StarCOM User manual

www.obdtester.com/starcom



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Also please read license agreement before using the software

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www.obdtester.com/StarCOM

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1 Introduction

Thank you for purchasing the StarCOM diagnostic interface and software. StarCOM is professional tool for diagnostics of Mercedes-Benz vehicles. Please read carefully this user manual before using the product.

We hope you'll find our products useful. In case you have any questions, problems or feedback please contact as at <u>support@secons.com</u>. We're here to help!

1.1 StarCOM key features

- Fully multiplexed all-in-one smart USB2.0 interface
- Automatic ECU recognition
- Automatic vehicle scan
- ECU Identification
- Fault code (DTC) reading
- Fault code clearing
- Freeze frame display
- Measured values / live data
- Live data recording
- Diagnostic protocol printing
- Actuator tests
- Commands / Coding (adaptation reset, component adjustment, ...)
- Configuration ("ECU Coding")

List of supported cars and control units including diagnosis capability is available at http://www.obdtester.com/StarCOM-eculist

1.2 Early release

StarCOM is currently available as an "early release". The product is capable of performing advanced diagnosis of many control units and remains still intuitive and easy to use.

Despite the fact of a long-term development, the software still contains some bugs or missing functions. We started to offer the StarCOM as early release due to high demand from customers. However, our work on the product continues.

Under Development

Based on feedback from our testers and customers around the world, we continue to improve the software, expand its features, vehicle coverage and fix all software bugs. We fulfill tasks from our development list in the shortest possible period.

Text related to known problems is marked with "Under development" sticker as shown here.

Your feedback is very important to us. We want to hear your requests for improvement or bug fixes. Based on your feedback, we expect to release software updates frequently. For the most effective communication with our technical support, please see the following chapter:

#9.Reporting bugs and improvement requests.

1.3 Software download and updates

Software updates in diagnostic version are available for free. You can download them from <u>http://www.obdtester.com/downloads</u>. When downloading, type a serial number of your interface as user name. Password leave blank. The serial number can be found in *settings* of StarCOM after performing *test interface*, or on silver label of the interface. We recommend you to maintain software up-to-data, because updates provides support for new ECUs and fix various StarCOM issues. We also recommend you to update firmware in diagnostic interface every time you update the software. Firmware upgrade process is as follows:

- 1. Connect your interface via USB to your computer.
- 2. Go to settings of StarCOM and perform test interface.
- 3. Click on "*Apply Changes*" button.
- 4. Click on "*Upgrade firmware*" button.

Do not disconnect the interface during upgrading the firmware.

2 StarCOM software and driver installation

2.1 Microsoft Windows operating systems

- 1. Insert StarCOM installation CD to your CD-ROM drive
- 2. Run installation file StarCOMSetup.exe
- 3. Choose language for the installer

Installer	Installer Language 🛛 🛛 🔀					
1 ²⁰	Please select the language of the ins	taller				
	English	~				
	OK Can	cel				

4. Choose your destination folder for the StarCOM and click *Install* button and after successful installation click *Close* button.



StarCOM drivers are automatically updated during the StarCOM installation. When prompted to install ,,unsigned" drivers, click on *Install this driver software anyway* (Microsoft® Windows® 7) or *Continue Anyway* (Microsoft® Windows® XP).



Microsoft® Windows® will automatically install drivers when you plug-in the StarCOM to USB port. Driver installation isn't required for operation on GNU/Linux system.

