

P0524: ENGINE OIL PRESSURE TOO LOW

OVERVIEW

Severity	:	<div><div>Medium</div></div>
DIY Difficulty Level	:	<div><div>Beginner</div></div>
Repair Cost	:	\$50-\$100
Can I Still Drive?	:	Yes

What Does The P0524 Code Mean?

The vehicle's main computer called the Powertrain Control Module (PCM) is in control of many sensors, controls, and electronics in the vehicle. One of the sensors called the oil pressure sensor or sender detects the amount of (mechanical) oil pressure in the engine and relays that in the form of a voltage reading/value to the PCM.

In some vehicles, that oil pressure value is then relayed to a gauge in the instrument cluster to show the driver the oil pressure, other times that gauge is not there but there will be a warning light if there is a problem.

This specific P0524 engine code is triggered when the PCM sees too low of a value in the engine oil pressure sender/sensor. If the engine oil pressure actually does drop too low, the engine can be permanently damaged, so if you notice low oil pressure, it is critical that you pull over and shut off the vehicle as soon as safely possible.



Note: This code is severe, you need to act right away to diagnose & repair. This code is related to [P0520](#),

[P0521](#), [P0522](#) and [P0523](#).

What Are The Symptoms Of The P0524 Code?

Symptoms of a P0524 DTC may include:

- Malfunction Indicator Lamp (MIL) illumination (a.k.a. check engine light)
- Oil pressure warning indicator lamp illuminated
- Oil pressure gauge reading low or zero
- Abnormal engine noise

What Are The Potential Causes Of The P0524 Code?

Potential causes of a P0524 code include:

- Low oil pressure
- Low oil level
- Wrong oil viscosity
- Contaminated oil (fuel, coolant, etc.)
- Faulty oil pressure sensor
- Signal shorted to ground in electrical circuit for sensor
- Worn internal engine components (oil pump, worn bearings, etc.)

How Can You Fix The P0524 Code?

The absolute first step here with a P0524 engine code is to check the oil level & condition. It should be full and not appear contaminated.

Also, check the vehicle's maintenance history. If the engine has not received oil changes using the proper viscosity oil and at regular intervals the likelihood increases that the problem could be worn internal components (i.e. physically low oil pressure). Correct any issues found.

Check for any applicable TSBs (Technical Service Bulletins) for your vehicle before going too far into diagnostics. Off-hand there is a known TSB for certain Chrysler, Jeep, Ram and Dodge vehicles where the fix is to reprogram the PCM (bulletin # 18-008-08). We're also aware of another Mazda TSB that may involve replacing the internal oil pump in the engine (bulletin # R088/12).

Ideally the next step here would be to use a mechanical oil pressure gauge to test the actual oil pressure in the engine. As a DIYer though you might want to go to the next step and check all the wiring and sensor first if you don't have access to that gauge.

You should still locate a gauge and test the actual pressure though. If the engine's actual oil pressure is low you don't need to worry about the sensor & wiring, the problem is internal to the engine.

Visually inspect the wiring and connectors at the oil pressure sensor. Look for broken or frayed wires, burnt spots, loose or exposed wiring, etc. Refer to a model specific resource for the location of the sender. Do the same for the wiring and connectors leading to the PCM.

Use a digital volt ohm meter (DVOM) to check the sensor itself and associated wiring, and if it does not meet manufacturers specifications you should repair/replace it.

Reference Sources

[ENGINE CONTROL SYSTEM \[GASOLINE ENGINE \(V-6\)\] SERVICE MANUAL for P0524](#) - Pages 604-606.