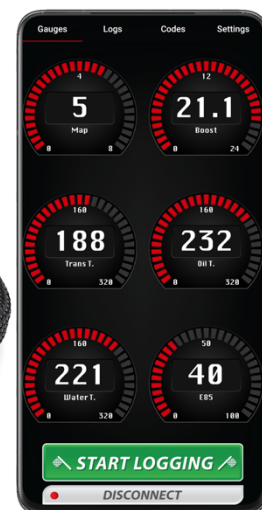


## JB4 Tuner for 2023+ Toyota Highlander Install Guide

Last updated 8/11/2023

Use subject to terms and conditions posted at <https://burgertuning.com/pages/terms>

THIS PART IS LEGAL FOR USE ONLY IN COMPETITION RACING VEHICLES AS DEFINED UNDER CALIFORNIA LAW AND IS NOT LEGAL FOR USE IN ANY OTHER MOTOR VEHICLE. California law defines a "racing vehicle" as "a competition vehicle not used on public highways." (Calif. Health & Safety Code 39048) This part may only be used on competition racing vehicles operated exclusively on a closed course in conjunction with a sanctioned racing event. Competition-only motor vehicles may not be driven to a racing event on a public highway and must be transported on a trailer or other carrier. USE OF THIS PART IN ANY OTHER VEHICLE MAY SUBJECT YOU TO FINES AND PENALTIES FOR VIOLATION OF FEDERAL AND/OR STATE LAW, WILL VOID YOUR WARRANTY FROM BURGER MOTORSPORTS, INC, AND CAN VOID YOUR VEHICLE'S WARRANTY. It is your responsibility to comply with all applicable federal and state laws relating to the use of this part, and Burger Motorsports, INC hereby disclaims any liability resulting from the failure to use this part in compliance with all applicable federal and state laws.



OPTIONAL JB4 APP SHOWN

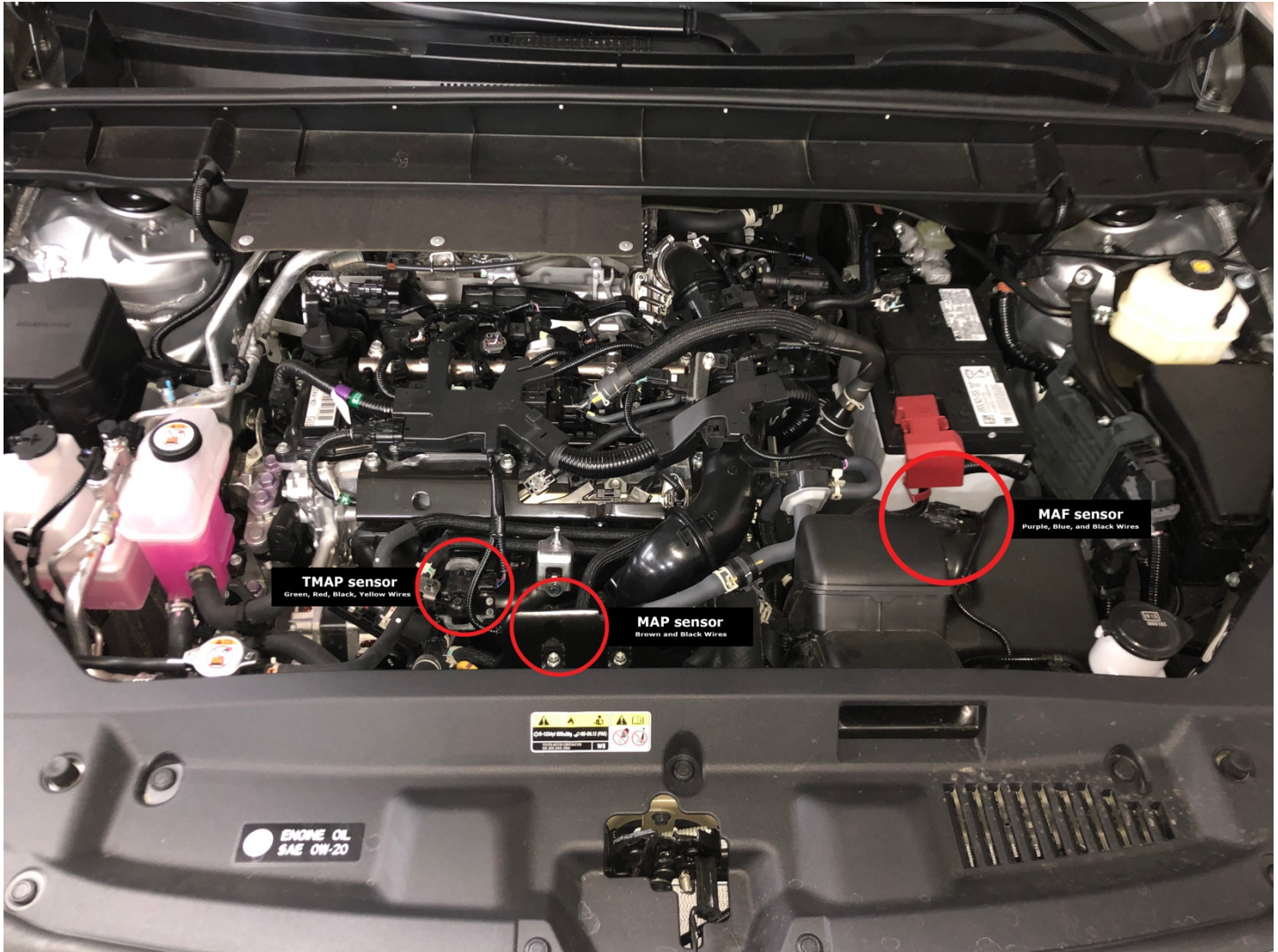
**When working with live wires ALWAYS disconnect the negative battery terminal first. Do not attempt to install the tuner, connect the tuner box to the harness, or otherwise work on the vehicles electrical system with the battery connected. Doing this may result in a damaging voltage spike being sent to the DME.**

