



July 2015

Dealer Service Instructions for:

Safety Recall R09 / NHTSA 15V-115 Fuel Pump Relay

Models

2012 - 2013 (WD) Dodge Durango

(WK) Jeep® Grand Cherokee

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 used vehicle inventory. Dealers should complete this recall service on these vehicles before **retail delivery**. Dealers should also perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

Subject

The Totally Integrated Power Module (TIPM) on about 335,000 of the above vehicles contains an internal fuel pump relay that could operate intermittently or fail without warning. An intermittent or failed fuel pump relay could cause the engine to stall while driving and cause a crash without warning.

Repair

The TIPM internal fuel pump relay must be disabled and an external fuel pump relay must be installed.

Parts Information

<u>Part Number</u>	<u>Description</u>
CBWPR091AA	External Fuel Pump Relay Package

Each package contains the following components:

<u>Quantity</u>	<u>Description</u>
1	Relay, Fuel Pump
1	Harness, Wiring
3	Tube, Shrink
3	Crimp, Brass
1	Pin, Push
3	Strap, Plastic Tie

Each dealer to whom vehicles in the recall were assigned will receive enough External Fuel Pump Relay Packages to service about 20% of those vehicles.

Special Tools

The following special tools are required to perform this repair:

- 10042* Wire splice crimp tool
- 6680-2PA Pick, Terminal

***NOTE:** One wire splice crimp tool was mailed to each Chrysler/Jeep/Dodge dealer free of charge in June, 2007.

Additional wire splice crimp tools can be purchased, at dealer expense, by contacting Mopar Essential Tools and Service Equipment at 1-855-298-2687 or www.MoparEssentialTools.com during regular business hours. Contact Mopar Essential Tools regarding issues with any tools or equipment purchased or supplied through the Mopar tool and equipment program.

Service Procedure

A. Inspect for External Fuel Pump Relay

1. Open hood.
2. Inspect for an external fuel pump relay (Figure 1):
 - If there is an external fuel pump relay installed, no further action is required. Return the vehicle to the customer.
 - If there is no external fuel pump relay, continue with **Section B. Install External Fuel Pump Relay.**

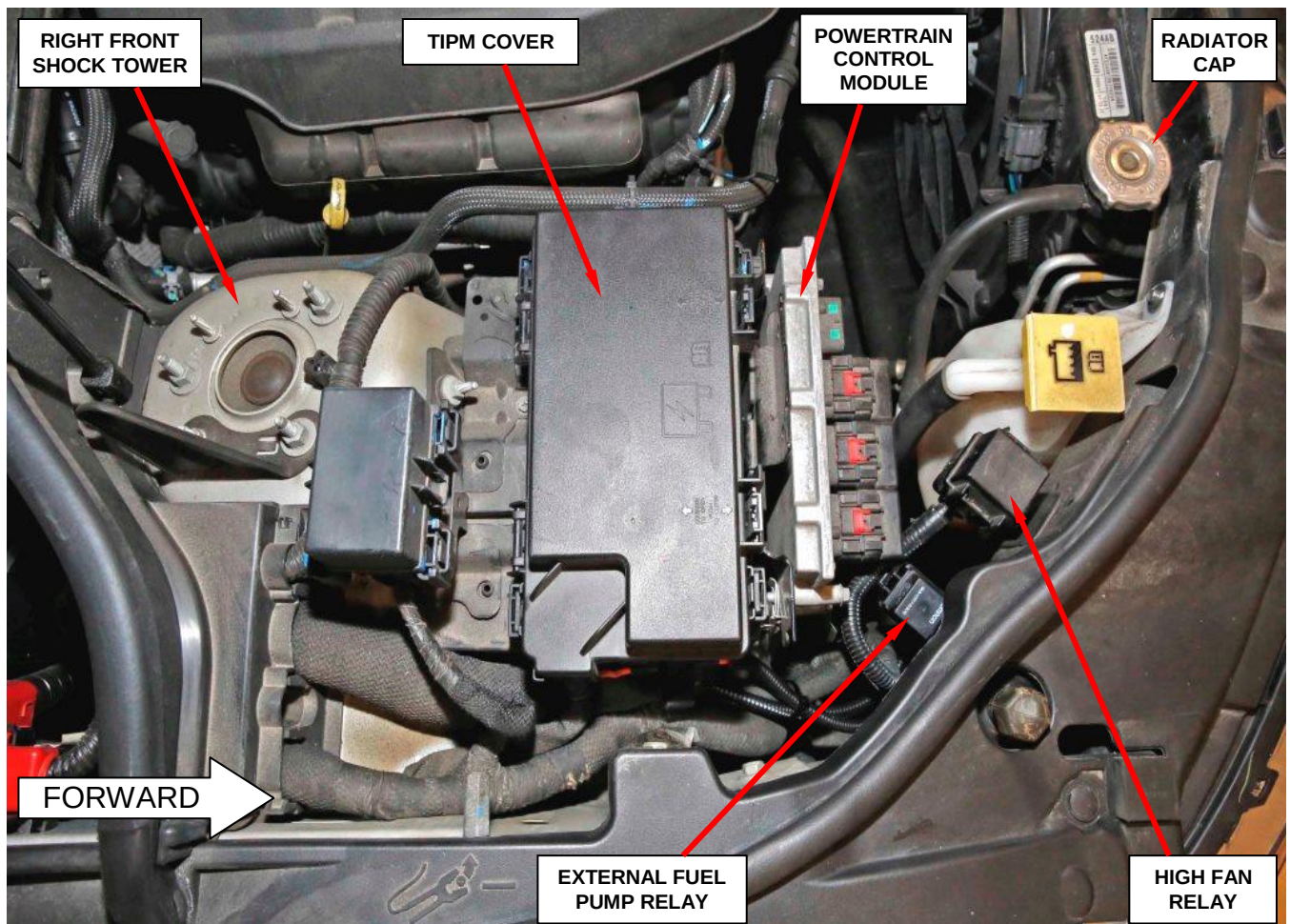


Figure 1 – Inspect for External Fuel Pump Relay

Service Procedure (Continued)

B. Install External Fuel Pump Relay

1. Position the passenger seat fully forward.
2. Open the battery access cover located under the passenger front seat and disconnect the negative battery cable (Figure 2).
3. Remove and save the Totally Integrated Power Module (TIPM) access cover.
4. Remove and save the B+ cable terminal retaining nut.
5. Carefully separate the B+ cable terminal from the B+ TIPM stud (Figure 3).

