Mercedes-Benz

star bulletin

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Revision: ***This bulletin contains a revision to the illustration and process on pages 6 and 8***

SUBJECT: **All Models as of Model Year 2005 (Except E320 CDI)**

CVN Redocumentation Process, Model Year 2005 Vehicles:

A. Introduction

As of model year 2005, a new coding method is required in the event an engine control module or transmission control module is replaced or flashed. The applicable emission regulations require that all codeable (emission-relevant) electronic control modules have a Calibration Verification Number (CVN) which uniquely identifies the control module version installed in the vehicle.

The Calibration Verification Number (CVN) is an 8 character long string and is accompanied by 8 character long check digit. The Calibration Verification Number CVN is automatically generated by the engine or transmission control module after it has been replaced or flashed and has been subsequently SCN Coded.

Once the Calibration Verification Number (CVN) has been generated, it then must be reported back to DaimlerChrysler in a process called “Redocumentation”. The “Redocumentation” of the CVN and check digit is performed via the same on-line application currently used to generate SCN Codes. This “Redocumentation” process has been created to ensure the proper reporting of each control module version so that DaimlerChrysler can maintain proper records as well as report the data to the Federal Government.

NOTE: For information on how to access the SCN Coding On-line Application please refer to S-B-07.61/38f.

This bulletin has been created and maintained in accordance with MBUSA-SLP S423QH001, Document and Data Control, and MBUSA-SLP S424HH001, Control of Records.

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B. Process Overview
The CVN Redocumentation Process specified in this Service Bulletin is divided into three parts: SCN Coding and CVN Generation, CVN Redocumentation – Primary Process, and CVN Redocumentation – Back-Up Process.

SCN Coding and CVN Generation-
In order to generate a CVN, the control unit must first be SCN Coded. The SCN Coding process is outlined within this Service Bulletin in Section C. After SCN Coding, the control unit will automatically generate the CVN and Check Digit [3] which then must be redocumented using the procedure outlined in Section D.

NOTE: Failure to redocument the CVN immediately after SCN Coding (using the CVN Redocumentation – Primary Process outlined in Section D) will result in a pop-up message on the STAR Diagnosis System screen noting that there are vehicles that have not had their CVN redocumented. In addition to the pop-up message, a screen will be displayed showing the VIN and pertinent information of the vehicles that have not had their CVN redocumented. This pop-up message and vehicle record screen will be displayed every time the DAS application is used until the CVN that have not been redocumented are redocumented.

CVN Redocumentation – Primary Process –
This process will allow the user to simply print out the CVN and Check Digit [3] and redocument them utilizing the familiar SCN Coding On-line Application. Once the CVN and Check Digit [3] have been redocumented, the SCN Coding On-line Application will generate a Release Code and Check Digit [4] to confirm to the user that the redocumentation was successful. This Release Code and Check Digit [4] then must be input into the STAR Diagnosis System in order to prove that redocumentation has successfully occurred.

NOTE: For information on how to access the SCN Coding On-line Application please refer to S-B-07.61/38f.

CVN Redocumentation – Back-Up Process –

NOTE: This process should only be used if it was not possible to redocument the CVN and Check Digit [3] at the time of SCN Coding.

In order to properly redocument, the VIN, CVN and Check Digit [3] must be determined as outlined in Section E. Once the VIN, CVN and Check Digit [3] have been obtained the user then must perform the Redocumentation utilizing the familiar SCN Coding On-line Application. After the CVN and Check Digit [3] have been redocumented, the SCN Coding On-line Application will generate a Release Code and Check Digit [4] to confirm to the user that the Redocumentation was successful. This Release Code and Check Digit [4] then must be input into the STAR Diagnosis System in order to prove that Redocumentation has successfully occurred.

