



Revised January 2017

Dealer Service Instructions for:

## **Safety Recall S85 / NHTSA 16V-273**

### **Fuel Rail Crossover Tube**

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**NOTE: Parts Information section revised.**

#### **Models**

2016	(WD)	Dodge, Durango
2016	(WK)	Jeep® Grand Cherokee

*NOTE: This recall applies only to the above vehicles equipped with a 3.6L engine (sales code ERC) built from February 10, 2016 through April 28, 2016 (MDH 021020 through 042806).*

**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 rail crossover tube on about 29,900 of the above vehicles may have been damaged during the engine manufacturing process. A damaged fuel rail crossover tube could leak fuel and cause an underhood engine fire without warning.

#### **Repair**

The fuel rail crossover tube must be inspected on all involved vehicles. Engines found with a damaged fuel rail crossover tube must have the fuel rail assembly replaced.

**Alternate Transportation**

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

**Parts Information**

**Vehicles must first have the fuel rail crossover tube inspected for damage prior to ordering parts.** No parts will be distributed initially because very few vehicles are expected to require parts.

<u>Part Number</u>	<u>Quantity</u>	<u>Description</u>
53034198AC	1	Fuel Rail
68080831AA	6	O-RING KIT, Fuel Injector

**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

## Service Procedure

1. Remove and save the oil filter access cover (Figure 1).

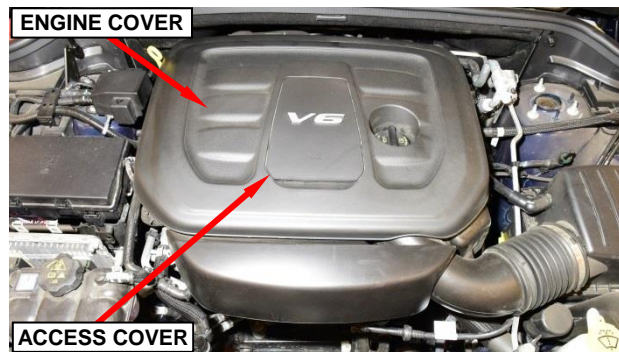


Figure 1 – Oil Filter Access Cover

2. Remove and save the engine cover fastener (Figure 2).

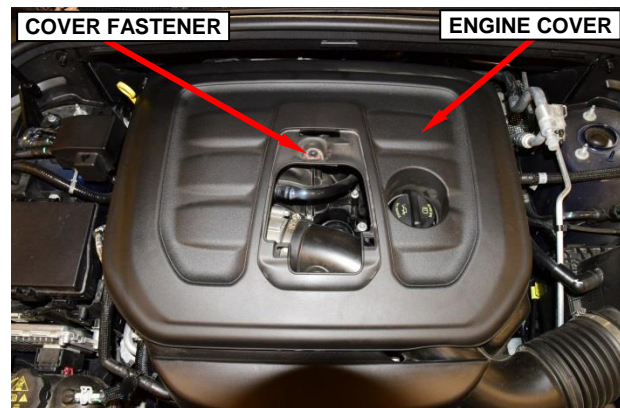


Figure 2 – Engine Cover

3. Gently lift the engine cover vertically to release the engine cover grommets from the ball studs (Figure 3).



Figure 3 – Ball Stud Locations

4. Remove and save the engine cover.

**Service Procedure (Continued)**

## 5. Release the fuel system pressure per the following steps:

a. Open fuel door and insert a fueling funnel into the fuel filler opening in order to release any fuel tank pressure (Figure 4).

**Figure 4 – Fuel Filler**

b. Remove the fuel pump fuse from the Power Distribution Center (PDC). For location of the fuel pump fuse, refer to label on the underside of the PDC cover (Figure 5).

c. Start and run the engine until it stalls.

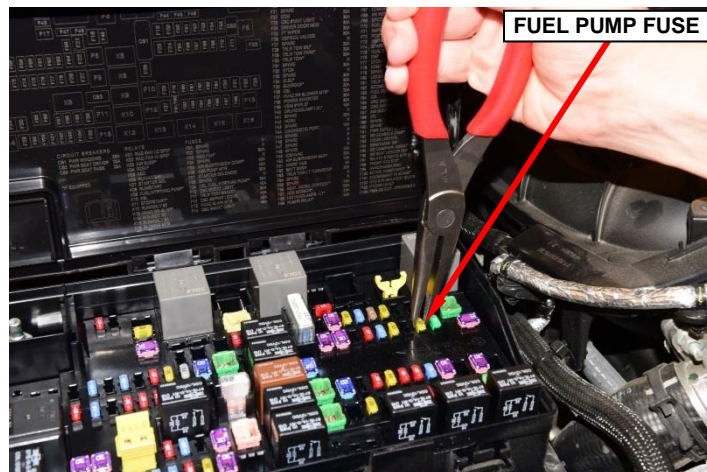
d. Attempt restarting the engine until it will no longer run.

e. Turn the ignition key to the OFF position.

6. Move the front passenger seat fully forward.

7. Remove the battery compartment cover.

**NOTE:** If equipped with an Intelligent Battery Sensor (IBS), disconnect the IBS connector first before disconnecting the negative battery cable.

