



Reliability Driven™

# Service Bulletin No. 409

<small>MODEL</small> D Series / J4500 Series	<small>TYPE</small> Field Change Program	<small>SECTION/GROUP</small> 7-Electrical	<small>DATE</small> May 1, 2014
<small>SUBJECT</small> LEECE NEVILLE ALTERNATOR			
<small>CONDITIONS</small>			

## **Customer Complaint:**

Motor Coach Industries ("MCI") has become aware that the Leece Neville alternators installed in certain MCI coaches are subject to early failures and not meeting reliability requirements.

The potential may exist in which the alternator could operate in an over-charge condition, which may result in a coach down situation or damage to engine components.

## **Cause:**

The failure is due to the alternator's regulator.

## **Corrective Action:**

MCI strongly encourages owners of the D series and J4500 series coaches listed in the table below to implement the steps in this procedure as soon as possible.

13133 to 13292	13294 to 13383	66625 to 66871		
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# NOTICE

***MCI or a third party provider will be contacting customers with coaches listed in the table above to schedule an appointment to perform the retrofit procedure in this bulletin.***

## **Parts**

<u>Qty.</u>	<u>Old P/N</u>	<u>New P/N</u>	<u>Description</u>
2		07-03-1282RWK	Alternator, Leece Neville, DD13 Engine
2		07-03-1284RWK	Alternator, Leece Neville, Cummins ISX Engine
a/r			Sealant, Hi tack
a/r			Tyrap

Service Procedure:

## **WARNING**

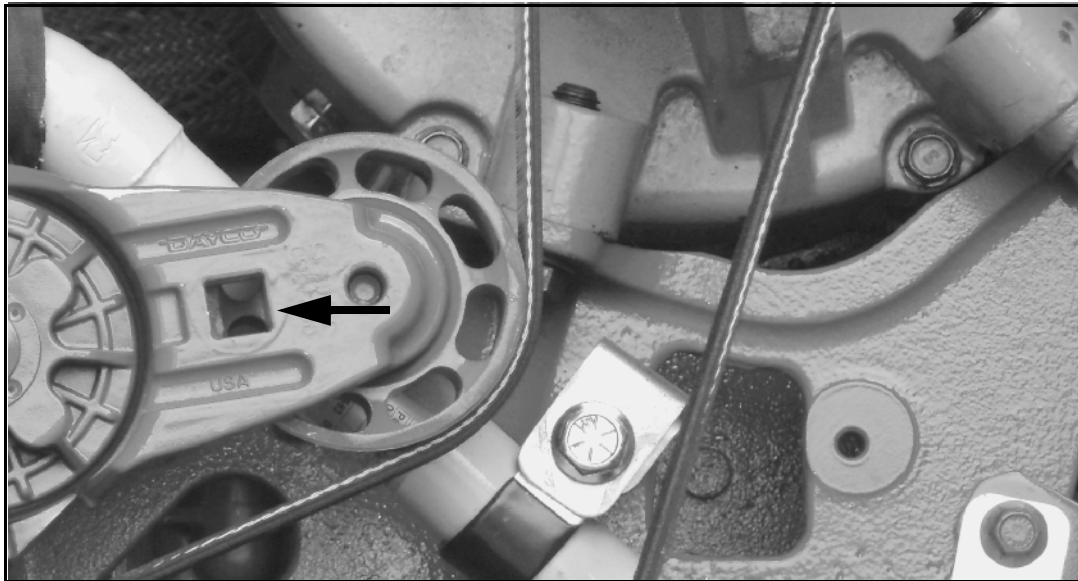
*Read this entire procedure before beginning work.*

*Use Safe Shop Practices At All Times.*

## **WARNING**

To avoid personal injury, never enter or perform work in the engine compartment prior to positioning the ENGINE RUN and ENGINE START switches on the engine compartment remote control box to the OFF position. Allow enough time for components to cool down prior to working in the engine compartment.

