

GENERIC · POWERTRAIN

P211D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P211D

Throttle Actuator B Control Throttle Body Range/Performance

P211D indicates that the powertrain control module (PCM) has detected a range or performance problem with the throttle actuator 'B' control circuit, which typically corresponds to the second throttle plate or a secondary throttle actuator in systems with dual throttle bodies. The PCM commands a specific throttle position and monitors the actual position via the throttle position sensor (TPS); when the actual position does not follow the command within an expected time or range, this code is stored.

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

Symptoms you may notice

- Illumination of the check engine light (malfunction indicator lamp, MIL), often with no other noticeable symptoms
- Reduced engine power or limp mode, where the vehicle limits speed and acceleration
- Unresponsive accelerator pedal or delayed throttle response
- Rough idle or stalling when coming to a stop
- Inconsistent engine speed or surging during acceleration
- Transmission may shift harshly or refuse to shift due to reduced engine torque management

Common causes, most likely first

- 1 Carbon buildup or contamination on the throttle plate or bore, causing the plate to stick or bind
- 2 Faulty throttle actuator 'B' (motor or control circuit) or a damaged wiring harness/connector
- 3 Throttle position sensor (TPS) 'B' signal erratic or out of range
- 4 Corroded or loose electrical connections at the throttle body or PCM
- 5 PCM software calibration issue or internal driver fault (less common)
- 6 Mechanical binding in the throttle linkage or gears inside the actuator assembly
- 7 Extreme temperatures or debris interfering with throttle plate movement



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to understand when the fault occurred
- 2 Visually inspect the throttle body, actuator 'B', and related wiring for obvious damage, corrosion, or debris
- 3 Clean the throttle body bore and plate with approved throttle body cleaner, then perform a throttle relearn procedure
- 4 Back-probe the actuator 'B' control circuit and TPS 'B' signal to check for voltage drops, shorts, or opens while commanding the throttle
- 5 Compare commanded throttle position to actual TPS 'B' readings using a scan tool to identify a range or performance error
- 6 If the actuator or sensor is faulty, replace the throttle body assembly or actuator as required, then clear codes and perform a relearn
- 7 Verify repair by test-driving under various conditions and confirming no return of the code

Before you replace the throttle body

- A dirty throttle body is a frequent cause of P211D, and cleaning it often resolves the issue without parts replacement, but a proper relearn is essential afterward.
- The code can be set by a weak battery or charging system issue that causes low voltage to the actuator, so always check battery health and grounds first.
- On some vehicles, P211D may be triggered by a faulty accelerator pedal position sensor (APP) rather than the throttle body itself, so scan data from both sensors is critical.
- After any throttle body service, the PCM must relearn the closed and open positions; skipping this step can cause the code to reappear immediately.
- Intermittent wiring faults at the throttle body connector are common and may not show up during a static inspection, so wiggle-test the harness while monitoring live data.

Can I keep driving with P211D?

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

Tools that help

- OBD-II scan tool with live data and bidirectional control
- Digital multimeter (DMM) for circuit testing
- Throttle body cleaner and soft brush
- Basic hand tools (screwdrivers, socket set)
- Wiring diagram and service information for the specific vehicle



Reading P211D

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

Often seen with

P0121 Throttle Position Sensor A Circuit Range/Performance · **P0221** Throttle Position Sensor B Circuit Range/Performance · **P211E** Throttle Actuator B Control Module Processor · **P211F** Throttle Actuator B Control Module Performance · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p211d/>

