

# **Operating Manual**

## **DEHNrecord DRC SW Update**



**Issued by:** DEHN + SÖHNE GmbH + Co.KG.  
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## Terms and definitions

### **Blitzductor**

Surge protection module manufactured by DEHN + SÖHNE

### **DEHNrecord DRC LC M3+**

DEHNrecord DRC LC M3+ is a compact hand-held reader with integrated RFID technology for non-contact testing of surge protection modules (Blitzductors).

### **DEHNrecord DRC MCM XT**

DEHNrecord DRC MCM XT is a compact monitoring device in XT enclosure with integrated RFID technology for non-contact stationary monitoring of surge protection modules (SPDs).

### **LifeCheck®**

Test for correct functioning which allows to test surge protection modules during operation of the installation without removing them.

### **Microsoft .NET Framework® 2.0**

Library basically independent from programming languages for developing and performing applications and services that are based on Microsoft **.NET** technology (e.g. PC application programs and so-called web services).

### **RFID**

**R**adio **F**requency **I**dentification – Identification procedure per radio technology which allows for non-contact reading and saving of data.

### **SPD**

**S**urge **P**rotective **D**evice

### **SW**

**S**oftware

### **VB2005**

Microsoft Visual Basic® 2005 – Programming language of Microsoft Windows® operating system using **.NET** technology.

### **C#2005**

Microsoft Visual C# 2005 – Programming language of Microsoft Windows® operating system using **.NET** technology.

### **USB**

**U**niversal **S**erial **B**us – Bus system for connecting external devices

## Literature / References

**/1/** Operating manual **DEHNrecord DRC LC M3 / M3+**

Issued by: DEHN + SÖHNE

**/2/** Operating manual **DEHNrecord DRC MCM XT**

Issued by: DEHN + SÖHNE

## 1 Application

**DEHNrecord DRC SW Update** is a PC application program which allows for loading new software versions on the

- hand-held DEHNrecord DRC LC M3/M3+ and on the
- stationary monitoring device DEHNrecord DRC MCM XT

and for storing these software versions in the non-volatile FLASH memory.

## 2 Installation

The installation of the PC program DEHNrecord DRC SW Update is described below.

### 2.1 System requirements

For the installation of the SW package the following requirements have to be met:

A usual PC with an already installed .NET-Framework compatible Microsoft operating system such as

- Windows® 98
- Windows® ME
- Windows® 2000 with SP3
- Windows XP® with SP2
- Windows Vista® with SP1

Please note that Windows 95 and Windows NT are not supported.

The processor used in the PC should at least be a Pentium III with 700 MHz.

The display adapter has to support at least 1024x768 pixels at 256 colours.

The general storage extension should be at least 256 MB. Furthermore a CD drive and a USB interface is necessary.

Approx. 15 MB fixed-disc storage (or approx. 100 MB if a .NET-Framework® 2.0 is not yet installed) is necessary for the installation.

The .NET-Framework® 2.0 itself requires the Microsoft Software Installer (MSI) in Version > 3.0 as well as the Microsoft Internet Explorer Version > 5.01.

If not yet installed, installation of the Microsoft Software Installer and of the .NET Framework® 2.0 will be automatically initiated by the DEHN installation program.

Prerequisite for downloading from the Microsoft Website, however, is an internet access (see /1/).

In addition a suitable driver has to be installed on the PC for getting a communication channel with the hand-held reader DEHNrecord DRC LC M3/M3+ or the stationary monitoring device DEHNrecord DRC MCM XT.

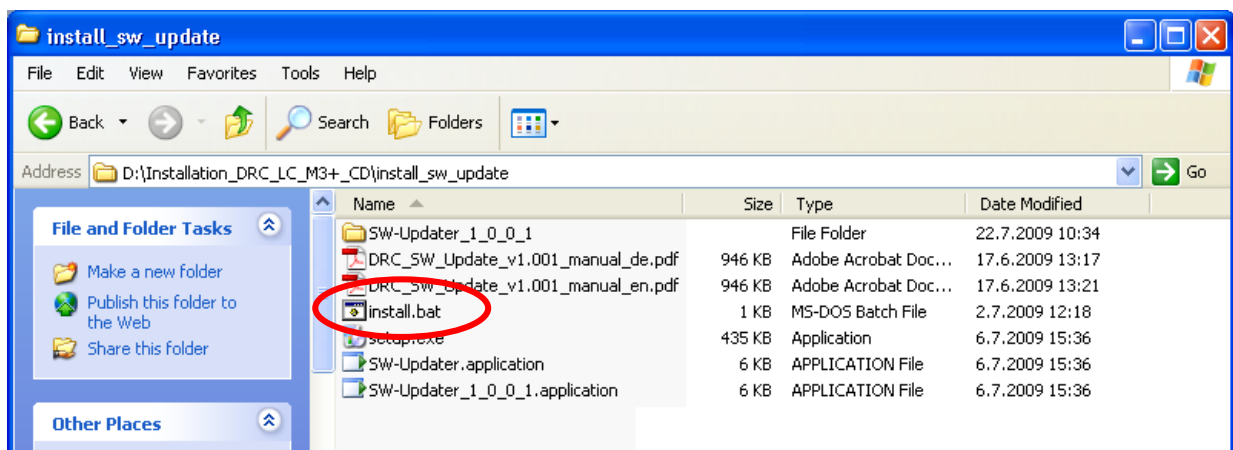
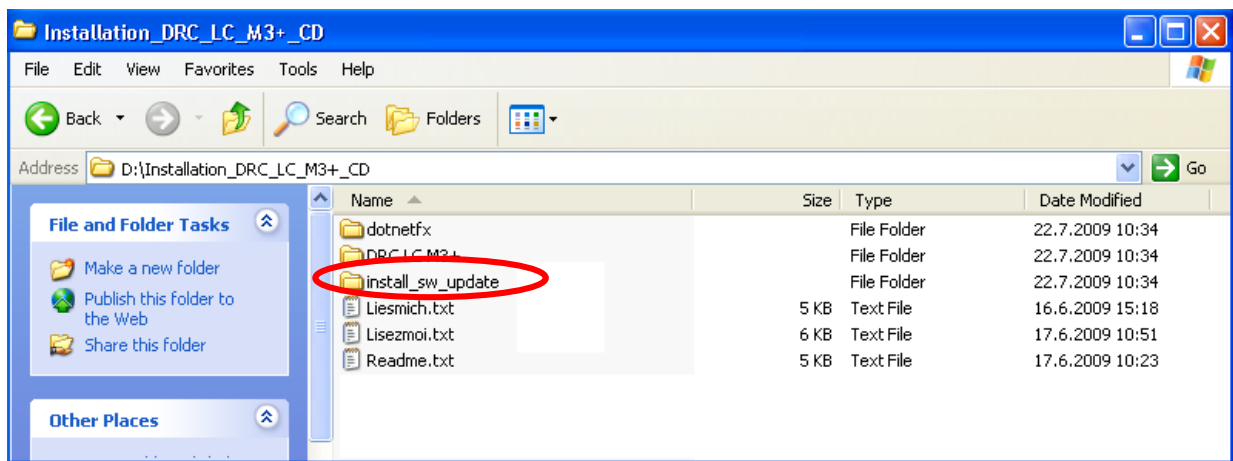
For the hand-held reader DEHNrecord DRC LC M3/M3+ the driver for the USB connection of the hand-held reader has to be installed. If the installation of the software package **"DEHNrecord user surface"** evaluation software for the RFID hand-held reader DRC LC M3 was implemented (see /1/), this driver is already installed. Otherwise it has to be installed by double clicking of the "CP210x\_Drivers.exe" file in the directory "cp2102\_usb2uart". Details of the installation procedure under /1/.

