Technical Service Bulletin

37 Gearbox warning light on, Fault P060B00 stored in TCM

37 12 35 2028405/1 January 26, 2012.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
Audi Q5			
A4			
A4 Avant	2010 – 2011	All	All with OBK Transmission
A5			
A5 Cabriolet			

Condition

Customer statement:

Customer may report gearbox warning light on.

Workshop findings:

The following entries are logged under diagnosis address 02 gearbox:

P060B00 (**2528**) – control unit, internal processor monitoring.

Technical Background

A software change in the diagnosis function was made.

Production Solution

Not applicable.

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Service

If this fault is present, update the transmission software.

SVM Update Instructions

1. Follow all instructions in the attached TSB 2011732 *00 Software Version Management (SVM), operating instructions*.

2. Update the Transmission control module using the SVM action code as listed in the table below if necessary.

Model	Engine and/or Transmission	Old Software Part Number	Old Software Version	New Software Part Number	New Software Version (or higher)	SVM Action Code
A4, A5, A5 Cabriolet	2.0 with 0BK Transmission	8K0 927 158 K	All	8K0 927 158 K	0010	37F8A001
Audi Q5		8R0 927 158 E		8R0 927 158 E		

Tip: Do *not* replace the mechatronics for this fault.

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![Audi logo]

Warranty

Claim Type:	Use applicable claim type. If vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	3730		
Damage Code:	0039		
Labor Operations:	Charge Battery	2706 8950	10 TU
	Update TCM software	3730 2599	40 TU
Diagnostic Time:	GFF – Checking and clearing fault codes included in existing labor operations	No allowance	0 TU
	Road test prior to service procedure	No allowance	0 TU
	Road test after service procedure	0121 0004	10 TU
	Technical diagnosis at dealer's discretion (Refer to Section 2.2.1.2 and Audi Warranty Online for DADP allowance details)		
Claim Comment:	As per TSB #2028345/1		

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.

Additional Information

The following Technical Service Bulletin will be necessary to complete this procedure:

- TSB 2011732 *00 Software Version Management (SVM), operating instructions.*

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

00 Software Version Management (SVM), operating instructions

00 10 02 2011732/8 March 24, 2010. Supersedes Technical Service Bulletin Group 01 number 09-06 dated May 13, 2009 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
All Audi	2002 – 2011	All	Not Applicable

Condition

REVISION HISTORY		
Revision	**Date**	**Purpose**
8	-	Revised *Technical Background* Revised *Service* (Added *Response Codes* section)
7	5/13/2009	Revised *Service* (Step 6)
6	12/15/2008	Revised *Service* (Step 3 – added information concerning use of wireless VAS 5054A transmitter head)
5	11/17/2008	Revised Title to include Repair Group
4	10/21/2008	Revised *Service* (Step 3 – added information concerning Windows power savings settings)

This Technical Service Bulletin (TSB) details the general process for carrying out a Software Version Management (SVM) software update for any TSB or Required Vehicle Update (RVU).

Troubleshooting information is included in the *Additional Information* section.

Technical Background

A VAS 5051B, VAS 5052, VAS 5052A, or VAS 6150 diagnostic tool sends vehicle control unit data to the SVM database.

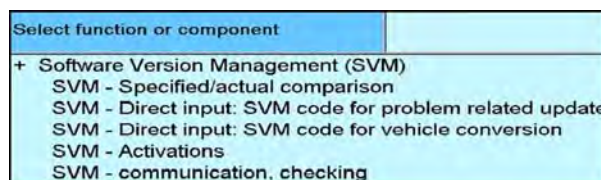SVM is a function within GFF with the options illustrated in Figure 1 and explained below.

Figure 1. *SVM options.*

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SVM – Specified/actual comparison

 Tip: This function will *not* suggest an SVM software update.

After comparing the actual data within the vehicle's control units to the data specified in the SVM database for that specific vehicle, this function will:

- Document changes to hardware or software part numbers; hardware levels; or software levels contained in any of the vehicle's control modules.

- Suggest repair solutions such as coding changes, parameterization changes, or hardware replacements.

