



Family Owned Motorsports Lighting Since 1989!

INSTALLATION GUIDE

2021 POLARIS SLING SHOT LED LIGHT KIT

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. Test all of them. 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 good 12vdc battery to do this (e.g. car battery, motorcycle battery, lawn tractor battery or 12vdc power supply capable of supporting a 5 amp load). If you're not sure how to do this, we have prepared a document explaining the process here: <https://docs.boogeylights.net/?wpdmdl=1305> . We also have a video: <https://www.boogeylights.com/how-to-bench-test/> . 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 before installing?

BEFORE YOU START

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 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 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 vehicle. This is particularly the case with 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.

WORK AREA. 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 and 3M adhesion promoter works best if applied when the air temperature is above 40 degrees (and of course is DRY).

KNOW YOUR AMPERAGE DRAW. Pay attention to the number of LEDs you are lighting and the total amps you will be drawing. We manufacture a number of LED Controllers of varying capacities. If you over-load the LED controller, it will either not work at all or the lights will dim in a short period of time. Amperage data for all our LED products are on each product page. You can also download it directly here: <https://docs.boogeylights.net/?wpdmdl=1137>

3M TAPE & ADHESION 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 mounting surface. 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 prepare the mounting surface. 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.** The promoter acts as a primer that ensures maximum adhesion. Our lighting kits include a small bottle of 3M Adhesion Promoter. Simply use a clean, dry cloth to apply it to the mounting surface.

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 must 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.

About This Light Kit

Installation of this led light kit takes 8 to 10 hours to do it properly. There are 28 different mounting locations in this kit and all of the power leads need to be carefully run. Included in that number of mounting locations are two 30 led Heavy Duty LED strips mounted to the rear removable panel just under the back deck (and over the rear wheel). Because this cover is removable for access under the rear deck these two LED strips require installation of a quick-disconnect – one on each side - to be installed such that this rear panel can be easily removed for service without having to cut the power leads to these LED strips. We include the quick-disconnects and heat shrink in our lighting kit so you can make these connections. DIYers will need to be familiar with removing this rear piece from the Sling Shot. You will likely need floor jacks or ramps to get the Sling Shot high enough off the ground to install the under-glow light strips. The LED controller is mounted just under the hood just in front of the driver's compartment. The battery is on the passenger's side of the car (under the hood) which requires extending the 12vdc power from the battery on the passenger's side to the LED controller on the driver's side. We add a 25amp fuse too at the battery.

The wiring on the Sling Shot for our light kit is segmented into 5 areas: under-hood left side front, under-hood right side front, left side front under-glow, right side front under-glow and rear. The power leads coming from the LEDs mounted in each of these areas come together in their respective locations. The hood has two sets of LED strips mounted to the bottom of the hood to illuminate the wheel well area: One set on the driver's side. One set on the passenger's side. The power leads for each of these drop-down at the front and meet up with the lower under glow strips. Because the hood is removable, you should install quick-disconnects on both sides. We include a pair of quick-disconnects for this. For the driver's (left) side front (under hood strips + lower under glow strips), a feeder cable is run back on the frame (drivers side) and up to the LED controller just in front of the driver's compartment (under the hood). We do the same for the front passenger's power leads (under hood strips + lower under glow strips). For the rear LED strips, they all connect just in front of the swing arm where a feeder cable is then run up the driver's side and to the LED controller. We include more detail on all of this including photos of the suggested mounting locations for each strip at the end of this guide. We do not however include detailed instructions on how to remove the rear plastic panel. We assume anyone attempting to install this light kit has the knowledge to do this already (or, is willing to figure it out on their own using any number of online sources).

Tools / Supplies You will Likely Need

Metric tools (e.g. torx), wire cutters, wire strippers, crimping tool, electrical tape, rubbing alcohol, shop rags, extra zip ties, jack stands/ramps (or means by which to raise the Sling Shot), heat gun.

TYPICAL LED PLACEMENT

These are the LED placement locations we used for this kit. Nothing says you have to use this placement though. At the end of this guide we include photos and diagrams of these LEDs as located on the vehicle. Our strategy in placement is to light the wheel wells and under the vehicle itself – full perimeter. When determining placement, the goal is to locate the LED strips in locations where the strips themselves cannot be seen but the glow from the LEDs when lit are seen. The Sling Shot's open wheel wells makes this impossible to do from all angles but the placement of the LED strips under the hood will absolutely flood each of the wheel wells with light.

