



**2014-2021 BMW 235i/M240i &
BMW 340i BIG MOUTH “LIT KIT”
Ram Air Intake 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
M4 x 16mm Cap Screw	4
M4 x 30mm Cap Screw	4
Clamshell	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	5
Cable Clips	4
Assembled LIT KIT BIG MOUTH	1





Kit Contents (LIT Flare Only)

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

Kit Contents	Qty
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 Clips	2
M6 Lock Nut	2
Assembled LIT Flare	1

If you already own the Velossa Tech GEN 4 BMW 235i/M240i/340i Big Mouth, skip to slide 7 to see install and wiring instructions.



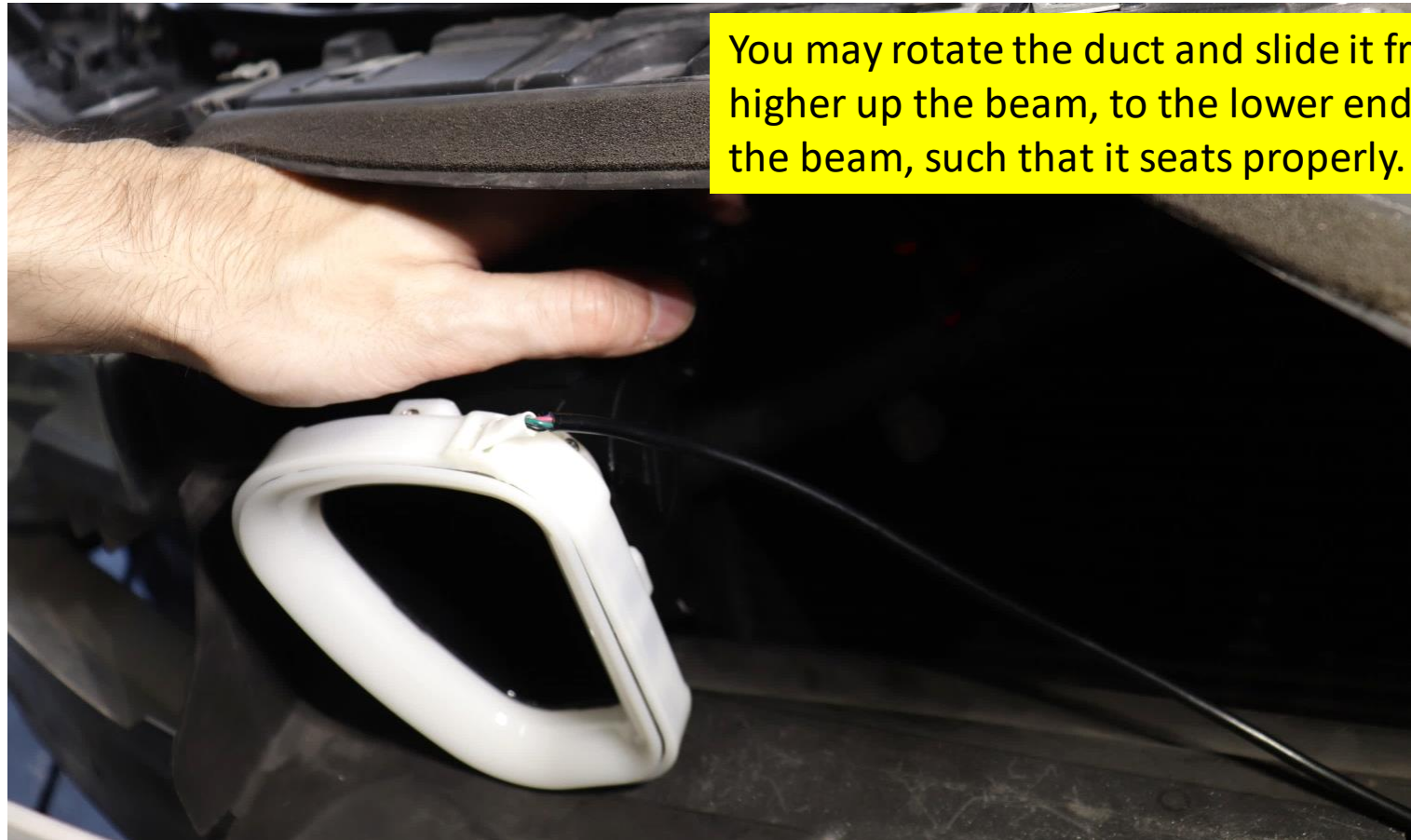
Stock Components Removal

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



Big Mouth Installation

Begin by recognizing which side each ram air duct belongs to: there is a mark on each duct that will either indicate “D” for driver or “P” for passenger. Take the passenger side duct and place it onto the corresponding diagonal brace. Make sure the square end of the duct clears the OEM intake grille. Repeat for the driver side (if applicable).

