Flashing your SMG Module with the CSL Software

This is an edited version of the instructions originally created by the original author of this DIY guide. I take absolutely no responsibility for any damage however caused. I also take no credit for creating this DIY.

Disclaimer: This is a fairly invasive procedure. The flashing process takes 15-30 minutes, and if interrupted, your SMG module will essentially be bricked. Depending on what point it fails at recovery may be impossible. Perform this procedure at your own risk; I am not responsible for any damage that may result.

Forward: This guide assumes you already installed and updated (if necessary) the "BMW Standard Tools" suite of software. This guide also assumes that you have already tested your interface and it was found to be functional.

At the time of editing this DIY, the files required for the E46 can be downloaded from the following link. I do not know how long these files will be available for.

ftp://ftp.instantnt.ru/pub/Automotive/BMW/BMW_ISTAP_DATEN/SP_DATEN_FILES_V2.49.0/SP-daten-E46.iso

The purpose of this guide is to describe in detail the process one should follow in order to flash a module with different/newer software. While the procedure is fairly generic and can be used for several chassis and modules, this guide will describe the procedure for flashing CSL software onto a standard SMG2 module. Make modifications as necessary for other modules

Requirements:

- An E46 M3 equipped with the SMG2 Transmission
- BMW Standard Tools 2.5.0 or later (Should come with WinKFP 5.1.6 or newer)
- Access to E46 data files (I recommend Ista/P V37 or later)
- Some sort power supply that can stably supply 13-14V at 10A
 - Unlike coding with NCS Expert, reflashing a module with WinKFP takes quite a bit of time and consumes quite a bit of power. A failure is almost guaranteed if you don't use a good power supply. Make sure it isn't one that'll automatically turn off.

Setting up WinKFP:

Before we can even think about flashing any modules, we have to load all the data files and configure WinKFP.

- 1. Extract the SP-Daten-E46.ZIP file somewhere and note the location
- 2. Start WinKFP
- 3. Click Import/Export > Import -> Assembly Line Data

😵 WinKFP Tool 32Bit - Version 5.2.1				
Display Import/Export Communication Configura	ation Help End			
EC Import Figure Export Figure Content of the second secon	Exported configuration - assembly line data Exported configuration - development data Assembly line data			
Assembly identification number : Hardware number : HW interface: STD:0BD _	Data / Program / BSU NAAB files P-SGBD PABD			
Bootsectorupdate ACTIVATED				
F1 Comfort mode F2 Expert mod	de F3 F4			
F5 F6	F7 F8			
Import von Werksdaten für den "normalen Usermode"				

4. Browse to the extracted SP-Daten-E46 folder and select the "DATA" folder. Hit okay and wait a few minutes for the data to import

Browse for Folder	x	
Import assembly line data files		
🔺 퉲 SP-daten-E46	*	
🌗 cfgdat		
> 🚺 data		
🌗 daten		
📔 ecu		
📔 format	E	
🍌 kmmData		
🍌 sgdat		
work		
b b SP-daten-E52	-	
•	Þ	
ОК	Cancel	

5. Click "Configuration" and make sure it looks like the following picture:

ni Options	X		
Sprache / Language	glish		
Programming voltage Show programming voltage Fast haudrate	UIF write after data		
 Fast Daugrate Test Checksum 	 UIF write in comfort mode UIF write in comfort mode 		
 Force program programming in comfort mode activate Bootsectorupdate 			
PABD format API tracelevel IFH tracelevel			
Base directory for exported configurations - development data			
C:\Diagprog Base directory for exported configurations - assembly line data			
C:\NFS-Backup			
Base directory for working directories of WinKFPT			
ОК	Cancel		

- 6. Save the configuration and quit WinKFP
- 7. Browse to the extracted SP-Daten-E46 folder.
 - a. Copy the contents of the "ecu" folder to C:\EDIABAS\Ecu
 - b. Copy the contents of the "sgdat" folder to C:\EC-APPS\NFS\SGDAT
 - c. Copy the contents of the "gdaten" folder found in the "data" folder to C:\EC-APPS\NFS\DATA\GDATEN
- 8. WinKFP should be set up now. Try launching the program. If you get an error, you either missed a step or are using a version of WinKFP earlier than 5.1.6 (which are known to have several bugs).

Flashing the CSL Module:

Now that WinKFP is setup let's flash the module

- 1. Hook up your car to the power supply and turn it on. Put the key in position 2.
 - a. Try to keep the voltage between 13-14V. If it goes below 12.5V or above 14.5V, the flashing process could fail and result in a bricked module.
- 2. Start WinKFP and click "Comfort Mode".
- 3. Click "Enter ZUSB" and enter "7843255" you should get a screen like this. Hit okay.

Choose assembly identification number / integration position			3
ECU familiy: EK9282 EK9284 EK9285 EK9287 EK9286 EK9287 EK9286	ZB-Number: 7843252 7843253 7843254 7843255	Integration position: Unverbaut ·	[
		OK Cancel	

- 4. Click Enter VIN and enter your full 17 digit VIN.
- 5. Hit "Done". You should now see the following options

WinKFP Tool 32Bit - Version 5.2.1	
Display Import/Export Communication	n Configuration Help End
ECU address/integration position:	XX P-SGBD uses internal Address
Vehicle identification number :	WBSBL93400XY00000
Assembly identification number :	7843255
Hardware number :	7843260
HW interface: STD:0BD _	
Bootsectorupdate	
PABD:	02GDSMG2.IPO
P-SGBD:	04GDSMG2.PRG
F1 Comfort mode F2	Expert mode F3 Program F4 Special
F5 Diagnosis F6	F7 F8 F8
Ready	

- 6. Press program. WinKFP will give you a message about having X number of flashes available hit okay to that prompt
- 7. After the flash gets to 100% you will get another prompt as if the flash is restarting accept that prompt again. It will look like the flash is starting over, but this time it'll go much faster. After this one completes your flash will be done.
- 8. Turn off the car. Wait about 5 minutes, put it in position 2 again. Using DIS or INPA clear any codes that may be stored in any modules.
- 9. Turn off and wait a few minutes again if necessary (if the transmission error light is still on)
- 10. Start the car and enjoy your improved shifts! You may need to run the SMG adaption procedures