



P1223 · Ford

Pedal Demand Sensor B Circuit High Input

P1223 on Ford vehicles means the powertrain control module (PCM) has detected a high input voltage on the signal circuit from the pedal demand sensor B, which is the accelerator pedal position sensor that tracks how far the driver presses the pedal. The PCM expects a voltage within a calibrated range, and a reading above that range tells the module the circuit is shorted to voltage or the sensor reference is skewed.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	Medium	Intermediate	Fuel and air metering (injector circuits)

Symptoms you may notice

- The check engine light or powertrain warning light illuminates on the dashboard.
- The engine may enter limp mode or reduced power mode with limited throttle response.
- The accelerator pedal may feel unresponsive or the engine may idle at an elevated speed.
- Cruise control may be disabled or fail to engage.
- Some drivers notice no symptoms besides the warning light, especially if the fault is intermittent.
- Hesitation or surging during acceleration may occur as the PCM struggles to interpret the pedal signal.

Common causes, most likely first

- 1 A short to voltage on the pedal demand sensor B signal circuit, often from chafed or pinched wiring near the pedal assembly or along the harness.
- 2 A faulty accelerator pedal position sensor assembly where the internal potentiometer for sensor B has failed and sends a high voltage signal.
- 3 Corroded or loose electrical connectors at the pedal sensor or at the PCM, creating high resistance or intermittent voltage spikes.
- 4 A damaged or contaminated pedal sensor connector caused by spilled liquids or debris around the driver footwell.
- 5 A PCM internal fault that misreads the sensor B input, though this is less common than wiring or sensor issues.
- 6 Water intrusion into the pedal sensor or harness connector from a leaking windshield or body seal.
- 7 Aftermarket accessories or poor previous repairs that tapped into the sensor reference or signal wiring.



How to diagnose and fix it

- 1 Connect a scan tool and record the freeze-frame data and live pedal position sensor B voltage to confirm the high input reading.
- 2 Visually inspect the accelerator pedal sensor, its connector, and the wiring harness for chafing, corrosion, or liquid damage.
- 3 Backprobe the sensor B signal circuit at the PCM connector and compare the voltage with the scan tool reading to isolate whether the fault is in the wiring or the sensor.
- 4 Disconnect the sensor and check for a short to voltage on the signal circuit with a multimeter while wiggling the harness to catch intermittent faults.
- 5 If wiring checks pass, substitute a known-good accelerator pedal assembly and clear the code to see if the fault returns.
- 6 Repair any damaged wiring, replace corroded terminals, and apply dielectric grease to the connector before reassembly.
- 7 Clear the adaptive memory and codes, then perform a road test with live data monitoring to verify the repair.

What Ford techs check before replacing the pedal

- A common miss is a chafed harness behind the brake pedal bracket or near the steering column where the pedal sensor wiring rubs through and shorts to a nearby power wire.
- The code can set intermittently from a loose connector that only loses contact over rough roads, so a static meter check may pass while the fault is still present.
- Spilled coffee or cleaning products around the driver footwell often contaminate the pedal sensor connector and cause high input readings that mimic a failed sensor.
- On some Ford models, a weak or failing battery can cause the PCM to log false sensor codes during cranking, so always verify battery and charging system health first.
- Replacing the pedal assembly without checking the signal circuit voltage at the PCM can lead to a repeat failure if the real problem is a shorted wire in the harness.

Can I keep driving with P1223?

You can usually drive the vehicle to a repair shop, but expect reduced engine power and poor throttle response, so avoid highway merging and heavy traffic until the fault is fixed. If the engine enters limp mode or the pedal becomes unresponsive, pull over safely and arrange a tow.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with backprobe pins
- Wiring diagram for the specific Ford model
- Torx or socket set for pedal assembly removal
- Dielectric grease and electrical contact cleaner



Reading P1223

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Ford): its meaning depends on the make.
- 2** Fuel and air metering (injector circuits).
- 23** The exact fault within that area.

Often seen with

P1222 IFI Accelerator Pedal Position Sensor R252 · **P1222** Traction Control Output Circuit · **P1224** Electronic Throttle Control Position Error · **P1222** Injector Control Circuit Intermittent · **P1222** Traction Control Output Circuit Malfunction · **P1224** Throttle Position Sensor B Out of Self-Test Range · **P1222** Injector Control Circuit Intermittent · **P1222** Pedal Position Sensor 2 Low Input · **P1222** Accelerator Pedal Position Sensor D Circuit Low · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation · **P2138** Throttle/Pedal Position Sensor D/E Voltage Correlation

See it working

Watch the animated explainer [How a Radiator Fan Relay Circuit Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1223/>

