

GENERIC · POWERTRAIN

P093D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P093D

Hydraulic Accumulator Solenoid Performance

P093D indicates that the powertrain control module (PCM) has detected a performance problem with the hydraulic accumulator solenoid, which is used in some automatic transmissions to regulate pressure stored in a hydraulic accumulator. The computer monitors the solenoid's electrical circuit and the resulting pressure changes, and it sets this code when the solenoid does not respond as expected during commanded tests or normal operation.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Harsh or delayed gear shifts, particularly when selecting drive or reverse
- Slipping or flaring during acceleration as the transmission fails to maintain line pressure
- A transmission that enters limp mode, limiting vehicle speed and gear selection
- Unusual noises from the transmission area, such as whining or buzzing, due to abnormal pressure regulation
- Poor fuel economy or increased engine load because the transmission is not operating efficiently

Common causes, most likely first

- 1 Faulty hydraulic accumulator solenoid, including a stuck valve or worn internal seals
- 2 Contaminated transmission fluid (ATF) causing solenoid blockage or sluggish operation
- 3 Damaged or corroded wiring and connectors at the solenoid or transmission harness
- 4 Low transmission fluid level due to a leak, leading to inadequate hydraulic pressure
- 5 A failed hydraulic accumulator (ruptured diaphragm or weak spring) that cannot hold pressure
- 6 Internal transmission mechanical wear, such as a worn pump or valve body, affecting pressure regulation
- 7 A software issue or faulty PCM, though this is less common and should be diagnosed last



How to diagnose and fix it

- 1 Check the transmission fluid level and condition; top off or replace fluid if it is low or contaminated
- 2 Perform a visual inspection of the solenoid wiring and connectors for damage, corrosion, or loose pins
- 3 Use a scan tool to command the solenoid on and off and observe pressure changes to verify operation
- 4 Measure the resistance of the solenoid and compare it to the manufacturer's specification
- 5 Test the hydraulic accumulator for proper pressure retention using a pressure gauge
- 6 Replace the hydraulic accumulator solenoid if electrical and pressure tests indicate a fault
- 7 Clear the code and perform a relearn or adaptation procedure if required, then test-drive to confirm the repair

Diagnosing P093D Without Throwing Parts

- A common misdiagnosis is replacing the solenoid when the real problem is degraded transmission fluid that has clogged the solenoid screen or valve, so always inspect fluid condition first.
- The code can be set by a mechanical issue in the accumulator itself, not just the solenoid, so testing accumulator pressure is essential before condemning the solenoid.
- In some vehicles, a weak battery or charging system can cause voltage drops that affect solenoid performance and set this code, so check the electrical system as part of diagnosis.
- P093D may be accompanied by other transmission codes that point to a specific circuit or mechanical fault, so retrieving all stored codes is critical for an accurate diagnosis.
- After repairs, some transmissions require a adaptive learning reset or a drive cycle to relearn solenoid characteristics; skipping this step can cause the code to return even with a good repair.

Can I keep driving with P093D?

Driving with P093D is possible but not recommended for long distances, as the transmission may enter limp mode or suffer further damage from incorrect pressure regulation. Avoid heavy acceleration or towing, and have the vehicle inspected by a qualified technician as soon as possible.

Tools that help

- OBD-II scan tool with bidirectional control and live data capability
- Digital multimeter for electrical testing
- Transmission pressure gauge set
- Factory service information for solenoid testing and fluid specifications
- Fluid pump or funnel for topping off transmission fluid



Reading P093D

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
9	Transmission.
3D	The exact fault within that area.

Often seen with

P093C Hydraulic Accumulator Solenoid Circuit High · **P0940** Hydraulic Oil Temperature Sensor Circuit High · **P0941** Hydraulic Oil Temperature Sensor Circuit 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/p093d/>

