



March 2013

Dealer Service Instructions for:

# **Safety Recall N18 / NHTSA 13V-103**

## **Engine Starter Battery Positive Terminal**

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### **Models**

**2013 (LC) Dodge Challenger**

*NOTE: This recall applies only to the above vehicles equipped with a 3.6L engine (sales code ERB) built from December 03, 2012 through January 24, 2013 (MDH 120311 through 012413).*

**IMPORTANT: Some of the involved vehicles may be in dealer new vehicle inventory. Federal law requires you to complete this recall service on these vehicles before retail delivery.** Dealers should also consider this requirement to apply to used vehicle inventory and should perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

### **Subject**

The engine starter battery positive terminal on about 4,000 of the above vehicles could short to ground and cause an electrical fire. An electrical fire could occur at any time, regardless whether the vehicle is running or is in the key “OFF” position.

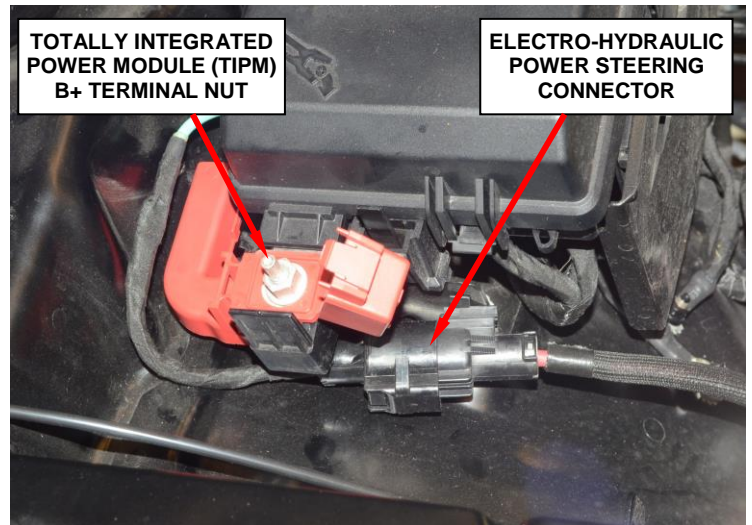
### **Repair**

An engine battery positive overlay wire harness must be installed.



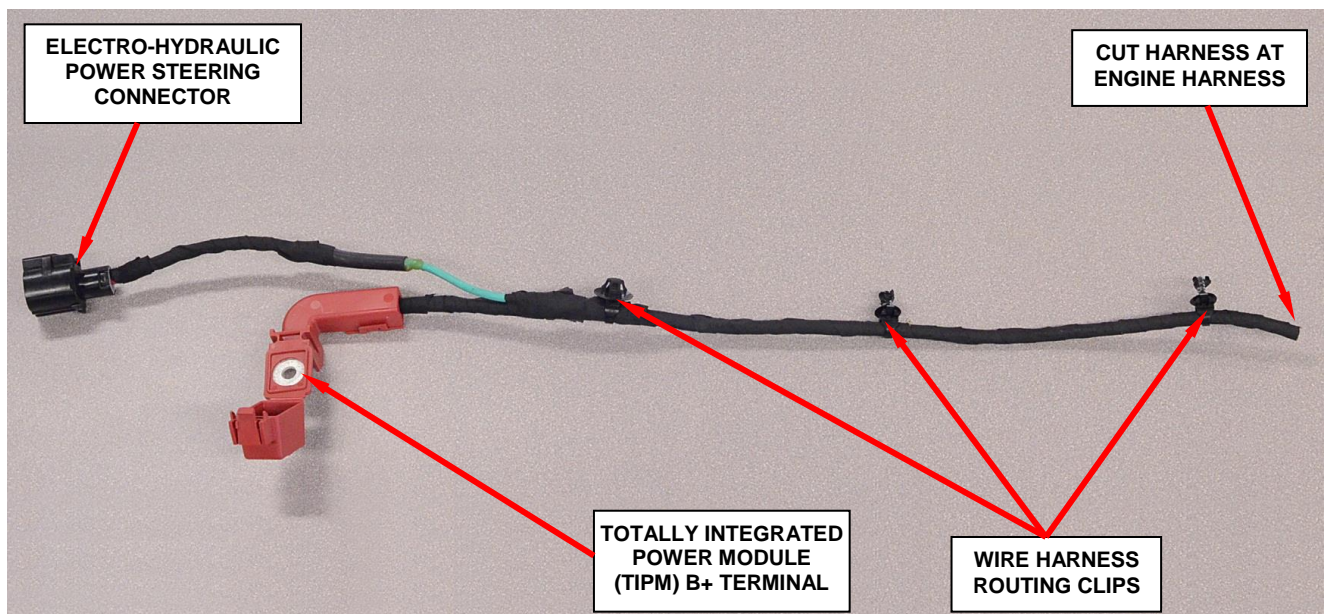
**Service Procedure**

1. Open the trunk and ensure the negative battery cable is disconnected from the battery.
2. Open the hood, then remove and save the engine plastic cover.
3. Remove and save the Totally Integrated Power Module (TIPM) B+ terminal nut (Figure 1).
4. Disconnect the Electro-Hydraulic Power Steering (EHPS) connector (Figure 1 and 2).



