By Congo – written Q1 2016, updated Q4 2016 – Version 2



Contents

Disclaimer	2
Pre-requisites	3
Audi A1	3
Audi A4-A5-Q5-Q7	3
Audi Q3-A6-A7-A8	3
Enable Green Menu with script	4
Enable Green Menu with VCDS	5
Prepare SD card with the firmware.	6
User defined update	7
Bose Specific	8
Updating the firmware	9
Update the MAP	13
Activator	20
03175 - Invalid Data Set	21
03276 - Please Check Software Version Management	23
03623 - Wrong unlock code / invalid security/release	27
Calculate the new SVM code	28
Attachments	

By Congo – written Q1 2016, updated Q4 2016 – Version 2

Disclaimer

This document is provided to you for <u>free</u>, feel free to learn and benefit from it. At no stage I take responsibility of your actions or any of my notes that may mislead you. Therefore, and like my all other documents I say "use at your own risk".

P	Caution: Use this guide at your own risk, we are not responsible
P	Caution : If your car is equipped with BOSE (8RQ or 8RY) sound system read carefully the BOSE subsection
	Important: Connect your car with a battery charger or leave the engine running
	Important : Some users report problems when copying files from Mac OS / Linux, its better if you use Windows for all file copy process. You can use a virtual machine for that.
1	Recommended : Backup your old FSC using "Copy from FSC" script.



Recommended: Read the complete guide before the start, recheck all the steps and do it carefully.

By Congo – written Q1 2016, updated Q4 2016 – Version 2

Pre-requisites

MMI 3G+ systems with relevant PR no.: MMI Navigation Plus – 7T6

Obtain the needed software updates

Audi A1

8R0 906 961 EC – HN+_EU_AU210_K0900 (A1) SVM: 3GPEU900A1
 [Modified] [Untouched]

Audi A4-A5-Q5-Q7

- 8R0 906 961 EB HN+_EU_AU3G_K0900 (A4/A5/Q5/Q7) SVM: 3GPEU900AU3G
 [Modified] [Untouched]
- 8R0 906 961 FC HN+_EU_AU3G_K0942 (A4/A5/Q5/Q7) SVM: 3GPEU942AU3G
 [Modified] [Untouched]

Audi Q3-A6-A7-A8

8R0 906 961 EA – HN+R_EU_AU_K0900 (Q3/A6/A7/A8) SVM: 3GPEU900
 [Modified] [Untouched]

A high quality SD Class 10 for faster (and safer) file operations. The separate firmware upgrades are bellow 1GB in size but the map is 29.1 GB hence the 32GB SD.

The modified version of the firmware does not need the green menu to enable the user defined mode. It also does not contain any updates for the sound system. It will activate the green menu during installation.

Enable Green Menu with script

Copy the contents from the Green Menu Activation.zip to an empty SD card smaller than 32GB in size, formatted in FAT32 file system. In the root folder of the SD card you should see the following files and directories:



Insert in the MMI SD slot 1, shortly after that you will see the following picture.



Press the big rotary knob and the next screen will appear.



Now restart the unit and follow the rest of the guide.

Enable Green Menu with VCDS

Presumably lots of people here have already enabled the hidden green engineering menu, but if you haven't the instructions for doing so in VCDS on your laptop are:

[Select] [5F - Information Electr.] [Adaptation - 10] Select Channel 6 and Read change the value from 0 to 1 then Test then Save Now restart the unit.

Enable Hidden menu in M	1MI			
5F-Information Electr.	Adaptation - 10	Channel 6	change 0 to 1 Caution: Keep away from the "Bootloader"	active

Prepare SD card with the firmware.

Format the card with FAT32 file system and then copy the files from the first software update. The card should look <u>similar</u> to this:

퉲 АН6	IDC_UDF	finalScript
AMP_LC_P	TI 🚺	metainfo2.txt
Der Complete Amplete A	🕕 KBD_FB8	
🍌 ARU9438	📗 MapStyles	
퉲 ARU9440	J MU9498	
퉳 ARU9469	📙 MUConsistency	
AudiSupportedFscs	🕕 MuGPS	
₿0_Q7	🕕 MuINIC	
BoseG3_Q7	MuIOC	
BTHS	📙 MuTnrRef	
퉲 CombiStyles	NGTV_DVB	
퉲 DU9466	📙 NGTV_SA	
DUA130	555	
🍌 DVD	🌗 Telit	
🍌 GEMMI	📕 TMCConfig	
JDC_APN] TVhybrid	

Important: Do not conduct any diagnostic work using the VAS tester, as well as any other actions.

