

# OceanLED

## **Ocean LED Marine LTD**

Unit 1 Jacknell Road  
Dodwells Bridge Industrial Estate  
Hinckley,  
Leicestershire LE10 3BS  
United Kingdom  
Tel: +44 (0) 1455 637505  
Fax: +44 (0) 1455 238553  
[sales@oceanled.com](mailto:sales@oceanled.com)



## **Ocean LED USA LLC**

778 South Military Trail  
Deerfield Beach  
Florida  
FL 33442-3025  
United States  
Tel: +1(954) 523-2250  
Fax: +1(954) 523-2249  
[sales@oceanledusa.com](mailto:sales@oceanledusa.com)

For full installation guide and  
warranty information, go to:  
**[www.oceanled.com/below-  
water/discover-d3](http://www.oceanled.com/below-water/discover-d3)**

or scan the QR code below:



© 2022 Ocean LED Marine LTD  
All Rights Reserved

Specifications are subject to  
change without notice.

Trademarks are the property of  
Ocean LED Marine LTD  
**[www.oceanled.com](http://www.oceanled.com)**

# OceanLED

## ***DISCOVER D3***

### **Quick Install Guide**

For full installation guide and warranty information, go to:

[www.oceanled.com/below-water/discover-d3](http://www.oceanled.com/below-water/discover-d3)

### **Contents**

Discover D3 LED Light & Cable

In-line fuse kit

Mounting Screws

Quick Install Guide



# WARNINGS

**Before installing your OceanLED Light, read and follow all warning notices and instructions which are included. Failure to follow safety warnings and instructions can result in property damage, severe injury or even death.**

Before installing your OceanLED Light, check local laws for restrictions regarding the use of coloured lights in your area.

Salt is an inherently corrosive material. Metal parts and certain natural and man-made surfaces are particularly susceptible to corrosion and deterioration when used in and around salt water. Some OceanLED lights contain combinations of plastic and polymer products which are impervious to saltwater corrosion, however, screws and fasteners used for the installation must be of a marine grade type stainless steel or equivalent and monitored annually to ensure the lights remain in service for years to come.

Discover D3 light is for mounting directly to a flat surface. Do not submerge your cable ends in water; cable and connections exposed to underwater submersion will not be covered by warranty.

Never use power tools to secure your lights; **hand tighten only.**

Never connect/disconnect lights with power applied as irreversible damage may occur. Ensure polarity of power connections is correct. Failure to do this may invalidate warranty.

Though the Discover D3 has protection against temporary submersion, please ensure the rear of the light is in a dry area and not subject to a wet environment, especially when installed. Failure to do this may invalidate warranty.

Never Use Solvents! Cleaners, fuel, and other products that may contain strong solvents, such as acetone, that attack many plastics greatly reducing their strength and irreversibly damaging the special lens coatings and cable sheathings.

Never clean lights using a high-pressure jet wash - this will invalidate warranty. Please avoid coating the front of the light/lens without consulting OceanLED. Failure to do so will invalidate your warranty.

This underwater light must be installed by a licensed or certified electrician in accordance with all applicable local codes and ordinances. Improper installation will create an electrical hazard which could result in death or serious injury to swimmers, installers, or others due to electrical shock, and may also cause damage to property. Always disconnect the power to the light at the circuit breaker before servicing the light.

# 1. Power Source

Most installations will utilise on-board 12/24V DC power supply from a marine battery. However, if AC to DC power supply is being used, please allow at least 15% reserve for voltage fluctuations due to variables beyond your control such as ambient temperature and supply voltage fluctuations. This is to ensure your lights are always receiving the proper voltage and to ensure the power supply is not “overloaded”, causing premature failure. Use chart below in determining power supplies.

## Power Consumption and Recommended Fuse values

Model	Current @ 12V DC	Current @ 24V DC	Max Nominal Power consumption	15% reserve in Watts	Recommended fuse 12V/24V DC
Discover D3	0.7A	0.37A	9W	10.3W	1.25A

# 2. Preparing the Hull

The Discover D3 unit requires an additional 60mm / 2.36” free space from the rear of the light body to allow for the cable clearance. (See overall dimensions in the Appendix).

Ensure that the part of the light inside the vessel has a diameter of 60mm/ 2.36” free space around it free from any insulation material.

OceanLED recommends using a qualified installer / technician when making modifications to your vessel. Please also consult the manufacturer for more detail on modifications and installation.

OceanLED recommends use of provided screws. If alternative screws are used, do not use counter sunk or non-flat shoulder screws to secure your lights to the hull (failure to do so will invalidate your warranty).



If lights are assembled in a conductive or wooden hull suitable fastening (marine grade) need to be used. The fastenings then should be bonded to the vessel cathodic protection system. Please contact OceanLED for additional details.

