

GM · POWERTRAIN

P1779

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1779 · GM

Engine Torque Delivered To TCM Signal

P1779 on GM vehicles means the transmission control module (TCM) is not receiving a valid engine torque signal from the engine control module (ECM) over the controller area network (CAN) or serial data link. The TCM uses this torque value to calculate shift pressure and timing, so when the signal is missing or implausible, the TCM sets this code and may default to a limp-home shift strategy.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	GM specific	Medium	Intermediate	Transmission

Symptoms you may notice

- The check engine light or transmission warning light illuminates, often with no other noticeable symptoms.
- Harsh or delayed shifts, especially during acceleration or when the transmission is cold.
- The transmission may stay in a single gear or enter limp-home mode, limiting vehicle speed.
- Poor fuel economy or unusual engine idle quality if the ECM is also affected.
- The scan tool may show no live engine torque data on the transmission data stream.
- In some cases, the vehicle starts and drives normally until the code is cleared and re-set after a few drive cycles.

Common causes, most likely first

- A faulty or intermittent connection at the ECM or TCM harness connectors, often due to corrosion or loose pins.
- A damaged or chafed wire in the CAN bus or serial data circuit between the ECM and TCM.
- A software calibration issue in the ECM or TCM that misinterprets the torque signal under certain conditions.
- A failing TCM that cannot process the received torque signal correctly.
- An ECM that is not broadcasting the engine torque signal due to an internal fault or a related engine sensor problem.
- Low battery voltage or a weak charging system causing communication glitches between modules.
- Aftermarket electronic devices or poor grounds introducing electrical noise into the data bus.



How to diagnose and fix it

- 1 Connect a scan tool and verify that the ECM is broadcasting engine torque data and that the TCM can see it; check for other communication codes in all modules.
- 2 Inspect the battery, charging system, and all ground connections for cleanliness and tightness, as low voltage can cause false communication codes.
- 3 Visually inspect the ECM and TCM harness connectors for corrosion, bent pins, or loose terminals, and check the CAN bus wiring for chafing or damage.
- 4 Perform a wiggle test on the harness while watching live data to catch intermittent connection faults.
- 5 Check for technical service bulletins (TSBs) or calibration updates for the ECM and TCM that address torque signal communication issues.
- 6 If wiring and connections are good, substitute a known-good TCM or ECM (whichever is more accessible) to isolate the faulty module.
- 7 After repairs, clear the code and perform a relearn or adaptation drive cycle as required by the manufacturer to verify the fix.

Why the torque signal goes missing

- A common oversight is assuming the TCM is at fault when the real problem is a dirty or loose ground connection at the engine block or chassis, which corrupts the data signal.
- P1779 can be set by a weak battery or a failing alternator even if the engine starts fine, because module communication is sensitive to voltage drops during cranking.
- Aftermarket remote starters, alarm systems, or phone chargers plugged into the data link connector can introduce electrical noise that disrupts the CAN bus and triggers this code.
- Some GM vehicles require a software update to the ECM or TCM to correct a known issue where the torque signal is momentarily lost during certain driving conditions, and no hardware is faulty.
- The code does not always mean the transmission is damaged; it often indicates a communication problem that can be resolved without internal transmission repairs.

Can I keep driving with P1779?

You can usually drive the vehicle to a repair shop, but avoid heavy acceleration, towing, or long trips because the transmission may default to a limp-home mode that limits speed and can cause further wear. If the vehicle enters limp-home mode or shifts harshly, stop driving and have it towed to prevent transmission damage.

Tools that help

- OBD-II scan tool with live data and bidirectional control capability
- Digital multimeter for voltage and continuity checks
- Wiring diagram for the specific GM model
- Terminal pick and electrical contact cleaner
- Test light or logic probe for data bus signal testing



Reading P1779

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (GM): its meaning depends on the make.
- 7** Transmission.
- 79** The exact fault within that area.

Often seen with

P1778 Solenoid EV7 Electrical Malfunction · **P1778** Transmission Reverse IP Circuit · **P0700** Transmission Control System Malfunction · **P0715** Input/Turbine Speed Sensor Circuit Malfunction · **P0722** Output Speed Sensor Circuit No Signal · **U0100** Lost Communication With ECM/PCM A

See it working

Watch the animated explainer [Helicopter Flight Simulator: Learn the Three Controls](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1779/>

