

Bluefin Led Underwater lights.

B12/B12CC Installation manual.

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

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

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
Barracuda	12/24v only	12v4.6amp 24v2amp	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 an in line fuse is installed with the correct fuse rating per the light installed.
- Ensure that you use the Screws provided (**failure to do so will invalidate your warranty**).



- Ensure all connections are made water tight.
- Do not remove the Inline Moisture Guard.
- 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

Tools required for installation:

- 2.5mm(3/32") drill bit
- 15mm(19/32") drill bit
- Drill
- Posi head hand screwdriver
- Marine sealant 3M 4200 or equivalent

Installation:

Before installation please ensure the red line is horizontal (the label is fitted to the face of the light), this is to ensure you install the light perpendicular to the water line. Ensure that all lights are fitted the same. If the lights are not all orientated the same way the light will not appear even (different angles) in the water (see fig 5)

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 3-3"(1mtr) to 5-11" (1.8mtrs) between the lights.

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 too.

Apply marine sealant to the rear of the light into the channel around the circumference of the light ensuring that the channel is completely filled above the base 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 1)

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 can ensure that there is a water tight seal to the hull)

Electrical connection:

Only attach the light cable to a waterproof connection or junction box, the cable must have a watertight connection otherwise your **warranty will be void**.

You will notice an inline moisture guard attached to your cable (Fig 2). If this guard 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 undersize and insufficient for the load you may experience incorrect operation of the lights & intermittent illumination.

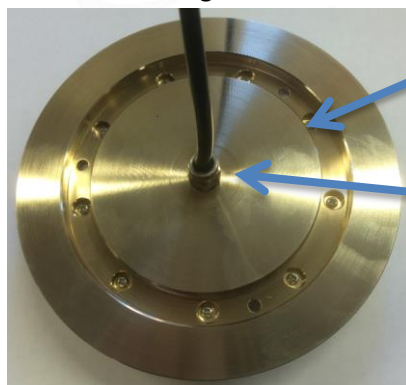
Please see the wire gauge guide attached to the instruction manual.

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)

When installing B12 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.

Fig 1

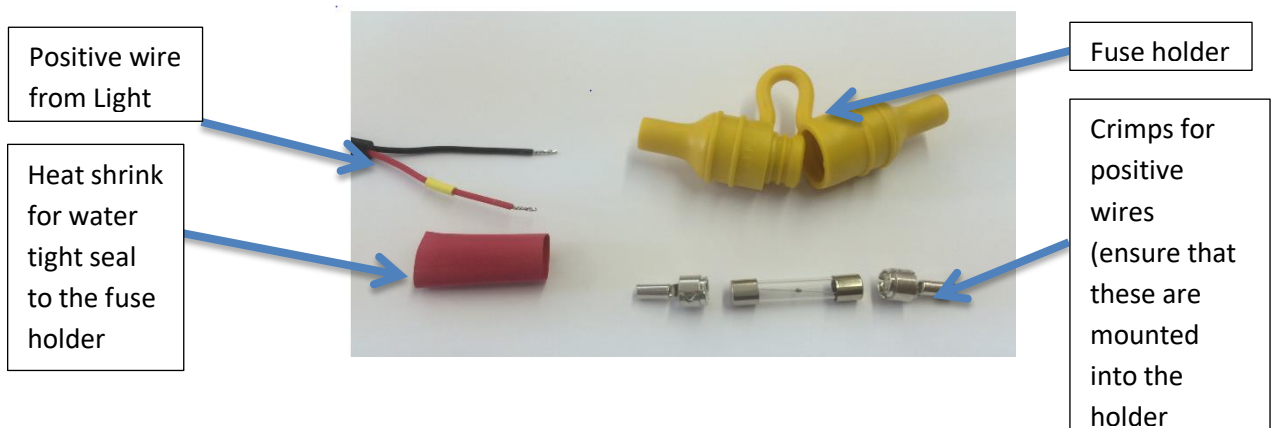


Apply Sealant into the channel ensuring that it is fully filled above the channel. Also apply a bead of sealant around the cable gland

Fig 2



Fig 3



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 has been installed.

