eclipse SMX54 Installation Manual

60-0534 - SMX54 - Blue and White - Single Light - Surface Mount



Please read the following pages before attempting installation to ensure complete understanding of Lumishore ECLIPSE SMX54. This product should only be installed, inspected, and maintained by a qualified electrician only, in accordance with all applicable electrical codes. Be certain electrical power is OFF before and during installation and maintenance.

Color Output
Dual color

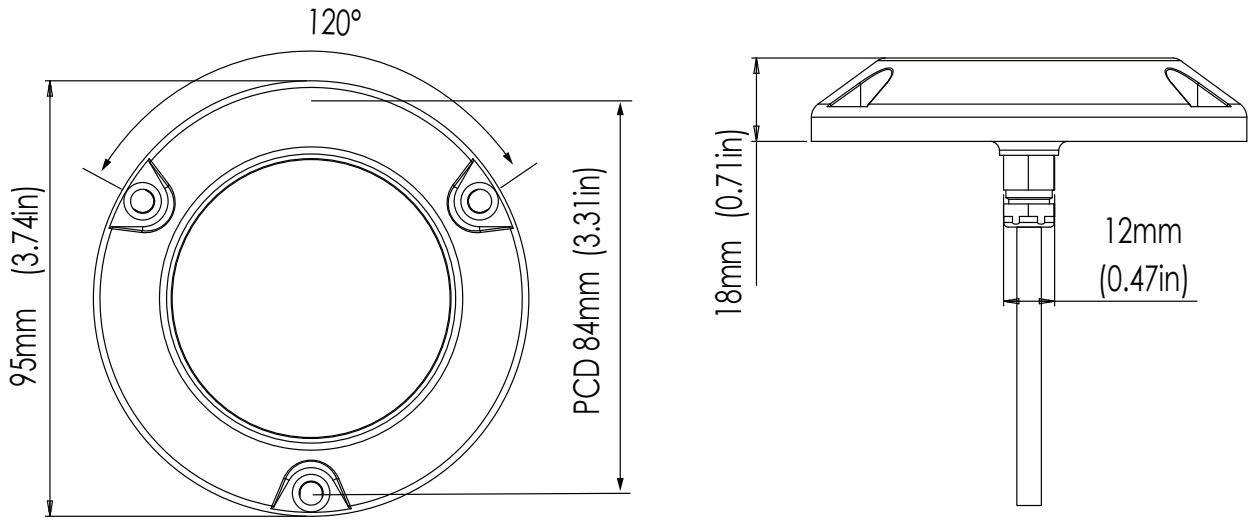
Voltage
12-24V DC
(10.5 - 31V DC)

CE UKCA

Before you start:

- Always ensure that the vessel's power source and battery are disconnected or isolated prior to installation.
- A qualified professional should carry out both the electrical and mechanical installation.
- For best underwater illumination, LUMISHORE recommends installation 4" to 12" (100-300mm) below the minimum load water line.
- Choose a location - The light must be mounted on a flat (not curved) surface. For underwater installs mount on transom or side hull only.
- A hole will be drilled to allow the cable to be inserted; care must be taken to ensure there is unrestricted access inside the hull.
- When installing three or more lights, equal spacing 2.5'- 3' is recommended to give a consistent light pool.
- The light is temperature sensitive and must not be located close to the exhaust outlet or other heat source.
- SMX54 Lights operate on 12V or 24V DC. Never connect a light directly to the mains AC voltage, or DC voltage other than that specified.
- Each light should be individually fused with the correctly rated fuse. 7.5A for 12V and 4A for 24V.
- For Installation on boats up to 15m (50 ft). Isolation kit (39-0203) MUST be used on boats with conductive hulls.
- The light cables can be extended. Ensure the correct cable gauge is used to avoid issues with voltage drop. Follow ABYC recommendations for no more than 3% voltage drop at 12V, and 10% at 24V. Consult a qualified electrical installer, or contact Lumishore for further information.
- Ensure the lights are tested, and working as expected before the boat goes back in the water. DO NOT switch lights on when covered.

