### Odometer Correction for W211 E-Class, W219 CLS, X164 GL, W164 ML, W203 C-Class, W251 R-Class, W463 G-Class, R171, W209 CLK

In these vehicles the odometer is stored in the following control units:

- Instrument Cluster
- EZS
- Assyst
- Assyst Plus
- ESP (Electronic Stability Program)
- Electrical Seat Adjustment Driver
- Electrical Seat Adjustment Passenger
- Signal Acquisition Module
- CDI (Common Rail Diesel Injection)
- Tire Pressure Monitor
- Airbag only stores motohours

It is a very difficult task to change the odometer in all possible places, where it is stored. However, with the help of the Abritus Commander for Mercedes it is now very easy to make comprehensive odometer correction in these vehicles.

While in most of the devices the software will change the odometer by OBDII, there are some electronic control units in which it has to be done manually. This is the case with the Battery Control Module, for example. Please, follow the guideline below.

Important note: when the Mercedes Commander asks you to disconnect the battery, please first make sure that you remove the key from the Ignition Lock!

## 1. Backing up necessary files.

It is recommended to read the EEPROM of the Central Gateway (CGW) control unit and the Instrument Cluster before proceeding with the odometer correction.

The EEPROM of the CGW control unit can be read by using the special function "CGW Explorer". The EEPROM of the Instrument Cluster is accessible from the special function "Read/Write EEPROM".





# 2. Modifying ASSYST and ASSYST PLUS service history records.

After you read the EEPROM of the CGW control unit you must save it to a file on your hard disk and then load it in "CGW Explorer". You must specify the type of the dump. In case the displayed information is not correct you can try setting another type until you get correct data. In order to see which is the correct type for the dump you can use the "ASSYST PLUS" special function. From there you can see all the service history and the saved information in the ASSYST and ASSYST Plus control modules.

ntral Gat	eway (CGW) [	)ump 1	lool											
SSYST —														
	Odometer (Km) Remaining distance (Km)			Days	since p	revious	servic	e:	Produc	Product of quality factors				
Log l	83600		-228			442					1.00			
Log 2	69000		833			423					1.00			
Log 3	55100		2508			300					1.33			
Log 4	40300		594			498					1.00			
Log 5	24500		9781			532					1.00			
Numb SSYST PL	er of maintenanc	e recori	ds in AS	ISYS1	F: 6				Rep	plei	nishments (ad	lded oil) mile	ages	
ast service	mileage (Km)	83609		#	Odometer reading	ı (Km)	Days	<b></b>	N	r	Odometer	reading	(Km)	Liters
	2,	1		1	93604		1563		1		56400			1.0
nerating tir	me (daus)	1563		2	93604		1563							
, or daming an		I	- 1	3	93604		1563							
imber of c	vil changes	4		4	93604		1563							
	ni changes	<u> </u>	- 1	5	93604		1563							
		83609		6	93604		1563							
Last servit	se mileage (Km)	00000	- 1	7	93604		1563							
:		1500	_	8	93604		1563							
Jperating	time (days)	1363	- 1	9	93604		1563	_	- 1 <sup>1</sup> -					
			-	10	93604		1563	_				- I	1	_
Number of	f oil changes	4	- 1	11	0		0	_	IN	um	iber of replen	isnments:	1	
				12	0		U							
				13	0		U		– Dur	~~	Tupe			
				14	0		0		Du	ΠP	туре			
				115	0		0			) 9	912			
										) [ŝ	9 S12 - Varian	[1]		
Image: Same Changes Image: Same Changes					t 2 t 3		<b>?</b> Help							

After you have loaded the dump of the CGW you can change the stored information as you like. Then you must click the "Save" button and save the modified dump on your hard drive. When you are ready with this you should close this window, load the modified dump and press the button "Write EEPROM". You can verify that the service history records have changed according to your modifications by opening the "ASSYST Plus" special function.

