

## S A F E T Y R E C A L L

<b>SUBJECT:</b>	<b>137 MDT and LDT Starter Cable</b>
<b>DATE:</b>	<b>1-13-2013</b>
<b>BULLETIN NO.:</b>	<b>RCB-001-12</b>
<b>CAMPAIGN NO.:</b>	<b>A8310</b>
<b>AFFECTED MODELS:</b>	<b>2005 through 2007 MY NA6J, NB6J, NC6J, ND8J, NE8J, NJ8J, NV8J Conventional Hino Trucks equipped with either a J08/J05 series engine.</b>

**Important: Verify on the Hino DCS Warranty System that the vehicle needs to have this work performed.**

### **CONDITION:**

The main B+ circuit from the battery to the starter could potentially short to ground due to wear that accumulates over time, potentially resulting in a fire. The wear is the result of interference between the B+ circuit and the convoluted tubing.

### **SUBJECT VEHICLES:**

2005 through 2007 model year NA6J, NB6J, NC6J, ND8J, NE8J, NJ8J, NV8J Conventional Hino Trucks equipped with either a J08/J05 engine series. These trucks were assembled at either Hino City, Japan assembly plant or Long Beach, CA assembly plant.

### **BEFORE YOU BEGIN:**

*Read and understand all instructions and procedures before you begin. Read and observe all Notes, Cautions and Warning safety alerts that precede these instructions while following these procedures. The alerts help to avoid damage to components, serious personal injury, or both.*

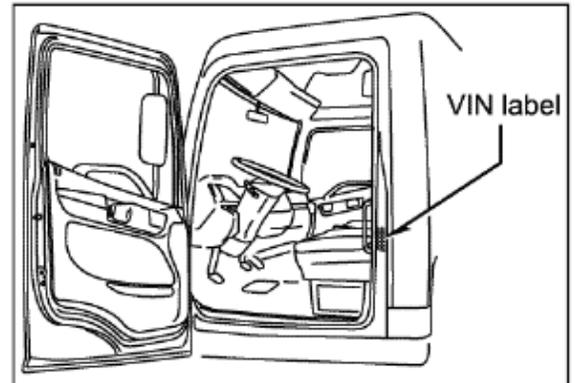
## **!!! WARNING !!!**

- Park the vehicle on a level and solid surface and apply the parking brake.
- Confirm the engine is stopped, the starter switch is in the off (LOCK) position, and the key is removed.
- Wear safety glasses to prevent eye injuries.
- Place wheel chocks in front of and behind all wheels.
- Prior to performing this campaign, allow the engine and exhaust to cool down to prevent any accidental burns.

## SAFETY RECALL

**Once Recall Is Completed**

Complete a recall sticker and affix to the left door jam above the V.I.N. decal.



**PARTS:**

**PART MATRIX/APPLICATION CHART:**

**NOTE:** Verify Application and note Kit Part Number from chart below.

Old Starter Cable Part Number	New Starter Cable Part Number	Application	Kit Part Number
S821082590	82122E1600	J05 Engine Equipped	04002040E0
S821082600	82122E1610	05MY Equipped With J08 Engine	04002041E0
S821081670	82122E1630	05MY Equipped With J08 Engine (Low Pro)	04002043E0
S821082040	82122E1620	06MY -07MY Equipped With J08 Engine	04002042E0

**NOTE.** Contents of specific Parts Kits.

Kit Part Number	Kit Component Description	Quantity
04002040E0	1 Starter Cable(82122E1600) 2 Steel Clamps(SN23103001) 1 Plastic Tie Strap(S478371230)	1 Kit Required As Per VIN
04002041E0	1 Starter Cable(82122E1610) 2 Steel Clamps(SN23103001) 2 Plastic Tie Straps(S478371230)	
04002043E0	1 Starter Cable(82122E1630) 2 Steel Clamps(SN23103001) 2 Plastic Tie Straps(S478371230)	
04002042E0	1 Starter Cable(82122E1620) 2 Steel Clamps(SN23103001) 2 Plastic Tie Straps(S478371230)	

## SAFETY RECALL

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### VEHICLE PREPERATION:

1. Park the truck on level ground.

2. Confirm the engine is stopped, the starter switch is in the off (LOCK) position, and the key is removed.



3. Apply the parking brakes.



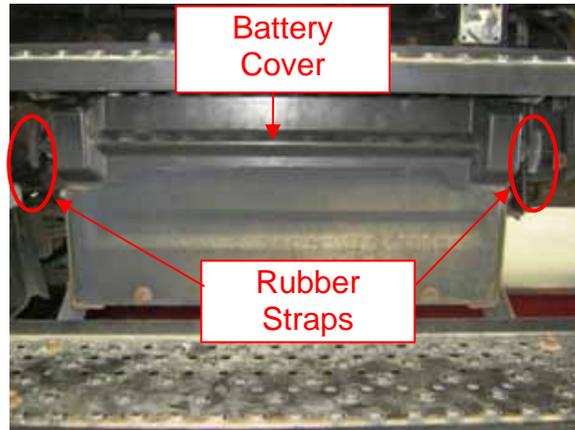
4. Chock all of the wheels.



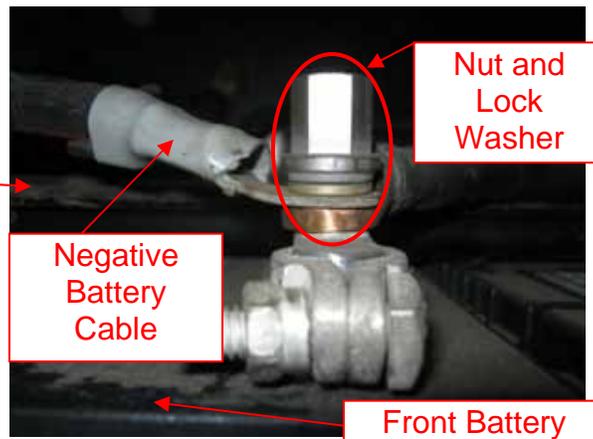
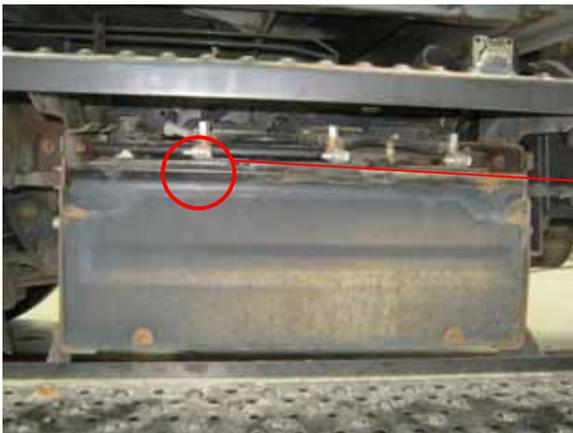
## SAFETY RECALL

### REPAIR PROCEDURE (*JOB ENGINE EQUIPPED*): Starter Cable Removal

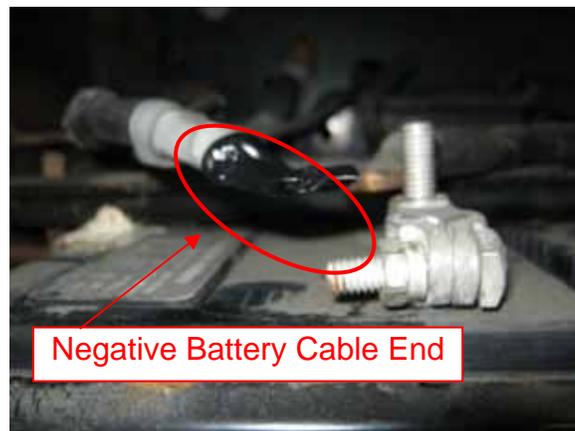
1. Release the two (2) rubber straps that secure the battery cover and then remove the battery cover.



2. Remove the nut and lock washer securing the negative battery cable to the negative battery terminal on the front battery.

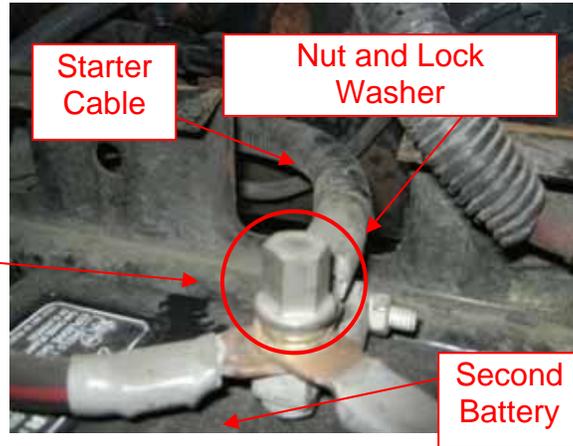
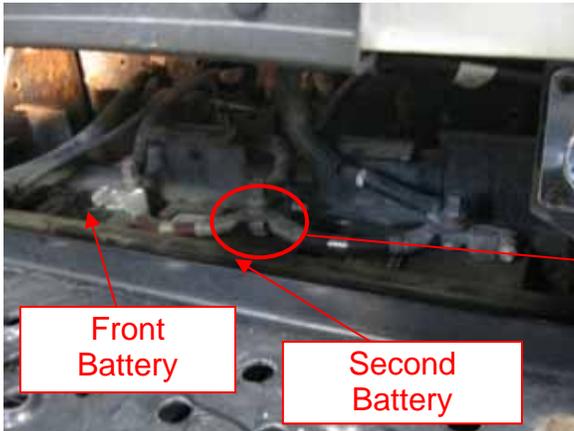


3. Disconnect the negative battery cable from the negative terminal of the front battery and then cover the exposed negative battery cable end with vinyl electrical tape to prevent any accidental short circuit.

