

BMS Infiniti Q50 Q60 VR30 Stage1 & JB4 Install Guide

Last Updated: 5/8/2022

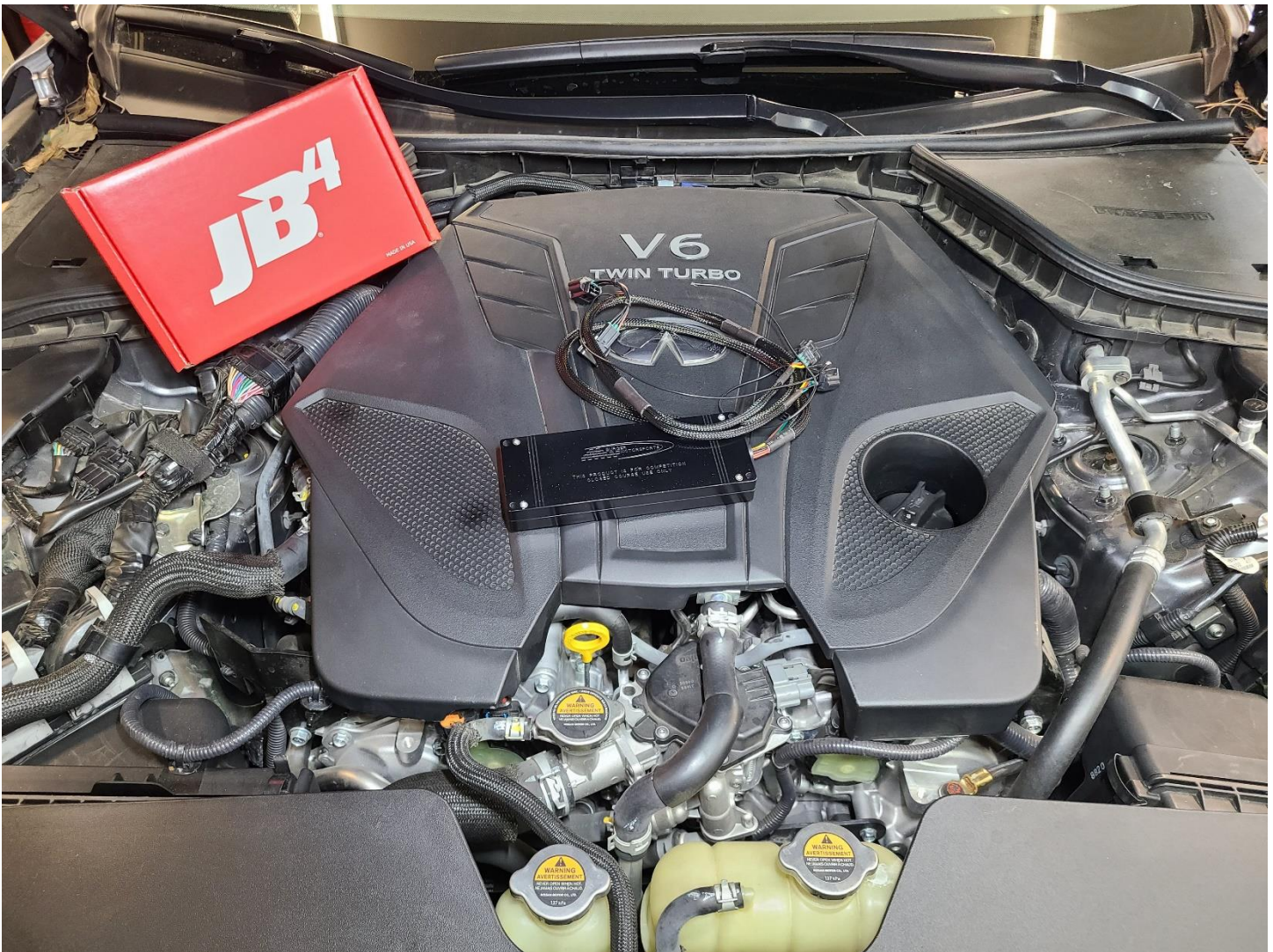
Use subject to terms and conditions posted at
<http://www.burgertuning.com/terms.html>

NOTE TO CALIFORNIA CUSTOMERS:

Provided with this tuner is an Executive Order (EO) self-adhesive label. This label is required in passing a smog inspection test. The EO label should be placed on or near the device in the engine compartment so that the smog check technicians can verify the EO number. Note that only the version bearing the VR30DDTT_JB4 part number carry this Executive Order label and a version that does not bear this part number may not be used in California.



Before starting installation lock the doors, and place the key at least 20 feet away from the vehicle. Wait 10 minutes for the vehicle to go to sleep.



