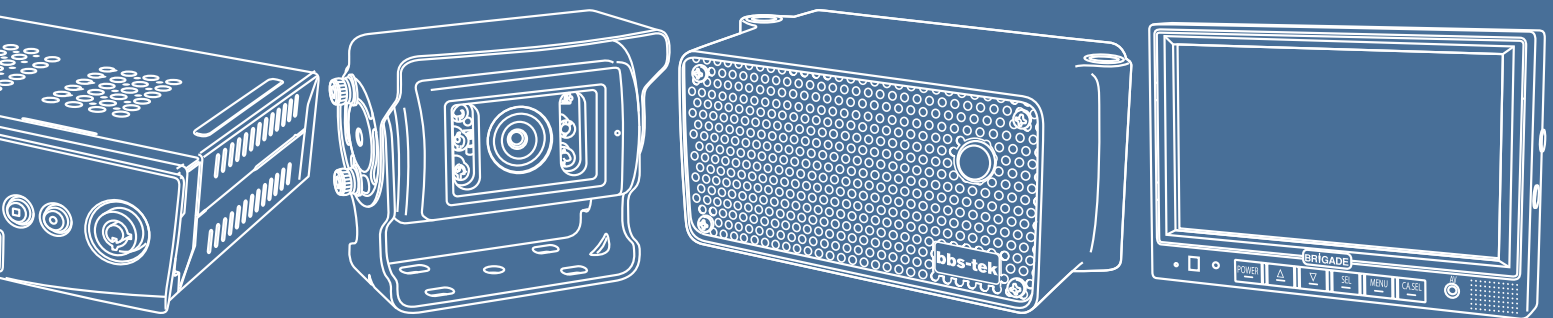


Vehicle Safety Solutions

Product Catalogue 2013



English



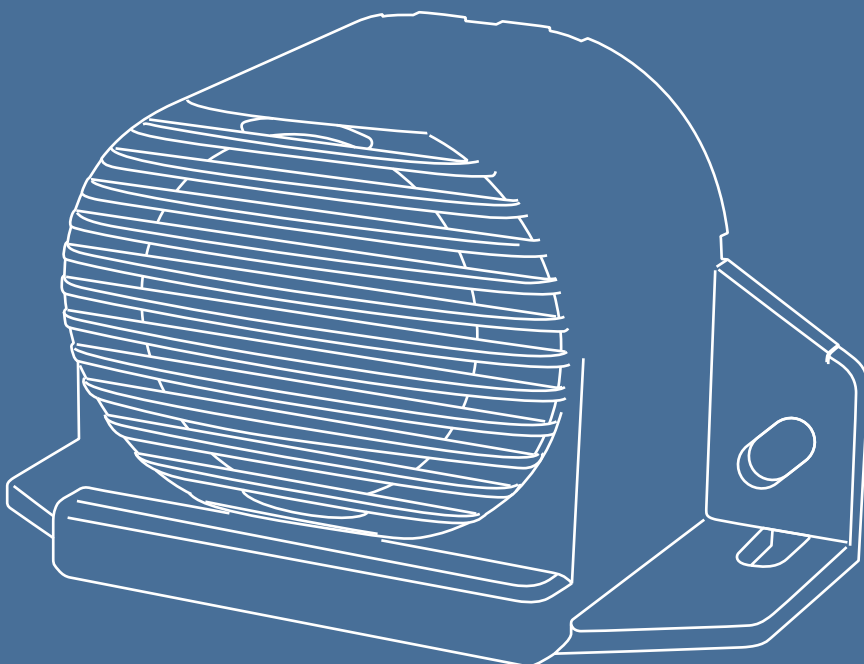
Brigade

Brigade Electronics is a market leader in vehicle safety systems, with over thirty five years experience, creating what is today an unparalleled knowledge of the problems our customers face. Our name is synonymous with quality, reliability and innovation.

We provide a full range of complementary leading edge safety systems for all types of commercial vehicle and mobile plant machinery. Not only does this enhance driver, passenger and pedestrian safety, but it improves efficiency leading to significant cost savings.

The Brigade group is based in the UK, has subsidiary companies in the USA, Germany, France, Italy and The Netherlands, a joint venture in South Africa and is in partnership with over 50 specialist distributors worldwide, with current exports across all five continents.

We rigorously test all products beyond industry standards to achieve quality and reliability. In fact we are so confident in our products that we can provide two year, three year and in the case of some products, lifetime warranties.



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Driving Global Safety



Backeye®

All round visibility for commercial vehicles and mobile plant.

Which range is for you?

Extreme

Especially suited to heavy duty applications or where the cab is exposed to the elements.



Elite

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



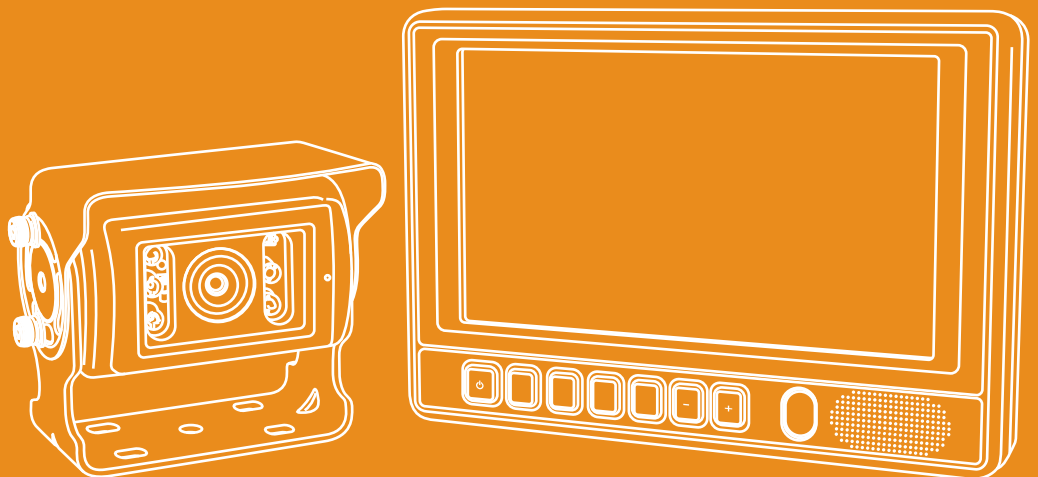
Select

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



Essential

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



camera monitor systems

Choosing your camera monitor system

Select from our range of popular complete standard systems featured on pages 4-5 or build your own system referring to the camera monitor compatibility chart below, adding cables, adapters and ancillaries to connect and upgrade your system.

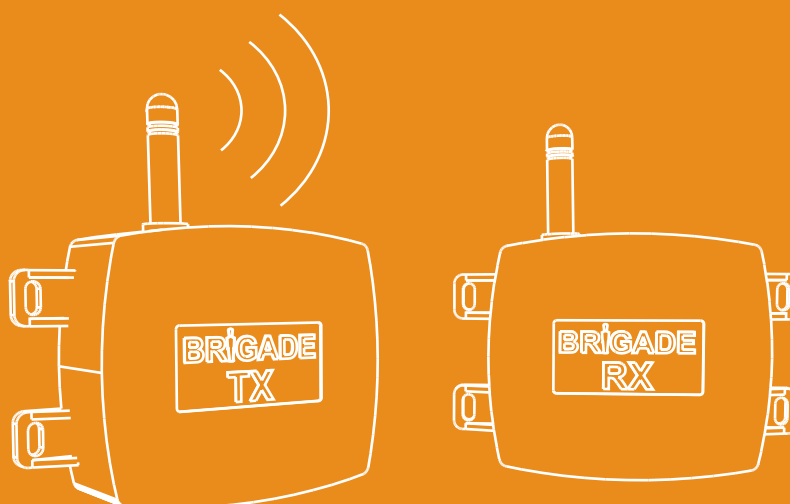
Camera/monitor compatibility		MONITORS					
		EXTREME		ELITE		SELECT	
		BE-970WFM	BE-970WM	BE-865DDM	BE-870LM BE-856GM	VBV-770FM VBV-770DM VBV-750DM	VBV-770DM-S VBV-750DM-S
CAMERAS	ELITE						
CAMERAS	SELECT						

NEW Digital wireless system

Cable free connection

Connecting a rear view camera system to a large vehicle or machine can be timely 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 retractable coiled cable (suzie).

New digital wireless technology gives almost instantaneous pictures (camera to monitor in less than 200 milliseconds) and is not affected by electrical interference from other vehicle 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.