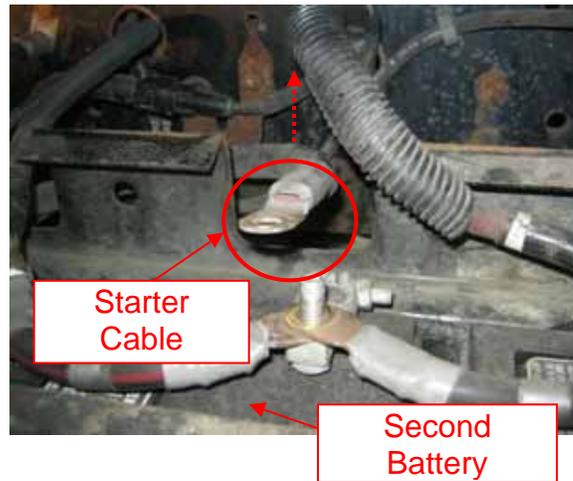


## SAFETY RECALL

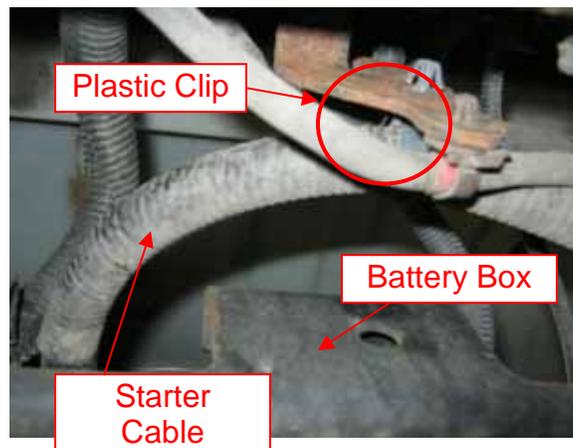
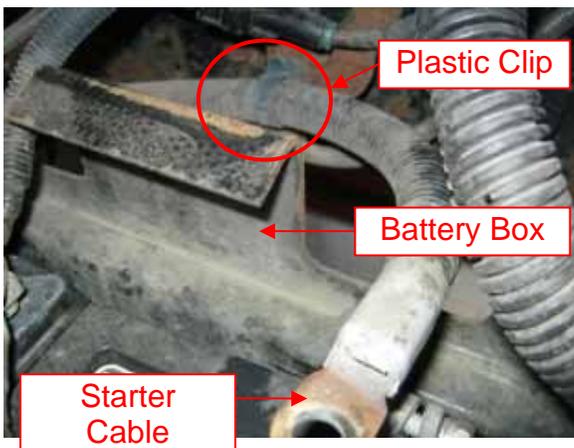
4. Remove the nut and lock washer securing the starter cable to the positive battery terminal on the second battery.



5. Disconnect the starter cable from the positive terminal of the second battery.

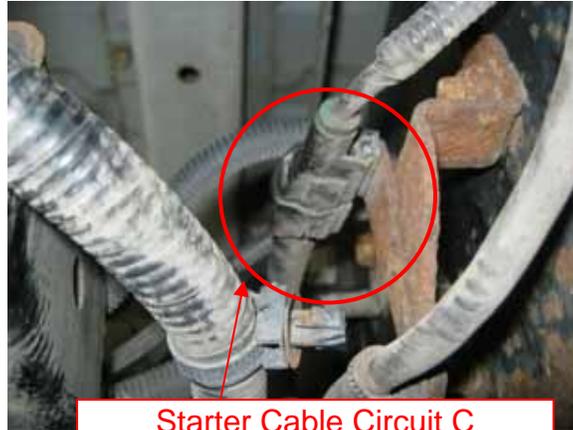


6. Disconnect the plastic clip securing the starter cable.



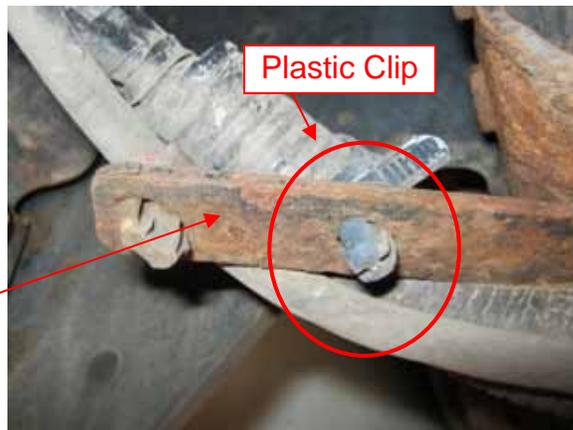
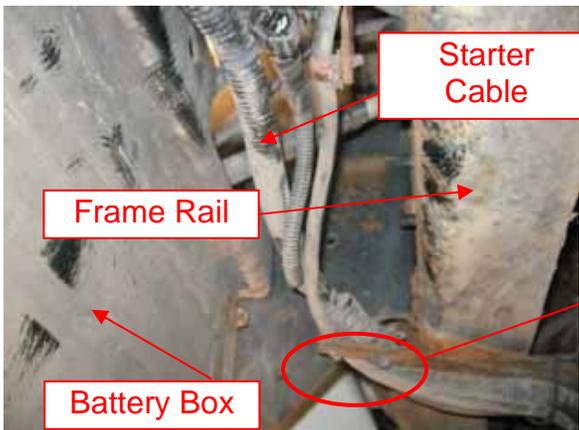
## SAFETY RECALL

7. Disconnect the starter cable circuit C connector.



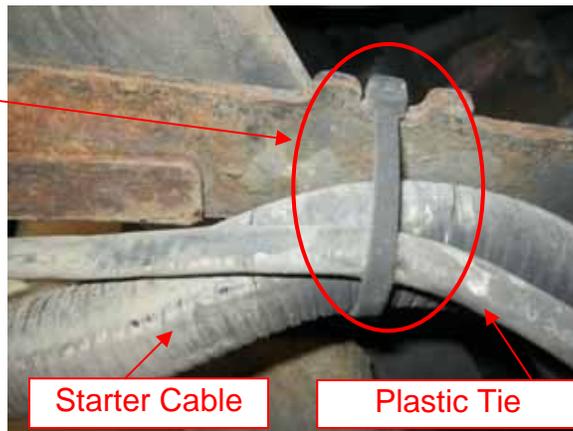
Starter Cable Circuit C Connector

8. Disconnect plastic clip securing starter cable to chassis bracket.



Plastic Clip

9. Cut plastic tie strap securing the starter cable to the chassis bracket.

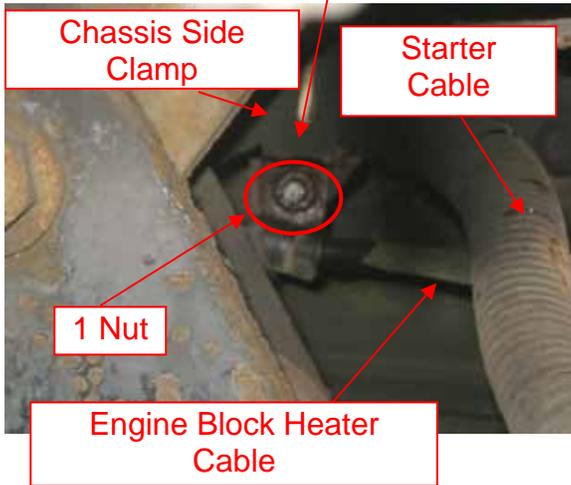
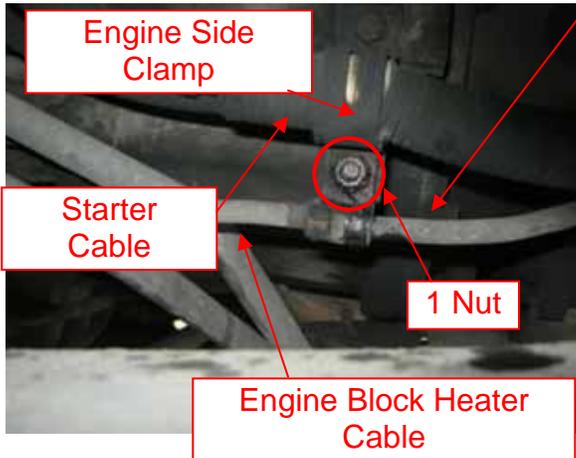


Starter Cable

Plastic Tie

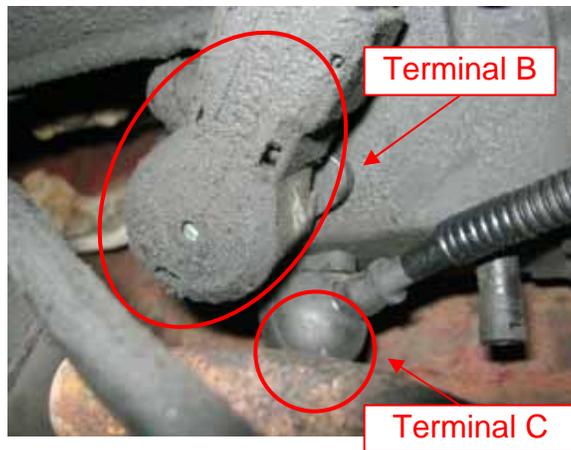
## SAFETY RECALL

10. Locate the starter cable just below the inboard edge of the driver side frame rail. Remove each nut that secures each of the 2 starter cable steel clamps. One clamp is the engine side clamp and the other is the chassis side clamp.



11. Remove the protective caps from terminal B and terminal C, located on the starter.

**NOTE:** Care should be taken not to damage the terminal B black plastic cap. This cap will be reused.



## SAFETY RECALL

12. Remove the terminal B nut with lock washer and the terminal C nut on the starter, and retain for later use. Remove the starter cable from the truck and discard.

**CAUTION:** Use extreme care in removing nuts from starter studs, use rust penetrant as needed. Power tools or air tools should NOT be used during removal of the terminal B and C nuts.

