RULE THE NITE™

BOOGEY LIGHTS

Family Owned Motorsports Lighting Since 1989!

INSTALLATION GUIDE

LED Awning Light Kit for RVs, Campers, Trailers

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. 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 12vdc battery to do this (e.g. car battery, motorcycle battery, lawn tractor battery or 12vdc power supply). If you're not sure how to do this, we have prepared this document you can download: https://docs.boogeylights.net/?wpdmdl=1305 . 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 first?

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 document 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 RV. This is particularly the case with led strip mounting locations, 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.

MOUNTING LOCATION. The Boogey Lights® LED awning light kit is designed to attach to the side of an RV, trailer or camper just beneath the awning shining outward. By installing it this way, the light can be seen regardless if the awning is in or out. Also, when the awning is extended, the light reflects off the bottom of the awning which provides a nice glow effect under the entire awning. On full power the awning light provides an incredible amount of light. In fact, in most cases you'll need to dim the light it's so bright. This awning light kit is available in a wide variety of colors and configurations to fit any awning. It is not specific to any one awning brand or manufacturer.

This LED Awning light strip is thicker than any other LED strip on the market. It is designed to attach directly to the side of the RV just beneath the awning (or awning housing if your RV has one) shining outward. It will work on any RV or trailer this way. It is NOT designed to slide in or mount directly to a channel or other plastic housing affixed to the awning itself. If you take the time to read and follow these installation instructions, this LED light strip will last for many years.

MOUNTING ON THE AWNING ROLLER. Boogey Lights® LED strips are designed to be mounted immediately underneath the awning, affixed to the side of the RV or on the awning housing which is attached to the side of the RV. Some awning styles have the LED strip mounted at the end of the awning on the awning roller. We do not recommend using Boogey Lights® for this type of installation as doing so will create a power lead fail-point as they roll and unroll for each use. The copper wire will eventually break and/or the stress placed at the point where the power lead attaches to the LED strip will force a failure of the LED strip. Mounting the LED light strip directly on the awning roller also means the light can only be used when the awning is fully extended. While we know some customers have used Boogey Lights® this way, our warranty does not cover this type of installation.

REPLACING AN EXISTING AWNING LIGHT / SINGLE COLOR. Many new RVs today that come equipped with an awning will also have an awning light strip installed from the factory. That LED light strip will almost always be a SINGLE COLOR LED light (usually white or blue) with a simple on/off switch installed usually near the entrance door of the RV. Boogey Lights® single color LED light strips can be a direct replacement for many factory installed LED awning lights. <u>There are however some things to consider.</u>

<u>1] Without Wireless Remote Control:</u> If purchased without the remote control, the Boogey Lights® single color LED light strip can be used as a direct OEM replacement for most existing awning light strips installed by RV manufacturers. The Boogey Lights® single color LED strip has a two conductor positive and a negative wire that connect to 12vdc power. In most cases you can use the existing awning light wiring (and wall switch) already in place. The one caveat is that the existing wiring and circuit rating can support the amperage of the new Boogey Lights LED strip compared to the original OEM light. Generally, if the length of the LED strip you're adding is the same length or less than what was there originally, you will probably be OK but we can't say for sure. When in

doubt, examine the gauge of the power lead wire feeding the existing OEM light and compare it to the wire gauge of the new Boogey Lights LED strip. It should be as thick or thicker. You also need to look at the rating of the fuse for the existing installation to make sure it can support the new amperage draw. You might also want to do some amperage calculations using the SPECS data found on the product page (or amperage chart link at the end of this guide). That amperage draw data will give you a good idea of total amperage of the new Boogey Lights LED strip you're adding. Remove the old LED strip, install the Boogey Lights® strip where the old LED strip used to be and connect the power lead coming from the Boogey Lights strip to the existing 12vdc power leads that were used for the old LED light strip. The existing wall switch will turn on/off the LED light. Note that in this scenario the LED light cannot be dimmed (unless of course the existing OEM switch has a built in dimmer). The light is either on or off. If you want a dimmer switch, you could also replace your existing OEM on/off switch with a hard wired dimmer switch. We offer them for sale on our website but can also be purchased online.

