

GM · POWERTRAIN

P1680

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1680 · GM

Driver 5

P1680 is a manufacturer-specific code stored by the powertrain control module (PCM) in GM vehicles when it detects a fault in the control circuit for Driver 5, which is one of the fuel injector driver outputs inside the PCM. The PCM monitors the electrical current through each injector driver and sets this code when the current falls outside the expected range, indicating an open circuit, short to ground, or short to voltage on that driver's circuit.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	GM specific	Medium	Intermediate	Computer and output circuits

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire that may be intermittent
- Engine hesitation or stumble during acceleration
- Reduced fuel economy due to a misfiring cylinder
- Possible rich or lean fuel trim readings depending on the failure mode
- In some cases, the engine may enter limp mode or run poorly under load

Common causes, most likely first

- 1 Faulty fuel injector on the affected cylinder (open coil or shorted winding)
- 2 Damaged or chafed wiring harness between the PCM and the injector
- 3 Corroded or loose electrical connector at the injector or PCM
- 4 Internal failure of the PCM injector driver circuit
- 5 Short to ground or short to voltage on the driver circuit
- 6 Aftermarket or incorrect injector installed that does not match the PCM calibration



How to diagnose and fix it

- 1 Connect a scan tool and record all stored codes, freeze-frame data, and injector balance rates to confirm which cylinder is affected
- 2 Inspect the injector harness and connector at the affected cylinder for chafing, corrosion, or loose pins
- 3 Measure the resistance of the affected fuel injector with a multimeter and compare to specification
- 4 Check the driver circuit for shorts to ground or voltage using a wiring diagram and multimeter
- 5 Perform an injector balance test or swap the injector with a known-good cylinder to see if the code follows
- 6 If the circuit and injector test good, check for PCM software updates or internal driver failure
- 7 Replace the faulty injector or repair the wiring as needed, then clear codes and verify the repair with a test drive

What most technicians miss on P1680

- A failed injector driver inside the PCM is less common than a bad injector or wiring, so always rule out the injector and harness before condemning the computer.
The code can be set by an intermittent connection that only acts up when the engine is hot or vibrating, so a wiggle test of the harness while monitoring injector data is often necessary.
- Aftermarket injectors with incorrect resistance can trigger P1680 even though they physically fit, so verify the part number against the GM catalog.
- A shorted injector can damage the PCM driver, so replacing only the injector without checking the driver circuit may lead to a repeat failure.
This code is often stored alongside misfire codes for the same cylinder, but the misfire code alone does not confirm the driver circuit is at fault.

Can I keep driving with P1680?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because a misfiring cylinder can overheat the catalytic converter. If the engine runs very rough or flashes the check engine light, stop driving and have it towed.

Tools that help

- OBD-II scan tool with bidirectional controls and injector balance test capability
- Digital multimeter with min/max recording
- Wiring diagram for the specific GM vehicle
- Fuel injector noid light or test light
- Hand tools for harness and injector access



Reading P1680

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

Often seen with

P1681 Control Module Programming Not Finished · **P1681** A/T FI Signal A Low Input · **P1682** A/T FI Signal A High Input · **P1682** Metering Oil Pump Failure · **P1681** A/T FI Signal A Low Input · **P1682** A/T FI Signal A High Input · **P1681** Driver 5 Line 1 · **P1682** Ignition 1 Switch Circuit 2 · **P1681** No Instrument Panel Cluster CCD J1850 Messages Received · **P1682** Charging System Voltage Too Low · **P0205** Injector Circuit/Open - Cylinder 5 · **P0300** Random/Multiple Cylinder Misfire Detected · **P0305** Cylinder 5 Misfire Detected

See it working

Watch the animated explainer [V6 Engine Explained: 60° Bank and Firing Order](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1680/>

