Xylem Firmware Tool

For e-SVE, VME, e-HME, e-SVIE, e-LNEEE, e-LNESE, e-LNTEE, e-LNTSE

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1. Overview

The **Xylem Firmware Tool** software allows to:

- Configure a replacement (non-programmed) Smart Pump drive with the factory software intended for the pump
- Update the firmware of a Smart Pump
- Reconfigure a Smart Pump drive for a different Smart Pump model

2. Requirements

- Computer with MS Windows 7 or later
- Internet connection (required when starting the software for the first time)
- **Xylem Firmware Tool** software
- USB/RS-485 converter (P/N **109395920 KIT CABLE USB/RS485 M&C**)
- Electric cable for connecting the pump to the single-phase or three-phase network

3. Installing the Xylem Firmware Tool on your computer

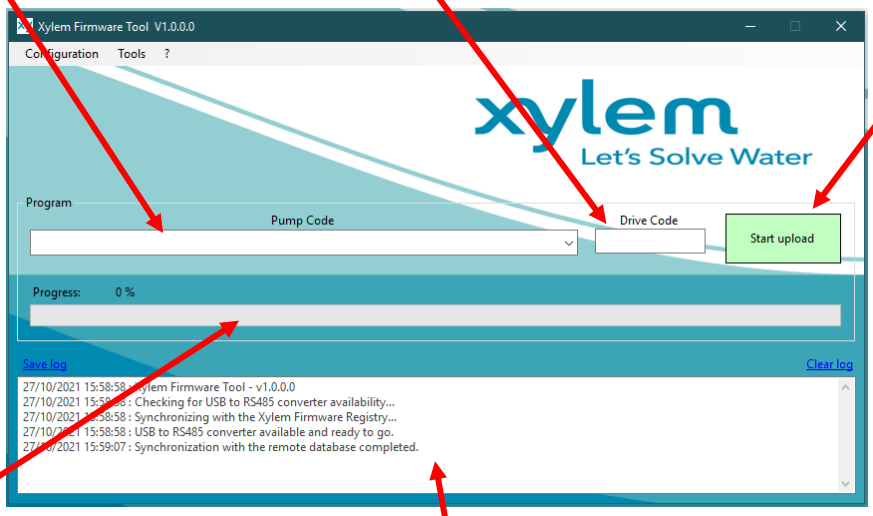
- Visit the website https://www.xylem.com/en-uk/campaigns/global/lowara-smart-pumps-new/
- Download the file *Xylem Firmware Tool.zip*
- Extract the contents of the zip file to a folder of your choice or to the Desktop of your computer
- The software does not need to be installed, just double-click on the executable file *Xylem Firmware Tool.exe* to run it
- The first time the software is started, it needs to connect to the Internet to update the files necessary for programming (the software will search the Internet for updates at subsequent starts)

4. Xylem Firmware Tool interface

Pump code input area

Drive code proposed automatically by the software (to be confirmed during programming)

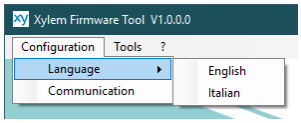
Button to start programming



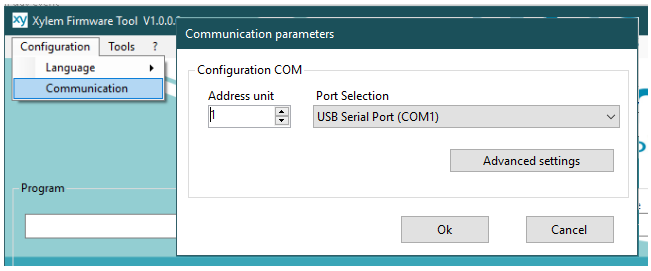
Programming progress bar

Message log area

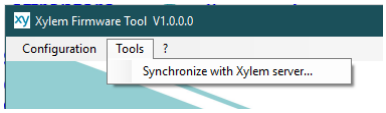
Language selection



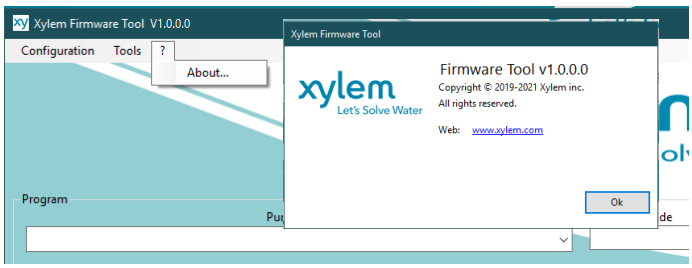
Communication configuration



Synchronization with server



Software information



5. Safety instructions

	Xylem Firmware Tool is intended for use by qualified personnel only!
	Before starting any operation, carefully read the manual of the electropump on which you are working, and in particular chapter 4.3 Electrical installation. Please note that the connection to the electricity mains must be carried out by an electrician who has the technical and professional requirements required by the directives in force.

