NAVISTAR®

FIELD SERVICE CAMPAIGN – 24111

30 September 2024

SUBJECT:
Coolant hose reroute for the cabin heater.

MODELS INVOLVED:
IC Bus® Electric CE Series buses.

DEFECT DESCRIPTION:
Certain IC Bus® Electric CE Series buses may have incorrect coolant hose routing for the cabin heat which may cause coolant to leak from the cabin heat surge tank overflow hose.

ELIGIBILITY:
This procedure applies ONLY to vehicles marked in the International® Service Portal℠ with FSC 24111. Also complete any other open campaigns listed on the Service Portal at this time.

TOOLS REQUIRED:

Description	Tool Number
Coolant Management Tool	KL5007NAV
Cooling System Adapter	09-040-03
High-Voltage Personal Protective Equipment (PPE) including Class 0 electrical insulating gloves (Red Label), Electrical Hazard (EH) rated safety shoes/boots, flame resistant clothing, and face shield	N/A

Table 1 Tools Information

PARTS REQUIRED:

Part Number	Part Description	Quantity
8900381R91	Kit, Cabin Heat Plumbing	1
3662934C1	1 x 5/8-in Adapter (source locally)	2

Table 2 Parts Information

8900381R91 contains the following parts:

Part Number	Part Description	Quantity
L2643493	Hose, Heater, 1-in ID Premium, length 49.2-in (1250 mm)	1
L2643493	Hose, Heater, 1-in ID Premium, length 2.4-in (61 mm)	1
L2643493	Hose, Heater, 1 in. ID Premium, length 2.95-in (75 mm)	1
L2643485	Hose, Heater, 5/8-in ID Premium, length 18.3-in (465 mm)	1
2643485R1	Hose, Heater, 5/8-in ID Premium length 49.7-in (1263 mm)	1
4421530C1	Hose, Heater, PSGR 90-degree 5/8-in	1
3817028C1	Hose, Heater, Bus Body	1
1622034C1	Clamp, Air Duct Hose, 0.81–1.50-in Breeze Belleville Washer	10
1514759C1	Clamp, Rad Inlet, Hose, Breeze 13/16–1-1/16-in Dia Belleville	6
4310950C1	T-fitting, 1 x 1 x 5/8-in	2
3878141C1	Adapter, Double 5/8-in Hose Barb	1

WORK INSTRUCTIONS

GOVERNMENT REGULATION: Engine fluid (oil, fuel, and coolant) may be a hazard to human health and the environment. Handle all fluid and other contaminated materials (such as filters and rags) in accordance with applicable regulations. Recycle or dispose of engine fluids, filters, and other contaminated materials according to applicable regulations.

WARNING! To prevent personal injury and / or death, or damage to property, park vehicle on hard flat surface, turn the engine off, set the parking brake, and install wheel chocks to prevent the vehicle from moving in both directions.

WARNING! To prevent personal injury and / or death, always wear safe eye protection when performing vehicle maintenance.

WARNING! To prevent personal injury and / or death, or damage to property, keep flames or sparks away from vehicle and do not smoke while servicing the vehicle's batteries. Batteries expel explosive gases.

WARNING! To prevent personal injury and / or death, or damage to property, remove the ground cable from the negative terminal of the battery before disconnecting any electrical components. Always connect the ground cable last.

WARNING! To prevent personal injury and / or death, wear and use approved high-voltage Personal Protective Equipment (PPE) when near a high-voltage electric vehicle. Inspect PPE before use. Do not use gloves or other PPE with expired dates, holes, cracks, or damage. NEVER touch energized ORANGE high-voltage cables or high-voltage components without wearing approved high-voltage PPE.

WARNING! To prevent personal injury and / or death, read all information in the Safety Information and High-Voltage Safety sections of the service manual.

1. Park vehicle on a dry, level surface.
2. Put drive mode selector in Park or Neutral and set parking brake.
3. Turn ignition to Key OFF position.
4. Install wheel chocks.
5. Perform High-Voltage Isolation Level 1. Refer to appropriate service manual for detailed procedure.
6. Perform coolant drain procedure on the cabin heater coolant system. Refer to appropriate service manual for detailed procedure.

