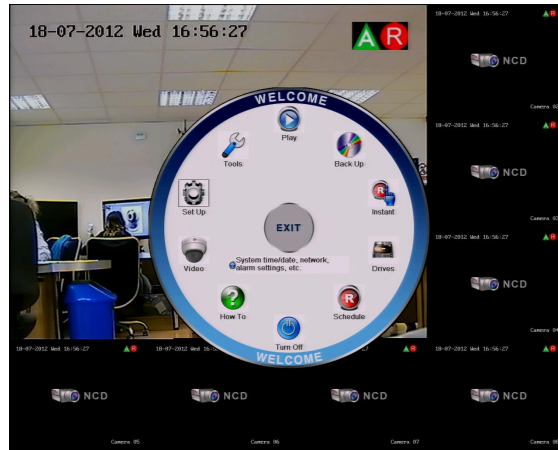


Figure 3.4a Channel Zero Encoding

### 3.5 User Logout

**Purpose:**

After logging out, the monitor returns to the live view mode and if you want to do any operations, you will need to enter user name and password to log in again.



Enter the Turn Off menu.

**Menu>Turn Off**

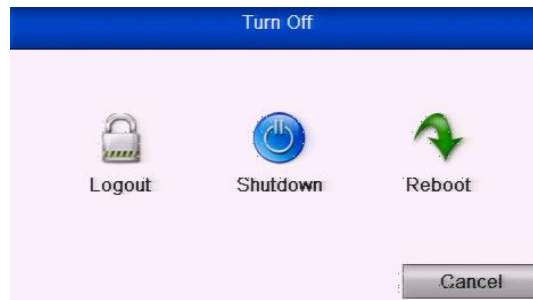


Figure 3.5a **Turn Off**

Click **Logout**.

**Note:** After you have logged out the system, menu operations on the screen are invalid. A user name and password is required to login on the system.

## 4. PTZ Controls

### 4.1 Configuring PTZ Settings

#### Purpose:

Follow the procedure to set the parameters for PTZ. The configuring of the PTZ parameters should be done before you attempt to control the PTZ camera.

#### Before you start:

Check that the PTZ and the DVR are connected properly through the RS-485 interface.

#### Steps:

Enter the PTZ Settings interface.

Menu > Video > PTZ

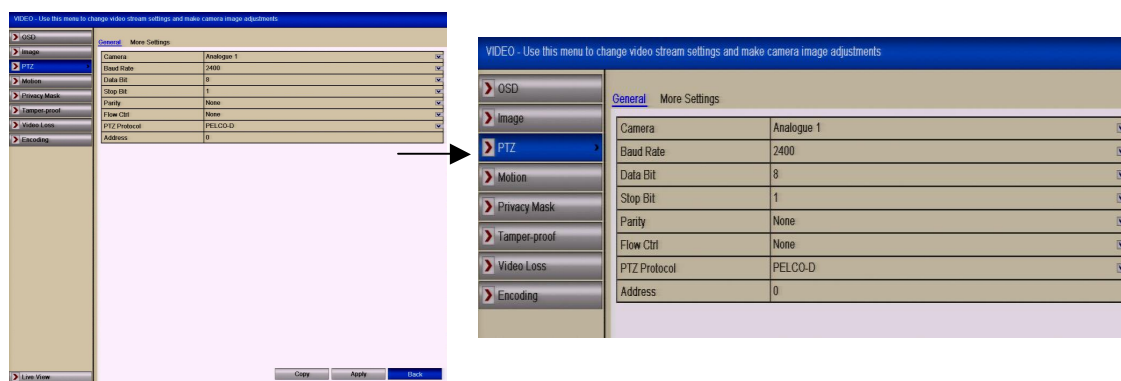


Figure 4.1a PTZ- General Menu

Choose the camera for PTZ setting in the **Camera** dropdown list.

Enter the parameters of the PTZ camera.

**Note:** All the parameters should be exactly the same as the PTZ camera parameters.

**Example:** If the PTZ camera has a Baud Rate of 2400, Protocol PELCO-D and Address or ID of 001 you should input these parameters in this menu.

Click **Copy** if you want to configure same settings to other PTZ cameras but change Ids.

Click **Apply** button to save the settings.

### 4.2 Setting PTZ Presets, Patrols & Patterns

#### Before you start:

Please make sure that the presets, patrols and patterns are supported by PTZ protocols.

#### 4.2.1 Customising Presets

#### Purpose:

Follow the steps to set the Preset location which you want the PTZ camera to point to when an event takes place.

#### Steps:

Enter the PTZ Control interface.

**Menu>Video>PTZ>More Settings**

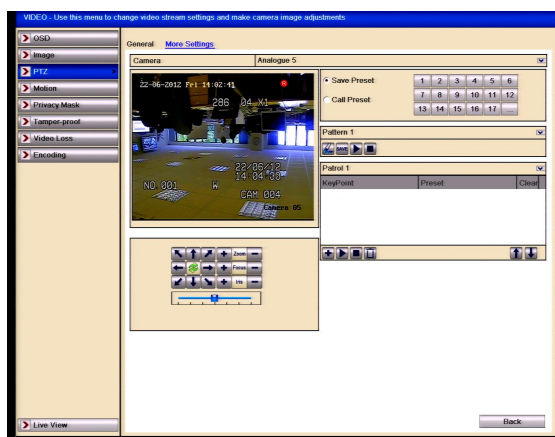


Figure 4.2.1a PTZ- More Settings

Use the direction button to move the camera to the location where you want to set the first preset.

Click the round icon before **Save Preset**.

Click the preset number to save the preset.

Repeat the steps to save more presets. If the number of the presets you want to save is more than 17, you can click on [...] and choose the available numbers.



Figure 4.2.1b More Presets

## 4.2.2 Calling Presets

### Purpose:

This feature enables the camera to point to a specified position such as a door when an event takes place.

### Call preset in the PTZ setting interface:

#### Steps:

Enter the PTZ Control interface using **Menu>Video>PTZ>More Settings**

Check the round icon before **Call Preset**.

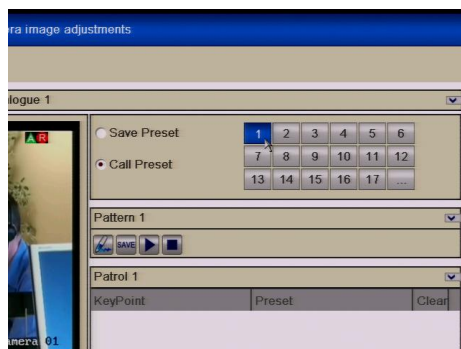



Figure 4.2.2a PTZ- Call Preset

Choose the preset number.

**Call preset in live view mode:**

**Steps:**

Press the PTZ button on the front panel or click the PTZ Control icon  in the quick setting bar to enter the PTZ setting menu in live view mode.

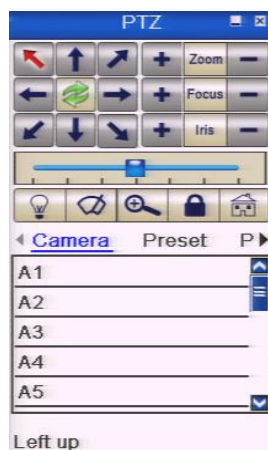


Figure 4.2.2b PTZ Toolbar

Choose **Camera** in the list on the menu.

Choose preset in the **Preset** list.

### 4.2.3 Customising Patrols

**SPECIAL NOTE:** To initiate a Patrol (Tour) refer to the respective PTZ camera menu instructions. In most cases Patrols are initiated using a Preset number.


**Purpose:**

Patrols can be set to move the PTZ to different preset points and have it stay there for a set duration before moving on to the next preset. The preset point is the order number that is used for the corresponding preset number. The presets can be set following the steps above in **Customising Presets**.

**Steps:**

Enter the PTZ Control interface using **Menu>Video>PTZ>More Settings**

Select patrol number.

Select the  under Patrol option box to add preset points for the patrol.

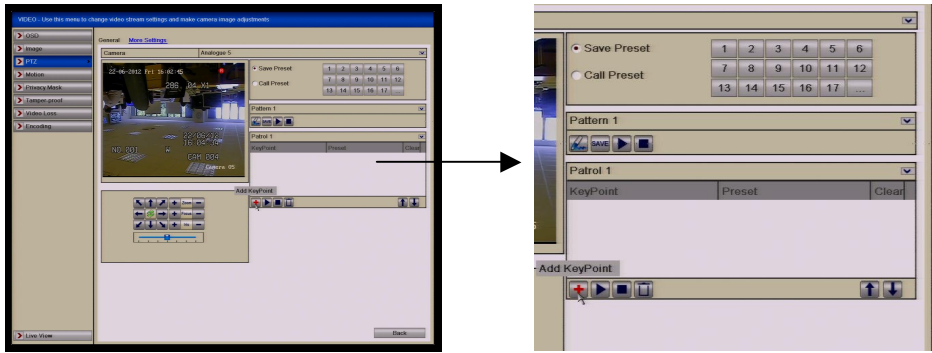


Figure 4.2.3a PTZ - Add Preset Key Point

Configure preset key point parameters, such as the key point No., duration of dwell time at preset and speed of patrol. The preset key point corresponds to a preset.

**Key Point No.** determines the order at which the PTZ will follow while cycling through the patrol.

**Duration** refers to the time-span it stays at the corresponding preset point.

**Speed** defines the speed at which the PTZ will move from one preset to the next.

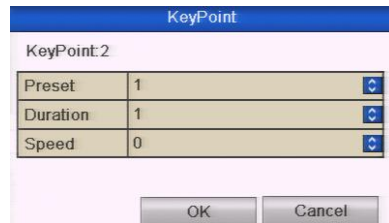


Figure 4.2.3b Key point Configuration

Click **OK** to save the key point to the patrol.

Repeat the above steps to add more key points.

You can also delete all the key points by clicking the trash icon

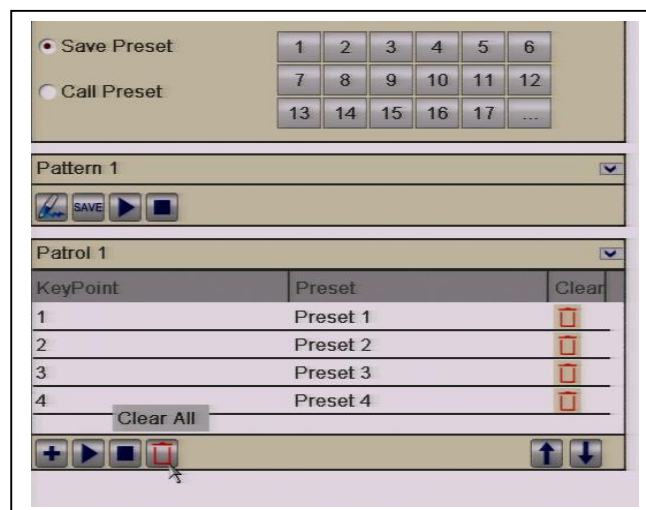


Figure 4.2.3c KeyPoints Deletion



### 4.2.4 Calling Patrols

**Purpose:**



Calling a patrol makes the PTZ move according to the predefined patrol path.

**Calling patrol in the PTZ setting interface:**

**Steps:**

In the PTZ setting interface.

**Menu> Video> PTZ> More Settings**

Select the patrol number, and then click  to call the patrol.  
Click  to stop it.

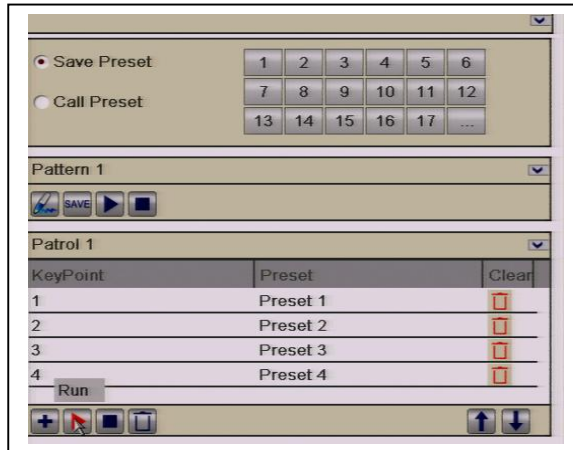



Figure 4.2.4a Calling Patrol

**Calling preset in live view mode:**

**Steps:**

Press PTZ control on the front panel or on the remote, or click PTZ Control icon  on the quick setting toolbar, to show the PTZ control toolbar.

Choose **Patrol** on the control bar.

Click the patrol you want to call.



Figure 4.2.4b PTZ Toolbar- Patrol

## 4.2.5 Customising Patterns

### Purpose:

Patterns can be set by recording the movement of the PTZ. You can call the pattern to make the PTZ replay movement according to the recorded pattern.

### Steps:

Enter the PTZ Control interface.

**Menu>Video>PTZ>More Settings**

Choose pattern number in the option box.

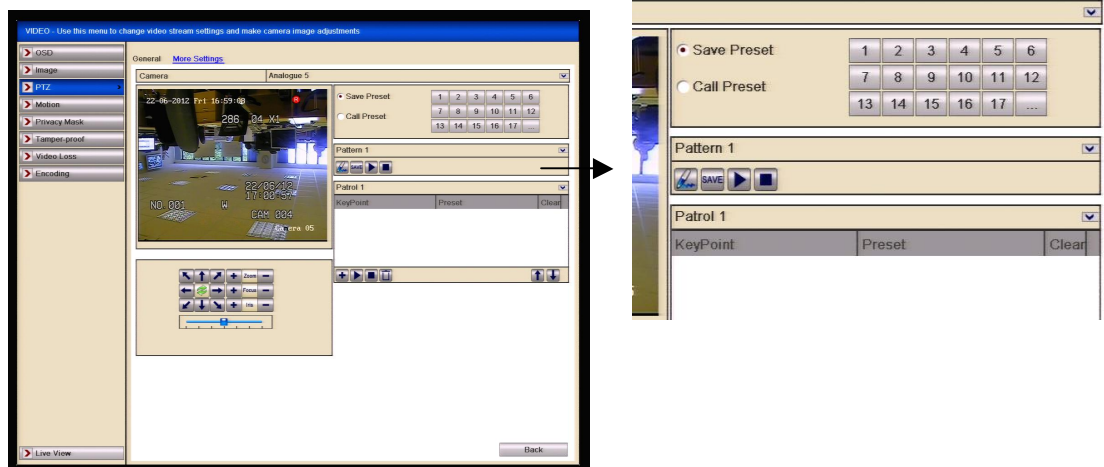




Figure 4.2.5a PTZ- Pattern

Click  and use your mouse to drag the image or click the eight directional buttons in the control box under the image to move the PTZ camera. The movement of the PTZ is recorded as the pattern.

The movement of the PTZ is recorded as the pattern.

Click  to save the pattern.

Repeat the above steps to save more patterns.

## 4.2.6 Calling Patterns

### Purpose:

Follow the procedure to move the PTZ camera according to the predefined patterns.

**Calling pattern in the PTZ setting interface**

### Steps:

Enter the PTZ Control interface.

Select the pattern number.

Click  and the PTZ will move according to the pattern selected. Click 

to stop.

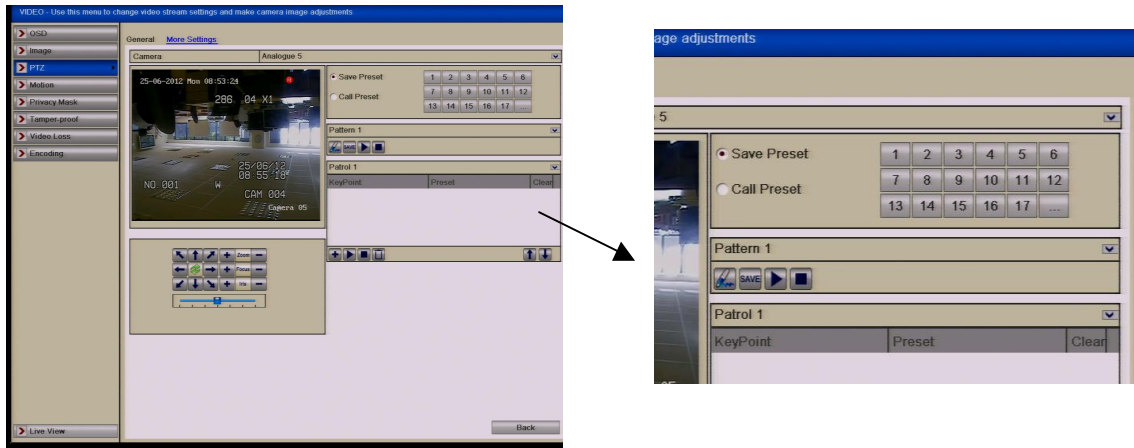



Figure 4.2.6a PTZ- Calling Pattern

**Call pattern in live view mode.**

**Steps:**

In the live view mode, press PTZ control on the front panel or on the remote control, or click PTZ Control icon  on the quick setting toolbar.

Then choose **Pattern** on the control bar.


Double click the pattern number you want to call, or you can select the pattern number and click  to call the pattern.



Figure 4.2.6b PTZ Toolbar- Pattern

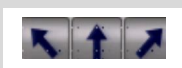


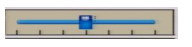

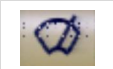

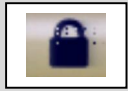



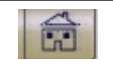






**4.3 PTZ Control Toolbar**

In the Live View mode, you can press the PTZ Control button on the front panel or on the remote control, or choose the PTZ Control icon  to enter the PTZ toolbar.



Figure 4.3a PTZ Toolbar

**Table 4.3b Description of the PTZ toolbar icons**

Icon	Description	Icon	Description	Icon	Description
	Direction button and the auto-cycle button		Zoom+, Focus+, Iris+		Zoom-, Focus-, Iris-
	The speed of the PTZ movement		Light on/off		Wiper on/off
	3D-Zoom		Lock Centrally		Preset
	Patrol		Pattern		Home Menu
	Previous item		Next item		Start pattern/patrol
	Stop the patrol or pattern movement		Minimise windows		Exit

## 5. Record and Capture Settings

### 5.1 Configuring Encoding Parameters

**Purpose:**

By configuring the encoding parameters you can define the transmission stream type, the resolution and so on.

**Before you start:**

Make sure that the HDD has already been installed. If not, please install a HDD and initialise it.

**Menu>Drives>General**

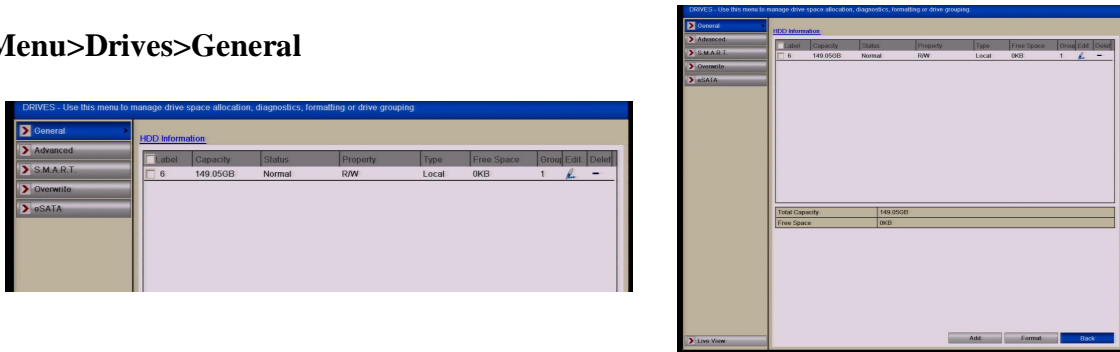


Figure 5.1a Drives- General

**Checking the storage mode in the Drives Menu**

Click **Advance** to check the storage mode in the Drives menu.

If the HDD mode is **Group**, you can set the HDD group. For detailed information, see **Chapter 5 - Configuring HDD Group for Recording and Capture.**

If the HDD mode is **Quota**, please set the maximum record capacity and maximum picture capacity. For detailed information, see **Chapter 10 - Configuring Quota Mode.**

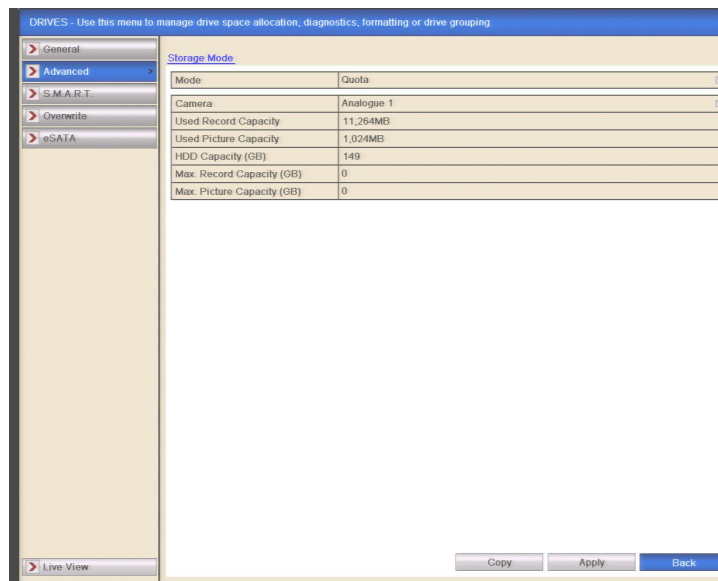
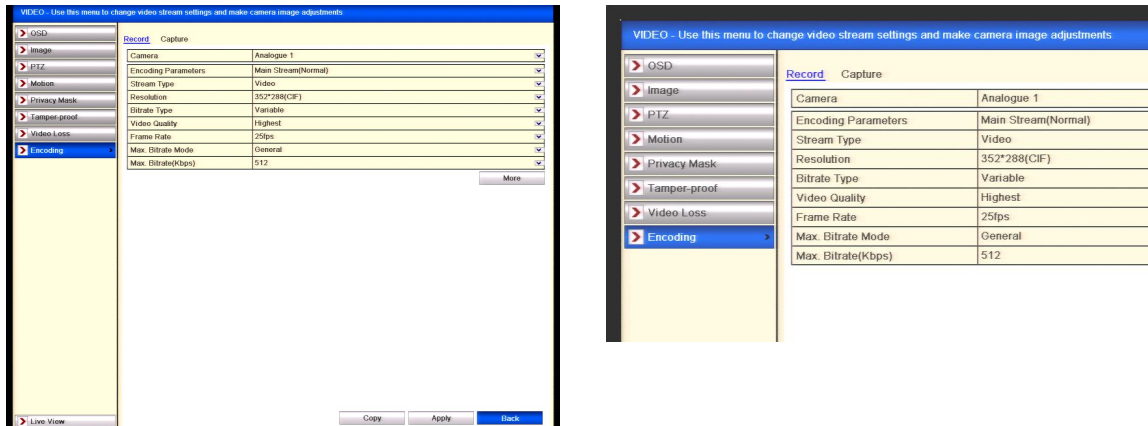


Figure 5.1b HDD- Advanced menu

**Steps:**

Enter the Record settings interface to configure the encoding parameters:

**Menu>Video>Encoding**



**Figure 5.1c Video Encoding**

**Encoding Parameters**

Select **Record** to configure. You can configure the stream type, the resolution, the video quality on demand.

**More** - click to configure the pre-record, post-record time, expired time, redundant record/capture (this option is only available when the HDD mode is in **Group** mode) and whether you want to record audio).

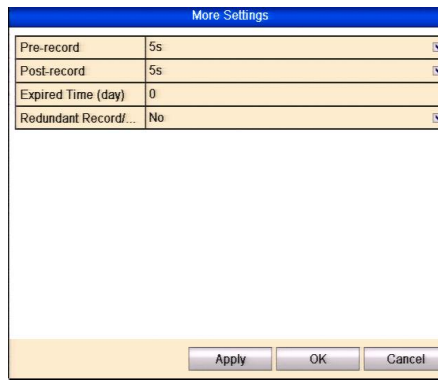
**Pre-record:** The time you set to record before the scheduled time or event. For example, when an alarm triggers the recording at 10:00, if you set the pre-record time to 5 seconds, the camera starts recording at 9:59:55.

**Post-record:** The time you set to record after the event or the scheduled time. For example, when an alarm triggers a recording that ends at 11:00, if you set the post-record time at 5 seconds, it records till 11:00:05.

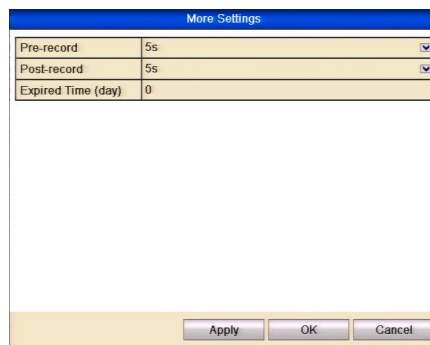
**Expired Time:** The expired time is the longest time for a record file to be held on the HDD. If the deadline is reached, the file will be deleted. You can set the expired time to 0, and then the file will not be deleted. The actual keeping time for the file should be determined by the capacity of the HDD.

**Redundant Record/ Capture:** Enabling redundant record or capture means you save the recording or captured picture on the redundant HDD. See **Chapter 5 - Configuring Redundant Record/ Capture**.

**Record Audio:** Choose “yes” to record the sound, “no” to record the image without sound.



**Figure 5.1c Video Encoding - More (when HDD Mode is Group)**



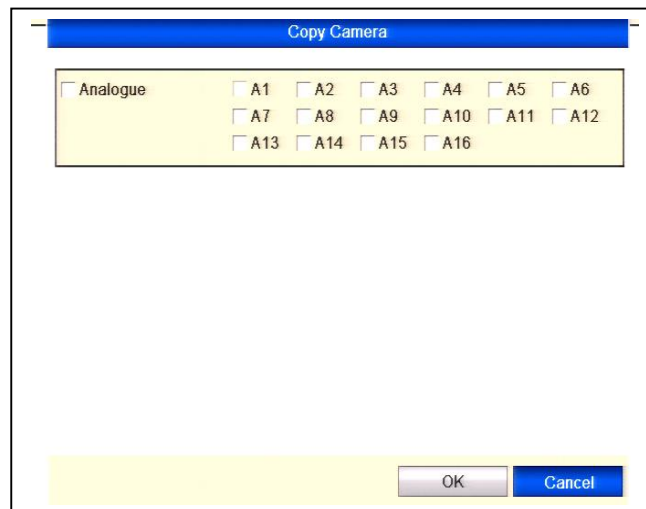
**Figure 5.1d Video Encoding- More (when HDD Mode is Quota)**

**Note:** The **Redundant Record/Capture** option is only available when the HDD mode is set to **Group**.

Click **Apply** to save the settings.

Click **OK** to back to the upper level menu.

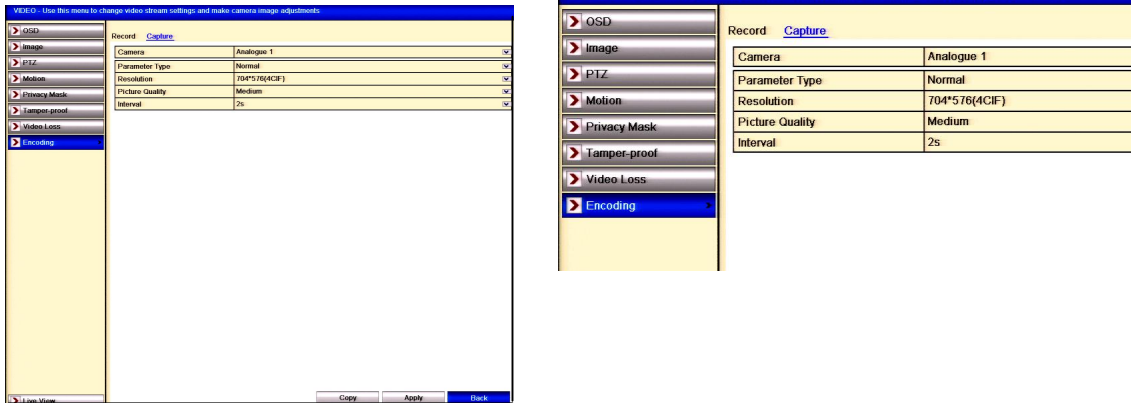
You can copy the settings to other channels by clicking **Copy** if the setting can also be used for other channels.



**Figure 5.1e Copy Camera Settings**

**Note:** The redundant record/capture option is to decide whether you want the camera to save the recorded files or captured pictures on the redundant HDD. You must configure the redundant HDD in HDD settings. For detailed information, see **Chapter 10 - Setting HDD Property**.

**Video Parameters for Capture**  
**Select Capture.**



**Figure 5.1f Video Capture Encoding**

Configure the parameters.

Click **Apply** to save the settings.

If the parameters can be applied to other channels, click **Copy** to copy the settings to other channels.

**Note:** The interval is the time period between two capturing actions. You can configure all the parameters in this menu as required.



## 5.2 Configuring Schedule Record/Capture

### Purpose:

Set the record schedule and the camera will automatically start/stop recording according to the configured schedule.

**Note:** In this chapter, we take the record schedule procedure as an example which can be used to configure the schedule for both automatic recording and capture. To schedule the automatic capture, you need to choose the **Capture** tab in the **Schedule** interface.

### Steps:

Enter the Record Schedule interface.

**Menu>Schedule/Capture>Schedule**

Select Record/Capture Schedule.

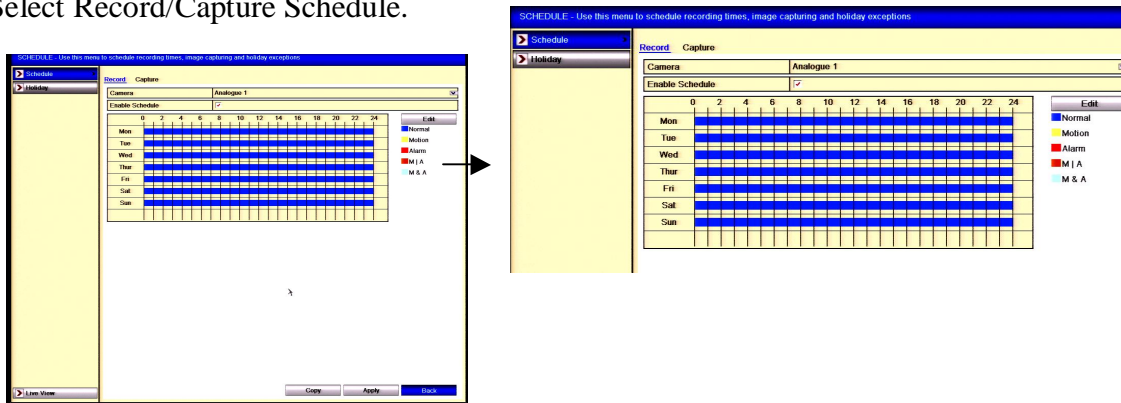


Figure 5.2a Record Schedule

Choose the camera you want to configure.

Select the check box after the **Enable Schedule** item.

Click **Edit**.

In the display box you can choose the day/s you want to set schedule.

To schedule an all-day recording, check the checkbox marked **All Day**.

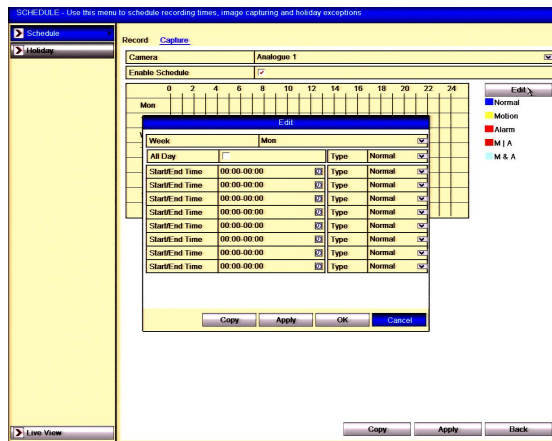


Figure 5.2b Edit Schedule

To set motion and or alarm, leave the **All Day** checkbox blank and set the Start/End times.

