



**2019-2021 Genesis G70 3.3T/2.0T
BIG MOUTH Ram Air Intake
Installation Guide**

VELOSSA TECH

Kit Contents (Full Kit)

Please review this document before attempting installation.

You will need basic hand tools and 1-1.5 hours of installation time.

This product reuses the OEM hardware.

| KIT CONTENTS | Qty |
|--|-----|
| AGS Simulator Bracket Assembly | 1 |
| #6, 1/2" screws | 4 |
| 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 | 3 |
| 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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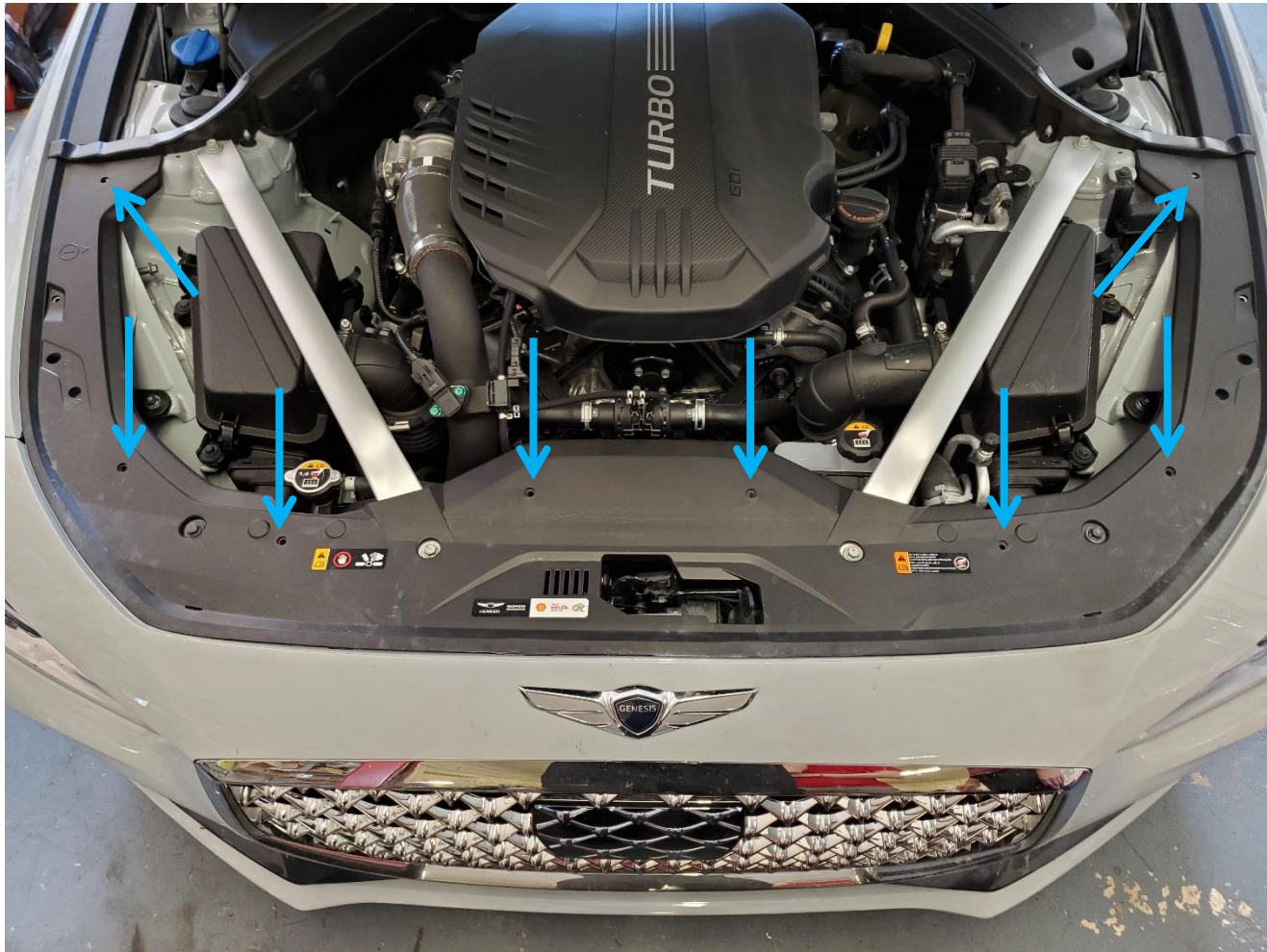
If you already own the GEN 4 Genesis G70 BIG MOUTH's, skip ahead to slide 29 for wiring instructions



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Shroud Removal

Remove the shroud by pushing down on the center pin of the pop-up clips and extracting them with a pry tool.

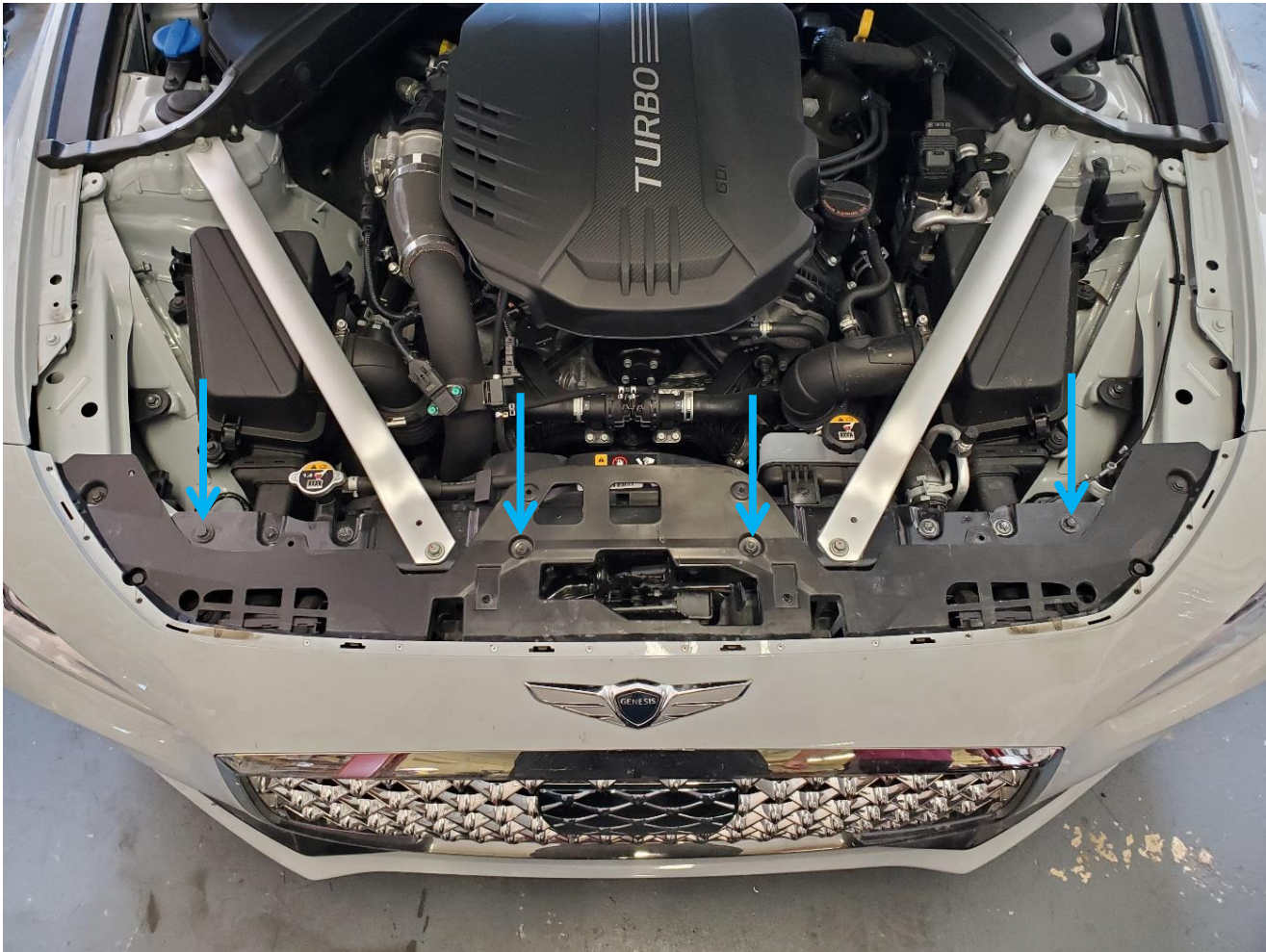




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Bumper Removal

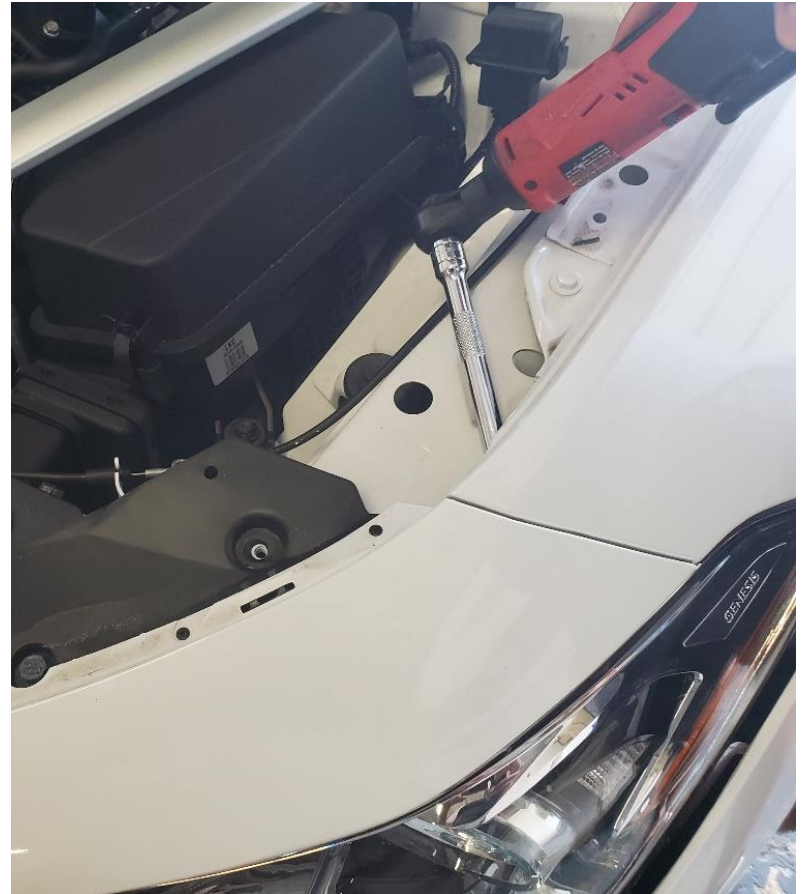
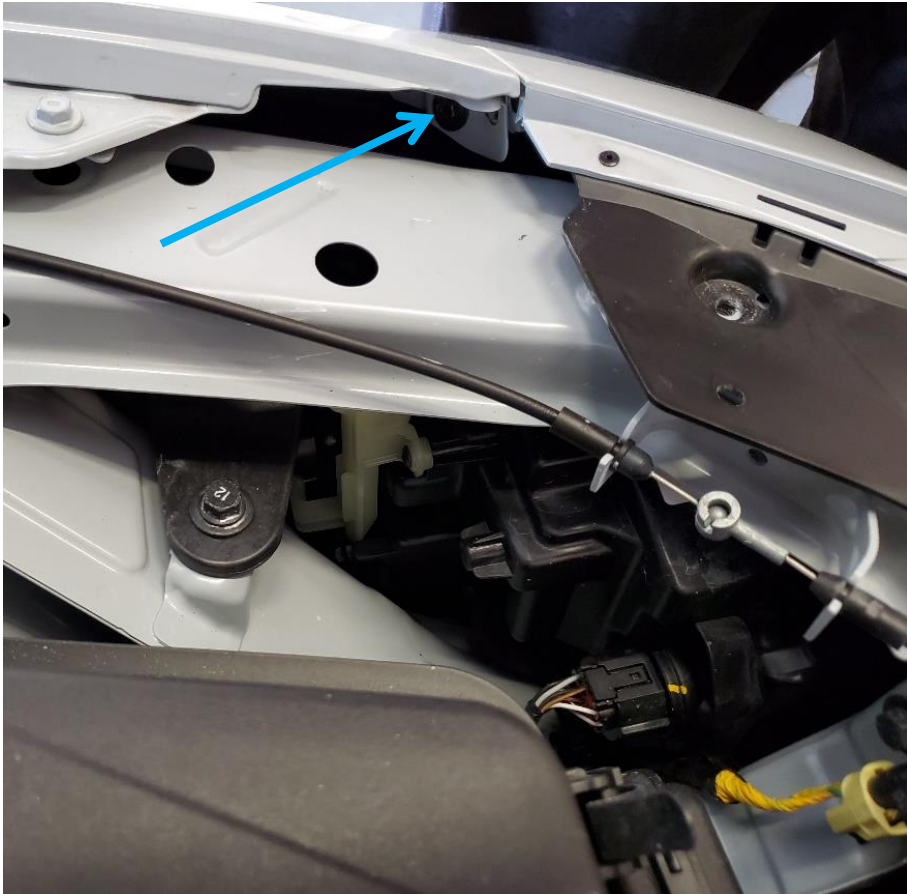
After removing the shroud, remove the top 4 screws (10mm) that attach the bumper to the chassis



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Bumper Removal

Remove the hidden screw (8mm) lying within the cavity identified below.



