



2021+ Kia K5 “LIT KIT” BIG MOUTH Ram Air Installation Guide

Kit Contents (Full Kit)

Please review this document before attempting installation.

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

Kit Contents	Qty
M5 x 22mm BHCP	2
M5 lock nut	2
Diode Dynamics RGBW Controller	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	8
Cable Clip	2
Assembled LIT KIT BIG MOUTH	1



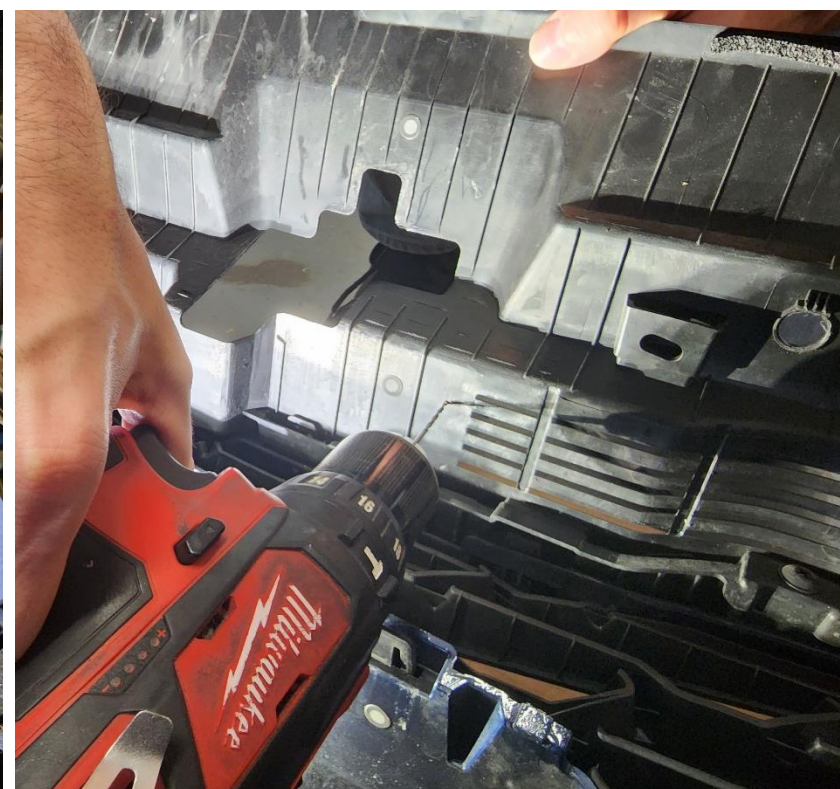
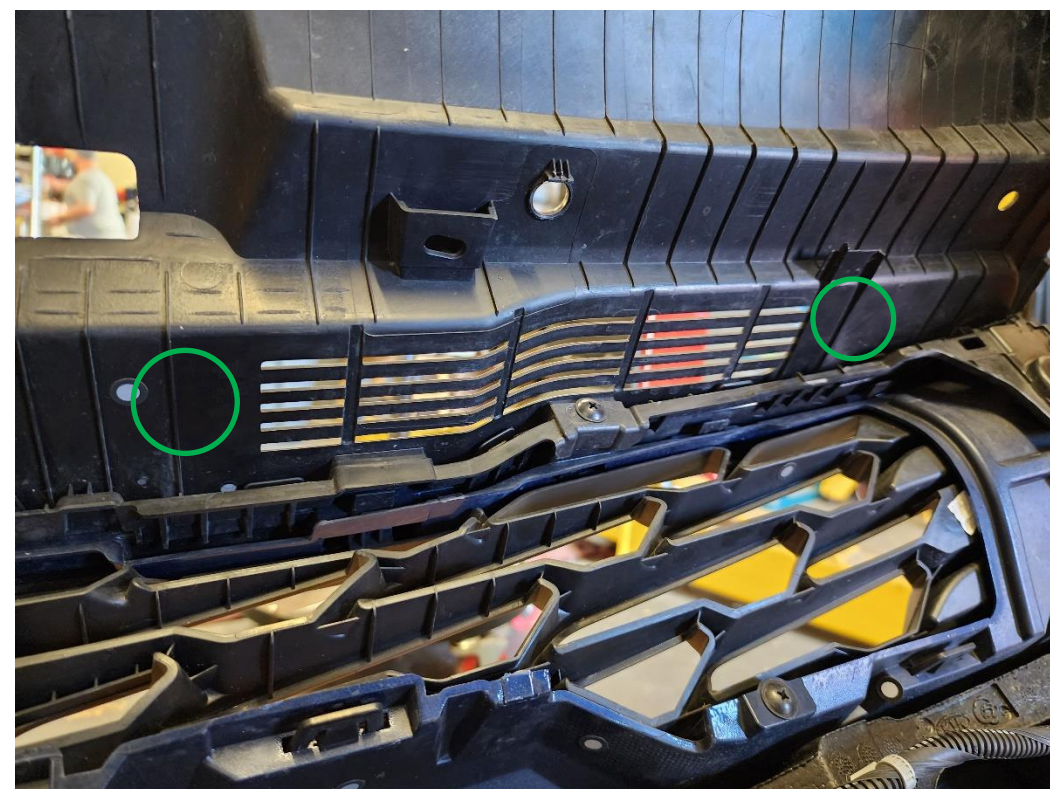


