

KIA · POWERTRAIN

P1617

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1617 · Kia

Chassis Accelerator Sensor Signal High Voltage

P1617 on a Kia means the engine control module (ECM) or powertrain control module (PCM) has detected an abnormally high voltage signal from the chassis accelerator sensor, which is the pedal position sensor that reports how far the driver has pressed the accelerator. The computer expects the signal voltage to stay within a calibrated range, and a sustained high reading tells it the sensor circuit is shorted to voltage or the sensor itself has failed.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Kia specific	Medium	Intermediate	Computer and output circuits

Symptoms you may notice

- The check engine light or electronic throttle control (ETC) warning light illuminates steadily.
- The engine may enter limp mode, limiting speed and power to protect the drivetrain.
- Accelerator pedal response feels delayed, uneven, or stuck at a fixed engine speed.
- The engine may idle unusually high or flare when shifting between gears.
- Cruise control may be disabled or refuse to engage.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- A short to voltage in the accelerator pedal sensor signal wire, often from chafed insulation or a pinched harness.
- A failed accelerator pedal position sensor assembly, typically due to internal wear or contamination.
- Corroded or loose terminals at the accelerator pedal sensor connector or the ECM/PCM connector.
- A faulty ground connection for the accelerator pedal sensor circuit, causing a reference voltage shift.
- Water intrusion into the pedal sensor connector or harness, common on vehicles with clogged cowl drains.
- A rare internal fault in the ECM/PCM that misreads the sensor signal.



How to diagnose and fix it

- 1 Connect a scan tool and read the accelerator pedal position sensor voltage with the key on and engine off, comparing it to the specified range.
- 2 Visually inspect the accelerator pedal sensor connector and harness for corrosion, chafing, or water intrusion, and clean or repair as needed.
- 3 Back-probe the sensor signal wire at the ECM/PCM and check for a short to battery voltage with the sensor disconnected.
- 4 Perform a wiggle test on the harness while watching live sensor data to catch intermittent shorts.
- 5 Check the sensor ground circuit for excessive resistance and repair any bad ground connections.
- 6 If the wiring and grounds are good, replace the accelerator pedal position sensor assembly and clear the code.
- 7 After repair, clear the adaptive learning and perform a throttle pedal relearn procedure if required for the model.

What a high pedal voltage really tells you

- A short to voltage on the signal wire can be caused by a harness rubbing against a metal bracket near the pedal assembly, which is easy to miss during a visual inspection.
- The chassis accelerator sensor is often confused with the throttle position sensor on the throttle body, but P1617 refers specifically to the pedal-mounted sensor on Kia models.
- Intermittent P1617 codes frequently appear after heavy rain or car washing when water enters the connector, so check for a blocked cowl drain before replacing parts.
- A weak battery or poor ground can cause the ECM to misinterpret sensor voltage, so always verify charging system health before condemning the sensor.
- Some Kia models require a relearn of the accelerator pedal position after sensor replacement, and skipping it can leave the engine in limp mode even with a good sensor.

Can I keep driving with P1617?

You can drive the vehicle to a repair shop if the engine is not in limp mode, but avoid aggressive acceleration and highway driving because the fault can suddenly limit power. If the engine enters limp mode or the pedal response becomes erratic, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Back-probe kit
- Wiring diagram for the specific Kia model
- Basic hand tools for trim and connector removal



Reading P1617

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Kia): its meaning depends on the make.
- 6** Computer and output circuits.
- 17** The exact fault within that area.

Often seen with

P1616 Glow Plug Heater Indicator Circuit Short To B+ · **P1618** Glow Plug Heater Relay Circuit Short To B+ · **P1616** Chassis Accelerator Sensor Signal Low Voltage · **P1616** SBDS Interactive Codes · **P0121** Throttle Position Sensor A Circuit Range/Performance · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation · **P2138** Throttle/Pedal Position Sensor D/E Voltage Correlation

See it working

Watch the animated explainer [How a Gyroscope Works: Gimbals and Precession](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/kia-p1617/>

