VW JB1 to JB4 Beta Upgrade

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To upgrade your unit prior to purchase of the upgrade kit identify your JB1 unit. There are two versions called Rev1 and Rev2 with Rev meaning revision.

Below are the two different revision units:

JB1 REV1

JB1 REV2

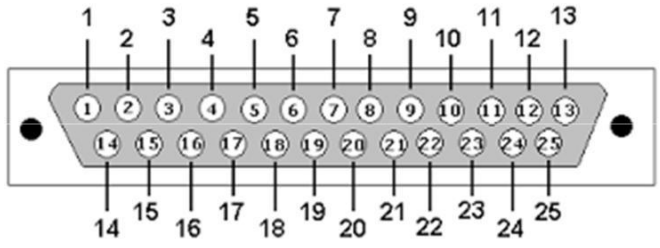
JB1 REV1:

The upgrade kit consists of four components.

- New JB4 board
- Small plug with a green and brown wire for OBD connection with pins at the end
- Loose blue wire (color may vary) for AFR with a pin at the end
- Red positap to tap into primary grey plug lambda sensor

To fit the plugs unscrew the harness from the JB1 enclosure and remove the AMP plug cover at the end of the harness from the wiring harness. It's the big large black plug as pictured below. You will need to unscrew the two flat screws circled to remove the cover.

Once the cover is removed the wired pins can be pushed into the connector. The pins are numbered as below when viewing the pin side.



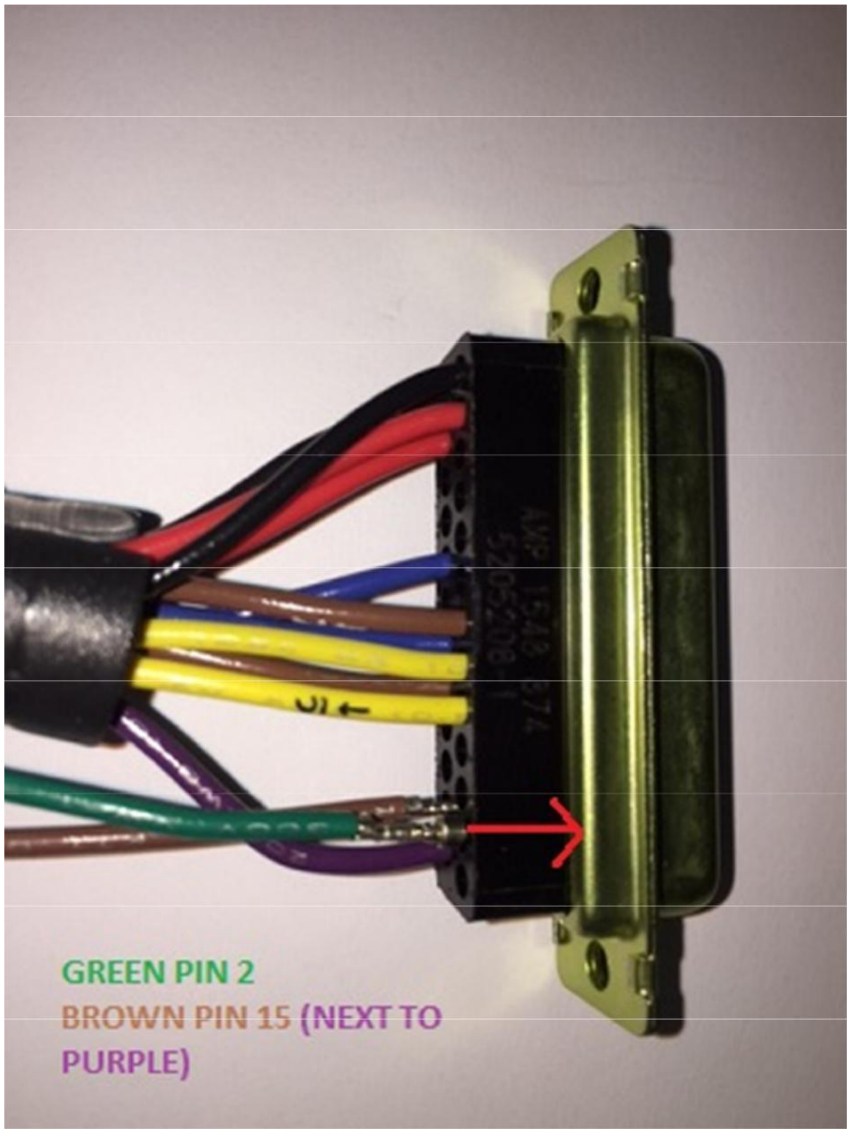
When pushing pins in be cautious you have the correct slot as they cannot be pulled back out once they clicked in. With the pin partially in double check the slot number.

