



**Kia Stinger BIG MOUTH LIT KIT  
Ram Air Intake Installation Guide**

## Kit Contents (Full Kit)

| KIT CONTENTS                             | Qty |
|--|-----|
| Diode Dynamics RGBW Controller           | 1   |
| Diode Dynamics 1m LED Extension          | 1   |
| Positive Cable w/ In-Line Fuse           | 1   |
| Power Cable w/ Pigtail Connector         | 1   |
| Switch                                   | 1   |
| Switch Ground Cable w/ Crimped Connector | 1   |
| 8" Zip ties                              | 3   |
| 16" Zip ties                             | 5   |
| 3/8" Conduit (3 feet)                    | 1   |
| Cable Clips                              | 2   |
| M6 Lock Nut                              | 1   |
| Assembled LIT KIT BIG MOUTH's            | 2   |



## Kit Contents (LIT Flares Only)

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|--|-----|
| Diode Dynamics RGBW Controller           | 1   |
| Diode Dynamics 1m LED Extension          | 1   |
| Positive Cable w/ In-Line Fuse           | 1   |
| Power Cable w/ Pigtail Connector         | 1   |
| Switch                                   | 1   |
| Switch Ground Cable w/ Crimped Connector | 1   |
| 8" Zip ties                              | 3   |
| 16" Zip ties                             | 1   |
| 3/8" Conduit (3 feet)                    | 1   |
| Cable Clips                              | 4   |
| M6 Lock Nut                              | 1   |
| Assembled LIT Flares                     | 2   |



**If you already own the GEN 4 Kia Stinger BIG MOUTH's, skip ahead to slide 15 for wiring instructions**

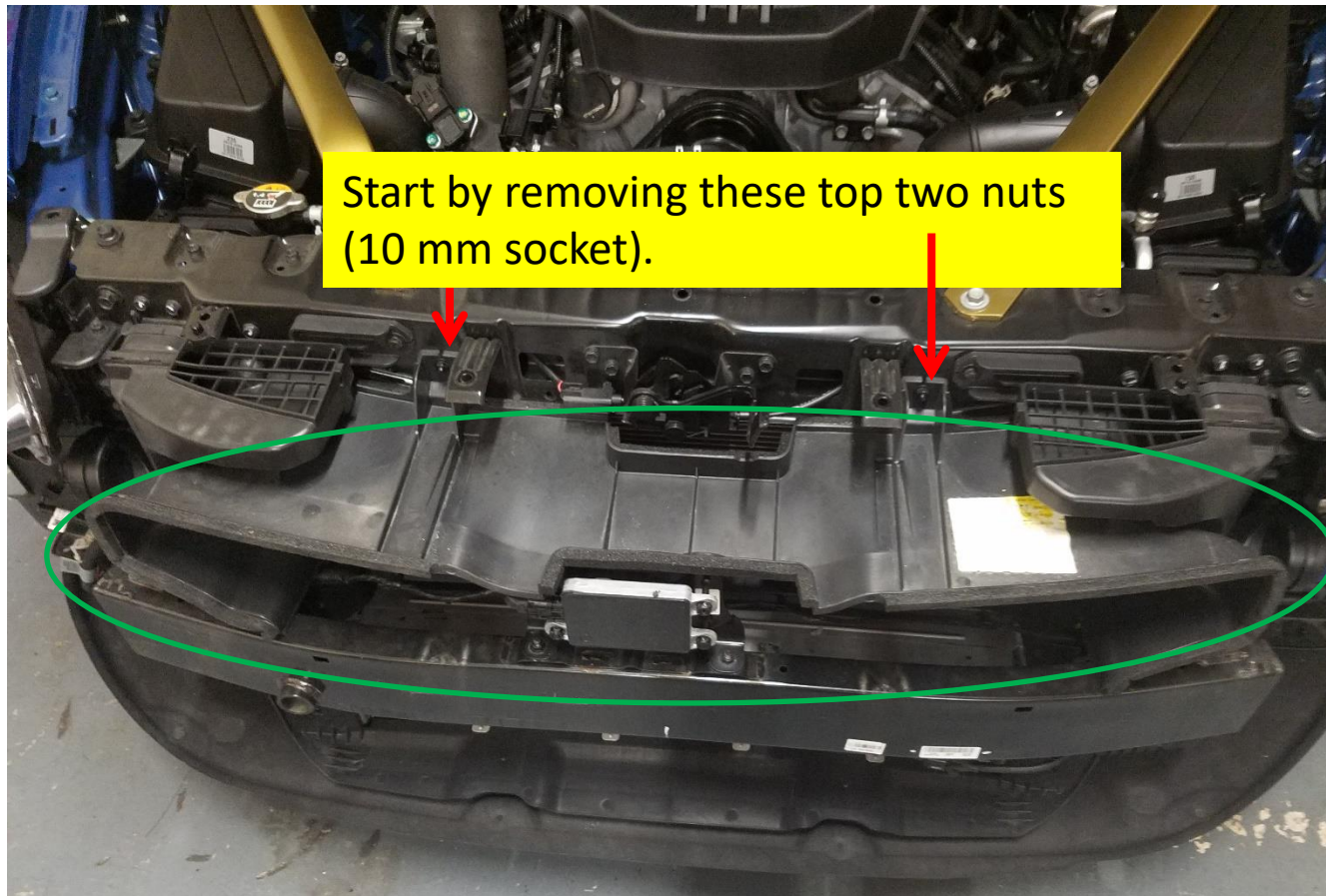


## Bumper Removal

Your best resource for bumper removal is to Google Search  
"How to remove Kia Stinger Bumper"

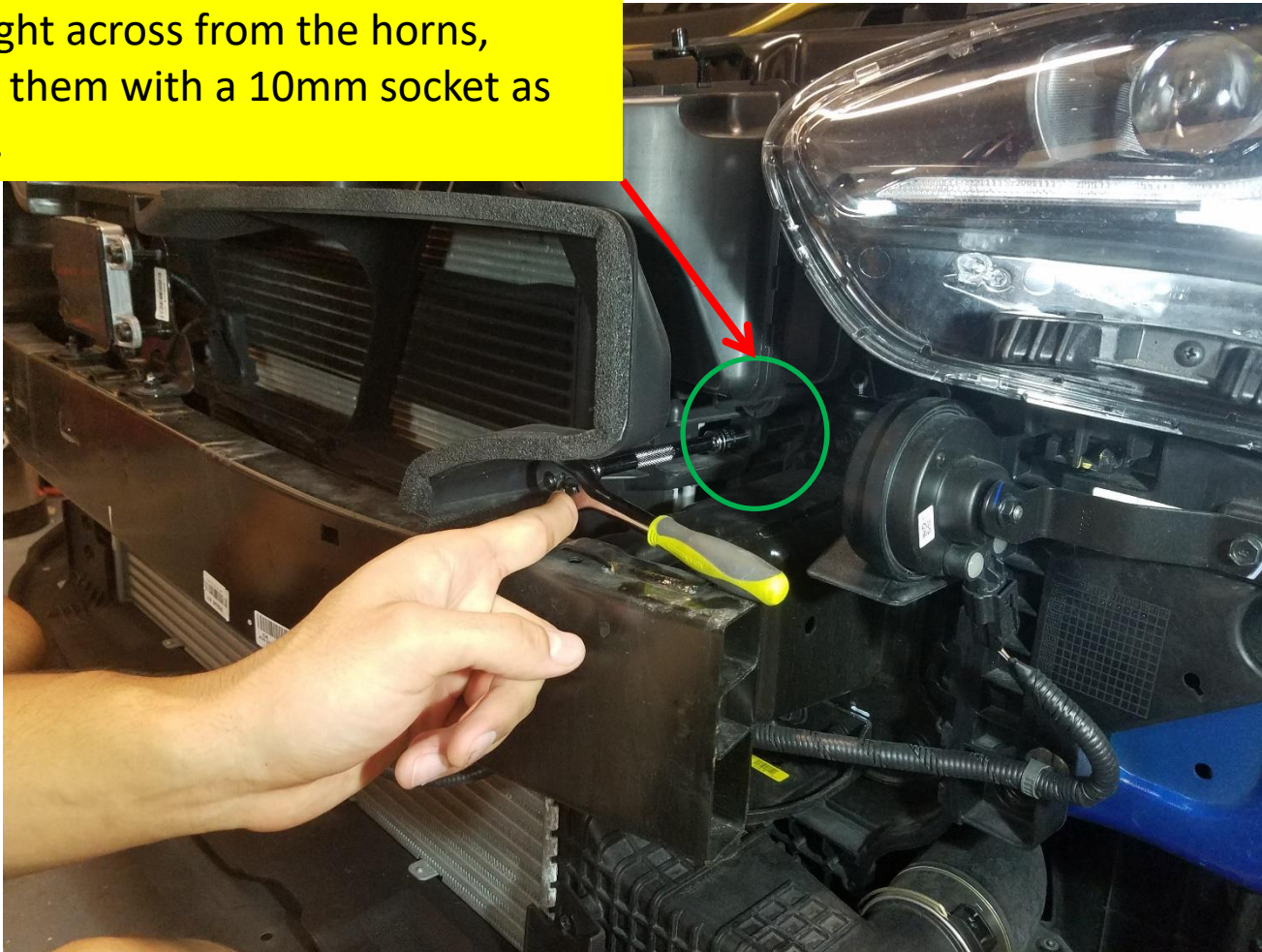
## Shroud Removal

Remove the shroud prior to installation. There are 6 screws that need to be extracted.



## Shroud Removal

There are two more screws on either side, right across from the horns, extract them with a 10mm socket as shown.



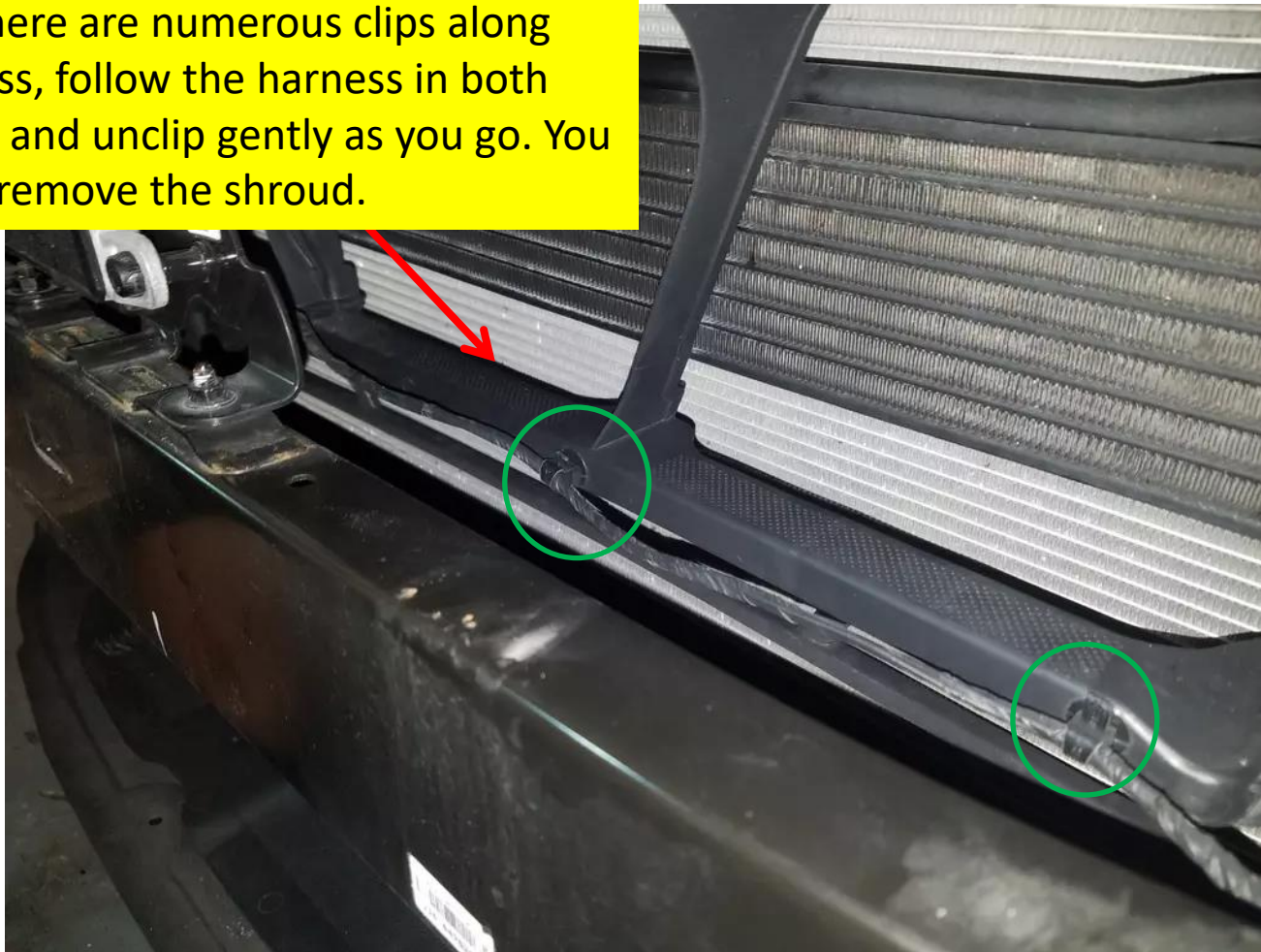
## Shroud Removal

Directly above the intercooler there is a screw (10 mm), one on each side, extract them.



