

GENERIC · CHASSIS

C0648

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0648

Brake Pressure Sensor L Range/Performance

C0648 indicates that the anti-lock brake system (ABS) module has detected a range or performance problem with the left brake pressure sensor circuit. The computer compares the sensor's output against expected values during self-tests and normal braking, and it flags this code when the signal falls outside the valid range or behaves erratically.

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

Symptoms you may notice

- ABS warning light illuminated on the dashboard
- Traction control or stability control warning light may also be on
- Reduced or disabled ABS function during hard braking
- Brake pedal may feel firmer or less responsive than usual
- Often no symptoms besides the warning light

Common causes, most likely first

- 1 Faulty brake pressure sensor on the left side
- 2 Damaged or corroded wiring or connector at the sensor
- 3 Contaminated or degraded brake fluid affecting sensor readings
- 4 Air trapped in the brake hydraulic system
- 5 Internal fault in the ABS control module
- 6 Low brake fluid level or a leak in the hydraulic circuit

How to diagnose and fix it

- 1 Use a scan tool to read the ABS module for stored codes and live data from the left brake pressure sensor
- 2 Inspect the sensor connector and wiring for corrosion, damage, or loose pins
- 3 Check brake fluid level and condition, and bleed the brake system if air is suspected
- 4 Test the sensor's voltage or resistance output against the manufacturer's specification
- 5 Replace the brake pressure sensor if it fails testing
- 6 Clear the code and perform a road test to verify the repair
- 7 If the code persists, diagnose the ABS control module or wiring harness for intermittent faults



What most technicians overlook with C0648

- A low brake fluid level or air in the system can mimic a failed sensor, so always check the hydraulic circuit before replacing parts.
- The left brake pressure sensor is sometimes shared with the stability control system, so a fault here can disable multiple driver aids.
- Corroded pins at the sensor connector are a common cause that a simple visual inspection can miss without disconnecting the plug.
- After replacing the sensor, some vehicles require a calibration or learn procedure for the ABS module to recognize the new part.
- Intermittent wiring faults may only set the code during certain driving conditions, so a wiggle test of the harness can be more revealing than a static check.

Can I keep driving with C0648?

You can usually drive the vehicle with this code, but the ABS may not function correctly in an emergency, so avoid hard braking and slippery conditions until it is repaired. Have the system diagnosed promptly to restore full braking safety.

Tools that help

- OBD-II scan tool with ABS capability
- Digital multimeter
- Brake fluid tester
- Socket set and wrenches
- Vehicle service information for sensor specifications

Reading C0648

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

Often seen with

C0051 Front Left ABS Solenoid 1 Circuit Malfunction · **C0646** Brake Pressure Sensor L Circuit High · **C0647** Brake Pressure Sensor L Circuit Low · **C0649** Brake Pressure Sensor M Circuit/Open · **C0650** Brake Pressure Sensor N Range/Performance



See it working

Watch the animated explainer [How ABS Works: Anti-Lock Brakes in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0648/>

