January 2017

Dealer Service Instructions for:

Safety Recall S90 / NHTSA 16V-849
Fuel Tank Control Valve

Models

2017 (JK) Jeep® Wrangler

NOTE: This recall applies only to the above vehicles built from November 01, 2016 through November 03, 2016 ***(MDH 110106 through 110303)****.*

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 fuel tank control valve on about 350 of the above vehicles may have been improperly manufactured. An inoperative fuel tank control valve may result in a fuel leak during a vehicle rollover event, debris in the fuel tank, and/or the ability to overfill the fuel tank during refueling. A fuel leak during a vehicle rollover event, in the presence of an ignition source, could cause a fire without warning.

Repair

The fuel tank control valve must be inspected. Vehicles found with an improperly manufactured fuel tank control valve will have the fuel tank assembly and fuel level sending unit replaced.

Alternate Transportation

Dealers should attempt to minimize customer inconvenience by placing the owner in a loaner vehicle if inspection determines that the fuel tank and fuel pump module is required and the vehicle must be held overnight.

Parts Information

Part Number	Description
52059729AN	**Fuel Tank, Long Wheel Base (4 Door)**
52059718AO	**Fuel Tank, Short Wheel Base (2 Door)**
68003385AA	**Fuel Sending Unit (All)**

Due to the small number of involved vehicles expected to require a **fuel tank and fuel sending unit** replacement, no parts will be distributed initially. **Fuel tanks and fuel sending units should be ordered only after inspection determines that repair is required.** ***Very few vehicles are expected to require a fuel tank replacement.***

Parts Return

No parts return required for this campaign.

Special Tools

The following special tools are required to perform this repair:

- NPN wiTECH micro pod II
- NPN Laptop Computer
- NPN wiTECH Software
- 9340 SAE Fuel Pump Lock Ring Wrench
- 8978A Decay Tool, Fuel

Service Procedure

A. Inspect Fuel Tank Control Valve

1. Raise and support the vehicle.
2. Inspect the fuel tank control valve for marking **(Figures 1 and 2)**.

   NOTE: The mark will be on the fuel tank control valve surface only. It is applied before the fuel tank control valve is welded to the tank so it is impossible for the mark to carry over to the tank surface. Any mark that starts or carries over onto the tank surface will NOT be an indicator for fuel tank replacement.

   - If the fuel tank control valve has a **green** paint mark, continue with Section **B. Replace Fuel Tank and Fuel Level Sending Unit** (Figures 1 and 2).
   - If the fuel tank control valve has a **yellow** paint mark, **no further action is required** (Figure 2). Lower the vehicle and return the vehicle to the customer.
   - If the fuel tank control valve has a **NO** visible paint mark, continue with Section **B. Replace Fuel Tank and Fuel Level Sending Unit** (Figures 1 and 2).

