INSTALLATION INSTRUCTIONS

2021 POLARIS SLINGSHOT R
LED LIGHT KIT

RULE THE NITE™

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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.

ABOUT THIS GUIDE

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).

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 knows how to access and remove the rear panel on the back of the Sling Shot.
- The installer understands 12vdc electricity, making electrical connections using heat shrink tubing and crimp on connectors, the importance of having a fuse in the circuit at the battery location and polarity.
- How to access the Sling Shot's battery, 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 cabling such that the power leads and related wiring are secured in a way as to not create a hazard when driving the vehicle and/or placing them in locations which might damage them (e.g. up against the exhaust pipe, against drive belt, wheels, etc).
- A means by which to gain access underneath the vehicle (e.g. floor jacks, ramps) to be able to mount the strips to the bottom.

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.

BEFORE YOU START

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 and LED placement.

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 works best if applied when the air temperature is above 40 degrees (and of course is DRY).

3. Make sure you know where your electrical connections will terminate. For this kit, the LED controller should be located immediately in front of the driver's compartment under the hood. The LED power leads will come up from the bottom. Note too that since the vehicle's battery is on the passenger's side, the power will need to be extended from the battery to the LED controller. We supply the battery extension cable, split wire loom, 25amp fuse holder and battery lugs to do this.

4. If you are adding additional LED strips beyond the LEDs included with our kits pay attention to the number of LEDs you are lighting and the total amps you will be drawing. Our SUPER SERIES controllers are capable of powering up to 900 LEDs (10amp fuse).

5. 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. 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.

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.

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.

WHAT'S INCLUDED

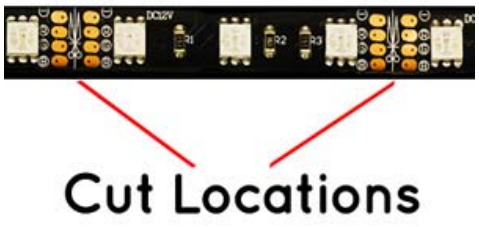
In addition to the LED light strips and power leads, this kit includes some additional items you'll need. Here's a quick review of those items and why we include them. Some of the photos at the end of this guide reference these items too.

- 20AWG Feeder Cable – 4 Conductor. Use this cable to extend the LED power leads to the LED controller. We recommend ganging up the connections for LED strips located in the same area and then using the feeder cable to extend those LEDs to the controller.
- 3M Adhesion Primer. Used to prep the surface before attaching the LED strips. Always, always, always use this adhesion primer with 3M adhesive products if you want the bond to hold.
- 3M Quick Lock Reclosable Tape. This is a heavy duty "Velcro like" product. Used to mount the LED controller to the wall in front of the driver's compartment. Makes mounting and removing the LED controller easy. Be sure to apply 3M Adhesion Primer to both the mounting surface and the back of the LED controller.
- Split Wire Loom / ¼". All power leads and the battery extension cables need to be protected from chaffing. Wrap them in this first. See photos.
- Split Wire Loom / ½" . We include the ½" split wire loom to be used when you're connecting multiple power leads together. Helps protect that connection.
- Battery Extension Cable. We include some 12awg cable to extend the battery power inputs going to the LED Controller to the Sling Shot's battery which is on the other side of the vehicle. Be sure to wrap this extension cable in split loom.
- Fuse Holder – 25AMP. Insert this fuse holder on the 12vdc positive side of the battery connection before the battery extension cable. This is critical.
- Battery Terminal Lugs. We include a couple of battery terminal lugs that attach to the battery extension cable (crimp on) to make it easy to connect the positive and negative power leads to the car's battery to the LED controller. It's a much better way to make this connection than to just simply wrap the bare cable around the battery post.
- Butyl Tape. We use butyl tape in a few places on this installation to help hold power lead wires to the Sling Shot's hood as well as other locations. Butyl will only work if you apply it to a clean surface so make sure you first clean the surface with rubbing alcohol.
- Zip Ties. We include some zip ties which you'll need to secure the LED power leads to the vehicle.
- Crimp On Wire Connectors. These are used to secure the wire connectors at the LED Controller as well as making all power lead connectors to the feeder cable. We recommend wrapping each connector after it's crimped with electrical tape to protect it from water intrusion.
- Quick-Disconnect Connectors. We include four male-female pairs. One for each side of the hood. One for each side of the rear where the Heavy Duty LED strips attach to the rear plastic cover. Note: The color coding of the wires on the quick-disconnect are black, red, white and yellow. The color coding of the led power leads are black, red, blue and green. We recommend connecting the white from the quick-disconnect to the blue on the led power lead and the yellow from the quick-disconnect to the green on the led power lead. Ultimately it doesn't matter what color you use as long as they are all the same. We simply twist each of the cables together and then slide heat shrink over to seal.

- Heat Shrink. For use with creating the quick-disconnect cables . We include two sizes. 1/8" and ½". See photo later on in this guide showing how they're positioned. NOTE: When creating the quick-disconnect segments, use the 1/8" heat shrink to cover each of the four inner wires and then position the ½" heat shrink over all four wires. We include a photo of this later on in this guide.

