June 2020

Dealer Service Instructions for:

Safety Recall W46 / NHTSA 20V-334 12-Volt Isolator Post Connection (Interim Repair)

These are Interim repair instructions and performing this service on a vehicle will not close the recall. The recall will remain open, which prohibits the sale of affected vehicles until the Final remedy is available and performed.

In addition to performing this repair on sold vehicles, dealers must perform this Interim repair on all unsold vehicles and follow the precautionary measures as outlined below until Final remedy is performed.

Interim Repair Available

2017-2020 (RU) Chrysler Pacifica PHEV

NOTE: This campaign applies only to the above Plug-In Hybrid Electric Vehicles (PHEV)

NOTE: Some vehicles above may have been identified as not involved in this recall 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 the FINAL recall service on these vehicles before retail delivery. Dealers should also consider this requirement to apply to used vehicle inventory and should perform the FINAL recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

Subject

In some circumstances, the 12-volt isolator post on about 22,580 of the above vehicles may experience a high resistance electrical connection. The root cause of this high resistance connection is not known at this time. High resistance electrical connections can lead to prolonged heating and a potential vehicle fire with the vehicle on or off. A vehicle fire may increase the risk of injury to occupants and persons outside of the vehicle, as well as property damage.

It is advised to exercise the following precautions until the vehicle has the final repair completed: do not park these vehicles inside of buildings or structures and avoid parking near other vehicles. In addition, keep liquids out of the backseat area, including but not limited to beverages, wet items, umbrellas, or bottled liquids that may leak.

Interim Repair

The final remedy for this condition is not currently available. Customers should bring their vehicles to dealers for an **interim** inspection of the 12-volt isolator post connection joint. In the event the joint is compromised, a loaner vehicle will be provided.

If the vehicle meets the requirements to be returned to the customer after the interim inspection, it is still advised to exercise the precautions mentioned above until the **final** remedy is established.

Alternate Transportation

Dealers should attempt to minimize customer inconvenience by placing the owner in a loaner vehicle if inspection determines that the 12-volt isolator post connection joint is compromised and vehicle must be held until the final remedy for this condition is available.

Parts Information

No parts are required to perform this interim inspection of the 12-volt isolator post connection.

Parts Return

No parts return required for this campaign.

Special Tools

The following special tools are required to perform this repair:

➢ NPN	wiTECH MicroPod II
➢ NPN	Laptop Computer
➢ NPN	wiTECH Software
➢ NPN	Multimeter
➢ 10084 / 2035110082	Cover, Terminal Protective
➢ 2035101082	Cover, HEV Battery Terminal

Service Procedure

A. 12-Volt Power Down

1. Position the vehicle on a suitable hoist which will allow access to the belly pan for removal later in this procedure.

2. Position the driver seat fully forward for improved access to the 12-volt isolator post connection (Figure 1).

Figure 1 – Position Seat Forward

3. Open the left side sliding door for access to the high-voltage manual service disconnect.

4. Open the rear liftgate for access to the 12-volt battery.

   NOTE: Positon driver seat forward and open vehicle doors prior to powering down the electrical system.

5. Open the hood for 12-volt Power Distribution Center (PDC) access.

Service Procedure [Continued]

<u>This procedure must be performed by a PHEV trained technician</u>.

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. Strictly adhere to the following procedures:

- **To ensure that the vehicle is properly powered down, remove the service disconnect.**
- **The technician must always know the location of the service disconnect throughout the repair.**
- **The technician must ensure that no one reconnects the service disconnect while service is being performed.**
- **Any time the vehicle is unattended, prior to continuing with repair work, the technician must recheck that the service disconnect has not been reinstalled.**

NOTE: Because the high-voltage battery is used to charge the 12-volt battery via the Auxiliary Power Module (APM), disconnecting the 12-volt battery negative cable will not power down the 12-volt system. The following procedure must be performed before any repairs, disassembly, or testing requiring 12-volt power down are carried out.

NOTE: 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 carried out

Service Procedure [Continued]

6. Turn the ignition to the OFF position, and wait five minutes to allow the high-voltage system to shut down without setting a fault code.

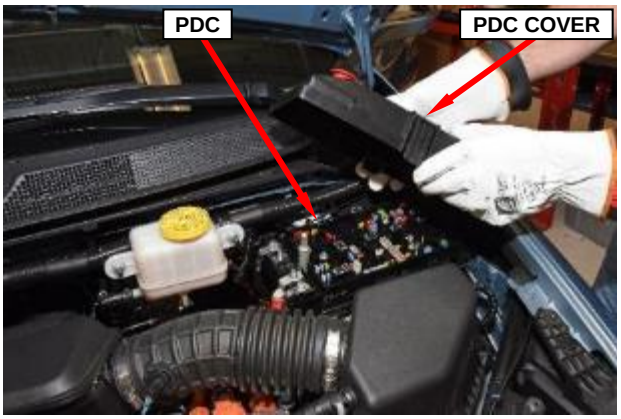

Figure 2 – Power Distribution Center

7. Remove and save the 12-volt Power Distribution Center (PDC) cover (Figure 2).

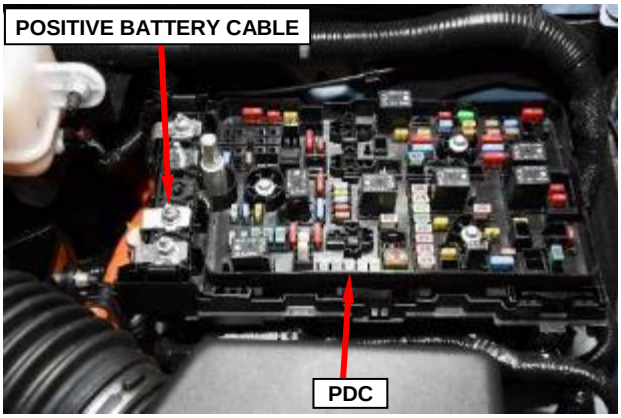

Figure 3 – Positive Battery Cable

8. Remove and save the nut securing the positive battery cable, then disconnect the positive battery cable from the 12-volt PDC (Figure 3).

