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Product Description

**TORNADO
B110**



Redtronic's Tornado B110 beacon is designed to incorporate a sleek design whilst providing the ultimate light output to meet ECE R65 Class I amber and blue. The Tornado B110 beacon meets CISPR25 Level 3, has a standard in built AutoDIM sensor and is IP69K to protect against water and dust and offers the best of features compared to those in a lightbar such as CAP168/ICAO approval, multiple flash patterns and a variety of mounting options to meet most vehicle fitting needs.

Part Number	LED Colour	Lens Colour	Voltage	Mount	Warranty
BTN3-110-AC			11-32VDC	3 Bolt	3 years
BTN3-110-AA			11-32VDC	3 Bolt	3 years
BTN3-110-BC			11-32VDC	3 Bolt	3 years
BTN3-110-BB			11-32VDC	3 Bolt	3 years
BTN1-110-AC			11-32VDC	1 Bolt	3 years
BTN1-110-AA			11-32VDC	1 Bolt	3 years
BTN1-110-BC			11-32VDC	1 Bolt	3 years
BTN1-110-BB			11-32VDC	1 Bolt	3 years
BTNM-110-AC			11-32VDC	Magnetic	3 years
BTNM-110-AA			11-32VDC	Magnetic	3 years
BTNM-110-BC			11-32VDC	Magnetic	3 years
BTNM-110-BB			11-32VDC	Magnetic	3 years
BTNF-110-AC			11-32VDC	Flexi DIN	3 years
BTNF-110-AA			11-32VDC	Flexi DIN	3 years
BTNF-110-BC			11-32VDC	Flexi DIN	3 years
BTNF-110-BB			11-32VDC	Flexi DIN	3 years

Features and Benefits

- Ultra-bright latest generation LED's
- Ultra-strong UV stabilised polycarbonate lens
- Synchronisation capability with other Redtronic products
- Dekra Speed Rating: 146.6mph (236.2km/h) mag mount
- Operating Temperature: -40 to +105°C
- Multiple mount options available
- R65 Class I approved (blue & amber)
- IP69K protection against dust & water ingress
- CISPR 25 level 3 and CAP168/ICAO airport flash
- EMC R10 compliant
- Auto DIM (night & day) and Cruise feature available
- 11-32VDC operation
- 9 flash patterns
- Multi-function cigarette plug (mag mount)
- 3 year warranty



Technical Information

Voltage Range (DC)	11-32VDC
Number of LEDs	8 LEDs
Amps / Current Peak Max	2 amps max at 12VDC
IP Rating	IP69K protection against dust & water ingress
Approval	ECE R65 Class I (blue and amber), CISPR 25 Level 3, ICAO / CAP168
Compliant	EMC R10
DEKRA Speed Rating	146.6mpg (236.2km/h) mag mount
Auto DIM	Yes (night & day)
Synchronisation	Yes with other Redtronic products
Weight	356g (3 bolt), 383g (1 bolt), 706g (mag)
Operating Temperature	-40 to +105°C
Lens Material	Ultra-strong UV stabilised polycarbonate lens
Mounting	3 bolt, 1 bolt, magnetic and flexi DIN
Warranty	3 years

Flash Patterns

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

Cable Connections

Function	Cable Colour	Description
Power 1 +ve	Red Wire	Power 1 - powers primary colour
Ground -ve	Black Wire	0v ground / earth
Pattern +ve	Brown Wire	Changes the flash pattern by momentarily applying to a positive. Apply to +ve for 2-3 seconds to revert to quad flash (pattern 1)
DIM + ve	Blue Wire	Activate night mode
Synchronisation	Yellow Wire	Link to other Redtronic products

Installation

Connecting the Tornado B110 beacons to a vehicle battery / power source requires the **black 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 B110 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 **black wire** to **negative** [-ve], **blue 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 **blue wire** will not activate the 'night mode function' if used when the AutoDIM function is set as active.

Note: AutoDIM cannot be disabled due to no wire connection on the Flexi DIN mount.

To set the DIM function:

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

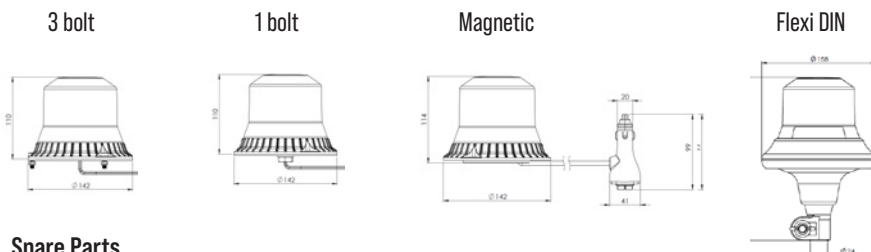
To synchronise lamps:

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 lamp must be fitted with the supplied gasket and mounted on a flat panel to surface forming part of a weatherproof enclosure.

Dimensions



Spare Parts

Part Number	Description
SP_B1LENFT-A	Top Lens Amber
SP_B1LENFT-B	Top Lens Blue
SP_B1LENFT-C	Top Lens Clear
SP_BTNRING	O-Ring for Lens
SP_TN1BOLT	1 Bolt Fixings
SP_TN3BOLT	3 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.