NOTE: Every installation varies a little so you may need to purchase additional items (or more of them such as zip ties) for your install.

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.

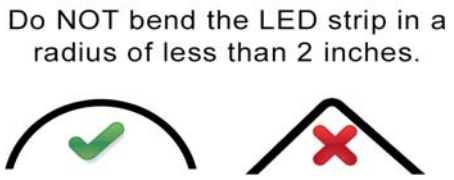


Follow these steps for mounting your LED strips:

- 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.

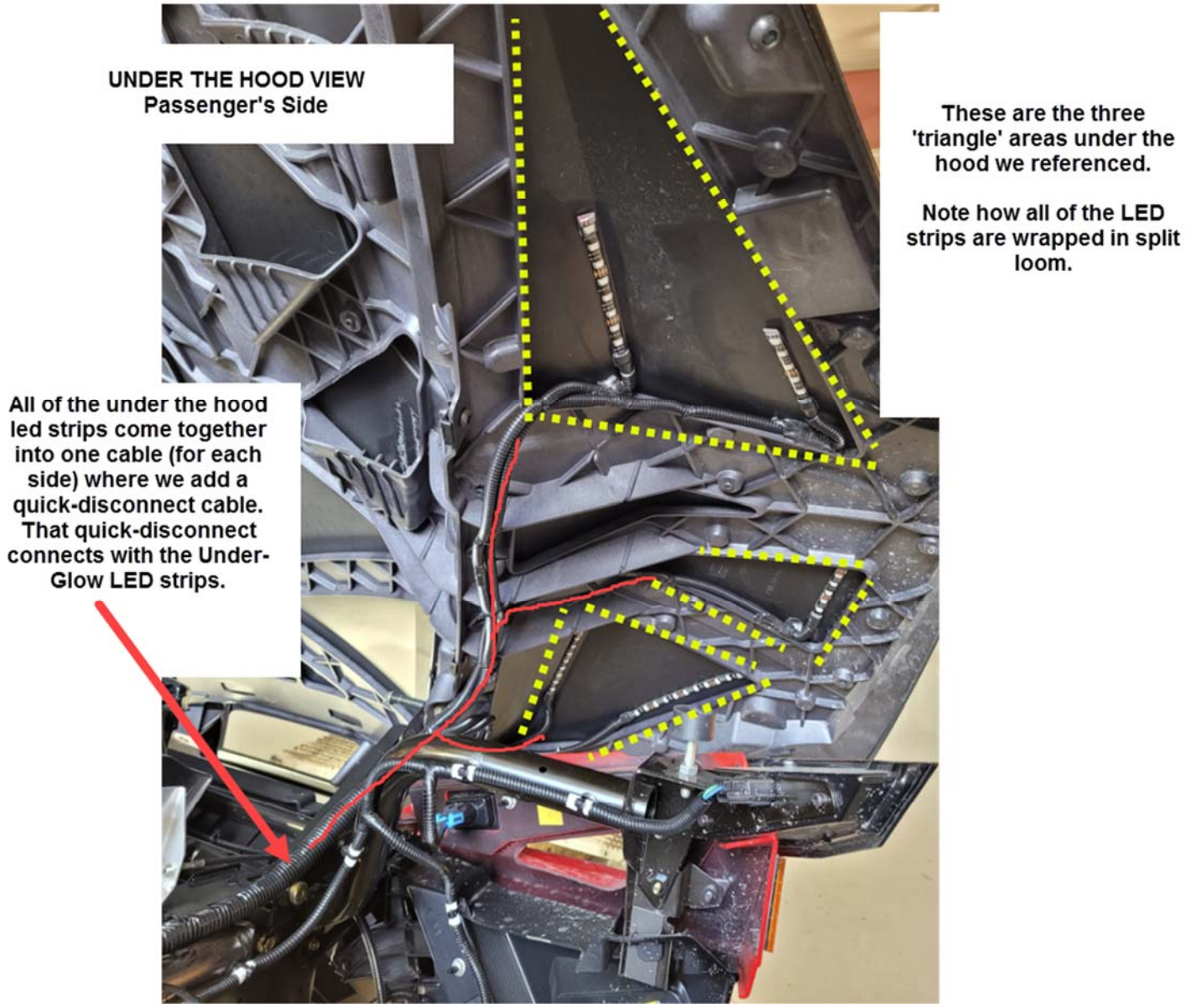
INSTALLATION PHOTOS

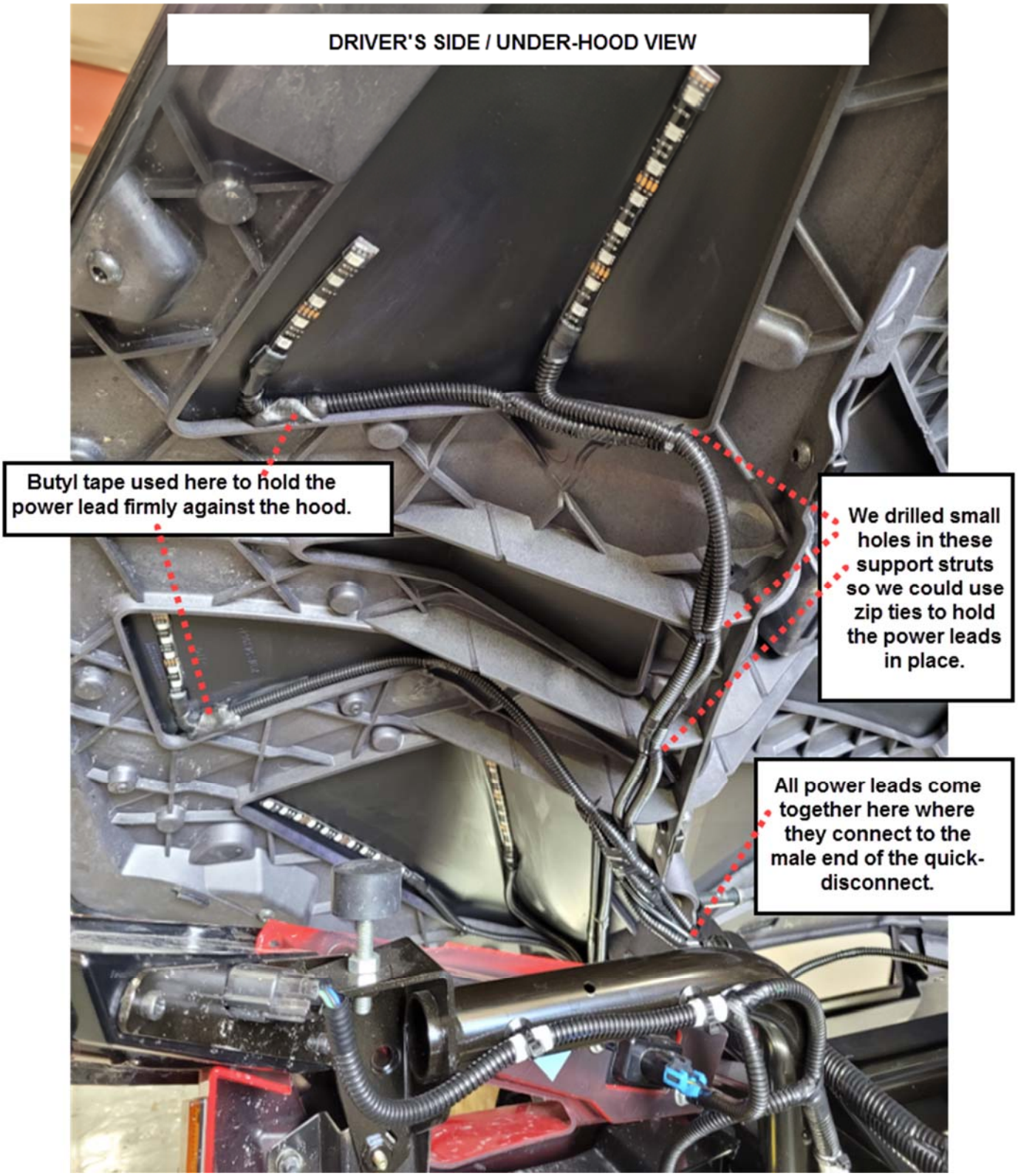
Here are some photos with comments on the installation we did in building this kit. We've commented on key parts of the installation along the way. We don't however cover every minute detail of the installation process.

