



DSD604 - 4ch DVR  
DSD608 - 8ch DVR



DSD616 - 16ch DVR



# Introduction



Our range of GEM DVRs offer 960H recording at an unbelievable price.

The 960H standard was developed with modern 16:9 widescreen monitors in mind. The increased resolution provides a 30% better quality image when compared to D1.

This compact unit boasts all the features you would expect to find on an entry level DVR plus many more.

You'll find BNC, VGA and HDMI outputs for maximum flexibility and four audio inputs. There's schedule recording, motion detection and alarm handling, USB and network backup and even UPnP.

The DVR supports simultaneous multi channel playback either locally or via a network. You can also remotely control and playback using the android and iPhone app or web server.

# Contents

Input & Control	3
Menu System	3
Live View Menu	4
Record Mode	4
Video Mode	5
Backup	5
Network	6
PTZ Config	6
HDD Management	7
P2P QR Code	7
System	8
Specifications	8

# Input & Control

The simplest way to program and set up your DVR is using a mouse, the on screen keypad and menu. We recommend you connect the mouse to the rear USB port of the DVR, leaving the front USB port free for fast backing up of footage.



Text Input



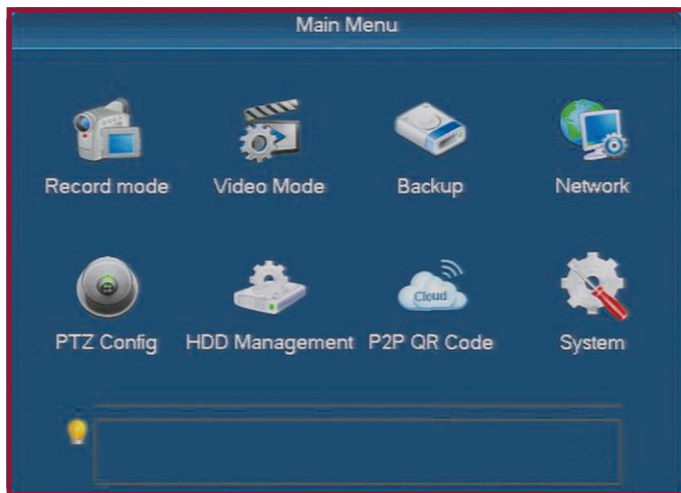
Numerical Input



USB 3 Button Mouse (Supplied)

Name	Action	Function / Description
Left-Click	Single Click	Access the Main menu. Menu: Select and/or Enter.
	Click & Drag	PTZ control: pan, tilt and zoom. Set target area. (Motion Detection etc.) Digital zoom-in: Drag and select target area. Live view: Drag channel/time bar.
Right-Click	Single Click	Live view: Display Live View 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.

# Menu System



The GEM DVRs feature an easy to use menu system to allow quick operation of all the key functions.

The menu is separated into two parts. The 'Main Menu' is used for system setup and management while the 'Live View Menu' is used for common tasks.

## Live View Menu

The DVR will start up in Live View mode. To display the Live View Menu simply right click using the mouse.

The Live View menu is further explained overleaf.

## Main Menu

To display the Main Menu enter the Live View Menu and select 'Main Menu'.

When entering the Main Menu you will be prompted to input your user name and password. The default username is 'admin'. Leave the password field blank and click 'OK'.

**Record Mode** Pg4

**Video Mode** Pg5

**Backup** Pg5

**Network** Pg6

**PTZ Config** Pg6

**HDD Management** Pg7

**P2P QR Code** Pg7

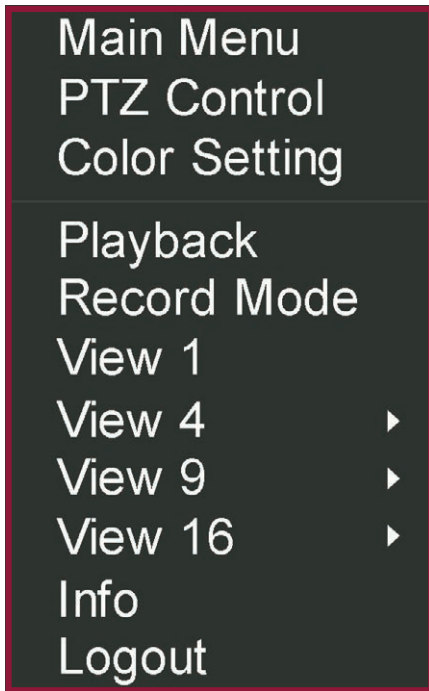
**System** Pg8

## Default Settings

**Username:** admin

**Password:** (Leave blank)

# Live View Menu



## Main Menu

Displays Main Menu.

