



P044C

EGR Sensor C Circuit Low

P044C means the powertrain control module (PCM) has detected that the signal voltage from the exhaust gas recirculation (EGR) sensor C circuit is lower than the expected range for the current operating conditions. This sensor is typically a position or flow sensor that reports how far the EGR valve has opened or how much exhaust gas is actually flowing, and a low signal indicates the circuit is grounded, shorted, or the sensor is failing to produce a proper voltage.

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.
- Rough idle or stalling when the engine is cold, especially if the EGR valve is stuck open or closed.
- A slight decrease in fuel economy due to incorrect EGR flow affecting combustion efficiency.
- Failed emissions test because the EGR system is not functioning within specifications.
- In some cases, a surging or hesitation during light acceleration if the EGR valve position is misreported.

Common causes, most likely first

- 1 A short to ground or open circuit in the EGR sensor C signal wire, often due to chafed insulation or a broken connector pin.
- 2 A faulty EGR sensor C itself, where the internal sensing element has failed and produces a low voltage.
- 3 Corroded or loose electrical connections at the EGR sensor or PCM, causing high resistance and a low signal.
- 4 A stuck or carbon-fouled EGR valve that prevents the sensor from moving through its full range, leading to a low signal at certain positions.
- 5 A failed PCM driver or internal circuit for the sensor reference voltage, though this is less common.
- 6 Excessive carbon buildup inside the EGR passage or on the sensor tip, interfering with sensor operation.



How to diagnose and fix it

- 1 Use an OBD-II scanner to verify the code and check for any related EGR or sensor codes that might indicate a broader issue.
- 2 Inspect the EGR sensor C wiring harness and connector for damage, corrosion, or loose pins, and repair as needed.
- 3 Measure the sensor reference voltage (typically 5 volts) at the sensor connector with the key on, engine off, to confirm the PCM is supplying power.
- 4 Check the sensor ground circuit for continuity to ground; a bad ground can cause a low signal.
- 5 Test the EGR sensor C with a multimeter by monitoring its signal voltage while manually moving the EGR valve (if accessible) to see if the voltage changes smoothly.
- 6 If the sensor fails the voltage test, replace the EGR sensor or the complete EGR valve assembly if the sensor is not serviceable separately.
- 7 Clear the code and perform a drive cycle to verify the repair; if the code returns, further diagnose the PCM or wiring.

Hidden causes of a low EGR sensor signal

- A low signal code often results from a simple wiring problem rather than a failed sensor, so always check the harness for rub-throughs near hot or moving components before replacing parts.
- Carbon buildup on the EGR valve pintle can prevent the sensor from reaching its expected position, causing the PCM to see a low voltage even when the sensor itself is good.
- Some vehicles use the EGR sensor C signal for other calculations, such as fuel injection timing, so a low signal can cause drivability issues that seem unrelated to the EGR system.
- A faulty ground connection at the EGR sensor can mimic a bad sensor; measuring resistance from the sensor ground pin to the battery negative post can reveal excessive resistance.
- After replacing an EGR valve or sensor, some vehicles require a relearn procedure or a specific drive cycle to reset the adaptive values, otherwise the code may reappear immediately.

Can I keep driving with P044C?

You can usually continue driving with this code, but avoid heavy acceleration and long trips until it is repaired, as incorrect EGR flow can lead to increased emissions and potentially damage other components over time. If the engine runs rough or stalls, seek repair promptly.

Tools that help

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



Reading P044C

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

Often seen with

P0401 EGR Flow Insufficient Detected · **P0403** EGR Circuit Malfunction · **P044A** EGR Sensor C Circuit · **P044B** EGR Sensor C Circuit Range/Performance · **P044D** EGR Sensor C Circuit High

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/p044c/>