Replacing and Routing Supply Hoses

1. Gain access to the driver heat exchanger.

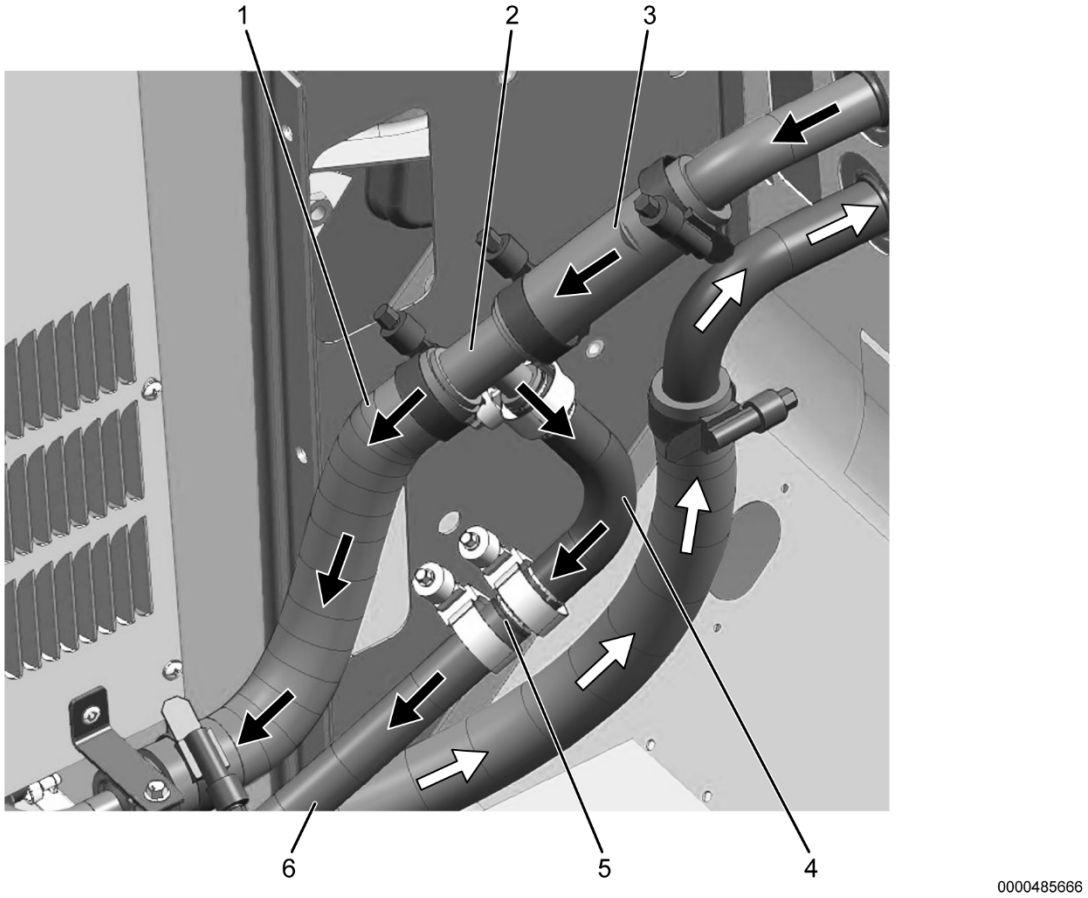

Figure 1. Example of Hose Routing Next to Heat Exchanger

1. 9-in (250 mm) length of 1-in hose
2. T-fitting
3. 5-in (131 mm) length of 1-in hose
4. 90-degree formed 5/8-in hose
5. Double barb adapter
6. 49.7-in (1263 mm) length of 5/8-in heater hose

2. Disconnect coolant return hose (Figure 1, Item 1) at the firewall and driver heat exchanger.

NOTE: The hoses received in the kit will need to be cut to size as required in each step.

3. Install 5-in (131 mm) length of 1-in hose (Figure 1, Item 1) at the supply inlet coming through the firewall. Secure hose with a 1-in clamp.

NOTE: A small number of VINs may have a 1/4-turn ball valve installed.

