

GENERIC · CHASSIS

C05B4

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C05B4

Brake Booster Temperature Sensor C Circuit High

The C05B4 code indicates that the brake booster temperature sensor circuit C is reporting a voltage higher than the manufacturer's expected range, which the control module interprets as an open circuit or a sensor that is reading too cold. This sensor monitors the temperature of the brake booster, often to protect the system from overheating or to ensure proper operation of the brake assist mechanism.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- Illumination of the brake system warning light or a generic check engine light on the dashboard.
- Often no symptoms besides the warning light, as the vehicle may still brake normally.
- Reduced or inconsistent brake assist, requiring more pedal effort in some cases.
- A stored code in the anti-lock brake system (ABS) or body control module (BCM) that may disable other functions like traction control.
- In rare instances, a message on the driver information center indicating a brake system fault.

Common causes, most likely first

- 1 A faulty brake booster temperature sensor itself, particularly an open circuit in the sensor element.
- 2 Damaged or corroded wiring harness or connector at the sensor, causing high resistance or an open circuit.
- 3 A poor ground connection for the sensor circuit, leading to a voltage reading above the expected range.
- 4 A short to voltage in the signal circuit, which can mimic a high temperature reading.
- 5 A malfunctioning control module that is misinterpreting the sensor signal, though this is less common.
- 6 Extreme cold ambient temperatures causing the sensor to read outside its normal range, though this is usually temporary.



How to diagnose and fix it

- 1 Use a scan tool to retrieve the code and check for any related freeze-frame data to understand the conditions when the fault set.
- 2 Visually inspect the sensor and its wiring for obvious damage, corrosion, or loose connections, and repair as needed.
- 3 Disconnect the sensor and measure its resistance with a multimeter, comparing to the manufacturer's specification for the current temperature.
- 4 Check the signal circuit for a short to voltage or an open circuit using a multimeter and wiring diagram.
- 5 Verify the ground circuit for the sensor has good continuity to the chassis ground.
- 6 If the sensor and wiring test good, suspect the control module and perform further diagnostics before replacement.

Common misdiagnosis traps for C05B4

- A high voltage reading on a temperature sensor circuit often indicates an open circuit rather than a sensor that is actually reading high temperature, so technicians should check for broken wires before replacing the sensor.
- The brake booster temperature sensor is sometimes integrated into the brake booster assembly, making replacement more involved and costly than a standalone sensor.
- This code can be set by a loose or corroded connector that intermittently loses contact, so a wiggle test while monitoring live data can reveal the issue.
- On some vehicles, the brake booster temperature sensor is used for the stop-start system, and a fault may disable that feature without affecting braking performance.
- A weak battery or charging system issue can cause erratic sensor readings and set this code, so always check the vehicle's electrical system health first.

Can I keep driving with C05B4?

The vehicle is generally safe to drive with this code because the brake booster temperature sensor is a monitoring component and does not directly affect braking force. However, if you notice any reduction in brake assist or unusual pedal feel, have the system inspected promptly and avoid heavy braking or towing until repaired.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Socket set and basic hand tools
- Contact cleaner and dielectric grease



Reading C05B4

- 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.
- B4** The exact fault within that area.

Often seen with

C0040 Left Rear Wheel Speed Sensor Circuit · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C05B2** Steering Wheel Angle Sensor Signal - Yaw Rate Sensor Signal · **C05B3** Brake Booster Temperature Sensor C Circuit Low · **C05B5** Brake Booster Temperature Sensor C Circuit/Open

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/c05b4/>

