



P1123 · Ford

Throttle Position Sensor In Range But Higher Than Expected

P1123 on Ford vehicles means the powertrain control module (PCM) is receiving a throttle position sensor (TPS) signal that is electrically valid but sits higher than the expected value for the current operating conditions. The PCM compares the TPS voltage against a predicted range based on engine speed, load, and pedal input, and it flags this code when the sensor reports a consistently elevated throttle angle without an out-of-range circuit fault.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	Medium	Intermediate	Fuel and air metering

Symptoms you may notice

- Often no symptoms besides the warning light, especially if the offset is small
- A slightly high or fluctuating idle speed that may feel like the throttle is being held open
- Poor fuel economy because the PCM fuels for a larger throttle opening than actual airflow supports
- Hesitation or a soft throttle response when pulling away from a stop
- In some cases, an automatic transmission that shifts late or holds gears longer than expected
- Intermittent cruise control dropout if the PCM sees the TPS value as inconsistent with vehicle speed

Common causes, most likely first

- 1 A worn or contaminated throttle position sensor that has drifted high in its resistance sweep
- 2 A sticking or carbon-fouled throttle plate that holds the blade slightly open at rest
- 3 A misadjusted or stretched throttle cable that keeps light tension on the throttle lever
- 4 Corroded or partially backed-out pins in the TPS connector or PCM harness causing added resistance
- 5 A faulty accelerator pedal position sensor on drive-by-wire Fords sending a slightly high request
- 6 An intake air leak downstream of the throttle body that the PCM misinterprets as extra throttle opening
- 7 A PCM calibration issue or outdated software that sets a tighter-than-necessary TPS expected range



How to diagnose and fix it

- 1 Connect a scan tool and read live TPS voltage at closed throttle and at wide-open throttle, comparing against Ford's specification for the engine
- 2 Inspect the throttle body bore and plate for carbon buildup, then clean with throttle-body cleaner and recheck the closed-throttle TPS voltage
- 3 Check the throttle cable and cruise control linkage for binding or excess tension, and adjust or replace as needed
- 4 Backprobe the TPS signal, reference, and ground wires at the sensor and at the PCM to look for voltage drops or intermittent resistance
- 5 Perform a wiggle test on the TPS connector and harness while watching live data to catch an intermittent high reading
- 6 If voltage is high at the sensor with the plate fully closed and the wiring is good, replace the TPS and clear the code
- 7 On drive-by-wire Fords, check for PCM software updates and perform a throttle body relearn or idle relearn after any repair

Why a clean throttle body often fixes P1123

- Carbon buildup on the throttle plate is the most commonly missed cause because the plate rests slightly open, raising TPS voltage without ever setting a circuit code.
- A TPS can pass a simple resistance sweep test and still set P1123 because the drift is small and only appears under specific temperature or vibration conditions.
- On Ford drive-by-wire systems, a tired accelerator pedal sensor can command a slightly high throttle angle that the PCM logs as a high TPS reading even though the throttle body itself is fine.
- An intake leak between the throttle body and the engine can make the PCM expect a different TPS value at idle, so always check for unmetered air before condemning the sensor.
- P1123 does not mean the TPS circuit is broken; a broken or shorted circuit sets a different code, so replacing the sensor without checking live data often wastes money.

Can I keep driving with P1123?

You can usually drive the vehicle to a repair shop, but avoid aggressive acceleration and towing until the fault is diagnosed because a high TPS reading can cause poor fueling and delayed transmission shifts. If the idle becomes erratic or the engine stalls, stop driving and have it inspected promptly.



Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter with backprobe pins
- Throttle body cleaner and a soft-bristle brush
- Basic hand tools for removing the intake duct and throttle body
- Feeler gauge or feeler wires for checking throttle plate clearance

Reading P1123

- P** Powertrain: engine, transmission and emissions.
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- 1** Manufacturer-specific code (Ford): its meaning depends on the make.
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- 1** Fuel and air metering.
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- 23** The exact fault within that area.

Often seen with

P0121 Throttle Position Sensor A Circuit Range/Performance · **P0122** Throttle Position Sensor A Circuit Low Input · **P0123** Throttle Position Sensor A Circuit High Input · **P0507** Idle Control System RPM Higher Than Expected · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation

See it working

Watch the animated explainer [How Variable Valve Timing Works: Cam Phaser and VVT Solenoid](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1123/>

