



HIGHWAYS LIGHTING SOLUTIONS



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ORBITAL™ CHEVRON SIGN

Orbital Chevron Sign is a unique all-in-one solution for low-approach-speed roundabouts. The unit is ready to install for quick installation and features an integral low energy LED illuminated 606 sign face providing reduced energy costs. With a 400mm chevron sign board the unit is ideal for use on highways with speeds less than 50mph. The 230v supply first enters the Subsafe™ before dropping to 24v as it is fed through the Orbital LockFast™ socket (or direct) into one leg of the Orbital Chevron. The supply to the LED sign unit is completed by an IP68 rated connector housed behind an access cover to the rear of one of the legs of the Orbital Chevron unit.



Design Features

- 1W LED power consumption reduces energy consumption and carbon footprint.
- UMSUG code: 42 0001 0000 100.
- Illuminated 606 Sign Face - meets TSRGD requirements of illuminating Ref 606 'Turn Left' sign face with low energy costs.
- The Orbital roundabout chevron sign offers safe voltage to protect vehicle occupants and emergency services in the event of an accident with the 230V main supply stepped down within the main control circuit and 24V operation above ground.
- The 24V LED unit has a minimum lifespan of 100,000 hours (approx. 11.4 years) when operated 24/7 or longer if operated with a CMS device.
- Weather resistant, water ingress protected and low maintenance.
- Cable, Snatch Plug and Socket allow safe disconnection and easy replacement if the sign carrier is damaged during a collision.
- The Subsafe™ textured lid offers a low profile when installed with added safety anti-slip texture.
- CMS compatible with moulded-in mounting which makes the chevron sign suitable for use with multiple models of remote monitoring equipment.

Specifications

Colours:	Black, Aircraft Grey
Chevron Size:	400mm
Depth:	150mm
Height Above Ground:	1,770mm
Width:	1,200mm
Depth Below Ground:	500mm



Orbital LockFast™ Socket

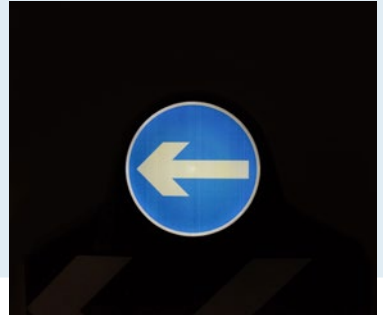
In the event of road traffic accident damage to Orbital, specifying with sockets enables quick and easy replacement, minimising time spent at the roadside for the improved safety of roadside workers and reduced traffic management time, cost and traffic disruption.



Subsafe Installation Box



Orbital™ Chevron Sign
Illuminated model



Orbital™ Chevron Sign
Illuminated model

Installation Options

Body Colour Options



Orbital LockFast
Socket Installation



Concrete-in
Installation



Black



Aircraft Grey

REBOUND SIGNMASTER™ RANGE

We have been designing and manufacturing bollards for more than 40 years. Our versatile road safety solutions are used all over the highways and byways of the United Kingdom, and within our range, there is a bollard for every installation.

The Rebound Signmaster range includes illuminated, solar illuminated, low energy illuminated and non-illuminated bollards, with a wide choice of fixing, allowing you to highlight any potential hazards.

✓ Compliant

✓ Crash Tested

✓ Retroreflective

✓ Mains Illuminated

✓ Non-Illuminated

✓ Solar Illuminated

✓ Low Energy LED Solutions

✓ Adaptor Plates

✓ Zero Direct Energy Costs

✓ Single & Double Aspect





REBOUND SIGNMASTER™ ULTRALOW BOLLARD

Combining low-energy illumination (less than 0.5W) with high-grade retroreflectivity and rebound performance, the Rebound Signmaster Ultralow Bollard offers market-leading, low energy LED illumination. Rebound Signmaster Ultralow operates from 230V mains supply and is stepped down to run off 24V above ground to protect vehicle occupants and the emergency services in the event of a collision. The Bollard can be installed with IP67 rated Rebound Signmaster Sublite™ LED Lighting Unit & Underground Box and lid for new installations. The bollard offers universal compatibility for existing light box installations.