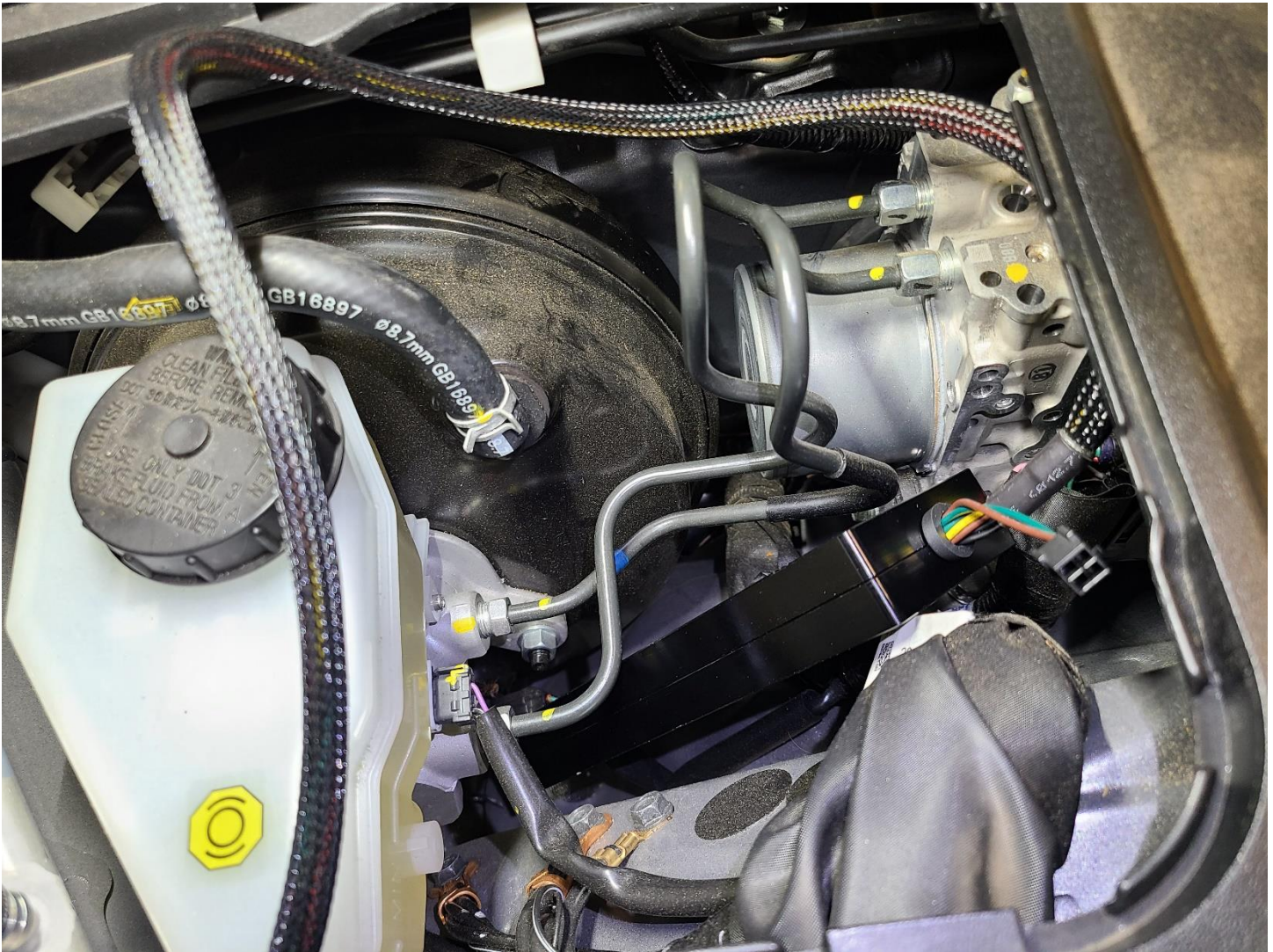
Lift off the plastic engine cover and place it aside.



Locate the corner compartment cover labeled "BRAKE FLUID". Remove the cover and set it aside.



