

GENERIC · POWERTRAIN

P08DB

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P08DB

Shift Solenoid K Control Circuit Low

P08DB means the transmission control module (TCM) has detected an abnormally low voltage or current on the control circuit for shift solenoid K, which is one of the solenoids that manages hydraulic pressure inside the automatic transmission. The TCM commands the solenoid on or off and monitors the circuit for a short to ground, an open circuit, or excessive current draw, and it sets this code when the feedback signal falls below the expected threshold.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Transmission

Symptoms you may notice

- The check engine light or transmission warning light is illuminated on the dashboard. Often no symptoms besides the warning light, especially if the solenoid is only intermittently affected.
- Harsh or delayed shifts, or the transmission may default to a limp-home mode with only one or two gears available.
- The transmission may slip or fail to engage certain gears, particularly overdrive or a specific forward gear.
- Poor fuel economy or unusual engine RPM fluctuations during acceleration.
- In some cases, the vehicle may refuse to shift out of park or may shudder during gear changes.

Common causes, most likely first

- A short to ground in the wiring harness between the TCM and shift solenoid K, often caused by chafed insulation or pinched wires.
- An open circuit or high resistance in the solenoid control wire, such as a broken wire or corroded connector terminal.
- A failed shift solenoid K itself, where the internal coil has shorted or the solenoid is mechanically stuck.
- Contaminated or degraded transmission fluid that causes solenoid malfunction or clogging.
- A faulty TCM or a poor ground connection at the TCM, leading to incorrect voltage readings.
- Loose or damaged pins in the transmission connector or the TCM connector.
- Internal transmission mechanical issues that place excessive load on the solenoid circuit, though this is less common.



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related transmission codes before clearing anything.
- 2 Inspect the transmission fluid level and condition; a low or burnt fluid level can cause solenoid codes and should be corrected first.
- 3 Visually inspect the wiring harness from the TCM to the transmission for chafing, pinching, or corrosion, and repair any damage found.
- 4 Disconnect the solenoid connector and measure the resistance of shift solenoid K with a multimeter, comparing it to the manufacturer's specification.
- 5 Check for a short to ground or an open circuit in the control wire using a multimeter and a wiring diagram, repairing as needed.
- 6 If the circuit tests good, remove and replace shift solenoid K, then clear the code and perform a relearn or adaptation procedure if required.
- 7 As a last resort, diagnose the TCM for internal faults or ground issues, and replace or reprogram it only after all other possibilities are ruled out.

What the P08DB code does not always mean

- A low circuit code does not automatically condemn the solenoid; a shorted wire or a bad ground can produce the same low-voltage reading and is often the real culprit.
- Transmission fluid that is overdue for a change can cause solenoid performance codes because debris interferes with the solenoid's internal valve, so always check fluid condition before replacing parts.
- Some vehicles use a single solenoid for multiple shift functions, so a failure of solenoid K may cause symptoms that mimic other transmission problems, leading to misdiagnosis.
- Intermittent codes can be caused by a loose connector that only loses contact during certain driving conditions, such as going over bumps or during temperature swings.
- A weak battery or charging system can cause low voltage at the TCM, triggering solenoid circuit codes even when the solenoid and wiring are healthy.

Can I keep driving with P08DB?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration, towing, or long trips because the transmission may enter limp mode and shift harshly or lose certain gears. If the transmission slips badly or refuses to engage, stop driving and have it towed to prevent further damage.



Tools that help

- OBD-II scan tool with transmission code reading capability
- Digital multimeter
- Vehicle-specific wiring diagram
- Socket and ratchet set
- Transmission fluid level dipstick or scan tool for fluid temperature
- Wire repair kit with crimp connectors and heat shrink

Reading P08DB

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

Often seen with

P0700 Transmission Control System Malfunction · **P0715** Input/Turbine Speed Sensor Circuit Malfunction · **P08D9** Shift Solenoid K Intermittent · **P08DA** Shift Solenoid K Control Circuit Range/Performance · **P08DC** Shift Solenoid K 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/p08db/>

