

Diversified Environmental Catalysts



01 08 34

2012357/3

December 22, 2008.

Supersedes Technical Service Bulletin Group 01 number 06-14 dated August 22, 2006 for reasons listed below.

Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
A6 (C5)	2001	APB	Automatic (EYK, EMP, FAQ)	N/A	N/A
A4 (S4)	2001	APB	Automatic (EMP, FAQ, FHG, FHJ)	N/A	N/A

Affected Vehicles

01 Malfunction Indicator Light (MIL) ON, DTC P0421 or P0431 Stored in DTC Memory

Condition

REVISION HISTORY		
Revision	Date	Purpose
3	-	Revised Title to add Repair Group

MIL on and one or both of the following DTC's are stored:

- P0421 - Warm up catalyst, bank 1, efficiency below threshold
- P0431 - Warm up catalyst, bank 2, efficiency below threshold

Applies only to ECM's with the following part numbers:

- 4B0 907 551 T (A6)
- 8D0 907 551 L (S4).

Technical Background

The ECM may diagnose the Warm up Catalytic Converter incorrectly under high engine load conditions.

Production Solution

The diagnosis threshold has been changed in later ECM's.

Service

If ECM software level of is lower than 4000:

- ECM requires a software update (flash). DO NOT REPLACE CATALYTIC CONVERTER(S).

If Software Level of ECM is 4000 or higher:

- Replace affected CATALYTIC CONVERTER.

Tuned ECM or TCM requirements:

NOTE: Any "Update Programming" procedure (flash) may overwrite any "TUNED" ECM or TCM programming.

A "TUNED" ECM or TCM is described as any ECM or TCM altered so as to perform outside

the normal parameters and specifications approved by Audi of America, Inc.

If you encounter a vehicle with a Tuned ECM or TCM, your dealership must do the following before performing any procedure that updates ECM or TCM programming:

- Notify the owner that their ECM or TCM was found to have been tuned
- Notify the owner any damage caused by the tuning of the ECM or TCM (including any adverse emissions consequences) will not be covered by Audi of America, Inc. warranties.

**OWNER INFORMATION ABOUT CONTROL MODULE
TUNING* ACKNOWLEDGEMENT AND
AUTHORIZATION FOR REPROGRAMMING
(REFLASHING) OF CONTROL MODULE(S)**

**) "TUNING" is described as the addition of or modification of any component which causes an Audi vehicle to perform outside the normal parameters and specifications approved by Audi of America, Inc..*

Date: _____

Dealer Number: _____

Vehicle Identification Number: _____

Repair Order Number: _____



Dealer stamp

I _____, owner or driver of the above identified Audi, confirm:

"Tuning" as described above (especially power increasing modifications) has NOT been performed on my vehicle.

"Tuning" as described above has been performed on my vehicle and the following components were modified or installed:

TUNING was performed by (Please provide Company name and telephone number, if you wish us to contact them):

I understand that if my Control Module is determined to have been tuned, any damage caused by the tuning of the Control Module (including adverse emissions consequences) will not be covered by Audi of America, Inc. warranties.

I am permitting an authorized Audi Dealer to reflash (update) my Control Module, and by doing so, I understand that this process will automatically overwrite (destroy) and permanently delete any tuning program that was previously installed on the Control Module of my Audi vehicle.

By signing below, I fully acknowledge and understand that the tuning program will not be restored and Audi of America, Inc., will not be liable in any way for the loss of tuning data.

