

Group:	27-Electrical System
Bulletin No.:	SB-14-025
Issue Date:	02-05-2014

# TECHNICAL SERVICE BULLETIN

## 2011MY-14MY JUNCTION BOX CORROSION DUE TO WATER INTRUSION

### OVERVIEW

Subject vehicles may exhibit electrical symptoms which can include, but are not limited to erratic operation of the exterior lamps, warning lamps illuminated in the instrument cluster, or erroneous DTC's (Diagnostic Trouble Codes) setting in various modules. If the subject vehicle exhibits symptoms of this nature, inspect for corroded wire terminals within the electrical junction box on the passenger side of the bulkhead. An enhanced junction box cover and wire harness support are available to reduce the chance of water intrusion into the junction box.

**NOTE:** This procedure is provided as technical information and is not an authorization for a warranty repair.

### SUBJECT VEHICLES

2011MY – 2014MY Hino Conventional NE8J, NJ8J, and NV8J vehicles

### BEFORE YOU BEGIN:

- Read and understand all instructions and procedures before you begin the work.
  - Read and follow all WARNINGS and NOTICES set forth in this publication. These alerts help to avoid damage to components, serious personal injury, or both.
  - Park the vehicle on a flat, level and solid surface.
  - Place the gear shift lever in "Neutral" or "Park".
  - Apply the parking brake firmly and confirm parking brake activation.
  - Turn off the engine and remove the key from the ignition switch.
  - Always wear safety glasses or goggles to protect your eyes.
- Place wheel chocks in front of and behind all the wheels to prevent the vehicle from moving.

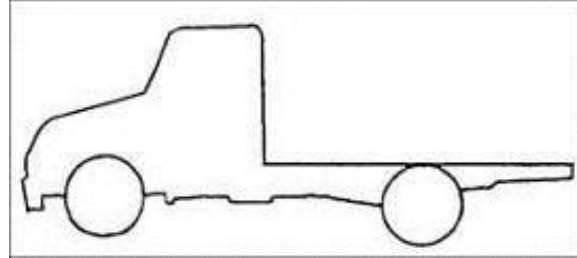
### PARTS

PART NUMBER	PART DESCRIPTION	QUANTITY
82069E0010	Junction Box Repair Kit	1
82998E0050	Repair Terminal Kit	As Needed
See Parts Catalog	Wire Harness	As Needed

# TECHNICAL SERVICE BULLETIN

## VEHICLE PREPARATION:

1. Park the vehicle on level ground.



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



3. Apply the parking brake.



Group:	27-Electrical System
Bulletin No.:	SB-14-025
Issue Date:	02-05-2014

# TECHNICAL SERVICE BULLETIN

4. Chock the front wheels.



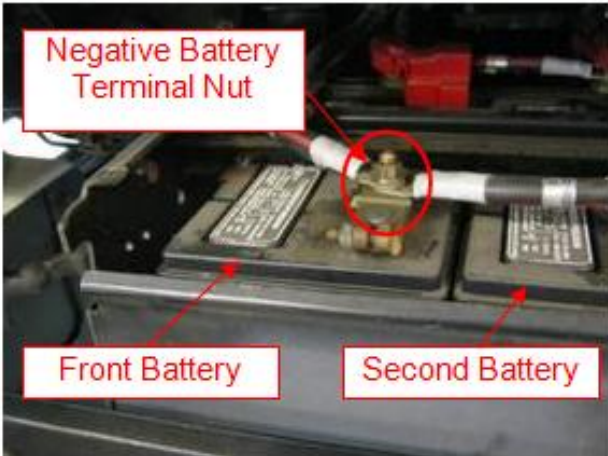
**INSPECTION PROCEDURE**

1. Release the hood latches and raise the hood.



2. Remove the battery cover. Remove the nut from the front negative battery terminal. Remove the chassis ground cable from the front battery. Tape the end of the battery cable to prevent contact with the battery terminal.

