



September 2010

Dealer Service Instructions for:

Customer Satisfaction Notification K17

Reprogram HVAC Control Head and Inspect/Replace Actuators

Models

2009-2010 (DS) Ram Truck (1500 series)

2010 (DJ) Ram Truck (2500 series)

2010 (D2) Ram Truck (3500 series)

NOTE: This recall applies only to the above vehicles built through May 22, 2010 (MDH 052220).

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

The HVAC mode door actuator gears on about 225,000 of the above vehicles may break and result in the inability to fully control the HVAC functions.

Repair

All involved vehicles must have updated HVAC control head software installed and the mode door actuators must be tested and replaced as required.

NOTE: Some vehicles equipped with Manual Temperature Control (MTC) will require a control head bootloader flash before performing the control head software update. See the service procedure for complete details.

Dealers should attempt to minimize customer inconvenience by placing the owner in a loaner vehicle if inspection determines that instrument panel removal is required and the vehicle must be held overnight.

<u>Part Number</u>	<u>Description</u>
CBA1K171AA	Actuator, Mode Door (standard torque)
CBJ1K172AA	Actuator, Mode Door (low torque)

NOTE: The low torque mode door actuator is only used to control the face/defrost outlet mode door on Manual Temperature Control (MTC) equipped vehicles. All other mode door actuators on the MTC system use standard torque actuators.

All mode door actuators (including the face/defrost outlet actuator) on Automatic Temperature Control (ATC) equipped vehicles use standard torque actuators.

Each dealer to whom vehicles in the recall were assigned will receive enough actuators to service about 20% of those vehicles.

The following special tools are required to perform this repair:

- NPN wiTECH VCI Pod Kit
- NPN Laptop Computer
- NPN wiTECH Software
- NPN TechCONNECT PC

Service Procedure

A. Reprogram HVAC Control Head

CAUTION: All involved vehicles must be reprogrammed before testing the actuators. Failure to reprogram the HVAC control head before testing could result in inaccurate test results.

1. Open the hood. 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.
2. Connect the wiTECH pod to the vehicle data link connector located under the steering column.
3. Place the ignition in the “**RUN**” position.
4. Set the HVAC mode knob to Face (or Bi-level) and blower knob at “Low” setting.
5. Open the wiTECH desktop application.
6. **On vehicles equipped with ATC**, continue with Step 7 of this procedure. **On vehicles equipped with MTC**, continue with the procedure below to verify or update the control head bootloader software.
 - a. Starting at the “Vehicle View” screen, select “**HVAC**”.
 - b. Select the “**Flash**” tab at the top of the screen.
 - c. Read the “Current ECU Flash Number”
 - If the part number is 55056826AE, 55056826AF, 55056829AE or 55056829AF, reprogram the bootloader choosing the updated software from the list on the wiTECH screen. After reprogramming is complete, continue with Step 7 of this procedure.

NOTE: After reprogramming the bootloader, restart the wiTECH application to refresh the wiTECH system before continuing with Step 7.

- If the part number is ANY other than 55056826AE, 55056826AF, 55056829AE or 55056829AF , the bootloader does not require reprogramming. Continue with Step 7 of this procedure.

Service Procedure (Continued)

7. Starting at the “Vehicle View” screen, select “**HVAC**” from the modules on the “Vehicle View” screen illustration.
8. Select the “**Flash**” tab at the top of the screen.
9. Select the software update from the list.
10. Follow the screen prompts to complete the reprogramming process.
11. Clear all Diagnostic Trouble Codes (DTC’s).
NOTE: Disregard DTC B2214 (HVAC) “Climate Control Internal” if it appears in active or stored state. Do not replace the HVAC control head.
12. Continue with Section B. Actuator Test.

Service Procedure (Continued)

B. Actuator Test

1. Place the ignition in the “**RUN**” position.
2. Be sure that the HVAC mode knob is in Face (or Bi-level) and blower knob at “Low” setting.
3. Open the wiTECH desktop application.
4. Starting at the “Vehicle View” screen, select “**HVAC**”.
5. Select the “**System Test**” tab at the top of the screen.
6. Select “**Actuator Calibration Test**” from list.
7. With the windows rolled up, doors closed, radio off, blower on low, follow the wiTECH screen prompts to perform the actuator calibration test. While the actuator calibration test is running, listen for a ratcheting or snapping noise:
 - If no ratcheting/snapping sound is heard, **vehicles equipped with Manual Temperature Control (MTC) continue with Section C. Replace Face/Defrost Actuator. Vehicles equipped with Automatic Temperature Control (ATC), no further action is required.**
 - If ratcheting/snapping sound is heard, continue with Step 8 of this procedure.
8. Check for active DTC’s. Replace all actuator(s) that displays an active DTC. Vehicles that are equipped with:
 - MTC, continue with Section C. Replace Face/Defrost Actuator (MTC)
 - ATC, continue with the appropriate Section in this document to replace the actuator(s) that have active DTC’s.

NOTE: If an active fault code of “Control Circuit Open” is present for any of the actuators, refer to standard diagnostic procedures. This condition is not addressed in this notification.