2.2 Microsoft Windows 8 driver installation

In case of problem with installing drivers on Windows 8 64-bit, please follow these steps:

- **1.** Press Windows Key + R
- 2. In the window that appears, type: "shutdown.exe /r / o / f / t 00"
- 3. Press "OK" button
- 4. The System will restart to a "Choose an option" screen
- 5. Select "Troubleshoot" from "Choose an option" screen
- 6. Select "Advanced options" from "Troubleshoot" screen
- 7. Select "Windows Startup Settings" from "Advanced options" screen
- 8. Click "Restart" button
- 9. System will restart to "Advanced Boot Options" screen
- **10.** Select "Disable Driver Signature Enforcement" (press number on keyboard for option shown on screen)
- 11. Once the system starts, install the diagnostic interface drivers as you would on Windows 7

Windows Vista & 7 required signed all .sys files (we use usbser.sys shipped by Microsoft with valid digital signature). Final version of Windows 8 requires also signed .inf file (which is not in our case). The above procedure helps to override unsigned .inf file. Once driver is installed, the program will work properly.

Press a Use nun 1) Enal 2) Ena 3) Ena 4) Ena 5) Ena 6) Ena 7) Disa 8) Disa 9) Disa	a number to choose from the options below: mber keys or functions keys F1-F9.	
Use nun 1) Enal 2) Ena 3) Ena 4) Ena 5) Ena 6) Ena 7) Disa 8) Disa 9) Disa	mber keys or functions keys F1-F9.	
1) Enal 2) Ena 3) Ena 4) Ena 5) Ena 6) Ena 7) Disa 8) Disa 9) Disa		
2) Ena 3) Ena 4) Ena 5) Ena 6) Ena 7) Disa 8) Disa 9) Disa	able debugging	
3) Ena 4) Ena 5) Ena 6) Ena 7) Disa 8) Disa 9) Disa	able boot logging	
4) Ena 5) Ena 6) Ena 7) Disa 8) Disa 9) Disa	able low-resolution video	
5) Ena 6) Ena 7) Disa 8) Disa 9) Disa	able Safe Mode	
6) Ena 7) Disa 8) Disa 9) Disa	able Safe Mode with Networking	
7) Disa 8) Disa 9) Disa	able Safe Mode with Command Prompt	
8) Disa 9) Disa	sable driver signature enforcement	
9) Disa	sable early launch anti-malware protection	
	sable automatic restart after failure	
Press I		
Press	F10 for more options	

2.3 Interface busy issue [Microsoft Windows]

In case you receive error "Interface busy" while testing your interface, please make sure:

- 1. You're not running any modem, mobile phone, or printer monitoring application that blocks "COM ports" from being used by other applications.
- 2. You're not running Hella Gutmann software on the same PC. Process called "GMPortal.exe" prevents SECONS diagnostic applications from properly accessing the diagnostic interface. You may temporarily resolve this problem by running "Windows Task Manager", right-clicking on GMPortal.exe process in "Processes" tab and selecting "End process".
- 3. Software modem drivers do not block COM ports.
- **4.** You have selected correct COM port (use "Device manager" button to find port number under "Ports (COM & LPT)" group.

2.4 GNU/Linux System

Our diagnostic applications are tested to work under Linux. No native Linux binary is available, however we have created our programs to work under Linux and other systems using Wine. For more information about Wine please see <u>www.winehq.org</u>

2.4.1 Requirements

- Linux 2.6+ with USB support (or FreeBSD)
- USB CDC Driver
- Wine 1.0.1 or newer

Recent Debian Linux or Ubuntu meet the above requirements.

2.4.2 Setting up devices

Driver installation isn't required for operation on GNU/Linux system. Diagnostic applications require access to /dev/ttyACMx devices from Wine environment. This can be set-up very easily using these commands:

```
ln -s /dev/ttyACM0 ~/.wine/dosdevices/com5
ln -s /dev/ttyACM1 ~/.wine/dosdevices/com6
ln -s /dev/ttyACM2 ~/.wine/dosdevices/com7
ln -s /dev/ttyACM3 ~/.wine/dosdevices/com8
```

Diagnostic interface should be then visible from the StarCOM diagnostic application.

2.4.3 Installation

Programs can be installed by launching setup .exe file using wine, e.g. wine StarCOMSetup.exe.



