



**2017-2018 Hyundai Elantra Sport BIG MOUTH
LIT KIT Ram Air Intake Installation Guide**

VELOSSA TECH

Kit Contents

Please review this document before attempting installation.

You will need basic hand tools and about 2 hours of installation time.

Please review the table below and make sure you have received the kit contents.

Kit Contents	Qty
M6 x 90mm Cap Screw	1
M6 x 100mm Cap Screw	1
M6 Small Washer	4
M6 Lock Nuts	2
Micro2 Fuse Tap	1
Micro2 Fuse	1
Butt Connector (16 AWG)	3
1/4" Ring Terminal (16 AWG)	1
8" Zip Ties	7
Diode Dynamics RGBW Controller	1
Power Wire (16 AWG)	1
Ground Wire (16 AWG)	1
Assembled LIT KIT BIG MOUTH	1
M6 x 12mm Cap Screw	1



Kit Contents (LIT Flare Only)

Please review the table below and make sure you have received the kit contents.

Kit Contents	Qty
Micro2 Fuse Tap	1
Micro2 Fuse	1
Butt Connector (16 AWG)	3
1/4" Ring Terminal (16 AWG)	1
8" Zip Ties	7
Diode Dynamics RGBW Controller	1
Power Wire (16 AWG)	1
Ground Wire (16 AWG)	1
Cable Clips	1
Assembled Flare	1
M6 x 12mm Cap Screw	1



If you already own the Velossa Tech GEN 4 Elantra Sport BIG MOUTH, skip to slide 6 to see install and wiring instructions.



Bumper Removal

REMOVE BUMPER PRIOR TO ATTEMPTING INSTALLATION.

Use YouTube as a resource, there are many bumper removal videos to guide you.

Stock Components Removal

Once the bumper is removed, you will need to remove the transition tube that connects the cowl to the airbox or air filter feed.



Push down on the center of these pins and gently remove the clips, there should be no resistance to remove these clips once the pins are depressed.



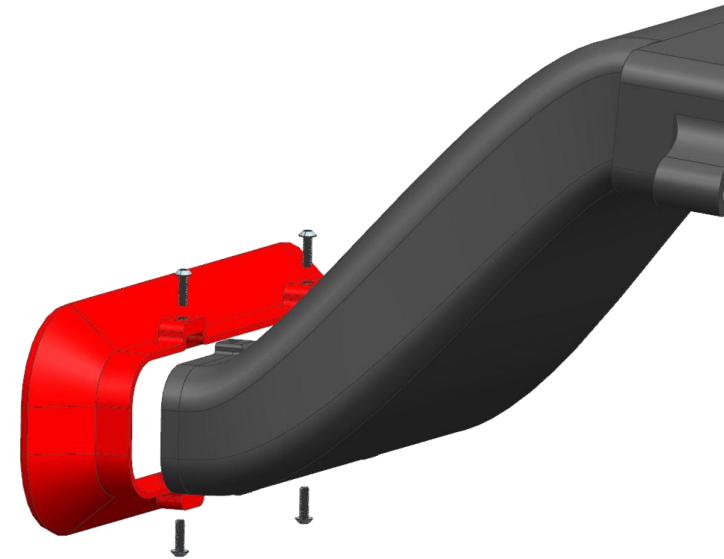
Install the LIT BIG MOUTH Flare

SKIP THIS SLIDE IF YOU PURCHASED A FULL LIT KIT

Attach the supplied cable clip to your BIG MOUTH as shown. Fasten the cable and provide enough slack to not strain the cable.



Attach the cable clip here



If you purchased a LIT flare-only and already have a Gen 4 BIG MOUTH. Remove old flare and install the LIT flare with the 4 screws as shown.

Big Mouth Installation

Hardware is supplied and **MUST NOT BE** mixed up.

