



Subject: Modine e-fan Harness Rework			
Field Change Program: Field Campaign	FCP Number: 480	Revision: A	Date: 07/21/2020
Coach Section: 06-Cooling	P/N: 06-01-1648, 06-01-1655		Type: Product Integrity

Application:

Coach Model	Model Year	VIN
J4500	2019 - 2020	68536, 68801, 68849, 68855, 68953 - 68955, 68983 - 68987, 68989 - 69008, 69010, 69013, 69031 - 69124, 69126 - 69516, 69519 - 69705, 69707 - 69754, 69756 - 69758, 69760 - 69779, 69781 - 69826, 69828 - 69838, 69842, 69847 - 69857, 69863
D45CRT-LE	2019	81000 - 81043, 81045 - 81057, 81059, 81061, 81062, 81064, 81074

This field campaign does not necessarily apply to all the above-mentioned coaches. The owners of the coaches affected by this field campaign will be advised by a letter indicating the Vehicle Identification Number (VIN) of each applicable coach.

⚠ WARNING

Read this entire procedure before beginning work.

Use Safe Shop Practices at All Times.

To avoid personal injury:

- a. Proper Personal Protective Equipment (PPE) must be worn. Safety glasses and protective gloves are required for working with DEF Fluid.***
- b. Turn the main battery disconnect switch to the OFF position.***
- c. Ensure that both the front and the rear wheels are chocked.***
- d. Position the ENGINE RUN and ENGINE START switches on the engine compartment remote control box to the OFF position.***
- e. Allow enough time for components to cool down prior to working in the engine compartment.***

1.0 Description

Customer complaint:

Modine Manufacturing Co. (“Modine”) has notified Motor Coach Industries (“MCI”) that some of the e-fan engine cooling modules may have their harness rubbing on an uncovered metal edge, which could lead to harness damage and cooling module failure.

Cause:

The e-fan engine cooling module harness was routed too tightly during the module assembly in the fuse compartment.

Corrective action:

MCI and Modine urge owners of the affected coaches to have the following procedure performed as soon as possible.

2.0 Material requirements

Refer to section 5.1.

3.0 Special tools

Inspection Mirror

CRC SP400 corrosion inhibitor, MCI P/N: 23-02-0119, or equivalent.

Sikaflex-221 black adhesive, MCI P/N: 21-7112-32.

