

FORD · POWERTRAIN

P1304

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1304 · Ford

EGR Calibration High

P1304 on Ford vehicles indicates that the powertrain control module (PCM) has detected an EGR (exhaust gas recirculation) calibration value that is higher than expected, meaning the EGR system is not flowing the amount of exhaust gas the computer commands. The PCM monitors the EGR valve position and the resulting change in manifold pressure or oxygen sensor feedback, and when the calculated flow falls outside the calibrated high limit, it sets this code.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Ford specific	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Slight hesitation or stumble during light acceleration
- Rough idle or idle surge when the engine is cold
- Reduced fuel economy over time
- Elevated combustion chamber temperatures that may lead to pinging under load
- In some cases, a failed emissions test due to high oxides of nitrogen (NOx)

Common causes, most likely first

- 1 Carbon buildup or blockage in the EGR valve passages or the intake manifold EGR port
- 2 Faulty or stuck-closed EGR valve
- 3 Leaking or disconnected EGR vacuum hose (on vacuum-operated systems)
- 4 Failed EGR solenoid or vacuum regulator
- 5 Wiring damage or poor connection at the EGR valve or solenoid connector
- 6 Faulty differential pressure feedback EGR (DPFE) sensor or its hoses
- 7 PCM calibration issue or internal fault (rare)



How to diagnose and fix it

- 1 Inspect all vacuum hoses and electrical connectors at the EGR valve and solenoid for cracks, looseness, or corrosion
- 2 Remove the EGR valve and check for carbon deposits; clean the valve and the intake port if blocked
- 3 Test the EGR valve operation with a vacuum pump or scan tool bidirectional control to confirm it opens and closes smoothly
- 4 Check the DPFE sensor and its hoses for blockage or damage, and compare its reading to expected values
- 5 Verify that the EGR solenoid receives power and ground, and that it clicks when commanded
- 6 Perform a PCM self-test and check for any related codes that might indicate a sensor or circuit problem
- 7 If all mechanical and electrical checks pass, consider reprogramming the PCM with the latest calibration from Ford

Before you replace the EGR valve

- A clogged EGR passage in the intake manifold is a common cause of P1304 on Ford engines, and simply replacing the valve will not fix it if the passage remains blocked.
- The DPFE sensor is a frequent culprit on Ford EGR systems, and its hoses often crack or melt, causing incorrect differential pressure readings that mimic a faulty valve.
- P1304 can be set by a vacuum leak elsewhere in the engine, such as a cracked intake tube or a leaking brake booster, which leans out the mixture and affects EGR flow calculations.
- On some Ford models, a dirty mass airflow (MAF) sensor can skew the PCM's expected EGR flow and trigger this code, so cleaning the MAF is a worthwhile preliminary step.
- The code does not always mean the EGR valve itself has failed; a stuck-open EGR valve can also cause calibration high by allowing too much exhaust gas at the wrong time, so test before replacing.

Can I keep driving with P1304?

You can usually continue driving with P1304, but avoid heavy acceleration and long uphill pulls because the inactive EGR system can cause engine knock and higher combustion temperatures. Have the fault diagnosed soon to prevent potential damage to the catalytic converter or engine components.

Tools that help

- OBD-II scan tool with bidirectional control
- Hand vacuum pump
- Digital multimeter
- Socket set and wrenches
- Carburetor cleaner and brushes



Reading P1304

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Ford): its meaning depends on the make.
- 3** Ignition system and misfire.
- 04** The exact fault within that area.

Often seen with

P1400 EGR Valve Circuit Electrical Malfunction · **P1401** EGR Valve Power Stage Short To Ground · **P1401** Sub-Throttle Position Sensor Range Performance Problem · **P1400** Sub-Throttle Position Sensor · **P1400** Fuel Tank Pressure Control Solenoid Low Input · **P1401** Fuel Tank Pressure Control System Performance · **P1400** EGRC Solenoid Valve · **P1401** EGR Temperature Sensor · **P1400** Manifold Differential Pressure Sensor Circuit · **P1401** EGR Lifting Sender B283 · **P1400** DPFE Sensor Circuit Low Input · **P1401** DPFE Sensor Circuit High Input · **P1401** EGR Control Solenoid Circuit Signal Low · **P1400** Exhaust Gas Recirculation Valve Position Control · **P1401** Exhaust Gas Recirculation Valve Position Circuit · **P1400** Differential Pressure Feedback Electronic Sensor Circuit Low · **P1401** Differential Pressure Feedback Electronic Sensor Circuit High · **P1400** Heated Catalyst Battery Voltage or Current Too Low During Heating Bank 1 · **P1401** Heated Catalyst Current Too High During Heating Bank 1 · **P0401** EGR Flow Insufficient Detected · **P0403** EGR Circuit Malfunction · **P0402** EGR Flow Excessive Detected

See it working

Watch the animated explainer [How a MAF Sensor Works: Hot-Wire Airflow Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1304/>

