

# **Billet Throttle Position Sensor (TPS) - Version 2**

NOTE: Short Version Instructions – For complete instructions use the link on this page. http://k-tuned.3dcartstores.com/Billet-TPS-Sensor--Plug-And-Play\_p\_9.html

> **Part number: KTD-TPS-V2** For technical assistance, feel free to contact us. We're here to help!

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### Installing your new K-Tuned TPS Sensor:

1) If you haven't already you need to remove your oem or broken TPS sensor from your throttle body. Installation is best done with the throttlebody (TB) removed from the intake manifold.

2) If the bolts holding the TPS are still oem, you will notice they have no head on them for removal and installation. These break-away head bolts will need to be slotted with a hacksaw or dremel tool. Once slotted, a flathead screwdriver can be used to remove the bolts. Now the old sensor can be lifted off with a slight pull. Be sure to clean away any remaining pieces of the old gasket.

3) Next place the gasket on the mounting surface and line up the slot on the back of the K-Tuned TPS with the shaft on the throttle body.

4) You will now need to turn the sensor counter clockwise slightly to get the mounting holes to line up. NOTE: If you are turning it clockwise to line it up, installation is incorrect. When lined up properly, you can thread in the bolts with lock washers to hold it in place. The mounting points are slotted, for now tighten the bolts snugly centered in the slots.

## Calibrating your new TPS with OEM ecu:

1) You will need a voltmeter set to volts DC (V-DC) to calibrate your TPS.

2) You'll need to have the TPS installed, plugged in and your ignition on, key in position 1, engine not running.

3) Tap into the RED/BLK center wire on your TPS plug. You can back probe the pin if you prefer, but you need a clean tap in to the signal wire.

4) Loosen the TPS bolts and rotate the TPS slowly, set the voltmeter reading to 0.475 V with the throttle closed. Tighten the bolts and recheck your voltmeter reading has not moved.

5) Now in the car push the throttle all the way down. The reading should be just under 5.0 volts.

6) Your K-Tuned Billet TPS is now installed and calibrated, give your car a test drive to ensure everything is working properly.



### Calibrating your new TPS with KPro:

1) Connect your KPro USB cable to your laptop. If you have it, open up your KPro .KAL file that your car is currently running on. Alternatively, you can use the lightning bolt feature to view your sensors live. 2) You'll need to have the TPS installed, plugged in and your ignition on, key in position 1, engine not running.

3) Click on the Parameters Button at the top of the page.

4) When the Parameters Tab is open, select the Knock / TPS Tab located on the top right of the window.
5) Loosen the TPS bolts and rotate the TPS slowly, set the minimum TPS reading to 0% with the throttle closed. Tighten the bolts and recheck that the minimum reading has not moved and is still at 0%.
6) Now in the car push the throttle all the way down. The TPS reading should be 100% or very close to it. A 5% variance +/- is acceptable.

# NOTE: If you have your actual KPro .Kal opened and would like to accurately set and save the TPS maximum reading at 100% you can follow steps 7 to 9.

7) With steps 1-6 now completed, press down the throttle all the way to the floor, full throttle, hold it open and click on the Read Button to reset the Maximum reading. It should now adjust to 100%. Please see the KPro screen shot below.

8) Once this is done save your new .KAL file and upload the Calibration to your KPro unit.9) Your K-Tuned Billet TPS is now installed and calibrated, give your car a test drive to ensure

everything is working properly.