Important!

Please give copies to all your VW Technicians

Technical Bulletin

Subject: Update Programming Transmission Control Module (TCM) for Improved Upshifting (OE)	**Group:** 01
	Number: 05–16
Model(s): Touareg 3.2L V6 (eng. code BMX) 2005 ➤ 2006	**Date:** Dec. 20, 2005

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

ℹ️ 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

Customer states transmission seems to upshift too soon, or too often.

Production

Model Year	Starting VIN:	Ending VIN:
2005	7L_5D001383	7L_5D073513
2006	7L_6D003608	7L_6D046484

Service

Requirements:

Vehicle must meet ALL of the following criteria.

1 - Procedure is valid only for vehicles that show the OE 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.

ℹ️ Tip:

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

Important!

Please give copies to all your VW Technicians

Technical Bulletin

01-A400

Procedure:

◄ – Raise hood, inspect for white dot located on accessory drive belt tensioner.

– If white dot is present, close out the Required Vehicle Update in O.T.I.S. Input appropriate code (see page 11).

– If white dot is not present, follow instructions to perform update programming (Flashing) of transmission control module.

ⓘ **Note:**

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 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 Volkswagen of America, Inc.

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

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

- 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 his written consent (see attached ECM / TCM 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 W42TOURBMXSHIFT.

Note:

Additional copies of the "Update - Programming" CD (Literature Number W42TOURBMXSHIFT) may be ordered from the Volkswagen Technical Literature Ordering Center at vw.ddsltd.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 / TCM 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.
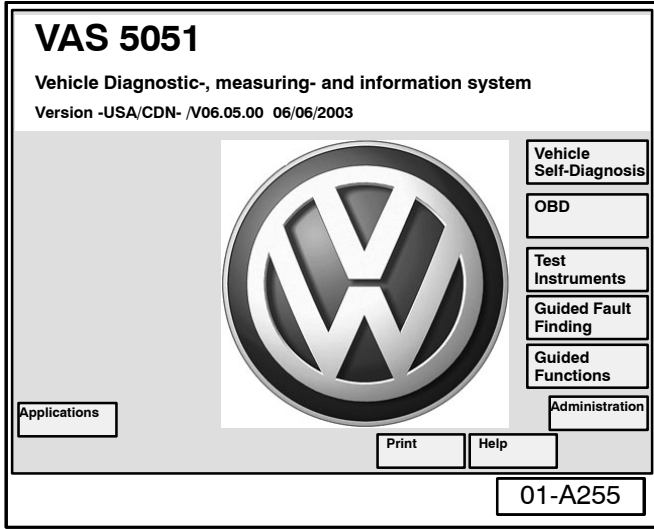
◆ No Stored DTC's, erase any stored DTCs.

⚠ Note:

Non–observance of the following points may lead to ECM / TCM 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.

Technical Bulletin

VAS 5051

Vehicle Diagnostic-, measuring- and information system

Version -USA/CDN- /V06.05.00 06/06/2003

	Vehicle Self-Diagnosis
	OBD
	Test Instruments
	Guided Fault Finding
	Guided Functions
	Administration
Applications	
	Print Help

01-A255

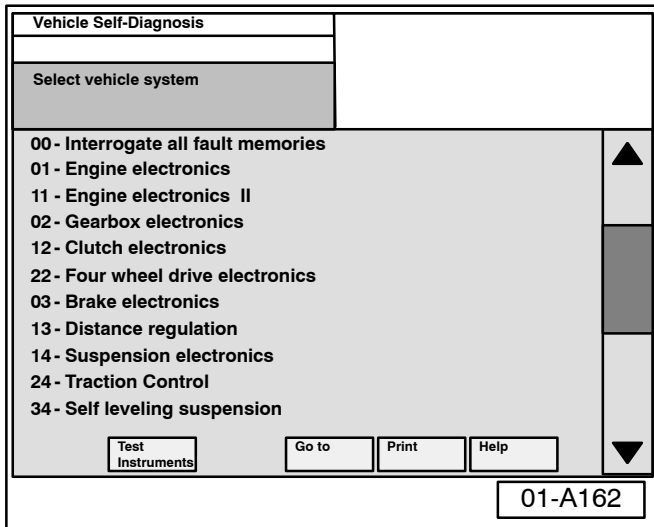## "Update - Programming" (flashing) procedure, checking for update match

– Switch ignition ON.

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

(!) **Note:**

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.

