



**Revision 3 November 2021** 

Dealer Service Instructions for:

# Safety Recall Y76 / NHTSA 21V-798 Intake Air Heater Relay

NOTE: Updated information in the "Repair" section highlighted in red.

### Remedy Available

2021 - 2022 (DJ) Ram 2500 Pickup

**(D2) Ram 3500 Pickup** 

(DD) Ram 3500 Cab Chassis

(DP) Ram 4500/5500 Cab Chassis

NOTE: This recall applies only to the above vehicles equipped with a 6.7L Cummins Engine (sales code ETN, ETL, ETM).

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 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 intake air heater relay on about 137,946 of the above vehicles may experience an engine compartment fire originating from an electrical short in the Intake Air Heater Relay, which can potentially lead to a vehicle fire with the ignition in the "ON" or "OFF" position. A vehicle fire can result in increased risk of occupant injury and/or injury to persons outside the vehicle, as well as property damage.

# Repair

For all vehicles involved, check Engine Run Hours in the Instrument Panel Cluster:

#### For 2022 MY and 2021 MY, built ON or AFTER January 08, 2021:

- ➤ If the total engine hours are GREATER than 600, this recall can be marked complete and vehicle returned to the customer.
- ➤ If total engine hours are LESS than 600, perform Section A: Grid Heater Temperature Test Procedure.
  - Pass this recall can be marked complete and vehicle returned to the customer.
  - Fail grid heater relay exceeds the specified surface temperature; contact STAR Center for additional directions and replacement relay. Reference Section B: **Grid Heater Relay Replacement Procedure** if relay replacement is directed by STAR Center.

#### For 2021 MY, built BEFORE January 8, 2021:

- If the total engine hours are GREATER than 600 <u>and</u> service history shows Y08 was previously completed, this recall can be marked complete and vehicle returned to the customer
- If the total engine hours are GREATER than 600 <u>and</u> service history <u>does not</u> show Y08 was previously completed, perform Section C: Intake Air Heater Relay RTV Application Procedure.
- If the total engine hours are LESS than 600, regardless of Y08 completion or not, perform Section A: **Grid Heater Temperature Test Procedure.** 
  - Pass If Y08 was NOT previously completed, perform Section C: **Intake Air Heater Relay RTV Application Procedure.** If Y08 was previously completed this recall can be marked complete.
  - o Fail grid heater relay exceeds the specified surface temperature; contact STAR Center for additional directions and replacement relay. Reference Section B: **Grid Heater Relay Replacement Procedure** if relay replacement is directed by STAR Center.

# **Parts Information**

NOTE: The below part number is only applicable to 2021 vehicles, built before January 8, 2021 and no service history of recall Y08 remedy completion.

\*Part Number Qty. Description

04883971AC 1 RTV, Silicone Rubber Adhesive (MS-GF44B)

**NOTE:** 1 Tube of RTV will cover approximately 4 relays

### **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 Laser Infrared Thermometer MINIMUM specifications:

Range: -30C to 200C Resolution: +/- 0.2C Accuracy; +/- 3C Spot Size Ratio: 8:1 Response Time: < 1.5s

#### **Service Procedure**

### A. Intake Air Heater Relay Temperature Test Procedure

WARNING: Do NOT leave the vehicle unattended while performing this test.

NOTE: Position the vehicle on a NONFLAMMABLE surface.

NOTE: Please have a fire extinguisher available while performing the test.

- 1. Open the hood.
- 2. Connect the wiTECH micro pod II to the vehicle data link connector.
- 3. Open the wiTECH 2.0 website.
- 4. Enter your "User id" and "Password" and your "Dealer Code", then select "Sign In" at the bottom of the screen. Click "Accept".
- 5. From the "Vehicle Selection" screen, select the vehicle to be updated.
- 6. Turn the ignition to the "**ON**" position.
- 7. From the "Topology" tab, select the "PCM" icon.
- 8. Select "System Tests".
- 9. Select "Grid Heater Relay Test".

