



# Did You Know?

## NAPA Echlin Throttle Position Sensors

### What does a Throttle Position Sensor do?

The Throttle Position sensor moves with the throttle and sends a voltage signal to the computer indicating throttle angle and speed of movement data. The computer uses this data to measure engine load, adjust timing, fuel delivery, EGR, converter clutch operation and clear flood mode.

### Where are these sensors located?

The TPS is mounted on the throttle body.

### Will a malfunctioning TPS illuminate the check engine light or affect vehicle operation?

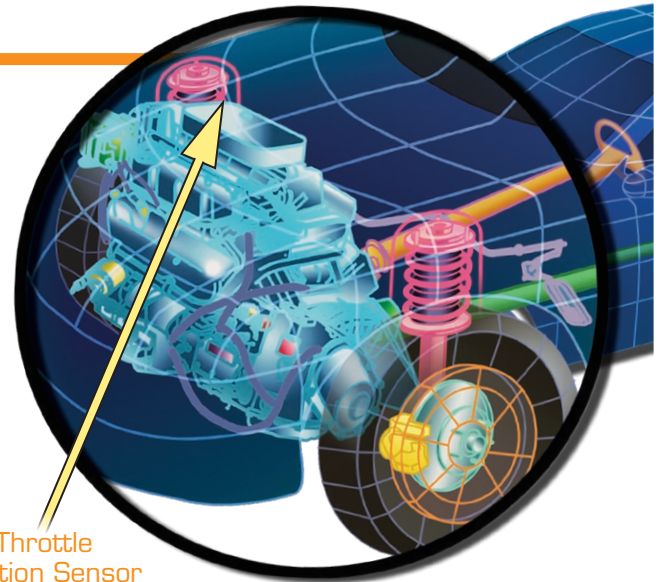
A failing TPS can illuminate the MIL, and cause the engine to hesitate upon acceleration or experience idling problems.

### What are the common causes of failure?

Typically these sensors fail due to the constant contact of the movable wiper arm over the sensor element and the exposure to the high under hood heat.

### How to determine if these sensors are malfunctioning?

Look for smooth voltage changes on the signal wire as the throttle plate is being opened and closed. The diagnostic codes range from P0120 through P0125.



Throttle Position Sensor

### What makes NAPA Echlin TPS Sensors the best.

- NAPA Echlin TPS maintain specific installed outputs to match OE rather than adjustable consolidated designs
- Circuits are printed on flexible polyimide film or ceramic-based substrates for excellent dimensional stability preventing electrical performance drift
- Noble palladium/gold/platinum alloys provide low contact resistance for extended service life
- Each TPS uses integral rotor bearings and return springs for easy installation
- Each sensor undergoes rigorous end-of-line testing with thousands of data points to validate output voltages for optimum performance and trouble-free operation



Ford  
2-20170



GM  
2-19187



Chrysler  
2-16675



Toyota  
2-16693



Honda  
2-60044



Nissan  
2-20175

**NAPA Echlin  
LOOKS RIGHT. FITS RIGHT. PERFORMS RIGHT.**

**THE BEAR IS BACK**

