

GENERIC · CHASSIS

C0666

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0666

Right Rear Wheel Speed Sensor B Circuit/Open

C0666 indicates that the anti-lock brake system (ABS) control module has detected an open circuit or abnormal voltage on the right rear wheel speed sensor's 'B' circuit, which is typically the signal return or second wire in a two-wire sensor design. The module monitors the sensor's electrical integrity and sets this code when the circuit does not behave as expected, which can disable ABS and traction control functions.

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
- Traction control or stability control warning light also on
- ABS and traction control systems disabled, increasing stopping distance in slippery conditions
- Often no symptoms besides the warning light, with normal braking performance in dry conditions
- Intermittent warning light that comes and goes with vibration or moisture
- Possible speedometer inaccuracy if the affected sensor also feeds the speed signal

Common causes, most likely first

- 1 Damaged or corroded wiring harness at the right rear wheel, often from road debris or chafing
- 2 Failed right rear wheel speed sensor due to heat, contamination, or physical damage
- 3 Open circuit in the sensor pigtail or connector, such as a broken wire or pushed pin
- 4 Corroded or loose electrical connector at the sensor or ABS module
- 5 Internal fault in the ABS control module affecting the sensor circuit
- 6 Debris or metallic particles on the sensor tip or tone ring interfering with signal
- 7 Aftermarket or incorrect sensor installed that does not meet specifications



How to diagnose and fix it

- 1 Inspect the right rear wheel speed sensor and its wiring for visible damage, corrosion, or loose connections
- 2 Disconnect the sensor connector and check for bent pins, water intrusion, or green corrosion
- 3 Measure the sensor's resistance with a multimeter and compare to manufacturer specifications
- 4 Check the sensor's AC voltage output while spinning the wheel by hand, looking for a consistent waveform
- 5 Perform a wiggle test on the harness while monitoring sensor signal on a scan tool to detect intermittent opens
- 6 Inspect the tone ring for cracks, missing teeth, or debris buildup and clean or replace as needed
- 7 If all external checks pass, test continuity from the sensor connector to the ABS module to rule out an open circuit

What the B circuit really monitors

- The 'B' circuit designation often refers to the signal return wire, so an open there can mimic a failed sensor even when the sensor itself tests good.
- A common misdiagnosis is replacing the sensor when the real fault is a corroded connector pin or chafed wire hidden behind the wheel well liner.
- On some vehicles, the right rear sensor shares a ground with other components, so a bad ground can set this code along with others.
- The ABS module may set this code intermittently if the harness is stressed by suspension movement, so always wiggle-test the wiring while watching live data.
- After any repair, the ABS module may need a recalibration or a drive cycle to clear the code and restore full function.

Can I keep driving with C0666?

You can usually drive the vehicle with this code, but ABS and traction control will be disabled, so exercise extra caution in wet, icy, or loose-surface conditions and avoid hard braking. Have the fault diagnosed soon to restore full safety system operation.

Tools that help

- OBD-II scan tool with ABS capability
- Digital multimeter
- Jack and jack stands
- Wire piercing probes or backprobe pins
- Manufacturer service information for wiring diagrams and resistance specs



Reading C0666

- 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.
- 66** 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 · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C0665** Left Rear Wheel Speed Sensor B Incorrect Component Installed · **C0667** Right Rear Wheel Speed Sensor B Range/Performance

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/c0666/>

