

Rapid LED DIY Dimmer Kit (for ELN-60-48D)

- I. Overview
- II. Driver Notes
- III. Parts Included
- IV. Parts Required
- V. Tinning
- VI. Installing Potentiometers to Faceplate
- VII. Installing DC Jack to Faceplate
- VIII. Wiring Diagram
- IX. Completed Wiring Photo
- X. Installing Knobs to Potentiometers
- XI. Installing Faceplate
- XII. Wiring Dimmer to Driver(s)
- XIII. Using Your Dimmer

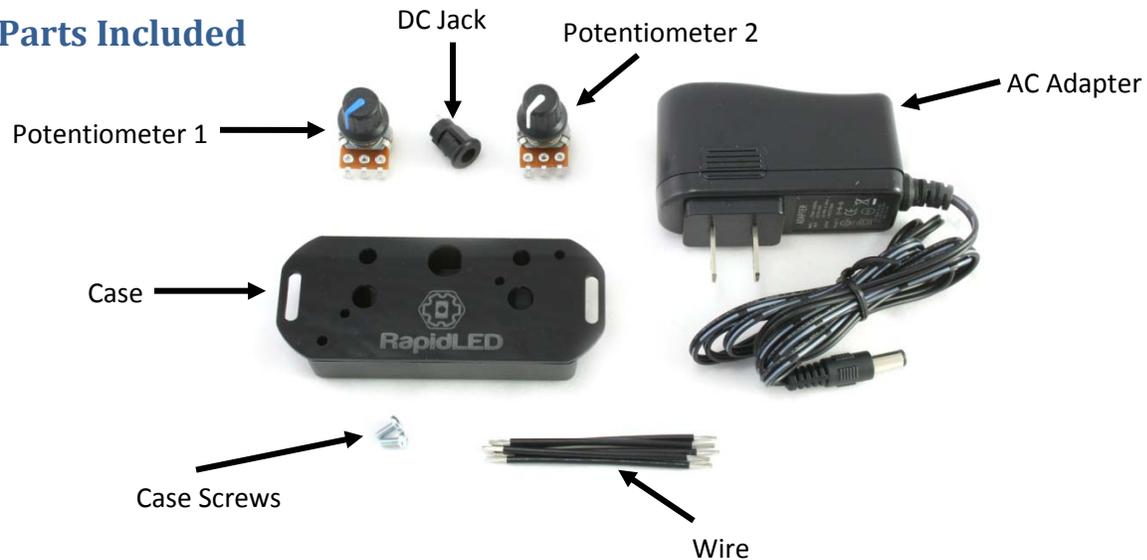
Overview

Thank you for purchasing a Rapid LED DIY Dimmer Kit. This dimming kit will allow you to manually dim multiple Mean Well ELN-60-48D drivers. Depending on the specific application, it should be able to dim up to 10 drivers without any problem. With this kit, use only the included AC adapter. Use of any other adapter may possibly damage the dimming circuitry in your driver(s).

General Driver Notes

The Mean Well ELN-60-48D dimmable driver accepts a 0-10V reference voltage signal on wires Dim+ (blue), and Dim- (white). The included AC adapter will provide the reference voltage and two potentiometers will allow you to vary the voltage between 0-10V, thus dimming the driver. The higher the reference voltage, the brighter the LEDs will be, the lower the reference voltage, the dimmer the LEDs will be.

Parts Included



Parts Required:

- Soldering Iron
- Solder (60/40)
- Philips Screwdriver
- Wire Strippers
- Extra Wire

Tinning

About Tinning Potentiometers and Wire

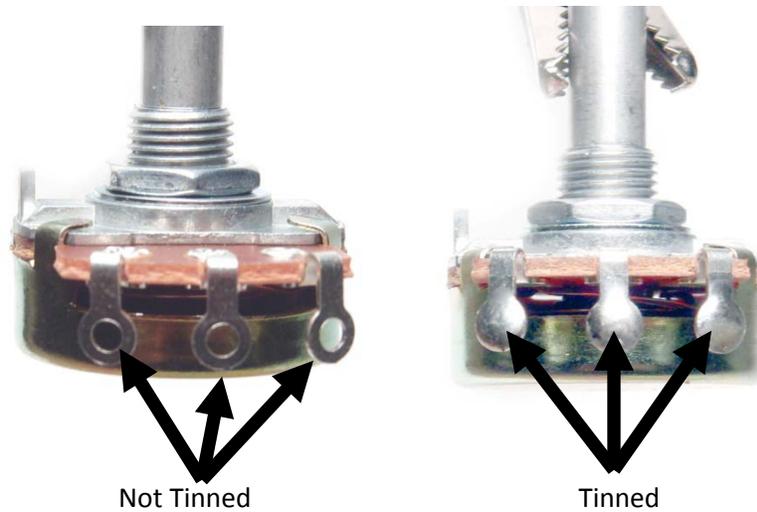
To begin, we will tin the potentiometer terminals, DC jack terminals, and wire tips. Tinning is the process of pre-coating the wire, or contacts, in the case of the potentiometer and DC jack, with solder. Tinned wire and contacts are more easily soldered together than non-tinned components. This step is to save headache and trouble later.