**Note:** Up to 8 periods can be configured for each day but time periods must run consecutively and must not overlap. Repeat the above steps to schedule

recording/capture for other days in the week. If the schedule can also be set to other days, click **Copy**.

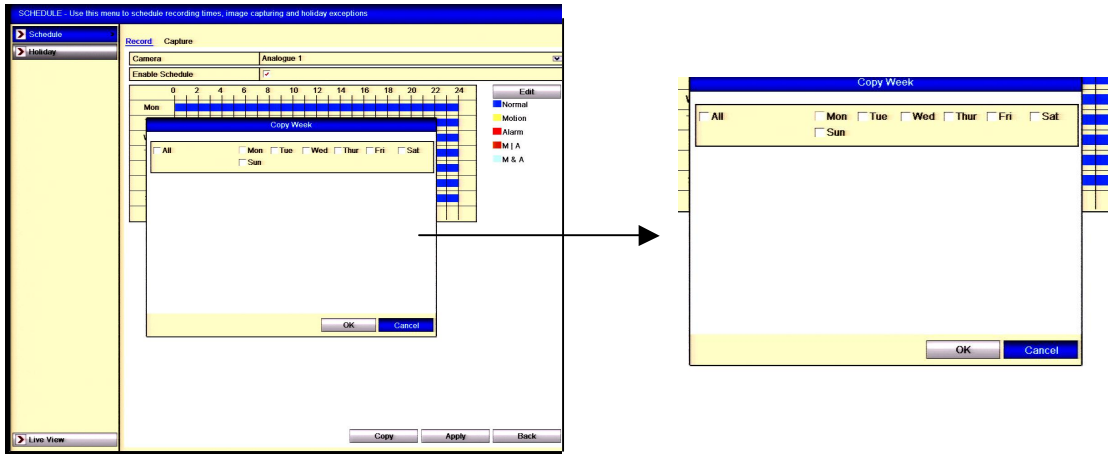


Figure 5.2c Copy Schedule to Other Days

**Note:** The **Holiday** option is available when you enable holiday schedule in **Holiday settings**. See **Chapter 5 - Configuring Holiday Record and Capture**.

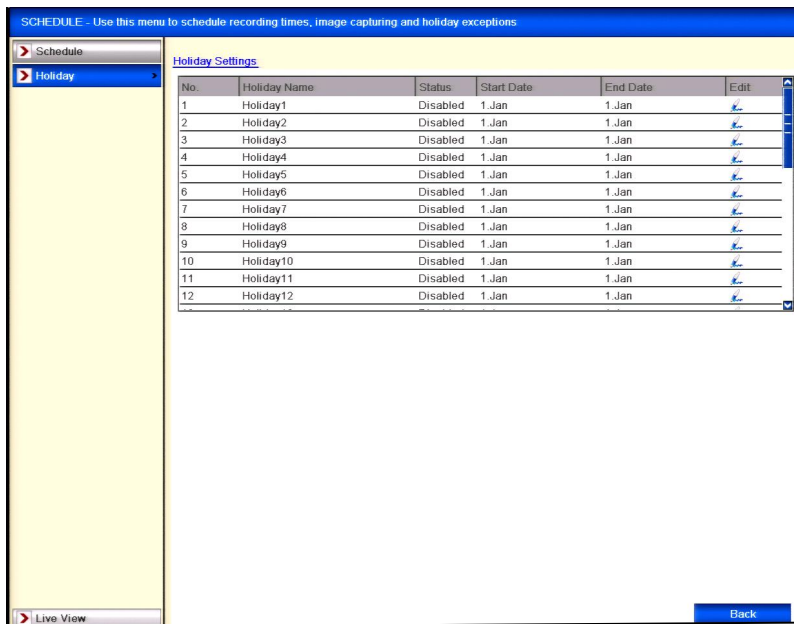


Figure 5.2d Holiday Settings

Click **OK** to save settings and return to previous menu.  
 Click **Apply** in the Record Schedule interface to save the settings.  
 You can repeat steps to set schedule for other channels. If the settings are used for other channels, click **Copy** and then choose the channel you want to copy.

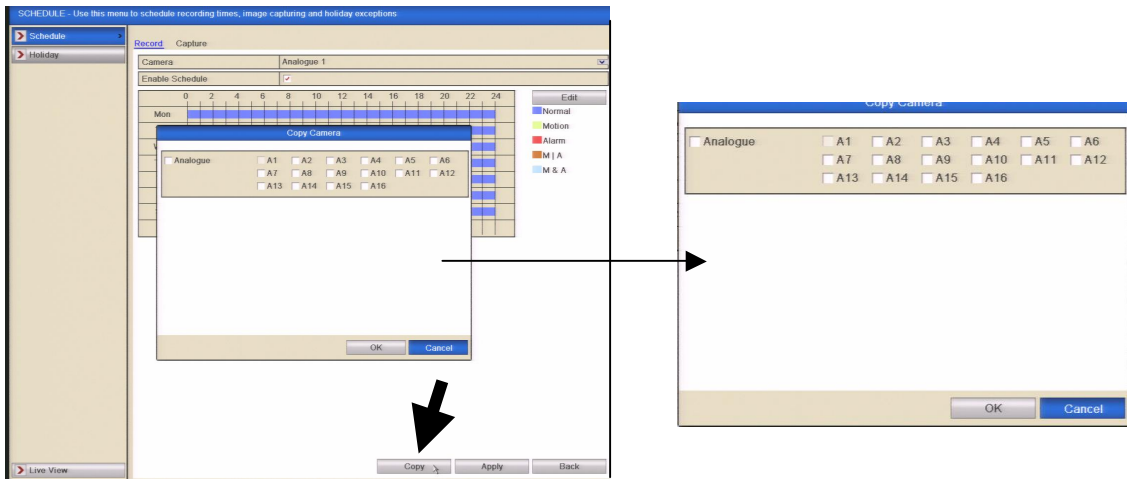


Figure 5.2e Copy Schedule to Other Channels

### 5.3 Configuring Motion Detection Record and Capture

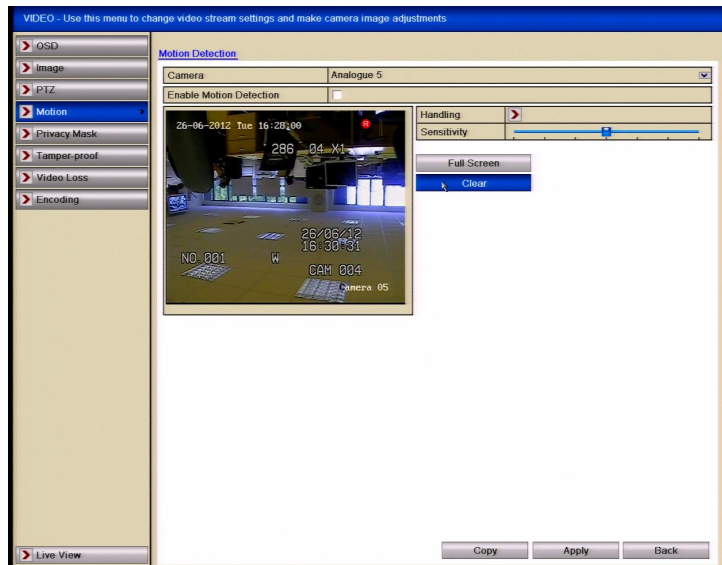
**Purpose:**

Follow the steps to set the motion detection parameters. In the live view mode, once a motion detection event takes place, the DVR can analyse it and apply various results. Enabling the motion detection function can trigger certain channels to start recording, trigger full screen monitoring, audio warning, notify the surveillance centre and so on. In this chapter, you can follow the steps to schedule a recording, which is triggered by motion detection.

**Steps:**

Enter the Motion Detection interface.

**Menu>Video>Motion**



Configure Motion Detection :

Choose camera you want to configure.

Check the checkbox after **Enable Motion Detection**.

Drag and draw the area for motion detection by mouse. If you want to set the motion detection for the whole area, click **Full Screen**. To clear the motion detection area, click **Clear**.

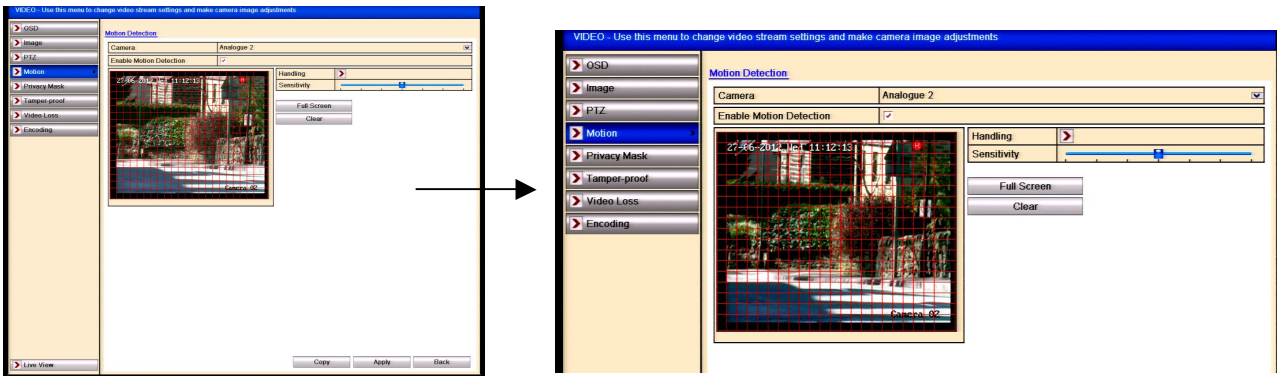


Figure 5.3b Motion Detection- Mask

Click **Handling** and the message box for channel information will display.

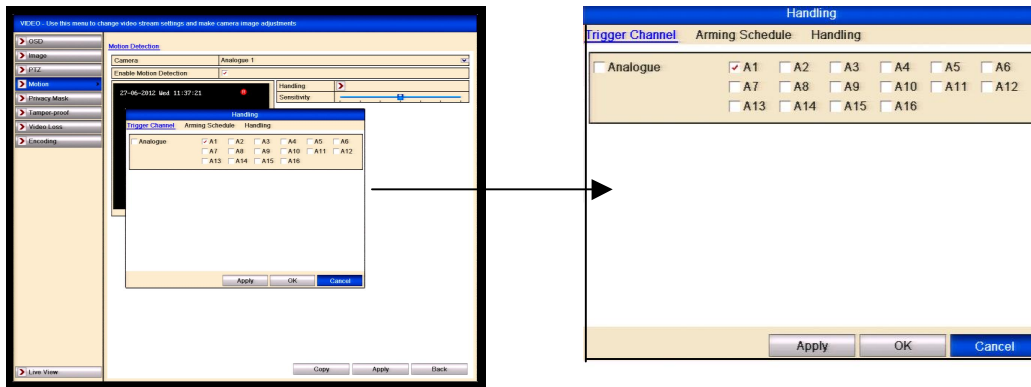


Figure 5.3c Motion Detection Handling

Select the channels which you want the motion detection event to trigger recording.  
 Click **Apply** to save the settings.  
 Click **OK** to return to the previous menu.  
 Exit the Motion Detection menu.

Enter Schedule settings interface.

**Menu> Schedule> Schedule>Record/Capture Schedule**

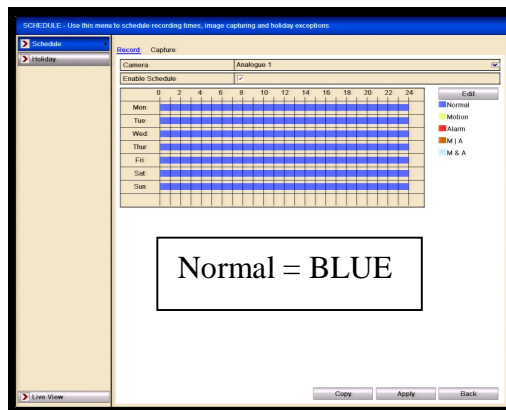


Figure 5.3d Record Schedule

Check the checkbox after the **Enable Schedule** item.  
 Click **Edit**.

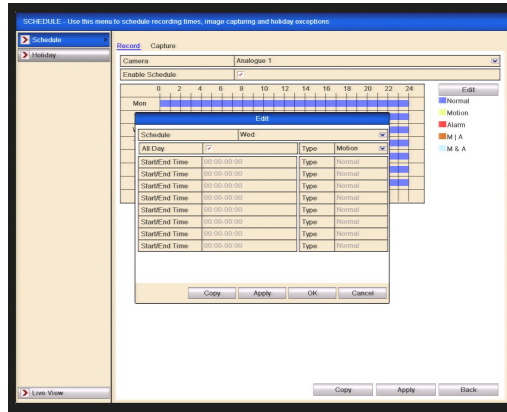


Figure 5.3e Edit Schedule- Motion Detection

In the message box, you can choose the day to which you want to set schedule. Set the **Type** as Motion. To schedule an all-day recording, check the checkbox after the **All Day** item.

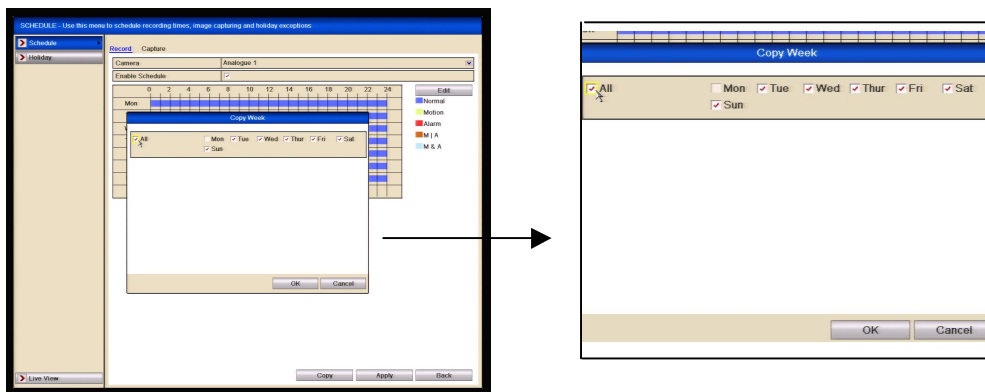


Figure 5.3f Edit Schedule- All Day

To arrange other schedules, leave the **All Day** checkbox blank and set the Start/End time.

**Note:** Up to 8 periods can be configured for each day but the time periods must be consecutive and must not overlap each other.

Repeat the above steps for triggering recording/capture for the whole week. If the same time period applies for other days, then just click **Copy**.

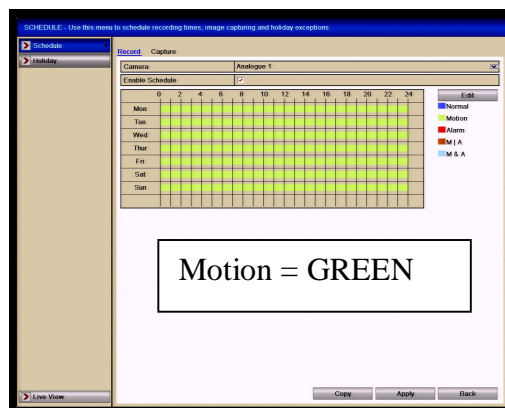


Figure 5.3g Motion Detection for Channel 1 for all days

Click **OK** to return to upper level menu.

You can repeat steps to set schedule for other channels. If the settings can also be used for other channels, click **Copy** and then choose the channel that you want to copy. Then click OK and Back to return to menu page.

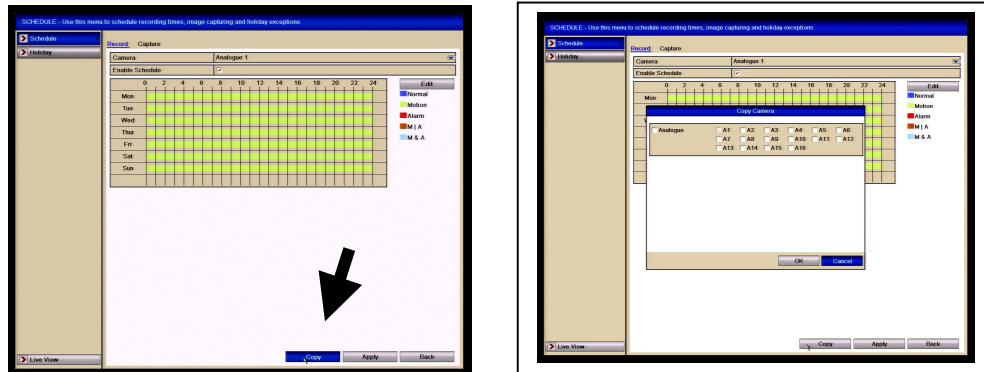


Figure 5.3h Copy Schedule to Other Channels

## 5.4 Configuring Alarm Triggered Record and Capture

### Purpose:

Follow the procedure to configure alarm triggered recording or capture.

### Steps:

Enter the Alarm setting interface.

Menu> Setup> Alarm

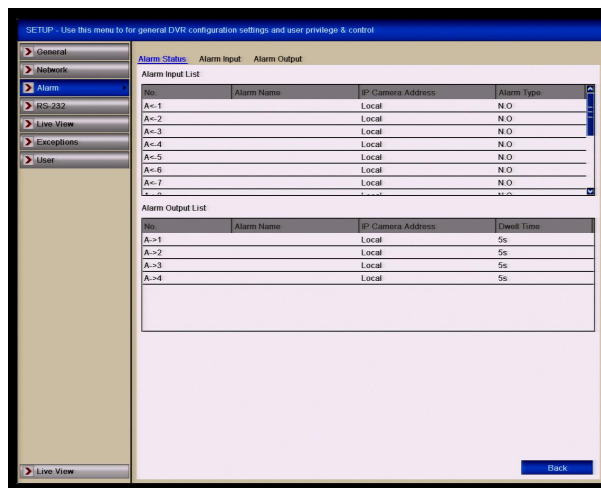
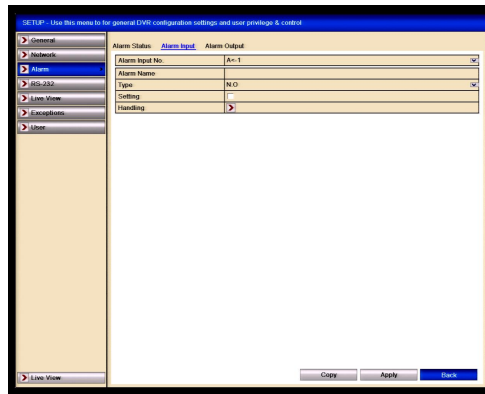


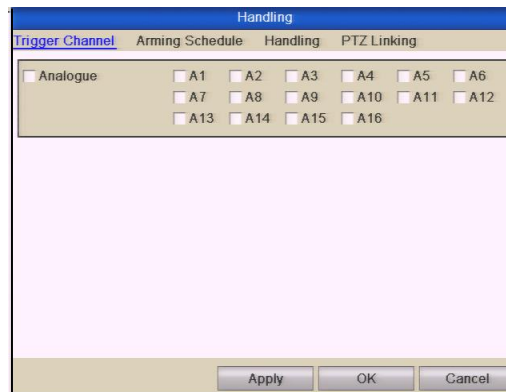
Figure 5.4a Alarm Settings

Click **Alarm Input**.



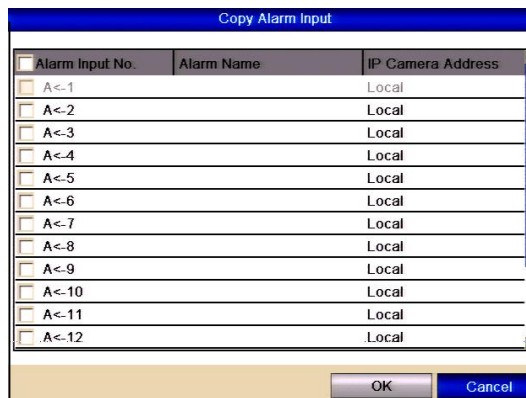
**Figure 5.4b Alarm Settings- Alarm Input**

Select Alarm Input number and configure alarm parameters.  
 Choose N.O (normally open) or N.C (normally closed) for alarm type.  
 Check the checkbox for Setting .  
 Click **Handling**.



**Figure 5.4c Alarm Handling**

Choose the alarm triggered recording channel.  
 Check the checkbox  to select channel.  
 Click **Apply** to save settings.  
 Click **OK** to return to the previous menu.  
 Repeat the above steps to configure other alarm input parameters.  
 If the setting can also be applied to other alarm inputs, click **Copy** and choose the alarm input number.



**Figure 5.4d Copy Alarm Input**

Enter Record/Capture Schedule setting interface.

**Menu> Schedule> Schedule**

Click Record/Capture Schedule

Check the checkbox after the **Enable Schedule**.

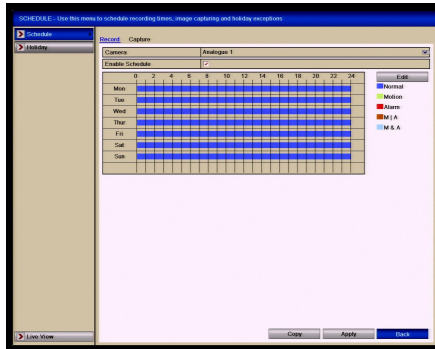


Figure 5.4e Record Schedule

Click **Edit**.

Set the **Type** to **Alarm**

In the display box you can choose the day that you want to set schedule.

To schedule an all-day recording, check the checkbox for **All Day**.

To setup other schedules, leave the **All Day** checkbox blank and set the period start and end time.

**Note:** Up to 8 periods can be configured for each day but the time periods must be consecutive and must not overlap each other.

Repeat the above steps to trigger recording/capture for the whole week. If the same time periods apply for other days, click **Copy**.

Click **OK** to return to previous menu.

## 5.5 Instant Record and Continuous Capture

### Purpose:

Follow the steps to set parameters for the Instant record and continuous capture. Using Instant record and continuous capture, you need to manually cancel the recording/capture. The Instant recording and continuous capture has priority over scheduled recording and capture.

### Steps:

Enter the Instant settings interface.

**Menu> Instant**

Or press the **REC/SHOT** button on the front panel.



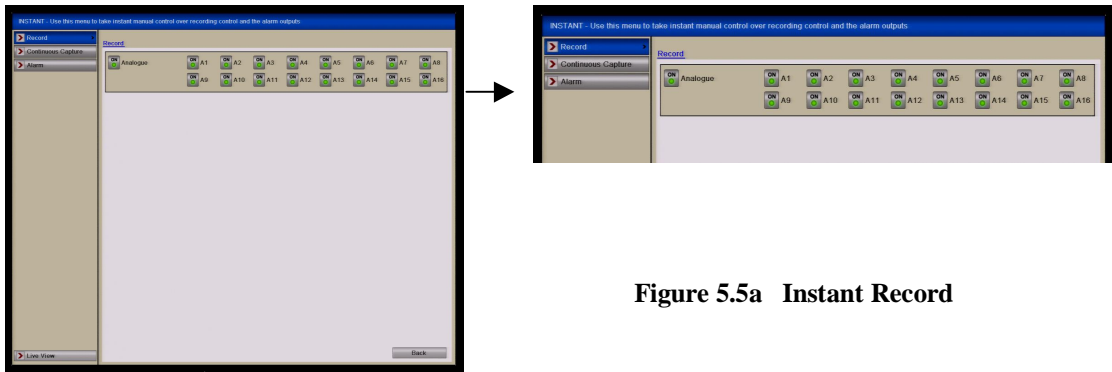


Figure 5.5a Instant Record

**Enabling Instant Record**

Select **Record** on the left bar.

Click the status button before camera number to change **OFF** to **ON**.

**Disable manual record**

Click the status button to change **ON** to **OFF**.

**Note:** After rebooting all the manual records enabled are cancelled.

**Enabling and disabling the continuous capture**

Select **Continuous Capture** on the left bar.

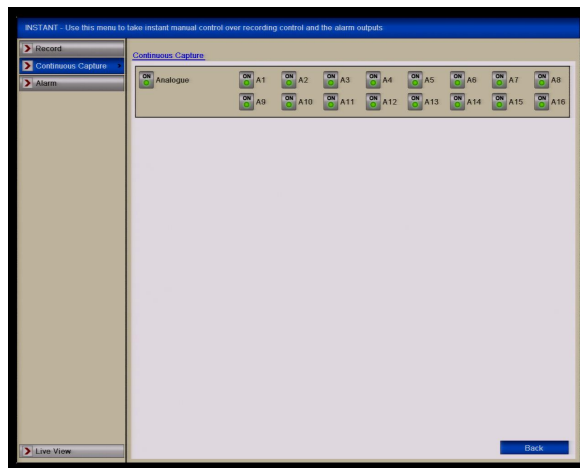


Figure 5.5b Continuous Capture ON

Click the status button before camera number to change **OFF** to **ON**.

**Disable continuous capture**

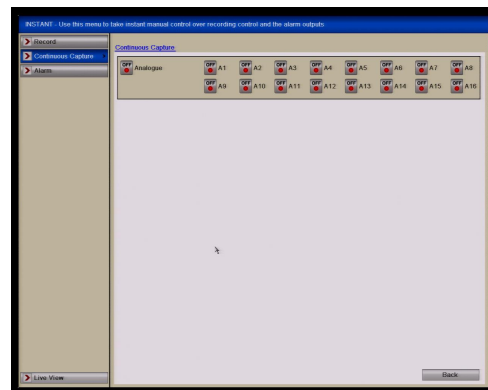


Figure 5.5c Continuous Capture OFF

Click the status button to change **ON** to **OFF**.

**Note:** After rebooting, all the continuous capture will be cancelled.

## 5.6 Configuring Holiday Record and Capture

### Purpose:

Follow the steps to configure the record or capture schedule on holiday for that year. You may want to have different plan for recording and capture on holiday.

### Steps:

Enter the Record setting interface.

### Menu>Schedule

Choose **Holiday** on the left bar.

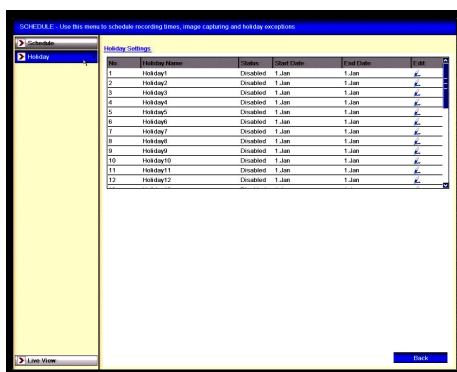


Figure 5.6a Holiday Settings

### Enable Edit Holiday schedule

Click  to enter the Edit interface.

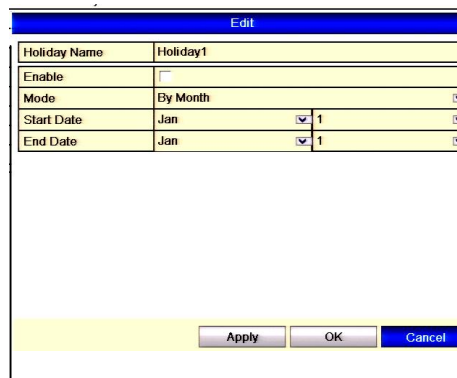


Figure 5.6b Edit Holiday Settings

Check the checkbox after **Enable**.

Select Mode from the dropdown list.

There are three different modes for the date format to configure holiday schedule.

Set the start and end date.

Click **Apply** to save settings.

Click **OK** to exit the Edit interface.

Enter Record/Capture Schedule settings interface.

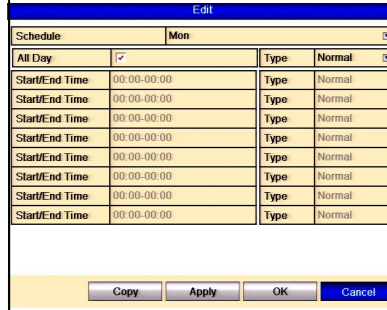
**Menu> Schedule> Schedule**

Select **Record/Capture**.

Check the checkbox after **Enable Schedule**.

Click **Edit**.

Select **Holiday** from the **Schedule** dropdown list.



**Figure 5.6c Edit Schedule- Holiday**

Select **Motion** from the **Type** dropdown list.

If you need all day recording, check the **All Day** checkbox. Otherwise leave it blank.

Set start/end time for holiday schedule.

**Note:** Up to 8 periods can be configured for each day but the time periods must be consecutive and must not overlap each other.

In the timetable for the channel, both holiday schedule and normal day schedule are displayed.

Repeat the above steps to set Holiday schedule for other channels. If the holiday period schedule can also be used for other channels, click **Copy** and choose the channel you want to apply the same settings.

## 5.7 Configuring Other Recording and Capture Types

### Purpose:

Other recording and capture options refer to the Motion | Alarm (motion or alarm) and Motion & Alarm triggered recording and capture.

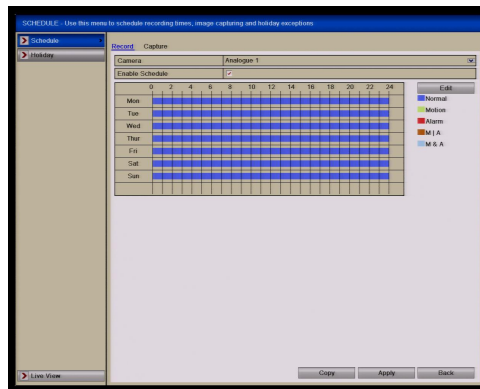
For motion detection and alarm recording and capture, please refer to **Chapter 5.3** and **Chapter 5.4**. In this chapter, the configuration for Motion | Alarm (motion or alarm) and Motion & Alarm triggered recording and capture will be described only.

### Steps:

Enter the Record setting interface.

### Menu> Schedule> Schedule

Select **Record/ Capture**.



**Figure 5.7a Record Schedule**

1. Schedule Motion | Alarm or Motion & Alarm triggered recording.  
Select the channel you want to set schedule.  
Check the check box after Enable Schedule .  
Click **Edit**.  
Select Motion | Alarm or Motion & Alarm in the **Type** dropdown list.

Edit			
Schedule			
Mon			
All Day	<input checked="" type="checkbox"/>	Type	Motion   Alarm
Start/End Time	03:55-21:02	Type	Normal
Start/End Time	00:00-00:00	Type	Normal
Start/End Time	00:00-00:00	Type	Normal
Start/End Time	00:00-00:00	Type	Normal
Start/End Time	00:00-00:00	Type	Normal
Start/End Time	00:00-00:00	Type	Normal
Start/End Time	00:00-00:00	Type	Normal
Start/End Time	00:00-00:00	Type	Normal
Start/End Time	00:00-00:00	Type	Normal
<input type="button" value="Copy"/> <input type="button" value="Apply"/> <input type="button" value="OK"/> <input type="button" value="Cancel"/>			

Figure 5.7b Edit Schedule- Motion| Alarm

To schedule an all-day recording, tick the checkbox **All Day** .  
To use other schedules, leave the **All Day** checkbox blank  and set the start and end times.

**Note:** Up to 8 periods can be configured for each day but ensure the time periods are consecutive and do not overlap each other.

Repeat the above for the rest of the week. If the schedule can be used for other days just click **Copy**.

Click **Apply** to save settings.

Click **OK** to return to the previous menu.

Repeat the above to schedule Motion | Alarm or Motion & Alarm triggered recording/capture for other channels. If the setting can also be applied to other channels, just click **Copy** and then choose the channel number.

## 5.8 Configuring Redundant Recording and Capture

### Purpose:

Enabling redundant recording and capture, allows recorded files and captured pictures to be not only recorded on a hard drive but also duplicated on another hard drive for backup purposes in the event that a hard drive fails. This is accomplished by setting up a redundant HDD that will effectively enhance the data safety and reliability.