9. Isolate the positive battery cable terminal with protective cover 10084 (2035110082 equivalent) (Figure 4).

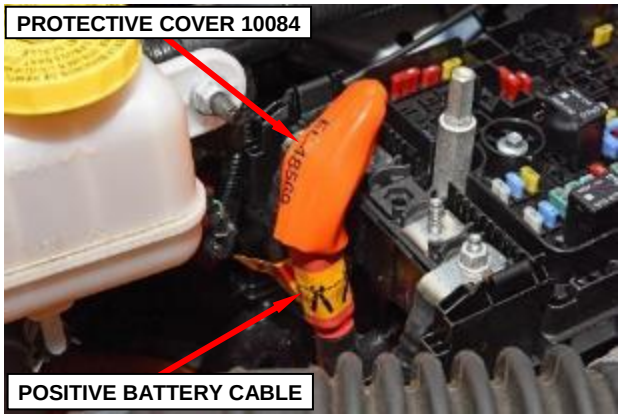

Figure 4 – Cover Cable Terminal

Service Procedure [Continued]

10. Lift the carpet away from the high-voltage manual service disconnect access cover (Figure 5).

Figure 5 – Vehicle Carpet

11. Remove and save the four screws securing the high-voltage manual service disconnect access cover to the floor then remove and save the cover (Figure 6).

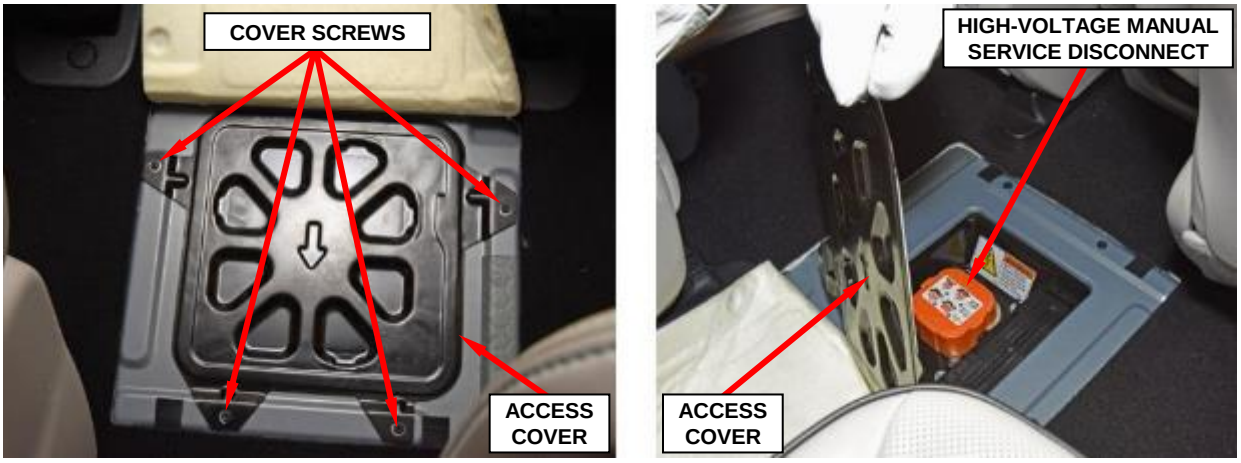

Figure 6 – High-Voltage Manual Service Disconnect Access Cover

Service Procedure [Continued]

12. Depress the lever release latch firmly. With the latch fully depressed, rotate the lever upward. The lever will stop at the 45° position (Figure 7).

    NOTE: At this stage, the High Voltage Inter-Lock (HVIL) connection has been broken and the circuit is de-energized.

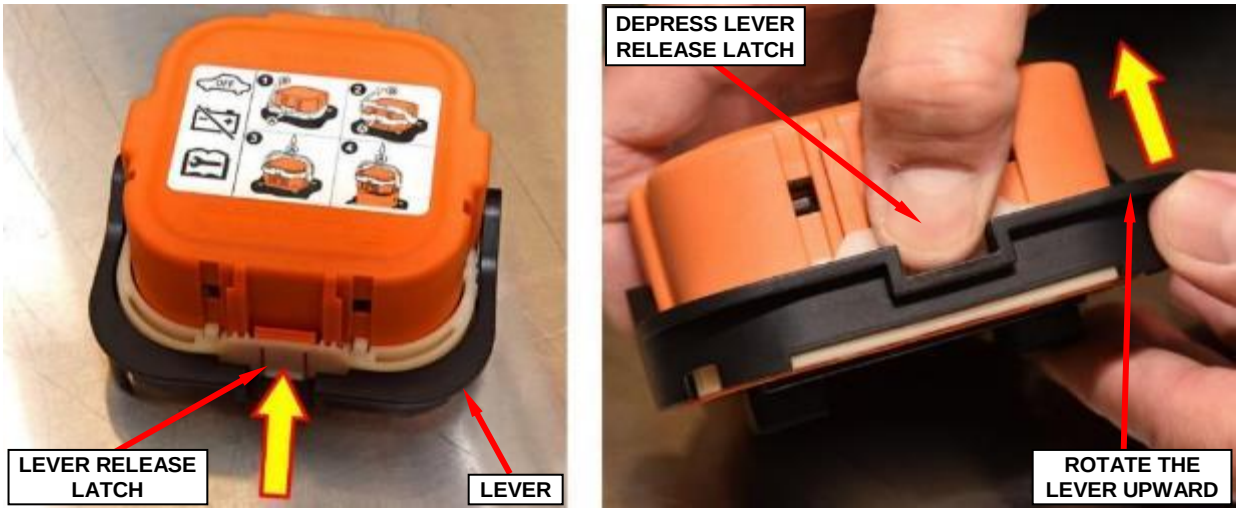

Figure 7 – High-Voltage Manual Service Disconnect First Stage Latch Release

(High-Voltage Manual Service Disconnect Removed from Vehicle for Visual Clarity)

