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Availability: ISIS, FleetISIS
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Current Language: English
Other Languages: NONE
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Author: Kevin Kochanek

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Coding Information

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Title: MaxxPower (0016UZL) Compressor Relay and Power Harness Upgrade

Applies To: ProStar+ Sleeper Cabs LoneStar

CHANGE LOG

Dealers: Please refer to the change log text box below for recent changes to this article:

9/19/2014 - Initial Article Release
 10/10/2014 - Parts Available External Release
 10/15/2014 - Added SRT number
 10/16/2014 - Added SRT for LoneStar and ProStar

DESCRIPTION

This document will guide the user through updating the No Idle HVAC Wiring, on certain ProStar® vehicles, Feature Code 16UZL built before 23 June 2014. Vehicles with this feature code may experience an inoperable HVAC or a continuous failure of the main fuse. In addition, inspection may reveal failed wiring.

SYMPTOM(s)

Inoperable HVAC, continuous failure of main fuse, or failed wiring.

DTC/Light	Description
Not Applicable	

SPECIAL TOOL(s) / SOFTWARE

Tool Description	Tool Number	Comments	Instructions
Tool, Pin Removal	12094430	Part of ZTSE 4443	

[Tools Resource Center](#)

SERVICE PARTS INFORMATION

Kit Description	Part Number	Quantity Required	Notes
Cable, Battery	See Battery Cable Matrix Below	1	
Strap, Tie	Obtain Locally	As Required	
Kit, Relay Assembly Field	2513547C91	1	See Table Below

Kit 2513547C91 contents:

Description	Part Number	Quantity Required	Notes
Decal		1	
Screw, #10 x 1/2 Self Tapping		2	
Relay, High Current (150A Relay)		1	
Bracket, Relay		1	
Gasket, Bracket Relay		1	
Strap, Tie with Fir Tree		8	
Screw		2	
Nut, M6		2	
Harness, Power		1	
Harness, Relay Control		1	

Battery Cable Matrix

Description	Part Number	OEM Part Number	Quantity Required	Battery Box and Fuel Tank Feature Code Without SCR
Cable, Battery, Bergstrom No Idle Short Sleeper	4047811C91	3838192C91	1	0008WRN, 0508062, or 0008TSN with 0016AUM or 0016AUS without 0015DPY
Cable, Battery, Bergstrom No Idle Long Sleeper	4047810C91	3838206C92	1	0008WRN, 0508062, 0008TSN, or 0008WRV with 0016AUN or 0016AUP without 0015DPY
Harness, Bergstrom No Idle Long Slpr, Vert Exh	4051667C91	3712820C91	1	0008WRN, 0508062, 0008TSN, or 000WRV with 0016AUN or 0016AUP with 0015DPL
Cable, Battery, Bergstrom No Idle, 6470MM	4051668C91	3878461C91	1	0008WJN or 0008WZV with 0016AUM or 0016AUS with F-Dual-BOC-Tank
Cable, Battery, Bergstrom No Idle, 5710MM	4051669C91	3847380C92	1	0008WJN or 0008WZV with 0016AUN or 0016AUP with F-Dual-BOC-Tank
	4051670C91	3712850C91		

Harness, Bergstrom No Idle Long Slpr, Vert Exh			1	0008WRN, 050862, or 0008TSN with 0016AUN or 0016AUP with 0015DPY
Cable, Battery, Bergstrom No Idle	4051671C91	3838548C91	1	0008WRN with LF51700
				Battery Box and Fuel Tank Feature Code With SCR
Cable, Battery, Bergstrom No Idle	4051671C91	3838548C91	1	0008XGG or 0008XGS with 0015DVX or 0015DVZ

DIAGNOSTIC STEP(s)

Not Applicable

REPAIR STEP(s)

WARNING:

To prevent property damage, personal injury, and / or death, read all safety instructions in the "Safety Information" section of the Service Manual or Diagnostic Manual.

