GENERIC · CHASSIS

C0549

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0549

Vacuum Sensor A Circuit/Open

C0549 indicates that the vehicle's control module has detected an open circuit or abnormal voltage on the signal line from a vacuum sensor, typically the brake vacuum sensor or a similar pressure transducer used for engine or brake assist monitoring. The computer expects a voltage within a specific range that varies with vacuum, but instead sees a signal that is out of range, stuck, or missing entirely, which can affect systems that rely on vacuum data.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Chassis	Generic (all makes)	Medium	Intermediate	Brakes, steering and suspension

Symptoms you may notice

- Illumination of the check engine light or a brake system warning light, often with no other noticeable symptoms.
- Reduced engine performance or poor fuel economy if the vacuum signal is used for load calculation.
- A hard brake pedal or increased pedal effort if the vacuum sensor is part of the brake assist system.
- Rough idle or stalling in some cases when the vacuum reading is used for idle control.
- Intermittent warning light activation, especially in wet or humid conditions if the fault is a poor connection.

Common causes, most likely first

1. A disconnected, broken, or corroded vacuum sensor electrical connector.
2. A damaged or open wire in the sensor's signal or ground circuit.
3. A failed vacuum sensor itself, producing an open or out-of-range signal.
4. A faulty or contaminated sensor due to oil or debris in the vacuum line.
5. A leaking or disconnected vacuum hose causing the sensor to read an impossible value.
6. A poor ground connection at the sensor or control module.
7. Rarely, an internal fault in the control module that reads the sensor signal.

How to diagnose and fix it

1. Visually inspect the vacuum sensor and its connector for damage, corrosion, or loose pins, and repair as needed.
2. Check the vacuum hose for cracks, disconnections, or blockages, and replace if faulty.
3. Use a scan tool to view live vacuum sensor data and compare it with a known good value or mechanical gauge.
4. Measure the sensor's reference voltage, signal voltage, and ground at the connector with a digital multimeter to identify an open or short.
5. Perform a continuity test on the signal and ground wires between the sensor and the control module to find an open circuit.
6. If the wiring and connector are good, replace the vacuum sensor with a quality part and clear the code.
7. After repairs, clear the code and verify that it does not return during a test drive with vacuum-demanding conditions.

Don't overlook the simple vacuum leak

- A cracked or disconnected vacuum hose often mimics a failed sensor by causing the sensor to read atmospheric pressure when the engine is under load, setting C0549 without any electrical fault.
- On many vehicles, the vacuum sensor is shared with the brake assist system, so a fault can cause a hard brake pedal even though the check engine light is the only obvious warning.
- Corrosion inside the sensor connector is a common cause that visual inspection from the outside may miss; always check the terminals with a bright light and a pick.
- A vacuum sensor that reads correctly at idle can still fail under high vacuum, so live data should be checked during acceleration and deceleration, not just at a standstill.
- Replacing the sensor without checking the ground circuit can lead to a repeat failure, because a poor ground shifts the signal voltage and sets the same code.

Can I keep driving with C0549?

If the only symptom is a warning light and the brake pedal feels normal, you can drive cautiously to a repair shop, but avoid heavy towing or sustained high-load driving. If the brake pedal feels hard or braking performance is reduced, stop driving and have the vehicle towed, as the fault may affect brake assist.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Hand vacuum pump with gauge
- Basic socket and wrench set
- Wire terminal pick and electrical contact cleaner

Reading C0549

C	Chassis: brakes, steering and suspension.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
5	Brakes, steering and suspension.
49	The exact fault within that area.

Often seen with

P1479 High Fan Control Primary Circuit · **P1479** Transmission Fan Relay Circuit Open Or Shorted · **C0550** Encoder Position Switch Circuit · **P0505** Idle Control System Malfunction · **P0556** Brake Booster Pressure Sensor Circuit Range/Performance · **P0557** Brake Booster Pressure Sensor Circuit Low Input

See it working

Watch the animated explainer **How a Wideband Air-Fuel Sensor Works** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: https://www.autoveteran.tech/dtc-codes/c0549/