   Tip: *Parameterization* refers to data written into the control unit by SVM to customize the software functionality for the specific vehicle or country of operation. It is often referred to as the "calibration data." It is critical the parameterization is executed anytime it is suggested by SVM to ensure the proper functionality of the control unit.

SVM - Direct Input: SVM code for problem related update

Updates the software in a flash-capable control module using a valid SVM Code.

To update control unit software, the technician must first diagnose the condition in the vehicle and find an applicable TSB that provides a valid SVM Code.

This function will automatically perform an SVM Specified/Actual comparison after the flash update to document all control unit changes in the SVM database and to suggest new coding or parameterization for the affected control units.

SVM - Direct Input: SVM code for vehicle conversion

Allows for retrofit of additional control unit(s) using a valid SVM Code for Vehicle Conversion.

This type of SVM code is documented inside the installation instructions for the control unit and is typically performed as the last installation step.

This function will automatically perform an SVM Specified/Actual comparison after the flash update to document all control unit changes in the SVM database and to suggest new coding or parameterization for the affected control units.

SVM – Activations

Activates additional features or functions within an already installed control unit using an Activation Code.

The first implementation will be with customer-pay updates to the navigation map data for vehicles with 3G MMI and 3G+ MMI.

SVM – communication, checking

Checks SVM online connection status to ensure the tester is communicating with the SVM server.

Production Solution

Not applicable.

Service

1. Address or record any DTCs related to any additional customer concerns before continuing.

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Tip: Sporadic communication DTCs will be created during the flash procedure and will be automatically erased along with all other pre-existing sporadic DTCs at the end of the SVM update test plan.

2. *Tuning* is the addition or modification of any component that causes an Audi vehicle to perform outside the normal parameters and specifications approved by Audi of America, Inc. If you encounter a vehicle with a tuned engine control module (ECM) or transmission control module (TCM), your dealership must do the following before performing any procedure that updates ECM or TCM programming:

   a. Notify the owner that their ECM or TCM was found to have been tuned.

   b. Notify the owner that 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.

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

   Tip: Any programming update (flash) may overwrite any tuned ECM or TCM programming.

3. Ensure the TSB stating the condition in the vehicle applies to the customer complaint and the operator has a valid GeKo user ID and password. Perform only operations *explicitly* stated in the TSB or RVU.

4. Verify that the following tester requirements are met:

   - VAS 5051B Minimum Base CD Version 12.00.

   - VAS 5051B/5052 Minimum Base CD Version 12 with Brand CD 12.61 installed.

   - VAS Base Software Patch CD (Audi Technical Literature item number 42BaseSoftwarePatch) is installed in the VAS 5051 / 5052. This patch is already in Base 12.0.

   - VAS 5051X is plugged into a 110V AC power supply at all times.

   - Connect 5051B and 5052/A to the local network.

   - For A4s after VIN 8E_5A400000 (B7 Platform), always use the 6017B K Line Adapter to ensure communication to all modules.

   - If the wireless VAS 5054A transmitter head is used in conjunction with a VAS 5052A or VAS 6150 tester, the transmitter head must be connected with a USB cable to the tester.

   - Ensure the Windows power savings are set correctly (disabled) for VAS testers operating with an open Windows interface in which users have access to all regular PC operating system functions (implemented by running the Base V14.00.00 Recovery DVD).

   Note:
   If the Windows screensaver activates during a control module software update and the hard drive shuts down as a result of the power settings, a control module failure may result. Refer to Service Circular ATE-08-23 for more information.

   Note:
   Do *not* use a 6017 or 6017A while flashing. Doing so may result in complete control module failure.

5. Verify that the following vehicle requirements are met:

   - Battery must have a minimum no-load charge of 12.5V.

   - Connect vehicle to a powered Audi-approved battery charger. Do not use a trickle charger or battery maintainer.

   - Turn off the radio and all other accessories, and when necessary, switch off running lights by applying the emergency brake or through the MMI option menu.

- Turn off any appliances with high electromagnetic radiation (such as mobile phones).

