Shadow-Caster Accent Lighting Controller (SCM-ALC): Installation Instructions and User Manual

The Shadow-Caster Accent Lighting Controller is designed to control RGB (Red, Green and Blue) LED lighting. It supports dimming, color change and fade operations through the use of an included waterproof switch. This controller also integrates with compatible Shadow-NET controllers to allow synchronization with other Shadow-Net enabled devices. The controller also features an integrated 150 Watt constant voltage output to prevent flicker or dimming due to typical marine power voltage fluctuations.

SCM-ALC Specifications and features:

- **Input Voltage:** 10 to 30 Volt input range.
- **Output:** Up to 150 Watts of LED power output: (Designed for common anode 12Volt Red, Green, and Blue LED Strip lighting and fixtures).

- **Supply Current**: Up to 12.5 Amps of LED output. (Note that there is over current protection built into the controller if too much load is present.)
- **Soft Start:** LED output will slowly increase to programmed intensity when turned on.
- **Power Toggle Detect:** Unique circuitry to detect a power toggle as a control input for changing light color.
- **Integrated dimming control:** LED Lights can be dimmed by adding a simple one wire push button control.
- **Color Fade:** Fade the LED color between Blue and White or Red, Green, Blue and White
- **Memory Setting:** Output intensity and color setting are automatically stored in permanent memory and will return even after disconnecting battery power.
- **Shadow-NET interface:** This is a network interface that allows the lighting to be controlled through a network interface via one of Shadow-Caster's Shadow-NET controllers or an existing controller.

Included with LED Lighting Controller:

4	SS316 Pan Head #8 Mounting Screws.
1	Prewired, On/off/Momentary waterproof switch

Operation:

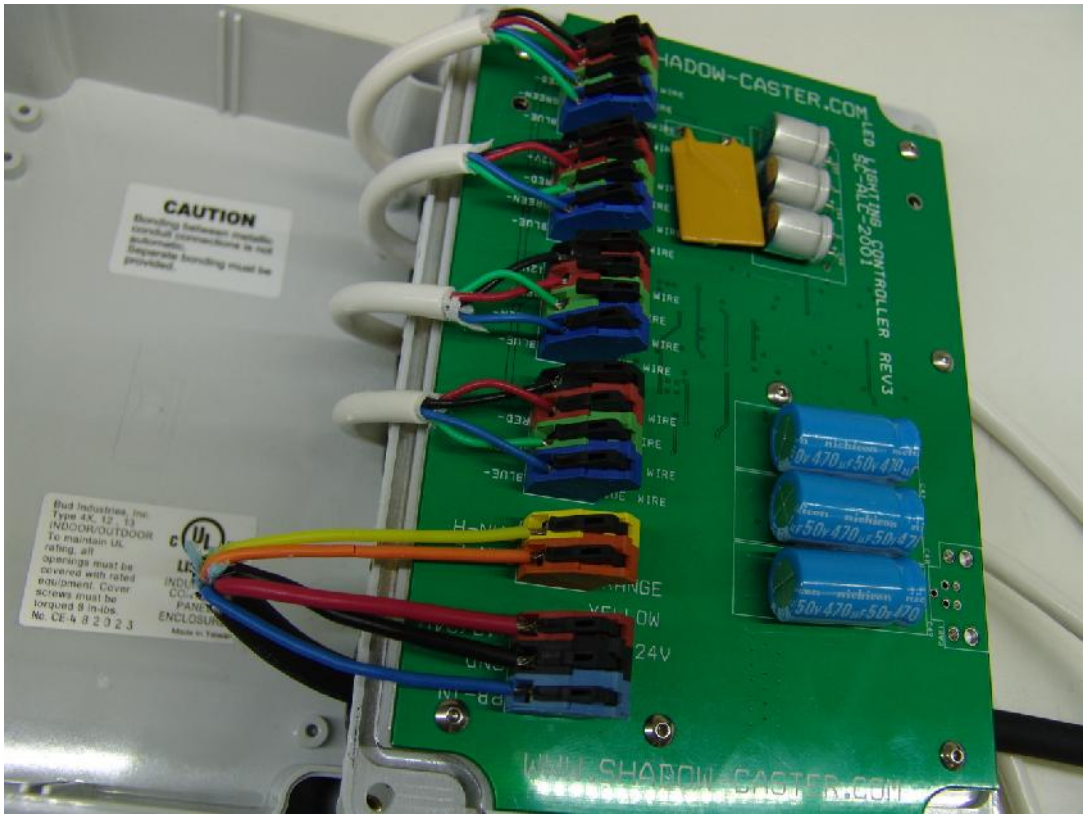
The Shadow-Caster Accent Lighting Controller provides convenient operation of standard LED strip lighting. It can toggle the color between Red, Green, Blue and White along with dimming and fading between colors. There are three ways of communicating with the LED controller.

