SMX153-EOS
Color Change Surface Mount

M-CLASS

LUMI●LINK ™

10 - 31 VOLT
IP-68

LUMISHORE

M Class Full Color Change
Surface Mount Underwater Light
INSTALLATION AND OPERATION INSTRUCTIONS

Congratulations! You have purchased a LUMISHORE advanced LED technology underwater lighting system. Every care has been taken to ensure your compact SMX 153 LED light arrives in perfect condition, so please enjoy the ultimate experience in underwater lighting.

Adding underwater lighting to your vessel has never been easier - one small cable hole and three mounting screws is all it takes.

Please read the following pages to ensure a complete understanding of the LUMISHORE LED lighting system before installation.

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.

• The lights operate on 12V or 24 V DC. Never connect a light directly to the mains AC voltage, or DC voltage other than that specified.

• Each light should be individually fused (fuses are included with the hub).

• For Installation on boats up to 15m (50 ft). Isolation kit (39-0203) MUST be used on boats with conductive hulls.

Mechanical Installation

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

Pilot Hole for Screws - 9/64" / 3.5mm
Hole for Cable and Gland - 17/32" / 13.5mm

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 centre, mark and drill the pilot holes for the screws & drill a ø4mm counterbore to a depth of 5mm in each location. Drill the power cable hole, the hole must be chamfered on the outside to accept the gland. When fitted the light must sit flush against the hull.
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
Apply sealant
Bottom center
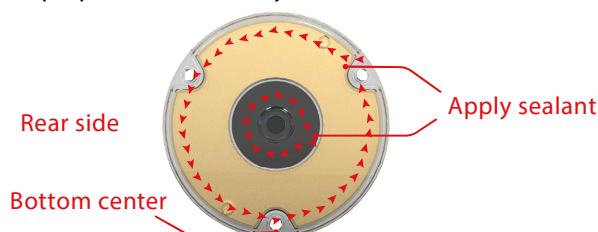
4. Apply a continuous thick bead of sealant to the back of the light, making sure the recess on the outer edge is slightly overfilled. Also apply a bead of sealant around the cable gland. Refer to image above.

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.
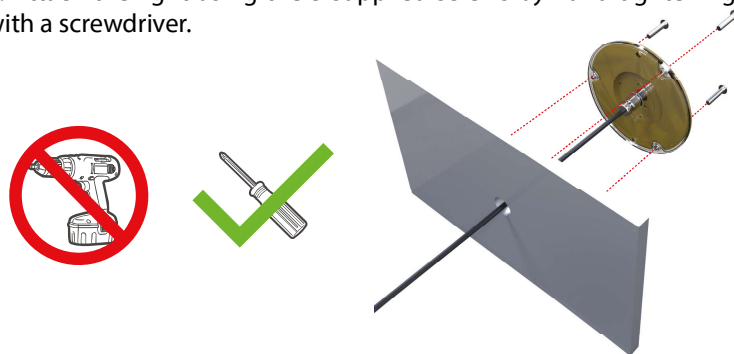
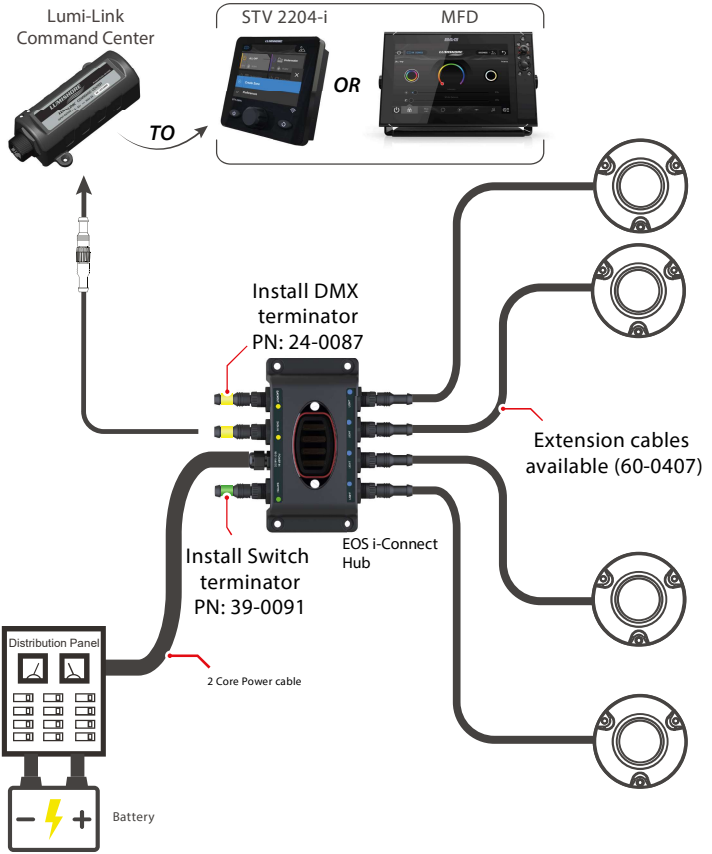IMPORTANT: Do Not Over Tighten. **Do Not Use Power Tools to tighten screws.**

