



Bluefin Led Underwater lights.

P6N/P6CC Installation manual.

Thank you for choosing Bluefin LED underwater lights, our products have been designed and tested rigorously to ensure optimum performance and longevity.

All Bluefin Led lights are water tested so please be aware there may be moisture present on the light.

If you have ordered the Aluminium (A) option please be aware that these have been **Hard PTFE Anodised** to form a corrosion resistant coating. Please take care not to damage this coating when installing the light. These lights can be used on **Aluminium hulls** all other options are for fibre glass hulls only and **not to be mounted to any Metal hull or your warranty will be void.**

Please ensure that your product is installed as per our instructions below, failure to do so may invalidate your warranty.

Specs: electrical/fuse ratings

	Voltage	Current	Fuse rating
Piranha P6N 12v	12V	12v 3.5 amp	5amp
Piranha P6N 24v	24V	24v 1.8 amp	3amp
Piranha P6CC	12/24V ONLY	12v4 amp 24v2 amp	8amp

Warnings:

- Do not attempt to install the lights whilst the boat is in the water.
- Ensure that the correct voltage is used for the light.
- Ensure that the in-line fuse is installed with the correct fuse rating per the light installed.
- Ensure that you use the Screws provided with the o-ring fitted and only hand tightened **(failure to do so will invalidate your warranty).**



- Do not use power tools to screw the lights to the hull.
- Ensure that the supplied gel connector is used to make a watertight connection or your **warranty will be Void.**
- **Do not remove the inline HYDRO LOCK or your warranty will be void.**
- Do not hold the light by the cable.
- Do not use abrasives on the lenses.
- Do not look directly into the light at close proximity
- Lights must be mounted a minimum of 300mm from any Anodes.
- Do not mount lights directly underneath Anodes.
- As Galvanic currents & corrosion are external factors any type of damage caused by galvanic affects are not covered by BluefinLEDs warranty policy.

Tools required for installation:

- 2.5mm(3/32") drill bit
- 15mm(19/32") drill bit
- Drill
- Posi head hand screwdriver
- Marine sealant 3M 5200/4000UV, Sika flex 291i or equivalent (**do not use 3M 4200**)

Installation:

For optimum affect effect the light should be positioned between 8-12" (200-300mm) below the water line and at a 90 deg angle. Recommended spacing from 1-8"(0.5mtr) to 3-11" (1.2mtrs) between the lights.

Please use the card template for drilling of holes.

Drill a 15mm (19/32") hole for the cable access through the hull, ensuring that there are no obstructions internally in the hull.

Drill 2.5mm (3/32") pilot holes to match the mounting holes on the light. (Within the packaging there is a mounting template for drilling these holes)

Key the area to where the light is to be mounted with abrasive sand paper to ensure there is a clean area for the marine sealant to bond to.

Apply marine sealant to the rear of the light on the circumference of the light and around the base of the cable gland to ensure a complete continuous bead of sealant is applied in both areas. (see fig 2)

Feed the cable through the hole and mount the light to the hull using the **screws provided**.

Wipe off any excess sealant and ensure the light is seated correctly without any gaps in the sealant. (It is good practice to have excess marine sealant to clean off as this will help assure a water tight seal to the hull)

Electrical connection:

Ensure you use the IP68 GEL CONNECTOR supplied to connect to the boats wiring or you Warranty will be void (fig 4/5).

You will notice an inline HYDRO LOCK attached to your cable (Fig 1). If this is removed your warranty will be void.

Care should be taken when planning your electrical feeds/cables to the lights so as to ensure voltage drop between the batteries or power supply is minimised, on 12V systems this is especially important as the lower system voltage means a high current requirement which in turn means the potential for more voltage drop in the cable runs & connections.

If the cable gauge & connections are not sufficient for the lighting load attached you may experience incorrect operation of the lights & intermittent illumination as the supply dips below specification.

Please see the wire gauge guide attached to the instruction manual.

For help with calculations always consult with a qualified professional or contact Bluefin LED directly.