The stationary monitoring device DEHNrecord DRC MCM XT requires a suitable interface converter for coupling the RS485 Bus to the PC (see /2/).

The PC program DEHNrecord DRC SW Update should only be installed at need (new software version is available and is necessary).

## 2.2 Installation procedure

Insert the CD included in delivery into the CD drive of your PC to install the software package. After opening the CD drive in the Windows® Explorer, double-click the **install\_sw\_update** directory to open it. If you double-click the "**install.bat**" file, installation is started.

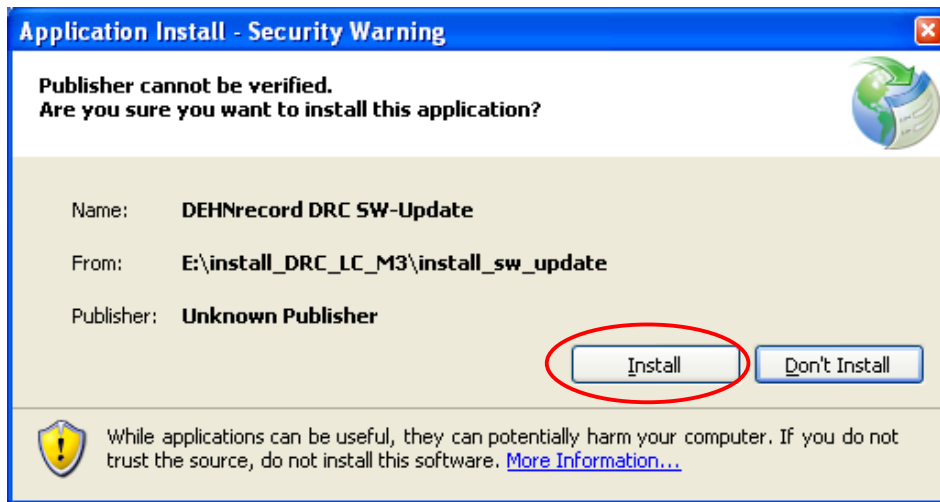


During the installation process, the operating manual for the **DEHNrecord DRC SW Update** (document at hand) is copied in the home directory of the respective user before the **DEHNrecord DRC SW Update** program package is installed.

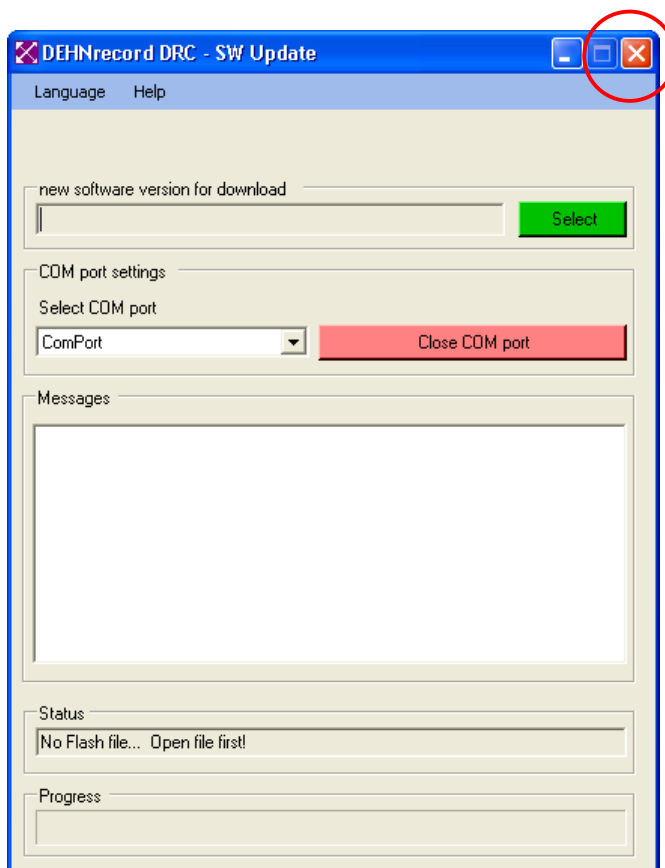
Before installing the SW update, the **.NET-RunTime** environment is checked for correct installation. If necessary, incomplete or faulty installations are corrected.

