

NISSAN · POWERTRAIN

P1168

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1168 · Nissan

Closed Loop Control Bank 2

P1168 on Nissan vehicles indicates that the engine control module has detected an abnormal condition in the closed-loop fuel control for bank 2, meaning the computer can no longer accurately adjust the air-fuel ratio based on the bank 2 oxygen sensor feedback. The code is set when the long-term fuel trim or the closed-loop correction for bank 2 exceeds a calibrated limit, often due to a sensor or wiring fault rather than a mechanical failure.

SYSTEM

Powertrain

CODE TYPE

Nissan specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

**Fuel and air
metering**

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- Slightly rough idle or hesitation during acceleration, especially when the engine is cold.
- A decrease in fuel economy that may be gradual and unnoticed at first.
- Intermittent engine surging or stumbling under light throttle.
- Failed emissions inspection due to increased tailpipe emissions.

Common causes, most likely first

- 1 Faulty bank 2 oxygen sensor (upstream or downstream) sending inaccurate feedback.
- 2 Wiring damage or corrosion in the bank 2 oxygen sensor circuit, including connectors and grounds.
- 3 Vacuum leak on the bank 2 side of the engine, such as a cracked intake manifold gasket or broken vacuum hose.
- 4 Exhaust leak before the bank 2 oxygen sensor, allowing outside air to skew the reading.
- 5 Leaking or sticking fuel injector on bank 2, causing an imbalance in fuel delivery.
- 6 Low fuel pressure or a weak fuel pump affecting the entire fuel system but more noticeable on bank 2.
- 7 Contaminated mass airflow sensor (MAF) providing an incorrect load signal that affects fuel trim calculations.



How to diagnose and fix it

- 1 Connect a scan tool and record freeze-frame data and fuel trim values for both banks to confirm the fault is specific to bank 2.
- 2 Visually inspect the bank 2 oxygen sensor, its wiring, and connectors for damage, corrosion, or loose pins; repair as needed.
- 3 Perform a smoke test on the intake system to check for vacuum leaks on the bank 2 side, including intake gaskets and hoses.
- 4 Check for exhaust leaks before the bank 2 oxygen sensor using a smoke machine or by listening for ticking noises when cold.
- 5 Test the bank 2 oxygen sensor response with a scan tool or oscilloscope; replace the sensor if it is sluggish or unresponsive.
- 6 Measure fuel pressure and inspect bank 2 fuel injectors for leaks or clogging; clean or replace as necessary.
- 7 Clear the code and perform a road test with the scan tool monitoring fuel trims to verify the repair and ensure the code does not return.

Bank 2 fuel trim faults often misdiagnosed

- A P1168 code on Nissan vehicles is frequently caused by a failing bank 2 oxygen sensor, but technicians often replace the sensor without first checking for vacuum leaks that can mimic the same symptoms.
- The code does not always indicate a faulty catalytic converter; a converter replacement should only be considered after all other causes have been ruled out and the rear oxygen sensor shows a steady, non-switching signal.
- In some Nissan models, a dirty mass airflow sensor can skew fuel trims on both banks, but bank 2 may exceed the threshold first due to slight differences in injector flow or intake runner design.
- Intermittent wiring issues at the bank 2 oxygen sensor connector are common, especially on older vehicles where heat and vibration cause the pins to lose tension; a wiggle test while monitoring the sensor signal can reveal the problem.
- A leaking exhaust manifold gasket on the bank 2 side can draw in air and cause the oxygen sensor to report a lean condition, leading to a rich command and setting P1168 without any obvious exhaust noise.

Can I keep driving with P1168?

You can generally continue driving with P1168, but avoid prolonged heavy acceleration or towing until the fault is repaired, as the engine may run less efficiently and emissions will be higher. If the check engine light begins flashing or you notice severe performance loss, stop driving and seek professional diagnosis immediately.



Tools that help

- OBD-II scan tool with live data and fuel trim capabilities
- Digital multimeter for testing sensor circuits
- Smoke machine for intake and exhaust leak detection
- Oscilloscope for analyzing oxygen sensor waveforms
- Fuel pressure gauge
- Basic hand tools and socket set

Reading P1168

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Nissan): its meaning depends on the make.
1	Fuel and air metering.
68	The exact fault within that area.

Often seen with

P1167 HO2S11 Heater Circuit VS+ Fault Bank 1 Sensor 1 · **P1167** HO2S11 Heater Circuit VS+ Fault Bank 1 Sensor 1 · **P0150** O2 Sensor Circuit Malfunction (Bank 2 Sensor 1) · **P0151** O2 Sensor Circuit Low Voltage (Bank 2 Sensor 1) · **P0152** O2 Sensor Circuit High Voltage (Bank 2 Sensor 1) · **P0171** System Too Lean (Bank 1)

See it working

Watch the animated explainer [How Airbags Work: A 50 km/h Crash in Slow Motion](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1168/>