Service Procedure (Continued)

C. Replace Face/Defrost Actuator

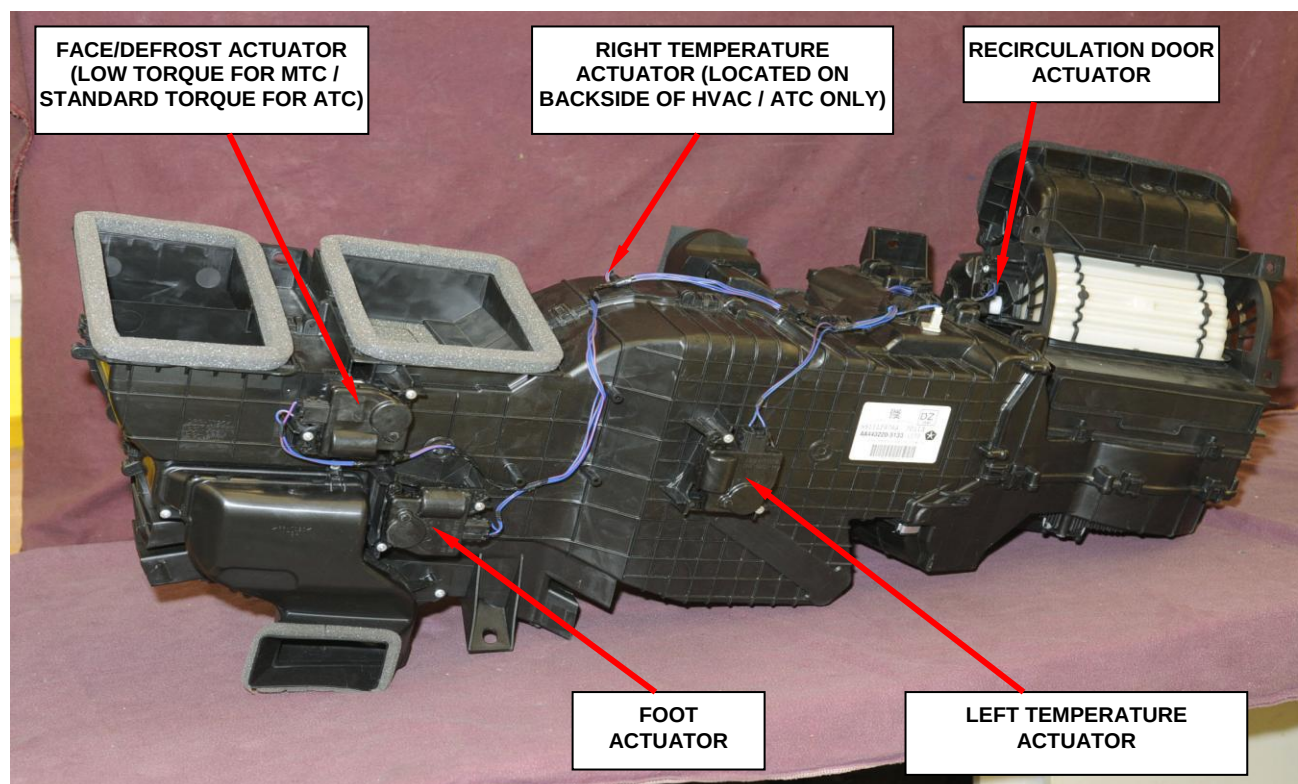


Figure 1 – Door Actuator Names & Locations

1. Disconnect the negative battery cable.
2. Remove the center bezel using the following procedure:
 - a. Remove the center bezel tray liner (Figure 2).
 - b. Remove the power outlet trim bezel.
 - c. Remove the three center bezel mounting screws.
 - d. Unsnap the center bezel from the instrument panel, disconnect the electrical connectors and remove the center bezel.



Figure 2 – Instrument Panel Center Bezel

Service Procedure (Continued)

3. Remove the cup holder using the following procedure:
 - a. Remove the lower cup holder trim panel.
 - b. Remove the six cup holder mounting screws.
 - c. Remove the cup holder assembly and side panels.
4. Disconnect the face/defrost actuator electrical connector (Figure 3).
5. Remove the face/defrost actuator mounting screws.
6. Remove and discard the original face/defrost actuator (Figure 3).
7. Install the new face/defrost actuator into position on the heater housing.
8. Install the face/defrost actuator mounting screws. Tighten the screws to 9 in. lbs. (1 N·m)

