## Timespace V400



The Timespace V400 provides users with an innovative solution for vehicle CCTV, the culmination of many years' experience in developing reliable, high performance and cost-effective vehicle CCTV digital recorders for use on public transport with analogue and HD 1080P cameras.

Maximum recording storage time is available using the latest industry standard H.264 video compression to capture crystal-clear HD footage on removable hard disk cartridges up to 2TB. The combination of fully-suspended hard disk for shock protection and dual recording capability to SD card ensures critical video footage is always available.

Built to last, the V400 uses industry-proven power and signal connectors with short circuit protected camera inputs, whilst the inbuilt timer shutdown enables the system to gracefully shutdown and download status information and footage via depot based WiFi.

Industry-leading PCLink viewing software is compatible with all Timespace recorders and displays the V400 inbuilt G-sensor and optional GPS data, providing map location incident analysis and download via LANLink.

Optional integration with Bridge Alert provides early warning of low bridges and monitoring of Bridge Alert operation.

Using watermarking with SHA-256 authenticated digital signature, embedded vehicle CAN data and GPS, date, time, speed and location, the V400 recorder footage meets the evidential requirements when needed for court proceedings.

#### **Recording Performance**

- 8, 12 or 16 independent analogue video inputs plus single IP camera input
- 200 IPS global with selectable image rates for each camera up to 25 IPS

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- H.264 compression offering excellent image quality to meet the Transport for London bus CCTV recording specification
- Dual recording from one or more cameras up to 25 IPS to SDHC card for added footage security in extreme G-force events
- Selectable compression settings for each camera to ensure maximum resolution and storage.

#### Connectivity

- Separate analogue and IP Camera sockets
- Integrated Bridge Alert and alarm inputs
- Quick and easy incident footage upload and system performance monitoring via WiFi / mobile networks / Timespace LANLink
- Transport for London diagnostic reporting via LAN ports.

#### **Physical Characteristics**

- Compact size with any axis quick-release mounting for ease of installation in the most difficult locations
- Fully suspended hard disk for long and reliable operating life
- Lockable recording media cartridge for security and reliable operation
- Industry-proven integral power and video connectors.

Compatibility

- XBA file compatible with PCLink software, allowing full function review of all Timespace recorders with one software suite
- Reviewer compatibility with other Timespace recorders for easy configuration and set-up.



### Timespace V400 DRIVING SECURITY





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Stand alone recorder



Live view using Reviewer or video out to monitor



Review recordings directly from a removable cartridge

Multi-channel live view and wireless download of recordings

WiFi

bridge/router

Wi(Fi))

Bridge Alert System



data recording

#### Performance

| renormance  |  |  |  |
|---|--|--|--|
| Standard<br>Video recording global image rate<br>Analogue video inputs<br>Image rates Min – Max   | V400-08<br>PAL/NTSC<br>100 IPS<br>8<br>1 – 25 IPS                              | V400-12<br>PAL/NTSC<br>150 IPS<br>12<br>1 - 25 IPS                             | V400-16<br>PAL/NTSC<br>200 IPS<br>16<br>1 – 25 IPS                             |
| selectable by camera<br>Image Resolution (pixels)<br>Image bit rate – quality setting<br>IP Camera Resolution<br>Image rate Min – Max<br>Image bit rate | 2CIF – 720 x 288<br>6 (TfL setting VHigh)<br>1080P<br>1 – 25 IPS<br>8 MB/Sec   | 2CIF – 720 x 288<br>6 (TfL setting VHigh)<br>1080P<br>1 – 25 IPS<br>8 MB/Sec   | 2CIF – 720 x 288<br>6 (TfL setting VHigh)<br>1080P<br>1 – 25 IPS<br>8 MB/Sec   |
| Audio microphone input<br>Audio line out<br>Video out Main / Aux – Configurable<br>Video Streaming Live view –<br>multi channel                         | 2<br>2<br>25 IPS   | 2<br>2<br>2<br>25 IPS  | 2<br>2<br>25 IPS   |
| DC card recording rate – multi channel<br>Hard disk capacity options<br>Solid State Disk<br>SD card capability<br>G Sensor<br>Alarm input               | 25 IPS<br>500GB, 1TB or 2TB<br>500GB, 1TB<br>4-32GB<br>3 axis<br>10 selectable | 25 IPS<br>500GB, 1TB or 2TB<br>500GB, 1TB<br>4-32GB<br>3 axis<br>10 selectable | 25 IPS<br>500GB, 1TB or 2TB<br>500GB, 1TB<br>4-32GB<br>3 axis<br>10 selectable |
| Alarm output  | 2V – 24V Level<br>4 (Logic output)   | 2V – 24V Level<br>4 (Logic output)   | 2V – 24V Level<br>4 (Logic output)   |