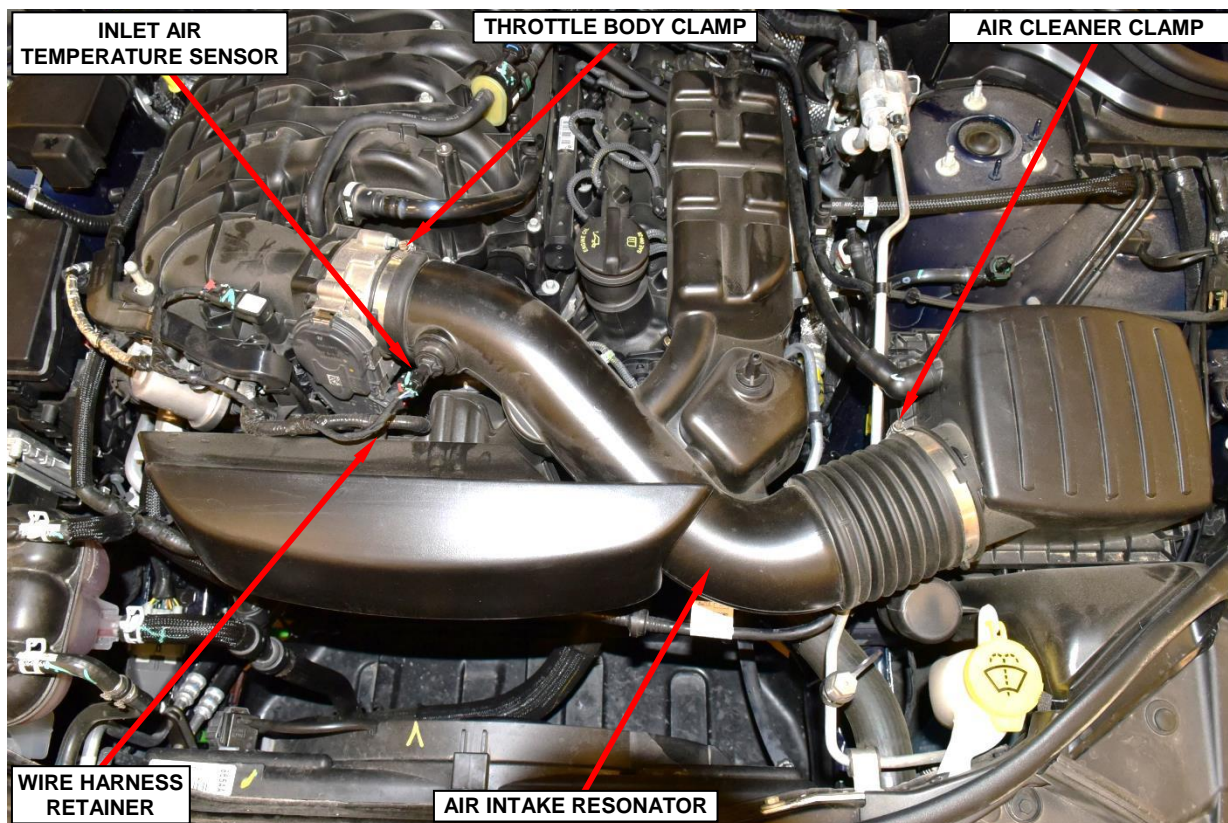
**Figure 5 – Fuel Pump Fuse**

9. Disconnect and isolate the negative battery cable terminal from the vehicle battery. **For vehicles equipped with a supplemental battery**, also disconnect and isolate the negative battery cable terminal from the supplemental battery.



**Service Procedure [Continued]**

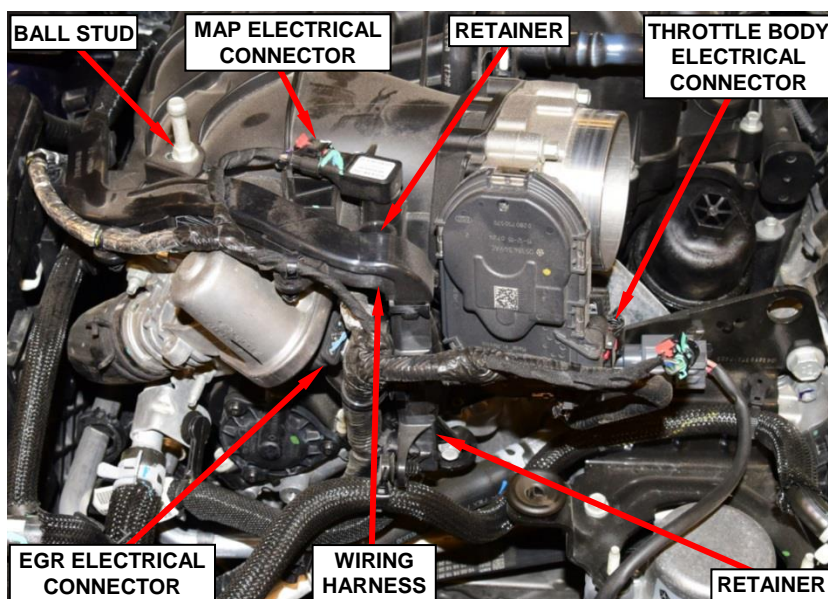
10. Disconnect the wire harness electrical connector from the Inlet Air Temperature (IAT) sensor (Figure 6).
11. Release the wire harness retainer from the air intake resonator assembly (Figure 6).
12. Loosen the clamp at the throttle body (Figure 6).
13. Loosen the clamp at the air cleaner body (Figure 6).
14. Release the air intake resonator assembly rubber grommets from the ball studs then remove and save the air intake resonator (Figure 6).