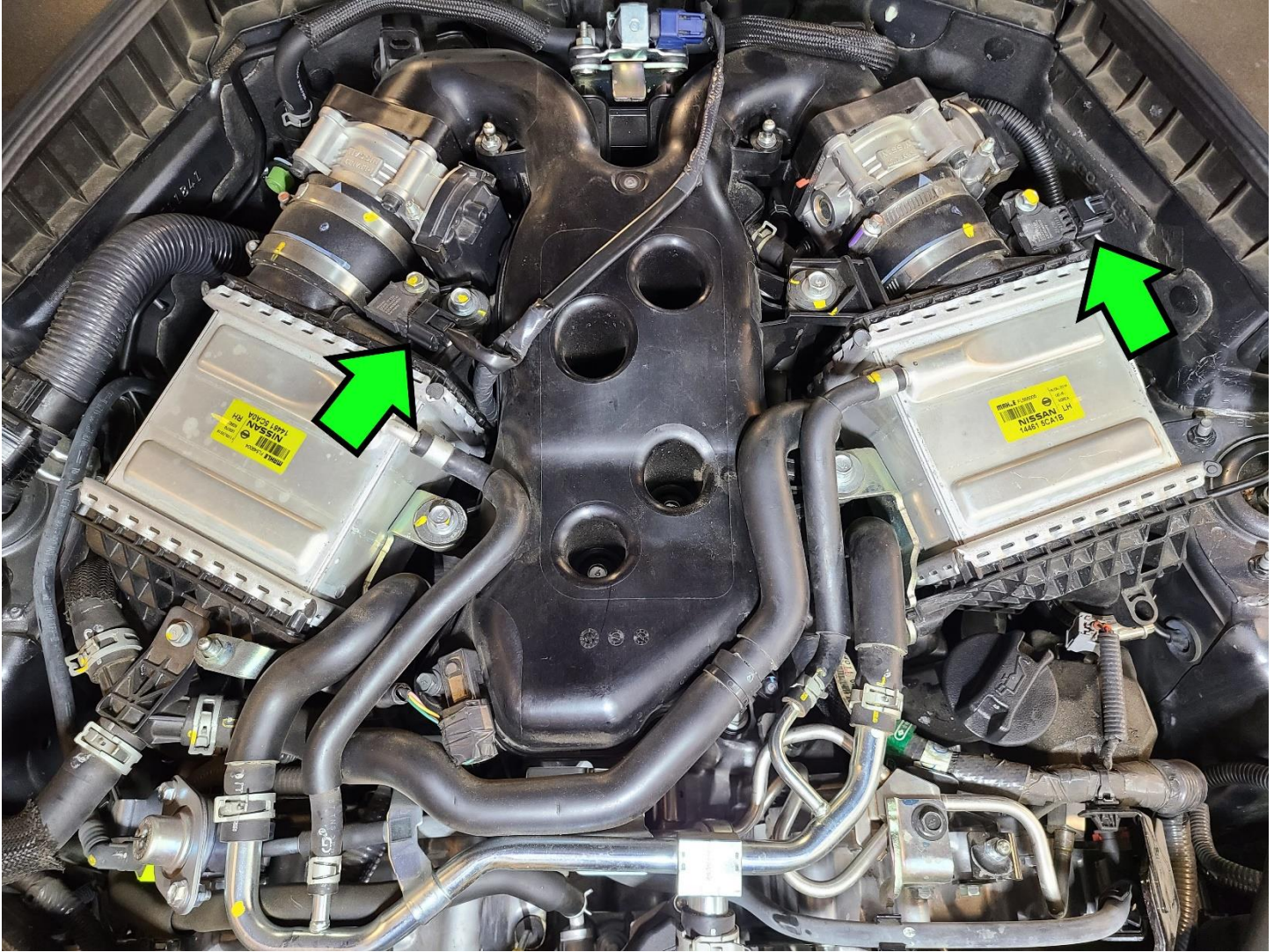
Place the JB4 or Stage1 control box as shown near the brake booster.



Route the JB4 or Stage1 harness under the plastic by lifting the section as shown.



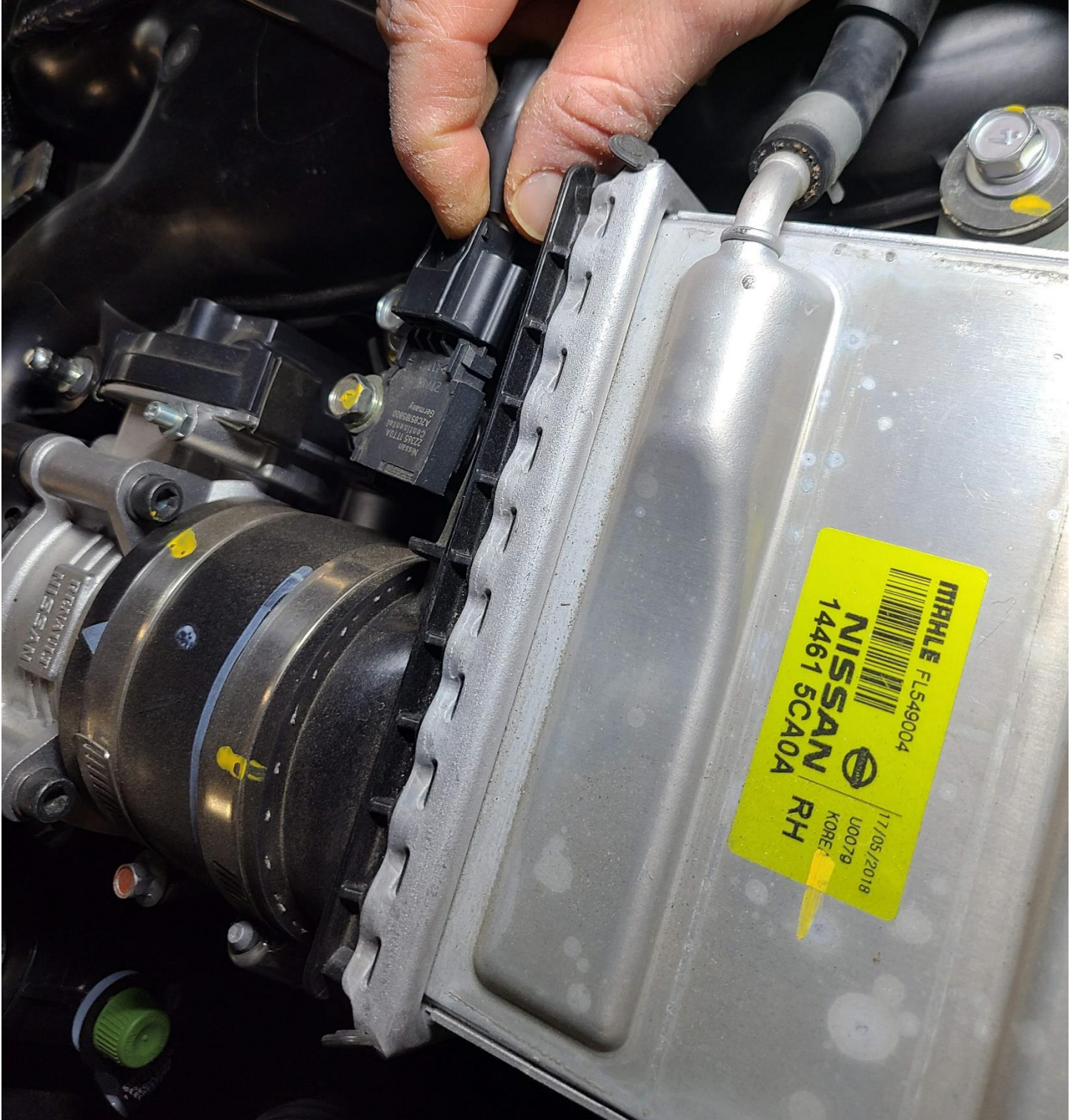
The JB4 or Stage1 connects to two MAP connections under the hood. The rainbow connection goes to the passenger side sensor while the brown wire connection goes to the driver's side sensor.



