



July 2014

Dealer Service Instructions for:

# **Safety Recall P23 / NHTSA 14V-235**

## **Power Inverter Module**

---

### **Models**

**2013 - 2014 (FF) Fiat 500e Battery Electric Vehicle (BEV)**

*NOTE: This recall applies only to the above BEV vehicles built from October 03, 2012 through April 04, 2014 (MDH 100307 through 040422).*

*IMPORTANT: Many of the vehicles within the above build period have already been inspected or repaired and, therefore, have been excluded from this recall.*

**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 Power Inverter Module (PIM) on about 4,100 of the above vehicles may contain cooling plates that leak coolant into areas of high-voltage circuitry. This can result in an overcurrent electrical condition, which will cause the high-voltage battery manual service disconnect fuse to open. An open high-voltage battery manual service disconnect fuse will cause a loss of vehicle propulsion and could cause a crash without warning.

### **Repair**

The Power Inverter Module must be replaced.

**Parts Information**

<u>Part Number</u>	<u>Description</u>
CBA0P231AA	Module, Power Inverter

**CBA0P232AA Power Inverter Module Installation Package**

Each package contains the following components:

<u>Quantity</u>	<u>Description</u>
1	Cover, Power Inverter
7	Screw, Power Inverter Module Cover
5	Bolt, HV Cable & Motor Cable (internal)
5	Bolt, HV Cable & Motor Cable (external)
2	Nut, 12 Volt Battery Cable
1	Bolt, Ground Strap

**Special Tools**

The following special tools are required to perform this repair:

- NPN wiTECH VCI Pod Kit
- NPN Laptop Computer
- NPN wiTECH Software
- 10288 Pliers, Hose Clamp
- 126-1587 Fluke Multi-Meter (or equivalent)
- 10420 BEV Safety Kit

**Service Procedure**

**WARNING: WHEN PERFORMING ANY REPAIRS THAT INVOLVE CONTACT WITH HIGH-VOLTAGE COMPONENTS OR SYSTEMS, THE TECHNICIAN PERFORMING REPAIRS ON THE VEHICLE MUST VERIFY THAT THE SYSTEM REMAINS POWERED DOWN DURING HIGH-VOLTAGE REPAIRS.**

- This must be done by removing the service disconnect.
- The high-voltage check out procedure must also be performed to ensure that the vehicle is properly powered down.
- The technician must know the whereabouts of the service disconnect throughout the repair.
- The technician must ensure that no one reconnects the service disconnect while service procedure is being performed.
- The technician must recheck that the service disconnect has not been reinstalled in cases where the vehicle was unattended.

**CAUTION: Because the high-voltage battery is used to charge the 12-volt battery via the power inverter module (PIM), disconnecting the 12-volt battery negative cable alone will not power-down the 12-volt system.**

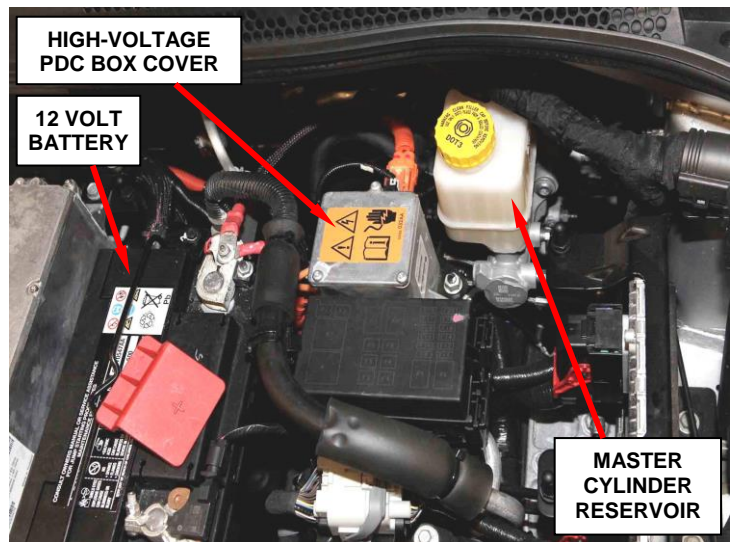
**CAUTION: Even though the high-voltage battery manual service disconnect is removed during the 12-volt power-down procedure, the 12-volt power-down procedure will NOT safely and reliably power-down the high-voltage system. If any high-voltage components are to be accessed, disconnected or tested, the high-voltage power-down procedure must first be performed.**

**WARNING: THE TECHNICIAN THAT IS PERFORMING THE REPAIR PROCEDURE MUST REMOVE ALL METAL AND PLASTIC OBJECTS FROM THEIR PERSON BEFORE BEGINNING, INCLUDING:**

- Rings
- Watches
- Necklaces and bracelets
- Belt buckles
- All jewelry

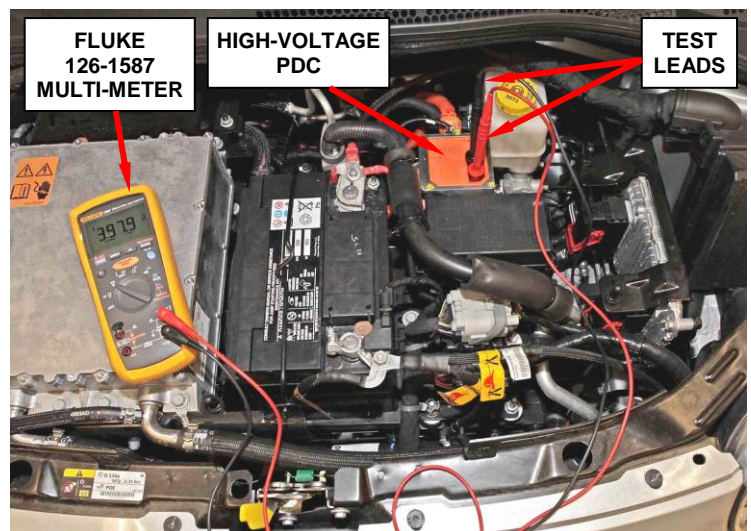
**Service Procedure (Continued)**

1. Set up safety cone barrier around the vehicle.
2. Set the vehicle up to be raised on an appropriate hoist.
3. Remove and save the electric motor plastic cover.
4. Use the following procedure to power-down the vehicle’s high-voltage electrical system:



**Figure 1 – High-Voltage PDC**

- a. Inspect all orange high-voltage cables, and high-voltage components labeled with the high-voltage symbol for physical damage. If damage is present, extra caution must be taken to avoid contact with unprotected high-voltage. Do not insert probes, tools, objects or fluids into damaged high-voltage cables or components.
- b. Verify that the multi-meter is operating correctly by measuring voltage from a known good power source, such as the vehicle’s 12-volt battery. If at any point during the procedure, the multi-meter settings are changed, or the probes are repositioned in the meter, verification with a known good power source must be repeated.
- c. Verify the vehicle’s ignition switch is in the OFF position.
- d. Remove the three high-voltage power distribution center (PDC) box cover screws and box cover (Figure 1).



**Figure 2 – Connect Multi-Meter**

- e. Using a Fluke 126-1587 multi-meter (or equivalent), insert the test leads into the positive (red) test point and the negative (black) test point in the high-voltage PDC box (Figure 2).

**Service Procedure (Continued)**

- f. Turn the ignition switch to the ON position, and measure the voltage available at the high-voltage PDC test points.
- If the reading is between 200-volts to 400-volts, proceed to Step 3G.
  - If the reading is less than 200-volts, check for DTCs in the Battery Pack Control Module (BPCM), Power Inverter Module (PIM), On-Board Charging Module (OBCM) and Electric Vehicle Control Unit (EVCU). Perform the diagnostic test procedure related to the DTC.
- g. Turn the ignition switch to the OFF position.

**CAUTION: Wait a minimum of three minutes from the time the ignition key was turned OFF before removing the manual service disconnect.**

**Before turning ignition off, open all doors and leave them open. After the ignition is off for three minutes, the high-voltage battery enters “sleep mode” and opening or closing the doors or plugging in or unplugging the Electric Vehicle Service Equipment (EVSE) will wake the high-voltage battery.**

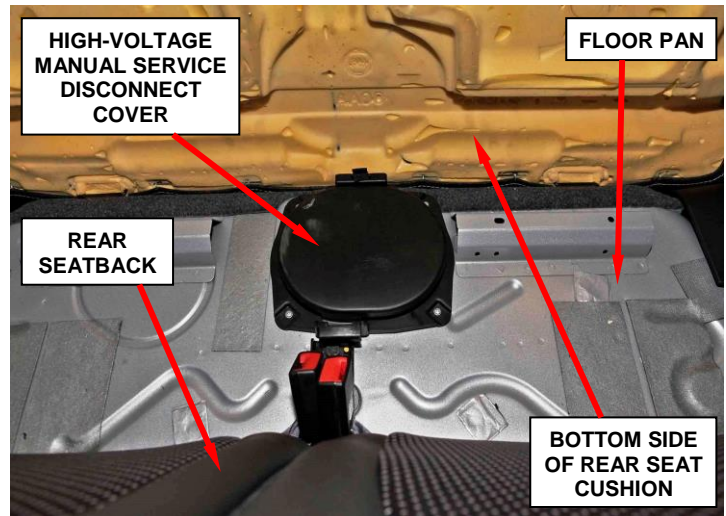
- h. Pull the rear seat cushion release strap and position the rear seat cushion away from the high-voltage manual service disconnect cover (Figure 3).



**Figure 3 – Rear Seat Cushion Release Strap**

**Service Procedure (Continued)**

- i. Release the tab and position the high-voltage manual service disconnect cover aside (Figure 4).
- j. Release the locking tab and position the high-voltage manual service disconnect release lever partially upward until it stops. Release the locking tab and position the release lever fully upward until the high-voltage manual service disconnect latch is fully disengaged (Figure 5).

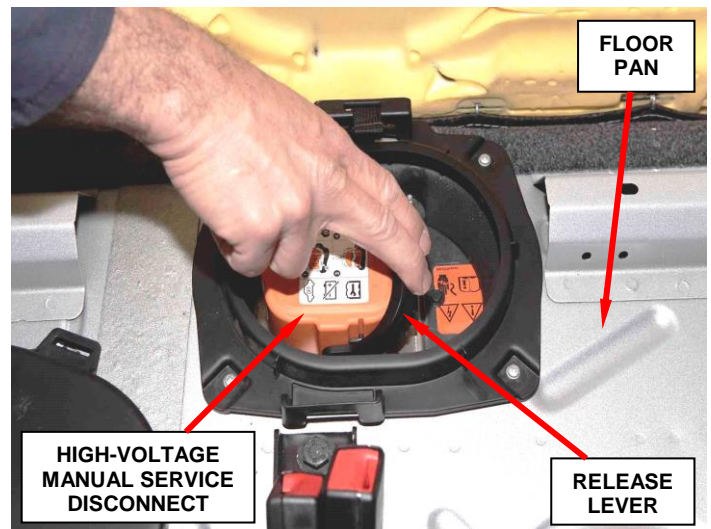


**Figure 4 – High-Voltage Manual Service Disconnect Cover**

- k. Lift upward, and remove the high-voltage manual service disconnect.

**CAUTION:** To make sure the location of the high-voltage manual service disconnect is always known when it is removed, it is recommended that the high-voltage manual service disconnect be placed in a highly visible location, such as on the vehicle antenna, when removed.