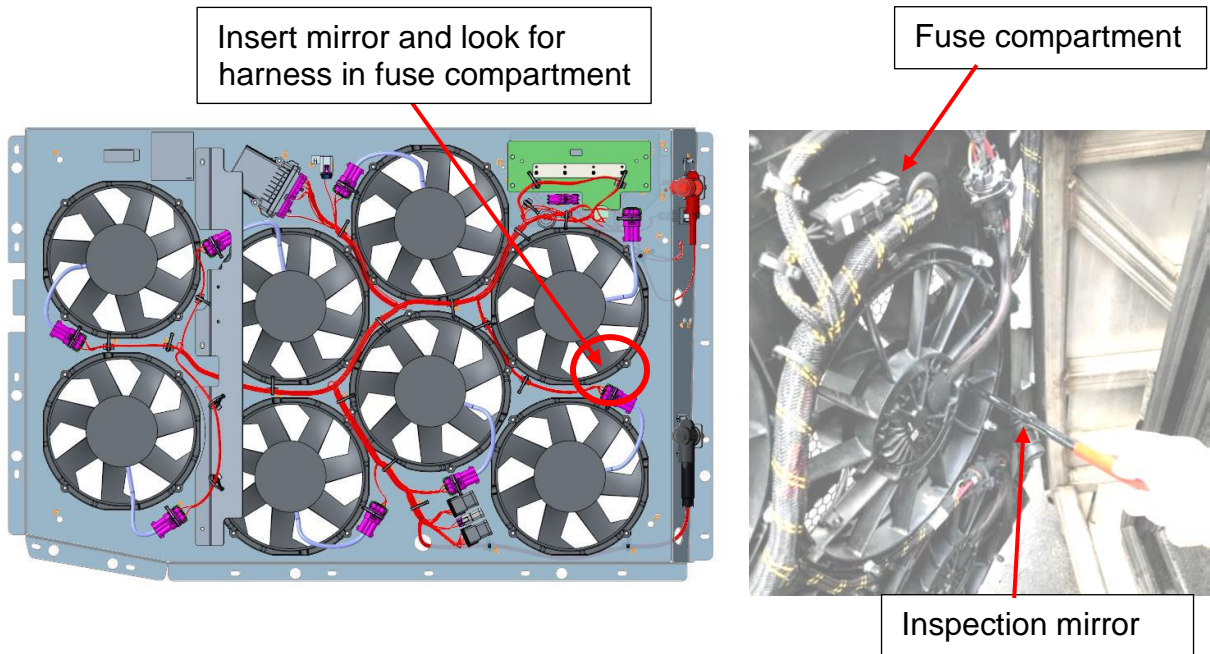
4.0 Inspection

Open the e-fan swingout door on the driver's side.



Open the swingout door

Insert inspection mirror through the fan, as shown below, and look for harness in the fuse compartment.



If there is any visible red wire resting on the fuse compartment edge as shown below, continue to Section 5.0. Otherwise, continue to Section 6.0.

Good

Bad



If no red wire is visible, continue to Section 6.0



If red wire is visible, continue to Section 5.0

Notice:

Take a picture of the inspection similar to the picture shown above to submit with the warranty claim.

5.0 Harness rework

5.1 Material requirements

Service kit **6483783** contains the following parts:

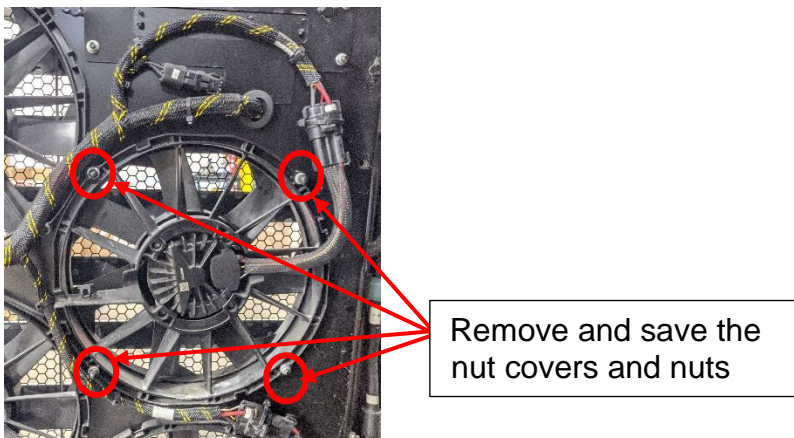
ITEM	PART NO	QTY	U/M	DESCRIPTION
1	6483650	1	EA	Kit- Modine
2	06-01-1975	10	EA	Nut Cap
3	19-11-259	2	EA	Tyrap- 13.38" LG

Modine kit 6483650 contains the following parts:

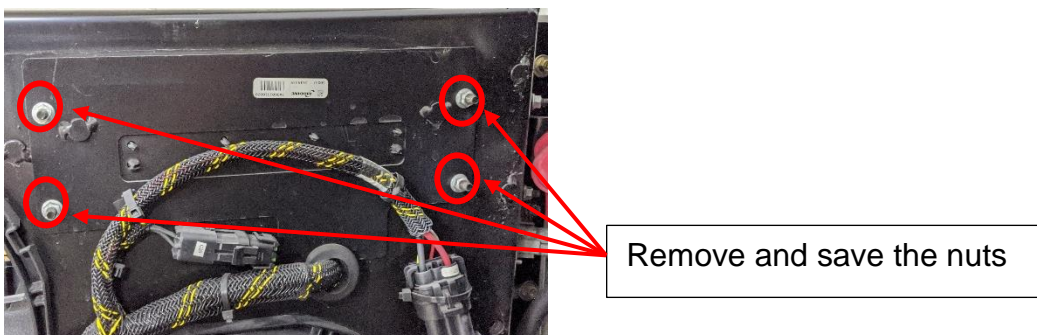
ITEM	PART NO	QTY	U/M	DESCRIPTION
1	6482599	1	EA	Bracket- E-fan Power Stud
2	6482600	1	EA	Trim Lock- 22"
3	6482601	1	EA	Trim Lock- 1"
4	6482602	10	EA	Tie Base W/ Mount

