Flashing a new calibration for the E90 EGS with WinKFP V5.3.1

Warning: Do not attempt this without connecting a good battery charger (at least 5A-10A) and good battery health. BMW recommends power supplies that can deliver 40A. If this fails it can make the flashed component permanently unusable.

Disclaimer: The author or poster of this document cannot be held liable for damage to or loss of function of any component of a vehicle by following this documentation. Neither can the author or poster of this document be held liable for any effect resulting from updating the SW and/or calibration of any component of a vehicle by following this documentation.

First, you'll have to save the current coding of your EGS with NCS-expert. Flashing a new calibration and/or SW will reset all coding data of the EGS. This means, if your car has paddle shifters behind the wheel, they <u>will not work</u> after flashing with WinKFP until you have restored the coding of the EGS.

Go to <u>http://forums.bimmerforums.com/forum/showthread.php?t=1553779</u> and learn how to use NCS-expert and NCS dummy. Select the EGS

50	G auswähle	en		×
	ABG AMPT CAS CIC CID DSC			
	EGS EKP FAS FZD IHK KOMBI LSMC NFRM			
		ОК	Cancel	

and save the original FSW_PSW.TRC of your EGS. If you have paddle shifters, it should look something like this:

FSW_P	5W.TRC -	Note	pad	
<u>File E</u> dit	F <u>o</u> rmat	⊻iew	Help	
File Edit FL_INTE NIC ISO_OBD MIL_SCA PADDLES SEAT OBD_PFC	Format RLOCK aktiv wert_ N_TOOL wert_ wert_ wert_	<u>V</u> iew 03 01 02 00 01	<u>H</u> elp	1
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Save this file under a different file name as it will be overwritten the next time you read the coding parameters of an ECU.

Before starting WinKFP, open EDIABAS, load GS19D and execute the job aif_lesen. Copy the results into a text file. That makes it easier to copy the VIN (FG_NR) and ZB number into WinKFP later.



After installing and importing the correct data (separate documentation), make sure to have WinKFP configured correctly:

ni Options	X					
Sprache / Language	glish					
 Programming voltage Show programming voltage Fast baudrate Test Checksum Force program programming in comfort mode activate Bootsectorupdate 	 UIF write after data UIF write after program UIF write in expert mode UIF write in comfort mode 					
PABD format API tracelevel IFH tracelevel						
Directory for error file "error.log"						
, Base directory for exported configurations - developm	ient data					
C:\Diagprog						
Base directory for exported configurations - assembly	line data					
C:\NFS-Backup						
Base directory for working directories of WinKFPT						
ОК	Cancel					

If the UIF fields stay checked, you'll need to input the complete VIN during the flash preparation stage. The User Information field (UIF) can only be updated 62 times.

Turn on Ignition, do not start the engine. Turn off all unnecessary loads (lights, ventilation, radio, etc.).

On the main screen select "Comfort mode":

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Ī	Eile	<u>D</u> isplay	Import/Export	<u>C</u> ommunication	Configuration	Help			
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		ECU adde	oos lintogration po	aition					
		Yobiala id	ess/integration po	sidon:					
		Accomblu	identification numbe	n.					
		Assembly		UCI.					
		Hardware	number :						
		HW interfa	ace: STD:OBD_						
	Boo	ntsectorung	late						
	AC1								
	ACT	IIVAIED							
	_			F2 -	1	50	-1	F 4	
	F	Com	fort mode	F2 E	xpert mode	F3		F4	
	-	-	1	50	1	F7	-	50	
	F	°		F6		F7		F8	
R	eady								CAP NUM SCRL

Then "Enter ZUSB"

8) Wi	nKFP Tool	32Bit - Version	5.3.1			
	Eile	<u>D</u> isplay	Import/Export	<u>Communication</u>	Configuration	Help	
		ECU addr	ess/integration po	sition:			
		Vehicle id	entification numbe	er :			
		Assembly	identification numb	per :			
		Hardware	number :				
		HW interfa	ace: STD:OBD_				
	Boo	otsectorupo	late				
	AC	TIVATED					
	_			F2		52	
	F	L Ent	er ZUSB	F2 Uł		F3 Update 2058 F4	
	F	5	1	F6	1	F7 F8	Done
l R	.eady						

Copy and paste the current ZB_NR from the Ediabas AIF_lesen job into the following screen.