**NOTICE:** Do not discard the battery terminal nut. It will be reused during the assembly procedure.



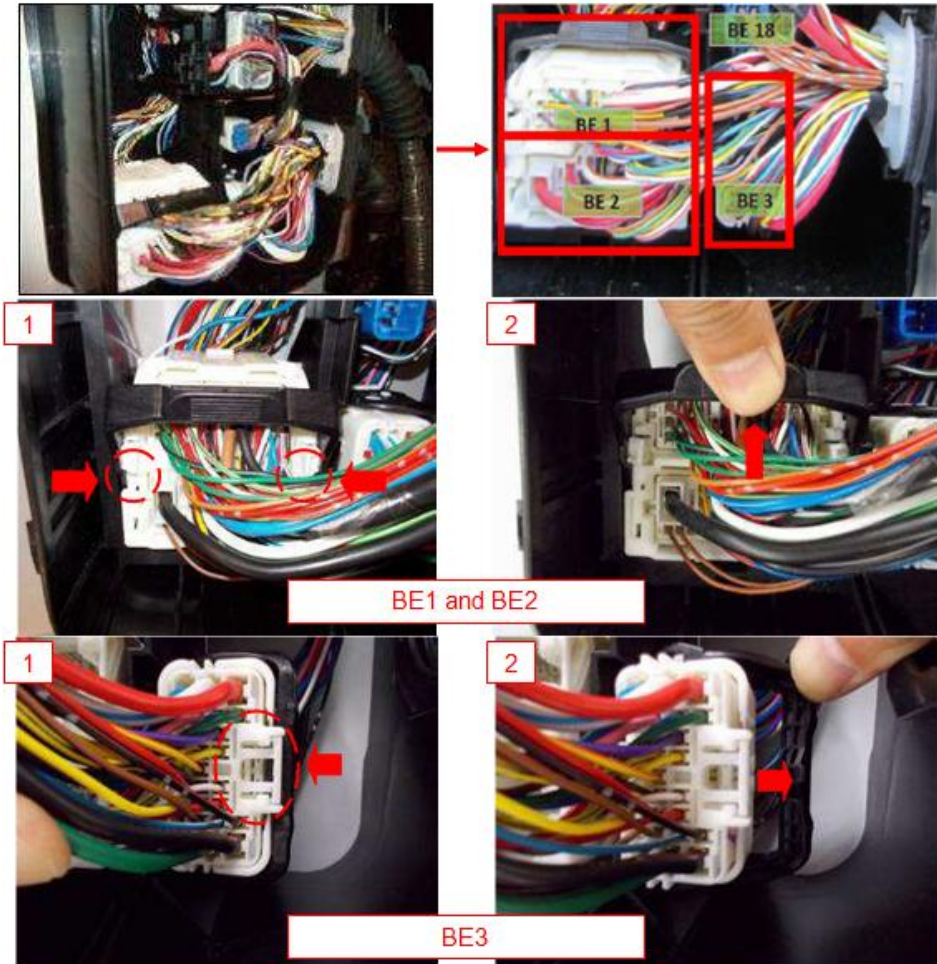
Group:	27-Electrical System
Bulletin No.:	SB-14-025
Issue Date:	02-05-2014

# TECHNICAL SERVICE BULLETIN

**3.** Release the 5 clips on the junction box cover, remove the cover.



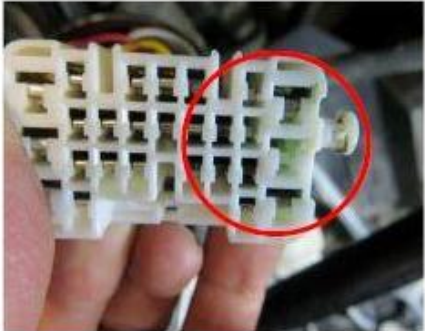
**4.** Release the lever locks on connectors BE1, BE2, and BE3. Remove the connectors for inspection of the wire terminals for corrosion.