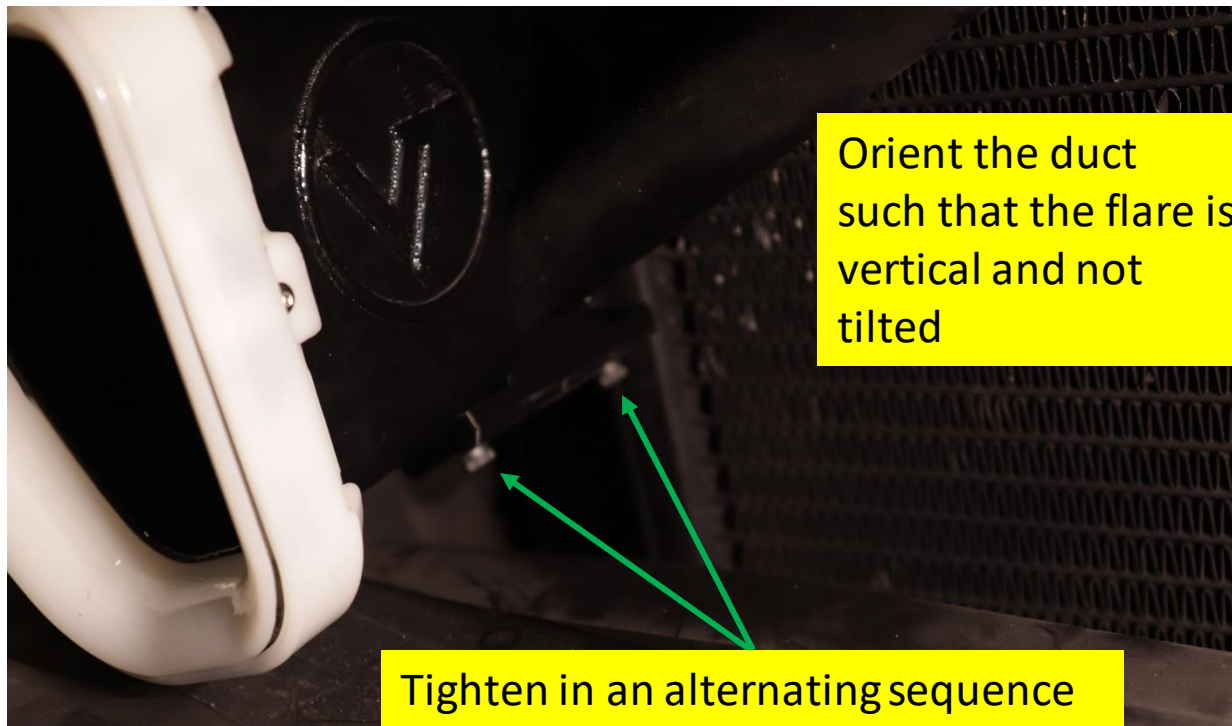


You may rotate the duct and slide it from higher up the beam, to the lower end of the beam, such that it seats properly.



Big Mouth Installation

Once positioned, use the supplied hardware and clamshells to fasten the duct to the crossbeam. The clamshells are symmetrical (front and back) and compatible with both ducts. Position the clamshells with the curved face on the brace. Use the M4 x 16mm cap screws if you own a 340i; use the M4 x 30mm cap screws if you own an M240i/235i. Tighten the screws in an alternating sequence to prevent the clamshell from binding. Ensure the duct is properly oriented (flare should be vertical) before fully tightening the screws. Repeat for the driver side duct (if applicable).

