



## BMS 2018+ F90 M5/M6 Install Guide

Last Updated: 7/28/2018

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Open the hood, lock the doors, place your key far enough from the car not to wake it up, and wait 5 min for the vehicles computer to go to sleep.

The JB4 system has 5 connections total:

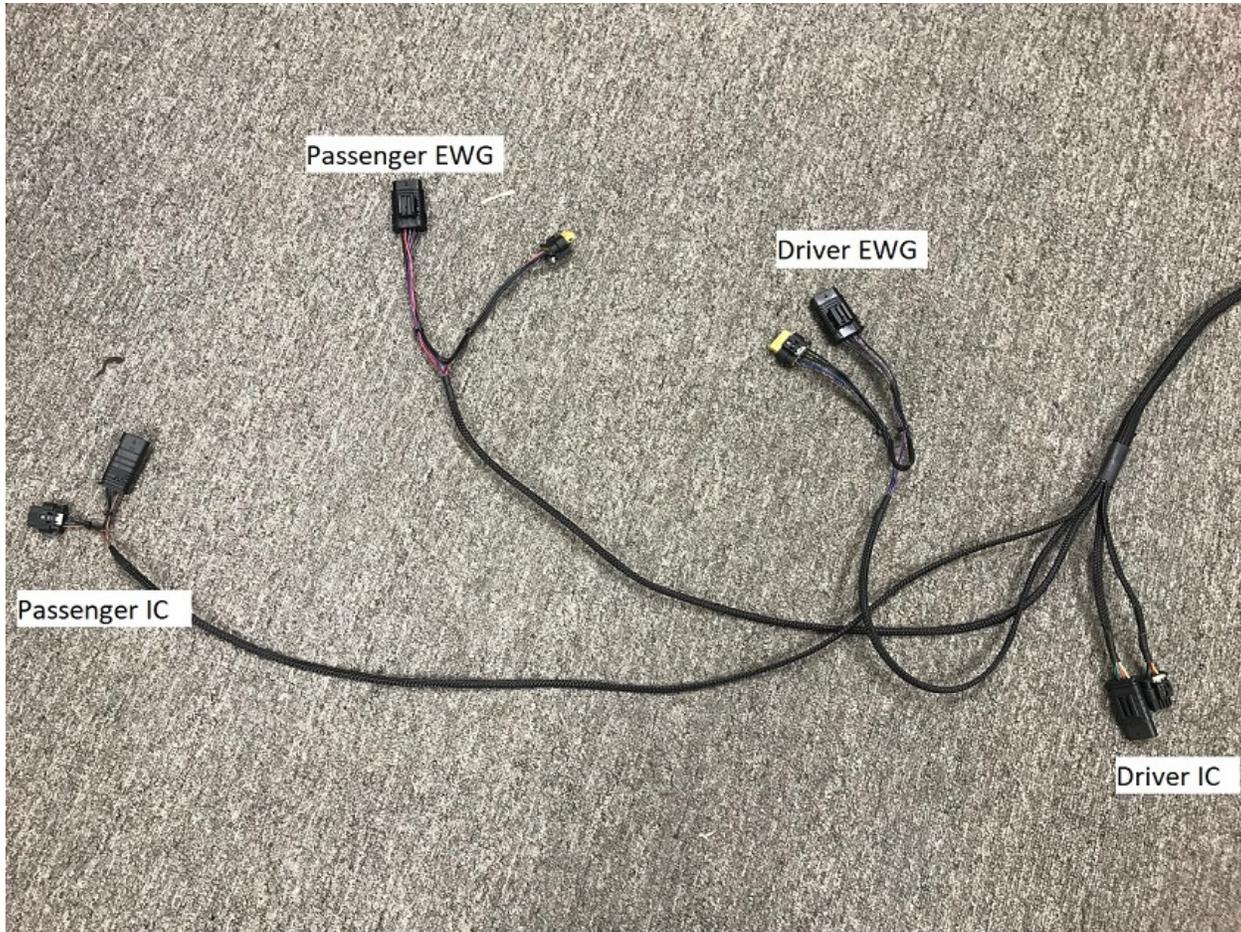
TMAP\_A (Rainbow colored wires, 4 position connector)

TMAP\_B (Brown colored wires, 4 position connector)