Group:	27-Electrical System
Bulletin No.:	SB-14-025
Issue Date:	02-05-2014

# TECHNICAL SERVICE BULLETIN

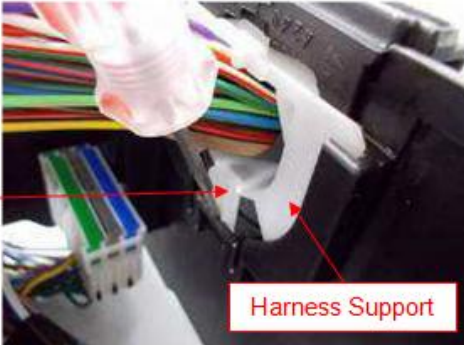
5. See the photographs for examples of corroded wire terminals. It will be at the dealers' discretion to determine if the corrosion damage is severe enough to warrant replacement of the effected wire harness, or to repair the terminals on the existing wire harness. If the wire harness is deemed to be repairable, proceed to the Wire Terminal Repair Procedure, below.



If the corrosion damage is severe, replace the effected wire harness as needed. After replacement of the harness, proceed to the Junction Box Cover Repair Procedure, below.

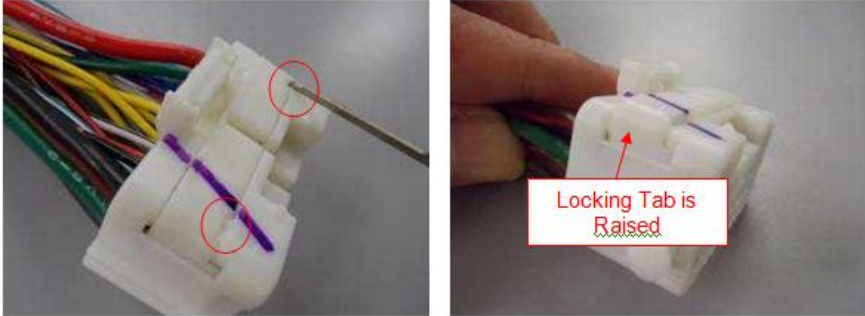
**WIRE TERMINAL REPAIR PROCEDURE**

1. Use a flat blade screwdriver to release the black locking tabs on the lower harness support in the junction box. Remove the lower wire harness from the junction box.



# TECHNICAL SERVICE BULLETIN

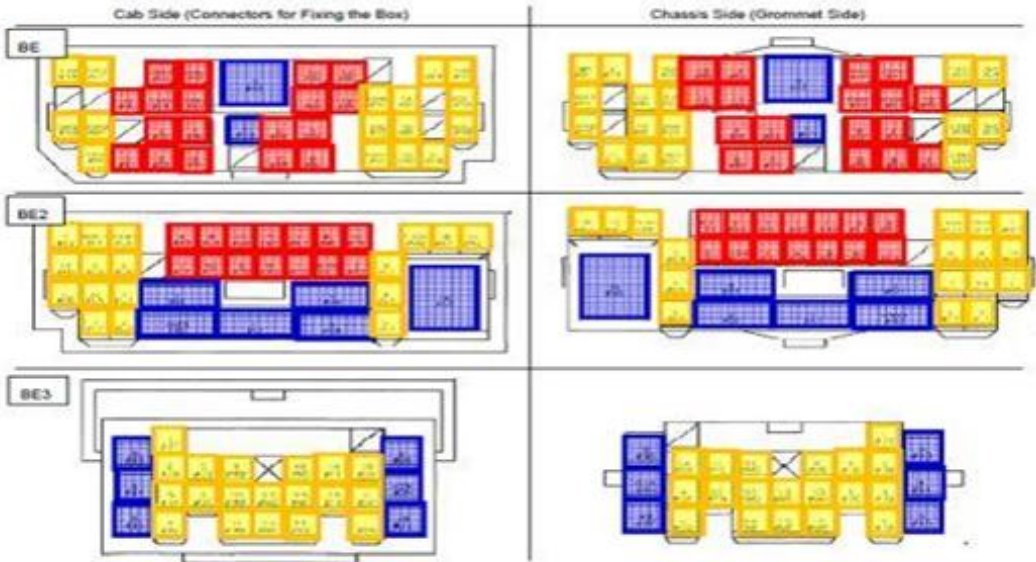
2. To replace corroded wire terminals, use a suitable terminal tool or small screw driver to release the locking tab on the effected wire connector. Refer to the photographs. Insert the tool into the circled area of the connector. Apply upward force using the tool to lift the locking tab up on both sides of the connector. Ensure the locking tab is raised up as shown in the photograph on the right.



