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## FIELD SERVICE CAMPAIGN – 24117

07 April 2025

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### SUBJECT:

Coolant Concentration Out of Specification.

### MODELS INVOLVED:

IC Bus™ CE Series buses.

### DEFECT DESCRIPTION:

Certain IC Bus™ CE Series buses may have an incorrect concentration of antifreeze / coolant installed in the engine.

### ELIGIBILITY:

This procedure applies ONLY to vehicles marked in the International® Service Portal<sup>SM</sup> with FSC 24117. Also complete any other open campaigns listed on the Service Portal at this time.

### TOOLS REQUIRED:

Description	Tool Number
Refractometer, Coolant & Battery	ZTSE4796
Coolant Management Tool	KL5007NAV

**Table 1** Tools Information

### PARTS REQUIRED:

Part Number	Description	Quantity
Locally Sourced	Coolant Concentrate	2 if Needed

**Table 2** Parts Information

## 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, or damage to property, if the vehicle must be raised, do not work under the vehicle supported only by jacks. Jacks can slip or fall over.

**WARNING!** To prevent personal injury or death, NEVER service a high-voltage vehicle without completing high-voltage safety training. Before working on the vehicle, read and obey all High-Voltage Safety and Lock-Out Tag-Out procedures and information.

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

1. Park vehicle on a flat surface.
2. Shift transmission to Park or Neutral and set parking brakes.
3. Turn vehicle ignition to Key OFF position.
4. Install wheel chocks.
5. Unlatch and open hood.
6. Gain access to coolant reservoir.

**WARNING!** To prevent personal injury and / or death, or damage to property, do the following when removing the radiator or deaeration cap:

- A. Allow the engine to cool for 15 minutes or more.
- B. Wrap a thick cloth around the radiator or deaeration cap.
- C. Loosen the cap slowly a quarter to half turn counterclockwise to vent the pressure.
- D. Continue to turn the cap counterclockwise to remove.

**WARNING!** To prevent personal injury and / or death, or damage to property, do not exceed the pressure rating on the deaeration tank cap. Ensure that the pressure rating of the deaeration tank cap matches that listed on the side of the tank, or the tank may burst.

7. Remove coolant reservoir cap.

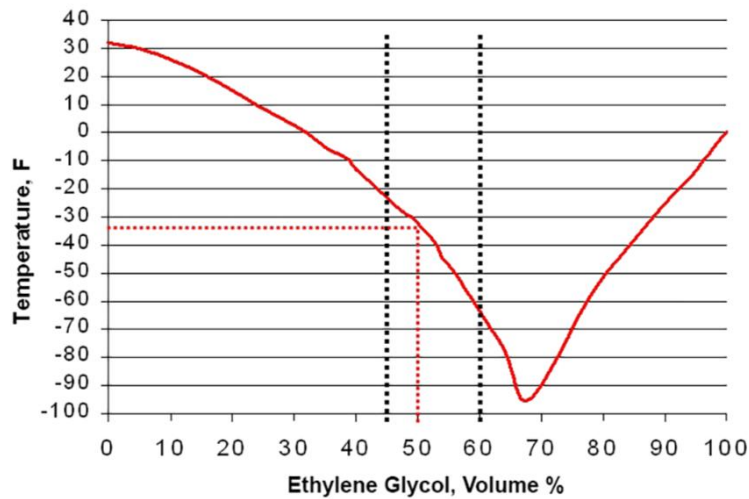
**CAUTION!** To prevent property damage, ensure the refractometer is clean from any foreign debris to provide an accurate reading.

8. Using a coolant refractometer, measure the temperature of the coolant freeze point.
9. Coolant freeze point temperature should be within -44 and -53°F (-42 and -47°C).

**NOTE:** Before making any adjustments to the coolant, verify the type of coolant the vehicle has in the cooling system (refer to the service manual).

