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# Technical Bulletin

**Subject: Update Programming to Eliminate Possible Engine Stumble or Rough Running Condition (OD)**

**Group: 01**

**Number: 05-15**

**Model(s): Touareg 3.2L V6 (Eng. code BAA, BMX) 2004 ► 2005 Date: Dec. 19, 2005**

**Instructions: Perform this procedure on all applicable vehicles within the Limited New Vehicle Warranty**



### Tip:

*This Technical Bulletin is in effect for 12 months from date of publication as listed above. After that date, this Technical Bulletin will expire and no longer be in effect.*

### Condition

Update programming required to eliminate possible engine stumble after warm restart and/or cold start, engine runs rough, DTCs P0300, P0301, P0302, P0303, P0304, P0305 or P0306 may be stored.

May be caused by Software issue with Engine Control Module Part No.: 022 906 032BF/FT.

### Production

Model Year	Starting VIN:	Ending VIN:
2004	7L_4D000920	7L_4D031499
2005	7L_5D042171	7L_5D084254

### Service

#### Requirements:

Vehicle must meet ALL of the following criteria.

- 1 - Procedure is valid only for vehicles that show the OD code in the OTIS View Campaign inquiry screen on the day of repair (see Page 11).
- 2 - Vehicle must be within the Limited New Vehicle Warranty.
- 3 - Procedure must be performed within the allotted time frame stated in this Technical Bulletin.



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**Tip:**

*Procedure must also be performed on applicable vehicles in Dealer inventory.*

*Part numbers listed in this T.B. are for reference only. Always check with your Parts Dept. for the latest parts information.*

**Procedure:**

## **Update - Programming (Flashing)**



**Tip:**

*When performing the reflash procedure, ALL DTCs for all systems are erased. DTCs linked to Guided Fault Finding function tests will be lost. Therefore, always address stored DTCs for Customer concerns unrelated to the reflash procedure first.*

*The following "Update - Programming" (flashing) process may overwrite any "TUNED" ECM programming. A "TUNED" ECM is described as any ECM altered so as to perform outside the normal parameters and specifications approved by Volkswagen of America, Inc.*

If you encounter a vehicle with a "Tuned" ECM, prior to performing the "Update - Programming" (flashing) procedure:

- Your Dealership should place the vehicle owner on notice in writing, that their ECM was found to have been tuned, and that any damage caused by the tuning of the ECM (including any adverse emissions consequences) will not be covered by Volkswagen of America, Inc. warranties.



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- For any repair requested by the owner under warranty or outside warranty that requires flashing, which will automatically wipe out the “Tuning” program, your Dealership should advise the owner of the above and get Owner’s written consent (see attached Control Module Tuning form) to the flashing procedure.

### Tool requirements

- ◆ VAS 5051 or 5052 (with Base CD V.08.00.00 and the Brand CD V.08.64.01 or higher) with old diagnosis logs erased prior to start.
- ◆ “Update - Programming” (flashing) CD W42TOUAREGCSMF.



### Tip:

*Additional copies of the “Update - Programming” CD (Literature Number W42TOUAREGCSMF) may be ordered from the Volkswagen Technical Literature Ordering Center at [www.vw.dds ltd.com](http://www.vw.dds ltd.com), or by calling 1-800-544-8021 from 8:00 a.m. to 8:00 p.m. EST Monday through Friday. This number can be dialed in both the United States and Canada.*

### Vehicle requirements

- ◆ Battery MUST have minimum no-load charge of 12.5V (failure to maintain voltage during update process can lead to ECM failure) (you must use an approved battery charger to maintain battery voltage).
- ◆ VAS 5051: connected to vehicle and to 110V AC Power supply at all times during procedure.
- ◆ VAS 5052: connected to vehicle with battery voltage requirements met.
- ◆ Any appliances with high electromagnetic radiation (i.e. mobile phones) switched OFF.
- ◆ No Stored DTC’s, erase any stored DTCs.



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### Tip:

*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.*

### “Update - Programming” (flashing) procedure, checking for update match

– Switch ignition ON.

◀ – Switch VAS 5051/5052 ON and insert flash CD into CD drive as soon as start screen appears.



### Tip:

*You must return to the start screen before starting a new (flashing) session, otherwise the flashing CD will not be recognized by the tester.*

– Select “Vehicle Self Diagnosis” mode.

– Select vehicle system “01-Engine electronics”.

◆ Program checks software level.

