



## C053C

# Wheel Speed Sensor Generic Range/Performance

C053C indicates that the anti-lock brake system (ABS) module has detected a wheel speed sensor signal that is outside the expected range or performance criteria for that wheel. The computer compares the sensor's output to what it expects based on vehicle speed and other wheel sensors, and flags this code when the signal is erratic, missing, or implausible.

|         |                     |          |                |                                 |
|---------|---------------------|----------|----------------|---------------------------------|
| 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 be disabled, leading to wheel lockup during hard braking
- Intermittent or erratic speedometer readings if the affected sensor also feeds the speedometer
- Possible slight pulsation or noise from the brakes if the ABS activates unexpectedly

## Common causes, most likely first

- 1 Damaged or dirty wheel speed sensor tone ring (reluctor ring)
- 2 Wiring harness damage or corroded connector at the wheel speed sensor
- 3 Faulty wheel speed sensor itself
- 4 Debris or metal particles stuck to the sensor tip
- 5 Excessive wheel bearing play or hub runout affecting sensor signal
- 6 ABS module internal fault (less common)

## How to diagnose and fix it

- 1 Inspect the wheel speed sensor and tone ring for physical damage, debris, or corrosion
- 2 Check the sensor wiring and connector for continuity, shorts, and corrosion
- 3 Measure the sensor's resistance and compare to specification if available
- 4 Clean the sensor and tone ring, then clear the code and test-drive
- 5 Replace the wheel speed sensor if resistance is out of spec or signal is erratic
- 6 Replace the tone ring or hub assembly if damaged or excessively worn
- 7 If all else checks out, diagnose the ABS module or have it tested by a specialist



## Common misdiagnosis traps for C053C

- A dirty or corroded tone ring often mimics a failed sensor, so clean and inspect before replacing parts.
- Wheel bearing play can cause the sensor to read erratically without setting a bearing code, leading to misdiagnosis.
- The code may be stored intermittently due to a loose connector that only acts up over bumps or in wet weather.
- On some vehicles, the wheel speed sensor signal is shared with the speedometer, so a faulty sensor can cause dash gauge issues.
- After replacing a sensor, the ABS module may need a recalibration or a drive cycle to clear the code permanently.

## Can I keep driving with C053C?

You can usually drive with this code, but the ABS and traction control systems may be disabled, increasing stopping distance in slippery conditions. Avoid hard braking and have the fault diagnosed promptly to restore full safety system function.

## Tools that help

- OBD-II scan tool with ABS capability
- Digital multimeter
- Jack and jack stands
- Wheel chocks
- Basic hand tools (sockets, wrenches)
- Feeler gauge or dial indicator for bearing play check

## Reading C053C

|           |                                                                      |
|-----------|----------------------------------------------------------------------|
| <b>C</b>  | Chassis: brakes, steering and suspension.                            |
| <b>0</b>  | Generic (SAE) code: it means the same thing on every OBD-II vehicle. |
| <b>5</b>  | Brakes, steering and suspension.                                     |
| <b>3C</b> | 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 · **C0045** Left Rear Wheel Speed Sensor Circuit Malfunction · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C0110** ABS Pump Motor 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/c053c/>

