

## BMS Aston Martin Vantage M177 JB4 Install Guide

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## JB4 Tuner Install Guide

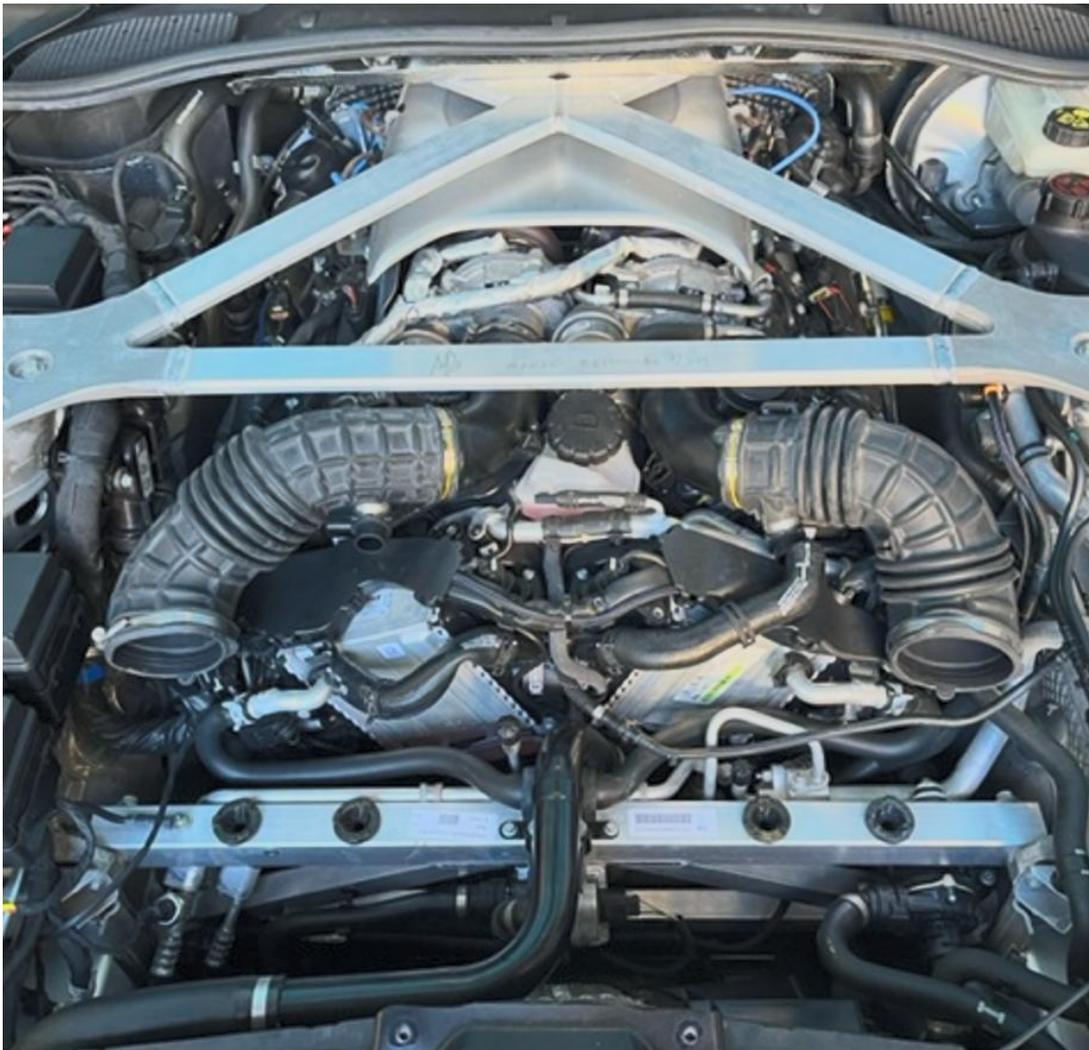
The JB4 install consists of two pairs of MAP sensor connectors, two sets of fuel pressure connectors, and a connection at the OBDII port under the dashboard.

Throughout this guide, references will be made to the various connector pairs by their wire colors and by their gender. Note that electrical connector gender is defined by the pins contained within and not by the housing itself.