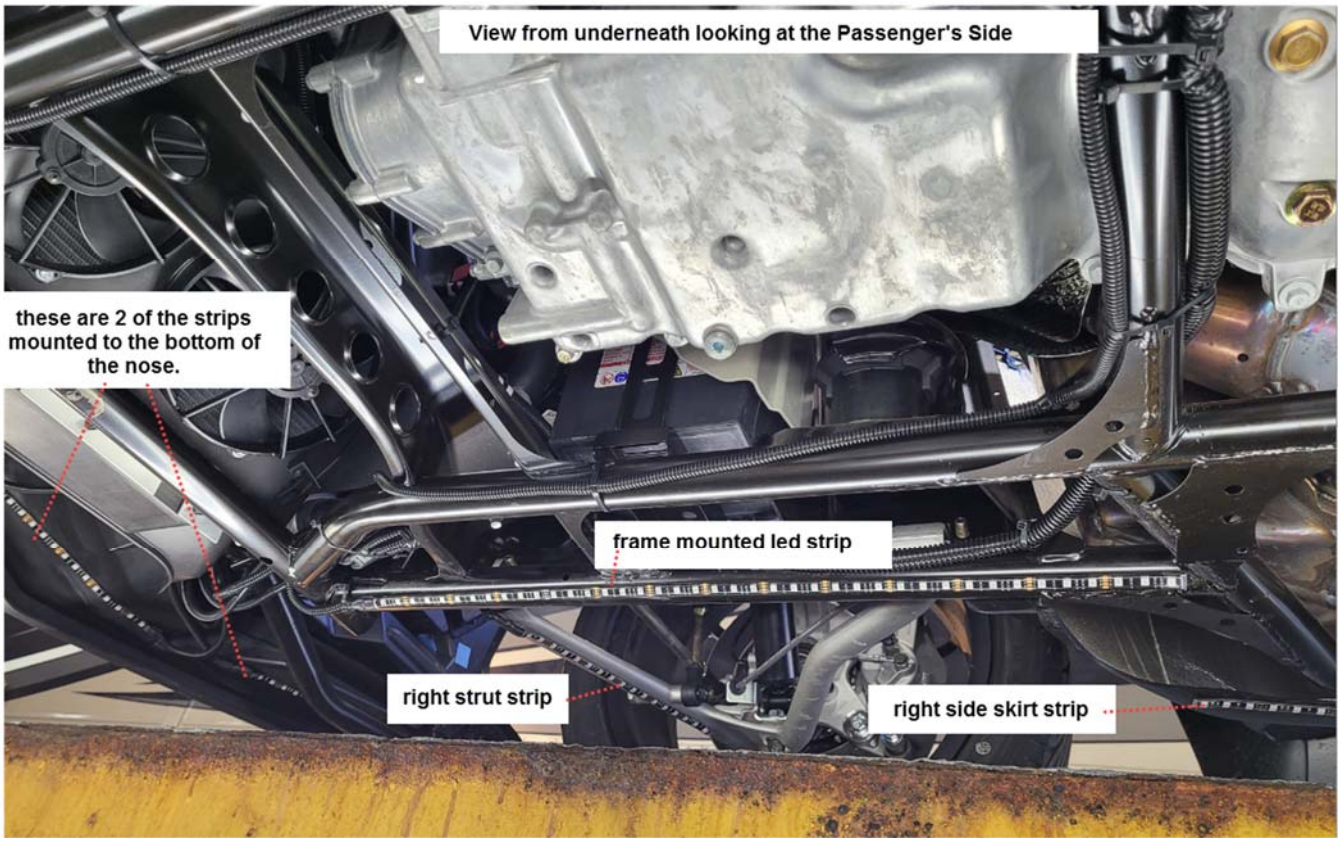
NOTE: These diagrams are not accurate diagrams of the 2021 Sling Shot (particularly the bottom view). Unfortunately they're the best we could find to provide some context.