B12 Operation.

1. When powered up for the first time or from reset the light will turn on in static mode.
2. Turn off and on again quickly light will start to **Strobe Mode** (FLASH).
3. Turn on and off again for the second time the light will select **Wave Mode** (light scrolls from side to side).
4. When you turn off the light and leave for over 5 seconds when turned on again the light will return to the start position.

The light has internal indicator LED 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)

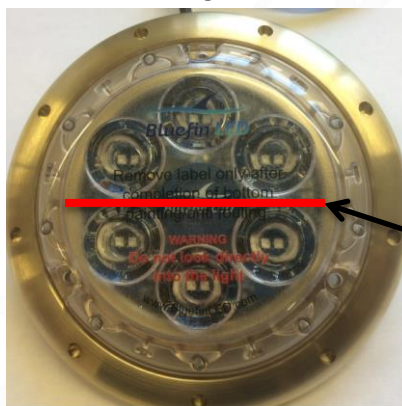
Note: The light is designed to allow water into the outer cavity to assist cooling (see Fig 4), this is a design feature and water will not enter past this area into the light.

Fig 4



Water will enter this area.

Fig 5



Ensure Red line is Horizontal to the waterline

Maintenance:

Regularly check the installation for water ingress.

Only clean the light with a soft bristle brush.

Warranty:

Your product has a 2 year limited warranty for manufacturing defects.

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

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 Underwater lights. YOU MUST INSTALL THIS GEL CONNECTOR OR YOUR WARRANTY WILL BE VOID !!!

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

Please ensure that your product is installed as per our instructions below, failure to do so **WILL INVALIDATE YOUR WARRANTY.**

Use these instructions in conjunction with the light instructions to ensure that all is fitted correctly.

Warnings:

- Do not attempt to install the lights whilst the boat is in the water.

Installation:

Fig 1 showing how the Gel connector is wired up. Please use the instructions supplied with the Gel Connector kit.

Fig 2 showing how the finished Gel connector should look when finished.

Ensure that the black outer sheath is inside the gel connector.