**Note:** You must set the Storage mode in the HDD advanced settings to Group before you set the HDD property to Redundant. For detailed information, please refer to **Chapter 10.4 Managing HDD Group**. There should be at least another HDD which is in Read/Write status.

### Steps:

Enter HDD Information interface.

Menu> Drives

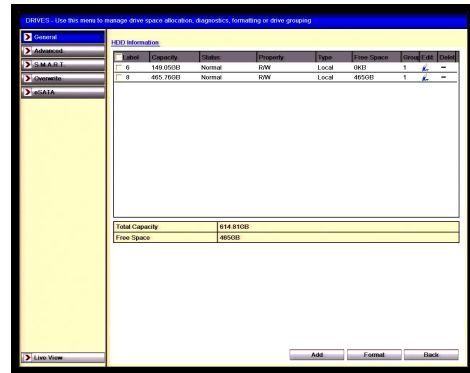
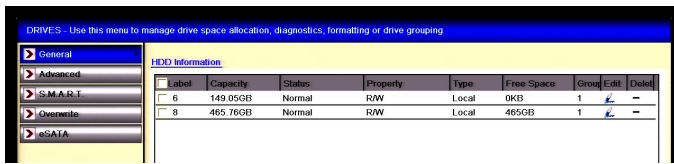



Figure 5.8a HDD General

Select the **HDD** and click  to enter the Local HDD Settings interface. Set the HDD property to Redundant.

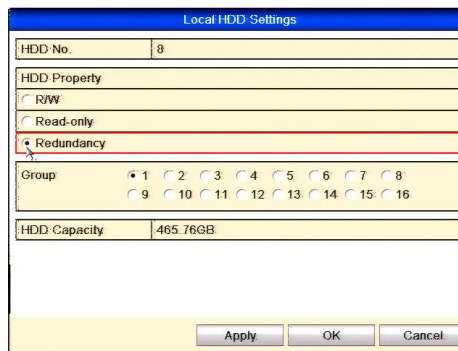


Figure 5.8b HDD General-Editing

Click **Apply** to save the settings.  
Click **OK** to return to the previous menu.

Enter the Video setting interface.  
**Menu> Video> Encoding**  
Select **Record**.

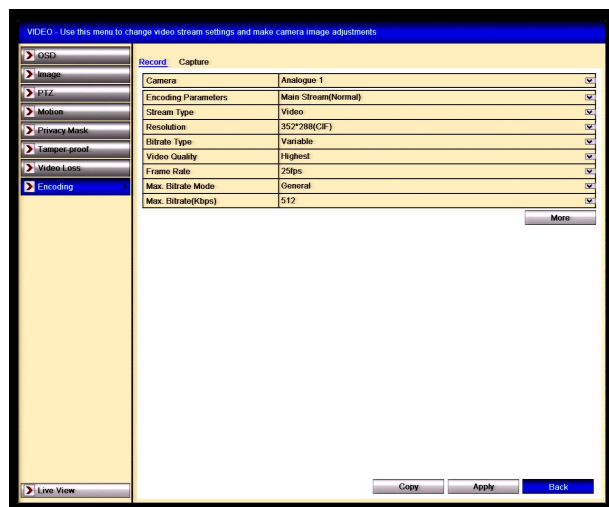


Figure 5.8c Encoding Record

Select Camera you want to configure.  
Click **More Settings**.



Figure 5.8d Encoding Record- More

Set the **Redundant Record/Capture** to **Yes**.  
 Click **OK** to save settings and return to the previous menu.  
 Repeat the above for configuring other channels.

## 5.9 Configuring HDD Group for Recording and Capture

### Purpose:

You can group the HDDs and save the recorded files and captured pictures in certain HDD groups.

### Steps:

Enter HDD setting interface.

Menu>Drives

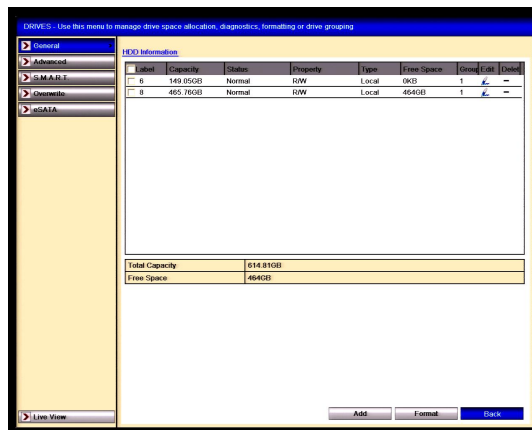


Figure 5.9a HDD General

Select **Advanced**.

Check whether the storage mode of the HDD is Group. If not, set it to Group. For detailed information, please refer to **Chapter 10.4 Managing HDD Group**.  
 Select **General** in the left bar.

Click  to enter editing interface.

Configuring HDD group.

Choose a group number for the HDD group.

Click **Apply** and then in display box, click **Yes** to save your settings.

Click **OK** to return to previous menu.

Repeat the above steps to configure more HDD groups.

Select the Channels for saving the recorded files and captured pictures in the required HDD group.

Select **Advanced**.

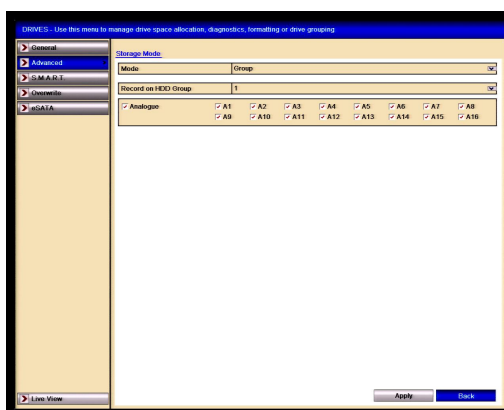


Figure 5.9b Drives Advanced

Choose Group number in the dropdown list of **Record on HDD Group**

Check the channels you want to save in this group.

Click **Apply** to save settings.

**Note:** After having configured the HDD groups, you can configure the Recording and Capture settings following the procedure provided in **Chapter 5.2-5.7**.

## 5.10 File Protection

### Purpose:

You can lock the recorded files or set the HDD property to Read-only to protect recorded files from being overwritten.

**Protect files by locking the recorded files:**

### Steps:

Enter Playback setting interface.

Menu> **Play**

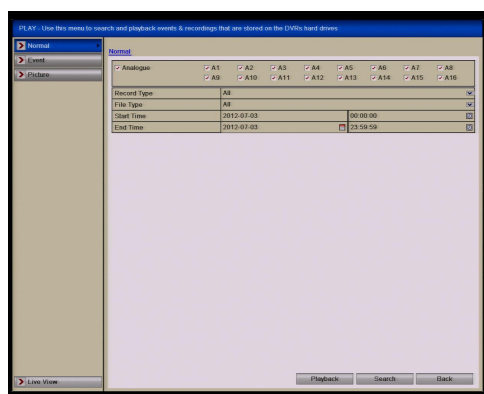


Figure 5.10a Playback

Select the channels you want to investigate by ticking the checkbox .

Select the record type, file type and start/end time.

Click **Search** to show the results.

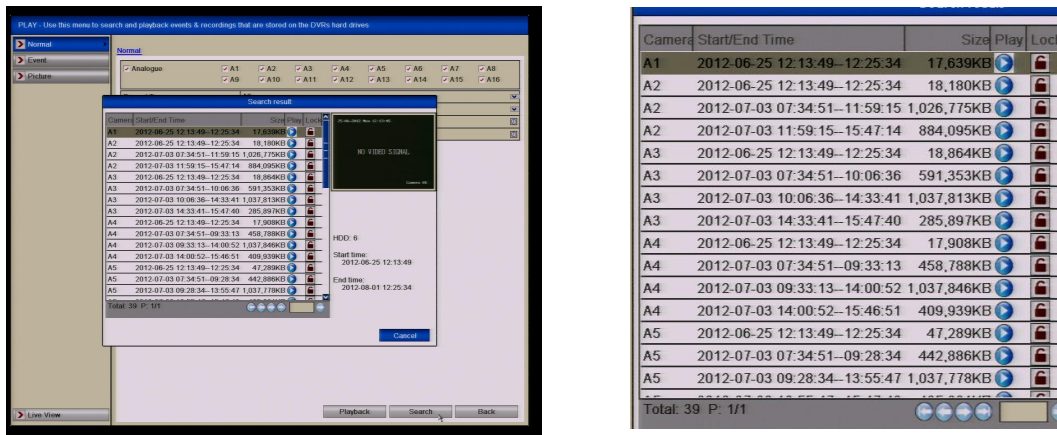






Figure 5.10b Playback- Search Result

**Protect the record files**

Find the record files you want to protect, and then click the  icon, which will turn to , indicating that the file is locked.

**Note:** Recorded files that are still open and being updated cannot be locked. Click  to change it to  to unlock the file and the file is not protected.

**Warning: Unlocking a file that is outside the file retention period will immediately delete the file. Only unlock if you do not require the file. The following warning will be displayed:**

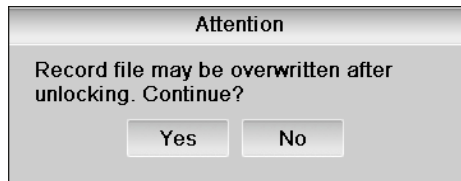


Figure 5.10c Unlocking Attention

**Protect file by setting HDD property to Read-only**

**Note:** To edit HDD property, you need to set the storage mode of the HDD to Group. See Chapter 10.4 Managing HDD Group.

**Steps:**

Enter HDD setting interface.

Menu> Drives

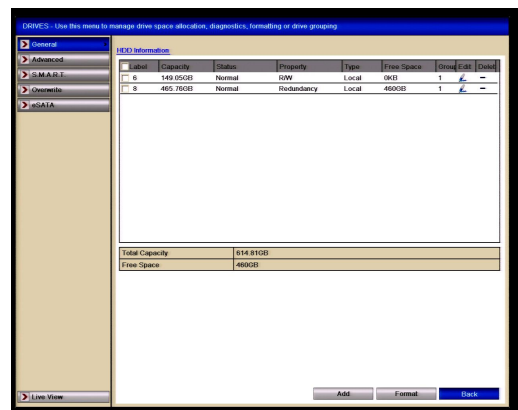
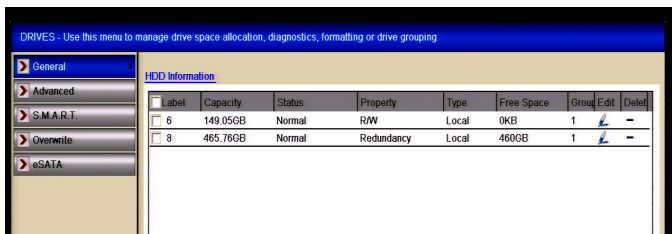


Figure 5.10d HDD General

Click  to edit the HDD you want to protect.



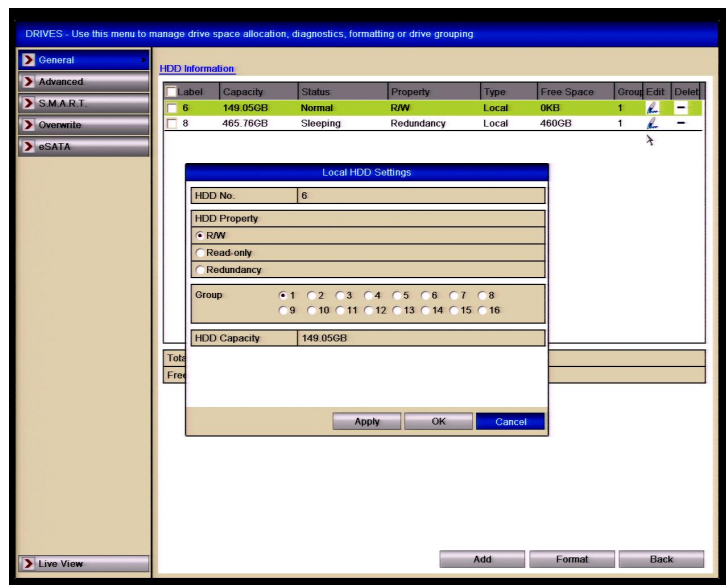


Figure 5.10e HDD General- Editing

Set the HDD to Read-only.

Click **OK** to save settings and return to previous menu.

**Note:** You cannot save any files on a Read-only HDD. If you want to save files on the HDD, change the property to R/W (Read/Write)

**Note:** If there is only one HDD and it is set to Read-only, the device will not record any files. Only live viewing mode is available.

If you set the HDD to Read-only when the device is saving files to it, the file will be saved in the next R/W HDD. If there is only one HDD, the recording will stop.

## 6. Playback

### 6.1 Playing Back by Channel


**Purpose:**

Play back the recorded video files of a specific channel in the live view mode.

Channel switch is supported.

**Instant playback by channel:**

**Steps:**

Choose a channel in live view mode using the mouse and click the  button in the quick setting toolbar.

**Note:** Only record files recorded during the last five minutes on this channel will be played back.



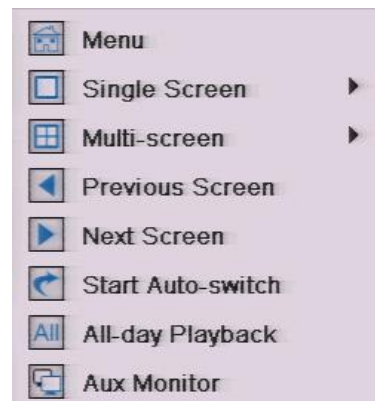
Figure 6.1a Instant Playback Interface

**All-day Playback by channel**

Enter the All-day Playback interface.

Mouse: right click a channel in live view mode and select All-day Playback from the menu, as shown.

Figure 6.1b Right-click Menu under Live View



**Front Panel:** Press **PLAY** button to play back recorded files of the channel in single-screen live view mode. Under multi-screen live view mode, the recorded files of the top-left channel will be played back.

**Note:** Pressing numerical buttons will switch playback to the corresponding channels during playback process.

**Playback management**

The toolbar at the bottom of the Playback interface can be used to control playing progress, as shown below.

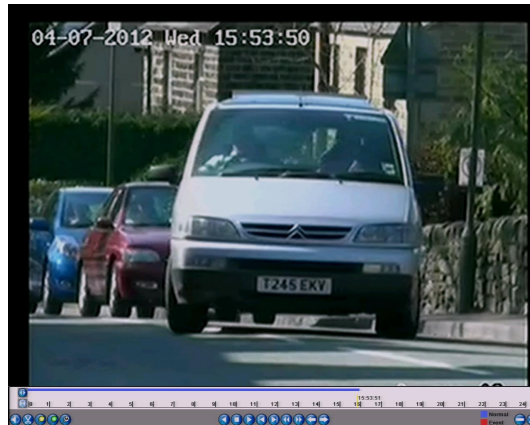


Figure 6.1c All-day Playback Interface

The channel and time selection menu displays by moving the mouse to the right of the playback interface. Click the channel(s) if you want to switch playback to another channel or execute simultaneous playback of multiple channels, as shown below.

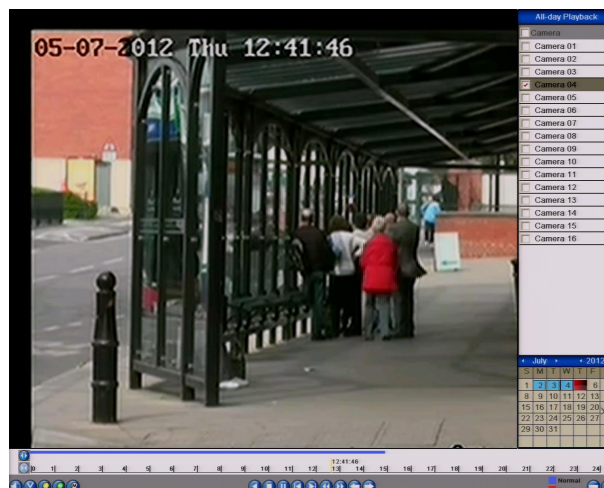


Figure 6.1d All-day Playback Interface with Channel List

**Record Options marked in colours:**

Yellow: No recorded files for this day.

Red: There are Event Recorded file/s for this day

Blue: There are Continuous Recorded file/s for this day

**Table 6.1e Detailed Explanation of All-day-playback Toolbar**

Button	Operation	Button	Operation	Button	Operation	Button	Operation
	Audio on /Mute		Start/Stop clipping		30s forward		30s reverse
	Add default tag		Add customised tag		Tag management		Speed down
	Pause reverse play/ Reverse play/ Single-frame reverse play		Pause play/ Play/ Single-frame play		Stop		Speed up
	Previous day		Next day		Hide		Exit
	Process bar		Video type bar		Zoom In		Zoom Out

**Note:**

Playback progress bar: Use the mouse to click any point of the progress bar or drag the progress bar to locate special frames.

About video type bar: ■ represents normal recording (manual or schedule); ■ represents event recording (motion, alarm, motion | alarm, motion & alarm).

**6.2 Playing Back by Time****Purpose:**

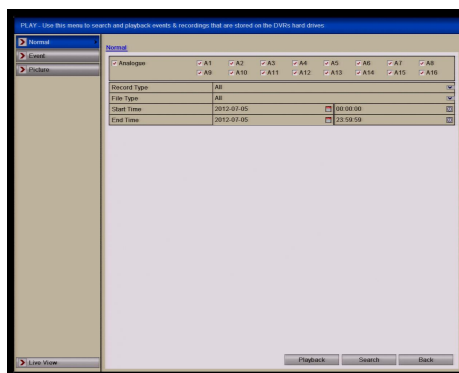
Play back video files recorded in specified time duration. Multi-channel, simultaneous playback and channel sequencing are supported.

**Steps:**

Enter playback interface.

**Menu>Play**

Set search conditions and click the Playback button to enter Playback interface.

**Figure 6.2a Video Search by Time**

In the Playback interface:

The toolbar at the bottom of the Playback interface can be used to control playing process, as shown below.



Figure 6.2b Interface for Playback by Time



Figure 6.2c Toolbar for Playback by Time

Table 6.2d Detailed Explanation of Playback by time Toolbar

Button	Operation	Button	Operation	Button	Operation	Button	Operation
	Audio on /Mute		Start/Stop clipping		30s forward		30s reverse
	Add default tag		Add customised tag		Tag management		Speed down
	Pause reverse play/ Reverse play/ Single-frame reverse play		Pause play/ Play/ Single-frame play		Stop		Speed up
	Video Search		Video type bar		Hide		Exit
	Progress bar						

**Note:**

Playback progress bar: Use the mouse to click any point on the progress bar or drag the progress bar to locate special frames.

About video type bar: ■ represents normal recording (manual or schedule); ■ represents event recording (motion, alarm, motion | alarm, motion & alarm).

### 6.3 Playing Back by Normal Video Search

**Purpose:**

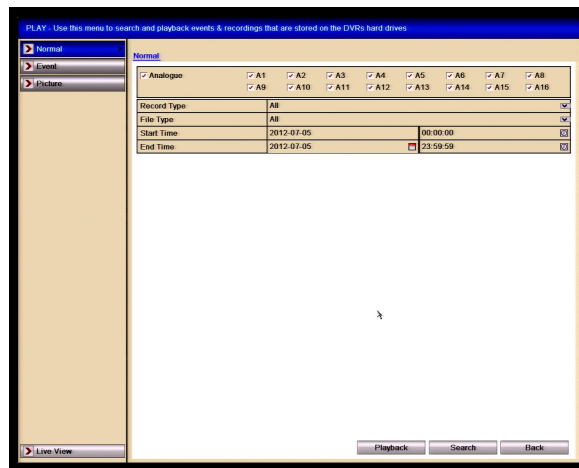
Play back video files searched by restricting recording type and recording time. The video files in the result list are played back sequentially and channel switch is supported. Recording types contain Normal, Motion, Alarm, Motion / Alarm, Motion & Alarm, Manual and All.

**Steps:**



Enter Record File Search interface.

**Menu>Play**

Set search condition and click Search button to enter the Search Result interface.



### 6.3a Normal Video Search

Choose a record file you want to play back. If there is only one channel in the search result, clicking  button takes you to Full-screen Playback interface of this channel. If more than one channel is optional, clicking  button takes you to further steps.

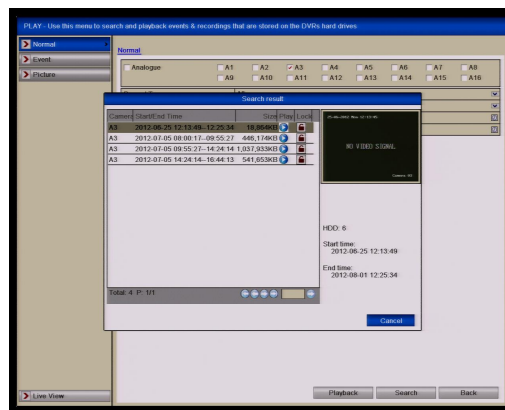


Figure 6.3b Result of Normal Video Search

Choose channels for simultaneous playback.

**Note:** Optional channels for simultaneous playback are the same as the channels chosen to search record files. The channel with the recorded file selected is the main channel during multi-channel playback and it is displayed at the upper left corner. The 4-ch, 8-ch and 16-ch devices support 4-ch, 8-ch and 16-ch simultaneous playback respectively.

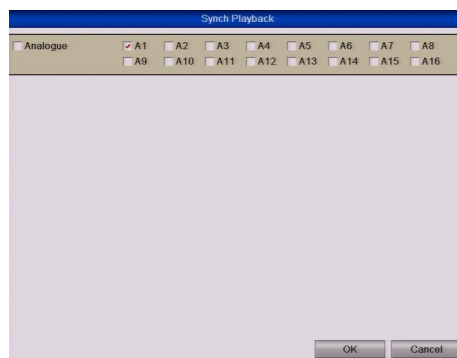


Figure 6.3c Select Channels for Synchronous Playback

### Synchronous Playback interface

The toolbar in the bottom part of Playback interface can be used to control playing process.



Figure 6.3d 4-ch Synchronous Playback Interface

The hidden list of recorded files displays by moving the mouse to the right of the playback interface.



Figure 6.3e 4-ch Synchronous Playback Interface with Video List



Figure 6.3f Toolbar for Normal Playback

Table 6.3g Detailed Explanation of Normal Playback Toolbar

Button	Operation	Button	Operation	Button	Operation	Button	Operation
	Audio on /Mute		Start/Stop clipping		30s forward		30s reverse
	Add default tag		Add customised tag		Tag management		Speed down
	Pause reverse play/ Reverse play/ Single-frame reverse play		Pause play/ Play/ Single-frame play		Stop		Speed up
	Video Search		Video type bar		Hide		Exit
	Progress bar						

Playback progress bar: use the mouse to click any point of the progress bar or drag the progress bar to locate special frames.

About video type bar: ■ represents normal recording (manual or schedule); ■ represents event recording (motion, alarm, motion | alarm, motion & alarm).

## 6.4 Playing Back by Event Search

### Purpose:

Play back recorded files on one or several channels by restricting event type (e.g. alarm input and motion detection). Channel switch is supported.

### Steps:

Enter the playback interface.

### Menu>Play

Select **Event** tab to enter the Event Playback interface.

Select **Alarm Input** as the event type.

Click **Search** button to enter the Search Result interface.

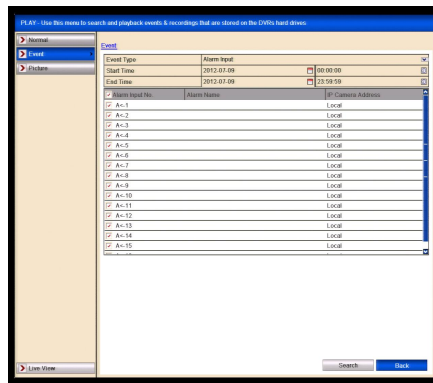


Figure 6.4a Video Search by Alarm Input

If you want to play back recorded files associated with motion detection, choose **Motion** as event type and click **Search** button to enter the Search Result interface.

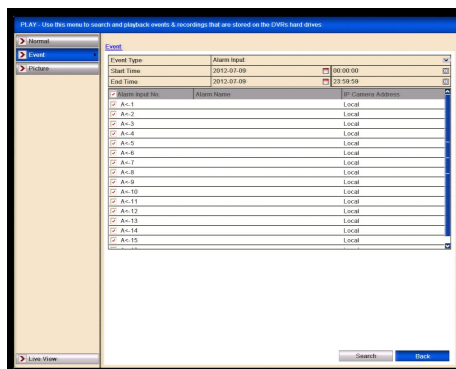




Figure 6.4b Video Search by Motion

Click  button to enter the Playback interface. If several channels are triggered, clicking  button takes you to Figure 6.4d and Figure 6.4e. **Note:** Pre-play and post-play can be configured.



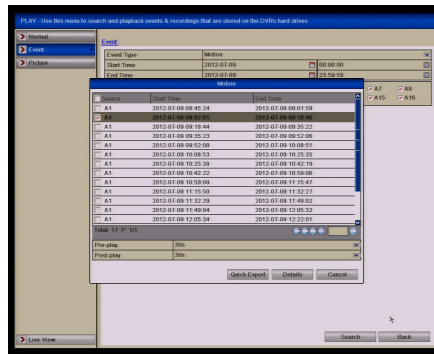


Figure 6.4c Result of Video Search by Motion Input

Click **Details** button to view detailed information about the recorded file, e.g. start time, end time, file size, etc.

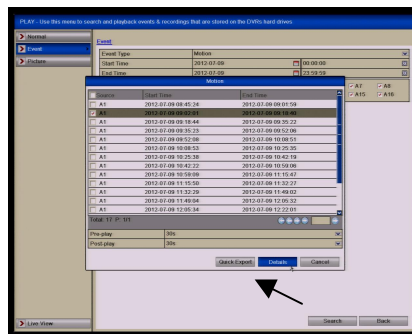


Figure 6.4d Motion Details Interface

### Playback interface

The toolbar in the bottom part of Playback interface can be used to control playing process.



Figure 6.4e Interface for Playback by Event

The hidden list of events will be displayed by moving the mouse to the right of the playback interface.

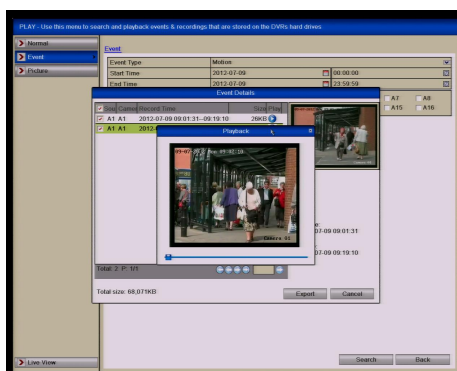


Figure 6.4f Playback Interface with Motion List

Click on Live View to display full screen Playback Interface for Event playback.



Figure 6.4g Toolbar for Playback by Event

Table 6.4h Detailed Explanation of Playback-by-event Toolbar

Button	Operation	Button	Operation	Button	Operation	Button	Operation
	Audio on /Mute		Start/Stop clipping		30s forward		30s reverse
	Add default tag		Add customised tag		Tag management		Speed down
	Pause reverse play/ Reverse play/ Single-frame reverse play		Pause play/ Play/ Single-frame play		Stop		Speed up
	Video Search		Video type bar		Hide		Exit
	Progress bar		Previous Event		Next Event		

**Note:**

Playback progress bar: Use the mouse to click any point on the progress bar or drag the progress bar to locate special time frames.

About video type bar: Blue represents normal recording (manual or schedule); Red represents event recording (motion, alarm, motion|alarm, motion & alarm).

## 6.5 Playing Back by Tag


**Purpose:**

Video tag allows you to record related information like people and location of a certain time point during playback. You are also allowed to use video tag(s) to search for record files and position time point. Playback start/end time can be edited.

**Before playing back by tag:** Enter Playback interface by selecting **Menu > Play >Normal**, select channel and time and start playback.



Figure 6.5a Interface for Playback by Time

Click  button to add default tag.

Click  button to add customised tag and input tag name.

**Note:** Max. 64 tags can be added to a single video file.

**Tag management**

Click  button to check, edit and delete tag(s).

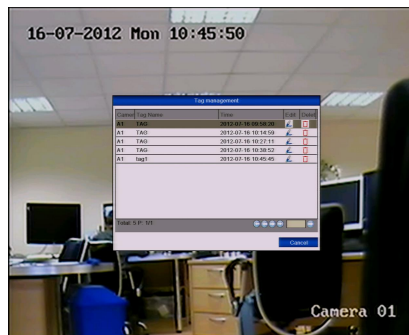


Figure 6.5b Tag Management Interface

**Steps:**

Enter Playback interface.

**Menu>Play**

Click Tag tab to enter Playback by Tag interface. Choose channels, tag type and time, and click Search to enter Search Result interface.

**Note:** Two tag types are selectable: **All** and **Tag Keyword**. Input keyword if you choose **Tag Keyword**.

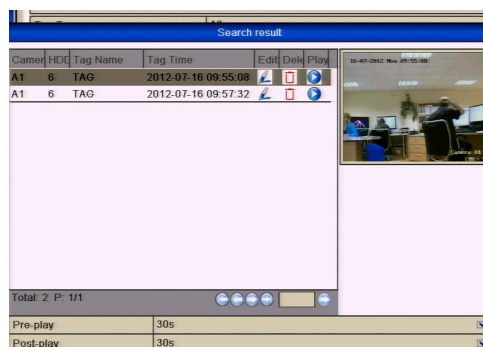


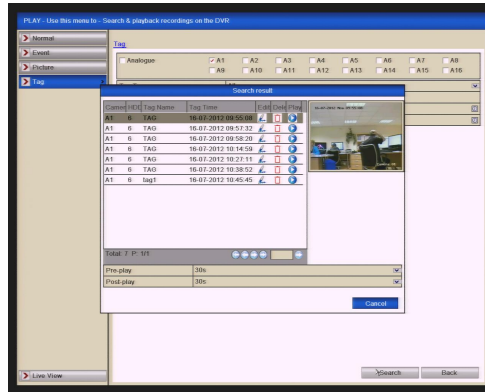
Figure 6.5c Video Search by Tag

**Set playback conditions and tag management.**

Choose the tag name of the recorded file you want to play back; it can be edited or deleted.


Pre-play and post-play time can be set according to actual needs.

**Note:** Pre-play time and post-play time is added to the time point of the tag.



**Figure 6.5d Result of Video Search by Tag**

Playback by tag.

Choose a tag and click  button to play back the related record file.



**Figure 6.5e Interface for Playback by Tag**

The hidden list of tags will be displayed by moving the mouse to the right of the playback interface.



**Figure 6.5f Interface of Playback by Tag with Video List**



**Figure 6.5g Toolbar for Playback by Tag**

Table 6.5h Detailed Explanation of Playback-by-tag Toolbar

Button	Operation	Button	Operation	Button	Operation	Button	Operation
	Audio on /Mute		Start/Stop clipping		30s forward		30s reverse
	Add default tag		Add customised tag		Tag management		Lower Speed
	Pause reverse play/ Reverse play/ Single-frame reverse play		Pause play/ Play/ Single-frame play		Stop		Increase Speed
	Previous Tag		Next Tag		Tag Search		Exit
	Progress bar		Video Type Bar		Hide		

**Note:**

**Playback progress bar:** Use the mouse to click any point of the progress bar or drag the progress bar to locate special time frames.

**About video type bar:** Blue represents normal recording (manual or schedule); Red represents event recording (motion, alarm, motion|alarm, motion & alarm).

## 6.6 Playing Back by System Log

**Purpose:**

Play back record file(s) associated with channels after searching system logs.

**Steps:**

Enter Log Search interface.

**Menu>Tools>Log Search**

Set search time and type and click **Search** button.

