



Channelising Resources,
Promoting Growth.

MINE SAFE WITH DAVESMEN

DAVESMEN INDIA PVT. LTD



Vision

To be recognized as the market leader in heavy-duty and safety products . We are committed to provide state-of-the-art technology, quality products and service excellence.

Mission

DMIPL wants to be a resource point for most of the products in this part of the world such as Tyre Protection Chains, Castings, Reversing Safety Equipments, etc. In simple word it's our Endeavour to be a "Total Mining Solution Company" It should be the manufacturing hub for most products to have easy availability for consumers, valuation for investors and eventually commerce and profits. It should create a healthy environment for consumers to buy and a creative and fair work environment for employees.

Quality Policy

DMIPL deals in tyre protection chain, reversing safety systems, xenon and halogen lights, safemine, casting (GPS and RF based), shots and grits, garden furniture, iron ore and commodities. DMIPL also remanufactures and provides services for various heavy duty equipments (off the road vehicles) and creates a safe mining experience for customers.

DMIPL believes in " Channelising Resources and Promoting Growth". We undertake to regularly measure and evaluate our customer's needs and requirements to provide excellence in both our products and our services.

DMIPL is committed to timely supply products meeting customer requirements and enhance safety scenario in mining activity. DMIPL shall add on products of such nature which can place itself in such businesses uniquely with pride and responsibility.

In our drive for, and commitment to, continuously improve all our business processes, we undertake to monitor and measure critical indicators within the business processes and to set objective for improvement based on analysis of such measured and monitored data.

DMIPL has developed a system of training in order to groom it's personnel, to actively contribute to the success of business management system. In order to foster an atmosphere of contribution DMIPL will recognize and appropriately reward good performances.

DMIPL is committed to develop, maintain and continually improve it's processes and systems and ensure customer satisfaction. The policy will be reviewed, for both suitability and effectiveness.

Shamit Dave
Managing Director



Why Davesmen?

Channelizing Resources Promoting Growth we live by this Ethos. Davesmen Products are today reliable quality products which is why we are at the No. 1 Safety Product Company in this part of the world. We go the extra mile to make sure safety is not compromised. Thus we work with market leaders like Brigade, Preco, Erlau, Nordic Lights and other reputed manufactures. Our services is the crown of our dispatch delivery system. We turn up anywhere within 24 Hours of our product dispatched and provide both sales and after sales services to our customer.

OEM Approved

It is our quality of process that distinguishes us from the competition. Reliable, consistent products and controlled development and production procedures have enabled us to reach OEM standards, winning us business across the globe.



Warranty Statement

DMIPL warrants that all products will be covered for manufacturing faults. DMIPL's warranty does not, however, extend to fuses and short circuits.

All products supplied by DMIPL, are supplied and provided on the condition that they cannot be held responsible in the event that they are used for any other purposes than that specified by the manufacturer. DMIPL's warranty, therefore, does not cover misuse, abuse, incorrect fitment and applications.

The customer or purchaser accepts that it is their responsibility to ensure that the product is used in accordance with the manufacturer's instructions.

The commencement date of all warranties is the date of invoice to the purchaser unless otherwise agreed by DMIPL in writing.

Services

The company has attracted a great many high-calibre talents, thus enjoying powerful technical strength.

The field service division is manned by skilled technicians, providing on-site repair services to customers, thereby assisting them in keeping their downtime to an absolute minimum.

If there is demand, a 'man on site' can be assigned to cater specifically to the needs of the customer.

DMIPL Field Services Unit stays ahead of the game with the latest in diagnostic equipment catering for Earth moving equipment.

Company Introduction

Our founder Late Shri Ramesh Chandra Dave incorporated the Group in 1974. He had a very humble beginning. A Technocrat was born in Rajgarh. He did his BSC, AMIE and MIM, he was Awarded Udyog Patra for being 'Self Made Industrialist' by the President of India and 'Lifetime Achievement Indira Gandhi Award' for his many achievements in his field.

We are a diversified group from Tyre Protection Chain; to Steel Castings to Radar's & Cameras for reversing. We are also actively involved in mining and selling Iron Ore. Our interest is also in Jute and Agri Products.



Product Range

From being a sole selling agent for the world leader in Tyre Protection Chains to exporting various products, our company DMIPL has indeed come a long way. The product we deal with ranges from solar toys to rice to castings to plastics.

With over three decades of experience in manufacturing castings, our name ranks alongside the most reputed casting manufacturers of this country. We deal in:

- Tyre Protection Erlau chains
- Xenon & Halogen Lights
- Anti Skid Erlau chains
- Seat Belt Reminder
- Proximity sensor
- Reversing Safety System
- Casting
- Auto Dipper System
- Iron Ore
- Anti Collision System (Safemine)



WHAT IS A TYRE PROTECTION CHAIN?

A Tyre Protection Chain is a close mesh of high-alloy, drop-forged, steel, wear links which wraps around the tyre to protect the tread and sidewalls.

The flexible nature of the mesh enables the chain to adjust to the tyre as it deforms during the loading or hauling operation.

The chain's highly-efficient, self-cleaning properties prevents the mesh from becoming filled and clogged thus achieving the best possible traction and increasing the loader's productivity.

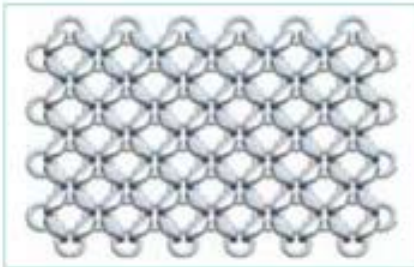
Through 70 years of development in co-operation with owners and operators of wheeled loaders and dump trucks, together with on-going investment in state-of-the-art production facilities and quality control labs in Europe and South America, ERLAU has achieved pre-eminence in the tyre protection chain market with a wide range of chains designed to match the challenges of a multiplicity of site conditions.

By protecting tyres from excessive abrasion, punctures and sidewall damage, ERLAU Tyre Protection Chains saves thousands of dollars in tyre replacement costs and assures full loader productivity.

For your confidence, ERLAU experts will be on hand from your initial enquiry, through delivery and installation, routine check-ups and on-call 24/7 for the life of your tyre protection chain.

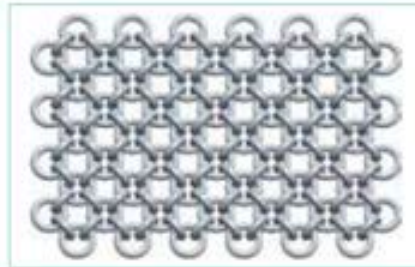


ERLAU SOLUTIONS SAVING TYRES, SAVING TIME, SAVING MONEY



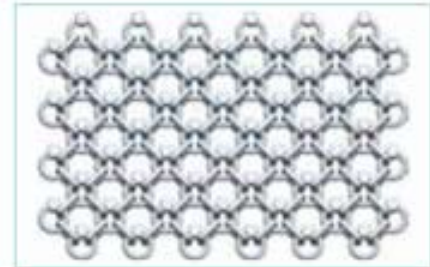
RING-LINK SYSTEM

Drop forged wear links
Tried and tested technology
A wide range of wear links
The right link for your application



RING-RING SYSTEM

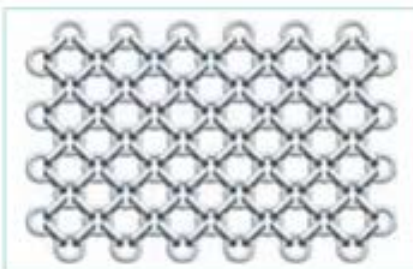
Drop forged wear rings
Perfect tyre protection giving excellent chain
life on very abrasive materials.



RING-LOCKING SYSTEM

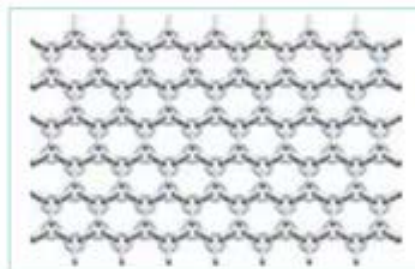
The tyre protection chain specifically
designed for use on hot slag.
Simply unbeatable

3 DIFFERENT CHAIN MESH CONFIGURATIONS PROVIDE PROTECTION – PROTECTION + TRACTION – TRACTION



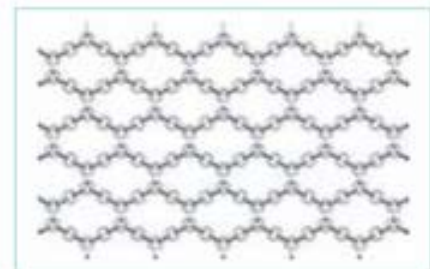
FELS

All-round tyre protection for mining, quarrying,
slag and recycling operations.



GARANT

Greater traction and safety on gradients and wet
or slippery surfaces.



GARANT 10

Greater traction and safety on snow, ice and
slimy surfaces.

IN OPEN PIT OR UNDERGROUND MINES, SHARP-EDGED STONES AND ABRASIVE SURFACES CAN DESTROY TYRES WITHIN A VERY SHORT PERIOD OF TIME.

When it came to laying down the planet's mineral resources Mother Nature could have been a lot more considerate.

Diamonds in a freezing Artic lake, copper and gold high in the South American Andes, iron ore in the Australian desert, coal seams deep underground and complex deposits are just some of the challenges confronting companies engaged in winning the materials – common and rare – essential to today's living.

In modern mining and quarrying, the man with pick, shovel and pan has been superseded by sophisticated machines that, daily, take giant bites out of the ground and haul them away for crushing and refining. Given the multi-million investments in these machines, optimum productivity is the core requirement and any unscheduled downtime is an unwanted, costly inconvenience.

In open-pit, where wheeled machines are used for stripping, loading, hauling and stockpiling, ultimately, the operation's profitability will depend upon the tyres without which the machine becomes just an immobile complex arrangement of metal components.

Operating in artificially lit galleries, underground mining, tunnelling and caving are among the most demanding and hazardous of activities. Here, tyre protection chains not only save tyres but also provide operator safety.

For mobile, surface operations, miners can select from wide range of ERLAU chains to ensure the right tyre protection and traction safety for their site.



IN QUARRIES, ABRASIVE SURFACES AND SHARP EDGED STONES ARE A GREAT HAZARD FOR TYRES.

Quartz, silica, dolomite, basalt, granite are just some of the causes of excessive tyre wear. Flint, slate and shale-like rocks, or demolition debris can cause punctures and deep sidewall cuts.

"One-minute your loader crowds into the rock fall, the next moment it is slumped, immobile and you are on the phone looking for a temporary fix or a replacement tyre."

"If yours is a small operation, this could put your entire production on costly standby."

In these instances, in the cause of operating efficiency, a tyre protection chain, such as ERLAU's RING-LINK or RING-RING system, is required to create a barrier between your tyres and the ground.

The density of the mesh will depend on the exact nature of the work site but it should be self-cleaning and the links specially hardened to resist wear at the points where they interact with the connecting rings.

"ERLAU has the world's widest product range and can supply the ideal tyre protection chain for all types of machine and applications."



WORKING WITH SMOULDERING HOT SLAG CAN SCORCH TYRES, CAN LEAD TO LOST EQUIPMENT AND RISKS HUMAN LIFE

Steelmaking is one of the toughest environments for men and machines. Pot carriers are used to carry 40 cu m ladles of molten slag to the dumping pit where wheeled loaders transfer the still fiery slag to the recycling point which recovers residual steel for re-smelting and limestone cinder for block-making. Whether liquid or cooling, slag is an unforgiving material subjecting tyres to heavy abrasion from the cinder.

RECYCLING SCRAP METAL AND DEMOLISHED BUILDINGS PLACES ENORMOUS DEMANDS ON LOADER TYRES

Anyone who has visited a demolition site, or a scrap metal re-processor will be acutely aware of the hidden hazards faced daily by the tyres of wheeled loaders.

In demolition, for versatility, a wheeled loader is used to feed the crusher hopper and load the tipper trucks. Every time the loader crowds into the demolition heap there is a risk that a tyre will be pierced by a concealed length of rebar. Similar damage can occur when loading flattened cars into the baler or lifting tangled pieces of scrap metal for smelting.

In each instance a burst tyre can bring production to a standstill while a replacement is found. To avoid unscheduled breaks, it is advisable to invest in a tyre protection chain such as Erlau's RING-RING system which encases the vulnerable tread and sidewall of the tyre with a close impenetrable mesh.

With deadlines to meet, the loader operator can be assured that, having fitted ERLAU TPCs, any delay will not be due to his tyres.



SAFE TRACTION FOR YOUR PRODUCTIVITY

At some sites, where the terrain is slippery because of mud or where trucks have to contend with icy haul roads, poor traction can be a major problem.

Wrestling to control a loaded truck with a mind of its own is exhausting for the operator, can reduce concentration and risks 'losing' the truck with all the collateral damage that may involve.

Where the tyre tread, alone, cannot provide an adequate grip, ERLAU TERRA PLUS traction chains in protection + traction, GARANT mode or full-traction GARANT 10 configuration are essential for the safe operation of the equipment.





















Available with link sizes from 11mm to 23mm, TERRA PLUS is suitable for a wide range of applications, including: motor graders, scrapers, mining dump trucks, wheeled loaders, snow ploughs and logging vehicles.

Already in use in 28 countries, the TERRA PLUS 'Z' shaped, self-cleaning, toothed 'terrier' link offers optimum traction and excellent wear characteristics.



WHICH ERLAU TYRE PROTECTION CHAIN IS BEST FOR YOU

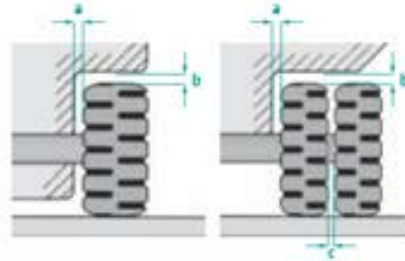
Available with connecting ring diameters from 8 mm to 25 mm, ERLAU offers the widest range of tyre protection chains. Whatever your application, ERLAU offers the best configuration of links and rings for your project.