1.) Remove the plastic engine cover by simply lifting it off.





The JB4 harness is divided into wire loops each with its own wire color which will be routed to a specific sensor on the vehicle. In addition, there are a pair of green and brown CAN wires that will connect to the CANbus using the included OBDII adapter.





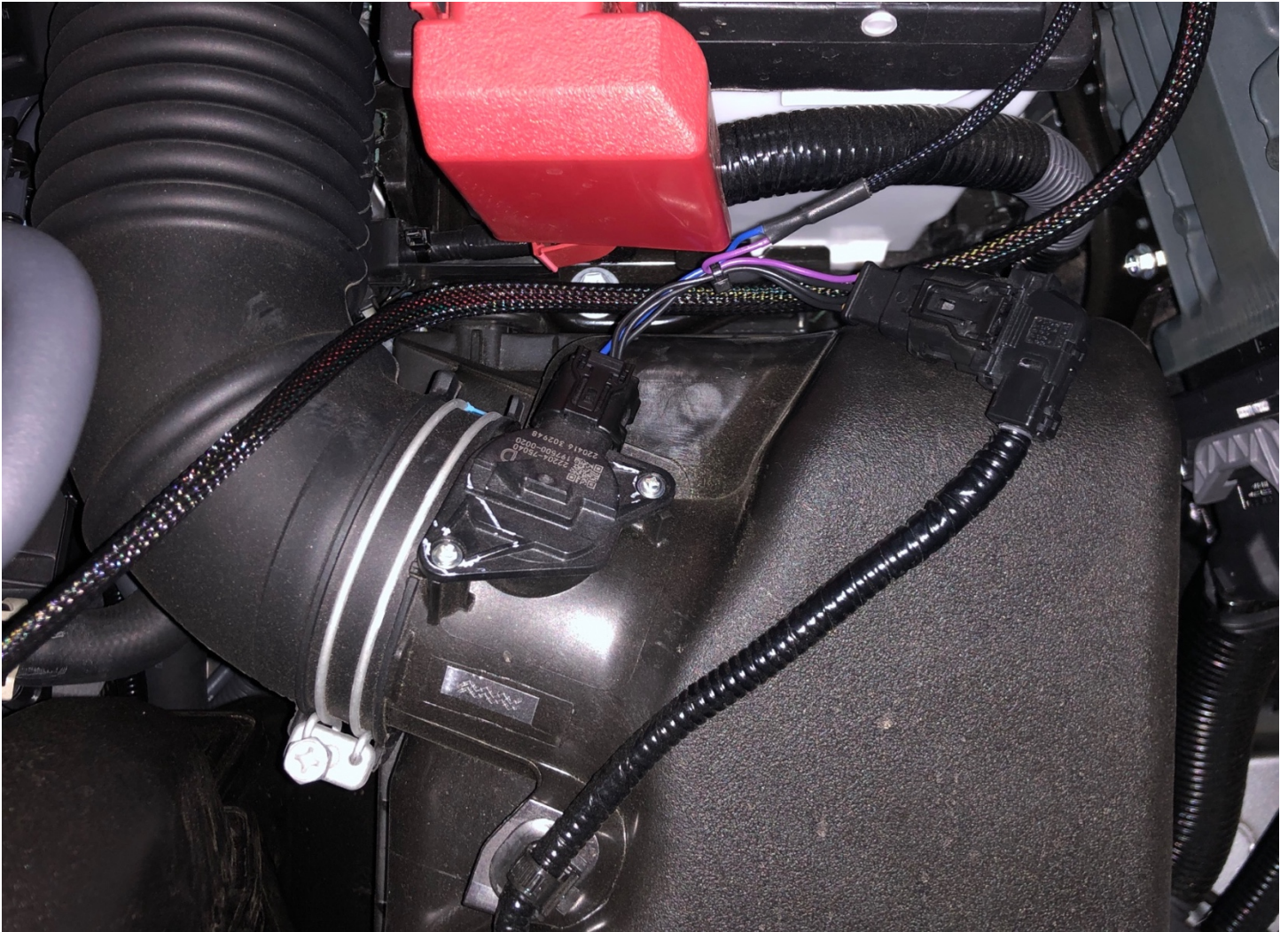
## 2.) MAF sensor, black, purple, and blue JB4 wires:

The TMAP sensor is located on the top of the intake air box on the right side of the engine (looking at the engine) Unplug the factory harness, plug the JB4 harness into the MAF sensor, and plug the factory harness in to the JB4. The clip is released by pushing back and pressing down on the black locking tab. Alternatively you can use a small flat head screwdriver to lift the clip from the front.





JB4 connected to the MAF sensor.