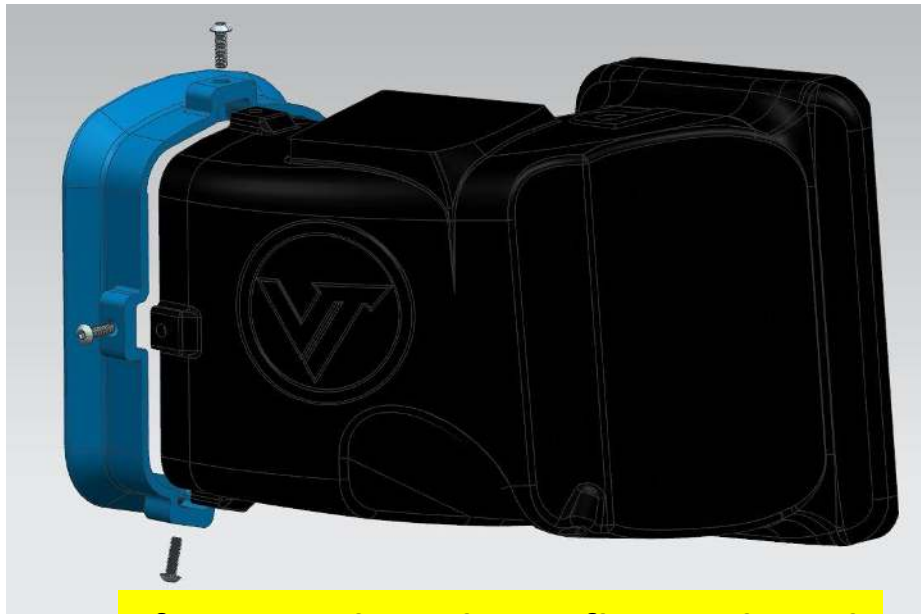




Install the LIT BIG MOUTH Flare

SKIP THIS SLIDE IF YOU PURCHASED A FULL LIT KIT

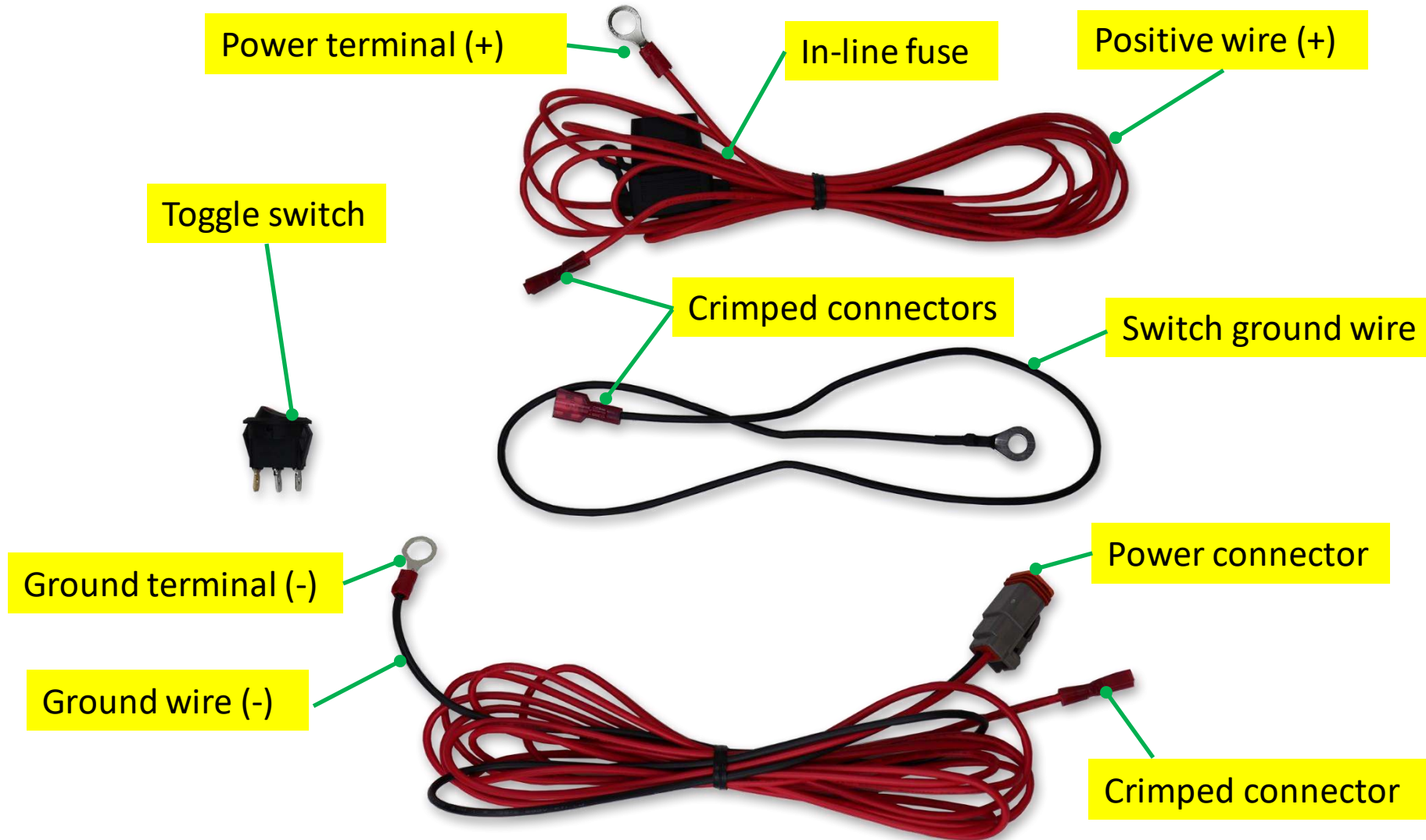
Loosen the 4 screws that attach your original flare, remove the flare and attach your new LIT flare. The flare should fit snug and should have no play once screws have been tightened.



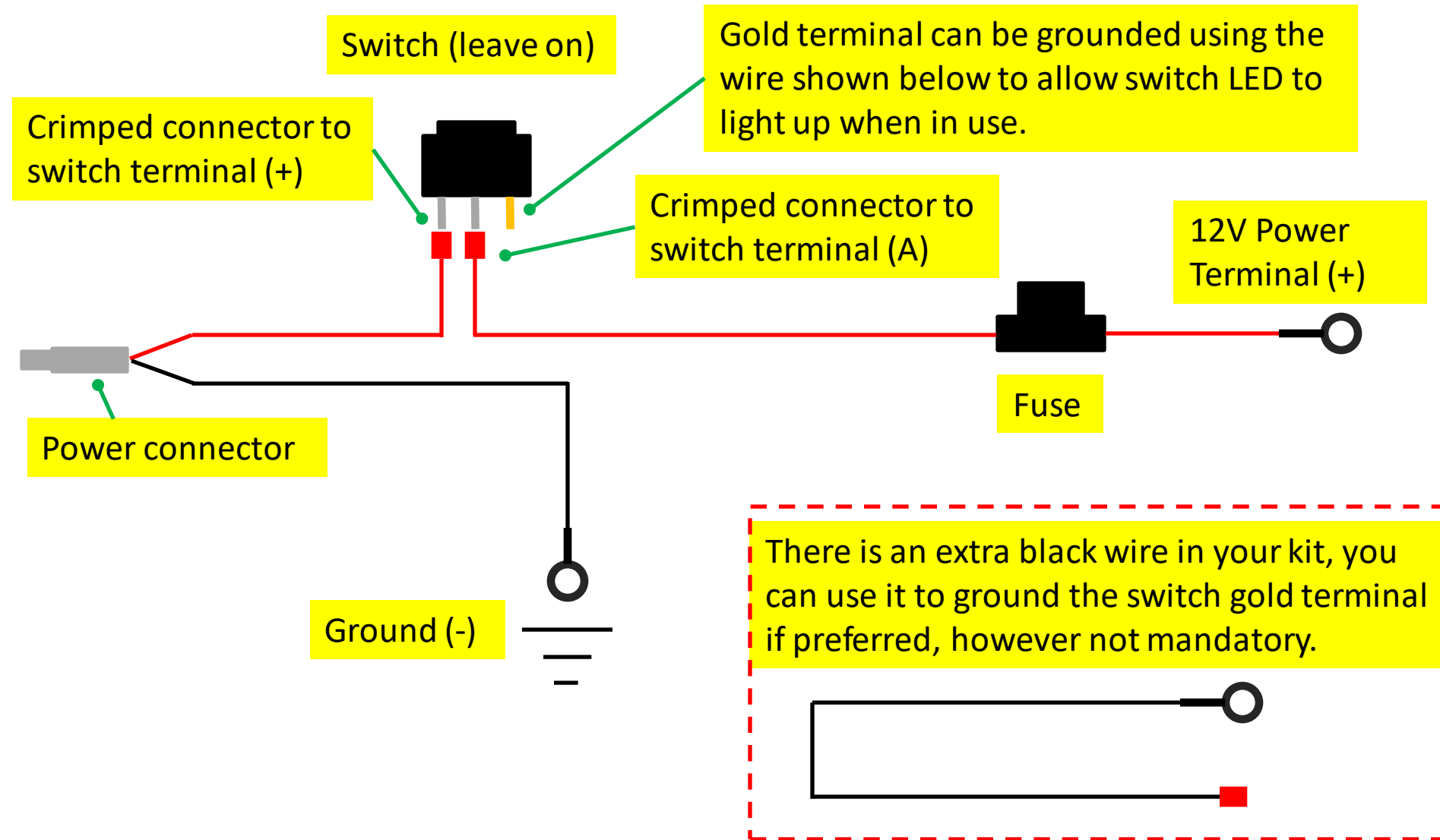
If you purchased a LIT flare-only and already have a Gen 4 BIG MOUTH. Remove old flare and install the LIT flare with the screws as shown.