WARNING:

To prevent property damage, personal injury, and / or death, park vehicle on a hard, flat surface, turn engine off, set parking brake, and install wheel chocks to prevent vehicle from moving in either direction.

WARNING:

To prevent personal injury and /or death, make sure the engine has cooled before removing components

WARNING:

To prevent property damage, personal injury, and /or death, remove ground cable from negative terminal of main battery before disconnecting or connecting electrical components. Always connect ground cable last.

WARNING:

To prevent personal injury and /or death, always wear safe eye protection when performing vehicle maintenance.

REMOVAL PROCEDURE:

NOTE:

Before starting upgrade, verify system operation. Vehicle must be temperature acclimated to above 60°F (15.5°C) for A/C system check.

1. Bring vehicle into shop and park on flat surface.
2. Shift transmission to Park or Neutral, set parking brake, and install wheel chocks.
3. Open battery box and disconnect negative battery cables, MaxxPower harness, and 50 amp power fuse from batteries.
4. Cut and remove tie straps from MaxxPower harness. Discard tie straps.
5. Open sleeper compartment.



Figure 1: Control Center Harness.

Item 1: Control center

Item 2: Control center harness 4-pin connector

6. Disconnect battery cable 4-pin connector (Figure 1, Item 2) from harness connector near control center (Figure 1, Item 1).
7. Remove battery cable from vehicle. Discard battery cable.

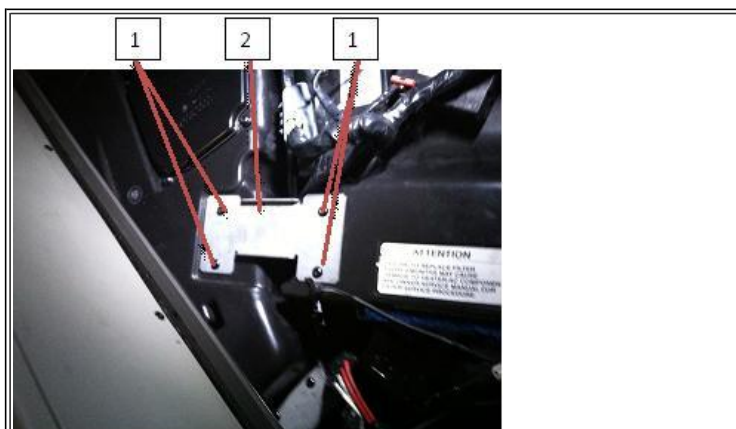


Figure 2: Top Support Bracket.

Item 1: Screw (4)
Item 2: Top support bracket

8. Remove four screws (Figure 2, Item 1) and top support bracket (Figure 2, Item 2) from vehicle.

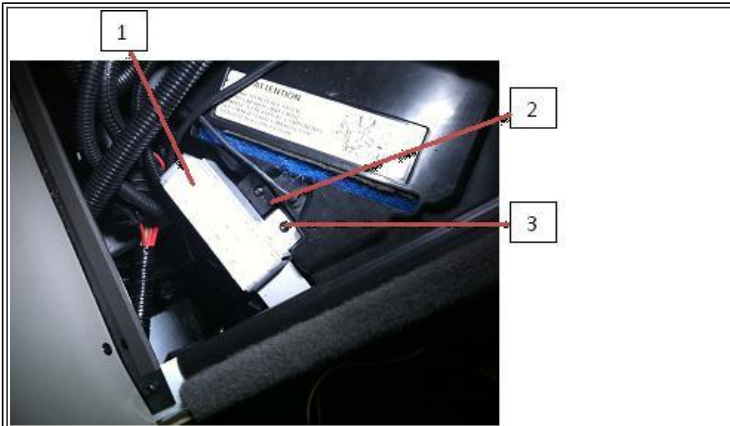


Figure 3: Power Center Cover.