Important: Remove the SIM card from MMI.



Important: Do not remove the SD card with the firmware from the MMI during the update.



Important: If your car is equipped with CD/DVD changer then remove all disks from the changer.

By Congo – written Q1 2016, updated Q4 2016 – Version 2

User defined update



Information: If you have the modified firmware then "User defined mode" is enabled w/o the need to go to the Green menu. Also the whole sound system package is excluded.

Sometimes things go wrong and maybe the update is not completed. When this happen you can use the "User Defined" mode for make a manual selection of what upgrade or install.

This is also useful for some **<u>Bose</u>** audio users that want to update all functions in MMI <u>except</u> <u>**Bose**</u> modules (Bose updating sometimes will trigger "component protection" and you will need to recode the unit).

For enable this mode:

Open Green Menu (Press CAR and MENU and hold it) Go to swd and tick "user defined mode"

onofflimer		
radio	⊳	
ru		
rusirius	\triangleright	
sd		
sds		
serial_if_test		
swdl		
system		
telephony		
trace		
N 1.0t> /swdl		
M 1.0t> /swdl		
M 1.0t> /swdl	41360	
IV M 1.0t> /swdl count down HWLindow IT	41169	
M 1.0t> /swdl m count down HW index IT	41169 0	
M 1.0t> /swdl count down HW index IT unexpected resets current version	41169 0 0	
IV M 1.0t> /swdl count down HW index IT unexpected resets current version user defined mode	41169 0 0 ####	
IV M 1.0t> /swdl count down HW index IT unexpected resets current version user defined mode ionore region and variant	41169 0 0 <i>####</i>	
M 1.0t> /swdl M 1.0t> /swdl count down HW index IT unexpected resets current version user defined mode ignore region and variant	41169 0 0 <i>####</i>	
M 1.0t> /swdl count down HW index IT unexpected resets current version user defined mode ignore region and variant	41169 0 0 <i>####</i>	
M 1.0t> /swdl count down HW index IT unexpected resets current version user defined mode ignore region and variant	41169 0 0 <i>####</i>	
M 1.0t> /swdl during count down HW index IT unexpected resets current version user defined mode ignore region and variant	41169 0 0 <i>####</i>	

Don't reboot, just exit with any button (**RADIO**/**MEDIA**/**CAR**) Proceed with firmware-upgrade as normal.

By Congo – written Q1 2016, updated Q4 2016 – Version 2

When the update starts, you can select "User Defined" instead of "Standard"



Bose Specific

Remove all checkmarks from component BoseG3_*. It should look like that - N or N/A:

1	ARU9438	S	Þ
	BoseG3_Q7	N	►
	DVD	Ν	۲
	Обновление софта		
	🗂 BoseG3_C7		
1	BTLDR (7)	Ν	Þ
1	MAIN (7)	N	►
	FFDB (7)	N	Þ
	PIC (7)	N	Þ
1	DSP1 (7)	N	

Обновление

Updating the firmware

Open "*Engineering Menu*" pressing the CAR button and immediately after that the BACK button. Hold both buttons pressed for a few seconds.

The following screen will appear. Your software will be lower version.



Insert the SD card with the firmware in slot 1 Press the "Update" option using the MMI Control Panel.



By Congo – written Q1 2016, updated Q4 2016 – Version 2

Scroll down with the big knob and select the source in the menu (SD 1) pressing it.

