Odometer Correction for W221 S-Class and W216 CL vehicles

The new S-Class (W221) and CL (W216) are the limousines, which are equipped with the biggest number of electronic devices among all Mercedes vehicles. 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 Electronic Parking Brake, for example. Please, follow the guideline below.

1. Backing up necessary files.

First of all you need to read the EEPROM and the Flash memories of the Central Gateway control unit by using the Special Function "CGW (ZGW) Explorer). You need to store the EEPROM and Flash dumps as files on your hard drive.

Please, note that the Abrites Commander for Mercedes will also automatically make a backup of the EEPROM and Flash memories when it reads them. These backup files can be found in the same folder where the software is installed (which is normally "*C:\Program Files\ABRITES software for ID XXXXXX\Mercedes*").
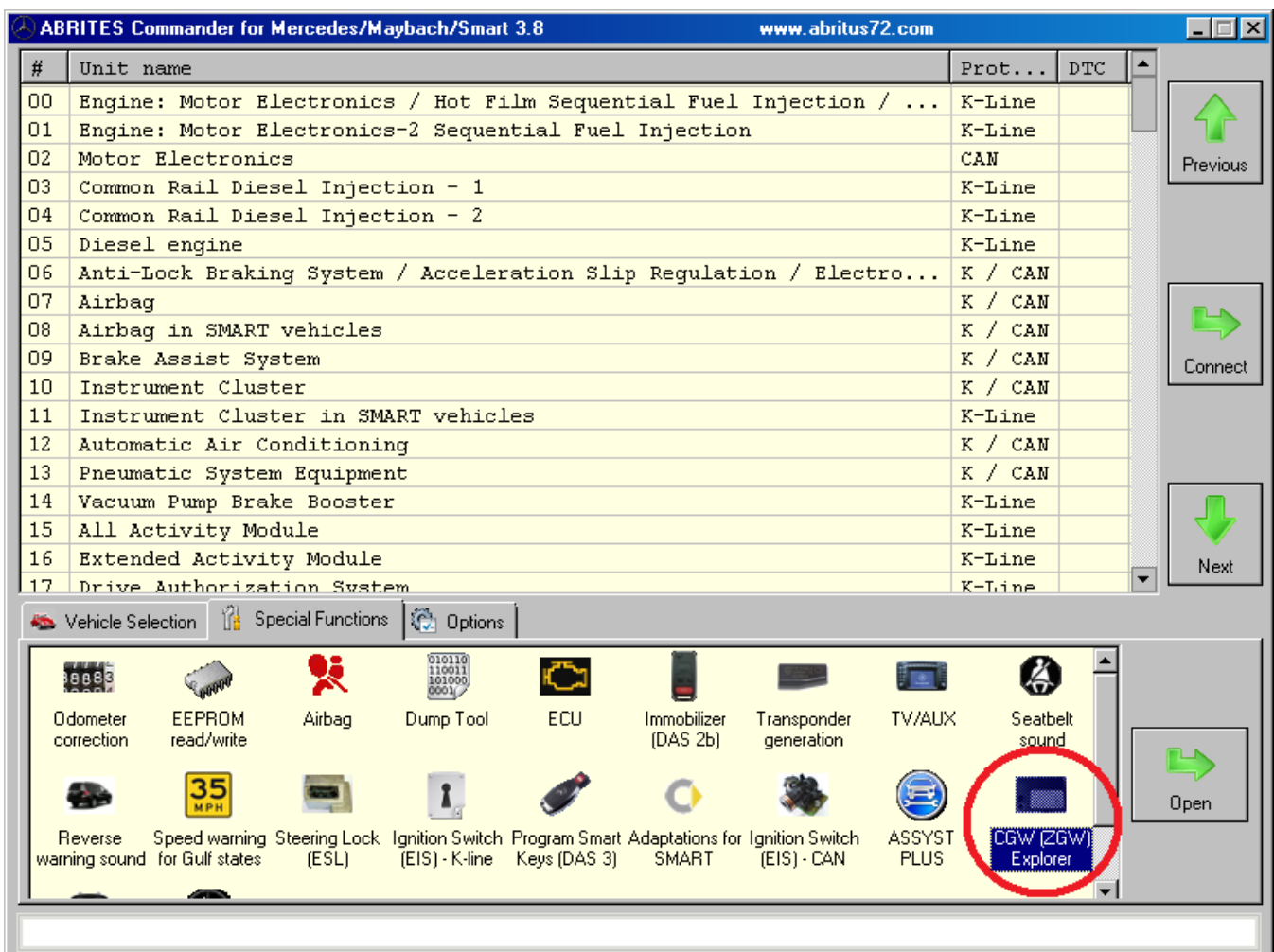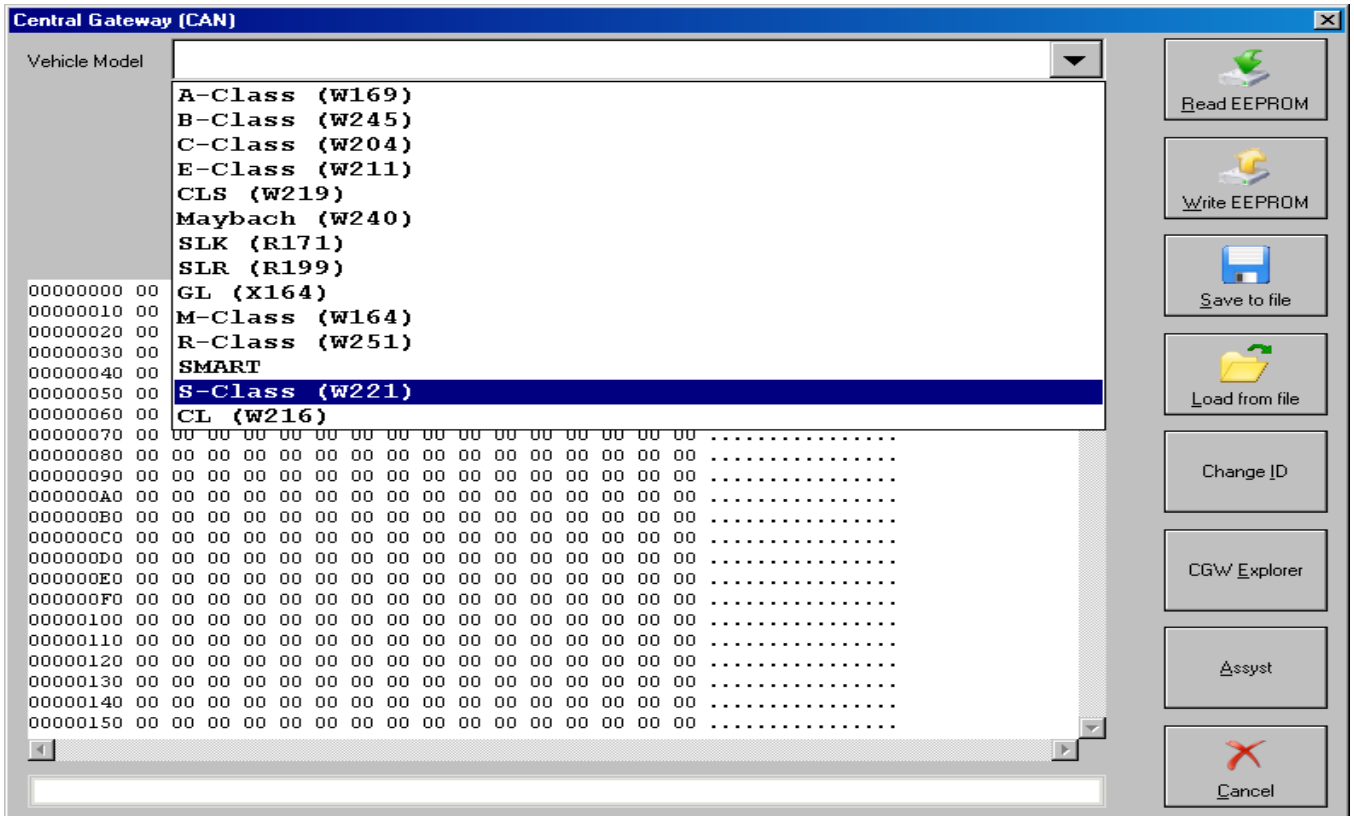