Wiring Harness



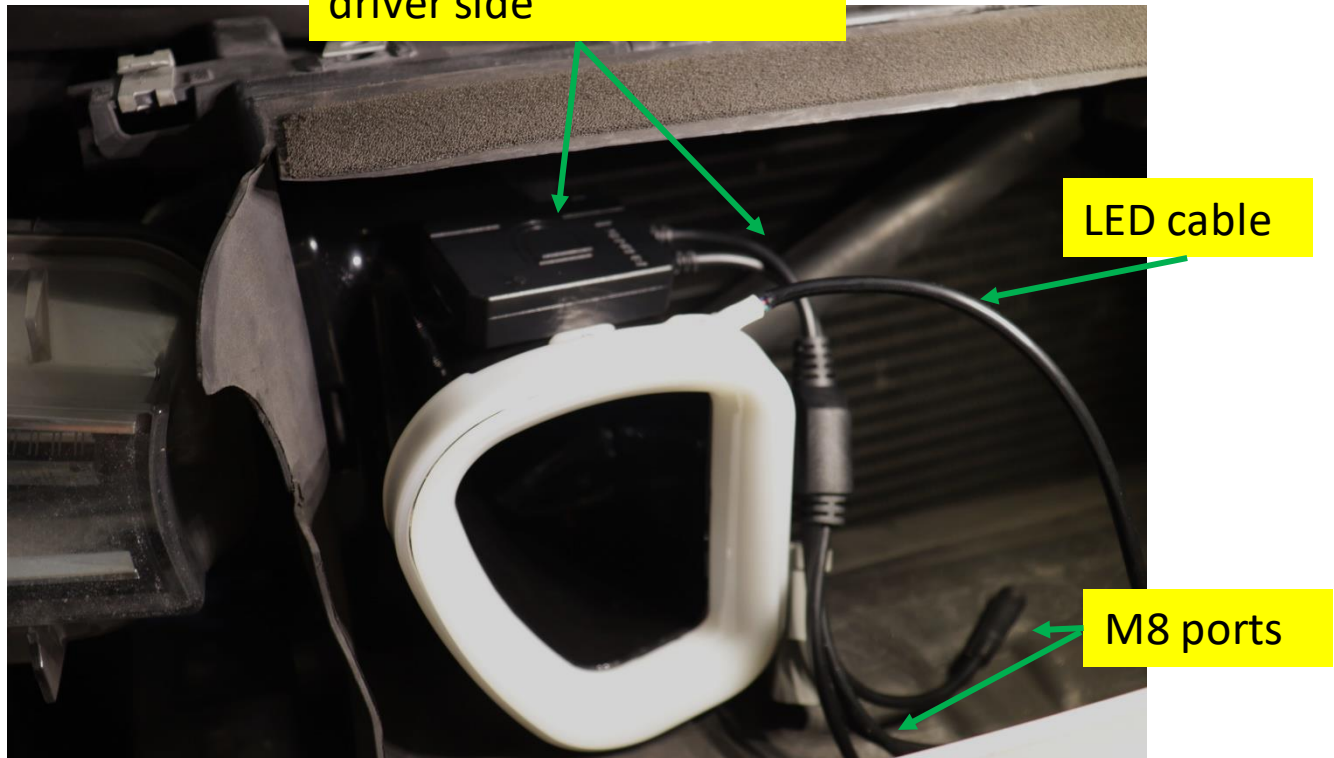
Wiring Harness Schematic



Controller Placement

Once the ducts have been installed and are properly oriented, clean the top of the passenger side duct and use the double-sided adhesive to adhere the controller to the flat patch on the passenger side duct. Take note of the orientation of the controller: the controller cables are directed toward the driver side (same as LED cable on flare).