NOTE: Failure to input the Release Code and Check Digit [4] into the STAR Diagnosis System will result in a pop-up message on the STAR Diagnosis screen noting that there are vehicles that have not had their CVN redocumented. In addition to the pop-up message, a screen will be displayed showing the VIN and pertinent information of the vehicles that have not had their CVN redocumented. This pop-up message and vehicle records screen will be displayed every time the DAS application is used until the CVN that have not been redocumented are redocumented.

C. SCN Coding And CVN Generation

1. Determine vehicle data for SCN Coding (Figure 1)

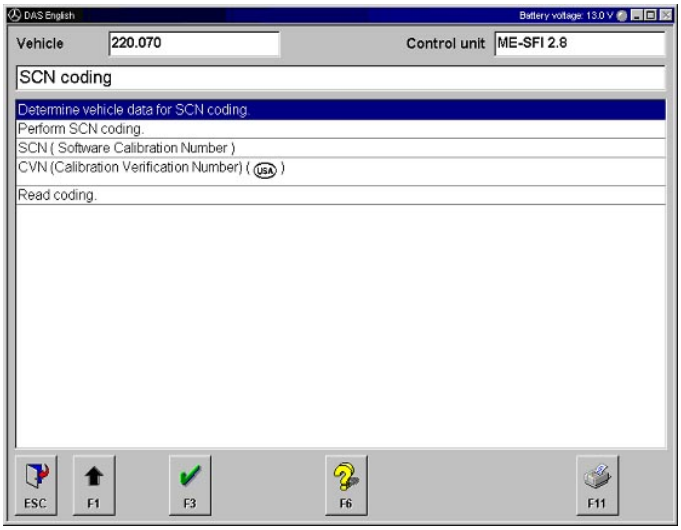

Figure 1

2. Print out vehicle data for SCN Coding by pressing 'F11' (Figure 2)

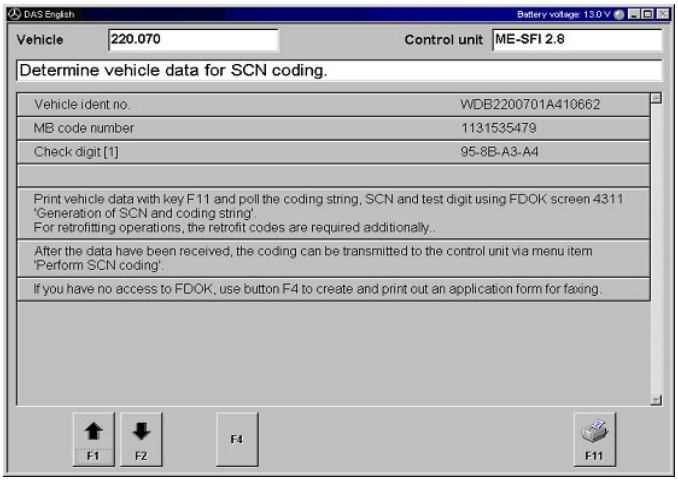

Figure 2

3. Retrieve SCN Code

NOTE: For instructions on retrieving an SCN Code using the On-Line SCN Coding Application please refer to S-B-07.61/38f

4. Perform SCN Coding – Select ‘Perform SCN Coding’, Press ‘F3’. (Figure 3)

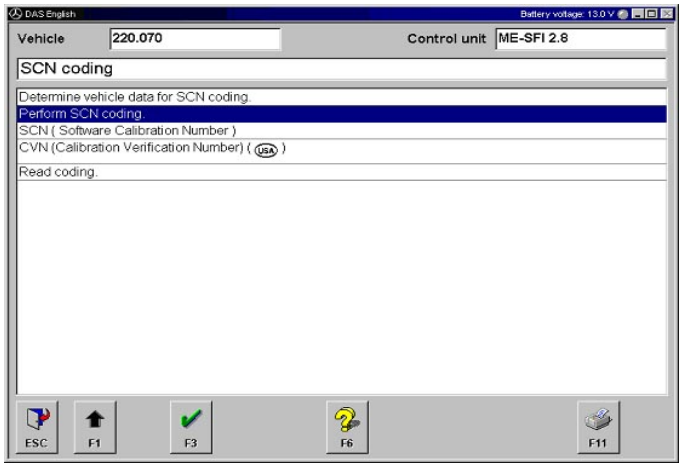

Figure 3

5. Input SCN Code, then Press ‘F3’ (Figure 4)

NOTE: Please be sure to input all of the characters of the SCN Code that you have retrieved including any sets of zeros (00). In some cases you will not have enough characters to fill all of the empty fields, in this case you must leave these fields empty.

