

SMX 92 & SMX 152 Installation and Operating Guide

Congratulations! You have purchased a LUMISHORE advanced LED technology underwater lighting system. Every care has been taken to ensure your SMX-92 / SMX-152 system arrives in perfect condition, so please enjoy the ultimate experience in underwater lighting.

Please read the following pages before attempting installation to ensure complete understanding of the LUMISHORE LED lights.

BEFORE YOU START

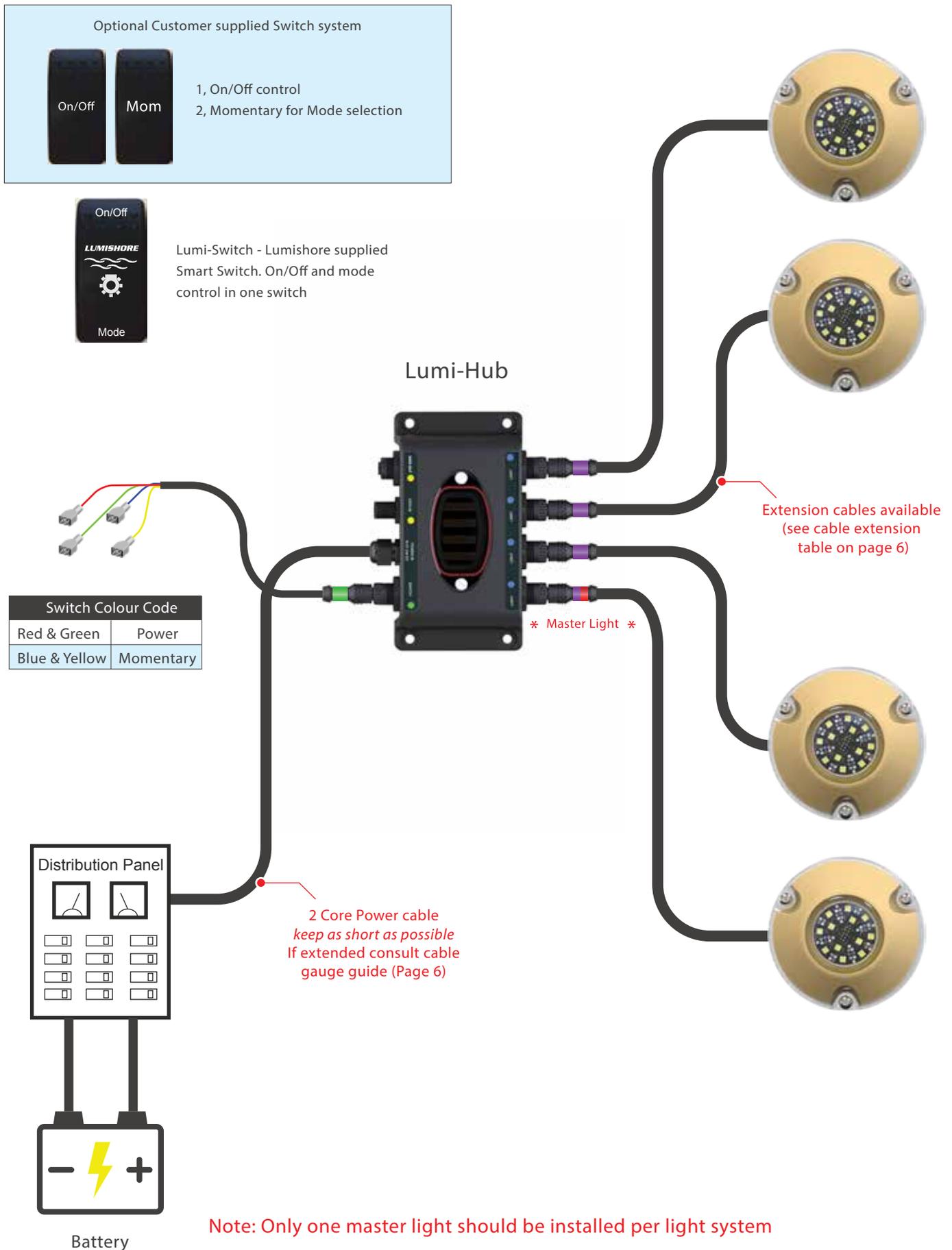
- High Intensity LED light – Do not stare into the LED module at close proximity.
- The lights are high power and should be installed below the water line.
- These lights are intended to be installed on vessels no larger than 50ft (15m).
- For best underwater illumination, LUMISHORE recommends installation 4" to 12" (100-300mm) below the water line.
- Choose a location - The light must be mounted on a flat (not curved) surface. Mount on transom or side of the 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.
- The SMX92 / SMX152 series operates on DC ONLY. Never connect a light to anything other than a Lumishore Smart Hub.
- The Lumishore smart hub is 10.5 to 31 volts. Never connect the hub to a voltage out of this range or AC voltage.
- The Lumishore smart hub allows each light to be individually Fused, To choose the correct fuse value for your light and voltage supply refer to the provided fuse table in this manual.
- No chemical cleaners/chemical spray, sandblasting/pressure washing should be applied or used on lights this will negate warranty

