



Installation and Operation Instructions LOW PROFILE R65* Beacon

The Low Profile R65 Beacon utilises powerful LEDs, arranged to produce a 360° flash pattern by combining the solid-state, maintenance free long-life nature of LED technology. With additional features including multiple flash patterns, synchronisation and vigorous testing to the ECCO standard and OEM specifications. This high-performance range has increased EMC, is robust and compact in a popular housing design and is available in four standard mounting options. The Low Profile range of beacons are suitable for a variety of vehicles including applications where the UK lighting regulation Chapter 8 is a requirement*. This range is designed to maximise resilience to excessive vibration, increase the life of the product and is backed by a five-year warranty.



*-Excluding Green version

IMPORTANT! Read all instructions before installing and using. Installer: This manual must be delivered to the end user.



WARNING!

Failure to install or use this product according to manufacturers recommendations may result in property damage, serious injury, and/or death to those you are seeking to protect!



Do not install and/or operate this safety product unless you have read and understand the safety information contained in this manual.

1. Proper installation combined with operator training in the use, care, and maintenance of emergency warning devices are essential to ensure the safety of you and those you are seeking to protect.
2. Exercise caution when working with live electrical connections.
3. This product must be properly grounded. Inadequate grounding and/or shorting of electrical connections can cause high current arcing, which can cause personal injury and/or severe vehicle damage, including fire.
4. Proper placement and installation are vital to the performance of this warning device. Install this product so that output performance of the system is maximized and the controls are placed within convenient reach of the operator so that s/he can operate the system without losing eye contact with the roadway.
5. Do not install this product or route any wires in the deployment area of an air bag. Equipment mounted or located in an air bag deployment area may reduce the effectiveness of the air bag or become a projectile that could cause serious personal injury or death. Refer to the vehicle owner's manual for the air bag deployment area. It is the responsibility of the user/operator to determine a suitable mounting location ensuring the safety of all passengers inside the vehicle particularly avoiding areas of potential head impact.
6. It is the responsibility of the vehicle operator to ensure during use that all features of this product work correctly. In use, the vehicle operator should ensure the projection of the warning signal is not blocked by vehicle components (i.e., open trunks or compartment doors), people, vehicles or other obstructions.
7. The use of this or any other warning device does not ensure all drivers can or will observe or react to a warning signal. Never take the right-of-way for granted. It is your responsibility to be sure you can proceed safely before entering an intersection, driving against traffic, responding at a high rate of speed, or walking on or around traffic lanes.
8. This equipment is intended for use by authorized personnel only. The user is responsible for understanding and obeying all laws regarding warning signal devices. Therefore, the user should check all applicable city, state, and federal laws and regulations. The manufacturer assumes no liability for any loss resulting from the use of this warning device.

Specifications:

Size:	EB5101XX:	148mm dia. x 75mm High
	EB5102XX:	148mm dia. x 63mm High
	EB5103XX:	148mm dia. x 172mm High
	EB5104XX:	185mm dia. x 70mm High
Weight:	EB5101XX:	approx. 0.75Kg
	EB5102XX:	approx. 0.45Kg
	EB5103XX:	approx. 0.72Kg
	EB5104XX:	approx. 0.88Kg
Input Voltage:		10-32 VDC
Input Current: (Max,) at 12VDC	ALL VARIANTS	4.7A*
Input Current: (Peak) at 10.5VDC	ALL VARIANTS	5.5A*

* - small variation between different colour models may occur.
Figure is flash pattern depended and represents highest consumption.

Temp. Range: -20° to 55°C
-5° to 130°F

Installation & Mounting:

Before installation, examine the LED beacon for transit damage.
Do not use damaged or broken parts.

Important! This unit is a safety device and it must be connected to its own separate, fused power point to assure its continued operation should any other electrical accessory fail.