Ring Diameter	Chain Type		Link Width Link Height	Fels	Mesh Opening	Minimum Clearance	Tyre Size
11 mm		SUPER X11	20 mm 35 mm		54 mm	50 70 85	from 8.25 - 15 to 26.5 - 25
14 mm		DURO X14	22 mm 51 mm		63 mm	60 85 95	from 15.5-25 to 35/65-33
16 mm		ROYAL X16	26 mm 56,5 mm		69 mm	75 100 95	from 20.5-25 to 40/65-39
16 mm		JUMBO PLUS X16	46 mm 56 mm		64 mm	75 100 95	from 20.5-25 to 40/65-39
19 mm		TORO X19	44 mm 60 mm		63 mm	75 100 95	from 12.00-24 to 45/65-45
19 mm		IMPERIAL X19	30 mm 66,5 mm		76 mm	85 120 115	from 23.5-25 to 45/65-45
19 mm		GIGANT PLUS X19	54 mm 68 mm		73 mm	85 120 115	from 23.5-25 to 45/65-45
19 mm		GUARD PLUS X19	35 mm 64 mm		76 mm	85 120 115	from 23.5-25 to 45/65-45
22 mm		CROWN X22	36 mm 76 mm		93 mm	110 150 115	from 45/65-45 and bigger
23 mm		GRANIT PLUS X23	54 mm 80 mm		91 mm	110 150 115	from 45/65-45 and bigger

b (Tread)
















a (Inside sidewall)

These are the minimum clearances required to fit Tyre Protection Chains. (centrifugal forces and possible dirt build-up are taken into consideration). For closer clearances please contact us for guidance.



Chain Type	Inside sidewall a	Tread b	Distance between c
X11	50 mm	70 mm	85 mm
X14	60 mm	85 mm	95 mm
X16	75 mm	100 mm	95 mm
X19	85 mm	120 mm	115 mm
X22	100 mm	150 mm	115 mm
R69+R69S	75 mm	90 mm	
R71+R71S	85 mm	100 mm	
R75	110 mm	130 mm	

Ring Diameter	Chain Type	Ring Width Ring Height	Spezial	Mesh Opening	Minimum Clearance	Tyre Size
13.2 mm	 R69 S	18 mm 56 mm		33 mm	75 90	from 12.00-24 to 35/65-33
14 x 18 mm	 R71 S	20 mm 67 mm		41 mm	85 100	from 23.5-25 to 45/65-45
17,5 x 21,5 mm	 R75 S	25 mm 82 mm		48 mm	110 130	from 45/65-45 and bigger
20 x 25 mm	 R75 S PLUS	28 mm 96 mm		57 mm	130 150	from 45/65-45 and bigger
14 x 18 mm	 R71	20 mm 67 mm		83 mm	85 100	from 26.5-25 to 45/65-45

Ring Diameter	Chain Type	Link Width Link Height	GARANT	Mesh Opening	GARANT 10	Mesh Opening	Minimum Clearance	Tyre Size
11 mm	 TERRA PLUS X11	20 mm 45 mm		114 mm		176 mm	50 70 85	from 8.25-15 to 26.5-25
14 mm	 TERRA PLUS X14	25 mm 49 mm		128 mm		198 mm	60 85 95	from 15.5-25 to 35/65-33
16 mm	 TERRA PLUS X16	28 mm 54 mm		133 mm		211 mm	75 100 95	from 20.5-25 to 40/65-39
19 mm	 TERRA PLUS X19	30 mm 65 mm		150 mm		239 mm	85 120 115	from 35/65-33 to 40.00-57
22 mm	 TERRA PLUS X22	39 mm 76 mm		181 mm		287 mm	100 150 115	from 45/65-45 and bigger

ERLAU INNOVATIONS SAVING TIME AND MONEY

EASYLOCK

Installation of a tyre protection chain requires a set of special Omega rings to 'stitch' the two ends together. Closing these rings involves pins and hammers and the risk of flying metal fragments, squashed thumbs and bad language.

If the pins become corroded, removing the rings requires flame-cutting – a dangerous operation next to tyres.

To save time and money and increase safety, ERLAU, the world-leading Tyre Protection Chain manufacturer, has introduced EASYLOCK – a connecting ring that can be fitted and removed quickly and easily.

EASYLOCK is comprised of an open 'Omega' ring and a locking hasp. Once the ring is passed through the wear links, the hasp is pushed over the two prongs and secured by a 90 Degree turn of the integral locking device with an allen key.

EASYLOCK then remains in place until removed in the same simple procedure.

Either delivered with a new set of ERLAU tyre protection chains or available separately, EASYLOCK can be retro-fitted to any 19 mm or 23 mm TPC.



A product is only as good as its support.

CMS CHAIN MONITORING SYSTEM

It is not by chance that ERLAU TPC has come to dominate the world market for Tyre Protection Chains (TPC).

Modern, state of the art production facilities ensure consistent weld integrity and sophisticated alloys create durable, longer-lasting, lighter, energy-saving links.

Expert installation and life-of-chain support optimizes operational chain life delivering TPCs that mine and quarry owners, demolition and recycling concerns, steel makers and foresters have come to rely upon.

Affirming confidence in its technology, ERLAU TPC now offers CMS – the first tyre chain monitoring system.

An embedded RFID device, CMS records the productive history of the TPC including: batch number, test results, installation, maintenance, incidents,

operating hours and much more.

A hand-held SMART READER collects the data from several sets of chains for download and interpretation by the plant manager.



SIDEFLEX®

WE WILL HAVE A POTENTIALLY SERIOUS SITUATION OF SHORTAGE OF OTR TIRES



The demand for tires has grown 30 to 40 % in the last year. Cost raises reach 15%.

An evident fact in the mining industry today is that companies are accelerating their development and expansion plans to take advantage of growing commodities prices. Along with that, another fact is clear: the boom of projects could become a threat to industry. The high demand for key equipment, spare parts and supplies is creating a worldwide shortage of these inputs.

The companies are already noticing an increase in costs from this effect and warn that the scenario can impact business growth.

"We're seeing a fairly significant increase in demand for services and mining equipment that are relevant to the activity. Manufacturing time of various products is increasing and there will be problems in the supply chain", said Miguel Angel Duran, President of the Chilean Mining Council.

The shortage could be similar to the one experienced in 2007 and 2008, when heavy machinery manufacturers were surprised to face double demand, which raised costs for certain types of products and delayed production. "We are returning to the peaks of high demand, when there were shortages and rising costs. Therefore, we are carefully observing looking the evolution of this scenario", says the executive.

The issue has been addressed repeatedly in the Supplies Committee of the Mining Council. "There are U.S. \$ 55 billion in the pipeline to develop in the coming years and hopefully this will not put the investment in check," he adds.

Two key pieces in mining operations are: trucks and tires. Both products now have an overdemand.

The number of projects that have been activated since the last quarter, warned us. Until October 2010 there were no problems to meet the requirements, because with the financial international crisis, demand fell in 2009 inventories were stocked for eight to 12 months.

With the higher price of copper and other commodities, mining companies began to plan new purchases and factories cannot increase production in equal measure.

Mining companies that have supply contracts may have their consumption secured, but the others will have difficulties to find suppliers.



SIDEFLEX® TO SAVE TIRES IN OPEN-PIT OPERATIONS



The SIDEFLEX is a retrofit device for construction and mining equipment, especially for earthmoving machines. The device is mounted to the wheel hub of utility vehicles as dumb-trucks or wheel-loaders.

While RUD and Erlau chains have been protecting loader tires for 65 years, until now, truck tires have remained vulnerable to sidewall damage from haul road rock debris and accidental impact. Since comprehensive tire protection would slow the trucks and raise fuel consumption to un-acceptable levels, damage limitation. Even so, every day, blowouts continue to destroy expensive tires and delay production. To overcome these problems and to give truck tires the same protection as loader tires, RUD and Erlau designers got together with the operators and, drawing on their many years of experience developing chain-based products, created the SIDEFLEX®.

The SIDEFLEX is an ingenious device. Easy to fit, SIDEFLEX® provides a robust but lightweight shield which deflects rock debris from the tire wall. Field-trialed, tested and, now,

patented, the SIDEFLEX® appearance is novel. Protective arms radiate from a central retaining ring and form a shield covering the sidewall. The entire assembly fits firmly within the wheel hub and almost brushes the ground preventing sharp rocks from penetrating the tire-wall.

Definitely distinctive, the lightweight SIDEFLEX® is simple, effective and, most importantly, saves tires and improves productivity. The SIDEFLEX is yet another RUD and Erlau innovation set to contribute significantly to the bottom line.

SIDEFLEX components are quick and easy to install onto the wheel assembly.





TIRE SAVER SHIELD™ TO SAVE TIRES IN UNDERGROUND OPERATIONS

Tire Saver Shield™

The Hutchinson Tire Saver Shield™ consists of a heavy duty reinforced elastomeric product. The composition of the Tire Saver Shield™ material guarantees the absolute tearing and puncture resistance especially in a terrain with sharp-edged rocks, etc. The life cycle of the tire is greatly extended by reducing tire sidewall damage.

The Hutchinson Tire Saver Shield™ provides a very efficient protection to the highly stressed tire side walls of construction machines.

Mobility for every condition

The Hutchinson Tire Saver Shield™ guarantees the mobility of vehicles in the most difficult terrains under very tough mission requirements for the wheel. This device can often prevent the tire from running flat (in case of tire damages caused by difficult terrain).

The shape of the Tire Saver Shield™ integrates the milling and vulnerable tire side wall.

The mission can be continued. A change of wheels or tires is therefore not immediately necessary.

Protection against sidewall cuts

The materials were carefully selected to be extremely resistant to tearing and perforation. The Tire Saver Shield™ creates a barrier between the tire side wall and damaging terrain such as rocks and debris, preventing sharp elements from destroying the tire.

Benefits:

- Puncture resistant
- Protects tire walls from cuts and tears damage
- Will not increase operational temperature of side wall
- Easy to install and service
- Adapted on tire geometry
- Assembly possible on any wheel



Backeye® 360

360° visibility for commercial vehicles and mobile plant

Which range is for you?

Elite Backeye®360

Top of the range system for total blind spot coverage. Suitable for large rigid road-going vehicle, specialist application, heavy duty off-road machines



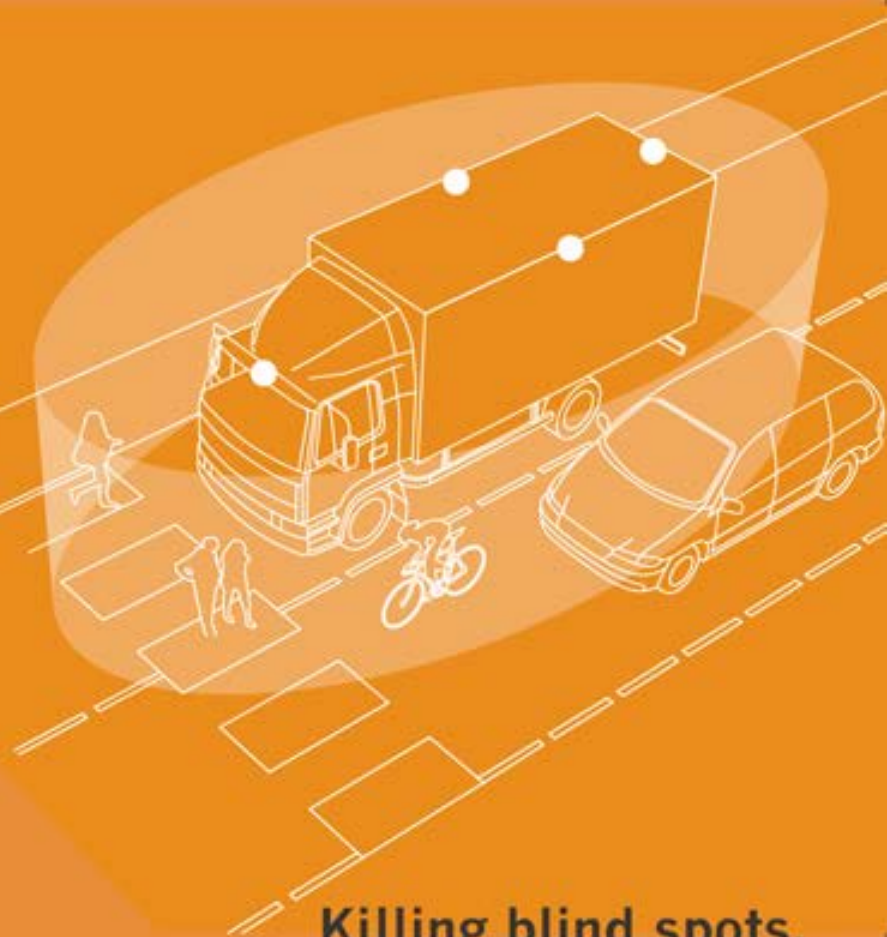
Select Backeye®360

Mid-range systems for total blind spot coverage. Suitable for medium to large road-going rigid vehicles and off-road machines



4 Cameras
1 Image
0 Blind spots

Backeye®360 is an intelligent camera monitor system designed to assist low-speed maneuverability 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° bird's-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.



**Killing blind spots.
Saving lives.**

SELECT 360° CAMERA SYSTEMS



BN360-000 - Backeye®360 Select system

4483



- IP69K cameras
- 12-24Vdc
- Size (WxHxD) ECU
170 x 126.4 x 36mm
- Size (WxHxD) Camera
35.4 x 60.7 x 45.8mm
- 2 year warranty

Contents

- 1 x BN360-ECU-10
- 4 x BN360-100C cameras
- 1 x BN360VBV/L4015 Video-out cable to connect to SELECT range monitor.

Note: Monitor and camera extension cables not included

Features

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

Power

- Power consumption: 15
- Watts Current: 1.23 Amps

Durability & Standards

- Mechanical vibration: 1G
- Mechanical shock: 50G
- Operating temperature: -30 to +75°C
- CE marked
- EMC approved: E
- HALT tested

Note: A calibration kit is required for installation.