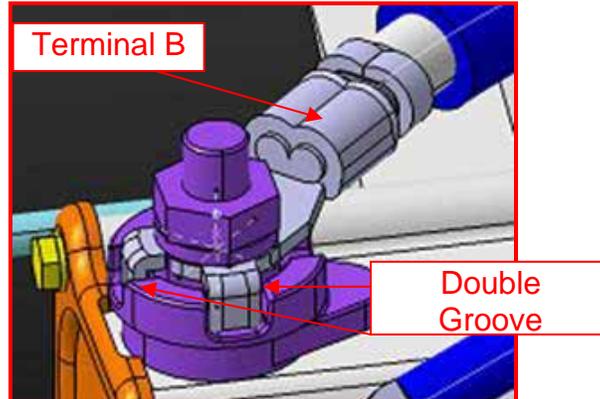
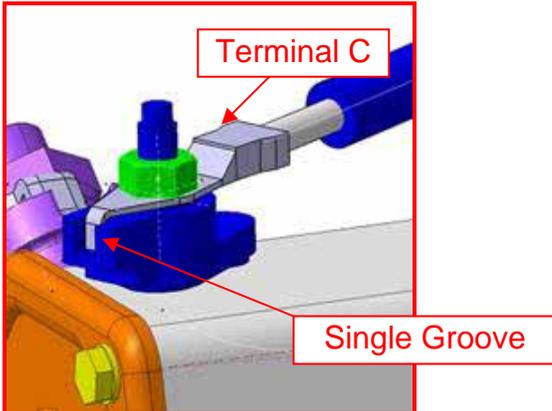


**NOTE:** Do not discard the terminal C nut, terminal B nut and terminal B lock washer. These will be reused during starter cable installation.

# SAFETY RECALL

## Starter Cable Installation

1. Using the new starter cable from the kit, align starter cable terminal B and terminal C into the grooves on the starter.

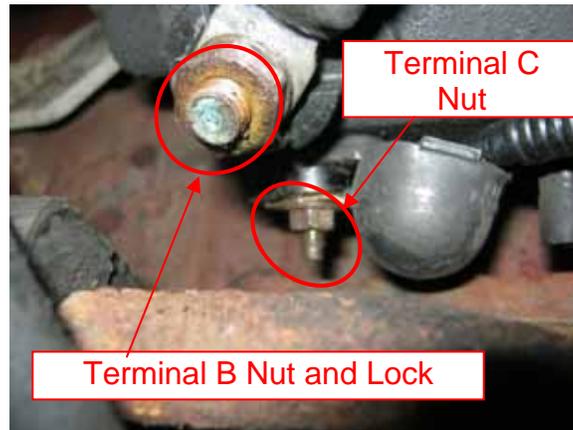


2. Install the lock washer and nut on terminal B and install the nut on terminal C. Torque both nuts to the specified torque.

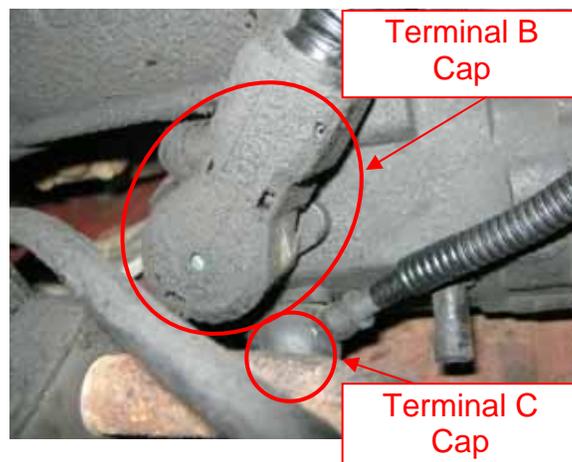
### Specified Torque

Terminal B Nut: 15.5 lb-ft (21.0 Nm)

Terminal C Nut: 1.81 lb-ft (2.5 Nm)

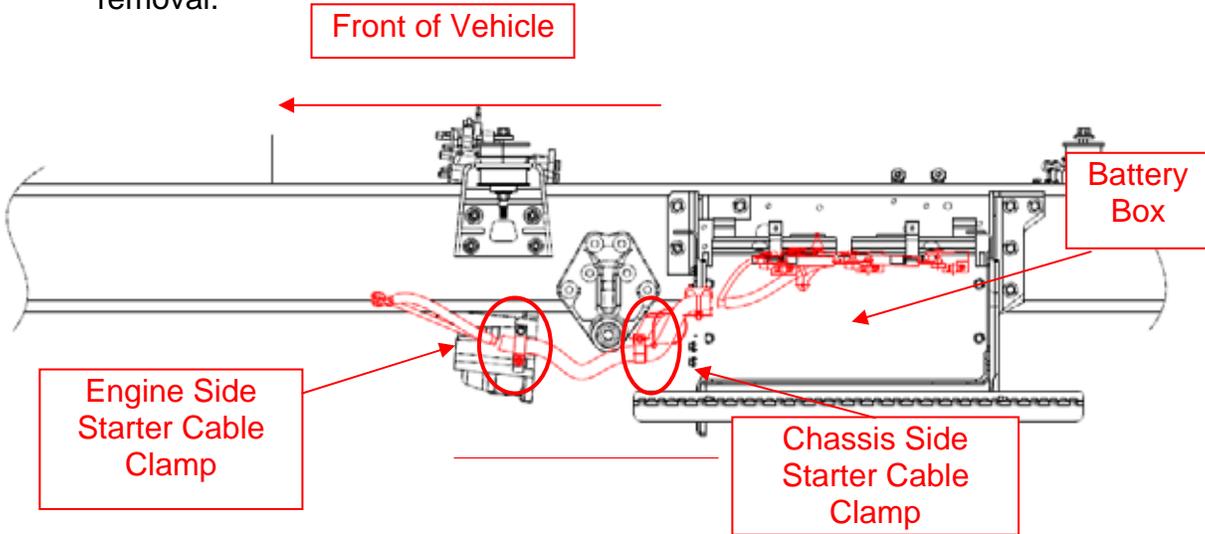


3. Install terminal B and terminal C protective caps onto the starter.



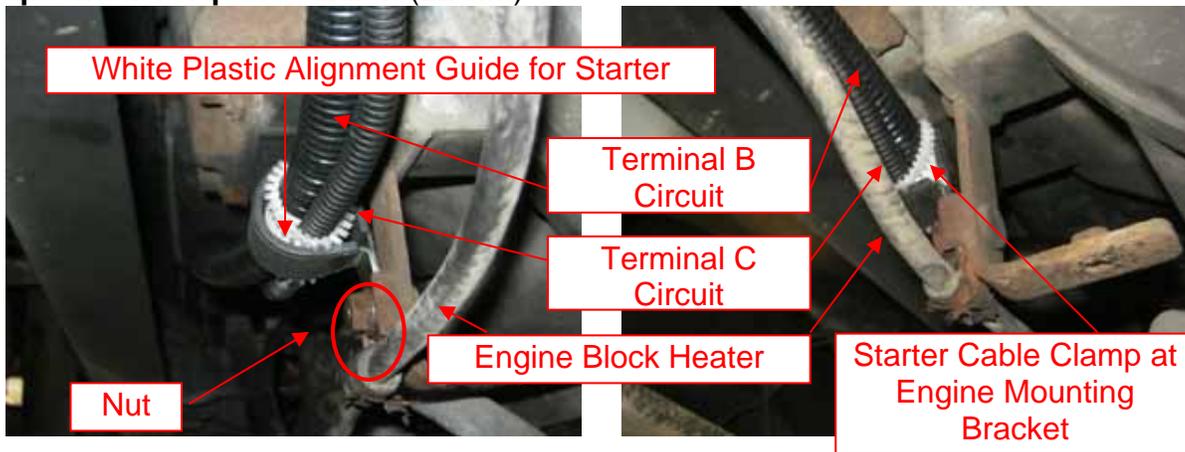
## SAFETY RECALL

- Route the new starter cable in the same orientation as the old cable prior to removal.



- Using the new steel clamp provided in the kit, install the clamp around the white plastic alignment guide on the starter cable. When installing make certain the larger diameter cable (terminal B circuit) is in the upper most position and the smaller diameter cable (terminal C circuit) is in the lower position within the steel clamp. Install the starter cable and clamp onto the engine mounting bracket. If the vehicle is equipped with an engine block heater cable, also install this harness clamp onto the engine side mounting bracket. Install the nut and torque to the specified torque.

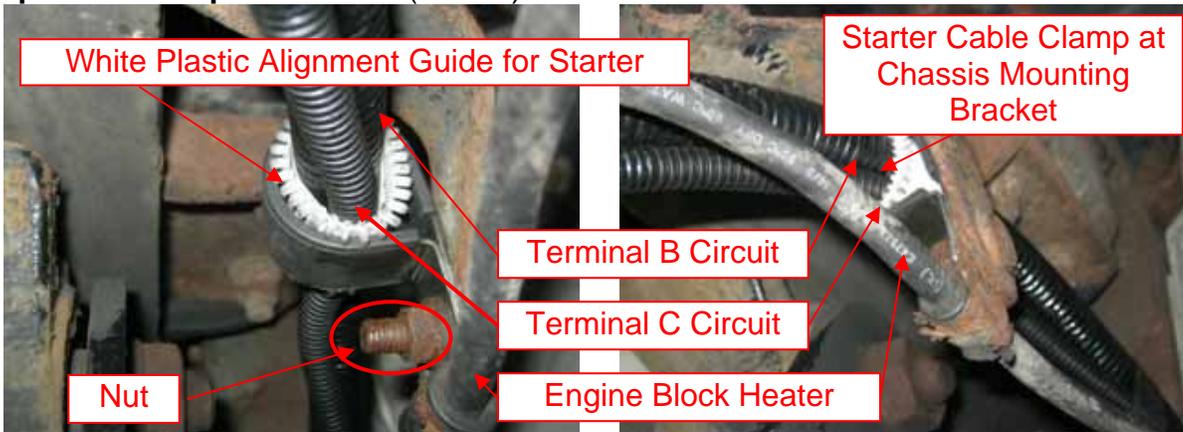
**Specified Torque:** 16.2 lb-ft (22 Nm)



