

Rebound Signmaster Bollard Range

Rebound Signmaster is the result of years of research and development by the Glasdon Group's dedicated team of product design specialists. The Glasdon Group has over fifty years' experience in the manufacture of high quality street furniture, and has been producing impact-absorbing road side safety products since the 1960's.

Rebound Signmaster bollard is available either illuminated or non-illuminated to meet any scheme requirement.

Non-illuminated

Exceptional reflectorisation whilst eliminating electricity costs.

Ideal for locations where no illumination is required (see page 4-5).

- 1) Socketed ideal for quick bollard replacement.
- Surface mounted minimise installation costs 4 fixing options available.

Illuminated

A range of LED illuminated options available.

1) For new installations

i. **Signmaster Sublite™ LED** - light box installation, includes light box chamber to house a cut out and offers flexible ducting options. Will significantly reduce energy costs (see page 6-7).

ii. **Signmaster LED 24V Flush Installation Kit** - designed without a light box for quick installation (see page 8).

2) For existing installations/light boxes

i. **Signmaster Conversion Kits** - utilise your existing light box, whilst upgrading to state of the art LED illumination and a high performance rebound bollard (see page 9).

ii. **Gear Tray only** - the most cost effective option. Upgrade to LED illumination, whilst utilising your existing light box and bollard (see page 9).

Compared to traditional lamps, an average of 80% saving on electricity costs can be made by switching to Rebound Signmaster LED Lighting.

Advantages

- ✓ Passively Safe
- Cuts Energy / Cuts Cost
- ✓ Cuts Maintenance
- ✓ Fully Reflectorised
- Compatible with Telemetry Equipment



White Rebound Signmaster Sublite Bollard.



White Rebound Signmaster, Non-Illuminated, Socketed Bollard.



White Rebound Signmaster Bollard with LED Gear Tray and Conversion Kit.

Design Features



structures for road equipment).

Manufactured in passively safe Impactapol material, to help prevent or reduce the severity of personal injury, in the event of vehicle impact. If impacted or run-through, Rebound Signmaster will self-return to an upright position, ensuring the hazard remains clearly marked, thereby saving on replacement and reinstatement cost.



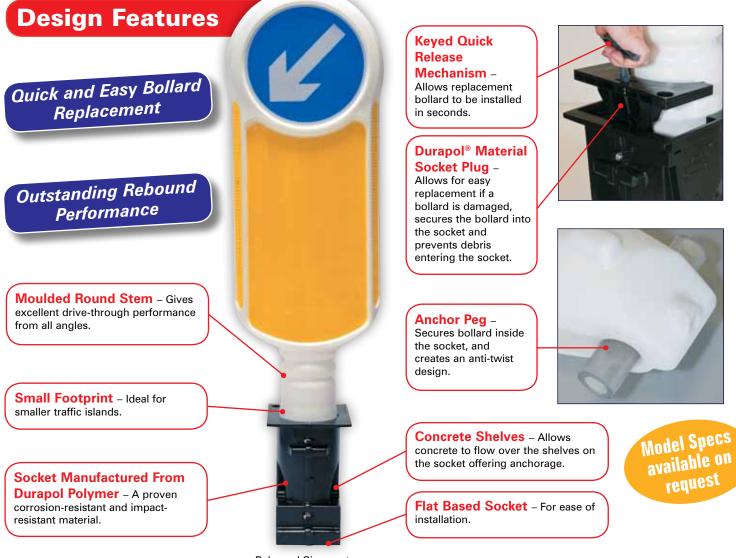


Rebound Stennaster Non-Illum

Non-illuminated Rebound Signmaster is ideal for locations where no illumination is required. This illuminated and non-illuminated bollards are required. The retroreflective patches and signface

(62mph)

NEW Socketed





White Rebound Signmaster, Non-Illuminated, Socketed Bollard.

Rebound Signmaster Socketed



Tel: (01253) 600411

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inated Bollard

allows for a consistent bollard installation throughout your traffic schemes, where give excellent visibility and increase safety.



Surface Mounting

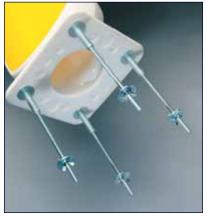




Choice of fixings



Bolt-down fixing.



Bolt-down fixing with adjustable depth concrete-in anchors.



concrete-in anchors.



Adapter plate for redundant light boxes.

