



TORNADO LED BEACON

Tornado V2.0 Beacon Datasheet



- Single bolt, magnetic, suction, pole & din mounts available
- Single (12 led) & dual (24 led) colour models available
- Available in blue, amber, red, green or white LED
- Ultra bright latest generation OSRAM LED's
- Wide angle FX optics, 360 degree visibility
- Dimensions: 154mm x 46mm (single bolt version)
- UV stabilised polycarbonate lens
- Multi-function cigarette plug
- 2 Year Warranty
- 11 – 30 volt operation
- Low current draw (1.7 amps max on 12v system)
- 9 flash patterns
- 2 modes for alternate or simultaneous flash
- Dim mode (night & day)
- Synchronisation with other Redtronic products
- Cruise feature (permanently illuminated on dim)
- IP66 Dust & Water resistant
- EMC/R10 compliant
- ECE R65 approved Class II (night & day mode)
- DEKRA speed approved (232.2kph / 146.76mph)
- Manufactured in the United Kingdom



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Description

The Redtronic™ Tornado beacon was first designed in 2012 and has taken the beacon industry by 'storm'. For the latest revision (V2.0) we have replaced the old frosted lens with a crystal clear lens which results in it now achieving ECE R65 class II in both blue and amber. With the addition of new high-power OSRAM LED's and Redtronic's unique FX optics you'll be amazed how bright this beacon is. The tornado beacon V2.0 is light-weight, powerful & reliable. Available in either single, dual or multi- colour.

Part Numbers				
PART NUMBER	LED COLOUR 1	LED COLOUR 2	LENS COLOUR	FIXING METHOD
TR12SBBC	BLUE	N/A	CLEAR	SINGLE BOLT
TR12SBBB	BLUE	N/A	BLUE	SINGLE BOLT
TR12MGBC	BLUE	N/A	CLEAR	MAGNETIC
TR12MGBB	BLUE	N/A	BLUE	MAGNETIC
TR12SCBC	BLUE	N/A	CLEAR	SUCTION
TR12SCBB	BLUE	N/A	BLUE	SUCTION
TR12PLBC	BLUE	N/A	CLEAR	POLE
TR12PLBB	BLUE	N/A	BLUE	POLE
TR12DNBC	BLUE	N/A	CLEAR	DIN
TR12DNBB	BLUE	N/A	BLUE	DIN
TR12SBAC	AMBER	N/A	CLEAR	SINGLE BOLT
TR12SBAA	AMBER	N/A	AMBER	SINGLE BOLT
TR12MGAC	AMBER	N/A	CLEAR	MAGNETIC
TR12MGAA	AMBER	N/A	AMBER	MAGNETIC
TR12SCAC	AMBER	N/A	CLEAR	SUCTION
TR12SCAA	AMBER	N/A	AMBER	SUCTION
TR12PLAC	AMBER	N/A	CLEAR	POLE
TR12PLAA	AMBER	N/A	AMBER	POLE
TR12DNAC	AMBER	N/A	CLEAR	DIN
TR12DNAA	AMBER	N/A	AMBER	DIN
TR12SBRC	RED	N/A	CLEAR	SINGLE BOLT
TR12SBRR	RED	N/A	RED	SINGLE BOLT
TR12MGRC	RED	N/A	CLEAR	MAGNETIC
TR12MGRR	RED	N/A	RED	MAGNETIC
TR12SCRC	RED	N/A	CLEAR	SUCTION
TR12SCRR	RED	N/A	RED	SUCTION
TR12PLRC	RED	N/A	CLEAR	POLE
TR12PLRR	RED	N/A	RED	POLE
TR12DNRC	RED	N/A	CLEAR	DIN
TR12DNRR	RED	N/A	RED	DIN
TR24SBBAC	BLUE	AMBER	CLEAR	SINGLE BOLT
TR24MGBAC	BLUE	AMBER	CLEAR	MAGNETIC
TR24SCBAC	BLUE	AMBER	CLEAR	SUCTION
TR24PLBAC	BLUE	AMBER	CLEAR	POLE
TR24SBBRC	BLUE	RED	CLEAR	SINGLE BOLT
TR24MGBRC	BLUE	RED	CLEAR	MAGNETIC
TR24SCBRC	BLUE	RED	CLEAR	SUCTION
TR24PLBRC	BLUE	RED	CLEAR	POLE
TR3SB	MULTI-COLOUR		CLEAR	SINGLE BOLT
TR3MG	MULTI-COLOUR		CLEAR	MAGNETIC
TR3SC	MULTI-COLOUR		CLEAR	SUCTION
TR3PL	MULTI-COLOUR		CLEAR	POLE

Not found what you're looking for? Redtronic manufactures this product in blue, amber, red, green, white and many other colours in single and dual colour. Contact us to identify which part number you will require.



