



C0820

Air Suspension Height Sensor Front Left

C0820 indicates that the air suspension control module has detected an electrical fault in the front-left height sensor circuit, which measures the distance between the axle and the body. The module compares the sensor's signal voltage against expected values and sets this code when the reading falls outside the valid range or is inconsistent with the other height sensors.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Chassis	Generic (all makes)	Medium	Intermediate	Brakes, steering and suspension

Symptoms you may notice

- The air suspension warning light illuminates steadily on the dashboard.
- The vehicle may sit lower or higher than normal at the front-left corner.
- The air suspension system may stop adjusting, leaving the ride height fixed.
- A message such as 'Suspension Fault' or 'Ride Control Malfunction' appears on the driver information display.
- The compressor may run excessively or not at all as the system tries to compensate.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- 1 Damaged or corroded height sensor linkage or connector at the front-left corner.
- 2 Failed front-left height sensor due to wear, water intrusion, or internal electronics failure.
- 3 Broken or chafed wiring between the sensor and the air suspension control module.
- 4 Loose or corroded ground connection for the sensor circuit.
- 5 Faulty air suspension control module, though this is less common.
- 6 Mechanical binding or incorrect installation of the sensor after suspension work.



How to diagnose and fix it

- 1 Inspect the front-left height sensor, its linkage, and connector for visible damage, corrosion, or loose mounting.
- 2 Check the sensor's wiring harness for chafing, breaks, or pinched sections along its routing.
- 3 Measure the sensor's reference voltage and signal voltage with a digital multimeter and compare to specifications.
- 4 Perform a wiggle test on the harness and connector while monitoring sensor data to reveal intermittent faults.
- 5 If the sensor signal is erratic or out of range, replace the front-left height sensor and clear the code.
- 6 If the sensor and wiring test good, check the air suspension control module for power, ground, and internal faults.
- 7 After repair, recalibrate the air suspension system as required by the manufacturer and verify the code does not return.

Height Sensor Faults That Fool Good Technicians

- A height sensor can produce a plausible-looking signal voltage while still being mechanically stuck or misaligned, so always verify the linkage moves freely through its full range.
- Water intrusion into the sensor connector is a frequent cause on vehicles that see road spray or frequent washing, and the corrosion often hides inside the pins.
- The code can be set by a momentary glitch during suspension work if the sensor was unplugged with the key on, so check for related history codes before condemning parts.
- A failing air spring or ride height calibration issue can cause the module to flag the sensor circuit even when the sensor itself is electrically sound.
- Aftermarket sensors with incorrect resistance curves are a common source of repeat C0820 codes, so verify the replacement matches the original specification.

Can I keep driving with C0820?

You can usually drive the vehicle with C0820, but the air suspension may default to a fixed height or stop leveling, which can affect handling and tire wear. Avoid heavy loads and high-speed driving until the fault is repaired, and address it promptly to prevent compressor damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Jack and jack stands or a lift
- Basic hand tools for trim and connector access
- Manufacturer-specific diagnostic software for calibration



Reading C0820

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

Often seen with

C0821 Air Suspension Height Sensor Front Right · **C0825** Steering Effort Sensor Range/Performance · **C0830** Steering Wheel Angle Sensor Center Position Not Learned · **U0122** Lost Communication With Vehicle Dynamics Control Module

See it working

Watch the animated explainer [How a CVT Works: Belt and Pulley Transmission](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0820/>