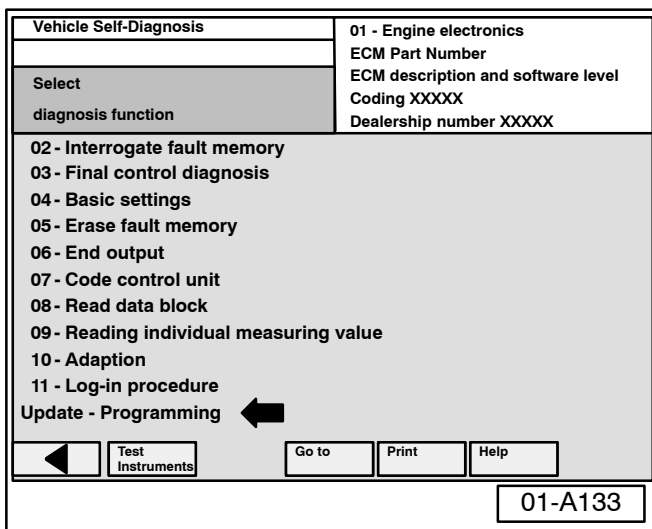
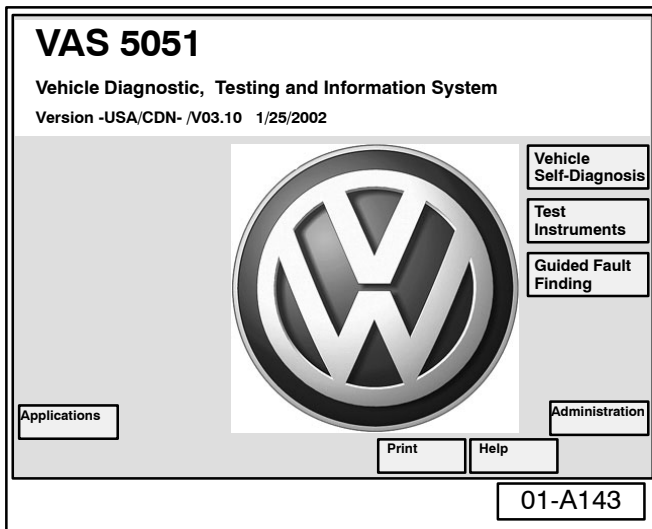
If software level of ECM MATCHES level indicated by Flashing CD:

◀ ◆ “Update - Programming” (arrow) will not appear.



### Tip:

*The “Update - Programming” function is only available when the inserted flashing CD level and current vehicle ECM level are different.*





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Vehicle Self-Diagnosis	01 - Engine electronics
Select diagnosis function	ECM Part Number ECM description and software level Coding XXXXX Dealership number XXXXX
02 - Interrogate fault memory 03 - Final control diagnosis 04 - Basic settings 05 - Erase fault memory 06 - End output 07 - Code control unit 08 - Read data block 09 - Reading individual measuring value 10 - Adaption 11 - Log-in procedure Update - Programming	
<input type="button" value="Test Instruments"/> <input type="button" value="Go to"/> <input type="button" value="Print"/> <input type="button" value="Help"/>	01-A133

If "Update - Programming" does not appear:

- Programming (flashing ECM) cannot be performed. Do Not attempt to update. Go to page 11 and close campaign using appropriate code.

If software level DOES NOT match the level indicated on Flashing CD:

◀ ◆ "Update - Programming" (arrow) appears.

**PRIOR to performing procedure to "Update - Programming" (flash) the ECM:**

Vehicle Self-Diagnosis	01 - Engine electronics
Select diagnosis function	ECM Part Number ECM description & software level Coding XXXXX Dealership number XXXXX
02 - Interrogate fault memory 03 - Final control diagnosis 04 - Basic settings 05 - Erase fault memory 06 - End output 07 - Code control unit 08 - Read data block 09 - Reading individual measuring value 10 - Adaption 11 - Log-in procedure Update - Programming	
<input type="button" value="Test Instruments"/> <input type="button" value="Go to"/> <input type="button" value="Print"/> <input type="button" value="Help"/>	01-A134

- ◆ ALL fault memories must be interrogated and erased.

**Tip:**

*Failure to erase ALL fault memories may cause "Update - Programming" (flashing) procedure to fail!*

- ◀ - Select Diagnosis function 06 "End output".
- Select Diagnosis function 00 "Collection services".
- Select "Check DTC memory - complete system". which will interrogate all fault memories.
- Erase ALL fault memories.



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Vehicle Self-Diagnosis	01 - Engine electronics
Select diagnosis function	ECM Part Number ECM description & software level Coding XXXXX Dealership number XXXXX
02 - Interrogate fault memory 03 - Final control diagnosis 04 - Basic settings 05 - Erase fault memory 06 - End output 07 - Code control unit 08 - Read data block 09 - Reading individual measuring value 10 - Adaption 11 - Log-in procedure Update - Programming	
<input type="button" value="Test Instruments"/> <input type="button" value="Go to"/> <input type="button" value="Print"/> <input type="button" value="Help"/>	
01-A135	

Once ALL fault memories have been erased:

- Select vehicle system "01-Engine electronics".
- ◀ - Select "Update - Programming" option at bottom of screen (arrow).