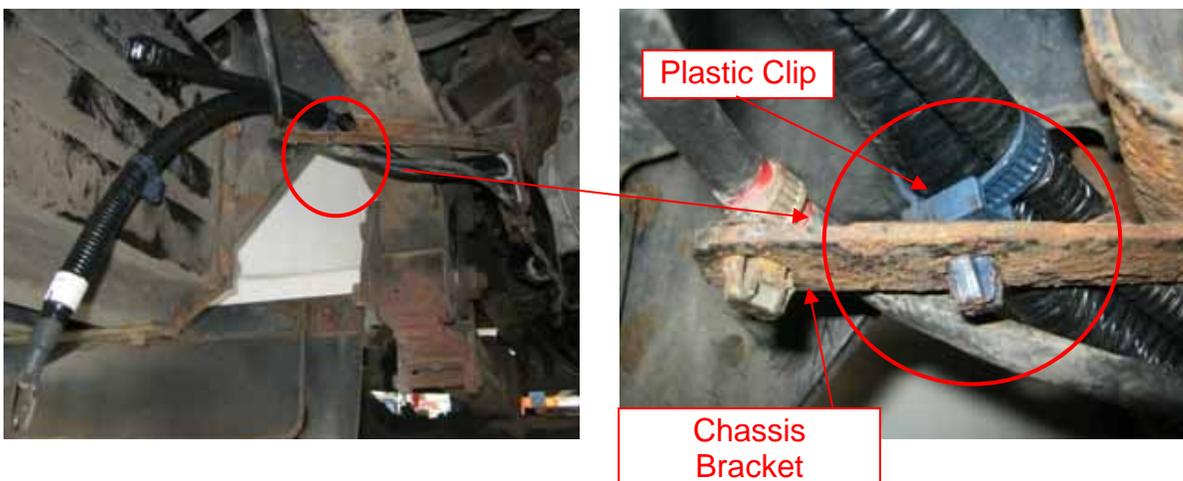
## SAFETY RECALL

- Using the new steel clamp provided in the kit, install the clamp around the white plastic alignment guide on the starter cable. When installing make certain the larger diameter cable (terminal B circuit) is in the upper most position and the smaller diameter cable (terminal C circuit) is in the lower position within the steel clamp. Install the starter cable and clamp onto the chassis side mounting bracket. If the vehicle is equipped with an engine block heater cable, also install this harness clamp onto the chassis side mounting bracket. Install the nut and torque to the specified torque.

**Specified Torque: 16.2 lb-ft (22 Nm)**

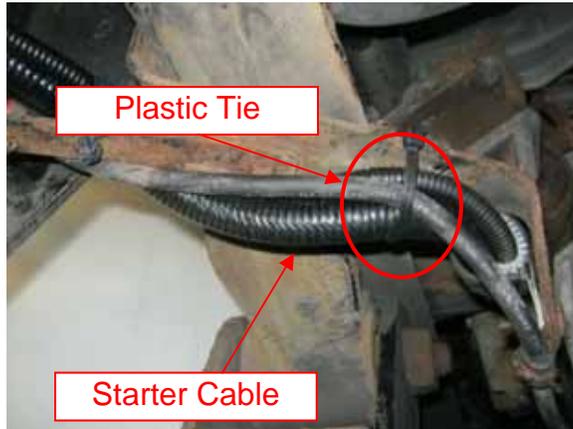


- Connect plastic clip securing starter cable to chassis bracket.



## SAFETY RECALL

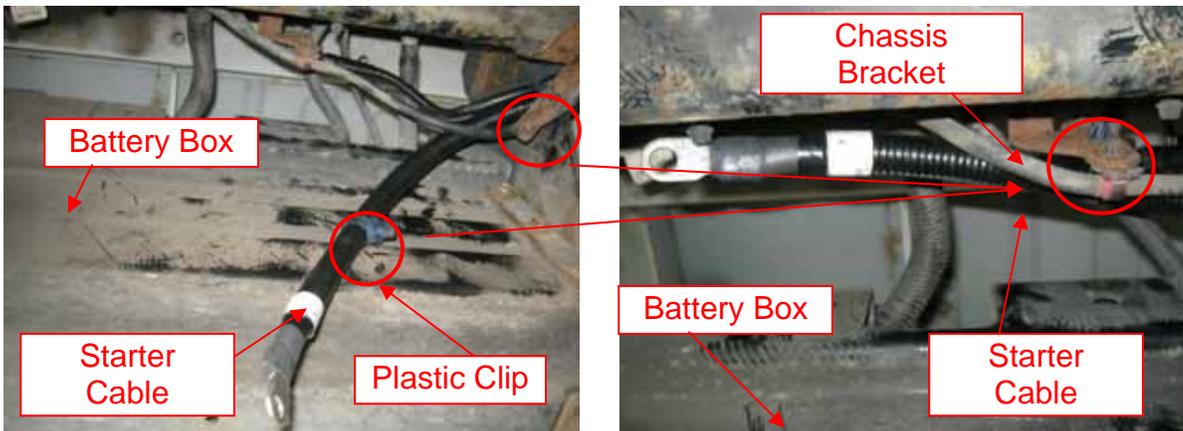
8. Using a new plastic tie strap, secure the starter cables and engine block heater cable to the chassis bracket.



9. Connect the starter cable circuit C connector.

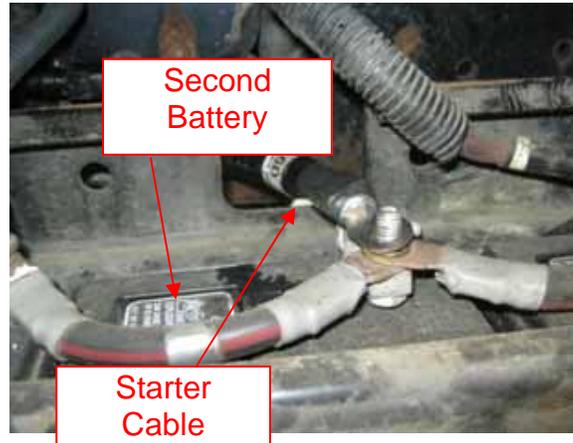
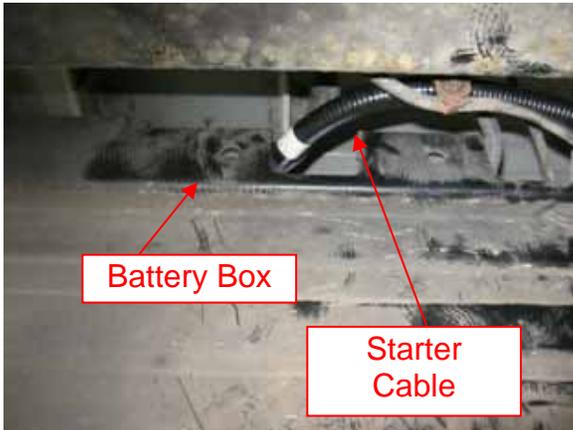


10. Connect the plastic clip securing starter cable to the chassis bracket.



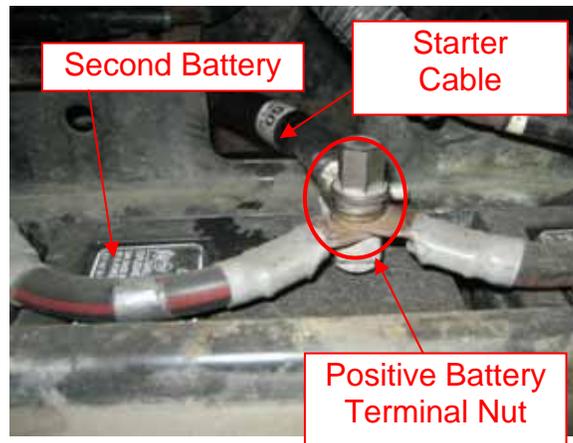
## SAFETY RECALL

11. Position starter cable through back side of battery box and connect the starter cable to the positive terminal of the second battery.

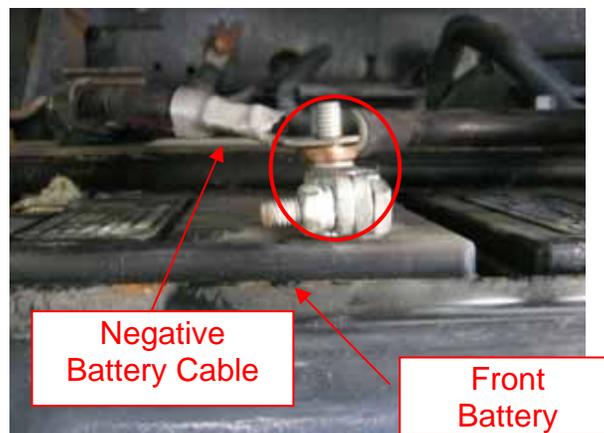


12. Install the positive battery terminal nut onto the second battery positive battery terminal and torque to the specified torque.

**Specified Torque:** 8.1 lb-ft (11.0 Nm)



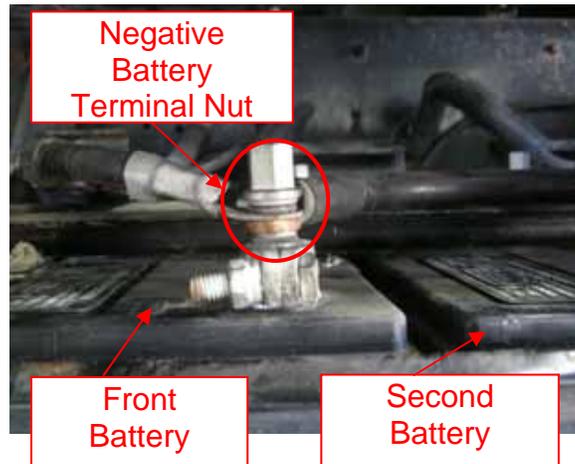
13. Unwrap the vinyl electrical tape covering the negative battery cable and connect the cable to the negative battery terminal of the front battery.



