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Instruction Manual
KERN PC-Software

Balance Connection SCD-4.0

Version 4.2
07/2012
GB

SCD-BA-e-1242

GB

KERN PC-Software
Balance Connection SCD-4.0

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Instruction Manual

Contents

1 Hardware and software requirements 3

2 Installation 3

3 Operation 7

3.1 Program start 7

3.2 “Select application“ window 8

3.3 “Balance“ window 9

3.3.1 Select predefined type of balance 9

3.3.2 Adding additional types of balances 11

3.4 “Interface settings“ window 13

3.5 “Data transfer“ window 16

4 Application examples 17

4.1 Data transmission from a KERN balance to Microsoft EXCEL 17

4.2 Importing measuring values into text file 19

5 Software Licence Agreement 22

1 Hardware and software requirements

Software requirements:

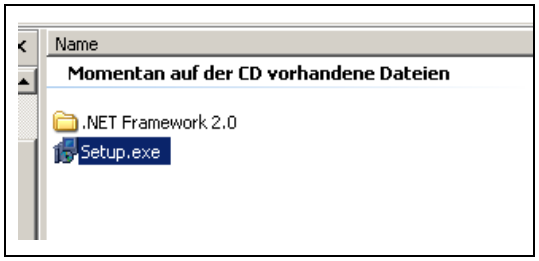
- Operating system: starting from Microsoft Windows XP (Windows Vista, 7, 8, …)
- Microsoft .NET Framework (included in delivery)

Hardware requirements:

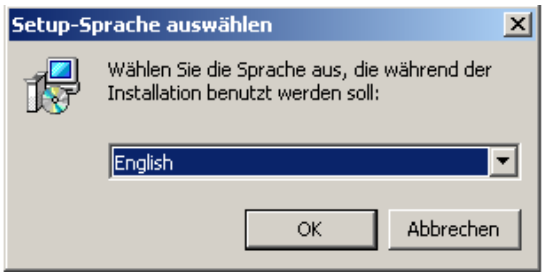
- Free serial interface port (RS232)

2 Installation

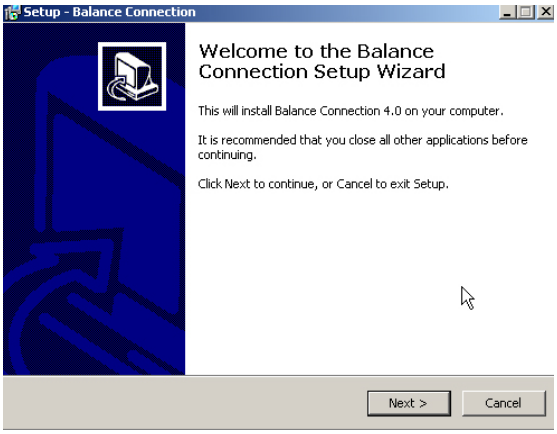
⇨ Insert CD in the CD-ROM drive.



⇨ To start the program execute “setup.exe“ file.

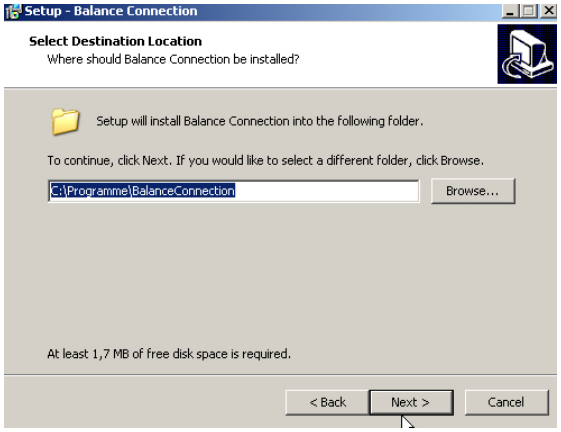


⇨ Select the language (German ⇆ English).

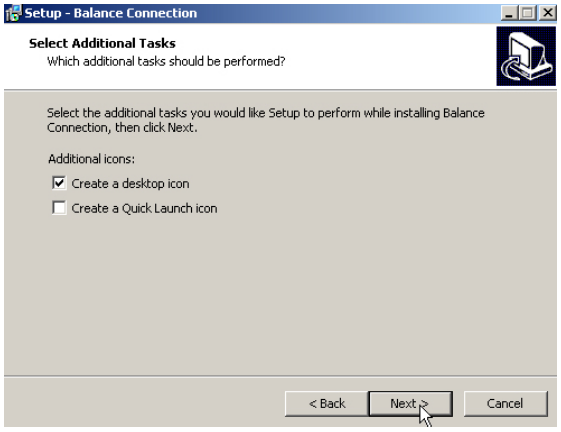


⇨ Click on NEXT.

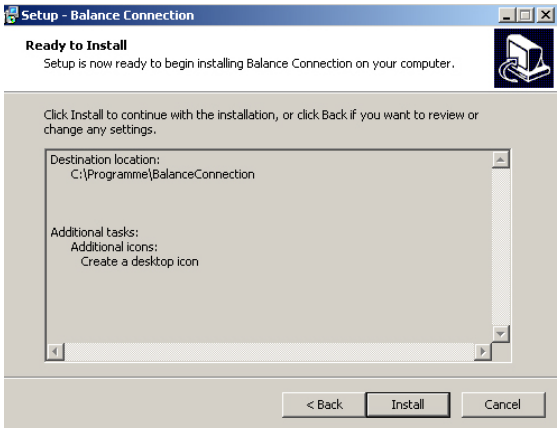
⇨ If you accept the terms below, click „I accept the agreement“, then „Next“.