You can download the latest version of StarCOM from www.obdtester.com/downloads

3 First steps

- 1. Connect the StarCOM interface to your computer.
- 2. Connect the StarCOM interface to OBD-II connector in the vehicle. You can use picture gallery for find it, available from main menu *OBD-II Connector Location* button





3. Set-up StarCOM application

Select *Settings* from StarCOM main menu and configure interface port. After clicking on *Refresh* button, software should find port to which StarCOM interface is connected. Choose this port. Then click on *Test Interface* to make sure everything is OK. The software should display *Serial number* and licenses (partially hidden on screenshot on the right side).



- 4. Save settings and return to main menu.
- 5. Turn ON the ignition, but don't start the engine.
- 6. Select control unit by clicking on Select Control Unit button.
- 7. Select exact vehicle model.
- 8. In a new window, choose desired control unit.

Star COM	Model selection		Ver. 0.1.5296	Star COM	Control unit selection	Ver. 0.1.5
Model selection Main menu	Citroen Dodge Fiat Freightliner Mitsubishi Peugeot Smart Volkswagen	A B C CL CLA CLC CLS E E EQA EQB EQC G GL	2006 A209/C209/W209 2007 A209/C209/W209 2008 A209/C209/W209 2008 A209/C207 2010 A207/C207 2011 A207/C207 2012 A207/C207 2013 A207/C207 2015 A207/C207 2015 A207/C207 2015 A207/C207 2016 A238/C238 2018 A238/C238	Control unit selection Mold releatorn Man menu	Powertram Cheaters Body Johdsmeert Image: CPC/CEPC - Electronic vehicle control unit Image: CPC/CEPC - Converter Image: CPC/CEPC - Electronic vehicle control unit Image: CPC/CEPC - Converter Image: CPC/CEPC - Engine control unit Image: CPC/CEPC - CPC/CPC - CPC/CP	
SECONS	<< Go back	GL Last selection	2019 A238/C238	SECONS	<< 6e back	60.33

9. If the control unit was recognized, you can use diagnostic functions now. In other case, you must select correct type of control unit. (chapter *Unrecognized Control Unit*)

4 Mercedes-Benz Diagnostic connectors

Location of OBD-II and manufacturer-specific (OBD-I) connectors is available in DLC location database available from the StarCOM main menu.

4.1 OBD-II connector

Standard OBD2 connector is used usually since 1995 (911 type 993).

ISO9141 K Line	1	9	
	2	10	
Speed signal	3	11	
Ground (GND)	4	12	
Signal ground (GND)	5	13	
CAN-H	6	14	CAN-L
ISO9141 K Line	7	15	ISO9141 K Line
Terminal 87	8	16	Battery +



4.2 38pin round connector (pre-OBD-II vehicles)

1	BAT-	
2		
3	BAT+	
4	K Engine control	
5		
6	K ABS; ABS/ASR; ABS/ABD; ESP	
7		
8	K Brake assistant	
9		
10	K Gear control	
11	K Running gear/steering	
12		
13		
14		

15	K Instrument Cluster
16	K HVAC
17	
18	
19	
20	K Central locking system
21	K Convertible top control
22	
23	K Anti-theft device
24	
25	
26	
27	
28	
29	
30	K Airbag
31	K Door control units
32	
33	K Voice control, Driver information, Tel
34	
35	
36	K Park/supplementary heater
37	
38	

4.3 VAN/Truck (LKW) 14pin connector

The pinout applies to Mercedes Sprinter / Volkswagen LT vehicles, not 24V trucks (see TruckTester manual for LKW pinout).



Pin	Description
1	BAT-
2	
3	BAT+
4	Electronic ignition switch
5	Speed
6	Driver information Door control units
7	Anti-theft device
8	Airbag
9	Gear control Parking aid
10	ADR HVAC
11	Supplementary heater
12	FTCO
13	ESP/EWM
14	Engine control

4.4 Mitsubishi 12pin connector



5 Settings

All functions in settings are described below.