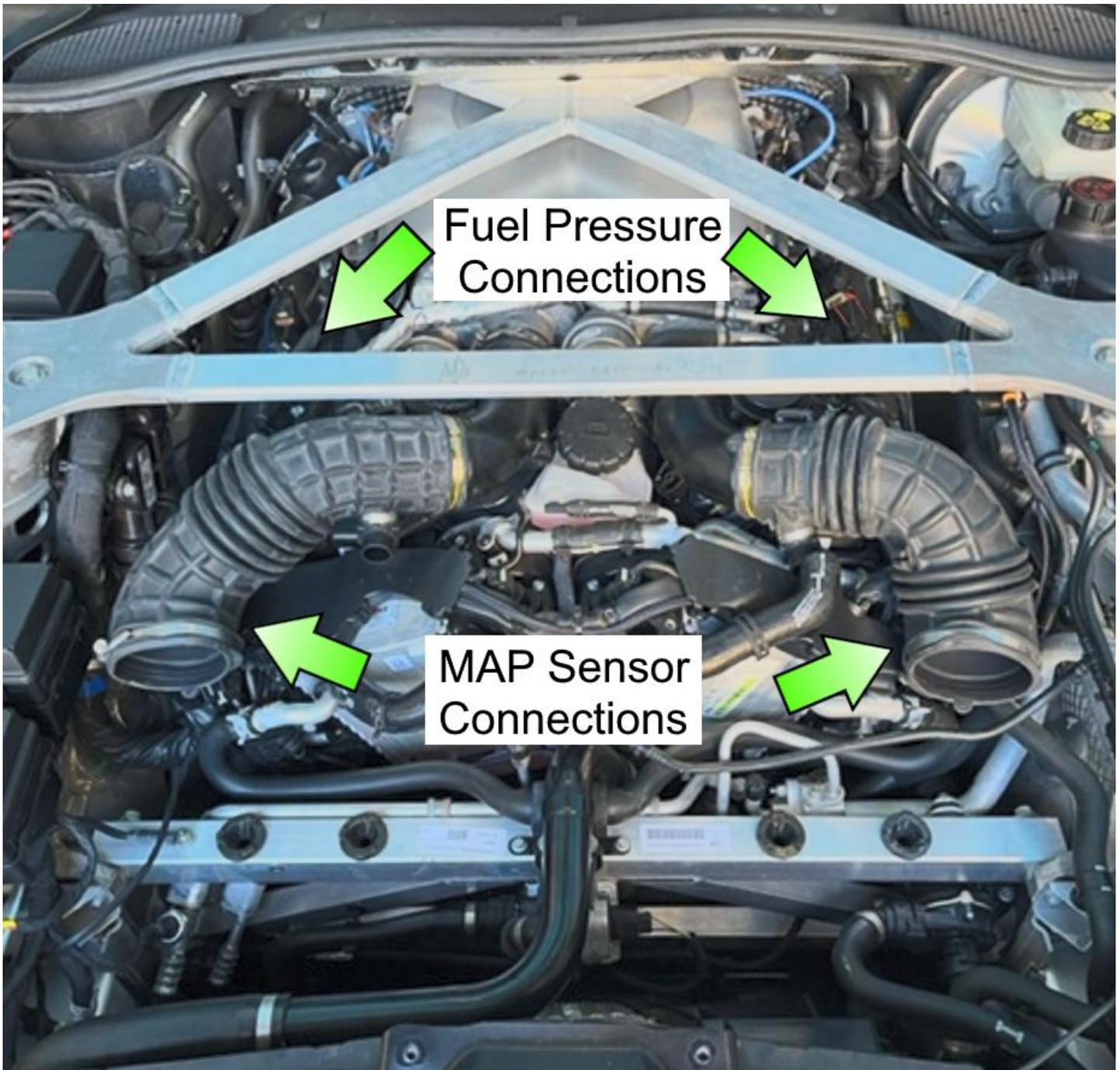
**Step 1: Open the hood and lock the doors. Place the keys 30 feet away from the vehicle, and wait 10 minutes so the ECU does not wake up during the installation process.**

### Step 2: Airbox and engine cover removal

In order to access the sensors, you must remove the air filter housings (airboxes) from the vehicle. Consult a service manual if needed.