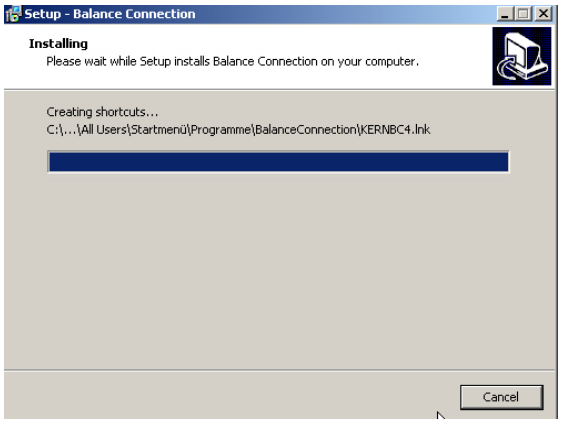
⇨ Select Installation Folder. Click on NEXT.



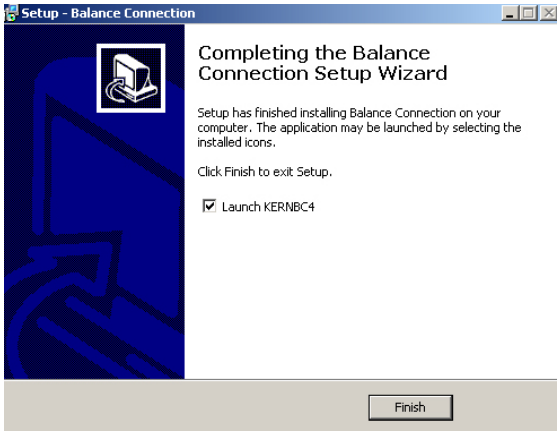
⇨ Select Additonal Tasks. Click on NEXT.



⇨ Click on INSTALL.



After a successful installation process appears the following window:



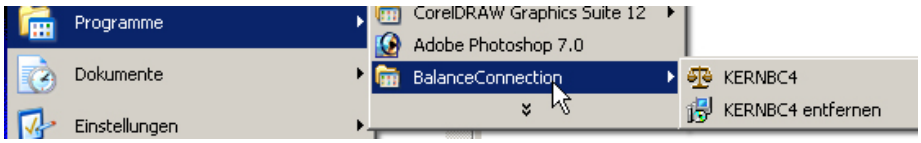
⇨ Finally click on FINISH.

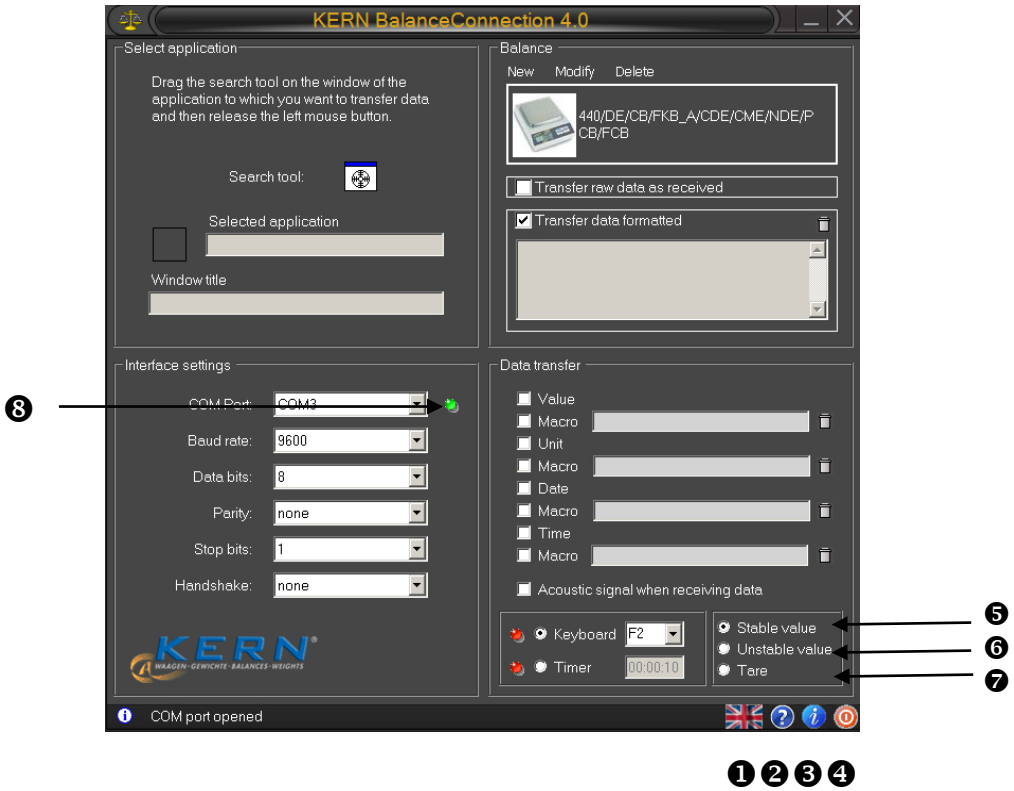
3 Operation

3.1 Program start

⇨ Start program with click on Desktop-Symbol

or via the start menu.





❶ Click on this icon in order to change the language (German ⇆ English).

❷ Click on this icon in order to disable/enable the help function for the user interface.

❸ Click on this icon in order to display information about the program.

❹ Click on this icon in order to finish the program.