Rebound Signmaster Surface Mounting

Wide Range of Fixings

Outstanding Rebound Performance





Surface Mounted Bollard.

Rebound Signmaster Sublite

Sublite LED light box is ideal for locations where illumination is required. As it uses low power c infra-red phototransistor to allow for illumination only during the hours of darkness, energy costs compared to traditional alternatives.



Rebound Signmaster Sublite with optional Ducting Chamber

Design Features

Resettable Fuse – Protects the circuit from over current and can be reset easily by disconnecting the power for 1 minute. **Phototransistor** – Ensures the unit is only illuminated during the hours of darkness. 10 Year Warranted

LEDS

6

Sealed LED Housing – IP67 rated. Offers excellent water and dust protection.

Four Fixing Points – Ensures secure bollard installation.

Sealing Gasket – Prevents water/dirt ingress.

Concrete Shelves – Allows concrete to flow over the shelves offering anchorage.

Compared to traditional lamps, an average of 80% saving on electricity costs can be made by switching to Rebound Signmaster LED Lighting.

Optional Extras

Ducting Chamber

The ducting chamber extension box allows 230V ac cable to be laid at the legal requirement depth. Offers full protection to the cables, and multiple boxes can be stacked on top of each other to add more depth if required.

Ducting Splitter

For applications where two ducts are required the Splitter enables both ducts to be connected to the underground box.

230V ac to 24V ac Transformer

Phototransistor Cover Cap

For 24 hour illumination (regardless of external light levels).

Installation Lid

Prevents concrete getting inside the box and damaging the internal components or bollard fixing points.



LED Lighting Unit & Underground Box

onsumption, and utilises an will be significantly reduced

Telemetry - Compatible with some makes of monitoring equipment.

O



MIRA Test – The Sublite remained illuminated after drive through.

Passively

Safe to

BS EN 12767

<u>100</u> NE4

50/100mm Ducting Connector – To prevent exposed wires ducting can be connected up to the

unit.

Sealing Gasket – Prevents water ingress.

order).

IP68 Rated Glands – Prevents water entering the unit and damaging the internal components. Can be

sited at the rear or underneath the light box (please specify at point of

Spacious Internal Area – Able to house almost any brand of cutout and a transformer if required.

Mounting Boards - Can be

specified in two positions.

Model Specs available on request

Zinc Coated Mild Steel Concrete-in Bars – Provides anchorage into the ground offering excellent drive through performance.

Compatible with Telemetry Equipment

Can be used with a variety of remote monitoring systems.

Please contact our Sales Office for more information.



LED Lighting

230V ac
Total ON power use is 5 Watts.
STANDBY power use is 0.33 Watts.
UMSUG Code ON is 40 0005 0012 100
UMSUG Code STANDBY is 96 0001 0003 100
Power factor 0.91
24V ac Extra Low Voltage
(24V ac Transformer is IP68 rated and will run up to 3 Bollards)
Total ON power use is 6.5 Watts.
STANDBY power use is 1.5 Watts.
UMSUG Code ON is 40 0005 0000 100
UMSUG Code STANDBY is 96 0002 0000 100
Power factor 0.48

Kebound Signmaster Boller ED 24V Flush Installation Kit Passivelv Safe to

The LED 24V installation kit is designed without a light box for quick installation, it can accommodate 50mm or 100mm ducting to suit your requirements. Low running costs because of the 6.5W power consumption can add up to large savings.

Design Features

10 Year Warranted LEDS

BS EN 12767

100

NE4



IP67 Rated LED Housing -Offers excellent water and dust protection.

Phototransistor -Ensures the unit is only illuminated during the hours of darkness.

Four Fixing Points -Ensures secure bollard installation.

Aluminium Plate – Helps reduce corrosion.



Rebound Signmaster 24V Installation Kit with optional 100mm Bend

Optional Extras

Phototransistor Cover Cap

For 24 hour illumination (regardless of external light levels).

100mm Bend

Installation Lid

Protects the unit and fixing points during installation.

230V ac to 24V ac Transformer

Sealing Gasket -Prevents water and dirt gathering on the lens.

Zinc Coated Mild Steel Concrete-in Bars -Provides anchorage into the ground offering excellent drive through performance.



RL Test – The LED 24V Flush Installation kit remained illuminated after drive through.

Compared to traditional lamps, an average of 80% saving on electricity costs can be made by switching to Rebound Signmaster LED Lighting.