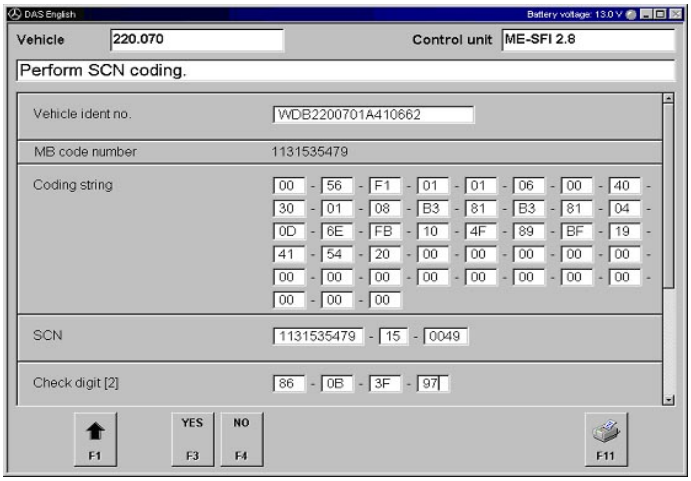

Figure 4

6. Switch ignition ‘Off/On’ as instructed. (Figure 5)

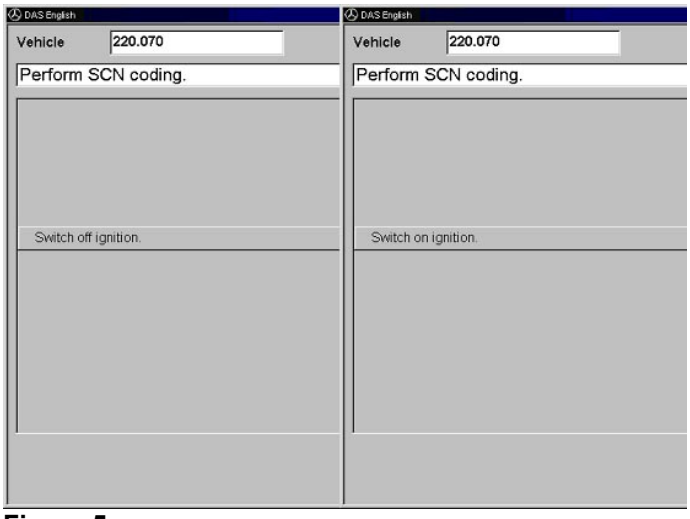

Figure 5

7. The Control Module will be reset. (Figure 6)

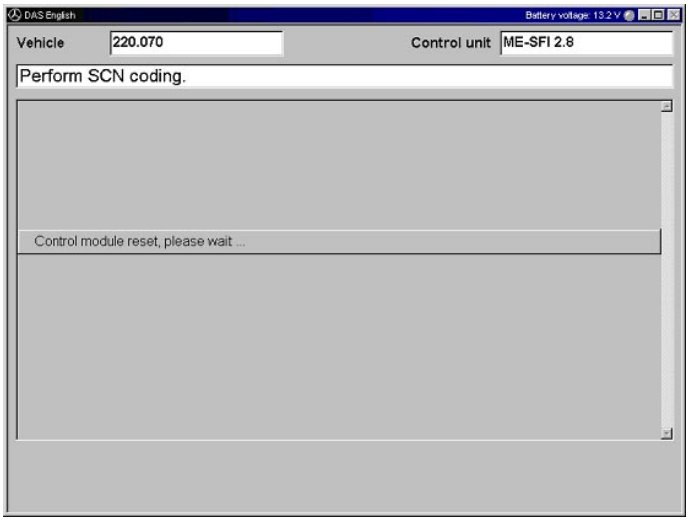

Figure 6

8. After the SCN Coding process, the CVN is automatically read out of the ECM. The calculation of the CVN may take up to 180 seconds. (Figure 7)