Under the Hood - Driver's Side Wheel Well

These LED strips are mounted to the hood on the bottom side. These strips are shining down; flooding the entire wheel area with light. You'll notice the bottom side of the hood of the Sling Shot is structurally built with 'triangles': front, middle and rear over each of the two front tires. We place our LED strips inside of these triangles on each side of the vehicle. This will make more sense when you view the photo at the end of this guide.

- Front Triangle: 1 - 15 LED strip, 1 - 12 LED strip
- Middle Triangle: 1 - 6 LED strip
- Rear Triangle: 1 - 6 LED strip, 1 - 9 LED strip

Under the Hood - Passenger's Side Wheel Well

The placement for the passenger's side under the hood strips are the same as the driver's side.

- Front Triangle: 1 - 15 LED strip, 1 - 12 LED strip
- Middle Triangle: 1 - 6 LED strip
- Rear Triangle: 1 - 6 LED strip, 1 - 9 LED strip

IMPORTANT NOTE: When positioning the LED strips on the bottom of the hood it's important the LED strips and their power leads be mounted such that the power lead cable feeding each group of LED strips is free to move when the hood is opened and closed. Important too to make sure none of the cables are pinched when the hood is closed. At the end of this guide we include a photo of how we positioned the LED strips and power leads when we mounted them to the bottom of the hood. You'll notice too that we used some butyl tape AND drilled some small holes in those plastic triangle struts which made it easy to zip tie the power lead cable in position so it cannot move (or hang down into the engine space.)

Super important that you inspect all power lead cables attached to the bottom of the hood to make sure they are secure, tight and not hanging down into the engine compartment.

Front Nose Under-Glow

We have a total of 5 LED strips under the front nose of the Sling Shot. The goal is to flood the area immediately below the Sling Shot's nose with light. To do this we mounted 5 LED strips on the front nose shining down. For accent purposes, we also add one LED strip mounted just below the opening where the Polaris insignia is located on the front of the Sling Shot R.

From left to right (looking at the front nose from underneath) the sequence is: 1 - 12 LED strip, 1 - 15 LED strip, 1 - 21 LED strip, 1 - 15 LED strip and 1 - 12 LED strip. For the Polaris sign lighting we use 1 - 30 LED strip. We have included a photo of this placement at the end of this guide.

Body Under-Glow

We light the main body under-glow with a total of 10 LED strips. The configuration is as follows:

- 2 - 18 LED strips under each front wheel strut (one on each side).
- 2 - 42 LED strips under the metal frame (round support beam). One on each side.
- 2 - 54 LED strips under each side skirt. One on each side. Note: Important these be installed such that they are NOT on the bottom of the support tube. Instead, face them inward a little. If you don't, you risk damage to the LED strip if/when the SlingShot is grounded (which tends to happen on these).
- 2 - 15 LED strips under each rear side skirt (just before the rear tire). One on each side.
- 2 - 12 LED strips mounted in each front wheel well, attached to the top frame and shining downward. One on each side.

Rear Under-Glow + Rear Deck Above Wheel

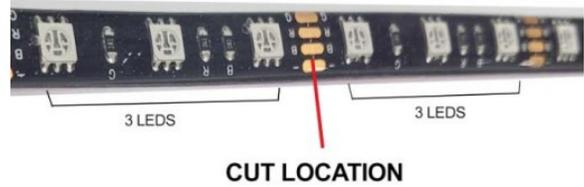
- 2 - Heavy Duty 30 LED strips mounted on the rear of the Sling Shot, just under the rear deck. These led strips are facing backward.
- 1 - 6 LED strip mounted to the swing arm facing inward toward the rear wheel
- 1 - 15 LED strip mounted to the bottom of the swing arm facing downward.

LED Controller

The LED controller is mounted in the front of the vehicle, under the hood just in front of the driver's compartment.

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. 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.

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 the supplied alcohol pads 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).
- 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.**

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



Do NOT bend the LED strip on a horizontal plane.



