

# STACK STACK STACK® DATA SHEET DVR2-440

ST9387 PAL / NTSC

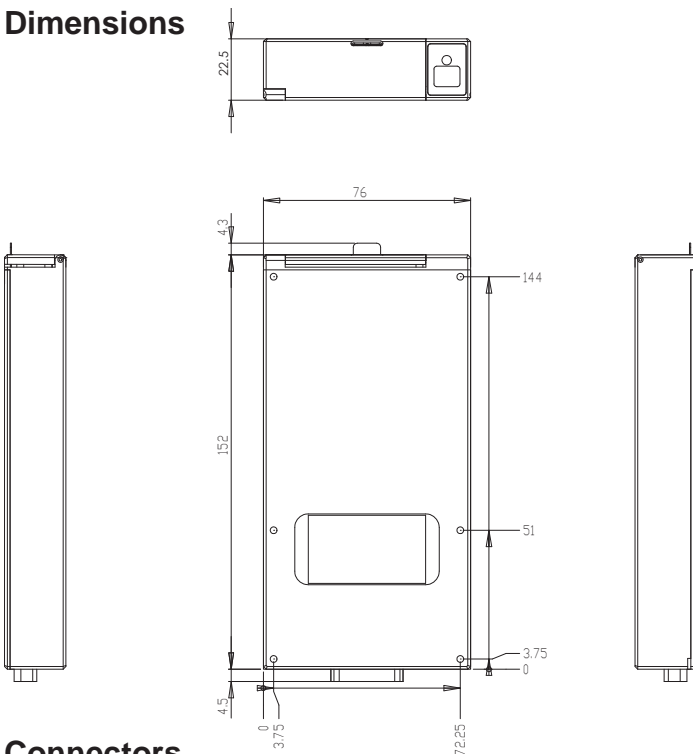
Stack's new range of Digital Video Recorders combine ruggedness, reliability and recording quality with a slim, lightweight design that's perfect for all harsh environment applications.

Stack's digital video recorders employ broadcast standard MPEG-2 video compression to record high quality real-time video and audio direct to a Compact Flash (CF) card. The card can be removed with ease and played on a PC or laptop using a standard media player application. Recordings can be archived direct to DVD for playback on either a PC or a DVD player.

## Key Features

■ Solid-state, no moving parts, ensuring reliable operation year after year
■ 9 Fixed Bit-rates (1 Mbps Min. 15 Mbps Max.)
■ Up to 4 camera inputs (composite PAL or NTSC)
■ 9-140 Mins/Gbyte @ full resolution
■ 16:9 Widescreen or 4:3 screen ratios
■ -20 to +70°C (-4 to 158°F) operating temperature range
■ 32 GB maximum card size
■ 9 to 20V DC powered
■ Fully sealed to IP67
■ Mil-type "AS" connectors
■ External status LED
■ Sealed memory card door (when closed)
■ Real-Time date & time overlay
■ 3 axis G-sensor data overlay
■ GPS data overlay option (NMEA 0183 Interface)
■ Up to 2 secs. (Supercaps) Brownout Protection option
■ Continuous Loop Recording modes.
■ Event Recorder mode, with pre- and post-trigger record periods.
■ Synchronised recording with Stack's data recorders.

## Dimensions



## Connectors



2 x 9W DDAS plus 1 x 5W AS

## Standard Components

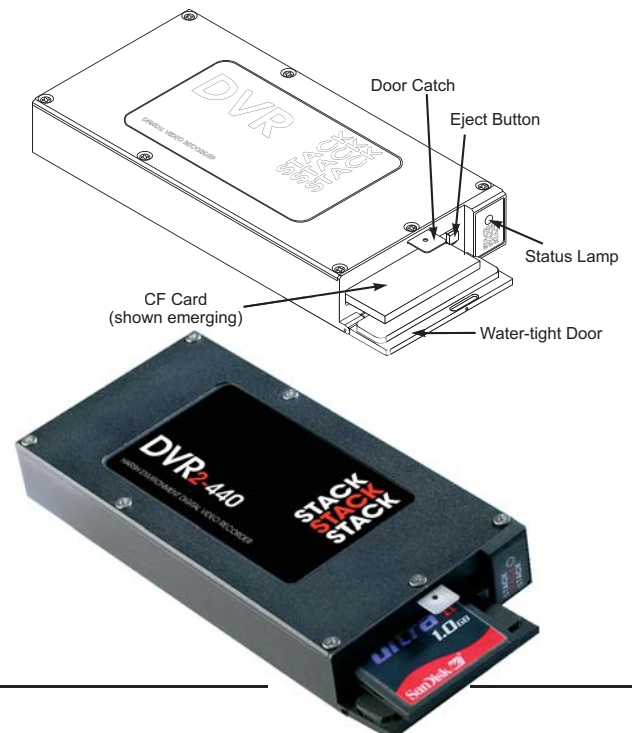
The DVR2-440 is supplied with the following standard components:

DVR2 Module	ST990063	1
DVR2 System Harness	ST918101	1
DVR2 Input Harness	ST918102	1
DVR2 Audio/Video Harness	ST918114	1
Switch & LED Harness	ST918105	1
CAM Plug to BNC Video Connector & Power Plug (2.1mm)	ST918106	4
Configuration Software	ST920039	1
DVR2 User Guide	ST542103	1

## Optional Components

The DVR2-440 may be supplied with the following optional components:

DVR to VS Adapter Harness	ST900144
Bullet Camera- PAL, 560 TVL, 0.1 Lux	ST8393
Bullet Camera- NTSC, 560 TVL, 0.1 Lux	ST8394
Microphone	ST8397
CAM plug to BNC & Power lead	ST918106
GPS Receiver and Data Overlay Option	ST9399
20 to 50V DC Option	ST8399
Supercaps Option (Up to 2 secs brownout protection and recording after power loss)	ST9397
1 GB Harsh Environment Compact Flash memory card	ST390051
2 GB Harsh Environment Compact Flash memory card	ST390052
4 GB Harsh Environment Compact Flash memory card	ST390053
8 GB Harsh Environment Compact Flash memory card	ST390054
16 GB Harsh Environment Compact Flash memory card	ST390055
24 GB Harsh Environment Compact Flash memory card	ST390056
32 GB Harsh Environment Compact Flash memory card	ST390057



## Specifications: DVR2-440

<b>RECORDING - VIDEO</b>	
Number of camera inputs	4
Video input multiplexing options	Any format of 1 to 4 cameras on one screen (with programmable scale, crop and position)
Video Standards Supported	PAL/NTSC
Composite Video Input	Composite 1V pk-pk
Video Frame Rate	30 fps (NTSC); 25 fps (PAL)
Video Monitor Output	1 V pk-pk Composite
Compression Format	MPEG-2 MP@ML compression Program Stream
Resolutions Supported	PAL: 720x576; 720x400; 480x576; 352x576, 352x288 NTSC: 720x480; 720x400; 480x480; 352x480; 352x240
Quality - bitrate	9 Fixed (1 Mbps Min. 15 Mbps Max.)
CF Record Time	9-140 Mins/Gbyte
<b>RECORDING - AUDIO</b>	
Number of audio channels	2
Input Level	Mic or Line Level +3 to -30dB
Active Gain Control (AGC)	Yes
Compression Format	MPEG1 Layer II, 2 ch. 16 bit, 48 kHz
<b>DISK INTERFACE</b>	
Disk Interface	Compact Flash; FAT32
Maximum Card Size	32GB
Maximum File Size	2GB
File Format	MPEG-2; Windows Media Player & DVD compatible
<b>MISCELLANEOUS</b>	
Power up to Record start time	<20 Sec
Record Switch to Record start/stop time (in ready to record state)	<0.1 Sec
Lost recording time between 2GB files	<0.5 Sec
Max video loss if power lost while recording	<last 1 Sec (see Brownout Protection option below to extend record time after power loss).
Brownout Protection option	Up to 2 Secs (dependant on camera load). Extends recording after power loss by up to 1 Sec
Configuration	Via USB
Real-Time Date & Time Overlay	1 Sec resolution (0.01 Sec Option)
GPS Data Overlay (Option)	1-20 Hz
3 axis G-sensor Data Overlay	12.5 Hz
GPS Receiver Interface (Option)	1-20 Hz (NMEA 0183 Interface)
Continuous Loop Recording	Yes
Event Recording Mode	Yes
Pre-trigger Period	0 - 60 Mins
Post-trigger Period	0 - 24 Hours
Event Counter Data Overlay Option	Yes
<b>ENVIRONMENTAL</b>	
Operating Temperature Range	-20°C to +70°C (-4 to 158°F)
Storage Temperature Range	-40°C to +80°C (-40 to 176°F)
Sealing	IP67
Humidity	0-100% RH Condensing
Vibration	20g 50-2000Hz swept Sin. 12hr x 3 axis
Radiated Emissions	EN55024B CiSPR25
Shock	50g, 15ms
Radiated Immunity	50V/m
Conducted Immunity	DIN40839 Cat IV
<b>GENERAL</b>	
Mechanical Size	151 x 76 x 21mm
Finish	Hard Anodised Aluminium
Weight (without Memory Card)	380g
Operating Voltage Range	9V to 20V DC (option for 20V-50V DC)
Reverse/Over-voltage Protection	-60V to +60V DC
Power Consumption (@ 12VDC)	~5W

\*Specifications quoted dependent on use of appropriate CF cards and are guaranteed only with Stack supplied Harsh Environment cards.



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In the interests of continuous product improvement, we reserve the right to alter without notice the specifications and features described in this leaflet. This leaflet shall not form part of a contract involving Stack unless stated in writing.

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