Item 1: Power center cover
Item 2: Power center
Item 3: Screw

9. Remove screw (Figure 3, Item 3) and cover (Figure 3, Item 1) from power center (Figure 3, Item 2).

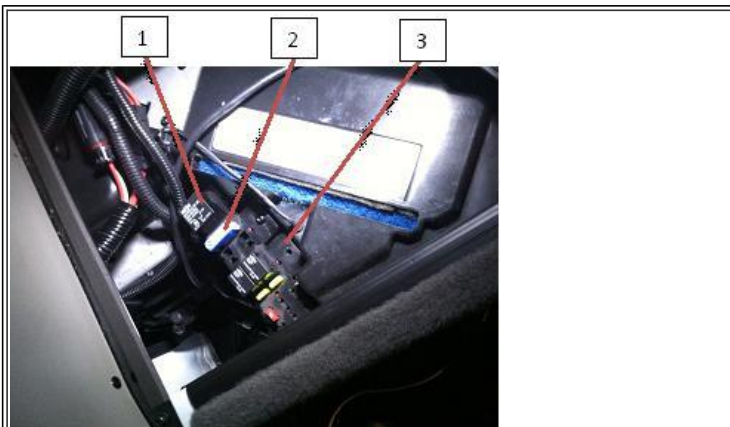
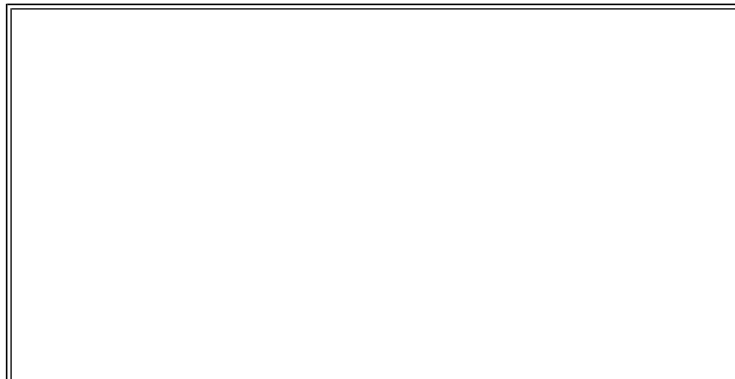


Figure 4: 70 Amp Relay and 60 Amp Compressor Fuse.

Item 1: 70 amp relay
Item 2: 60 amp compressor fuse
Item 3: Control center

10. Remove 70 amp relay (Figure 4, Item 1) and 60 amp compressor fuse (Figure 4, Item 2) from control center (Figure 4, Item 3). Discard relay and fuse.



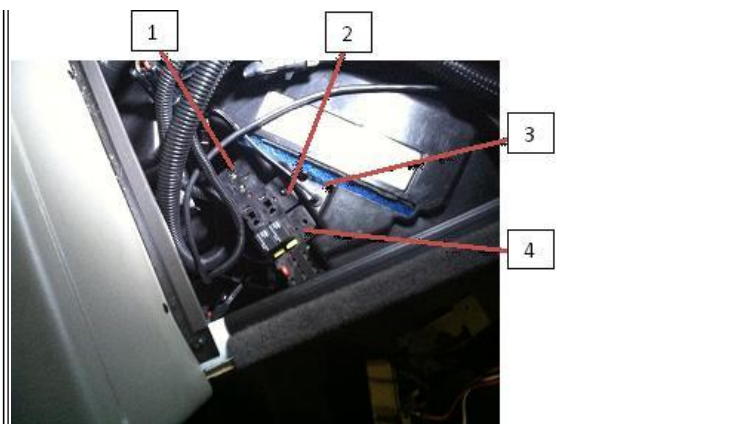


Figure 5: Control Center and End Section.

Item 1: End section
 Item 2: Screw
 Item 3: Support bracket
 Item 4: Control center

11. Remove screw (Figure 5, Item 2) from control center (Figure 5, Item 4) and slide control center off support bracket (Figure 5, Item 3).

12. Remove red locking clip and release end section (Figure 5, Item 1) from control center (Figure 5, Item 4).

NOTE:

The yellow tabs will unlock the two control wires.