## Shroud Removal

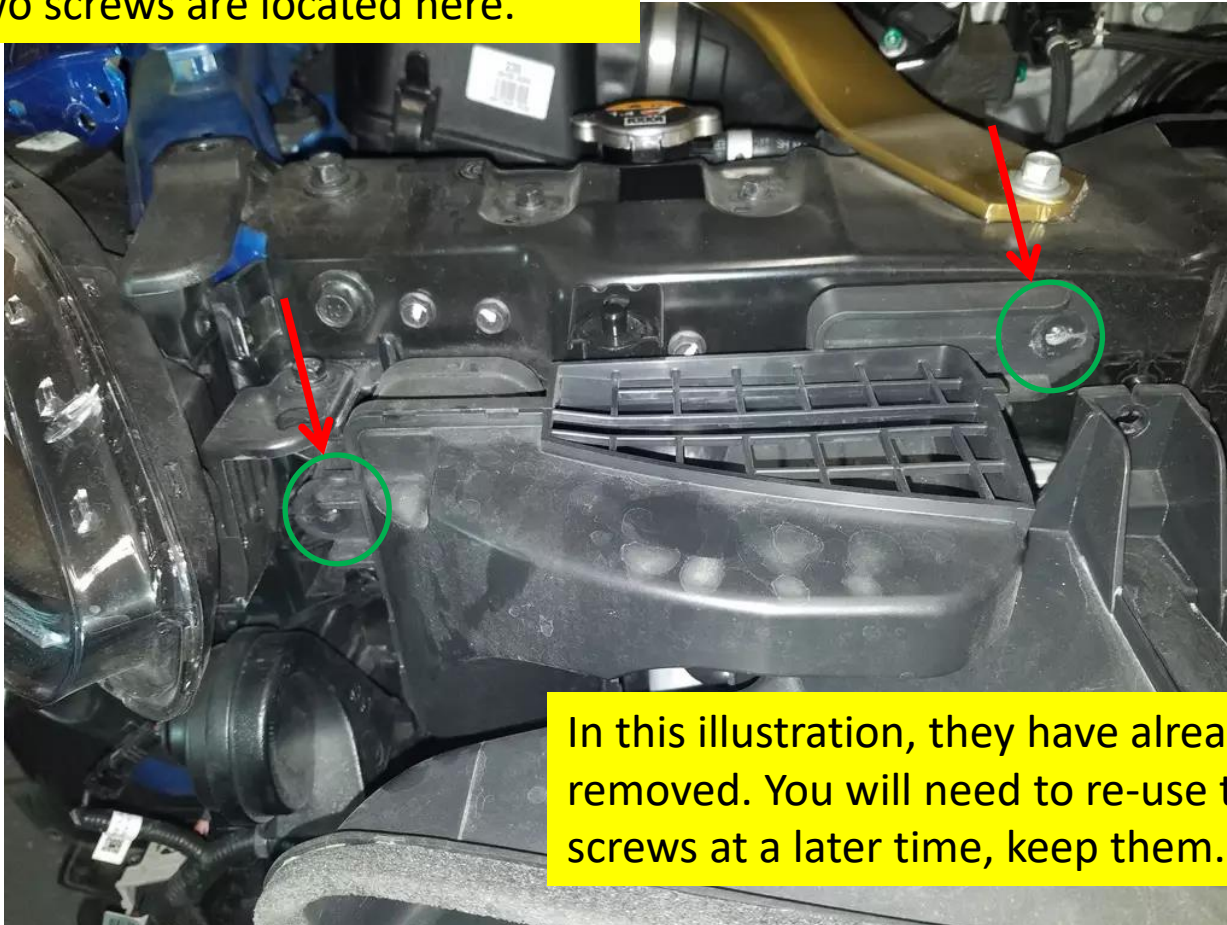
Carefully unclip the wire harness from the shroud, there are numerous clips along the harness, follow the harness in both directions and unclip gently as you go. You may now remove the shroud.





## Stock Snorkel Removal

The stock snorkels are an eye-sore, get rid of them by removing the three screws. The first two screws are located here.



In this illustration, they have already been removed. You will need to re-use these screws at a later time, keep them.

## Stock Snorkel Removal

The stock snorkel bottom screw is located here. Remove it.



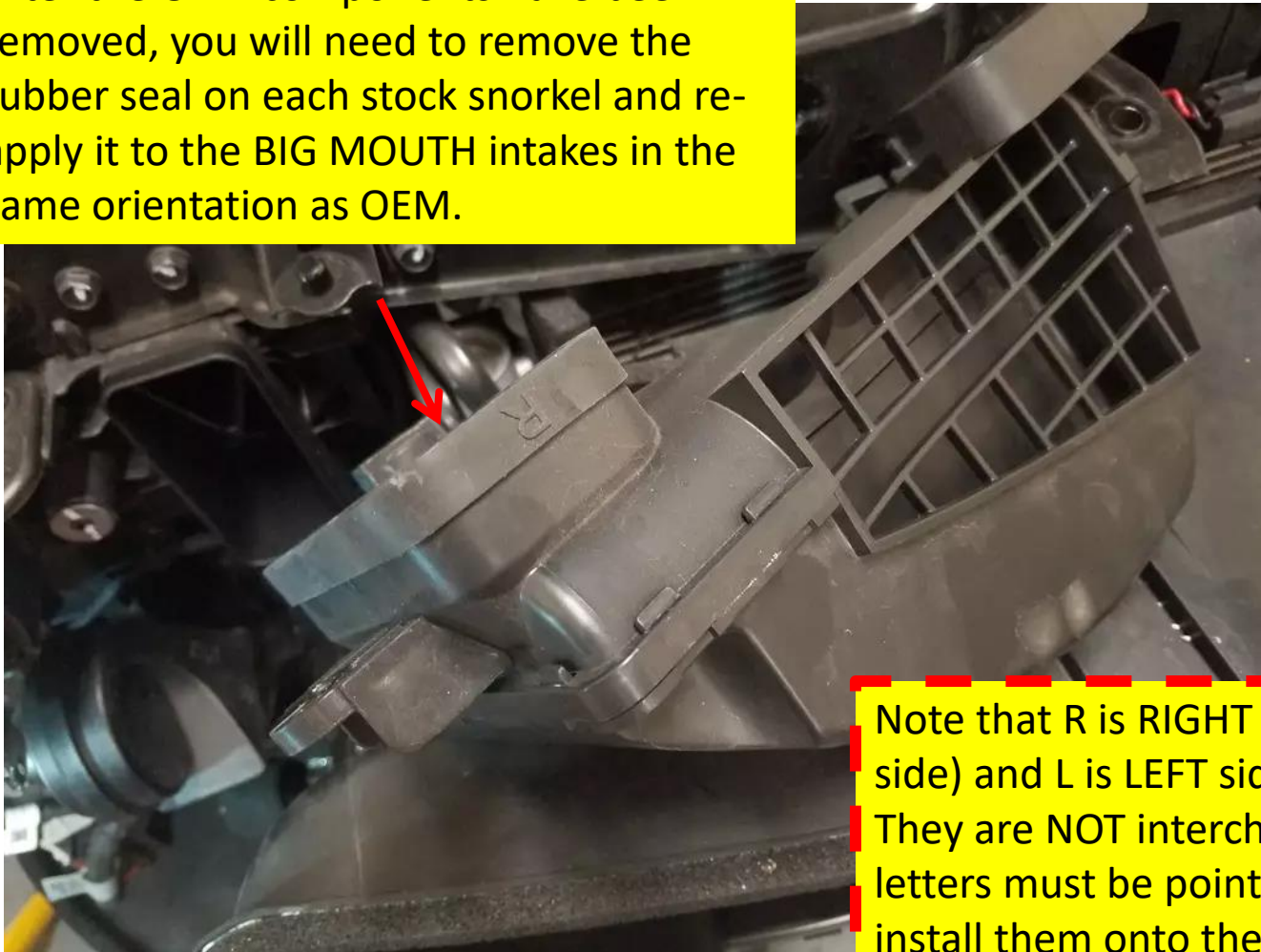
## Stock Hardware

You will need to re-use two of the three screws from each side of the OEM snorkels. Keep them handy.



## Apply Seal to BIG MOUTH Intakes

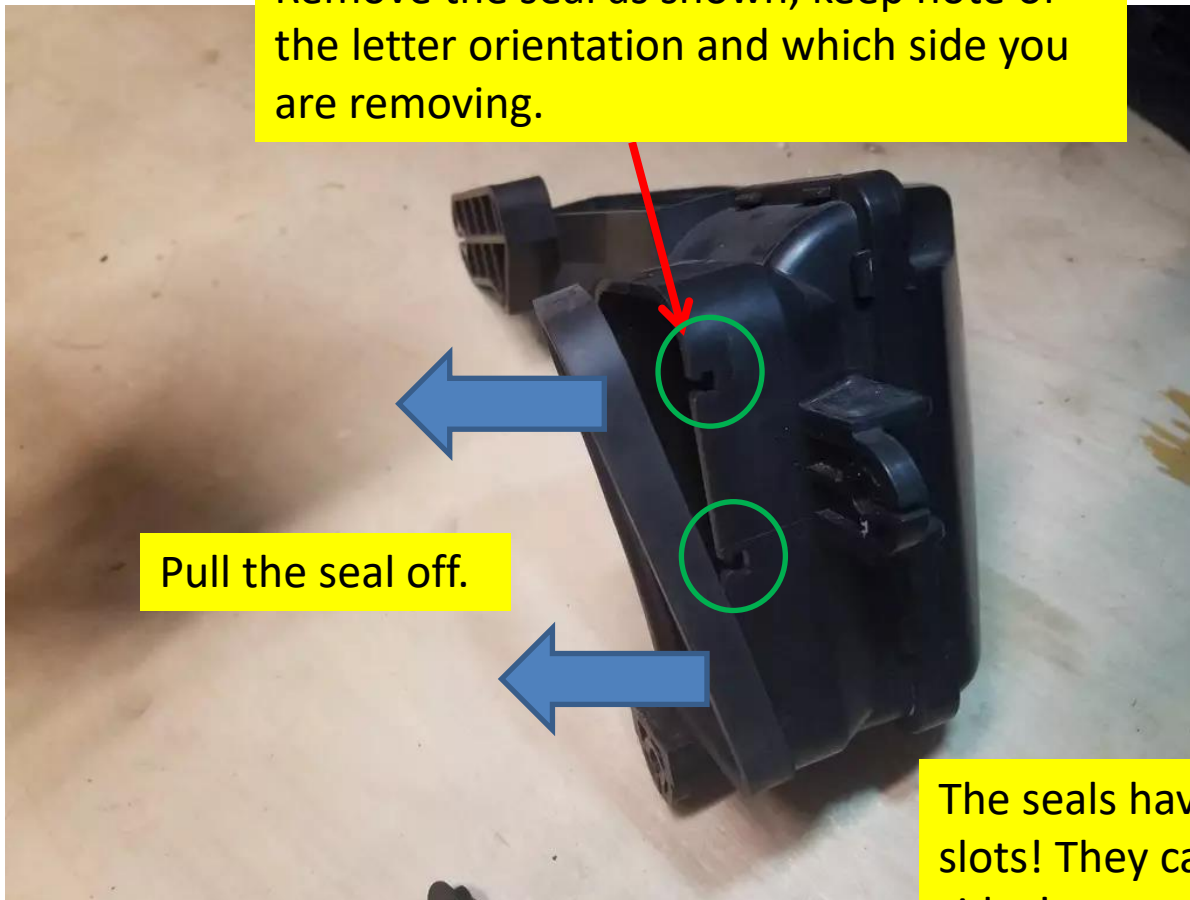
After the OEM components have been removed, you will need to remove the rubber seal on each stock snorkel and re-apply it to the BIG MOUTH intakes in the same orientation as OEM.



