AMBILL® smart Suite 2

Parametrisation, reading and scanner software. Sending, receiving and managing consumption data from meters.

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VD 9-615 e 05/2016

1 Safety

1.1 Intended use

Improper or non-intended use of devices such as computers or Android handheld devices may potentially compromise operational reliability of the device. The manufacturer accepts no liability for any resulting personal injury or material damage.

The AMBILL® smart Suite 2 software package is designed and solely intended for searching, to some extent parametrising and configuring, as well as reading meters by various manufacturers and for various media (water, gas, electricity, etc.). For further information, please refer to the licence agreement.

1.2 Notes on safety rules and symbols

The devices, such as computers or Android handheld devices, are designed to meet the latest safety requirements. They were tested and delivered in a condition that ensures safe operation. Improper or non-intended use of the devices can, however, be dangerous. Therefore, pay particular attention to the safety instructions within this manual, which are always shown by the following symbols:

NOTICE

NOTICE indicates a hazardous situation which, if not avoided, could result in a change of the function and/or loss of data.

NOTE

NOTE indicates helpful tips and recommendations, as well as information for efficient and trouble-free operation.

INFORMATION

See document VDxxxx, page ## or
See section XX on page ## or
WEB link to QR code

If available QR code

1.3 About the operating manual

The manufacturer reserves the right to make changes to technical data without prior notice. The latest information and versions of this operating manual can be requested from your local dealer.

NOTICE

The manufacturer assumes no liability if the instructions and procedures described in this manual are not followed!

NOTICE

This installation manual is intended for qualified personnel and therefore does not include basic working steps. Before operating the equipment or system, this installation and operating manual must be completely read and understood.
Please retain this manual for future reference!

1.4 Returning Android handheld devices or computers

- Never send a device/system such as a computer or Android handheld device with the installed AMBILL® smart Suite 2 product back to Aquametro AG unrequested and/or without the relevant notices.
- Costs incurred due to unannounced returns will be charged to the delivering company or the operator.

If you wish to return a device to be checked or repaired, please contact Aquametro AG or your nearest Aquametro AG distributor.

2 Scope of Supply and Accessories

2.1 Licence agreement

Licence agreement of Aquametro AG, Ringstrasse 75, 4106 Therwil, Switzerland

The original document is in German.

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1. With the sale of the copyrighted "AMBILL® smart Suite 2" product, Aquametro AG grants the buying public a simple, non-exclusive use licence, in a location specified in the purchase agreement, in accordance with the regulations for the intended use of the AMBILL® smart Suite 2 software and for the operation of the sold hardware in the agreed installation location as set out below.

   This licence entitles the licence holder to install and use the software product on an Android handheld device within the scope of their own requirements. In addition, the licence holder may make backup copies of the software product, provided that the use thereof is and remains limited to the licence holder's own requirements and the specific Android handheld devices.

   Subsequently, this also applies correspondingly to the "AMBILL® smart PC" program, which is installed on computers or laptops with Microsoft Windows operating systems.

2. The intended use of the software is the parametrisation and recording of various modules specified in the program by means of the purchased Android handheld device for the customer's own use.

   The intended use includes the use in various locations of the same business of a buyer, provided that the software is used exclusively by employees of the licence holder or a person authorised by the licence holder and exclusively within the scope of an activity for the licence holder.

3. The licence cannot be shared and covers the software package (incl. documentation) as a whole. The licence holder is not entitled to use any parts of the software package for any other purpose than that stated in items 1 and 2. In particular, they are not permitted to transfer any parts of the software package or to use them for any other purposes than those stated (e.g. use in the licence holder's proprietary developments).

4. If the product was supplied together with components whose copyright is not owned by the licenser, but by a third-party provider, then the respective provisions and licence agreements of the third-party provider shall apply to these components.

5. If the licence holder wishes to transfer their rights to use the software product to a third party, they must first obtain the consent of Aquametro AG. Such consent shall only be denied for important reasons. Important reasons include the transfer of the software without the transfer of the hardware that the software serves, the withholding of a part of the software, and the missing consent of the recipient to take over the licence agreement with all its rights and obligations. Such a transfer must always be made in full and include all and any components, documents etc. supplied with this software package.

   If the software product is an update of an existing software product, a transfer can only take place if the original product to which this update refers and any other updates that are based on this original product are also transferred.

With the exception of the aforementioned purpose, the licence holder is not entitled to transfer, sell or distribute any rights or licences to use the software product. In particular gratuitous or non-gratuitous leasing or renting is not permitted.

6. By entering into this licence agreement, the licence holder agrees that the licenser is the owner of and has the copyright to the software product (including, but not limited to all files, examples, documents in printed or machine-readable format that constitute integral parts of the software product), as well as all copies of the software product. In particular, the licence holder undertakes not to reverse engineer, decompile or disassemble the software product, or to draw conclusions with respect to the structure or the methods used and the algorithms of the software product in a similar manner, be it directly or with the help of a third party.