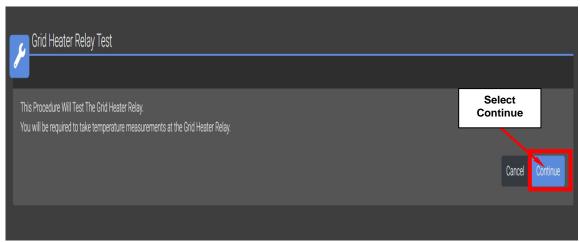


Figure 1 – Grid Heater Test Selection

10. Select "Continue" (Figure 1).

11. Place check mark in box then select "Continue" (Figure 2).

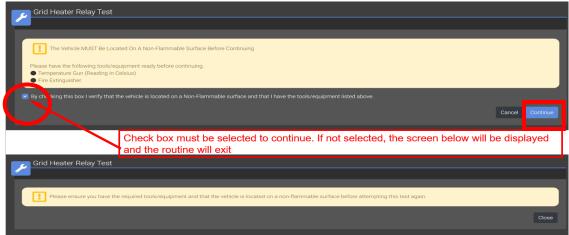


Figure 2 - Check Box

- 12. Follow and complete all wiTECH screen prompts; through 9 test sequences.
- 13. Using an Infrared Thermometer, set measurement to read temperature in Celsius ONLY.
- 14. Take an initial surface temperature of the grid heater relay, in **Celsius**, for your reference.



Figure 3 – Temperature Measurement Location

15. Measure the temperature of the Grid Heater Relay during the <u>test in the</u> <u>specific location</u> as illustrated in Figure 3 when prompted by wiTECH.

NOTE: Measure the relay temperature from the same distance for each test sequence (Figure 3).

NOTE: Verify Celsius is selected for EACH reading, by testing a known ambient temperature surface. Some equipment will default back to a Fahrenheit setting.

- > If the Grid Heater Temperature <u>exceeds 80°C abort the test</u>, make selection in wiTECH for the report to be sent to you via email, <u>hold the vehicle</u>, and contact STAR Center for additional direction. <u>B. Intake Air Heater Relay Replacement Procedure</u>.
  - ➤ If test is aborted accidently, return to step 8.
  - ➤ If the Grid Heater Relay <u>does not exceed 80°C</u>, proceed to step 16.
- 16. Select view the **DTCs**.
- 17. If no DTCs are present, the procedure is complete.
- 18. Place the ignition in the "**OFF**" position and then remove the wiTECH micro pod II device from the vehicle.
- 19. If this is a 2022 MY or 2021 MY, built ON or AFTER January 08, 2021, close the vehicle hood and return the vehicle to the customer or inventory, otherwise consult the "Repair" section for additional information.

#### B. Intake Air Heater Relay Replacement Procedure.

- 1. Disconnect the Intelligent Battery Sensor (IBS) wire harness connector (Figure 5).
- 2. Loosen the ground terminal nut and remove the negative battery cables with IBS from the battery and isolate it (Figure 5).

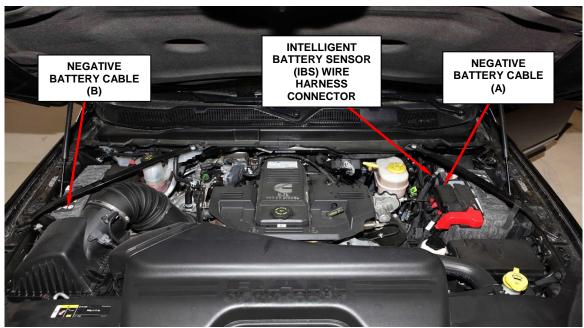


Figure 5 - Engine Compartment

- 3. Loosen the air intake hose clamp and remove the clean air hose from turbocharger (Figure 6).
- 4. Loosen the air hose clamp from the air cleaner housing and remove the clean air hose (Figure 6).



Figure 6 - Air Intake Hose

- 5. Disconnect the intake air heater relay wire harness connector (Figure 7).
- 6. Remove the nuts and the cables from intake air heater relay. **Note position of cables before removing** (Figure 7).

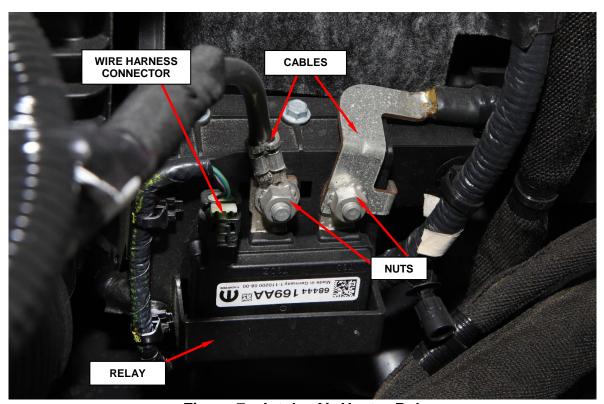


Figure 7 - Intake Air Heater Relay

- 7. Remove the intake air heater relay by tilting relay forward and away from the studs then set on a clean surface with the back of the relay facing up (Figure 4).
- 8. Install the **NEW** intake air heater relay in the bracket (Figure 7).
- 9. Install the cables to the intake air heater relay and tighten nuts to 15N·m (11ft. lbs.). (Figure 5).
- 10. Connect the intake air heater relay wire harness connector (Figure 6).
- 11. Install the clean air hose and securely tighten the clamp (Figure 6).