4. If a 1/4-turn ball valve is installed, remove and discard the valve.
5. Install T-fitting (Figure 1, Item 2) to the 5-in (131 mm) length of heater hose.
6. Position the T-fitting (Figure 1, Item 2) at a six o’clock position and secure with a clamp.
7. Install 9-in (250 mm) of 1-in hose (Figure 1, Item 3) between the T-fitting and the driver heater inlet.
8. Secure the hose with a 1-in clamp between the T-fitting (Figure 1, Item 2) and the driver heater inlet.
9. Install the 90 degree 5/8-in hose (Figure 1, Item 4) to the open port on the T-fitting (Figure 1, Item 2) and secure with a 5/8-in clamp.
10. Install the double barb adapter (Figure 1, Item 5) to the 90 degree hose and secure with a 5/8-in clamp.
11. Install 49.7-in (1263 mm) of 5/8-in heater hose (Figure 1, Item 6) to the double barb adapter (Figure 1, Item 5) and secure with a 5/8-in clamp.
12. Route the heater hose toward the outlet of the driver heat exchanger.

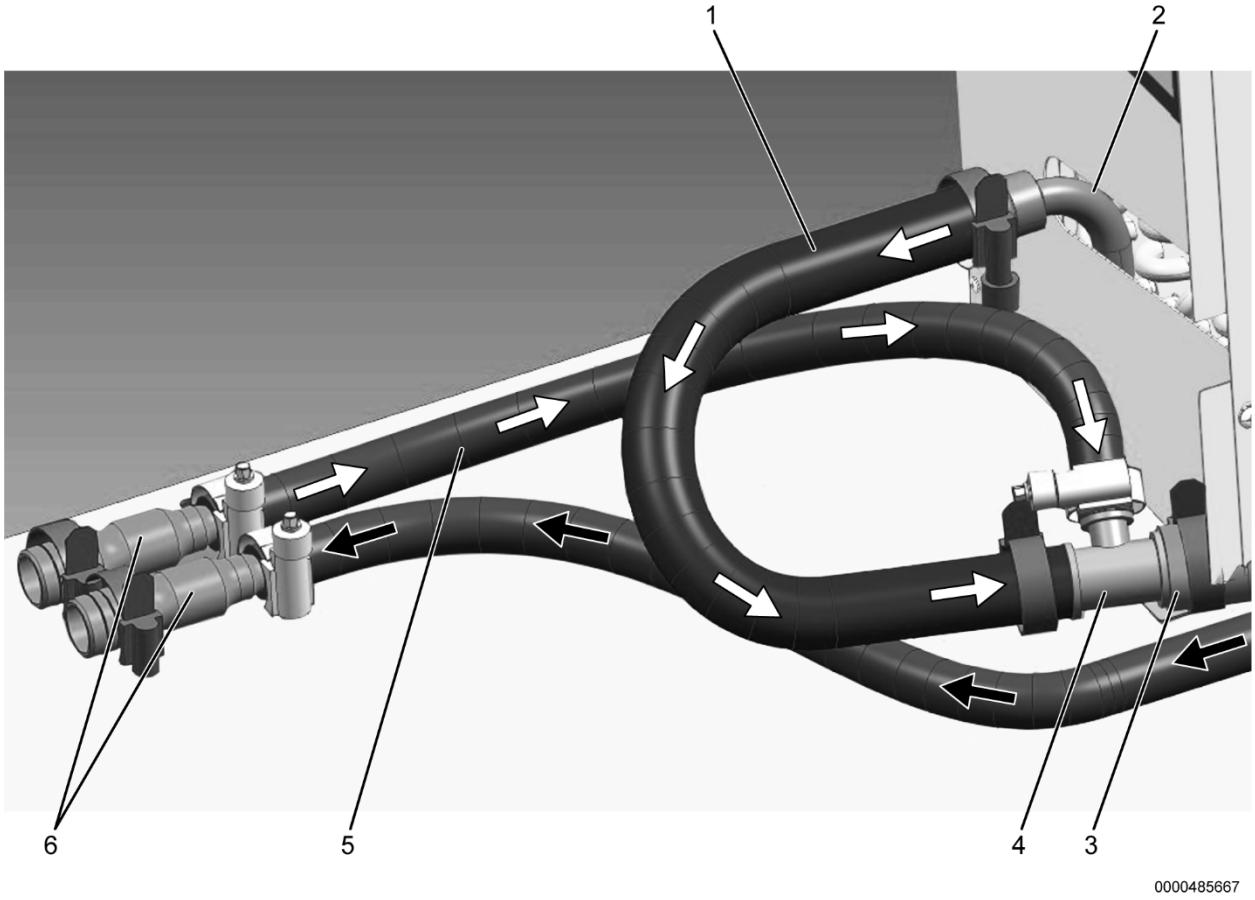

Figure 2. Hose Routing Behind Heat Exchanger

1. U-shaped 1-in hose
2. Coolant return connection
3. 5/8-in coolant supply hose
4. T-fitting
5. 18.3-in (465 mm) length of 5/8-in hose
6. 1 x 5/8-in adapter

13. Install 1 x 5/8-in adapter (Figure 2, Item 5) to the 5/8-in coolant supply hose (Figure 1, Item 6) routed behind the driver heat exchanger, and secure with a 5/8-in clamp.