6. Connecting the drive

1. Ensure that the drive to be programmed is correctly assembled on the Smart Pump motor; in case of a spare drive, follow the instructions included with the spare for assembly.
2. Connect the power cable to the drive (L, N, PE for the single-phase version or L1, L2, L3 and PE for the three-phase version)
3. Connect the USB/RS-485 converter terminal to terminals 15, 16, 17 (on single-phase version) or 7, 6, 5 (on three-phase version)
4. Close the drive cover (all cables must be inserted through the cable glands to avoid contact with electrical components)
5. Connect the USB/RS-485 converter to a free USB port on the computer and wait for the computer to recognise the device
6. Apply power to the drive
7. Depending on the type of activity, proceed to the respective section:
    - Section 7 in case of *Programming a new replacement drive*
    - Section 8 in case of *Firmware upgrade on a Smart Pump drive model e-SVE, e-HME, e-SVIE, VME*
    - Section 9 in case of *Firmware upgrade on a Smart Pump drive model e-LNEEE, e-LNESE, e-LNTEE, e-LNTSE*

7. Programming a new replacement drive

1. Make a note of the current configuration of the pump so that it can be restored after replacing the drive
2. Double-click on the **Xylem Firmware Tool** software
3. The software proposes to connect to the COM port corresponding to the USB/RS-485 converter: check that the port is correct and confirm by pressing **OK**. If the software does not propose the *Communication Parameters* page, you can access it by clicking on *Configuration* and then on *Communication*
4. Enter the pump code in the **Pump code** window, select the correct match and click on the **Start upload** button
5. A window asks you to check that the expected drive code is the one actually present on the label of the drive being programmed: check that the code matches and press **OK** to start the drive update procedure
6. During the update procedure the drive display is off and only the **Status** LED remains red to indicate that the drive is receiving the configuration files; the **Status** LED will flash during the update process
7. At the end of the update process, the drive will power up normally
8. Remove power and wait the time specified in the manual before opening the cover
9. Open the cover and remove the USB/RS-485 converter terminal
10. Refer to the manual to proceed with programming

8. Firmware upgrade on a Smart Pump drive model e-SVE, e-HME, e-SVIE, VME

1. Make a note of the current configuration of the pump so that it can be restored to the condition it was in before the firmware update
2. Set parameter **P25 Control Mode** to ACT or HCS
3. Set parameter **P50 Communication protocol** to MOD
4. Take note of the value of parameter **P51 Address**
5. Double-click on the **Xylem Firmware Tool** software
6. The software proposes to connect to the COM port corresponding to the USB/RS-485 converter: set **Address Unit** to the value previously read on the parameter **P51 Address** and confirm by clicking on **OK**. If the software does not propose the *Communication Parameters* page, you can access it by clicking on *Configuration* and then on *Communication*
7. Enter the pump code in the **Pump code** window, select the correct match and click on the **Start** button
8. A window asks you to check that the expected drive code is the one actually present on the label of the drive being programmed: check that the code matches and press **OK** to start the drive update procedure
9. During the update procedure the drive display is off and only the **Status** LED remains red to indicate that the drive is receiving the configuration files; the **Status** LED will flash during the update process
10. At the end of the update process, the drive will power up normally
11. Remove power and wait the time specified in the manual before opening the cover
12. Open the cover and remove the USB/RS-485 converter terminal
13. Reset parameter **P25 Control Mode** and **P50 Communication Protocol** to the values they had before the software update
14. Refer to the manual to proceed with programming

9. Firmware upgrade on a Smart Pump drive model e-LNEEE, e-LNESE, e-LNTEE, e-LNTSE

1. Make a note of the current configuration of the pump so that it can be restored to the condition it was in before the firmware update
2. Set parameter **P38 Control Type** to **SnG**
3. Set parameter **P50 Communication protocol** to **MOD**
4. Take note of the value of parameter **P51 Address**
5. Double-click on the **Xylem Firmware Tool** software
6. The software proposes to connect to the COM port corresponding to the USB/RS-485 converter: set **Address Unit** to the value previously read on the parameter **P51 Address** and confirm by clicking on **OK**. If the software does not propose the *Communication Parameters* page, you can access it by clicking on *Configuration* and then on *Communication*
7. Enter the pump code in the **Pump code** window, select the correct match and click on the **Start** button
8. A window asks you to check that the expected drive code is the one actually present on the label of the drive being programmed: check that the code matches and press **OK** to start the drive update procedure
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12. Open the cover and remove the USB/RS-485 converter terminal
13. Reset parameter **P38 Control Type** and **P50 Communication Protocol** to the values they had before the software update
14. Refer to the manual to proceed with programming