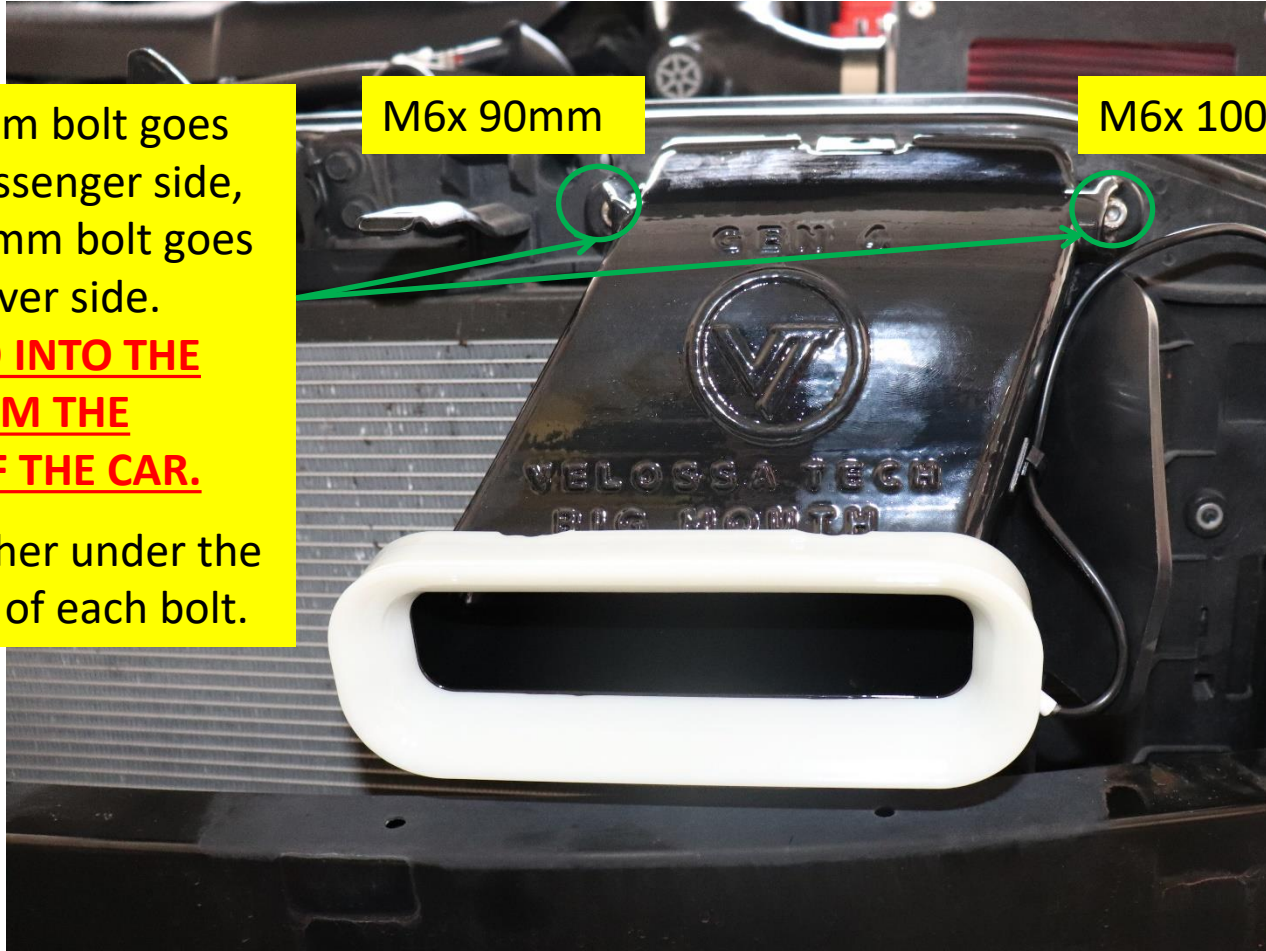
M6 x 90mm bolt goes on the passenger side, M6 x 100mm bolt goes on the driver side.

BOLTS GO INTO THE PART FROM THE FRONT OF THE CAR.

Put a washer under the head side of each bolt.

M6x 90mm

M6x 100mm

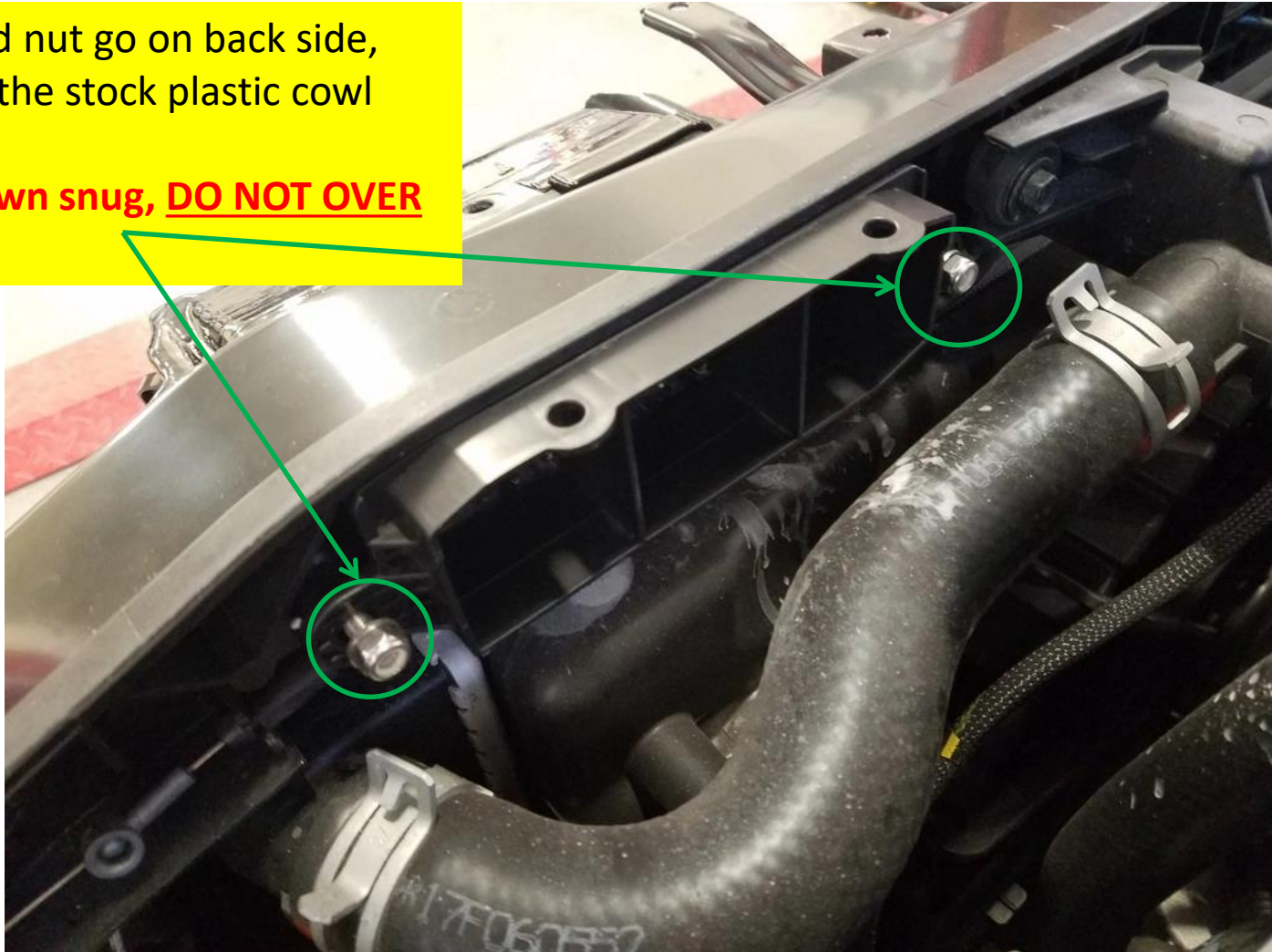


Thread the bolts into the stock threads and tighten snug, **DO NOT OVER TORQUE.**