Fig 1: Open special function "CGW (ZGW) Explorer"

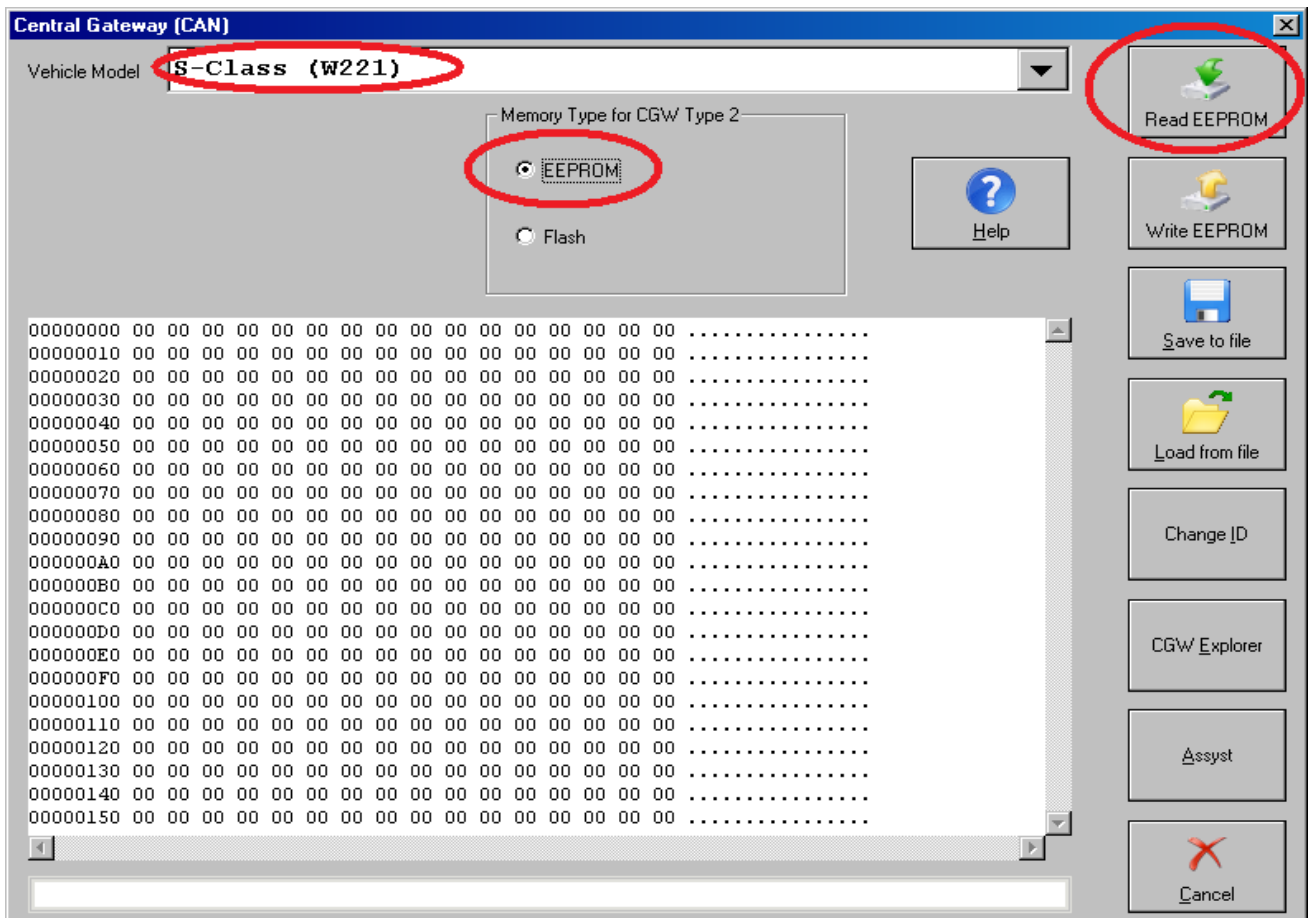*Fig 2: Select "S-Class (W221)", or "CL (W216)"*