## Depth/Spacing

Ideally mount your lights at similar depth levels to ensure matching colour consistency through the water. Deeper lights will look duller and possibly differ in colour compared to shallower mounted units.

SPACING / INSTALL DEPTH	E2
Recommended Spacing	0.5-1.2m (2-4')
Recommended Installation depth (From the light waterline)	150-200mm (6-8")

## Maximum Hull Thickness

Maximum hull thickness: 50mm (2")

## Hole Cut Out

Hole Cut out size - 44mm (1.73")

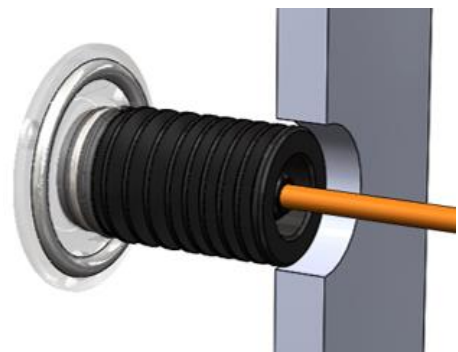
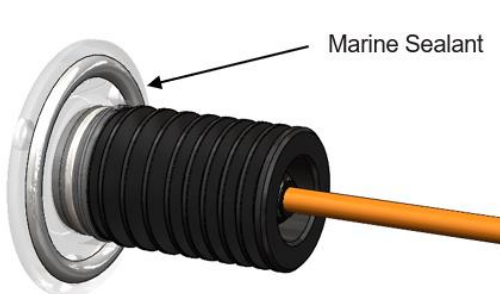
## 3. Installation

Additional items required not supplied by OceanLED:

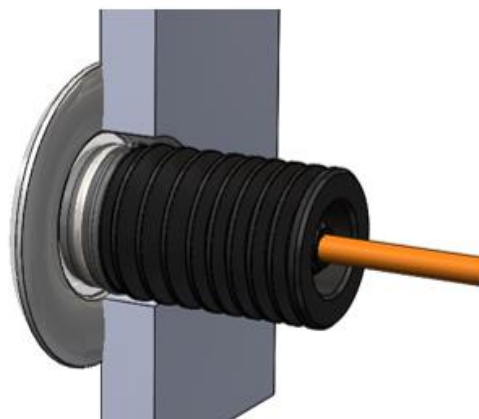
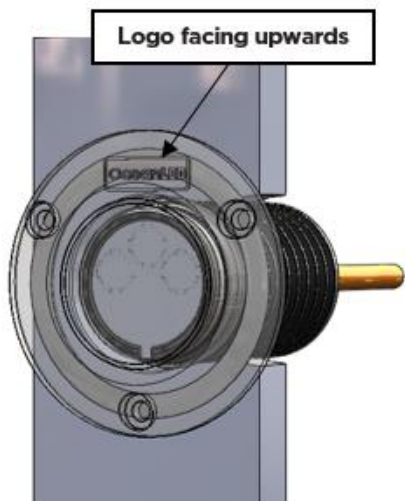
- Marine sealant - 3M 4200 or equivalent
- Cable ties
- Waterproof Cable Connectors / Junction Box\* (optional)
- Philips Screwdriver or Pozidrive #2 Screwdriver Bit
- 44mm (1.73") Hole Saw Cutter
- Drill Bit for mounting screw holes

\*Optional 4-Way Junction box available from OceanLED. Please contact OceanLED or your representative for further information.

**Tip:** OceanLED recommends dry fitting all products. Before applying sealant, please ensure the surface is clean of any dust, dirt or grease. When installing, be sure that the light fits the area and secures to the hull using the appropriate hardware before applying any sealant.

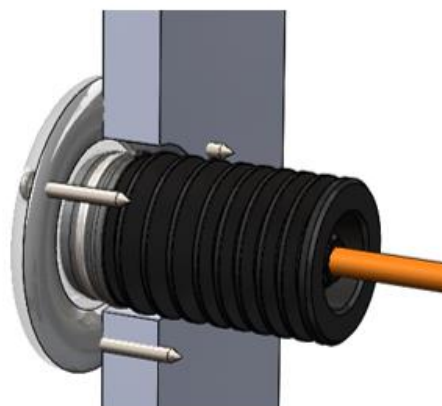
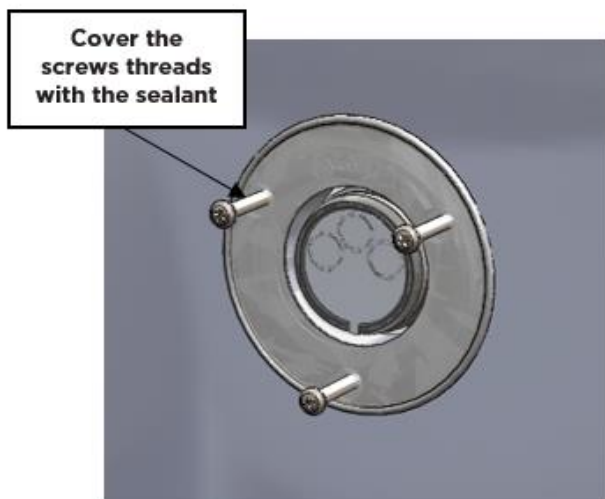


1. Apply marine sealant to the rear of the front bezel to ensure a complete unbroken seal around the light.
2. Start feeding the light cable through the hole.