If you want to change only the ASSYST data you can do so very quickly by pressing the "ASSYST" button from the "CGW Explorer" screen, like shown on the following screenshot:

Central Gateway (CAN)		×
Vehicle Model	•	<u>B</u> ead EEPROM
	(?) Help	Write EEPROM
00000000 00 00 00 00 00 00 00 00 00 00	×	
		Save to file
00000033 00 00 00 00 00 00 00 00 00 00 0		
00000050 00 00 00 00 00 00 00 00 00 00 0		Load from file
00000070 00 00 00 00 00 00 00 00 00 00 0		Change <u>I</u> D
000000A0 00 00 00 00 00 00 00 00 00 00 0		
000000D0 00 00 00 00 00 00 00 00 00 00 0		CGW <u>E</u> xplorer
00000100 00 00 00 00 00 00 00 00 00 00 0		
00000120 00 00 00 00 00 00 00 00 00 00 00 00 0		Assyst
		×
		<u>C</u> ancel

Another screen will appear and from there you can see the current ASSYST service history records. If you wish you can edit the records and when you are ready – you can press the button "Save Changes". This will update the information stored inside the ASSYST control module.

Once you have finished this step you can be sure that you have changed the values of *Assyst, Assyst Plus, Central Gateway* and *System Diagnosis* control units.

# 3. Changing the Main Odometer in Dashboard and EZS

Changing the odometer in the Instrument Cluster is straightforward. Please, note that the Instrument Cluster synchronizes the odometer value with the EZS control module. So, there are 2 options – the first one is to block the odometer synchronization between the dashboard and the EZS and the second one is to change only the odometer in the dashboard.

When the software asks you to remove the fuse or the battery, there are 2 options:

- Some cars have a fuse for the dashboard. It is enough to remove the fuse for 10 seconds and then put in back.
- Some cars do not have a fuse for the dashboard and it is necessary to disconnect the battery of the cat in order to reset the dashboard. When this is the case, make sure that you remove the key from the Ignition Lock before disconnecting the main battery. It is enough to remove the positive clamp of the battery for about 10 seconds and then reconnect it again.

# 3.1 Changing the Main Odometer and blocking the synchronization between the Dashboard and the EZS

If you choose to block the synchronization of the odometer between the Dashboard and the EZS the dashboard will display the new odometer and will not attempt to synchronize with the EZS again. However, the EZS will keep the old odometer and it will be visible from the "Actual Values" screen. The solution in this case is to change the stored odometer in the EZS by using a hardware programming device – desolder the EZS, read its EEPROM, change the odometer (using the special function "Dump Tool") and then write back the EEPROM and solder it back.

# 3.2 Changing the Main Odometer wothout blocking the synchronization between the Dashboard and the EZS

If you choose to NOT block the synchronization of the odometer between the Dashboard and the EZS the dashboard will freeze after you change the odometer with the Mercedes Commander. However, the EZS will keep the old odometer and the dashboard will update its odometer the next time it communicates with the EZS. The solution in this case is to change the stored odometer in the EZS by using a hardware programming device – desolder the EZS, read its EEPROM, change the odometer (using the special function "Dump Tool") and then write back the EEPROM and solder it back. You can change the EZS to 0 km – it will take the new odometer value from the Instrument Cluster.

# 4. Changing the stored odometer in all other devices

Important Note: Some of the contorl units, which are listed below may not be present in the vehicle, that you are working on.

#### 4.1 Battery Control Module

From the Main Screen of the Mercedes Commander software, connect to the device "Battery Control Module", as shown in the next screenshot:

ABRITES Co	mmander for Mercedes/Maybach/Smart 3.9 www.abritus72.com				_ 🗆 ×
# Unit n	ame	Prot	DTC		
135 Remote	e Central Locking	K-Line			$\wedge$
136 Multi-	function Control Module	K-Line			
137 Conven	lience Feature	K-Line			Previous
138 Center	Roof Node	CAN			
139 Remote	e Control (Rear Control Field)	CAN			
140 Air Br	ake (Spoiler) and Central Locking Control Unit	CAN			
141 GPS Bo	x	CAN			
142 Rear A	udio video unit / Rear Audio Video Controller	CAN			
143 Peer C	Control Module	CAN			
144 Batter	y Control Module	CAN			Open
140 SELECC	ive catalytic Reduction	CAN			
146 Electr	ohydraulic Power Steering	CAN			
147 Multif	unction Camera	CAN			
148 DC/DC	converter control unit	CAN			
149 Batter	y management system	CAN		_	
150 Panora	mic sliding roof	CAN			
151 Multif	unction steering wheel	CAN			Next
Selection Chassis Type: Chassis Type: Engine Type: Year:	ection V Special Functions Options E-Class / CLS V W211 (2005-2009) V Gasoline V 2006 V	can for Units		Clear	all DTCs