7. The licenser's warranty ends 12 months after the date of purchase and is limited, at the licenser's option, either to the reimbursement of the purchase price, or to the repair or replacement of the product. Any further warranty of the licenser for the product, incl. all supplied components, documents in printed and machine-readable format, etc. is expressly excluded. In particular, the licenser does not assume any liability whatsoever for any damage or consequential damage (in particular damage resulting from loss of profit, interruption of operation, interruption of production, personal injury, loss of data or information or any other loss) that has originated in connection with the product, when using the product or careless handling during use and maintenance thereof, incorrect operation or deficient maintenance. Mandatory statutory provisions excepted.

8. Apart from that, the general terms and conditions of Aquametro AG apply. In the case of discrepancies between these provisions and the general terms and conditions, the provisions of this licence agreement shall have priority.

2.2 Scope of the product

Standard:

- AMBILL® smart Suite 2 software
- Operating manual (only in electronic format)

Optional:

- Pre-installed on Android handheld device (fee-based service and device)
- Installation and commissioning on site (fee-based)

2.3 Programs

The AMBILL® smart Suite 2 is comprised of four different programs:

AMBILL® smart Config

Program for configuring peripheral devices as well as managing different settings and options for reading.

AMBILL® smart Param

Is used for parametrising aquaradio® smart radio modules and aquaconcept® system modules, which can be connected to different consumption meters by Aquametro AG.

AMBILL® smart Scan

Visualising aquaradio® smart and other radio modules during or after the commissioning of meters.

AMBILL® smart Read & AMBILL® smart PC (2-part)

AMBILL® smart Read

Is used for wireless readout (aquaradio® smart radio modules, wireless meter in accordance with the OMS standard) and for infrared readout by means of an optical reading head (aquaconcept® system modules).
Manual entry of meter readings is also possible (manual reading).
The meter data is recorded by means of the AMBILL® smart PC program and synchronised.

AMBILL® smart PC

Saving of the data in list format for further use on a computer or laptop with a Microsoft Windows operating system. The meter data is synchronised by means of the AMBILL® smart Read program.

2.4 System requirements

For the installation and operation of the software, the following hardware and software requirements are assumed:

2.4.1. Android handheld device

- Android operating system (from 4.1.2 "Jelly Bean" to 6.0 "Marshmallow")
- Memory requirement: at least 100 MB must be freely available
- Bluetooth functionality for using a Bluetooth parametrising head and/or wireless receiver

2.4.2. Desktop Computer (for using AMBILL® smart PC)

- Microsoft Windows 7/8/10 operating system
- Microsoft .NET Framework 4.5
- Memory requirement: at least 100 MB must be freely available

3 Installation

NOTICE

For devices containing batteries or rechargeable batteries, the state of charge must be checked prior to starting work.

Risk of malfunctions or loss of data!

- Use charging devices supplied or recommended by the device manufacturer for recharging the batteries.
- Replace the batteries as and when required

3.1 Download and installation

Open the AMBILL® smart Suite 2 landing page by clicking on the following link:

http://www.aquametro.com/SmartSuite

If you are planning to use AMBILL® smart Read, we recommend that you start installing the AMBILL® smart PC program (see Figure 1).

