

KIA · POWERTRAIN

P1523

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1523 · Kia

VICS Solenoid Valve

P1523 on Kia vehicles indicates that the engine control module has detected an electrical fault in the circuit for the Variable Induction Control System (VICS) solenoid valve, which controls intake manifold runner flaps. The computer monitors the solenoid's commanded state versus expected current or voltage and sets the code when the circuit is open, shorted, or the solenoid fails to respond.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Kia specific	Medium	Intermediate	Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Illuminated check engine light, often with no other symptoms
- Slight hesitation or flat spot during light acceleration at low RPM
- Reduced engine power or sluggish throttle response
- Rough idle or unstable idle quality in some cases
- Occasionally, a noticeable change in intake sound or engine note

Common causes, most likely first

- 1 Failed VICS solenoid valve (open or shorted coil)
- 2 Damaged or disconnected electrical connector at the solenoid
- 3 Broken, corroded, or shorted wiring in the VICS solenoid circuit
- 4 Blown fuse or poor ground connection for the solenoid circuit
- 5 Sticking or seized intake manifold runner flaps, overloading the solenoid
- 6 Faulty engine control module (rare)

How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related pending or stored codes
- 2 Inspect the VICS solenoid connector and wiring for damage, corrosion, or looseness
- 3 Measure the solenoid resistance with a multimeter and compare to the manufacturer's specification
- 4 Check for battery voltage at the solenoid connector with the key on and engine off
- 5 Test the solenoid by applying 12 volts directly and listening for a click
- 6 Inspect the intake manifold runner flaps and linkage for binding or carbon buildup
- 7 If all electrical checks pass, diagnose the control circuit from the ECM to the solenoid



Don't overlook the intake runner flaps

- A sticking intake manifold runner flap can cause the VICS solenoid to overheat and fail, so replacing only the solenoid often leads to a repeat failure.
- The VICS solenoid is sometimes confused with the EGR or purge solenoid because they look similar, so always confirm the component location using the underhood vacuum diagram.
- A poor ground connection at the intake manifold can cause intermittent P1523 codes that do not appear during a simple resistance test.
- On some Kia models, the VICS solenoid shares a fuse with other engine controls, so a blown fuse may cause multiple codes and a no-start condition.
- The ECM may set P1523 even when the solenoid is functional if the intake manifold flaps are mechanically stuck, so always verify flap movement.

Can I keep driving with P1523?

You can usually continue driving with P1523, but avoid aggressive acceleration or heavy loads until the fault is repaired, as the engine may lack power and fuel economy could suffer. If the check engine light flashes or the engine runs poorly, stop driving and seek professional diagnosis.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Basic hand tools (screwdrivers, pliers, socket set)
- Vacuum pump or hand-held vacuum tester
- Service manual or wiring diagram for the specific Kia model

Reading P1523

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Kia): its meaning depends on the make.
5	Vehicle speed, idle control and auxiliary inputs.
23	The exact fault within that area.

Often seen with

P1521 Intake Manifold Changeover Valve 2 Circuit Electrical Malfun · **P1522** Intake Camshaft Control Bank 2 Malfunction · **P1521** Transmission Engaged At High Throttle Angle · **P1522** Park Neutral To Drive Reverse At High RPM · **P1524** TP Sensor Learned CI Throttle Angle Out Of Range · **P1521** Transmission Engaged At High Throttle Angle · **P1522** Park Neutral To Drive Reverse At High RPM · **P1524** TP Sensor Learned CI Throttle Angle Out Of Range · **P1522** A Camshaft Position Actuator Bank 2 · **P1524** A Camshaft Position Actuator Signal High Bank 1 · **P0171** System Too Lean (Bank 1) · **P0300** Random/Multiple Cylinder Misfire Detected

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-p1523/>