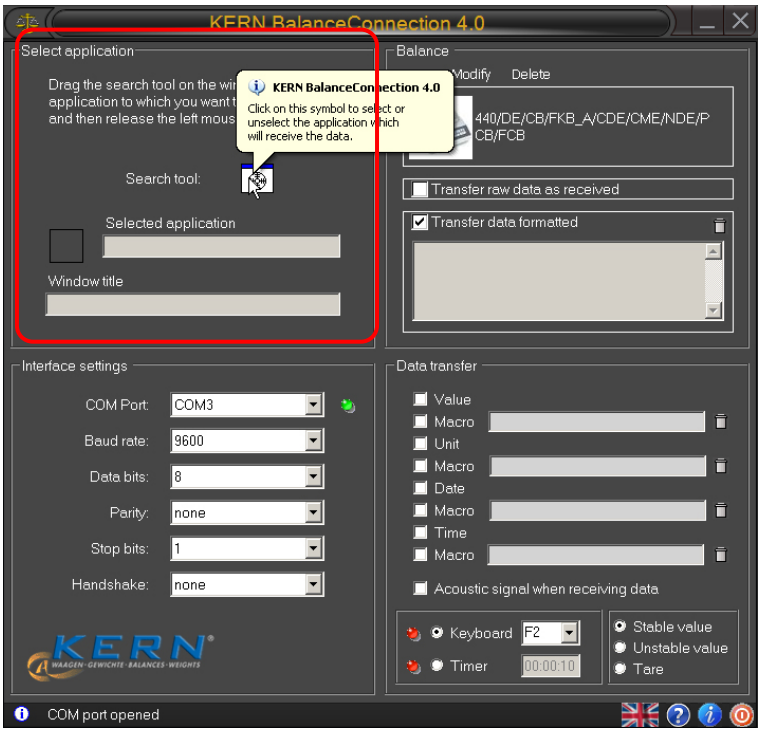
❺ Default remote control command: Balance is receiving stable weighing values only.

❻ Default remote control command: Balance is receiving instable and stable weighing values.

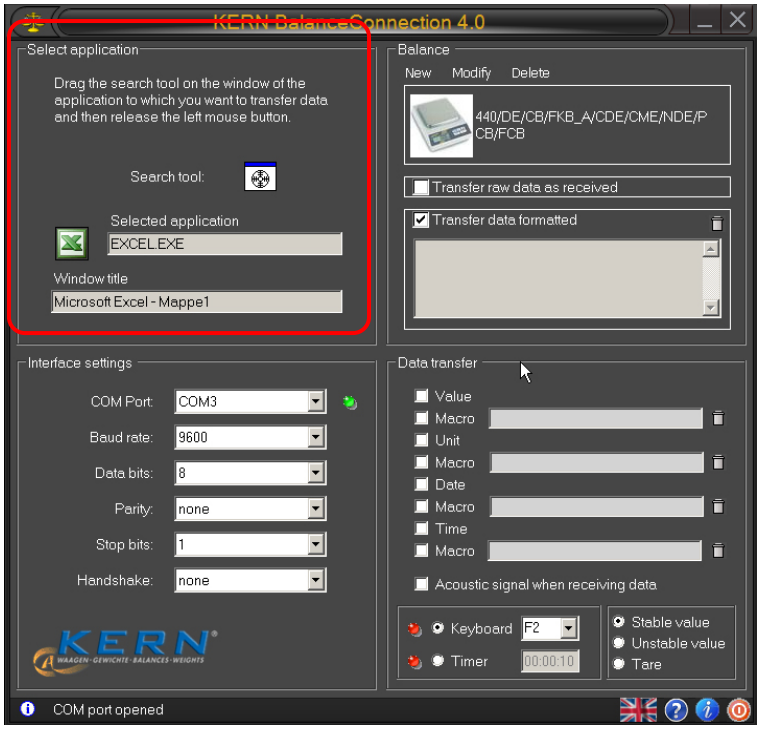
❼ Default remote control command: Sending balance command for taring.

❽ A green LED indicates that the interface is open, a red LED that it is closed.

3.2 “Select application“ window



The software asks you to select the application to which you wish to transmit data. Selecting an application is quite simple. Start your application program, keep it opened in the background and left-click your mouse, keeping the mouse button pressed down, so that you can drag the searching tool with your selected application to the window of your application and then release the mouse button. Afterwards the application selected by you will appear in the box under SELECTED APPLICATION (e.g. Microsoft Excel).

