

Vehicle Safety Solutions

Product Catalog 2016



Brigade

Brigade has been pioneering the cause of reversing safety since 1976, when we introduced the very first back-up alarm to Europe. We continue to lead the way in vehicle and plant safety, having extended our range to include all-round visibility, pioneering many products and developing and patenting new technology.

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

Our wealth of experience has earned us a reputation for expertise. We act as an industry voice and are often called upon in an advisory capacity to sit on both legislative and international committees.

We understand your industry and the problems you face.



E-mail: sales@msfoster.com

www.msfoster.com

February 2015

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Driving Global Safety

Vehicle Safety Solutions

Brigade understands the many and complex safety issues of mobile applications, resulting in a flexible product range offering safety solutions for vehicles and plant. Whether you are operating on- or off-road, vehicle or machine, large or small, we can help.

We strongly believe in a complementary range of passive and active systems to warn and assist the driver whilst protecting workers, pedestrians and cyclists. Not only this, our systems help increase efficiency and decrease vehicle downtime, saving operators thousands of dollars. In terms of saving lives we believe the status quo is never enough. We are constantly researching the latest and developing technologies to see how they can be used to improve safety for different mobile applications.

Many of our product ranges were initially introduced to the UK, Europe and even the world by Brigade. Several of our products are patented and unique to us.

Accept no imitations.



Camera Monitor Systems Backeye®

Camera monitor systems can help eliminate driver blind spots to prevent costly damage and ultimately save lives. Brigade's systems meet a host of on- and off- road health and safety and legislative requirements.



See pages 6-30

Mobile Digital Recording

Robust and reliable digital recording systems provide 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.



See pages 31-33

Ultrasonic Obstacle Detection

Frontscan[®] Backscan[®] Sidescan[®] Cornerscan[™] Stepscan[™]

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.



See pages 34-37

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E-mail: sales@msfoster.com

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White Sound Warning Alarms

Vital audible safety devices to warn that a vehicle is manoeuvring. Unique to Brigade, White Sound[®] alarms (bbs-tek[®]) are the safest in the world and do not cause a noise nuisance. Endorsed by the Noise Abatement Society and PIEK and have been awarded the Quiet Mark. Options include smart alarms, which adjust appropriately to the ambient noise level.



See pages 38-44

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.



See pages 45-47

Camera Monitor Systems Backeye[®]360

Intelligent camera monitor system that provides the driver with a bird's-eye view of the vehicle. Four camera images are processed into a single 360°, real-time picture on the driver's monitor.





See pages 8-11





Available Brochures

Backeye[®]

All-round visibility for commercial vehicles and mobile plant.

Which range is for you?

Elite

Top of the range systems for comprehensive blind spot coverage. Suitable for large road-going vehicles, specialist applications, heavy duty off-road machines or where the cab is exposed to the elements.

	1	- <u>-0</u> 0	

Select

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

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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 21-25 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 for building your own system

				ΜΟΝΙ	TORS	
_	~	= Compatible	EL	ITE	SELECT	
,	 Compatible AC-0xx = Compatible with adapter(s) shown Not compatible 		BE-970WFM BE-970WM BE-865DDM	BE-856GM	VBV-7104FM VBV-770FM VBV-770M VBV-750M	VBV-770M-S VBV-750M-S
	ELITE	BE-811C shutter camera	\checkmark	SC-1000-ECU (Shutter module)	AC-007 + SC-1000-ECU	×
ERAS	Ξ	All other Elite range cameras	\checkmark	\checkmark	AC-007	AC-007
CAMERAS	SELECT	VBV-711C shutter camera	AC-035 + AC-006	AC-035 + AC-006	AC-035	\checkmark
	SEL	All other Select range cameras	AC-006	AC-006	\checkmark	\checkmark





SELECT 360° CAMERA SYSTEMS

BN360-000 - Backeye 360 Select system

- IPX7 cameras
- 12-24Vdc
- Size (WxHxD) ECU
 6.6 x 5 x 1.4"
- Size (WxHxD) Camera 1.4 x 2.4 x 1.8"
- 2 year warranty

- 1 x BN360-ECU-10
 4 x BN360-100C cameras
- 1 x BN360-VBV-L4015 Video-out cable to connect to SELECT range monitor.

Note: Monitor and camera cables not included

Features

Contents

- 360° single image
- Triggered views (rear, left and right)
 4 x ultra-wide viewing engle compared
- 4 x ultra-wide viewing angle cameras
- (HxV) 185° x142°
- 1/3.6" CMOS sensor
- TV system: NTSC

4483

Power consumption: 15 Watts

Current: 1.23 Amps

- Durability & Standards
- Mechanical vibration: 1G
 Operating temperature:
- -22 to +167°F
- CE marked

Power

- EMC approved: E
- HALT tested

Note: A calibration kit is required for installation.

SELECT 360° CABLES AND ADAPTERS

BN360-L120	66' camera cable	4493
BN360-L115	15' camera cable	4495
BN360-L110	10' camera cable	4496
BN360-L105	16' camera cable	4498
BN360-L1025	8' camera cable	4499
AC-304	Splitter cable for MDR (1 required per camera)	4738
OPTIONAL M	OUNTING BRACKETS	
	OUNTING BRACKETS 01 Adaptable mounting bracket - can be shaped to allow installation on non-vertical surfaces	4649
BN360-100C-BKT	01 Adaptable mounting bracket - can be shaped to	4649 4714
BN360-100C-BKT	01 Adaptable mounting bracket - can be shaped to allow installation on non-vertical surfaces	



REQUIRED ADDITION FOR ARTICULATED VEHICLES

BN360-Enclosure IP66 Enclosure kit to enable ECU to be installed 4723 on outside of vehicle

Note: Coiled cable kit or wireless connector also required



SELECT RANGE 360° CAMERA MONITOR SYSTEMS

Complete kits including monitor, Select 360 camera system, cables and adapters

SE-7104F-100 - 360 camera monitor system for large rigid vehicles 4618

- 1 x VBV-7104FM 10.4" monitor
- 1 x BN360-000 360 system
- 1 x BN360-L110 33' camera cable
- 2 x BN360-L115 49' camera cables
- 1 x BN360-L120 66' camera cable
- 1 x BN360-VBV-L4015 video out cable

• 2 year system warranty

See individual products for detailed specifications



SE-770-100 - 360 camera monitor system for large rigid vehicles

- 1 x VBV-770M 7" monitor
- 1 x BN360-000 360 system
- 1 x BN360-L110 33' camera cable
- 2 x BN360-L115 49' camera cables
- 1 x BN360-L120 66' camera cable
- 1 x BN360-VBV-L4015 video out cable

See individual products for detailed specifications

• 2 year system warranty

360° camera systems

4 Cameras 1 Image 0 Blind spots

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

Ultrawide-angle cameras mounted on the front, sides and rear of the vehicle capture the surrounding areas of the vehicle including all blind spots. Simultaneous digital images from these cameras are then processed and 'video stitched' resulting in a 360° birds-eye view within a single image. The software also instantly eliminates any fisheye camera distortion delivering a clear, real-time picture on the driver's monitor.