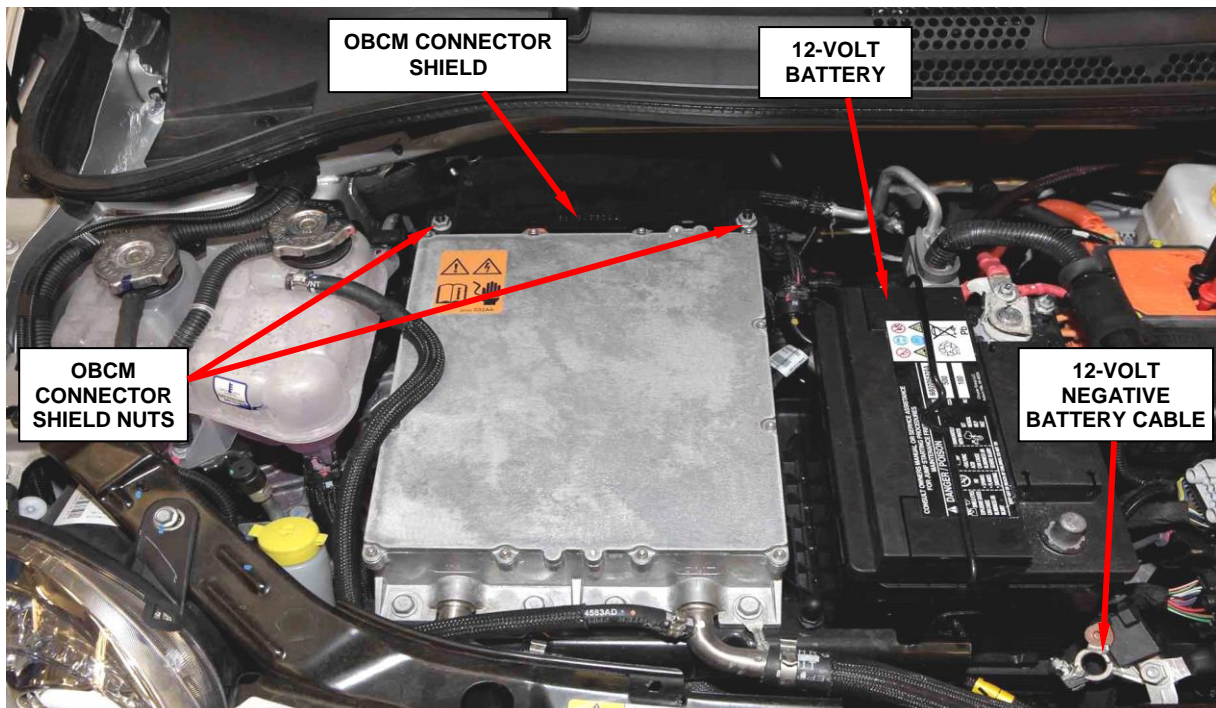
- l. Verify that the multi-meter is operating correctly by measuring voltage from a known-good power source, such as the vehicle’s 12-volt battery.
- m. Insert the appropriate multi-meter test leads into the positive (red) test point and the negative (black) test point in the high-voltage PDC.



**Figure 5 – High-Voltage Manual Service Disconnect Release Lever**

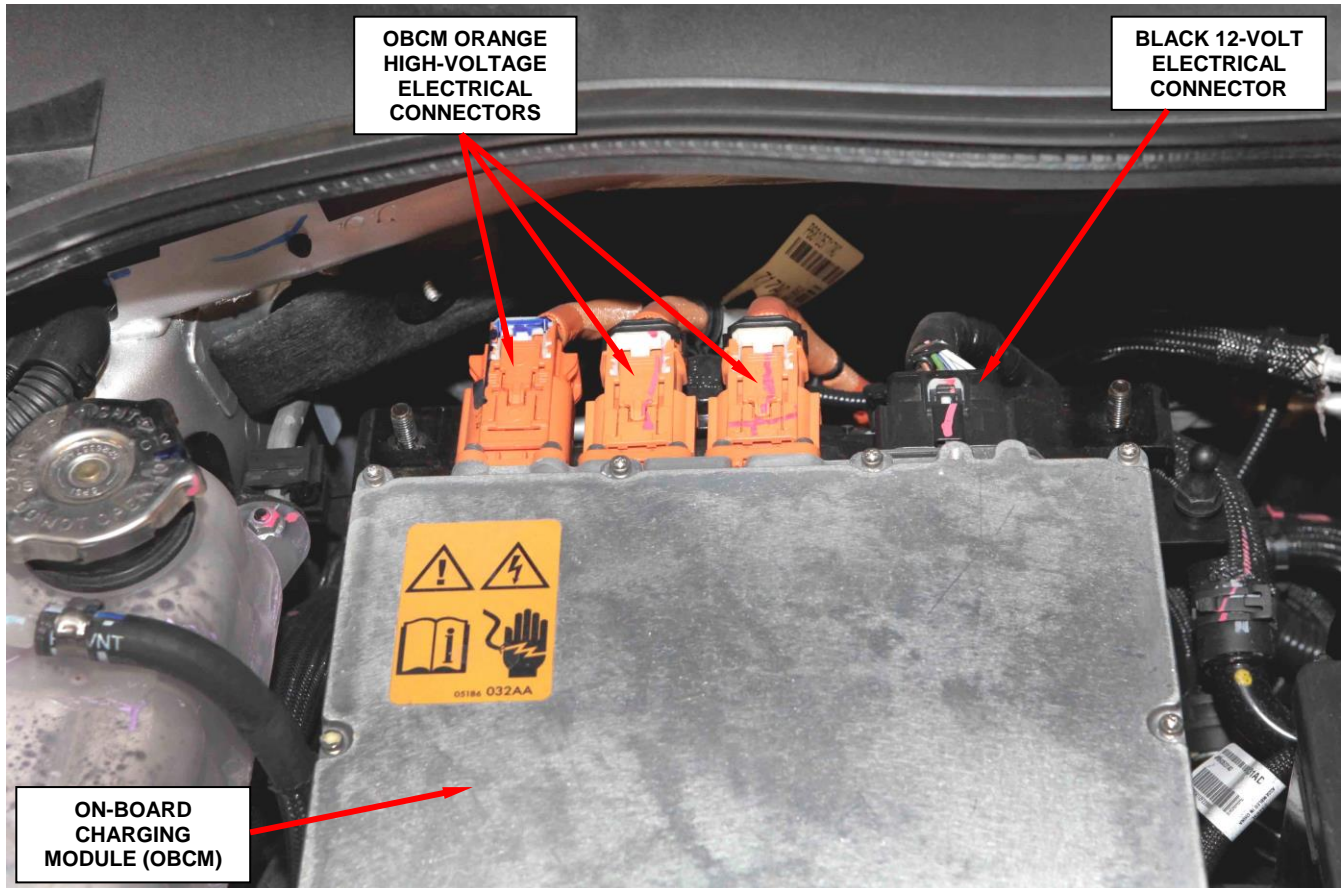
**Service Procedure (Continued)**

- n. Measure the voltage available at the high-voltage PDC test leads.
  - If the voltage measured is below 60-volts, it is safe to work on the high-voltage components with the exception of the high-voltage battery internal components. Continue to Step 5 of this procedure.
  - If the voltage is greater than 60-volts, an internal condition exists within the high-voltage battery that is preventing it from being powered down. **Do not attempt to carry out repairs on any of the vehicle's high-voltage components or wiring. Contact the STAR Center for service support.**
5. Use the following procedure to power-down the vehicle's 12-volt electrical system:
  - a. Turn the ignition switch to the OFF position, and wait five minutes to allow the high-voltage system to shut down without setting a Diagnostic Trouble Code.
  - b. Disconnect the negative 12-volt battery cable from the 12-volt battery (Figure 6).
  - c. The 12-volt electrical system is now powered down. Continue with Step 6 of this procedure.
6. Remove and save the two On-Board Charging Module (OBCM) connector shield nuts and the OBCM high-voltage electrical connector shield (Figure 6).

**Figure 6 – OBCM Electrical Connector Shield**

**Service Procedure (Continued)**

7. Disconnect the On-Board Charging Module (OBCM) black 12-volt electrical connector (Figure 7).



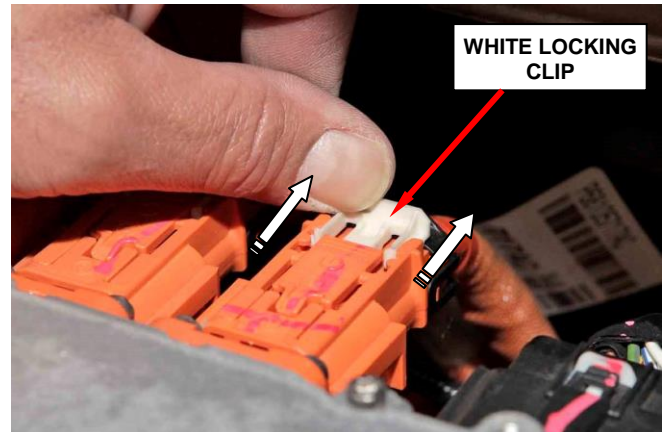
**Figure 7 – Orange OBCM High-Voltage Connectors and Black 12-Volt Connector**



**Service Procedure (Continued)**

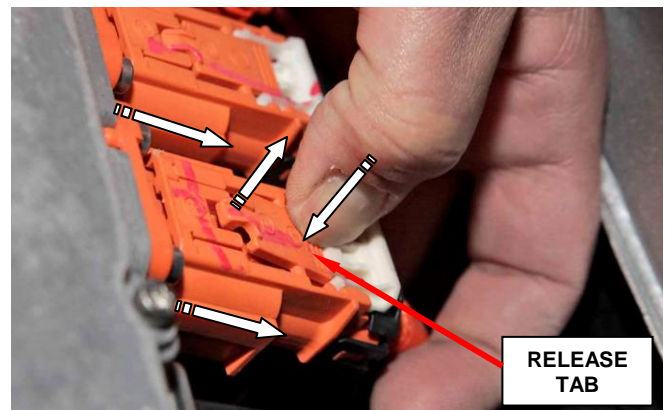
8. Use the following procedure to disconnect the three orange high-voltage electrical connectors located on the OBCM:

a. Release the orange connector white locking clip by sliding it rearward (Figure 8).



**Figure 8 – Slide White Locking Clip Rearward**

b. Depress the connector release tab, and pull back on the orange electrical connector until it stops (Figure 9).

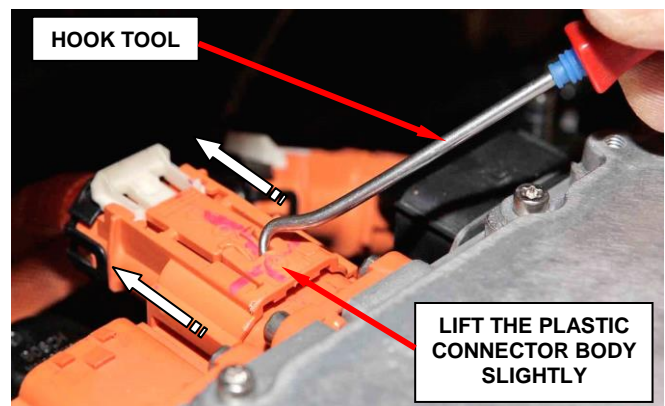


**Figure 9 – Depress Release Tab and Pull Rearward**

c. Insert a suitable hook tool to disengage the connector secondary lock, and disconnect the orange electrical connector (Figure 10).