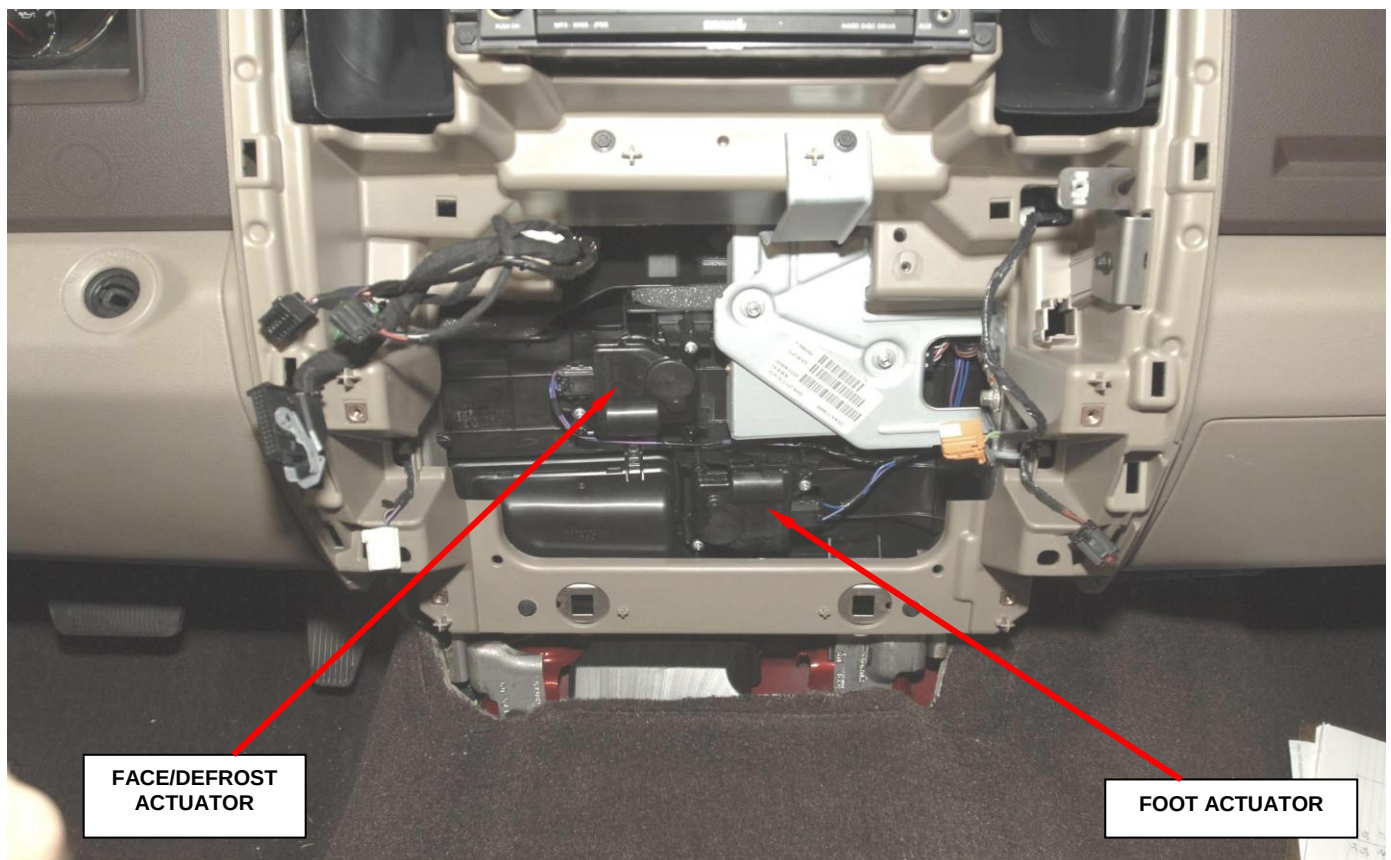


Figure 3 – Face/Defrost Actuator Location

Service Procedure (Continued)

9. Install the cup holder using the following procedure:
 - a. Place the cup holder assembly and side panels into position.
 - b. Install the six cup holder mounting screws. Tighten the screws securely.
 - c. Install the lower cup holder trim panel.
10. Connect the electrical connectors to the center bezel.
11. Snap the center bezel into position.
12. Install the three center bezel mounting screws.
13. Install the power outlet trim bezel.
14. Install the center bezel tray liner.
15. If an MTC system and no other actuators require replacement, connect the negative battery cable and return the vehicle to the customer.

If an ATC system and no other actuators require replacement, continue with Section G. Actuator Calibration.

If the actuator test determined there are additional actuator(s) that require replacement, continue with the appropriate Section in this document to replace the actuator(s) that have active DTC's.

Service Procedure (Continued)

D. Replace Left Temperature Actuator

1. Disconnect the negative battery cable.
2. Remove the glove box door.
3. Disconnect the left temperature actuator electrical connector (Figure 4).
4. Remove the left temperature actuator mounting screws (Figure 4).
5. Remove and discard the left temperature actuator (Figure 4).
6. Install the new left temperature actuator into position on the heater housing.

NOTE: The orientation of the door is not critical. The actuator will be correctly orientated when the actuator calibration procedure is performed.