Caution: When drilling into any vehicle surface, make sure the area is free from any electrical wires, fuel lines, vehicle upholstery, etc. that could be damaged

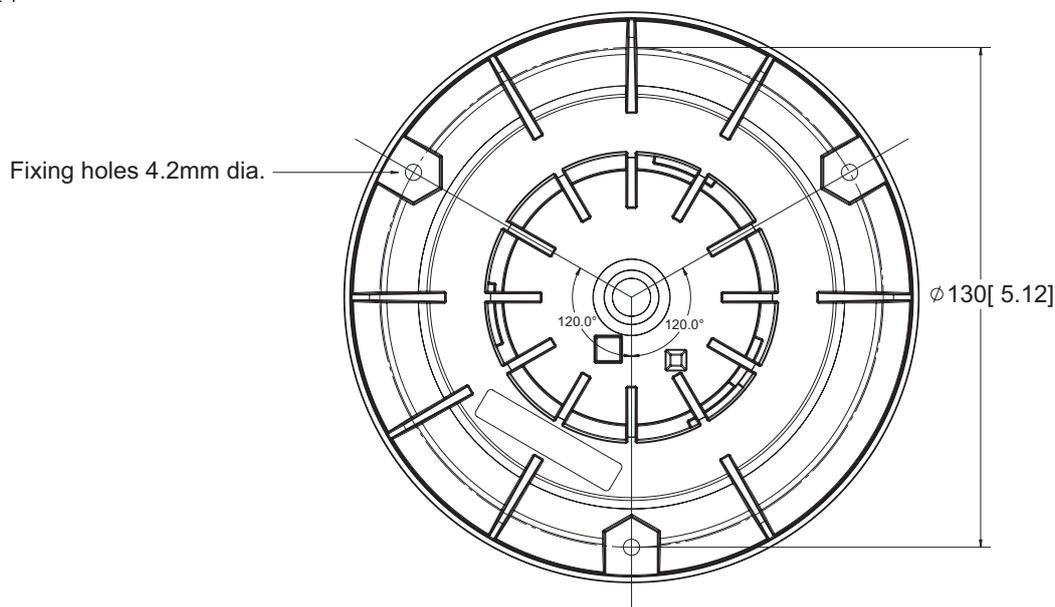
3 BOLT FIXING VERSION:

TO ENSURE A WEATHERPROOF INSTALLATION THE BEACON MUST BE FITTED WITH THE SUPPLIED GASKET AND MOUNTED ON A FLAT PANEL OR SURFACE FORMING PART OF A WEATHERPROOF ENCLOSURE.

Drill the panel or surface to accept the wires and the 3 M4 screws (see FIGURE 1).
Ensure that the wires are properly protected from contact with the vehicle panel (use grommet or PVC tape).

Connect power wires to an appropriate power source ensuring that the RED or WHITE wire is connected to the POSITIVE terminal of the supply via a suitable 5A fuse.

FIGURE 1



SINGLE BOLT FIXING VERSION:

TO ENSURE A WEATHERPROOF INSTALLATION THE BEACON MUST BE FITTED WITH THE SUPPLIED GASKET AND MOUNTED ON A FLAT PANEL OR SURFACE.

Drill the panel or surface to accept the M12 threaded bolt.

Fit the beacon in the required position, first passing the wires and bolt through the pre-drilled hole. Secure using the M12 nut and washer supplied.

Connect power wires to an appropriate power source ensuring that the RED or WHITE wire is connected to the POSITIVE terminal of the supply via a suitable 5A fuse.

MAGNETIC BASE VERSION:

THE BEACON MUST BE FITTED ON A FLAT PART OF A STEEL ROOF OR PANEL.

Check that the vehicle battery voltage is compatible with the beacon to be fitted. The connection to the beacon must be fitted with a suitable 5A fuse.

Wipe the roof of the vehicle where the beacon is to be placed to remove any debris or grease, and ensure that the gasket is clean, dry and in good condition. Place the beacon in the required position and connect to the vehicle battery supply using the cigar plug.



WARNING!

Maximum recommended vehicle speed for safe operation using the Magnet Mount model is 70 mph (103 km/h) on a well maintained road, when fitted to the center of a vehicle roof of steel construction. Higher speeds could cause the mount to fail, resulting in the beacon flying off of the vehicle, which could cause damage to other vehicles and injury or death to the passengers.

