

Basic ECM Connectivity Troubleshooting



Article Summary: Steps you can take to resolve ECM connectivity issues

Revised Date: 2019-04-16

Occasionally you may find that a tablet in your fleet is experiencing a diagnostic or malfunction event due to losing connection to the ECU/ECM on your vehicle.

This can be a simple fix, or indicative of a larger issue. The basic steps below will help you check for an issue and contains steps to quickly resolve minor problems.

Diagnosis

If you suspect an ECM connectivity problem, you can check the following to see if engine data is being reported:

1. Driver Performance Report

If a vehicle has lost its connection to the ECM entirely, this report will not populate for drivers. The data it uses comes solely from that connection.

2. Hours of Service

A driver’s daily log book includes entries for “ELD Events”. These are events that trigger for proper use of an ELD device and include entries for when the engine is turned on, turned off, or connectivity is lost to the ELD. If you see a lack of “Engine on”, “Engine off” or an abundance of the same events (usually 10 or more pairs per day) this could indicate a complete lack of connection or be symptomatic of an intermittent connection.

Long periods of time without a connection where data may be missing will also write “Diagnostic Started” or “Malfunction Started” events to this ELD Events section.

ELD Events		
Time	Event	Location
06:51	Logged In	10 km NNW 100 Mile House, BC
06:51	Engine On	10 km NNW 100 Mile House, BC
06:51	Signature	10 km NNW 100 Mile House, BC
-PARTIAL LOG-		

Cradle Tightness (if using a locking cradle)

The first thing to check on is if the cradle installed in the vehicle that holds the tablet is mounted correctly and set to the correct tightness.

Note: if you have a 'Fixed cradle' that doesn't have a locking mechanism and doesn't need the IntelliSkin then you can skip this step.

- The RAM Locking Cradle needs to be set to a tightness setting of '8'. A document outlining how to set that tightness is located here:
<http://navistream.stti.ca/en/support/solutions/articles/1000273050-how-to-tighten-the-ram-locking-cradle>
- If you needed to make an adjustment, check to see if your connectivity is restored afterwards.
- At this point, note if the tablet is charging or not. This information will be helpful in later steps.

Direct Connection

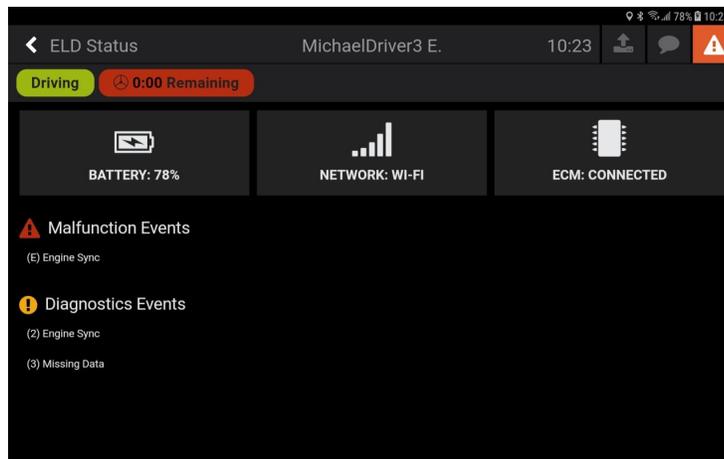
If tightening the cradle did not help, then the next step is to bypass this hardware setup and directly connect the tablet to our NaviLink Gateway Module installed in the vehicle.

Note: if you have a 'Fixed cradle' as mentioned in the step above, then you're already connected in this manner and you can skip this step.