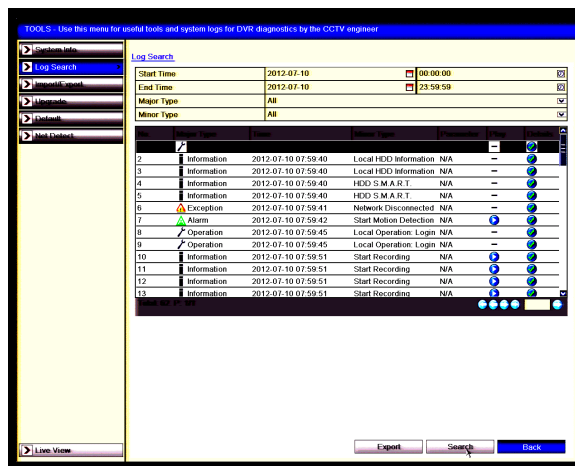


Figure 6.6a System Log Search Interface

Choose a log with record file and click button to enter Playback interface.

**Note:** If there is no record file for this time point in the log, the message “No result found” will display.

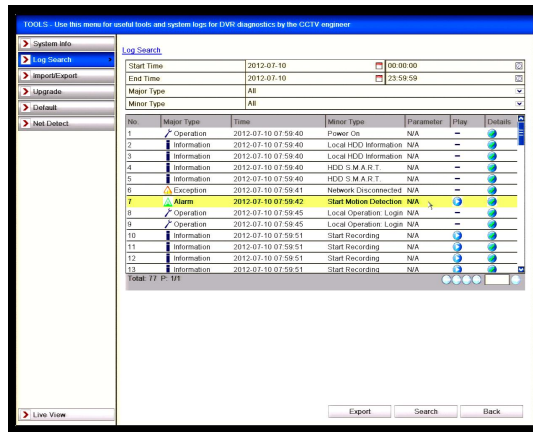


Figure 6.6b Result of System Log Search

**Playback interface**

The toolbar in the bottom part of the Playback interface can be used to control playing process.

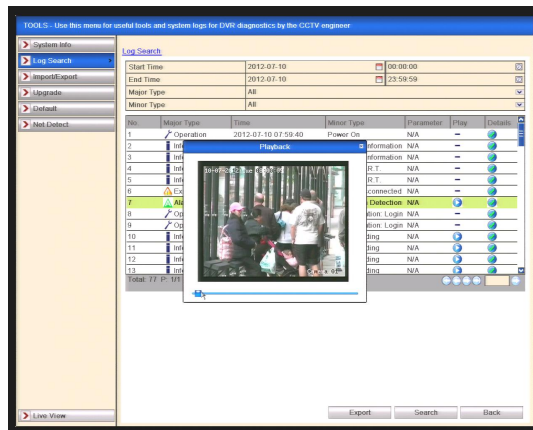


Figure 6.6c Interface for Playback by Log

**6.7 Playing Back Frame by Frame**

**Purpose:**



To allow playback of video files, frame by frame, in order to check image details when abnormal events occur.

**Steps:**



**Using a Mouse:**

Go to the Playback interface.

**Selecting playback of the recorded file**

Click button  and  until the speed changes to **Single** frame and one click on the playback screen represents playback of one frame.

**Selecting reverse playback of the recorded file**

Click button  and  until the speed changes to **Single** frame and one click on the playback screen represents reverse playback of one frame. It is also feasible to use

the pause button  in toolbar.

## 6.8 Instant Detective

### Purpose:

In order to locate motion detection events easily and accurately in the playback progress bar, you can analyse a certain area (scene) dynamically and find all of the related motion detection events that occurred in this area.

### Steps:

Go to Playback interface and play the video.

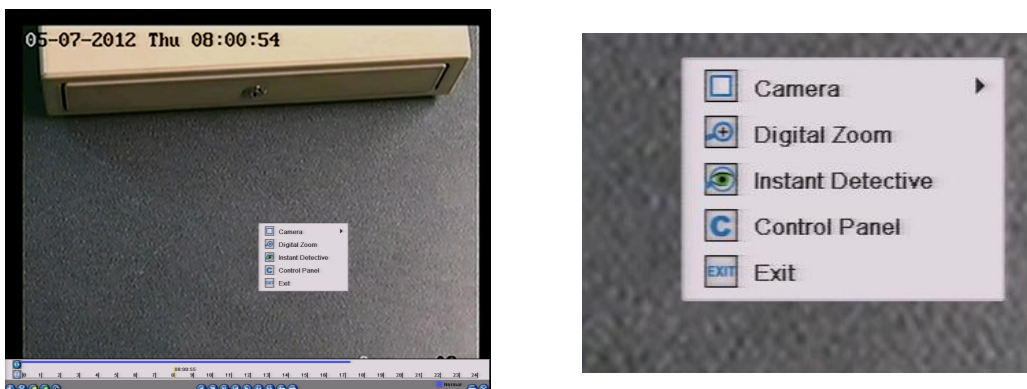


Figure 6.8a Interface for Playback by Time

Right-click mouse and select Instant Detective to go to analysis area selection interface.



Figure 6.8b Right-click Menu under Playback

You can click button marked Full Screen to set the full screen as target search area.

After drawing area(s), click button  to execute Instant Detective search in this area.

**Note:** Multi-area and full-screen searching modes are supported.

See pictures below.



Figure 6.8c Instant Detective controls

**Results of intelligent analysis**

Video type bar

- : Normal record file
- : Event record file
- : Dynamic record file.

The hidden list of recorded files display when moving the mouse to the right of the playback interface.



Figure 6.8d Instant Detective Search Result with Video List

Figure 6.8e Toolbar for Instant Detective Playback





**Table 6.8f Detailed Explanation of Instant Detective Toolbar**

Button	Operation	Button	Operation	Button	Operation	Button	Operation
	Audio on /Mute		Start/Stop clipping		30s forward		30s reverse
	Add default tag		Add customised tag		Tag management		Lower Speed
	Pause reverse play/ Reverse play/ Single-frame reverse play		Pause play/ Play/ Single-frame play		Stop		Speed up
	Previous Instant Detective search result		Next Instant Detective search result		Video Search		Exit
	Hide		Progress Bar		Video Type		Instant Detective Search Bar

**Note:**

**Playback progress bar:** Use the mouse to click any point on the progress bar or drag the progress bar to locate special time frames.

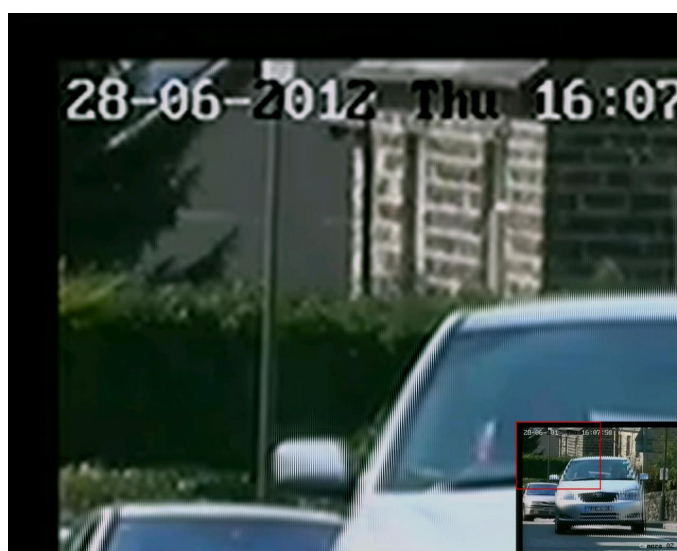
**About video type bar:** Blue represents normal recording (manual or schedule); Red represents event recording (motion, alarm, motion | alarm, motion & alarm).

## 6.9 Digital Zoom

**Steps:**

Right click the mouse on a channel under playback and choose Digital Zoom to enter Digital Zoom interface.

Use the mouse to draw a red rectangle and the image within it will be enlarged up to 16 times.



**Figure 6.9a Draw Area for Digital Zoom**








**Figure 6.9b Right-click Menu in Playback**

**The right-click menu:**

**Note:** This menu differs slightly between one playback interface and another.

**Table 6.9c Detailed Explanation of Right-click Menu in Playback**

Button	Function
	Return to Search interface
	Enter Digital Zoom interface
	Instant Detective search on a specified area
	Show & hide control interface
	Return to Live View interface

## 6.10 Picture Playback

**Purpose:**

Search and view captured pictures stored in HDD.

**Steps:**

Enter Playback interface.

**Menu>Play**

Choose **Picture** tab.

Set channel, picture type and time and click **Search** button to enter Search Result interface.

**Note:** Picture types include Normal, Motion, Alarm, Motion/Alarm, Motion & Alarm, Capture and Continuous Capture.

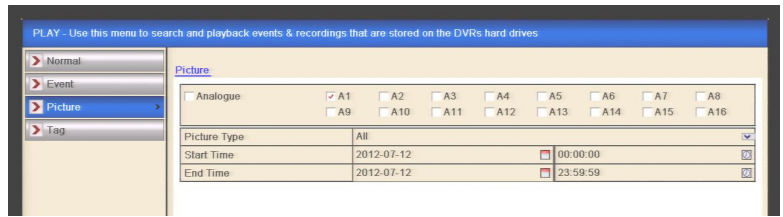
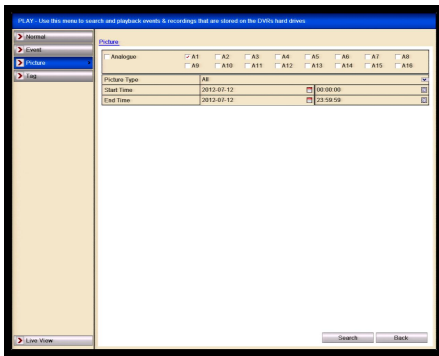



Figure 6.10a Picture Search

View pictures.

Click on Search to display list of pictures captured. Now click on  to view picture.

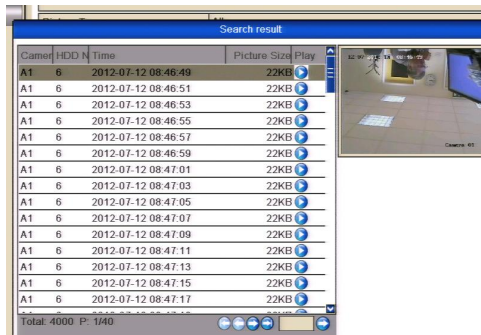
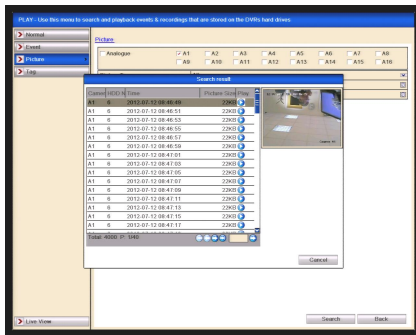


Figure 6.10b Example Picture Search

Picture Playback interface.

The toolbar in the bottom part of Playback interface can be used to control playing process.

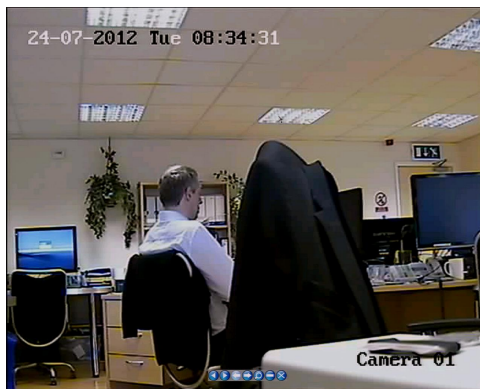


Figure 6.10c Picture Playback Interface

The hidden list of captured pictures will be displayed by moving the mouse to the right of the playback interface.

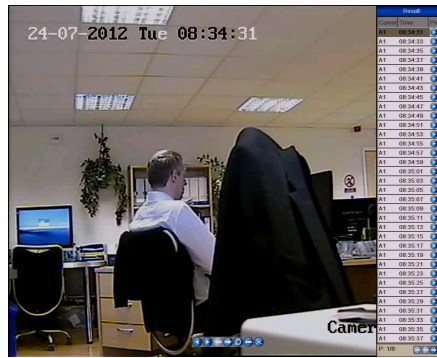


Figure 6.10d Playback Interface with Picture List

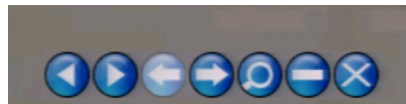


Figure 6.10e Picture Playback Toolbar

Table 6.10f Detailed Explanation of Picture-playback Toolbar

Button	Function	Button	Function	Button	Function	Button	Function
	Play reverse		Play		Previous picture		Next picture
	Picture search		Hide		Exit		

## 7. Backup

### Before you start:

Please insert the backup device(s) into the DVR.

### 7.1 Quick Export

#### Purpose:

Export record files to backup device(s) quickly by time.

#### Steps:

Enter Back Up interface. Choose the channel(s) you want to back up, followed by time period and then click **Quick Export** button.

#### Note:

The time duration of recorded files on a specified channel cannot exceed one day. Otherwise, the message “Max. 24 hours are allowed for quick export.” will display. The number of channels for synchronous export cannot exceed 4. Otherwise, the message “Max. 4 channels are allowed for synchronous quick export.” will display.

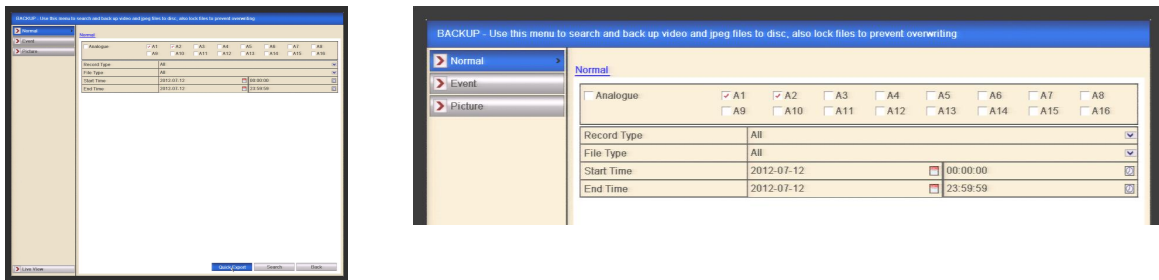


Figure 7.1a Quick Export Interface

### Export

Go to Export interface, choose backup device and create folder name, double click it and then click **Export** button to start exporting.

**Note:** Here you can only use a USB Flash Drive so please refer to the next section using Normal Backup for other backup devices supported by the DVR.

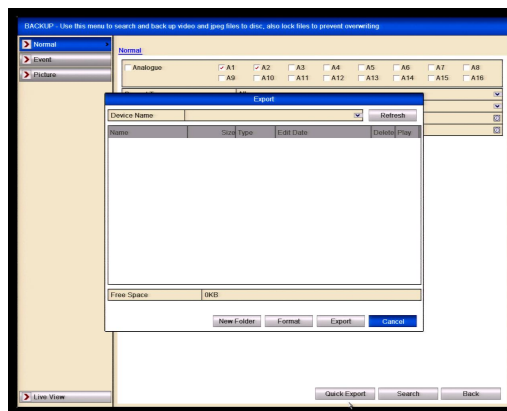


Figure 7.1b Quick Export using USB

Stay in the Exporting interface until all record files are exported.

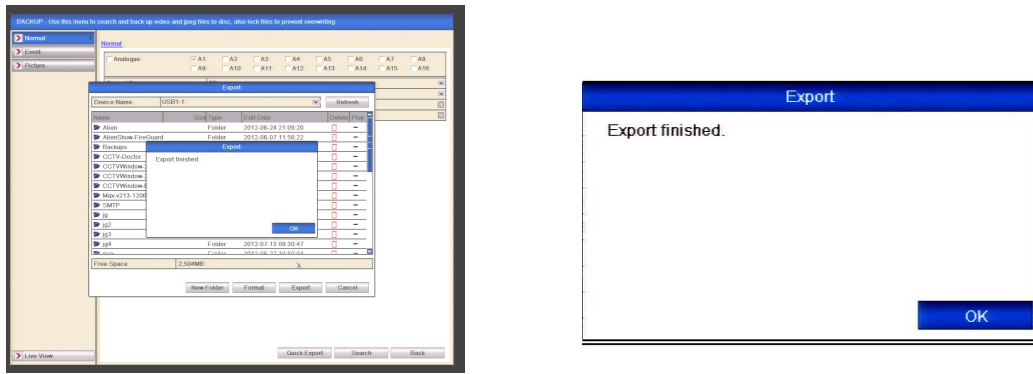



Figure 7.1c Export Finished

Check backup result.

Select folder to display recorded file/s and player program.

Choose the recorded file in Export interface and click button  to check it.

**Note:** The Player player.exe is exported automatically during record file export.

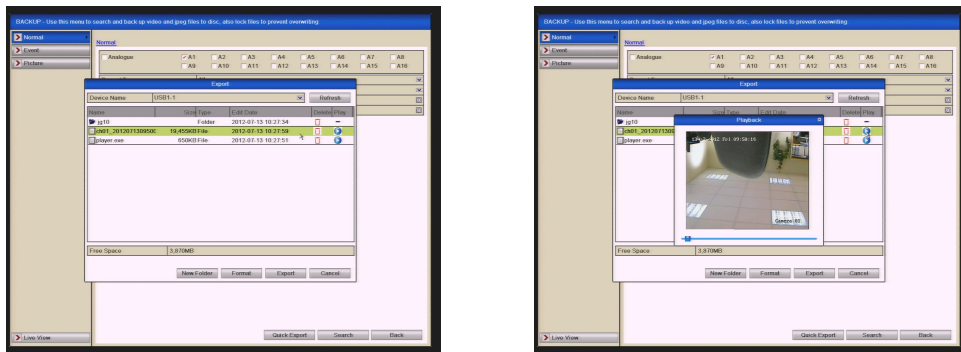


Figure 7.1d Checkup of Quick Export Result Using USB

To exit Playback click on the small X located in the far right corner of the Playback panel.

## 7.2 Backing up by Normal Video Search

### Purpose:

The recorded files can be backed up to various devices, such as USB devices (USB flash drives, USB HDDs, USB writer), SATA writer and eSATA HDD.

### Backup Steps:

Enter Export interface.

**Menu>Back Up>Normal**

Set search condition and click **Search** button to enter the search result interface.

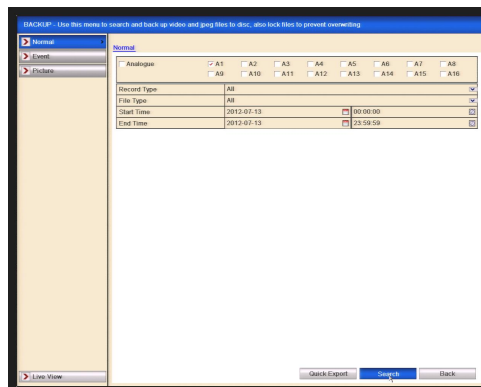


Figure 7.2a Normal Video Search for Backup

Select record files you want to backup.

Click button  to play the recorded file if you want to check it.

Click the checkbox before starting the backup.

**Note:** The size of the currently selected files is displayed in the lower-left corner of the window. Note that continuously recorded files are 1Gb in size so dependent on resolution used, a single file from and to times, may cover a number of hours.

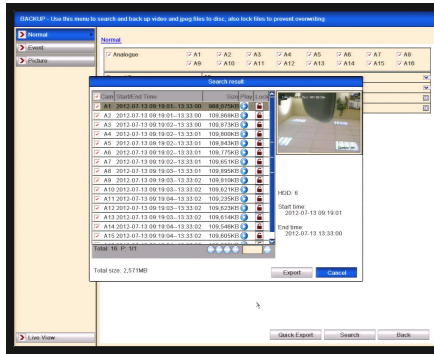


Figure 7.2b Result of Normal Video Search for Backup

**Export**

Click **Export** button and start backup.

**Note:** If the inserted device is not recognised:

Click the **Refresh** button.

Reconnect device.

Check for compatibility from vendor.

You can also format USB flash drives or USB HDDs via the DVR.

Cam	Start/End Time	Size	Play	Lock
<input checked="" type="checkbox"/> A1	2012-07-13 09:19:01--13:33:00	988,075KB		
<input checked="" type="checkbox"/> A2	2012-07-13 09:19:01--13:33:00	109,868KB		
<input checked="" type="checkbox"/> A3	2012-07-13 09:19:02--13:33:00	109,873KB		
<input checked="" type="checkbox"/> A4	2012-07-13 09:19:02--13:33:01	109,800KB		
<input checked="" type="checkbox"/> A5	2012-07-13 09:19:02--13:33:01	109,843KB		
<input checked="" type="checkbox"/> A6	2012-07-13 09:19:02--13:33:01	109,775KB		
<input checked="" type="checkbox"/> A7	2012-07-13 09:19:02--13:33:01	109,651KB		
<input checked="" type="checkbox"/> A8	2012-07-13 09:19:03--13:33:01	109,895KB		
<input checked="" type="checkbox"/> A9	2012-07-13 09:19:03--13:33:02	109,810KB		
<input checked="" type="checkbox"/> A10	2012-07-13 09:19:03--13:33:02	109,621KB		
<input checked="" type="checkbox"/> A11	2012-07-13 09:19:04--13:33:02	109,235KB		
<input checked="" type="checkbox"/> A12	2012-07-13 09:19:03--13:33:02	109,623KB		
<input checked="" type="checkbox"/> A13	2012-07-13 09:19:03--13:33:02	109,614KB		
<input checked="" type="checkbox"/> A14	2012-07-13 09:19:04--13:33:02	109,546KB		
<input checked="" type="checkbox"/> A15	2012-07-13 09:19:04--13:33:02	109,605KB		

Total: 16 P: 1/1

Figure 7.2c Export by Normal Video Search using USB Flash Drive

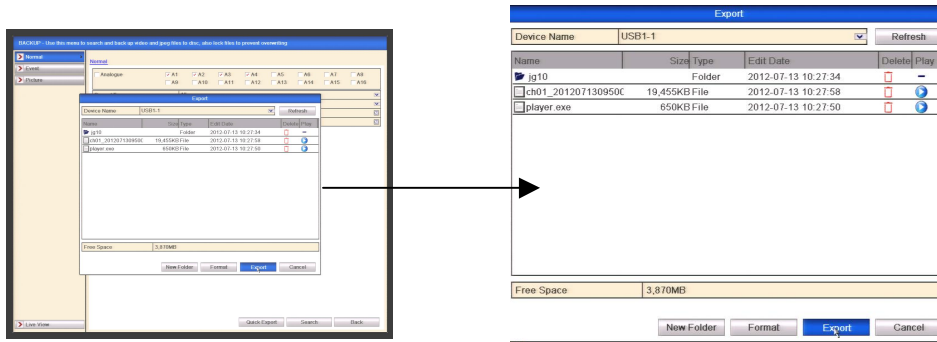


Figure 7.2d Export by Normal Video Search using USB Writer

Stay in the Exporting interface until all recorded files are exported and displaying “Export finished”.

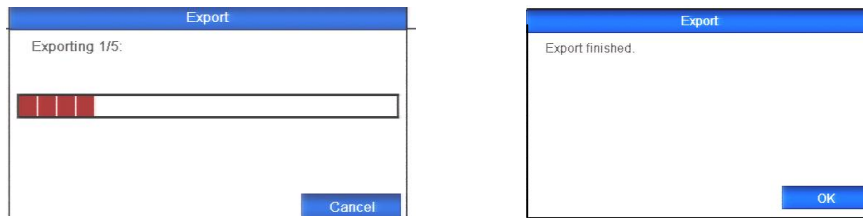



Figure 7.2e Export Finished

**Check backup result**

Choose the recorded file in Export interface and click button  to check it.  
**Note:** The Player player.exe will be exported automatically during file export.

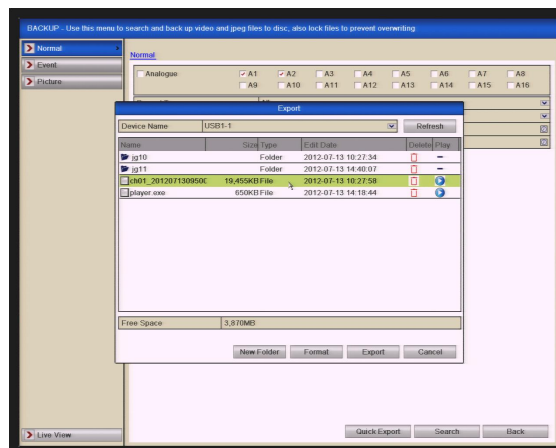


Figure 7.2f Checkup of Export Result using USB Flash Drive

You can exit playback by clicking on X in top right hand corner of Playback screen.



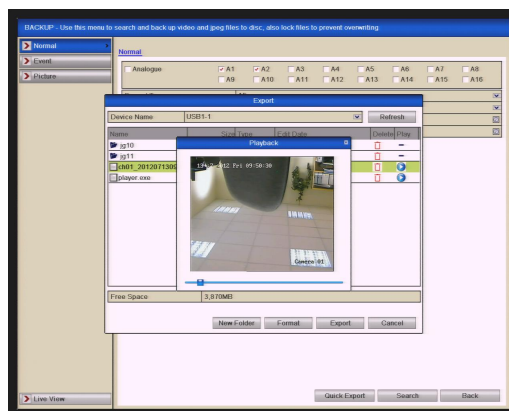


Figure 7.2g Checkup of Export Result using USB Writer

### 7.2.1 Backup using eSATA HDDs

#### Steps:

Enter Drives>eSATA menus and set the working mode of eSATA HDD to “Export”.

#### Menu>Drives>eSATA

Select eSATA and set its mode to Export. Click **Yes** when message “System will reboot automatically if the usage of eSATA is changed. Continue?”

**Note:** The working modes of eSATA HDD cover Record/Capture and Export. Changes in working mode will now take effect after rebooting the device.

Enter Export interface.

#### Menu>Backup>Normal

Set search condition and click **Search** button to enter the search result interface.

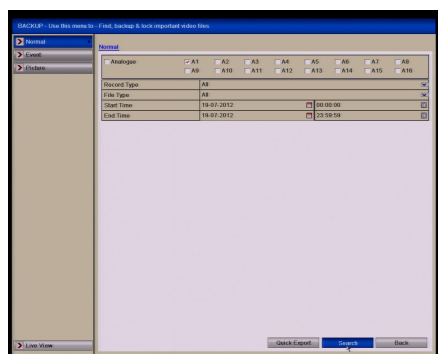


Figure 7.2.1a Normal Video Search for Backup

Select the record files you want to back up.

Click button  to play the record file if you want to check it.

Tick record files you want to back up.

**Note:** The size of the currently selected files is displayed in the lower-left corner of the window.

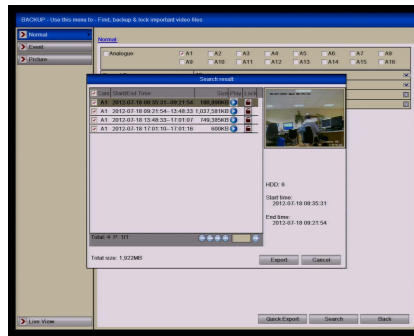


Figure 7.2.1b Result of Normal Video Search for Backup

### Export

Click **Export** button and start backup.

**Note:** Please format the eSATA first when using it for the first time if the inserted eSATA HDD is not recognised.

Click the **Refresh** button.

Reconnect device.

Check for compatibility from vendor.

You can also format eSATA HDD via the DVR.

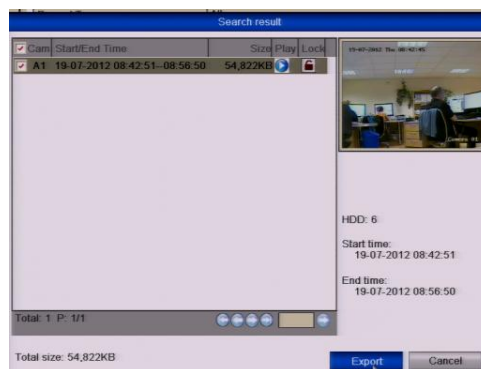


Figure 7.2.1c Export by Normal Video Search Using eSATA HDD

Stay in the Exporting interface until all record files are exported and message “**Export finished**” is displayed.

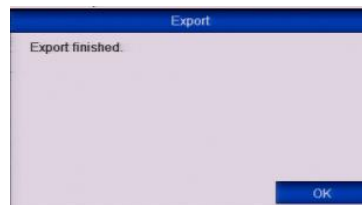


Figure 7.2.1d Export Finished

### Check backup result

Choose the record file in Export interface and click button  to check it.

**Note:** The Player player.exe will be exported automatically during record file export.

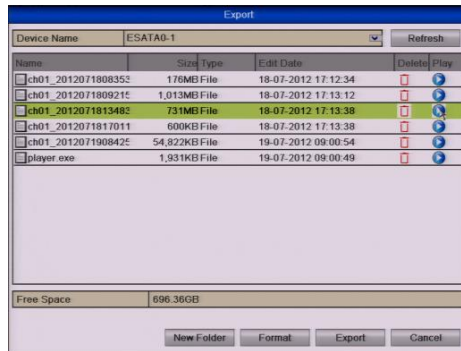


Figure 7.2.1e Checkup of Export Result Using eSATA HDD

### 7.3 Backing up by Event Search

**Purpose:**

Back up event-related record files using USB devices (USB flash drives, USB HDDs, USB writer), SATA writer or eSATA HDD. Quick Backup and Normal Backup are supported.

**Steps:**

Enter Export interface.

**Menu>Backup>Event**

Select “**Alarm Input**” from the dropdown list of Event Type.

Select the alarm input No. and time.

Click **Search** button to enter the Search Result interface.

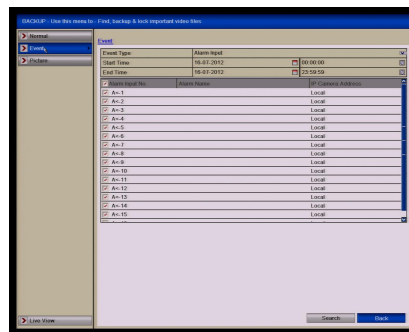


Figure 7.3a Event Search for Backup

Select record files to export.

Select an alarm input in the list and click **Quick Export** button to enter Export interface. Clicking **Details** button will take you to the interface with detailed information of all channels triggered by the selected alarm input.

**Note:** Event types contain Alarm Input and Motion.

Clicking **Quick Export** button will export record files of all channels triggered by the selected alarm input.

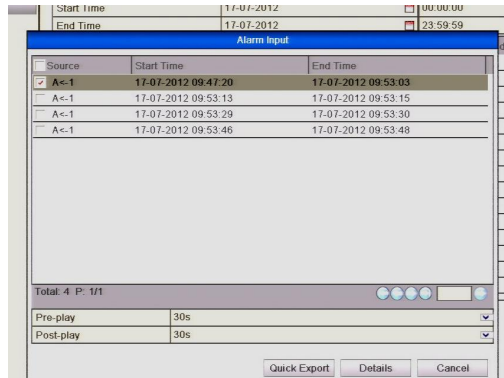


Figure 7.3b Result of Event Search

Click Details button to view detailed information of the record file, e.g. start time, end time, file size, etc.

**Note:** The size of the currently selected files is displayed in the lower-left corner of the window.

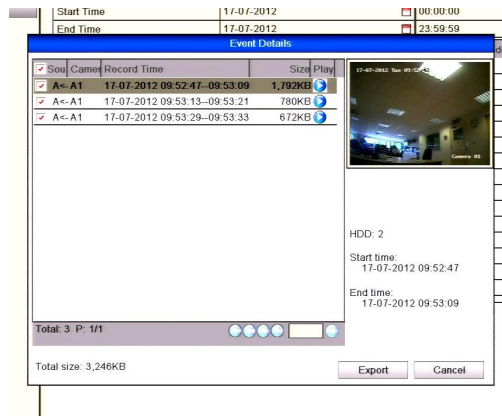


Figure 7.3c Event Details Interface

Export.

