

U0169: LOST COMMUNICATION WITH SUNROOF CONTROL MODULE

OVERVIEW

Severity	:	Low
DIY Difficulty Level	:	Intermediate
Repair Cost	:	\$75-\$200
Can I Still Drive?	:	Yes

What Does The U0169 Code Mean?

This code means that the Sunroof Control Module (SCM) 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 sunroof control module is typically located in the roofline next to the sunroof between the A and B pillars. It receives inputs from a variety of sensors, some hardwired directly to it, most are sent over the bus communications system. These inputs allow the module to control the position of the sunroof.

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 U0169 Code?

Symptoms of a U0169 code may include:

- Sunroof inoperative

What Are The Potential Causes Of The U0169 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
- No power or ground to SCM module
- Rarely – faulty control module

How Can You Fix The U0169 Code?

Preparation

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.

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 U0169 code before any of the basic codes have been thoroughly diagnosed and dismissed.

Step 1

If your scan tool can access fault codes and the only one you get from other modules is the U0169, try to access to the sunroof control module (SCM). If you can access codes from the SCM, then the U0169 code is either intermittent or a memory code. If unable to access the SCM, then the U0169 code that the other modules are setting is active, and the problem is there now.

Step 2

The most common failure is a circuit fault which causes the loss of power or ground to the sunroof control module.

Check all fuses that power up the SCM module on this vehicle. Check all grounds for the SCM. 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 U0169 code returns or if you are able to communicate with the SCM module. If the code does not return

or communication is re-established, then the fuses/connections were most likely your problem.

Step 3

If the code returns, locate the CAN bus communication connections on your vehicle, most importantly the SCM connector, which is usually located in the roofline next to the sunroof between the A and B pillars. Disconnect the negative battery cable before unplugging the connector at the SCM 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 dielectric silicone grease where the terminals contact.

Before connecting the connectors back to the SCM, make these few voltage checks. You will need to have access to a digital volt-ohmmeter (DVOM). Verify that you have power and ground at the SCM. Gain access to a wiring diagram and determine where the main powers and grounds come into the SCM. Reconnect the battery before continuing, with the SCM still disconnected.

Connect the red lead of your voltmeter to each B+ (battery voltage) supply coming into the SCM connector and the black lead of your voltmeter to a good ground (if not sure, battery negative always works). You should see a reading of battery voltage. Verify that you have good grounds as well. Hook the red lead of your voltmeter to battery positive (B+) and the black lead to each ground circuit. Once again you should see battery voltage at each connection. If not, repair the power or ground circuit problem.

Step 4

Next, check the two communication circuits. Locate the CAN B+ (or MSCAN + circuit) and CAN B- (or MSCAN – circuit). With the black lead of your voltmeter connected to a good ground, connect the red lead to CAN B+. With the Key On, Engine Off, you should see about 0.5 volts and fluctuating slightly. Next, connect the red voltmeter lead to the CAN B- circuit. You should see approximately 4.4 volts and fluctuating slightly.

If all tests have passed and communication is still not possible, or you were unable to clear the U0169 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 SCM. Most of these SCM must be programmed, or calibrated to the vehicle to be installed correctly.

Severity Description

Severity in this case is not at all severe due to the the fact that it involves a customer convenience

feature.

Reference Sources

[U0169 Lost Communication With Sunroof Control Module](#), OBD-Codes.