

GENERIC · CHASSIS

C0901

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0901

TPMS Sensor 1 Position Performance

C0901 indicates that the tire pressure monitoring system (TPMS) has detected a performance problem with the sensor assigned to position 1, typically the front left wheel. The computer is not seeing the expected pressure readings or signal behavior from that sensor, so it flags the sensor's position as faulty.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Brakes, steering and suspension

Symptoms you may notice

- TPMS warning light illuminated on the dashboard
- Often no symptoms besides the warning light
- Incorrect or missing tire pressure reading for one wheel on the TPMS display
- Occasional false low-pressure warnings for the affected tire
- The warning light may flash for about a minute then stay on
- Other driver-assist systems that rely on wheel speed may be unaffected

Common causes, most likely first

- 1 Failed or failing TPMS sensor at position 1
- 2 Dead sensor battery (typical lifespan 5–10 years)
- 3 Damaged sensor stem or housing from road debris or curb impact
- 4 Corrosion or poor electrical connection at the sensor or harness
- 5 Radio frequency interference or signal blockage from aftermarket accessories
- 6 Incorrect sensor installed or sensor not properly registered to the vehicle
- 7 TPMS receiver module or wiring fault (less common)

How to diagnose and fix it

- 1 Verify tire pressures with a accurate gauge and adjust to placard specifications
- 2 Perform a TPMS reset or relearn procedure according to the manufacturer's instructions
- 3 Use a TPMS scan tool to read sensor IDs, pressures, and battery status for all wheels
- 4 Inspect the sensor at position 1 for physical damage, corrosion, or loose mounting
- 5 Test the sensor signal with a TPMS trigger tool to confirm it transmits
- 6 Replace the faulty sensor and perform a relearn procedure
- 7 If the sensor is good, check wiring and connectors between the sensor and the TPMS module



What the TPMS light doesn't tell you

- A dead sensor battery is the most common cause of this code, and it often fails without any prior warning or gradual loss of signal.
- Aftermarket wheels, valve stem caps, or electronic accessories can interfere with the radio signal and trigger position performance codes even when the sensor is healthy.
- Some vehicles require a specific relearn procedure after tire rotation or sensor replacement, and skipping it can set C0901 for the wrong position.
- The code does not always mean the sensor is dead; a weak signal from a partially depleted battery or a poor ground connection can cause intermittent performance faults.
- Always check for related codes in the ABS or body control modules, as shared wheel speed or communication bus issues can mimic a TPMS sensor fault.

Can I keep driving with C0901?

It is safe to continue driving with C0901 because the TPMS warning is informational and does not affect vehicle handling or braking. However, you should manually check tire pressures regularly until the fault is repaired, since the system may not warn you of a genuine low tire.

Tools that help

- TPMS scan tool or trigger tool
- Digital tire pressure gauge
- Valve core removal tool
- Multimeter
- Socket set

Reading C0901

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

Often seen with

C0750 Cruise Control Brake Switch · **C0900** TPMS Sensor 1 Battery · **C0902** TPMS Sensor 2 Battery · **C0903** TPMS Sensor 2 Position Performance



See it working

Watch the animated explainer [Manual Car Driving Simulator: Learn Clutch Control](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0901/>