Click the **Export** button and start backup.

**Note:** If the inserted USB device is not recognised:

Click the Refresh button.

Reconnect device.

Check for compatibility from vendor.

You can also format USB flash drive or USB HDDs via the DVR.

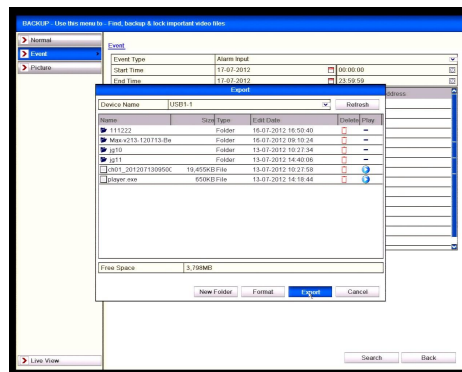


Figure 7.3d Export by Event Using USB Flash Drive

Stay in the Exporting interface until all record files are exported with message “Export finished” displayed.

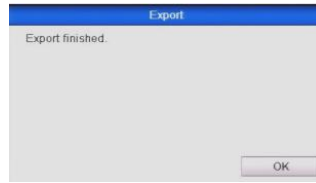


Figure 7.3e Export Finished

Check backup result.

**Note:** The Player player.exe will be exported automatically during record file export.

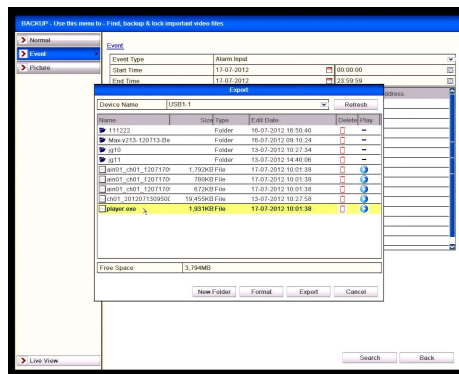


Figure 7.3f Checkup of Event Export Result using USB Flash Drive

## 7.4 Backing up Video Clips


### Purpose:

You may also select video clips to export directly during Playback, using USB devices (USB flash drives, USB HDDs, USB writer), SATA writer or eSATA HDD.

### Steps:

Enter Playback interface.

Please refer to **Chapter 6**.

During playback, use buttons  and  in the playback toolbar to start or stop clipping record file(s).

Quit Playback interface after finishing clipping and you will then be prompted to save the clips.

**Note:** A maximum of 30 clips can be selected for each channel.

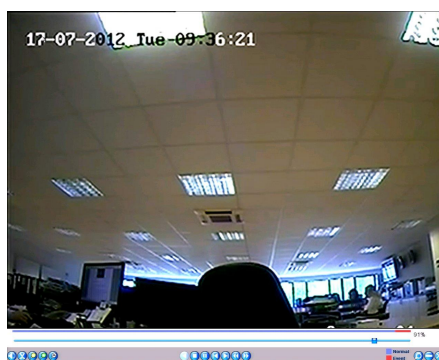


Figure 7.4a Interface for Playback by Time

Click **Yes** to save video clips and enter Export interface, or click **No** to quit and do not save video clips.



Figure 7.4b Video Clip Saving

Export.

Click **Export** button and start backup.

**Note:** If the inserted USB device is not recognized:

Click the **Refresh** button.

Reconnect device.

Check for compatibility from vendor.

You can also format USB flash drive or USB HDDs via the device.

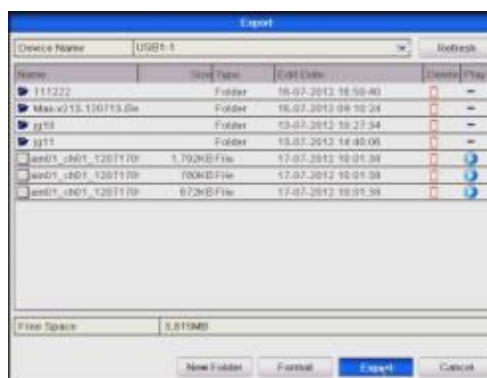


Figure 7.4c Export Video Clips using USB Flash Drive

Stay in the Exporting interface until all recorded files are exported with message **“Export finished”** displayed.

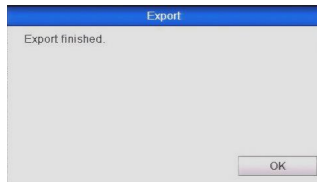


Figure 7.4d Export Finished

Check backup result.

**Note:** The program Player.exe will be exported automatically during record file export.

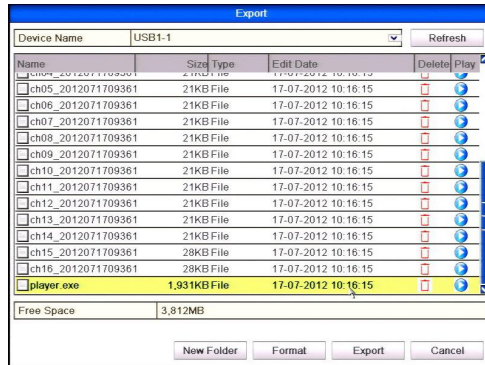


Figure 7.4e Checkup of Video Clip Export Results using USB Flash Drive

## 7.5 Backing up Pictures

### Purpose:

Back up pictures using USB devices (USB flash drives, USB HDDs, USB writer), SATA writer or eSATA HDD.

### Steps:

Enter Export interface.

### Menu>Backup>Picture

Select channel(s), image type, start time and end time and click **Search** button to enter the Search Result interface.

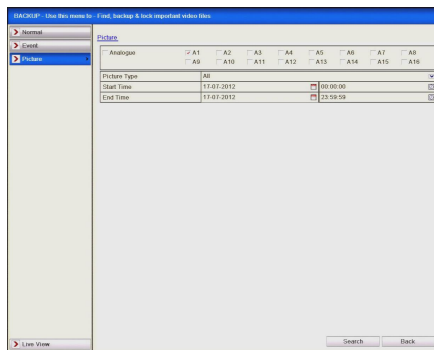
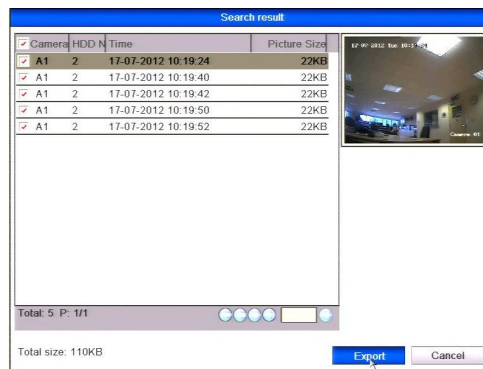


Figure 7.5a Picture Search for Backup

Select pictures you want to back up.

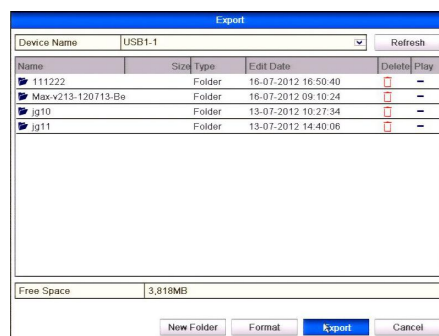
Check the checkbox before the pictures you want to back up and click **Export** button.

**Note:** Here we use a USB flash drive as an example. For more backup devices, please refer to section Playing Back by Normal Video Search.



**Figure 7.5b Result of Picture Search**

Export  
Click **Export** button and start backup.



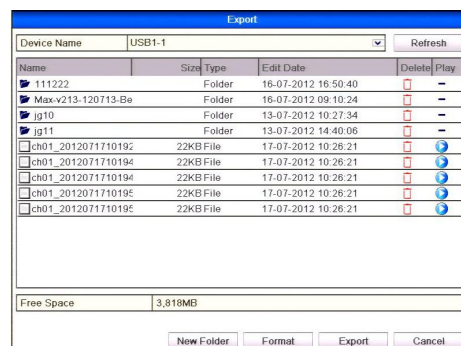
**Figure 7.5c Export Pictures using USB Flash Drive**

Stay in the Exporting interface until all recorded files are exported with message “Export finished” displayed.



**Figure 7.5d Export Finished**

Check backup results.



**Figure 7.5e Checkup of Picture Export using USB Flash Drive**



## 7.6 Managing Backup Devices

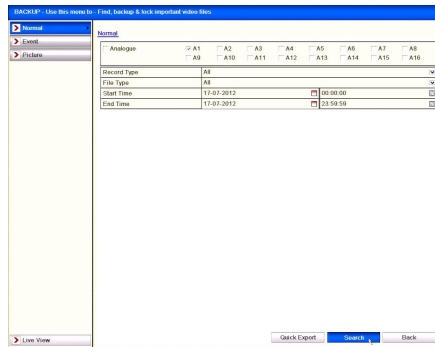
### Management of USB flash drives, USB HDDs and eSATA HDDs.

Enter Search Result interface of record files.

#### Menu>Backup>Normal

Set search condition and click **Search** button to enter Search Result interface.

**Note:** At least one channel shall be selected.

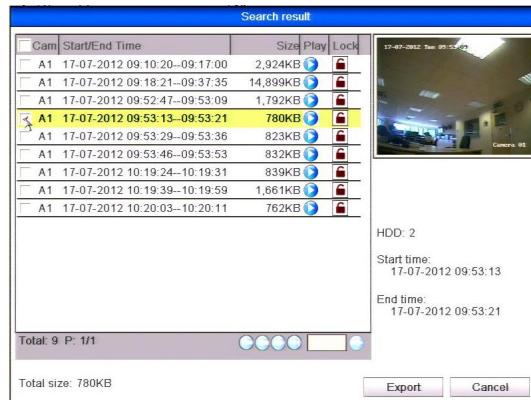


**Figure 7.6a Normal Video Search for Backup**

Select record files you want to back up.

Click **Export** button to enter Export interface.


**Note:** At least one record file shall be selected.




**Figure 7.6b Result of Normal Video Search for Backup**

Backup device management.

Click **New Folder** button if you want to create a new folder on the backup device.

Select a recorded file or folder on the backup device and click button  if you want to delete it.

Select a recorded file in the backup device and click button  to play it.

Click **Format** button to format the backup device.

**Note:** If the inserted USB device is not recognised:

Click the **Refresh** button.

Reconnect device.

Check for compatibility from vendor.

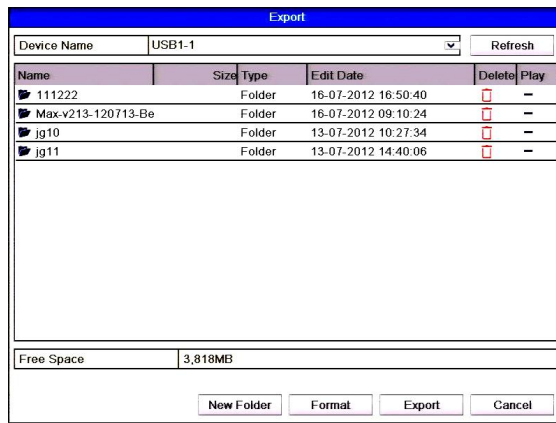


Figure 7.6c USB Flash Drive Management

**Management of USB writers and SATA writers**

Enter Search Result interface of record files.

**Menu>Backup>Normal**

Set search condition and click **Search** button to enter Search Result interface.

**Note:** At least one channel shall be selected.

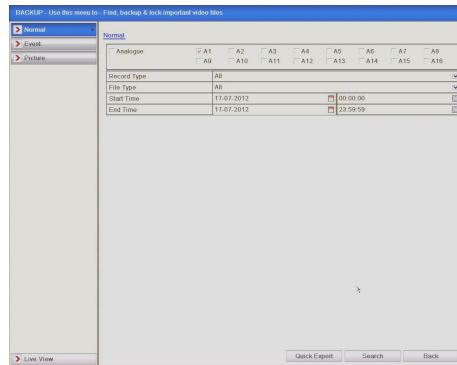


Figure 7.6d Normal Video Search for Backup

Select record files you want to back up.

Click **Export** button to enter Export interface.

**Note:** At least one record file shall be selected.

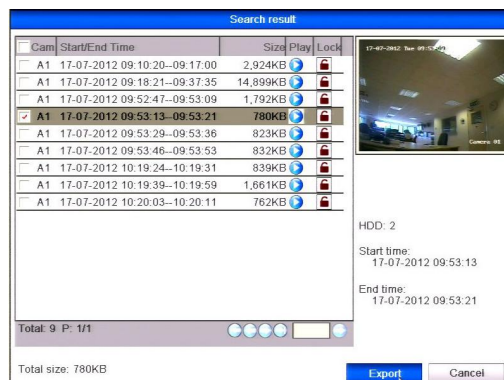


Figure 7.6e Result of Normal Video Search for Backup

### Backup Device Management

Click **Erase** button if you want to erase the files from a re-writable CD/DVD.

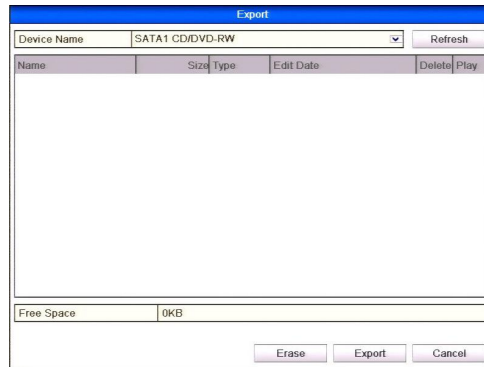
**Note:** There must be a re-writable CD/DVD when you undertake this operation.

If the inserted USB writer or SATA writer is not recognised:

Click the **Refresh** button.

Reconnect device.

Check for compatibility from vendor.



**Figure 7.6f USB Writer Management**

## 8. Event Settings

**Purpose:** This section covers motion detection, alarm settings, video loss, video tampering, fault exceptions, alarm response and manually triggering or clearing alarms.

### 8.1 Motion Detection

**Steps:**

Enter Motion Detection interface of Camera Management and choose a camera you want to set up motion detection.

**Menu> Video> Motion**

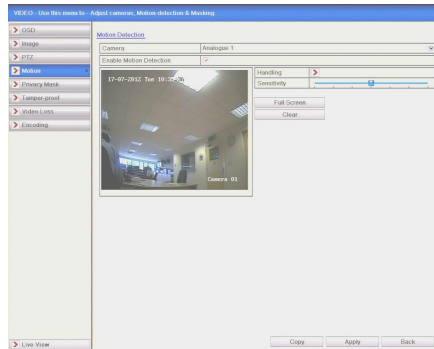


Figure 8.1a Motion Detection Setup Interface

**Set up detection area and sensitivity**

Tick “Enable Motion Detection”, use the mouse to draw detection area(s) and drag the sensitivity bar to set sensitivity.

Click **Handling** button and set alarm response actions.

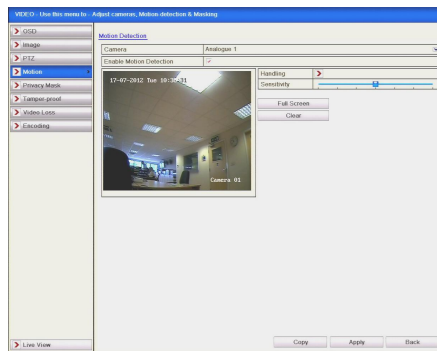


Figure 8.1b Set Detection Area and Sensitivity

Click **Trigger Channel** tab and select one or more channels which will start to record/capture and can display full-screen monitoring when motion alarm is triggered.

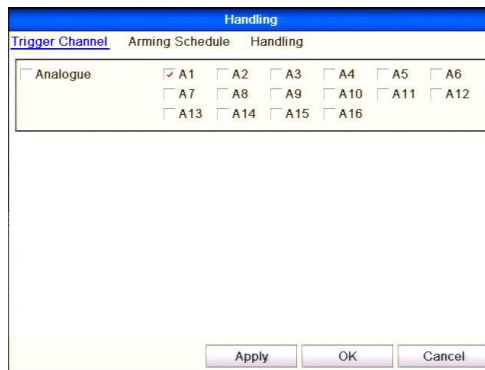


Figure 8.1c Trigger Camera for Motion Detection

**Set up arming schedule for the channel**

Select **Arming Schedule** tab to set the channel’s arming schedule.

Choose one day of a week and up to eight time periods can be set within each day.

**Note:** Time periods shall not be repeated or overlapped.



Figure 8.1d Set Arming Schedule for Motion Detection

Click **Handling** tab to set up alarm response actions of motion alarm (please refer to **Chapter 8.6**).

Repeat the above steps to set up arming schedule of other days of a week. You can also use **Copy** button to copy an arming schedule to other days.

Click the **OK** button to complete the motion detection settings of the channel.

If you want to set up motion detection for another channel, repeat the above steps or just copy the above settings to it.

**Note:** You are not allowed to copy the “Trigger Channel” action.

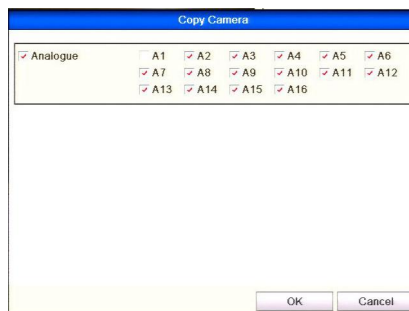


Figure 8.1e Copy Settings of Motion Detection

## 8.2 Setting up Alarms

**Purpose:**

Set up handling method for an external sensor alarm.

**Steps:**

Enter Alarm Settings of System Configuration and select an alarm input.

**Menu> Setup> Alarm**

Select **Alarm Input** tab to enter Alarm Input Settings interface.

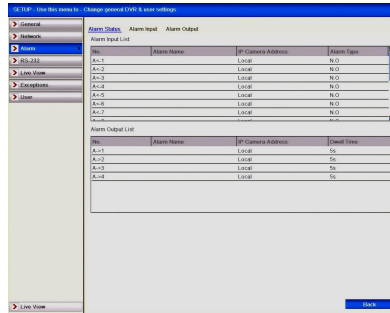


Figure 8.2a Alarm Status Interface of System Configuration

Set up the handling method of the selected alarm input.

Check the **Setting** checkbox and click **Handling** button to set up its alarm response actions.

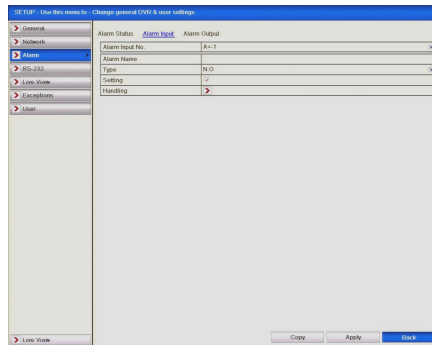


Figure 8.2b Alarm Input Setup Interface

Select Trigger Channel tab and select one or more channels which will start to record/capture or become full-screen monitoring when an external alarm is input.

Select **Arming Schedule** tab to set the channel's arming schedule.

Choose one day of a week and up to eight time periods can be set within each day.

**Note:** Time periods must be consecutive and must not overlap.

Select **Handling** tab to set up alarm response actions of the alarm input (please refer to **Chapter 8.6**).

Repeat the above steps to set up arming schedule for other days of the week. You can also use **Copy** button to copy an arming schedule to other days.



Figure 8.2c Set Arming Schedule for Alarm Input

If required, select **PTZ Linking** tab and set PTZ linkage for the alarm input. Set PTZ linking parameters and click **OK** to complete the settings of the alarm input. **Note:** Please check whether the PTZ or speed dome supports PTZ linkage. One alarm input can trigger presets, patrols or patterns for more than one channel. However presets, patrols and patterns are exclusive.

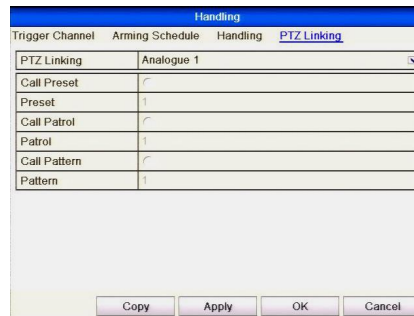


Figure 8.2d Set PTZ Linking of Alarm Input

If you want to set handling method of another alarm input, repeat the above steps or just copy the above settings to it.

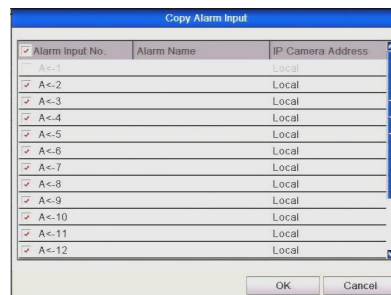


Figure 8.2e Copy Settings of Alarm Input

### 8.3 Detecting Video Loss

#### Purpose:

Detect video loss of a channel and take alarm response action(s).

#### Steps:

Enter Video Loss interface of Camera Management and select a channel you want to detect.

Menu> Video> Video Loss

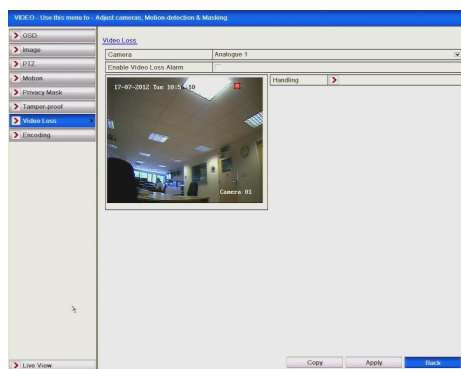


Figure 8.3a Video Loss Setup Interface

Set up handling method of video loss.

Check the checkbox of “Enable Video Loss Alarm”, and click **Handling** button to set up handling method of video loss.

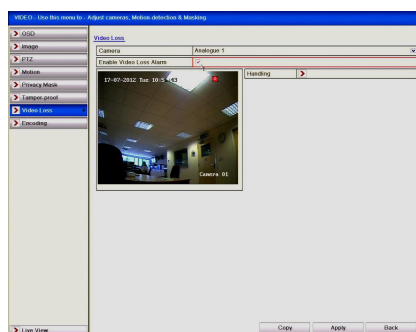


Figure 8.3b Set Handling Method of Video Loss

#### 1. Set up arming schedule of the channel.

Select **Arming Schedule** tab to set the channel’s arming schedule.

Select the day of a week and up to eight time periods can be set within each day.

**Note:** Time periods must be consecutive and must not overlap.



Week	Mon
1	00:00-24:00
2	00:00-00:00
3	00:00-00:00
4	00:00-00:00
5	00:00-00:00
6	00:00-00:00
7	00:00-00:00
8	00:00-00:00

**Figure 8.3c Set Arming Schedule for Video Loss**

Select **Handling** tab to set up alarm response action of video loss (please refer to **Chapter 8.6**).

Repeat the above steps to set up arming schedule for other days of the week. You can also use **Copy** button to copy an arming schedule to other days.

Click the **OK** button to complete the video loss settings for the channel.

If you want to set up the video loss handling method for another channel, repeat the above steps or just copy the above settings to it.

**Figure 8.3d Copy Settings for Video Loss**

## 8.4 Detecting Video Tampering

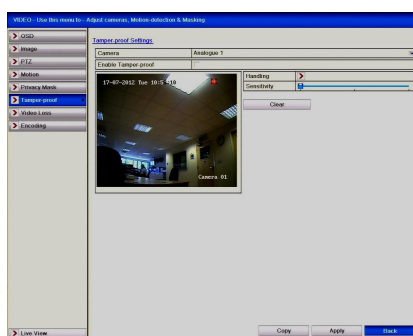
### **Purpose:**

Trigger alarm when the lens is covered and take alarm response action(s).

### **Steps:**

Enter Tamper-proof in Video Menu and select a channel you want to detect video tampering.

**Menu> Video> Tamper-proof**



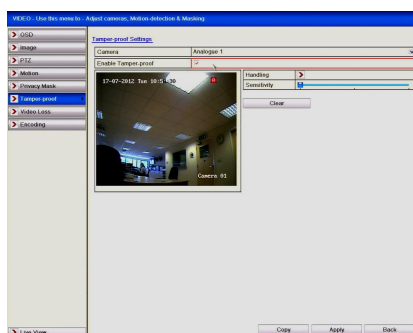
**Figure 8.4a Tamper-proof Setup Interface**

**Set up the video tampering handling method for the channel**

Check the checkbox to “Enable Video Tampering”.

Drag the sensitivity bar and choose a sensitivity level. Use the mouse to draw an area you want to detect video tampering.

Click **Handling** button to set up handling method of video tampering.



**Figure 8.4b Set Detection Area and Sensitivity for Video Tampering**

**Set up arming schedule and alarm response actions for the channel**

Click **Arming Schedule** tab to set the channel’s arming schedule.

Choose a day of the week and up to eight time periods can be set within each day.

**Note:** Time periods must be consecutive and must not overlap.



**Figure 8.4c Set Arming Schedule for Video Tampering**

Select **Handling** tab to set up alarm response actions for video tampering alarm

(please refer to **Chapter 8.6**).

Repeat the above steps to set up arming schedule for other days of the week. You can also use **Copy** button to copy an arming schedule to other days.

Click the **OK** button to complete the video tampering settings of the channel.

If you want to set up video loss handling method for another channel, repeat same steps or just copy the same settings to it.

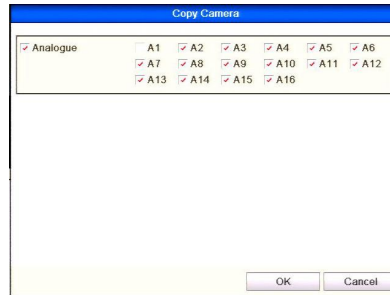


Figure 8.4d Copy Settings for Video Tampering

## 8.5 Error Exception Reporting

### Purpose:

Exception settings refer to the handling method of various exceptions, e.g.

- **HDD Full:** The HDD is full.
- **HDD Error:** Writing HDD error, unformatted HDD, etc.
- **Network Disconnected:** Disconnected network cable.
- **IP Conflicted:** Duplicated IP address.
- **Illegal Login:** Incorrect user ID or password.
- **Abnormal Video Signal:** Unstable video signal.
- **Input / Output Video Standard Mismatch:** I/O video standards do not match.
- **Abnormal Record/Capture:** No space for saving recorded files or captured images.

### Steps:

Enter **Exceptions** interface in Setup Menu and setup various exceptions.

### Menu> Setup> Exceptions

Please refer to **Chapter 8.6** for detailed alarm response actions.

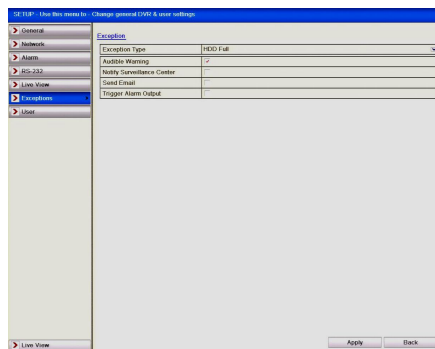


Figure 8.5 Exceptions Setup Interface

## 8.6 Setting Alarm Response Actions

### **Purpose:**

Alarm responses will be activated when an alarm or exception occurs, including Full Screen Monitoring, Audible Warning (buzzer), Notify Surveillance Center, Upload Picture to FTP, Trigger Alarm Output and Send Email.

### **Full Screen Monitoring**

When an alarm is triggered, the local monitor (HDMI, VGA or BNC monitor) will display in full screen view, the video image from the alarming channel configured for full screen monitoring.

If alarms are triggered simultaneously on several channels, their full-screen images will be switched at an interval of 10 seconds (default dwell time). A different dwell time can be set by going to **Menu > Setup > Live View > Full Screen Monitoring Dwell Time**.

Auto-switch will terminate once the alarm stops and you will be taken back to the Live View interface.

**Note:** You must select in “Trigger Channel” settings the channel(s) you want to make full screen monitoring.

### **Audible Warning**

Trigger an audible beep when an alarm is detected.

### **Notify Surveillance Center**

Sends an exception or alarm signal to remote alarm host when an event occurs. The alarm host refers to the PC installed with Remote Client.

**Note:** The alarm signal will be transmitted automatically at detection mode when remote alarm host is configured. Please refer to **Chapter 9** for details of alarm host configuration.

### **Upload Captured Pictures to FTP**

Capture the image when an alarm is triggered and upload the picture to an FTP server.

**Note:** Please set up FTP address and the remote FTP server first.

### **Send Email**

Send an email with alarm information to a user or users when an alarm is detected. Please refer to **Chapter 9** for details of Email configuration.

### **Trigger Alarm Output**

Trigger an alarm output when an alarm is triggered.

Enter Alarm Output interface.

#### **Menu > Setup > Alarm > Alarm Output**

Select an alarm output and set alarm name and dwell time.

**Note:** If “Manually Clear” is selected in the dropdown list of Dwell Time, you can clear it only by going to **Menu > Instant > Alarm**.

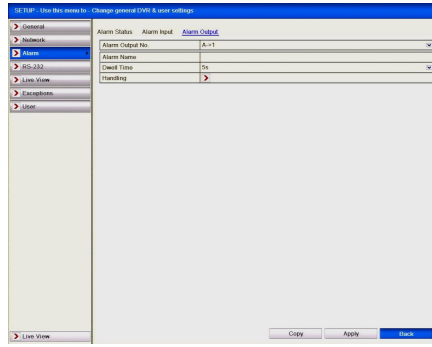


Figure 8.6a Alarm Output Setup Interface

Set up arming schedule of the alarm output.

Click **Handling** button to set the arming schedule of alarm output. Choose a day of the week and select from up to 8 time periods within the same day.

**Note:** Time periods must be consecutive and must not overlap.



Figure 8.6b Set Arming Schedule of Alarm Output

Repeat the above steps to setup arming schedule for other days of the week. You can also use **Copy** button to copy an arming schedule to other days.

Click the **OK** button to complete the settings of the alarm output.

You can also copy the above settings to another channel.

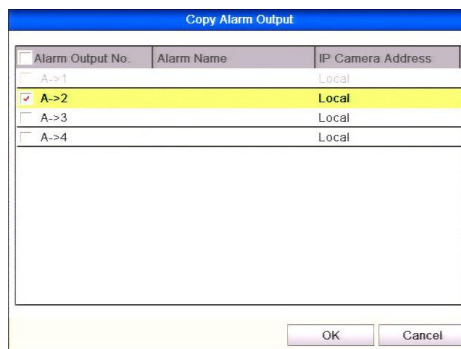


Figure 8.6c Copy Settings for Alarm Output

## 8.7 Triggering or Clearing Alarm Output Manually

### Purpose:

Sensor alarm can be triggered or cleared manually. If “Manually Clear” is selected in the dropdown list of dwell time for an alarm output, the alarm can be cleared only by clicking **Clear** button in the following interface.

### Steps:

Select the alarm output you want to trigger or clear and make related operations.

### Menu> Instant> Alarm

Click **Trigger/Clear** button if you want to trigger or clear an alarm output.

Click **Trigger All** button if you want to trigger all alarm outputs.

Click **Clear All** button if you want to clear all alarm outputs.

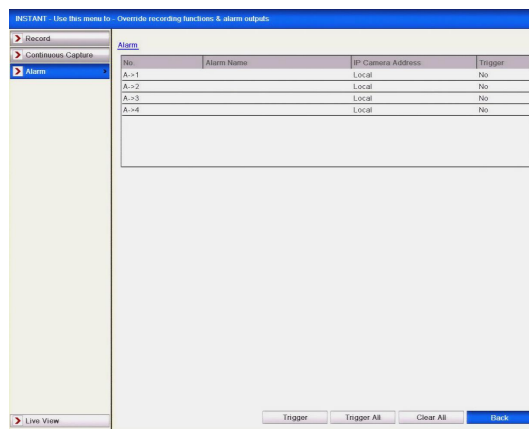


Figure 8.7a Clear or Trigger Alarm Output Manually

## 9. Network Settings

### Purpose:

Network settings must be properly configured before you operate device over network.

