

GENERIC · POWERTRAIN

P04E3

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P04E3

Crankcase Ventilation Hose Connection Sensor Circuit High

P04E3 indicates that the powertrain control module (PCM) has detected an abnormally high voltage on the crankcase ventilation hose connection sensor circuit, which typically means the sensor signal wire is shorted to voltage or the sensor's internal resistance has increased beyond the expected range. The computer sets this code when the signal voltage exceeds the calibrated threshold for a specified time, often indicating a disconnected or faulty sensor rather than a mechanical ventilation failure.

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 engine hesitation if the crankcase ventilation system is disrupted
- Increased oil consumption or oil seepage from seals due to crankcase pressure changes
- A faint hissing or whistling noise from the engine bay if a hose is disconnected
- Possible lean fuel trim codes or driveability issues in severe cases
- Intermittent warning light that may clear and reset under certain driving conditions

Common causes, most likely first

- 1 Crankcase ventilation hose connection sensor internally failed or unplugged
- 2 Damaged or corroded electrical connector at the sensor
- 3 Short to voltage on the sensor signal circuit (wiring chafed against a power wire)
- 4 Open ground circuit for the sensor causing a high signal voltage
- 5 PCM internal fault or software calibration issue (rare)
- 6 Aftermarket or incorrect sensor installed previously
- 7 Physical damage to the hose or sensor from heat, oil contamination, or rodents



How to diagnose and fix it

- 1 Inspect the sensor connector and wiring for looseness, corrosion, or damage; clean and reseal as needed
- 2 Check the sensor's electrical connector for proper voltage and ground using a digital multimeter
- 3 Perform a wiggle test on the harness while monitoring sensor voltage to detect intermittent shorts
- 4 Verify the sensor's resistance or signal output against the manufacturer's specification
- 5 Replace the crankcase ventilation hose connection sensor if it fails electrical testing
- 6 Repair any shorted or open wiring in the sensor circuit, including grounds
- 7 Clear the code and perform a road test to confirm the repair and ensure the monitor runs to completion

Don't overlook the sensor connector

- A loose or unplugged sensor connector is one of the most common causes of this code, yet many technicians replace the sensor before checking the plug.
- The code can be set by a short to voltage on the signal wire, which may be caused by a chafed harness near the engine mount or exhaust heat shield.
- A faulty ground for the sensor can mimic a high signal voltage, so always verify the ground circuit before condemning the sensor.
- Some vehicles use a crankcase ventilation hose connection sensor that is integrated into the hose assembly, making replacement more costly than a standalone sensor.
- This code does not always indicate a mechanical ventilation failure; it is an electrical circuit fault and should not be confused with a PCV valve or hose blockage code.

Can I keep driving with P04E3?

The vehicle is generally safe to drive with this code because it is an electrical circuit fault and does not directly affect engine operation, but avoid prolonged driving if you notice rough running or oil leaks. Have the circuit inspected soon to prevent potential secondary issues such as crankcase pressure buildup.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire repair kit with crimpers and heat shrink
- Electrical contact cleaner
- Vehicle-specific service information for circuit specifications



Reading P04E3

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- E3** The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P0174** System Too Lean (Bank 2) · **P04E2** Crankcase Ventilation Hose Connection Sensor Circuit Low · **P04E4** Crankcase Ventilation Hose Connection Sensor Circuit Intermi · **P0507** Idle Control System RPM Higher Than Expected

See it working

Watch the animated explainer [Four-Stroke Engine Notebook: The Otto Cycle Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p04e3/>