**Figure 1 – TIPM Terminal and EHPS Connector**

5. Disengage the TIPM/EHPS wire routing clips along the passenger shock tower (Figure 2).
6. Using a high speed cut-off wheel, cut off the TIPM/EHPS wire harness where it meets the main engine wire harness (Figure 2).
7. Apply electrical tape to the abandoned wire stub on the engine harness.

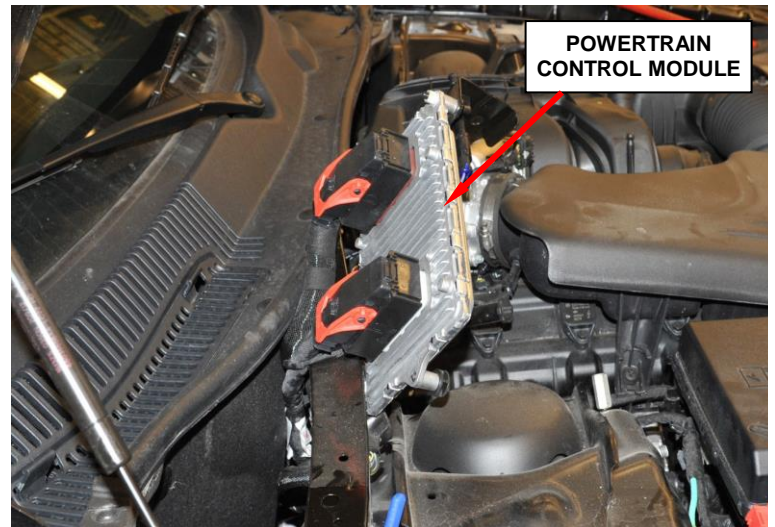


**Figure 2 – Cut Off the TIPM/EHPS Wire Harness**

**Service Procedure (Continued)**

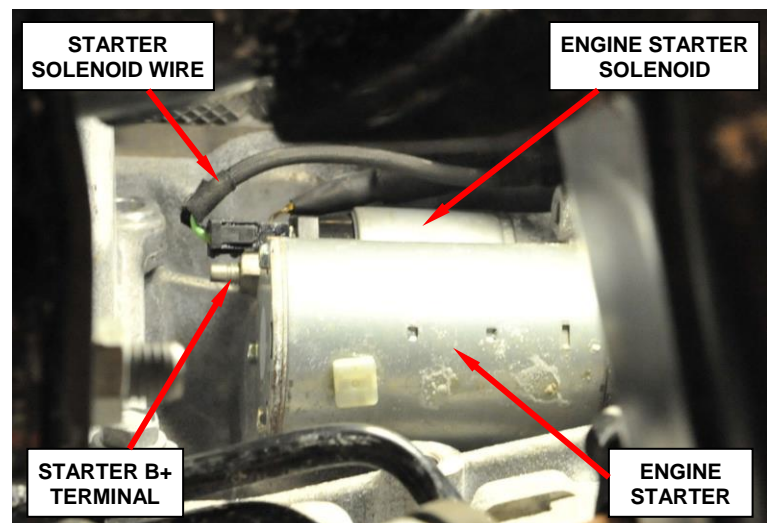
8. Remove and save the Powertrain Control Module (PCM) plastic access cover.
9. Remove and save the PCM mounting bolt.
10. Pull the PCM up and out of the cowl and set aside (Figure 3).

**CAUTION: Do not disconnect the PCM connectors.**



**Figure 3 – Relocate the PCM**

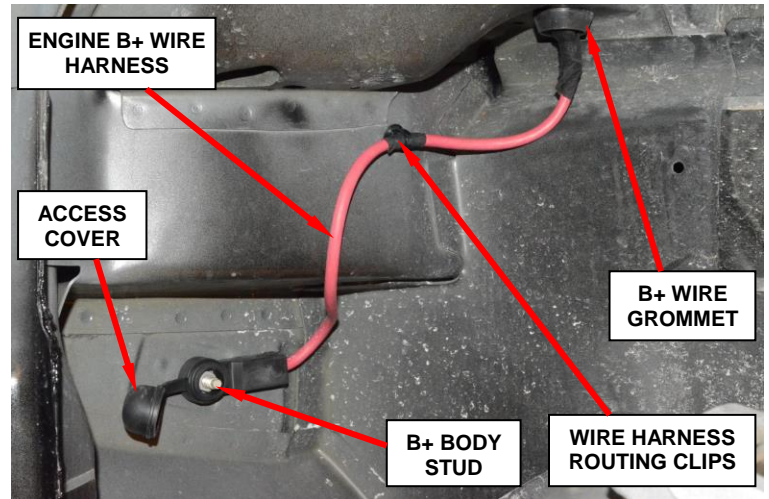
11. Disconnect the alternator B+ connector eyelet and alternator field connector at the alternator.
12. Lift the vehicle on an appropriate hoist.
13. Remove and save the plastic underbody splash shield.
14. Disconnect the engine oil pressure sensor electrical connector.
15. Disconnect the crankshaft position sensor electrical connector.
16. Remove and save the starter solenoid heat shield.
17. Remove and save the starter B+ terminal nut and disconnect the starter solenoid wire (Figure 4).
18. Partially lower the vehicle.
19. Remove and save the right front wheel and tire assembly.