Big Mouth Installation

Washer and nut go on back side,
ON TOP of the stock plastic cowl
rear piece.

Tighten down snug, DO NOT OVER TORQUE.





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Kit Contents

Re-install stock transition tube for best results.

Install the tube if you have an open element air filter, this will help direct airflow to the filter.



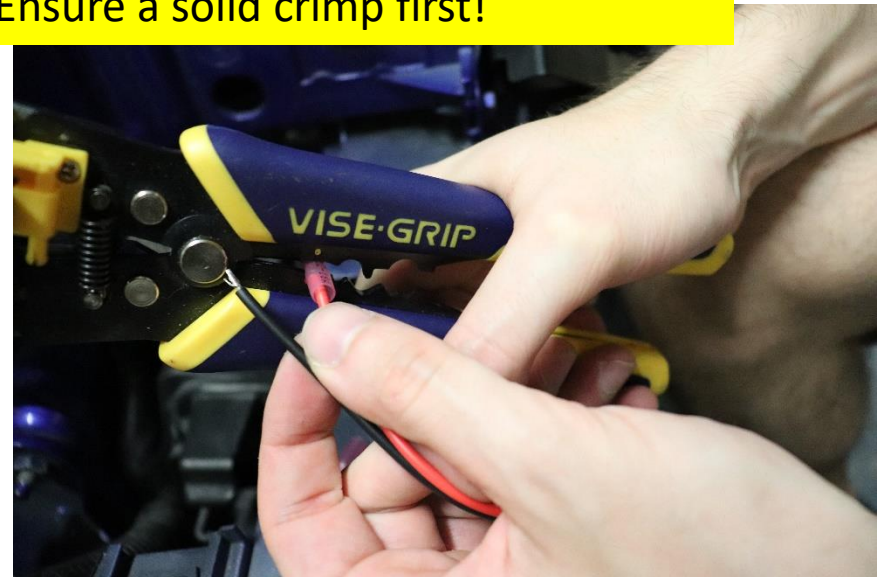
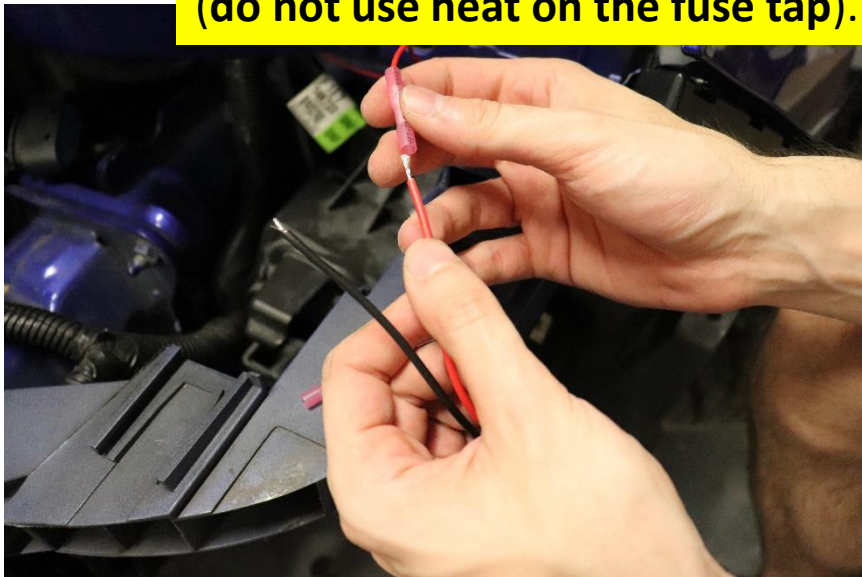
Wiring the LIT KIT

To begin the wiring install, grab your (1) Diode Dynamics Controller package, (2) Micro2 fuse tap, (3) ¼" ring terminal, (4) butt connectors and (5) red and black silicone wire.

Red wire: Strip ¼" of insulation and crimp to the **Micro2 fuse tap**. Crimp the other end to the red wire on the Diode Dynamics pigtail using one of the butt connectors.

Black wire: Strip ¼" of insulation and crimp to the **ring terminal**. Crimp the other end to the black wire on the Diode Dynamics pigtail using one of the butt connectors.

Use heat to shrink the **butt connectors** and **ring terminal** after crimping (**do not use heat on the fuse tap**). Ensure a solid crimp first!