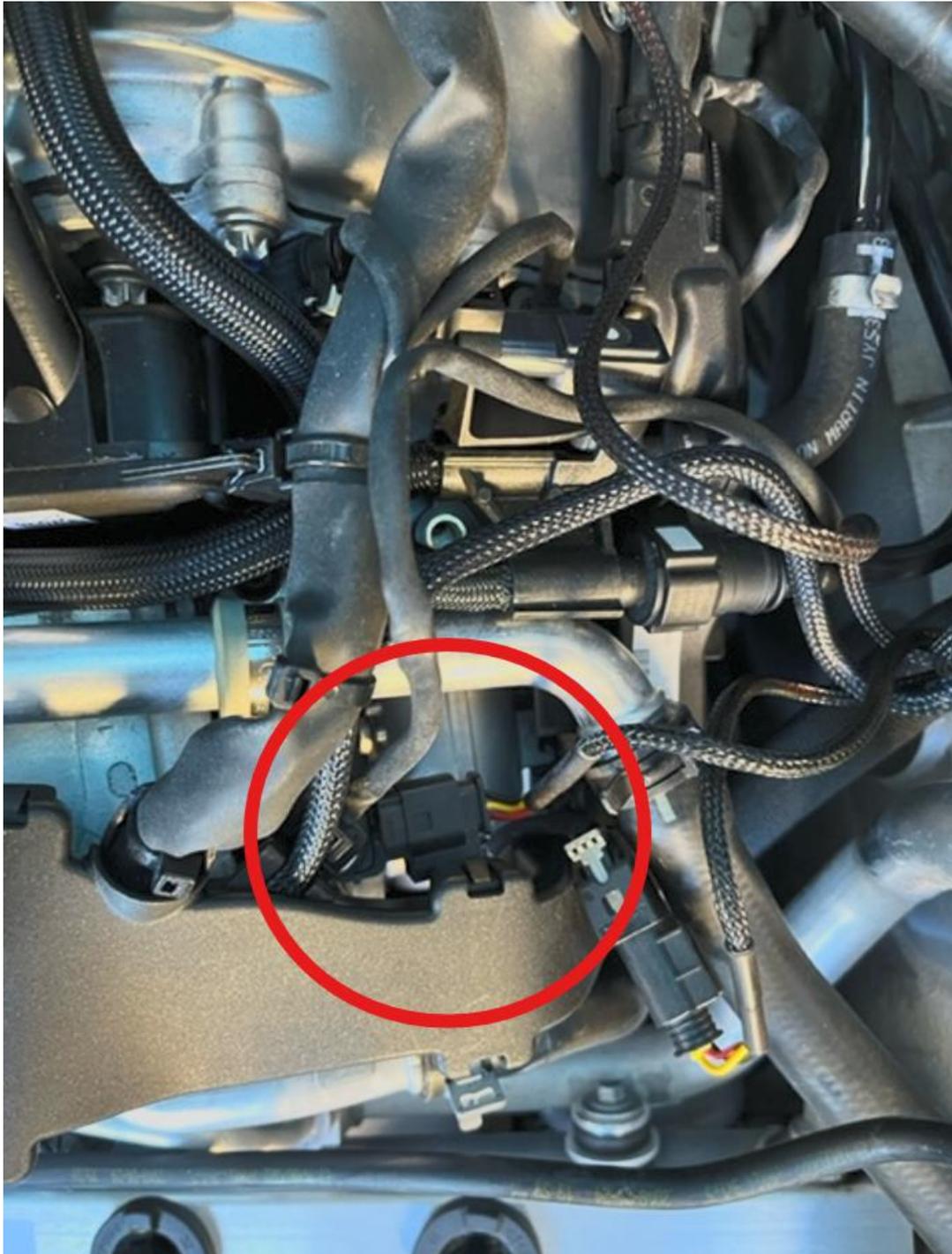
Familiarize yourself with the locations of the sensors that will be used during the JB4 install.