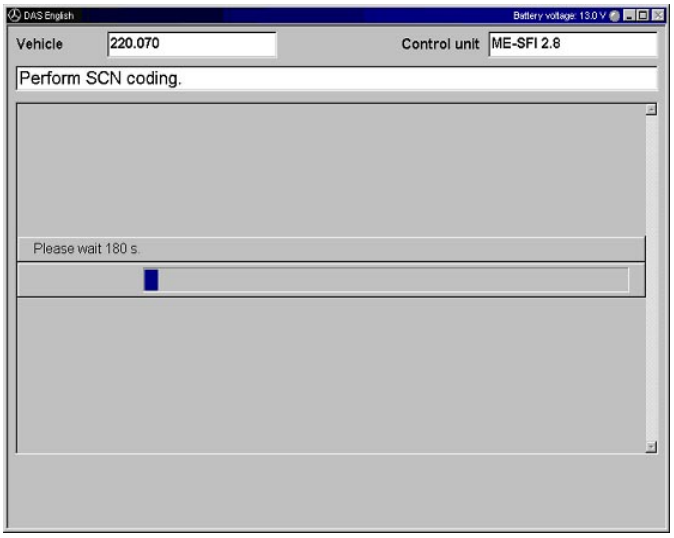

Figure 7

9. The CVN and Check Digit [3] are displayed on the SDS Screen. Press 'F11' to print out the CVN and Check Digit [3]. (Figure 8)
10. The CVN must now be redocumented.

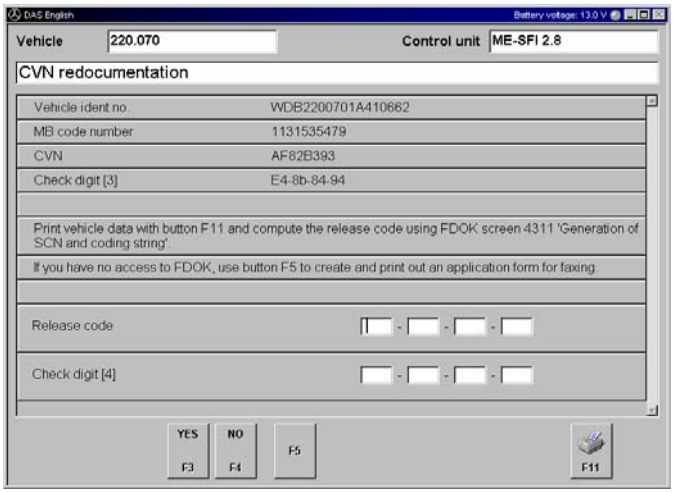

Figure 8

NOTE: If the CVN is to be redocumented at this time please proceed to Section D.
[CVN Redocumentation - Primary procedure]

NOTE: If the CVN is to be redocumented at a later date please proceed to Section E.
[CVN Redocumentation - Back-up procedure]

NOTE: The SCN Coding process is complete at this stage and the vehicle can be released.

NOTE: If the ME Control unit has been replaced, drive authorization may need to be performed.

