



**clearwater**  
**LIGHTS™**



# Installation Manual

Vespa Scooter

Darla LED Light Kit

Dimmable

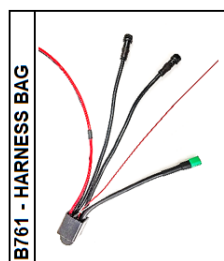
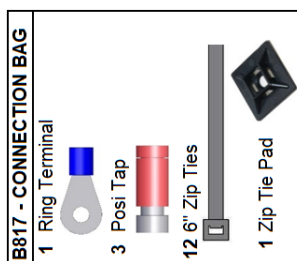
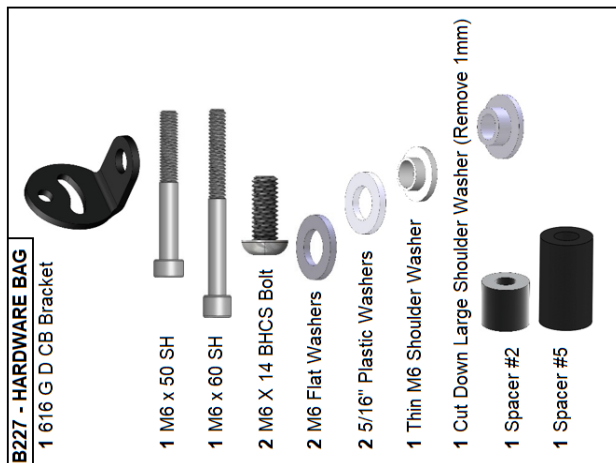
*Patent Pending*



# Parts List

*Please be sure to read our instructions thoroughly before attempting installation.*

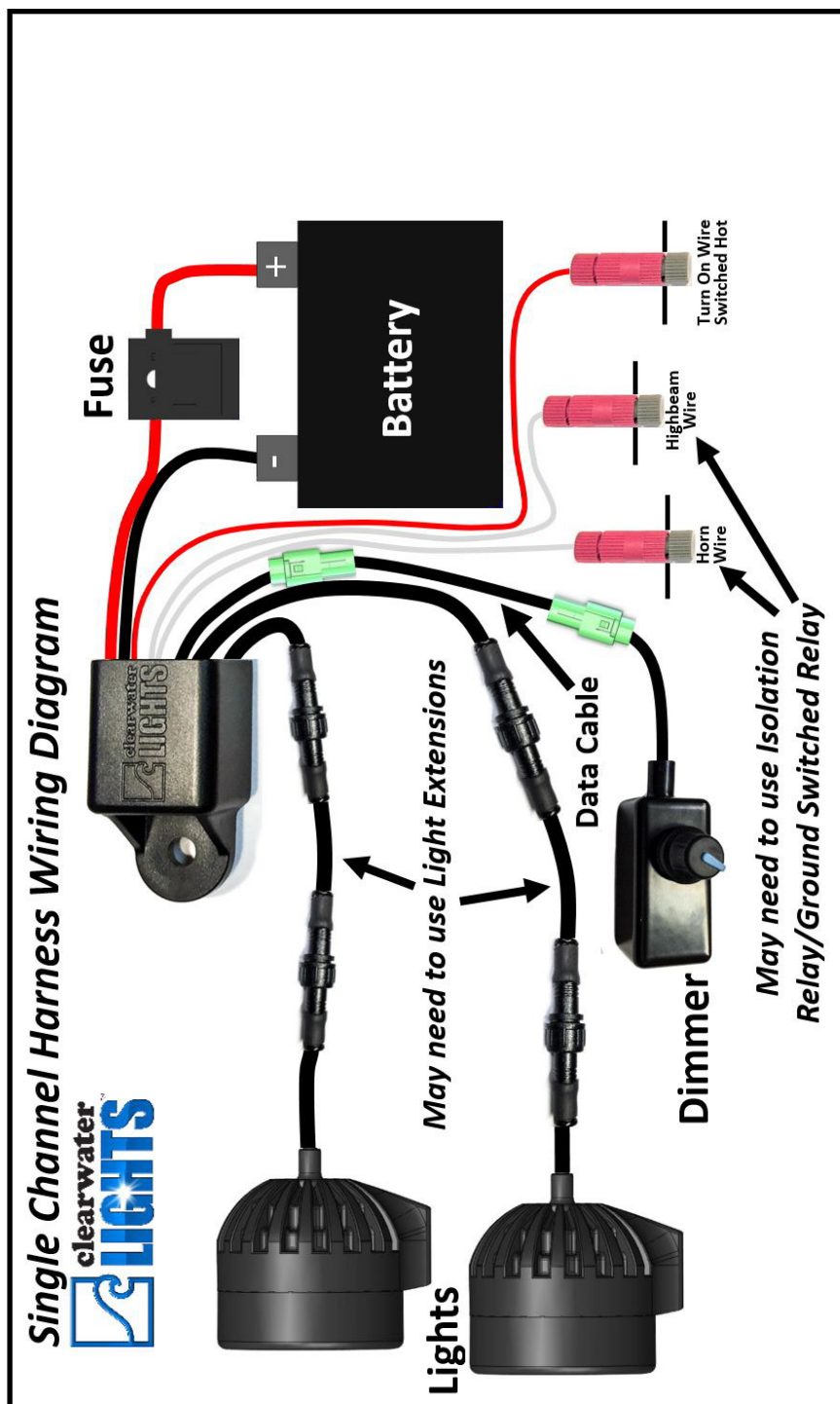
- Check Parts list supplied with your kit to be sure all parts are handy.
- First, park the scooter on hard pavement or concrete to insure the scooter will be stable during the installation. If you can mount the scooter on a stand with tie-down straps, this will help secure the scooter.
- Follow the manufacturers guidelines for disconnecting the battery. This is important to prevent damage to the electrical system.