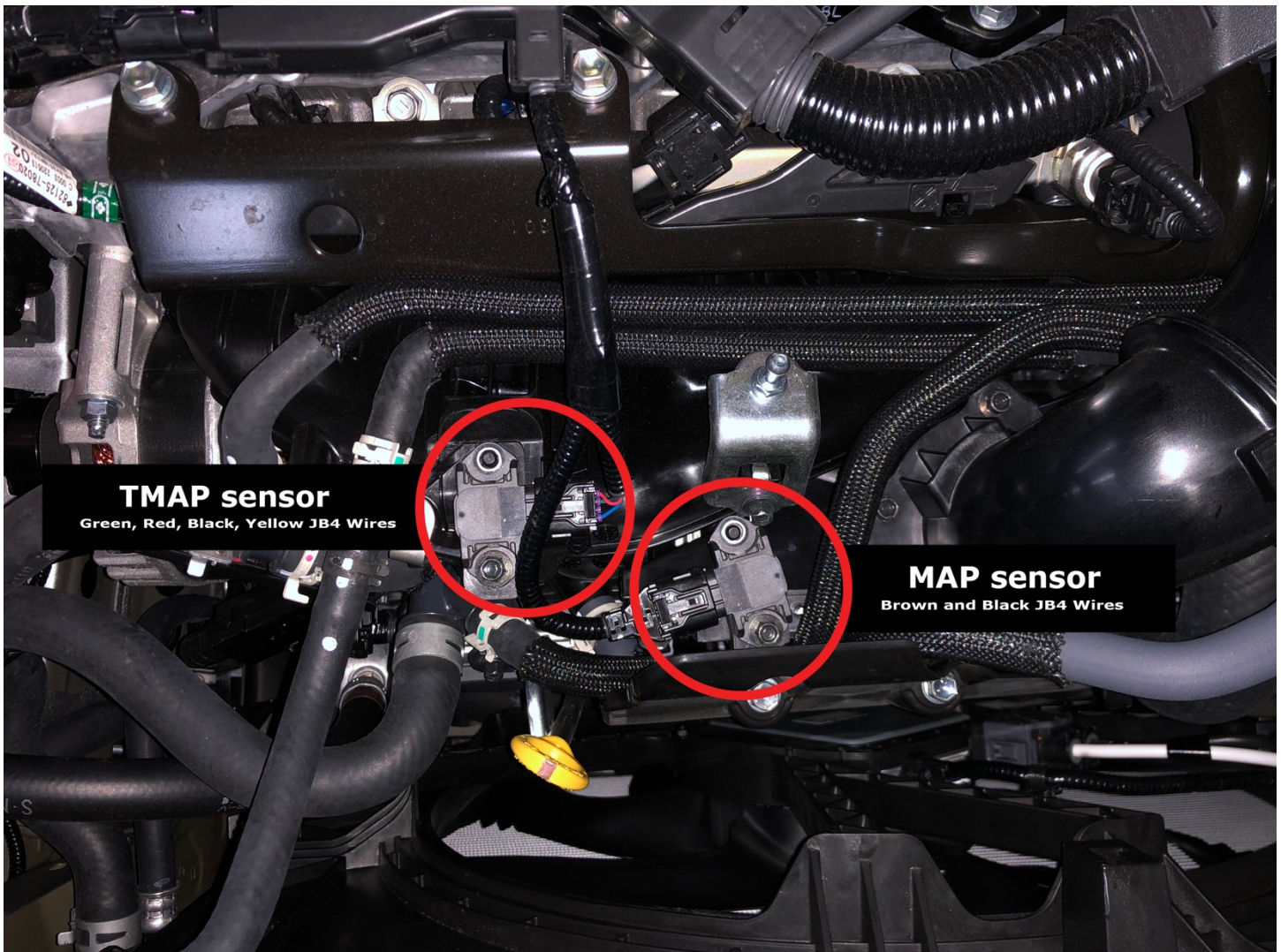


### 3.) TMAP sensor, green, red, black, and yellow JB4 wires:

The TMAP sensor is located on the front of the engine. Unplug the factory harness, plug the JB4 harness into the sensor, and plug the factory harness in to the JB4. The clip is released by pushing back and pressing down on the black locking tab. Alternatively you can use a small flat head screwdriver to lift the clip up from the front.

### 4.) MAP sensor, brown and black JB4 wires:

The MAP sensor is located on the top of charge pipe several inches before the throttle body and disconnects like the TMAP sensor. Unplug the factory harness, plug the JB4 harness into the sensor, and plug the factory harness in to the JB4.



