



# MBkey

Mercedes KEY emulator  
IR service key

## Software for MBkey:

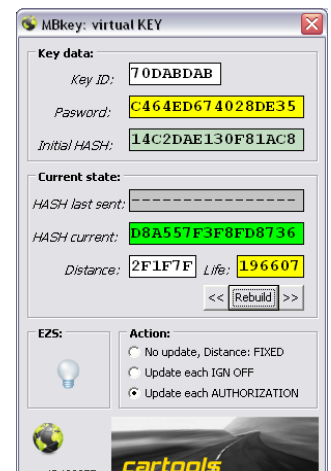
- **MBkey**: key emulator- emulates regular IR key;
- **MBgreenkey**: service key emulator – EIS personalization, HASH list editor, offline KEY maker (optional);
- **MBunlock**: service key emulator – EIS neutralization;
- **MBepass**: key password reading from EIS via IR (some older HC908 and HC912 based EIS);
- **MButility**: service key emulator for diagnostics / FBS unit access via EIS as gateway;
- **MBhash**: hash list generator;
- **MBhashtodump**: builds fake EIS dump from HASH list for calculations on 3<sup>rd</sup> party resources;
- **MBelv**: for ESL access - read data blocks, hash list, ESL data blocks via IR.

## MBkey software:

- enter SSID, KEY PASSWORD, INITIAL HASH, set DISTANCE;
- REBUILD key, you can correct distance UP and DOWN if seeking for matched CURRENT HASH value;
- choose ACTION how virtual key works: no DISTANCE update, DISTANCE update each IGN\_OFF or update each authorization like regular key does;
- proceed!

**HASH last sent** is updated only if authorization takes place. If virtual key is set to update **HASH current** at IGN OFF it doesn't mean that authorization happened even if HASH rolls up.

If hash is updated it is calculated from **initial HASH** every time. It is recommended to use fast PC and turn off all unnecessary background applications while working with real EIS to avoid any problems caused by delays.



## MBgreenkey software:

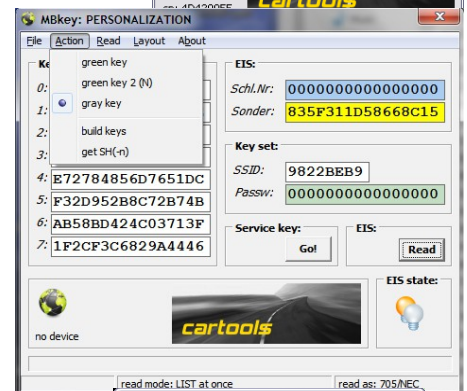
- **Read EIS**: read HASH list from EIS;
- **Go**: personalize new or unlocked EIS with loaded hash list;
- **build keys** for loaded HASH list offline (**optional**);

**NEC forced wakeup** is necessary if working with some NEC based EIS. If everything works fine leave it unchecked. You may play with various **Read** options, everything depends on EIS firmware and hardware version.

Personalization: **green key** is for "SPARE PART", **green key2** is for unlocked (neutralized) "SPARE PART".

To personalize "SERIES PART" additional command to CAN or K-line is necessary in addition to **gray key**.

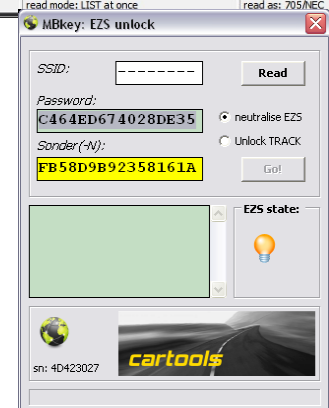
To personalize new (not neutralized) "SPARE PART" must know "Authorization password" because part is prepared for dealer service.



## MBunlock software:

- Enter KEY **Password** and HASH for unlock: **Sonder(-n)**;
- Read SSID from EIS, choose action;
- press Go.

It may take some minutes for unlock / neutralize, especially on old and slow EIS types. If initial data is wrong (password not match etc...) EIS can work up to 10 minutes until negative response received.



### MBEispass software (optional):

- allows to read out EIS password from selected motorola 908 and 912 based EIS (old hardwares where it is possible, no warranty);
- no key necessary, just EIS;
- insert MBkey, read **EIS status**, then **Read PW** (read password).

It may take some minutes for action to complete.

### MButility software:

- for advanced troubleshooting of EIS related problems without intervention into EIS hardware.;
- possibility to lock key track,
- EIS as gateway between IR and CAN: possibility to access FBS3 modules and control units via IR;
- access to data blocks - NOTE: even if data blocks are parts of EEPROM usually it is not possible to read out complete EEPROM from units;
- commands for activation, personalization, transport protection release etc.;
- it is possible to send custom commands;
- be careful, expert use only!

### MBhash software:

- enter INITIAL HASH, get FINAL HASH for full KEY life;
- possibility to output all intermediate HASH values to text file for further analysis, for example:
  - to get actual point where FBS got stuck;
  - to verify calculations of HASH for unlock (enter calculated SH(-n), check if SH is at position +n);
- works with Mbir tool too, no matter which one attached to USB.

### MBhashtodump software:

- **Load** HASH LIST (\*.grnkey),
- **Export** HC705 dump for calculations using 3<sup>rd</sup> party services;
- useful for:
  - key calculations;
  - SH(-n) calculations: to get HASH for UNLOCK;
- works without hardware.

### IMPORTANT NOTES:

- for all optional functions additional activation is necessary (**paid options**);
- for **key offline calculation** 32 Gb free space on disk C: is necessary for tables, file system: NTFS (to allow large file support), file name and location must be **C:\CRT\CRT32.bin**. Usage:
  - load or read hash list;
  - from drop - down menu choose "build keys" to launch process;
  - calculation usually takes up to 1 minute for all 8 keys. You can stop process by pressing ESC button on keyboard at any time;
  - it is possible to try to generate "**hash for unlock**" too (based on Sonder HASH). It works in about 10...20% of all cases. Anyway, it's a chance. More than nothing.

### DISCLAIMER:

all you do you do at your own risk.