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Technical Information

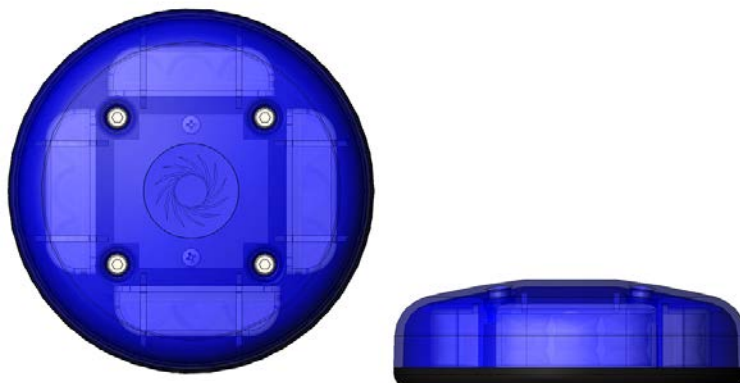
	Single Colour	Dual Colour	Multi Colour
Voltage Range (DC)	11 – 30v	11 – 30v	11 – 30v
Number of LEDs	12	24	36
LED Brand	OSRAM	OSRAM	LUMI LEDS
Led Power (Watts)	36	36/72	36/72
Light Output (Lumens)	Amber: 2745 Blue: 1905 Red: 2595 White: 4380 Green: 2910	Amber: 2745 Blue: 1905 Red: 2595 White: 4380 Green: 2910	Amber: 2745 Blue: 1905 Red: 2595 White: 4380 Green: 2910
Weight (Grams) Based on Mag-mount	Single bolt:570g Magnetic:661g Suction:841g Pole:1475g DIN:550g	Single bolt:570g Magnetic:661g Suction:841g Pole:1475g DIN:550g	Single bolt:570g Magnetic:661g Suction:841g Pole:1475g DIN:550g
'All on' - Current Draw (12v)	1.7 Amps	3.4 Amps	3.4 Amps
IP rating	IP 66	IP 66	IP 66
Approval	ECER65 Class II DEKRA SPEED TEST 232.2KPH/146.76MPH EMC	ECER65 Class II DEKRA SPEED TEST 232.2KPH/146.76MPH EMC	ECER65 Class II DEKRA SPEED TEST 232.2KPH/146.76MPH EMC
Warranty	2 Years	2 Years	2 Years

Flash patterns & cable colours

	Output 1	Output 2
	Red Cable	Orange Cable
Mega-Flash (simultaneous)	✓	✓
Quad (simultaneous)	✓	✓
Triple (simultaneous)	✓	✓
Double (simultaneous)	✓	✓
Single (simultaneous)	✓	✓
Hyper (simultaneous)	✓	✓
CAP168/Airport (60pm)	✓	✓
Rotate Slow (61pm)	✓	✓
Rotate Fast (122pm)	✓	✓

