



## **INSTALLATION GUIDE**

### **JEEP UNDER GLOW LED LIGHT KIT**

IMPORTANT! No two installation scenarios are the same. Accent lighting is highly subjective. Not everyone shares the same lighting or installation quality goals. Some folks are OK with twisting wires together, others want to solder and heat shrink them. Some folks are OK with running wires where they may be seen or unprotected to save money/time, others want a tidy, clean install so they wrap plastic split-loom around all exposed cables. Some folks are OK with mounting their LED strips to whatever surface they can find, others want to take the time necessary to build out appropriate mounting surfaces to provide the best lighting effect on their vehicle and maximize the longevity of their lighting system. The point is it's not possible to provide all the materials necessary for all installation scenarios on all types of vehicles to meet everyone's quality goals. Our light kits provide the essential components needed for a high-quality, functioning lighting system. Installation of our light kit to your specific vehicle will however likely require additional items to make it look, fit and work the way you want. This is particularly the case with electrical wiring, switching functionality and mounting surfaces for the LED strips. We have created a list of additional items you may need. Here's the link:

<https://www.boogeylights.com/other-items-you-might-need/> . While we offer them for sale you can also find these items locally. We urge you to review this information before starting your install.

### **BENCH TEST YOUR LIGHTING COMPONENTS FIRST!**

We know this takes a few extra minutes, but we STRONGLY suggest you bench test your lights AND your controller / switches on a table before doing anything further. Test all of them. While we test every light strip and controller before shipping, bench testing your lights will eliminate the possibility of any problems with the lights or controller before mounting. It also lets you know everything is working properly. Also, the process of bench testing gives you an opportunity to understand the wiring system without interference from other wires, connectors and cables. You can use any good 12vdc battery to do this (e.g. car battery, motorcycle battery, lawn tractor battery or 12vdc power supply capable of supporting a 5 amp load). If you're not sure how to do this, we have prepared a document explaining the process here: <https://docs.boogeylights.net/?wpdmdl=1305> . Bench testing 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.

Did we mention the importance of bench testing every LED strip and controller before installing?

## BEFORE YOU START

**THIS IS A GUIDE. NOT A HOW-TO.** It's simply not possible to provide detailed instructions for all installation scenarios. Far too many variables. The information in this manual is intended to be used as a guide. It is not a detailed step-by-step how-to installation manual. We do not spell out every single step along the way. We cover the essential steps related to installing this kit. Beyond that we assume the installer has the skills, knowledge and tools necessary to do the work using the information we provide as a guide. You may need to vary your installation and/or make adjustments based on your vehicle. This is particularly the case with electrical wire routing, electrical connections, electrical load sizing and switching. If you're unsure about how to do the installation – particularly the electrical components – we urge you to seek assistance from someone who has those skills.

**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. Electricity is unforgiving.

**WORK AREA.** Make sure you have ample area in which to work and that the area is protected from rain or cold temperatures. The 3M adhesive tape and 3M adhesion promoter works best if applied when the air temperature is above 40 degrees (and of course is DRY).

**KNOW YOUR AMPERAGE DRAW.** Pay attention to the number of LEDs you are lighting and the total amps you will be drawing. We manufacture a number of LED Controllers of varying capacities. If you over-load the LED controller, it will either not work at all or the lights will dim in a short period of time. Amperage data for all our LED products are on each product page. You can also download it directly here: <https://docs.boogeylights.net/?wpdmdl=1137>

### Tools You May Need

Sockets/wrenches in the sizes necessary to make electrical connections to your JEEP's battery, wire cutters/strippers, crimping tool, electrical tape, rubbing alcohol, shop rag or two and a heat gun (or hair dryer). We also suggest a 12vdc multi-meter to confirm/double check voltages. If you have to fabricate the rear bumper mounting surface, you're going to need a band saw or similar to cut the aluminum angle. We also suggest a rivet gun or screw gun in this case to secure the aluminum angle.

Which wiring diagram you get with your kit depends on the controller /switch you purchased. You can also download this wiring diagram from our website. If you purchased the kit without any switching, we assume you are going to be wiring the lights into an existing 12vdc circuit or switch. Be sure to allocate additional amperage draw which depending upon the color, can be as much as 3.3 amps per 300 LEDs. If you're going to be wiring to an existing switch or circuit, we strongly suggest using a 12vdc heavy duty relay. Connecting this many LEDs to an existing light circuit will likely make your LCM think there's a problem and it will throw an error. Using a relay avoids that potential problem.

## Mounting & Placement Locations / Planning Your Install

Installation of this led light kit takes 3 to 6 hours depending on which configuration you purchased. Kits that include the grill light kit take the longest because you'll need to remove the grill and build two quick-disconnect wiring harnesses (components supplied in the kit). Also, if you purchased the full perimeter light kit, you may or may not need to fabricate the mounting surface for the rear bumper area (see our installation video on the product page @ 3:55 for an example of what we're referring to). We include the aluminum angle to do this. Regardless, we strongly suggest viewing the installation video we have on the product page before starting this installation. It will give you a good idea of what's involved. Here is the full link: <https://www.boogeylights.com/jeep-under-glow-led-light-kit/>

There are three LED placement configurations based on the kit you purchased. Below is a summary of each configuration:

### **Basic Under-Glow**

- 2 - 30 LED Heavy Duty LED strips on each side of the Jeep (4 total for the four door Jeep). We mounted them on the slider slightly facing inward (see install video for a better view of placement). For the two door Jeep, only ONE - 45 LED HD LED strip is mounted on each side (2 total).