Signature of Customer

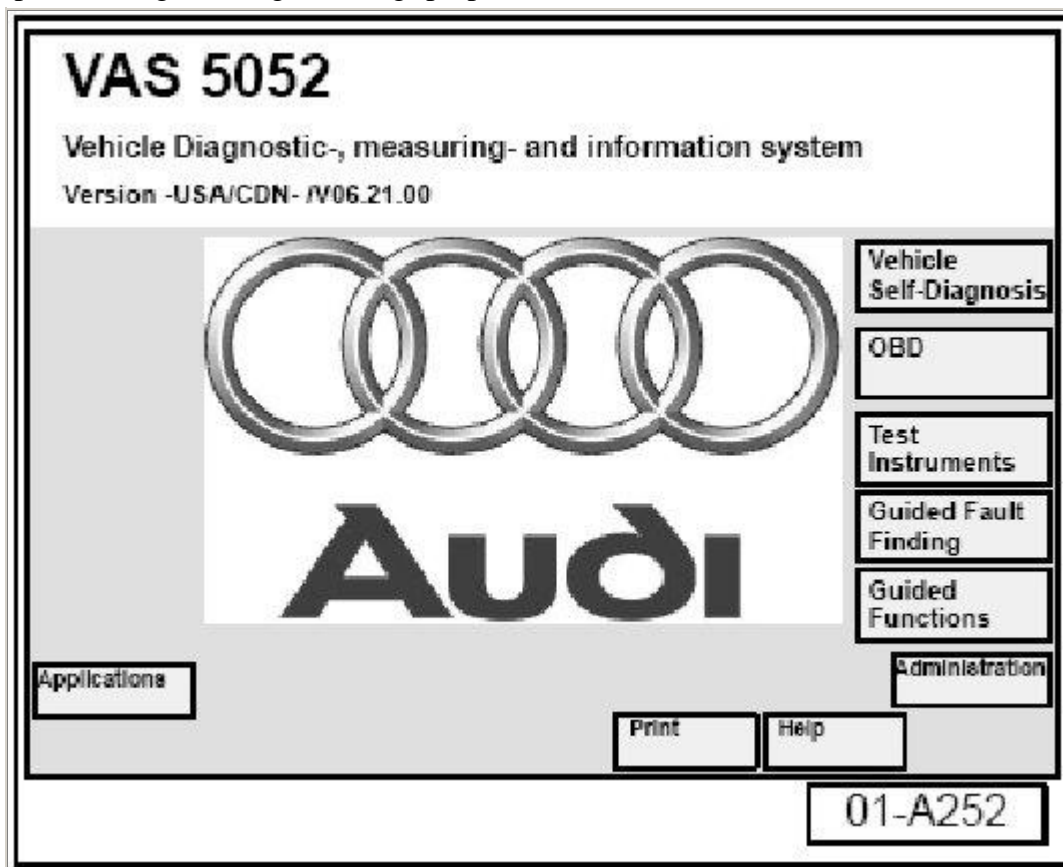
- Obtain the owner's written consent (see Control Module Tuning form) for any requested repair under warranty or outside warranty that requires flashing, which will automatically overwrite the Tuned program.

Vehicle requirements:

- Ignition switched ON.
- VAS 5051/5052 switched on, connected to vehicle (using K-lead adapter VAS 6017 A) and must have sufficient power supply at all times during procedure.
- Battery **MUST** have minimum no-load charge of **12.5 V** (failure to maintain voltage during update process can lead to ECM failure).
- No appliances with high electromagnetic radiation (i.e. mobile phones) around the vehicle.
- Also refer to Required Parts and Tools.