Adhere here. Ensure that the cables are facing the driver side



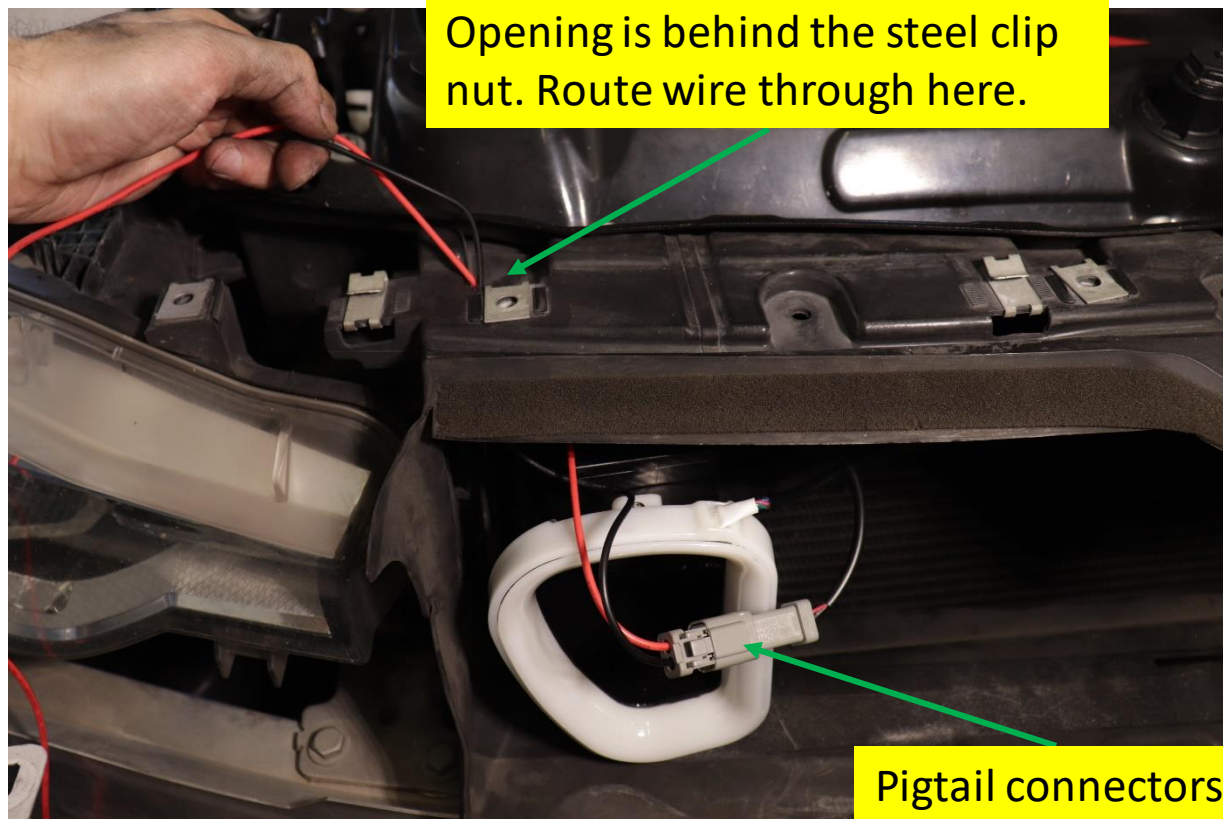
LED cable

M8 ports



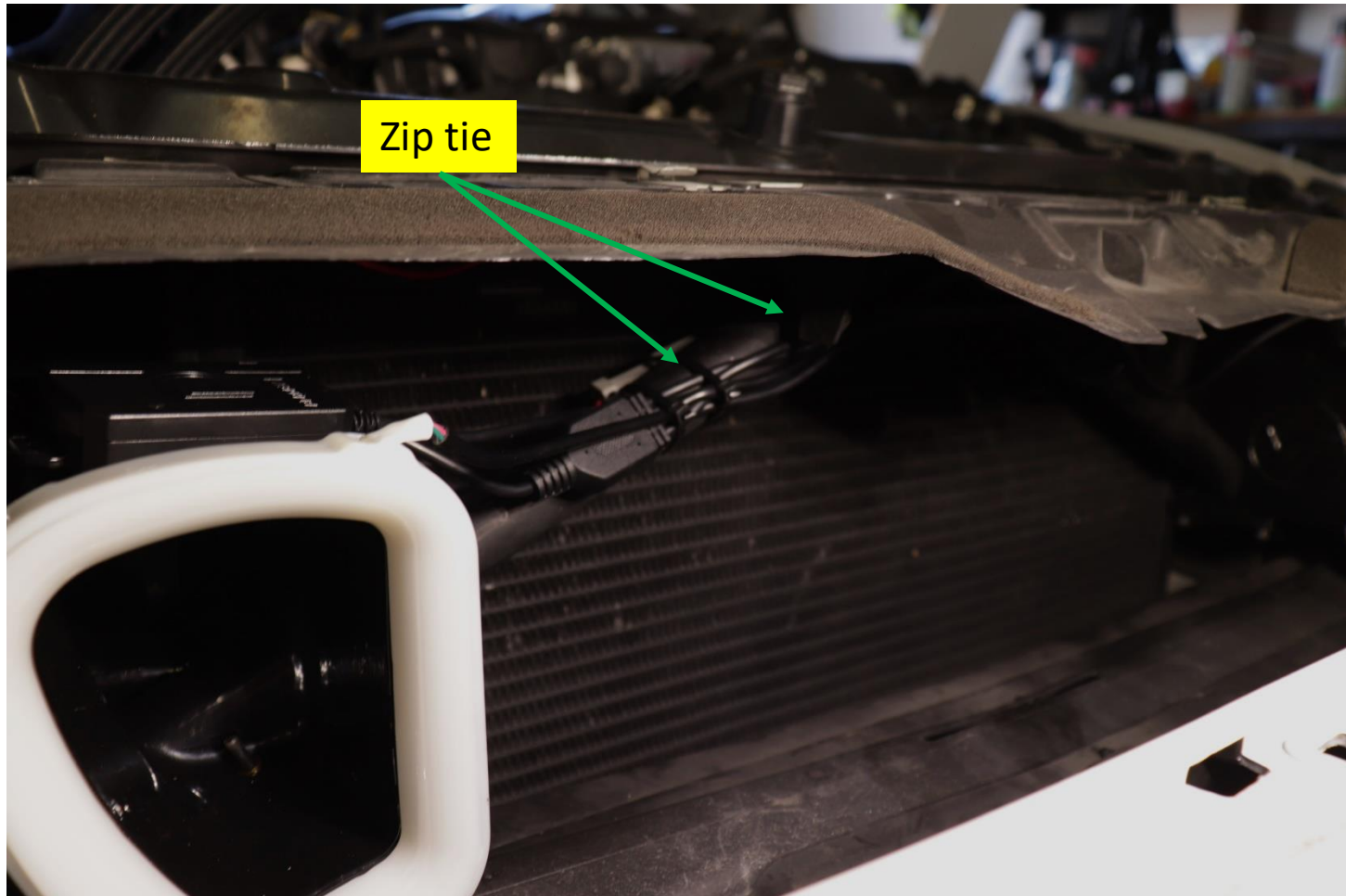
Big Mouth Wiring

Connect the LED cable(s) to any of the 4 controller M8 ports (does not matter which one). **Make sure to line up the arrows on the connectors!