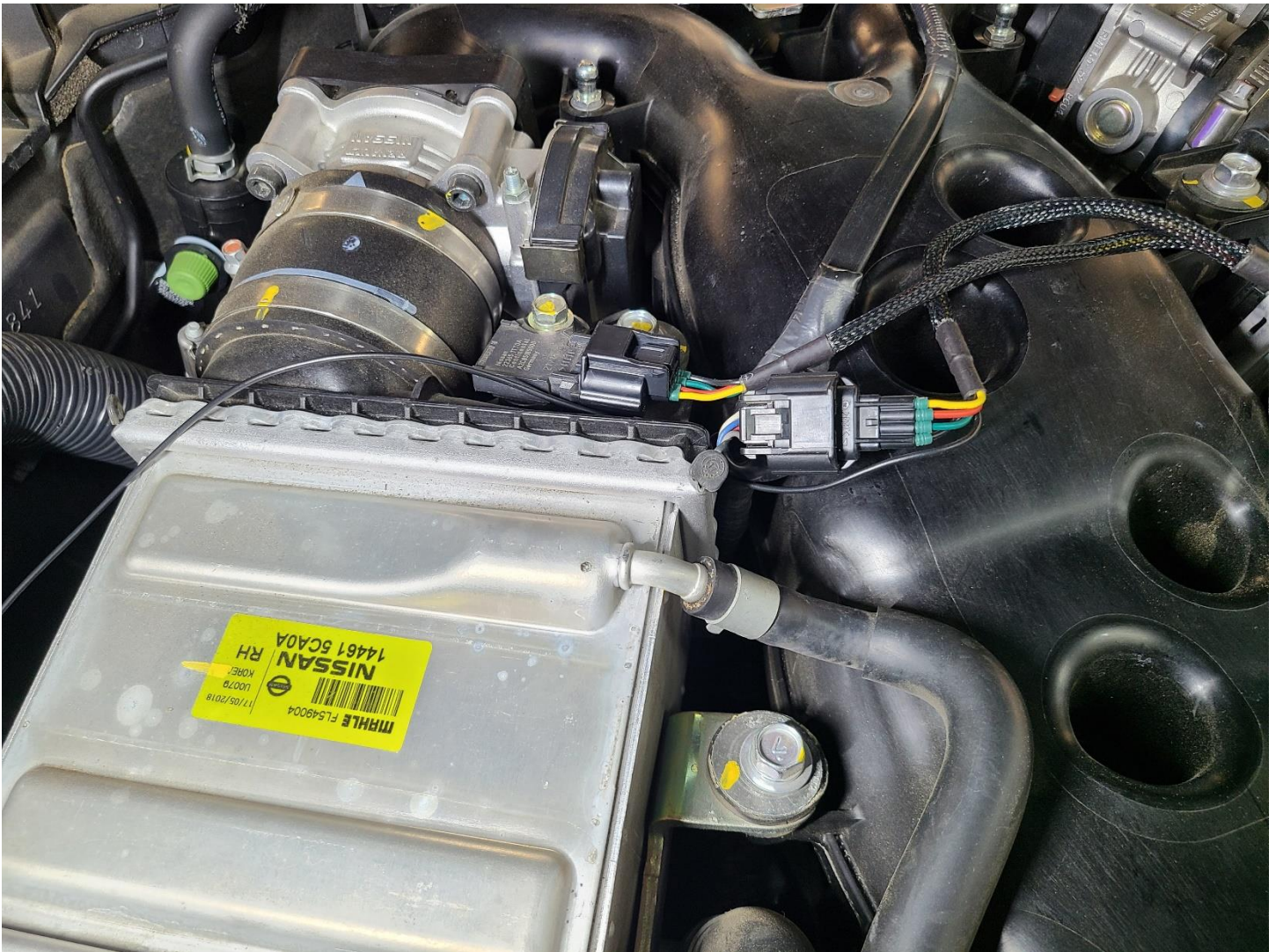
Lay the JB4 or Stage1 harness over the engine as shown.