Wiring the LIT KIT

Diode Dynamics pigtail connector

DO NOT USE HEAT TO SHRINK

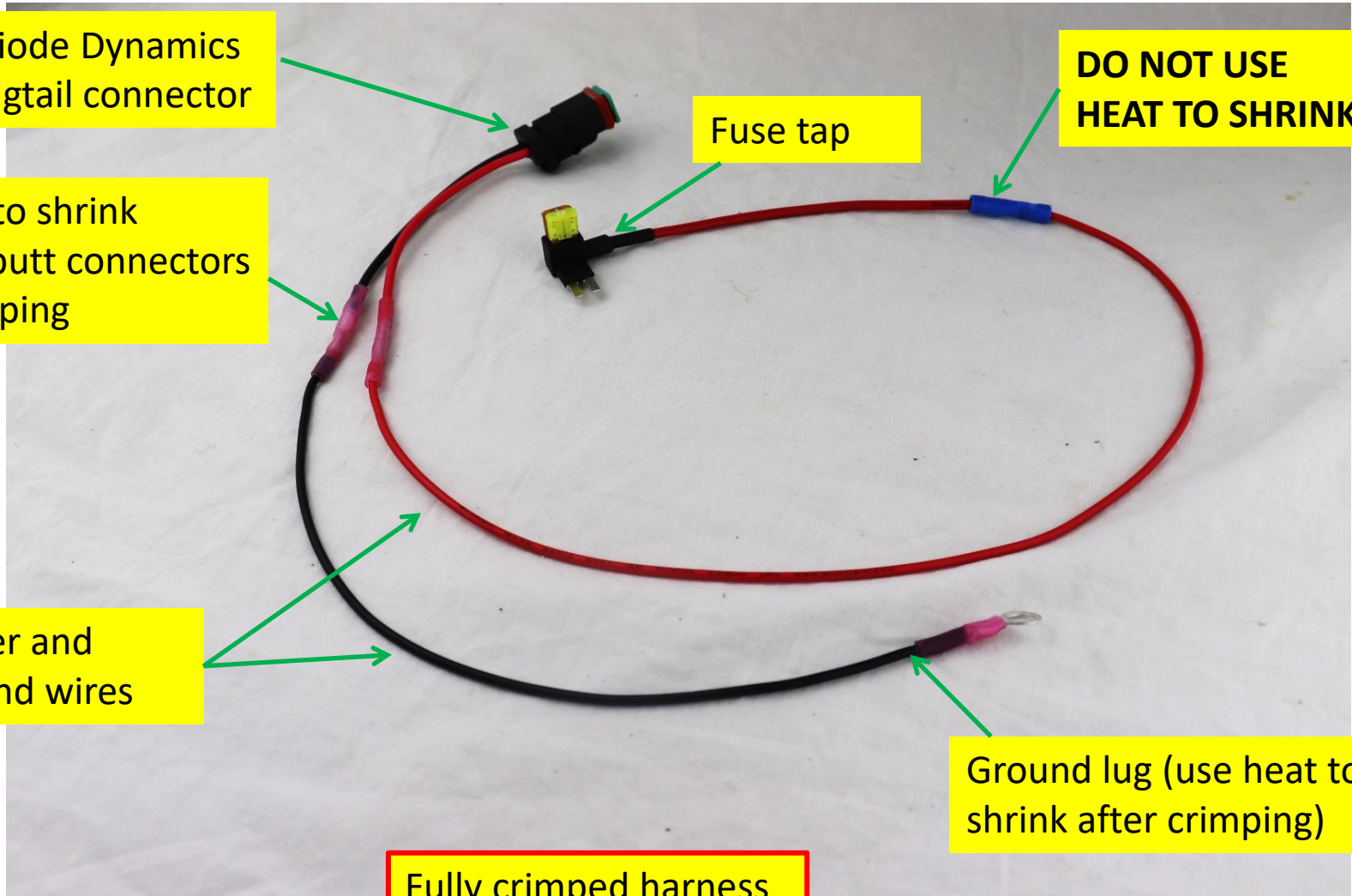
Fuse tap

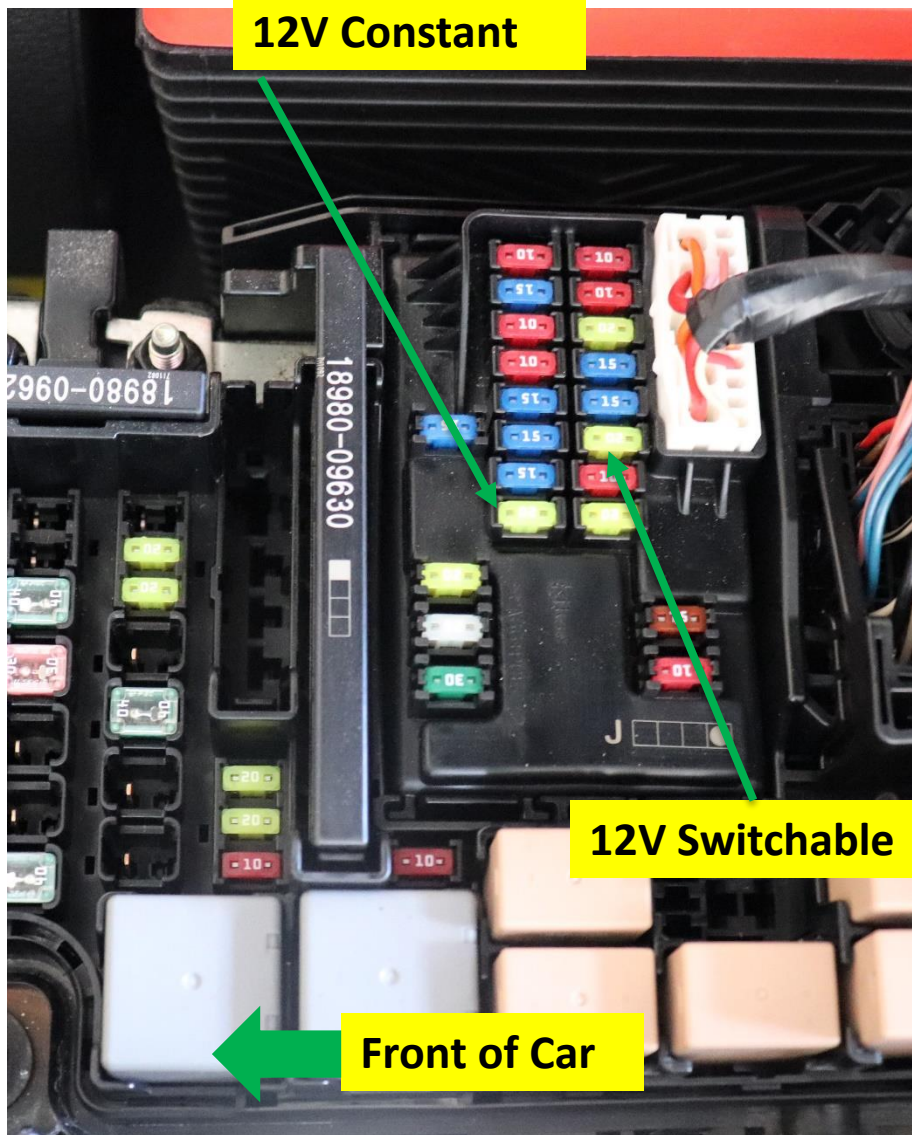
Use heat to shrink supplied butt connectors after crimping

