INSTALLATION INSTRUCTIONS

CAN-AM SPYDER RT LIMITED
LED LIGHT KIT

RULE THE NITE™

BOOGEY LIGHTS®

Family Owned Motorsports Lighting Since 1989

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 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 27 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 the LED strips mounted to the inside of the removable lower engine covers on both the left and right sides of the bike. These two engine covers will require quick-disconnects to be installed such that these panels can be easily removed for service without having to cut the power leads. 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 the plastics on the bike. You will likely need floor jacks to get the bike high enough off the ground to install the under-glow light strips. For the brake light interface, assuming you want to install it, you will need to gain access to the rear brake lights to tap into the brake light circuit. We used the left rear brake light assembly. The LED controller is mounted in the front storage compartment (aka "frunk") in close proximity to the battery. The wiring on the bike is segmented into 6 areas: left side rear, left side front lower, left side front upper, right side rear, right side front lower, right side front upper. The power leads coming from the LEDs mounted in each of these areas come together in their respective locations. For the left side rear and front lower, a feeder cable is run up to the left side front upper which ultimately connects to the LED controller. The same with the right side. This installation manual includes more detail on all of this including photos of the suggested mounting locations for each strip. We do not however include detailed instructions on how to remove the various plastics. 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 plastics on the Spyder.
- 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 and polarity.
- How to access the bike'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/wiring are secured in a way as to not create a hazard when riding the bike and/or placing them in locations which might damage them (e.g. up against the exhaust pipe, against drive belt).
- A means by which to gain access underneath the bike (e.g. floor jacks) 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 (or means by which to raise the bike), 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 Camaro kit, the LED controller should be located in the trunk near the battery.

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 of all of these LEDs as located on the bike. Our strategy in placement is to light the areas of the bike that are have vents for light to shine through as well as the entire under-side of the bike (shining downward toward the pavement). 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.

Left Side

- Engine Panel / Lower: 1 - 9 LED, 1 - 6 LED, 1 - 12 LED mounted to inside of this removable panel. All three strips connect to a quick-disconnect.
- Engine Panel / Upper: 1 - 9 LED, 1 - 6 LED mounted to the bike directly.
- Under-Glow: 1 - 9 LED under engine area, 1 - 6 LED under foot peg, 2 - 9 LEDs under wheel strut, 1 - 18 LED under saddle bag.

Right Side

- Engine Panel / Lower: 1 - 12 LED mounted to inside of this removable panel. Connects to a quick-disconnect. 1 - 9 LED mounts to the bike.
- Engine Panel / Upper: 1 - 9 LED, 1 - 6 LED both mounted to the bike directly.
- Under-Glow: 1 - 9 LED under engine area, 1 - 6 LED under foot peg, 2 - 9 LEDs under wheel strut, 1 - 18 LED under saddle bag

Front

- Under-Glow: 1 - 21 LED, 2 - 12 LEDs mounted to the bottom of the front nose area in a 'V' shape.
- Air-Intake: 2 - 6 LED strips mounted in each of the air-intakes (top)

Rear

- Wheel Well: 2 - 12 LEDs mounted on the inside edge of each side of the rear wheel fender facing inward toward the rear tire.

Center (Under-Glow)

- Under-Glow: 1 - 51 LED strip mounted to the support frame on the bottom of the bike running down the center of the bike.

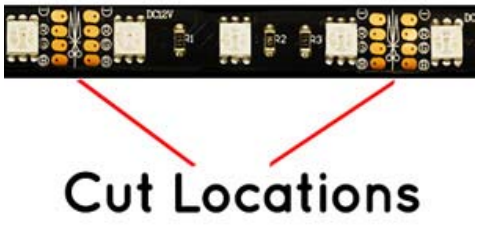
WHAT'S INCLUDED

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. This cable is used along each side of the bike to connect the rear led strips to the front strips and then ultimately to the LED controller located in the front trunk.
- Brake Light trigger wire. Runs from the rear of the bike (the left brake light in our case) to the LED 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 the storage area in front of the battery.
- Scotch Lock Wire Tap. Used to tap into the brake light circuit for the brake flash feature.
- Split Loom / ¼". All power leads need to be protected from chaffing. Wrap them in this first. See photos.
- Battery Extension Cable. We include some 12awg cable because you'll need to extend the battery power inputs going to the LED Controller to the bike's battery which is about a foot away.
- 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.
- Push Button On/Off switch. If you're going to use the brake light flash feature we recommend adding this switch in that circuit. Gives you the ability to quickly disable that feature. We mount the push button switch next to the LED controller in the storage trunk.
- Butyl Tape. We use butyl tape in a few places on this installation to help hold power lead wires to the bike's plastic casing.
- Zip Ties. We include some zip ties which you'll need to secure the LED power leads to the bike.
- Zip Tie Mounts. These mounts are used to secure the LED power leads coming off the LED strips on the bike. See photos later on in this guide where we used them.
- Crimp On Wire Connectors. These are used to secure the wire connectors at the LED Controller. We recommend wrapping each connector after it's crimped with electrical tape.
- Quick-Disconnect Connectors. We include two male-female pairs. One for each side of the bike. 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 on the two lower engine plastic covers. 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 the four inner wires and then position the ½" heat shrink over all four wires.

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. 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. **NOTE:** Your LED strip might look a little different than this photo. Some of our LED strips have one solid oval solder pad with a dotted line going down the middle (e.g. the sciscors isn't there). Just cut down the middle of those solder pads.



