

GENERIC · POWERTRAIN

P08D2

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P08D2

Shift Solenoid J Control Circuit Low

P08D2 indicates that the transmission control module (TCM) has detected an abnormally low voltage on the control circuit for shift solenoid J, which is typically used in a multi-speed automatic transmission to manage fluid pressure for a specific gear change. The TCM monitors the solenoid's electrical circuit and sets this code when the voltage falls below the expected threshold, indicating a short to ground, an open circuit, or a faulty solenoid.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

- Illumination of the check engine light or transmission warning light
- Harsh or delayed gear shifts, or the transmission may fail to shift into certain gears
- The transmission may enter limp mode, limiting vehicle speed and gear selection
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Slipping or flaring during gear changes
- Poor fuel economy due to improper shift scheduling

Common causes, most likely first

- 1 Faulty shift solenoid J (internal short or open coil)
- 2 Damaged or corroded wiring harness or connector at the solenoid
- 3 Short to ground in the control circuit between the TCM and solenoid
- 4 Open circuit in the power or ground side of the solenoid circuit
- 5 Contaminated transmission fluid causing solenoid malfunction
- 6 Failing transmission control module (TCM) or internal driver circuit

How to diagnose and fix it

- 1 Check transmission fluid level and condition; top off or replace if contaminated
- 2 Inspect the solenoid J electrical connector for corrosion, loose pins, or damage
- 3 Measure resistance of solenoid J and compare to manufacturer's specification
- 4 Test the control circuit for short to ground and open circuit using a multimeter
- 5 Check for continuity between TCM connector and solenoid connector
- 6 If wiring is intact, replace solenoid J and clear the code
- 7 If the code persists after solenoid replacement, diagnose the TCM and its drivers



Common Missteps When Diagnosing P08D2

- A low voltage code on a solenoid circuit often results from a short to ground in the wiring harness, not a failed solenoid, so always inspect the harness for chafing or pinched wires before replacing parts.
- Intermittent faults can be caused by a loose connector or a broken wire that only loses contact under vibration or temperature changes, so wiggle-test the harness while monitoring live data.
- Transmission fluid that is contaminated with debris can cause the solenoid to stick or draw excessive current, leading to a low voltage code; always check fluid condition as a first step.
- Some vehicles use a single solenoid for multiple functions, and a failure may not produce noticeable drivability symptoms until the fault becomes consistent, so do not assume the transmission is mechanically sound based on feel alone.
- The TCM may set this code if the solenoid circuit is open, but a shorted solenoid can also cause the TCM driver to shut down; always test the solenoid's resistance and compare to specification before condemning the TCM.

Can I keep driving with P08D2?

If the vehicle is in limp mode or shifting harshly, avoid highway driving and seek repair promptly to prevent transmission damage. If only the warning light is on and the vehicle drives normally, you can drive cautiously to a repair shop, but avoid heavy loads or aggressive acceleration.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Jack and jack stands or ramps for under-vehicle access
- Socket set and trim removal tools
- Manufacturer-specific service information for circuit testing

Reading P08D2

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
8	Transmission.
D2	The exact fault within that area.



Often seen with

P0700 Transmission Control System Malfunction · **P0750** Shift Solenoid 'A' · **P08D0** Shift Solenoid J Intermittent · **P08D1** Shift Solenoid J Control Circuit Range/Performance · **P08D3** Shift Solenoid J 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/p08d2/>