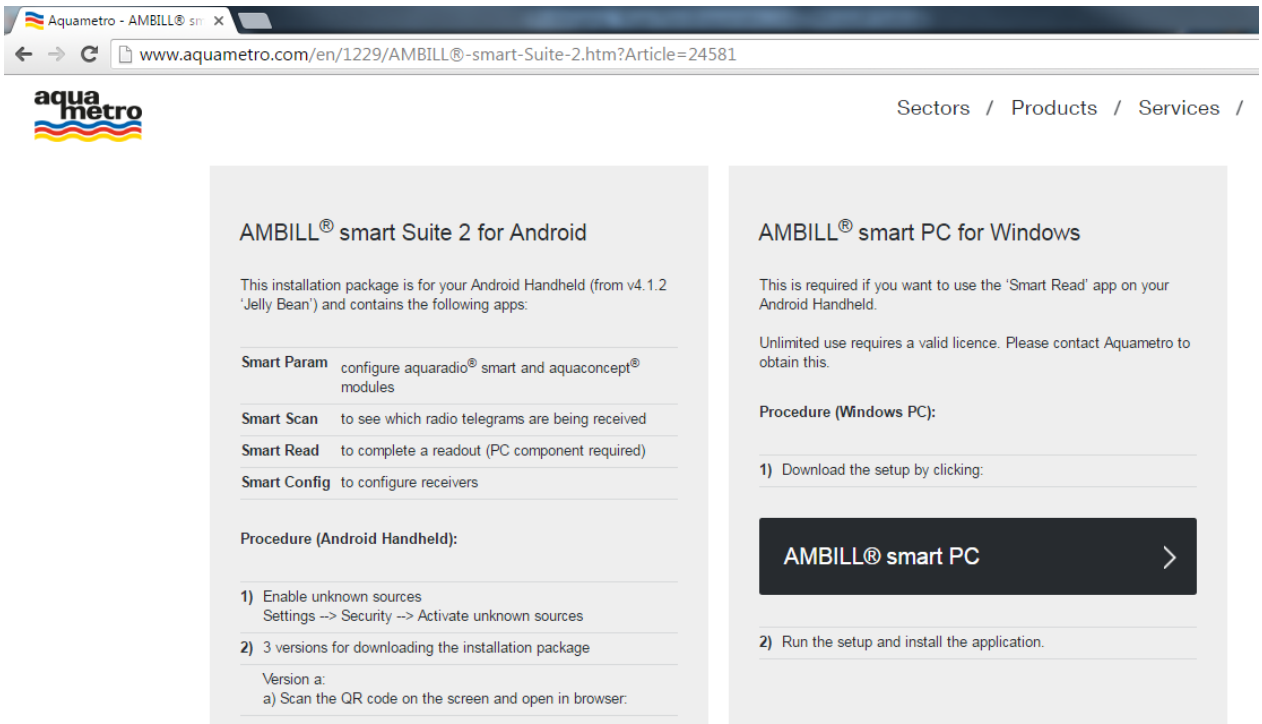


Figure 1

Click on the respective file to install it on your devices and follow the instructions on the screen.

SmartSuite.apk

QR code for downloading the AMBILL® smart Suite 2 on an Android handheld device (Figure 2).

Figure 2

3.1.1. Installation on Android handheld device

After starting the installation of the APK file and therefore the **AMBILL® smart Suite 2**, you will see the following images on your handheld device:

➔ Confirm [Install]	➔ Ongoing installation	➔ Installation completed

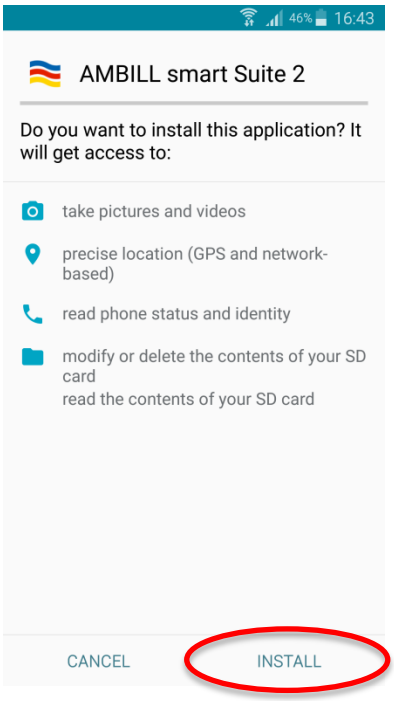
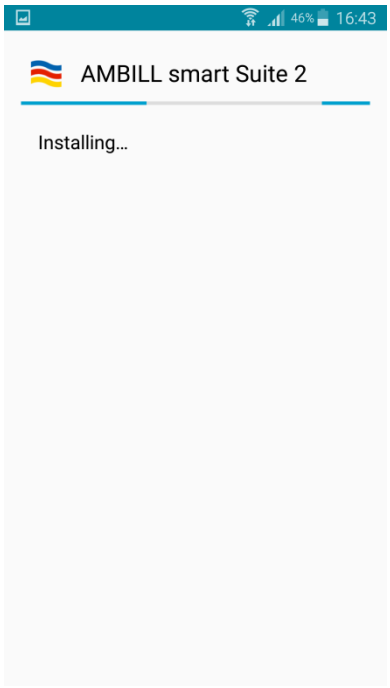
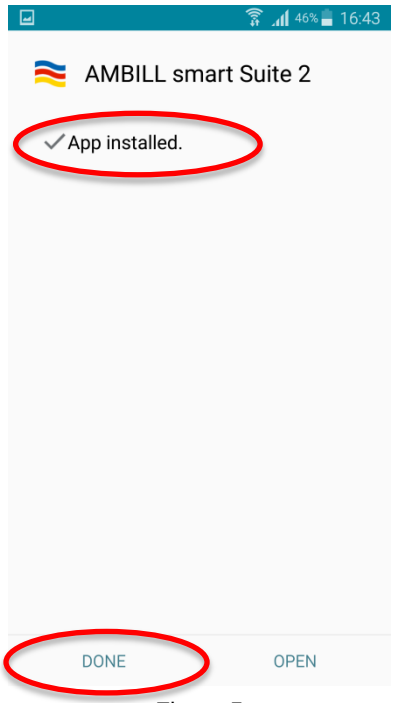

		

Figure 3	Figure 4	Figure 5

Following the installation, you will find the different program parts of the AMBILL® smart Suite 2 in your app overview.

3.1.2. Installation on desktop computer or laptop

The images and texts below will guide you through the installation of the **AMBILL® smart PC** Windows program on a computer or laptop.