Last Updated: 1/25/21



## Wiring Diagram

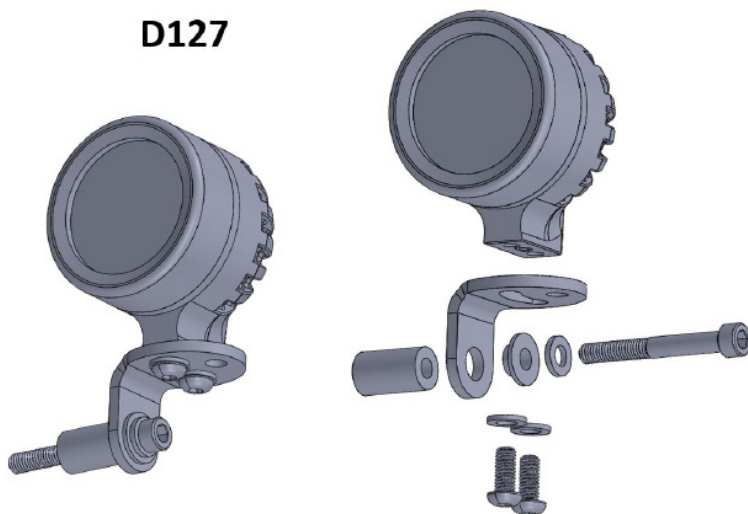


# Mounting The Darla

## **Vespa Mount:** *(detailed diagrams on next page)*

- Pre-assemble the lights, mounting bracket, shoulder washers (if needed) and spacers with new bolts. Follow the exploded diagram below for assembly details.
- Gently screw all bolts in hand tight. Inspect the bolt length and spacer alignment before tightening the bolts. Keep the pictures below as a reference.

**D127**



# Mounting The Dimmer

## Panel Mount Dimmer:

- Mount the volume control knob in fairing by drilling a 5/16" hole and mounting control with attachment nut.
- Check for minimum 2" clearance behind panel to allow for circuit board and wire.
- Double check fitment of parts before drilling your panel. Measure twice, drill once.
- Tighten 10mm nut and Install rubber knob over volume control knob with press fit.



# Wiring Harness

## Mounting the Harness:

- The harness should be mounted in a secure location close to the front of the scooter. Use the provided zip tie pad, zip ties or a fastener of your choice to mount the harness. Choose a location away from direct heat and out of the way of pinch points and steering/suspension assemblies.
- Route the THICK RED/BLACK power wires toward the battery.
- Be sure to route all wires so that they cannot become tangled or caught in either a suspension or steering part. Use the provided zip ties to secure them in place. Again, check the movement of steering and suspension before riding.
- It may be helpful to follow the existing factory wire routing.