**NOTE:** Lift the orange plastic connector body slightly with a hook tool while pulling on the connector to release.

**CAUTION:** Use extreme care not to damage the orange electrical connectors.

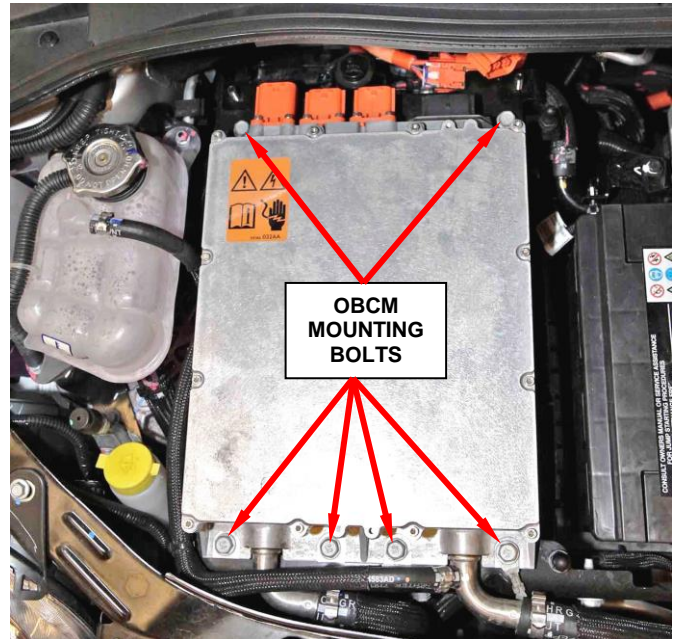


**Figure 10 – Disengage Secondary Lock**

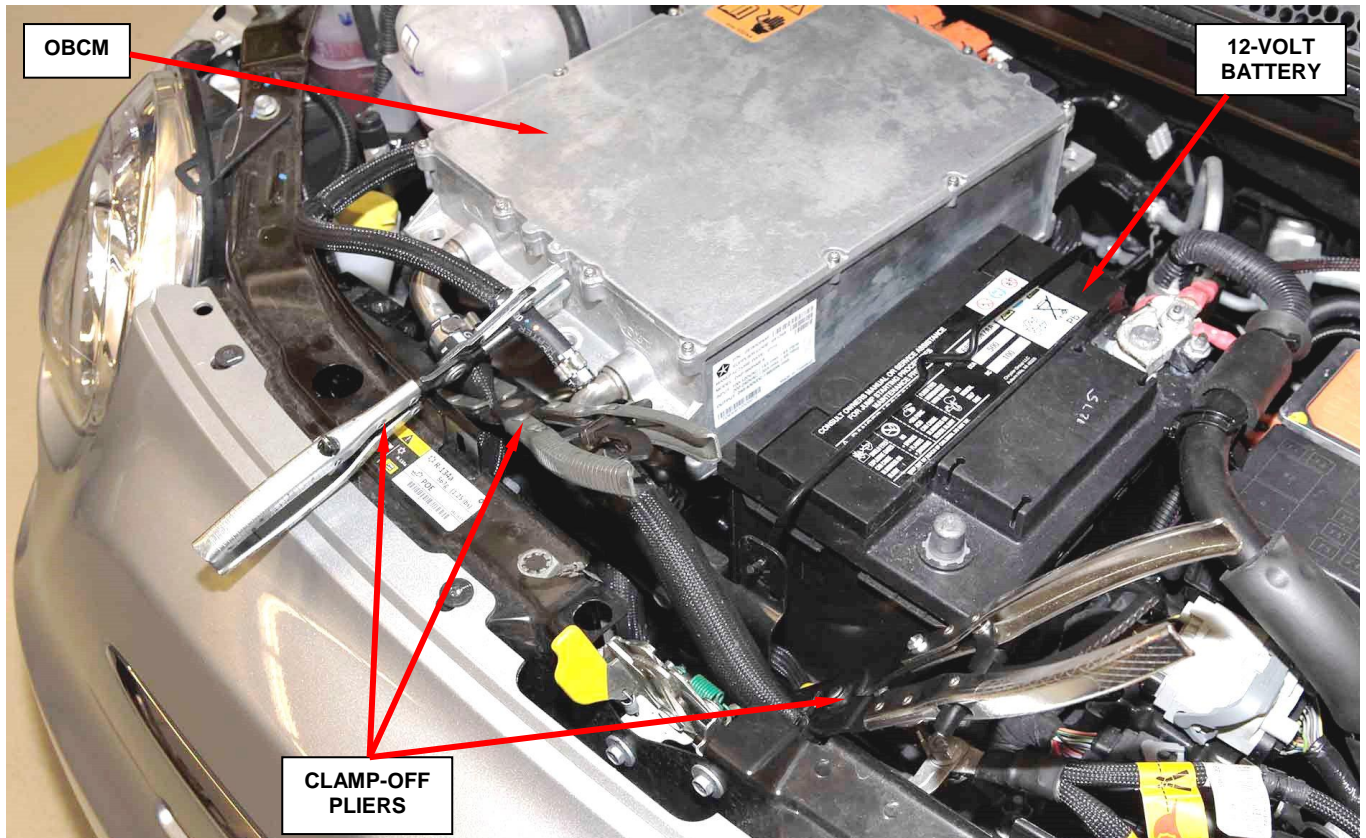
**Service Procedure (Continued)**

9. Remove and save the six OBCM mounting bolts (Figure 11).

10. Lift the OBCM and using suitable hose-pinching pliers, clamp-close the three coolant hoses at the OBCM (Figure 12).



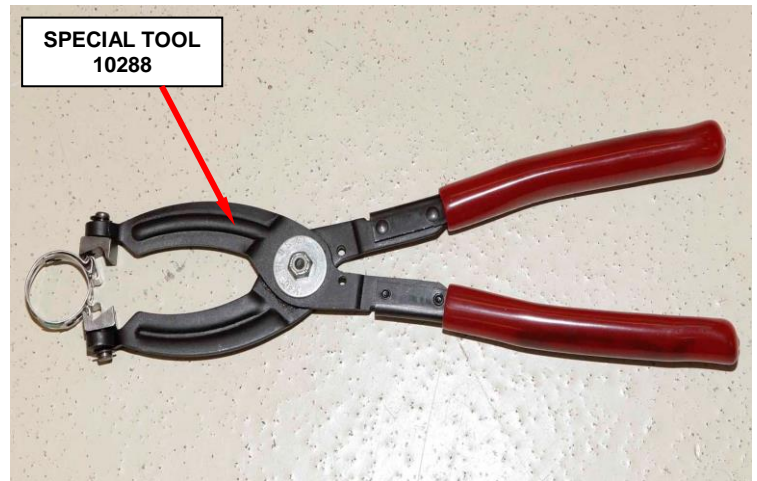
**Figure 11 – OBCM Mounting Bolts**



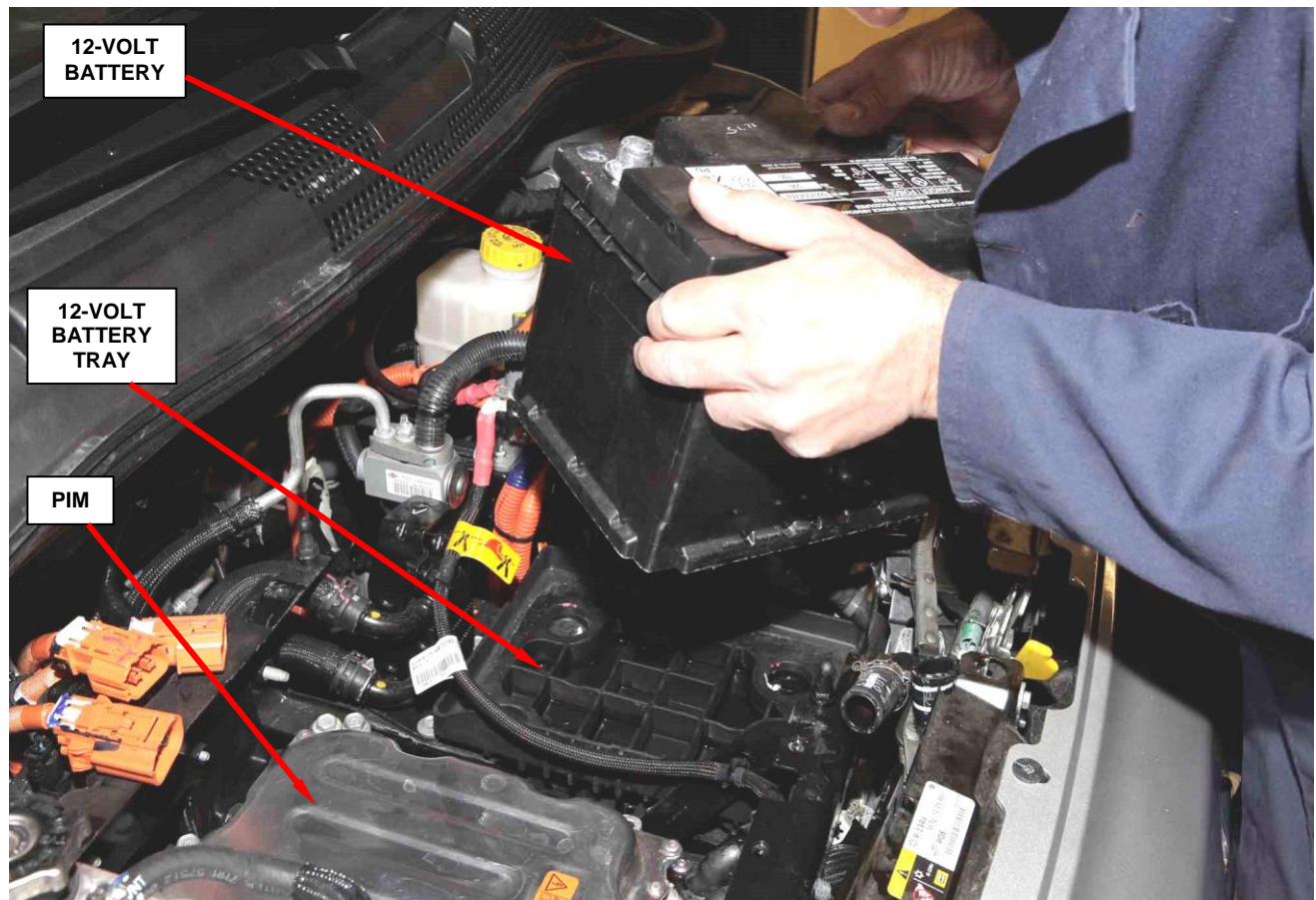
**Figure 12 – Clamp-Off the Three OBCM Coolant Hoses**

**Service Procedure (Continued)**

11. Using hose clamp pliers (special tool 10288), release the three OBCM coolant hose clamps and disconnect the hoses (Figure 13).
12. Remove and save the OBCM assembly from the vehicle.
13. Remove and save the 12-volt battery (Figure 14).
14. Remove and save the 12-volt battery tray (Figure 14).
15. Raise the vehicle on an appropriate hoist.