➔ The link on the landing page (Figure 1, page 8) starts the download and installation process for the program. Click "Save file" to confirm.

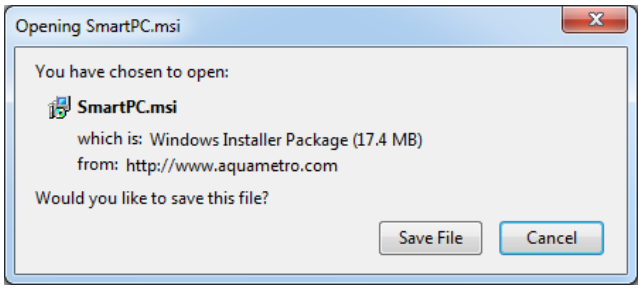


Figure 6

➔ Once the file has been downloaded, click the "SmartPC.msi" icon to start the installation.

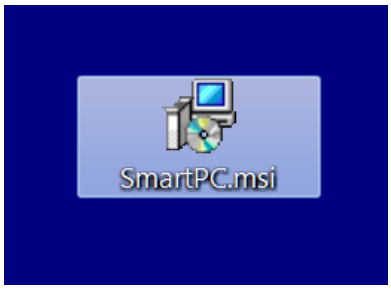


Figure 7

➔ Click [Run] to start the installation.

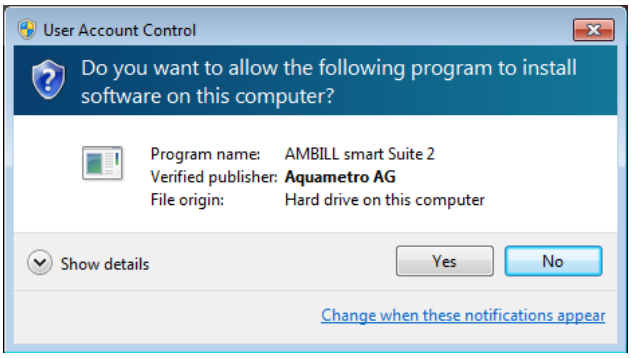


Figure 8

➔ Click [Next] to confirm.

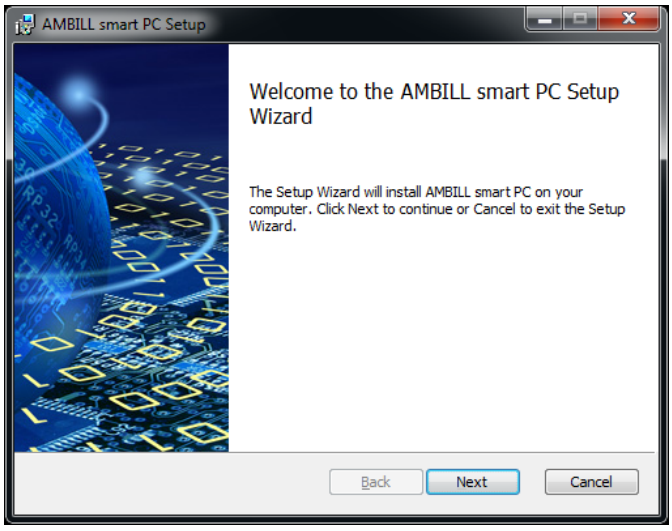


Figure 9

➔ Read and accept the licence agreement, then click [Next] to confirm.

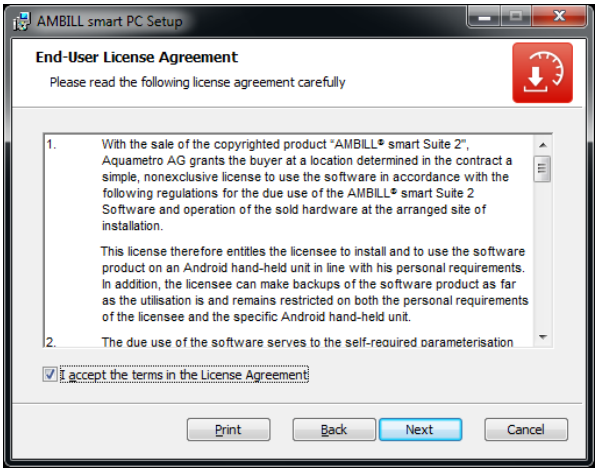


Figure 10

➔ Installation location of the program, adjust if required, then click [Next].

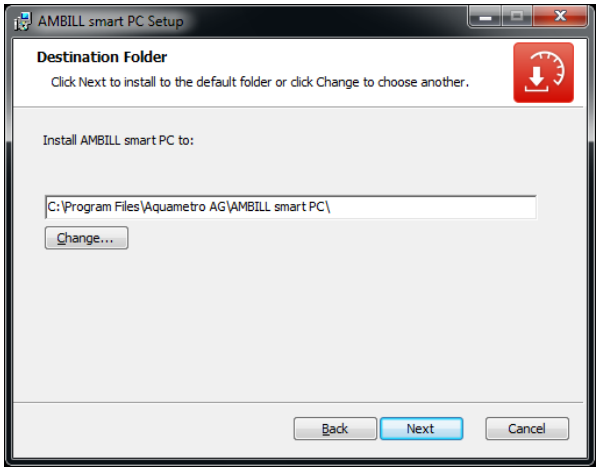


Figure 11

➔ Click [Install] to confirm.