See page 15

ELITE RANGE CAMERA MONITOR SYSTEM



BE-870L-000 - Single camera system for rigid vehicles

3231

- BE-870LM - monitor
- BE-800C - camera
- BE-L120 - 20m cable
- 3 year warranty



Monitor

- 12-24Vdc
- 2 camera inputs
- Size (WxHxD)
197 x 128 x 28mm

Camera

- Viewing angle (HxVxD)
101 x 70 x 133°
- IP68
- Size (WxHxD)
86 x 80 x 72mm

See individual products for detailed specifications

ELITE RANGE CAMERA MONITOR SYSTEM



BE-856G-000 - Single camera system for rigid vehicles

4012

- BE-856GM - monitor
- BE-800C - camera
- BE-L120 - 20m cable
- 3 year warranty



Monitor

- 12-24Vdc
- 2 camera inputs
- Size (WxHxD)
172 x 115 x 32mm

Camera

- Viewing angle (HxVxD)
101 x 70 x 133°
- IP68
- Size (WxHxD)
86 x 80 x 72mm

See individual products for detailed specifications

BEST SELLER

SELECT RANGE CAMERA MONITOR SYSTEM



VBV-770D-000 - Single camera monitor system for rigid vehicles

3383

- VBV-770DM - monitor
- VBV-700C - camera
- VBV-L420 - 20m cable
- 2 year warranty



Monitor

- 12-24Vdc
- 3 camera inputs
- Size (WxHxD)
182 x 122 x 30mm

Camera

- Viewing angle (HxVxD)
90 x 71 x 120°
- IP67
- Size (WxHxD)
81 x 71 x 70mm

See individual products for detailed specifications

SELECT RANGE CAMERA MONITOR SYSTEM



VBV-770D-100 - Single shutter camera monitor system for rigid vehicles 3704

- **VBV-770DM - monitor**
- **VBV-710C - camera**
- **VBV-L520 - 20m cable**
- **2 year warranty**



Monitor

- 12-24Vdc
- 3 camera inputs
- Size (WxHxD)
182 x 122 x 30mm

Camera

- Viewing angle (HxVxD)
85 x 62 x 110°
- IP69K
- Size (WxHxD)
122 x 82 x 83mm

See individual products for detailed specifications

BEST SELLER

SELECT RANGE CAMERA MONITOR SYSTEM



VBV-750D-000 - Single camera monitor system for rigid vehicles 3279

VBV-750D-010 - Single camera monitor system for vans & small rigid vehicles 3362

- **VBV-750DM - monitor**
- **VBV-700C - camera**
- **VBV-L420 - 20m cable**
- **2 year warranty**



Monitor

- 12-24Vdc
- 3 camera inputs
- Size (WxHxD)
148 x 110 x 31.5mm

Camera

- Viewing angle (HxVxD)
90 x 71 x 120°
- IP67
- Size (WxHxD)
81 x 71 x 70mm

See individual products for detailed specifications

ESSENTIAL RANGE CAMERA MONITOR SYSTEM



VBV-650A-000 - Single camera monitor system for rigid vehicles 3681

- **VBV-650AM - monitor**
- **VBV-620C - camera**
- **VBV-L420 - 20m cable**
- **1 year warranty**



Monitor

- 12-24Vdc
- 1 camera input
- Size (WxHxD)
148 x 110 x 30.2mm

Camera

- Viewing angle (HxVxD)
76 x 55 x 96°
- IP67
- Size (WxHxD)
64.5 x 59 x 55mm

ADDITIONAL CAMERA MONITOR SYSTEMS

Kits for articulated trucks and trucks with draw-bar trailers are available. We also offer kits with twin cameras, shutter cameras and side view cameras. Please contact us for details

BEST SELLER**ELITE RANGE CAMERA**

Heated camera

BE-800C**BE-800C(40) - Narrow viewing angle: 33 x 25 x 40°****BE-800C(78) - Narrow viewing angle: 64 x 47 x 78°****BE-890C - Waterproof to IP69K, No audio****1623****1559****1426****2871**

- Viewing angle (HxVxD)
101 x 70 x 133°

- IP68

- Size (WxHxD)
86 x 80 x 72mm

- 3 year warranty

**Features**

- 5 Infrared LEDs for ultra-low light performance
- 5m illumination distance
- Heater
- Audio
- Day / Night sensor
- Mirror / Normal view
- 1/3" Sony CCD
- TV System: PAL
- TV lines: 380

Power

- Power consumption: 4 Watts
- Current: 0.33 Amps

Durability & Standards

- Mechanical vibration: 20G
- Mechanical shock: 100G
- Operating temperature: -30 to +80°C
- CE marked
- EMC approved: e
- HALT tested
- ISO 13766: 2006 (BE-890C only)

ELITE RANGE CAMERA**BE-810C - Heated shutter camera****1242**

- Viewing angle (HxVxD)
103 x 71 x 134°

- IP69K

- Size (WxHxD)
123 x 85.5 x 80.4mm

- 3 year warranty

**Features**

- 6 Infrared LEDs for ultra-low light performance
- 5m illumination distance
- Shutter
- Heater
- Audio
- Day / Night sensor
- Mirror / Normal view
- 1/3" Sony CCD
- TV System: PAL
- TV Lines: 380

Power

- Power consumption: 5 Watts
- Current: 0.5 Amps

Durability & Standards

- Mechanical vibration: 10G
- Mechanical shock: 100G
- Operating temperature: -40 to +80°C
- CE marked
- EMC approved: e

ELITE RANGE CAMERA**BE-820C - Mini camera (mirror image)****1927****BE-822C - Mini camera (normal image)****2151**

- Viewing angle (HxVxD)
111 x 87 x 129°

- IP68

- Size (WxHxD)
47 x 40 x 50mm

- 3 year warranty

**Features**

- 1/4" Sony CCD
- TV System: PAL
- TV Lines: 380

Power

- Power consumption: 1.5 Watts
- Current: 0.1 Amps

Durability & Standards

- Mechanical vibration: 10G
- Mechanical shock: 100G
- Operating temperature: -20 to +70°C
- CE marked
- EMC approved: E
- HALT tested

ELITE RANGE CAMERA



DMC-1025 - Digital mini camera (internal use)

1529

• **Viewing angle (HxVxD)**
73 x 51 x 89°

• **IP66**

• **Size (WxHxD)**
42.5 x 45 x 37.7mm

• **3 year warranty**



Features

- Mirror / Normal view
- 1/3" Sony CCD
- TV System: PAL
- TV Lines: 520

Power

- Power consumption: 0.84 Watt
- Current: 0.07Amps

Durability & Standards

- Mechanical vibration: 10G
- Operating temperature: -20 to +70°C
- CE marked

BEST SELLER

ELITE RANGE CAMERA



Compact flush mount camera

BE-300C - Left side-view (low mount - mirror view)

2052

BE-301C - Right side-view (low mount - mirror view)

2053

BE-302C - Rear view (high mount - mirror view)

2065

BE-303C - Front or side-view (high mount - normal view)

2091

BE-304C - Internal view (ceiling mount - normal view)

2092

BE-305C - Left side-view (low mount - normal view)

2794

BE-306C - Right side-view (low mount - normal view)

2795

• **Viewing angle (HxVxD)**
79 x 54 x 110°

• **IP69K**

• **Size (WxHxD)**
45.4 x 45 x 65mm

• **3 year warranty**



Features

- 1/3" Sony CCD
- TV System: PAL
- TV Lines: 420

Power

- Power consumption: 1.2 Watts
- Current: 0.1 Amps

Durability & Standards

- Mechanical vibration: 30G
- Operating temperature: -30 to +85°C
- CE marked
- R46 and 2003/97/EC approved for indirect vision (For use with specific monitors only)



OPTIONAL EXTRAS

SP-3XX-25 - Surface mounting adapter (25mm deep)

3976

WE-3XX-15 - Angled surface mounting adapter (adds 15°)

3975

ELITE RANGE CAMERA



MD-50 - Mini dome camera (internal use)

2581

- **Viewing angle (HxVxD)**
73 x 51 x 89°
- **IP66**
- **Size (Diameter x H)**
76 x 26mm
- **3 year warranty**



Features

- Mirror/Normal view
- 1/3" Sony CCD
- TV System: PAL
- TV Lines: 520

Power

- Power consumption: 0.84W
- Current: 0.07 Amps

Durability & Standards

- Mechanical vibration: 10G
- Operating temperature: -20 to +70°C
- CE marked



OPTIONAL EXTRAS

MD-50SM - Surface mounting adapter (30mm deep)

2582

MD-50AM - Angled surface mounting adapter (adds 15°)

2583

BEST SELLER

SELECT RANGE CAMERA



VBV-700C

1379

VBV-790C - Waterproof to IP69K, no audio

2724

- **Viewing angle (HxVxD)**
90 x 71 x 120°
- **IP67**
- **Size (WxHxD)**
81 x 71 x 70mm
- **2 year warranty**



Features

- 18 Infrared LEDs for ultra-low light performance
- 15m illumination distance
- Audio
- Day / Night sensor
- Mirror view
- 1/3" Sharp CCD
- TV System: PAL
- TV Lines: 420

Power

- Power consumption: 2.4 Watts
- Current: 0.2 Amps

Durability & Standards

- Mechanical vibration: 10G
- Mechanical shock: 100G
- Operating temperature: -20 to +70°C
- CE marked
- EMC approved: e
- HALT tested

SELECT RANGE CAMERA



VBV-710C - Heated shutter camera 2808

For connection to VBV-770DM-S and VBV-750DM-S 5-pin Select monitors
Requires 5-pin 10m (VBV-L510) or 20m (VBV-L520) camera cable

VBV-710C(AC) - Heated shutter camera 3703

Includes 5-pin to 4-pin adapter (AC-035) for connection to other Select monitors

• Viewing angle (HxVxD)
85 x 62 x 110°

• IP69K

• Size (WxHxD)
122 x 82 x 83mm

• 2 year warranty



Features

- 12 Infrared LEDs for ultra-low light performance
- 10m illumination distance
- Shutter
- Heater
- Audio
- Day / Night sensor
- Mirror / Normal view
- 1/3" Sony CCD
- TV System: PAL
- TV Lines: 420

Power

- Power consumption: 6 Watts
- Current: 0.43 Amps

Durability & Standards

- Mechanical vibration: 25G
- Operating temperature: -20 to +70°C
- CE Marked
- EMC approved: e

SELECT RANGE CAMERA



VBV-485C - Cylinder camera 2199

• Viewing angle (HxVxD)
88 x 64 x 112°

• IP67

• Size (diameter x length)
35 x 50mm

• 2 year warranty



Features

- 9 LEDs for ultra-low light performance
- 8m illumination distance
- Mirror view
- 1/3" Sharp CCD
- TV System: PAL
- TV Lines: 420

