



P1222 · BMW

Pedal Position Sensor 2 Low Input

P1222 on a BMW means the engine control module has detected an abnormally low voltage signal from the second pedal position sensor inside the accelerator pedal assembly. The computer expects this sensor to produce a specific voltage range that rises and falls as the pedal is pressed, and a low input tells the module the circuit is shorted to ground or the sensor has failed.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	BMW specific	Medium	Intermediate	Fuel and air metering (injector circuits)

Symptoms you may notice

- The check engine light or electronic throttle warning light illuminates on the dashboard.
- The engine may enter limp mode with severely reduced power and a maximum speed limit.
- The accelerator pedal may feel unresponsive or require unusually deep travel to accelerate.
- Rough or erratic idle quality may appear as the module struggles to reconcile pedal inputs.
- Often no symptoms besides the warning light, especially if the second sensor fails gradually.

Common causes, most likely first

- 1 Failed accelerator pedal position sensor 2 inside the pedal assembly.
- 2 Worn or corroded electrical connector at the pedal assembly.
- 3 Chafed or broken wire in the sensor 2 signal circuit between the pedal and the engine control module.
- 4 Short to ground in the sensor 2 signal wire or its reference voltage circuit.
- 5 Water intrusion into the pedal assembly or footwell connector causing corrosion.
- 6 Loose or damaged engine control module connector pins at the sensor input.
- 7 Rarely, an internal fault in the engine control module itself.



How to diagnose and fix it

- 1 Read and record all stored and pending fault codes with a BMW-capable scan tool before clearing anything.
- 2 Inspect the accelerator pedal connector and wiring for corrosion, water damage, or loose pins.
- 3 Back-probe the sensor 2 signal wire and compare live voltage against the sensor 1 signal while slowly pressing the pedal.
- 4 Check the sensor 2 reference voltage and ground circuits for continuity and short-to-ground faults.
- 5 Perform a wiggle test on the harness while watching live pedal position data to expose intermittent faults.
- 6 Replace the accelerator pedal assembly if the sensor output is confirmed low or erratic with good wiring.
- 7 Clear codes and perform a throttle adaptation reset, then verify the fault does not return during a road test.

Why pedal sensor 2 fails before sensor 1

- BMW uses two opposing pedal position sensors so the module can cross-check them, and sensor 2 often sits on a lower reference voltage that makes a short to ground easier to detect first.
- A low input code does not automatically mean the pedal is bad, because a rubbed-through signal wire in the footwell or a corroded connector pin can pull the voltage down just as effectively.
- Technicians who replace the pedal without checking live data often find the code returns because the real fault is a chafed harness near the steering column or kick panel.
- Water leaking past the windshield cowl or from a clogged sunroof drain can reach the pedal connector and cause intermittent low inputs that only appear in wet weather.
- Clearing the code without performing a throttle adaptation can leave the engine in a reduced-power mode even after the repair is complete.

Can I keep driving with P1222?

You can usually drive the car to a workshop, but expect reduced engine power and avoid highways or situations that require sudden acceleration. If the car enters limp mode or the pedal stops responding, stop driving and arrange a tow.

Tools that help

- BMW-capable OBD-II scan tool with live data
- Digital multimeter
- Back-probe pins or breakout leads
- Torx or hex socket set for pedal assembly removal
- Electrical contact cleaner and dielectric grease



Reading P1222

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (BMW): its meaning depends on the make.
- 2** Fuel and air metering (injector circuits).
- 22** The exact fault within that area.

Often seen with

P1221 CAN Communication ETC Or ETS Interrupted · **P1223** Fuel Rack Position Sensor Y2311 · **P1221** Traction Control System · **P1221** Pedal Demand Sensor B Circuit Range Performance · **P1224** Electronic Throttle Control Position Error · **P1221** Throttle Position (TP) Sensor 1 2 Correlation · **P1221** Traction Control System Malfunction · **P1223** Pedal Demand Sensor B Circuit High Input · **P1224** Throttle Position Sensor B Out of Self-Test Range · **P1221** Throttle Position (TP) Sensor 1-2 Correlation · **P1221** Pedal Position Sensor 2 Range Performance Problem · **P1223** Pedal Position Sensor 2 High Input · **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 Supercharger Works: Roots Blower in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/bmw-p1222/>

