# Backeye®360



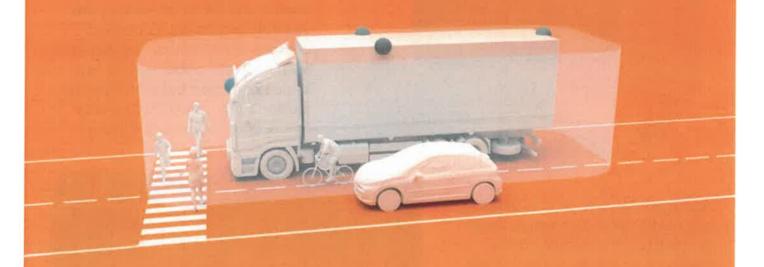
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All vehicles have blind spots – areas around the vehicle that are obscured to the driver by bodywork or machinery. When manoeuvring, these blind spots present a significant danger to anything or anyone in the vehicle's path and inhibit the driver's ability to operate the vehicle safely.

Mirrors and single-view cameras can help but, even with this extra assistance, the driver may still not see everything in the vehicle's path.

**Backeye®360** is an intelligent camera monitor system designed to assist low-speed manoeuvring by providing the driver with a complete surround view of the vehicle in real time.

- · Eliminates blind spots, improves safety
- Comprehensive view of the surrounding area in a single image
- Reduces collisions with people and objects



### **About us:**

Brigade Electronics is a market leader of safety devices, with solutions to suit all commercial vehicles and mobile plant.

Brigade's complementary range of safety devices help prevent collisions by assisting the driver whilst protecting workers, pedestrians and cyclists.

Research shows that in the time it takes to scan four mirrors, assess and then react to hazards, even at speeds as low as 5kph, a vehicle could travel as far as 10m

## Backeye®360

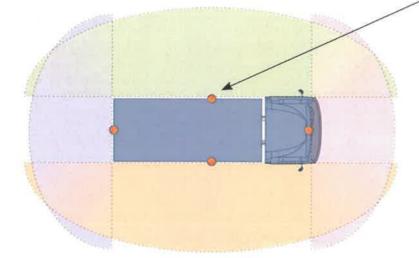


Backeye®360 is an intelligent camera monitor system designed to assist low-speed manoeuvring by providing the driver with a complete 'bird's-eye' surround view of the vehicle in real time.

#### **How it works**

Brigade offers a choice of 360° technologies, which work with four ultra wide-angle cameras with each one covering one full side of the vehicle with a viewing angle of over 180°.

High-mounted on the front, rear and sides, the calibrated cameras capture all of the surrounding area including the blind spots of the vehicle or machine.





The four live images are simultaneously sent to an electronic control unit (ECU) where they are instantly processed, combined, blended and stitched. The distortion from the wide-angle camera lens is also corrected before delivering a clear, single, smooth, real-time image onto the driver's monitor.

Backeye®360 will work on virtually any rigid vehicle or machine, large or small and the distance of the viewing area can be set to suit the application.

Backeye®360 is compatible with Brigade's MDR recording systems.

The flexibility of Brigade systems means there are solutions suitable for both on- and off-road applications.



Actual Backeye®360 image

Please visit our website for more information, individual specifications and to view our full range of safety solutions.

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# MDR-500 Series Mobile Digital Recorders

#### Protecting your driver. Providing your witness

Incidents involving vehicles are time-consuming issues to resolve. Having recorded footage where there are conflicting reports of actual events or by being able to prove a staged accident, companies can make major cost savings whilst, importantly, supporting their drivers who are often the subject of increased scrutiny after an incident.

Brigade's MDR range includes four-channel mobile DVR with a 500Gb hard drive and eight-channel, 1TB models. Both four- and eight-channel vehicle recorders include models with WiFi and/or 3G/4G connectivity capabilities\*, allowing data to be accessed from the recorder without physically having to go to the vehicle.

