

GENERIC · POWERTRAIN

P2536

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2536

Ignition Switch Accessory Position Circuit

P2536 indicates that the powertrain control module (PCM) has detected an unexpected voltage or signal on the ignition switch accessory position circuit, which is the circuit that powers accessories such as the radio and power outlets when the key is turned to ACC. The PCM monitors this circuit to confirm the ignition switch is in the correct position, and it sets the code when the voltage does not match the expected value for that key position.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- The check engine light or service vehicle soon light illuminates on the dashboard.
- Accessories such as the radio, power windows, or cigarette lighter may not work when the key is in the accessory position.
- The engine may fail to start or may start only after jiggling the key or turning it forcefully.
- The key may feel loose or the ignition switch may not click firmly into each position.
- In some cases, the vehicle may exhibit no drivability issues and the only sign is the warning light.
- Other electrical systems, such as interior lights or wipers, may behave erratically if they share the accessory circuit.

Common causes, most likely first

- A faulty ignition switch that fails to make proper contact in the accessory position.
- Worn or damaged wiring in the ignition switch circuit, including chafed wires or corroded connectors.
- A blown fuse or relay that supplies power to the accessory circuit.
- Poor ground connection at the ignition switch or at the PCM.
- A malfunctioning PCM that incorrectly interprets the accessory circuit signal, though this is less common.
- Aftermarket accessories or alarm systems improperly wired into the accessory circuit, causing voltage irregularities.



How to diagnose and fix it

- 1 Check all fuses related to the ignition switch and accessory circuit, and replace any that are blown.
- 2 Inspect the ignition switch connector and wiring for corrosion, looseness, or damage, and repair as needed.
- 3 Test the ignition switch with a multimeter to verify continuity and voltage in each key position, replacing the switch if faulty.
- 4 Check the ground connections for the ignition switch and PCM, cleaning and tightening them as necessary.
- 5 Use a scan tool to monitor the accessory circuit voltage and compare it with the expected values to confirm the fault.
- 6 If the switch and wiring are good, test the PCM for proper operation and replace it only if all other possibilities have been eliminated.
- 7 Clear the code and perform a road test to ensure the repair is successful and the code does not return.

Common Oversights in P2536 Diagnosis

- A loose or worn ignition key cylinder can cause the switch to not fully engage in the accessory position, setting this code even when the switch itself is good.
- Aftermarket remote start or alarm systems often tap into the accessory circuit and can introduce voltage spikes or grounds that trigger P2536.
- The code can be set intermittently by a dirty or sticky ignition switch that only fails to make contact in certain temperatures or after the vehicle sits.
- Some vehicles use a body control module (BCM) to interpret the ignition switch signal, so a BCM fault can mimic a bad ignition switch and set P2536.
- A weak battery or poor charging system can cause voltage drops that the PCM interprets as an accessory circuit fault, so always check battery health first.

Can I keep driving with P2536?

If the engine starts and runs normally, you can drive the vehicle to a repair shop, but avoid using accessories that rely on the accessory circuit and be aware that the engine could stall if the ignition switch loses contact. If the engine will not start or stalls frequently, do not drive and have the vehicle towed.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Test light
- Wiring diagram for the ignition switch circuit
- Basic hand tools (screwdrivers, socket set)



Reading P2536

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 5** Vehicle speed, idle control and auxiliary inputs.
- 36** The exact fault within that area.

Often seen with

P0560 System Voltage Malfunction · **P0562** System Voltage Low · **P2535** Ignition Switch Run/Start Position Circuit High · **P2537** Ignition Switch Accessory Position Circuit Low · **P2538** Ignition Switch Accessory Position Circuit High

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/p2536/>