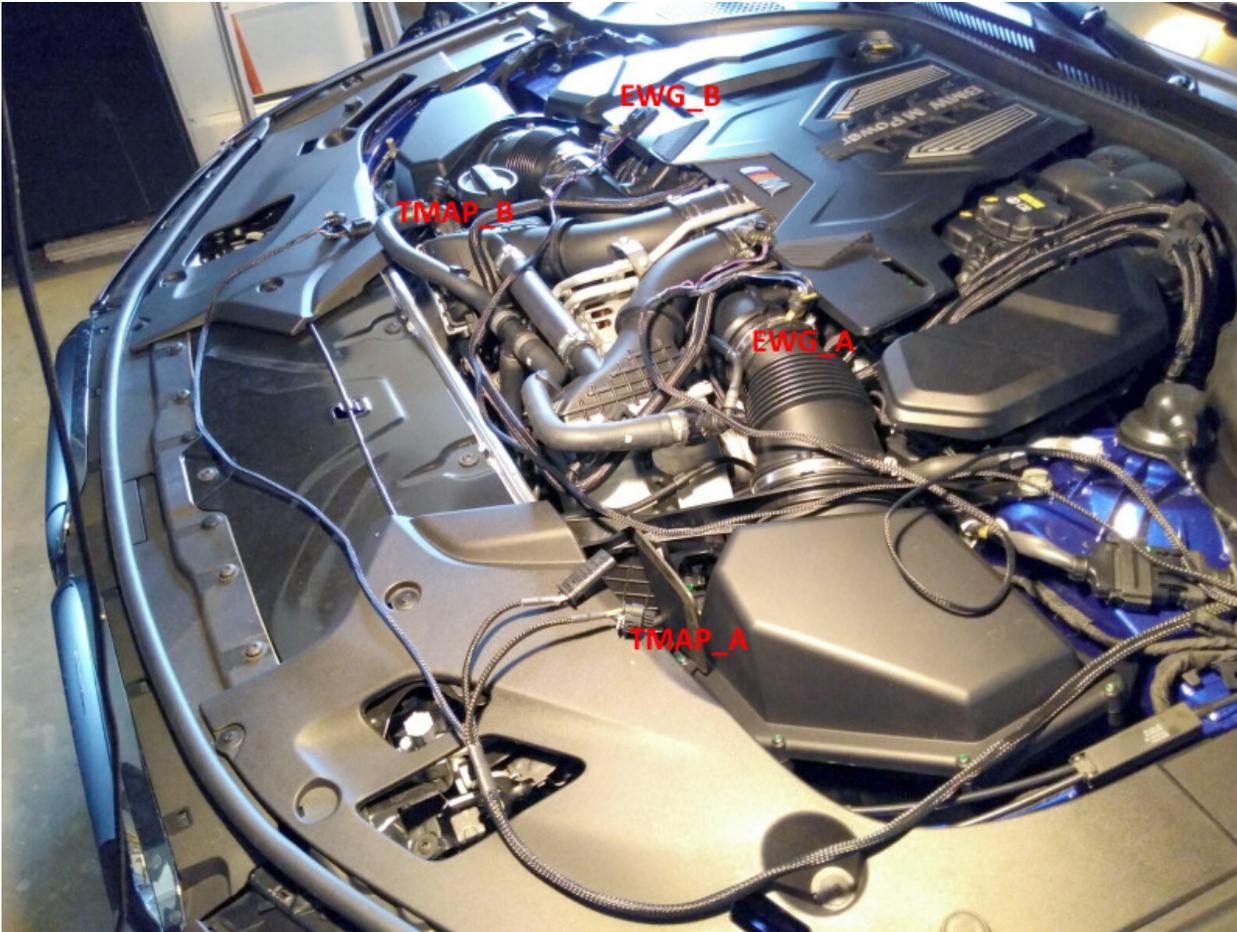
EWG\_A (Purple/Blue colored wires, 5 position connector)

EWG\_B (Purple/Blue colored wires, 5 position connector, extra red wire)