Bumper Removal

Remove all the indicated pop-up clips and screw from the wheel well and bottom edge of the bumper



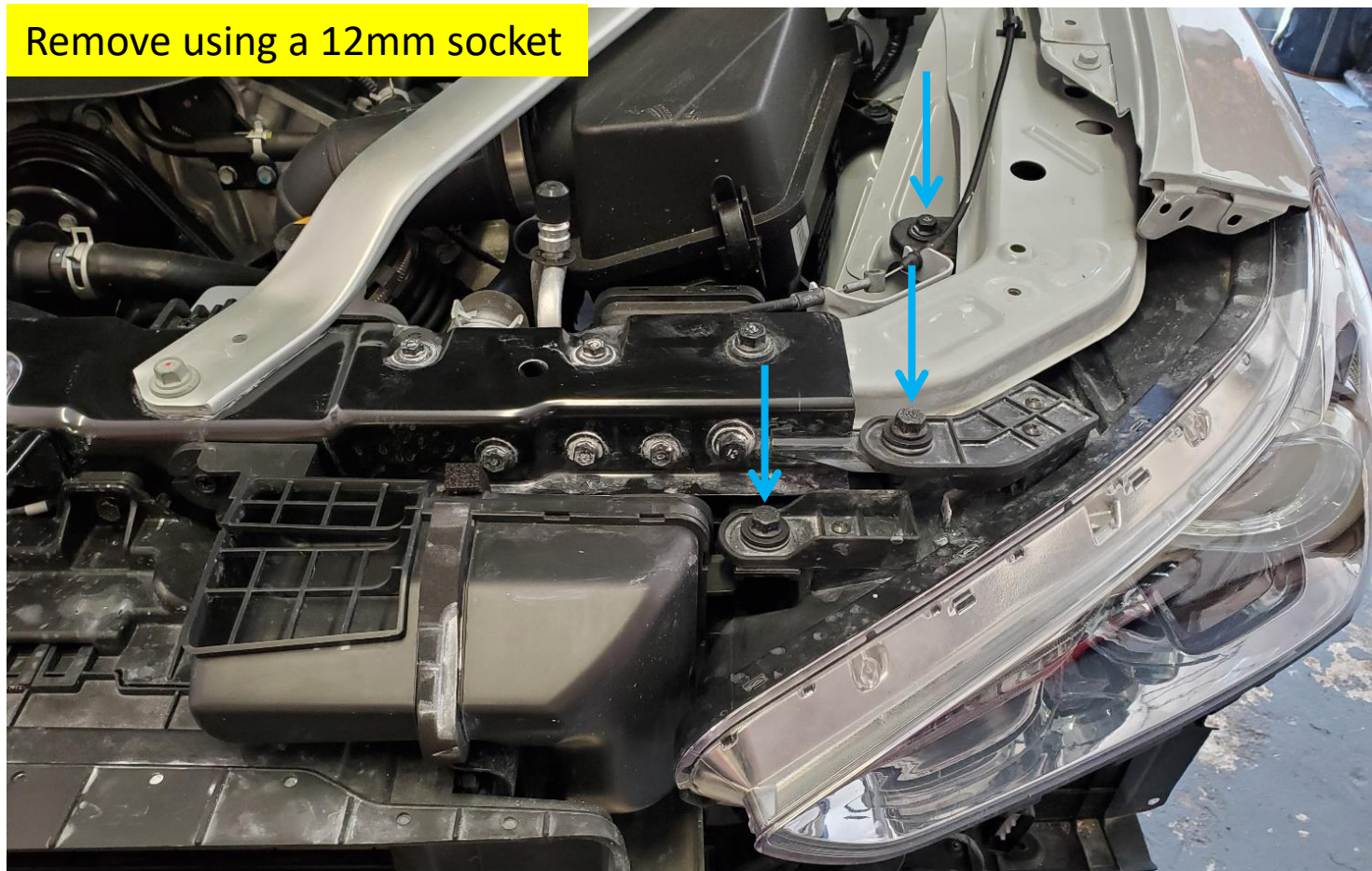
Bumper Removal

As the bumper gets pulled off, take notice of the indicated wiring harness connector. To remove, pull back on the lever shown below. Once it swivels about entirely, pull to disconnect.



Headlight Removal

The bolts holding both headlights must be removed for this install but **do not fully remove the headlight from its socket.**

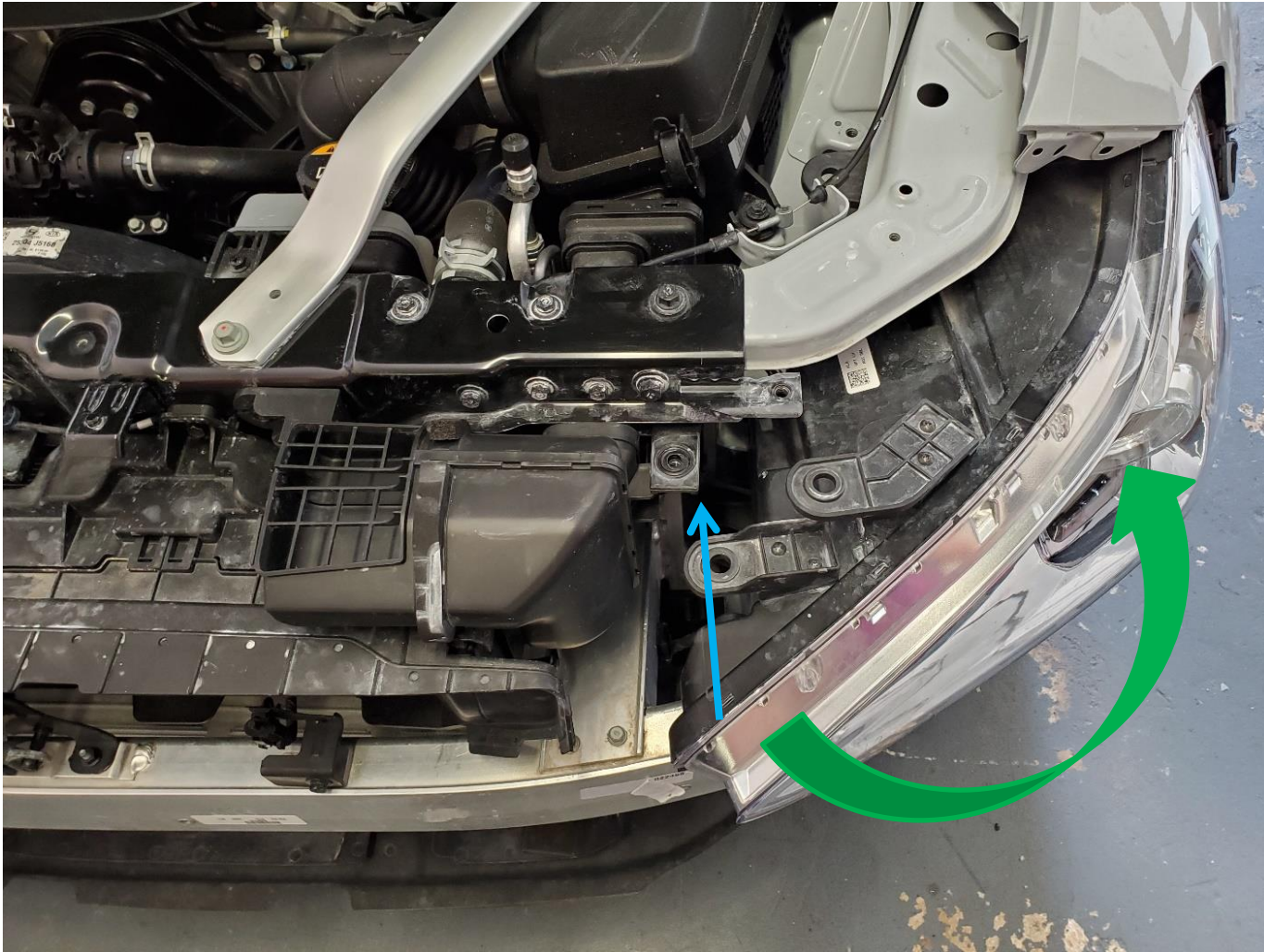




VELOSSA TECH

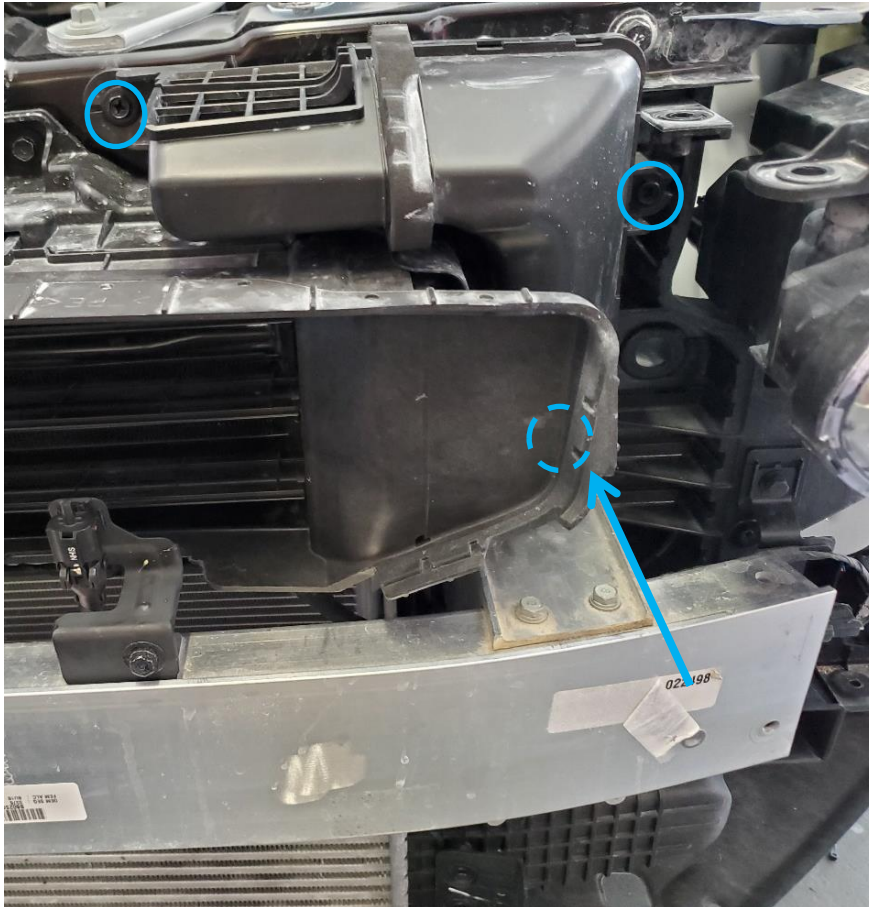
Moving Headlight

Swivel the headlights just enough to access the bolt hidden behind it



Stock Snorkel Removal

To remove the OEM inlets, there are 3 (10mm) screws that need to be removed. You will need a 6" extension to reach the recessed screw indicated with the blue arrow. Hold on to these, some of them will be reused.





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AGS Shroud Removal

Disconnect the indicated connector.



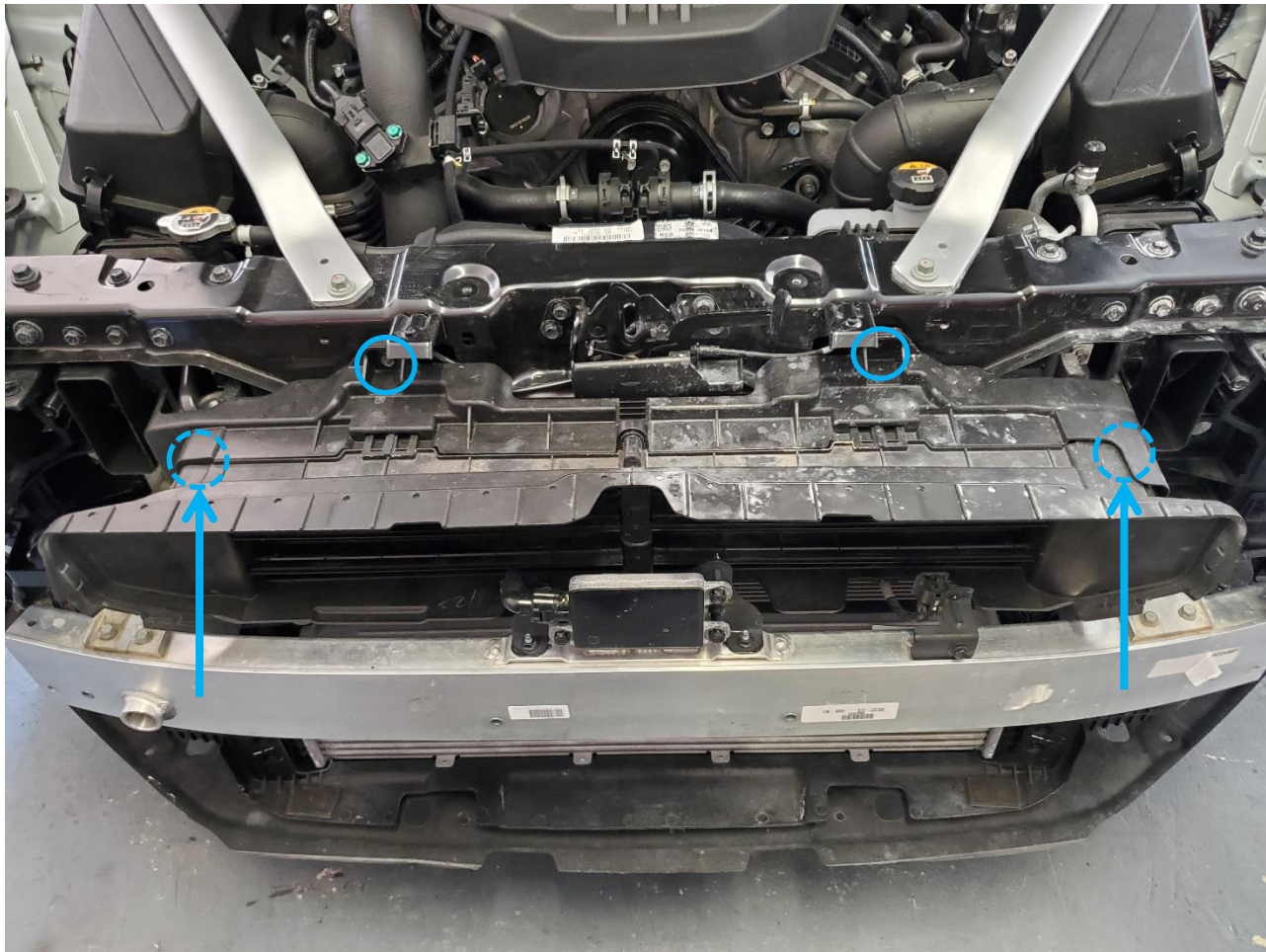
AGS Shroud Removal

Disconnect the connector that is positioned in the highlighted area and remove the bolt (10mm) to detach the metal mount. Put it aside, it will be installed again.