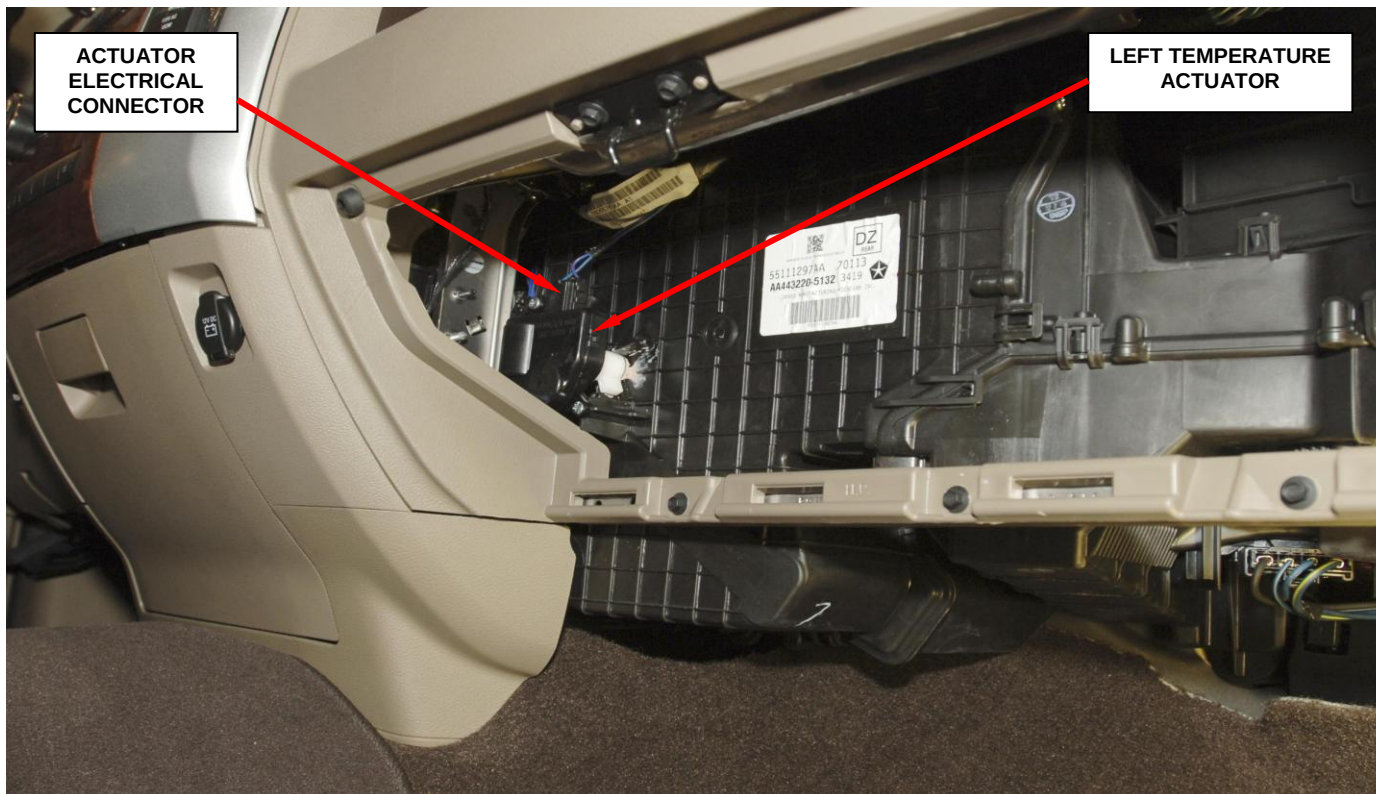


Figure 4 – Left Temperature Actuator Location

Service Procedure (Continued)

7. Install the left temperature actuator mounting screws (Figure 4). Tighten the screws to 9 in. lbs. (1 N·m).
8. Connect the vehicle electrical harness connector to the left temperature actuator (Figure 4).
9. Install the glove box door.
10. Connect the negative battery cable.
11. If no other actuators require replacement, continue with Section G. Actuator Calibration.

If the actuator test determined there are additional actuator(s) that require replacement, continue with the appropriate Section in this document to replace the actuator(s) that have active DTC's.

Service Procedure (Continued)

E. Replace Right Temperature Actuator (ATC only) and/or the Recirculation Door Actuator

NOTE: If an active code is present for the recirculation actuator, place the mode knob in the “FACE” mode, cycle the ignition key ON-OFF-ON and select manually FRESH-RECIRC-FRESH. If the code is still active, replace the recirculation actuator. If the active DTC changes to a stored DTC, the actuator does not require replacement.



Figure 5 - Knee Bolster & Kick Panel

1. Remove the front seat assemblies from the vehicle.
2. Disconnect the negative battery cable.
3. Remove the instrument panel from the cowl panel using the following procedure:
 - a. Remove the left kick panel (Figure 5).
 - b. Remove the steering column knee bolster panel (Figure 5).
 - c. Disconnect the park brake release handle link at the park brake pedal assembly.
 - d. Disconnect the instrument panel wiring harness connectors, located above the brake pedal, from the bulkhead wiring harness connector and the electrical connectors from the steering column.
 - e. Remove the four steering column retaining bolts and lower the steering column.
 - f. Remove the left “A” pillar trim panel (grab handle) and disconnect the two electrical connectors located behind trim panel.

Service Procedure (Continued)

- g. Using a trim stick (C-4755 or equivalent) remove the left instrument panel side cover.
- h. Remove the three bolts that secure the left side of the instrument panel to the dash panel (Figure 6).
- i. If equipped, remove the floor console.
- j. Remove the two brake sled-to-instrument panel bolts.
- k. Remove the center stack lower trim panel (Figure 7).
- l. Remove the two bolts that secures the instrument panel to the center of the floor panel.
- m. Remove the right “A” pillar trim panel (grab handle) and disconnect the headliner wire harness connector.
- n. Using a trim stick (C-4755 or equivalent) remove the right instrument panel side cover and remove the three bolts that secure the right side instrument panel to the dash panel.
- o. Remove the right side kick panel and disconnect the three instrument panel wiring harness connectors from the two body wiring harness connectors.
- p. Disconnect the antenna coaxial cable from the radio coaxial cable connector.



