# U0119: LOST COMMUNICATION WITH FUEL CELL CONTROL MODULE OVERVIEW Severity: Medium DIY Difficulty Level: Intermediate Repair Cost: \$75-\$200 Can I Still Drive?: Yes (Short-term only)

### What Does The U0119 Code Mean?

This code means that the Fuel Cell Control Module (FCCM) and other control modules on the vehicle are not communicating with each other. The circuit most often used to communicate with is known as Controller Area Network bus communications, or simply put, CAN bus.

Without this CAN bus, control modules cannot exchange information, and your scan tool may not be able to get information from the vehicle, depending on which circuit is affected.

The FCCM determines the concentration of hydrogen being generated by the fuel cell. The module communicates this information to the instrument cluster and the Powertrain Control Module (PCM). The PCM uses this information to control how much fuel is delivered to the engine during all modes of operation.

Troubleshooting steps may vary depending upon manufacturer, type of communications system, number of wires and wire colors in the communication system.

# What Are The Symptoms Of The U0119 Code?

Symptoms of a U0119 engine code may include:

Malfunction Indicator Light (MIL) On



- Hybrid warning indicator On if equipped
- Vehicle may not start or run
- Vehicle may run but on gasoline engine only if hybrid

### What Are The Potential Causes Of The U0119 Code?

Typically the causes for this code to set are:

- Open in the CAN bus + circuit
- Open in the CAN bus circuit
- Short to power in either CAN bus circuit
- Short to ground in either CAN bus circuit
- Open power or ground to FCCM most common
- Rarely faulty control module

### How Can You Fix The U0119 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.

# Step 1

First, note if there are any other diagnostic fault codes. If any of them are bus communication related, or battery / ignition related, diagnose them first. Misdiagnosis has been known to occur if you diagnose the U0119 code before any of the basic codes have been thoroughly diagnosed and dismissed.

If your scan tool can access fault codes and the only one you retrieve from other modules is the U0119, try to access the Fuel Cell Control Module. If you can access codes from the FCCM module, then the U0119 code is either intermittent or a memory code. If unable to access codes for the FCCM module, then the U0119 code that the other modules are setting is active, and the problem is there now.

# Step 2

The most common failure is loss of power or ground to the FCCM module.

Before going any further, a word of caution: If this is utilized with a hybrid system: This is a High Voltage system! If warnings are not heeded, and/or the manufacturer's steps to protect and diagnose are not adhered to, damage to the vehicle is VERY likely and can lead to injury/personal harm to yourself. If unsure of any step in diagnosis, it is highly recommended that you leave the diagnosis of this code on this system to someone who has received training on it.



Check all fuses that power up the FCCM module on this vehicle. Check all grounds for the FCCM. Locate where the ground attaching points are on the vehicle and make sure that these connections are clean and tight. If you have to, take them off, get a small wire bristle brush and baking soda/water solution and clean each one, both the connector and where it connects.

If any repairs were made, clear the diagnostic trouble codes from memory, and see if the U0119 code returns or if you are able to communicate with the FCCM module. If the code does not return or communication is re-established, then the fuses/connections were most likely your problem.

# Step 4

If the code returns, locate the CAN bus communication connections on your particular vehicle, most importantly the FCCM module connector.

BEFORE CONTINUING, IF THIS IS A HYBRID SYSTEM: DISABLE THE HIGH VOLTAGE SYSTEM FOLLOWING ALL MANUFACTURERS SAFETY PRECAUTIONS AND PROCEDURE

Disconnect the negative battery cable before unplugging the connector at the FCCM control module. Once located, visually inspect the connectors and wiring. Look for scraping, rubbing, bare wires, burn spots or melted plastic. Pull the connectors apart and carefully inspect the terminals (the metal parts) inside the connectors. See if they look burned or have a green tint indicating corrosion. Use electrical contact cleaner and a plastic bristle brush if cleaning of the terminals is needed. Let dry and apply electric grease where the terminals contact. Reconnect all connectors. Clear all codes.

## Step 5

If all tests have passed and communication is still not possible, or you were unable to clear the U0119 fault code, the only thing left that can be done is to seek assistance from a trained automotive diagnostician, as this would indicate a failed FCCM module. Most of these FACM modules must be programmed, or calibrated to the vehicle in order to be installed correctly.

# **Severity Description**

Severity in this case depends upon the system. Because this powertrain control system provides information related to the fuel system, possibly hydrogen related, safety is a concern when diagnosing these systems. Also, safety is a concern during servicing any of these systems as well. ALWAYS consult service information prior to disassembly/diagnosing these systems.

### **Reference Sources**

U0119 Lost Communication with Fuel Cell Control Module, OBD-Codes.

