

GENERIC · POWERTRAIN

P210C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P210C

Throttle Actuator B Control Motor Circuit Low

P210C indicates that the powertrain control module (PCM) has detected a low-voltage condition on the control circuit for throttle actuator B, which is the motor that opens and closes the throttle plate. The PCM commands a specific throttle position, but the circuit voltage is below the expected threshold, so the PCM cannot reliably drive the motor and sets this code.

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, often with no other noticeable symptoms
- Reduced engine power or limp mode, limiting vehicle speed
- Poor acceleration or hesitation when pressing the accelerator pedal
- Unstable or surging idle
- Throttle may fail to respond to pedal input, causing a no-start or stall condition

Common causes, most likely first

- 1 Damaged or corroded wiring in the throttle actuator control circuit, such as a short to ground or an open circuit
- 2 Faulty throttle actuator motor (throttle body) with an internal short or open winding
- 3 Poor electrical connection at the throttle body or PCM connector, including loose pins or corrosion
- 4 Failed PCM driver for the throttle actuator circuit, though this is less common
- 5 Aftermarket or improperly installed electronic throttle control components causing signal interference

How to diagnose and fix it

- 1 Inspect the throttle body and PCM connectors for corrosion, loose pins, or damaged wires, and repair as needed
- 2 Perform a voltage drop test on the control circuit from the PCM to the throttle actuator to check for excessive resistance
- 3 Measure the resistance of the throttle actuator motor and compare to the manufacturer's specification
- 4 Check for short circuits to ground or power in the control circuit using a multimeter and wiring diagram
- 5 If wiring and connections are good, substitute a known-good throttle body and clear the code to see if it returns
- 6 Verify PCM operation by checking for other codes or performing a bidirectional scan tool test of the throttle actuator
- 7 After repairs, clear codes and perform a throttle relearn or idle relearn procedure as required by the vehicle manufacturer

Common misdiagnosis traps for P210C

- A low voltage on the control circuit can be caused by a short to ground in the wiring harness, which is often overlooked when technicians replace the throttle body without testing the circuit first.
- Corrosion inside the throttle body connector can create a low-voltage condition that mimics a failed actuator, so always inspect the pins and seals before condemning the motor.
- Some vehicles use a shared ground for multiple actuators; a bad ground can set P210C along with other throttle codes, so check all grounds in the circuit.
- The PCM may set P210C as a result of a low battery or charging system issue, so verify battery voltage and charging system performance before deep circuit testing.
- After replacing the throttle body, a relearn procedure is often required; skipping it can cause the code to reset even with good components.

Can I keep driving with P210C?

If the vehicle is in limp mode or the throttle response is erratic, do not drive it because you may lose power unexpectedly. Even if the car seems to drive normally, have the fault diagnosed promptly to avoid a sudden throttle failure.

Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter with voltage and resistance measurement
- Wiring diagram for the throttle actuator circuit
- Socket set and Torx bits for throttle body removal
- Contact cleaner and dielectric grease for connector repair

Reading P210C

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.
0C	The exact fault within that area.

Often seen with

P0121 Throttle Position Sensor A Circuit Range/Performance · **P210D** Throttle Actuator B Control Motor Circuit High · **P210E** Throttle/Pedal Position Sensor/Switch C/F Voltage Correlation · **P2110** Throttle Actuator Control System - Forced Limited RPM · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation



See it working

Watch the animated explainer [Helicopter Flight Simulator: Learn the Three Controls](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p210c/>