Figure 6 – Instrument Panel Retaining Bolts



Figure 7 - Center Stack Lower Trim Panel

Service Procedure (Continued)

- q. Remove the two fence line bolt access covers and then remove the two fence line bolts
- r. Remove the Occupant Restraint Controller (ORC) module black plastic cover (Figure 8).
- s. Disconnect the ORC module left yellow electrical connector and remove the wire from under the carpet (Figure 8).
- t. With the help of an assistant, lift the instrument panel up and off of the cowl panel and set the instrument panel face-down on the vehicle carpet.

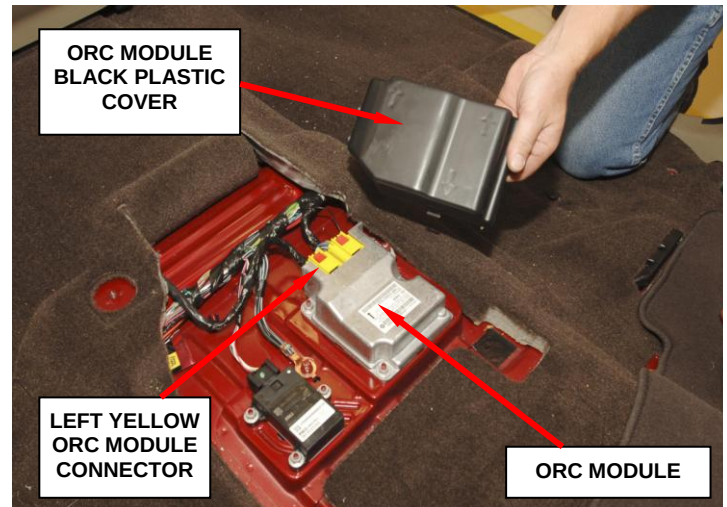


Figure 8 – ORC Module and Cover

- 4. Continue with Step 5 to replace the recirculation door actuator and/or Step 6 to replace the right temperature actuator (ATC only).

Service Procedure (Continued)

5. Use the following procedure to replace the recirculation door actuator:
 - a. Remove the recirculation door actuator electrical connector.
 - b. Remove and save the two recirculation door actuator mounting screws.
 - c. Remove and discard the original recirculation door actuator.
 - d. Place the new recirculation door actuator into position and install the two mounting screws. Tighten the screws to 9 in. lbs. (1 N·m).

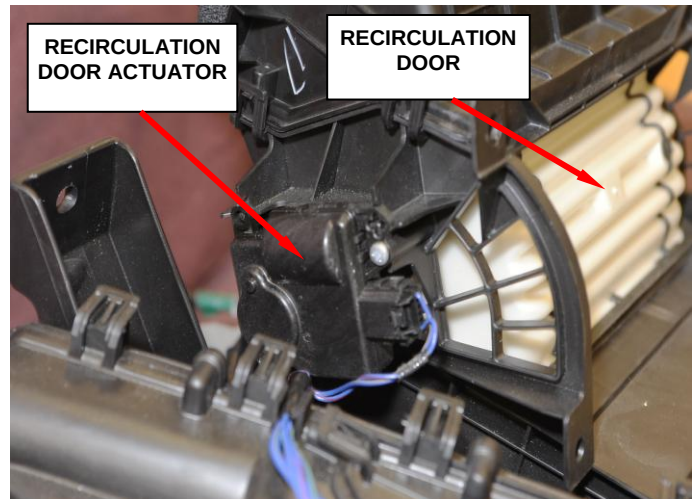


Figure 9 – Recirculation Door Actuator

NOTE: The orientation of the door is not critical. The actuator will be correctly orientated when the actuator calibration procedure is performed.

- e. Install the recirculation door actuator electrical connector.
 - f. Continue to Step 6 of this procedure if the right temperature door actuator also requires replacement or to Step 7 if the right temperature door actuator does not require replacement.
6. Use the following procedure to replace the right temperature door actuator (ATC only):
 - a. Open the hood and remove the engine air cleaner assembly.



Figure 10 – Remove Air Cleaner

Service Procedure (Continued)

