



INSTALLATION GUIDE

HELLCAT REDEYE GRILL & AIR VENT 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> . We also have a video: <https://www.boogeylights.com/how-to-bench-test/> . 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.

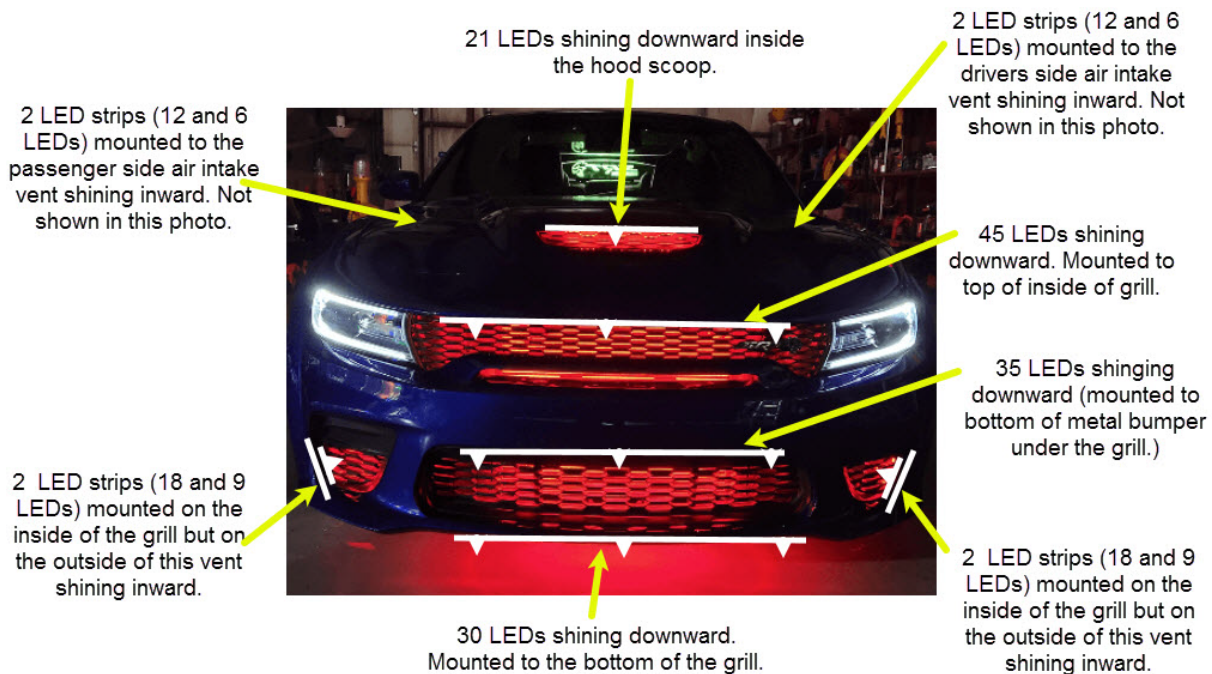
Did we mention the importance of bench testing every LED strip and controller before installing?

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.

LAYOUT DIAGRAM



NOTE: All LED strips mounted to the inside of the grille are attached to the LED controller using a waterproof quick-disconnect cable that connects back to the LED controller mounted under the hood. This allows for easy servicing of the area behind the grille should it need to be removed in the future.

Removing the front grille is probably the most challenging part of this installation. We allocate 5 hours for the grille light installation and another hour for the hood scoop and air-intake vent lights. Important that before mounting the LED strips to the vehicle that the surface be first cleaned with alcohol and then primed using the included 3M Adhesion Primer. This is a critical step. If you don't prep the surface properly, the LED strips will likely fall off. The layout and placement of the LED strips is not an exact science. The information in this document show you what we've found to work best in terms of proving the maximum amount of light.

Boogey Lights® LED strips are not intended to be used while driving on public roads and highways. While some states allow the use of LED accent lighting while driving, other states don't. Some only allow the use of specific colors. Be sure to check your local laws and regulations.

IMPORTANT! We strongly suggest bench testing all of the LED strips supplied with this kit BEFORE mounting to make sure they are working. You can use most any 12vdc power supply to do this. The black power lead cable of the LED strip goes to ground. The Red, Green and Blue cables each go to 12vdc positive. Each of the individual diodes (Red, Green and Blue) should light up as you do this. We have prepared a document explaining the process here: <https://docs.boogeylights.net/?wpdmdl=1305> . We also have a video: <https://www.boogeylights.com/how-to-bench-test/> .

