

GENERIC · CHASSIS

C05B3

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C05B3

Brake Booster Temperature Sensor C Circuit Low

The C05B3 code indicates that the brake booster temperature sensor circuit on the 'C' channel is reporting a voltage below the expected range, which the control module interprets as an excessively low temperature or a short to ground. The computer sets this code when the sensor signal stays lower than the calibrated minimum for a set period, often due to a wiring fault, a failed sensor, or a poor connection.

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 system warning light or a generic check engine light, often with no other noticeable symptoms.
- Reduced or inconsistent brake assist, making the pedal feel harder to push than usual.
- A brake pedal that feels spongy or requires extra effort during stopping.
- In rare cases, a message on the driver information display indicating a brake system fault.
- Intermittent warning light activation that may come and go with temperature changes or road vibration.

Common causes, most likely first

- 1 A short to ground in the sensor signal wire or connector, often from chafed insulation or moisture intrusion.
- 2 A failed brake booster temperature sensor that reads incorrectly low.
- 3 Corroded or loose electrical connections at the sensor or the control module.
- 4 A faulty control module that misinterprets a valid sensor signal.
- 5 Extreme cold ambient temperatures causing the sensor to fall outside its expected range temporarily.
- 6 Aftermarket or incorrect sensor replacement that does not match the original specification.



How to diagnose and fix it

- 1 Use a scan tool to retrieve all stored codes and freeze-frame data, then clear the code and test-drive to see if it returns.
- 2 Visually inspect the sensor, its connector, and the wiring harness for damage, corrosion, or loose pins.
- 3 Measure the sensor resistance and compare it to the manufacturer's specification for the current temperature.
- 4 Backprobe the sensor signal circuit at the control module and check for a short to ground with a multimeter.
- 5 If the wiring and sensor test good, substitute a known-good sensor and recheck for the code.
- 6 Check for technical service bulletins or software updates for the control module that may address false temperature readings.
- 7 Replace the faulty sensor or repair the wiring as needed, then clear codes and verify the repair with a test drive.

What most technicians overlook on C05B3

- A short to ground in the sensor circuit can be caused by a pinched wire behind the brake booster, which is often missed during a visual inspection.
- The code can set intermittently due to temperature extremes, so a sensor that tests fine at room temperature may still be faulty when cold.
- Some vehicles use the brake booster temperature sensor as part of a broader brake assist strategy, and a low signal may cause the module to disable assist without illuminating a dedicated warning light.
- Corrosion inside the sensor connector is a common cause that can mimic a failed sensor, so always inspect the terminals before replacing parts.
- A weak battery or charging system fault can cause erratic sensor readings and set this code, so check system voltage first.

Can I keep driving with C05B3?

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 the pedal is hard or braking performance is reduced, stop driving and have the vehicle towed to prevent an accident.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the brake booster temperature sensor circuit
- Socket set and trim removal tools
- Heat gun or hair dryer for temperature testing



Reading C05B3

- 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.
- B3** 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 · **C05B4** Brake Booster Temperature Sensor C Circuit High · **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/c05b3/>

