

GENERIC · POWERTRAIN

P0C59

OBD-II TROUBLE CODE

P0C59

Drive Motor B Position Sensor Circuit A Circuit Intermittent/Erratic

P0C59 indicates that the powertrain control module has detected an intermittent or erratic signal from the 'A' circuit of the position sensor for drive motor B, which is the second electric motor in a hybrid or electric vehicle's propulsion system. The computer expects a steady, predictable voltage or digital message from this sensor, and it flags the code when the signal drops out, jumps, or behaves inconsistently over a short period.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light or hybrid system warning lamp, often with no other noticeable symptoms
- Intermittent loss of propulsion or a sudden reduction in power while accelerating
- Rough or delayed engagement of the electric drive motor when shifting from park to drive or reverse
- A shudder or hesitation during low-speed electric-only operation
- The vehicle entering limp mode or failing to start in electric mode
- Unusual noises or vibration from the drive motor area during acceleration

Common causes, most likely first

- 1 Faulty or contaminated position sensor 'A' on drive motor B, often due to internal wear or exposure to debris
- 2 Damaged, chafed, or corroded wiring in the sensor circuit, especially near connectors or where the harness passes through the motor housing
- 3 Loose or backed-out terminals at the sensor connector or at the control module connector
- 4 Electrical interference from nearby high-voltage cables or a poor ground connection affecting the sensor signal
- 5 Internal fault in the drive motor B assembly, such as a damaged reluctor wheel or sensor mounting area
- 6 A failing powertrain control module or hybrid control module that misinterprets a valid signal
- 7 Moisture intrusion into the sensor connector or motor housing causing intermittent shorts



How to diagnose and fix it

- 1 Inspect the sensor connector and wiring for looseness, corrosion, or chafing, and clean or repair as needed
- 2 Check the sensor circuit with a multimeter for continuity, short to ground, and short to power while wiggling the harness
- 3 Verify the sensor signal with an oscilloscope or scan tool live data to confirm the intermittent nature and identify dropouts
- 4 Remove and inspect the position sensor for physical damage, contamination, or a loose mounting, and replace if faulty
- 5 Check the reluctor wheel or tone ring on drive motor B for cracks, missing teeth, or debris buildup
- 6 Perform a voltage drop test on the sensor ground and power circuits to rule out high resistance
- 7 If all external circuits and the sensor are good, follow the manufacturer's diagnostic flow for the control module and reprogram or replace it only as a last resort

Intermittent sensor faults that fool technicians

- A common oversight is replacing the position sensor without addressing a chafed harness that only loses contact when the motor moves under torque, so the new sensor sets the same code within days.
- The code can be set by a weak or intermittent ground connection at the motor housing rather than by the sensor itself, and a simple voltage drop test often reveals the true culprit.
- Electrical noise from a failing high-voltage cable or inverter can mimic an erratic sensor signal, so technicians should inspect for damaged shielding or loose high-voltage connections before condemning the sensor.
- On some vehicles, a low or failing 12-volt auxiliary battery can cause control modules to log intermittent sensor codes because the sensor reference voltage becomes unstable during cranking.
- The code does not always mean the sensor is failing; a mechanical issue such as a loose reluctor wheel or excessive end play in the motor shaft can produce an erratic signal that a new sensor will not fix.

Can I keep driving with P0C59?

You can usually continue driving to a repair shop if the vehicle drives normally and the warning light is steady, but avoid heavy acceleration or long trips because the fault may cause a sudden loss of power. If the vehicle enters limp mode or the warning light flashes, stop safely and arrange a tow to prevent further damage.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter with voltage drop and continuity functions
- Oscilloscope for capturing intermittent sensor signals
- Manufacturer-specific wiring diagram and connector pinout
- Insulated hand tools and terminal removal kit for sensor connector repair
- Jack and safety stands or a lift for accessing the motor and harness



Reading P0C59

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- C** Hybrid propulsion.
- 59** The exact fault within that area.

Often seen with

P0A3F Drive Motor A Position Sensor Circuit · **P0C58** Drive Motor B Position Sensor Circuit A Circuit High · **P0C5A** Drive Motor A Position Sensor Circuit B Circuit · **P0C5B** Drive Motor A Position Sensor Circuit B Range/Performance · **P0C5C** Drive Motor A Position Sensor Circuit B Circuit Low

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0c59/>