**Figure 4 – Starter B+ and Solenoid Connectors**

**Service Procedure (Continued)**

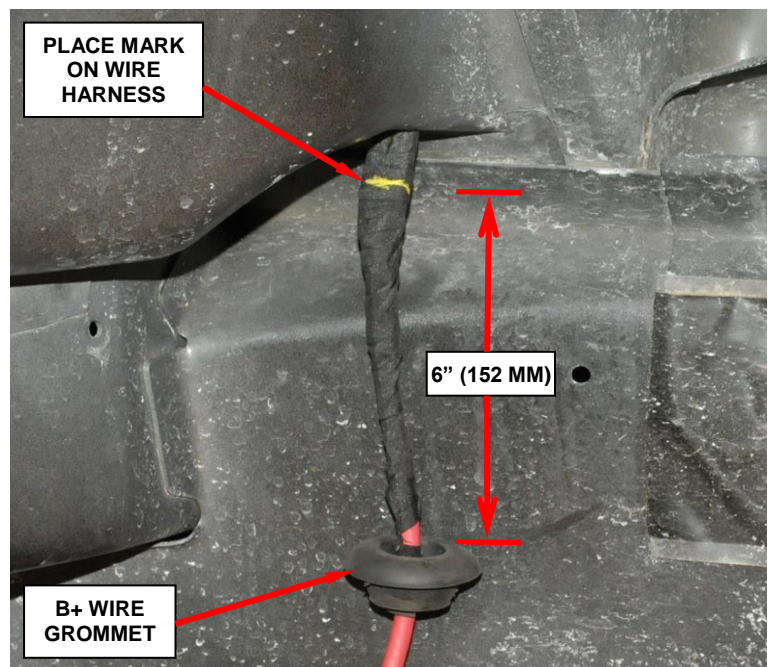
20. Remove and save the right front wheel opening plastic liner.
21. Disconnect the engine B+ wire harness from the B+ stud on the body that is located in the right wheel opening (Figure 5).



**Figure 5 – Engine B+ Wire Harness**

22. Pull the engine B+ wire and grommet down to expose the wire above the grommet (Figure 6).

23. Measure up from the grommet approximately 6 inches (152 mm) and place a mark on the engine B+ wire (Figure 6).



**Figure 6 – Engine B+ Wire and Grommet**

**Service Procedure (Continued)**

24. Using a high speed cut-off wheel, cut the B+ wire at the mark made in Step 23 (Figure 7).
25. Apply electrical tape to the abandoned wire stub on the engine harness.
26. Lower the vehicle from the hoist.
27. Using a high speed cut-off wheel, cut off the alternator B+ wire approximately 8 inches from the wire eyelet at the end of the alternator B+ wire (Figure 8).

