



P0AF2

Drive Motor Inverter Temperature Sensor B Circuit

P0AF2 indicates that the vehicle's computer has detected an abnormal condition in the electrical circuit for the drive motor inverter temperature sensor B, which monitors the heat of the inverter that converts DC power to AC for the electric motor. The computer compares the sensor's signal to expected values and sets this code when the voltage or resistance falls outside the normal range, often due to a wiring fault or sensor failure.

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 service vehicle soon message
- Reduced power output or limp mode to protect the inverter from overheating
- Inconsistent or inaccurate temperature readings on the instrument cluster
- Possible shutdown of the electric drive system if the fault is severe
- Often no symptoms besides the warning light, especially in early stages

Common causes, most likely first

- 1 Faulty temperature sensor B inside the inverter
- 2 Damaged or corroded wiring harness or connector at the sensor
- 3 Open or short circuit in the sensor signal or ground circuit
- 4 Poor electrical connection at the inverter control module
- 5 Internal failure of the inverter control module affecting sensor readings
- 6 Heat damage or contamination affecting the sensor or its wiring

How to diagnose and fix it

- 1 Use an OBD-II scanner to retrieve the code and check for related freeze-frame data
- 2 Visually inspect the sensor wiring and connector for damage, corrosion, or loose pins
- 3 Measure the sensor's resistance and compare it to the manufacturer's specification
- 4 Check for continuity and voltage drops in the sensor circuit to rule out wiring faults
- 5 If the sensor is faulty, replace it according to the service manual
- 6 If wiring is damaged, repair or replace the affected section of the harness
- 7 Clear the code and perform a road test to verify the repair



Common Misdiagnosis Traps for P0AF2

- A loose or corroded connector at the inverter often mimics a failed sensor, so always inspect connectors before replacing parts.
- The code can be set by a momentary glitch in the circuit, so clearing it and seeing if it returns is a valid first step.
- High ambient temperatures or heavy load can cause temporary sensor readings outside the normal range, triggering the code without a hard fault.
- Some vehicles require a relearn or calibration procedure after sensor replacement, which if skipped can cause the code to reappear.
- The inverter temperature sensor B is sometimes integrated into the inverter assembly, making replacement more involved than a standalone sensor.

Can I keep driving with P0AF2?

If the vehicle drives normally with only the warning light on, you can continue driving but should schedule a diagnostic inspection soon. Avoid heavy acceleration or sustained high-speed driving that could raise inverter temperatures, and if the vehicle enters limp mode or shows power loss, stop driving and seek professional service.

Tools that help

- OBD-II scanner with live data capability
- Digital multimeter
- Service manual with wiring diagrams
- Socket and ratchet set
- Electrical contact cleaner

Reading P0AF2

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
A	Hybrid propulsion.
F2	The exact fault within that area.

Often seen with

P0A78 Drive Motor A Inverter Performance · **P0A7A** Generator Inverter Performance · **P0AF1** Drive Motor Inverter Temperature Sensor A Circuit Intermittent · **P0AF3** Drive Motor Inverter Temperature Sensor B Circuit Range/Perf · **P0C00** Drive Motor A Current 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/p0af2/>