	🛨 Select sour	rce
1	CD/DVD	
	USB	
	SD 1	
	SD 2	
ogg	ing	Update

Select the firmware pressing the big knob once

Softwar	e update	
🖆 SI	02	
HN+R_EU_AU_K09	00	
Λ		
ogging		Update

Select "Standard"



Or you can use the fiber optic loop adapter **4E0973802**



By Congo – written Q1 2016, updated Q4 2016 – Version 2

	Software update	
	SD 2 - HN+R_EU_AU_K0900	
1	Standard	
	User-defined	
1		
ogg	ling	Updat

You will see a list with all categories that firmware will update Scroll to bottom and press "**Start update**"

	Software update	
	Device selection	
/	SSS	N/A ►
	Start update	
Loggi	ing	Update
	Software update	
	SD 2 - HN+R_EU_AU_K0900	
	Update must not be interrupted.	
	Start	
	Cancel	
Loggi	ing	Update

After 30-60 minutes (it depends that what it has to update) the firmware update will be done. Scroll to bottom and press "Continue". On the next screen select the "Abort documentation" and the MMI will reboot.

Once the system has rebooted, the download application may show a screen that displays the update progress of various devices. As soon as all devices have registered with the upgrade application, the update process is activated and the progress is shown on screen. The system may

By Congo – written Q1 2016, updated Q4 2016 – Version 2

reboot many times during the update and programming session. This is carried out completely automatically and does not require you to take any action. Once the system has rebooted, updating is continued and the "Download progress" screen is displayed many times. Device Summary screen will be displayed at the end of the update and will show you if there are any errors. If there are errors (components with NOK) status the "Retry" option will be enabled, select it and retry the failed component update. If all components are with status OK or N/A scroll down and select "**Continue**"



Because you don't have connection to Audi SVM you have to "Cancel documentation" here. This is the reason for 03276 Please Check Software Version Management in 5F Information Electr.

By Congo – written Q1 2016, updated Q4 2016 – Version 2

Update the MAP

Optional: Removing the old map is optional. However, is highly recommendable. Benefits are:

- Possibly avoid the Fault Code 03175 Invalid Data Set error
- Avoid errors while copying the map (out of size, slow write speed)
- There are no files of the old map into the new map

Open Green Menu (Press **CAR** and **MENU** and hold it) Go to nav/databaseupdate Select "Delete database (will need reboot)" and click it.

<em 1.0t=""> /na	av/databaseupda	10	
active HDI	D Nav DB	TEU1 3/18	
internal re	gion code	[EU] 2/7	
Delate da Delate Na	database (will need w HDD partition		

Wait until system removes the data.



By Congo – written Q1 2016, updated Q4 2016 – Version 2

When it finished. Reboot your MMI using the 3 button



Open Green Menu (Press CAR and MENU and hold it) Go to nav/databaseupdate Select "Delete Nav HDD partition" and click it.

<em 1.0t=""> /nav/databaseupdate
 Lest HDD Database Info active HDD Nav DB [EU] 3/18 internal region code [EU] 2/7 Re-check database (will need reboot) Delete database (will need reboot) Delete Nav HDD partition
e,
EM (0.8k) - main/nav/databaseupdate/Console(9876>17:9:0)
delNavHDD.sh v2008-04-14
starting navigation partition reinit
stopping application
please reboot to read new initialized partition
afterwards install navigation database

By Congo – written Q1 2016, updated Q4 2016 – Version 2

Wait until system removes the data.

When it finished, reboot your MMI using the 3 button.



Format your SD in FAT32. Copy the root of your map in the SD (like picture below)

Name -	
🎩 MMI3G	
퉲 ММІЗСР	
퉳 pkgdb	
build 1	
📄 config.nfm	
🛅 DBInfo.txt	
🛅 metainfo2.txt	

Open "*Engineering Menu*" pressing the CAR button and immediately after that the BACK button. Hold both buttons pressed for a few seconds. The following screen will appear.



Insert the SD card with the map in slot 1 Press the "Update" option using the MMI Control Panel.



Scroll down with the big knob and select the source in the menu (SD 1) pressing it.

	🗂 Select sou	rce
/	CD/DVD	
	USB	
	SD 1	
	SD 2	
ogg	ing	Update

By Congo – written Q1 2016, updated Q4 2016 – Version 2

Select the map pressing the big knob once







Press "Start update" and then "Start"

		election
1	SSS	N/A ►
	Start update	
e		
1		
		Undate



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After several minutes (1hour and 30 minutes) the map update will be done, just select the "Documentation Cancel/Abort Information" and the MMI will reboot. Device Summary screen is displayed in the subsequent overview screen.