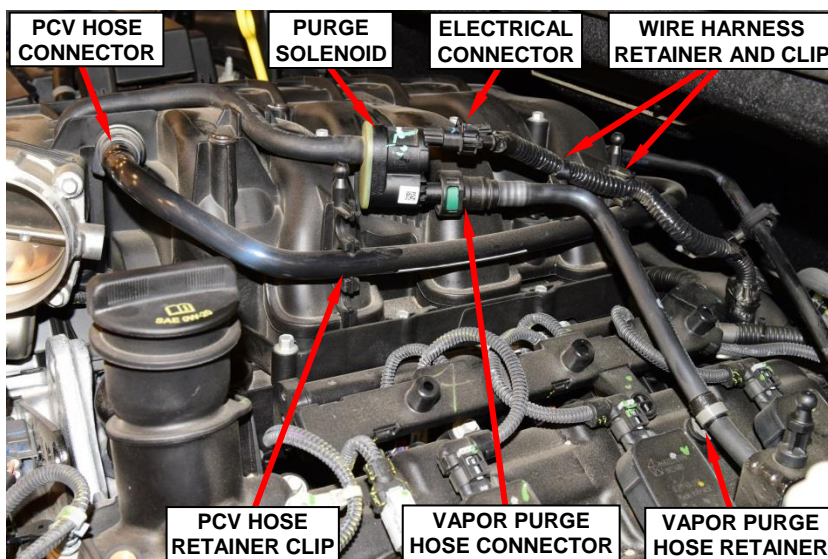
**Figure 6 – Air Intake Resonator Assembly**

**Service Procedure [Continued]**

15. Disconnect the throttle body wire harness electrical connector (Figure 7).
16. Disconnect the Manifold Air Pressure (MAP) sensor wire harness electrical connector (Figure 7).
17. Disconnect the Exhaust Gas Recirculation (EGR) valve wire harness electrical connector (Figure 7).

**Figure 7 – Front Engine Wire Harness**

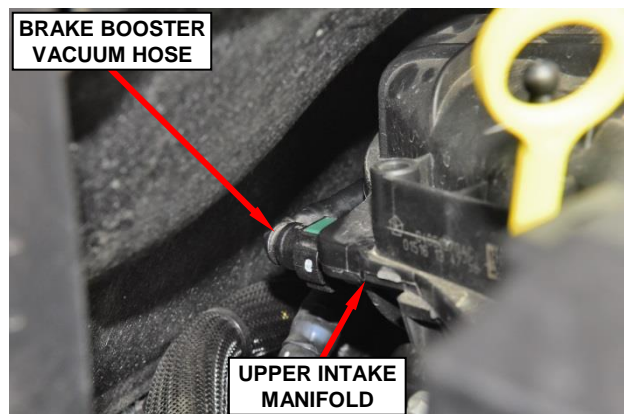
18. Remove and save the ball stud (Figure 7).
19. Detach the wire harness retainers then position the harness aside (Figure 7).
20. Disconnect the evaporative purge solenoid wire harness electrical connector, release the retainer from manifold and remove the harness from the retainer clip (Figure 8).
21. Disconnect the vapor purge hose from the evaporative purge solenoid (Figure 8).
22. Disconnect the Positive Crankcase Ventilation (PCV) hose, then remove the hose from the retaining clips and position aside (Figure 8).

**Figure 8 – Evaporative Purge and PCV**



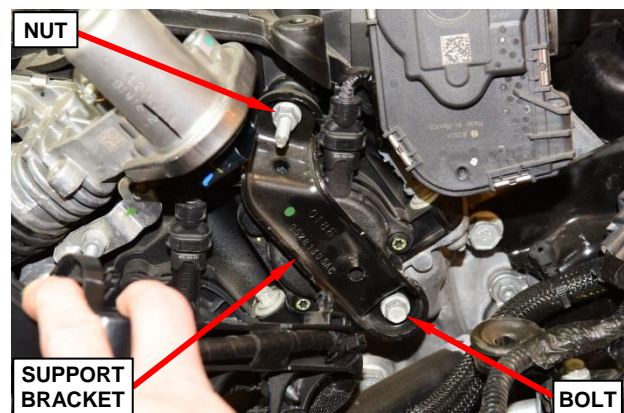
**Service Procedure [Continued]**

23. Disconnect the brake booster vacuum hose from the right rear corner of the upper intake manifold then position the hose aside (Figure 9).