DISCONNECT THE BATTERY BEFORE WORKING WITH ELECTRICAL WIRING.

Step 1: OBD connection:

The green and brown wires have a Molex plug on the end that will be joined eventually to the OBD wire that plugs inside the car.

Molex plug green goes in to #2, brown #15. (if you look at the pin side of the harness you will see they are numbered as per previous diagram). From the other side push each respective wire into place. They will click into place and you can give the wire a pull and see if it's locked in place. If you feel you need to force the pin in rather pull it from the other side with a small long nose pliers.



Methanol:

If you have the methanol wires into these slots replace them by cutting the wires and joining onto the OBD plug. Keep the existing pins with enough wires on them to join the FSB wires onto the unused green and brown wires. If you want to add the methanol now the orange wire goes to pin 3 and blue goes to pin 16.

Step 2: AFR connection:

Black single AFR wire goes to spot #20.

At this point you can assemble the AMP cover and swap the JB1 board for the JB4 and reconnect AMP plug to circuit board.

JB1 REV2:

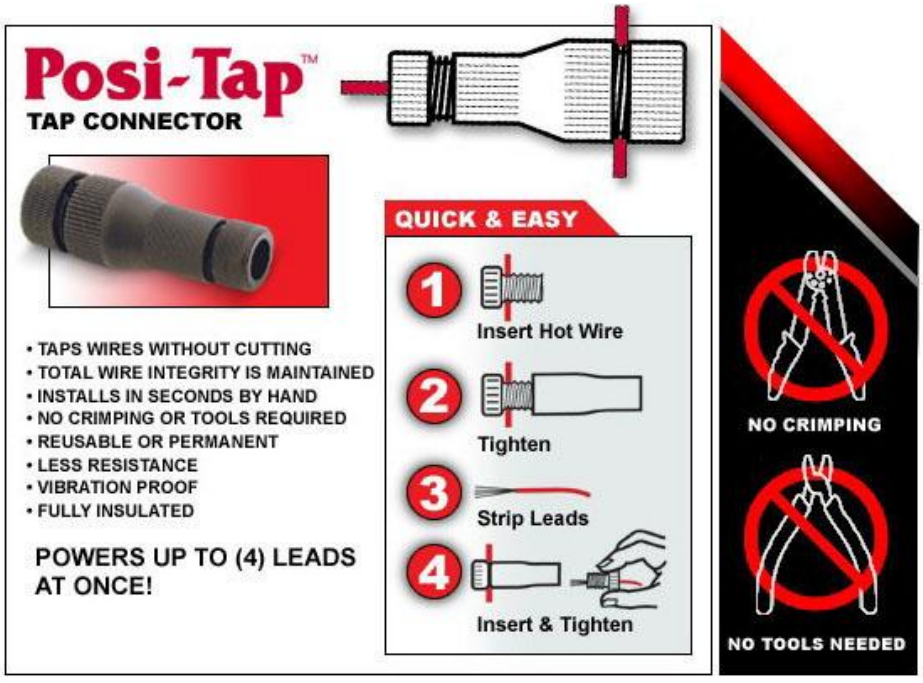
The upgrade kit consists of components.

- New JB4 board
- Loose blue wire (color may vary) for AFR with a pin at the end.
- Red positap to tap into primary grey plug lambda sensor

