



NUMBER: 24-010-05 REV. A

GROUP: Heating & Air
Conditioning

DATE: November 24, 2005

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THE StarSCAN® FLASH FILES FOR THIS BULLETIN ARE AVAILABLE VIA THE INTERNET.

THE FLASH FILE WILL BE AVAILABLE ON THE NEXT StarSCAN® UPDATE CD RECEIVED AFTER CD 6.04.

THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 24-010-05, DATED JULY 02, 2005, WHICH SHOULD BE REMOVED FROM YOUR. THIS IS A COMPLETE REVISION AND NO ASTERISKS HAVE BEEN USED TO HIGHLIGHT REVISIONS.

SUBJECT:

FLASH: HVAC Automatic Temperature Control - Comfort Setting Improvements

OVERVIEW:

This bulletin involves selectively erasing and reprogramming the HVAC Automatic Temperature Control module (ATC) module with new software.

MODELS:

2005 (WK/WH) Grand Cherokee

NOTE: This bulletin applies to vehicles equipped with Automatic Temperature Control (sales code HAF) built prior to June 5, 2005 (MDH 0605XX) for domestic market vehicles, or built prior to November 10, 2005 (MDH 1111XX) for international market vehicles.

SYMPTOM/CONDITION:

The new HVAC ATC module software corrects the following comfort setting conditions that the vehicle operator may experience:

- **Comfort Setting Drift.** The HVAC temperature may slowly change (drift) from the comfort setting originally established by the customer. The slow temperature change may be either towards cooler or warmer temperatures.
- **Comfort Setting Slow To Change When Adjusted.** When the customer makes an adjustment to the comfort setting, the ATC is slow to respond to the new comfort setting. The customer may need to adjust the comfort setting to full hot or full cold to effect the desired new comfort setting.
- **Comfort Setting Increments Too Small.** When the customer makes an minor temperature adjustment to the comfort setting, the customer may notice little or no change in temperature output.



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- **Momentary Charge Of Cold Or Hot Air.** When the comfort setting is in the maximum cold or maximum hot comfort setting, the ATC is in manual control mode. When the customer makes a temperature adjustment to the comfort setting from one of these two maximum settings, the ATC enters its automatic control mode. The customer may notice a momentary charge of cold or hot air when the comfort setting is moved from either the maximum cold or hot comfort setting to any of the intermediate comfort settings.

DIAGNOSIS:

1. If one of the above conditions are present, then use a StarSCAN® tool to read the current part number and the current software version level of the HVAC ATC module.
 - a. From the StarSCAN® tool “Home” screen, select “ECU View”.
 - b. Select “HVAC”.
 - c. Record the HVAC ATC module part number that is displayed.
 - d. Record the current HVAC ATC module software version level.
2. Is the current ATC module software version one of the following versions: 03.00.04, or 03.00.05, or 03.00.12, or 03.00.20, or 04.00.01, or 04.00.07?
 - a. If YES >> then proceed to the next step.
 - b. If NO >> then the ATC software version is at 05.00.00 or higher. This bulletin does not apply and further diagnosis is required.
3. Is the current ATC module part number one of the following part numbers: 55111010AA, AB, AC, AD, AE, AF, AG, or AH (for domestic market vehicles), or 55111011AA, AB, AC, AD, AE, AF, AG, or AH (for international markets vehicles)?
 - a. If YES >> then perform the Repair Procedure.
 - b. If NO >> then proceed to the next step.
4. Is the current ATC module part number NOT a legitimate ten digit Chrysler part number. The part number is made up of different hex (unknown or not alpha-numeric) characters that do not make sense for a Chrysler part number.
 - a. If YES >> then the ATC module has already been reprogrammed with an earlier ATC software revision (version) to address one or more of the above conditions. The ATC module cannot now be reprogrammed a second time with an even later ATC software version. Replacement of the ATC module would be required.
 - b. If NO >> then this bulletin does not apply and further diagnosis is required.

NOTE: There are two methods to download flash files to StarSCAN®. The first method (preferred) is to download the flash files to the StarSCAN® from the internet. The second method is to download the flash files from the StarSCAN® Software Update CD.

SPECIAL TOOLS / EQUIPMENT REQUIRED:

NPN	Battery Charger
CH9401	StarSCAN® Tool
CH9404	StarSCAN® Vehicle Cable
CH9409	StarSCAN® Documentation Kit
CH9410	StarSCAN® Ethernet Cable, 12 ft.
CH9412	StarSCAN® Software Update Device Kit
	TechCONNECT PC or equivalent
	Latest StarSCAN® Software Update CD

REPAIR PROCEDURE - USING THE INTERNET TO RETRIEVE THE FLASH FILE:

WARNING:DO NOT INTERRUPT/ABORT THE FLASH PROCESS. If the flash is interrupted or aborted during the ATC module flash process, the ATC module **WILL NOT** be able to be recovered and the ATC module will require replacement. Prior to initiating the flash process make certain that the installed battery charger is set to 13.5 volts and that all scan tool electrical connections are correct.