Basic Dimensions



Mechanical installation

Tools: Drill, drill bits, marine sealant (3M 4200, or equivalent),F2 Frearson type screwdriver, Flat head screw driver, cloth for clean-up:

Pilot Hole for Screws - 9/64” / 3.5mm
Hole for Cable - 9/32” / 7mm
Recess for Gland - 17/32” / 13.5mm hole to a depth of 3/4” / 19mm

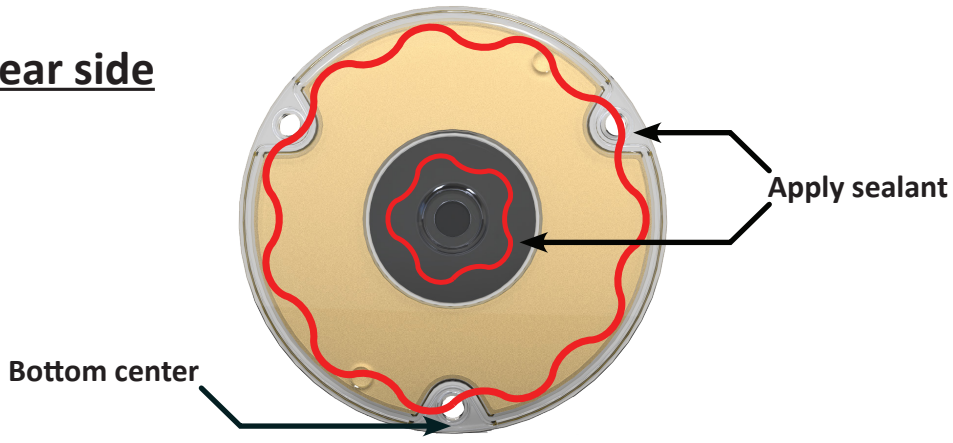
1. Select a suitable flat surface that is accessible from behind and ensure the cable can be run without a problem.

2. With one hole at the bottom center, mark and drill the pilot holes for the screws & drill a ø4mm counter bore to a depth of 5mm in each location. Drill the power cable hole. The cable hole must be recessed on the outside of the hull to accept the cable gland on the back of the light, so that the lights sits flush.

   Note: Cored hulls must be sealed prior to fitting the lights - refer to the manufacturers instructions.

3. Clean and prepare the hull ready for the sealant.

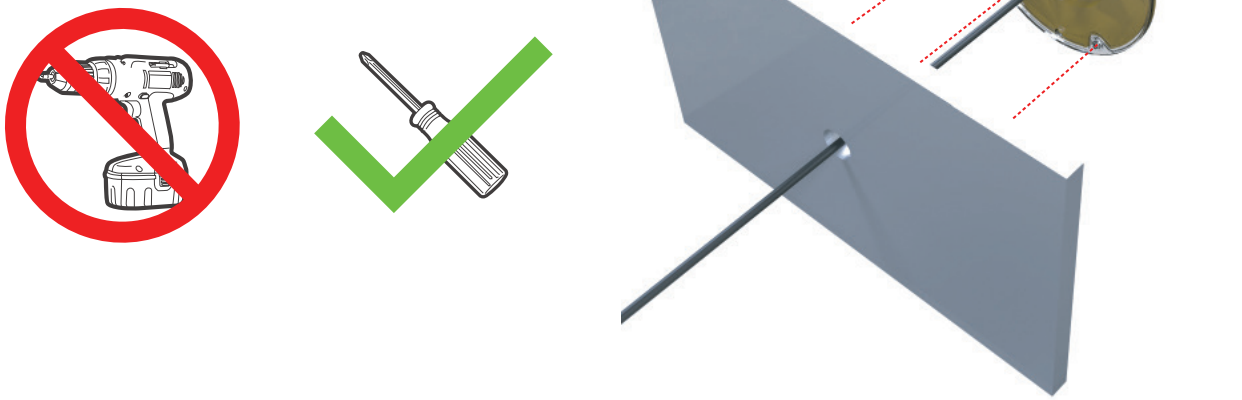
Rear side



4. Apply a continuous thick bead of sealant to the back of the light, making sure the recess on the outer edge is slightly overfilled. Also apply a bead of sealant around the cable gland. Refer to image above.

5. Push the power cable through the hole and align the light with the pilot hole screws.

6. Attach the light using the 3 supplied screws by hand tightening with a screwdriver.



IMPORTANT: Do not over tighten. Do not use power tools to tighten screws.

7. Use a damp cloth to wipe off excess sealant that has squeezed out around the light. DO NOT use chemical cleaners or solvents.

IMPORTANT: Refer to the directions on the sealant to make sure it has fully cured before launching the boat into the water.

Electrical installation

There are three control options for the SMX54 lights, please skip forward to the section that applies to your type of installation.

