

GENERIC · POWERTRAIN

P0777

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0777

Pressure Control Solenoid 'B' Stuck On

P0777 indicates that the transmission control module has detected an abnormal condition where pressure control solenoid 'B' is stuck in the energized or 'on' state, meaning it is commanding a pressure change that the solenoid is not responding to correctly. The computer typically compares commanded current or duty cycle against actual hydraulic pressure or electrical feedback and sets the code when the solenoid remains engaged longer than expected.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Transmission

Symptoms you may notice

- Harsh or delayed gear shifts, especially when the transmission tries to engage a gear that requires solenoid 'B' to be off
- Transmission may slip or flare during acceleration because line pressure is not being regulated properly
- The vehicle may enter limp mode, limiting speed and gear selection to protect the transmission
- Often no symptoms besides the warning light, especially if the fault is intermittent or only occurs under specific conditions
- Poor fuel economy or unusual engine RPM fluctuations due to incorrect shift timing

Common causes, most likely first

- Faulty pressure control solenoid 'B' internally stuck in the on position due to wear or debris
- Contaminated transmission fluid (dirty, burnt, or containing clutch material) causing the solenoid valve to jam
- Damaged or shorted wiring harness to the solenoid, holding the circuit continuously energized
- Transmission control module (TCM) software glitch or internal fault incorrectly commanding the solenoid
- Valve body wear or sticking valves that prevent the solenoid from releasing pressure when de-energized
- Low transmission fluid level or incorrect fluid type leading to poor solenoid operation



How to diagnose and fix it

- 1 Check transmission fluid level and condition; top off or replace fluid if contaminated or burnt
- 2 Perform a visual inspection of the solenoid 'B' wiring harness and connector for chafing, corrosion, or loose pins
- 3 Use a scan tool to command solenoid 'B' on and off while monitoring transmission data to confirm it is stuck
- 4 Measure resistance of solenoid 'B' at the connector and compare to manufacturer specification; replace if out of range
- 5 Remove the transmission pan and valve body to inspect solenoid 'B' for debris or mechanical sticking; clean or replace as needed
- 6 If the solenoid and wiring test good, check for TCM software updates or reprogram the module
- 7 After repair, clear codes and perform a relearn or adaptation drive cycle to verify the fix

Don't replace the solenoid before checking these

- A stuck-on solenoid 'B' is often caused by contaminated fluid rather than a failed solenoid, so flushing the transmission and replacing the filter can resolve the code without parts replacement.
- Intermittent wiring shorts that only occur when the harness is hot or vibrating can mimic a stuck solenoid, so always wiggle-test the harness while monitoring solenoid command and feedback.
- Some vehicles use solenoid 'B' for multiple functions, and a fault may only appear during specific shift sequences; a road test with live data is more reliable than a static test.
- A faulty transmission control module can command the solenoid on continuously, so if the solenoid and wiring test good, suspect the TCM or its software before replacing the solenoid again.
- The code may set without any drivability complaint if the stuck condition occurs only during a non-critical shift, so don't assume the transmission is severely damaged based on the code alone.

Can I keep driving with P0777?

You can usually drive the vehicle to a repair shop, but avoid aggressive acceleration or heavy loads because the transmission may shift harshly or slip, which can cause further damage. If the vehicle enters limp mode or shifting becomes erratic, stop driving and have it towed to prevent transmission failure.

Tools that help

- OBD-II scan tool with transmission live data and bidirectional control
- Digital multimeter for resistance and voltage checks
- Transmission fluid level dipstick or scan tool with fluid temperature reading
- Socket set and torque wrench for pan and valve body removal
- Wiring diagram and manufacturer service information for solenoid 'B' circuit



Reading P0777

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 7** Transmission.
- 77** The exact fault within that area.

Often seen with

P0700 Transmission Control System Malfunction · **P0740** Torque Converter Clutch Circuit Malfunction · **P0776** Pressure Control Solenoid 'B' Performance or Stuck off · **P0778** Pressure Control Solenoid 'B' Electrical · **P0779** Pressure Control Solenoid 'B' Intermittent

See it working

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

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0777/>

