



P0C37

Hybrid/EV Battery Temperature Sensor F Circuit Intermittent/Erratic

P0C37 indicates that the hybrid or electric vehicle battery temperature sensor circuit designated as Sensor F is reporting an intermittent or erratic signal to the battery energy control module. The computer has detected that the voltage or resistance from this sensor is jumping around or dropping out unpredictably, rather than providing a stable temperature reading.

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 light
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Reduced electric-only range or forced engine operation due to conservative battery management
- A message on the dash indicating hybrid battery overheating or service required
- Possible reduced charging rate or disabled regenerative braking
- In rare cases, the vehicle may enter a fail-safe mode with limited power

Common causes, most likely first

- 1 Damaged or chafed wiring in the sensor F circuit, often near the battery pack or through a grommet
- 2 Corroded or loose electrical connector at the sensor or at the battery control module
- 3 Faulty temperature sensor F itself, such as an internal short or open that comes and goes with temperature
- 4 Poor terminal tension or pin fit at the sensor connector causing an intermittent connection
- 5 Water intrusion into the sensor connector or wiring harness
- 6 A failing battery energy control module or a software glitch in the module's sensor processing
- 7 Heat damage to the sensor or wiring from nearby high-voltage components or exhaust



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in the hybrid battery module to confirm the fault is specific to sensor F.
- 2 Inspect the sensor F wiring harness and connector for visible damage, corrosion, or loose pins, and repair as needed.
- 3 Perform a wiggle test on the harness while watching live sensor F temperature data to reproduce the intermittent signal.
- 4 Measure the resistance of sensor F at the sensor connector and compare it to the manufacturer's specification for the current temperature.
- 5 Check the sensor circuit for short-to-ground, short-to-power, or open circuits using a multimeter and wiring diagram.
- 6 If the wiring and connector are good, replace the temperature sensor F and clear the code.
- 7 After repair, road test the vehicle and monitor sensor F data to ensure the reading is stable and the code does not return.

Intermittent sensor faults that fool technicians

- A common misdiagnosis is to replace the battery pack or the control module when the real problem is a chafed wire that only shorts when the vehicle flexes over bumps.
- The sensor F circuit often shares a common ground or reference voltage with other sensors, so a fault in that shared circuit can set codes for multiple sensors and mislead diagnosis.
- Temperature sensor F may be part of a multi-sensor harness inside the battery pack, and replacing just the sensor can be difficult without special tools or training.
- In some vehicles, the code can be set by a temporary loss of communication between the battery control module and the sensor, not by a failed sensor itself.
- A weak 12-volt auxiliary battery can cause erratic behavior in hybrid control modules and set false intermittent codes, so always check battery health first.

Can I keep driving with P0C37?

You can generally continue driving with this code if the vehicle runs normally, but avoid aggressive acceleration or high-load conditions that stress the hybrid battery until the fault is repaired. If the vehicle enters a reduced-power mode or shows a battery overheating warning, stop driving and seek service immediately.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Back probe pins or breakout box
- Insulated hand tools for hybrid high-voltage safety



Reading P0C37

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

Often seen with

P0C33 Hybrid/EV Battery Temperature Sensor F Circuit · **P0C34** Hybrid/EV Battery Temperature Sensor F Circuit Range/Perform · **P0C35** Hybrid/EV Battery Temperature Sensor F Circuit Low · **P0C36** Hybrid/EV Battery Temperature Sensor F Circuit High · **P0C38** DC/DC Converter Temperature Sensor A Circuit

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/p0c37/>