13. Using pin removal tool, push Yellow pins down in removed end section.

14. Using pin removal tool, unpin and release two control terminals from removed end section.

NOTE:

There are two small locking tabs on Green wires.

15. Pull two green wires out of relay control circuit of removed end section.

16. Inspect terminals and verify locking tabs are not damaged.

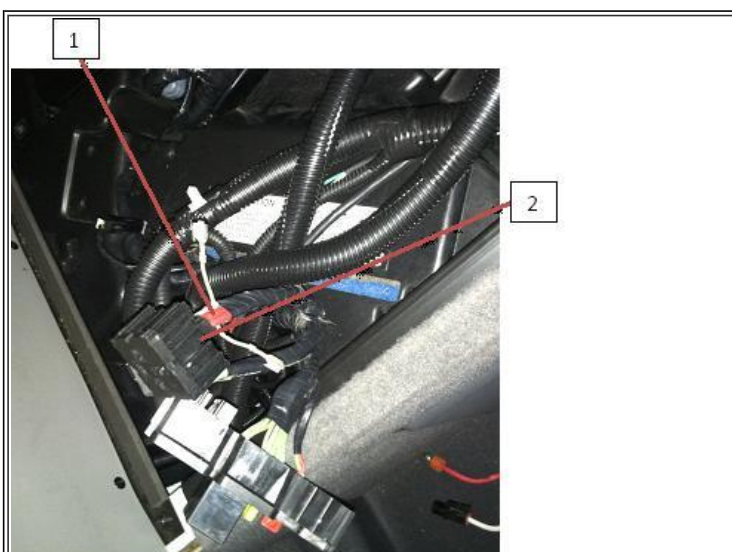


Figure 6: Control Center Assembly Harness.

Item 1: Wire (3) (two not shown)
Item 2: Control center assembly harness

NOTE:

Do not cut previously removed Green wires.

17. Cut and discard remaining 3 wires (Figure 6, Item 1) from control center assembly harness (Figure 6, Item 2).

18. Cut and discard control center assembly harness 4-pin connector at breakaway.

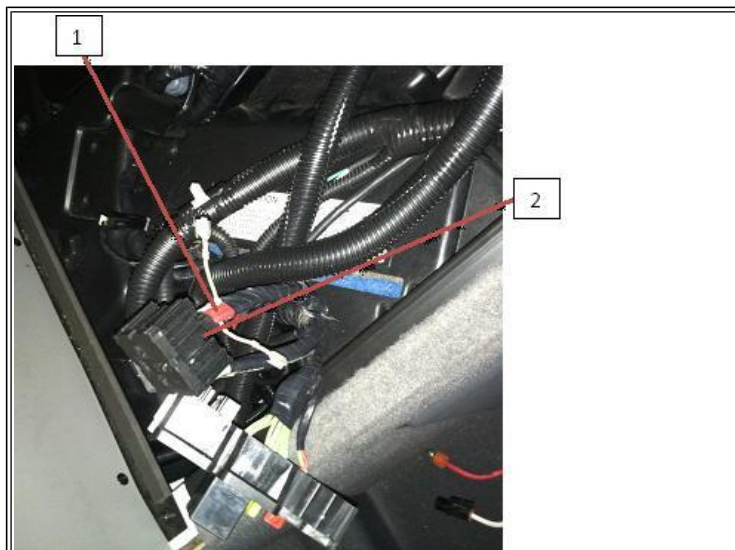


Figure 7: Control Center Assembly Harness 4-Pin Connector.

Item 1: Compressor controller harness 4-pin connector
Item 2: Control center assembly harness 4-pin connector

19. Disconnect control center assembly harness 4-pin connector (Figure 7, Item 2) from compressor controller harness 4-pin connector (Figure 7, Item 1).

