

July 2017 Dealer Service Instructions for:

Emissions Recall T05 Selective Catalytic Reduction Catalyst

NOTE: 2015 model year vehicles will be added to this campaign at a later date.

Effective immediately, all repairs on involved vehicles are to be performed according to this notification. Service Bulletin (TSB) 18-088-15 is no longer applicable for the involved vehicles only. Those vehicles that have already had this repair performed, as determined by our warranty records, have been excluded from this recall.

Models

2013 - 2014 (D2) RAM 3500 Pickup

NOTE: This recall applies only to the above vehicles equipped with a 6.7L *Cummins turbo diesel engine (sales code ETK)*

IMPORTANT: Some of the involved vehicles may be in dealer vehicle inventory. Dealers should complete this repair on these vehicles before retail delivery. Dealers should also perform this repair on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

Subject

It has been determined that this Emissions Recall is necessary, and the plan has been submitted to the California Air Resources Board and the United States Environmental Protection Agency. Under the plan, FCA is assisting by working with you to facilitate the recall. The subject of this recall is that some MY2013 through 2014 RAM 3500 vehicles may experience deactivation of the selective catalyst reduction (SCR) system. This can cause tailpipe emissions of oxides of nitrogen (NO_X) to exceed the emissions standard.

Repair

Remove the existing SCR catalyst and Ammonia Sensor Module and replace both with new SCR catalyst (P/Ns listed below).

Parts Information

NOTE: Parts below are Required for all vehicle applications.		
<u>Part Number</u>	Description	
04778570	Kit, Wiring Sleeve	
04641780	Tie, Cable (Qty. 3 required per vehicle)	
04627714AA	Gasket, Diesel Exhaust Fluid (DEF) Dosing Injector	
68065844AB	Gasket, SCR Catalyst Flange	

NOTE: Parts below are Required based on vehicle application.

Part Number	Description
68292410AA	Converter, SCR Catalyst (Regular Cab)
68292411AA	Converter, SCR Catalyst (Crew Cab)
68292412AA	Converter, SCR Catalyst (Mega Cab)
68320024AA	Label, Emission (Model Year 2013)
68320026AA	Label, Emission (Model Year 2014)
68320028AA	Label, Emission (Model Year 2015)

NOTE: Bolts for DEF dosing injector, order ONLY as needed:		
<u>Part Number</u>	Description	
06102003	Bolt, Hex Head, M6x16x14 DEF Dosing Injector	

Parts Return

Return the SCR Catalyst to the Mopar Core Return Center for core credit.

Special Tools

The following special tools are required to perform this repair:

- NPN wiTECH micro pod II
 NPN Laptop Computer
- ➢ NPN wiTECH Software

A. Inspect for Ammonia Sensor and Module

- 1. Raise and support vehicle.
- 2. Inspect for an ammonia sensor on top of the Selective Catalytic Reduction (SCR) catalyst and an ammonia sensor module on the vehicle frame rail (Figure 1):
 - If ammonia sensor and module are not present, Service Bulletin (TSB) 18-088-15 was previously completed on this vehicle. No further action is required. Return the vehicle to the customer, this recall is complete.
 - Ammonia sensor and module are present; continue with Section B. Remove Ammonia Sensor Module.



Figure 1 – Inspect For Ammonia Sensor and Module

B. Remove Ammonia Sensor Module

- 1. Disconnect and isolate both negative cables from the vehicle batteries.
- 2. Raise and support the vehicle.
- 3. Disconnect both wire harness connectors from the ammonia sensor module (Figure 2).
- 4. Remove and discard the two nuts fastening the ammonia sensor module to the vehicle frame (Figure 2).
- 5. Remove and discard the ammonia sensor module.
- 6. Remove the fir tree retainer from the four wire harness pigtail to the ammonia sensor (Figure 3).
- 7. The ammonia sensor module four wire harness pigtail connector needs to be eliminated. Cut all four wires at the module connector and discard the connector (Figure 4).



Figure 2 – Ammonia Sensor Module



Figure 3 – Four Wire Harness Retainer



Figure 4 – Four Wire Harness Connector

- 8. Remove approximately 3 in. (75 mm) of tape from the remaining four wire harness pigtail to expose the four cut wires (Figure 5).
- 9. Use the wire sleeve kit heat shrink tubing to seal all four cut wires (Figure 5).
- 10. Wrap the wire harness pigtail wires with Tesa tape or equivalent heat resistant electrical tape (Figure 6).
- 11. Secure the four wire harness to the main wire harness with cable ties (Figure 7).
- 12. Continue with Section C. Replace SCR Catalyst.