## PTZ Control

Enter PTZ control mode.

## Color Setting

Allows you to create colour schemes such as hue, brightness, contrast for certain time periods.

## Playback

Review recorded footage.

## Record Mode

Set one or all cameras to record automatically according to schedules. Manually record or to not record at all.

## View 1

Choose 1 channel to display fullscreen.

## View 4

Choose 4 channels to be displayed in a 2x2 grid.

## View 9

Choose 9 channels to be displayed in a 3x3 grid.

## View 16

Choose 16 channels to be displayed in a 4x4 grid.

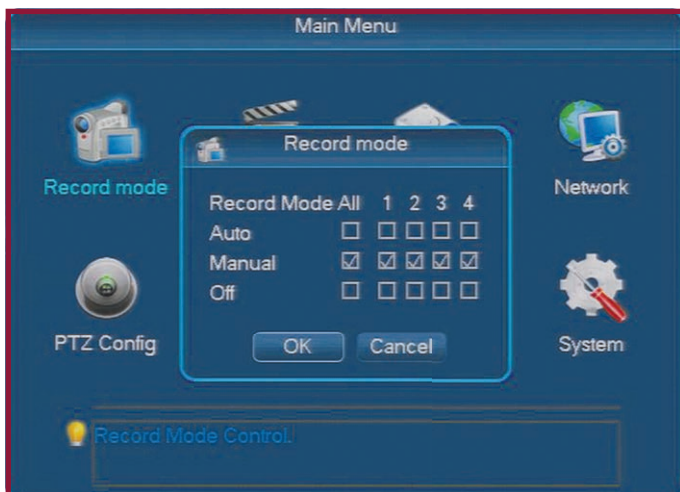
## Info

View and configure information such as HDD Management, device info and firmware number.

## Logout

Reboot, Logout our Shutdown the DVR.

# Record Mode



In this menu you can set the record mode for all cameras or selection of cameras. There are three options to choose from.

When set to '**Auto**' channels will automatically record as instructed by record schedules or alarm triggers such as motion detection or video loss.

If '**Manual**' is selected channels will only record when the operator manually starts a recording.

When set to '**Off**' the channel will not record under any circumstances.

# Video Mode



In Video Mode you will find the following options.

## Basic Config

Under the Basic Config tab you can set the record quality for the main stream and sub stream for each channel individually.

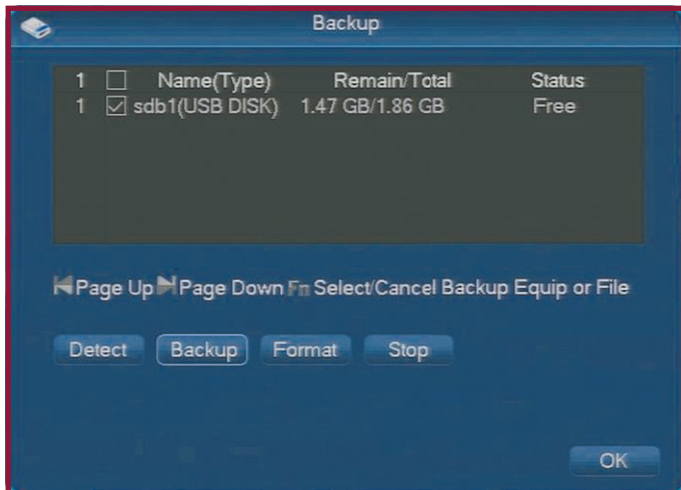
Settings such as resolution, frame rate, bit rate and audio can all be configured here.

## Record Scheme

The Record Scheme tab allows you to create a recording schedule for each channel. Channels can have unique schedules or settings can be copied for one camera to another.

The DVR can be configured to record footage during a certain time period or as a reaction to an event such as motion detection.

# Backup



The Backup menu enables you to save recorded footage onto an external USB device.

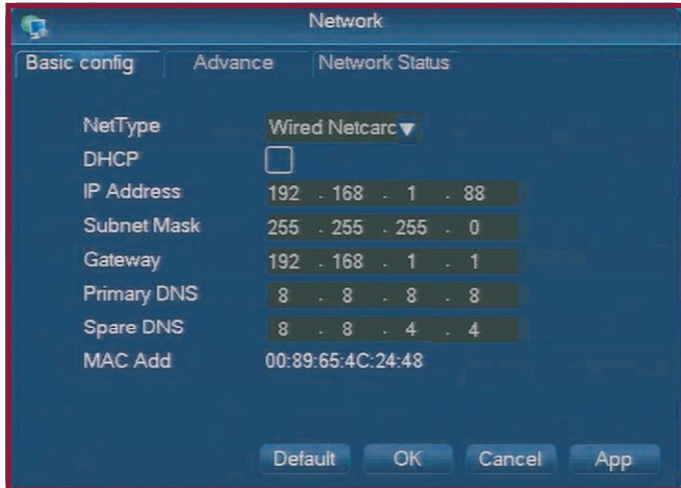
USB devices can be inserted into one of the USB sockets on the front or rear of the DVR (depending on the model) and will appear in the Backup device list.