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.

120°
95mm (3.74in)
PCD 84mm (3.31in)
18mm (0.71in)
12mm (0.47in)

Electrical Installation
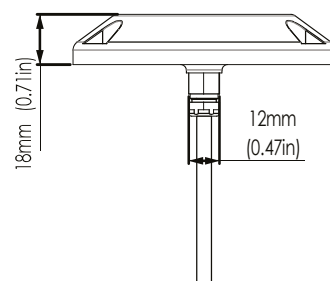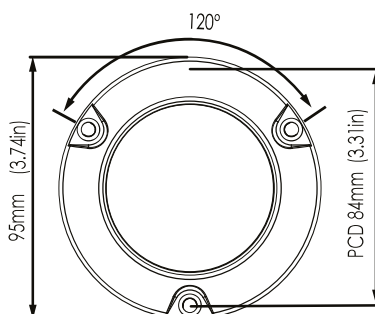
Plan the installation first. Work out where the EOS i-Connect hub and the lights will be mounted. One hub can power up to 4 lights. The hub should be mounted between the lights and the power source. The command center can be mounted remotely from the hub and connected using DMX extension cables. Plan cable routes prior to installation. Ensure all cables are marine cables, and are correctly rated for TOTAL current, and voltage.

Note: For detailed installation instructions please refer to the installation manual that came with your controller / command center

Lumi-Link Command Center

STV 2204-i   MFD

OR

TO

Install DMX terminator PN: 24-0087

Extension cables available (60-0407)

Install Switch terminator PN: 39-0091

EOS i-Connect Hub

Distribution Panel

2 Core Power cable

Battery

Note: Up to 4 hubs can be connected together. All they need is power connected, and a DMX Extension cable run between the hubs (see "Connecting additional hubs" section).

The light and power cables can be extended. Extend power cables using the correct cable gauge to avoid issues with voltage drop. Follow ABYC recommendations for no more than 3% voltage drop for 12V, and 10% voltage drop for 24 V. Consult a qualified electrical installer, or contact Lumishore for further information.

Light cables can be extended by 3m. ONLY use extension cables from Lumishore (PN 60-0407).

Installing the hub:

1. Select a site for the installation of the hub. This should be within reach of the light cables 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 power source as possible. Run the power cable to the hub from the power source.

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

12V DC	5 A
24 V DC	3 A

Once the fuses are in place replace the fuse panel.

5. Select a position for the controller/command center, and fit according to the instructions supplied with the controller/command center. Connect to the hub using the DMX extension cable - connect this to the DATA IN port on the hub.

6. Connect the lights to the hub. The connectors have a key - take care to position it correctly. DO NOT force the connectors into the ports. Make sure that any unused ports on the hubs have dust caps fitted (supplied)

7. Connect the DMX terminator to the DATA OUT port on the hub. Connect the Switch Terminator to the SWITCH port on the hub.

8. Switch on the power to the system. Check that the indicator LEDs in the hub light up.

9. follow the set up instructions in the manual for your controller/command center

Connecting additional Hubs

You will need additional EOS i-Connect Hub(s) (60-0321), DMX extension cables (5m - 60-0404, 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 additional hubs follow the procedure below:

1. Plan the installation, and fit the lights which will be connected to the second hub as described in the mechanical installation procedure.

2. Select a site for the additional hub. This should be within reach of the light cables that will be attached to it. The next hub is connected to the previous hub using a DMX extension cable. The hub should be in a dry, well ventilated area. The hub should NOT be mounted in areas prone to flooding or excess heat.

