

GENERIC · POWERTRAIN

P07CC

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P07CC

Transmission Mode Switch C Circuit Low

P07CC indicates that the transmission control module (TCM) has detected a low-voltage condition on the circuit for Transmission Mode Switch C, which is typically a driver-selectable mode input such as tow/haul or sport mode. The TCM expects a specific voltage on the signal circuit and sees it persistently below the normal threshold, so it flags the circuit as shorted low or grounded.

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

Symptoms you may notice

- The check engine light or transmission warning light illuminates on the dashboard.
- The selected driving mode may not engage or may revert to default without driver input.
- The transmission may stay in a single mode and refuse to switch between tow/haul, sport, or economy settings.
- Dashboard indicators for the mode switch may flash, stay dark, or show an incorrect mode.
- In some vehicles the transmission may default to a limp or reduced-performance strategy.
- Often no symptoms besides the warning light, especially if the switch is rarely used.

Common causes, most likely first

- A faulty transmission mode switch that is internally shorted to ground.
- A chafed or pinched signal wire in the switch circuit touching ground.
- Corrosion or water intrusion in the switch connector or inline harness connector.
- A poor ground connection at the switch or at the TCM, causing a false low reading.
- A defective TCM with an internal driver fault pulling the signal circuit low.
- Aftermarket accessories or wiring repairs that tapped into the mode switch circuit incorrectly.



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to confirm when P07CC set.
- 2 Inspect the transmission mode switch connector and harness for corrosion, water intrusion, chafing, or loose pins.
- 3 Disconnect the switch and check the signal circuit for continuity to ground with a multimeter; a short to ground confirms a wiring fault.
- 4 Test the switch itself with a multimeter in each mode position, comparing resistance or voltage to the manufacturer's specification.
- 5 Check the switch ground circuit for excessive resistance and repair any corroded or loose ground points.
- 6 If wiring and switch test good, back-probe the TCM connector to verify the signal voltage the TCM actually sees and rule out an internal TCM fault.
- 7 Repair or replace the faulty switch, wire, or connector, clear the codes, and verify the mode switch operates correctly through a road test.

What a low mode switch circuit really means

- A shorted mode switch can set P07CC without ever affecting drivability, so many of these vehicles arrive with only a warning light and no customer complaint.
- Technicians often replace the switch first, but a chafed wire behind the dashboard or near the shifter is just as common and far cheaper to fix.
- Water intrusion into a connector below the shifter console is a frequent hidden cause, especially on vehicles with sunroof drains or spill history.
- P07CC can be set by a poor ground shared with other cabin switches, so check ground integrity before condemning the TCM.
- Aftermarket remote starters or accessory wiring tapped into the mode circuit can pull the signal low and set this code intermittently.

Can I keep driving with P07CC?

The vehicle is generally safe to drive because this circuit affects mode selection rather than core transmission operation, but avoid towing or heavy loads if the correct mode cannot be selected. Have the fault diagnosed soon so the transmission does not default to an unsuitable strategy.

Tools that help

- OBD-II scan tool with transmission module access
- Digital multimeter
- Wiring diagram for the mode switch circuit
- Back-probe pins or breakout leads
- Trim removal tools for shifter console access



Reading P07CC

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

Often seen with

P0700 Transmission Control System Malfunction · **P07BF** Input/Turbine Shaft Speed Sensor A Circuit Low · **P07CB** Transmission Fluid Thermostat Performance · **P07CD** Transmission Mode Switch C Circuit High · **P07CE** Transmission Mode Switch D Circuit

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/p07cc/>

