

P0624: FUEL CAP LAMP CONTROL CIRCUIT

OVERVIEW

Severity	:	High
DIY Difficulty Level	:	Intermediate
Repair Cost	:	\$100-\$250
Can I Still Drive?	:	Yes

What Does The P0624 Code Mean?

A stored code P0624 means that the powertrain control module (PCM) has detected a malfunction with the fuel cap lamp control circuit.

The fuel cap lamp is contained in the instrument panel. Its primary purpose is to warn the driver of a loose or missing fuel cap, when it is illuminated.

Fuel warning lamp operation is controlled by the PCM. Using input signals from the fuel tank pressure switch and other sensors, the PCM determines whether or not the fuel cap is properly installed in the fuel filler neck. If the PCM determines that the cap is loose or missing, fuel cap lamp illumination should be triggered.

The PCM typically monitors the continuity of the fuel cap lamp control circuit whenever the engine is running.

Each time the ignition is turned on and the PCM is energized, multiple controller self-tests are performed. In addition to running internal controller self-tests, the controller area network (CAN) is used to compare signals from each individual module to ensure that the various controllers are interfacing properly.

If a problem is detected in monitoring the fuel cap lamp control circuit, a code P0624 will be stored and a malfunction indicator lamp (MIL) may be illuminated. Depending upon the perceived severity of the malfunction, multiple failure cycles may be necessary for MIL illumination.

What Are The Symptoms Of The P0624 Code?

Symptoms of a P0624 trouble code may include:

- Diminished fuel efficiency
- Evaporative emissions system deactivation
- Other stored codes

What Are The Potential Causes Of The P0624 Code?

Causes for this code may include:

- Faulty PCM
- PCM programming error
- Open or shorted fuel cap lamp control circuit
- Defective, loose, or missing fuel cap
- Failed fuel cap warning lamp bulb

How Can You Fix The P0624 Code?

A diagnostic scanner, a digital volt/ohmmeter (DVOM), and a source of reliable vehicle information will be required to diagnose a code P0624.

Consult your vehicle information source for technical service bulletins (TSB) that replicate the code stored, vehicle (year, make, model, and engine), and symptoms exhibited. If you find the appropriate TSB, it may yield helpful diagnostic.

Retrieve All Stored Codes

Begin by connecting the scanner to the vehicle diagnostic port and retrieving 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.

Clear The Codes And Test Drive

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 P0624 to be stored, may even need to worsen before a diagnosis can be made. If the code is reset, continue with your diagnosis.

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.

Visually Inspect The Controller Related Wiring And Harnesses

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.

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

Suspect A Defective Controller

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.

- If the fuel cap warning lamp fails to illuminate during key-on-engine-off (KOEO) operation, suspect a defective fuel cap warning lamp bulb
- Test controller ground integrity by connecting the negative test lead of the DVOM to ground and the positive test lead to battery voltage

Severity Description

A stored code P0624 should be addressed with some urgency. A loose or missing fuel cap may result in fuel contamination in addition to permitting the release of harmful fuel vapors into the atmosphere.

Reference Sources

[P0624 Fuel Cap Lamp Control Circuit](#), OBD-Codes.