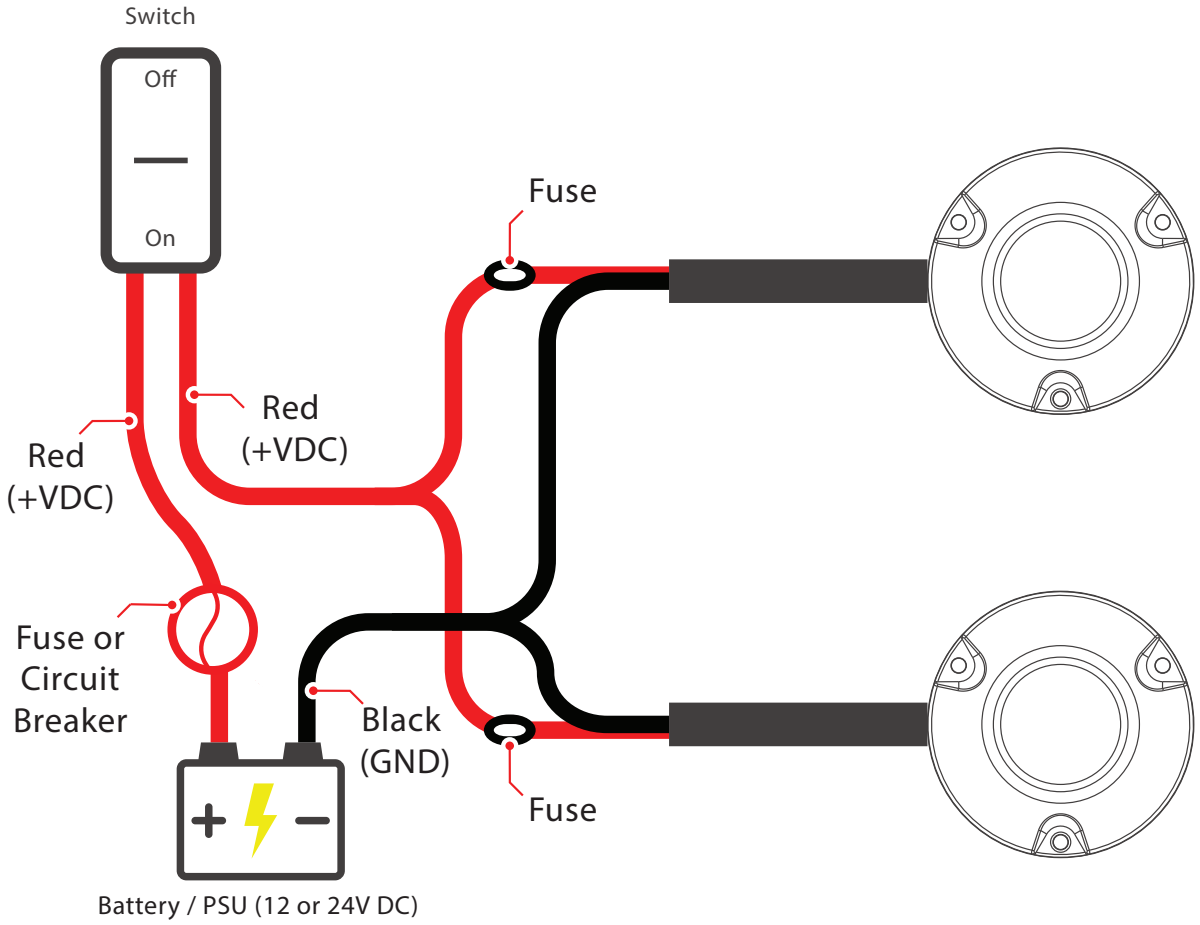
1. Simple ON/OFF switch - See pages 4 and 5.
2. Eclipse Command Center - See pages 5 and 6.
3. SUPRA i -Connect Hub & Switch (with optional Supra Bridge for MFD control) – See pages 7, 8, 9, 10 & 11.

Installation diagram - Single switch

Plan the cable route prior to installation. Ensure all cables are suitable for marine applications, and correctly rated for the required voltage and current. Each light must be individually fused. The cable connections are:

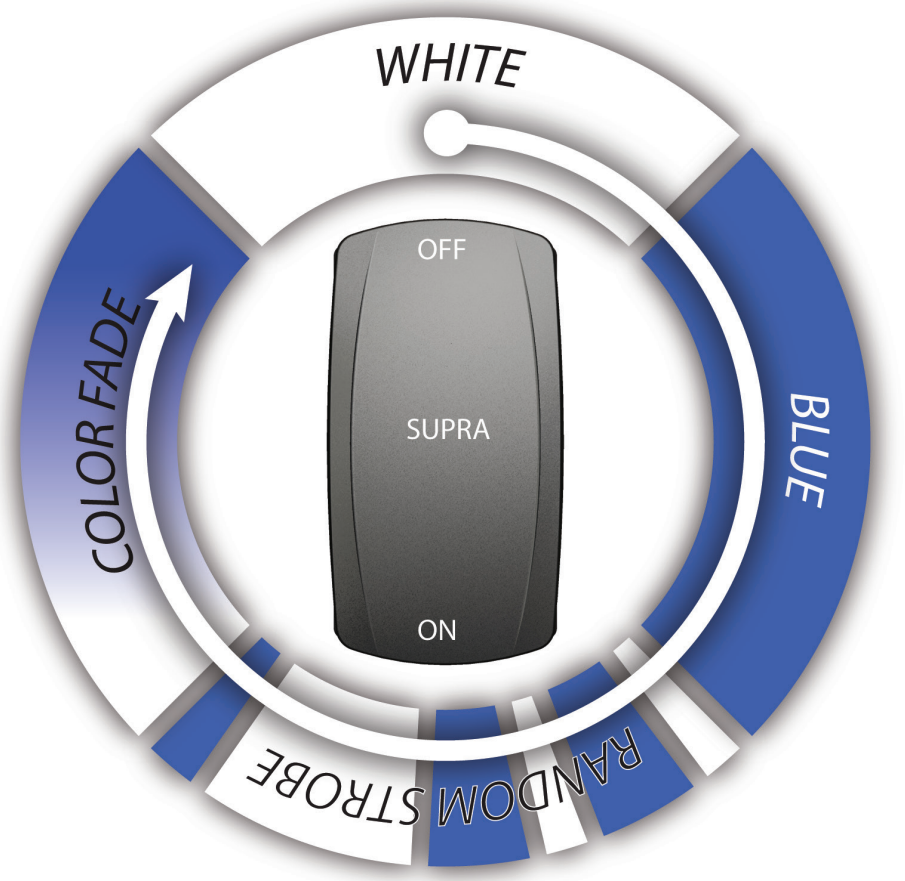
	Red	12V or 24V DC (*10.5 - 31V DC*)
	Black	Ground
Fuse ratings:	12V DC	7.5A
	24V DC	4A

An ON / OFF switch should be installed to select the modes of operation. All connections must be made waterproof.



Switch operation - Dual color lights

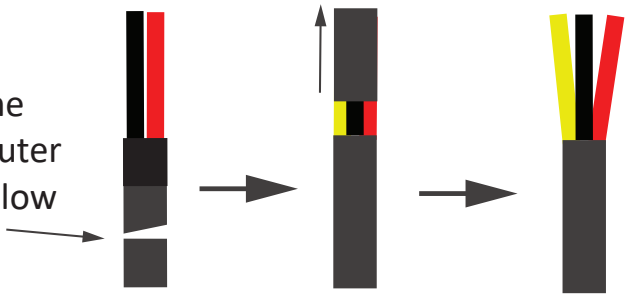
The lights operate in White, Blue, Random Strobe, and Color Fade modes. To change the