The magnet mount is not intended as a permanent mounting for the beacon. The magnet mount unit must be mounted on a magnetic surface (i.e. no fiberglass, etc.). Ensure that the magnet is kept clean.

FLEXI DIN FIXING VERSION:

Check that the vehicle battery voltage is compatible with the beacon to be fitted. The connection to the beacon must be fitted with a suitable 5A fuse.

The beacon must be fitted on a DIN pole.

Remove the cap if there is one on the DIN pole, clean the surface from any grease or dirt and fit the base on top of the pole. After this, hand-tighten the wing nut present on the bottom of the base.

Notes:

1. Larger wires and tight connections will provide longer service life for components. For high current wires it is highly recommended that terminal blocks or soldered connections be used with shrink tubing to protect the connections. Do not use insulation displacement connectors (e.g., 3M Scotchlock type connectors).
2. Route wiring using grommets and sealant when passing through compartment walls. Minimize the number of splices to reduce voltage drop. High ambient temperatures (e.g., under-bonnet(hood)) will significantly reduce the current carrying capacity of wires, fuses and circuit breakers. All wiring should conform to the minimum wire size and other recommendations of the manufacturer and be protected from moving parts and hot surfaces. Looms, grommets, cable ties, and similar installation hardware should be used to anchor and protect all wiring.
3. Fuses or circuit breakers should be located as close to the power takeoff points as possible and properly sized to protect the wiring and devices.
4. Particular attention should be paid to the location and method of making electrical connections and splices to protect these points from corrosion and loss of conductivity.
5. Ground termination should only be made to substantial chassis components, preferably directly to the vehicle battery.
6. Circuit breakers are very sensitive to high temperatures and will "false trip" when mounted in hot environments or operated close to their capacity.

WIRING:

3 BOLT/ 1 BOLT VARIANT:

RED: Primary Colour +VE (10-32VDC)

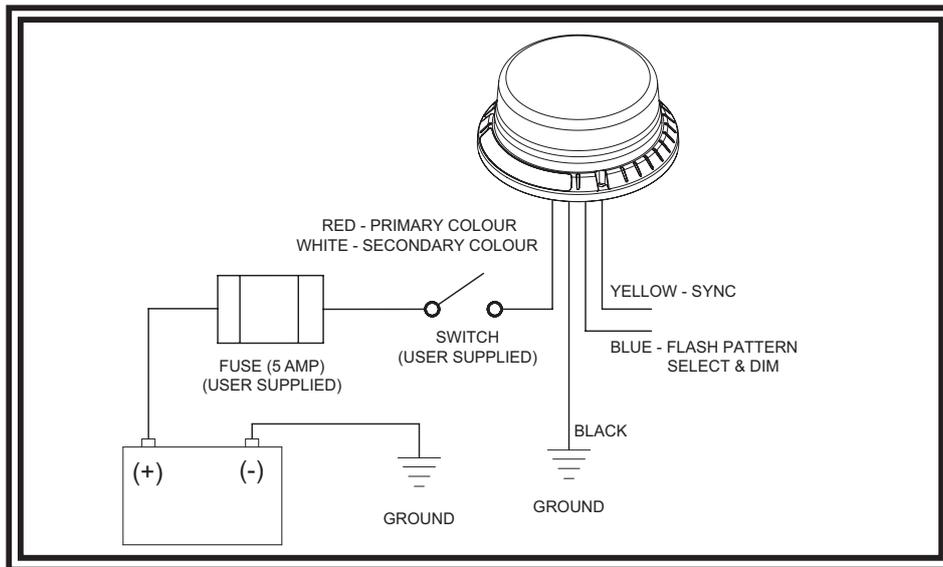
WHITE - Secondary Colour +VE (10-32VDC)*