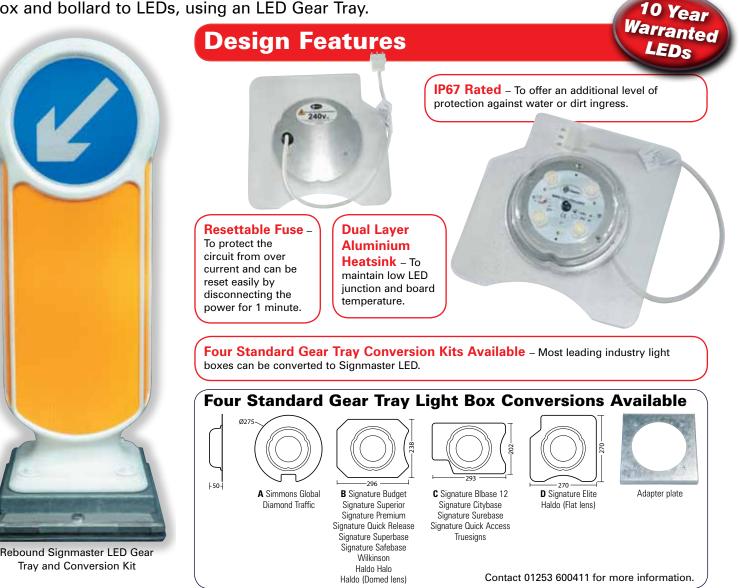
LED Lighting

24V ac Extra Low Voltage (24V ac Transformer is IP68 rated and will run up to 3 Bollards) Total ON power use is 6.5 Watts. STANDBY power use is 1.5 Watts. UMSUG Code ON is 40 0005 0000 100 UMSUG Code STANDBY is 96 0002 0000 100 Power factor 0.48

Rebound Signmaster Bollard LED Gear Tray & Conversion Kit

Upgrade to LED illumination and a Rebound Signmaster Bollard, utilising your existing light boxes, using an LED Gear Tray and Conversion Kit.

Alternatively, for the most cost effective option, simply upgrade your existing light box and bollard to LEDs, using an LED Gear Tray.



Compatible with Telemetry Equipment

The 230V model can be used with a variety of remote monitoring systems. Please contact our Sales Office for more information.



LED Lighting

230V ac
Total ON power use is 5 Watts.
STANDBY power use is 0.33 Watts.
UMSUG Code ON is 40 0005 0012 100
UMSUG Code STANDBY is 96 0001 0003 100
Power factor 0.91
24V ac Extra Low Voltage
(24V ac Transformer is IP68 rated and will run up to 3 Bollards)
Total ON power use is 6.5 Watts.
STANDBY power use is 1.5 Watts.
UMSUG Code ON is 40 0005 0000 100
UMSUG Code STANDBY is 96 0002 0000 100
Power factor 0.48

Rebound Signmaster Bollard Specifications

Dimensions

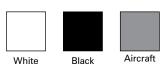
Overall Height Max. Bollard Width Max. Bollard Depth Bolt-down Foot Detail Fixing Centres Socket Width Socket Length Socket Depth Sign Face Front/Rear Patch True Visibility Area Side Patch Area Total Side Patch Area Weight of Bollard Bolt-down 1046mm 398mm 200mm 328 x 328mm 228 x 228mm -

300mm diameter 165,183mm² 26,820mm² per patch 53,640mm² 6kg

Socketed 1074mm 398mm 152mm --

-209mm 237mm 306mm 300mm diameter 151,475mm² 20,784mm² per patch 41,568mm² 6.9kg

Colours



.....

Grey

(LED Illuminated Rebound Signmaster available in white only.)

(Socketed Rebound Signmaster available in White and Black only.)

Retroreflective Patch Options



x Fluorescent Yellow retroreflective front panel.
 x Fluorescent Yellow retroreflective side panels.
 x 300mm Signface.



x Fluorescent Yellow retroreflective front panel.
 x Fluorescent Yellow retroreflective back panel.
 x Fluorescent Yellow retroreflective side panels.
 x 300mm Signface.

- x Fluorescent Yellow retroreflective front panel.
 x Fluorescent Yellow retroreflective side panels.
 x 300mm Signface.



x Fluorescent Yellow retroreflective front panel.
 x Fluorescent Yellow retroreflective back panel.
 x Fluorescent Yellow retroreflective side panels.
 x 300mm Signfaces.

