

GENERIC · POWERTRAIN

P00A3

OBD-II TROUBLE CODE

P00A3

Charge Air Cooler Temperature Sensor Circuit High Bank 2

P00A3 indicates that the powertrain control module has detected an abnormally high voltage signal from the charge air cooler temperature sensor on bank 2, which typically means the sensor circuit is open or shorted to voltage. The computer expects the sensor to report a plausible temperature, but the signal is outside the normal range, so it sets this code and may illuminate the check engine light.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Check engine light illuminated, often with no other noticeable symptoms
- Reduced engine performance or power, especially under heavy load or during acceleration
- Decreased fuel efficiency due to the computer altering fuel and boost strategies
- Possible rough idle or hesitation if the faulty signal affects air-fuel mixture calculations
- In rare cases, the engine may enter limp mode to protect the turbocharger or engine

Common causes, most likely first

- 1 Open circuit in the signal wire between the charge air cooler temperature sensor and the PCM
- 2 Short to voltage on the signal circuit, often due to chafed wiring or a faulty connector
- 3 Failed charge air cooler temperature sensor (bank 2)
- 4 Corroded, loose, or damaged electrical connector at the sensor or PCM
- 5 PCM internal fault causing incorrect voltage interpretation (less common)
- 6 Aftermarket or incorrect sensor installed that does not match OEM specifications



How to diagnose and fix it

- 1 Use a scan tool to verify the code and check live data for the charge air cooler temperature sensor reading to confirm it is stuck at a high value or out of range
- 2 Visually inspect the sensor and its connector for damage, corrosion, or loose pins, and repair as needed
- 3 Disconnect the sensor and measure resistance across its terminals, comparing to the manufacturer's specification for the current temperature
- 4 Check the signal wire for continuity and for short to voltage using a digital multimeter, repairing any wiring faults
- 5 If the wiring and connector are good, replace the charge air cooler temperature sensor with a quality OEM or equivalent part
- 6 Clear the code and perform a road test to verify the repair, monitoring live data to ensure the sensor reads correctly

What the high voltage reading really means

- A high voltage signal on a temperature sensor circuit almost always indicates an open circuit or a short to voltage, not necessarily a failed sensor, so wiring checks should come before parts replacement.
- On many vehicles, the charge air cooler temperature sensor is integrated into the charge air cooler or intake manifold, making replacement more labor-intensive than a simple bolt-on sensor.
- This code can be set by a poor connection at the PCM connector even if the sensor and wiring near the engine look fine, so always inspect both ends of the circuit.
- A faulty charge air cooler temperature sensor can cause the computer to misjudge air density and alter boost pressure, leading to drivability issues that mimic turbocharger problems.
- Bank 2 refers to the side of the engine that does not contain cylinder 1, so on V6 or V8 engines, confirm you are working on the correct bank before diagnosing.

Can I keep driving with P00A3?

You can usually continue driving with this code, but avoid heavy acceleration or towing until it is repaired, as the engine may reduce power to protect the turbocharger. If the check engine light starts flashing or you notice severe performance loss, stop driving and seek professional diagnosis.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire probe set or back-probe kit
- Service manual or wiring diagram for the specific vehicle
- Basic hand tools (socket set, screwdrivers, pliers)



Reading P00A3

- 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.
- A3** The exact fault within that area.

Often seen with

P007B Charge Air Cooler Temperature Sensor Circuit Range/Performan · **P007C** Charge Air Cooler Temperature Sensor Circuit Low Bank 1 · **P00A2** Charge Air Cooler Temperature Sensor Circuit Low Bank 2 · **P00A4** Charge Air Cooler Temperature Sensor Circuit Intermittent/Er · **P0235** Turbocharger Boost Sensor A Circuit Malfunction

See it working

Watch the animated explainer [Turbocharger Trainer: Boost, Wastegate and Intercooler](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p00a3/>