3. Refer to the table to select the appropriate terminal release tool that corresponds to the effected connector cavity for removal of wire terminals.

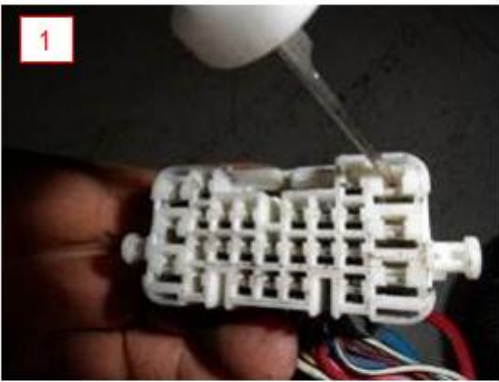


**NOTICE:** A Bosch (SPX) Terminal Release Tool Kit (HDT-650589) is required to perform the following repair procedure. Use the following wire terminal tools to remove the wire terminals from their respective cavity.

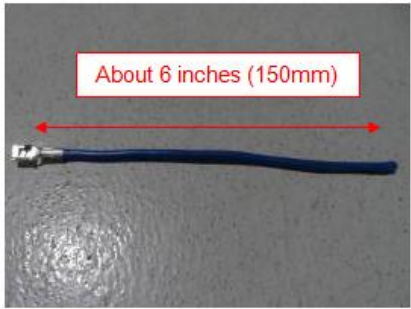


# TECHNICAL SERVICE BULLETIN

4. Use the appropriate terminal release tool to release the individual locking tab from the front of the effected wire terminal connector cavity. Once the locking tab is released, gently pull the wire terminal out from the back of the connector cavity. Refer to the photographs for reference.



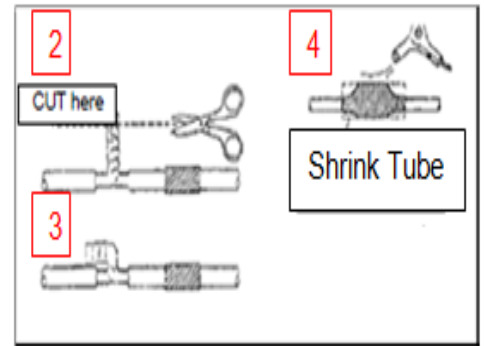
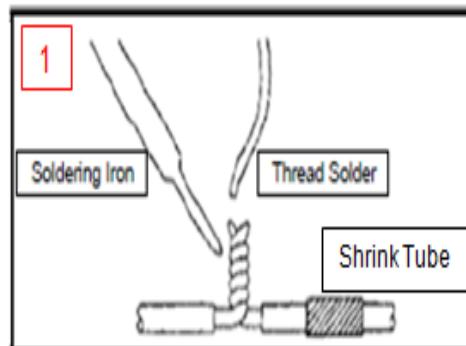
5. Cut the old wire lead off between the connector and the wire harness grommet. A wire length of about 6 inches (150mm) is recommended. Select a new repair terminal with wire lead to match the corroded terminal that was removed. Be certain to select the appropriate terminal for the cavity as the terminal assortment (82998E0050) will include 3 different sized terminals with a variety of different colored leads.



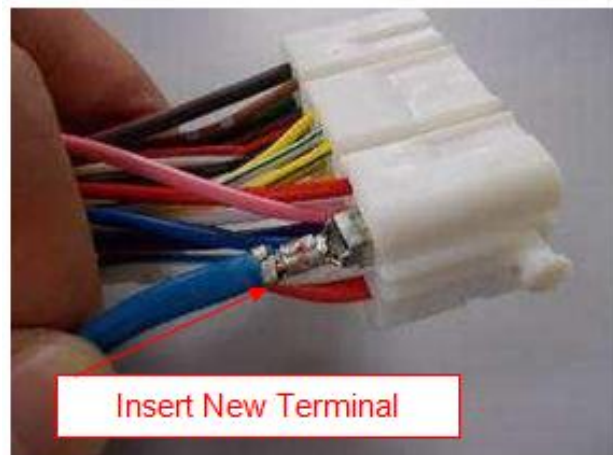
**NOTICE:** If repairing multiple circuits, it is recommended to stagger the repair areas of each circuit so that the repair areas do not stack up upon each other. This can be achieved by cutting the wires at various different lengths (greater than or less than 6 inches). It may be necessary to remove the wire harness support and slide the harness grommet back to allow enough room to evenly space the solder joints.

