

GENERIC · CHASSIS

C058A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C058A

Brake Booster Motor A Position Sensor Circuit Range/Performance

C058A indicates that the brake booster motor position sensor circuit is reporting a range or performance fault, meaning the control module sees a signal that is out of expected limits or inconsistent with the motor's commanded position. The computer compares the sensor voltage against a calibrated window and flags the code when the signal stays outside that window or fails a rationality check during booster operation.

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

Symptoms you may notice

- Illumination of the brake system warning light, often accompanied by a chime and a message on the driver information display.
- A noticeable reduction in brake assist, requiring firmer pedal effort to stop the vehicle.
- The brake pedal may feel unusually hard or slow to return after being pressed.
- Intermittent or complete loss of the automatic brake hold or hill-start assist feature.
- A stored code with no drivability complaint, especially if the fault is intermittent and only sets under specific conditions.
- Unusual noises from the brake booster area, such as clicking or whirring that does not correspond to normal booster operation.

Common causes, most likely first

- 1 A failing brake booster motor position sensor that has drifted out of calibration or developed an internal open circuit.
- 2 Damaged or corroded wiring and connectors between the position sensor and the brake control module, often from road debris or moisture intrusion.
- 3 A brake booster motor that is binding or drawing excessive current, causing the sensor signal to fall outside the expected range during actuation.
- 4 Low system voltage or a weak battery that causes the control module to misread the sensor signal during engine cranking or high electrical load.
- 5 A faulty brake control module or a software calibration issue that incorrectly interprets a valid sensor signal as out of range.
- 6 Mechanical binding in the brake booster assembly itself, preventing the motor from reaching commanded positions and triggering a rationality fault.



How to diagnose and fix it

- 1 Verify battery voltage and charging system output, then clear the code and test-drive to see if it returns under normal operating conditions.
- 2 Inspect the position sensor connector and harness for corrosion, chafing, or loose pins, and repair any damaged wiring before replacing parts.
- 3 Use a scan tool to monitor the brake booster motor position sensor live data while commanding the booster through its travel, looking for dropouts or values outside the specified range.
- 4 Perform a resistance and voltage-drop test on the sensor circuit to confirm the sensor is receiving reference voltage and ground and that the signal wire is intact.
- 5 If live data confirms an erratic or out-of-range signal, replace the brake booster motor position sensor and perform any required calibration or learn procedure.
- 6 If the sensor and wiring test good but the code persists, check the brake booster motor for binding or excessive current draw and replace the booster assembly if necessary.
- 7 After repairs, clear all codes, perform a full brake system function test, and verify the code does not reset during a thorough road test.

What the booster position sensor code hides

- A weak or failing battery is a common hidden cause of C058A because the brake control module may misread the position sensor signal during cranking or when system voltage drops under load.
- Technicians often replace the position sensor only to find the real problem is a binding brake booster motor that forces the sensor signal out of range during actuation.
- The code can set intermittently from a poor ground connection at the booster motor or chassis, which is easy to overlook when the sensor itself tests good.
- A brake system software reflash or calibration update from the manufacturer can resolve C058A on some vehicles without any hardware replacement.
- C058A does not always mean the sensor is defective; a mechanical fault in the booster that prevents the motor from reaching its commanded position will also trigger a range or performance fault.

Can I keep driving with C058A?

Because this fault can reduce brake assist and affect stopping distance, you should avoid driving the vehicle until the cause is diagnosed and repaired. If you must move the car a short distance, drive at low speed with increased following distance and be prepared for a harder brake pedal.



Tools that help

- OBD-II scan tool with live data and bidirectional control capability
- Digital multimeter with back-probing pins
- Factory service information for circuit specifications and calibration procedures
- Basic hand tools for connector and component access
- Brake system pressure gauge for verifying assist operation

Reading C058A

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.
8A	The exact fault within that area.

Often seen with

C058B Brake Booster Motor B Position Sensor Circuit/Open · **C058C** Brake Booster Motor B Position Sensor Circuit Low · **C058D** Brake Booster Motor B Position Sensor Circuit High · **C058E** Brake Booster Motor B Position Sensor Circuit Range/Performance · **C058F** Regeneration Torque Performance

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/c058a/>