If you're unsure as to what we are referring to here, we recommend you not attempt to install this light kit yourself. Ask someone with 12vdc experience to assist you or have the light kit professionally installed.

LED Strip Sizes and Placement Locations

[Note: 30"/5' = 30 inch LED strip (approx.) with a 5' power lead]

Inside Grille

30"/5' (45 LED) - Top of inside grill facing down

1'/10' (18 LED) - Driver side lower vent

6"/10' (9 LED) - Driver side lower vent

1'/3' (18 LED) - Passenger side lower vent

6"/3' (9 LED) - Passenger side lower vent

All of the power leads for these LED strips connect to the MALE side of the included quick disconnect cable. The quick disconnect comes with a 10' power lead attached to female side. The female side is what connects to the LED controller under the hood. The male sides connects to the grille mounted LED strips. See photo of inside of the grille. All of the power lead cables are secured to the grille with zip tie mounts.

Metal Bumper (the metal bumper is exposed when you remove the grille)

24"/10' (36 LED) – Mounted on the bottom of metal bumper facing down. The power lead connects directly to the LED controller.

Under-Glow

21"/15' (30 LED) – Mounted to the car frame sub-structure underneath the front facing down. The power lead connects directly to the LED controller.

Front Hood Scoop

14"/10' (21 LED) - Inside the hood scoop facing down. Power lead connects to the LED controller.

Driver Side Air-Intake Vent

4"/1' (6 LED) - extended together to a 15' power lead

8"/16" (12 LED)

Passenger Side Air-Intake Vent

4"/6" (6 LED) - Extended together to a 10' power lead

8"/8" (12 LED)

All LED strips should be mounted in such a way that their power leads can be routed to the passenger's side where the LED controller is mounted and connected to the 12vdc power source.

NOTE: The paint on the front grille and hood should be protected at all times. We recommend taping down a blanket or other material to protect these painted surfaces from scratches.

STEP ONE: REMOVING THE GRILLE.

- Open the hood. Pull out all of the pop-up pins just underneath of the hood around the latch. You'll need a flat head screw driver or similar flat tool to open them.
- Remove the two 10mm bolts (one on left and right side) by the top left and right side of each headlight
- Remove the pop-up pins holding the wheel well liner in place
- Pull down liner and use a 10mm socket to remove the two bolts holding the side fairings to the grille (4 bolts total - two for each wheel well)
- Unplug each of the side marker lights using a flat head screwdriver
- Use a 7mm socket to remove the screws along the bottom of the bumper
- Pull with even pressure on the left and right side to release the pins and grille pops right off

Here's a Youtube video that might help: <https://www.youtube.com/watch?v=hcGn6NNqHAU>

STEP TWO: PLACEMENT OF LED STRIPS (see photos of placement on next page)

Note: Make sure before mounting the LED strip that you prep the surface properly using alcohol and then 3M Adhesion Primer. This is a critical step.

INSIDE THE GRILLE

- Mount 1 (30"/5' – 45 LED) strip inside at the top of the grille facing down
- Mount 2 (1' & 6"/3') strips on passenger side lower vent
- Mount 2 (1' & 6"/10') strips on driver side lower vent

