

INSTALLATION INSTRUCTIONS FOR RVs, TRAILERS & CAMPERS

AWNING LED LIGHT KIT



RVs Motorcycles ATVs Boats Golf Carts Cars Trucks



800.847.1359
www.BoogeyLights.com

Thank you for purchasing genuine Boogey Lights® LED Lighting products! We know you're anxious to get started but we recommend you take the time to read through these instructions. For installation support refer to www.BoogeyLights.com or give us a call at 800.847.1359 for assistance.

www.BoogeyLights.com (BLRVA 062419)

BEFORE YOU START ... PLEASE READ

Installing our AWNING LED kit is relatively simple if you do some pre-planning. We suggest you carefully review the following before you begin:

1. It's simply not possible to provide detailed instructions for all installation scenarios. The information in this manual is intended to be used as a guide. You may need to vary your installation based on your unique situation. This is particularly the case with electrical wiring.

2. 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 we use works best if applied when the air temperature is above 40 degrees (and of course is DRY). You'll likely need a ladder of some sort in order to reach the area just under your awning.

3. You'll need to decide how you are going to connect the power lead coming from the end of the LED light strip to the power source. Many RV awnings (particularly motorized awnings) have a mounting bar that is already affixed to the side of the RV. If so, you can usually run the power lead cable coming from the LED light strip inside that mounting bar. If not, you can use some flexible Wire Trak™ raceway to hide the power lead cable. The Wire Trak™ raceway uses the same 3M tape technology as Boogey Lights® do so it's easy to affix the raceway to the side of your RV. Another option is to run the power lead through the side of the RV and into an interior cabinet where 12v can be accessed.



4. Make sure you know where your electrical connections will terminate. Many RVs (motorhome, travel trailer or fifth wheel) have an electrical access panel somewhere on the outside of the vehicle where 12vdc power is available. We typically mount the remote control unit inside the electrical access panel and run all cables to that point. If you are also installing the Under-Glow kit, this is where you would install the Under-Glow controller. If you are using the optional 120/110vac power converter to power your lights you'll need to make sure you know where that AC power will be accessible and how you will run the power. If you need to extend the power leads for any reason, be sure you have purchased the additional cable necessary to this before starting the installation.

5. If you are using the 120/110vac to 12vdc power converter to power the controller you'll need to make sure you have sufficient room to mount the power converter.

6. Bench test your setup. We know this takes a few extra minutes but we STRONGLY suggest you bench test your lights AND your controller 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. 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.**

BTW ... Did we mention we suggest bench **testing your LEDs and controller** before installing? You would be surprised at how many people don't take our advice on this step; many regret it later.

IMPORTANT NOTE ABOUT ELECTRICAL WIRE COLORS

Modern RVs, trailers, motorhomes, fifth-wheels and campers often have a mixture of **120/110vac** and **12vdc** wiring installed. **ALL Boogey Lights® products are native 12vdc devices.** If you connect a Boogey Lights® controller or LED strip to 110vac instead of 12vdc, it will absolutely damage the controller and LED strip beyond repair. Similarly, if you reverse the polarity of the power (e.g. connecting 12vdc+ to the negative side of the controller), it will also damage the controller beyond repair.

In a typical 110vac environment the BLACK wire is the positive (hot) wire and the WHITE wire is the neutral/ground wire. HOWEVER, in a 12vdc environment, the BLACK wire is always 12vdc- (ground/negative) and the RED (or WHITE) wire is always 12vdc+ (hot). All Boogey Lights® controllers have the power leads clearly marked as to what is 12vdc positive and 12vdc negative.

While we suggest only connecting Boogey Lights® products directly to a 12vdc power source (e.g. house batteries) there are a couple of reasons why you may prefer to tie into the existing 12vdc circuitry. First, is convenience. It may be more convenient to tie into an existing 12vdc circuit rather than running power back to the house batteries. Second, the battery charger in your RV may not be capable of charging your house batteries fast enough to support the draw on the house batteries when using your Boogey Lights® (in which case your Boogey Lights will dim quickly). This is more commonly the case in lower to mid-range RVs/trailers that only have a Single-Stage battery charger vs. a Multi-Stage. **If you are going to tie into an existing circuit it is important to make sure you have properly identified the type of power you are tapping into (AC or DC) AND have identified the polarity of the wires (positive or negative).** **Do not assume the color of the wires will match the controller.** **We strongly suggest using a volt meter to make sure you are using the proper power and polarity.** **Also, make sure the circuit you are tapping into (both the circuit-breaker rating and wiring) is capable of handling the additional amperage draw. A 16' LED strip with 300 LEDs will typically draw a maximum of 3.5amps on full power (bright white). Overloading the circuit could result in over-heating and potentially cause a fire. Wiring the power incorrectly will damage your controller beyond repair and invalidate the warranty.**

12vdc vs 110vac - We prefer to run our lights using 12vdc power. It makes for a cleaner installation and provides for greater flexibility in terms of using the lights. 12vdc power is almost universally available on any modern RV, 5th wheel trailer or camper sold today in the United States. 110vac power on the other hand is not always available – at least not without having access to shore power or an on-board generator.

