JB4 N20 / N55 Flex Fuel Connector Add On Harness

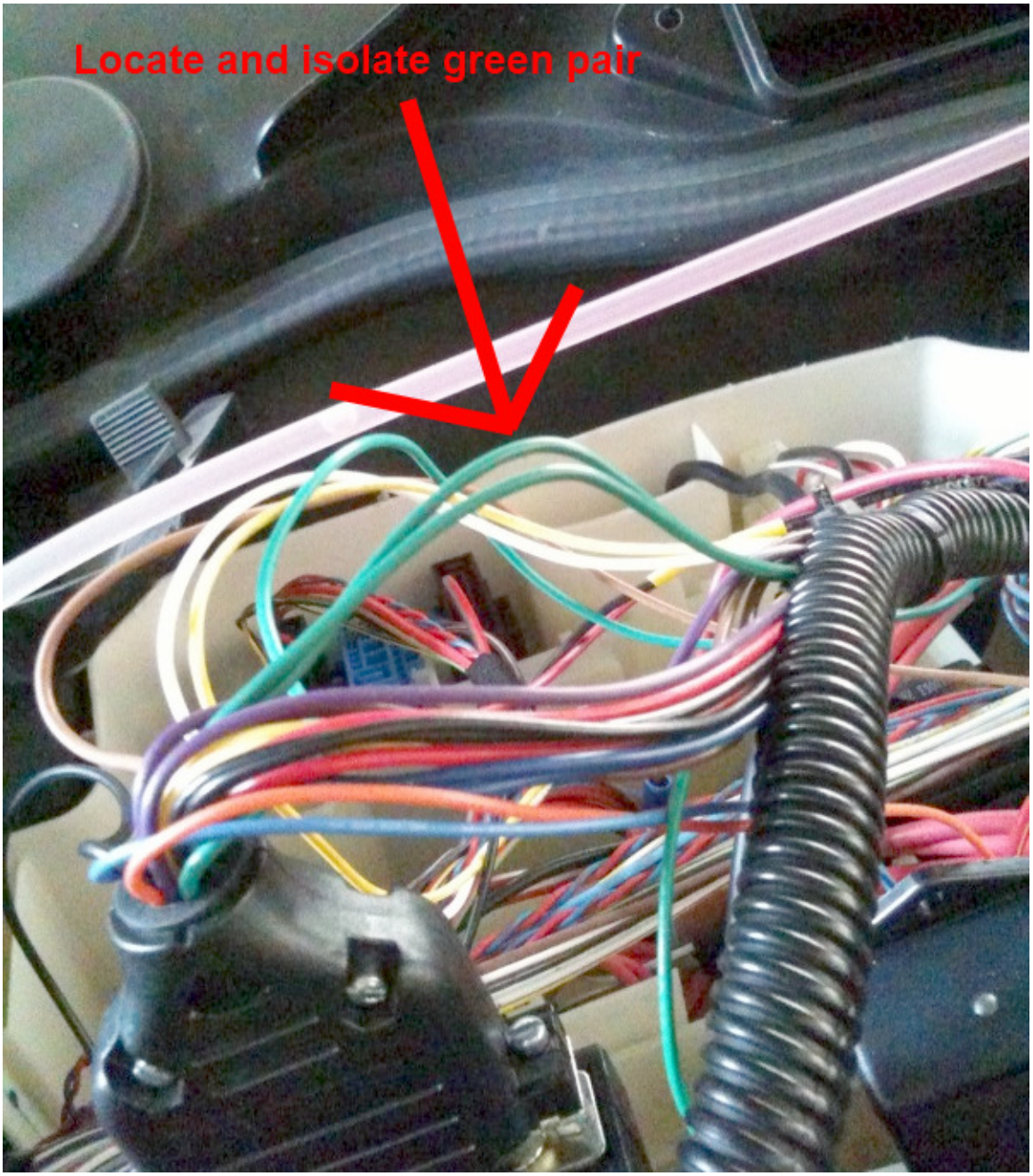
Last Updated:5/21/2014

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

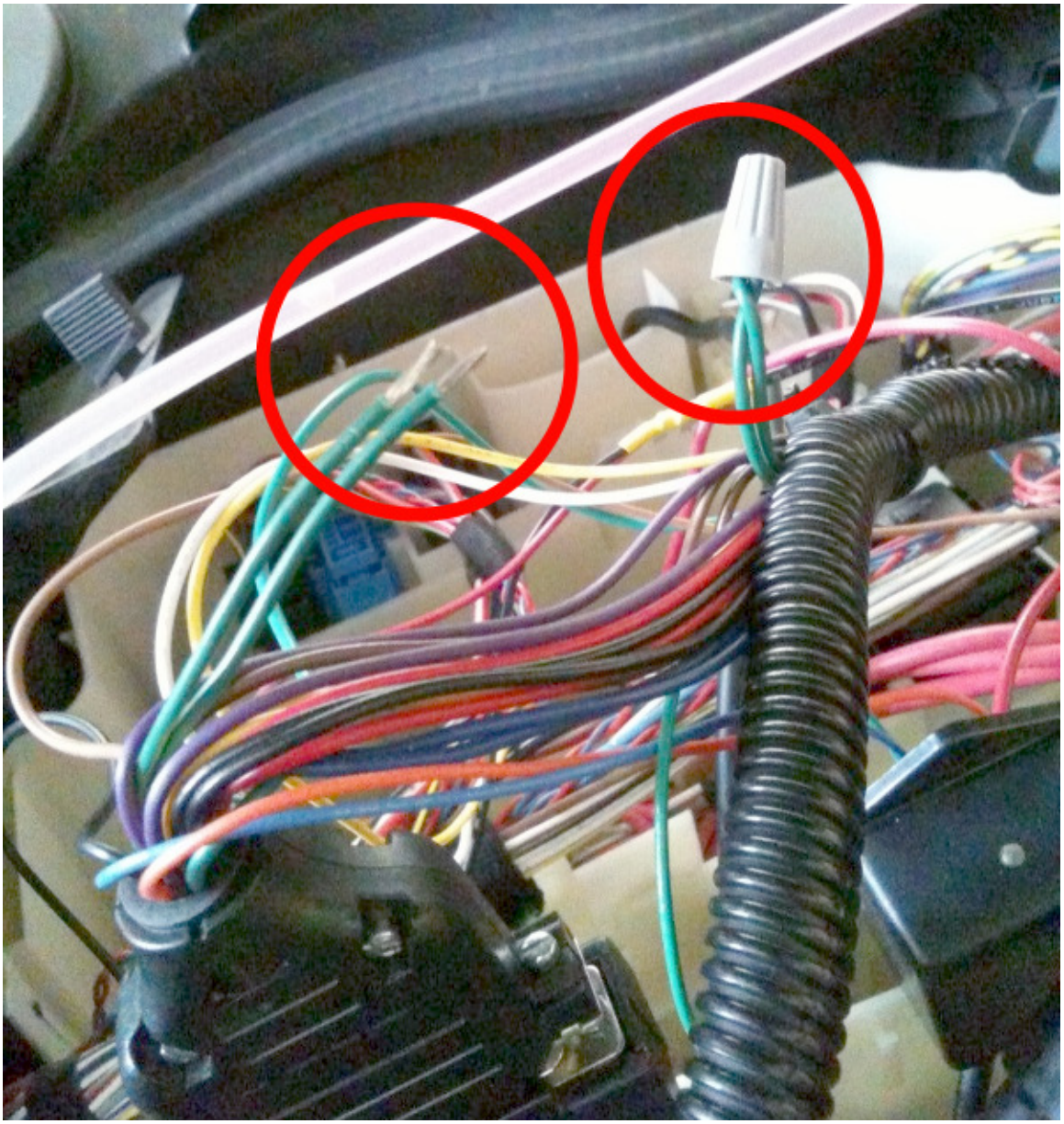
THIS PART IS LEGAL FOR USE ONLY IN COMPETITION RACING VEHICLES AS DEFINED UNDER CALIFORNIA LAW, AND IS NOT LEGAL FOR USE IN ANY OTHER MOTOR VEHICLE. California law defines a "racing vehicle" as "a competition vehicle not used on public highways." (Calif. Health & Safety Code 39048) This part may only 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, LLC, AND CAN VOID YOUR VEHICLE'S WARRANTY. It is your responsibility to comply with all applicable federal and state laws relating to use of this part, and Burger Motorsports, LLC hereby disclaims any liability resulting from the failure to use this part in compliance with all applicable federal and state laws.

1) Before working on electrical wiring always remove the negative battery cable in the trunk.
2) Remove the appropriate cowl cover to expose the JB4 control box.
3) Cut off the zip tie holding the black conduit by the control box and peel the conduit back a few inches exposing the various wire colors.
4) Isolate the green wire pair that is within the conduit. Ensure you have located the two wires going to the TMAP sensor and have not accidentally taken the green CAN wire which is not part of this bundle.

Note photo below is from an E series N55. Surrounding areas will look different for F series models but the wires remain the same.

