

GENERIC · POWERTRAIN

P00E9

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P00E9

Intake Air Temperature Sensor 3 Circuit Range/Performance Bank 1

P00E9 means the engine computer has detected an out-of-range or performance problem with the signal from Intake Air Temperature Sensor 3 on Bank 1, a sensor used to measure the temperature of air entering the engine. The computer compares the sensor voltage against expected limits and flags the code when the reading is implausible, stuck, or inconsistent with other temperature inputs.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other symptoms noticed by the driver
- Rough idle or slightly unstable engine operation when the air temperature reading is far from actual
- Reduced fuel economy as the computer adjusts fuel delivery based on a faulty temperature signal
- Hesitation or stumble during acceleration in some conditions
- In rare cases, a no-start or hard-start condition if the sensor signal is completely implausible
- Often no symptoms besides the warning light, especially when the fault is intermittent

Common causes, most likely first

- 1 Faulty Intake Air Temperature Sensor 3 itself, such as an open or shorted thermistor element
- 2 Damaged or corroded wiring and connector pins at the sensor or along the circuit
- 3 Chafed, broken, or shorted wire harness between the sensor and the engine control module
- 4 Poor electrical connection at the sensor or at the computer, including loose ground
- 5 Engine control module internal fault on the sensor input circuit, though this is less common
- 6 Air intake system leaks or modifications that expose the sensor to temperatures outside its expected range
- 7 Contamination or physical damage to the sensor element from oil, dirt, or debris



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm when and under what conditions the code sets
- 2 Visually inspect the sensor, connector, and wiring for damage, corrosion, or loose pins
- 3 Measure the sensor resistance with a multimeter and compare it to the manufacturer's temperature-resistance chart
- 4 Back-probe the sensor signal and ground circuits at the computer to check for voltage drops or opens
- 5 Check for intake air leaks or modifications that could skew the temperature reading
- 6 Replace the sensor only after electrical testing confirms it is faulty, then clear the code and verify the repair
- 7 If the circuit and sensor test good, diagnose the engine control module input circuit before condemning the computer

Why this code often misleads

- A P00E9 can set from a sensor that tests fine at room temperature but fails only when hot or cold, so a resistance check at one temperature is not enough.
Wiring harness damage near hot exhaust components or sharp brackets is a frequent cause that gets missed when technicians replace the sensor first.
- The code can be triggered by a plausible but stuck signal, meaning the sensor reads a fixed value that the computer eventually flags as implausible.
- Intake air temperature sensor 3 is often a second or third sensor in the intake tract, so its location is not always obvious and must be confirmed with a wiring diagram.
Aftermarket air intake systems can expose the sensor to different airflow and heat, causing a range or performance code without any failed part.

Can I keep driving with P00E9?

You can generally continue driving with this code because the engine computer substitutes a default air temperature value and the vehicle remains drivable. Avoid heavy towing or aggressive driving until the fault is repaired, and address it promptly if you notice rough running or reduced fuel economy.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with temperature probe
- Wiring diagram for the intake air temperature sensor circuit
- Basic hand tools for connector and sensor access
- Contact cleaner and dielectric grease for connector repair



Reading P00E9

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Fuel and air metering and auxiliary emission controls.
- E9** The exact fault within that area.

Often seen with

P00EA Intake Air Temperature Sensor 3 Circuit Low Bank 1 · **P00EB** Intake Air Temperature Sensor 3 Circuit High Bank 1 · **P0111** Intake Air Temperature Circuit Range/Performance · **P0112** Intake Air Temperature Circuit Low Input · **P0113** Intake Air Temperature Circuit High Input

See it working

Watch the animated explainer [How a CVT Works: Belt and Pulley Transmission](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p00e9/>