If the backup device does not appear at first you can click '**Detect**' to search for attached devices.

Clicking '**Backup**' lets you select the files you wish to save to your USB device. You can also choose to export footage in avi format by checking the tick box.

'**Format**' allows you to erase all files currently on the USB device.

# Network



Under Network you will find the following options.

## Basic Config

Here you can setup basic network settings. This will need to be configured (as well as port forwarding and DDNS) before you can connect to and monitor the DVR remotely using the client or mobile software.

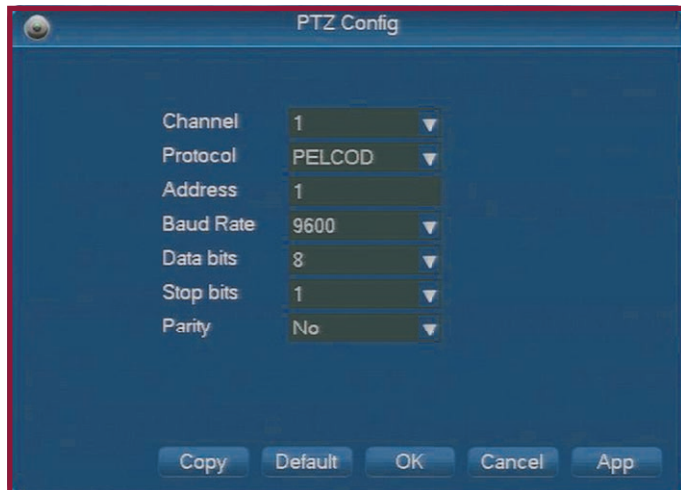
## Advanced

In the Advanced tab you can configure settings such as DDNS, ports, UPnP and the Email address you wish to use for alerts.

## Network Stats

The Network Stats tab displays the current network settings such as IP address, Subnet Mask and Gateway when using DHCP.

# PTZ Config

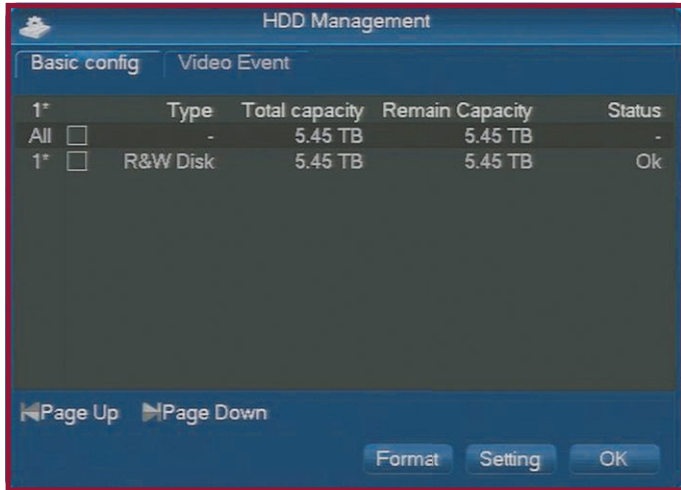


The PTZ Config screen lets you set parameters so that they match those of the attached PTZ cameras.

Simply select the channel you wish to configure from the drop down list. You can then set the Protocol, Address, Baud Rate, Data bits, Stop bits and Parity.

To save time settings can also be copied from one camera to another.

# HDD Management



## Basic Config

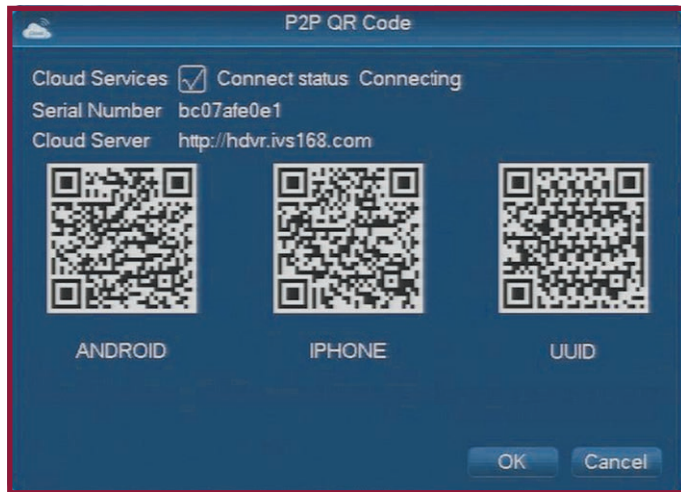
The Basic Config tab displays key information on the DVR's hard drives. You can see the hard drive type, total hard drive capacity, remaining capacity and hard drive status.

