

Audi Navigation Plus

Programming your Nav Plus!



This section describes the coding needed to make the Nav Plus work with your car. You will need a copy of VAGcom, or at least access to the program.

Initial Startup for the Nav Plus:

- When you press the power switch for the first time, you will need to enter the unlock code. This will be on the inside cover of the manual you received with your Nav Plus.
- Use the right hand knob to select the number, then press the knob to enter it.
- Select "OK" once all four numbers are entered, and the radio will unlock.
- If you enter the wrong code, safe will flash on the screen. You have two tries to do it correctly. If you fail on both tries, the unit will display SAFE and the knob will not respond. LEAVE THE UNIT POWERED ON for 1 hour. After an hour, the display should once again say 1000, and you can try again.
- If you have not loaded a navigation disk, do so now and wait for the unit to boot.
- The unit will likely come up in German, to switch it to English...
 - Press the mode key.
 - From the menu, use the right hand knob and select the last item "Einstellungen" (settings) by pressing the knob.
 - Another menu will appear.

- Pick the first item, "Sprache w•hlen" (select language) and press the right hand knob.
- In the menu that appears, you will have several languages to choose from, "Englisch (Imperial)" (English in miles) and "Englisch (Metrisch)" (English in kilometers) are the logical ones.
- Pick the appropriate language and press enter.
- Your Nav Plus will now be in English (or the language you chose).

Software Coding:

- You will need VAGCom to adjust the settings of your car. I recommend buying it from [Ross-Tech](#), but there may be someone in your city that will program your car for you. Note that there are two different modules that control the Nav Plus, module 37 controls the navigation portion, and module 56 controls the radio portion. You will need to adjust settings in both modules. Note that you have to do the software coding using module 56 - Radio. Connect VagCom and go to Module 56, Radio. When you access your Nav system, the Nav Plus screen should change to DIAG, and you should see the software coding for your Nav Plus as below.

Comm Status
IC=1 TE=0 RE=0
Protocol: KW1281 /

VAG-COM
Open Controller

Controller Info

VAG Number:	8D0 035 192 G	Component:	Radio BNO 0001
Soft. Coding:	00117	Shop #:	WSC 31356
Extra:			
Extra:			

Basic Functions
These are "Safe"

<u>F</u> ault Codes - 02	<u>R</u> eadiness - 15
<u>M</u> eas. Blocks - 08	<u>F</u> uture Exp.
<u>S</u> ingle Reading - 09	<u>F</u> uture Exp.

Advanced Functions
Refer to Service Manual !

<u>L</u> ogin - 11	<u>R</u> ecode - 07
<u>B</u> asic Settings - 04	<u>A</u> daptation - 10
<u>O</u> utput Tests - 03	<u>F</u> uture Exp.

Close Controller, Go Back - 06

- Software coding works much the same as it does for the Symphony series of radios. The code is a 5 digit code. You will need to set each digit according to your car. Normally, you can match the code that your previous radio was set to. You use the "Recode - 07" function of VagCom to change the code.

- Below are the codes:

Digit	Setting	Function	Comment
X#### (1st digit)	0	Country	Seems to be always 0
#X### (2nd digit)	0	Sound Matching	Seems to be always 0
##X## (3rd digit)	0	No Passive speakers	not normally used.
	1	1 passive speaker, front left (Bose with Telephone)	Normal for BOSE cars.
	2	2 passive speakers (front) and 2 active speakers (rear)	Normal for non-BOSE cars.
	5	2 passive speakers (front) and no active speakers (rear)	not normally used.
###X# (4th digit)	0	Standard, no BOSE	Normal in non-BOSE cars.
	1	BOSE system	Normal in BOSE cars
####X (5th digit)	1	No CD changer, no instrument display	not normally used.
	3	CD Changer only	not normally used
	5	Instrument display only	not normally used
	7	CD changer and instrument display	Normal for Nav Plus.

- As you can see from the above VAGCom screen, the code on my car is 00117. This means 0 Country Code/0 Sound matching/1 one passive speaker/1 Bose/7 CD changer and Instrument display. I have BOSE in my car so this is correct.