PROS: Faster, easier to install. As close to plug-n-play as you'll find short of ordering the exact same LED light that came with your RV from the factory (if available).

CONS: The light cannot be dimmed. It's either on or off (unless of course you add a dimmer switch or your OEM switch has a dimmer built in). There are no wireless remote control capabilities.

2] With Wireless Remote Control: If you wish to use the wireless remote control (there are distinct advantages to doing so) you can still use the Boogey Lights® LED strip as a direct replacement however you'll need to find a location to mount the LED control box where it will be protected from the elements. In this scenario the controller power (12vdc) is connected to the existing awning light power lead coming from the inside wall switch. The LED controller is inline between the wall switch power and the LED light strip. When the wall switch is on, 12vdc power is provided to the LED controller. At that point you can use the wireless RF remote control to operate the awning light (on/off, dimming, flashing and speed control). Of course anytime you turn off the wall switch power, doing so will also turn off the awning light.

PROS: The light can be remote controlled using the included RF wireless remote which offers dimming, flashing, speed control and on/off capabilities.

CONS: Takes longer to install because the LED controller needs to be mounted in the circuit. Not all installation scenarios will have room for the LED controller to be conveniently mounted.

Regardless of which option you choose, the vast majority of single color LED light strips installed on RV's today are 10mm wide. So the Boogey Lights® single color LED strip will usually fit where the old LED strip used to be width wise. Because the Boogey Lights® LED strip is thicker than standard LED strips, if the existing LED strip is enclosed in a channel of some type you will need to verify how much room you have height wise. Boogey Lights® LED strip is 3mm (1/8") high. As for the length, the Boogey Lights® LED strip is 16' long which is typical of most every 12vdc LED light strip available today. It can be cut if your awning is shorter. If your awning is longer, most customers will simply center the 16' LED strip. Note: Do not attempt to slide the Boogey Lights led strip into the same channel where the OEM factory LED light strip was. Boogey Lights LED lights are designed to attach to the side of an RV, trailer or camper just beneath the awning shining outward. By installing it this way, the light can be seen regardless if the awning is in or out. Also, when the awning is extended, the light reflects off the bottom of the awning which provides a nice glow effect under the entire awning.

USING AN EXISTING ON/OFF SWITCH FOR MULTI COLOR. Boogey Lights® MULTI-COLOR RGB, RGBW and RGBA LED awning light kits aren't in most cases a direct replacement for a factory installed LED awning light. The reason is because most factory installed LED awning lights are single color - not multi-color. A multi-color RGB/RGBW/RGBA awning light requires an LED controller (the "brains") to operate the LED strip, create/mix the various colors and wirelessly control the available lighting features. Plus a multi-color awning light has 4 or 5 power leads whereas a single color LED light only has 2 power leads. Plus, a single color LED light only needs 12vdc power (12v+, 12v-) to turn it on or off. If you want to upgrade your existing single color awning light strip

with a multi-color light, there are some options to incorporate your existing single color factory installed on/off wall switch to control your multi-color LED awning light. Here are some options:

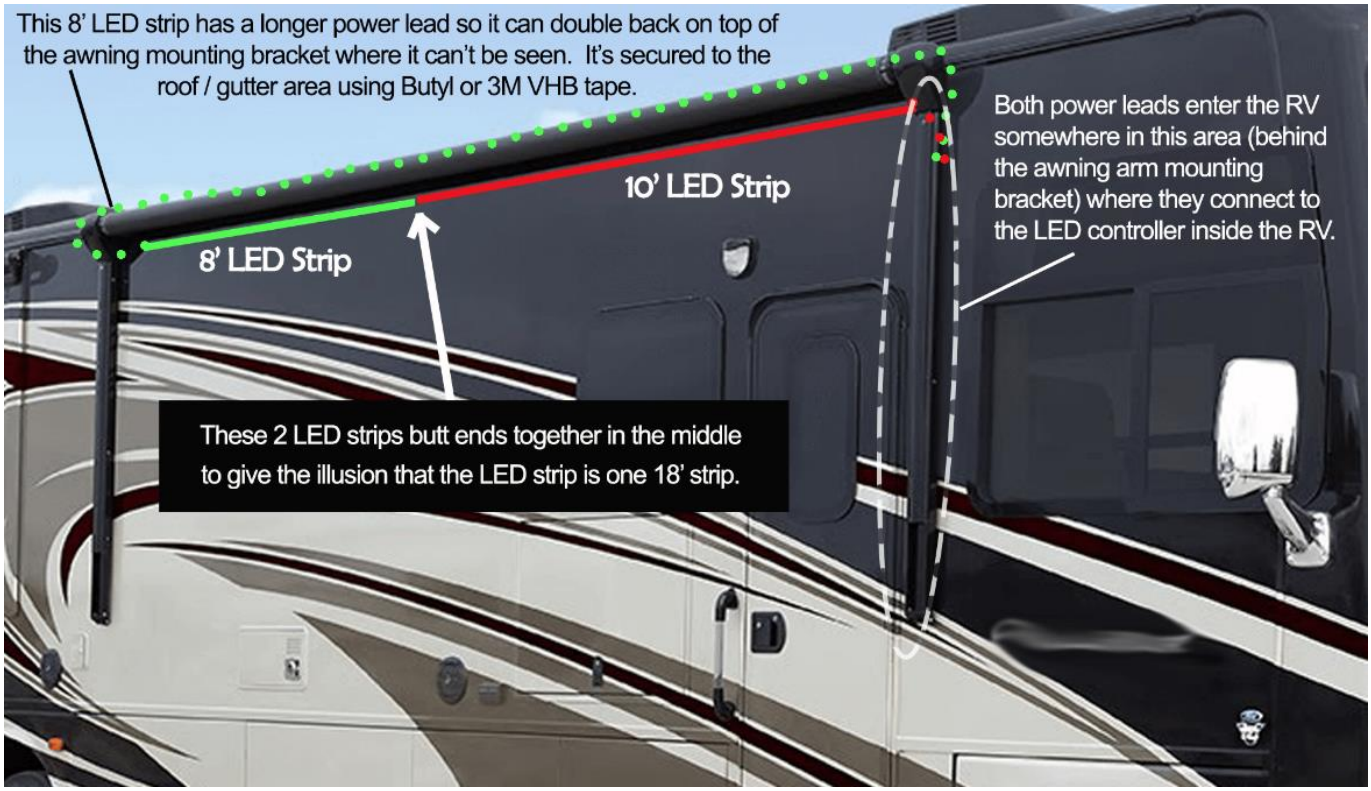
OPTION 1 / RGB: The first option works for RGB LED lights only. It uses the existing factory installed on/off wall switch to toggle power on/off to the Boogey Lights LED controller. In this scenario the LED controller power (12vdc) is connected to the existing awning light power lead coming from the factory installed wall switch. The LED controller is inline between the wall switch power and the LED light strip which is mounted on the RV under the awning. When the wall switch is on, 12vdc power is provided to the Boogey Lights LED control box. At that point you can use the Boogey Lights wireless RF remote control (or bluetooth smartphone APP) to operate the awning light (on/off, dimming, flashing, speed control, change colors, etc). Of course anytime you turn off the wall switch power, doing so will also turn off the awning light. So to turn on the LED controller, you first have to turn on the wall switch and then use your wireless remote (RF or Bluetooth) to operate the Boogey Lights RGB awning light. This configuration also assumes the 12vdc circuit the factory installed switch is connected is sufficiently sized to handle the amperage of the Boogey Lights awning light strip you're installing. In our view, while this configuration will usually work, it's clumsy. Not ideal.