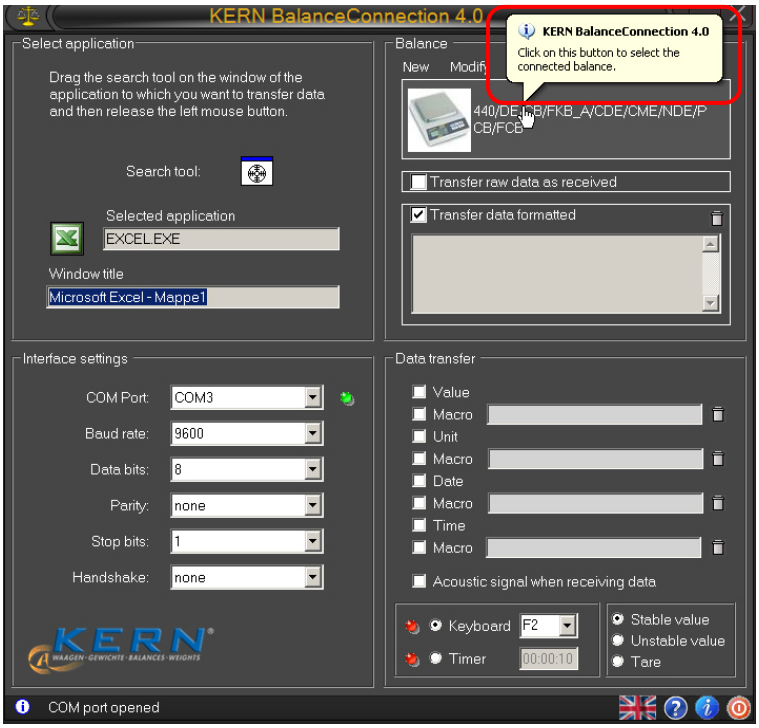


3.3 “Balance“ window

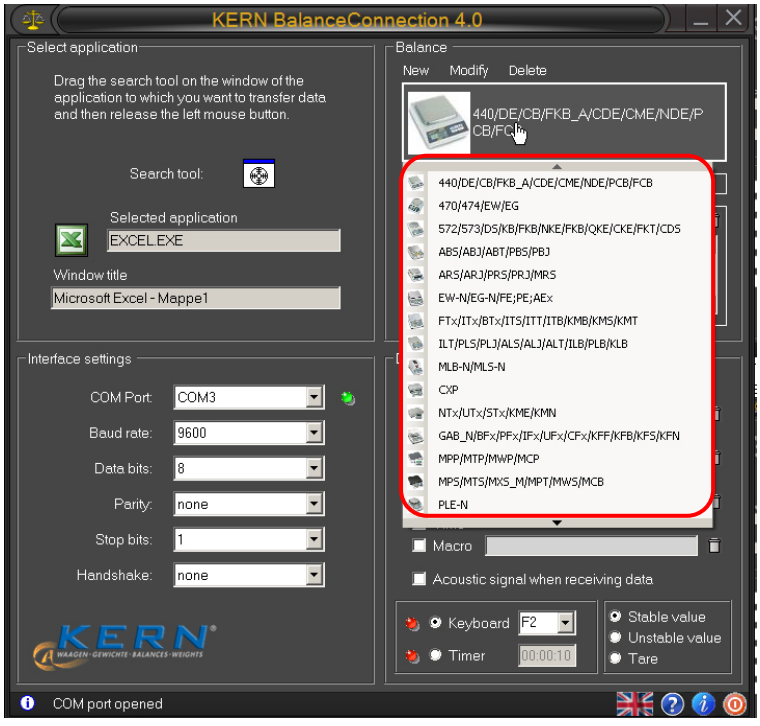
To enter the type of balance used by you go to BALANCE.

3.3.1 Select predefined type of balance

On delivery the software contains predefined type records for KERN balances. Please not that all settings belonging to the respective type of balance will automatically be entered under settings/interface when selecting a predefined type. All that may be left to correct could be the matching COM connection.

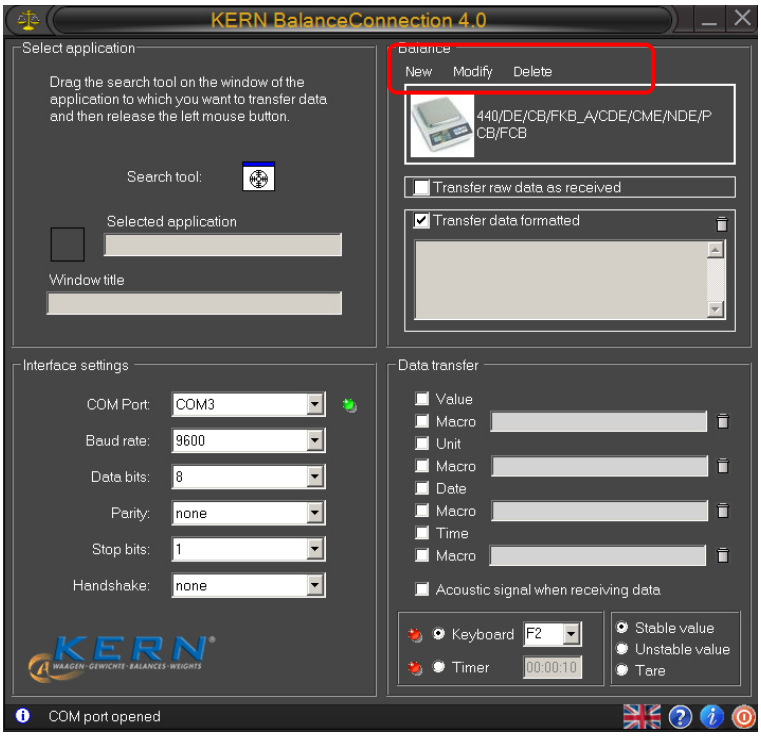


- Click on the BUTTON and a selection menu will appear. Scroll up or down, using ▼ or ▲ and select the desired balance.

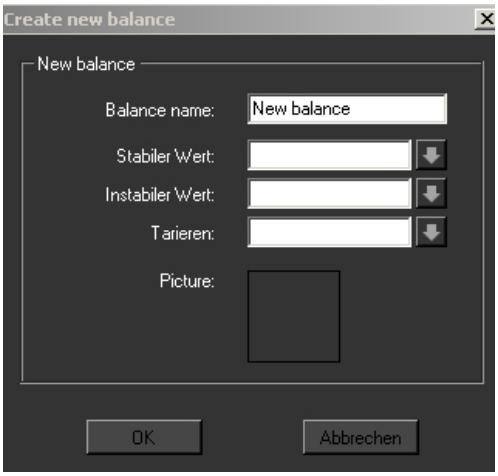


i	• Balance Connection is only fully operational, when the balance is set to the weighing mode. Applications (e.g. piece counting) are not supported by Balance Connection. • Models **KERN ABT, ACS/ACJ, ABS/ABJ, PBS/PBJ** Activate the setting „Handshake off“ in the menu. For further information on how to operate your balance please refer to the operating instructions supplied with each balance..

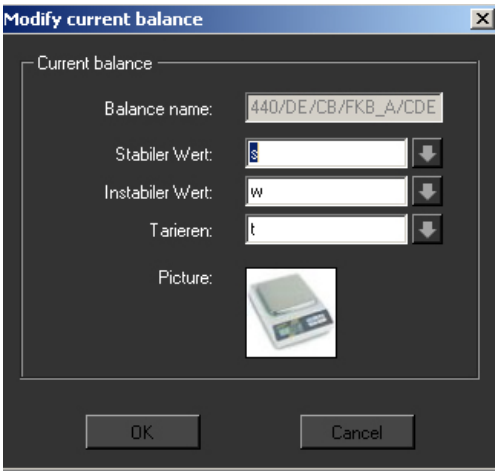
3.3.2 Adding additional types of balances



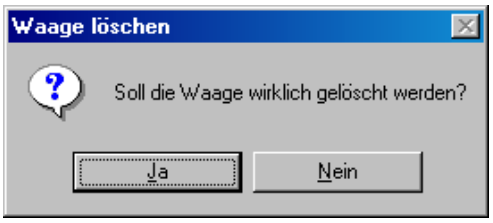
- To create a new type of balance, select NEW. The “Create new balance“ window will appear. Enter name of balance, remote control commands for data transfer (For more detailed information please refer to the operating instructions for your balance) and display image. Complete creating your new file for the balance by clicking OK.



