

U0110: LOST COMMUNICATION WITH DRIVE MOTOR CONTROL MODULE (DMCM)

OVERVIEW

Severity	:	High
DIY Difficulty Level	:	Intermediate
Repair Cost	:	\$75-\$1500
Can I Still Drive?	:	Yes (Short-term only)

What Does The U0110 Code Mean?

This code means that the Drive Motor Control Module (DMCM) 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 DMCM may also be called the Inverter-Converter Assembly. The DMCM communicates with the engine computer (PCM) to determine how the drive motors are to be used: connected to the vehicle batteries as drive motors; along with the gasoline engine as a dual power supply; or as generators charging the batteries as the gasoline engine propels the vehicle or during deceleration and braking, known as regenerative braking.

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 U0110 Code?

Symptoms of a U0110 engine code may include:

- Malfunction Indicator Light (MIL) On
- Hybrid warning indicator On
- Vehicle may not start or run

What Are The Potential Causes Of The U0110 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
- Rarely – faulty control module

How Can You Fix The U0110 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 U0110 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 get from other modules is the U0110, try to communicate with the DMC module. If you can access codes from the DMC module, then the U0110 code is either intermittent or a memory code. If unable to communicate with the GPCM module, then the U0110 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.

Before going any further a word of caution: 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 DMC module on this vehicle. Check all grounds for the DMC module. 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 all the modules that set the code in memory, and see if the U0110 code returns or if you are able to communicate with the DMC module. If the code does not return or communication is re-established with the DMC module, then the fuses/connections were most likely your problem.

Step 3

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

DISABLE THE HIGH VOLTAGE SYSTEM FOLLOWING ALL MANUFACTURERS SAFETY PRECAUTIONS AND PROCEDURES,

Then disconnect the negative battery cable before unplugging the connector at the DMC 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. Reconnect all connectors. Clear all codes.

Step 4

If communication is still not possible, or you were unable to clear the U0110 fault code, the only thing left that can be done is to seek assistance from a trained automotive diagnostician, as this could indicate a failed DMCM module, or possible wiring issues with the CAN bus communication system. DMCM modules must be programmed, or calibrated to the vehicle in order to be installed correctly.

Reference Sources

[U0110 Lost Communication with Drive Motor Control Module \(DMCM\)](#), OBD-Codes.