**Note:** For this purpose, Internet access is required!

If the **.NET-RunTime** environment is installed correctly, the **DEHNrecord DRC SW Update** program is installed. When the Security warning window appears, press the Install button to continue installation.



The application is installed and automatically started.

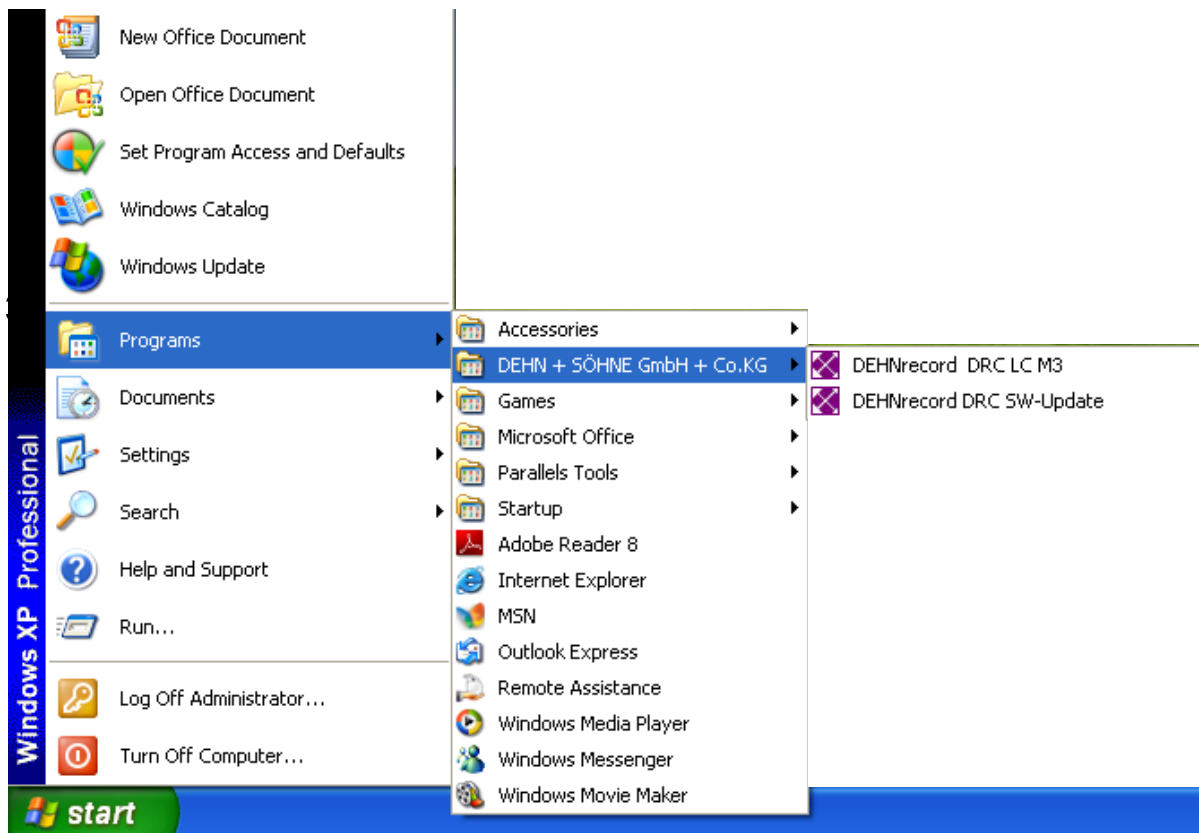


Press the "Close" symbol to close the application.



## 2.3 Checking the installation procedure

If the **DEHNrecord DRC SW Update** has been installed correctly, a new item for the software update has been created in the Windows® Start menu under Programs “DEHN + SÖHNE GmbH + Co.KG.”.



### 3 Working with the DEHNrecord DRC SW Update

When using the hand-held DEHNrecord DRC LC M3 reader, observe the warnings described in */1/*, when using the DRC MCM XT monitoring device, observe the warnings described in */2/*.