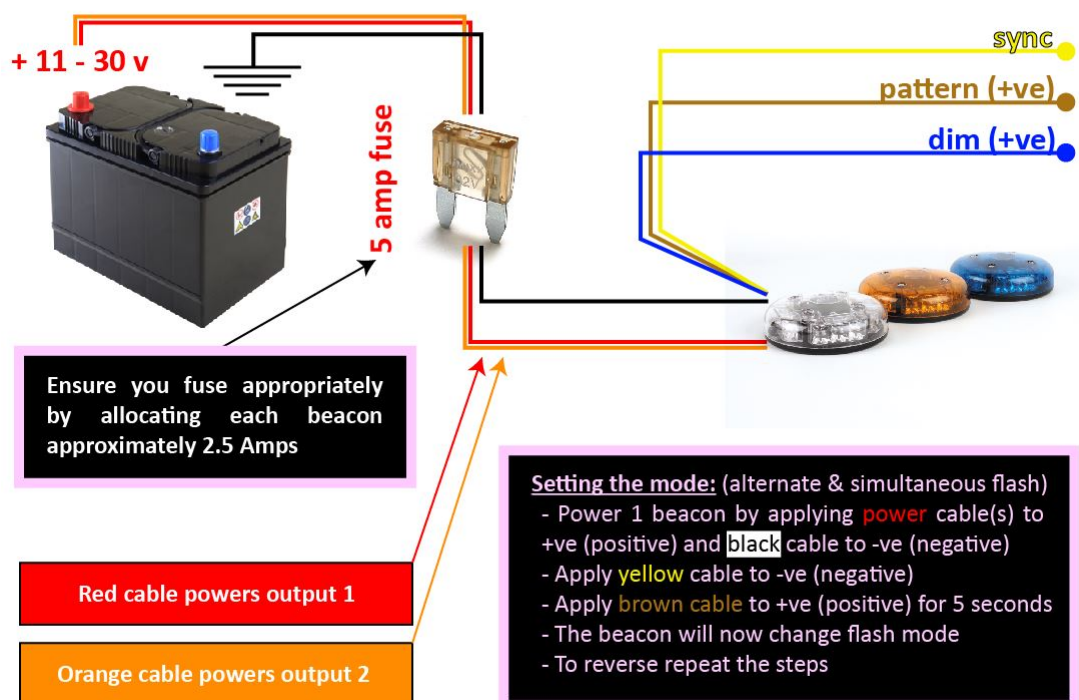
Dimensions (excluding fixing option)

Fixing Method	Diameter	Height
Single Bolt	154mm	45mm
Mag Mount	154mm	54mm
Suction Mount	154mm	101mm
Pole Mount	154mm	645mm (min) / 1045mm (max)
Din Mount	154mm	105mm





Installation diagram - Single Bolt



Installation instructions - Single Bolt

Connecting this lamp to a vehicle battery / power source requires the **black wire** to be connected to the **negative** (-) terminal, and the **red wire** to be connected to **positive** (+) terminal, which will be the red connection from the power source.

Note: Secondary colour options require the orange wire to be connected to the positive (+) connection on the power source. 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 lamps are set to dual flash pattern as default before leaving the factory.

Description of lamp wire functions:

Orange (optional): Powers the secondary colour LEDs (latching switch / +ve).

Brown: Sets the pattern function (momentary switch / +ve).

Blue: Sets the DIM (night mode) function (latching switch / +ve).

Yellow: Primarily used to synchronise lamps together, also sets the alternate flash mode and sets the 'steady burn' lamp function (latching / momentary / manual touch / -ve).

Alternate flash mode:

Wire up the **red** (+) and **black** (-) wires to positive (+) and negative (-) terminals on the power source.

After wiring up the positive and negative connections, hold the **yellow wire** (sync wire) to the **negative** terminal on the power source. **Note: Do not hold the yellow wire to the positive terminal, as this may damage the lamp permanently.** The lamp will turn from flashing to steady burn.

While holding the **yellow wire** on the negative terminal, hold the **brown wire** to the positive terminal. After 2 seconds, the lamp will extinguish for 5 seconds. After 5 seconds the lamp will start a quick succession of flashes. Remove the **brown wire**, the lamp should now be flashing alternately to any lamps it synchronises with.



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Set the flash pattern:

With the lamp powered on, the **brown wire** should be connected to positive (+) terminal from the power source momentarily, to change to the next pattern. Either touch the **brown wire** to positive briefly, or connect via a momentary switch and press to change pattern. Holding to +ve for 2 seconds will revert to flash pattern 1.

