

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

Freightliner
Service Bulletin

General Information

On New Cascadia™ vehicles, depending on the tension applied to the harness located at the coolant level sensor and its mounting locations, wiring damage can occur, resulting in one or more of the below listed fault codes.

Wiring damage could trigger the following fault codes:

- 0/111/1 - Engine coolant level very low
- 0/111/3 - Engine coolant level voltage above normal shorted high
- 0/111/4 - Engine coolant level circuit voltage below normal
- 0/111/18 - Engine coolant level low

If these fault codes occur, check the harness for the coolant level sensor, and if damaged proceed with repairing the wiring, then install TwistTube® to the harness and a backshell to the connector for additional strain relief and protection from direct water spray.

Coolant Sensor Wiring Repair

1. Park the vehicle on a level surface, shut down the engine, and set the parking brake. Chock the tires.
2. Disconnect the negative battery cables.
3. Open the hood.
4. Inspect the low coolant sensor and the wiring harness area near the clipping points and within two feet of the sensor connector for broken or chafed wires. See [Fig. 1](#) and [Fig. 2](#).

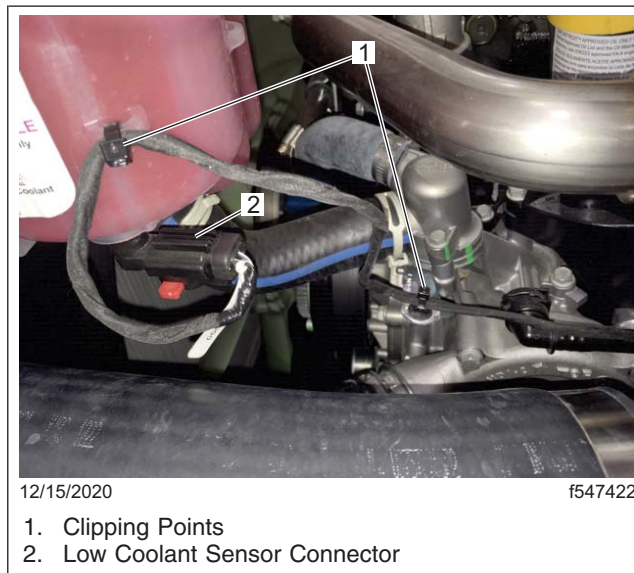


Fig. 1, Inspection Areas for Detroit Engines

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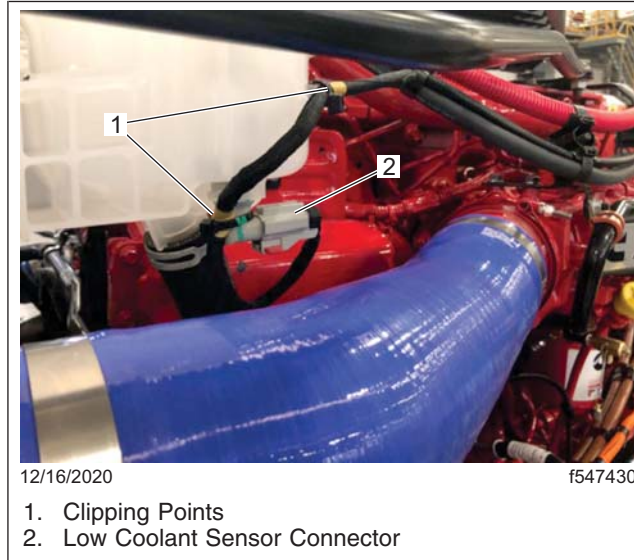


Fig. 2, Inspection Areas for Cummins Engines

5. Repair the damaged wiring using a Phillips STA-DRY crimp and solder connector (PHM 1 1863). See [Fig. 3](#). Use a heat gun to shrink the seal and melt the internal solder after crimping the Sta-Dry connector and then wrap it with tape. See [Fig. 4](#).

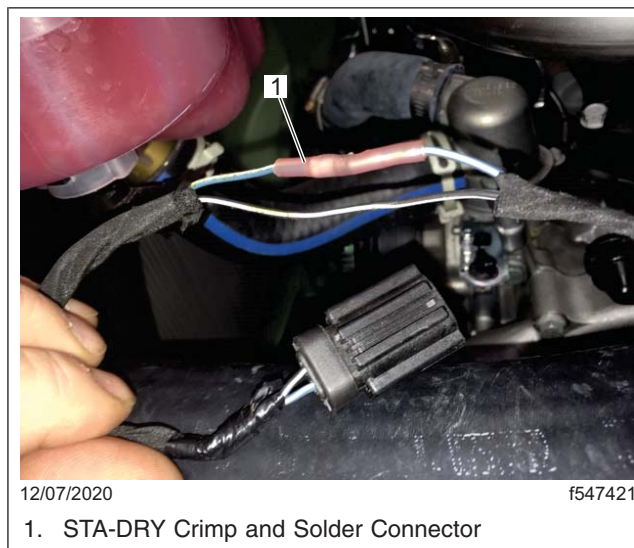


Fig. 3, Wire Repaired with STA-DRY Connector

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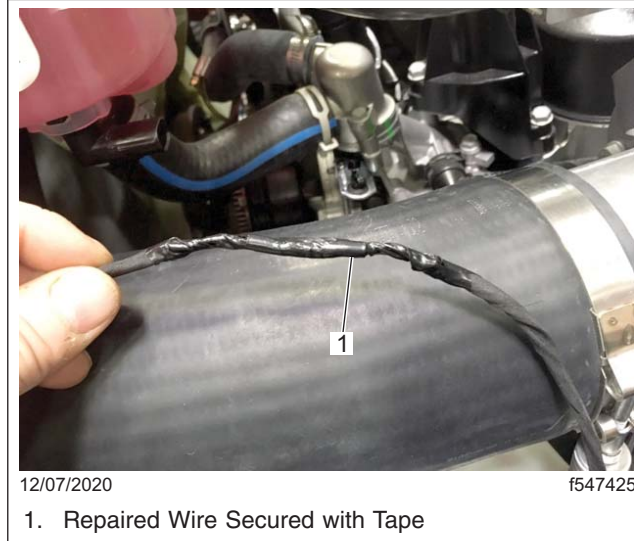


