

GENERIC · CHASSIS

C05B2

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

C05B2

Steering Wheel Angle Sensor Signal - Yaw Rate Sensor Signal Correlation

This code means the vehicle's stability control computer compared the steering wheel angle sensor signal with the yaw rate sensor signal and found they disagree beyond a calibrated tolerance. The computer expects the steering angle and the actual rotation of the vehicle to correlate during normal driving, and it sets this code when that relationship is broken.

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

Symptoms you may notice

- Traction control or stability control warning light illuminated on the dashboard
- Anti-lock brake system (ABS) warning light on, sometimes together with the stability light
- Steering feel that seems normal but the stability system intervenes unexpectedly on curves
- Cruise control or hill assist may be disabled as a consequence of the stability fault
- Often no symptoms besides the warning light, with the vehicle driving normally
- In rare cases, a slight pull or off-center steering wheel if the angle sensor is mechanically misaligned

Common causes, most likely first

- 1 Steering wheel angle sensor not calibrated or zero point lost after battery disconnect or suspension work
- 2 Faulty steering wheel angle sensor or damaged clock spring wiring
- 3 Yaw rate sensor contaminated, mounted loosely, or internally failed
- 4 Low or uneven tire pressures causing a real yaw rate that does not match steering input
- 5 Wheel alignment out of specification, especially rear toe or thrust angle
- 6 Damaged or corroded wiring between the angle sensor, yaw rate sensor, and stability control module
- 7 Stability control module software issue or internal fault



How to diagnose and fix it

- 1 Check and correct tire pressures on all four wheels, then road test to see if the code returns
- 2 Inspect the steering wheel angle sensor live data for smooth, plausible values through a full lock-to-lock sweep
- 3 Perform a steering angle sensor calibration or zero-point reset with a scan tool if the sensor reads correctly but is offset
- 4 Inspect the yaw rate sensor live data at standstill and during a slow figure-eight drive for erratic or noisy readings
- 5 Check wheel alignment, particularly rear toe and thrust angle, and correct if out of specification
- 6 Inspect wiring and connectors at the steering angle sensor, yaw rate sensor, and stability control module for corrosion or damage
- 7 If all inputs are correct, follow the manufacturer's diagnostic flow for the stability control module, including software updates where applicable

Why this code often follows an alignment

- A steering angle sensor that was not recalibrated after an alignment or steering rack replacement is one of the most common causes of this code, and the sensor itself is often fine.
- Uneven tire wear or mismatched tire sizes front to rear can create a genuine yaw rate that the computer reads as a correlation fault, so always measure tire circumference before condemning sensors.
- The yaw rate sensor is sensitive to mounting position, and a loose bracket or debris under the center console can cause intermittent correlation errors that never appear on a short test drive.
- This code does not always mean a sensor has failed; the stability control module may be correctly reporting a real mechanical problem such as a bent suspension component or a dragging brake.
- A weak battery or poor ground can cause the steering angle sensor to lose its learned zero point, so check charging system health before replacing parts.

Can I keep driving with C05B2?

The vehicle remains safe to drive at normal speeds because the stability control system is disabled, but avoid aggressive cornering, towing, or slippery conditions until the fault is repaired. If the ABS warning light is also on, treat braking performance as reduced and have the vehicle inspected promptly.

Tools that help

- OBD-II scan tool with live data and stability control calibration capability
- Tire pressure gauge and tread depth gauge
- Digital multimeter for wiring and sensor voltage checks
- Wheel alignment equipment
- Manufacturer service information for calibration procedures



Reading C05B2

- 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.
- B2** The exact fault within that area.

Often seen with

C0040 Left Rear Wheel Speed Sensor Circuit · **C0045** Left Rear Wheel Speed Sensor Circuit Malfunction · **C0050** Right Rear Wheel Speed Sensor Circuit Malfunction · **C0051** Front Left ABS Solenoid 1 Circuit Malfunction · **U0126** Lost Communication With Steering Angle Sensor Module

See it working

Watch the animated explainer [How a Knock Sensor Works: Spark Timing and Octane](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/c05b2/>