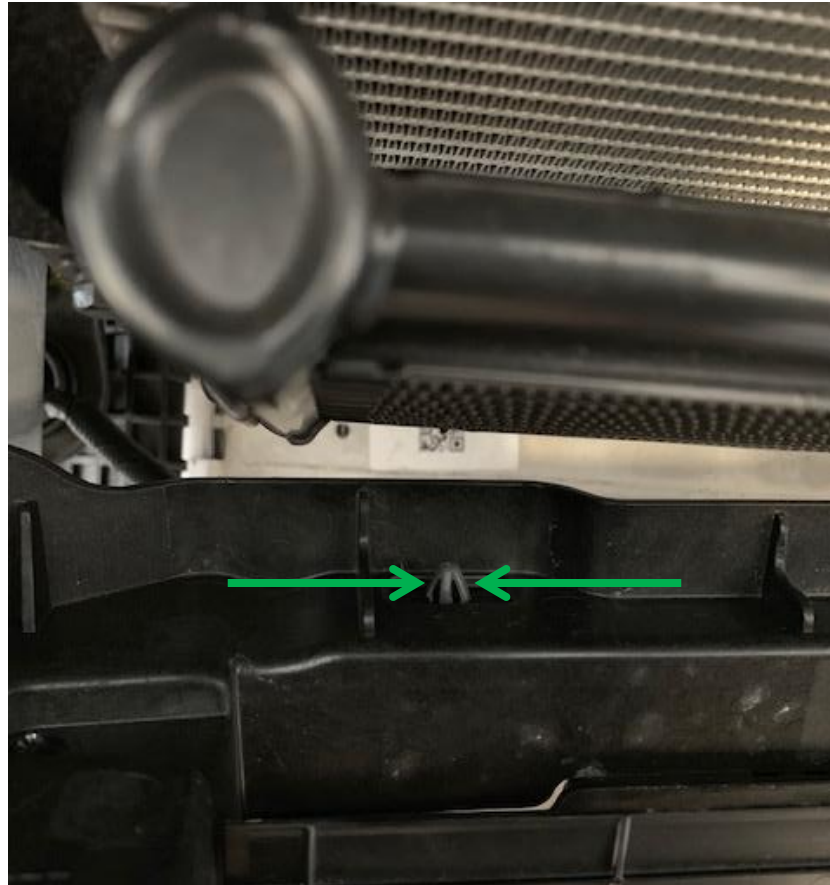
AGS Shroud Removal

Detach the shroud by unfastening the 4 screws (10mm) marked below. You will need a 6" extension to reach the recessed screws marked by the arrows.



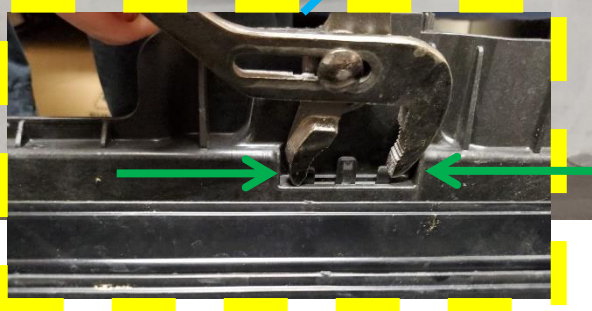
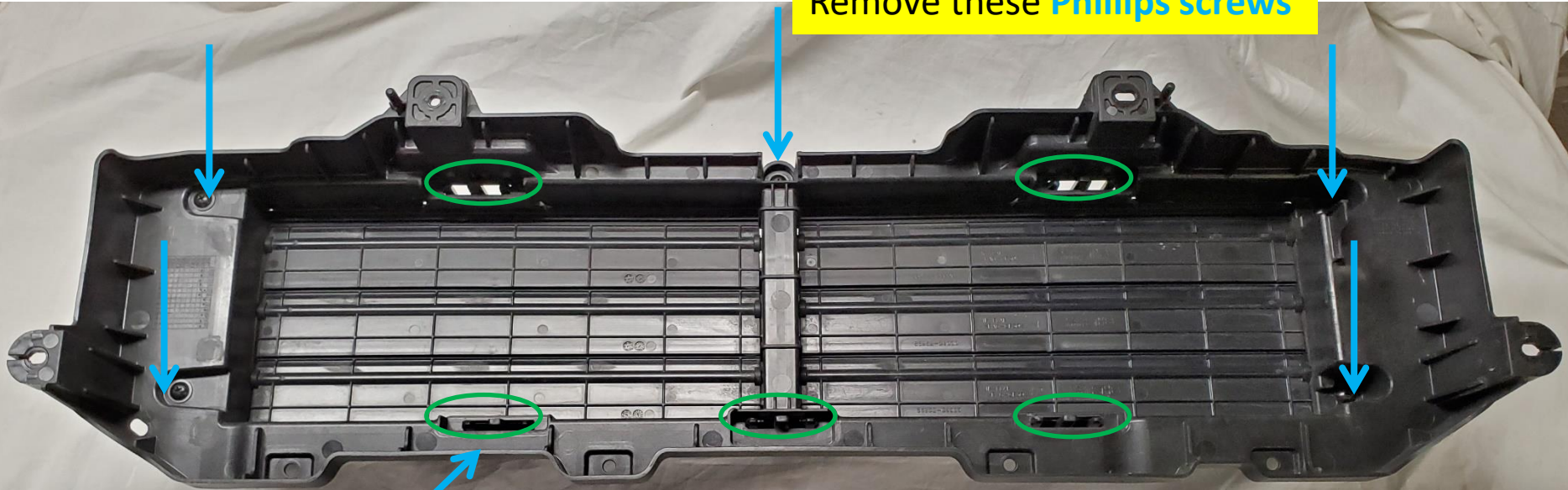
AGS Shroud Removal

From the backside of the shroud, carefully undo the clips holding the wire loom by pinching as shown in the image. There are numerous clips along the shroud. Once these have been undone, the shroud should be free to remove.



AGS Shroud Disassembly

Remove these **Phillips screws**

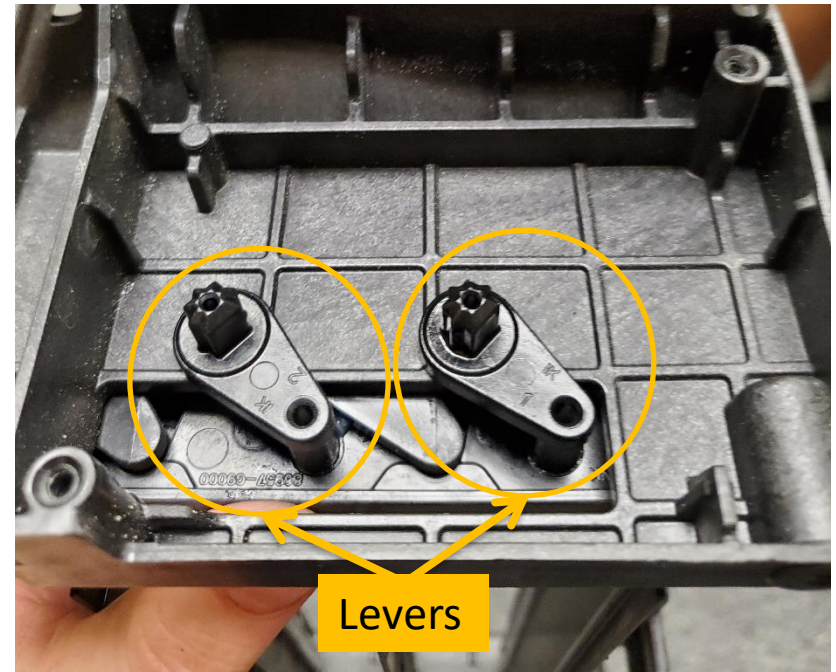
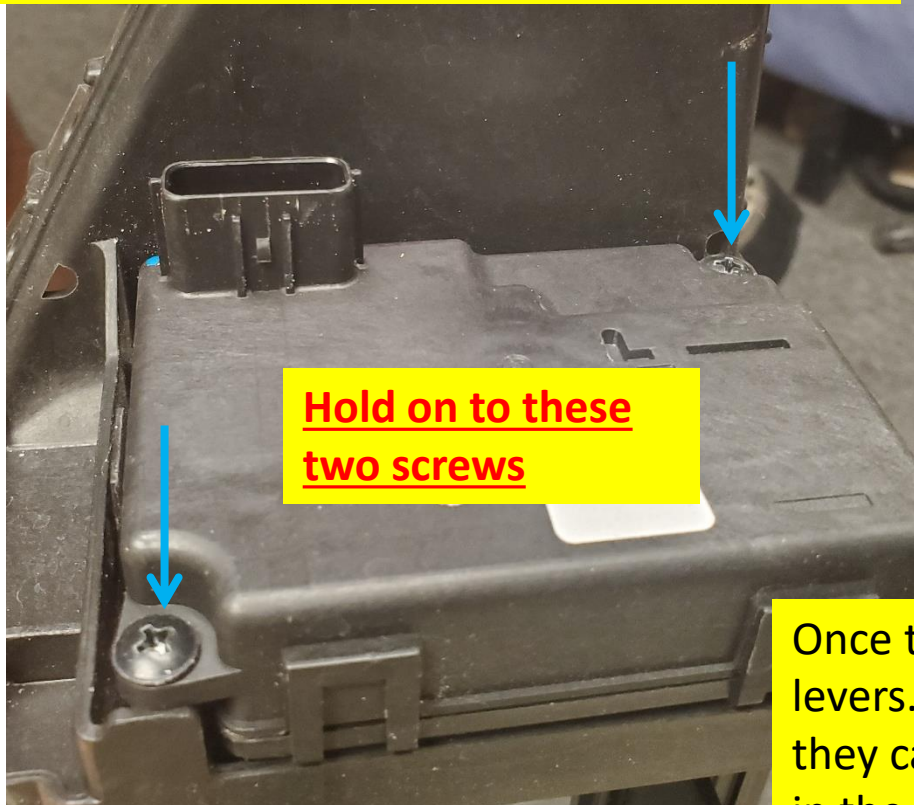


Use channel locks on a wide setting to pinch these clips, keep them pulled back so they don't snap back in place as you move around the shroud.

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AGS Servo Disassembly

Once the AGS system has been detached from the car, you will need to remove the servo motor located on the side of the AGS shroud.



Once the motor is removed, you will see two AGS levers. These levers will need to be removed so they can be re-used in the AGS simulator bracket in the coming slides.

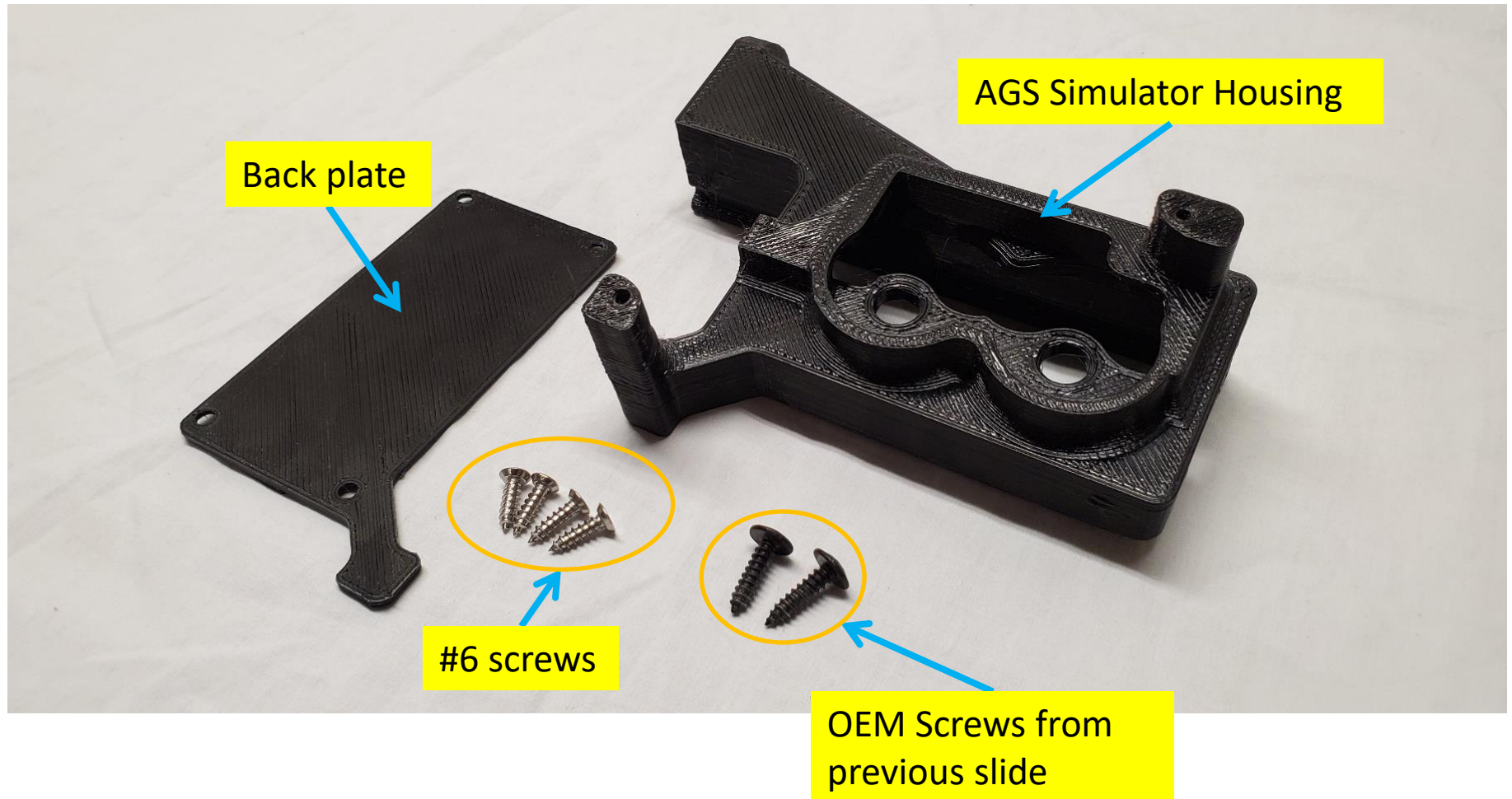
AGS Simulator Housing Assembly

Note these stock components for reference



AGS Simulator Housing Assembly

These are the parts needed to fully assemble the AGS simulator. The AGS simulator is necessary to prevent an engine code.



