ChipLoaderNG

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Module [53] Mercedes Delphi CRD - OBD2

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Content

Purpose

The module is designed to work with ECU Delphi CRD.11, CRD2.xx, CRD3.xx (only with Tricore TC1797 processor) installed on Mercedes cars:

- CRD11.xx: W211, W204
- CRD2.xx: W906, W639, W212, W204, W176, X204
- CRD3.xx: W906, W212, W204, W176, X204, W205, C117, X156, R172, W166

The module supports reading, writing Flash memory, reading and clearing DTC through the diagnostic connector. However, in some cases it is necessary to use the connection on the table to read and write the ECU.

The module supports checking the correctness of checksums in the firmware, as well as its correction if necessary.

Necessary equipment

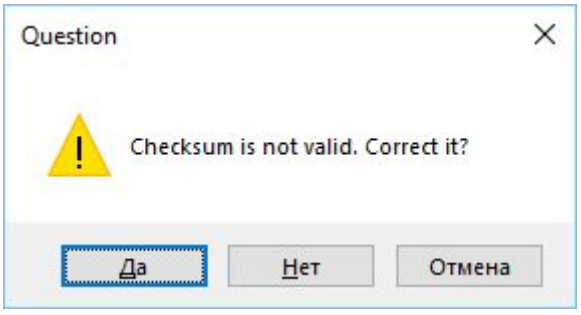
The module has been tested with the following J2534 devices:

1. CHIPSOFT J2534 (Lite/Mid/Pro/acrylic)
2. Tactrix Openport2 (J2534 DLL version must be 1.01.4247 Apr 18 2014 16:14:11)
3. DrewTech Mongoose

For the convenience of working on the table, in cases where it is necessary, we recommend using the CHIPSOFT OBD2 BreakOut Box.

Checking data for writing

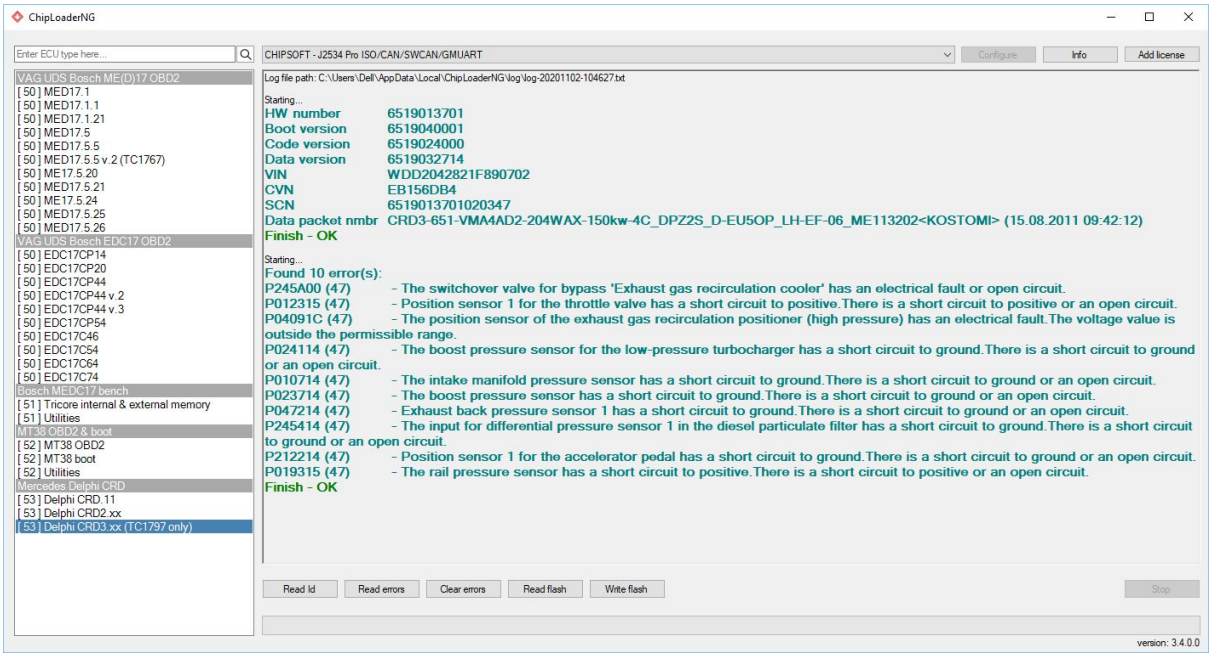
The program performs various checks on the firmware file before it is written. If the checksums are incorrect, the program will offer to fix them:



Also, after reading, the program will automatically check the checksum in the read firmware and give information about it.

ECU identification, read and reset DTCs

These operations are available without a license for the module and can be used for informational purposes.



Read, write ECU

The module reads and writes the ECU Flash memory. Some ECUs cannot be read and written through the diagnostic socket, so the ECU must be connected on the table. The impossibility of reading and writing is manifested in constant communication breaks during reading. Delphi CRD.11 ECUs, as well as a part of CRD2.xx ECUs, are read and written on the table. During read and write operations, an inscription on the instrument cluster may light up with a proposal to contact the service. This is normal behavior.

Read and write operations are safe. If the connection is broken during these operations, the ECU can be read and written again after turning off the ignition for 10 seconds.

When working on a table, be sure to install a 120 Ohm resistor on the CAN bus. As a power source for working on the table, you must use either a battery or a laboratory power supply with a current of at least 10A, otherwise the ECU simply will not start.

ECU pinout

CRD.11:

Small connector T58:

T58 - pin 5	+12V
T58 - pin 19	+12V
T58 - pin 2	Ground
T58 - pin 53	CAN - H
T58 - pin 54	CAN - L

CRD2.xx, CRD3.xx:

Small connector T58:

T58 - pin 5	+12V
T58 - pin 15	+12V
T58 - pin 2	Ground
T58 - pin 41	CAN - H
T58 - pin 54	CAN - L

Possible problems and solutions

When writing an ECU, you can programmatically breaked the ECU, only by writing incorrect firmware to it. In this case, the ECU can only be restored in boot mode. Loss of communication during reading and writing does not breaked the ECU.