mode turn the switch OFF / ON (within 2 seconds). To reset to White mode, switch the lights off for 5 seconds. The lights will always come on in White mode when first switched on.



Electrical installation - ECLIPSE Command Center

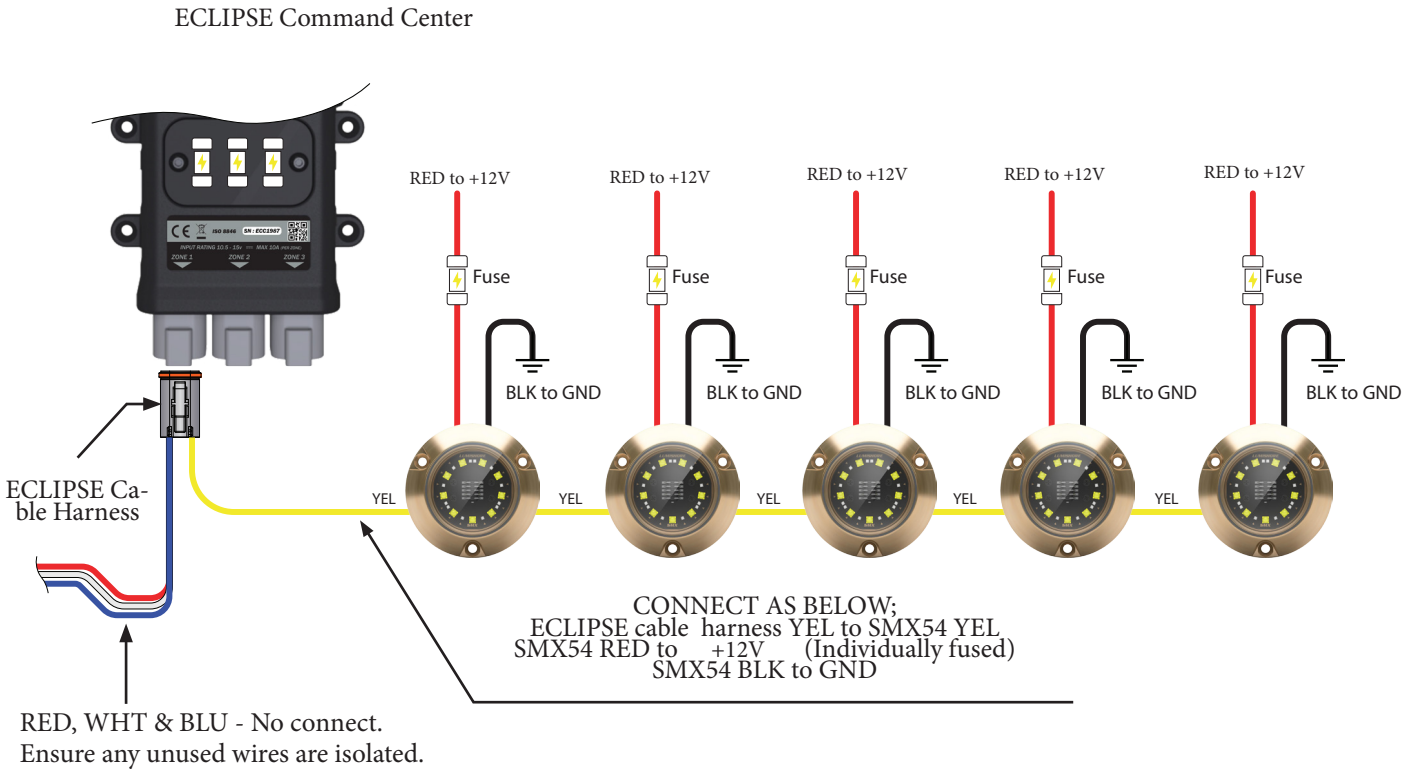
Note: The ECLIPSE control option requires for an additional step to reveal the Yellow wire from each SMX light. Please follow the step below.