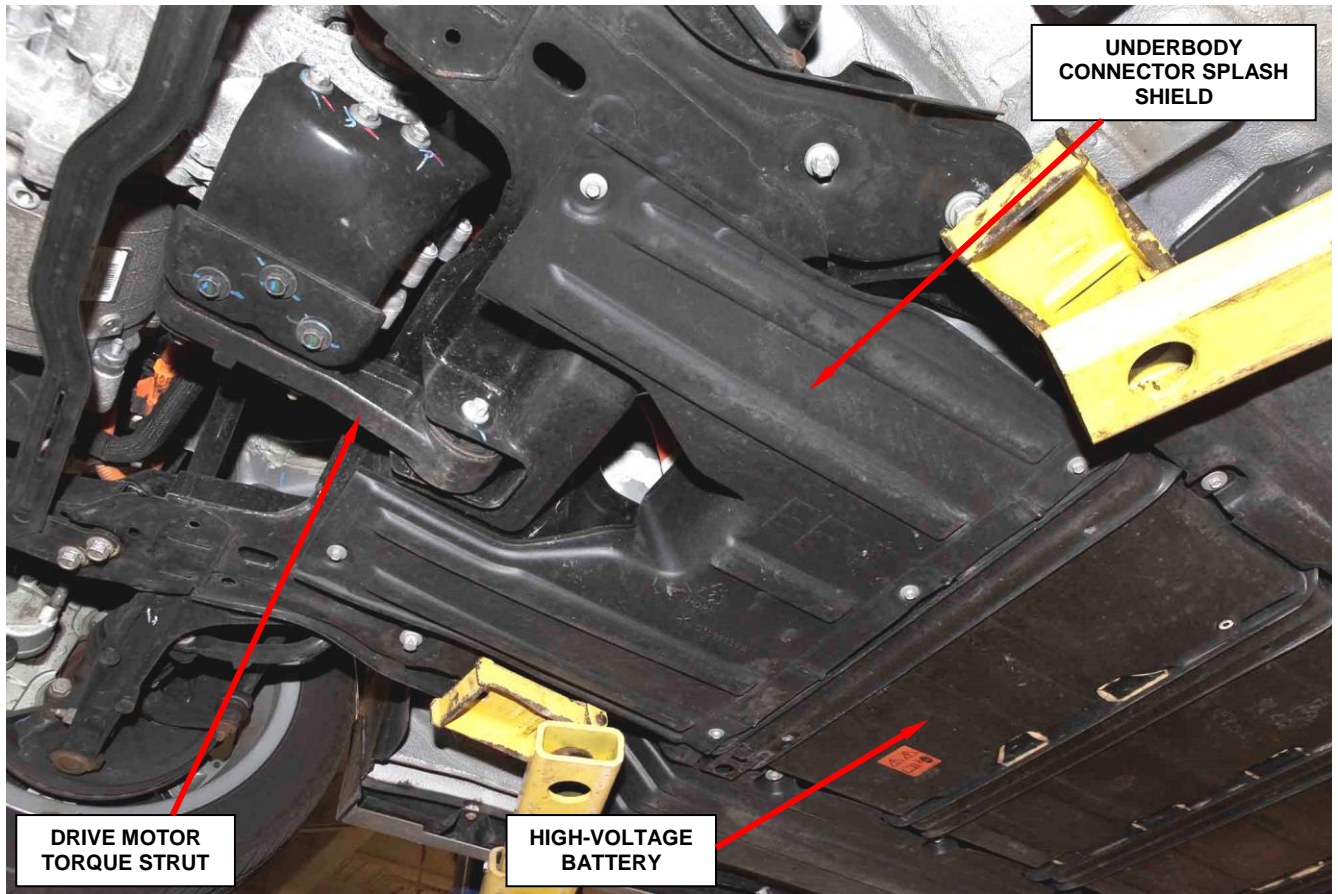


**Figure 13 – Special Tool 10288**



**Figure 14 – 12-Volt Battery and Battery Tray**

**Service Procedure (Continued)**

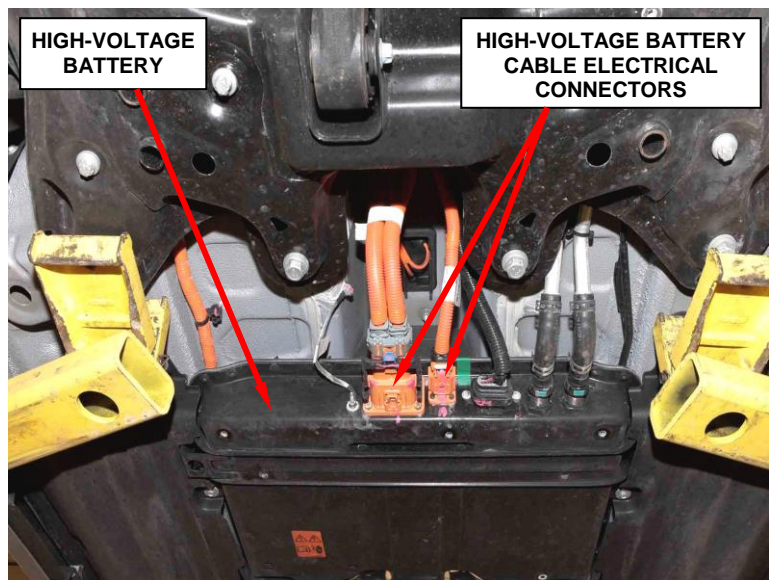


**Figure 15 – Underbody High-Voltage Connector Splash Shield**

16. Remove and save the underbody high-voltage connector splash shield (Figure 15).

17. Disconnect the two high-voltage battery cable electrical connectors (Figure 16).

**CAUTION:** Use extreme care not to damage the orange electrical connectors.

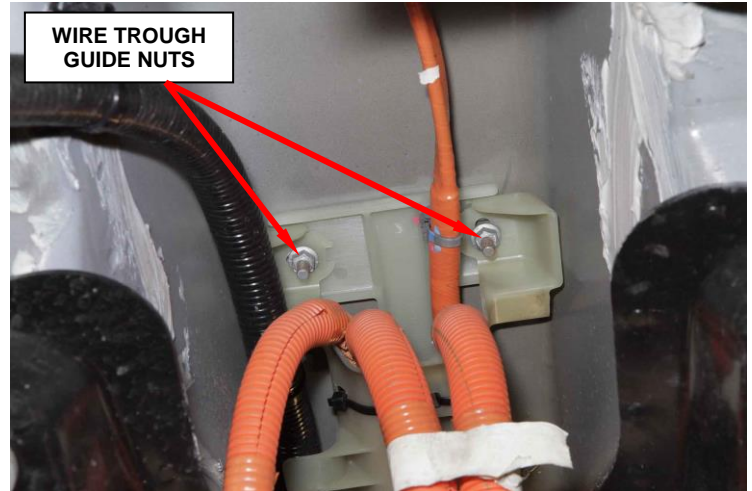


**Figure 16 – High-Voltage Battery Cable Electrical Connectors**

**Service Procedure (Continued)**

18. Remove and discard the two nuts from the wire trough guide (Figure 17). The wire trough guide is located in the underbody tunnel just to the rear of the motor cradle. **Do not reuse the nuts.**

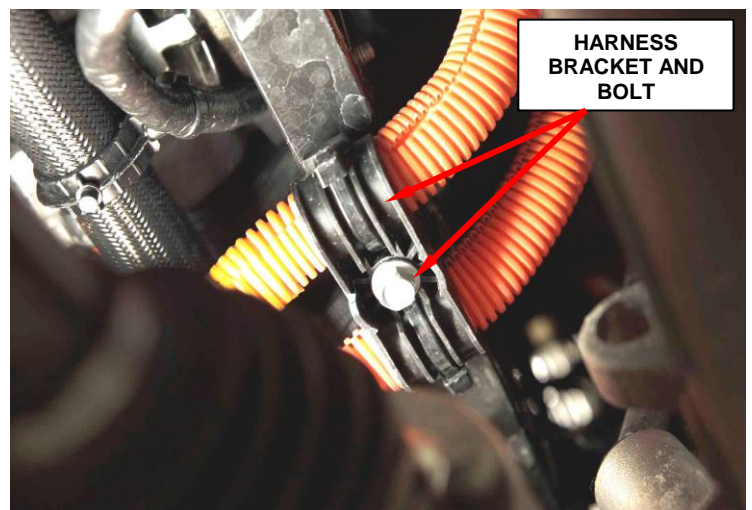
**NOTE:** Prior to cutting the four tie-straps attaching the high-voltage battery cable harness, note the locations to allow new tie-straps to be installed during installation.



**Figure 17 – Wire Trough Guide Nuts**

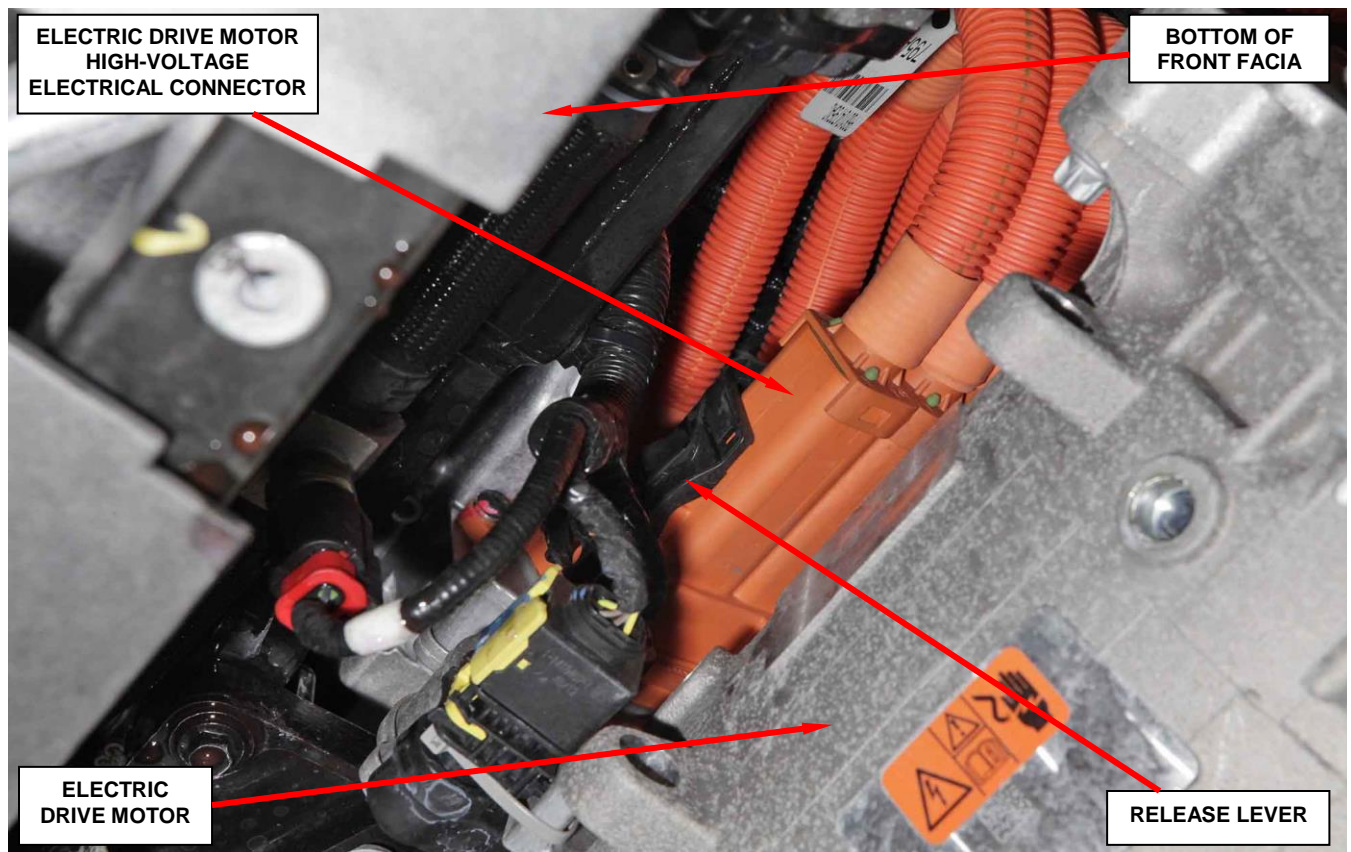
19. Cut and discard the four tie-straps attaching the PIM high-voltage wiring harness to the vehicle.

20. Remove the PIM high-voltage battery cable harness bracket bolt, and detach the bracket from the harness (Figure 18).



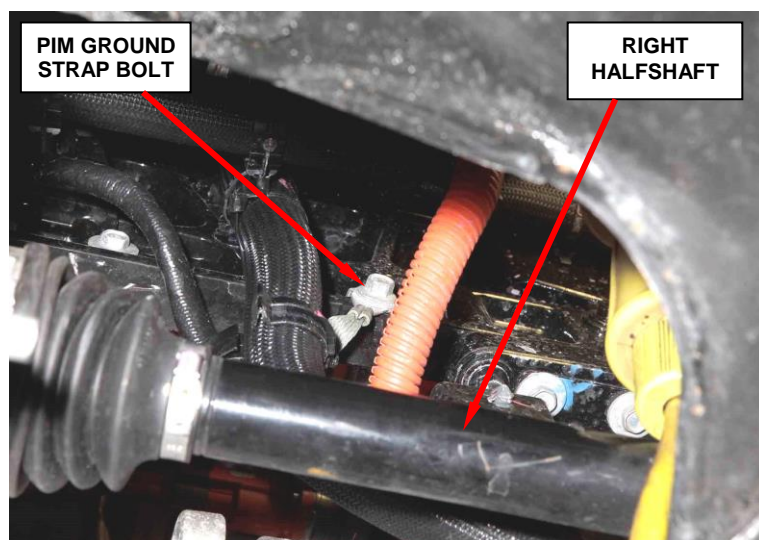
**Figure 18 – Harness Bracket and Bolt**

**Service Procedure (Continued)**



**Figure 19 – Electric Drive Motor High-Voltage Electrical Connector (view from under the vehicle)**

21. Disconnect the electric drive motor high-voltage electrical connector, and position the connector upward to allow the PIM to be repositioned (Figure 19).
22. Remove the PIM ground strap bolt (Figure 20).
23. Lower the vehicle from the hoist.