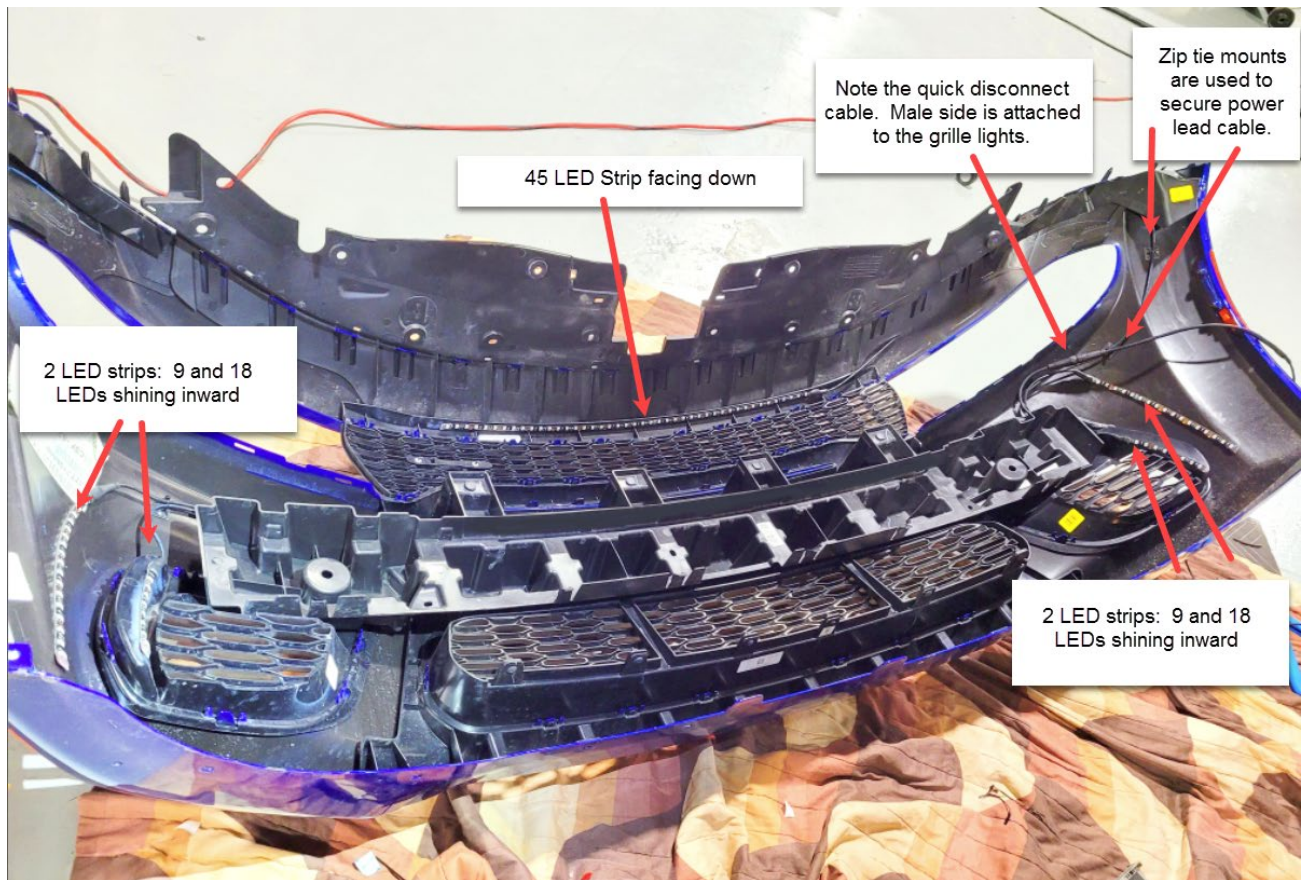
BUMPER & UNDER-GLOW

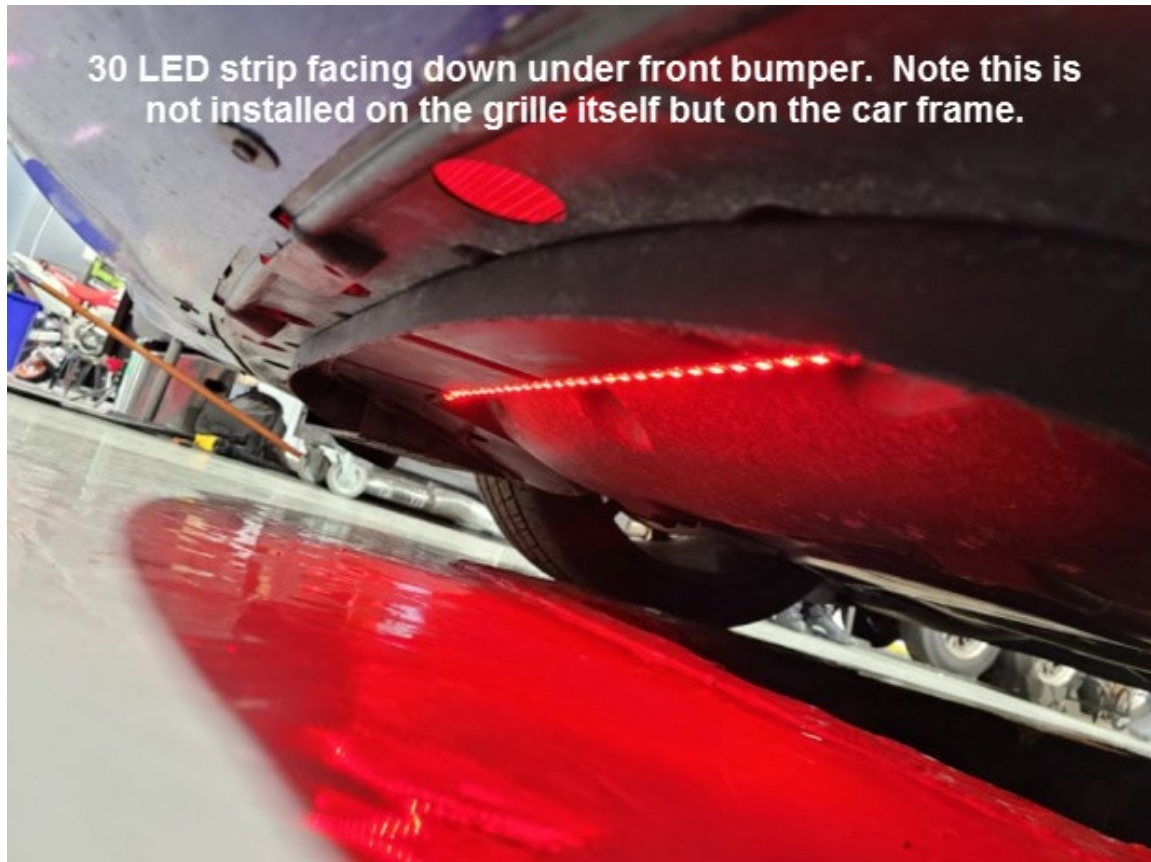
- Mount 1 (24"/10') strip on bottom of the metal bumper. NOTE: This is the only strip we do not have a photo of. The metal bumper can be very clearly seen when you remove the grille. Mount this strip on the bottom of that metal bumper, facing downward.
- Mount 1 (21"/15') strip underneath front for under glow