## TECHNICAL SERVICE BULLETIN

**6.** Trim the new wire lead to an appropriate length. It is necessary to solder the new wire lead onto the existing wire harness using shrink tube to insulate the solder joint. In preparation for soldering, strip the wire insulation off of the harness end and off of the wire lead end. Install a piece of heat shrink tube over one of the wire ends. Refer to the images below for the recommended soldering procedure. Once the joint is soldered, use a heat gun to shrink the shrink tube.



**7.** Insert the new wire terminal into the connector shell. The terminal should engage with a positive “click” when locked into position. Lightly pull back on the wire to ensure that it is locked in place.

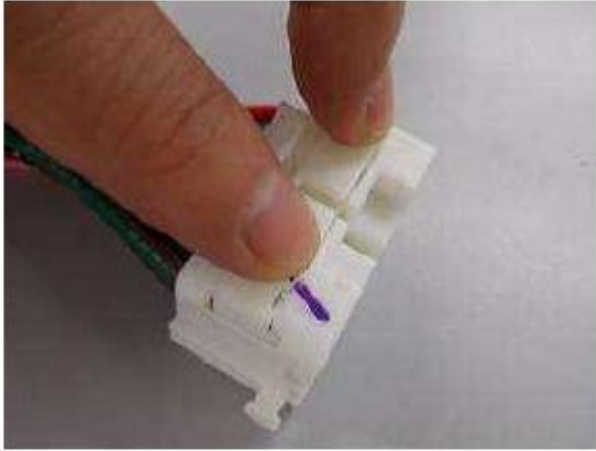


**8.** Repeat steps 1 through 6, above to repair any additional corroded wire terminals on connectors BE1, BE2, or BE3.

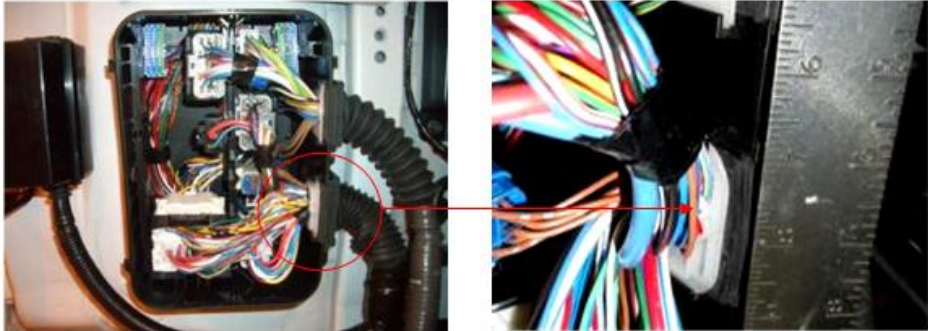
Group:	27-Electrical System
Bulletin No.:	SB-14-025
Issue Date:	02-05-2014

# TECHNICAL SERVICE BULLETIN

**9.** Snap the locking tab back in place that was released during step 1, above on connectors BE1, BE2, or BE3.

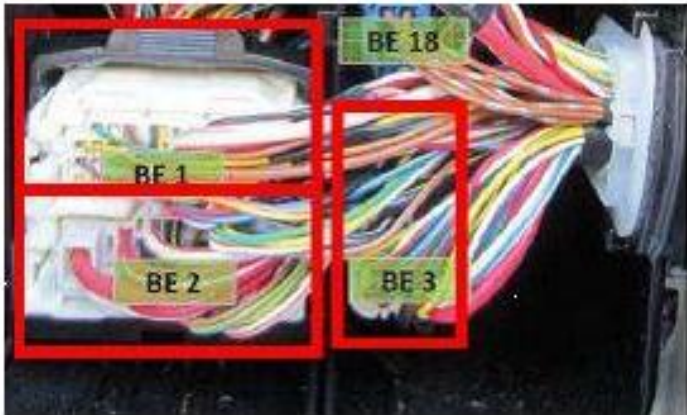


**10.** Insert the lower wire harness back into the junction box. Ensure that the harness support fully engages into the clips on the junction box. Make certain that the harness grommet is flush with the sealing surface of the junction box when fully inserted.



