







### Which Range?



#### Elite - 5 Year Warranty

Top of the range systems for comprehensive blind spot coverage on large road going, off road vehicles or specialist applications.



#### Select - 3 Year Warranty

Mid range systems suitable for medium to large road going vehicles.



#### Essential - 1 Year Warranty

Entry level reversing solution ideally suited to light commercial vehicles and vans.

### Digital Wireless System

Connecting a rear view camera system to a large vehicle or machine can be time consuming and awkward due to the amount of cable to install. Brigade's new wireless system eliminates excess cabling, saving up to two hours fitment time and removes the need for an additional suzi cable.

New digital wireless technology gives almost instantaneous pictures (camera to monitor in less then

200 milliseconds) and is not affected by electrical interference from other vehicles or machine equipment.

The camera image is sent to the monitor via a transmitter and receiver, and once paired, the wireless link is secure. The system also features an easy re-pairing function, allowing the receiver to be linked to a different transmitter making interchanging trailers possible.











Backeye 360 System - Digital

Backeye Complete Kits

Backeye Elite Monitors – Digital

Backeye Elite Cameras - Digital

Backeye Select Monitors - Digital

Backeye Select Cameras – Digital

Digital Wireless System

Mobile Digital Recorder

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- Eliminates blind spots.
- Comprehensive view of the surrounding areas in a single image.
- 360° real-time video output.
- Triggered views (rear, left and right).
- Multiple viewing modes including portrait, front/rear focus and lane changing.
- On-screen distance markers on rear view.
- Configurable viewing distance to suit different applications.
- Multi-voltage.
- Compatible with Brigade monitors & Mobile Digital Recorders.
- 5 year warranty.

Voltage:
Current Draw:
Video System:
Max. Camera Inputs:
Camera Field of View: 18
Frame Per Second:
Video Outputs:
Trigger Inputs:

. 165 Aut. 142 Ver. 3 3 8.5G CE & 'e' marked re : -30°C to 75°C

### Split Screen View

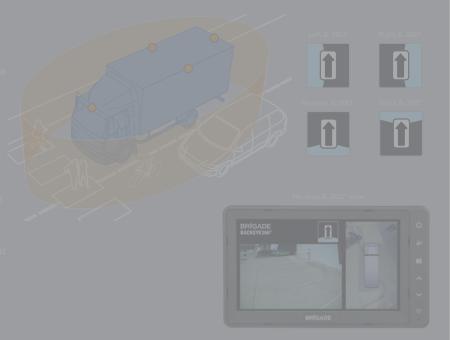
The Backeye 360 Systems show 2 images on screen at all times

The first is the remarkable 360° view surrounding the vehicle while the second is a view from an individual

This secondary view is controlled by trigger inputs and can be used to show a side camera when the vehicle turn signal is activated and also to the rear when reverse gear is engaged.

On screen icons show which camera is currently being displayed.

The operator also has the option to manually select which camera is being displayed via the dash mounted remote, the 360° view remains on screen all time









#### Backeye 360 System - Digital

Part No.

Description

Max. Combined Resolution

4 × Wide Angle Camera

1 × Monitor

1 × Cable – 20m ECU to Camera

1 × Cable – 20m ECU to Camera

2 × Cable – 15m ECU to Camera

2 × Cable – 15m ECU to Camera

1 × Cable – 10m ECU to Camera

Backeye 360 Systems are required to be installed & calibrated by an IONNIC trained technician.



























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#### Backeye 360 System - Digital - Comp

Part No. Description

BN360-200 Backeye 360 ECU & 4 x wide angle camera

BN360-100C Backeye 360 camera internal with 1m lead

BN360-100C-H1 Backeye 360 camera housing
BN360-100C-MK Backeye 360 camera gasket kit

Kit Contents: 4 x Sasket, 8 x Bolt, 8 x Wall Plug

BN360-L120 Cable – 20m ECU to camera
BN360-L115 Cable – 15m ECU to camera
BN360-L110 Cable – 10m ECU to camera
BN360-L105 Cable – 5m ECU to camera

BN360-200-RC IR remote contro

VBV-770DM Monitor – Backeve Select 7"

AC-024 Adaptor - Connects Backeye Select monitor to RCA camera

AC-054 Adaptor – Connects RCA female to male
AC-059 Adaptor – Connects RCA female to female

BN360-CAL-MAT Calibration mat, 4 required
BN360-CT-01 Calibration tool, SD card included



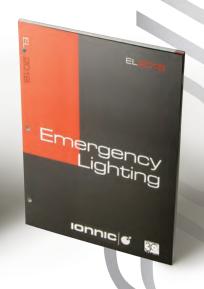


















- Systems include:
  - Colour LCD Monitor
  - Camera
  - Cable
- Elite & Select Systems can be expanded to multiple cameras.
- Elite & Select Systems include audio.
- BE-970W-000 features waterproof monitor & camera.
- Multi-voltage.