## Wiring + Connections:

- Before connecting any wires to your bike, first disconnect the negative terminal from the battery, then the positive.
- Please use the Wiring Diagram provided on Page 2 as a reference.
- **Dimmer:** Connect the dimmer to the harness (GREEN connectors). If the wires are too short, the GREEN extension cable may be required.
- **Switched Hot Wire:** The THIN RED wire from the harness needs to be connected to a 12V switched hot source on the bike using one of the Posi-Taps. This will allow the Clearwater Lights to turn on/off with the key or when the bike starts. The lights are NOT powered from this trigger wire. The Clearwater Lights are powered directly from the battery.
- **High Beam Feature:** Use one of the provided Posi-Taps to connect one of the THIN WHITE wires from the harness to the high beam headlight hot lead (+) on the bike. This feature sends a signal to the harness to turn the Clearwater Lights to 100% when the high beam is illuminated.
- **Horn Feature:** Use one of the provided Posi-Taps to connect one of the THIN WHITE wires from the harness to the horn hot lead (+) on the bike. This feature sends a signal to the harness to turn the Clearwater Lights to 100% when the horn is pressed.
- *Note: If you have an H4 headlight bulb or a ground switched horn, you may need a diode pack or isolation relay respectively, otherwise the lights will not function as intended.*
- **Power Wires:** Connect the fuse/fuse-holder to the red wire from the wiring harness to the positive terminal of the battery, then black wire from the harness to the negative terminal of the battery.
- **Light Wire:** Connect the light to the harness. Light extension wires may be required depending upon the distance of the lights to the harness.
- Again, make sure all wires are neatly routed away from direct heat, steering/suspension components. Use zip ties to secure wires in place.

**TEST:** With the scooter running, the lights should be dimmable via Clearwater Lights Dimmer. Test the high beam and horn features (if enabled) and the lights should go to 100%. If all checks, congratulations, you are finished!



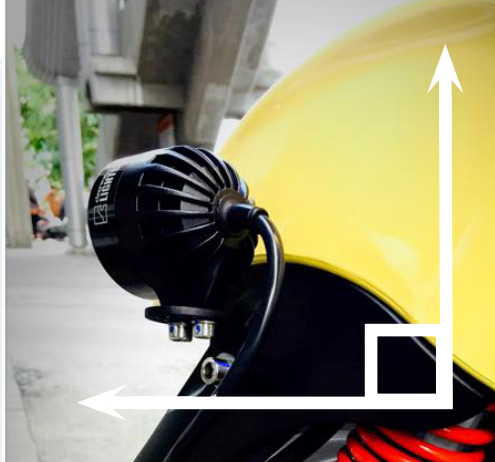
# Alignment and Tips

## Alignment

Ask an assistant to help you with this procedure. Make sure the bike is on level ground and have an assistant sit on the bike. Press a level against the face of the light, and adjust its angle.

The goal is to adjust the lights so that the light is level with the ground.

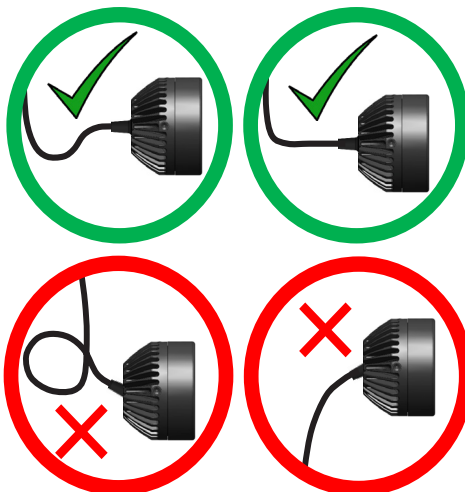
Passengers and luggage may alter the alignment of the light, so further adjustments may be needed. You may find that a slight downward angle (5 degrees) is helpful.



## Do Not Kink The Grommet

To maintain the integrity of the water sealling grommet, do not kink, deform or put pressure on the grommet when dressing the wires during install of Clearwater Lights.

## Do Not Kink The Grommet



Thank you for purchasing your **Clearwater Lights**. We hope this product will help make you a safer rider. Please feel free to send us comments or suggestions at any time. We learn from you. Visit our website for more exciting products to help you see better at night.

Ride safe!

Sincerely,

*Glenn and the team at Clearwater.*



The Clearwater Company - 11305 Sunrise Gold Circle, Suite D  
Rancho Cordova, CA 95742  
Phone: (916) 852-7029 | Fax: (916) 852-9410 | [www.clearwaterlights.com](http://www.clearwaterlights.com)  
Revised 10/22/20