- 12. Install the clean air hose to the turbocharger and securely tighten the clamp.
- 13. Install the negative battery cables with IBS to the negative posts and tighten to 7N·m (62 In. lbs.) (Figure 5).
- 14. Connect the IBS wire harness connector (Figure 5).
- 15. Close the hood and return the vehicle to the customer or vehicle inventory.

#### C. Intake Air Heater Relay RTV Application Procedure

- 1. Disconnect the Intelligent Battery Sensor (IBS) wire harness connector (Figure 8).
- 2. Loosen the ground terminal nut and remove the negative battery cables with IBS from the battery and isolate it (Figure 8).

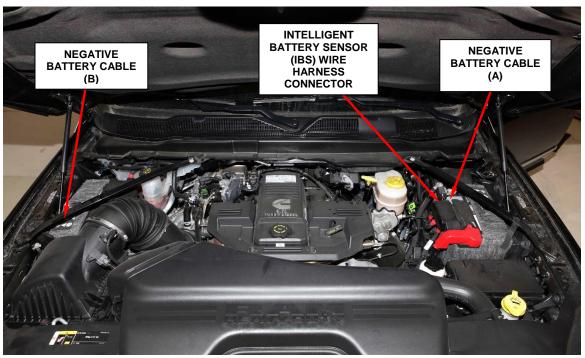


Figure 8 - Engine Compartment

- 3. Loosen the air intake hose clamp and remove the clean air hose from turbocharger (Figure 9).
- 4. Loosen the air hose clamp from the air cleaner housing and remove the clean air hose (Figure 9).



Figure 9 - Air Intake Hose

- 5. Disconnect the intake air heater relay wire harness connector (Figure 10).
- 6. Remove the nuts and the cables from intake air heater relay. **Note position of cables before removing** (Figure 10).

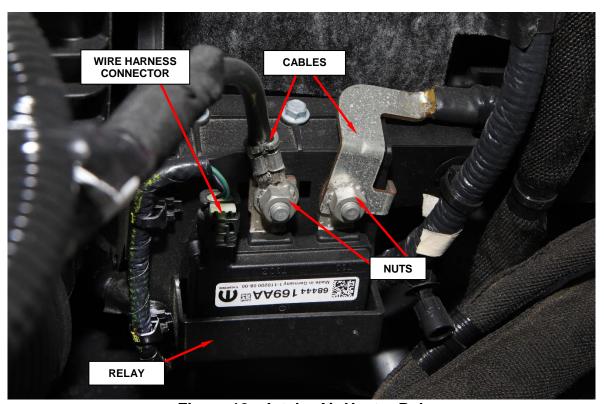


Figure 10 – Intake Air Heater Relay

- 7. Remove the intake air heater relay by tilting relay forward and away from the studs then set on a clean surface with the back of the relay facing up (Figure 10).
- 8. Using isopropyl alcohol and a clean cloth wipe the back of the relay clean of any dirt or residue.

NOTE: It is extremely important to ensure the relay has been sufficiently cleaned before applying the RTV.

9. Initiate the application of the RTV by: **A)** applying the RTV on the buss bar holes then **B)** apply to the outer sides of the buss-bars and **C)** finally on the remaining surface of the relay (approximately 2MM thickness) to cover the relay (Figure 11).

