

GENERIC · POWERTRAIN

P0746

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0746

Pressure Control Solenoid 'A' Performance or Stuck Off

P0746 indicates that the transmission control module (TCM) has detected a performance problem with the pressure control solenoid 'A', often described as stuck off. The TCM commands a specific current to the solenoid to regulate hydraulic pressure, but the resulting pressure or solenoid response does not match the expected value, triggering the code.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- Harsh or delayed shifts, especially when engaging drive or reverse
- Transmission slipping or flaring between gears
- The transmission may enter limp mode, sticking in a single gear
- Illumination of the check engine light or transmission warning light
- Often no symptoms besides the warning light, especially in early stages
- Poor fuel economy or increased engine RPM at highway speeds

Common causes, most likely first

- 1 Faulty pressure control solenoid 'A' (internally shorted, open, or stuck)
- 2 Contaminated transmission fluid (dirt, debris, or clutch material) blocking the solenoid valve
- 3 Damaged or corroded wiring or connector at the solenoid
- 4 Low transmission fluid level or degraded fluid
- 5 Valve body wear or sticking valves affecting pressure regulation
- 6 TCM software issue or internal fault (less common)

How to diagnose and fix it

- 1 Check transmission fluid level and condition; top off or replace if contaminated
- 2 Inspect the solenoid 'A' electrical connector and wiring for damage or corrosion
- 3 Use a scan tool to command the solenoid and observe pressure changes; compare to specifications
- 4 Measure solenoid resistance and compare to manufacturer's specification
- 5 Perform a transmission fluid flush and filter replacement if contamination is suspected
- 6 Replace the pressure control solenoid 'A' if electrically faulty or stuck
- 7 Reprogram or replace the TCM if all other checks pass and the fault persists



Don't overlook fluid condition and wiring

- A sticking solenoid is often caused by contaminated fluid rather than a failed solenoid; skipping a fluid service can lead to repeat failures.
- The code can set intermittently due to a poor electrical connection, so wiggle-testing the harness while monitoring live data is a smart first step.
- Some vehicles use the same solenoid for multiple pressure control functions, so a failure may affect several shift qualities simultaneously.
- A stuck-off solenoid may default to maximum line pressure, causing harsh engagements that feel like a mechanical failure but are electrically driven.
- Always verify the TCM has the latest calibration before replacing parts, as software updates can correct false solenoid performance codes.

Can I keep driving with P0746?

You can often drive short distances to a repair shop, but avoid aggressive acceleration or heavy loads because the transmission may slip or shift harshly. If the vehicle enters limp mode or shifting becomes erratic, stop driving and seek professional diagnosis to prevent further damage.

Tools that help

- OBD-II scan tool with live data and bidirectional control
- Digital multimeter
- Transmission fluid level dipstick or scan tool for fluid temperature
- Socket set and Torx bits for valve body access
- Fluid pump or funnel for transmission fluid service

Reading P0746

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

Often seen with

P0700 Transmission Control System Malfunction · **P0730** Incorrect Gear Ratio · **P0745** Pressure Control Solenoid Malfunction · **P0747** Pressure Control Solenoid 'A' Stuck On · **P0748** Pressure Control Solenoid 'A' Electrical



See it working

Watch the animated explainer [How a Fuel Injector Works: Pulse Width and Spray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0746/>