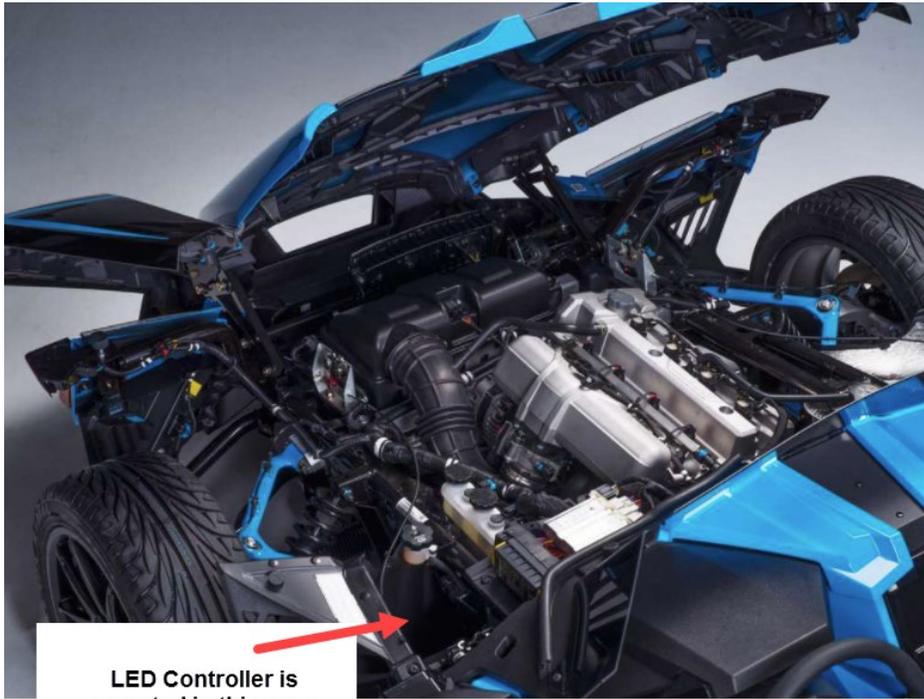
INSTALLATION PHOTOS

NOTE: These diagrams are not accurate diagrams of the 2021 Sling Shot (particularly the bottom view). Unfortunately they're the best we could find to provide some context.



Here are some photos with comments on the installation we did in building this kit. We've commented on key parts of the installation along the way. We don't however cover every minute detail of the installation process.





LED Controller is mounted in this area.



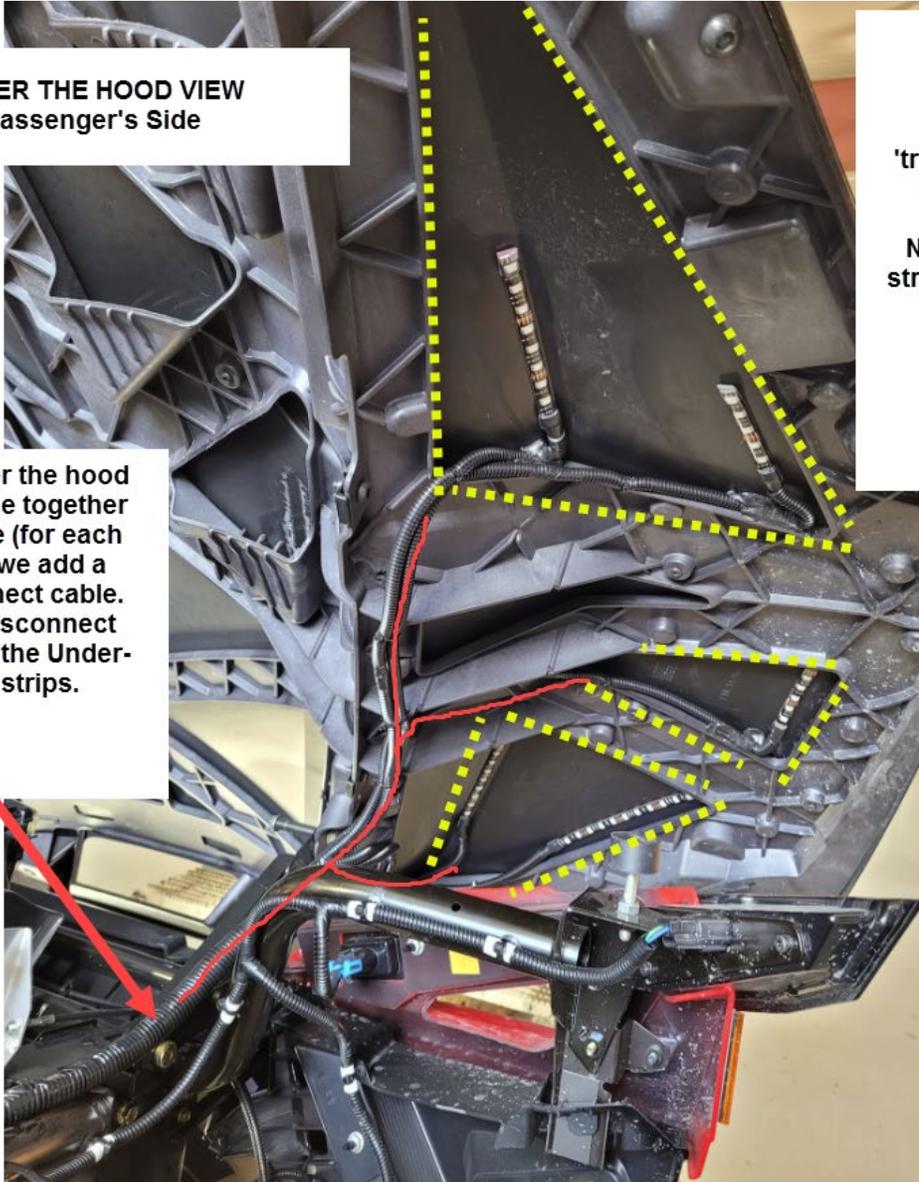
30 LED strip mounted under the POLARIS sign here.