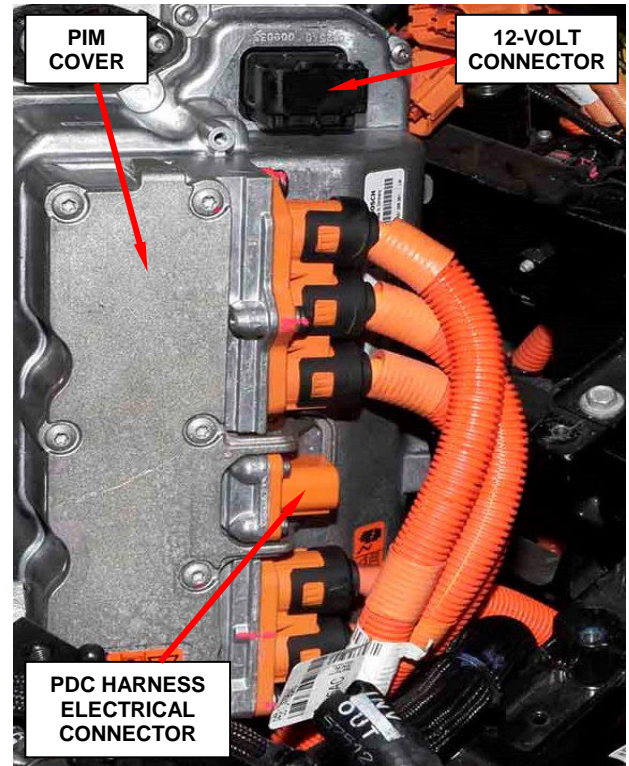
**Figure 20 – PIM Ground Strap**

**Service Procedure (Continued)**

24. Use the following procedure to disconnect the high voltage Power Distribution Center (PDC) harness high-voltage electrical connector **at the PIM** (Figure 21).

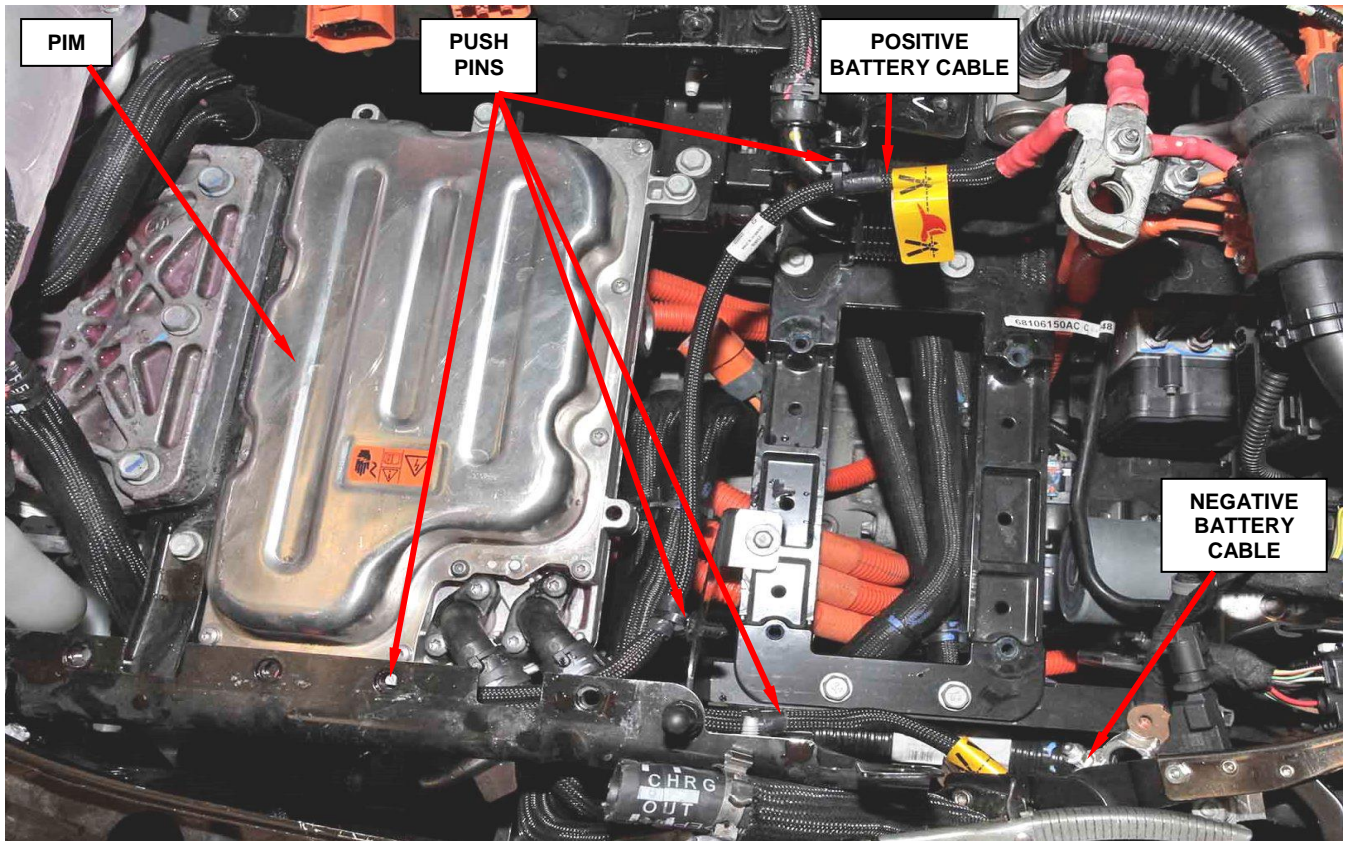
**CAUTION:** The high voltage Power Distribution Center (PDC) harness high-voltage electrical connector is very difficult to access. It is located between the two high-voltage battery cables and the three high-voltage electric drive motor cables on the bottom side of the PIM housing. Extreme patience and perseverance is required.

- a. Release the connector red locking clip.
- b. Depress the connector release tab, and pull back on the electrical connector until it stops.
- c. Insert a suitable tool to disengage the connector secondary lock, and disconnect the electrical connector



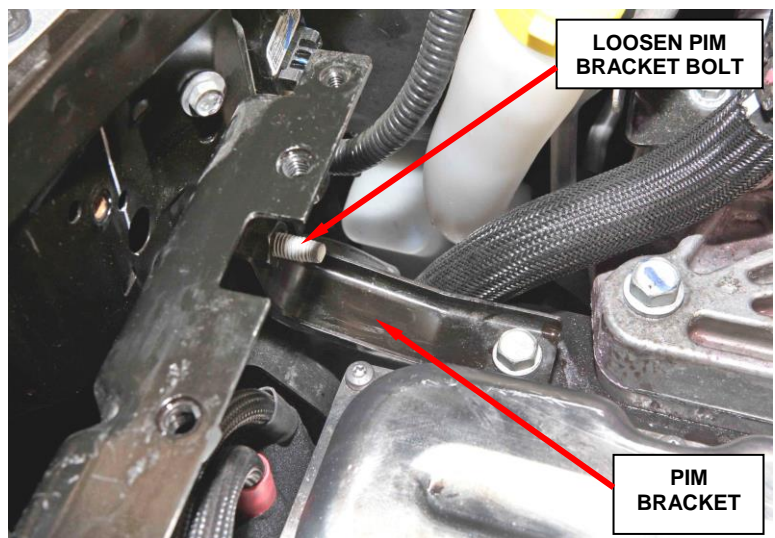
**Figure 21 – PDC Harness High-Voltage Electrical Connector (bottom view of PIM)**

**Service Procedure (Continued)**



**Figure 22 – Battery Cable Push-Pins**

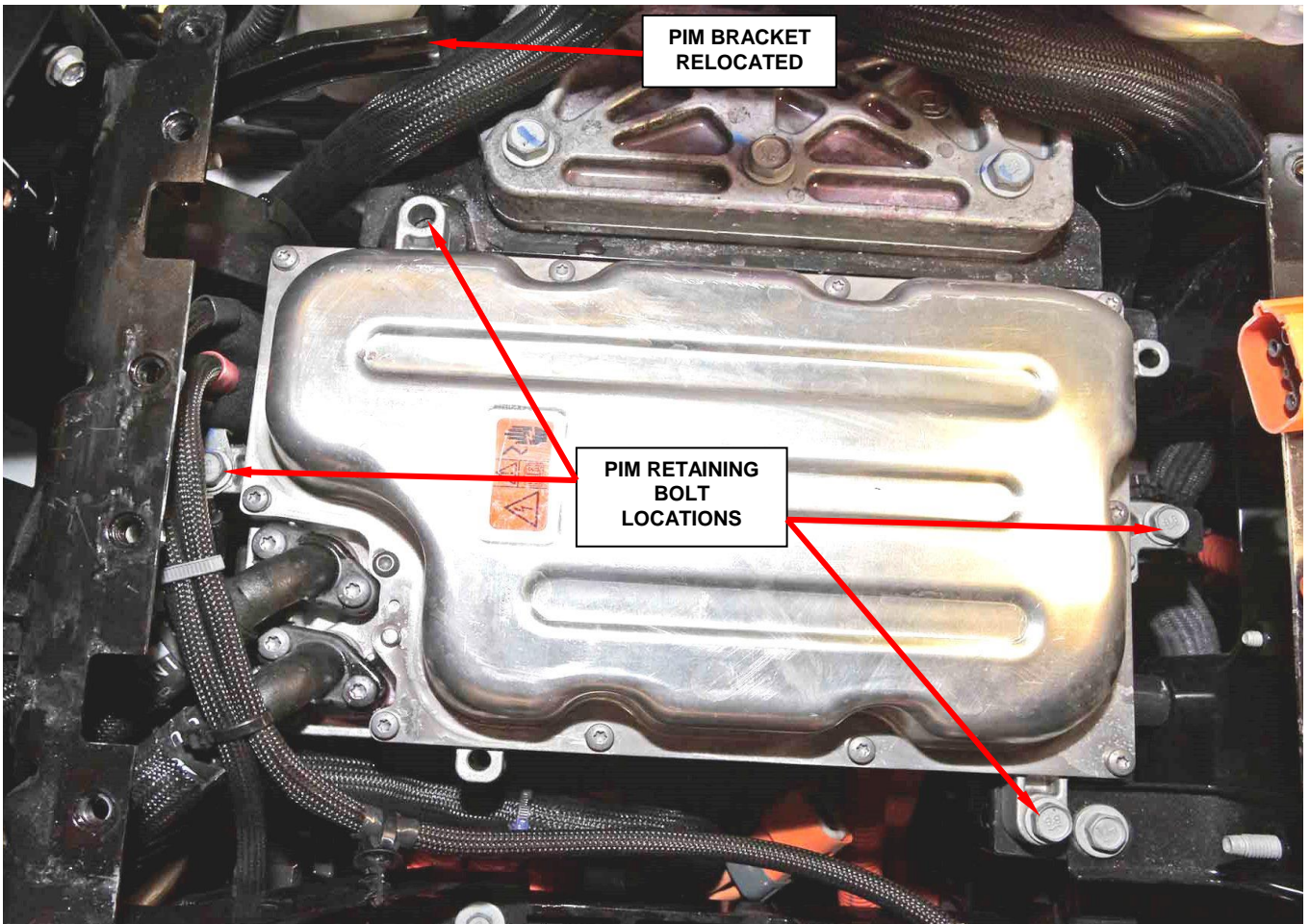
- 25. Detach the positive and negative PIM-to-battery 12-volt battery cable push-pin retainers (Figure 22).
- 26. Loosen, but do not completely remove the PIM bracket bolt forward of the cradle front support (Figure 23).