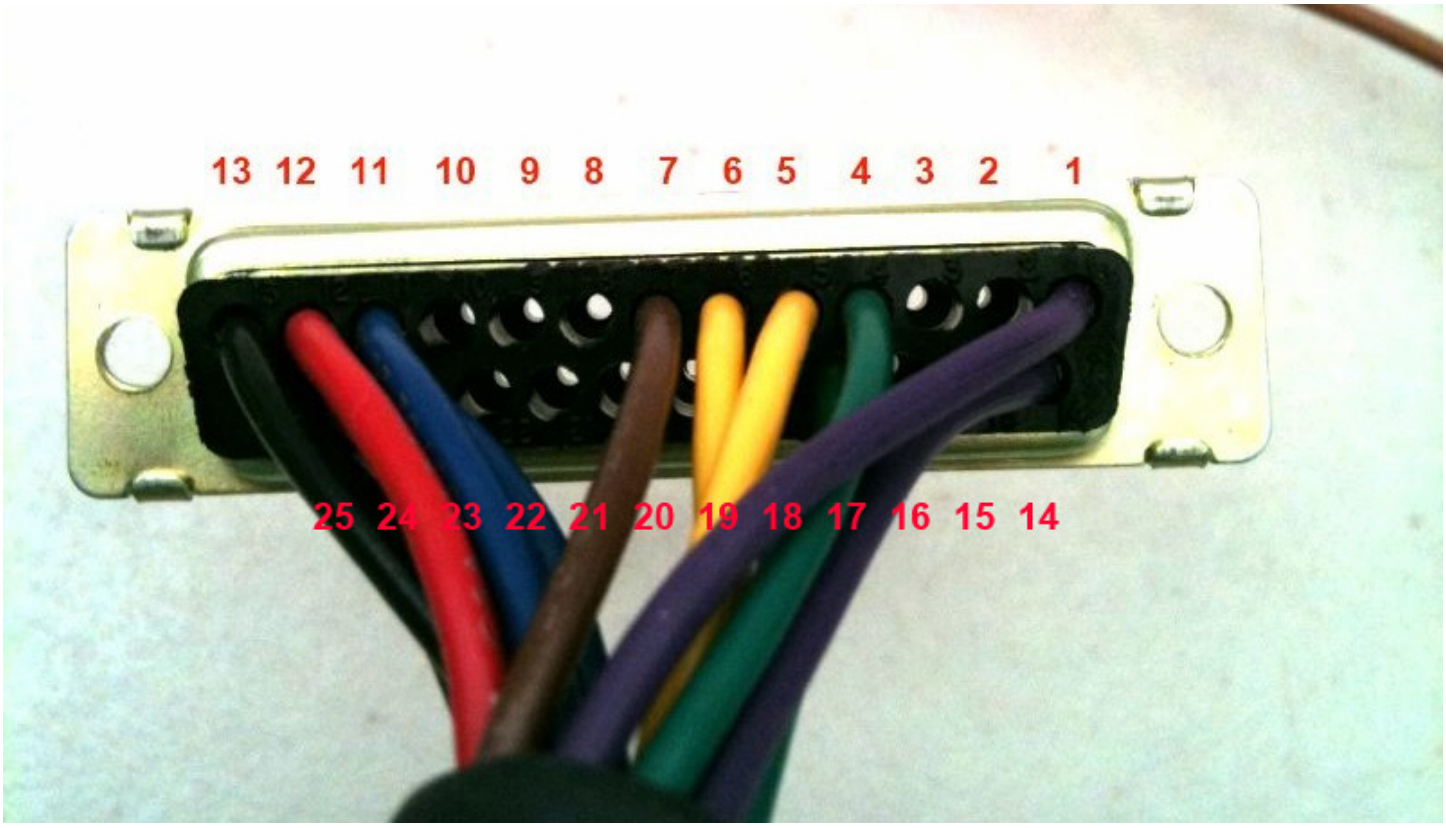


5) Cut the green wires and using a wire strippers strip away 1/2" of insulation so the wires can be twisted together.
6) Twist the two green wires coming from the TMAP sensor (right side in this photo) together and secure using a wire nut, butt connector, or fold a piece of tape in half over them.
7) Twist the two green wires going to the JB4 (left side of this photo) together along with the FlexFuel wire that has its insulation stripped away. Secure these three wires together using a wire nut, butt connector, or fold a piece of tape in half over them.



8) Next we'll be installing the FF wire with the male pin in to the JB4 harness. Unplug the JB4 control box and unscrew and remove the AMP shell connector to expose the back of the harness as shown below. Place something under the AMP shell connector when removing it so you don't loose the small nuts and screws that hold it together. Poke the FF wire with the gold pin through the rubber grommet along with the rest of the JB4 wires.

9) The connector has tiny numbers on it indicating positions 1-25. Insert the FF gold pin in **to position #21**. Note once inserted the pin can not be removed without a special DSUB removal tool so double check you have the correct position before inserting it.



10) Reattach the AMP connector and mating screws and reconnect the harness to the JB4 control box. At this point you can reconnect the conduit you peeled back during step 3. We suggest using zip ties to tidy it all up similar to how it was before you started.

11) Now that the FF connector has been mated to the JB4 you will connect it to the fuel mass sensor. The sensor location varies by model.

E Series N55: The sensor is under the engine cover and tricky to reach as you can not see it from the top. The photo below shows what the sensor looks like with the engine cover removed. To reach the sensor you'll reach from behind and push it's release clip in. Once unplugged connect the newly installed FF connector on to the sensor and plug the FF male connection in to the OEM wiring harness.

F Series N55: Remove the engine cover and pull out the insulating foam directly behind it. You'll find the fuel mass sensor on the end of the fuel injector rail.

N20: Remove the engine cover and the sensor will be visible at the end of the fuel injector rail.

12) Zip tie the new FF wires to the main harness to tidy up the harness and installation.

11) Reinstall any covers removed

12) Reconnect the negative battery cable.

13) Using the JB4 interface and BMS USB cable set the open loop user adjustment value to 50.

14) Refer to the appropriate map guide for your model for any additional information related to the FF connector and ethanol use.