D. CVN Redocumentation - Primary Procedure

Using the CVN and Check Digit [3] from the sheet printed in Section C, Step 9,

1. Input the CVN and Check Digit [3] into the respective fields in the SCN Coding On-line Application. (Figure 9)

NOTE: For information on how to access the SCN Coding On-line Application please refer to S-B-07.61/38f

2. Press 'F5 CVN Redocument' Button, Release Code and Check Digit [4] will be created.

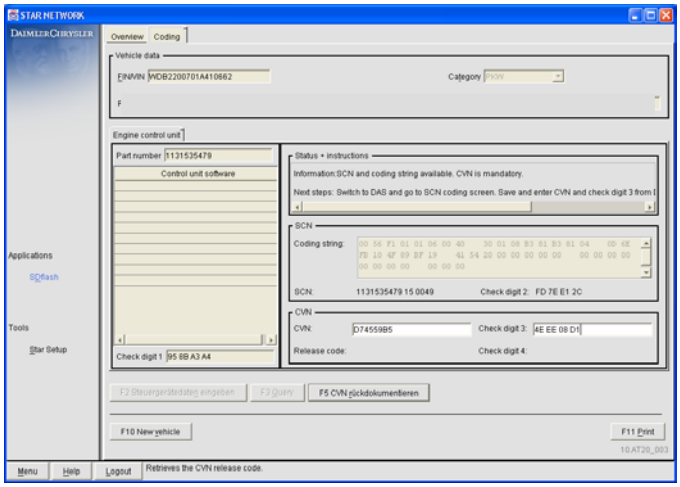

Figure 9

3. Click the 'OK' Button. The Release Code and Check Digit [4] will be displayed. (Figure 10)

4. Press 'F11 Print' Button to Print the Release Code and Check Digit [4]. (Figure 10)

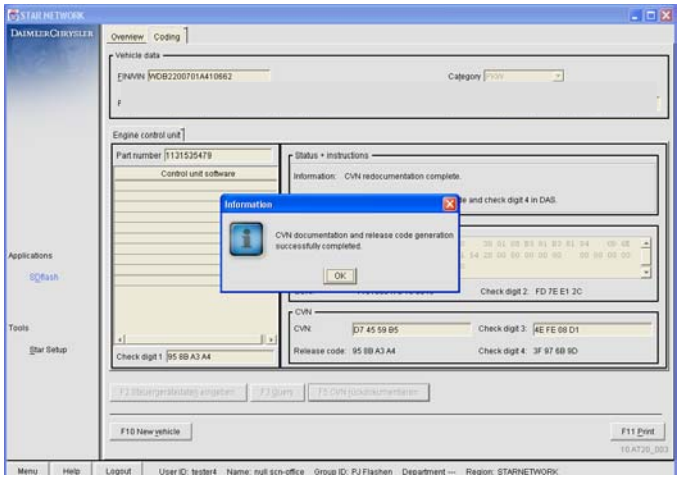

Figure 10

5. Enter the Release Code and Check Digit [4] into the respective areas on the SDS Screen, Press 'F3' to complete the redocumentation. (Figure 11)

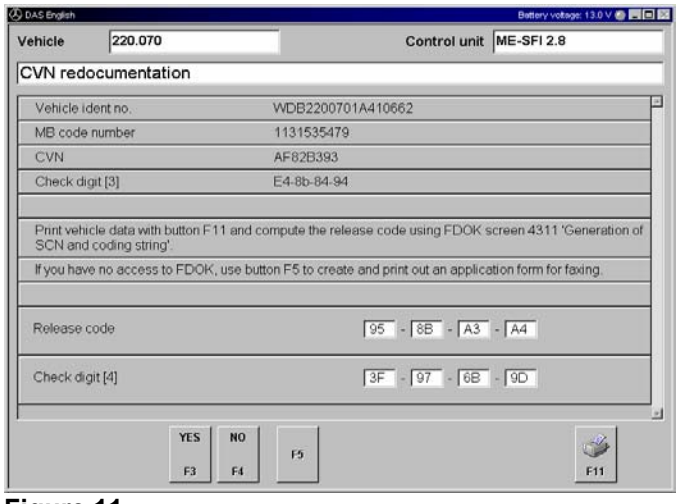

Figure 11

E. CVN Redocumentation – Back-Up Process

The Back-up Process should only be used when it is not possible to redocument the CVN and Check Digit [3] at the time of SCN Coding.