ELITE 360° CAMERA SYSTEMS





ASL360-SV - Backeye 360 Elite

- IP68 cameras
- 12-24Vdc
- Size (WxHxD) ECU 8.8 x 1.4 x 4.7"
- Size (WxHxD) Camera 2.7 x 1.9 x 2.4"

• 2 year warranty



Contents • 1 x ASL360-ECU

• 4 x ASL360-CM2 cameras

Note: Monitor, camera cables and adapters NOT included

Features

- 360° single image Flexible blend widths and positioning
- Up to 30 frames per second
- Self-monitoring to eliminate frozen
- images Triggered views
- 4 x ultra-wide viewing angle cameras
- (HxV) 185 x 180°
- 1/4" CMOS sensor
- TV system: NTSC

- Power consumption: Camera: 0.5 Watts
- ECU: 5.0 Watts Current:

Power

Camera: 0.04 Amps ECU: 0.4 Amps

Durability & Standards

- Operating temperature: -40 to +185°F
- CE marked
- EMC approved: E

Note: A calibration kit is required for installation. **Available to Brigade** trained fitters only

CABLES AND ADAPTERS

ASL360-L120	66' camera cable	4333
ASL360-L115	49' camera cable	4334
ASL360-L110	33' camera cable	4335
ASL360-L1025	8' camera cable	4336
AC-054	8' adapter cable to connect ECU to monitor	
	via AC-016 / AC-024 (BNC B to Phono A)	4340
AC-016	Adapter cable to connect AV/Phono to Elite monitor	2150
AC-024	Adapter cable to connect AV/Phono to Select monitor	3183



OPTIONAL MOUNTING BRACKET

BE360-CD	Deflector to shield camera from knocks	4701
REQUIRED AI	DDITION FOR ARTICULATED VEHICLES	
BN360-Enclosure	IP66 Enclosure kit to enable ECU to be installed on outside of vehicle	4723
	Note: Coiled cable kit or wireless connector also required	



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ELITE RANGE 360° CAMERA MONITOR SYSTEMS

Complete kits including monitor, Elite 360 camera system, cables and adapters



360° camera systems



To find out more information and to watch a video on Brigade's Backeye®360, please scan the QR code with your mobile device.



youtube.com/brigademarketing

ELITE CAMERA BEST SELLER



Heated camera

_	_	-	-	 _	
•	E-	(•)	\mathbf{n}		
		r•1			

BE-801C	1905
BE-801C(40) - Narrow viewing angle: 33 x 2	5 x 40° 2085
BE-801C(78) - Narrow viewing angle: 64 x 4	7 x 78° 2084
BE-890C - Waterproof to IP69K, No aud	io (PAL ONLY) 2871

 Viewing angle (HxVxD) 101 x 72 x 133°

• IP68

- Size (WxHxD)
- 3.4 x 3 x 2.8"
- 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: NTSC
- TV lines: 450

- Power
- Power consumption: 4 Watts Current: 0.33 Amps

Durability & Standards

- Mechanical vibration: 20G
- Mechanical shock: 50G
- Operating temperature: -22 to +176°F
- CE marked
- EMC approved: E
- HALT tested
- ISO 13766: 2006 (BE-890C only)

ELITE CAMERA



IP69K

 Size (WxHxD) 4.8 x 3.3 x 3.1"

• 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: NTSC
 - TV Lines: 400

2914

2002

Power

- Power consumption: 5 Watts
- Current: 0.4 Amps

Durability & Standards

- Mechanical vibration: 10G Mechanical shock: 100G
- Operating temperature: -40 to +176°F
- CE marked
- EMC approved: E

SC-1000-ECU - Shutter camera module may be required to connect to Elite monitors (see intro) 3666

ELITE CAMERA





- IP68
- Size (WxHxD) 1.8 x 1.5 x 2"

• 3 year warrranty

Features

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

Power

 Power consumption: 1.5 Watts Current: 0.1 Amps

Durability & Standards

- Mechanical vibration: 10G Mechanical shock: 100G
- Operating temperature: -4 to +158°F
- CE marked
- EMC approved: E
- HALT tested

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ELITE CAMERA



DMC-1025 - Digital mini camera (internal use)

- Viewing angle (HxVxD) 73 x 51 x 89°
- IP66
- Size (WxHxD)
 1.7 x 1.8 x 1.5"

• 3 year warranty



Power
• TV Lines: 520
 TV System: PAL ONLY
 1/3" Sony CCD

Mirror / Normal view

Features

Power consumption: 0.84 WattCurrent: 0.07 Amps

1529

4049

Durability & Standards

- Mechanical vibration: 10G
- Operating temperature: -4 to +158°F
 CE marked

Durability & Standards

• Operating temperature: -4 to +158°F

Mechanical vibration: 10G

CE marked

CE marked

ELITE CAMERA

MD-51 - Mini dome camera (internal use)

- Viewing angle (HxVxD)
- 73 x 51 x 89°
- IP66
- Size (Diameter x H) 3 x 1"
- 3 year warranty

Features

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

Power

- Power consumption: 0.84W
- Current: 0.07 Amps



OPTIONAL EXTRAS

MD-50SM - Surface mounting adapter (1.2" deep)	2582
MD-50AM - Angled surface mounting adapter (adds 15°)	2583

2575

2842

BEST SELLER SELECT CAMERA



VBV-701C

VBV-791C - Waterproof to IP69K, no audio

 Viewing angle (HxVxD) 92 x 70 x 115°

• IP67

- Size (WxHxD) 3.1 x 2.8 x 2.7"
- 2 year warranty



Features

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

Power

- Power consumption: 2.4 Watts
- Current: 0.2 Amps

Durability & Standards

- Mechanical vibration: 10G
- Mechanical shock: 100G
- Operating temperature: -4 to +158°F
- CE marked • EMC approved: E
- HALT tested