Fig 3: Select "EEPROM" and press the "Read EEPROM" button and after the EEPROM has been read – save it to a file
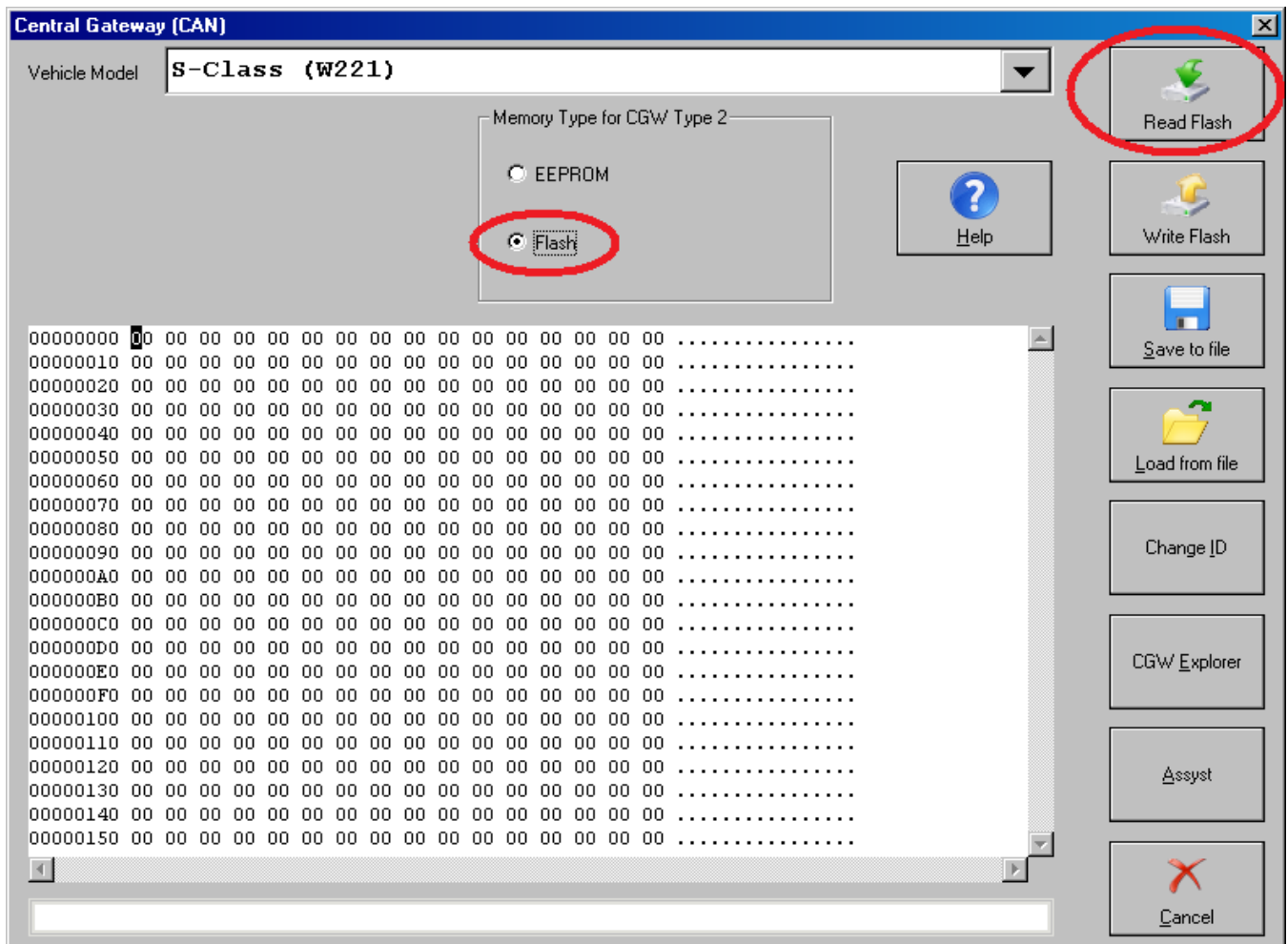
Fig 4: Select "Flash" and press the "Read Flash" button and after the FLASH memory has been read – save it to a file

2. Modifying ASSYST and ASSYST PLUS service history records.

After you have backed up the EEPROM and Flashof the CGW control unit, you may proceed with changing the ASSYST and ASSYST PLUS service history records. This can be done by opening the "ASSYST PLUS" special function. Make sure you have selected ZGW Type "W221". Press the "Get Current" button to see the internal data that is stored inside the ASSYST PLUS unit as shown in the next screenshot.

Fig 5: Set the ASSYST and ASSYST Plus service records information

You can view the different service history records by clicking the "ASSYST PLUS Service Memory" button.
If you wish to alter all this information you must enter the "Main Odometer", "Operating Time (Days)" and the "Number of Oil Changes". The Mercedes Commander will ask you if you would like to set the information for the different service history records as well. If you answer "Yes" - a new screen will appear and you will be able to enter the details for each record. For example – if you specify that the car has 3 service records – you will have to enter the details for 3 service intervals.

Important: the values for the day cycle counter should be entered in an increasing way. This means that the value of the day cycle counter is the total nuber of days the ASSYST PLUS has been operating. For

example if you want to enter 3 service history records at 15000 Km, 30000 Km and 45000 Km you should follow the following values:

	Odometer	Day Cycle Counter (Total Days – should always be increasing!)
Record 1	15000	150
Record 2	30000	350
Record 3	45000	520

You can always verify the result of this operation by checking the internal assyst data as many times as you wish.