Tinning Wire

To tin wire, heat the wire with the tip of a clean soldering iron for a few seconds. After the wire is heated, apply solder to the wire (not the tip of the iron). Since solder flows towards heat sources, it should melt on to and flow through the strands of the wire, coating them evenly.

Tinning Potentiometer Terminals

To tin the potentiometer terminals, hold the soldering iron tip on the back side of the terminal for a few seconds, and then apply solder to the terminal near where the iron tip touches the terminal, but not directly to the tip of the iron. Solder should flow freely over the terminal and cover it completely. It is useful to have a helping hand during this procedure to hold the potentiometer still.



Tinning DC Jack

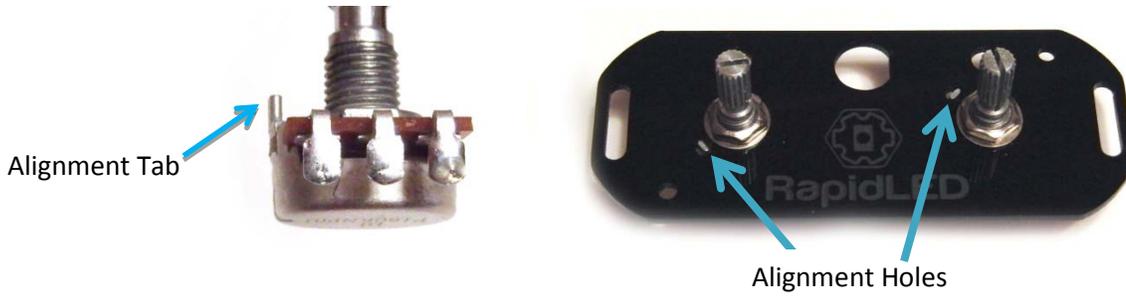
Next, tin the DC jack terminals in the same manner as the potentiometer terminals.



Installing Potentiometers to Faceplate

Next, we will install the potentiometers to the faceplate:

1. Insert the potentiometers such that the alignment tab on the potentiometer inserts into the alignment hole in the faceplate (see photos below). The potentiometer should sit flush, not at an angle in relation to the faceplate.
2. Put the included washer over the potentiometer shaft followed by the locking nut.
3. Screw the locking nut down and tighten until snug, but not too tight. We don't want to crack the faceplate by over-tightening.