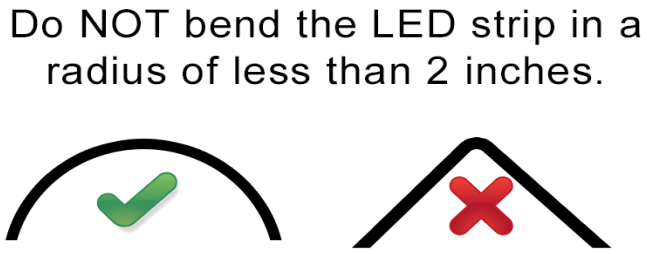
Follow these steps for mounting your LED strips:

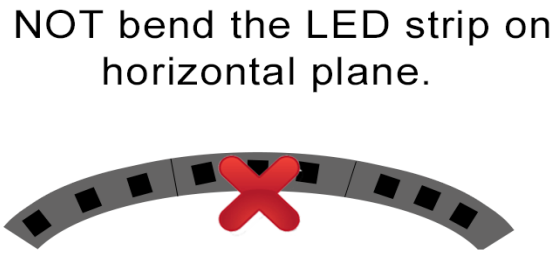
- The area where you are mounting the LEDs has to be clean: free of all dirt, oil or anything that might affect the LED from sticking. You only get one opportunity to mount the LEDs so it's critical the area be prepared properly.

- 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.

Multi-Color RGB Wireless LED Controller
COMBO Bluetooth + RF KEYFOB Wiring Diagram

For Boogey Lights 'SUPER' (BLRC-009SBF) LED Controller Models

Red Fused Wired connects to 12vdc positive (usually the battery)

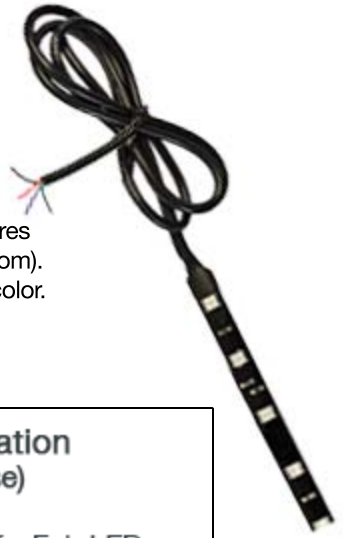
Black wire from controller connects to 12vdc Ground

Ground

Brake Flash

Blade Fuse

LED STRIP WIRES:
Red, Green, Blue & Black Wires
Connects w/ Red, Green, Blue and Black Wires coming from the LED Controller (in the wire loom). Each wire represents its respective LED light color. BLACK is the GROUND wire.



Pushbutton On/Off Switch

If you're installing the controller on a small vehicle (e.g. motorcycle, golf cart) we recommend installing a pushbutton on/off switch. If installed, the switch would be wired between the battery and the LED controller before the fuse.

Brake Flash Integration
(Red wire w/o Fuse)

All PLUS & SUPER Combo KeyFob LED controllers include Brake Flash integration. A feature typically used on motorcycles as a safety feature, when 12vdc power is applied to this circuit (e.g. the brake pedal is pressed), the LED controller will energize JUST the RED leds (or whatever LED color you have wired to the RED output wire from the wire loom bundle attached to the LED controller).

If you aren't using the brake flash feature, simply cap this red input wire; do not leave it exposed.

NOTE: In some cases the red BRAKE FLASH wire will be inside the black wire loom along with the LED power lead wires. If so, it will be labeled with a 'BF' tag.

COMBO LED CONTROLLER: RF WIRELESS KEYFOBS + BLUETOOTH

RF REMOTE CONTROL

Remote Control KEY FOBs

+

BLUETOOTH ENABLED

Bluetooth wireless

ANDROID APP ON Google play

Download on the App Store

Download the FREE Boogey Lights APP from APP store.

Download the APP operating manual from www.BoogeyLights.com

BLRC-009SBF
[BLMCCOMBOKFBF-SUPER 07-07-21]

