

GENERIC · POWERTRAIN

P0985

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0985

Shift Solenoid 'E' Control Circuit Low

P0985 means the transmission control module (TCM) has detected a low-voltage condition on the control circuit for shift solenoid 'E', which is one of the solenoids that manages hydraulic pressure for gear shifts. The TCM commands the solenoid on or off and monitors the circuit for expected voltage; when the return voltage stays below the calibrated threshold, it flags the circuit as low.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Transmission

Symptoms you may notice

- The check engine light or transmission warning light illuminates 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 limited gear selection.
- Slipping between gears or a flare during upshifts as hydraulic pressure control is compromised.
- The transmission may stay in a single gear or refuse to downshift when coming to a stop.
- A noticeable clunk or jolt when shifting into drive or reverse if the solenoid circuit is shorted low.

Common causes, most likely first

- 1 A short to ground in the solenoid control wire, often where the harness rubs against a sharp edge or passes near a hot exhaust component.
- 2 A failed shift solenoid 'E' with an internally shorted coil, which pulls the control circuit voltage low.
- 3 Corroded, loose, or pushed-back pins at the solenoid connector or the TCM connector, creating high resistance or a partial short.
- 4 Transmission fluid that has degraded or is contaminated with debris, causing the solenoid to draw excessive current and drag the circuit low.
- 5 A faulty TCM driver circuit that cannot supply the correct voltage or misreads the feedback signal.
- 6 Damage to the internal transmission wiring harness, such as chafing against the valve body or heat damage from the fluid.
- 7 A poor ground connection for the solenoid circuit, which can make the control voltage appear low to the TCM.



How to diagnose and fix it

- 1 Check the transmission fluid level and condition first; low or burnt fluid can cause solenoid current draw to rise and set this code.
- 2 Inspect the solenoid 'E' connector and the TCM connector for corrosion, loose pins, or pushed-back terminals, and clean or repair as needed.
- 3 Measure the resistance of shift solenoid 'E' at the transmission connector and compare it to the manufacturer's specification to rule out an open or shorted coil.
- 4 Back-probe the control circuit at the TCM and check for a short to ground with a multimeter while wiggling the harness to find intermittent faults.
- 5 Perform a voltage drop test on the ground side of the solenoid circuit to confirm the ground path is clean and tight.
- 6 If the circuit and solenoid test good, substitute a known-good solenoid or use a test light to verify the TCM can command the solenoid on and off.
- 7 Replace the faulty solenoid or repair the shorted wire, clear the code, and take a test drive to confirm the repair and that the monitor runs to completion.

What a low solenoid circuit really means

- A low circuit code does not always mean the solenoid itself has failed; a rubbed-through wire grounding against the transmission case is just as common and often cheaper to fix.
- Debris in the transmission fluid can lodge in the solenoid valve, causing the coil to overheat and short internally, so a fluid service is a wise preventive step after any solenoid repair.
- Some vehicles use a single solenoid for multiple shift functions, so a failure of solenoid 'E' may cause symptoms that seem unrelated to one gear, such as no overdrive and harsh reverse engagement.
- A weak battery or charging system can cause the TCM to log a low circuit code because the solenoid supply voltage drops during cranking, so check battery health before condemning the transmission.
- After replacing a solenoid, the TCM may need a relearn or adaptive reset procedure; skipping it can leave the transmission shifting poorly and make you think the repair failed.

Can I keep driving with P0985?

You can usually drive the vehicle to a repair shop if the transmission still engages gears and the warning light is steady, but avoid heavy acceleration and long trips because limp-home mode can engage without warning. If the transmission slips severely or refuses to move, stop driving and have it towed to prevent internal damage.



Tools that help

- OBD-II scan tool with transmission module capability
- Digital multimeter with back-probe pins
- Manufacturer-specific wiring diagram for the solenoid circuit
- Transmission fluid level dipstick or scan tool fluid temperature readout
- Socket set and torque wrench for valve body or pan removal
- Test light or solenoid test box for circuit activation

Reading P0985

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

Often seen with

P0700 Transmission Control System Malfunction · **P0979** Shift Solenoid 'C' Control Circuit Low · **P0980** Shift Solenoid 'C' Control Circuit High · **P0984** Shift Solenoid 'E' Control Circuit Range/Performance · **P0986** Shift Solenoid 'E' 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/p0985/>