## Freeze Protection

### Freeze Point Curve for Ethylene Glycol/Water Mixtures



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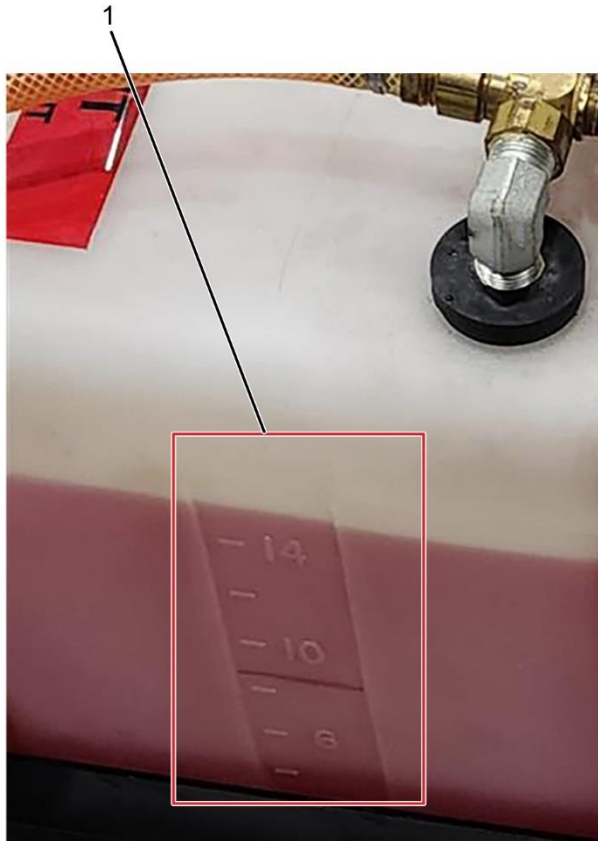
**Figure 1. Freeze Point Chart**

10. Refer to the Freeze Point Chart (Figure 1).

- a. If the coolant freeze point temperature is not within specification, then follow iKnow article [IK0900054](#) to adjust coolant freeze point temperature to the correct specification.
- b. If coolant freeze point temperature is within specification, go to Step 16.

**NOTE: For drain and fill procedures refer to service manual [S12039](#) Radiator / Cooling System AC Bus.**

11. To find the correct volume of coolant in the system, recover the entire system using the drain and fill procedure in the service manual.



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**Figure 2. Coolant Management Tool**

1. Measurement marks
12. The Coolant Management Tool has a measurement on the side with marks (Figure 2, Item 1) for every two gallons.
13. If necessary, make the adjustment per the iKnow article mentioned in Step 10.
14. Retest coolant with refractometer and adjust until the freeze point temperature is within specification.

**CAUTION!** To prevent vehicle and / or engine compartment damage, observe the following: If the coolant should get extremely low and the engine hot, let the engine cool for approximately 15 minutes before adding coolant; then, with the engine running, slowly add coolant. Adding cold coolant to a hot engine may crack the cylinder head or block. Never use water alone.

15. Use the coolant management tool to refill the system following the procedures outlined in the manual mentioned in the note above.
16. Reinstall coolant reservoir cap.
17. If any adjustments were made to the coolant, run the vehicle up to temperature and recheck the coolant temperature again to verify it is within specification. If no adjustments were made, there is no need to run the engine.
18. Close hood and remove wheel chocks.
19. Return unit to service.

## LABOR INFORMATION

Operation number must appear on all claims.

Operation Number	Description	Time
A40-24117-01	Drain and fill with new antifreeze	1.0 hrs
A40-24117-02	Inspection only, no repairs needed	0.2 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 24117.

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 24117 activity must be submitted by 07 April 2026 or within the normal warranty period for the component, if after 07 April 2026.

GROUP	NOUN	C	WARR.	TP	PAD

GROUP — Enter number ←

NOUN — Leave blank ←

C (CAUSE) — Enter either 1, 2, 3. (See below)

- 1. Inspected (No repair required).
- 2. Inspected and repaired.
- 3. Defective part from parts stock.

WARRANTY — (Warranty Code) Enter 40. ←

TYPE PART — Enter P for type part causing failure. ←

PAD — Enter 100 ←

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