- If communication with a module cannot be properly established, appropriate repairs must be made before attempting SVM. If the tester cannot communicate with a module, the tester cannot flash software onto the module.

6. Enter the SVM update into the User Test Plan by selecting the **Audi Flashing** option at the main tester screen.

   Tip: If you do not have the latest Base/Brand CD installed on the tester, then the SVM code may fail and return an "ASM-MCD base system error" because the tester is not capable of reading the software flash file. Starting with the MY 2010, some software files have changed and cannot be read with base tester software level 15 or lower. Level 16 or higher *must* be installed on the tester along with all released patches found on ServiceNet.
   VAS Tester Patches can be found using → *www.AccessAudi.com* >> *Special Tools and Equipment* >> *VAS Tester Information* >> *Software.*

7. Follow the SVM update procedure and enter the SVM Action Code found in the appropriate TSB when prompted.

8. Enter your GeKo ID when requested. Data will be transmitted to the SVM server, and the server will respond with instructions to continue. (See detailed descriptions in the *Response Codes* table below.) The procedure may include one, or any combination of the following, for one or multiple control modules as specified in the TSB or RVU:

   - Update a control module (flash).

   - Code a control module.

   - Parameterize a control module.

   - Check a control module.
     This will occur when SVM does not recognize the control module as valid for the vehicle. If there is no customer concern and no DTC regarding this control module, report the issue to the Technical Assistance Center (TAC) with the required information specified in the *Additional Information* section below. For MMI control units, it is possible the SVM code for feedback documentation was not performed after an update via CD was performed. Always report MMI issues to the TAC *before* attempting a repair.

9. *Always* continue until the following text is displayed: **Vehicle conversion/update has been successfully performed. The changes have been stored in the system. Thank you.**

   Tip: The SVM Process must be completed in its entirety so the database receives the update confirmation response. A warranty claim may not be reimbursed if there is no confirmation response to support the claim or if action that is not *explicitly* stated in the TSB or RVU is taken.

10. Verify that all steps or special procedures mentioned in the TSB/RVU have been carried out. Then finish the test plan and exit GFF via the **Go to** button. Answer the Warranty questions accordingly and print out or save the diagnostic log when prompted.

Tip: During the flash procedure, an estimated time will be shown. This value is not used for actual SRT calculation.

Response Codes

SVM can provide a response code with a repair suggestion or after a successful repair. The response code will appear in the diagnostic log.

Code	Description	Action to be taken
ERP0031I*	The SVM Code was successfully processed but a coding or parameterization of a control unit may still need to be performed.	Perform an SVM Specified/Actual comparison and carry out the coding or parameterization suggestion.
ERP0032I*	The control unit(s) to be updated does not match the requirements for the SVM code.	The control unit installed in the vehicle is not part of the SVM update, the control module installed on the vehicle is not talking on the CAN bus, or the part on the vehicle is older than the original part. Ensure the correct SVM Code was entered, ensure the TSB applies to the vehicle, and check the hardware to ensure it's correct for the vehicle. Perform a hard reset on the module and retry the SVM code. If the hardware/software levels of the replacement part are older than the original part, then contact TAC because a new CARPORT[A] reference will need to be created in the SVM system.
ERP0033I* ERP0042I ERP0044I ERP0046I	Additional coding, parameterization, or a software update may need to be carried out as a result of the SVM code.	Follow the software update, new coding, or parameterization suggestion.
ERP0034I* ERP0045I ERP0048I	A hardware change suggestion from an SVM Code or SVM Specified/Actual comparison.	A control unit installed on the vehicle is not correct for the vehicle for one of the following reasons. Either the control unit is incorrect for the vehicle (compare results of ETKA FI Search versus Part Number search) or the control unit is of an older vintage than the original part installed on the vehicle (old stock service part). Additionally it is possible a software update using a CD was performed on the MMI system without the proper SVM Code being executed after the update. If the part is confirmed to be newer than the original part, then on a rare occasion, the part being installed can be missing from the SVM system. If this is the case, then a hardware change will be suggested since the part is not known to the system. In the event this occurs, please contact TAC so the SVM system can be updated.
ERP0038I	The control unit(s) to be updated does not match the requirements for the SVM code.	The control unit installed in the vehicle is not part of the SVM update or the control module installed on the vehicle is not talking on the CAN bus. Recheck to make sure the correct SVM Code was entered, make sure the TSB applies to the vehicle, and check the hardware to ensure it's correct for the vehicle. Perform a hard reset on the module and retry the SVM code.