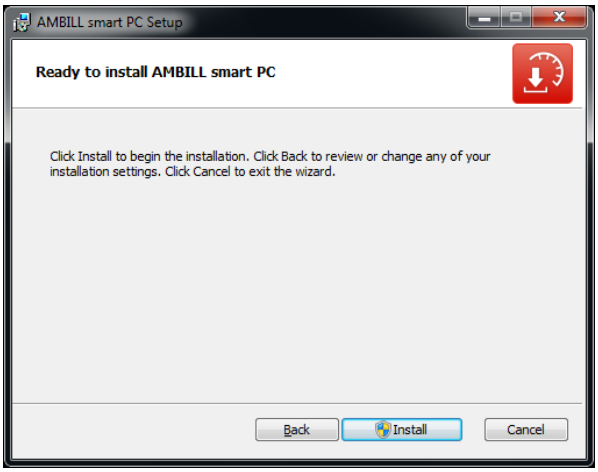


Figure 12

➔ After completion, click [Finish].

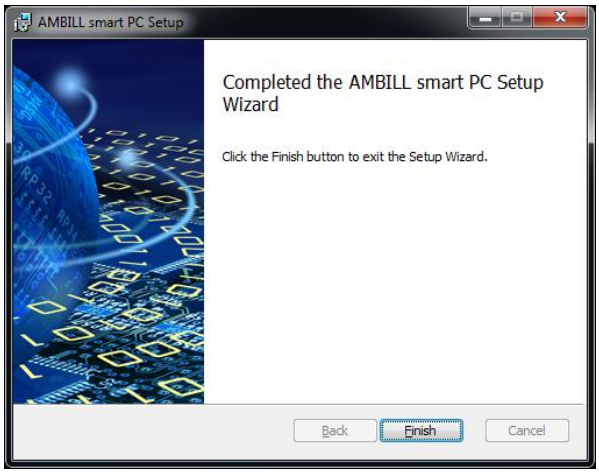


Figure 13

3.1.3. Installation and configuration instructions

NOTE

Once the AMBILL® smart Suite 2 has been installed on your devices, the fee-based **AMBILL® smart Read** program part can be used to read up to three meters for test purposes.

For licence fees for more than three meters, please contact a sales representative, your authorised Aquametro AG dealer or your distributor.

- As a requirement for connecting the computer/laptop with the Android handheld device, both devices must have a functioning Internet connection.

- Apart from that, to exchange data, both the Android handheld device and the computer must be switched on and the AMBILL® smart PC program must be started.

When opening **AMBILL® smart PC**, the dialogue below appears until a correct connection with the Android handheld device has been established once without errors.

➔ Click [Next] to confirm

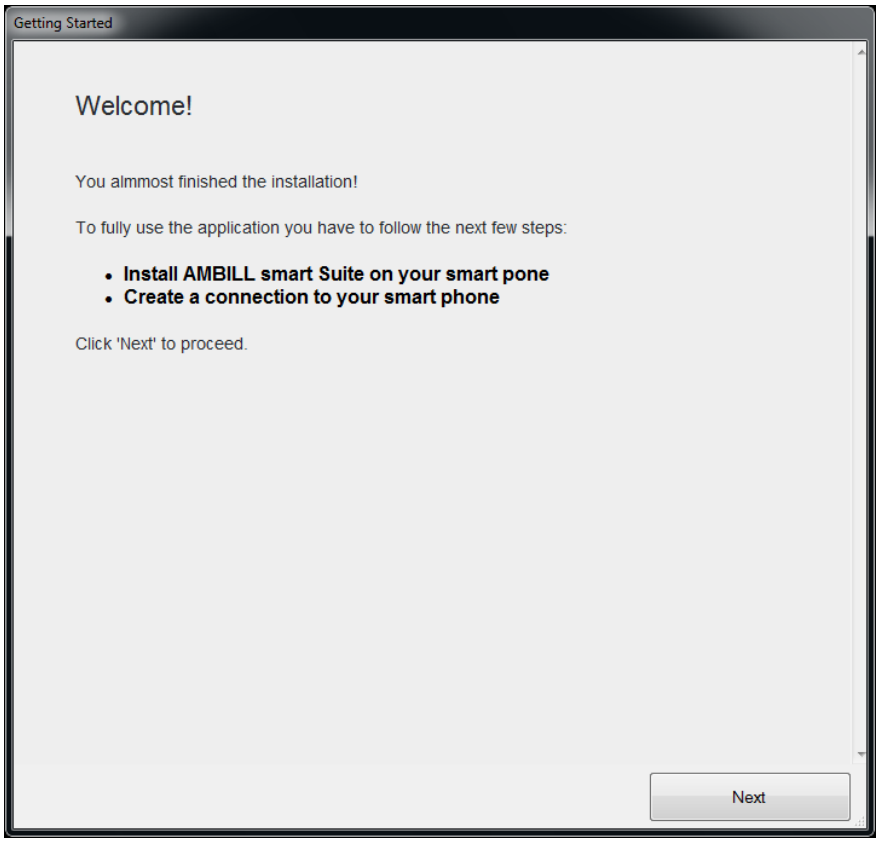


Figure 14

You can skip this step if the installation on the Android handheld device has already been completed.

