

VOLKSWAGEN · POWERTRAIN

P1206

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1206 · Volkswagen

Cylinder 6 Fuel Injector Circuit Electrical Malfunction

P1206 on a Volkswagen indicates that the engine control module (ECM) has detected an electrical fault in the circuit for the fuel injector on cylinder 6. This means the ECM sees an abnormal condition, such as an open circuit, short to ground, or short to power, in the wiring or injector itself, which can prevent proper 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

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire, especially noticeable when the engine is cold or under load
- Reduced engine power or hesitation during acceleration
- Poor fuel economy due to incomplete combustion in cylinder 6
- Possible shaking or vibration from the engine bay

Common causes, most likely first

- 1 Faulty fuel injector on cylinder 6 (internal coil or winding failure)
- 2 Damaged or corroded electrical connector at the injector
- 3 Chafed, broken, or shorted wiring in the injector harness
- 4 Loose or corroded ground connection for the injector circuit
- 5 Failed driver circuit inside the engine control module (ECM)
- 6 Contamination or debris in the injector causing electrical malfunction

How to diagnose and fix it

- 1 Perform a visual inspection of the cylinder 6 injector connector and wiring for damage or corrosion
- 2 Use a multimeter to check the resistance of the injector; compare with specifications
- 3 Check for voltage at the injector connector with the key on and engine off (KOEO) to verify power supply
- 4 Inspect the wiring harness for continuity and shorts between the injector and ECM
- 5 Swap the cylinder 6 injector with a known-good injector from another cylinder to see if the code moves
- 6 If the injector and wiring test good, test the ECM driver circuit or consult a professional for advanced diagnostics
- 7 Replace the faulty injector or repair the wiring as needed, then clear the code and verify repair



Common Misdiagnosis Traps for P1206

- A misfire code for cylinder 6 (such as P0306) often accompanies P1206, but the root cause may be electrical rather than a failed spark plug or ignition coil.
- The injector connector can appear fine visually but have internal corrosion that causes intermittent faults; always perform a wiggle test while monitoring live data.
- A shorted injector can damage the ECM driver, so replacing only the injector without checking the driver circuit may lead to repeat failures.
- Volkswagen engines sometimes suffer from harness chafing near the intake manifold or cylinder head, which can short injector wires.
- P1206 can be set by a low battery or charging system issue causing voltage spikes that affect injector operation, so check battery health first.

Can I keep driving with P1206?

Driving with P1206 is generally not recommended because a faulty injector can cause misfires that may damage the catalytic converter over time. If the vehicle runs poorly or the check engine light is flashing, stop driving and seek repair immediately; otherwise, drive cautiously to a workshop.

Tools that help

- OBD-II scanner with live data capability
- Digital multimeter
- Test light
- Wire probe set
- Factory service information for wiring diagrams

Reading P1206

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| P | Powertrain: engine, transmission and emissions. |
| 1 | Manufacturer-specific code (Volkswagen): its meaning depends on the make. |
| 2 | Fuel and air metering (injector circuits). |
| 06 | The exact fault within that area. |



Often seen with

P1203 Cylinder 3 Fuel Injector Circuit Electrical Malfunction · **P1201** Cylinder 1 Fuel Injector Circuit Electrical Malfunction · **P1202** Cylinder 2 Fuel Injector Circuit Electrical Malfunction · **P1203** Cylinder 3 Misfire · **P1201** Cylinder 1 Misfire · **P1202** Cylinder 2 Misfire · **P1203** Cylinder 3 Injector Circuit Open/Shorted · **P1201** Cylinder 1 Injector Circuit Open/Shorted · **P1202** Cylinder 2 Injector Circuit Open/Shorted · **P1202** Cylinder 2 Misfire · **P1203** Cylinder 3 Misfire · **P1201** Cylinder 1 Misfire · **P1202** Alternative Fuel Gas Mass Sensor Circuit Low Frequency · **P1203** Alternative Fuel Gas Mass Sensor Circuit High Frequency · **P1201** Alternative Fuel Gas Mass Sensor Circuit Range Performance · **P1202** (Alternative Fuel) Gas Mass Sensor Circuit Low Frequency · **P1203** (Alternative Fuel) Gas Mass Sensor Circuit High Frequency · **P1201** (Alternative Fuel) Gas Mass Sensor Circuit Range/Performance · **P0206** Injector Circuit/Open - Cylinder 6 · **P0306** Cylinder 6 Misfire Detected

See it working

Watch the animated explainer [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/volkswagen-p1206/>