BLACK: GND

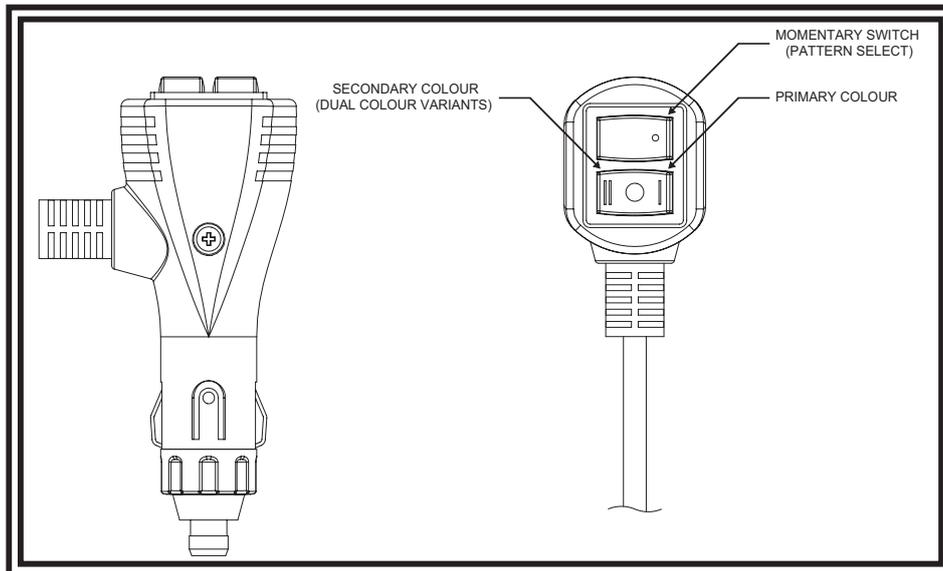
YELLOW: Synchronisation - the patterns have Phase A and B. Connect all Yellow wires with units programmed in Phase A and they will synchronise (up to 10 Beacons). Connect beacons programmed in Phase A and B and the units will flash alternately.

BLUE: Flash Pattern Select & DIM - Apply Blue wire accordingly to the timing table below to activate desired function.

*-Variant dependent function



MAGNETIC VARIANT:



Flash Patterns:

Pattern No.	Description	Phase	Other
1	150±10 FPM (Single flashes per minute)	A	ECE R65 Approved
2	150±10 FPM (Single flashes per minute)	B	ECE R65 Approved
3	150±10 FPM (Double flashes per minute)	A	ECE R65 Approved
4	150±10 FPM (Double flashes per minute)	B	ECE R65 Approved
5	150±10 FPM (Triple flashes per minute)	A	ECE R65 Approved
6	150±10 FPM (Triple flashes per minute)	B	ECE R65 Approved
7	150±10 FPM (Quad flashes per minute)	A	ECE R65 Approved
8	150±10 FPM (Quad flashes per minute)	B	ECE R65 Approved
9	75±5 FPM (Airport Single Flash)	A	ICAO Compliant
10	75±5 FPM (Airport Single Flash)	B	ICAO Compliant
11	150±10 FPM (Rotate)	ANTICLOCKWISE	ECE R65 Approved
12	150±10 FPM (Rotate)	CLOCKWISE	ECE R65 Approved. Default Pattern

Pattern Select Timings:

Push Time To Negative	Function
0-1 Sec	Next Pattern
1-3 Sec	Previous Pattern
3-5 Sec	Factory Default Pattern
Push Time To Positive	Function
0>∞	DIM (25%)

Replacement Parts and Accessories

Description	Part No.
REPLACEMENT ECCO LENS CLEAR	ER5200
REPLACEMENT ECCO LENS AMBER	ER5200A

Manufacturer Limited Warranty and Limitation of Liability:

Manufacturer warrants that on the date of purchase, this product will conform to Manufacturer's specifications for this product (which are available from the Manufacturer upon request). This Limited Warranty extends for sixty (60) months from the date of purchase.

DAMAGE TO PARTS OR PRODUCTS RESULTING FROM TAMPERING, ACCIDENT, ABUSE, MISUSE, NEGLIGENCE, UNAPPROVED MODIFICATIONS, FIRE OR OTHER HAZARD; IMPROPER INSTALLATION OR OPERATION; OR NOT BEING MAINTAINED IN ACCORDANCE WITH THE MAINTENANCE PROCEDURES SET FORTH IN MANUFACTURER'S INSTALLATION AND OPERATING INSTRUCTIONS VOIDS THIS LIMITED WARRANTY.

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