Adaption for the Nav Plus:

- NOTE! Not all of these settings are available on the C-Navi. Only adaption channel 1, 2, 3 and 4 are available.
- You will also have to check several settings for the operation of the Nav Plus. Connect VagCom and go to Module 37, Navigation. You use the "Adaption - 10" function of VAGCom to do this.
- Below are the settings for the different adaption channels:

Channel	Function	Number	Comment
1	Tires in mm	1935	195/65 R15
		1910	205/60 R15
		1930	205/55 R16
		1930	225/45 R17
		1937	255/35 R18
		1895	185/65 R15
		1935	195/65 R15

		1930	205/55 R16
		1930	225/45 R17
		1940	225/40 R18
2	Rotational pulse	8	For cars that use the GALA signal
		45	For cars that use ABS signal
3	Diagnostic	0	Leave disabled. It's a way to check functions of the Nav Plus.
4	Cluster colour	0	Monochrome (red)
		1	Colour (note, may work better for cars with red displays as well.)
5	Land Identification (D-Navi)	0	Europe
		1	USA/Canada, but I haven't seen this do anything.
6	TMC Coding (D-Navi)	0	This will disable TMC. Use 0 if you do not have a TMC on your unit to prevent a startup error being displayed when you turn on your Nav Plus. Traffic button will be disabled.
		1	Sets TMC to use radio source. (Useless in N.A.)
		2	Sets TMC to use telephone source. (Useless in N.A.)
		3	Sets TMC to use radio and telephone source. (Useless in N.A.)
7	Option Coding: (see note below) (D-Navi)	0	No options.
		1	Logbook installed.
		2	Multi-Function Wheel installed (CANbus based).
		4	TV Tuner installed. (B version)
		8	Voice Command Module installed.

Note that for adaption channel 7, you add these functions to come up with the number. For example if you have a TV tuner and multifunction wheel, you'd enter 6 (2+4=6). Voice recognition and Logbook would be 9 (1+8=9)

Adaption for the Instrument Cluster - D-Navi only:

- The last thing to program is your instrument cluster so navigation direction and radio information appear on your display. Use Module "17 - Instruments" to connect to the instrument cluster.
- Step one is to verify how your car is currently set. Once connected to your dash, pick "Meas. Blocks - 08". Enter "140" in the Group to measure and press Go!. Normally you will see nothing (zero) in all 4 blocks. If you do see numbers make a note of them.

- The Symphony/Concert radios use the Clock/Enable/Data wires to send radio information to your instrument cluster. The Nav Plus uses the CANbus (Control Area Network) in your car to communicate with the instrument cluster. You have to teach the instrument cluster which "nodes" to look for in order for it to work.
- Below are the codes:

Binary Value	Function
1	Radio
2	Telephone
4	Navigation
8	Telematics

- You add the values together to come up with the code. Most cars need Radio and Navigation, so the correct number is 5 (1 + 4). If you have the Audi phone in your car, then the correct number would be 7 (1+2+4).
- Once you figure out which code you need, go into "Adaption - 10". Select channel number 62. Enter your code and save it.

The screenshot shows a software interface for programming the Audi Nav Plus. At the top, there are four empty rectangular boxes. Below them, the interface is divided into several sections:

- Channel Number:** A text label followed by a numeric input field containing the value "62". To the right of this field are two small buttons labeled "Up" and "Dn".
- New Value:** A text label followed by a numeric input field containing the value "5". To the right of this field are two small buttons labeled "Up" and "Dn".
- Read:** A rectangular button located to the right of the "Channel Number" field.
- Test:** A rectangular button located to the right of the "New Value" field.
- Stored Value:** A text label followed by a numeric display field showing the value "5" in green.
- Test Value:** A text label followed by a numeric display field showing the value "5" in green.
- Save:** A rectangular button located below the "Test" button.
- Done, Go Back:** A rectangular button located at the bottom center of the interface.

- Your car should now be coded correctly. When you turn on your Nav Plus, the display should show "Audi Navigation Plus" and your radio station should show at the top. If not see troubleshooting below.

Adaption for the Instrument Cluster - C-Navi only:

- The C-Navi uses the clock/enable/data lines to communicate with the instrument cluster. The radio should "just work". Use Module "17 - Instruments" to connect to the instrument cluster.

