

GENERIC · POWERTRAIN

P242A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P242A

Exhaust Gas Temperature Sensor Circuit Bank 1 Sensor 3

P242A indicates that the powertrain control module has detected an abnormal signal from the exhaust gas temperature sensor located after the diesel particulate filter on bank 1, specifically sensor 3. The computer compares this sensor's voltage or resistance to expected values and sets the code when the reading falls outside the normal range for a calibrated period.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Reduced engine power or limp mode in some vehicles
- Poor fuel economy or increased regeneration frequency
- Black smoke or excessive exhaust odor from the tailpipe
- In rare cases, a rough idle or hesitation during acceleration

Common causes, most likely first

- 1 Faulty exhaust gas temperature sensor itself, due to age or contamination
- 2 Damaged or corroded wiring harness or connector at the sensor
- 3 Exhaust leaks upstream of the sensor causing false temperature readings
- 4 Failed sensor heating element inside the EGT sensor
- 5 PCM software issue or faulty PCM driver circuit
- 6 Restricted or damaged diesel particulate filter affecting temperature distribution

How to diagnose and fix it

- 1 Use an OBD-II scanner to read live data from the EGT sensor and compare it to ambient and expected temperatures after a cold soak.
- 2 Visually inspect the sensor, connector, and wiring for damage, corrosion, or loose pins; repair as needed.
- 3 Check for exhaust leaks around the DPF and sensor bung that could skew readings.
- 4 Perform a resistance check on the sensor according to the manufacturer's specification to verify its condition.
- 5 If the sensor is faulty, replace it with a quality part and clear the code.
- 6 Verify repair by test-driving the vehicle and confirming the EGT readings are within normal range and the code does not return.



Common misdiagnosis traps for P242A

- A P242A code is often set by a contaminated sensor rather than a completely failed one, so cleaning the sensor tip may restore function if it is not physically damaged.
- Exhaust leaks before the sensor can cause it to read cooler than actual, triggering the code even when the sensor is good.
- Some vehicles require a relearn or adaptation reset after sensor replacement to prevent the code from reappearing.
- The code can be intermittent, so a wiggle test on the harness while monitoring live data is essential before condemning the sensor.
- A failing DPF can cause temperature stratification that mimics a sensor fault, so always check DPF differential pressure and regeneration history.

Can I keep driving with P242A?

You can usually continue driving with P242A, but avoid heavy loads and prolonged idling until it is diagnosed, as ignored faults can lead to DPF damage or reduced fuel efficiency. If the engine enters limp mode, seek service promptly.

Tools that help

- OBD-II scanner with live data capability
- Digital multimeter
- Infrared thermometer
- Socket set and wrench set
- Wiring diagram for the vehicle

Reading P242A

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- 2A** The exact fault within that area.

Often seen with

P2002 Particulate Trap Efficiency Below Threshold (Bank 1) · **P242B** Exhaust Gas Temperature Sensor Circuit Range or Performance · **P242C** Exhaust Gas Temperature Sensor Circuit Low Bank 1 Sensor 3 · **P242D** Exhaust Gas Temperature Sensor Circuit High Bank 1 Sensor 3 · **P2463** Diesel Particulate Filter Restriction - Soot Accumulation



See it working

Watch the animated explainer [How a Supercharger Works: Roots Blower in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p242a/>