Stock Components Removal

It is best to google “how to remove bumper” for your particular trim.

Big Mouth Installation

The top shroud is integrated into the bumper and will come off as a single piece with the bumper. Drill two holes in this top shroud using a $\frac{1}{4}$ " drill bit, use the BIG MOUTH itself as a template to locate the holes. Using a sharpie and marking through the holes from underneath is a good way to do this.



Big Mouth Installation

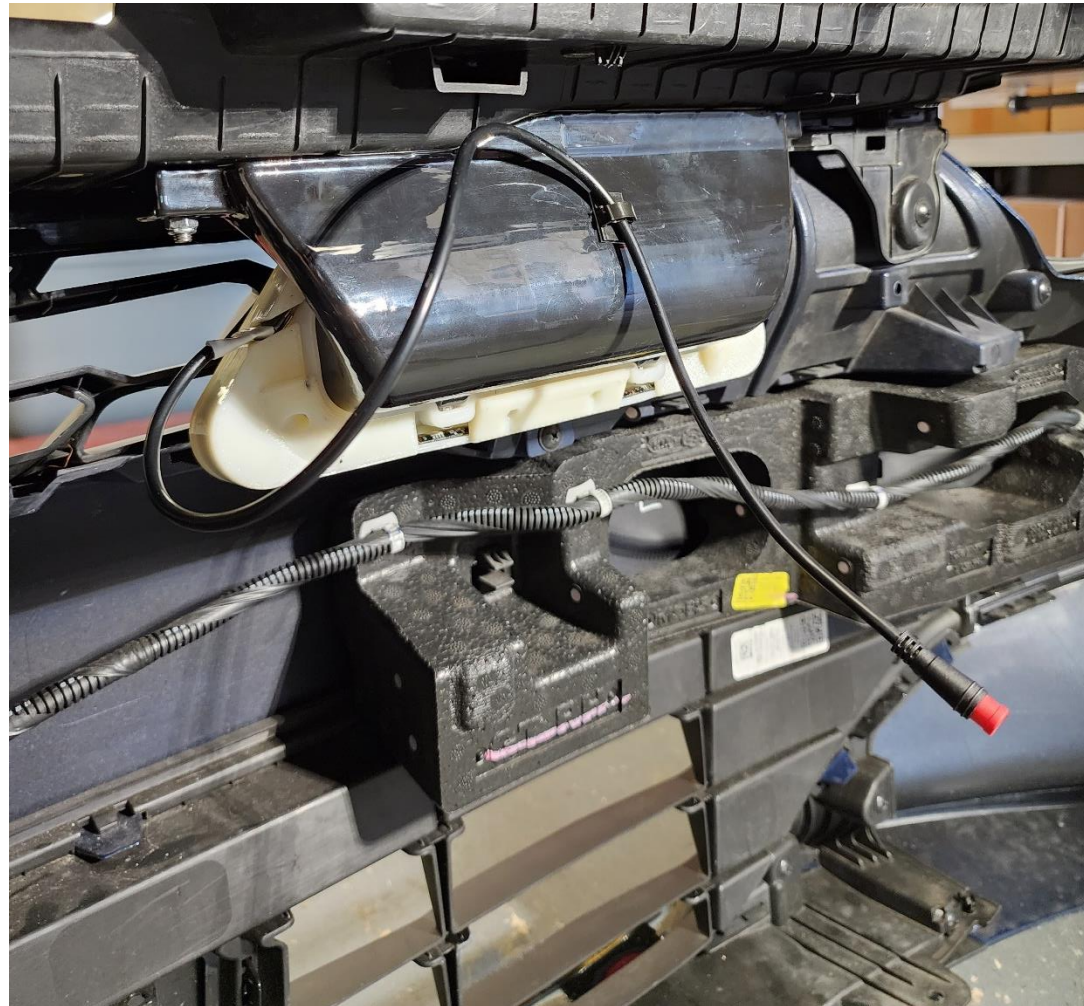
Fasten the BIG MOUTH in place using the supplied M5 hardware. Do not over-torque.