Sign Options

Rebound Signmaster has the option to carry one or two signs. Rebound Signmaster LED Legal Sign Options (for use on highways)



Rebound Signmaster Legal Sign Options (for use on highways)



Other Sign Options are available on request. Please contact our sales office for further information.

Materials

Bollard: Impactapol^{®*} material Socket: Durapol^{®**} material Fixings: Stainless Steel Sublite: Underground Box, Ducting Chamber and Splitter: 100% Recycled Durapol material. LED Lighting Unit: Durapol Concrete-in Bars: Mild Steel BZP Installation Lid: 100% Recycled ABS Retroreflective Sign/Patches: Avery Dennison Fluorescent Yellow and Translucent White

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Sublice Lumino" LED Uplighter

Design Features

Flush Ground Uplighter – removes the potential impact hazard created by a traditional post-mounted downlighter.

11w Power Consumption – Low energy and low maintenance.

Phototransistor – Ensures the unit is only illuminated during the hours of darkness.

Highly Resilient – 100% recycled Durapol[®] material IP67 rated.

Concrete Shelves – allows concrete to flow over the shelves offering anchorage.

Versatile Configuration – Multiple ducting options and optional extension chambers can be used to adapt the Sublite Lumino to meet your requirements.

Compatible with Telemetry Equipment

Can be used with a variety of remote monitoring systems.

Please contact our Sales Office for more information.



Optional Extras Installation Ducting Lid Ducting Splitter Ducting Chamber Cover Cap Overgrowth Restricting Surround

Sublite Lumino can be used with a variety of remote monitoring systems.

Specifications

Sublite Lumino Underground Box: Length: 335mm Width: 300mm Depth below ground: 224mm

: Sublite Lumino Uplighter: Length: 445mm Width: 445mm Max. height above ground: 90mm

Materials

Underground Box, Ducting Chamber, Splitter: 100% Recycled Durapol Installation Lid, Surround: 100% Recycled ABS LED Lighting Unit: Durapol Concrete-in Bars: Mild Steel BZP

* Impactapol® material is a polymer specially developed with enhanced flexibility and extensibility properties offering good recovery performance after vehicular impact. Impactapol has good abrasion resistance and the material will not chip or rust and never needs painting.

** Durapol® material is a polymer formulated to withstand extremes of temperature and is impact-tested in our Quality Assurance Laboratory as part of our BS EN ISO 9001:2008 test procedure. Durapol will not chip or rust, is easy to clean and never needs painting.

www.safety4highways.com

11

Sealed LED Housing – IP67 rated offers excellent water and dust protection.

Hinged LED Plate – allows adjustment after installation.

10 Year Warranted

LEDS

Model Specs available on request



LED Lighting

Total ON power use is 11 Watts. Total STANDBY power use/photocell is 0.66 Watts. UMSUG Code ON is 40 0011 0002 100 UMSUG Code STANDBY is 96 0001 0004 100 Power factor 0.91



Lumino City 750 is an energy efficient, low maintenance downlighter that illuminates signs up to 750mm.

Two versions are available, a 230V model utilising a 3.6 Watt energy efficient LED and a 24V model utilising a 2.4 Watt energy efficient LED.

Lumino City 750 conforms to the highest standards in energy efficient and effective illumination without compromising on style. Manufactured to absorb an accidental vehicle impact, Lumino City 750 is unique to the marketplace.

Design Features



*Inpactapol® material is a polymer specially developed with enhanced flexibility and extensibility properties offering good recovery performance after vehicular impact. Impactapol® has good abrasion resistance and the material will not chip or rust and never needs painting.

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nlighter

Can Absorb Vehicle Sideswipe



Impactapol[®] material housing will flex if impacted by a vehicle and return to its normal position afterwards.

State of the Art Optic

Distributes light evenly across the sign (up to 750mm diameter) for excellent visibility and improved safety. Complies with BS EN12899-1 uniformity luminance – Class UE2 (230V ac model) or UE3 (24V ac model).

Extensive testing has been carried out to find the optimum illuminance level to ensure optimum light output across the surface of the sign ensuring it is clearly illuminated without creating glare. Conforms to BS EN 12899-1 mean illuminance Class E2.

Standard Downlighter



Model Specs available



LED Lighting

230V ac model Total power use is 3.6W UMSUG Code 40 0003 0008 100 Power Factor 0.91 24V ac model Total power use is 2.4W UMSUG Code 40 0002 0002 100 Power Factor 0.82

230V Model Compatible with Telemetry Equipment

A moulded-in cradle makes Lumino City 750 suitable for the use of remote monitoring devices. The device and aerial are fully enclosed inside the housing to ensure there are no protruding components, reducing the risk of vandalism.