SYSTEM CONFIGURATION

The EOS surface mount integrated system consists of: One or more surface mount lights, a Lumi-Hub and a control method. Control options include a Lumi-Switch, EOS mini controller or EOS mini with built in WiFi for additional iPhone and iPad control. Please consult with your dealer to find out which control option would be best for you.

The Lumi-Hub allows very simple installation of the lights with all necessary components built inside. Simply connect the hub to the vessels DC power source, plug in the lights and your chosen method of control and the electrical installation is complete.

Follow the electrical diagrams on the following pages for a detailed guide.



Optional Customer supplied Switch system

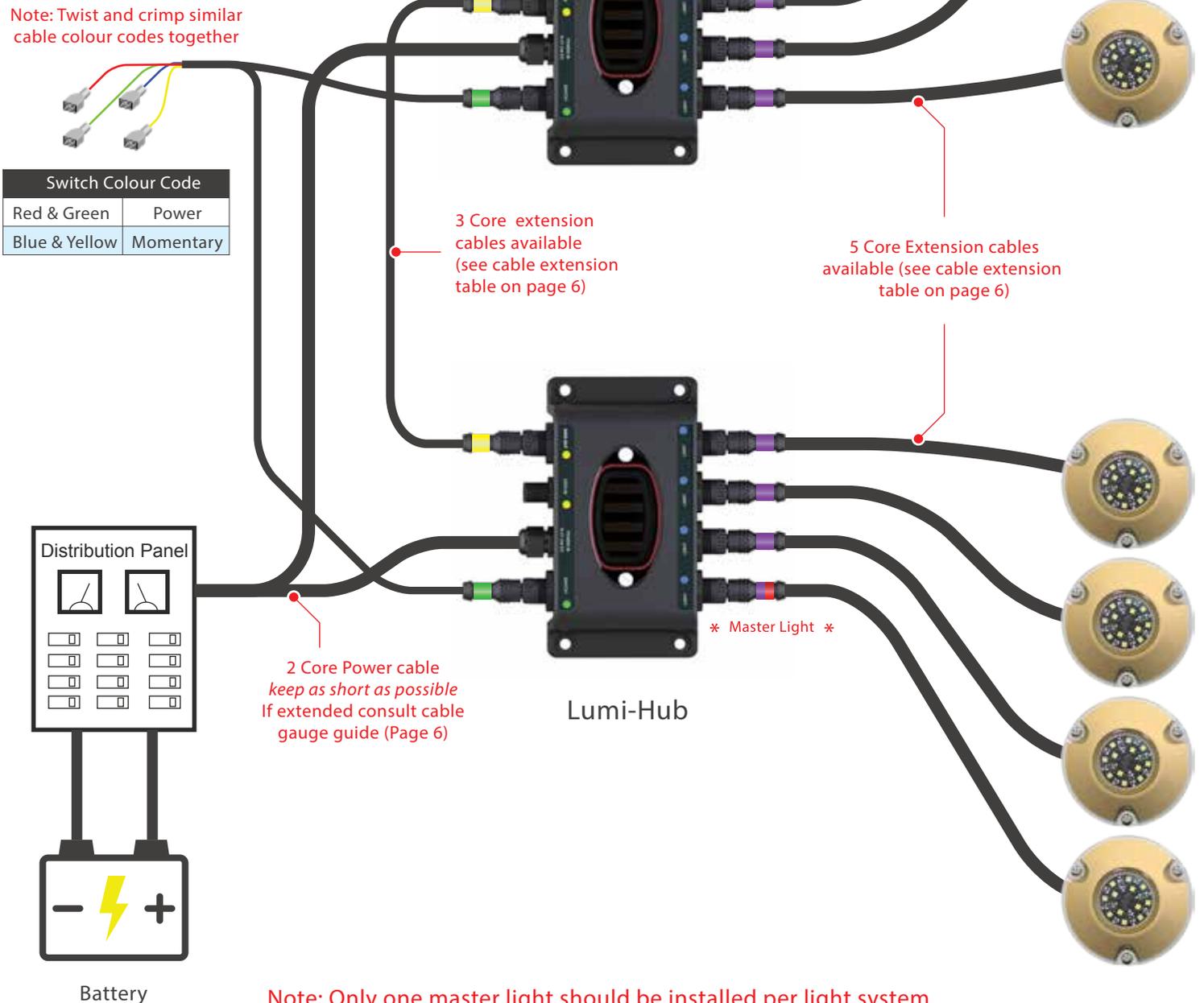
1, On/Off control
2, Momentary for Mode selection