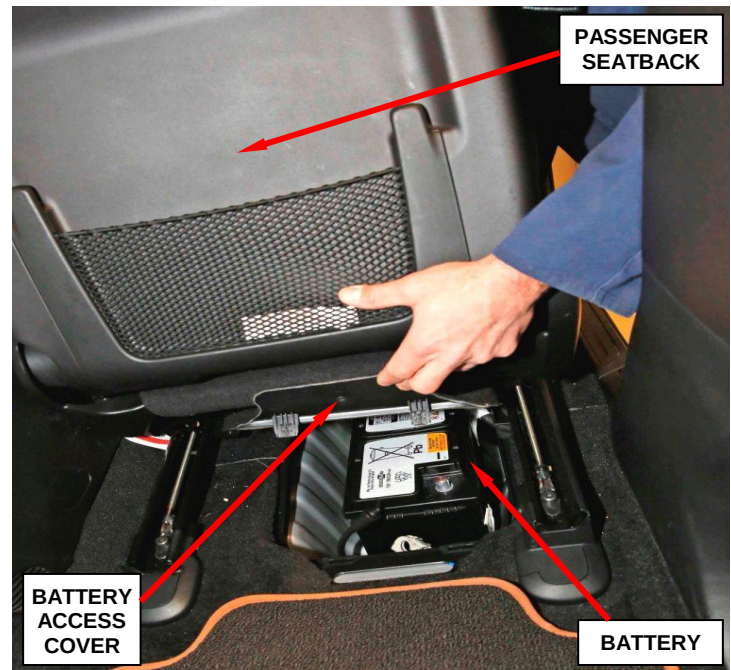


Figure 2 – Battery Access

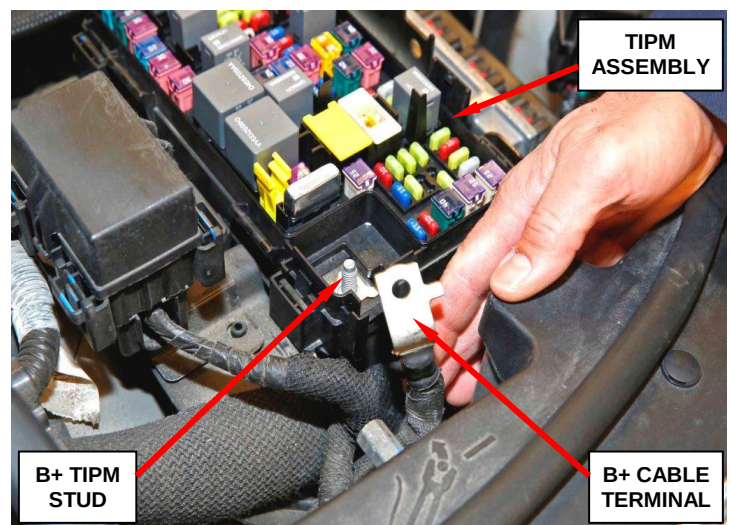
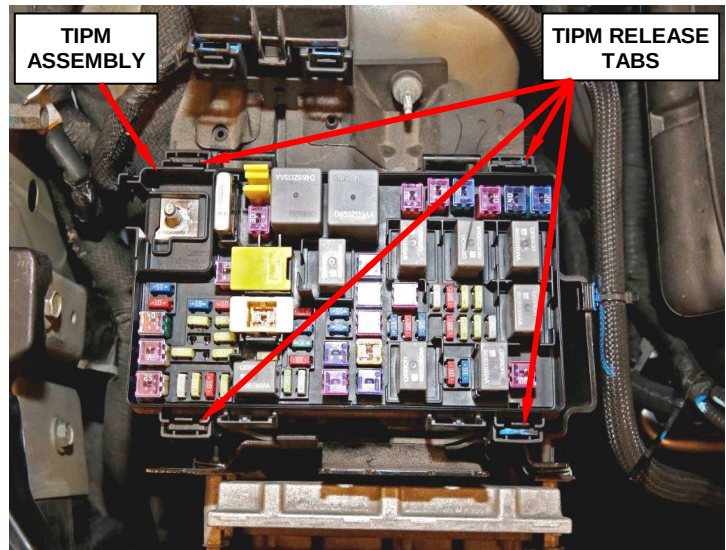
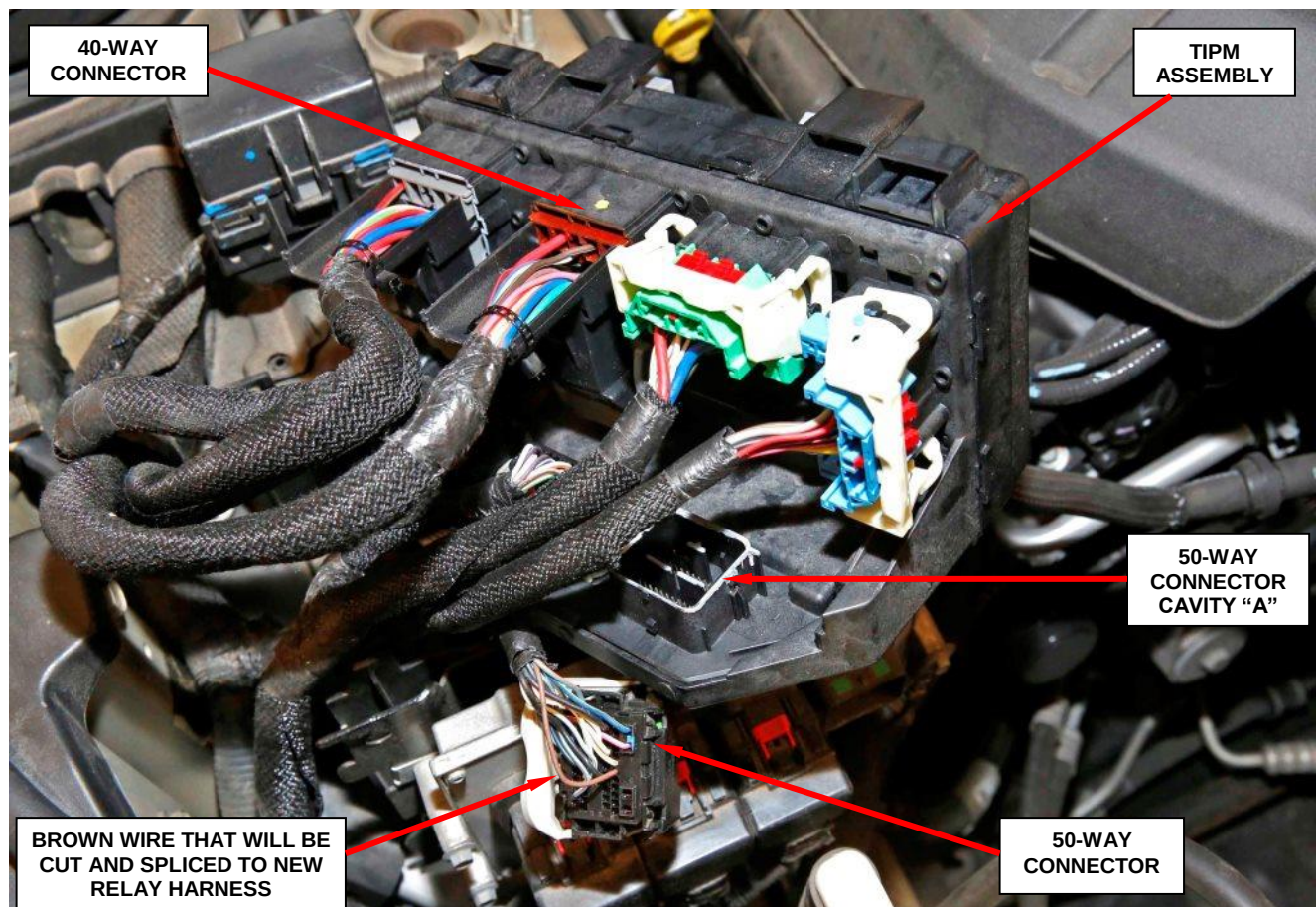


Figure 3 – B+ Cable Terminal

Service Procedure (Continued)

6. Push the four TIPM retaining tabs and separate the TIPM from the TIPM support bracket (Figure 4).
7. Unplug the 50-way electrical connector from the bottom of the TIPM (Cavity “A”) (Figure 5).

**Figure 4 – TIPM Release Tabs****Figure 5 – TIPM 50-Way Electrical Connector**

Service Procedure (Continued)