Design Features

- A low-energy alternative to de-illumination.
- Rebound performance ensures the hazard remains marked when the bollard is impacted.
- 0.5W LED Power Consumption reduces energy consumption and carbon footprint - allows for energy costs as low as 39p per annum.
- The LED's have a minimum life span of 100,000 hours. Equating to approximately 11.4 years when operated 24/7 or with a CMS device (enquire for details of compatibility).
- IP68 Rated Control Circuit Housing, LED Unit, Glands, Connection Ports, Connection Plug and cable for weather-resistance and reduced maintenance.
- IP67 Rated Sublite Underground Box - weather resistant and low maintenance.
- 270mm Diameter Illuminated sign face offers an L1 Luminance and U3 Uniformity.
- 0.5W UMSUG Charge Code: 42 0000 0005 100.
- Compliant to BS 8442:2022.
- Drive-through performance proven to Performance Standard 70-NE-A-NR. Compliant to Passive Safety Standard BS EN 12767:2019.
- Cable, Plug and Socket offers easy replacement if bollard top is damaged after a collision.
- Side reflectors angled for increased visibility at junctions.
- Recessed reflector panels are tamper, vandal and weather resistant.

Specifications

Colours:	Black, White
Overall height:	1377mm
Height Above Ground:	1151mm
Maximum bollard width:	394mm
Maximum bollard depth:	183mm
Bolt-down foot detail:	328 x 328mm
Fixing centres:	228 x 228mm
Sign face:	270mm diameter
Front and side reflective patches are compliant with BS 8442:2022.	
Optional rear reflective patches also available.	
Weight of bollard:	5kg
Weight of Sublite box:	6kg

Now specified with a 0.5w charge code offering the lowest possible energy consumption and running cost for an illuminated, retroreflective, self-righting bollard.



Rebound Signmaster™ Ultralow Bollard



Rebound Signmaster™ Ultralow Bollard



Rebound Signmaster™ Ultralow Bollard

REBOUND SIGNMASTER™ LED BOLLARD

An illuminated traffic bollard available with a choice of LED lighting options to suit your installation. Rebound Signmaster LED Bollard draws just 5 watts of electricity, reducing your energy and maintenance costs. Compared to traditional lamps, an average saving of 80% on electricity costs can be made by switching to Glasdon LED lighting.

A range of LED illumination options are available.

For new installations:

- Signmaster Sublite™ LED - light box installation, includes light box chamber to house a cut-out and offers flexible ducting options.

For existing installations/light boxes:

- Signmaster Conversion Kits - use your existing light box while upgrading to state-of-the-art LED illumination and a high-performance rebound bollard.
- Gear Tray only - the most cost-effective option. Upgrade to LED illumination, keeping your existing light box and bollard.



Design Features

- An illuminated bollard with an infrared phototransistor which ensures the unit is only illuminated during the hours of darkness.
- The LED's have a minimum life span of 50,000 hours, equating to approximately 10 years when operated with the built-in Photocell or with a CMS device (enquire for details of compatibility).
- UMSUG charge codes 230 V AC 40 0005 0012 100.
- UMSUG charge codes 24 V AC 40 0005 0000 100.
- Compliant to BS 8442:2022.
- Drive-through performance proven to Performance Standard NE4/100 BS EN 12767:2019.
- Large 300mm signface helps increase safety.
- All regulatory and warning signs are available.
- Made from double-skinned, passively safe Impactaplo® material.
- Optional side and rear reflectors give 360-degree reflectivity thereby giving excellent all round visibility.
- Recessed reflector panels are tamper, vandal and weather resistant.