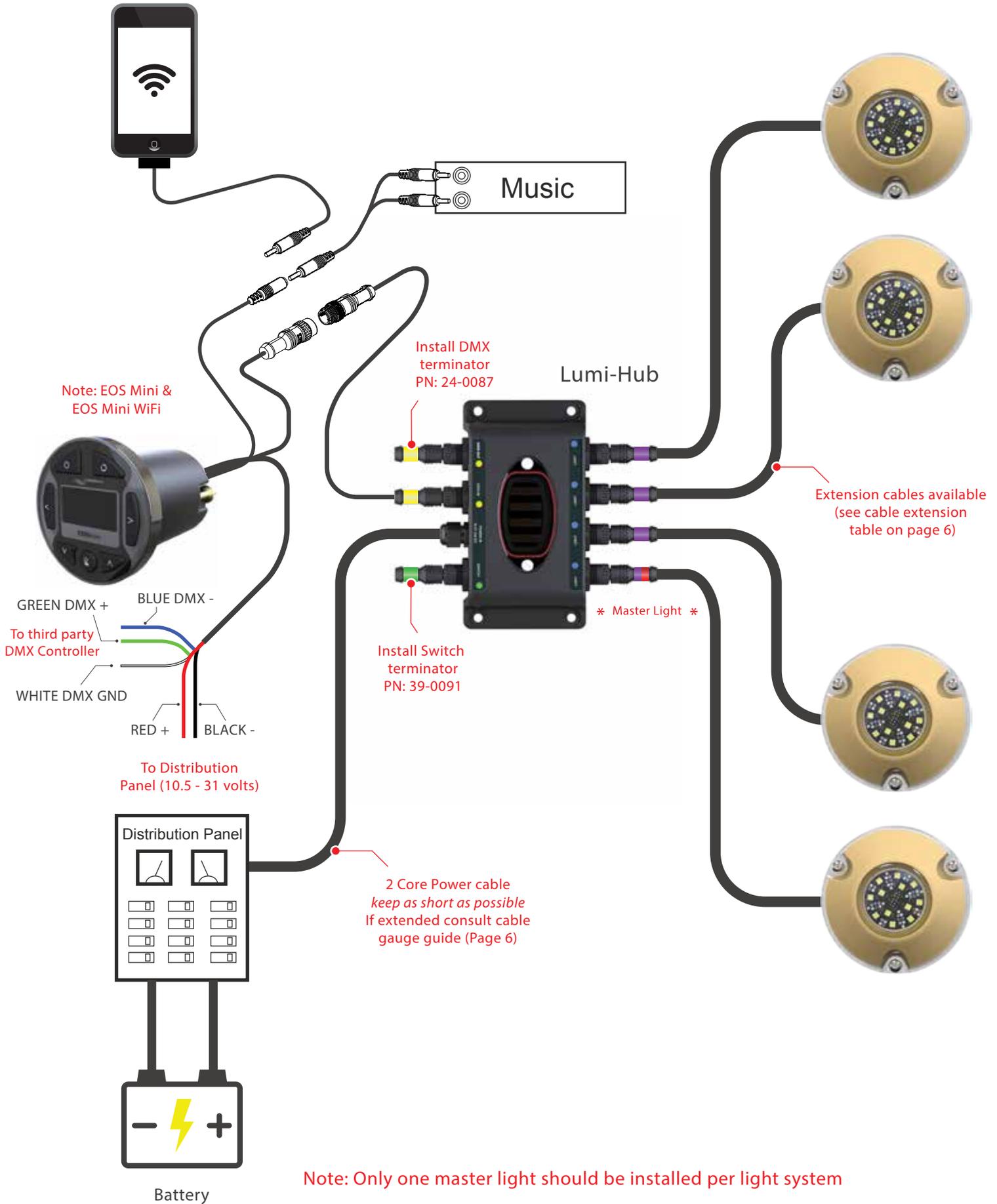
Lumi-Switch - Lumishore supplied Smart Switch. On/Off and mode control in one switch

