

GENERIC · CHASSIS

**C0052**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

**C0052**

## Left Rear Wheel Speed Sensor Circuit Low

C0052 means the anti-lock brake system (ABS) module has detected a low-voltage signal from the left rear wheel speed sensor circuit, indicating the sensor is not producing the expected alternating current (AC) voltage as the wheel turns. The module compares this signal to the other wheel speed sensors and sets the code when the left rear signal is consistently weaker or absent.

SYSTEM

**Chassis**

CODE TYPE

**Generic (all makes)**

SEVERITY

**Medium**

FIX DIFFICULTY

**Intermediate**

AREA

**Brakes, steering and suspension**

### Symptoms you may notice

- Anti-lock brake system (ABS) warning light illuminated on the dashboard
- Traction control or stability control warning light also on, since these systems share wheel speed data
- ABS disabled, which may be felt as wheel lockup during hard braking on slippery surfaces
- Speedometer may read incorrectly or fluctuate if the left rear sensor is used for vehicle speed
- Often no symptoms besides the warning light, with normal braking performance in dry conditions

### Common causes, most likely first

- 1 Damaged or corroded left rear wheel speed sensor connector or wiring harness
- 2 Debris, metal shavings, or rust buildup on the sensor tip or tone ring
- 3 Failed left rear wheel speed sensor
- 4 Excessive air gap between the sensor and tone ring due to worn hub or damaged knuckle
- 5 Damaged or missing teeth on the left rear tone ring
- 6 Internal fault in the ABS control module affecting the left rear sensor input circuit
- 7 Chafed or broken wire between the sensor and the ABS module



## How to diagnose and fix it

- 1 Inspect the left rear wheel speed sensor connector and wiring for corrosion, damage, or loose pins, and clean or repair as needed
- 2 Remove the sensor and check the tip and tone ring for metal debris or rust, then clean them thoroughly
- 3 Measure the sensor's AC voltage output while spinning the wheel by hand; a healthy sensor should produce a fluctuating voltage that increases with speed
- 4 Check the air gap between the sensor and tone ring with a feeler gauge, and compare to specification
- 5 Perform a resistance check on the sensor and compare to the manufacturer's specification, replacing the sensor if out of range
- 6 Inspect the tone ring for missing or damaged teeth, and replace the hub or tone ring if necessary
- 7 If all external checks pass, test the wiring continuity from the sensor connector to the ABS module, and diagnose the module if the circuit is intact

## What a low signal really tells you

- A low signal code often results from a dirty or loose sensor rather than a failed sensor, so cleaning and reseating the connector can resolve it without parts replacement.
- The left rear sensor is frequently used as a reference for the speedometer and odometer, so a fault here can cause inaccurate speed readings even when the ABS light is the only warning.
- After replacing a sensor or repairing wiring, the ABS module may need a scan tool to clear the code and perform a relearn or calibration procedure before the light goes out.
- A weak wheel bearing or damaged hub can alter the air gap and trigger a low signal code, so always check bearing play and tone ring condition before condemning the sensor.
- This code can be set intermittently by water intrusion into the connector, so inspect for signs of moisture or green corrosion inside the harness plug.

## Can I keep driving with C0052?

You can usually drive the vehicle with this code, but the ABS and traction control systems may be disabled, increasing stopping distances on slippery surfaces. Avoid hard braking or driving in wet, icy, or loose-surface conditions until the fault is repaired.

## Tools that help

- OBD-II scan tool with ABS capability
- Digital multimeter
- Feeler gauge set
- Jack and jack stands
- Wire brush or contact cleaner
- Basic socket and wrench set



### Reading C0052

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

### Often seen with

**C0040** Left Rear Wheel Speed Sensor Circuit · **C0045** Left Rear Wheel Speed Sensor Circuit Malfunction · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C0051** Front Left ABS Solenoid 1 Circuit Malfunction · **C0053** Left Rear Wheel Speed Sensor Circuit High

### 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/c0052/>

