

GENERIC · POWERTRAIN

P0404

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0404

EGR Circuit Range/Performance

P0404 means the engine computer has detected that the exhaust gas recirculation (EGR) valve is not moving through its expected range of positions, or is not responding to commands as it should. The computer commands the valve to open and close while monitoring the position sensor, and it sets this code when the actual position deviates from the commanded position beyond a calibrated threshold.

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

Symptoms you may notice

- Illuminated check engine light, often with no other symptoms
- Rough idle or stalling after the engine warms up
- Slight hesitation or stumble during light acceleration
- Reduced fuel economy over time
- Intermittent surging at steady cruising speeds
- Failed emissions test due to high oxides of nitrogen (NOx) levels

Common causes, most likely first

- 1 Carbon buildup on the EGR valve pintle or seat preventing full travel
- 2 Faulty EGR valve position sensor or dirty sensor contacts
- 3 Wiring damage or loose connector at the EGR valve
- 4 Failed EGR valve actuator (electric motor or vacuum diaphragm)
- 5 Restricted EGR passage or clogged intake manifold port
- 6 Failed EGR vacuum solenoid or faulty vacuum supply (on vacuum-operated systems)
- 7 Engine computer software issue or adaptive learning not complete



How to diagnose and fix it

- 1 Inspect the EGR valve connector and wiring for corrosion, looseness, or damage; clean and secure as needed
- 2 Remove the EGR valve and check for carbon buildup; clean the pintle and seat with appropriate solvent and reinstall
- 3 Use a scan tool to command the EGR valve open and closed while watching the position sensor reading for smooth operation
- 4 Check vacuum supply and solenoid operation on vacuum-controlled EGR systems
- 5 Test the EGR valve position sensor with a multimeter for dead spots or incorrect resistance
- 6 Replace the EGR valve if cleaning and electrical checks do not restore proper range and response
- 7 Clear the code and perform a drive cycle to verify the repair; recheck for pending codes

What most technicians overlook on P0404

- A sticking EGR valve due to carbon is far more common than a failed electrical component, so cleaning should always be attempted before replacement.
The position sensor inside the EGR valve often develops dead spots that only show up when the valve is commanded through its full travel, so a static resistance check can miss the fault.
- On some vehicles, a dirty throttle body or intake manifold carbon deposits can mimic an EGR range fault by altering airflow and confusing the computer's expected EGR response.
- A weak battery or charging system issue can cause erratic EGR valve operation and set P0404 without any defect in the EGR system itself.
After replacing an EGR valve, some vehicles require a relearn or adaptation procedure with a scan tool; skipping this step can cause the code to return immediately.

Can I keep driving with P0404?

You can usually continue driving with P0404, but avoid heavy acceleration and long idling until it is repaired. Prolonged driving with a faulty EGR system can increase emissions and may eventually damage the catalytic converter or cause drivability problems.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Basic hand tools (wrenches, sockets, screwdrivers)
- Carburetor or throttle body cleaner
- Vacuum pump and gauge (for vacuum-operated EGR systems)



Reading P0404

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

Often seen with

P0401 EGR Flow Insufficient Detected · **P0402** EGR Flow Excessive Detected · **P0403** EGR Circuit Malfunction · **P0405** EGR Sensor A Circuit Low · **P0406** EGR Sensor A Circuit High

See it working

Watch the animated explainer [Four-Stroke Engine Notebook: The Otto Cycle Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0404/>