SELECT 360° CABLES AND ADAPTERS

Bn360-	L12020m camera cable	4493
Bn360-	L11515m camera cable	4495
Bn360-	L11010m camera cable	4496
Bn360-	L1055m camera cable	4498
Bn360-	L10252.5m camera cable	4499
AC-305-	Splitter cable for MDR (1 required per camera)	4903

REQUIRED ADDITION 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

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 - 10m camera cable
- 2 x BN360-L115 - 15m camera cables
- 1 x BN360-L120 - 20m camera cable

See individual products for detailed specifications

- 2 year system warranty

ELITE 360° CAMERA SYSTEMS



ASL360-SV - Backeye 360 Elite

4328



- IP68 cameras
- 12-24Vdc
- Size (WxHxD) ECU
225 x 35 x 120mm
- Size (WxHxD) Camera
70 x 50 x 62mm
- 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: PAL

Power

- Power consumption:
Camera: 0.5 Watts
ECU: 5.0 Watts
- Current:
Camera: 0.04 Amps
ECU: 0.4 Amps

Durability & Standards

- Operating temperature:
-40 to +85°C
- CE marked
- EMC approved: E

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

SELECT 360° CABLES AND ADAPTERS

ASL360-L120	20m camera cable	4333
ASL360-L115	15m camera cable	4334
ASL360-L110	10m camera cable	4335
ASL360-L1025	2.5m camera cable	4336
AC-054	2.5m 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



REQUIRED ADDITION FOR ARTICULATED VEHICLES

BN360-Enclosure	IP66 Enclosure kit to enable ECU to be installed on outside of vehicle	4723
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Note: Cabled cable kit or wireless connector also required

ELITE RANGE 360° CAMERA MONITOR SYSTEMS

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



SE-970W-000 - 360 camera monitor system for large rigid vehicles

4341

- 1 x BE-970WM - 7" waterproof monitor
- 1 x ASL-360SV 360 system
- 1 x ASL-L110 - 10m camera cable
- 2 x ASL-L115 - 15m camera cables
- 1 x ASL-L120 - 20m camera cable
- 1 x AC-016 - phono adapter cable
- 1 x AC-054 - adapter cable

See individual products for detailed specifications

- 2 year system warranty



SE-870L-000 - 360 camera monitor system for large rigid vehicles

4342

- 1 x BE-870LM - 7" monitor
- 1 x ASL-360SV 360 system
- 1 x ASL-L110 - 10m camera cable
- 2 x ASL-L115 - 15m camera cables
- 1 x ASL-L120 - 20m camera cable
- 1 x AC-016 - phono adapter cable
- 1 x AC-054 - adapter cable

See individual products for detailed specifications

- 2 year system warranty



SE-770-000 - 360 camera monitor system for large rigid vehicles

4803

- 1 x VBV-770M - 7" monitor
- 1 x ASL-360SV 360 system
- 1 x ASL-L110 - 10m camera cable
- 2 x ASL-L115 - 15m camera cables
- 1 x ASL-L120 - 20m camera cable
- 1 x AC-024 - phono adapter cable
- 1 x AC-054 - adapter cable

See individual products for detailed specifications

- 2 year system warranty

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.



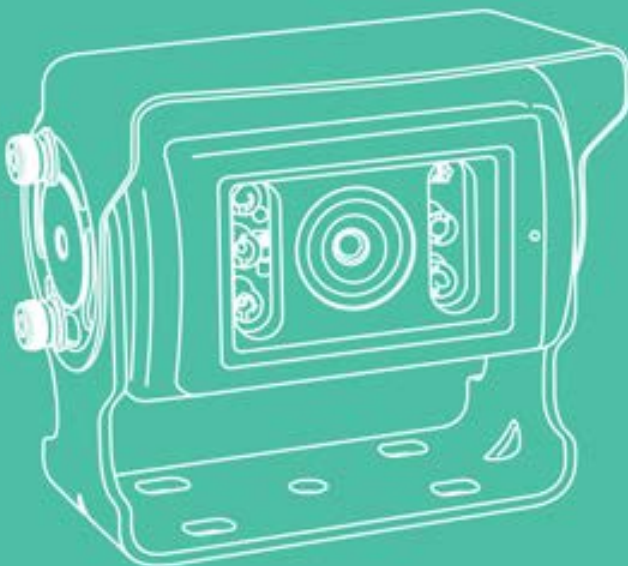
Select

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



Essential

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



Choosing your camera monitor system

Camera/monitor compatibility for building your own system.

		MONITORS			
		ELITE		SELECT	
		BE-970WM BE-865DDM	BE-856GM	VBV-770M VBV-750M	VBV-770M-S VBV-750M-S
= Compatible AC-0xx = Compatible with adapter(s) shown					
CAMERAS	ELITE	BE-810C shutter camera		SC-1000-ECU (Shutter module)	AC-007 SC-1000-ECU
		All other Elite range cameras			AC-007
	SELECT	VBV-710C shutter camera	AC-006 AC-035	AC-035 AC-006	AC-035
		All other Select range cameras	AC-006	AC-006	
	FLIR		AC-016 AC-065	AC-016 AC-065	AC-024 AC-065

Camera/monitor combinations approved to R46

		MONITORS		
		ELITE BE-870LM	SELECT VBV-770M	
CAMERAS	ELITE	BE-800C	Full screen or half screen with SS-002 screen splitter	✗
		BE-890C	Full screen or half screen with SS-002 screen splitter	✗
		BE-850C	Full screen or half screen with SS-002 screen splitter	✗
	SELECT	VBV-700C	✗	Full screen or half screen with SS-002 screen splitter
		VBV-790C	✗	Full screen or half screen with SS-002 screen splitter
		VBV-300C	Full screen or half screen with SS-002 screen splitter	Full screen or half screen with SS-002 screen splitter
		VBV-320C	Full screen or half screen with SS-002 screen splitter	Full screen or half screen with SS-002 screen splitter

NEW

ELITE CAMERA



Heated camera

BE-800C	1623
BE-800C(40) - Narrow viewing angle: 33 x 25 x 40	1559
BE-800C(78) - Narrow viewing angle: 64 x 47 x 78	1426
BE-890C - Waterproof to IP69K, No audio 2871	
BE-850CBE 12/24Vdc Waterproof to IP69K	4924

Viewing angle (HxVxD)

101 x 72 x 133°

IP68

Size (WxHxD)

86 x 72 x 80mm

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: 45

Power

- Power consumption: 4 Watts

- Current: 0.33 Amps (0.33 - 2.63 Amps BE-850C)

Durability & Standards

- Mechanical vibration: 20G
- Mechanical shock: 50G
- Operating temperature:

- 40 to +80°C
- CE marked
- EMC approved: E
- HALT tested
- ISO 13766: 2006
- BN En13309

ELITE CAMERA



BE-810C - Heated shutter camera

1242

Viewing angle (HxVxD)

103 x 71 x 134

IPX9K

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: 400

Power

- Power consumption: 5 Watts
- Current: 0.4 Amps

Durability & Standards

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

SC-1000-ECU - Shutter camera module is required to connect to any Extreme or Elite monitor (see ancillaries)

3666

ELITE CAMERA

BE-820C - Mini camera (mirror image)
BE-822C - Mini camera (normal image)

1927

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

SELECT CAMERA



VBV-700C
VBV-790C - Waterproof to IP69K, no audio

1379
2724

- Viewing angle (HxVxD)
92 x 70 x 115°
- IP67
- Size (WxHxD)
81 x 77 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 CAMERA



VBV-710C -

Heated shutter camera

2808

For connection to VBV-7700M-S and VBV-7500M-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)
90 x 70 x 110°
- IP69K
- Size (WxHxD)
122 x 85 x 82mm
- 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" Sharp CCD
- TV System: PAL
- TV Lines: 420

Power

- Power consumption: 4.6 Watts
- Current: 0.38 Amps

Durability & Standards

- Mechanical vibration: 2.8G
- Operating temperature: -0 to +70°C
- CE Marked
- EMC approved: E

SELECT 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

- Power consumption: 2.3 Watts
- Current: 0.2 Amps

Durability & Standards

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

SELECT CAMERA

Compact flush-mount eyeball camera



VBV-300C - Mirror view
VBV-320C - Normal view

4604
4613

Viewing angle (HxVxD)

- 102 x 78 x 145°
- IP69K
- Size (WxHxD)
57 x 41 x 68mm
- 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
- 3-6m illumination distance
- Day / Night sensor
- 1/3" Sharp CCD
- TV System: PAL
- 420 TV lines

Power

- Power consumption: 1.44 Watts
- Current consumption: 0.12 Amps

Durability & Standards

- Corrosion resistant: ISO9227 salt spray standard
- Mechanical vibration: 4G
- Operating temperature: -20 to +70°C
- CE marked
- EMC approved: E

THERMAL IMAGING CAMERA

PF-30N-500 - PathFindIR II with automatic detection 30Hz
PF-075N-540 - PathFindIR II with automatic detection 7.5Hz

334-0050-00
334-0054-00



- 12Vdc
- Viewing angle (HxV)
24 x 18°
- IP69 (Camera)
- Size (WxHxD)
Camera: 60 x 86 x 82mm
ECU: 148 x 110 x 24mm
- 1 year warranty

Contents

- Camera, ECU, Camera to ECU cable and power cable

Features

- Automatic detection and alerts of pedestrians and animals
- Produces a clear image, even in total darkness.
- See through smoke, dust and light fog
- Automatic Heated Element
- See past the glare of oncoming headlights
- Sees up to 4 times further than vehicle headlights

Image

- 320 x 240 Uncooled Microbolometer
- Spectral range: 8 - 14µm
- Image Frequency: 7.5/30Hz (NTSC)

Power

- Power consumption: 6 Watts

Durability & Standards

- IP69
- Operating Temperature: -40 to 80°C

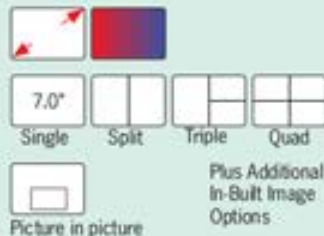
ELITE MONITOR



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

3560

- 12-24Vdc
- 4 camera inputs
- IP69K
- Size (WxHxD) 94 x 124 x 48mm
- 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
- r 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°

Power

- Power consumption: min 28 Watts
- Current: min 2.15 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 20653: 2006
- HALT tested

ELITE 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 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 MONITOR

BE-870LM - 7" Digital LCD monitor

2705



- 12-24Vdc
- 2 camera inputs
- Size (WxHxD)
197 x 128 x 3.5mm
- 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
- 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: 10 Watts
- Current: 1 Amp

Durability & Standards

- Mechanical vibration: 10G
- Mechanical shock: 100G
- Operating temperature: -30 o +70°C
- CE marked
- EMC approved: E

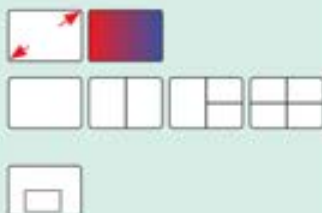
ELITE MONITOR

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

3935



- 12-24Vdc
- 4 camera inputs
- Size (WxHxD) Double DIN
188 x 116 x 142mm
- 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
- 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 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 16750
- R46 and 2003/97/EC approved for indirect vision (with compliant cameras only)

ELITE 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

Power

- Power consumption: 11 Watts
- Current: 0.9 Amps

- Viewing angles:
Side 70° x Top 50° x Bottom 70°

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

ELITE MONITOR



VBV-243M - 4.3" Digital mirror monitor

4070

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



- Features**
- On screen display menu
 - Digital 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°

- Power**
- Power consumption: 4.95 Watts
 - Current: 0.45 Amps
- Durability & Standards**
- Vibration rating: 6G
 - Operating temperature:
-20 to +70°C
 - CE marked

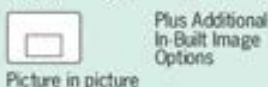
SELECT MONITOR



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

4474

- 2-24Vdc 4 camera inputs
- Size (WxHxD) 267 x 193 x 30mm
- 2 year warranty 10.4"



Picture in picture

- Features**
- 'Button-lock' anti-tamper feature
 - Auto-triggers
 - Configurable trigger delay
 - Mirror / Normal switching from menu
 - On-screen distance markers
 - Built-in speaker
 - Sun shield
 - Multi-lingual menus
 - 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°

- Power**
- Power consumption: 22 Watts
 - Current: 2 Amps
- Durability & Standards**
- Mechanical vibration: 2.8G
 - Operating temperature: -20 to +70°C
 - CE marked
 - EMC approved:E
 - HALT tested

UPDATED

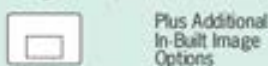
SELECT MONITOR



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

3901

- 12-24Vdc
- 4 camera inputs
- Size (WxHxD) 182 x 122 x 27mm
- 2 year warranty



Picture in picture

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

- Power**
- Power consumption: 25.5 watts
 - Current: 2.1 Amps
- Durability & Standards**
- Mechanical vibration: 4G
 - Operating temperature: -30 to +70°C
 - CE marked

SELECT MONITOR



VBV-770M - 7" Digital LCD monitor

4288

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

4697

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

- 12-24Vdc
- 3 camera inputs
- Size (WxHxD)
196 x 118 x 26mm
- 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: -30 to +70°C
- CE marked
- EMC approved: E
- HALT tested

SELECT MONITOR



VBV-750M - 5" Digital LCD monitor

4287

VBV-750M-S - 5" Digital LCD monitor

4710

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

- 12-24Vdc
- 3 camera inputs
- Size (WxHxD)
149.5 x 99 x 22mm
- 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: 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: -30 to +70°C
- CE marked
- EMC approved: E
- HALT tested

RIGID VEHICLES ELITE RANGE CAMERA MONITOR SYSTEMS

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

3231



- BE-870LM - 7" monitor
- BE-800C - heated camera
- BE-L120 - 20m cable

See individual products for detailed specifications

- 3 year system warranty

BE-870L-100 - Single shutter camera monitor system for rigid vehicles

4032



- BE-870LM - 7" monitor
- BE-810C - heated shutter camera
- BE-L120 - 20m cable
- SC-1000-ECU shutter camera module

See individual products for detailed specifications

- 3 year system warranty

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

4012



- BE-856GM - 5.6" monitor
- BE-800C - heated camera
- BE-L120 - 20m cable

See individual products for detailed specifications

- 3 year system warranty

RIGID VEHICLES ELITE RANGE CAMERA MONITOR SYSTEMS

VBV-770-300 - Single flush-mount camera monitor system for rigid vehicles

4777



- VBV-770M - 7" monitor
- VBV-300C - flush-mount camera
- VBV-L420 - 20m cable

See individual products for detailed specifications

- 2 year system warranty

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

4692



- VBV-770M - 7" monitor
- VBV-700C - camera
- VBV-L420 - 20m cable

See individual products for detailed specifications

- 2 year system warranty

RIGID VEHICLES (CONTINUED)

SELECT RANGE CAMERA MONITOR SYSTEMS

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

4695



- VBV-770M-S - 7" monitor
- VBV-710C - shutter camera
- VBV-L520 - 20m cable

See individual products for detailed specifications

- 2 year system warranty

VBV-770-002 - Twin-camera monitor system for rigid vehicles

4773



- VBV-770M - 7" monitor
- 2 x VBV-700C - cameras
- VBV-L420 - 20m cable
- VBV-405 - 5m cable

See individual products for detailed specifications

- 2 year system warranty

VBV-750-300 - Single flush-mount camera monitor system for rigid vehicles

4776



- VBV-750M - 5" monitor
- VBV-300C - flush-mount camera
- VBV-L420 - 20m cable

See individual products for detailed specifications

- 2 year system warranty

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

4705



- VBV-750M - 5" monitor
- VBV-700C - camera
- VBV-L420 - 20m cable

See individual products for detailed specifications

- 2 year system warranty

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

4708



- VBV-750M-S - 5" monitor
- VBV-710C - shutter camera
- VBV-L520 - 20m cable

See individual products for detailed specifications

- 2 year system warranty

ARTICULATED VEHICLES ELITE RANGE CAMERA MONITOR SYSTEMS

BE-870L-001 - Single camera monitor system for articulated vehicles

3232



- BE-870LM - 7" monitor
- BE-800C - heated camera
- SK-31E - truck/trailer cable kit