13. Depress the locking tab and continue to rotate the lever to the end of travel, 90° position (Figure 8).

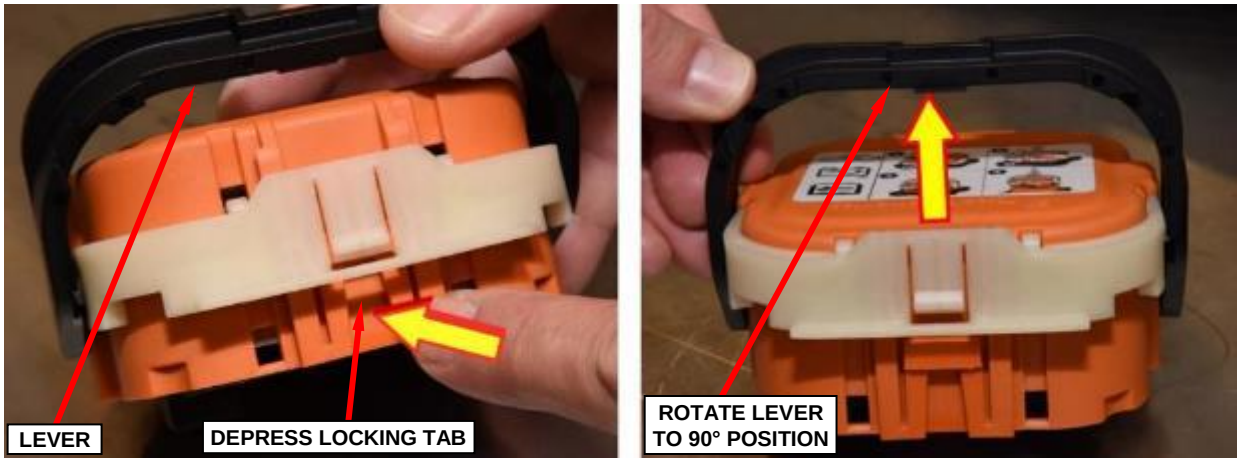

Figure 8 – High-Voltage Manual Service Disconnect Second Stage Latch Release

(High-Voltage Manual Service Disconnect Removed from Vehicle for Visual Clarity)

Service Procedure [Continued]

14. Pull straight up on the service disconnect lever to disengage and remove the high-voltage manual service disconnect from the receptacle (Figure 9).

    NOTE: Make sure the location of the high-voltage manual service disconnect is always known after removal. It is best practice to place the high-voltage manual service disconnect in a highly visible location when removed.

Figure 9 – High-Voltage Manual Service Disconnect and Receptacle

15. Cap the receptacle on the high-voltage battery with safety cover 2035101082 to prevent foreign objects from entering the receptacle (Figure 10).

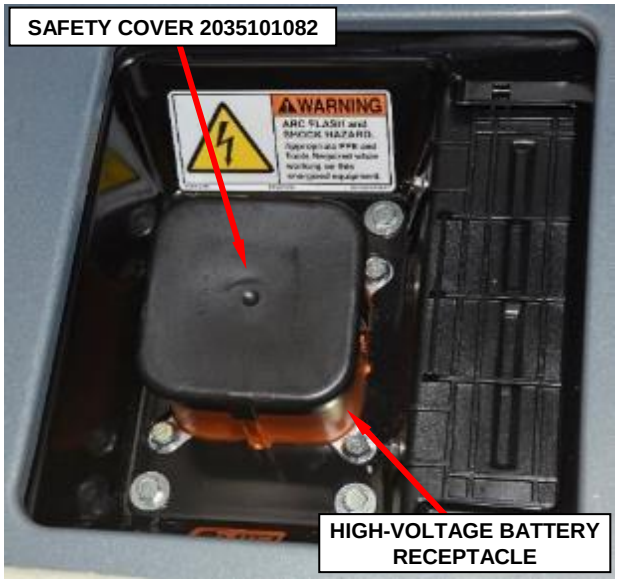

Figure 10 – High-Voltage Battery Receptacle Safety Cover

16. Check the 12-Volt system at the Power Distribution Center (PDC) with a multimeter to ensure there is less than 1-Volt present. If so, the 12-volt electrical system is now powered down.

    NOTE: A small voltage reading of less than 1-Volt is to be expected as system capacitors slowly discharge. If more than 1-Volt is still present, contact the STAR Center for service support before proceeding.

Service Procedure [Continued]

17. Remove the 12-volt battery access cover (Figure 17).

Figure 17 – Battery Access Cover

18. Remove the nut securing the battery negative cable terminal to the Intelligent Battery Sensor (IBS) (Figure 18).

19. Disconnect and isolate the battery negative cable terminal from the IBS (Figure 18).

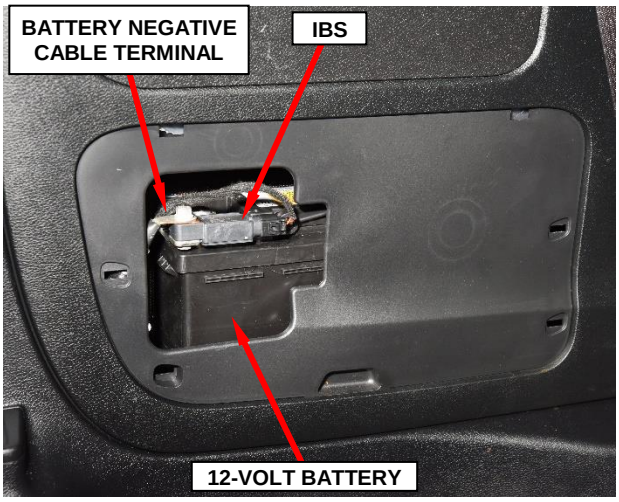

Figure 18 – Battery Negative Cable

Service Procedure [Continued]