HOOD SCOOP & AIR VENTS

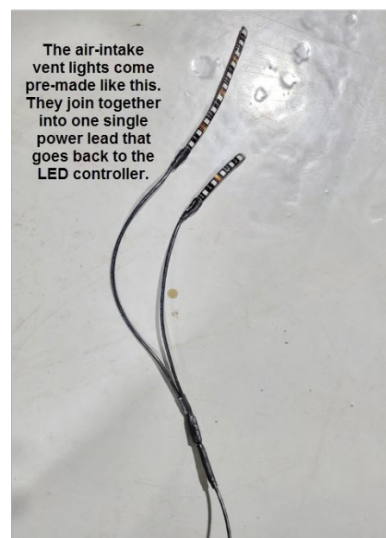
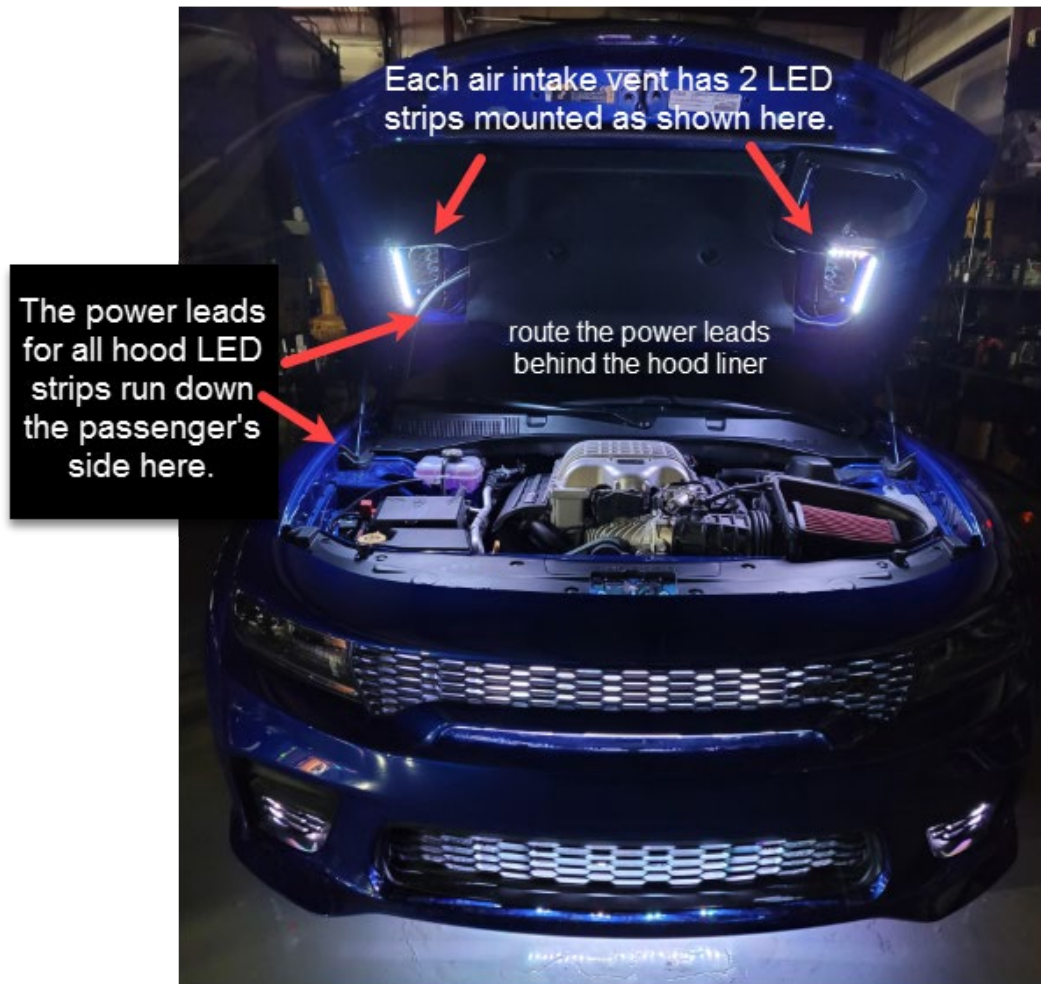
- Mount 1 (14"/10') strip inside front hood vent through the vent itself. Using a needle nose or hemostats to hold one end steady as you place your finger through the bottom hole to push the middle up into place. Use a flat object to press left and right side into place through the holes in the vent. Be careful not to press too hard or you may damage the LED strip.
- Mount 1 (6 & 12 LED combo w/15' power lead) on the driver side vent top and right side
- Mount 1 (6 & 12 LED combo w/10' power lead) on the passenger side vent top and left side

PHOTOS OF LED STRIP PLACEMENT





PLACEMENT OF AIR INTAKE LEDS





Feeding the LED light strip through the hood scoop requires a long straight tool. We use a pair of hemostats.



STEP 3: WIRING

- Route all of your wires from inside the grille to the passenger side of the grille and attach the male end of the quick-disconnect cable using the supplied crimp on connectors. Use the supplied zip tie mounts to secure the power lead cable to the inside of the grille assembly. Be sure to prep the surface for these zip tie mounts with alcohol and 3M Adhesion Primer. We suggest using electrical tape to wrap each of the crimp on connectors once completed. The female side of the quick disconnect cable will be routed from the LED controller under the hood to the front of the car where it will connect with the grille assembly.

Note: At this point we highly recommend bench testing the entire grille LED light assembly with the quick-disconnect cable just to confirm all of your connections are correct and the LED strips are working. You can easily do this by using the female end of the quick-disconnect cable and a 12vdc power source (e.g. the car battery will work). The goal here is to double check to make sure the LEDs on the grille assembly are working as expected; that all of the LED strip diodes each light up individually (red, green and blue) and that your quick-disconnect cable is wired correctly. If there is a problem with any of your wiring, it's better to identify the problem now – before the grille is reassembled to the car. Trust us on this. You can thank us later. Don't ask us how we know.

- Route the under bumper LED strip power lead wire underneath and behind the passenger side headlight to where controller will be mounted.
- Route the under-glow LED strip up power lead through bottom fairing (drilling a hole if necessary) and join with bumper wires behind passenger side headlight.
- Route the hood scoop LED strip power lead wire down through existing hole in the hood and under the fabric heat shield. Follow the existing wire down to the passenger side hood hinge and route to where controller is mounted from there.
- Route the driver's side air-intake side vent LED light strip power leads behind the heat shield and down to the passenger side hood hinge and route to where controller is mounted from there.
- Route the passenger's side air-intake side vent LED light strip power lead down to the passenger side hood hinge and route to where controller is mounted from there.