See individual products for detailed specifications
• 3 year system warranty

VEHICLES WITH DRAWBAR TRAILERS ELITE RANGE CAMERA MONITOR SYSTEMS

BE-870L-004 - Twin camera monitor system for vehicles with drawbar trailers

3233



- BE-870LM - 7" monitor
- 2 x BE-800C - heated cameras
- SK-50E - truck/trailer cable kit

See individual products for detailed specifications
• 3 year system warranty

ARTICULATED VEHICLES SELECT RANGE CAMERA MONITOR SYSTEMS

VBV-770-001DW - Single wireless camera monitor system for articulated vehicles

4843



- VBV-770M - 7" monitor
- VBV-700C - camera
- VBV-L420 - 20m cable
- DW-1000-TX - digital wireless transmitter
- DW-1000-RX - digital wireless receiver
- AC-006 - camera adapter
- AC-007 - monitor adapter

See individual products for detailed specifications

• 2 year system warranty

WIRELESS CAMERA MONITOR CONNECTION SYSTEM



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

4043
 4044

- Digital technology
- 12-24Vdc
- 1 camera input
- IP69K (Transmitter)
- Size (WxHxD)
113 x 114 x 31mm
- 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
- 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 +70°C
- Mechanical vibration: 6G
- Mechanical shock: 20G
- CE marked

ELITE CAMERA EXTENSION CABLE



BE-X025 - 25 meter extension cable
 BE-X020 - 20 meter extension cable
 BE-X015 - 15 meter extension cable
 BE-X010 - 10 meter extension cable
 BE-X005 - 5 meter extension cable
 BE-X003 - 3 meter extension cable

1907
 1143
 2101
 2100
 2099
 0805

SELECT CAMERA CABLE



VBV-L430 - 30 meter cable
 VBV-L420 - 20 meter cable
 VBV-L415 - 15 meter cable
 VBV-L412 - 12 meter cable
 VBV-L410 - 10 meter cable
 VBV-L405 - 5 meter cable
 VBV-L4025 - 2.5 meter cable
 VBV-L520 - 20 meter 5-pin shutter camera cable
 VBV-L510 - 10 meter 5-pin shutter camera cable
 VBV-L505 - 5 meter 5-pin shutter camera cable

2108
 1380
 3150
 3106
 1386
 1499
 1554
 3664
 3663
 4001

CAMERA MONITOR ADAPTERS

	AC-006 - Connects Select series camera to Elite series cable	1983
	AC-007 - Connects Select series monitor to Elite series cable	1984
	AC-014 - Connects Elite series camera to Select series cable	2094
	AC-016 - Connects AV to Camera input of Elite monitor	2150
	AC-019 - Connects Elite camera to male phono (video only)	2589
	AC-020 - Connects Elite series monitor to Select series cable	2590
	AC-024 - Connects phono to Select monitor	3183
	AC-035 - 5-pin to 4-pin shutter camera adapter	3702
	AC-041 - Connects Elite camera to John Deere 7-pin amp output	4245
	AC-042 - Connects Select camera to John Deere 7-pin amp output	4246
	AC-044 - Connects Elite camera to Molex M12 (Fendt)	4279
	AC-045 - Connects Select camera to Molex M12 (Fendt)	4280
	AC-056 - Connects Select camera to Orliaco monitor	4401
	AC-062 - Connects Elite camera to Orliaco monitor	4691
		

OEM CAMERA MONITOR ADAPTER CABLES

A further range of OEM specific adapters to connect Brigade cameras to factory fit monitors is available.

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



**Your driver has been accused.
He says he didn't do it.**

Would you pay up?

False insurance claims by 3rd parties cost companies millions of pounds each year and put drivers under increased scrutiny. Without solid evidence it is often easier to settle. What price a reliable witness?

**Protecting your driver.
Providing your witness.**



NEW

MOBILE DIGITAL RECORDER

MDR-408-1000 - 8 channel 1Tb hard disk recorder

4869



- 9-32Vdc 8 camera inputs
- 8 trigger/alarm inputs
- Lockable and removable Mobile Caddy Unit
- Fast, easily downloadable recordings and data

• Size (WxHxD)
215 x 78 x 2.92mm

- 3 year warranty

**Contents**

- 1 x Mobile Digital Recorder 2.5" 1Tb SATA HDD
- 1 x Remote control
- 1 x Trigger cable loom
- 1 x Power cable
- 1 x Video output cable
- 1 x GPS antenna
- 1 x USB A to B cable
- 1 x Security key
- 1 x 64Gb SD card
- 1 x Mounting bracket and screws
- Installation guide & CD

Features

- Robust aluminium housing
- Anti-vibration mounting allows for installation at any angle
- Built-in GPS
- Built-in G-sensor
- Up to 1164 hours recording
- Recordings saved to hard disk (protected by non-visible digital watermark) and in-built Mirror recording onto SD card
- Recording modes: normal, alarm and timer
- Configurable alarm trigger settings (speed, G-force, motion detection, video loss, voltage)

- Record images prior to alarm activation and after vehicle switched off
- MDR-Dashboard (full player) and MDR-Player (portable) with Google and MS Bing maps (English only)
- Search by date, time or triggered events
- Multi-level password protected access
- Mobile caddy unit directly pluggable to PC via USB-B port
- Remote control
- 8 x trigger inputs, 2x trigger outputs and 1x12Vdc power output
- Built-in HDD heater

Image and audio Quality

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

Durability & Standards

- Mechanical vibration: 1G
- Mechanical shock: 40G
- Operating temperature: -25 to +60°C
- EMC approved: E
- CE certified
- RoHS2 Compliant

NEW

MOBILE DIGITAL RECORDER

MDR-404-500 - 4 channel 500Gb hard disk recorder

4868



- 9-32Vdc
- 4 camera inputs
- 8 trigger/alarm inputs
- Lockable and removable Mobile Caddy Unit
- Fast, easily downloadable recordings and data
- Size (WxHxD)
190 x 75 x 212mm
- 3 year warranty

**Contents**

- 1 x Mobile Digital Recorder with 2.5" 500Gb SATA HDD
- 1 x Remote control
- 1 x Trigger cable loom
- 1 x Power cable
- 1 x Video output cable
- 1 x GPS antenna
- 1 x USB A to B cable
- 1 x Security key
- 1 x 32Gb SD card
- 1 x Mounting bracket and screws
- Installation guide & CD

Features

- Robust aluminium housing
- Anti-vibration mounting allows for installation at any angle
- Built-in GPS
- Up to 1164 hours recording
- Recordings saved to hard disk (protected by non-visible digital watermark) and in-built Mirror recording onto SD card
- Recording modes: normal, alarm and timer
- Configurable alarm trigger settings (speed, optional G-force, motion detection, video loss, voltage)
- Record images prior to alarm activation and after vehicle switched off

- MDR-Dashboard (full player) and MDR-Player (portable) with Google and MS Bing maps (English only)
- Search by date, time or triggered events
- Multi-level password protected access
- Mobile Caddy Unit directly pluggable to PC via USB-B port
- Remote control
- 8 x trigger inputs, 2x trigger outputs and 1x12V power output
- Built-in HDD heater

Image and audio Quality

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

Durability & Standards

- Mechanical vibration: 1G
- Mechanical shock: 40G
- Operating temperature: -25 to +60°C
- EMC approved: E
- CE certified
- RoHS2 Compliant

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 maneuvering at low speeds.

Which range is for you?

Sidescan®

4 sensor system fitted to side of vehicle increasing safety when turning or low speed maneuvering. 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 minimizing 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. Minimizes the risk of damage to the vehicle cab whilst maneuvering at low speed.

Frontscan®

4 sensor system fitted to front of vehicle improving safety when maneuvering 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. Minimizes the risk of damage to the vehicle cab from otherwise unseen objects.

The cyclist hasn't been seen in
the mirrors, but...

...the driver already
knows he's there.

Ultrasonic sensors detect obstacles alongside the vehicle, giving an audible signal to the driver, whilst an external speaking alarm warns cyclists and pedestrians of the vehicle's intended left turn.

SIDESCAN® ULTRASONIC DETECTION SYSTEM

SS-4000W - Sidescan sensor system

3711



- 4 sensor system
- 12-24Vdc
- 1.0/1.5 m 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 p27	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-60-A	Low speed trigger module (enables sensors below designated speed)	4851
TS-001ECU	Turn indicator trigger for system activation	1362

BACKSCAN® ULTRASONIC DETECTION SYSTEM

BS-4000W - Backscan reversing sensor system

3744



- 4 sensor system
- 12-24Vdc
- 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
- 1 x Trigger output

Durability & Standards

- Operating temperature: -40 to +80°C
- Waterproof sensors to Ip68
- Waterproof control box to IP69K
- CE marked
- EMC approved:
- 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 p27	3997
SK-UDS-05	Truck/trailer sensor only cable kit	4219
UDS-10BC	10m Buzzer/display cable	3716

OPTIONAL EXTRA

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

CORNERSCAN™ ULTRASONIC DETECTION SYSTEM

CS-3000 - Cornerscan sensor system

3712



- 3 sensor system
- 12-24Vdc
- 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-60-A	Low speed trigger module (enables sensors below designated speed)	4851
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Reversing & Warning Alarms

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 range is for you?

Heavy duty

for plant, quarry and construction machines or environment with high ambient noise.



Medium duty

ideal for commercial road 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® reversing alarms



Backchat®

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

Speaking alarms

Includes standard messages for reversing, handbrake warning and attack alarms.

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

1400



- 12-24Vdc
- IP68
- size (WxHxDx)
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



- 12-24Vdc
- 3.6-80Vdc(HV)
- IP68
- Size (WxHxDx)
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 Amp

Durability & standards

- Mechanical vibration: 10G
- Operating temperature: -40 to +85 C
- CE marked
- SAE J994
- NAS/P1EK approved for night time delivery

WHITE SOUND® REVERSING ALARM

BBS-107 - Heavy duty - 107 Decibels

0899

BBS-102 - Heavy duty - 102 Decibels

0898



- 12-24Vdc
- IP68
- size (WxHxDx)
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

SPEAKING ALARM



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

0665
 1199

- 12-24Vdc
- IP68
- Size (WxDxD)
116 x 115 x 117.5mm
- 2 year warranty

Features

- Real speech alarm
- BC-01HP message "Shift 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

- 12-24Vdc
- IP68
- Size (WxDxD)
122 x 84 x 50mm
- 2 year warranty

Features

- Real speech alarm
- BC-01(NS) message "Shift 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

- 12-24Vdc
- IP68
- Size (WxDxD)
122 x 84 x 50mm
- 2 year warranty

Features

- Real speech alarm
- BC-01 message "Shift 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



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

0849
 1715

- 12-24Vdc
- 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

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

- Features**
- Real speech alarm
 - Message S/H! Caution Truck turning left..
 - Sounder unit: Speaker
 - Hole centres (mm): 102

- Power**
- Current: 0.5 Amps
- Durability & standards**
- CE marked
 - EMC approved e

SPEAKING SIDE TURN WARNING ALARM



TS-001ECU Turn indicator trigger is required
 BC-AA(BUS) - Single bus specific message - 110 Decibels
 BC-AA(B) - Single bespoke message - 110 Decibels

1362
 0064
 1465

- 12-24Vdc
- 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

Radar Obstacle Detection

Informs driver of distance between vehicle and any obstacles, whether moving or stationary. Perfect for all machines working in construction, mobile plant and refuse.

Which model is for you?

Programmable

Top of the range programmable system allowing bespoke detection areas up to 30m in length and 10m in width, with the ability to calibrate out fixed object or bodywork

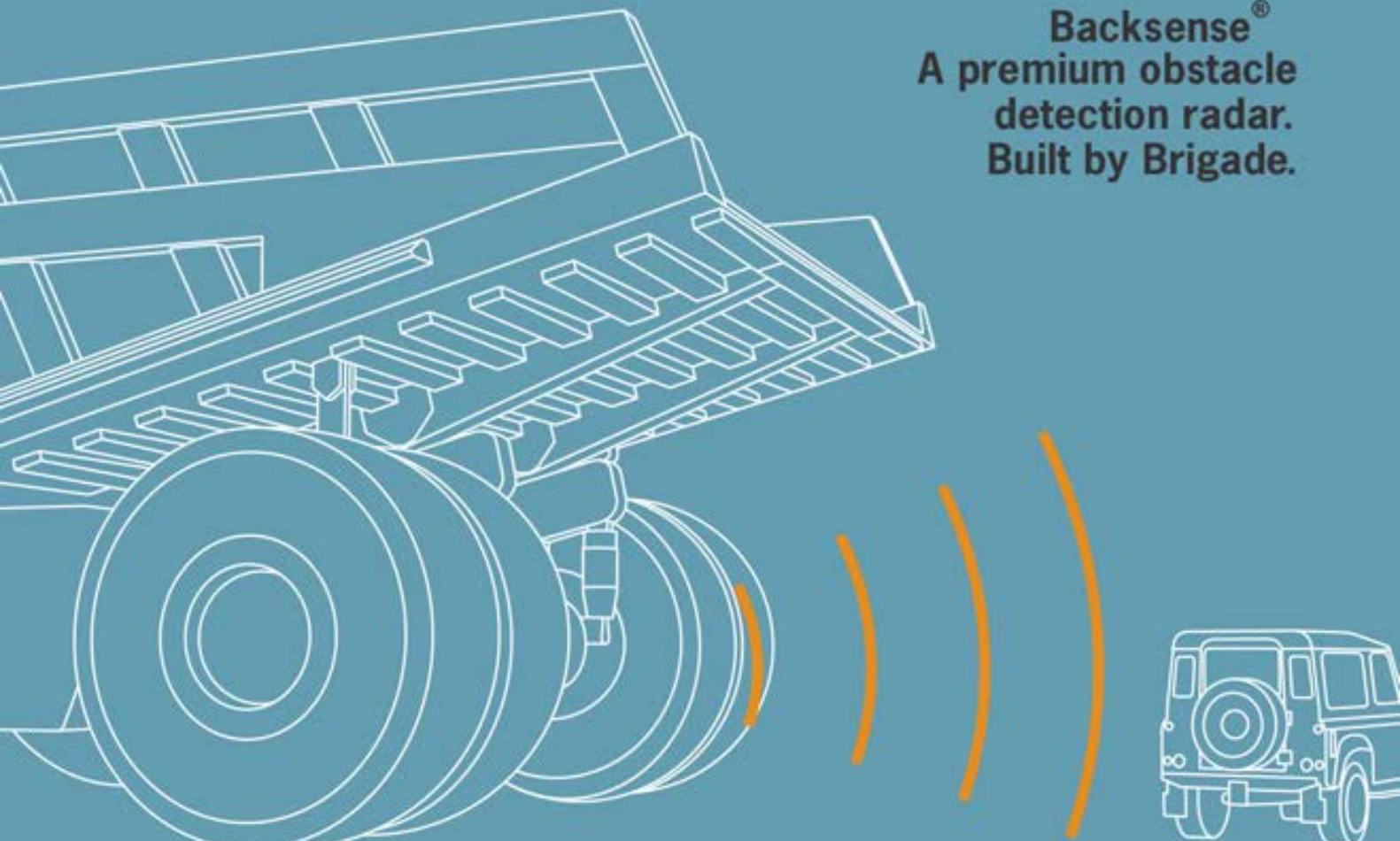


Fixed

fixed detection length and width ideal on machines where on calibration is required. Detection range of up to 6 metres.



