

4. Cable tie up wire ensuring where the cable exits the light it is not under undue stress. Finish and test light units BEFORE the boat goes into the water. If you have any issues and need troubleshooting advice, please contact your local OceanLED representative.

#### 4. Finalize your OceanLED installation

#### **Test your lights**

Always test the lights BEFORE the boat goes back into the water. Failure to test prior to launch may require boat to re hauled out. At this final stage make sure all of the system is operational (see online manual). If you have any issues, please contact your local OceanLED representative.

Warning: Never install a new light and leave the boat in the water unchecked for several days.

When the boat 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 boat 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 to the property.

# 5. Operation

#### Single Colour Strobe

To enter strobe mode, toggle the power on and off quickly twice. They should now strobe in a pseudo-random pattern. To reset from strobe mode, turn off then back on again.

#### **Colour Change Operation**

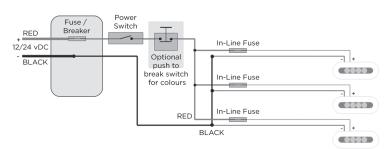
**NOTE:** For Colours control using the OceanDMX Xtreme Series Controller Kit, please refer to the OceanDMX Installation Manual.

The X-Series DC switched colour change has three modes of operation, single colour mode, cycle / programing mode, and strobe mode:

- Single colour mode this mode is entered when the light is first turned on. The light will be a single colour, either a default blue, or a previously selected colour.
- Strobe mode to enter this mode, turn off the light for less than 1 second, then back on again. The light will flash in a pseudo-random pattern - the colour will be the same as that in single colour mode.
- 3. Cycle / Program mode, to enter this toggle the power to the unit off twice for less than 1 second each time. The light will then slowly cycle and fade through the colour spectrum (see diagram below for cycle order). It can be left in cycling if required, or alternatively, once the light shows the desired colour this can be stored by switching the light off for more than 2 seconds. When the light is switched back on it will be back in single colour mode, displaying the previously selected colour.Single colour mode this mode is entered when the light is first turned on. The light will be a single colour, either a default blue, or a previously selected colour.

**NOTE:** If during the above operations, one or more lights connected go out of sync, simply switch off the lights for more than 2 seconds, then re-enter cycle mode to re-select the colour.

# → Blue → Red → Green → Blue → White → Blue/White → Red/White → Green/White -





# **X-Series**

# **Quick Install Guide**

For full installation guide and warranty information, go to www.oceanled.com/XSeries

# Contents

X-Series LED Light & Cable In-line fuse kit Mounting Screws Install Guide



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OceanLED INSTALL GUIDE / X Series / 050117 / v7.0

For full installation guide and warranty information, go to www.oceanled.com/XSeries

or scan the QR code below:



OceanLED makes every effort to protect our marine and fresh water environment as well as our natural resources. Please take care to keep packaging away from and out of the water by ensuring loose packaging materials are secured and not susceptible to being blown into the water. Please recycle all packaging materials as the sustainability of our environment is everyone's responsibility.

**WARNING:** Ensure mounting location is flat and check internally for ease of access or if there is a rib, strut, stringer or other hull irregularity that may interfere with the installation.

#### WARNING: Never use power tools to secure your lights; hand tighten only.

**WARNING:** We recommend you use screws provided. If alternative screws are used, do not use counter sunk or non flat shoulder screws to secure your lights to the hull.

**WARNING:** All OceanLED in-water products require dry fitting. When installing, be sure that the light fits the area and secures to the hull using the appropriate hardware before applying any sealant.

**WARNING:** Light is for thru-hull mounting only. Cable and connections exposed to underwater submersion will not be covered by warranty!

**WARNING:** There are several different hull types. Most are either solid GRP or cored. Be sure you follow the correct procedures for the hull you are preparing since all require different preparation methods. We will cover the most common type below. If in doubt please contact your local OceanLED representative or the boat manufacturer for assistance.

**WARNING:** Please check all components prior to installation. If there is any damage to connectors, cables, and/or any other component, please notify OceanLED BEFORE installation. Failure to notify OceanLED of damage in transit prior to installation will lead to violation of warranty.

*WARNING:* Light is for mounting directly to a flat surface on the hull, with the cable passing through a 1/2" (12.5mm) hole in the hull. Do not submerse your cable in water; cable and connections exposed to underwater submersion will not be covered by warranty. Mounting the light in any other configuration, other than those described in this guide, will invalidate its warranty.