After that you'll be presented with the available ZB numbers for the selected ECU family (GKE195): Choose the ZB number of the SW to be flashed:

Choose assembly identific	ation number / integ	ration position		×
ECU familiy: GKE195	ZB-Number: 7569994 7569996 7587867 7592089 7595728 7606273 7609646 7610590	Integration position: Unverbaut -		
			OK	Cancel

Hit OK then Done (F8). The screen should look like this now:

8	🖁 Wir	nKFP Tool	32Bit - Version	5.3.1						
	Eile	<u>D</u> isplay	Import/Export	⊆ommunica	ation Configuration	Help				
L		ECU addre	ess/integration po	sition:	18 Unverbaut					
L		Vehicle ide	entification numbe	er :						
L		Assembly i	identification numb	per :	7592089					
L		Hardware	number :		7591972					
		HW interfa	ace: STD:OBD _			Diagnosis p	rotocol: BMW-FA9	бт		
L	Boc	otsectorund	ate							
	ACI									
L				PABD:	03GKE195.IPO					
L				P-SGBD:	10FLASH.PRG					
L										
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L	F	1 Com	fort mode	F2	Expert mode	F3 _	Program] +4	Specia	
L	F	5 Di		FG		F7		І ғя	2	_
	F	- Di	aynosis	10] 10	,	
l R	eadv								CAP	

Next, hit Program (F3). This will start the update - no further warnings.

While flashing WinKFP shows a progress bar. Updating the Daten file should only take about 2 minutes. If the field "Force program programming in comfort mode" was selected, there will be two flashing sessions: First the Program which takes about 5-6 minutes and then the calibration file. However, updating the SW is not necessary as we are just updating the calibration.

WinKFP Tool 32Bit - Version 5.1.0 (54	(%)		ngure window Help
			-
ECU address/integration position: Vehicle identification number : Assembly identification number : Hardware number : HW interface: STD:0BD _	18 Univerbaut WBJ 7610590 7591972	Diagnosis protocol: BMW-FAS1	Programming volkage
Protection			
ACTIVATED			
PABD: P-SGBD:	03GKE195.IPO 10FLASH.PRG		
		54%	
F1 Comfort mode F2	Expert mode	F3 Program	F4 Special
			50
F5 Diagnosis F6		F/	15
Ready			NUM

Also, there may be a couple of chimes and error messages popping up on the CIC. That is normal as the other ECUs can't communicate with the transmission when it is being flashed.

Transmission malfunction!

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OK

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1 OK Functionality or display of the gear selector position may malfunction. Gearbox position P may not be available. Set parking brake when completely stopped. Engine start may be possible with a delay. It is also possible to engage a gear without depressing the brake pedal. Have the system checked by the nearest BMW center.

Transmission malfunction

Start-off assistance inactive!

Braking / driving

Brake and drive control systems malfunction! Reduced braking and driving stability. Avoid hard braking. Have the system checked by your BMW center.

If everything went fine, you'll get this message:



Close WinKFP and restore the coding of the EGS with NCS-expert.

Now it's time to clear all faults: Either with Rheingold which can query all ECUs and clear all faults at once:

RHEINGOLD	A		9 x 🖂		? 😨 🗙
VIN: Vehicle	31/E90/SEDAN/335d/M57/AUT	O/USA/LL/2010/06		KL 15: -	KL 30: -
Identification Vehicle t	est Activities	Service plan F	avourites Port	tal	
Control unit tree Control u	nit list				
KOMEL CAS CCON SMFA FZD FZD FZD FZD FZD FZD FZD FZD FZD FZD	CCC-GW CCC-GW TCU	ULF-SEX-H	- EGS		
K-CAN MOST PT Fault memory 30	CAN INTERNAL	It memory 🕒 Ecu with f	ault memory 💽 Ecu n	ot responding	Ecu state unknown Display fault

Or with Ediabas, one by one:

Load GS19D.prg and execute fs_lesen, then fs_loeschen.