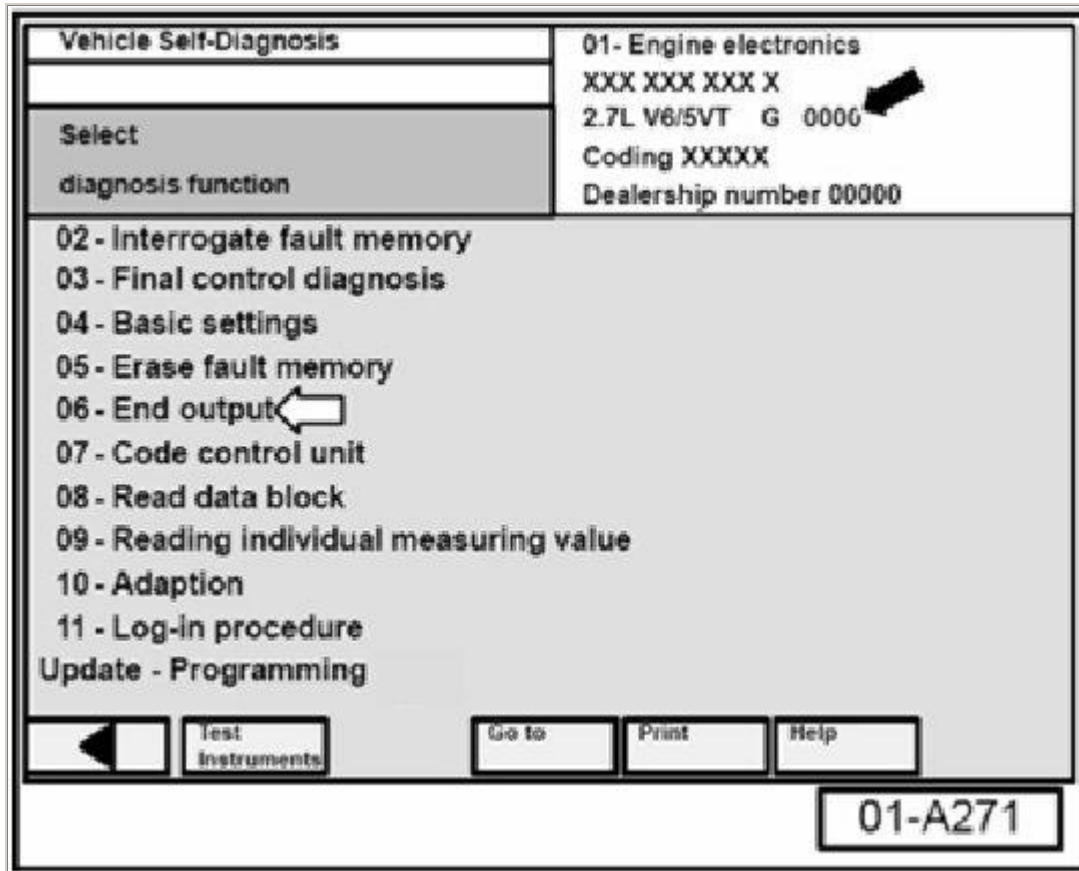
NOTE: Non-observance of the following points may lead to ECM failure! VAS 5051 or 5052 must always be connected to the approved power supply at the approved voltages. Under no circumstances should the power supply be interrupted or the diagnostic connector unplugged during the flash procedure. Any appliances with high electromagnetic radiation (i.e. mobile phones) must be switched OFF.

1. Update - Programming (flashing) preparation



Start Screen

- Insert Update-CD into CD drive as soon as Start Screen appears in order to place the tester into the flashing mode.
- Select: Vehicle Self-Diagnosis >> 01 - Engine Electronics.



Print screen and attach printout to the repair order.

If ECM software level (black arrow) is 4000 or higher:

- Do not complete this Technical Bulletin.
- Select: 06 End Output (white arrow).
- Replace affected Catalyst.