Note that R is RIGHT side (or passenger side) and L is LEFT side (or driver side). They are NOT interchangeable and the letters must be pointing up when you re-install them onto the BIG MOUTH intakes!

## Remove OEM Seals

Remove the seal as shown, keep note of the letter orientation and which side you are removing.



Pull the seal off.

The seals have asymmetric alignment slots! They cannot be flipped or swapped sides!

## Apply Seal to BIG MOUTH Intakes

Apply the seal to the BIG MOUTH as shown, in the correct orientation as dictated in the previous slides.

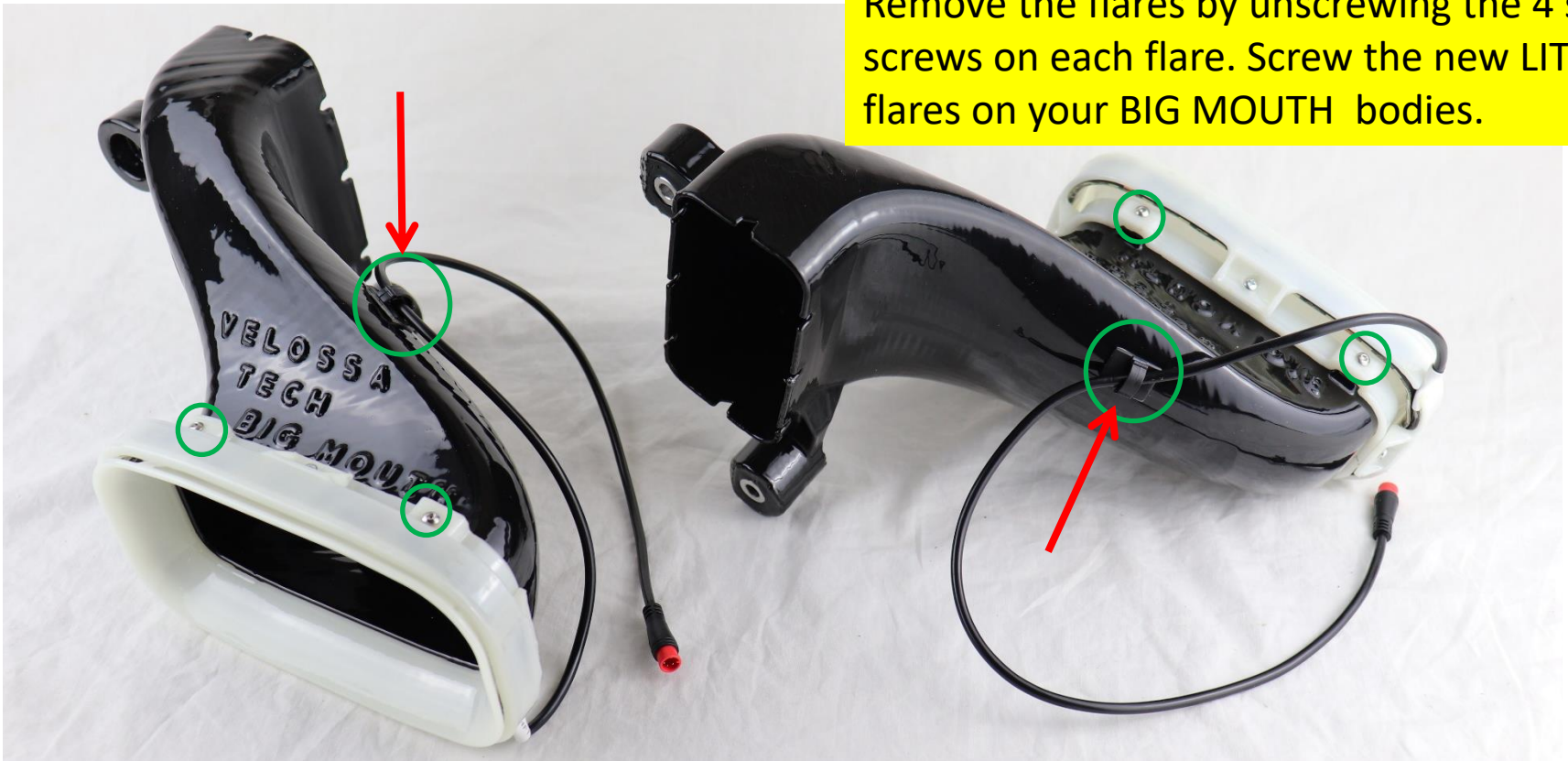


Make sure the slots line up with the seal rubber pegs that are inside the seal, you will feel them seat properly.

## Install the LIT BIG MOUTH Flares

SKIP THIS SLIDE IF YOU PURCHASED A FULL KIT

Remove the flares by unscrewing the 4 set screws on each flare. Screw the new LIT KIT flares on your BIG MOUTH bodies.



NOTE: The exit direction of the LED power wires must follow this illustration.

Clean the surfaces well, and apply the strain relief cable clips, apply modest pressure.



# VELOSSA TECH

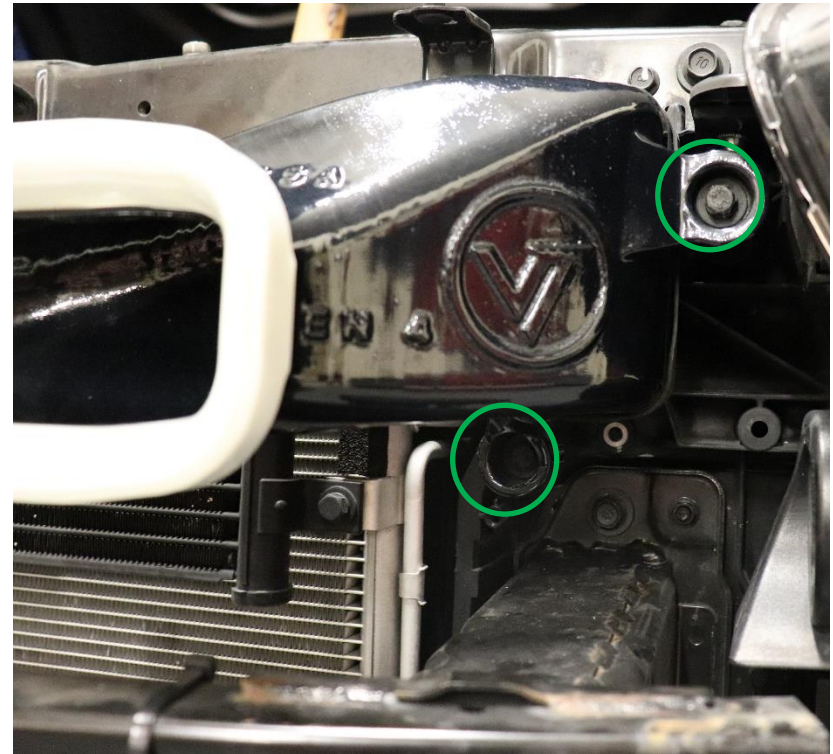
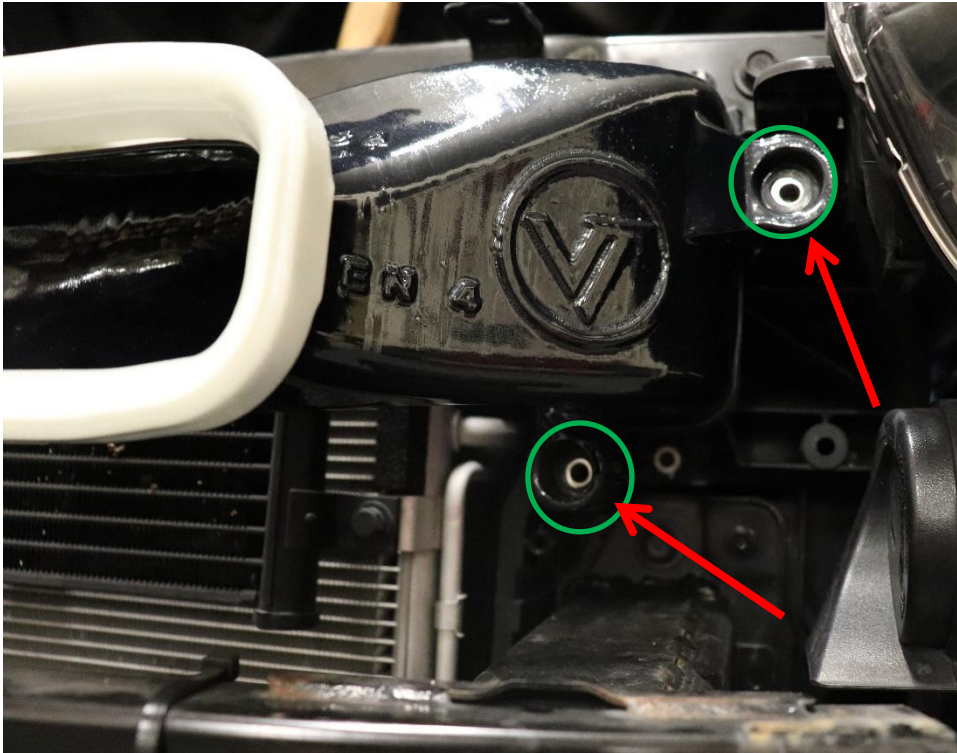
## Install the LIT BIG MOUTH

Carefully slide the BIG MOUTH intakes over the stock ports and ensure the bolt holes line up.