Big Mouth Installation

Make sure there is enough slack, and that no wires are being pulled or kinked sharply.

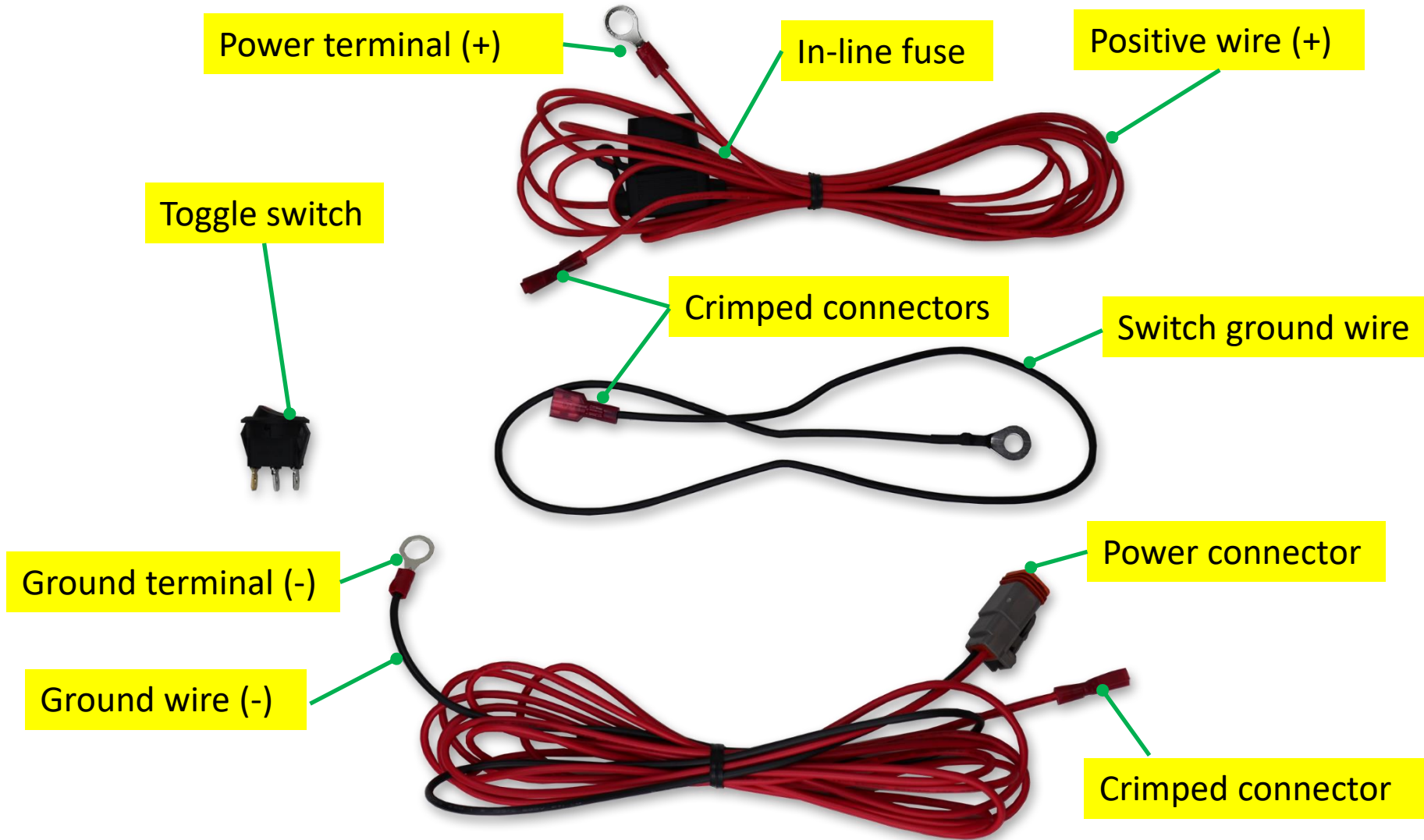
The LED power cable only gets plugged in at the very end when the bumper is ready to be mounted back on to the car. See next slides for wiring.