Specifications

Colours:	White
Overall height:	1046mm
Maximum bollard width:	398mm
Maximum bollard depth:	200mm
Bolt-down foot detail:	328 x 328mm
Fixing centres:	228 x 228mm
Sign face:	300mm diameter

Front and side reflective patches are compliant with BS 8442:2022.

Options of an additional pair of side reflectors, a rear reflector and a rear sign face also available.

Weight of bollard:	6kg
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Rebound Signmaster™ LED Bollard

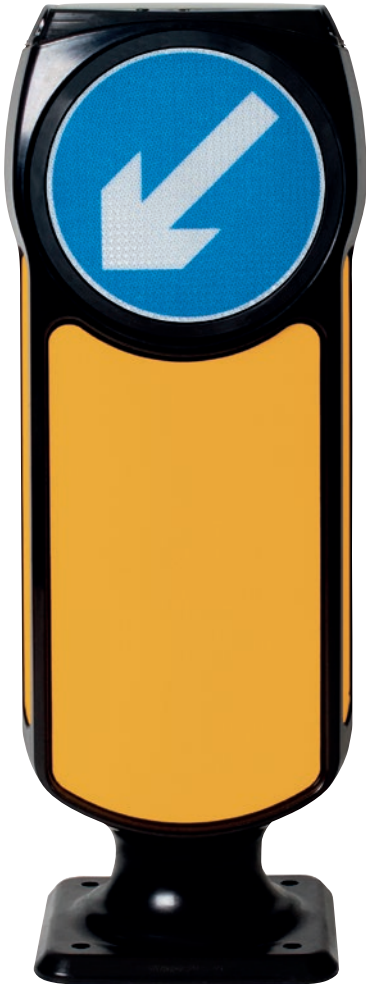
Sublite Pod™ IP68 LED Gear Tray & Conversion Kits

With fittings designed to fit most leading industry standard light boxes, this option allows any light box to be upgraded from fluorescent lamps to LED illumination with a Rebound Signmaster Bollard.



SOLAR SIGNMASTER™ LED BOLLARD

With zero direct energy costs, Solar Signmaster is an illuminated self-righting bollard that is ideal for areas with no mains electricity, or for schemes that are reducing the costs associated with illuminated road signs.



Design Features

- Zero Direct Energy Costs: Solar panel charges large capacity batteries. Enters 'Eco-Mode' to preserve battery when light level is too low to generate continuous charge.
- Smart Power: 2 x 20Ah batteries provide 40Ah capacity.
- LED run time (approx. 4150 hours per annum).
- Large 300mm LED illuminated sign face helps increase safety.
- All regulatory and warning signs are available.
- Passively Safe: One piece bollard with integral fixing points prevents twisting.
- Compliant to BS 8442:2022.
- Drive-through performance proven to Performance Standard 70-NE-ANR. Compliant to Passive Safety Standard: BS EN 12767:2019.
- Solar panel cover protects the LDR and solar panel.
- IP Rated Protection: Sealed, domed below ground battery chamber provides IP67 rated protection for batteries and circuit.
- IP Rated Protection: Bollard IP56 rated.
- Future proof - plug in power connector allows for quick and easy bollard only replacement.
- Side reflectors angled for increased visibility at junctions.
- Recessed reflector panels are tamper, vandal and weather resistant.

Specifications

Colours:	Black, White
Height above ground:	1044mm
Maximum bollard width:	397mm
Maximum bollard depth:	187mm
Foot detail:	351 x 351mm
Fixing centres:	228 x 228mm
Sign face:	300mm diameter
Front and side reflective patches are compliant with BS 8442:2022.	
Options of an additional pair of side reflectors, a rear reflector and a rear sign face also available.	
Weight of bollard:	7.4kg



Solar Signmaster™ LED Bollard



Solar Signmaster™ LED Bollard



Solar Signmaster™ LED Bollard

REBOUND SIGNMASTER™ ULTRA BOLLARD

A retroreflective self-righting bollard that offers the latest in high grade reflectivity for non-illuminated schemes. The unique body-to-base fixing design (patent pending) connects a rigid Durapol® material bollard to a flexible Impactapol® material base. This unique design optimises the rebound performance and eliminates the need for internal mechanical parts and provides a bollard with optimum retroreflective and rebound performance with minimal maintenance.