🔝 StarCOM - Diagnostic p	rogram for Mercedes-Benz					- 0	×
Star <mark>COM</mark>	StarCOM Application set	tings				Ver. 0.1	1.5296
Application settings Main menu	Language English Expert functions Expert mode Develor Workshop details Workshop name: Workshop email:	-Units type	Window scaling –	ng	Protocol settings Protocol init idle Initialization tim Keyword delay Delay after init Inter-byte delay Inter-byte timeo Inter-packet dela Idle-packet tim	B-MBISO	
	Interface port selection	Refresh	Upgrade firmwar	e	Timer Re	store defaults	
		Test interface	Device manager		L Debug functions		
		Activate license	Bluetooth connection	ons	Debu	Save debug Ig mode	
					🗹 Sort by ECU	abbreviations	
SECONS			Save changes		Cancel	Apply changes	

Language - choose language of diagnostic application user interface in the drop down menu.

Units type - you can choose metric or imperial unit system for measured values.

Window scaling – allows to adjust size of the window to the desired size for higher resolution displays. This function is still under development and may not work 100% correctly under some circumstances (e.g. high DPI displays or custom Windows user interface settings, such as specific window fonts). For activation, enable the development functions and select desired scale.

Expert functions

<u>Development functions</u> - Enables additional functions under development. This setting is not saved before program exit and will be cleared on every application start. Do not enable this option unless requested by SECONS support staff as these functions may be dangerous to use without proper instructions.

<u>Expert mode</u> – Enables additional functions such as special coding functions or additional configuration options. These functions are intended for experienced technicians and are provided on "AS IS" basis, with absolutely no guarantee. It is highly recommended to leave this option unchecked. This mode also eliminates some warning messages and questions.

Interface port selection

Refresh - this button refreshes COM port selection drop down list. Correct COM port number should be already chosen after connecting diagnostic interface via USB to PC and clicking on *Refresh* button. If not, choose correct COM port number from the list. It is needed in order to perform successful interface test.

Test interface – before each use of program, please test proper function of your connected interface by clicking this button. After successful test, you can see a serial number of your interface displayed below the COM port field, then firmware version and information about active licenses.

Activate license – this button is used for activating new license/s to use the program or special functions. Internet connection is required. Standard license is already activated for all interfaces before purchase.

Upgrade firmware – use this button to upgrade firmware in your diagnostic interface every time after installing the latest software version (available at <u>www.obdtester.com/downloads</u>). Do not disconnect your interface during upgrading the firmware.

Device Manager – is used to finding out correct COM port number, or to reinstall drivers. Your device appears as "ELM-USB Interface (COMx)" under "Ports (COM & LPT)".

Bluetooth Manager – is a preparation to upcoming bluetooth feature. The button is currently inactive.

Protocol settings

You can set various timings for each communication protocol. This is advanced feature used for example when problems occur with connection to control unit caused by slower ECU response and the like.

Restore Defaults – this button restores all modified timings of all protocols to default values.

Changing protocol settings is not required before normal use of the program. You will be asked to make changes by our tech. support when solving your issue at <u>support@secons.com</u> if necessary.

Debug functions

By clicking on **Save Debug** button, you can capture the latest data from elapsed communication between control unit and program into one file. Providing this file is required only by our technical support. Based on these data, we are able to monitor the whole process of performed operation and its correctness.



Use of debug function is important for successful resolution of any program failure or verifying its causes. For more information on how to proceed, please read the following chapter <u>#9.Reporting bugs and improvement requests</u>.

6 Connecting to control units

6.1 Model selection

Before is connection to control units (or performing auto-scan) possible, vehicle model selection is required.

Correct selection of vehicle model is essential for proper diagnostic functions.

Unlike many other Mercedes-Benz diagnostic tools StarCOM must uniquely recognize each control units in order to perform advanced tasks such as ECU configuration.