VELOSSA TECH

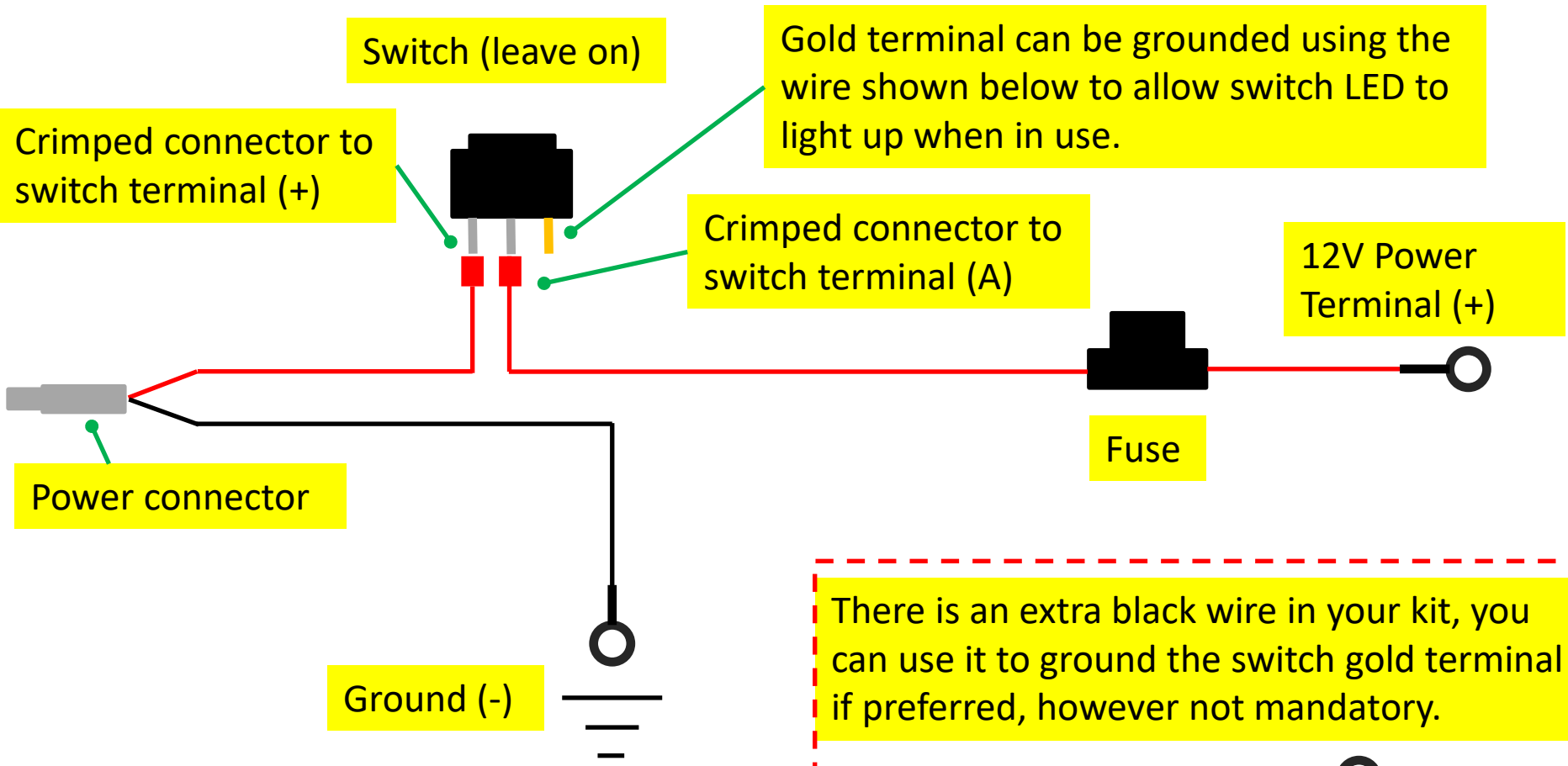
Wiring Harness





VELOSSA TECH

Wiring Harness Schematic



Switch (leave on)

Gold terminal can be grounded using the wire shown below to allow switch LED to light up when in use.

Crimped connector to switch terminal (+)

Crimped connector to switch terminal (A)

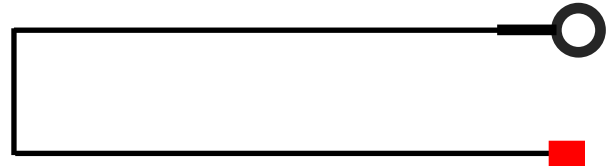
12V Power Terminal (+)