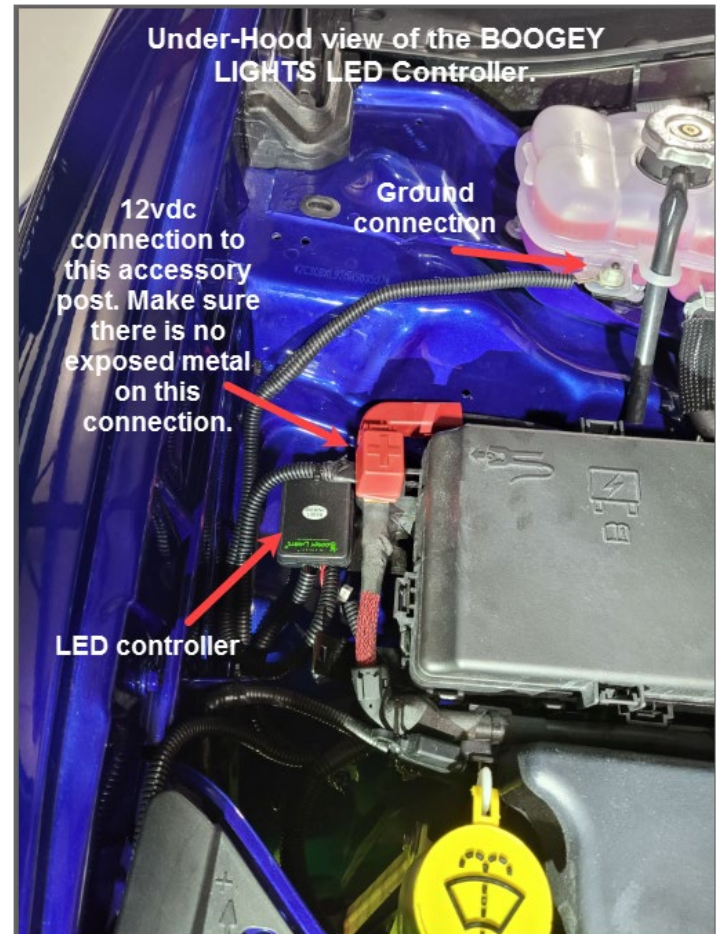
STEP 4: REATTACH THE GRILLE

- As you push the grille back up into place, be sure to route your power lead wire coming from the quick disconnect cable underneath and behind the passenger side headlight and join with the rest of the wires near where the controller will be mounted.
- Do the reverse of STEP 1.

Note: This video may be helpful: <https://www.youtube.com/watch?v=hcGn6NNqHAU>

STEP 5: MOUNT YOUR LED CONTROLLER

- Use the small space next to the fuse box to mount your LED Controller using the supplied 3M Dual-Lock fastening tape. Here too, be sure to prep the surface with alcohol + 3M Adhesion Primer.
- Attach the 12vdc ground wire from the LED Controller to any existing metal bolt (or screw a self tapping screw into the frame). We used the bolt holding the radiator fluid tank.
- Join all the power lead wires together coming from the LED strips (and the quick-disconnect cable). There will be a Black, Red, Blue and Green for each power lead. Make sure you match the colors. Refer to the WIRING DIAGRAM included with your kit.
- Use the supplied crimp on connectors to join all of your connections together.
- Remove the inline blade fuse from the LED Controller first and then connect the 12vdc positive (red) wire coming from the LED controller to the 12vdc accessory power next to the fuse box.
- Use the included wire loom to cover the exposed 12vdc wires. We also suggest wrapping all of the crimp on connections with electrical tape.
- After you've inspected all connections, you're ready to energize the system by inserting the inline blade fuse back into the fuse holder. As soon as you do, the green light on the face of the LED Controller should light up.
- At this point you're ready to test your system. You can use your KEY FOB or Bluetooth phone (download our free APP) to operate your lights.



Additional Resources

- Product Page: <https://www.boogeylights.com/dodge-hellcat-redeye-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/>
- 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/>