

New Jersey Transit: CAC Water Diverter Installation



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Property and Top Bus Number: New Jersey Transit



Issue: Excessive water leaking into engine compartment

Reason/ cause: Gap at firewall in CAC and Radiator compartments allowing excessive water to leak onto Cummins grid heater

Solution: Install water diverter inside CAC and Radiator compartments to divert water away from Cummins grid heater

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Number of buses affected: 1299

Estimate repair hours/bus: 2.50

Engineering Documentation: N/A

Necessary parts:

Rubber Seal – NABI PN: 10B-1305-001 – Qty: 1

Angle Bracket – NABI PN: 10B-1305-081 – Qty: 1

SS Drilling Screw 12-14 x $\frac{3}{4}$ " – McMaster Carr PN: 90822A580 – Qty: 3

SS 10-24 Nylon Insert Lock Nut – McMaster Carr PN: 91831A011 – Qty: 6

SS 10-24 x $\frac{3}{4}$ " Machine Screw – McMaster Carr PN: 91772A245 – Qty: 6

SS #10 Flat Washer – McMaster Carr PN: 92141A011 – Qty: 6

Necessary tools:

7/16" Ratchet Wrench

11/64" Drill Bit

Cordless Drill & Driver

Pick

3/8" Wrench

Phillips Screwdriver

3/8" Drive Ratchet

3/8" Socket

9/16" Socket

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SAFETY PRECAUTIONS MUST BE FOLLOWED ACCORDING TO ACCEPTED INDUSTRY STANDARDS AND LOCAL/PROPERTY REQUIREMENTS.

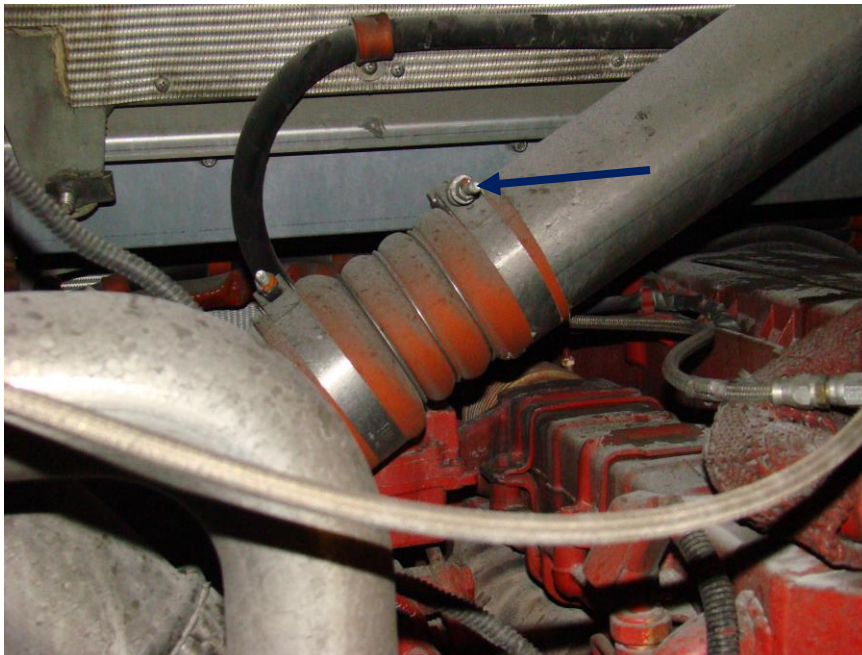
1. Park the bus and apply the parking brake.
2. Shut off the batteries using the battery disconnect switch.
3. Locate and open the rear screen for the CAC compartment (see below).



4. Locate and remove the rubber hose from CAC pipe (see below).



5. Remove the rubber hose from the opposite end of CAC pipe (see below) and remove pipe from work area.



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6. Locate and drill out the 4 rivets that fasten the existing pipe seal (see below) and discard the existing pipe seal.



IMPORTANT: Take note of harness location below close out panel before drilling from above. Harness may be in drilling area, remove p-clamps that secure harness and move harness out of the drilling area. Use drill stop if required.

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7. Install new pipe seal and new water diverter to the previously drilled holes in step 6 using 10/24 x $\frac{3}{4}$ machine screws, #10 flat washers and 10/24 lock nuts (see below). Make sure diverter is flush against back wall before securing hardware.



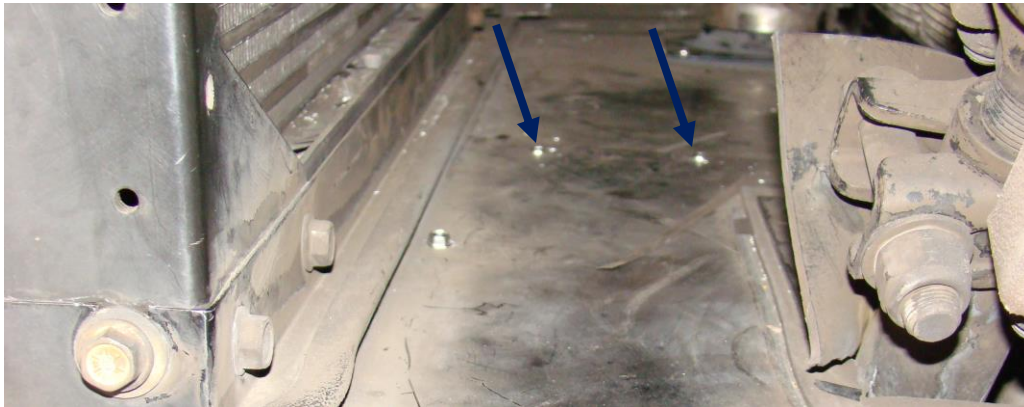
8. Reinstall pipe through new seal and reinstall hoses removed in steps 4 & 5 (see below). Tighten clamps securely.



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9. Remove existing screws and Install x2 10/24 x $\frac{3}{4}$ " machine screws, x2 #10 flat washers and x2 10/24 lock nuts to the CAC close-out panel (see below).



10. Remove existing screws and Install x3 12/14 x $\frac{3}{4}$ " drilling screws to the CAC close-out panel (see below).



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11. Clean up any debris caused by performing this retrofit.
12. Reinstall CAC compartment screen that was removed in step 3.
13. Turn the batteries back on and start the unit. Monitor the CAC pipe connections to ensure they are sealed properly.