Fig. 4, Tapped Wire after Repair

6. If there is a damaged wiring near the sensor connector, replace the wire and install a new connector terminal (FCI 10757690 or 23-13211-000).
7. Install the backshell (23-13302-633) on the low coolant sensor connector. See [Fig. 5](#).

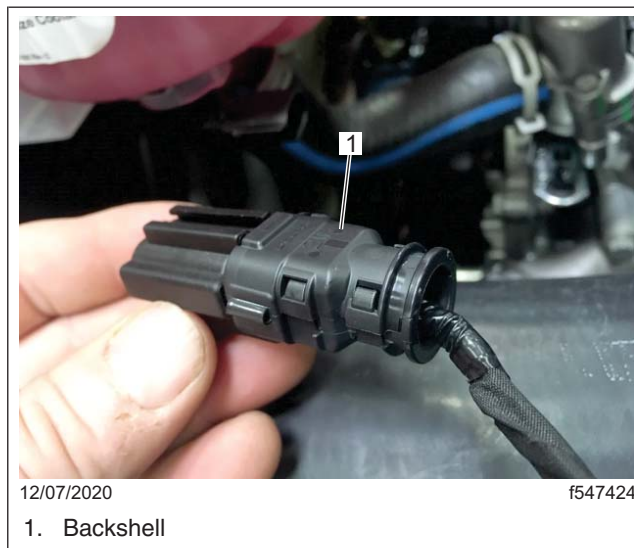


Fig. 5, Backshell Installed

8. Add two feet of 8 mm TwistTube to the low coolant sensor wiring from the connector to the engine clipping point. Insert a half-inch of the TwistTube into the connector backshell and secure it with tape. See [Fig. 6](#).

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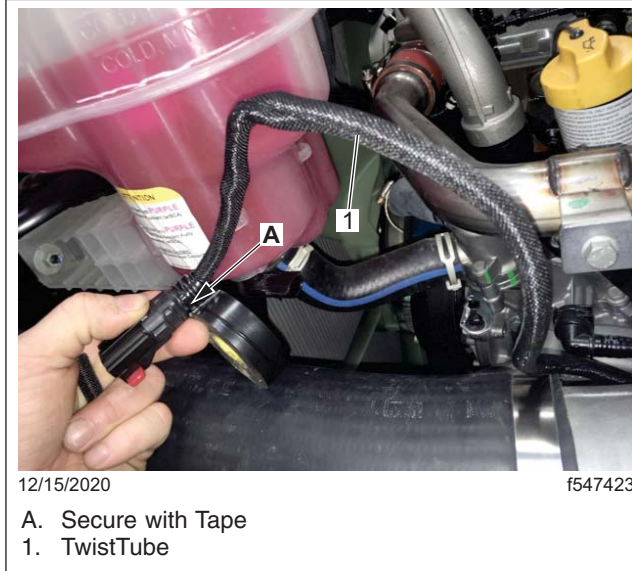


Fig. 6, TwistTube Added to the Wiring

9. Route the harness as shown in [Fig. 7](#) using one of the mounting locations on the surge tank and secure it at the clipping points using wide tie straps. Maintain a minimum of one inch radius bend at the point where the harness enters the low coolant sensor connector.

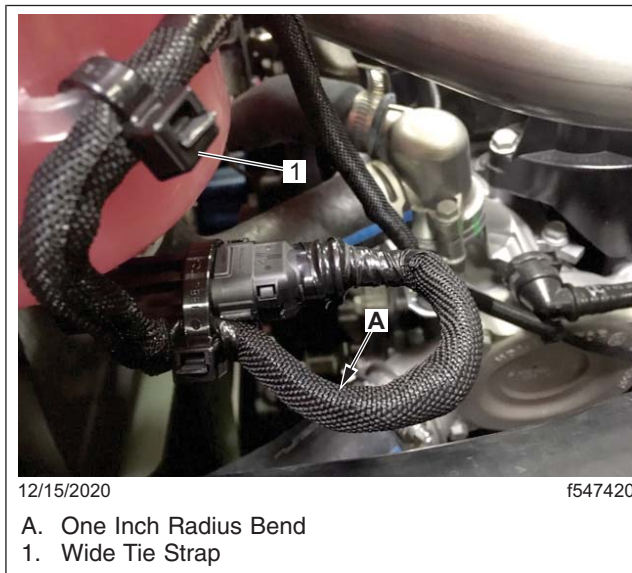


Fig. 7, Maintaining the Bend Radius

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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 1](#) 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	SRT Code	Description	Time: Hours
Low Coolant Sensor Harness	003-004-009	12	152-5026A	Harness, Coolant Level Sensor Wiring, Repair, Wrap, & Secure (SB 54-337)	0.4

Table 1, OWL VMRS Codes and Labor Allowance