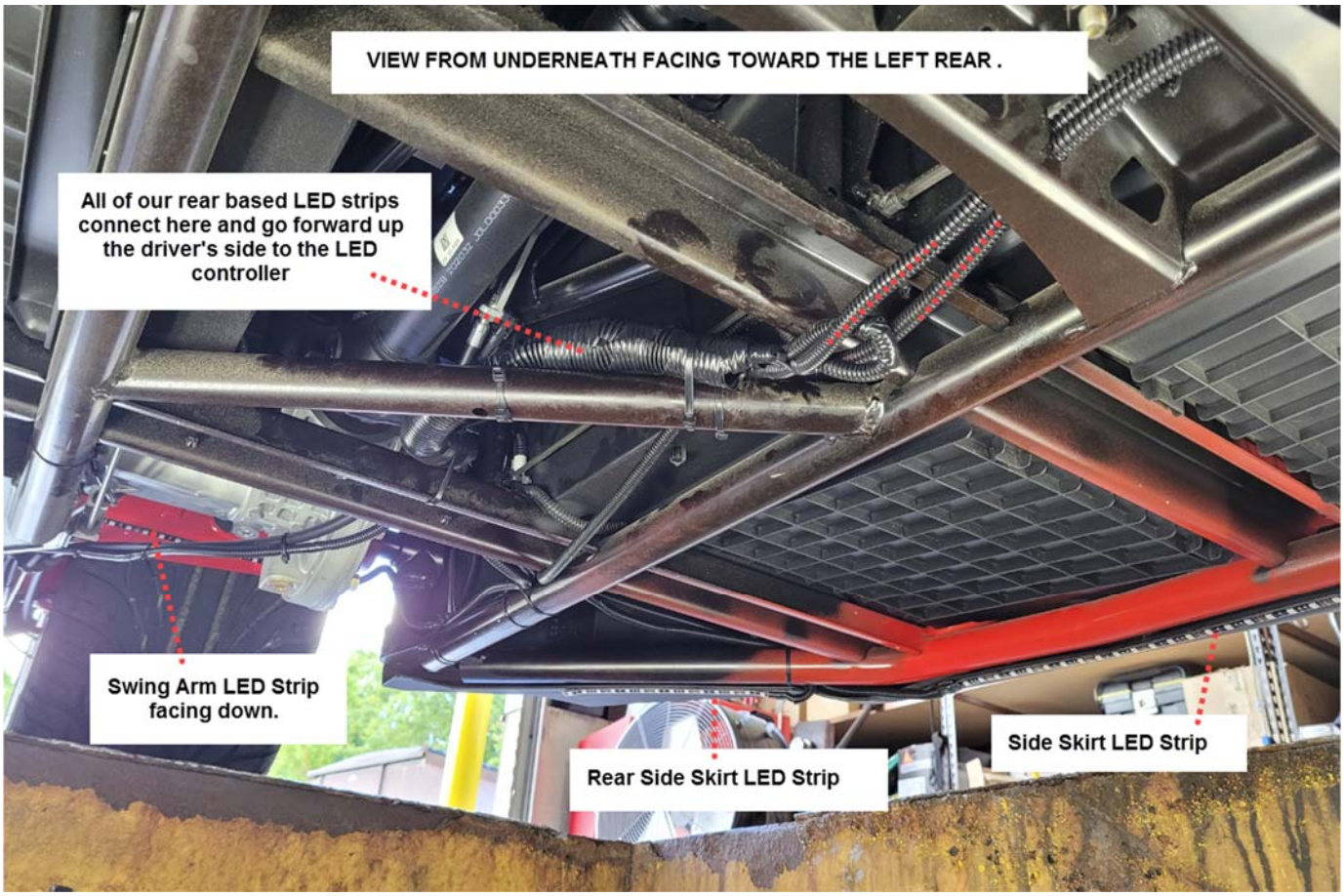

LED Controller is
mounted in this area.

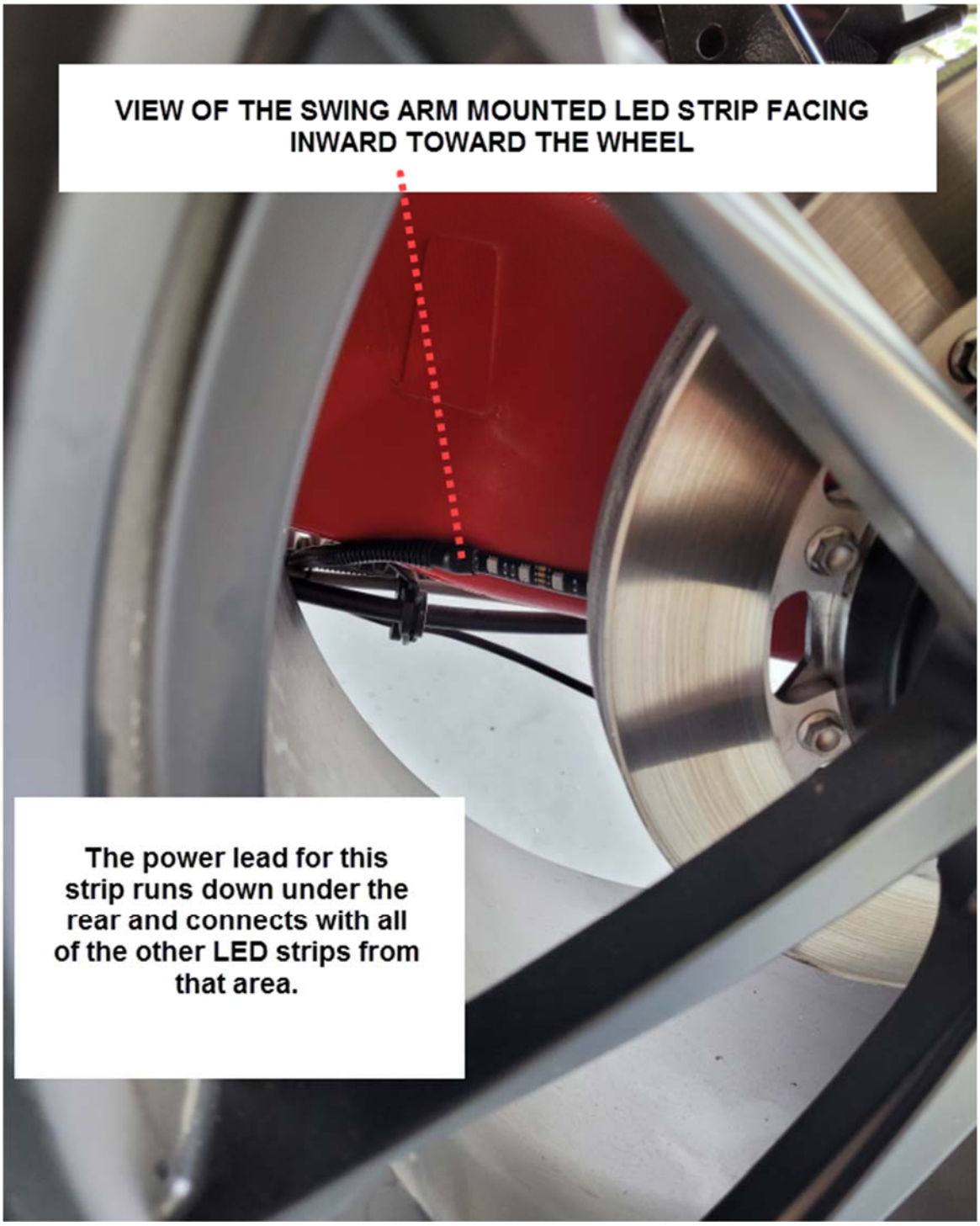

SLINGSHOT
30 LED strip mounted under
the POLARIS sign here.

