

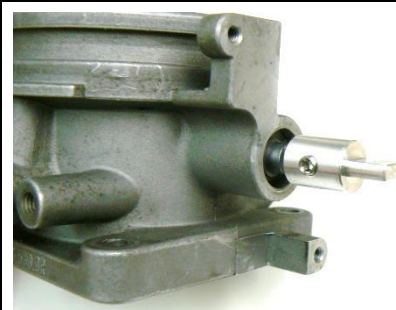
## Installation Instructions - TPS Adapter and Sensor for Porsche 3.2L Carrera 1984-1989

*Porsche 3.3L 930, Porsche 944 installation is similar*

Remove the factory throttle position sensor.

**\*Check fitment notes on pg. 2 for different application notes!**

Install brass shaft adapter: Apply high strength thread locker (red Loctite 268 or similar) on the set screw threads when assembling. Slide the drive adapter onto the throttle shaft as far as it will go. Be sure the set screw seats squarely on the throttle shaft flat section of its D-shape while tightening the set screw.



Install the sensor onto the sensor adapter using 2 screws as shown. Tighten the screws.



Slide sensor/adapter assembly onto the throttle shaft adapter. The sensor is spring loaded and will need to be rotated approximately 10 degrees against the spring to install the screws.

**\*Be gentle; rotating the sensor in reverse will damage it!**

A medium strength thread locker (blue Loctite 243 or similar) is recommended on these screws.




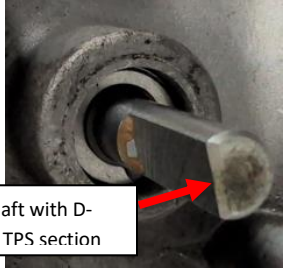
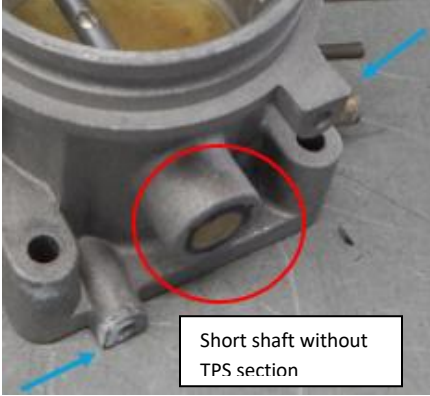
The TPS sensor requires 5V input voltage. Output is roughly 0V (closed) to 5V (open).

The wire connector included in this kit is pull-to-seat. **Insert the wires through the connector before installing the terminals on the wire.**

### Sensor wiring

- A. Sensor Ground (**\*Must be ECU sensor ground, not battery, engine case or other grounds**)
- B. 5 Volt input (typically a sensor supply from ECU)



<p>C. Output (Signal to ECU)</p>	
<p>Fitment notes: 22mm vs. 20mm shaft lengths</p> <p>Most throttle bodies have 20mm long shafts, and this kit is direct bolt-on.</p> <p><b>Some throttle bodies have 22mm long shafts. These need to be trimmed down by ~2mm to fit the TPS kit (pictured to the right).</b> The shaft must be trimmed enough that the brass shaft adapter does not put pressure on the sensor when all the pieces are installed.</p>	<p>Shaft lengths: If 20mm: no trimming needed If 22mm: Trim shaft until it is ~19-20mm long.</p> 
<p>Fitment notes: 930 throttle body</p> <p><b>Early 930 throttle bodies may have a "short throttle shaft" without the section with D-shape that interfaces with a TPS</b></p> <p>It is still possible to fit a TPS to these, but a long throttle shaft must be obtained and swapped in. Usually, both screw bosses are present (blue arrows) to mount the TPS adapter.</p> <p>However, sometimes only one screw boss is present. If only one is present it is still possible to mount minus one screw, but it may be better to simply source a later model throttle body with the shaft and 2 bosses.</p>	 <p>Long shaft with D-shaped TPS section</p>  <p>Short shaft without TPS section</p>
<p>Fitment notes: 944 throttle body</p> <p>The installation is the same as the 3.2L Carrera, but the angle of the brass shaft adapter is different. When the 944 modification is selected, we will add a second hole for the set screw at a different angle, which will need to be used or the TPS output signal will not be correct on a 944 throttle body.</p>	