

CHRYSLER · POWERTRAIN

P1231

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1231 · Chrysler

Injector Circuit Cylinder 4 Intermittent

P1231 on Chrysler vehicles means the powertrain control module (PCM) has detected an intermittent fault in the electrical circuit for cylinder 4's fuel injector. The PCM monitors injector current and timing and flags the code when the signal drops out or behaves erratically without staying failed long enough to set a hard circuit code.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air
metering (injector
circuits)

Symptoms you may notice

- Often no symptoms besides the warning light, especially if the intermittent fault has not recurred recently
- A noticeable engine misfire or stumble that comes and goes, particularly under light throttle or during warm-up
- Rough idle or shaking that may disappear after the engine warms up
- Slight loss of power or poor fuel economy when the injector cuts out
- Occasional hesitation or surge during acceleration
- A flashing check engine light during active misfire events

Common causes, most likely first

- 1 Chafed, cracked, or corroded wiring in the cylinder 4 injector harness, often near the connector or where the loom bends around the intake
- 2 A failing cylinder 4 fuel injector with an internally intermittent coil winding
- 3 Loose or contaminated electrical connector pins at the injector or at the PCM
- 4 Water or oil intrusion into the injector connector causing intermittent shorting
- 5 A weak or intermittent PCM driver circuit for that injector, though this is less common
- 6 Poor engine ground or a voltage supply issue affecting the injector feed circuit



How to diagnose and fix it

- 1 Inspect the cylinder 4 injector connector and harness for chafing, corrosion, or loose pins, and wiggle-test the loom while watching live misfire data
- 2 Measure injector resistance cold and again after warming the engine, comparing it to the other injectors on the same bank
- 3 Perform a voltage drop test on both the power feed and the PCM control wire for the cylinder 4 injector while cranking and running
- 4 Swap the cylinder 4 injector with a known-good injector from another cylinder and see if the misfire or code follows the injector
- 5 Check for technical service bulletins (TSBs) or PCM software updates that address intermittent injector circuit faults on this Chrysler engine family
- 6 If wiring and injector test good, scope the PCM control signal for glitches and inspect PCM connector pins for fretting or corrosion
- 7 Repair or replace the faulty harness section, connector, or injector, then clear the code and verify with a road test that includes the conditions that originally set it

Intermittent injector faults that fool technicians

- A cylinder 4 injector that tests fine on a multimeter can still be intermittent when hot, so resistance checks must be done both cold and at operating temperature.
- The code can be set by a wiring fault that only appears when the engine torques under load, so a static wiggle test in the bay may miss it entirely.
- Chrysler PCMs sometimes set P1231 from a single glitch event and will not reset it until several clean drive cycles, so the fault may already be gone by the time the car reaches the shop.
- A misfire from a bad spark plug or ignition coil on cylinder 4 can cause the PCM to flag the injector circuit indirectly, so always verify ignition performance before condemning the injector.
- Corrosion inside the injector connector from a previous pressure-wash or oil leak is a frequent hidden cause that a visual inspection from above will not reveal.

Can I keep driving with P1231?

You can usually drive carefully to a repair shop if the light is steady and the engine runs smoothly, but avoid heavy acceleration or long trips. If the check engine light flashes or the engine misfires badly, stop driving because raw fuel can damage the catalytic converter.



Tools that help

- OBD-II scan tool with live misfire and injector data
- Digital multimeter with min/max recording
- Oscilloscope for injector control signal analysis
- Noid light or injector test light
- Hand tools for intake and injector access
- Contact cleaner and dielectric grease for connector service

Reading P1231

P Powertrain: engine, transmission and emissions.

1 Manufacturer-specific code (Chrysler): its meaning depends on the make.

2 Fuel and air metering (injector circuits).

31 The exact fault within that area.

Often seen with

P1232 Cylinder 8 Injector Circuit Short To Ground · **P1232** Low Speed Fuel Pump Primary Circuit Failure · **P1233** Fuel Pump Driver Module Off-Line · **P0204** Injector Circuit Malfunction - Cylinder 4 · **P0304** Cylinder 4 Misfire Detected · **P2146** Fuel Injector Group 'A' Supply Voltage Circuit/Open

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/chrysler-p1231/>