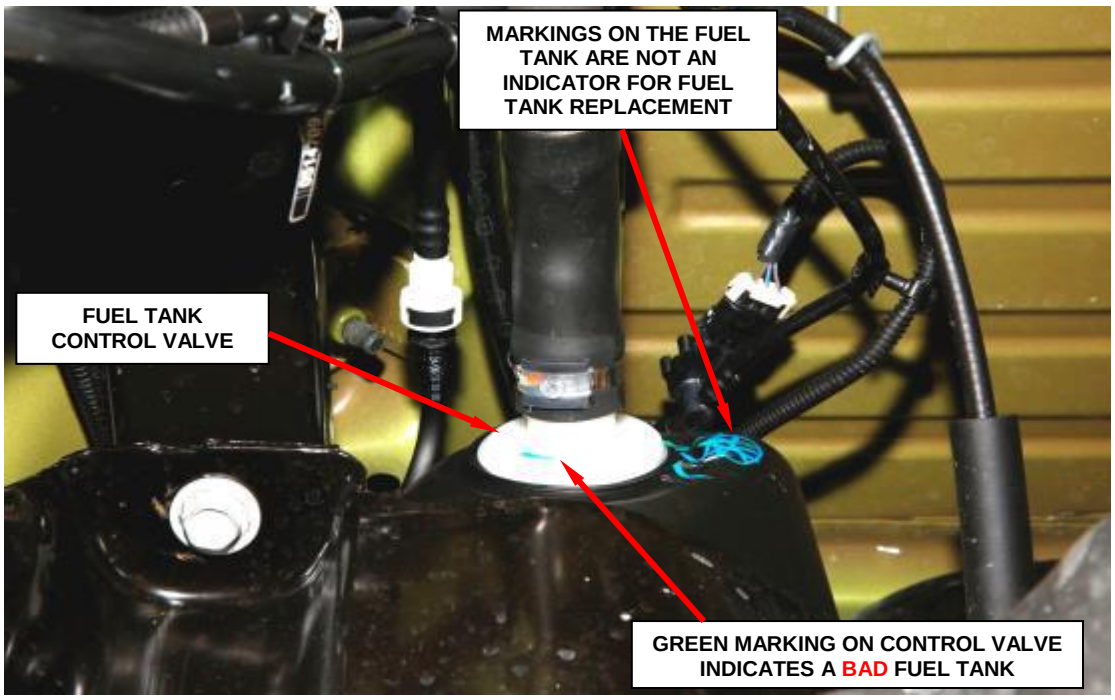

Figure 1 – Inspect Fuel Tank Control Valve for Marking

Service Procedure (continued)

NOTE: The mark will be on the fuel tank control valve surface only. It is applied before the fuel tank control valve is welded to the tank so it is impossible for the mark to carry over to the tank surface. Any mark that starts or carries over onto the tank surface will NOT be an indicator for fuel tank replacement.

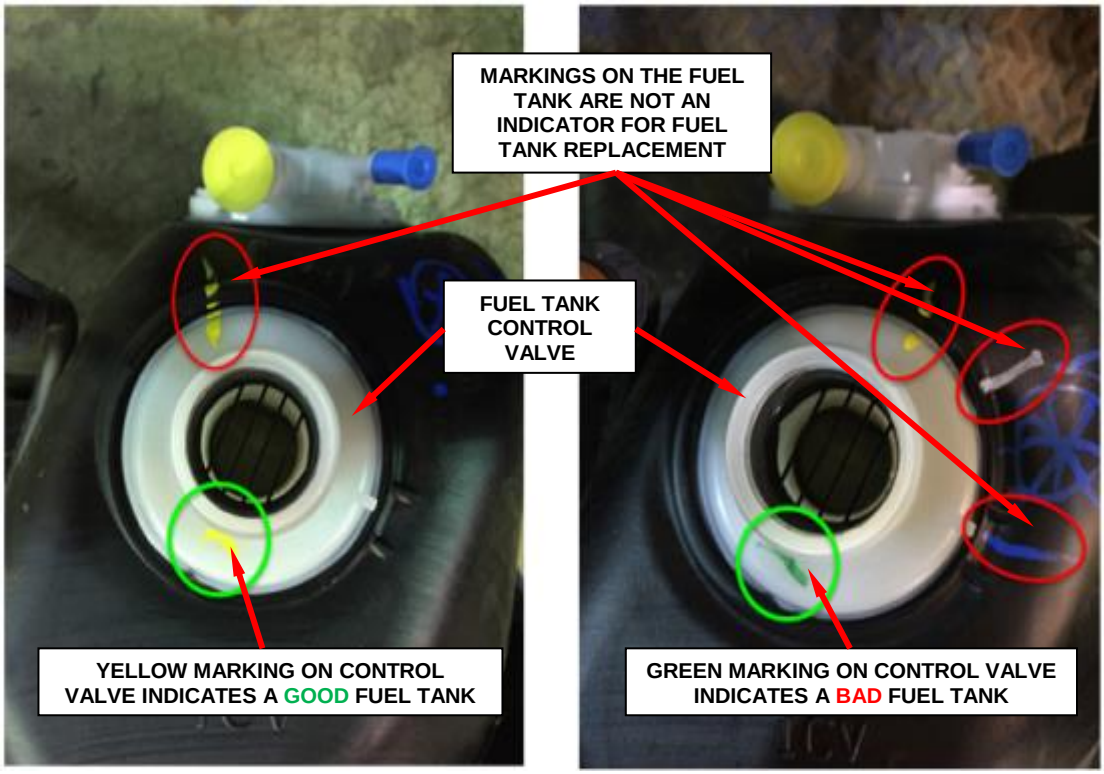

Figure 2 – Inspect Fuel Tank Control Valve for Marking

Service Procedure (continued)

B. Replace Fuel Tank and Fuel Level Sending Unit

NOTE: The following procedure is only required if the fuel tank control valve require replacement per the inspection in Section "A." ***Very few vehicles are expected to require this repair.***

WARNING: No sparks, open flames or smoking. Risk of injury to eyes and skin from contact with fuel. Wear protective clothing and eye protection. Risk of poisoning from inhaling and swallowing fuel. Pour fuel only into appropriately marked and OSHA approved containers. Failure to follow these instructions may result in possible serious or fatal injury.

WARNING: The fuel system is under constant high pressure even with engine OFF. Until the fuel pressure has been properly released from the system, do not attempt to open the fuel system. Do not smoke or use open flames/sparks when servicing the fuel system. Make sure the area in which the vehicle is being serviced is in a well ventilated area. Failure to comply may result in serious or fatal injury.