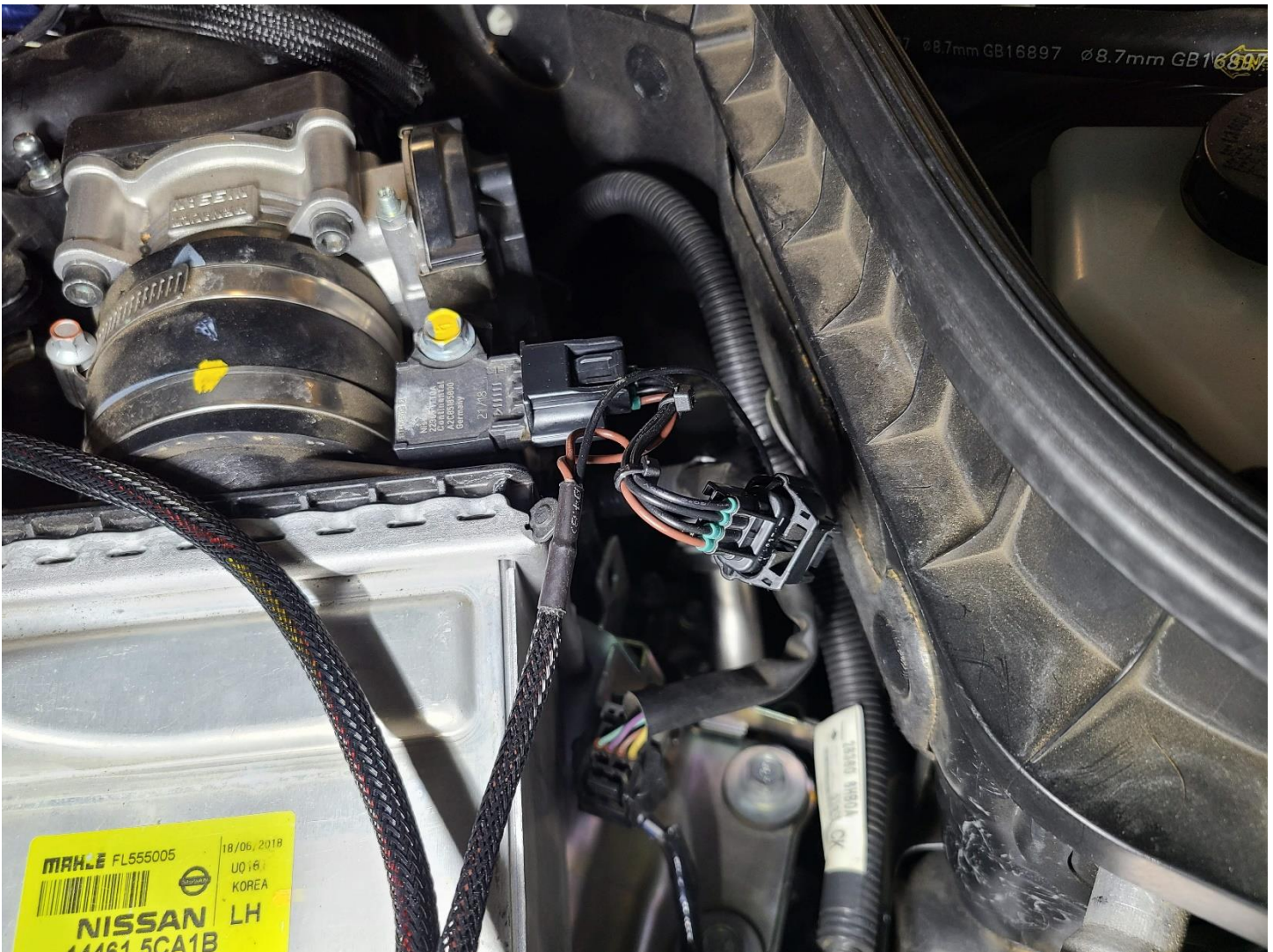
To disconnect the factory sensor connections, press down on the tab as shown, then pull firmly on the connector housing. Do not pull on the wires directly. You can also put pressure on the connector from the front side to aid in release.



