

GENERIC · POWERTRAIN

P2171

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2171

Exhaust Pressure Regulator Vent Solenoid Control Circuit High

P2171 indicates that the powertrain control module (PCM) has detected a high voltage condition on the control circuit for the exhaust pressure regulator vent solenoid. This solenoid is used in some emissions systems to manage exhaust pressure, and a high voltage reading means the circuit is likely open, shorted to power, or the solenoid itself has failed.

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.
- Rough idle or slight hesitation if the vent solenoid affects exhaust flow.
- A hissing or clicking noise from the vent solenoid area during key-on or engine operation.
- Failed emissions test due to the stored code.
- In rare cases, reduced engine performance or poor fuel economy if the exhaust pressure regulation is compromised.

Common causes, most likely first

- 1 Open circuit in the control wire between the PCM and the vent solenoid.
- 2 Short to voltage on the control circuit, often due to chafed wiring or connector damage.
- 3 Faulty exhaust pressure regulator vent solenoid (open coil or internal failure).
- 4 Corroded or disconnected electrical connector at the solenoid or PCM.
- 5 PCM driver failure, though less common.
- 6 Aftermarket accessories or improper wiring repairs causing interference.

How to diagnose and fix it

- 1 Verify the code with a scan tool and inspect freeze-frame data to confirm the high voltage condition.
- 2 Visually inspect the vent solenoid, its connector, and the wiring harness for damage, corrosion, or loose pins.
- 3 Disconnect the solenoid and measure resistance across its terminals; compare to manufacturer specifications.
- 4 Check for voltage on the control circuit with the key on and solenoid disconnected; a high voltage reading indicates a short to power.
- 5 Perform a continuity test on the control wire from the PCM to the solenoid to check for opens.
- 6 If wiring and solenoid test good, suspect the PCM; perform pinpoint tests before replacement.
- 7 Clear the code and road-test the vehicle to verify the repair.



Don't overlook the vent solenoid circuit

- A high voltage code often results from an open circuit rather than a short, so a broken wire or failed solenoid coil is a common culprit.
- The exhaust pressure regulator vent solenoid is sometimes confused with the EVAP vent solenoid, but they serve different systems; misdiagnosis can lead to replacing the wrong part.
- Corrosion inside the solenoid connector can create high resistance that mimics an open circuit, so always inspect the pins closely.
- A faulty PCM is rarely the cause, but it can happen; ensure all other possibilities are exhausted before condemning it.
- This code may set intermittently if the wiring is damaged and only loses connection under certain conditions like vibration or temperature changes.

Can I keep driving with P2171?

The vehicle is generally safe to drive with this code, but avoid towing heavy loads or aggressive driving until repaired, as the exhaust pressure regulation may be affected. Prolonged driving could lead to emissions system damage or reduced performance.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools (screwdrivers, pliers, socket set)
- Electrical contact cleaner

Reading P2171

- 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.
- 71** The exact fault within that area.

Often seen with

P0470 Exhaust Pressure Sensor · **P0471** Exhaust Pressure Sensor Range/Performance · **P0472** Exhaust Pressure Sensor Low · **P2170** Exhaust Pressure Regulator Vent Solenoid Control Circuit Low · **P2172** Throttle Actuator Control System - Sudden High Airflow Detec



See it working

Watch the animated explainer [How a Car Clutch Works: Diaphragm Clutch Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2171/>