1. Turn the main battery disconnect switch to the OFF position.
2. Open the engine door(s). Locate the engine belt tensioner ( refer to Figures 1 and 2 ).



**Figure 1. D series coach installation.**

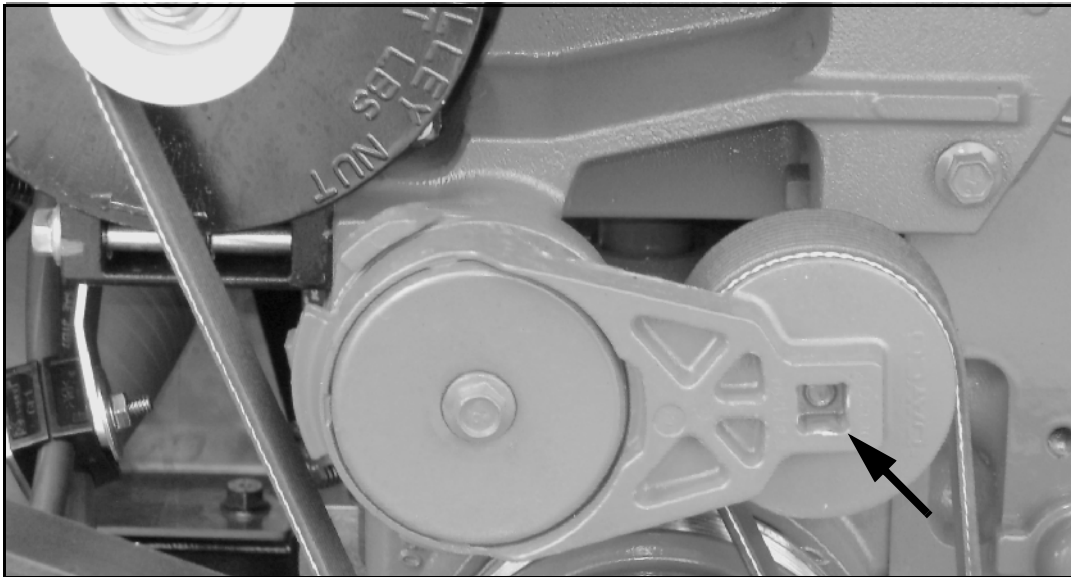


Figure 2. J4500 series coach installation.

 **WARNING**

The tensioner is under pressure and may have unexpected movement. To avoid injury, always keep a tight grip on tools when removing the belt.

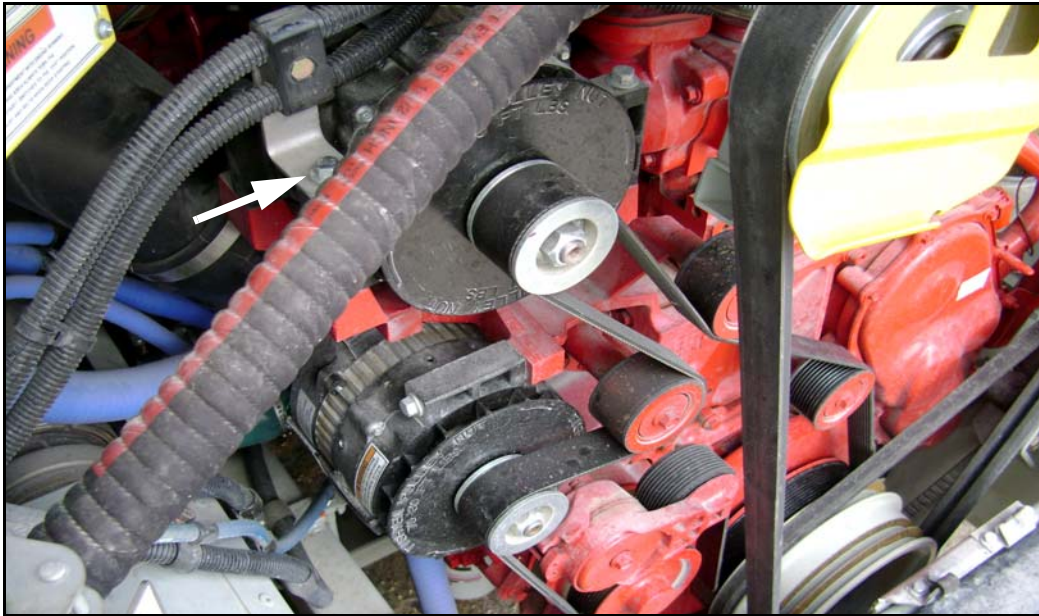
3. Locate and orient the ratchet in the engine belt tensioner port. Using a ratchet and controlled force, carefully apply pressure to offset the tensioner creating slack of the engine belt ( refer to Figure 3 ). Have a second person carefully remove the engine belt from the pulley.



