

GENERIC · POWERTRAIN

P0976

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0976

Shift Solenoid 'B' Control Circuit Low

P0976 means the transmission control module (TCM) has detected an abnormally low voltage on the control circuit for shift solenoid 'B', which is one of the solenoids that directs hydraulic pressure to engage or release a gear. The TCM expects to see a certain voltage when it commands the solenoid on or off, and a low reading tells it the circuit is shorted to ground or the solenoid itself has failed.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

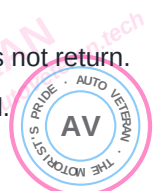
- The check engine light or transmission warning light is illuminated.
- The transmission may be stuck in a single gear or fail to shift into certain gears.
- Harsh or delayed shifts, or a noticeable clunk when shifting.
- The transmission may enter limp mode, limiting vehicle speed and gear selection.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- 1 Faulty shift solenoid 'B' with an internal short to ground.
- 2 Damaged or chafed wiring in the solenoid control circuit shorting to ground.
- 3 Corroded or loose electrical connector at the solenoid or transmission case.
- 4 Transmission fluid contaminated with debris or metal particles causing solenoid malfunction.
- 5 Failed transmission control module (TCM) driver circuit for solenoid 'B'.
- 6 Internal transmission mechanical damage causing abnormal solenoid current draw.

How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P0976 is active and not a history code.
- 2 Inspect the solenoid 'B' connector and wiring harness for corrosion, chafing, or loose pins.
- 3 Measure resistance of shift solenoid 'B' at the transmission connector and compare to manufacturer specification.
- 4 Check the control circuit for a short to ground using a multimeter with the TCM disconnected.
- 5 If resistance or circuit tests indicate a faulty solenoid, remove the transmission pan and replace shift solenoid 'B'.
- 6 Clear the code and perform a road test to verify the transmission shifts correctly and the code does not return.
- 7 If the circuit and solenoid test good, diagnose the TCM driver circuit or replace the TCM as needed.



What P0976 does not always mean

- A low circuit code often points to a shorted solenoid, but a chafed wire grounding against the transmission case is just as common and far cheaper to fix.
- Contaminated transmission fluid can cause solenoid 'B' to draw excessive current, setting P0976 without any electrical fault in the solenoid itself.
- Some vehicles use a single solenoid for multiple shift functions, so a P0976 may be accompanied by other shift solenoid codes that share the same power or ground circuit.
- Intermittent P0976 codes that appear only when the transmission is hot often trace to a solenoid that breaks down internally with temperature, not to a wiring fault.
- Replacing the solenoid without flushing the cooler and pan can leave debris that quickly damages the new part and sets the code again.

Can I keep driving with P0976?

You can usually drive the vehicle short distances to a repair shop, but avoid highway speeds and heavy loads because the transmission may be in limp mode or fail to shift properly. If the transmission slips severely or refuses to engage a gear, stop driving and have it towed to prevent internal damage.

Tools that help

- OBD-II scan tool with transmission module capability
- Digital multimeter
- Jack and jack stands or a lift
- Transmission fluid drain pan
- Socket and wrench set
- Wire terminal pick and electrical contact cleaner

Reading P0976

P Powertrain: engine, transmission and emissions.

0 Generic (SAE) code: it means the same thing on every OBD-II vehicle.

9 Transmission.

76 The exact fault within that area.

Often seen with

P0700 Transmission Control System Malfunction · **P0750** Shift Solenoid 'A' · **P0755** Shift Solenoid 'B' · **P0975** Shift Solenoid 'B' Control Circuit Range/Performance · **P0977** Shift Solenoid 'B' Control Circuit High



See it working

Watch the animated explainer [How an Automatic Transmission Works, Gear by Gear](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0976/>