Fuse

Power connector

Ground (-)

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



LIT KIT Wiring

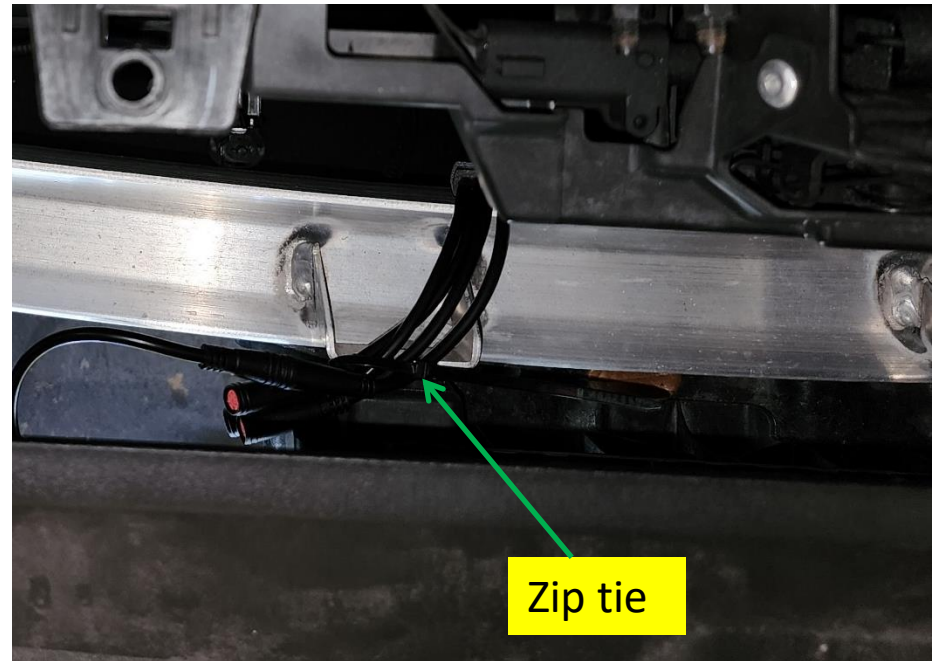
Use the double sided tape supplied with the Diode Dynamics controller to stick the controller to a flat spot, clean this spot before installation!!



Behind the crash bar is a good spot, but you may use another location if you prefer.

