

# Videoswitch

## VDC Digital Compact Recorder

31 day recording starts automatically on power-up (programmable)  
 Built-in CD writer for back-up • CDs replay on VDC or PC (without software installation)  
 Built-in PSTN or ISDN remote access options • Built-in Ethernet models  
 Removable hard drive (user serviceable) • 80 Gbytes to 250 Gbytes  
 Instant recall of images by: Active date/time search • Sweep • Event log • Incident list  
 Simultaneous record & play • Watchdog timer protection • 4 or 9 camera inputs  
 Very compact, very easy to install and use • Manufactured in the UK

Just two steps to 31  
day recording...

Step 1  
Plug in the  
camera(s) and  
monitor

Step 2  
Plug into the  
mains

For remote access from a PC,  
plug VDC into a TCP/IP  
Ethernet network or PSTN or  
ISDN phone socket (optional)

2 blank CDs  
included

250 Gbytes



DVRs	4 Cameras	9 Cameras
80 Gbytes	VDC-4G80	VDC-9G80
160 Gbytes	VDC-4G160	VDC-9G160
250 Gbytes	VDC-4G250	VDC-9G250
80 Gbytes, Ethernet	VDC-4G80E	VDC-9G80E
160 Gbytes, Ethernet	VDC-4G160E	VDC-9G160E
250 Gbytes, Ethernet	VDC-4G250E	VDC-9G250E

#### Accessories

PSTN Dial-Up	VDC/PSTN
ISDN Dial-Up	VDC/ISDN
ISDN Terminal Adaptor	VDM/ISDN/TA
Remote Keyboard	VK-1

Videoswitch



20 years of electronics design,  
manufacture and customer support.

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# Digital Recorder Technical Data

## Digital Recording/Replay

Camera Inputs (4 or 9)	1V pk-pk, 75 Ohms, Composite PAL (BNC)
Colour/Monochrome	Auto Sense
Gain, Brightness, Colour Boost	Set via menus
Resolution	720 x 288 pixels x 16.8 Million colours
Image Size (Quality)	6k Bytes to 40k Bytes (programmable per camera)
Compression Method	Wavelet
Image Retention Period	31days default, programmable up to 99 days
Time-Lapse Update Rate	Automatically calculated (up to 12.5 images per second)
Special Update Rates	Maximum update rate is used during alarms
Simultaneous Record and Play	Yes
Image Recall Modes	Active Date/Time Search, Sweep, Event List, Incident List
Replay Modes	Play, Fast Play (up to x256) and Single Step (all modes forward and reverse)
Image Authentication	Each image is tagged with time, date and other image information, and is protected with a security signature. Recordable CD-Rs have the additional benefit of being indelible physical evidence.

## Display Output

Monitor Output	1V pk-pk composite (BNC)
Resolution (Frame)	720 x 576 x 16.8 Million colours
Display Modes)	Full screen, quad, x9 split (VDC-9 only)
Auto Sequencing	Programmable dwell time

## CD Writer and Hard Drive

Hard Drive	Removable hard drive for easy expansion and quick drive exchange
Incident Recording	Up to 4 incidents may be marked for backup onto CD, and selected incidents may be written to CD
CD Types	CD-R 700Mbyte capacity
Incident Replay	CDs may be replayed in the VDC, VDM or a PC (no software installation is required)
Firmware Upgrades	Upgrades supplied on CD for on-site update

## Events & Alerts

Alarm Inputs	4 normally-open contact inputs
Activity Detection	8 x 8 zones
Alarm Response	Full screen pull-up, 12.5 image/second record rate
Event Sources	Activity, alarm Inputs, power-up, video loss, system fault, disc fault, disc degradation (SMART monitoring)
Event List	480 events and system alerts are logged

## Interfaces

Mains Input	230/115 Vac Input, 90W max
Alarm Inputs	4inputs, 10k ohm pull-up to 5V
Alarm Relay	24 vdc 500mA max, normally open contacts
Keyboard Input	RS485, 9600 baud. Only twisted-pair connection to VK-1 keyboard is required for control and monitor.
Keyboard Loop Out	RS485, 9600 baud
Ethernet	Factory fitted option, 10/100BaseT
PSTN or ISDN	Module may also be fitted into rear panel

## System Control

Built-in Keyboard	28 dedicated keys for controlling the system
Menu	Easy to use, password protected menu
Watchdog Timer	Restarts system automatically in the event of power dips or other unforeseen influences.

## Physical & Environmental

Temperature	5 to 35° C (operating), -20 to 60° C (storage)
Dimensions	160mm x 200mm x 300mm
Humidity (non-condensing)	5 to 95%
Weight (packaged)	6Kg

## VDC-4 and VDC-9

The VDC-4 and VDC-9 Digital Recorders provide a compact and cost-effective alternative to a conventional multiplexer and VCR. Combined within a single box is a multiplexer, digital hard disc recorder, mains power supply, CD writer (for backup), Ethernet interface (option) and a PSTN or ISDN remote access module (option). The VDC Digital Recorders provide the same image quality and search facilities as the VDM, but with a feature set and price aimed at the smaller installation.

Recorded images are retained for a prescribed period, typically 31 days, and within that period, may be instantly recalled using active time and date search, the sweep mode or the event log. The image retention period may be set to any number of days and the VDC will automatically calculate the update rate accordingly.

The built-in CD writer on all models is used to archive incidents for permanent storage and replay on a PC. An incident may be marked and backed up to CD with only three key presses.

The CDs replay on a PC with no software installation being required. They may also be replayed on a Videoswitch VDC or VDM Digital Recorder.

Below is an example of the image update rate for different image retention periods using a 250Gbytes hard drive and S-VHS quality (17 Kbyte) images.

### 250Gbytes Drive

Days	Rate	Equivalent VCR Mode
31	5.5 ips	24 hour
21	8 ips	18 hour
14	12 ips	12 hour

Divide the rate by the number of cameras to get the update rate for each individual camera.

Free software called "VDM-Calculator" is available on our web site which caters for all options.