	∸ Device summary	1
1	AUDI_MMI3G_ECE	ОК ▶
	NaviPersistence	OK 🕨
	MapStyles	OK 🕨
	TMCConfig	OK 🕨
	checkAC	- ►
). And	ina	Upd

Scroll down and select "Continue".

	🛨 Device summa	ry
1	TMCConfig	OK ►
	MUConsistency	OK 🕨
	checkAC	- 🕨
	Retry	
	Continue	
qq	ing	Upda

Because you don't have connection to Audi SVM you have to "**Cancel documentation**" here. This is the reason for 03276 Please Check Software Version Management in 5F Information Electr.



By Congo – written Q1 2016, updated Q4 2016 – Version 2

Activator

P	Caution : Do NOT insert the SD until MMI has fully booted you can brick your unit!
P	Caution : Please double check that you're using the correct activator for your firmware, using incorrect activator will result in a bricked (dead) MMI unit
Format yo	our SD in FAT32.
Copy the	root of your activation in the SD (like picture below)
Name *	
2380	_00040009.fsc

copie_scr.sh

Make sure that MMI is fully booted (press all buttons once **RADIO CAR NAV MEDIA TEL**). Wait until all options are ok (no options in gray) even when all options are ok wait a minute more. K900 firmware and maps 2016 - 8R0051884DF must already be installed

Insert the SD card into the 1st MMI slot.

We are waiting for ~ 15 seconds, if everything is done according to the instructions, the MMI itself off and reboot.

After that the card will work.

Activator made Keldo. A huge thanks to him!

03175 - Invalid Data Set

Procedure is tested on the following vehicles

- MMI 3GP (4H)
- MMI 3GP Hybrid (8F1)
- A3 MMI HIGH (8V)
- MMI 3G A4 (B8)
- A4 MMI 3G Standard
- A4 MMI 3GP
- Q7 MMI 3GP
- A7 MMI 3GP

Comm Status IC-1 TE-0 RE Protocol: CAN	-0	V	CDS	ABUDD DAA	(* 448) (_10		a a de la company por de	VCDS Fault Codes	📝 Display	: Fieeze Frame Data
Controller Info VAG Number,		IT1 035 666 M	Component	H-BN-EL	H65 0187	Controller Info VAG Number	8T1 035 666 M	Component;	H-BN-EU	H65 0187
Soft Coding:		Long Coding	Shop #	Imp: 995	WSC 08838	Fault Codes				
Basic Function	15 Thursd a	m 'Safe'	Advanced	Functions Refer to Ser	ratue (Benius) -	000 - Freez	e Frame Fault Status: 01100000 Fault Priority: 2			
Fault Code	a - 02	Readmoss - 15	Code	ng.() - 11	Coding - 07		Reset counter: 78			1
Meas Block	ks - 06	Advanced ID - 1A	Basic S	ettings - 04	Adaptation + 10		Time Indication: 0 Date: 2014.04.23			
Supp. Code	na - 18	Adv. Mags. Values	Output	Tests - 03	Security Access + 16	Freez	Fime: 19.26.55			
		Close Cont	roller, Go Back - 6	16		Print Codes	Copy Codes	Save Codes	Clear Codes - 05	Done. Go Back



*			
	Tyre pressure control (RDK):		9
	Wiper.		5
	Service intervall		7
	Seat memory:		0
	Central lock system:	-	5
>	Compass:		0
	Charlsma:		5
	Oil level gauge:		5
	Vehicle IdentNo activate (VIN):	1	0
	Clock:		7
	Suspension:		5
	Headup display:	1 SS	- Ö

Open Green Menu (Press CAR and MENU and hold it) go to car/carmenuoperation

- Attention 1: for each line, add 1 to the current value. It is recommended to take pictures of the screen before proceeding to avoid any unpleasant manipulation.

- Attention 2: do not forget to scroll down the list that is larger than the screen!
- Leave the hidden menu with the "return"
- Restarting the MMI (see procedure)
- You can now check with VCDS: The 03175 is deleted!
- Go back into the hidden menu
- Restore the original values by subtracting -1 from each line.