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

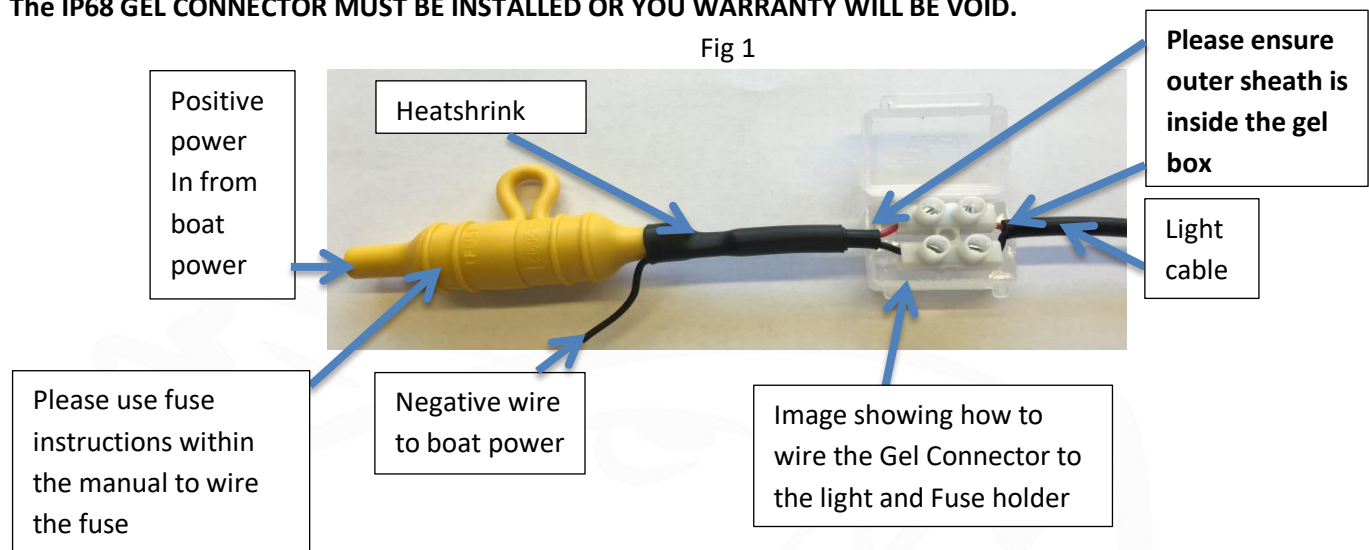


Fig 2



Bluefin LED

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

Sales - Tel: 07950 909048

Service - Tel: 01827 880450

Administration - Tel: 01827 880450

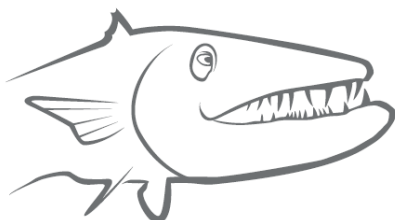
Registered Address: Square Rig Limited, t/a Bluefin Led, Cottage Farm, Cottage Lane, Norton Juxta Twycross, Atherstone, CV9 3QH

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Bluefin LED
Underwater Lighting

		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	25mm CSA
30ft	9m	10ft	14AWG	12AWG	12AWG	10AWG	8AWG	8AWG	6AWG	16mm CSA	16mm CSA	25mm CSA	6AWG
50ft	15m	15ft	12AWG	10AWG	10AWG	8AWG	6AWG	6AWG	6AWG	16mm CSA	16mm CSA	16mm CSA	25mm CSA
65ft	20m	20ft	14AWG	12AWG	10AWG	10AWG	8AWG	6AWG	6AWG	16mm CSA	16mm CSA	16mm CSA	25mm CSA
80ft	24m	25ft	12AWG	10AWG	10AWG	8AWG	6AWG	6AWG	6AWG	16mm CSA	16mm CSA	16mm CSA	25mm CSA
100ft	30m	30ft	10AWG	8AWG	8AWG	6AWG	6AWG	6AWG	6AWG	16mm CSA	16mm CSA	16mm CSA	25mm CSA
130ft	40m	40ft	8AWG	6AWG	6AWG	6AWG	6AWG	6AWG	6AWG	16mm CSA	16mm CSA	16mm CSA	25mm CSA
165ft	50m	50ft	6AWG	6AWG	6AWG	6AWG	6AWG	6AWG	6AWG	16mm CSA	16mm CSA	16mm CSA	25mm CSA
200ft	61m	60ft	4AWG	4AWG	4AWG	4AWG	4AWG	4AWG	4AWG	16mm CSA	16mm CSA	16mm CSA	25mm CSA
		70ft	21m	21m	21m	21m	21m	21m	21m	16mm CSA	16mm CSA	16mm CSA	25mm CSA
		80ft	24m	24m	24m	24m	24m	24m	24m	16mm CSA	16mm CSA	16mm CSA	25mm CSA
		90ft	27m	27m	27m	27m	27m	27m	27m	16mm CSA	16mm CSA	16mm CSA	25mm CSA
		100ft	30m	30m	30m	30m	30m	30m	30m	16mm CSA	16mm CSA	16mm CSA	25mm CSA
		110ft	34m	34m	34m	34m	34m	34m	34m	16mm CSA	16mm CSA	16mm CSA	25mm CSA
		120ft	37m	37m	37m	37m	37m	37m	37m	16mm CSA	16mm CSA	16mm CSA	25mm CSA
		130ft	40m	40m	40m	40m	40m	40m	40m	16mm CSA	16mm CSA	16mm CSA	25mm CSA

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.