Figure 5 – Seal Wire Ends



Figure 6 – Tape Wire Harness Pigtail



Figure 7 – Secure With Cable Ties

C. Replace SCR Catalyst

1. Saturate with MOPAR® Rust Penetrant or equivalent, the Diesel Exhaust Fluid (DEF) dosing injector bolts, the SCR catalyst flange nuts and tail pipe clamp. Allow 5 minutes for penetration.

WARNING: If torches are used when servicing the exhaust system, do not allow any flame near the fuel lines or the fuel tank. Failure to follow these instructions may result in possible serious or fatal injury.

- 2. Disconnect the vehicle wire harness connector from the Oxides of Nitrogen (NO_X) 1/2 sensor module (Figure 8).
- 3. Remove and save the two nuts fastening the NO_X 1/2 module to the module bracket (Figure 8).
- 4. Release the NO_X 1/2 sensor wire harness from the harness retainers (Figure 8).
- 5. Remove and save the NO_X 1/2 sensor with module attached from the SCR catalyst (Figure 8).



Figure 8 – NO_X 1/2 Sensor and Module



Figure 9 – SCR Catalyst Exhaust Temperature Sensor Connectors

- 6. Disconnect the post SCR catalyst exhaust temperature sensor connector with black wire from the vehicle wire harness (Figure 9).
- 7. Disconnect the middle SCR catalyst exhaust temperature sensor connector with white wire from the vehicle wire harness (Figure 9).
- 8. Remove and save the two bolts securing the Diesel Exhaust Fluid (DEF) dosing injector to the SCR catalyst. Discard the DEF gasket. Position the DEF dosing injector aside (Figure 10).



Figure 10 – Diesel Exhaust Fluid Dosing Injector

- 9. Disconnect the exhaust tailpipe hanger rods from isolators.
- 10. Loosen the exhaust tail pipe band clamp nut (Figure 11).
- 11. Remove the exhaust tailpipe from the SCR catalyst then position the exhaust tail pipe aside (Figure 12).
- 12. Disconnect the SCR catalyst hanger rods from the isolators.
- 13. Place a support under the SCR catalyst (Figure 12).

WARNING: The SCR catalyst is heavy! Do NOT remove the SCR catalyst fasteners without proper SCR catalyst support and/or assistance while removing the SCR catalyst.

- 14. Remove and save the four nuts from the SCR catalyst flange (Figure 13).
- 15. With assistance, remove the SCR catalyst from the vehicle.



Figure 11 – Exhaust Tail Pipe



Figure 12 – Support SCR Catalyst



Figure 13 – SCR Catalyst Flange Nuts

- 16. Remove and discard the SCR catalyst flange gasket (Figure 14).
- 17. Clean the particulate filter flange gasket sealing surface (Figure 14).
- 18. Install a new SCR catalyst flange gasket to the particulate filter studs (Figure 14).



Figure 14 – SCR Catalyst Flange Gasket

- 19. Remove and save the Post SCR catalyst exhaust temperature sensor from the SCR (Figure 15).
- 20. Remove and save the Middle SCR catalyst exhaust temperature sensor from the SCR (Figure 15).
- 21. Obtain the NEW SCR catalyst and return the removed SCR catalyst for core exchange.

NOTE: The Middle SCR catalyst exhaust temperature sensor has a white wire harness. The Post SCR catalyst exhaust temperature sensor has a black wire harness. Make sure the exhaust temperature sensors are being installed in the correct locations on the SCR catalyst.

- 22. Install the middle SCR catalyst exhaust temperature sensor into the new SCR catalyst. Tighten the temperature sensor to 24 ft. lbs. (33 N·m) (Figure 15).
- 23. Install the post SCR catalyst exhaust temperature sensor into the new SCR. Tighten the temperature sensor to 24 ft. lbs. (33 N·m) (Figure 15).



