

EK205

Description Software Update V1.0x to V1.06

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1 Software Update



As a software update may be carried out may determine by national law.

If the software update is saved under calibration lock (like in Germany) there must:

- *at the beginning the functionality for carry out a software update must be activated by opened calibration lock (see chapter 1.3).*
- *after the software update the functionality for a software update must be deactivated again (see chapter 1.6)*



The software update of the EK205...

- *... may only be performed by a service technician which was trained by Elster.*
- *... depending on national regulations, a calibration officer must be on site.*
- *... is only possible by using DLMS protocol via the program enSuite (from V3.8.1).*
- *... may take longer than 45 minutes via optical head*



Read out all archives before carry out a software update because during the update the archives will be deleted.



Note for versions 1.01 and 1.02:

The update is mandatory if data from the EK205 must be read out via Modbus more than once per hour.

If the EK205 has already been in operation with Modbus communication and Modbus communication now fails permanently, a hardware replacement is necessary.

A software update is then not sufficient.

In this case, the EK205 must be sent back for repair !!!

1.1 Check List

The software update consists of the following steps:

Action	Ok?
1. Read out archives	
2. Activate the functionality for a software update (omitted if software update is not saved under calibration lock)	
3. Carry out software update	
4. Check if the update is successfully	
5. Deactivate the functionality to carry out a software update (omitted if software update is not saved under calibration lock)	
6. Final parameterisation of the new parameters	

1.2 Readout Archives

- The archives for billing applications should be read out from the head end system immediately before the update to avoid possible data gaps.
- To save all additional archives independent from the Head end system, open the program enSuite and establish a connection to the EK205.
- To read out the archives select menu item „[Read out archives](#)“ in the bottom left window of enSuite.
- Mark necessary archives inside the „[Read out archives](#)“ window and press „[Start read out](#)“.
- Wait until the reading out of the archives is ready.

1.3 Activate the functionality for a Software Update¹



This chapter is omitted if software update is not saved under calibration lock!


- For activating the functionality for a software update please open the calibration lock as described in the EK205 manual.
- Download the wpp file „[EK205. - Activate software update \(*\)](#)² into EK205 via enSuite.
- Then the software update can now be performed (see following Chapter)

1.4 Software Update

- Store the software file (SDM file) under a self-defined path on your PC



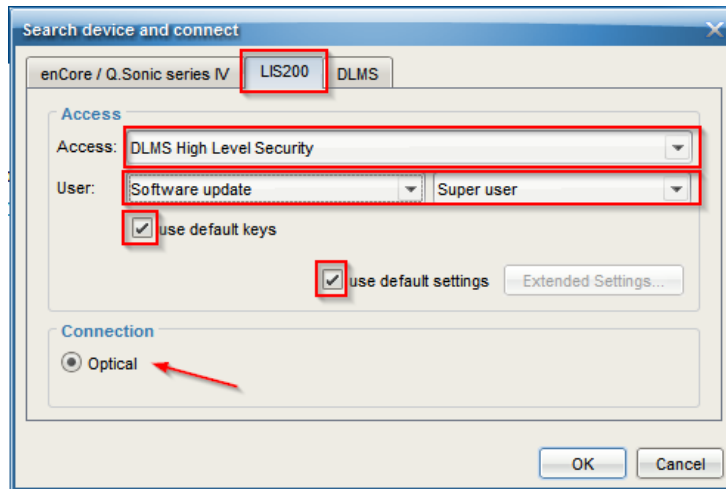
The software file is only available from the manufacturer Elster.

