

P0521: ENGINE OIL PRESSURE SENSOR/SWITCH RANGE/PERFORMANCE

OVERVIEW

Severity	:	<div><div>Medium</div></div>
DIY Difficulty Level	:	<div><div>Intermediate</div></div>
Repair Cost	:	\$100-\$200
Can I Still Drive?	:	Yes

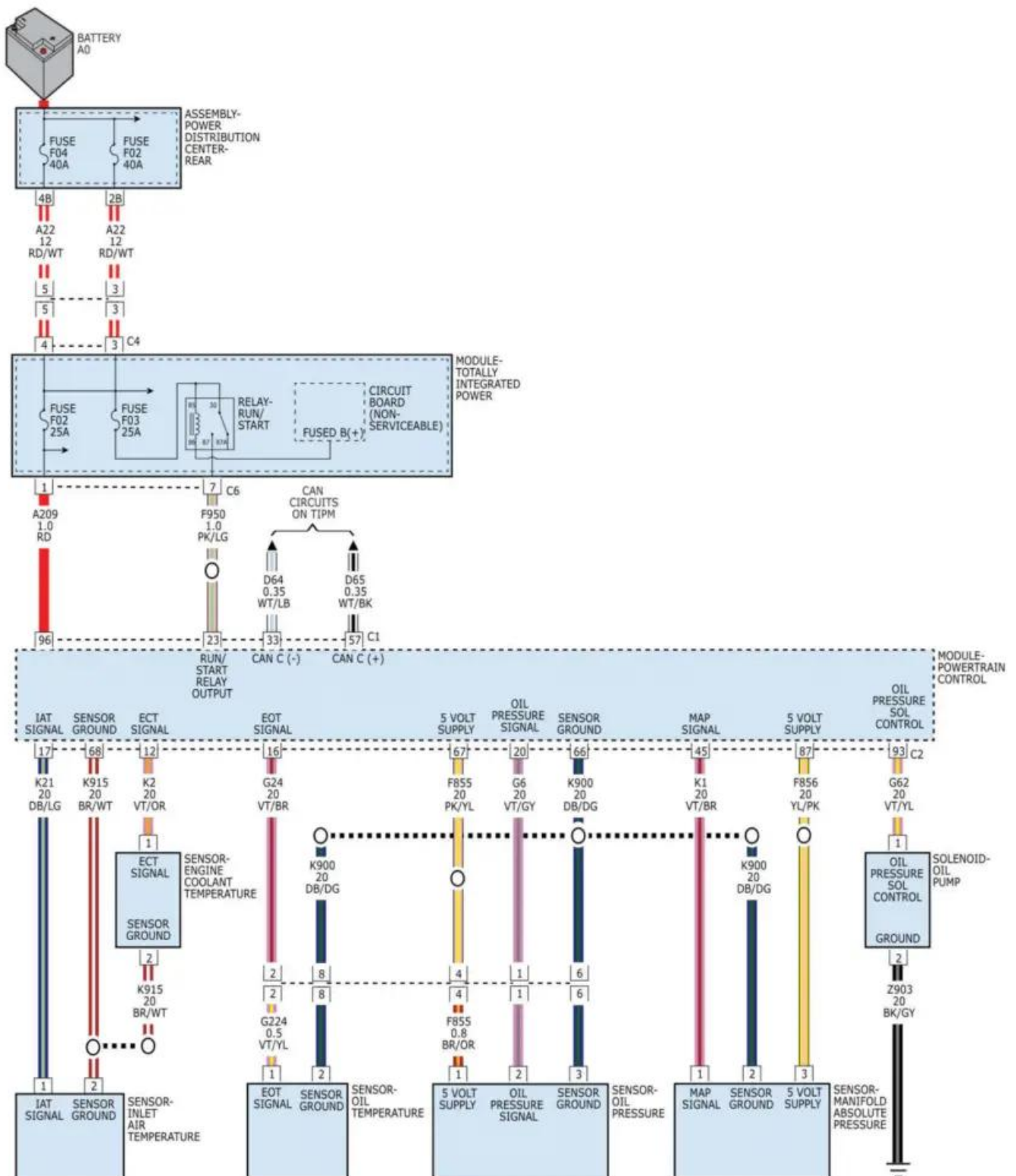
What Does The P0521 Code Mean?

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 P0521 engine code is triggered when the PCM sees an unexpected value in the engine oil pressure sender/sensor. It could be out of it's normal range or could be fixed when it should fluctuate.

For this P0521 trouble code, the cause may be mechanical or electrical, but is more than likely electrical related. This code is related to [P0520](#), [P0522](#), [P0523](#), and [P0524](#).



P0521 wiring diagram

What Are The Symptoms Of The P0521 Code?

Symptoms of a P0521 DTC may include:

- Oil pressure gauge reading low or high
- Oil pressure indicator lamp illuminated

What Are The Potential Causes Of The P0521 Code?

Potential causes of a P0521 code include:

- Low oil level in the engine
- Old dirty oil (overdue for an oil change)
- Low oil pressure
- Faulty wiring or connection/connector in the oil pressure sender circuit
- Faulty oil pressure sender/sensor

How Can You Fix The P0521 Code?

As we said earlier, this code should be addressed ASAP because if there is a mechanical problem like actual low oil pressure it can be a major and expensive repair.

NOTE: For example, there are known service bulletins that applies to a number of certain 2005-2016 GM vehicles including Chevrolet, Cadillac, , Pontiac, Buick, and Saab. The bulletins number are PIP4786C and PIP5276D. Check for any applicable TSBs for your vehicle even if it's not one of those before going too far into diagnostics.

As a vehicle owner / DIYer the first obvious thing to do is to check the oil level using the dipstick. You want to make sure there is adequate oil in the engine and the oil filter or drain plug are not leaking or anything like that.

It's possible you have low or no oil pressure because you have a leak you are not aware of and the oil is gone. Or, perhaps you just had an oil change and the place forgot to refill the oil, tighten the filter enough, there are different reasons you may have a P0521.

If you did have the oil changed recently, verify that the correct oil is in the engine. The wrong oil can cause various engine codes.

Next, visually inspect the wiring and connectors at the oil pressure sending unit. 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.

A professional technician would likely do two things – use a mechanical oil pressure tester installed on the engine to take an actual physical oil pressure check. They would compare that reading with

the values shown by the vehicle's PCM to compare. If you have access to an advanced scan tool and an oil pressure gauge this may be an option for you as well.

Now if you have ruled out that there is an actual problem with oil pressure, the problem lies either within the sensor or the wiring/connectors.

Use a digital volt ohm meter (DVOM) to check the sensor itself, and if it does not meet manufacturers specifications you should replace it. Replacing the sensor/sender will be the most likely repair for this code. If it checks out OK, test the wiring and connectors from the sensor to the PCM. Verify there are no breaks in the wiring due to chafing, pinching, etc. Make sure the electrical connectors are tight and corrosion free.

As you can see there are a number of possible reasons for this code P0521. If you need help stop by our forum.

Severity Description

This code is severe, if you have oil pressure issues with your engine, it could result in major damage, get your vehicle checked ASAP.

Reference Sources

[P0521 Engine Oil Pressure Sensor/Switch Range/Performance](#), OBD-Codes.