

Technical Bulletin

Bulletin No: TCH-27-006 Rev 000

Initial Release Date: 11/18/24 Revision Date: N/A

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Subject: **Recall of Bendix® EC-80™ Electronic Control Units (ECUs) used in Towing Applications – International®**

Bendix Commercial Vehicle Systems LLC (Bendix) is conducting a voluntary safety recall campaign, **National Highway Traffic Safety Administration (NHTSA) Recall No.: 24E086**, involving the Bendix® Electronic Stability Control (ESC) and Automatic Traction Control (ATC) EC-80™ Electronic Control Units (ECUs). The ECUs are components of the Antilock Braking System (ABS).

PROBLEM DESCRIPTION

Bendix has determined that ESC and ATC EC-80 ECUs – when used in towing vehicle applications – may incorrectly process certain signals when high electrical interference (i.e., noise) on the tractor-to-trailer Power Line Carrier (PLC) communication system is present. The combination of high electrical interference and low PLC signal strength is more likely to occur on vehicles that tow more than one (1) trailer. Additionally, PLC signal strength may be substantially reduced when other optional devices are connected to the power line (e.g., trailer-based tracking systems).

The excessive noise may cause the EC-80 ECU to set a fault, stop operating, or malfunction. When the EC-80 ECU faults or stops operating, the ABS warning lamp will illuminate on the vehicle dash. One or all of the following scenarios may result:

- The functionality of the ATC or ESC may fault or stop operating.
- Other functions that interact with ABS – such as Active Cruise Control (ACC) and the Collision Mitigation System (CMS) – may also fault. For powertrains that communicate with the EC-80, the vehicle may also enter “limp home mode” with lower engine torque and lower speed if the EC-80 stops operating.
- In extremely rare situations before the vehicle faults or stops operating, if there is a stability event or an automated braking request, the system may respond incorrectly to the event. This may increase the likelihood of a crash.

IMPACTED VEHICLES

This voluntary safety recall includes Bendix ESC and ATC EC-80 ECUs produced between about April 2020 and about October 2024. *Refer to Table 1* for a list of affected part numbers.

NOTE: The population affected by a prior International 2023 recall for a Bendix ABS warning lamp issue is part of the potentially affected population.



The corrective action for this recall (NHTSA Recall 24E086) also remedies the previous International warning lamp issue (International Recall 23V370). One fix resolves both issues. THIS IS A SITUATION SPECIFIC TO INTERNATIONAL AND DOES NOT APPLY TO ANY OTHER ORIGINAL EQUIPMENT MANUFACTURER (OEM).

This voluntary safety recall does not include:

- Bendix EC-80 ECU ABS-only variants.
- Non-towing applications of the ESC and ATC EC-80 ECUs.

Bendix® Part Number		International® Part Number		Software Z Number	
Impacted Part Number	Updated Part Number	Impacted Part Number	Updated Part Number	Affected ABS Software	ABS Software with Fix
K168122R000	K168122R010	4045850C3	4045850C4	Z243984	Z302651
K168123R000	K168123R010	4045851C3	4045851C4		
K168128R000	K168128R010	4055088C3	4055088C4		
K168129R000	K168129R010	4055089C3	4055089C4		
K168419SC000	K168419SC010	-	-		
K168421SC000	K168421SC010	-	-		
K168422SC000	K168422SC010	-	-		
K168423SC000	K168423SC010	-	-		
K168124R000	K168124R010	4045853C3	4045853C3-10	Z243983	Z302655
K168135R000	K168135R010	4055091C3	4055091C3-10		
K168136R000	K168136R010	4104387C2	4104387C2-10		
K168424SC000	K212564SC011	-	-		
K168425SC000	K212565SC011	-	-		
K168426SC000	K212566SC011	-	-		
K210927R000	K210927R011	4045853C4	4045853C5-11	Z251843	Z302579
K210928R000	K210928R011	4055091C4	4055091C5-11		
K210929R000	K210929R011	4104387C3	4104387C4-11		
K212564SC000	K212564SC011	-	-		
K212565SC000	K212565SC011	-	-		
K212566SC000	K212566SC011	-	-		
K210927R001	K210927R011	4045853C5	4045853C5-11	Z286098	
K210928R001	K210928R011	4055091C5	4055091C5-11		
K210929R001	K210929R011	4104387C4	4104387C4-11		
K212564SC001	K212564SC011	-	-		
K212565SC001	K212565SC011	-	-		
K212566SC001	K212566SC011	-	-		
K219871R000	K219871R011	4288644C1	4288644C2-11	Z281032	Z300818
K219872R000	K219872R011	4288638C1	4288638C2-11		
K219874R000	K219874R011	4288643C1	4288643C2-11		
K219876SC000	K219876SC011	-	-		
K219877SC000	K219877SC011	-	-		
K219871R001	K219871R011	4288644C2	4288644C2-11	Z285654	
K219872R001	K219872R011	4288638C2	4288638C2-11		
K219874R001	K219874R011	4288643C2	4288643C2-11		
K219876SC001	K219876SC011	-	-		
K219877SC001	K219877SC011	-	-		

Table 1 – Affected Part Numbers

CORRECTIVE ACTION

Bendix has developed a standalone software update utility (ID 9363) to remedy the defect.



