

RapidLED Logic 4' x 4' Kit Instructions

Overview

As with any type of lighting retrofit, there are many dangers, difficulties, and pitfalls that may occur. The Rapid LED Logic retrofit should only be attempted by people familiar with AC/DC power and wiring, electronics, LEDs, LED Drivers, series circuits, etc. If you are uncomfortable with or inexperienced at any of the prerequisites required for this retrofit, you should not attempt this retrofit.

Attaching LEDs to the Heatsink

We will use one Logic Thermal Pad in between each Logic Puck and pin heatsink for better thermal conductivity. Line up each of the 8 holes on the Logic Puck and Thermal Pad with the corresponding holes on the heatsink.

*******NEVER APPLY POWER TO THE LED DRIVER BEFORE ALL WIRING IS COMPLETE *******

Wiring the Driver to AC Power and Dimmer

The AC Line and Neutral, or ACL and ACN wires, which are brown and blue, connect to the 3 prong power cord. Strip the white and black wires of the power cord and attach them to the blue and brown wires on the driver with WAGO connectors, wire nuts, solder/shrink wrap, etc. The hot wire is typically black (connects to brown ACL wire on driver) and the white wire is typically neutral (connects to blue ACN wire on driver). Next, strip the green (ground) wire on the power cord and attach to the Green/Yellow wire on the driver like you did with the ACL/ACN wires previously. Obviously, this step is dangerous because you are working with 110 or 220VAC. Make sure nothing is plugged in and have a licensed electrician assist you with this step.

There are 4 output wires on the Meanwell HLG-C driver. The dimming wires, DIM + (gray), and DIM – (black), simply hook up to the red(+) and black(-) wires on the dimmer/potentiometer (aka knob). You can use the included WAGO connectors to connect these wires. The DIM+ wire and red + wire from the knob will be connected using one WAGO, and the DIM- and black – wire from the knob will be connected using a separated WAGO connector.

Mounting LEDs and heatsinks to the rail system

We suggest mounting the LEDs/heatsinks to the rails at this point in the assembly. It's often easier to mount them to the rails before the wiring is completed as that provides more flexibility. Please see the two rail and canopy substrate instructions for how to complete this step. Once mounted please continue to the final step of wiring in between LEDs.

Wiring the driver to the LEDs

Once the LEDs/heatsinks are mounted we'll take the final step of wiring up the drivers to the LEDs. To begin we will wire the Brown/V+ wire from the driver to the + connector on the Molex of the first Logic Puck. Since the driver's output wires are fairly thick and pre-soldered it's best to connect some bulk wire to these wires first before inserting to the connector. The Molex connector on the Logic Puck uses push-down releases. If you ever need to remove the wires after inserting them, simply push down on the tab in order to release the wire.

Starting with the – connection on the first LED we'll wire up the rest of the string going – to +, in series, until our final LED. On the last LED we will have one final open – connector. This will wire back to the Blue/V- wire on the driver. Please make sure the wire used in between connections is stripped properly (1/4"-5/16") before being inserted into the solderless connector and that all connections are secure at this point. Having a bad connection or loose wire can cause your entire string to be damaged upon powering on so this is very important!

Finishing Up

Only after all of your wiring is complete will you power on the driver. The lights should be extremely bright, and the potentiometer will give you manual dimming control. To shut off your lights please disconnect the driver from AC power (ie. by using a wall timer).