** The other ports can accept any Diode Dynamics lighting strip for underglow or underhood lighting (sold separately). Connect the pigtail connectors and route the power wire and switch ground wire through the indicated opening on the shroud.



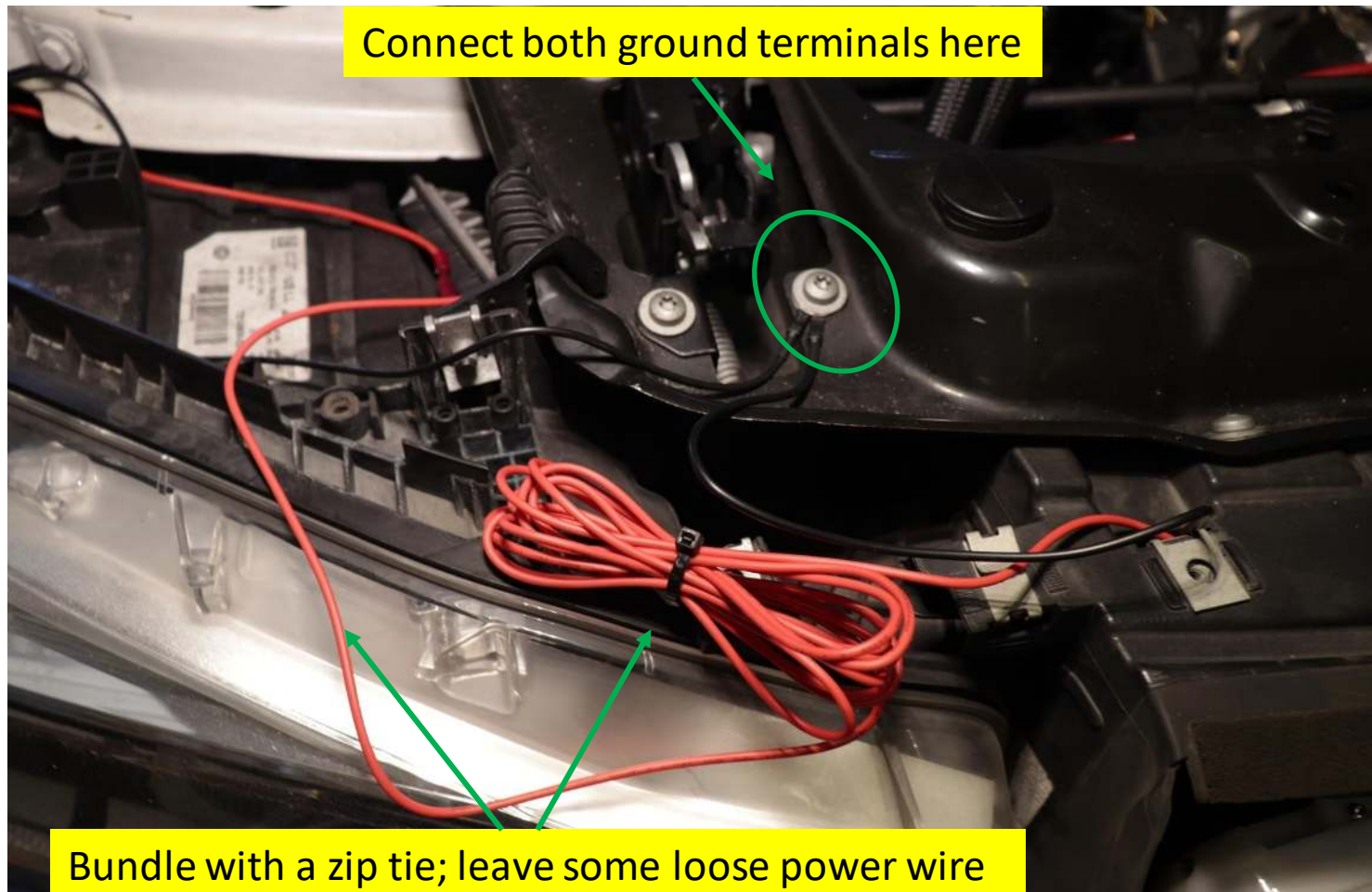
Big Mouth Wiring

Use supplied zip ties to manage the wires and fasten them to the brace such that no wires are left hanging and no wire is being strained.



