INSTALLATION GUIDE

VNL GEN2 / GEN3
UNDER-CAB LED LIGHT KIT

RULE THE NITE™

BOOGEY LIGHTS®

Family Owned Motorsports Lighting Since 1989

800.847.1359

www.BoogeyLights.com

Thank you for purchasing genuine Boogey Lights® L\ED 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 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.

Tools You May Need

Sockets/wrenches in the sizes necessary to make electrical connections to your truck's battery, wire cutters/strippers, crimping tool, electrical tape, rubbing alcohol, shop rag or two. We also suggest a 12vdc multi-meter to confirm/double check voltages.

RGB/MULTI-COLOR KIT Installations

Installation of this led light kit takes 3 to 4 hours depending on whether or not you're adding this light kit to an existing installation or installing this kit as a stand-alone. Which wiring diagram you get with your kit depends on the controller you purchased. You can also download this wiring diagram from our website.

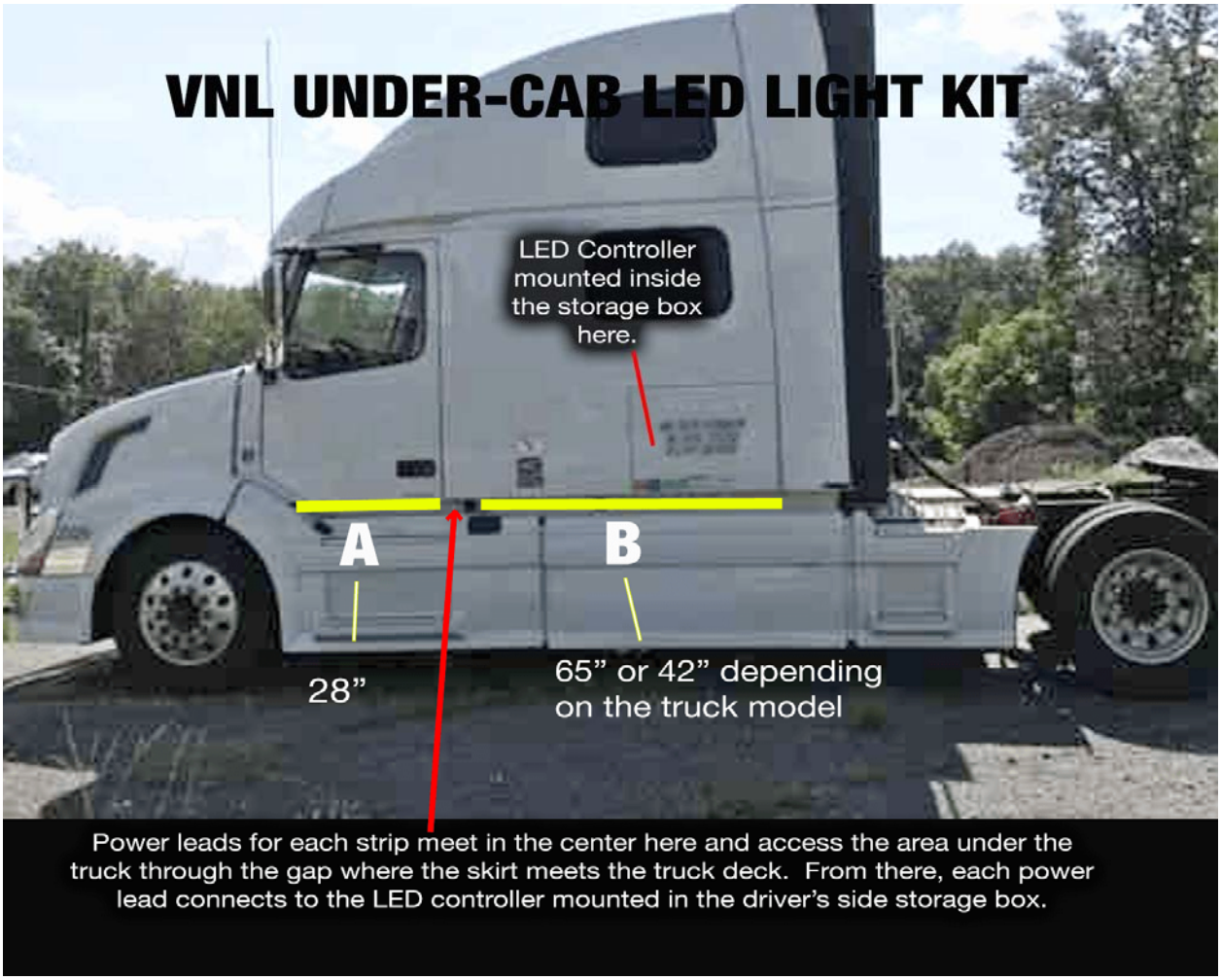
