

GENERIC · POWERTRAIN

P2113

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2113

Throttle/Pedal Position Sensor 'B' Minimum Stop Performance

P2113 indicates that the engine control module (ECM) has detected a performance problem with the minimum stop position of throttle/pedal position sensor 'B', meaning the sensor's signal at the closed-throttle stop does not match the expected value stored in the ECM. The ECM compares the sensor 'B' voltage at the minimum stop against a learned or expected range and sets this code when the signal is out of specification during the throttle plate's return to its rest position.

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

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- A hesitation or stumble when accelerating from a stop, as the ECM may not correctly recognize the closed-throttle position.
- An erratic or surging idle, because the ECM's throttle control strategy is based on an incorrect minimum stop reference.
- Reduced engine power or a limp-home mode, where the throttle responds sluggishly or is limited to a lower RPM.
- In some cases, the engine may stall when the throttle is released, as the ECM fails to command the correct idle air control.
- A stored code P2113 may be accompanied by other throttle-related codes, but the driver may only notice the warning light.



Common causes, most likely first

- 1 A dirty or carbon-fouled throttle body, preventing the throttle plate from returning fully to its mechanical stop and skewing the sensor 'B' reading.
- 2 A faulty throttle/pedal position sensor 'B' that has drifted or failed internally, producing an incorrect voltage at the minimum stop.
- 3 Wiring issues such as a chafed, corroded, or loose connection in the sensor 'B' circuit, including the reference voltage or ground return.
- 4 A misadjusted or worn throttle stop screw or throttle plate linkage, altering the physical minimum stop position.
- 5 A failing electronic throttle actuator (motor) that does not fully close the throttle plate, causing the sensor to read above the expected minimum.
- 6 An ECM software calibration issue or a faulty ECM that incorrectly interprets the sensor 'B' signal at the minimum stop.
- 7 Contamination or damage to the sensor 'B' connector or pins, leading to intermittent signal loss at the closed-throttle position.

How to diagnose and fix it

- 1 Inspect the throttle body for carbon buildup and clean it thoroughly with throttle body cleaner, then perform a throttle relearn procedure if required.
- 2 Check the throttle/pedal position sensor 'B' connector and wiring for corrosion, loose pins, or chafed insulation, and repair as needed.
- 3 Backprobe the sensor 'B' signal wire at the closed-throttle stop and compare the voltage to the manufacturer's specification to confirm sensor accuracy.
- 4 Verify the mechanical operation of the throttle plate and linkage, ensuring it returns fully to the stop without binding or obstruction.
- 5 If the sensor 'B' voltage is out of range, replace the throttle/pedal position sensor assembly and perform the required calibration or relearn.
- 6 Check for any applicable ECM software updates or technical service bulletins that address the minimum stop performance logic.
- 7 Clear the code and perform a road test to verify the repair, ensuring the monitor for the throttle position sensor runs and passes.



Common misdiagnosis traps for P2113

- A dirty throttle body is the most frequent cause of this code, yet many technicians replace the throttle position sensor first without cleaning the throttle plate and bore.
- The code can be set by a weak or failing battery or charging system, as low voltage during cranking can cause the ECM to mislearn the minimum stop position.
- Some vehicles require a specific throttle relearn procedure after cleaning or replacement, and skipping it will cause the code to return immediately.
- A sticking throttle cable or cruise control linkage can prevent the throttle plate from returning to its stop, mimicking a sensor 'B' failure.
- The ECM may set P2113 as a result of a faulty accelerator pedal position sensor 'B' if the system uses a correlation between throttle and pedal sensors for minimum stop learning.

Can I keep driving with P2113?

The vehicle may enter a reduced-power mode, so limit driving to essential trips and avoid heavy acceleration or high speeds until the fault is repaired. If the engine stalls or the throttle response becomes unpredictable, stop driving and have the vehicle towed to a repair facility.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Throttle body cleaner and shop rags
- Basic hand tools (screwdrivers, socket set)
- Feeler gauge or feeler blades for throttle stop adjustment
- Manufacturer-specific service information for relearn procedures

Reading P2113

- 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.
- 13** 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 · **P2111** Throttle Actuator Control System - Unable to Open · **P2112** Throttle Actuator Control System - Unable to Close · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation



See it working

Watch the animated explainer [Fuel Trims Explained: Short-Term and Long-Term](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2113/>