14. Cut the 1 inch supply hose going to the rear heat exchangers leaving enough length to connect to the 1 x 5/8-in adapter (Figure 2, Item 5) that was previously installed. The trimmed off hose may be discarded.

15. Secure with a 1-in clamp.

Replacing and Routing Return Hoses

1. Disconnect the 1-in coolant return hose (Figure 2, Item 1) from the connection at the rear of the heat exchanger.
2. Install U-shaped 1-in hose (Figure 2, Item 2) to the driver heat exchanger outlet as pictured.
3. Trim the return coolant hose (Figure 2, Item 6) about 2 inches past the heat exchanger.
4. Install the T-fitting (Figure 2, Item 3) to the hose that was just trimmed and secure with a 1-in hose clamp.
5. Install U-shaped 1-in hose (Figure 2, Item 2) to the other side of the T-fitting (Figure 2, Item 3) and secure with a 1-in hose clamp.
6. Install 18.3-in (465 mm) length of 5/8-in hose (Figure 2, Item 4) at the 5/8-in connection on the T-fitting, and secure with a 5/8-in clamp.
7. Install 1 x 5/8-in adapter (Figure 2, Item 5) to the 5/8-in coolant return hose, and secure with a 5/8-in clamp.
8. Cut the 1-in return hose connected to the under-seat heat exchangers leaving enough length to connect to the 1 x 5/8-in adapter (Figure 2, Item 5). The trimmed off hose may be discarded.
9. Secure 1 x 5/8-in adapter (Figure 2, Item 5) with a 1-in clamp to the 1-in return hose.

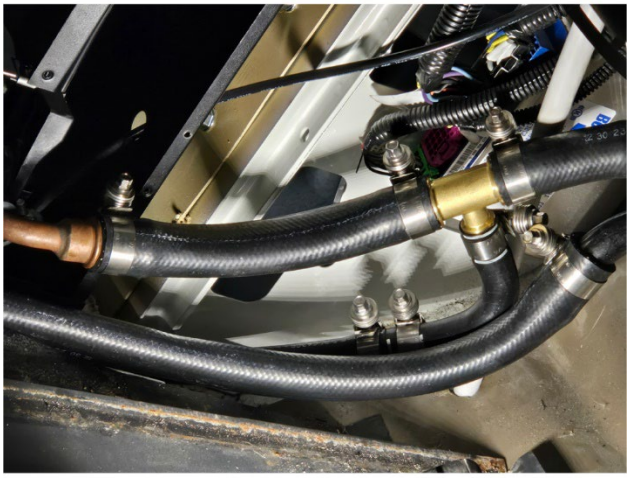

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Figure 3. Example of Hose Routing Next to Heat Exchanger

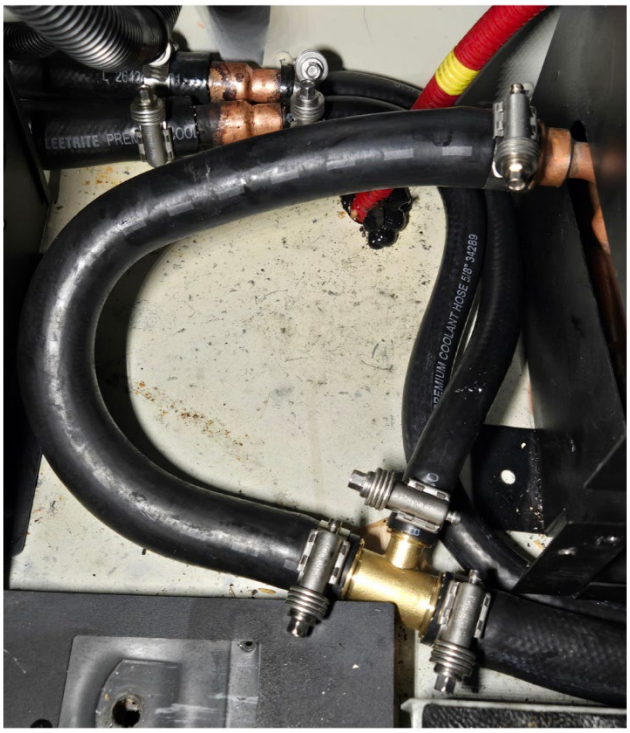

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Figure 4. Example of Hose Routing Behind Heat Exchanger

