

• Using NavCoder

Model & year: **95-01 7-Series, U.S.**

Expertise level: **Beginner > Intermediate > Advanced**

Date: **January, 2016** (Updated: January 2017)

Estimated time to complete: **varies**

Tools Required

- Old laptop computer (ex: Dell D610, IBM ThinkPad, etc)

Facilities Needed

- None

Parts Required

- "Resler" USB Interface, \$35 (see Getting Started)

Getting Started

Freely available for many years and popular with BMW enthusiasts, NavCoder software allows the user to re-program (configure) navigation computers, telephone control units (TCUs) and other BMW devices, and turn on/off daytime running lights. NavCoder can "see" any device which communicates on your car's I-bus (such as your radio).

A nifty feature includes the ability to report fault codes for all I-bus devices. However, the fault is reported in raw hexadecimal format. I have not been able to locate a cross reference to convert hex codes to familiar BMW or standard fault codes, so this feature is not very helpful to the average user.

To use it, download NavCoder onto a laptop computer (navcoder.com). You'll also need to purchase the "Resler" USB interface (resler.de), about \$35, to connect your computer to your car.

Procedure

Resler Interface Prep

Installing the software is straightforward. Using the Resler interface is not.

To begin, the Resler interface offers no specific interface-to-car connection, only loose wires. It's made to connect to any source which has both power and access to the car's I-bus data line. For many, including myself, the CD changer power plug (in the trunk, left side) is the most convenient.

CD Changer Access

If you have a CD changer in place, you'll need to unscrew the changer from its mounts in order to gain access to the plug underneath. And in order to access the CD changer, remove the nav computer -- which you'll be doing anyway -- to allow the left-side trim to come out.

For more detail, see bimmernav.com/installation

To connect at the CD changer power plug, you'll need the following parts for a "clean" set-up:

- Universal pin terminal, female, p/n 61 13 6 931 929, \$1.53 list
- (3) Pin wires, p/n 61 13 0 005 198, .68¢ (each) list

Then, insert the pin wires into the terminal as shown in panel A below:



Solder or crimp the loose ends to the wires of the Resler interface using this schema:

Car (CD Changer Plug)	Resler Interface
yellow/white (I-bus)	white
red/green (power)	red
brown/black (ground)	brown
	(green - unused)

Now connect to the CD changer power plug as shown in image panel B above.

Resler Interface Drivers

Depending on your specific computer, you may need to install drivers for the Resler interface.

When I plugged in the Resler interface to my old Dell laptop, I was prompted by WinXP to install drivers for it, but the system couldn't find any. So I went to Silicon Labs' website to download the drivers specified on Resler's website. After un-zipping the downloaded file, I put it in C:DELL\drivers and clicked on "CP210xVCPInstaller_x86", which installed the drivers:

- [Drivers for Resler Interface](#)

After that, plugging in the Resler device no longer produced a Windows prompt recognizing the device, nor did it appear in the directory tree of Windows Explorer. This worried me at first. However, when connected to the I-bus (with ignition in position 1), NavCoder recognized the device and read data successfully.

Using NavCoder

Once your Resler interface is ready, simply plug-in and set your ignition key to position 1 (accessory). With NavCoder running, you should begin to see data. No user manual exists for NavCoder. It was designed to be self-explanatory.

Coding Navigation

From the upper menu bar, select *Code > Navigation* to see the configuration dialog:

The screenshot shows the 'Navigation' configuration dialog box. It is divided into several sections:

- Navigation Coding:** Identification: 9 133 177, HW10, SW91, CI08, April 2007, BMWCO15. Nav type: Mk4 (dropdown). Region: US (dropdown). Buttons: Read System Parameters, Diagnostics.
- Telematics settings:** VIN: DN89582. E38 7-series (dropdown). Limousine (dropdown). Buttons: Query VIN. BMW Assist: Select Telematics settings as per the vehicle type and fitted equipment. Auto emergency call: . SMSC Centre: . SMS number: . Customer Service: . Note: Enter phone numbers in international GSM format. E.g.: +<country_code> <area_code> <number>. The '+' will be added if missing.
- Other settings:** Widescreen mode: Radio C43 US, without rear monitor (dropdown). Show arrival time: Only up to production pause 09/03 for E39, E53. Buttons: Read Nav, Code Nav.
- Language Coding:** Language 1: US English (dropdown), Female (dropdown). Language 2: DE German (dropdown), Female (dropdown). Language 3: FR French (dropdown), Female (dropdown). Note: Select desired vehicle language. Mk2 & Mk3 nav can accept 2 languages: 1 & 2. Mk4 nav can accept all 3 languages. Buttons: Read Language, Code Language.
- Output Mode and Default Coding:** Mono (radio), Color (radio, selected). Note: "Code Defaults" starts a OS software load and sets default languages. Buttons: Read Output Mode, Code Output Mode, Code Defaults, Close.

Click the *Read Nav* button (middle right) to get the configuration of the nav computer currently connected (hopefully, your new Mk4!).

To begin, set your nav type and verify *Region* is set to "US".

BMW Assist is a roadside assistance program similar to GM's *OnStar* service. It is no longer supported in the E38 7-series. Therefore, all options under "Telematics settings" are useless. Un-check "BMW Assist" and "Auto emergency call". Nor is it necessary to enter your car's VIN, although doing so will make it appear on the Emergency screen.

The "SMSC" and "SMS" phone numbers probably corresponded to the SOS and Concierge buttons in the headliner of cars with Assist. Since Assist is gone, these fields can be left blank. A "Customer Service" listing appears when bringing up the phone book in a factory phone system (such as a Bluetooth TCU). However it won't work without Assist, so it too may be left blank.

In the *Other settings* section (center), verify the oddly-named *Widescreen mode* is set to "Radio C43 US, without rear monitor". (If you installed the newer BM53 radio, select it here.) And verify "Show arrival time" is NOT checked (for E38 7-series).

Once finished, click the *Code Nav* button to set the configuration. How cool is that?

Coding Telephone (TCU)

From the upper menu bar, select *Code > Telephone* to see the configuration dialog:

Click *Read ID* to retrieve your TCU's type, then click *Read TCU* button (at bottom).

From the top, verify "Enable Bluetooth" is checked. Enter your VIN to make it available on the "Emergency" nav screen. Enter a "Name" to appear on your phone when pairing via Bluetooth. Leave "Passkey" to match what's on the TCU label.

In the *Assist Dead Reckoning* dialog, set "Emergency Number" to 911, or perhaps AAA or a family member. (This phone number cannot be verified from any nav screen. I assume it activates in the event of a crash...?)

In *Voice Recognition*, be sure to uncheck "Enable voice recognition" if your car already has SES voice recognition. If not, check this box.

Under *Speed Dependent Volume*, tighten the "Speed between Steps" to about 35kph to offset road noise. For those with DSP sound, this setting is tied to the DSP sound profile selected. Therefore, you can set different SDV's for each DSP profile available.

When finished, click *Code TCU* button. NavCoder will prompt you to turn off ignition and wait 15 seconds before re-start.

Total coolness.

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