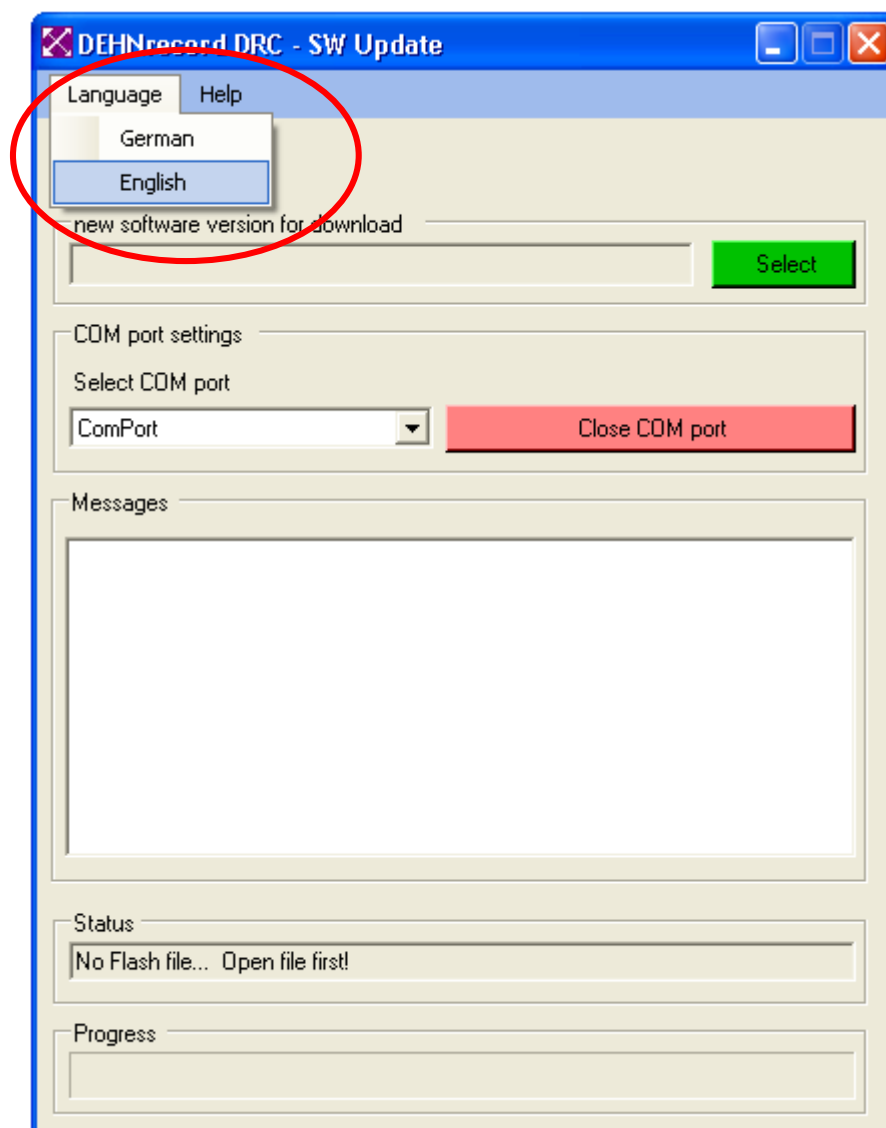
#### 3.1 Starting the software update

The DEHNrecord DRC SW update is started via the Windows® Start menu as described in 2.3.

##### 3.1.1 Language

Whenever starting the device, the program automatically checks which Regional and Language Options are set in the Windows® Control Panel. If a language other than German (Germany) is set, the program automatically selects “**English**” as predefined language and is started in this language.

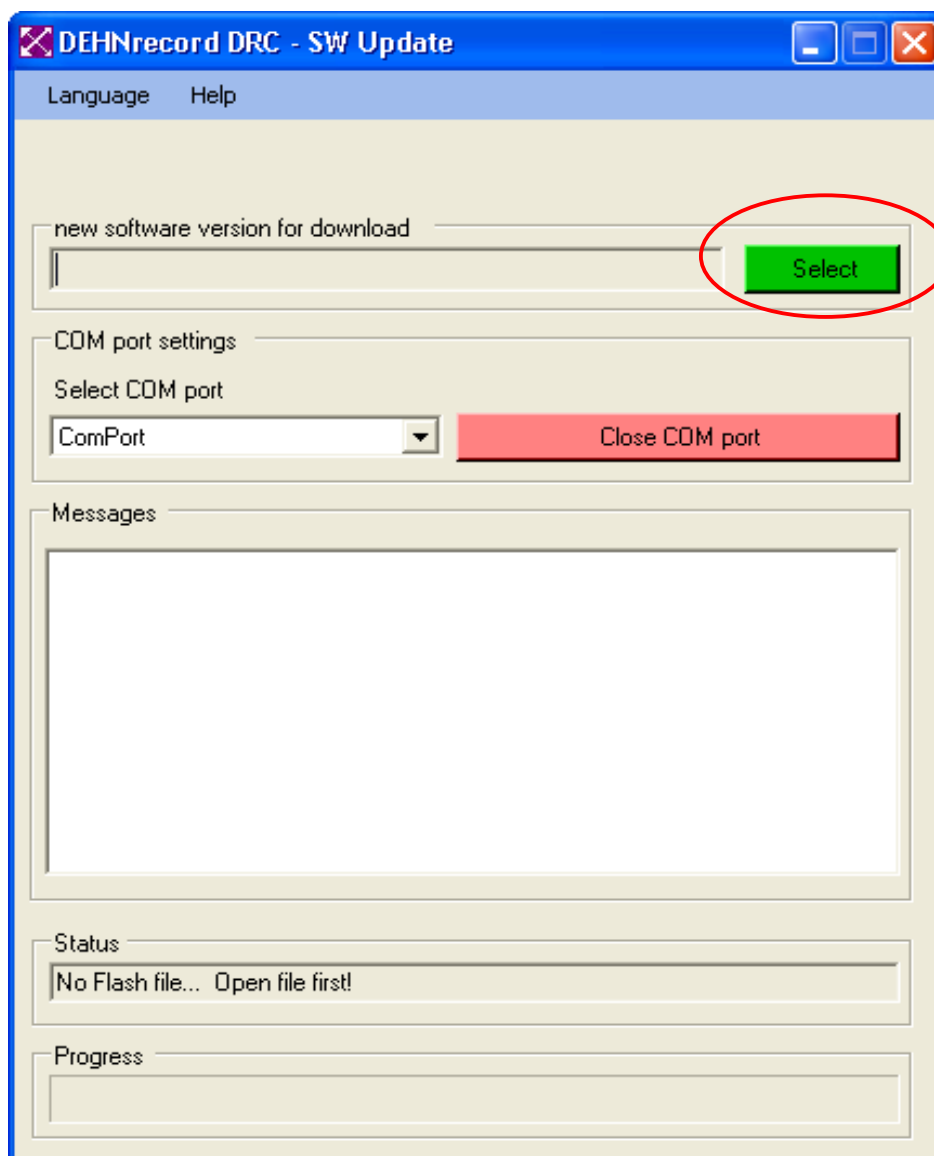
You can change the language anytime by clicking the corresponding option.