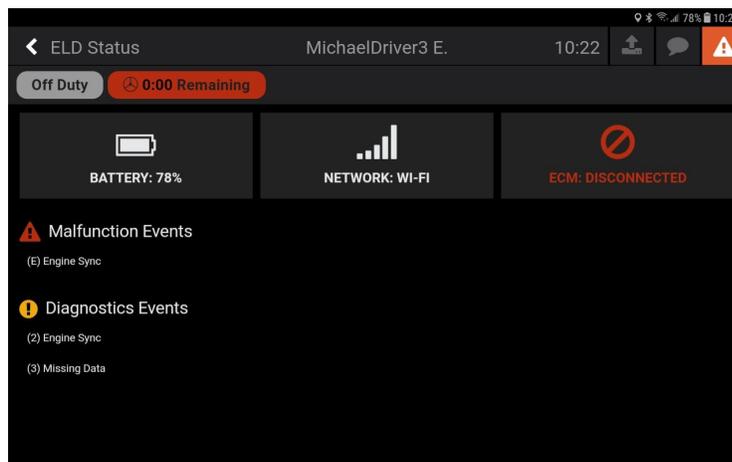
1. Locate the USB cable running from the dash panel that feeds into the locking cradle. It will be connected at a green USB connector. Disconnect this cable.
2. Remove the tablet from the cradle.
3. Remove the IntelliSkin from the tablet being careful not to damage it. Video instructions on proper removal can be found here:
<http://navistream.stti.ca/en/support/solutions/articles/1000272714-how-do-i-remove-the-intelliscreen-case-from-the-tablet->
4. Directly connect the USB cable from step 1 into the tablet.
5. If your tablet wasn't charging before, note if it's charging now.
6. Turn the engine on and see if the information panel (icon in the very top-right) on the tablet shows that the ECM is connected.

Basic ECM Connectivity Troubleshooting

- Log into the tablet. On the Vehicle Configuration screen, click on the icon on the top right of the screen. This icon may appear as either a red triangle, or a yellow or white circle. This will bring you to the ELD Status screen.
 - The screenshot below indicates that the currently connected tablet has a good charge and ECM connection. We know this because the battery icon shows a lightning bolt through it, indicating charging and because the third tile to the right says ECM: CONNECTED.



- The screenshot below indicates that the currently connected tablet is neither charging, nor has a good ECM connection. We know this because of the lack of a lightning bolt indicator on the battery icon and because the third tile to the right says ECM: DISCONNECTED.



Electrical Test

If the tablet is not charging after directly connecting, we'll do some electrical tests:

1. Try plugging in a different device to the USB. This is a standard USB Micro cable and a lot of other tablets and cell phones use this connection. If you have a device you can test here, please do so. This lets us know that we're sending power through the cable.
2. If a different device charges fine, but your tablet does not try plugging it into a wall charger. Newer tablets may have been packaged with one in the box they were shipped in. A standard USB Micro phone charger will also work.
3. If the tablet does not charge on the wall charger please contact support for help. A replacement tablet may be necessary.
4. If the tablet does charge while on the wall charger, then please check the electrical connections in the vehicle. Be sure to check for blown fuses. You may also need to open the dash panel to make sure the connections are secure.

Checking the NaviLink and Wiring Harness

If your fuses are fine and there is no electrical coming through the USB cable then we'll need to make sure it and the device it's connected to are connected properly and not damaged in any way.

1. Open up the dash panel and follow the USB cable to where it connects to our wiring harness. This cable screws into the wiring harness and if it's not tight may be the source of the connection. Please ensure it's screwed in as tightly as possible.
2. While here, check the other connections on the NaviLink. Our wiring harness is plugged into the 6/9 pin deutsch connector used for diagnostics and telematics systems. Make sure it's screwed in tightly.
3. Verify that this wiring harness is the correct harness for your vehicle. This information would have been provided to you during the purchase process. If you're unsure, please contact support to inquire.
4. Check that the large rectangular wiring block is tightly inserted into the NaviLink and screwed in. If this is loose, tighten it.
5. After this if we still cannot get a charge from the USB cable then you can skip the next step and contact support for additional assistance.

Basic ECM Connectivity Troubleshooting



Rebooting the NaviLink

If you are getting a charge from the cable but are still unable to get a connection to the ECM then please try rebooting the NaviLink. There are a few ways of doing this but we'll outline the easiest or most common below:

- Flipping the night switch
- Pulling the battery
- Disconnecting the NaviLink from its power source in some other method

If all else fails

Then please contact support for assistance. Let us know which steps you've done and where you've gotten to and we'll be happy to assist you further.