- To change a balance command, select MODIFY...

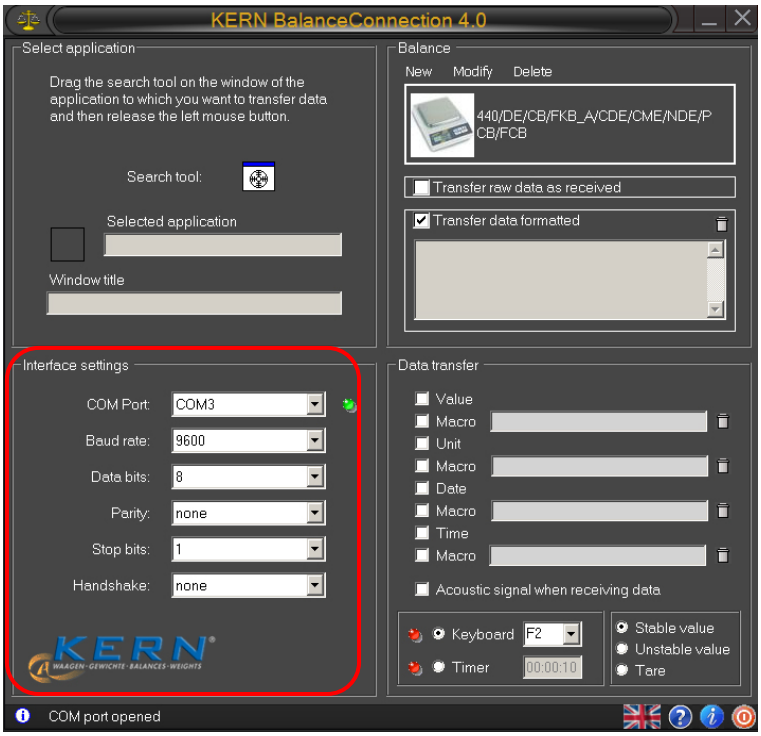


- To delete a type of balance, select DELETE if you no longer require a certain type of balance. The program will query you whether you really want to delete the selected type of balance. If yes, confirm by clicking YES.



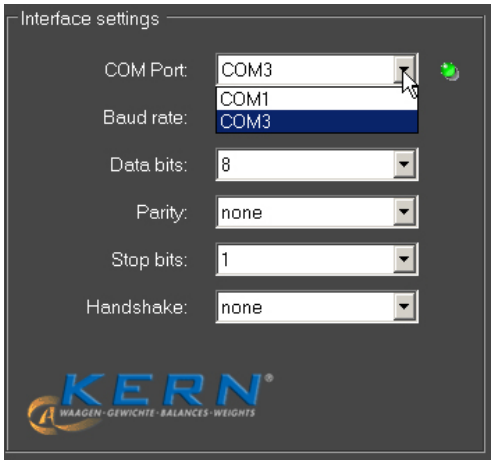
3.4 “Interface settings“ window

This window is used to customise your interface parameters if none of the types of balances on the selection menu for predefined balances matches your requirements.

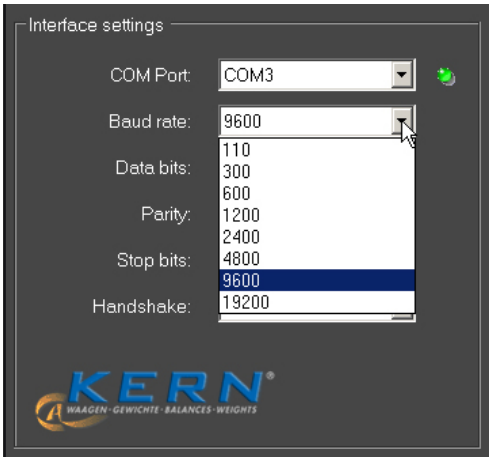


The balance must be connected to the PC via a serial cable. Prior to transferring data you must ensure that the same interface parameters are set on the balance and the PC. Select this program item for this purpose.

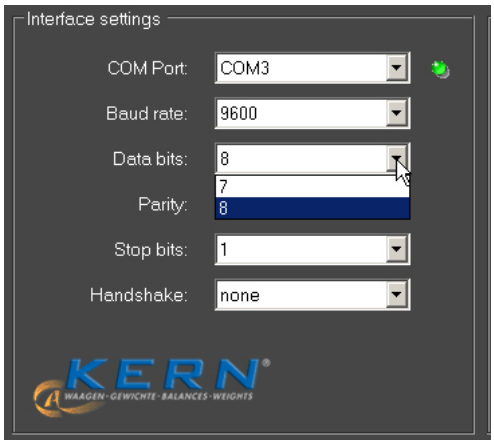
- **COM PORT**: Select the interface at which the connection to the balance is in place.



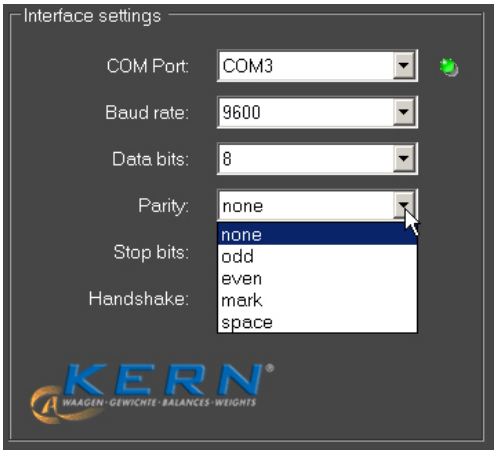
- **BAUD RATE:** Select the speed you require for data transmission (110 to 19200 Baud).