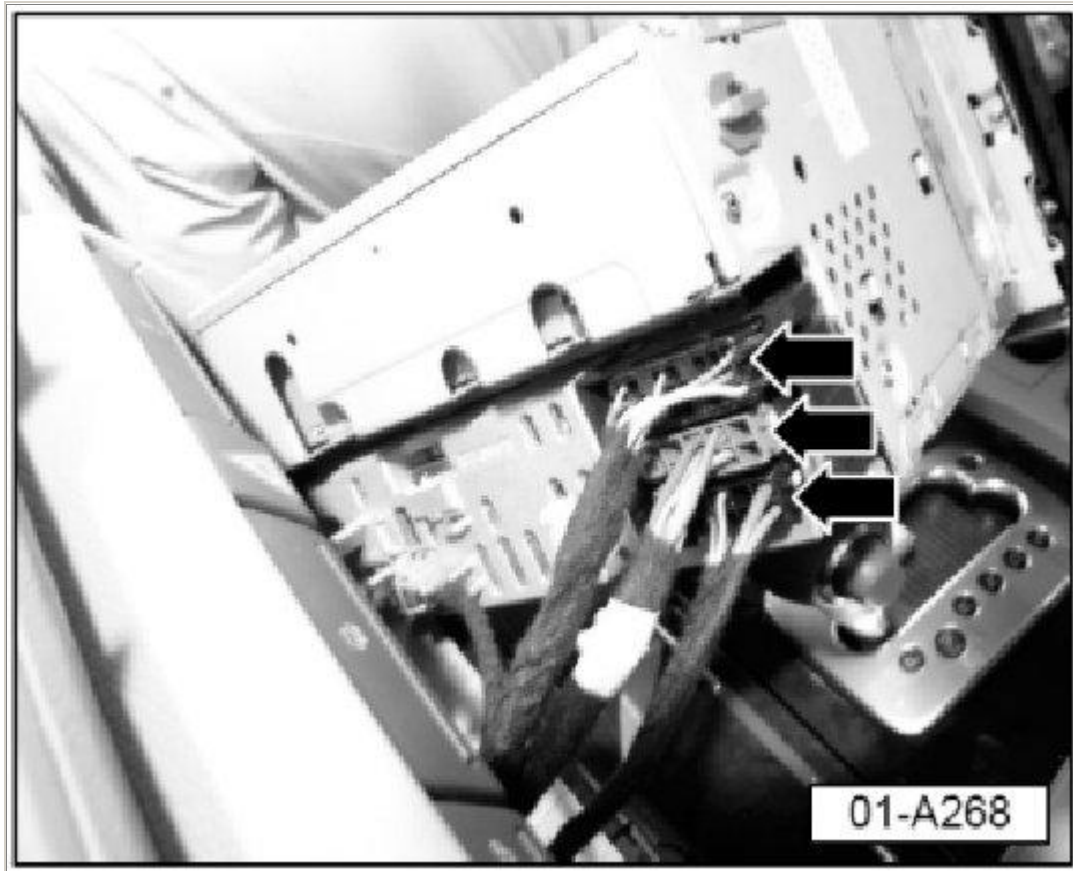
If ECM software level is lower than 4000:

Before starting the Update-Programming procedure, the fault memories of all systems need to be interrogated and existing DTC's need to be printed and erased.

- Select backward button to return to Start Screen.
