



P1252 · Kia

Pressure Regulator Control Solenoid Valve No. 2 Circuit Malfunction

P1252 on a Kia means the engine control module (ECM) has detected an electrical fault in the circuit for the pressure regulator control solenoid valve No. 2, which is used on common-rail diesel engines to manage fuel rail pressure. The ECM monitors the solenoid's command wire and feedback, and it sets this code when the voltage or current falls outside the expected range for the commanded duty cycle.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Kia specific	Medium	Intermediate	Fuel and air metering (injector circuits)

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Reduced engine power or limp-home mode due to fuel pressure control being disabled
- Rough idle, hesitation, or stalling when the solenoid cannot regulate rail pressure
- Hard starting or extended cranking because the rail pressure does not build correctly
- Increased fuel consumption or black smoke from incomplete combustion

Common causes, most likely first

- 1 Damaged or corroded wiring harness or connector at the pressure regulator control solenoid valve No. 2
- 2 Failed pressure regulator control solenoid valve No. 2 itself (open or shorted coil)
- 3 Blown fuse or poor ground connection supplying the solenoid circuit
- 4 Faulty engine control module (ECM) driver for the solenoid, though this is less common
- 5 Contamination or mechanical sticking inside the solenoid valve causing abnormal current draw
- 6 Aftermarket or incorrect solenoid valve installed previously, leading to resistance mismatch

How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P1252 is the only fuel-pressure-related code
- 2 Visually inspect the solenoid valve No. 2 connector and harness for chafing, corrosion, or loose pins
- 3 Measure the solenoid coil resistance with a multimeter and compare it to the Kia service specification
- 4 Check for battery voltage at the solenoid supply wire with the key on and verify the ground circuit integrity
- 5 Command the solenoid with a bidirectional scan tool and observe rail pressure response and circuit feedback
- 6 If the circuit tests good, replace the pressure regulator control solenoid valve No. 2 and clear the code
- 7 After repair, perform a rail pressure adaptation reset or relearn procedure if required by the Kia model



What P1252 does not always mean

- A P1252 can be set by a failing fuel rail pressure sensor that reports implausible values, causing the ECM to command the solenoid outside its normal range and flag the circuit as faulty.
- Many technicians replace the solenoid valve No. 2 only to find the real problem is a rubbed-through wire behind the engine block or near the transmission bell housing, so always flex-test the harness while watching live data.
- Low fuel system voltage or a weak battery can cause the ECM to misreport solenoid circuit faults, so check charging system health before condemning the valve.
- On some Kia diesel engines, a clogged fuel filter or air ingress in the low-pressure circuit can make the solenoid work harder and set P1252 without any electrical defect in the solenoid itself.
- The code may reappear after clearing if the ECM has not completed a full drive cycle with proper rail pressure control, so avoid assuming the repair failed until monitors have run.

Can I keep driving with P1252?

You can usually drive the vehicle to a workshop, but avoid heavy acceleration, towing, or long trips because the engine may enter limp mode or stall if rail pressure control is lost. If the engine runs roughly or stalls repeatedly, stop driving and have it towed to prevent damage to the fuel system or catalytic converter.

Tools that help

- OBD-II scan tool with bidirectional control and live data capability
- Digital multimeter with resistance and voltage measurement
- Kia service information for solenoid resistance specifications and wiring diagrams
- Basic hand tools for connector and harness access
- Fuel pressure gauge suitable for common-rail diesel systems (if applicable)

Reading P1252

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Kia): its meaning depends on the make.
2	Fuel and air metering (injector circuits).
52	The exact fault within that area.

Often seen with

P1251 Start Of Injection Solenoid Circuit Short To B+ · **P1253** Fuel Consumption Signal Short To Ground · **P1251** Air Mixture Solenoid Circuit · **P1251** Throttle Position · **P1253** VSV Stuck On VR · **P1253** VTEC System Circuit Fault · **P1253** Pedal Correlation PDS1 and LPDS Low · **P0087** Fuel Rail/System Pressure - Too Low · **P0088** Fuel Rail/System Pressure - Too High · **P0093** Fuel System Leak Detected - Large Leak



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/kia-p1252/>