B. 12-Volt Isolator Connection Inspection

1. Raise and support the vehicle.

2. Remove the fasteners then remove the left side closeout panel overlapping the charger belly pan (Figure 19).

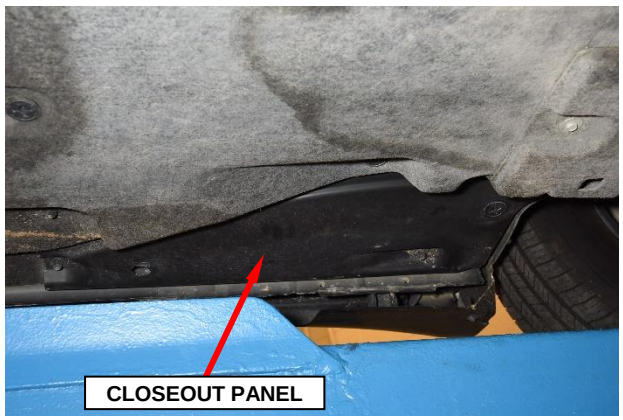

Figure 19 – Belly Pan Closeout Panel

3. Remove the fasteners then remove the charger belly pan (Figure 20).

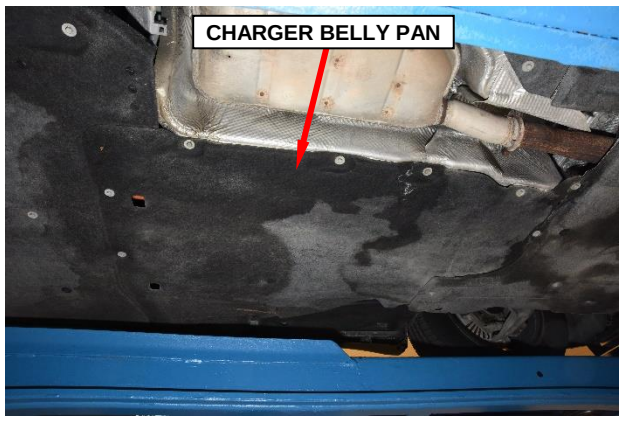

Figure 20 – Charger Belly Pan

4. Remove the fasteners then remove the battery belly pan (Figure 21).

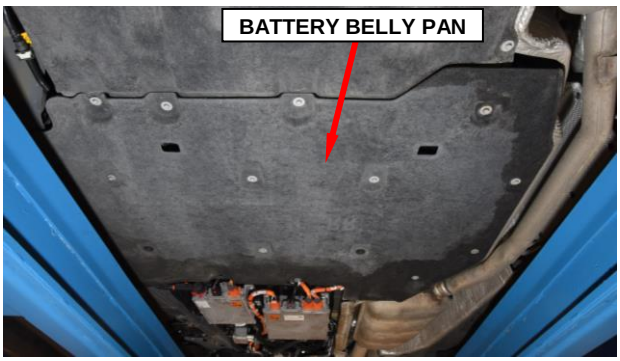

Figure 21 – Battery Belly Pan

Service Procedure [Continued]

5. 12-volt cable underbody connector location (Figure 22).

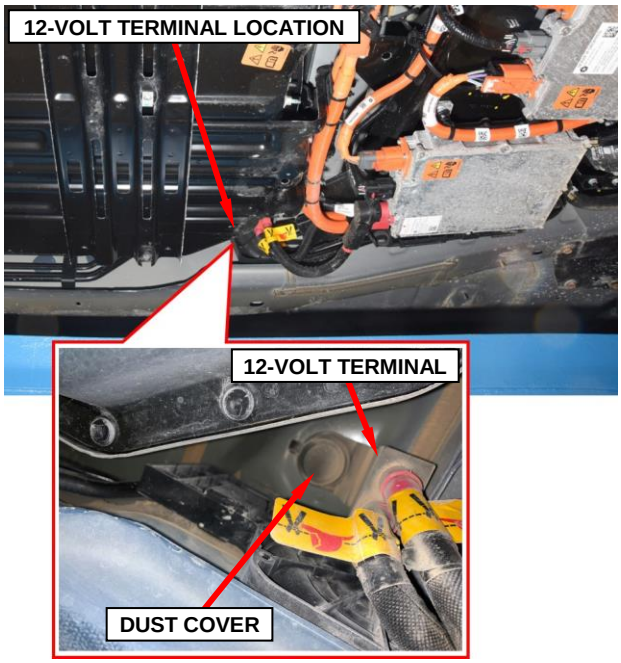

Figure 22 – 12-Volt Cable Underbody Connector Location

6. Release the dust cover from the 12-volt cable terminal (Figure 22).

7. Loosen the nut and remove the 12-volt terminal and nut assembly from the isolator post (Figure 23).

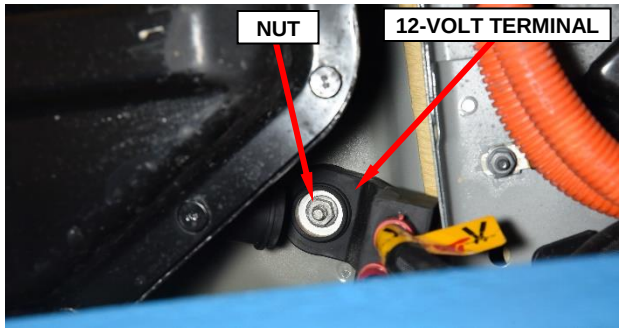

Figure 23 – 12-Volt Cable Terminal

NOTE: Nut is captured to the terminal (Figure 24).

