

SUBARU · POWERTRAIN

P1101

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1101 · Subaru

Neutral Position Switch Circuit Malfunction M/T

P1101 on a Subaru with a manual transmission means the engine control module (ECM) has detected an implausible signal from the neutral position switch circuit, which tells the computer whether the gearbox is in neutral. The ECM compares this switch input against vehicle speed, engine speed, and clutch operation, and it sets the code when the reported state does not match what the other sensors indicate.

SYSTEM

Powertrain

CODE TYPE

Subaru specific

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough or fluctuating idle when the transmission is in neutral
- Engine stalls or nearly stalls when coming to a stop with the clutch pressed
- Hesitation or poor driveability at low speeds in stop-and-go traffic
- Incorrect or missing cruise control operation on some models
- Slightly higher or erratic idle speed compared with normal operation

Common causes, most likely first

- 1 Faulty or contaminated neutral position switch on the manual transmission
- 2 Damaged, chafed, or corroded wiring between the switch and the ECM
- 3 Loose or corroded connector pins at the switch or ECM harness
- 4 Misadjusted switch mounting or a worn shift linkage that prevents proper switch actuation
- 5 Failed or intermittent clutch pedal position switch affecting the neutral logic
- 6 Internal ECM fault, though this is rare compared with switch and wiring problems



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to confirm when P1101 set
- 2 Inspect the neutral position switch connector and harness for corrosion, chafing, or loose pins
- 3 Check switch adjustment and verify the switch changes state correctly when the shifter is moved in and out of neutral
- 4 Measure resistance and continuity through the switch circuit while wiggling the harness to catch intermittent faults
- 5 Back-probe the ECM connector to confirm the signal reaches the ECM and matches the switch state
- 6 Replace the neutral position switch if it fails electrical or functional testing, then clear codes and verify the repair
- 7 If the switch and wiring test good, check the clutch pedal position switch and ECM grounds before condemning the ECM

Neutral switch faults that mimic other problems

- A neutral position switch that sticks or reads incorrectly can cause idle and stalling complaints that owners mistakenly attribute to the idle air control valve or throttle body.
- The switch is often contaminated by gearbox oil or road debris, so a visual inspection of the switch body and connector is more revealing than a simple resistance check alone.
- On some Subaru models the ECM uses the neutral switch signal for cruise control and deceleration fuel cut, so a faulty switch can set P1101 without any obvious driveability symptom.
- A worn or misadjusted shift linkage can prevent the switch from being actuated even when the switch itself is electrically good, leading to repeat replacements.
- Technicians sometimes replace the neutral switch only to find the real fault is a chafed wire in the harness near the transmission, so always flex-test the wiring before fitting parts.

Can I keep driving with P1101?

The car is generally safe to drive with P1101 because the fault mainly affects idle quality and some convenience features, but avoid prolonged stop-and-go driving if the engine stalls or idles poorly. Have the circuit inspected soon to prevent stalling in traffic and to rule out wiring damage that could affect other circuits.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Back-probe kit or breakout leads
- Jack and axle stands or a vehicle lift
- Basic hand tools for trim and underbody access



Reading P1101

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

Often seen with

P0505 Idle Control System Malfunction · **P0519** Idle Air Control System Performance · **P0705** Transmission Range Sensor Circuit Malfunction · **P0851** Park/Neutral Switch Input Circuit Low · **P0852** Park/Neutral Switch Input Circuit High

See it working

Watch the animated explainer [Turbocharger Trainer: Boost, Wastegate and Intercooler](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/subaru-p1101/>

