

GENERIC · CHASSIS

C0588

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0588

Brake Booster Motor A Position Sensor Circuit Low

The C0588 code indicates that the brake booster motor position sensor circuit has reported a voltage below the expected range to the control module. This sensor monitors the position of the brake booster motor, which assists in applying brake pressure; a low signal means the module cannot reliably determine the motor's position, potentially affecting brake assist performance.

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

Symptoms you may notice

- Illumination of the brake warning light or anti-lock brake system (ABS) warning light on the dashboard.
- Reduced brake assist, requiring increased pedal effort to stop the vehicle.
- A soft or spongy brake pedal feel during braking.
- Audible noise from the brake booster motor area, such as whining or clicking, especially when the brake pedal is pressed.
- In some cases, the vehicle may enter a limp mode or disable certain driver-assist features.
- Often no symptoms besides the warning light, with braking performance seemingly normal.

Common causes, most likely first

- 1 Faulty brake booster motor position sensor, which may have internal wear or damage causing a low signal.
- 2 Damaged or corroded wiring harness or connector at the sensor, leading to high resistance or an open circuit.
- 3 Poor electrical connection at the sensor or control module, such as loose pins or terminals.
- 4 Failed brake booster motor, which can affect sensor operation or cause mechanical binding.
- 5 Malfunctioning control module (e.g., ABS or power brake control module) that misinterprets the sensor signal.
- 6 Contamination or debris interfering with the sensor or motor mechanism, causing incorrect position readings.



How to diagnose and fix it

- 1 Perform a visual inspection of the brake booster motor position sensor, wiring, and connectors for obvious damage, corrosion, or loose connections.
- 2 Use a scan tool to retrieve all stored codes and freeze-frame data, and check for related codes that may indicate a broader issue.
- 3 Test the sensor circuit with a digital multimeter to verify reference voltage, ground, and signal voltage; compare readings to manufacturer specifications.
- 4 Check the sensor's resistance or output signal while slowly moving the brake booster motor (if accessible) to see if the signal changes smoothly.
- 5 Inspect the brake booster motor for proper operation and mechanical binding, and verify that the motor can move freely.
- 6 If the sensor or wiring is faulty, replace the affected component and clear the codes; then test-drive to confirm the repair.
- 7 If the problem persists, diagnose the control module and consider reprogramming or replacement as a last resort.

Common Misdiagnosis Traps for C0588

- A low signal from the position sensor can be caused by a simple loose connector or chafed wire, so always check the harness before condemning the sensor.
- The code may set intermittently due to water intrusion or corrosion in the connector, especially on vehicles driven in wet or salty conditions.
- Some technicians replace the brake booster motor when only the sensor is faulty; test the sensor circuit thoroughly to avoid unnecessary parts replacement.
- A weak battery or charging system issue can cause low voltage to the sensor circuit, triggering C0588 without any sensor fault.
- After repairs, the control module may require a calibration or relearn procedure for the brake booster motor position to clear the code permanently.

Can I keep driving with C0588?

If the brake pedal feels normal and the warning light is the only symptom, you can drive cautiously to a repair shop, but avoid heavy braking or towing. If brake assist is noticeably reduced or the pedal feels strange, stop driving and have the vehicle towed to prevent a braking emergency.



Tools that help

- OBD-II scan tool with ABS/brake system capability
- Digital multimeter
- Wiring diagram and service information for the specific vehicle
- Basic hand tools (sockets, wrenches, screwdrivers)
- Brake pedal depressor or assistant to operate brakes during testing

Reading C0588

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.
88	The exact fault within that area.

Often seen with

C0587 Brake Booster Motor A Position Sensor Circuit/Open · **C0589** Brake Booster Motor A Position Sensor Circuit High · **C0590** Brake Booster Motor A Phase U-V-W Current High

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/c0588/>