This is a photo (*image*) inside the electrical closet of our demo unit. We have installed both our AWNING LED kit and the UNDER-GLOW LED kit. We've elected to install two remote control units so we can control the Awning light and the Under-Glow light separately (instead of both on one controller). The Awning LED light only has one LED strip so we can use the smaller controller. The Under-Glow LED lights has two LED strips which is why we need the larger, heavy duty controller. If you are only installing the Awning LED kit you'll only have the one smaller controller. You'll need to make sure you have room in your electrical cabinet to locate these controllers. In our installation we also installed a fuse block which makes it easier to terminate the 12vdc positive connections. This is just our preference and not a requirement.

While the controller provides the ON/OFF functionality for daily use, we recommend removing the included fuse to the circuit when your RV is going to be sitting for a long time. As an option, you can install a separate on/off hard-wired switch (not included) to isolate the circuit.



SELECTING THE LOCATION FOR YOUR LED CONTROLLER

Some things to keep in mind when choosing where to mount your LED controller:

- While water resistant, the LED controller is not intended to be submerged in water. Mount it someplace where it will not be subjected to the elements.
- Make sure there is enough air flow around the controller. Do not mount it inside a small sealed box (e.g. outside porch light receptacle) without adequate air flow. Doing so will almost certainly mean the controller will shut down (or the lights will dim) when it gets too hot.
- The wireless remote control operates using radio signals (RF or Bluetooth depending upon the model). Where you mount the controller can impact the effective range of the wireless remote. For example, mounting the controller near other radio devices (e.g. wireless access point) or mounting it in a compartment that is encased in metal may impact the effective range of the remote control. If you're concerned about the reception, we suggest doing some testing of where you mount the controller before permanently mounting it.
- The short, yellow wire coming out of the LED controller is the RF antenna. Make sure that wire is not bundled with other wires or pinched. It should be hanging free and open. Also, do not attempt to extend or cut the antenna wire. Doing so will make reception worse, not better.

MOUNTING YOUR AWNING LED STRIP

The Boogey Lights® LED awning light kit is designed to attach to the side of an RV, trailer or camper just beneath the awning. You can mount it differently if you'd like but our experience has been that beneath the awning facing forward provides the best glow effect particularly when the awning is extended. Each LED strip is about 16 feet long and can be cut if needed to fit your application. If you aren't going to use the entire 16 feet, make sure you cut the LED strip in the proper location before mounting (see below). DO NOT attempt to cut the strip once mounted. Once you have your LED strip cut (if necessary) and you know where you are going to attach it, follow these steps:

- 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 pads to clean the area where you are going to mount the LED strip. For the awning strip we recommend mounting the strip up against the awning itself as high as possible. Again, make sure this surface is thoroughly cleaned. Be sure to let the alcohol dry completely before proceeding to the next step. Note: Do not use acetone or similar cleaner without reading the note below *(page 6).
- Next, use the 3M Adhesion Promoter tubes supplied with your kit to "paint" on the promoter where you are going to mount the LED strip. See the note on page 4 about the proper way to use promoter. ***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. We recommend peeling the backing tape off the LED strip a little at a time while the LED strip is on the roll.
- Carefully push the LED strip to the area you have prepared. You will want to apply 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 solder points 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 left-over power lead cable connecting to the LED strip will need to drop down from the awning to your electrical connection. If your awning mount bar has room to snake this power lead cable through it as our demo unit does, it's ideal. If you don't have an awning mount bar you can use to hide the power lead we suggest using the Wire Trak™ raceway as mentioned earlier. It's easy to "stick on" and provides for a clean look. Another option is to run the power lead through the side of the RV and into an interior cabinet where 12v can be accessed.

Important Reminder! The 3M adhesive tape on the back of Boogey Lights® LED stripes are one-use only. If you apply them to a surface that has not been properly prepared, the holding power of the 3M adhesive tape will be greatly diminished perhaps making the light strip unusable. If you take the time to properly prepare the surface in accordance with our instructions you won't have any problems mounting your LEDs.

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 use the included heat shrink tubing to seal the cut end. You can also use silicone found at your local hardware or RV store. A little dab will do you. If you do need to cut your LED strip, we strongly suggest doing so BEFORE you mount the strip to your RV/Camper/Trailer.



Cut Locations

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



Do NOT bend the LED strip on a horizontal plane.



