

GENERIC · CHASSIS

C004A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C004A

Brake Lining Wear Sensor

C004A is a generic chassis code indicating that the antilock brake system (ABS) module has detected a fault in a brake lining wear sensor circuit, which is used to monitor the thickness of the brake pads or shoes. The computer typically sets this code when the sensor signal is out of expected range, open, or shorted, preventing accurate wear reporting.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- Illumination of the brake wear warning light or ABS light on the dashboard
- Often no symptoms besides the warning light, as the braking system may still function normally
- A message on the driver information center indicating brake pad wear or service required
- In some cases, the ABS system may be disabled, but this is less common with a wear sensor fault alone
- Intermittent warning light operation over bumps or when turning, indicating a loose connection

Common causes, most likely first

- 1 Worn brake pads or shoes that have triggered the wear sensor as designed
- 2 Damaged or chafed wiring harness at the wheel, often due to road debris or improper routing
- 3 Corroded or loose electrical connector at the brake wear sensor
- 4 Failed brake lining wear sensor itself, due to heat, contamination, or physical damage
- 5 Faulty ABS control module or body control module misinterpreting the sensor signal
- 6 Aftermarket brake pads installed without the correct wear sensor provision, causing an open circuit

How to diagnose and fix it

- 1 Inspect the brake pads and shoes at all wheels for actual wear, replacing them if they are at or below the minimum thickness specification.
- 2 Visually inspect the wear sensor wiring and connector at each wheel for damage, corrosion, or disconnection, repairing as needed.
- 3 Use a scan tool to read live data from the brake wear sensor circuit and compare it to the expected values to confirm the fault.
- 4 Check for continuity and resistance in the sensor circuit using a digital multimeter, following the manufacturer's test procedure.
- 5 If the sensor is faulty, replace it with a quality part that matches the original design and clear the code.
- 6 If the wiring and sensor are good, diagnose the ABS module or body control module for internal faults which may require reprogramming or replacement.

Common Misdiagnosis of Brake Wear Sensor Codes

- A common mistake is to replace the brake wear sensor without first checking the actual brake pad thickness, as the sensor may be functioning correctly and simply reporting worn pads.
- The code can be set by a poor connection at the sensor connector that only acts up in wet or humid conditions, so a thorough wiggle test and dielectric grease application may be needed.
- Some vehicles use a single wear sensor on one wheel only, so a code may not indicate wear on all pads; always inspect all four corners.
- Aftermarket brake pads sometimes lack the wear sensor or use a different resistance value, causing a persistent code even with new pads; using OEM or OEM-equivalent pads is recommended.
- The ABS module may store this code due to a low battery voltage event, so clearing the code after ensuring the battery is healthy can prevent unnecessary repairs.

Can I keep driving with C004A?

You can generally continue driving with this code because the brake wear sensor is a warning system and does not affect braking performance directly. However, you should inspect the brakes soon to avoid metal-to-metal contact and costly rotor damage.

Tools that help

- OBD-II scan tool with ABS capabilities
- Digital multimeter
- Jack and jack stands or a lift
- Basic hand tools (wrenches, sockets, screwdrivers)
- Wire repair kit (solder, heat shrink, electrical tape)
- Dielectric grease

Reading C004A

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.
4A	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/c004a/>

