

GENERIC · POWERTRAIN

P2032

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2032

Exhaust Gas Temperature Sensor Circuit Low (Bank 1 Sensor 2)

P2032 means the powertrain control module (PCM) has detected a low-voltage condition on the exhaust gas temperature (EGT) sensor circuit for bank 1 sensor 2, which is the sensor located after the catalytic converter on the bank that contains cylinder number one. The PCM expects the sensor's signal voltage to stay within a calibrated range, and a sustained low reading tells the computer that the circuit is shorted to ground, the sensor has failed, or the wiring is damaged.

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 noticeable symptoms
- Reduced engine power or limp mode if the PCM deems the EGT signal unreliable
- Poor fuel economy or altered regeneration strategy on diesel vehicles
- Intermittent rough running or hesitation under load
- A stored freeze-frame showing low sensor voltage at the time of fault

Common causes, most likely first

- 1 Failed EGT sensor (bank 1 sensor 2) with an internal short to ground
- 2 Chafed or grounded signal wire between the sensor and the PCM
- 3 Corroded or loose connector pins at the sensor or PCM
- 4 Exhaust leaks upstream of the sensor allowing false low-temperature readings
- 5 PCM internal fault or corrupted software calibration
- 6 Aftermarket sensor with incorrect resistance or voltage characteristics



How to diagnose and fix it

- 1 Connect a scan tool and record the freeze-frame data and any related codes before clearing anything
- 2 Visually inspect the sensor, connector, and harness for damage, corrosion, or contact with hot exhaust components
- 3 Measure sensor resistance and compare it to the manufacturer's specification for the current temperature
- 4 Back-probe the signal wire at the PCM and check for a short to ground with the sensor disconnected
- 5 Repair or replace damaged wiring and connectors, then clear codes and verify the signal voltage returns to normal
- 6 If the circuit tests good, replace the EGT sensor with an OEM-quality part and recheck live data
- 7 As a last resort, check for PCM software updates or internal faults before condemning the module

What a low EGT signal really tells you

- A low-voltage EGT code often appears after a sensor has been replaced with a cheap aftermarket unit whose resistance curve does not match the OEM specification, so the PCM sees a permanently low signal.
Exhaust leaks upstream of the sensor can cause the sensor to read cooler than expected, setting a low-voltage code even though the sensor itself is healthy.
 - On many diesel engines, the bank 1 sensor 2 EGT reading is used to control particulate filter regeneration, so ignoring the code can lead to clogged filters and expensive repairs.
 - A shorted signal wire can be caused by a previous repair that routed the harness too close to the exhaust manifold or turbocharger, melting the insulation.
- The PCM may set P2032 intermittently if the connector is only partially seated, so always wiggle-test the harness while watching live data.

Can I keep driving with P2032?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy loads and sustained high-speed driving until the fault is fixed. If the engine enters limp mode or you notice excessive smoke or power loss, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with back-probe pins
- Wiring diagram for the EGT sensor circuit
- Socket set and heat-resistant gloves
- Infrared thermometer for verifying exhaust temperatures



Reading P2032

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

Often seen with

P0544 Exhaust Gas Temperature Sensor Circuit (Bank 1 Sensor 1) · **P0545** Exhaust Gas Temperature Sensor Circuit Low (Bank 1 Sensor 1) · **P0546** Exhaust Gas Temperature Sensor Circuit High (Bank 1 Sensor 1) · **P2031** Exhaust Gas Temperature Sensor Circuit (Bank 1 Sensor 2) · **P2033** Exhaust Gas Temperature Sensor Circuit High (Bank 1 Sensor 2)

See it working

Watch the animated explainer [How a Jet Engine Works: Two-Spool Turbofan](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2032/>