Plug in the JB4 or Stage1 female rainbow connections at the passenger side sensor as shown. The factory wiring that was removed from the sensor will be attached to the other end of the rainbow connector pair, completing the loop. Note that the pins inside the connectors are delicate so take care when plugging the connectors in to ensure they seat properly. Never force a connector and if you are having a hard time, you can use a small screwdriver to align the male pins as needed so it inserts smoothly. The loose black wire is the optional fuel control wire. Refer to page 23 of this guide for additional information.



Repeat the connections at the driver's side sensor with the JB4 or Stage1 brown connector pair.



CANbus/OBDII connector – JB4 only



Vehicle can now be unlocked, and doors opened as OBDII can be installed/connected with vehicle awake. This optional connector attaches to the OBDII port to allowing the JB4 to take in additional advanced engine parameters to incorporate in to tuning and logging via the app.

Identify this rubber grommet from the engine bay and under the dash. You'll use a long screwdriver to push the grommet out from under the dash allowing you to feed a the OBDII wire in to the engine bay.



Under the dashboard to the left of the parking brake pedal, locate the wire harness passing through the grommet.



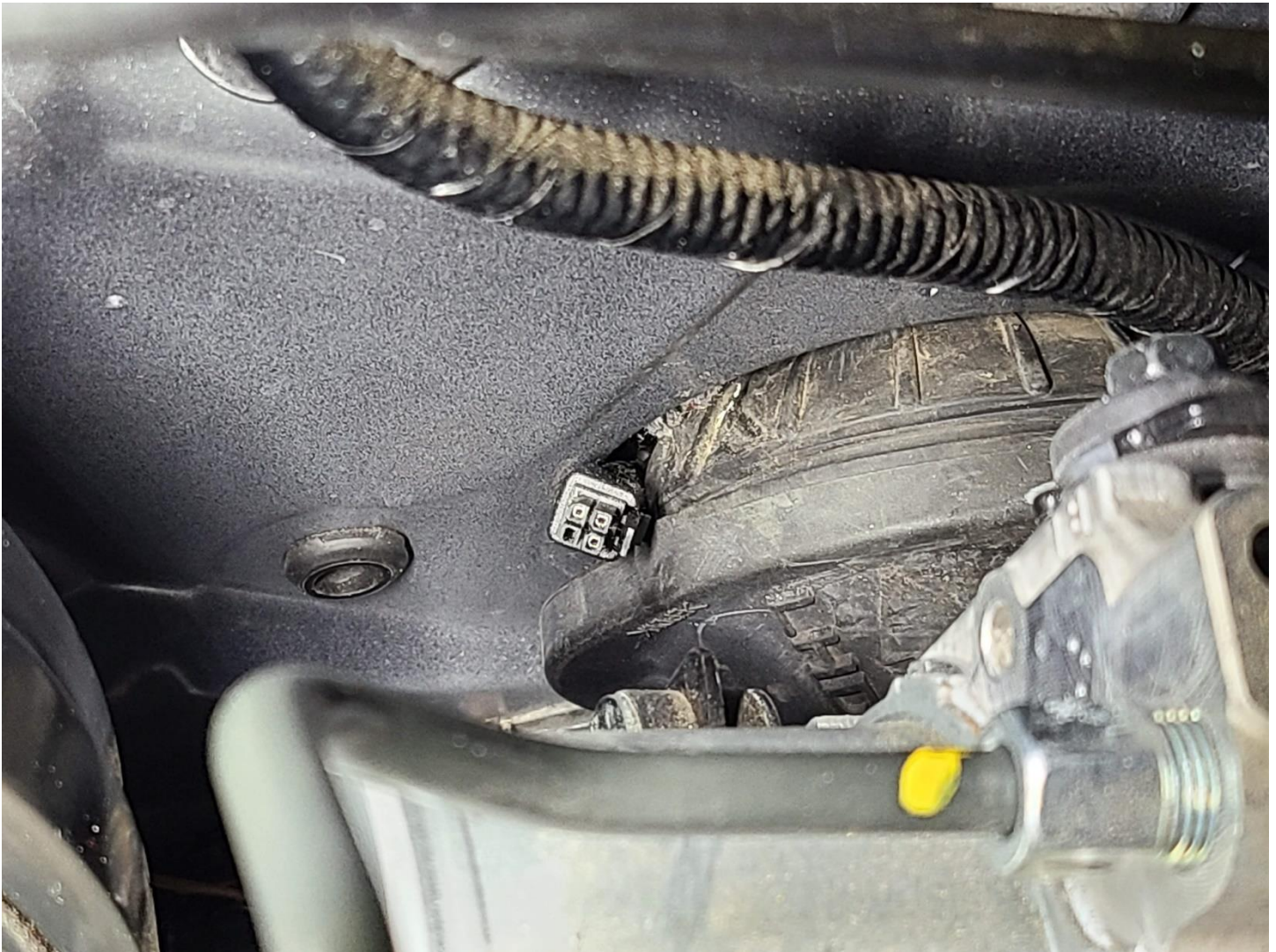
You can push on the grommet with a screwdriver or your fingers toward the engine compartment. Then pass the small end of the OBDII cable next to the grommet.