😥 EDIABAS Toolset 32		X
Ele Job Iest Configuration Irace Windows Help		
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© ===	EDIABAS ToolSet 32	Version 4.0.3 BMW A6 5/12/2015 6:17:51
Select Job: GS19D	X tesults	_O×
Job: individual science diagnoseprotodol Leicen diagnose protocomente Leicen normader, diasente diagnose_endechti diagnose diagnose <	ERBORMEHORY e: 12.05.2015 18:17:31 : CS190 ULT: 1 error nemory ! ULT: 1 error nemory ! G Fehler Codierung Codierung Gur Fehlerhoft Codierung Gur Fehlerhoft Fehler momentan vorhanden und bereits gespeichert	1
Comment : Fehlerspricher loeschen Comment : Fehlerspricher loeschen NedUS : Default argument : F_CODE type : Int comment : Beffel : Alle Antriesfehler bofffel : Alle Antriesfehler bofffel : Alle Fehler Nofffel : Alle Fehler result : JOB STATUS type : String comment : DKAF, wenn fehlerfrei table Johrsprist ISTATUS_TEXT result : _TEL_AUFTRAG if Teledonic = D X Schwardscher = D X		ب کرد

Then repeat the same for:

- D73N57C0.prg (DDE)
- DSC_87.prg (Dynamic stability control)
- CID_90.prg (Car information display)
- CAS.prg (Car access system)
- FRM_70.prg (Drivers side Footwell module)
- RDCKWP.prg (Tire pressure monitor)

Lastly, perform a reset of transmission adaptations with Ediabas: Load GS19D.prg and double click "steuern_adaptionswerte_ruecksetzen":

🐼 EDIABAS Toolset 32				×
Effe job Test Configuration Trace Windows Help				
				No. 10.2
	DIABAST	oolSet 32		BMW AG
	DIADAS I	001501 52		5/25/2015 4:47:45
N Select Job: 6519D	×	Results		
Jobs Arguments Data:		apiJob("GS19D","steuern_adaptio	nswerte_ruecksetzen","","")	<u>–</u>
status_adaptionswerte_6 status_adaptionswerte_6		Satz : 0 OBJECT	= qs19d	
status_adaptionswerte_8 Clear Argument wizard He	esults	SAETZE JOBNANE	= 1 = steuern adaptionswerte ru	ecksetzen
status_adaptionswerte_10tel_antwort status_adaptionswerte_11tel_auftrag		VARIANTE JOBSTATUS	- GS19D	
status_adaptionswerte_12 status_adaptionswerte_13 status_adaptionswerte_14		UBATTCURRENT UBATTHISTORY	1 1	
status_adaptionswerte_15		IGNITIONCURRENT	= -1 = -1	
status_adaptionswerte_17 status_adaptionswerte_18		Satz : 1 JOB STATUS	- OKAY	
steven, adaptionswerte, ruecks quicktest en disense testinb		_TEL_ANTWORT 0000 : 82 F1 18 71 A0 9C	= 6 Bytes	?ñ.q ?
status_hardware_referenz		TEL_AUFTRAG 0000 : 82 18 F1 31 A0	= 5 Bytes	?.ñ1
connent : alle Adaptionswerte ruecksetzen KVP2000: \$31 StartRoutineByLocalIdentifier Modus : DeFault				
result : JOB_STATUS				
comment : UKAY, wenn fehlerfrei table JobResult STATUS_TEXT				
result : _TEL_ANTWORT tune : data				
connent : Hex-Antwort von SG				
result : _TEL_AUFTRAG type : data compent: Hex-Auftran an SG				
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