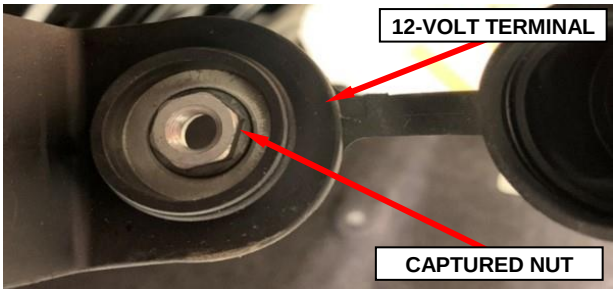

Figure 24 – Captured Nut

Service Procedure [Continued]

8. Inspect for corrosion or moisture on the terminal (Figure 25).

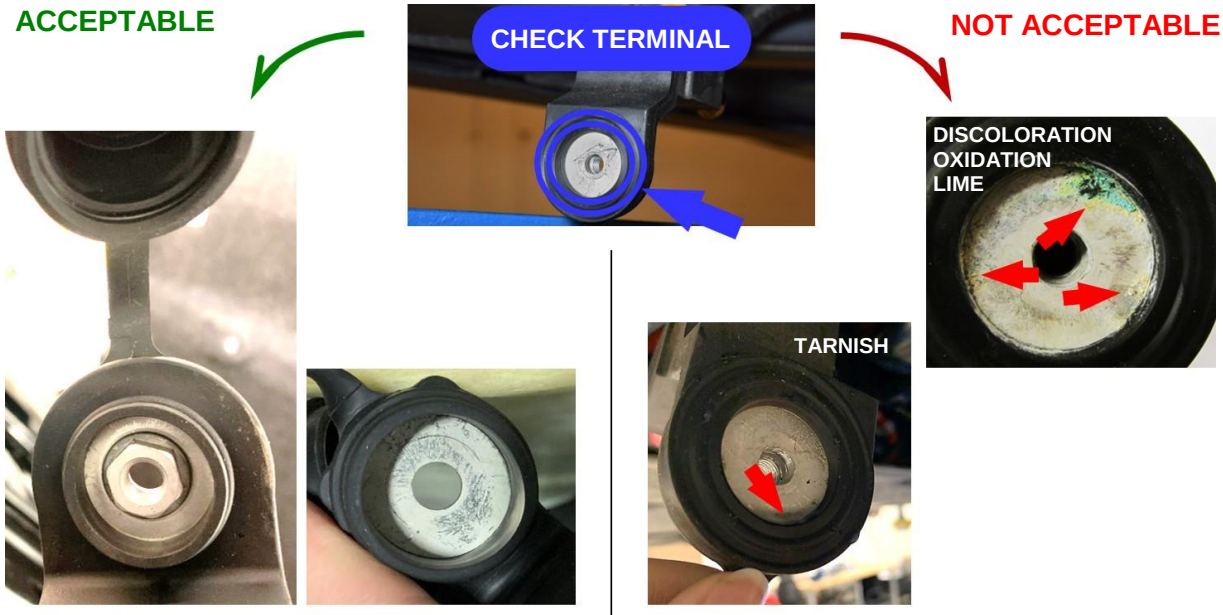

Figure 25 – Inspect Terminal for Corrosion or Moisture

Service Procedure [Continued]

9. Lower the vehicle.

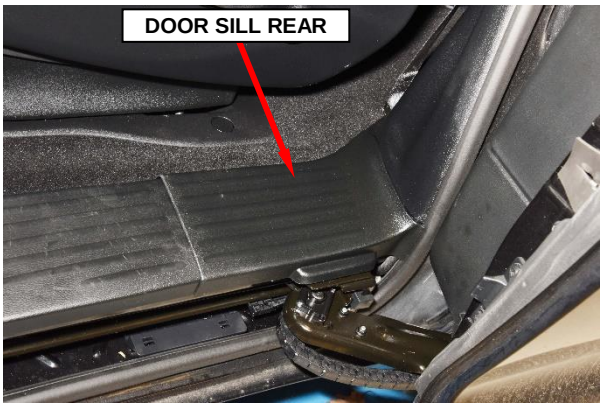

Figure 26 – Door Sill Rear

10. Remove the rear door sill from the left side rear door opening (Figure 26).

11. Release from the floor but do not fully remove the front door sill from left side rear door opening (Figure 27).

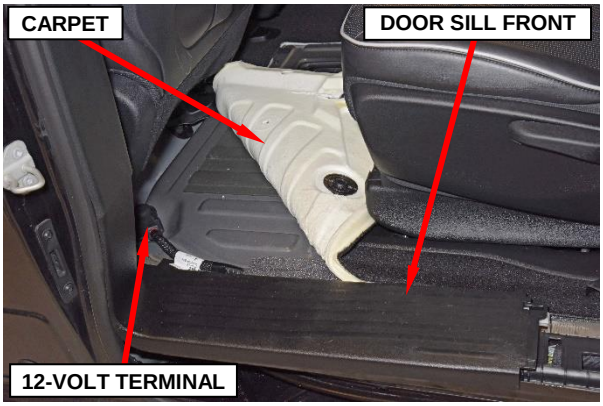

Figure 27 – Door Sill Front and Carpet

12. Pull back the carpet from behind the front driver seat (Figure 27).

13. Release the dust cover from the 12-volt cable terminal (Figure 28).

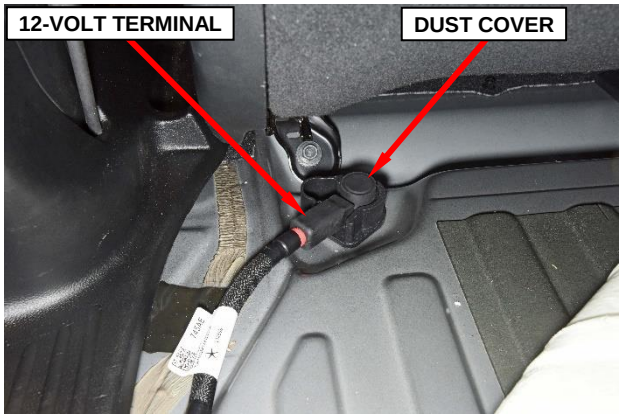

Figure 28 – 12-Volt Terminal Dust Cover

Service Procedure [Continued]