**Figure 23 – PIM Bracket Bolt**



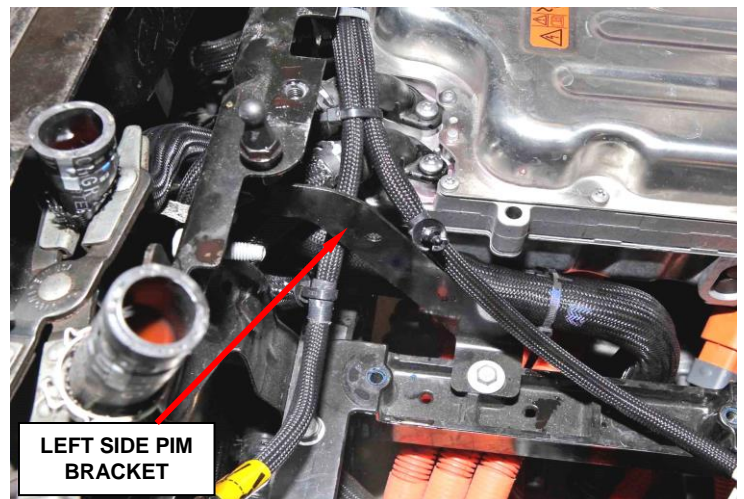
**Service Procedure (Continued)**



**Figure 24 – PIM Retaining Bolts**

27. Remove and save the four PIM retaining bolts (Figure 24).

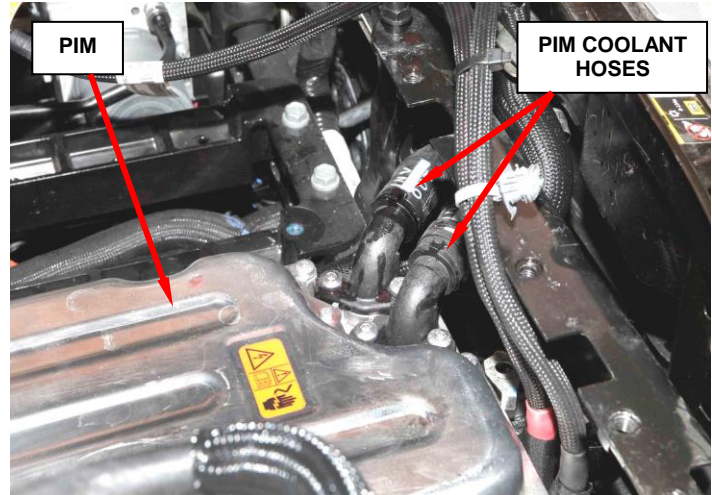
28. Remove and save the left side PIM bracket (Figure 25).



**Figure 25 – Left Side PIM Bracket**

**Service Procedure (Continued)**

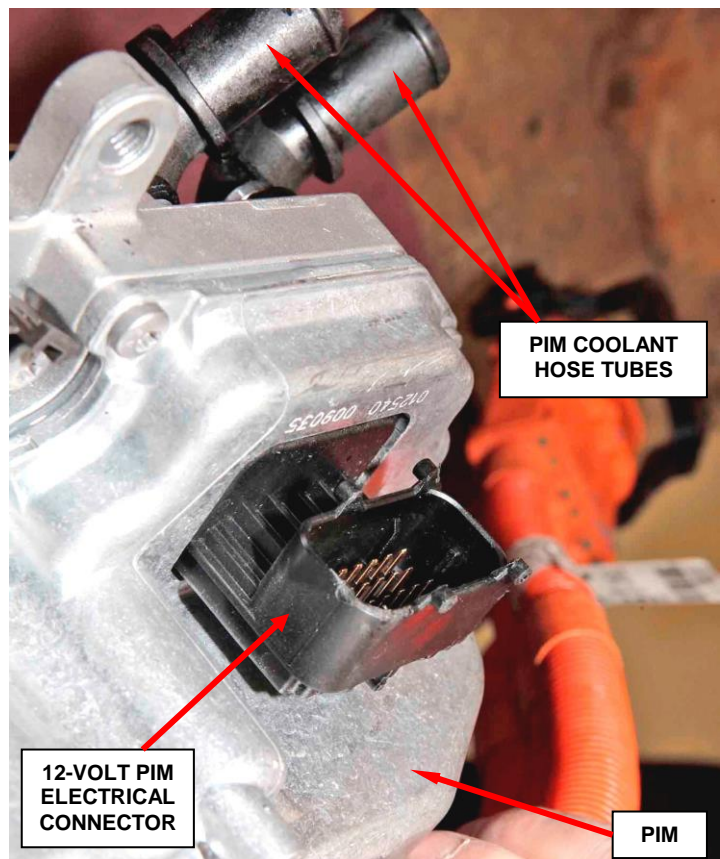
29. Disconnect the PIM coolant hoses from the PIM (Figure 26).



**Figure 26 – PIM Coolant Hoses**

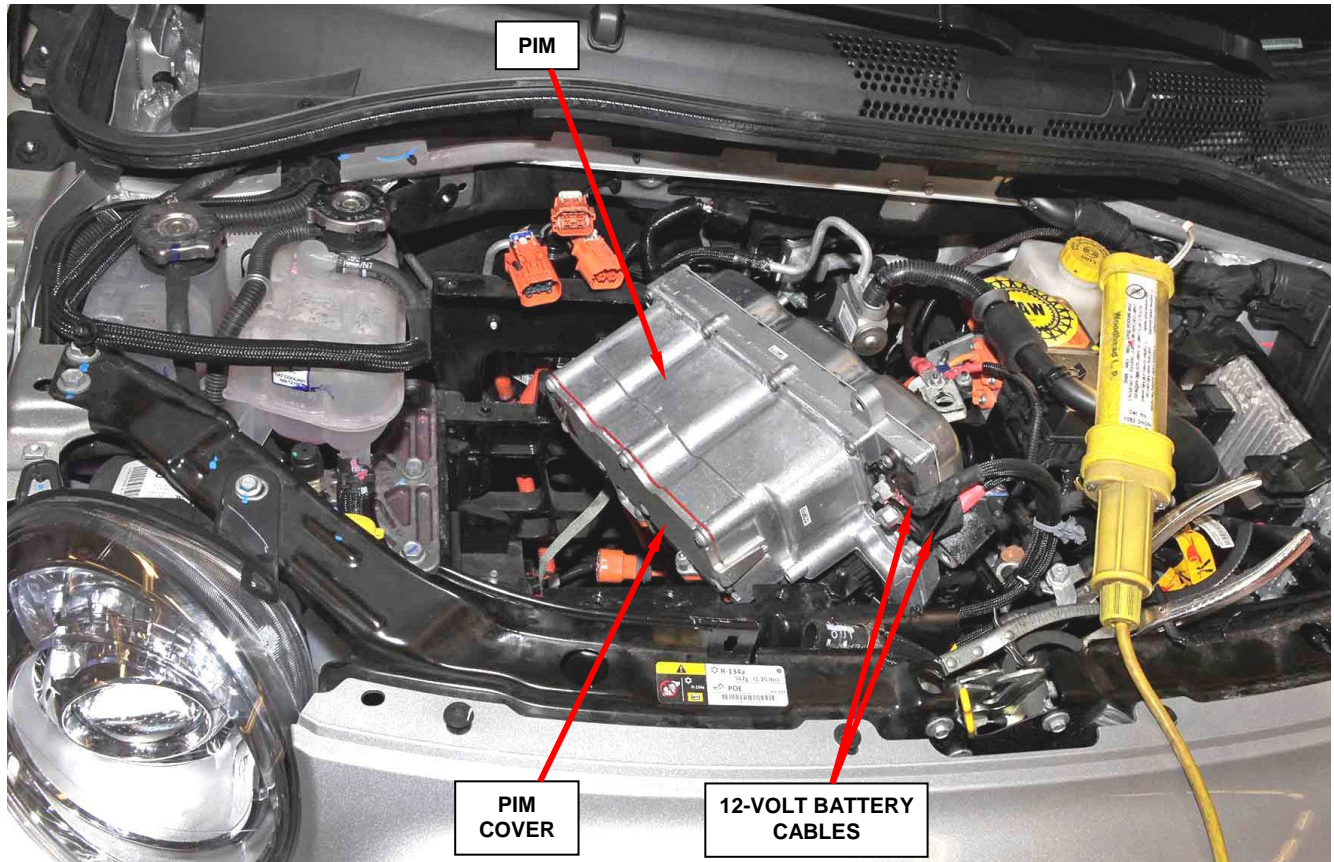
30. Disconnect the PIM black 12-volt electrical connector (Figure 27).

**CAUTION:** The 12-volt electrical connector must be removed prior to rotating the PIM in order to gain access to the PIM cover and high-voltage cables. Slightly rotate the PIM in order to gain access to the 12-volt electrical connector. Do not rotate the PIM 180 degrees with the 12-volt electrical connector attached to the PIM. Doing so will pull the wires out of the connector.



**Figure 27 – PIM Black 12-Volt Electrical Connector**

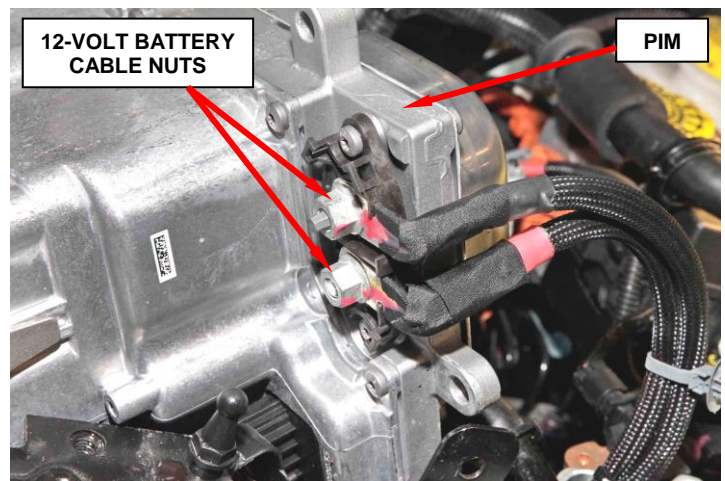
**Service Procedure (Continued)**



**Figure 28 – Rotate the PIM**

31. Rotate the PIM to gain access to the PIM cover and 12-volt battery cable nuts (Figure 28).

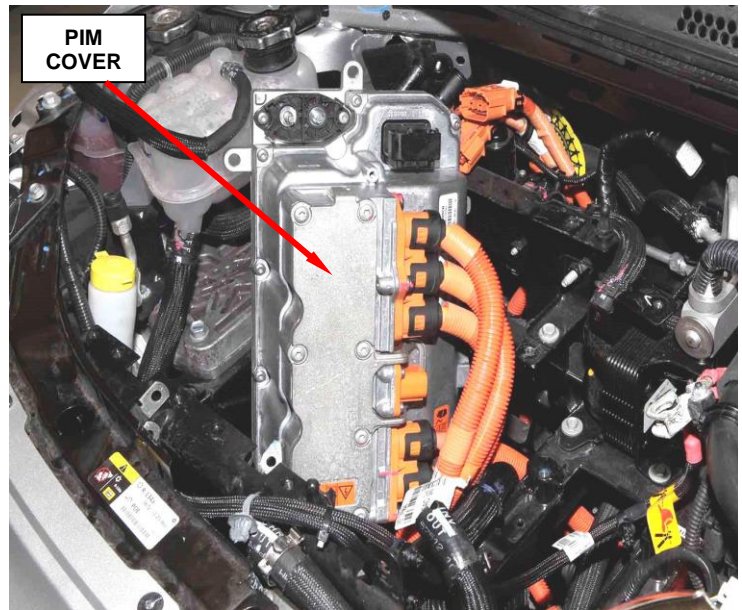
32. Remove and discard the two PIM 12-volt battery cable nuts and detach the cables from the PIM (Figure 29). **Do not reuse the nuts.**