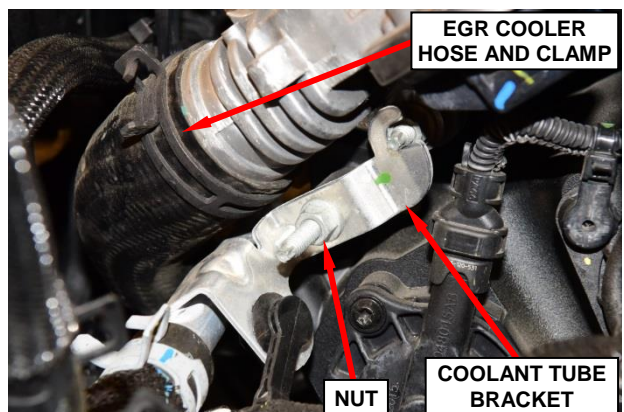
**Figure 9 – Brake Booster Vacuum Hose**

24. Remove and save the nut and bolt, then remove and save the upper intake manifold front support bracket (Figure 10).



**Figure 10 – Front Support Bracket**

25. Remove and save the coolant tube bracket retaining nut and position the tube aside (Figure 11).



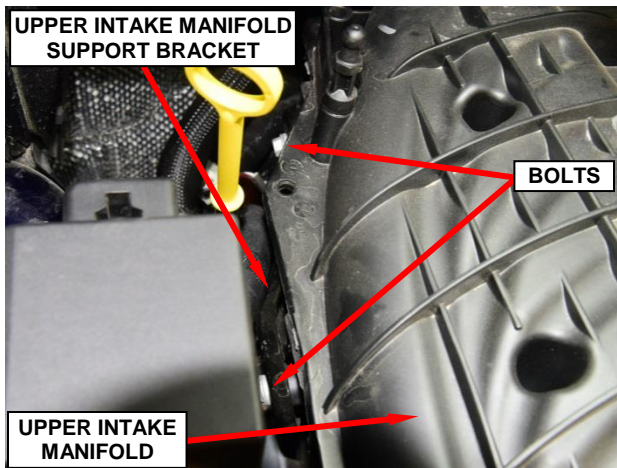
**Figure 11 – EGR Hose and Tube Bracket**

26. Release the Exhaust Gas Recirculation (EGR) cooler hose clamp and disconnect the hose from the EGR valve (Figure 11).
- NOTE:** It may be easier to disconnect the EGR cooler hose from the EGR valve while removing the upper intake manifold from the engine.

**Service Procedure (Continued)**

27. Remove and save the two bolts from the support bracket on the left side of the upper intake manifold (Figure 12).

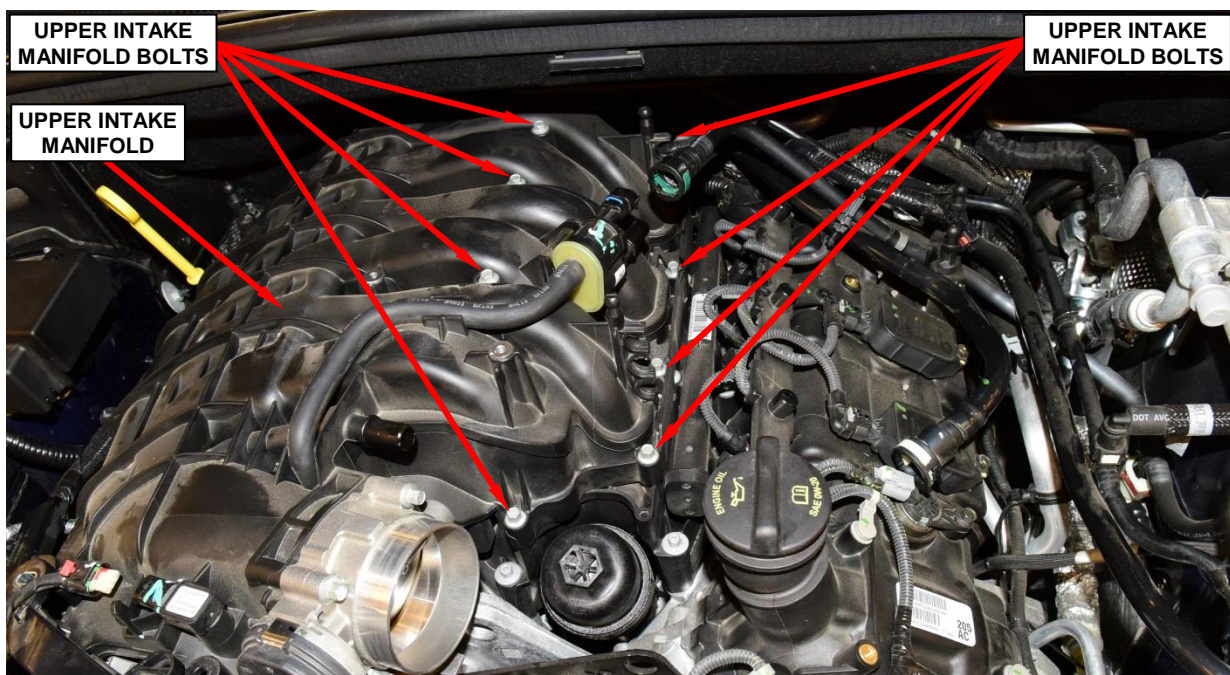
**NOTE:** The upper intake manifold attaching bolts are captured in the upper intake manifold. Once loosened, the bolts will need be lifted out of the lower intake manifold and held while removing the upper intake manifold.



**Figure 12 – Manifold Support Bracket**

**NOTE:** Exercise care to not inadvertently loosen the fuel rail attachment bolts that are in proximity of the upper intake manifold attaching bolts.

28. Loosen the eight upper intake manifold bolts. Lift the bolts up for clearance then remove the upper intake manifold (Figure 13).