Cut the cable just below the heat shrink. Remove the outer insulation to reveal the yellow wire



Important! The ECLIPSE Command Center installation is suitable for 12V boats ONLY.

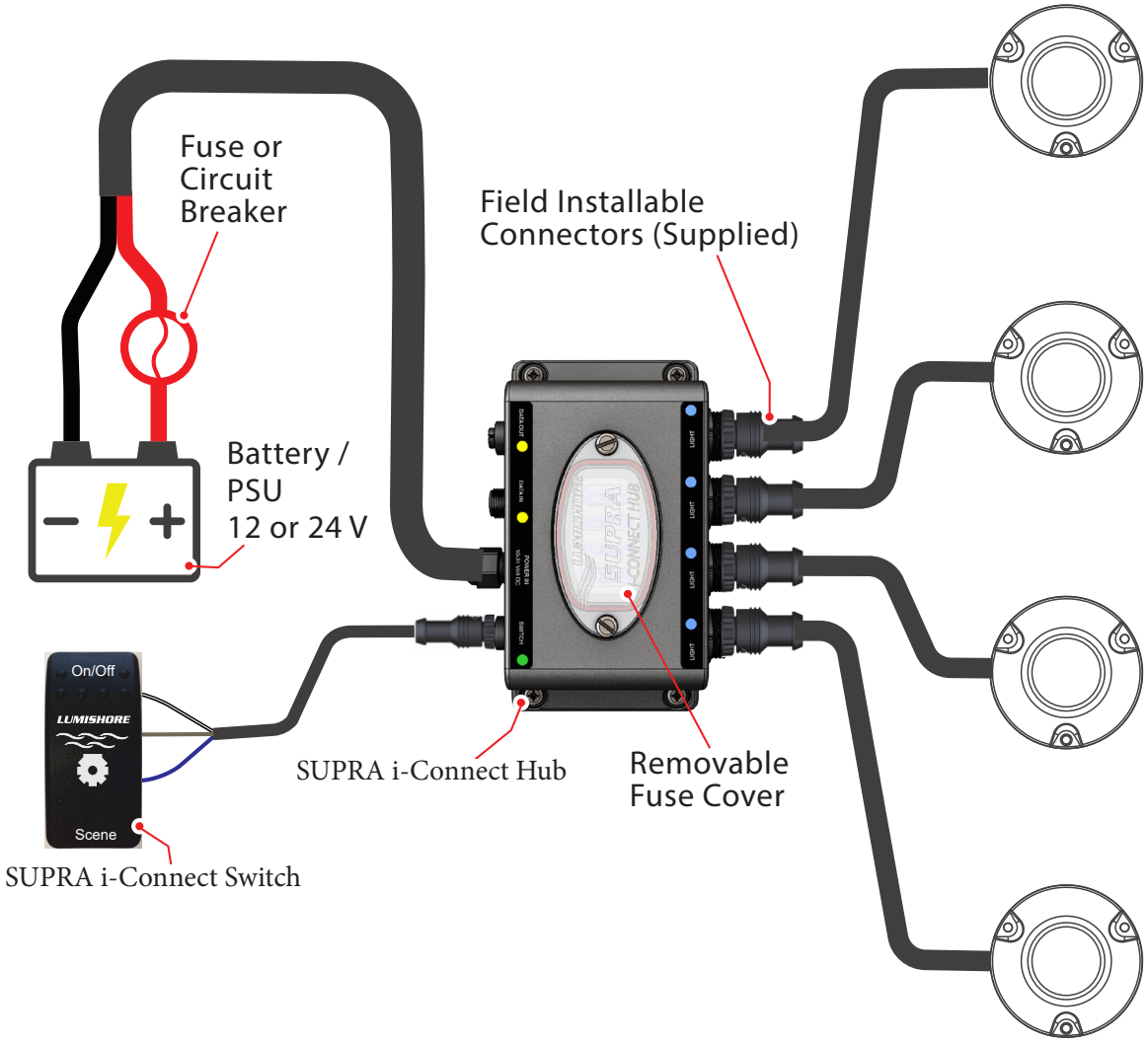
Connecting to an Eclipse Command Center



Electrical installation - SUPRA i-Connect Hub

Note: This option requires a Lumishore SUPRA i-Connect Hub (60-0317) and SUPRA i-Connect Switch (60-0318). The SUPRA i-Connect Hub allows control via certified MFD or connected device (SUPRA Bridge PN: 60-0368) - See SUPRA Bridge installation manual for further details.

Plan the installation first. Work out where the lights will be mounted. Each light connects to the hub using a field installable connector (supplied). One hub can power up to 4 lights, and 4 hubs can be connected together in one system. The hub should be mounted between the lights and the power source. Plan the cable routes, including the switch, prior to installation. Ensure all cables are marine grade, and are correctly rated for TOTAL current, and voltage.



Note: Four hubs can be connected together. All they need is power connected, and a pre-moulded data cable run between the hubs (see connecting multiple hubs section for wiring diagram).

Installing the Hub(s)

1. Select a site for the installation of the SUPRA i-Connect Hub(s). This should be within reach of the light cables that will be attached to the hub(s). The hub(s) should be in a dry, well ventilated area. The hub(s) should NOT be mounted in areas prone to flooding or excess heat.

2. The hub(s) should be mounted to a flat surface, with room for access to the fuse panel and connectors.

3. Mount the hub(s) as close to the power source as possible. Run the power cable to the hub(s) from the power source.

4. Remove the clear fuse panel and insert the fuses (supplied):

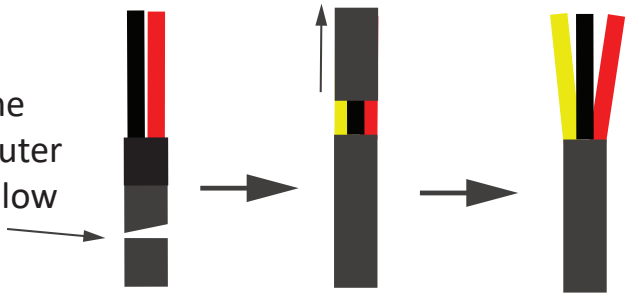
12V DC	7.5A
24 V DC	4A

Once the fuses are in place replace the fuse panel.

5. Select a position for the SUPRA i-Connect Switch. Mount the switch and run the cable to the hub. Connect the switch connector to the hub. The switch cable can be extended up to 50m. To extend, cut the switch cable, and connect in a 18 AWG, 3 core cable of the desired length. Take care to ensure that the correct conductors are connected together.

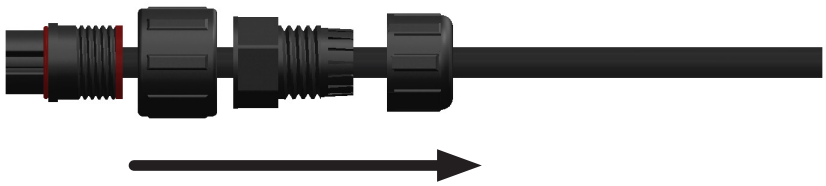
6. Add the field installable connector to the light cables (supplied). The light cables need to be cut back to reveal the third (data) wire.