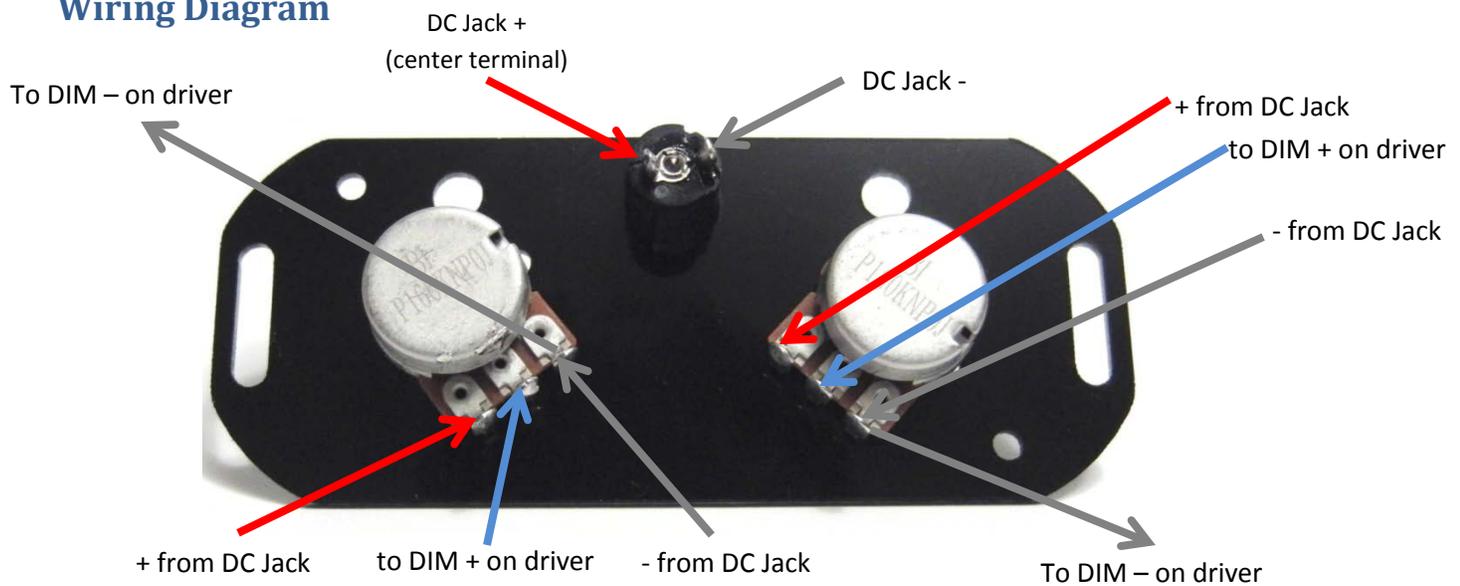


Installing the DC Jack to the Faceplate

The DC jack snaps into the faceplate. If it is pre-installed, do not attempt to remove it – you risk cracking the faceplate by doing so. The DC jack mounting hole is ‘D’ shaped. Ensure the flat edge of the DC jack matches up with the flat edge of the mounting hole. Once you have lined up the flat edges, gently press the jack into the hole until it snaps into place.



Wiring Diagram

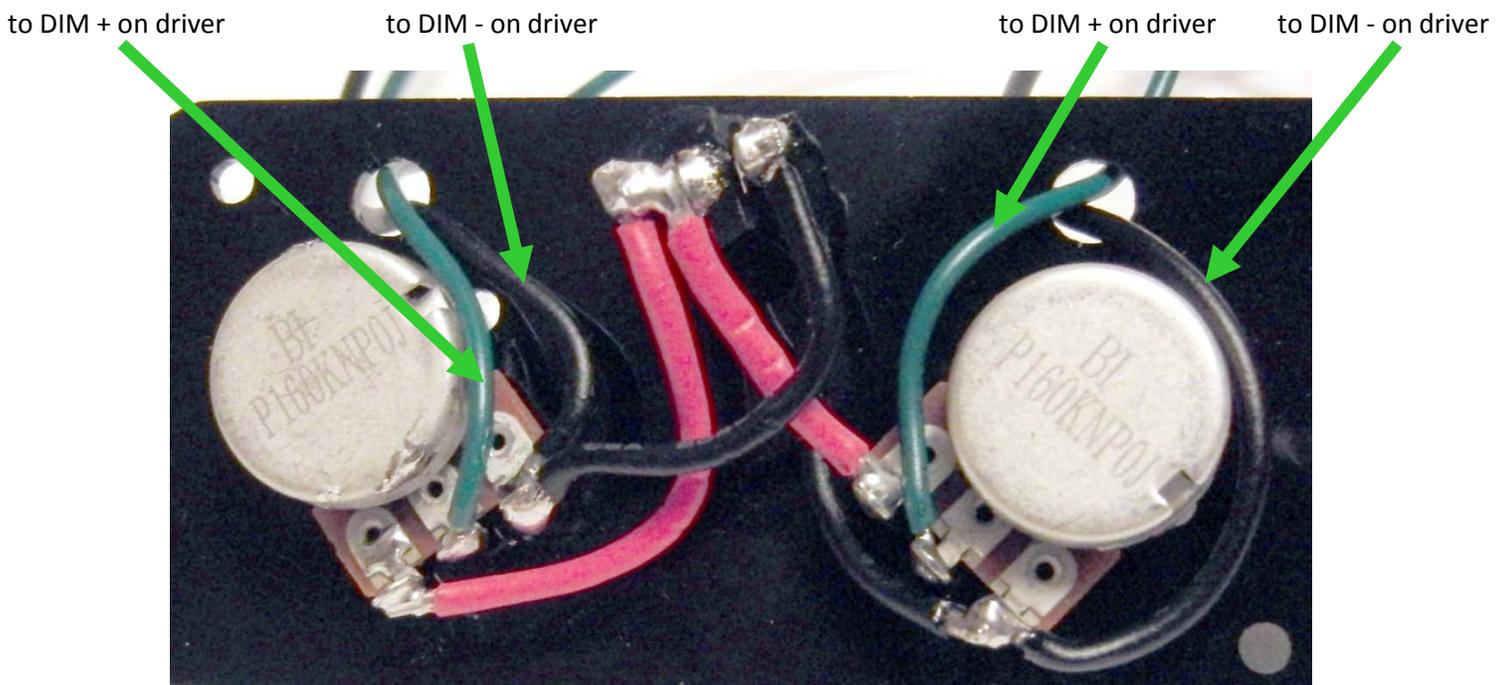


Completed Wiring

Below is a photo of completed wiring. Using the photo below and the above wiring diagram, please wire your kit the same.