3. Changing the Main Odometer in Dashboard, EZS and CGW

In this third step you must change the odometer that is shown in the Instrument Cluster. In this step the odometer that is stored inside the EZS and ZGW will also be changed. All you need to do is – open the "Odometer Correction" special function and select W221 S-Class option. To verify the result – you can always click the "Get Odometer" button.

ATTENTION: Before clicking the "Set Odometer" button, please make sure that the Ignition is ON. The odometer correction process takes about 40 minutes. That is why it is recommended to use an external power supply, so as not to drain your accumulator while the odometer is being changed.

ATTENTION: You can speed-up the odometer correction process if you load the FLASH and EEPROM dumps, if you have already read them with the "CGW Explorer" special function. In fact it is recommended to always use the loaded the dumps that you have already saved.

ATTENTION: In some rare cases it is possible that the CAN communication gets interrupted. If this happens – you must load the Flash and EEPROM of the Central Gateway and restart the procedure. You can load the Flash and EEPROM by clicking the checkboxes "Use loaded FLASH file" and "Use loaded EEPROM file".
If the Central gateway still does not respond to diagnostics - either disconnect both batteries of the vehicle for about 20 seconds, or disconnect the Central Gateway control unit. The Central Gateway control unit is located under the steering wheel – in front of the driver's left knee.
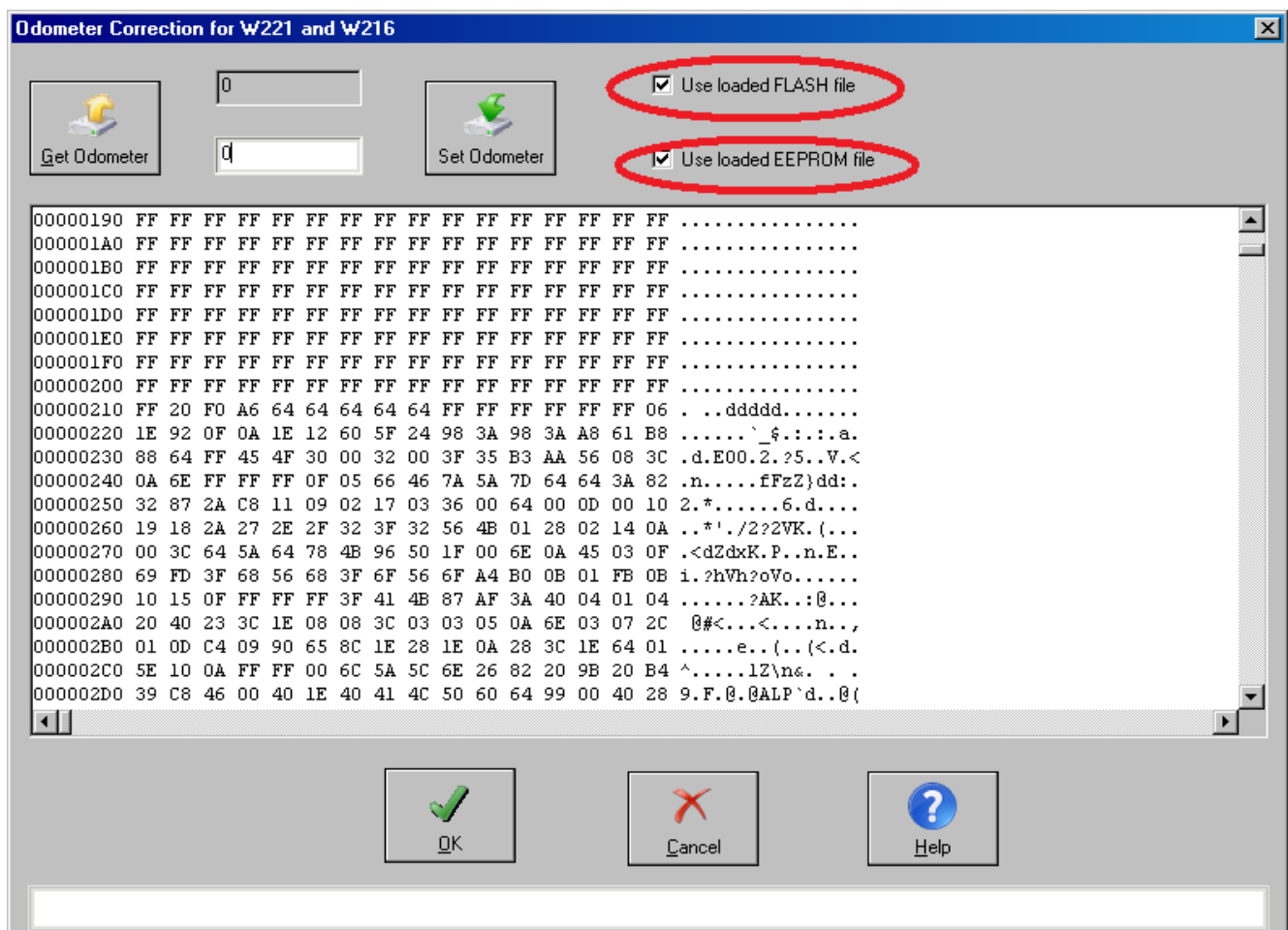