Attach the light cable to the VDC power on the boat ensuring that you use the in line fuse supplied connected to the positive(red) wire, ensure that you use the heat shrink provided to create a water tight fit into the fuse holder. (see fig 3)

P6CC Only

When installing P6CC lights it is advised to wire the lights up to a single switch so that all of the lights operate in sequence with each other. It is also advised that you choose an appropriate switch that has the correct power rating for the amount of lights being installed (please see the P6CC current values above).

Fig 1



Fig 2

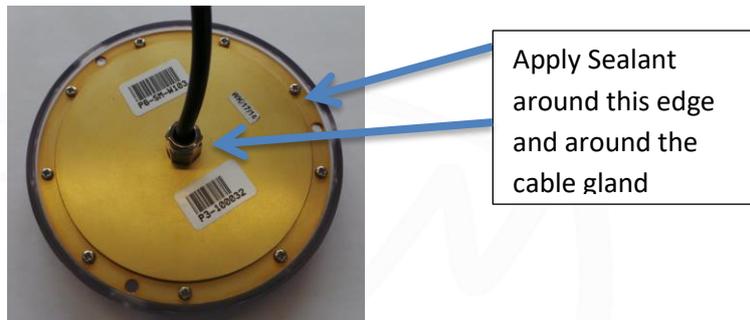


Fig 3

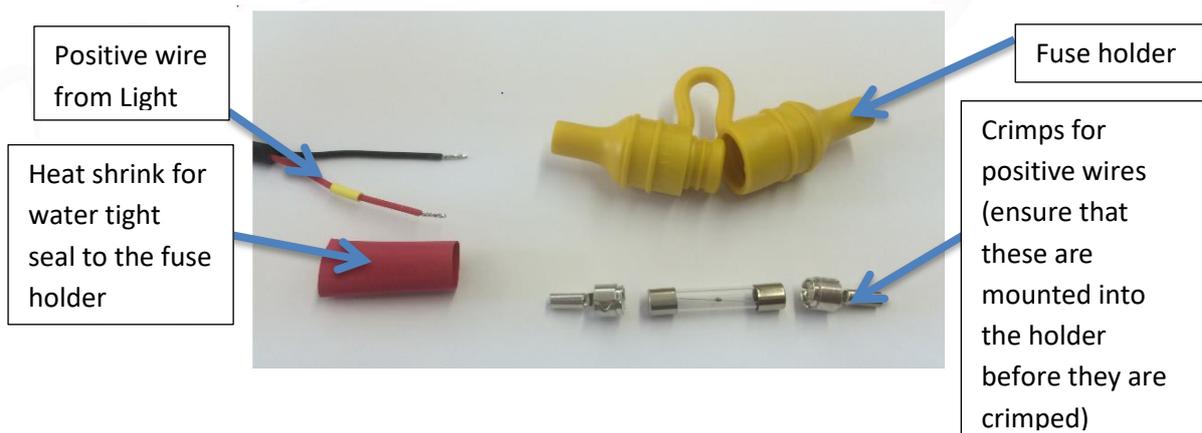


Fig 4 showing how the Gel connector is wired up.

Fig 5 showing how the finished Gel connector should look when finished.

The IP68 GEL CONNECTOR MUST BE INSTALLED OR YOU WARRANTY WILL BE VOID.

