

GENERIC · POWERTRAIN

P025B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P025B

Fuel Pump Module A Control Circuit Range/Performance

P025B indicates that the powertrain control module (PCM) has detected an out-of-range or performance issue with the control circuit for fuel pump module 'A'. The PCM monitors the circuit for expected voltage or current behavior and sets this code when the signal does not match the commanded state, often due to a faulty module, wiring problem, or control driver issue.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Illumination of the check engine light (malfunction indicator lamp) with no other noticeable symptoms
- Engine cranks but fails to start or starts after long cranking
- Intermittent engine stall or hesitation during acceleration
- Reduced engine power or limp mode in some vehicles
- Audible fuel pump operation may be absent when the key is turned on
- Poor fuel economy or rich/lean fuel trim codes stored alongside

Common causes, most likely first

- 1 Faulty fuel pump module 'A' (internal pump motor or control electronics failure)
- 2 Damaged or corroded wiring harness or connector at the fuel pump module
- 3 Open or short circuit in the control circuit between the PCM and fuel pump module
- 4 Failed fuel pump control module (FPCM) or relay, if equipped
- 5 PCM internal driver failure (rare but possible)
- 6 Poor ground connection for the fuel pump module or FPCM
- 7 Aftermarket accessories or improper wiring repairs causing interference



How to diagnose and fix it

- 1 Verify battery voltage and inspect fuel pump module fuse and relay; replace if blown or faulty
- 2 Perform a visual inspection of the fuel pump module wiring and connector for damage, corrosion, or loose pins
- 3 Use a scan tool to command the fuel pump on and off while listening for pump operation and checking circuit voltage
- 4 Measure resistance and voltage drop on the control circuit between the PCM and fuel pump module to identify opens or shorts
- 5 Check the fuel pump module ground circuit for excessive resistance
- 6 If the circuit tests good, substitute a known-good fuel pump module or FPCM to confirm the fault
- 7 Repair or replace the faulty component (wiring, module, or PCM) and clear the code to verify the repair

Don't overlook the fuel pump control module

- Many vehicles use a separate fuel pump control module (FPCM) that can fail and set P025B even when the fuel pump itself is healthy.
A weak or failing fuel pump motor can draw excessive current and trigger a range/performance code without completely failing.
- Corrosion inside the fuel pump module connector is a common cause that is easily missed during a quick visual inspection.
- P025B can be set by a low battery or charging system issue that causes voltage spikes or drops affecting the control circuit.
Some vehicles require a relearn or calibration procedure after replacing the fuel pump module or FPCM to prevent the code from returning.

Can I keep driving with P025B?

If the engine starts and runs normally, you can drive cautiously to a repair shop, but avoid hard acceleration or long trips. If the engine stalls or fails to start, do not drive and have the vehicle towed to prevent safety risks.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter (DMM)
- Test light
- Fuel pressure gauge
- Wiring diagram for the specific vehicle
- Basic hand tools (sockets, wrenches, screwdrivers)



Reading P025B

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 2** Fuel and air metering (injector circuits).
- 5B** The exact fault within that area.

Often seen with

P0087 Fuel Rail/System Pressure - Too Low · **P0230** Fuel Pump Primary Circuit Malfunction · **P025A** Fuel Pump Module A Control Circuit/Open · **P025C** Fuel Pump Module A Control Circuit Low · **P025D** Fuel Pump Module A Control Circuit High

See it working

Watch the animated explainer [Four-Stroke Engine Notebook: The Otto Cycle Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p025b/>