**In some installations, an additional two MAP sensor connections are required. If directed by Burger Motorsports support staff, please refer to the additional connections at the end of this guide for connecting these connections.**

### Step 3: MAP Sensor - (driver's side in LHD vehicles)

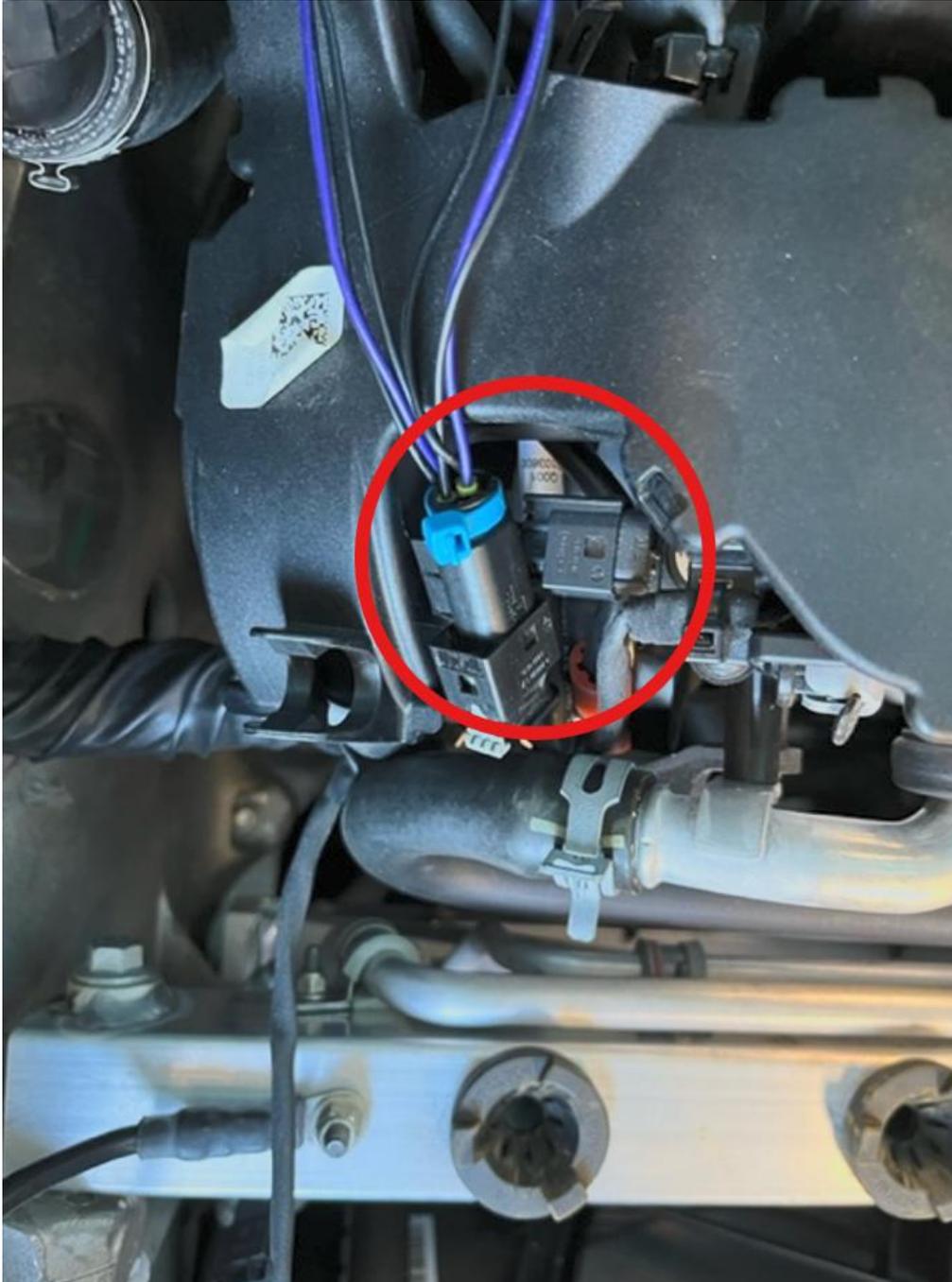
The JB4's red/yellow/black harness patch will connect at this location. Detach the factory wiring from the sensor. Attach the female connection to the sensor as shown, making sure to firmly press the connection in place.



