

## P0123: THROTTLE POSITION SENSOR/SWITCH A CIRCUIT HIGH INPUT

### OVERVIEW

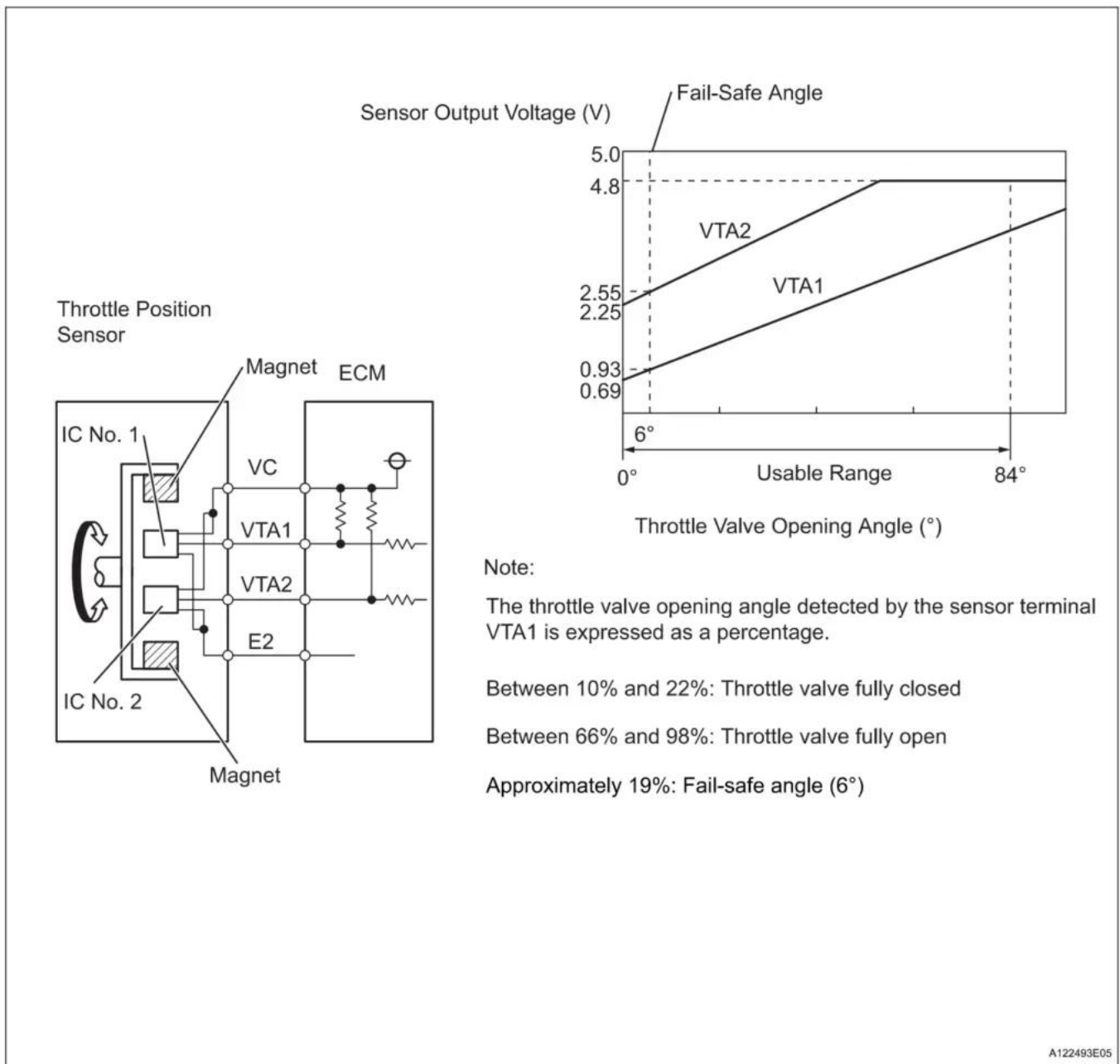
Severity	:	<div><div>Medium</div></div>
DIY Difficulty Level	:	<div><div>Intermediate</div></div>
Repair Cost	:	\$200-\$600
Can I Still Drive?	:	<b>Yes</b> (Short-term only)

### What Does The P0123 Code Mean?

The TPS (Throttle Position Sensor) is a potentiometer that is mounted to the throttle body. It detects the throttle blade angle. As the throttle blade moves, the TPS sends a signal to the PCM (Powertrain Control Module), which is the main computer that runs the vehicle.

Usually a three wire sensor: A 5 volt reference from the PCM to the TPS, a ground from the PCM to the TPS, and a signal return from the TPS to the PCM.

The TPS sends the throttle position information back to the PCM on this signal wire. When the throttle is closed the signal is near .45 volts. At WOT (Wide Open Throttle) the TPS signal voltage will approach a full 5 volts. When the PCM sees a voltage that is higher than the normal upper limit, P0123 will set.



P0123 wiring diagram

## What Are The Symptoms Of The P0123 Code?

Symptoms may include:

- Rough idle
- High idle
- Surging
- other symptoms may also be present

## What Are The Potential Causes Of The P0123 Code?

A code P0123 may mean that one or more of the following has happened:

- TPS not mounted securely
- TPS circuit short to ground or another wire
- Faulty TPS
- Damaged computer (PCM)

## How Can You Fix The P0123 Code?

A good starting point is always to check for technical service bulletins (TSB) for your particular vehicle. Your issue may be a known issue with a known fix put out by the manufacturer and can save you time and money during diagnosis.

If there are no symptoms, the simplest thing to do is to reset the code and see if it comes back.

If there are symptoms such as the engine is stumbling or hesitating, carefully inspect all wiring and connectors that lead to the TPS. More than likely the problem is with the TPS wiring.

Check the voltage at the TPS (refer to a service manual for your vehicle for this specific information). If the voltage spikes or is too high (over 4.65 volts with key on, engine off), then that is indicative of a problem. Carefully trace each wire from the TPS wiring harness to check for breaks, rubbing against other components, etc.

Other TPS sensor and circuit related DTCs: [P0120](#), [P0121](#), [P0122](#), [P0124](#)

## Reference Sources

[Diagnostic Chart with Trouble Code for LHD Vehicles for P0123](#) - Pages 39-41.