Fig 6: Before pressing "Set Odometer" - load the EEPROM and Flash dumps

4. Changing the stored odometer in all other devices

4.1 Electronic Parking Brake

From the Main Screen of the Mercedes Commander software, connect to the device "Electronic Parking Brake", as shown in the next screenshot:
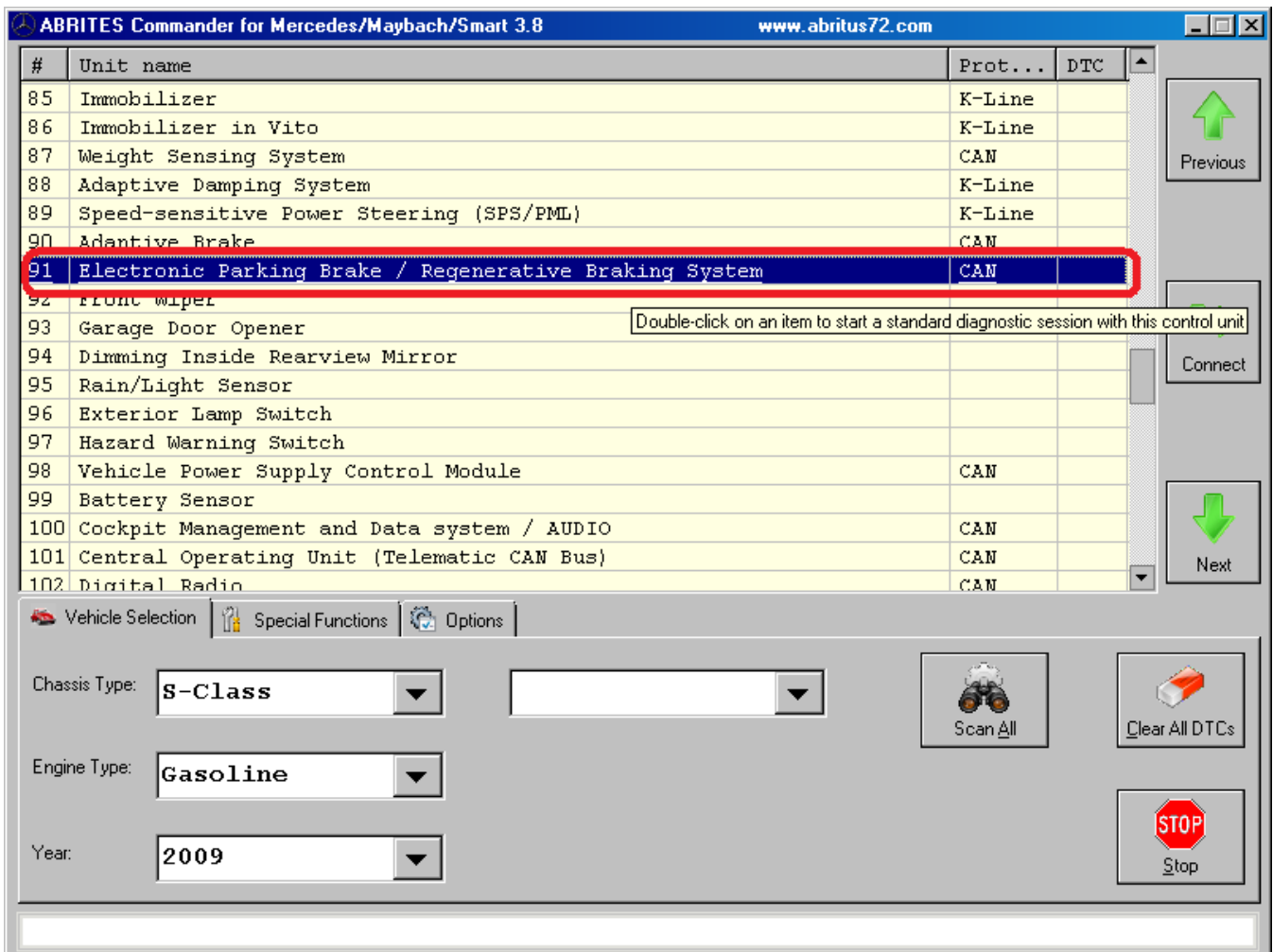

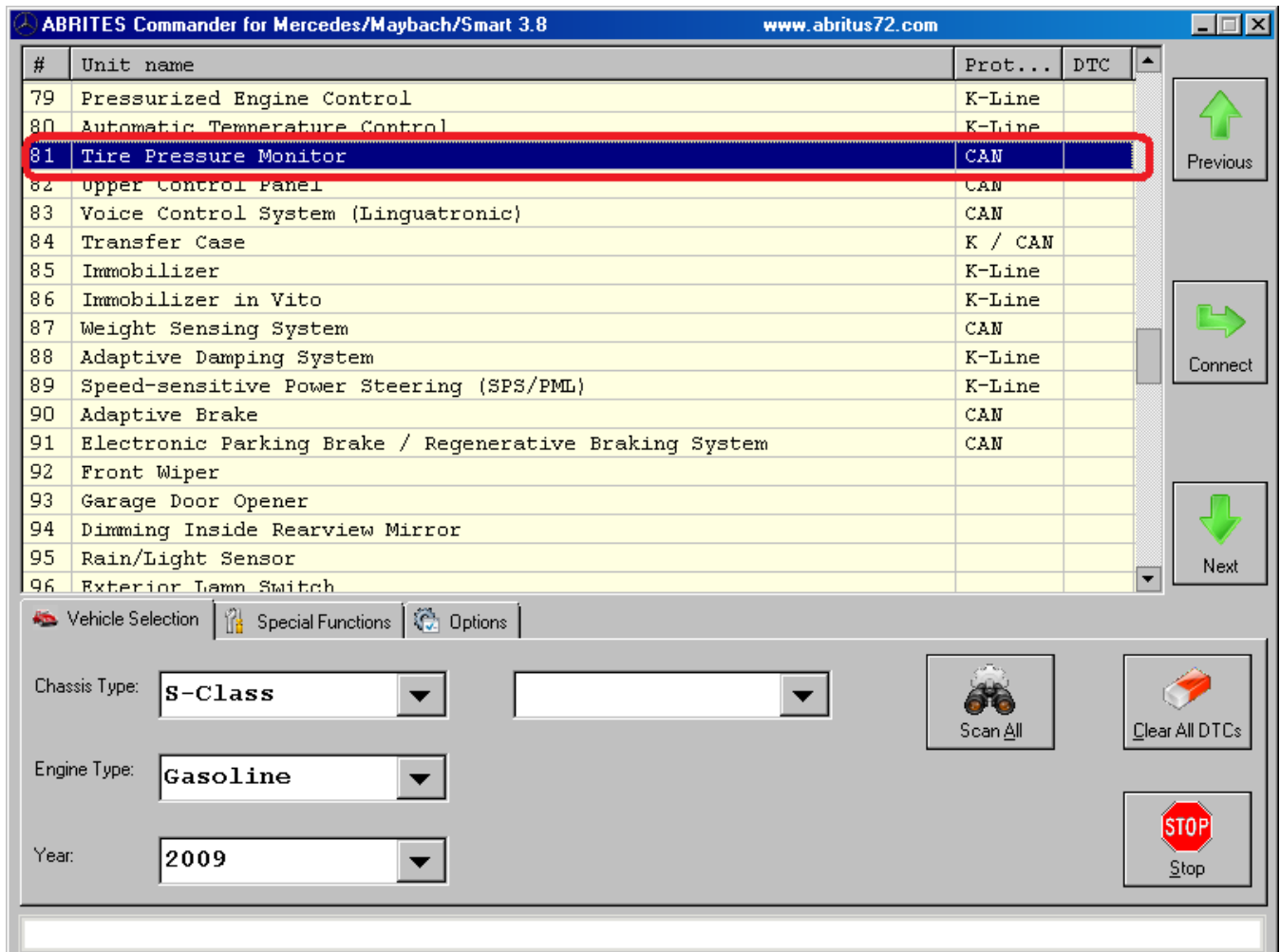
Fig 7: Changing odometer in Electronic Parking Brake

