

GENERIC · CHASSIS

C0663

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0663

Left Rear Wheel Speed Sensor B Intermittent/Erratic

C0663 means the antilock braking system (ABS) module has detected an intermittent or erratic signal from the left rear wheel speed sensor circuit B, which is typically the second sensor or signal path on that wheel. The computer sets this code when the signal drops out, jumps, or becomes inconsistent during driving, often without storing a hard failure.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- ABS warning light illuminated on the dashboard, often with no other noticeable symptoms
- Traction control or stability control warning light also on, since these systems rely on wheel speed data
- Intermittent ABS activation or pulsing at the brake pedal during low-speed stops
- Speedometer needle fluctuation or cruise control dropping out if the signal is used for vehicle speed
- A stored code that returns after clearing, especially after driving over bumps or turning

Common causes, most likely first

- 1 Damaged or chafed wiring harness at the left rear wheel, often near the suspension flex point or connector
- 2 Corroded, loose, or water-intruded electrical connector at the sensor or harness
- 3 Faulty left rear wheel speed sensor with an internal intermittent open or short
- 4 Debris, metal shavings, or rust buildup on the sensor tip or tone ring interfering with the signal
- 5 Worn or damaged tone ring (reluctor ring) with cracks, missing teeth, or excessive runout
- 6 Excessive wheel bearing play or hub runout causing an erratic air gap and signal
- 7 ABS module internal fault on the left rear sensor input circuit, less common but possible



How to diagnose and fix it

- 1 Inspect the left rear sensor connector and harness for corrosion, looseness, or chafing, and repair as needed
- 2 Remove the sensor and check the tip and tone ring for metal debris, rust, or physical damage, then clean or replace
- 3 Back-probe the sensor circuit and wiggle the harness while watching live wheel speed data to catch an intermittent signal
- 4 Measure sensor resistance and compare it to the other rear sensor, and check for shorts to ground or power
- 5 Check the tone ring for cracks, missing teeth, or runout, and inspect the wheel bearing for play
- 6 If the signal is erratic only at certain speeds or after bumps, replace the left rear wheel speed sensor with a quality part
- 7 If all external checks pass, test the ABS module input circuit or substitute a known-good module to confirm an internal fault

Intermittent wheel speed faults that fool technicians

- A wheel speed sensor can test perfectly with a multimeter at rest and still drop out while driving, so live data graphing during a road test is essential for this code.
- Metal debris or rust on the sensor tip is a common cause of an erratic signal that mimics a failed sensor, and cleaning it often resolves the code without parts.
- The left rear sensor is often the one damaged by road debris or a loose harness clip, so inspect the routing before condemning the sensor itself.
- This code can be set by a worn wheel bearing or hub runout that changes the air gap, so always check bearing play before replacing the sensor.
- Some vehicles use the left rear wheel speed signal for the speedometer and cruise control, so an intermittent fault can cause those systems to act up even when the ABS light is the only warning.

Can I keep driving with C0663?

The vehicle remains safe to drive in normal conditions because the base brakes still work, but the ABS and stability control may not function during an emergency stop. Avoid hard braking or slippery road conditions until the fault is repaired, and address the code promptly to maintain full safety system performance.

Tools that help

- OBD-II scan tool with live wheel speed data capability
- Digital multimeter
- Jack and jack stands or a lift
- Wire probe set and electrical contact cleaner
- Feeler gauge or non-magnetic feeler tool for air gap check
- Basic hand tools for sensor and wheel removal



Reading C0663

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

Often seen with

C0035 Left Front Wheel Speed Sensor Circuit Range/Performance · **C0660** Park Brake Switch Circuit · **C0661** Left Rear Wheel Speed Sensor B Circuit Low · **C0662** Left Rear Wheel Speed Sensor B Circuit High · **C0664** Left Rear Wheel Speed Sensor B Correlation

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/c0663/>