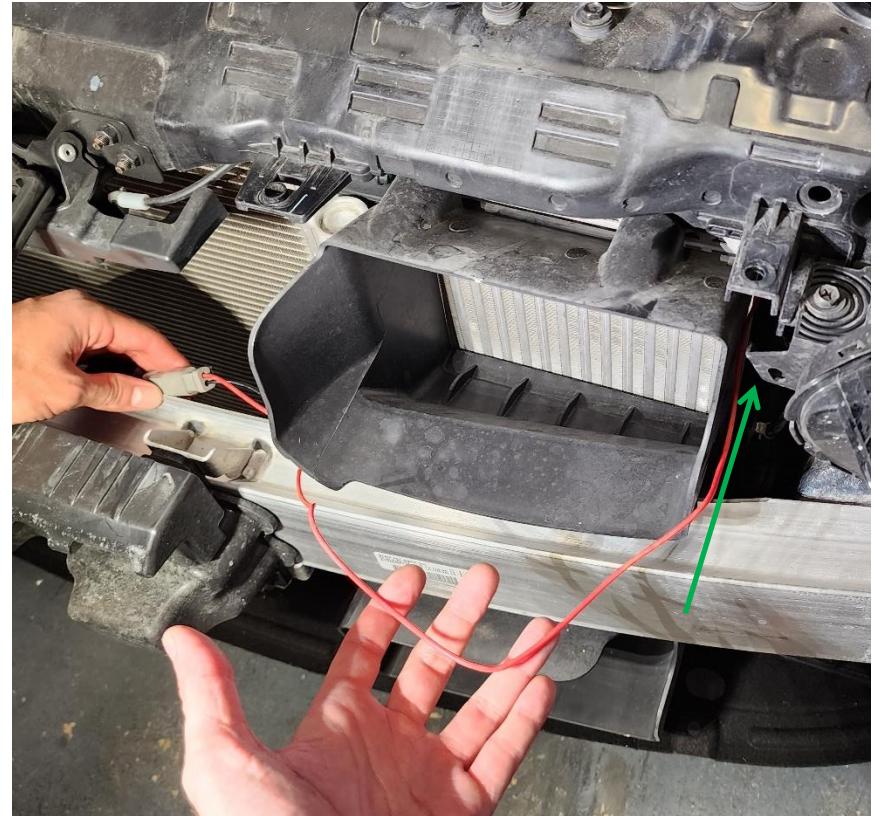
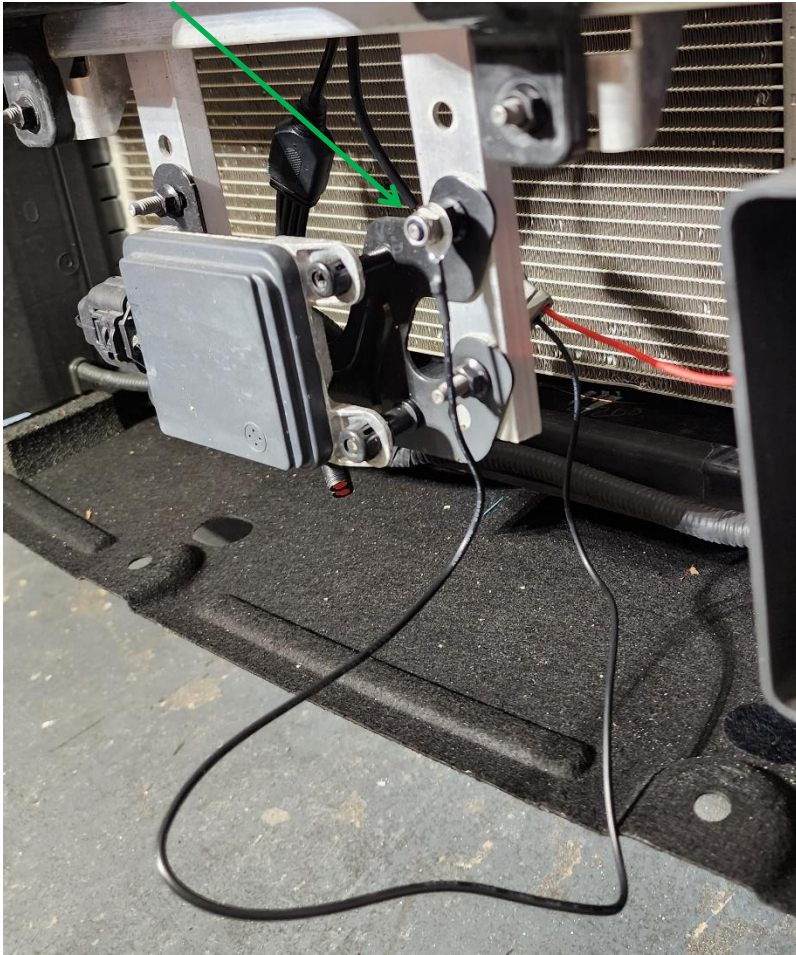
LIT KIT Wiring

