Bluefin Led Underwater lights.

Firefly Flood Light FB/FF/FR Installation manual.

Thank you for choosing Bluefin LED lights, our products have been designed and tested rigorously to ensure optimum performance and longevity.
As these lights are highly polished please be careful on installation not to scratch the lights as they will mark easily.
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
Flood light	12/24VDC	12v 850ma/24v 420ma	3 amp

Warnings:

- 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 use the Screws provided.
- Ensure all connections are made water tight.
- Do not hold the light by the cable.
- Do not use abrasives to clean the light.
- Do not look directly into the light at close proximity

Tools required for installation:

- 3.5mm (9/64”) and 5mm drill bit for Bracket mounted option.
- 3mm and 8mm drill bit for surface mounted option
- 3mm drill bit and multi tool cutter for recessed mounted option.
- Drill
- Posi head hand screwdriver

Installation:

Bracket mounted option Fig 1

Choose the location for the bracket flood light to be mounted, use the bracket as a template for the screw holes and drill two holes using a 3.5mm drill.
Mount the bracket using the two supplied screws.
You will notice single larger hole in the centre of the bracket, this is for the cable to be passed through if necessary. Please be careful not to bend the cable at the light end. The cable dia is 5mm for the cable to be passed through the structure being mounted too.
Adjust the angle of the light and lock in place using a 3mm Allen key on the two side bolts.

Surface mount option Fig 2

Choose the location for the surface flood light to be mounted, use the two holes on the light as a template for the screw holes and drill the two holes using a 3mm drill.
Drill an 8mm hole central for the cable access to be passed through..
Mount the Light using the two supplied screws.

Recessed mounted option Fig 3

Cut a rectangular hole for the recessed Flood light at 121mm x 56mm using a multi tool with the appropriate cutter for the material. Place the Light into the hole and mark and drill the four screw holes using a 3mm drill.

Screw the light in place using the four screws provided.

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**.

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.

Fig 1



Fig 2

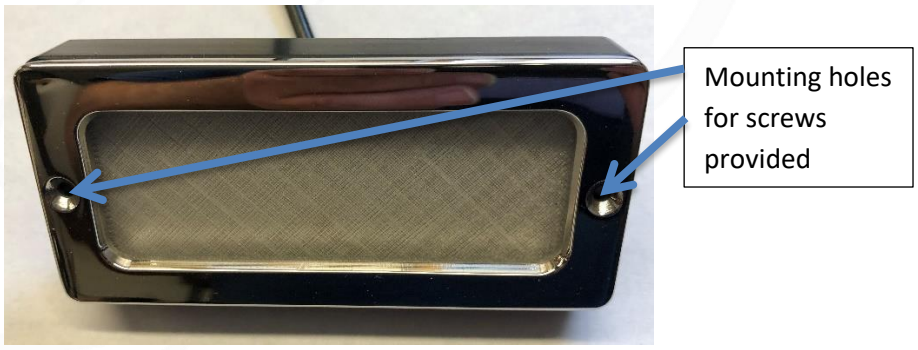
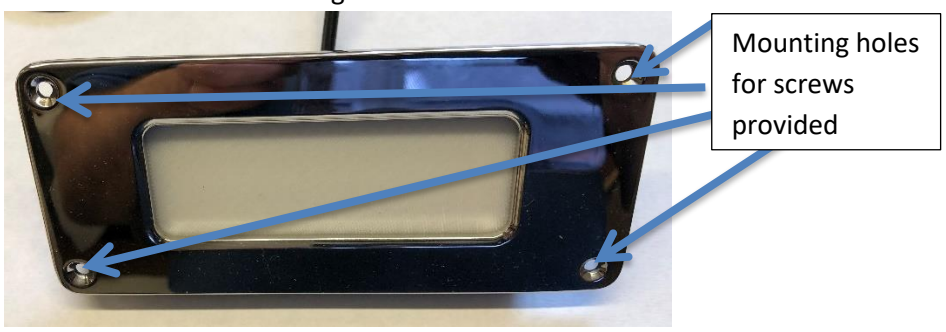


Fig 3



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.

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)

Maintenance:

Only clean the light with a clean soft cloth.

Do not use anything abrasive to clean the light.

Warranty:

Your product has a 2-year limited warranty for 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

Bluefin LED
Cottage Farm, Cottage Lane,
Norton Juxta Twycross, Atherstone. CV9 3QH
Sales - Tel: 07950 909048 **Email:** simon.steadman@bluefinled.com
Service - Tel: 01827 880450 **Email:** mark.branson@bluefinled.com
Administration - Tel: 01827 880450 **Email:** samantha.barrie@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**

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	6ft	2m	16 AWG	1.5mm CSA	16AWG	2.5mm CSA	14AWG	4mm CSA	14AWG	4mm CSA	12AWG	4mm	10AWG	6mm CSA	8AWG	10mm CSA	6AWG	16mm CSA	6AWG	25mm CSA
30ft	9m	10ft	3m			14AWG		12AWG		12AWG		10AWG	6mm								
50ft	15m	15ft	5m			12AWG	4mm CSA	10AWG	6mm CSA	10AWG	6mm	8AWG	10mm CSA	8AWG	10mm	6AWG	16mm CSA	4AWG	25mm CSA	4AWG	40mm CSA
65ft	20m	20ft	6m	14AWG	2.5mm CSA	10AWG	6mm CSA			8AWG	10mm CSA										
80ft	24m	25ft	8m	12AWG				8AWG	10mm CSA	6AWG	16mm CSA	6AWG	16mm CSA	6AWG	16mm CSA	4AWG	25mm CSA	2AWG	40mm CSA	2AWG	70mm CSA
100ft	30m	30ft	9m			8AWG	10mm CSA													1AWG	
130ft	40m	40ft	12m	10AWG				6AWG	16mm CSA			4AWG	25mm CSA	4AWG	25mm CSA	2AWG	40mm CSA	1AWG	70mm CSA	0AWG	
165ft	50m	50ft	15m		4mm CSA	6AWG	16mm CSA			4AWG	25mm CSA										
200ft	61m	60ft	18m					4AWG	25mm CSA			2AWG	40mm CSA	2AWG	40mm CSA	1AWG	70mm CSA	0AWG		2|0 AWG	
		70ft	21m	8AWG		6AWG	25mm CSA			2AWG	40mm CSA			1AWG	70mm CSA	0AWG		2|0 AWG		3|0 AWG	
		80ft	24m					2AWG	40mm CSA			1AWG	70mm CSA	0AWG		2|0 AWG		3|0 AWG		4|0 AWG	
		90ft	27m			4AWG	40mm CSA			1AWG	70mm CSA	0AWG		2|0 AWG		3|0 AWG		4|0 AWG			
		100ft	30m	6AWG	6mm CSA																
		110ft	34m			2AWG															
		120ft	37m																		
		130ft	40m																		

To use for BluefinLED underwater lights select the appropriate current Colum 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 Colum & 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.