1. Select ‘Cars’, Press ‘F3’ (Figure 12)

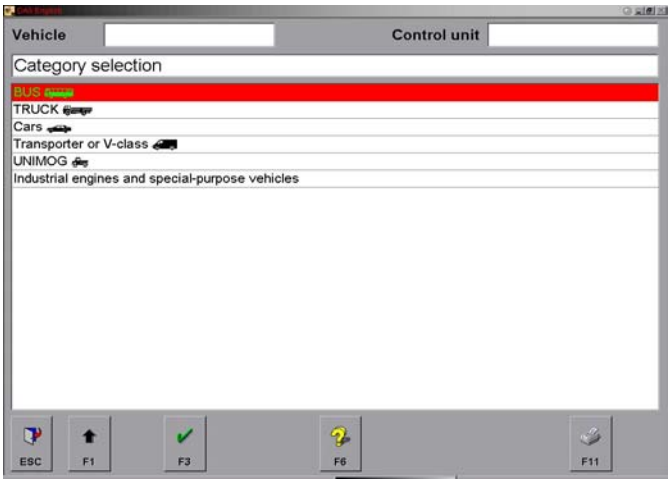

Figure 12

2. A message will be displayed noting that at least one CVN from at least one vehicle has not been redocumented. (Figure 13)

Figure 13

The CVN and respective vehicles that have not been redocumented will be displayed. For each of the entries displayed you must redocument the CVN and Check Digit [3] to ‘unlock’ and clear the entry from the screen.

3. Press ‘F11’ button to print a record of all CVN/vehicles that must be redocumented. (Figure 14)

Figure 14

Redocument CVN and Check Digit [3] using SCN Coding On-Line Application

NOTE: For information on how to access the SCN Coding On-line Application please refer to S-B-07.61/38f

4. Using the CVN and Check Digit [3] from the sheet printed in Section E, Step 3, input the CVN and Check Digit [3] into the respective fields in the SCN Coding On-line Application. (Figure 15)