### **Under-Glow Full-Perimeter**

- 2 - 30 LED Heavy Duty LED strips on each side of the Jeep (4 total for the four door Jeep). We mounted them on the slider slightly facing inward (see install video for a better view of placement). For the two door Jeep, only ONE - 45 LED HD LED strip is mounted on each side (2 total).
- 1 - 45 LED Heavy Duty LED strip under the front bumper.
- 1 - 45 LED Heavy Duty LED strip under the rear bumper.

### **Under-Glow Full-Perimeter + Grill**

- 2 - 30 LED Heavy Duty LED strips on each side of the Jeep (4 total for the four door Jeep). We mounted them on the slider slightly facing inward (see install video for a better view of placement). For the two door Jeep, only ONE - 45 LED HD LED strip is mounted on each side (2 total).
- 1 - 45 LED Heavy Duty LED strip under the front bumper.
- 1 - 45 LED Heavy Duty LED strip under the rear bumper.
- 1 - 30 LED low-profile LED strip at the bottom of the radiator, behind the grill, shining upward (see video for placement)
- 1 - 18 LED low-profile LED strip on the inside of the top of the grill shining downward (see video for placement). Includes quick-disconnect connector.
- 1 - 12 LED low-profile LED strip on the inside of the top of the grill shining downward (see video for placement). Includes quick-disconnect connector.

Note that each of the Heavy Duty LED strips have a 36" power lead so each of these power leads will need to be extended. We include power lead extension cable and heat shrink in the kit for this. The quick-disconnect connectors referenced above for the grill light kit are also included in the kit but you have to assemble the wiring harnesses. We suggest wrapping the LED power leads in split loom (included) to protect them from chaffing and abrasion. See photo at the end of this guide showing how to make these connections with heat shrink to seal them.

## LED CONTROLLER / SWITCH

For kits that include an LED Controller or wireless ON/OFF Switch we recommend mounting them in the engine bay and connecting them directly to the battery. See install video (@ 4:35) for how we did it. We recommend connecting the 12vdc + for the LED controller directly to the battery using the supplied battery extension cable. The negative side of the LED controller can either be run back to the battery too or simply connected to bare metal somewhere on the Jeep's frame.

## MOUNTING LED STRIPS

*Follow these steps for mounting your LED strips:*

- The area where you are mounting the LEDs has to be clean: free of all dirt, oil or anything that might affect the LED from sticking. You only get one opportunity to mount the LEDs so it's critical the area be prepared properly.
- Use rubbing alcohol to clean the area where you are going to mount the LED strip. Be sure to let the alcohol dry completely before proceeding to the next step. (Note: Do not use acetone or similar cleaner).

Do NOT bend the LED strip in a radius of less than 2 inches.



Do NOT bend the LED strip on a horizontal plane.

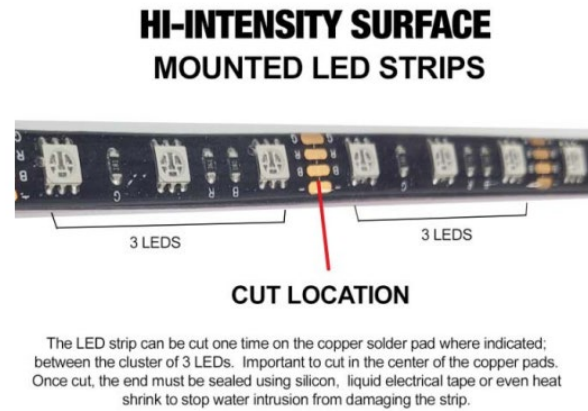


If the area is especially greasy, you'll need to clean it with a degreaser or similar solvent. If you do, be sure to use rubbing alcohol on the surface next to completely remove any left-over residue from the degreaser.

- Next, use the 3M Adhesion Promoter supplied with your kit to "paint" on the promoter where you are going to mount the LED strip. ***This is an important step. Do not bypass.*** Allow the promoter to dry for 60-90 seconds.
- Peel off the red backing tape that protects the 3M adhesive tape on your LED strip. Be careful not to let the tape touch anything. The 3M backing tape on these LED strips are one-use only. They cannot be reused.