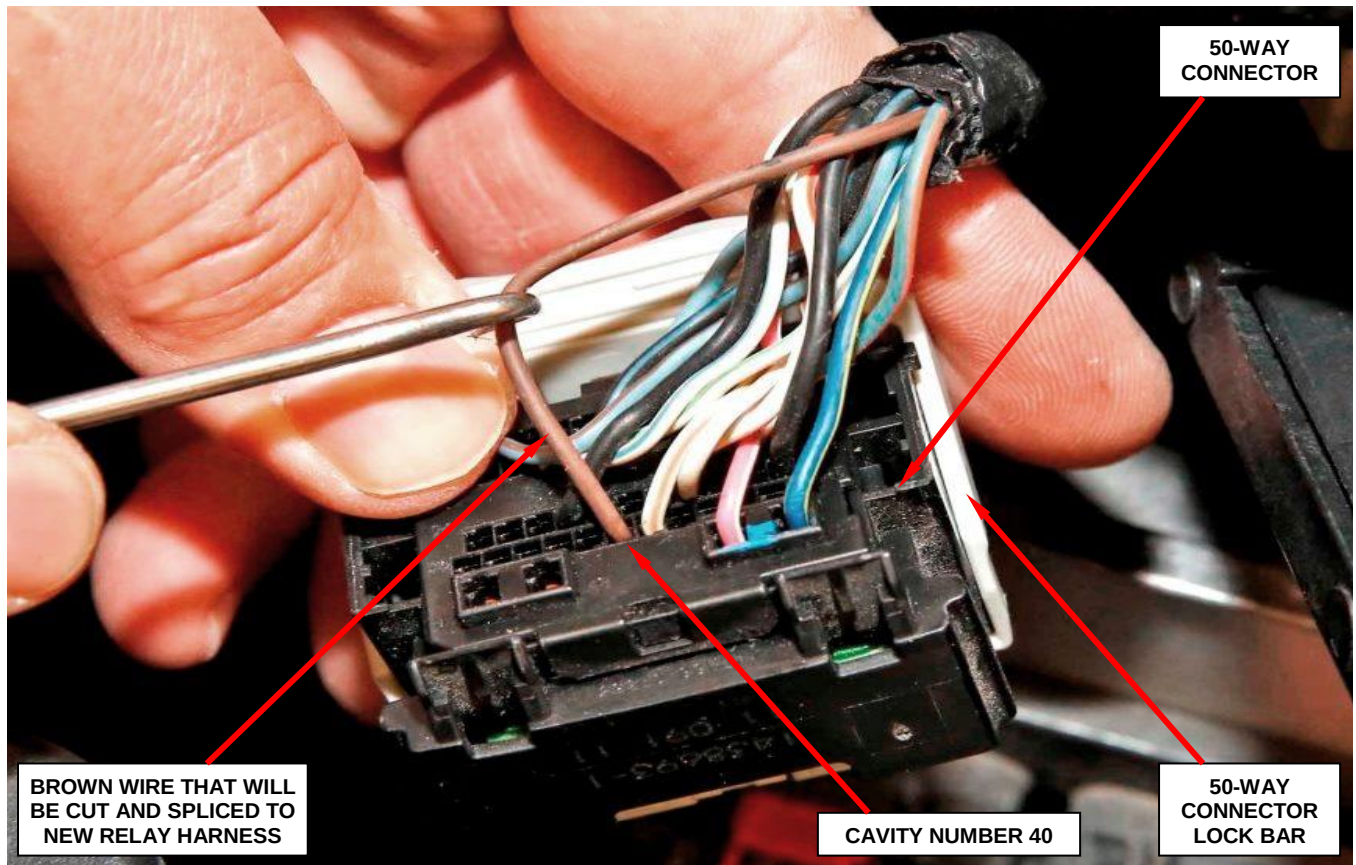


Figure 6 – Locate Brown Wire in 50-Way Connector

8. Locate the brown wire in cavity number 40 of the 50-way electrical connector (Figure 6).
9. Cut the brown wire one inch (25 mm) from the 50-way electrical connector (Figure 7).

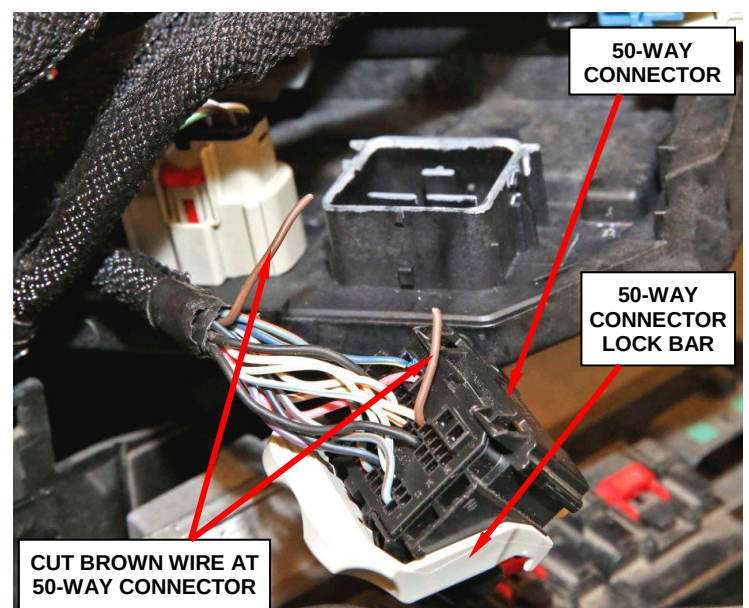


Figure 7 – Cut the Brown Wire One Inch From Connector

Service Procedure (Continued)

10. Install shrink tube to the connector side brown wire to insulate the wire end. This wire will no longer be used (Figure 8).
11. Using the following procedure, splice the brown wire on the wire harness to the brown wire on the new fuel pump relay harness:
 - a. Strip approximately $\frac{1}{2}$ inch (13 mm) of insulation from the end of the brown wire on the new fuel pump relay wire and the original brown wire.
 - b. Place a piece of black shrink tube, provided in the repair kit, over the cut brown wire.
 - c. Using the supplied brass splice band clamp and crimp tool 10042, crimp the brown wire on the wire harness side to the brown wire on the new fuel pump relay harness (Figure 9).
 - d. Solder the brass splice band clamp with rosin core solder.
 - e. Slide the shrink tube evenly over the soldered brass splice and apply heat to the shrink tube until glue comes out of both ends of the shrink tube.
12. Carefully plug the 50-way electrical connector into the bottom of the TIPM.

CAUTION: Be sure that the 50-way connector lock bar is fully engaged.