SELECT CAMERA VBV-711C -2841 Heated shutter camera For connection to VBV-770M-S and VBV-750M-S 5-pin Select monitors Requires 5-pin 33' (VBV-L510) or 66' (VBV-L520) camera cable VBV-711C(AC) - Heated shutter camera 3708 Includes 5-pin to 4-pin adapter (AC-035) for connection to other Select monitors Features Power Viewing angle (HxVxD) 12 Infrared LEDs for ultra-low light Power consumption: 4.6 Watts 90 x 70 x 110° Current: 0.38 Amps performance 33' illumination distance

Durability & Standards

- Mechanical vibration: 2.8G • Operating temperature: -4 to +158°F
- CE Marked
- · EMC approved: E

SELECT CAMERA



VBV-481C - Cylinder camera

- Viewing angle (HxVxD) 88 x 64 x 112°
- Size (diameter x length) 1.4 x 2"

• 2 year warranty

Features

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

Power

- Power consumption: 2.3 Watts
- Current: 0.2 Amps

2843

- **Durability & Standards**
- Mechanical vibration: 10G • Operating Temperature: -4 to +158°F CE marked

E-mail: sales@msfoster.com

- Shutter Heater Audio Day / Night sensor Mirror / Normal view
 1/3" Sharp CCD • TV System: NTSC
- TV Lines: 420

• IP69K

Size (WxHxD)

4.8 x 3.2 x 3.2"

• 2 year warranty



4611

4615

SELECT CAMERA NEW



Compact flush mount eyeball camera

VBV-301C - Mirror view VBV-321C - Normal view

- Viewing angle (HXVXD) 102 x 78 x 145°
- IP69K
- Size (WxHxD) 2.2 x 1.6 x 2.7"
- 2 year warranty

Features

- Lens swivel adjustment: 35°(Top) x 5°(Bottom) x 8°(Left) x 8°(Right)
- Lens rotation adjustment: ±180° • 5 infrared LEDs for ultra low-light
- performance
- 10-20" illumination distance
- Day / Night sensor
- 1/3" Sharp CCD
- TV System: NTSC
 420 TV lines

- Power
- Operating voltage: 12 Vdc
- Power consumption: 1.44 Watts Current consumption: 0.12 Amps

Durability & Standards

- Corrosion resistant: ISO9227 salt spray standard
- Mechanical vibration: 2.84G
- Operating temperature: -4 to +158°F
- CE marked
- EMC approved: E



OPTIONAL EXTRAS

SM-3XX-25 Surface mounting adapter (1" deep)

4596

THERMAL IMAGING CAMERAS



Brigade is an authorised distributor for Flir[™] Thermal imaging Cameras. Please contact us for further information.

3351

ELITE MONITOR



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

• 12-24Vdc

- 4 camera inputs
- IP69K
- Size (WxHxD) 7.6 x 4.8 x 1.8"

• 3 year warranty



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 480
- Contrast ratio: 500:1
- Brightness: 500cd/m²
- Viewing angles:
- Side 65° x Top 50° x Bottom 60°

ELITE MONITOR



BE-970WM - Waterproof 7" Digital LCD monitor

- 12-24Vdc
- 2 camera inputs
- IP69K
- Size (WxHxD)
- 7.6 x 4.8 x 1.8"
- 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 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 +158°F CE marked
- EMC approved: E
- ISO 16750
- ISO 13766: 2006
- HALT tested

- Mechanical vibration: 10G Mechanical shock: 100G
 - Operating temperature: -40 to +167°F

Durability & Standards

· Aluminium die cast casing

Power consumption: min 28 Watts Current: min 2.15 Amps

CE marked

HALT tested

Power

- EMC approved: E
- ISO 16750 • ISO 20653: 2006



ELITE MONITOR



BE-870LM - 7" Digital LCD monitor

- 12-24Vdc
- 2 camera inputs
- Size (WxHxD)
- 7.7 x 5 x 1.1"

• 3 year warranty



Features

- · 'Button-lock' anti tamper feature
- 2 Auto-triggers with configurable trigger-off delays
- Mirror / Normal switching from menu On-screen distance and vertical line
- markers Shutter / Tilt camera compatible
- Audio
- Sun shield Auto-dimmer and keypad illumination
- 8 language menus
- Auto-switching PAL / NTSC

Picture Quality

- LED backlighting
- (gives 20,000 hours life)

2705

3935

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

Power

• Power consumption: 10 Watts Current: 1 Amp

Durability & Standards

- Mechanical vibration: 10G
- Mechanical shock: 100G
- Operating temperature: -22 to +158°F
- CE marked
- · EMC approved: E

ELITE MONITOR



• 12-24Vdc

- 4 camera inputs
- Size (WxHxD) Double DIN 7.4 x 4.5 x 4.5"

• 3 year warranty



Features

- Shutter / 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
- or determine split screen display

- Auto-switching PAL / NTSC

Picture Quality

LED backlighting

- Anti-glare screen • Resolution: 800 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 +158°F
- CE marked
- EMC approved: e
- ISO 16750

- Audio
 - · Speed switch trigger to operate system Sun shield
 - Multi-lingual menus
 - Audio / video inputs / output

(gives 20,000 hours life)

ELITE MONITOR



BE-856GM - 5.6" Digital LCD monitor

- 12-24Vdc
- 2 camera inputs
- Size (WxHxD)

6.7 x 4.5 x 1.3"

3 year warranty



Features

- 2 Auto-triggers
 Mirror (Normal autobiog
- 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 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 +158°F
- CE marked
- EMC approved: e
- ISO 13766: 2006
- ISO 16750
- HALT tested

ESSENTIAL MONITOR



• 12Vdc

- 1 camera input
- Size (WxDxH)
 10.1 x 3.4 x 0.9"
- I year warranty



Features

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

Picture Quality

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

4070

Power

- Power consumption: 4.95 Watts
- Current: 0.45 Amps

Durability & Standards

- Vibration rating: 6G
- Operating temperature: -4 to +158°F
- CE marked

3756



Model

Part No:

SELECT MONITOR NEW



VBV-7104FM - Multi-image 10.4" Digital LCD Monitor

• 12-24Vdc
4 camera inputs
 Size (WxHxD)

10.5 x 7.5 x 1.2"

• 2 year warranty





Options Picture in picture

Features

- · 'Button-lock' anti tamper feature 5 Auto-triggers
- Configurable trigger delay
- Mirror / Normal switching from menu
- On-screen distance markers
- · Built-in speaker Sun shield
- Auto-switching PAL / NTSC

