



# XD1004/XD1005 THROTTLE POSITION SENSOR (TPS) INSTALL GUIDE

**XD1004** - 1998.5-2004 Dodge with 5.9L Cummins Engine (Manual Transmission)  
**XD1005** - 1998.5-2004 Dodge with 5.9L Cummins Engine (Automatic Transmission)

## REMOVAL

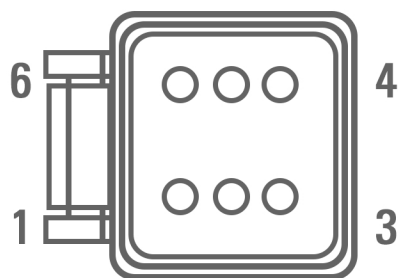
1. Disconnect the negative battery cables from both batteries.
2. Remove the cable cover by first removing the Philips screws and the retention clips. Then push rearward on the front locking tab and upward on the lower locking tab.
3. Remove the mounting bolts from the bell crank and partially remove the throttle position sensor (TPS)/accelerator pedal position sensor (APPS) assembly from the engine. Cables do not need to be removed from assembly.
4. Disconnect the electrical connector for the throttle position sensor.
5. Remove the Torx T20 screws to take out the sensor. (WARNING: TORX SCREWS ARE EXTREMELY TIGHT)



## INSTALLATION

*These instructions are provided as supplementary information to the factory service manual instructions for throttle position sensor replacement.*

1. Install the electrical connector on the new sensor.
2. Install the sensor into the TPS/APPS assembly using Torx screws and washers. Do not tighten the screws all the way. A good rule of thumb is to start with the sensor in the same location as the previous sensor.
3. Connect the negative battery cables for both batteries.
4. TPS/APPS Calibration: Turn the key to the ON position. DO NOT START THE ENGINE. Monitor the TPS/APPS voltage using a scan tool or back pin connector on Pin 3, labeled on the connector (Figure Below). Rotate the sensor clockwise or counter-clockwise so the TPS/APPS voltage is between 0.55V - 0.65V or 10% - 12%. Tighten the (2) Torx screws when the sensor is positioned correctly. After tightening the screws, verify that the TPS/APPS voltage is still in the range. Readjust as needed. Turn the key to the OFF position.
5. Reinstall the Assembly onto the vehicle. Torque the bolts to 12Nm (105 in. lbs.).
6. ECM Calibration: Turn the key to the ON position without starting the engine. Slowly press the throttle pedal to the floor and then slowly release it. THIS STEP MUST BE DONE (one time) to ensure the accelerator pedal position sensor calibration has been learned by the ECM. If not done, possible DTCs may be set.
7. Clear any remaining DTCs.



ACCELERATOR PEDAL POSITION SENSOR -6 WAY

CAV	CIRCUIT	FUNCTION
1	K914 18RD/WT	SENSOR GROUND
2	K556 18OR/BR	NOT IDLE SWITCH
3	K22 18BR/WT	TP SIGNAL
4	K922 18LG/OR	THROTTLE POSITION SENSOR RETURN
5	K851 18VT/PK	5-VOLT SUPPLY
6	K565 18OR	IDLE SWITCH



## WARRANTY

Products manufactured by XDP carry a 2-Year Unlimited Mileage warranty against defects in materials and craftsmanship. The Warranty is Limited to two (2) years from the date of sale and limited solely to the parts contained within the product's kit. All products that are in question of Warranty must be returned shipping prepaid to XDP and must be accompanied by a dated proof of purchase receipt. Warranty is limited to the original purchaser.

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