Comm Status >=1 TE=0 RE rotocol: CAN	-0	V	CDS Controller					VCDS Fault Codes	Depa	r Freezo Frane Da
Controller Info	1	CT1 035 666 M	Comment	H-BN-FU	H65.0182	Controller Info	811 035 666 M	Component	H-BN-FU	H65 0187
Soft Codinit		Long Coding	Shop #	Imp: 995	WSC 00830	Endl Cudes		Construction .	1. 1. 2.	
Extra										
Extra Assic Function	ns These a	ne "Safe"	Advanced f	Functions Refer to Serv	vice Illanual'					
Extra Jasic Function Fault Code	ns Thisse a Is - 02	er "Safe" Rendingss - 15	Advanced f	Functions Refer to Serving (1 - 11	dee Illanud Coding - 07					
Extra Lasic Function Fault Code Meas Block	ns These a us - 02 As - 08	Readness 15 Advanced D - 1A	Advanced F Contr Basic Ba	Functions Refer to Serving (F + 11	for Hannel Coding - 07 Adaptation - 16					

03276 - Please Check Software Version Management

Generate SVM fix Code

In order to correct the error you must input a new code into the adaptation channel 15 of the Navigation unit (5F).

For First timers I am including step by step pictures and instructions:

Open VCDS and Choose "Select Control Module":

	VCDS Beta 12.10.1	17715 Codes Loade
Select Control Module	Auto-Scan	Service Reminder Interval Rese
Select an Individual Control Nodule such as Engline, ABS, Akbag, etc.	An eutomatic scan of all controllers for Fault Codes.	Automatically reset the service light for oil and inspection.
	Auto-Scan	SRI Reset
OBD-II Functions	Applications	Program Options
Generic OED2 Mode Retrieve and clear faults and freeze trame, obtain live data.	Features consisting of several basic commands, like transport mode.	Select Comm Port, Set Debug and Protocol Options, etc.
QED-II	Applications	Ogtions

Select Module 5F:

installed Drivetra	ain Chassis Co	omfort/Conv. Electro	nics 1 Electronics
01-Engine	CG-ABS Brakes	05-Acc/Start Auth.	06-Seat Mem. Pass
08-Auto HVAC	09-Cent, Elect.	15-Airbags	16-Steering wheel
17-Instruments	19-CAN Gateway	36-Seat Mem. Divir	42-Door Elect, Drive
44 Stearing Assist	46-Contral Conv.	47-Sound System	52-Door Elect, Pass
53-Parking Brake	56-Radio	SF-Information Electr.	GC-Back-up Cam.

Click on "Adaptation - 10"

Comm Status =1 TE=0 RE=0 rotocol: CAN	- 0	VCDS pen Controller			
AG Number:	8R2 035 670 C	Component	H-BNT-EU	H44 0524	
Extra:	Eang Coaing	Shop #	ump: ।∠.а ен (втеэтэетти	WGC 1234D	
Extra: Basic Functions	These are "Safe"	Advanced	Functions Refer to Serv	ice Manual I	
Eault Codes -	02 Readiness - 15	Cod	ing (- 11	<u>C</u> eding - 07	
Meas. Blocks - 08 Advanced		A Basic S	Settings - 04 🧹	Adaptation - 10	
Supp. Codes - 18 Adv. Moss		Values Qutput Tests - 03		Security Access -	

Enter 15 for the channel and press the "Read" button.

ocumented adaptatio	n channels can be selected	l here	
24069	N/A	N/A	N/A
Count			
Warither Ut		_	
15 Dr	Read		Add to Log
0			
lew value	3		
	D		
A STATE OF			

Enter the number above the heading "Count" into the Calculator below and press Calculate:

VCDS Beta 12,10.1: 5F In	formation Electr., Adap	lation here	
24089 Count	N/A	N/A	N/A
Channel Up 15 Dn Stored value	Erad		Add to Log
New value Up Dn Test value	2		
Iest	50	ve D	one, Go <u>H</u> ack

Now enter the value you just created into the New Value area and click Test/Save:

Note that only Save may be available in which case you would ignore the test instruction.

By Congo – written Q1 2016, updated Q4 2016 – Version 2

accinence nearprine	n channels can be selected	i here	
24069	N/A	N/A	N/A
Count			
honnol	-	_	
15 0	e Read		Add to Log
Stored value			
0	_		
William Marchine	n		
	5		
		•	

Exit Adaptations and return to the main screen (Click "Done, Go Back").