**!** Note:

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

Vehicle Self-Diagnosis	01 - Engine electronics
Update - Programming	ECM Part Number ECM description & software level Coding XXXXX Dealership number XXXXX
Programming can be carried out.	
<b>WARNING!</b> The programme version stored in the control unit will be erased It will be programmed with the new version 000X 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 After the continue button has been pressed the process cannot be cancelled. <b>IMPORTANT -- PLEASE NOTE:</b> Switching ignition off or disconnecting the diagnostic connector during programming may completely destroy the control module!	
<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="Next"/>	
01-A158	

**"Update - Programming" (flashing), performing**

◀ After selecting "Update - Programming" function, new program version as listed below will install:

- ◆ Model year 2004, 022 906 032BF\_6742
- ◆ Model year 2005, 022 906 032FT\_6618
- By selecting the ▶ button, the programming procedure begins.



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Vehicle Self-Diagnosis	01 - Engine electronics
Update - Programming	ECM Part Number
Programming in progress	ECM description & software level
	Coding XXXXX
	Dealership number XXXXX

Data Transfer in %

0 11 100

01-A137

◀ Similar screen appears:

The previous data in the ECM is erased and the new data is being transferred to the module from the flash CD.



**Tip:**

*Approximate flashing time is 30 minutes.*

Vehicle Self-Diagnosis	01 - Engine electronics
Update - Programming	ECM Part Number
Programming in progress	ECM description & software level
	Coding XXXXX
	Dealership number XXXXX

Data Transferred in %

0 100

**Diagnosis bus faulty**

No voltage or voltage too low on diagnostic bus

Is the battery voltage from the vehicle too low?  
Is the diagnostic connector connected to the vehicle?

Repeat      Cancel

01-A138



**Tip:**

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

- Confirm that VAS 5051 or VAS 5052 diagnostic tool power supply is adequate and that ALL appliances with high electromagnetic radiation (i.e. mobile phones) are switched OFF.
- The "Update - Programming" (flashing) process must then be started from the beginning using the "Repeat" button (arrow). **DO NOT** use the "Cancel" button.



**Note:**

**On NO occasion should the "Cancel" button be selected.**

Once "Update - Programming" (flashing) is complete:



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Vehicle Self-Diagnosis	01 - Engine electronics
Update - Programming	ECM Part Number
Programming log	ECM description & software level
Save result?	000X
	Dealership number XXXXX
Expanded identification old XXXXXXXXXX	Expanded identification new XXXXXXXXXX
Description and software level	000X
Coding xxxxx	
Dealership number xxxxx	Dealership number xxxxx
Unit number 942	Unit number 0
Importer number 444	
Programming status	No malfunction
Status	
Counter programming status	1
Counter successful attempts	1
Programming pre-condition	fulfilled
◀ Test Instruments ▶	Go to Print Help ▶
01-A144	

◀ ◆ Similar screen appears.



### Tip:


◆ ECM Part Number and old software level is still displayed at (arrows).

*New software level is not displayed until process is complete and fault memories have been erased.*

- Select the "Print", then "Screen" button.
- Attach print to vehicle Repair Order.

Once "Update - Programming" (flashing) is complete, the control module must be re-initialized.

- Select the ▶ button.

Vehicle Self-Diagnosis	01 - Engine electronics
Update - Programming	ECM Part Number
	ECM description & software level
	
<p>To continue, the control unit requires an ignition off/on cycle</p> <p>Switch off ignition.</p>	
01-A140	

◀ ◆ The tester requests you to switch the ignition OFF.

- Switch ignition OFF.

◆ The tester requests you to switch the ignition ON.

- Switch ignition ON when prompted.

After switching ignition ON, the ECM has been re-initialized, however, fault memories must now be erased.

- Select the "Continue button"





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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>	
<p>◀ Test Instruments ▶ Go to Print Help ▶</p>	
01-A141	

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

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

- ◀ To erase ALL fault memories:
  - Confirm by selecting the ▶ button.

Vehicle Self-Diagnosis	01 - Engine electronics
Update Programming	ECM Part Number
DTC memories are erased	ECM description & software level ←
Function ended	Coding XXXXX Dealership number XXXXX
<p>Vehicle systems with erased fault memories:</p> <ul style="list-style-type: none"> <li>01 - Engine electronics</li> <li>02 - Gearbox electronics</li> <li>03 - Brake electronics</li> <li>15 - Airbag</li> <li>25 - Immobilizer</li> <li>16 - Steering wheel electronics</li> <li>46 - Convenience system central module</li> <li>56 - Radio</li> <li>17 - Dash panel insert</li> </ul> <p>Function ended!</p>	
<p>◀ Test Instruments ▶ Go to Print Help ▶</p>	
01-A142	

Once fault memories have been erased:

- ◀ ◆ Similar screen appears.
- ◆ Old ECM Part No. and software level still appear at (arrow).
- ◆ Function ended appears at bottom of screen.
- Finish update of the ECM by selecting the ◀ button.

