

Basic Throttle Position Sensor (TPS) Setting

For the 200x BMW R1150x motorcycle.
Document Version: 3.1



This is recommended for users that are attempting basic settings, as set by the dealer.

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Goal: To obtain a voltage of 0.36V across pins 1 and 4, with ignition on, engine off.

Step 1

Probe the TPS with a voltmeter on Pins 1 and 4.



Figure 1: TPS Pin Numbers

There are two basic methods of obtaining the voltage.

First method is to peel back the rubber boot and probe the wires with fine pins or wire.

A piece of straightened, fine-gauge safety wire (common at hardware stores) inserts nicely between the wire and silicone water seal; just be sure to get it fully-inserted - about 20mm. Sewing pins also have been suggested.



Figure 2: Probing Method #1

Second method is to use fine single strand insulated wire (example: Computer wire wrap available from electronic parts supply stores), stripped roughly 10-15mm, and insert the wire as far as possible in the connector and then reconnect the plug to the TPS. The wire will bend around inside the connector.

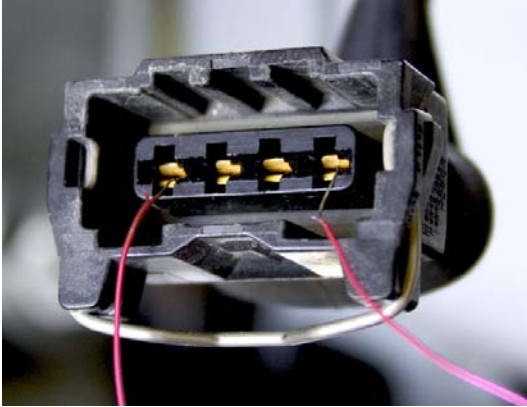


Figure 3: Probe wires inserted



Figure 4: Probe wires inserted and plug reconnected

Connect your voltmeter negative on Pin 4, positive on Pin 1. Turn on the ignition (DO NOT START ENGINE).

Note the voltage, which should read between 0.32 - 0.40 V. The preferred voltage is 0.36 V.

If the voltage is out of the acceptable range, loosen the two TORX screws and carefully rotate the entire TPS module left or right to obtain the voltage of 0.36 V. Tighten the TORX screws.

Flip the throttle and verify the voltages, readjust if necessary.

Tighten the TORX screws



Figure 5: Voltage Readings

Step 3.
Turn off the ignition, and remove the wires.

Step 5.
Rest the Motronic. Either by disconnecting the ground cable off the battery, or removing the fuse for the Motronic, diagnostic plug (see your owners manual to verify which fuse) for one minute. Reconnect the battery or fuse, turn on the ignition (**DO NOT START ENGINE**) and twist the throttle 3 times to the full open position. Now start the engine.

Summary:
Voltage across Pins 1(+) and 4(-) = 0.36 Volts
With ignition ON, engine OFF