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ERP0039I * ERP0040I ERP0050I	The SVM Code performed successfully.	All necessary actions taken by the SVM code were performed successfully. Nothing additional is required.
ERP0041I	The SVM Code performed successfully but there are still repair suggestions to other Control Units not featured in the SVM Code update.	A control unit installed on the vehicle is not correct for the vehicle or the SVM Code for document feedback was not performed after a CD update was performed on the MMI system.
ERP0043I	Additional coding and/or parameterization needs to be performed	Follow the new coding or parameterization suggestion.

* The response code is specific to an SVM code that affects the MMI system (i.e. when an SVM code is performed after an MMI CD update, these response codes are returned).

ACARPORT is the database in Germany that contains all control unit information (part numbers and software versions) for each vehicle produced by AUDI AG.

Warranty

This TSB is informational only and not applicable to any Audi warranty.

Additional Information

Checking for Internet Connectivity

With the tester connected to the internet, add and carry out the SVM Communication Test to the GFF test plan which can be found here:

Audi Flashing >> SVM Communication, Checking

or

GFF >> Go To >> Function/Component Selection >> SVM >> SVM Communication, Checking

GeKo Registration and ID Check

To obtain a GeKo user ID and password, follow the instructions in the GeKo ID Request form found here:

→ *www.audi.techliterature.com >> Service >> Documents >> Service and Repair >> GeKo ID Request Form* (located on the 2nd page listing)

To check your GeKo ID, perform the following test from the Tester Startup Screen with the tester connected to the internet:

Administration >> Network Settings >> GeKo Test

Testing the SVM Connection

SVM Communication checking. It will ask for your user ID and Password. If the test fails, change the port, cord, and/or tester and run this test again.

Further Tester Assistance

If any of the listed troubleshooting procedures and/or checks result in errors or yield no solution and further assistance is required, please follow these steps:

1. Utilize the information contained in the *Function Description* button in the tester at the point of the error.

2. Report the problem to the shop network administrator for further investigation.

3. Contact the responsible support team for further assistance:

   - **Service Department Applications** (GeKo, ElsaWeb, and ServiceNet): 866-892-3375.

   - **VAS 5051/5052 Software Subscriptions:** Orders need to be placed via → www.audi.techliterature.com

   - **VAS 5051/5052 Software Support:** 888-896-1298.

Technical Assistance Center Contact Requirements

Contact the TAC via the Technical Assistance Contact System in ElsaWeb in cases where there is a clear technical issue with the vehicle or response from the SVM system. Always include the following information in the ticket:

- SVM Action Code attempted.

- Control module(s) address word(s) that are in question.

- The *complete* tester diagnostic log from the GFF session.

All parts 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.

Owner Acknowledgement of Control Module Tuning and Authorization to Reprogram Control Modules
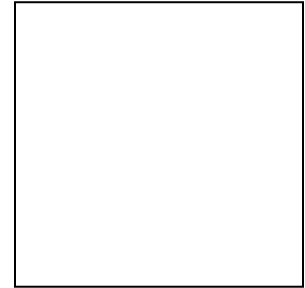
Date: _____

Dealer Number: _____

Vehicle Identification Number: _____

Repair Order Number: _____

Dealer stamp

Tuning is the addition or modification of any component that causes an Audi vehicle to perform outside the normal parameters and specifications approved by Audi of America, Inc.

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

- ❑ Tuning (especially power-increasing modifications) has not been performed on my vehicle.
- ❑ Tuning has been performed on my vehicle. The following components were modified or installed:

_____

_____

Please provide the name and telephone number of the company that performed the tuning 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 controle module, and by so doing, 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