SINGLE COLOR KIT Installations

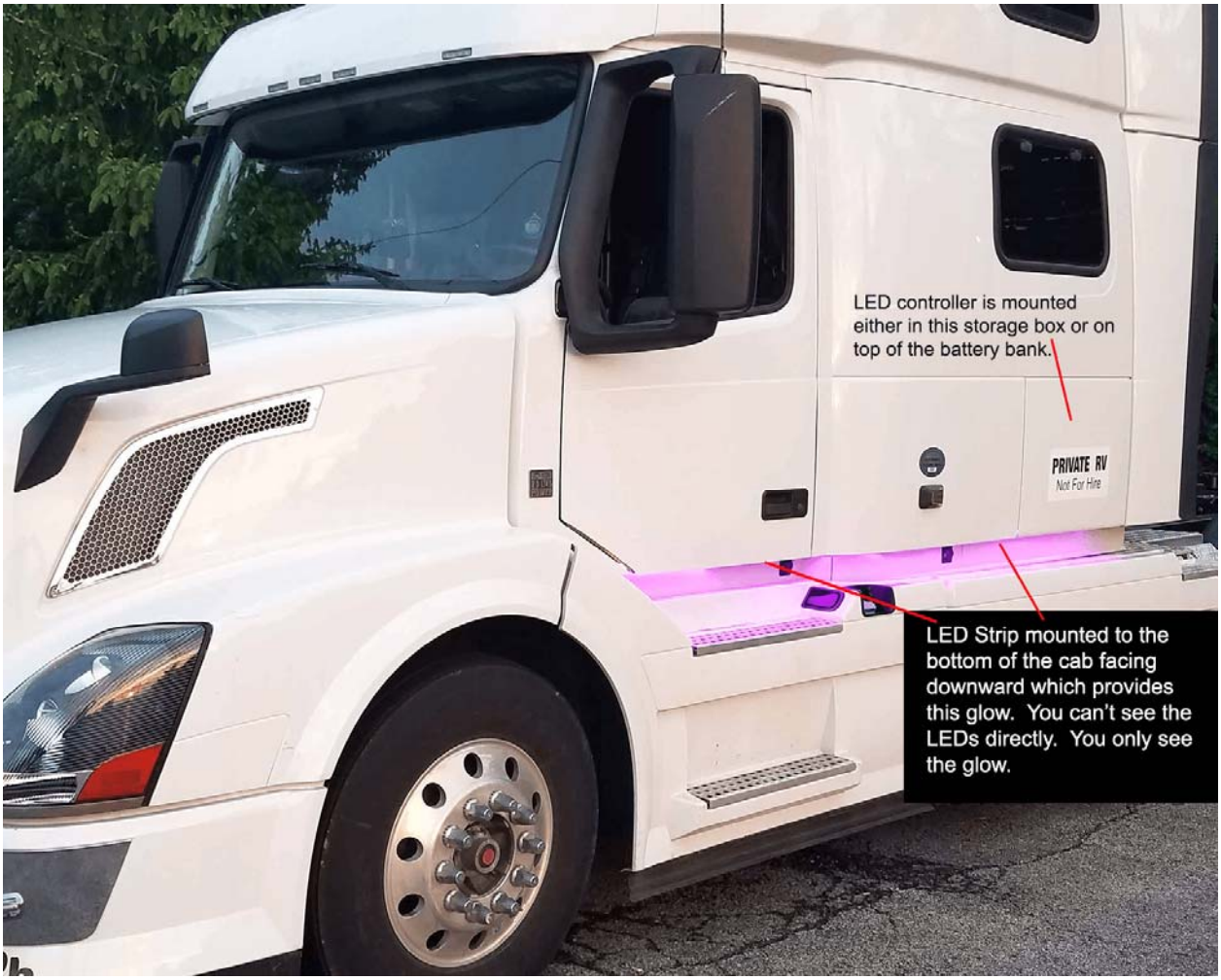
Installation of our single color kit typically takes 3 to 4 hours. No switching or battery connection wiring included. Assumes you are going to be wiring the lights into an existing 12vdc circuit or switch. Be sure to allocate additional amperage draw which depending upon the color, can be as much as 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

There are four LED strips included in this kit. Two for the driver's side, two for the passenger's. The LED strips with the 25' power lead is intended to be used on the passenger's side as the power lead needs to run across the under-side of the cab and over to the battery compartment or storage box to connect to your 12v power source (or controller if purchasing the RGB Multi-Color version). The strips with the 15' power lead is intended to be used on the driver's side. We suggest wrapping the LED power leads in split loom (not included) to protect them from chaffing and abrasion.