Backsense[®]
**A premium obstacle
 detection radar.**
Built by Brigade.



The Backsense range

Backsense Features:

- Close detection zone combined with targeted beam pattern
- Controlled beam pattern to minimise false warnings
- Excellent close-in detection
- Frequency modulated continuous wave radar technology
- Can trigger other vehicle safety devices such as camera monitor systems or reversing alarms
- Eliminates possibility of driver interference. The audible warning buzzer cannot be switched off, providing fleet operators with peace of mind
- Clear, easy-to-read display and wide volume range of audible alert
- Suitable for both on- and off-road applications
- Extremely rugged design for severe weather conditions and all terrains
- Effective through non-metallic objects - can fit behind plastic or glass fibre body work
- Self-diagnostics alert operator to system errors
- Choice of detection ranges
- 5 stage audible and visual display
- Comprehensive certification

Every Backsense has an in-cab audio alert and LED display to alert the operator to hazards and their proximity.



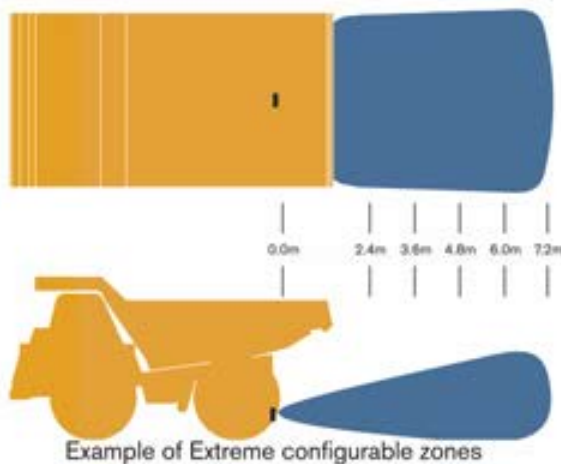
In-cab display and Backsense™ radar



Programmable Backsense™

BS-8000

- Configurable:
 - Detection area
 - 3m (10ft) – 30m (98.5ft) length
 - 2m (6.5ft) – 10m (33ft) width
 - 5 detection zones
 - Blind zones – system ignores objects in specified zones, e.g. vehicle bodywork
 - Trigger output length – controls when other equipment, e.g. a warning alarm, is activated
 - Buzzer starting zone – audible alert can be set to activate after the visual signal
- Simple-to-use PC-based configuration software – no bespoke programming equipment required



Fixed Backsense™

- Fixed detection length and width divided into 5 equal detection zones
- Buzzer and trigger output activate in all zones on detection

BS-7030

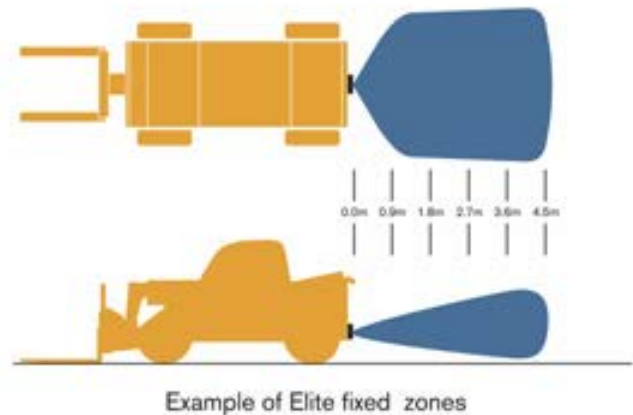
- 3m (10ft) length x 2.5m (8ft) width detection area
- 5 x 0.6m (2ft) detection zones

BS-7045

- 4.5m (15ft) length x 3.5m (11.5ft) width detection area
- 5 x 0.9m (3ft) detection zones

BS-7060

- 6m (19.5ft) length x 4.5m (15ft) width detection area
- 5 x 1.2m (4ft) detection zones



PROGRAMMABLE BACKSENSE® OBSTACLE DETECTION

BS-8000 - Programmable detection range

4530

Sensor, RV display, 9m cable

- 12-24Vdc
- Detection length: 3 to 30m
- Detection width: 2 to 10m
- Rugged design for harsh environmental conditions
- Sensor size (WxHxD)
217 x 129 x 50mm
- 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
- Programmable:
Detection area Blind zones - system ignores fixed objects Trigger activation point Buzzer
- 5 stage audible and visual distance warning display
- Resistant to water, moisture, dust, vibration, heat, cold, mud and glare

Power

- Current 0.8 Amps

Durability & Standards

- Mechanical shock: 100G
- Mechanical vibration: 8.3G
- Operating temperature: -40 to +85°C
- CE marked
- EMC approved: E
- BS EN 13309: 2010
- ISO 13766: 2006

FIXED BACKSENSE® OBSTACLE DETECTION

BS-7030 - 3m detection range, 2.5m width

4527

Sensor, RV display, 9m cable

BS-7045 - 4.5m detection range, 3.5m width

4528

Sensor, RV display, 9m cable

BS-7060 - 6m detection range, 4.5m width

4529

Sensor, RV display, 9m cable

- 12-24Vdc
- Maximum detection range of 6m
- Rugged design for harsh environmental conditions
- Size (WxDxH)
217 x 129 x 50mm
- 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
- Mechanical vibration: 8.3G
- Operating temperature: -40 to +85°C
- CE marked
- EMC approved: E
- BS EN 13309: 2010
- ISO 13766: 2006

EXTENSION CABLES

BS-05DCX - 5m extension cable

4550

BS-09DCX - 9m extension cable

4551

BS-25DCS - 25m extension cable (Display end connector supplied loose)

4975



OPTIONAL EXTRAS

BKT-017 - Adjustable radar bracket with 105mm depth bracket mounting arms

4676

Safety Recommendations

Level 1 Minimum recommended safety specification

Level 2 + level 1 Increased safety specification

Level 3 + levels 1 & 2 Ultimate safety specification

CAMERA MONITOR SYSTEMS

Rear view camera
VBV-700C Select range

VBV-770M
7" Digital LCD Monitor
Select range
or
VBV-750M Select range
5" Digital LCD Monitor



CAMERA MONITOR SYSTEMS

VBV-320C Compact,
Flush mount eyeball
camera with
SM-3XX-25 Surface
mounting
adapter



DIGITAL RECORDING

MDR-404-500
Mobile digital recorder with 500GB
hard disk. Records footage from up
to four cameras. All channels can be
viewed on the monitor in the cab, aiding
all round visibility for the driver.



Our best selling, mid range camera monitor systems offer quality and features at a cost effective price.

WARNING ALARM

danger zone, thus eliminating noise nuisance. directional sound. The alarm is only heard in the world due to their instant locatability and

SA-BBS-97 bbs-tek® smart
White sound®
reversing alarm. 77-97 dB

or
Continually adjusts to 5-10
decibels above ambient so ideal in
varying noise level environments
and urban areas.



BBS-87 bbs-tek®
White sound®
standard reversing alarm. 87 dB

CAMERA MONITOR SYSTEMS

VBV-790C Select range IP69K
camera
Fitted onto brush arm to monitor
cleaning position.



ULTRASONIC OBSTACLE DETECTION
BS-4000W Backscan® sensor system
4 sensor system increases safety when
reversing.

6

CAMERA MONITOR SYSTEMS

VBV-320C Compact,
Flush mount eyeball camera



BE-822C Mini front view camera
If installing an MDR, the
choice of alternative cameras
to connect include side
(left and right), front and internal.



ULTRASONIC OBSTACLE DETECTION

ST-2000 Stepscan™ sensor system
2 sensor system fitted to near side
cab step giving awareness to the
driver of objects when turning and
reversing.



Safety Recommendations



Level 1 Minimum recommended safety specification Level 2 + level 1 Increased safety specification Level 3 + levels 1 & 2 Ultimate safety specification

Camera Monitor Systems

BE-800C Elite range Rear view camera

BE-870LM Elite range 7" Digital LCD Monitor

or

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

Elite series cameras and monitors are a superior high quality range for comprehensive blind-spot coverage.



BE-870LM

Warning Alarm for trailer

bbs-tek, white sound alarms are the safest in the world due to their instant locatability and directional sound. The alarm is only heard in the danger zone, thus eliminating noise nuisance.

BBS-92ADR bbs-tek® White sound® reversing alarm. 92 dB



Warning Alarm for cab (4)

BBS-92ADR bbs-tek® White sound® reversing alarm. 92 dB



Camera Monitor Systems

VBV-320C Compact, flush mount eyeball camera

Ultrasonic Obstacle Detection

SS-4000W Sidescan® sensor system 4 sensor system increases safety when turning or low speed manoeuvring.



Speaking Alarm

SS-BC-08 Speaking alarm Side turn warning for cyclists/pedestrians.



Digital Recording

MDR-404-500

Mobile digital recorder with 500GB hard disk. Records footage from up to four cameras. All channels can be viewed on the monitor in the cab, aiding all round visibility for the driver.



Camera Monitor Systems

VBV-320C Compact, flush mount eyeball camera (9)

BE-822C Mini front view camera

If installing an MDR, the choice of alternative cameras to connect include side (left and right), front and internal.



Ultrasonic Obstacle Detection

ST-2000 Stepscan™ sensor system

2 sensor system fitted to near side cab step giving awareness to the driver of objects when turning and reversing.

FS-4000W Frontscan® sensor system

4 sensor system covering the front blind-spot. Improves safety when manoeuvring at low speed.

Xtreme Range/ Standard Work sight/Work zone Sentry

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.



Worksight

Top of the range programmable system with excellent close range coverage, allowing bespoke detection areas up to 6 metres and ability to calibrate out fixed objects or bodywork. Multiple sensors can be networked around the machine to offer comprehensive blind spot coverage.



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.



Model

XTREME OBSTACLE DETECTION



In-cab display

XPV4232 - 10 metre cable version

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

XPV4232 - 20 metre cable version

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

XPV41Y6 - 6m Y-Piece adapter cable

XPV41CA - Cab adapter cable

XPV4165 - 20m extension cable

XPV4132 - 10m extension cable

XPV4116 - 5m extension cable

XPV4103 - Front-rear audio-visual display

XPV4104 - Left-right audio-visual display

XPV41PA - Power adapter cable

CD6102 - Audio-visual display

XPV4232 - Sensor with integral sensor adapter cable

WORKSIGHT OBSTACLE DETECTION



WS-6020	- 6 metre detection range <i>Worksight sensor, audio visual display, 9m cable</i>	4324
WS-6020-45	- 6 metre detection range <i>Worksight sensor, audio visual display, 13.5m cable</i>	4345
WS-6020-60	- 6 metre detection range <i>Worksight sensor, audio visual display, 18m cable</i>	4346



Audio visual display

- **12-24 Volts**
- **Maximum detection range of 6m**
- **Rugged design for harsh environmental conditions**
- **Size (WxHxD)
267 x 112 x 36mm**
- **2 year warranty**

Features

- Effectively detects stationary, moving and multiple objects
- 2 antennas to improve close range beam pattern
- 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

WORKZONE OBSTACLE DETECTION



BS-5130	- 3 metre detection range, buzzer version <i>Workzone sensor, buzzer, 7.5m cable</i>	3534
BS-5030	- 3 metre detection range, audio visual display version <i>Workzone sensor, audio visual display, 7.5m cable</i>	3537
BS-5045	- 4.5 metre detection range, audio visual display version <i>Workzone sensor, audio visual display, 7.5m cable</i>	



Buzzer



Audio visual display

- **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

PreView® Has Your Blind Spot Covered

CONSTRUCTION DUMP TRUCK

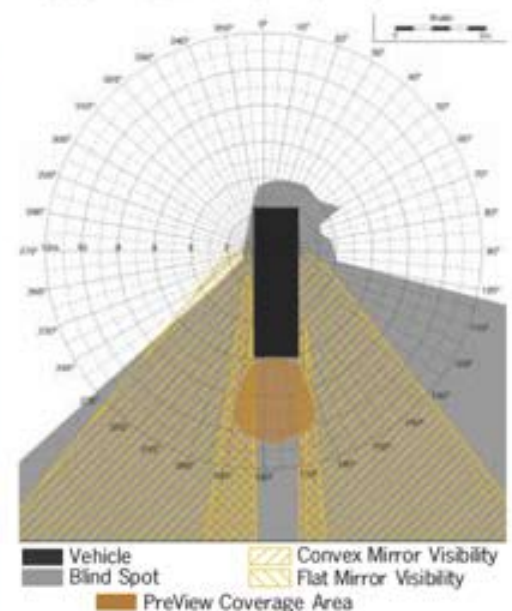
- ▶ Reduce Blind Spot Accidents
- ▶ Actively Detect Objects
- ▶ Easily Installed

The display unit provides an audible and visual warning to the driver when an object or pedestrian is in the blind spot. This gives the driver extra time to react to prevent an accident.


One WorkZone PreView® sensor mounts to the rear of the dump truck. Once an object is detected, the sensor activates the back-up alarm to either increase in sound or increase the frequency of the beep rate, depending on the backup alarm you choose.



NIOSH BLIND SPOT CHART

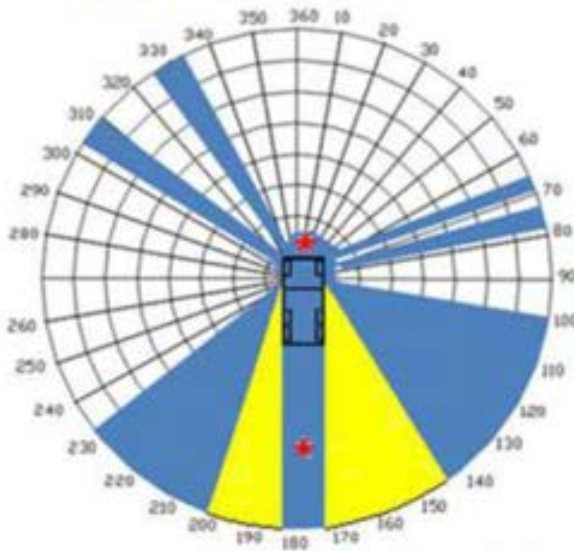


Available Options: Replace in-cab display with the PreView Plus camera and monitor. The driver will receive an audible alert when an item is in the blind zone and indicators are imposed on the monitor giving the driver approximate distancing information.



