

GENERIC · POWERTRAIN

P2C64

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2C64

O2 Sensor Pumping Current Trim Circuit High Bank 1 Sensor 3

P2C64 indicates that the engine control module has detected an abnormally high current in the pumping current trim circuit for the bank 1 sensor 3 oxygen sensor, which is typically a wideband air-fuel ratio sensor located after the catalytic converter. The ECM monitors the current required to pump oxygen ions in or out of the sensor's measurement chamber, and a high trim value means the sensor is working harder than expected to maintain its reference point.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Slightly reduced fuel economy as the ECM may default to a richer air-fuel mixture
- Occasional hesitation or stumble during light acceleration
- A faint sulfur or rotten egg smell from the exhaust if the mixture stays rich
- Failed emissions inspection due to the stored trouble code
- In rare cases, a rough idle or surging if the faulty sensor skews fuel trims

Common causes, most likely first

- 1 Contaminated or degraded oxygen sensor (bank 1 sensor 3) causing excessive pumping current
- 2 Damaged or corroded wiring harness or connector at the sensor
- 3 High resistance in the sensor ground circuit or a poor chassis ground
- 4 Exhaust leak upstream of the sensor allowing outside air to skew readings
- 5 Internal fault in the engine control module's driver circuit for the sensor
- 6 Oil or coolant contamination from an internal engine leak fouling the sensor element



How to diagnose and fix it

- 1 Use a scan tool to verify the code and check live data for the bank 1 sensor 3 pumping current trim value
- 2 Inspect the sensor wiring and connector for chafing, corrosion, or loose pins, and repair as needed
- 3 Check for exhaust leaks between the engine and the sensor using a smoke machine or visual inspection
- 4 Measure the sensor heater resistance and compare to the manufacturer's specification
- 5 Perform a voltage drop test on the sensor ground circuit to rule out high resistance
- 6 Replace the bank 1 sensor 3 oxygen sensor if all electrical and exhaust checks pass
- 7 Clear the code and perform a drive cycle to confirm the repair and ensure the code does not return

What the pumping current trim really tells you

- A high pumping current trim often means the sensor is compensating for a lean exhaust condition caused by an exhaust leak or a failing injector, not necessarily a dead sensor.
- Technicians sometimes replace the sensor only to find the code returns because the real problem is a corroded ground connection shared with other sensors.
- Bank 1 sensor 3 is usually a post-catalyst wideband sensor, and its pumping current trim can be skewed by oil consumption or coolant intrusion that coats the sensor element.
- The ECM may set this code intermittently if the sensor's reference chamber becomes contaminated, so a sensor that passes a static resistance test can still be faulty under operating conditions.
- Always check for related codes such as P2C63 or P013F before condemning the sensor, as a low trim code or heater circuit code can point to a different root cause.

Can I keep driving with P2C64?

You can generally continue driving with this code, but avoid prolonged idling and heavy loads until it is diagnosed, because a rich default mixture can overheat the catalytic converter over time. Have the fault inspected soon to prevent secondary damage and to ensure the vehicle passes emissions testing.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Smoke machine for exhaust leak detection
- Socket set and oxygen sensor wrench
- Wiring diagram for the bank 1 sensor 3 circuit



Reading P2C64

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- C** Hybrid propulsion.
- 64** The exact fault within that area.

Often seen with

P0137 O2 Sensor Circuit Low Voltage (Bank 1 Sensor 2) · **P013E** O2 Sensor Delayed Response - Rich to Lean Bank 1 Sensor 2 · **P013F** O2 Sensor Delayed Response - Lean to Rich Bank 1 Sensor 2 · **P0140** O2 Sensor Circuit No Activity (Bank 1 Sensor 2) · **P2C63** O2 Sensor Pumping Current Trim Circuit Low Bank 1 Sensor 3

See it working

Watch the animated explainer [How a Radiator Fan Relay Circuit Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2c64/>