5.2 Adding trim lock in the fuse compartment

Remove and save the four nut covers and nuts securing the fan shown below. Cut and discard tie bases required to move the fan.



Remove and save the four nuts securing the fuse access cover.



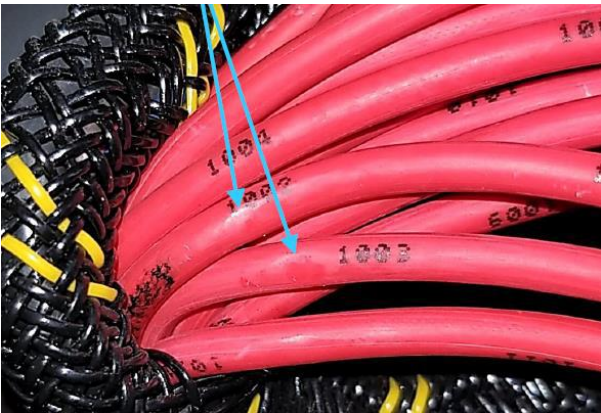
Pull the fuse access cover out of the module without disconnecting the fuses. Cut and discard tie bases required to move the cover out.



Inspect the red wire for abrasion or exposed conductors. If no damage is found, continue to the next steps. Otherwise, refer to the maintenance manual to replace the harness.

Good

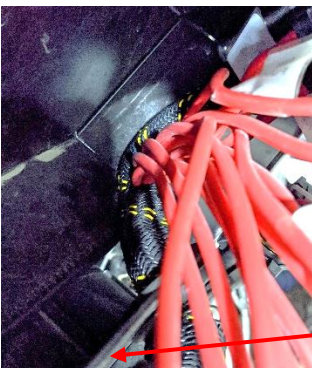
Bad



Notice:

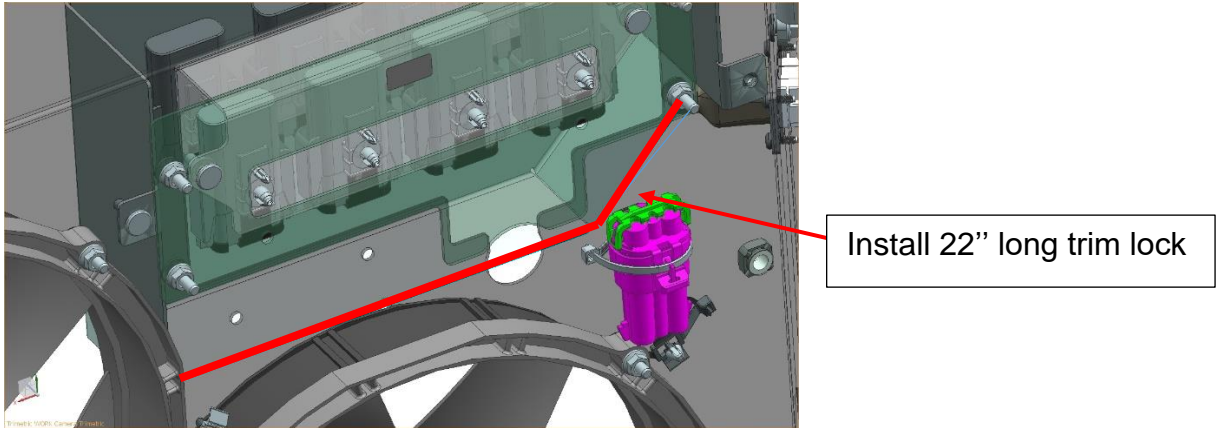
Take a picture of the inspection similar to the picture shown above to submit with the warranty claim

Remove and discard the edge grip in the fuse compartment.