Please, note that not all W221 and W216 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. One of these actual values is "Kilometer reading at last start off with parking brake applied". If you wish you can change the stored odometer for this actual value. You can do that by applying the electronic parking brake and then starting to drive the car (1-2 meters should be enough). If all is OK you should see the stored Odometer value in the Parking Brake electronic device change to the currently displayed in the Instrument Cluster odometer.
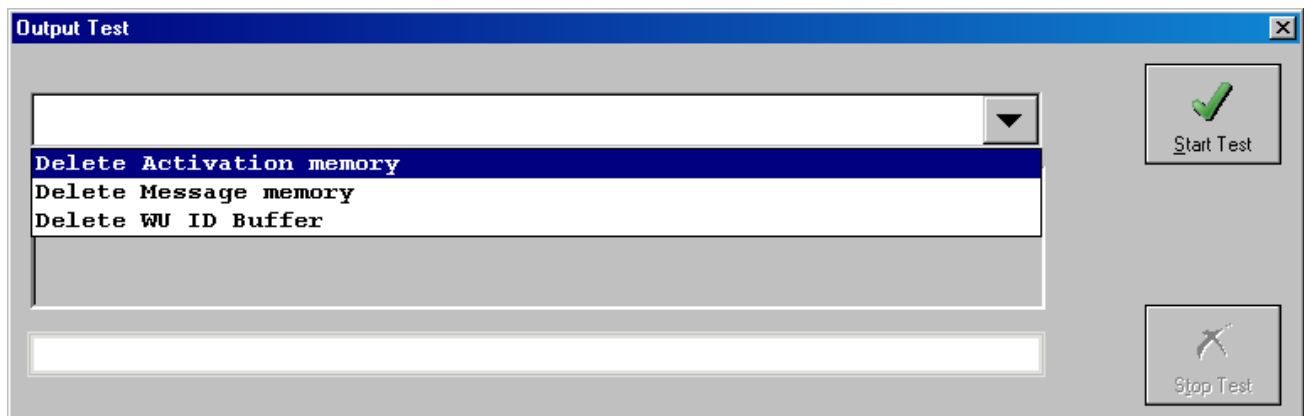
You can also read the EEPROM of the Electronic Parking Brake control unit from the "EEPROM read/write" special function.