**UNDER THE HOOD VIEW
Passenger's Side**

**These are the three
'triangle' areas under the
hood we referenced.**

**Note how all of the LED
strips are wrapped in split
loom.**

**All of the under the hood
led strips come together
into one cable (for each
side) where we add a
quick-disconnect cable.
That quick-disconnect
connects with the Under-
Glow LED strips.**

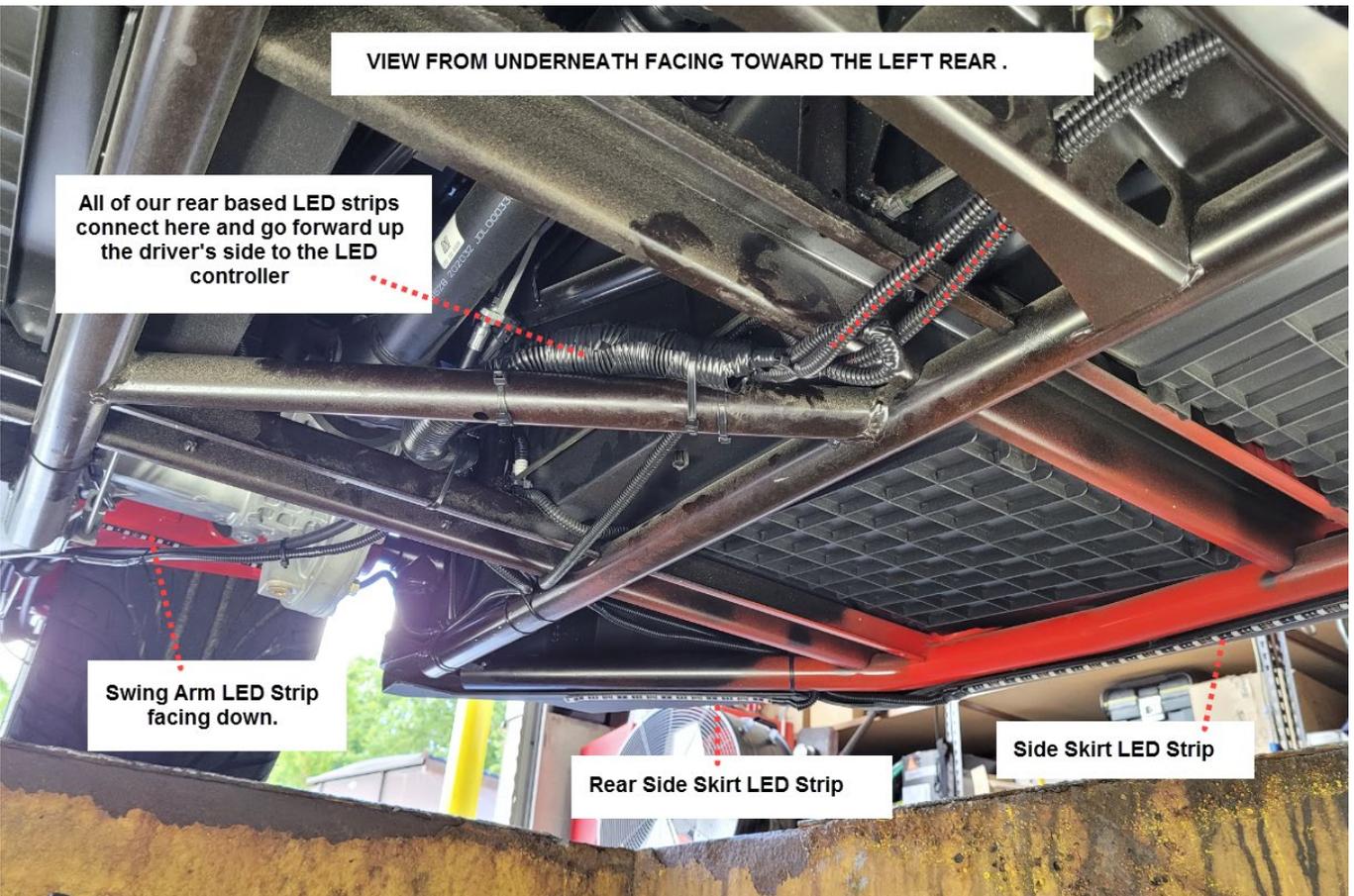
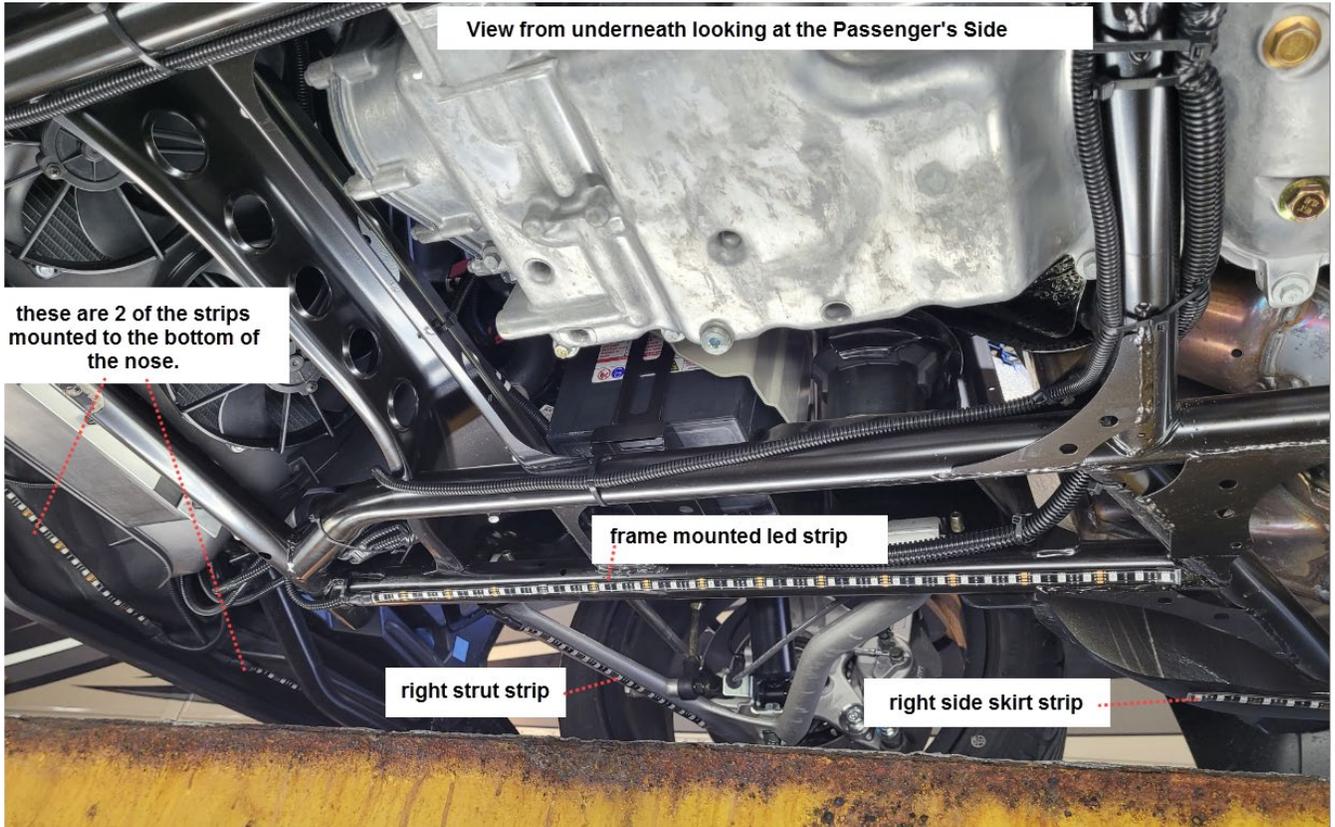