Vehicle Self-Diagnosis

Select vehicle system

00 - Interrogate all fault memories	▲
01 - Engine electronics	
11 - Engine electronics II	
02 - Gearbox electronics	
12 - Clutch electronics	
22 - Four wheel drive electronics	
03 - Brake electronics	
13 - Distance regulation	
14 - Suspension electronics	
24 - Traction Control	
34 - Self leveling suspension	▼

Test Instruments   Go to   Print   Help

01-A162

◄ Similar screen appears. Using the scroll bar to the right of the screen:

– Scroll and select vehicle system "02-Gearbox electronics".

Vehicle Self-Diagnosis	02 - Gearbox electronics
	TCM Part Number
Select	TCM description & software level
diagnosis function	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 Measuring Value block
09 - Reading individual measuring value
10 - Adaption
11 - Log-in procedure
Update - Programming

◄	Test Instruments		Go to	Print	Help

01-A163

◄ Similar screen appears.

– Select "Update - Programming" option at bottom of screen (arrow).

ⓘ **Note:**

The "Update - Programming" function is only available when the inserted flashing CD level and current vehicle TCM level are different.

If "Update - Programming" does not appear:

– Programming (flashing TCM cannot be performed, continue to diagnose condition.

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

◆ "Update - Programming" (arrow) appears.

Vehicle Self-Diagnosis	02 - Gearbox electronics
	TCM Part Number
Select	TCM description & software level
diagnosis function	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 Measuring Value block
09 - Reading individual measuring value
10 - Adaption
11 - Log-in procedure
Update - Programming

◄	Test Instruments		Go to	Print	Help

01-A163

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

◆ ALL fault memories must be interrogated and erased.

ⓘ **Note:**

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.

Vehicle Self-Diagnosis

Select vehicle system

| 00 - Interrogate all fault memories |
| 01 - Engine electronics |
| 11 - Engine electronics II |
| 02 - Gearbox electronics |
| 12 - Clutch electronics |
| 22 - Four wheel drive electronics |
| 03 - Brake electronics |
| 13 - Distance regulation |
| 14 - Suspension electronics |
| 24 - Traction Control |
| 34 - Self leveling suspension |

Test Instruments | Go to | Print | Help

01-A162

◄ With all fault memories erased:

Similar screen appears. Using the scroll bar to the right of the screen:

– Scroll and select vehicle system "02-Gearbox electronics".

Vehicle Self-Diagnosis

Select diagnosis function

02 - Gearbox electronics
TCM Part Number
TCM 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 Measuring Value block |
| 09 - Reading individual measuring value |
| 10 - Adaption |
| 11 - Log-in procedure |
| Update - Programming |

◄ | Test Instruments | Go to | Print | Help

01-A163

◄ Similar screen appears.

– Select "Update - Programming" option at bottom of screen.

Vehicle Self-Diagnosis

Update - Programming

Programming can be carried out.

02 - Gearbox electronics
TCM Part Number
TCM description & software level
Coding XXXXX
Dealership number XXXXX

WARNING!
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.

IMPORTANT -- PLEASE NOTE:
Switching ignition off or disconnecting the diagnostic connector during programming may completely destroy the control module!

◄ | Test Instruments | Go to | Print | Help | ►

01-A158

◄ Similar screen appears.

"Update - Programming" (flashing), performing for TCM

After selecting "Update - Programming" function:

– By selecting the ► button, the TCM programming procedure begins.

Vehicle Self-Diagnosis	02 - Gearbox electronics
Update - Programming	TCM Part Number
Programming in progress	TCM description & software level
	Coding XXXXX
	Dealership number XXXXX

Data Transfer in %

0   11   100

01-A164

◄ Similar screen appears.

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

ⓘ **Note:**

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

Vehicle Self-Diagnosis	02 - Gearboxelectronics
Update - Programming	TCM Part Number
Programming in progress	TCM description & software level
	Coding XXXXX
	Dealership number XXXXX

Data Transferred in %

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?

0   100

Repeat   Cancel

01-A165

ⓘ **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.

Vehicle Self-Diagnosis	02 - Gearbox electronics
Update - Programming	TCM Part Number
Programming log	TCM description & software level
	000X
Save result?	Dealership number XXXXX

Expanded identification old	Expanded identification new
XXXXXXXXXX	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	
Status	No malfunction
Counter programming status	1
Counter successful attempts	1
Programming pre-condition	fulfilled

| ◄ | Test Instruments | Go to | Print | Help | ► |

01-A166

Vehicle Self-Diagnosis	02 - Gearbox electronics
Update - Programming	TCM Part Number
	TCM description & software level

To continue, the control unit requires an ignition off/on cycle

Switch off ignition.