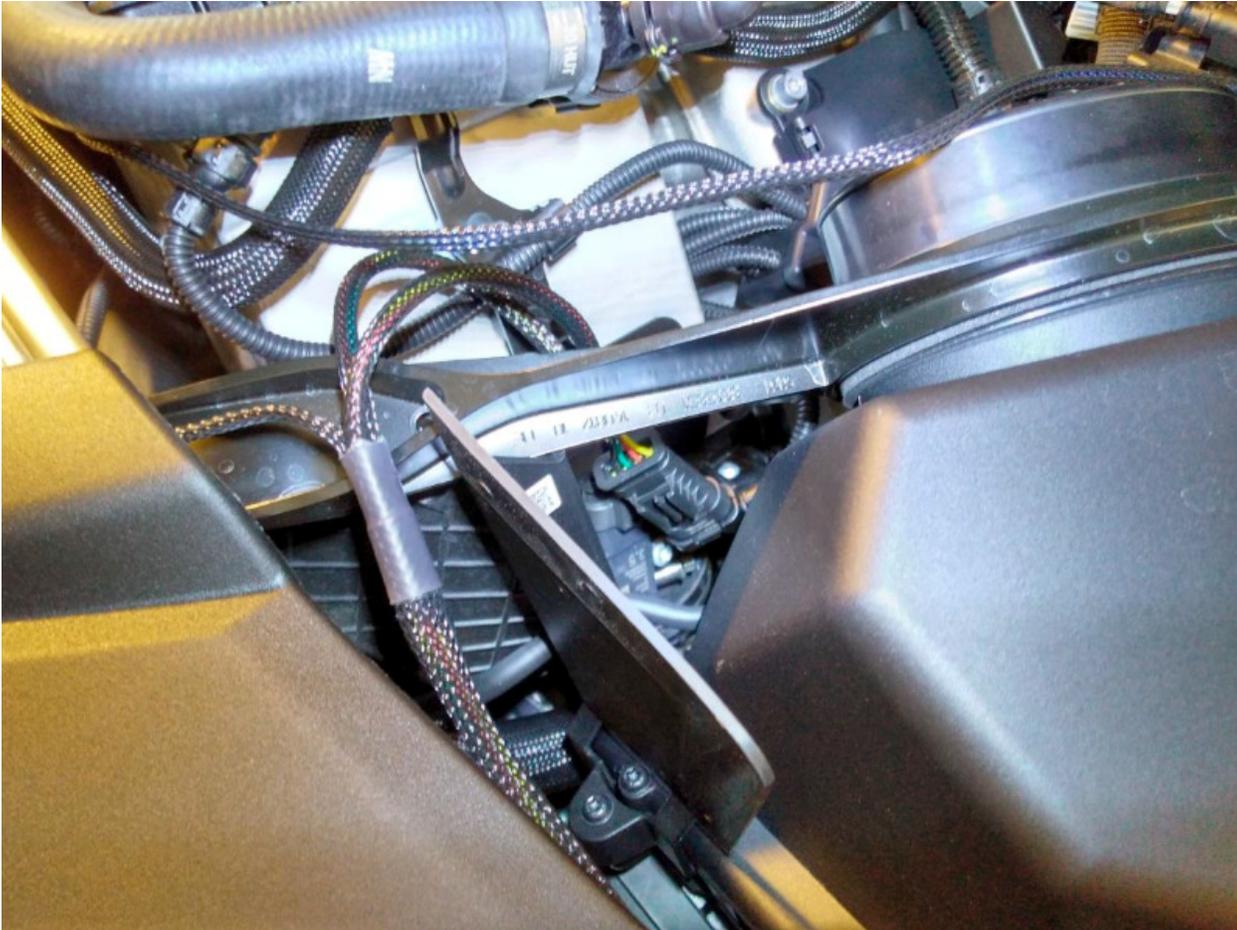
OBDII (black wire, small 4 position connector to attach to JB4 harness)



