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|---------------------|-----------------------|
| REFERENCE: | Nova Bus Manuals |
| SECTION: | 16: Electrical System |
| RS N°: | MQR 7621-838 |
| EFFECTIVE IN PROD.: | L861 (2016FE) |
| TC RECALL N°: | 2016-058 |
| NHTSA RECALL N°: | 16V068 |

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|---------------------------------|
| APPLICATION DEADLINE: NA |
| CLAIM REFERENCE NUMBER: SR-3590 |

| | |
|----------------|----------------------------------------------|
| SUBJECT: | 24-volt and power cables in EGS |
| JUSTIFICATION: | Terminal of the power cable in EGS may break |

| LEVEL | DESCRIPTION | DIRECT CHARGES | | TIME |
|-------|------------------------------------|----------------|----------|------|
| | | LABOUR | MATERIAL | |
| 1 | Install new heavy duty lugs N85011 | Nova Bus | Nova Bus | 2,5h |
| 2 | - | - | - | - |

MATERIAL

| QTY | PART N° | REV. | DESCRIPTION | REPLACES PART N° |
|----------------|-----------|------|--------------------------|------------------|
| LEVEL 1 | | | | |
| 1 | N85011 | - | Heavy duty 90° connector | - |
| 1 | N55828-12 | - | Red boot | - |
| 1 | N27548-05 | - | Red heat shrink tubing | - |
| 15 | G5007996 | - | Cable ties | - |
| LEVEL 2 | | | | |
| - | - | - | - | - |

Materials will be available within 30 days. To order, please contact Prevost Parts by phone at 1-800-771-6682, by fax at 1-888-668-2555 or by email at prevostparts.commandes@volvo.com. Specify document number, quantity of parts required and shipping address.

DISPOSAL OF PARTS

| | | | |
|--------------------|-------------|----------|-------------------------------------------------------------------------------------------------------------------|
| REMOVED PARTS ARE: | DISCARDED * | RETAINED | * Dispose of the unused parts and the defective parts in accordance with local environmental standards in effect. |
| | Yes | - | |

REVISION HISTORY

| REV. | DATE | CHANGE DESCRIPTION | WRITTEN BY |
|------|----------|--------------------|--------------|
| NR | 2016AL21 | Initial release | Luc Carignan |

| CLIENT | ORDER | ROAD NUMBER | | VIN (2NVY/4RKY...) | | QTY |
|------------------------------------|-------|-------------|------|--------------------|---------------|-----|
| | | FROM | TO | FROM | TO | |
| Saskatoon - Saskatchewan | L568 | — | — | S92U9B3000013 | S92U9B3000013 | 1 |
| CT Transit - Connecticut | L554 | 1041 | 1065 | S92U1A4000139 | S92U0A4000164 | 25 |
| CT Transit - Connecticut | L571 | 1101 | 1110 | S92YXB4000144 | S92Y4B4000169 | 10 |
| Duke University - North Carolina | L651 | — | — | S92Y1B4000145 | S92Y3B4000146 | 2 |
| Niagara Parks Commission - Ontario | L685 | — | — | S92U9C3000644 | S92U8C3000652 | 9 |

**WARNING**

Follow your internal safety procedures.

**WARNING**

Before starting any work on the vehicle, make sure the vehicle is completely and securely stationary. Set the battery disconnect switch in the off position and disconnect the ground and the 24 V positive cable from the battery terminals. See section 16: BATTERIES in the Nova Bus maintenance manual for further instructions concerning the disconnection.

PROCEDURE

- 1.1. Remove the front ceiling curtain from the articulation section. Reserve the curtain and hardware.
- 1.2. Remove the front bulkhead. Reserve the front bulkhead and hardware. See Figure 1

