

GM · POWERTRAIN

P1622

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1622 · GM

Cylinder Select

P1622 is a GM-specific code that indicates the powertrain control module (PCM) has detected an issue with the cylinder select signal circuit, which is used on engines with displacement-on-demand or active fuel management systems to enable or disable specific cylinders. The PCM monitors the circuit for expected voltage changes when it commands a transition between full and reduced cylinder operation, and it sets this code when the signal does not match the commanded state.

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-like shudder when the engine transitions between cylinder modes
- Reduced fuel economy because the engine may stay in full-cylinder mode
- Slight hesitation or stumble during light-throttle cruising
- In rare cases, a noticeable loss of power if the system defaults to a limited operating strategy

Common causes, most likely first

- 1 Faulty cylinder select solenoid or its connector on the affected cylinder bank
- 2 Damaged or chafed wiring in the cylinder select signal circuit, often near exhaust components
- 3 Failed lifter or collapsed lifter in the displacement-on-demand system
- 4 Sticking or faulty oil control valve that supplies oil pressure to the cylinder select mechanism
- 5 Low engine oil level or degraded oil causing insufficient oil pressure for proper cylinder select operation
- 6 PCM software calibration issue or internal PCM fault, though this is less common



How to diagnose and fix it

- 1 Check engine oil level and condition; top off or change oil if it is low or dirty, as oil pressure is critical for cylinder select operation
- 2 Inspect the cylinder select solenoid connector and wiring for corrosion, chafing, or loose pins
- 3 Use a scan tool to command cylinder select on and off while monitoring the circuit voltage or solenoid operation
- 4 Perform a resistance test on the cylinder select solenoid and compare to factory specifications
- 5 Check for stored history codes in other modules that might indicate a related misfire or oil pressure issue
- 6 If the solenoid and wiring test good, inspect the lifters and oil control valve for mechanical failure
- 7 Reflash or replace the PCM only after all other causes have been ruled out and verified with a factory scan tool

Cylinder select faults often hide in the oil

- A low oil level or heavily degraded oil is a frequent culprit because the displacement-on-demand system relies on oil pressure to activate the lifters, and the PCM may set P1622 before any low-oil warning appears.
- The cylinder select solenoid is often misdiagnosed as a failed lifter; always test the solenoid circuit first because it is far cheaper and easier to replace than internal engine components.
- Wiring harness damage near the exhaust manifold is common on GM trucks and SUVs, so inspect the harness routing carefully for melted or brittle insulation that can short the signal circuit.
- P1622 can be set by a PCM calibration that is out of date, and a simple reflash at the dealer may resolve the code without any parts replacement.
- This code does not always mean the engine is misfiring; the PCM may set it purely because the electrical signal from the solenoid did not change state as expected, even if the mechanical system is functioning.

Can I keep driving with P1622?

You can usually continue driving with P1622, but avoid heavy towing or aggressive acceleration until the fault is repaired, as the engine may stay in full-cylinder mode and consume more fuel. If you notice rough running or a flashing check engine light, stop driving and have the vehicle inspected promptly.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter
- Factory service information or wiring diagram
- Basic hand tools for connector and solenoid access
- Oil pressure gauge



Reading P1622

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

Often seen with

P0300 Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0302** Cylinder 2 Misfire Detected · **P0521** Engine Oil Pressure Sensor/Switch Circuit Range/Performance · **P3400** Cylinder Deactivation System (Bank 1)

See it working

Watch the animated explainer [How a CVT Works: Belt and Pulley Transmission](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1622/>

