

KIA · POWERTRAIN

P1552

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1552 · Kia

Idle Air Control Valve Opening Coil Low Voltage

P1552 on a Kia means the engine computer has detected low voltage on the opening coil circuit of the idle air control (IAC) valve, which is the solenoid that lets air bypass the throttle plate to keep idle steady. The computer monitors the coil's electrical circuit and flags this code when the voltage on the opening coil side falls below the expected range, indicating an open, short, or high-resistance path.

SYSTEM

Powertrain

CODE TYPE

Kia specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- Check engine light illuminated, often with no other noticeable symptoms
- Rough or stumbling idle, sometimes stalling when coming to a stop
- Idle speed that hangs too high or fluctuates up and down
- Engine may start but run poorly until throttle is applied
- In cold weather, the engine may idle too low or stall after startup

Common causes, most likely first

- 1 Faulty idle air control valve opening coil (open or shorted internally)
- 2 Damaged or corroded electrical connector at the IAC valve
- 3 Broken, chafed, or corroded wiring between the IAC valve and the engine computer
- 4 Poor ground connection for the IAC valve circuit
- 5 Engine computer driver circuit failure for the opening coil
- 6 Carbon buildup or mechanical binding in the IAC valve passage causing the coil to overheat and fail

How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P1552 is the only idle-related code
- 2 Inspect the IAC valve connector and wiring for corrosion, loose pins, or chafing, and repair as needed
- 3 Measure the resistance of the opening coil with a multimeter and compare to the Kia service specification
- 4 Check for battery voltage and ground at the IAC valve connector with the key on, engine off
- 5 Perform a wiggle test on the harness while watching IAC valve data or resistance to find intermittent faults
- 6 Remove and clean the IAC valve and throttle body passages, then recheck operation
- 7 If the coil or driver circuit is faulty, replace the IAC valve or repair the computer circuit as required



What most missed on P1552 Kia IAC faults

- A sticking or carbon-fouled IAC valve can overheat the opening coil and set P1552 without any wiring fault, so always inspect the valve mechanically before condemning the harness.
- Kia IAC valves often fail intermittently when hot, so a resistance check on a cold engine may pass even though the coil opens when the engine bay reaches operating temperature.
- The engine computer driver for the IAC coil can fail after a shorted valve, so replacing only the valve without checking the driver circuit may lead to a repeat failure.
- P1552 can be set by a poor engine ground that affects the IAC circuit reference, especially on older Kia models with corrosion-prone ground straps.
- A dirty throttle body can mimic IAC valve symptoms and cause the computer to command the IAC valve to extremes, indirectly stressing the opening coil and setting this code.

Can I keep driving with P1552?

You can usually drive the car to a repair shop, but expect a rough or stalling idle that may worsen in traffic or cold weather. Avoid prolonged idling and stop driving if the engine stalls repeatedly or the check engine light begins flashing.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Kia service information for IAC valve resistance specifications
- Basic hand tools for connector and valve removal
- Throttle body cleaner and shop rags

Reading P1552

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.
52	The exact fault within that area.

Often seen with

P1553 Barometric Manifold Pressure Signal Ratio Out Of Range · **P1553** Idle Air Control Valve Opening Coil High Voltage · **P0505** Idle Control System Malfunction · **P0506** Idle Control System RPM Lower Than Expected · **P0507** Idle Control System RPM Higher Than Expected · **P0511** Idle Air Control Circuit



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-p1552/>