Picture Quality

- LED backlighting
- (gives 30,000 hours life)
- Anti-glare screen
- Resolution: 1024 x 768
- Contrast ratio: 500:1
- Brightness: 400cd/m²
- Viewing angles: Side 70° x Top 60° x Bottom 60°

4474

3901

Power consumption: 22 Watts Current: 2 Amps

- **Durability & Standards** Mechanical vibration: 2.83G
- Operating temperature:
- -4 to +158°F
- CE marked

Power

- · EMC approved: E
- HALT tested

SELECT MONITOR



• 12-24Vdc

4 camera inputs

 Size (WxHxD) 7.1 x 4.8 x 1.6

• 2 year warranty



Features

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

- · '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)
- Contrast ratio: 500:1

Power

- Power consumption: 25.5 watts
- Current: 2.1 Amps

Durability & Standards

- Mechanical vibration: 4G
- Operating temperature: -22 to +158°F CE marked
- EMC approved: E

- Anti-glare screen
- Resolution: 800 x 480
- Brightness: 400cd/m²
- Viewing angles:
- Side 70° x Top 50° x Bottom 70°

4697

4287

4710

NEW SELECT MONITOR



VBV-770M - 7" Digital LCD monitor VBV-770M-S - 7" Digital LCD monitor

Includes 1 5-pin input for connection to VBV-711C shutter camera

- 12-24Vdc
- 3 camera inputs
- Size (WxHxD)
 7.7 x 4.6 x 1"
- 2 year warranty



• 12-24Vdc

5.0"

3 camera inputs

Size (WxHxD)

5.8 x 3.9 x 0.8"

• 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
- Multi-lingual menus
 Auto-switching PAL / NTSC
- Picture Quality

LED backlighting

- (gives 20,000 hours life)
- Anti-glare screen
- Resolution: 800 x 480

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

Power

- Power consumption: 18 Watts
- Current: 1.5 Amps

Durability & Standards

- Mechanical vibration: 4G
 - Mechanical shock: 100G
 - Operating temperature: -22 to +158°F
- CE marked
- EMC approved: E
- HALT tested

SELECT MONITOR



NEW

VBV-750M - 5" Digital LCD monitor

VBV-750M-S - 5" Digital LCD monitor Includes 1 5-pin input for connection to VBV-711C shutter camera

• 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: 800 x 480

- Contrast ratio: 500:1
 Brightness: 350cd/m²
- Viewing angles:
- Side 70° x Top 50° x Bottom 70°

Power

- Power consumption: 11.5 Watts
- Current: 0.95 Amps

Durability & Standards

- Mechanical vibration: 4G
- Mechanical shock: 100G
- Operating temperature: -22° to +158°F
- CE marked
- EMC approved: E
 HALT tested

20



Model

RIGID VEHICLES ELITE RANGE CAMERA MONITOR SYSTEMS

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

3131



RIGID VEHICLES SELECT RANGE CAMERA MONITOR SYSTEMS

VBV-770-301 - Single flush-mount camera monitor system for rigid vehicles 4779



- VBV-770M 7" monitor
- VBV-301C flush-mount camera

• VBV-L420 - 66' cable

See individual products for detailed specifications

• 2 year system warranty

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

4693





- VBV-770M 7" monitor
 VBV-701C camera
- VBV-L420 66' cable

- See individual products for detailed specifications
- 2 year system warranty

VBV-770-100N - Single shutter camera monitor system for rigid vehicles 4770



VBV-770M-S - 7" monitor
VBV-711C - shutter camera
VBV-L520 - 66' cable

See individual products for detailed specifications

• 2 year system warranty

RIGID VEHICLES (CONTINUED) SELECT RANGE CAMERA MONITOR SYSTEMS

VBV-750-301 - Single flush-mount camera monitor system for rigid vehicles 4778



VBV-750-000N - Single camera monitor system for rigid vehicles

4706



VBV-750M - 5" monitor
 VBV-701C - camera
 VBV-L420 - 66' cable

See individual products for detailed specifications

• 2 year system warranty

VBV-750-100N - Single shutter camera monitor system for rigid vehicles 4709



VBV-750M-S - 5" monitor
VBV-711C - shutter camera
VBV-L520 -66' cable

See individual products for detailed specifications

• 2 year system warranty

RIGID VEHICLES ESSENTIAL RANGE CAMERA MONITOR SYSTEM

VBV-650-000N - Single camera monitor system for rigid vehicles



4766

Camera • Viewing angle (HxVxD)

81 x 59 x 106°

IP67Size (WxHxD)

2.5 x 2.3 x 2.1"



4783

Model

SMALL RIGID VEHICLES AND VANS SELECT RANGE CAMERA MONITOR SYSTEMS

VBV-770-311 - Single flush-mount camera monitor system for vans



VBV-770-010N - Single flush-mount camera monitor system for vans 4694





VBV-770M - 7" monitor
 VBV-701C - camera
 VBV-L410 - 33' cable

See individual products for detailed specifications

• 2 year system warranty

VBV-750-311 - Single flush-mount camera monitor system for rigid vehicles 4782





VBV-750M - 5" monitor
VBV-301C - flush-mount camera
VBV-L410 - 33' cable

VBV-750M - 5" monitor

VBV-701C - camera
 VBV-L410 - 33' cable

See individual products for detailed specifications

• 2 year system warranty

VBV-750-000N - Single camera monitor system for rigid vehicles

4707

See individual products for detailed specifications

• 2 year system warranty

EXTEND YOUR SYSTEM

Add a front or side camera bundle to any Select range camera monitor kit:

VBV-301C-SB - Side view camera bundle (mirror image) VBV-321C-SB - Side or front view camera bundle (normal view) 4786 4787



· VBV-301C or VBV-321C flush-mount camera

• VBV-405 - 16' cable

See individual products for detailed specifications

• 2 year system warranty

4283

WIRELESS CAMERA MONITOR CONNECTION SYSTEM

DW-1001-TX - Digital Wireless Transmitter DW-1001-RX - Digital Wireless Receiver



- 12-24Vdc
- 1 camera input
- IP69K (Transmitter)
- Size (WxHxD)
 4.4 x 4.4 x 1.2"
- 2 year warranty

Features

- Image Latency: 200 millisecondsEliminates 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
- Transmission power: 18 dBm