Power

- Current: 0.1 Amps

Durability

- Mechanical vibration: 10G
- Operating Temperature: -20 to +70°C
- CE marked

SELECT RANGE CAMERA



VBV-010C - Eyeball camera (Mirror image) 3764

VBV-020C - Eyeball camera (Normal image) 3766

VBV-030C - Eyeball camera - Side view (Mirror image) 3760

VBV-040C - Eyeball camera - Side view (Normal image) 3762



Side view

• Viewing angle (HxVxD)
86 x 67 x 113°

• IP69K

• Size (WxHxD)
57 x 48 x 53mm
52 x 41 x 90.5 (side view)

• 2 year warranty



Features

- 5 infra red LEDs for ultra low-light performance
- 10m illumination distance
- Day/night sensor
- 1/3" Sharp CCD
- TV System: PAL
- TV Lines: 420

Power

- Power consumption: 2.1 Watts
- Current: 0.15 Amps

Durability & Standards

- Mechanical vibration: 8G
- Operating temperature: -20 to +60°C
- CE marked
- EMC approved: e
- R46 and 2003/97/EC approved for indirect vision (For use with specific monitors only)

NEW LOWER PRICE THERMAL IMAGING CAMERA


PF-09P-100 - PathFindIR thermal imaging camera 9Hz (PAL)
PF-25P-100 - PathFindIR thermal imaging camera 25Hz (PAL)

4136
4137

- 12Vdc
- Viewing angle (HxV)
36 x 27°
- Sees up to 5 times further than vehicle headlights
- Size (WxHxD)
58 x 72 x 57mm
- 2 year warranty

Features

- Produces a clear image, even in total darkness
- See through smoke, dust and light fog
- Allows drivers to detect pedestrians, animals or objects on or near the road
- Built in heater
- Includes 6m power and video cable

Image

- 324 x 256 pixel microbolometer
- 19mm lens
- Spectral range: 8 to 14µm
- Image Frequency: 9/25Hz (PAL)

Power

- Power consumption: 6 Watts

Durability & Standards

- Mechanical vibration: tested to IAW IEC 60068-2-64
- Mechanical shock: tested to IEC 60068-2-27G
- Operating temperature: -40 to +80°C
- Sand / dust resistant to: Mil-Std810
- CE marked
- EMC approved: e

NEW
ESSENTIAL RANGE MONITOR


VBV-243M - 4.3" Digital mirror monitor

4070

- 12Vdc
- 1 camera input
- Size (WxDxH)
259 x 88 x 22 mm
- 1 year warranty


Features

- On screen display menu
- Digital LCD panel
- 1 Auto-trigger
- TV system: PAL/NTSC

Picture Quality

- Resolution: 480 x 3 x 272
- Contrast ratio: 500:1
- Brightness: 200cd/m²
- Viewing angles:
Side 50° x Top 60° x Bottom 55°

Power

- Power consumption: 4.95 Watts
- Current: 450mA @ 11Vdc

Durability & Standards

- Vibration rating: 6G
- Operating temperature:
-20 to +70°C
- CE marked

NEW

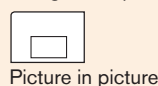
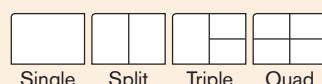
EXTREME RANGE MONITOR



BE-970WFM - Waterproof multi-image 7" Digital LCD monitor

3560

- 12-24Vdc
- 4 camera inputs
- IP69K
- Size (WxHxD)
194 x 124 x 48mm
- 3 year warranty



Plus Additional
In-Built Image
Options

Features

- Shutter camera compatible
- Backlit touch screen button panel
- 'Button-lock' anti tamper feature
- 5 Auto-triggers
- Mirror/Normal switching from menu
- On screen distance and vertical line markers
- Audio
- Speed switch trigger to operate system or determine split screen display
- Sun shield
- Multi-lingual menus
- Auto-switching PAL/NTSC

Picture Quality

- LED backlighting (gives 20,000 hours life)
- Anti-glare screen
- Resolution: 800 x 3 x 480
- Contrast ratio: 500:1
- Brightness: 500cd/m²
- Viewing angles:
Side 65° x Top 50° x Bottom 60°

Power

- Power consumption: min 11 Watts
- Current: min 0.9 Amps

Durability & Standards

- Aluminium die cast casing
- Mechanical vibration: 10G
- Mechanical shock: 100G
- Operating temperature: -40 to +75°C
- CE marked
- EMC approved: e
- ISO 16750
- ISO 13766: 2006
- HALT tested

EXTREME RANGE MONITOR



BE-970WM - Waterproof 7" Digital LCD monitor

3351

- 12-24Vdc
- 2 camera inputs
- IP69K
- Size (WxHxD)
194 x 124 x 48mm
- 3 year warranty


Features

- Shutter camera compatible
- Backlit touch screen button panel
- 'Button-lock' anti tamper feature
- 2 Auto-triggers
- Mirror/Normal switching from menu
- On screen distance and vertical line markers
- Audio
- Sun shield
- Multi-lingual menus
- Auto-switching PAL/NTSC

Picture Quality

- LED backlighting (gives 20,000 hours life)
- Anti-glare screen
- Resolution: 800 x 3 x 480
- Contrast ratio: 500:1

- Brightness: 500cd/m²
- Viewing angles:
Side 65° x Top 50° x Bottom 60°

Power

- Power consumption: 11 Watts
- Current: 0.9 Amps

Durability & Standards

- Aluminium die cast casing
- Mechanical vibration: 20G
- Mechanical shock: 100G
- Operating temperature: -40 to +70°C
- CE marked
- EMC approved: e
- ISO 16750
- ISO 13766: 2006
- HALT tested

ELITE RANGE MONITOR



BE-870LM - 7" LCD monitor

2705

- 12-24Vdc
- 2 camera inputs
- Size (WxHxD)
197 x 128 x 28mm
- 3 year warranty



Features

- 'Button-lock' anti tamper feature
- 2 Auto-triggers
- Mirror / Normal switching from menu
- On-screen distance markers
- Vertical markers to align tow hooks or bin lift mechanisms
- Audio
- Sun shield
- Auto-dimmer
- Multi-lingual menus
- Auto-switching PAL / NTSC

Picture Quality

- LED backlighting (gives 20,000 hours life)
- Anti-glare screen

- Resolution: 480 x 3 x 234
- Contrast ratio: 250:1
- Brightness: 450cd/m²
- Viewing angles:
Side 60° x Top 30° x Bottom 60°

Power

- Power consumption: 8.4 Watts
- Current: 0.28 Amps

Durability & Standards

- Mechanical vibration: 10G
- Mechanical shock: 100G
- Operating temperature: -40 to +70°C
- CE marked
- EMC approved: e
- ISO 16750

NEW

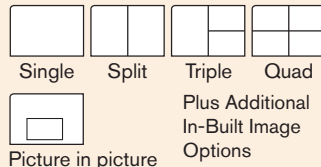
ELITE RANGE MONITOR



BE-865DDM - Double DIN 6.5" Digital LCD Monitor

3935

- 12-24Vdc
- 4 camera inputs
- Size (WxHxD) Double DIN
188 x 116 x 116mm
- 3 year warranty



Features

- Shutter camera compatible
- Tilt camera compatible
- Backlit touch screen button panel
- 'Button-lock' anti tamper feature
- 5 Auto-triggers with option to select 3 triggers for split mode
- Mirror/Normal switching from menu
- On screen distance and vertical line markers
- Audio
- Speed switch trigger to operate system or determine split screen display
- Sun shield
- Multi-lingual menus
- Audio/video inputs/output
- Auto-switching PAL/NTSC

Picture Quality

- LED backlighting (gives 20,000 hours life)

- Anti-glare screen
- Resolution: 800 x 3 x 480
- Contrast ratio: 500:1
- Brightness: 500cd/m²
- Viewing angles:
Side 70° x Top 50° x Bottom 70°

Power

- Power consumption: min 15.4 Watts
- Current: min 1.4 Amps

Durability & Standards

- Mechanical vibration: 6G
- Operating temperature: -40 to +70°C
- CE marked
- EMC approved: e
- ISO 13766: 2006
- R46 and 2003/97/EC approved for indirect vision (For use with specific cameras only)

ELITE RANGE MONITOR


BE-856GM - 5.6" Digital LCD monitor
3756

- 12-24Vdc
- 2 camera inputs
- Size (WxHxD)
172 x 115 x 32mm
- 3 year warranty



Features

- 2 Auto-triggers
- Mirror / Normal switching from menu
- On-screen distance & vertical line markers
- Audio
- Sun shield
- Auto-dimmer
- Multi-lingual menus
- Auto-switching PAL/NTSC

Picture Quality

- LED backlighting (gives 20,000 hours life)
- Anti-glare screen
- Resolution: 640 x 3 x 480
- Contrast ratio: 500:1

- Brightness: 350cd/m²
- Viewing angles:
Side 70° x Top 50° x Bottom 70°

Power

- Power consumption: 11 Watts
- Current: 0.9 Amps

Durability & Standards

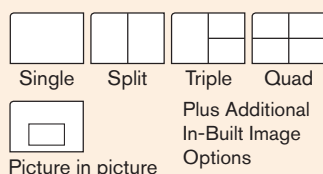
- Mechanical vibration: 10G
- Mechanical shock: 50G
- Operating temperature: -40 to +70°C
- CE marked
- EMC approved: e
- ISO 13766: 2006
- ISO 16750
- HALT tested

