

GENERIC · POWERTRAIN

P0975

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0975

Shift Solenoid 'B' Control Circuit Range/Performance

P0975 means the transmission control module (TCM) has detected an electrical or performance problem in the control circuit for shift solenoid B, a valve that directs hydraulic pressure to engage or release a specific gear. The TCM compares commanded solenoid state to actual circuit feedback and sets this code when the signal falls outside the expected range or performance window.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- The check engine light or transmission warning light illuminates on the dashboard.
- Harsh or delayed shifts, especially when the transmission tries to engage the gear controlled by solenoid B.
- The transmission may stick in a single gear or enter limp mode with reduced power.
- Slipping or flaring during upshifts or downshifts that involve the affected solenoid.
- Often no symptoms besides the warning light if the fault is intermittent or only affects circuit performance at certain temperatures.

Common causes, most likely first

- 1 Faulty shift solenoid B itself, with an open or shorted internal coil or worn valve body bore.
- 2 Damaged, chafed, or corroded wiring in the solenoid control circuit, including the harness connector at the transmission.
- 3 Poor electrical connection at the solenoid or TCM connector, often from moisture or vibration.
- 4 Contaminated transmission fluid or a clogged solenoid screen restricting hydraulic performance.
- 5 A failing transmission control module (TCM) driver circuit for that solenoid.
- 6 Internal transmission mechanical wear causing the solenoid to perform outside its expected range.



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then record freeze-frame data to see when P0975 set.
- 2 Inspect the transmission fluid level and condition, looking for dark or burnt fluid that suggests internal wear.
- 3 Check the solenoid B circuit wiring and connector for chafing, corrosion, or loose pins, and perform a wiggle test while monitoring solenoid command and feedback.
- 4 Measure the resistance of shift solenoid B at the transmission connector and compare it to the manufacturer's specification.
- 5 Command the solenoid on and off with a bidirectional scan tool and listen or feel for the valve clicking, confirming electrical and mechanical response.
- 6 If electrical checks pass, remove the transmission pan and inspect the solenoid, valve body, and screens for debris or sticking.
- 7 Replace the faulty solenoid or repair the wiring as needed, clear the codes, and verify the fix with a road test under the conditions that originally set the code.

What the code does not always mean

- A P0975 does not automatically condemn the solenoid; a corroded connector pin or chafed wire in the harness can produce the same range or performance fault.
- Low or dirty transmission fluid can make a healthy solenoid B perform outside its expected range, so fluid condition is a critical first check.
- Intermittent P0975 codes that appear only when cold often point to a solenoid coil that changes resistance with temperature rather than a hard failure.
- Some vehicles use solenoid B for multiple gears, so a fault can cause symptoms in more than one shift pattern, which technicians sometimes misattribute to a different solenoid.
- After replacing a solenoid, the TCM may need a relearn or adaptive reset procedure, and skipping it can leave the transmission shifting poorly even though the repair was correct.

Can I keep driving with P0975?

You can usually drive the vehicle to a repair shop if the transmission still shifts, but avoid heavy acceleration or towing because limp mode or harsh engagement can worsen internal wear. If the transmission slips badly or refuses to engage a gear, stop driving and have it towed to prevent further damage.

Tools that help

- OBD-II scan tool with bidirectional control and transmission data streaming
- Digital multimeter for resistance and voltage checks
- Transmission fluid level gauge and clean drain pan
- Wiring diagram and manufacturer service information for the solenoid circuit
- Socket set and torque wrench for pan and valve body fasteners



Reading P0975

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

Often seen with

P0700 Transmission Control System Malfunction · **P0973** Shift Solenoid 'A' Control Circuit Low · **P0974** Shift Solenoid 'A' Control Circuit High · **P0976** Shift Solenoid 'B' Control Circuit Low · **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/p0975/>