Note: Twist and crimp similar cable colour codes together

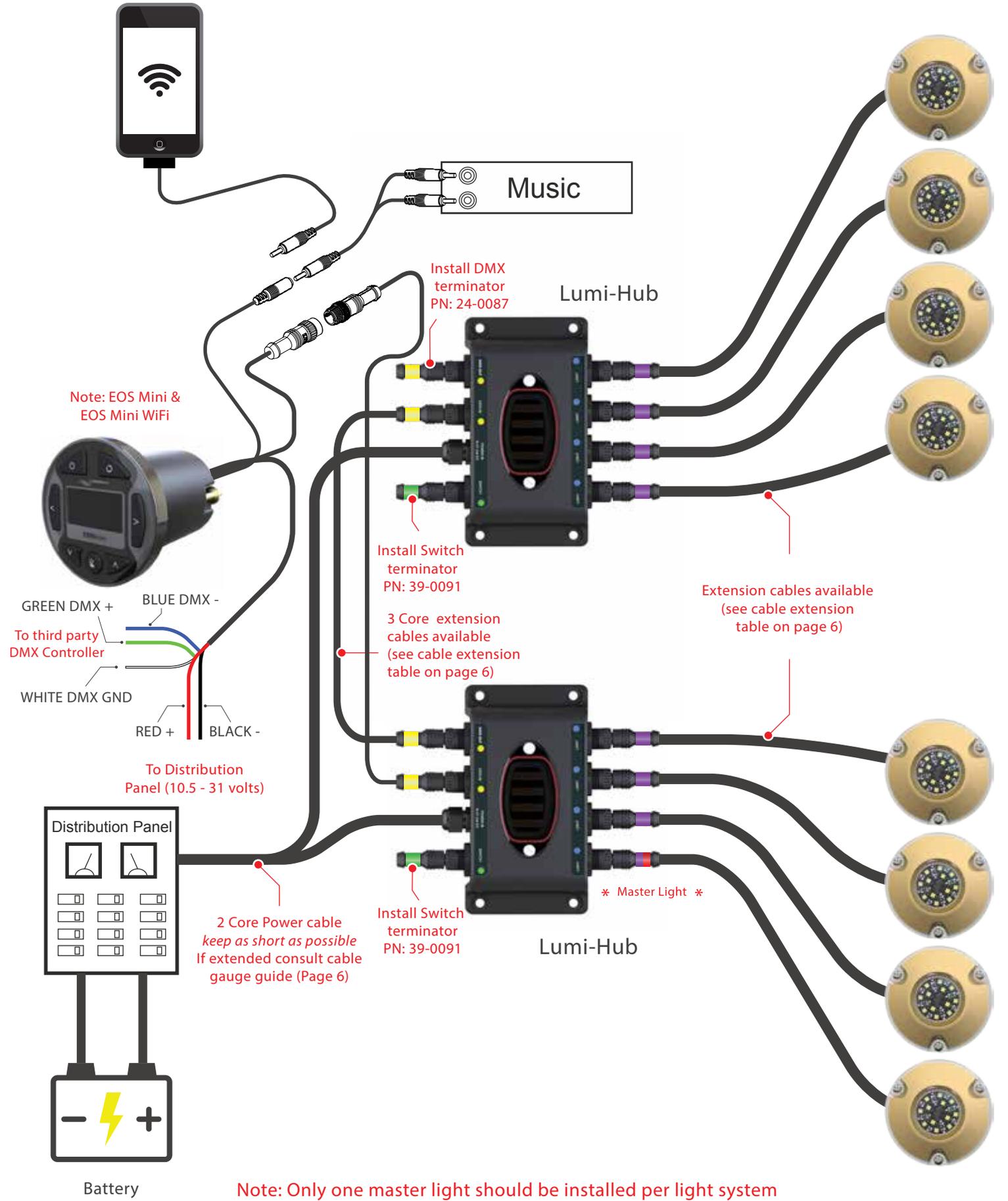
Switch Colour Code	
Red & Green	Power
Blue & Yellow	Momentary