Please, note that not all vehicles have this device! If the software does not connect to it – this means that the device is not installed in the vehicle.

After you succeed to open a diagnostic session with this device you must click the button "Actual Values". When this screen opens you must pay attention to the displayed values. If you wish you can erase the stored odometer these actual values.

Actual Values	×
Data	Value
Number of auxiliary battery recharge operations	257
Kilometer reading when the auxiliary battery was recharged last	65793 Km
Number of auxiliary battery activations due to emergency running mode	257
Kilometer reading during most recent emergency operation	65793 Km
Auxiliary battery voltage	3.8 [V]
Conversion	Log to File
1001	

Close the "Actual Values" screen and click the "Actuator Tests" button. Then, from the screen that appears you must select the different tests you wish and press the button "Start Test". To verify the result – you can open the "Actual Values" screen again.

Output Test	×
<b>•</b>	Start Test
Erase quiescent current cutout relay history	
Erase Battery history 2	
Erase on-board electrical system warnings history	
Erase SOCSB warnings history	
	Stop Test

### 4.2 Tire Pressure Monitor

From the Main Screen of the Mercedes Commander software, connect to the device "Tire Pressure Monitor", as shown in the next screenshot:

🕭 AB	RITES Commander for Mercedes/Maybach/Smart 5.4 www.abritus72.com			_ 🗆 🗵
#	Unit name	Prot	DTC	
01	Electronic Transmission Control	CAN		
02	Transfer Case	CAN		
03	Interwheel differential lock at rear axle	CAN		Previous
04	Intelligent Servo Module	CAN		
05	Motor Electronics	CAN		
06	Fuel Pump	CAN		
07	Distronic	CAN		
08	Outer right rear intelligent radar sensor system	UDS		
09	Outer left rear intelligent radar sensor system	UDS		
10	Selective Catalytic Reduction	UDS		Open
11	AIRmatic / Suspension (Active Body Control)	CAN		
12	Electronic Stability Program	CAN		
13	Tire Pressure Monitor	CAN		
14	Airbag	CAN		
15	Weight Sensing System	CAN		
16	Left Front Reversible Emergency Tensioning Retractor	CAN		
17	Right Front Reversible Emergency Tensioning Retractor	CAN		Next
18	Electronic Ignition Switch (EZS)	CAN		
19	Central Gateway	CAN		
20	Keyless Go	CAN		
21	Headlamp Range Adjustment	CAN		
22	Overhead Control Panel	CAN		
23	Upper Control Panel	CAN		
24	Rear Control Panel	CAN		
25	Signal Acquisition and Actuation Module	CAN		
26	Rear Signal Acquisition and Actuation Module 1	CAM		
*	Vehicle Selection Special Functions	Options		

Press the button "Actuator Tests" and you will see the following screen:

Output Test	×
	Shart Test
Delete Activation memory	<u><u>s</u>tait rest</u>
Delete Message memory	
Delete WU ID Buffer	
	X Stop Test

From the dropdown box, please select each of the 3 tests and press "Start Test". After the test is started – wait 5 seconds and then press "Stop Test". Verify the result by returning to the previous screen and pressing "Actual Values".