1. Remove the fuel fill cap.

2. Remove the fuel pump fuse from the Power Distribution Center (PDC).

   NOTE: For location of the fuel pump fuse, refer to label on the underside of the PDC cover.

3. Start and run the engine until it stalls.

4. Attempt restarting the engine until it will no longer run.

5. Turn the ignition key to the OFF position.

Service Procedure (continued)

6. Place a rag or towel below the fuel supply line quick-connect fitting at the fuel rail (Figure 3).

   CAUTION: When removing the fuel supply line from the fuel inlet tube at the fuel rail, care must be taken that the fuel inlet tube is not being over-flexed. Damage to the fuel rail inlet tube may occur.

7. Disconnect the fuel supply line quick-connect fitting from the fuel inlet tube at the fuel rail (Figure 3).

8. Return the fuel pump fuse to the PDC.

   NOTE: One or more Diagnostic Trouble Codes (DTC) may have been stored in the PCM memory due to fuel pump fuse removal. A diagnostic scan tool must be used to erase a DTC.

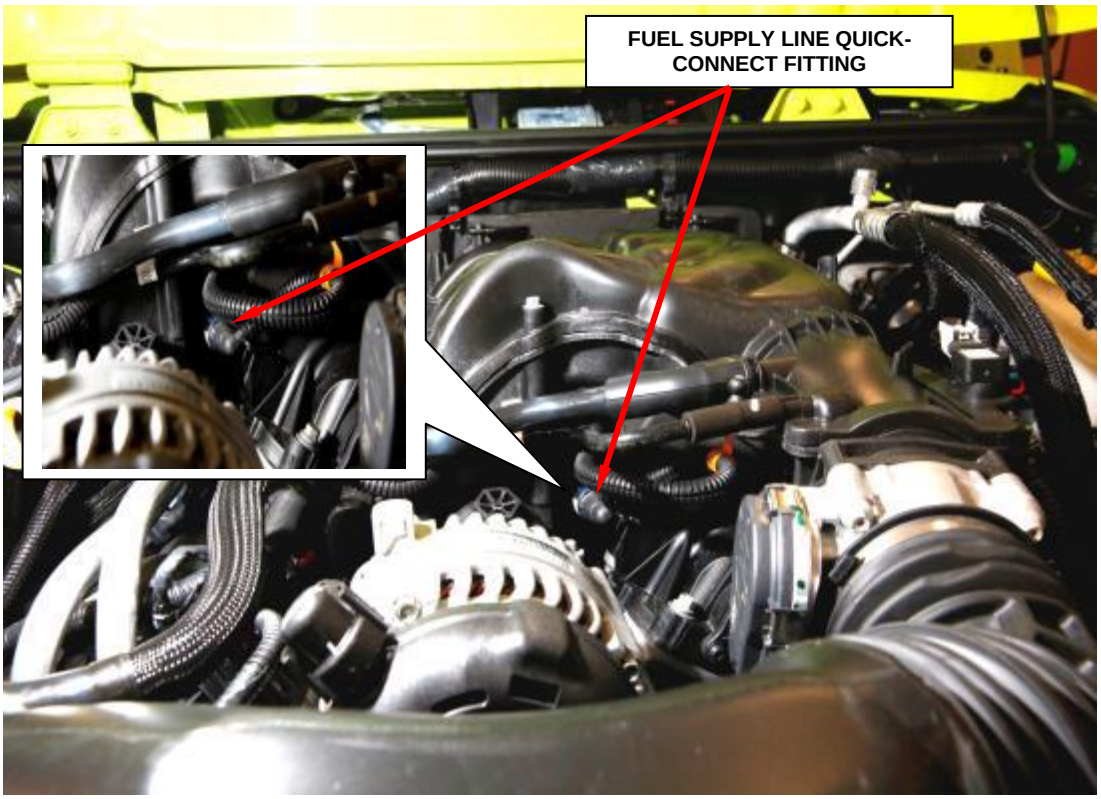

Figure 3 – Fuel Supply Line

Service Procedure (continued)

9. Drain the fuel tank using the following procedure.

   NOTE: Due to a one-way check valve installed into the fuel fill fitting at the tank, the tank cannot be drained at the fuel fill cap.

   a. Install the appropriate fuel line adapter fitting from the Decay Tool, Fuel 8978A to the fuel supply line. Route the opposite end of this hose to an OSHA approved fuel storage tank such as the JohnDow Gas Caddy 320-FC-P30-A or equivalent.

      NOTE: Activation of the fuel pump module may time out and need to be restarted several times to completely drain the fuel tank.

   b. Using the wiTECH scan tool, activate the fuel pump module until the fuel tank has been evacuated.

   c. Remove the Fuel Decay Tool from the fuel supply line.

   d. Connect the fuel supply line to the fuel rail.

