

GENERIC · POWERTRAIN

P0819

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0819

Up and Down Shift Switch to Transmission Range Correlation

P0819 indicates that the transmission control module (TCM) has detected a mismatch between the signal from the up/down shift switch and the actual transmission range reported by the range sensor. The computer expects the switch input and the range position to agree, but the correlation is outside the allowed tolerance.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Transmission

Symptoms you may notice

- The malfunction indicator lamp (MIL) illuminates on the dashboard.
- The transmission may not respond to manual upshift or downshift commands.
- The gear position indicator may flash or show an incorrect range.
- The vehicle may enter limp mode, limiting engine power or gear selection.
- Harsh or delayed shifts may occur as the TCM defaults to a safe strategy.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- 1 Faulty up/down shift switch (worn contacts or internal failure).
- 2 Damaged or corroded wiring or connectors between the switch and the TCM.
- 3 Malfunctioning transmission range sensor (also called neutral safety switch or inhibitor switch).
- 4 Low or contaminated transmission fluid affecting range sensor operation.
- 5 Internal TCM software glitch or calibration issue requiring reflash.
- 6 Mechanical binding in the shift linkage or selector mechanism.
- 7 Failed TCM (rare but possible after other causes are ruled out).



How to diagnose and fix it

- 1 Verify battery voltage and inspect the up/down shift switch for physical damage or sticking.
- 2 Check the transmission range sensor for proper alignment and clean connections.
- 3 Perform a wiggle test on the wiring harness between the switch, range sensor, and TCM while monitoring live data.
- 4 Use a scan tool to compare the up/down shift switch status with the transmission range sensor reading in real time.
- 5 Check transmission fluid level and condition; service if contaminated or low.
- 6 Repair or replace any faulty switch, sensor, or damaged wiring as needed.
- 7 Clear the code and perform a road test to confirm the correlation issue is resolved.

Common Misdiagnosis Traps for P0819

- A loose or misadjusted transmission range sensor often mimics a faulty up/down shift switch, so always verify sensor alignment before replacing the switch.
Intermittent wiring faults can set P0819 without any hard failure; a wiggle test with live data is more reliable than a static continuity check.
- On some vehicles, a low battery or charging system issue can cause the TCM to log false correlation codes, so check voltage first.
- The up/down shift switch is sometimes part of the steering column or shift lever assembly, and a sticky mechanism can trigger the code without electrical failure.
After repairs, some TCMs require a relearn or calibration procedure; skipping it may cause the code to return immediately.

Can I keep driving with P0819?

If the vehicle drives normally and only the warning light is on, you can drive cautiously to a repair shop, but avoid aggressive shifting or towing. If the transmission is in limp mode or shifts erratically, stop driving and seek professional diagnosis to prevent further damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools (screwdrivers, socket set)
- Transmission fluid level checker



Reading P0819

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

Often seen with

P0700 Transmission Control System Malfunction · **P0705** Transmission Range Sensor Circuit Malfunction · **P0706** Transmission Range Sensor Circuit Range/Performance · **P0818** Driveline Disconnect Switch Input Circuit · **P0820** Gear Lever X-Y Position Sensor 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/p0819/>