Figure 3.

## NOTICE

*Although the alternator mounting installation is the same for the D Series and the J4500 Series installation, please note the mounting brackets installation for the cables on the D Series and the transmission fill tube on the J4500 Series ( Figures 4 and 5 ).*

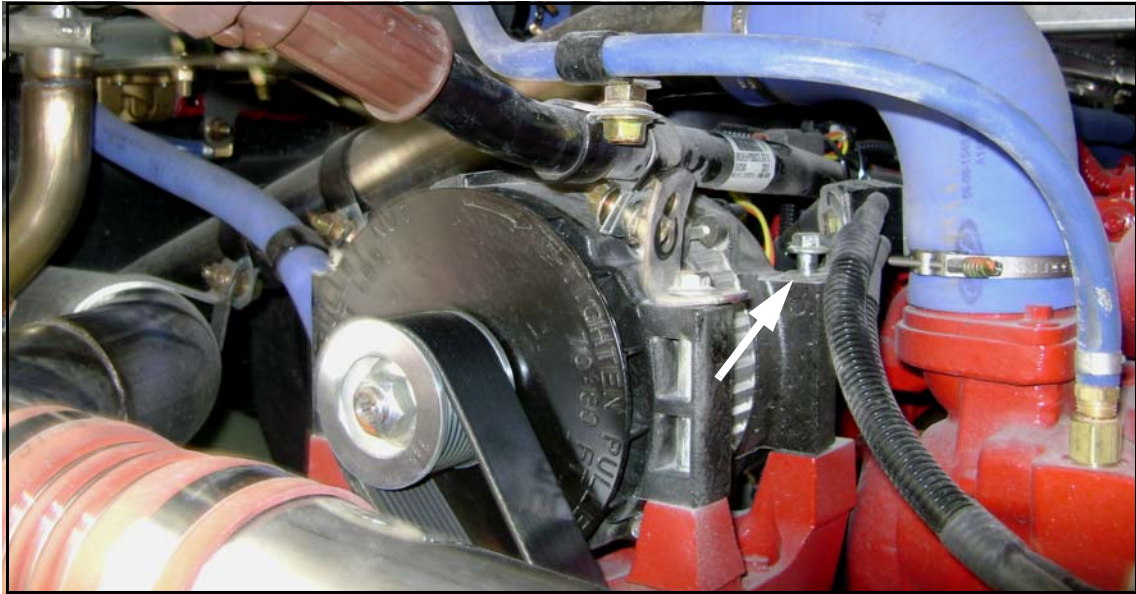


**Figure 4. D series alternator installation.**



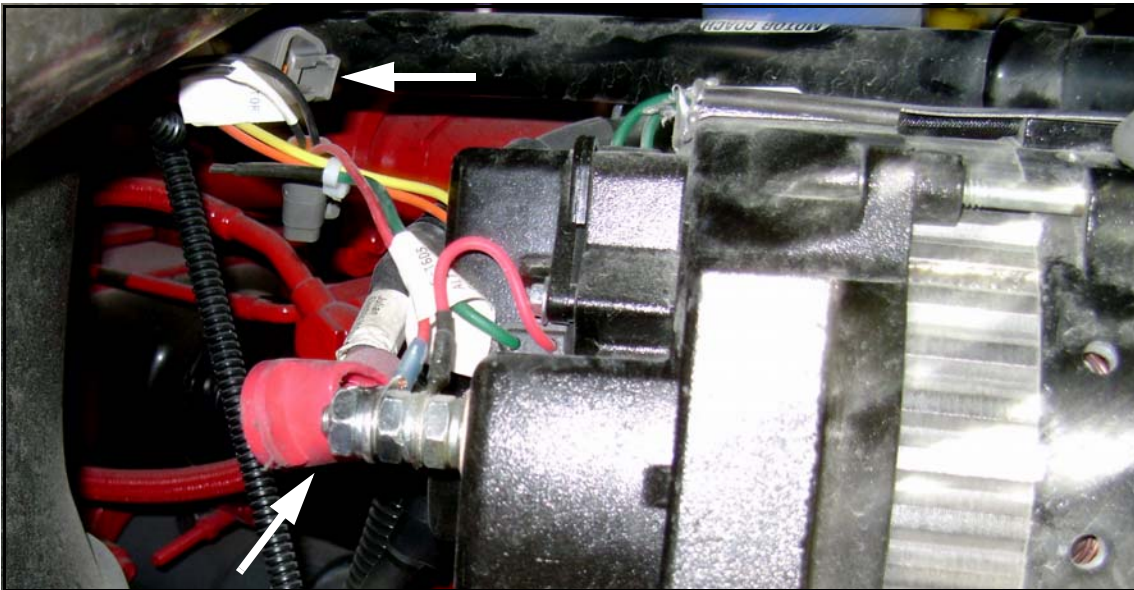
**Figure 5. J4500 series alternator installation.**

4. Depending on the coach model, locate the transmission fill hose or cable bracket mounted to the upper alternator installation. Remove and retain the applicable hardware, to be re-installed at a later step in this procedure.
5. Locate the upper alternator mounting hardware ( refer to Figure 6 ). Remove and retain the four ( 4 ) capscrews.



**Figure 6.**

6. Locate the harness and wiring attached to the studs on the back of the alternator ( refer to Figure 7 ). Pull to remove the protective boot covering the GND and power studs. Remove and retain the nuts from the stud. Remove the wire ring terminals from the studs and disconnect the harness.