#### 4.3 Electric Seat Adjustment Driver and Electric Seat Adjustment Passenger

From the Main Screen of the Mercedes Commander software, connect to the device "Electric Seat Adjustment Driver", as shown in the next screenshot:

(Å) AB	RITES Commander for Mercedes/Maybach/Smart 5.4 www.abritus72.com			_ 🗆 🗵
#	Unit name	Prot	DTC	
34	Parktronic System	CAN		
35	Cockpit Management and Data system / AUDIO	CAN		
36	Audio Gateway / CAN MOST Gateway	CAN		Previous
37	Audio, Video, Navigation and Telematics	CAN		
38	SOUND (Bose Sound System)	CAN		
39	Digital Radio	CAN		
40	TV Tuner	CAN		
41	Rear Audio video unit / Rear Audio Video Controller	CAN		
42	Cellular telephone 1 (fixed installation or portable) (D2B)	CAN		
43	CD Changer	CAN		Open
44	Voice Control System (Linguatronic)	CAN		
45	UCI - Media Interface	CAN		
46	Door Control Module Front Left	CAN		
47	Door Control Module Front Right	CAN		
48	Rear-end Door Closing Module	CAN		
49	Electric Seat Adjustment Driver	CAN		
50	Electric Seat Adjustment Front Passenger	CAN		Next
51	Left Front Dynamic Seat	CAN		
52	Right Front Dynamic Seat	CAN		
53	Pneumatic Pump for Dynamic Seat	CAN		
54	Electric fold-down backrest system (3rd seat row)	CAN		
55	Seat Heater	CAN		
56	Automatic Air Conditioning	CAN		
57	Stationary Heater (STH/ZUH)	CAN		
58	Heated Steering Wheel	CAN		
۲	Vehicle Selection Special Functions	Options		

Press the button "Actuator Test" and select and start all of the tests:

Output Test	×
Erase Causes for abort when moving toward entry/exit Erase Causes for abort when moving toward drive positi	on
	Stop Test

For Electric Seat Adjustment Passenger the procedure is absolutely the same.

### 4.4 Rear Signal Acquisition and Actuation Module 1

From the Main Screen of the Mercedes Commander software, connect to the device "Rear Signal Acquisition and Actuation Module 1". Press the button "Actuator Test" and select and select the test

"Erase Odometer in Shadow Memory":

Output Test	×
Erase Odometer in Shadow Memory	Shart Text
Erase Odometer in Shadow Memory	<u>s</u> tait rest
Rear Door Unlock	
Rear Right Door Unlock	
Rear Right Door Lock	
Left and Right Rear Foglamps activation	
Left and Right Stop Lights activation	
Tailights activation	$\times$
	Stop Test

Press the button "Start Test" and after that return to the main menu.

#### 4.5 Common Rail Diesel Injection (CDI)

In order to modify the stored odometer in the CDI Engine Control Unit you need to read the EEPROM and modify it by using the Dump Tool special function.

#### 4.6 Electronic Stability Program (ESP)

From the Main Screen of the Mercedes Commander software, connect to the device "Electronic Stability Program". If you press the button "Actual Values" you will see some kilometer readings.

	RITES Commander for Mercedes/Maybach/Smart 5.4 www.abritus72.com			_ 🗆 🗵
#	Unit name	Prot	DTC 🔺	I
01	Electronic Transmission Control	CAN		
02	Transfer Case	CAN		
03	Interwheel differential lock at rear axle	CAN		Previous
04	Intelligent Servo Module	CAN		
05	Motor Electronics	CAN		
06	Fuel Pump	CAN		
07	Distronic	CAN		
08	Outer right rear intelligent radar sensor system	UDS		
09	Outer left rear intelligent radar sensor system	UDS		
10	Selective Catalytic Reduction	UDS		Open
11	AIRmatic / Suspension (Active Body Control)	CAN		
12	Electronic Stability Program	CAN		
13	Tire Pressure Monitor	CAN		
14	Airbag	CAN		
15	Weight Sensing System	CAN		
16	Left Front Reversible Emergency Tensioning Retractor	CAN		
17	Right Front Reversible Emergency Tensioning Retractor	CAN		Next
18	Electronic Ignition Switch (EZS)	CAN		
19	Central Gateway	CAN		
20	Keyless Go	CAN		
21	Headlamp Range Adjustment	CAN		
22	Overhead Control Panel	CAN		
23	Upper Control Panel	CAN		
24	Rear Control Panel	CAN		
25	Signal Acquisition and Actuation Module	CAN		
26	Rear Signal Acquisition and Actuation Module 1	CAM	•	]
*	Vehicle Selection Special Functions	Options		

