



**SCM-PD  
Power Distribution system Installation and User Instructions:**



**SCM-PD shown with optional wireless Controller Installed.**

The SC Power Distribution enclosure is designed to give a convenient way to connect and control multiple Shadow Caster Lights.. The box is designed to service 6 lights and will handle up to 100 amps of current. This box is compatible with the Shadow Caster Wireless Controller (SCM-WC)

| <b>Power Distribution Box Includes</b> |  |
|--|--|
| 1                                      | NEMA Box with Power distribution Board and 6 outputs |
| 1                                      | Box Lid and 6 screws                                 |
| 6                                      | 7.5 Amp Fuses (Installed)                            |
| 4                                      | SS 316 Pan Head ,#8 x1/2" Mounting Screws            |

**Tools Required:** Phillips screwdriver, and wire stripper.

## Installation Steps

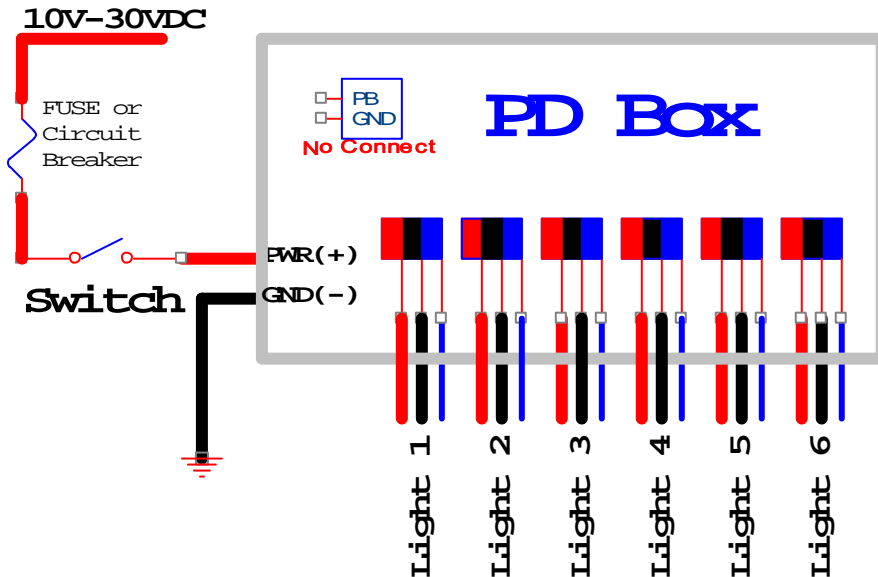
1. **Find a suitable mounting location:** This box should be mounted in a dry location, such as high in the bilge area below the deck or inside the console. It is preferred to not have the cable glands or the power wire connector facing up where moisture will drain into the box.
2. **Mount the Box:** The box can be mounted with the #8 Stainless Steel pan head mounting screws.
3. **Connect the Lights:** Loosen the cable glands and route the cable through. Strip the outer cable pack approximately 1.5 inches, and the ends of the wire back approximately ¼ of an inch. The connectors are color coded. Insert each wire into the respective location and snap the connector down.
4. **Connect Input Power:** Route power into the box directly from a switch, breaker, or main fuse panel. The breaker and incoming wire should be sized appropriately to the number of lights being connected. **Pwr (+)** and **Gnd(-)** are clearly marked on the printed circuit board. The connector will accept from 2awg to 20awg wire.
5. **Cinch the cable glands:** Hand tighten all cable glands. Verify that any unused cable glands have a nylon dowel inside so that a water-tight seal is maintained.
6. **Insert Fuses:** The Power Distribution box comes standard with 7.5Amp fuses to accommodate SC-10 Size light installation on a 12Volt power bus. If different size lights are being installed please see Chart 1 for appropriate fuse selection.
7. **Wireless Controller:** If Installing Wireless Controller Model SCM-WC-PD, please see the documents included with it for installation and operating instructions.
8. **Install Cover:** Install clear enclosure lid with 6 supplied screws.

**Note:** (Blue Jumpers are reserved for future expansion and should be left in place.

| model        | Suggested Fuse Size |            |
|--------------|---------------------|------------|
|              | 12V system          | 24V system |
| <b>SC-40</b> | 30 Amp              | 15 Amp     |
| <b>SC-10</b> | 7.5 Amp             | 3 Amp      |
| <b>SC-6</b>  | 5 Amp               | 3 Amp      |
| <b>SC-4</b>  | 3 Amp               | 3 Amp      |

**Table 1:** Suggested Fuse Sizes, Standard ATC style.

**Diagram 1:** Standard Single Color Light Wiring Diagram:



**Special Notes for Color Caster Installation:**

When installing Color Caster lights (SCM-CC) with the PD Box, connect the Green wires into the Blue connectors. Install the push button connector included with the Color Casters into the 2 position connector located on the upper left hand corner of the board according to **Diagram 2**. Below

**Diagram 2:** Wiring for Power Distribution Box with Color Caster Lights.