10. Disconnect and isolate the negative battery cable.

11. Raise and support the vehicle.

12. Disconnect the EVAP solenoid to vapor canister line quick-connect fitting (Figure 4).

13. Disconnect the fuel pump module to fuel rail line quick-connect fitting (Figure 4).

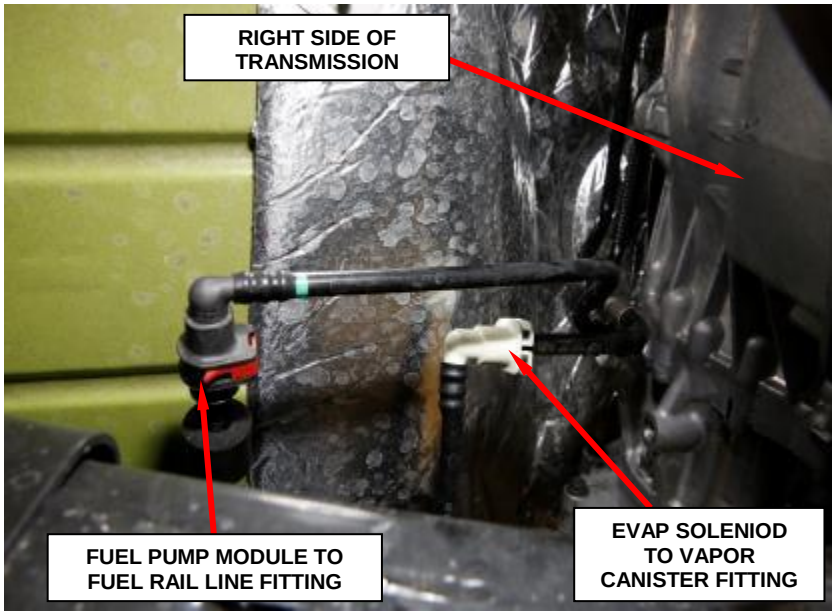

Figure 4 – Quick-Connect Fittings

Service Procedure (continued)

14. Loosen the fuel filler tube hose clamp and remove the fuel filler tube from the fuel tank (Figure 5).

15. Disconnect the EVAP solenoid to vapor canister line quick-connect fitting (Figure 5).

16. Disconnect the On-Board Refueling Vapor Recovery (ORVR) vacuum line quick-connect fitting from the ORVR control valve (Figure 5).