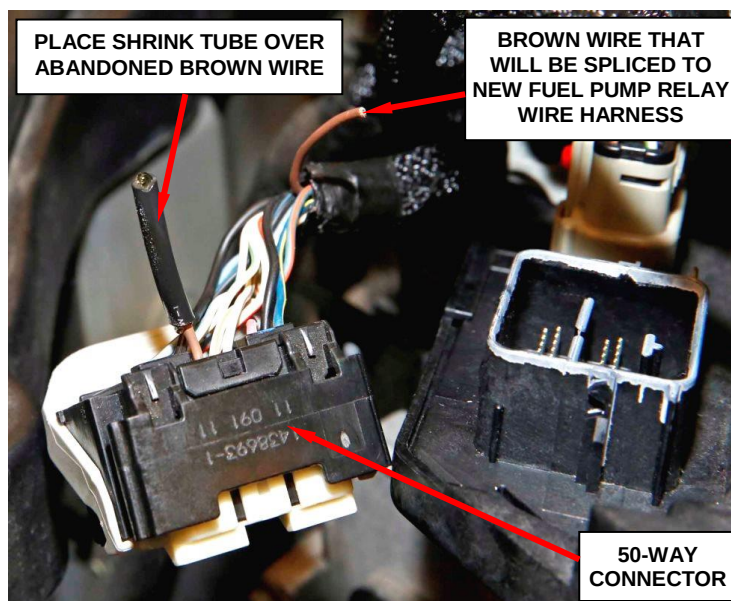


Figure 8 – Insulate Brown Abandoned Wire

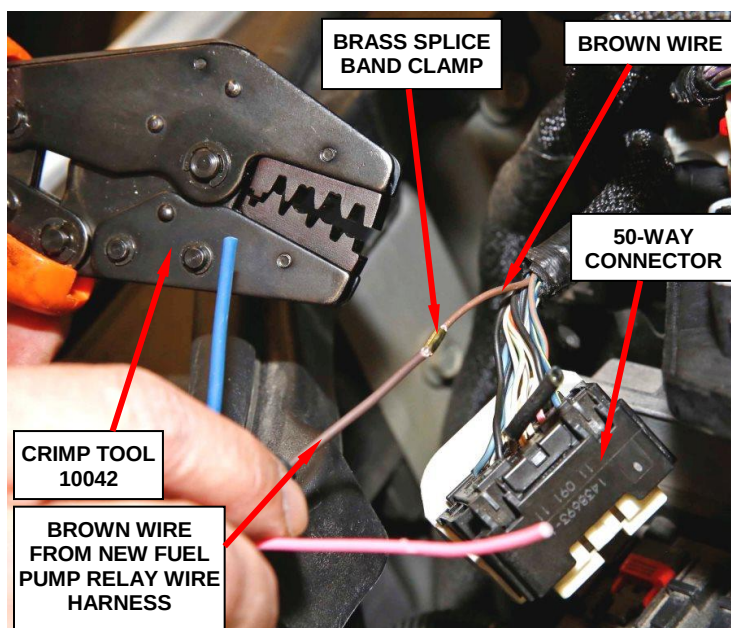
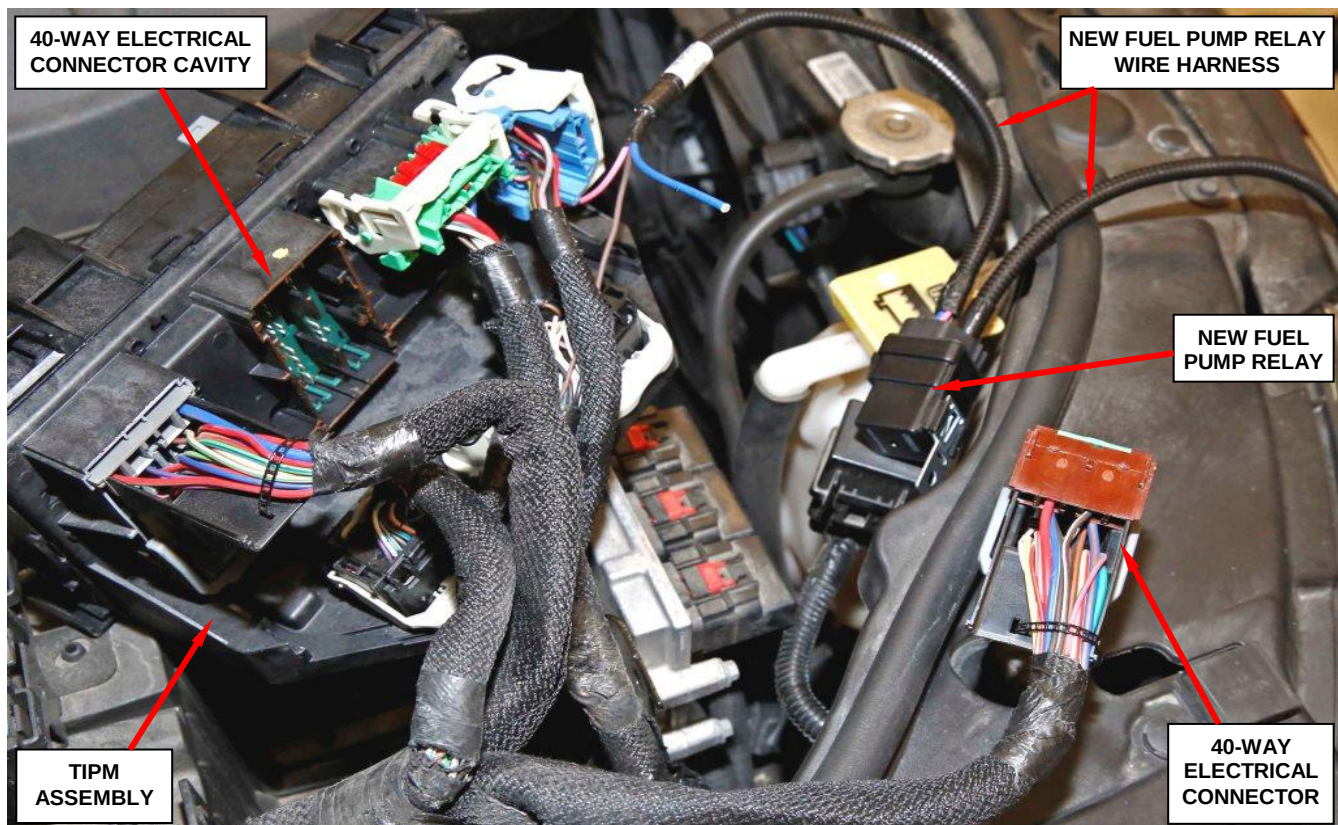
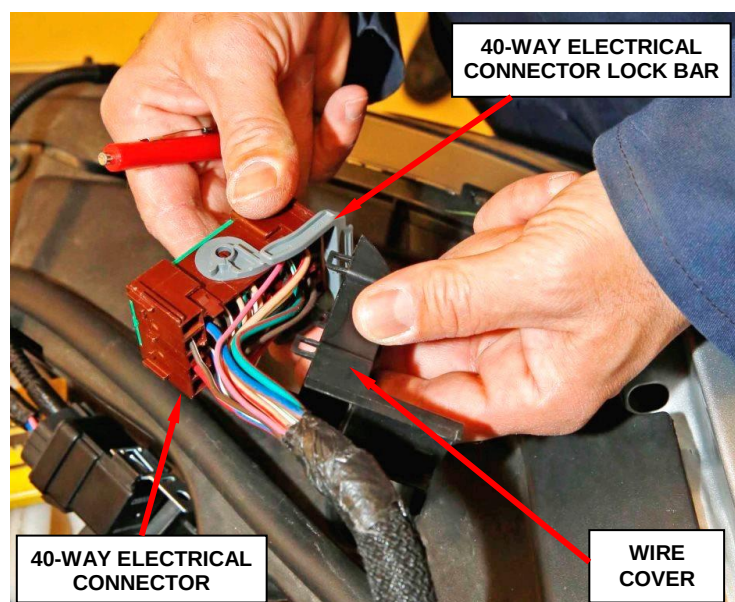


Figure 9 – Crimp and Solder Brown Wires

Service Procedure (Continued)**Figure 10 – TIPM 40-Way Electrical Connector**

13. Unplug the 40-way electrical connector located on the bottom side of the TIPM (Figure 10).
14. Carefully remove and save the 40-way electrical connector wire cover located on the wire side of the connector (Figure 11).

NOTE: The plastic tie strap that holds the wire harness to the wire cover must be cut off and discarded (Figure 10).

**Figure 11 – 40-Way Electrical Connector Wire Cover**

Service Procedure (Continued)

