

GENERIC · CHASSIS

C0445

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C0445

Steering Wheel Position Sensor Calibration

C0445 means the electronic stability control (ESC) or power steering control module has detected that the steering wheel position sensor's learned center point is outside its expected range or has been lost. The module stores this code when the sensor's voltage at straight-ahead does not match the calibrated zero reference, so the computer cannot trust the steering angle input for stability and steering assist calculations.

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

Symptoms you may notice

- The stability control (ESC) or traction control warning light stays illuminated on the dashboard.
- The power steering assist may feel heavier or inconsistent, especially at low speeds.
- The steering wheel may feel off-center while the vehicle tracks straight down the road.
- A message such as 'Service Stability System' or 'Power Steering Assist Reduced' may appear on the driver information center.
- Often no symptoms besides the warning light, with the vehicle driving normally in a straight line.

Common causes, most likely first

- The steering wheel position sensor has drifted out of calibration or lost its learned center point after a battery disconnect or module replacement.
- A weak or failing steering wheel position sensor that produces an erratic or out-of-range signal.
- Wiring damage or a poor connection at the sensor connector, such as corrosion, chafing, or a backed-out terminal.
- A misaligned steering wheel or a recent wheel alignment where the steering angle sensor was not recalibrated afterward.
- A faulty clock spring (steering wheel angle sensor assembly) that houses the position sensor.
- Low system voltage or a weak battery that interrupts the calibration memory during startup.
- A software or calibration issue in the ESC or power steering control module that requires a reflash or relearn procedure.



How to diagnose and fix it

- 1 Connect a scan tool and read all codes in the ESC, power steering, and body control modules to confirm C0445 is current and not history.
- 2 Inspect the steering wheel position sensor connector and wiring for corrosion, looseness, or damage, and repair as needed.
- 3 Check battery voltage and charging system output to rule out low voltage as the cause of a lost calibration.
- 4 Perform the manufacturer's steering angle sensor calibration or zero-point relearn procedure with a capable scan tool.
- 5 If calibration will not complete, test the sensor signal with a multimeter or oscilloscope while turning the wheel slowly through center.
- 6 Replace the steering wheel position sensor or clock spring assembly if the signal is erratic or out of specification, then recalibrate.
- 7 Clear codes and perform a road test to verify the warning light stays off and the steering angle reads correctly.

Why a simple battery disconnect sets C0445

- A dead or disconnected battery can wipe the learned center point from the steering angle sensor memory, setting C0445 even though no part has failed.
- Many technicians replace the clock spring before checking whether a simple recalibration procedure would have cleared the code.
- A wheel alignment that moves the steering wheel off-center without a sensor relearn will trigger this code because the zero reference no longer matches straight-ahead.
- C0445 can be set by a low-voltage event during cranking, so a battery that passes a load test but drops sharply can still be the root cause.
- The steering angle sensor is often shared with the stability control system, so a code in that module may appear alongside C0445 without a separate sensor fault.

Can I keep driving with C0445?

You can usually drive the vehicle with C0445 set, but stability control and some power steering assist features may be disabled, so avoid aggressive maneuvers and reduce speed in slippery conditions. Have the calibration checked soon, because a misread steering angle can affect emergency stability intervention.

Tools that help

- OBD-II scan tool with ESC and steering angle calibration capability
- Digital multimeter
- Oscilloscope for sensor signal testing
- Basic hand tools for trim and steering column access
- Battery load tester



Reading C0445

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

Often seen with

C0050 Right Rear Wheel Speed Sensor Circuit Malfunction · **C0450** Rear Wheel Steering Position Sensor Circuit · **C0460** Steering Position Signal Implausible · **C0561** ABS Disabled Warning Indicator Request · **U0126** Lost Communication With Steering Angle Sensor Module

See it working

Watch the animated explainer [How an Automatic Transmission Works, Gear by Gear](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c0445/>

