

GENERIC · POWERTRAIN

P0057

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0057

HO2S Heater Control Circuit Low (Bank 2 Sensor 2)

P0057 means the powertrain control module (PCM) has detected that the heater circuit inside the downstream oxygen sensor on bank 2 is drawing less current than expected, indicating a low-current or open-circuit condition. The sensor's heater is not warming the element as commanded, so the PCM cannot bring the sensor up to operating temperature quickly after a cold start.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Low	Intermediate	Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Extended time before the engine enters closed-loop fuel control after a cold start
- Slightly higher fuel consumption during warm-up because the sensor stays cold longer
- Occasional rough idle or hesitation when the engine is first started in cold weather
- A pending P0057 code that may set again immediately after clearing if the circuit fault is hard

Common causes, most likely first

- 1 Open or high-resistance wire in the heater circuit between the PCM and the bank 2 sensor 2 oxygen sensor
- 2 Corroded, loose, or damaged connector pins at the oxygen sensor or at the PCM harness
- 3 Failed heater element inside the bank 2 sensor 2 oxygen sensor itself
- 4 Blown fuse or faulty relay that supplies power to the oxygen sensor heater circuit
- 5 PCM driver circuit for the heater control that has failed open or has high internal resistance
- 6 Chafed or pinched harness wiring near the exhaust or transmission that has worn through insulation



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P0057 is active and not a stale history code
- 2 Inspect the bank 2 sensor 2 oxygen sensor connector and harness for corrosion, loose pins, or physical damage
- 3 Check the heater circuit fuse and relay, then measure resistance across the sensor heater element with a multimeter
- 4 Back-probe the heater control circuit at the PCM and measure voltage drop while commanding the heater on with a scan tool
- 5 Perform a wiggle test on the harness while watching heater circuit current or resistance on a live data stream
- 6 Repair or replace the faulty section of harness, connector, or the oxygen sensor as indicated by the test results
- 7 Clear codes and run a drive cycle that includes a cold start to verify the heater circuit current returns to normal

Why a good sensor still sets P0057

- A heater circuit can pass a simple resistance check and still set P0057 because the PCM monitors current while the heater is energized, so a high-resistance connector pin that looks clean can cause the low-current fault.
- Technicians often replace the oxygen sensor first, but a chafed heater power wire near the exhaust hanger or a corroded ground point on the engine block is a frequent root cause that a new sensor will not fix.
- The bank 2 sensor 2 heater shares a fuse or relay with other oxygen sensor heaters on many vehicles, so a blown fuse may set P0057 alongside heater codes for other sensors.
- P0057 does not mean the oxygen sensor's signal circuit is faulty; the sensor may still report a plausible voltage, which is why fuel trim and sensor response tests can look normal while the heater code persists.
- Cold ambient temperatures increase heater current demand and can push a marginal circuit over the threshold, so the code may only appear on the first start of a cold morning.

Can I keep driving with P0057?

The vehicle is safe to drive with P0057 because the fault only affects how quickly the downstream oxygen sensor warms up, not the engine's immediate safety. Avoid long periods of idling from a cold start and have the circuit inspected soon, since prolonged cold-sensor operation can increase emissions and slightly reduce fuel economy.

Tools that help

- OBD-II scan tool with live data and bidirectional heater control
- Digital multimeter with resistance and voltage-drop capability
- Back-probe kit or pin probes for connector testing
- Wiring diagram for the bank 2 sensor 2 heater circuit
- Fuse puller and test light for circuit integrity checks



Reading P0057

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

Often seen with

P0053 HO2S Heater Resistance (Bank 1 Sensor 1) · **P0054** HO2S Heater Resistance (Bank 1 Sensor 2) · **P0058** HO2S Heater Control Circuit High (Bank 2 Sensor 2) · **P0136** O2 Sensor Circuit Malfunction (Bank 1 Sensor 2) · **P0141** O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)

See it working

Watch the animated explainer [Turbocharger Trainer: Boost, Wastegate and Intercooler](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0057/>