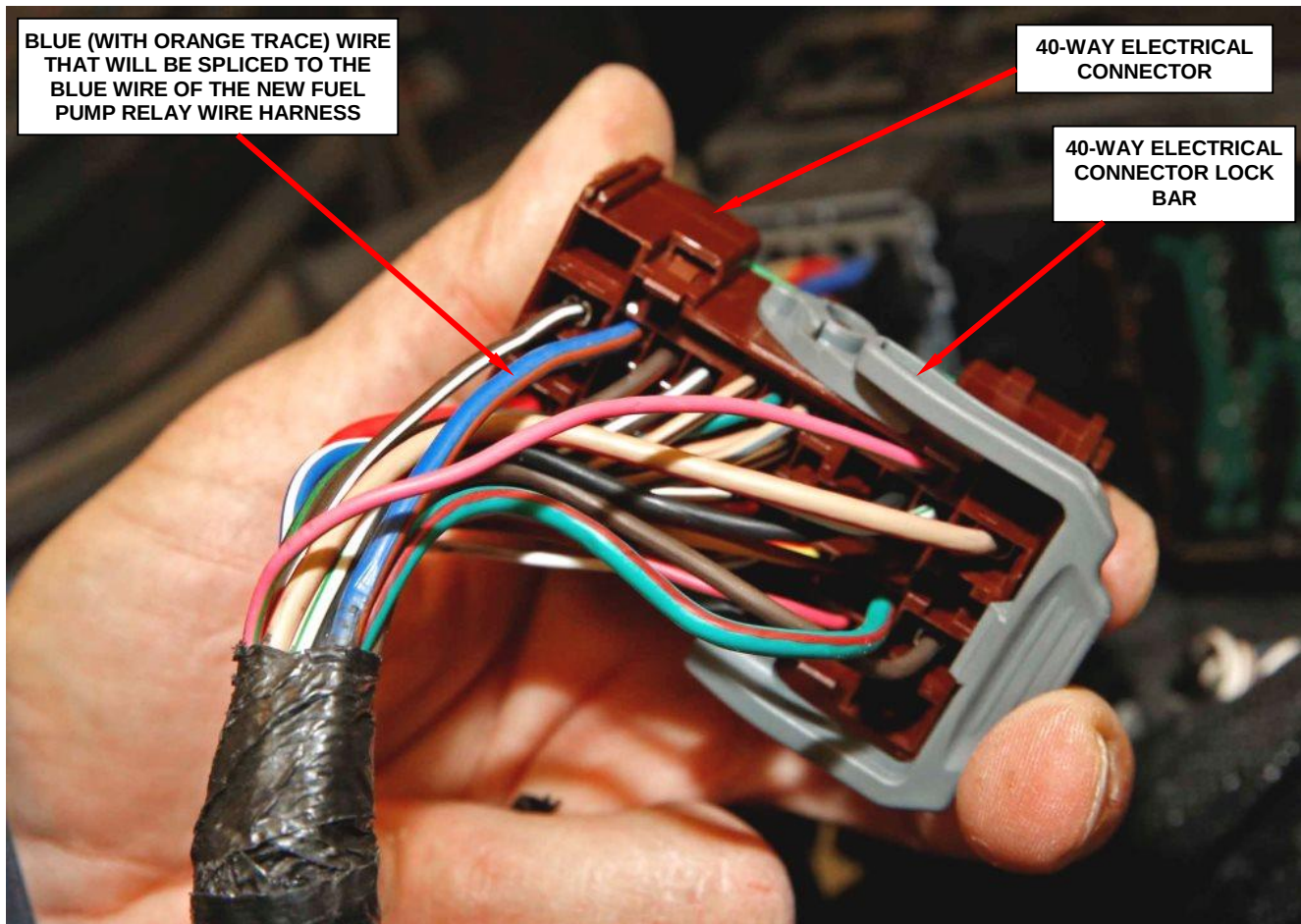


Figure 12 - Locate Blue with Orange Trace Wire in 40-Way Connector

15. Locate the blue (with an orange trace) wire in the 40-way electrical connector (Figure 12).
16. Cut the blue (with an orange trace) wire one inch (25 mm) from the 40-way electrical connector (Figure 13).
17. Install shrink tube to the connector side blue (with an orange trace) wire to insulate the wire end. This wire will no longer be used (Figure 13).

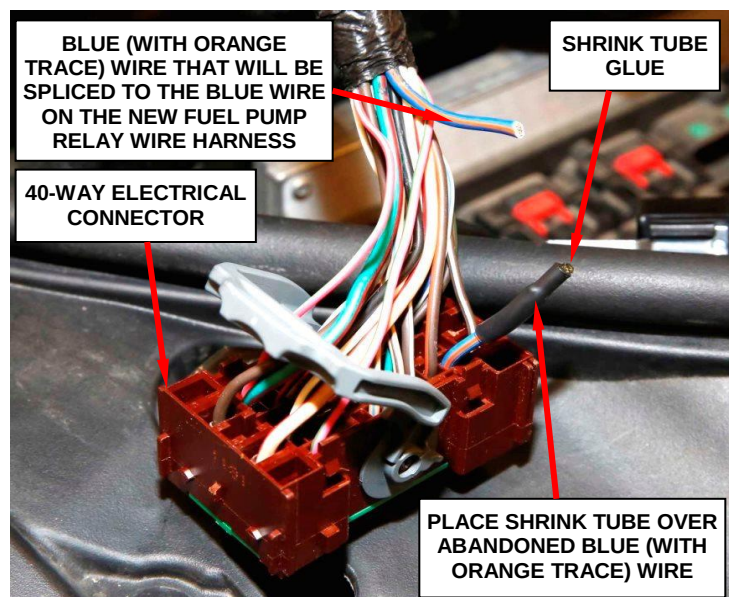


Figure 13 – Cut the Blue (with Orange Trace) Wire

Service Procedure (Continued)

18. Using the following procedure, splice the blue (with an orange trace) wire on the wire harness to the blue wire on the new fuel pump relay harness:

- a. Strip approximately $\frac{1}{2}$ inch (13 mm) of insulation from the end of the blue wire on the new fuel pump relay wire and the original blue (with an orange trace) wire (Figure 14).
- b. Place the black shrink tube provided in the repair kit over the cut wire (Figure 14).

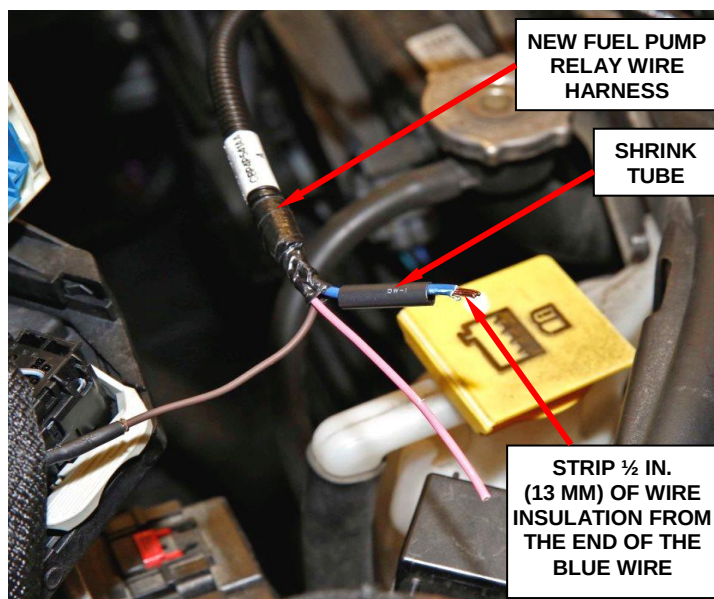


Figure 14 – Strip Wire and Install Shrink Tube

- c. Using the supplied brass splice band clamps and crimp tool 10042, crimp the blue wire (with orange trace) on the wire harness side to the blue wire on the fuel pump relay wire harness (Figure 15).
- d. Solder the brass splice band clamp with rosin core solder (Figure 15).
- e. Slide the shrink tube evenly over the soldered brass splice band clamp and apply heat to the shrink tube until glue comes out of both ends of the shrink tube.

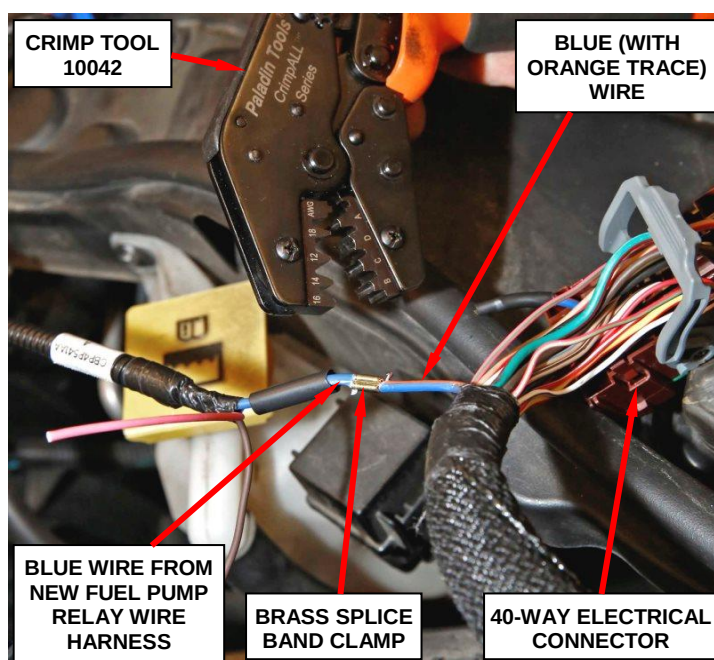


Figure 15 - Crimp and Solder Blue Wire to Blue Wire (with Orange Trace)

Service Procedure (Continued)