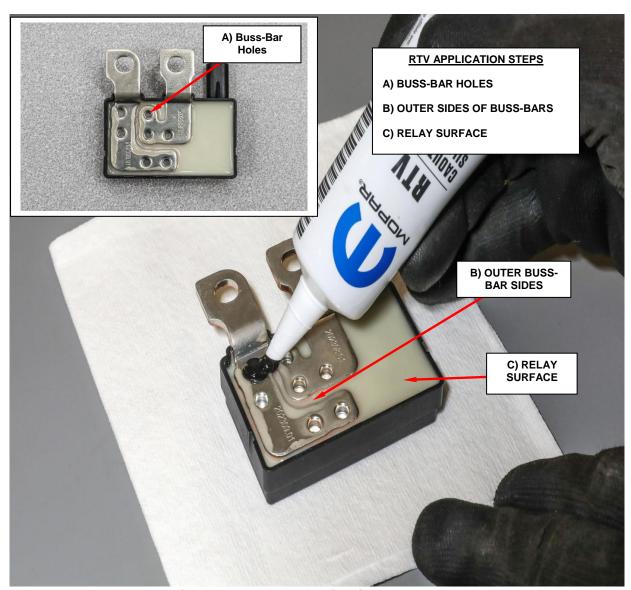


Figure 11 – RTV Application Procedure

- 10. Starting at the top of the Buss-Bars use a tongue depressor or equivalent and align it to the outer case of the relay and skim in the downward position to remove any excess RTV (Figure 12).
- 11. Allow the RTV to cure (Approximately 15min).
- 12. Install the intake air heater relay in the bracket (Figure 12).



Figure 12 – Skimming Excessive RTV

- 13. Install the cables to the intake air heater relay and tighten nuts to 15N⋅m (11ft. lbs.). (Figure 10).
- 14. Connect the intake air heater relay wire harness connector (Figure 10).
- 15. Install the clean air hose and securely tighten the clamp (Figure 9).
- 16. Install the clean air hose to the turbocharger and securely tighten the clamp.
- 17. Install the negative battery cables with IBS to the negative posts and tighten to 7N·m (62 In. lbs.) (Figure 8).
- 18. Connect the IBS wire harness connector (Figure 8).
- 19. Close the hood and return the vehicle to the customer or vehicle inventory.

### **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 the following labor operation numbers and time allowances:

	Labor Operation Number	Time Allowance
Inspect Vehicle Engine Hours	08-Y7-61-81	0.2 hours
Inspect and Perform Grid Heater Relay Test	08-Y7-61-82	0.8 hours
Apply Protective Layer on Relay (Applies to 2021 vehicles that have NOT compl	08-Y7-61-60 leted Y08 recall)	0.6 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.

# 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 <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." 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 <u>must</u> 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.

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,

#### Y76/NHTSA 21V-798

#### **LOGO**

### **VEHICLE PICTURE**

#### YOUR SCHEDULING OPTIONS

- 1. RECOMMENDED OPTION
  Call your authorized Chrysler /
  Dodge / Jeep<sub>®</sub> / 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 recalls.mopar.com, scan the QR code below, or download the Mopar Owner's Companion App.

**QR** Code

Get access to recall notifications, locate your nearest dealer, and more through this website or Mopar Owner's Companion App. 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 Y76.

### IMPORTANT SAFETY RECALL

#### **Intake Air Heater Relay**

Dear [Name],

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

Owners of vehicles previously notified of the Y08 recall (NHTSA 21V-163) will need to bring their vehicle in for recall completion, regardless of having the Y08 repair performed.

FCA US has decided that a defect, which relates to motor vehicle safety, exists in certain [2021 – 2022 Model Year (DJ) Ram 2500 Pickup, (D2) Ram 3500 Pickup, (DD) Ram 3500 Cab Chassis, and (DP) Ram 4500/5500 Cab Chassis] vehicles equipped with a 6.7L Cummins Engine.

It is extremely important to take steps now to repair your vehicle to ensure the safety of you and your passengers.

#### WHY DOES MY VEHICLE NEED REPAIRS?

Your vehicle [1] may experience an engine compartment fire originating from an electrical short in the Intake Air Heater Relay, which can potentially lead to the risk of a vehicle fire with the ignition in the "ON" or "OFF" position. A vehicle fire can result in increased risk of occupant injury and/or injury to persons outside the vehicle, as well as property damage.

Customers are advised to not park these vehicles inside of buildings or structures, or near other vehicles until the vehicle has the final repair completed.

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

FCA US will repair your vehicle [2] free of charge (parts and labor). To do this, your dealer will inspect the Intake Air Heater Relay. The estimated repair time is about one hour. In addition, your dealer will require your vehicle for proper check-in, preparation, and check-out during your visit, which may require more time. Your time is important to us, so we recommend that you schedule a service appointment to minimize your inconvenience. Please bring this letter with you to your dealership.

#### TO SCHEDULE YOUR <u>FREE</u> REPAIR, CALL YOUR CHRYSLER, DODGE, JEEP OR RAM DEALER TODAY

#### 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 <u>www.fcarecallreimbursement.com</u> 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

FCA US LLC



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

<sup>[1]</sup> 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.

<sup>[2]</sup> 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.

<sup>[3]</sup> 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.