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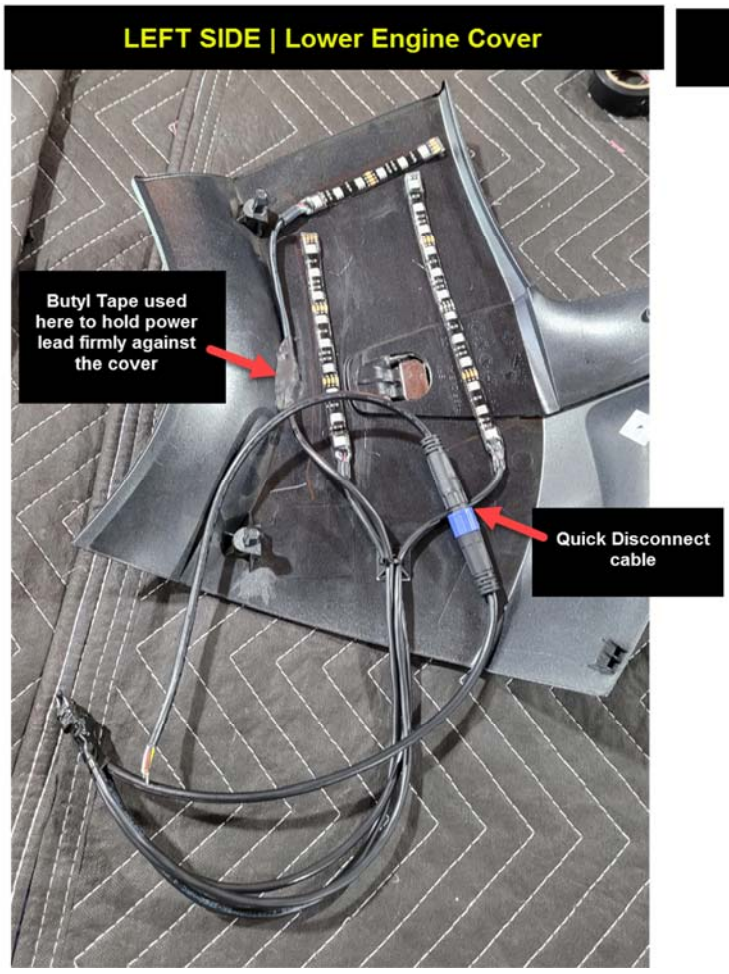
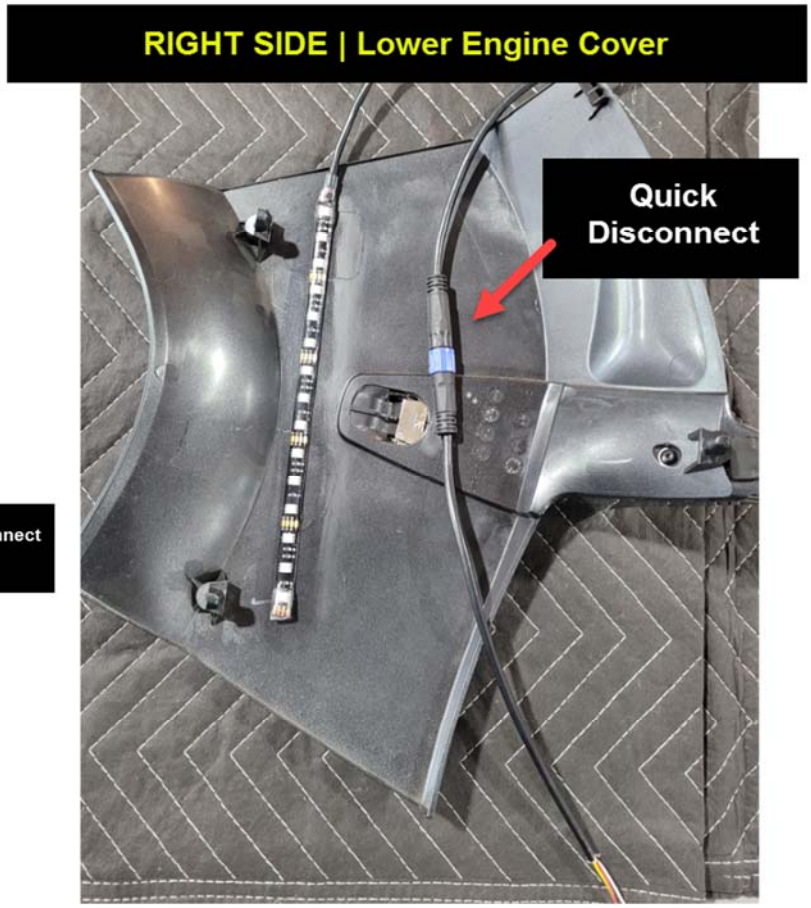
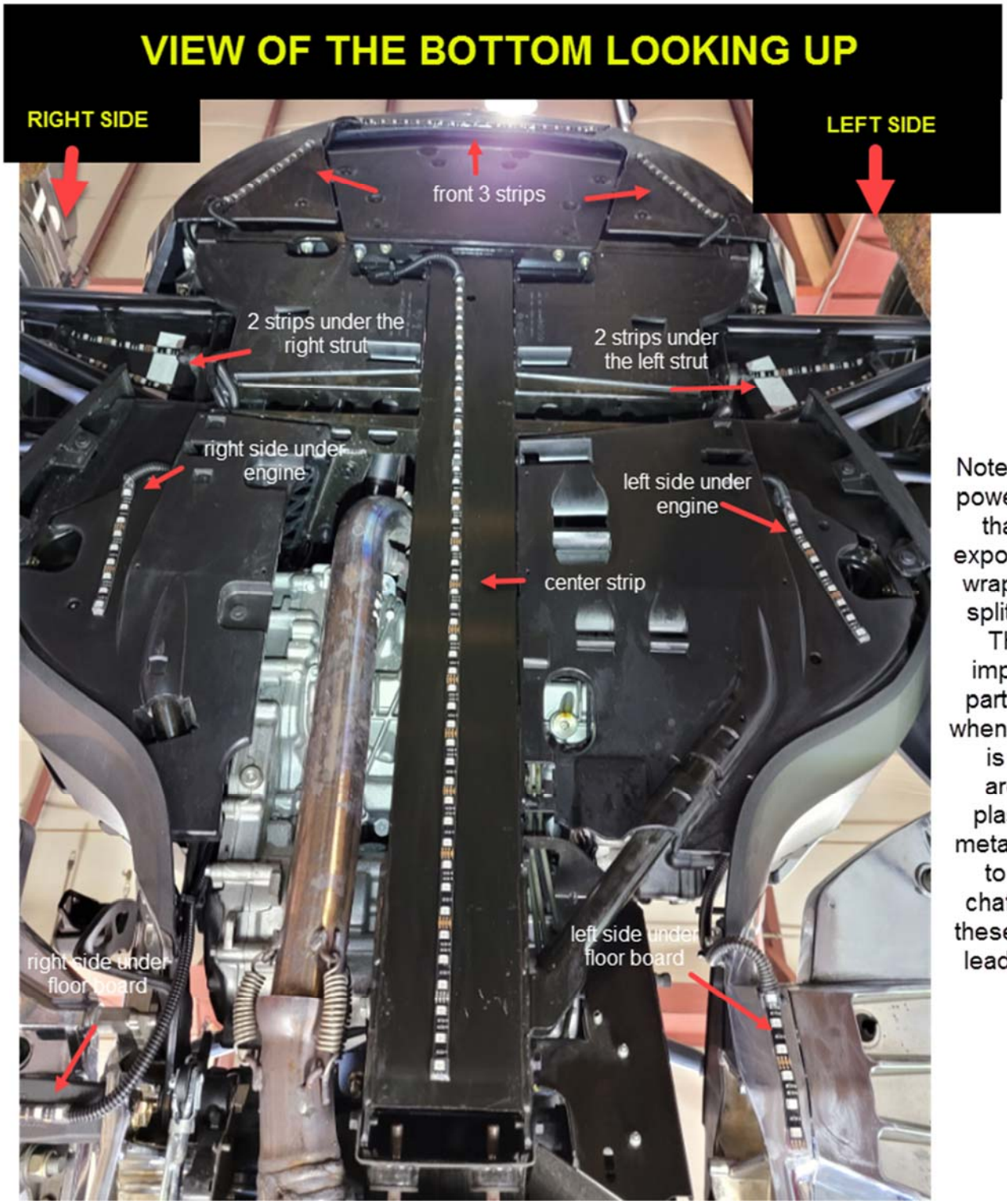
INSTALLATION PHOTOS