Set the DIM function:

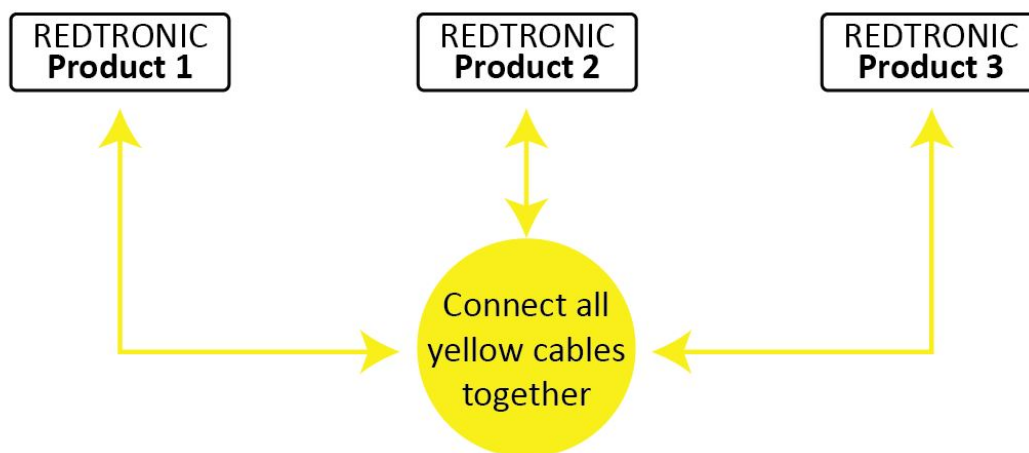
Connect the **blue wire** to positive (+) at the power source to enable DIM (night) mode. The **blue wire** needs a constant connection to (+) to operate in this mode. The lamp will return to full brightness when the wire is disconnected.

Permanently illuminate:

Connect the **yellow wire** to negative (-) at the power source to enable 'steady burn' mode. The **yellow wire** needs a constant connection to (-) to operate in this mode. The lamp will return to the set flash pattern when the wire is disconnected. **Note: Do not connect the yellow wire to the positive terminal, as this may damage the lamp permanently.**

Synchronise:

When the desired flash pattern and mode has been set, connect the **yellow wires** from each lamp together, this will ensure all lamps flash in synchronised format.



DO NOT APPLY YELLOW CABLES TO +VE (POSITIVE)
DO NOT ATTEMPT TO SYNC REDTRONIC LIGHTS WITH ANY OTHER MANUFACTURERS PRODUCTS

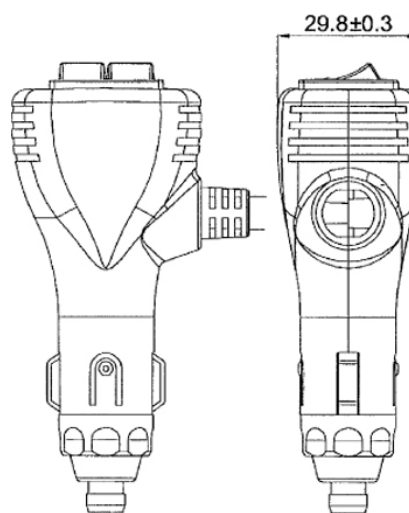
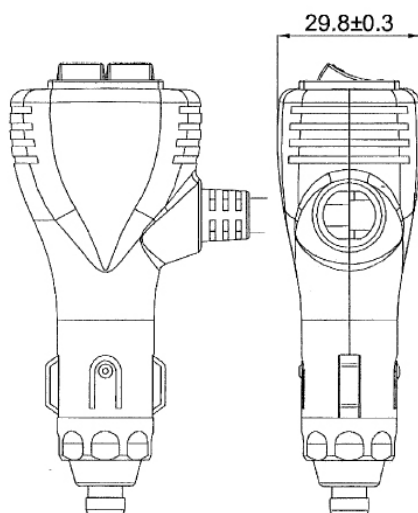
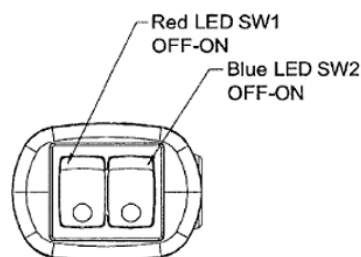
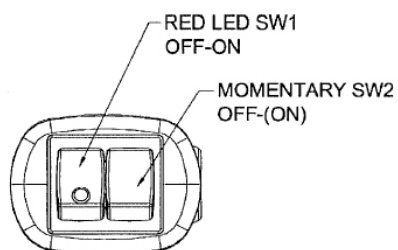
Ensure IP67 rated connectors are used to terminate all wiring. Failure to do so may invalidate the product warranty.