20. Cut and discard control center assembly harness 4-pin connector (Figure 7, Item 2) at breakaway.

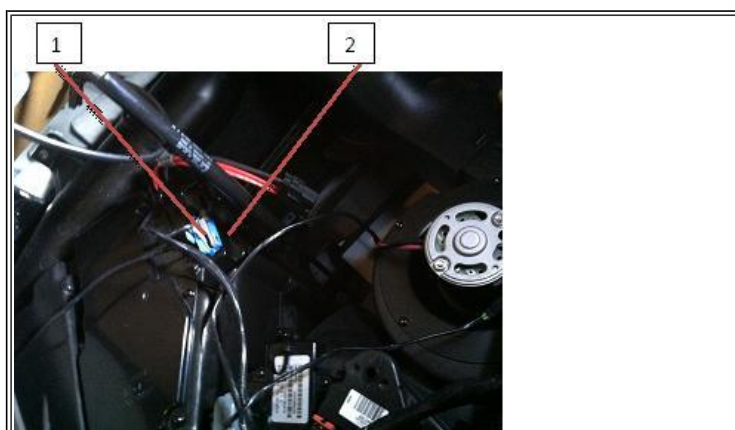


Figure 8: Control Center Assembly Harness 32-Pin Connector.

Item 1: Control center assembly harness 32-pin connector
Item 2: Compressor controller

21. Disconnect control center assembly harness 32-pin connector (Figure 8, Item 1) from compressor controller (Figure 8, Item 2).

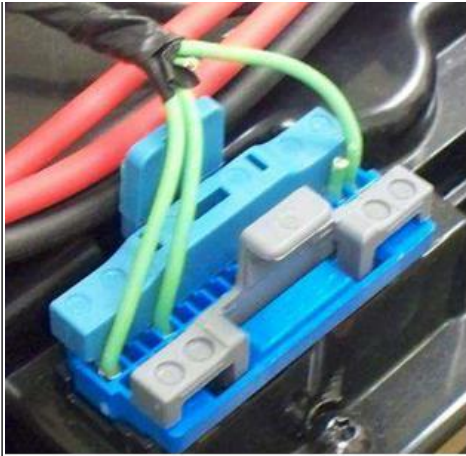


Figure 9: Wire Removal Control Center Assembly Harness 32-Pin Connector.

22. Cut and remove approximately 1 in of wire as shown in Figure 9.
23. Connect control center assembly harness 32-pin connector (Figure 8, Item 1) to compressor controller (Figure 8, Item 2).
24. Remove Blue terminal lock from new 2-pin connector.
25. Install two Green wire terminals into 2-pin connector until they click into place.
26. Install Blue terminal lock into 2-pin connector.
27. Install control center (Figure 5, Item 4) on support bracket (Figure 5, Item 3) with screw (Figure 5, Item 2).
28. Install new fuse decal onto control center cover.
29. Install cover (Figure 3, Item 1) on power center (Figure 3, Item 2) with screw (Figure 3, Item 3).

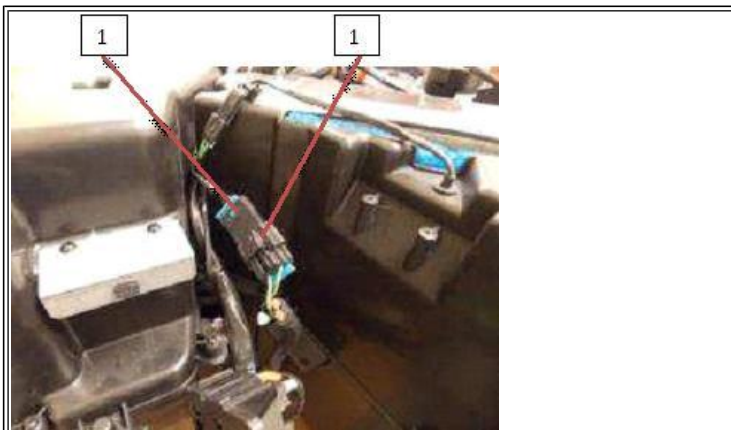


Figure 10: Relay Control Harness 2-Pin Connector.