5. Press ‘F5 CVN Redocument’ Button, Release Code and Check Digit [4] will be created.

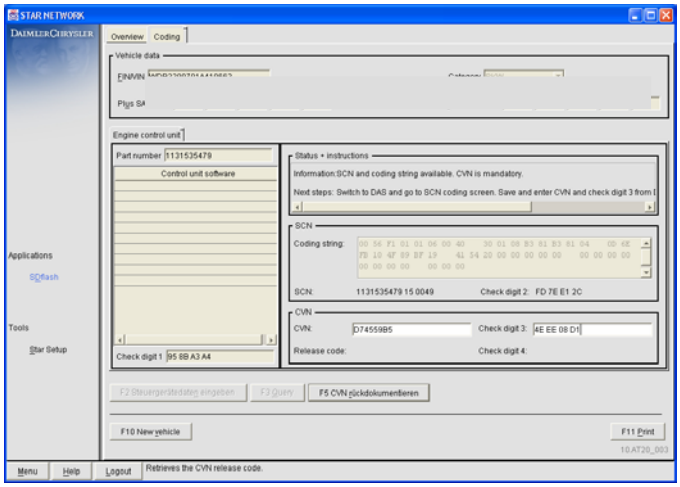

Figure 15

6. Click the ‘OK’ Button. The Release Code and Check Digit [4] will be displayed. (Figure 16)

7. Press ‘F11 Print’ Button to Print the Release Code and Check Digit [4]. (Figure 16)

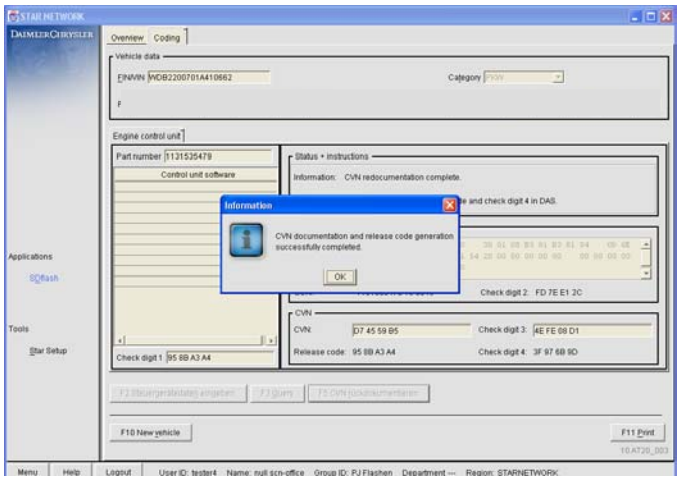

Figure 16

You must now select the CVN/vehicle record that you wish to ‘unlock’ and clear.

8. Select the CVN/vehicle record that you wish to clear by highlighting, then press ‘F9’ (Figure 17)

Figure 17

9. Enter the Release Code and Check Digit [4] for the respective VIN, Press ‘F3’ (Figure 18)

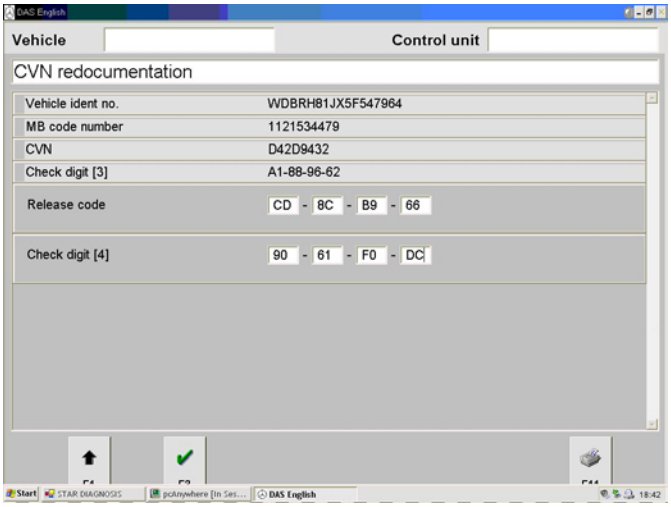

Figure 18

Once all vehicles have had their CVN and Check Digit [3] redocumented and their records ‘unlocked’ and cleared with the Release Code and Check Digit [4], the redocumentation process is complete. (Figure 19)

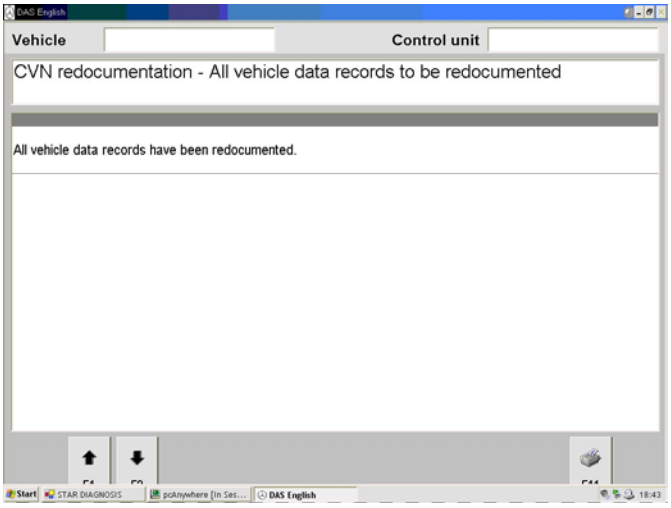

Figure 19

Note: The following allowable labor operations should be used when submitting a warranty claim for this repair.

In Case of Warranty **Flashing ME Control Unit:**

Operation: Repair Operation Options.