Click "Faults Codes - 02":

<pre>>=1 TE=0 RE=0 rotocol: CAN</pre>	-	Open	Controller		
Controller Info	8R2 035 6	70 C	Component	H-BNT-F	EU H44 0524
Sot. Coding	Long Cod	ing	Shop #	Imp: 123	3 WSC 12345
Extra:	\$ R0040364/AH	EUR 2012 4R	D313604 DU7 HI	GH 87031361	IIN E6380 Bediese
Extra:		OR	0069961C CD-Dat	sbace	
Basic Functions	These are "Safe"		Advanced	Functions Refer to S	Cervice Manual I
Eault Codes -	02 Readr	ess - 15	Cod	ing U - 11	Coding - 07
Meas. Blocks	- 08 Advance	ed ID - 1A	Easis S	Settings - 04	Adaptation - 10
Supp. Codes -	18 Adv. Mo	s Values	Qutput	t Tests - 03	Security Access - 16

If you see any Faults click "Clear Codes - 05" then "Done, Go Back"

By Congo – written Q1 2016, updated Q4 2016 – Version 2

Controller Info		VCDS Fault Codes	🛄 Display Fr	eeze Frame Data
VAG Number:	8T0 907 468 D	Component.	GW-BEM 5CAN	H04 0084
Fault Codes				
				T

Now check Fault codes one more time and the SVM error should be gone. If not repeat the steps again.

03623 - Wrong unlock code / invalid security/release

Copy the contents from the FSC Remove if 03623 Fault.zip to an empty SD card smaller than 32GB in size, formatted in FAT32 file system. In the root folder of the SD card you should see the following files and directories:



Insert in the MMI SD slot 1, shortly after that you will see the following picture.



Press the big rotary knob and the next screen will appear.



Now restart the unit and follow the rest of the guide.

Calculate the new SVM code

Calculator								
/iew Edit Hel	P		2					
Standard Scientific	StandardAlt+1ScientificAlt+2ProgrammerAlt+3StatisticsAlt+4HistoryCtrl+HDigit grouping							~ ~ ~
Programmer							-58	911
Statistics					0.34744.072	55 3630	2.575	100000
History Digit grouping			0000 0000	0000 47 1110 15	0000 0110	9 00 9 00	900 901	0000 32 1111 0
Basic Ctrl+F4 Unit conversion Ctrl+U			A	мс	MR	MS	M+	M-
Worksheets	on can	٠. ١	В	+	CE	C	±	1
C Bin	RoL	RoR	С	7	8	9	1	%
C Qword	Or	Xor	D	4	5	6	*	1/x
C Dword	Lsh	Rsh	Ш	1	2	3		
C Byte	Not	And	E	C	1		1	=

Switch to "Programmer"

W Edit Hei	IP							
							12	237
0000 00 63 0000 00 31	00 0 00 0	000 000	0000 0000	0000 47 0010 15	000 111:	0 06 1 11	000 100	0000 32 1101 0
C Hex		Mod	A	MC	MR	MS	M+	M-
Dec Ort	t)	В	+	CE	с	±	4
C Bin	RoL	RoR	С	7	8	9	1	%
C Qword	Or	Xor	D	4	5	6	*	1/:
C Dword	tsh	Rsh	E	1	2	3	-	
C Byte	Not	And	E	ſ	1		4	1 =

Enter the number from channel 15 and hit "Xor"

							51	666
0000 00 63 0000 00 31	00 0 00 0	ବବବ ବବବ	ଡଡଡଡ ଡଡଡଡ	0000 47 1100 15	000 100	0 00 1 13	000 1 01	0000 32 0010 0
C Hex		Mod	A	мс	MR	MS	M+	M-
C Dec	t	0	В	-	CE	C	±	×
C Bin	RoL	RoR	C	7	8	9	1	36
C Qword	Or	Xor	D	4	5	6	*	1/*
			-	1	2	5	120	

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Enter number 51666 and hit "=".

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Attachments

Here you will find some useful scripts.

<u>03623 Remove</u>	If you receive error 03623 then you need to remove the FSC files from the MMI
Green menu activation	Enable hidden "Green" menu w/o VCDS
System dump / FSC backup	System dump
Map activator	6.22.4 Map activator