

GENERIC · POWERTRAIN

P07D6

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P07D6

Transmission Mode Switch F Circuit High

P07D6 indicates that the transmission control module (TCM) has detected an abnormally high voltage on the signal circuit for Transmission Mode Switch F, which is one of the driver-selectable driving mode inputs. The TCM expects the circuit voltage to stay within a calibrated range for the selected mode, and a sustained high reading tells it the circuit is open, shorted to power, or the switch contact has failed.

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

Symptoms you may notice

- The malfunction indicator lamp (MIL) illuminates, often with no other noticeable symptoms.
- The transmission may remain in a single default mode and refuse to switch between modes when the button or selector is pressed.
- A message such as 'Transmission Mode Unavailable' or 'Service Transmission' may appear on the driver information display.
- The transmission may shift more firmly or hold gears longer because the TCM has entered a fail-safe strategy.
- Mode indicator lights on the switch or instrument cluster may fail to illuminate or may flash unexpectedly.
- In some vehicles the transmission may default to a limp-home gear or restrict engine power.

Common causes, most likely first

- An open circuit in the mode switch signal wire, commonly from a broken wire at the switch connector or a chafed harness.
- A short to voltage on the signal circuit, often where the harness rubs against a metal bracket or passes near a high-current accessory wire.
- A failed transmission mode switch F contact that no longer pulls the signal line low when the mode is selected.
- Corroded or backed-out terminals at the mode switch connector or at the TCM connector.
- A defective TCM that misreads a correct signal voltage, though this is less common than wiring faults.
- Water intrusion into the switch or connector causing intermittent high resistance or a short.
- Aftermarket accessories or poor previous repairs that tapped into the mode switch circuit.



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P07D6, then clear the code and verify whether it returns immediately or only after a specific mode selection.
- 2 Inspect the transmission mode switch connector and the TCM connector for corrosion, backed-out pins, or loose terminals, and repair as needed.
- 3 Use a digital multimeter to measure signal circuit voltage at the switch with the key on and the mode button pressed and released, comparing against the manufacturer's expected values.
- 4 Perform a wiggle test on the harness while watching live mode-switch data to expose an intermittent open or short.
- 5 Check continuity and resistance of the signal wire from the switch to the TCM, and check for shorts to voltage or ground on that wire.
- 6 If the wiring and connectors test good, substitute a known-good mode switch and recheck the code before condemning the TCM.
- 7 After repair, clear codes, cycle the ignition, and verify that all transmission modes can be selected and that P07D6 does not reset.

Mode switch F faults that fool good technicians

- A high-voltage reading on a mode switch circuit is most often an open signal wire or a failed switch contact, not a failed TCM, so replacing the module first is an expensive misstep.
- Some vehicles share the mode switch ground with other cabin switches, so a corroded ground point can set P07D6 along with unrelated switch codes.
- The mode switch may be part of a multifunction selector assembly, and a fault in one mode contact can leave other modes working normally, which hides the real problem during a quick test drive.
- Aftermarket remote starters or alarm installations frequently tap into the mode switch wiring and create a high-voltage fault that only appears when the accessory is active.
- P07D6 can be stored intermittently by a momentary connector disturbance and may not return for weeks, so a single cleared code without a wiggle test can lead to a premature 'no fault found' conclusion.

Can I keep driving with P07D6?

The vehicle is generally safe to drive because the transmission defaults to a conservative mode, but avoid towing, heavy loads, and aggressive driving until the fault is repaired. If the transmission enters limp-home mode or the warning light flashes, have it diagnosed promptly rather than continuing at highway speeds.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with back-probing pins
- Wiring diagram for the transmission mode switch circuit
- Terminal pick and connector release tools
- Test light or jumper wire for circuit verification

Reading P07D6

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
7	Transmission.
D6	The exact fault within that area.

Often seen with

P0700 Transmission Control System Malfunction · **P07D5** Transmission Mode Switch F Circuit Low · **P07D7** Stuck in Gear 8 · **P07D8** Unable to Engage Gear 8 · **U0101** Lost Communication with TCM

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/p07d6/>