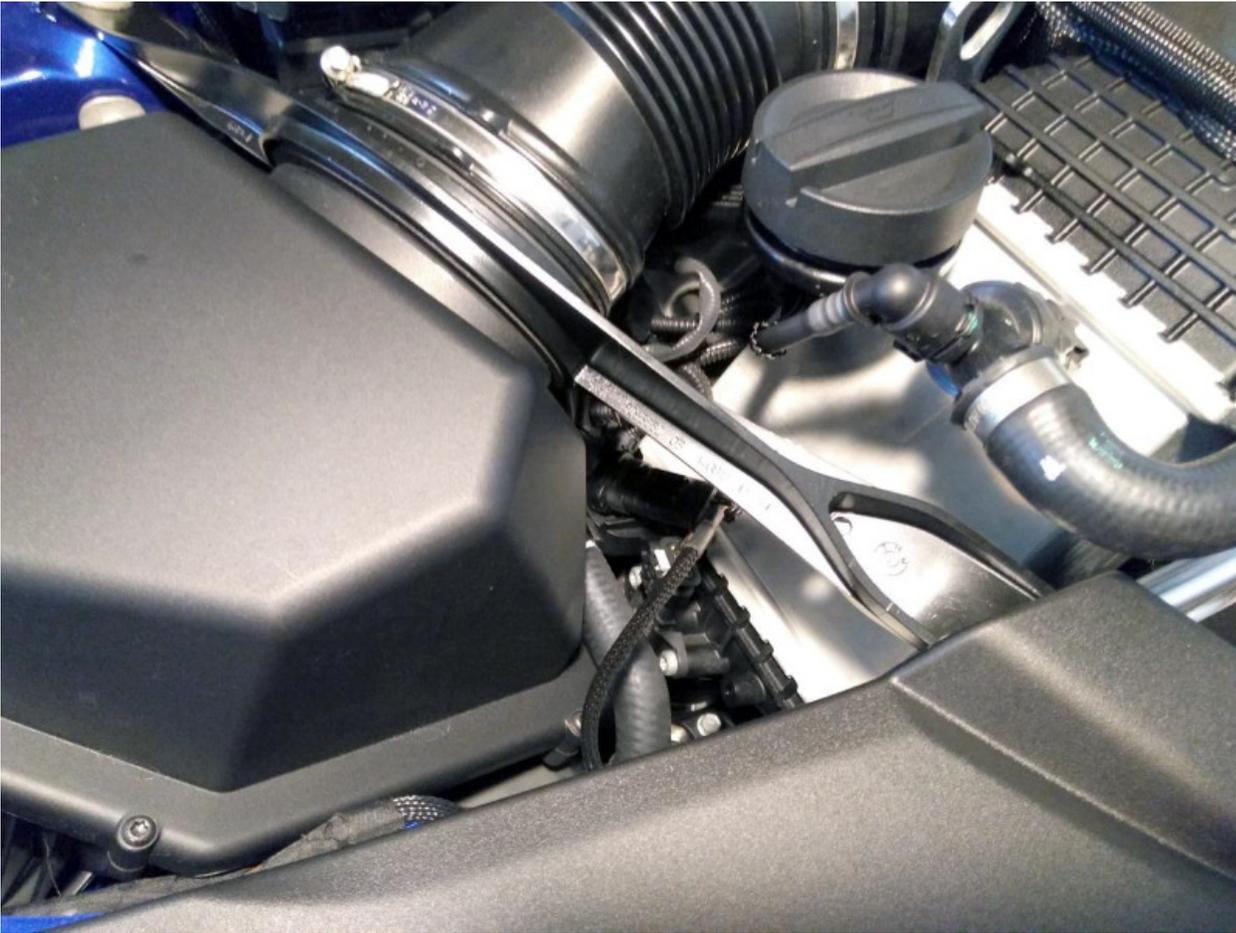
The connections within the engine bay are going to follow this outline:



Starting with the driver side TMAP\_A connection use a small screwdriver to lift up the white retaining clip, press the clip in, and release the sensor. Plus the JB4 harness in to the sensor and the factory harness in to the JB4 harness.