Remote Monitoring Device

Optional 230V ac to 24 ac Transformer



LED Downlighter

Mounting Options





Single Sided Open Top

- 76mm or 89mm posts.

- Without the cap for mounting the light part way down the post.



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.



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.



Universal Bracket Wall mounting

Specifications Offset Bracket 420 Weights Single Unit: 2.5kg Double Unit: 4.6kg 240 Universal Single Unit: 2.1kg (\circ) WILLIAM SHILL (all complete with relevant brackets) 100-Materials Signlight Arm: Impactapol®# material Brackets and Heatsink: High Grade Aluminium Cap and Conversion Collar: Impactapol All Fixings: Stainless Steel Colours M//AAircraft Grey, Black. Conformity Lumino City 750 conforms to BS EN 12899-1:2007 7.4.1.2 Mean Illuminance Table 22 Class E2 **Offset Bracket** -7.4.1.3 Uniformity of Illuminance Table 23 Class UE3 For illuminating offset signs. - 76mm posts only

*Impactapol® material is a polymer specially developed with enhanced flexibility and extensibility properties offering good recovery performance after vehicular impact. Impactapol® has good abrasion resistance and the material will not chip or rust and never needs painting.

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EcoluminoTM Range New Ecolumino1500 **Downlighter Gear Tray** available **AVAILABLE IN TWO MODELS: Ecolumino 1500 Ecolumino 750** To illuminate signs up to 750mm To illuminate signs up to 1500mm arranted RETROFIT LED GEAR TRAY FOR THE EDS CONVERSION OF EXISTING SIGN LIGHTS **Design Features Ecolumino 750 – 3W Power Consumption** Ecolumino 1500 – 4.2W Power Consumption Ecolumino 750 Complies with BS EN 12899-1 on Luminance Levels. 10 year Warranty on LEDs - 50,000 hour minimum expected life, which should be comfortably exceeded. **Ecolumino 1500** State of the Art Optics - distribute light 230v evenly over the sign, to fully comply with regulations.

Ecolumino 750 – Three Standard **Downlighter Gear Trays Available**

Type 1

Type 3

To fit Signature Exlite LA/Forest City 2.8 Watts (+0.25W Zodion Photocell) UMSUG Code 40 0003 0006 100 Power Factor 0.41

To fit Simmonsigns LUA 2.8 Watts (+0.25W Zodion Photocell) UMSUG Code 40 0003 0006 100 Power Factor 0.41

Type 2

To fit Signature Delta 2.8 Watts (+0.25W Zodion Photocell) UMSUG Code 40 0003 0006 100 Power Factor 0.41

Optional Extras

Photocell 0.25W - UMSUG Code 94 0001 1000 100

For Ecolumino 750 Ecolumino 1500 and Lumino City 750.

Ensures the unit is only active during the hours of darkness.



Signature Titan sign light conversion fixing kit for Ecolumino 750 Type 1.



Ecolumino 1500 – Two Standard **Downlighter Gear Trays Available**

Type 1

To fit Signature Majorlite T8 (L8) Type B 4.2 Watts (+0.25W Zodion Photocell) UMSUG Code 40 0004 0010 100 Power Factor 0.53

Type 2

To fit Signature Majorlite LD3 Type D 4.2 Watts (+0.25W Zodion Photocell) UMSUG Code 40 0004 0010 100 Power Factor 0.53

Complies with BS EN 12899-1

Ecolumino will externally illuminate a sign to a mean luminance level between 100-400 LUX, as described in Table 22, Class E2. The uniformity of illuminance will meet Class UE3 of Table 23 (Ecolumino 750) or Class UE2 of Table 23 (Ecolumino 1500).

Standard Downlighter Gear Tray



Ecolumino Downlighter Gear Tray





Individual model specification sheets are available on most Glasdon Bollards and Traffic Safety Products. Please phone 01253 600411 for details.

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Our national distribution network ensures prompt delivery in mainland UK and Northern Ireland. All our prices are carriage-free on the mainland and Northern Ireland for orders over £50 value, only VAT will be added.

However, to help offset the cost of packing, administration and delivery, there is a small charge of \$5 on orders below the value of \$50.

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