OPTION 2 / RGB: This option too only works for RGB LED lights. This variation uses the existing factory installed wall switch to turn on/off a COOL WHITE (6000k) light using the Boogey Lights RGB LED strip -- just like the factory installed awning light used to do. Then, using the Boogey Lights wireless remote (RF or Bluetooth) you can access all of the other colors and features (e.g. dimming, flashing, color rotation, speed control, programming mode, etc.). If you want a COOL WHITE light, this is the best of both worlds. You can keep the functionality of the existing factory installed wall switch to turn on/off a cool white light under the awning while also having the functionality and advanced features of a multi-color awning light complete with wireless RF and blue tooth control. To do this requires using 3 relays. If you're interested in configuring your Boogey Lights RGB awning light this way, we offer a WIRING DIAGRAM AND VIDEO showing how to do it. It requires a little more time to do the installation due to having to wire in 3 relays but we believe it's worth it. Here's the link to the docs: https://www.boogeylights.com/how-to-wire-rgb-led-strip-to-an-existing-onoff-wall-switch/ . You can also find this link in our INSTALLATION RESOURCES.

OPTION 3 / RGBW/RGBA: This option works for RGBW/RGBA LED lights with our GEN2 LED Controller. It uses the existing factory installed wall switch to turn on/off the WARM WHITE diode (if RGBW) or AMBER diode (if RGBA) using the Boogey Lights RGBW/RGBA LED strip -- just like the factory installed awning light used to do. Then, using the Boogey Lights wireless remote (RF or Bluetooth) you can access all of the other RGB colors and features (e.g. dimming, flashing, color rotation, speed control, programming mode, etc.). In our view if you want a WARM WHITE light (or AMBER), this is the best of both worlds. You can keep the functionality of the existing factory installed wall switch to turn on/off the warm white (or amber) light under the awning while also having the functionality and advanced features of a multi-color awning light complete with wireless RF and blue tooth control. The GEN2 LED Controller has our Quick Switch technology. The existing on/off switch is wired to the Quick Switch trigger wire on the GEN2 LED Controller. Whenever the existing on/off wall switch is turned on/off, just the Warm White (or Amber) diodes will turn on/off. Even better is that if you have the RGB lights on, energizing the Quick Switch circuit in the LED controller will automatically turn off the RGB LEDs (and turn on the Warm White or Amber diodes). Then, when the Quick Switch trigger is turned off, the Warm White/Amber diodes are turned off with the RGB lights turning back on again in whatever setting you had them in before. Our GEN2 controller documentation included with this kit has a wiring diagram that shows how to do this.

MOUNTING & WIRING AWNING LIGHTS LONGER THAN 16'. The maximum length of a single LED strip containing 300 hi-intensity super-bright 5050 tri-chip LEDs is 5 meters (about 16 feet). It is not possible to daisy chain more lights without damaging the LED strip itself (too much amperage being pulled through the strip). There are however some options. First, most customers who have an awning longer than 16' choose to simply center the 16' LED strip. It is unusual for an awning to be longer than 20' or 22' wide. So with a 16' strip you would have a 2 or 4 feet over-hang on each side. Simply center the strip. Boogey Light® LED awning strips are incredibly bright so you will have more than enough light. In fact, you will likely have to dim the strip at night because it can be too bright.

Second, if you want to go longer than 16', you can use a second LED strip and butt the second strip up against the first. In our example of a 20' awning, you could for example use 2-10' strips. Depending upon your electrical configuration you could either have the power leads on both ends of the 20' run or have them meet in the middle. If you have the power leads meet in the middle there will be about 4" of area where there will not be any LEDs which is something you'll want to take into account. Here's a diagram illustrating what we're referring to.



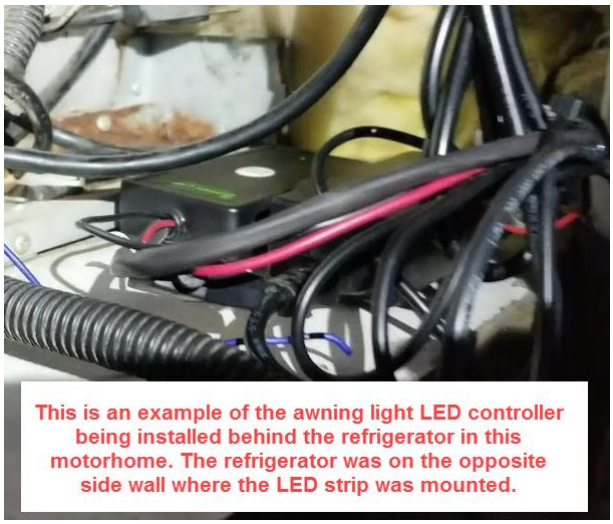
MAKING YOUR ELECTRICAL CONNECTION. If you're installing a new light (vs replacing an existing) and/or or installing a multi-color light that requires an LED controller, you'll need to decide how you are going to connect the power lead coming from the end of the LED light strip to the LED controller and power source. There is more than one way to do this and of course the style of RV you have will largely determine the best way to do it. Where possible, we recommend running the lights off the house batteries. We like to terminate the LED power leads and mount the LED Controller in the same compartment where the house batteries are stored. Doing so makes for a clean, safe electrical installation. By connecting directly to the house batteries you know you're not going to interfere with any other 12vdc systems in your RV. This works especially well for Under-Glow LED light systems but when it comes to awning lights, it's not that cut and dry.

