QtLED 130-RGB+W

*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 fixture on the market.

*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 and 120 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.

*Maximum cable length for the Lights should not exceed 6m. Anything over could cause the light to fail due to voltage drops.

Maintenance
Inside the hull

Control Option
DMX-Color change

Driver
Remote

Growth Resistant Lens
Borosilicate Glass

Power
110-240 VAC

Installation
Thru- hull

Hull Material
GRP/Wood

Boat Size
30 meter +

Lumens
N.A

Kelvin
N/A

Beam Angle
90/120 Degrees

AVAILABLE
YES

AVAILABLE
YES

IPX8
Underwater

www.underwaterlights.com

THE QT-LED RANGE IS DESIGNED AND MANUFACTURED BY UNDERWATER LIGHTS LTD IN THE U.K.

QT- I 30 RGB+W

Thru-Hull - LED serviced From inside

Mounting

Hull Material	GRP / Fiberglass
Boat size	20meters + (65+ Feet
Spacing	1.5meters (5ft) for transom. - 5meters (14ft)f or P &S
Beam Angle	90° 120°
Installation Angles	Flush

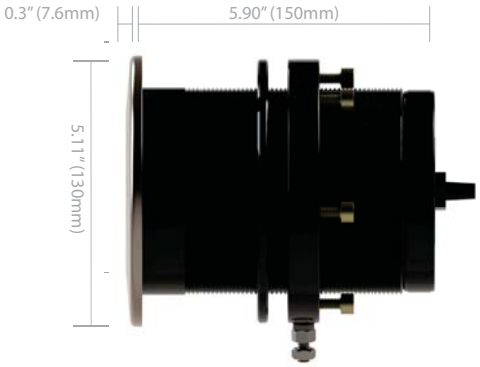
Technical

Lumens	Not Applicable
Kelvin	Not Applicable
Typical LED Life Expectancy	40,000 hrs
Min-Max Operating Voltage	110 - 240V AC
Current / Amp draw	1.4 - 0.7 amps
Driver Type	Remote
Driver Output	4 channel @ 36V
Control Options	DMX & Switch On & Off
Bonding	Locking RIng

Physical

Length of fixture	150mm (5.90")
Diameter of fixture	130mm (5.11")
Profile (height) of fixture	7mm (0.27")
Removal Space Required	175mm (6.88")
Total weight	5.7kg (13 lbs)
Driver Dimensions (L x W x H)	10.24" x 6.3" x 3.5" (260 x 160 x 90mm)
Cable Length	3meters (10ft)
Hole Cut-out	101mm (4")
Material	Nickel Coated
Growth Resistant Lens	Borosilicate Glass
Maximum hull thickness	95mm (3.75")

Color		Part Number
Blue		QT-130-HP3B
RGB+W		QT-130-RGBW



RGB+ W Driver

Your Local Dealer

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E: uwl@underwaterlights.com
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Registered in England No: 2348038

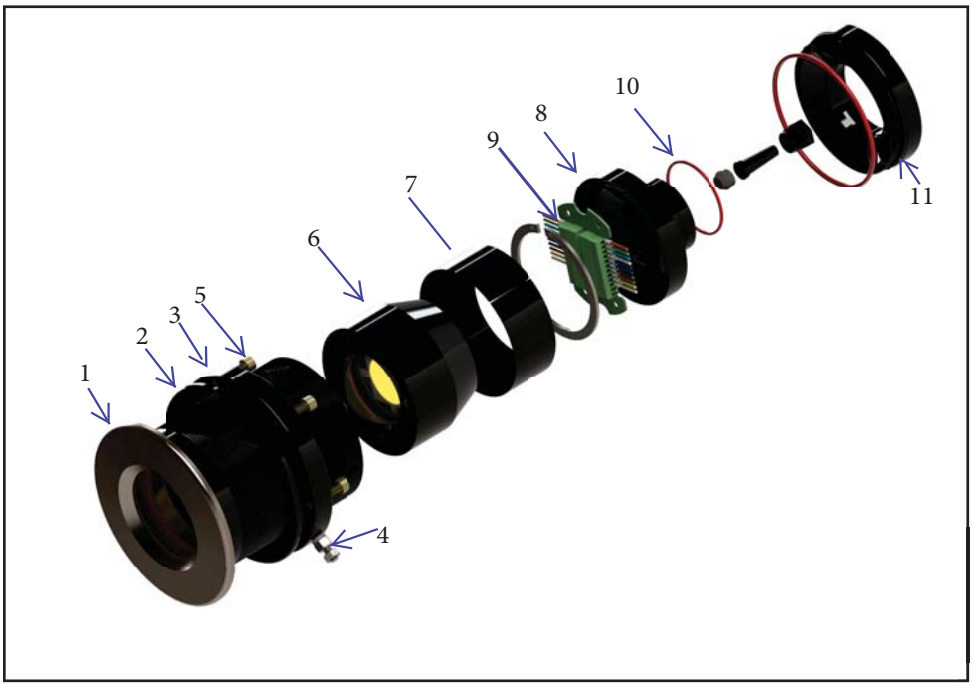
Qt LED 130 INSTALL

***DESCRIPTION** - This is a f ush 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 HP3 (25,000lm) and the RGB+W leds.