Plug in the grey power connector to the controller, bundle up 3 of the 4 LED connector wires and zip tie these wires to a sturdy surface. You will only be using 1 of the 4 LED cables, the other 3 are optional power sources for more Diode Dynamics LEDs.



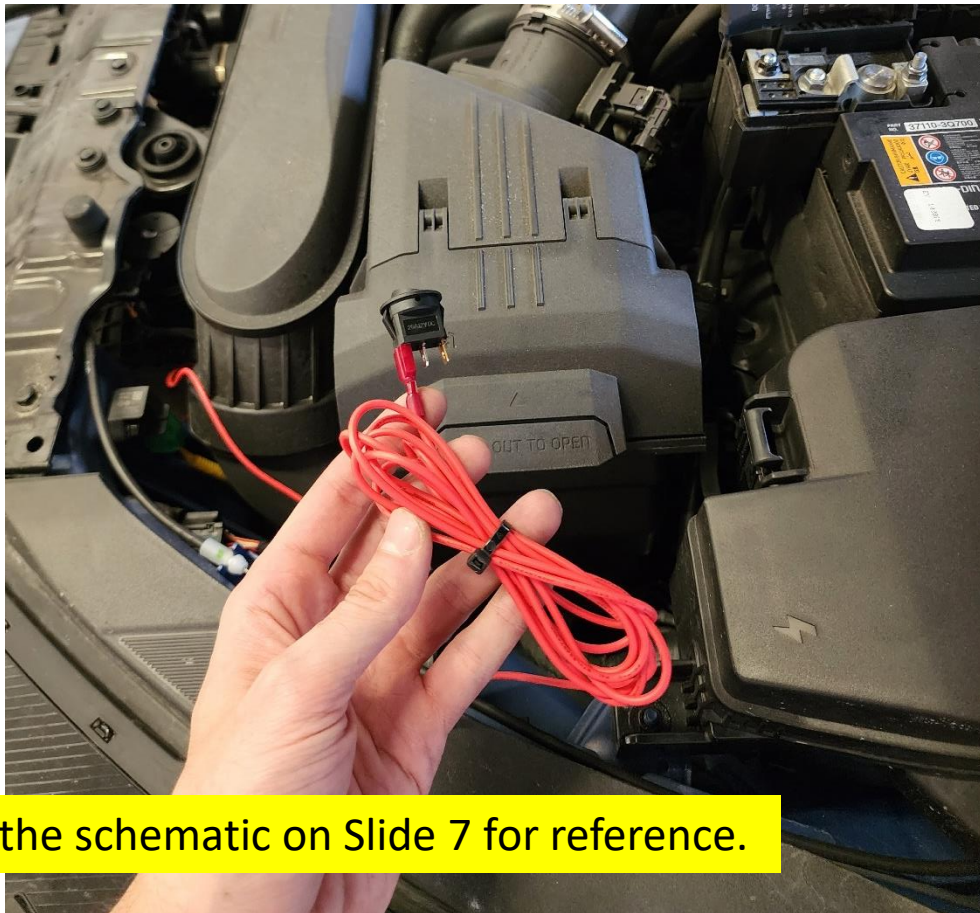
LIT KIT Wiring

With the main grey power connector plugged in, route the red power wire as shown through the side of the intercooler. Ground the controller using one of these chassis screws. Tuck away the wires in a clean fashion, use zip ties if necessary.