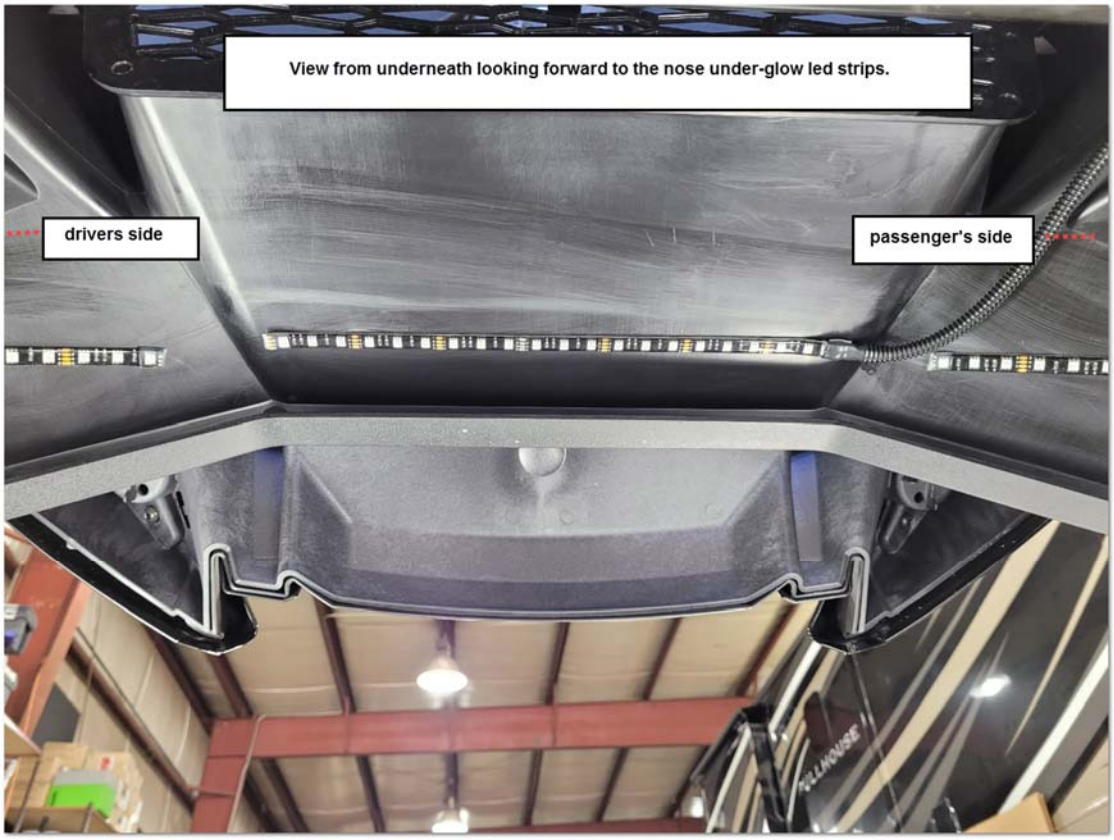

UNDER THE HOOD VIEW
Passenger's Side
These are the three 'triangle' areas under the hood we referenced.
Note how all of the LED strips are wrapped in split loom.
All of the under the hood led strips come together into one cable (for each side) where we add a quick-disconnect cable. That quick-disconnect connects with the Under-Glow LED strips.

