

SD Toolbox User Manual v2.4.5

<https://zelemar.eu>

Main features:

- Read SD card type and size
- Read & Decode SD card CID number
- Decode CID number without SD card
- Read & Decode CSD number
- Lock & Unlock card with password*
- Set/Remove temporary write protection
- FAT32/exFAT partition hiding
- Erase card and remove all protections

*This device doesn't extract unknown passwords from SD card and doesn't calculate any passwords from CID. Password for SD card must be known to unlock it!

Optional features:

Unlocking/Locking fixed password cards:

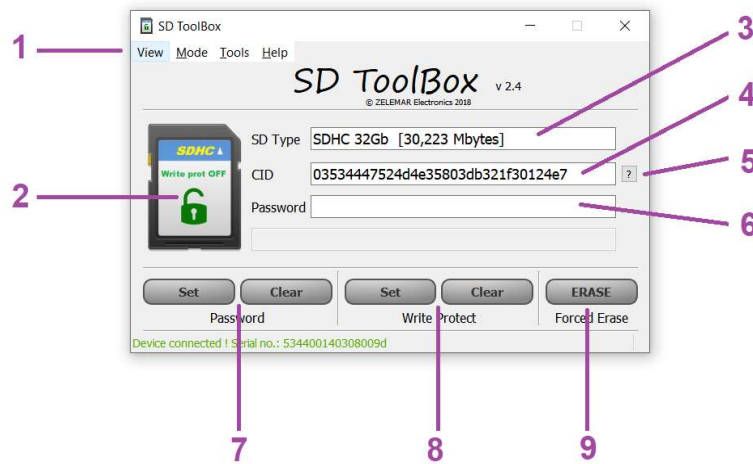
- **Mazda DENSO**
MAZDA 3 MPS BL, MAZDA CX-7
- **Mitsubishi MMCS**
Navi model: NR242xx (W11, W12, W13, W15, W17, E11, E12)
- **Mitsubishi NR-MZxx**
Navi model: NR-MZxx. Used in Mitsubishi, Mazda, Nissan Note
- **Peugeot/Citroen MMCS**
Peugeot 4008, Citroen C4 AirCross (P11, P12, C11, C12)
- **Lexus/Toyota gen.8/9 microSD (MAP) and internal SDHC (boot)**
Lexus ES, GS, GX, IS, LS, LX, NX, RX, RC, RC-F from 2015, Toyota Land Cruiser 200 from 2015.
- **Toyota/Lexus/Nissan various models**
Toyota Type 3 (Toyota Prius PHV 2018),
Pioneer CVX-2458 (Lexus RX350 and others),
Other various models used in Nissan/Toyota/Lexus vehicles

Online SD card password calculator for VW, Škoda, Seat RNS315 navigation systems from CID number

- [RNS315 SD card password calculator \(online\)](#)

*Optional features not included in basic price and can be purchased later

Indicators and controls:



- 1 – Menu
- 2 – SD card status indicator. Shows locking and write protection status
- 3 – SD card type and size.
- 4 – SD card CID number (hex format) *
- 5 – CID decoder
- 6 – Password field (password size: 1-16 bytes in hex)
- 7 – Set / Remove password buttons
- 8 – Set/ Clear write protection buttons
- 9 – Forced erase button.

* CID number is read only, and cannot be changed using this device

CID decoder:

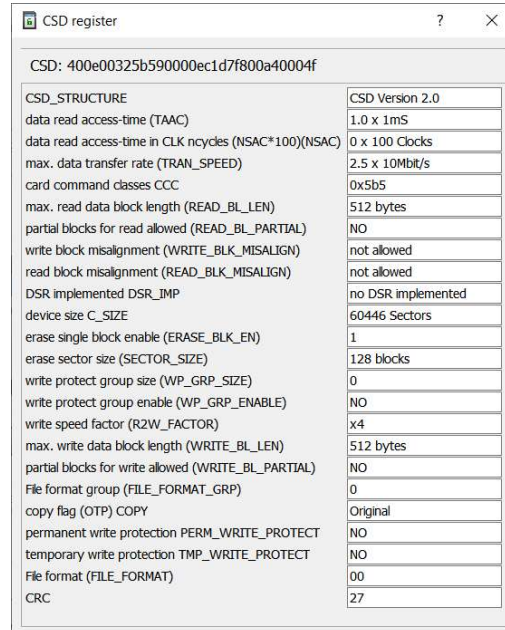
CID decoder is activated by pressing button with question mark next to CID number and from Menu View/CID register. It can be used as CID decoder without SD card. When SD card removed CID field is editable, you can enter any CID to decode.

The CID register window displays the following data:

CID: 4134325344313647304eaa20de0128bd		
Manufacturer ID (MID)	65	0x41
OEM/Application ID (OID)	42	0x3432
Product Name (PNM)	SD16G	0x5344313647
Product revision (PRV)	3.0	0x30
Serial number (PSN)	1319772382	0x4EAA20DE
Manufacturing date (MDT)	2018 08	0x128
CRC7 checksum (CRC)	0x5E	0x5E

CSD decoder:

CSD decoder is activated from Menu View/CSD register

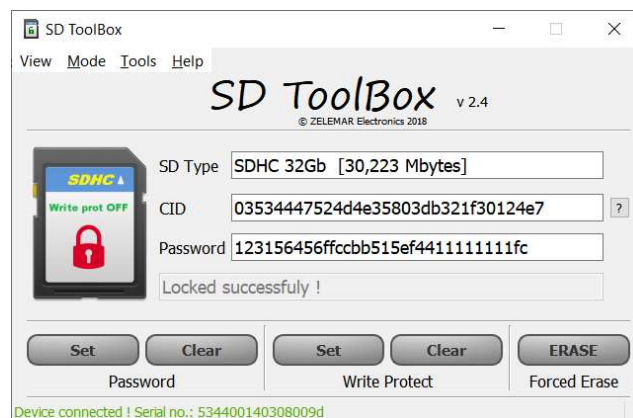


CSD: 400e00325b590000ec1d7f800a40004f	
CSD_STRUCTURE	CSD Version 2.0
data read access-time (TAAC)	1.0 x 1mS
data read access-time in CLK ncycles (NSAC*100)(NSAC)	0 x 100 Clocks
max. data transfer rate (TRAN_SPEED)	2.5 x 10Mbit/s
card command classes CCC	0x5b5
max. read data block length (READ_BLK_LEN)	512 bytes
partial blocks for read allowed (READ_BLK_PARTIAL)	NO
write block misalignment (WRITE_BLK_MISALIGN)	not allowed
read block misalignment (READ_BLK_MISALIGN)	not allowed
DSR implemented DSR_IMP	no DSR implemented
device size C_SIZE	60446 Sectors
erase single block enable (ERASE_BLK_EN)	1
erase sector size (SECTOR_SIZE)	128 blocks
write protect group size (WP_GRP_SIZE)	0
write protect group enable (WP_GRP_ENABLE)	NO
write speed factor (R2W_FACTOR)	x4
max. write data block length (WRITE_BLK_LEN)	512 bytes
partial blocks for write allowed (WRITE_BLK_PARTIAL)	NO
File format group (FILE_FORMAT_GRP)	0
copy flag (OTP) COPY	Original
permanent write protection PERM_WRITE_PROTECT	NO
temporary write protection TMP_WRITE_PROTECT	NO
File format (FILE_FORMAT)	00
CRC	27

Locking Card with password:

SD card locked with password is protected from any access to SD card data. When such SD card is inserted to the PC, it is not detected by system at all and no read/write or any other functions are allowed.

1. insert SD card into device SD slot
2. SD card will be detected and SD type, CID number and status will be shown.
3. Enter 1-16 bytes password in **HEX** to the password field and press **Set** button
4. If SD card locked successfully, SD status indicator will change lock symbol to **red**.



Unlocking Card with password:

1. insert SD card into device SD slot
2. SD card will be detected and SD type, CID number and status will be shown.
3. Enter 1-16 bytes password in **HEX** to the password field and press **Clear** button
4. If SD card unlocked successfully, SD status indicator will change lock symbol to **green**.

Setting/Removing write protection:

This type of write protection is used to protect SD card data from modifying its contents. When such protection is set, SD card inserted into PC reader is read only and can't be formatted, erased or any new data written.

1. insert SD card into device SD slot
2. SD card will be detected and SD type, CID number and status will be shown.
3. To set write protection press **Set** button, to remove write protection press **Clear** button
4. SD card write protection status is indicated on SD status indicator.



Forced Erase:

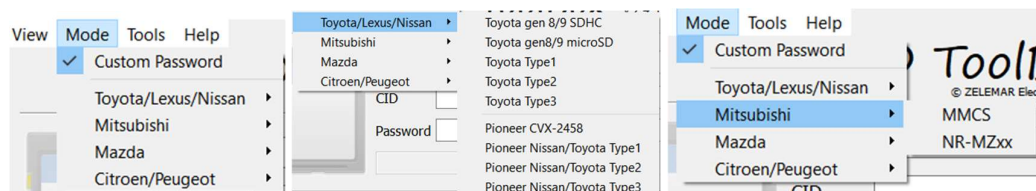
If SD card is locked with Password and password is unknown SD card is unusable. It's possible to remove password protection with Forced Erase function and it will allow to use SD card again. Forced erase clear password, write protection and **ERASE ALL DATA** on SD card and data from SD card can't be recovered. So, use it with caution!!!

Menu Items:

View – view SD card registers values

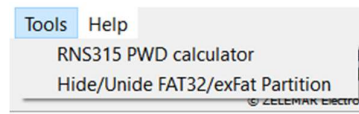


Mode – Select password mode



- Custom password mode** – can be used for locking and unlocking with any desired password.
- Toyota/Lexus/Nissan mode** – used for various Toyota/Lexus/Nissan SD locking and unlocking
- Mitsubishi** – used for Mitsubishi MMCS & NR-MZxx SD card locking and unlocking.
- Mazda** – used for Mazda 3, Mazda CX7 SD locking/unlocking
- Citroen/Peugeot** – used for Citroen/Peugeot MMCS SD card locking and unlocking.

Tools – Optional tools



RNS315 PWD Calculator - online SD card password calculator for VW, Škoda, Seat RNS315 navigation systems from CID number

Hide/Unhide FAT32/exFat partition – hides/unhides partition with Navi data. SD card contents with hidden partition cannot be seen with PC reader, but navigation unit can read such SD*.

*works on most Toyota, some Nissan, Mazda and other Navi units. Detailed Navi list where this feature works constantly updated and customer feedback is very welcome.

Feedback, questions & orders:

<https://zelemar.eu> or on eBay <http://www.ebay.com/itm/122536650264>