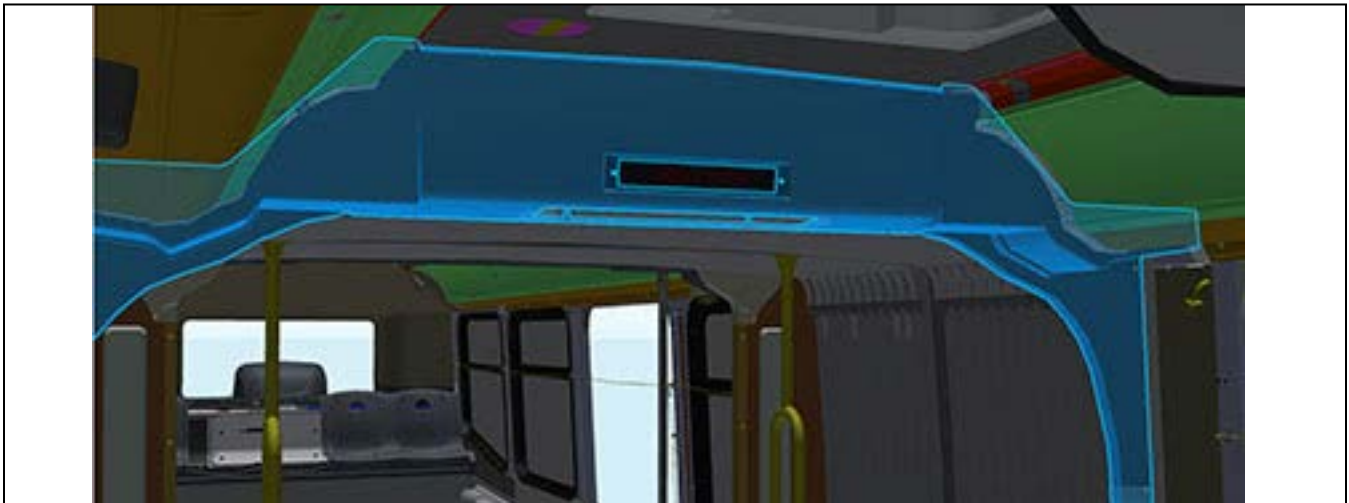


Figure 1 - Articulation Front Bulkhead to be Removed

- 1.3. Locate the 24 V power cable connection and push back the red boot on the 24 V power cable. Remove the retaining nut and disconnect the power cable. Reserve the hardware.
- 1.4. Cut enough cable ties to allow partial removal of the 24 V power cable from the Energy Guiding System. Leave the power cable dangling.

- 1.5. Remove the red heat shrink tubing from the power cable. See Figure 2.
- 1.6. Remove the electrical tape retaining the slit convoluted tubing to the cable. See Figure 2.

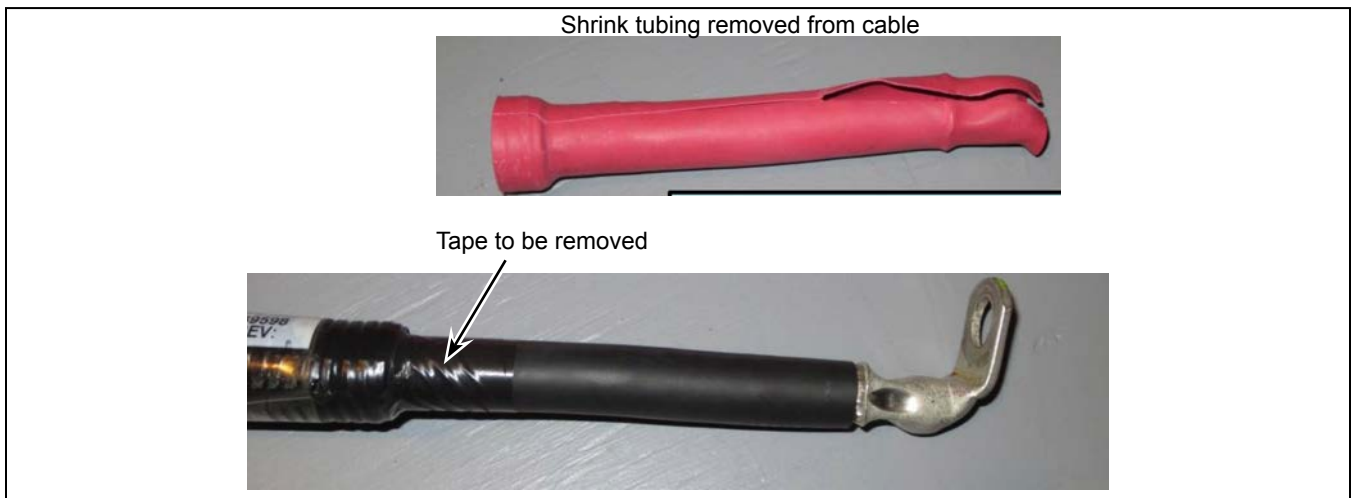


Figure 2 - Red Shrnk Tubing and Tape to be Removed from Cable

- 1.7. Slide back the slit convoluted tubing on the cable and slide back the red terminal boot. Do not remove the identification labels.
- 1.8. Cut the cable square, near the lug using the appropriate tool. See Figure 3.