Voltage : Cable Length : 12-24V

See individual products for detailed specifications

20m





#### Backeye Complete Kits - Elite - Digital

Part No. Screen Size Monitor Camera Cable Monitor Camera **BE-**970W-**000** BE-970WM BE-800C BE-L120 IP69K IP68 BE-870-000 7" BE-870LM BE-800C BE-L120 IP68

Each kit can be expanded to 2 cameras.

Supplied with detachable sun visor & adjustable mount.









VBV770D-000

VBV750D-000

#### Backeye Complete Kits - Select - Digital

 Part No.
 Screen Size
 Monitor
 Camera
 Cable

 VBV770D-000
 7"
 VBV-770DM
 VBV-700C
 VBV-H420

 VBV750D-000
 5"
 VBV-750DM
 VBV-700C
 VBV-H420

Each kit can be expanded to 3 cameras.

Supplied with detachable sun visor & adjustable mount.



#### Backeye Complete Kits - Essential - Analogue

 Part No.
 Screen Size
 Monitor
 Camera
 Cable

 VBV-650-000
 5"
 —
 —
 —

Components not available separately.

Supplied with adjustable monitor mount.



12V 24V 5Yrs (E

### CCTV Systems



- Colour LCD with anti-reflective coating.
- LED backlight with auto dimming.
- Integrated speaker.
- Up to 4 camera inputs.
- Up to 4 way split screen.
- Electronic distance markers.
- Mirror or normal views.
- Auto on when reverse gear selected.
- Adjustable mount.
- Capacitive touch buttons on waterproof models.
- Multi-voltage.
- 5 Year warranty.

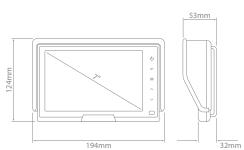
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Approvals : EMC :

Operating Temperature :

CE Marked C-Tick -40°C to 70°C



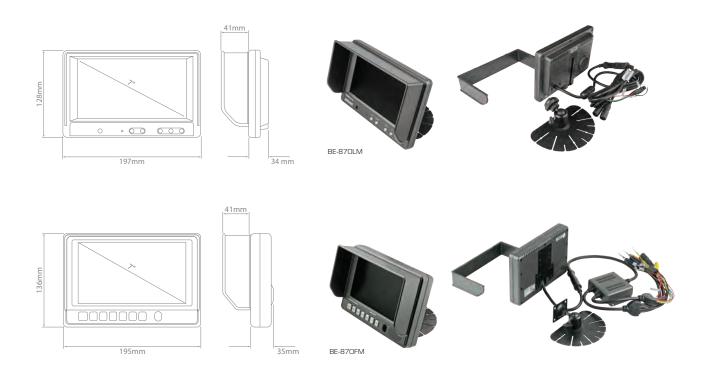


Backeye Elite Monitors -	Digital - 7" -	Waterproof IP69K
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Part No. Screen Size Screen Resolution Camera Inputs Split Screen Picture in Picture AV Inputs Video Outputs **BE-**970**WM** 7" 800 x 480 2 **BE-**970**WFM** 7" 800 x 480 4 2, 3 & 4 Yes 1 1

Supplied with detachable sun visor & adjustable mount.

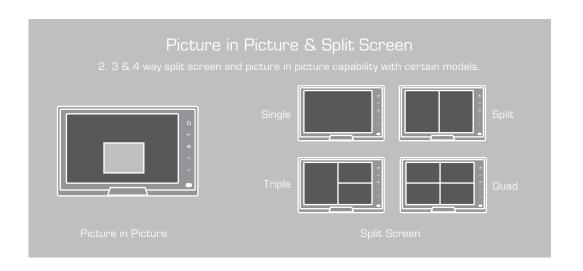




Backeye	Elite N	∕lonit	ors ·	– Dig	ital – 7	**		
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Part No.	Screen Size	Screen Resolution	Camera Inputs	Split Screen	Picture in Picture	AV Inputs	Video Outputs
<b>BE</b> -870 <b>LM</b>	7"	800 x 480	2	_	_	_	_
<b>BE</b> -870 <b>FM</b>	7"	800 x 480	4	2, 3 & 4	Yes	1	1

Supplied with detachable sun visor & adjustable mount.







