



P0C18

Drive Motor B Position Sensor Not Learned

P0C18 means the hybrid or electric vehicle controller has not successfully learned the neutral position of the drive motor B position sensor, so it cannot trust the rotor angle signal for precise motor control. The computer stores this code when the sensor learning routine has never completed or its stored calibration is missing or invalid.

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

Symptoms you may notice

- Illumination of the hybrid system or check engine light, often with no other noticeable symptoms
- Reduced or disabled drive motor operation, sometimes forcing the vehicle into a limp-home mode
- Rough or jerky acceleration and poor hybrid power delivery
- Unexpected engine shutdown or refusal to enter electric-only drive
- A warning message on the dash indicating a hybrid system fault or service required

Common causes, most likely first

- 1 The position sensor learning procedure was never performed after a motor, inverter, or controller replacement
- 2 Loss of learned calibration data due to a low or disconnected 12-volt battery
- 3 Faulty drive motor B position sensor or damaged sensor wiring and connector
- 4 A mechanical issue such as a slipped or incorrectly installed resolver rotor or tone wheel
- 5 Failed or corrupted hybrid control module software or memory
- 6 Open or shorted circuit in the sensor harness between the motor and controller

How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data before clearing anything
- 2 Inspect the drive motor B position sensor connector and harness for corrosion, pin damage, or chafing
- 3 Check sensor resistance and signal output against the manufacturer's specification with a multimeter or oscilloscope
- 4 Verify the 12-volt battery is fully charged and stable, then clear codes and attempt the manufacturer's position sensor learning procedure
- 5 If learning fails, check for mechanical alignment issues at the resolver or tone wheel before replacing parts
- 6 Replace the position sensor or resolver only after electrical and mechanical checks confirm it is faulty
- 7 After repair, complete the learning routine and perform a road test to confirm the code does not return



Why the learn procedure keeps failing

- A weak or recently replaced 12-volt battery is a common hidden cause because the learned position data is stored in volatile memory and can be lost during a voltage drop.
- Technicians often replace the position sensor when the real problem is a failed learning routine that was never completed after an inverter or motor replacement.
- The code can set intermittently if the sensor signal is marginal, so a sensor that passes a static resistance test may still fail when the motor is spinning.
- Some vehicles require the learning procedure to be performed with the transmission in a specific range and the engine off, and skipping that step leaves the code stored.
- A misaligned resolver rotor from a previous repair can make learning impossible even with a new sensor, so mechanical runout should be checked before parts are thrown at it.

Can I keep driving with P0C18?

You can usually drive the vehicle to a repair shop, but avoid aggressive acceleration and expect reduced hybrid power or a limp-home mode. If the vehicle refuses to move or shows a red hybrid warning, stop driving and have it towed.

Tools that help

- OBD-II scan tool with hybrid module access and bidirectional controls
- Digital multimeter
- Oscilloscope for signal waveform analysis
- Manufacturer service information for the learning procedure
- Basic hand tools for connector and sensor access

Reading P0C18

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

Often seen with

P0A3F Drive Motor A Position Sensor Circuit · **P0A4B** Generator Position Sensor Circuit · **P0C17** Drive Motor A Position Sensor Not Learned · **P0C19** Drive Motor A Torque Delivered Performance · **P0C1A** Drive Motor B Torque Delivered Performance



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/p0c18/>