**TMAP sensor**

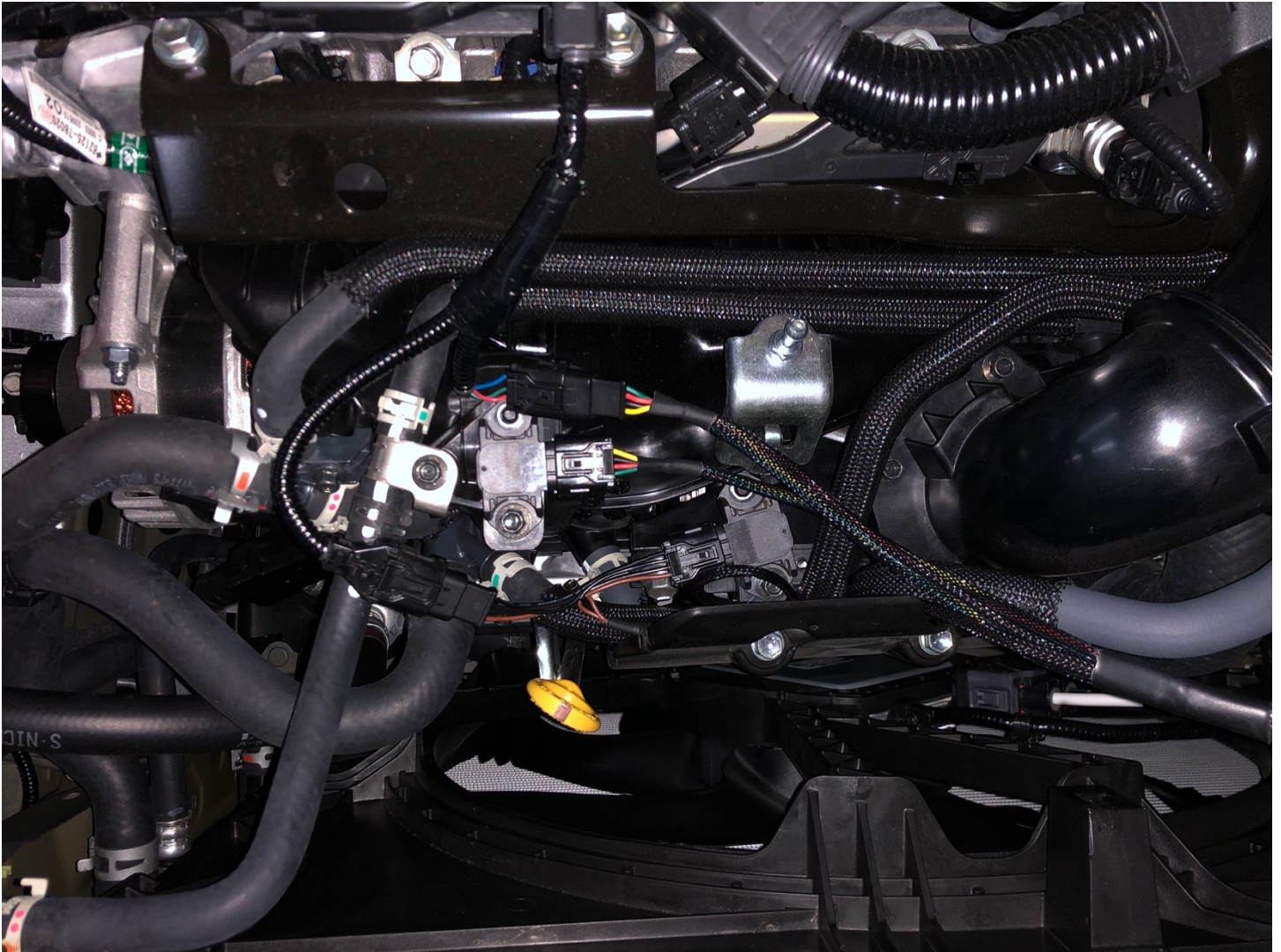
Green, Red, Black, Yellow JB4 Wires

**MAP sensor**

Brown