

VOLKSWAGEN · POWERTRAIN

P1202

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1202 · Volkswagen

Cylinder 2 Fuel Injector Circuit Electrical Malfunction

P1202 on Volkswagen vehicles means the engine control module (ECM) has detected an electrical fault in the circuit that operates the fuel injector for cylinder number two. The ECM monitors the injector driver circuit for expected current flow and voltage behavior, and when the readings fall outside the programmed limits it commands the injector off and stores this code. The fault can be an open circuit, a short to ground or power, or a failed injector coil, and it directly affects fuel delivery to that cylinder.

SYSTEM

Powertrain

CODE TYPE

Volkswagen specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Check engine light illuminated, often accompanied by a flashing light if the misfire is severe
- Noticeable engine misfire or rough running, especially at idle or under light load
- Loss of power and reduced fuel economy because cylinder two is not receiving fuel
- Shaking or vibration felt through the steering wheel and floorboards
- A strong raw fuel smell from the exhaust if the injector is stuck open and flooding the cylinder
- Often no symptoms besides the warning light when the electrical fault is intermittent

Common causes, most likely first

- 1 Failed fuel injector on cylinder two with an open or shorted internal coil
- 2 Damaged or chafed wiring harness between the ECM and the cylinder two injector connector
- 3 Corroded, loose, or backed-out pins at the injector electrical connector
- 4 Faulty engine control module (ECM) injector driver circuit for cylinder two
- 5 Aftermarket or improperly installed injector with incorrect resistance
- 6 Rodent damage to the injector wiring loom, common on Volkswagen engines with exposed harness routing



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P1202 is the only injector circuit code and note engine conditions at fault
- 2 Inspect the cylinder two injector connector and harness for corrosion, chafing, or loose pins, and repair as needed
- 3 Measure the resistance of the cylinder two injector with a multimeter and compare it to the factory specification for your engine code
- 4 Perform a voltage drop test on the injector power supply and ground circuits while cranking or running to check for excessive resistance
- 5 Swap the cylinder two injector with a known-good injector from another cylinder and see if the code moves, confirming injector versus circuit fault
- 6 Check for continuity and short-to-ground on the injector driver wire between the ECM and injector, repairing the harness if faulty
- 7 If the circuit and injector test good, diagnose the ECM driver with an oscilloscope or substitute a known-good ECM to confirm internal failure

What Volkswagen techs check before replacing injectors

- A P1202 can be set by a completely failed injector coil or by a wiring fault that only appears when the engine is hot, so always wiggle-test the harness while watching live misfire counters.
- Volkswagen engines in certain models route the injector harness near the oil filler neck and intake manifold, where oil leaks and heat cycling cause insulation cracking that is easy to miss on a visual inspection.
- Do not assume the injector is bad just because the code points to cylinder two; a shorted injector driver inside the ECM can mimic a failed injector and will destroy a new injector if not diagnosed first.
- Aftermarket injectors with incorrect resistance values are a frequent cause of repeat P1202 codes on Volkswagen engines, so always verify resistance against the factory service information for your specific engine code.
- A stuck-open injector can flood the cylinder with fuel and cause bore wash, leading to low compression and a misfire that persists even after the electrical fault is repaired.

Can I keep driving with P1202?

You can drive cautiously to a repair shop if the engine is running smoothly and the check engine light is steady, but avoid heavy acceleration and long trips. If the light is flashing or the engine is misfiring badly, stop driving because raw fuel can overheat the catalytic converter and cause costly damage.



Tools that help

- OBD-II scan tool with live data and misfire counter capability
- Digital multimeter with resistance and voltage drop functions
- Oscilloscope for injector pulse waveform analysis
- Injector connector release tool and terminal pick set
- Factory service information for Volkswagen engine code wiring diagrams

Reading P1202

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

Often seen with

P1204 Cylinder 4 Fuel Injector Circuit Electrical Malfunction · **P1201** Cylinder 1 Fuel Injector Circuit Electrical Malfunction · **P1203** Cylinder 3 Fuel Injector Circuit Electrical Malfunction · **P1204** Cylinder 4 Misfire · **P1201** Cylinder 1 Misfire · **P1203** Cylinder 3 Misfire · **P1204** Cylinder 4 Injector Circuit Open/Shorted · **P1201** Cylinder 1 Injector Circuit Open/Shorted · **P1203** Cylinder 3 Injector Circuit Open/Shorted · **P1201** Cylinder 1 Misfire · **P1204** Cylinder 4 Misfire · **P1203** Cylinder 3 Misfire · **P1203** Alternative Fuel Gas Mass Sensor Circuit High Frequency · **P1201** Alternative Fuel Gas Mass Sensor Circuit Range Performance · **P1203** (Alternative Fuel) Gas Mass Sensor Circuit High Frequency · **P1201** (Alternative Fuel) Gas Mass Sensor Circuit Range/Performance · **P0202** Injector Circuit Malfunction - Cylinder 2 · **P0302** Cylinder 2 Misfire Detected

See it working

Watch the animated explainer [Excavator Simulator: Hydraulics You Can Operate](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1202/>