**NOTICE:** Apply silicone lubricant to the outer edge of the harness grommet when inserting it back into the junction box.

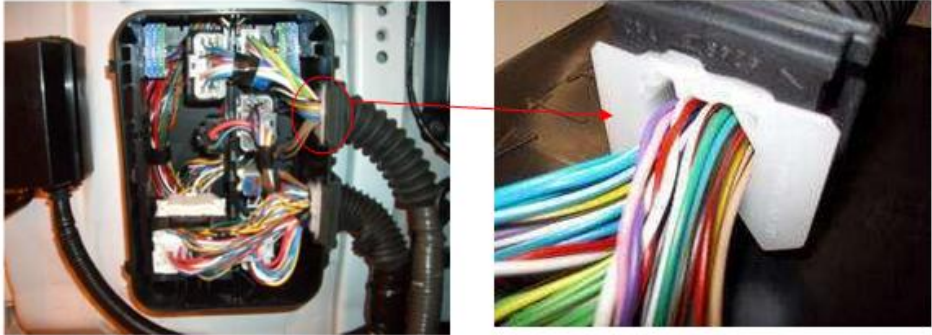
**11.** Install connectors BE1, BE2, and BE3 back into the original location from which they were removed. Ensure that the lever locks are fully engaged to the locked position. Proceed to the Junction Box Cover Repair Procedure, below.



# TECHNICAL SERVICE BULLETIN

## JUNCTION BOX COVER REPAIR PROCEDURE

**1.** Inspect the upper wire harness support inside the rubber grommet. If the upper harness support is white in color, it will need to be replaced with the enhanced gray wire harness support.



**2.** If a white harness support is present, release the black clips on the junction box using a flat blade screwdriver. Remove the harness support from the grommet, unlock the harness support, and remove it from the harness.



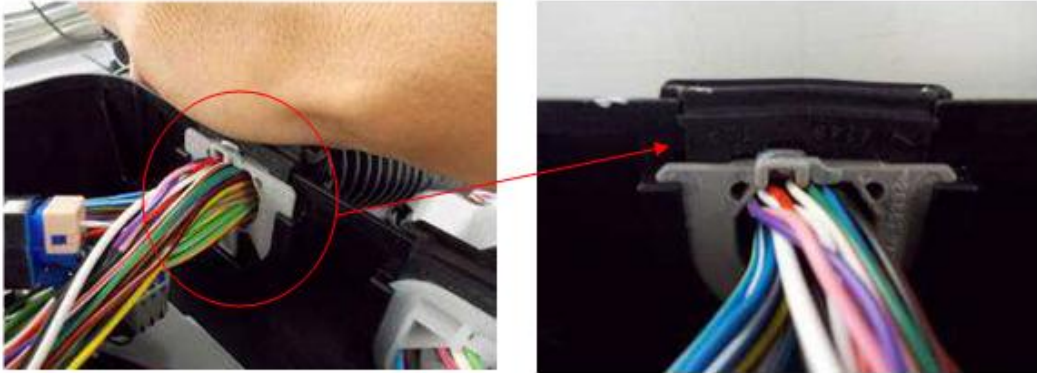
**3.** Install the gray harness support onto the harness. Install the harness support into the grommet. Apply silicone lubricant to the rounded portion of the grommet that contacts the junction box.