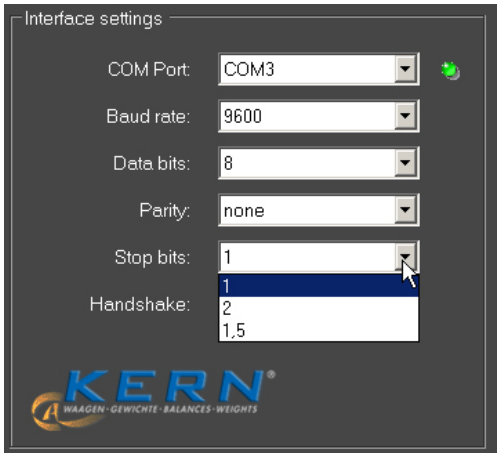
- **DATA BITS:** Select the number of bits used for depicting a character.



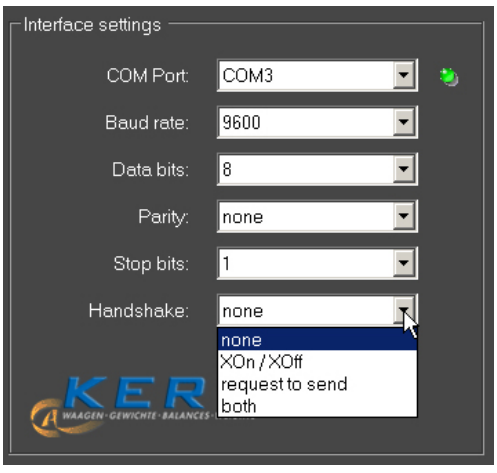
- **PARITY:** This selection is the precondition for the PC attributing a parity bit to each character. Possible settings include *space, mark, even, odd* and *none* for parity generation.



- **STOPBITS:** Select the number of bits to be sent after each character.

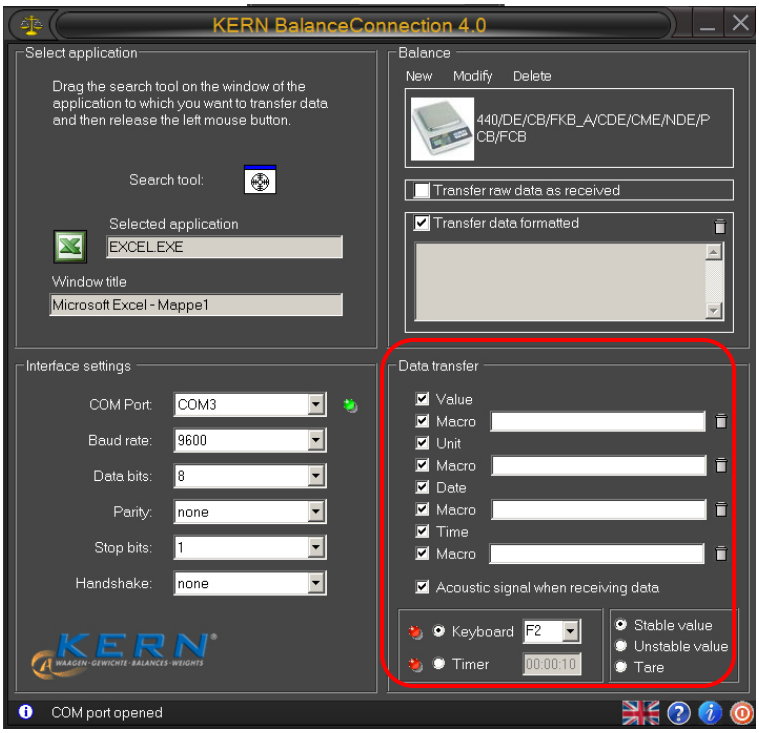


- **HANDSHAKE:** Select the control of data flow via software- (Xon/Xoff) or hardware handshake (RTS/CTS).



3.5 “Data transfer“ window

Possible setting options include:



- **VALUE:** Select whether a transmitted value is to be displayed in the application program. It is possible to define a **macro** (This example showing {TAB}, that is, the cursor jumps to the next table segment after each data transmission).

- **UNIT:** Transmitted values are transmitted to the application in the **unit selected for the balance**. It is possible to define a **macro** that is executed immediately after transmission.

- **DATE:** Dependent on necessity, **transmission of date** can be selected either with or without **macro**.

- **TIMR:** Transmission of values additionally with **statement of time**, optionally in 12 or 24 hour mode It is also possible to define a **macro**.

- **SOUND SIGNAL ON RECEPTION OF DATA:** Determine whether each successful data transmission from the balance to the PC should be followed by an acoustic sound signal. This enables you to monitor acoustically whether data received from the balance has been transmitted to your application.

- Click **KEYBOARD** or **TIMER** and define whether a data transmission of selected remote control commands (See chpt. 4.1 ❺ ❻ ❼) takes place each time a predefined key is pressed or whether this should take place timer-controlled (time interval includes seconds, minutes and hours for exact definition). We have chosen the F2-key for our example.

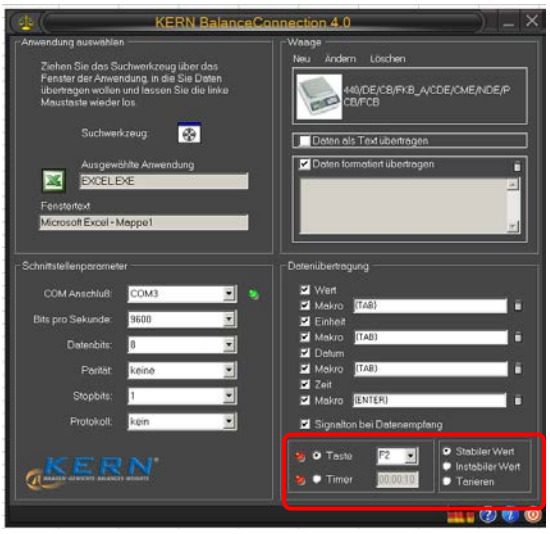
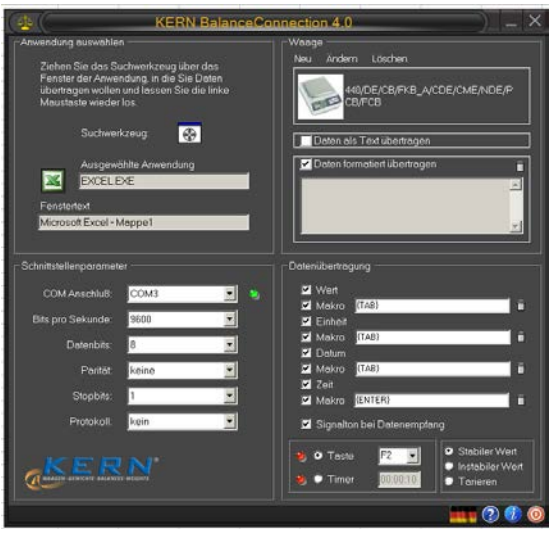
4 Application examples