**Figure 7.**

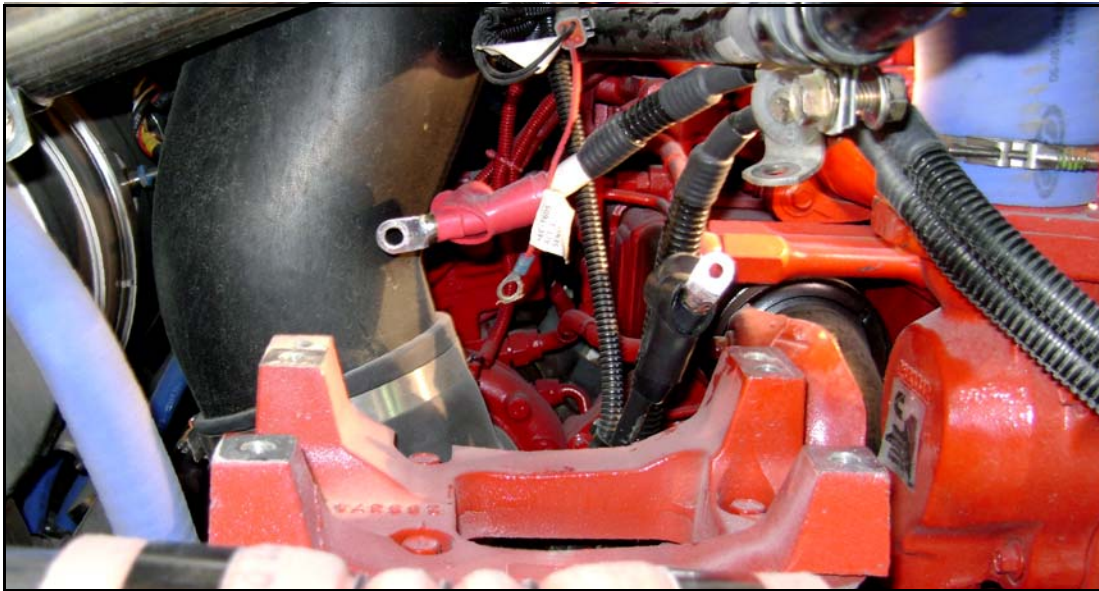
**⚠ WARNING**

To avoid injury, use caution when removing the alternator from the engine compartment.

**NOTICE**

*Retain and package the existing alternator to be shipped back to MCI.*

7. Remove the alternator from the engine compartment.



**Figure 8. Upper alternator removed from mount points.**

8. Orient and position the new alternator, p/n 07-03-1282RWK or 07-03-1284RWK, on the mount points.
9. Remove the nut from the GND stud. Place the GND wire ring terminal on the stud. Secure with the nut and tighten. Torque the stud nut to 75-80 in-lbs. Apply sealant to the ring terminal ensuring that the area is fully coated. Install the protective boot over the stud.