NOTE: The StarSCAN® diagnostic scan tool fully supports Internet connectivity. However, in order to take advantage of this feature you must first configure the StarSCAN® for your dealership's network. For instruction on setting up your StarSCAN® for the dealer's network; refer to the StarSCAN® Quick Start Networking Guide available on the www.dcctools.com website under the "download center".

1. Open the hood, install a battery charger and verify that the charging rate provides approximately 13.5 volts.
2. Connect the CH9410 StarSCAN® ethernet cable to the StarSCAN® and the dealer's network drop.
3. Connect the CH9404 StarSCAN® vehicle cable to the StarSCAN® and the vehicle.
4. Power ON the StarSCAN®.

NOTE: The StarSCAN should display a part number from a list of the following old ATC module software part numbers: 55111010AA to 55111010AH, or 55111011AA to 55111011AH. The display of one of these old part numbers by the ATC module will allow the StarSCAN® to update the ATC module software with new software per this bulletin. Once the ATC module software has been updated per this bulletin, the ATC module may or may not allow the StarSCAN® to display a proper ten digit part number (either the original p/n or otherwise). This condition may not allow future reprogramming of the ATC module, if that were required at a later date.

5. Retrieve the old ECU (HVAC ATC module) part number. Using the StarSCAN® at the “Home” screen:
 - a. Select “ECU View”.
 - b. Touch the screen to highlight the appropriate ECU (HVAC) in the list of modules.
 - c. Record the "Part Number", displayed on the "ECU Overview" screen, for later reference.

WARNING:DO NOT INTERRUPT/ABORT THE FLASH PROCESS.

6. Download the flash file from the internet to the StarSCAN®. Using the StarSCAN® at the “ECU Overview” screen:
 - a. Select “More Options”.
 - b. Select “ECU Flash”.
 - c. Select “Browse for New File”. Follow the on screen instructions.
 - d. Select “Download to Scantool”.
 - e. Select “Close” after the download is complete, then select “Back”.
 - f. Highlight the listed calibration.
 - g. Select “Update Controller”.
 - h. When HVAC ATC module update is completed, select “OK”.

NOTE: Do not attempt to use the HVAC ATC module part number for software update verification. Current StarSCAN® operating software may not display or may not correctly display the new HVAC ATC module software part number. Use the HVAC ATC module software version level to verify software update.

7. Verify that the HVAC ATC module software version level has updated. Using the StarSCAN® at the “Home” screen:
 - a. Select “ECU View”.
 - b. Touch the screen to highlight the “HVAC” in the list of modules.
 - c. The new HVAC ATC module software version level will be in the upper right corner in the white screen.
 - d. Verify that the new HVAC ATC module software version level is “05.00.00”.

NOTE: Due to the ECU programming procedure, a DTC may be set in other modules (PCM, TCM, FCM, BCM, MIC, SKREEM, etc.) within the vehicle, if so equipped. Some DTC's may cause the MIL to illuminate. From the “Home” screen select “System View”. Then select “All DTC's”. Press “Clear All Stored DTC's” if there are any DTC's shown on the list.

REPAIR PROCEDURE - USING SOFTWARE UPDATE CD TO RETRIEVE THE FLASH FILE:

WARNING:DO NOT INTERRUPT/ABORT THE FLASH PROCESS. If the flash is interrupted or aborted during the ATC module flash process, the ATC module WILL NOT be able to be recovered and the ATC module will require replacement. Prior to initiating the flash process make certain that the installed battery charger is set to 13.5 volts and that all scan tool electrical connections are correct.

NOTE: For detailed information on the operation of the StarSCAN®, refer to the Quick Reference documentation provided in the StarSCAN® documentation kit. In addition, more recent information may also be available at the www.dcctools.com website. Look under "Training Aids" and also under "Download Center > Frequently Asked Questions" for more help.

1. Open the hood, install a battery charger and verify that the charging rate provides approximately 13.5 volts.
2. Connect the CH9404 StarSCAN® vehicle cable to the StarSCAN® and the vehicle.
3. Power ON the StarSCAN®.

NOTE: The StarSCAN should display a part number from a list of the following old ATC module software part numbers: 55111010AA to 55111010AH, or 55111011AA to 55111011AH. The display of one of these old part numbers by the ATC module will allow the StarSCAN® to update the ATC module software with new software per this bulletin. Once the ATC module software has been updated per this bulletin, the ATC module may or may not allow the StarSCAN® to display a proper ten digit part number (either the original p/n or otherwise). This condition may not allow future reprogramming of the ATC module, if that were required at a later date.

