Technical Bulletin

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

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.

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.

Impacted Bendix Part Number	Updated Bendix Part Number	Impacted Paccar® Part Number	Updated Paccar Part Number	ROM Version
K194487R000	K194487R010	Q27-1032-301	No Change	4
K194492R000	K194492R010	Q27-1033-301	No Change	4
K271501R000	K271501R010	Q27-6107-301	Q27-6107-302	5e
K271500R000	K271500R010	Q27-6106-301	Q27-6106-302	5e
K250369R000	K250369R010	Q27-6102-301	Q27-6102-302	5+
K250374R000	K250374R010	Q27-6101-301	Q27-6101-302	5+
K212554R000	K212554R010	Q27-1041-301	No Change	5
K212555R000	K212555R010	Q27-1040-301	No Change	5
K211946R000	K211946R010	Q27-1033-303	No Change	4+
K211945R000	K211945R010	Q27-1032-302	No Change	4+
K279442R000	K279442R010	Q27-1050-301	Q27-1050-302	5E+
K271851SC000	–	AM only	–	5e
K271852SC000	–	AM only	–	5e
K209615SC000	–	AM only	–	4+
K209617SC000	–	AM only	–	4+
K212562SC000	–	AM only	–	5
K212563SC000	–	AM only	–	5
K139010SC001	–	AM only	–	4.5
K139011SC001	–	AM only	–	4.5
K139012SC001	–	AM only	–	4.5
K148486SC001	–	AM only	–	4.5
K160215SC001	–	AM only	–	4.5
K160216SC001	–	AM only	–	4.5
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.
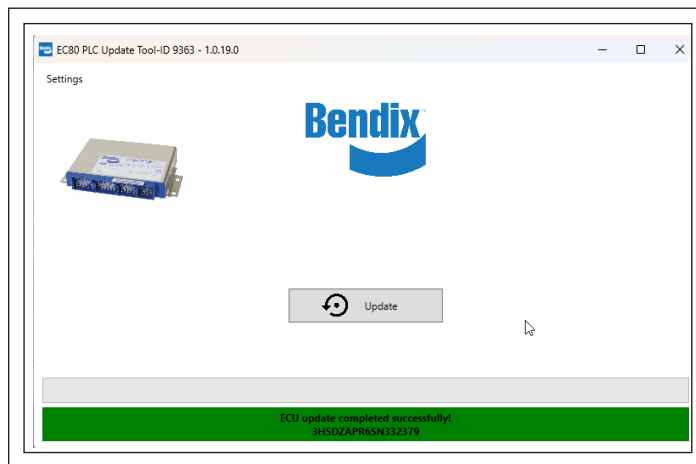
NOTE: To download the software and perform the update, a Windows® PC (Windows 10 or 11 is recommended) with the standalone update utility downloaded, a compatible adapter, and the manufacturer's Windows drivers for the adapter are required.

1. Install the update utility that was distributed by Paccar®.
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 Paccar guidelines to document the software update.
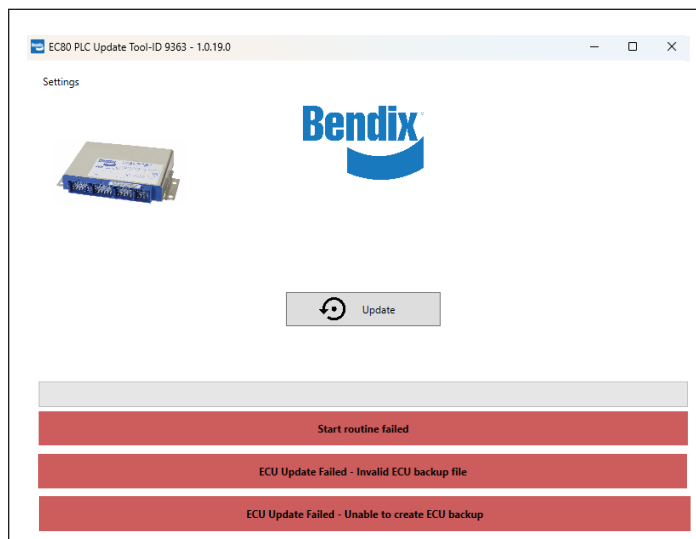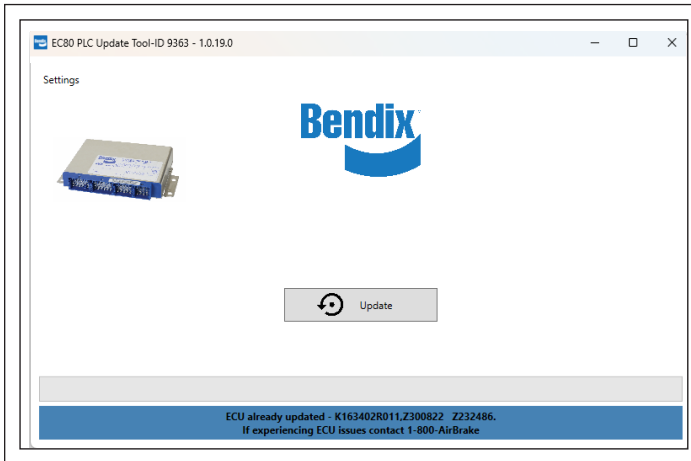

Figure 2 – Update Successful

   • If the update fails, one of the error messages in *Figure 3* may appear.