NOTE

If the red boot is damaged, replace the boot on the cable with supplied boot N55828-12.

- 1.9. Cut the red shrink tubing N27548-05 to lengths of 5 in and 2,5 in and slide the shrink tubings on the cable.
- 1.10. Strip a length of 1 inch at the cut end to expose stands of the cable. Be careful to keep the strands together to ease insertion of the new connector. See Figure 3.

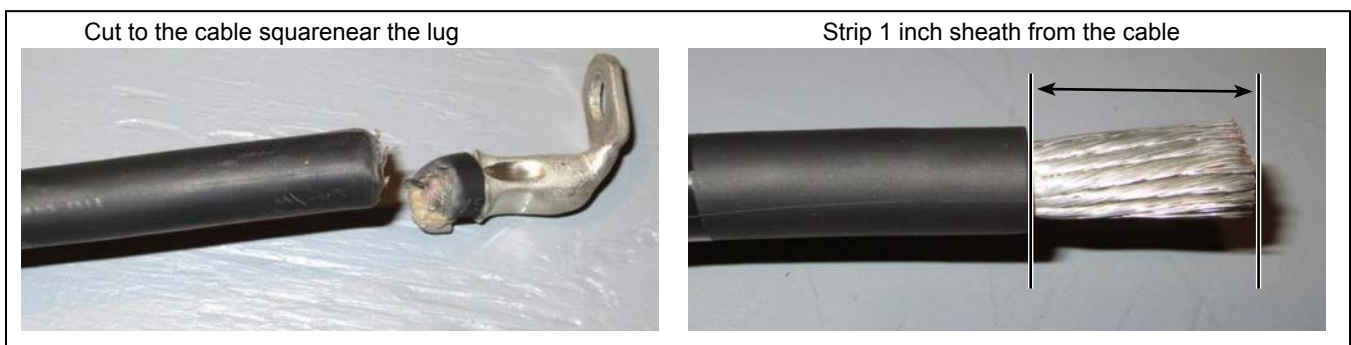


Figure 3 - Lug and Sheath Removal Detailed

- 1.11. Insert the new connector N85011 on the exposed strand portion of the cable. The tip of the strand should touch the edge portion of the new connector and there should be no space between the end of the connector and the outer sheath of the cable. See Figure 4.
- 1.12. Crimp the new connector twice, making distinct, non-aligned crimps, using a Quick Connect crimping tool 4255R or the equivalent set at 5/4 (row 1/0 gage of cable ga., column Magnalugs HD lug). See Figure 4.



CAUTION

The new connector should not move during the crimping process. Use electric tape to overlap the sheath of the cable and the connector to facilitate the process.