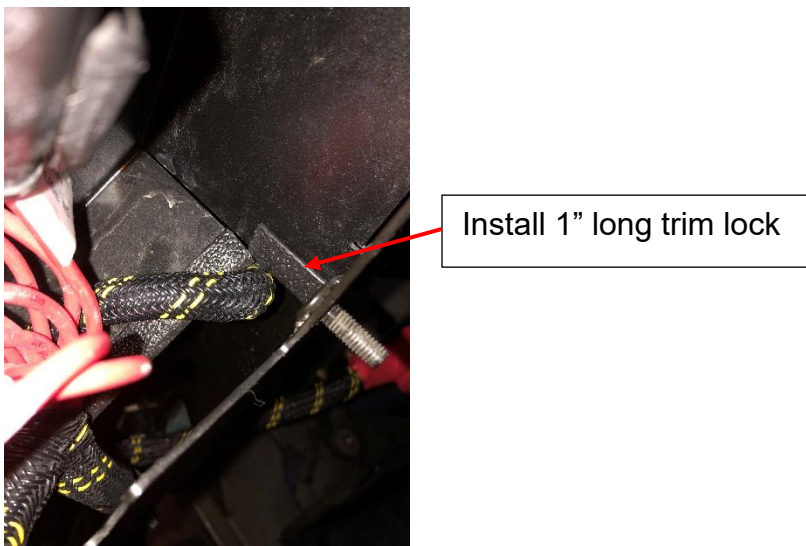


Remove and discard the edge grip

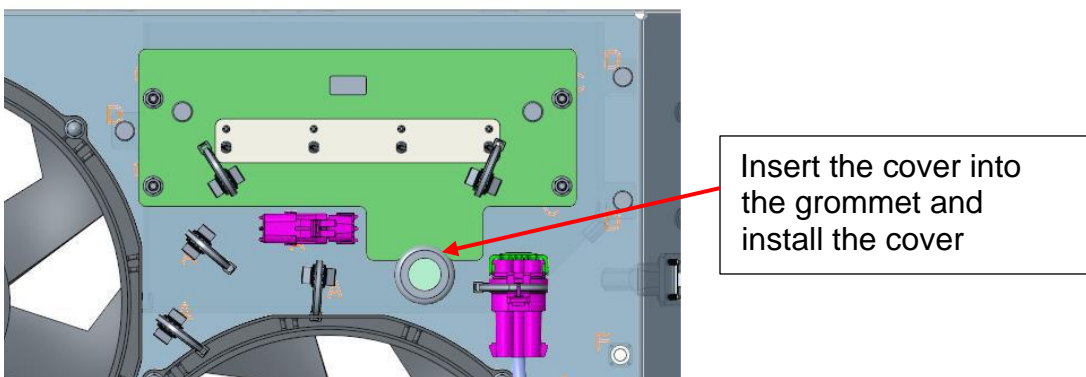
Install the 22" long trim lock, MCI P/N: 6482600, along the inside edge of the fuse compartment shown below.



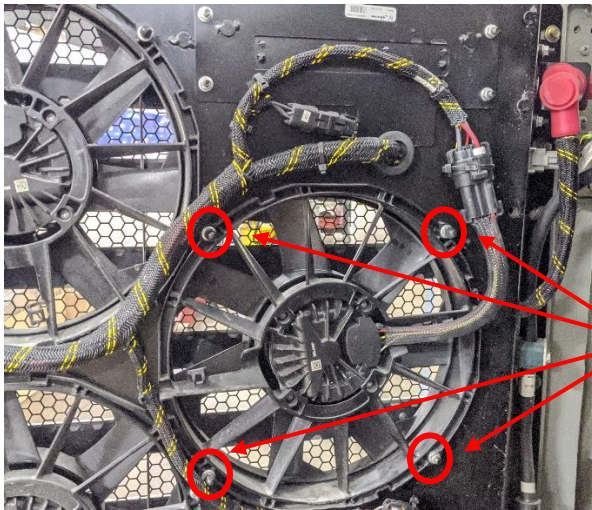
Install the 1" long trim lock, MCI P/N: 6482601, along the RH shorter edge of the fuse compartment, as shown below.



