

GENERIC · CHASSIS

C0041

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0041

Left Rear Wheel Speed Sensor Circuit Range/Performance

C0041 indicates that the anti-lock brake system (ABS) module has detected an abnormal signal from the left rear wheel speed sensor circuit, where the signal is outside the expected range or performance criteria. The computer compares the left rear wheel speed to the other three wheels and sets this code when the signal is erratic, missing, or implausible during driving.

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

Symptoms you may notice

- ABS warning light illuminated on the dashboard
- Traction control or stability control warning light may also be on
- Often no symptoms besides the warning light
- ABS may deactivate, leading to conventional braking without anti-lock function
- Possible intermittent or reduced operation of speedometer or cruise control if the sensor signal is used by other systems
- In rare cases, a slight pulsation or drag felt during braking if the sensor sends erratic signals

Common causes, most likely first

- 1 Damaged or dirty left rear wheel speed sensor (commonly contaminated by debris or metal particles)
- 2 Wiring harness damage (chafed, corroded, or broken wires) between the sensor and the ABS module
- 3 Failed left rear wheel speed sensor due to internal electrical fault or physical damage
- 4 Debris or corrosion on the sensor mounting surface or tone ring, causing an erratic signal
- 5 Damaged or excessively rusted tone ring (reluctor ring) on the left rear hub or axle
- 6 Poor electrical connection at the sensor connector or ABS module
- 7 Rarely, a fault within the ABS control module itself



How to diagnose and fix it

- 1 Inspect the left rear wheel speed sensor and its wiring for visible damage, corrosion, or debris; clean the sensor and mounting area if contaminated
- 2 Check the tone ring for cracks, missing teeth, or excessive rust; replace if damaged
- 3 Measure the sensor's resistance and compare to the manufacturer's specification; replace the sensor if out of range
- 4 Perform a wiggle test on the wiring harness while monitoring sensor signal with a scan tool to detect intermittent faults
- 5 Check for continuity and short circuits in the wiring between the sensor and ABS module; repair any damaged wires
- 6 Clear the code and test-drive the vehicle to verify if the code returns; if it does, proceed to more advanced diagnostics
- 7 If all external components check out, diagnose the ABS module for internal faults, which may require replacement or reprogramming

Common misdiagnosis traps for C0041

- A dirty or loosely mounted sensor is a frequent cause that is often overlooked; cleaning and reseating the sensor can resolve the issue without replacement.
- The tone ring may appear intact but have micro-cracks or rust that disrupt the magnetic signal; careful inspection with a magnifying glass is necessary.
- Intermittent wiring faults can be temperature or vibration dependent, so a wiggle test while monitoring live data is more reliable than a static resistance check.
- This code can be set by a weak or failing wheel bearing that affects the tone ring alignment, even if the sensor itself is good.
- Some vehicles use the left rear wheel speed signal for speedometer and cruise control; a fault here can cause those systems to act up, leading to misdiagnosis of unrelated components.

Can I keep driving with C0041?

The vehicle remains safe to drive under normal conditions because the base brakes still function, but the ABS and stability control systems may be disabled, increasing stopping distances on slippery surfaces. Avoid hard braking or driving in low-traction conditions until the fault is repaired.



Tools that help

- OBD-II scan tool with ABS capability
- Digital multimeter
- Jack and jack stands
- Wheel chocks
- Basic hand tools (socket set, screwdrivers)
- Manufacturer service information for wiring diagrams and specifications

Reading C0041

C	Chassis: brakes, steering and suspension.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
0	Brakes, steering and suspension.
41	The exact fault within that area.

Often seen with

C0035 Left Front Wheel Speed Sensor Circuit Range/Performance · **C0040** Left Rear Wheel Speed Sensor Circuit · **C0042** Right Front Wheel Speed Sensor Circuit Low · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C0051** Front Left ABS Solenoid 1 Circuit Malfunction

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/c0041/>