WARNING

Read and observe all warnings and caution/hazard alert messages in this publication. They provide information that can help prevent serious personal injury, damage to components, or both.

NOTE: To download the software and perform the update, a Windows® PC (Windows 10 or 11 is recommended) with the standalone update utility downloaded, a compatible adapter, and the manufacturer's Windows drivers for the adapter are required.

1. Install the update utility that was distributed by International®.
2. Plug an adapter to the diagnostic port located under the steering wheel.
3. Key on the vehicle and inspect the vehicle dash to see if any warning lamps are illuminated before beginning the update process.
4. Open the Bendix® EC-80™ update utility from the connected laptop and click *Update*. **NOTE:** Audible alerts may sound and warning lamps may illuminate on the vehicle dash during the update process. See *Figure 1*.



Figure 1 – Update Icon

5. Once the update has started, the screen will show the progress.

- If the update is successful, the screen will show that the software has been updated, and the procedure is complete. See *Figure 2*. Follow International guidelines to document the software update.

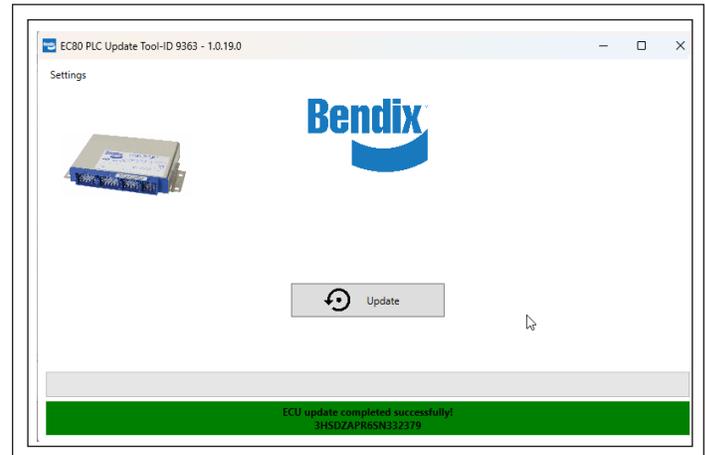


Figure 2 – Update Successful

- If the update fails, the screen will show that the software was unable to be updated. Power cycle the vehicle and restart the update procedure from Step 1. See *Figure 3*.

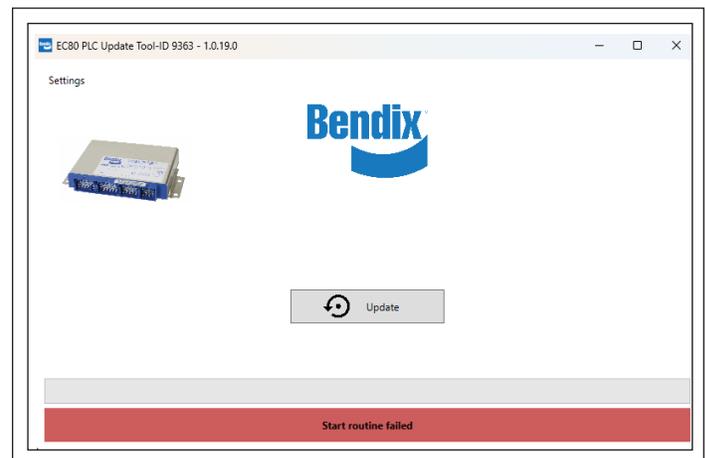


Figure 3 – Update Failed

- If the update has already been performed, a message will indicate that no further action is required. See Figure 4.

- If engine RPM is detected during the procedure, power cycle to ignition only and restart the update procedure from Step 1. See Figure 6.



Figure 4 – Update Already Performed

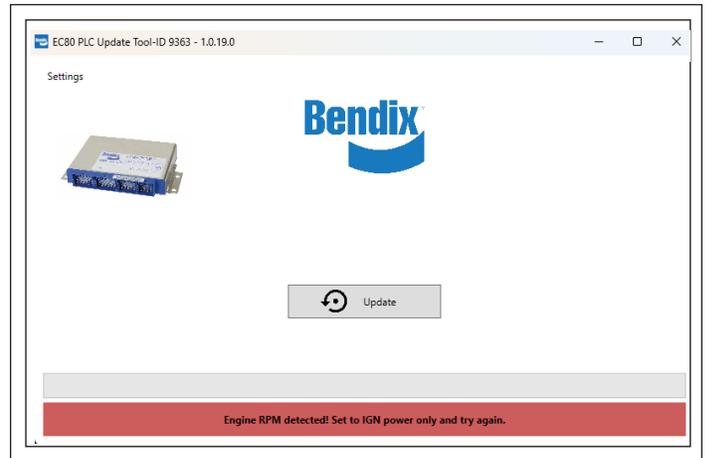


Figure 6 – Engine RPM Detected

- If the detected ECU is not eligible for an update, a message will indicate that no further action is required. See Figure 5.