Fifth Wheels/Travel Trailers: Many RV awnings on fifth wheel and travel trailers (particularly motorized awnings) have a vertical support 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 and then run the power lead into a storage bay. See photo below. We have a video of how we installed an awning light on a travel trailer which will be similar to most any travel trailer. Here's the link: https://www.boogeylights.com/video-how-to-install-led-awning-light-on-any-travel-trailer/. You can find this video on our RV Awning light product page too.

Motorhomes: For most motorhome installations it's not practical to pull power from the house batteries directly. Instead, we typically mount the LED controller on the opposite side of the wall where the LED strip is mounted to. There's usually a cabinet, shelve, recliner, desk or similar structure on that inside wall where the controller can be mounted while remaining hidden. Yes – in most cases you'll need to drill a hole through the side of the RV. It's not difficult. It's how a professional installer would do it. Just need to make sure you adequately seal that hole with Lexel or similar substance to keep water out. If the awning is motorized, you may be able to use the existing

hole in the RV for the power to that awning for the power lead wire for the awning light. You'll need to examine your RV to see what's possible. Every installation is a little different. Check out our HOW TO VIDEOS where we have several installations of both our awning light and under-glow lights on motorhomes. Here's the link: https://www.boogeylights.com/how-to-videos/ .

RV SITTING FOR AWHILE? 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. There's no good reason to leave the LED controller powered up all the time if it's not being used. As an option, you can install a separate on/off hard-wired switch (not included) to isolate the circuit. If you decide to install a separate on/off hard-wired switch, make sure it's big enough to handle the amperage.



12VDC VS 120VAC. Boogey Lights are native 12vdc devices. We always suggest 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, motor home, 5th wheel trailer or camper sold today in the United States. 120vac power on the other hand is not always available – at least not without having access to shore power or an on-board generator. That said, there are situations where it may be considerably easier to use 120vac. We offer 120vac to 12vdc power converters for this reason. 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 and of course, you'll need a 120vac outlet nearby too.

A WORD ABOUT BATTERY POWER. One 16' LED strip (300 LEDs) will consume about 3.5amps on full power brightness (white, max brightness setting). On other colors and lower brightness settings the consumption is considerably less. While most people do not use this max brightness setting for long periods of time, you still need to make sure the 12vdc power source you're using is not only capable of powering the load you're adding, it needs to be able to sustain that load over time. Not all RV converters are sized to handle the additional 12vdc electrical load you're now adding to your system. If your batteries and/or converter isn't sufficient to handle the load, the first thing you'll notice is the lights will dim quickly after turning on. Or, they might dim over the course

of an hour or so. You can find more information about this issue in our Trouble Shooting Guide here: https://www.boogeylights.com/trouble-shooting-guide/ .

IMPORTANT NOTE ABOUT ELECTRICAL WIRE COLORS. Modern RVs, trailers, motorhomes, fifth-wheels and campers often have a mixture of **120vac** and **12vdc** wiring installed. **ALL Boogey Lights® products are native 12vdc**. If you connect a Boogey Lights® controller or LED strip to 120vac 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 may also damage the controller beyond repair.