Connect the JB4's male connection to the factory wiring you removed from the sensor as shown.

#### **Step 4: MAP Sensor – (passenger side in LHD vehicles)**

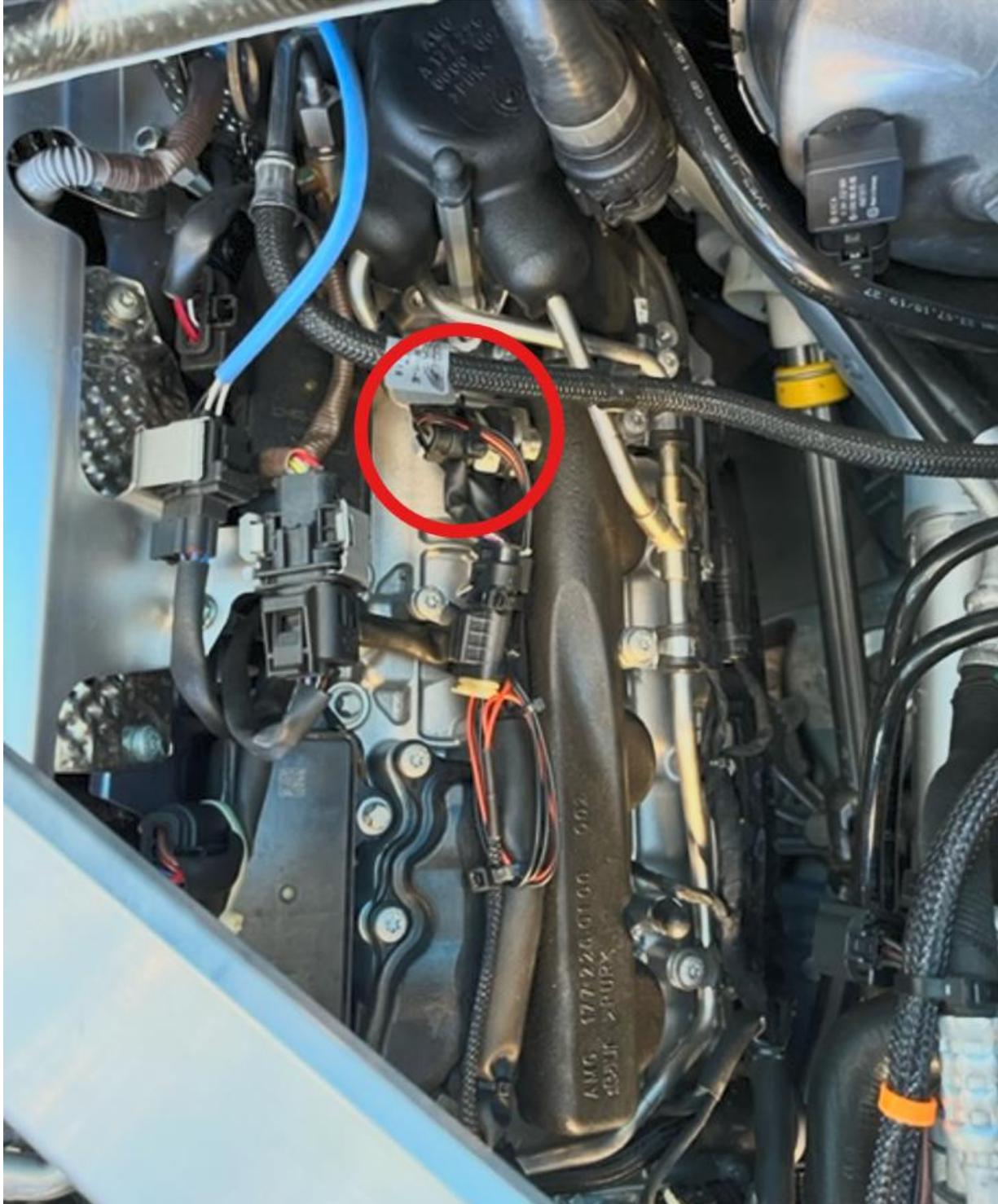
Detach the factory wiring connection at this location and connect the JB4's purple wire connection as shown.