3. Ensure the correct orientation of the light unit with the logo facing upwards and mounting holes aligning with the pre-drilled pilot holes.

4. Insert the light into the hull, pressing the light hard into the hull and twist slightly to spread the sealant around behind the light to ensure good adhesion.



5. Cover the screws threads with the sealant and screw into the pre-drilled pilot holes.

6. Tighten the screws with a hand tool ONLY! DO NOT over-tighten the screws, as you could damage the front bezel, and will void your warranty.



7. Using a cloth, wipe off excess sealant to leave a clean seal. If you do not see sealant squeeze out from the body, you have not used enough sealant or possibly tightened the unit enough to the hull.

**WARNING:** OceanLED recommends using Isopropyl Alcohol (IPA) only.

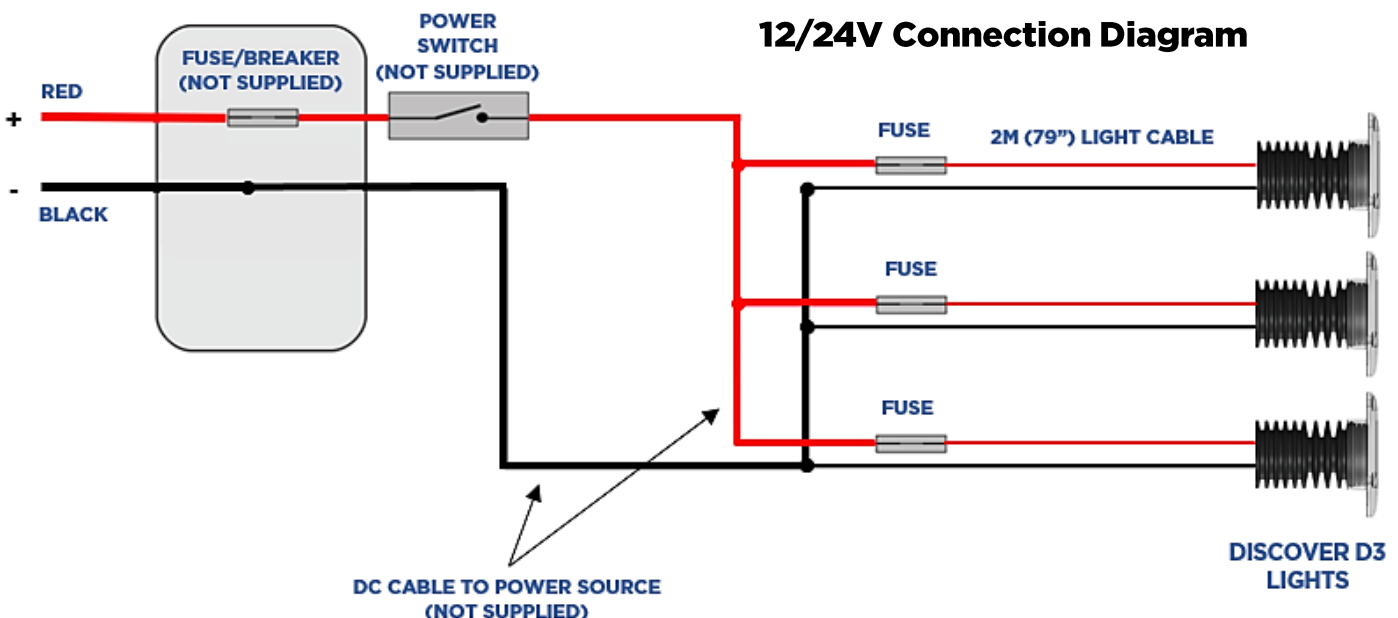
## 4. Electrical Installation (12/24V DC)

