P0363: MISFIRE DETECTED - FUELING DISABLED

OVERVIEW

Severity	:	High
DIY Difficulty Level	:	Intermediate
Repair Cost	:	**$100-$200**
Can I Still Drive?	:	No

What Does The P0363 Code Mean?

When I discover a stored code P0363, I immediately know that the powertrain control module (PCM) has detected an ignition misfire and disabled the fuel injector for the affected cylinder. I can also figure – with relative certainty – that the vehicle in question is of European descent.

The PCM monitors variations in the input signals from the crankshaft position sensor (CPS) and camshaft position sensor/s (CMPS) to determine if an ignition misfire is present, as well as which cylinder is misfiring.

Initially, when an ignition misfire is detected, the malfunction indicator lamp (MIL) may flash rapidly for a period of time and stop (instead of remaining illuminated). The purpose of the flashing MIL is to make the driver aware that current driving conditions, combined with a cylinder misfire, might lead to catalytic converter damage. Regardless of the flashing MIL, a misfire code should be stored; though it may be stored as a pending code.

In some vehicles (usually of the European variety), when the PCM detects several ignition cycles with a misfire code, it will disable fuel delivery to the affected cylinder.

This is typically accomplished by disabling the ground pulse to the fuel injector for that particular cylinder. It is a good idea to discontinue fuel delivery to the particular cylinder because the excessive fuel can cause catalytic converter failure. However, for the novice technician it can also lead to confusion when testing. Learn more about the reason for that in the troubleshooting

section.

When an ignition misfire has been detected, a cylinder misfire code has been stored, and fuel delivery to the affected cylinder has been disabled, a code P0363 will be stored and a MIL may be illuminated. One or more cylinder misfire code/s usually accompany this code.

Other misfire codes include P0300, P0301, P0302, P0303, P0304, etc.

What Are The Symptoms Of The P0363 Code?

Symptoms of this code may include:

- Rough or choppy engine operation, especially under acceleration
- Diminished engine performance
- Other misfire related codes will likely be stored
- Flashing MIL is a possibility

What Are The Potential Causes Of The P0363 Code?

Potential causes for this code to set are:

- Defective spark plug(s)
- Faulty ignition coil/s or coil pack(s)
- Moisture or oil in spark plug galley/s
- Cracked or torn spark plug wire(s) or spark plug boot(s)
- Bad fuel injector(s)

How Can You Fix The P0363 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.

A diagnostic scanner and an accurate vehicle information source (like All Data DIY) will be required to diagnose a code P0363.

Since a code P0363 is essentially a reaction to a stored cylinder misfire code, you will need to diagnose any stored cylinder misfire codes (P0301 through P0312) before attempting to diagnose this code.

Although there are numerous tools designed to test ignition coil, spark plug, and fuel injector function, the simple method of swapping components between cylinders has proven effective for me for more years than I care to declare. This may not always be feasible with the fuel injectors but it works well with ignition coils and spark plugs, which fail far more regularly than fuel injectors. For

more tips on diagnosing cylinder misfire codes, see the appropriate entry in OBD II Codes.

You will still need the scanner to retrieve stored codes and freeze frame data. The scanner is also used to clear codes after you have written them down for reference as the diagnostic process continues. Once you have accomplished these things, clear the codes and you are set to begin swapping components for testing purposes.

Obviously, spark plugs will need to be replaced in sets if the vehicle in question is near the recommended replacement interval. Nevertheless, locate the malfunctioning part prior to performing any maintenance. When replacing an ignition coil for a particular cylinder, spark plug replacement is recommended (unless the spark plugs have been recently replaced). This will save you time in the long run.

The problem that creates a ton of confusion is that, when some technicians discover that there is no ground pulse to the injector for the cylinder in question, they treat it as a malfunction instead of a reaction (caused by the PCM) to an ignition misfire. This can have you chasing your tail if you are unfamiliar with the fuel disabling system used in some models.

If the P0363 is stored without any cylinder misfire codes, suspect a defective PCM or a PCM programming error.

Additional diagnostic notes:

- The P0363 code must be cleared before the ground pulse will be restored to the injector for the cylinder in question
- When using the swapping method to test spark plugs, use caution removing plugs from aluminum cylinder heads. The threads (in the aluminum) are very fragile and may be damaged if not allowed to cool properly.

Severity Description

A stored code P0363 is in reaction to one or more cylinder misfire code/s which should be treated as severe in nature.

Reference Sources

P0363: Misfire Detected - Fueling Disabled, OBD-Codes.