- Select: Vehicle Self Diagnosis >> 00 - Collection Services >> Check DTC Memory - Complete System, which will interrogate all fault memories.

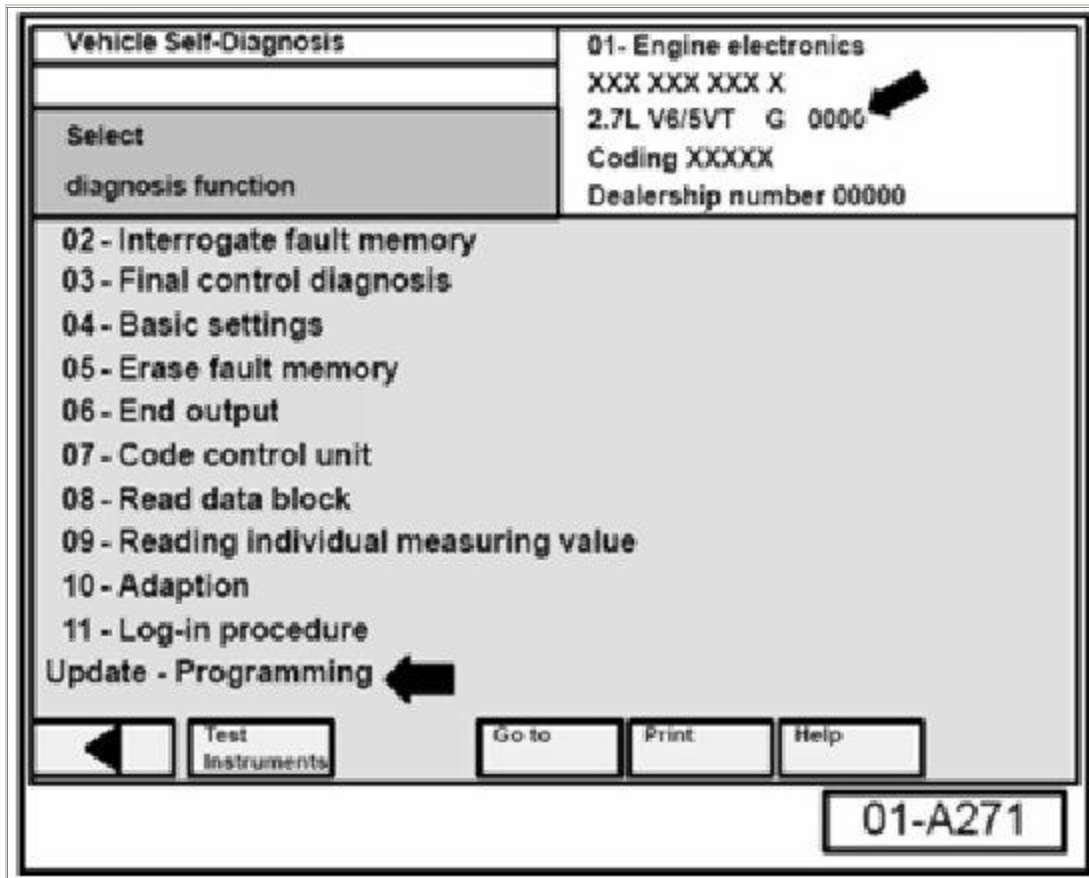
Once fault memories are erased, Function ended will appear in upper left corner of screen.