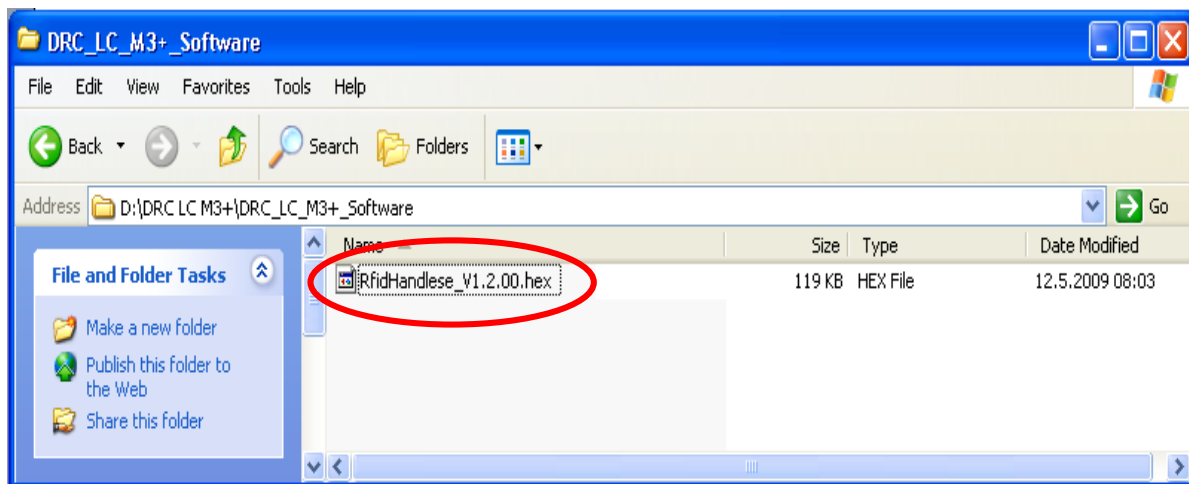
After the installation has been started for the first time, select the file performing the software update and set the communication interface for connection with the hand-held reader or the stationary monitoring device. These values are stored in the program and displayed each time the program is started. These values only have to be set again if changes are required.

### 3.1.2 Selection of the update file

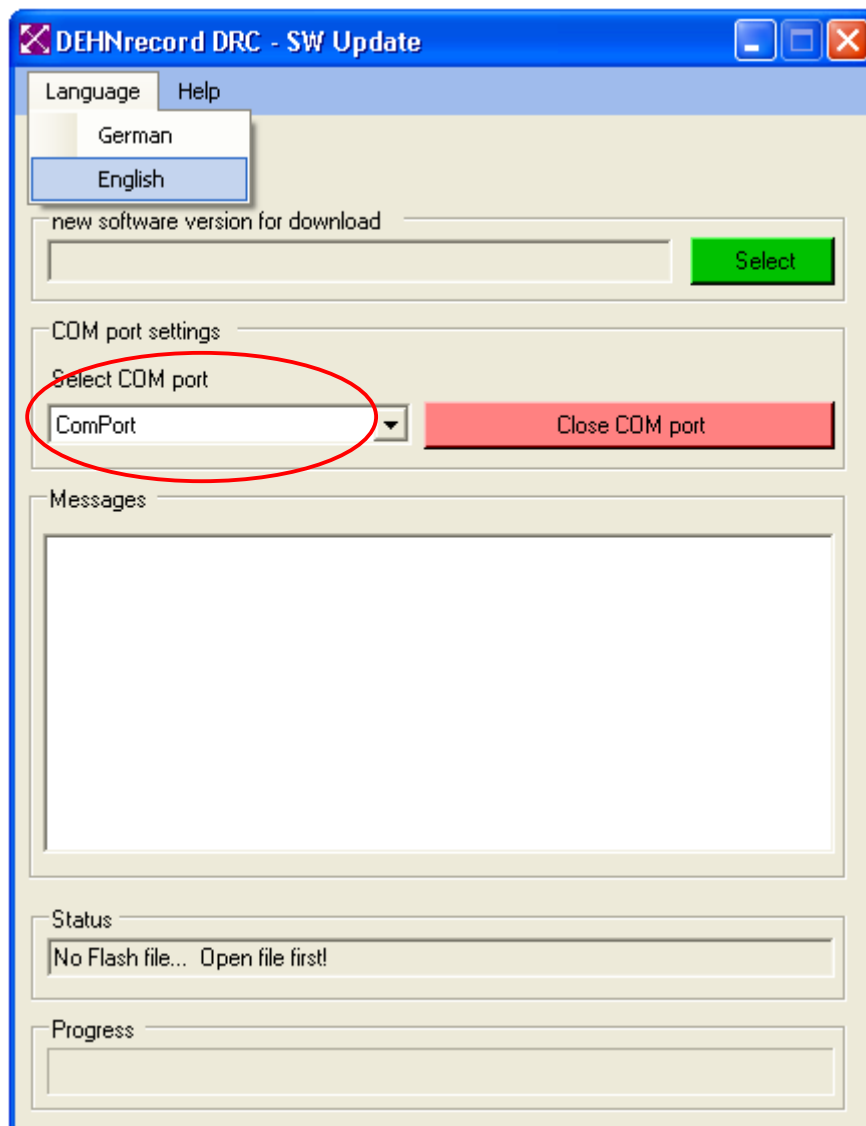
The file performing the software update can be selected to load a file after clicking the "Select" button via the opening standard Windows® dialog.



Software update files always have a ".hex" ending.