- If the ECU is not detected, verify the ignition power is ON and/or ensure that the correct adapter channel is selected. Then, restart the update procedure from Step 1. See Figure 7.



Figure 5 – ECU Ineligible for Update

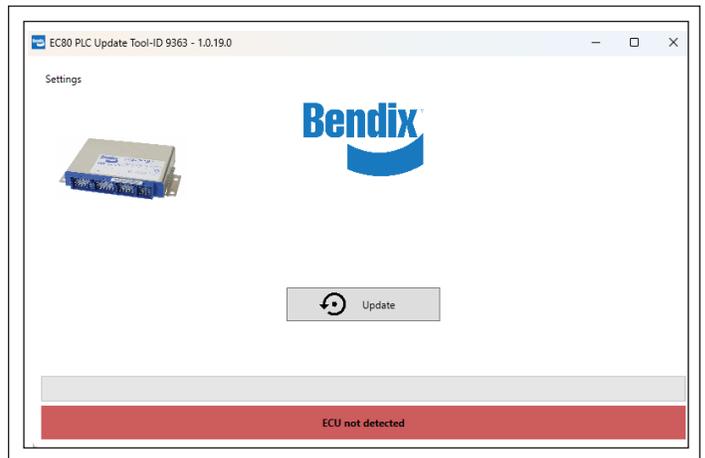


Figure 7 – ECU Not Detected

- If the ECU did not successfully update, contact Bendix Technical Support for assistance.

- If the incorrect baud rate was selected or the ECU is physically not present on the J1939 bus, the screen in *Figure 8* may appear. Perform the following troubleshooting steps.
 - » Open the settings within update utility and verify the proper adapter, baud, and channel are selected. Contact International® for proper channel and baud rate designations.
 - » Check the fuses related to the ABS battery and ignition.

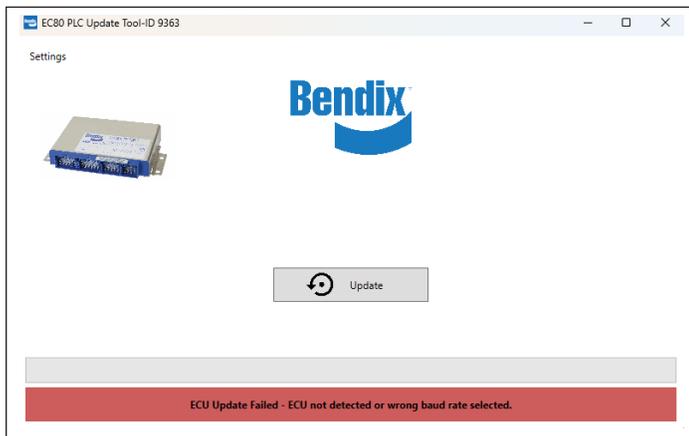


Figure 8 – Incorrect Baud Rate or ECU Not Present

- If the utility is having issues connecting to the adapter, one of the error messages in *Figure 9* may appear. Perform the following troubleshooting steps.
 - » Verify the adapter has power and is reading the vehicle data. Refer to the technical documentation for the applicable adapter.
 - » Open the settings within update utility and verify the proper adapter, baud, and channel are selected. Contact International for proper channel and baud rate designations.
 - » Disconnect and reconnect the adapter from both the USB port and the vehicle diagnostic port.
 - » Close all open diagnostic programs and reattempt the software update.

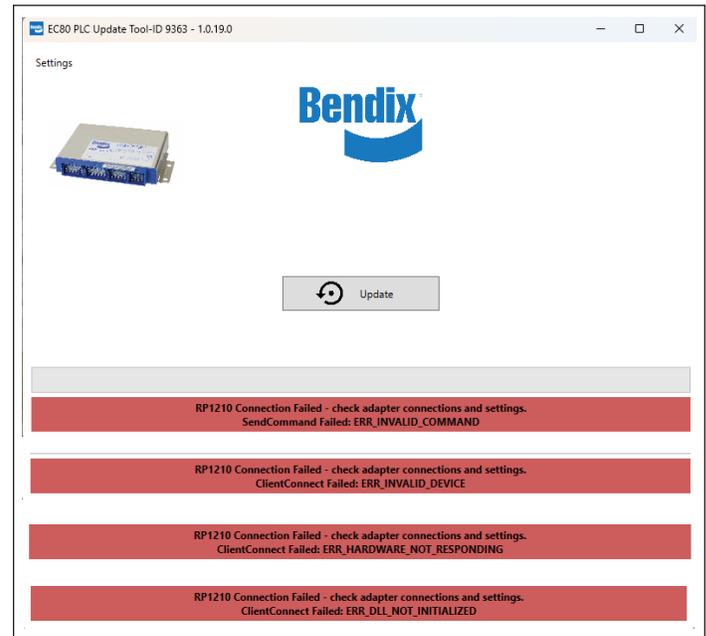


Figure 9 – Adapter Connectivity Issues

TECHNICAL SUPPORT

For support, first refer to the OEM instructions provided by International®. Additional support is available from Bendix by phone at 1-800-755-6888. Bendix representatives are available Monday through Friday, 8:00 a.m. to 5:00 p.m. ET.