Power and ground wires

Ground lug (use heat to shrink after crimping)

Fully crimped harness





Fuse Slots

Open the fuse box in your engine compartment (driver side) and confirm its layout is like that shown in the image.

Choose whether you would like your LIT KIT to have supplied power at all times or only when accessories are on. (You can manually turn off the controller using the Diode Dynamics app).

Choosing a Fuse (Recommendations)

12V Switchable

12V Constant:

If you choose 12V constant, be sure to turn off your LIT KIT manually using the Diode Dynamics Phone App

Power the LIT KIT

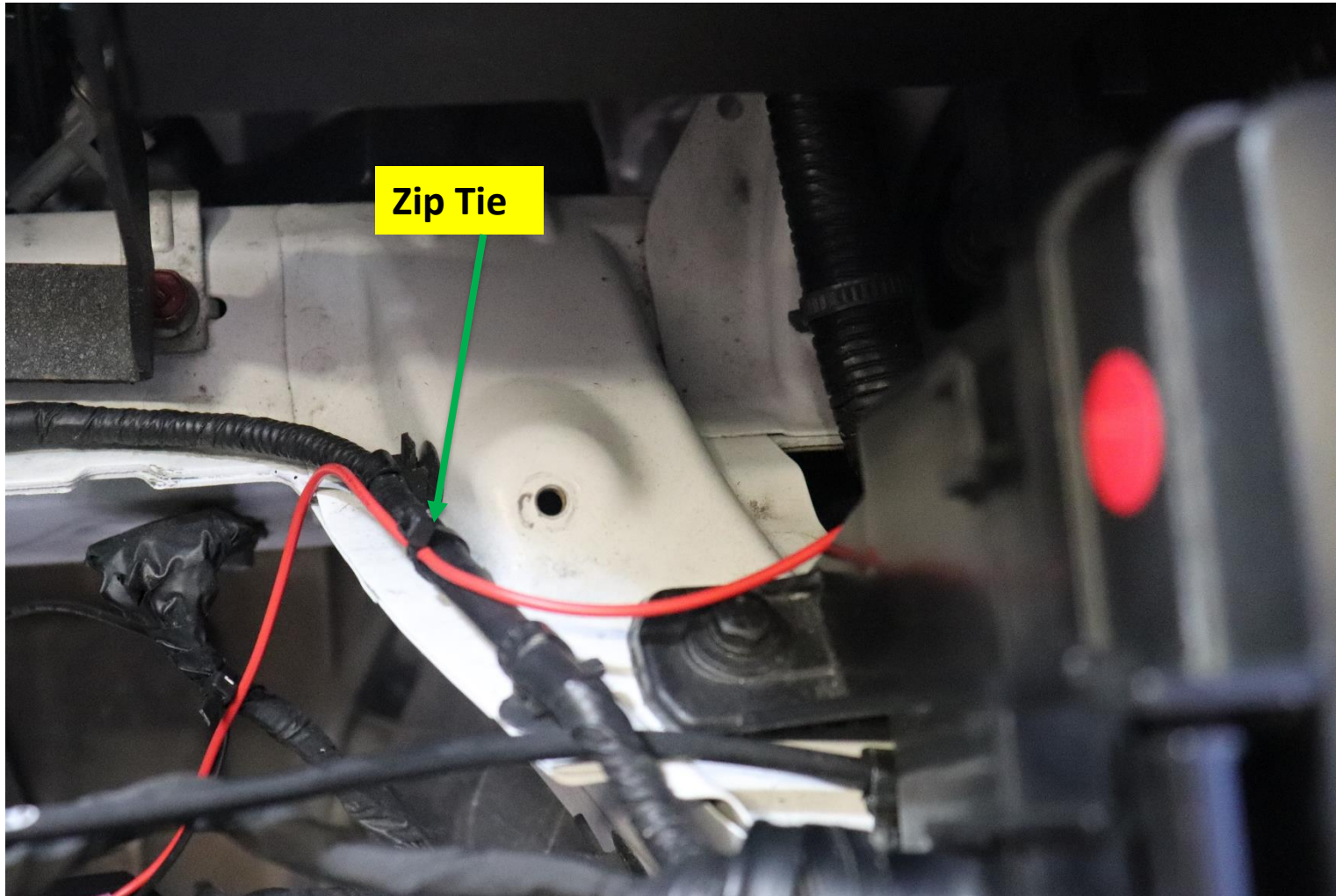
Once you have chosen a fuse to tap, pull it out and place the OEM fuse in the **bottom slot** of the fuse tap. Place the LIT KIT supplied fuse in the **top slot**. Plug the fuse tap into the slot of the original fuse.

