

GENERIC · POWERTRAIN

**P08D7**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

**P08D7**

## Shift Solenoid K Stuck On

P08D7 means the transmission control module (TCM) commanded shift solenoid K on, but the solenoid circuit stayed energized or the solenoid remained mechanically stuck in the applied position. The TCM detects this by comparing the commanded state to the electrical feedback from the solenoid circuit and the resulting hydraulic pressure behavior.

SYSTEM

**Powertrain**

CODE TYPE

**Generic (all makes)**

SEVERITY

**Medium**

FIX DIFFICULTY

**Professional**

AREA

**Transmission**

### Symptoms you may notice

- Harsh or delayed shifts, especially when the affected gear is engaged
- Transmission stuck in a single gear or fails to downshift when slowing
- Illuminated check engine light or transmission warning lamp
- Limp-home mode with reduced power and limited gear selection
- Often no symptoms besides the warning light, particularly if the fault is intermittent

### Common causes, most likely first

- 1 Shift solenoid K internally shorted or mechanically stuck in the applied position
- 2 Damaged or chafed wiring in the solenoid K circuit grounding the control wire
- 3 Corroded or loose electrical connector at the solenoid or transmission case pass-through
- 4 Valve body bore wear or debris preventing the solenoid K shift valve from returning
- 5 Contaminated transmission fluid (ATF) causing solenoid sticking or valve binding
- 6 TCM internal driver failure holding the solenoid K circuit energized
- 7 Aftermarket or incorrect solenoid installed during a previous repair



## How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P08D7 and any companion codes before clearing anything
- 2 Inspect the solenoid K connector and harness for corrosion, chafing, or a short to ground
- 3 Measure solenoid K resistance and compare it to the manufacturer's specification for the transmission
- 4 Command solenoid K on and off with a bidirectional scan tool while watching circuit feedback and listening for valve movement
- 5 Check transmission fluid condition and level, looking for debris or burnt smell that points to internal wear
- 6 If electrical checks pass, remove the valve body and inspect the solenoid K shift valve and bore for sticking or scoring
- 7 Replace the solenoid K assembly or valve body as required, then clear codes and verify shift quality on a road test

## Why solenoid K codes get misdiagnosed

- A shorted solenoid K can test fine at the connector with a multimeter because the internal short only appears when the coil is hot or energized, so a live command test with a scan tool is essential.
- Debris lodged in the valve body bore can hold the shift valve applied even after the solenoid de-energizes, making a new solenoid appear defective when the real fault is contamination.
- A chafed wire grounding the solenoid K control circuit mimics a stuck solenoid perfectly, and this is one of the most common causes on high-mileage vehicles with routed harnesses near hot or moving components.
- Some transmissions use solenoid K for a function that only activates in specific driving conditions, so the code may set only during a particular shift sequence and never appear on a short test drive.
- Clearing the code without repairing the root cause often results in the code returning after several drive cycles, and repeated clearing can mask a developing hydraulic problem that eventually damages the transmission.

## Can I keep driving with P08D7?

You can usually drive the vehicle to a repair shop if the transmission still shifts and the warning light is the only symptom, but avoid heavy acceleration and highway speeds because a stuck solenoid can cause harsh engagement or loss of a gear. If the transmission is in limp-home mode or slipping, stop driving and have it towed to prevent internal damage.

## Tools that help

- OBD-II scan tool with bidirectional control and transmission module access
- Digital multimeter with resistance and voltage measurement
- Transmission fluid pressure gauge
- Factory service information for solenoid resistance specifications and valve body torque sequences
- Basic hand tools and a drain pan for fluid inspection



### Reading P08D7

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 8** Transmission.
- D7** The exact fault within that area.

### Often seen with

**P0700** Transmission Control System Malfunction · **P0750** Shift Solenoid 'A' · **P0765** Shift Solenoid 'D' · **P08D6** Shift Solenoid K Performance/Stuck Off · **P08D8** Shift Solenoid K Electrical

### 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/p08d7/>

