

GM · POWERTRAIN

P1678

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1678 · GM

FPTDR Signal Line Failure

P1678 on GM vehicles means the powertrain control module (PCM) has detected a failure on the signal line for the fuel pump/torque demand reduction (FPTDR) circuit, which is used to communicate a torque reduction request to the fuel pump control module. The PCM monitors the voltage or message on this dedicated line and sets the code when the expected signal is missing, out of range, or implausible.

SYSTEM

Powertrain

CODE TYPE

GM specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Computer and output circuits

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Reduced engine power or a limp-home mode under certain driving conditions
- Hesitation or stumble during acceleration when torque reduction is requested
- Poor fuel economy or unusual fuel pump behavior
- Intermittent stalling or difficulty starting in some cases
- No drivability issues at all, with the code being the only evidence

Common causes, most likely first

- 1 Damaged or chafed wiring in the FPTDR signal circuit, especially near connectors or high-heat areas
- 2 Corroded or loose electrical connector at the fuel pump control module or PCM
- 3 Failed fuel pump control module, which may not send or receive the FPTDR signal correctly
- 4 Faulty PCM driver or internal circuit for the FPTDR line
- 5 Aftermarket electrical accessories improperly tapped into the signal line
- 6 Water intrusion or road debris damaging the harness or module connector
- 7 Poor ground connection shared by the fuel pump control module or PCM



How to diagnose and fix it

- 1 Inspect the FPTDR signal wire and connector at both the PCM and fuel pump control module for damage, corrosion, or loose pins
- 2 Check for continuity and resistance on the signal line between the PCM and fuel pump control module, wiggle-testing the harness
- 3 Verify the fuel pump control module ground and power feeds are clean and tight
- 4 Use a scan tool to monitor FPTDR signal status and compare with commanded torque reduction requests
- 5 Substitute a known-good fuel pump control module if the signal line tests good but the code persists
- 6 Check for technical service bulletins (TSBs) or software updates for the PCM related to this code
- 7 If all else fails, diagnose the PCM internal driver circuit and replace the PCM only after confirming no other faults

FPTDR line faults that fool technicians

- A common oversight is replacing the fuel pump control module without first checking the signal wire for intermittent shorts to ground or power, which can mimic a failed module.
- The FPTDR line is often shared with other torque management signals, so a fault in a related system like traction control or transmission can set P1678 indirectly.
- Some aftermarket remote start or alarm installations tap into the FPTDR circuit, causing signal corruption that only appears when the accessory is active.
- The code can set from a momentary glitch during low-voltage cranking, so always check battery and charging system health before condemning the module.
- On certain GM platforms, a poor ground at the fuel pump control module can cause a voltage offset on the FPTDR line that the PCM interprets as a failure.

Can I keep driving with P1678?

You can usually continue driving with P1678 if the engine runs normally, but avoid heavy acceleration or towing until the fault is repaired because torque reduction may not function correctly. If the vehicle enters limp mode or stalls, stop driving and seek professional diagnosis.

Tools that help

- OBD-II scan tool with GM-specific software
- Digital multimeter
- Wiring diagram for the specific GM model
- Back probe kit
- Test light



Reading P1678

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (GM): its meaning depends on the make.
- 6** Computer and output circuits.
- 78** The exact fault within that area.

Often seen with

P1682 A/T FI Signal A High Input · **P1682** Metering Oil Pump Failure · **P1683** Metering Oil Pump Temperature Sensor Circuit · **P1682** A/T FI Signal A High Input · **P1682** Ignition 1 Switch Circuit 2 · **P1683** Driver 5 Line 3 · **P1682** Charging System Voltage Too Low · **P1683** Speed Control Power Relay Or Speed Control 12 Volt Driver Ci · **P0230** Fuel Pump Primary Circuit Malfunction · **P0231** Fuel Pump Secondary Circuit Low · **P0232** Fuel Pump Secondary Circuit High

See it working

Watch the animated explainer [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1678/>