- Select forward button and print all DTC's.
- Erase all DTC's by entering the affected systems individually.
- Return to Start Screen.



Before starting the Update-Programming Procedure, the radio needs to be disconnected from the electrical system.

- Switch ignition OFF.
 - Access and record radio code.
 - Pull radio out from instrument panel enough to access electrical connectors.
 - Disconnect all electrical connectors (arrows) from multi-pin connections.
 - Switch ignition ON.
2. Update - Programming (flashing) performing



From Start Screen:

- Select: Vehicle Self Diagnosis >> 01 - Engine Electronics >> Update - Programming (lower black arrow).

Tip: The "Update - Programming" function will appear whether the ECM requires updating or not, whenever the Update-CD ROM is inserted in CD-Drive of tester.

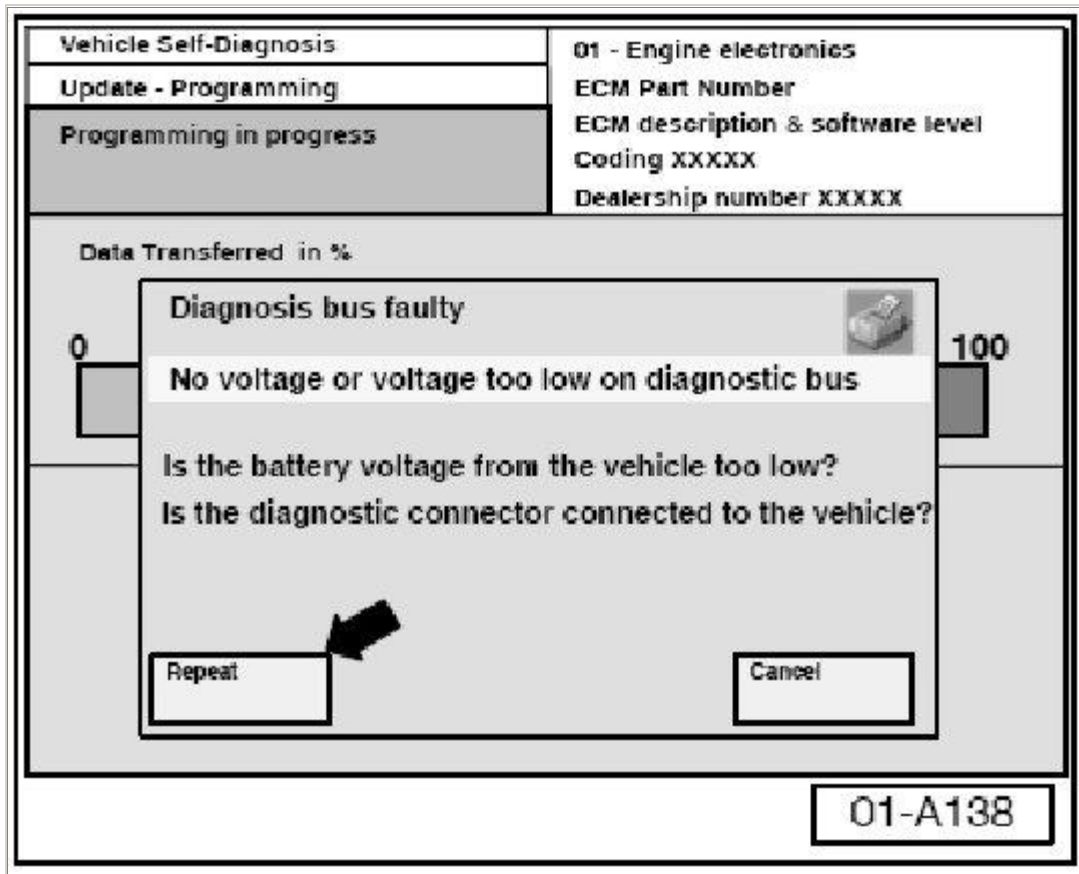
Vehicle Self-Diagnosis	01 - Engine electronics
Update - Programming	ECM Part Number
	ECM description & software level
	Coding XXXXX
Programming can be carried out.	Dealership number XXXXX
<p>WARNING!</p> <p>The programme version stored in the control unit will be erased It will be programmed with the new version XXXX</p> <p>The erasing programming process will last roughly XX minutes The part number in the control unit identification may change. Vehicle specific data (coding, adaptation etc.) might be lost. It must be checked after successful programming</p> <p>After the continue button has been pressed the process cannot be cancelled.</p> <p>IMPORTANT -- PLEASE NOTE:</p> <p>Switching ignition off or disconnecting the diagnostic connector during programming may completely destroy the control module!</p>	
◀	Test Instruments
Go to	Print
Help	▶
01-A276	

After selecting Update - programming function, NEW program version and approximate timing for update are displayed on the VAS5051/5052 screen.

- Select > button, which will start the programming procedure.

The previous data in the ECM is being erased and the new data is being transferred to the module from the flash CD. (Approx. flash time is **17-19 minutes** .).

NOTE: Once Update - Programming function has been started, switching ignition OFF or disconnecting the diagnostic connector may completely destroy the ECM.

