

PCM #71 plugin allows full access to internal memory of MED17/EDC17 ECU family without lid opening, just direct hookup to ECU connectors will be enough. Almost all protection levels are supported, including the latest ECU where reading of password became impossible using GPT. Now it's not a problem.

The plugin does not work via OBD, it works only with a direct hookup to the ECU connectors.

The plugin consists of:

MEDC17 (TC1762/1766/1792/1796) FLASH [RD/WR/CK]
MEDC17 (TC1762/1766/1792/1796) EEPROM [RD/WR]
MEDC17 (TC1724/1728/1767/1782/1784/1797) FLASH [RD/WR/CK]
MEDC17 (TC1724/1728/1767/1782/1784/1797) EEPROM [RD/WR]
MEDC17 (TC1791/1793) FLASH [RD/WR/CK]
MEDC17 (TC1791/1793) EEPROM [RD/WR]
MEDC17 BSL PASSWORD [RD]

Terms and considerations:

1. FLASH is "full" flash includes internal and external flashes (if available), in the format how OBD packets are coming in. The internal and external flashes can not be read separately, if someone does not know how to work with full flash - it's time to learn, the external flash is no longer desoldered for reading and writing.
2. EEPROM is an internal processor's eeprom
3. BSL PASSWORD - this item is intended to read a password which can be used by the plugin #53 than. Plugin #71 does not need password !!!

The **only** OBD tool for #71 plugin is Scanmatik 2 or Scanmatik 2 Pro. As well as in #53 plugin, the feature of automatic power supply via L-line is supported. Other tools do not support the required functionality, sorry about that. Please, do not bother support with questions such as "when" or "I have ... an adapter".

At the moment only ECUs below are not supported:

VAG MED17.5.5 TC1766 UDS (high TPROT of TC1766)
VAG MED17.1 TC1796 UDS (high TPROT of TC1796)
VAG EDC17U05 (missing internal flash)
K/H EDC17CP14 TPROT11 (high TPROT of TC1796)
China ME17.8.8 TC1728
China MED17.8.10 TC1728

For these ECUs the program after transfer of loader will display the message "Unsupported version of TPROT". If there is no such message most likely the issue is not the ECU is not supported.

Approved ECUs:

Ford MEDG17.0 TC1797 (T103.8 = GPT1 T95.27 = GPT2)
Ford MED17.0 TC1767 (T96.80 = GPT1 T96.45 = GPT2)
Ford MED17.0.1 TC1767 (T95.36 = GPT1 T95.48 = GPT2)
VAG MED17.1 TC1796
VAG MED17.1.1 TC1796
VAG MED17.1.6 TC1797
Mini MED17.2 TC1796
BMW MEVD17.2 TC1797
BMW MEVD17.2.3 TC1793
BMW MEVD17.2.4 TC1797
BMW MEVD17.2.9 TC1797
VAG MED17.5 TC1766
VAG MED17.5.2 TC1767
VAG MED17.5.5 TC1766 CAN

VAG MED17.5.5 TC1767 UDS
VAG ME17.5.6 TC1767
VAG MED17.5.20 TC1766
VAG MED17.5.21 TC1782
VAG ME17.5.24 TC1724
VAG ME17.5.26 TC1724
MB MED17.7.1 TC1797
MB MED17.7.2 TC1797
MB MED17.7.3 TC1797
MB MED17.7.3.1 TC1797+EXT
JLR MED17.8.31 TC1797
VAZ ME17.9.7 TC1762 (B.31 = GPT1 B.32 = GPT2)
K/H MED17.9.8 TC1767
K/H MEDG17.9.8 TC1767
JLR MED17.9.9 TC1793 (T105.56 = GPT1 T105.102 = GPT2)
K/H ME17.9.11 TC1762 (17 = GPT1 39 = GPT2)
K/H MEG17.9.12 TC1762 (17 = GPT1 39 = GPT2)
K/H MEG17.9.13 TC1762 (17 = GPT1 39 = GPT2)
K/H MEG17.9.21 TC1724 (T94.2=GND T94.6=12v T94.74=12v T94.82=CAN-L T94.60=CAN-H T60.45=12v T60.30=GPT1 T94.63=GPT2)
K/H ME17.9.21 TC1724 (31 = GPT1 33 = GPT2)
UAZ ME17.9.71 TC1724 (B.31 = GPT1 B.32 = GPT2) unblocking