Figure 15 – Temperature Sensors

- 24. With assistance, install the new SCR catalyst to the vehicle and properly support the SCR catalyst while the four SCR catalyst flange nuts are installed by hand. Do NOT tighten the nuts at this time.
- 25. Connect the isolators to the SCR catalyst hanger rods.
- 26. Tighten the SCR catalyst flange nuts to 44 ft. lbs. (60 N·m) (Figure 13).
- 27. Install the exhaust tailpipe to the SCR catalyst (Figure 12).
- 28. Connect the isolators to the exhaust tailpipe hanger rods.
- 29. Align the exhaust tail pipe and tighten the band clamp nut to 44 ft. lbs. (60 N·m) (Figure 11).
- 30. Check the exhaust system for contact with the body panels. A minimum of 1.0 in. (25 mm) is required between the exhaust system components and body/frame parts. Make the necessary adjustments, if needed.
- 31. Clean the Diesel Exhaust Fluid (DEF) dosing injector gasket sealing area.
- 32. Remove the paper backing from a NEW DEF dosing injector gasket then apply the gasket onto the DEF dosing injector.
- 33. Install the DEF dosing injector to the SCR catalyst (Figure 10).
- 34. Apply anti-seize lubricant to the two DEF dosing injector bolts. Install the two bolts securing the DEF dosing injector to the SCR catalyst. Tighten the bolts to 97 in. lbs. (11 N⋅m) (Figure 10).
- 35. Connect the middle SCR catalyst exhaust temperature sensor connector with white wire to the vehicle wire harness (Figure 9).
- 36. Connect the post SCR catalyst exhaust temperature sensor connector with black wire to the vehicle wire harness (Figure 9).

- 37. Install the NO_X 1/2 sensor with module attached to the SCR catalyst. Tighten the NO_X 1/2 sensor to 37 ft. lbs. (50 N·m) (Figure 8).
- 38. Install the NO_X 1/2 sensor wire harness to the harness retainers (Figure 8).
- 39. Install the NO_X 1/2 module to the module bracket with the two nuts. Tighten the nuts to 80 in. lbs. (9 N·m) (Figure 8).
- 40. Connect the vehicle wire harness connector to the NO_X 1/2 sensor module (Figure 8).
- 41. Lower the vehicle.
- 42. Connect both negative cables to the vehicle batteries.
- 43. Continue with Section D. Replace Vehicle Emission Control Information (VECI) label.

D. Replace Vehicle Emission Control Information (VECI) label

1. Remove existing VECI label by hand.

NOTE: A heat gun may be needed to help soften the label adhesive.

- 2. Remove any remaining label/adhesive using Isopropyl alcohol and allow the surface to dry before installing the replacement label.
- 3. Position the replacement label as near as possible to the original label location.
- 4. Remove all visible wrinkles and bubbles by wiping label with a gloved hand or a squeegee.
- 5. Continue with Section E. Reprogram the Powertrain Control Module (PCM).

E. Reprogram the Powertrain Control Module (PCM).

NOTE: The wiTECH scan tool must be used to perform this recall. The wiTECH software is required to be at the latest release level before performing this procedure. If the reprogramming flash for the PCM is aborted or interrupted, repeat the procedure. The PCM must be at the latest calibration level after completing this emissions recall.

1. Install a battery charger and verify that the charging rate provides 13.0 to 13.5 volts. Do not allow the charger to time out during the flash process. Set the battery charger timer (if so equipped) to continuous charge.

NOTE: Use an accurate stand-alone voltmeter. The battery charger volt meter may not be sufficiently accurate. Voltages outside of the specified range will cause an unsuccessful flash. If voltage reading is too high, apply an electrical load by activating the park or headlamps and/or HVAC blower motor to lower the voltage.

- 2. Connect the wiTECH micro pod II to the vehicle data link connector.
- 3. Place the ignition in the "**RUN**" position.
- 4. Open the wiTECH diagnostic application.
- 5. 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.
- 6. Enter your "User id" and "Password", then select "Finish" at the bottom of the screen.
- 7. From the "Vehicle View" screen, click on the "Powertrain Control Module (PCM)" icon.
- 8. From the "**PCM View**" screen, select the "**flash tab**" then compare the "**Current PCM Flash Number**" with the "**New Flash Number**" listed on the "**sort table**".
 - If the "Current PCM Flash Number" is the same as the "New Flash Number", continue to Step 16.
 - If the "Current PCM Flash Number" is not the same as the "New Flash Number", continue to Step 9.

- 9. With the cursor over the desired flash file, click the green arrow button on the right side of the screen to start the update process. Follow the wiTECH "Screen **Prompt**" instructions to complete the reprogramming.
- 10. From the "**PCM View**" screen, select the "**flash tab**" then compare the "**Current PCM Flash Number**" with the "**New Flash Number**" listed on the "**sort table**".
 - ➢ If the "Current PCM Flash Number" is the same as the "New Flash Number", the flash is complete. Continue with Step 11.
 - If the "Current PCM Flash Number" is not the same as the "New Flash Number", repeat Steps 7 through 10.
- 11. Select "Misc Functions Tab".
- 12. Vehicles equipped with an Automatic Transmission, continue with Step 13. Vehicles equipped with a Manual Transmission proceed to Step 14.
- 13. Highlight "Quicklearn RFE" and select green arrow button on the right side of the screen to start the Quicklearn RFE process. Follow the wiTECH "Screen Prompt" instructions to complete the Quicklearn RFE process.
- 14. Verify that all Diagnostic Trouble Codes (DTCs) have been cleared.
- 15 From the "Misc Functions Tab" screen, highlight "PCM Configuration" and select green arrow to start the PCM configuration process. Follow the wiTECH "Screen Prompt" instructions to complete the PCM Configuration process.
- 16. Turn the ignition to the "**OFF**" position and remove the wiTECH micro pod II and battery charger from the vehicle.