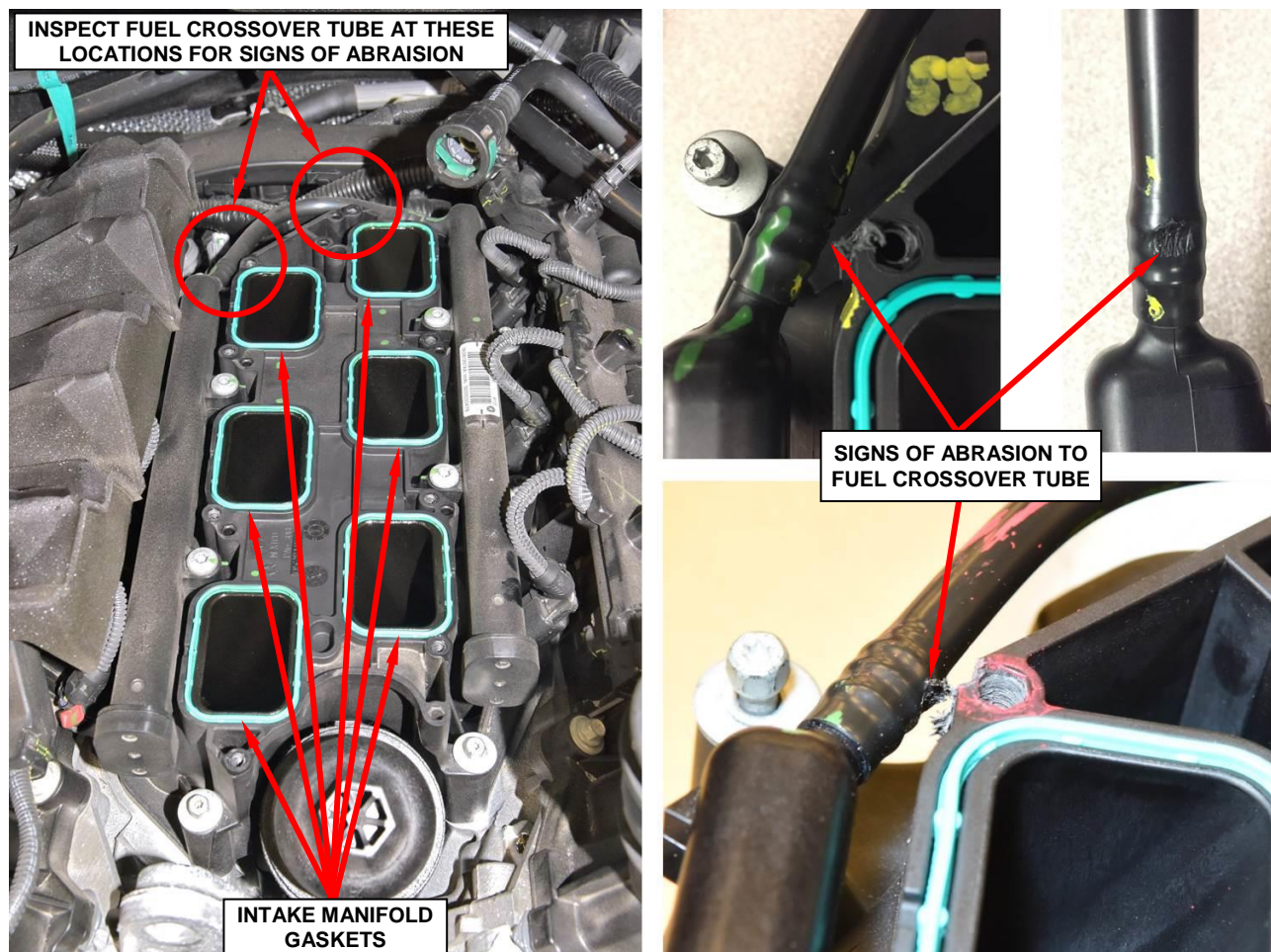


**Figure 13 – Upper Intake Manifold**



**Service Procedure [Continued]**

29. Inspect the six upper to lower intake manifold gaskets for any cuts or other defects and reuse the gaskets if no issue are found (Figure 14).
30. Cover the open intake ports to prevent debris from entering the engine (Figure 14).
31. With the upper intake manifold removed, visually inspect the fuel crossover tube for any signs of abrasion at locations indicated in (Figure 14).
  - **If NO signs of abrasion to the fuel crossover tube are found**, reinstall the upper intake manifold. Proceed to step 42.
  - **If signs of abrasion to the fuel crossover tube are found**, replace the fuel rail assembly. Continue with step 32.