Note: Only one master light should be installed per light system



Note: Only one master light should be installed per light system



The tables below give the **minimum** cable gauge required depending on the supply voltage, and distance from the power source to the Lumi-Hub. Please ensure that the correct cable gauge is used in the installation

12 Volt DC Installation

Model	Length of extension cable from Hub to Battery				
	10ft / 3m	20ft / 6m	30ft / 9m	40ft / 12m	50ft / 15m
SMX 92	10 Awg	8 Awg	6 Awg	6 Awg	4 Awg
SMX 152	8 Awg	6 Awg	4 Awg	2 Awg	2 Awg

24 Volt DC Installation

Model	Length of extension cable from Hub to Battery				
	10ft / 3m	20ft / 6m	30ft / 9m	40ft / 12m	50ft / 15m
SMX 92	18 Awg	14 Awg	12 Awg	10 Awg	10 Awg
SMX 152	12 Awg	10 Awg	8 Awg	6 Awg	6 Awg

AWG to Metric conversion table

AWG Size	Cross sectional Area	Cable diameter
18	1mm ²	0.8mm
16	1.3mm ²	1.3mm
14	2.0mm ²	1.6mm
12	3.3mm ²	2.0mm
10	5.2mm ²	2.5mm
8	8.3mm ²	3.2mm
6	13mm ²	4.1mm
4	20mm ²	5.1mm
2	33mm ²	6.5mm

5 Core Cable extensions from Lumi-Hub to Light

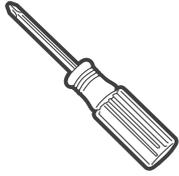
Supply Voltage	Total Cable Distance from hub to light	Part Number
12V DC / 24V DC	6m (Light cable plus 1 extension cable)	24-0121

Note: Some 24V DC systems can be extended further. Contact Lumishore for further info

3 Core Cable extensions from Lumi-Hub to Lumi-Hub

Length	Part Number
1m	24-0077
5m	24-0078
15m	24-0099

Tools Required



Phillips Screwdriver



Drill/Driver



Drill Bits
(3.5mm & 13.5mm)



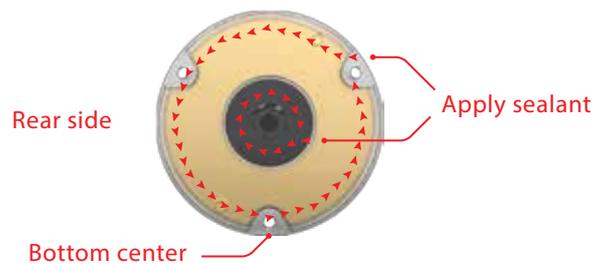
Marine Sealant
(Use only 3M 4200)