DIMENSIONS	SUGGESTED CONFIGURATION	SPECIFICATIONS
Sensor Unit: 9.25"(w) x 1.60"(d) x 4.36"(h)	PreView SAS which includes:	Op. Temps: -40° - +185°F / -40° - +85°C
In-Cab Display: 2.3" (w) x 2" (d) x 1"(h)	WorkZone PreView 15;/4.5m detection zone	Current Draw: < 1/2 AMP

- Not Visible to Operator
- Visible in mirrors only



Front of truck is facing North

Blind spots or Areas

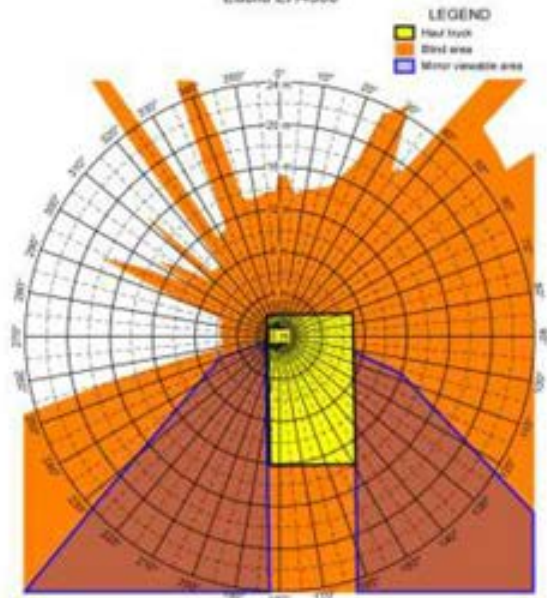
Example : this mapping diagram show the blind areas around a ford F-800 dump truck

8 ft in front and 16 ft in rear are the most hazardous areas.

the driver side door area is the only zone within 8 feet of the dump truck that is safely visible



Blind Area Diagram for Haul Truck
Ground Plane
Euclid EH4500



PREVIEW SENTRY™



PreView Sentry radar is the most flexible and reliable radar available for heavy-duty vehicle and equipment industries. Sentry accurately detects objects in equipment blind zones and notifies the operator with both audible and visual

alerts. These active alerts warn the operator of potential collisions and allows them to take the appropriate action. Sentry is built tough to withstand the harshest working conditions imaginable, so it works every time, all the time.

BUILT TOUGH FOR HEAVY DUTY INDUSTRIES

CONSTRUCTION

MINING

TRUCKING

FLEET

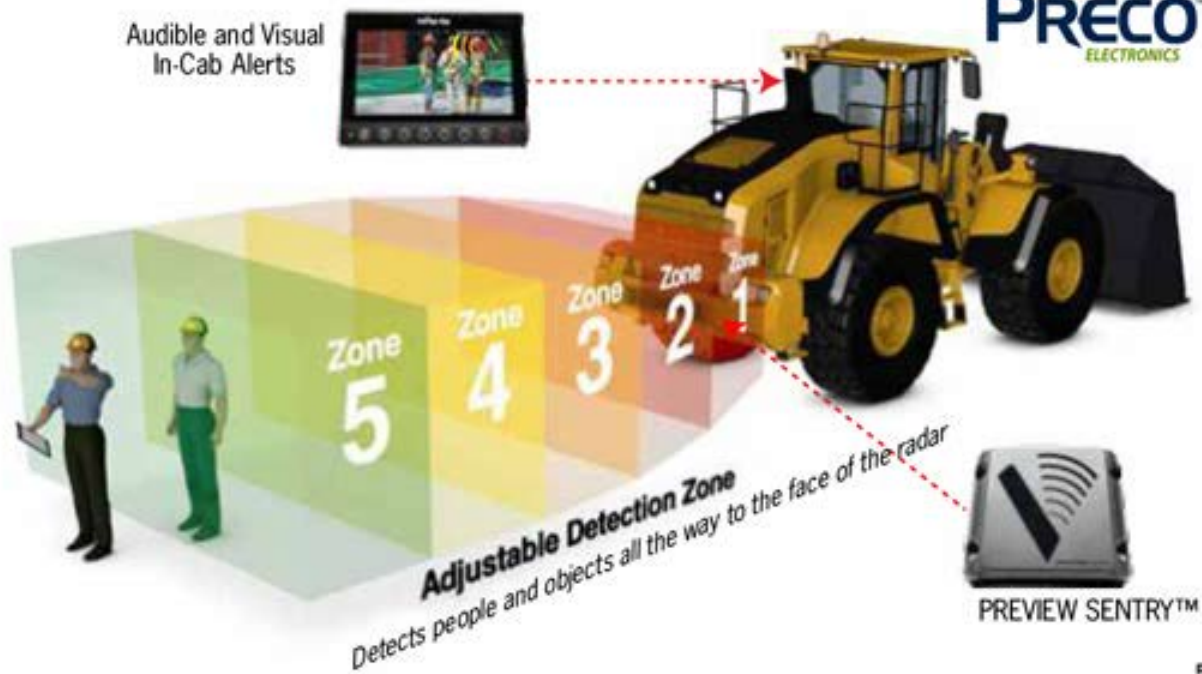
WASTE

UTILITY

DELIVERY

MUNICIPALITIES

Audible and Visual
In-Cab Alerts



PREVIEW SENTRY™

SENTRY - FLEXIBILITY AND RELIABILITY

PreView Sentry is the world's most flexible object detection radar. With programmable detection zones, PreView Sentry can cover rear, side and front blind spots on any equipment or vehicle. Built tough for heavy-duty applications, Sentry will help companies reduce costs, decrease the incidents of collisions and most importantly, save lives.

- Rugged design, engineered to operate in all weather conditions
- Customizable detection zones-range and width
- Measures distance and angle to objects, providing object location
- Measures velocity of objects
- Provides in-cab audible and visual in-cab active alerts
- Integrates with PreView Plus camera/monitor system, or any existing vision system
- Built-in sensor failure alert
- CAN bus communication protocol - ability to report sensor data to a logging device or telematics applications
- Ability to track up to 16 objects simultaneously

SENTRY - TECHNICAL DATA

MEASURING PERFORMANCE	
Programmable Range:	0-30M (0-98')
Programmable Width:	2M-8M (6.5'-26')
Azimuth Field of View:	±75 degrees
Elevation Field of View:	±10 degrees

OPERATING CONDITIONS	
Frequency:	24.00 - 24.25 GHz (ISM Band)
Power Supply:	9 - 33VDC, Reverse polarity and over-voltage protected
Current:	<0.5A
Operating Temperature:	-40C to +85C (-40F to +185F)
Shock:	50G
Vibration:	25G, random, all three axis
Protection Rating:	IP69K



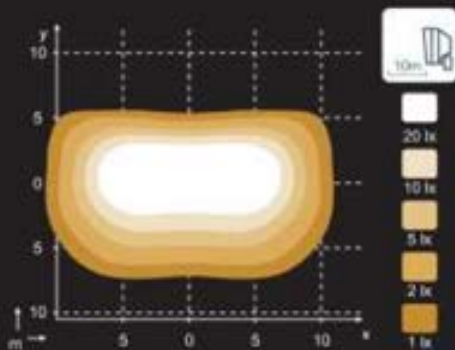
COMMUNICATIONS INTERFACE	
J1939/ISO 11898 CAN Bus:	250Kbits/sec, terminated, with 120 ohm resistor [default]. Supports up to 500Kbits/sec Supports up to 8 radars on a single J1939 bus (CAN-bus)
Alarm Output Interface	Switch to ground, sink up to 1 amp, over current protected

TECHNOLOGY HAS EVOLVED. AND SO HAVE WE!



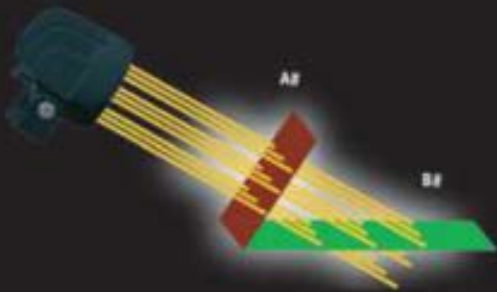
LIGHT PATTERNS

Whatever Your lighting requirements, NORDIC LIGHTS® can supply the work light to suit Your applications. Through our engineering expertise in lens and reflector technology NORDIC LIGHTS® can offer a range of light patterns to meet your needs. Our light patterns can be classified as High Beam (long distance ahead), Low Beam (short distance ahead), Flood (for work close to the application), Wide Flood and Super Wide (for lighting up the whole work area close to the application). As lighting experts we can also offer different light colours for specific work environments.



ANGLE OF LIGHT AND LIGHT PATTERNS

When simulating light in the development of light you apply the functions of angles by means of the Cosine law. This law states that the illumination on two planes is proportional to the cosine of the angle between the two planes and the angle of the light rays. In the picture to the left two planes receive the same number of rays from the light. However, since the surface of #B is larger than the surface of #A the illumination (in Lux values) will be less on the surface of #B compared to the surface of #A. Many light producers – in their light patterns - show the illumination on the surface of #A in their light patterns while NORDIC LIGHTS® shows the illumination on the surface of #B because the surface of #B normally corresponds more accurately to work areas in real-life conditions. With Auxiliary Driving lights, High Beam and Low Beam, NORDIC LIGHTS® refer to the surface of #A.



HEAVY DUTY MOUNTING

NORDIC LIGHTS® patented Heavy Duty mounting systems absorb vibration and shocks protecting the work light and prolonging the bulb life. The HD mount offers extreme anti-vibration dampening. Lights are available both as Damp (with Anti-Vibration dampener) and Undamp (without dampener). Mountings comprise: TT (Upright Pedestal mount - Top), TD (Suspended Pedestal mount - Top Down), RH (Right-Handside mount) and LH (Left-Hand side mount).



QUALITY - NOT JUST ANY LIGHT

When you choose a NORDIC LIGHTS® product, You are not just choosing any light. You are choosing a HEAVYDUTY lighting solution. All NORDIC LIGHTS® models are exposed to extensive testing before being approved. This is one of the main reasons why NORDIC LIGHTS® work lights operate all over the Globe.

VIBRATION & SHOCK

The lights are placed in high vibration on all three perpendicular axes for a minimum of three hours on EACH AXIS. The lights are then exposed to shocks of up to 60G. These tests simulate different vibrations which the light is exposed to when mounted on apparatus at work including the punishment of falling objects and collisions in the work area.

DUST & HUMIDITY

The light is placed in a closed chamber and free-moving dust is blown into the chamber to circulate for several hours to test the dust sealing. There are numerous methods of testing humidity. For instance, the light is dropped into a pool of water for several hours. The light is then switched on and runs until it heats up as in a real-life situation only to get tormented under a shower of cold water with ice floes. The light is also spun around while a high pressure jet of water is fired against the light which experiences constant changes in the pressure and temperature of the water. As well as the various IP tests (different official IP categories state how well a product is protected from materials such as dirt and water), the lights also undergoes a Salt Spray test. During the Salt Spray test the light is placed in a concealed chamber and continuously sprayed with salt for over 240 HOURS. These tests check that no rain, splash water, high pressure cleaning or foreign material (e.g. dust) penetrate the light.

HEAT AND COLD

As well as the changes in temperature in the water tests mentioned above the lights are also exposed to complete repetitive thermal cycles. The light turns in a sealed environment where the temperature is raised from deep below zero to very hot before being lowered again to well below zero and soon. Whether your job needs to be done in tropical or arctic conditions, we will have thought it all through for You!

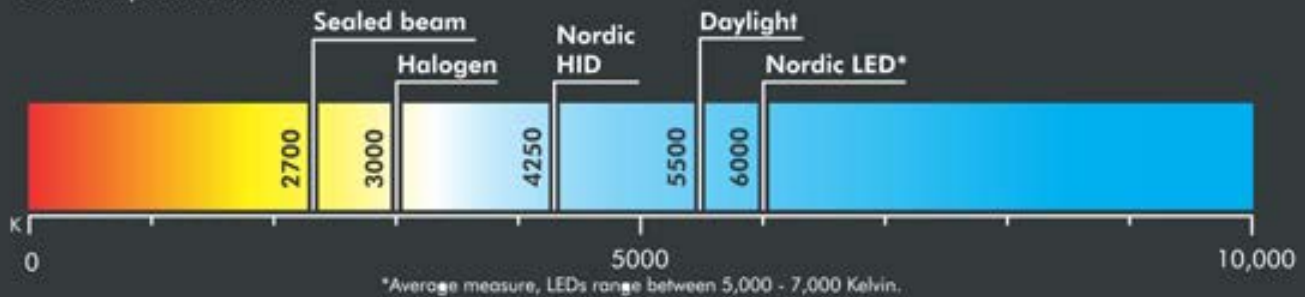
ELECTRO MAGNETIC COMPATIBILITY

NORDIC LIGHTS® products are exposed to extensive EMC testing (Electro Magnetic Compatibility). The work environment sets the demands on how much interference may be emitted by the light and how immune the light must be to outside interference. The extent of radio frequency interference emitted is tested in closed laboratories, i.e. emission radiated through the air measured by antennae and emission through cables measured with radio EMI receivers. The immunity of the light is tested on several levels in the laboratories. The radio frequency immunity is tested by sending calibrated frequencies through an antenna towards the light and by placing the light between strip-line cables. By connecting a generator to the light it is exposed to intense or long-lasting voltage peaks and dips. The light is also punished with electro-static discharges deployed by a discharge gun directly or through the air. This is to make sure that voltage changes do not break the light. These tests check whether the electronics in the lamp are compatible with the other equipment in the work area.



LIGHT SOURCE COMPARISON

Colour temperature in Kelvin



Lux	1 lux equals 1 lumen per square metre.
Lumen	A measurement of the power of light perceived by the human eye. The total light output in every direction, indicates how well an area is illuminated.
Kelvin	The colour temperature of light is measured in Kelvins since the colour ranges from red through yellow and white to blue.
Candela	The light output in one given direction at the source of the light.