and Black JB4 Wires

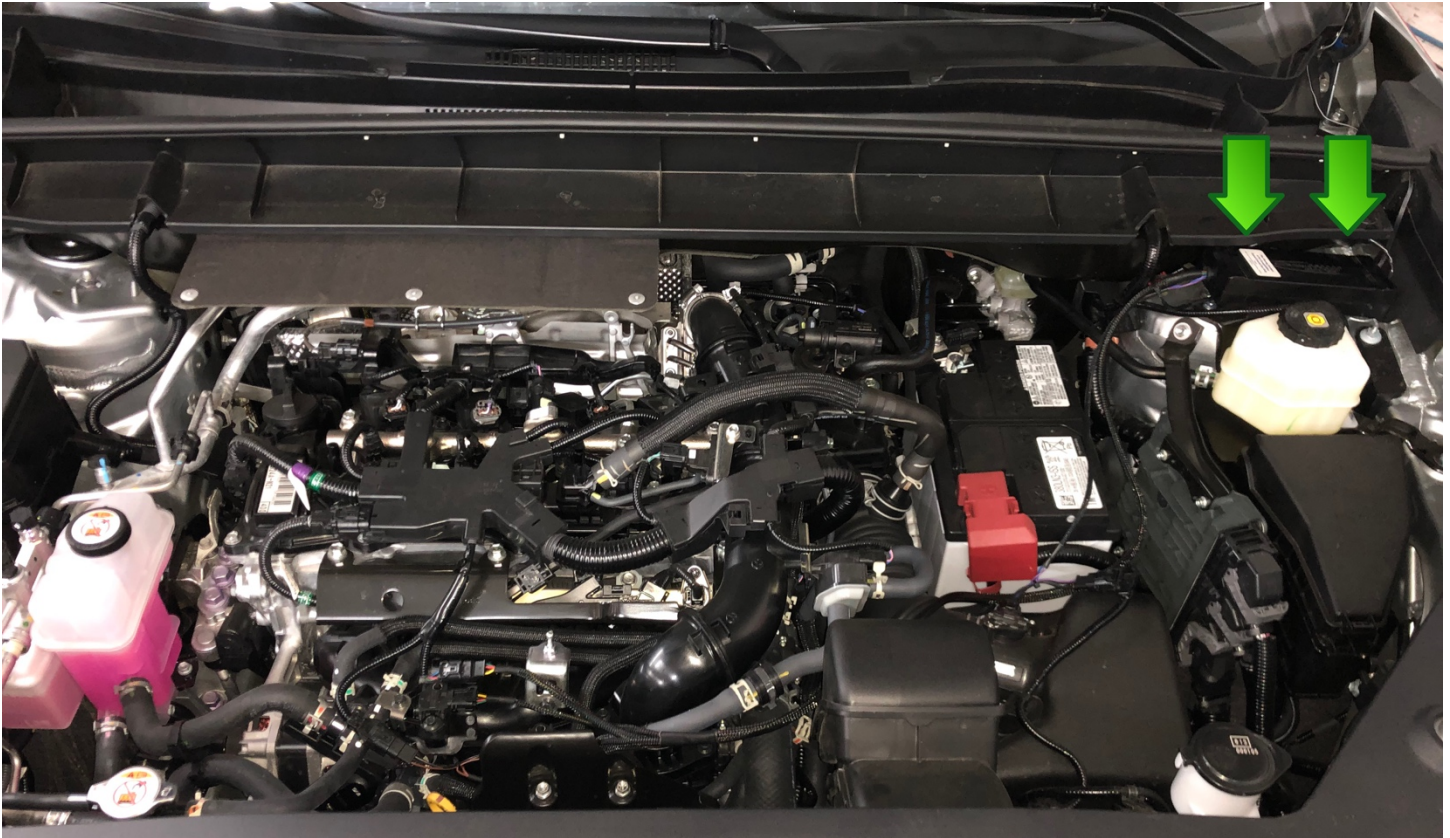


JB4 connected to the TMAP and MAP sensor.





