

GENERIC · POWERTRAIN

P01A8

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P01A8

Alternative Fuel Rail/System Pressure - Too Low

P01A8 indicates that the powertrain control module has detected the pressure in the alternative fuel rail or system is lower than the expected value for the current operating conditions. The computer compares the alternative fuel pressure sensor signal against a commanded or modeled pressure and sets this code when the actual pressure falls below the calibrated threshold.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Fuel and air metering

Symptoms you may notice

- Illumination of the malfunction indicator lamp, often with no other noticeable symptoms
- Rough idle or engine stumble when running on the alternative fuel
- Reduced engine power or limp-home mode when the alternative fuel system is active
- Difficulty starting or extended crank time when the engine is cold and running on alternative fuel
- Audible hissing or smell of alternative fuel near the engine compartment or fuel tank
- Poor acceleration or hesitation under load while using the alternative fuel

Common causes, most likely first

- 1 Low alternative fuel level in the tank or a fuel supply that is not properly pressurized
- 2 Restricted alternative fuel filter or clogged in-line strainer
- 3 Weak or failing alternative fuel pump or pressure regulator
- 4 Leaking or disconnected alternative fuel line, fitting, or injector seal
- 5 Faulty alternative fuel pressure sensor or damaged sensor wiring connector
- 6 Contaminated or incorrect alternative fuel causing poor combustion and low pressure
- 7 Mechanical fault in the alternative fuel rail, such as a stuck pressure relief valve



How to diagnose and fix it

- 1 Verify the alternative fuel level and confirm the fuel is the correct type for the vehicle
- 2 Inspect the alternative fuel lines, fittings, and injector seals for leaks or physical damage
- 3 Check the alternative fuel pressure sensor signal with a scan tool and compare it to a mechanical pressure gauge reading
- 4 Replace the alternative fuel filter or strainer if a pressure drop is confirmed across it
- 5 Test the alternative fuel pump and pressure regulator for proper output and replace if weak or stuck
- 6 Inspect and repair any damaged wiring or connectors at the pressure sensor and pump circuits
- 7 Clear the code and perform a road test to confirm the repair and ensure the code does not return

What a low alternative fuel pressure really means

- A common oversight is assuming the alternative fuel system is always active; on many bi-fuel vehicles the code may only set when the engine is actually running on the alternative fuel, so the fault can hide during gasoline operation.
The pressure sensor itself is frequently replaced unnecessarily when the real problem is a restricted filter or a weak pump that cannot maintain pressure under load.
- Some vehicles use a returnless alternative fuel system where the pressure regulator is inside the tank, making a low-pressure code more likely to indicate a pump or regulator failure than an external leak.
- A clogged or saturated carbon canister or evaporative emission system component can cause pressure control issues in the alternative fuel system on certain designs, setting this code without any fuel smell.
The code does not always mean the pump has failed; a pinched or kinked fuel line from improper service work can create the same low-pressure condition and is easy to miss during a visual inspection.

Can I keep driving with P01A8?

You can usually drive the vehicle if it runs smoothly on gasoline, but avoid sustained driving on the alternative fuel because low pressure can cause lean running, misfires, and possible engine damage. If the engine runs rough, loses power, or smells of fuel, stop driving and have the system inspected promptly.

Tools that help

- OBD-II scan tool with live data capability
- Fuel pressure gauge suitable for alternative fuel systems
- Digital multimeter for sensor and circuit testing
- Hand tools for line and filter inspection
- Leak detection solution or electronic leak detector



Reading P01A8

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 1** Fuel and air metering.
- A8** The exact fault within that area.

Often seen with

P0087 Fuel Rail/System Pressure - Too Low · **P0171** System Too Lean (Bank 1) · **P01A6** Alternative Fuel Rail Pressure Sensor Circuit High · **P01A7** Alternative Fuel Rail Pressure Sensor Circuit Intermittent/E · **P01A9** Alternative Fuel Rail/System Pressure - Too High

See it working

Watch the animated explainer [Helicopter Flight Simulator: Learn the Three Controls](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p01a8/>