Cut the cable just below the heat shrink. Remove the outer insulation to reveal the yellow wire

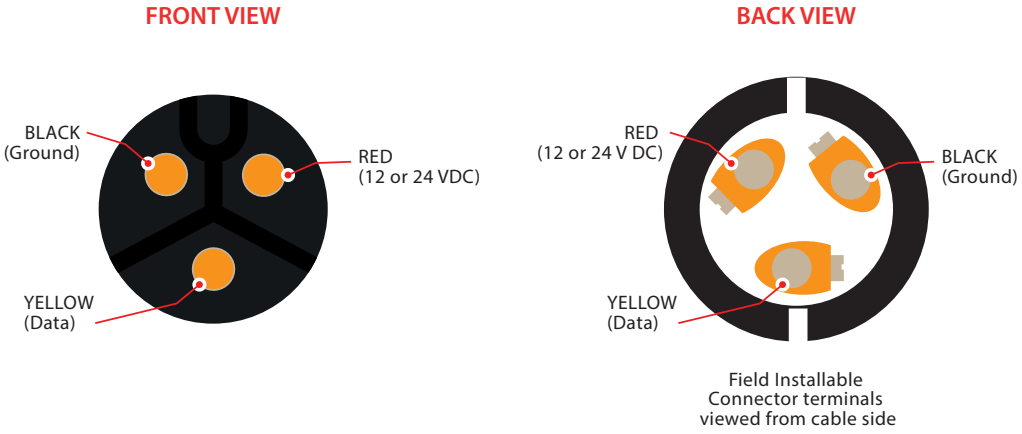


Trim back the insulation on each core to reveal 4mm of wire.

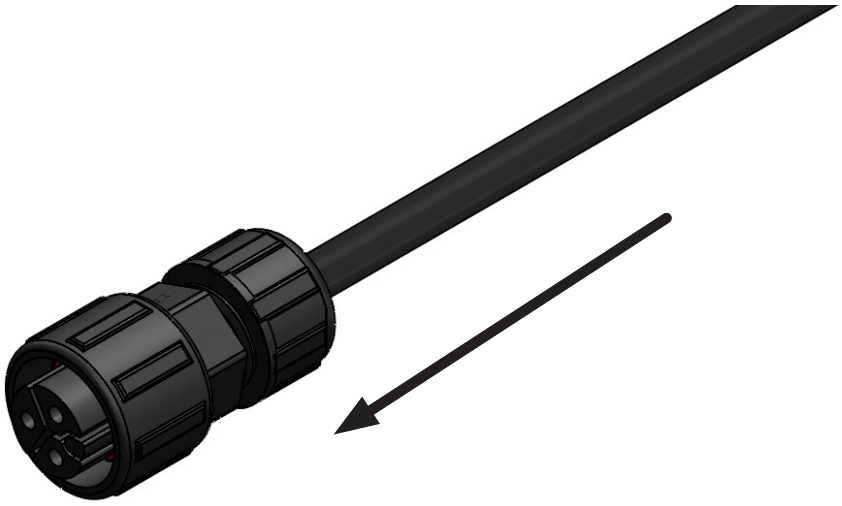
7. Unscrew the back of the connector to reveal the terminals. Fit the strain relief and gland nut over the cable BEFORE wiring the connector.



8. Wire the connector as shown below. TAKE CARE to secure the wires well with the grub screws. Check for any stray strands that could short to the other pins before fitting the strain relief and gland nut.



Note: Check the wiring is correct before connecting to the hub. Incorrect wiring can damage the light.



9. Fit and tighten the strain relief and gland nut onto the connector. Plug into the hub, taking care to orient the key correctly. Tighten the cap to make the waterproof seal.