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

4. Mount the hub as close to the power source as possible. Run the power cable to the hub from the power source. Make sure the power is isolated before connecting.

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

12V DC	5 A
24 V DC	3 A

Once the fuses are in place replace the fuse panel.

6. Connect the lights to the hub. The connectors have a key - take care to position it correctly. DO NOT force the connectors into the ports. Make sure that any unused ports on the hubs have dust caps fitted (supplied).

7. Run the DMX extension cable between the hubs. Connect the MALE connector on the cable to the DATA OUT connector on the first hub, i.e the one with the controller connected. Connect the FEMALE connector to the DATA IN port on the next hub. Repeat this for further hubs.

8. Insert the Switch terminator plug into the switch port on the hub. Insert the DMX terminator into the DATA OUT port of the last hub.

9. Switch on the power. Check the LED indicators in the hub are lit up. Set up the lights using the controller/command center as per the instructions.

Note: For detailed installation instructions please refer to the installation manual that came with your controller / command center

Lumi-Link Command Center

STV 2204-i   MFD

OR

TO

Install DMX terminator
PN: 24-0087

Hub 2

Install Switch terminator (39-0091)

DMX extension cables available
(5m - 60-0404, 15m - 60-0405)

Distribution Panel

2 Core Power cable - *keep as short as possible*

Install Switch terminator
PN: 39-0091

Hub 1

Battery

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 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.

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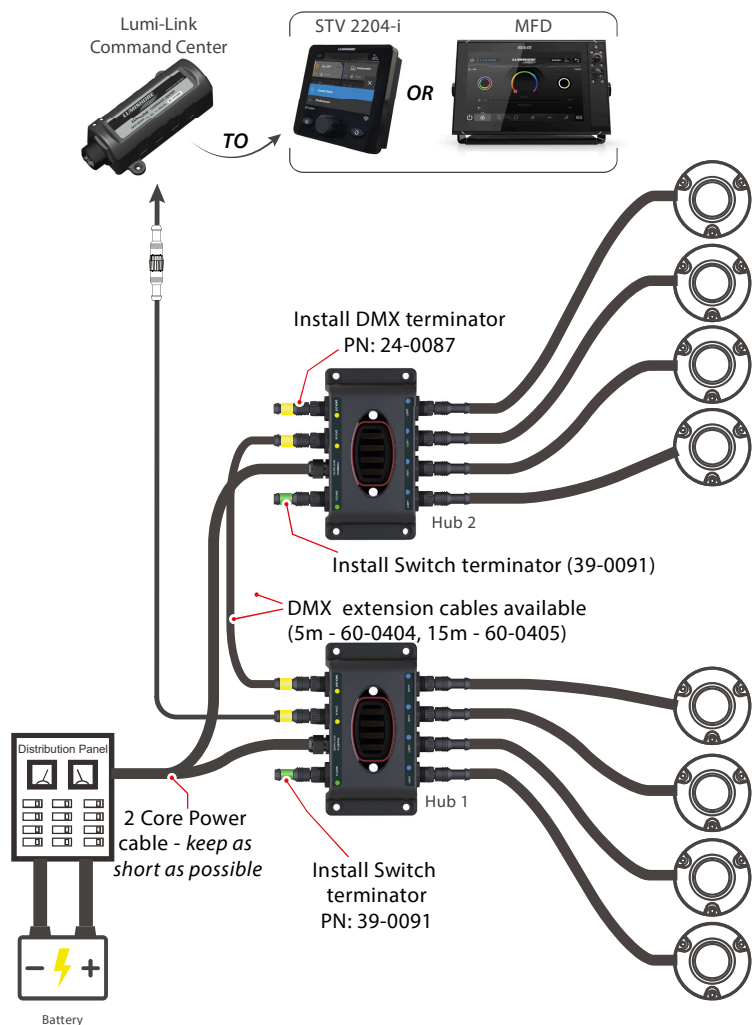
Warranty

LUMISHORE Ltd warrants the SMX 153 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.

The world's first marine lighting API (Application Programming Interface) allowing plug-&-play integration of Lumishore underwater lighting systems with certified Multi-Function Displays (MFDs) creating a centralized control platform for the entire vessel reducing helm clutter and simplifying vessel operation. www.lumishore.com/lumi-link