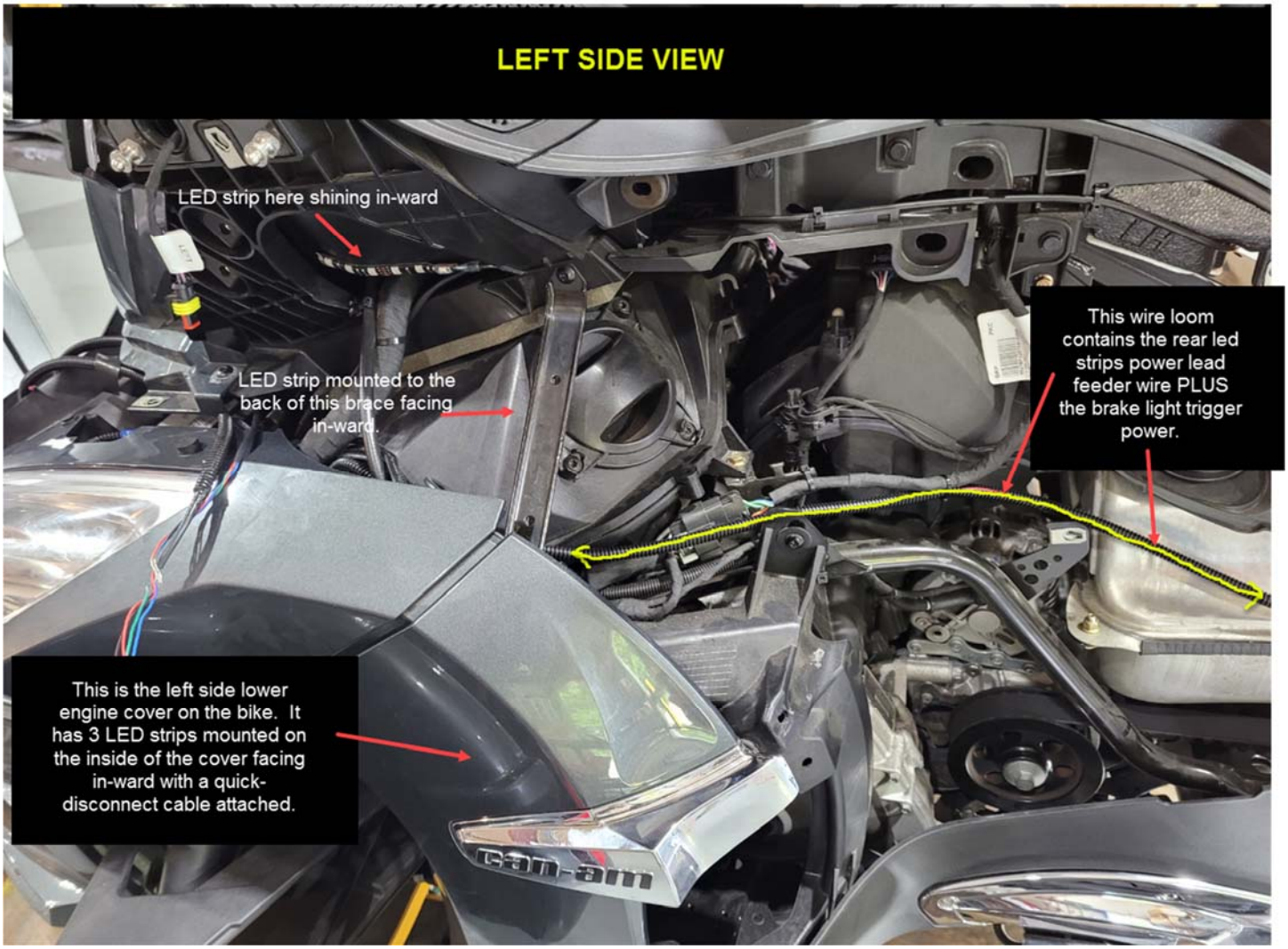
Here are some photos with comments on the installation we did in building this kit. We've commented on key parts of the installation along the way. We don't however cover every minute detail of the installation process.