LIT KIT Wiring

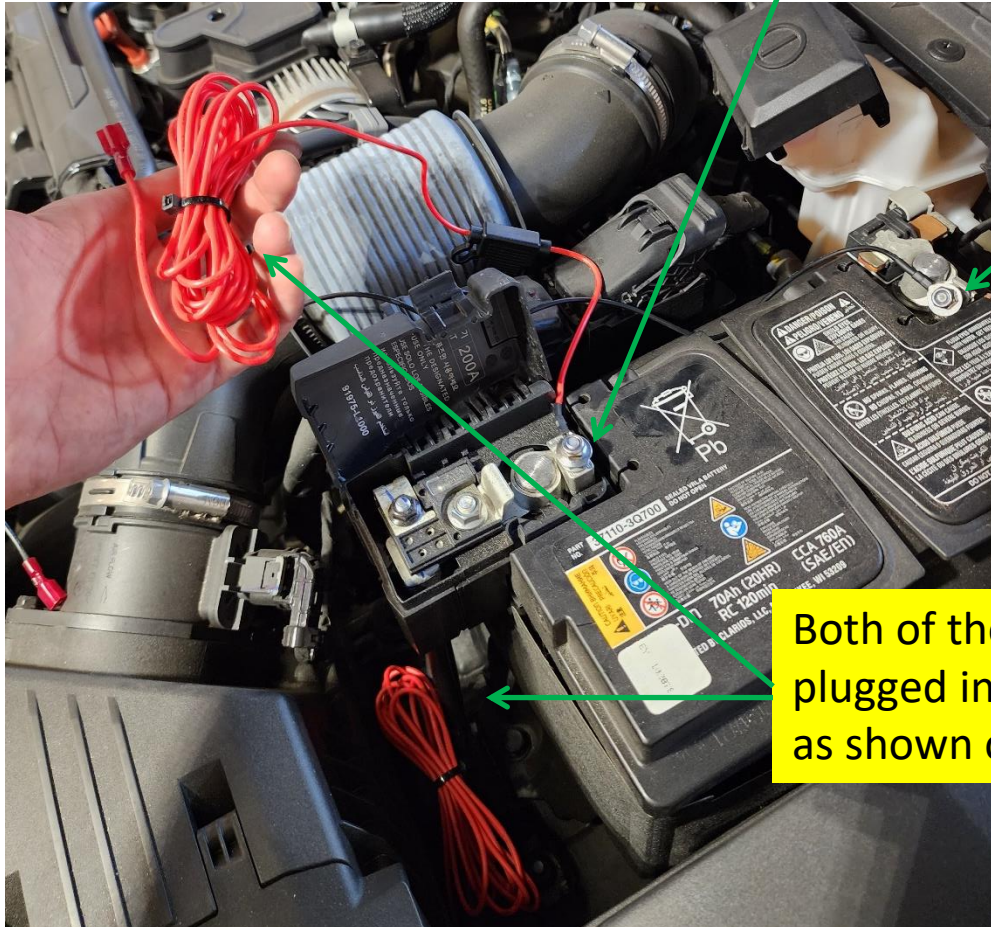
Once the main power wire is in the engine bay, bundle it up as there will be excess. Zip tie the bundle and plug the power wire into the main power switch, this switch is only to be used for when the car will be sitting for an extended period of time, or when a reset is needed.



Use the schematic on Slide 7 for reference.

LIT KIT Wiring

The other red wire gets bundled up, and plugged into the switch, refer to slide 7. Power this wire as shown, use the battery (+) terminal.



The short black wire can be grounded here, it gets plugged into the gold blade on the switch.

Both of these bundles get plugged into the main switch, as shown on slide 7.

Phone App

Download the Diode Dynamics app and connect via Bluetooth.

How to connect to the app:

1. After installing the app from the app store, open the app on your device.
2. Cycle the power to the Bluetooth controller by unplugging it and plugging it back in or flick the power switch and wait a few seconds, then turn it back on.
3. Wait for the app to detect the controller, it will pop up on the app screen as a Bluetooth controller. If necessary, cycle the power once more to refresh the controller.
4. Once the controller shows up on the app, click it and connect. You have 30 seconds to select the controller once it shows up on the app. After 30 second you will need to refresh again to detect the controller again.
5. Note that if you mounted your controller behind a lot of metal components, this may degrade the signal and range.





Finalize

Play around with the app and be sure to share pictures with us for a chance to be featured!