Power

- Maximum Current Amps: TX: 0.85 RX: 0.17
- Power consumption:
- TX: 9.8 Watts RX: 2.2 Watts

Durability & Standards

- Operating temperature: -40 to +158°F
- Mechanical vibration: 6G
- Mechanical shock: 20G
- CE marked
- FCC approved
- IC approved

ELITE TRUCK/TRAILER CABLE KIT

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



ELITE TRUCK/TRAILER CABLE KIT

	e kit for articulated trucks iler only version			1144 1885
	 BE-L110 - 10m cable for cab BE-X020 - 20m extension for trailer 	0803 1143	 SP-07T - 7-pin bulkhead socket for trailer & trailer-end camera connector 	1142
SK-30E Cable kit	 SP-07C - 7-pin bulkhead socket for cab & cab-end camera connector 	1140	 SC-07 - Coiled cable with 7-pin plugs 	1046

www.msfoster.com





Model

Part No:

3427

1830

1886

ELITE TRUCK/TRAILER CABLE KIT

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



 SP-15A-01 - 15-pin bulkhead socket for cab & 3 cab-end camera connectors 3423 • SP-15B-01 - 15-pin bulkhead 3422 socket for trailer & 3 trailer-end camera connectors
 • SC-15-01 - Coiled shielded 3268 cable with 15-pin plugs

ELITE TRUCK/TRAILER CABLE KIT

SK-15-04 - Single camera & single buzzer Ultrasonic Detection 3997 System (new generation) cable kit for articulated trucks



- SP-15A-04 15-pin bulkhead 3 socket for cab & cab-end camera connector plus stripped wires and display/buzzer connection for Ultrasonics
- 3955 SP-15B-04 15-pin bulkhead 3956 socket for trailer & trailer-end camera connector plus stripped wires and display/buzzer connection for Ultrasonics
 - SC-15-01 Coiled shielded 3268
 cable with 15-pin plugs

ELITE TRUCK/TRAILER CABLE KIT

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



	BE-L110 - 10m cable for cab	0803	• SP-7B - 7-pin bulkhead socket	
	 BE-X020 - 20m extension cable for trailer 	1143	for trailer & trailer-end camera connector (unique pin layout)	1828
5	 SP-7A - 7-pin bulkhead socket for cab & cab-end came connector (unique pin layout) 	ra 1827	 SC-7 - Coiled cable with 7-pin plugs (unique pin layout) 	1829

SELECT TRUCK/TRAILER CABLE KIT

	VSK-30E - Cable VSK-30E-T - Trai	e kit for articulated trucks iler only version			2538 2542
		VBV-L410 - 10m cable for cab VBV-L420 - 20m cable for trailer		 VSP-47B -7-pin bulkhead socket for trailer & trailer-end camera connector 	1846
VSK-30E Cable kit		VSP-47A - 7-pin bulkhead socket for cab & cab-end camera connector	1847	 SC-07-24S - Coiled cable with type 24S 7-pin plugs 	1227

ELITE CAMERA CABLE

1	BE-L130 - 98' cable	0800
	BE-L120 - 66' cable	0801
	BE-L115 - 49' cable	0802
	BE-L110 - 33' cable	0803
	BE-L105 - 16' cable	0804
	BE-L1003 - 1.2' cable	2797

ELITE CAMERA EXTENSION CABLE

Non-	BE-X025 - 82' extension cable BE-X020 - 66' extension cable BE-X015 - 49' extension cable BE-X010 - 33' extension cable BE-X005 - 16' extension cable BE-X003 - 10' extension cable	1907 1143 2101 2100 2099 0805
	BE-X003 - 10' extension cable	0805

SELECT CAMERA CABLE



VBV-L430 - 98' cable	2108
VBV-L420 - 66' cable	1380
VBV-L415 - 49' cable	3150
VBV-L412 - 39' cable	3106
VBV-L410 - 33' cable	1386
VBV-L405 - 16' cable	1499
VBV-L4025 - 8' cable	1554
VBV-L520 - 66' 5-pin shutter camera cable	3664
VBV-L510 - 33' 5-pin shutter camera cable	3663
VBV-L505 - 16' 5-pin shutter camera cable	4001



1984

2094

2150

2589

3183

3702

4245

4246

4279

4280

4401

4691

Select series cable 2590

	AC-006 - Connects Select series camera to Elite series cable
	AC-007 - Connects Select series monitor to Elite series cable
	AC-014 - Connects Extreme or Elite series camera to Select series cable
\bigcirc	AC-016 - Connects AV to Camera input of Elite monitor
	AC-019 - Connects Elite camera to male phono (video only)
	AC-020 - Connects Extreme or Elite series monitor to Select series cable
	AC-024 - Connects phono to Select monitor
	AC-035 - 5-pin to 4-pin shutter camera adapter
	AC-041 - Connects Elite camera to John Deere 7 pin amp output
	AC-042 - Connects Select camera to John Deere 7 pin amp output
06	AC-044 - Connects Elite camera to Molex M12 (Fendt)
, S	AC-045 - Connects Select camera to Molex M12 (Fendt)
No of	AC-056 - Connects Select camera to Orlaco monitor
	AC-062 - Connects Elite camera to Orlaco monitor

CAMERA MONITOR ADAPTER CABLES



CAMERA MONITOR ADAPTER CABLES

AC-24-12(001) - in-line 24/12v converter - Select camera to Elite monitor	4235
AC-24-12(002) - in-line 24/12v converter - Elite camera to Fakra monitor	4266
AC-24-12(003) - in-line 24/12v converter - 2 x Select cameras to M12 5-pin +power	4301
AC-24-12(005) - in-line 24/12v converter - Select camera to M12 5-pin	4323
AC-24-12(006) - in-line regulator - Select camera to Volvo connector	4719

OEM CAMERA MONITOR ADAPTER CABLES

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

CAMERA MONITOR SYSTEM ANCILLARIES



• 12-24Vdc

• 4 camera inputs

Size (WxHxD)

6 x 1.1 x 4.1"

Single

• 2 year warranty

Split

Picture in

Plus Additional In-built Image Options

picture

Triple

Quad

EDM-50 - Multi-camera module and screen splitter

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 audioAuto-scanning function
- Compatible across Brigade camera monitor range (adapters required for Select series)

2152

Power • Power consumption: 20 Watts

Durability & Standards

- Mechanical vibration: 5G
- Operating temperature: -13 to +158°F
- CE markedEMC approved: e
- Ente approved. e



CAMERA MONITOR SYSTEM ANCILLARIES



SS-002 - Twin camera screen splitter

- 12-24Vdc
- 2 camera inputs
- Size (WxHxD) 5.8 x 1.4 x 3"

• 2 year warranty



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)

3044

Power

Power Consumption: 10.8 Watts

Durability & Standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +158°F
- EMC approved: e

CAMERA MONITOR SYSTEM ANCILLARIES



LS-20-A - Low speed trigger module (normally closed)

3177

3666

• 12-24Vdc

- Auto-triggers safety equipment at the designated speed
- Size (WxHxD) 2.4 x 1.4 x 3.7"
- 2 year warranty

range cables).

