

BENCH TESTING

OVERVIEW. We strongly recommend Bench Testing both the LED strips (all of them) and LED Controller (if purchased) before permanently installing your Boogey Lights® LED lighting system. While we test every LED light strip and controller before shipping, bench testing your lights will eliminate the possibility of any problems with the lights or controller before permanently installing. It also lets you know the LEDs are the color you think you ordered. Also, the process of bench testing gives you an opportunity to understand the wiring system without interference from other wires, connectors and cables. **You should independently test both the LED strips (yes, all of them) and the LED controller.** You can use any healthy, fully-charged 12vdc battery to do this (e.g. car battery, motorcycle battery, lawn tractor battery or 12vdc power supply). It is important to make sure the 12vdc power supply is indeed 12vdc AND has sufficient amperage to support the lights being tested. The good news is that if you are testing each individual LED strip one at a time, the amperage draw from a single LED strip is relatively small (under 4 amps even for the longest strip we offer). As such, just about any healthy, fully-charged 12vdc battery should be sufficient for the bench testing process. Bench testing the components takes an extra 10 or 15 minutes. It's simple to do and can potentially save you hours of time and frustration down the road.

YOU MUST HAVE AN UNDERSTANDING OF 12V POWER. An essential skill with installation of any Boogey Lights® LED products is knowing how to correctly wire the product to a 12vdc circuit. This includes understanding the importance of having a properly sized fuse at the power source, polarity, how to properly seal an electrical connection, using properly sized wire gauge for the load, measuring voltage and measuring the additional amperage draw you're adding. If you are uncertain or unfamiliar with any of these concepts, we urge you to ask someone who has the knowledge to assist you on-site. Electricity is unforgiving.

BENCH TESTING LED STRIPS. To bench test an LED strip, connect the BLACK wire of the LED strip power lead to GROUND (12vdc -) and then touch each of the remaining LED strip power leads to 12vdc +. Each of the LEDs in the strip should light up in full intensity mode because the LED controller is bypassed. You're applying 12vdc power directly to the diodes on that LED strip. **The BLACK power lead attached to the LED strip is the only power lead you need to make sure is connected to GROUND (12vdc -).** All of the remaining LED strip power leads (regardless of their jacket color) can be connected to 12vdc + (one at a time of course). As an example, for an RGB strip, when 12vdc+ power is connected only to the RED power lead of the LED strip (assumes BLACK is already connected to ground), only the RED diodes in each LED chip will light on that strip. When the 12vdc+ power is connected to the GREEN power lead, only the GREEN diode on each LED will light. Etc. On a single color LED strip, you'll only have two power leads (12vdc + and 12vdc -) which is even easier to test. If you have RGBA or RGBW LED strips, you'll have FIVE wires: one ground (black) and four 12vdc + wires (each different colors). Repeat this process for each LED strip in your lighting configuration. Yes, all of them. Note: If any of what we just described is confusing to you, please do not attempt to install this light kit without seeking assistance from someone who has 12vdc wiring experience and can be on site with you. It's super important to understand these concepts. **VIDEO:** <https://www.boogeylights.com/how-to-bench-test/>

BENCH TESTING THE LED CONTROLLER (or WIRELESS ON/OFF)

Once you've tested each of the LED strips as outlined above, you're ready to bench test the LED Controller (or wireless on/off controller). In this scenario you'll need to connect only ONE of the LED strips you previously tested to the LED controller. **See wiring diagram provided with your light kit showing the proper wiring for your LED controller and LED strip type.** Again, connect ONLY ONE of the LED strips to your LED Controller – the shorter the LED strip, the better. Next, connect the LED controller to a known good, healthy 12vdc power source. This is the simple part. RED = 12vdc +. BLACK = 12vdc – (Ground). The RED 12vdc+ power lead going to the LED controller will also have a blade fuse in-line indicating it's the hot / positive input to the LED controller. Refer to the wiring diagram that came with your light kit for specifics on the wiring connection between your LED controller and your LED strip type. Our controller documentation is quite detailed in this regard. Be sure to read it. Do not make assumptions. If you don't have the controller documentation handy, [here's a direct download link to the wiring diagram and relates docs for our GEN2 LED controller](#) series. When connected to a known good 12vdc power source, the LED controller will power up (light on the face of the controller will be green) – and because you temporarily wired an LED strip to that LED controller, you can now use the RF wireless remote that comes with the LED Controller to test the controller with the light strip attached. It's very simple to do. See documentation on how to use the LED Controller if you need assistance on how to cycle through the colors (assuming it's a multi-color system) or to turn the LEDs on/off, dim, etc. Again, if any of what we just described in this paragraph is confusing to you in any way, please do not attempt to install this light kit without seeking assistance from someone who has 12vdc wiring experience and can be present on site with you to assist. It's super important to understand these 12vdc power and circuit connectivity concepts.

If any of the LED strips in your kit or LED controller don't work when performing the above bench tests OR if the LED color you're seeing doesn't match what you think you ordered, **DO NOT INSTALL THE LIGHT SYSTEM.** Instead, reach out to us directly at <https://www.boogeylights.com/email-us/> to open a Support Ticket. We will ask you some questions about the bench testing process you performed and then advise on next steps.

Hint: If none of your LED strips work when doing this bench test, you're doing something wrong (probably the power supply you're using). Every LED strip and LED controller is tested multiple times before we ship. While it's possible (highly unlikely) one LED strip out of 1000 could have a problem, it's impossible for all of the LED strips in the kit to be bad. Something else is going on.