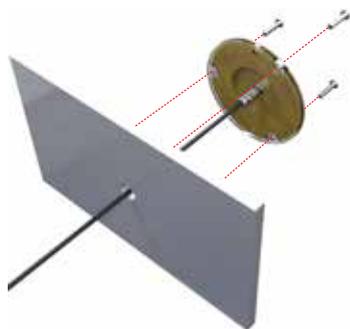
Rags for clean-up

Pilot Hole for Screws	Hole for cable and cable gland
9/64" (3.5mm)	17/32" (13.5mm)

1. Select a suitable flat surface that is accessible from inside the vessel and ensure the light cable can be run without a problem.
2. With one hole at the bottom centre (**see image below**), mark and drill the pilot holes for the screws. Drill the power cable hole. The cable hole must be large enough to accept the cable gland on the back of the light, so that the light sits flush.



3. Apply a continuous thick bead of sealant approximately 0.6" (15mm) from the edge of the light and around the cable. Refer to the image above.
4. Push the power cable through the hole and align the light with the pilot hole screws. Ensure the light connector is kept clean throughout the process.
5. Attach the light using the 3 stainless steel screws by hand tightening with a screwdriver.



IMPORTANT: DO NOT OVER TIGHTEN. DO NOT USE POWER TOOLS TO TIGHTEN SCREWS.

6. Use a damp cloth to wipe off excess sealant that was squeezed out around the light. **DO NOT USE CHEMICAL CLEANERS!**

IMPORTANT: REFER TO THE DIRECTIONS ON THE SEALANT TO MAKE SURE IT HAS FULLY CURED BEFORE LAUNCHING THE BOAT INTO THE WATER.

1. Select a site for the installation of the Lumi-Hub. This should be within reach of the cables of the lights that will be attached to the hub. The hub should be in a dry, well ventilated area. The hub should NOT be mounted in areas prone to flooding or excess heat.
2. The hub should be mounted to a flat surface, with room for access to the fuse panel and connectors.
3. Mount the Hub as close to the battery source as possible. Avoid extending the power cable as this can cause a voltage drop. If the power cable needs to be extended, consult tables on page 6.



4. Remove the clear fuse panel and insert the fuses, as per the fuse table below. Once the fuses are in place, replace the fuse panel.