NEW

SELECT RANGE MONITOR


VBV-770FM - Multi-image 7" Digital LCD monitor
3901

- 12-24Vdc
- 4 camera inputs
- Size (WxHxD)
182 x 122 x 43mm
- 2 year warranty



Features

- 'Button-lock' anti tamper feature
- 5 Auto-triggers
- Mirror / Normal switching from menu
- On-screen distance markers
- Audio
- Sun shield
- Multi-lingual menus
- Auto-switching PAL / NTSC

Picture Quality

- LED backlighting (gives 20,000 hours life)
- Anti-glare screen
- Resolution: 800 x 3 x 480
- Contrast ratio: 500:1
- Brightness: 400cd/m²
- Viewing angles:
Side 70° x Top 50° x Bottom 60°

Power

- Power consumption: 15 watts
- Current: 1.3 Amps

Durability & Standards

- Mechanical vibration: 3G
- Operating temperature: -30 to +70°C
- CE marked
- EMC approved: e

BEST SELLER

SELECT RANGE MONITOR



VBV-770DM -
VBV-770DM-S -

7" Digital LCD monitor

7" Digital LCD monitor

Includes 1 5-pin input for connection to VBV-710C shutter camera

3355

3984

- 12-24Vdc
- 3 camera inputs
- Size (WxHxD)
182 x 122 x 30mm
- 2 year warranty



Features

- 3 Auto-triggers
- Mirror / Normal switching from menu
- 'Button lock' anti-tamper feature
- On-screen distance markers
- Audio
- Sun shield
- Auto-dimmer
- 'Plug and Play' to accept DVD, sat nav or other add-ons
- Multi-lingual menus
- Auto-switching PAL / NTSC

Picture Quality

- LED backlighting (gives 20,000 hours life)
- Anti-glare screen

- Resolution: 800 x 3 x 480
- Contrast ratio: 500:1
- Brightness: 400cd/m²
- Viewing angles:
Side 70° x Top 50° x Bottom 60°

Power

- Power consumption: 5 Watts
- Current: 0.18 Amps

Durability & Standards

- Mechanical vibration: 10G
- Mechanical shock: 100G
- Operating temperature: -20 to +70°C
- CE marked
- EMC approved: e
- HALT tested

BEST SELLER

SELECT RANGE MONITOR



VBV-750DM -
VBV-750DM-S -

5" Digital LCD monitor

5" Digital LCD monitor

Includes 1 5-pin input for connection to VBV-710C shutter camera

3280

3982

- 12-24Vdc
- 3 camera inputs
- Size (WxHxD)
148 x 110 x 31.5mm
- 2 year warranty



Features

- 3 Auto-triggers
- Mirror / Normal switching from menu
- On-screen distance markers
- 'Button lock' anti-tamper feature
- Audio
- Sun shield
- Auto-dimmer
- Multi-lingual menus
- Auto-switching PAL / NTSC

Picture Quality

- LED backlighting (gives 20,000 hours life)
- Anti-glare screen
- Resolution: 640 x 3 x 480

- Contrast ratio: 500:1
- Brightness: 200cd/m²
- Viewing angles:
Side 70° x Top 50° x Bottom 70°

Power

- Power consumption: 5 Watts
- Current: 0.18 Amps

Durability & Standards

- Mechanical vibration: 10G
- Mechanical shock: 100G
- Operating temperature: -20 to +70°C
- CE marked
- EMC approved: e
- HALT tested

NEW

WIRELESS CAMERA MONITOR CONNECTION SYSTEM


DW-1000-TX - Digital Wireless Transmitter
4043
DW-1000-RX - Digital Wireless Receiver
4044

- Digital technology
- 12-24Vdc
- 1 camera input
- IP69K (Transmitter)
- Size (WxHxD)
113 x 114 x 30mm
- 2 year warranty

Features

- Image Latency: 200 milliseconds
- Eliminates the need for retractable coiled cables
- Reduces installation time
- Re-pair facility allows for interchangeable trailers
- Compatible with Brigade's camera monitors
- Triggered by reverse gear
- TV System PAL/NTSC
- Secure connection
- Transmission frequency: 2.4 GHz

Power

- Maximum Current Amps: TX: 0.85 RX: 0.17
- Transmitter powers from reverse light

Durability & Standards

- Operating temperature: -40 to +70°C
- Mechanical vibration: 6G
- Mechanical shock: 20G
- CE marked

ELITE/EXTREME RANGE TRUCK/TRAILER CABLE KIT

SK-31E - Cable kit for articulated trucks - unique pin layout
1830
SK-31E-T - Trailer only version
1886


SK-31E Cable kit

- BE-L110 - 10m cable for cab
- BE-X020 - 20m extension cable for trailer
- SP-7A - 7-pin bulkhead socket for cab & cab-end camera connector (unique pin layout)
- SP-7B - 7-pin bulkhead socket for trailer & trailer-end camera connector (unique pin layout)
- SC-7 - Coiled cable with 7-pin plugs (unique pin layout)

ELITE/EXTREME RANGE TRUCK/TRAILER CABLE KIT

SK-30E - Cable kit for articulated trucks
1144
SK-30E-T - Trailer only version
1885


SK-30E Cable kit

- BE-L110 - 10m cable for cab
- BE-X020 - 20m extension for trailer
- SP-07C - 7-pin bulkhead socket for cab & cab-end camera connector
- SP-07T - 7-pin bulkhead socket for trailer & trailer-end camera connector
- SC-07 - Coiled cable with 7-pin plugs

TRUCKS WITH DRAW-BAR TRAILER CABLE KITS

Kits for draw-bar trailers, including twin cameras and shutter cameras are available, please contact us for details

ELITE/EXTREME RANGE TRUCK/TRAILER CABLE KIT

SK-15-01 - Three camera cable kit for articulated trucks

3427



- SP-15A-01 - 15-pin bulkhead socket for cab & 3 cab-end camera connectors

- SP-15B-01 - 15-pin bulkhead socket for trailer & 3 trailer-end camera connectors

- SC-15-01 - Coiled shielded cable with 15-pin plugs

ELITE/EXTREME RANGE TRUCK/TRAILER CABLE KIT

SK-15-04 - Single camera & single buzzer Ultrasonic Detection System (new generation) cable kit for articulated trucks

3997



- SP-15A-04 - 15-pin bulkhead socket for cab & cab-end camera connector plus stripped wires and display/buzzer connection for Ultrasonics

- SP-15B-04 - 15-pin bulkhead socket for trailer & trailer-end camera connector plus stripped wires and display/buzzer connection for Ultrasonics

- SC-15-01 - Coiled shielded cable with 15-pin plugs

SELECT RANGE TRUCK/TRAILER CABLE KIT

VSK-31E - Cable kit for articulated trucks - unique pin layout

2539

VSK-31E-T - Trailer only version

2543



VSK-31E Cable kit

- VBV-L410 - 10m cable for cab
- VBV-L420 - 20m cable for trailer
- SP-7A - 7-pin bulkhead socket for cab & cab-end camera connector (unique pin layout)

- SP-7B - 7-pin bulkhead socket for trailer & trailer-end camera connector (unique pin layout)

- AC-014 - Adapter cable

- AC-006 - Adapter cable

- SC-7 - Coiled cable with 7-pin plugs (unique pin layout)

SELECT RANGE TRUCK/TRAILER CABLE KIT

VSK-30E - Cable kit for articulated trucks

2538

VSK-30E-T - Trailer only version

2542



VSK-30E Cable kit

- VBV-L410 - 10m cable for cab
- VBV-L420 - 20m cable for trailer
- VSP-47A - 7-pin bulkhead socket for cab & cab-end camera connector

- VSP-47B - 7-pin bulkhead socket for trailer & trailer-end camera connector

- SC-07-24S - Coiled cable with type 24S 7-pin plugs

ELITE RANGE CAMERA CABLE



BE-L130 - 30 metre cable	0800
BE-L120 - 20 metre cable	0801
BE-L115 - 15 metre cable	0802
BE-L110 - 10 metre cable	0803
BE-L105 - 5 metre cable	0804
BE-L1003 - 0.3 metre cable	2797

ELITE RANGE CAMERA EXTENSION CABLE



BE-X025 - 25 metre extension cable	1907
BE-X020 - 20 metre extension cable	1143
BE-X015 - 15 metre extension cable	2101
BE-X010 - 10 metre extension cable	2100
BE-X005 - 5 metre extension cable	2099
BE-X003 - 3 metre extension cable	0805

SELECT RANGE CAMERA CABLE



VBV-L430 - 30 metre cable	2108
VBV-L420 - 20 metre cable	1380
VBV-L415 - 15 metre cable	3150
VBV-L412 - 12 metre cable	3106
VBV-L410 - 10 metre cable	1386
VBV-L405 - 5 metre cable	1499
VBV-L4025 - 2.5 metre cable	1554
VBV-L520 - 20 metre 5-pin shutter camera cable	3664
VBV-L510 - 10 metre 5-pin shutter camera cable	3663

SELECT RANGE Y-PIECE CABLE



VBV-L403PC - 3 metre Y-piece for 12Vdc power and camera cable connection to monitor	1550
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OEM CAMERA MONITOR ADAPTER CABLES

A range of OEM specific adapters to connect Brigade cameras to factory fit monitors is available - Please contact us for details

CAMERA MONITOR ADAPTER CABLE



AC-006 - Connects Select series camera to Elite or Extreme series cable 1983



AC-007 - Connects Select series monitor to Elite or Extreme series cable 1984



AC-012 - Connects 2 Elite/Extreme series monitors to Elite/Extreme series cable 2076