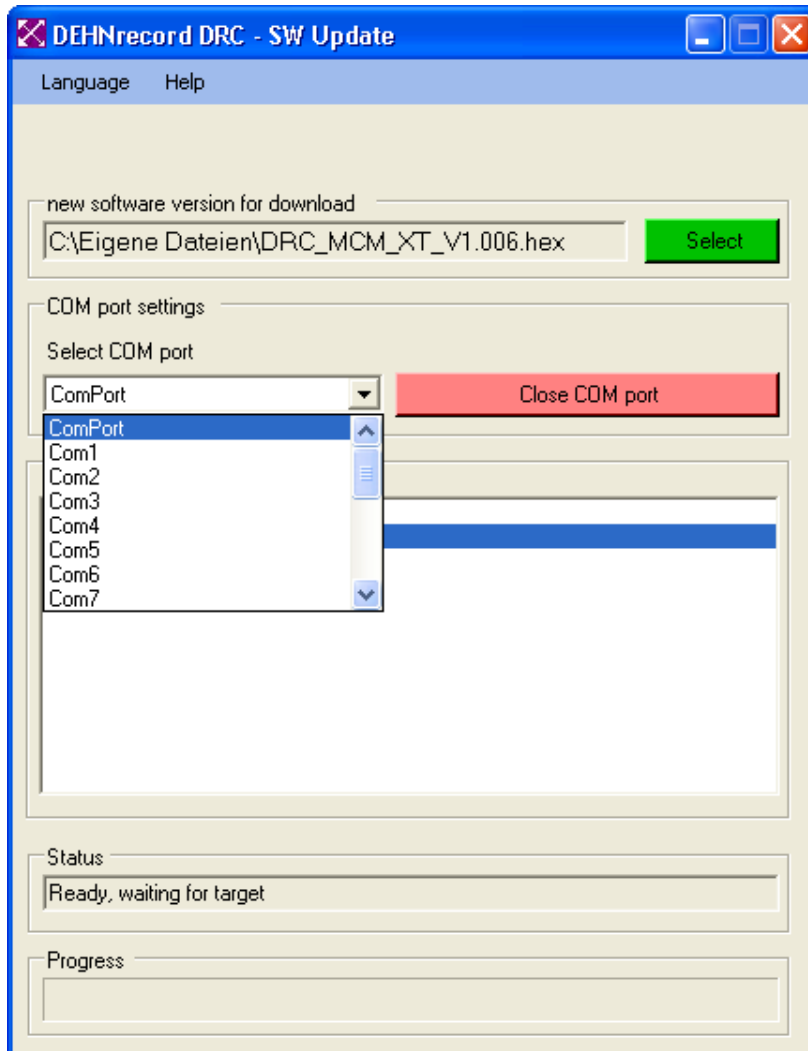


The next step is to select the COM port to connect the PC with the hand-held reader or the monitoring device.



### 3.1.3 Selection of the COM port

The correct communication port has to be selected to connect the PC with the hand-held reader / monitoring device.



For the purpose of a software update with the hand-held reader DRC LC M3+, **you have to ensure that**

- the hand-held reader and the PC are connected with each other via the USB cable
- the hand-held reader is switched on and booted up.

For the purpose of a software update with the monitoring device DRC MCM XT, **you have to ensure that**

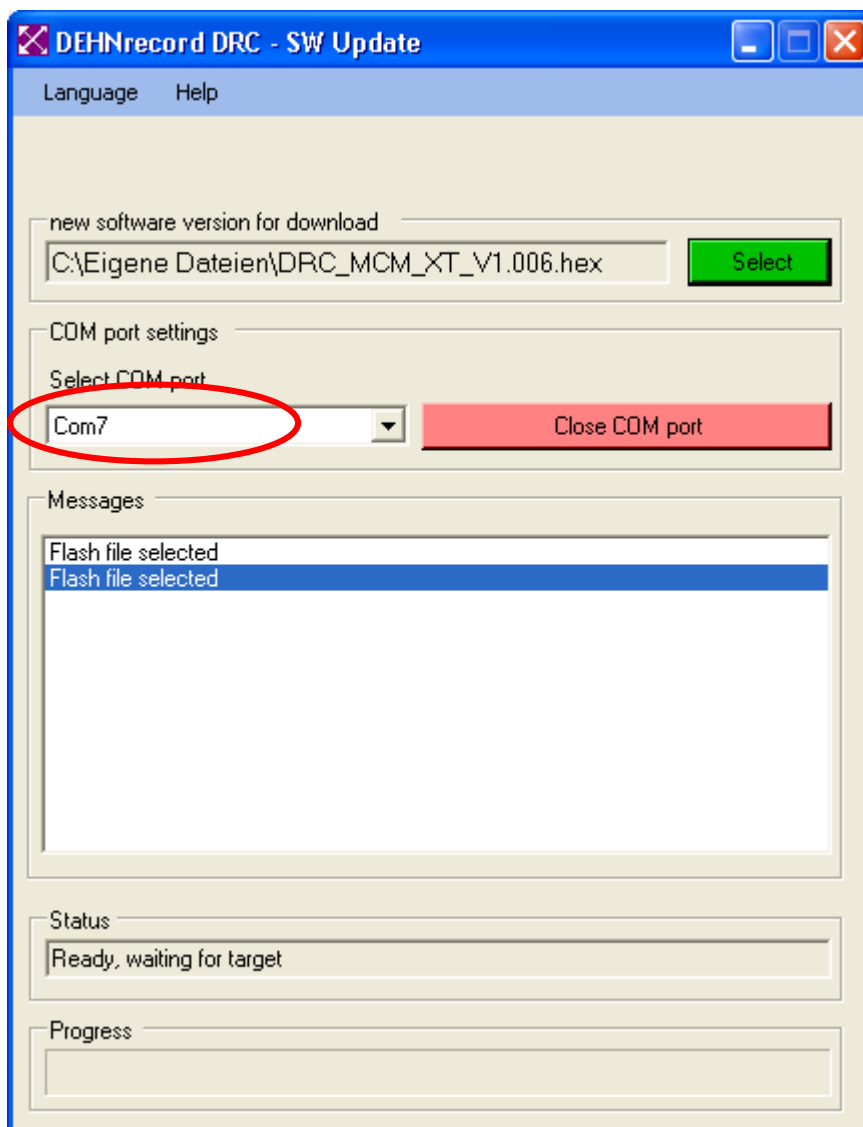
- the interface converter USB-Nano 485 is plugged in at the PC and is connected with the corresponding terminal of the monitoring device.