Design Features

- Large footprint with choice of either bolt-down fixings or fixed/adjustable-depth ground anchor.
- Durapol® body and Impactapol® base provide a long lifecycle and consistent self-righting.
- Universal compatibility – bolt down footprint identical to Rebound Signmaster™ bollard to allow ease of upgrade. Adapter plates are available to fit most redundant light boxes.
- Retroreflective panels provide high visibility by day and by night.
- 300mm sign face helps increase safety.
- All regulatory and warning signs are available.
- Compliant to BS 8442:2022.
- Drive-through performance proven to Performance Standard 100-NE-A-NR. Compliant to Passive Safety Standard: BS EN 12767:2019.
- Side reflectors angled for increased visibility at junctions.
- Recessed reflector panels are tamper, vandal and weather resistant.
- Replaceable Bollard top.
- Unique design eliminates internal mechanisms.
- Optimal rebound performance.

Specifications

Colours:	Black, White
Height above ground:	1113mm
Maximum bollard width:	394mm
Maximum bollard depth:	183mm
Bolt down base detail:	320 x 320mm
Fixing centres:	228 x 228mm
Sign face:	300mm diameter
Front and side reflective patches are compliant with BS 8442:2022.	
Optional rear reflective patches also available.	
Weight of bollard:	5.8kg



Rebound Signmaster™ Ultra Bollard



Rebound Signmaster™ Ultra Bollard



Rebound Signmaster™ Ultra Bollard

REBOUND SIGNMASTER™ ULTRA COMPACT BOLLARD

With a small footprint, the Rebound Signmaster™ Ultra Compact Bollard allows for easy installation and bollard replacement. Crash tested to 100kph, the bollard offers high grade reflectivity with optimum performance.



Design Features

- A slimmer base allows this bollard to be easily retrofitted into existing narrow fixing points from 105mm up to 120mm.
- Durapol body and Thermoplastic Polyurethane base provide a long lifecycle and consistent self-righting.
- Choice of bolt-down fixings or an adjustable ground anchor.
- Retroreflective panels provide high visibility bay day and by night.
- 300mm sign face for enhanced visibility.
- All regulatory signs are available.
- Compliant to BS 8442:2022.
- Drive-through performance proven to Performance Standard 100-NE-A-NR. Compliant to Passive Safety Standard: BS EN 12767:2019.
- Side reflectors angled to increase visibility at junctions.
- Recessed reflector panels are tamper, vandal and weather resistant.
- Replaceable bollard top.
- Unique design eliminates internal mechanisms.
- Optimal rebound performance.

Specifications

Colours:	Black, White
Height above ground:	1113mm
Maximum bollard width:	394mm
Maximum bollard depth:	183mm
Footprint:	180 x 180mm
Sign face:	300mm diameter
Front and side reflective patches are compliant with BS 8442:2022.	
Optional rear reflective patches also available.	
Overall weight:	6kg



Rebound Signmaster™ Ultra Compact Bollard



Rebound Signmaster™ Ultra Compact Bollard



Rebound Signmaster™ Ultra Compact Bollard

REBOUND SIGNMASTER™ ULTRA 50 BOLLARD

Ideal for use with 50 x 50 retention sockets, the Rebound Signmaster Ultra 50 Bollard utilises a compact 50 x 50mm fixing stem for easy installation. Performance tested and compliant to BS 8442:2022, the bollard provides durability and requires minimal maintenance.



