

Volvo_CEM_M32C_L

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Getting Started

System requirements

Getting help

Supported only by UHDS with serial number:
SN 5000....
old UHDS 1000...4999 not supported this options.

Supported cars:

Volvo CEM 60 2004...2009
Volvo CEM 70 2004...2007
Volvo CEM 80 2004...2006
Volvo CEM 90 2004...2014

Supported CEM:
M30835 512K
M30855 320K

Available options OBD:

- Read PIN (PIN1 ,PIN2)* OBD
- Learn Key OBD
- Erase Keys OBD
- Read Keys number OBD
- Read PIN (PIN1,PIN2)* from dump(s)
- Read EEprom
- Write EEprom
- Read Flash
- Write Flash
- Read Configuration
- Write Configuration
- Set New Immo PIN

PIN1 - 6 bytes PIN required for Flash//EEprom/Configuration Access
PIN2 -3 bytes PIN required for Learn/Erase Keys.

CEM "L" are in 2 main variants :

M30835 512K
M30855 320K

This info is important at Flash/EEprom/Configuration access.

Additionally CEM M30855 320K can be with UDS mode and without UDS mode - this is important at Read PIN routine

Read PIN works OBD and depended version can take 3- 30min.

For now we are tested many CEM's and all are supported for Read PIN by OBD.
But You have to know that it is possible that will be CEM which will not works OBD and required dump of flash for decode access.

Learn Keys - this option learn new transponder for Start the car. Learn Remote controls for now is not available .

Read PIN1

1.Read PIN1

This PIN is required for access to Flash/EEPROM /Configuration.
You don't must know CEM mcu version (512K or 210K). If you press button and if wrong option is selected software inform you about it and show info which option you have to use.
There are 3 options available :
-CEM M30835 512K
-CEM M30855 320K
-CEM M30855 320K UDS.

Procedure can take 3-40min.

Other option is Decrypt PIN from Flash dump (for example read by Jtag)

How to do :

Press button PIN(s) from(dump(s) and load Flash. When soft ask EEPROM file press cancel
Software show 6 bytes PIN1 Code

Read PIN2

2.Read PIN2

PIN2 is required for Learn or Erase Keys .
This pin can be decrypted from flash and eeprom.

How to read PIN2:

1. Press Read PIN
2. Press button Service Mode
3. Read button Read Flash
4. Press button Read EEPROM
5. Press button PIN(s) from(dump(s) and load Flash and eeprom file

Software show you 3 bytes PIN2

Service Mode

3. Service mode

By press button Service mode CEM will go in special boot mode.

Must be selected proper option for M30855 or M30835. If you select wrong option software show information

First soft ask You PIN1 code (bytes) You must know PIN1 code before you start this operation,

Service mode give you access to options:

-Read EEPROM

-Write EEPROM

-Read FLASH

-Write FLASH

-other options not required Service mode.

After finish operations please press button Exit Service mode

Read EEprom

4. Read EEPROM

This operation is possible only in Service mode . Please read section "Service mode".

With this option You read full dump from 93C86 eeprom

Write EEprom

5. Write EEPROM

This operation is possible only in Service mode . Please read section "Service mode".

With this option You write full dump from 93C86 eeprom

Read Flash

6. Read Flash

This operation is possible only in Service mode . Please read section "Service mode".

With this option You read full dump from M30855 or M30835

Write Flash

7. Write Flash

This operation is possible only in Service mode . Please read section "Service mode".

With this option You write full dump from M30855 or M30835

Read Configuration

8. Read Configuration

By Press Read Config software read from CEM Configuration. for this option is not required PIN code

Configuration is save as bin file.

For now not descriptions config files bytes.

Write Configuration

9. Write Configuration

By Press Write Config software write config file to CEM , for this option is required PIN1 code (6 bytes).
Configuration is loaded as bin file.
For now not descriptions config files bytes.
Checksum for config file is calculated automatically.

Learn Keys

10. Learn Key

By Press Learn Key you can add new key.
You have to know PIN2. How to get it read sections PIN1,PIN2.
For now is only available to learn transponder (not possible to learn remote controls).
You have to use new transponder (not learned to other cars)
You can use normal Megamos 48.

Erase Keys

11. Erase Keys

This operation erase keys from CEM.
All keys will be wiped.
For perform this operation is required PIN2.
You have to know PIN2. How to get it read sections PIN1,PIN2.

Set New Immo PIN

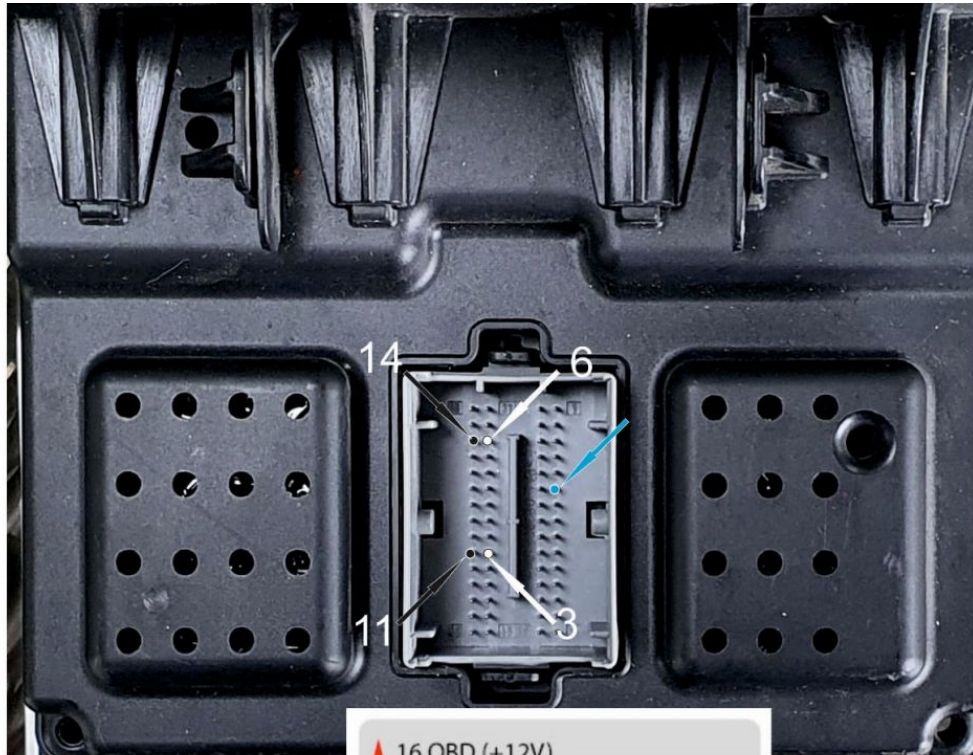
12. Set new immo PIN

By this option You can set new PIN2 code and immo synchro code (12 bytes)
This operation only possible on CEM in vigin mode. Virgin mode you can do by write first to all 93C86 value \$FF.
After that you can set new PIN2 code synchro code and learn keys.
Operation give posibilty adapt CEM to car.

Bench CEM Connection

1. Normally all options works OBD.

But for special reson is possible to connect CEM on bench
After power On on bench CEM after short time go to sleep mode .
That if no connection is with CEM please disconnect and connect again power to CEM



▲ 16 OBD (+12V)

▲ 4, 5 (GND)

▲ 7 Kline

▲ 6 CAN H

▲ 14 CAN L

▲ 3 CAN H 2

▲ 11 CAN L 2