You also have the options to **'Format'** the hard drive or click **'Setting'** to change the hard drive type. There are three hard drive types to choose from, R&W (Read & Write), Read (Read only) or Redundant.

## Video Event

The Video Event tab displays a list of all recordings on the hard drive. It shows the start time and date and end time and date for each recording.

# P2P QR Code



In the P2P QR Code screen you can find the information needed for remotely viewing and controlling your DVR.

**The easiest way** to remotely access the DVR for anywhere in the world is to simply open Internet Explorer and enter the DVR's IP address into the address bar. You can then login using the User Name and Password of the DVR.

The cloud server address is an alternative web client used for remotely accessing the DVR via the internet.

There is also an Android and iPhone app available.

To download the Android app simply scan the QR code to the left or search **'FreecamHD'** in the Play Store.

To download the iPhone app simply scan the QR code to the left or search for **'Freecampro'** in the App Store.

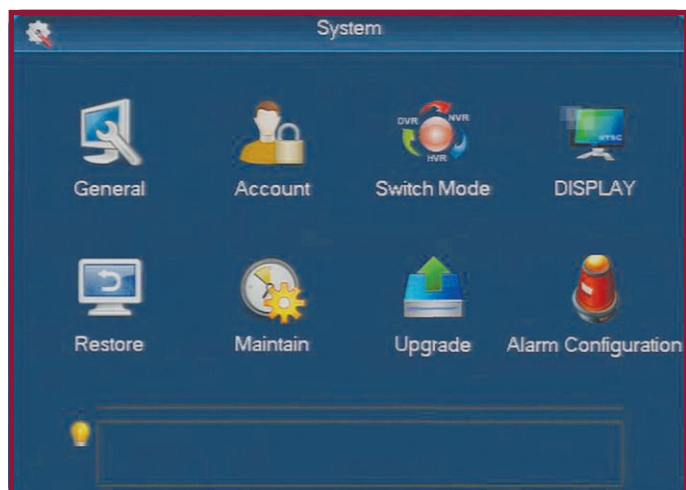
The Cloud Service needs to be enabled if you intend to use the mobile apps or Cloud Server.



Android App



iPhone App



## General

Here you can configure general settings such as date, time, system language and video standard.

## Account

The account menu allows you to manage user accounts. You can create, delete and modify user accounts.

## Switch Mode

Switch mode gives the option to switch between 960h and D1 image resolutions.

## Display

In the Display menu you can configure the information overlaid on the camera's image such as channel, time and date. You can set the DVR's output resolution and even setup the DVR to act as a sequential switcher.

## Restore

The Restore menu allows you to restore some or all of the DVR's settings back to factory defaults.

## Maintain

For maintenance purposes you can set the DVR to automatically reboot or delete footage at a specified time and date.

## Upgrade

The Upgrade menu enables you to update the firmware of the DVR from a USB device.

## Alarm Configuration

Here you can configure alarm triggers such as motion detection or video loss and how alarm triggers are handled. You can choose what action the DVR takes, for example record a certain channel or call a PTZ preset. You can also set the way in which the DVR alerts the operator to an alarm trigger.

# Specifications

	DSD604 - 4CH	DSD608 - 8CH	DSD616 - 16CH
Video Inputs	4	8	16
Video In Connection	BNC Socket		
Video Outputs	3		
Video Out Connection	BNC, VGA & HDMI		
Audio Inputs	4		
Audio Input Connection	Phono		
Audio Output	1		
Audio Out Connection	Phono		
Resolution	960H (960 x 480)		
Recording Speed FPS	From 1-25 Per Channel		
Compression	MPEG-H264		
Power	12V DC		
Current Consumption	2A		5A
USB Backup	Yes		
Networkable	Yes		
Motion Detect	Yes		
PTZ Support	No	Yes	
Mouse Control	Yes		
HDD Interface	1 x SATA		2 x SATA
Dimensions	250(W) x 40(H) x 240mm(D)		325(W) x 53(H) x 245mm(D)