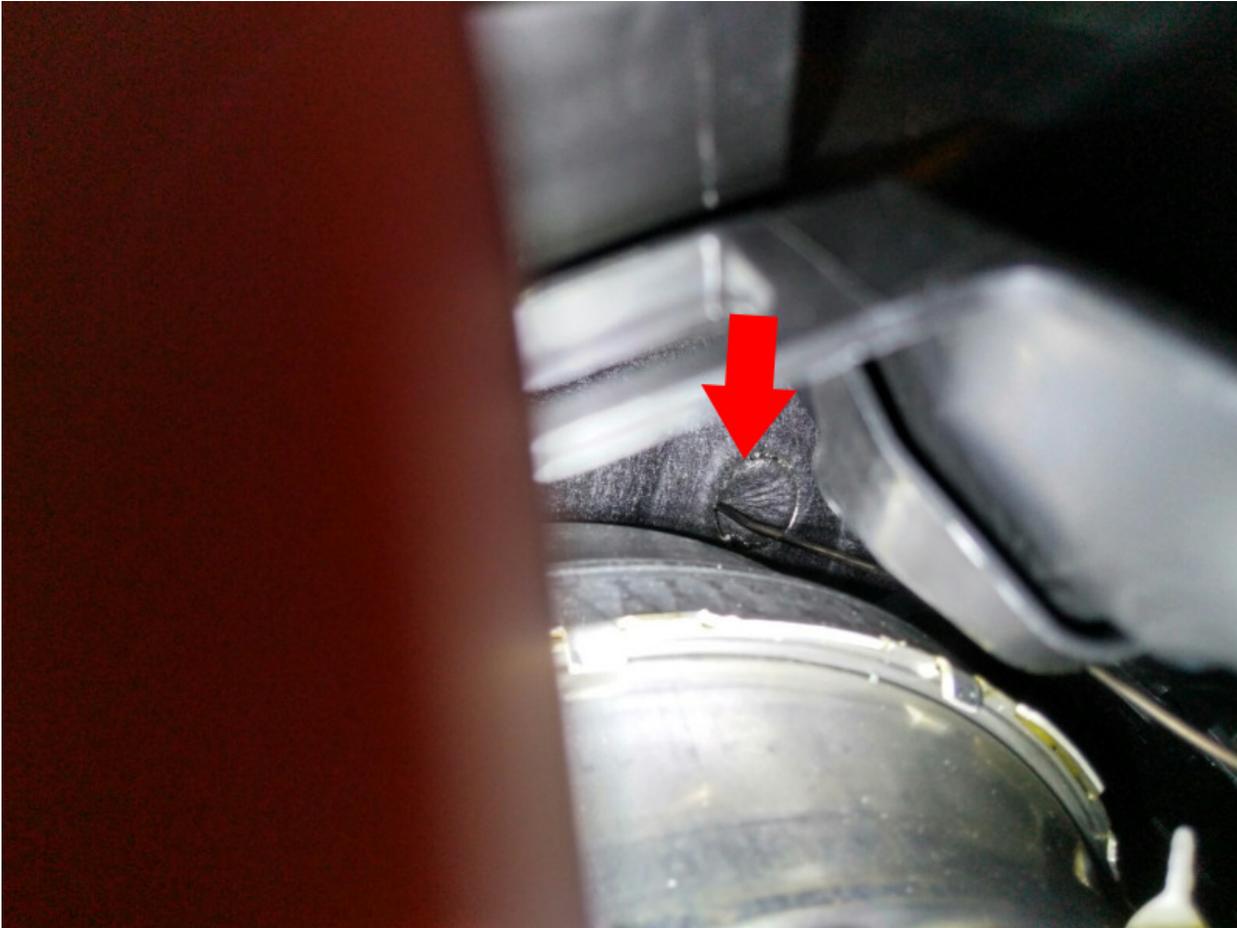


You'll be doing the same operation for the passenger side TMAP\_B connection. Route the TMAP\_B wire along the top of the radiator shroud tucking it under the plastic covers on either side to keep it in place.



The optional OBDII CANbus connection allows the JB4 to perform more advanced tuning functions, diagnostics/logging, and in the near future in dash map changes and controls.

Remove the driver side cowl cover. Using a long screwdriver push in the carpet grommet as shown, pushing through its rubber backing. Feed in a piece of stiff aluminum wire which we'll use to fish the OBDII cable back through from inside the car.



Reach under the dash by the brake pedal and grab the wire you poked through. You should not have to remove any interior panels to do this.

Tape the small end of the OBDII cable to the fishing wire so it will remain secure when pulling the fishing wire back out.



From the engine bay pull the OBDII cable out and plug it in to the matching connection on the JB4 harness.