Windows® automatically loads and activates the USB interface driver as soon as the hand-held reader is switched on or USB-Nano 485 plugged in. However, the USB

interface driver is deactivated and removed from the memory whenever the hand-held reader or the USB-Nano 485 is switched off or disconnected. The interface can then no longer be used even if it might still be displayed.

If the interface can no longer be addressed despite of existing connection and activated reader or plugged in USB-Nano interface converter, disconnecting and plugging in the USB cable / converter again might often help. After a short waiting time, the COM port can be reset.

Select the COM port as determined in the system control in the device manager of the system characteristics.



The software update is now ready for operation and is waiting for the reader or the monitoring device to start the update.

**Note:**

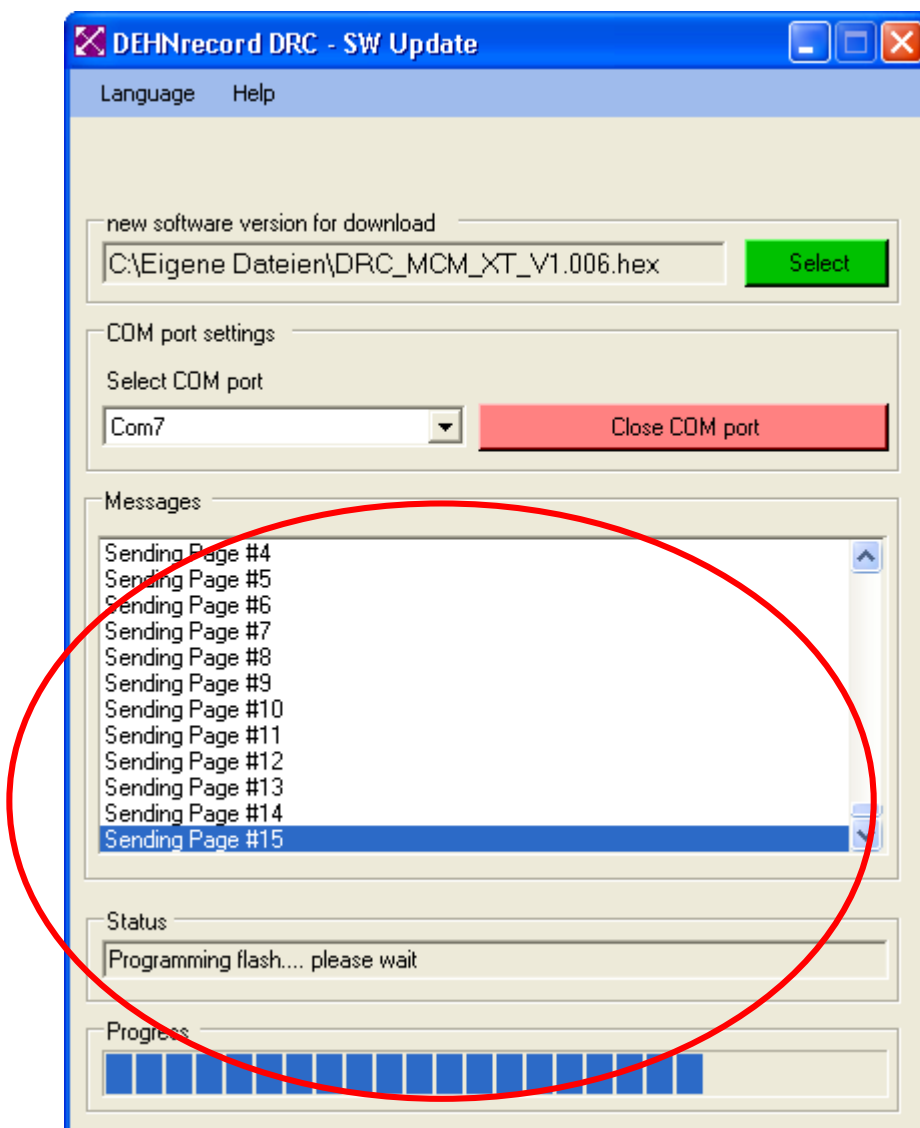
The COM port can be opened or closed via the "Close / Open COM port" button and is released (Close COM port) or locked (Open COM port) for other applications.