#### Backeye Elite Monitors - Digital - Accessories

Part No. Description

AC-016 Adaptor – Allows AV equipment to connect to Backeye Elite monitor
AC-020 Adaptor – Allows Backeye Elite monitor to connect to VBV cable

AC-302 Adaptor – Allows 2 x Backeye Elite monitors to connect to a single Backeye camera

 BMM-011
 Mount - Heavy duty. Suits BE-970XX & BE-870LM

 BMM-013
 Mount - Standard duty. Suits BE-970XX & BE-870XX



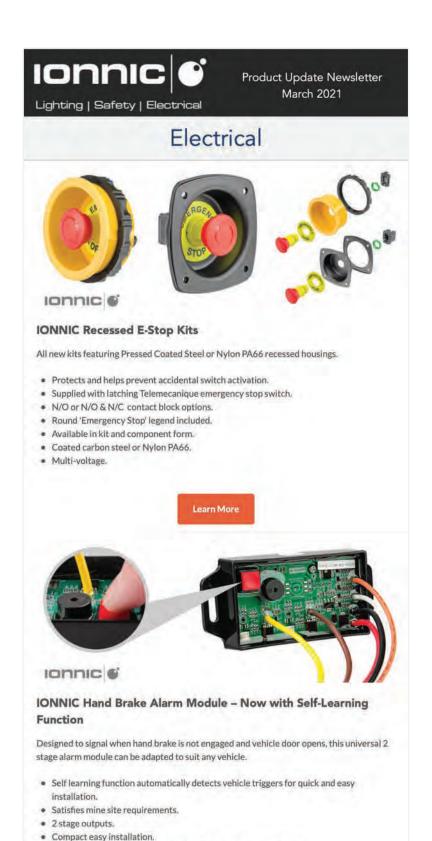
# Newsletter

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ionnic.com



Suitable for positive and negatively switched vehicles/applications.
 Epoxy filled for enhanced moisture and vibration protection.



- Infrared LEDs for ultra-low light performance.
- Day/Night sensor 800 Series.
- Built-in heater.
- Mirror view (excluding BE-890C).
- Wide angle view.
- Vibration resistant rugged construction.
- 800 Series includes audio.
- Environmentally sealed.
- 5 year warranty.



Operating Temperature:

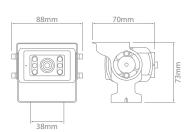
12V (supplied via monitor)
PAL
1/3" Sony® CMOS
0.1lx
Aluminium
20G
CE Marked
C-Tick
-30°C to 70°C



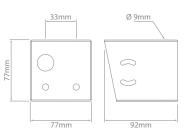












#### Backeye Elite Cameras - Digital - Pedestal Mount

Part No.	Field of View	TV Lines	Microphone	Heater	IP Rating	Illumination Distance (m)	
<b>BE-</b> 800C	109° Hor. 85° Vert.	425	Yes	Yes	IP68	5	
BE-800C-40	32° Hor. 24° Vert.	425	Yes	Yes	IP68	5	
BE-800C- <b>78</b>	69° Hor. 51° Vert.	425	Yes	Yes	IP68	5	
<b>BE</b> -890C	109° Hor. 85° Vert.	425	No	Yes	IP69K	5	
<b>905</b> A32	Protective enclosure						

#### "Eyeball" Surface Mount Cameras



The Backeye Select "Eyeball" cameras are compatible with the Backeye Elite monitors using an adaptor (AC-006) which can be found on page 32.

Backeye Select "Eyeball" cameras can be found on page 31.





#### Backeye Elite - Digital - Cables

Description	3m	5m	10m	15m	20m	25m	30m
Standard cable	_	<b>BE-L</b> 105	<b>BE-L</b> 110	<b>BE-L</b> 115	<b>BE-L</b> 120	_	<b>BE-L</b> 130
Extension cable	<b>BE-X</b> 003	<b>BE-X</b> 005	<b>BE-X</b> 010	<b>BE-X</b> 015	BE-X020	<b>BE-X</b> 025	_

Standard cable used to connect camera to monitor. Extension cables connect standard cables to monitor.







#### Backeye Elite - Digital - Adaptors & Connectors

Part No. Description

AC-014 Adaptor – Connect Backeye Elite camera to VBV cable

AC-O19 Adaptor - Connect Backeye Elite cable to RCA connector (video input)

AC-302 Adaptor - Allows 2 x Backeye Elite monitors to connect to a single Backeye Elite camera

Adaptors for use at monitor (in-cabin) end only.