Attach the large end of the OBDII cable to the OBDII port as shown.



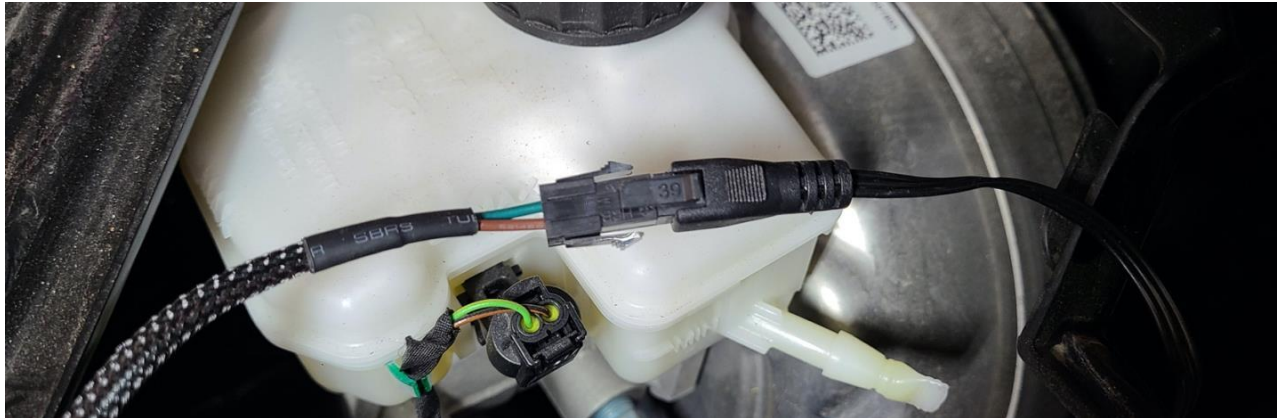
Return to the area near the brake booster to find the end of the OBDII cable that you passed through in a previous step. Pull gently on the end of the wire and bring the end toward the JB4's control box. Pull the bulk of the wire through into the corner compartment, leaving just enough slack for the OBDII cable to reach the OBDII port. The wire should not be under tension so make sure there is enough slack in the footwell.



You can now replace the grommet by pressing from the corner compartment. Note that the arrow must line up with the dot on the firewall for the grommet to fully seat and seal over the OBDII cable.



Attach the small end of the OBDII cable to the JB4's harness via the connector at the end of the short green/brown wire patch near the JB4's control box. Note the orientation of the notch on the JB4 connection to the clip on the OBDII cable. It is possible to force this connection incorrectly which will result in only boost/map appear in app and no other data showing until corrected.



Latch goes over the notch on plug with green and brown wires



Notch on plug that is on the JB4 side with green and brown wire

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.

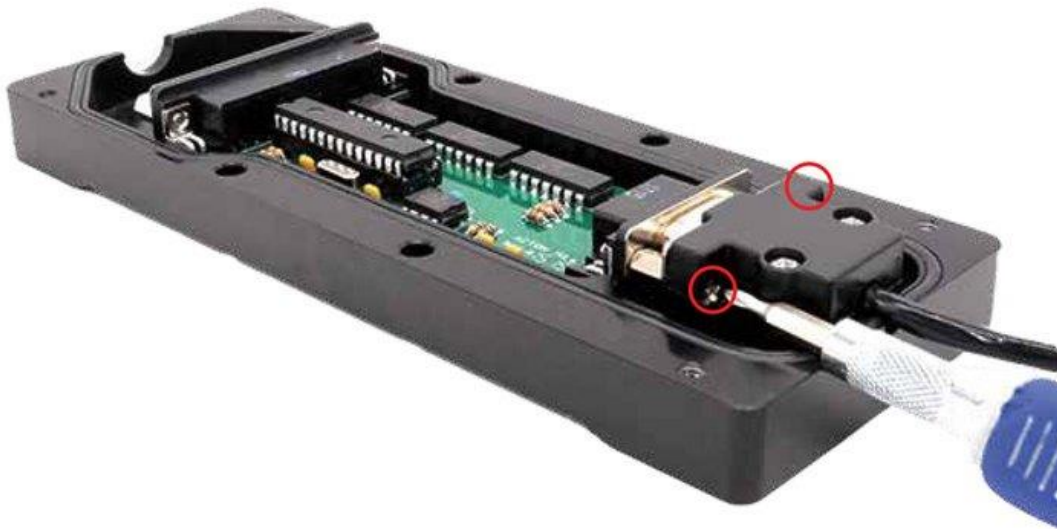
JB4 Connect Kit (Pinned Power) Install Guide

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.



Reinstall the engine and corner compartment covers, and installation is complete!

Maps & Settings:

The Stage1 unit is preset to 3psi over stock. No alterations are possible.