- Close the connection (press the symbol „[Disconnect](#)“ () to cancel the “LIS200” connection. The following connection is a "DLMS - high level security" connection to carry out the software update.
- Press the symbol „[Search device \(F3\)](#)“ (loop symbol)
- In the window „[Search device and connect](#)“ select the register „[LIS200](#)“

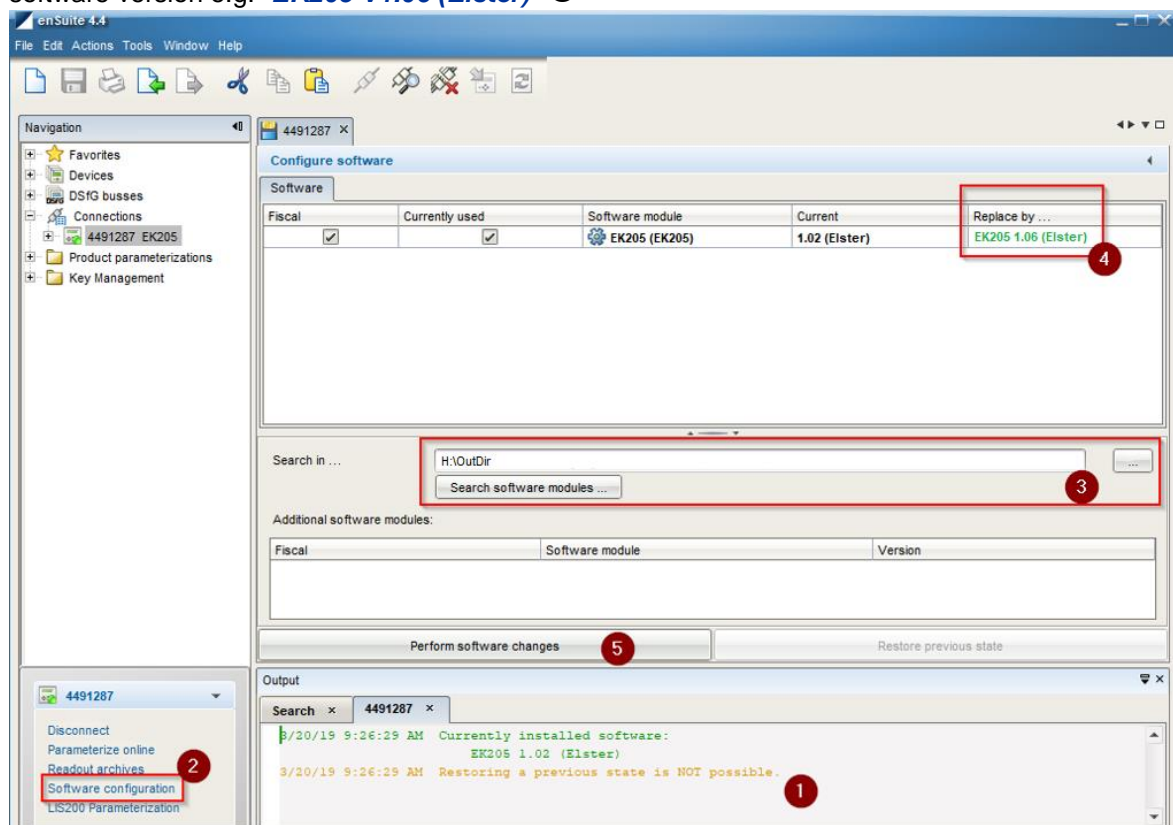
¹ This step must be carried out according to the currently calibration regulations in Germany.

² The star * represents a lowercase letter that identifies the version of the file, e.g. "a".

- Select the required access level: **"Access"** → **„DLMS High Level Security“**
"User" → **„Software update“**, and **"Super user"**:



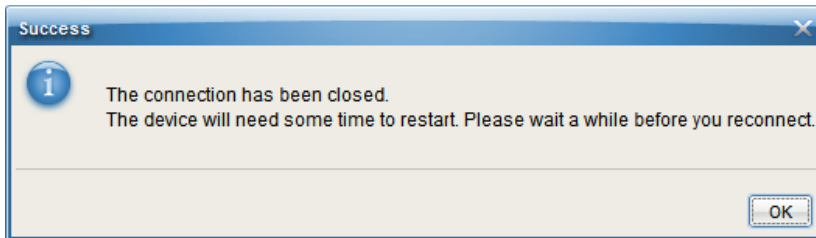
- Take care that **„use default keys“** and **„use default settings“** is marked **"on"**.
- Choose the connection **„Optical“** and press the button **„OK“**
- Wait some seconds until **„Connected“** is displayed on the bottom of the **„Output“** window. **1**
- To start the software update select the menu item **„Firmware configuration“** in the left window of the enSuite **2**
- In the tab **„Firmware“** → **„Firmware source.“** press the key with the symbol **„...“** select the path for the software file (you have used before). **3**
- Press the button **„Search updates...“** **4**
- In the row **„New“** press on the displayed value to open the pull down menu and select the new software version e.g. **„EK205 V1.06 (Elster)“** **5**