AC-014 - Connects Extreme or Elite series camera to Select series cable 2094



AC-020 - Connects Extreme or Elite series monitor to Select series cable 2590

AC-021 - Connects PathFindIR camera to Extreme or Elite series cable 2704



AC-022 - Upgrades monitor from VBV-750M (6 pin) to VBV-750/770BM/DM (13 pin) 2930



AC-023 - Upgrades monitor from VBV-750AM (8 pin) to VBV-750/770BM/DM (13 pin) 2931



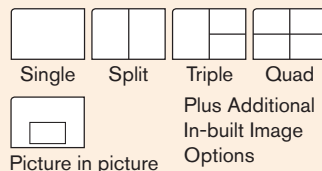
AC-035 - 5-pin to 4-pin shutter camera adapter 3702

CAMERA MONITOR SYSTEM ANCILLARIES



EDM-50 - Multi-camera module and screen splitter 2152

- 12-24Vdc
- 4 camera inputs
- Size (WxHxD)
154 x 28 x 105mm
- 2 year warranty



Features

- Shutter camera compatible
- Tilt camera compatible
- AV input to accept DVD, sat nav or other add-ons
- 5 manual or auto-triggers for each camera
- On screen distance markers
- Mirror / Normal image switch for each camera
- Selectable camera audio
- Auto-scanning function
- Compatible across Brigade camera monitor range (adapters required for Select series)

Power

- Power consumption: 20 Watts

Durability & Standards

- Mechanical vibration: 5G
- Operating temperature: -25 to +70°C
- CE marked
- EMC approved: e

CAMERA MONITOR SYSTEM ANCILLARIES


SS-002 - Twin camera screen splitter
3044

- **12-24Vdc**
- **2 camera inputs**
- **Size (WxHxD)**
147.5 x 37 x 78mm
- **2 year warranty**



Single Split
In-Built Image Options

Features

- Offers split screen option for monitors without in-built functionality
- 3 auto-triggers for each camera
- TV System: PAL / NTSC
- Manual mirror / normal switching
- Compatible across Brigade camera monitor range (adapters required for Elite series)

Power

- Power Consumption: 10.8 Watts

Durability & Standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +70°C
- EMC approved: e

CAMERA MONITOR SYSTEM ANCILLARIES


LS-20-A - Low speed trigger module (normally closed)
3177
LS-20-B - Low speed trigger module (normally open)
3178

- **12-24Vdc**
- **Auto-triggers safety equipment at the designated speed**
- **Size (WxHxD)**
61 x 36 x 94mm
- **2 year warranty**

Features

- Simple to change triggering speed using DIP switch
- Normally closed - safety device on by default, turning off at designated speed
- Normally open - safety device off by default, turning on at designated speed
- Compatible with Brigade camera monitor systems

Power

- Power consumption: 0.1 Watts
- Current: 0.05 Amps

Durability & Standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +70°C
- CE marked

CAMERA MONITOR SYSTEM ANCILLARIES


SC-1000-ECU - Shutter camera module
3666

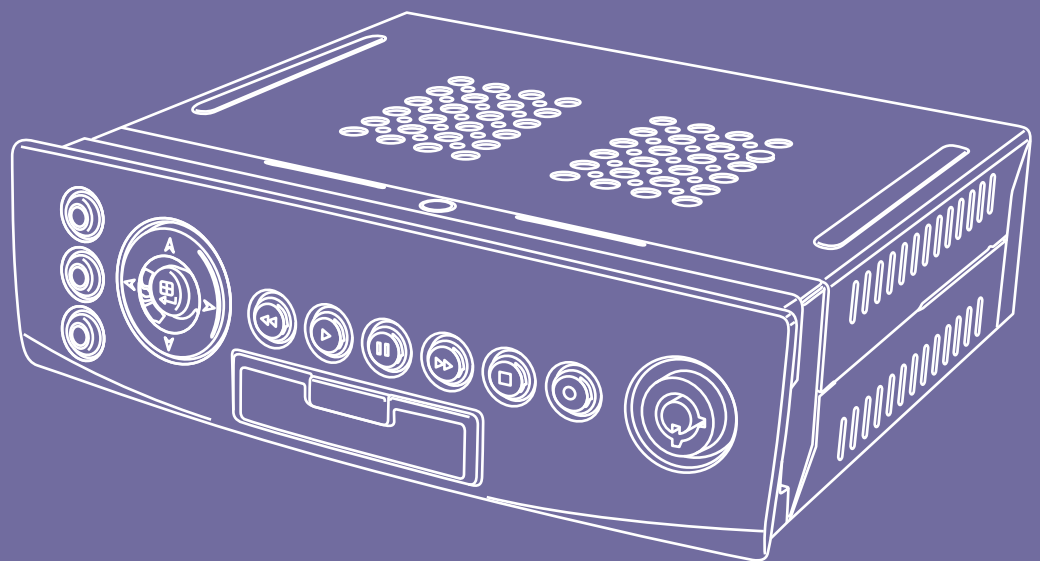
- **Allows BE-810C shutter camera to function with any Extreme or Elite range monitor (using Extreme/Elite range cables).**
- **Use AC-007 adaptor to connect to Select or Essential range monitor.**
- **CE marked**
- **EMC approved: e**

mobile digital recording

Robust and reliable four channel digital recording system providing high quality video and data records. Ideally suited to large road going vehicles in the freight, waste, bus and coach industries. Add to your camera monitor system for a range of benefits.

16 channel system also available. Please contact us for details.

- **Prevent false insurance claims**
- **Vehicle security surveillance**
- **Theft and vandalism deterrent**
- **Motivate driver best practice and enhance training**



MOBILE DIGITAL RECORDER



MDR-304A-500 - 500GB hard disk with improved data download speed 3880

- **12-24Vdc**
- **4 camera inputs**
- **4 trigger/alarm inputs**
- **Lockable central caddy**
- **Fast, easily downloadable recordings and data**
- **Size (WxHxD)**
178 x 50 x 173mm
- **3 year warranty**



Features

- Black box recorder with docking station and anti-vibration mounting
- Removable central caddy with integral hard disk and lockable keypad
- Up to 780 hours recording (based on 6 frames per second and standard image quality)
- Recording can be triggered by motion detection even when vehicle inactive
- Record images prior to alarm activation and after vehicle turned off
- Easy to use via 'DVD' style front panel
- Video and audio recordings saved on hard disk
- Download data to PC 10x faster than previous model via high speed USB 2.0 interface. Alternatively save data to removable SDHC card
- Simple to use HDD viewer software enables search of recorded video and export of critical moments to AVI video or static JPEG files

- 2 trigger / alarm outputs to trigger other devices
- Compatible with Brigade camera monitor systems
- Optional GPS sensor to record location, route and speed data
- Optional G sensor to record X, Y and Z impact data in the event of an accident
- Manually selectable PAL / NTSC

Picture Quality

- MPEG4 image compression allows high quality image resolution
- Choice of recorded image quality – low to high resolution
- Record at between 2 and 30 frames per second per channel

Durability & Standards

- Mechanical vibration: 2G
- Mechanical Shock: 15G
- Operating temperature: -20 to +50°C
- EMC approved: e

OPTIONAL EXTRAS



AC-301 Connects Select camera to MDR & monitor 2904



AC-302 Connects Elite/Extreme camera to MDR & monitor 2923



AC-006 Connects Select series camera cable to MDR 1983



RC-300-060 Remote control with 6 metre cable 2803



GPS-6015-050 GPS receiver (speed & location data) with 5.0m cable 2925

GS-6016-030 G sensor with 3 metre cable 4140

ultrasonic obstacle detection

Sensor systems inform driver of distance between vehicle and any obstacles, whether moving or stationary. Perfect for road going commercial vehicles regularly operating in confined spaces or manoeuvring at low speeds.

Which system do you need?

Backscan®

4 sensor system fitted to rear of vehicle as an invaluable aid to safe reversing. Gives greater protection to pedestrians and workers, whilst minimising damage to vehicle and other objects.

Frontscan®

4 sensor system fitted to front of vehicle improving safety when manoeuvring at low speed. Particularly relevant for front blind spot on high cabs where low objects or pedestrians can be hidden.

Sidescan®

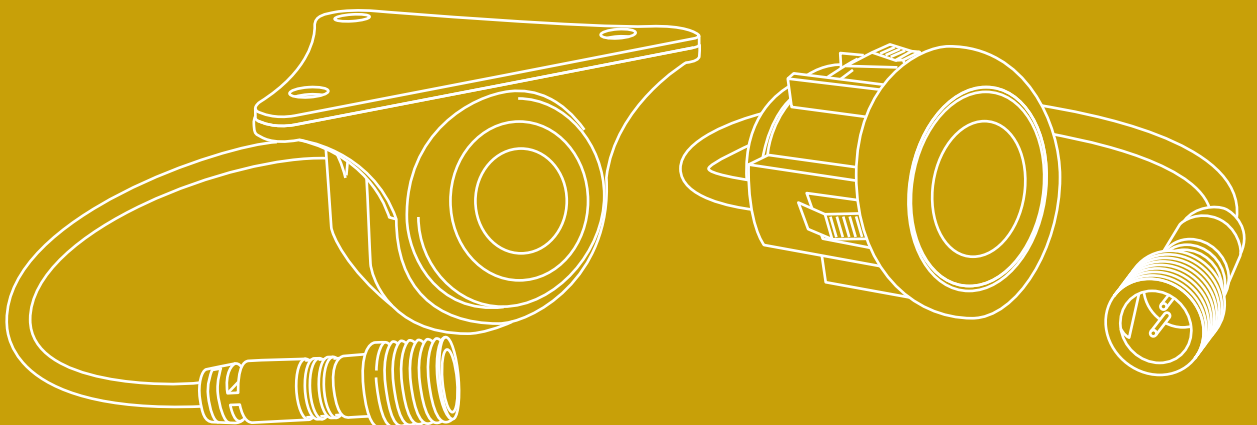
4 sensor system fitted to side of vehicle increasing safety when turning or low speed manoeuvring. Particularly relevant for near side blind spot where cyclists or pedestrians can otherwise go undetected.