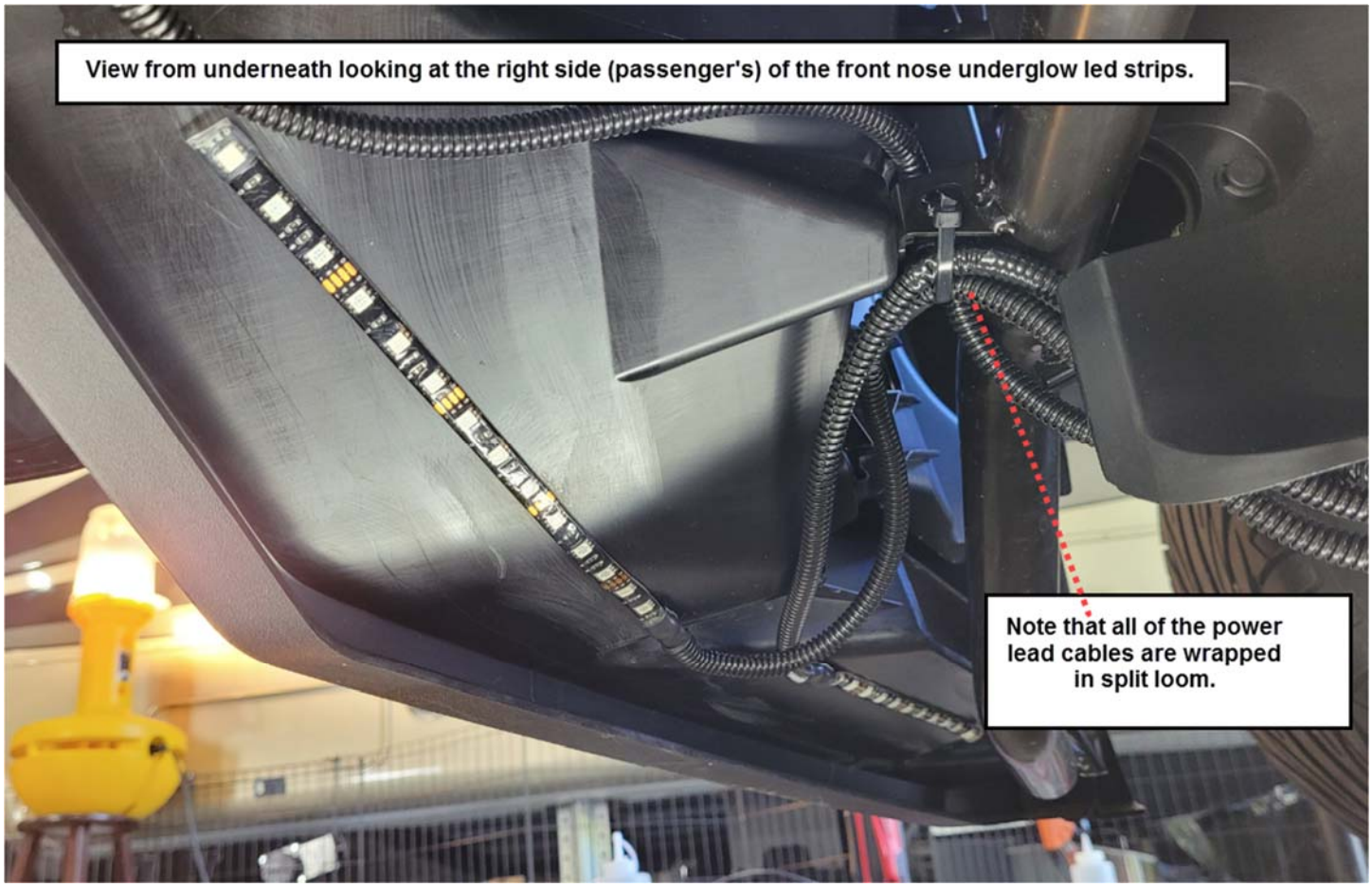

DRIVER'S SIDE / UNDER-HOOD VIEW
Butyl tape used here to hold the power lead firmly against the hood.
We drilled small holes in these support struts so we could use zip ties to hold the power leads in place.
All power leads come together here where they connect to the male end of the quick-disconnect.


View from underneath looking at the Passenger's Side
these are 2 of the strips mounted to the bottom of the nose.
frame mounted led strip
right strut strip
right side skirt strip

