

INSTALLATION GUIDE

**VOLVO VNL**  
**GRILL**  
**LED LIGHT KIT**  
Gen 2 and Gen 3 Trucks



RULE THE NITE™

**BOOGEY LIGHTS®**

Family Owned Motorsports Lighting Since 1989

800.847.1359

[www.BoogeyLights.com](http://www.BoogeyLights.com)

Thank you for purchasing genuine Boogey Lights® LED Lighting products! We know you're anxious to get started but we strongly recommend taking time to read through these instructions. You'll likely save yourself some grief and aggravation if you do. For additional installation support refer to [www.BoogeyLights.com](http://www.BoogeyLights.com) or give us a call at 800.847.1359 for assistance.

## BEFORE YOU START

It's simply not possible to provide detailed instructions for all installation scenarios. Far too many variables and truck variations. **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 however we must assume the installer has the skills, knowledge and tools necessary to do the work using the information we provide. You may need to vary your installation based on your truck. This is particularly the case with electrical wire routing 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.

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 works best if applied when the air temperature is above 40 degrees (and of course is DRY).

Bench test your setup. We know this takes a few extra minutes but we **STRONGLY** suggest you bench test your lights (and LED controller if purchased) on a table before doing anything further. 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. 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 12vdc battery to do this (e.g. car battery, motorcycle battery, lawn tractor battery or 12vdc power supply). Bench testing takes an extra 10 or 15 minutes. You can also use a common 9vdc battery to test your lights if you don't have a 12vdc bench testing power source available (the lights won't be as bright). It's simple to do and can potentially save you hours of time and frustration down the road. Please take our advice. Bench test your LEDs AND controller before mounting.

### RGB/MULTI-COLOR KIT Installations

Installation of this led light kit takes 2 to 3 hours depending on whether or not you're adding this light kit to an existing installation such as the UNDER-GLOW kit or installing this kit as a stand-alone. Wiring diagram is included at the end of the guide.

### SINGLE COLOR KIT Installations

Installation of our single color kit typically takes 1 to 2 hours. With single color installations we always recommend using a dedicated on/off switch OR if you want to tie them into an existing circuit (e.g. marker lights), we suggest adding a relay to the circuit.

### Mounting & Placement Locations / Planning Your Install

All the LED strips in this kit are built on our low profile hi-intensity surface mounted LED strips. There are a total of 4 mounting locations; one led strip on each side of the grill opening in the hood. For power, if you are adding this light kit to an existing kit (e.g. Under-Glow kit), you'll connect the power leads from these led strips to your existing under-glow installation. If this is a stand alone light kit, you'll need access to the driver's side steps to access the batteries. Also, if you're installing an LED controller,