#### **General Features**

- Auto record on power-up or single button start / stop recording Recorder status indicators (6 LEDs)
- Simultaneous record, live view and file download
- H.264 (MPEG-4 Part 10) compression
- Removable suspended hard disc media cartridge lockable
- Simple, intuitive menu system with help screens Optional embedded GPS for position & speed
- Normal and alarm triggered recording
- Local set-up and configuration using Timespace Reviewer Remote control via RS232 interface
- Power-saving shutdown with wake-up on alarm, timer or motion
- Low temperature sensor and heater
- Short circuit protection video inputs Multi ranging PSU with power monitoring diagnostics
- Integration with Timespace LANLink fleet management software GSensor-triggered alarms for automatic downloads

#### PCLink / LANLink

- Remote set-up and download via LAN, WiFi or mobile networks
- PC Multi Cam LiveView, playback, via optional WiFi or mobile router
- Image search by time / date or file name PCLink Quick review alarm event footage markers
- Face-blurring tool View vehicle CAN data in sequence with video footage
- · Camera and DVR health check via simple traffic-light colour indicators

#### Security Features

- Proprietary single file video format XBA
  Each image watermarked (SHA-2 AES Authentication 256 bit)
- Embedded camera number, date and time in each image

#### **Optional Features**

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- 25 IPS global SD memory card back up (analogue only) SDHC 4GB up to 32GB
- File download via SD card
- Bridge Alert WiFi / mobile router
- CANLink data recording (view in sequence with recorded footage) RTSP streaming (enabled via LANLink)

#### MediaLink

#### **Connections / Interfacing**

|                                   | V400-08                | V400-12                | V400-16                |
|-----------------------------------|------------------------|------------------------|------------------------|
| Analogue Camera                   | 3 pin XLR              | 3 pin XLR              | 3 pin XLR              |
| IP Camera                         | RJ45                   | RJ45                   | RJ45                   |
| Video out (Main and Aux)          | 3 pin XLR              | 3 pin XLR              | 3 pin XLR              |
| Audio microphone in               | 6 way Molex Mini       | 6 way Molex Mini       | 6 way Molex Mini       |
| Audio line out                    | Fit Jr Plug            | Fit Jr Plug            | Fit Jr Plug            |
| Timespace Reviewer                | RJ45                   | RJ45                   | RJ45                   |
| LAN 1 WLAN / 3G                   | RJ45                   | RJ45                   | RJ45                   |
| LAN 2 TfL IBUS                    | RJ45                   | RJ45                   | RJ45                   |
| GSM / GPS / RS232                 | 18 way Molex Mini      | 18 way Molex Mini      | 18 way Molex Mini      |
|                                   | Fit Jr Plug            | Fit Jr Plug            | Fit Jr Plug            |
| Alarm inputs                      | 10 way Molex Mini      | 10 way Molex Mini      | 10 way Molex Mini      |
|                                   | Fit Jr Plug            | Fit Jr Plug            | Fit Jr Plug            |
| Alarm / LED output – Configurable | 18 way Molex Mini      | 18 way Molex Mini      | 18 way Molex Mini      |
|                                   | Fit Jr Plug            | Fit Jr Plug            | Fit Jr Plug            |
| Power input                       | 5 pin XLR              | 5 pin XLR              | 5 pin XLR              |
| Power output                      | 12V and 5V 18 way      | 12V and 5V 18 way      | 12V and 5V 18 way      |
|                                   | Molex Mini Fit Jr Plug | Molex Mini Fit Jr Plug | Molex Mini Fit Jr Plug |

#### **Physical Characteristics**

| Enclosure  | Extruded Aluminium, with moulded end caps         |
|--|---|
| Dimensions (mm)                                  | 292(l) x 132(w) x 143(h) including mounting plate |
| IP rating  | IP50  |
| Operating temperature range                      | -10 to 50 °C                                      |
| (temperature sensor and heater function enabled) |   |
| Humidity   | 10 – 90% r.h., non condensing                     |
| Mounting options with quick release bracket      | Screw-mounted any axis orientation                |
| Power supply input                               | 11 – 50V DC polarity protected                    |
| Continuous power - without Reviewer              | 12W   |
| Continuous power – cameras on (typical)          | 33W   |
| Continuous power - without Reviewer              | 0.5W  |
| and in sleep mode                                |   |
| Maximum current – start-up                       | 1.9A with camera and Reviewer                     |
| Continuous power (maximum)                       | 80W Ancillary equipment dependent                 |
| Power up time to recording                       | 20 seconds  |
| External power output                            | 5V DC 2A / 12v 2A                                 |
| Video out – Main / Aux power output              | 12V 2A per monitor                                |
| Maximum external monitor surge                   | 6A at 12V for 20ms                                |
| Weight – including removable cartridge and       | 2.61Kg  |
| mounting bracket                                 |   |
| Desculatory Americale                            |   |

#### Regulatory Approvals

CE Mark (EN55032:2012, EN55024:2010) E Mark VCA CoP approval RoHS WEEE

Timespace Technology Ltd reserves the right to amend product specifications without notice and without incurring obligation.