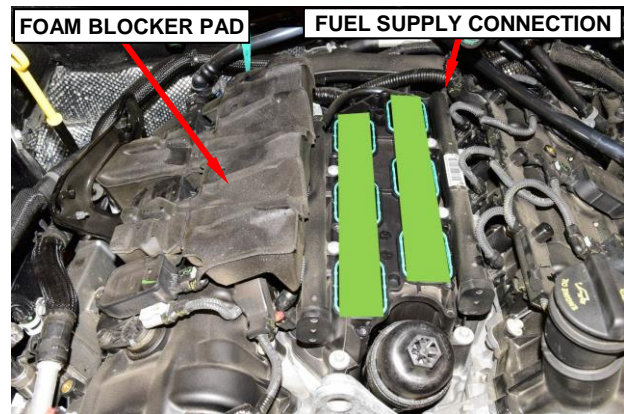


**Figure 14 – Intake Manifold Gaskets and Fuel Rail Crossover Tube Inspection**

**Service Procedure [Continued]**

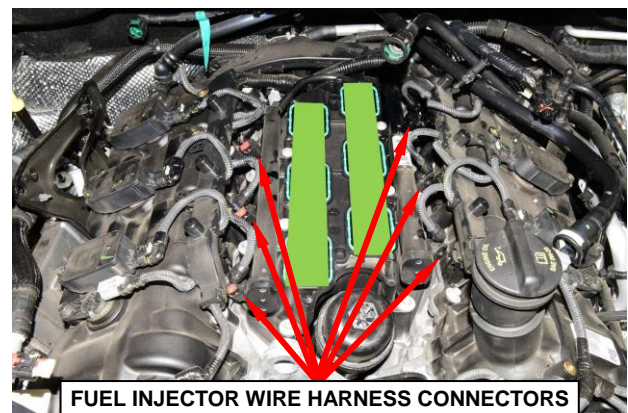
32. Remove the foam blocker pad from the right cylinder head cover (Figure 15).

33. Place a rag or towel below the fuel supply line quick-connect fitting located near the cowl (Figure 15).



**Figure 15 – Foam Pad / Fuel Connection**

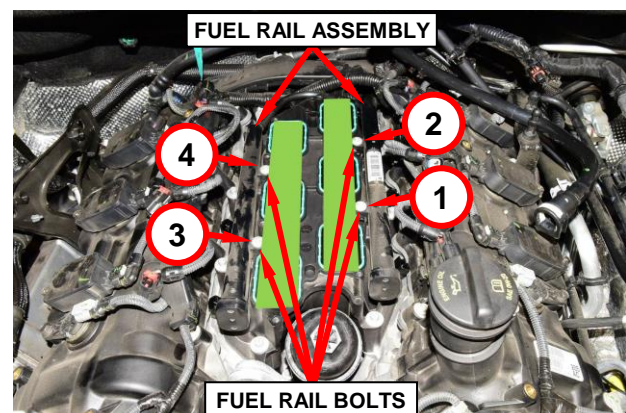
34. Disconnect the fuel supply hose from the fuel rail inlet (Figure 15).



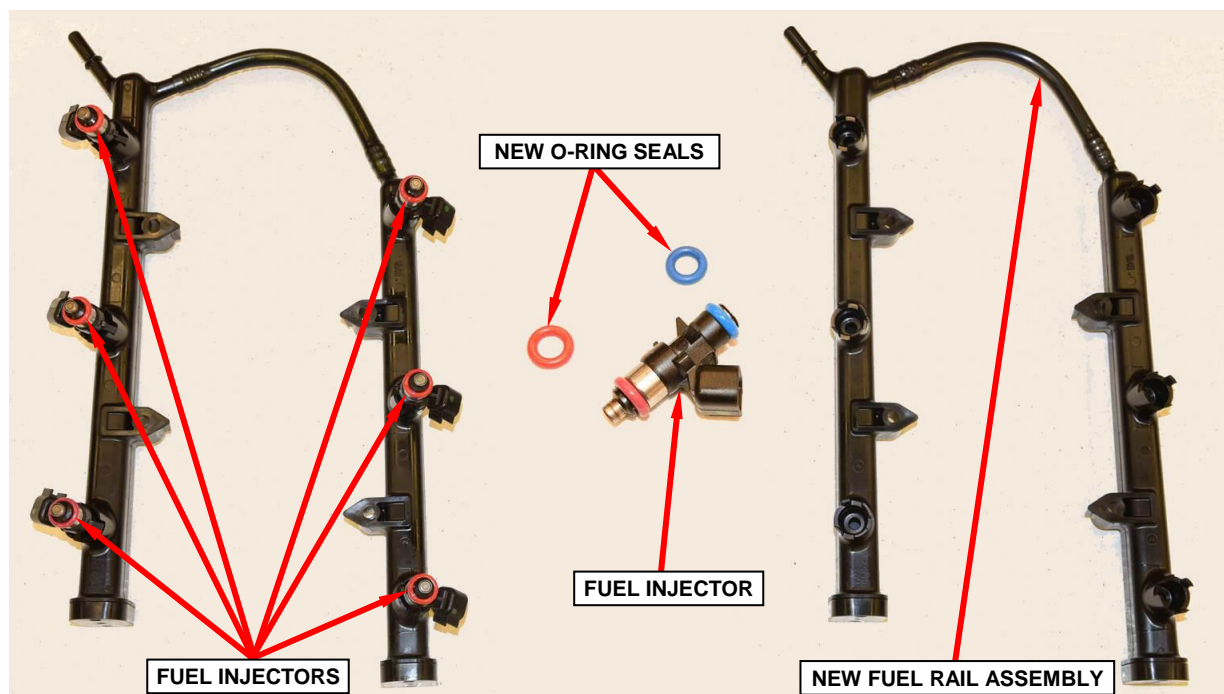
**Figure 16 – Fuel Injector Wire Harness**