Insert the curved edge of the fuse access cover into the grommet and install the access cover using existing nuts. Torque the nuts to 7 Ft-Lbs.



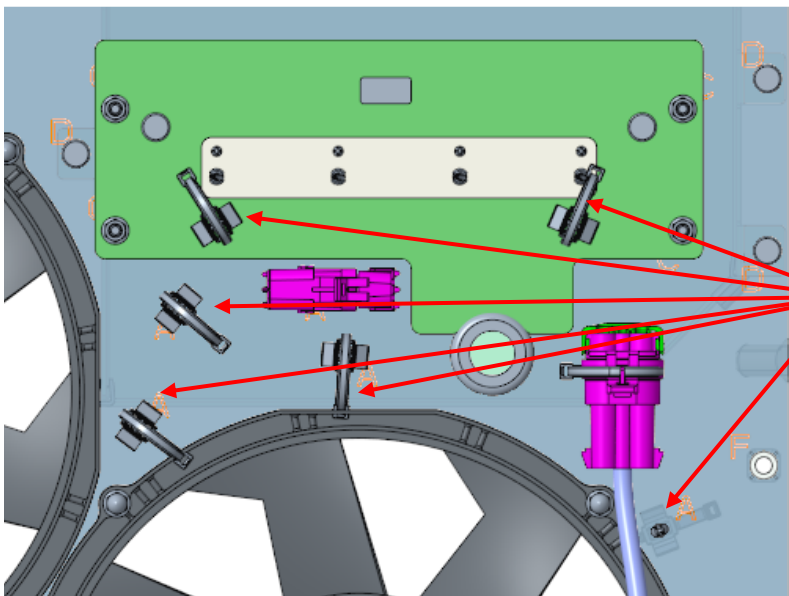
Re-install the fan using existing hardware. Torque the nuts to 7 Ft-Lbs.



Re-install the fan using existing nuts

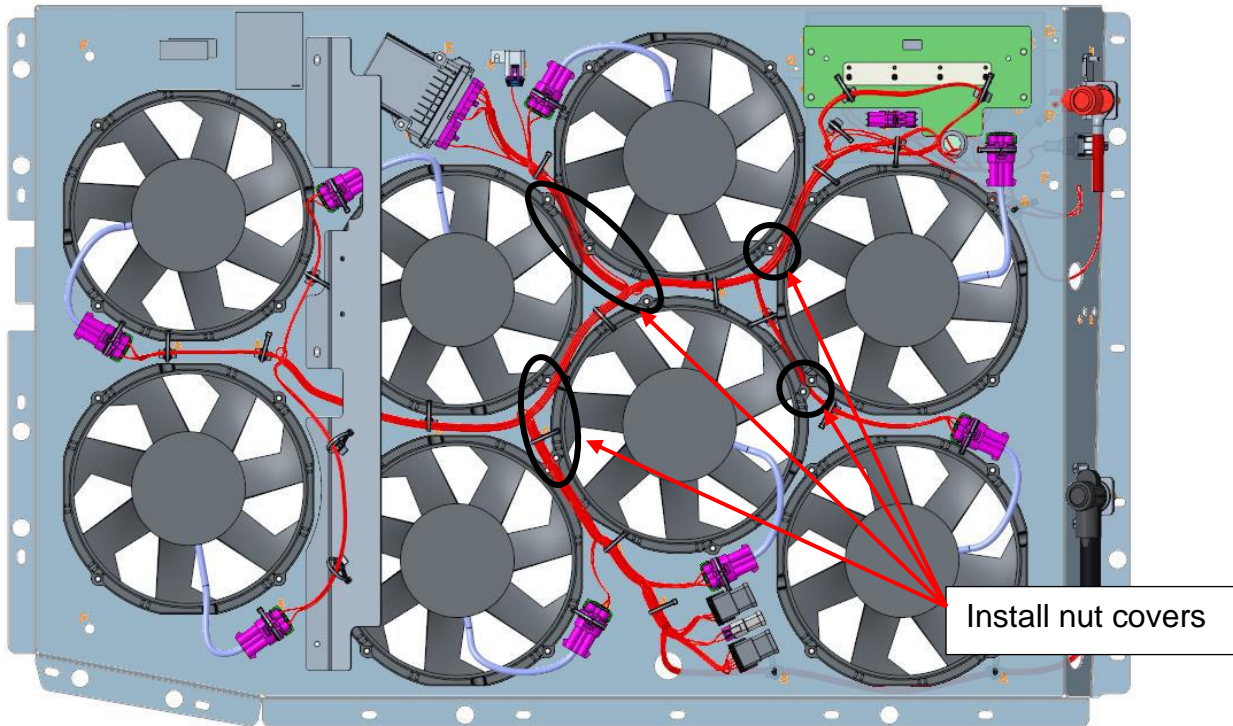
Install existing nut covers to the fan mounting nuts.