4.1 Data transmission from a KERN balance to Microsoft EXCEL

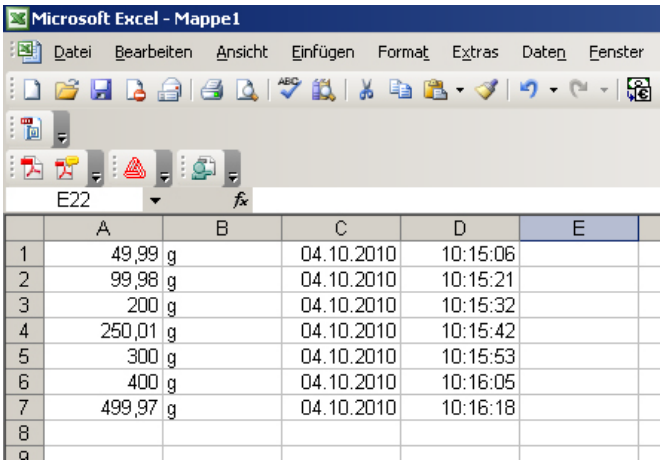
The required display is as follows: first column displays the weight value, second column displays the related unit, third column displays the current time, forth column displays the current date.
Required settings:

- ⇨ For selecting application Microsoft Excel, using search tool, see chpt. 4.2.
- ⇨ For selecting type of balance from list, see chpt. 4.3.1.
- ⇨ Click on “transmit formatted data“
- ⇨ Enter Com connection.
- ⇨ For clicking on desired transmission data, see chpt. 4.5.

There are two options for data transmission:

Data transmission via remote control commands	**Data transmission from balance**
	
⇨ Select remote control command (See chpt. 4.1 ❺ ❻ ❼). ⇨ Select data transmission via key or timer.	⇨ Data transmission takes place by pressing the key (e.g. PRINT key) on the balance or continuously, depending on the setting in the balance menu.
☞ Measured data are displayed in the window on the right.	

Corresponding display in EXCEL:



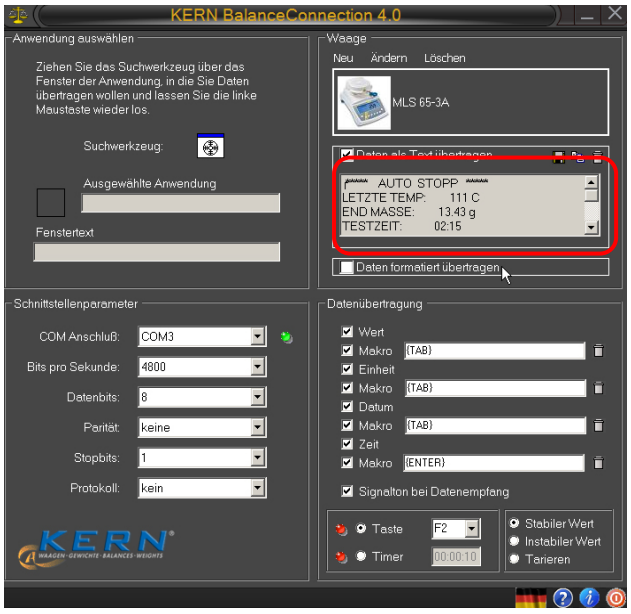
	A	B	C	D	E
1	49,99	g	04.10.2010	10:15:06	
2	99,98	g	04.10.2010	10:15:21	
3	200	g	04.10.2010	10:15:32	
4	250,01	g	04.10.2010	10:15:42	
5	300	g	04.10.2010	10:15:53	
6	400	g	04.10.2010	10:16:05	
7	499,97	g	04.10.2010	10:16:18	
8					

4.2 Importing measuring values into text file

Example Humidity Meter:

Required settings:

- ⇨ For selecting humidity calculator e. g. MLS 65-3A from menu see chpt. 4.3.1.
- ⇨ Click on “Transmit data as text“
- ⇨ Enter Com connection.
- ⇨ Start drying process
- ⇨ After completion of successful drying process press the PRINT key on the humidity calculator and data will be displayed in the window on the right.



Save result as text file under.....by pressing the button .

or

Copy result to interim storage and insert in different application such as Microsoft WORD by pressing the button .

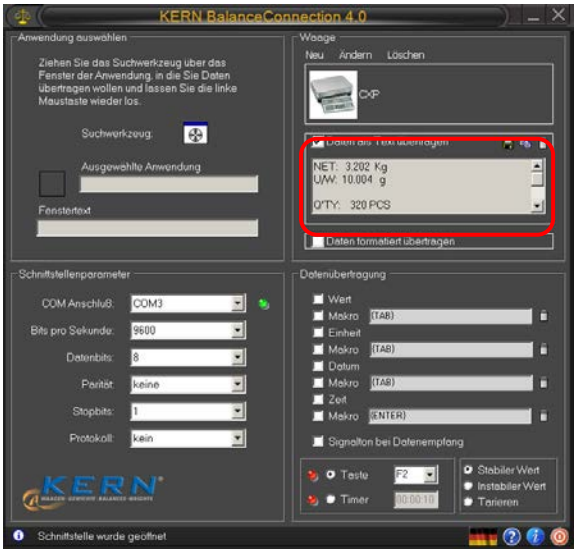
```
*****   AUTO  STOP   *****
LAST TEMP:        110 C
END MASS:        13.85 g
TEST TIME:         02:15
LOSS OF MASS:     0.19 g
RESULT:         1.35 %M
```

Delete data by pressing the button

Example counting balance:

Required settings:

- ⇨ For selecting type of balance such as KERN CXP from list, see chpt. 4.3.1.
- ⇨ Click on “Transmit data as text“
- ⇨ Enter Com connection.
- ⇨ Calculate reference weight
- ⇨ Place the items to be counted on the balance and press the M+-key on the balance. The placed weight, reference weight and the number of placed items will be displayed in the window on the right.



