

CHRYSLER · POWERTRAIN

P1405

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1405 · Chrysler

Exhaust Gas Recirculation System Valve 3

P1405 on Chrysler vehicles indicates that the powertrain control module has detected a fault within the exhaust gas recirculation system, specifically involving the valve circuit or flow performance for valve 3. The computer monitors the EGR valve's electrical circuit and its effect on intake manifold pressure or oxygen sensor feedback, and it sets this code when the expected response is not achieved.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Slight rough idle or idle surge when the engine is cold
- A subtle decrease in fuel economy during normal driving
- Intermittent engine ping or spark knock under light acceleration
- Failed emissions test due to high oxides of nitrogen readings

Common causes, most likely first

- 1 Carbon buildup on the EGR valve pintle or seat causing it to stick partially open or closed
- 2 Failed EGR valve solenoid or faulty internal valve electronics
- 3 Damaged or corroded wiring harness connector at the EGR valve
- 4 Clogged EGR passage or tube restricting exhaust flow
- 5 Leaking or cracked EGR valve gasket causing a vacuum leak
- 6 Faulty manifold absolute pressure sensor or oxygen sensor providing inaccurate feedback
- 7 Powertrain control module software issue or internal driver fault (rare)



How to diagnose and fix it

- 1 Connect a scan tool and record freeze-frame data to verify when the code sets and check for related pending codes
- 2 Visually inspect the EGR valve, connector, and vacuum hoses for obvious damage, corrosion, or disconnection
- 3 Use a multimeter to check the EGR valve solenoid resistance and compare to factory specifications
- 4 Remove the EGR valve and inspect the pintle and passages for carbon accumulation; clean or replace as needed
- 5 Perform a bidirectional scan tool test to command the EGR valve open and closed while monitoring manifold pressure or oxygen sensor response
- 6 Check for vacuum leaks at the EGR valve gasket and intake manifold mating surface using a smoke machine
- 7 If all electrical and mechanical checks pass, reprogram the powertrain control module with the latest calibration

Carbon Buildup Mimics Electrical Failures

- A sticking EGR valve due to carbon deposits is the most common cause of P1405 on Chrysler vehicles, yet many technicians replace the valve without first cleaning the passages.
- The code can set from a perfectly functioning EGR valve if the manifold absolute pressure sensor is skewed, so always compare its reading to a known-good vacuum gauge.
- Chrysler's EGR system on some engines uses a differential pressure feedback sensor that can fail without setting its own code, leading to a false P1405.
- A clogged EGR tube on the exhaust side often causes the valve to appear electrically faulty because the pintle cannot move through its full range.
- After replacing the EGR valve, a relearn procedure or a drive cycle may be required before the monitor will pass and the light will clear.

Can I keep driving with P1405?

You can usually continue driving with P1405, but avoid prolonged idling and heavy acceleration until the fault is repaired, as a stuck EGR valve can cause detonation and increased emissions. If the check engine light begins flashing or you notice severe engine knocking, stop driving and seek service immediately.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Hand vacuum pump
- Smoke machine
- Basic hand tools (wrenches, sockets, screwdrivers)
- Carburetor and throttle body cleaner



Reading P1405

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Chrysler): its meaning depends on the make.
- 4** Auxiliary emission controls.
- 05** The exact fault within that area.

Often seen with

P0401 EGR Flow Insufficient Detected · **P0403** EGR Circuit Malfunction · **P0404** EGR Circuit Range/Performance · **P0405** EGR Sensor A Circuit Low · **P0406** EGR Sensor A Circuit High

See it working

Watch the animated explainer [Four-Stroke Engine Cutaway: Intake to Exhaust](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1405/>