Star <mark>COM</mark>	StarCOM Model selection		
	Citroen	۵	Ver. 0.1.5
Addel selection	Dodge	B	2007 A209/C209/W209
	Fiat	c	2008 A209/C209/W209
	Freightliner	CL	2009 A207/C207
	Mercedes-Benz	CLA	2010 A207/C207
	Mitsubishi	CLC	2011 A207/C207
	Peugeot	CLK	2012 A207/C207
	Smart	CLS	2013 A207/C207
	Volkswagen	E	2014 A207/C207
		EQA	2015 A207/C207
		EQB	2016 A207/C207
		EQC	2017 A238/C238
		G	2018 A238/C238
		GL	2019 A238/C238
SECONS	<< Go back	Last selection	60.>>

Luxury vehicles usually have high stand-by battery load. It is recommended to perform diagnostics with vehicle connected to a battery charger.

Some control units may go to 'sleep' mode after a couple of minutes; in such case please cycle the ignition to wake all control units up.

StarCOM may recognize control unit variant uniquely, however it is also possible that installed ECU variant is recognized in a different model. In such case warning message is displayed and diagnosis is possible, but we would like to ask you to send the ECU snapshot file to us in order to examine the problem. Please read chapter <u>9.3.Unsupported control unit</u>

6.2 ECU variant selection dialog

In a case StarCOM cannot automatically recognize ECU variant for the installed ECU, the following screen is displayed and user must select correct ECU variant.

You can get more information about ECU by clicking *Show ECU Identification* button.

Star <mark>COM</mark>	engine Unrecognized Control Unit	Ver. 0.1.58
inrecognized control Unit election lodel selection lain menu	This control unit is not fully supported by this program. You correct control unit from the list below. Please note that you control unit and/or other parts if you select incorrect ECU a tests or programming/coding functions.	can select the can DAMAGE the nd perform actuator
97 Cours	Sosch ME2.0	Use selected ECU >>



• It is important to choose correct ECU variant for proper diagnostic functionality.

• If you make a mistake in identification, do not perform any of coding or programming functions: incorrect usage may damage ECU or vehicle components.

Please send us every unrecognized ECU snapshot file in order to add support for related ECU. Please see chapter <u>9.3.Unsupported control unit</u> for more information.

7 Auto-Scan

This function scans for all known ECUs in selected vehicle, and shows the list of ECUs present in vehicle along with number of present or stored fault codes (DCTs).

StarCOM - Diagnostic program for Mercedes-Benz

- 🗆 X



Autoscan may take a while for high-end models with many control units.

When autoscan is in progress, number of discovered control units and progress is displayed.



When part number or VIN code is detected during auto-scan, it is automatically displayed in the listing. Autoscan window displays also matched control unit type.

8 Diagnostic functions

You can connect to ECU by choosing control unit from list of ECUs in selected vehicle or auto-scan listing.

If control unit was identified uniquely, diagnostic menu will be available immediately, otherwise it is necessary to select control unit variant as described earlier in this manual.

Diagnostic menu is divided into three parts. Basic functions, Advanced functions and Expert functions. Basic functions generally safe to use under any conditions. Please note that clearing (deleting) fault code memory may result in additional fault codes appearance even in different control unit(s). Also messages may appear on on-board computer display.

Advanced functions require deeper knowledge of car components. Be careful before activating any actuators – incorrect actuation may damage vehicle components.

Expert functions may have serious consequences if used improperly. Please refer to technical service bulletins and workshop service manuals before running any of these functions.