Design Features

- Socketed bollard that makes installation quick and easy by fitting into new or existing retention systems.
- Durapol body and Thermoplastic Polyurethane base provide a long lifecycle and consistent self-righting.
- Compatible with all 50 x 50mm retention sockets.
- Quick and easy installation using a single through-bolt.
- Retroreflective panels provide high visibility bay day and by night.
- 300mm sign face for enhanced visibility.
- All regulatory signs are available.
- Compliant to BS 8442:2022.
- Drive-through performance proven to Performance Standard 100-NE-A-NR. Compliant to Passive Safety Standard: BS EN 12767:2019.
- Side reflectors angled to increase visibility at junctions.
- Recessed reflector panels are tamper, vandal and weather resistant.
- Replaceable bollard top.
- Unique design eliminates internal mechanisms.
- Optimal rebound performance.

Specifications

Colours:	Black, White
Overall height:	1448mm
Maximum bollard width:	394mm
Maximum bollard depth:	183mm
Footprint:	50 x 50mm
Sign face:	300mm diameter
Front and side reflective patches are compliant with BS 8442:2022.	
Optional rear reflective patches also available.	
Overall weight:	5kg



Rebound Signmaster™ Ultra 50 Bollard



Rebound Signmaster™ Ultra 50 Bollard



Rebound Signmaster™ Ultra 50 Bollard

REBOUND SIGNMASTER™ BOLLARD

Rebound Signmaster Bollard is a passively safe, non-illuminated keep left bollard tested to Performance Standard NE4/100. The bollard is fully reflectorised, offering very high visibility at any time while eliminating electricity costs. Rebound Signmaster non-illuminated bollard is available with a number of fixing options to suit any installation site.



Design Features

- The bollard can be fully reflectorised, offering very high visibility by day and by night, whilst eliminating electricity costs.
- Large 300mm sign face helps increase safety.
- All regulatory and warning signs are available.
- One piece bollard with integral fixing points prevents twisting.
- Compliant to BS 8442:2022.
- Drive-through performance proven to Performance Standard 100-NE-A-NR. Compliant to Passive Safety Standard BS EN 12767:2019.
- Options of an additional pair of side reflectors, a rear reflector and a rear sign face also available.
- Recessed reflector panels are tamper, vandal and weather resistant.
- Extensive range of fixing options available.

Specifications

Colours:	Black, White
Height above ground:	1050mm
Maximum bollard width:	398mm
Maximum bollard depth:	200mm
Bolt-down foot detail:	328 x 328mm
Fixing centres:	228 x 228mm
Sign face:	300mm diameter

Front and side reflective patches are compliant with BS 8442:2022.

Options of an additional pair of side reflectors, a rear reflector and a rear sign face also available.

Weight of bollard:	6kg
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Rebound Signmaster™ Bollard



Rebound Signmaster™ Bollard

SOCKETED REBOUND SIGNMASTER™ BOLLARD

With a small footprint, ideal for traffic islands, Socketed Signmaster can be removed and reinstated in seconds. Socketed Rebound Signmaster Bollard features a keyed quick-release mechanism for easy bollard replacement.



Design Features

- Small footprint, ideal for traffic islands.
- Keyed quick release mechanism allows the bollard to be removed and reinstated in seconds.
- Moulded, round stem offers excellent drive-through performance from all angles.
- Durapol® material socket is proven to be corrosion and impact resistant.
- Durapol material socket plug secures the bollard and prevents debris entering the socket.
- Socket has a flat base for ease of installation.
- A sturdy anchor peg holds the bollard firmly in place and prevents twisting.
- Large 300mm sign face helps increase safety.
- All regulatory and warning signs are available.
- Compliant to BS 8442:2022.
- Drive-through performance proven to Performance Standard 100-NE-A-NR. Compliant to Passive Safety Standard BS EN 12767:2019.
- Options of an additional pair of side reflectors, a rear reflector and a rear sign face also available.
- Recessed reflector panels are tamper, vandal and weather resistant.