*** FITTING THE BODY**- Qualif ed/Approved personnel must be used to carry out installation. Cut and prepare a 4 inch / 101mm clearance hole for the body (1). Coat the f ange of the body and the area around the hole with 3M 4200FC or Sikaf ex291 sealant then slide the body into the hole. From the inside f t the compensating ring (2) and screw the securing ring (3) up "hand tight". Adjust the screws (5) so the compensating ring is f ush to the hull and check the sealant has f owed completely around the body f ange(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 f nished 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 f tted by using the earth screw (4).

***REPLACEMENT OF LED**- The underwater light is supplied fully assembled. For removal of the LED follow the instructions - Unscrew the cover (11) and ensure the cable does not rotate. Remove the connection holder (8) then unplug the LED green plug (9) 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 (6) screw in a M6 bar or bolt and slide the heat sink (6) out. Thoroughly clean all parts removed and the internal surfaces and lens. The replacement front heat sink(6), rear heat sink (7), LED connection holder (8) and cover (11) thread must be lightly coated with silicone grease. All is now ready tof t 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), check that the green plug (9) is connected correctly and slide in the LED connection holder (8) up. 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 cover up.

***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 f tted with three meters of cable and a IP 68 plug that f ts into the driver enclosure socket. Maximum cable length should not exceed 6m due to voltage drops.

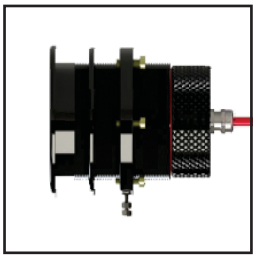


QtLED DMX & LIGHT CONNECTION

* 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. Maximum of 6m cable length must be used due to voltage drops.
* **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.