4.2 Tire Pressure Monitor

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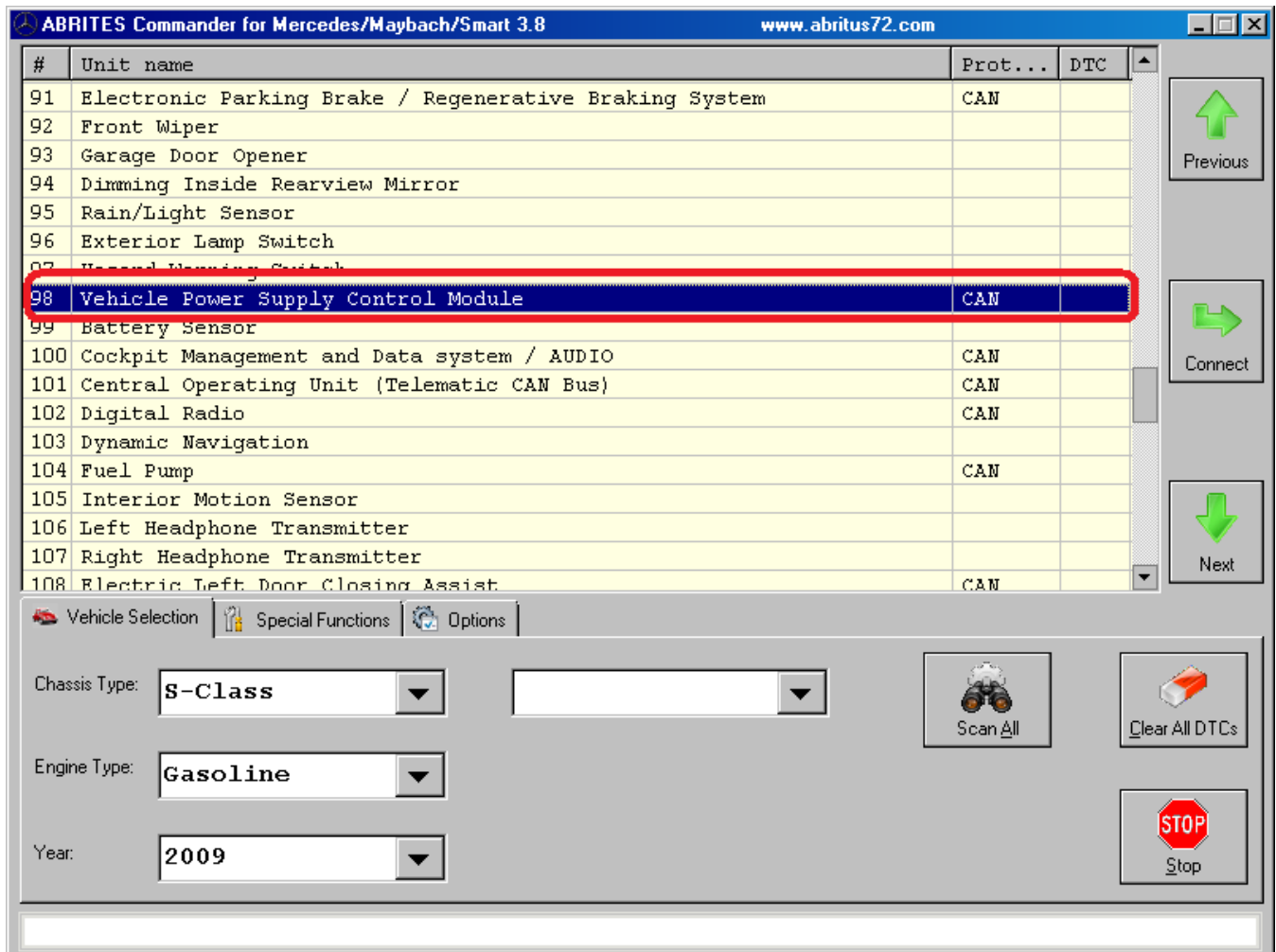

After that you can open the "Actual Values" screen and check the stored Messages and Activation values. Again – pay attention to the values, which show "Kilometer reading". If you want to correct these values, you can do so by clicking the "Actuator Tests" button. You should see the following screen:

From the drop-down box, you must select each one of the options and press the "Start Test" button. After you have completed successfully all 3 tests, you can verify the result by opening the "Actual Values" screen again.

4.3 Vehicle Power Supply Control Module

Next - from the Main Screen of the Mercedes Commander software, connect to the device "Vehicle Power Supply Control Module", as shown in the next screenshot:
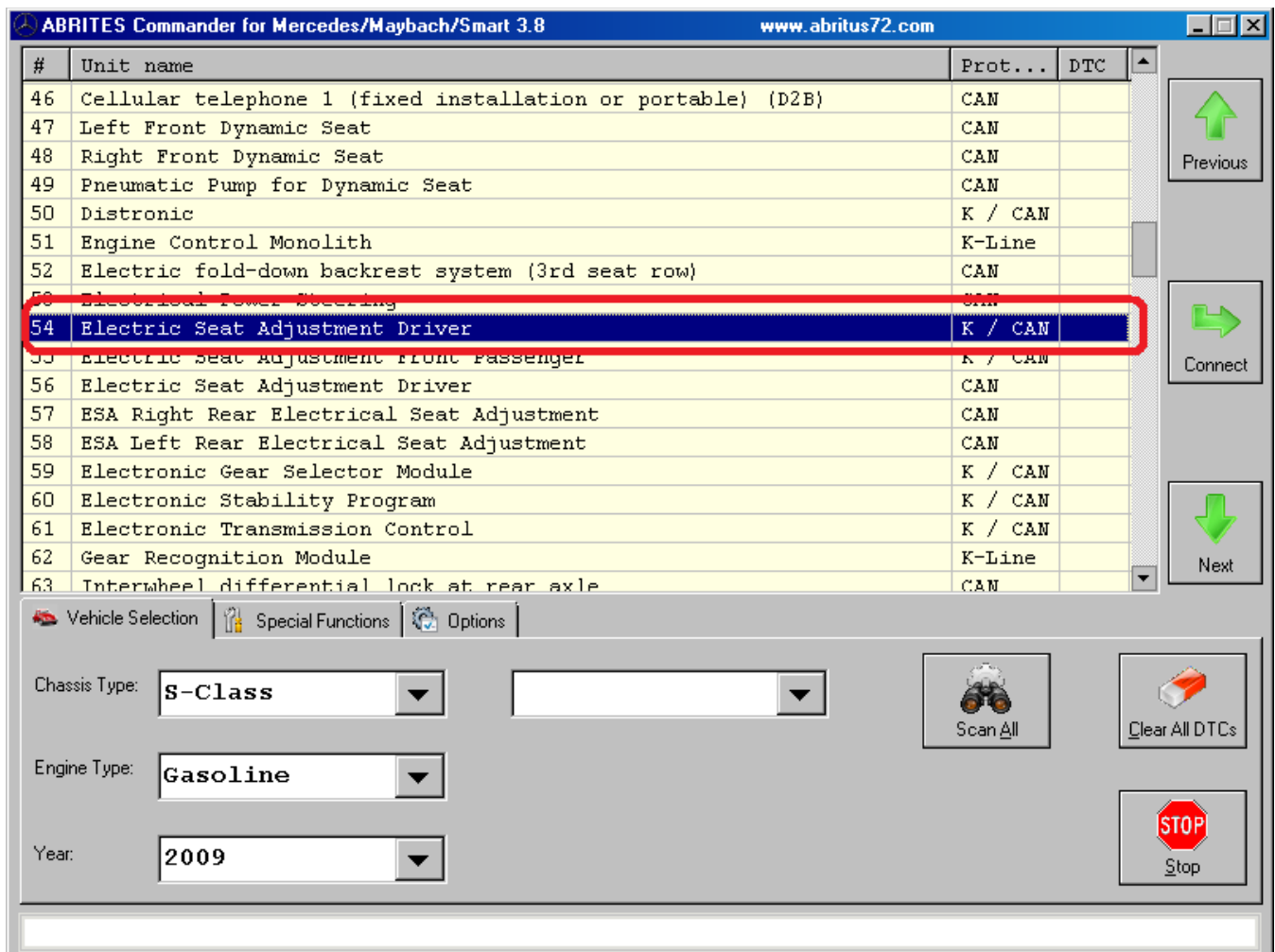

Press the "Actuator tests" button and from the dropdown box – start each one of the tests. Then – open the Actual Values screen and check the displayed odometer values.

