

GENERIC · POWERTRAIN

P07D0

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P07D0

Transmission Mode Switch D Circuit High

P07D0 indicates that the transmission control module has detected an abnormally high voltage on the circuit for transmission mode switch D, which is one of the driver-selectable driving mode inputs. The computer expects the signal voltage to stay within a calibrated range, and a high reading tells it the circuit is open, shorted to power, or the switch contact is not closing as designed.

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

Symptoms you may notice

- The check engine light or transmission warning light illuminates steadily.
- Often no symptoms besides the warning light, with normal shifting and driveability.
- The transmission may stay in a single mode or refuse to switch between drive modes.
- A message such as 'Transmission Mode Unavailable' or 'Service Transmission' may appear on the dash.
- Harsh or delayed shifts if the module defaults to a limp-home strategy.
- The selected mode indicator may flash or fail to change when the button is pressed.

Common causes, most likely first

- An open or broken wire in the mode switch D signal circuit.
- A failed transmission mode switch D contact or internal switch assembly.
- Corrosion or water intrusion at the switch connector or a transmission harness connector.
- A short to voltage on the signal circuit from chafed wiring against a power wire.
- A poor ground connection shared by the mode switch circuit.
- A faulty transmission control module, though this is the least likely cause.



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P07D0 before clearing anything.
- 2 Inspect the mode switch connector and transmission harness for corrosion, water, or loose pins.
- 3 Check the switch ground circuit for excessive resistance with a multimeter.
- 4 Back-probe the signal wire at the switch and at the control module to compare voltages and confirm an open or short.
- 5 Test the mode switch D contact with a multimeter while pressing the mode button, looking for a clean voltage change.
- 6 Repair or replace the damaged section of wiring, connector, or switch as indicated by the tests.
- 7 Clear the code and verify the mode switch operates correctly through several drive cycles.

What a high mode switch signal really means

- A high voltage reading on a switch circuit usually means the signal wire is open, not that the switch itself has failed, so resistance testing of the wire is more valuable than replacing parts.
Water intrusion in a transmission connector can create a high-resistance path that mimics an open circuit only when the vehicle is wet or after a car wash.
- Some vehicles use a multiplexed resistor ladder for mode switches, so a single bad switch can pull the entire signal line high and set codes for multiple modes.
- A loose or missing ground at the switch can cause the module to read a high signal even though the switch and signal wire are intact.
Aftermarket accessories tapped into the transmission harness can introduce voltage on the signal line and set this code without any factory component being faulty.

Can I keep driving with P07D0?

The vehicle is generally safe to drive with this code because the transmission usually defaults to a normal mode, but avoid relying on special driving modes and have the circuit inspected soon. If the transmission enters limp-home mode or shifts harshly, limit driving to a short trip to a repair shop.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with back-probe pins
- Wiring diagram for the transmission mode switch circuit
- Trim removal tools for accessing dash or console switches
- Contact cleaner and dielectric grease for connector repair



Reading P07D0

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 7** Transmission.
- D0** The exact fault within that area.

Often seen with

P0700 Transmission Control System Malfunction · **P07CF** Transmission Mode Switch D Circuit Low · **P07D1** Transmission Mode Switch E Circuit · **P07D2** Transmission Mode Switch E Circuit Low · **P07D3** Transmission Mode Switch E 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/p07d0/>

