

GENERIC · CHASSIS

C003D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C003D

Rear Wheel Speed Sensor

C003D is a generic chassis code indicating a fault in the rear wheel speed sensor circuit, typically on the right rear wheel depending on the manufacturer's naming convention. The anti-lock brake system (ABS) control module monitors the sensor's signal and sets this code when it detects an implausible, missing, or erratic signal from that sensor.

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 also on
- Speedometer may read erratically or drop to zero intermittently
- Brake pedal may feel different during hard stops, with ABS not activating
- Often no symptoms besides the warning light
- Cruise control may become inoperative

Common causes, most likely first

- 1 Damaged or corroded wheel speed sensor wiring harness at the rear wheel
- 2 Failed rear wheel speed sensor itself due to debris, moisture, or age
- 3 Debris or metal shavings stuck to the sensor tip or tone ring
- 4 Damaged or cracked tone ring (reluctor ring) on the rear hub or axle
- 5 Excessive wheel bearing play causing an erratic sensor signal
- 6 Corroded or loose electrical connector at the sensor
- 7 Faulty ABS control module (less common)

How to diagnose and fix it

- 1 Inspect the rear wheel speed sensor and its wiring for visible damage, corrosion, or debris
- 2 Clean the sensor tip and tone ring of any metal shavings or dirt
- 3 Check the sensor's electrical connector for tightness and corrosion
- 4 Measure the sensor's resistance and compare to manufacturer specifications
- 5 Perform a live data scan to observe wheel speed signals while driving
- 6 Replace the faulty rear wheel speed sensor if testing confirms failure
- 7 Inspect the tone ring and wheel bearing for damage or play, replacing as needed



Don't overlook the tone ring and wiring

- A common misdiagnosis is replacing the sensor when the real problem is a cracked or dirty tone ring that disrupts the magnetic signal.
- Corrosion inside the connector pins often mimics a failed sensor, so always back-probe the circuit under load before condemning the part.
- Rear wheel speed sensors on some vehicles share a ground with other chassis components, so a bad ground can set this code without any sensor fault.
- Excessive wheel bearing play can cause the sensor to air-gap intermittently, setting C003D even though the sensor and tone ring look fine.
- After repairs, the ABS module may require a relearn or calibration procedure, and the code will not clear until the vehicle is driven above a certain speed.

Can I keep driving with C003D?

You can usually drive the vehicle with this code, but the ABS and traction control systems may be disabled, increasing stopping distance 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 socket set

Reading C003D

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.
3D	The exact fault within that area.

Often seen with

C0035 Left Front Wheel Speed Sensor Circuit Range/Performance · **C0036** Left Front Wheel Speed Sensor Circuit Intermittent · **C0040** Left Rear Wheel Speed Sensor Circuit · **C0041** Left Rear Wheel Speed Sensor Circuit Range/Performance · **C0050** Right Rear Wheel Speed Sensor 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/c003d/>