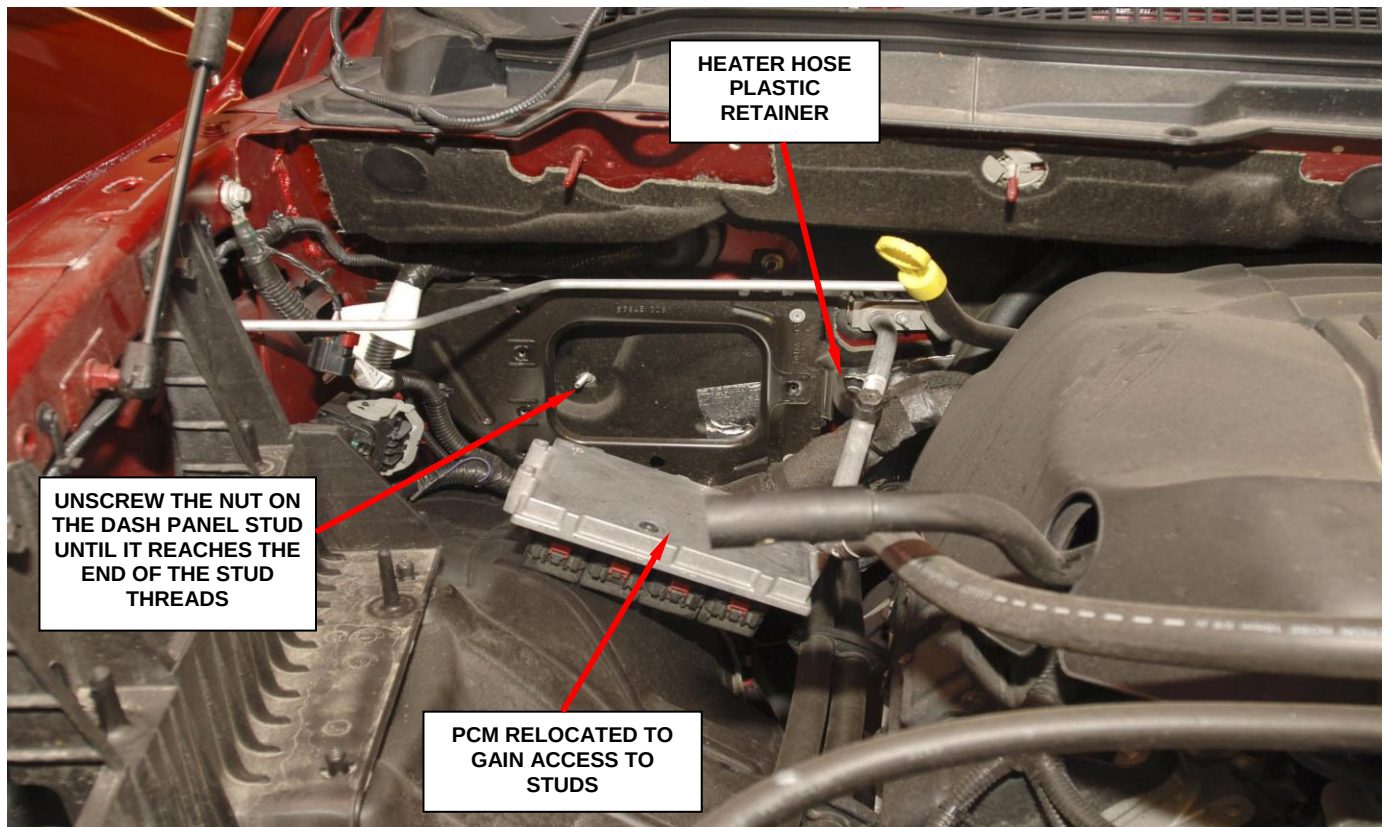


Figure 11 – Relocate PCM

- b. Remove the retaining screws for the Powertrain Control Module (PCM) and set the PCM aside. Do not disconnect the PCM wiring connectors (Figure 11).
- c. Remove the heater hose plastic retainer at the dash panel stud closest to the engine (Figure 11).
- d. Remove the nut from the dash panel stud located closest to the engine.
- e. Unscrew the nut on the remaining dash panel stud until it reaches the end of the stud threads, but **do not remove the nut** (Figure 11).
- f. If equipped, remove the three rear floor ducts.
- g. Remove the bolt that secures the HVAC housing to the floor bracket.

Service Procedure (Continued)

- h. Remove the two nuts that secures the HVAC housing to the passenger compartment side of the dash panel.
- i. Carefully pull the HVAC away from the dash panel just far enough to gain access to the right temperature door actuator.

CAUTION: The dash silencer pad may have melted/bonded to the aluminum heater core tubes (Figure 12). Carefully separate the dash silencer pad from the aluminum heater tubes using a screwdriver.

- j. Disconnect the right temperature door actuator electrical connector (Figure 12).
- k. Remove the right temperature door actuator mounting screws (Figure 12).
- l. Remove and discard the original right temperature door actuator (Figure 12).