10. Make sure that any unused ports on the hubs have dust caps fitted (supplied)

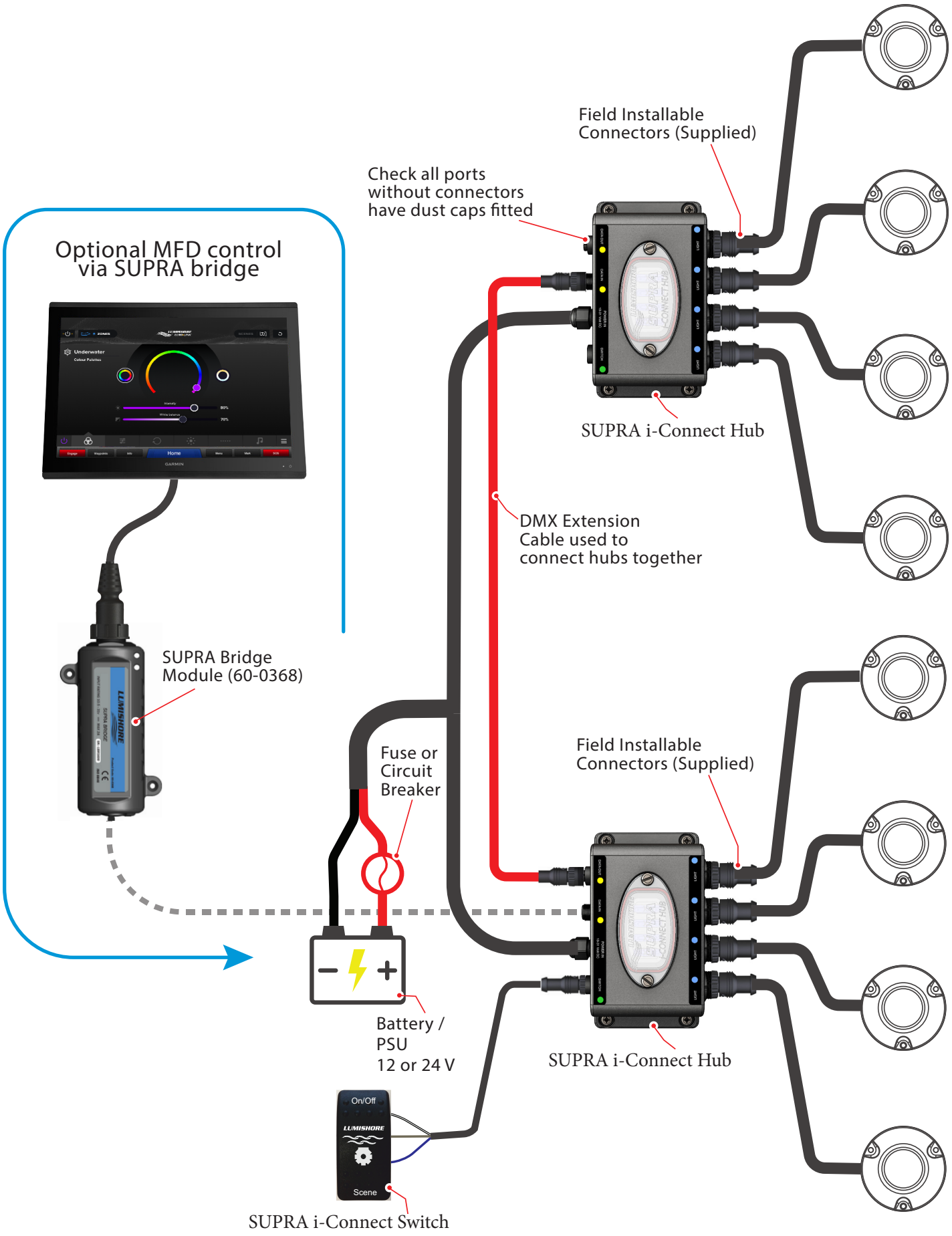
11. Connect power to the hub and switch on. Make sure the lights are tested, and working as expected before the boat goes back in the water.

The lights operate in White, Blue, Strobe, Synchronized Strobe, Color Fade mode, and Synchronized Color Fade mode.

Connecting a second Hub

You will need a second SUPRA i-Connect Hub(s) (60-0317) and DMX extension cables (1m - 60-0403, 5m - 60-0404 or 15m - 60-0405)

Each hub can power up to 4 lights, and up to 4 hubs can be connected together in one system. To add a second hub follow the diagram on Page 11.


Optional MFD control via SUPRA bridge
Underwater
Home
SUPRA Bridge Module (60-0368)
Check all ports without connectors have dust caps fitted
Field Installable Connectors (Supplied)
SUPRA i-Connect Hub
DMX Extension Cable used to connect hubs together
Fuse or Circuit Breaker
Field Installable Connectors (Supplied)
SUPRA i-Connect Hub
Battery / PSU 12 or 24 V
On/Off
Scene
SUPRA i-Connect Switch

Cleaning and maintenance

LUMISHORE lights require simple cleaning. Lights should be checked often to ensure the light body and lens area are free from sea growth. In the event that your light requires cleaning, we recommend the use of a soft cloth or soft bristled brush.

- DO NOT use any abrasive cleaning materials as these may damage the body of the light.
- DO NOT use any cleaning fluids that contain solvents, acids or alkali's.
- DO NOT clean using pressure washing or sandblasting equipment.

Slight discoloration of body may occur over life. This does not affect performance, and is not subject to warranty.

Due to nature and high build quality it may on rare occasions be possible to see small levels of condensation, this is normal for high power LEDs and will disappear after cooling and does not harm operation in any way.

If the lens of the light is covered for any reason, e.g. maintenance, or painting DO NOT switch the lights on until the covers are removed.

Warranty

LUMISHORE Ltd warrants its lighting systems and associated lights and accessories to be free from defects in workmanship for a period of three years, starting from the date of original purchase. Should your lighting system have a problem during this period, please contact your dealer, boat manufacturer or broker as soon as you become aware of the defect.

Misuse, abuse, improper installation, neglect, improper shipping, damage caused by disasters (e.g. fire, flood, storm and lightning), installation by unqualified personnel, unauthorized repair or modification or non-approved installations will void this warranty. For the avoidance of confusion and doubt, non compliance with all installation guidelines, maintenance and operating instructions in this document constitute non conformance with warranty terms.

Full warranty details including exclusions are available at www.lumishore.com

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