35. Disconnect the fuel injector wire harness connectors and position the wire harness aside (Figure 16).

36. Remove the bolts, then lift the fuel rail and fuel injectors from the lower intake manifold (Figure 17).



**Figure 17 – Fuel Rail and Bolt Tightening Sequence**

**Service Procedure [Continued]**

**Figure 18 – Transfer Fuel Injectors to New Fuel Rail**

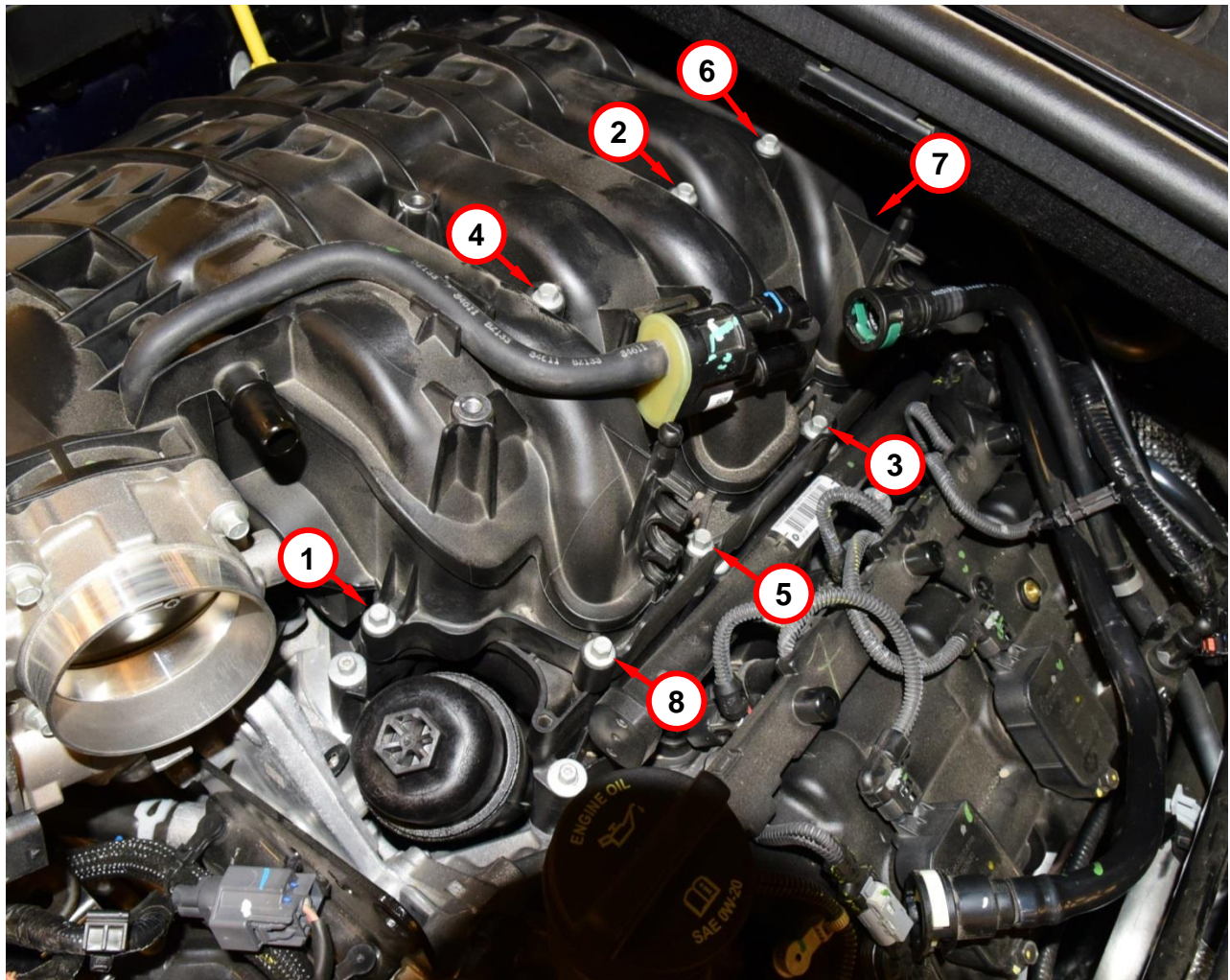
37. Transfer the fuel injectors to the new fuel rail. New fuel injector O-ring seals must be used. Lightly lubricate the new O-ring seals with engine oil prior to installation (Figure 18).
38. Install the new fuel rail with injectors to the lower intake manifold. Tighten the fuel rail bolts in the sequence shown (Figure 17) to 62 In. Lbs. (7 N·m).
39. Position the wire harness and connect the fuel injector wire harness connectors (Figure 16).
40. Connect the fuel supply hose to the fuel rail (Figure 15).
41. Install the foam blocker pad on top of the right cylinder head cover (Figure 15).
42. Uncover the open intake ports then clean and inspect the sealing surfaces. The gaskets may be reused if no issues are found. Install the upper to lower intake manifold gaskets (Figure 14).

**NOTE: Intake Manifold Gaskets are reusable provided they are not cut, torn or melted. The gaskets are not required by warranty to be replaced.**



**Service Procedure (Continued)**

43. Lift and hold the upper intake attaching bolts clear of the mating surface. Back the bolts out slightly or if required, use an elastic band to hold the bolts clear of the mating surface.
44. Position the upper intake manifold onto the lower intake manifold so that the locating posts on the upper intake manifold align with corresponding holes in the lower intake manifold. It may also be helpful at this time to align the Exhaust Gas Recirculation (EGR) cooler hose with the EGR valve.
45. Hand thread the eight upper intake manifold attaching bolts into the lower intake manifold. Tighten the bolts in the sequence shown to 89 In. Lbs. (10 N·m) (Figure 19).