**Note for this section: If directed by Burger Motorsports support staff, please refer to the additional connections at the end of this guide for connecting MAP sensor 4's white connection.**

**Step 5: Fuel Pressure Sensor 1 (driver's side in LHD vehicles)**

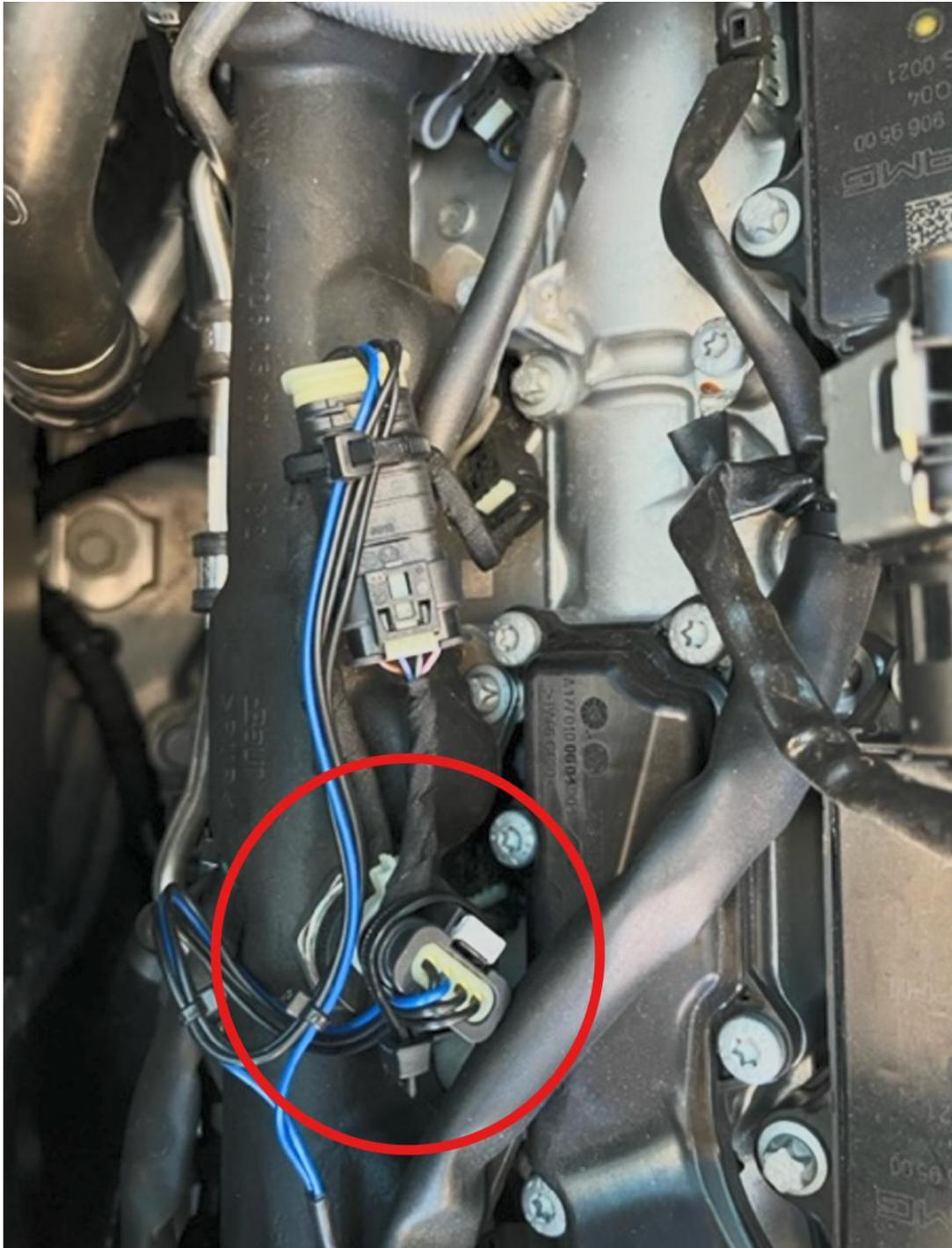
Locate the fuel pressure sensor as shown.