01-A167

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

◄ ◆ Similar screen appears.

ℹ Tip:

Old software level is still displayed at (arrows). New software level is not displayed until process is complete and fault memories have been erased.

– Print this screen.

– Attach print to vehicle Repair Order.

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

– Select the ► button.

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

– Switch ignition OFF.

⚠ Note:

◆ **Wait at least 20 seconds before switching the ignition back ON (failure to wait at least 20 seconds may damage the TCM).**

After waiting 20 seconds:

– Switch ignition ON.

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

Important!
Please give copies to all your VW Technicians

Technical Bulletin

Vehicle Self-Diagnosis	02 - Gearboxelectronics
Update - Programming	TCM Part Number
	TCM description & software level
Erase fault memory	Coding XXXXX
	Dealership number XXXXX

The programming causes fault records in related control units. The fault memories of all control units in the vehicle must be erased.

Pressing the Continue button will automatically erase the fault memories.

Pressing the Back button will not erase fault memories

| ◄ | Test Instruments | | Go to | Print | Help | ► |

01-A168

Vehicle Self-Diagnosis	02 - Gearbox electronics
Update Programming	TCM Part Number
DTC memories are erased	TCM description & software level ◄
Function ended	Coding XXXXXX
	Dealership number XXXXX

Vehicle systems with erased fault memories:
01 - Engine electronics
02 - Gearbox electronics
03 - Brake electronics
15 - Airbag
25 - Immobilizer
16 - Steering wheel electronics
46 - Convenience system central module
56 - Radio
17 - Dash panel insert

Function ended!

| ◄ | Test Instruments | | Go to | Print | Help |

01-A171

Vehicle Self-Diagnosis	02 - Gearbox electronics
	TCM Part Number
Select	TCM description & software level ◄
diagnosis function	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 Measuring Value block
09 - Reading individual measuring value
10 - Adaption
11 - Log-in procedure

| ◄ | Test Instruments | | Go to | Print | Help |

01-A163

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.

ℹ Tip:

This will take a few minutes, depending on how many control modules are accessed.

Once fault memories have been erased:

◄ ◆ Similar screen appears.

◆ Old TCM Part No. and software level still appear at (arrow)

◆ Function ended appears at bottom of screen.

– Finish update of the TCM by selecting the ◄ button.

◄ – New update version software level will appear at (arrow):

◆ Model year 2005: 09D927750 BA 0892

◆ Model year 2006: 09D927750 DS 0893

– Print this screen to verify TCM software level.

– Attach print to vehicle Repair Order.

◆ Flash CD can now be removed from VAS 5051 or VAS 5052 Diagnostic tool.

– Select "Go to" then select "Exit".

– Use VAS 5051 or VAS 5052 to set readiness code.

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 OE code in the OTIS View Campaign inquiry screen on the day of repair.

OE Data Entry Procedure Use Claim Type RC

Repair Code (Damage Code Field)	Time Units	Work Scope
OE 11	**20 T.U.**	(Open hood, inspect for white dot on belt tensioner, no further action required)
OE 12	**140 T.U.**	(Includes all operations necessary to reprogram transmission controller)
There is <u>NO</u> 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:

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

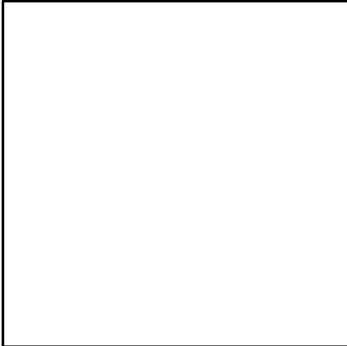|	
Additional Required Vehicle Update Technical Bulletins	Some of the affected vehicles may be involved in additional Required Vehicle Update Technical Bulletins. Please check your OTIS View Campaign inquiry screen so that <u>any additional required work can be done simultaneously.</u>
Required Vehicle Update Technical Bulletin Verification	For verification, **<u>always</u>** check the OTIS View Campaign inquiry screen. The OTIS system is the **<u>only</u>** binding inquiry and verification system; other systems <u>are not valid and may result in non-payment of a claim.</u>
Help for Claim Input	**For questions regarding claim input, contact your appropriate Warranty Claim specialist.** Please do <u>not</u> 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