19. Remove and save the 40-way electrical connector green plastic terminal lock (Figure 16).

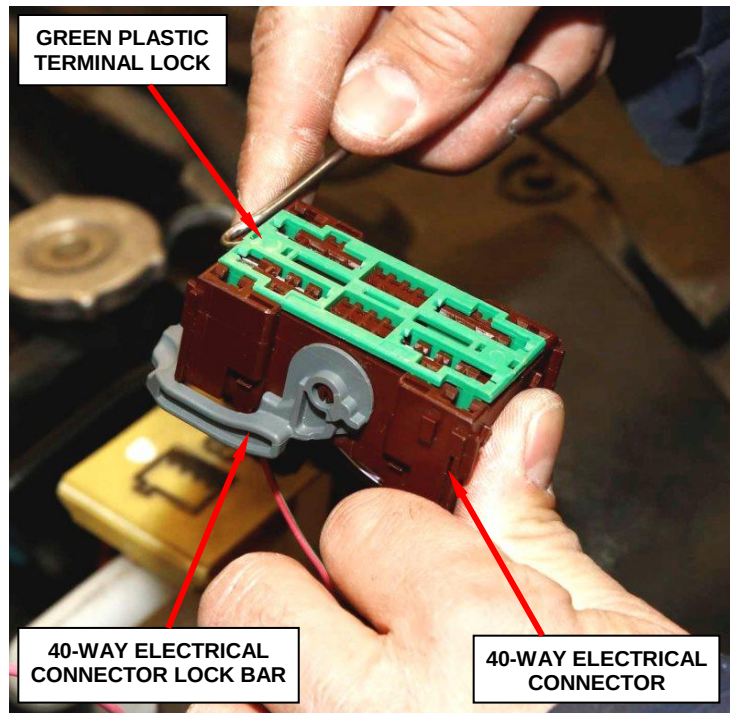


Figure 16 – Green Connector Lock

20. Locate the pink (with green trace) wire in cavity 38 of the 40-way electrical connector (Figure 17).

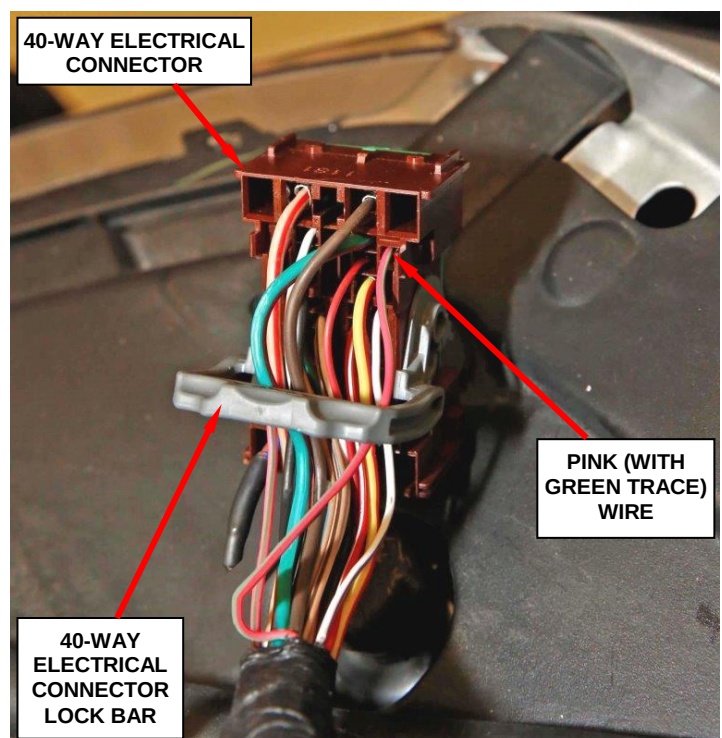


Figure 17 – Pink (with Green Tracer) Wire Location

Service Procedure (Continued)

21. Carefully remove the pink (with a green trace) from the 40-way connector (Figure 18).

NOTE: Use Miller Tool 6680-2PA terminal pick, or equivalent, to remove the wire terminal from the 40-way electrical connector.

22. Strip approximately ½ inch (13 mm) of insulation off the pink (with green trace) wire without cutting the wire (Figure 19).

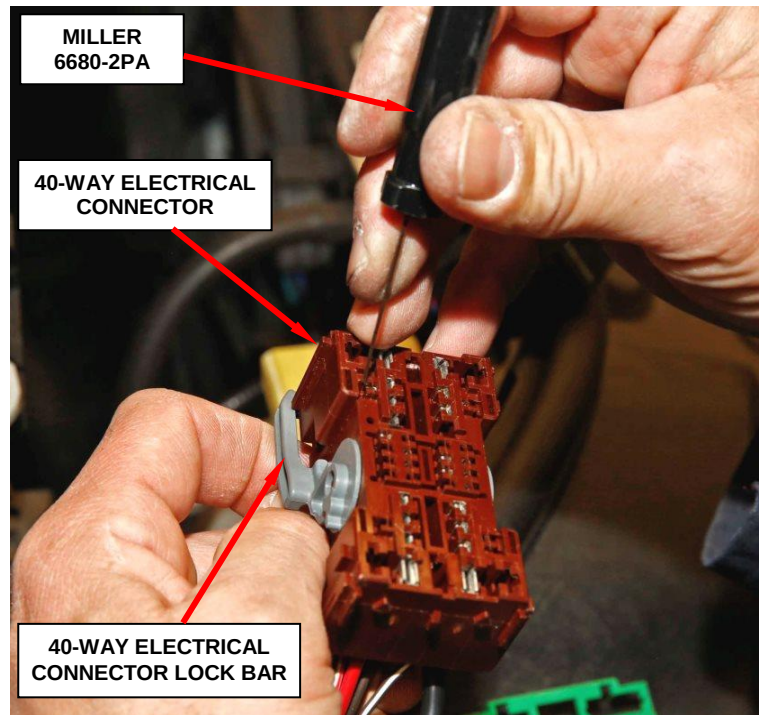


Figure 18 – Remove Pink (with Green Trace) wire from 40-Way Connector

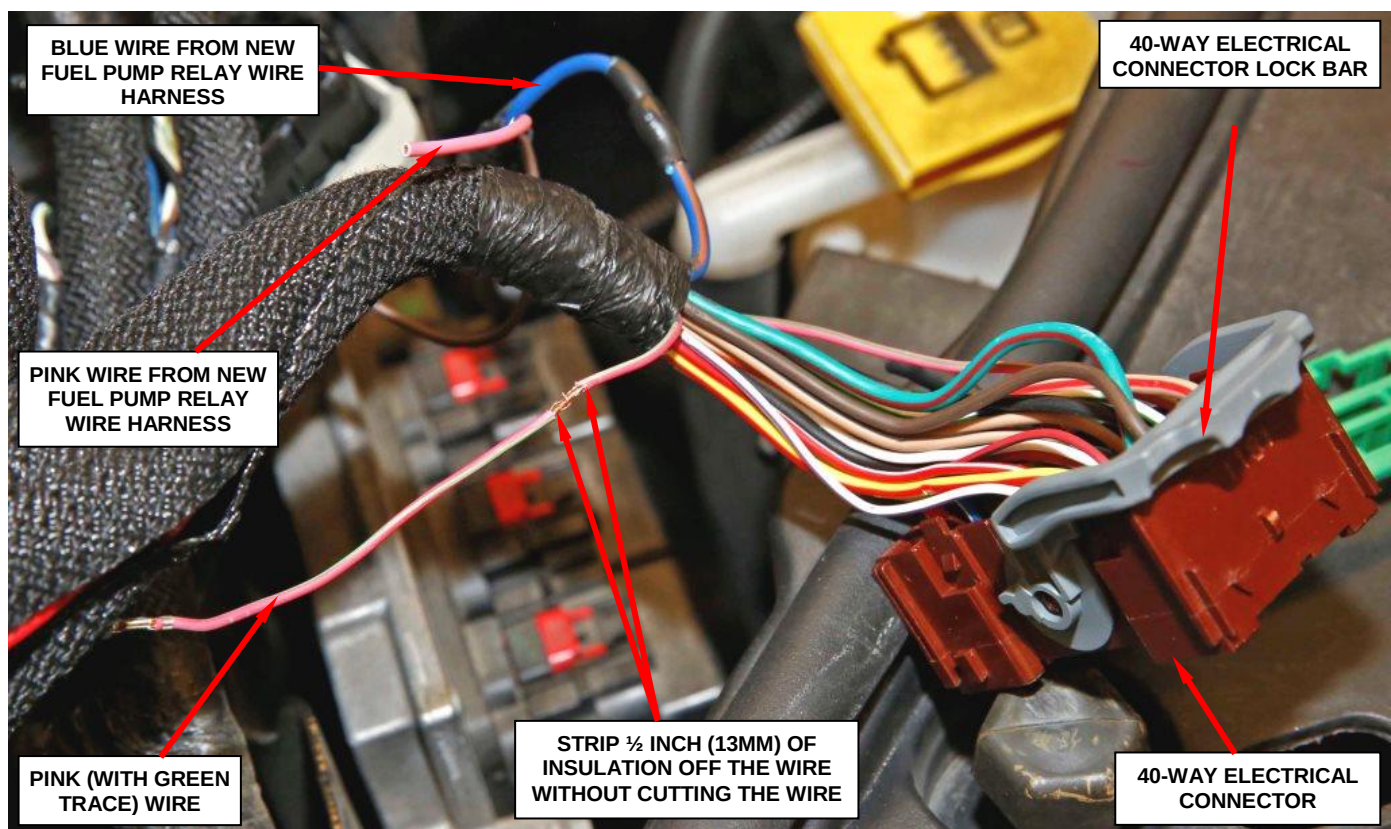


Figure 19 - Remove Insulation without Cutting the Wire

Service Procedure (Continued)