Item 1: Relay control harness 2-pin connector
 Item 2: Control center assembly harness 2-pin connector

30. Connect new relay control harness 2-pin connector (Figure 10, Item 1) to control center assembly harness 2-pin connector (Figure 10, Item 2).
31. Route relay control harness through center of MaxxPower unit to HEATER COIL.
32. Install top support bracket (Figure 2, Item 2) in vehicle with four screws (Figure 2, Item 1).



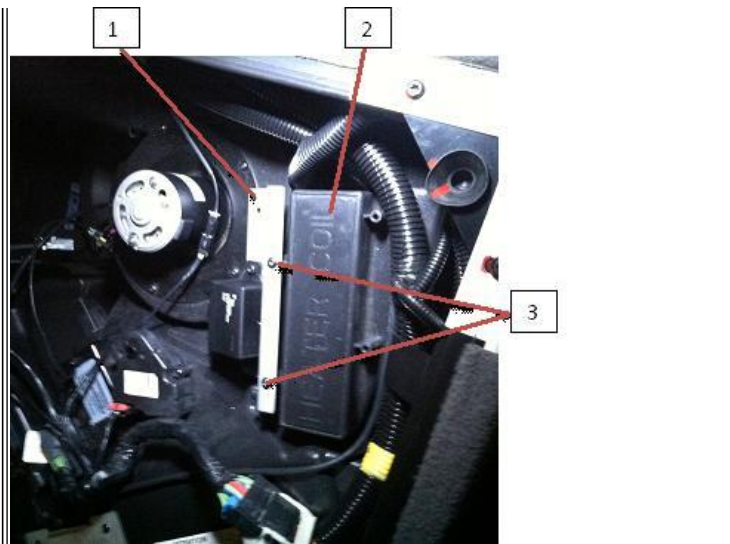


Figure 11: Relay Assembly.

Item 1: Relay assembly
Item 2: HEATER COIL area
Item 3: Screw (2)

33. Install new relay assembly (Figure 11, Item 1) behind area marked HEATER COIL (Figure 11, Item 2) with two new screws (Figure 11, Item 3).

34. Using torque wrench, tighten two screws (Figure 11, Item 3) to 20 lb-in (2 N·m).

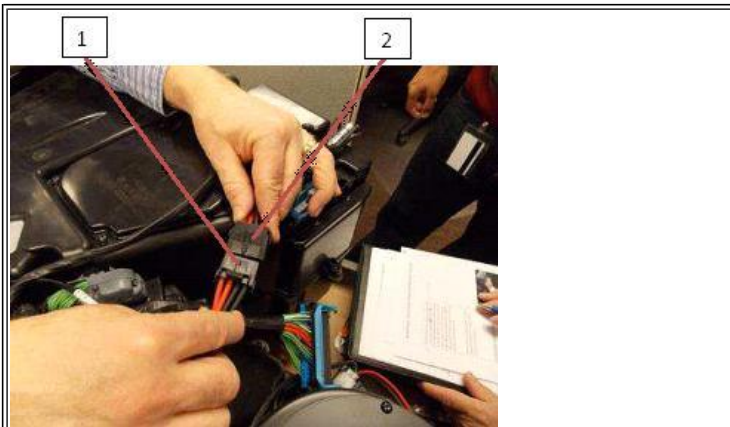
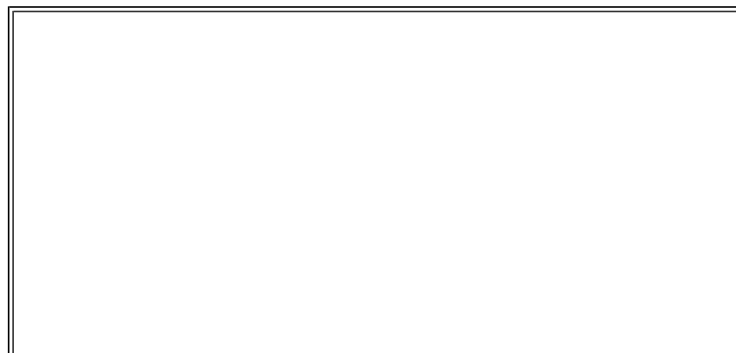


Figure 12: Battery Cable 4-Pin Connector.