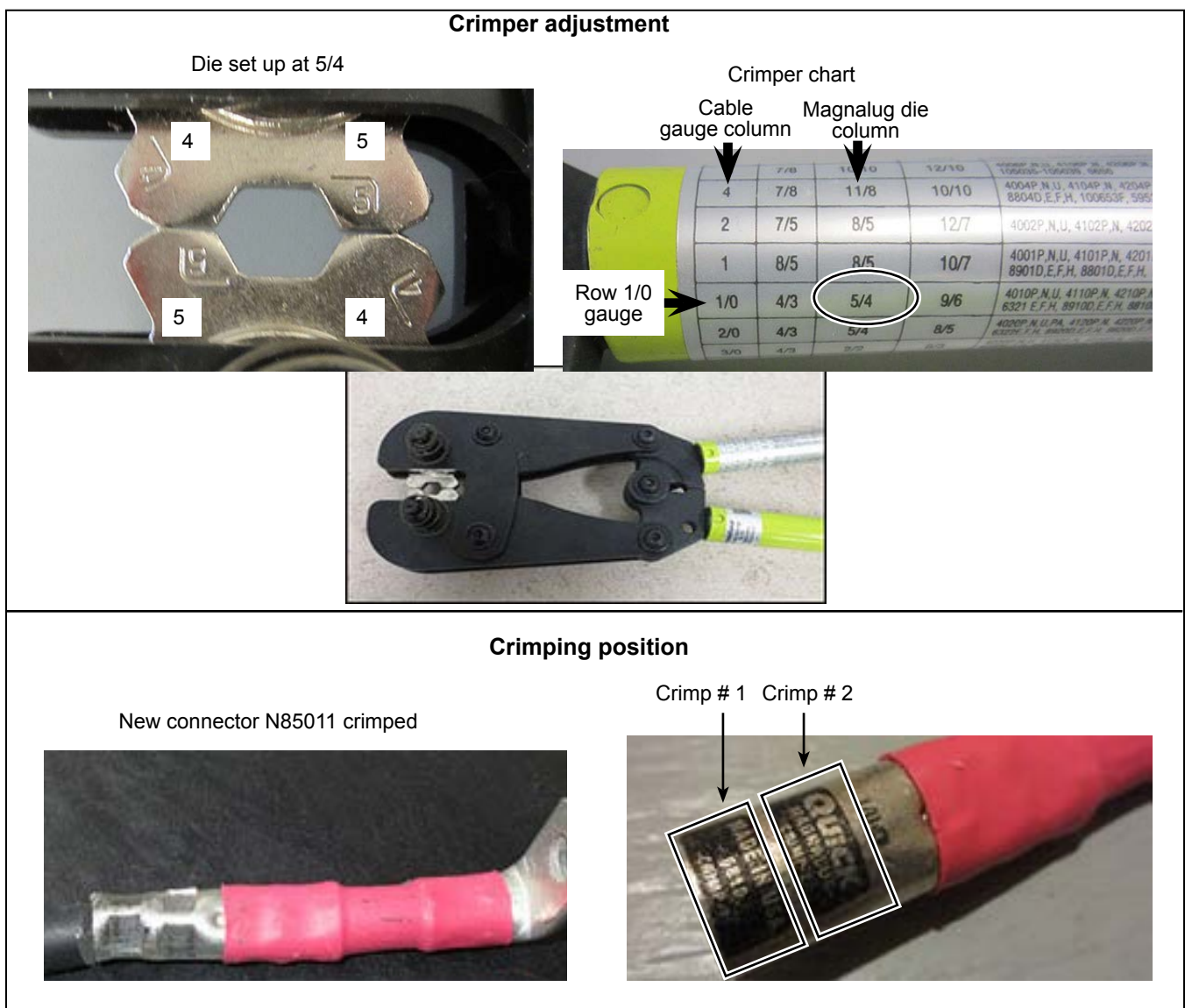


Figure 4 - Crimper Adjustment and Crimping Positions

- 1.13. Slide the 2,5 inch portion of N27548-05 red shrink tubing on top of the sheath of the cable and the bare portion of the connector. With a heat gun, apply heat on the red shrink tubing until appropriate shrinkage is obtained. See Figure 5.



Figure 5 - Positioning of the 2.5 Inch Red Shrink Tubing on the Cable and Connector

- 1.14. Slide the 5 inch portion of N27548-05 red shrink tubing on top of the heat shrink tubing installed on the connector N85011. With a heat gun, apply heat on the red shrink tubing until appropriate shrinkage is obtained. See Figure 6.



Figure 6 - 5 Inch Red Shrink Tubing Positioned and Properly Shrunk

- 1.15. Slide the red boot up to the new N85011 connector.
- 1.16. Reposition the slit convoluted tubing in its original position on the cable.
- 1.17. Apply electrical tape from the end portion of the convoluted tubing up to the new red heat shrink tubing.
- 1.18. Reposition the cable in the Energy Guiding System (EGS) using cable ties G5007996.
- 1.19. Affix the cable to the junction block using the reserved hardware. Apply electric corrosion protector after tightening. See Figure 7 for torque value.