   » Power cycle the vehicle and restart the update procedure from Step 1.

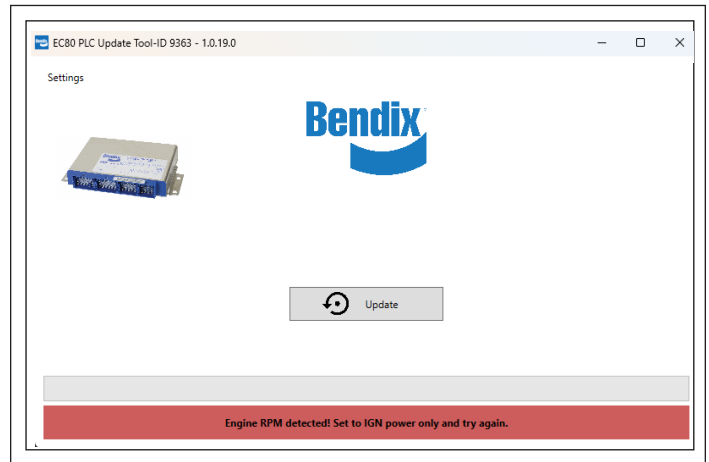   » If the error returns after performing Step 1, contact Bendix Technical Support for assistance.

Figure 3 – Update Failed

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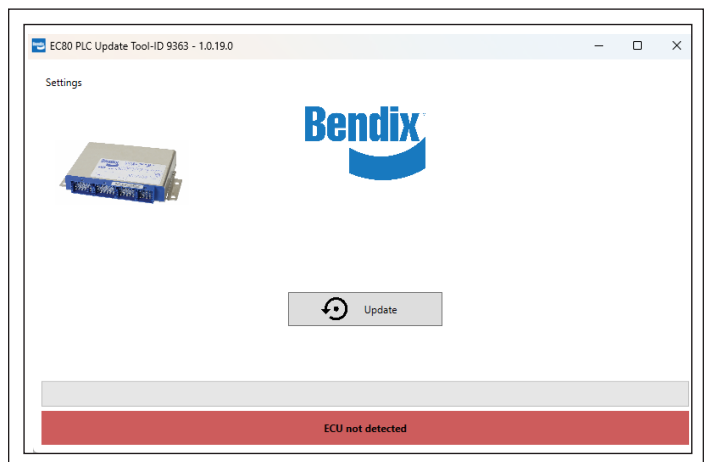

Figure 4 – Update Already Performed

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

Figure 5 – ECU Ineligible for Update

- 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 6 – Engine RPM Detected

- 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.*
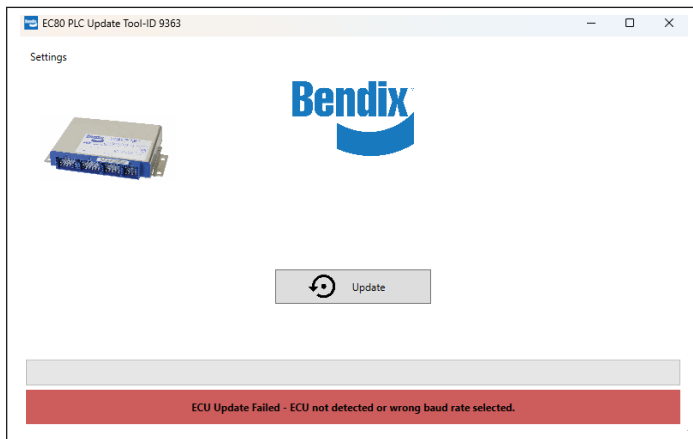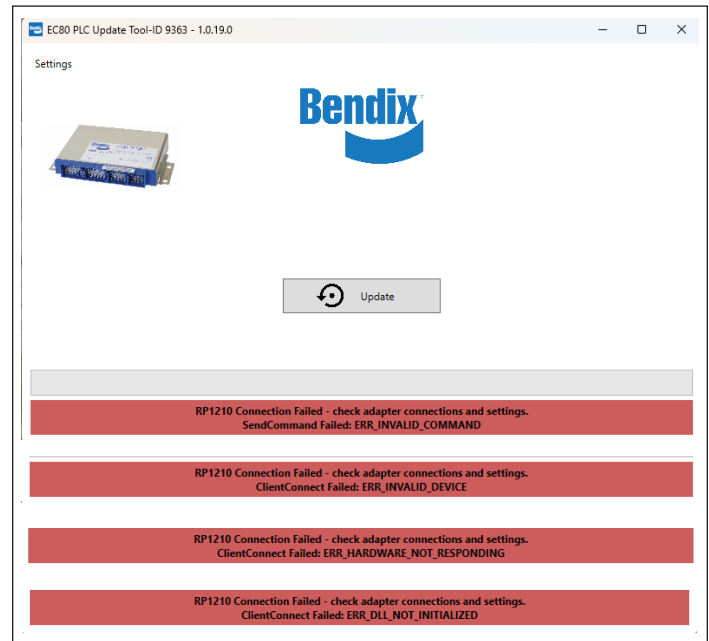

Figure 7 – ECU Not Detected

- 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 Paccar® 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 Paccar 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 Paccar®. 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.

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