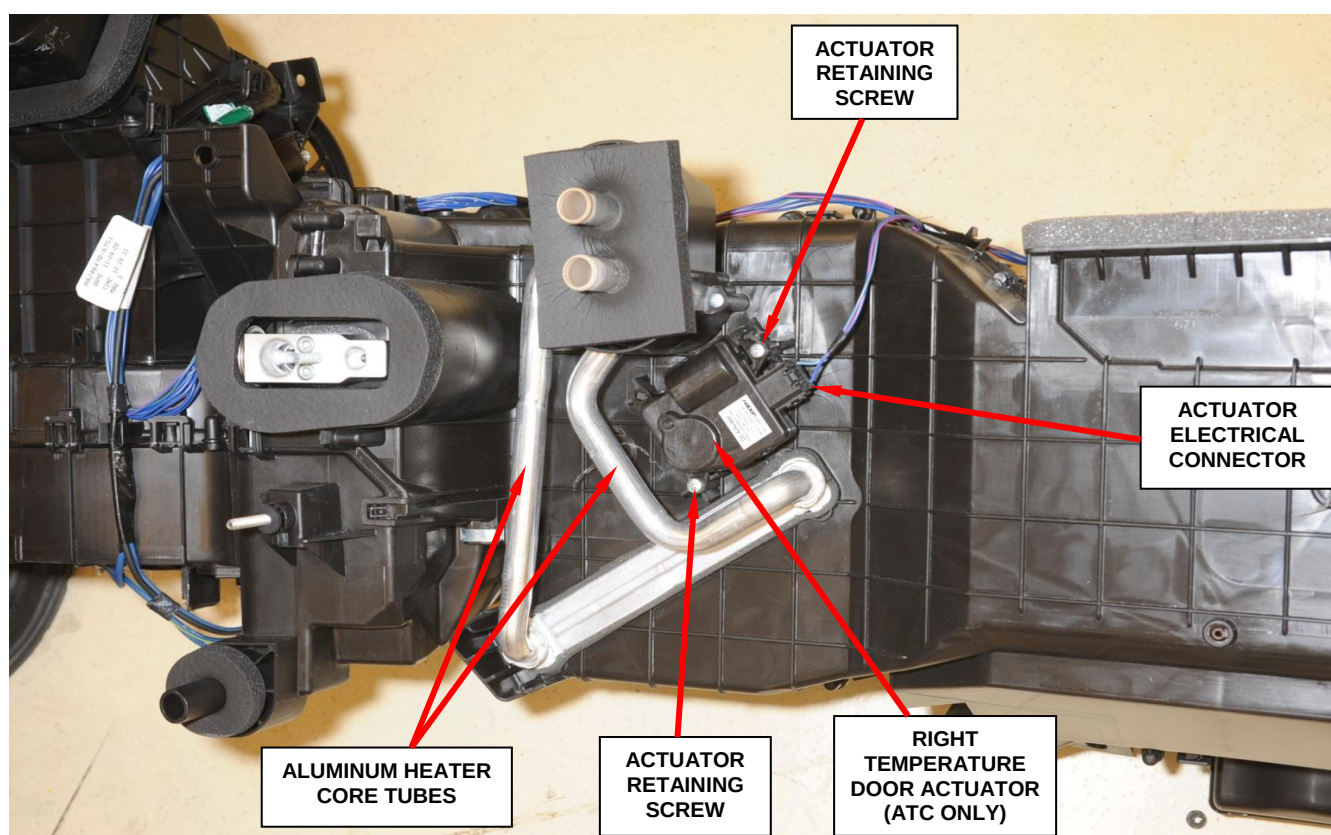


Figure 12 – HVAC Removed for Photographic Purposes Only

Service Procedure (Continued)

- m. Install the new right temperature door actuator into position and install the mounting screws (Figure 12). Tighten the screws securely.

NOTE: The orientation of the door is not critical. The actuator will be correctly orientated when the actuator calibration procedure is performed.

- n. Connect the right temperature door actuator electrical connector (Figure 12).
- o. Place the HVAC assembly back into position and install the two retaining nuts and one retaining bolt.
- p. If equipped, install the three floor ducts.
- q. Working from the engine compartment, install the nut onto the dash panel stud located closest to the engine. Then tighten both dash panel stud nuts to 60 in. lbs. (7 N·m).
- r. Install the heater hose plastic retainer onto the dash panel stud located closest to the engine (Figure 11).
- s. Place the PCM back into position on the dash panel bracket (Figure 11). Tighten the retaining screws securely.
- t. Install the engine air cleaner assembly (Figure 10).

Service Procedure (Continued)

7. Install the instrument panel using the following procedure:
 - a. With the help of an assistant, place the instrument panel into position on the cowl panel.
 - b. Route the ORC wiring under the carpet and connect the ORC module left yellow electrical connection (Figure 8). Then place the carpet back into position.
 - c. Snap the black plastic ORC module cover into position.
 - d. Install the two bolts that secures the instrument panel to the center of the floor panel.
 - e. Install the instrument panel fence bolts and fence bolt covers.
 - f. Install the three right side instrument panel retaining bolts and install the right instrument panel side cover.
 - g. Connect the antenna coaxial cable to the radio coaxial cable connector.
 - h. Connect the three wiring harness connectors located behind the right kick panel.
 - i. Install the right kick panel.
 - j. Connect the right “A” pillar headliner wiring harness connector and then install the right “A” pillar trim panel (grab handle).
 - k. Install the center stack lower trim panel.
 - l. Install the two brake sled-to-instrument panel bolts.
 - m. If equipped, install the floor console.
 - n. Install the three bolts that secures the left side of the instrument panel to the dash panel. Then install the left instrument panel side cover.
 - o. Connect the two left side “A” pillar electrical connectors and then install the left “A” pillar trim panel (grab handle).

Service Procedure (Continued)

- p. Place the steering column into position and install the four steering column retaining bolts.
 - q. Connect the instrument panel wiring harness connectors, located above the brake pedal, to the bulkhead wiring harness connector.
 - r. Connect the electrical connectors to the steering column.
 - s. Install the steering column knee bolster panel.
 - t. Connect the park brake release handle link at the park brake pedal assembly.
 - u. Install the left kick panel.
8. Connect the negative battery cable.
9. Install the front seat assemblies into the vehicle.
10. If no other actuators require replacement, continue with Section G. Actuator Calibration.

If the actuator test determined there are additional actuator(s) that require replacement, continue with the appropriate Section in this document to replace the actuator(s) that have active DTC's.