10. Remove the nuts from the power studs. Place the power wire ring terminals on the studs. Secure with the nuts and tighten. Torque the stud nuts to 100-110 in-lbs. Apply sealant to the ring terminals ensuring that the area is fully coated. Install the protective boots over the studs.
11. Connect the harness plug ends. Using a tyrap, tyrap the harness wires together.
12. Using a ratchet with 13 mm end, install the four ( 4 ) capscrews to secure the alternator to the mount points. Torque to 30-35 ft-lbs.
13. Re-connect the transmission fill hose hardware or cable bracket, as applicable per coach model. Tighten to secure.



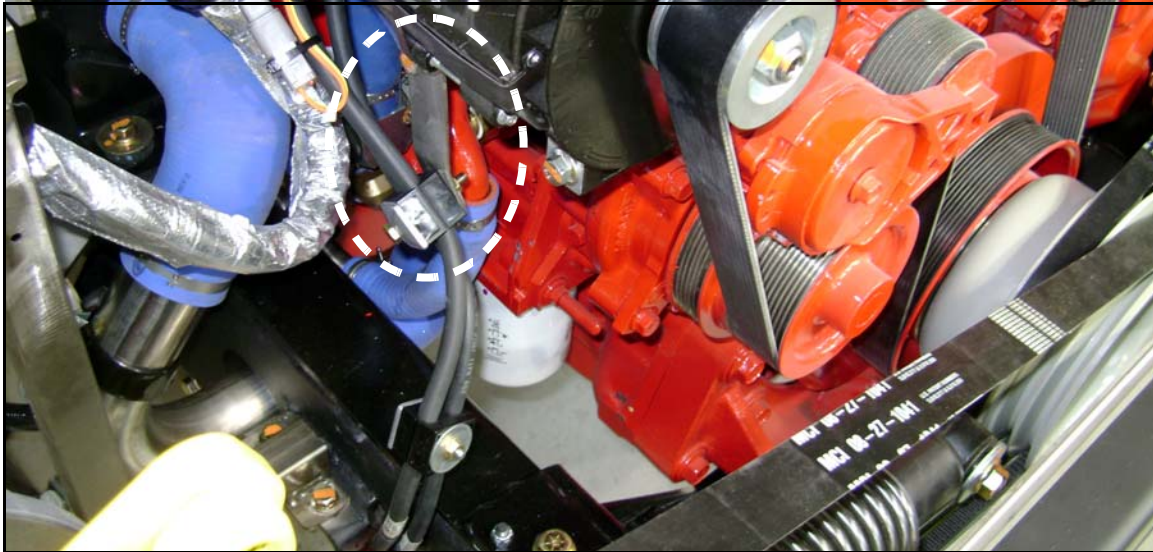
## **WARNING**

*The lower alternator installation is a side mount configuration. Utilize caution when removing mounting hardware.*