### 9.1 General Settings

#### Steps:

Enter the Network Settings interface.

**Menu > Configuration > Network**

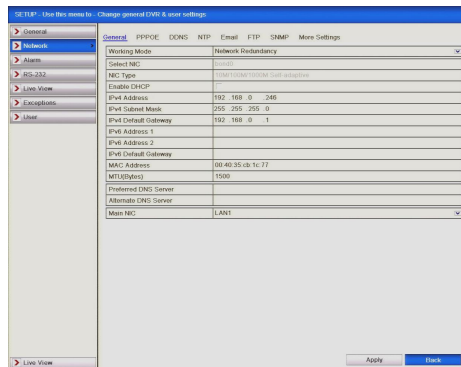


Figure 9.1a Network Settings Interface

Select the **General** tab.

In the **General Settings** interface:

In this DVR you can configure the following settings: Working Mode, NIC Type, IPv4 Address, IPv4 Gateway, MTU and DNS Server.

If the DHCP server is available, you can click the **DHCP** checkbox to automatically obtain an IP address and other network settings from that server.

**Note:** The valid value range of MTU is 500 ~ 9676.

After having configured the general settings, click the **Apply** button to save the settings.

**Working Mode:** There are two 10M/100M/1000M NIC cards provided by the device, and it allows the device to work in the Multi-address, Load Balance and Net-fault Tolerance modes.

**Multi-address Mode:** The parameters of the two NIC cards can be configured independently. You can select LAN1 or LAN2 in the **NIC Type** field for parameter settings.

You can select one NIC card as a default route. Then when the system is connecting with the extranet the data will be forwarded through the default route.

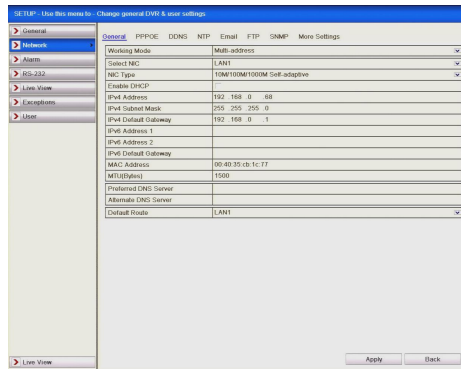


Figure 9.1b Multi-address Working Mode

**Load Balance Mode:** By using the same IP address, and two NIC cards share the load of the total bandwidth, which enables the system to provide two Gigabit network capacity.

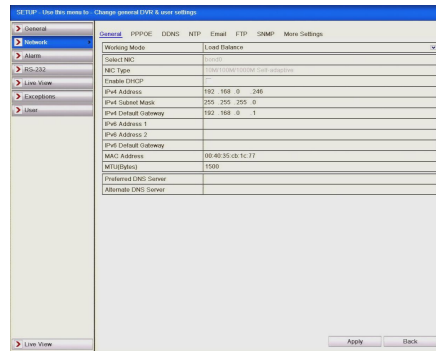


Figure 9.1c Load Balance Working Mode

**Net-fault Tolerance Mode:** The two NIC cards use the same IP address, and you can select the Main NIC to LAN1 or LAN2. By this way, in case of one NIC card failure, the device will automatically enable the other standby NIC card so as to ensure the normal running of the whole system.

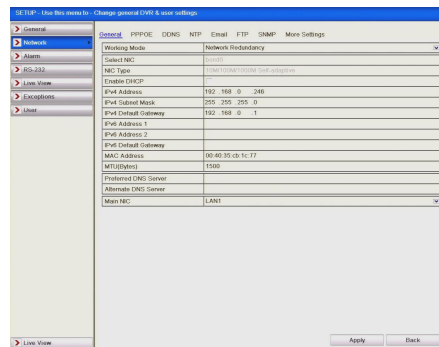


Figure 9.1d Net Fault-tolerance Working Mode



## 9.2 Configuring PPPoE Settings

**NOTE: PPPoE is not generally used in the UK and therefore not applicable.**

**Purpose:**

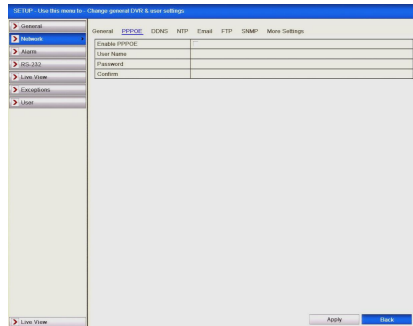
Your device also allows access by Point-to-Point Protocol over Ethernet (PPPoE).

**Steps:**

Enter the **Network Settings** interface.

**Menu > Setup > Network**

Select the **PPPoE** tab to enter the PPPoE Settings interface.

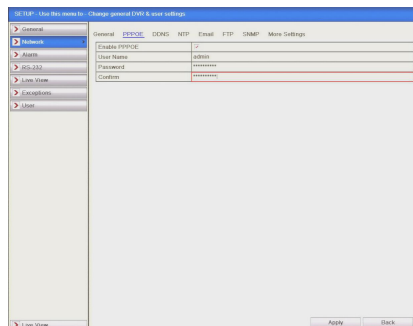


**Figure 9.2a PPPoE Settings Interface**

Check the **PPPoE** checkbox to enable this feature.

Enter **User Name**, **Password**, and **Confirm Password** for PPPoE access.

**Note:** The User Name and Password should be assigned by your ISP.



**Figure 9.2b PPPoE Settings Interface**

Click the **Apply** button to save and exit the interface.

After successful settings, the system asks you to reboot the device to enable the new settings, and the PPPoE dial-up is automatically connected after reboot.

You can go to **Menu > Tools > System Info > Network** interface to view the status of PPPoE connection.

## 9.3 Configuring DDNS

**NOTE: PPPoE is not generally used in the UK and therefore not currently applicable.**

### Purpose:

If your device is set to use PPPoE as its default network connection, you may set Dynamic DNS (DDNS) to be used for network access. However PPPoE is not generally used in the UK and therefore not currently applicable. Currently a solution is now under development and further information will be available on the [www.IPPostcode.com](http://www.IPPostcode.com) website.

### Steps:

Enter the Network Settings interface.

**Menu > Setup > Network > DDNS**

Select the **DDNS** tab to enter the DDNS Settings interface.

Figure 9.3a DDNS Settings Interface

1. Check the **DDNS** checkbox to enable this feature.
2. Select **DDNS Type**. Four different DDNS types are selectable: IPServer, DynDNS, PeanutHull and NO-IP.

**IPServer:** Enter **Server Address** for IPServer.

**Note:** The **Server Address** should be entered with the IP address of the PC that runs IPServer.

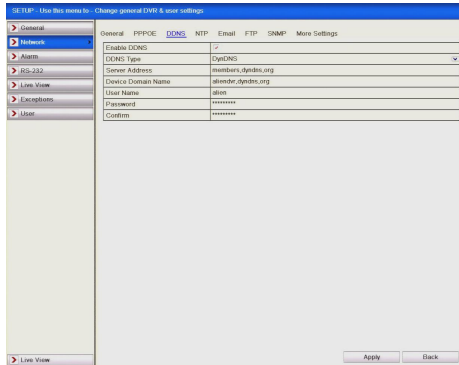
Figure 9.3b IPServer Settings Interface

**DynDNS:**

Enter **Server Address** for DynDNS (e.g. members.dyndns.org).

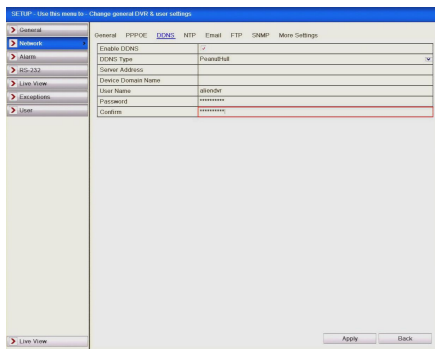
In the **Device Domain Name** text field, enter the domain obtained from the DynDNS website.

Enter the **User Name** and **Password** registered in the DynDNS website.



**Figure 9.3c DynDNS Settings Interface**

**PeanutHull:** Enter User Name and Password obtained from the PeanutHull website.



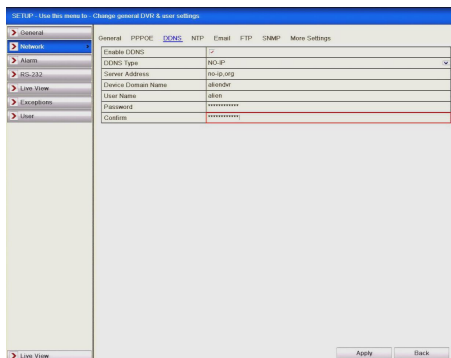
**Figure 9.3d Peanut Hull Settings Interface**

**NO-IP:**

Enter the account information in the corresponding fields. Refer to the DynDNS settings.

1. Enter **Server Address** for NO-IP.
2. In the **Device Domain Name** text field, enter the domain obtained from the NO-IP website (www.no-ip.com).

Enter the **User Name** and **Password** registered in the NO-IP website.



**Figure 9.3e NO-IP Settings Interface**

Click the **Apply** button to save and exit the interface.

## 9.4 Configuring NTP Server

### Purpose:

A Network Time Protocol (NTP) Server can be configured on your DVR to ensure the system date/time in the DVR matches the NTP server date and time.

### Steps:

Enter the Network Settings interface.

**Menu > Setup > Network > NTP**

Select the **NTP** tab to enter the NTP Settings interface.

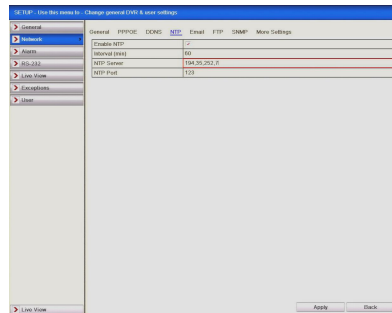


Figure 9.4a NTP Settings Interface

Check the **Enable NTP** checkbox to enable this feature.

Configure the following NTP settings:

**Interval:** Time interval period for the time check on the NTP server. See note below.

**NTP Server:** IP address of NTP server.

**NTP Port:** Port of NTP server.

Click the **Apply** button to save and exit the interface.

**Note:** The time synchronisation interval can be set from 1 to 10080 minutes and the default value is 60 minutes. If the device is connected to a public network, you should use an NTP server that has a time synchronisation function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the device is setup in a more customised network, NTP software can be used to establish an alternative NTP server used for time synchronisation.

## 9.5 Configuring FTP Server

### Purpose:

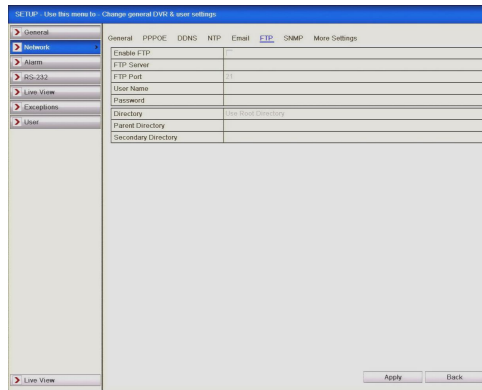
The FTP can be configured on your DVT for dual-directional transmission of control files over the Internet. DVR Captured JPEG pictures can be uploaded to FTP server as well.

### Steps:

Enter the Network Settings interface.

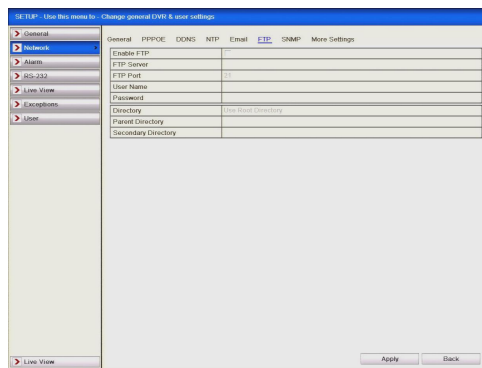
**Menu > Setup > Network > FTP**

Select the **FTP** tab to enter the FTP Settings interface.



**Figure 9.5a FTP Settings Interface**

Check the **Enable FTP** checkbox to enable this feature. Configure the FTP settings, including FTP server, port, user name, password and the directory.



**Figure 9.5b Configure FTP Settings**

**Directory:** In the **Directory** field, you can select the Root Directory, Parent directory and secondary directory. When the Parent Directory is selected, you have the option to use the Device Name, Device No or Device IP for the name of the directory; and the when the Secondary Directory is selected, you can use the Camera Name or Camera No. as the name of the directory.

Click the **Apply** button to save and exit the interface.

**Note:** Please make sure the remote FTP server has been started up before setting the FTP parameters.

## 9.6 Configuring SNMP

### Purpose:

You can use the SNMP protocol to get device status and parameter related information.

### Steps:

Enter the Network Settings interface.

**Menu > Setup > Network > SNMP**

Select the **SNMP** tab to enter the SNMP Settings interface.

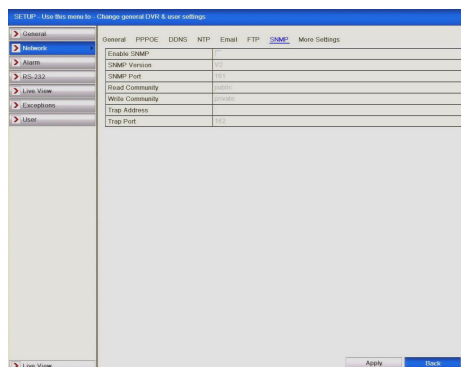


Figure 9.6a SNMP Settings Interface

Check the **SNMP** checkbox to enable this feature.  
Configure the SNMP settings.

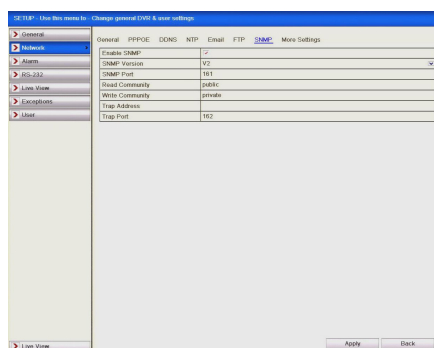


Figure 9.6b Configure SNMP Settings

Click the **Apply** button to save and exit the interface.

**Note:** Before setting the SNMP, please download the SNMP software to receive the DVR information via the SNMP port. By setting the Trap Address, the DVR is allowed to send the alarm event and exception message to the surveillance center.

## 9.7 Configuring Remote Alarm Host

**This function is not available on this DVR. Use the Alarm software feature as detailed in the CCTVWindow client software manual.**

## 9.8 Configuring Multicast

### Purpose:

The multicast can be configured to display a live view for more than the maximum number of cameras on the network. For this DVR, the maximum number is 128. A

multicast address spans the Class-D IP range of 224.0.0.0 to 239.255.255.255. It is recommended to use the IP address ranging from 239.252.0.0 to 239.255.255.255.

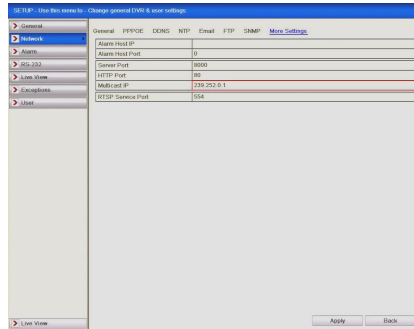
**Steps:**

Enter the Network Settings interface.

**Menu > Setup > Network > More Settings**

Select the **More Settings** tab to enter the More Settings interface.

Set **Multicast IP**. When adding a device to the client software, the multicast address must be the same as the device's multicast IP.



**Figure 9.8a Configure Multicast**

Click the **Apply** button to save and exit the interface.

## 9.9 Configuring RTSP

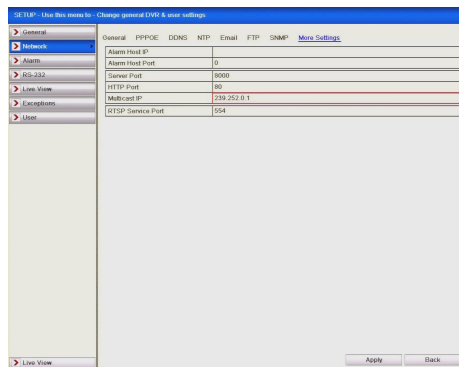
**Purpose:**

The RTSP (Real Time Streaming Protocol) is a network control [protocol](#) designed for use in entertainment and communications systems to control [streaming media servers](#).

**Steps:**

Enter the Network Settings menu using **Menu > Setup > Network > More Settings**

Select the **More Settings** tab to enter the More Settings menu.



**Figure 9.9a RTSP Settings Interface**

Enter the RTSP port in the text field of **RTSP Service Port**. The default RTSP port is 554, but you can change it within the following ranges ..... 554 or 1024 ~ 65535

Click the **Apply** button to save and exit the menu.

## 9.10 Configuring Server and HTTP Ports

### Purpose:

You can change the server and HTTP ports in the Network Settings menu. The default server port is 8000 and the default HTTP port is 80.

### Steps:

Enter the Network Settings interface.

**Menu > Setup > Network > More Settings**

Select the **More Settings** tab to enter the More Settings interface.

Enter new **Server Port** and **HTTP Port**.

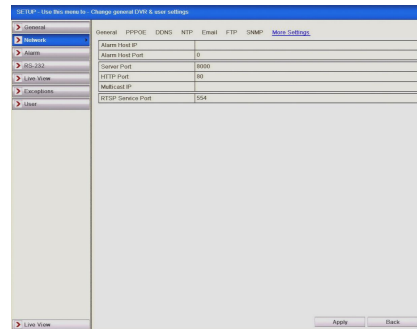


Figure 9.10a More Settings Menu

Enter the Server Port and HTTP Port in the text fields. The default Server Port is 8000 and the HTTP Port is 80, and you can change them according to the following ranges  
 ..... Server Port 8000 or 2000 ~ 65535 HTTP Port 80 or 1 ~ 20, 22, 24 ~ 65535

Click the **Apply** button to save and exit the interface.

**Note:** The Server Port is used for remote client software access and the HTTP port is used for remote IE access.

## 9.11 Configuring Email

### Purpose:

The system can be configured to send an Email notification to all designated users if an alarm event is detected or a motion detection event is detected.

Before configuring the Email settings, the device must be connected to a local area network (LAN) that maintains an SMTP mail server. The network must also be connected to either an intranet or the Internet depending on the location of the Email accounts to which you want to send notification.

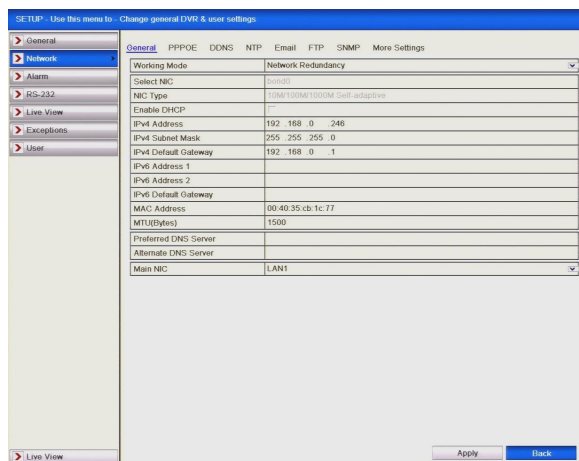
### Steps:

Enter the Network Settings interface.

**Menu > Setup > Network**

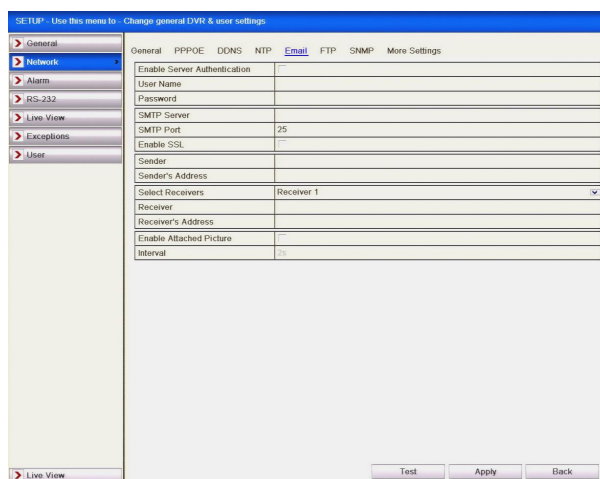
Set the IPv4 Address, IPv4 Subnet Mask, IPv4 Gateway in the Network Settings menu.





**Figure 9.11a Network Settings Interface**

Click the **Apply** button to save the settings.  
Select the **Email** tab to enter the Email Settings interface.



**Figure 9.11b Email Settings Interface**

Configure the following Email settings:

**Enable Server Authentication (optional):** Check the checkbox to enable the server authentication feature.

**User Name:** The user account of sender's Email for SMTP server authentication.

**Password:** The password of sender's Email for SMTP server authentication.

**SMTP Server:** SMTP Server IP address or host name (e.g. smtp.263xmail.com).

**TIP:** Best to use IP address. Establish by entering ping <host name>

**SMTP Port:** The SMTP port. The default TCP/IP port used for SMTP is 25.

**Enable SSL (optional):** Click the checkbox to enable SSL if required by the SMTP server.

**Sender:** The name of sender.

**Sender's Address:** The Email address of sender.

**Select Receivers:** Select the receiver. Up to 3 receivers can be configured.

**Receiver:** The name of user to be notified.

**Receiver's Address:** The Email address of user to be notified.

**Enable Attached Pictures:** Check the checkbox of **Enable Attached Picture** if you want to send email with attached alarm images.

**Interval:** The interval refers to the time between two actions of sending attached pictures.

**E-mail Test:** Sends a test message to verify that the SMTP server can be reached. Click the **Apply** button to save the Email settings.

You can click the **Test** button to test whether your Email settings work. The corresponding Attention message box will pop up.

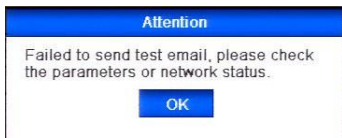


Figure 9.11c Email Testing Attention

## 9.12 Checking Network Traffic

### Purpose:

You can check the network traffic to obtain real-time information of device such as linking status, MTU, sending/receiving rate, etc.

### Steps:

Enter the Network Traffic interface.

**Menu > Tools > Net Detect > Traffic**

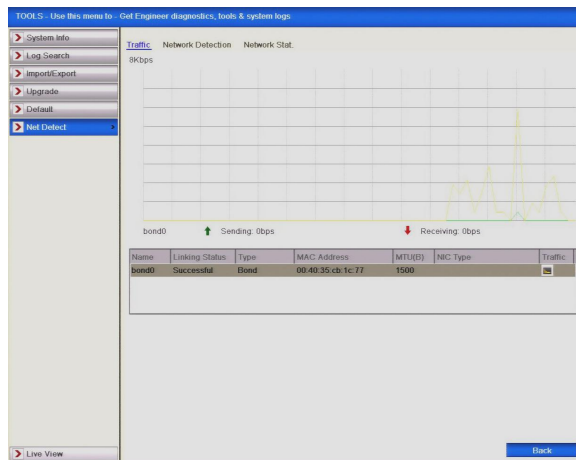


Figure 9.12a Network Traffic Interface

You can view the sending rate and receiving rate information on the interface. The traffic data is refreshed every 1 second.

### 9.13 Testing Network Delay and Packet Loss

**Purpose:**

You can obtain network connecting status of device through the network detection function, including network delay, packet loss, etc.

**Steps:**

Enter the Network Traffic interface.

**Menu > Tools > Net Detect > Network Detection**

Click the **Network Detection** tab to enter the Network Detection menu.

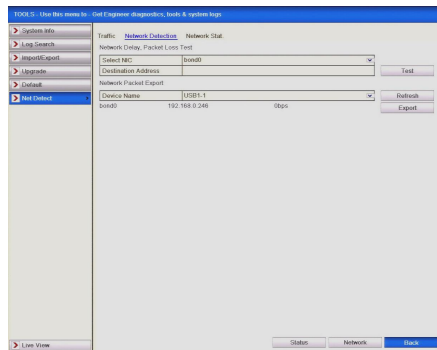


Figure 9.13a Network Detection Interface

Enter the destination address in the text field of **Destination Address**.

Click the **Test** button to start testing network delay and packet loss. The testing result pops up on the window. If the testing is failed, the error message box will pop up as well.

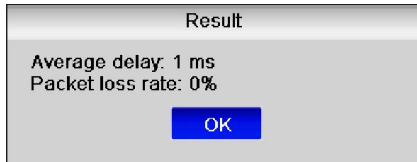


Figure 9.13b Testing Result of Network Delay



Figure 9.13c Testing Result for Packet Loss

### 9.14 Exporting Network Packet

**Purpose:**

By connecting the device to a network, the captured network data packet can be exported to a USB-flash drive, SATA/eSATA CD-RW and other local backup devices.

**Steps:**

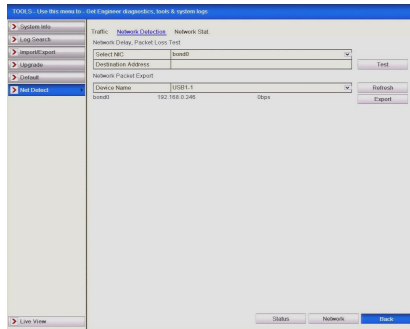
Enter the Network Traffic interface.

**Menu > Tools > Net Detect > Network Detection**

Click the **Network Detection** tab to enter the Network Detection interface.

Select the backup device from the dropdown list in Device Name.

**Note:** Click the **Refresh** button if the connected local backup device cannot be displayed. If it fails to detect the backup device, please check whether it is compatible with the device. You can format the backup device if the format is incorrect.



**Figure 9.14a Export Network Packet**

Click the **Export** button to start exporting.  
After the exporting is complete, click **OK** to finish the packet export.



**Figure 9.14b Packet Exporting**



**Figure 9.14c Packet Exporting completed**

**Note:** Up to 1M data can be exported each time.

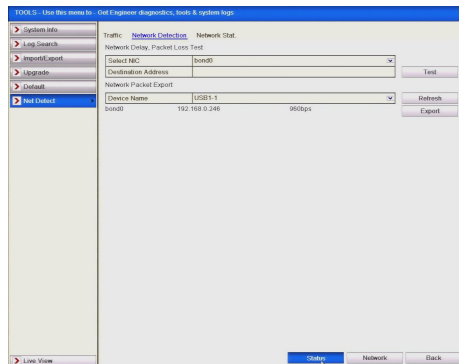
## 9.15 Checking Network Status

### Purpose:

You can also check the network status and quickly setup the network parameters in this interface.

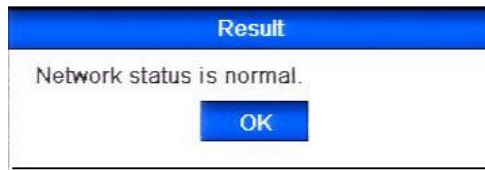
### Steps:

Click Status on the right bottom of the page.



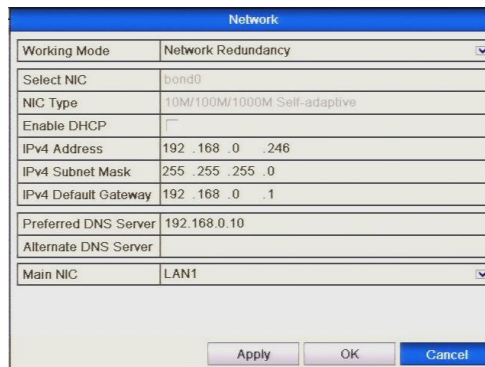
**Figure 9.15a Checking Network Status**

If the network is normal the following message displays.



**Figure 9.15b Network Status Checking Result**

If the message displays other information instead of the above, you can click the **Network** button to show the quick setting interface for network parameters.



**Figure 9.15c Network Parameters Configuration**

## 9.16 Checking Network Statistics

### Purpose:

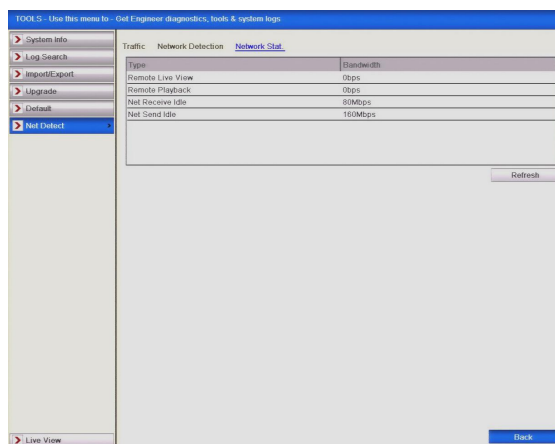
You can check the network status to obtain the real-time information of the device.

### Steps:

Enter the HDD Information interface.

**Menu > Tools > Net Detect > Network Stat**

Click the **Network Stat.** tab to enter the Network Statistics menu.



**Figure 9.16a Network Stats. Interface**

View the bandwidth of IP Camera, bandwidth of Remote Live View, bandwidth of Remote Playback, bandwidth of Net Receive Idle and bandwidth of Net Send Idle. Click **Refresh** button to get the latest bandwidth statistics.

## 10. HDD Management

### 10.1 Initialising/Formatting HDDs

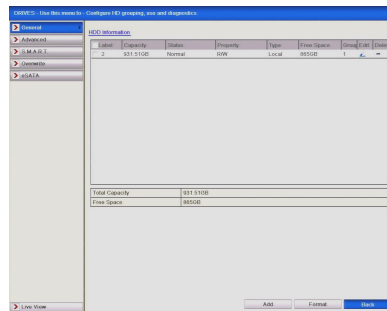
**Purpose:**

A newly installed hard disk drive (HDD) must be initialised before it can be used with your device.

**Steps:**

Enter the HDD Information interface.

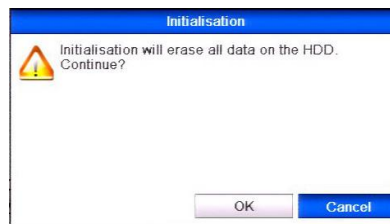
**Menu > Drives > General**



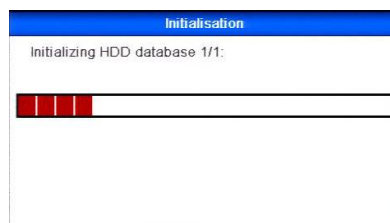
**Figure 10.1a HDD Information Interface**

Select HDD to be initialised.

Click the **Init** button.



Select the **OK** button to start initialisation.



**Figure 10.1c Start Initialisation**

After the HDD has been initialised, the status of the HDD will change from **Uninitialised** to **Normal**.

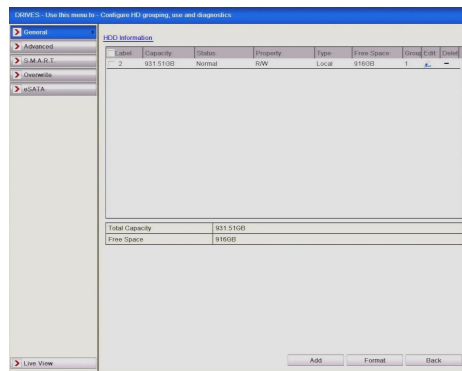


Figure 10.1d HDD Status Changes to Normal

**Note:** Initialising the HDD will erase all data on it.

## 10.2 Managing Network HDD

### Purpose:

You can add the allocated NAS or IP SAN disk to DVR and use it as a network HDD.

### Steps:

Enter the HDD Information interface.