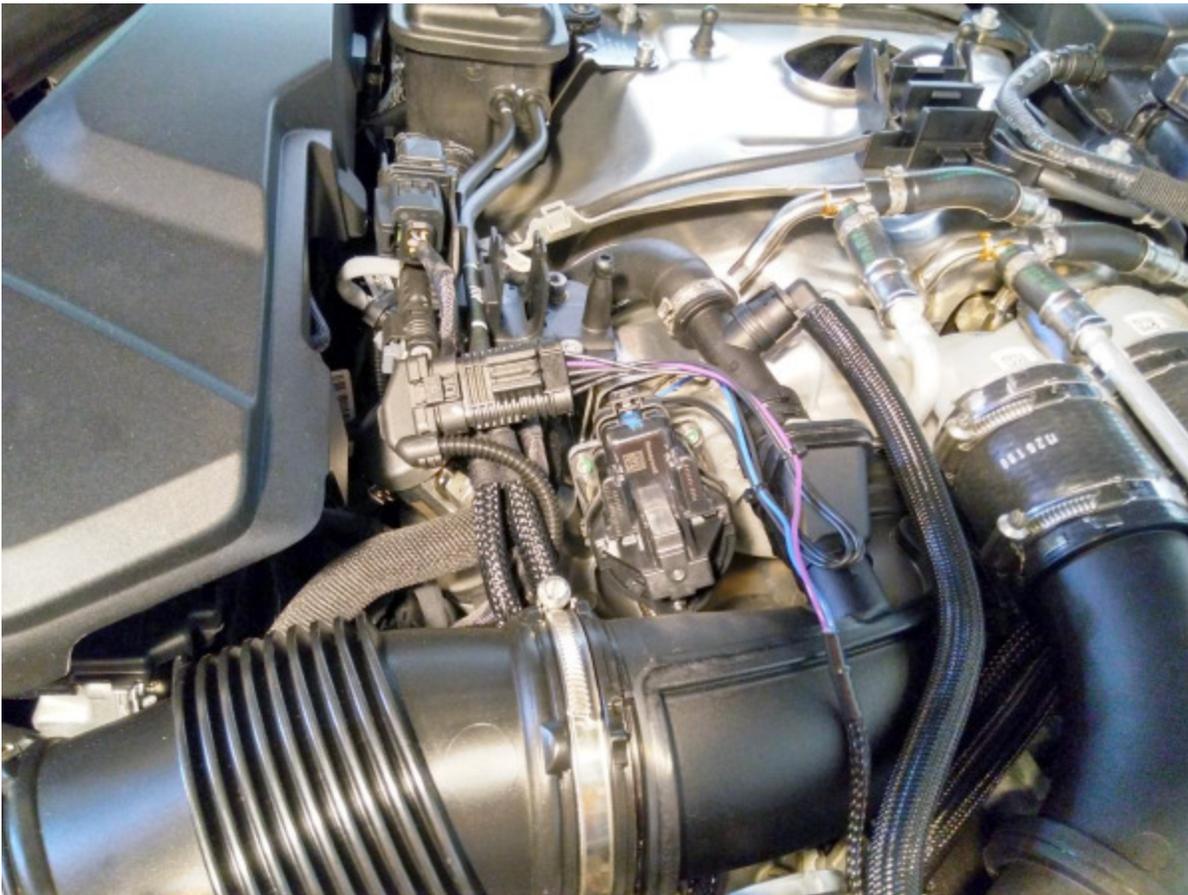
Returning to the interior plug the cable in to the OBDII port and tuck the wire under the interior panel as shown out of the way.



The last two connections are the optional EWG\_A and EWG\_B connections. They are used on maps 2+ to add wastegate dutycycle and drive boost up to higher targets. In some situations they may trigger false alarm fault wastegate codes if settings are not compatible with your vehicle software/conditions. For this reason we suggest most users not install them initially and only add them down the road if they find they need more power. The EWG connection with the extra red wire attached must go to the passenger side (easier to reach) EWG connector to avoid a startup drivetrain fault code.

We suggest waiting for the car to cool down before attaching these connectors.

The easier of the two connections is EWG\_B on the passenger side. Simply pop off the engine cover, push back the unlocking clip, and slide off the factory EWG connector. Plug the JB4 EWG connector in to the wastegate and plug the factory wire in to the JB4.



The driver side EWG\_A connector requires some additional work. You'll be removing the factory airbox coupler and sliding out the factory turbo inlet to access it. Shown below are the two factory parts you remove to access the wastegate. The airbox coupler simply unscrews on each end and pulls out. To remove the inlet you then pull the PCV clip connection, and the clip connection retaining it to the turbo, and it then easily pulls out of place. It tends to hang up on the large turbo retaining clip so you may find it easier to pull that entire clip out with a pliers. It will push back on when you go to reinstall the inlet.



With the inlet removed plug the EWG\_A connector in the same way EWB\_B was connected.



After plugging in the connector slide back in the inlet and reinstall the intake tube.

Route the JB4 harness as shown, locate or secure the box by the brake booster, and reinstall the plastic cowl cover.



Installation is complete! The JB4 comes preset to map1. Refer to this post for the full map guide, latest firmware, and additional details:

<http://www.n54tech.com/forums/showthread.php?t=52314>