Item 1: Battery cable 4-pin connector
Item 2: Compressor controller harness 4-pin connector

35. Connect new battery cable 4-pin connector (Figure 12, Item 1) to compressor controller harness 4-pin connector (Figure 12, Item 2).



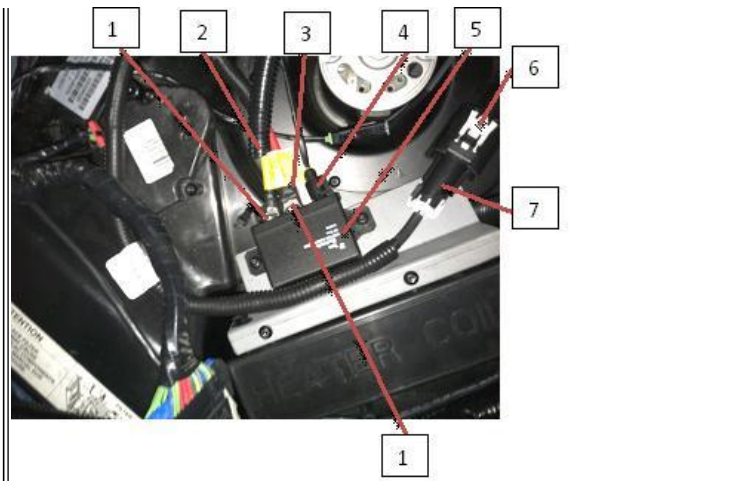


Figure 13: Relay Assembly Harness Connections.

- Item 1: Nut (2)
- Item 2: Black wire ring terminal
- Item 3: Red wire ring terminal
- Item 4: Relay control harness connector
- Item 5: Relay assembly
- Item 6: Ground side of power harness
- Item 7: Ground cable connector and fir tree

36. Install Black wire ring terminal of power harness (Figure 13, Item 2) on left post of relay assembly (Figure 13, Item 5) with new nut (Figure 13, Item 1).
37. Using torque wrench, tighten nut (Figure 13, Item 1) to 41 lb-in (5 N•m).
38. Route ground cable connector (Figure 13, Item 7) around relay assembly (Figure 13, Item 5), secure into relay assembly, and push fir tree into relay assembly.
39. Route new battery cable through hole in floor to battery box.
40. Install Red wire ring terminal of power harness (Figure 13, Item 3) onto middle post of relay assembly (Figure 13, Item 5) with new nut (Figure 13, Item 1).
41. Using torque wrench, tighten nut (Figure 13, Item 1) to 41 lb-in (5 N•m).
42. Connect ground side of power harness (Figure 13, Item 6) to ground cable connector (Figure 13, Item 7).
43. Connect relay control harness connector (Figure 13, Item 4) to relay assembly (Figure 13, Item 5).
44. Install 50 amp power fuse, Navistar unit harness, and negative battery cables to batteries.
45. Install tie straps as required.
46. Close battery box.
47. Close sleeper compartment.

FUNCTIONAL CHECK:

NOTE:

Checking compressor amperage will be the best test to prove status depending on ambient temperature.

NOTE:

If unit or compressor does not start, check at fuse for power and verify connection.

1. Start engine and allow vehicle temperature to acclimate to 60°F (16°C) for A/C system check.
2. Remove wheel chocks.

WARRANTY INFORMATION

Warranty Claim Coding:

Group:	19030- Aux No Idle HVAC
Noun:	638- Electric HVAC Module

Standard Repair Time(s):

Step	Description	Chassis	Engine	SRT	Hours
All	Upgrade MaxxPower Harness	ProStar	11 and 13L	S20-1002A	1.0 hr
All	Upgrade MaxxPower Harness	LoneStar	11 and 13L	S19-1002A	1.0 hr

Claim SRT Example:

Not Applicable

Claim Comment Suggestion:

Not Applicable

Special Requirement(s):

Not Applicable

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