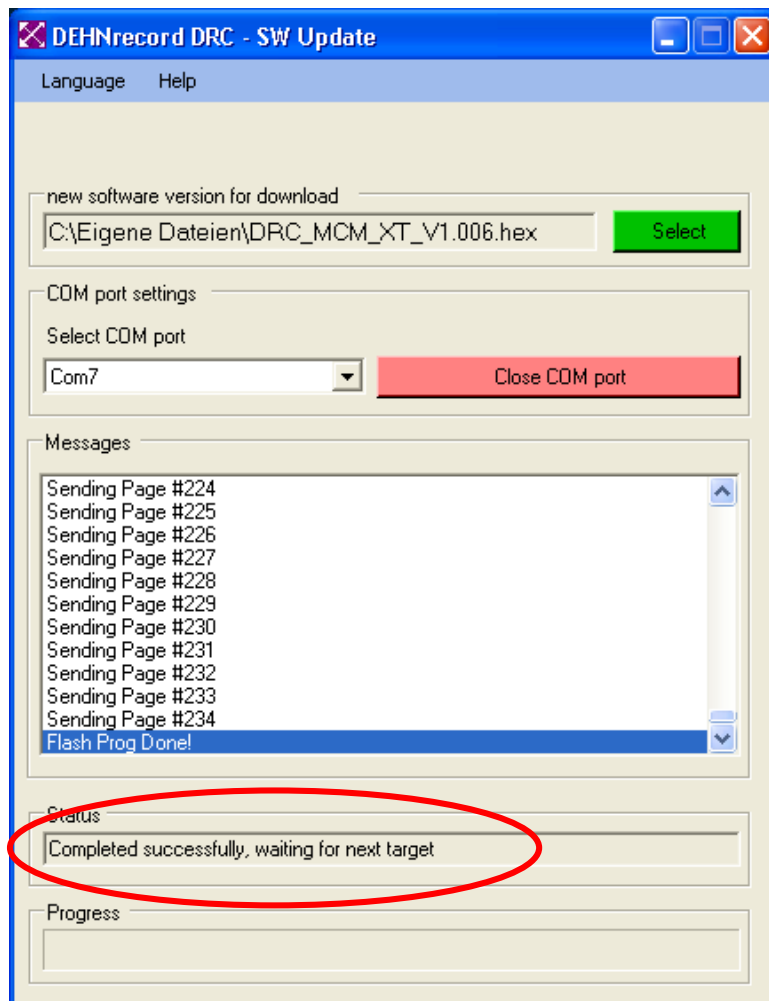
For detailed information on implementing of the SW update see also the corresponding operating instructions (see /1/ or /2/ in the corresponding chapter).

### 3.2 Implementing of the software update

After successful connecting and starting of the updating procedure at the hand-held reader DRC LC M3+ or configuring and plugging of the monitoring device DRC MCM XT into the base part, the updating procedure starts automatically.

The "**Messages**" and "**Status**" windows as well as the progress bar allow for tracking the progress of the update.





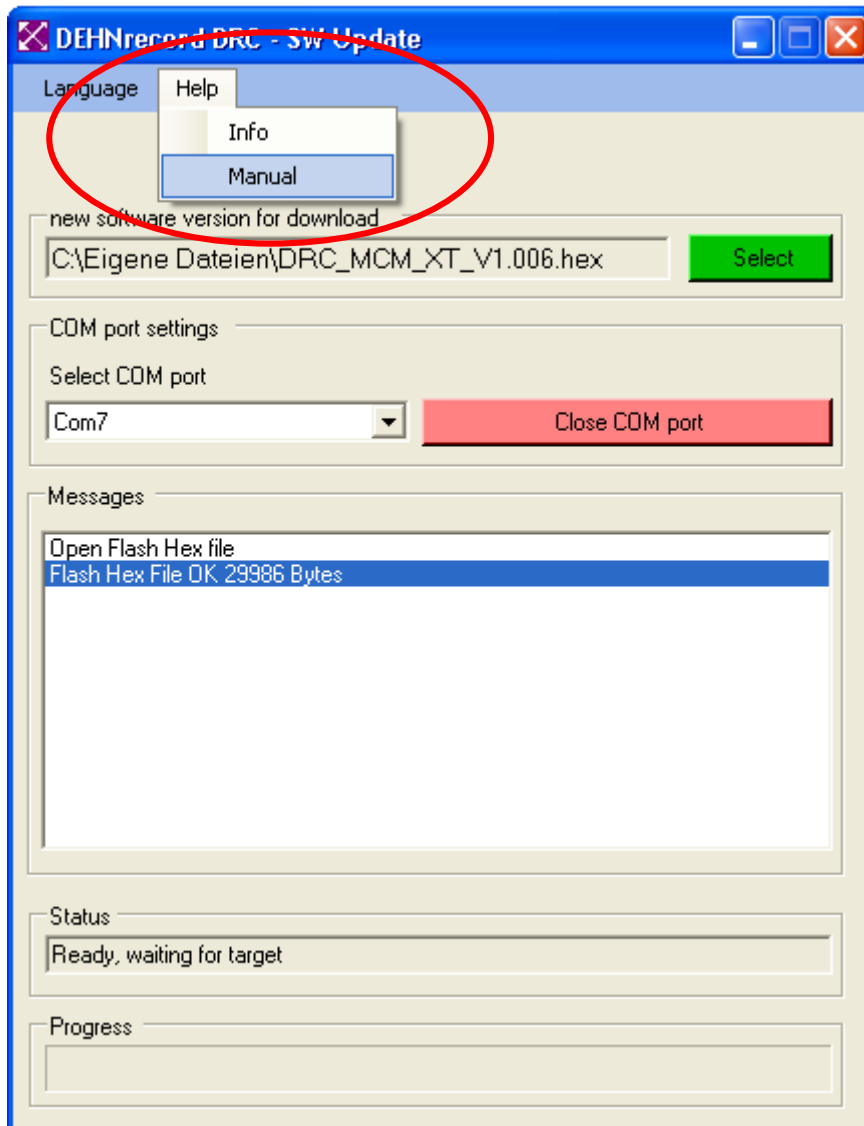
Termination of the updating procedure will be displayed in the status window of the DEHNrecord DRC SW Update with "**Successfully completed → wait...**".

For the corresponding notes or sequences at the hand-held reader or monitoring device after termination of the updating procedure please refer to the respective operating instructions /1/ or /2/.



### 3.3 Help function

An overview of the program version or the document at hand as online operating manual (pdf) can be selected via the "Help" menu item.



The online version of the manual is only available if a program for reading the pdf format (e.g. Adobe Acrobat Reader) has already been installed on the PC and linked with the ".pdf" file extension.