Menu > Drives > General

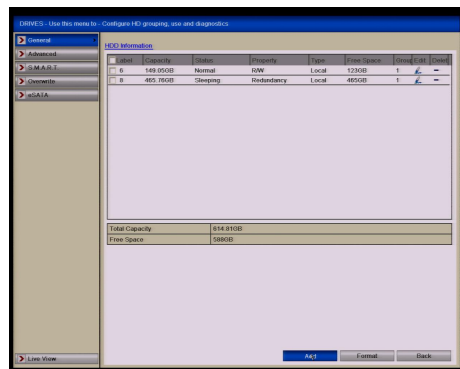


Figure 10.2a HDD Information Interface

Click the **Add** button to enter the Add NetHDD interface.

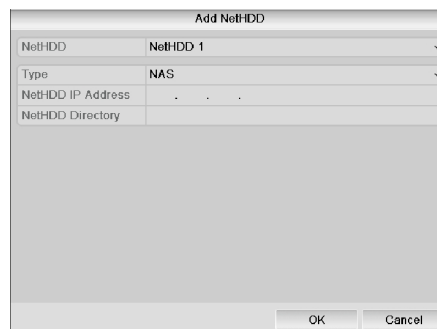


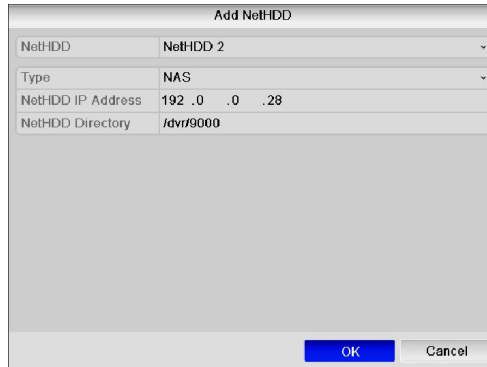
Figure 10.2b Adding NetHDD Interface



Add the allocated NetHDD.  
 Select the type to NAS or IP SAN.  
 Configure the NAS or IP SAN settings.

**Add NAS disk:**

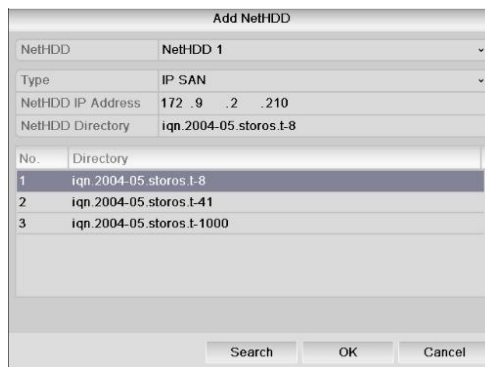
Enter the NetHDD IP address in the text field.  
 Enter the NetHDD Directory in the text field.  
 Click the **OK** button to add the configured NAS disk.  
**Note:** Up to 8 NAS disks can be added.



**Figure 10.2c1 Add NAS Disk**

**Add IP SAN:**

Enter the NetHDD IP address in the text field.  
 Click the **Search** button on the available IP SAN disks.  
 Select the IP SAN disk from the list shown below.  
 Click the **OK** button to add the selected IP SAN disk.  
**Note:** Only one IP SAN disk can be added.



**Figure 10.2c2 Add IP SAN Disk**

After having successfully added the NAS or IP SAN disk, return to the HDD Information menu. The added NetHDD will then be displayed in the list.

**Note:** If the added NetHDD is uninitialised, please select it and click the **Init** button for initialisation.



Figure 10.2d Initialise Added NetHDD

### 10.3 Managing eSATA

#### Purpose:

When there is an external eSATA device connected to the DVR, you can configure eSATA for the use of Recording/Capture or Exporting and you can manage the eSATA using the DVR.

#### Steps:

Enter the Advanced Record Settings interface.

#### Menu > Drives > eSATA

Select the eSATA type to Export or Record/Capture from the dropdown list of eSATA.

**Export:** Use the eSATA for backup. Refer to **Backup using eSATA HDDs in Chapter 7**.

**Record/Capture:** use the eSATA for record/capture. Refer to the following steps for operating instructions.

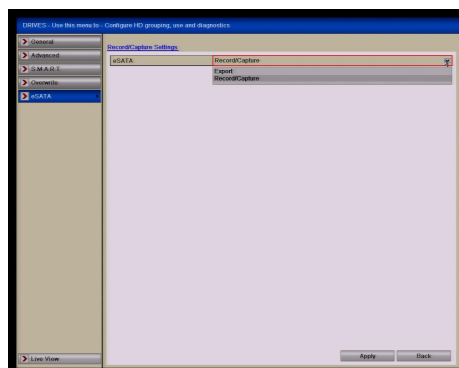


Figure 10.3a Set eSATA Mode

When the eSATA type is selected to Record/Capture, enter the HDD Information interface.

#### Menu > HDD > General

Edit the property for the selected eSATA, or initialise it as required.

**Note:** Two storage modes can be configured for eSATA when it is used for Record/Capture. Please refer to **Chapter 10.4** and **Chapter 10.5** for details.

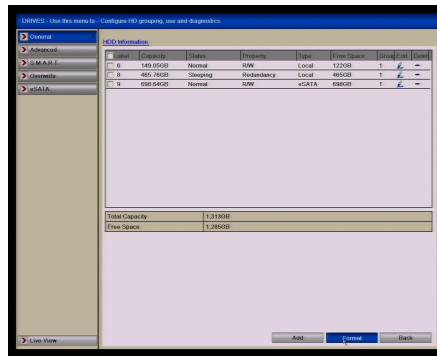


Figure 10.3b Format Added eSATA

## 10.4 Setting HDD Groups

### Purpose:

Multiple HDDs can be managed in groups. Video from specified channels can be recorded onto a particular HDD group through HDD settings.

### Steps:

Enter the Storage Mode interface.

### Menu > Drives > Advanced

Set the **Mode** to Group, as shown below.

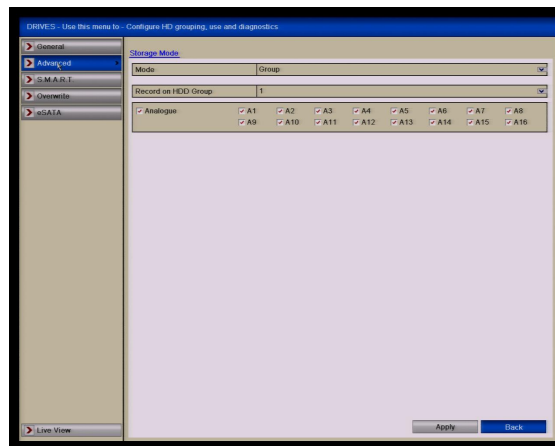


Figure 10.4a Storage Mode Interface

Click the **Apply** button and the following Attention box will display.

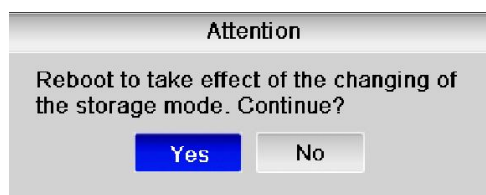
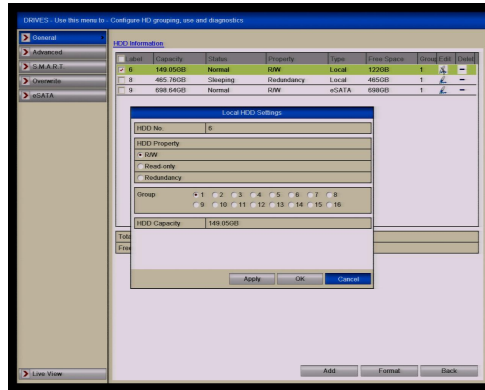


Figure 10.4b Attention for Reboot

Click the **Yes** button to reboot the device to activate the changes.  
 After reboot of device, enter the HDD Information interface.

**Menu > Drives > General**

Select HDD from the list and click the Edit icon to enter the Local HDD Settings interface.



**Figure 10.4c Local HDD Settings Interface**

Select the Group number for the current HDD.  
**Note:** The default group No. for each HDD is 1.  
 Click the **OK** button to confirm the settings.



**Figure 10.4d Confirm HDD Group Settings**

In the Attention box, click the **Yes** button to finish the settings.

## 10.5 Setting HDD Property

**Purpose:**

The HDD property can be set to redundancy, read-only or read/write (R/W). Before setting the HDD property, please set the storage mode to Group (refer to Chapter 10.4 Setting HDD Groups).

A HDD can be set to read-only to prevent important recorded files from being overwritten when the HDD becomes full in overwrite recording mode.

When the HDD property is set to redundancy, the video can be recorded both on the redundancy HDD and the R/W HDD simultaneously so as to ensure high security and reliability of video data.

**Steps:**

Enter the HDD Information interface.

**Menu > Drives > General**

Select HDD from the list and click the Edit icon to enter the Local HDD Settings interface.

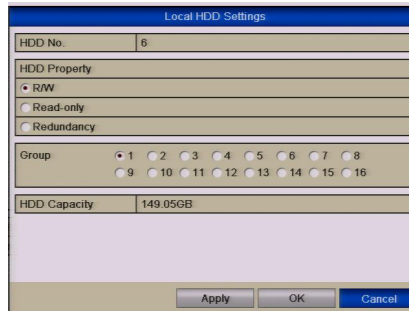


Figure 10.5a Set HDD Property

Set the HDD property to R/W, Read-only or Redundancy. Click the OK button to save the settings and exit the interface.

In the HDD Information menu, the HDD property will be displayed in the list.

**Note:** At least 2 hard disks must be installed on your device when you want to set a HDD to Redundancy, and there is one HDD with R/W (Read/Write) capability.

## 10.6 Configuring Quota Mode

### Purpose

Each camera can be configured with allocated quota for the storage of recorded files or captured pictures.

### Steps

Enter the Storage Mode interface.

**Menu > HDD > Advanced**

Set the **Mode** to Quota.

**Note:** The device must be rebooted to enable the changes to take effect.

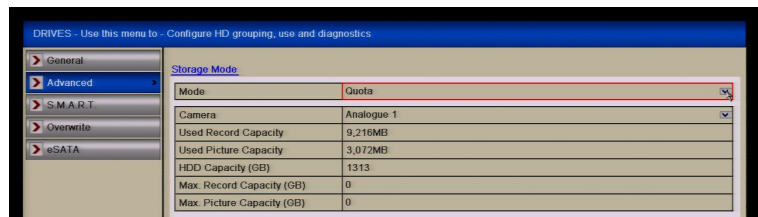
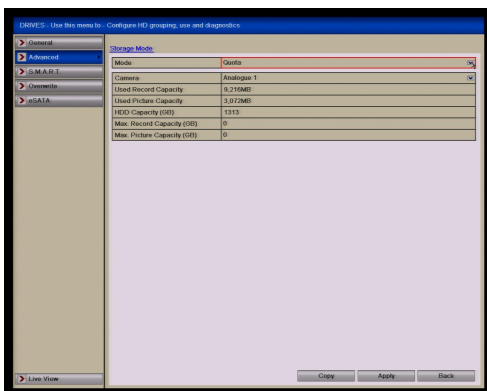


Figure 10.6a Storage Mode Settings Interface

Select a camera that you want to configure for quota. Enter the storage capacity in the text fields **Max. Record Capacity (GB)** and **Max. Picture Capacity (GB)** as shown below.

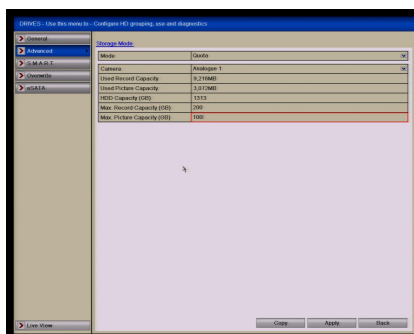


Figure 10.6b Configure Record/Picture Quota

You can copy the quota settings of the current camera to other cameras if required. Click the **Copy** button to enter the Copy Camera menu, as shown below.

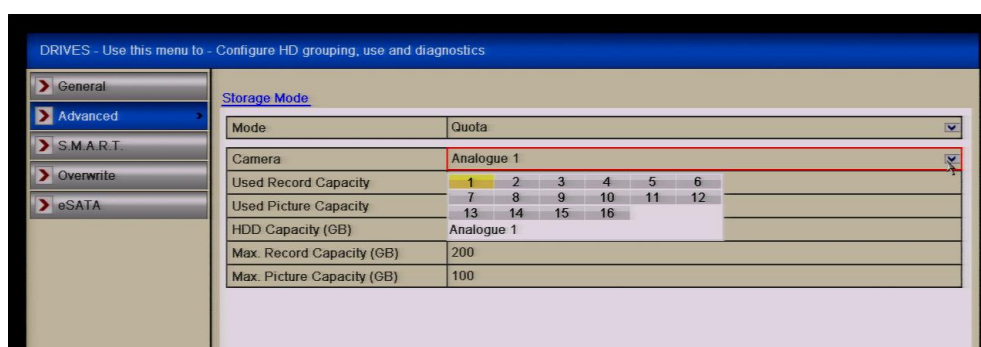


Figure 10.6c Copy Settings to Other Camera(s)

Select the camera (s) to be configured with the same quota settings. You can also click the checkbox for all **Analogue** cameras.

Click the **OK** button to finish the Copy settings and return to the Storage Mode interface.

Click the **Apply** button to apply the settings.

**Note:** If the quota capacity is set to **0**, then all cameras will use the total capacity of HDD for record and picture capture.

## 10.7 Checking HDD Status

### Purpose:

You may check the status of the installed HDDs on the DVR so as to take an immediate check in case of HDD failure.

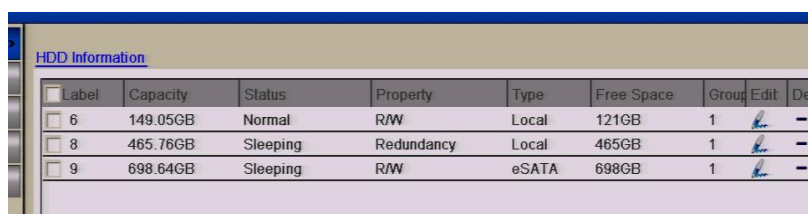
### Checking HDD Status in HDD Information Interface

#### Steps:

Enter the HDD Information interface.

#### Menu > Drives > General

Check the status of each HDD which is displayed on the list.



Label	Capacity	Status	Property	Type	Free Space	Group	Edit	De
6	149.05GB	Normal	R/W	Local	121GB	1		-
8	465.76GB	Sleeping	Redundancy	Local	465GB	1		-
9	698.64GB	Sleeping	R/W	eSATA	698GB	1		-

**Figure 10.7a View HDD Status (1)**

**Note:** If the status of the HDD is **Normal** or **Sleeping** it is working normally. If the status is **Uninitialised** or **Abnormal**, please initialise (format) the HDD before use. If the HDD format fails, please replace HDD.

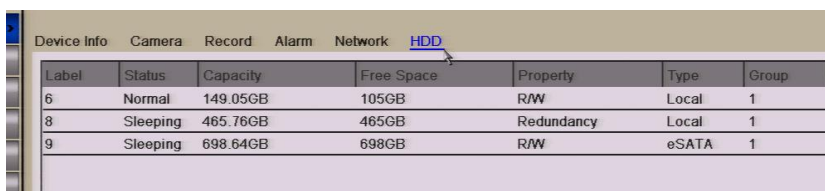
### Checking HDD Capacity/Free Space in HDD Information Interface

#### Steps:

Enter the System Information interface.

**Menu > Tools > System Info > Tools**

Click the **HDD** tab to view the status of each HDD displayed on the list.



Label	Status	Capacity	Free Space	Property	Type	Group
6	Normal	149.05GB	105GB	R/W	Local	1
8	Sleeping	465.76GB	465GB	Redundancy	Local	1
9	Sleeping	698.64GB	698GB	R/W	eSATA	1

**Figure 10.7b View HDD Status (2)**

## 10.8 Checking S.M.A.R.T. Information

### Purpose:

The S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) is a monitoring system for the HDD that detects and reports on various indicators of reliability in the hope of anticipating a failure.

### Steps:

Enter the S.M.A.R.T. Settings interface.

**Menu > Drives > S.M.A.R.T.**

Select the HDD to view its S.M.A.R.T. information list.

**Note:** If you want to use the HDD even when the S.M.A.R.T. check is displaying failed, you can select the checkbox before the **Use the disk when failed** item.

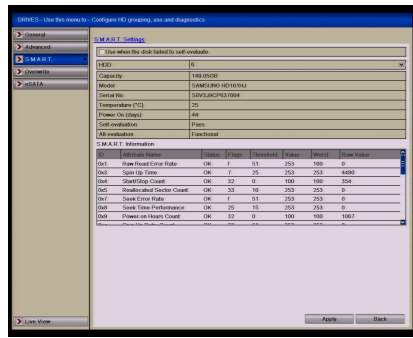


Figure 10.8a S.M.A.R.T. Settings Interface

## 10.9 Configuring HDD Error Alarms

### Purpose:

You can configure the HDD error alarms when the HDD status is **Uninitialised** or **Abnormal**.

### Steps:

Enter the Exception interface.

### Menu > Setup > Exceptions

Select the Exception Type **HDD Error** from the dropdown list.

Click the checkbox(s) below to select the HDD error alarm type (s), as shown below.

**Note:** The alarm type can be selected from: Audio Warning, Notify Surveillance Center, Send Email and Trigger Alarm Output.

Please refer to **Chapter 8 Setting Alarm Response Actions**.

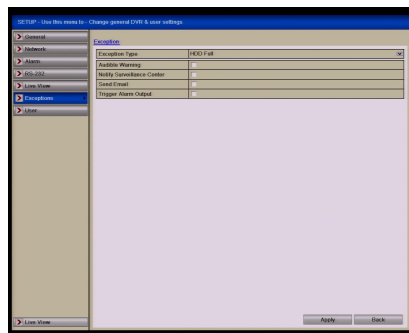


Figure 10.9a Configure HDD Error Alarm

When the Trigger Alarm Output is selected, you can also select the alarm output to be triggered from the list below.

Click the **Apply** button to save the settings.

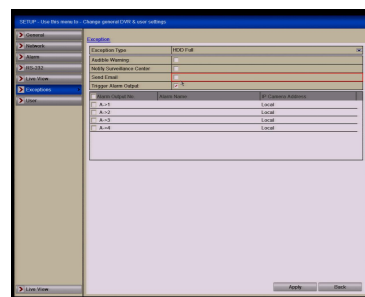


Figure 10.9b List of Alarm Outputs



## 11. Camera Settings

### 11.1 Configuring OSD Settings

**Purpose:**

You can configure the OSD (On-screen Display) settings for the camera, including date /time, camera name, etc.

**Steps:**

Enter the OSD Configuration interface.

**Menu > Video > OSD**

Select the camera to configure OSD settings.

Edit the Camera Name in the text field.

Configure the Display Name, Display Date and Display Week by clicking the checkbox.

Select the Date Format, Time Format and Display Mode.

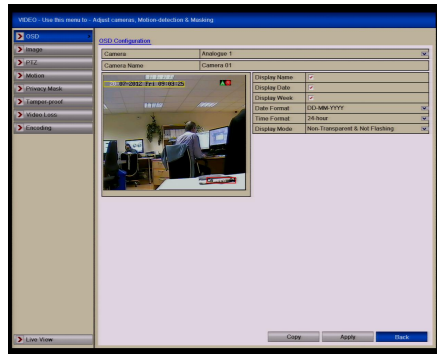


Figure 11.1a OSD Configuration Interface

You can use the mouse to click and drag the text frame on the preview window to adjust the OSD position.

**Copy Camera Settings**

If you want to copy the OSD settings of the current camera to other cameras, click the **Copy** button to enter the Copy Camera interface, as shown below.

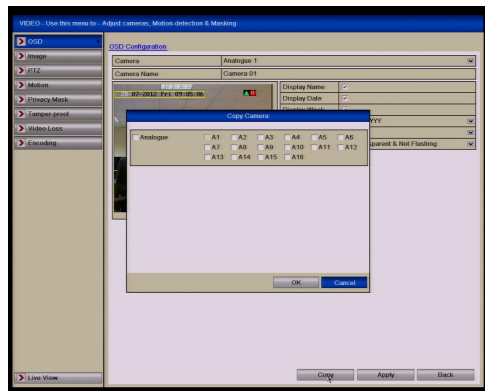


Figure 11.1b Copy Settings to Other Cameras

Select the camera (s) to be configured with the same OSD settings. You can also click the Analogue checkbox to select all cameras.

Click the **OK** button to finish the Copy settings and back to the OSD Configuration interface.

Click the **Apply** button to apply the settings.

## 11.2 Configuring Privacy Mask

### Purpose:

You are allowed to configure the four-sided privacy mask zones that cannot be viewed by the operator.

### Steps:

Enter the Privacy Mask Settings interface.

### Menu > Video > Privacy Mask

Select the camera to set privacy mask.

Click the checkbox of **Enable Privacy Mask** to enable this feature.

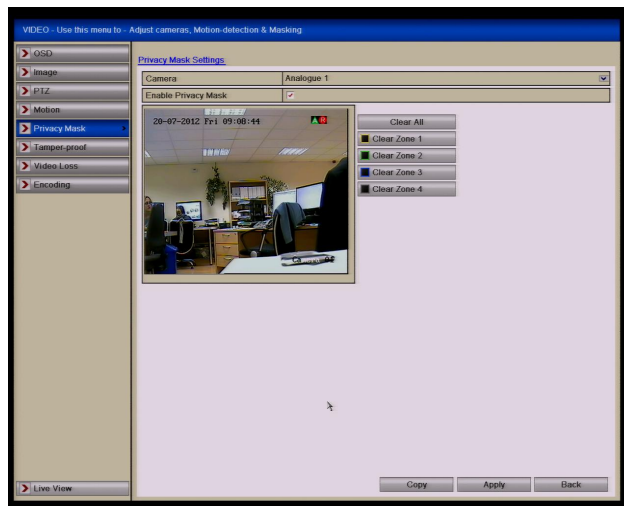


Figure 11.2a Privacy Mask Settings Interface

Use the mouse to draw a zone on the window. The zones will be marked with different frame colors.

**Note:** Up to 4 privacy mask zones can be configured, and the size of each area can be adjusted.

The configured privacy mask zones on the window can be cleared by clicking the corresponding Clear Zone1-4 icons on the right side of the window, or click **Clear All** to clear all zones.

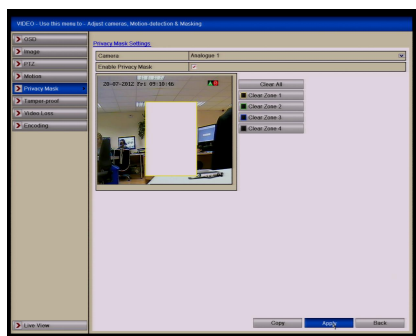


Figure 11.2b Set Privacy Mask Area

You can click the **Copy** button to copy the privacy mask settings of the current camera to other cameras. Please refer to **Chapter 11.1 Configuring OSD Settings**. Click the **Apply** button to save the settings.

### 11.3 Configuring Video Parameters

#### Steps:

Enter the Image Settings interface.

**Menu > Video > Image**

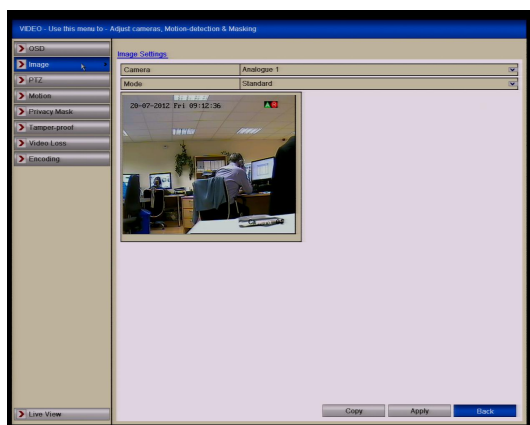
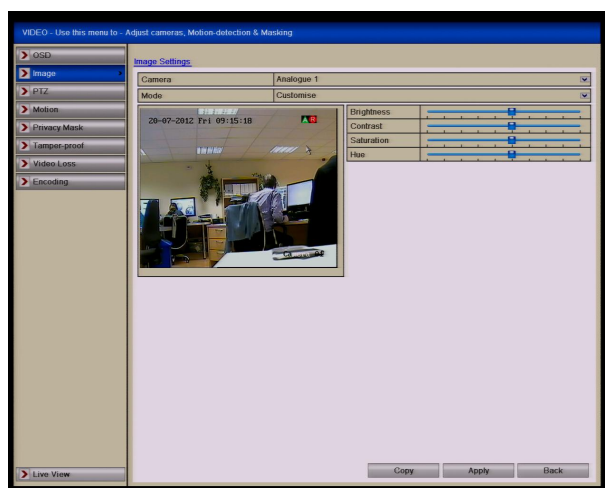


Figure 11.3a Image Settings Interface

Select the camera to set image parameters.

Select the mode from the dropdown list in **Mode**. Five modes are selectable: Standard, Indoor, Dim Light, Outdoor and Customise.

When the mode is selected for customising, you can adjust the video parameters, including Brightness, Contrast, Saturation and Hue.



**Figure 11.3b Configure Customised Image Settings**

You can click the **Copy** button to copy the image settings of the current camera to other cameras. Please refer to **Chapter 11 Configuring OSD Settings**.

Click the **Apply** button to save the settings.

## 12. Device Management and Maintenance

### 12.1 Viewing Device Information

**Steps:**

Enter the System Information interface.

**Menu > Tools > System Info > Device Info**

Click the **Device Info** tab to enter the Device Information menu to view the device name, model, serial number, firmware version and encoding version.

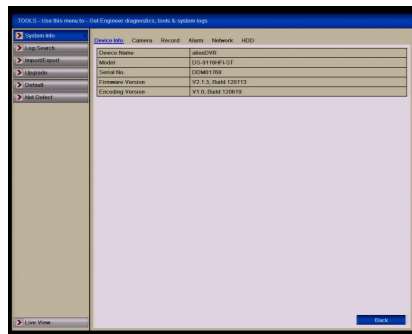


Figure 12.1a Device Information Interface

### 12.2 Viewing Camera Information

**Steps:**

Enter the System Information interface.

**Menu > Tools > System Info > Camera**

Click the **Camera** tab to enter the Camera Information menu to view the status of each camera, as shown in Figure 12.2a.

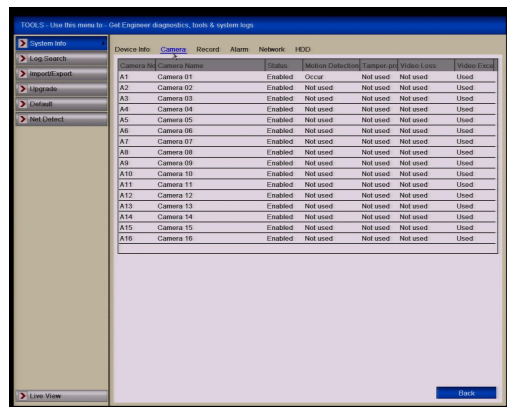


Figure 12.2a Camera Information Interface

## 12.3 Viewing Record Information

### Steps:

Enter the System Information interface.

**Menu > Tools > System Info > Record**

Click the **Record** tab to enter the Record Information menu to view the recording status and encoding parameters of each camera.

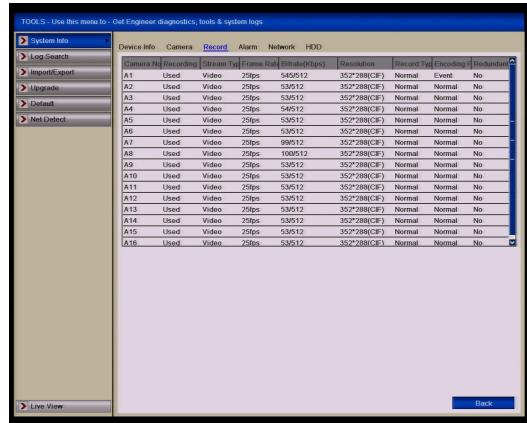


Figure 12.3a Record Information Interface

## 12.4 Viewing Alarm Information

### Steps:

Enter the System Information interface.

**Menu > Tools > System Info > Alarm**

Click the **Alarm** tab to enter the Alarm Information menu to view the alarm information.

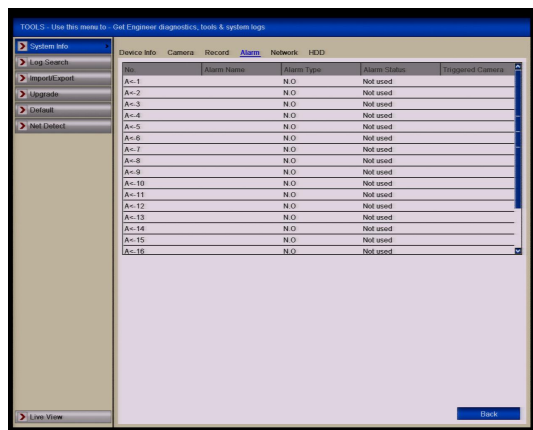


Figure 12.4a Alarm Information Interface

## 12.5 Viewing Network Information

### Steps:

Enter the System Information interface.

**Menu > Tools > System Info > Network**

Click the **Network** tab to enter the Network Information menu to view the network information.

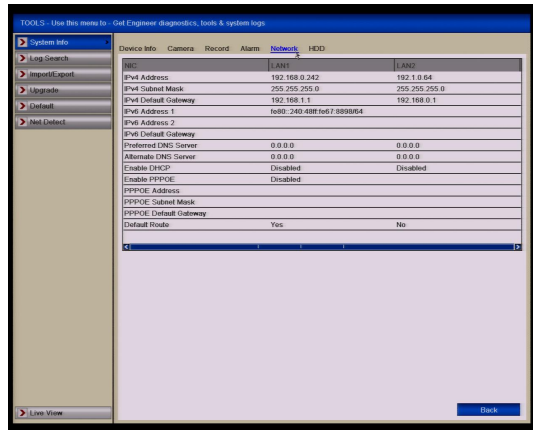


Figure 12.5a Network Information Interface

## 12.6 Viewing HDD Information

### Steps:

Enter the System Information interface.

**Menu > Tools > System Info > HDD**

Click the **HDD** tab to enter the HDD Information menu to view the HDD status, free space, property, etc.

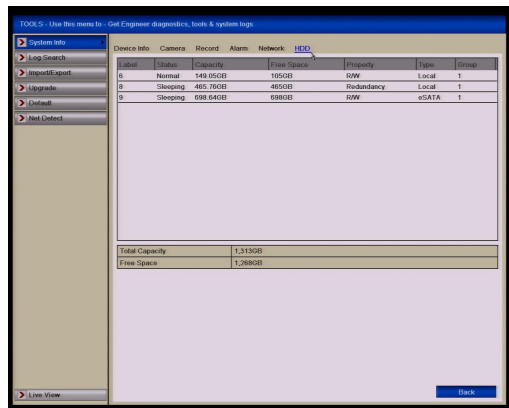


Figure 12.6a HDD Information Interface

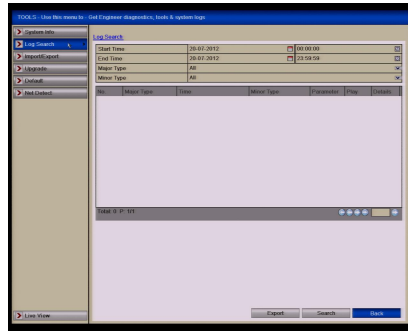
## 12.7 Searching and Exporting Log Files

### Purpose:

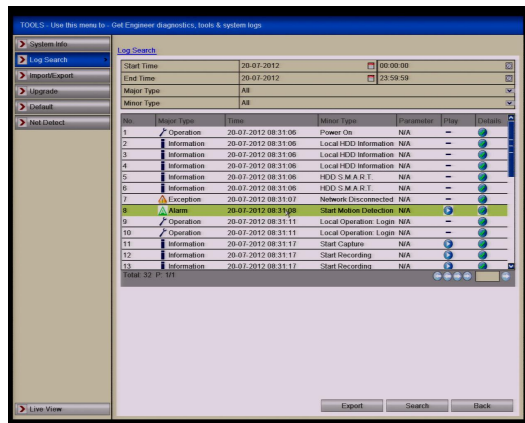
The operation, alarm, exception and information of the device can be stored in log files, which can be viewed and exported at any time.