14. Remove the nut from the 12-volt terminal isolator post (Figure 29).

15. Remove the 12-volt terminal from the isolator post (Figure 29).

16. Inspect for corrosion or moisture on the terminal same as was done in **Step 8** (Figure 25).

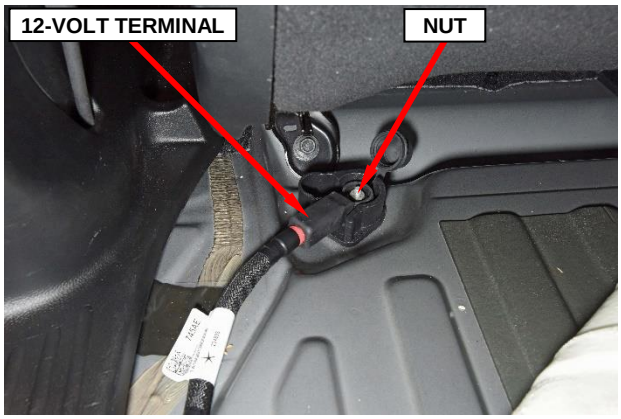

Figure 29 – 12-Volt Cable Terminal

17. Were any signs of corrosion or moisture detected (Figure 25) on either the lower or upper 12-volt cable terminals in **Step 8** or **Step 16**?

    - **YES**: Reassemble the vehicle then follow **Section C** for holding the vehicle until final remedy is available.

    - **NO**: Reassemble the vehicle then return the vehicle to the customer.

Vehicle Reassembly

18. Install the 12-volt terminal to the isolator post (Figure 29).

19. Install the nut to the 12-volt terminal isolator post and tighten the nut to 23 N·m (17 ft. lbs.) (Figure 29).

20 Install the dust cover to the 12-volt cable terminal (Figure 28).

Service Procedure [Continued]

21. Install the carpet behind the front driver seat (Figure 27).

22. Install the front door sill to left side rear door opening (Figure 27).

23. Install the rear door sill to the left side rear door opening (Figure 26).

24. Raise the vehicle.

25. Wipe the surface of the vehicle floor around the 12-V isolator post to remove any dirt or debris before reassembling the 12-volt cable to the isolator.

26. Install the 12-volt terminal and nut assembly to the isolator post then tighten the nut to 23 N·m (17 ft. lbs.) (Figure 23).

    NOTE: The 12-volt terminal may rotate during tightening. Ensure the cable stays stationary during tightening and is properly aligned when fully tightened. Connector should not be visibly rotated and cables should not be touching any metal surfaces after the terminal nut has been tightened to the proper torque specification (Figure 30).

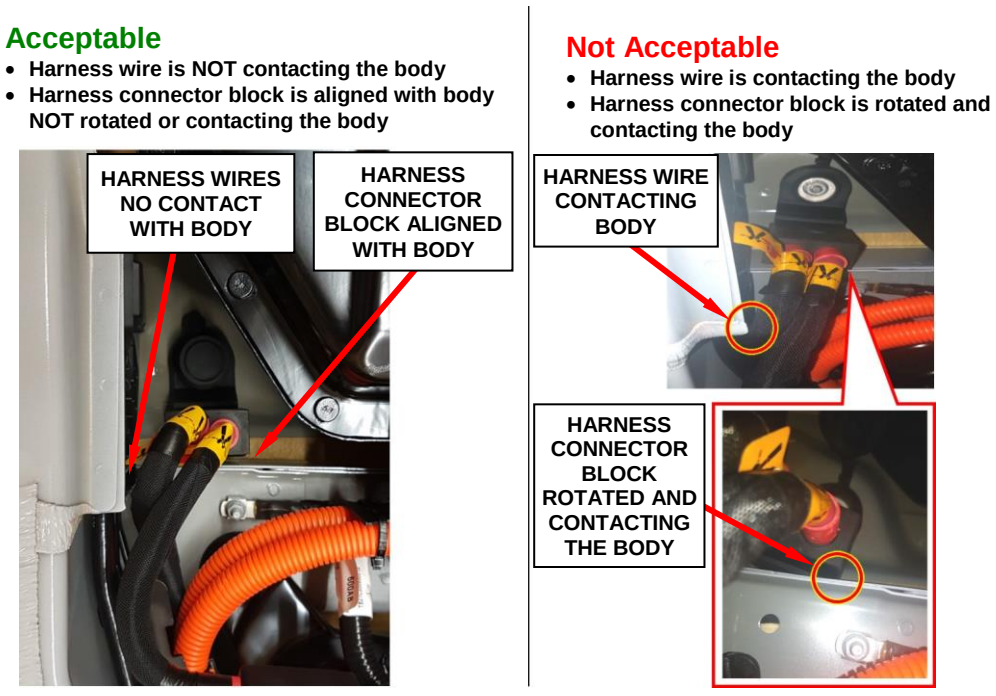

Figure 30 – Inspect Terminal for Proper Alignment after Tightening

Service Procedure [Continued]

27. Install the dust cover to the 12-volt cable terminal (Figure 22).

28 Install the battery belly pan then install the fasteners securing the battery belly pan (Figure 21).

29. Install the charger belly pan then install the fasteners securing the charger belly pan (Figure 20).

30. Install the left side closeout panel overlapping the charger belly pan then install the closeout fasteners (Figure 19).