4.4 Electric Seat Adjustment Driver

Connect to the "Electric Seat Adjustment Driver" control module and press the "Actual Values" button. If you see a value of **1677721** Km – this means that the value is not available – you can ignore this value.

If you want you can clear all the information, which is displayed in the Actual Values. Just press the button "Output Tests" and from the dropdown box – start each one of the tests. Then – open the Actual Values screen and check the displayed odometer values.

4.5 Electric Seat Adjustment Front Passenger

The instructions for this control unit are absolutely the same as for "Electric Seat Adjustment Driver".

Connect to the "Electric Seat Adjustment Electric Seat Adjustment Front Passenger" control module and press the "Actual Values" button. If you see a value of 1677721 Km – this means that the value is not available – you can ignore this value.
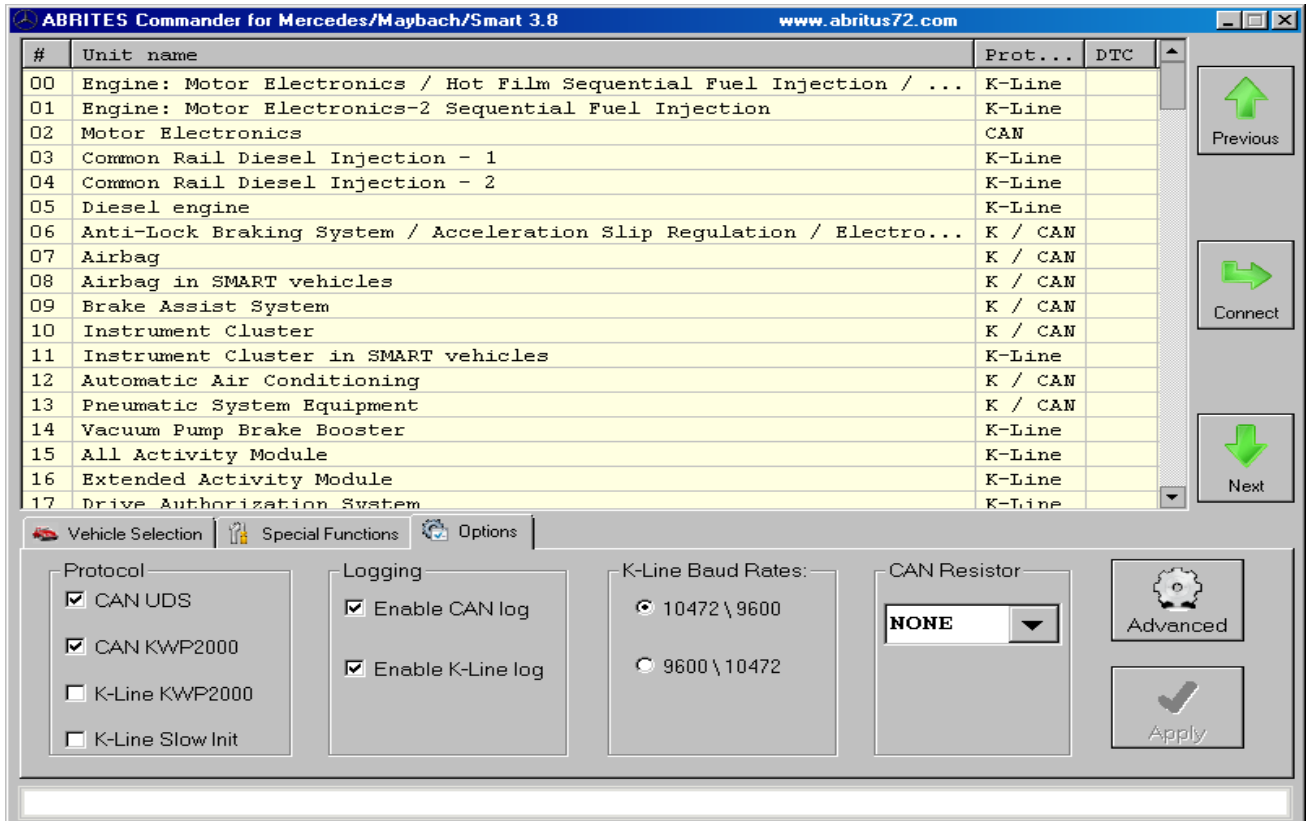
If you want you can clear all the information, which is displayed in the Actual Values. Just press the button "Output Tests" and from the dropdown box – start each one of the tests. Then – open the Actual Values screen and check the displayed odometer values.

4.6 Diesel Engine Control Unit

If the vehicle has a Diesel Engine – connect to the "Motor Electronics" control unit and press the button "Adaptations". Then select "YES" for the item "Replace component Diesel particulate filter" and perform this adaptation. Then, you can open the Actual Values screen to verify the odometer reading.

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. Please, leave only the settings "CAN UDS" and "CAN KWP2000" communication protocol settings when clearing the DTCs, so that the process is faster:

6. Support

In case there is a problem and you need further assistance, please send to support@abritus72.com the EEPROM and FLASH dumps from the Central Gateway unit, as well as the corresponding log file (or files).