

GENERIC · POWERTRAIN

P2035

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2035

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

P2035 means the engine computer has detected an abnormally low voltage signal on the exhaust gas temperature (EGT) sensor circuit for bank 2 sensor 2, which is the sensor positioned after the catalytic converter on the bank of cylinders that does not contain cylinder number one. The computer expects the sensor's signal voltage to fall within a specific range once the exhaust has warmed, and a sustained low reading tells it the circuit is grounded, 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 symptoms besides the warning light
- Reduced engine power or limp mode if the computer substitutes a default exhaust temperature value
- Poor fuel economy or altered regeneration behavior on diesel vehicles that rely on this sensor
- Intermittent warning light that appears after the engine bay gets hot or wet
- A stored freeze-frame showing the low voltage occurred during normal operating temperature

Common causes, most likely first

- 1 Failed exhaust gas temperature sensor that internally shorts its signal wire to ground
- 2 Chafed, pinched, or melted sensor wiring harness near the exhaust or turbocharger
- 3 Corroded or loose connector pins at the sensor or at the engine computer
- 4 Signal wire shorted to chassis ground along its routing
- 5 Water intrusion into the sensor connector causing a low-resistance path
- 6 Engine computer internal fault pulling the sensor signal low, though this is rare



How to diagnose and fix it

- 1 Read stored and pending codes with a scan tool and record the freeze-frame data for P2035
- 2 Inspect the bank 2 sensor 2 connector and wiring for corrosion, chafing, or heat damage
- 3 Measure sensor resistance and compare it to the manufacturer's specification for the current temperature
- 4 Back-probe the signal wire at the computer and check for a short to ground with the sensor disconnected
- 5 Repair or replace damaged wiring and connectors, then clear the code and verify the voltage returns to normal
- 6 Replace the exhaust gas temperature sensor if the circuit tests good but the signal remains low
- 7 Road-test the vehicle through a complete warm-up cycle to confirm the code does not return

What a low EGT signal really tells you

- A low signal voltage does not automatically condemn the sensor, because a shorted harness or a corroded connector will produce the exact same reading on the scan tool.
- Bank 2 sensor 2 is often the post-catalyst sensor on V6 and V8 engines, so technicians who assume it is a pre-turbo sensor waste time looking in the wrong place.
- On diesel engines this sensor feeds the regeneration strategy, and a false low reading can trigger excessive regeneration attempts that dilute the engine oil.
- A sensor that tests correctly when cold can still fail when hot, so resistance checks should be repeated after the exhaust reaches operating temperature.
- Replacing the sensor without checking the connector for water intrusion commonly leads to the same code returning within a few hundred miles.

Can I keep driving with P2035?

The vehicle usually remains drivable with P2035, but prolonged driving with a faulty exhaust temperature signal can cause poor regeneration behavior on diesel engines and increased emissions. Avoid heavy towing or sustained high-load driving until the circuit is diagnosed and repaired.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with back-probe pins
- Wiring diagram for the bank 2 sensor 2 circuit
- Heat-resistant wire repair kit and crimping tools
- Infrared thermometer to verify actual exhaust temperature



Reading P2035

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

Often seen with

P0546 Exhaust Gas Temperature Sensor Circuit High (Bank 1 Sensor 1) · **P2034** Exhaust Gas Temperature Sensor Circuit (Bank 2 Sensor 2) · **P2036** Exhaust Gas Temperature Sensor Circuit High (Bank 2 Sensor 2) · **P2037** Reductant Injection Air Pressure Sensor Circuit · **P2080** Exhaust Gas Temperature Sensor Circuit Range/Performance (Bank 1 Sensor 1)

See it working

Watch the animated explainer [How Push-Button Start Works: Keyless Ignition](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2035/>

