# U0159: LOST COMMUNICATION WITH PARK ASSIST CONTROL MODULE A

OVERVIEW

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|---|---|---|
| **Severity** | : | Medium |
| **DIY Difficulty Level** | : | Intermediate |
| **Repair Cost** | : | **$75-$200** |
| **Can I Still Drive?** | : | **Yes** (Short-term only) |

## What Does The U0159 Code Mean?

This code means that the Park Assist Control Module A (PACM-A) 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 PACM-A is typically located in the trunk of the vehicle. 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 display information to the driver relating to the rear of the vehicle and what is within proximity to it.

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 U0159 Code?

Symptoms of a U0159 code may include:

- Park Assist Control Module A displaying no information / blank screen / no warnings

## What Are The Potential Causes Of The U0159 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 PACM-A module
- Rarely – faulty control module

## How Can You Fix The U0159 Code?

### Step 1

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 U0159 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 U0159, try to access to the PACM-A. If you can access codes from the PACM-A, then the U0159 code is either intermittent or a memory code. If unable to access the PACM-A, then the U0159 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 PACM-A.

Check all fuses that power up the PACM-A module on this vehicle. Check all grounds for the PACM-A. 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 U0159 code returns or if you are able to communicate with the PACM-A 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 PACM-A connector, which is usually in the trunk of the vehicle. Disconnect the negative battery cable before unplugging the connector at the PACM-A 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 PACM-A, 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 PACM-A. Gain access to a wiring diagram and determine where the main powers and grounds come into the PACM-A. Reconnect the battery before continuing, with the PACM-A still disconnected.

Connect the red lead of your voltmeter to each B+ (battery voltage) supply coming into the PACM-A 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 U0159 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 PACM-A. Most of these PACM-As must be programmed, or calibrated to the vehicle to be installed correctly.

## Severity Description

Severity in this case is moderate due to the safety issues that arise from the possibilities of a PACM-A giving incorrect information regarding vehicle obstructions.

## Reference Sources

U0159 Lost Communication With Park Assist Control Module A, OBD-Codes.