Thread: DIY [E65] ALPINA style instrument cluster (KOMBI) with digital speedometer

04-09-2012 05:43 AM #1

macchiato66

Member

Drives:: 2006 E66 750Li + E65 750i
Join Date: Nov 2011
Location: Germany
Posts: 32
Thanks: 13
Thanked 20 Times in 6 Posts

[E65] ALPINA style instrument cluster (KOMBI) with digital speedometer

1.) I do not claim any responsibility for broken or misprogrammed ECUs.
2.) You should have some experience using NCS and coding netto-data.
3.) You should be familar with revtors NCSDummy

Regarding my docs: since make of car after 06/2003 only.

What you get:
A third display item below the analog speedometer that displays your current speed digitally.
You can reach it sequentially by clicking the lower knob on the turn signal selector.

A minor disadvantage:
My ACC-indicator-arrow within speedometer is somewhat behind the regular speed, because it automatically adopts to the ALPINA speedometer resolution.
But that's not a problem, as ACC speed is displayed digitally a few seconds on set / change anyway.

To change the instrument cluster (KOMBI) to ALPINA-KI there is just one bit to set:
bit 0 @ 0000301A0C

This can be done via netto-data coding (coapiReadNettoDataFromSg and coapiCodeSgByNettoData in "Kernfunktionen" of NCS)

But before we can modify this bit, we have to modify KMBI_E65.C0x (x is the codierindex-number from 4 to 6) by the addition of the following piece of code:

Code:

```
CODIERDATENBLOCK : {0000301A} 00000000 0012 "Kal_Lieferantendaten"
UNBELEGT1 : {0000301A} 00000000 0012 {} (FF)
UNBELEGT2 : (00)
```

Why do we have to add this? NCS only reads and writes blocks that are defined within the CBD. And some "hidden" functions are within blocks that are not declared in the "official" CBDs. (-> TV-Free)

Disassemble KMBI_E65.C0x and add the above code within the correct block sequence, between 00003016 and 0000301F.

ReAssemble KMBI_E65.C0x BUT be sure NOT to overwrite your original KMBI_E65.C0x !!! Save the new version as KMBI_E65.C0x_READ_ONLY.
BE AWARE: This new file is for netto-coding ONLY !!! If you code your instrument cluster (KOMBI) with this new file the normal (FSW_PSW.MAN) way, you will loose some settings!

Now rename your original KMBI_E65.C0x to KMBI_E65.C0x_ORIGINAL and rename KMBI_E65.C0x_READ_ONLY to KMBI_E65.C0x (again: x is the codierindex-number!)

Start NCS-Expert, choose car, read FA and go back (F6).
"SG bearbeiten" (F4) and choose KOMBI.
"Kernfunktionen" (F5) and choose coapiReadNettoDataFromSg.
Check that the CBD-name (codierindex-number) is matching your car, change it if needed.
Into the lower input field you enter the name of the trace file to be saved: KMBI_E65.TRC

After clicking ok the data is read from the ECU and saved to the specified file into the WORK-folder.

Now open that file KMBI_E65.TRC with notepad or any other text editor.

Look out for the lines starting with "B 00301A":

Code:

```
B 00301A00,0010,4F,0F,20,11,44,54,07,78,FC,2F,29,1E,57,FE,55,06
B 00301A10,0002,FF,FF
```

Clear bit0 @ byte 0C (fourth byte from right) and also substract 1 from the first byte (it's the checksum, maybe automatically generated during coding, but to be sure).

The modified section now looks like this:

Code:

```
B 00301A00,0010,4E,0F,20,11,44,54,07,78,FC,2F,29,1E,56,FE,55,06
B 00301A10,0002,FF,FF
```

Save the file and go back to NCS-Expert.

"Kernfunktionen" (F5) and choose coapiCodeSgByNettoData.
Check that the CBD-name (codierindex-number) is matching your car, change it if needed.
Into the lower input field you enter the name of the trace file you have just modified: KMBI_E65.TRC
After clicking ok the data is written to the ECU and the ECU restarts.

Now, AND THIS IS IMPORTANT, rename your file KMBI_E65.C0x back to KMBI_E65.C0x_READ_ONLY and also rename your saved original KMBI_E65.C0x_ORIGINAL back to KMBI_E65.C0x.

That's all. Normal coding doesn't affect the bit anymore while using your original file KMBI_E65.C0x.

If you want to go back to BMW-KI (without the digital speedometer), follow this procedure again, but change the two bytes back to their original value.

Hope I had everything on my mind correctly

Happy coding guys
Tom

Last edited by macchiato66; 04-10-2012 at 10:09 AM. ***Reason:*** *Added a picture; change spelling coapiCodeSgByNettoData, added make of car*

Thanks | **Reply** | **Reply With Quote**

The Following 10 Users Say Thank You to macchiato66 For This Useful Post:

dadeppa (04-23-2012), Dunky (04-09-2012), ehssan (04-09-2012), HD750Li (04-11-2012), icuc (04-09-2012), KahN (04-09-2012), LEE (04-10-2012), mortyx10 (04-10-2012), pkathee (04-11-2012), Sas (04-09-2012)

04-09-2012 08:35 AM #2

Sas

Moderator

Join Date: Sep 2011
Location: Belgium
Posts: 911
Thanks: 64
Thanked 54 Times in 48 Posts

Any pics on this?