Actual Values	×
Data	Value
Status "Tire Pressure loss warner"	Signal Not Available
Kilometer reading at warning number 1	33278 [Km]
Kilometer reading at warning number 2	32774 [Km]
Kilometer reading at warning number 3	74812 [Km]
Kilometer reading at reactivation number 1	1026 [Km]
Kilometer reading at reactivation number 2	2054 [Km]
Kilometer reading at reactivation number 3	3082 [Km]
Kilometer reading at deactivation	514 (Km)
Learning status: Tire pressure loss warner	WARNING CAPABILITY
l	
Conversi Tool	Log to File

Close the session with the ESP contorl unit and from the "Special Functions" tab select "EEPROM Read/Write". Select the correct type of the ESP and press the button "Read EEPROM":

Custom Memory Download / Upload	
Туре:	▼ Bead
Dashboard VDO 1998-2002 (E W210, M W163, C W202 (1995-1998)	), CLK W208 (1995-1998), G,
Dashboard VDO 1998-2000 (C W202, CLK W208)	
Dashboard VDO 1998-1999 (W210 E-Class)	
Dashboard E-Class (W210) - After 04-1999	Write EEPRO
Dashboard C-Class (W203)	
Dashboard C-Class (W203) - FLASH Memory by OBDII	
Dashboard C-Class (W203) - FLASH Memory by Dash Connection	
Dashboard G-Class (W463)	Save to file
Dashboard A-Class (W168)	
Dashboard E-Class (W211), CLS (W219), CLK (W209)	
Dashboard GL (X164), ML (W164)	
Dashboard R-Class (W251)	Load from fil
Dashboard SL (W230)	Connection
Dashboard SLK (R171)	
Dashboard SMART 454 (2007 - 2010)	St. Address
Dashboard SMART 451 (2007 - 2010)	Len of Beg
Dashboard VITO 638 Magnetti Marelli	
Dashboard S-Class (W220) Bosch	Total Size 10
Dashboard C-Class (W204), CLK (W207), E (W212), GLK, SLS (W	W197), CLS (W218) VDO (2)
ESM (Electronic Selector Module) A-Class (W169), B-Class (W	W245) Step
FTC (Front Automatic Transmission); 1998 - 2003	
ESP (Electronic Stability Program); E-Class W211	Encryption
ESP (Electronic Stability Program); SMART; 2004 - 2008	
ESP (Electronic Stability Program); GL X164, ML W164, R-Cla	ass W251 O Download / Upload
SBC (Sensotronic Brake Control); E-Class W211; SL W230	Bead / Write Memo
ETC (Electronic Transmission Control)	
Electronic Parking Brake (W221 S-Class)	Diag Session
Intelligent Servo Module (W221, W216, W164, X164, W251)	Session 8
OCP - Overhead Control Panel; GL X164, ML W164, R W251	
Left Front Reversible Emergency Tensioning Retractor; GL X	164, R W251, ML W164
Right Front Reversible Emergency Tensioning Retractor; GL >	X164, R W251, ML W164 🛛 🗙
EZS (Not Full)	
	Exit

After the EEPROM has been successfully read, save it to a file on your hard drive. Close the special function "Eeprom Read/Write" and open the special function "Dump Tool". Choose the appropriate ESP version and load the saved dump file.