Service Procedure (Continued)

F. Replace Foot Actuator (ATC or MTC)

1. Disconnect the negative battery cable.
2. Remove the center bezel using the following procedure:
 - a. Remove the center bezel tray liner (Figure 2).
 - b. Remove the power outlet trim bezel.
 - c. Remove the three center bezel mounting screws.
 - d. Unsnap the center bezel from the instrument panel, disconnect the electrical connectors and remove the center bezel.
3. Remove the cup holder using the following procedure:
 - a. Remove the lower cup holder trim panel.
 - b. Remove the six cup holder mounting screws.
 - c. Remove the cup holder assembly and side panels.
4. Disconnect the foot actuator electrical connector (Figure 3).
5. Remove and discard the original foot actuator (Figure 3).
6. Install the new foot actuator into position on the heater housing.
7. Install the foot actuator electrical connection (Figure 3)
8. Install the foot actuator mounting screws. Tighten the screws to 9 in. lbs. (1 N·m).
9. Install the cup holder using the following procedure to:
 - a. Place the cup holder assembly and side panels into position.
 - b. Install the six cup holder mounting screws. Tighten the screws securely.
 - c. Install the lower cup holder trim panel.
10. Connect the electrical connectors to the center bezel.

Service Procedure (Continued)

11. Snap the center bezel into position.
12. Install the three center bezel mounting screws.
13. Install the power outlet trim bezel.
14. Install the center bezel tray liner.
15. If no other actuators require replacement, continue with Section G. Actuator Calibration.

If the actuator test determined there are additional actuator(s) that require replacement, continue with the appropriate Section in this document to replace the actuator(s) that have active DTC's.

Service Procedure (Continued)

G. Actuator Calibration

NOTE: This procedure should only be performed if one or more actuators, other than the face/defrost actuator on MTC systems, have been replaced.

1. Connect the wiTECH pod to the vehicle data link connector located under the steering column.
2. Place the ignition in the “**RUN**” position.
3. Set the HVAC mode knob in Face (or Bi-level) and blower knob at “Low” setting.
4. Open the wiTECH desktop application.
5. Starting at the “Vehicle View” screen, select “**HVAC**”.
6. Select the “**System Test**” tab at the top of the screen.
7. Select “**Actuator Calibration Test**” from list.
8. Follow the screen prompts to complete the calibration.

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 Chrysler to record recall service completions and provide dealer payments.

Use the following labor operation numbers and time allowances:

	<u>Labor Operation Number</u>	<u>Time Allowance</u>
Reprogram HVAC Control Head and function test actuators (ATC Only)	24-K1-71-82	0.2 hours
Reprogram HVAC Control Head, replace face/defrost actuator, function test remaining actuators and calibrate actuators (MTC Only)	24-K1-71-83	0.5 hours

Related Operation

Reprogram Control Head bootloader software (MTC)	24-K1-71-50	0.2 hours
Replace foot actuator (MTC)	24-K1-71-51	0.1 hours
Replace foot actuator and/or face/defrost actuator (ATC)	24-K1-71-52	0.4 hours
Replace left temperature actuator (ATC or MTC)	24-K1-71-53	0.2 hours
Replace recirculation door actuator (ATC or MTC)	24-K1-71-54	1.5 hours
Replace right temperature actuator (ATC only)	24-K1-71-55	1.7 hours
Replace right temperature actuator and recirculation door actuator (ATC Only)	24-K1-71-56	1.8 hours
Equipped with center console	24-K1-71-57	0.2 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 Chrysler 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
Chrysler Group LLC



CUSTOMER SATISFACTION NOTIFICATION K17 REPROGRAM HVAC CONTROL HEAD AND INSPECT/REPLACE ACTUATORS

Dear: (Name)

At Chrysler Group LLC, you can be assured that we are changing the way we look at quality. To prove our commitment to quality, the company is investing in and prioritizing improvements for every vehicle that we build. As part of that commitment, we are also targeting existing vehicles on the road today and contacting our customers to provide these quality improvements, at no charge, that will help to improve your ownership satisfaction.

We are recommending the following improvements be performed on some **2009 and 2010 model year Ram trucks**.

Recommended Service: **The Heating, Ventilation, and Air Conditioning (HVAC) actuator gears on your vehicle (VIN: xxxxxxxxxxxxxxxxx) may break and result in the inability to fully control the HVAC functions.**

What your dealer will do: **Chrysler will service your vehicle free of charge (parts and labor).** To do this, your dealer will update the HVAC control head software and test all of the HVAC mode door actuators. The software update will take about 1/2 hour to complete. If there are mode door actuators that need replacing, up to 4 additional hours may be required. We recommend that you make an appointment with your dealer to minimize your inconvenience.

What you should do: Simply **contact your Chrysler, Jeep, or Dodge dealer**, at your convenience, to schedule a service appointment. Your dealer will collect the necessary information to ensure that the appropriate parts are available so your service can be completed in a timely manner. Although not required, we recommend bringing this letter with you to your dealer, when you bring your vehicle in for this service.

If you need help: Please contact the Chrysler Customer Assistance Center at 1-800-853-1403.

If you have already experienced this condition and have paid to have it repaired, please send your original receipts and/or other adequate proof of payment to the following address for reimbursement: Chrysler Customer Assistance, P.O. Box 21-8007, Auburn Hills, MI 48321-8007, Attention: Reimbursement. Once we receive and verify the required documents, reimbursement will be sent to you within 3 weeks.

Please help us update our records by filling out the attached prepaid postcard, if any of the conditions listed on the card apply to your vehicle. You may also update this information on the web at
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC

We apologize for any inconvenience this service may cause to your schedule. Moving forward we are committed to providing our customers with world class quality products, ensuring that you have a positive dealership experience and following up on any issues and concerns that you may have in a timely manner through our Customer Assistance Center.

Sincerely,
Customer Service / Field Operations
Chrysler Group LLC
Notification Code K17