StarCOM - Diagnostic program for Mercedes-Benz				
Star COM	engine - Bosch ME2.0 Control Unit Diagnostics			
Control Unit Diagnostics	r Control Unit Identification			
Control Unit Selection	Mercedes-Benz CLK (1996-2003), KWFB,			
Model selection				
Main menu	Basic functions Advanced functions Expert functions Control Unit Identification Measured Values ECU Programming/Coding Read Fault Code Memory Actuators activation Configuration Clear Fault Codes Clear Fault Codes Configuration			
SECONS	Go Back, Close session			

8.1 Control Unit Identification

This function can display only identification data accessed by ECU, for example:

- Mercedes-Benz Part Number
- Manufacturer Part Number
- ASAM Information
- VIN number (not available on all ECUs and may be truncated)
- Protocol
- Other values such as manufacturer part number, depending on ECU

Please note that some vehicles do not have correctly programmed VIN code or other data (such as programming date/etc), or data are incomplete (such as missing several VIN characters, etc.)

X

🔝 StarCOM - Diagnostic program for Mercedes-Benz

Star COM	SAMFL/SAMV - Signal acquisition/Actuation module -	front I
	Control unit identification	Ver. 0.1.5230

Control unit identification	Supplier Hardware Number		A 907 901 77	02 ^
Control unit	Supplier Software Number		A 907 902 44	07
diagnostics	ECU Serial Number		A2C76647014	00A232240
Auto-Scan results	CompatibleVariantID		0x11	
Model selection	CompatibleVersionID		0x07	
Main menu	Supplier Hardware Version		17.41.4	
	Supplier Software Version		19.49.0	
	Boot Software Identification		18.4.1	
	Hardware supplier		Continental	
	Software supplier		Continental	
	Identification block		0E010E01	
	Protocol		UDS	
	Rus Pin		HSCAN 500 6	5/14 ~
SECONS	<< Go back	Save ECU Information	Copy values	Print values

You can print identification by clicking *Print Values* button or you can copy it to clipboard by clicking *Copy identification*.



If the control units has connected sub-control units (e.g. via LIN-BUS), part numbers or other additional information is displayed in the identification listing.

8.2 Read fault code memory

This function allows you to read and display diagnostic trouble codes saved in control unit memory.

StarCOM - Diagnostic program for Mercedes-Benz				
Star COM	engine - Bosch ME2.0 Fault Code Memory	Ver. 0.1.587		
Fault Code Memory Control Unit Diagnostics	P0115 Engine Coolant Temperature Circuit Malfunction			
Control Unit Selection	P0110 Intake Air Temperature Circuit Malfunction			
Model selection Main menu	P1570 CAN: Communication: Disturbed			
	P1605 Communication ABS/ASR engine: Detection of bumpy road	E		
P0450 Evaporative Emission Control System Pressure Sensor Malfunction				
	Functions Summary Re-read fault codes Clear Fault Codes Freeze Frame Copy Codes to Clipboard Print fault codes 7	Pending DTCs: 0 DTC History: 		
SECONS	<< Go Back			

"Static" error is simply the opposite of "Sporadic" and "Intermittent". When a DTC is marked Sporadic or Intermittent, it means the fault condition that set the DTC did not exist (or could not be detected) at time the DTC read-out was performed.

8.3 Clear Fault Codes

This function clears fault code stored in ECU memory.

Fault codes might appear again or under some conditions isn't possible to clear fault codes at all. It's possible that in the presence of some faults control unit doesn't allow to clear fault codes or fault is in no time written back to memory.

It is recommended to read memory by clicking Re-read fault codes button again.

8.4 Measured values

Some control units are not equipped with all sensors: in this case, some sensors may show a limit values (minimum or maximum).

8.4.1 Graph display

This function displays two measured values (also known as live data or sensor values) simultaneously. Measured parameters can be chosen from selectors at the top of the window.

Buttons + and - allow to accelerate or decelerate speed of the graph.

8.4.2 Display 3x3

For measuring 9 value simultaneously, click on 3x3 View button.



8.4.3 Display list

To measure all available values simultaneously, click *List view* button.

Please note values means slower refresh rate.

8.4.4 Save to log

Measured values can be saved/logged to a file by clicking *Start logging* button. The log file is standard csv file and it is compatible with VagScope or can be imported to Microsoft Excel or OpenOffice Calc.

