*The QT-130 RGB+W LED underwater light uses a four channel DMX driver for RGB+W colour change and switch on/off - ALL BLUE. This is the smallest and brightest weld-in LED fixtures on the market with flush and 50 degree inserts for angled hull adjustment.

*Never feel trapped by this fixture the LED projector can be easily removed for servicing and upgrades without the hassle of hauling your boat.

*With its 90 degree beam angle, the fixture provides a perfect spread of light. Available in Blue and RGB+W.

*The QT-130 RGB+W LED is recommended for GRP and wooden hull yachts of 20 meter+.

*Distance between lights can vary from 1.5 (transom) to 5 meters (port & starboard) apart for the best illumination.

*With complete Lloyd’s Register Approval and ABS Design Appraisal on all components, the QT-130 has been installed on some of the largest and most prestigious Superyachts in the world.

*The QT-130 is a completely customisable underwater lighting solution for larger yachts. We offer a bespoke design service tailored for each individual hull.
The QT-130 RGB+W LED underwater light uses a four channel DMX driver for RGB+W colour change and dimming fixed colours - WHITE and BLUE. This is the smallest and brightest weld-in LED fixtures on the market with flush and 50 degree inserts for angled hull adjustment.

*Never feel trapped by this fixture the LED projector can be easily removed for servicing and upgrades without the hassle of hauling your boat.

*With a maximum 20,000 lumens of cool white light power and its’ 90 degree beam angle provides a perfect spread of light. Available in Blue White and RGB+W

*The QT-130 RGB+W LED is recommended for GRP and wooden hull yachts of 20 meter+.

*Distance between lights can vary from 1.5 (transom) to 5 meters (port & starboard) apart for the best illumination.

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*The QT-130 is a completely customisable underwater lighting solution for larger yachts. We offer a bespoke design service tailored for each individual hull.
**DESCRIPTION** - This is a flush submersible marine light which uses a Qt-130 (1) screwed body for installation into composite and wooden hulls. Maintenance of the led light is carried out from inside the hull.

*The Body (1) is common for the standard (20,000lms) and RGB+W led.

**FITTING THE BODY** - Qualified/Approved personnel must be used to carry out installation. Cut and prepare a 4 inch / 101mm clearance hole for the body (1). Coat the flange of the body and the area around the hole with 3M 4200FC or Sikaflex 291sealant then slide the body into the hole. From the inside fit the compensating ring (2) and screw the securing ring (3) up “hand tight”. Adjust the screws (5) so the compensating ring is flush to the hull and check the sealant has flowed completely around the body flange (1). Do “NOT” over tighten the screws as this will squeeze the sealant from the surface. Allow the sealant to solidify and remove surplus. Finally tighten the adjustment bolts to 4Nm / 3ft.lbs Note for cored hulls - After cutting, the exposed surfaces of the hole must be finished to form a solid surface through it, thus protecting the internal core of the hull. Maximum hull thickness should not exceed 3.75 inches - 95mm. After completing the installation procedure it is highly recommended to coat the exposed body with antifouling and bond all lights to the anodes or a cathodic protection system if fitted by using the earth screw (4).

**REPLACEMENT OF LED** - The underwater light is supplied fully assembled. For removal of the LED follow the instructions - Free the cable by unscrewing the gland nut (12). Unscrew the cover (11) and ensure the cable does not rotate. Remove the LED green plug and place the cover to one side. Slacken the clamp screws (9) and unscrew the clamp ring (8) and place to one side. Slide the rear heat sink ring (7) out and place to one side. In the centre of the heat sink ring (2) screw in a M6 bar or bolt and slide the front heat sink (6) out. Thoroughly clean all parts removed and the internal surfaces and lens. The replacement front heat sink ring (6), rear heat sink (7), clamp ring (8) and cover (11) thread must be lightly coated with silicone grease. All is now ready to fit the LED by reversing the extraction procedure. Slide the front heat sink (6) into the barrel so that it lands on the lens retaining ring. Slide the rear heat sink (7) and screw the clamp ring (8) up. Lightly screw the clamp ring screws (9) up so that the rear heat sink presses on the front heat sink ring (6) and expands itself into the barrel. Plug the LED into the PCB socket. Ensure all the plug cables are tidy before screwing the cover (11) up tight. Ensure the supply cable does not rotate and finally tighten the gland nut (12).

**DRIVER INSTALLATION INSTRUCTION** - The driver must be located at least 60 cm above tank top with good ventilation and the maximum ambient temperature should not exceed 40C. The underwater lights is fitted with three meters of cable and a IP 68 plug that fits into the driver enclosure socket.
DMX AND LIGHT CONNECTION

CONNECTION FOR RGB+W SINGLE LIGHTS

* Shown below is a schematic diagram of the connections for the DMX underwater lights.

* Every light has three meters of cable and a IP 68 plug fitted. The aluminium driver enclosure (AK 162) has an IP 68 socket fitted for plug and play.

* **DMX connection**- All drivers are connected in series. The DMX control is connected at one end and the driver at the end of the series has to be terminated. It is advisable to loop the DMX cable as shown back to the DMX control point to have a choice of which direction to send the DMX signal and check the system.

* **Power Connection**- Each driver has a fused terminal block for power in and out.

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**Diagram:**

- **DMX TO BE CONNECTED TO EVERY LIGHT INSTALLED**
- **DMX CONTROLLER**
- **COMPETITOR FOR LOADING LIGHTING PROGRAM AND REM FOR SYSTEM INFORMATION**
- **EXTERNAL CONTACT CLOSURES**
- **STICK-KIT DMX CONTROLLER**
- **10-4 PORT DMX SPLITTER AND BOOSTER**
- **ROUTER FOR WIFI CONNECTION TO PHONE OR IPAD**
- **OUT PUT DMX SIGNAL**

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**Images:**

- QT LED 167 RGB+W
- QT LED 130 RGB+W
- QT LED 100 RGB+W
- QT LED 75 RGB+W
DMX AND LIGHT CONNECTION

ELECTRICAL INFORMATION

* Shown below is a simple connection diagram for the DMX Controller, the Six channel splitter, Four channel drive and the RGB+W underwater lights.

* **Single light connection**- Every light has three meters of cable and a IP 68 plug fitted. The aluminium driver enclosure has a IP 68 socket fitted for plug and play. These are shown below as ‘Device’

* **DMX connection**- All Devices are connected in series to a six channel splitter. Each channel can have 32 devices connected but we recommended to use all channels with a maximum of 12 devices per channel to reduce the cable lengths and the possibility of capacitance and magnetic interference

* The DMX controller is connected to the Six channel splitter.

* **DMX cable** - Shown below is the recommended DMX 120 ohm impedance cable specification. The termination resistance is 120 ohm. This cable must be used for connecting the Devices, Splitter and DMX controller.

* **Four channel DMX driver**- Shown installed into an IP 66 enclosure (dimensions 260 x 160 x 90mm)