A Word About 3M Tape & 3M Adhesion Promoter (aka Primer)

All Boogey Lights® LED strips have 3M Tape backing affixed to them. This 3M Tape is designed to make a more-or-less permanent bond between the LED strip and the surface to which it is attached. When properly prepared, 3M Tape can be affixed to polyethylene, polypropylene, ABS, PET/PBT blends, concrete, wood, glass, metal and painted metal surfaces. To make this bond you must however prepare the surface to which the LED strip will be affixed. You do this by first cleaning the surface with isopropyl alcohol (50/50 mixture with water) and then painting on 3M Promoter. **YOU CANNOT SKIP THIS STEP.** Always apply 3M Promoter to any surface Boogey Lights® LED strips will be mounted. The promoter acts as a primer that ensures maximum adhesion.

3M Promoter is a powerful adhesion primer. You don't need a lot to make it work. A simple single swipe on the surface you're mounting the light strip to is all you need. The 3M primer instantly bonds the 3M tape on the back of the led light strip to the mounting surface. Once the 3M tape on the back of the LED strips touches a surface that has been treated with the 3M promoter, they will instantly bond together. You will not be able to break that bond without damaging the strip so make sure you have the placement where you want it the first time. There are no do-overs when using 3M Promoter and 3M VHB tape.

One word of caution: The cotton tip on the end of the 3M Promoter tube will evaporate quickly. Once you break the glass tube inside the promoter tube (we're assuming you're using the tubes versus a can of promoter) it's important to use the promoter tube immediately. Do not allow it to sit around. If you do, the cotton applicator tip will dry up. Once you paint on the promoter you have at least an hour to mount the light strip although we recommend proceeding immediately after painting the surface with the 3M Promoter.

BREAK THE GLASS! The promoter tubes supplied with Boogey Lights® kits need to be squeezed in the middle of the tube to release the chemical to the applicator top. Simply press in the center of the tube until you feel the glass break. At that point the liquid promoter will saturate the applicator top and you can then paint on the promoter.

Clean up: 3M Promoter can be removed with isopropyl alcohol. Vigorous scrubbing may be required.

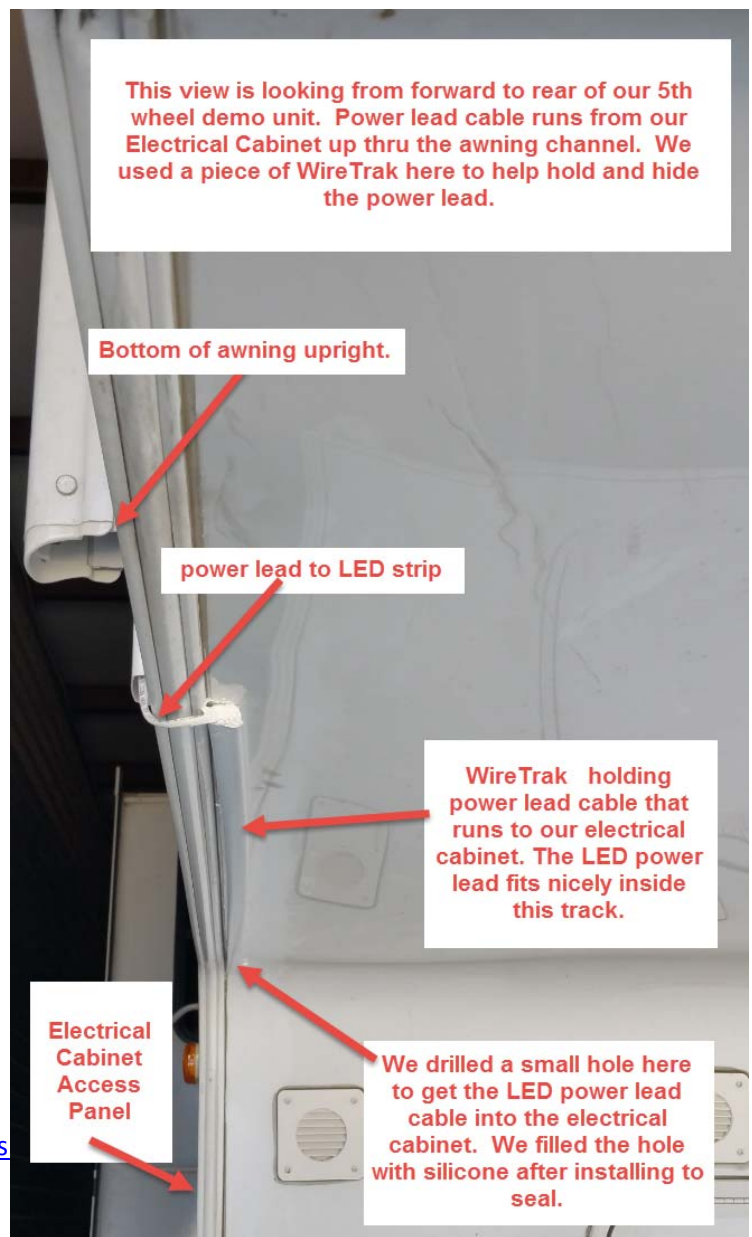
***Using Acetone on Heavy Oiled or Greasy Surfaces**