# 1. Preparing a fiberglass hull

Tip: Always wear safety goggles and a dust mask.

- Drill a 3mm / 1/8" pilot hole square to mounting surface from inside the hull if possible. If there is a rib, strut, or other hull irregularity near the selected mounting location, this will need to be taken into account in the planning phase and the location adjusted accordingly, or the obstruction safely removed or modified. If the pilot hole is found to be drilled in the wrong location, drill a second hole in a better location and repair first pilot hole.
- 2. Using a suitable drill, make a 1/2" (12.5mm) hole. Ensure the light will fit flush and will be square to the mounting surface.
- 3. Sand the area around the hole using a heavy grit sandpaper to remove the previous bottom paint and to ensure that the sealant will adhere properly to the hull. If there is any petroleum residue inside the hull, remove it with acetone before sanding.
- Place light fixture into position or use mounting template provided. Mark the screw hole position and pilot drill using correct sized drill bit for included screws.
- 5. Always dry fit units before applying any sealant.

# 2. Installing the light fixture

**TIP:** Use a suitable marine sealant such as  $3M^{\text{TM}}$  Marine Adhesive Sealant Fast Cure 4200FS. When applying sealant to light fixture, be careful to protect the lens from any abrasive surface/floor so as not to remove the protective Tritonium coating.

TIP: If bottom painting your lights ensure lens is free of any paint / residue.

- 1. Fit desired bezel over light unit.
- 2. Once hull preparation is complete (see step 1), the light can be inserted into the hole previously prepared. Apply generous amounts of the sealant you are using to the back perimeter of the light body. Make sure to generously coat the cable of the light where it meets the back of the light. There should be an unbroken bead of sealant around the perimeter of the light unit.

**TIP:** It is critical to cover the entire body and circle the mounting screw hole so that there is a continuous and unbroken bead of sealant.



Insert the light on to the hull, feeding the cable through first and seat into place. Press the light hard into the hull and ensure good adhesion.

- To ensure correct dispersion of light underwater, ensure all X-Series are mounted with the correct orientation with text facing upwards. Tip: During/ after fitting process, ensure cable is not under any undue stress.
- 4. We recommend you only use the mounting screws provided. If alternative screws are used, do not use counter sunk or non-flat shoulder screws. Cover the threads with the sealant and screw into the pre-drilled pilot holes.

WARNING: Tighten the screws with a Pozidrive #2 screwdriver bit ONLY!

5. Once you are satisfied that the unit is fully embedded onto the hull, you will notice that sealant has squeezed out from around the perimeter of the light. 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 tightened the unit enough to the hull. Carefully examine the installation to make sure the seal you have installed on the unit is fully water-tight. If in doubt, remove light, re-apply sealant and re-install.

#### 3. Connecting the light fixture

**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. Connecting lights to your V DC power source it is recommended to connect the light to the DC power source using a two pole, screw type terminal block with a minimum voltage rating of 50V and a current rating of at least 5A. The ends of the cable should be stripped back (if required) and suitable ferrules fitted. The terminal block should be fixed inside a waterproof enclosure (IP66 minimum).

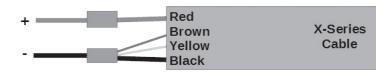
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Tip: Switch and breaker need to be robust enough to support light.

**Tip:** For complete instructions on V DC connections, please refer to ABYC codes of practice and other applicable codes and ordinances for V DC connections.

**Warning:** 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.

The colour change version of the X-Series can be used in one of two modes, either by DC switch mode, or via DMX control mode. For DMX control mode, the OceanDMX Xtreme Series Controller kit is required – please refer to the manual included with the kit for connection details. For DC switch mode, connect the red wire to the +ve supply, and the black, brown & yellow wires to the -ve supply:



- 1. Depending on the model of lights currently installed you will need to pull the correct sized power cable from the breaker/fuse panel to the light locations to supply constant power to the units. It is imperative that the correct sized tinned boat cable is used.
- 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 vDC system. If appropriate always use a dielectric grease when making the connections and make sure any heat shrink used completely encapsulates the outer wire sheath (the use of glue-lined heat shrink is highly recommended to ensure water tightness).

**NOTE:** Corrosion of wire, and/or water ingress into the light unit via the cable is NOT covered under warranty.

**3.** If you are not installing a custom fuse panel, it is imperative that the OceanLED supplied fuse is installed on each power line from each light. Please consult electrical specification in the online manual to select the correct fuse dependant on which model of light you have.