Features

- Simple to change triggering speed using DIP switch
- Normally closed safety device on by default, turning off 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 +158°F
- CE marked

CAMERA MONITOR SYSTEM ANCILLARIES



SC-1000-ECU - Shutter camera module

Allows BE-811C shutter camera to function

with any Elite range monitor (using Elite

Use AC-007 adapter to connect to Select or

- Essential range monitor.
 - CE marked
 - EMC approved: e

mobile digital recording



By recording footage from vehicle mounted cameras, mobile digital recording provides an accurate witness, giving irrefutable evidence in the case of false claims, crash for cash incidents or vandalism. Disproving these claims means companies can make major cost savings, whilst importantly supporting their drivers, who are often the subject of increased scrutiny.

- False claim prevention
- 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
- Driver training and best practice
- Peace of mind for passengers and drivers



Available Brochure





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)
 7 x 2 x 6.8"
- 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: -4 to +122°F
- 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 20' cable	2803
GPS-6015-050	GPS receiver (speed & location data) with 16' cable	2925
GS-6016-030	G sensor with 9' cable	4140

GS-6016-030 G sensor with 9' cable 4140







31

NEW

MOBILE DIGITAL RECORDER



EDR-101-008 - Event Data recorder

• 12-24Vdc

- I in-built camera plus 1 external camera input
- Fast, easily downloadable recordings and data
- Size (WxHxD) 3.3 x 1.9 x 1"

I year warranty

Contents: 1x Recorder

- 1x GPS Antenna
- 1 x power cable
- 1x Mounting Bracket & adhesive pad
- 1x 8GB Micro SD card
- 1x Micro SD to SD adaptor
- 1x Software CD
- 1x user manual

Features

- · High definition video capture for clear incident recording
- 112° wide angle camera lens
- 4 recording modes:
- Normal • Event - shock sensor enables 10 seconds before and after an event
- to be recorded Parking - movement engages event recording as above
- · Emergency Driver presses the function button
- Up to 4 hours recording on supplied micro SD card (supports up to 32Gb)
- Simultaneous normal and event recording

4505

- · Continuous recording with automatic overwriting of oldest data.
- Audio function for additional event information
- GPS module for locating tracking
- Viewing software allows two cameras to be viewed, alongside speed, G-force levels and location
- Sotfware allows still images (jpeg) to be created with embedded date and time

Picture Quality

- CMOS sensor
- Video resolution:
- HD + VGA 1280 x 720 pixels MPEG4 image compression allows
- high quality image resolution · Choice of recorded image quality - low
- to high resolution • Fast frame rate, 30 frames per second,
- for smooth images

Durability & Standards

- Mechanical vibration: 2.5G
- Operating temperature: 14 to 122°F
- CE self DofC



OPTIONAL EXTRAS

EDR-101-LOCK	SD card security lock	4517
EDR-142C	Micro camera	4514
EDR-101-VC	V-out cable	4511
EDR-101-CPC	Cigar lighter power cable	4510

Part No:

ultrasonic obstacle detection



Available Brochure

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?

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.

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.

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.

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.

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.

SIDESCAN® ULTRASONIC DETECTION SYSTEM

SS-4000W - Sidescan sensor system



4 sensor system

- 12-24 Volts
- 3/5' 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
- 33' buzzer cable
 4 x 15' sensor cables
- 2 x 8' extension cables
- _____

Features

 Obstacles detected in under 200 milliseconds
 Environment Learning Mode prevents false alarms from ancillary equipment that intrudes in the first 3' of the detection zone

Self-diagnostic function

Durability & Standards

- Operating temperature: -40 to +176°F
- 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 p25	3997
SK-UDS-05	Truck/trailer sensor only cable kit (required)	4219
UDS-10BC	33' 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
TS-001ECU	Turn indicator trigger for system activation	1362

OPTIONAL EXTRA

>	SS-BC-08	Backchat speaking alarm with side turn warning for cyclists/pedestrians	1334
	TCO-47-01	Note: TS-001ECU Turn indicater trigger is required Latched auto-reset Backalarm cut-out (dash mount)	4752



3744

BACKSCAN® ULTRASONIC DETECTION SYSTEM

BS-4000W - Backscan reversing sensor system



4 sensor system 12-24 Volts

- 8' detection range outer sensors 8/2'
- (selectable via dip switch)
 Graduated visual and audible
- distance warning display
- Underslung and flush-mount fixings included
- 1.6" compensation range for sensors fitted inboard of vehicle rear (selectable via dip switch)
- 2 year warranty

Contents

- 4 x sensorsVisual and audible display
- 4 x 0° flush mount fixings
- 4 x 11° flush mount fixings
- 4 x underslung fixings
- Waterproof control box
- 49' display cable
- 4 x 8' 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 3' of the detection zone

Self-diagnostic function

1 x Trigger output

Durability &

Standards

- Operating temperature: -40 to +176°F
- Waterproof sensors to IP68Waterproof control box to
- IP69K
- CE marked
- EMC approved: E
- 5' 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 p25	3997
SK-UDS-05	Truck/trailer sensor only cable kit	4219
UDS-10BC	33' Buzzer/display cable	3716

OPTIONAL EXTRA

UDS-RELAY-24	Trigger-out diode protected relay 24v	4215
UDS-RELAY-12	Trigger-out diode protected relay 12v	4216

CORNERSCAN™ ULTRASONIC DETECTION SYSTEM

CS-3000 - Cornerscan sensor system



STEPSCAN™ ULTRASONIC DETECTION SYSTEM



• 2 sensor system

- 12-24 Volts
- 2/3' 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
- Duzzer
 2 x 11° flush mount fixings
- 2 x 18° flush mount fixings
- 2 x 26° flush mount fixings
- Waterproof control box
- 8' buzzer cable
- 2 x 8' sensor cables

Features

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

alarms from ancillary equipment that intrudes in the first 3' of the detection zone