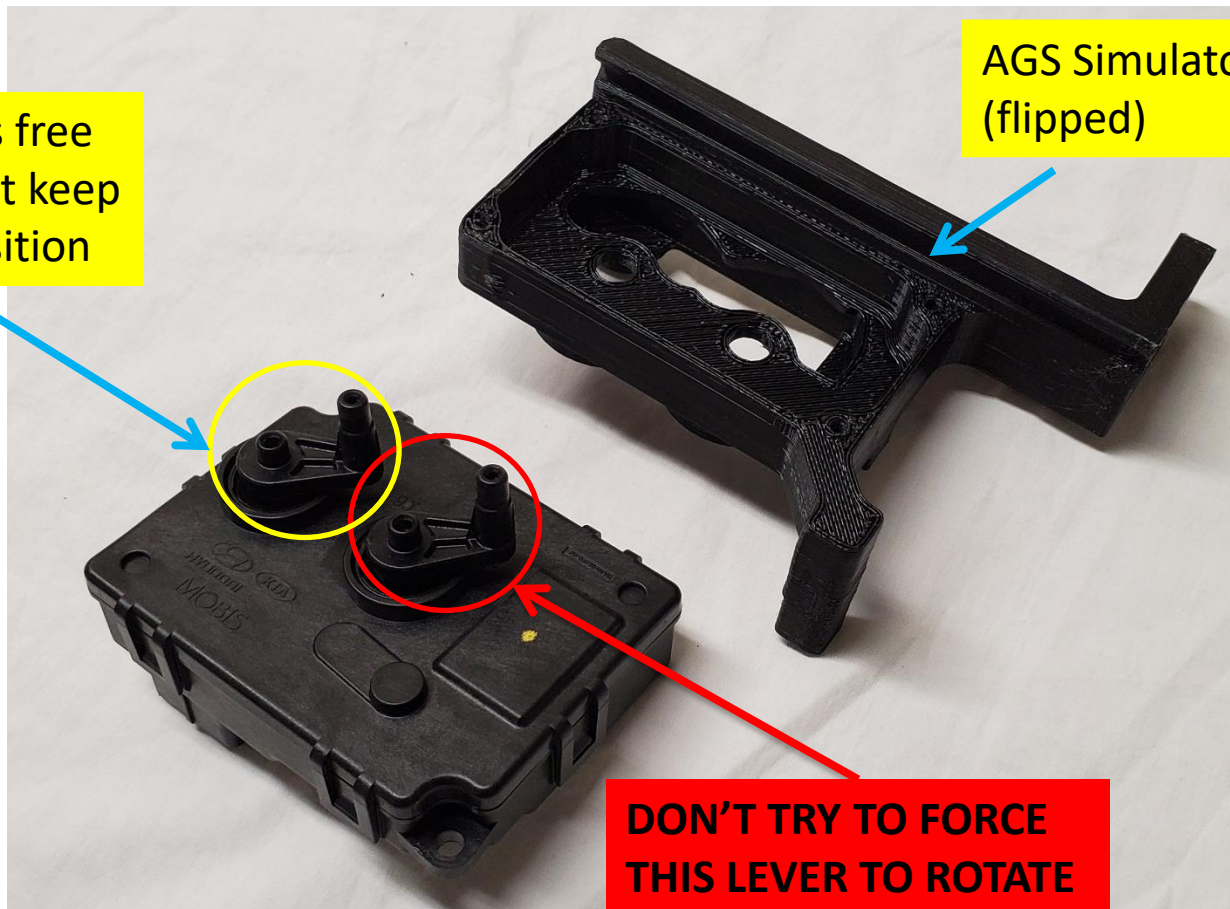
AGS Simulator Housing Assembly

Place levers back into motor casing.

**IMPORTANT: THE RIGHT LEVER WILL NOT MOVE FREELY.
DO NOT ATTEMPT TO ROTATE.**

Idler lever is free to move, but keep it in this position

AGS Simulator Housing (flipped)



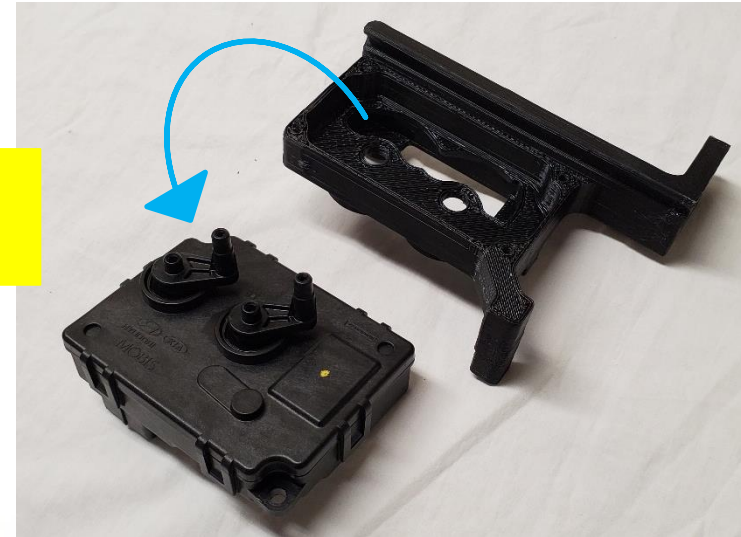
**DON'T TRY TO FORCE
THIS LEVER TO ROTATE**

Assembly

Place the AGS simulator housing over the levers, come in from the top/right side and slide the housing first onto the rightmost lever as shown.

Then seat the housing and motor as shown in Step 3.

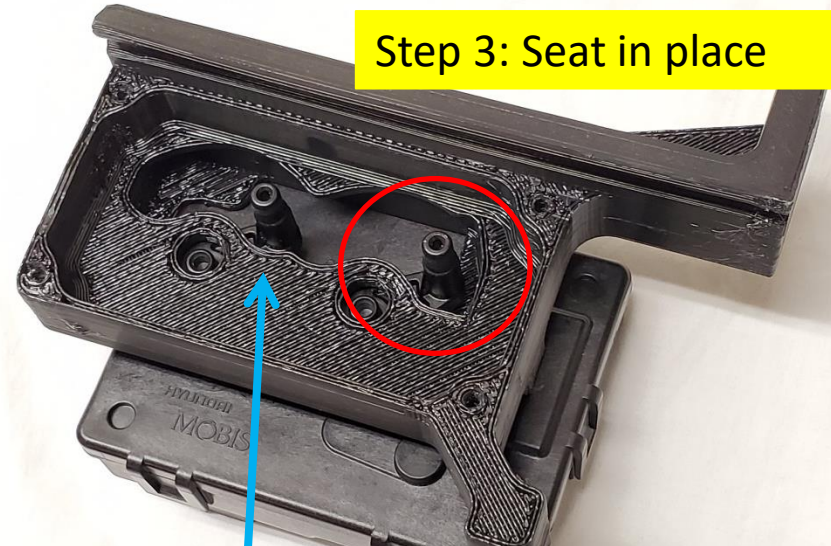
Step 1: Orient before placement



Step 2: Tilt in and position, it's ok to slide the lever out a little bit to get the housing to seat.



Step 3: Seat in place

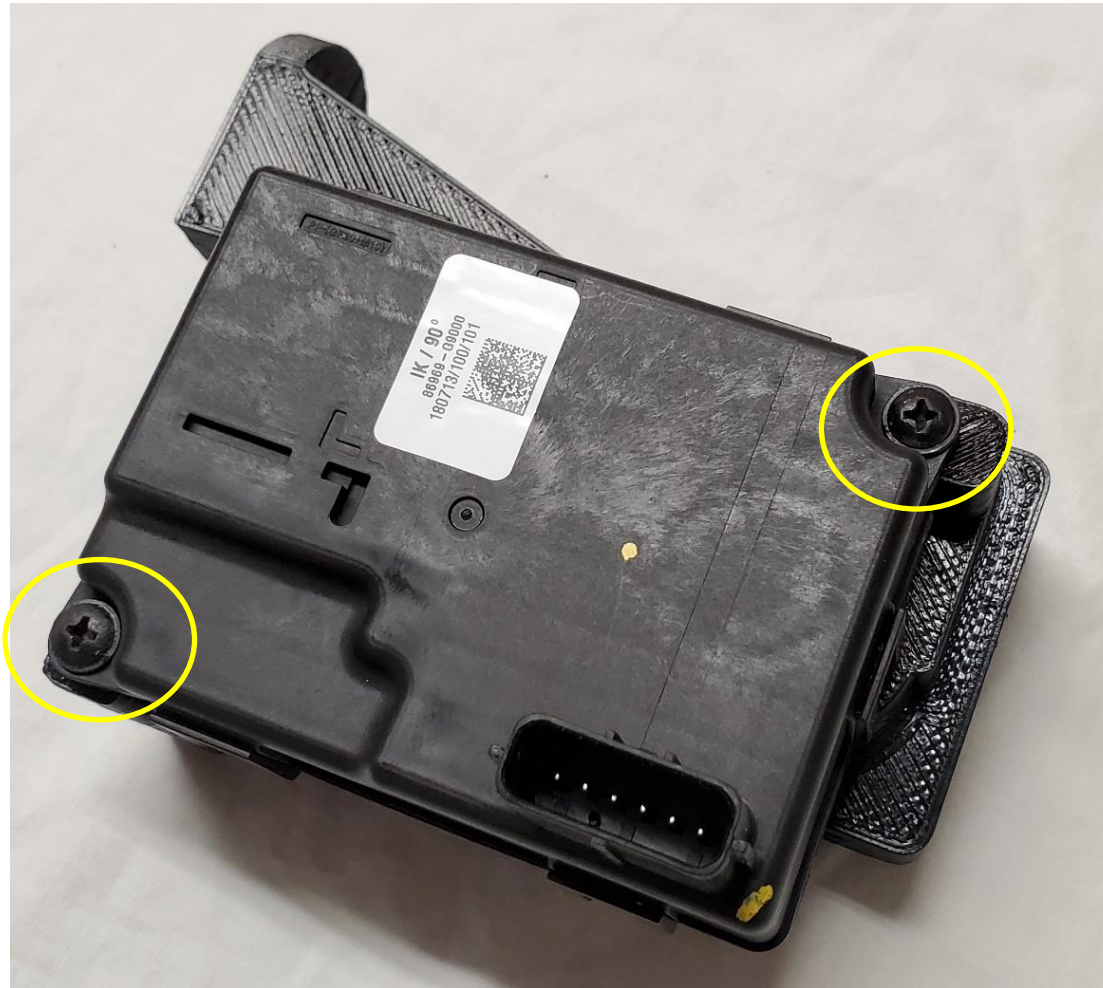


Bring the housing in from the top and slide the 'roof' area under this lever, then go to step 3.

Ensure this lever can move freely, **do not try and rotate the right-most lever!!**

AGS Simulator Housing Assembly

Re-use the two screws to fasten the motor to the AGS Simulator housing.



AGS Simulator Housing Assembly

Flip the housing over and place the link onto the levers as shown, smooth side facing out.

Once this process is complete, do not try and move the levers, they are now linked.