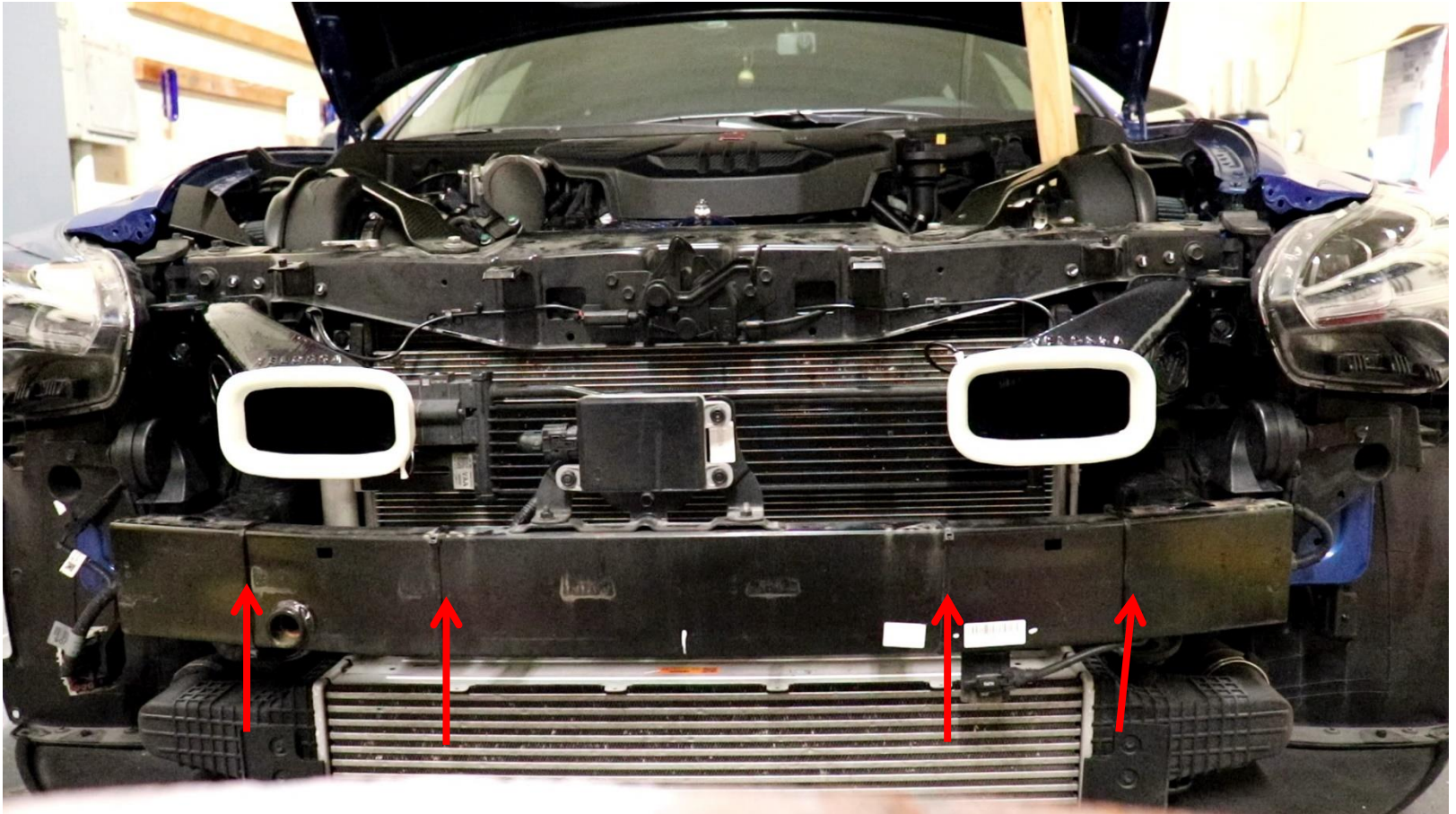


## Install the LIT BIG MOUTH



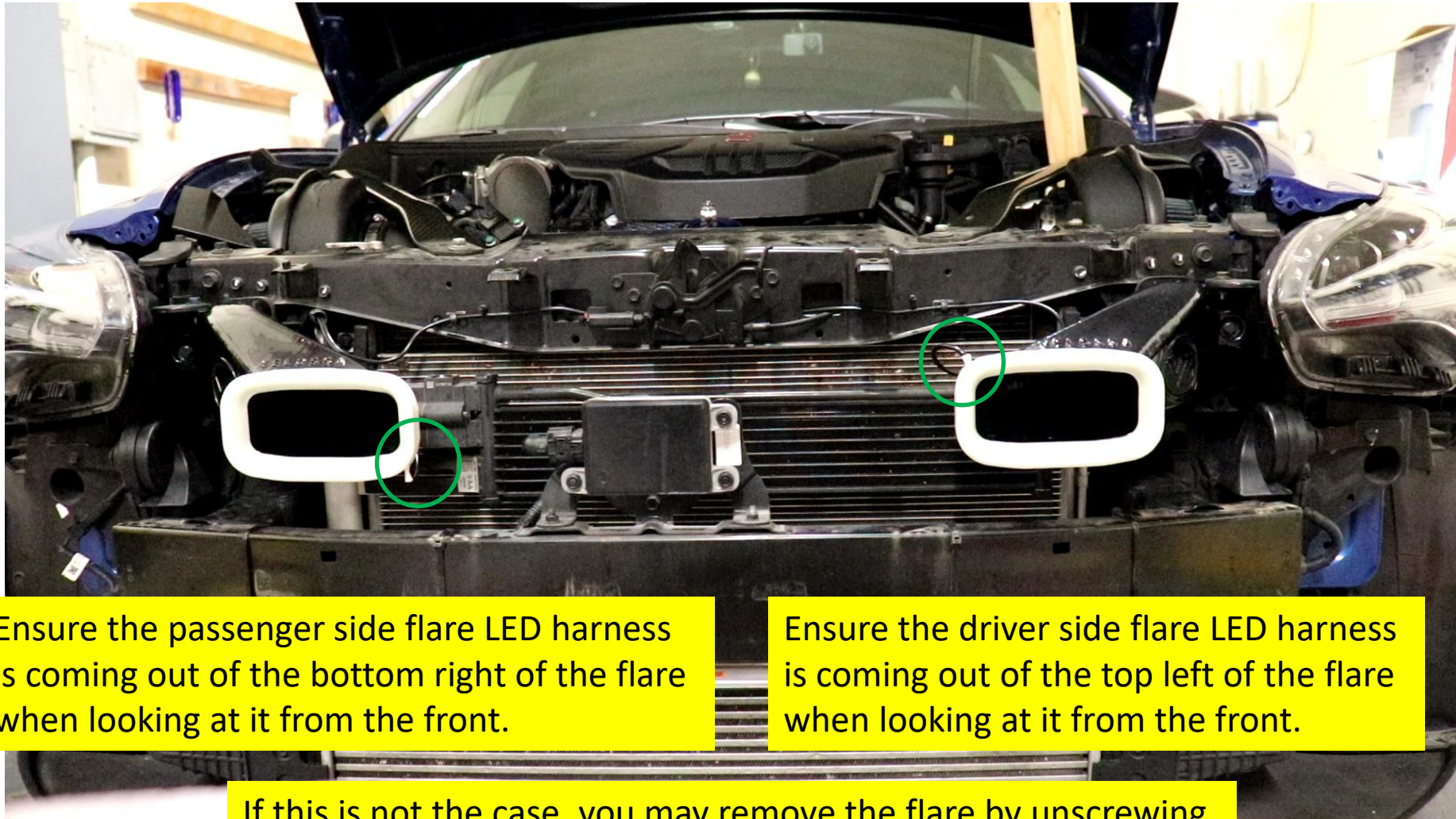
From slide 10, re-use the two screws, begin threading by hand and torque down hand tight. Do not over-torque. Blue thread-locker is advisable to use but not necessary.

## Zip Tie OEM Harness



You will need to zip tie the OEM electrical harness behind the frame rail in a clean fashion using four of the supplied 16" zip ties.

## BIG MOUTH LIT Kit Prep



Ensure the passenger side flare LED harness is coming out of the bottom right of the flare when looking at it from the front.

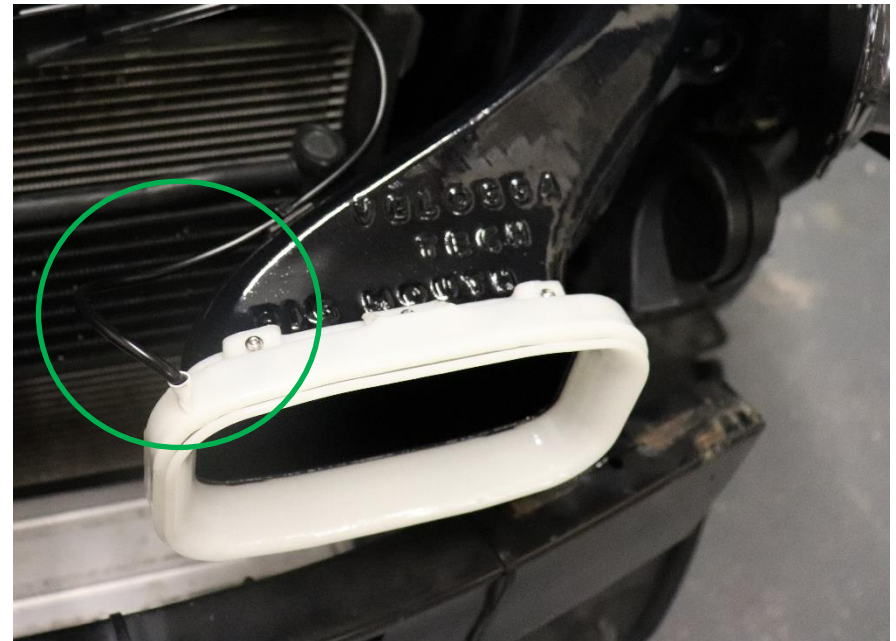
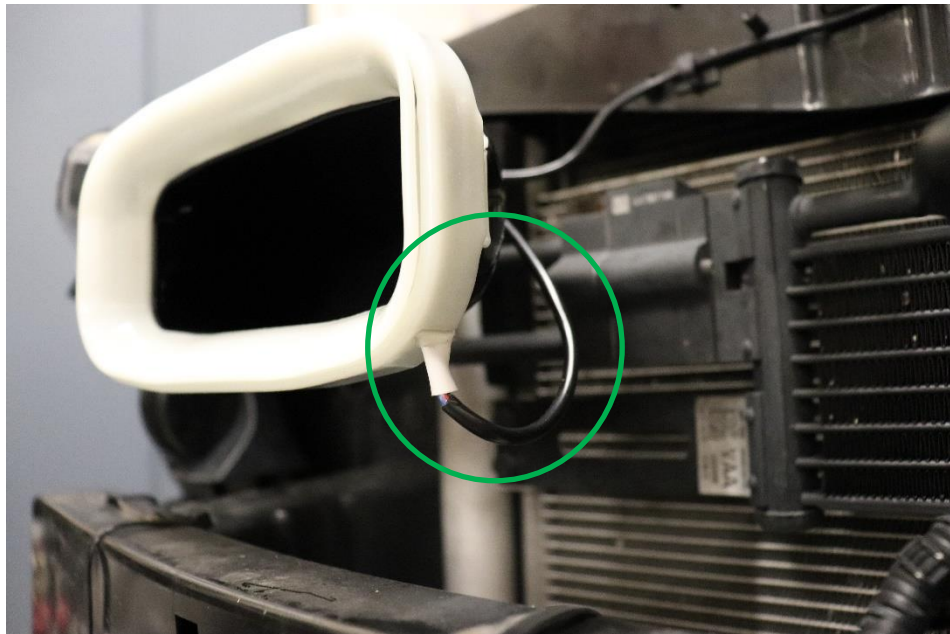
Ensure the driver side flare LED harness is coming out of the top left of the flare when looking at it from the front.

If this is not the case, you may remove the flare by unscrewing it, rotate it to obtain the correct wiring exit points.

## BIG MOUTH LIT Kit Strain Relief

Passenger Side

Driver Side

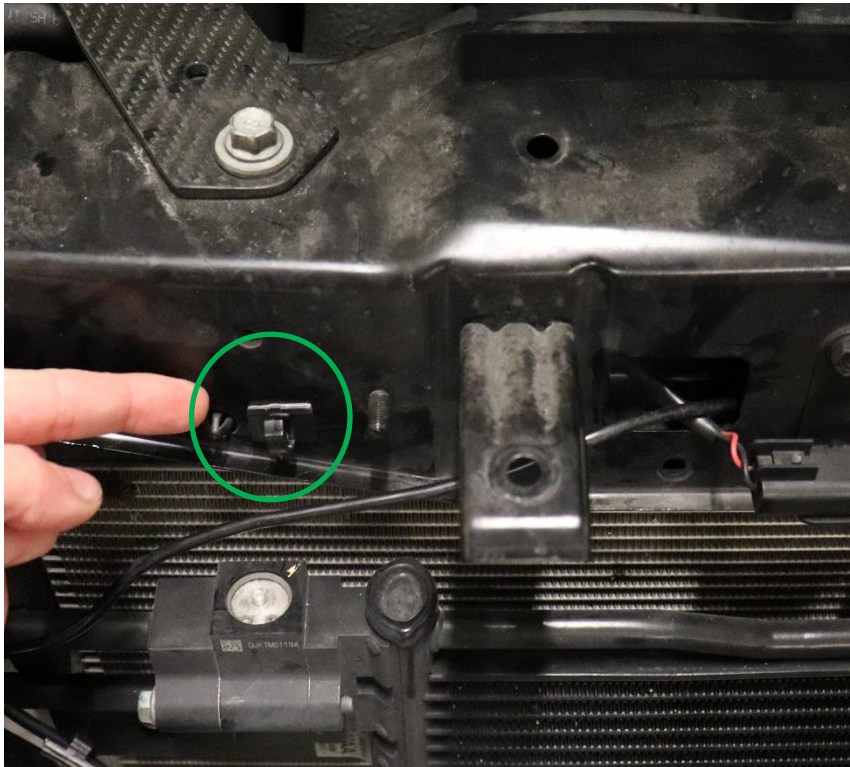


Ensure there is **ample strain relief** at the **LED power wires** coming out of the flares. Route the wires through the back of the wire support clips that are on the BIG MOUTHS (this would already be done on a full kit with clips pre-installed).

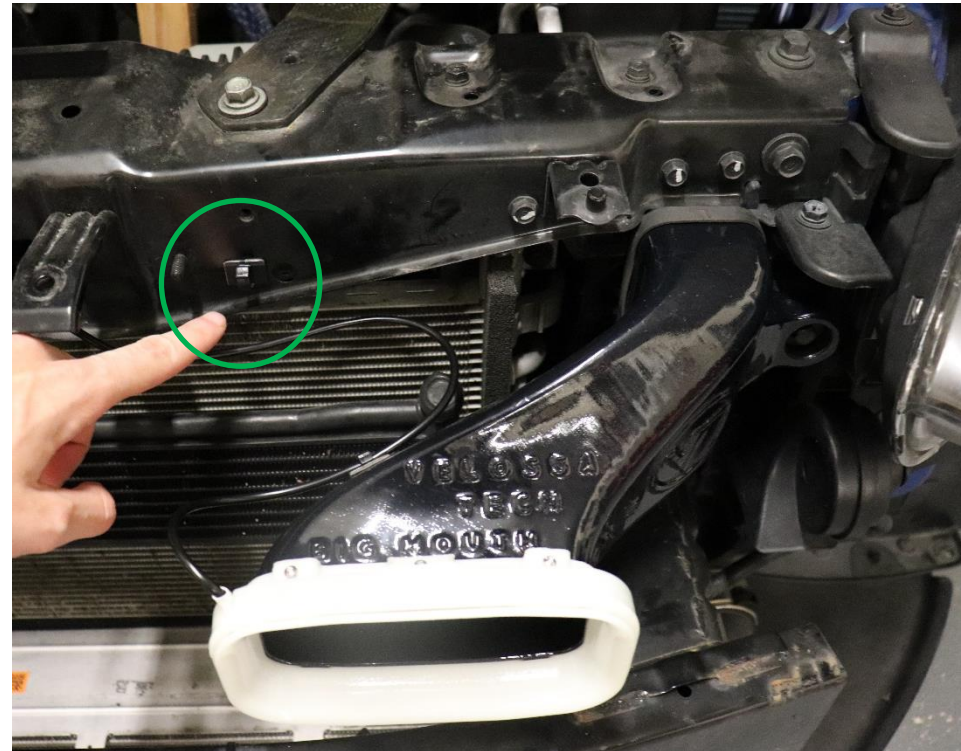
## BIG MOUTH LIT Kit Prep

Prepare the following location by wiping down with a clean cloth or paper towel, let dry. Apply the LED cable relief clip as shown.

