P061A: INTERNAL CONTROL MODULE TORQUE PERFORMANCE

OVERVIEW

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

What Does The P061A Code Mean?

When a code P061A is stored, it means that the powertrain control module (PCM) has detected an internal performance error in the engine torque monitoring system. Other controllers may also detect an internal PCM performance error (with the engine torque monitoring system) and contribute to a P061A being stored.

Internal control module monitoring processors are responsible for various controller self-test duties and overall internal control module accountability. Engine torque calculation 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 engine torque monitoring system.

Engine torque is monitored (by the PCM and other controllers) using input signals from the mass air flow (MAF) sensor and the accelerator pedal position (APP) sensor (also called the pedal position sensor).

Desired or approximate required engine torque is calculated using the APP sensor and actual engine torque is calculated using data from the MAF sensor.

Whenever the ignition is on and the PCM is energized, internal engine torque monitoring 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 all controllers are functioning properly. These tests are performed simultaneously.

If the PCM detects a discrepancy in desired torque and actual torque (more than 50-Newton meters for more than 1-second) with the engine RPM above 5,000 RPM and volumetric efficiency greater than 16-percent, a code P061A 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 P061A Code?

Symptoms of a P061A trouble code may include:

- Hesitation or stumble upon acceleration
- Acceleration becomes unresponsive
- Diminished fuel efficiency
- MAF or throttle actuator codes are also present

What Are The Potential Causes Of The P061A Code?

Causes for this code may include:

- Bad throttle valve control servo
- Open or shorted circuit in the throttle valve control servo circuit
- Clogged air filter element
- Debris on the MAF sensor hot wire
- Defective APP/MAF sensor
- Corroded electrical MAF sensor connector
- Defective PCM or PCM programming error
- Open or shorted circuit or connectors in the CAN harness
- Insufficient control module ground
- Open or shorted circuits between the APP/MAF sensor and the PCM

How Can You Fix The P061A Code?

Even to the most experienced and well-equipped professional technician, diagnosing a code P061A 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 P061A. Also, if there are MAF/APP sensor or throttle position sensor (TPS) codes present, these must be diagnosed and repaired first.

Follow manufacturer's recommendations for testing MAF, APP, and TPS sensors. The oscilloscope can be particularly helpful when testing APP and TPS sensors. Replace failed components as required.

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. An oscilloscope may also prove to be helpful.

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 P061A 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 P061A, 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.

Step 3

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.

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 4

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 5

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 6

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.

- Unlike most other codes, the P061A 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 P061A could result in serious drivability and fuel efficiency issues, suddenly and without warning.

Reference Sources

Diagnostic Trouble Code (DTC) Charts and Descriptions for P061A - Page 93.