- Press the button **„Perform firmware change“** **6** and conform with **„Yes“**:



- Now the automatically software update starts. This depends on the speed of the optical interface and may take about 10 min.
- After the file transfer and the examination the EK205 makes a restart and interrupting the optical connection to enSuite. This is normal and the messages can therefore be confirmed with "OK":



- The software will be activated automatically from the EK205. Here, various procedures are performed by the EK205 and displayed (duration: ca. 6 minutes).
- Then the display switches back to „Main“ and the EK205 is operational again!

1.5 Check: Successfully Software Update

1.5.1 Device software identification

Comparison of the device software version and checksum on the device containing the information listed in the certificate.

- Move the cursor in the register *„Serv.“* to *„Identification“* → *„Volume converter“* → *„Vers“* or *„Chk“*
- The checksum *„Chk“* can be recalculated for verification purposes by pressing the ENTER button.

1.5.2 Update Archive

Check the entries inside the Update archive (see application manual). Inside the update archive, all tries and successfully changes of the software are registered. The content of the update archive can be displayed via keypad under *„Serv.“* > *„Archives“* > *„Update Archive“*.



The update archive isn't a flexible and not a roll-over archive.

1.5.2.1 Construction of the Update Archive

Pos.	Address	Short name	Description	Available ¹
1	01:01F8	GONo	Global order number	I
2	08:0A20	ABNo	Archive internal order number	D + I
3	01:0400	Time	Time stamp	D + I
4	02:0197	NVers	New software version	D + I
5	01:0198_1	SigRL	Signature of the new version Low Part – Part „R“	D + I
6	01:0198_2	SigRH	Signature of the new version High Part – Part „R“	D + I
7	02:0198_1	SigSL	Signature of the new version Low Part – Part „S“	D + I
8	02:0198_2	SigSH	Signature of the new version High Part – Part „S“	D + I
9	08:0811	User	Profile and user (separated via semicolon)	D + I
10	08:0812	Reslt	Results of the software update	D + I
11	08:0A21	Check	Checksum evaluation („CRC OK“ or „Error“)	D + I

¹ The entries are available via „D“ = Display and / or via „I“ = Interface

1.6 Deactivate the Functionality to carry out a Software Update



Depending on the national regulations, it is necessary to perform the function of a software update to put back under calibration lock (see Chapter 1.6).



Omitted if software update is not saved under calibration lock

- For deactivating the functionality for a software update, please open the calibration lock again.
- Start the software enSuite and establish an optical connection via [LIS200 – access](#) ! to the EK205.
- Download the wpp file „[EK205 - Deactivate software update \(*\)](#)“³ into EK205

