

GENERIC · POWERTRAIN

P2084

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2084

Exhaust Gas Temperature Sensor Circuit Range/Performance (Bank 1 Sensor 2)

P2084 sets when the powertrain control module (PCM) sees the bank 1 sensor 2 exhaust gas temperature (EGT) sensor signal outside its expected range or behaving erratically during normal engine operation. The PCM compares the sensor's voltage or resistance against modeled exhaust temperature and flags a performance fault when the correlation is poor.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

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 besides the warning light
- Reduced engine power or limp mode in some vehicles as a protective strategy
- Poor fuel economy or altered regeneration behavior on diesel engines
- Intermittent rough running or hesitation under load
- A stored freeze-frame showing abnormal EGT sensor voltage
- Possible failure of emissions-related readiness monitors

Common causes, most likely first

- 1 Faulty bank 1 sensor 2 EGT sensor element or internal short
- 2 Damaged or corroded sensor wiring and connector pins
- 3 Exhaust leaks upstream of the sensor altering temperature readings
- 4 Sensor installed loosely or with contaminated threads
- 5 PCM software calibration issue or internal driver fault
- 6 Aftermarket exhaust components changing heat characteristics
- 7 Extreme carbon buildup on the sensor tip



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P2084 and any related codes
- 2 Visually inspect the sensor, connector, and wiring for damage, corrosion, or looseness
- 3 Check for exhaust leaks near the sensor and repair as needed
- 4 Measure sensor resistance and compare to manufacturer specification when cold
- 5 Backprobe the sensor signal circuit and observe voltage changes with a heat gun or during warm-up
- 6 Verify reference voltage and ground integrity at the PCM connector
- 7 Replace the EGT sensor only after electrical and exhaust checks pass, then clear codes and verify repair

What technicians check before replacing the EGT sensor

- A loose or cross-threaded sensor often mimics an internal failure because hot exhaust gas escapes past the threads and skews the reading.
- Exhaust leaks at the manifold or turbo flange can raise or lower the measured temperature enough to set P2084 without any sensor fault.
- Some vehicles require a PCM reflash or calibration update for known EGT sensor reporting errors before any parts are replaced.
- Corroded connector pins at the sensor or PCM are a common missed cause, especially on vehicles driven in salt-belt regions.
- The code can set intermittently from vibration-related wiring chafing that only appears under certain engine loads.

Can I keep driving with P2084?

You can usually drive with P2084, but avoid heavy loads and long uphill pulls until it is diagnosed because a failed EGT sensor can affect regeneration and emissions strategies. If the engine enters limp mode or you notice excessive smoke, stop driving and seek service.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with backprobe pins
- Infrared thermometer or heat gun for sensor response testing
- Socket set and penetrating oil for sensor removal
- Wiring diagram and manufacturer resistance specifications



Reading P2084

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

Often seen with

P0544 Exhaust Gas Temperature Sensor Circuit (Bank 1 Sensor 1) · **P2033** Exhaust Gas Temperature Sensor Circuit High (Bank 1 Sensor 2) · **P2083** Exhaust Gas Temperature Sensor Circuit Intermittent (Bank 2) · **P2085** Exhaust Gas Temperature Sensor Circuit Intermittent (Bank 1) · **P2086** Exhaust Gas Temperature Sensor Circuit Range/Performance (Bank 1)

See it working

Watch the animated explainer [How Drive-by-Wire Works: Electronic Throttle Body](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2084/>