31. Lower the vehicle.

32. Connect the battery negative cable terminal to the IBS (Figure 18).

33. Install the nut securing the battery negative cable terminal to the IBS and tighten to 9 N·m (80 in. lbs.) (Figure 18).

34. Remove the safety cover from the high-voltage battery receptacle (Figure 10).

35. Inspect the mounting interface surface of the high-voltage Manual Service Disconnect (MSD) and the receptacle wall to ensure they are clean, and that there are no surface contaminants or foreign objects within the receptacle (Figure 9).

36. Align the polarization feature of the high-voltage manual service disconnect with the receptacle on the high-voltage battery (Figure 9).

37. Push the high-voltage manual service disconnect evenly into the receptacle with the lever in the upright 90° position.

    NOTE: With the high-voltage manual service disconnect properly aligned with the receptacle, the lever will be released and allowed to rotate to the lock position. Do not force the lever.

Service Procedure [Continued]

38. Rotate the lever while maintaining a slight force on the high-voltage manual service disconnect. The lever will engage the receptacle and draw the high-voltage manual service disconnect down onto the receptacle as the lever is rotated (Figure 31).

39. Rotate the lever downward until it is fully engaged and locked by the lever release latch. An audible “click” will be heard as the lever latches into position (Figure 31).

40. Gently pull the high-voltage manual service disconnect upward to ensure that it is fully seated in the receptacle and locked. If the manual service disconnect can be removed, repeat **steps 37 – 39**.

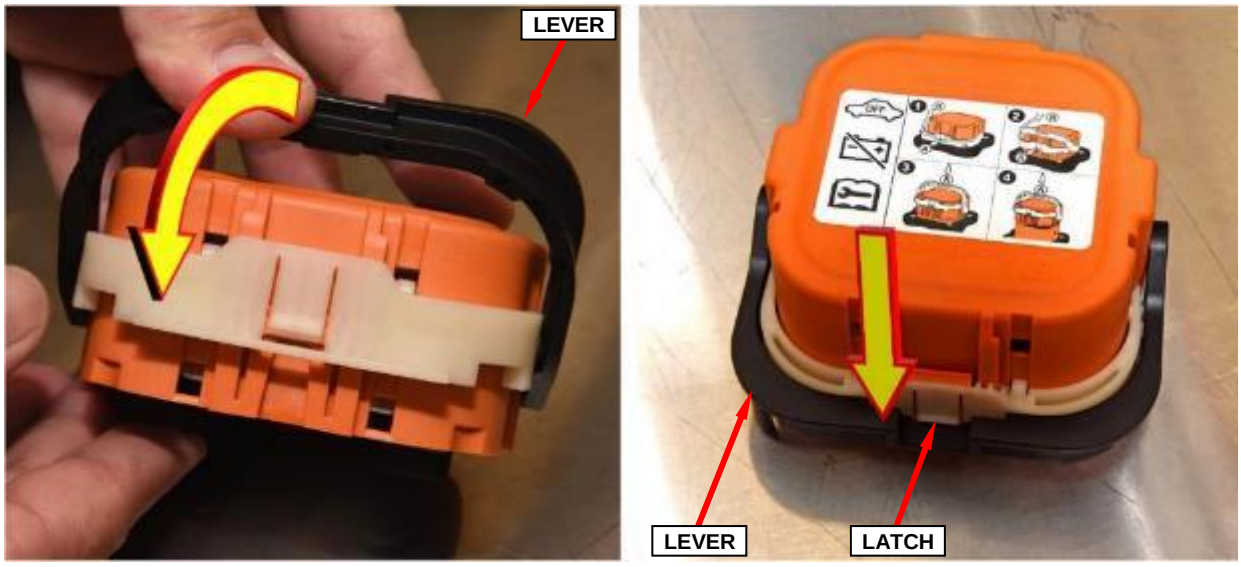

Figure 31 – High-Voltage Manual Service Disconnect Latch Engagement
(High-Voltage Manual Service Disconnect Removed from Vehicle for Visual Clarity)

41. Position the high-voltage manual service disconnect access cover over the floor opening. Install the four retaining screws and tighten to 2.5 N·m (22 In. Lbs.) (Figure 6).

    NOTE: The clearance between the top of the high-voltage manual service disconnect and the bottom of the access cover is such that the access cover will not seat properly on the floor if the high-voltage service disconnect is not fully seated.

Service Procedure [Continued]

42. Install the carpet and floor mat over the high-voltage manual service disconnect access cover (Figure 5).

43. Remove the protective cover 10084 (2035110082 equivalent) from the 12-volt positive battery cable (Figure 4).

44. Connect the positive battery cable to the 12-volt Power Distribution Center (PDC) and tighten the nut to 9 N·m (80 In. Lbs.) (Figure 3).

45. Install the 12-volt PDC cover (Figure 2).

46. Install a battery charger. Verify that the charging rate provides 13.0 to 13.5 volts. Set the battery charger timer (if so equipped) to continuous charge.

47. Connect the wiTECH micro pod II to the vehicle data link connector.

48. Place the ignition in the "**RUN**" position.

49. Open the wiTECH 2.0 website.

50. Enter your "**User id**" and "**Password**" and your "**Dealer Code**", then select "**Sign In**" at the bottom of the screen. Click "**Accept**".

51. From the "**Vehicle Selection**" screen, select the appropriate vehicle.

52. From the "**Action Items**" screen, select the "**Topology**" tab.

53. Click "**View DTCs**", select "**Clear All DTCs**", click "**Continue**" and then click "**Close**".

54. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.