Passenger Side



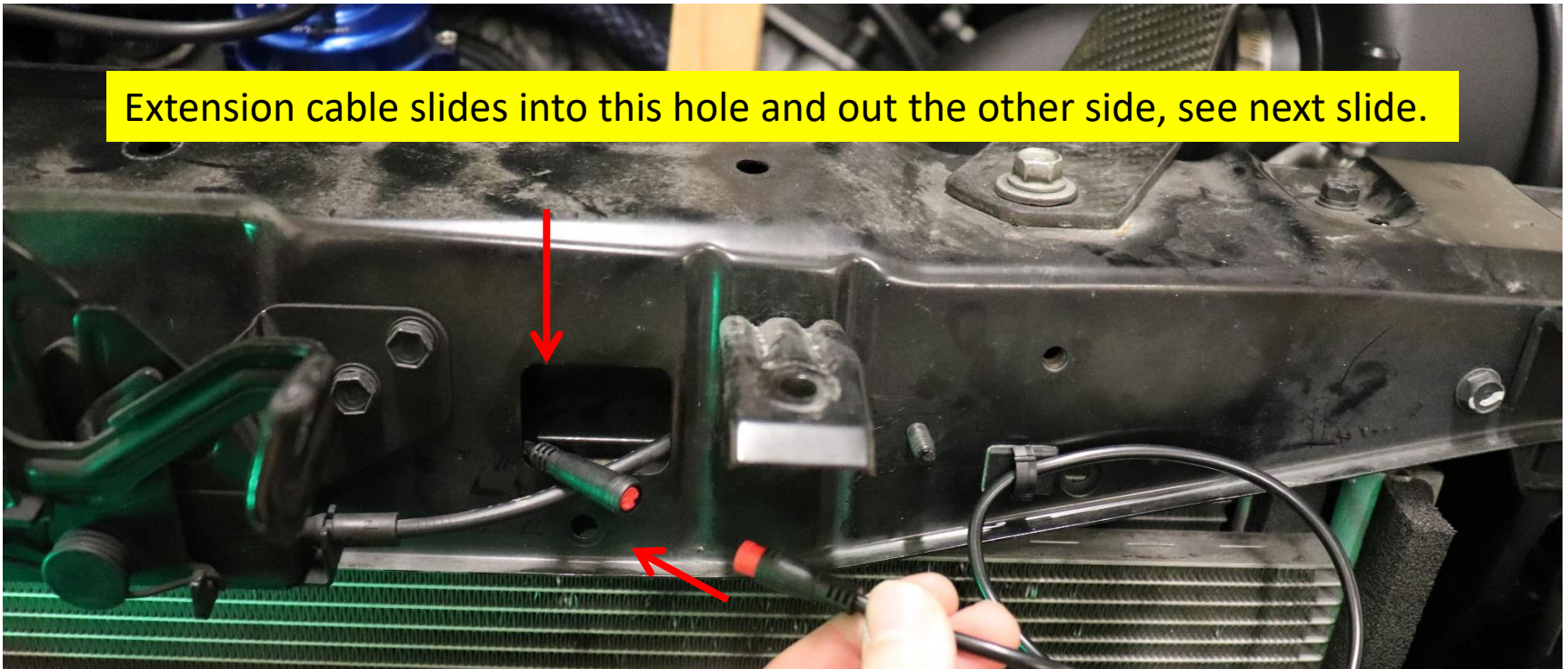
Driver Side



## BIG MOUTH LIT Kit Prep

Plug the supplied Diode Dynamics LED extension cable into the driver side LED as shown, slide into the radiator support.

Extension cable slides into this hole and out the other side, see next slide.

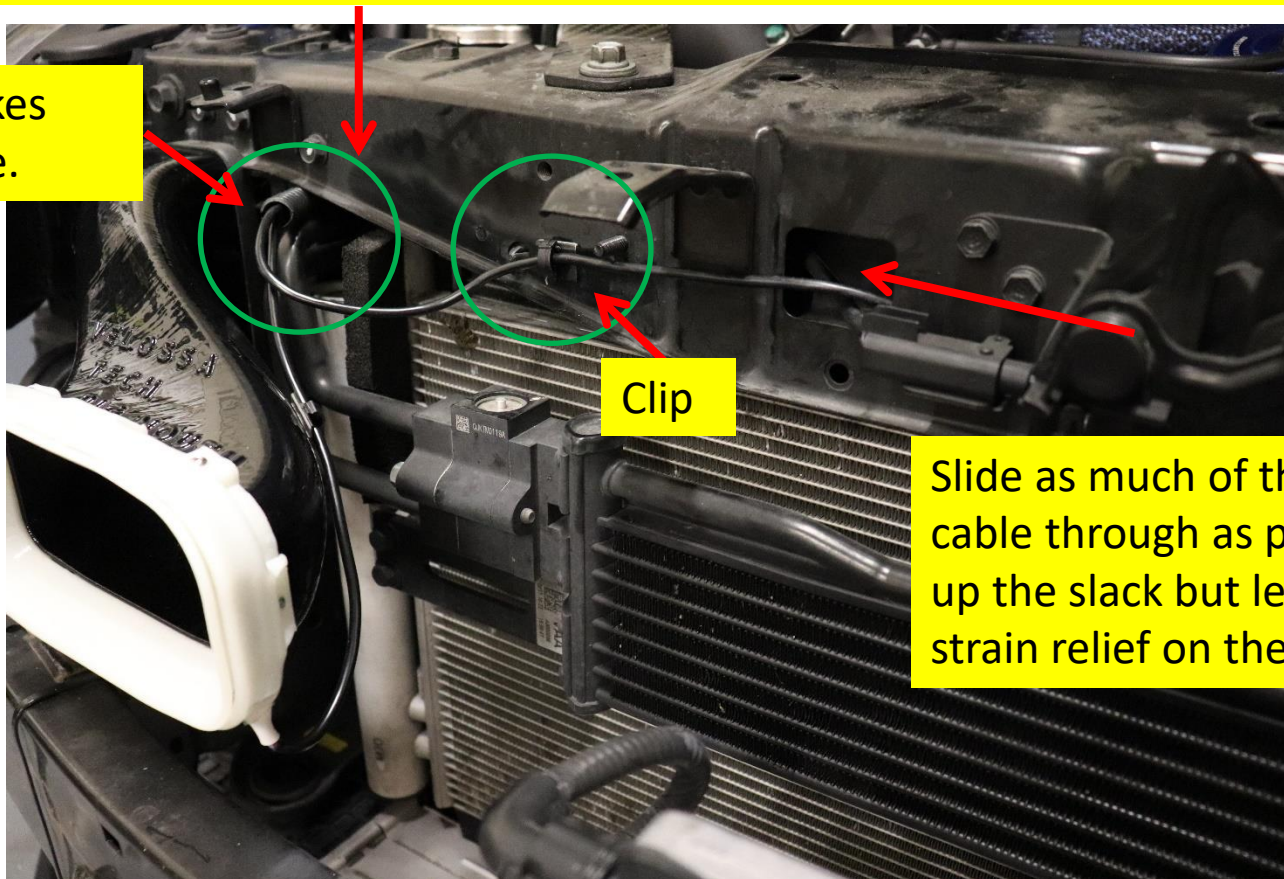


Take notice of the notch within the M8 female connector. The connectors must be properly oriented and should not require very much force to connect. Improper alignment can damage the pins within the male connector.

## BIG MOUTH LIT Kit Prep

Clip the extension cable into the second strain relief clip and join both cables together at the join point. Cut a 6" piece of conduit supplied in the kit and wrap the two Diode Dynamics LED cables in the conduit at this location and snake through radiator support as shown

Conduit snakes through here.



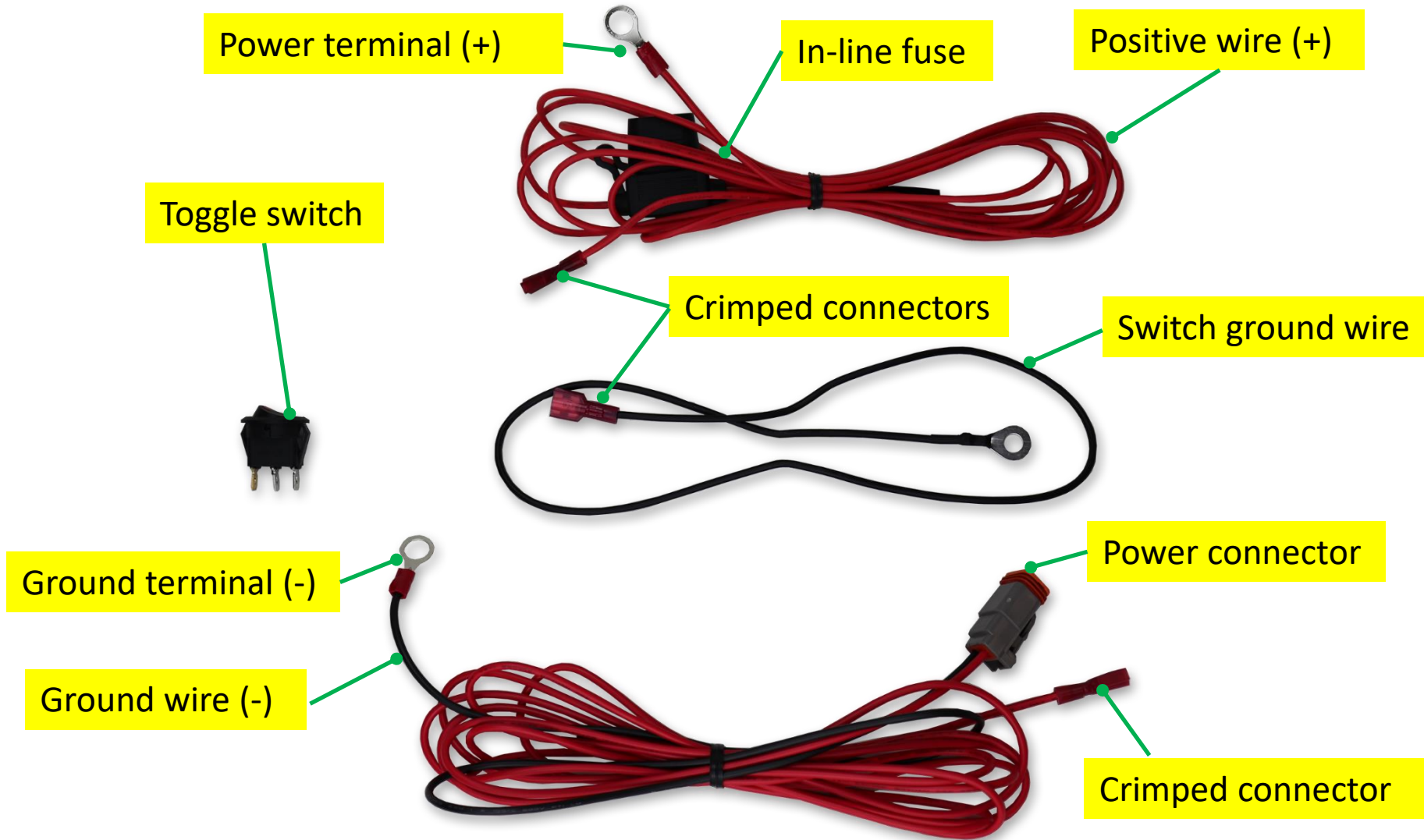
Clip

Slide as much of the extension cable through as possible to take up the slack but leave some strain relief on the driver side!