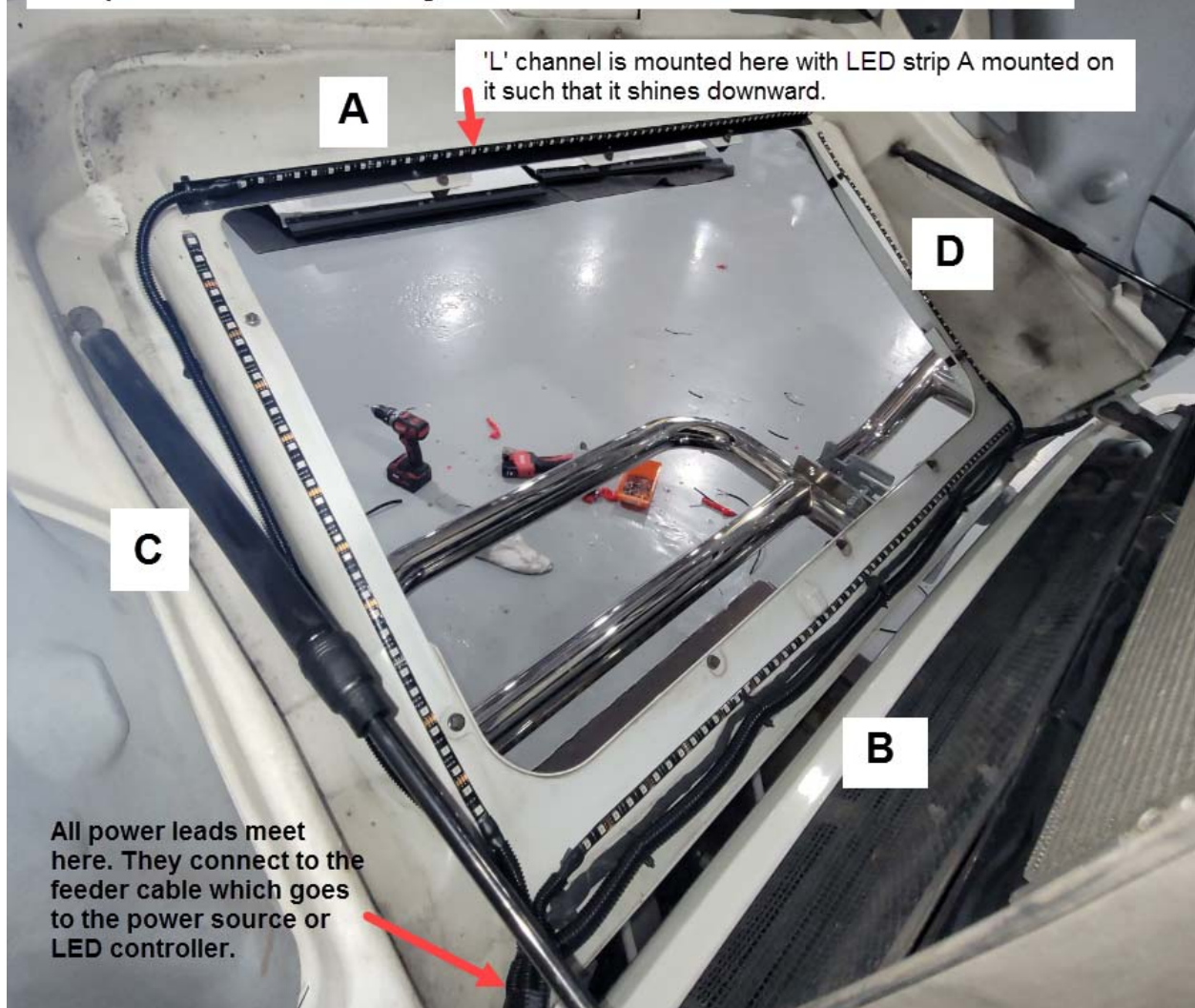
the LED controller can be mounted in either the driver's side storage box or the passenger's. We prefer to use the driver's side as it is closest to the battery bank. While either location will work, be aware if you mount the controller in the passenger's side, you'll need to extend the positive battery cable a little further than if you mounted the controller in the driver's side storage. The 12vdc + power going to the LED Controller should connect directly to the 12vdc+ terminal on your truck's battery bank. You can connect the ground wire on the LED controller to any metal part of the chassis. Regardless of which side bay you use, you will need to drill a hole in the floor of that box to connect power to the battery box, led wires and antenna.

We recommend planning out your install on paper first. Be sure to wrap all power leads in split-loom which is also included and then secure them to the truck using zip ties.

## **INSTALLATION**

- We strongly suggest removing the grill which makes the installation easier. You can access the inside of the hood where the LED strips mount much easier if the grill is removed.
- You'll need to determine how you're going to power the LEDs. In most installations the grill LED light kit is being added to an existing Boogey Lights LED kit (e.g. under-glow, under-cab, air intake) so you can simply tap into that 12vdc circuit. Care must be taken to make sure you aren't however over-loading the circuit. The grill light kit contains 186 LEDs which on full power (white) will draw about 2 amps.
- The power leads coming from each LED strip should come together at a single point. We prefer to bring these power leads together on the driver's side at the bottom of the grill opening (see photo). From there you can connect the power lead feeder cable to your power source (or LED controller). Use the supplied crimp on connectors to secure your power lead connectors.
- The included plastic 'L' channel is riveted to the top of the grill opening on the inside of the hood. We have included a photo. The top led strip (Strip A in our diagram) is then mounted on the bottom of that L channel facing downward. The goal here is to flood that area of the grill with light.
- Before mounting any led strips, the mounting surface must be cleaned thoroughly. We recommend first using rubbing alcohol. Then, be sure to prep the surface with the included 3M® adhesion primer. This is an important step.
- When you are ready to affix the LED strip to the mounting surface, simply remove the red protective covering on the back of each LED strip and press firmly against the inside of the hood. We recommend doing the top led strip first (the one mounted on the L channel). Make note of the direction the power leads will run.
- Repeat the process for each of the remaining LED strips. The power leads will need to be carefully routed and secured using zip ties. Be sure to wrap all power leads in split loom. Refer to the photos in this document.
- If you purchased the RGB multi-color version, you'll need to connect the power leads to the Boogey Lights LED controller. If you purchased the single color version, you'll need to connect the power leads to an existing 12vdc switched circuit that is properly fused or install a 12vdc heavy duty relay that is triggered by your marker lights. Both power leads can be brought back to the battery compartment via the frame rails.

View looking from the driver's side at the back of the grill opening. Note the grill itself has been removed. LED strips A & B are the same length. LED strips C & D are the same length.



Close up look at how we mounted (rivets) the L channel to the face of the hood. Super important to make sure the power leads from each LED strip are secured. You can see the zip tie we used here.