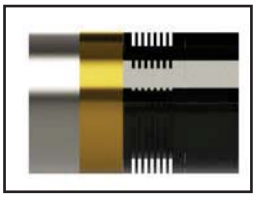
QT LED 167 RGB+W

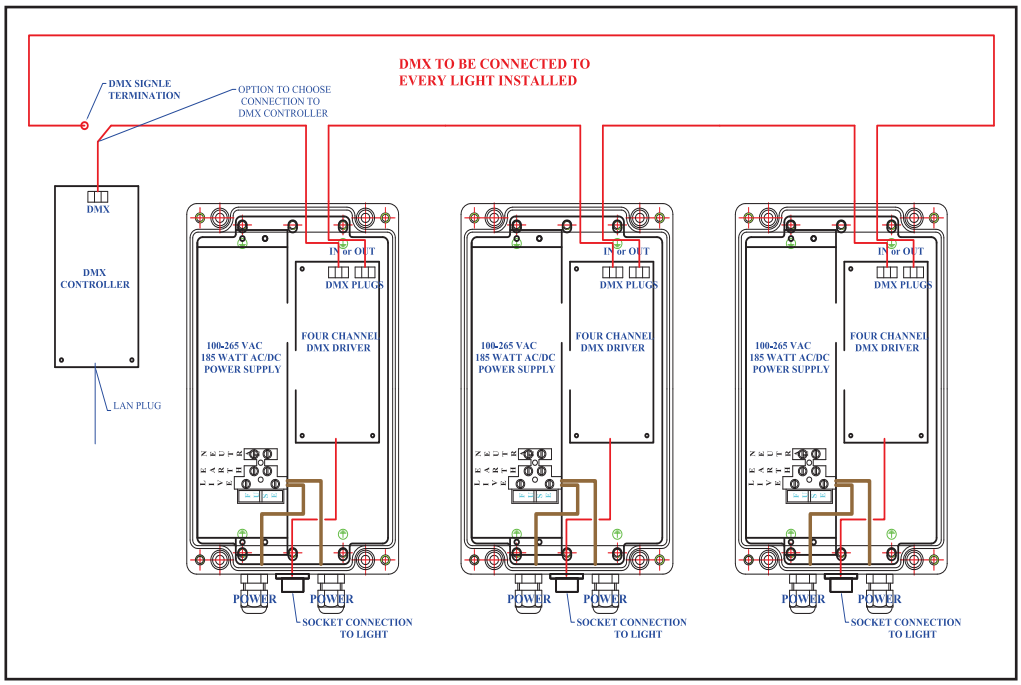
QT LED 130 RGB+W

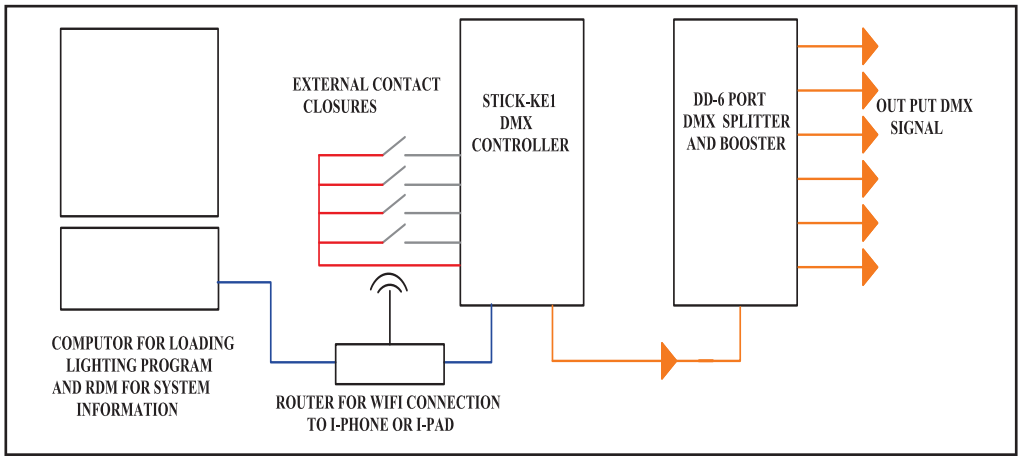


QT LED 100 RGB+W

QT LED 75 RGB+W







QtLED DMX & LIGHT CONNECTION

* Shown below is a simple connection diagram for the DMX Controller (1), the Six channel SPLITTER (2), Four channel DRIVER (3) also shown as 'Device' and the RGB+W underwater lights (4).
* **Single light connection-** Every light has three meters of cable and a IP 68 plug ready to plug into the drivers aluminium driver enclosure which has a IP 68 socket fitted for plug and play. A maximum of 6m cable must be used due to voltage drops.
* **DMX connection-** All DRIVERS (3) are connected in series to a six channel SPLITTER (2). Each channel can have 32 DRIVERS connected but we recommended to use ALL channels to reduce the number of drivers per channel to aviod the possibility of capacitance and magnetic interference in the cable.
*The DMX controller (1) is connected to the Six channel SPLITTER (2).
* **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)

DMX Controller (1)

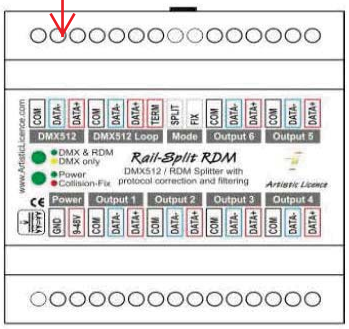
Device = Driver

Four channel DMX driver (3)
One for each light

DMX TO DRIVER

MAINS POWER

Underwater light (4)



SPLITTER (2)

Tourflex Datasafe 4B Two Pair LSOH 1000v Insulated DMX Cable Product Code TFDS4BEU	Used in permanent installations to transport two independent universes of DMX / RDM.
	Data Pairs: 0.35mm² - 20 strands of 0.15mm oxygen-free tinned copper conductors
	Data Pair Colour: P1 - White & Black, P2 - Red & Green
	Overall Diameter: 7.2mm (+/- 0.1mm)
	Weight per 1m: 60 grams / 2.12 ounces
	Operating Temperature: -30°C to +75°C
	Minimum Bend Radius: 8 x O.D.

MANUAL ADDRESS INSTRUCTIONS

Connection Diagram

DMX address

ON 1 2 3 4 5 6 7 8 9

=1 =2 =4 =8 =16 =32 =64 =128 =256

Add values of 'ON' for DMX address

e.g.

ON 1 2 3 4 5 6 7 8 9

=1 =2 **=4** =8 =16 **=32** **=64** =128 =256

4 + 32 + 64 = 100

DMX address 100

LED Current

1000mA	ON	ON	off

ON 1 2 3

PRE-SET TO 1000mA DO NOT ADJUST AS DEVOIDS WARRANTY

DMX end terminate with 120 ohm resisitor DMX+ to DMX -