17. Disconnect the vapor canister line quick-connect fitting from the ORVR control valve (Figure 5).

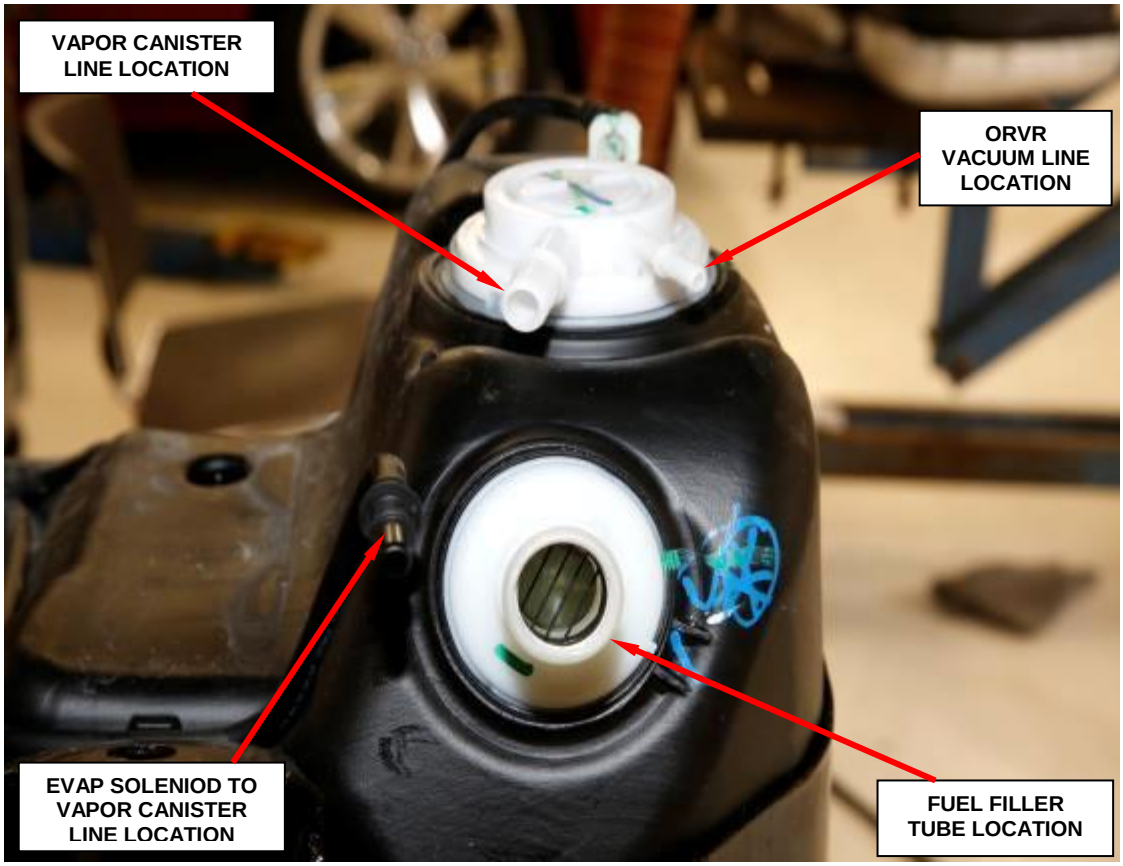

Figure 5 – Fuel Tank Connections

Service Procedure (continued)

18. Remove and save the four transfer case skid plate bracket bolts and remove the transfer case skid plate (Figure 6).

    NOTE: The fuel tank skid plate and the fuel tank assembly are removed at the same time. They share common fasteners.

19. Position a support fixture under the fuel tank such as OTC® Fuel Tank Handler 1758 on the OTC® High-Lift Transmission Jack 1728.

20. Remove the eight bolts and partially lower the fuel tank to gain access to the fuel pump module electrical connector (Figure 6).

21. Disconnect the electrical connector from the fuel pump module (Figure 7).

22. Disconnect the fuel supply tube quick-connect fitting from the fuel pump module (Figure 7).

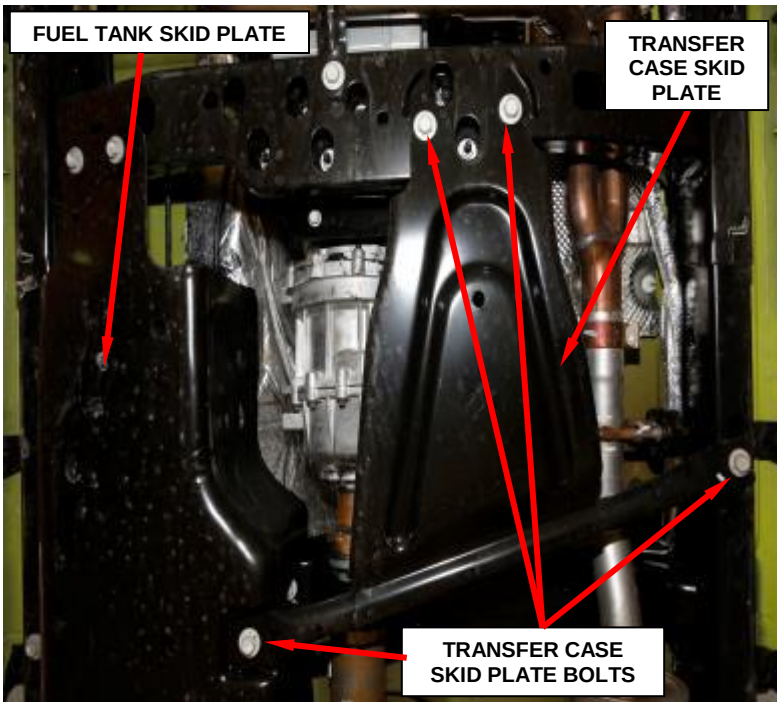

Figure 6 – Skid Plate

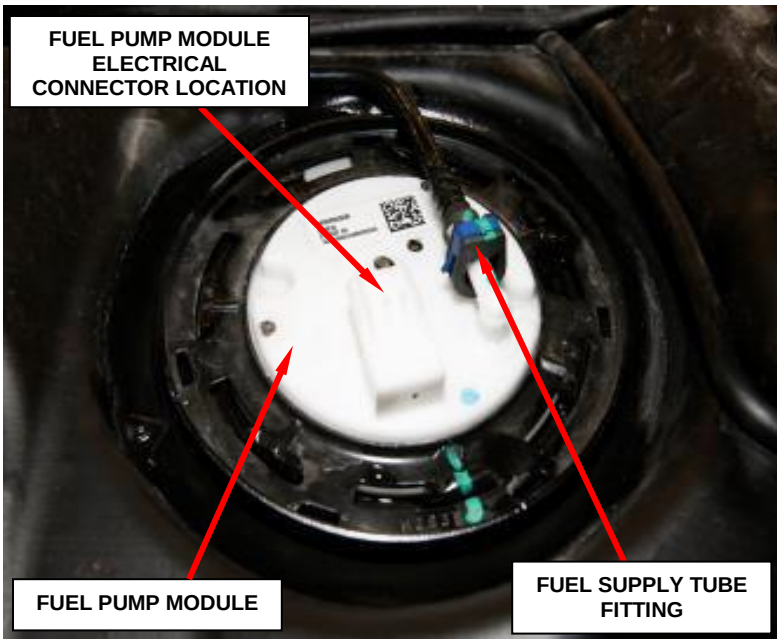

Figure 7 – Fuel Pump Module

Service Procedure (continued)