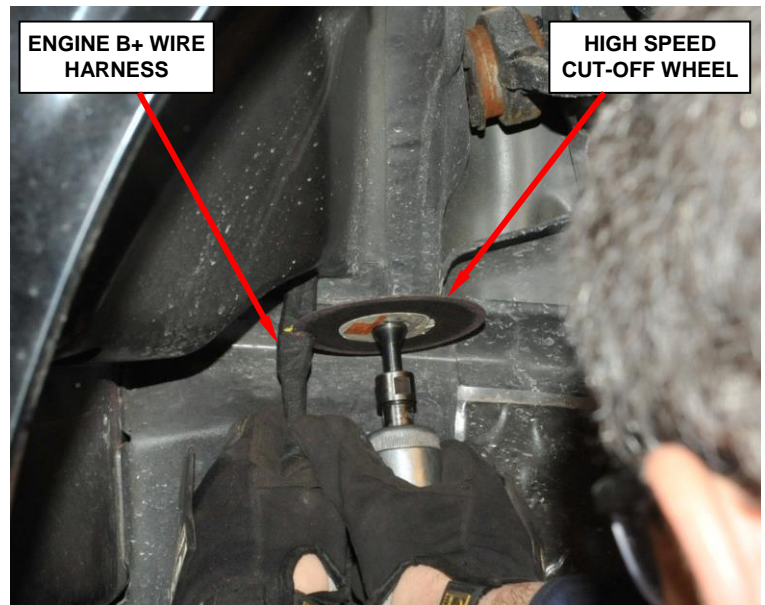


Figure 7 – Cut Off B+ Wire

**CAUTION:** Use extreme caution not to nick other underhood components when cutting the alternator B+ wire.

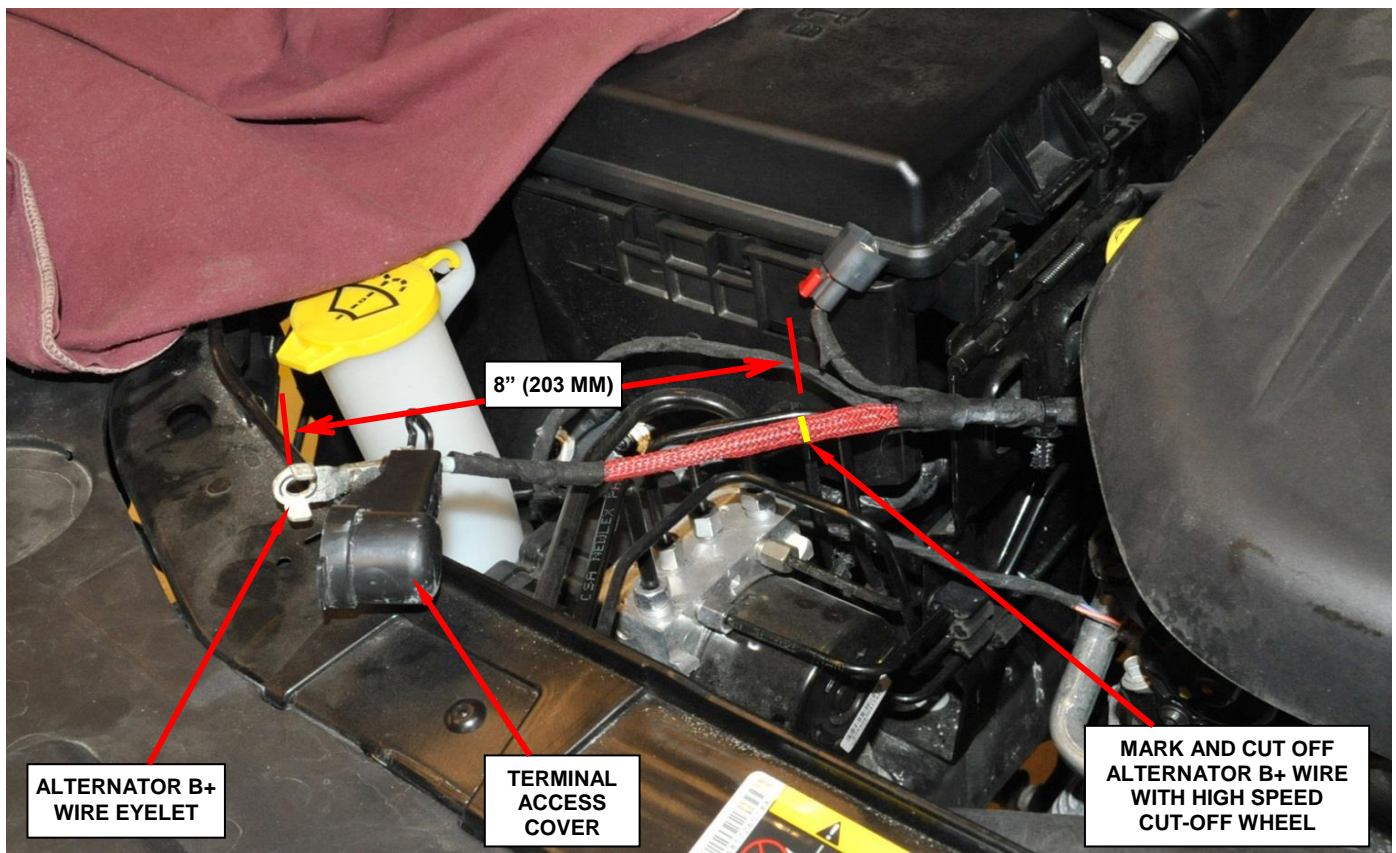
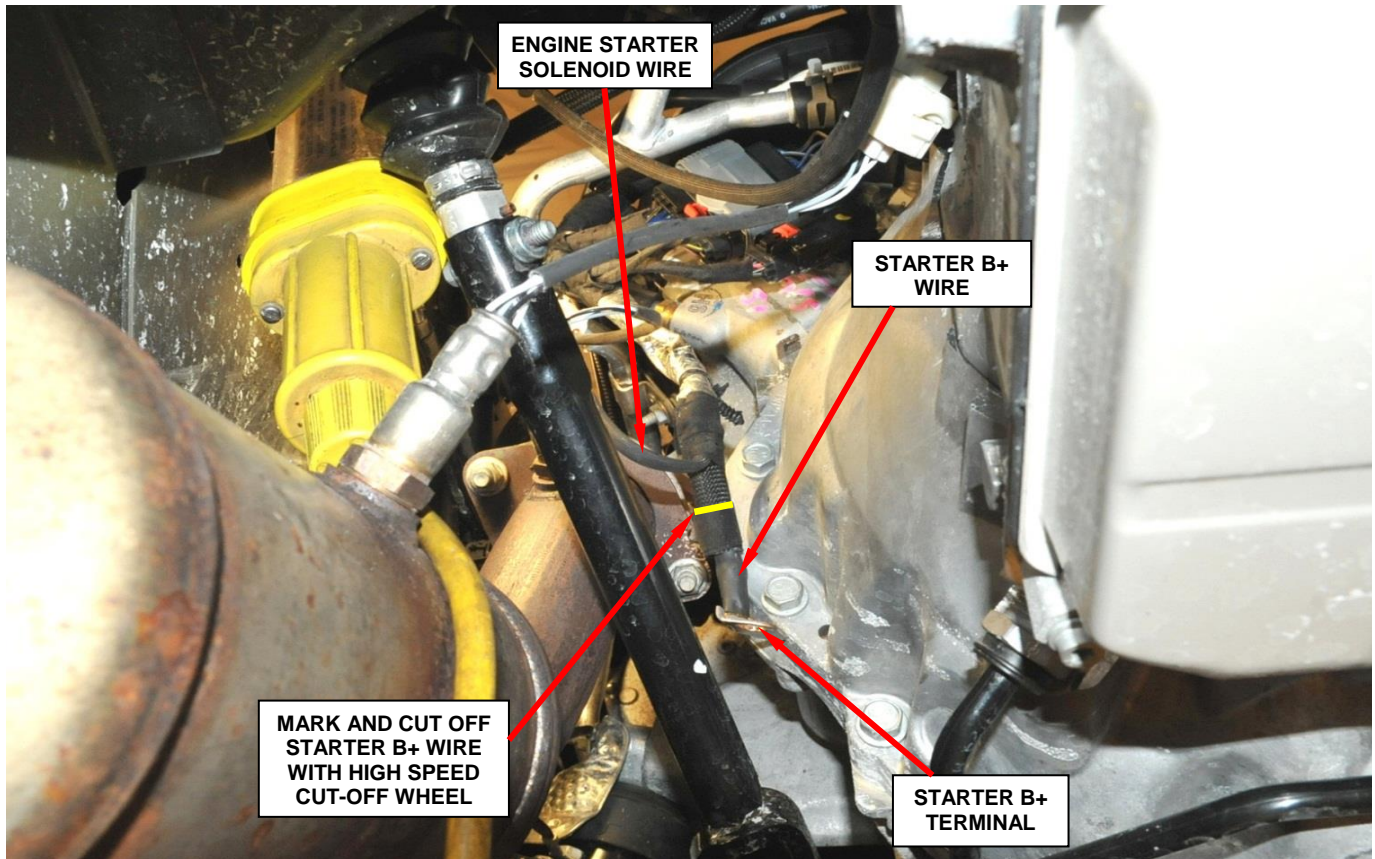