SECONS

Graph View

3x3 View

Copy Print

Start logging

<< Go Bad

8.5 Actuators activation

This function can activate actuators and perform some actuators actions.

Some actuators cannot be terminated. In such case please turn ignition off to turn the actuators.

Some actuators run automatically for specified time.



Make sure you understand consequences of activating ECU components. Also make sure that activation conditions (engine idle, engine running, etc.) are met. Always consult all tests with car repair handbook.

There are known actuation problems in some control units. Please report to us any misfunctional actuator tests.



8.6 Coding and programming functions (commands)





More information about programming functions are available at <u>http://www.diagwiki.com</u>. Please note that this function is currently under development.

8.7 ECU Configuration

This function allows you to configure control unit parameters, or transfer configuration between ECUs after replacement. It is possible to reconfigure control unit(s) multiple times, thus allowing to re-use control units.

You can see listing of supported coding for each ECU in our StarCOM diagnostics coverage (please note that actual number of configurable parameters may vary due to different ECU variants).

StarCOM - Diagnost	ic program for Mercedes-Benz	
Star COM	eis - EZS203 Control Unit Configuration	
Control Unit Configuration		Ver. 0.1.591
Control Unit Diagnostics	Control unit AAC presence Control unit AHE presence	Absent
Control Unit Selection	Control unit Airbag presence	Present
Model selection	Control unit COMAND or AUDIO presence Control unit DCM-FL presence	Present
	Control unit DCM-FR presence	Present
	Control unit DCM-RL presence	Present
	Control unit EIS presence	Present
	Control unit ESA-FL presence	Not present
	Control unit ESA-FR presence	Not present
	Edit Hex Edit Revert to or	iginal Undo All Changes
SECONS	Copy	Print Write configuration to ECU

Always save backup of configuration to a file before making any changes.

If no editable values are displayed, it is still possible to save or restore configuration via a file.



If complete configuration load fails for any reason, it is still possible to continue with ECU configuration data subset.

The configuration data retrieved from the control unit are verified for validity after loading.

First check is performed to validate data consistency (such as data check-sum). If data consistency

validation fails, prompt if you really want to continue is displayed. This usually happens only when control unit is not yet programmed, or data are corrupt. The diagnostic application is able to fix this problem when writing new configuration to the control unit. It is possible to continue, however writing incorrect data to the control unit may damage either control unit or vehicle components.

Then all data are checked for validity. If invalid configuration option is found, warning message is displayed.

The window displays all user changeable values.

	<u> </u>	
Meaning	of co	lors

Grey line	Read-only value (cannot be changed)
Black line	Editable text, original state (not yet edited)
Green value	Editable, changed by user
Red	Un-decoded value
Violet/pink value	Un-decoded changed value

D More information about configuration functions are available at <u>http://www.diagwiki.com</u>.

8.7.1 Edit

This button allows you to change currently selected value.

Detailed instructions on valid value format and it's range is displayed.

After editing please check displayed value is correct as it may change – diagnostic application may adjust the value to meet the control unit requirements (the value may get rounded, clipped, etc.)



8.7.2 Hex edit

Available only in expert mode or for values that cannot be correctly decoded. This function is used

to directly edit binary representation of the value.

8.7.3 Revert to original

Reverts currently selected value to original state.

8.7.4 Undo all changes

Reverts to original configuration (as retrieved from the control unit when entering this window).

8.7.5 Load

Loads configuration from a file. Data file is checked if matches the connected control unit.

8.7.6 Save

Saves configuration to a configuration file (for restore or configuration transfer) or to a text file (report).

8.7.7 Copy

Copies configuration to operating system clipboard.

8.7.8 Write configuration to ECU

Programs configuration to the control unit. Before writing new configuration to ECU always check each value if it has desired state.

The diagnostic application will automatically adjust data checksum or other dependencies.