Note how all power leads that are exposed are wrapped in split loom. This is important particularly when the wire is bent around plastic or metal edges to stop chaffing of these power lead wires.


LEFT SIDE VIEW
LED strip here shining in-ward
LED strip mounted to the back of this brace facing in-ward.
This wire loom contains the rear led strips power lead feeder wire PLUS the brake light trigger power.
This is the left side lower engine cover on the bike. It has 3 LED strips mounted on the inside of the cover facing in-ward with a quick-disconnect cable attached.
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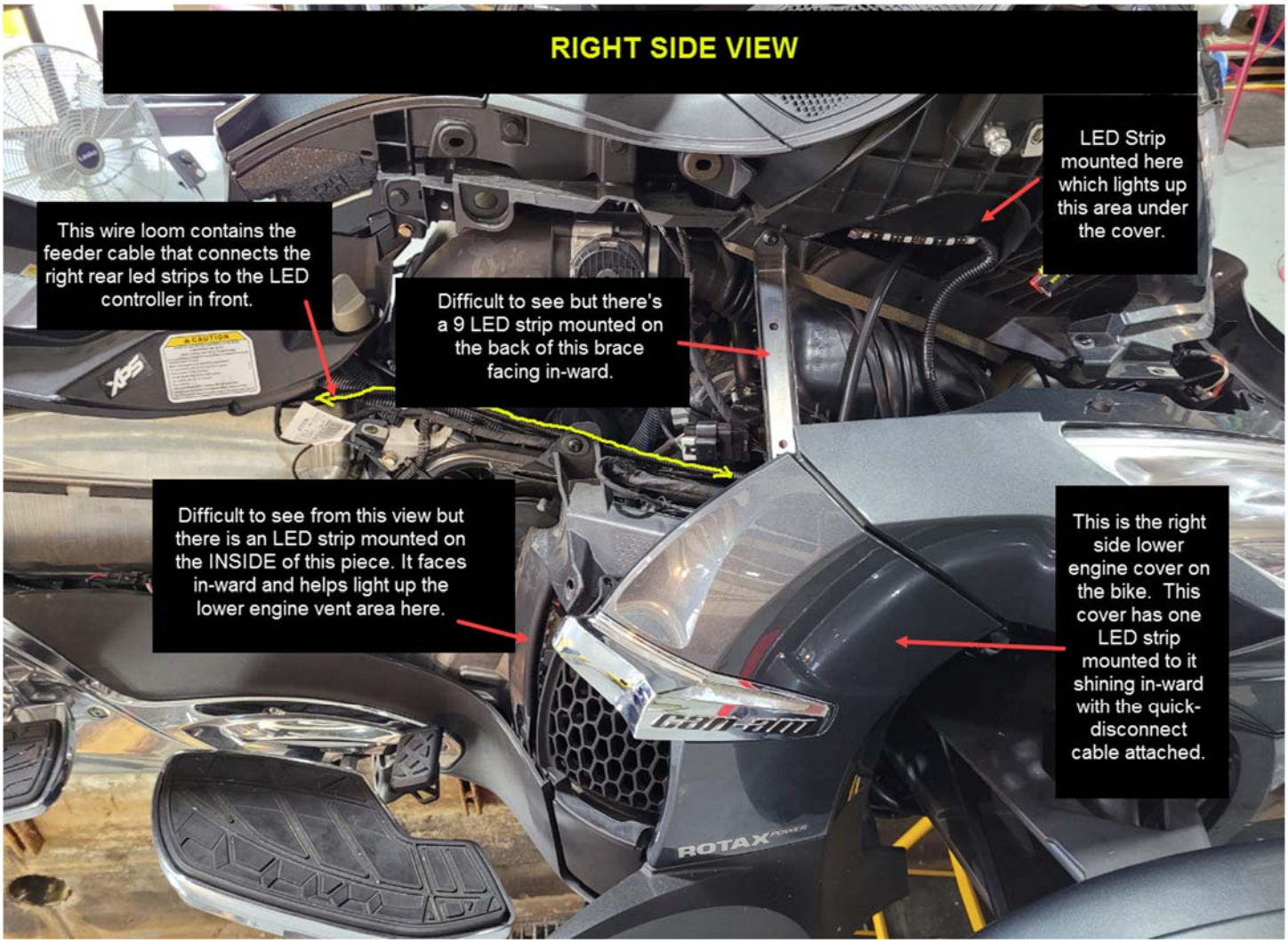
RIGHT SIDE VIEW
LED Strip mounted here which lights up this area under the cover.
This wire loom contains the feeder cable that connects the right rear led strips to the LED controller in front.
Difficult to see but there's a 9 LED strip mounted on the back of this brace facing in-ward.
