

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 | 3 years |
| BTN1-047-AA |  |  | 11-32VDC | 1 Bolt | 3 years |
| BTN1-047-BC |  |  | 11-32VDC | 1 Bolt | 3 years |
| BTN1-047-BB |  |  | 11-32VDC | 1 Bolt | 3 years |
| BTNM-047-AC |  |  | 11-32VDC | Magnetic (Straight Cable) | 3 years |
| BTNM-047-AA |  |  | 11-32VDC | Magnetic (Straight Cable) | 3 years |
| BTNM-047-BC |  |  | 11-32VDC | Magnetic (Straight Cable) | 3 years |
| BTNM-047-BB |  |  | 11-32VDC | Magnetic (Straight Cable) | 3 years |
| BTNM-C47-AC |  |  | 11-32VDC | Magnetic (Curly Cable) | 3 years |
| BTNM-C47-AA |  |  | 11-32VDC | Magnetic (Curly Cable) | 3 years |
| BTNM-C47-BC |  |  | 11-32VDC | Magnetic (Curly Cable) | 3 years |
| BTNM-C47-BB |  |  | 11-32VDC | Magnetic (Curly Cable) | 3 years |
| BTNP-047-AC |  |  | 11-32VDC | Pole | 3 years |
| BTNP-047-AA |  |  | 11-32VDC | Pole | 3 years |
| BTNP-047-BC |  |  | 11-32VDC | Pole | 3 years |
| BTNP-047-BB |  |  | 11-32VDC | Pole | 3 years |
| BTNS-047-AC |  |  | 11-32VDC | Suction (Straight Cable) | 3 years |
| BTNS-047-AA |  |  | 11-32VDC | Suction (Straight Cable) | 3 years |
| BTNS-047-BC |  |  | 11-32VDC | Suction (Straight Cable) | 3 years |
| BTNS-047-BB |  |  | 11-32VDC | Suction (Straight Cable) | 3 years |
| BTNS-C47-AC |  |  | 11-32VDC | Suction (Curly Cable) | 3 years |
| BTNS-C47-AA |  |  | 11-32VDC | Suction (Curly Cable) | 3 years |
| BTNS-C47-BC |  |  | 11-32VDC | Suction (Curly Cable) | 3 years |
| BTNS-C47-BB |  |  | 11-32VDC | Suction (Curly Cable) | 3 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 | 3 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.

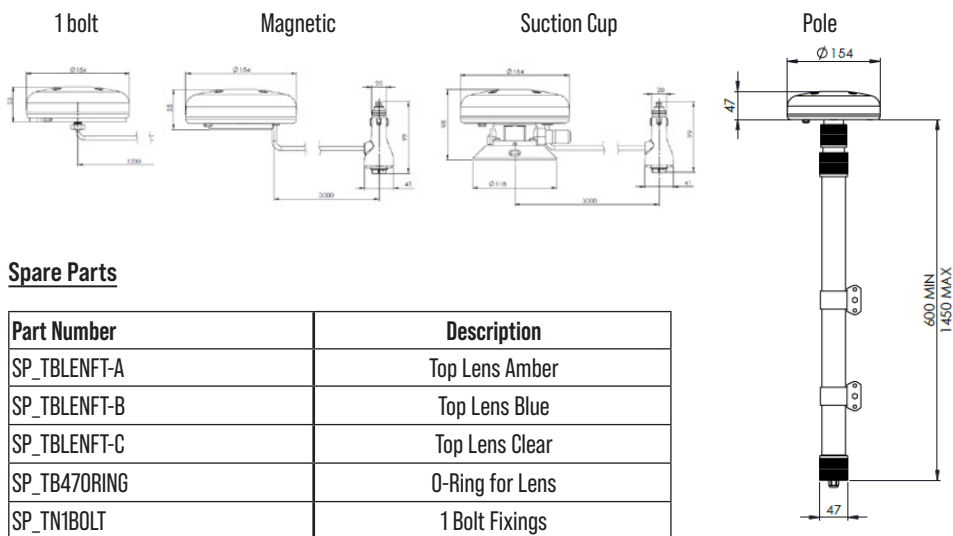
To synchronise lamps:

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 3-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.