3742

Self-diagnostic function

Durability & Standards

- Operating temperature: -40 to +176°F
- Waterproof sensors to IP68
- Waterproof control box to IP69K
- CE marked
- EMC approved: E

Tel: +1 (888) 452-4053 E-mail: sales@msfoster.com


Part No:

3747

Model

20. 20°

FRONTSCAN® ULTRASONIC DETECTION SYSTEM

FS-4000W - Frontscan sensor system

	OPTIONAL	EXTRA		
	LS-20-A	Low speed trigger me (enables sensors bel	3177 d)	
	RECOMME	NDED EXTRA		
		 Flush-mount 2 year warranty 	 Obstacles detected in under 200 milliseconds Environment Learning Mode prevents false alarms from tow-hooks 	Waterproof sensors to IP68 Waterproof control box to IP69K CE marked EMC approved: E
2000	4	reduced to 2' (selectable via dip switches) • Audible distance warning	Waterproof control box 8' buzzer cable 4 x 8' sensor cables Features	Durability & Standards • Operating temperature: -40 to +176°F
	66	 12-24 Volts 7/3' detection range - outer sensors can be 	 Buzzer 4 x 11° flush mount fixings 4 x 18° flush mount fixings 4 x 26° flush mount fixings 	the first 3' of the detection zone • Self-diagnostic function • 1 x Trigger output
	E CAL	 4 sensor system 	• 4 x sensors	and other ancillary equipment that intrudes in

EXTENSION CABLES

UDS-2.5BC - Buzzer/display extension cable 8	3717
UDS-10BC - Buzzer/display extension cable 33'	3716
UDS-15BC - Buzzer/display extension cable 49	3746
UDS-2.5SC - Sensor extension cable 8'	3719
UDS-4.5SC - Sensor extension cable 15'	3720



Vital safety devices needed to warn workers and pedestrians that a vehicle is manoeuvring. Our range includes bbs-tek[®] white sound[®] alarms; smart alarms which adjust to the ambient noise level; and speaking alarms, which provide a real speech warning of imminent danger.

Which alarm is for you?

Heavy duty

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



Available Brochure

 Medium duty

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

 Image: Image:

Vehicle specific

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



Tel: +1 (888) 452-4053 E-mail: sales@msfoster.com

back-up and warning alarms

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

bbs-tek[®] back-up alarms



Backchat®

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

Bespoke speaking alarms Define your own message as required.

Nightshift[®] speaking alarms

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

Vehicle intercom

Two-way communication system provides clear, reliable communication between the driver and others not in the cab.

WHITE SOUND[®] SMART REVERSING ALARM



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

12-24 Volts

- IP68
- Size (WxHxD)

6.7 x 3.1 x 3.7"

- Lifetime warranty
- · Multi frequency broadband sound

Features

- Instantly locatable Sound confined to danger area
- Eliminates noise nuisance

Alarm continually adjusts to 5-10dB

Sounder unit: Driver

above ambient

Hole centers: 6"

1400

1399

1398

Durability & standards Mechanical vibration: 10G

• Operating temperature: -40 to +185°F

Current: Max 1 Amp

CE marked

Power

- SAE J994
- OSHA & MSHA compliant (providing appropriate unit correctly installed)

WHITE SOUND[®] BACK-UP ALARM



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

- 12-24 Volts
- 36-80 Volts (HV)
- IP68
- Size (WxHxD)
- 5 x 3 x 2.5"
- 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 centers: 3.8-4.2"

Power

Current: Max 1 Amp

Durability & standards

- Mechanical vibration: 10G • Operating temperature: -40 to +85°F
- CE marked
- SAE J994
- OSHA & MSHA compliant (providing appropriate unit correctly installed)

WHITE SOUND[®] BACK-UP ALARM

BBS-107 - Heavy duty - 107 Decibels

BBS-102 - Heavy duty - 102 Decibels



• IP68

Size (WxHxD)

12-24 Volts

6.7 x 3.1 x 3.7"

Lifetime warranty

Features

- Multi frequency broadband sound Instantly locatable
- Sound confined to danger area
- · Eliminates noise nuisance
- Sounder unit: Driver
- Hole centers: 6"

Power

Current: Max 1 Amps

0898

Durability & standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +815°F
- CE marked
- EMC approved: e
- SAE J994
- OSHA & MSHA compliant (providing appropriate unit correctly installed)

40

0899



Part No:

0935

0934

0897

0896

1397

3989

WHITE SOUND[®] BACK-UP ALARM



BBS-92HV - Electric forklift - 92 Decibels1402BBS-82HV - Electric forklift - 82 Decibels1322BBS-92ADR - Petrol tanker - 92 Decibels2165

- 12-24 Volts
- 36-80 Volts (HV)
- IP68
- Size (WxHxD)
- 5 x 3 x 2.5"
- Lifetime warranty
- Instantly locatableSound confined to danger area

Features

Power

Eliminates noise nuisance

Multi frequency broadband sound

- Sounder unit: Speaker
 Hole centers: 3.8-4.2"
- SAE J994
 OSHA & MSHA compliant (providing appropriate unit correctly installed)

• Operating temperature: -40 to +185°F

Durability & standards

Mechanical vibration: 10G

CE marked

• EMC approved: e

- timo warranty
- Current: Max 0.3 Amps

WHITE SOUND[®] BACK-UP ALARM



BEST SELLER

- 12-24 Volts
- IP68
- Size (WxHxD)
- 4.1 x 2.6 x 1.5" (BBS-97/92) 4.1 x 2.6 x 1.3" (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 centers: 3["]

Power

Current: Max 0.5 Amps

Durability & standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +185°F
- CE marked
- EMC approved: e
- SAE J994
- OSHA & MSHA compliant (providing appropriate unit correctly installed)

WHITE SOUND[®] BACK-UP ALARM



BBS-97GM - Medium duty - Grommet mount - 97 Decibels

• 12-24 Volts

- IP67
- Size: 4" diameter
-
- Lifetime warranty

Features

- Multi frequency broadband soundInstantly locatable
- Sound confined to danger area
- Eliminates noise nuisance
 Sounder unit: Speaker
- -----

Power

Current: Max 0.5 Amps

Durability & standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +185°F
- CE markedEMC approved: e
- SAE J994
- OSHA & MSHA compliant (providing appropriate unit correctly installed).