VAG EDC17U01 TC1766
K/H EDC17C08 TC1766 (T60.13 T60.57)
MB EDC17CP10 TC1796+EXT
JLR EDC17CP11 TC1796+EXT (T96.41 T96.44)
K/H EDC17CP14 TC1796 TPROT3
VAG EDC17CP14 TC1796
VAG EDC17CP14 TC1796+EXT
VAG EDC17CP20 TC1796
BMW EDC17C41 TC1797 (M4.22 = GPT1 M4.19 = GPT2)
Renault EDC17C42 (средний разъем H2 = GPT1 J3 = GPT2)
VAG EDC17CP44 TC1797 (T105.18 = GPT1 ; T105.21 = GPT2)
BMW EDC17CP45 TC1797 (M4.22 = GPT1 M4.19 = GPT2)
VAG EDC17C46 TC1767 (T60.44 = GPT1 ; T60.52 = GPT2)
MB EDC17CP46 TC1797
Volvo EDC17CP48 TC1797
BMW EDC17C50 TC1797
K/H EDC17C53 TC1767 (T60.13 T60.57)
VAG EDC17C54 TC1797
VAG EDC17CP54 TC1793+EXT (Audi Q7)
JLR EDC17CP55 TC1793
BMW EDC17C56 TC1797 (T96.89 T96.92)
K/H EDC17C57 TC1793F (T105.99 T105.78)
MB EDC17CP57 TC1793
GM EDC17C59 TC1767 (GPT pins T60.29, T60.58) 2.0l vehicles
MB EDC17CP60 TC1793
VAG EDC17C64 TC1797
MB EDC17C66 TC1793F
Volvo EDC17CP68 TC1797
VAG EDC17C74 TC1793 (Audi, VW)
Nissan EDC17C84 TC1782 (средний разъем M2 = GPT1 K3 = GPT2)

ECU connection. Everything is straightforward here, but could be some issues with hookup to old ECUs: the plugin requires a GPT connection, which is supported by ABSOLUTELY all ECUs, but pinout may not be available within open resources. In 90% of cases following sensors are used for GPT: crankshaft sensor signal, camshaft sensors and a vehicle speed sensor. If you have a car in a shop, you can find pins required and then try to connect on a table. CAN bus is used only main one, which is operated in BSL mode, no need to "parallel" wires

Following resources are recommended:

- 1) online - <https://wiki.obdtuning.de/index.php?title=Kategorie:Steuerger%C3%A4tethersteller%20hersteller>
- R3 / R4 - GPT1 / GPT2
- 2) online - <http://www.evc.de/en/product/bsl/ecu.asp> - S1 / S2 - GPT1 / GPT2
- 3) K-tag, GPT1 / GPT2 instructions.

GPT pinouts in the list above are updating often.

Work with #71 plugin

Hookup your cable to ECU's connectors according to pinout (use: power, ground, CAN bus, GPT signals).

Then:

1. Press the Identification button in any module included in the plugin. Choose an way of power supply (normally - Auto in the case of a cable with interface, not just wires).

Will see something like this:

```
Adapter: Scanmatik - SM2 USB
DLL: 1.0.0.15 (built 01.02.19)
Firmware: FW:0802 HW:02 SN:A
Module: Bosch: MEDC17 (TC1762/1766/1792/1796) FLASH
Identification
Access
Loader
Checking
Serial number: 41808203-07C0B982-74080010-1118FB00
Hardware : 00001820-00009101 0053C001-0055C001
ECU type: TC1797 rev. 1
Protection 1: RW WO [00000-1FFFFFF]
Protection 2: RW WO [00000-1FFFFFF]
Ext Flash: S29CD016 (2MB)
Done.
```

So the regular output like in BSL mode. In this particular case MED17.7.3.1 is connected with a TC1797 processor and 2 MB external flash drive. Bold highlighted.

2. Then choose correct module (in this case Bosch: MEDC17 (TC1724 / 1728/1767/1782/1784/1797) with appropriated type of memory FLASH / EEPROM.
3. Click **Read**, for example EEPROM (reading FLASH and EEPROM both is highly recommended, so you have more space to roll back after unsuccessful files).
Most probably would be good idea to save a password, regardless of the type of ECU, just select "Bosch: MEDC17 BSL PASSWORD" and click Read. Once again - the password for the plugin is not required. It is needed only in case of need to work in BSL mode.
4. Writing: select the correct module and click Write. The common window of #53 plugin appears, except it is not possible to disable skip of the service block 14000-1FFFF. That block is always skipping and nothing to write there. If someone is telling you that firmware does not work because something is not written there, most likely the person simply does not understand what he is talking about. If you want to change something there, plugin 53 allows you to realize any fantasy. How to read the password – read above.
All other things as usual including unlock. You can unlock ECU without lid opening for the #36, #39 and #66 plugins. This is a very pleasant feature for those who have already worked with these plugins before.
5. Emergency cases - actually, almost no chance to catch a problem on the table. But even if connection is broken ECU will start up again in service mode since loader area 14000-1FFFF does not touch.

CABLE pinout



Wires Colours

Red	+12B	Blue-Green	GPT1
Black	GND	Yellow-Red	GPT2
White	CAN L	Violet	Vpp
Green	CAN H	Blue	CNF1
Yellow	K-Line	Grey	boot

External power supply 12V (5 A max) Jack

LED-powers when ECU is powered

Automatic managing of power and signals for PCMFlash and Scanmatic Pro only.