23. Using the following procedure, splice the pink (with a green trace) wire to the pink wire on the new fuel pump relay wire harness:

- a. Strip approximately $\frac{3}{4}$ inch (20 mm) of insulation from the end of the pink wire on the new fuel pump relay wire.
- b. Wrap the pink wire from the new fuel pump relay wire harness around the pink (with green trace) wire at the location the insulation was removed (Figure 20).
- c. Using the supplied brass splice band clamp and crimp tool 10042, crimp the fuel pump wire harness pink wire to the pink (with a green trace) wire on the vehicle wire harness (Figure 20).
- d. Solder the brass splice band clamp with rosin core solder.
- e. Slide the shrink tube evenly over the soldered brass splice band clamp and apply heat to the shrink tube until glue comes out of both ends of the shrink tube (Figure 21).

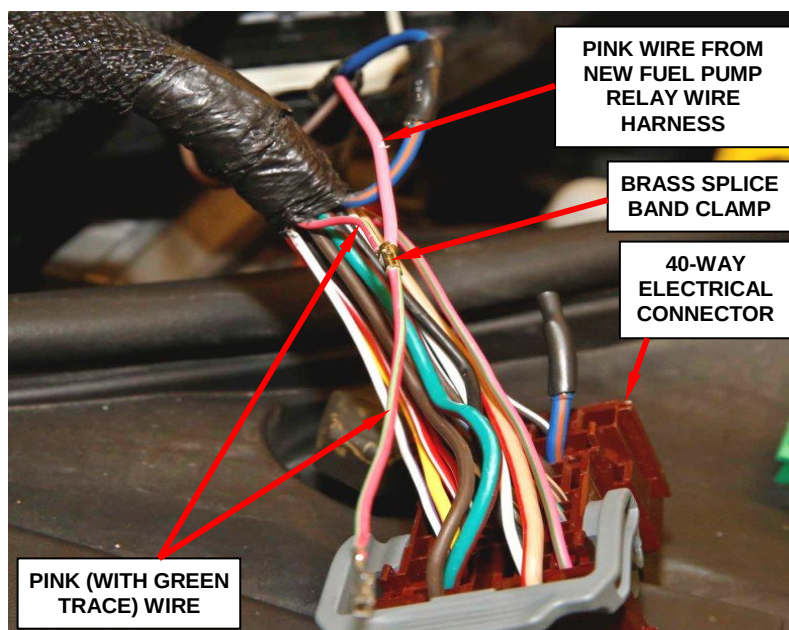


Figure 20 - Crimp and Solder Pink Wire to Pink (with Green Trace) Wire

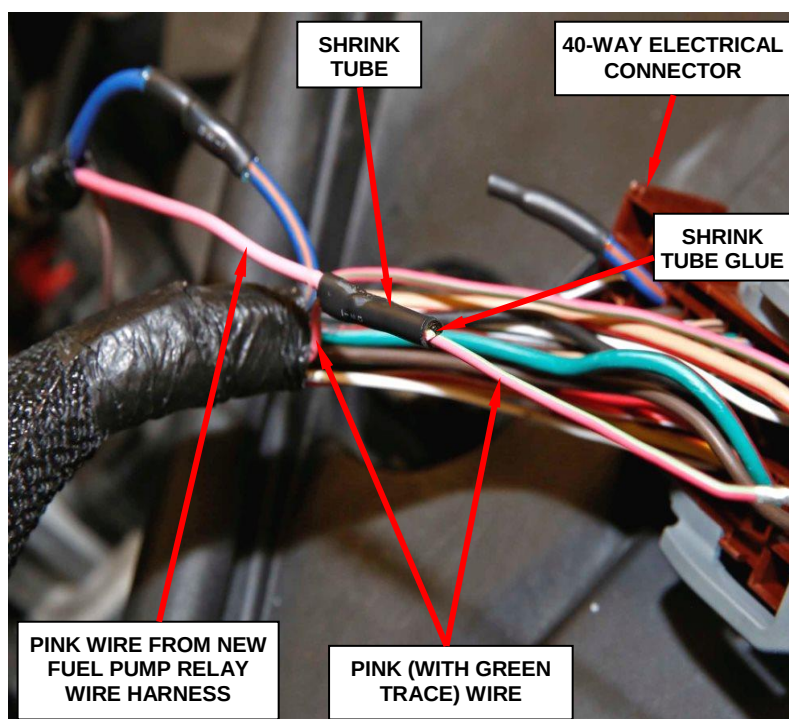


Figure 21 – Install Shrink Tube

Service Procedure (Continued)

24. Carefully install the wire terminal for the pink (with green trace) wire back into the same cavity (cavity 38) in the 40-way electrical connector that it was removed from (Figure 22).
25. Install the 40-way electrical connector green plastic terminal lock (Figure 16).
26. Install the 40-way electrical connector wire cover.
27. Install a plastic tie strap to hold the wire harness in place on the back side of the 40-way electrical connector (Figure 23).

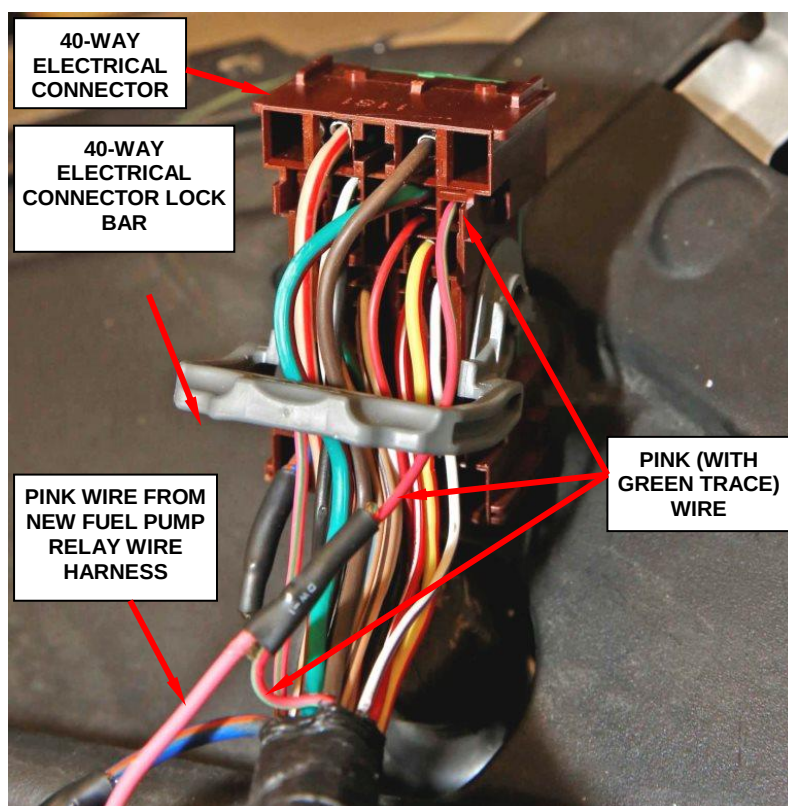


Figure 22 – Install Pink (with Green Trace) Wire Terminal into the same cavity on the 40-Way Connector from which it was removed

28. Plug the 40-way electrical connector into the bottom of the TIPM assembly.

CAUTION: Be sure the 40-way electrical connector lock bar is fully engaged.