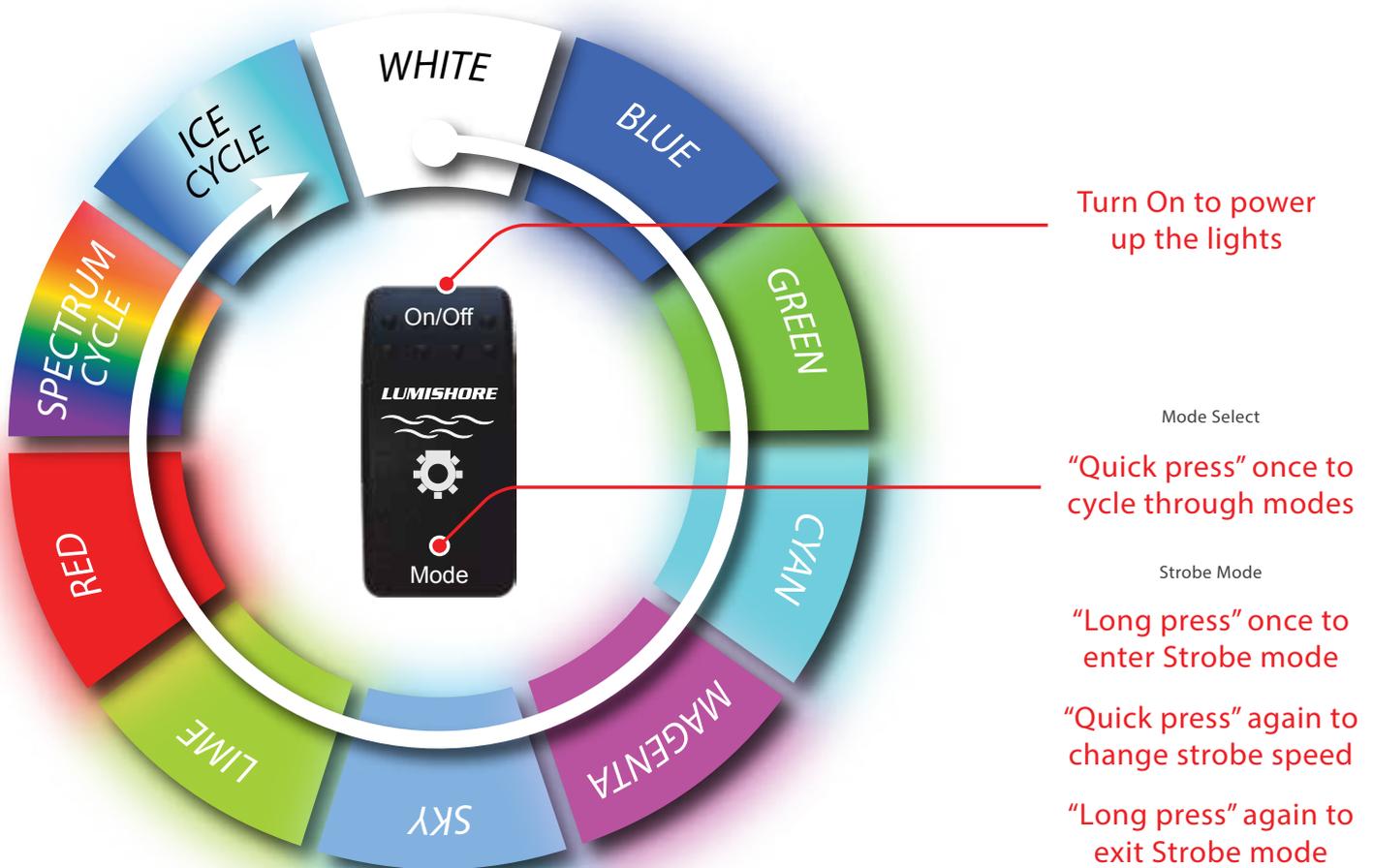
Fuse table

Light Type	12V DC	24V DC
SMX 92	4A	3A
SMX 152	7.5A	4A

5. Connect the power cable to the DC power source. When the smart hub is switched on the 4 LED's in the fuse panel will light up.
6. The system is plug and play. The diagrams on pages 2-5 show the smart hub connections. Refer to the system setup section for further information.
7. If operating with an EOS or EOS mini controller ensure the switch terminator and DMX terminator are installed (see page 4 & 5). The system will not function correctly if these terminators are not installed.

1. The Lumi-Switch has two operations – on/off and momentary. The momentary function has a spring action, and is operated by pressing the Bottom of the switch. There are two types of momentary function; short press (press and release) and long press (press and hold for 1 second before release).

The colour cycle advances in the following sequence:



Note: The SMX 92 & SMX 152 lights have built in memory. When they are switched on they will be at the same setting as when they were switched off.

For EOS mini Operation refer to relevant EOS user manual

Maintenance and Cleaning

LUMISHORE lights require simple cleaning. Lights should be checked every 3 months 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 alkalis.

DO NOT clean using pressure washing or sandblasting equipment.

Slight discolouration 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.

No chemicals, cleaners, chemical sprays or sandblasting should ever be applied / used on lights — this will negate warranty

Product Support

If you have questions or comments, please e-mail info@lumishore.com or call USA (941) 405-3302, United Kingdom +44(0)208 144 1694, or France +33(0)493 582 537.

LUMISHORE Ltd warrants the SMX92 / SMX152 to be free from defects in workmanship and materials for a period of two years, starting from the date of original purchase. Misuse, abuse, improper installation, neglect, improper shipping, damage caused by disasters such as fire, flood, and lightning, installation by unqualified personnel, unauthorized repair or modification will void this warranty. For the avoidance of confusion and doubt, non-compliance with all installation, maintenance and operating instructions in this document constitute non-conformance with warranty terms.

Full warranty details are available at www.lumishore.com



SMX92



SMX152



Note : The system uses a master light to synchronise the system. Install only ONE master light per system. The cable will be labelled 'Master' (just behind the light) and marked with a (Red) colour marker at the end of the cable.