Stepscan™

2 sensor system fitted to near side cab step giving awareness to the driver of objects to the side when turning and reversing. Minimises the risk of damage to the vehicle cab from otherwise unseen objects.

Cornerscan™

3 sensor system fitted to near side corner of vehicle cab detects objects in front near side blind spot. Minimises the risk of damage to the vehicle cab whilst manoeuvring at low speed.



BACKSCAN® ULTRASONIC DETECTION SYSTEM

BS-4000W - Backscan reversing sensor system

3744



- 4 sensor system
- 12-24 Volts
- 2.5m detection range - outer sensors 2.5m/0.6m (selectable via dip switch)
- Graduated visual and audible distance warning display
- Underslung and flush-mount fixings included
- 50cm compensation range for sensors fitted inboard of vehicle rear (selectable via dip switch)
- 2 year warranty

Contents

- 4 x sensors
- Visual and audible display
- 4 x 0° flush mount fixings
- 4 x 11° flush mount fixings
- 4 x underslung fixings
- Waterproof control box
- 15m display cable
- 4 x 2.5m sensor cables

Features

- Obstacles detected in under 200 milliseconds
- Environment Learning Mode prevents false alarms from tow-hooks and other ancillary equipment that intrudes in the first 100cm of the detection zone
- Self-diagnostic function

Durability & Standards

- Operating temperature: -40 to +80°C
- Waterproof sensors to IP68
- Waterproof control box to IP69K
- CE marked
- EMC approved: E

- 1.5m detection range model also available - Please contact us for details

REQUIRED ADDITIONS FOR ARTICULATED VEHICLES

SK-15-04	Truck/trailer camera/sensor cable kit - see p16	3997
SK-UDS-05	Truck/trailer sensor only cable kit	4219
UDS-10BC	10m Buzzer/display cable	3716

FRONTSCAN® ULTRASONIC DETECTION SYSTEM

FS-4000W - Frontscan sensor system

3747



- 4 sensor system
- 12-24 Volts
- 2.1m/1.0m detection range - outer sensors can be reduced to 0.6m (selectable via dip switches)
- Audible distance warning
- Flush-mount
- 2 year warranty

Contents

- 4 x sensors
- Buzzer
- 4 x 11° flush mount fixings
- 4 x 18° flush mount fixings
- 4 x 26° flush mount fixings
- Waterproof control box
- 2.5m buzzer cable
- 4 x 2.5m sensor cables

Features

- Obstacles detected in under 200 milliseconds
- Environment Learning Mode prevents false alarms from tow-hooks

- and other ancillary equipment that intrudes in the first 100cm of the detection zone
- Self-diagnostic function

Durability & Standards

- Operating temperature: -40 to +80°C
- Waterproof sensors to IP68
- Waterproof control box to IP69K
- CE marked
- EMC approved: E

RECOMMENDED EXTRA



LS-20-A

Low speed trigger module
(enables sensors below designated speed)

3177

SIDESCAN® ULTRASONIC DETECTION SYSTEM

SS-4000W - Sidescan sensor system

3711



- 4 sensor system
- 12-24 Volts
- 1.0/1.5m detection range - (selectable via dip switch)
- Audible distance warning
- Underslung and flush-mount fixings included
- 2 levels of sensitivity - (selectable via dip switch)
- 2 year warranty

Contents

- 4 x sensors
- Buzzer
- 4 x 0° flush mount fixings
- 4 x 11° flush mount fixings
- 4 x underslung fixings
- Waterproof control box
- 10m buzzer cable
- 4 x 4.5m sensor cables
- 2 x 2.5m extension cables

Features

- Obstacles detected in under 200 milliseconds
- Environment Learning Mode prevents false alarms from ancillary

equipment that intrudes in the first 100cm of the detection zone

- Self-diagnostic function

Durability & Standards

- Operating temperature: -40 to +80°C
- Waterproof sensors to IP68
- Waterproof control box to IP69K
- CE marked
- EMC approved: E

ADDITIONS FOR ARTICULATED VEHICLES

SK-15-04	Truck/trailer camera/sensor cable kit - see p16	3997
SK-UDS-05	Truck/trailer sensor only cable kit (required)	4219
UDS-10BC	10m display cable (required)	3716
SS-4000W	Additional Sidescan sensor system for cab (optional)	3711

RECOMMENDED EXTRA



LS-20-A	Low speed trigger module (enables sensors below designated speed)	3177
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TS-001ECU	Turn indicator trigger for system activation	1362
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OPTIONAL EXTRA

SS-BC-08	Backchat speaking alarm with side turn warning for cyclists/pedestrians	1334
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CORNERSCAN™ ULTRASONIC DETECTION SYSTEM

CS-3000 - Cornerscan sensor system

3712



- 3 sensor system
- 12-24 Volts
- 0.6/1.0m detection range - (selectable via dip switch)
- Audible distance warning
- Flush-mount
- 2 levels of sensitivity - (selectable via dip switch)
- 2 year warranty

Contents

- 3 x sensors
- Buzzer
- 3 x 11° flush mount fixings
- 3 x 18° flush mount fixings
- 3 x 26° flush mount fixings
- Waterproof control box
- 2.5m buzzer cable
- 3 x 2.5m sensor cables

Features

- Obstacles detected in under 200 milliseconds
- Environment Learning Mode prevents false

alarms from ancillary equipment that intrudes in the first 100cm of the detection zone

- Self-diagnostic function

Durability & Standards

- Operating temperature: -40 to +80°C
- Waterproof sensors to IP68
- Waterproof control box to IP69K
- CE marked
- EMC approved: E

RECOMMENDED EXTRA



LS-20-A

Low speed trigger module
(enables sensors below designated speed)

3177

STEPSCAN™ ULTRASONIC DETECTION SYSTEM

ST-2000 - Stepscan sensor system

3742



- 2 sensor system
- 12-24 Volts
- 0.6/1.0m detection range - (selectable via dip switch)
- Audible distance warning
- Flush-mount
- 2 levels of sensitivity - (selectable via dip switch)
- 2 year warranty

Contents

- 2 x sensors
- Buzzer
- 2 x 11° flush mount fixings
- 2 x 18° flush mount fixings
- 2 x 26° flush mount fixings
- Waterproof control box
- 2.5m buzzer cable
- 2 x 2.5m sensor cables

Features

- Obstacles detected in under 200 milliseconds
- Environment Learning Mode prevents false

alarms from ancillary equipment that intrudes in the first 100cm of the detection zone

- Self-diagnostic function

Durability & Standards

- Operating temperature: -40 to +80°C
- Waterproof sensors to IP68
- Waterproof control box to IP69K
- CE marked
- EMC approved: E

EXTENSION CABLES

UDS-2.5BC - Buzzer/display extension cable 2.5m

3717

UDS-10BC - Buzzer/display extension cable 10m

3716

UDS-15BC - Buzzer/display extension cable 15m

3746

UDS-2.5SC - Sensor extension cable 2.5m

3719

UDS-4.5SC - Sensor extension cable 4.5m

3720

pulsed radar obstacle detection

Backsense®

Robust long range sensor systems designed for harsh conditions. Inform driver of distance between vehicle and any obstacles, whether moving or stationary. Perfect for all machines working in construction, mobile plant and refuse.

Choosing your model

Xtreme

Top of the range programmable system allowing bespoke detection areas up to 10 metres and ability to calibrate out fixed objects or bodywork. Multiple sensors can be networked around the machine to offer comprehensive blind spot coverage.



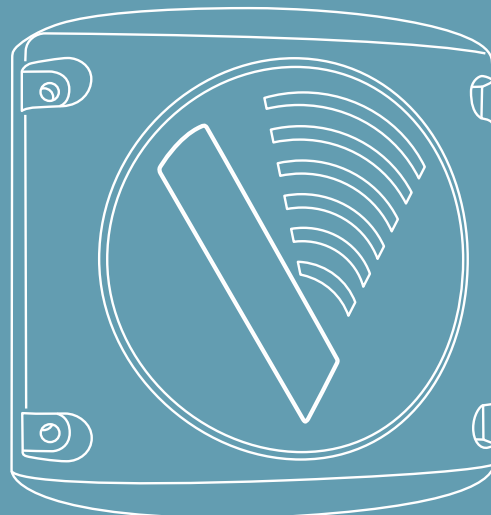
Standard

Ideal on machines where only one sensor is required, with detection range of up to 6 metres.



Workzone

Ideal on machines where only one sensor is required, with excellent close range coverage, and a detection range of up to 3 metres. Videolink version connects to Elite/Extreme range camera monitor system using monitor for overlaid visual and audible distance warnings.



