P0323: IGNITION/DISTRIBUTOR ENGINE SPEED INPUT CIRCUIT HIGH

OVERVIEW

Severity	:	Medium
DIY Difficulty Level	:	Advanced
Repair Cost	:	**$200-$400**
Can I Still Drive?	:	**Yes**

What Does The P0323 Code Mean?

The Crankshaft Position Sensor (CKP) provides crankshaft position or crankshaft timing to the Powertrain Control Module or PCM. This information is typically used for engine rpm.

The camshaft position sensor (CMP) provides the PCM with the exact location of the camshaft, camshaft timing or distributor timing. Anytime the voltage rises below a set level in either of these two circuits, the PCM will set code P0323. This code is considered to be an electrical circuit fault only.

Troubleshooting steps may vary depending upon manufacturer, type of ignition/distributor/engine speed sensor, and wire colors to the sensor.

What Are The Symptoms Of The P0323 Code?

Symptoms of a P0323 engine code may include:

- Malfunction Indicator Light On
- Engine cranks but will not start
- Misfire, Hesitation, Stumble, Lack of Power

What Are The Potential Causes Of The P0323 Code?

Potential causes for this code to set are:

- Open in the control circuit (ground circuit) between the ignition/distributor/engine speed sensor and the PCM
- Open in the power supply circuit between the ignition/distributor/engine speed sensor and the PCM
- Short to ground in the power supply circuit to the ignition/distributor/engine speed sensor
- Ignition/distributor/engine speed sensor faulty
- Possibly a PCM has failed (highly unlikely)

How Can You Fix The P0323 Code?

A good starting point is always to check for technical service bulletins (TSB) for your particular vehicle. Your issue may be a known issue with a known fix put out by the manufacturer and can save you time and money during diagnosis.

Next, locate the ignition/distributor/engine speed sensor on your particular vehicle. This may be a crank sensor/cam sensor; it might be a pick up coil/sensor inside the distributor; it may even be a wire coming from the coil going to the PCM to verify ignition system firing.

Once located, visually inspect the connectors and wiring. Look for scraping, rubbing, bare wires, burn spots or melted plastic. Pull the connectors apart and carefully inspect the terminals (the metal parts) inside the connectors.

See if they look burned or have a green tint indicating corrosion. Use electrical contact cleaner and a plastic bristle brush if cleaning of the terminals is needed. Let dry and apply electrical grease where the terminals contact.

Depending upon the vehicle, the most likely cause for the P0323 to set is poor connections/updated ignition parts. This is why a TSB search on your vehicle cannot be stressed enough.

If you have a scan tool, clear the diagnostic trouble codes from memory, and see if P0323 returns. If it does not, then the connections were most likely your problem.

If the P0323 code does return, we will need to test the sensor and its associated circuits. The next steps will be determined by which type of sensor you have: Hall Effect or Magnetic Pick up.

You can usually tell which one you have by the number of wires coming from the sensor. If there are 3 wires from the sensor, it is a Hall Effect sensor. If it has 2 wires, it will be a Magnetic Pick up style sensor.

If it is a Hall Effect sensor, disconnect the harness going to the Camshaft and the Crankshaft

Position Sensors. With a Digital Volt Ohm Meter (DVOM), test the 5V power supply circuit going to each sensor to insure it is being powered up (Red lead to the 5V power supply circuit, black lead to a good ground). If there is no 5 volts to the sensor, repair the wiring from the PCM to the sensor, or possible a bad PCM.

If that's OK, with a DVOM, check to make sure you have 5V on each signal circuit going to each sensor to insure it has a signal circuit (Red lead to the sensor signal circuit, black lead to a good ground). If there is no 5 volts to the sensor, repair the wiring from the PCM to the sensor, or possible a bad PCM.

If that's OK, check to make sure you have a good ground at each sensor. Connect a test light to 12V and touch the other end of the test light to the ground circuit going to each sensor.

If the test light does not light up, this would indicate the problem circuit. If it does light up, wiggle the wiring harness going to each sensor to see if the test light flickers, indicating an intermittent connection.

If it is a Magnetic Pickup style sensor, we can check the sensor itself to see if it is working properly. We will test it for: 1) Resistance 2) A/C voltage output 3) Short to ground

With the sensor disconnected, connect the two leads of your ohmmeter to the 2 terminals of the Camshaft / Crankshaft Position Sensor. Read the ohms resistance and compare it to specifications for your vehicle: typically 750 – 2000 ohms. While still on ohms, disconnect 1 lead of your ohmmeter from the sensor and connect it to a good ground on the vehicle. If you get any ohms reading other than infinite or OL, the sensor has an internal short to ground. Remember not to touch the metal part of the leads with your fingers, as this may affect your readings.

Reconnect the two leads of your DVOM to the 2 terminals of the Camshaft / Crankshaft Position Sensor. Set your meter to read A/C voltage. While cranking the engine over, read the a/c voltage output on your DVOM. Compare to manufacturers specifications for your vehicle. A good rule of thumb is generally .5V AC.

If all tests have passed so far, and you continue to get a P0323 code, this would most likely indicate a failed ignition/distributor/engine speed sensor, although a failed PCM could not be ruled out until the sensor had been replaced.

In some instances, once the sensor has been replaced, it will need to be calibrated to the PCM in order to function properly.

If unsure, seek assistance from a trained automotive diagnostician. PCMs must be programmed, or calibrated to the vehicle in order to be installed correctly.

Reference Sources

P0323: Ignition/Distributor Engine Speed Input Circuit High, OBD-Codes.