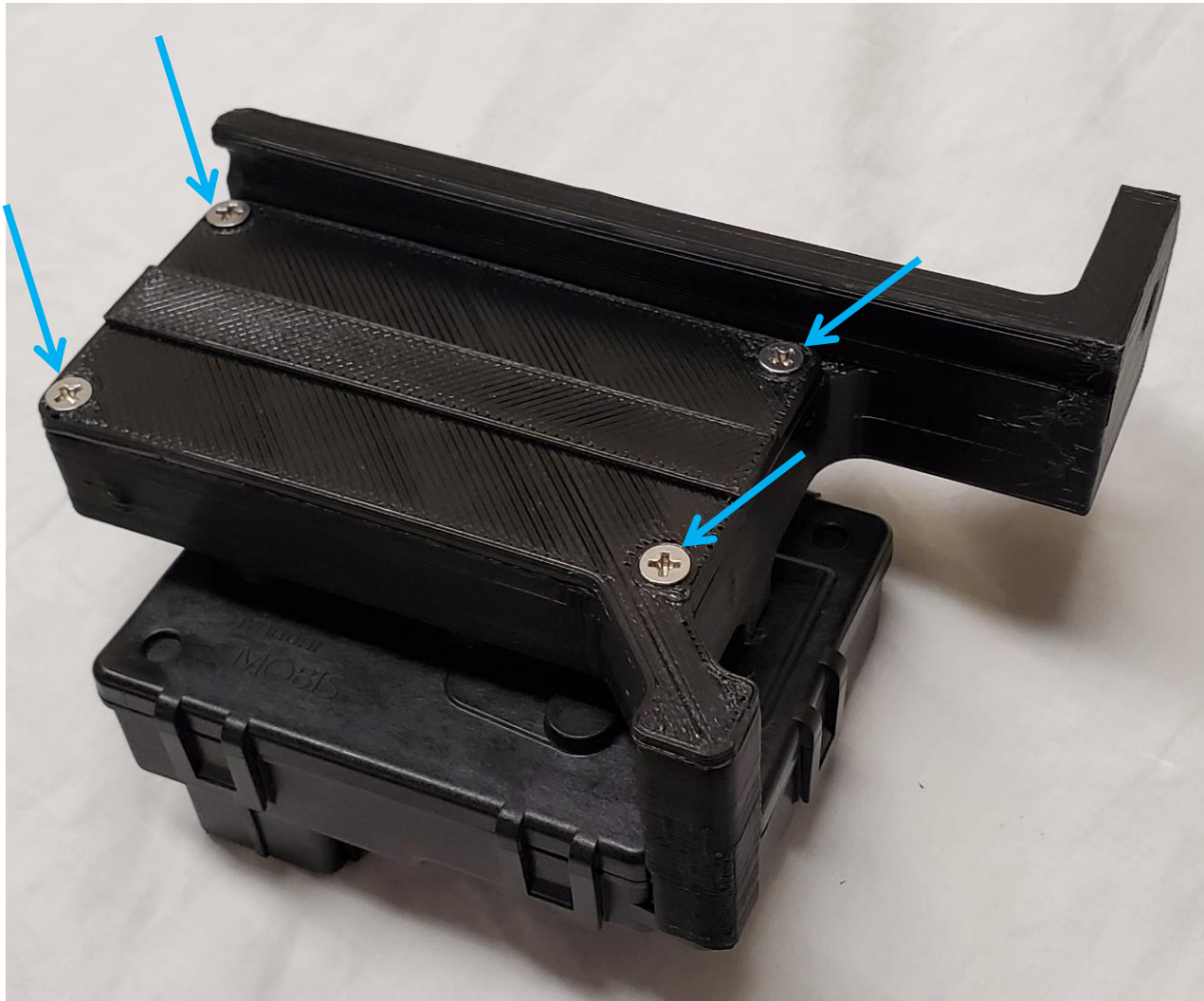




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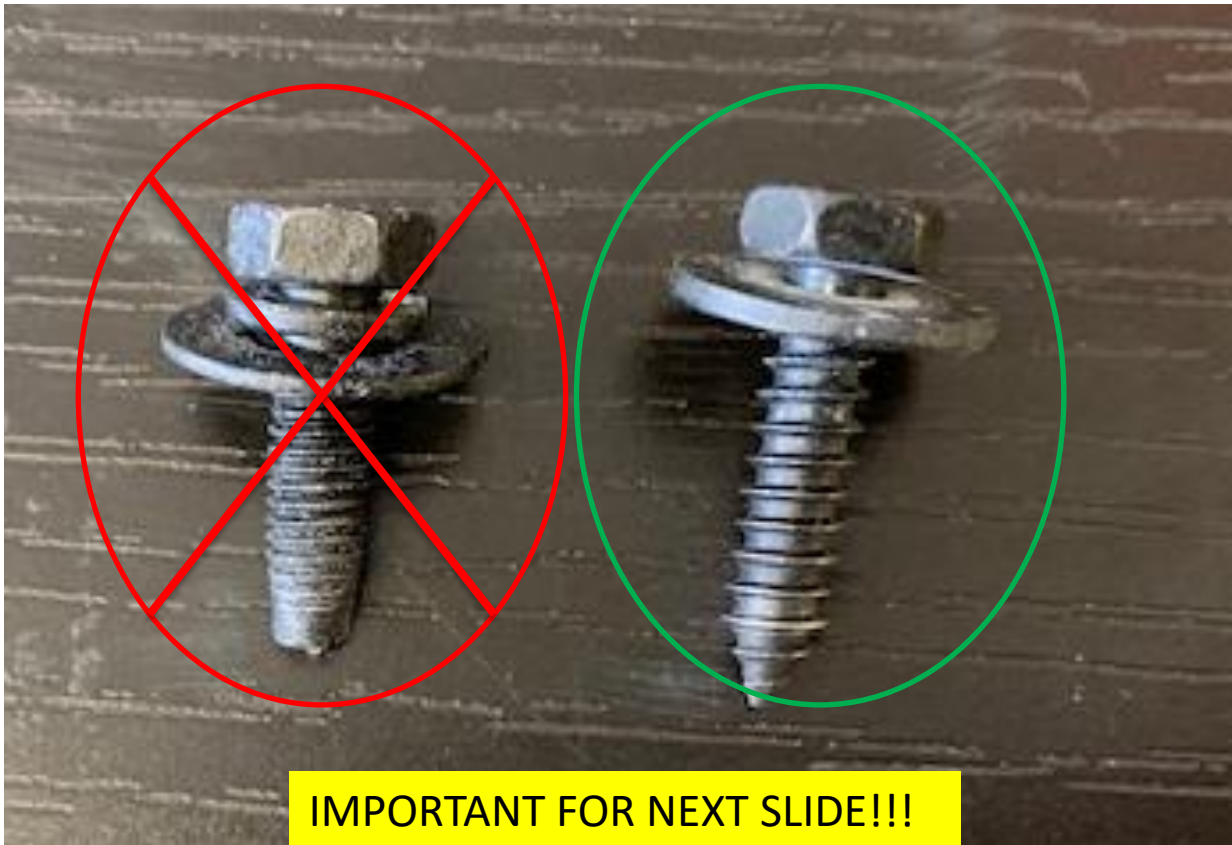
AGS Simulator Housing Assembly

Install cover with 4 x #6 screws as shown



AGS Simulator Housing Assembly

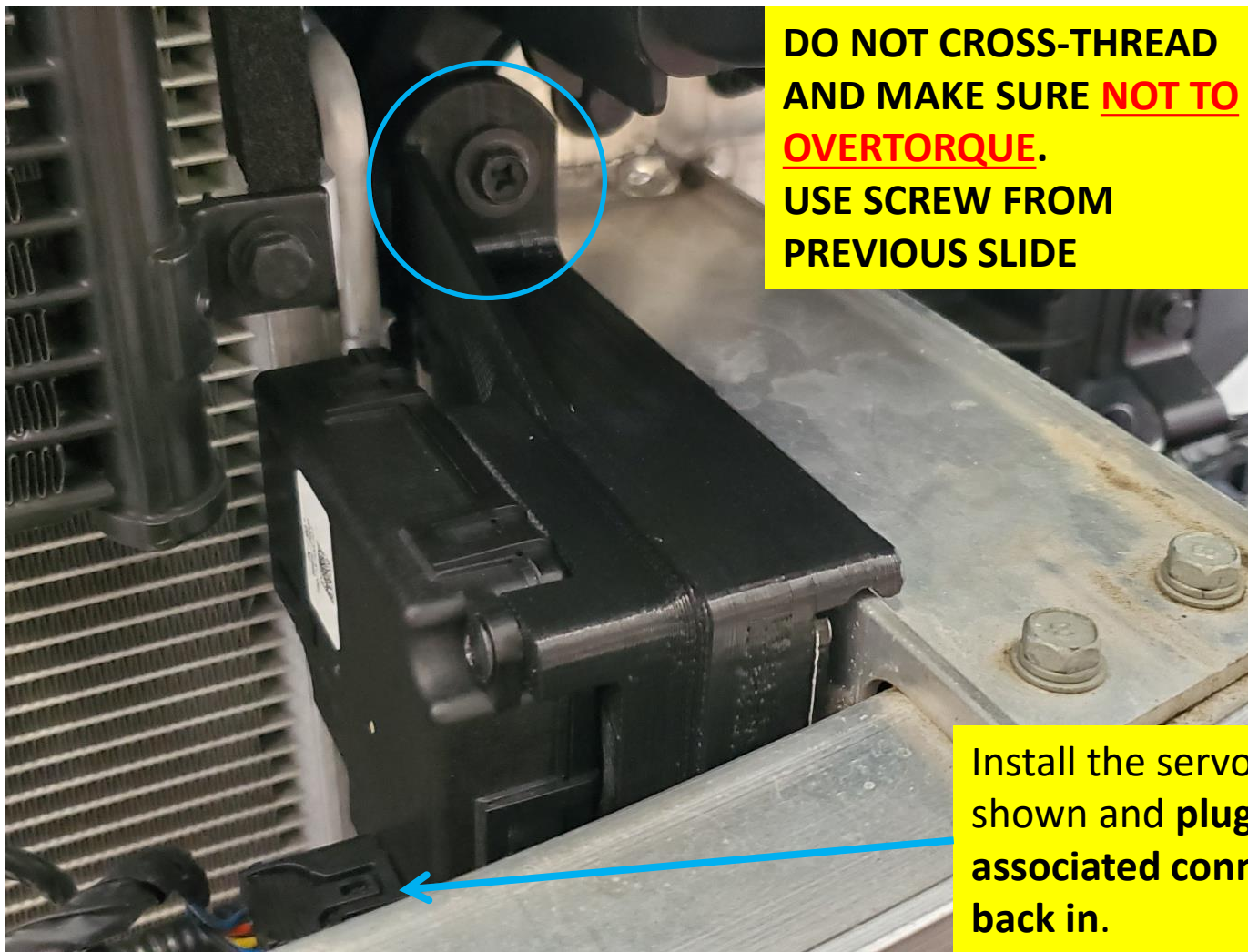
The installations that follow this slide only use **coarse-thread** hardware, shown on the right. The threads are much larger and spaced out. Also, the coarse-thread hardware ends with a sharp point.





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AGS Simulator Housing Assembly

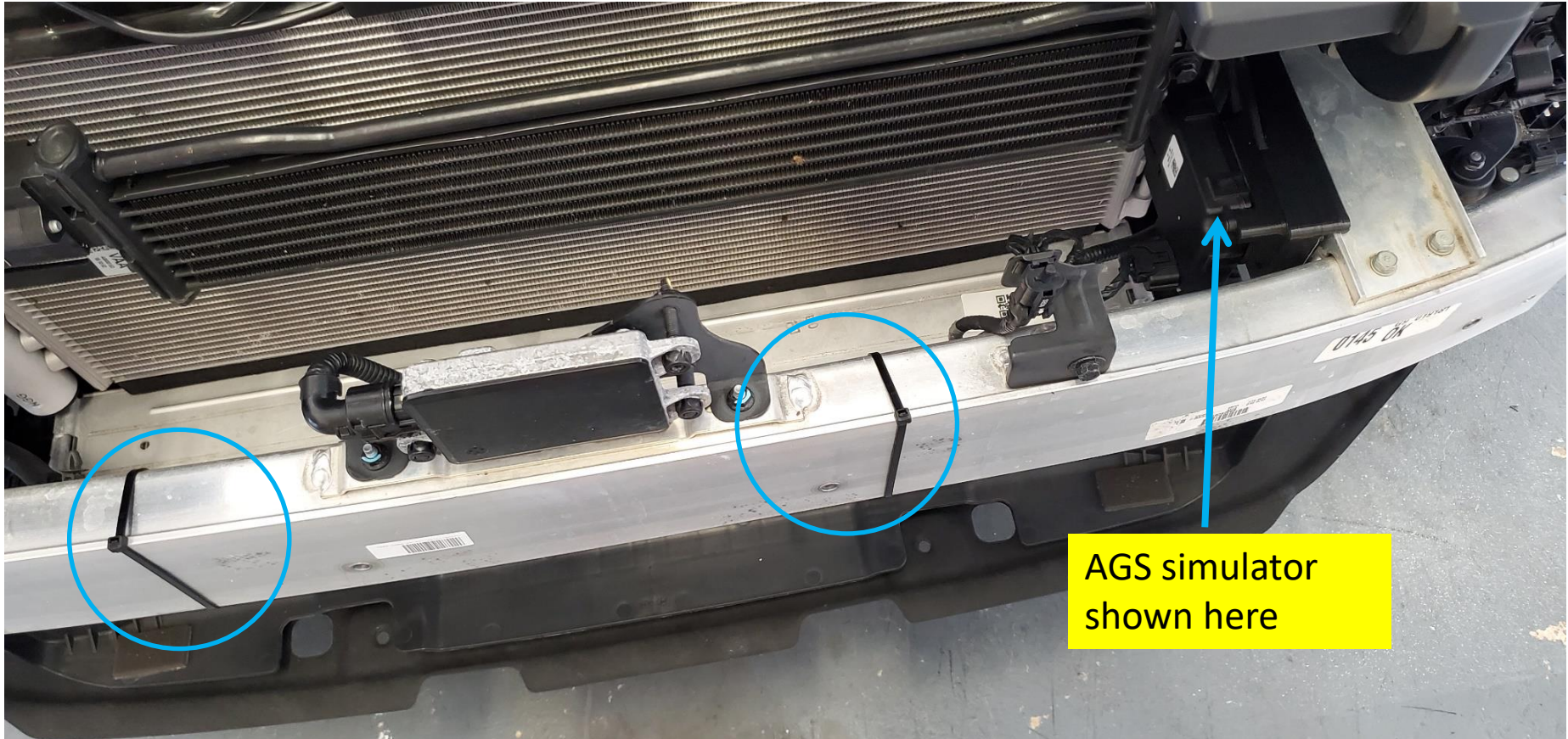


DO NOT CROSS-THREAD
AND MAKE SURE **NOT TO OVERTORQUE.**
USE SCREW FROM
PREVIOUS SLIDE

Install the servo casing as
shown and **plug the
associated connector
back in.**

Securing Wire Loom

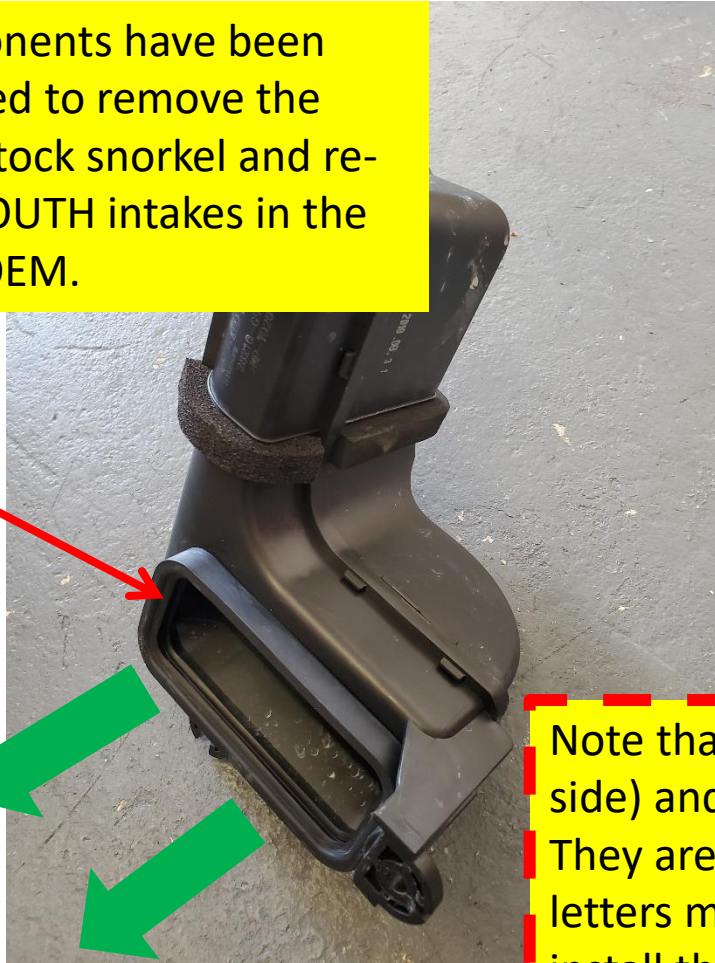
Use 16" zip ties to tidy up the area and keep the wire loom secure



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BIG MOUTH Install

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!

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.



Ensure there is ample strain relief at the LED power wires!

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

BIG MOUTH Install

Carefully slide the BIG MOUTH intakes over the stock ports and ensure the bolt holes line up. Fasten using the OEM coarse-thread hardware.



DO NOT CROSS-THREAD AND MAKE SURE NOT TO OVERTORQUE.

BIG MOUTH Install

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



BIG MOUTH Lit Kit Prep

Plug the supplied Diode Dynamics LED extension cable into the driver side LED as shown and clip into LED cable relief clip.