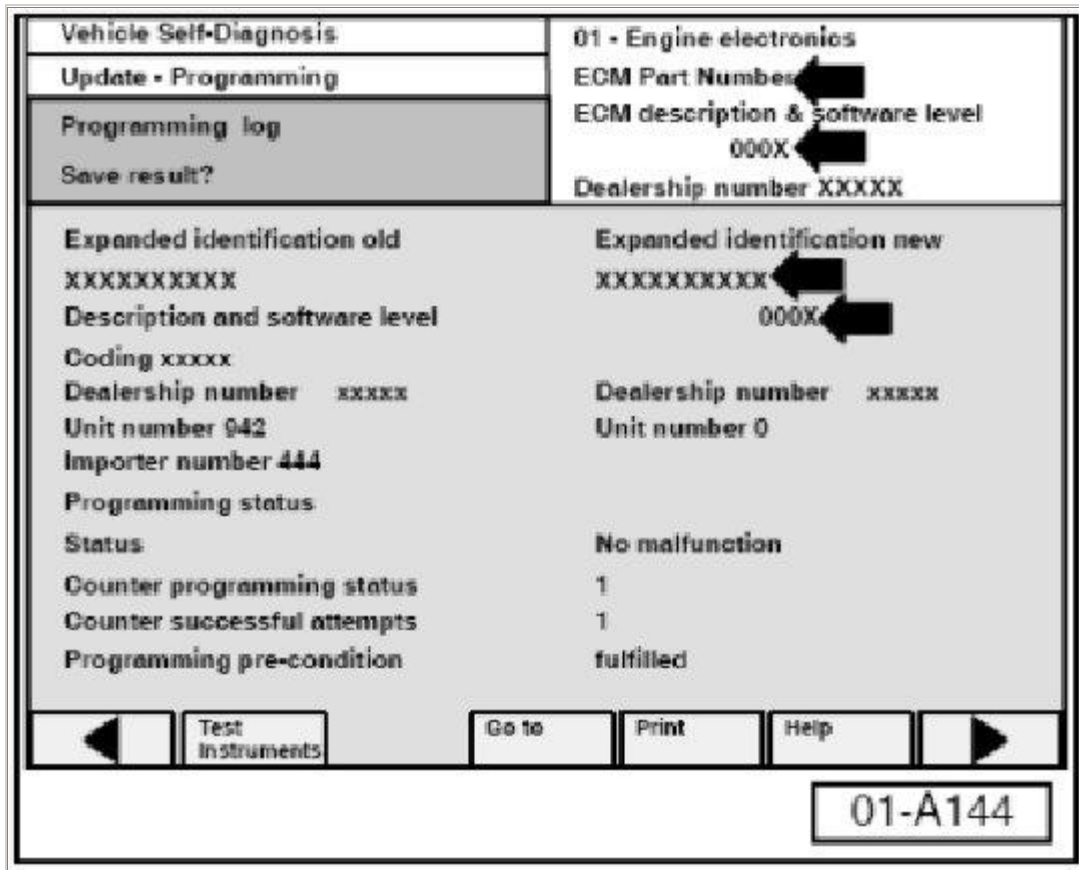


If, during the "Update - Programming", this fault message is displayed:

- Select "Repeat" button (arrow) and the "Update Programming process" will be started from the beginning.
- DO NOT select the "Cancel" button! DO NOT switch OFF the ignition!
- Confirm that VAS 5051/5052 diagnostic tool power supply is adequate and that ALL appliances with high electromagnetic radiation (i.e. mobile phones) are switched OFF.

The tester will request you to cycle the ignition.

- Switch ignition OFF.
- Wait **20 seconds** and switch ignition back ON.



Similar Screen appears, once "Update Programming" (flashing) is complete:

Old ECM Part No. and software level are still displayed on the screen (arrows). New ECM Part No. and software level are not displayed until process is complete and fault memories have been erased.

- Print screen and attach printout to the repair order.
- Select forward button

The tester will request you again to cycle the ignition.

- Switch ignition OFF.
- Re-install the radio and re-connect all electrical connectors from multi-pin connections.
- Switch ignition back ON.
- Select forward button.

