

GENERIC · POWERTRAIN

P0778

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0778

Pressure Control Solenoid 'B' Electrical

P0778 indicates that the transmission control module (TCM) has detected an electrical fault in the circuit for pressure control solenoid 'B', which is used to regulate hydraulic pressure inside the automatic transmission. The computer monitors the solenoid's electrical current and voltage and sets this code when the readings fall outside the expected range, often indicating an open circuit, short to ground, or short to power.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- Illumination of the check engine light or transmission warning light, often with no other noticeable symptoms
- Harsh or delayed gear shifts, especially when engaging drive or reverse
- Transmission may enter limp mode, limiting vehicle speed and gear selection
- Slipping between gears or failure to shift at the normal points
- Poor fuel economy or increased engine RPM at highway speeds due to improper shift scheduling

Common causes, most likely first

- 1 Faulty pressure control solenoid 'B' itself, such as a burned coil or internal short
- 2 Damaged or corroded wiring harness or connector at the solenoid or transmission case
- 3 Open or shorted circuit in the wiring between the TCM and the solenoid
- 4 Contaminated transmission fluid causing solenoid valve sticking or electrical interference
- 5 Failed transmission control module (TCM) or internal driver circuit
- 6 Poor ground connection for the transmission or TCM

How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related transmission codes before proceeding
- 2 Inspect the transmission wiring harness and connectors for damage, corrosion, or loose pins
- 3 Measure the resistance of solenoid 'B' at the transmission connector and compare to the manufacturer's specification
- 4 Check for continuity and shorts to ground or power in the circuit between the TCM and solenoid
- 5 If electrical tests indicate a faulty solenoid, replace it and perform a transmission fluid service
- 6 Clear the code and perform a road test to verify the repair and ensure the code does not return
- 7 If the circuit and solenoid test good, diagnose the TCM and its programming or replace if necessary



Don't overlook the wiring harness

- A common misdiagnosis is replacing the solenoid when the real problem is a chafed wire or corroded connector, so always perform a thorough visual and electrical inspection first.
- The code can be set by a momentary electrical glitch that does not affect driveability, so clearing the code and test-driving may be all that is needed if it does not return.
- Transmission fluid contamination or low fluid level can cause solenoid performance issues that mimic electrical faults, so check fluid condition and level before condemning the solenoid.
- On some vehicles, the pressure control solenoid 'B' is part of the valve body assembly and cannot be replaced separately, requiring valve body replacement or rebuild.
- A failing TCM can set this code even when the solenoid and wiring are good, so module testing should be part of the diagnostic process.

Can I keep driving with P0778?

It is generally safe to drive the vehicle with this code if it is not in limp mode, but avoid heavy acceleration or towing until the fault is repaired. If the transmission is slipping, shifting harshly, or has entered limp mode, limit driving to a short distance to a repair shop to prevent further damage.

Tools that help

- OBD-II scan tool with transmission code reading capability
- Digital multimeter for resistance and voltage measurements
- Vehicle-specific service information for wiring diagrams and solenoid specifications
- Transmission fluid pressure gauge (if hydraulic testing is needed)
- Socket set and basic hand tools for accessing the solenoid

Reading P0778

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

Often seen with

P0700 Transmission Control System Malfunction · **P0715** Input/Turbine Speed Sensor Circuit Malfunction · **P0776** Pressure Control Solenoid 'B' Performance or Stuck off · **P0777** Pressure Control Solenoid 'B' Stuck On · **P0779** Pressure Control Solenoid 'B' Intermittent



See it working

Watch the animated explainer [How a Catalytic Converter Works: 3D Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0778/>