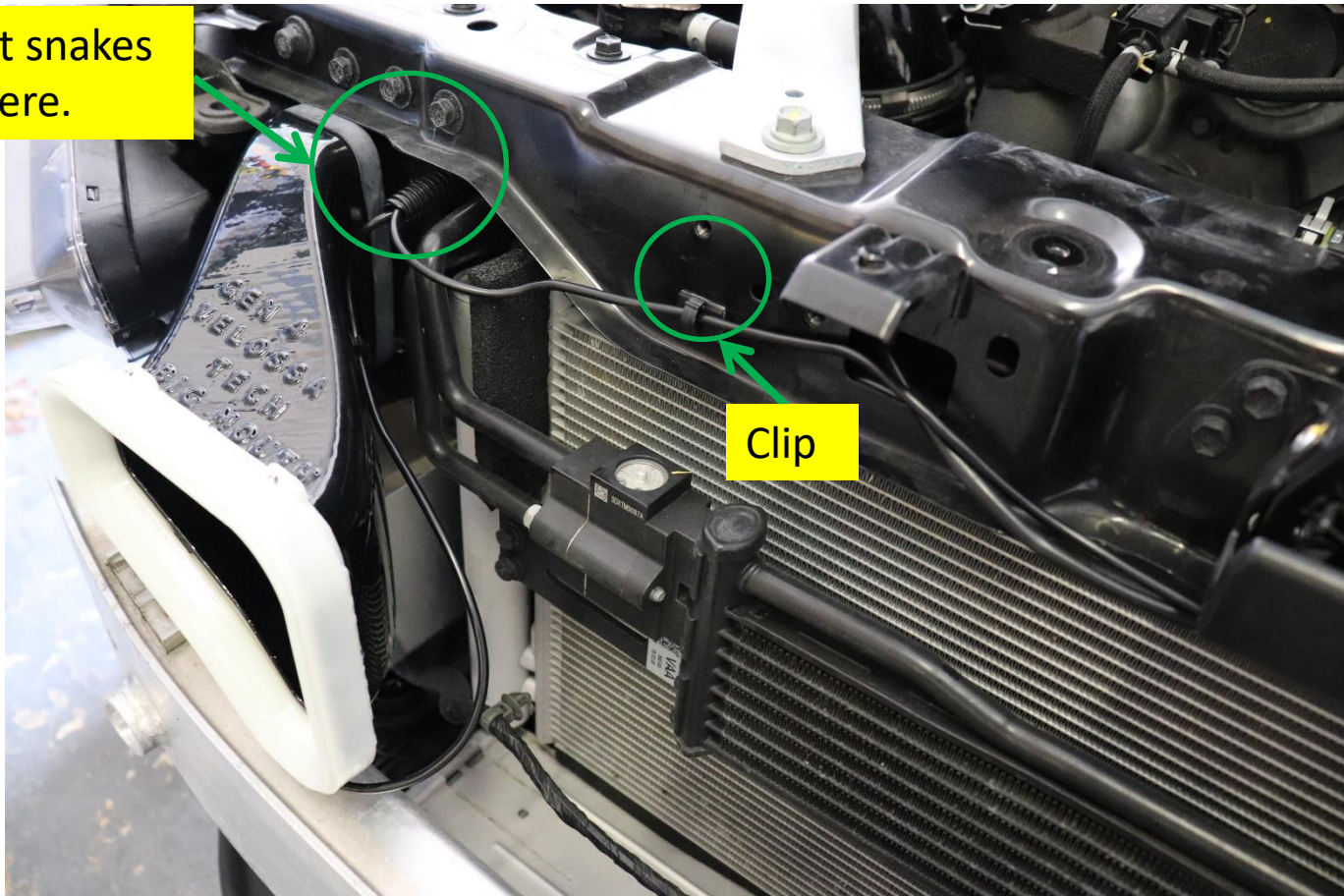
Take notice of the notch within the M8 female connector. The connectors must be properly oriented and should not require very much force to connect. Improper alignment can damage the pins within the male connector.

VELOSSA TECH

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 cables in the conduit at this location and snake through as shown below.

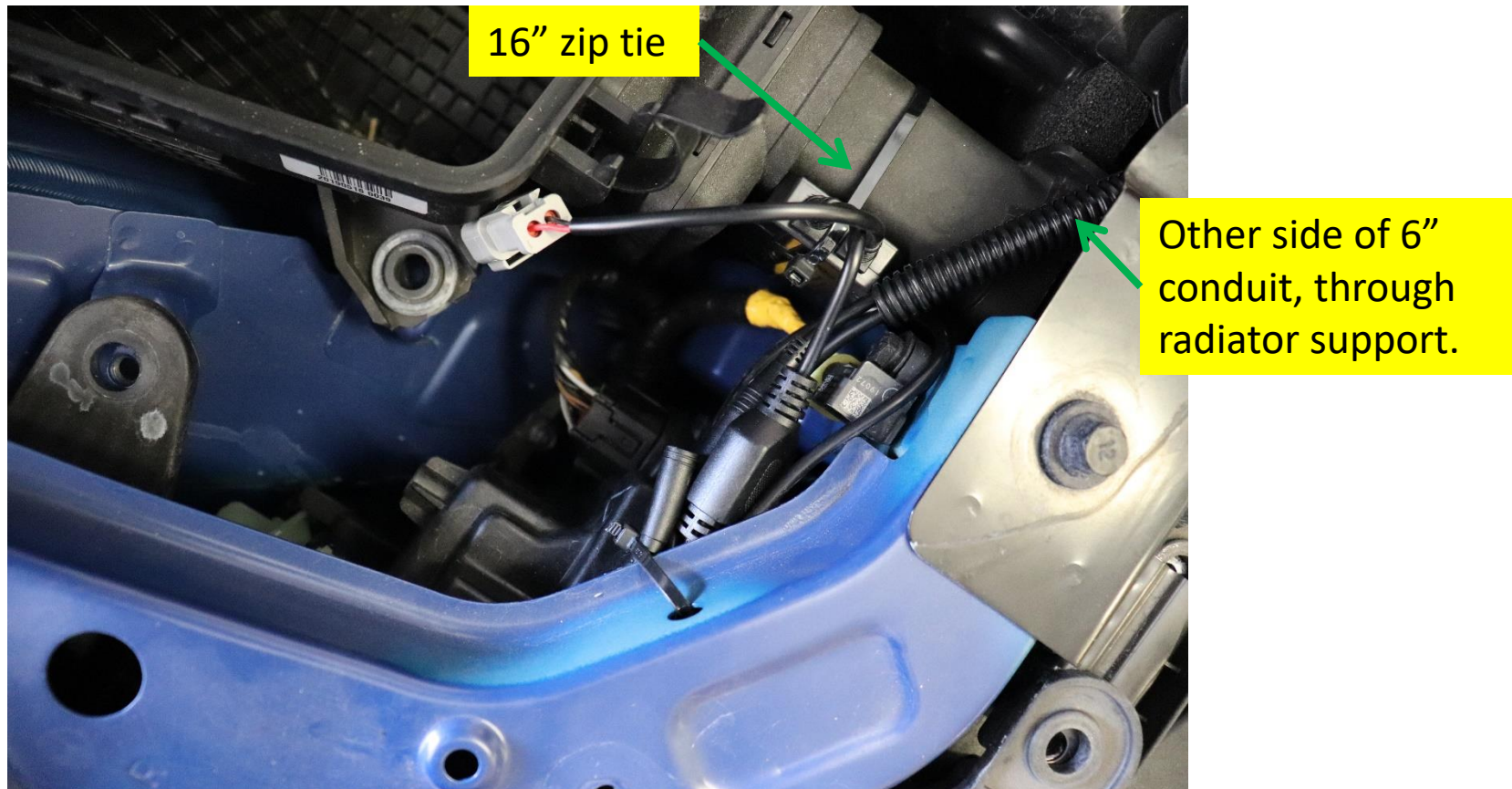
6" Conduit snakes through here.



VELOSSA TECH

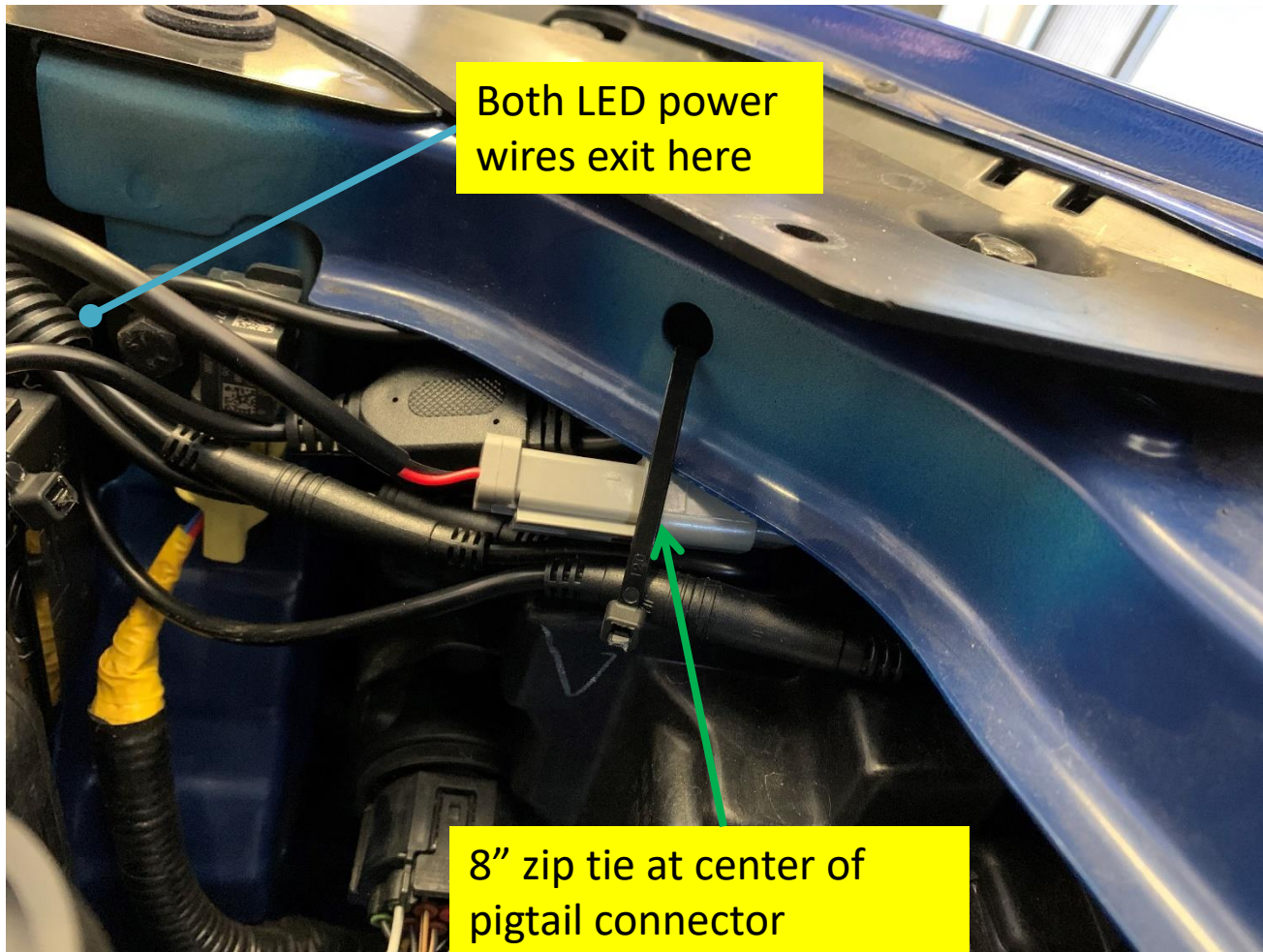
BIG MOUTH Lit Kit Prep

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.



BIG MOUTH Lit Kit Prep

Plug both LED power cables into the Diode Dynamics RGBW Bluetooth controller along with the pigtail connectors (grey). Bunch the cables together neatly. **Do not strain the cables** with tight radius bends or tugging in any place.



BIG MOUTH Lit Kit Prep



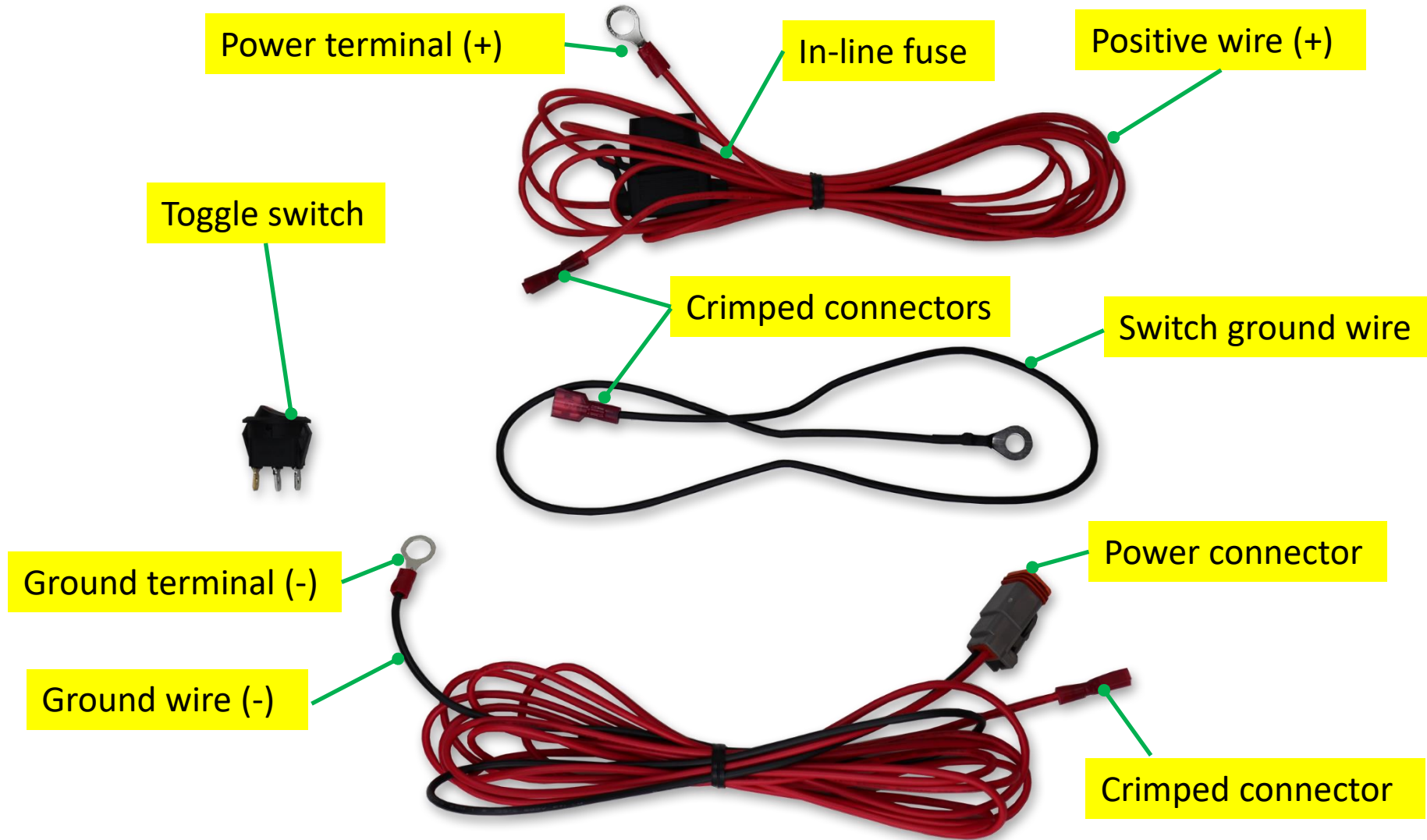
There should be enough slack here as to not strain the cables.

Zip tie in a tidy fashion, at center of pigtail connector.
Ensure there is no tight bending of wire or kinks.