Fig 4

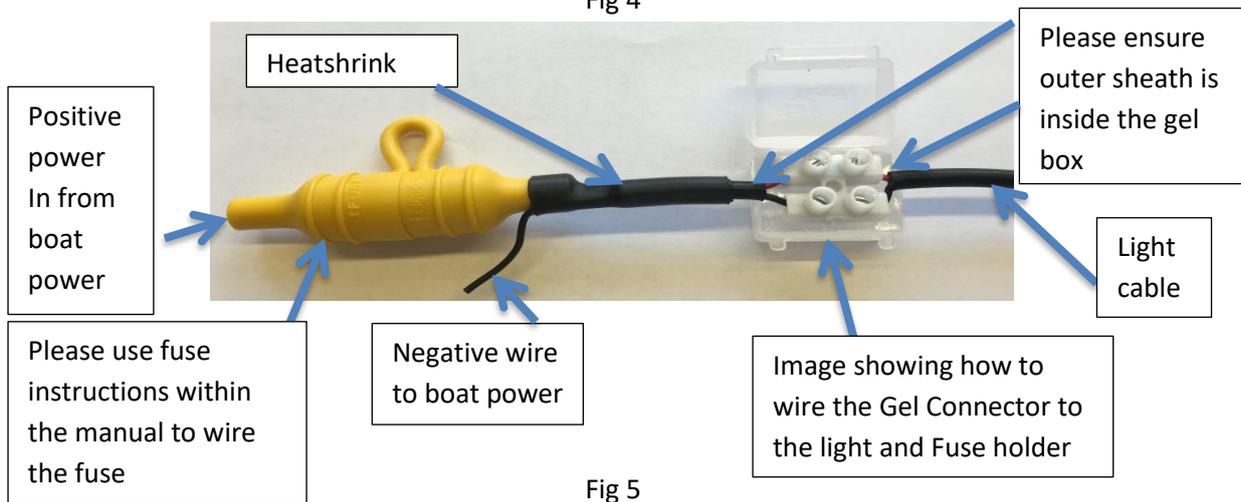


Fig 5



Testing:

Test the light before installation ensuring that you use the correct voltage and the light is illuminated correctly.

After installation ensure again that the light is illuminated correctly before the boat goes back into the water and the lens label is removed.

After you boat goes back into the water check internally for water ingress around where the light is installed.

P6N (Nitro) Operation

1. When first turned on the light will start up in standard power mode, if you turn the light off and on again quickly it will then go to Nitro power mode. If you turn the light off and on again quickly it will return to standard power mode.
2. When the light is turned off for more than 5 secs it will return to standard mode.
3. Nitro power mode increases the lighting power by up to 40% which will stay at this power until the temperature of the light hits a certain level at which time the light will dim back to standard power mode. The length of time this takes is dependent on the surrounding temperature conditions.
4. As a guide the light should be able to stay in Nitro mode for around ten minutes upwards (THIS IS ONLY A GUIDE DEPENDANT ON THE CONDITIONS THE LIGHT IS EXPERIENCING)

The light has internal indicator LED's for fault finding, these are as follows:

- Over voltage will flash red.(check the voltage to the light)
- Under voltage will show a constant red. (check the voltage to the light)
- Over temperature will show amber.(allow the light to cool down and check if submerged)

P6CC (Colour change) Operation.

1. When powered up for the first time or from reset, the light will appear in white and scroll through the colour range and keep scrolling until stopped by any of the steps below.

2. To pick a particular colour turn the light off and then on again quickly and the chosen colour will be selected (approx. 1 Sec power cycle, this may take a little practice as too fast or slow will not detect).
3. If you switch off and on again quickly for the second time the light will start to strobe.
4. Switch off the light and leave for over 5 seconds, when the light is switched back on the light will reset back in the white mode.
5. When the light colours become out of sync simply repeat step 4 to re-set to initial colour cycle mode, the more lights installed this process may need to be more frequently repeated.

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- Over voltage will flash red.(check the voltage to the light)
- Under voltage will show a constant red. (check the voltage to the light)
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Maintenance:

Regularly check the installation for water ingress.

Only clean the light with a soft bristle brush.

Warranty:

For any warranty issues please contact your point of sale retailer or go to www.bluefinled.com for further advice.

Bluefin LED LTD warrants the lights/hardware it manufactures and produces to be free from defects in workmanship and materials for a period of two years, starting from the date of original purchase, as recorded on the sales receipt.

The warranty is non-transferable and limited to the original purchaser of the product. During the two year warranty period Bluefin LED will repair or replace the defective item (at its option) at no additional charge on a "like for like" basis. Products either repaired or replaced under this warranty shall only be warranted for the unexpired portion of the warranty applying to the original product(s).

Bluefin LED is not responsible for labour charges to remove or replace lights or for haul-out fees. No refunds will be given.

This limited warranty does not extend to any products which have been damaged as a result of misuse, abuse, improper installation/modification, galvanic corrosion, failure to follow and adhere to installation instructions provided by Bluefin LED, improper shipping, neglect, damage caused by disasters such as fire, flood, lightning "acts of god", installation by unqualified personnel.