Install the tie bases, MCI P/N: 6482602, at the location shown below and secure the harness.



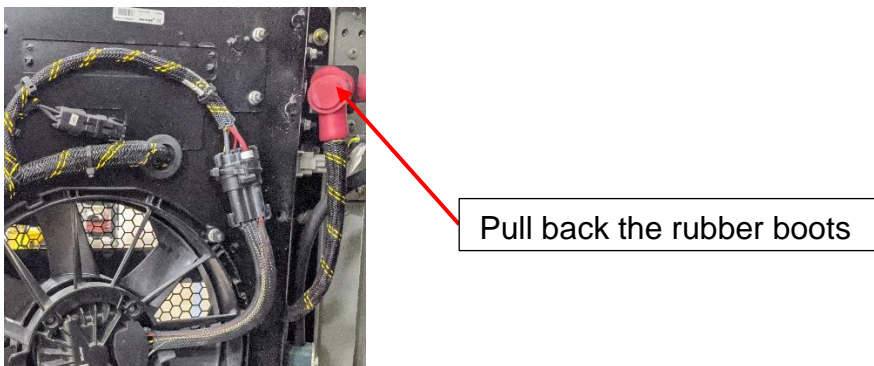
Install the tie bases and secure the harness

Install nut covers to the fan mounting nuts at the locations shown below, if absent.

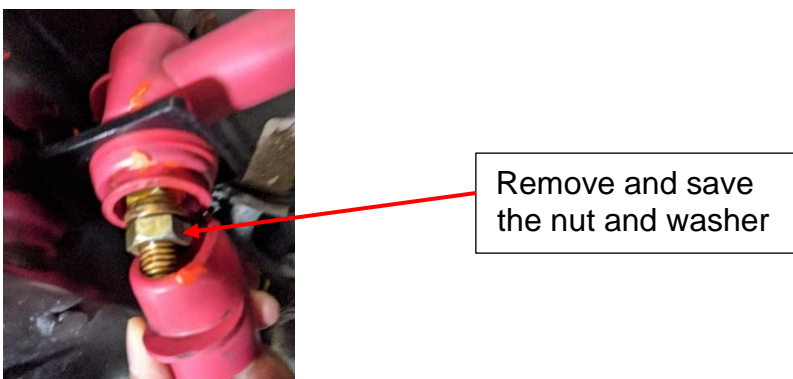


5.3 Replacing the power stud bracket

Pull back the rubber boots on both the harnesses installed to the power stud.



Remove and save the washer and nut securing the power cable going into the e-fan.

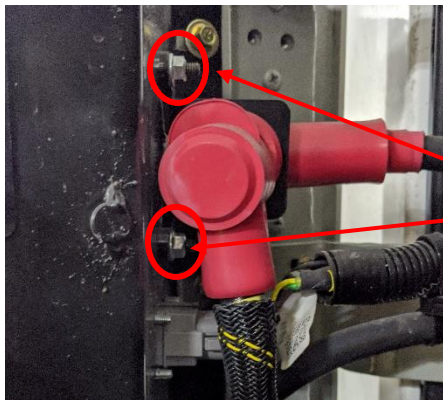


Remove and save the washer and nut securing the power cable coming from inside the coach.