VELOSSA TECH

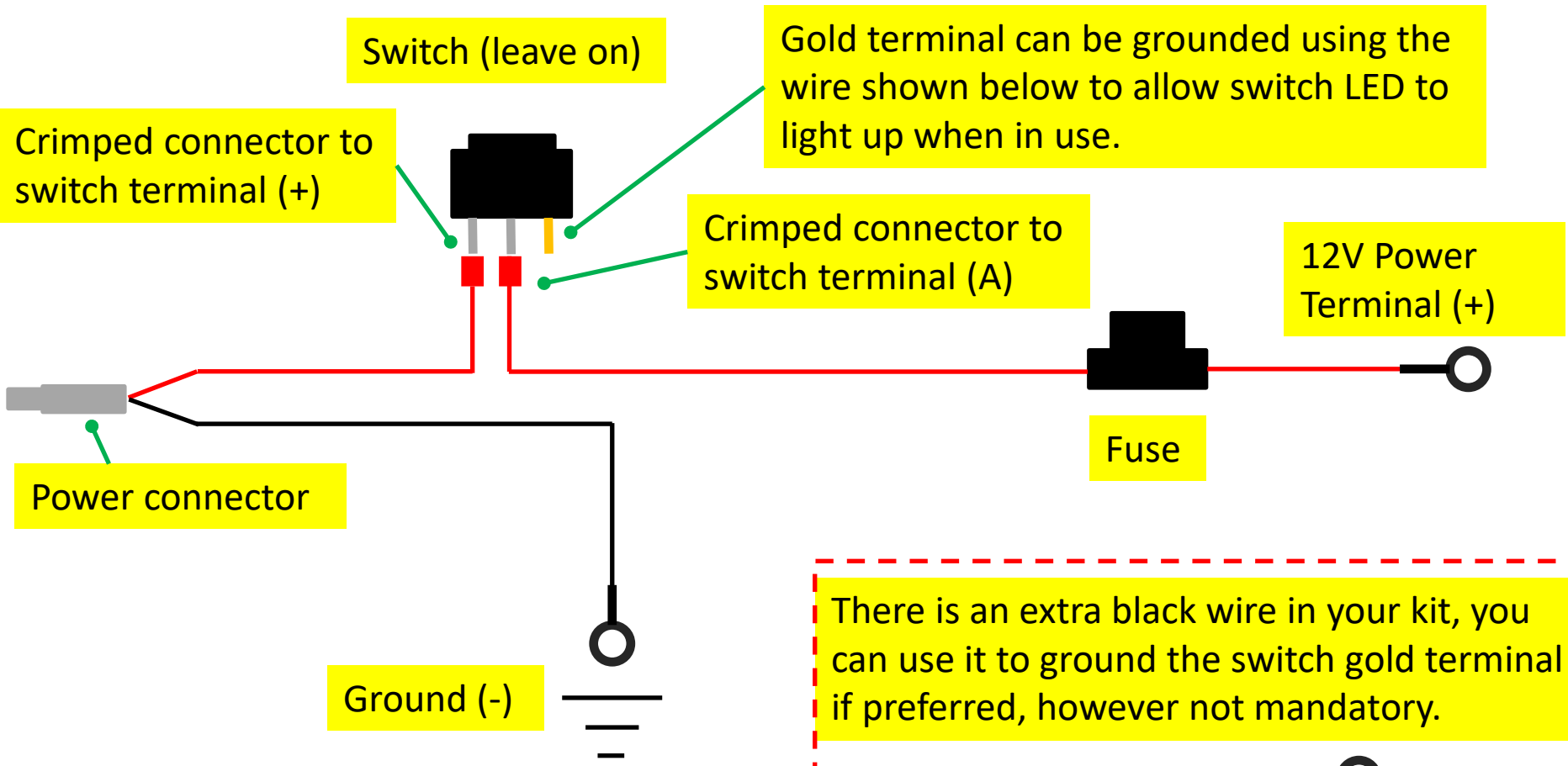
Wiring Harness





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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)

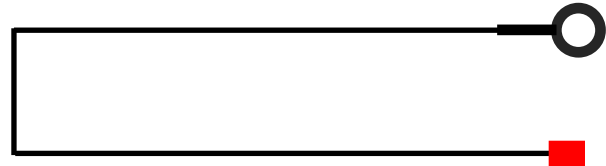
12V Power Terminal (+)

Fuse

Power connector

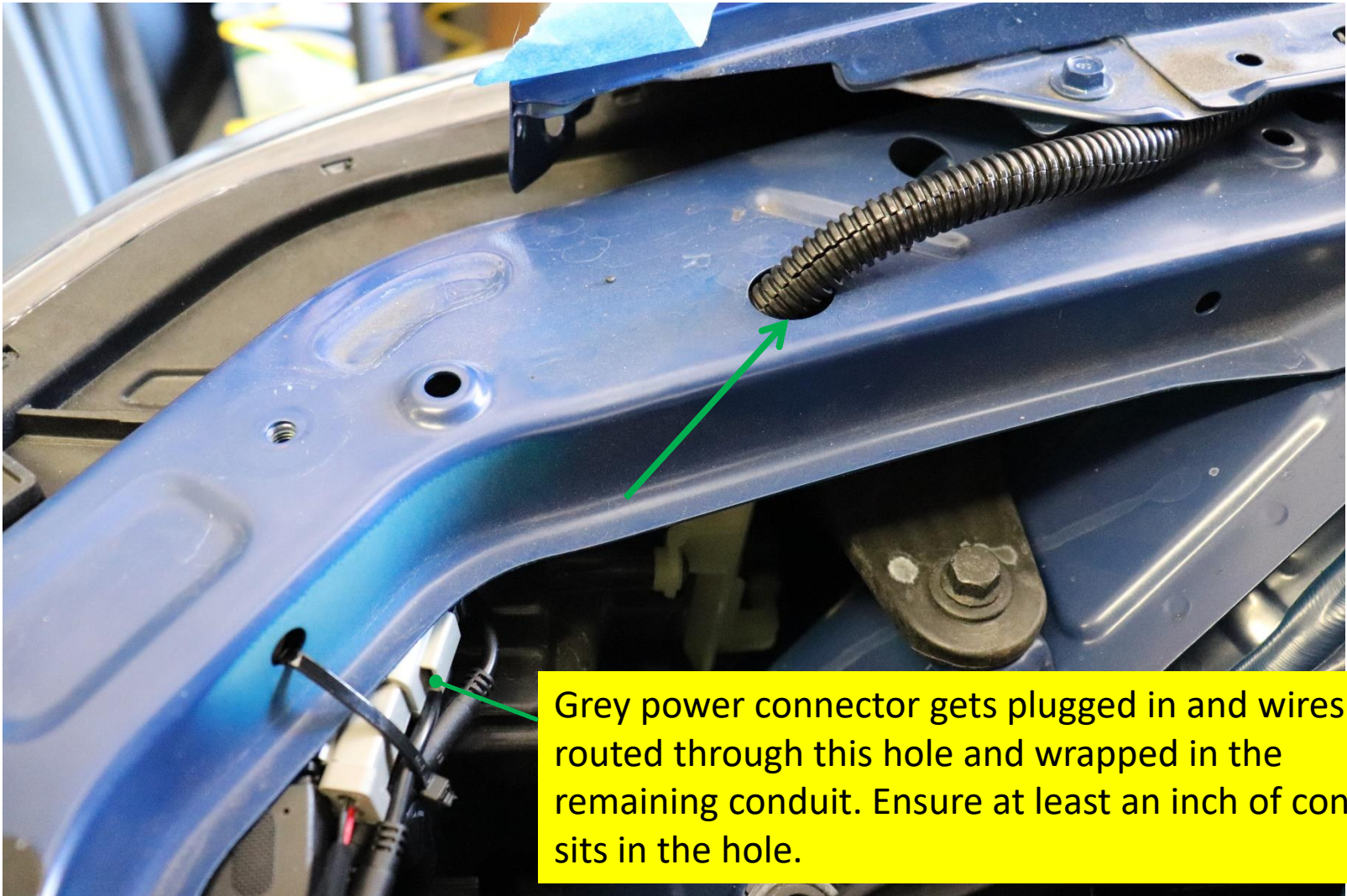
Ground (-)

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



BIG MOUTH Lit Kit Routing

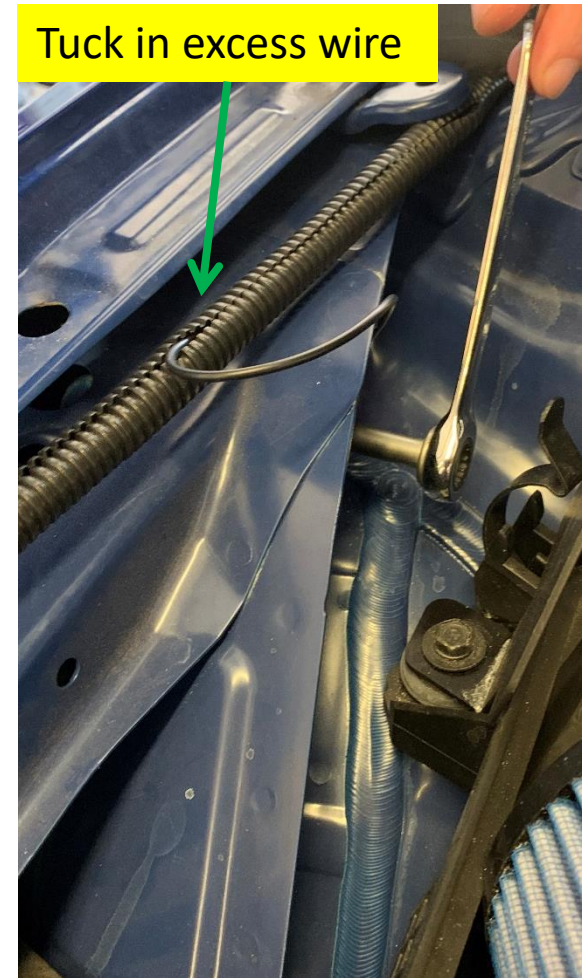
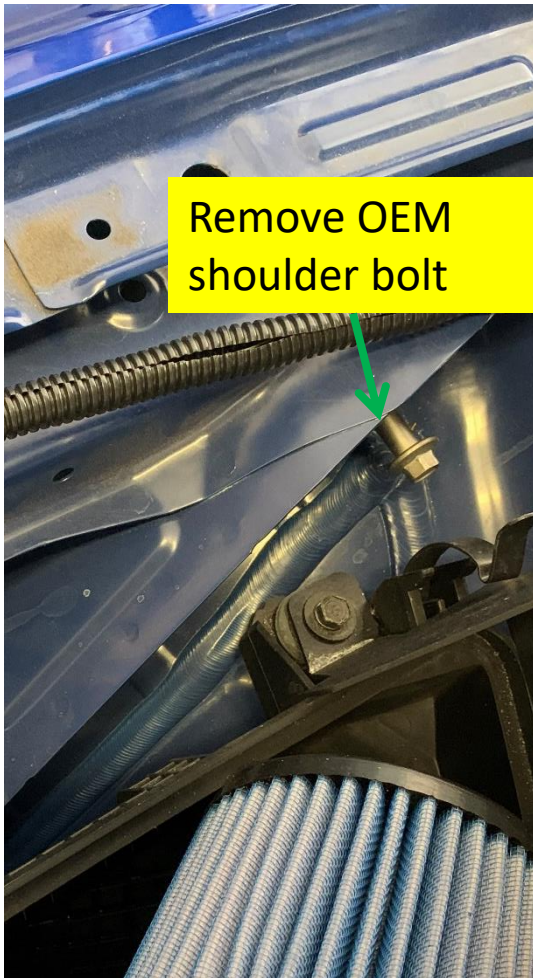
Route the remaining wires and conduit as shown, tuck underneath for a clean look.



Grey power connector gets plugged in and wires routed through this hole and wrapped in the remaining conduit. Ensure at least an inch of conduit sits in the hole.

Ground the BIG MOUTH Lit Kit

Use a 10mm box wrench to remove the indicated OEM shoulder bolt and use it to ground the power circuit. Tuck in any leftover wire back into the conduit.





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BIG MOUTH Lit Kit Routing

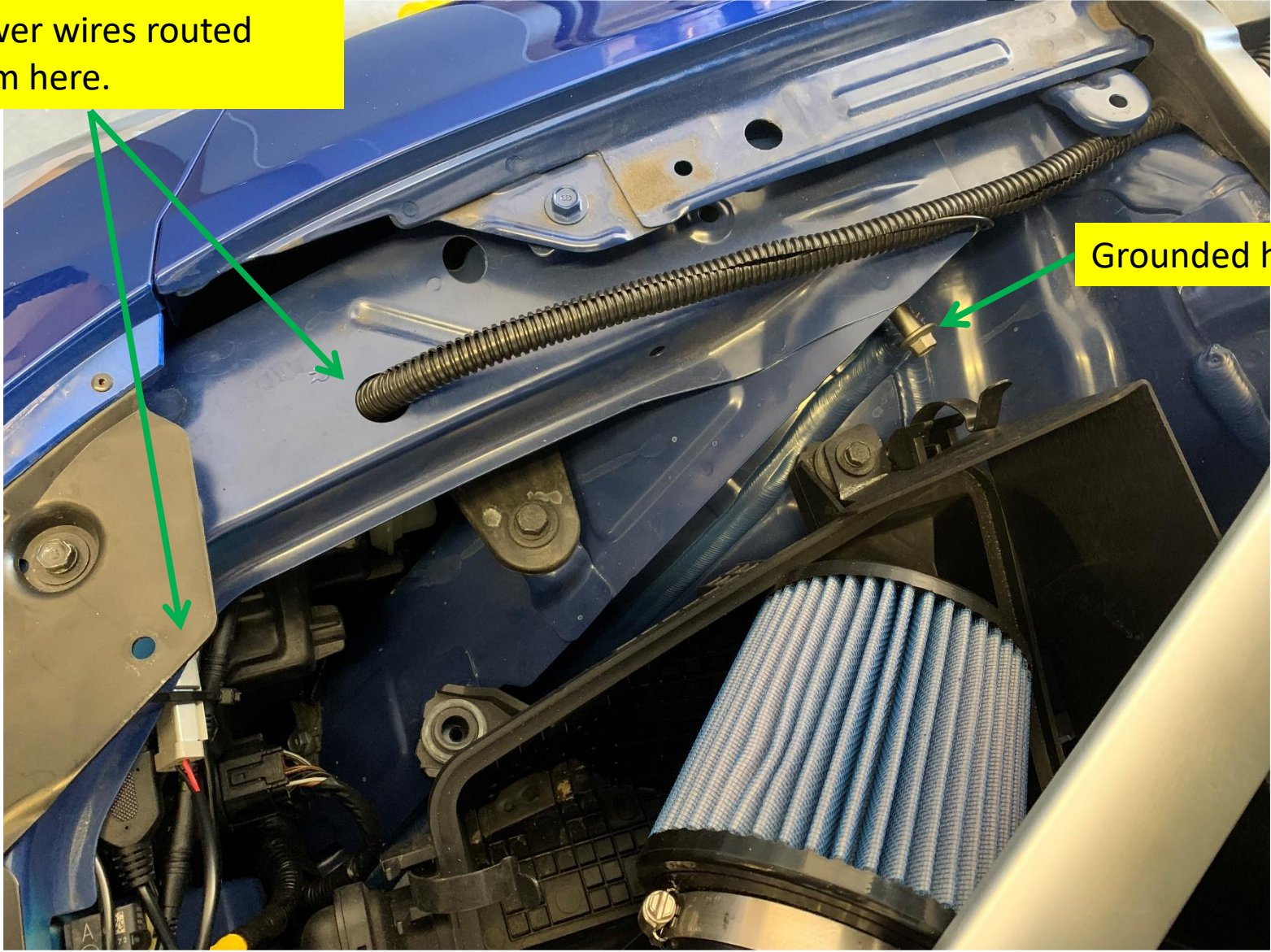
Route the remaining wires and conduit as shown, tuck underneath for a clean look.