Remove the factory wiring connection in a similar manner to the previous sensors. Place the JB4's orange wire bundle in this location as shown.

## Step 6: Fuel Pressure Sensor 2 (passenger side in LHD vehicles)

Locate fuel pressure sensor 2 in the location shown.



The JB4's blue wire bundle attaches in this location as shown.

Replace the hardware removed from the harness shroud and reclip any sensors you detached during this part of the process to gain access.

## Step 7: JB4 harness routing

Route the JB4 harness across the front of the engine, securing it with zip ties or within factory clips if possible. Place the JB4 enclosure in a weather-protected area under the hood, preferably close to the driver's seating position and away from very hot objects or water exposure.

## Step 8: Replace factory covers and airboxes

## Step 9: JB4 mobile adapter (optional)

If you've purchased the optional JB4 mobile adapter open the enclosure and plug the adapter into the JB4 board directly as shown. When closing the enclosure ensure the control board is properly lined up and only tighten down screws once the case closes smoothly to avoid damaging the JB4 board.

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

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1) Open the JB4 enclosure.



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



### Step 9: OBDII connection (optional)

Unlock the vehicle. If desired, route the JB4's OBDII cable connection through the firewall or door jamb to the OBDII port under the dashboard and connect it. Connect the small end near the JB4 enclosure noting the orientation of the connector in the photo below.



### Step 10: Finishing up

Start the vehicle and drive around normally until it reaches operating temperature. Then with progressively heavier throttle applications, make sure you allow the vehicle to adapt to the new power. Installation is complete!

The JB4 is set to map 1 by default on a new installation which is appropriate for 91 octane fuel or higher.

Find the latest information on the JB4, including, software, firmware, and more information here:

<https://www.jb4tech.com/forum/model-specific-engine-tuning-modification-discussion/mercedes-c250-c300-c43-amg/23466->

Map changes, datalogging, updates are done using the BMS data cable or the JB4 Mobile Bluetooth kit.

Information on the JB4 mobile app including installation information is found here:  
<https://www.jb4tech.com/forum/model-specific-engine-tuning-modification-discussion/jb4-mobile/1192-jb4-mobile-for-apple-and-android-smart-phone-support>

Information on the hard-wired USB connection and PC JB4 interface is found here:  
<https://www.jb4tech.com/forum/model-specific-engine-tuning-modification-discussion/n54/support-log-review-ab/138-jb4-laptop-connection-directions>

Map guide:

Map 0: Stock operation, JB4 disabled

Map 1: Default performance map, 4psi peak over stock, taper to redline

Map 2: 5psi peak over stock, taper to redline

Map 3: 6psi peak over stock, less taper to redline, suggest E85 mixture or octane booster

Map 4: Low boost VALET map -- Ideal for when "friends" are driving your car

Map 5: 7psi peak request over stock, less taper to redline, requires unleaded racing fuel or E85 mixture

Map 7: 9psi peak request over stock, requires unleaded racing fuel, boost control module

Map 8: WMI (water/meth) progressive mapping -- under development

For any questions on the install, please contact [support@burgertuning.com](mailto:support@burgertuning.com).

**Note for 2020+ models:**

The JB4's firmware must be updated via the JB4 Mobile Bluetooth kit or BMS USB cable to platform 54 firmware. A sample of the firmware update is shown here:

<https://www.youtube.com/watch?v=qYzUzBeQMQM>

Failure to update the firmware on these models will limit performance and prevent you from logging the full parameter set via the JB4's OBDII connection. Data available in the JB4 Mobile app will be similarly limited.

**Supplemental connection information:**

If needed, two additional MAP sensor connections may be required. These would be located downstream of the two MAP sensors connections you attached initially, slightly further down and to the rear of the vehicle as the throttle body transitions to the intake manifolds. If directed by BMS support staff, please connect the brown wire connection to the driver's side and white wire connection to the passenger side sensors.