- Records from up to eight cameras simultaneously
- Built-in GPS for recording speed and location
- G-sensor provides impact data and accelerating and braking
- Download data without physically going to the vehicle. (WiFi and 3G/4G only)
- Supports AHD High Definition cameras



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# MDR-500 Series Mobile Recorder





## MOBILE DIGITAL RECORDER

| MDR-508-1000<br>MDR-508GW-1000<br>MDR-508G-1000<br>MDR-508W-1000 | <ul> <li>- 8 channel 1TB hard disk recorder</li> <li>- 8 channel 1TB hard disk recorder with WiFi and 4G</li> <li>- 8 channel 1TB hard disk recorder with 4G</li> <li>- 8 channel 1TB hard disk recorder with WiFi</li> </ul> | 5126<br>5127<br>5128<br>5129 |
|--|---|------------------------------|
| MDR-504-500<br>MDR-504GW-500<br>MDR-504G-500                     | <ul> <li>4 channel 500GB hard disk recorder</li> <li>4 channel 500GB hard disk recorder with WiFi and 4G</li> <li>4 channel 500GB hard disk recorder with 4G</li> </ul>   | 5122<br>5123<br>5124         |
| MDR-504W-500   | - 4 channel 500GB hard disk recorder with WiFi  | 5125                         |

- 9-32Vdc
- 4 or 8 camera inputs -Supports ADH high definition cameras
- · 8 trigger/alarm inputs
- Lockable and interchangeable Hard Drive Unit - upgradeable to 2TB
- Fast, easily downloadable recordings and data
- Size (WxHxD)
   150x70x180mm (MDR-504)
   182x72x197mm (MDR-508)
- 3 year warranty

#### **Features**

- Remotely access MDR units using wireless (WiFi models only) and/or Mobile network (4G models only)
- Mobile apps for remote view (WiFi/4G models only)
- Geo-fencing (WiFi/4G models only)
- Mobile Standards: 2G/3G/4G
- Audio (cameras must have microphones)
- · Robust aluminum housing
- Anti-vibration mounting allows for installation at any angle
- Built-in GPS
- Internal G-sensor and built-in buzzer
- Up to 1862 hours recording
- Recordings saved to hard disk (protected by non-visible digital watermark) and in-built mirror recording onto SD card
- Recording modes: normal, alarm and timer (all watermarked)
- Configurable alarm trigger settings (speed, G-force, motion detection, video loss, voltage)
- Record images prior to alarm activation and after vehicle switched off

- MDR-Dashboard (full player) and MDR-Player (portable) with Google and MS Bing maps (English only)
- Search by date, time or triggered events
- Multi-level password protected access
- Hard drive unit directly pluggable to PC via USB port
- 8 x trigger Inputs, 2x trigger outputs and 1x12V power output
- · Built-in HDD heater
- MDR Control using USB Mouse or IR remote control
- USB 3.0 connection
- TV System: PAL/NTSC/AHD
- Compatible with Brigade's vehicle CCTV camera monitor systems and Backeye®360 systems

#### **Image and Audio Quality**

- High quality H.264 image compression
- ADPCM audio compression
- Choice of 8 low to high resolution settings
- Record between 1 and 25 frames per second, per channel

Please visit our website for more information, individual specifications and to view our full range of safety solutions.

brigade-electronics.com/MDR

## Appendix 2- Vehicle Type List

| MUDC Fleet - Retrofit of camera systems |      |                                     |  |  |
|---|------|-------------------------------------|--|--|
|   | YEAR | MAKE / MODEL                        |  |  |
| REFUSE VEHICLES                         |      |                                     |  |  |
|   | 2012 | Dennis Olympus                      |  |  |
|   | 2012 | Mercedes Econic                     |  |  |
|   | 2011 | Iveco Trakker Hooklift              |  |  |
|   | 2014 | Merc Euro 5                         |  |  |
|   | 2012 | Dennis Euro 5                       |  |  |
|   | 2011 | Merc Euro 5                         |  |  |
|   | 2012 | Mercedes                            |  |  |
|   | 2010 | DAF Mac Pac                         |  |  |
| STREET CLEANSING                        |      |                                     |  |  |
|   | 2014 | Vauxhall Movano Tipper              |  |  |
|   | 2012 | Scarab Minor Sweeper                |  |  |
|   | 2016 | Iveco Daily Dropside with Tail lift |  |  |
| GROUNDS<br>MAINTENANCE                  |      |                                     |  |  |
|   | 2016 | Iveco Eurocargo Tipper              |  |  |
|   | 2016 | Iveco Beaver Tail                   |  |  |
|   | 2016 | Iveco Daily Beaver Tail             |  |  |
| BUILDING<br>MAINTENANCE                 |      |                                     |  |  |
|   | 2016 | Iveco Eurocargo Tipper              |  |  |