JB4 Maps as of v8 firmware:

Map0 - JB4 disabled

Map1 - 4psi peak, default map, 91+ octane

Map2 - 5psi peak, slightly stronger, 91+ octane

Map3 - 5.5psi peak, suggested for 93+ octane or 30% E85 mixtures

Map4 - 6psi peak, suggested for 93+ octane or 30% E85 mixtures

Map5 - 7psi peak, suggested for 100+ octane or 30% E85 mixtures

Map6 - User adjustable by RPM map using settings on user adjustment page. Setting of 5.0 would request 5psi over stock at that specific engine speed.

Map7 - Progressive WMI integrated map, boost profile under WMI flow adjustable on WMI page.

Map8 - Low boost VALET map (200hp simulation!) -- Auto selects when in ECO MODE.

The JB4 comes preset to Map 1 which runs approximately 4psi over stock peak tapering to 2psi over stock at redline.

Maps can be changed using the JB4 Wireless Mobile Connect Kit or BMS Data Cable to adjust boost levels, record data logs, read/delete fault codes, and load free firmware updates.

Refer to the link below for the full map guide, software, firmware updates, how to videos, and tuning details.

<https://www.jb4tech.com/forums/showthread.php?t=46774>

NOTE TO CALIFORNIA CUSTOMERS:

Provided with this tuner is an Executive Order (EO) self-adhesive label. This label is required in passing a smog inspection test. The EO label should be placed on or near the device in the engine compartment so that the smog check technicians can verify the EO number. Note that only the version bearing the VR30DDTT_JB4 part number carry this Executive Order label and a version that does not bear this part number may not be used in California.

Fuel Wire Supplement – Non-CARB JB4 only

Newer JB4 models also include two OPTIONAL black expansion wires which can be used to adjust your air/fuel ratio to better match what flash tuners offer. Generally, this is for more advanced customers who are looking for every last horsepower.

Using the Posi-tap connectors found in the OBDII bag, connect the black fuel wires to the white wire in the factory O2 sensor wiring connection as shown. The driver's side connection is found below the MAP sensor connection to the outboard side of the intercooler.



The passenger side fuel wire connection is in a mirror location on the opposite side of the engine compartment. Attach the Posi-tap connection to the white wire in the factory wire bundle.

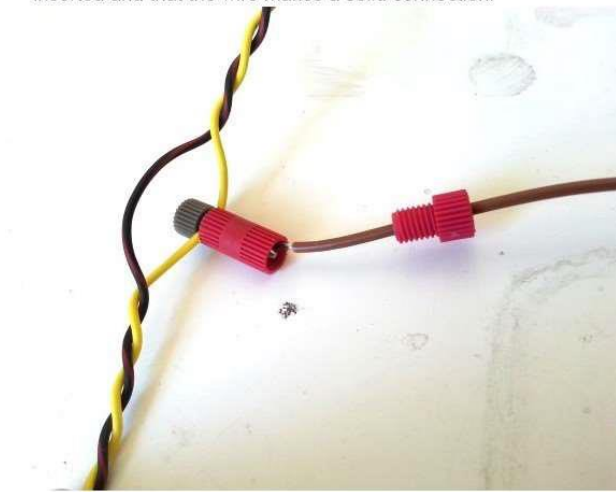


Posi-tap instructions:

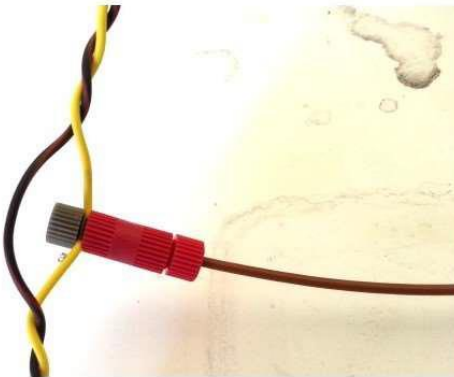
Unscrew connector and slide gray part over wire to intercept.
Then screw base firmly in to gray connector to make connection.



Slide wire to be connected through connector as shown and poke stripped wire in to base. As you tighten base ensure wire remains inserted and that the wire makes a solid connection.



How it should look when complete.



To enable fuel control wires, connect to the JB4 using the JB4 mobile app or interface software and under Settings/User Adjustment, set Options bit 0 to enabled, then save the settings.

For additional directions on how to attach the fuel control wires including a video, firmware, and additional information, refer to this thread:

<https://www.jb4tech.com/forums/showpost.php?p=536792&postcount=2>

Troubleshooting

Failure to make connections completely, improper orientation of the JB4's OBDII connection, or failure to put the vehicle to sleep prior to the installation may result in a check engine light (CEL).

In addition to the above, incorrect installation may damage your JB4. If you experience any issues, carefully go over your installation to make sure you have used the correct install locations, completed the connections fully, and verified the orientation of the OBDII connection.

If issues persist after verifying the above information, please contact support@burgertuning.com. Be prepared to provide detailed photos of your installation including photos of each sensor location, the orientation of the OBDII connection, and photos of the top and bottom of the JB4's circuit board from inside the casing as this information may be required for remote diagnostics.

If you are not experiencing a CEL but are not able to connect to your JB4 Mobile connect kit via the JB4 Mobile app, please contact support@jb4connectkit.com.