10. Perform coolant system fill procedure. Refer to appropriate service manual for detailed procedures.

11. Perform cooling system pressure test on cabin heater circuit and inspect for leaks. Refer to appropriate service manual for detailed procedures.

12. Reinstall driver heat exchanger trim and closeout panels.

13. Reconnect High-Voltage Isolation Level 1. Refer to appropriate service manual for detailed procedure.

14. Close and latch hood.

15. Remove wheel chocks.

LABOR INFORMATION

Operation number must appear on all claims.

Operation Number	Description	Time
A40-24111-1	Coolant valve reroute	3.0 hrs

Table 3 Labor Information

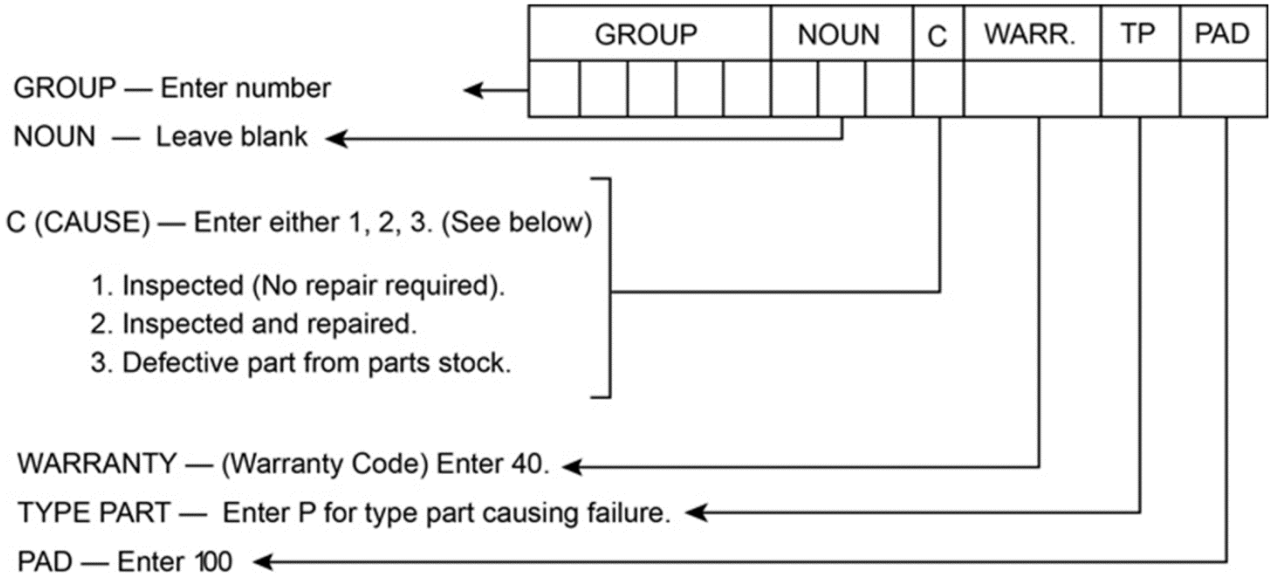
WARRANTY CLAIMS

Warranty claim expense is to be charged to Warranty. Claims are to be submitted in the normal manner, making reference to Field Service Campaign 24111.

Section 7 of the Warranty Policy and Procedures Manual contains further information related to the submission and processing of AFC / Recall claims.

As with all claim submissions, items acquired locally must be submitted in the “Other Charges” tab. The cost of any bulk items (such as a bag of cable tie straps, roll of wire, barrel of oil, or tube of silicone) should be prorated for the cost of the individual pieces / amount used during each repair.

To make sure this important improvement is made in a timely manner, all claims for 24111 activity must be submitted by 20 September 2025 or within the normal warranty period for the component repaired, if after 30 September 2025.



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