5.) Mount the JB4.



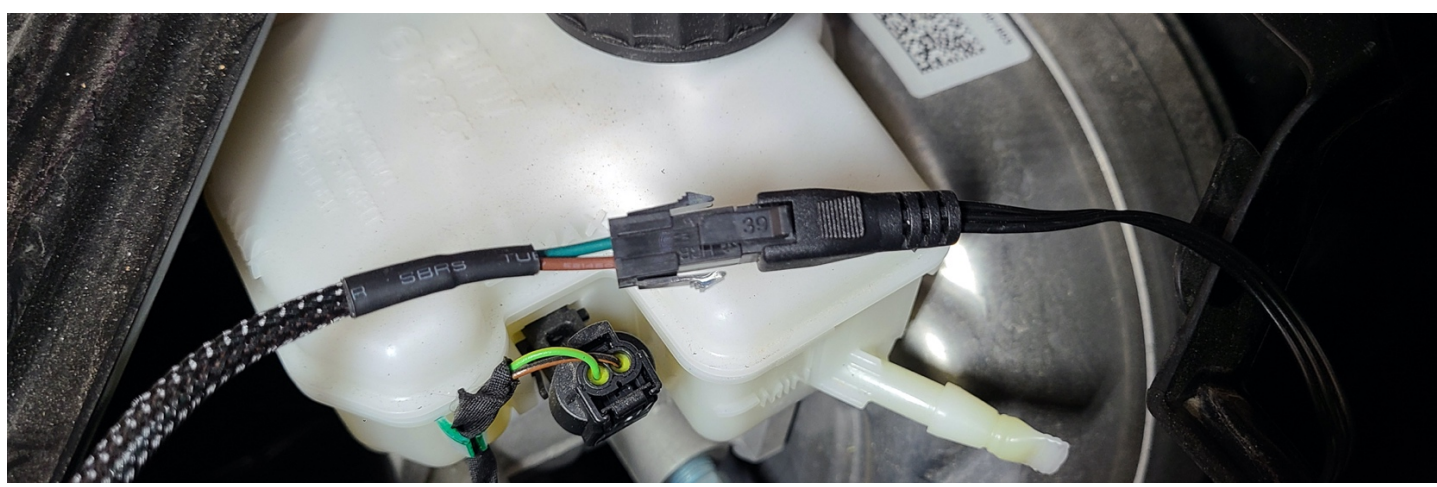
6.) CANbus/OBDII connector: green/brown wires on JB4