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Installation - Magnetic & suction cup mounts

Depending upon specification, the tornado beacon will be supplied with either of the following cigarette plugs. The latching-momentary cig plug is standard but when deviating from standard build we may need to provide a latching-latching or latching-latching-momentary cig plug.



Example standard cig plug configurations

Colour Option	Standard Cig Plug	Switch 1 (Latching)	Switch 2 (Momentary)
Single colour	EM173CGD	Function 1: Colour on/off	Pattern select
Dual Colour blue/red	EM173CGD	Function 1: Colours 1&2 on/off	Pattern select
Dual Colour (all colours <u>excluding</u> blue/red)	EM173CGD3	Function 1: Colour 1 on/off Function 2: Colour 2 on/off	Pattern select

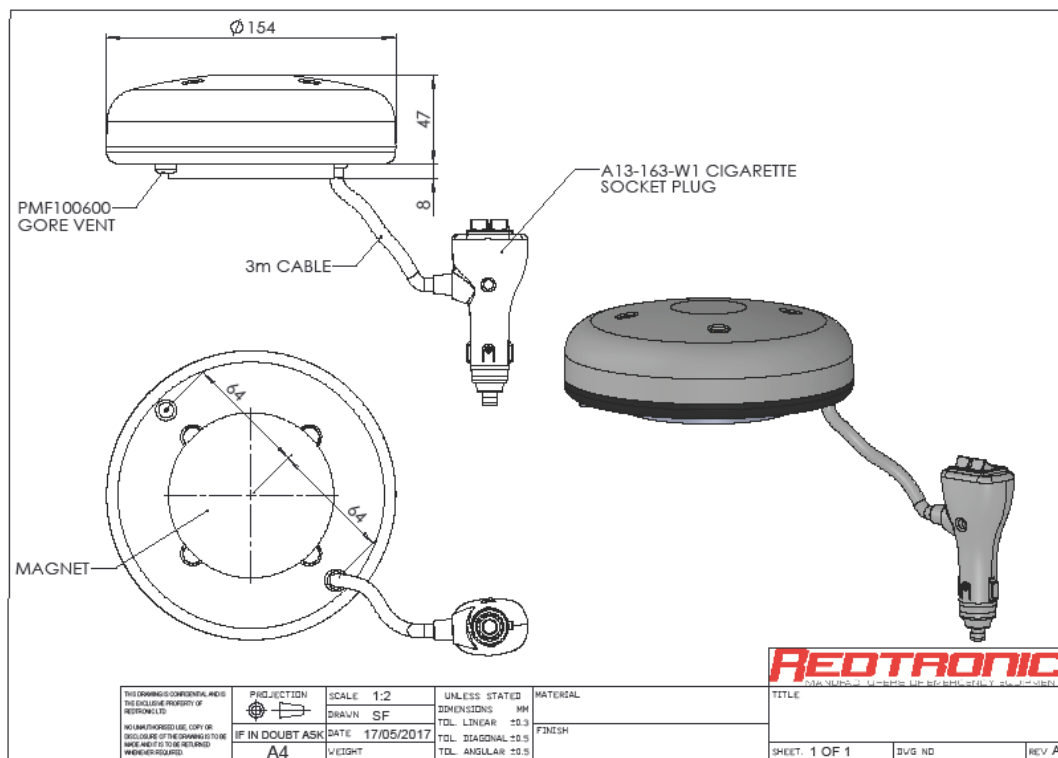
All beacons are provided with a pattern select switch as standard. It is possible to substitute the pattern select function (momentary switch) with another other feature such as dim mode. In this case we would supply a double latching cig plug switch but the beacon loses the option of altering its flash pattern. Example below.