29. Snap the TIPM assembly back into the TIPM support bracket.

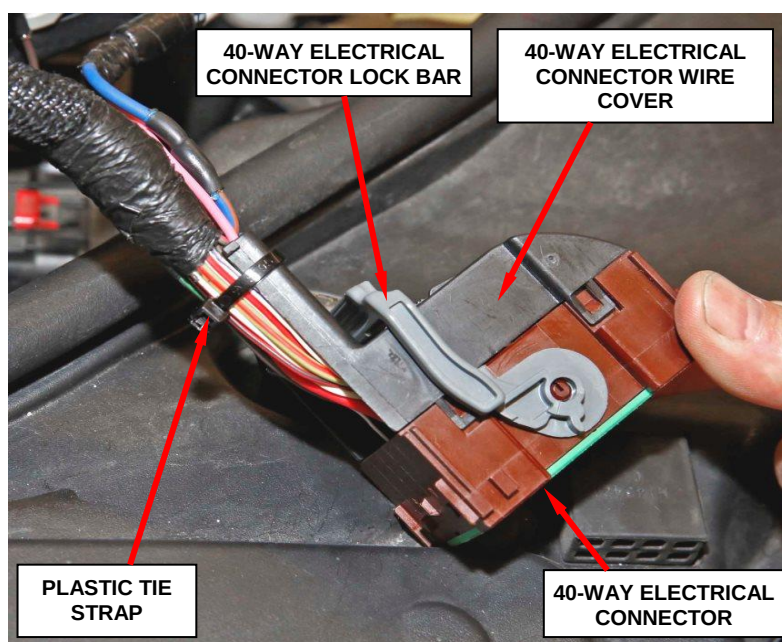
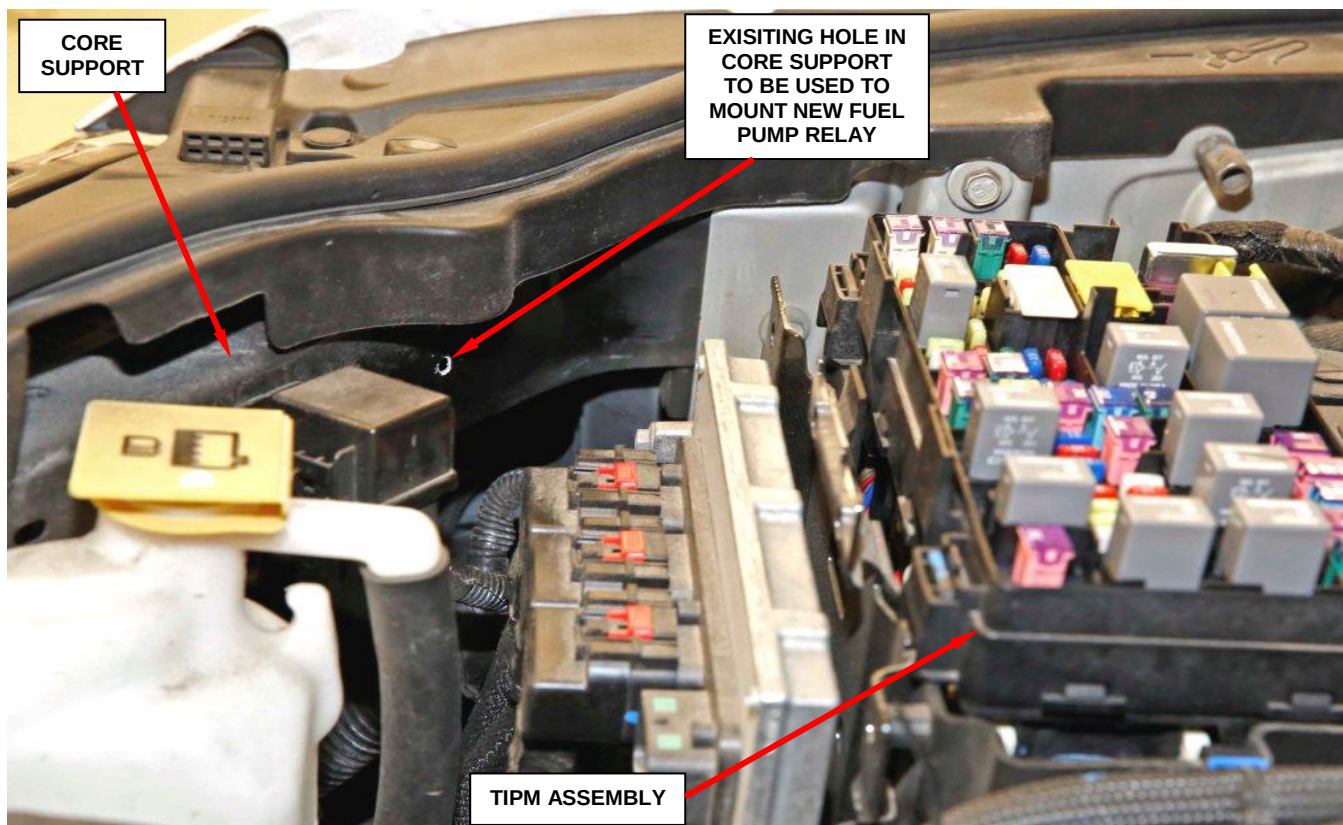
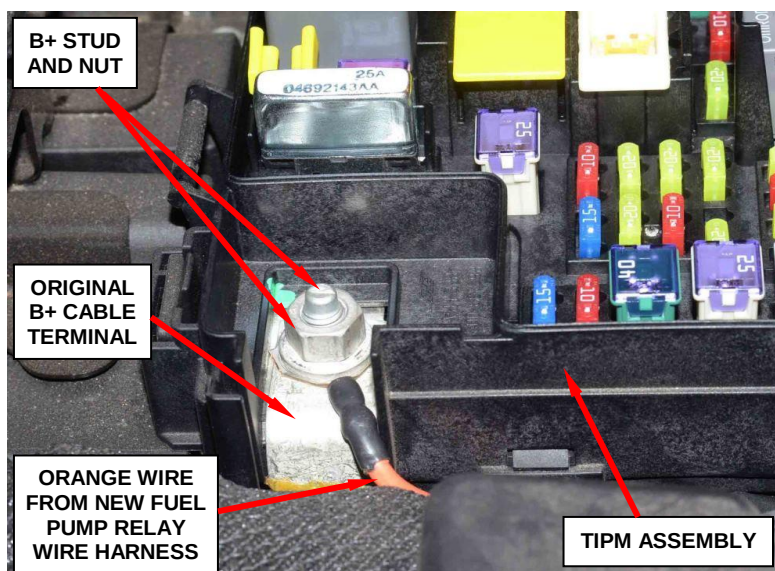


Figure 23 – Install Back Cover and Tie Strap

Service Procedure (Continued)**Figure 24 – Mount New External Relay to Vehicle Core Support**

30. Mount the new external fuel pump relay to the vehicle core support. Use the existing hole in the core support and the supplied plastic push pin (Figure 24).
31. Connect the original B+ cable terminal to the TIPM B+ stud (Figure 25).
32. Connect the wire eyelet on the orange wire of the new fuel pump relay wire harness to the TIPM B+ stud (Figure 25).
33. Install the B+ cable terminal retaining nut. Tighten the nut to 14 ft. lbs. (19 N·m) (Figure 25).

**Figure 25 – B+ Electrical Connection**

Service Procedure (Continued)

34. Push down on all the relays and fuses in the TIPM to ensure that they are all fully engaged.
35. Using the provided plastic tie straps, secure the new fuel pump wire harness to the existing vehicle wire harness as required.

CAUTION: Be sure that the new fuel pump relay wire harness does not contact any sharp edges that may damage the new fuel pump relay wire harness.



Figure 26 – Install TIPM Cover

36. Carefully install the TIPM access cover (Figure 26).
37. Connect the negative battery cable to the negative battery terminal on the battery and close the battery access cover.
38. Return the passenger seat to its original location.
39. 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 FCA to record recall service completions and provide dealer payments.

Use the following labor operation number and time allowance:

	Labor Operation Number	Time Allowance
Inspect for external fuel pump relay	08-R0-91-81	0.2 hours
Inspect and install external fuel pump relay	08-R0-91-82	0.7 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 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.

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

Dealers are encouraged to consider alternative scheduling and servicing approaches for this recall. This repair does not require hoists or other full service facility special equipment and is a FCA Mobile Service approved repair.

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
FCA US LLC