## **NOTICE**

*On J4500 Series coaches, locate the GND cable support bracket mounted to the lower alternator mount ( refer to Figure 9 ). Remove and retain the GND cable support bracket. Place aside to be re-installed at a later step in this procedure.*

*Proceed to Step 14 if not applicable by coach model.*



**Figure 9. J4500 Series lower alternator installation.**

14. Locate the harness and wiring attached to the studs on the back of the alternator. Pull to remove the protective boot covering the studs. Remove and retain the nuts from the stud. Remove the wire terminal ring from the studs and disconnect the harness ( refer to Figure 10 ).

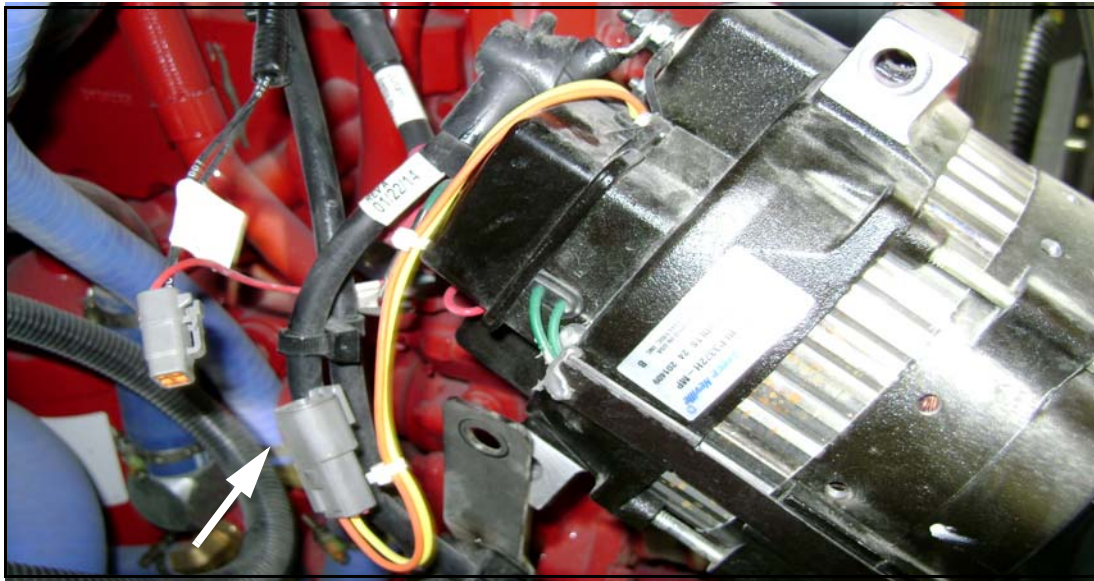


Figure 10.

## **WARNING**

To avoid injury, use caution when removing the mounting hardware and the alternator from the engine compartment.

15. Locate the lower alternator side mounting hardware ( refer to Figure 11 ). Remove and retain the four ( 4 ) capscrews.