Specifications

Colours:	Black, White
Height above ground:	1074mm
Maximum bollard width:	398mm
Maximum bollard depth:	152mm
Socket width:	209mm
Socket length:	237mm
Socket depth:	306mm
Sign face:	300mm diameter
Front and side reflective patches are compliant with BS 8442:2022.	
Options of an additional pair of side reflectors, a rear reflector and a rear sign face also available.	
Weight of bollard:	6.9kg



Socket System



Socketed Rebound Signmaster™ Bollard



Socketed Rebound Signmaster™ Bollard



Socketed Rebound Signmaster™ Bollard

LUMINO CITY™ LED DOWNLIGHTER RANGE

Lumino City offers reduced power consumption (as low as 2W) without compromising on luminance performance. Available in two sizes for signs from 600mm to 1500mm diameter, Lumino City is manufactured from our impact absorbing Impactapol® material to withstand vehicle impacts and improve longevity.



Lumino City 1500



Lumino City 750

Power Options:

230V MAINS POWERED



Lumino City 750



Lumino City 1500

Increased reliability, simple installation and long lifespan.

SPECIFICATIONS

	Lumino City 750	Lumino City 1500
Depth:	420mm	720mm
Height:	240mm	240mm
Width:	190mm	210mm
Weights:		
Single unit with bracket:	2.5kg	3.3kg
Double unit with bracket:	4.6kg	6.2kg
Single unit with universal bracket:	2.1kg	2.9kg

	LUMINO CITY 750		LUMINO CITY 1500		
	230V AC		230V AC		
Compatible Sign Sizes (mm)	600	750	900	1200	1500
Mean Illuminance	E2		E2		
Uniformity of Luminance	UE3	UE2	UE3	UE3	UE2
Power Use (ON)	2.0W		8.0W		
UMSUG Code (ON)	42 0002 0000 100		42 0008 0000 100		
Power Factor	1		1		

FIXING OPTIONS

1. SINGLE TOP AND MID POST FIXING KIT

4 in 1
fixing



Single Sided Closed Top
- 76mm or 89mm posts.

OR



Single Sided Open Top
- 76mm or 89mm posts.
- Without cap for mounting the light part way down the post.

2. DOUBLE TOP AND MID POST FIXING KIT

4 in 1
fixing



Double Sided Closed Top
For mounting two sign lights back-to-back.
- 76mm or 89mm posts.
- Complete with cap for mounting the light onto the top of the post.

OR



Double Sided Open Top
For mounting two sign lights back-to-back.
- 76mm or 89mm posts.
- Without cap for mounting the light part way down the post.

3. UNIVERSAL BRACKET FOR POST FIXING KIT

Universal Bracket

For larger diameter posts (114mm, 140mm, 168mm), and lamp posts.
Fitted with Tamtorque banding.



ILLUMINATED MINI-ENSIGN™ BOLLARD

The illuminated Mini-Ensign rebound bollard helps mark the potential hazard of a traffic island at night, where the bollard is used as a cycle lane delineator. The bollards are typically mounted on to a traffic island or within the carriageway to segregate cycle traffic from motorised traffic. Illumination of the bollard makes cyclists and drivers aware of the road layout and of the traffic island at night.

Specifications

Colours: White
 Height above ground: 1087mm (bolt-down).
 Maximum diameter: 200mm.
 Sign face diameter: 150mm. Blank white translucent disc only.
 Bolt-down fixing depth: 75mm.
 Sublite fixing minimum depth below ground: 226mm.



PASSIVELY SAFE

Passively safe street furniture is designed to minimise the severity of injury to occupants of a vehicle that collides with it. The European Standard BS EN 12767 defines a universal test that establishes the performance of a passively safe roadside structure.

Glasdon passively safe highways products are tested by accredited independent specialists at MIRA and TRL.

Visit our website to see our full range of Passively Safe products. Downloadable product literature, case studies and video clips are also available. Model specifications are available on all products in PDF, .DWG (AutoCAD) or .DXF formats.



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EST. 1959



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Our Credentials

We are proud of our many achievements. Here are just some of the credentials we proudly hold.

