

## Installation and Operation Instructions

















































### Tornado B47 Beacon



**TORNADO**  
**B47**

#### Product Description

Redtronic's Tornado B47 beacon is designed to incorporate a sleek and modern design whilst providing the ultimate light output to meet R65 Class II in amber and blue. The Tornado B47 beacon meets IP69K to protect against water and dust and features include CAP168/ICAO approval, multiple flash patterns and a variety of mounting options to meet most vehicle applications.

Part Number	LED Colour	Lens Colour	Voltage	Mount	Warranty
BTN1-047-AC			11-32VDC	1 Bolt	2 years
BTN1-047-AA			11-32VDC	1 Bolt	2 years
BTN1-047-BC			11-32VDC	1 Bolt	2 years
BTN1-047-BB			11-32VDC	1 Bolt	2 years
BTNM-047-AC			11-32VDC	Magnetic (Straight Cable)	2 years
BTNM-047-AA			11-32VDC	Magnetic (Straight Cable)	2 years
BTNM-047-BC			11-32VDC	Magnetic (Straight Cable)	2 years
BTNM-047-BB			11-32VDC	Magnetic (Straight Cable)	2 years
BTNM-C47-AC			11-32VDC	Magnetic (Curly Cable)	2 years
BTNM-C47-AA			11-32VDC	Magnetic (Curly Cable)	2 years
BTNM-C47-BC			11-32VDC	Magnetic (Curly Cable)	2 years
BTNM-C47-BB			11-32VDC	Magnetic (Curly Cable)	2 years
BTNP-047-AC			11-32VDC	Pole	2 years
BTNP-047-AA			11-32VDC	Pole	2 years
BTNP-047-BC			11-32VDC	Pole	2 years
BTNP-047-BB			11-32VDC	Pole	2 years
BTNS-047-AC			11-32VDC	Suction (Straight Cable)	2 years
BTNS-047-AA			11-32VDC	Suction (Straight Cable)	2 years
BTNS-047-BC			11-32VDC	Suction (Straight Cable)	2 years
BTNS-047-BB			11-32VDC	Suction (Straight Cable)	2 years
BTNS-C47-AC			11-32VDC	Suction (Curly Cable)	2 years
BTNS-C47-AA			11-32VDC	Suction (Curly Cable)	2 years
BTNS-C47-BC			11-32VDC	Suction (Curly Cable)	2 years
BTNS-C47-BB			11-32VDC	Suction (Curly Cable)	2 years

## Technical Information

Voltage Range (DC)	11-32VDC
Number of LEDs	16 LEDs
Amps / Current Peak Max	2.8 amps max at 12VDC, 1.4 amps max at 24VDC
Recommended Fuse Rating	4 amps
LED Power	48 watts
Lumen / Candela Output	TBC
IP Rating	IP69K protection against dust & water ingress
Approval	ECE R65 Class II (blue and amber), CISPR 25 Level 3, ICAO / CAP168
Compliant	EMC R10
DEKRA Speed Rating	146.6mph (236.2km/h) mag mount
Auto DIM	Yes (night & day)
Synchronisation	Yes with other Redtronic products
Weight (approx.)	Single bolt 450g
Operating Temperature	-40 to +100°C
Lens Material	Ultra-strong UV stabilised polycarbonate lens
Mounting	1 bolt, magnetic, suction and pole
Warranty	2 years

## Flash Patterns

Pattern 1	Quad	Pattern 6	Quad/Triple/Double/Single
Pattern 2	Triple	Pattern 7	Slow Rotate
Pattern 3	Double	Pattern 8	Fast Rotate
Pattern 4	Single	Pattern 9	CAP168 – unlock with Brown to +ve for 10 seconds
Pattern 5	Quad/Single		

## Cable Connections

Function	Cable Colour	Description
Power 1 +ve	Red Wire	Apply to +ve, lamp will flash
Ground -ve	White Wire	Apply to -ve (for all functions)
Pattern +ve	Brown Wire	Apply momentarily to +ve to change patterns
DIM + ve	Green Wire	Apply to +ve to reduce light intensity
Synchronisation	Yellow Wire	Connect to other Redtronic lighting products

## Installation

Connecting the Tornado B47 beacons to a vehicle battery / power source requires the **white wire** to be connected to the **negative** [-ve] terminal, and the **red wire** to be connected to **positive** [+ve] terminal. Pattern and mode functions need to be set in the same manner as the primary **red wire** colour. Disconnect the **red wire** to set the secondary functions as desired. All Tornado B47 beacons are set to double flash pattern as default before leaving the factory.