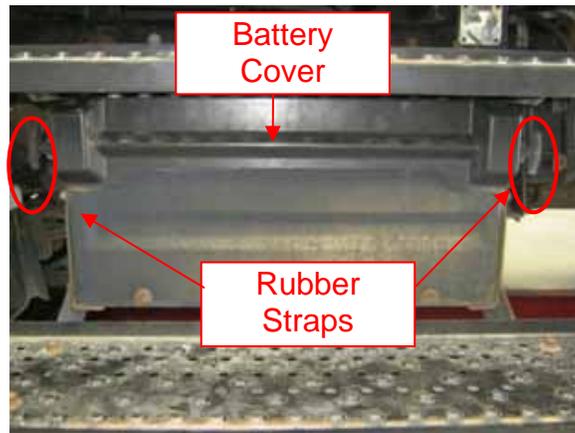
## SAFETY RECALL

14. Install the negative battery terminal nut onto the front battery negative battery terminal and torque to the specified torque.

**Specified Torque:** 8.1 lb-ft (11.0 Nm)



15. Install the battery cover and secure using the 2 rubber straps.

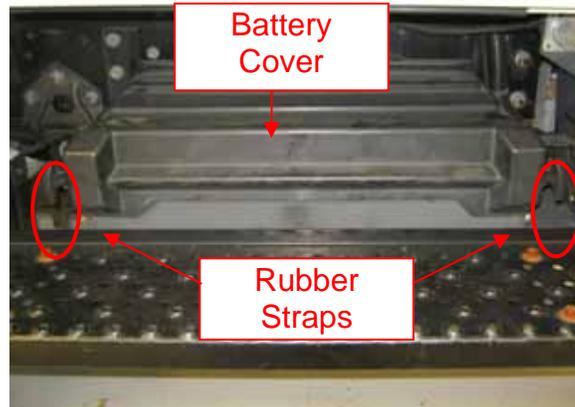


16. Proceed to the final inspection section to complete this campaign procedure.

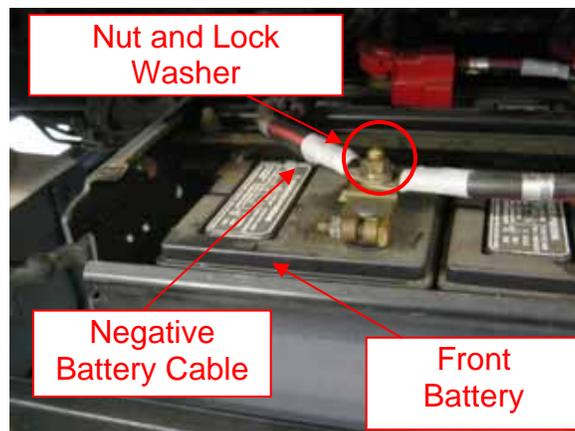
## SAFETY RECALL

### REPAIR PROCEDURE (*J05 ENGINE EQUIPPED*): Starter Cable Removal

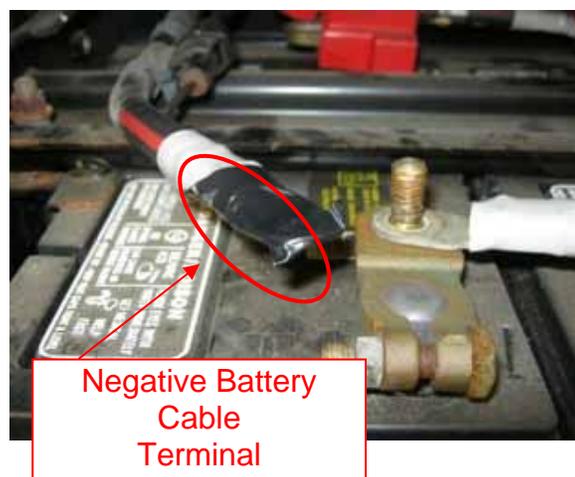
1. Release the two (2) rubber straps that secure the battery cover and then remove the battery cover.



2. Remove the nut and lock washer securing the negative battery cable to the negative battery terminal on the front battery.

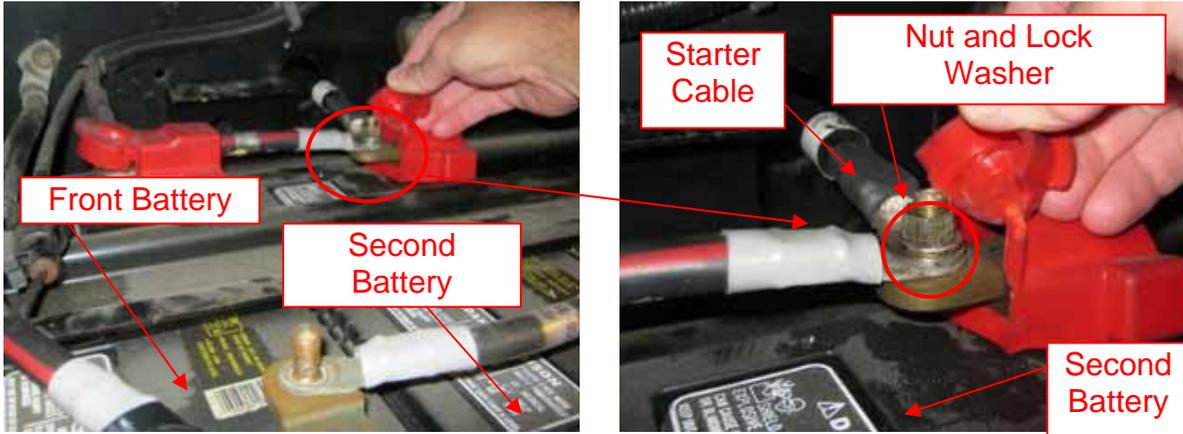


3. Disconnect the negative battery cable from the negative terminal of the front battery and then cover the terminal of the negative battery cable with vinyl electrical tape to prevent any accidental short circuit.

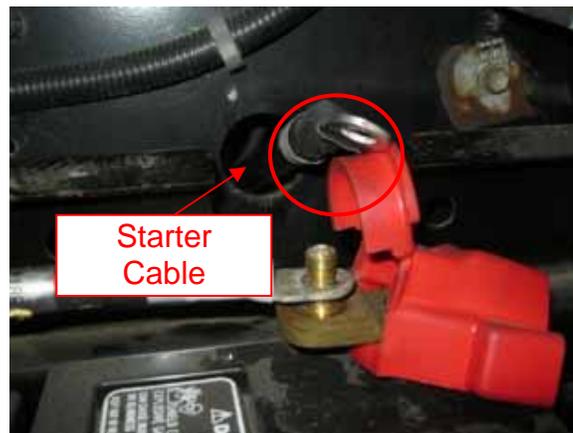


## SAFETY RECALL

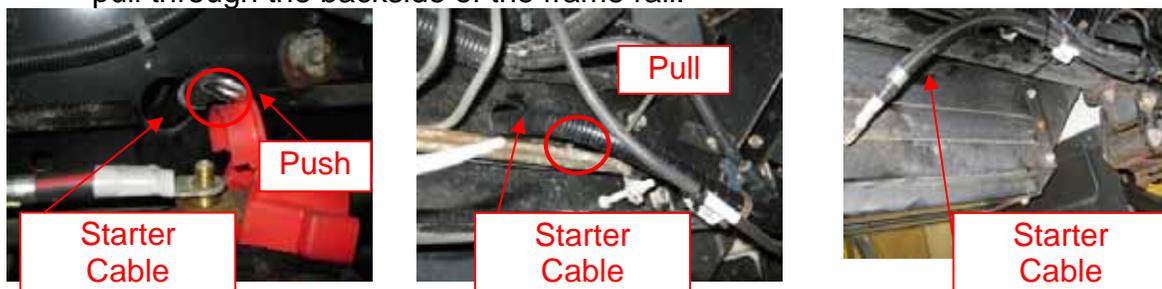
4. Remove the nut and lock washer securing the starter cable to the positive battery terminal on the second battery.



5. Disconnect the starter cable from the positive terminal of the second battery.

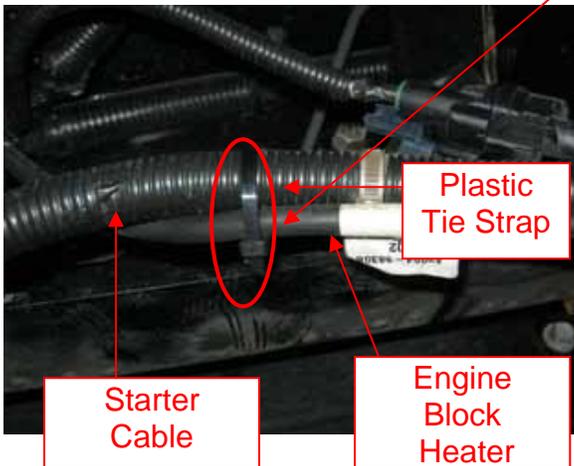
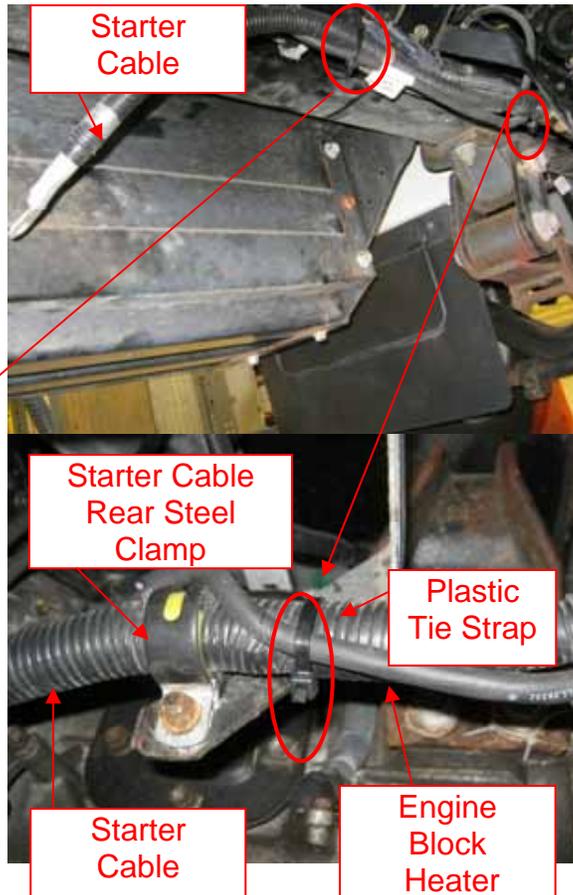


6. Push the starter cable through the driver side frame rail access hole and then pull through the backside of the frame rail.

