INSTALLATION INSTRUCTIONS

SCM SERIES

shadow-caster™ LED LIGHTING

SCM-4 • SCM-6 • SCM-10

MODEL #s: SCM-4X-AG-20 • SCM-4X-BB-20 • SCM-4X-CR-20 • SCM-4X-GW-20 • SCM-4X-UB-20
SCM-6X-AG-20 • SCM-6X-BB-20 • SCM-6X-CR-20 • SCM-6X-GW-20 • SCM-6X-UB-20
SCM-10-AG-20 • SCM-10-BB-20 • SCM-10-CR-20 • SCM-10-EXT-CC-20 • SCM-10-GW-20 • SCM-10-UB-20

WHAT YOU WILL NEED:

- ❑ Scissors
- ❑ Low stick masking tape
- ❑ Power drill with 5/8" (15.875mm) and 9/64" (3.5mm) drill bit
- ❑ Alcohol based cleaners and/or mild soap & water to clean light
- ❑ Marine sealant, Sikaflex®-291

Shadow-Caster™ Marine LEDs utilize state-of-the-art high powered LED technology combined with a rugged military grade design to bring you the best value in underwater lighting. Our lights are manufactured in the U.S.A. and are inspected to meet the highest standards of quality.

Please read the following instructions completely before installation:

1. Choose mounting location - The lights require water cooling and should be installed on a flat surface area that is below the water line. Also consider the area inside the boat where the wire will enter and make sure it will be accessible to retrieve the wire. It is NOT recommended to mount the lights on hull running surfaces.
2. Download installation diagram *https://www.shadow-caster.com/support/downloads/* if desired. Verify that the template matches the mounting holes on the light if using this as a drill template. Make sure you are drilling into a place where you can get to the hole from inside the boat in order to feed wire. Mark center drill location with pencil.
3. Drill a 5/8" diameter hole for the cable in the center hole location only (shown on template). Pro Tip: Lightly counter sink the hole to avoid cracking or chipping gel-coat before installing the screws.
4. If mounting to an aluminum hull purchase an SCM-GASKET-SCM(X) for galvanic isolation to prevent corrosion (X = size of light).
5. Feed the cable through the hull into the boat.
6. With the light against the hull in the location to be mounted, use the actual mounting holes of the light to mark one mounting hole. Drill that hole with an appropriately sized drill (9/64 is typical for #8 screws). Be sure the drill is not over sized or undersized. An undersized hole can cause the screws to break, oversize the hole and the hole will strip. With the light in place thread a screw into the hole. Now mark and drill the last mounting hole. **Note:** This procedure covers non-bonded applications. For applications where bonding to a central system is desired, please order "Bonding Kit - Stainless"
7. This procedure will prevent damage to the rubber boot where the cable comes out of the light. Gross misalignment of the mounting screw holes can cause excessive side loads on the boot. Now check the mounting hole alignment with the light against the hull in the mounting location. If the mounting holes are not both easily visible through the holes in the light, then the center hole for the cable must be reamed until the light can be aligned with the mounting holes.
8. Place a sufficient amount of marine sealant on the hull around all holes to seal them against the light's base plate.
9. Fill the screw holes with sealant.
10. Use provided screws to mount light to the hull. If alternate screws are used they must be passivated 316 stainless steel. After mounting wipe off any excess marine sealant around the light. Gently remove any with denatured alcohol on a lint free rag or cloth. Using cleaners that contain solvents other than alcohol may damage polycarbonate lens and potentially void warranty. This includes acetone, acetates, ethers, esters acetates, xylene, amines, hydrocarbons, methyl ethyl keytone (MEK).
11. **Install wiring:**
    a. Route wire through the boat in a manor such that it is tied up out of standing water and protected from excessive heat or abrasion.
    b. Route wire to a switch or power distribution system.
    c. Red wire is positive, black wire is ground. The lights must be individually wired through a fuse or circuit breaker. Failure to do so could cause a fire and injury or death. Each light should be fused separately and will require 4 amps at 12 volts, with a 7.5 amp fuse to handle in-rush current for SCM-10s, SCM-6 and SCM-4 will be less.
    d. Blue wire is PWM (Pulse Width Modulation) control wire. This is to control strobing and dimming functions integrated into the light.
    e. Orange and yellow wires are for optional Shadow-NET™ controller. See the Control Systems section of our website for more information.

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