Difficult to see from this view but there is an LED strip mounted on the INSIDE of this piece. It faces in-ward and helps light up the lower engine vent area here.
This is the right side lower engine cover on the bike. This cover has one LED strip mounted to it shining in-ward with the quick-disconnect cable attached.
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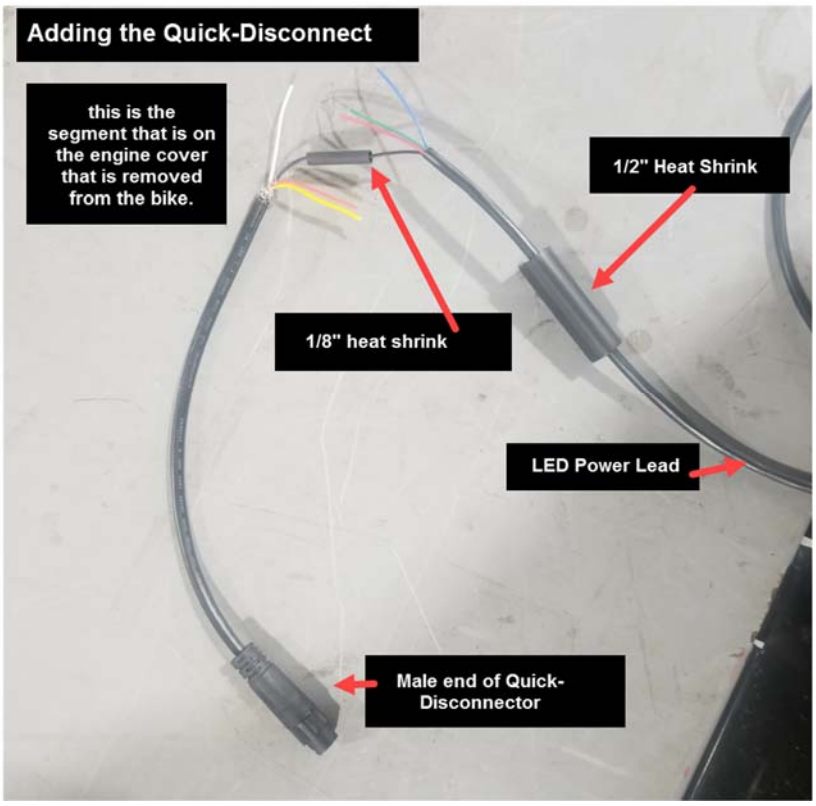
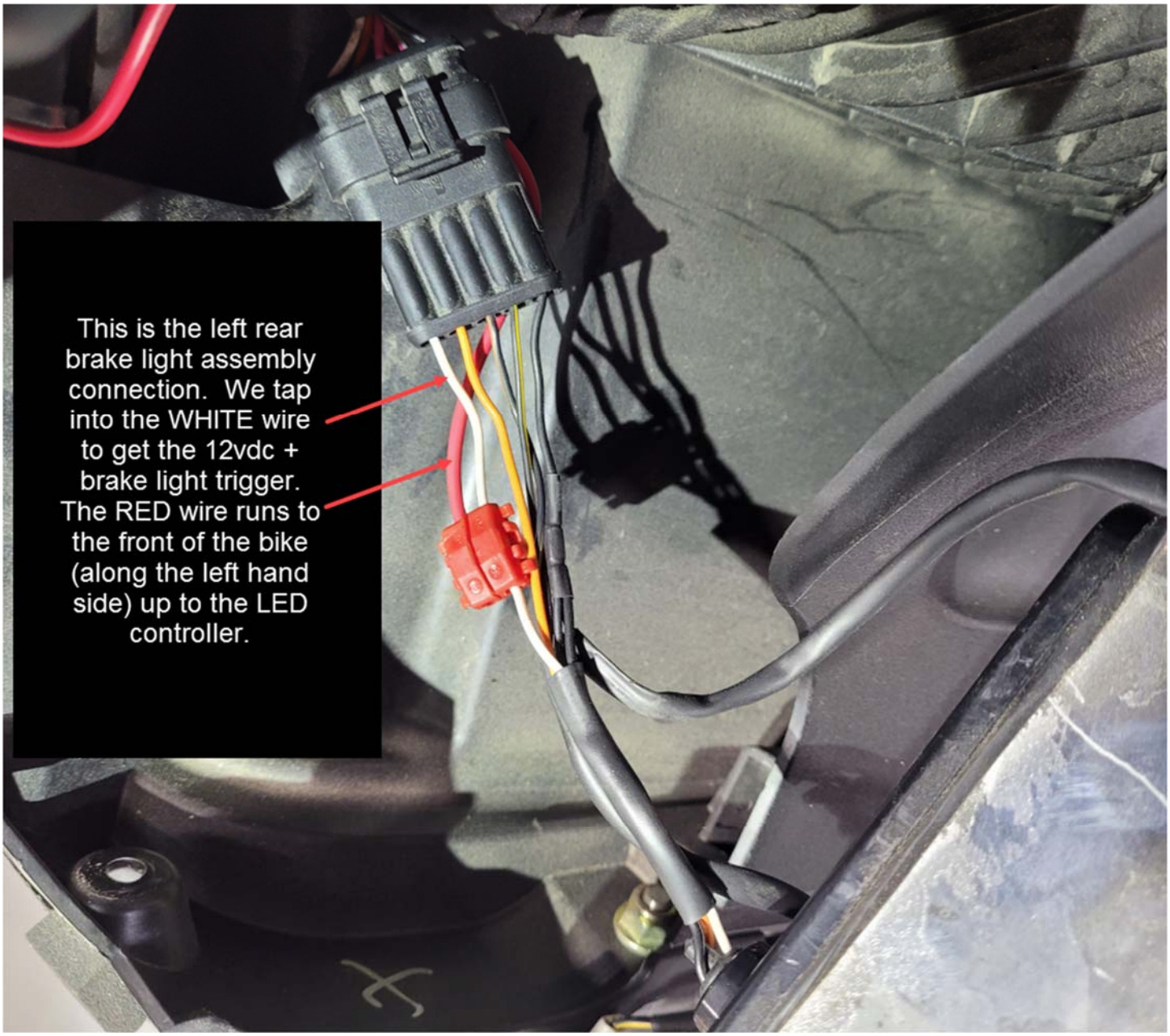
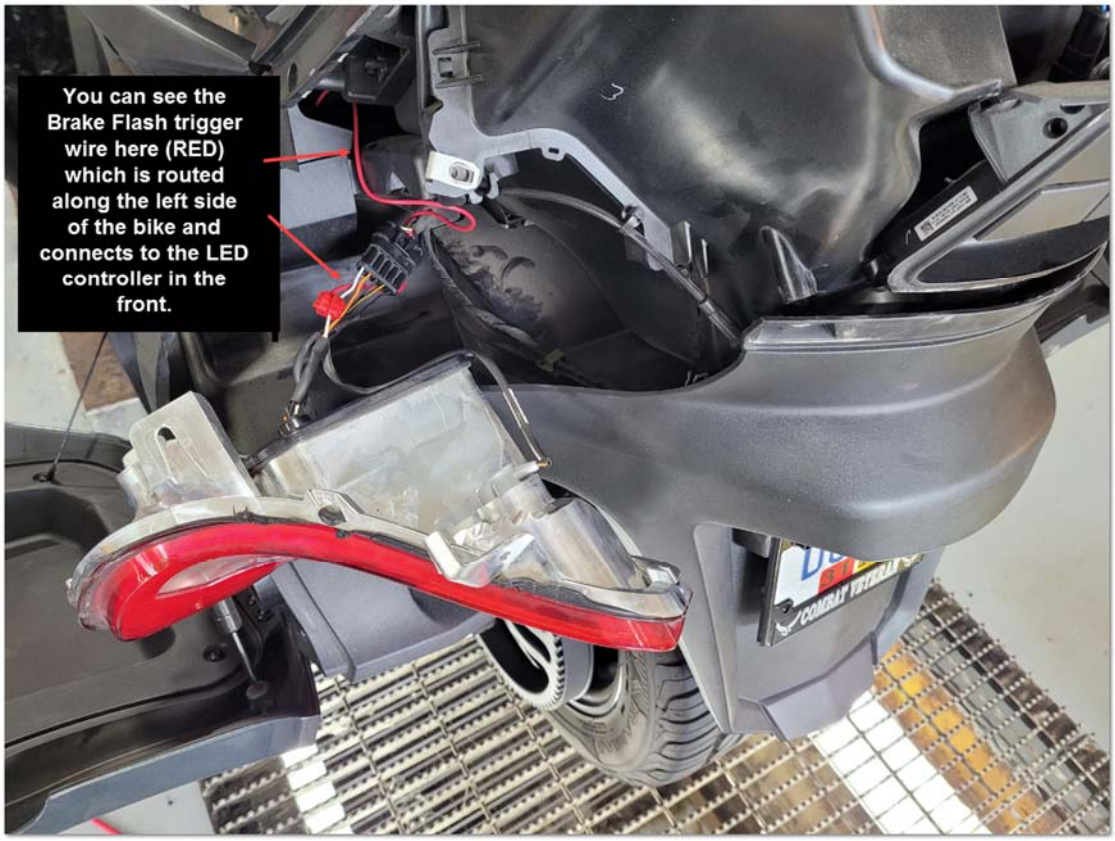
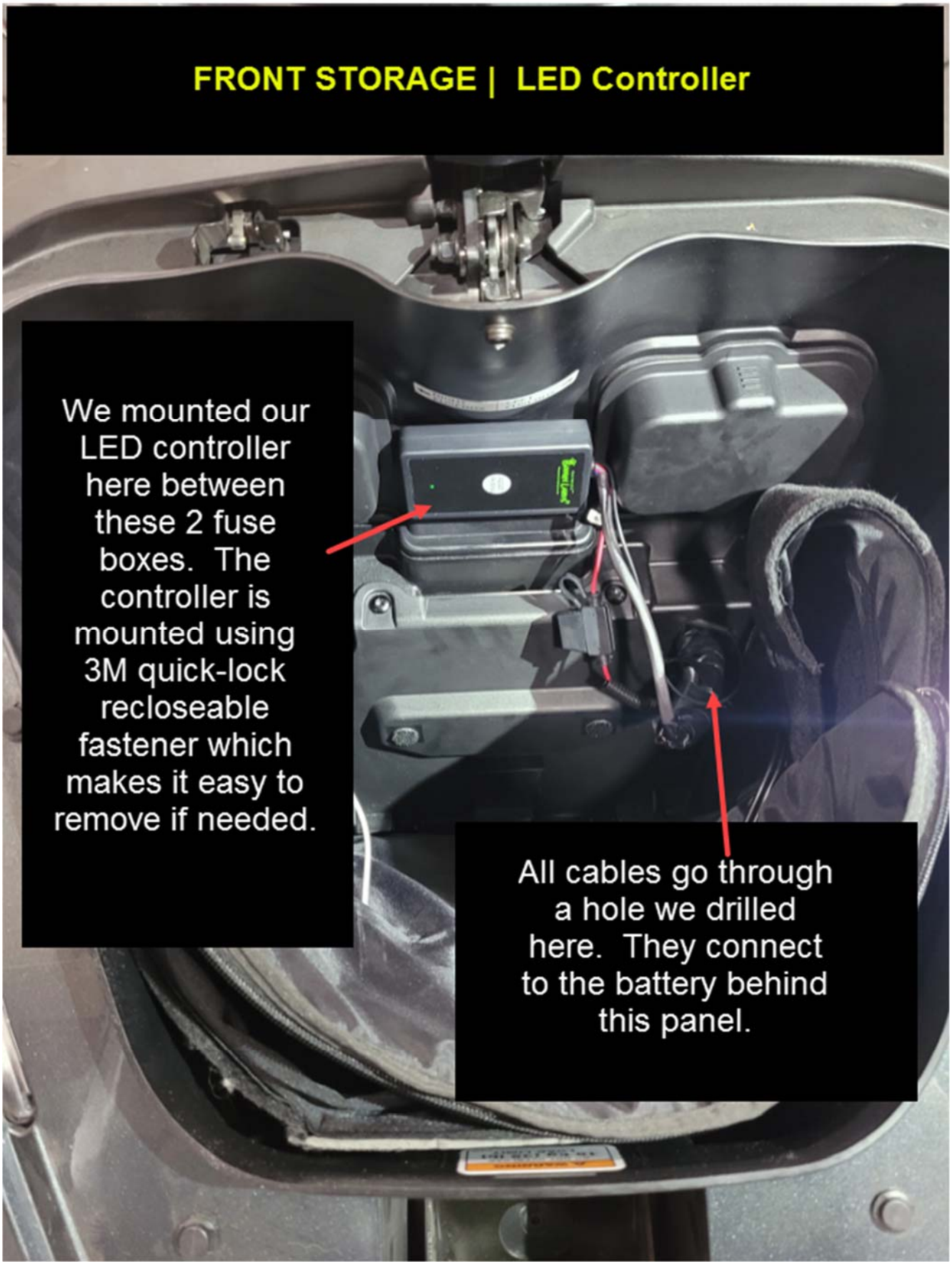
ROTAX