#1 Short test, perform (54-1011) Only can be claimed once per RO
Engine Control Module - Flashing (after test), perform (07-8821)
Control unit(ME/ETC) -CVN code(MY 2005 and newer), perform (02-3952)

#2 Replacing ME Control Unit:
Short test, perform (54-1011) Only can be claimed once per RO
Engine Control Module - All Fuel Inj. Systems, replace(07-1628)
Control unit(ME/ETC) -CVN code(MY 2005 and newer), perform (02-3952)

#3 Flashing ETC Control Unit:
Short test, perform (54-1011) Only can be claimed once per RO
Control Unit - Software install (54-0991)
Control unit(ME/ETC) -CVN code(MY 2005 and newer), perform (02-3952)

#4 Replacing ETC Control Unit:
Short test, perform (54-1011) Only can be claimed once per RO
Control Module - For Electronic Transm. (722.6), replace (27-2351) or Valve Body (Electro-hydr.), r & r / repl. (27-4982)
to be used with 722.9 transmissions only
Control unit(ME/ETC)-CVN code(MY 2005 and newer), perform (02-3952)

Damage Code	Oper.No.	Time	Model Ind.
Repair Option #1			
54575 ED 8	**54-1011**	**.3 hours**	**00**
	07-8821	**.3 hours**	**M1,M2,M6,M7,N1,P1 P2,P4, P6,P7,P8,P9 Q1,Q2,Q3,Q4,R1,S1 S2,S4,S5,T1,T2,T4 T5,U1,U3,U4**
	02-3952	**.1 hours**	**M1,M2,M6,M7,N1,P1 P2,P4, P6,P7,P8,P9 Q1,Q2,Q3,Q4,R1,S1 S2,S4,S5,T1,T2,T4 T5,U1,U3,U4**
Repair Option #2			
54575 ** 7	**54-1011**	**.3 hours**	**00**
**** applicable damage type**	**07-1628**	**.3 hours**	**M0,N0,S1,S2,S4,S5 U1,U3,U4**
		.5 hours	**P1,P2,P4,P6,P7 P8,P9,Q2,Q4,T1,T2 T4,T5,**
		.6 hours	**R1**
		.7 hours	**Q1,Q3**
	02-3952	**.1 hours**	**M1,M2,M6,M7,N1,P1 P2,P4,P6,P7,P8,P9 Q1,Q2,Q3,Q4,R1,S1 S2,S4,S5,T1,T2,T4**

Damage Code	Oper.No.	Time	Model Ind.
			T5,U1,U3,U4
Repair Option #3			
54553 90 8	54-1011	.3 hours	00
	54-0991	.3 hours	M1,M2,M6,M7,N1,N4 N5,N6,P1,P2,P4,P6 P7,P8,P9,Q1,Q2,Q3 Q4,R1,R2,R3,R4,S1 S2,S3,S4,S5,S6,T1 T2,T3,T4,T5,U1,U3 U4
	02-3952	.1 hours	M1,M2,M6,M7,N1,N4 N5,N6,P1,P2,P4,P6 P7,P8,P9,Q1,Q2,Q3 Q4,R1,R2,R3,R4,S1 S2,S3,S4,S5,S6,T1 T2,T3,T4,T5,U1,U3 U4
Repair Option #4			
54553 ** 7	54-1011	.3 hours	00
** applicable damage type			
	27-2351	.3 hours	M0,N0,P0,Q0,R1,R2 R3,R4,S1,S2,S3,S4 S5,S6
	or	.4 hours	T1,T2,T3,T4,T5,U1 U3,U4
	27-4982	1.5 hours	M0,N0,R1,T2
	02-3952	.1 hours	M1,M2,M6,M7,N1,N4 N5,N6,P1,P2,P4,P6 P7,P8,P9,Q1,Q2,Q3 Q4,R1,R2,R3,R4,S1 S2,S3,S4,S5,S6,T1 T2,T3,T4,T5,U1,U3 U4

Note: Op Code 54-1011 can only be claimed once when performing the above.

Note: Figure #8 and #10 must be printed and retained in the service file.