

GENERIC · CHASSIS

C0529

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0529

Steering Angle Sensor Module Missing Calibration

C0529 indicates that the steering angle sensor (SAS) module has not been calibrated to the vehicle's chassis, so the electronic stability control (ESC) system cannot trust its steering input data. The computer detects a missing or invalid calibration value stored in the SAS module, which prevents the ESC from accurately determining the driver's intended steering direction.

SYSTEM

Chassis

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Brakes, steering and suspension

Symptoms you may notice

- Illumination of the ESC or traction control warning light, often accompanied by the ABS light
- The stability control system may be disabled entirely, reducing vehicle safety in slippery conditions
- A steering angle reading that does not match the actual steering wheel position when viewed with a scan tool
- Often no symptoms besides the warning light, with normal steering feel and braking performance
- In some cases, a temporary loss of power steering assist if the system relies on the SAS for assist strategy

Common causes, most likely first

- 1 Steering angle sensor module replaced without performing the required calibration procedure
- 2 Battery disconnected or module power loss that erased the calibration memory
- 3 Suspension alignment performed without recalibrating the steering angle sensor
- 4 Faulty or damaged steering angle sensor module
- 5 Wiring or connector issues between the SAS module and the ESC control module
- 6 Software corruption or failed module programming event



How to diagnose and fix it

- 1 Connect a scan tool and retrieve all stored codes from the ABS/ESC and steering angle sensor modules to confirm C0529 is current
- 2 Verify the steering angle sensor reading in live data while turning the wheel from lock to lock to check for erratic or missing signals
- 3 Inspect the SAS module wiring and connectors for corrosion, looseness, or damage
- 4 Perform the steering angle sensor calibration procedure using a factory-level scan tool or equivalent after ensuring the steering wheel is centered
- 5 If calibration fails, check for underlying suspension or steering component wear that prevents a stable center point
- 6 Replace the steering angle sensor module if it cannot hold calibration or shows internal faults, then recalibrate
- 7 Clear all codes and perform a road test to confirm the ESC system operates correctly and no codes return

Calibration traps that set C0529

- Many technicians replace the SAS module only to find the code returns because they skipped the calibration step or used a scan tool that cannot perform the procedure.
- A simple wheel alignment can trigger C0529 if the steering angle sensor is not recalibrated afterward, even when the alignment itself is perfect.
- Disconnecting the battery for unrelated repairs can erase the SAS calibration on some vehicles, leading to a false diagnosis of a failed sensor.
- The SAS module often shares a communication bus with the ABS and ESC systems, so a fault in another module can cause a missing calibration code to set.
- On some vehicles, the steering angle sensor is part of the clock spring assembly, and a failing clock spring can cause intermittent calibration loss without setting a separate code.

Can I keep driving with C0529?

You can generally drive the vehicle with C0529 set, but the stability control and traction control systems may be disabled, reducing safety in slippery or emergency situations. Avoid aggressive driving or towing until the fault is repaired and the system is recalibrated.

Tools that help

- Factory-level scan tool or equivalent capable of performing SAS calibration
- Digital multimeter for checking wiring continuity and voltage
- Socket set and trim removal tools for accessing the SAS module
- Wheel alignment equipment (if alignment is suspected)



Reading C0529

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

Often seen with

C0050 Right Rear Wheel Speed Sensor Circuit Malfunction · **C0051** Front Left ABS Solenoid 1 Circuit Malfunction · **C0110** ABS Pump Motor Circuit Malfunction · **C0121** Valve Relay Circuit Malfunction · **U0126** Lost Communication With Steering Angle Sensor Module

See it working

Watch the animated explainer [How a Fuel Injector Works: Pulse Width and Spray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0529/>