LED TECHNOLOGY

LED (Light Emitting Diode) is a semi-conductor device emitting photons when the diode's p-n junction is forward-biased by an electrical current. The life span - up to 50,000 work hours - by far outlives any bulbs. The LED lights are maintenance-free with low power consumption. There is also an advantage in the size since the LED diodes are very small and the direction of the light emitted is easier to direct. High Power LEDs give a cool blue-white colour temperature to maximize light output. The LED technology is very suitable for NORDIC LIGHTS® Heavy Duty work lights due to the high resistance to shock and vibration.



XENON - HID TECHNOLOGY

HID (High Intensity Discharge) commonly known as gas discharge (often referred to as Xenon - the chemical element), offers many technological advantages over conventional halogen lights - most notably, higher colour temperature, reduced heat and a considerably longer lifetime (on average 10 times that of a standard halogen bulb). The light is produced by two electrodes positioned close together in a small gas-filled quartz tube. The illumination of an HID light is considerably brighter and greater compared with a halogen light - in other words, twice the illumination of a 70W halogen for only half the power consumption. Also, the light emitted is very similar to daylight.



HALOGEN TECHNOLOGY

HALOGEN or an incandescent (heat-driven) light works by passing an electric current through a tungsten filament to make it glow. Up to 90% of the power input is wasted in heat. The NORDIC LIGHTS® Halogen work lights use only high-quality Heavy Duty bulbs supplied by one of the world's leading manufacturers. A standard halogen bulb has a lifetime of approximately 500 hours. Halogen technology offers a considerably more affordable solution for your lighting needs. With NORDIC LIGHTS® optics and patented dampening solutions you will get a richly durable, easily serviceable light, providing a lot of light for your money.



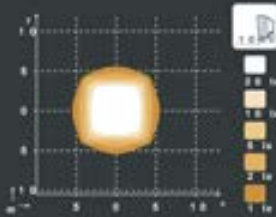
DIFFERENT LIGHT PATTERNS

NORDIC LIGHTS® work lights come with different light patterns to match your specific lighting solution needs. Generally, our light patterns can be classified as follows: High Beam, Low Beam, Flood and Wide Flood.

HIGH BEAM

A High Beam light pattern is quite narrow, focusing straight ahead, producing a long-distance range of light.

High Beam projected on wall at 10m



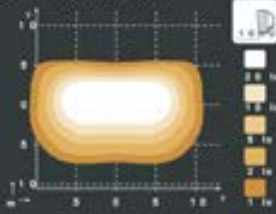
High Beam projected on surface #A



LOW BEAM

A Low Beam light pattern is notably wider, still focusing straight ahead, producing a short-distance range of light.

Low Beam projected on wall at 10m



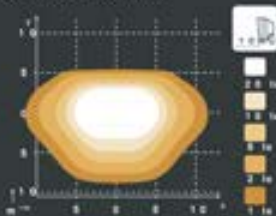
Low Beam projected on surface #A



WIDE FLOOD

A Wide Flood light pattern has a very wide spread of the light for lighting up the whole work area close to the application.

Wide Flood projected on wall at 10m



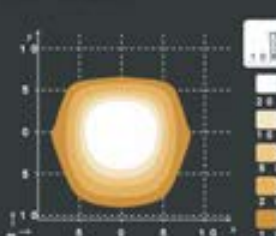
Wide Flood projected on surface #B



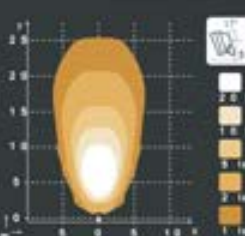
FLOOD

A Flood light pattern has a wide spread of light for work close to the application.

Flood projected on wall at 10m









Flood projected on surface #B



Mining



Equipment

				
	GEMINI LED	CENTAURUS LED	SCORPIUS LED	TAURUS LED
 Articulated Truck				
 Blast Hole Drill				
 Bucket Wheel Excavator				
 Borer / Continuous Miner				
 Dragline				
 Dump Truck				
 Engine Room				
 Highwall Miner				
 Hydraulic / Rope Shovel				
 Load Haul Dump (LHD)				
 Rocket Boomer / Drilling Jumbo				
 Surface Miner				
 Wheel Dozer / Loader				



Construction



Equipment

					
 Articulated Truck					
 Asphalt Track Paver					
 Backhoe / Wheel / Crawler Loader					
 Bulldozer / Track Dozer					
 Compactor / Road Roller					
 Excavator					
 Lighting Mast					
 Mobile Crane					
 Motor Grader / Scraper					
 Pile Driver					
 Skid Steer Loader					
 Tele Handler					
 Tower Crane					



Material Handling



Equipment

	Container Crane
	Dockyard Crane
	Fork Lift Truck
	Rubber-tyre Gantry Crane (RTG)
	Harbour / Port Crane
	Reach Stacker
	Straddle Carrier
	Tow Tractor
	Tele Handler
	Truck Mounted Crane

Gemini LED	Centaurus LED	Scorpius LED	Spica LED





NORDIC CENTAURUS LED SERIES

The Nordic CENTAURUS LED work lamp delivers stunning illumination and is equipped with the revolutionizing QUAKE dampening system. The new QUAKE dampening system takes protection against vibration and shock to a whole new level never seen before. The work lamp meets the expectations of the most demanding situation.

FEATURES

 Long Lifetime	 Low Maintenance	 Waterproof
 Heavy Duty Construction	 Reverse Voltage Protected	 EMC
 Load Dump Protected	 Over Voltage Protected	 Overheat Protected
 Salt Mist	 Optically Even Light Distribution	 Distinct Light Pattern
 Different Lens Colour Versions Available	 Replaceable Lens	 High Light Output
 High Lumens / Watt Efficiency	 Quake Dampening	 Extreme Heavy Duty Dampening

CONNECTORS

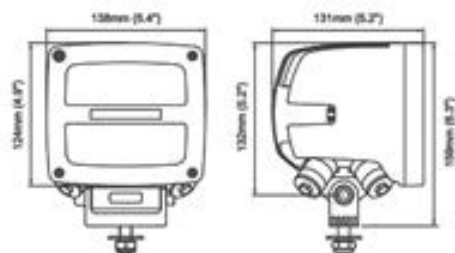


LENSES

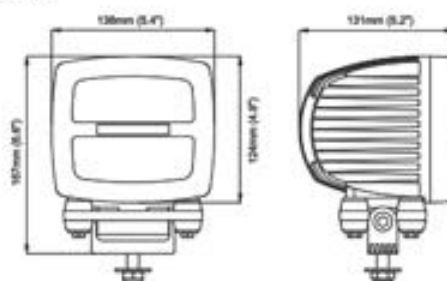


DRAWINGS

N4601 QD



N460 XD





CENTAURUS LED N4601 QD

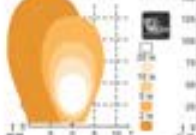
7200lm, Quake Dampening

Light Patterns

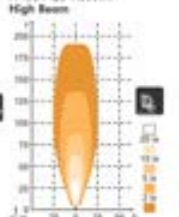
N4601 QD 7200lm



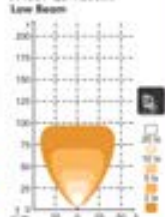
N4601 QD 7200lm Flood



N4601 QD 7200lm High Beam



N4601 QD 7200lm Low Beam



Specifications

Theoretical Lumens Output:	11500lm
Operational Lumens Output:	7200lm
Colour Temperature:	5700K
Nominal / Input Voltage DC:	24V 18-32V
Power Consumption:	85W
Nominal Current at:	24V 3.5A
Electronics:	Integrated
Connector:	Built in Deutsch 2-pin
Mount:	Single Bolt M10
Shock:	60G
Vibration:	15.3Grms 24-2000Hz 4.65Grms 12-2000Hz
Lens:	PC
Body:	Aluminum
Weight:	2.5kg
IP Rating:	Ip68
Salt Mist:	IP6K9K
EMC:	SAE J1455 ISO 9227 240H CISPR 25 Class 3 ISO 13766 ISO 14982 ISO 7637-2 -40°C... +85°C (Overheat protected)
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	6 pce / Box

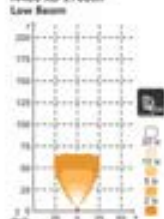


CENTAURUS LED N460 XD

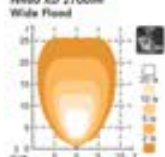
2700lm, Xtreme Dampening

Light Patterns

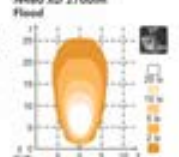
N460 XD 2700lm



N460 XD 2700lm Wide Flood



N460 XD 2700lm Flood



N460 XD 2700lm High Beam



Specifications

Theoretical Lumens Output:	6700lm
Operational Lumens Output:	4200lm
Colour Temperature:	5700K
Nominal / Input Voltage DC:	24V 9-32V
Power Consumption:	50W
Nominal Current at:	24V 2.1A
Electronics:	4.2A
Connector:	Integrated
Mount:	Built in Deutsch 2-pin
Shock:	Single Bolt M10
Vibration:	60G 20Grms 24-2000Hz 4.65Grms 12-2000Hz
Lens:	PC
Body:	Aluminium
Weight:	1.6kg
IP Rating:	Ip68
Salt Mist:	IP6K9K
EMC:	SAE J1455 ISO 9227 240H CISPR 25 Class 3 ISO 13766 ISO 14982 ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pce / Box



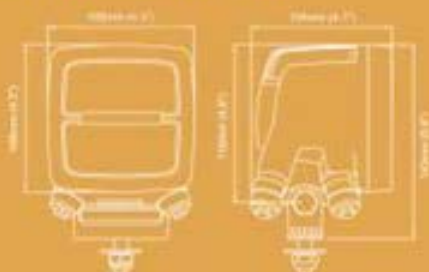
NORDIC SCORPIUS LED SERIES

The Nordic SCORPIUS LED work lamp offers outstanding illumination and is available with the revolutionizing QUAKE dampening system.

The new QUAKE dampening system takes protection against vibration and shock to a whole new level never seen before. Available with several different lumen levels and features such as dimmable. Suitable for harsh conditions and a range of applications.

DRAWINGS

N4402, N4404, N4406, N4408,



N4402, N4404, N4406, N4408,



FEATURES



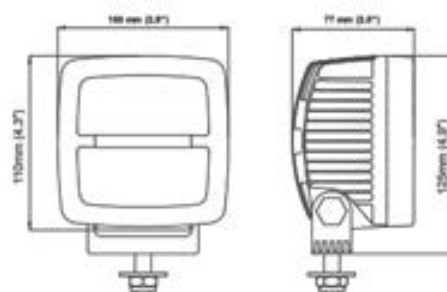
CONNECTORS



LENSES



N42

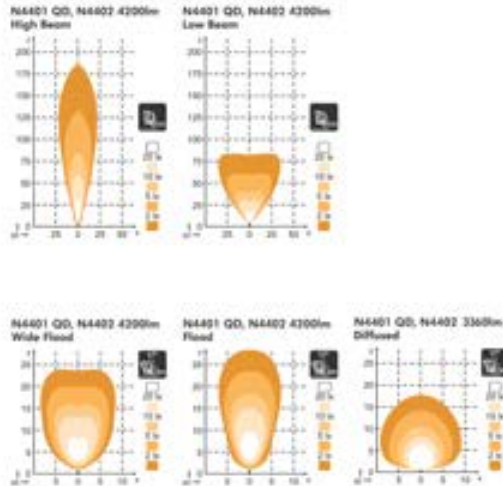




SCORPIUS LED N4401 QD

4200lm, Quake Dampening

Light Patterns



Specifications

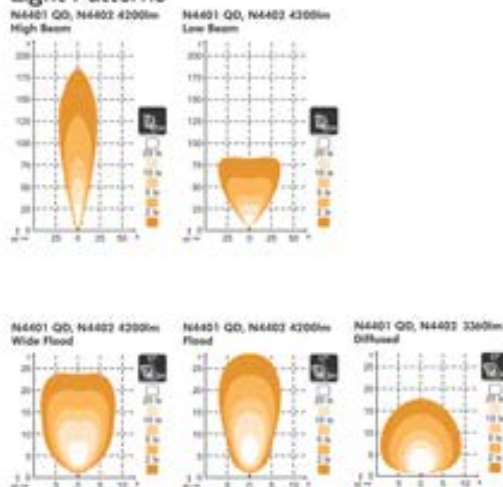
Theoretical Lumens Output:	6700lm
Operational Lumens Output:	4200lm
Colour Temperature:	5700K
Nominal / Input Voltage DC:	12-24V
Power Consumption:	50W
Nominal Current at:	24V: 2.1A
	12V: 4.2A
Electronics:	Integrated
Connector:	Built-in Deutsch 2-pin
Mount:	Single Bolt M10
Shock:	60G
Vibration:	20Grms 24-2000Hz
	4.65Grms 12-2000Hz
Lens:	PC
Body:	Aluminium
Weight:	1.6kg
IP Rating:	IP68
	IP6K9K
	SAE J1455
Salt Mist:	ISO 9227 240H
EMC:	CISPR 25 Class 3
	ISO 13766
	ISO 14982
	ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pcs / Box



SCORPIUS LED N4402

4200lm

Light Patterns



Specifications

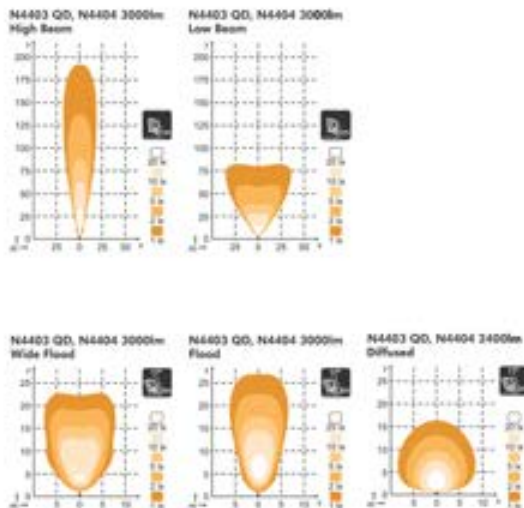
Theoretical Lumens Output:	6700lm
Operational Lumens Output:	4200lm
Colour Temperature:	5700K
Nominal / Input Voltage DC:	12-24V
Power Consumption:	50W
Nominal Current at:	24V: 2.1A
	12V: 4.2A
Electronics:	Integrated
Connector:	Built-in Deutsch 2-pin
Mount:	Single Bolt M10
Shock:	60G
Vibration:	15.3Grms 24-2000Hz
Lens:	PC
Body:	Aluminium
Weight:	1.1kg
IP Rating:	IP68
	IP6K9K
	SAE J1455
Salt Mist:	ISO 9227 240H
EMC:	CISPR 25 Class 3
	ISO 13766
	ISO 14982
	ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pcs / Box



