

GENERIC · POWERTRAIN

P0554

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0554

Power Steering Pressure Sensor/Switch Circuit Intermittent

P0554 means the power steering pressure sensor or switch circuit is sending an intermittent signal to the engine computer, so the computer cannot trust the pressure reading. The computer detects the circuit voltage briefly dropping out or jumping outside its expected range, often setting the code only after the fault repeats across several drive cycles.

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 power steering warning light or a generic check engine light illuminates on the dashboard.
- Steering effort may feel heavier or inconsistent, especially at low speeds or during parking maneuvers.
- The engine idle may fluctuate or stumble when you turn the wheel at a standstill.
- Some drivers notice no symptoms besides the warning light, because the fault is intermittent.
- The code may clear on its own and return later, making the problem seem to disappear.

Common causes, most likely first

- A loose, corroded, or damaged electrical connector at the power steering pressure sensor or switch.
- Chafed, cracked, or internally broken wiring in the sensor circuit, often near heat sources or moving components.
- A failing power steering pressure sensor or switch that drops its signal intermittently.
- Poor ground connection for the sensor or the engine computer, causing reference voltage to wander.
- Fluid leaks or low power steering fluid that cause pressure readings to swing outside normal limits.
- A failing power steering pump that produces erratic pressure, confusing the sensor signal.
- Rarely, an internal fault in the engine computer or a software calibration issue affecting the input circuit.



How to diagnose and fix it

- 1 Check the power steering fluid level and inspect for leaks around the pump, lines, and rack before touching any electrical parts.
- 2 Inspect the sensor connector and wiring harness for corrosion, loose pins, chafing, or heat damage, and repair as needed.
- 3 Clear the code and test-drive the vehicle while watching live sensor data to confirm the signal drops out intermittently.
- 4 Measure the sensor reference voltage and ground at the connector with a multimeter, wiggle-testing the harness to catch intermittent opens.
- 5 If the wiring and grounds check out, replace the power steering pressure sensor or switch with a known-good unit.
- 6 Verify the repair by clearing codes and completing several drive cycles, confirming the code does not return.
- 7 If the code persists after sensor replacement, check the power steering pump output pressure and inspect the computer circuit for internal faults.

Why this code often is not the sensor

- A large share of P0554 cases are fixed by repairing a corroded connector or a chafed wire, not by replacing the sensor itself.
- Low power steering fluid or air in the system can make pressure readings swing wildly and set this code even when the sensor is healthy.
- The code is intermittent by definition, so a sensor that tests fine on a cold engine may still fail when hot or during steering load.
- A failing power steering pump can mimic a bad sensor because erratic hydraulic pressure produces an erratic electrical signal.
- Some vehicles set P0554 when the engine computer loses its ground reference, so always check grounds before condemning the sensor.

Can I keep driving with P0554?

You can usually keep driving because the fault is intermittent and steering assist rarely fails completely, but avoid heavy steering loads such as parking maneuvers until it is repaired. If the steering becomes noticeably heavy or inconsistent, stop driving and have the system inspected promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire terminal pick and connector release tools
- Electrical contact cleaner
- Flashlight and inspection mirror



Reading P0554

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

Often seen with

P0550 Power Steering Pressure Sensor/Switch Circuit · **P0551** Power Steering Pressure Sensor/Switch Circuit Range/Performance · **P0552** Power Steering Pressure Sensor/Switch Circuit Low Input · **P0553** Power Steering Pressure Sensor/Switch Circuit High Input · **P0555** Brake Booster Pressure Sensor Circuit

See it working

Watch the animated explainer [How a Six-Speed Manual Gearbox Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0554/>

