

GENERIC · POWERTRAIN

P04E2

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P04E2

Crankcase Ventilation Hose Connection Sensor Circuit Low

P04E2 indicates that the engine control module has detected a low-voltage condition on the circuit for the crankcase ventilation hose connection sensor, which is a component used to verify that the crankcase ventilation hose is properly attached. The sensor circuit is expected to carry a specific voltage, and a low reading means the signal wire is likely shorted to ground, the sensor has failed, or the connector is damaged.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or slight hesitation if the hose is actually disconnected and causing a vacuum leak
- Increased oil consumption or oil seepage from seals due to crankcase pressure issues
- A faint hissing or whistling noise from the engine bay if the hose is loose or cracked
- Possible lean fuel trim codes or misfire codes stored alongside P04E2

Common causes, most likely first

- 1 Crankcase ventilation hose connection sensor internally shorted to ground
- 2 Damaged or corroded electrical connector at the sensor
- 3 Chafed or broken signal wire shorting to chassis ground
- 4 Hose connection sensor improperly installed or loose after recent service
- 5 Engine control module internal fault on the sensor input circuit (rare)

How to diagnose and fix it

- 1 Inspect the crankcase ventilation hose and sensor connector for physical damage, corrosion, or looseness
- 2 Disconnect the sensor and check for a short to ground on the signal wire using a digital multimeter
- 3 Verify reference voltage and ground at the sensor connector with the key on and engine off
- 4 Test the sensor resistance or output signal according to the manufacturer's specification
- 5 Repair any damaged wiring or replace the connector terminals as needed
- 6 Replace the crankcase ventilation hose connection sensor if it fails electrical testing
- 7 Clear the diagnostic trouble codes and verify the repair with a test drive and live data review



Don't overlook the hose itself

- A disconnected or cracked crankcase ventilation hose can set P04E2 even when the sensor and wiring are perfectly functional, so always inspect the hose routing and fitment first.
- Technicians often replace the sensor without checking for a shorted signal wire, which leads to a repeat code and wasted parts.
- The sensor circuit is sensitive to water intrusion at the connector, especially on vehicles that see road spray or frequent engine washing.
- P04E2 can be stored intermittently by a loose connector that only loses contact during engine vibration, so wiggle-test the harness while monitoring live data.
- This code does not always mean the sensor has failed; a low reference voltage from a shared circuit can trigger it, so check for other codes on the same five-volt reference.

Can I keep driving with P04E2?

The vehicle is generally safe to drive with P04E2 because it does not affect engine operation directly, but you should avoid ignoring it for long periods since a disconnected hose can cause oil leaks or unmetered air entering the engine. Have the circuit inspected at your next service appointment.

Tools that help

- Digital multimeter
- OBD-II scan tool with live data capability
- Wire terminal pick and connector release tools
- Service information for wiring diagrams and sensor specifications

Reading P04E2

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
4	Auxiliary emission controls.
E2	The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P0174** System Too Lean (Bank 2) · **P0300** Random/Multiple Cylinder Misfire Detected · **P04E3** Crankcase Ventilation Hose Connection Sensor Circuit High · **P0507** Idle Control System RPM Higher Than Expected



See it working

Watch the animated explainer [Fuel Trims Explained: Short-Term and Long-Term](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p04e2/>