### **To set the alternate flash mode:**

Connect the **red wire** to **positive** [+ve] and the black wire to **negative** [-ve] terminals on the power source. Hold the **yellow wire** to the **negative** [-ve] terminal on the power source. Note: **Do not** hold the **yellow wire** to the **positive** [+ve] terminal, as this may damage the beacon permanently. The beacon will turn from flashing to 'steady burn'.

While holding the **yellow wire** on the **negative** [-ve] terminal, hold the **brown wire** to the **positive** [+ve] terminal. After 2 seconds, the beacon will extinguish for 5 seconds, after which the beacon will start a quick succession of flashes. Remove the **brown wire**, the beacon should now be flashing alternately to any beacons it synchronises with.

### **To set the flash pattern:**

With the beacon powered on, the **brown wire** should be connected to **positive** [+ve] terminal from the power source momentarily, to change to the next pattern. Either touch the wire to **positive** [+ve] briefly, or connect via a momentary switch and press to change pattern.

### **To enable / disable the AutoDIM function:**

Power the beacon and connect the **red wire** to **positive** [+ve] and the **white wire** to **negative** [-ve], **green wire** to **positive** [+ve] and **yellow wire** to **negative** [-ve]. Then momentarily apply the **brown wire** to **positive** [+ve]. To signify change, the beacon will flash in a slow double flash. To revert, undertake same action and when AutoDIM is active the beacon will flash in a slow single flash until all wires are removed. The **green wire** will not activate the 'night mode function' if used when the AutoDIM function is set as active.

### **To set the DIM function:**

Connect the **green wire** to **positive** [+ve] at the power source to enable DIM [night] mode. The **green wire** needs a constant connection to **positive** [+ve] to operate in this mode. The beacon will return to full brightness when the **green wire** is disconnected. Please ensure AutoDIM is not active if using this wire input function.

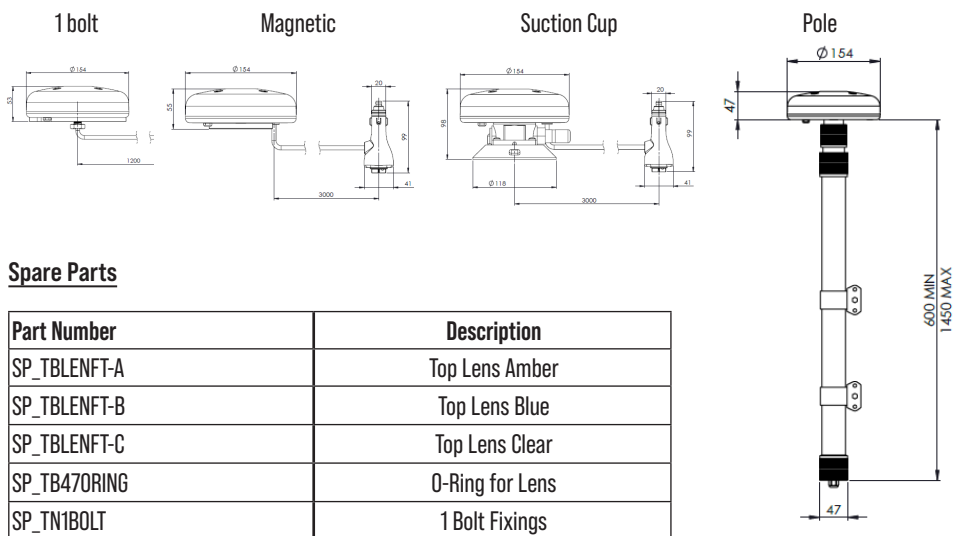
### **To synchronise lamps:**

When the desired flash pattern and mode has been set, connect the **yellow wires** from each beacon together, this will ensure all beacons flash in synchronised format. Note: **Do not** apply **yellow wires** to **positive** [+ve].

**Do not** attempt to sync Redtronic products with any other manufacturer's products.

To ensure a weatherproof installation, the beacon must be installed with the gasket supplied in the kit and mounted accordingly on a flat surface which will form a weatherproof seal.

## Dimensions



## Spare Parts

Part Number	Description
SP_TBLENFT-A	Top Lens Amber
SP_TBLENFT-B	Top Lens Blue
SP_TBLENFT-C	Top Lens Clear
SP_TB47ORING	O-Ring for Lens
SP_TN1BOLT	1 Bolt Fixings

## Warranty and Liability

Redtronic warrants that on the date of purchase, this product will conform to Redtronic specifications for this product (which are available from Redtronic upon request). This product benefits from a 2-year warranty from the date of purchase.

Warranty disclaimer: as the AutoDIM feature relies on the product being free of dirt and grease (and therefore not within the manufacturers control), the operation of this feature is not covered by the overall product warranty.

## Cleaning and Maintenance

Please refer to our 'How to care for your Redtronic Polycarbonate Products' document.