**Figure 19 – Upper Intake Manifold Bolt Tightening Sequence**

**Service Procedure [Continued]**

46. Install the two bolts to the support bracket on the left side of the upper intake manifold and tighten the bolts to 71 In. Lbs. (8 N·m) (Figure 12).
47. Connect the EGR cooler hose to the EGR valve and secure the cooler hose clamp (Figure 11).
48. Install the coolant tube bracket onto the intake manifold stud and tighten the retaining nut to 71 In. Lbs. (8 N·m) (Figure 11).
49. Install the upper intake manifold front support bracket then tighten the nut to 71 In. Lbs. (8 N·m) and bolt to 8 Ft. Lbs. (12 N·m) (Figure 10).
50. Connect the brake vacuum booster hose to the right rear corner of the upper intake manifold (Figure 9).
51. Connect the Positive Crankcase Ventilation (PCV) hose to the upper intake manifold (Figure 8).
52. Connect the vapor purge hose to the evaporative purge solenoid (Figure 8).
53. Install the evaporative purge solenoid wire harness retainer to the upper intake manifold and wire harness to the retainer clip, and then connect the harness electrical connector to the evaporative purge solenoid (Figure 8).
54. Attach the wire harness retainer to the upper intake manifold (Figure 7).
55. Install the ball stud and tighten securely (Figure 7).
56. Connect the wire harness electrical connector to the Exhaust Gas Recirculation (EGR) valve (Figure 7).
57. Connect the wire harness electrical connector to the Manifold Air Pressure (MAP) sensor (Figure 7).
58. Connect the wire harness electrical connector to the throttle body (Figure 7).

<b>Service Procedure (Continued)</b>
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59. Secure the air intake resonator assembly rubber grommets to the ball studs (Figure 6).
60. Install the air intake resonator assembly to the air cleaner body and the throttle body (Figure 6).
61. Tighten the clamps at the throttle body and the air cleaner body to 44 In. Lbs. (5 N·m) (Figure 6).
62. Connect the wire harness electrical connector to the Inlet Air Temperature (IAT) sensor (Figure 6).
63. Install the wire harness retainer to the air intake resonator assembly (Figure 6).
64. Return the fuel pump fuse to the PDC (Figure 5).
65. Remove the fueling funnel from the fuel filler opening and close the fuel door (Figure 4).
66. Connect the positive and negative battery cables.
67. Install the battery compartment cover.
68. Return the front passenger seat to its original position.
69. Start and run the engine while inspecting for fuel leaks.
70. Locate the engine cover with grommets over the ball studs (Figure 3).
71. Using hands only, gently push down on the cover until you feel the grommets engage with the ball studs (Figure 3). Ensure grommet and ball stud retention by lightly lifting up around the edges of the engine cover to ensure that the cover is not loose and that all of the grommets are securely engaged.
72. Install and securely tighten the engine cover fastener (Figure 2).
73. Install the oil filter access cover (Figure 1).



**Service Procedure (Continued)**

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

74. Connect the wiTECH micro pod II to the vehicle data link connector.
75. Place the ignition in the “**RUN**” position.
76. Open the wiTECH Diagnostic application.
77. Starting at the “**Select Tool**” screen, highlight the row/tool for the micro pod II device you are using. Then select “**Next**” at bottom right side of the screen.
78. Enter your “**User id**” and “**Password**”, and then select “**Finish**” at the bottom of the screen.
79. Clear all DTCs.
80. Turn the ignition to the “**OFF**” position and remove the wiTECH micro pod II and battery charger from the vehicle.
81. 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:

	<b><u>Labor Operation Number</u></b>	<b><u>Time Allowance</u></b>
Inspect Fuel Rail Crossover Tube for Abrasion	14-S8-51-81	0.8 hours
Inspect Fuel Rail Crossover Tube and Replace Fuel Rail Assembly	14-S8-51-82	1.3 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.

**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 XXXXXXXXXX

S85/NHTSA 16V-273

LOGO

VEHICLE PICTURE

#### YOUR SCHEDULING OPTIONS

- 1. RECOMMENDED OPTION**  
Call your authorized Chrysler, Dodge, Jeep, RAM 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](https://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 S85.

# IMPORTANT SAFETY RECALL

## Fuel Rail Crossover Tube

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 [2016 model year Dodge Durango and Jeep Grand Cherokee] vehicles equipped with a 3.6L engine.

#### WHY DOES MY VEHICLE NEED REPAIRS?

The fuel rail on your vehicle <sup>[1]</sup> may have had the fuel rail crossover tube damaged during the engine manufacturing process. A damaged fuel rail crossover tube could leak fuel and cause an underhood engine fire without warning.

#### HOW DO I RESOLVE THIS IMPORTANT SAFETY ISSUE

FCA will repair your vehicle <sup>[2]</sup> free of charge (parts and labor). To do this, your dealer will inspect the fuel rail crossover tube on all involved vehicles. Engines found with a damaged fuel rail crossover tube will have the fuel rail assembly 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](https://www.fcarecallreimbursement.com) to submit your reimbursement request online. <sup>[3]</sup> 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



**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](http://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.