Figure 8 – Cut Off Alternator Wiring End

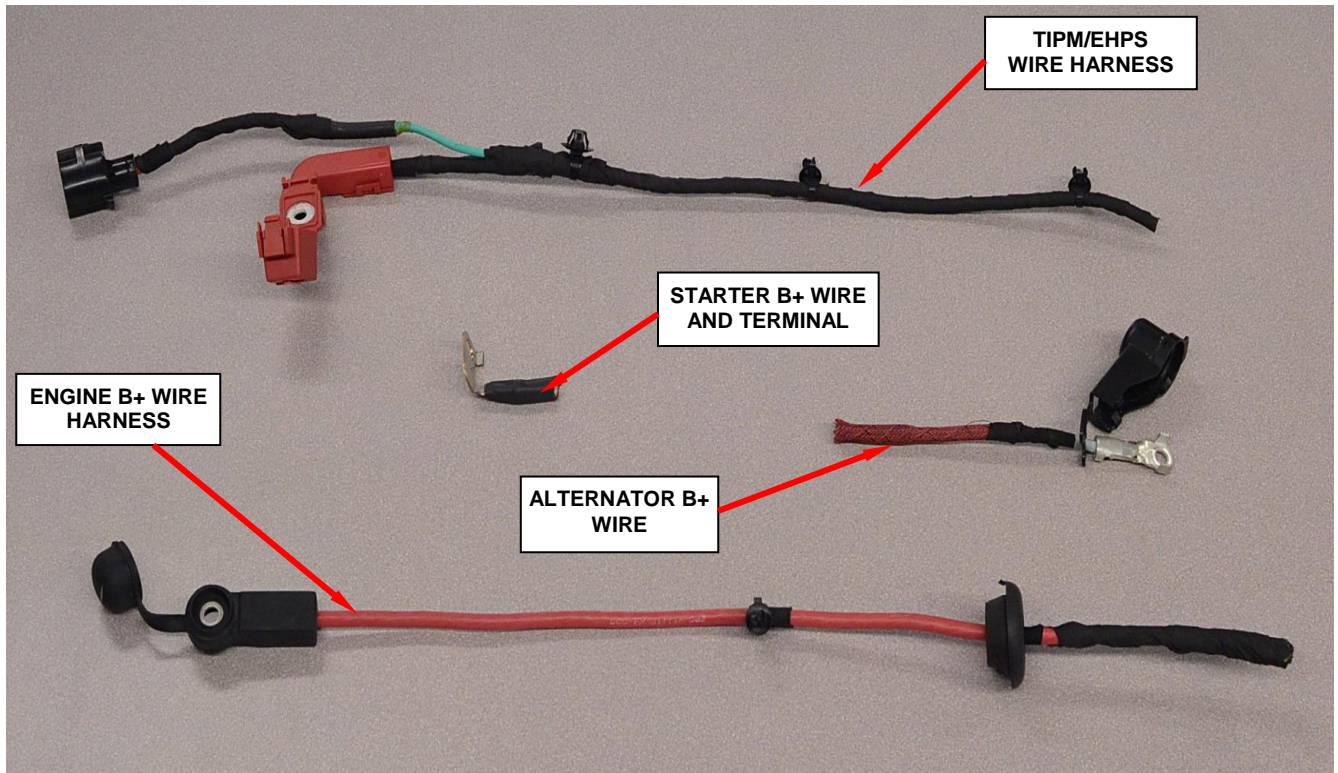
**Service Procedure (Continued)**

**Figure 9 – Cut Off the Starter B+ Terminal from Engine Wire Harness**

28. Apply electrical tape to the abandoned alternator B+ wire stub on the engine harness.
29. Raise the vehicle on the hoist.
30. Place a mark on the starter B+ wire approximately 2 inches from the end of the wire (Figure 9).
31. Using a high speed cut-off wheel, cut the starter B+ wire at the mark made in Step 30 (Figure 9).