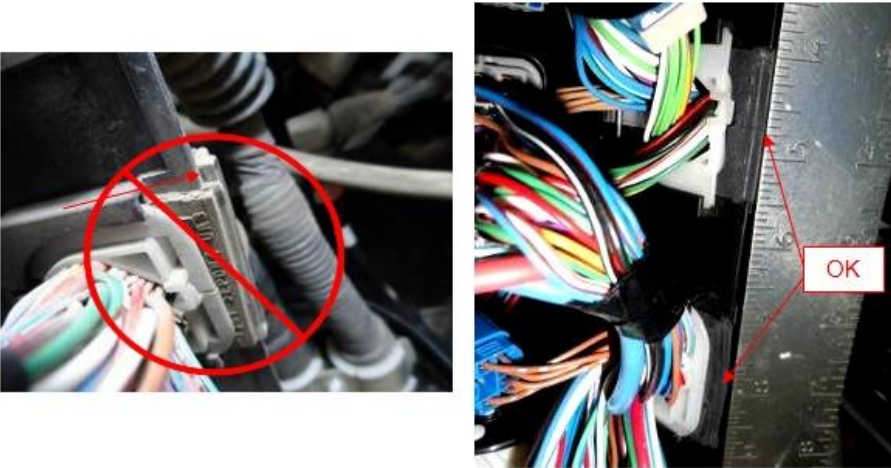
Group:	27-Electrical System
Bulletin No.:	SB-14-025
Issue Date:	02-05-2014

# TECHNICAL SERVICE BULLETIN

**4.** Insert the wire harness back into the junction box. Ensure that the harness support fully engages into the clips on the junction box.



**5.** Verify that both upper and lower harness grommets are flush with the sealing surface of the junction box. If the harness grommet is sticking up, remove and reposition the harness grommet to ensure the grommet will be flush with the sealing surface.



**6.** Inspect the junction box cover seal for a slit near the bottom corner. If a slit is present in the seal, replace the junction box cover with the enhanced junction box cover which has no slit in the seal.



Group:	27-Electrical System
Bulletin No.:	SB-14-025
Issue Date:	02-05-2014

# TECHNICAL SERVICE BULLETIN

7. Install the junction box cover to the junction box. Ensure all 5 clips on the junction box cover are fully engaged to the junction box.

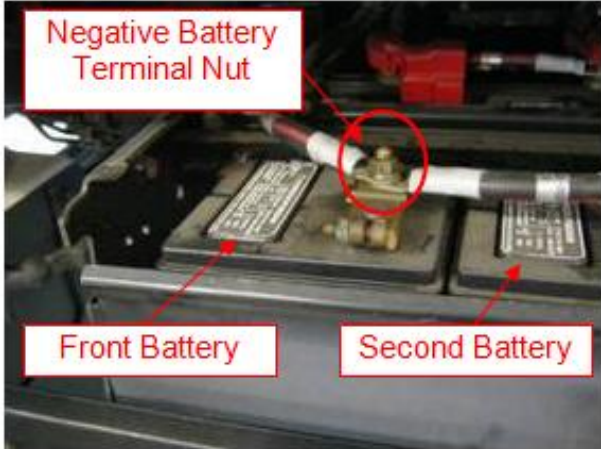


8. Lower the hood and engage the hood latches.



9. Position the ground cable onto the negative battery terminal. Install the negative battery terminal nut. Tighten the nut to the specified torque. Install the battery cover. Proceed to the final inspection procedure, below.

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



Group:	27-Electrical System
Bulletin No.:	SB-14-025
Issue Date:	02-05-2014

# TECHNICAL SERVICE BULLETIN

## FINAL INSPECTION PROCEDURE:

1. To complete this technical service bulletin, review the bulletin and confirm the following:
  - All corroded wire terminals have been replaced.
  - The connector lever locks were fully engaged.
  - The updated harness support and junction box cover are installed.
  - Any nuts or bolts that were removed during this procedure have been tightened to their specified torque.

The vehicle functions normally with no warning indicator lamps illuminated.

**NOTE:** This procedure is provided as technical information and is not an authorization for a warranty repair.

## CLAIM APPLICATION:

*\* Reimbursable in accordance within the terms and policies of the Hino Truck limited warranties.*

- a) Labor charge: Straight Time (To reflect actual working time)
- b) Warranty code: 26000
- c) Trouble code: 99
- d) Operation code: 82250AOT
- e) Original Part Number: 82672E0031