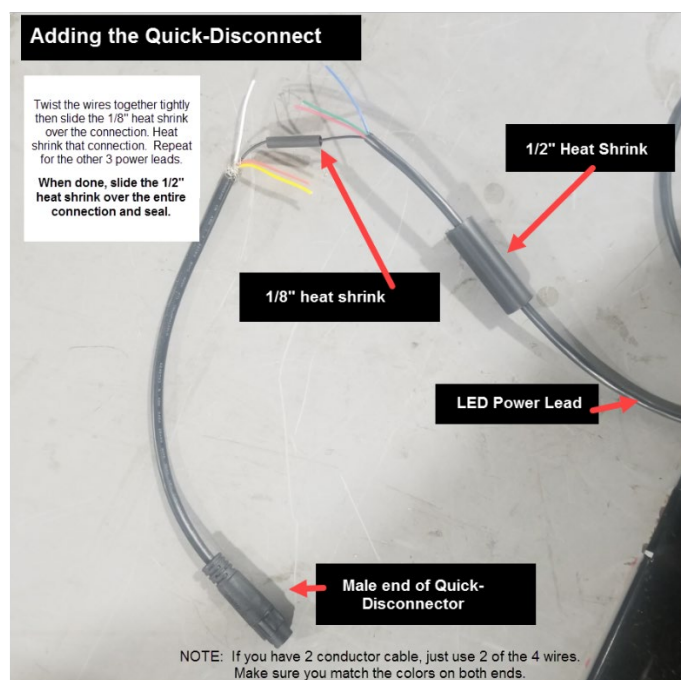
Carefully push the LED strip to the area you have prepared. You will want to apply only enough pressure to the strip to make sure it is firmly mounted. *You only get one opportunity to do this.* Once the LED strip touches a properly prepared surface that has been promoted, that LED strip will be very difficult to remove. Moreover, if you do remove the LED strip, the strip cannot be used again without adding another layer of 3M adhesive tape to the back. DO NOT press too hard as too much pressure can damage the LEDs and connecting wires in the strip. Also, do not pull, stretch or twist the LED strip. Too much tension on the strip will also damage the LEDs such that some of the LEDs in the strip will not illuminate. The strip must be mounted flat against a single continuous mounting surface, in a straight line. Really important that the ENTIRE STRIP be stuck to the mounting surface and that you NOT attempt to span across multiple mounting surfaces.

**CUTTING YOUR LEDS-** If you need to cut your LED strip you can do so as long as you cut in the proper location – which is every three LEDs as shown in the below photo. Cutting incorrectly could damage your lights and is not covered by the warranty. If you cut the strip, be sure to seal the cut end. You can also use silicone found at your local hardware or RV store. If you do need to cut your LED strip, we strongly suggest doing so BEFORE you mount the strip to your RV/Camper/Trailer. **NOTE: Heavy Duty LED strips CANNOT be cut. LOW PROFILE only.**



### Extending Power Leads & Assembling Quick-Disconnect Connectors

We include heat shrink for extending the power leads on each of the heavy duty LED strips as well as sealing the connections to the LED controller if purchased. The 1/8" heat shrink is used to seal each of the individual connections; there will be 4 per LED strip if RGB and 2 per LED strip is Single Color. Then, the 1/2 " heat shrink is used to seal over top of that group. See the photo below showing how this is done. While this photo is for the quick-disconnect, the concept is the exact same for extending the power leads on the Heavy Duty LEDs. If you purchased the Grill Light Kit, you'll need to assemble the quick-disconnect connectors that will all for future easy removal of the grill.



## Additional Resources

- Product Page: <https://www.boogeylights.com/jeep-under-glow-led-light-kit/>
- How to Videos: <https://www.boogeylights.com/how-to-videos/>
- Building a mounting surface: <https://www.boogeylights.com/video-creating-a-smooth-mounting-surface/>
- Using Aluminum Channels - <https://docs.boogeylights.net/?wpdmdl=1351>
- General installation: <https://www.boogeylights.com/video-how-to-install-a-boogey-lights-multi-color-under-glow-led-light-kit/>
- Troubleshooting: <https://www.boogeylights.com/trouble-shooting-guide/>
- Installation Resources: <https://www.boogeylights.com/installation-resources/>
- GEN2 LED Controller Wiring Diagrams + Operating Info: <https://docs.boogeylights.net/?wpdmdl=1163>
- GEN2 RF Wireless Remote Operating Info: <https://docs.boogeylights.net/?wpdmdl=1164>
- GEN2 Bluetooth APP Operating Info: <https://docs.boogeylights.net/?wpdmdl=1169>
- GEN2 Bluetooth APP Quick-Start: <https://docs.boogeylights.net/?wpdmdl=1167>
- Amperage Data: <https://docs.boogeylights.net/?wpdmdl=1137>

## Support

- Phone: 800.847.1359 (M-F, 9-6 Eastern)
- Text: 859.955.8155
- Open a Support Ticket: <https://www.boogeylights.com/email-us/>
- Online: 24/7 resources at <https://www.boogeylights.com/installation-resources/>
- How to Make a Warranty Claim: <https://www.boogeylights.com/make-a-warranty-claim/>

## Warranty

The Boogey Lights® warranty requires an original sales receipt from Boogey Lights or an authorized dealer. It covers product replacement only, not labor or other costs. Register your purchase at:

<https://www.boogeylights.com/warranty-registration/>. Full details:

<https://www.boogeylights.com/warranty/>