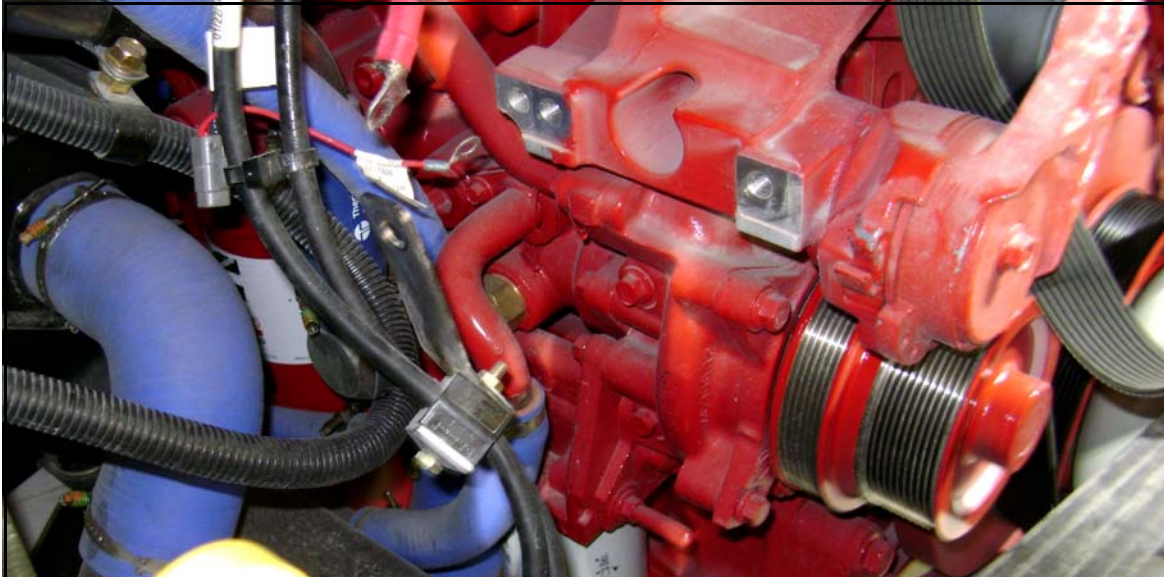


Figure 11.

## NOTICE

**Retain and package the existing alternator to be shipped back to MCI.**

16. Remove the alternator from the engine compartment.



**Figure 12. Lower alternator removed from mount points.**

17. Orient and position the new alternator, p/n 07-03-1282RWK or 07-03-1284RWK, on the mount bracket.
18. Remove the nut from the GND stud. Place the GND wire terminal ring on the stud. Secure with the nut and tighten. Torque the stud nut to 75-80 in-lbs. Apply sealant to the ring terminal ensuring that the area is fully coated. Install the protective boot over the stud.
19. Remove the nuts from the power studs. Place the power wire terminal rings on the studs. Secure with the nuts and tighten. Torque the stud nuts to 100-110 in-lbs. Apply sealant to the ring terminals ensuring that the area is fully coated. Install the protective boot over the stud.
20. Connect the harness plug ends. Using a tyrap, tyrap the harness wires together.
21. Using a ratchet with 13 mm end, install the four ( 4 ) capscrews to secure the alternator to the mount. Torque to 30-35 ft-lbs.
22. If applicable by coach model, re-connect the GND cable support bracket hardware. Tighten to secure.

## **WARNING**

**Tensioner is under pressure and may have unexpected movement. To avoid injury, always keep a tight grip on tools when installing the belt.**

23. Using a ratchet and controlled force, carefully apply pressure to offset the tensioner creating slack on the engine belt. Have a second person carefully orient and re-install the belt on the pulleys.
24. Position the switches on the engine compartment remote control box to the ON position.
25. Close the engine compartment door(s).

*Procedure Complete.*



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.

***Field Change Program Conditions:***

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

A labor allowance of 1.1 hours will be granted for the procedure of installing the specified part(s) in this bulletin on D Series and J4500 Series coaches.

**NO PAYMENT OR CREDIT WILL BE ISSUED BY MOTOR COACH INDUSTRIES UNTIL THE COMPLETED WARRANTY CLAIM FORM AND THE TWO ( 2 ) EXISTING LEECE NEVILLE ALTERNATORS HAVE BEEN RECEIVED BY MCI.**

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 and the two ( 2 ) existing alternators. A "MCI Field Change Program Verification Form" needs to be submitted 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 Nov.14, 2014.

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