**CAUTION: Use extreme caution not to nick other components when cutting the starter B+ wire.**

32. Apply electrical tape to the abandoned wire stub on the engine harness.
33. Lower the vehicle from the hoist.

**Service Procedure (Continued)**

**Figure 10 – Items Cut Off the Underhood Engine Harness**

34. At this point in the repair the components in Figure 10 have been cut from the original engine wire harness.

**NOTE:** The new overlay wire harness has grey tape bands to indicate the tie strap locations. Tie straps are to be placed at these locations to properly secure the overlay harness to the original engine wire harness.

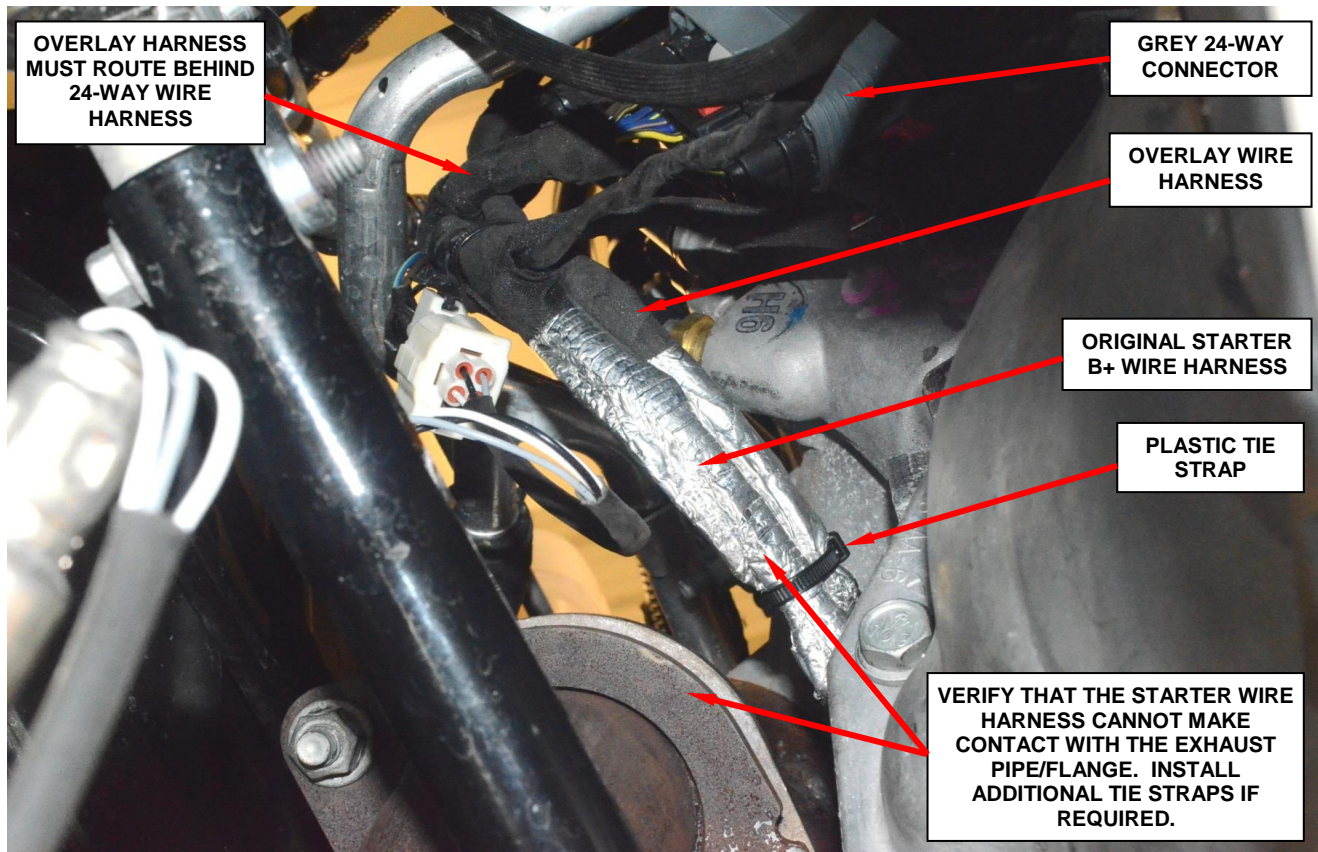
35. Starting at the rear of the right valve cover, carefully route the new engine battery positive overlay wire harness starter B+ wire along the existing engine wiring harness.