# VELOSSA TECH

## Wiring Harness

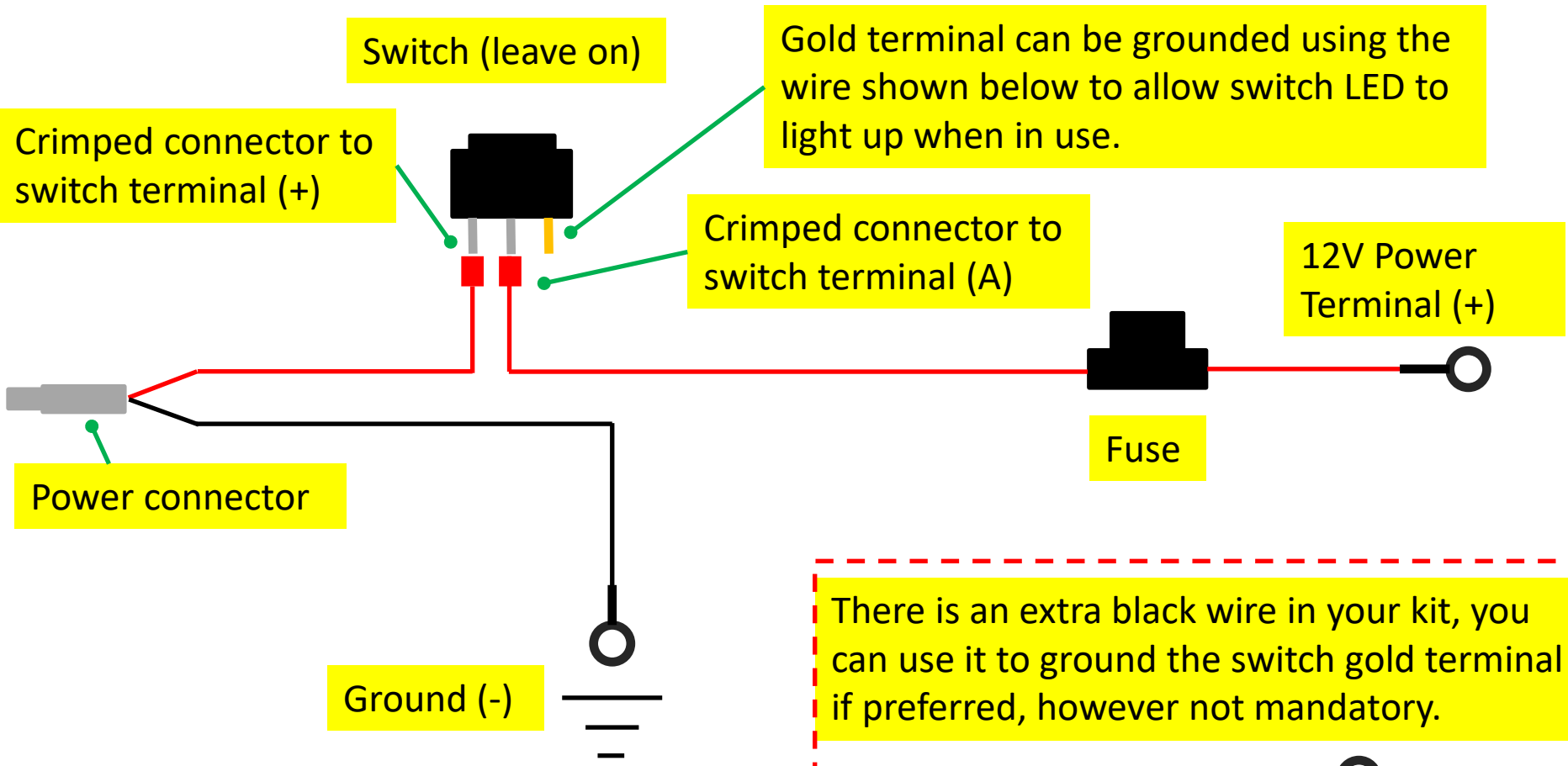






# VELOSSA TECH

## Wiring Harness Schematic



There is an extra black wire in your kit, you can use it to ground the switch gold terminal if preferred, however not mandatory.

The diagram shows a black wire with a terminal on the right end connected to a red terminal on the left end, enclosed in a dashed red box.

## BIG MOUTH LIT Kit Controller Mount

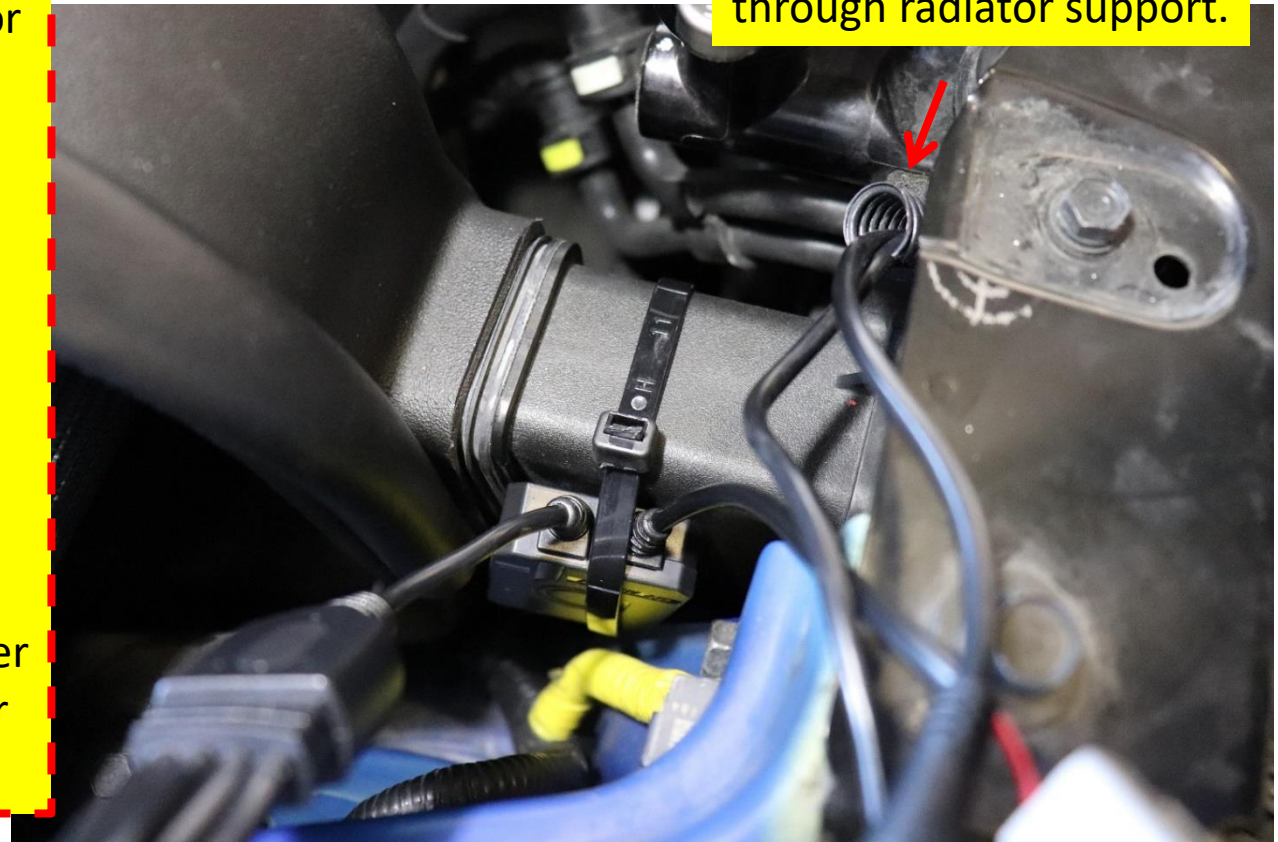
Using a 16" zip tie, fasten the Diode Dynamics controller in the following orientation to the stock transition duct as shown. Both main output cables should be facing up.

If you decide to mount the controller somewhere else, or you have an aftermarket intake that is intrusive and you must relocate the controller, ensure that the controller is either

1. as close to the driver as possible or;
2. not underneath large amounts of metal.

Keep the controller somewhere in the open under the hood or somewhere near the driver side.

Other side of conduit, through radiator support.

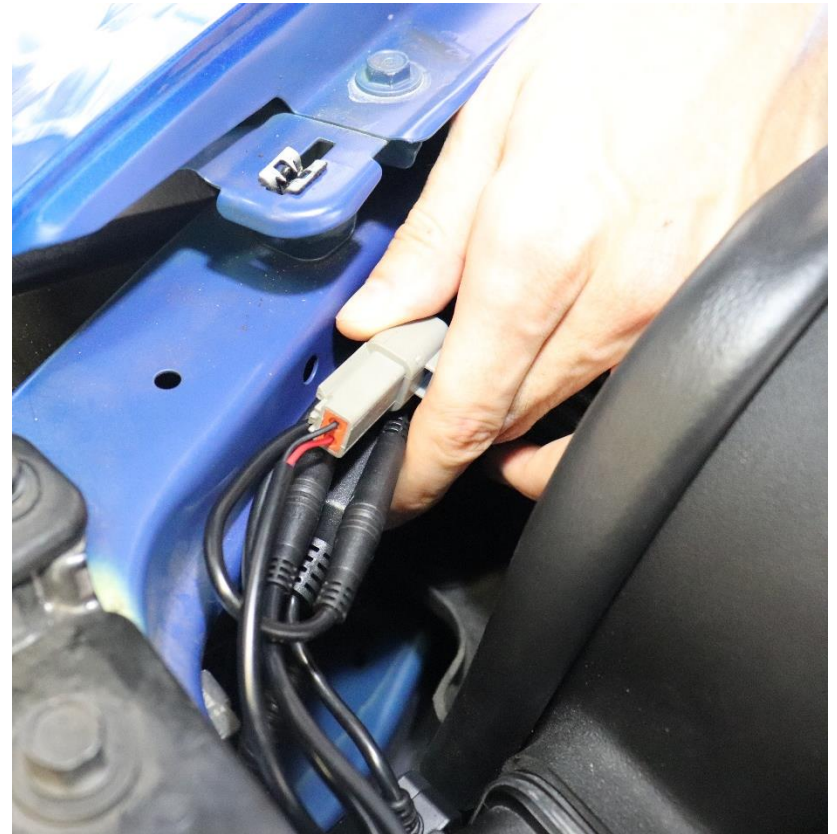


## BIG MOUTH LIT Kit Prep

Plug both LED power cables into the Diode Dynamics RGBW Bluetooth controller and bunch the cables together neatly. Do not strain the cables with tight radius bends or tugging in any place.



Remove this panel, underneath it the cables will be neatly packed and fastened.



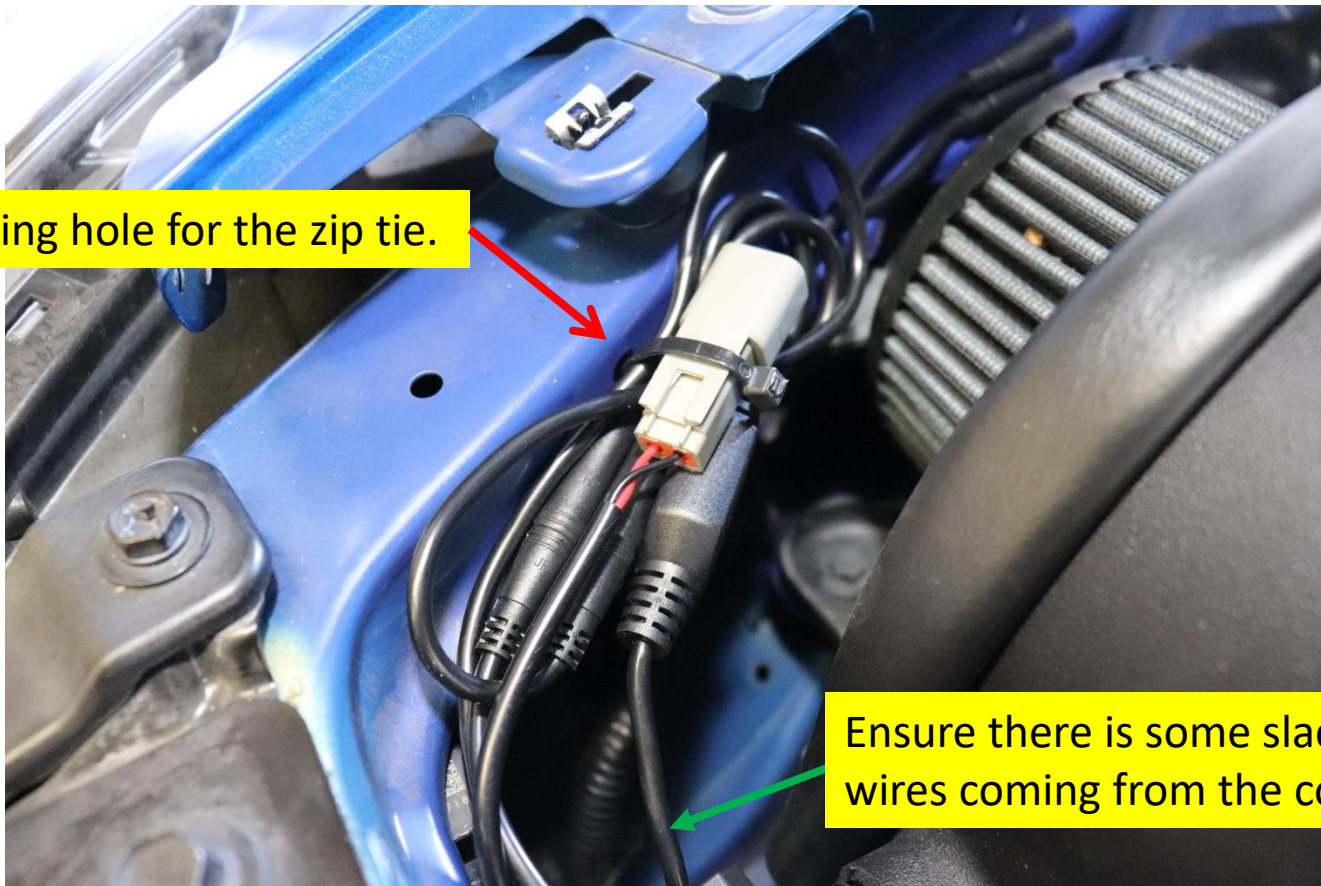


# VELOSSA TECH

## BIG MOUTH LIT Kit Prep

Fasten the bundle with an 8" zip tie in the following manner.