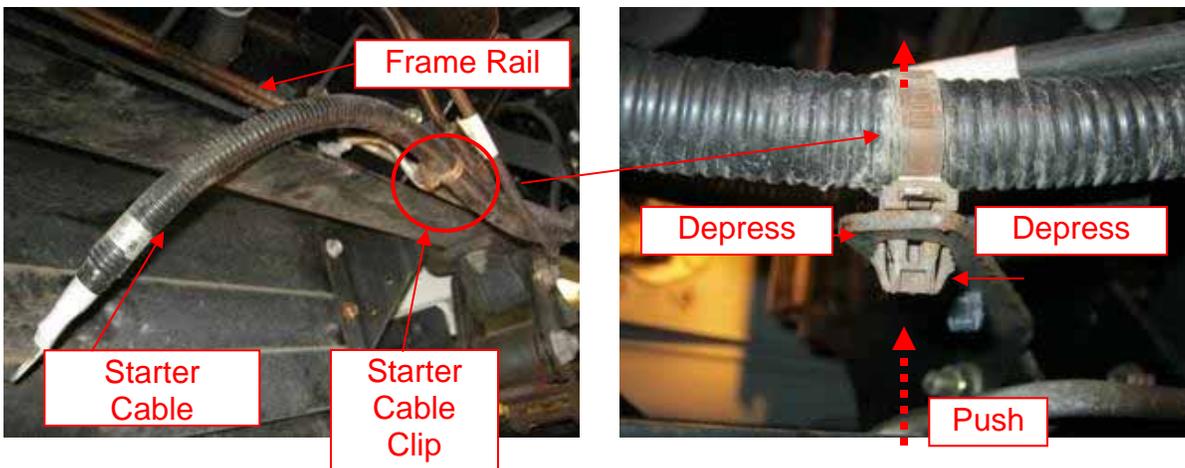


## SAFETY RECALL

7. If the vehicle is equipped with engine block heater cable, cut the 2 plastic tie straps that secure the engine block heater cable to the starter cable and discard the straps.

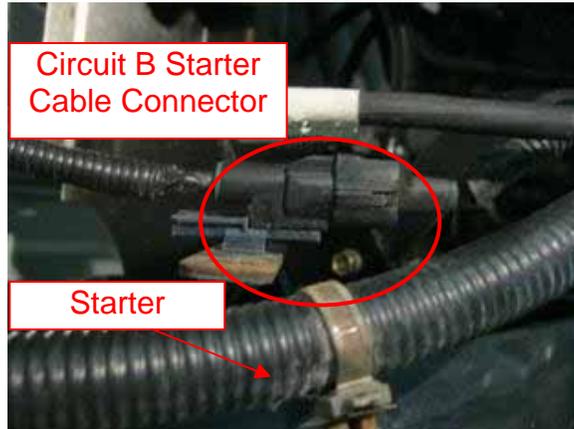


8. Release starter cable clip by depressing tabs and pushing off of chassis bracket.



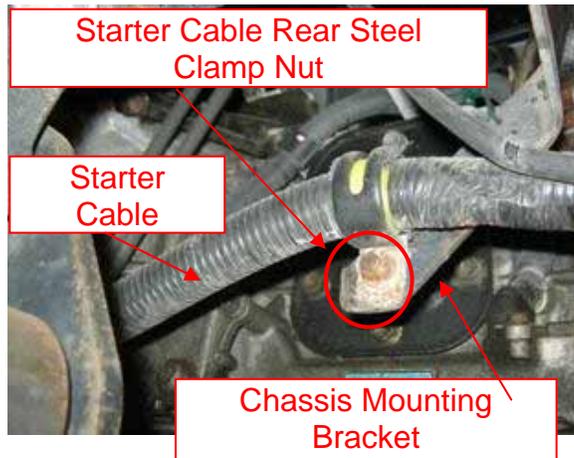
## SAFETY RECALL

9. Disconnect circuit B starter cable connector.



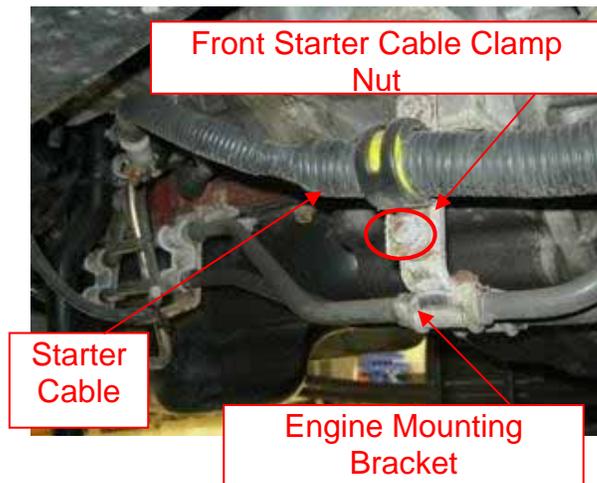
10. Remove the starter cable rear steel clamp nut and then remove starter cable and steel clamp from the chassis mounting bracket.

**NOTE:** Discard the old steel clamp. A new one will be provided in the new starter cable kit.



11. Remove the starter cable front clamp nut and then remove starter cable and steel clamp from the engine mounting bracket.

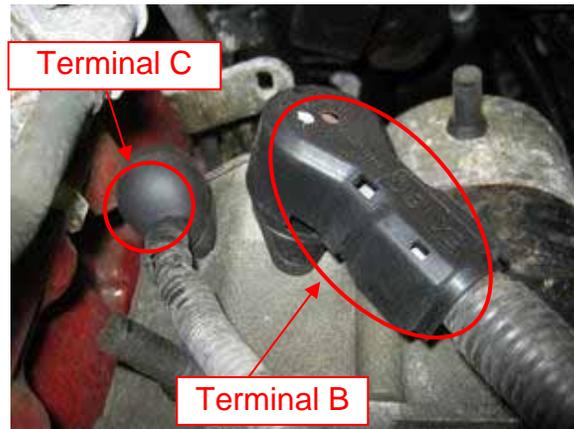
**NOTE:** Discard the old steel clamp. A new one will be provided in the new starter cable kit.



## SAFETY RECALL

12. Remove the protective caps from terminal B and terminal C, located on the starter.

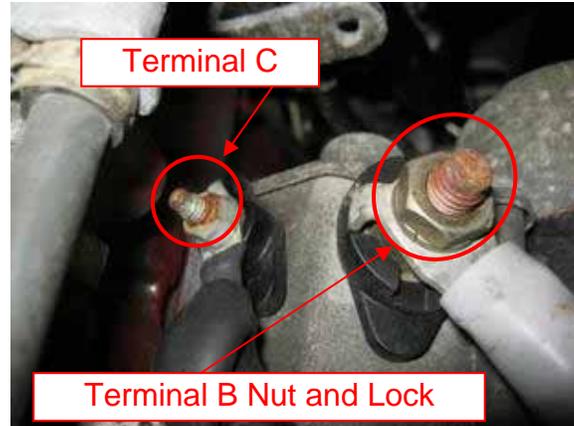
**NOTE:** Care should be taken not to damage the terminal B black plastic cap. This cap will be reused.



**CAUTION:** Use extreme care in removing nuts from starter studs, use rust penetrant as needed. Power tools or air tools should **NOT** be used during removal of the terminal B and C nuts.

13. Remove the terminal B nut with lock washer and the terminal C nut on the starter and retain for later use. Remove the starter cable from the truck and discard.

**NOTE:** Do not discard the terminal C nut, terminal B and terminal B lock washer. These will be reused during starter cable installation.

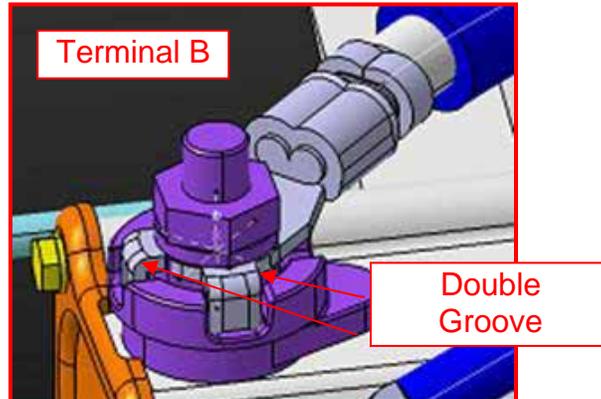
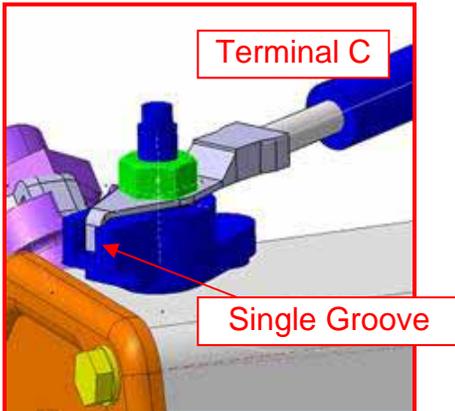


## SAFETY RECALL

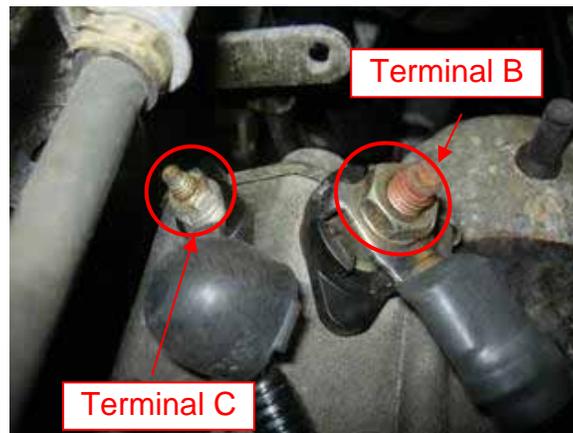
### REPAIR PROCEDURE (J05 ENGINE EQUIPPED):

#### Starter Cable Installation

1. Using the new starter cable from the kit, align starter cable terminal B and terminal C into the groove on the starter.



