Tire Pressure Monitoring System (TPMS) ECU Relocation and Antenna Addition

40-013

FLA COE
FLB COE
FLD Conventional
Business Class
FLC 112 Conventional
Century Class Conventional
Argosy
Cargo
Columbia
122SD and Coronado
Business Class M2
Cascadia
108SD/114SD
> New Cascadia
eCascadia
M2 Plus

Freightliner Service Bulletin

General Information

New Cascadia vehicles built from January 1, 2022 through July 28, 2023 specified for recreational vehicle (RV) with a wheel, wheel base 300 inches or longer and Bendix SmarTire® TPMS, may report failures of the TPMS electronic control unit (ECU) not reading correctly in the rear axle. The current frame position for the TPMS ECU is not close enough to the rear tires to effectively pick up the rear axle wheel sensors signals. In order to resolve the issue, a new TPMS ECU and antenna needs to be installed.

Parts Required

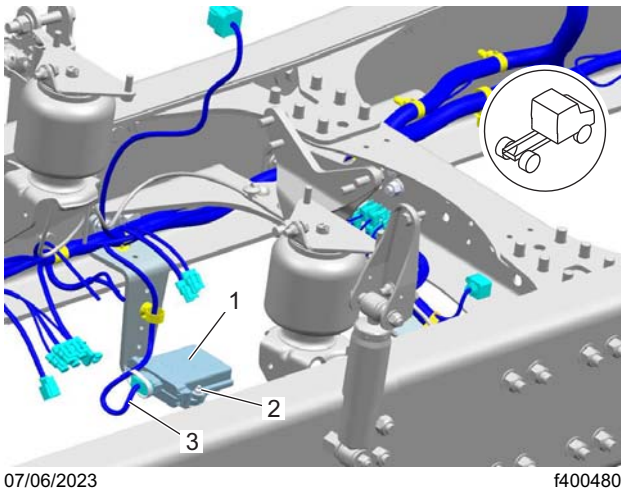
For a list of parts, see **Table 1**.

Parts and Specialized Tools Table			
Item Number	**Part Number**	**Part Description**	**Quantity**
1	BW K138371	NEXT GEN TPMS ECU WITH COAXIAL	1
2	BW 2400162N	TPMS ANTENNA,P3	1
3	06-95363-000	BRKT ANTENNA TPMS,P3	1
4	A23-14680-358	CABLE-COAX, RG58AU,TNC, 8950 MM	1

Table 1, Parts and Specialized Tools Table

TPMS ECU Replacement

1. Park the vehicle on a level surface, shut down the engine, and set the parking brake. Chock the tires.
2. Disconnect the batteries.
3. Locate the TPMS ECU, and disconnect the electrical connector from the TPMS ECU. See **Fig. 1**.



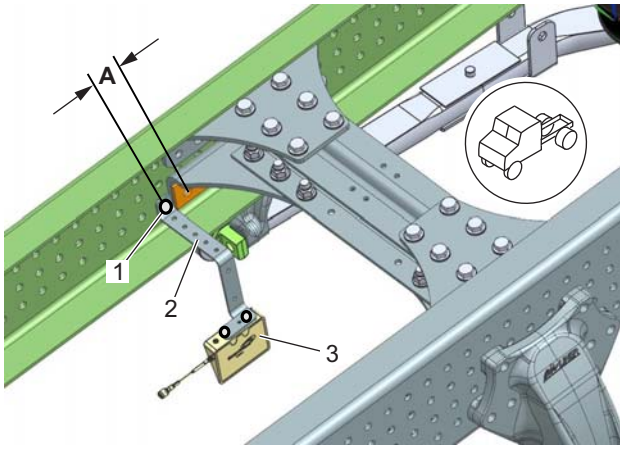
1. TPMS ECU
2. Fastener
3. Electrical Connector

Fig. 1, TPMS ECU

4. Remove the two M6 x 1 cap screws and flange-head nuts from the mounting bracket, then remove the TPMS ECU module from the vehicle.
5. Install the new TPMS ECU (BW K138371) on the vehicle mounting bracket and tighten the cap screws 60 Lbf·in (678 N·cm).

IMPORTANT: Relocate the antenna bracket 2 inches (50 mm), as shown in **Fig. 2**, to avoid interference with any external component.

6. Using the existing fasteners install the new TPMS antenna bracket (06-95363-000) and the TPMS antenna (BW 2400162N), tighten the mounting cap screws 60 lbf·in (678 N·cm). See **Fig. 2**.



A. Relocate the antenna bracket 2 inches (50 mm) to avoid interference with any external component.
1. Fastener
2. TPMS Antenna Bracket
3. TPMS Antenna

Fig. 2, TPMS Antenna

7. Plug the new coaxial cable (A23-14680-358) in to the coaxial cable port at the TPMS ECU, and route the new wiring along the chassis together with the chassis harness. Plug the other end of the coaxial cable into the TPMS antenna. Loop any excess cable and use a zip tie to attach it to the vehicle.
8. Connect the batteries.

NOTE: When the TPMS ECU is replaced, the new TPMS ECU must be programmed. Use the following instructions to program the TPMS. See the SmarTire® TPMS Operator's Manual included with this vehicle for additional information. The operator's manual can also be found online at **www.smartire.com/support/manuals**.

9. Turn the ignition switch to the ON position.
10. Connect the laptop to the diagnostic connector on the chassis.
11. Open the Bendix - ACom® diagnostic tool. The ACom software can be downloaded for free at **www.bendix.com**. Select "SERVICES & SUPPORT", then "Diagnostic Tools", then "ACom Diagnostics Download".
12. At the "Starter for ACom Diagnostics" screen, select "TPMS" and then select "Start with ECU".

13. At the "Vehicle adaptor selection (TPMS)" screen, select the adaptor you are going to use. This allows communication between the software and the receiver. Then select "Open".
14. Once the tool opens, a screen with multiple axles appears. Choose the last axle that is on the vehicle being serviced. Multiple axles will be listed as 1 through 12. Remove the extra axles by clicking them on the screen. Once the axle is removed, it will no longer be highlighted. Dual wheel axle can also be selected on the screen if it is present on the vehicle. Save the selected axle configuration.
15. Then Assign Selected Sensor method or the Learning Method are used to program the tire sensors for the TPMS. Refer to section 40.01.120 System Programming of the **New Cascadia Workshop Manual** for more detailed information.
16. Run a test to confirm that the TPMS ECU is reading tire pressure signals from all wheel sensors.

Warranty

This procedure is warrantable only if the described condition exists and the repair is performed within the applicable base or extended coverage warranty period. If a failure is not found, this procedure is considered preventive and warranty does not apply.

Normal warranty applies. See **Table 2** for OWL VMRS codes and labor allowance information. Enter this service bulletin number in the *Service Bulletin #* field.

OWL VMRS Codes and Labor Allowance						
Primary Failed Part	**Component Code**	**Cause Code**	**Correction Code**	**SRT Code**	**Description**	**Time: Hours**
BW K138367	017-009-030	23	03	489-5002A	ECU AND ANTENNA, TPMS	1.0

Table 2, OWL VMRS Codes and Labor Allowance

NOTE:

Component Code / VMRS = 017-009-030 ECU - TIRE PRESSURE MONITORING SYSTEM