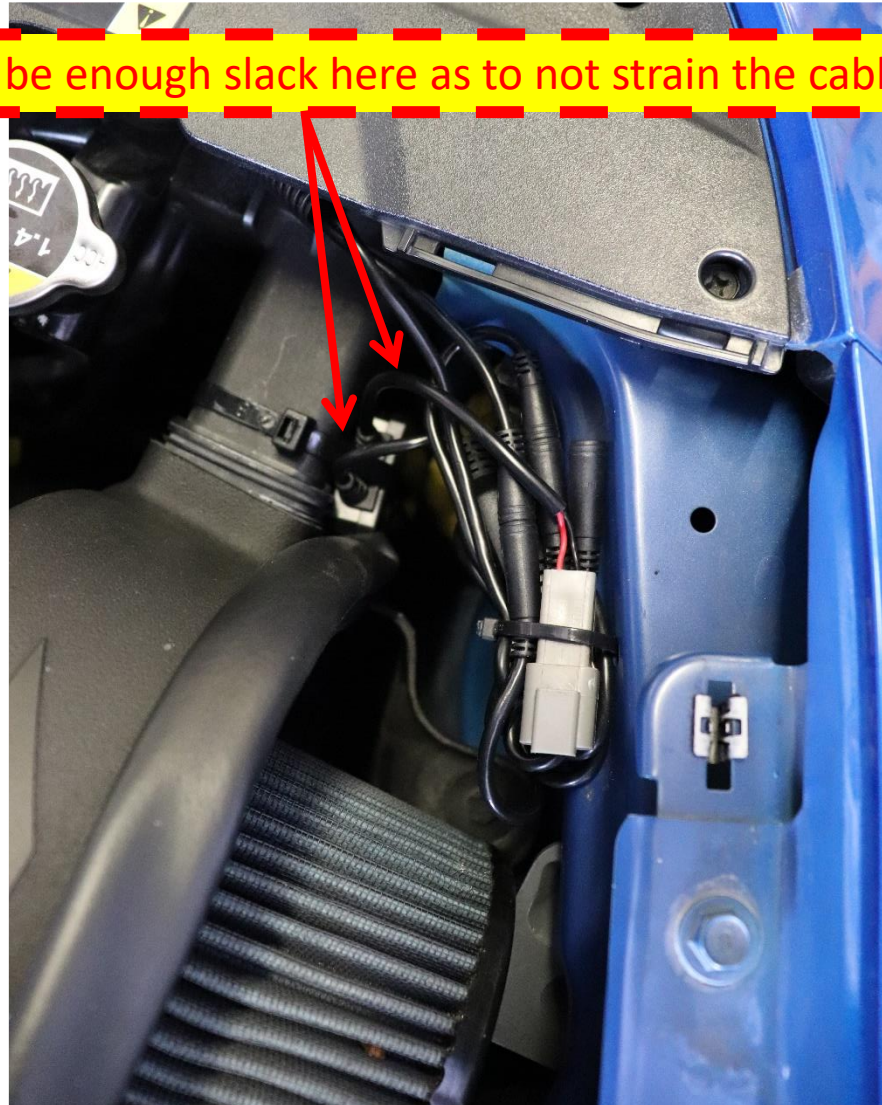
Use this existing hole for the zip tie.



Ensure there is some slack left in the wires coming from the controller.

## BIG MOUTH LIT Kit Prep

There should be enough slack here as to not strain the cables.



## BIG MOUTH LIT Kit Routing

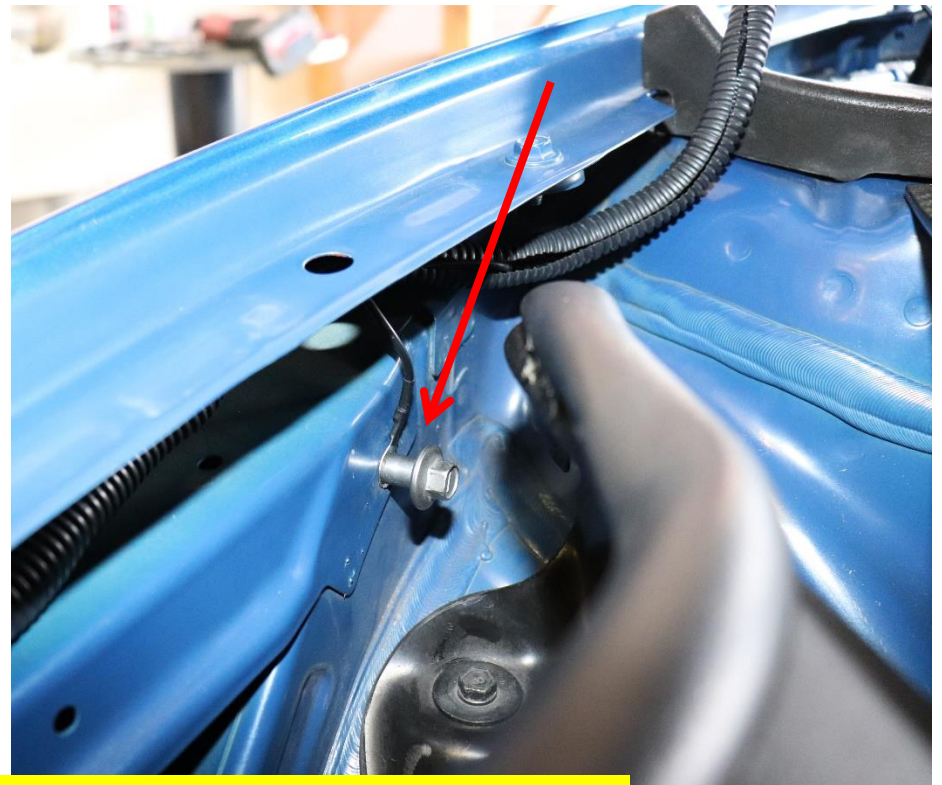
Plug the grey power connector in. Weave the conduit around the power wires on the male side of the grey connector.

Route the remaining wires and conduit as shown, tuck underneath for a clean look.



## BIG MOUTH LIT Kit Routing

Tuck the extra length of ground wire in the conduit, remove the 10mm bolt on the passenger side near the intake and use it for grounding.



Excess ground wire is tucked away inside the conduit.

## BIG MOUTH LIT Kit Routing

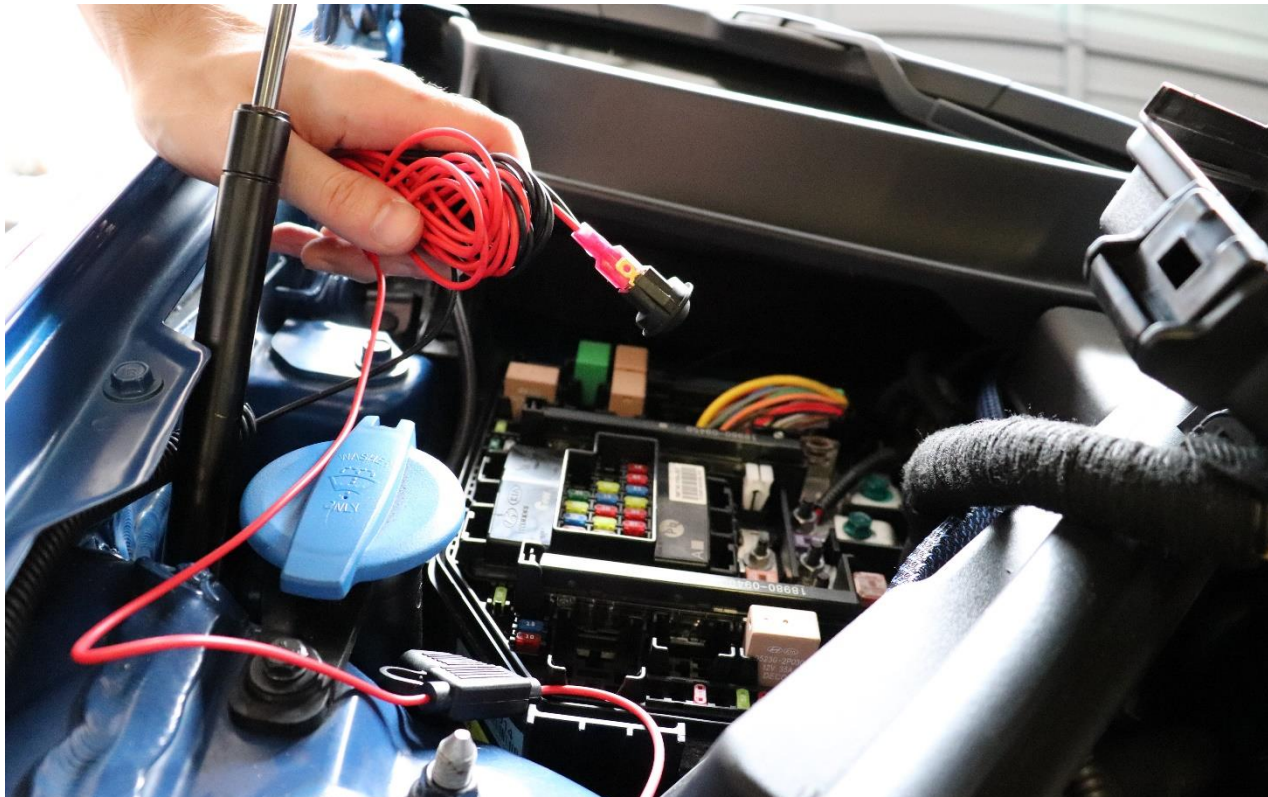
Route the rest of the conduit under this rubber divider.