**Figure 29 – 12-Volt Battery Cable Nuts**

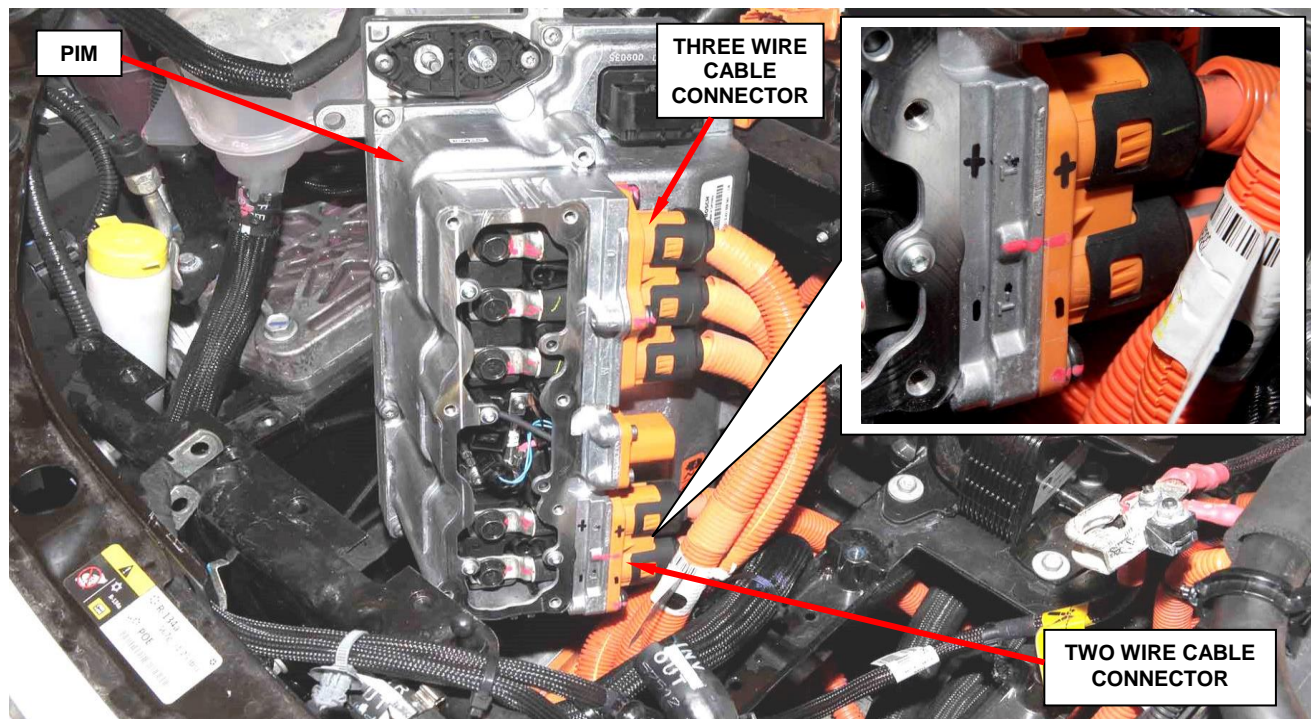
**Service Procedure (Continued)**

33. Remove and discard the seven PIM cover screws and the PIM cover (Figure 30). **The PIM cover and screws must be replaced.**
34. Using a permanent marker, draw a minus symbol on the two wire cable connector surfaces to match with the minus (negative) symbol on the PIM case (Figure 31).
35. Using a permanent marker, draw a plus symbol on the two wire cable connector surfaces to match with the plus (positive) symbol on the PIM case (Figure 31).



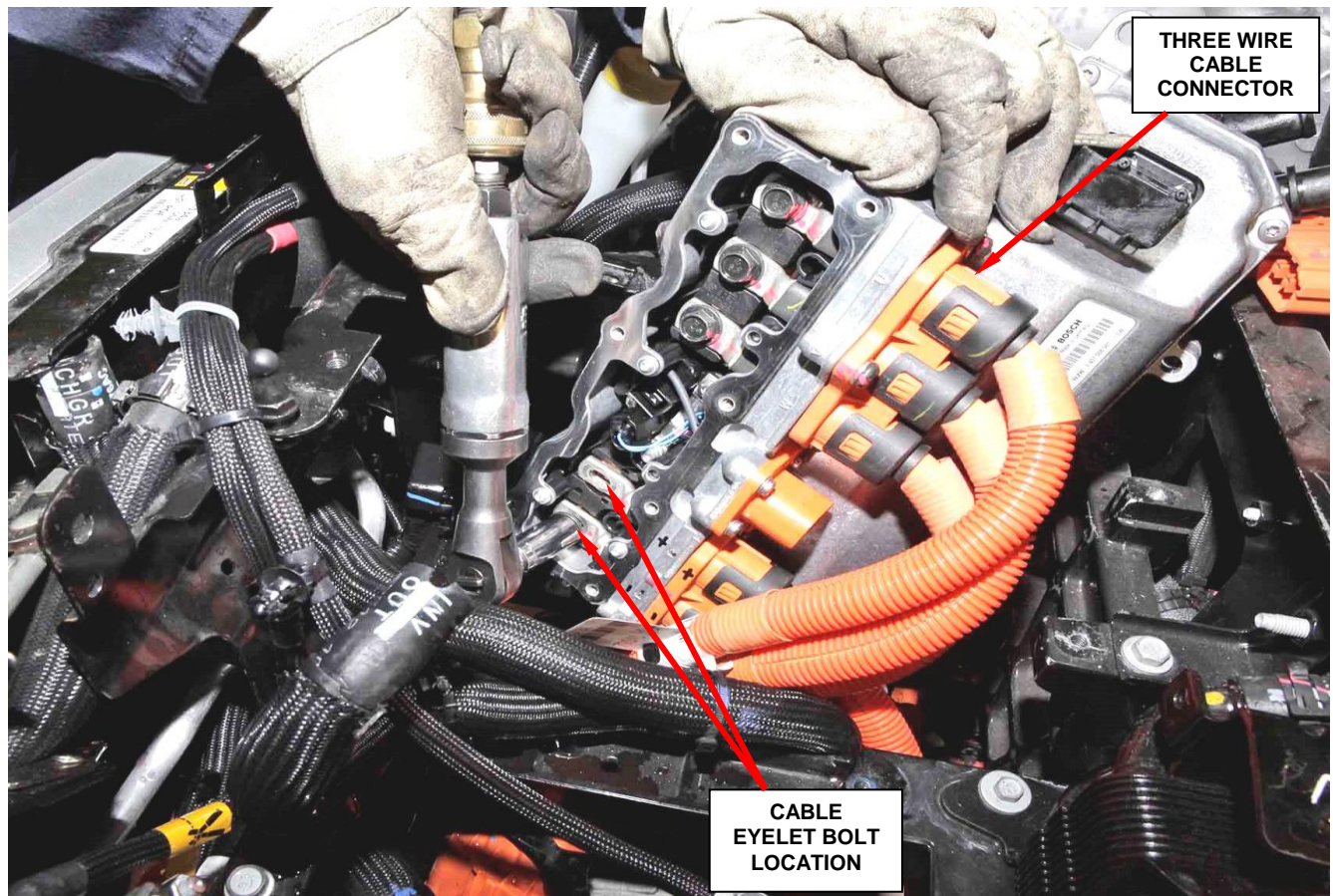
**Figure 30 – PIM Cover**

**CAUTION: Failure to identify and label the high-voltage cables correctly can result in improper reassembly which could result in high-voltage battery failure.**



**Figure 31 – Mark Two Wire Cable Connector**

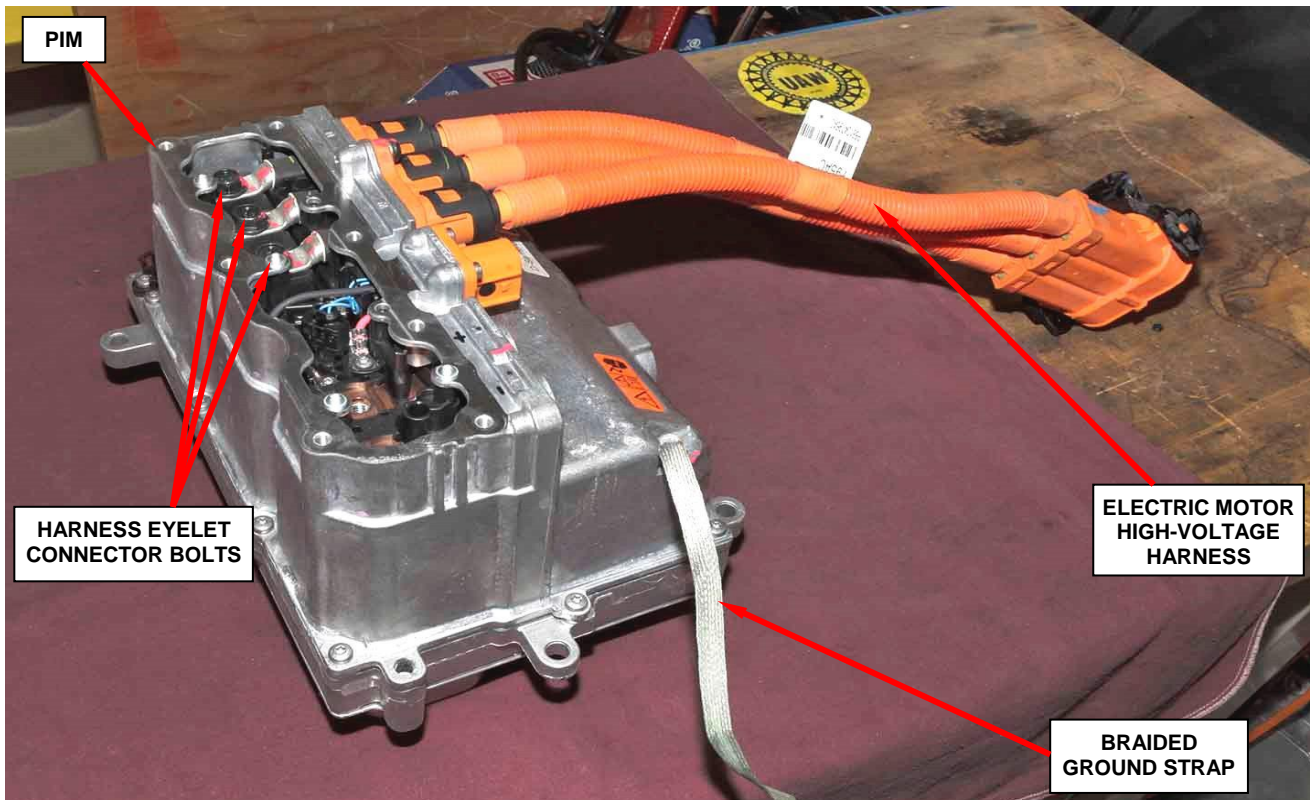
**Service Procedure (Continued)**



**Figure 32 – Two High-Voltage Cable Eyelet Bolts**

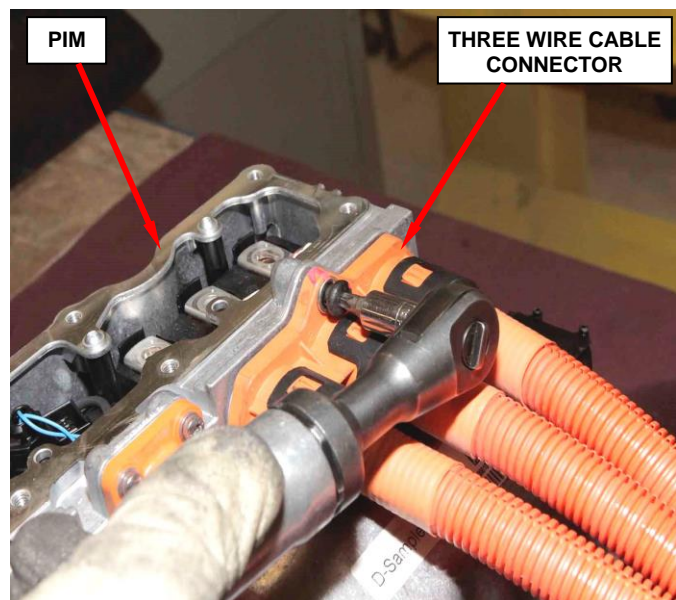
36. Remove and discard the two high-voltage cable eyelet bolts (Figure 32). **Do not reuse the bolts.**
  
37. Remove the two high-voltage battery connector guide bracket retaining screws at the PIM, and detach the cables from the PIM.
  
38. Remove the original PIM from the vehicle with the three wire electric motor high-voltage harness still attached (Figure 32).

**Service Procedure (Continued)**



**Figure 33 – Transfer Three Wire Electric Motor High-Voltage Harness**

- 39. Remove and discard the three wire electric motor high-voltage harness eyelet connector bolts (Figure 33). **Do not reuse the bolts.**
- 40. Remove and save the three electric motor high-voltage harness cable connector screws (Figure 34).
- 41. Detach and save the electric motor high-voltage harness from the PIM (Figure 33).
- 42. Transfer the PIM braided ground strap onto the new PIM (Figure 33).