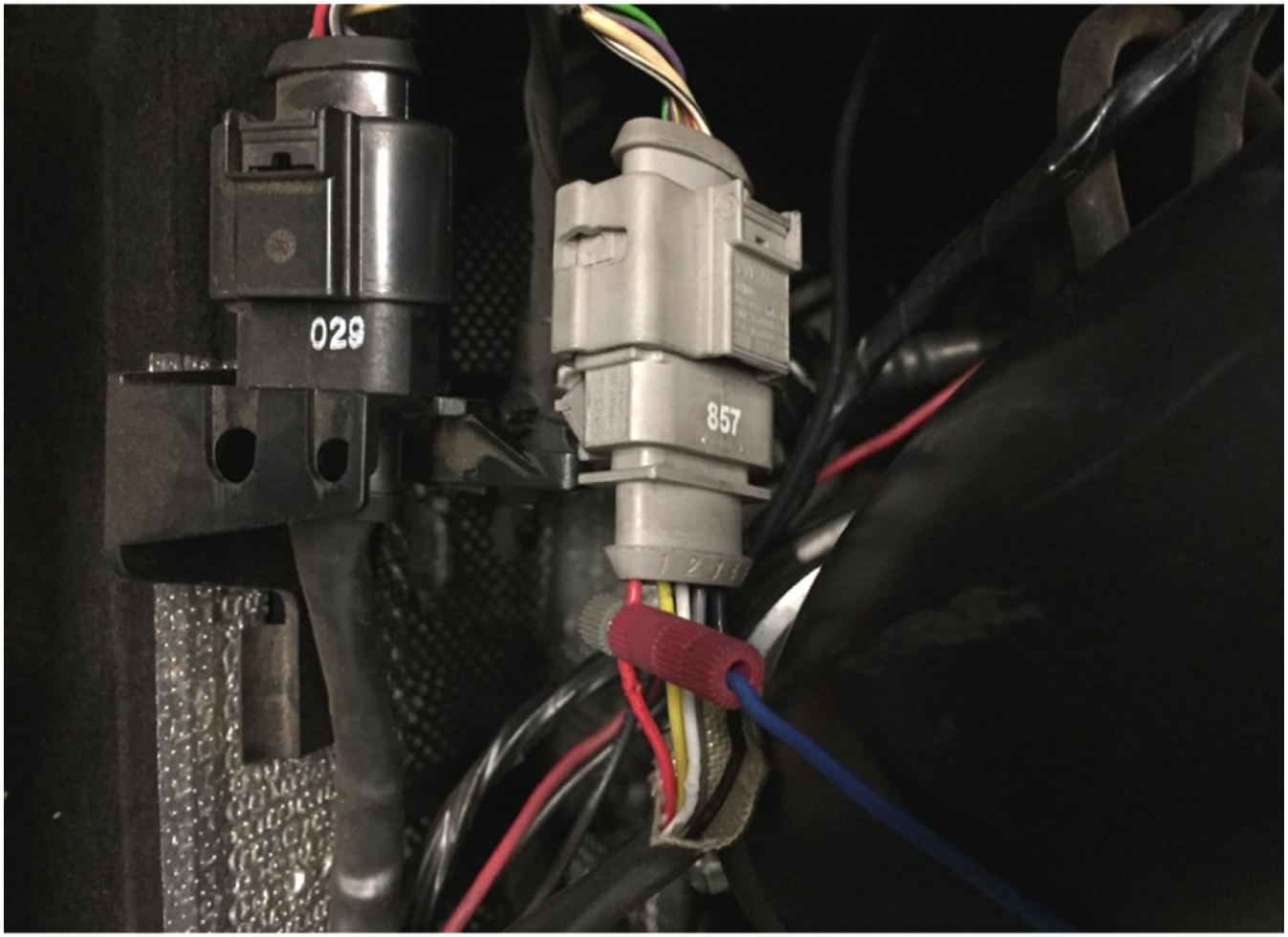
Follow the Rev1 process skipping Step 1: OBD Connection as your unit already has the Molex plug installed and only the AFR wire will need to be installed.

AFR WIRE CONNECTION:

The AFR wire is the single loose wire coming out of your unit. This connects to the red wire on the Grey Lambda sensor plug on the firewall.
On the left side of the plug connect the wire with the supplied positap to the red wire. The process on how to use the positap is below, connect the positap to the red lambda wire first then connect the AFR wire to the positap:



Below is how the connection should look once finished, AFR wire from JB4 is blue for demonstration purpose: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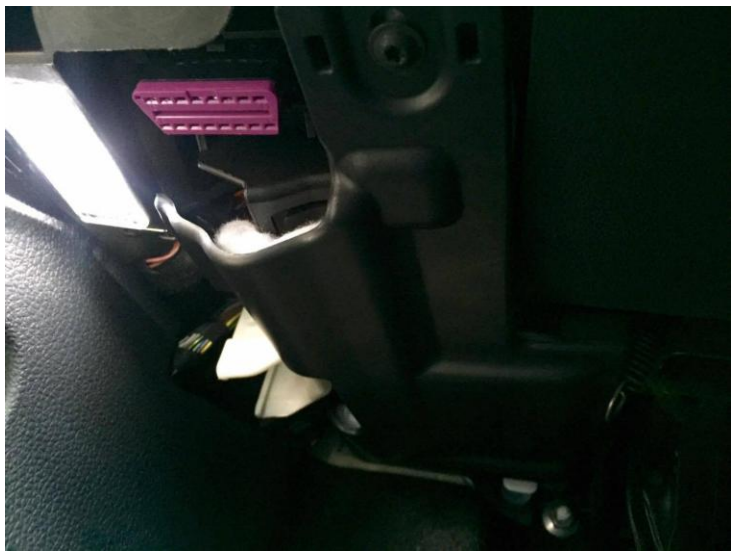
OBD cable from inside car:

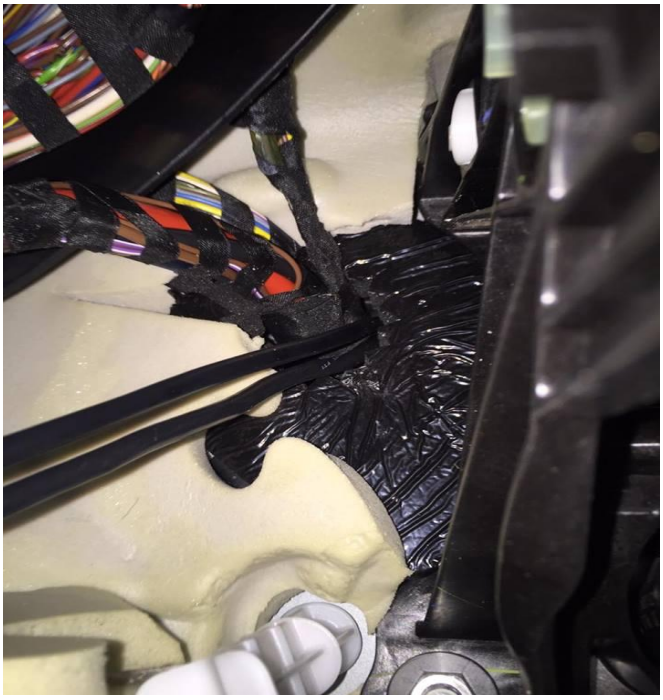
The installation of this cable is different for right hand drive and left hand drive cars.

LEFT HAND DRIVE INSTALL

The OBD plug (purple) can be found on the panel above the pedals of the car on the left hand side as pictured below:



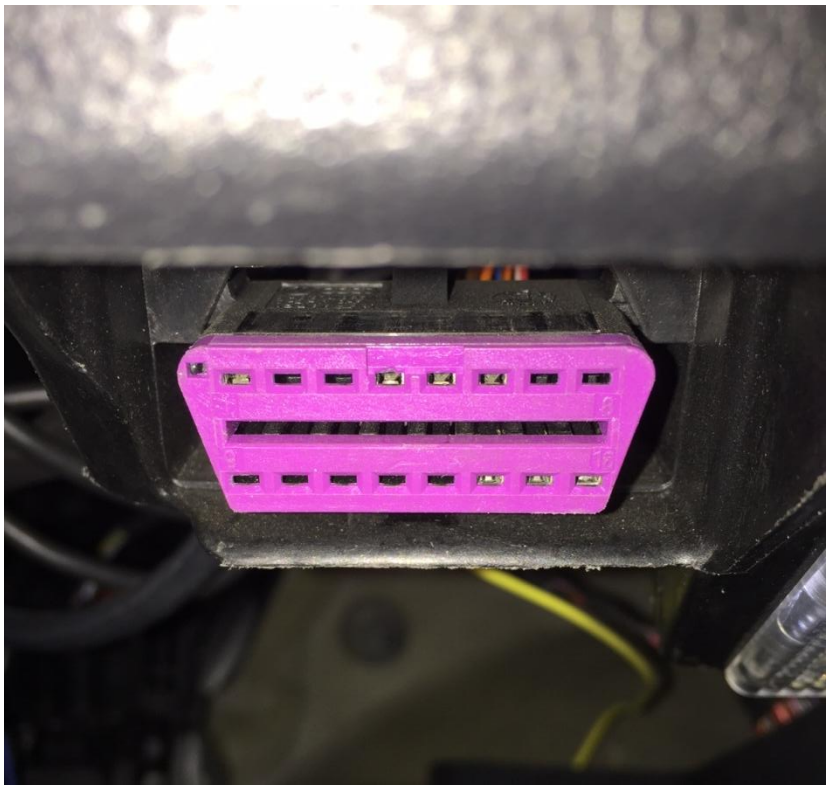
The panel can be removed by removing the hex screws holding it in place. Remove the insulation foam and this will expose a grommet that can be punched to get the wire pushed into the engine bay. In order to avoid removing the battery a wire guide or cable tie can be used by taping onto the end of the OBD wire.



The wire will come out of an area behind the battery and can be run to the JB4 unit and plugged into the molex plug.

RIGHT HAND DRIVE INSTALL

The OBD plug (purple) can be found on the panel above the pedals of the car on the right hand side as pictured below:



The OBD plug will go into the engine bay as per LHD instructions by passing over the centre tunnel just above the foot rest. Use a guide and tape the end of the OBD plug and start by passing it over the centre tunnel through the gap in the back. Pictured below is the wire taped to a long enough cable tie.

Pull the wire across to the left hand side of the car and follow the LHD instructions to get it into the cabin.

At this stage the installation is done. When you start the car if the traction control light and start/stop light are on they will go away as the car drives. The car will take a few full throttle runs to fully adapt. If you need additional installation assistance email george@burgertuning.com

These can be found on the install guides link here:
http://www.burgertuning.com/support.html

For any assistance contact George@burgertuning.com