Remove and save the nut and washer

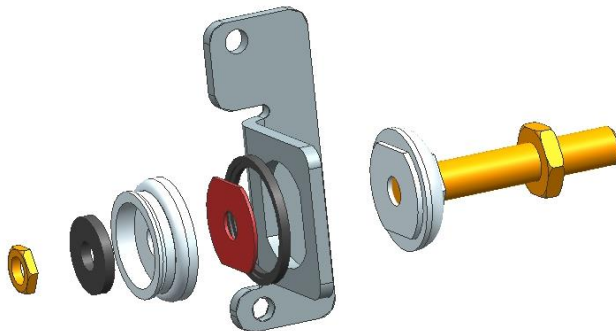
Remove and save the two nuts securing the power stud bracket. Remove the power stud.



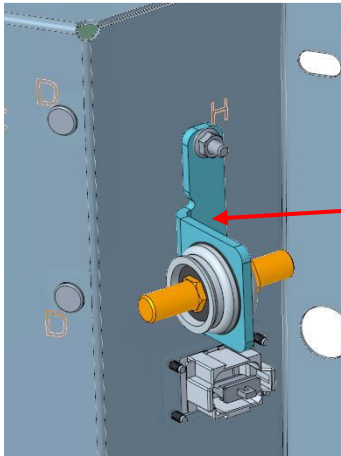
Remove and save the nuts. Discard the bracket

Remove and save the components secured to the power stud bracket. Discard the bracket.

Install the components saved in the previous step to the new power stud bracket, MCI P/N: 6482599, in the order shown below. Torque the jam nut to 18.5 Ft-Lbs.



Install the assembled power stud bracket using existing hardware. Torque the nuts to 7 Ft-Lbs.



Install the assembled bracket

Re-install the power cable coming from inside the coach to the power stud, as shown below, using existing washer and nut. Torque the nut to 14.75 Ft-Lbs.



Install the cable using existing hardware

Re-install the power cable going into the e-fan to the power stud, as shown below, using existing washer and nut. Torque the nut to 14.75 Ft-Lbs.



Install the cable using existing hardware

Apply corrosion inhibitor, MCI P/N: 23-02-0119, on both sides of the stud and re-place boots over the power stud.



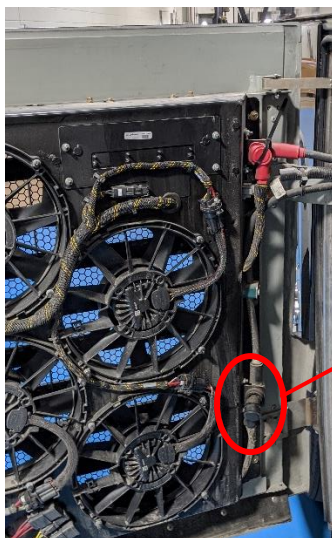
Apply corrosion inhibitor, 23-02-0119, and re-place the rubber boots

Secure the two rubber boots on the power stud with a zip tie, MCI P/N: 19-11-259.



Secure the rubber boots with zip tie, 19-11-259

Pull back the rubber boots on the ground stud and apply corrosion inhibitor, MCI P/N: 23-02-0119.



Pull back the rubber boots and apply corrosion inhibitor, 23-02-0119

Re-place the rubber boots on the ground stud and secure them with zip ties, MCI P/N: 19-11-259.