SCORPIUS LED N4403 QD

3000lm, Quake Dampening

Light Patterns



Specifications

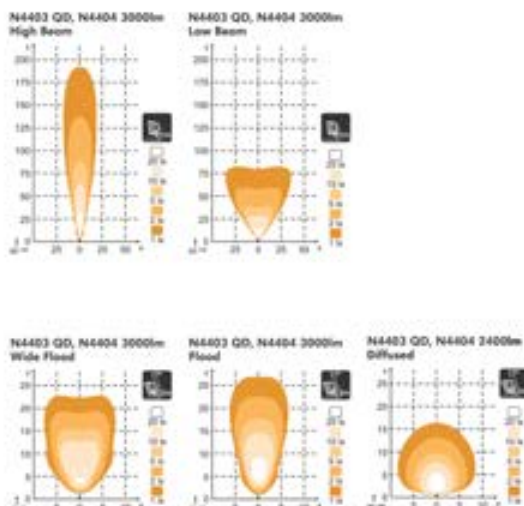
Theoretical Lumens Output:	4800lm
Operational Lumens Output:	3000lm
Colour Temperature:	5700K
Nominal / Input Voltage DC:	12-24V 9-32V
Power Consumption:	45W
Nominal Current at:	24V 1.9A
Electronics:	12V 3.8A
Connector:	Integrated
Mount:	Built-in Deutsch 2-pin
Shock:	Single Bolt M10
Vibration:	60G
	200rms 24-2000Hz
Lens:	4.65Gms 12-2000Hz
Body:	PC
Weight:	Aluminium
IP Rating:	1.6kg
	Ip68
Salt Mist:	IP6K9K
EMC:	SAE J1455
	ISO 9227 240H
	CISPR 25 Class 3
	ISO 13766
	ISO 14982
	ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pce / Box



SCORPIUS LED N4404

3000lm

Light Patterns



Specifications

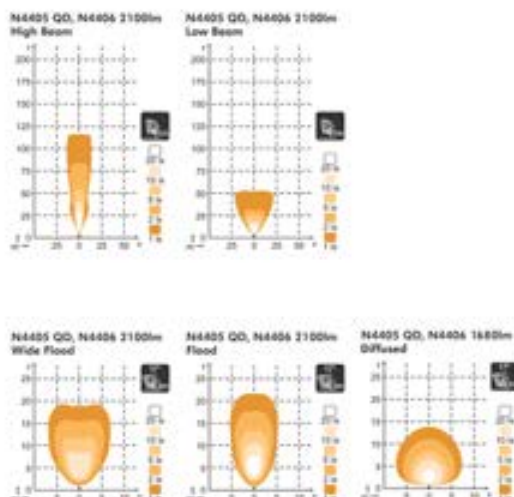
Theoretical Lumens Output:	4800lm
Operational Lumens Output:	3000lm
Colour Temperature:	5700K
Nominal / Input Voltage DC:	12-24V 9-32V
Power Consumption:	45W
Nominal Current at:	24V 1.9A
	12V 3.8A
Electronics:	Integrated
Connector:	Built-in Deutsch 2-pin
Mount:	Single Bolt M10
Shock:	60G
Vibration:	15.3Gms 24-2000Hz
Lens:	PC
Body:	Aluminium
Weight:	1.1kg
IP Rating:	Ip68
	IP6K9K
Salt Mist:	SAE J1455
EMC:	ISO 9227 240H
	CISPR 25 Class 3
	ISO 13766
	ISO 14982
	ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pce / Box



SCORPIUS LED N4405 QD

2100lm, Quake Dampening

Light Patterns



Specifications

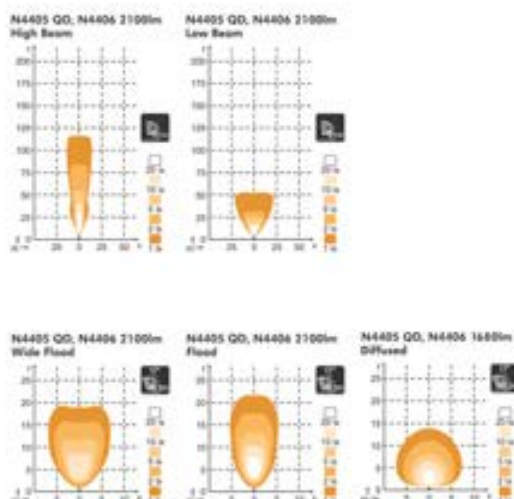
Theoretical Lumens Output:	3400lm
Operational Lumens Output:	2100lm
Colour Temperature:	5700K
Nominal / Input Voltage DC:	12-24V 9-32V
Power Consumption:	35W
Nominal Current at:	24V 1.5A
	12V 3.0A
Electronics:	Integrated
Connector:	Built-in Deutsch 2-pin
Mount:	Single Bolt M10
Shock:	60G
Vibration:	20Grms 24-2000Hz 4.65Grms 12-2000Hz PC
Lens:	Aluminium
Body:	1.6kg
Weight:	Ip68
IP Rating:	IP6K9K
Salt Mist:	SAE J1455
EMC:	ISO 9227 240H CISPR 25 Class 3 ISO 13766 ISO 14982 ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pce / Box



SCORPIUS LED N4406

2100lm

Light Patterns



Specifications

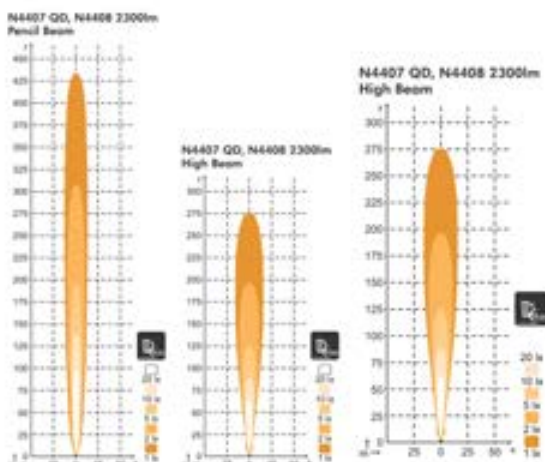
Operational Lumens Output:	400lm
Colour Temperature:	2100lm 5700K
Nominal / Input Voltage DC:	12-24V 9-32V
Power Consumption:	35W
Nominal Current at:	24V 1.5A
	12V 3.0A
Electronics:	Integrated
Connector:	Built-in Deutsch 2-pin
Mount:	Single Bolt M10
Shock:	60G
Vibration:	15.3Grms 24-2000Hz PC
Lens:	Aluminium
Body:	1.1kg
Weight:	Ip68
IP Rating:	IP6K9K
Salt Mist:	SAE J1455
EMC:	ISO 9227 240H CISPR 25 Class 3 ISO 13766 ISO 14982 ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pce / Box



SCORPIUS LED N4407 QD

2300lm, Quake Dampening

Light Patterns



Specifications

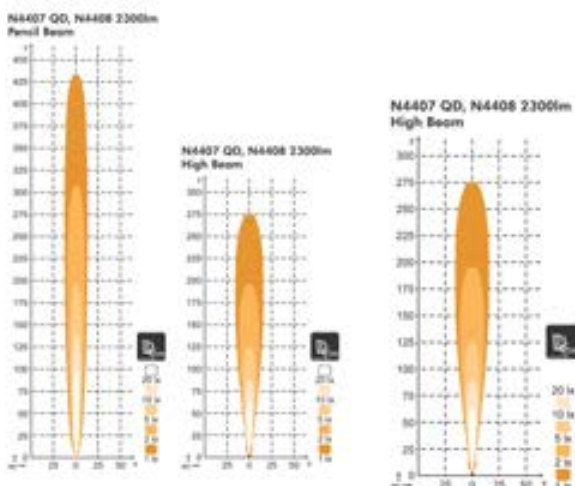
Theoretical Lumens Output:	3700lm
Operational Lumens Output:	2300lm
Colour Temperature:	5700K
Nominal / Input Voltage DC:	12-24V 9-32V
Power Consumption:	40W
Nominal Current at:	24V 1.7A
	12V 3.4A
Electronics:	Integrated
Connector:	Built-in Deutsch 2-pin
Mount:	Single Bolt M10
Shock:	60G
Vibration:	20Gms 24-2000Hz
	4.65Gms 12-2000Hz
	PC
Lens:	Aluminium
Body:	1.6kg
Weight:	Ip68
IP Rating:	IP6K9K
Salt Mist:	SAE J1455
EMC:	ISO 9227 240H
	CISPR 25 Class 3
	ISO 13766
	ISO 14982
	ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pce / Box



SCORPIUS LED N4408

2300lm

Light Patterns



Specifications

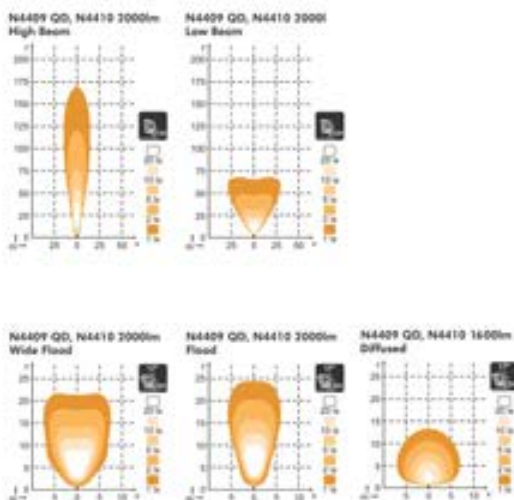
Theoretical Lumens Output:	3700lm
Operational Lumens Output:	2300lm
Colour Temperature:	5700K
Nominal / Input Voltage DC:	12-24V 9-32V
Power Consumption:	40W
Nominal Current at:	24V 1.7A
	12V 3.4A
Electronics:	Integrated
Connector:	Built-in Deutsch 2-pin
Mount:	Single Bolt M10
Shock:	60G
Vibration:	15.3Gms 24-2000Hz
	PC
Lens:	Aluminium
Body:	1.1kg
Weight:	Ip68
IP Rating:	IP6K9K
	SAE J1455
	ISO 9227 240H
Salt Mist:	CISPR 25 Class 3
EMC:	ISO 13766
	ISO 14982
	ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pce / Box



SCORPIUS LED N4409 QD

2000lm, Dimmable, Quake Dampening

Light Patterns



Specifications

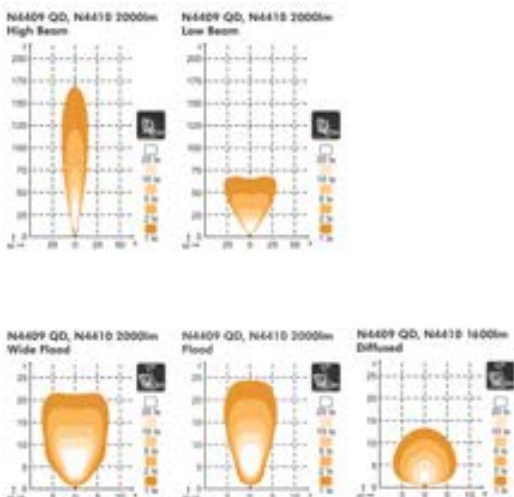
Operational Lumens Output:	3200lm
Colour Temperature:	2000lm
Nominal / Input Voltage DC:	12-24V 5700K
Power Consumption:	9-32V 40W
Nominal Current at:	24V 1.7A
	12V 3.4A
Electronics:	Integrated
Connector:	Built-in Deutsch 2-pin
Mount:	Single Bolt M10
Shock:	60G
Vibration:	20Grms 24-2000Hz 4.65Grms 12-2000Hz
Lens:	PC
Body:	Aluminium
Weight:	1.6kg
IP Rating:	IP68
	IP6K9K
	SAE J1455
	ISO 9227 240H
Salt Mist:	CISPR 25 Class 5
EMC:	ISO 13766
	ISO 14982
	ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pce / Box



SCORPIUS LED N4410

2000lm, Dimmable

Light Patterns



Specifications

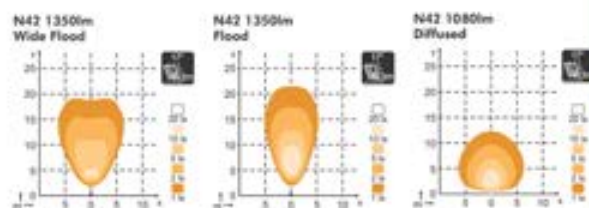
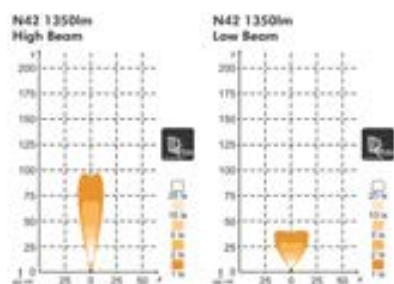
Theoretical Lumens Output:	3200lm
Operational Lumens Output:	2000lm
Colour Temperature:	5700K
Nominal / Input Voltage DC:	12-24V 9-32V
Power Consumption:	40W
Nominal Current at:	24V 1.7A
	12V 3.4A
Electronics:	Integrated / Isolated
Connector:	Built-in Deutsch 2-pin
Mount:	Single Bolt M10
Shock:	60G
Vibration:	15.3Grms 24-2000Hz
Lens:	PC
Body:	Aluminium
Weight:	1.1kg
	IP68
IP Rating:	IP6K9K
Salt Mist:	SAE J1455
EMC:	ISO 9227 240H
	CISPR 25 Class 5
	ISO 13766
	ISO 14982
	ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pce / Box



SCORPIUS LED N42

1350lm

Light Patterns



Specifications

Theoretical Lumens Output:	2200lm
Operational Lumens Output:	1350lm
Colour Temperature:	5700K
Nominal / Input Voltage DC:	12-24V 9-32V
Power Consumption:	25W
Nominal Current at:	24V 1.0A
	12V 2.0A
Electronic:	Integrated
Connector:	Built-in Deutsch 2-pin
Mount:	Single Bolt M10
Shock:	60G
Vibration:	15.3Grms 24-2000Hz
Lens:	PC
Body:	Aluminium
Weight:	1.2kg
IP Rating:	Ip68
	IP6K9K
	SAE J1455
	ISO 9227 240H
	CISPR 25 Class 3
Salt Mist:	ISO 13766
EMC:	ISO 14982
	ISO 7637-2
Operating Temperatures:	-40°C... +85°C (Overheat protected)
Packing:	12 pcs / Box



NORDIC SPICA LED SERIES

The Nordic SPICA LED work lamp offers a durable compact lighting solution. Available with several different lumens levels. The Nordic SPICA LED is available as Reverselight, with Handle and Switch, with extensive multi voltage developed for fork trucks and also with dimmable function.

DRAWINGS

N2401, N26, N24, N24 R



FEATURES



CONNECTORS



LENSES



N24 HS