Colour Option	Standard Cig Plug	Switch 1 (Latching)	Switch 2 (Latching)
Dual Colour	EM173CGD2	Function 1: Colour 1 on/off Function 2: Colour 2 on/off	Dim mode

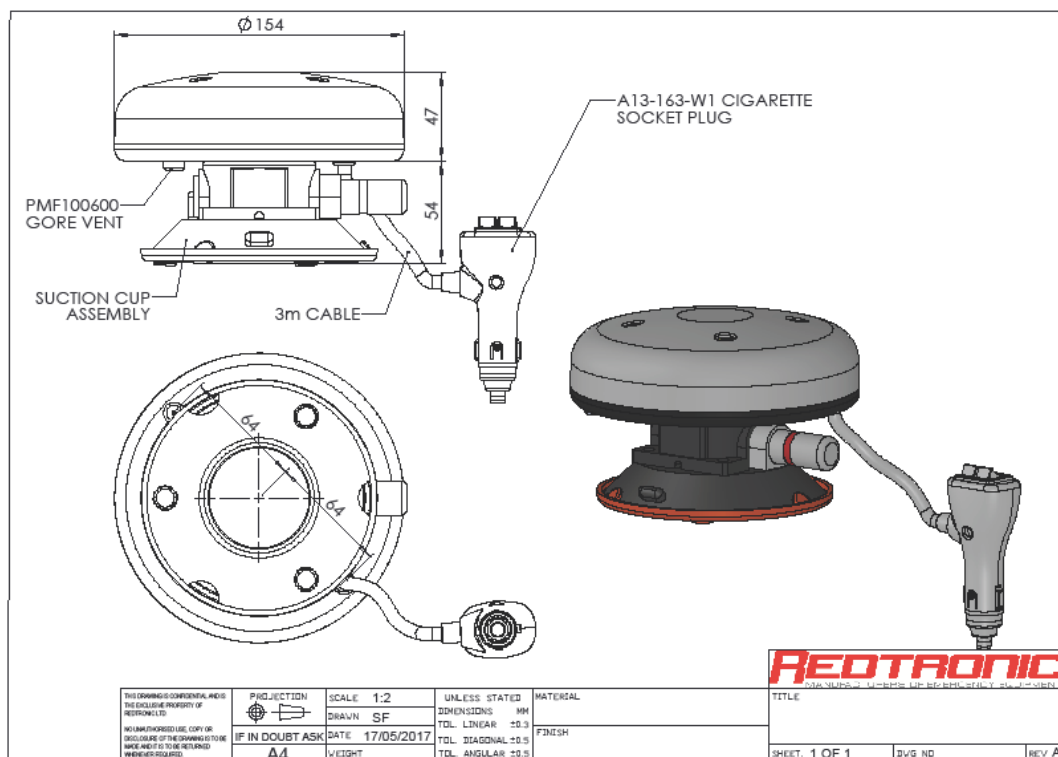


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Dimensions - Magnetic mount

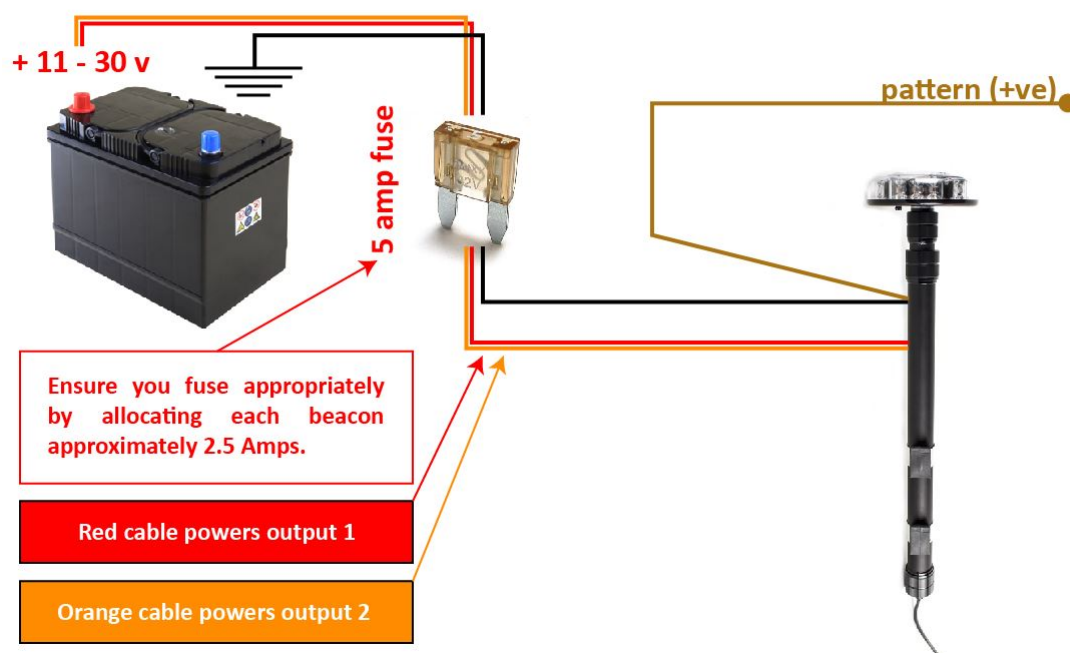