**SC-7** Suzi coil for use with SP-7A, SP-7B

SP-7A Connector – Cab side
SP-7B Connector – Trailer side





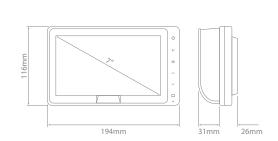
- Colour LCD with anti-reflective coating.
- Auto-dimming backlight.
- Integrated speaker.
- Electronic distance markers.
- Mirror or normal views.
- Auto on when reverse gear selected.
- Adjustable mount.
- VBV-770DM supplied with additional mount.
- Capacitive touch buttons on all models.
- Detachable sun visor.
- Multi-voltage.
- 3 Year warranty.





Voltage: 12–24V
Current Draw: 0.18A @ 28V
Video Signal: NTSC & PAL
Audio: Integrated Speaker / Headphone Jack
Shock: 50G
Vibration: 4G
Operating Temperature: -30°C to 70°C
Approvals: RoHS, CE, HALT, WEEE





#### Backeye Select Monitors - Digital - 7"

Part No. Screen Size Screen Resolution Camera Inputs Split Screen Picture in Picture AV Input AV Output

VBV-77ODM 7" 800 x 480 3 — — 1 — 1 —

Supplied with detachable sun visor & adjustable mount.





#### Backeye Select Monitors - Digital - 5"

Part No. Screen Size Screen Resolution Camera Inputs Split Screen Picture in Picture AV Input AV Output VBV-750DM 5" 800 x 480 3 — — — —

Supplied with detachable sun visor & adjustable mount.



#### Backeye Select Monitor - Digital - Accessory

Part No.

Description

**BMM**-015

Mount – Standard duty. Suits Backeye Select Monitors



VBV-485C



- Infrared LEDs for ultra-low light performance.
- Day/Night sensor.
- Mirror view.
- Wide angle view.
- Vibration resistant rugged construction.
- "Eyeball" surface mount features a multiadjustable lens.
- VBV-485C supplied with angled spacers for mounting on sloping surfaces.
- Environmentally sealed.
- 3 year warranty.



Voltage: 12V (supplied via monitor) Video Signal: Image Sensor: 1/3" Sharp® CCD Minimum Illumination : O.1lx Body: Aluminium Vibration: 10G

Surface Mount 8.5G Approvals : CE Marked C-Tick Operating Temperature: -30°C to 70°C

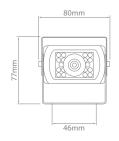














#### Backeye Select Cameras - Digital - Pedestal Mount

Part No. Field of View IP Rating TV Lines Microphone Heater **VBV**-700C 88° Hor. 68° Vert. 620 IP67 Yes















#### Backeye Select Cameras - Digital - Surface Mount "Eyeball"

Part No.	Description	Field of View	TV Lines	Microphone	Heater	IP Rating
<b>VBV</b> -300 <b>C</b>	Mirror View	110° Hor. 82° Vert.	780	Yes	_	IP69K
<b>VBV</b> -320 <b>C</b>	Normal View	110° Hor. 82° Vert.	780	Yes	_	IP69K







#### Backeye Select Cameras - Digital - Flush Mount

Part No. Field of View TV Lines Microphone IP Rating Heater **VBV**-485C 90° Hor. 69° Vert. 680 IP68, IP69K





#### Backeye Select - Digital - Cables

 Description
 2.5m
 5m
 10m
 20m

 Standard cable
 VBV-L4025
 VBV-L405
 VBV-L410
 VBV-H420



### Backeye Select - Digital - Adaptors & Connections

Part No. Description

AC-006 Adaptor – Connect Backeye Select cables to BE monitors

AC-007 Adaptor – Connect Backeye Elite cables to VBV monitors

AC-024 Adaptor – Connect Backeye Select monitors to RCA cameras

Adaptors for use at monitor (in-cabin) end only.

AC-24-12-001 Adaptor – Connect Backeye Select cameras to BE monitors, built-in 24–12V reducer
AC-24-12-007 Adaptor – Connect Backeye Select cameras to IVECONNECT, built-in 24–12V reducer

SC-07-24S Suzi coil for use with VSP-47A, VSP-47B

VSP-47A Connector – Cab side VSP-47B Connector – Trailer side

VCS-020 Camera Diverter – Automatically selects rearmost camera when a trailer is connected

VSK-30E Complete Kit for Articulated Truck

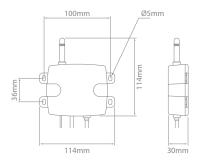
Kit contents: 1 x VBV-L410, 1 x VBV-H420, 1 x VSP-47A, 1 x VSP-47B & 1 x SC-07-24S.



