

KIA · POWERTRAIN

P1487

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1487 · Kia

EGR Boost Sensor Solenoid Circuit Fault

P1487 on Kia vehicles indicates that the powertrain control module (PCM) has detected an electrical fault in the circuit for the EGR boost sensor solenoid, which is a solenoid valve that helps regulate the signal from the boost sensor to the exhaust gas recirculation (EGR) system. The PCM monitors the solenoid's control circuit for expected voltage or current patterns and sets this code when the signal is out of range, indicating an open, short, or component failure.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Kia specific	Medium	Intermediate	Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or stumbling during acceleration due to improper EGR modulation
- Reduced engine performance or hesitation when accelerating
- Increased exhaust emissions, potentially failing an emissions test
- Occasional surging or erratic engine behavior under light throttle

Common causes, most likely first

- 1 Faulty EGR boost sensor solenoid (internal coil failure or sticking)
- 2 Damaged or disconnected electrical connector at the solenoid
- 3 Wiring harness damage (open, short to ground, or short to power) between the PCM and solenoid
- 4 Corroded or loose terminals in the solenoid circuit
- 5 Failed PCM driver for the solenoid control circuit (rare)

How to diagnose and fix it

- 1 Inspect the solenoid electrical connector for corrosion, tightness, and secure engagement
- 2 Check the solenoid resistance with a multimeter and compare to Kia specifications
- 3 Test the solenoid control circuit for continuity and shorts using a wiring diagram
- 4 Verify power and ground signals at the solenoid connector with the key on
- 5 Replace the EGR boost sensor solenoid if electrical tests indicate a faulty component
- 6 Repair or replace damaged wiring harness sections as needed
- 7 Clear the code and perform a drive cycle to confirm the repair



Don't overlook the boost sensor solenoid

- A stuck-open EGR valve can mimic solenoid circuit faults, so verify valve operation before replacing the solenoid.
- The boost sensor solenoid is often misdiagnosed as a faulty boost sensor itself, but the solenoid controls a vacuum signal and rarely affects sensor output directly.
- Kia models with this code sometimes have a solenoid that tests fine electrically but fails under heat, so a cold resistance check may miss the fault.
- Corrosion inside the solenoid connector pins is a common cause that visual inspection alone may not reveal; a load test on the circuit is more reliable.
- This code can be set by a momentary voltage spike from a failing alternator or poor ground, so check charging system health if the solenoid tests good.

Can I keep driving with P1487?

You can generally continue driving with P1487, but avoid aggressive acceleration and long trips until repaired, as the fault may cause poor emissions and reduced fuel economy. If the check engine light flashes or you notice severe performance loss, stop driving and seek service.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Wiring diagram for the specific Kia model
- Socket set and screwdrivers
- Electrical contact cleaner

Reading P1487

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



Often seen with

P1400 EGR Valve Circuit Electrical Malfunction · **P1400** Sub-Throttle Position Sensor · **P1400** Fuel Tank Pressure Control Solenoid Low Input · **P1400** EGRC Solenoid Valve · **P1400** Manifold Differential Pressure Sensor Circuit · **P1486** EVAP Leak Monitor Pinched Hose Detected · **P1400** DPFE Sensor Circuit Low Input · **P1486** EGR Vacuum Control Solenoid Circuit Fault · **P1400** Exhaust Gas Recirculation Valve Position Control · **P1486** Evap Leak Monitor Pinched Hose · **P1400** Differential Pressure Feedback Electronic Sensor Circuit Low · **P1486** Evap Leak Monitor Pinched Hose · **P1400** Heated Catalyst Battery Voltage or Current Too Low During He · **P0400** Exhaust Gas Recirculation Flow Malfunction · **P0401** EGR Flow Insufficient Detected · **P0402** EGR Flow Excessive Detected

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/kia-p1487/>

