

GENERIC · CHASSIS

C0638

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0638

Brake Pressure Sensor G Range/Performance

C0638 indicates that the anti-lock brake system (ABS) control module has detected a range or performance problem with the brake pressure sensor labeled G. The computer compares the sensor's voltage signal against expected values for the current brake pedal position and hydraulic pressure, and it flags the code when the signal falls outside the valid range or fails to change as expected during a self-test.

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

Symptoms you may notice

- The ABS warning light is illuminated on the dashboard, often with no other noticeable symptoms.
- The traction control or stability control warning light may also turn on because those systems share the brake pressure sensor.
- The brake pedal may feel firmer or softer than usual, or pedal travel may change under hard braking.
- The ABS may activate unnecessarily at low speeds or fail to activate during a panic stop.
- A generic scan tool may show implausible brake pressure readings that do not match actual pedal effort.
- In some vehicles, the cruise control or hill-start assist may be disabled as a safety precaution.

Common causes, most likely first

- A faulty brake pressure sensor G that has drifted out of calibration or failed internally.
- Damaged or corroded wiring and connectors between the sensor and the ABS control module.
- Low brake fluid level or air trapped in the hydraulic system, causing pressure readings to fall outside the expected range.
- A failing ABS control module that misinterprets a valid sensor signal.
- A restricted or leaking brake hydraulic circuit that prevents pressure from building or releasing correctly.
- A missing or damaged sensor mounting seal that allows contamination or vibration to affect the reading.



How to diagnose and fix it

- 1 Check the brake fluid level and inspect for visible leaks at the calipers, wheel cylinders, and brake lines.
- 2 Use a scan tool to read live brake pressure sensor data and compare it with a mechanical pressure gauge connected to the hydraulic system.
- 3 Inspect the sensor wiring and connector for corrosion, chafing, or loose pins, and perform a wiggle test while watching the live data.
- 4 Verify the sensor's reference voltage and ground circuits with a digital multimeter before condemning the sensor.
- 5 Bleed the brake system thoroughly if air or moisture is suspected, then clear the code and road-test the vehicle.
- 6 Replace the brake pressure sensor G if its output does not track actual hydraulic pressure, then perform the required calibration or learn procedure.
- 7 If the sensor and wiring test good, diagnose the ABS control module for internal faults or software updates.

What the brake pressure sensor code hides

- A low brake fluid level or a small leak can set this code without ever triggering a red brake warning light, so always check fluid level first.
- The sensor's signal is often used by the stability control and hill-start assist systems, so a failure can disable features that seem unrelated to braking.
- After replacing the sensor, many vehicles require a scan-tool calibration or a relearn procedure; skipping it will set the code again immediately.
- Corroded terminals inside the sensor connector are a frequent cause that looks like a failed sensor on a basic code reader.
- A sticking brake caliper or collapsed brake hose can create pressure readings that mimic a sensor fault, so inspect the hydraulic system before replacing parts.

Can I keep driving with C0638?

You can usually drive the vehicle to a repair shop, but the ABS may not function correctly in an emergency stop, so maintain extra following distance and avoid hard braking. If the red brake warning light is also on or the pedal feels abnormal, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with live data and ABS capabilities
- Digital multimeter
- Hydraulic pressure gauge
- Brake bleeding kit
- Socket and wrench set
- Vehicle-specific service information for calibration procedures



Reading C0638

- 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.
- 38** The exact fault within that area.

Often seen with

C0040 Left Rear Wheel Speed Sensor Circuit · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C0635** Brake Pressure Sensor G Circuit/Open · **C0636** Brake Pressure Sensor G Circuit High · **C0637** Brake Pressure Sensor G Circuit Low

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/c0638/>