2. Install the lock washer and nut on terminal B and install the nut on terminal C. Torque both nuts to the specified torque.

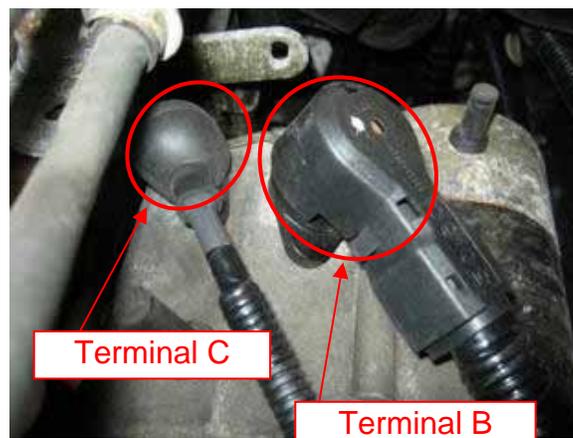


#### Specified Torque

Terminal B Nut: 15.5 lb-ft (21.0 Nm)

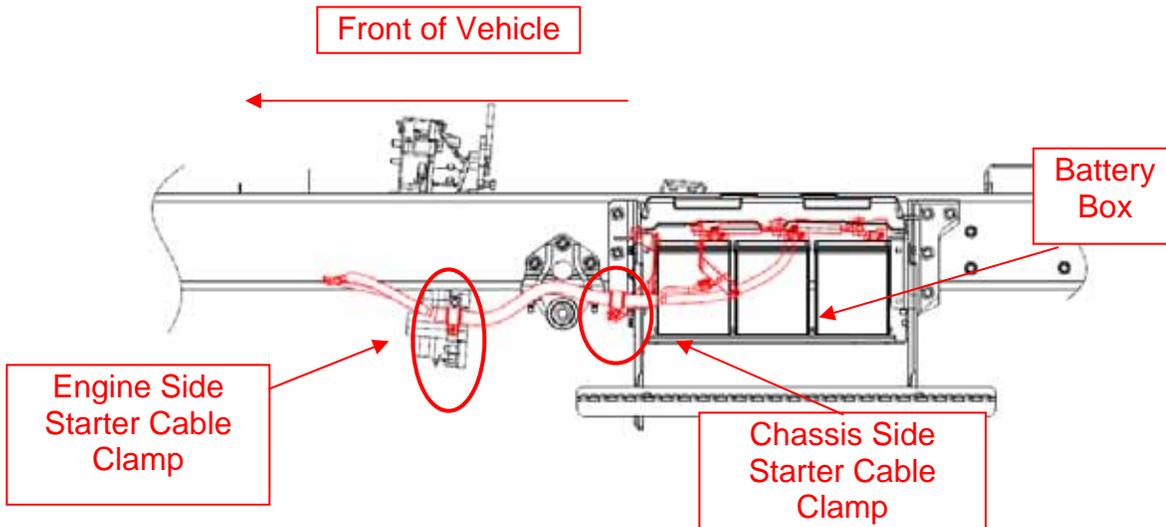
Terminal C Nut: 1.81 lb-ft (2.5 Nm)

3. Install terminal B and terminal C protective caps onto the starter.



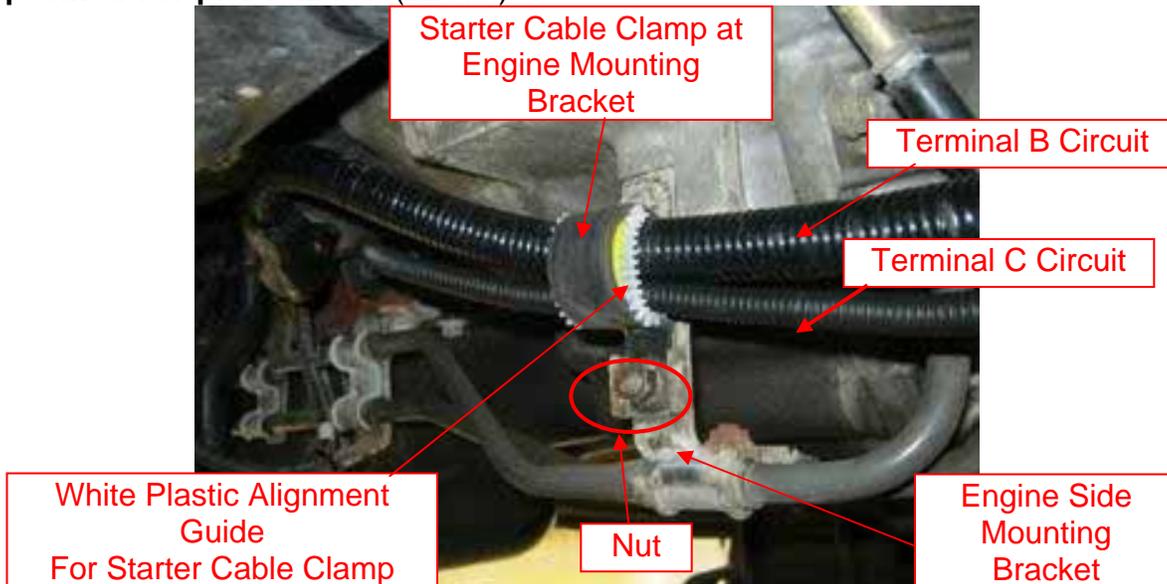
## SAFETY RECALL

4. Route the new starter cable in the same orientation as the old cable prior to removal.



5. Using the new steel clamp provided in the kit, install the clamp around the white plastic alignment guide on the starter cable. When installing make certain the larger diameter cable (terminal B circuit) is in the upper most position and the smaller diameter cable (terminal C circuit) is in the lower position within the steel clamp. Install the starter cable and clamp onto the engine mounting bracket. Install the nut and torque to the specified torque.

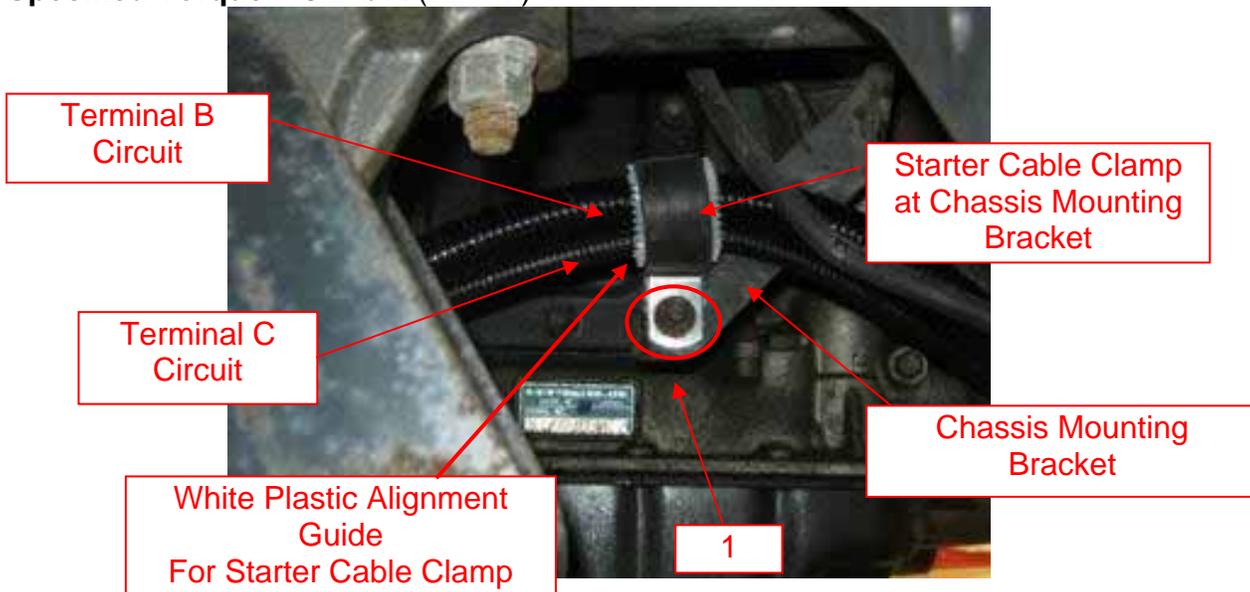
**Specified Torque:** 16.2 lb-ft (22 Nm)



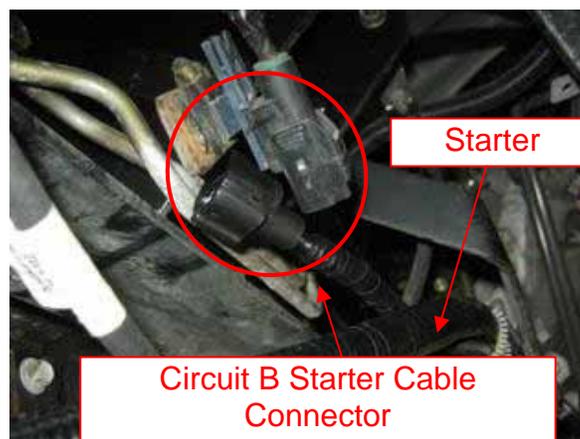
## SAFETY RECALL

- Using the new steel clamp provided in the kit, install the clamp around the white plastic alignment guide on the starter cable. When installing make certain the larger diameter cable (terminal B circuit) is in the upper most position and the smaller diameter cable (terminal C circuit) is in the lower position within the steel clamp. Install the starter cable and clamp onto the chassis mounting bracket. Install the nut and torque to the specified torque.