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 Canada to record recall service completions and provide dealer payments.

Parts listed on any campaign are required for the repair but may not always be eligible for reimbursement. As stated in the Service Administration Manual; Normal shop supplies, such as general-purpose cleaners, solvents, lubricants, etc. submitted on claims are subject to non-payment or chargeback.

Use <u>one</u> of the following labour operation numbers and time allowances:

	Labour Operation <u>Number</u>	Time <u>Allowance</u>
Inspect SCR Catalyst for Ammonia Sensor	11-T0-51-81	0.2 hours
Replace SCR Catalyst, Remove Ammonia11-T0-5Sensor, and Install New VECI Label(Vehicle with PCM Software Previously Performed)		1.6 hours
Replace SCR Catalyst, Remove Ammonia Sensor, Reprogram PCM and Install New VECI Label (Manual Transmission Only)	11-T0-51-83	1.9 hours
Replace SCR Catalyst, Remove Ammonia Sensor, Reprogram PCM and Install New VECI Label (Automatic Transmission Only)	11-T0-51-84	2.1 hours

Emissions Recall T05 – Selective Catalytic Reduction Catalyst Page 16

Owner Notification and Service Scheduling

All involved vehicle owners known to FCA Canada are being notified of the service requirement by mail. They are requested to schedule appointments for this service with their dealers. A 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 studio inquiry as needed.

GRS provides involved dealers with an <u>updated</u> VIN list of <u>their incomplete</u> 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."** The VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, Postal Code, or VIN sequence.

Dealers should perform this repair on all unsold vehicles <u>before</u> retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

VIN lists may contain confidential, restricted owner name and address information. Use of this information is permitted for this notification 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.

FCA Canada Inc.

J.D. Kiritsis National Service and Parts Manager



EMISSIONS RECALL T05 SELECTIVE CATALYTIC REDUCTION CATALYST

Dear Vehicle Owner:

This Follow-up notice is sent to you in accordance with the Canadian Environmental Protection Act.

It has been determined that some **2013-2014 model year RAM 3500 vehicles** equipped with a 6.7L Cummins turbo diesel engine may release air pollutants which exceed Environment and Climate Change Canada Standards for Oxides of Nitrogen standards.

Some 2013-2014 model year RAM 3500 vehicles may experience degradation of the Selective Catalyst Reduction (SCR) system. Degradation of the SCR system can cause tailpipe emissions of Oxides of Nitrogen (NO _x) to exceed emissions standard.	
The selective catalyst reduction system will be repaired free of charge (parts and labour). To do this, your dealer will replace the selective catalyst reduction system in your vehicle.	
Contact an authorized FCA dealer and schedule a service appointment.	
For information on this recall or any other recall affecting your vehicle, visit the website below and input your vehicle's seventeen-digit vehicle identification number (VIN). English : recalls.mopar.ca French : rappels.mopar.ca	
 For additional assistance or information, please contact FCA Canada Customer Care Centre: By Phone: 1-800-465-2001 (English) or 1-800-387-9983 (French), By Email: www.fcacanada.ca/en/contact_us.php (English) or www.fcacanada.ca/fr/contact_us.php (French), By Mail: FCA Canada Customer Care Centre, P.O. Box 1621, Windsor, Ontario, N9A 4H6. 	

If you have already experienced this condition and have paid to have it repaired, you will still be required to have the campaign performed by an authorized FCA Canada dealer at no charge to you. Once completed, please send your original receipts and/or adequate proof of payment along with the campaign invoice to the following address for **further review of possible** reimbursement: FCA Canada Customer Care Centre, P.O. Box 1621, Windsor, Ontario, N9A 4H6.

If your name and address indicated above are incorrect or if you no longer own the vehicle, please contact the Customer Name & Address Call Centre at 1-800-373-1474 to update your information.

We apologize for any inconvenience and thank you for your attention to this important matter.

Yours very truly,

FCA Canada Inc. National Service and Parts Manager