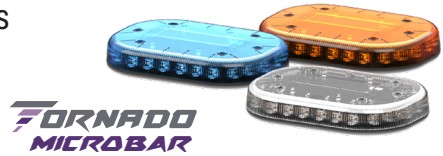


Installation and Operation Instructions Tornado Microbar



Product Description

Redtronic's Tornado Microbar is designed to incorporate a compact sleek design whilst providing the ultimate light output to meet R65 Class II in amber and blue. The Tornado Microbar is available in a variety of mount options whether you require a permanent or temporary mount making it the perfect solution for a variety of vehicle applications from emergency services and covert vehicles to amber safety and commercial vehicles. This product also boasts major industry requirements such as IP69K, EMC R10, ECE R65 approvals and comes as standard with 7 flash patterns including ICAO/CAP168 airport pattern. It features ultra-bright latest generation LEDs under an ultra-strong UV stabilised polycarbonate lens offering multiple lens colour options and LED colours. The Tornado Microbar is tough enough for any job and that is why it has been designed for a fit-and-forget purpose and has a 2-year warranty.

Part Number	LED Colour	Lens Colour	Voltage	Mount	Warranty
MTN2-001-BC	Blue	Clear	11-32VDC	2 Bolt	2 years
MTN2-001-AC	Amber	Clear	11-32VDC	2 Bolt	2 years
MTN2-001-BB	Blue	Blue	11-32VDC	2 Bolt	2 years
MTN2-001-AA	Amber	Amber	11-32VDC	2 Bolt	2 years
MTNM-001-BC	Blue	Clear	11-32VDC	Magnetic	2 years
MTNM-001-AC	Amber	Clear	11-32VDC	Magnetic	2 years
MTNM-001-BB	Blue	Blue	11-32VDC	Magnetic	2 years
MTNM-001-AA	Amber	Amber	11-32VDC	Magnetic	2 years
MTNS-001-BC	Blue	Clear	11-32VDC	Suction Cup	2 years
MTNS-001-AC	Amber	Clear	11-32VDC	Suction Cup	2 years
MTNS-001-BB	Blue	Blue	11-32VDC	Suction Cup	2 years
MTNS-001-AA	Amber	Amber	11-32VDC	Suction Cup	2 years

Features and Benefits



- Ultra-bright latest generation LED's
- Ultra-strong UV stabilised polycarbonate lens
- Lens colour options: amber, blue and clear
- Low current draw: 2.4 amps max at 12VDC
- Synchronisation capability with other Redtronic products
- Dekra Speed Rating: 153mph (246.2km/h) mag mount
- Operating Temperature: -40 to +105°C
- Multiple mount options available
- R65 Class II approved blue and amber
- IP69K protection against dust & water ingress
- CAP168/ICAO airport flash
- EMC R10 compliant
- 11-32VDC operation
- 7 flash patterns
- Multi-function cigarette plug (mag and suction)
- 2 year warranty

Technical Information

Voltage Range (DC)	11-32VDC
Number of LEDs	24 LEDs
Amps / Current Peak Max	2.4 amps max at 12VDC
IP Rating	IP69K protection against dust & water ingress
Approval	ECE R65 Class II (blue and amber), ICAO / CAP168
Compliant	EMC R10
DEKRA Speed Rating	153mpg [246.2km/h] mag mount
DIM Mode	Yes (night & day)
Synchronisation	Yes with other Redtronic products
Weight (approx.)	1.35kg [2 bolt], 1.4kg (mag), 1.4kg (suction)
Operating Temperature	-40 to +105°C
Lens Material	Ultra-strong UV stabilised polycarbonate lens
Mounting	3 bolt, magnetic and suction cup (bracket available as a spare part)
Warranty	2 years

Flash Patterns

Pattern 1	Mega-flash
Pattern 2	Quad
Pattern 3	Triple
Pattern 4	Double
Pattern 5	Single
Pattern 6	Hyper flash
Pattern 7	CAP168 - unlock with Brown to +ve for 10 seconds

Cable Connections

Function	Cable Colour	Description
Standby power +ve	Red Wire	Standby power
Ground -ve	Black Wire	0v ground / earth
Power+ve	Green Wire	Powers primary colour
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 microbar to a vehicle battery / power source requires the **black wire** to be connected to the **negative** [-ve] terminal and the **red wire** and **green wire** to be connected to **positive** [+ve] terminal. Pattern and mode functions need to be set in the same manner. All Tornado microbars are set to double flash pattern as default before leaving the factory.

To set the alternate flash mode:

Connect the **red wire** and **green 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 microbar permanently. The microbar 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 microbar will extinguish for 5 seconds, after which the microbar will start a quick succession of flashes. Remove the **brown wire**, the microbar should now be flashing alternately to any minibars it synchronises with.

To set the flash pattern:

With the microbar 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 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 microbar will return to full brightness when the **blue wire** is disconnected.

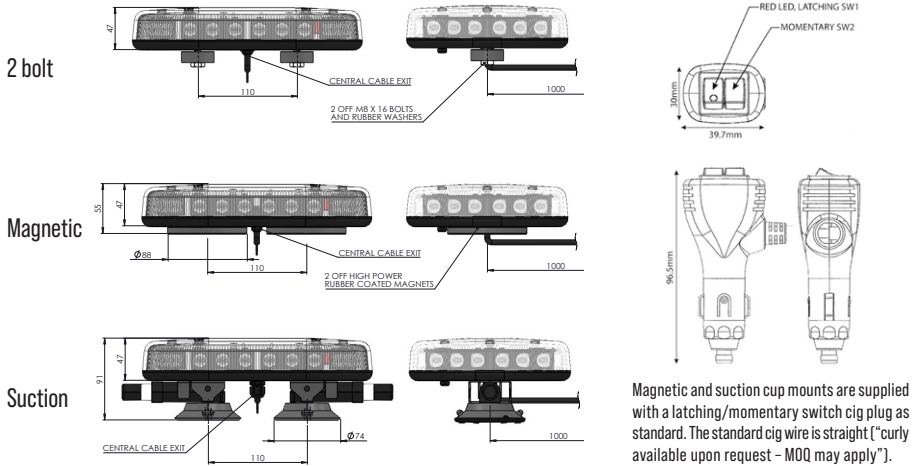
To synchronise lamps:

When the desired flash pattern and mode has been set, connect the **yellow wires** from each minibar together, this will ensure all minibars 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.

AutoDIM Module Installation

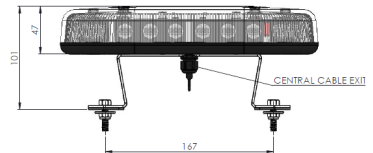
Please refer to the 'Tornado Microbar AutoDIM Module Installation' document.

Dimensions



Spare Parts

Part Number	Description
SP_TMBHP	High profile bracket
SP_TMBAD	Auto DIM PCB module
SP_TMBLENFT-C	Clear top lens
SP_TMBLENFT-A	Amber top lens
SP_TMBLENFT-B	Blue top lens
SP_MBSCB	Microbar carry bag



Dimensions of the microbar mounted on our high profile bracket - SP_TMBHP

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.

Cleaning and Maintenance

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