In a typical 120vac 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 your RV's house batteries it may be more convenient to tie into an existing 12vdc circuit rather than running power back to the house batteries **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 LED 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 you are adding to the circuit. 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.**

CONSIDERATIONS FOR THE LOCATION OF YOUR LED CONTROLLER

As we mentioned previously, where possible we recommend mounting the LED CONTROLLER in the same compartment as your house batteries. This isn't essential but it generally is best practice. That said, nothing says you have to mount it there and in some cases – especially motor home awning light installs – it's not practical. If you do decide to mount your LED Controller in another location, here are some things to keep in mind:

- 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 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 RF remote (and Bluetooth if you have it). 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 will likely 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.

MOUNTING YOUR AWNING LED STRIP

The Boogey Lights® LED awning light kit is designed to attach directly to the side of an RV, trailer or camper just beneath the awning. It is NOT designed to slide in or mount directly to a channel or other plastic housing affixed to the awning itself where the OEM strip used to be (if there was one). Attempting to do so will likely damage the LED strip and/or cause it to fail prematurely; neither of which are covered under warranty. **Attach it directly to the side of the RV**, beneath the awning facing forward. This position provides the best glow effect particularly when the awning is extended. Each Low Profile LED strip can be cut if needed to fit your application. Just make sure you cut the LED strip in the proper location before mounting. 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:

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

Do NOT bend the LED strip on a horizontal plane.

- 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. 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 *.

- 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 at least 30-60 seconds.

- To keep the LED strip straight, we like to first put down some painter's tape, masking tape or draw an erasable line on the side of the RV as a guide to follow. This makes sure you're installing the LED strip in a straight line. You only get one opportunity to do this right so it's important to have a guide to follow.

- 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.

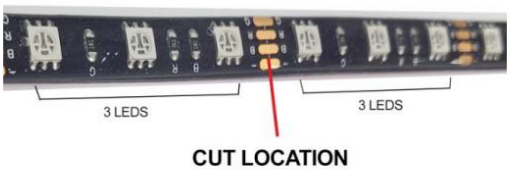
- Super important to carefully UNROLL the LED strip as you go down the side of the RV and to gently push it to the mounting surface as you go. **DO NOT PULL ON OR PUT TENSION ON THE LED STRIP WHEN DOING SO.** Because the LED is horizontal, gravity will tend to pull it down so the natural tendency is to pull on the LED strip to keep it level. If you install the LED strip under-tension, the LED strip will almost certainly fail prematurely (which is not covered under warranty). Simply unroll the LED strip – removing the red backing tape – as you follow the line you drew or created with the tape referenced above.

- 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. Do not allow that power lead cable to hang or dangle while you're doing the installation or after. Be sure to secure it temporarily during the install and permanently once installed. The solder point where the power lead cable meets the LED strip is not designed to withstand weight. The power lead cannot be allowed to move when the RV is traveling down the road.

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 heat shrink tubing or silicon / Lexel 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.

HI-INTENSITY SURFACE MOUNTED LED STRIPS



The LED strip can be cut one time on the copper solder pad where indicated; between the cluster of 3 LEDs. Important to cut in the center of the copper pads. Once cut, the end must be sealed using silicon, liquid electrical tape or even heat shrink to stop water intrusion from damaging the strip.

A Word About 3M Tape & 3M Adhesion Promoter (aka Primer). All Boogey Lights® LED strips have 3M Tape backing affixed to them (with red back tape protected it – which must be removed before installing). 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 Adhesion Promoter. YOU CANNOT SKIP THIS STEP. Always apply 3M Adhesion Promoter to any surface Boogey Lights® LED strips will be mounted.

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.

*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.

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 as well as the link on the next page. 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, you'll find them online at https://www.boogeylights.com/quick-find/ .

Additional Resources

- How to Videos: https://www.boogeylights.com/how-to-videos/
- Awning Install: https://www.boogeylights.com/video-how-to-install-led-awning-light-on-any-travel-trailer/
- Troubleshooting: https://www.boogeylights.com/trouble-shooting-guide/
- Installation Resources: https://www.boogeylights.com/installation-resources/
- How to Bench Test: https://docs.boogeylights.net/?wpdmdl=1305
- Amperage Data: https://docs.boogeylights.net/?wpdmdl=1137
- Quick Search: https://www.boogeylights.com/quick-find/
- 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

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/.