If you purchased the RGB multi-color version, the LED controller is typically mounted either inside the fairing under the driver's side (in the area immediately above the batteries) or in the driver's side storage/jockey box. The dual lock recloseable fastener makes it easy to remove the controller if need be. It is important to make sure the LED power lead wire on the passenger's side is routed far enough away from the DPF and related exhaust pipes as these get very hot. We recommend connecting the 12vdc + for the LED controller directly to the battery using 10awg or 12awg 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 truck's frame.




LED controller is mounted either in this storage box or on top of the battery bank.
PRIVATE RV
Not For Hire
LED Strip mounted to the bottom of the cab facing downward which provides this glow. You can't see the LEDs directly. You only see the glow.

What You Need to Know

In putting together this installation guide we assume the installer has access to and has a basic understanding of using the tools needed to complete this installation. We also assume the following:

- The installer can gain access to the bottom of the truck – at least enough to be able to run the LED power leads from the passenger's side over to the driver's side.
- The installer knows how to remove the truck's driver side fairing to access the batteries.
- The installer understands 12vdc electricity, the importance of not overloading a circuit, making electrical connections using crimp on and/or heat shrink connectors, the importance of having a fuse in the circuit at the battery location and polarity
- How to access the batteries, remove / connect battery connections, how to make electrical connections (e.g. crimping) and the importance of making sure all electrical connections are sealed properly (e.g. no water intrusion).
- How to run power lead cabling such that the power leads and related wiring are secured in a way as to protect them from chafing, pinching or melting because they're too close to the engine or other extreme heat source.

NOTE: Every installation varies a little so you may need to purchase additional items.

Make sure to review our list of other items you may need before starting your installation. Here's the link: https://www.boogeylights.com/other-items-you-might-need/

Our website offers a lot of helpful information – including HOW-TO videos. While we may not have a specific video for this particular truck kit, the concepts in terms of preparing the surface, attaching the LED strip, routing LED power leads and connecting the LED controller are the exact same regardless of the vehicle type. We encourage you to take a look at this HOW TO VIDEOS before starting your installation.

https://www.boogeylights.com/how-to-videos/

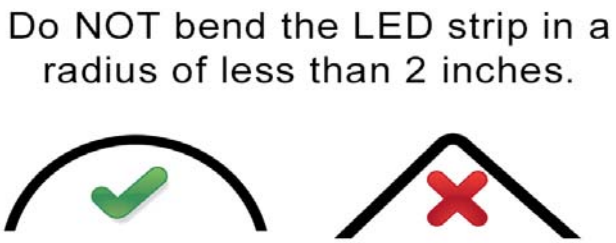
Follow these steps for mounting your LED strips:

- 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).

  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.

Heavy Duty (single zone) LED Controller Wiring Diagram

COMBO Bluetooth + Wireless RF Controller

NOTE: If the distance from the LED Controller to the battery is more than 18”, we strongly recommend adding another INLINE FUSE on the positive side of the circuit at the point at which the 12vdc+ connects to the battery.

[BLWDHDCOMBO 07-20-21]

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DUAL ZONE, HEAVY DUTY COMBO CONTROLLER

Bluetooth + RF / Wiring Diagram

The Dual Zone Heavy Duty controller has TWO 12vdc, 20amp inputs. It's important to connect both of them to a 12vdc power source capable of handling the amperage. This controller can power a maximum of 1500 RGB LEDs per zone. Do not overload.

NOTE: If the distance from the LED Controller to the battery is more than 18", we strongly recommend adding another INLINE FUSE at the battery.

MAX of 1,500 LEDS

LED Strip Blue, Red, Green & Black Wires
Connects w/ Red, Green, Blue and Black Wires from Controller. Connect with a crimp on connector. Each wire represents its respective light color. BLACK is the GROUND wire.

Each LED strip needs to connect to the controller. If you need to extend the power leads, we offer extension wire.

Zone 1

Controller RED Fused Wires (Both Zones)
Connects to positive side of battery

to 12vdc Ground

Controller Black Ground Wires
Connects to negative side of battery.

Depending upon load, you may need to use 2 different 12vdc power sources

Zone 2

to 12vdc Ground

COMBO CONTROLLER: OPERATE VIA RF WIRELESS OR BLUETOOTH

RF REMOTE CONTROL

Long Range M7 Wirelss Remote
(Uses 27A 12v Battery)

BLUETOOTH ENABLED

Bluetooth wireless

ANDROID APP ON Google play

Download on the App Store

Download the FREE Boogey Lights APP from APP store.

Download the APP operating manual from www.BoogeyLights.com

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