**Warning:** Always consult a qualified electrician when connecting OceanLED light fixtures.

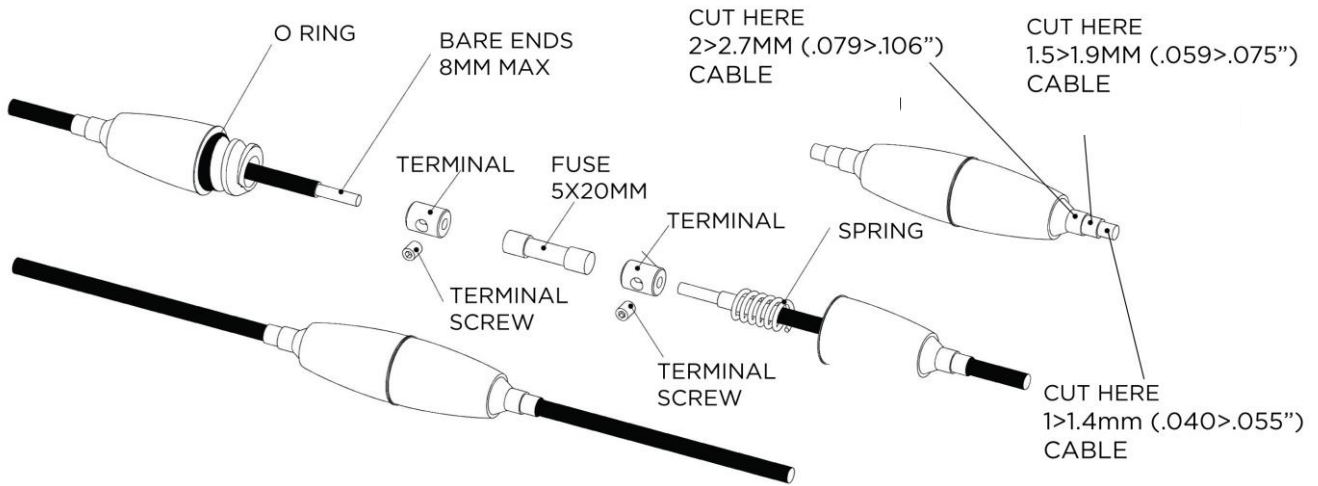
When connecting light units, please note that all OceanLED lights will operate within a specific voltage range. Please check the electrical information to ensure cable gauge follow the recommendations.

Never leave the bare cables unprotected. Take care to not leave the bare wire ends in bilge water before making the waterproof connections. Water deposits in the connectors and cables will cause corrosion. Over time water can also work its way into the unit along the inside of the cable due to capillary action causing the light to fail. This will NOT be covered under warranty.

1. Depending on the model and number of lights installed, you will need to pull the **correct sized power cable** (see full installation guide Chapter 7) from the DC power source (breaker/fuse panel) to the light locations to supply constant power to the light units. It is imperative that the correct sized tinned marine grade cable is used to avoid voltage drop issues.
2. Using waterproof butt splices or IP66 waterproof junction boxes, make the connections at either end of the system to attach the lights to the DC system. Make sure any heatshrink used completely encapsulates the outer wire sheath (the use of glue-lined heat shrink is highly recommended to ensure water tightness).
3. It is imperative that either the OceanLED supplied fuse on each power line to each light or a suitable protection device is used to protect the cable/light unit. Failure to do so will void the warranty. Make sure any heatshrink used completely encapsulates the outer wire sheath (the use of glue-lined heat shrink is highly recommended to ensure water tightness).
4. Secure cables ensuring where the cable exits the light it is not under undue stress. Finish and test the light units **BEFORE** the vessel goes into the water.



## Fuse Kit Connection Overview



## 5. Finalising the installation

The Discover D3 features a polymer front bezel that protects against corrosion as well as insulates against conductive hull types. The front face of the bezel is pre-coated with a specialized Tritonium® coating which helps to prevent marine growth from adhering to it. The light body is constructed from Hard Anodised Aluminium and does not require further protection.

**Warning:** No paint or any type of anti-fouling agent should be applied to the bezel, as damage may occur to the light due to chemical incompatibility and can affect the performance of the light and will immediately void the warranty.

**Warning:** Please do not use any un-authorized cleaning products to remove excess paint or antifoul off the bezel. OceanLED recommends using Isopropyl Alcohol (IPA) only.

Always test the lights **BEFORE** the vessel goes back into the water. At this final stage make sure all of the system is operational. If you have any issues, please contact your local OceanLED representative.

**Warning:** Never install a new light fixture then leave the vessel in the water unchecked for several days. When the vessel is placed in the water, immediately check for leaks. Note that very small leaks may not be readily observed. It is best not to leave the vessel in the water for more than 3 hours before checking it again. If there is a small leak, there may be considerable bilge water accumulation after 24 hours. If a leak is observed, you must **TAKE ACTION IMMEDIATELY** to prevent damage.

## 6. Operation

The Discover D3 light is available in either Midnight Blue or Ultra White models and therefore works only in standard single colour power mode.