

# THROTTLE POSITION SENSOR KIT

## 1999 (WJ) JEEP GRAND CHEROKEE WITH 4.7 L ENGINE



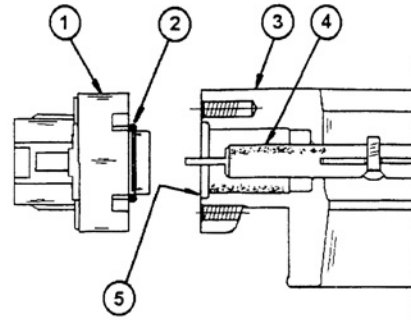
Reference the service manual for diagnostic procedures to determine that Throttle Position Sensor (TPS) replacement is required. The Throttle Position Sensor (TPS) is located on the side of the throttle body.

### **This Kit Contains:**

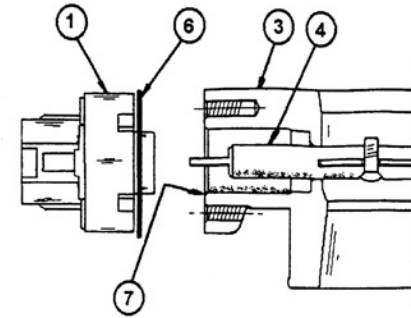
- (1) Throttle Position Sensor (TPS)
- (2) Mounting Screws
- (1) "O" ring
- (1) Gasket

### **Removal & Installation:**

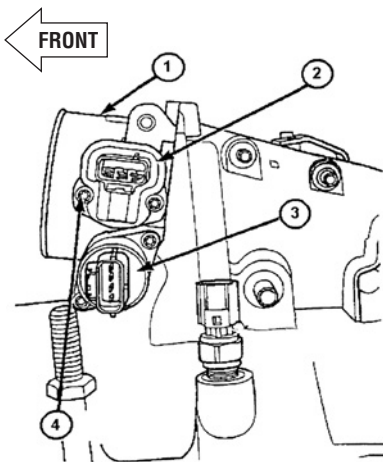
1. Remove the old throttle position sensor per the service manual.



**Figure #3**



**Figure #4**



**Figure #1**

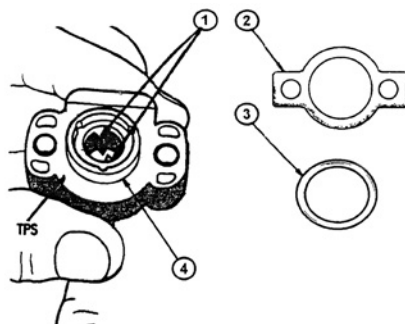
- (1) Throttle Body
- (2) Throttle Position Sensor
- (3) IACV Motor Ref.
- (4) Mounting Screws

### **Figures #3 & 4**

- (1) Throttle Position Sensor (TPS)
- (2) "O" Ring **Figure #3**
- (3) Section View of Throttle Body Housing
- (4) Throttle Shaft
- (5) "O" Ring Groove **Figure #3**
- (6) Gasket **Figure #4**
- (7) Chamfer **Figure #4**

### ***Caution: Take care in selecting the proper seal.***

2. Inspect the throttle body housing for an existing gasket or seal. Remove and discard the old gasket or "O" ring if present. The original TPS may not have used a seal.
3. The replacement TPS requires a seal. Due to a change in the housing there are two types of seals in this kit. One has to be selected, based on the casting revision level.
4. The rubber "O" ring is required when the TPS shaft bore has an "O" ring groove provided. (**see figure #3**)
5. The gasket is required when the housing does not have an "O" ring groove. The TPS shaft bore has a cast chamfer. (**see figure #4**)



**Figure #2**

- (1) Tangs
- (2) Gasket
- (3) "O" Ring
- (4) TPS Pilot

6. In both cases place the selected seal on or over the TPS pilot and install on the vehicle. The TPS must be installed so that it can be rotated a few degrees. If the sensor will not rotate, install sensor with throttle shaft on the other side of socket tangs. The TPS will be under slight tension when rotated.
7. **No additional sealant should be used.**
8. Use the new screws supplied in this kit. Tighten the screws to 7 N.m (60 in. lbs.) torque.
9. Connect the TPS electrical connector to the TPS.
10. Manually operate the throttle (by hand) to check for any TPS binding before starting the engine.
11. Install the air duct/air box to the throttle body.