Installer please ensure that the SERIAL NUMBERS of the lights are written below and the manual is handed over to the end user.

Please make a note of the serial numbers of the lights here.

SERIAL NUMBERS

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Bluefin LED

Cottage Farm, Cottage Lane,
Norton Juxta Twycross, Atherstone. CV9 3QH

Tel: 01827 880450

Email: info@bluefinled.com

Registered Address: Square Rig Limited, t/a Bluefin Led, Cottage Farm, Cottage Lane, Norton Juxta Twycross, Atherstone, CV9 3QH

Company Registration Number: 08871451 **VAT Number:** 179 2690 64



Wire Gauge selection guide using information from ABYC E-11 & US Coast Guard guidelines for marine electrical installations

Circuit Type		Current flow in Amps										
10% V Drop Low-Power Non Critical (P series Single colour)	3% V Drop High-Power/Critical (H, S & GW Plus colour change Series)	5A	10A	15A	20A	25A	30A	40A	50A	60A		
20ft	6m	16 AWG	16AWG	14AWG	14AWG	12AWG	10AWG	10AWG	8AWG	10mm CSA	6AWG	6AWG
30ft	9m	10ft CSA	14AWG	12AWG	12AWG	10AWG	6mm CSA	8AWG	6AWG	16mm CSA	25mm CSA	6AWG
50ft	15m	15ft 5m	12AWG	10AWG	10AWG	6mm CSA	6mm CSA	6AWG	6AWG	16mm CSA	6AWG	25mm CSA
65ft	20m	20ft 6m	14AWG	10AWG	8AWG	10mm CSA	10mm CSA	6AWG	6AWG	25mm CSA	4AWG	4AWG
80ft	24m	25ft 8m	12AWG	10AWG	8AWG	6mm CSA	6mm CSA	6AWG	6AWG	16mm CSA	4AWG	4AWG
100ft	30m	30ft 9m	2.5mm CSA	6mm CSA	8AWG	10mm CSA	10mm CSA	6AWG	6AWG	25mm CSA	4AWG	4AWG
130ft	40m	40ft 12m	10AWG	8AWG	6AWG	10mm CSA	10mm CSA	6AWG	6AWG	40mm CSA	2AWG	2AWG
165ft	50m	50ft 15m	10AWG	8AWG	6AWG	16mm CSA	16mm CSA	6AWG	6AWG	40mm CSA	2AWG	2AWG
200ft	61m	60ft 18m	4mm CSA	10mm CSA	6AWG	25mm CSA	25mm CSA	6AWG	6AWG	70mm CSA	2 0AWG	2 0AWG
	70ft 21m	8AWG	6AWG	4AWG	4AWG	4AWG	4AWG	2AWG	2AWG	70mm CSA	1AWG	1AWG
	80ft 24m	4mm CSA	6AWG	4AWG	2AWG	2AWG	2AWG	1AWG	1AWG	70mm CSA	0AWG	0AWG
	90ft 27m	4mm CSA	4AWG	2AWG	2AWG	2AWG	2AWG	1AWG	1AWG	70mm CSA	0AWG	0AWG
	100ft 30m	6mm CSA	4AWG	2AWG	2AWG	2AWG	2AWG	1AWG	1AWG	70mm CSA	0AWG	0AWG
	110ft 34m	6mm CSA	4AWG	2AWG	2AWG	2AWG	2AWG	1AWG	1AWG	70mm CSA	0AWG	0AWG
	120ft 37m	6mm CSA	4AWG	2AWG	2AWG	2AWG	2AWG	1AWG	1AWG	70mm CSA	0AWG	0AWG
	130ft 40m	6mm CSA	4AWG	2AWG	2AWG	2AWG	2AWG	1AWG	1AWG	70mm CSA	0AWG	0AWG

To use for BluefinLED underwater lights select the appropriate current Column for you lights, power & quantity from the top row.

then the cable distance run in one direction i.e. from panel or batteries to the light placement or group.

Then at the point the Column & row crosses read the cable suggestion in US or EU gauges for your installation.

Failure to install the correct power feeds may invalidate your warranty, if in doubt please consult with BluefinLED or a qualified professional.