23. Continue lowering the fuel tank for removal then lift the fuel tank from the skid plate.

24. Remove the fuel pump module from the fuel tank.

    a. Position the lock-ring remover/installer 9340 into the notches on the outside edge of the lock-ring (Figure 8).

    b. Install a 1/2 inch drive breaker bar into the lock-ring remover/installer 9340.

    c. Rotate the breaker bar counterclockwise and remove the lock-ring.

    NOTE: The fuel pump module has to be properly located in the fuel tank for the fuel level gauge to work properly.

    d. Make note of the fuel pump module orientation (Figure 9).

    WARNING: The fuel pump module reservoir does not empty out when the tank is drained. The fuel in the reservoir will spill out when the module is removed.

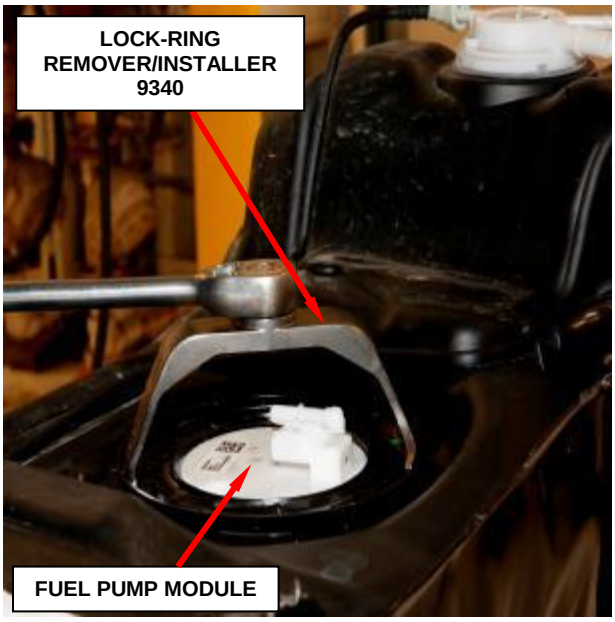

Figure 8 Lock Ring Removal

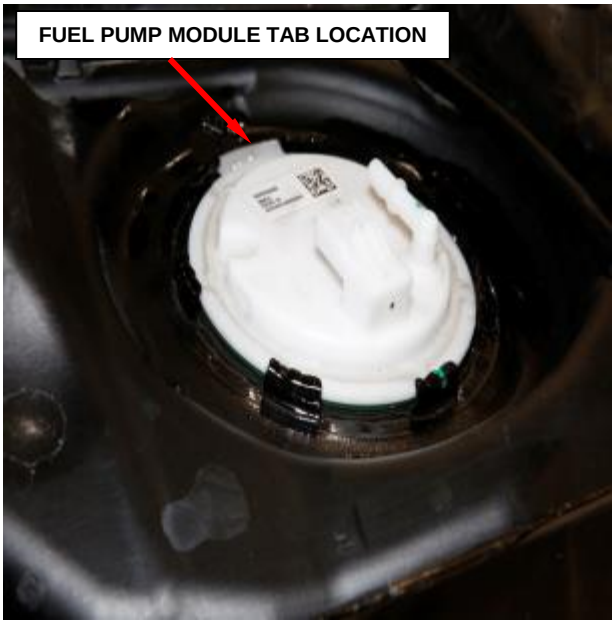

Figure 9 – Fuel Pump Module Orientation

Service Procedure (continued)

e. Raise the fuel pump module out of the fuel tank.

f. Tip the fuel pump module on its side and drain all fuel from the reservoir.

g. Remove the fuel pump module from the fuel tank using caution not to bend the float arm.

h. Remove and **discard** the rubber O-ring seal.

i. **Destroy and discard** original fuel tank.

25. Disconnect the white fuel level sending unit electrical connector (Figure 10).

CAUTION: Do not touch the terminals or the resistor card.

CAUTION: Do not pull the fuel level sending unit by the wires or the float arm.

