

CHRYSLER · POWERTRAIN

P1240

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1240 · Chrysler

Injector Circuit Cylinder 7 Intermittent

P1240 on a Chrysler vehicle means the powertrain control module (PCM) has detected an intermittent fault in the electrical circuit for fuel injector number 7. The PCM monitors injector current and voltage; when the signal momentarily drops out or spikes outside the expected range, it stores this code because the problem is not constant.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air
metering (injector
circuits)

Symptoms you may notice

- Check engine light (malfunction indicator lamp) illuminated, often with no other noticeable symptoms
- Intermittent engine misfire or rough running, especially under load or at certain RPMs
- Slight loss of power or hesitation during acceleration
- Occasional shaking or vibration felt through the steering wheel or seat
- Poor fuel economy if the injector stops firing for short periods
- In rare cases, a flashing check engine light if the misfire becomes severe enough to damage the catalytic converter

Common causes, most likely first

- 1 Faulty fuel injector number 7 with an internally intermittent coil or winding
- 2 Damaged or chafed wiring in the injector 7 circuit, often where the harness bends near the engine
- 3 Corroded, loose, or backed-out terminals at the injector 7 connector or at the PCM connector
- 4 Water or oil intrusion into the injector 7 electrical connector causing intermittent shorts
- 5 PCM driver circuit for injector 7 failing intermittently (rare but possible)
- 6 Aftermarket or damaged injector pigtail that does not maintain a solid connection



How to diagnose and fix it

- 1 Inspect the injector 7 connector and wiring for corrosion, chafing, or loose pins; clean or repair as needed
- 2 Perform a wiggle test on the injector 7 harness while the engine is running to reproduce the intermittent fault
- 3 Swap injector 7 with a known-good injector from another cylinder (if accessible) and see if the code moves
- 4 Measure resistance of injector 7 with a multimeter and compare to the other injectors; look for an open or shorted winding
- 5 Use a noid light or oscilloscope to check for consistent injector pulse at the injector 7 connector
- 6 Check for technical service bulletins (TSBs) or software updates for the PCM that address injector circuit faults
- 7 If all external checks pass, diagnose the PCM driver circuit or replace the PCM as a last resort

Intermittent injector faults that fool technicians

- A common mistake is replacing the injector immediately, but the fault often lies in the connector or harness, especially where the wiring rubs against the engine cover or intake manifold.
- The code can set from a momentary glitch that lasts less than a second, so the injector may test perfectly fine with a multimeter when the engine is cold or idling.
- Chrysler engines in certain models (e.g., 3.6L Pentastar V6) are known for injector connector issues due to heat and vibration, so always inspect the connector before condemning the injector.
- A failing spark plug or ignition coil on cylinder 7 can cause a misfire that the PCM may misinterpret as an injector circuit fault, so check secondary ignition components as well.
- If the injector circuit is intermittent, the PCM may not set a misfire code immediately; P1240 can be the only clue until the problem worsens.

Can I keep driving with P1240?

You can usually drive short distances at moderate speeds, but avoid heavy acceleration or towing because an intermittent misfire can overheat the catalytic converter. If the check engine light starts flashing, pull over and stop driving to prevent costly damage.

Tools that help

- OBD-II scan tool with live data and misfire counter capability
- Digital multimeter
- Noid light or oscilloscope
- Wire terminal pick and electrical contact cleaner
- Factory service information for wiring diagrams and connector pinouts



Reading P1240

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

Often seen with

P1241 Cylinder 5 Injector Circuit Open Circuit · **P1242** Cylinder 6 Injector Circuit Open Circuit · **P1241** Throttle Vent Control Motor Circuit 1 Malfunction · **P1242** Throttle Vent Control Motor Circuit 2 Malfunction · **P1241** Sensor Power Supply Low Input · **P1242** Sensor Power Supply High Input · **P1241** Throttle Vent Control Motor Circuit 1 Malfunction · **P1242** Throttle Vent Control Motor Circuit 2 Malfunction · **P0207** Injector Circuit/Open - Cylinder 7 · **P0307** Cylinder 7 Misfire Detected · **P0357** Ignition Coil 'G' Primary/Secondary Circuit

See it working

Watch the animated explainer [How a Padlock Works: Pin Tumbler Lock in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1240/>