For situations where you are affixing Boogey Lights® to a surface where heavy oils or grease are present, a "degreaser" solvent such as acetone may need to be used first. If you use acetone (or any other degreasing solvent) you must still apply the 3M Promoter. Acetone is not a replacement for promoter. In addition, if you use acetone to clean a heavy oiled or greased surface, you will still need to follow up with an alcohol cleaning to help ensure any residue or film from the acetone is removed. This is because acetone (and most other degreasing solvents) will thin the promoter as well as break down the adhesive in the tape greatly reducing the tape's stickiness. Any surface first cleaned with acetone must also be cleaned with alcohol and then thoroughly dried before painting on promoter.

The photo shows both the Awning and Under-Glow kits installed. As such there are two controllers and we added a fuse block for our convenience. If you are installing just the Awning Kit, you will only have one controller and an in-line fuse.



Photos of Demo Installation Unit



TROUBLE SHOOTING COMMON ISSUES

We have an extensive reference guide available online 24 x 7 to assist customers with trouble shooting common installation problems. If your lights aren't working properly, it's highly likely the answer to the reason why can be found online at <http://www.boogeylights.com/trouble-shooting-guide.html> . The most common problems we see are:

- Lights not turning on at all
- Not all colors are working
- Lights dim after a little use
- Bluetooth connectivity issues

Solutions to these common problems are available online.

NOTE ABOUT RF (KEY FOBS or M7 REMOTE) PAIRING WITH THE CONTROLLER

If you purchased a controller that uses a RF KEY FOB or M7 remote to control your lights, they come already paired. If you accidentally press the PAIRING button on the controller during the installation process when the controller is powered on you will delete the pairing settings between the controller and the remote. You will need to PAIR the controller with the remote. The process to do this is simple. Details can be found with the documents included with your kit. You can also find this information online in our INSTALLATION RESOURCES section.

You can pair up to a maximum of 3 KEY FOBS or 3 M7 remotes to a single controller. Note however that the KEY FOB remote and the M7 remote cannot be used on the same controller. The firmware and circuitry in the controller is different to support the M7 style remote than the KEY FOB remote.

If you need to replace either remotes, they can be purchased online at www.BoogeyLights.com

Links to all installation information including remote control functions and APP control instructions can be found on our website in the INSTALLATION INSTRUCTIONS section (<http://www.boogeylights.com/installation-instructions.html>).

NEED HELP? HAVE MORE QUESTIONS? If you need additional assistance or have questions, we offer a number of options. If it's during regular business hours you can call us TOLL FREE at 800.847.1359. If it's after hours, you can check our website installation section. We try to include as much information as we can online for 24x7 access. You can also send us an email by visiting Customer Care -> Contact Us. Even when we're closed we often check email in the evenings, weekends and holidays. We also have a lot of helpful information, including videos, on our website at www.BoogeyLights.com.

WARRANTY INFORMATION

The Boogey Lights® original-owner warranty is only available to customers who purchase genuine Boogey Lights® product from this website or an authorized Boogey Lights® dealer and present the original sales receipt from that dealer. **THIS WARRANTY IS NULL AND VOID IN THE ABSENCE OF AN ORIGINAL SALES RECEIPT FROM AN AUTHORIZED BOOGEEY LIGHTS® DEALER.**

This warranty is a product-only warranty and does not cover reimbursement for labor or any other charges you may incur having a defective product replaced.

RMA Authorization Required For Returns

Defective product must be returned for inspection and warranty approval prior to replacement. Product that is physically damaged is not eligible for replacement under warranty. All returns must clearly display an RMA authorization number on the outside of the package. An RMA number will be issued by requesting an RMA number via email (select the appropriate option from the drop-down box) OR by calling our office at 800-847-1359 and selecting option 2. If calling our office, please be sure to have your order number handy which will be printed on your receipt. Any shipment received at our offices without an RMA authorization number clearly listed on the package will be refused and returned to sender.

Hi-Intensity LED Products and all Remote Control Units

All Hi-Intensity LED products (RV Lighting) are backed with a 3-year, original owner warranty. The remote control box also has a 3-year warranty. Warranty does not cover batteries or the failure of a single fob/remote. The warranty does not cover damage to the remote control units, LEDs, connectors or the strips resulting from improper handling, installation, misuse or abuse as determined by Boogey Lights®. This warranty is not transferable.

REGISTER FOR WARRANTY

You can register your purchase for warranty by visiting our website at <http://www.BoogeyLights.com/warranty-registration.html>. This is especially important if you purchased this product from someone other than the Boogey Lights website directly.

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