4. Retrieve the old ECU (HVAC ATC module) part number. Using the StarSCAN® at the "Home" screen:
 - a. Select "ECU View".
 - b. Touch the screen to highlight the appropriate ECU (HVAC) in the list of modules.
 - c. Record the "Part Number", displayed on the "ECU Overview" screen, for later reference.
5. Insert the StarSCAN® Software Update CD into the TechCONNECT or equivalent PC. The StarSCAN® Software Update CD will start automatically.
 - a. Select "Download Controller Flash".
 - b. Follow the on screen instructions.
6. At the **"Select the method for looking up controller flash updates."** screen:
 - a. If the old "Part Number" was recorded in Step #4, proceed to [Step #7](#).
 - b. If the old "Part Number" is not known, proceed to [Step #8](#).
7. Select "Enter part number".
 - a. Follow the on screen instructions. Enter the "Part Number" recorded in Step #4 when prompted to do so.
 - b. When completed, proceed to [Step #9](#).
8. Select "Enter YME Information".
 - a. Follow the on screen instructions. Select "Next" after each step. Select "Finish" after completing the last step.
 - b. When completed, proceed to [Step #9](#).
9. Using the mouse highlight the appropriate "Calibration".
 - a. Follow the on screen instructions.
10. With the StarSCAN® powered OFF, connect the USB Key and Gender Changer to the StarSCAN® USB port ([Fig. 1](#)).

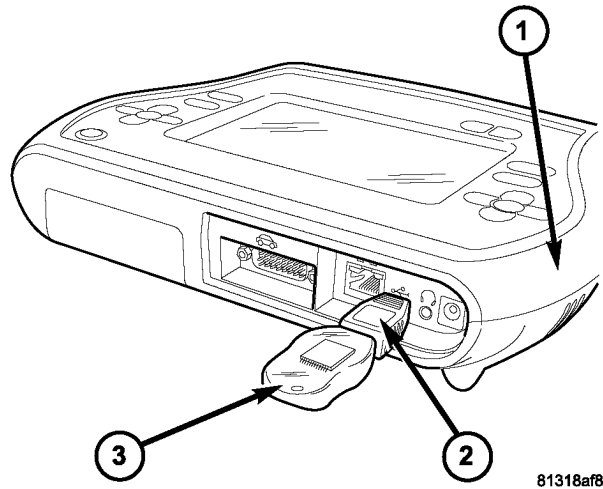


Fig. 1 USB KEY, GENDER CHANGER, AND StarSCAN TOOL

- 1 - StarSCAN® TOOL
- 2 - GENDER CHANGER
- 3 - USB KEY

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11. Connect the StarSCAN® to the vehicle (if not already connected).
 12. Power ON the StarSCAN®.

WARNING:DO NOT INTERRUPT/ABORT THE FLASH PROCESS.

13. Reprogram the ECU (HVAC ATC module) by downloading the file from the USB key to the StarSCAN®. Using the StarSCAN® at the “Home” screen:
 - a. Select “Flash Download”.
 - b. Select “Use USB Device” and follow the on screen instructions.
 - c. At the “Flash File List” screen, highlight the appropriate ECU “Calibration”.
 - d. Select “Download to Scantool”.
 - e. Select “Close” after the download is complete, then select “Back”.
 - f. Highlight the listed calibration.
 - g. Select “Update Controller”.
 - h. When the HVAC ATC module update is completed, select “OK”.

NOTE: Do not attempt to use the HVAC ATC module part number for software update verification. Current StarSCAN® operating software may not display or may not correctly display the new HVAC ATC module software part number. Use the HVAC ATC module software version level to verify software update.

14. Verify that the HVAC ATC module software version level has updated. Using the StarSCAN® at the “Home” screen:
 - a. Select “ECU View”.
 - b. Touch the screen to highlight the “HVAC” in the list of modules.
 - c. The new HVAC ATC module software version level will be in the upper right corner in the white screen.
 - d. Verify that the new HVAC ATC module software version level is “**05.00.00**”.

NOTE: Due to the ECU programming procedure, a DTC may be set in other modules (PCM, TCM, FCM, BCM, MIC, SKREEM, etc.) within the vehicle, if so equipped. Some DTC's may cause the MIL to illuminate. From the “Home” screen select “System View”. Then select “All DTC's”. Press “Clear All Stored DTC's” if there are any DTC's shown on the list.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Amount
08-19-62-91	Module, HVAC Automatic Temperature Control (ATC) - Reprogram	0.3 Hrs.

FAILURE CODE:

FM	Flash Module
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