

P0160: O2 SENSOR CIRCUIT NO ACTIVITY DETECTED (BANK 2 SENSOR 2)

OVERVIEW

Severity	:	<div><div>Medium</div></div>
DIY Difficulty Level	:	<div><div>Intermediate</div></div>
Repair Cost	:	\$100-\$300
Can I Still Drive?	:	Yes (Short-term only)

What Does The P0160 Code Mean?

This code is for a post-catalyst oxygen sensor that isn't operating properly or not at all. The catalyst, or catalytic converter is used to control emissions. This particular o2 sensor on Bank 2, position 2 is after the converter on bank 2 and monitors the catalyst efficiency of the catalytic converter on that bank.

The PCM (Powertrain Control Module) compares the post-cat o2 sensor to the pre-cat o2 sensors to measure the cat's efficiency.

The o2 sensor is a four wire sensor. The PCM supplies a reference voltage to the sensor of about half a volt and also supplies a sensor ground. 12 volts are supplied for the heater element and also a ground for the heater element (the heater in the sensor helps the sensor to warm up faster which allows the engine to reach closed loop sooner).

The sensor varies the reference voltage the PCM gives it based on oxygen content of the exhaust. The change in oxygen content causes resistance changes in the sensor which affects the 0.5 volt reference voltage. Oxygen sensors are capable of varying the supplied voltage between 0.1 volts to 0.9 volts. Lean exhaust produces low voltage and causes the supplied 0.5 volts to drop. Rich exhaust produces high voltage and causes the supplied 0.5 voltage to increase. Pre-catalyst (front) o2 sensors switch between low and high voltage rapidly one or two times per second.

However this sensor is a post-cat o2 sensor and may switch much slower & not vary as much (this is normal). If the sensor “sticks” or there are too few switches in a given time period, P0160 may set.

What Are The Symptoms Of The P0160 Code?

Symptoms of a P0160 DTC may include:

- MIL (Malfunction Indicator Lamp) on
- May idle or drive poorly
- Fuel economy may decrease

What Are The Potential Causes Of The P0160 Code?

Potential causes of an P0160 code include:

- Holes in exhaust near post cat o2 sensor
- Bad Bank 2, position 2, o2 sensor
- Wiring problem, melted harness, broken connectors, etc.
- Bad PCM

How Can You Fix The P0160 Code?

It's always best to do a visual inspection of the exhaust system first. Look for holes near o2 sensors or wiring harnesses coming in contact with exhaust components. Repair as necessary.

Start the engine and allow it to reach operating temperature. Using a scan tool, observe the Bank 2 position 2 o2 sensor. If it isn't moving at all this doesn't necessarily mean that anything wrong. Post cat o2 sensors often switch very little. Increase the engine RPM to a fast idle and then recheck the sensor voltage reading.

If it starts switching now, the sensor may be sluggish and/or intermittently going “dormant”. Replacing the sensor at this point would be a good idea. Visually check the o2 sensor for contaminants, etc.

If you suspect it's contaminated with coolant or oil, replace it. But, if it still isn't responding after increasing engine RPM, turn off the engine and unplug the 2/2 o2 sensor. With KOEO (key on engine off) check that there is 12 Volts battery voltage and a good ground to the o2 sensor heater element. If the heater element has no battery voltage it can cause the o2 sensor to be sluggish and not switch properly which can cause a P0160.

So, diagnose that problem first(there will usually be other codes present). If there is power and ground to the heater element check that the sensor ground is present. If it is, connect a jumper wire between the sensor ground and signal wire.

Now the 2/2 o2 sensor reading should be low. If so, replace the Bank 2 position 2 o2 sensor. If, after connecting the jumper wire, the o2 sensor reading still remains "stuck", check for wiring problems, harness contacting exhaust components, or broken connectors. Repair as necessary. Then recheck. If you can find no wiring problems and the o2 sensor reading on the scan tool doesn't change after installing the jumper wire, recheck at the PCM connector.

It may be necessary to clip the signal wire near the PCM in a location that will be easy to repair. If it now shows a low voltage reading, then you know beyond a doubt that there is a wiring problem. At this point clipping the offending wire out of the harness and running a new one may be your best bet.

But If it still shows no change, the PCM may be at fault.

Reference Sources

[P0160: O2 Sensor Circuit No Activity B2S2](#), OBD-Codes.