3. Fault memories, erasing after "Update-Programming" (flashing)

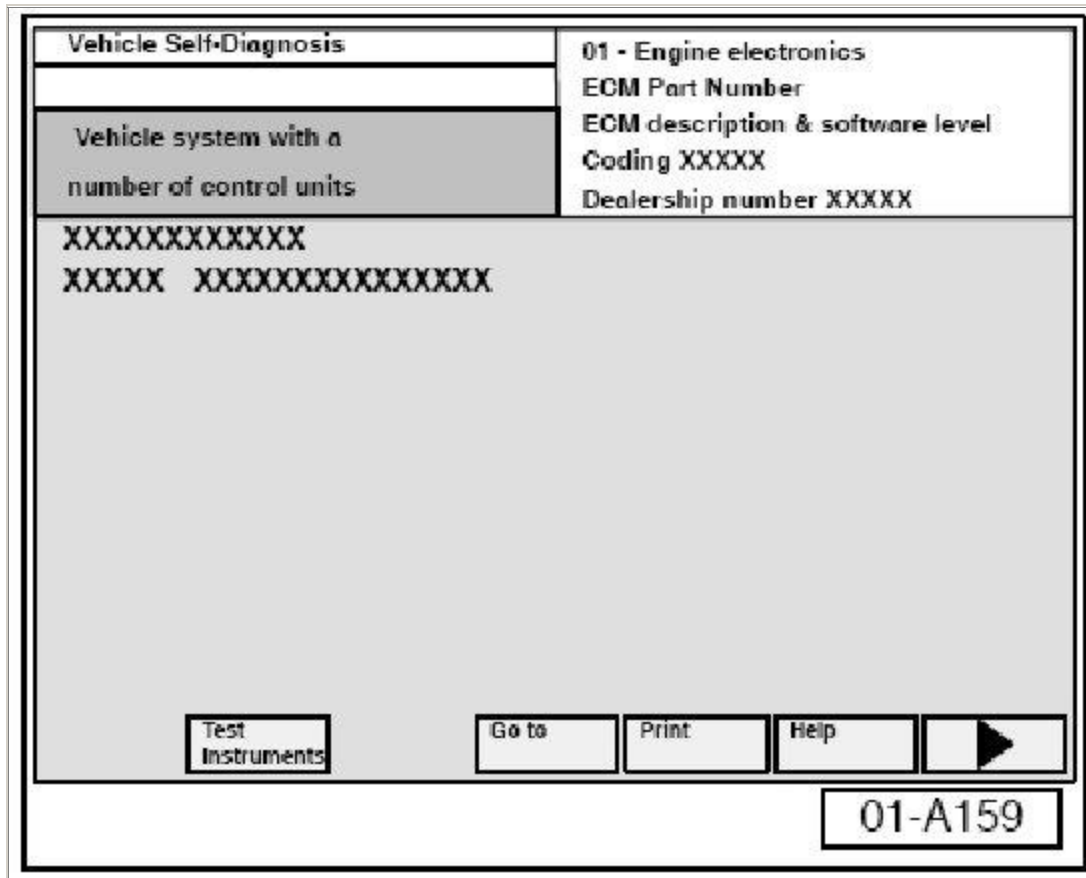
Vehicle Self-Diagnosis	01 - Engine electronics
Update - Programming	ECM Part Number
Erase fault memory	ECM description & software level
	Coding XXXXX
	Dealership number XXXXX
<p>The programming causes fault records in related control units. The fault memories of all control units in the vehicle must be erased.</p> <p>Pressing the Continue button will automatically erase the fault memories.</p> <p>Pressing the Back button will not erase fault memories</p>	
<input type="button" value="◀"/> <input type="button" value="Test Instruments"/>	<input type="button" value="Go to"/> <input type="button" value="Print"/> <input type="button" value="Help"/> <input type="button" value="▶"/>
<input type="text" value="01-A141"/>	

Due to the CAN bus system, fault messages will be stored in various Control Modules during programming.

- Select forward button to erase ALL fault memories. (system takes approx. **15 minutes** to erase all fault memories).

Once fault memories are erased, Function ended will appear at bottom of screen.

- Select backward button to finish the ECM update.



Updated software level 4000 will appear.

- Print screen and attach printout to the repair order.
- Select "Go to" >> "Exit" to return to Start Screen.

ECM reprogramming is now completed.

- Verify ECM coding.
- Set Readiness Code.

When procedure applies to vehicles within the New Vehicle Limited Warranty, use the following:			
Claim Type:	W2		
Part Identifier:	2470		
Damage Code:	2470 39 xxx1		
Labor Operations:	247009999	Insert Labor Operation Description from ElsaWeb	130 TU
Diagnostic Time:	No Diagnostic Time Allowed		
Claim Comment:	As per TSB #2012357/3		
All warranty claims submitted for payment must be in accordance with the Audi Warranty Policies and Procedures Manual. Claims are subject to review or audit by Audi Warranty.			

Warranty

Part Number	Part Description	Quantity
8D0 906 961	Update-CD ROM	1

Required Parts and Tools

- VAS 5051 or VAS 5052 with Basis-CD A.08.01 and the Brand-CD A.08.47 (or later) is required for the ECM Update.

Additional Information

All part and service references provided in this TSB are subject to change and/or removal. Always check with your Parts Dept. and service manuals for the latest information.