XTREME BACKSENSE OBSTACLE DETECTION



In-cab display

BS-4100 - 10 metre cable version **3056**

Xtreme sensor, AV display, cab harness, 10m cable

BS-4200 - 20 metre cable version **3057**

Xtreme sensor, AV display, cab harness, 20m cable

• 12-24 Volts

• Programmable detection range up to 10m

• Rugged design for harsh environmental conditions

• Size (WxHxD) 187 x 192 x 61mm

• 2 year warranty

Features

- Effectively detects stationary, moving and multiple objects
- Programmable to calibrate out fixed objects, bodywork and attachments
- Effective through non-metallic objects (i.e. plastic or glass fibre bodywork)
- 2 output triggers to activate other safety devices
- Multiple sensors can be networked together for maximum danger zone coverage
- Self-diagnostic function
- Graduated audible and visual distance warning display

Power

- Current: 0.2 Amps

Durability & Standards

- Operating temperature: -40 to +85°C
- Resistant to water, moisture, dust, vibration, heat, cold, mud and glare

Please note:

Specialist fitting required if detection zone needs to be altered or programmed

SEPARATE XTREME COMPONENTS

XPV41Y12 - 12m Y-Piece adapter cable **3094**

XPV41Y6 - 6m Y-Piece adapter cable **3095**

XPV41CA - Cab adapter cable **3096**

XPV4165 - 20m extension cable **3097**

XPV4132 - 10m extension cable **3098**

XPV4116 - 5m extension cable **3275**

XPV4103 - Front-rear audio-visual display **3099**

XPV4104 - Left-right audio-visual display **3100**

XPV41PA - Power adapter cable **3102**

CD6102 - Audio-visual display **2986**

XPV4232 - Sensor with integral sensor adapter cable **2987**

STANDARD BACKSENSE OBSTACLE DETECTION



In-cab display

BS-1045 - 4.5 metre detection range

Standard sensor, AV display, 7.5m cable

1250

BS-1060 - 6 metre detection range

Standard sensor, AV display, 7.5m cable

1251

• 12-24 Volts

• Maximum detection range of 6m

• Rugged design for harsh environmental conditions

• Size (diameter) 133mm

• 2 year warranty

Features

- Effectively detects stationary, moving and multiple objects
- Effective through non-metallic objects (i.e. plastic or glass fibre bodywork)
- 1 output trigger to activate other safety devices
- Self-diagnostic function
- Graduated audible and visual distance warning display

Power

- Current: 0.2 Amps

Durability & Standards

- Operating temperature: -40 to +85°C
- Resistant to water, moisture, dust, vibration, heat, cold, mud and glare

STANDARD EXTENSION CABLES

SPV2105 - Standard 1.5m extension cable

2968

SPV2110 - Standard 3m extension cable

1667

SPV2115 - Standard 4.5m extension cable

1427

SPV2125 - Standard 7.5m extension cable

1668

WORKZONE BACKSENSE OBSTACLE DETECTION



Buzzer



Audio visual display

BS-5130 - 3 metre detection range, buzzer version

Workzone sensor, buzzer, 7.5m cable

3534

BS-5030 - 3 metre detection range, audio visual display version

Workzone sensor, audio visual display, 7.5m cable

3537

BS-5045 - 4.5 metre detection range, audio visual display version

Workzone sensor, audio visual display, 7.5m cable

• 12-24 Volts

• Maximum detection range of 4.5m

• Rugged design for harsh environmental conditions

• Size (WxHxD) 235 x 11 x 44mm

• 2 year warranty

Features

- Effectively detects stationary, moving and multiple objects
- 2 antennas to improve close range beam pattern
- Effective through non-metallic objects (i.e. plastic or glass fibre bodywork)
- 1 output trigger to activate other safety devices
- Self-diagnostic function
- Graduated distance warning

Power

- Current: 0.2 Amps

Durability & Standards

- Operating temperature: -40 to +85°C
- Resistant to water, moisture, dust, vibration, heat, cold, mud and glare

WORKZONE EXTENSION CABLES

HRPV4110 - Workzone 3m extension cable

3536

HRPV4115 - Workzone 4.5m extension cable

3542

HRPV4125 - Workzone 7.5m extension cable

3535

reversing and warning alarms

Vital audible safety devices needed to warn workers and pedestrians that a vehicle is manoeuvring.

Which alarm is for you?

Heavy duty

For plant, quarry and construction machines or environments with high ambient noise.



Medium duty

Ideal for commercial road going vehicles and environments with mid level ambient noise.



Vehicle specific

Petrol tanker (ADR) and electric forklift (High Voltage) options available.



bbs-tek® white sound®

The safest alarms in the world due to their instant locatability and directional sound. The multi-frequency alarms are only heard in the danger zone, thus eliminating noise nuisance for local residents.

bbs-tek® smart reversing alarms

Continually adjust to 5-10 decibels above ambient so ideal in varying noise level environments.

bbs-tek® Backchat®

Speaking warning alarms that reproduce real speech with unrivalled quality and clarity.

bbs-tek® Nightshift® speaking alarms

Include built-in alarm cut-out for night-time use.



WHITE SOUND® SMART REVERSING ALARM



SA-BBS-107 - Self adjusting heavy duty - 87-107 Decibels

1400

- 12-24 Volts
- IP68
- Size (WxHxD)
172 x 79 x 95mm
- Lifetime warranty

Features

- Alarm continually adjusts to 5-10dB above ambient
- Multi frequency broadband sound
- Instantly locatable
- Sound confined to danger area
- Eliminates noise nuisance
- Sounder unit: Driver
- Hole centres (mm): 153

Power

- Current: Max 1 Amp

Durability & standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +85°C
- CE marked
- SAE J994

WHITE SOUND® SMART REVERSING ALARM



SA-BBS-97 - Self adjusting - medium duty - 77-97 Decibels

1399

SA-BBS-97HV - Self adjusting - electric forklift - 77-97 Decibels

1398

- 12-24 Volts
- 36-80 Volts (HV)
- IP68
- Size (WxHxD)
127 x 76 x 65mm
- Lifetime warranty

Features

- Alarm continually adjusts to 5-10dB above ambient
- Multi frequency white sound alarm
- Instantly locatable
- Sound confined to danger area
- Eliminates noise nuisance
- Sounder unit: Driver
- Hole centres (mm): 98-108

Power

- Current: Max 1 Amps

Durability & standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +85°C
- CE marked
- SAE J994
- NAS/PIEK approved for night-time delivery

WHITE SOUND® REVERSING ALARM



BBS-107 - Heavy duty - 107 Decibels

0899

BBS-102 - Heavy duty - 102 Decibels

0898

- 12-24 Volts
- IP68
- Size (WxHxD)
172 x 79 x 95mm
- Lifetime warranty

Features

- Multi frequency broadband sound
- Instantly locatable
- Sound confined to danger area
- Eliminates noise nuisance
- Sounder unit: Driver
- Hole centres (mm): 153

Power

- Current: Max 1 Amps

Durability & standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +85°C
- CE marked
- EMC approved: e
- SAE J994

WHITE SOUND® REVERSING ALARM



BBS-97HV - Electric forklift - 97 Decibels	1403
BBS-92HV - Electric forklift - 92 Decibels	1402
BBS-92ADR - Petrol tanker - 92 Decibels	2165

- 12-24 Volts
- 36-80 Volts (HV)

- IP68

- Size (WxHxD)
127 x 76 x 65mm

- Lifetime warranty

Features

- Multi frequency broadband sound
- Instantly locatable
- Sound confined to danger area
- Eliminates noise nuisance
- Sounder unit: Speaker
- Hole centres (mm): 98-108

Power

- Current: Max 0.3 Amps

Durability & standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +85°C
- CE marked
- EMC approved: e
- SAE J994

BEST SELLER

WHITE SOUND® REVERSING ALARM



BBS-97 - Medium duty - 97 Decibels	0935
BBS-92 - Medium duty - 92 Decibels	0934
BBS-87 - Medium duty - 87 Decibels	0897
BBS-82 - Medium duty - 82 Decibels	0896
BBS-77 - Medium duty - 77 Decibels	1397

- 12-24 Volts

- IP68

- Size (WxHxD)
105x65x37mm (BBS-97/92)
105x65x32mm (BBS-87/82/77)

- Lifetime warranty

Features

- Multi frequency broadband sound
- Instantly locatable
- Sound confined to danger area
- Eliminates noise nuisance
- Sounder unit: Speaker
- Hole centres (mm): 76

Power

- Current: Max 0.5 Amps

Durability & standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +85°C
- CE marked
- EMC approved: e
- SAE J994
- NAS/PIEK approved for night-time delivery (BBS-82 & BBS-77 only)

SPEAKING ALARM



BC-01HP - Single reversing message - 110 Decibels
BC-01HP(B) - Bespoke single message - 110 Decibels

0665
1199

- 12-24 Volts
- IP68
- Size (WxHxD)
116 x 115 x 117.5mm
- 2 year warranty

Features

- Real speech alarm
- * BC-01HP message "Ssh! Stand well clear, vehicle reversing..."
- Bespoke message up to 8 seconds, under 4 seconds for best speech quality
- Sounder unit: Speaker
- Hole centres (mm): 102

Power

- Current: 0.5 Amps

Durability & standards

- CE marked
- EMC approved: e

NIGHTSHIFT® SPEAKING ALARM



BC-01(NS) - Single reversing message - Nightshift - 90 or 0 Decibels
BC-01(NS-B) - Bespoke single message - Nightshift - 90 or 0 Decibels

0378
1198

- 12-24 Volts
- IP68
- Size (WxHxD)
122 x 84 x 50mm
- 2 year warranty

Features

- Real speech alarm
- * BC-01(NS) message "Ssh! Stand well clear, vehicle reversing..."
- Bespoke message up to 8 seconds, under 4 seconds for best speech quality
- Double engage reverse to cut-out or reduce sound