Thanks | **Reply** | **Reply With Quote**

04-09-2012 11:40 AM #3

BLooD

Senior Member

Drives:: BMW 530d M-sport 2006
Join Date: Apr 2011
Location: Essex UK.
Posts: 320
Thanks: 2

Sounds like the BC_digital_V function to me.

Thanked 6 Times in 5 Posts

BMW 530d M-sport 2006
Carbon black/Grey Dakota leather
Retrofits :- LCI-CCC, LCI-controler. SA437 poplar wood, poplar wood handbrake and poplar wood gear selector, SA430 EXT: mirrors dimming/folding, SA563 extended lights package, SA616 BMW online SA534 AC-automatic. Welcome lights, Angel eye only DRL`s.

Thanks | **Reply** | **Reply With Quote**

04-09-2012 12:30 PM #4

ehssan

Moderator

Join Date: Mar 2011
Posts: 1,214
Thanks: 280
Thanked 270 Times in 91 Posts

> Originally Posted by **BLooD**
> *Sounds like the BC_digital_V function to me.*

usually it's not available for E65 , that's why the above toturial is to enable it

Thanks | **Reply** | **Reply With Quote**

04-09-2012 04:46 PM #5

macchiato66

Member

Drives:: 2006 E66 750Li + E65 750i
Join Date: Nov 2011
Location: Germany
Posts: 32
Thanks: 13
Thanked 20 Times in 6 Posts

> Originally Posted by **BLooD**
> *Sounds like the BC_digital_V function to me.*

Yes, that's correct, but E65 doesn't have this setting ... normally

> Originally Posted by **ehssan**
> *usually it's not available for E65 , that's why the above toturial is to enable it*

Yes, correct also. It's usually not available for "simple" BMW 7er, but ALPINA uses the same instrument cluster, just coded slightly different.

Thanks | **Reply** | **Reply With Quote**

04-09-2012 04:54 PM #6

macchiato66

Member

Drives:: 2006 E66 750Li + E65 750i
Join Date: Nov 2011
Location: Germany
Posts: 32
Thanks: 13
Thanked 20 Times in 6 Posts

> Originally Posted by **Sas**
> *Any pics on this?*

Yeah, just added 😉

Thanks | **Reply** | **Reply With Quote**

04-10-2012 01:20 AM #7

HD750Li

Junior Member

Join Date: Apr 2011
Posts: 21
Thanks: 3
Thanked 6 Times in 3 Posts

Succeed! Tom: you are a genious! Thank you very much for revealing the secret. Your detailed instructions are extremely easy to follow.

A minor detail that I would like to modify is instead of coapiCodeSG**From**NettoData, everyone should look for a "coapiCodeSG**By**NettoData". Here is a screen shot of that function.

Can't wait til the next secret!

Thanks | **Reply** | **Reply With Quote**

The Following 3 Users Say Thank You to HD750Li For This Useful Post:

ehssan (04-10-2012), macchiato66 (04-10-2012), pkathee (04-11-2012)

04-10-2012 08:05 AM #8

macchiato66

Member

Drives:: 2006 E66 750Li + E65 750i
Join Date: Nov 2011
Location: Germany
Posts: 32
Thanks: 13
Thanked 20 Times in 6 Posts

> Originally Posted by **HD750Li**
> *Succeed!*

Well done Harry. Thanks for the hint "copyCode...By", it's corrected now.

Thanks | **Reply** | **Reply With Quote**

04-10-2012 08:15 AM #9

mortyx10

Member

Drives:: 745i
Join Date: Oct 2011
Posts: 75
Thanks: 5
Thanked 11 Times in 5 Posts

Hi Tom
Thanks for this great diy, however my nettodat file looks different.

Code:

```
B 00301A00,0010,F5,0A,03,20,13,44,52,68,FC,2F,29,1E,FF,FC,55,03
B 00301A10,0002,FF,FF
```

Am I doing something wrong?

Thanks

Thanks | **Reply** | **Reply With Quote**

04-10-2012 08:22 AM #10

PAPER

Junior Member

Join Date: Jan 2012
Posts: 15
Thanks: 0
Thanked 2 Times in 2 Posts

Quick question ?
By looking at your post , it looks like your making change's to line
301A in the kombi
& the changes are to position
1 & 13 .
So my question is =
If I make these changes using dashsoft
Instead of the method you are using , do you
Think it will work ?

Here is a pic of the kombi coding with dashsoft & line 301A

Last edited by PAPER; 04-10-2012 at 08:31 AM.

Thanks | **Reply** | **Reply With Quote**

+ Reply to Thread

Page 1 of 5 **1** 2 3 ... Last

Quick Navigation **E6x** **Top**

Quick Reply

Post Quick Reply Go Advanced

« Previous Thread | Next Thread »

Tags for this Thread

alpina, instrumentcluster, kombi
View Tag Cloud

Add / Edit Tags

Posting Permissions

You may post new threads	BB code is On
You may post replies	Smilies are On
You may post attachments	[IMG] code is On
You may edit your posts	HTML code is Off

Forum Rules

Donate

All times are GMT +2. The time now is 12:02 PM.

Powered by vBulletin® Version 4.1.6
Copyright © 2012 vBulletin Solutions, Inc. All rights reserved.