- Wireless connectivity for digital CCTV systems.
- Reduces installation time.
- Eliminates the need for additional suzi coils on articulated vehicles
- 'Re-pair' facility allows for interchangeable trailers.
- Supplied with adaptors to suit the Elite range of cameras & monitors.
- Transmitter environmentally sealed IP69K.
- Digital technology.
- 3 year warranty.

12-24V 0.22A Voltage: Current Draw: Latency: 200ms Body: ABS & Polycarbonate Vibration: 6G Approvals: CE Marked EMC: C-Tick Operating Temperature: -40°C to 70°C Ingress Protection: Transmitter IP69K

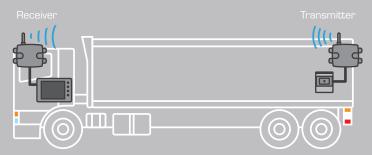






Connecting a rear view camera system to a large vehicle or machine can be time consuming and awkward due to the amount of cable to install. Brigade's new wireless system eliminates excess cabling, saving up to two hours fitment time and removes the need for an additional suzi coil.

New digital wireless technology gives almost instantaneous pictures (camera to monitor in less then 200 milliseconds) and is not affected by electrical interference from other vehicles or machine equipment.



#### Digital Wireless System

Part No. Description

**DW**-1000**TX** Transmitter - camera side **DW-1000RX** Receiver - monitor side

Not compatible with AHD systems.





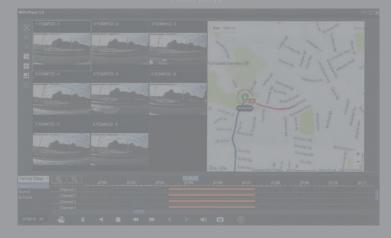
# Why Install a Mobile Digital Recorder?

- Prevent false insurance claims such as 'crash for cash' scams
- Protection for drivers who may be wrongly accused
- Provides irrefutable evidence in the case of accidents and legal proceedings
- Useful in reducing shrinkage and catching perpetrators
- Encourages driver best practice, so less vehicle damage and accidents
- Enables more effective driver training
- Vandalism deterrent
- Can help to lower insurance premiums
- Peace of mind for passengers
  and drivers

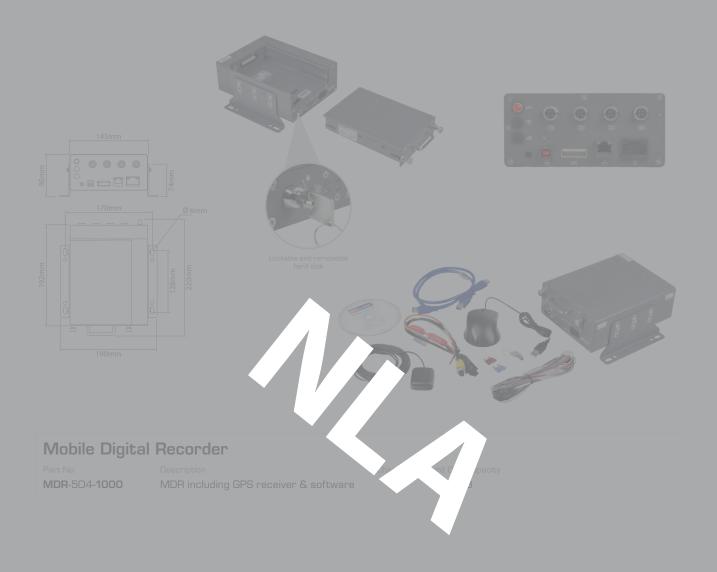
### MDR Dashboard

MIDR Dashboard software is supplied as part of the base kit. This simple to use PC program features standard video playback controls as well as options to save single image jpg's and video files in popular formats.

MDR Dashboard can also synchronise with virtual globe programs such as Google™ Earth Plus, allowing you to automatically follow the journey as the









#### Mobile Digital Recorder - Accessories

Part No.

MDR-MOUSE-01

MDR-400-GPS GPS antenna – 5m cable

MDR-400-RP01 Remote status & interface panel with panic button – 6m cable

AC-306 Adapter – Connect 1 Select camera to MDR and monitor
AC-307 Adapter – Connect 1 Elite camera to MDR and monitor