## BIG MOUTH LIT Kit Routing

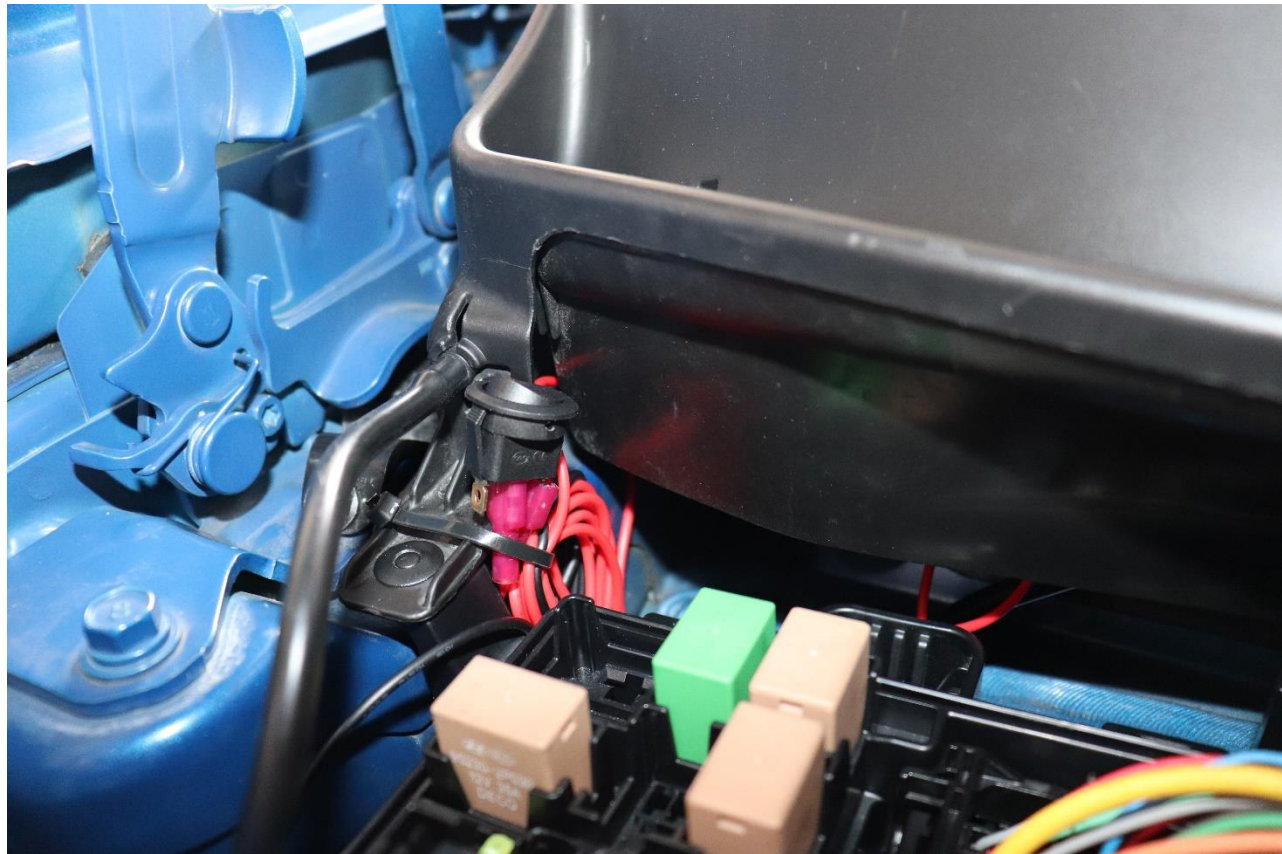
At the fuse box, there will be excess wire, zip tie the wire bunch together as shown in a neat package, leave about a foot of power wire for the power connection.



Plug in the crimped power wire ends into switch terminal A and the other into terminal (+) as shown on slide 25.

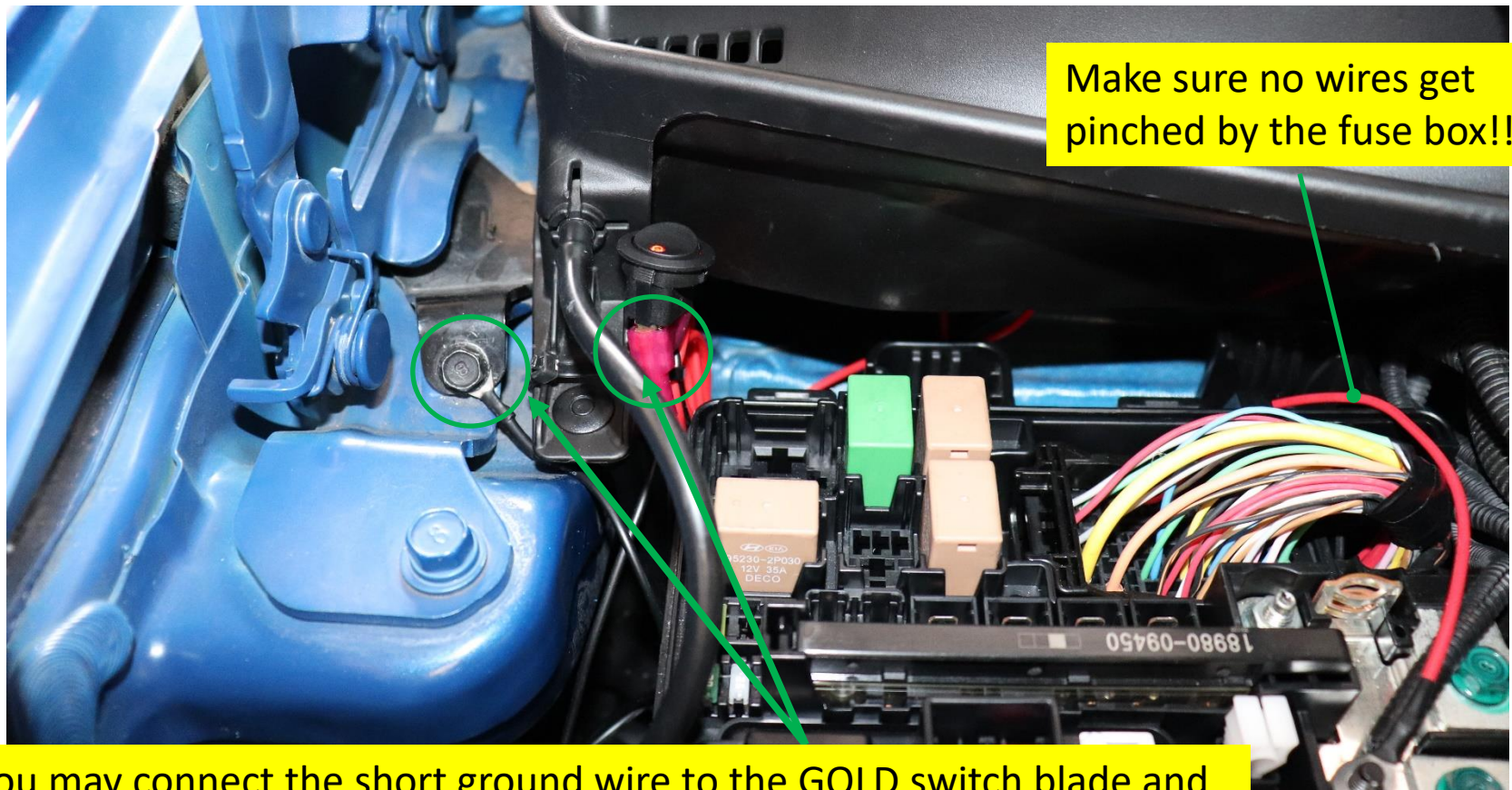
## BIG MOUTH LIT Kit Routing

Tuck away the wire bunch and switch as shown, zip tie it to the plastic bracket (right near the pop up clip) and ensure the bundle is snug and away from being pinched by the fuse box.



## BIG MOUTH LIT Kit Routing

You may use the short ground wire supplied in the kit to ground the switch which will allow the LED to light up when the switch is ON. However, this is not necessary; it is preference.



Make sure no wires get pinched by the fuse box!!!

You may connect the short ground wire to the GOLD switch blade and ground it at this bolt.

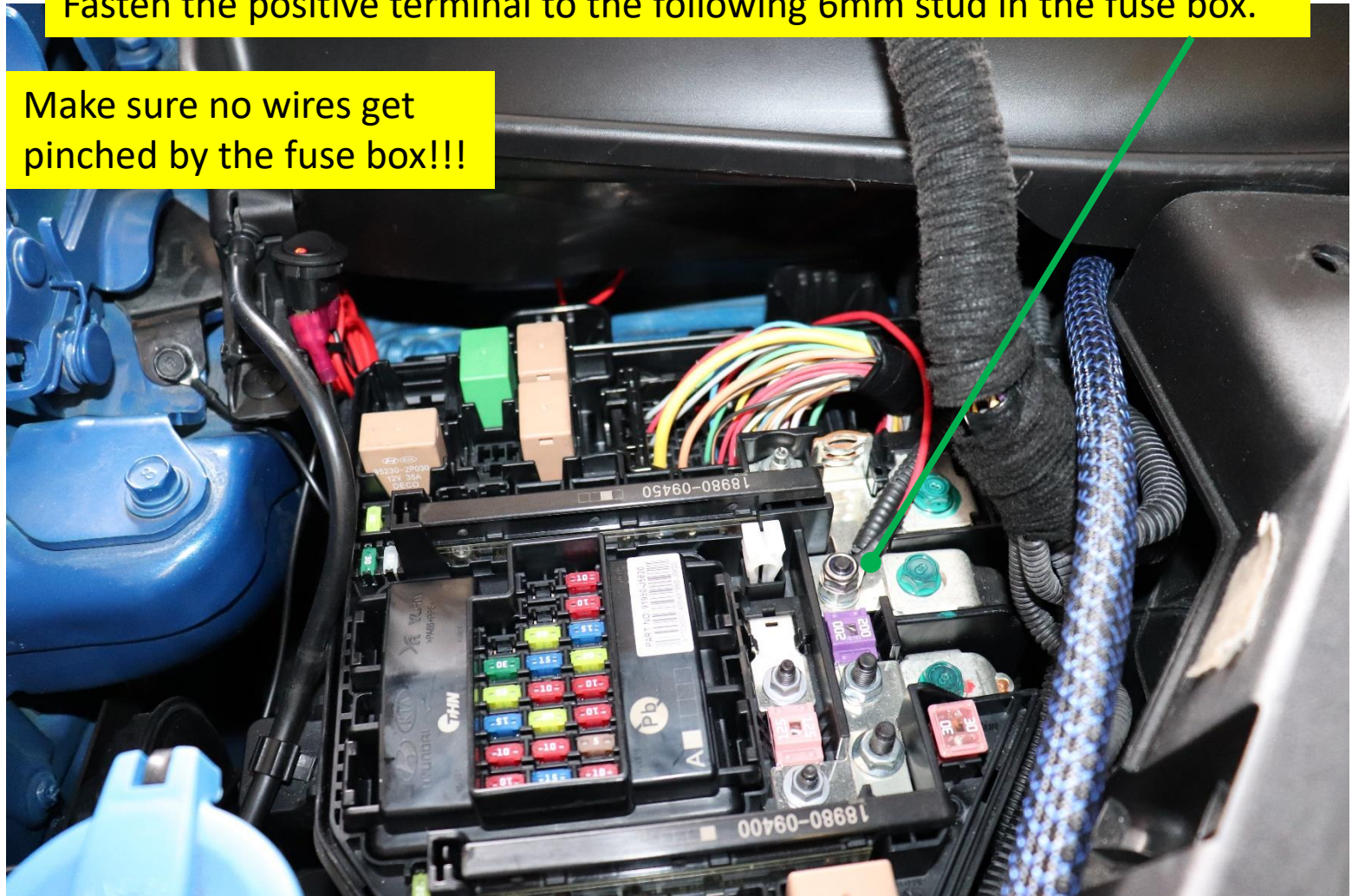


# VELOSSA TECH

## BIG MOUTH LIT Kit Routing

Fasten the positive terminal to the following 6mm stud in the fuse box.

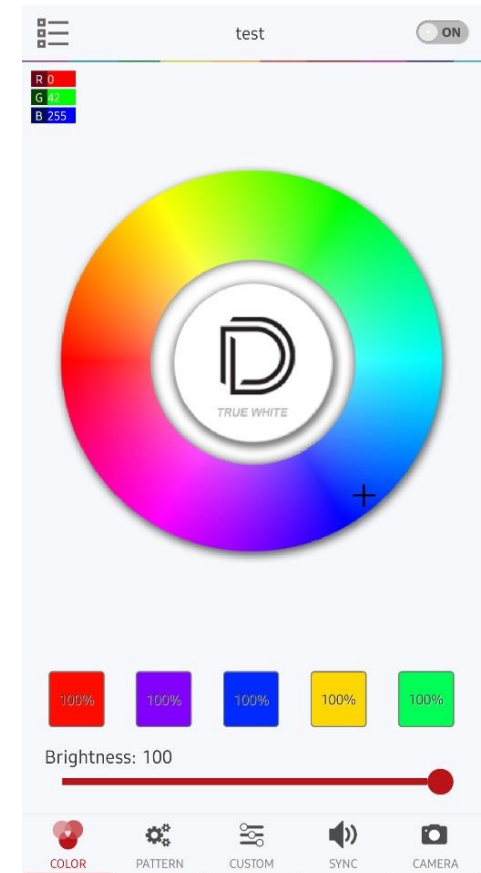
Make sure no wires get pinched by the fuse box!!!



# VELOSSA TECH

## Phone App

Finalize by downloading the Diode Dynamics app and connect via Bluetooth. Play with the app it's fun!





**VELOSSA TECH**

## Re-install Bumper

Re-install the bumper and plastic cover plate, enjoy!



**VELOSSA TECH**

**DIODE DYNAMICS**  
PERFORMANCE LIGHTING TECHNOLOGY