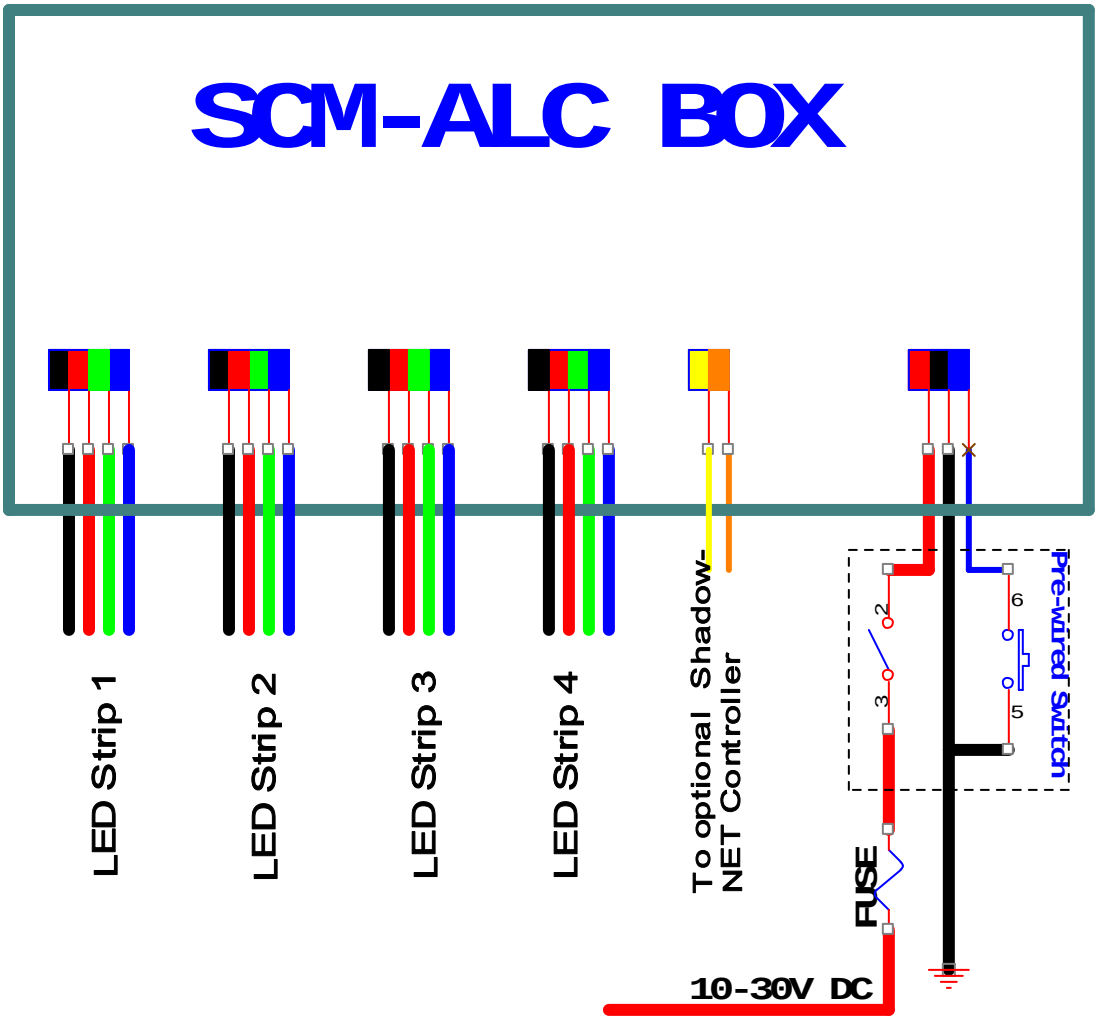
1. **Changing Color:** Quickly turn the power off and then back on within two seconds. The color of the LED strip will rotate from:
   BLUE → WHITE → RED → GREEN

2. **Dimming:** Depress the push button and hold for 2 seconds, the controller will automatically reduce the output of the LEDs to the dimmest possible setting, and then gradually increase to maximum output. When the desired intensity is reached, simply release the push button and this setting will be stored into memory. Upon releasing the push button, the output of the LEDs will quickly return to zero and come back to their set value to confirm that the new level is set.

3. **Fade Mode:** Press the push button and release, the lights will fade from **Blue→White**, press again, the lights will fade: **RED → GREEN →BLUE →WHITE**. Press the button a third time and the lights will return to single color operation. All fading operations happen on a 20 second cycle.

1. **Find a suitable mounting location:** Typically this box is mounted somewhere under below the deck or inside the console. It is preferred to not have the cable glands facing up in the final installation.
2. **Mount the Box:** Use the supplied #8 pan head screws to mount the box.
3. **Route Wires:** Route the individual LED strips and pre-wired switch connections through the cable glands. Note the orientation of the connections shown below appears backwards, as the connection board is mounted upside down.
4. **Connect Wires:** All of the spring clip connectors on the SCM-ALC are color coded for easy installation. There are four LED Strip Connectors and 1 power and 1 communication connector. The four LED strip connectors are all the same and are redundant for easy connection of multiple strips. See the simplified diagram below. All of the wire connections are spring loaded, simply insert the stripped wire and the black lever snaps closed.
5. **Replace Lid:** Replace the heatsink and circuit board assembly onto the enclosure box. Excess wire can be pushed into the housing before tightening the cable glands. Tighten the four screws on the perimeter of the heatsink.




SCM-ALC BOX
LED Strip 1
LED Strip 2
LED Strip 3
LED Strip 4
To optional Shadow-NET Controller
FUSE
10-30V DC
Pre-wired Switch
2
3
5
6