BIG MOUTH Lit Kit Routing

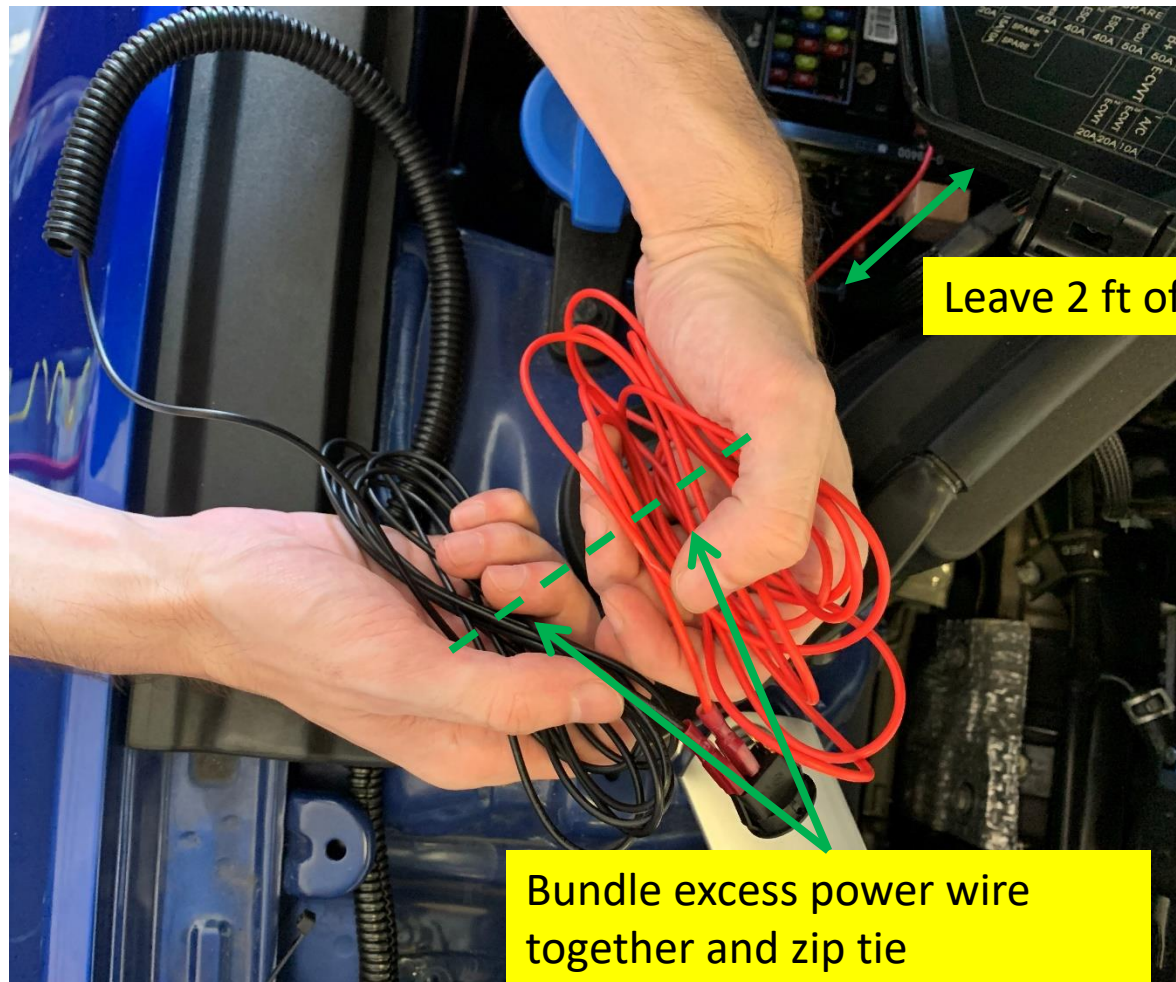
Power wires routed from here.

Grounded here.



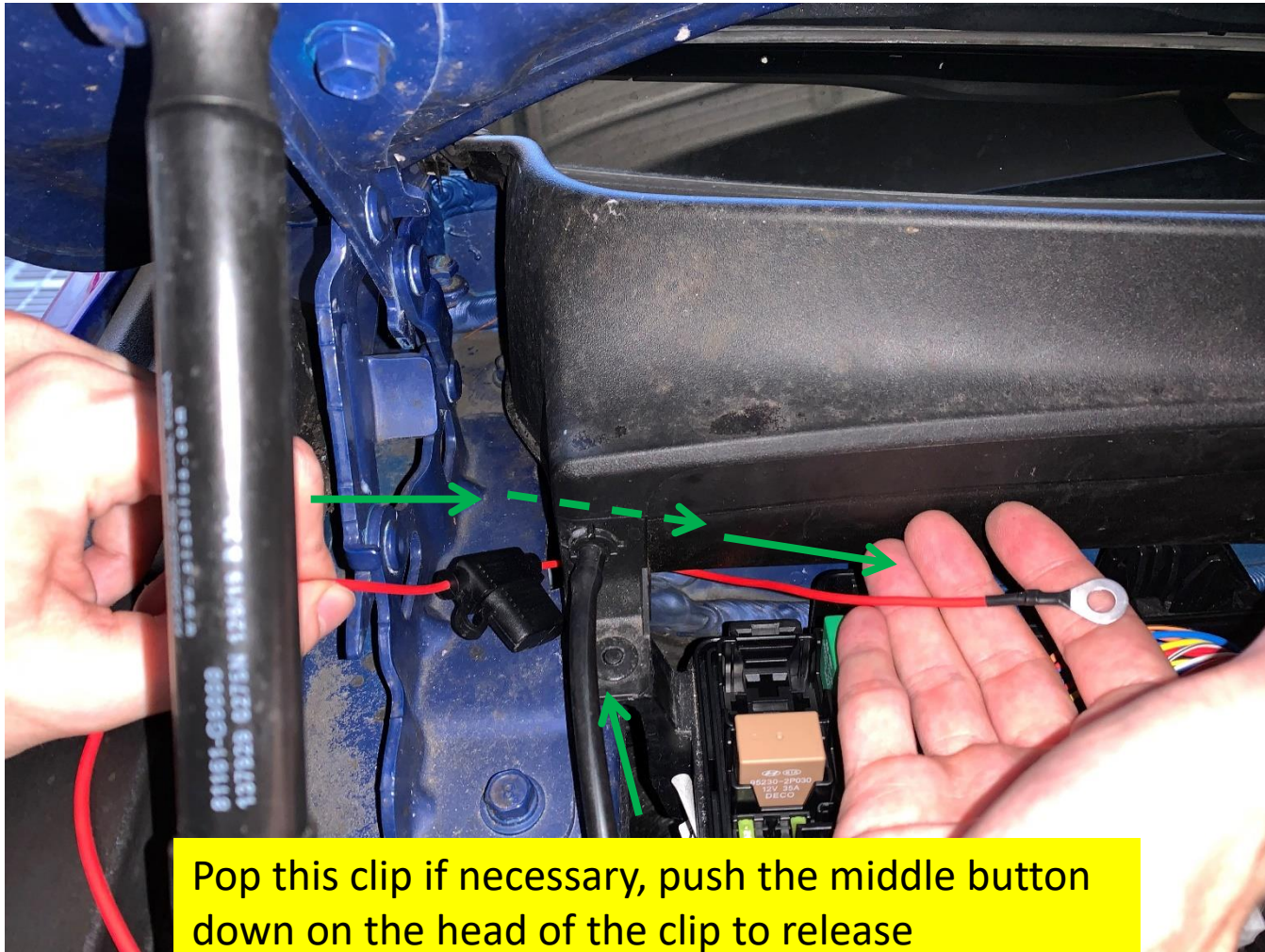
BIG MOUTH Lit Kit Routing

Connect the red wires to the switch as shown in slide 38. Set aside about 2 ft of red wire and bundle the excess of the red power wires together using an 8" zip tie.



BIG MOUTH Lit Kit Routing

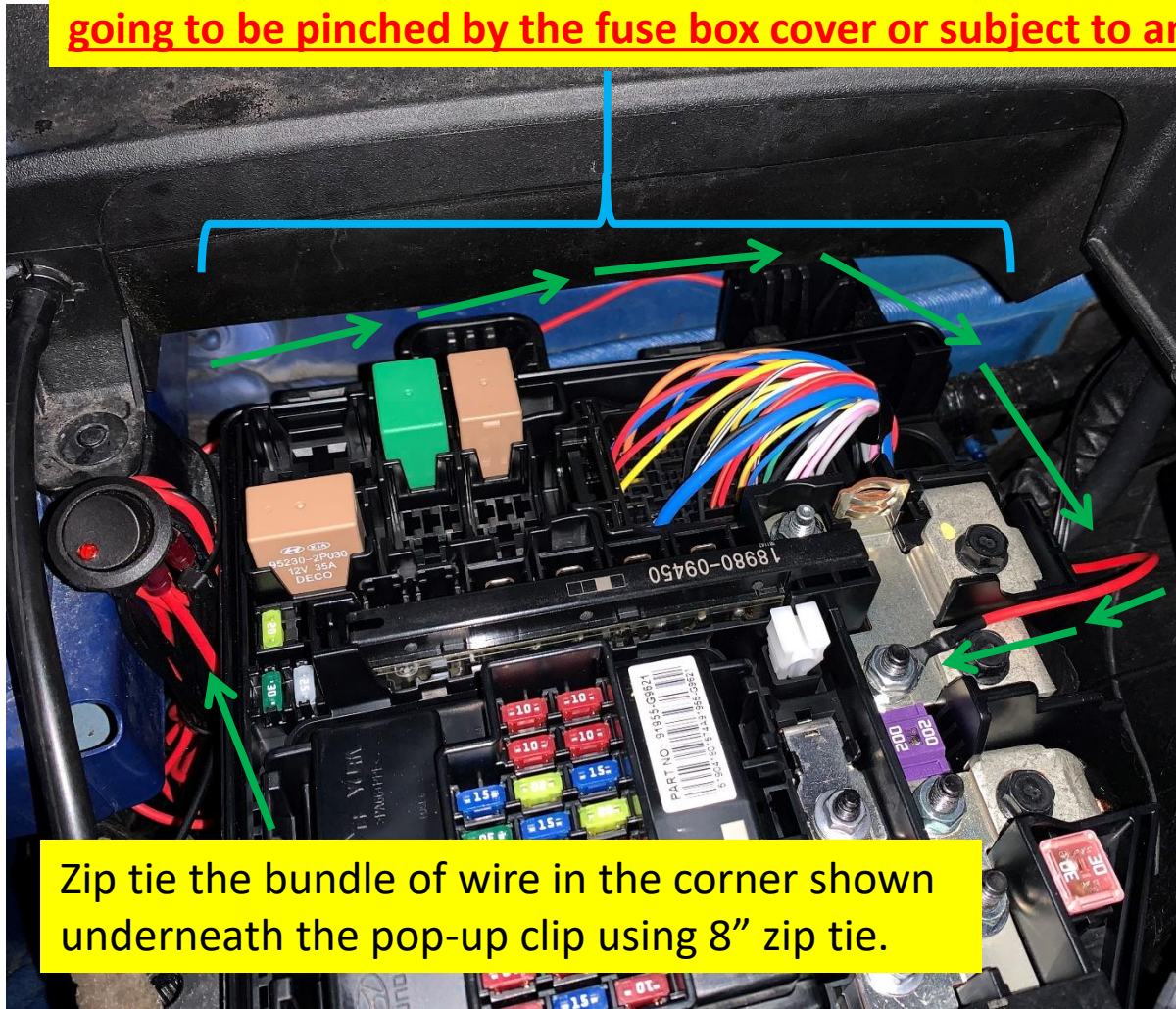
Maneuver the power ring terminal and in-line fuse through the rear of the indicated area into the fuse box.



Pop this clip if necessary, push the middle button down on the head of the clip to release

BIG MOUTH Lit Kit Power

Route the power wire along the rear of the fuse box as shown by the arrows and connect to the power terminal using the supplied M6 nut. **Ensure the wire is not going to be pinched by the fuse box cover or subject to any kinks.**



Zip tie through the back of the pop-up clip to secure the bundle





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Re-install Headlights





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Re-install Sensor

Reinstall the bracket shown and reconnect the associated connector

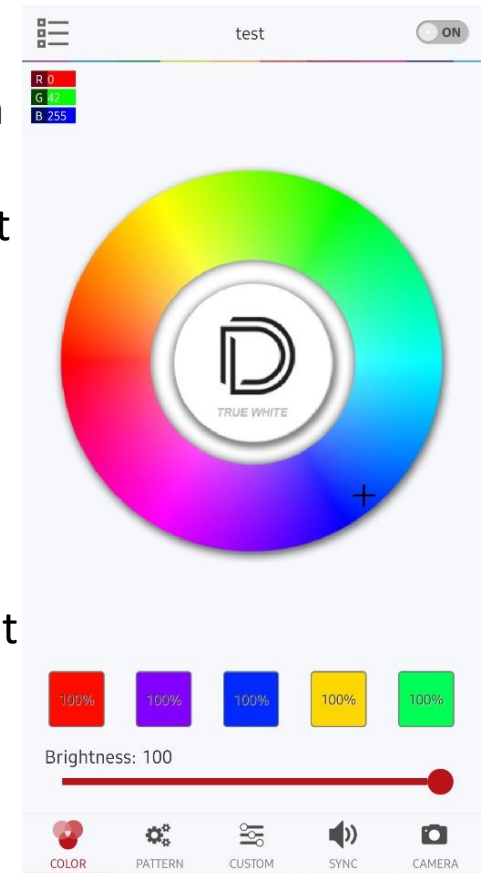


Phone App

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.





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Finalize

Re-install the bumper the same way it was removed and ENJOY!