DRIVER'S SIDE / UNDER-HOOD VIEW

Butyl tape used here to hold the power lead firmly against the hood.

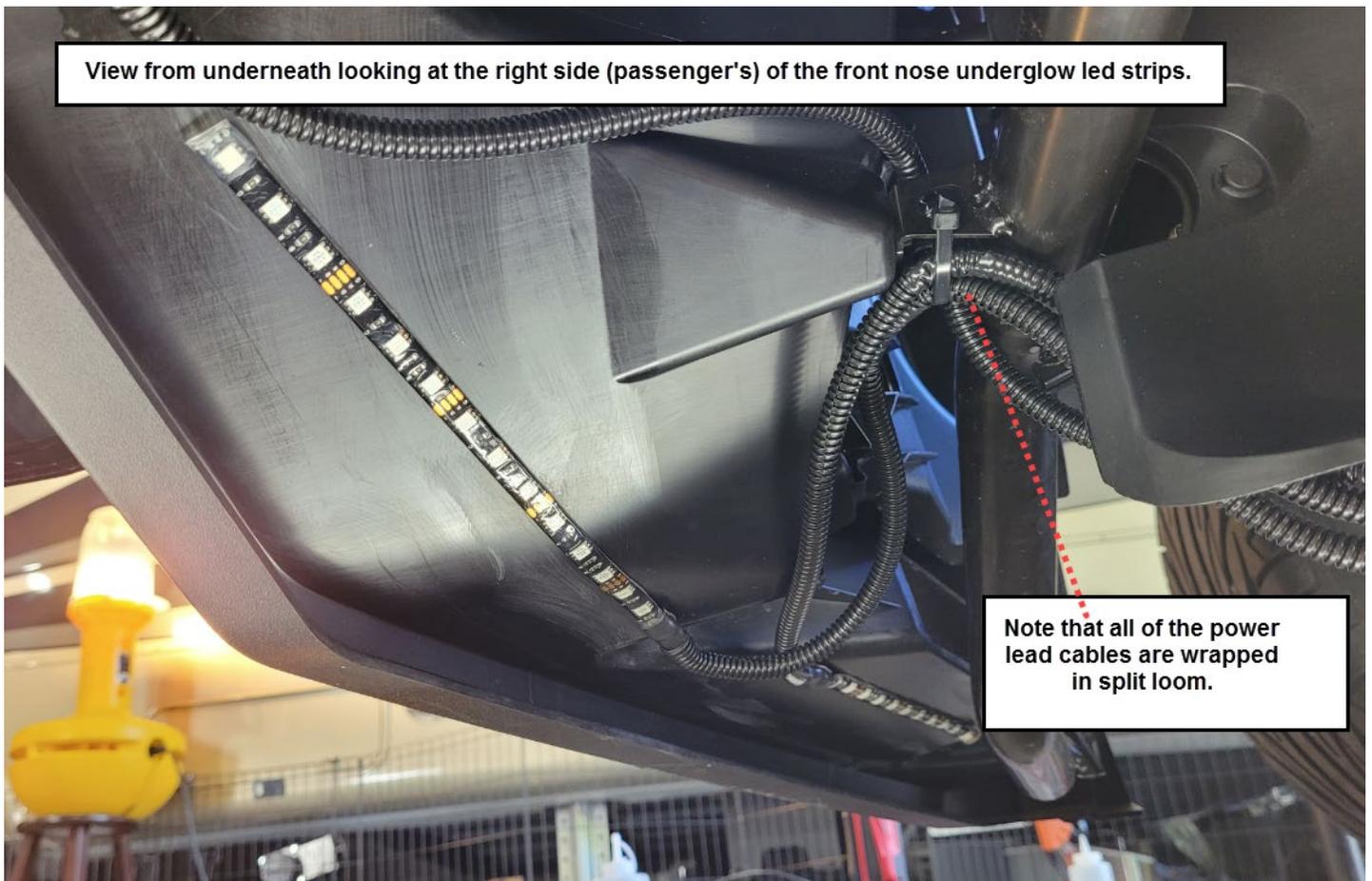
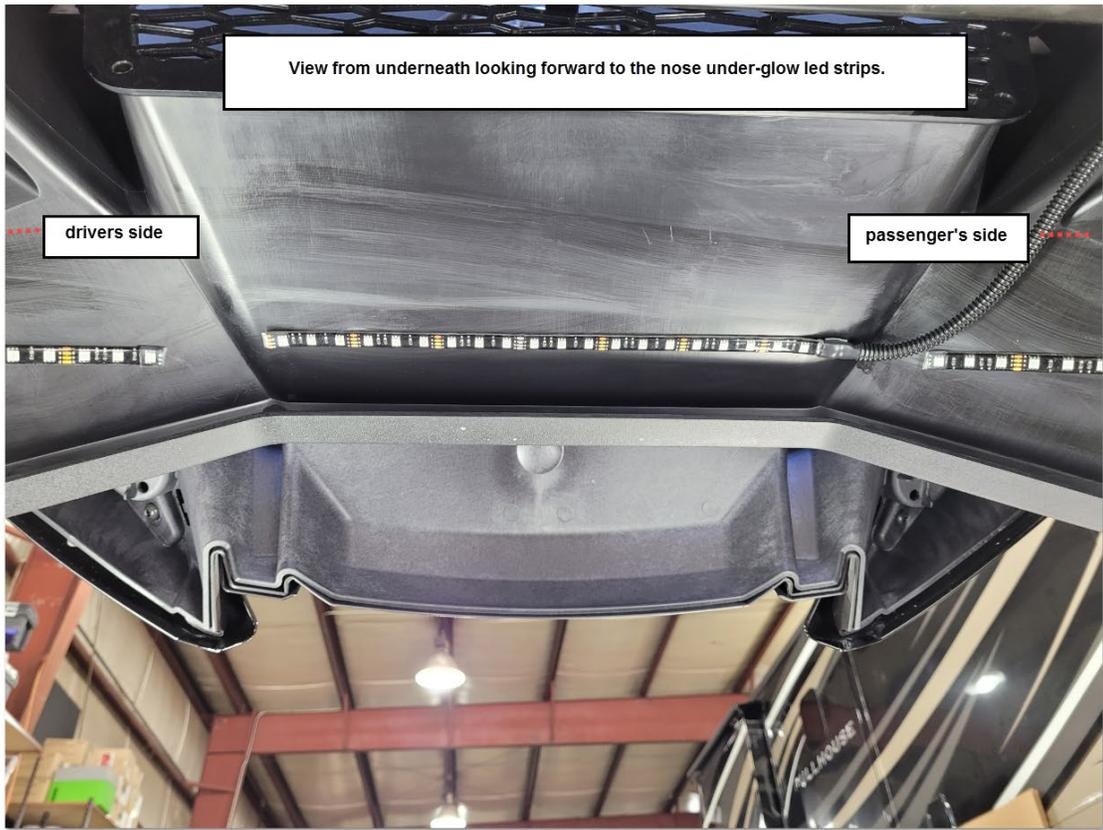
We drilled small holes in these support struts so we could use zip ties to hold the power leads in place.

All power leads come together here where they connect to the male end of the quick-disconnect.



**VIEW OF THE SWING ARM MOUNTED LED STRIP FACING
INWARD TOWARD THE WHEEL**

**The power lead for this
strip runs down under the
rear and connects with all
of the other LED strips from
that area.**





View from underneath at the left side (driver's) under-glow led strips.

Adding the Quick-Disconnect

Twist the wires together tightly then slide the 1/8" heat shrink over the connection. Heat shrink that connection. Repeat for the other 3 power leads.

When done, slide the 1/2" heat shrink over the entire connection and seal.