**CAUTION:** Be sure to route the starter B+ wire behind the grey 24 way connector wire harness at the rear of the left cylinder head

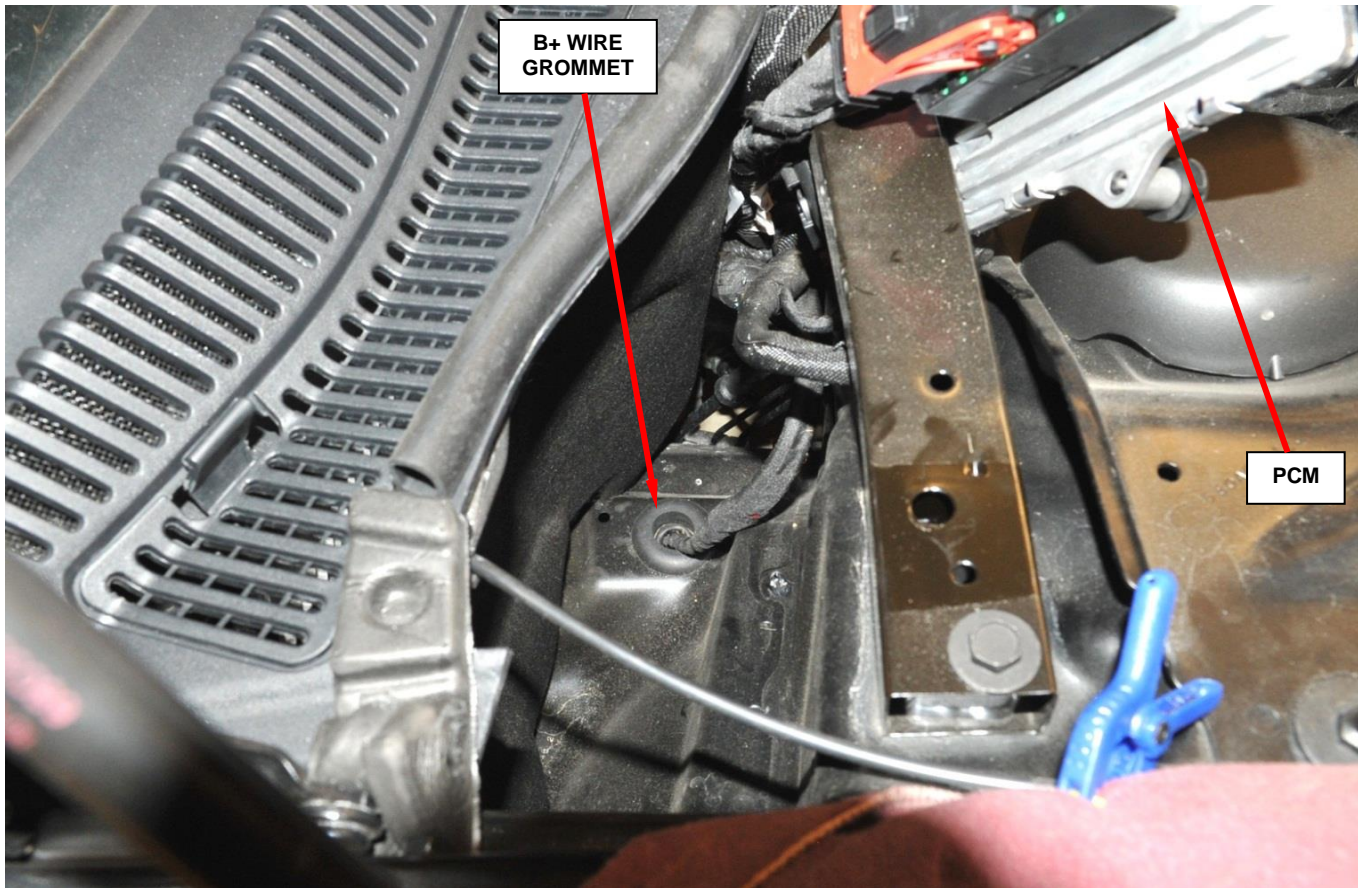
36. Raise the vehicle on the hoist.
37. Connect the new engine battery positive overlay wire harness starter B+ terminal to the starter. Tighten the starter B+ terminal nut to 97 in. lbs. (11 N·m).

**NOTE:** Inspect all wire harness push pin tie strap retainers and replace as required.



**Service Procedure (Continued)****Figure 11 – Starter Wiring Routing**

38. Connect the starter solenoid wire from the original engine wiring harness to the starter solenoid.
39. Using one of the provided plastic tie straps, secure the new engine battery positive overlay wire harness to the original engine wire harness (Figure 11).  
**CAUTION: Make sure the starter B+ wire cannot come in contact with the exhaust pipe. Use tie straps as required to secure the starter B+ wire.**
40. Install the starter solenoid heat shield.
41. Lower the vehicle from the hoist.

**Service Procedure (Continued)****Figure 12 – B+ Wire Grommet**

42. Route the engine battery positive overlay wire harness B+ cable into position and through the body routing hole (Figure 12).