The control unit may reject new configuration if configuration data are not applicable (or are generally incorrect) for the ECU. In such case writing original (unchanged) data should succeed.

Some control units have configuration in read-only mode. If you require to write configuration to such ECU, please contact us for further assistance. In most cases we should be able to help, however we will require some assistance from your side with problem resolution.



9 Reporting bugs and improvement requests

Our customers can take advantage of our full technical support for free. You can contact our technical support at **support@secons.com** with any technical questions and requests.

In case you encounter to failure of any program functions (e.g. fault codes reading/clearing, coding functions, actuator test, connecting to ECU, test interface, ...), or you miss some function or some function does not work sufficiently, please follow the steps below.

Note:

Before sending support request for failing operation, please make sure you have met all conditions required for the operation (e.g. you are entering correct data, correct engine temperature for DPF regeneration, correct number of keys for engine start, etc).

In case of communication issues we recommend to check diagnostic plug connection and retry procedure at least once, connection problems may result in erratic communication issues.

Please, prepare the following data in your email before sending your request to our technical support:

- 1. Detailed description of failure or your improvement request
- 2. Vehicle description VIN code, model, manufacture year, engine type
- **3.** Attach **Debug Log** (in case that required function doesn't work properly). This file captures data from the latest communication between program and ECU, so we can detect failure causes.
- 4. Attach Snapshot of tested ECU this file contains important information about tested control unit In all cases please attach snapshot of INJ (engine) + BSI (body computer).



9.1 How to create Debug Log

It is necessary to perform operation that is not working correctly first. Once failure occurs, go back directly to settings in main menu (do not close the program). Click on "Save Debug" button. Name and save the file into well known directory in your computer.

Enable "Debug mode" check box only at our special request.

This function is used to tell program enable special functions in diagnostics interface and to log more data than required for normal operation.

StarCOM - Diagnost	tic program for Mercedes-Benz	
Star COM	StarCOM Application Settings	Ver 0.1.587
Application Settings Han menu	Capage (Constrained on the state of the stat	hadad artinga 000000 00000000000000000000000000000
SECONS	Save Changes	Cancel Apply Changes



After connection to tested control unit, click on "Control Unit Identification". In following screen, click on "Save ECU Information". Choose directory to save the file and confirm. Saving may take a few minutes.

👰 StarCOM - Diagnostic program for Mercedes-Benz			
Star COM	engine - Bosch ME2.0 Control Unit Identification		Vic. 0.1 507
Control Unit Identification Control Unit Diagnostics Control Unit Selection	Part Number HW Version SW Version Supplier ID	023 545 97 32 18/96 20/97 Bosch	ver. 0.1.387
Model selection Main menu	Diagnostics Index Extra Info (HEX) Protocol Bus Pin	1/0 (0x20) 00-00 KWFB K7	
SECONS	<< Go Back	Save ECU Information Copy Values	Print Values

9.3 Unsupported control unit

In case you are prompted with "Unrecognized control unit" window and:

- the installed ECU is not available in the listing
- or you are not sure which control unit to choose
- or you wish to get the ECU automatically properly identified in next StarCOM version
- or you just want to help us to improve StarCOM

We will be more than happy to add any unsupported or unrecognized control unit to next StarCOM version. We are usually able to do this within one or two working days based on so called "ECU snapshot file":

From "Unrecognized ECU" window or "Control Unit Identification" window (after connecting to ECU), please click on "Save ECU Information" button and save the file to your computer.

Please send the generated file(s) to <u>support@secons.com</u>.

9.4 Problems with configuration

In case you encounter any difficulties with configuration (coding) data, please provide the following:

- Debug log
- ECU snapshots
- Listing of original ECU configuration data (either via saving to a file or "Copy to clipboard")

10 Planned improvements

The following improvements of user interface are planned for next release:

- Screenshot to PDF or PNG
- Live data logging improvements
- Connection to online services