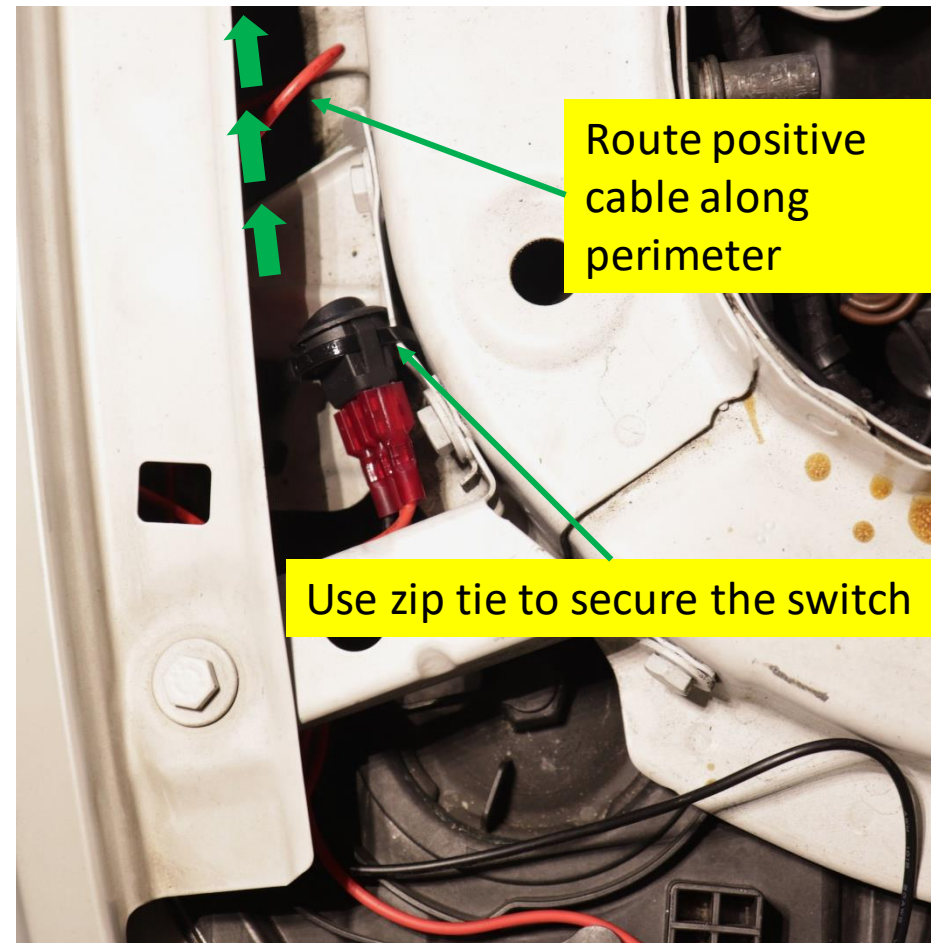
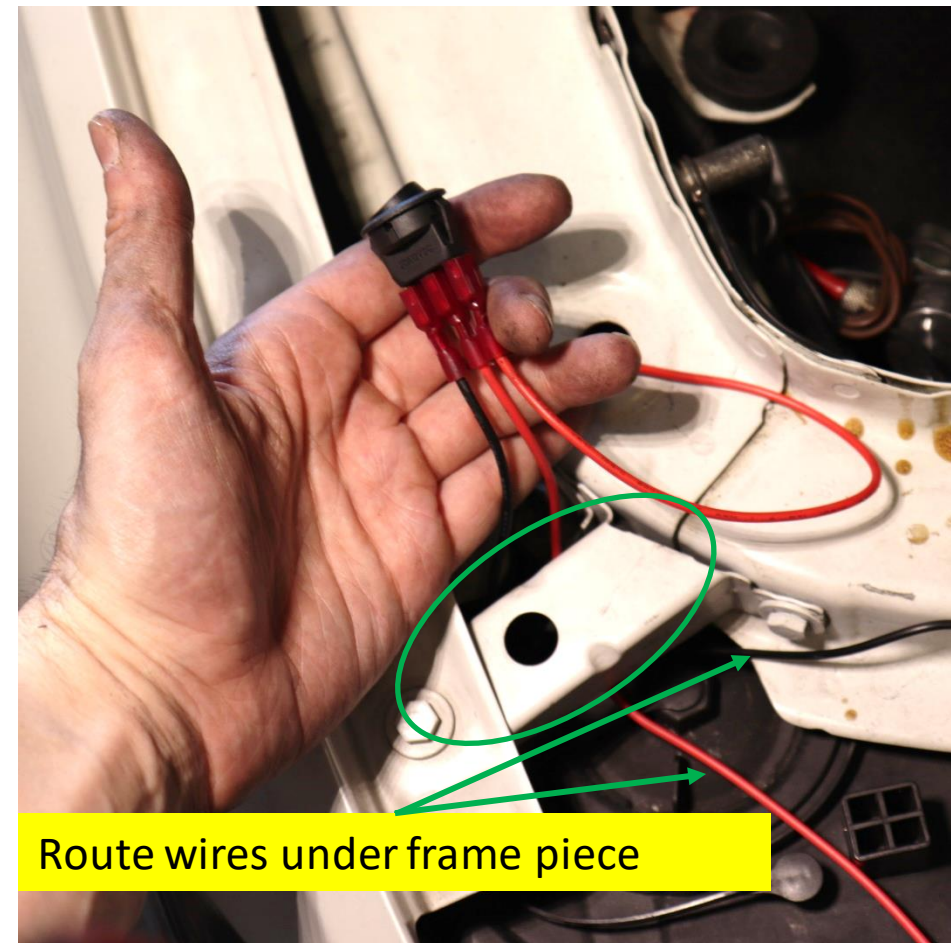
Big Mouth Wiring

