

GENERIC · POWERTRAIN

P2112

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2112

Throttle Actuator Control System - Unable to Close

P2112 indicates that the engine computer commanded the electronic throttle actuator to close the throttle plate, but the throttle position sensor feedback did not show the plate moving to the expected closed position within the calibrated time. The computer detects a mismatch between the commanded throttle angle and the actual throttle angle during a close event, often setting the code when the plate sticks or the actuator fails to return.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Reduced engine power or limp mode, limiting vehicle speed
- A throttle pedal that feels unresponsive or requires more pressure to accelerate
- Rough idle or stalling when coming to a stop
- A sudden drop in engine speed when releasing the accelerator pedal
- In rare cases, the engine may hesitate or surge during light acceleration

Common causes, most likely first

- 1 Carbon buildup or sludge on the throttle plate and bore, preventing the plate from closing fully
- 2 Faulty throttle actuator motor or its internal windings
- 3 Throttle position sensor (TPS) signal error or intermittent connection
- 4 Wiring harness damage or corroded connectors between the throttle body and the engine control module (ECM)
- 5 A binding or damaged throttle plate shaft or return spring
- 6 ECM software calibration issue or internal driver fault (less common)



How to diagnose and fix it

- 1 Inspect the throttle body bore and plate for carbon deposits; clean with throttle body cleaner and a soft brush, then recheck
- 2 Check the throttle body connector and wiring for corrosion, chafing, or loose pins; repair as needed
- 3 Use a scan tool to command the throttle actuator through its full range and observe TPS feedback for smooth operation
- 4 Measure the resistance of the throttle actuator motor and compare to manufacturer specifications; replace throttle body if out of spec
- 5 Perform a throttle body adaptation or relearn procedure with a scan tool after cleaning or replacement
- 6 If the actuator and wiring test good, check for ECM software updates or known calibration issues
- 7 Replace the electronic throttle body assembly if the actuator or sensors are faulty and cannot be serviced separately

Why cleaning the throttle body often fixes P2112

- Carbon buildup on the throttle plate is the most common cause of P2112, especially on engines with direct injection or high mileage, because the plate cannot seat fully closed.
- A dirty throttle body may set P2112 without any driveability complaint, so technicians should not replace the actuator before inspecting and cleaning the bore.
- The code can be triggered by a weak or failing battery or charging system, as low voltage during the throttle self-test can cause a false close-failure detection.
- After cleaning or replacing the throttle body, a relearn or adaptation procedure is often required; skipping it can cause the code to return immediately.
- A sticking throttle plate can also set companion codes like P2101 or P2135, so always check for related throttle codes before condemning the ECM.

Can I keep driving with P2112?

You can usually drive the vehicle to a repair shop, but expect reduced power and possible limp mode; avoid highway driving or situations requiring rapid acceleration until the fault is repaired.

Tools that help

- OBD-II scan tool with bidirectional control and live data
- Throttle body cleaner and soft brush
- Digital multimeter
- Socket set and screwdrivers
- Factory service information for torque specs and relearn procedure



Reading P2112

- 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.
- 12** The exact fault within that area.

Often seen with

P0121 Throttle Position Sensor A Circuit Range/Performance · **P0507** Idle Control System RPM Higher Than Expected · **P2101** Throttle Actuator Control Motor Circuit Range/Performance · **P2111** Throttle Actuator Control System - Unable to Open · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation

See it working

Watch the animated explainer [How a MAP Sensor Works: Engine Vacuum and Load](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2112/>