55. Remove the battery charger from the vehicle.

Service Procedure [Continued]

56. Were any signs of corrosion and/or moisture detected (Figure 25) on either the lower or upper 12-volt cable terminals in **Step 8** and/or **Step 16**?

    - **YES**: Continue with **Section C** for holding the vehicle until final remedy.

    - **NO**: Return the vehicle to the customer and advise the customer to not park these vehicles inside of buildings or structures and avoid parking near other vehicles. In addition, keep liquids out of the backseat area, including but not limited to beverages, wet items, umbrellas, or bottled liquids that may leak.

C. Vehicle Hold Procedure

1. Park the vehicle in a location where it can be stored until the final remedy is available.

2. Turn the ignition to the OFF position.

3. Raise the rear lift gate.

4. Remove the 12-volt battery access cover (Figure 17).

5. Remove the nut securing the battery negative cable terminal to the Intelligent Battery Sensor (IBS) (Figure 18).

6. Disconnect and isolate the battery negative cable terminal from the IBS (Figure 18).

7. Close the rear lift gate.

   NOTE: Leave the 12-volt battery disconnected as instructed until the final remedy is available.

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 paid will be used by FCA to record recall service completions and provide dealer payments.

Use one of the following labor operation numbers and time allowances:

	Labor Operation Number	Time Allowance
Inspect 12-Volt Isolator Connection Release Vehicle to Customer	08-W4-6L-88	1.3 hours
Inspect 12-Volt Isolator Connection Hold Vehicle Until Final Remedy	08-W4-6L-89	1.3 hours

Unique to this recall campaign and for instances when a customer requires a loaner vehicle with 3rd row seating, the below special labor operation should be used. Normal rates, policies, and labor operations apply for all other loaner vehicles.

Loaner Vehicle – 3rd Row Seat	95-08-46-51	[redacted] per day

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 FCA 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.

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.

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
FCA US LLC

This notice applies to your vehicle,

[Model Year and Model]
VIN XXXXXXXXXXXXXXXXX

W46/NHTSA 20V-334

LOGO

VEHICLE PICTURE

YOUR SCHEDULING OPTIONS

1. **Visit recalls.mopar.com to sign up for email or SMS notifications** for when remedy parts become available. You will be asked to provide your Vehicle Identification Number (VIN), provided above

2. Scan below using your smartphone or tablet to sign up to be notified when remedy parts become available

QR Code

3. **Wait for FCA US to contact you** again, by mail, with a follow-up recall notice when remedy parts are available

4. **Call the FCA Recall Assistance Center at 1-800-853-1403**. An agent can sign you up to be notified when remedy parts become available, or answer any other questions you may have

DEALERSHIP INSTRUCTIONS

Please reference Safety Recall W46.

IMPORTANT SAFETY RECALL

12-Volt Isolator Post Connection

Dear [Name],

This notice is sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

FCA US has decided that a defect, which relates to motor vehicle safety, exists in certain [2017-2020 Model Year (RU) Chrysler Pacifica] Plug-In Hybrid vehicles.

WHY DOES MY VEHICLE NEED REPAIRS?

In some circumstances, the 12-volt isolator post on your vehicle [1] may experience a high resistance electrical connection. The root cause of this high resistance connection is not known at this time. High resistance electrical connections can lead to prolonged heating and a potential vehicle fire with the vehicle on or off. **A vehicle fire may increase the risk of injury to occupants and persons outside of the vehicle, as well as property damage.**

Customers are advised to exercise the following precautions until the vehicle has the final repair completed: do not park these vehicles inside of buildings or structures and avoid parking near other vehicles. In addition, keep liquids out of the backseat area, including but not limited to beverages, wet items, umbrellas, or bottled liquids that may leak.

HOW DO I RESOLVE THIS IMPORTANT SAFETY ISSUE?

The final remedy for this condition is not currently available. Customers should bring their vehicles to dealers for an interim inspection of the 12-volt isolator post connection joint. In the event the joint is compromised, a loaner vehicle will be provided.

If the vehicle is returned to you after the interim inspection, you are still advised to exercise the precautions mentioned above until the final remedy is established.

We are making every effort to establish the final remedy as quickly as possible, and will service your vehicle free of charge (parts and labor).

FCA US will contact you again, by mail, with a follow-up recall notice when the remedy is available. Once you receive your follow-up notice, simply contact your Chrysler, Jeep®, Dodge or RAM dealer right away to schedule a service appointment [2]. Additional options for your next steps are included on the left side of this notification. We appreciate your patience.

WHAT IF I ALREADY PAID TO HAVE THIS REPAIR COMPLETED?

If you have already experienced this specific condition and have paid to have it repaired, you may visit **www.fcarecallreimbursement.com** to submit your reimbursement request online [3]. Once we receive and verify the required documents, reimbursement will be sent to you within 60 days. If you have had previous repairs performed and/or already received reimbursement, you may still need to have the recall repair performed.

We apologize for any inconvenience, but are sincerely concerned about your safety. Thank you for your attention to this important matter.

Customer Assistance/Field Operations
FCA US LLC

FIAT CHRYSLER AUTOMOBILES

Mr. Mrs. Customer
1234 Main Street
Hometown, MI 48371

[1] If you no longer own this vehicle, please help us update our records. Call the FCA Recall Assistance Center at 1-800-853-1403 to update your information.

[2] If your dealer fails or is unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave., S.E., Washington, DC 20590, or you can call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to safercar.gov.

[3] You can also mail in your original receipts and proof of payment to the following address for reimbursement consideration: FCA Customer Assistance, P.O. Box 21-8004, Auburn Hills, MI 48321-8007, Attention: Recall Reimbursement.

Note to lessors receiving this recall notice: Federal regulation requires that you forward this recall notice to the lessee within 10 days.