Manage the wire such that it does not go through any sharp turns or kinks. **Have the power wire exit the fuse box through the side of fuse box** as shown in the image.



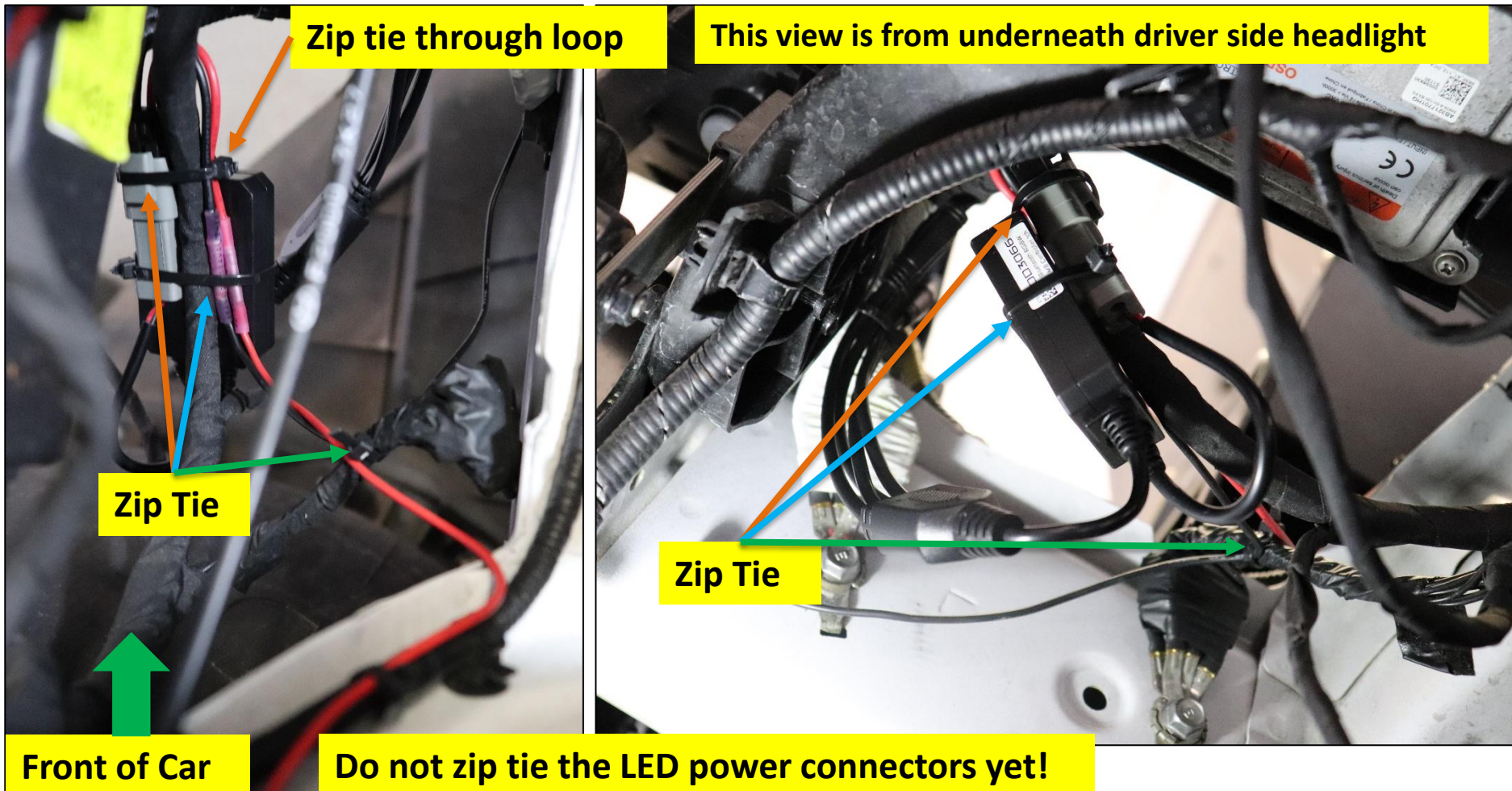
Wire Management

Route the power wire as shown, ensure there is enough slack as to not strain the wire.