Connect both ground terminals to the indicated location by undoing the screw and reinstalling with the ground ring terminals. Bundle the power wires as such. Leave ~20" of red power wire loose for the next step.



Big Mouth Wiring

Connect the switch in accordance with the wiring harness schematic (**slide 9**) and use a zip tie to fasten it to the shown location. Take the positive wire with the in-line fuse and route it up along the perimeter.





Big Mouth Wiring

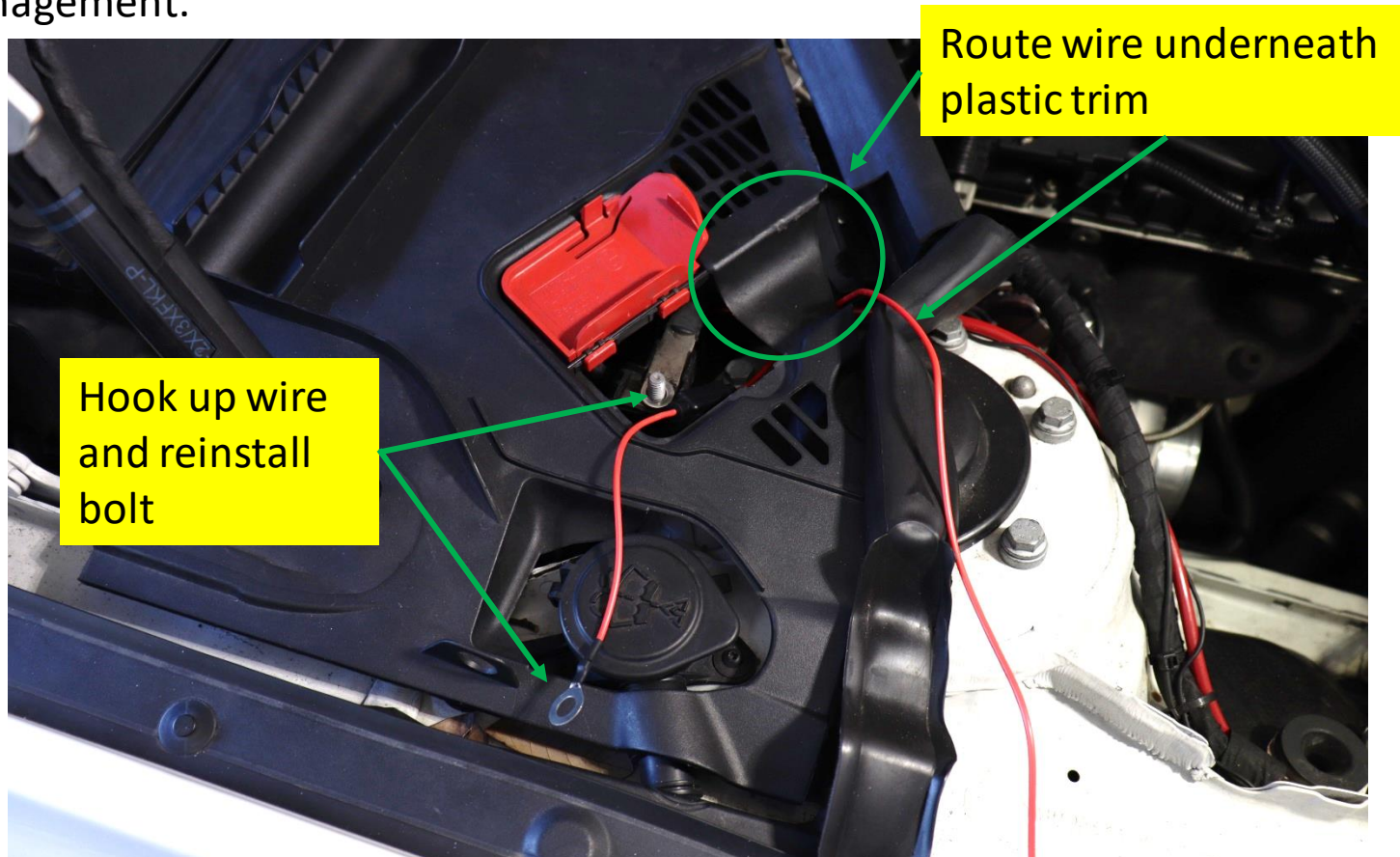
Open the positive terminal cover and carefully remove the oversized bolt located at the positive terminal.



Big Mouth Wiring

Route the wire under the plastic trim. Carefully connect the positive wire to the positive terminal and reinstall the oversized bolt. Close the positive terminal cover. Turn the switch on to power the Lit Kit.

Use the remaining zip ties to secure any loose wire and clean up the cable management.



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.



Final Assembly Review

Review the install and make sure nothing is binding or causing any preload on any parts, loosen and retighten if adjustment is necessary.



Re-assemble the bumper the same way it was removed to complete installation.