1.7 Concluding parameterization

1.7.1 Device time, meter reading, clear status register

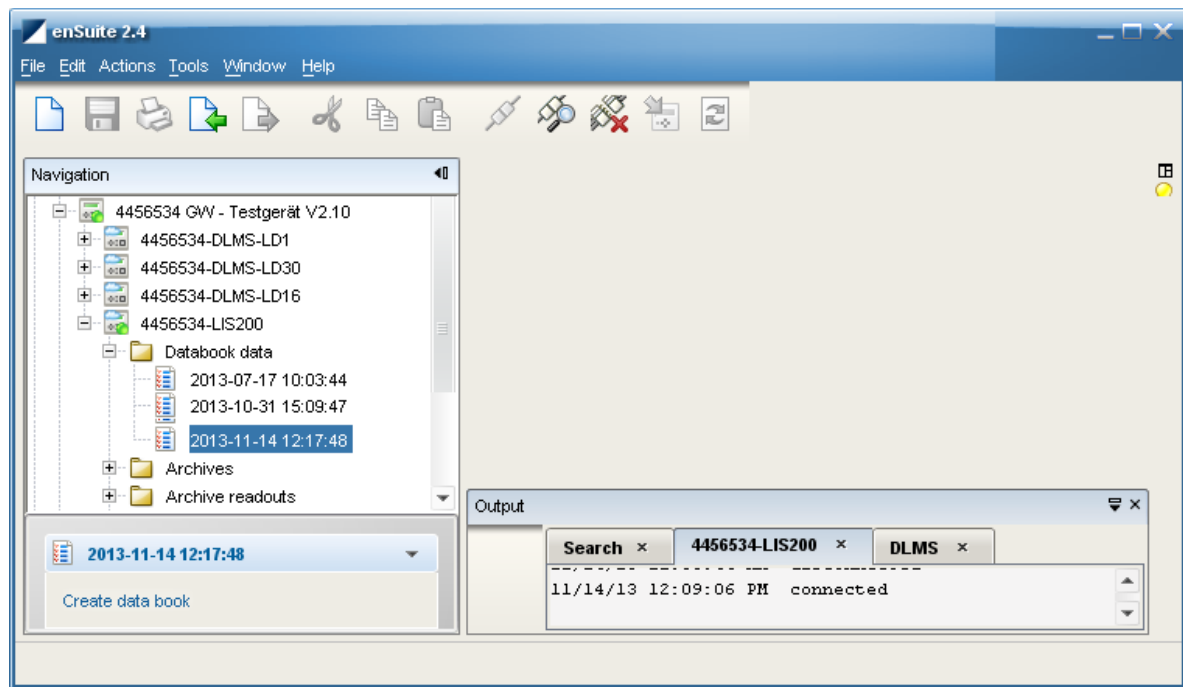
After a successfully completed firmware update, the time on the EK will be approximately 1-2 minutes slow.


- Switch to enSuite to view "[Overview](#)" and check the current time of the EK
- To correct the time, press the button "[Set to PC time...](#)"
- The time on the EK is synchronized with your computer's time, therefore pay attention to the exact time of your computer.
- If a LF pulse transmitter is used from the gas meter the meter reading Vm of the EK doesn't corresponds to the meter reading of the mechanical meter. Under „[Parameterize online](#)“ → „[Parameter](#)“ → „[Volume](#)“ → [Actual volume](#)“ the meter reading Vm can be set if the calibration lock is opened.
- Delete the status register via enSuite under "[Parameterize online](#)" under "[Overview](#)" or via the context button directly on the EK205.

1.8 Print out a new Data Book

- Depend on the local requirements it is necessary to build a new data book.
- In enSuite under "[Tools](#)" → "[Options](#)" → "[Data book options](#)" enter the header of the data book (company name, address, etc.) including a logo (JPG / BMP) to be shown on the printed data book.
- Under the menu item „[Parameterize online](#)“ in the bottom left window of the enSuite jump to the folder "[Parameters](#)" > „[Data book](#)“.
- Check **all** entries in all subfolders!
- Under the chapter „[Record of actions](#)“ the software update should be entered.
- Select the menu item „[Create data book](#)“ in the bottom left window of the enSuite.
- Select the layout name and the language and press "[OK](#)".
- All entries will be read out (it takes 1 minutes) and the data are stored inside the enSuite data base.
- The data book is displayed and can be printed out e.g. via a pdf generator.
- In addition, later on you can rebuild the data book offline in the office again to print out the data book. Select the requested data book in the "[Navigation window](#)" → "[My devices](#)" → "[requested device](#)" → "[xxx-LIS-200](#)" → "[Data book data](#)":

³ The star * represents a lowercase letter that identifies the version of the file, e.g. "a".



- Close the connection (press the symbol „Disconnect“ ()
- Close calibration lock and admin lock.
- **Software update carried out successfully!**