Dimensions - Suction mount

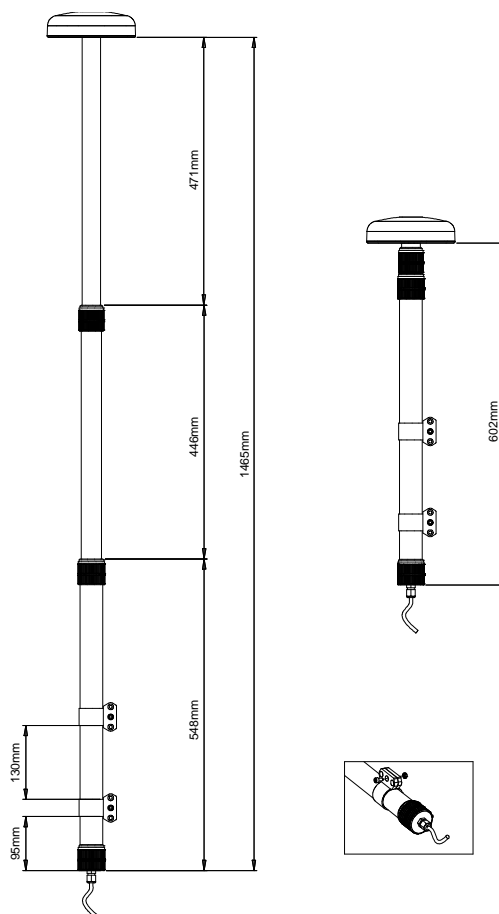




Installation – Pole mount

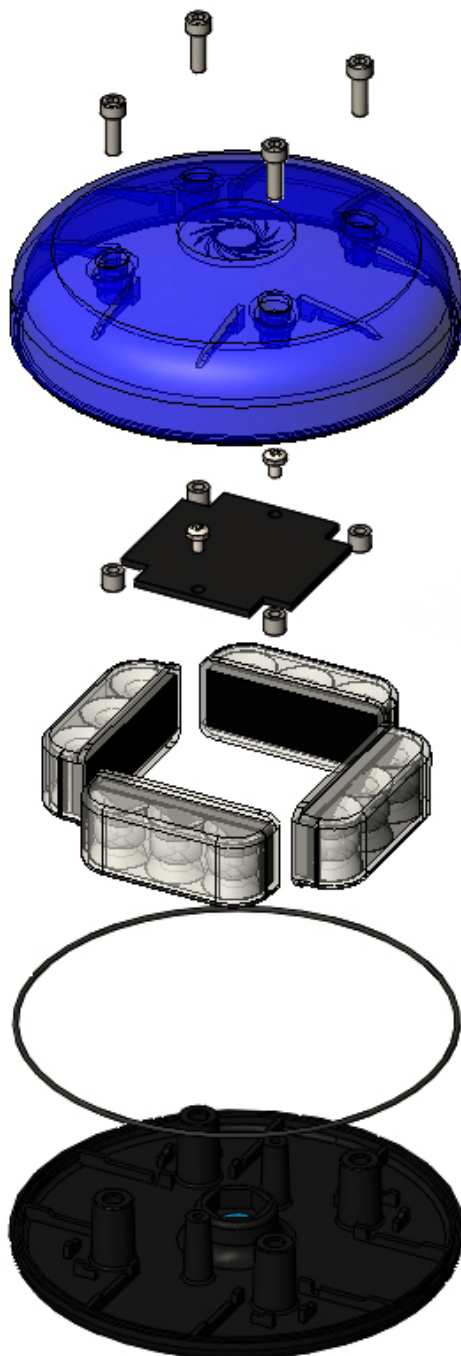


Dimensions – Pole mount





Exploded view



Associated datasheets

- Suction cup maintenance
- ECE R65 Class II approval
- DEKRA speed approval