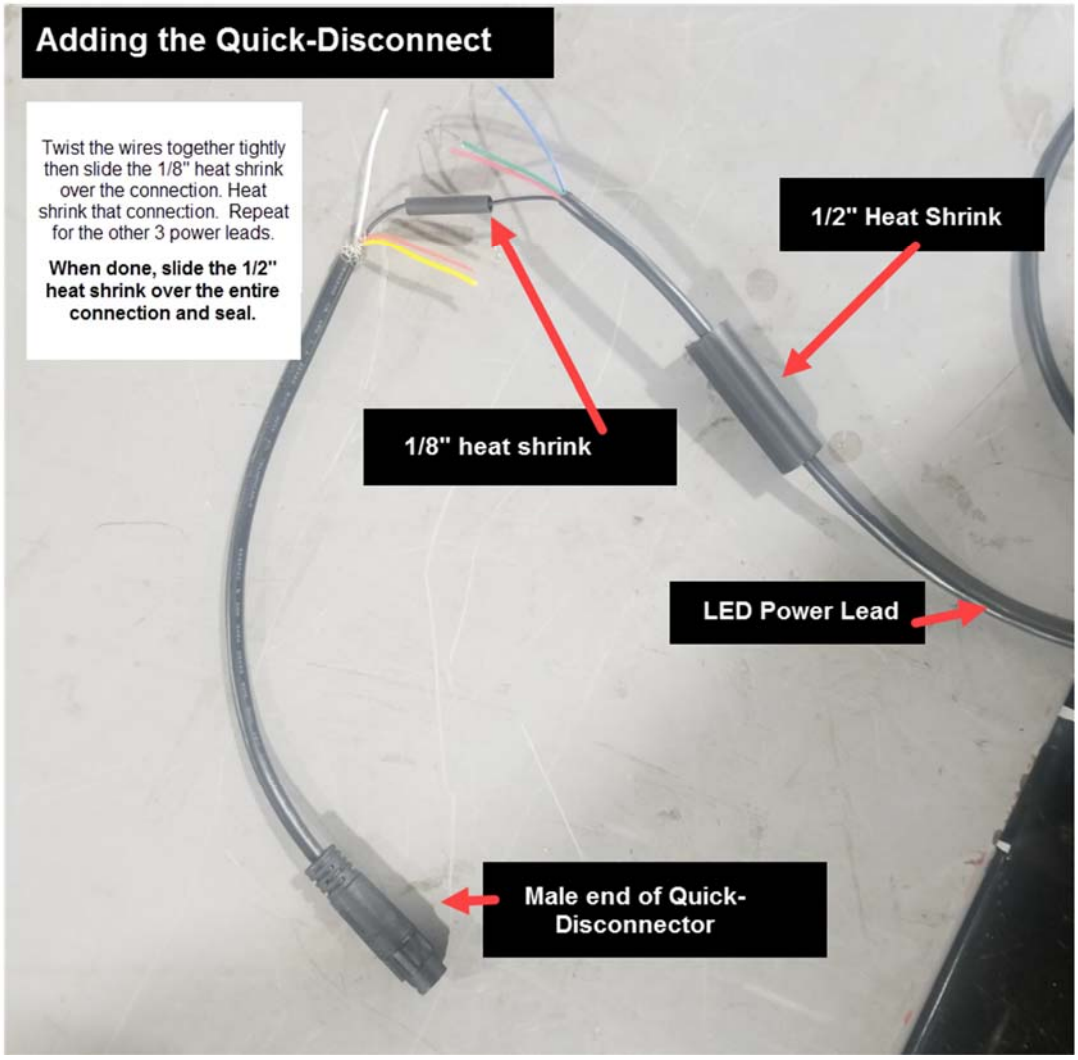

VIEW FROM UNDERNEATH FACING TOWARD THE LEFT REAR .
All of our rear based LED strips connect here and go forward up the driver's side to the LED controller
Swing Arm LED Strip facing down.
Rear Side Skirt LED Strip
Side Skirt LED Strip

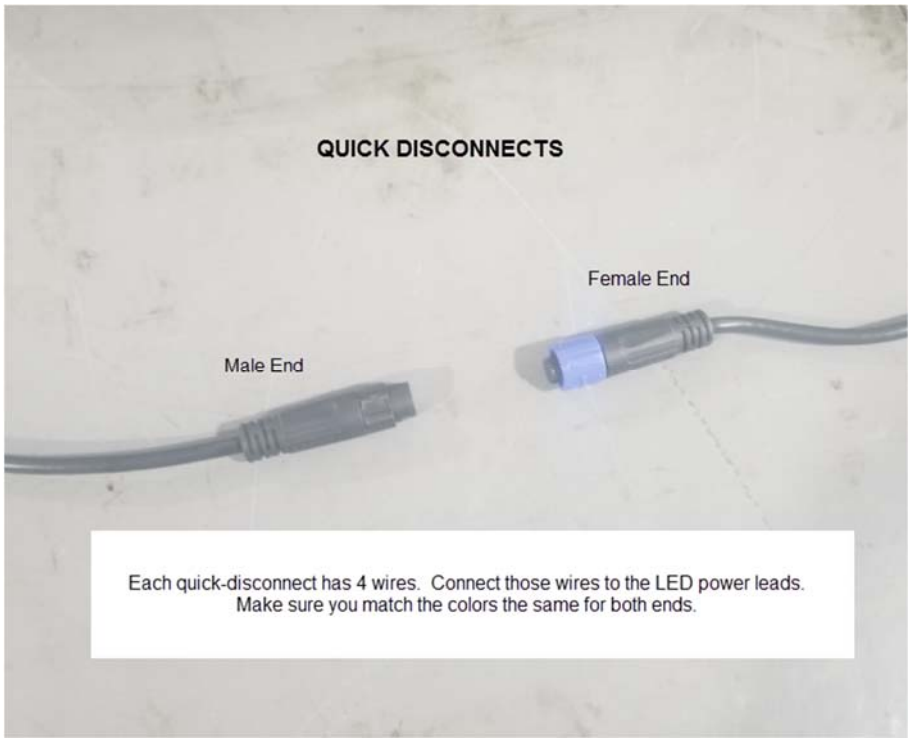

VIEW OF THE SWING ARM MOUNTED LED STRIP FACING INWARD TOWARD THE WHEEL
The power lead for this strip runs down under the rear and connects with all of the other LED strips from that area.


View from underneath looking forward to the nose under-glow led strips.
drivers side
passenger's side


View from underneath looking at the right side (passenger's) of the front nose underglow led strips.
Note that all of the power lead cables are wrapped in split loom.


View from underneath at the left side (driver's) underl-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.
1/2" Heat Shrink
1/8" heat shrink
LED Power Lead
Male end of Quick-Disconnector


QUICK DISCONNECTS
Female End
Male End
Each quick-disconnect has 4 wires. Connect those wires to the LED power leads.
Make sure you match the colors the same for both ends.