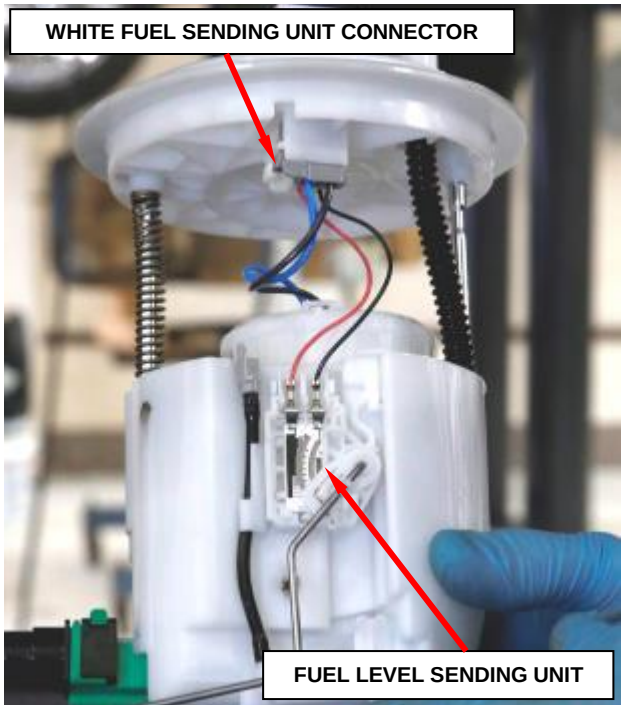

Figure 10 – Fuel Sending Unit Connector

26. Using your finger, press the fuel level sending unit snap tab to the left while gently pushing up on the bottom of the fuel level sending unit then remove and **discard** (Figure 11).

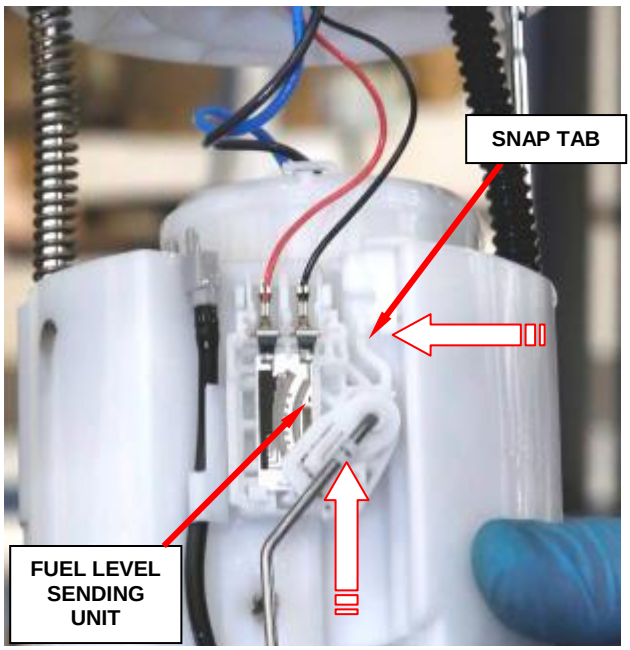

Figure 11 – Fuel Sending Unit Removal

Service Procedure (continued)

27. Position the **NEW** fuel level sending unit to the fuel pump module reservoir.

28. Gently push the fuel level sending unit down until the snap tab engages.

    CAUTION: Ensure the fuel level sending unit wires are routed so they do not get pinched between the coils of the spring when the module is completely compressed.

29. Connect the white fuel level sending unit electrical connector.

30. Install the fuel pump module in the **NEW** fuel tank assembly.

    CAUTION: Whenever the fuel pump module is serviced, the rubber O-ring seal must be replaced.

    a. Clean the rubber O-ring seal area of the fuel tank and install a **NEW** rubber O-ring seal.

    b. Lower the fuel pump module into the fuel tank using caution not to bend the float arm.

       NOTE: The main fuel pump module must be properly located in the fuel tank for the fuel level gauge to work properly.

    c. Align the **NEW** rubber O-ring seal and rotate the fuel pump module to the correct orientation noted during removal. This step must be performed for the fuel level gauge to work properly.

    d. Position the lock-ring over top of the fuel pump module.

    e. Position the lock-ring remover/installer 9340 into the notches on the outside edge of the lock-ring.

    f. Install a 1/2 inch drive breaker onto SAE Fuel Pump Lock Ring Wrench 9340 tool.

    g. Tighten the lock ring (clockwise) until all notches have engaged.

Service Procedure (continued)

31. Install the **NEW** fuel tank in the skid plate.

    NOTE: The fuel tank skid plate and the fuel tank assembly are installed at the same time. They share common fasteners.

32. Position a support fixture under the **NEW** fuel tank such as OTC® Fuel Tank Handler 1758 on the OTC® High-Lift Transmission Jack 1728.