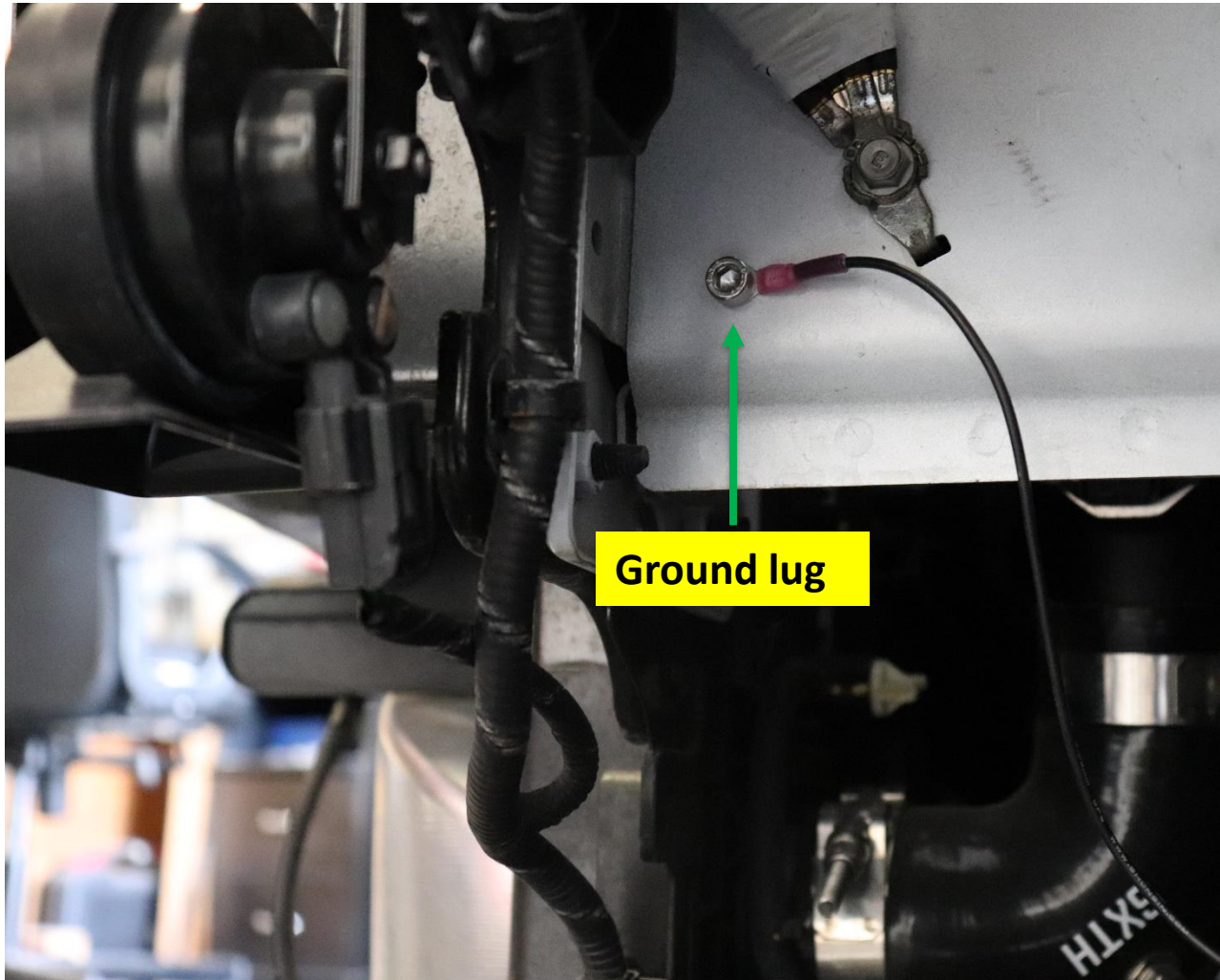
Wire Management

Fasten the controller and pigtail as shown, ensure none of the wires are looped too tightly or being tugged on. Ensure plenty of strain relief and slack, use zip ties to fasten tightly.



