

P0600: SERIAL COMMUNICATION LINK MALFUNCTION

OVERVIEW

Severity	:	High
DIY Difficulty Level	:	Advanced
Repair Cost	:	\$300-\$900
Can I Still Drive?	:	Yes

What Does The P0600 Code Mean?

This code indicates a malfunction in the wiring link between the electronic control module (ECM) and one of its supporting control modules. On board diagnostics (OBD) trouble code P0600 is generic by design and encompasses all computer-controlled vehicles.

Explanation Of OBD Code P0600

Your vehicle's ECM or powertrain control module (PCM) has lost its control over one or more actuator modules. Most vehicles have as many as 18 actuators that the primary ECM controls. It does so through a controller area network (Can Bus Automotive Network), which is a series of wiring harnesses from the ECM to the controllers.

The controllers operated by the ECM, known as modules, control the majority of the functions of your vehicle. The code P0600 was set when the ECM recognized a loss of communication and control over one or more of these modules for eight consecutive starts.

ECM And Associated Control Modules

This is a list of the primary control modules operated by the ECM:

- Fuel injection system

- Ignition system
- Variable camshaft timing
- Turbo charger
- Emission systems
- Air conditioning
- Transmission shift points
- Body ride control
- ABS brakes
- Cruise control
- Anti-theft
- Sunroof and seat position
- Power windows
- Traction control systems
- Proximity alerts

These are just a few, not to mention all the available computer controlled options available today.

What Are The Symptoms Of The P0600 Code?

This is a commonly misdiagnosed code inasmuch as it may cause a deceptive symptom. Always bear in mind that the code P0600 indicates a communication failure. For instance — an ignition system failure or a failed fuel injector can cause a misfire.

An inexperienced technician may begin by attempting to diagnose the affected system rather than the loss of communication. If the ECM is not controlling the ignition control module or grounding the fuel injector, a misfire will occur.

This is not a fault with the system, but with control of the system itself. Depending on the location of the failure, the following symptoms may be present:

- Check engine light illuminated accompanied by an additional code,
- ABS light illuminated,
- Transmission light illuminated (vehicle may not shift properly),
- Big drop in fuel economy,
- Driveability problems may occur, such as stalling at an idle, rough running and poor acceleration, or
- Problems with a particular system indicating a possible communication loss in this area.

What Are The Potential Causes Of The P0600 Code?

Experience has proven that a poor connection or failed ECM driver is the root cause of this code. For the most part, the ECM acts as a ground to control these components and modules as opposed to supplying power to them.

A loose or corroded connector is more likely than a frayed or broken wire between both devices. Poor grounds are another plausible cause. The ECM, as well as the activator module, need a good ground to operate.

The wiring harness or Can Bus may be defective and have a short to ground or an open wire.

How Can You Fix The P0600 Code?

The best advice concerning the diagnosis and repair of this particular code is to take the vehicle to a professional technician that has a Autohex or Tech II diagnostic computer.

If you unplug the ECM or the associated wiring and then probe the terminals, your bank account could suffer extreme consequences.

Most vehicles need to have a memory saver installed before disconnecting the battery to retain the ECM's memory. Should the ECM lose its memory due to lack of power, the vehicle will not start until reprogrammed at the dealer.

Probing the wiring must be done systematically using the wiring diagram and pin values. If you probe the wrong terminal, the ECM and/or its associated module will be destroyed.

A competent technician will program your vehicle's information into his Autohex or similar diagnostic computer in preparation to diagnose the P0600 code. He will then start the vehicle and monitor all the systems in real time. The tool shows the pin values and modules in operation and indicates any abnormalities. It's an essential tool for diagnosing wiring or computer related problems without running the risk of damaging any components.

If you're fortunate, symptoms or an additional code following code P0600 will steer you to the system in question experiencing the communication failure.

Upon identifying the system through symptoms or an additional code, check the connections for discrepancies such as loose or corroded terminals. A service manual with the wiring diagrams, pin values, locations of connectors, precautions and procedures are imperative.

Reference Sources

[Diagnostic Trouble Code \(DTC\) Charts and Descriptions for P0600](#) - Page 89.