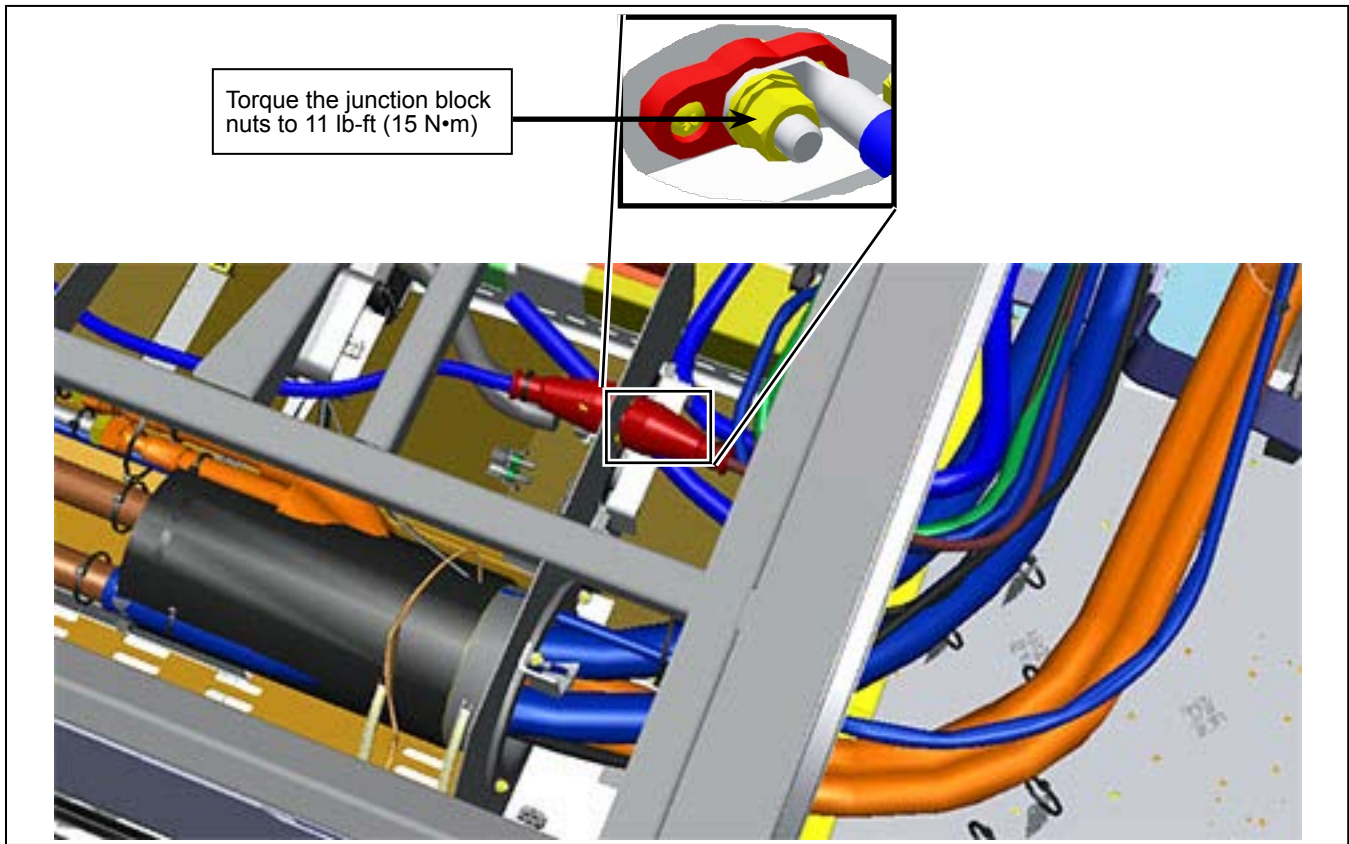


Figure 7 - Position of the 24 V Junction Block and Torque Value

- 1.20. Reinstall the front bulkhead using the retained hardware.
- 1.21. Reinstall the front ceiling curtain using the retained hardware.
- 1.22. Connect the ground and 24 V battery cables to the batteries. See section **16: BATTERIES** in the Nova Bus maintenance manual for torque values and instructions concerning battery connection. ❖