Dump Tool	×
Туре:	
	-
Odometer - Instrument Cluster Vito 2000 - Magneti Marelli (HC908AZ60)	-
Odometer - Instrument Cluster MOTOMETER C180 benzin 1995 (93C56)	
Odometer - Instrument Cluster C200 Elegance (93C56)	
Odometer - Instrument Cluster E-Class W210 Facelift	
Odometer - Instrument Cluster VDO ML W164, GL X164, R W251 (24C16)	
Odometer - Instrument Cluster ATEGO	
Odometer - Instrument Cluster VDO SMART Roadster (452) (93C86)	
Odometer - Instrument Cluster VDO SMART 450 (93C86)	
Odometer - Instrument Cluster Borg SMART 451 (95640 and 95160)	
Odometer - Instrument Cluster Borg SMART ForFour (93C66)	
Odometer - BSI VD0 SMART 0,8 CDI 2000 (93C66)	
Odometer - EDC16 (95160) - Version 1	
Odometer - EDC16 (95160) - Version 2	
Odometer - EDC16 (95320) - Version 1	
Odometer - EDC16 (95320) - Version 2	
Odometer - EZS Motorola (912)	
Odometer - EZS Motorola (9S12)	
Odometer - EZS Motorola (908) - VITO 2005 W639	
Odometer - EZS Motorola HC908RZ32 - S-Class W220	
Odometer - EZS Motorola 68HC908	
Odometer - EZS Motorola MC9S12DJ128 - ML W164, GL X164	
Odometer Reset - BSI Siemens SMART ForFour (MC9S12DG128)	
Odometer Reset - SAM SMART Siemens MC9S12DG256 (vers.02)	
Odometer Reset - EZS Motorola MC9S12DJ128 - W203 (TEMIC)	
Odometer Reset - EZS Motorola MC9S12DG128 and MC9S12DT128 - W203, W211, W209, W230 (TEMIC)	
Odometer Reset - EZS Motorola MC9S12 - CLK 2002+, E 2002+ (TEMIC)	
Odometer Reset - EZS Motorola 9S12DG128 - A-Class W169, B-Class W245	[
Odometer - ESP control unit - ML W164, GL X164, R-Class W251	
Renew - Engine Control Unit ME 9.7 (273)	
Renew - Engine Control Unit ME 9.7 (272)	
Renew - Engine Control Unit Delphi (W204)	
Renew - Engine Control Unit EDC-16 (W211)	-

#### Parameters

Parameter	Value
Kilometer Reading at warning number 1	41576
Kilometer Reading at warning number 2	35884
Kilometer Reading at warning number 3	17072
Kilometer Reading at Reactivation number 1	41594
Kilometer Reading at Reactivation number 2	35894
Kilometer Reading at Reactivation number 3	17928
Kilometer Reading at Deactivation	0
ОК	Cancel

×

Modify the displayed values as you wish and then save the modified dump file. Open once again the

special function "Eeprom Read/Write" and select the modified dump and write it in the EEPROM of the ESP control unit. After that connect to the ESP control unit and check once again the displayed actual values.

After that press the button "Actuator Tests" and select and start the item "Erase Shadow Memory". After about 5 seconds you can press the button "Stop".

#### 4.7 Airbag

From the Main Screen of the Mercedes Commander software, connect to the device "Airbag". If you press the button "Actual Values" you will see the operating hours of the Airbag device. If you press the button "Adaptations" you will see a screen from where you can unlock, erase the operating hours and lock again the Airbag. It is up to you to decide whether to erase the hours or not.

# 5. Clearing all Fault Codes

At the end – when all the above steps have been followed – you must erase all DTCs (diagnostic trouble codes) that may have been stored by the electronic control units in the car.

🕭 AB	RITES Commander for Mercedes/Maybach/Smart 4.0 www.abritus72.com			_ 🗆 🗵
#	Unit name	Prot	DTC	
01	Electronic Transmission Control	CAN KWP		
02	Motor Electronics	CAN KWP		
03	Electronic Gear Selector Module	CAN KWP		Previous
04	Distronic	CAN KWP		
05	Sensotronic Brake Control Left	CAN KWP		
06	Electronic Stability Program	CAN KWP		
07	Tire Pressure Monitor	CAN KWP		
08	Central Gateway	CAN KWP		L BAN
09	Electronic Ignition Control	CAN KWP		
	Checking unit: Airbag			Next
Chas Mode	sis: E-Class / CLS ▼ et: W211 (As of 06/2006) ▼		Scan	for Units
Engir	ne: Diesel 💌		Clear	all DTCs
	-			

# 6. Support

In case there is a problem and you need further assistance, please send to <u>support@abritus72.com</u> the corresponding log file (or files).