- Step one is to verify your current software coding. This is displayed on the first screen after you enter Module 17.
- Your current code will likely be less than 3000. To enable navigation instructions, add 16000 to whatever number is in the software coding. For example, if your current code is 02264, make it 18264 (16000 + 2264).
- If you have trouble getting the code to work, use the D-Navi procedure above and ensure that none of the CANbus settings are enabled. (only on newer clusters).
- Your car should now be coded correctly. When you turn on your Nav Plus, the display should show "Audi Radio Navigation System" and your radio station should show at the top. If not see troubleshooting below.

Verification and Troubleshooting:

- You can also use VAGcom to verify the performance of your Nav Plus. Note that not all test are available for the C-Navi. Below are some example screens.

The screenshot shows the VAG-COM Measuring Blocks interface. At the top, it displays 'Sample Rate: 0.4' and 'Label File: None'. The main area is divided into three sections, each representing a different group of measurements.

Group	Up	Go!	Bin. Bits	Voltage	Duty Cycle	
001	Up	Go!	0	13.81 V	99.6 %	ON
	Dn					
Group	Up	Go!	Backw. OFF	Term. 15 ON	N/A	N/A
002	Up	Go!				
	Dn					
Group	Up	Go!	GPS Antenna	OK	N/A	N/A
003	Up	Go!				
	Dn					

At the bottom, there are four buttons: 'Refer to Service Manual!', 'Switch To Basic Settings', 'Done, Go Back', 'Graph', and 'Log'.

Block	Function	Meaning
1	Bin Bits.	Vehicle speed signal from speedometer

	Voltage	Voltage received at the Nav Plus
	Duty Cycle	Illumination dimming in %
	15	Ignition on or off
2	Backw. OFF	Reverse signal, should change to Backw. ON when car is in reverse.
	Term. 15 ON	Ignition. Should go on and off with key.
3	GPS Antenna	Should say OK.

Sample Rate: |

Label File: None

VAG-COM

Measuring Blocks

Group

004 **Ext. Display** **OK** **N/A** **N/A**

Group

005 **Data Bus** **OK** **N/A** **N/A**

Group

006 **Left** **0.0 km/h** **N/A** **N/A**

Speed

[Refer to Service Manual!](#)

Block	Function	Meaning
4	Ext. Display	OK means car is communicating with the instrument cluster. (only works if you have TMC/CAN)
5	Data Bus	OK means CANbus signals are working. (only works if you have TMC/CAN)
6	Left	Gala signal on 26 pin connector. Should show vehicle speed as you drive your car.

- NOTE: If you are experiencing very slow updating of your position, it's likely the speed signal is missing. Check that group 6 is showing the same speed as your speedometer. If not, check pin 5 of the 26 pin connector.
- It's also a good idea to click on "Fault Codes - 02" and check to see if there are any errors. It's pretty normal to have some errors when you are installing, but if you clear these, then no errors should reappear.

VAG-COM: Fault Codes

VAG-COM
Fault Codes

Controller Info

VAG Number: **8D0 035 192 G** Component: **RNS 4.1 H06 BNO 0015**

Fault Codes

3 DTC's Found:

- 01317 - Control Module in Instrument Cluster (J285)
49-10 - No Communications - Intermittent
- 00862 - Antenna for GPS (R50/R52)
36-00 - Open Circuit
- 00867 - Connection to ABS Control Module
03-00 - No Signal

Print Codes Copy Codes Clear Codes - 05

Go Back

- In the above error display, you can see that the connection to the instrument cluster is not working, indicating a CANbus wiring problem, the GPS antenna is not connected, and the GALA signal to pin 5 of the 26 pin connector is missing.
- If your instrument cluster is not displaying radio and navigation from your D-Navi, it's possible the cluster has been programmed for the simpler navigation systems. Use VAGCom and connect to Module "17 - Instruments". On the first page, check the 5 digit software coding. If the software coding is a number 16000 or higher, try removing 16000 from whatever number is in the software coding. For example, if the number is 22123, then adjust it to 6123 ($22000 - 16000 = 6123$). This will disable the non-CANbus method of communicating with the instrument cluster.
- If you have installed the "B" version of the TV Tuner, you can use VAGCom to check it out. It's not listed in the VAGCom modules, but you can use the "direct entry" section of VAGCom and enter 57 to connect to the TV Tuner. You can use the measure blocks section to check the status of the 4 antennas feeding your tuner.



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