

DART: Rear CNG Roof Cradle Cap Adjustment and
Securement



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Property name and Top bus number: DART 304500 – 313000 - 323000

Issue: CNG end cap fiberglass cover may rub on roof panel. Rear CNG cradle fiberglass end cap may contact roof panel and cause abrasion to roof panel.

Reason/ cause: The aft attachment point of the fiberglass cap to roof panel is a metal bracket with 2 bolts through slotted holes for vertical adjustment. Personnel walking on the roof cap may cause the cap to come into contact with the roof panel. Also, the fiberglass cap may have low spots due uneven trimming of the lower edge of the cap. If the cap is out of adjustment, these low spots may be in contact with the roof and possibly rub a hole in the roof panel below the cap.

Solution: Readjust and trim the cap. Drill a hole in the adjustable bracket and add a securement screw to lock the vertical position of the cap in place.

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Number of buses affected: All DART 40' buses

Estimate repair hours/bus: 5 hours

Engineering Documentation: N15-38663

Necessary parts:

Part description:	Part Number:	# Per Bus
Fusor 100 EZ	LF-100EZ	As needed
10-24 S/S Nylock	1170857	2
10-24x1.25 S/S Screw	1172445	2
10 S/S Flat Washer	1171010	4
Sand Paper	0200284	As needed
DuPont white Imrom Elite	859668ET	As needed
Isopropyl Alcohol	1000069	As needed
2" masking tape	0607903	As needed

Necessary tools:

7/16 wrench
Heat gun
2" scraper
5/16 allen wrench
Drill
3/16 drill bit
Belt sander

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

1. Turn off main battery disconnect switch(es)
2. On the roof of the bus open the rear CNG doors. ***Follow all safety rules and requirements when working on the roof. Use safety cable, appropriate scaffolding and a helper who is watching and helping while others are working on the roof. Ensure that nobody can move the bus while work is in process on the roof. See NABI Maintenance Manuals for more details.***
3. With a 7/16 inch wrench remove the 14 bolts that hold the cradle cap in place.
4. If the cradle cap is coming in contact with the roof of the bus mark it so it can be trimmed.
5. Push the cap forward for 6" before trying to pick it up.
6. With the cradle cap loose turn it over and adjust the cleat to the top of the adjustment. Then drill a 3/16" hole in the middle of the two existing bolts. Put a screw with a flat washer on each side and a nylock nut.



Cleat adjusted properly.

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New screw
added.

7. If the cradle cap was contacting the roof, using the belt sander sand $\frac{1}{4}$ inch off the lower edge of the roof cap.
8. If there was a hole rubbed in the roof: Sand and clean the affected area of the roof panel. ***Wear safety glasses and respirators approved for fiber glass dust.*** Tape area off and apply the Fusor 100EZ. Smooth out the applied material with a 2 inch scraper or putty knife to flatten it out. Heat with a heat gun for 5 min. When dry apply a coat of paint.
9. Reinstall the cap making sure you have at least $\frac{1}{4}$ inch clearance all the way around the cradle cap.
10. Check for completeness of work.
11. Remove all tools and unused parts from the work area
12. Turn the main battery disconnect switch(es) on.
13. Record bus number, mileage, date of completion and the name of the technician(s) who completed the work.