Save result as text file under.....by pressing the button .

or

Copy result to interim storage and insert in different application such as Microsoft WORD by pressing the button .

NET: 3.202 Kg
U/W: 10.004 g

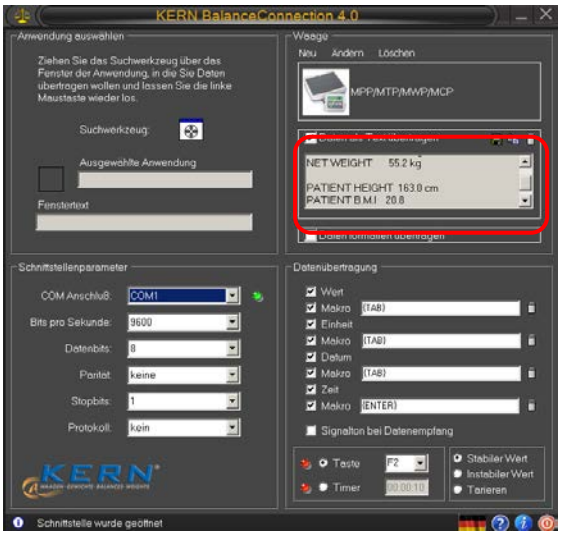
Q'TY: 320 PCS

Delete data by pressing the button

Example personal scale:

Required settings:

- ⇨ For selecting type of balance such as KERN MPP from list, see chpt.4.3.1.
- ⇨ Click on “Transmit data as text“
- ⇨ Enter Com connection.
- ⇨ Determine body mass index, return to weighing mode and press the PRINT key on the balance. The weight, body height and body mass deduced from it are displayed in the window on the right.



Save result as text file under.....by pressing the button .

or

Copy result to interim storage and insert in different application such as Microsoft WORD by pressing the button .

GROSS WEIGHT 55.2 kg
TARE WEIGHT 0.0 kg
NET WEIGHT 55.2 kg

PATIENT HEIGHT 163.0 cm
PATIENT B.M.I 20.8

Delete data by pressing the button

5 Software Licence Agreement

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Apart from that, the licensee may relinquish the software for a fixed period of time to a third party provided the third party acknowledges the binding nature of the provisions of this agreement and provided the licensee hands over all existing software copies including possibly existing backup copies or destroys all copies not handed over.

3.

The licensee may not relinquish the software to a third part for use or pass it on to a third party if there is any suspicion that the third party is likely to violate the provisions of this agreement.

e) Decompilation and Changes to Programs

1.

Reverse translations of supplied program codes into different code types (decompilation) and other kinds of redevelopment of the various creation steps of the software (reverse engineering) are prohibited. If interface information is required for the purposes of establishing interoperability for an independently created computer program, this can be acquired – insofar as technically feasible on the part of the licensor – against reimbursement of expenses from the licensor or a third party to be designated by him.

2.

Program translation, editing, among other things re-engineering of software or splitting and multiplication of results thus achieved shall only be allowed insofar as this is required for the use of the software by the licensee.

§ 3 Software Warranty

1.

If there are faults present in the software, the licensor shall either repair or deliver in addition (supplementary performance) according to licensee's choice.

2.

If the licensor is unwilling or unable to provide supplementary performance or if the deadline for such supplementary performance is exceeded for reasons that are the responsibility of the licensor or if supplementary performance fails in any other way, the licensee shall be entitled within the framework of existing legislation to further warranty claims.

§ 4 Liability of the Licensor

1.

The licensor shall accept liability for deliberate action and gross negligence. The licensor shall accept liability for ordinary negligence only insofar as major obligations have been violated. The licensor's liability for ordinary negligence shall be limited in value to the foreseeable damage typical of the contract.

2.

In case of initial impossibility, the licensor shall only accept liability if he was aware of the performance ratio or if he was unaware of it due to gross negligence.

3.

Claims for defect and claims for compensation shall be time-barred after one year from the commencement of the statute of limitations period.

4.

The limitations of liability above shall not apply to claims made for injury to life, limb or health resulting from negligent breach of duty by the licensor or deliberate or negligent breach of duty by a legal representative or persons employed in performing an obligation of the licensor.

5.

The licensor shall not accept liability in case of any use by the licensee contrary to the terms of this agreement.

§ 5 Miscellaneous

1.

This licence agreement shall be governed by German Law.

2.

Exclusive place of jurisdiction for all disputes arising from the commercial dealings in connection with this contractual relationship shall be the licensor's place of business.The licensor shall also be entitled to open proceedings at the licensee's place of business.

3.

The licensee shall not be entitled – subject to different provisions in this software licence agreement – to transfer unfulfilled rights or the full agreement to a third party unless the licensor gives his explicit consent in writing. The licensor shall give his consent if legitimate concerns by the licensee with respect to the transfer of rights outweigh the interests of the licensor.

4.

Alterations of this software licence agreements must be drawn up in writing; this shall also apply to an alteration of this written-form clause.
No collateral agreements have been made.

5.

If individual provisions of this licence agreement should be or become ineffective, this shall not affect the validity of the remaining provisions of this licence agreement.

§ 6 Support

We are happy to help your with technical issues arising during the use of this software. Please contact us under.