Secure the rubber boots with zip tie, 19-11-259

6.0 Bulb seal inspection

6.1 Inspection

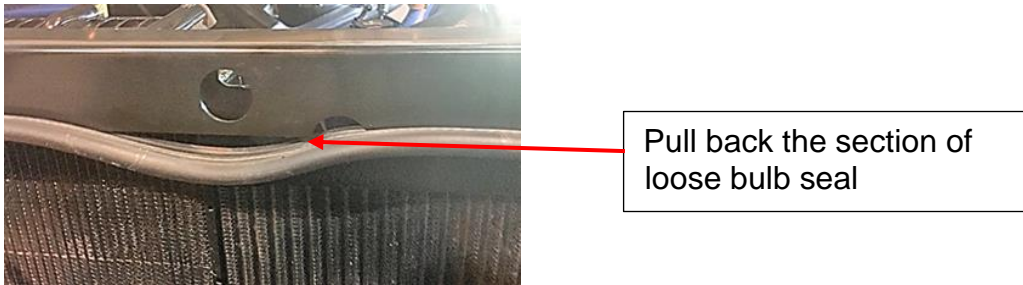
Inspect the radiator for loose bulb seal.



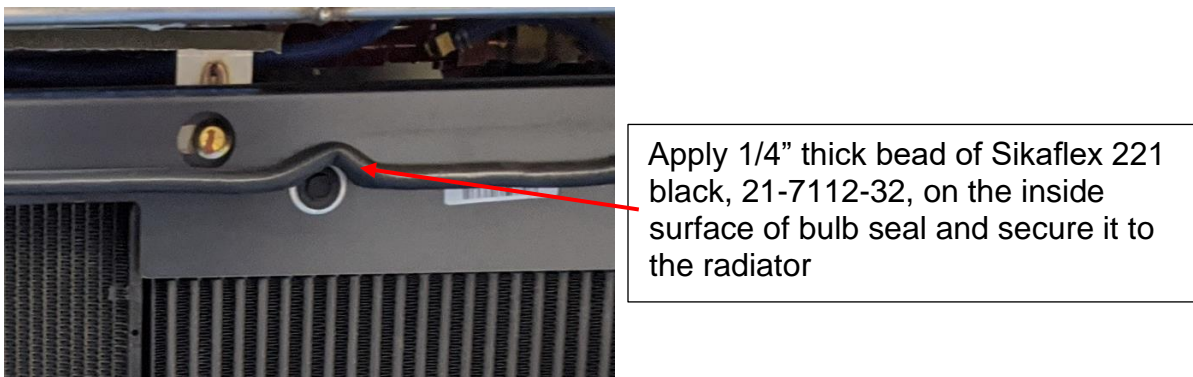
If bulb seal is found loose, continue to Section 6.2. Otherwise, procedure is complete.

6.2 Securing the loose bulb seal

Pull back the section of loose bulb seal and clean the bulb seal and radiator surfaces with isopropyl alcohol.



Apply 1/4" thick bead of Sikaflex 221 black, MCI P/N: 21-7112-32, on the inside surface of bulb seal and secure it back to the radiator.





7.0 Field Change Program Conditions:

The parts required for this change will be supplied without charge.

A labor allowance of 1 hour will be granted if the harness is found to need rework.

A labor allowance of 4 hours will be granted if the harness is found to need replacement.

This labor allowance will be credited to your MCI Fleet Support Parts Account on receipt of the attached "MCI Field Change Program Verification Form" and a "Warranty Claim Form" as detailed in your Owner Warranty manual to MCI's Warranty department. **A "MCI Field Change Program Verification Form" needs to be submitted along with a picture, as mentioned in Section 4.0 and Section 5.2 of this document for each VIN affected.** Photocopy the attached "MCI Field Change Program Verification Form" as required for the number of affected coaches in your fleet.

This program will end on **Month DD, YYYY.**

Motor Coach apologizes for any inconvenience resulting from this campaign but urges you to implement this change as soon as possible.

Sincerely,

Motor Coach Industries.



FAX TO: 800-360-8886

Mail or fax the completed limited warranty claim form and verification form to MCI's warranty department, or photocopy and mail to:

MCI Fleet Support

Attn: Warranty Department

7001 Universal Coach Drive Louisville, KY 40258

Fax Number 1-800-360-8886

To receive credit for the hours used to complete this task. Contact the MCI Fleet Support Technical Center at 1-800-241-2947 for any further information.