P062B: INTERNAL CONTROL MODULE FUEL INJECTOR CONTROL PERFORMANCE

OVERVIEW

Severity	:	High
DIY Difficulty Level	:	Intermediate
Repair Cost	:	**$300-$900**
Can I Still Drive?	:	No

What Does The P062B Code Mean?

When a code P062B is stored, it means that the powertrain control module (PCM) has detected an internal performance error with the fuel injection control system. Other controllers may also detect an internal PCM performance error (in the fuel injection control system) and cause a P062B to be stored.

Internal control module monitoring processors are responsible for various controller self-test duties and overall internal control module accountability. Fuel injection control system input and output signals are subject to self-test and are monitored constantly by the PCM and other related controllers. The transmission control module (TCM), traction control module (TCSM), and other controllers are subject to interaction with the fuel injection control system.

Typically, the fuel injector controller is integrated into the PCM. At least one fuel injector per cylinder is used to deliver a precise amount of fuel to the cylinder at the exact instant it is required to maximize performance and efficiency.

You could think of each fuel injector as a type of solenoid that is opened or closed using battery voltage. When the ignition is ON, constant battery voltage is supplied to each fuel injector. To complete the circuit, and cause each fuel injector to spray a precise amount of fuel at the appropriate time, the PCM supplies an instantaneous ground pulse.

The PCM uses input signals from the crankshaft position (CKP) sensor, the camshaft position (CMP) sensor, the oxygen sensors, the mass airflow (MAF) sensor, and the throttle position (TPS) sensor to monitor fuel injector controller performance.

Whenever the ignition is on and the PCM is energized, fuel injection control system self-tests are initiated. In addition to running internal controller self-tests, the controller area network (CAN) also compares signals from each individual module to ensure that each controller is functioning properly. These tests are performed simultaneously.

If the PCM detects discrepancies in the internal fuel injector control system, a code P062B will be stored and a malfunction indicator lamp (MIL) may be illuminated. Additionally, if the PCM detects a discrepancy between any of the on-board controllers, which would indicate an internal fuel injector controller error, a code P062B will be stored and a malfunction indicator lamp (MIL) may be illuminated. Multiple failure cycles may be necessary for MIL illumination, depending upon the perceived severity of the malfunction.

What Are The Symptoms Of The P062B Code?

Symptoms of a P062B trouble code may include:

- Engine misfire
- Excessively lean or rich exhaust
- Hesitation upon acceleration
- Misfire codes stored

What Are The Potential Causes Of The P062B Code?

Causes for this P062B trouble code may include:

- Open or shorted circuit or connectors in the CAN harness
- Insufficient control module ground
- Defective fuel injector/s
- Defective controller or programming error
- Open or shorted circuits between the fuel injector and the PCM

How Can You Fix The P062B Code?

Even to the most experienced and well-equipped professional technician, diagnosing a code P062B can prove to be quite a challenge. There is also the issue of reprogramming. Without the necessary reprogramming equipment, it will be impossible to replace a defective controller and complete a successful repair.

If there are ECM/PCM power supply codes present, they will obviously need to be rectified before

attempting to diagnose a P062B. Also, if there are individual fuel injector codes or fuel injector circuit codes present, these must be diagnosed and repaired first.

There are several preliminary tests that can be performed prior to declaring an individual controller defective. A diagnostic scanner, a digital volt/ohmmeter (DVOM), and a source of reliable vehicle information will be required. A fuel injector noid light will also prove helpful when testing fuel injector circuits.

Step 1

Connect the scanner to the vehicle diagnostic port and retrieve all stored codes and freeze frame data. You will want to write this information down, just in case the code proves to be an intermittent one. After recording all pertinent information, clear the codes and test drive the vehicle until the code is reset or the PCM enters readiness mode.

If the PCM enters readiness mode, the code is intermittent and will be more difficult to diagnose. The condition, which caused the P062B to be stored, may even need to worsen before a diagnosis can be made. If the code is reset, continue with this short list of preliminary tests.

Step 2

When attempting to diagnose a P062B, information may be your greatest tool. Search you vehicle information source for technical service bulletins (TSB) that parallel the code stored, vehicle (year, make, model, and engine), and symptoms exhibited. If you find the right TSB, it may yield diagnostic information that will aid you in a major way.

Use your source of vehicle information to obtain connector face views, connector pin-out charts, component locators, wiring diagrams, and diagnostic flow charts related to the code and vehicle in question.

Step 3

Use the noid lamp to test the individual fuel injector circuits and make repairs as necessary. Use the DVOM to test fuel injectors following manufacturer's specifications and procedures. If all fuel injectors and fuel injector circuits appear to be functioning as intended, proceed by testing the controller power supply and ground.

Step 4

Use the DVOM to test controller power supply fuses and relays. Test and replace blown fuses as required. Fuses should be tested with the circuit loaded.

Step 5

If all fuses and relays appear to be functioning as intended, a visual inspection of controller related wiring and harnesses is in order. You will also want to check chassis and engine ground junctions. Use your vehicle information source to obtain ground locations for related circuits. Use the DVOM to test ground integrity.

Step 6

Visually inspect system controllers for signs of water, heat, or collision damage. Any controller that is damaged, especially by water, should be considered defective.

Step 7

If controller power and ground circuits are intact, suspect a defective controller or a controller programming error. Controller replacement will require reprogramming. In some cases, you may purchase reprogrammed controllers through aftermarket sources.

Other vehicles/controllers will require on-board reprogramming that may only be done through a dealership or other qualified source.

Note:

- Unlike most other codes, the P062B is likely caused by a defective controller or a controller programming error
- Test system ground integrity by connecting the negative test lead of the DVOM to ground and the positive test lead to battery voltage

Severity Description

Internal control module processor codes should be categorized as severe. A stored code P062B could result in serious drivability issues, suddenly and without warning.

Reference Sources

ENGINE CONTROL SYSTEM [GASOLINE ENGINE (V-6)] SERVICE MANUAL for P062B - Pages 630-631.