Adding the Quick-Disconnect
this is the segment that is on the engine cover that is removed from the bike.
1/2" Heat Shrink
1/8" heat shrink
LED Power Lead
Male end of Quick-Disconnector

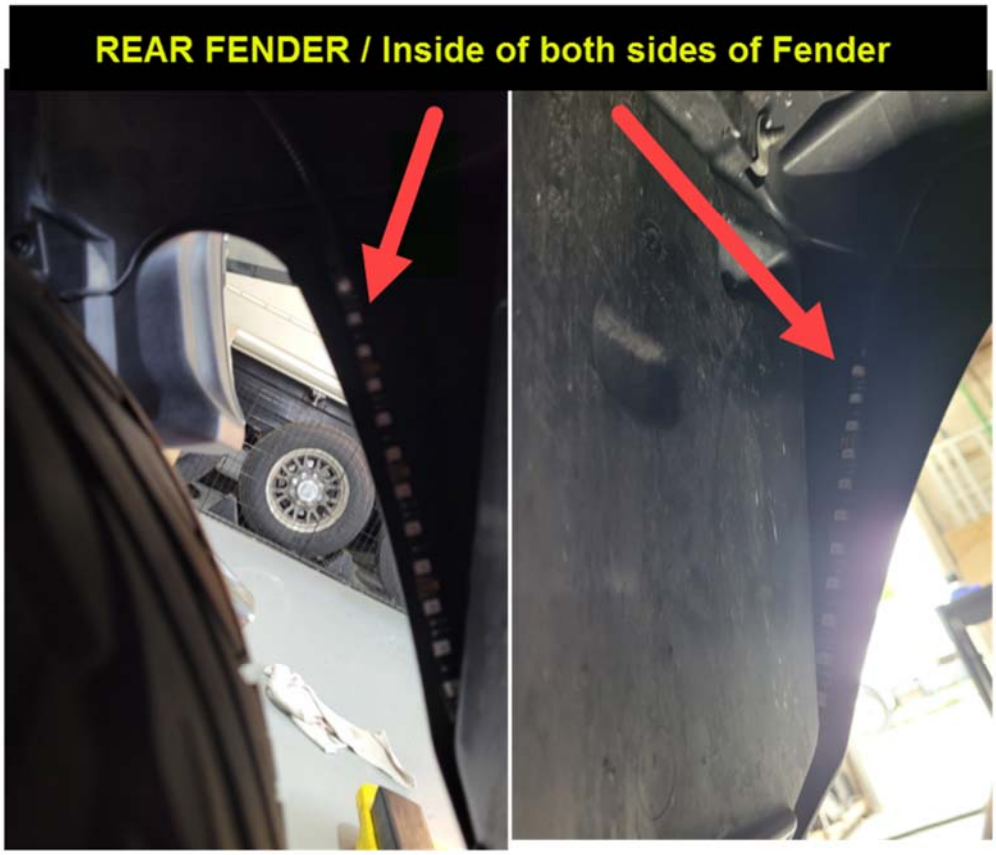

Expanded view of the left rear brake light assembly where we tap into the brake circuit for the brake flash feature trigger.
WARNING
COMBAT VETERAN


This is the left rear brake light assembly connection. We tap into the WHITE wire to get the 12vdc + brake light trigger. The RED wire runs to the front of the bike (along the left hand side) up to the LED controller.


You can see the Brake Flash trigger wire here (RED) which is routed along the left side of the bike and connects to the LED controller in the front.


FRONT STORAGE | LED Controller
We mounted our LED controller here between these 2 fuse boxes. The controller is mounted using 3M quick-lock recloseable fastener which makes it easy to remove if needed.
All cables go through a hole we drilled here. They connect to the battery behind this panel.


RIGHT FUSEBOX
LEFT FUSEBOX
Our LED controller.
access to the battery is through this panel.


REAR FENDER / Inside of both sides of Fender


LEFT SIDE / Under Saddle Bag


RIGHT REAR / UNDER-SADDLE BAG