➔ Scan the code from the screen or via the link entered in the Internet browser on the Android handheld device as described in step 2 (Figure 15) to start the installation.

➔ Click [Next] to confirm

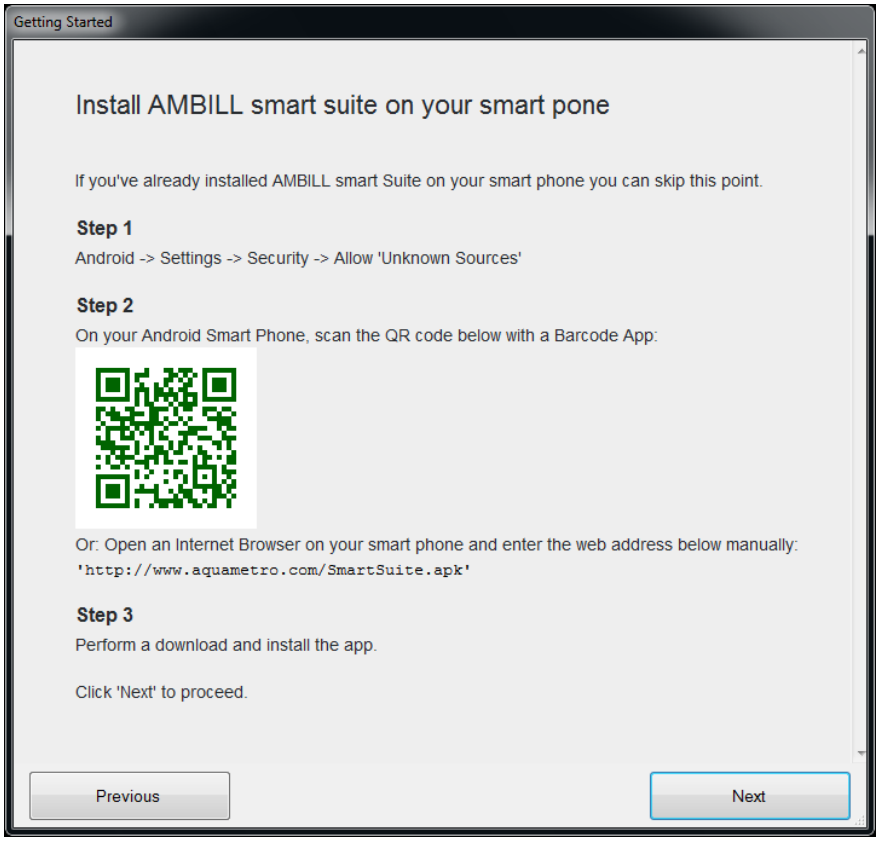


Figure 15

➔ Once the AMBILL® smart Suite 2 APK file has been installed on your handheld device, open the **AMBILL® smart Read** program by clicking the respective icon: You will see the following display as shown in Figure 16 ➔ Click [Configure Now] to confirm	➔ The handheld device now opens the installed, integrated QR code scanner. ➔ Read the code shown on the screen (see Figure 18).
 Figure 16	 Figure 17

NOTE

Do ***not*** scan the QR code shown in the following step 2 in this manual!

Scan the code that is shown during this step on your personal computer/laptop screen.

During the installation, the program generates the code that is relevant to you.

The generated QR code is displayed on the screen of the computer/laptop.

➔ Scan the QR code on the screen with the Android handheld device. The handheld device searches for the connection, confirms it and then changes to the start screen of the **AMBILL® smart Read.**