- Sounder unit: Speaker
- Hole centres (mm): 102

Power

- Current: 0.5 Amps

Durability & standards

- CE marked
- EMC approved: e

SPEAKING ALARM



BC-01 - Single reversing message - 90 Decibels
BC-01(B) - Bespoke single message - 90 Decibels
BC-02(B) - Bespoke dual message - 90 Decibels

0077
0079
0083

- 12-24 Volts
- IP68
- Size (WxHxD)
122 x 84 x 50mm
- 2 year warranty

Features

- Real speech alarm
- * BC-01 message "Ssh! Stand well clear, vehicle reversing..."
- Bespoke message up to 8 seconds, under 4 seconds for best speech quality
- Sounder unit: Speaker
- Hole centres (mm): 102

Power

- Current: 0.5 Amps

Durability & standards

- CE marked
- EMC approved: e

SPEAKING HANDBRAKE WARNING ALARM



2 wire version shown

BC-01(H/Brake) - Single message - 2 wire - 90 Decibels
BC-01(4W)(H/Brake) - Single message 4 wire - 90 Decibels

0849
1715

• 12-24 Volts

• IP68

• Size (WxHxD)
122 x 84 x 50mm

• 2 year warranty

Features

- Real speech alarm
- * Message "Bleep! Handbrake not applied..."
- Sounder unit: Speaker
- Hole centres (mm): 102

Power

- Current: 0.5 Amps

Durability & standards

- CE marked
- EMC approved: e

SPEAKING SIDE TURN WARNING ALARM



SS-BC-08 - Single side turn message - 90 Decibels

1334

• 12-24 Volts

• IP68

• Size (WxHxD)
122 x 84 x 50mm

• 2 year warranty

Features

- Real speech alarm
- * Message "Ssh! Caution. Truck turning left..."
- Sounder unit: Speaker
- Hole centres (mm): 102

Power

- Current: 0.5 Amps

Durability & standards

- CE marked
- EMC approved: e

SPEAKING ATTACK ALARM



BC-AA(BUS) - Single bus specific message - 110 Decibels
BC-AA(B) - Single bespoke message - 110 Decibels

0064
1465

• 12-24 Volts

• IP68

• Size (WxHxD)
116 x 115 x 117.5mm

• 2 year warranty

Features

- Real speech alarm
- Activated by panic button, repeats continuously until deactivated by hidden switch
- Sounder unit: Speaker
- Hole centres (mm): 48

Power

- Current: 0.5 Amps

Durability & standards

- CE marked
- EMC approved: e

VEHICLE INTERCOM



BC-VI - Normally open channel rear to cab; button press cab to rear
BC-VI-2 - Normally closed channel; button press communication

0815
0875

• 12-24 Volts

• IP68

• Size (WxHxD)
122 x 84 x 50mm

• 2 year warranty

Features

- Two-way communication system
- Master unit volume control: 80-95dB
- Includes master unit, slave unit and 25m cable
- Sounder unit: Speaker
- Hole centres (mm): 102

Power

- Current: 0.5 Amps

Durability & standards

- CE marked

ALARM ANCILLARIES



TCO-47 - Auto-reset Backalarm cut-out (dash mount)

0663

- 12-24 Volts
- 2 year warranty

Features

- Single touch timed relay
- Allows driver to cut-out Backalarm if reversing between 11.30pm-7.00am
- Auto-resets after 3-4 mins delay

Durability and Standards

- CE marked
- EMC approved

ALARM ANCILLARIES



NS-2 - Nightshift Backalarm cut-out switch

0334

NS-3 - Nightshift Backalarm cut-out switch (auto gear box)

0974

- 12-24 Volts
- IP68
- 2 year warranty

Features

- Double engage reverse to cut-out Backalarm
- Resets when reverse gear disengaged (longer time delay for NS-3)
- No wiring necessary to cab

Durability and Standards

- CE marked
- EMC approved

ALARM ANCILLARIES



SW-16 - Pigtail microswitch - electro-mechanical

0153

- 2 year warranty

Features

- Fits adjacent to gearshift lever / linkage so that pigtail tip is moved 1 inch

warranties

PEACE OF MIND FROM BRIGADE

The quality of our product range is the cornerstone on which the continuing relationship with our customers is built. To reflect our confidence in the reliability of our products, some have a 'lifetime' warranty. Many others have a 3 year warranty and the rest have a 2 year warranty. The following quick reference chart indicates the warranty available on Brigade products.



Lifetime Warranty (covers the alarm for the life of the vehicle)

bbs-tek® reversing alarms (all models featured in this catalogue)
Self-adjusting Backalarms (SA-400/600/800 ranges)
Fixed volume Backalarms (BA-100/500/600/800 ranges)



3 Year Warranty

Elite 800 & Extreme 900 series CMS range (all monitors and cameras with a BE prefix)
MDR digital recorder



2 Year Warranty

All other products.



1 Year Warranty

Essential vehicle camera monitor system.

Warranty Terms and Conditions

Brigade warrants all goods to be free from defect in material and workmanship in normal use provided that they have been installed and operated in accordance with the instructions supplied. The commencement date of all warranties is the date of delivery to the purchaser unless otherwise agreed in writing by Brigade. The period during which the warranty applies is stated above. Brigade make no other warranty, express or implied, with respect to the goods, their marketability, quality or fitness for any particular use or purpose. In particular, but without prejudice to the general provisions of the conditions of sale, no responsibility is assumed for incidental or consequential loss by reason of any warranty express or implied. Full details of Brigade's Terms and Conditions are contained in the Price List.

Brigade Electronics Plc reserves the right to change terms, conditions and specifications shown in this catalogue at any time.

Amp

Unit of electric current.

Approved for indirect vision

Product meets directives (e.g. 2003/97/EC, 2007/38/EU) or standards (e.g. Regulation 46) with regard to its use on vehicles for indirect vision e.g. giving visibility in otherwise blind spots.

Auto-trigger

Enables automatic triggering of an action i.e. display of rear camera view when reverse gear engaged.

A/V input/output

Communication connection between electronic devices.

Input

Receives audio/visual signals such as from DVD or satellite navigation.

Output

Sends audio/visual signals to other devices such as to mobile digital recorder.

Brightness

Brightness of the picture displayed on a monitor, measured in candelas per square metre (cd/m^2). Higher the measure the brighter the picture.

CCD (Charged-Coupled Device)

A tiny photocell used in cameras to convert light into a digital signal.

Contrast

Light intensity ratio of a display device between darkest and lightest colour produced.

CE mark

Confirmation that a product is in conformity with the essential requirements of any applicable directives e.g. 2004/108/EC (relating to Electromagnetic Compatibility).

Decibel

Unit of measure of the pressure (intensity) of sound. The higher the rating the more intense the sound.

EMC (Electro-magnetic compatibility)

A test to determine the unwanted effects of electromagnetic interference.

E

Complies to United Nations Commission for Europe (UNECE) standards e.g. ECE 10.02

e

Complies to Council of the European Union standards e.g. 2006/28/EC, 2009/19/EC

Frequency

Number of times a sound source vibrates per unit of time, measured in hertz (hz). The higher the rating the higher the pitch.

GPS (Global Positioning System)

Global satellite system providing positioning and timing services to worldwide users on a continuous basis.

HALT (Highly Accelerated Life Test)

A comprehensive stress test applied to electronic equipment to identify design weakness.

glossary

Illumination distance (camera)

Distance a camera with infrared LEDs can see in ultra-low light conditions, measured in metres.

IP## (Ingress Protection)

An international classification for the sealing of electrical equipment against the intrusion of solid objects (digit 1) and liquids (digit 2). Higher the rating the better protection in each case.

ISO 13766:2006

Specific standard for earthmoving equipment, includes requirements for some additional tests that are not covered in the tests for 'E' or 'e' under EMC.

ISO 15008:2003

Standard relating to the specifications and compliance procedures for in-vehicle visual presentation i.e. in relation to monitors.

ISO 16750

Standard providing guidance regarding environmental conditions commonly encountered by electrical and electronic systems installed in vehicles.

LCD (Liquid Crystal Display)

Thin, flat display device made up of any number of colour or monochrome pixels i.e. monitor screen.

LED (Light Emitting Diode (camera))

Emits infrared light for high efficiency and performance in ultra-low light.

LED (Light Emitting Diode (monitor))

Used to backlight the monitor display for crisp images and superior image quality.

Mechanical shock

Level of sudden acceleration or deceleration, such as impact or being dropped, to which product will still perform. Measured in gravitational force (G).

Mechanical vibration

Level of continuous or repetitive motion, such as engine vibration, to which product will still perform. Measured in gravitational force (G).

NAS-PIEK

The standard for quiet delivery vehicles in the UK, certified by the Noise Abatement Society.

NTSC (National Television Systems Committee)

TV colour encoding standard.

PAL (Phase Alternating Line)

TV colour encoding standard.

Resolution (RGB)

Number of pixels used to display an image. Measured in Width x 3 channels (Red, Green, Blue) x Height.

SAE J994

Performance testing for electrically operated reversing alarms primarily intended for use on off-road, self-propelled construction and industrial machines.

SD Card

Small portable memory card to store digital data.

Sounder unit

Unit which produces the sound of an alarm.

TV Lines

Number of horizontal lines used to create an image.

USB port

Communication connection between electronic devices i.e. to download data from mobile digital recorder.

Viewing angles (camera)

The maximum angle of vision.

Viewing angles (monitor)

The maximum angle at which an image can be successfully viewed. Measured from the centre point on the monitor.

Watt

A measure of the power needed to drive a product.

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