

BMW · POWERTRAIN

P1543

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1543 · BMW

Pedal Position Sensor

P1543 on BMW vehicles indicates that the engine control module (ECM) has detected an implausible or missing signal from the pedal position sensor, which is part of the accelerator pedal assembly. The ECM compares the two redundant sensor signals and sets this code when they do not correlate or when the voltage falls outside the expected range, often triggering reduced engine power.

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

Symptoms you may notice

- Illumination of the check engine light and possibly the electronic throttle control (ETC) warning light.
- Reduced engine power or limp mode, limiting vehicle speed and acceleration.
- Hesitation or stumble when pressing the accelerator pedal.
- Unresponsive or delayed throttle response.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- 1 Faulty accelerator pedal position sensor (worn tracks or internal failure).
- 2 Corroded or damaged electrical connector at the pedal sensor.
- 3 Wiring harness damage (open, short, or chafed wires) between the pedal sensor and the ECM.
- 4 Poor electrical ground connection for the sensor circuit.
- 5 ECM software issue or internal fault (less common).
- 6 Aftermarket or incorrect pedal assembly installed.



How to diagnose and fix it

- 1 Use a BMW-specific scan tool to read fault memory and view live data for both pedal position sensor signals.
- 2 Visually inspect the pedal sensor connector and wiring for corrosion, damage, or loose pins; clean or repair as needed.
- 3 Check the sensor reference voltage and ground circuits with a multimeter to ensure they are within specification.
- 4 Perform a continuity and resistance test on the signal wires between the sensor and ECM to rule out wiring faults.
- 5 If wiring and connectors are good, replace the accelerator pedal assembly with a genuine BMW part.
- 6 After repair, clear fault codes and perform a throttle adaptation reset using the scan tool.
- 7 Road test the vehicle to verify the code does not return and that throttle response is normal.

Before you replace the accelerator pedal

- A common misdiagnosis is replacing the pedal assembly when the real problem is a corroded connector or chafed wire in the harness, so always perform a thorough circuit test first.
- The pedal position sensor uses two potentiometers with different voltage ranges; the ECM cross-checks them, so a fault in just one track can set P1543 without a complete failure.
- Intermittent P1543 codes often occur due to water intrusion into the connector or pedal assembly, especially on vehicles with leaks or clogged sunroof drains.
- A weak battery or charging system issue can cause voltage spikes that mimic sensor faults, so verify battery health and grounds before condemning the sensor.
- After replacing the pedal or repairing wiring, a throttle adaptation reset is required; otherwise, the ECM may still store the code or run poorly.

Can I keep driving with P1543?

If the vehicle is in limp mode, driving is not recommended because acceleration is severely limited and could be unsafe in traffic. If the light is on but the car drives normally, you can drive cautiously to a repair shop, but avoid aggressive acceleration and be prepared for sudden power reduction.

Tools that help

- BMW-specific scan tool (e.g., ISTA or equivalent)
- Digital multimeter
- Wiring diagram for the accelerator pedal circuit
- Socket set and Torx bits for pedal assembly removal
- Contact cleaner and dielectric grease



Reading P1543

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

Often seen with

P1542 Throttle Actuation Potentiometer Range Performance · **P1544** Throttle Actuation Potentiometer Signal Too High · **P1545** Throttle Position Control Malfunction · **P1544** High Exhaust Temperature Detected · **P1542** A/C System High Pressure High Temperature · **P1544** A/C Refrigerant Condition Very Low · **P1545** A/C Clutch Relay Control Circuit · **P1542** A/C System High Pressure High Temperature · **P1544** A/C Refrigerant Condition Very Low · **P1545** A/C Clutch Relay Control Circuit · **P1542** Pedal Position Sensor Electrical · **P1544** Pedal Position Sensor · **P1545** Pedal Position Sensor · **P0121** Throttle Position Sensor A Circuit Range/Performance · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation

See it working

Watch the animated explainer [How a Car Clutch Works: Diaphragm Clutch Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/bmw-p1543/>