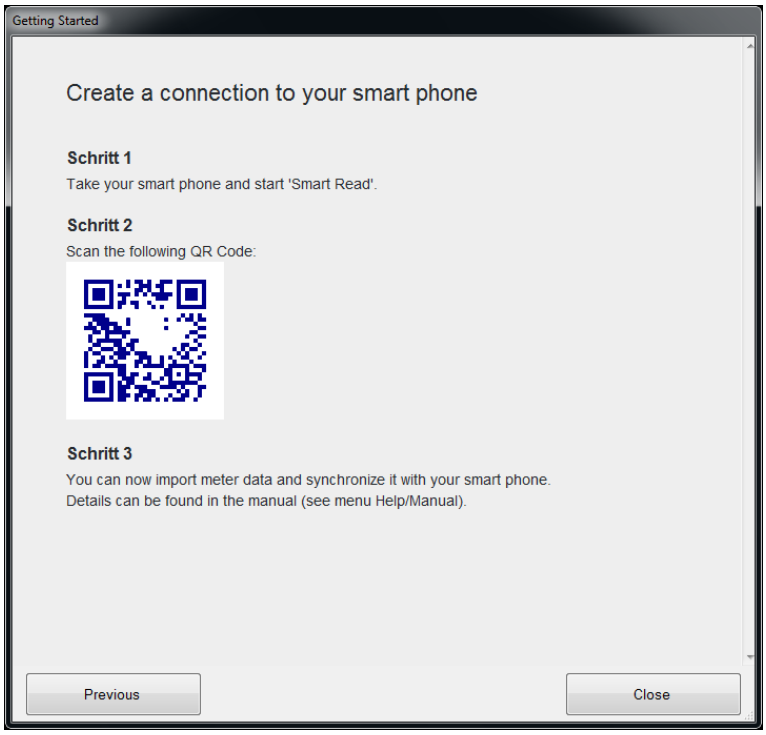


Figure 18

➔ Start an action or end the program with 2 x [⮌] of the handheld device.

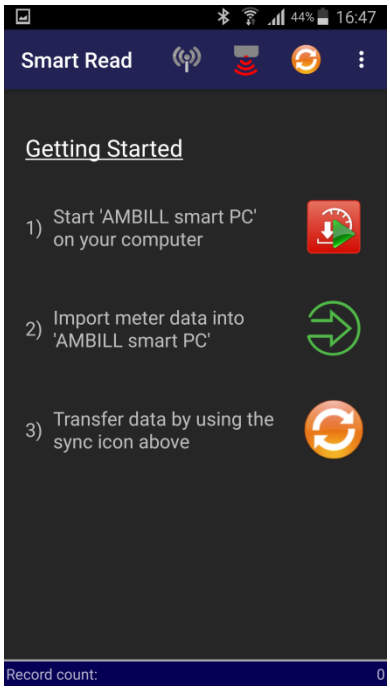


Figure 19

3.2  AMBILL® smart Config

Program for configuring peripheral devices as well as managing different settings and options for reading.

Screen icons

 Manage wireless keys

 Add wireless key

 Existing keys

 Information on the version

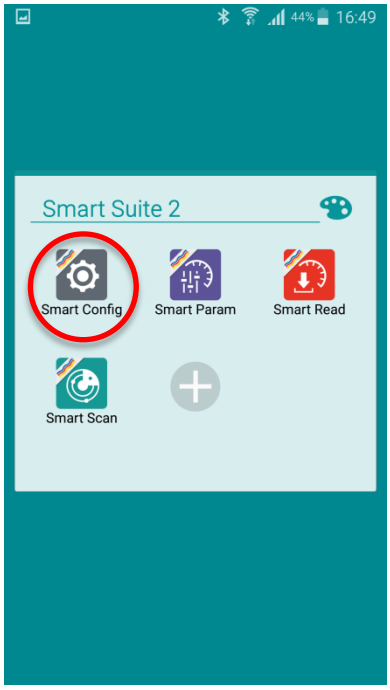
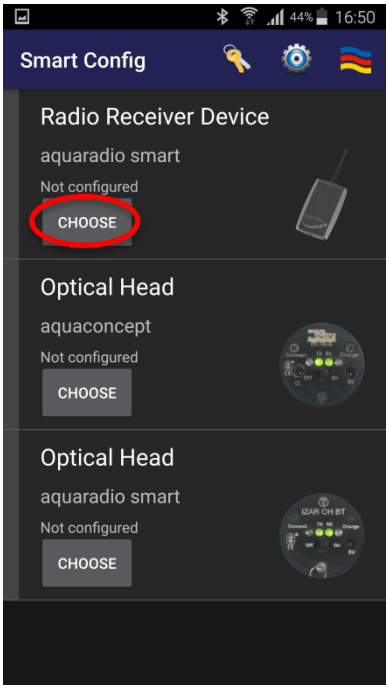
Setting up a wireless receiver or infrared reading head

Various devices are suitable for receiving or transmitting data between the meter and the evaluation. These must first be set up on the Android handheld device. The connection is established via Bluetooth.

The following devices are supported:

aquaradio® smart wireless receiver	Is required to receive data (telegrams) from wireless meters and radio modules. → For setup, see section 3.2.1.	 Item No.: 80542
K01-Blue reading head	Is required to parametrise and read aquaconcept® system modules. → For setup, see section 3.2.2.	 Item No.: 80249
IZAR OH BT reading head	Is required to parametrise aquaradio® smart radio modules. → For setup, see section 3.2.3.	 Item No.: 80544

3.2.1. Setting up a Bluetooth wireless receiver

➔ Switch on Bluetooth wireless receiver (Item No.: 80542)	➔ Open Smart Config	➔ [Choose] aquaradio smart wireless receiver.
		
