

GENERIC · POWERTRAIN

P212D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P212D

Throttle Position Sensor/Switch G Circuit High

P212D indicates that the powertrain control module (PCM) has detected an abnormally high voltage signal on the circuit for Throttle Position Sensor/Switch G, which is typically a secondary or auxiliary throttle position sensor used for redundancy. The PCM compares this signal against expected values and other throttle sensors, and when the voltage stays above the calibrated threshold for a set time, it commands the electronic throttle control into a reduced-power limp mode and stores this code.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Fuel and air metering

Symptoms you may notice

- The engine warning light (malfunction indicator lamp) illuminates, often with no other noticeable symptoms at first.
- The accelerator pedal may feel unresponsive or the engine may hesitate when you press it.
- The vehicle may enter limp mode, limiting engine speed to a low threshold (often around 1,500–2,000 rpm).
- Rough idle or stalling may occur because the PCM cannot trust the throttle position signal.
- Cruise control may be disabled or may not engage at all.
- In some vehicles, the electronic throttle control warning light or a message such as 'Reduced Engine Power' appears on the dash.

Common causes, most likely first

- A faulty Throttle Position Sensor/Switch G itself, often due to internal wear or contamination.
- Damaged or corroded wiring in the sensor G circuit, such as a short to voltage or a rubbed-through insulation.
- A poor electrical connection at the sensor G connector, including loose pins or water intrusion.
- A failed or sticking electronic throttle body assembly that affects the sensor's mechanical operation.
- A short to voltage on the signal return or reference circuit shared with sensor G.
- Rarely, a PCM internal fault that misreads the sensor G voltage.



How to diagnose and fix it

- 1 Connect a scan tool and record the freeze-frame data and live throttle position sensor voltages for all sensors to confirm which circuit is high.
- 2 Visually inspect the throttle body, sensor G connector, and the wiring harness for chafing, corrosion, or loose pins, and repair any obvious damage.
- 3 Back-probe the sensor G signal wire at the PCM and at the sensor to measure voltage with the key on and engine off; compare against the manufacturer's specification.
- 4 Perform a wiggle test on the harness while watching the scan tool data to catch intermittent high-voltage faults.
- 5 If voltage is high at the sensor but the reference and ground circuits are correct, replace the throttle position sensor or the throttle body assembly as applicable.
- 6 After repair, clear the diagnostic trouble codes and perform a throttle body relearn or idle relearn procedure as required by the manufacturer.
- 7 Road-test the vehicle through several ignition cycles to confirm the code does not return and that throttle response is normal.

What a high TPS G voltage really means

- A high voltage on sensor G often results from a short to voltage on the signal wire rather than a failed sensor, so always check for rubbed harness sections near the throttle body and firewall before replacing parts.
- Many vehicles use two or more throttle position sensors with opposite voltage sweeps; a high signal on G can be caused by a faulty ground shared with another sensor, which skews the reference voltage.
- The PCM may set P212D even when the throttle body is mechanically fine, because the code is triggered by an electrical threshold and not by a performance test of the throttle plate.
- After any throttle body or sensor replacement, a relearn procedure is critical; skipping it can cause the same code to reset immediately even though the repair was correct.
- Intermittent high-voltage faults often appear only when the engine bay is hot or after driving over rough roads, so a cold static test may pass while the problem remains.

Can I keep driving with P212D?

You can usually drive the vehicle to a repair shop, but expect reduced engine power and avoid highways or situations that require quick acceleration. If the vehicle is in limp mode or the throttle response is erratic, stop driving and have it towed to prevent a safety hazard.



Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter with back-probe pins
- Wiring diagram for the throttle position sensor circuit
- Socket set and Torx bits for throttle body removal
- Contact cleaner and dielectric grease for connector repair

Reading P212D

- P** Powertrain: engine, transmission and emissions.
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- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
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- 1** Fuel and air metering.
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- 2D** The exact fault within that area.

Often seen with

P0121 Throttle Position Sensor A Circuit Range/Performance · **P0222** Throttle Position Sensor B Circuit Low Input · **P212C** Throttle Position Sensor/Switch G Circuit Low · **P212E** Throttle Position Sensor/Switch G Circuit Intermittent · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation

See it working

Watch the animated explainer [How Drive-by-Wire Works: Electronic Throttle Body](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p212d/>