**CAUTION: Be sure to seat the B+ wire grommet securely into the body routing hole.**

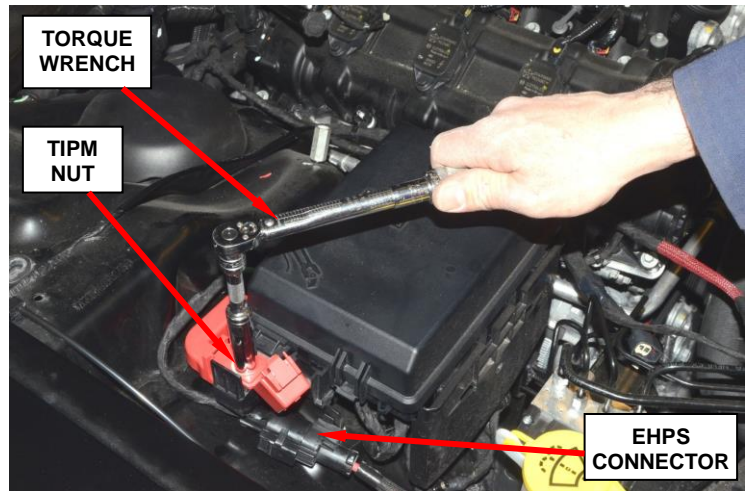
43. Remove and save the throttle body air inlet tube.
44. Route the Totally Integrated Power Module (TIPM) B+ terminal, the Electro-Hydraulic Power Steering (EHPS) connector and related wiring into position and engage routing clips.

**Service Procedure (Continued)**

45. Install the engine battery positive overlay wire harness TIPM B+ overlay terminal nut. Tighten the nut to 106 in. lbs. (12 N·m) (Figure 13).

46. Connect the engine battery positive overlay wire harness EHPS connector to the EHPS body connector (Figure 13).

47. Route the engine battery positive overlay wire harness for the alternator into position and connect the alternator B+ connector eyelet. Tighten the retaining nut to 97 in. lbs. (11 N·m).



**Figure 13 – Tighten TIPM Nut**

48. Using plastic tie straps, secure the alternator overlay harness to the original engine wiring harness at the grey tape bands.

49. Install the PCM into position and install the mounting bolt.

50. Install the PCM plastic access cover.

51. Lift the vehicle on the hoist.

52. Connect the crankshaft position sensor electrical connector to the sensor.

53. Connect the engine oil pressure sensor electrical connector to the sensor.

**NOTE: Replace the push pin tie straps if required.**

54. Connect the alternator field connector to the alternator.

55. Install the plastic underbody splash shield.

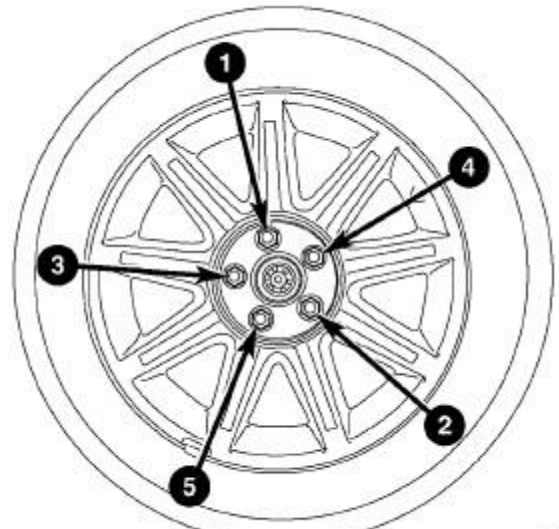
56. Partially lower the vehicle.

**Service Procedure (Continued)**

57. Route the engine battery positive overlay wire harness red B+ wire to the B+ stud on the body. Engage the retaining tab into the body and then tighten the B+ terminal nut to 97 in. lbs. (11 N·m).

**CAUTION: Adjust the B+ wire routing as required to prevent chaffing.**

58. Install the right front wheel opening plastic liner.
59. Install the right front tire and wheel assembly. Tighten the lug nuts to 110 ft. lbs. (150 N·m) in the sequence shown in Figure 14.
60. Lower the vehicle from the hoist.
61. Install tie straps to secure the overlay harness to the engine wiring harness at the grey tape band locations.
62. Inspect the new overlay wiring harness routing and ensure that the harness is properly secured to the original engine wire harness. Make any adjustments as required.
63. Install the throttle body air inlet tube.
64. Install the engine plastic cover.
65. Connect the negative battery cable to the battery post.
66. Connect the wiTECH scan tool to the vehicle and clear any Diagnostic Trouble Codes (DTC's).
67. Remove the wiTECH scan tool from the vehicle.
68. Close the hood.



**Figure 14 – Wheel Tightening Sequence**

**Completion Reporting and Reimbursement**

Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims submitted will be used by Chrysler to record recall service completions and provide dealer payments.

Use the following labor operation number and time allowance:

	<b>Labor Operation Number</b>	<b>Time Allowance</b>
Install battery positive wire harness overlay	08-N1-81-84	2.1 hours

Add the cost of the recall parts package plus applicable dealer allowance to your claim.

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

**Dealer Notification**

To view this notification on DealerCONNECT, select “Global Recall System” on the Service tab, then click on the description of this notification.

**Owner Notification and Service Scheduling**

All involved vehicle owners known to Chrysler are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

Enclosed with each owner letter is an Owner Notification postcard to allow owners to update our records if applicable.

**Vehicle Lists, Global Recall System, VIP and Dealer Follow Up**

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an updated VIN list of their incomplete vehicles. The owner's name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the “**Service**” tab and then click on “**Global Recall System.**” Your dealer's VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

**Dealers must perform this repair on all unsold vehicles before retail delivery.** Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

*Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.*

**Additional Information**

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services / Field Operations  
Chrysler Group LLC