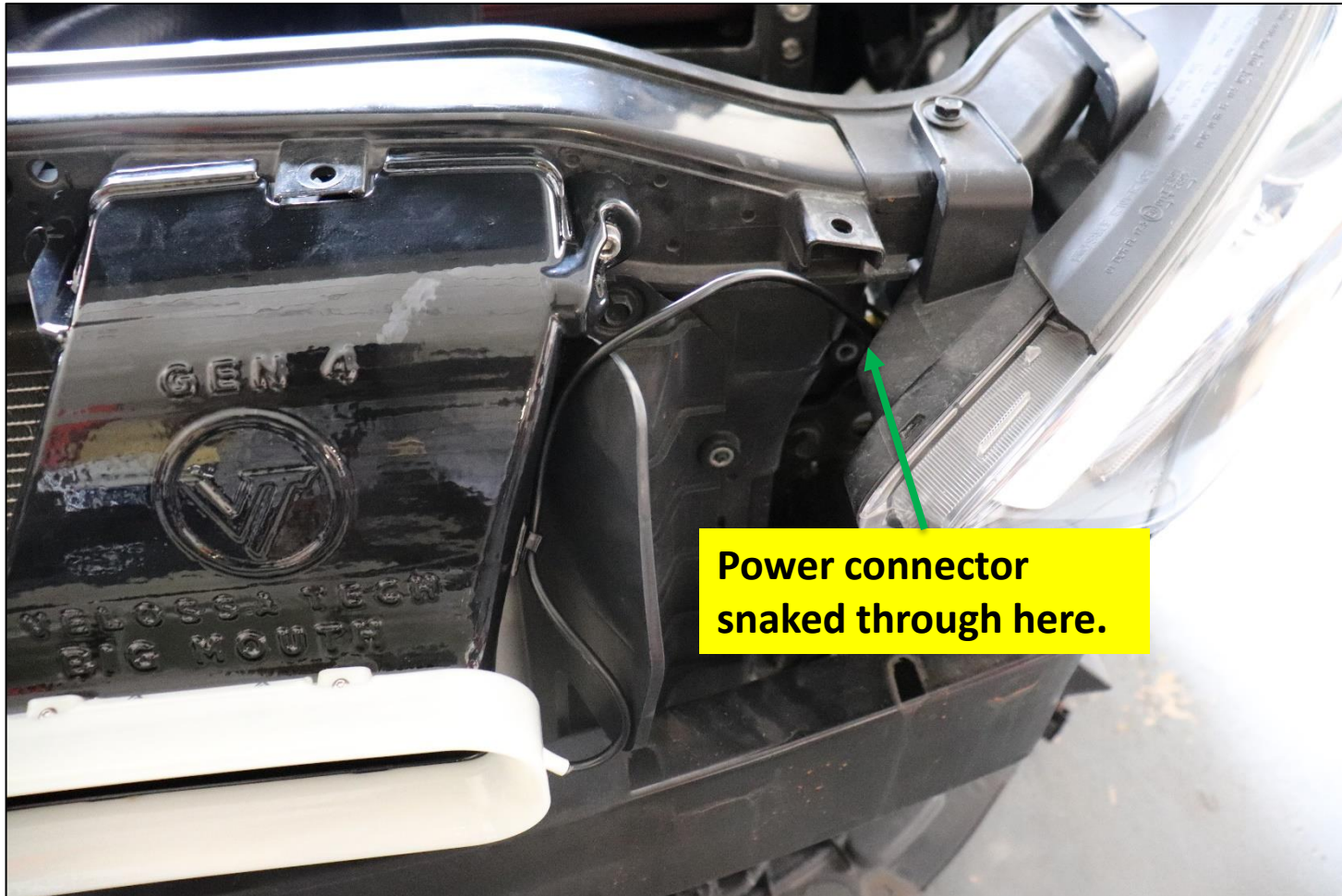
Wire Management

Ground the pigtail harness using the M6x12 bolt supplied in the kit.



Wire Management

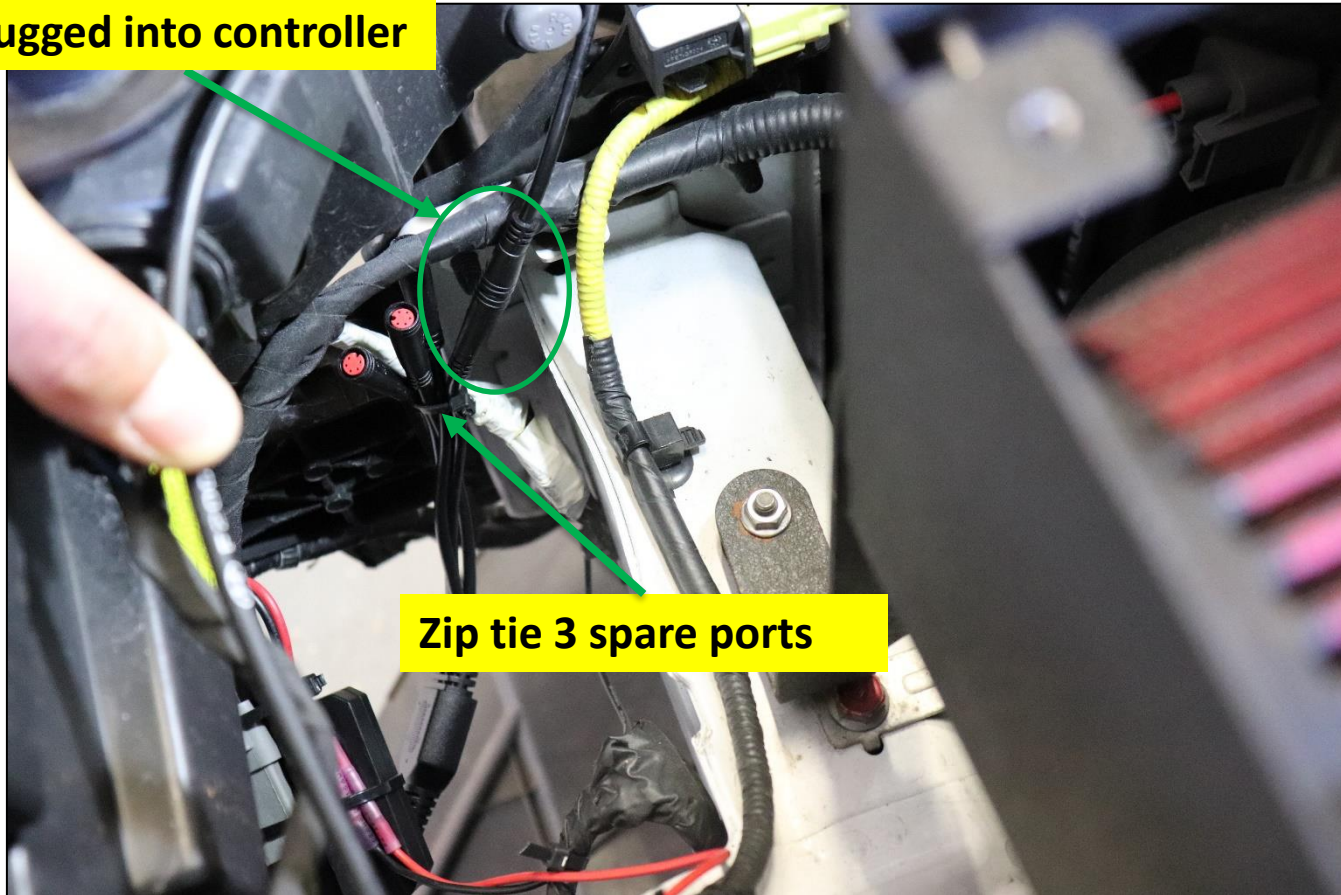
Snake the Diode Dynamics LED power wire from the BIG MOUTH as shown



Wire Management

Connect to the Diode Dynamics controller into one of the 4 ports. You may zip tie the other 3 ports as shown.

Plugged into controller



Zip tie 3 spare ports

Phone App

Download the Diode Dynamics app and connect via Bluetooth.
Re-install the bumper in the reverse order and installation is complete.