### Steps:


Enter the Log Search interface.  
**Menu > Tools > Log Search**

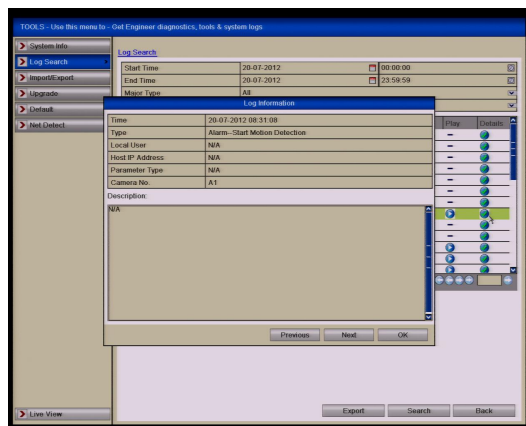


Set the log search conditions to refine your search, including the Start Time, End Time, Major Type and Minor Type.  
 Click the **Search** button to start searching log files.  
 The matched log files will be displayed on the list shown below.  
**Note:** Up to 2000 log files can be displayed each time.



**Figure 12.7b Log Search Results**

You can click the  button of each log or double click it to view its detailed information, as shown. Also you can click the  button to view the related video files if available.



**Figure 12.7c Log Details**



If you want to export the log files, click the Export button to enter the Export menu.

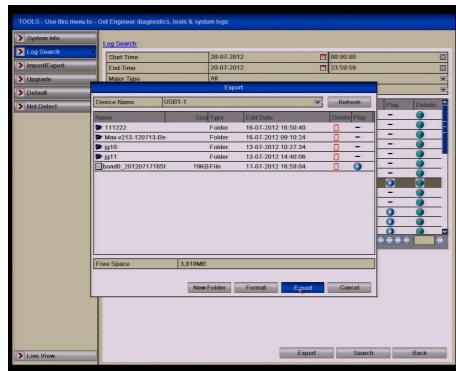


Figure 12.7d Export Log Files

Select the backup device from the dropdown list of **Device Names**.  
 Click **Export** to export the log files to the selected backup device.  
 You can click the **New Folder** button to create a new folder on the backup device or click the **Format** button to format the backup device before exporting log files.

**Note:**Please connect the backup device to the DVR before operating log export. The log files exported to the backup device are named by exporting time, e.g., **20110514124841logback.txt** (yyyymmddhhmss)

## 12.8 Importing/Exporting Configuration Files

### Purpose:

The configuration files of the device can be exported to local device for backup; and the configuration files of one device can be imported to multiple device devices if they are to be configured with the same parameters.

### Steps:

Enter the Import/Export Configuration File interface.

**Menu > Tools > Import/Export > Import/Export Config File**

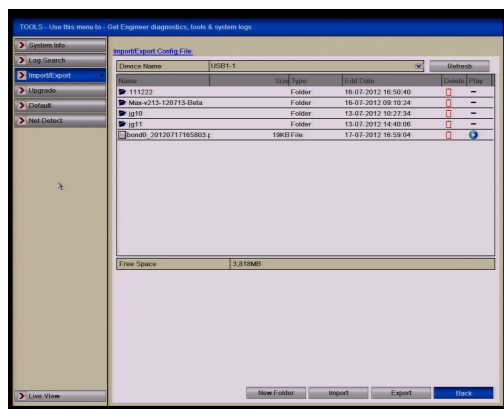


Figure 12.8a Import/Export Config File

Click the **Export** button to export configuration files to the selected local backup device. To import a configuration file, select the file from the selected backup device and click the **Import** button. After the import process is completed, you must reboot the device.

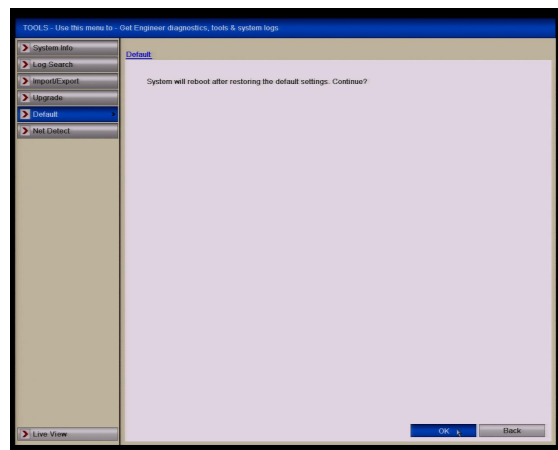
**Note:** After having finished the import of configuration files, the device will reboot automatically.

## 12.9 Restoring Default Settings

### Steps:

Enter the Default interface.

**Menu > Tools > Default**



**Figure 12.9a Restore Factory Default**

Click the **OK** button to restore the default settings.

**Note:** Except for network parameters (including IP address, subnet mask, gateway, MTU, NIC working mode, default route and server port), all other parameters on the DVR will be restored to factory default settings.

## 13. Upgrading the Firmware

### Purpose:

The firmware on your device can be upgraded by local backup device or remote FTP server.

### 13.1 Upgrading by Local Backup Device

#### Steps:

Connect your device with a local backup device where the update firmware file is located.

Enter the Upgrade interface.

**Menu > Tools > Upgrade > Local Upgrade**

Click the **Local Upgrade** tab to enter the local upgrade menu.

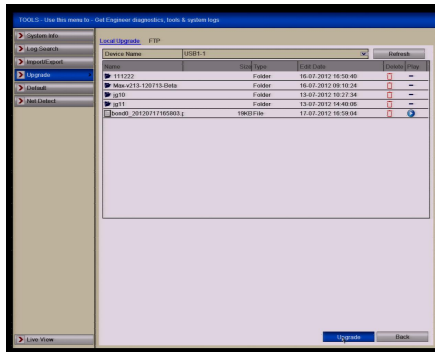


Figure 13.1a Local Upgrade Interface

Select the update file from the backup device.

Click the **Upgrade** button to start upgrading.

After the upgrading is complete, reboot the device to activate the new firmware.

### 13.2 Upgrading by FTP

#### Before you start:

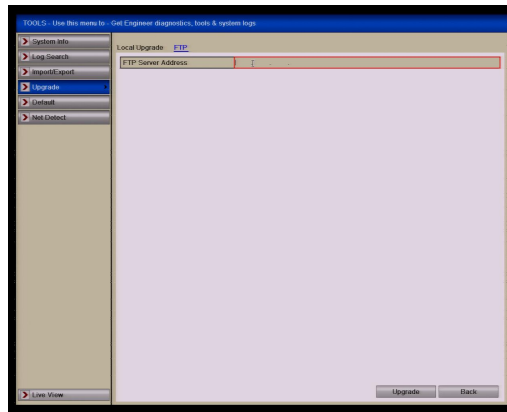
Configure PC (running FTP server) and DVR on the same Local Area Network. Run the 3<sup>rd</sup>-party TFTP software on the PC and copy the firmware into the root directory of TFTP.

#### Steps:

Enter the Upgrade interface.

**Menu > Tools > Upgrade > FTP**

Click the **FTP** tab to enter the local upgrade interface, as shown below.



**Figure 13.2a FTP Upgrade Interface**

Enter the FTP Server Address in the text field.

Click the **Upgrade** button to start upgrading.

After the upgrading is complete, reboot the device to activate the new firmware.

## 14. Configuring Other Settings

### 14.1 Configuring RS232 Serial Port

**Purpose:**

The RS-232 port can be used in two ways:

**Parameter Configuration:** Connect a PC to the device through the PC serial port. DVR parameters can be configured by using software such as HyperTerminal. The serial port parameters must be the same as the DVR's when connecting with the PC serial port.

**Transparent Channel:** Connect a serial device directly to the DVR. The serial device will be controlled remotely by the PC through the network and the protocol of the serial device.

**Steps:**

Enter the RS232 Settings interface.

**Menu > Setup > RS-232**

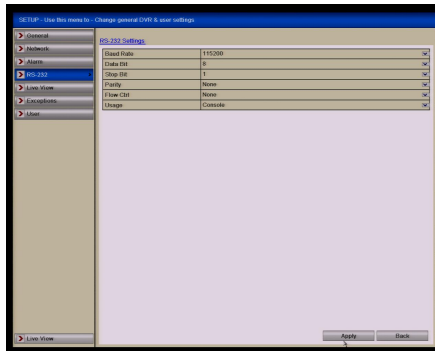


Figure 14.1 RS-232 Settings Interface

Configure RS232 parameters, including baud rate, data bit, stop bit, parity, flow control and usage.

Click the **Apply** button to save the settings.

### 14.2 Configuring General Settings

**Purpose:**

You can configure the BNC output standard, VGA output resolution, mouse pointer speed, etc.

**Steps:**

Enter the General Settings interface.

**Menu > Setup > General > General**

Select the **General** tab.

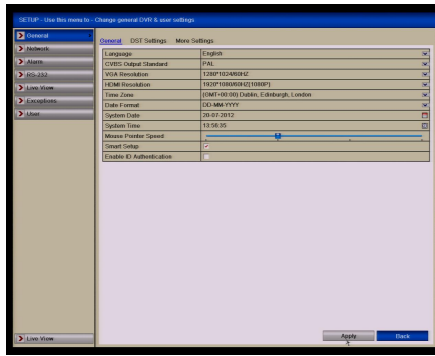


Figure 14.2a General Settings Interface

Configure the following settings:

**Language:** The default language used is **English**.

**CVBS Output Standard:** Select the CVBS output standard i.e NTSC or PAL.  
PAL is used in the UK.

**VGA Resolution:** Select the VGA output resolution, which must be the same as the resolution of the monitor screen.

**HDMI Resolution:** Select the HDMI resolution, which must be the same as the resolution of the monitor screen.

**Time Zone:** Select the time zone.

**Date Format:** Select the date format.

**System Date:** Select the system date.

**System Time:** Select the system time.

**Mouse Pointer Speed:** Set the mouse pointer speed; 4 levels are configurable.

**Enable Wizard:** Enable/disable the Wizard when the device starts up.

**Enable Password:** Enable/disable the use of the login password.

Click the **Apply** button to save the settings.

### 14.3 Configuring DST Settings

Daylight Saving Time changes

#### Steps:

Enter the General Settings interface.

**Menu > Setup > General > DST Settings**

Choose **DST Settings** tab.

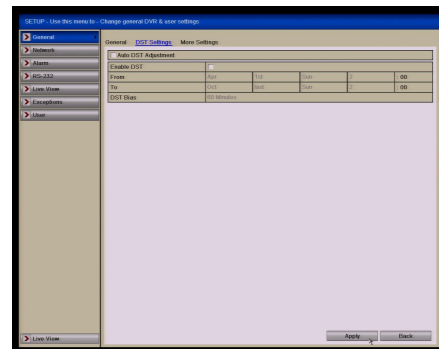


Figure 14.3a DST Settings Interface

You can click the checkbox before the **Auto DST Adjustment** item. Alternatively you can manually check the Enable DST checkbox and then you choose the dates of the DST period.

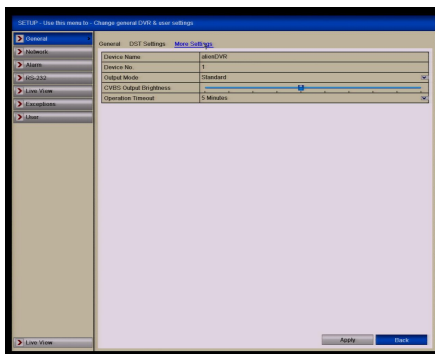
## 14.4 General More Settings

### Steps:

Enter the General Settings interface.

**Menu > Setup > General > More Settings**

Click the **More Settings** tab to enter the More Settings interface.



**Figure 14.4a** More Settings Interface

Configure the following settings:

**Device Name:** Edit the name of device.

**Device No.:** Edit the serial number of device. The Device No. can be set in the range of 1~255, and the default No. is 255.

**Output Mode:** Select the output mode to: Standard, Bright, Gentle or Vivid.

**CVBS Output Brightness:** Adjust the video output brightness.

**Operation Timeout:** Set timeout time for menu inactivity. E.g. when the timeout time is set to 5 Minutes, then the system will exit from the current operation menu to live view screen after 5 minutes of menu inactivity.

Click the **Apply** button to save the settings.

## 15. Managing User Accounts

### Purpose:

There is a default account in the DVR: **Administrator**. The **Administrator** user name is **admin** and the password is **12345**. The **Administrator** has the permission to add and delete user and configure user parameters.

### 15.1 Adding a User

#### Steps:

Enter the User Management interface.

**Menu > Setup > User > User Management**

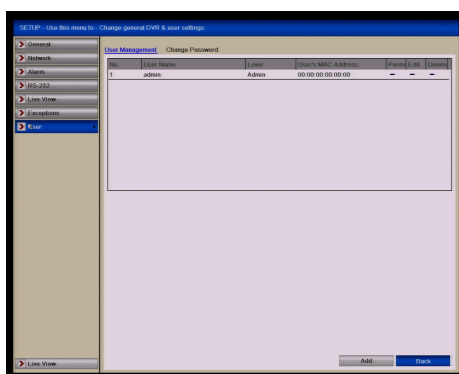


Figure 15.1a User Management Interface

Click the **Add** button to enter the Add User interface.

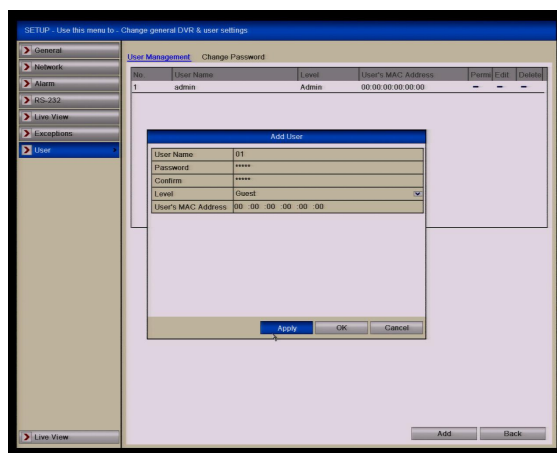


Figure 15.1b Add User Menu

Enter the information for new user, including **User Name**, **Password**, **Level** and **User's MAC Address**.

**Level:** Set the user level to **Operator** or **Guest**. Different user levels have different operating permissions.

**Operator:** The **Operator** user level has permission for a Local Log Search in Local



Configuration, Remote Log Search, Two-way Audio in Remote Configuration and all operating permissions in the Camera Configuration.

**Guest:** The Guest user has permission for Local Log Search in Local Configuration, Remote Log Search in Remote Configuration but only has local/remote playback in the Camera Configuration.

**User's MAC Address:** The MAC address of the remote PC which logs onto the device. If it is configured and enabled, it only allows the remote user with this MAC address to access the device.

Click the **OK** button to save the settings and go back to the User Management interface. The added new user will be displayed on the list, as shown below.

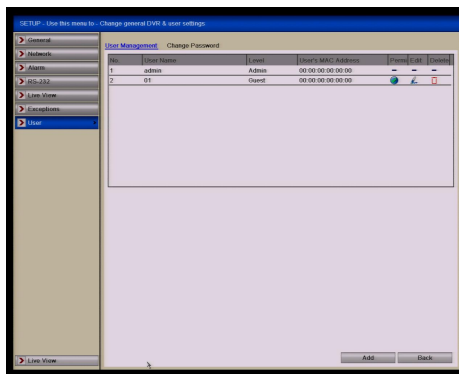



Figure 15.1c Added User Listed in User Management Interface

Select the user from the list and then click the  button to enter the Permission settings interface, as shown in Figure 15.1d & Figure 15.1e.

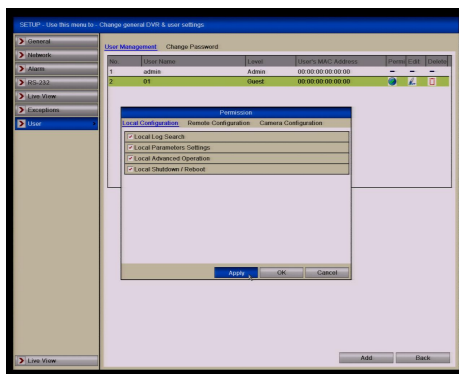


Figure 15.1d User Permission Settings Interface

Set the operating permission of Local Configuration, Remote Configuration and Camera Configuration for the user.

## Local Configuration

**Local Log Search:** Searching and viewing logs and DVR system information.

**Local Parameters Settings:** Configuring parameters, restoring factory default parameters and importing/exporting configuration files.

**Local Advanced Operation:** Operating HDD management (initialising HDD, setting HDD property), upgrading system firmware, clearing I/O alarm output.

**Local Shutdown /Reboot:** Shutting down or rebooting the device.

## Remote Configuration

**Remote Log Search:** Remotely viewing logs that are saved on the DVR.

**Remote Parameters Settings:** Remotely configuring parameters, restoring factory default parameters and importing/exporting configuration files.

**Remote Serial Port Control:** Configuring settings for RS-232 and RS-485 ports.

**Remote Video Output Control:** Sending remote control panel signal.

**Two-Way Audio:** Operating two-way audio between remote client and DVR.

**Remote Alarm Control:** Remotely arming (notify alarm and exception message to the remote client) and controlling the alarm output.

**Remote Advanced Operation:** Remotely operating HDD management (initialising HDD, setting HDD property), upgrading system firmware, clearing I/O alarm output.

**Remote Shutdown/Reboot:** Remotely shutting down or rebooting the device.

## Camera Configuration

**Remote Live View:** Remotely viewing live video for selected camera/s.

**Local Manual Operation:** Locally starting/stopping manual recording, picture capturing and alarm output for selected camera/s.

**Remote Manual Operation:** Remotely starting/stopping manual recording, picture capturing and alarm output for selected camera/s.

**Local Playback:** Locally playing back recorded files for selected camera/s.

**Remote Playback:** Remotely playing back recorded files for selected camera/s.

**Local PTZ Control:** Locally controlling PTZ movement for selected camera/s.

**Remote PTZ Control:** Remotely controlling PTZ movement for selected camera/s.

**Local Video Export:** Locally exporting recorded files for selected camera/s.

Click the **OK** button to save the settings and exit interface.

**Note:** Only the **admin** user account has the permission for restoring factory default parameters.

## 15.2 Deleting a User

### Steps:

Enter the User Management interface.

### Menu > Setup > User

Select the user to be deleted from the list, as shown below.

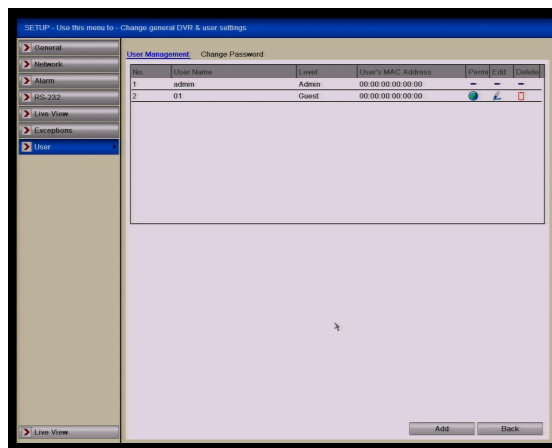



Figure 15.2a Delete a User

Click the  icon to delete the selected user.

## 15.3 Editing a User

### Steps:

Enter the User Management interface.

### Menu > Setup > User

Select the user to be edited from the list as shown below.

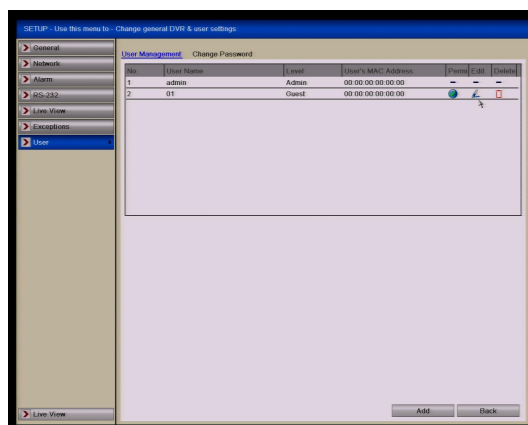
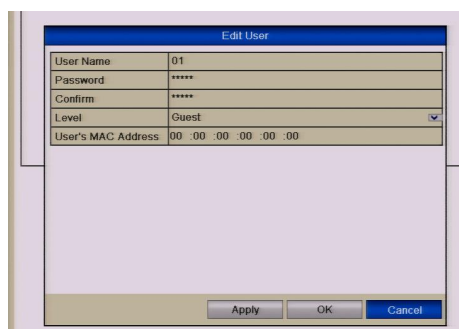


Figure 15.3a Edit a User

Click the  icon to enter the Edit User interface, as shown below.



Edit User	
User Name	01
Password	*****
Confirm	*****
Level	Guest
User's MAC Address	00 :00 :00 :00 :00 :00

**Figure 15.3b Edit User Interface**

Edit the user information, including user name, password, level and MAC address. Click the **OK** button to save the settings and exit the menu.

## 15.4 Changing Password of Admin

### **Purpose:**

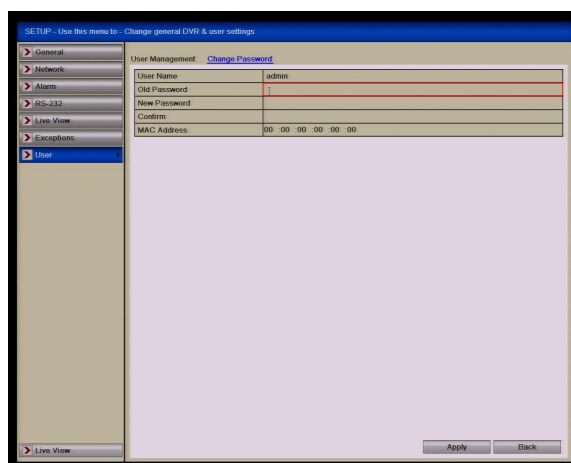
The password of the **admin** user account can be changed in the User Management menu.

### **Steps:**

Enter the User Management interface.

### **Menu > Setup > User > Change Password**

Click the **Change Password** tab to enter the Change Password menu, as shown below.



User Management Change Password	
User Name	admin
Old Password	
New Password	
Confirm	
MAC Address	00 :00 :00 :00 :00 :00

**Figure 15.4a Change Password**

Enter the old password, new password and confirm password in the menu. Click the **Save** button to save the changes.

## 16. Glossary

**Dual Stream:** Dual stream is a technology used to record high resolution video locally while transmitting a lower resolution stream over the network. The two streams are generated by the device, with the main stream having a maximum resolution of 4CIF and the sub-stream having a maximum resolution of CIF.

**DVR:** Acronym for Digital Video Recorder. A DVR is device that is able to accept video signals from analogue cameras, compress the signal and store it on its hard drives.

**HDD:** Acronym for Hard Disk Drive. A storage medium which stores digitally encoded data on platters with magnetic surfaces.

**DHCP:** Dynamic Host Configuration Protocol (DHCP) is a network application protocol used by devices (DHCP clients) to obtain configuration information for operation in an Internet Protocol network.

**HTTP:** Acronym for Hypertext Transfer Protocol. A protocol to transfer hypertext request and information between servers and browsers over a network

**PPPoE:** PPPoE, Point-to-Point Protocol over Ethernet, is a network protocol for encapsulating Point-to-Point Protocol (PPP) frames inside Ethernet frames. It is used mainly with ADSL services where individual users connect to the ADSL transceiver (modem) over Ethernet and in plain Metro Ethernet networks.

**DDNS:** Dynamic DNS is a method, protocol, or network service that provides the capability for a networked device, such as a router or computer system using the Internet Protocol Suite, to notify a domain name server to change, in real time (ad-hoc) the active DNS configuration of its configured hostnames, addresses or other information stored in DNS.

**Hybrid DVR:** A hybrid DVR is a combination of a DVR and NVR.

**NTP:** Acronym for Network Time Protocol. A protocol designed to synchronise the clocks of computers over a network.

**NTSC:** Acronym for National Television System Committee. NTSC is an analogue television standard used in such countries as the United States and Japan. Each frame of an NTSC signal contains 525 scan lines at 60Hz.

**NVR:** Acronym for Network Video Recorder. An NVR can be a PC-based or embedded system used for centralised management and storage for IP cameras, IP Domes and other DVRs.

**PAL:** Acronym for Phase Alternating Line. PAL is also another video standard used in broadcast televisions systems in large parts of the world. PAL signal contains 625 scan lines at 50Hz.

**PTZ:** Acronym for Pan, Tilt, Zoom. PTZ cameras are motor driven systems that allow the camera to pan left and right, tilt up and down and zoom in and out.

**USB:** Acronym for Universal Serial Bus. USB is a plug-and-play serial bus standard to interface devices to a host computer.

## 17. Frequently Asked Questions

### **Why does my device make a beeping sound after booting?**

The possible reasons for the warning beep on the device are as follows:

There is no HDD installed in the device, or the HDD is not initialised or HDD error. To cancel the beeping sound and use the device without HDD, enter the Exception Settings interface. For detailed information, see Chapter on Handling Exception.

### **Why does the device seem unresponsive when operating with the IR remote control?**

Please read through the section **Using the IR Remote Control**, and check:

The batteries are installed correctly in the remote, making sure that the polarities of the batteries are not reversed, the batteries are not flat and the remote has not been tampered with. Also check there are no fluorescent lamps in use nearby.

### **Why does the PTZ camera telemetry not work?**

If the PTZ seem unresponsive, please check:

The RS-485 cable is properly connected according to polarity and the protocol, baud rate and ID in the DVR PTZ menu, matches the settings in the PTZ camera.

### **Why is there no video recorded after setting the motion detection?**

If there is no recorded video after setting the motion detection, please check:

The record schedule is setup correctly by following the steps listed in **Configuring Record/Capture Schedule**.

The motion detection area is not configured correctly (See **Configuring Motion Detection**).

The correct channels are not being triggered for motion detection (See **Configuring Motion Detection**).

### **Why doesn't the DVR detect my USB device for exporting recorded files?**

There is a chance that the DVR and the USB device are not compatible. Try formatting to FAT32 in a PC first and if still having problems try an alternative brand of device.

### **My DVR is in Live View mode and the menu does not display. It does not respond to the mouse, the front panel, the remote or keyboard.**

Your device may be in auxiliary mode. This occurs when the **Main/Spot** button is pressed on the front panel. To return to the previous mode of operation, press the **Main/Spot** button again and then press **Enter** button on the front panel.

## 18. Record Timings

### 18.1 Record Timings for Alien716

#### CIF mode

Frame Rate	HDD 500Gb	HDD 1.0Tb	HDD 1.5Tb	HDD 2.0Tb	HDD 3.0Tb	HDD 4.0Tb
25	5dy 3hr	10dy 7hr	15dy 11hr	20dy 14hr	30dy 22hr	41dy 4hr
12	10dy 7hr	20dy 14hr	30dy 22hr	41dy 5hr	61dy 20hr	82dy 10hr
6	20dy 14hr	41dy 5hr	61dy 20hr	82dy 10hr	122dy 16hr	164dy 20hr
4	27dy 11hr	54dy 23hr	82dy 10hr	109dy 22hr	164dy 20hr	219dy 20hr
2	54dy 23hr	109dy 22hr	164dy 21hr	219dy 20hr	329dy 18hr	439dy 16hr
1	82dy 10hr	164dy 21hr	247dy 8hr	329dy 18hr	494dy 16hr	659dy 12hr

#### 2CIF mode

Frame Rate	HDD 500Gb	HDD 1.0Tb	HDD 1.5Tb	HDD 2.0Tb	HDD 3.0Tb	HDD 4.0Tb
25	2dy 14hr	5dy 3hr	7dy 17hr	10dy 7hr	15dy 11hr	20dy 14hr
12	5dy 3hr	10dy 7hr	15dy 11hr	20dy 14hr	30dy 22hr	41dy 5hr
6	10dy 7hr	20dy 14hr	30dy 22hr	41dy 5hr	61dy 20hr	82dy 10hr
4	13dy 16hr	27dy 11hr	41dy 5hr	54dy 23hr	82dy 10hr	109dy 22hr
2	27dy 11hr	54dy 23hr	82dy 10hr	109dy 22hr	164dy 21hr	219dy 20hr
1	54dy 23hr	82dy 10hr	123dy 16hr	164dy 21hr	247dy 8hr	329dy 18hr

#### 4CIF mode

Frame Rate	HDD 500Gb	HDD 1.0Tb	HDD 1.5Tb	HDD 2.0Tb	HDD 3.0Tb	HDD 4.0Tb
25	1dy 7hr	2dy 14hr	3dy 20hr	5dy 3hr	7dy 17hr	10dy 6hr
12	2dy 14hr	5dy 3hr	7dy 17hr	10dy 7hr	15dy 10hr	20dy 14hr
6	5dy 3hr	10dy 7hr	15dy 11hr	20dy 14hr	30dy 22hr	41dy 5hr
4	6dy 20hr	20dy 14hr	30dy 22hr	27dy 11hr	41dy 5hr	54dy 23hr
2	13dy 16hr	27dy 11hr	41dy 5hr	54dy 23hr	82dy 10hr	109dy 22hr
1	27dy 8hr	54dy 23hr	82dy 10hr	82dy 10hr	123dy 16hr	164dy 21hr

## 19. Frame Rate Settings for Alien716

<b>Frame Rate Setting</b>	<b>Frame Rate</b>
MAINSTREAM CIF	25
MAINSTREAM 2CIF	25
MAINSTREAM 4CIF	25
SUBSTREAM QCIF	YES
SUBSTREAM MAX FRAMES	25
SUBSTREAM CIF	YES
SUBSTREAM MAX FRAMES	25



## 20. Technical Data Sheet

Video Compression	H264
Video Input	16 channels BNC 1.0v p~p, 75Ω Analogue
Picture Format	PAL / NTSC adaptive
Video Output HDMI	HDMI x1
Video Output VGA	VGA x 1
Video Output CBVS	(BNC) x 1
Video Output Spot	Spot x 4 (BNC)
Video Loophroughs	16 channels on BNC
Video Bit Rate	32Kbps ~ 2048Kbps or user defined (Max. 8Mbps)
Audio Compression	OggVorbis
Audio Inputs	4 x Phono (2.0v p~p)
2 Way Audio	1 x Phono (2.0v p~p)
Audio Outputs	2 x Phono (2.0v p~p, 1K Ω
Audio Bitrate	16Kbps
Recording Resolution	4CIF, 2CIF, CIF, QCIF
Frame Rate	Max. 25 fps in PAL mode
Dual Stream	Mainstream and Substream supported
Synchronous Playback	4 channels
SATA Interfaces	8 x SATA interfaces provided – Internal writer uses 4
Hard Drive Capacity	Up to 4Tb per HDD – Max 32Tb without writer, 16Tb with
eSATA interface	1 x eSATA (External SATA interface)
Network Interfaces	2 x RJ45 10M/100M/1000M Ethernet interfaces
USB Interface	2 x USB2 Interfaces
Serial Interfaces	1 x RS485, 1 x RS485, 1 x RS485 Keyboard
Alarm Inputs	16 x channels
Alarm Outputs	4 x channels
Power Supply	100~240vAC, 6.3A, 50~60Hz
Power Consumption	35W without hard drives and DVD writer
Working Temperature	-10°C ~ +55°C
Working Humidity	10% ~ 90%
Chassis Mount	19" rack mounted 2U chassis
Dimensions	450(W) x 470(D) x 95(H)mm
Weight	8Kg (without Hard Drives and DVD Writer)