

GENERIC · POWERTRAIN

P025A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P025A

Fuel Pump Module A Control Circuit/Open

P025A indicates that the powertrain control module (PCM) has detected an open circuit or loss of continuity in the control circuit for fuel pump module A, which is the primary fuel pump on most vehicles. The PCM commands the fuel pump on and monitors the circuit for expected voltage or current feedback, and when that feedback is missing or out of range, it sets this code and may disable the fuel pump to protect the circuit.

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

Symptoms you may notice

- The engine cranks but does not start because the fuel pump is not running.
- The engine may start briefly and then stall as fuel pressure drops.
- Intermittent no-start or stalling conditions, especially over bumps or in wet weather.
- A stored P025A code with the check engine light illuminated.
- Often no symptoms besides the warning light if the fault is intermittent and the pump still operates.
- Other fuel pump-related codes or a reduced power mode may appear.

Common causes, most likely first

- A failed fuel pump module, where the internal pump motor or control electronics have an open circuit.
- Damaged or corroded wiring between the PCM and the fuel pump module, including chafed wires, broken pins, or water intrusion.
- A faulty fuel pump control module (FPCM) or relay that interrupts power to the pump.
- A poor ground connection at the fuel pump module or chassis ground point.
- A blown fuse or fusible link in the fuel pump power circuit, though this often sets additional codes.
- A faulty PCM driver for the fuel pump control circuit, which is rare but possible after other causes are ruled out.



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related fuel pump or communication codes before proceeding.
- 2 Inspect the fuel pump fuse and relay, and test for power and ground at the fuel pump module connector with the key on.
- 3 Perform a voltage drop test on the fuel pump control circuit and ground circuit to identify excessive resistance or an open.
- 4 Check the wiring harness for damage, corrosion, or loose connectors between the PCM, FPCM, and fuel pump module.
- 5 Command the fuel pump on with a scan tool and listen for pump operation; if it does not run, test the pump directly with a known good power source.
- 6 If the circuit and relay are good but the pump does not run, replace the fuel pump module and retest.
- 7 Clear the code and verify repair by running the fuel pump command and confirming the code does not return.

Fuel pump circuit checks before replacement

- A P025A can be set by a fuel pump control module that is separate from the pump itself, so testing the control module output is essential before replacing the pump.
- Intermittent open circuits often occur at the fuel tank connector or where the harness passes through the body, and a wiggle test while monitoring live data can reveal the fault.
- Some vehicles use a pulse-width modulated fuel pump control, and a failed pump driver in the PCM can mimic a faulty pump, so always confirm the PCM is commanding the pump correctly.
- A weak battery or charging system can cause low voltage that triggers a false P025A, so check battery health and connections first.
- The code does not always mean the pump is dead; a corroded ground or a chafed wire can set the same code while the pump still works intermittently.

Can I keep driving with P025A?

Do not drive the vehicle if it will not start or stalls, as a failed fuel pump can leave you stranded. If the vehicle still runs but the light is on, drive only to a repair shop and avoid high-speed or heavy-load driving.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Test light
- Wiring diagram for the fuel pump circuit
- Fuel pressure gauge
- Basic hand tools for connector and harness inspection



Reading P025A

- 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).
- 5A** The exact fault within that area.

Often seen with

P0087 Fuel Rail/System Pressure - Too Low · **P0190** Fuel Rail Pressure Sensor Circuit Malfunction · **P0230** Fuel Pump Primary Circuit Malfunction · **P0231** Fuel Pump Secondary Circuit Low · **P0232** Fuel Pump Secondary Circuit High

See it working

Watch the animated explainer [How Hydraulic Brakes Work: Pedal to Caliper](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p025a/>