Vehicle Self-Diagnosis	01 - Engine electronics
Select diagnosis function	ECM Part Number
	ECM description and software level ←
	Coding XXXXX Dealership number XXXXX
<ul style="list-style-type: none"> <li>02 - Interrogate fault memory</li> <li>03 - Final control diagnosis</li> <li>04 - Basic settings</li> <li>05 - Erase fault memory</li> <li>06 - End output</li> <li>07 - Code control unit</li> <li>08 - Read data block</li> <li>09 - Reading individual measuring value</li> <li>10 - Adaption</li> <li>11 - Log-in procedure</li> </ul>	
<p>◀ Test Instruments ▶ Go to Print Help ▶</p>	
01-A170	

- ◆ Similar screen appears.
- ◀ Updated software level will appear at arrow.
- ◆ Model year 2004, 022 906 032BF\_6742
- ◆ Model year 2005, 022 906 032FT\_6618
- ◆ Flash CD can now be removed from VAS 5051 or VAS 5052 Diagnostic tool.
- Print the ECM screen to verify ECM update software level.



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- Attach print to vehicle Repair Order.
- Select “Go to” then select “Exit”.



## Tip:

*It is not generally necessary to encode the ECM following the “update - Programming” (flashing procedure). However, you must set the readiness code.*

- Set readiness code.

Use VAS 5051 or VAS 5052 to set readiness code.



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## Required Vehicle Update Technical Bulletin Time Requirements/ Reimbursement

To ensure prompt and proper payment, be sure to enter, immediately upon completion of the repair work, the applicable reimbursement code listed below. Claims will only be paid for vehicles that show the OD code in the OTIS View Campaign inquiry screen on the day of repair.

### OD Data Entry Procedure Use Claim Type RC

Repair Code (Damage Code Field)	Time Units	Work Scope
OD 11	20 T.U.	(Check software level)
OD 12	90 T.U.	(Check software level, reprogram ECM and reset readiness code.)

**There is NO Reimbursement for Vehicle Wash or Loaner Vehicle**

The system automatically enters parts and labor applicable to the above listed code.

For vehicles that, according to your information, cannot be corrected or reached, and one of the codes below best describe the reason, please enter one of the applicable codes into the system:

- OD 20 Customer Refused Repairs
- OD 30 Total Loss
- OD 40 Vehicle Stolen
- OD 50 Vehicle Exported

## Additional Required Vehicle Update Technical Bulletins

Some of the affected vehicles may be involved in additional Required Vehicle Update Technical Bulletins. Please check your OTIS View Campaign inquiry screen so that any additional required work can be done simultaneously.

## Required Vehicle Update Technical Bulletin Verification

For verification, **always** check the OTIS View Campaign inquiry screen. The OTIS system is the **only** binding inquiry and verification system; other systems are not valid and may result in non-payment of a claim.

## Help for Claim Input

**For questions regarding claim input, contact your appropriate Warranty Claim specialist.**

Please do not contact the Campaign Helpline regarding claim input.

## Required Customer Notification

**Inform your customer in writing by recording on the Repair Order any and all work that was conducted on the vehicle, including any and all updates completed under this Technical Bulletin.**



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

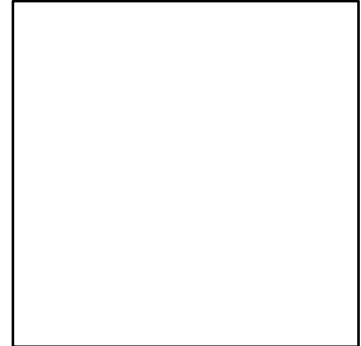
\*) "TUNING" is described as the addition of or modification of any component which causes a Volkswagen vehicle to perform outside the normal parameters and specifications approved by Volkswagen of America, Inc..

Date: \_\_\_\_\_

Dealer Number: \_\_\_\_\_

Vehicle Identification Number: \_\_\_\_\_

Repair Order Number: \_\_\_\_\_



Dealer stamp

I \_\_\_\_\_, owner or driver of the above identified Volkswagen, 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 Volkswagen of America, Inc. warranties.

I am permitting an authorized Volkswagen 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 Volkswagen vehicle.

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

\_\_\_\_\_  
Signature of Customer