

GENERIC · POWERTRAIN

P06DE

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P06DE

Engine Oil Pressure Control Circuit Stuck On

P06DE indicates that the engine oil pressure control circuit is stuck in the 'on' state, meaning the powertrain control module (PCM) has commanded the oil pressure control solenoid to a specific duty cycle but the circuit feedback remains continuously energized. The PCM detects this by monitoring the solenoid driver circuit and seeing voltage or current that does not change when commanded, indicating a short to power or a failed solenoid stuck on.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

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
- Low oil pressure warning light or message on the dashboard
- Engine may enter limp mode or reduced power mode
- Rough running or stalling, especially at idle
- Poor fuel economy or increased oil consumption
- Unusual engine noises such as ticking or knocking from the valvetrain

Common causes, most likely first

- 1 Faulty oil pressure control solenoid stuck in the energized position
- 2 Short to power in the oil pressure control circuit wiring
- 3 Damaged or corroded electrical connector at the solenoid
- 4 Failed PCM driver for the oil pressure control circuit
- 5 Mechanical binding in the oil pump or pressure regulator causing the solenoid to remain engaged
- 6 Contaminated engine oil or sludge blocking the solenoid valve



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related oil pressure codes
- 2 Inspect the oil pressure control solenoid connector and wiring for signs of damage, corrosion, or short to power
- 3 Measure resistance and voltage at the solenoid and compare to manufacturer specifications
- 4 Perform a circuit test from the PCM to the solenoid to rule out a short to power
- 5 Replace the oil pressure control solenoid if it is stuck on or out of specification
- 6 Check oil condition and pressure with a mechanical gauge to rule out mechanical issues
- 7 Clear the code and test-drive the vehicle to confirm the repair

Don't overlook the oil pressure control solenoid

- A stuck-on oil pressure control solenoid can cause the oil pump to run at maximum pressure, leading to excessive oil pressure that may damage seals and gaskets over time.
- Some vehicles use the oil pressure control solenoid to vary oil pressure for fuel economy and emissions, so a stuck-on solenoid may not trigger a low oil pressure warning immediately.
- A short to power in the wiring harness can mimic a failed solenoid, so always check the circuit before replacing parts.
- The PCM may set P06DE if the solenoid driver detects an unexpected voltage even when the solenoid is commanded off, which can be caused by a faulty PCM or a shorted wire.
- Engine oil sludge or debris can cause the solenoid valve to stick, so regular oil changes are critical to prevent this code.

Can I keep driving with P06DE?

It is generally safe to drive with P06DE if the engine oil pressure warning light is not on and the engine runs smoothly, but avoid heavy loads and high speeds until the fault is repaired. If the oil pressure warning light illuminates or the engine makes unusual noises, stop driving and seek professional diagnosis immediately.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Mechanical oil pressure gauge
- Wire piercing probes or back probe kit
- Service manual with wiring diagrams



Reading P06DE

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
6	Computer and output circuits.
DE	The exact fault within that area.

Often seen with

P0520 Engine Oil Pressure Sensor/Switch Circuit Malfunction · **P0521** Engine Oil Pressure Sensor/Switch Circuit Range/Performance · **P0522** Engine Oil Pressure Sensor/Switch Circuit Low Voltage · **P0523** Engine Oil Pressure Sensor/Switch Circuit High Voltage · **P06DD** Engine Oil Pressure Control Circuit Performance/Stuck Off

See it working

Watch the animated explainer [How Coil-on-Plug Ignition Works: Coil and Spark Plug](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p06de/>