**Specified Torque:** 16.2 lb-ft (22 Nm)

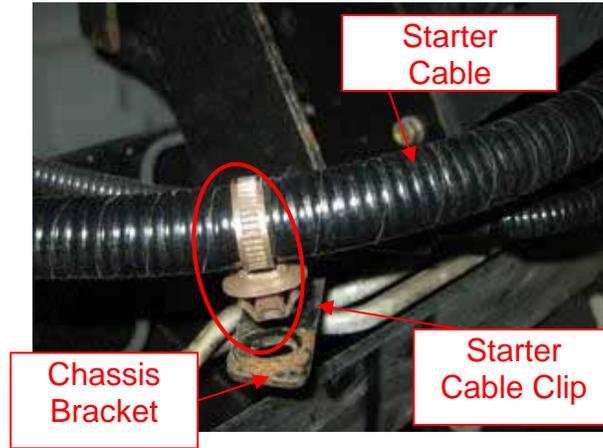


- Connect circuit B starter cable connector.

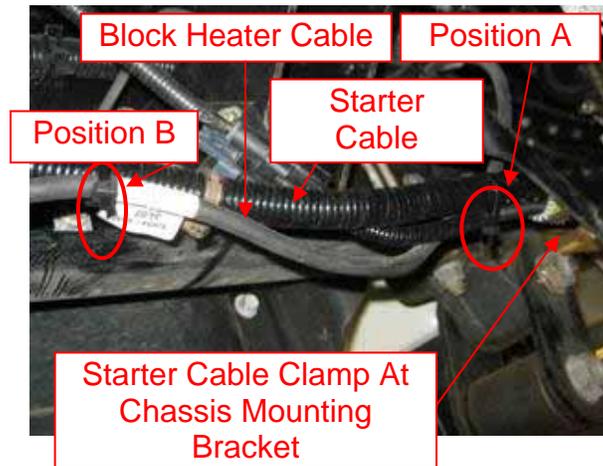


## SAFETY RECALL

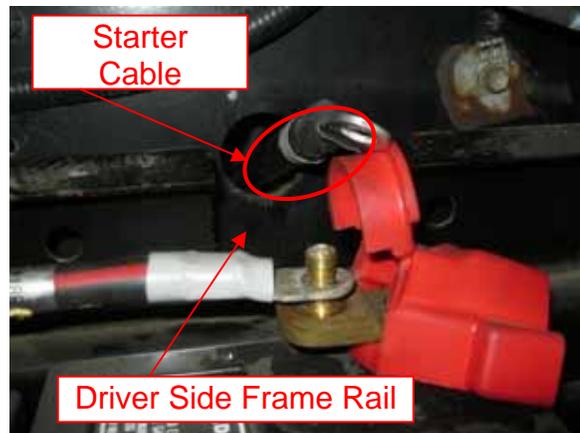
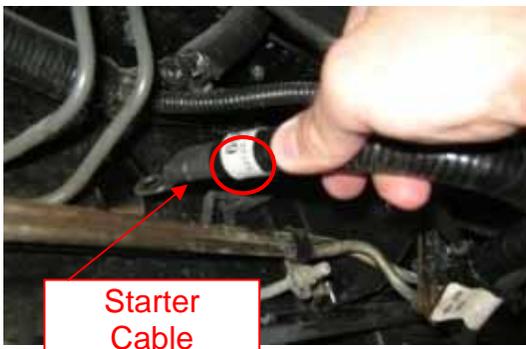
8. Connect starter cable clip into the chassis bracket.



9. If the truck is equipped with an engine block heater, use 2 plastic tie straps to secure the block heater cable to the starter cable. Secure the engine block heater cable in positions “A” and “B” along the starter cable.

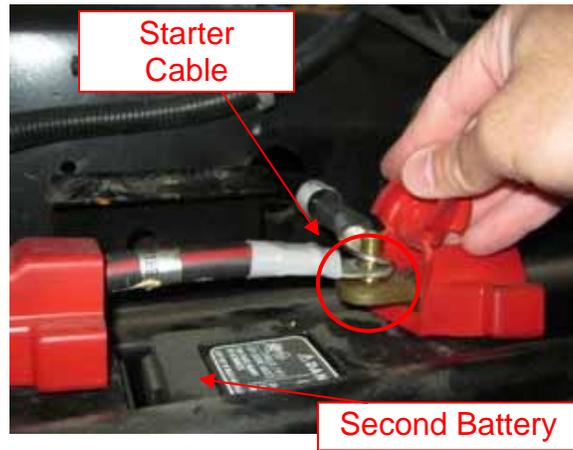


10. Route the starter cable through the driver side frame rail access hole.



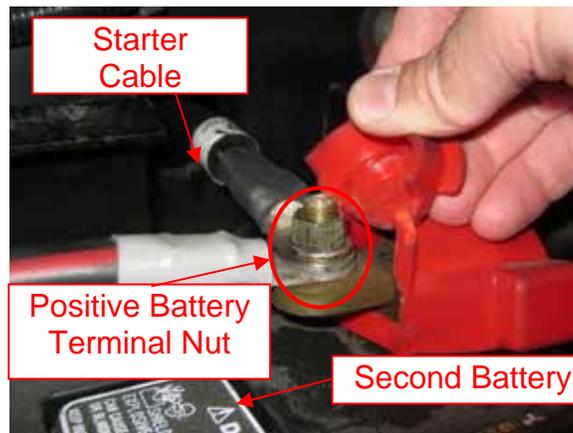
## SAFETY RECALL

11. Connect the starter cable to the positive terminal of the second battery.

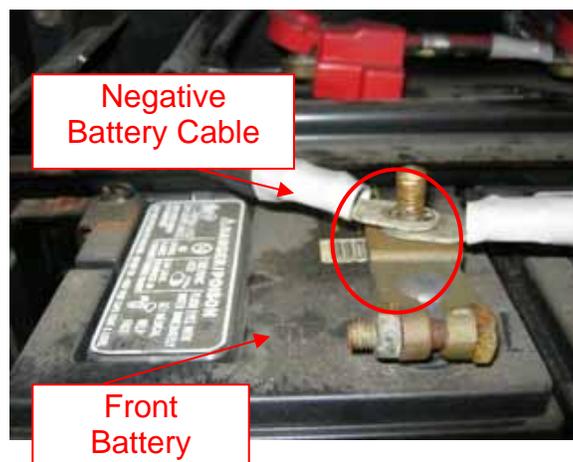


12. Install the positive battery terminal nut onto the second battery positive battery terminal and torque to the specified torque.

**Specified Torque:** 8.1 lb-ft (11.0 Nm)



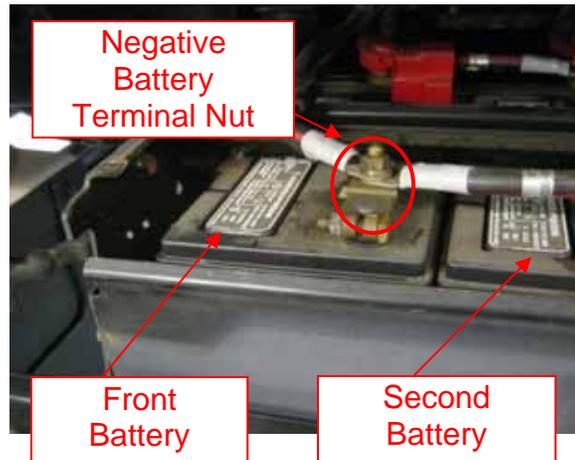
13. Unwrap the vinyl electrical tape covering the negative battery cable and connect the cable to the negative battery terminal of the front battery.



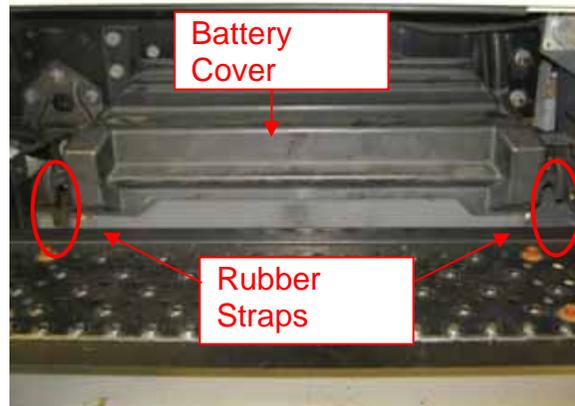
## SAFETY RECALL

14. Install the negative battery terminal nut onto the front battery negative battery terminal and torque to the specified torque.

**Specified Torque:** 8.1 lb-ft (11.0 Nm)



15. Install the battery cover and secure using the 2 rubber straps.



16. Proceed to the final inspection section to complete this campaign procedure.

## S A F E T Y R E C A L L

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### FINAL INSPECTION:

To complete this campaign procedure, review the campaign and confirm the following:

- The starter cable routing is correct with no twisting or chafe points.
- All fasteners that were removed have been reinstalled and are torqued to their specified torque values.
- If equipped with an engine block heater, the engine block heater cable is correctly secured using tie straps.
- The terminal B and terminal C starter caps are properly installed and secure.
- The white plastic alignment guide is correctly orientated within the new steel cable clamps that were provided in the starter cable kit.

### Claim Application:

- 1) Claim No.: A8310
- 2) Labor charge: 1.2hr / unit
- 3) Warranty code: 8214198
- 4) Operation code: 82107ARE
- 5) Original failed part number: 9999999999