41

SPEAKING ALARM



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

- 12-24 Volts
- IP68
- Size (WxHxD)
- 4.5 x 4.5 x 4.7 inches

• 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 centers (inches): 4

1199

1198

0079

0083

Power Current: 0.5 Amps

Durability & standards

 CE marked · EMC approved: e

NIGHTSHIFT[®] SPEAKING ALARM



• 12-24 Volts

• IP68

- Size (WxHxD) 4.8 x 3.3 x 2"
- 2 year warranty

Real speech alarm

Features

Features

Real speech alarm

Bespoke message up to 8 seconds,

- * BC-01(NS) message "Bleep! 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 centers: 4"

Power

Current: 0.5 Amps

Durability & standards

 CE marked · EMC approved: e

SPEAKING ALARM



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

Power Current: 0.5 Amps

Durability & standards

- CE marked
- · EMC approved: e

under 4 seconds for best speech quality Sounder unit: Speaker Hole centers: 4'

42

• 12-24 Volts

• IP68 Size (WxHxD) 4.8 x 3.3 x 2"

• 2 year warranty



Part No:

1334

SPEAKING SIDE TURN WARNING ALARM



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

• 12-24 Volts

• IP68

11 00

Size (WxHxD) 4.8 x 3.3 x 2"

• 2 year warranty

Features

 Real speech alarm
 * Message "Ssh! Caution. Truck turning left..."

Sounder unit: Speaker

Hole centers: 4["]

Current: 0.5 Amps

Power

Durability & standards • CE marked

• EMC approved: e

Note: TS-001ECU Turn indicator trigger is required 1362

SPEAKING ATTACK ALARM

BC-AA(B) - Single bespoke message - 110 Decibels



• 12-24 Volts

• IP68

Size (WxHxD)

- 4.5 x 4.5 x 4.7"
- 2 year warranty

Features • Real speech alarm

- Activated by panic button, repeats continuously until deactivated by hidden switch
- Sounder unit: Speaker
- Hole centers: 2"

1465

• 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 0815 BC-VI-2 - Normally closed channel; button press communication 0875

- 12-24 Volts
- IP68
- Size (WxHxD) 4.8 x 3.3 x 2"
- 2 year warranty

Features

- Two-way communication system Master unit volume control: 80-95dB
- Includes master unit, slave unit and
 - 82' cable
- · Sounder unit: Speaker
- Hole centers: 4"

Power

Current: 0.5 Amps

Durability & standards CE marked



ALARM ANCILLARIES

TCO-47 - Timed auto-reset Backalarm cut-out (dash mount)	0663
TCO-47-01 - Latched auto-reset Backalarm cut-out (dash mount)	4752

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

• 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

0334

0974

- CE marked EMC approved

radar obstacle detection



Backsense[®]

Robust, long-range, continuous wave radar sensor systems designed for harsh conditions. Informs 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

Programmable

Top of the range programmable system allowing bespoke detection areas up to 100' in length and 33' in width, with the ability to calibrate out fixed objects or bodywork.

Available Brochure

Fixed

Fixed detection length and width. Ideal on machines where no calibration is required. Detection range of up to 20'.



4530

4676

PROGRAMMABLE BACKSENSE OBSTACLE DETECTION



NEW



In-cab display

- 12-24 Volts
- Detection length: 1.2 to 98'
- Detection width: 6.5 to 33'
- Rugged design for harsh environmental conditions
- Sensor size (WxHxD)
- 9.3 x 5 x 2"
- IP69K sensor
- 2 year warranty

EXTENSION CABLES

BS-05DCX - 16' extension cable BS-09DCX - 30' extension cable

OPTIONAL EXTRAS

BKT-017

Power Current: 0.6 Amps

Durability & Standards

Mechanical shock: 100G

- Operating temperature: -40 to +185°F

- BS EN 13309: 2010
- ISO13766: 2006

4550
4551



- Adjustable radar bracket with 4" depth bracket mounting arms

46

Features

BS-8000 - Programmable detection range

Sensor, AV display, 30' cable

- Frequency modulated continuous wave (FMCW) radar technology
 - · Effectively detects stationary, moving
 - and multiple objects
 - 1 activation input
 - 1 trigger output Programmable:
 - Detection area
 - Detection area Blind zones system ignores fixed objects CE marked EMC approved: E Trigger activation point Buzzer
 - 5 stage audible and visual distance warning display

• Resistant to water, moisture, dust, vibration, heat, cold, mud and glare



4527

4528

4529

4550

4551

4676

NEW FIXED BACKSENSE OBSTACLE DETECTION





In-cab display

• 12-24 Volts - Fr

BS-7030 - 10' detection range, 8' width

Sensor, AV display, 30' cable BS-7045 - 15' detection range, 11' width

Sensor, AV display, 30' cable BS-7060 - 20' detection range, 15' width

Sensor, AV display, 30' cable

- Maximum detection range of 20'
- Rugged design for harsh environmental conditions
- Size (WxDxH)
- 9.3 x 5 x 2"
- IP69K sensor
- 2 year warranty

- Features
- Frequency modulated continuous wave (FMCW) radar technology
- Effectively detects stationary, moving and multiple objects
- 1 activation input
- 1 trigger output
- 5 stage audible and visual distance
- warning display
 Resistant to water, moisture, dust, vibration, heat, cold, mud and glare
- Power
- Current: 0.6 Amps

Durability & Standards

- Mechanical shock: 100G
- Operating temperature: -40 to +185°F
- CE marked
- EMC approved: E
- BS EN 13309: 2010
- ISO13766: 2006

OPTIONAL EXTRAS

EXTENSION CABLES

BS-05DCX - 16' extension cable

BS-09DCX - 30' extension cable

BKT-017 - Adjustable radar bracket with 4" deep bracket mounting arms



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 <u>from DVD</u> 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/m²). 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.

Ε

Complies to United Nations Commission for Europe (UNECE) standards e.g. ECE 10.03

е

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, selfpropelled 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.

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 or 1 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 range)



3 Year Warranty

Elite CMS range (all monitors and cameras with a BE prefix) MDR digital recorder



2 Year Warranty

All other products.



1 Year Warranty

Essential camera monitor system. EDR digital recorder

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.

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> MS Foster & Associates, Inc. Email: sales@msfoster.com Website: www.msfoster.com Telephone: 1(888) 452-4053

M. S. Foster & Associates 1866 N. Country Lane, Michigan City, IN 46360 Phone 219-879-9225 • Toll Free 888-452-4053 Fax 219-879-9313 • email: sales@msfoster.com www.msfoster.com