This optional connector attaches to the OBDII port to enable the CANbus features listed below. There are two ways to do this. You can put it through a hole in the firewall under the dash or simply run it through the door jamb aby hiding the wire in between the fender and the A pillar.



Plug the OBDII wire in to the JB4 green/brown pair connector.





Using a long screwdriver puncture rubber firewall cap. Be careful not to damage any of the wires. Feed the OBDII wire from the interior through the hole to the engine compartment.





After routing plug the OBDII cable in under the dash and tuck the excess wire behind the side panel as shown. Most of the extra slack can be pulled in to the engine bay.



If you've opted for the optional JB4 mobile adapter for smartphone integration attach that to the JB4 at this time. Open the enclosure and screw it in to the JB4 control board as shown.

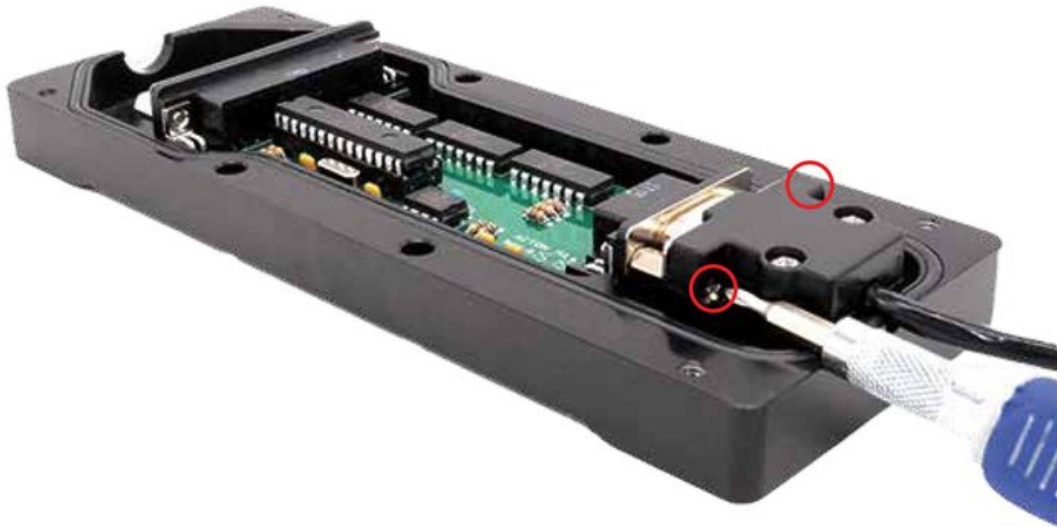
## **JB4 Connect Kit (Pinned Power) Install Guide**

04-13-2020

**1) Open the JB4 enclosure.**



**2) Install the DB9 connector and ensure both screws are secure.**





3) Put the JB4 enclosure back together.



### \*\*\*Very Important\*\*\*

4) Ensure the Connect Kit **\*IS NOT\*** in direct contact with the metal JB4 enclosure or any other nearby metal. Aim the smaller side of the Connect Kit (circled below) **DIRECTLY** towards the driver's seat for best signal quality. Failure to do this may lead to connectivity issues.