33. Partially raise the fuel tank and connect the fuel supply tube quick-connect fitting to the fuel pump module and the electrical connector to the fuel pump module.

34. Continue raising the fuel tank to the body.

35. Install the eight fuel tank skid plate bolts and tighten to 65 N·m (48 ft. lbs.).

36. Install the transfer case skid plate, tighten the four bolts secuely.

37. Connect the EVAP solenoid to vapor canister line quick-connect fitting.

38. Connect the fuel pump module to fuel rail line quick-connect fitting.

39. Connect the vapor canister line quick-connect fitting to the On-Board Refueling Vapor Recovery (ORVR) control valve.

40. Connect the ORVR vacuum line quick-connect fitting to the ORVR control valve.

Service Procedure (continued)

41. Connect the EVAP solenoid to vapor canister line quick-connect fitting.

42. Install the fuel filler tube to the fuel tank and tighten the hose clamp to 3 N·m (30 in. lbs.).

43. Lower the vehicle.

44. Fill the fuel tank to the original fuel level as received.

45. Install the fuel filler cap.

46. Connect the negative battery cable and tighten nut to 5 N·m (45 in. lbs.).

47. Start the vehicle and check for leaks.

48. Use the wiTECH scan tool to erase any stored DTC data. If any problems remain, refer to the appropriate diagnostic information to diagnose any stored DTC that will not erase. If the stored DTC information is successfully erased, go to Step 49.

49. Return the vehicle to the customer.

Complete Proof of Correction Form for California Residents

This recall is subject to the **State of California Registration Renewal/Emissions Recall Enforcement Program**. Complete a Vehicle Emission Recall Proof of Correction Form **(Form No. 81-016-1053)** and **supply it to vehicle owners residing in the state of California** for proof that this recall has been performed when they renew the vehicle registration.

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 one of the following labor operation numbers and time allowances:

	Labor Operation Number	Time Allowance
Inspect Fuel Tank	14-S9-01-81	0.2 hours
Replace Fuel Tank and Fuel Sending Unit	14-S9-01-82	1.6 hours

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.

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

This notice applies to your vehicle,

[Model Year and Model]
VIN XXXXXXXXXXXXXXXXX

S90/NHTSA 16V-849

LOGO

VEHICLE PICTURE

YOUR SCHEDULING OPTIONS

1. **RECOMMENDED OPTION**
   Call your authorized Jeep Dealership

2. **Call the FCA Recall Assistance Center at 1-800-853-1403. An agent can confirm part availability and help schedule an appointment**

3. **Visit our Recall Website, recalls.mopar.com or scan below.**

QR Code

You can find your nearest dealer and review all your scheduling options from this website. You will be asked to provide your Vehicle Identification Number (VIN) to protect and verify your identity. The last eight characters of your VIN are provided above.

DEALERSHIP INSTRUCTIONS
Please reference Safety Recall S90.

IMPORTANT SAFETY RECALL

Fuel Tank Control Valve

Dear [Name],

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

FCA has decided that a defect, which relates to motor vehicle safety, exists in certain [2017 Model Year Jeep Wrangler] vehicles.

WHY DOES MY VEHICLE NEED REPAIRS?

The fuel tank control valve on your vehicle [1] may have been improperly manufactured. An inoperative fuel tank control valve may result in a fuel leak during a vehicle rollover event, debris in the fuel tank, and/or the ability to overfill the fuel tank during refueling. A fuel leak during a vehicle rollover event, in the presence of an ignition source, could cause a fire without warning.

HOW DO I RESOLVE THIS IMPORTANT SAFETY ISSUE

FCA will repair your vehicle [2] free of charge (parts and labor). To do this, your dealer will inspect the fuel tank control valve. Vehicles found with an improperly manufactured fuel tank control valve will have the fuel tank assembly and fuel level sending unit replaced. In addition, your dealer will require your vehicle for proper check-in, preparation, and check-out during your visit. Your time is important to us; please be aware that these steps may require more time. The estimated repair time is **2** hours. We recommend that you schedule a service appointment to minimize your inconvenience. Please bring this letter with you to your dealership.

TO SCHEDULE YOUR FREE REPAIR CALL 1-800-853-1403
OR YOUR CHRYSLER, DODGE, JEEP OR RAM DEALER TODAY

CALIFORNIA RESIDENTS

The State of California requires the completion of emission recall repairs prior to vehicle registration renewal. Your dealer will provide you with a Vehicle Emission Recall Proof of Correction Form after the recall service is performed. Be sure to save this form since the California Department of Motor Vehicles may require that you supply it as proof that the recall has been performed.

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
Fiat Chrysler Automobiles 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.