

FORD · POWERTRAIN

P1586

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1586 · Ford

Throttle Control Unit Throttle Position Malfunction

P1586 on Ford vehicles indicates that the throttle control unit has detected a malfunction in the throttle position signal circuit, where the actual throttle plate position does not match the commanded position. The powertrain control module (PCM) sets this code when the feedback from the throttle position sensor (TPS) is out of range or inconsistent with the expected value during self-test or normal operation.

SYSTEM

Powertrain

CODE TYPE

Ford specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Illumination of the check engine light, often with no other symptoms
- Reduced engine power or limp mode, limiting vehicle speed
- Hesitation or stumble during acceleration
- Unstable or fluctuating idle speed
- Poor fuel economy or increased emissions
- In rare cases, the engine may stall or fail to start

Common causes, most likely first

- 1 Faulty throttle position sensor (TPS) or accelerator pedal position sensor
- 2 Wiring issues such as chafed, corroded, or disconnected wires in the TPS circuit
- 3 Dirty or carbon-fouled throttle body causing the plate to stick
- 4 Failed electronic throttle control (ETC) actuator or motor
- 5 PCM software glitch or internal fault requiring reprogramming or replacement
- 6 Poor electrical connections at the throttle body or PCM connectors



How to diagnose and fix it

- 1 Perform a visual inspection of the throttle body, TPS, and related wiring for obvious damage or disconnection
- 2 Use a scan tool to check for other codes and view live throttle position data to compare commanded versus actual position
- 3 Clean the throttle body with approved cleaner to remove carbon deposits that may cause binding
- 4 Test the TPS and accelerator pedal sensor with a multimeter for smooth resistance or voltage changes through the range
- 5 Check continuity and resistance of the wiring harness between the TPS and PCM, repairing any opens or shorts
- 6 If the TPS is faulty, replace it and perform a throttle relearn procedure as required
- 7 If all else fails, reprogram or replace the PCM, ensuring proper configuration

Throttle Position Mismatch: Beyond the Sensor

- A dirty throttle body is a frequent culprit that mimics a failed TPS, so cleaning should be attempted before replacing parts.
- The code can be set by a weak battery or charging system issue causing voltage spikes that disrupt the throttle control unit's self-test.
- On some Ford models, a loose or corroded ground connection at the throttle body can cause intermittent TPS signals without triggering other codes.
- After replacing the TPS or throttle body, a relearn procedure is often necessary; skipping it can cause the code to return immediately.
- P1586 may be stored alongside codes like P2135 or P0121, indicating a broader throttle position sensor circuit problem rather than an isolated fault.

Can I keep driving with P1586?

If the vehicle is in limp mode, driving is not recommended because power is severely reduced and safety may be compromised. If the check engine light is on but the car drives normally, you can drive cautiously to a repair shop, but avoid aggressive acceleration or heavy loads.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Throttle body cleaner and soft brush
- Socket set and screwdrivers
- Wiring diagram for the specific Ford model



Reading P1586

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Ford): its meaning depends on the make.
- 5** Vehicle speed, idle control and auxiliary inputs.
- 86** 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 · **P2106** Throttle Actuator Control System - Forced Limited Power · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation

See it working

Watch the animated explainer [Readiness Monitors and the OBD-II Drive Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1586/>