**Figure 34 – Cable Connector Screws**

**Service Procedure (Continued)**

43. Install the three wire electric motor high-voltage harness into the new PIM.

**CAUTION: When properly installed, the eyelets will have a downward travel to ensure a positive contact with the PIM high-voltage contacts. When properly installed, the connector face locator will be in the upper position.**

44. Install the three wire electric motor high-voltage harness guide bracket screws (Figure 34).

45. Install three **NEW** high-voltage harness eyelet connector bolts (Figure 33).

**CAUTION: Make sure the three high-voltage harness cables are not twisted by ensuring the eyelets have a downward travel to properly align with the PIM contacts.**

46. Tighten the three eyelet electric motor high-voltage harness connector bolts to 18 ft. lbs. (24 N·m).

47. Using a permanent marker, transfer the “+” and “-“ marks made on the original PIM housing to the same location on the new PIM housing (Figure 31).

48. Place the new PIM into position in the vehicle with the PIM cover opening facing upward.

49. With the PIM opening upright, position the 2-wire high-voltage battery connector into the PIM with the locator pin at the top of the guide bracket connector.

**CAUTION: Make sure the locator pin is aligned with the locator bore. While mating the surfaces, make sure the pin easily seats into the bore. Also verify the “+” and the “-“ symbols align (Figure 31).**

50. Fully seat the connector guide bracket into the slot of the PIM case.

51. Install the two high voltage battery connector guide bracket retaining screws. Tighten the screws to 15 ft. lbs. (20 N·m).

**Service Procedure (Continued)**

52. Install two **NEW** high-voltage cable eyelet bolts.

**CAUTION: Make sure the high-voltage harness cables are not twisted by ensuring the eyelets have a downward travel to properly align with the PIM contacts.**

53. Tighten the two high-voltage cable eyelet bolts to 18 ft. lbs. (24 N·m).

54. Install a **NEW** PIM cover. Install seven **NEW** PIM cover screws (Figure 30). Tighten the screws to 71 in. lbs. (8 N·m).

55. Attach the 12-volt battery cables to the studs (Figure 29). **Make sure the positive cable (RED) is attached to the stud with the “+” symbol. Make sure the negative cable (BLACK) is attached to the stud with the “-” symbol on the (PIM) case.** Install two **NEW** nuts to the studs and tighten the nuts to 15 ft. lbs. (20 N·m).

56. Using compressed air, blow out any coolant that may have spilled into the 12-volt connector. Be sure to blow out the connector receptacle on the PIM and the wire harness connector.

57. Connect the PIM black 12-volt electrical connector (Figure 27).

58. Place the PIM in the installed position.

59. Place the right side PIM bracket into position (Figure 23).

60. Install and tighten the four PIM retaining bolts to (18 ft. lbs. 24 N·m) (Figure 24).

61. Tighten the PIM bracket bolt forward of the cradle front support to 18 ft. lbs. (24 N·m) (Figure 23).

62. Install the left side PIM bracket.

63. Attach the negative and positive PIM-to-battery 12-volt battery cable push-pins retainers (Figure 22).



**Service Procedure (Continued)**

64. Connect the Power Distribution Center (PDC) harness high-voltage electrical connector at the PIM (Figure 21).
65. Raise the vehicle on an appropriate hoist.
66. Install and tighten the PIM ground strap bolt to 9 ft. lbs. (12 N·m) (Figure 20).
67. Connect the electric motor high-voltage electrical connector (Figure 19).
68. Install the PIM high-voltage battery cable harness bracket, and the high-voltage battery cable harness bracket bolt (Figure 18).
69. Install new tie-straps on the high-voltage battery cable harness in the locations noted during removal.
70. Position the wire trough guide into position over the two underbody studs (Figure 17). Install the **NEW** nuts to secure the trough guide. Tighten the two nuts to 87 in. lbs. (10 N·m).

**CAUTION: Be sure to engage the wire trough locking clips.**

71. Using compressed air, blow off the high-voltage battery cable electrical connectors.

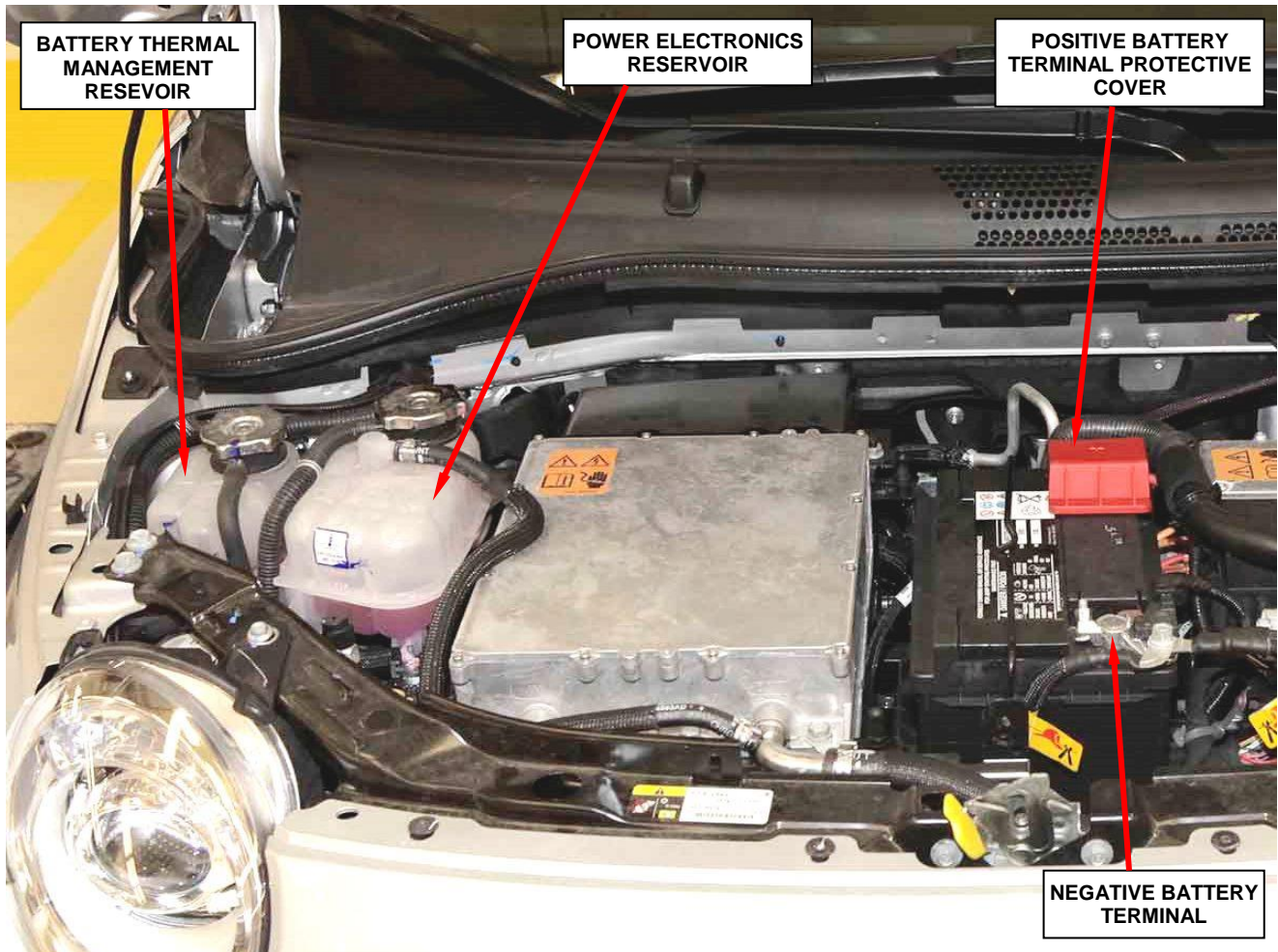
**CAUTION: Failure to ensure that no dirt is in the high-voltage battery cable electrical connectors could result in a connector breaking during installation.**

72. Connect the two high-voltage battery cable electrical connectors at the high-voltage battery (Figure 16).
73. Install the underbody high voltage connector splash shield (Figure 15).
74. Lower the vehicle on the hoist.
75. Attach the two PIM coolant hoses to the PIM, and install the clamps (Figure 26).

**Service Procedure (Continued)**

76. Use the following procedure to install the On-board Charging Module (OBCM):
  - a. Install the OBCM and the six OBCM mounting bolts (Figure 11).
  - b. Install the hose clamps on the three OBCM coolant hoses, connect the three hoses to the OBCM and tighten the clamps.
  - c. Remove the pinch-off pliers from all three coolant hoses (Figure 12).
  - d. Connect the three OBCM high-voltage orange electrical connectors and the OBCM black 12-volt electrical connector (Figure 7).
  - e. Install the OBCM connector shield, and the two OBCM connector shield nuts (Figure 6).
77. Install the 12-volt battery tray (Figure 14).
78. Install the 12-volt battery (Figure 14). Do not connect the battery terminal cables to the battery at this time.
79. Use the following procedure to power-up the high-voltage system:
  - a. Connect a voltmeter (special tool Fluke 126-1587) to the high-voltage Power Distribution Center (PDC) (Figure 2).
  - b. Align the manual service disconnect with the manual service disconnect socket on the high-voltage battery, and install the manual service disconnect with the handle in the upright position (Figure 5).
  - c. Rotate the manual service disconnect handle downward until it is fully engaged and locked by the locking tab.
  - d. Gently pull the manual service disconnect upward to ensure that it is fully seated in the socket and locked.
  - e. Install the high-voltage manual service disconnect cover (Figure 4).
  - f. Install the rear seat cushion (Figure 3).

**Service Procedure (Continued)**



**Figure 35 – Power Electronics Reservoir**

80. Top-off the power electronics reservoir (Figure 35).
  
81. Connect the 12-volt positive battery cable to the 12-volt positive battery post and install the terminal protective cover (Figure 35).
  
82. Connect the 12-volt negative battery cable to the 12-volt negative battery post.

**Service Procedure (Continued)**

83. Using the procedure below, perform the Resolver Relearn procedure:
- a. Raise the vehicle until the front tires are approximately 12 inches (30 cm.) off the ground.
  - b. Connect the wiTECH scan tool to the diagnostics connector.
  - c. Place the ignition key in the “ON” position.
  - d. Clear all Diagnostic Trouble Codes (DTC’s).

**NOTE: Two active DTC’s will be present (code B23AE-00 PIM Fault and P0C17-00 Drive Motor A Position Sensor 1 not learned).**

- e. Enter the vehicle and **make sure the vehicle doors are closed** to prevent the automatic “Shift-to-Park” function from engaging during the test.
- f. Turn off the Electronic Stability Control (ESC) button on the instrument panel.

**NOTE: If the ESC button will not disable the ESC system, turn the ignition key to the “OFF” position and remove the key. Wait three minutes and then insert the key and turn the ignition to the “RUN” position.**

- g. Switch the vehicle to READY mode.
- h. Select “**EVCU**” from the vehicle view screen.
- i. Select “**Misc. Functions**” tab.
- j. Select “**Motor Resolver Offset Learn**” from the list.
- k. Follow the step-by-step instructions on the wiTECH scan tool screen.

**Service Procedure (Continued)**

84. Bleed the power electronics cooling system using wiTECH and the following procedure:
  - a. Fill the power electronics coolant reservoir to the MAX FILL level.
  - b. Select “EVCU” from the vehicle view screen.
  - c. Select “Misc. Functions” tab.
  - d. Select “High Voltage Battery Coolant Fill” from the list.
  - e. Follow the step-by-step instructions on the wiTECH scan tool screen.

**CAUTION: As the coolant filling routine is running, monitor the power electronics coolant reservoir and fill the coolant level as necessary.**

- f. Place the key in the OFF position and remove the wiTECH pod from the vehicle.
85. With the key off, wait three minutes for the high-voltage battery to power down.
86. With the voltmeter reading below 5 volts, remove the voltmeter from the high-voltage PDC.
87. Install the high-voltage PDC box cover and three fasteners. Tighten the fasteners to 18 in. lbs. (2 N·m).
88. Install the electric motor plastic cover using the following procedure:
  - a. Position the plastic cover over the four mounting posts.
  - b. Using palm pressure, push down onto the cover at the four points above the posts until fully seated.
  - c. Pinch the power electronics coolant reservoir return hose and insert into the notch.
89. Remove the vehicle from the hoist and return the vehicle to the customer.

**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>
Replace the Power Inverter Module (PIM)	08-P2-31-82	3.5 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