Soldering notes:

- You will need to run a wire from the – terminal as well as a wire from the middle terminal of each potentiometer out to your driver(s) as labeled in the photo below
- Be sure to solder as close to the base of the terminals as possible on the DC jack. Soldering too far from the base may make the DC jack too tall to fit into the case.



Installing Knobs to Potentiometers

Before screwing the faceplate to the bottom half of the dimmer case, the knobs should be installed on to the potentiometers. The knobs simply push on to the potentiometer shafts. Rotate the potentiometers counter-clockwise as far as they will rotate and then gently push the knobs on to the potentiometer shafts at the desired angle. It is best to do this by putting pressure on the back of the potentiometer

Installing the Faceplate to the Case

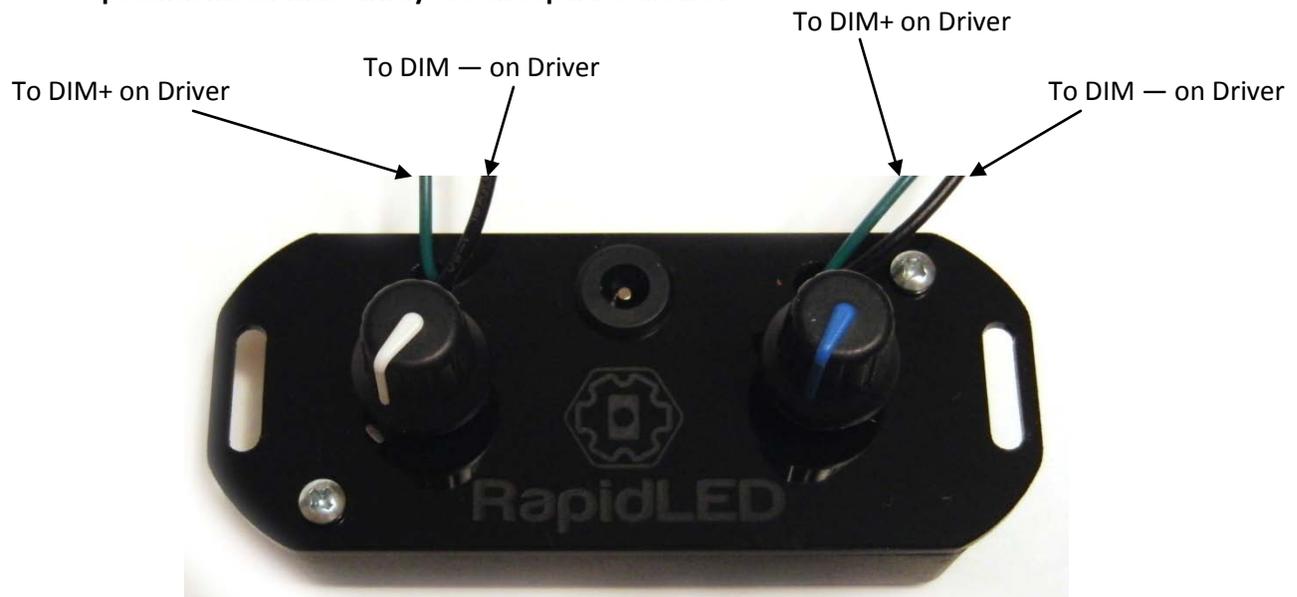
Screw the faceplate to the bottom half of the case with the included screws. Do not over tighten the screws, the faceplate may crack or the screw holes in the bottom half of the box may strip out.

Wiring Your Driver

You should now have a completed dimming box. Wire it as follows:

- Wire the DIM + output from your dimming box to DIM + (blue) on your driver(s).
- Wire the DIM – output from your dimming box to DIM – (white) on your driver (s).

The output wires from each potentiometer go to one or a set of drivers for dimming. Never combine output wires from one potentiometer with the other! **The outputs for each potentiometer must always be on separate circuits.**



Using Your Dimmer

To use your dimmer, plug the included AC adapter into the DC jack on the box (and into the wall). Rotate the knobs clockwise to increase output voltage (brightness) and counter-clockwise to decrease voltage. This assumes your ELN-60-48D drivers have been pre-configured and set up properly for your application. Please review our document entitled “Using Your Dimmable Driver” in detail before starting use of the ELN-60-48D drivers.