Figure 20	Figure 21	Figure 22

➔ Select [Type]	➔ Select device, here [Diehl Receiver]	➔ If no address is shown, select [Address]

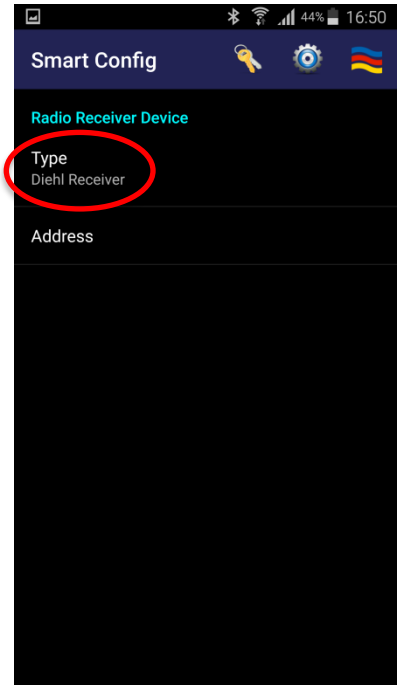
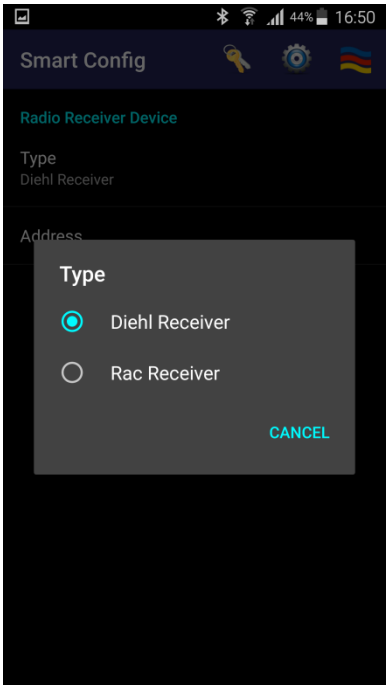
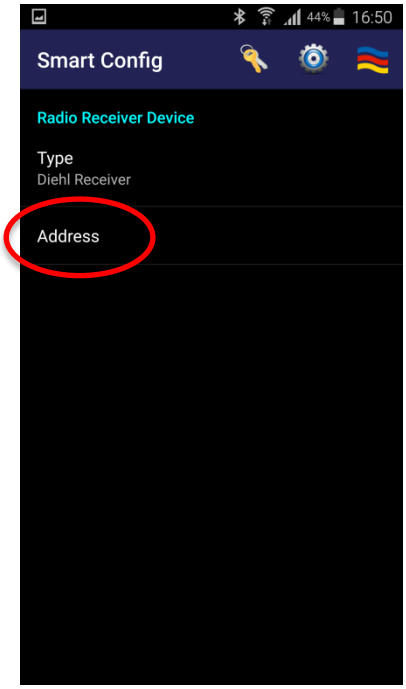

		

Figure 23	Figure 24	Figure 25

➔ Switch on receiver [Scan for devices]	➔ Check receiver No. ➔ Select device	➔ Address is transferred

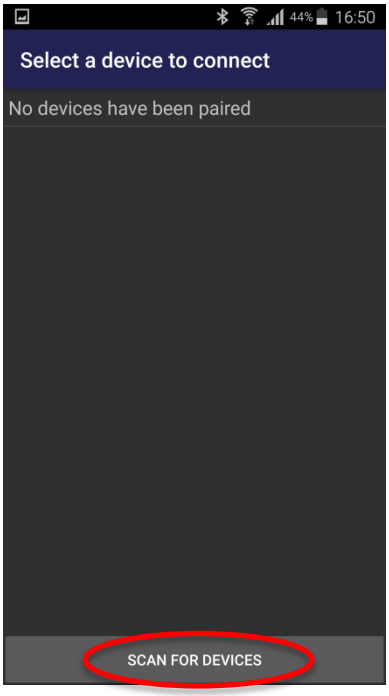
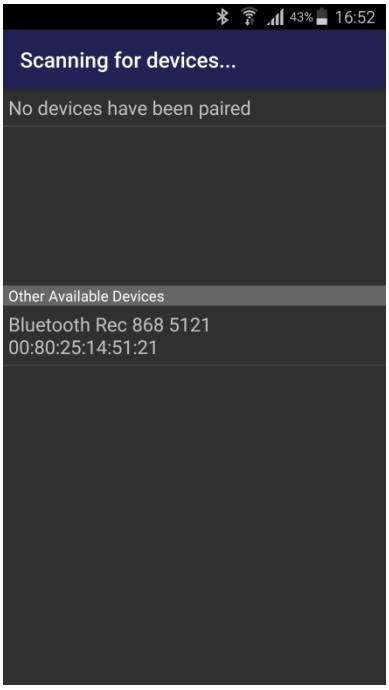
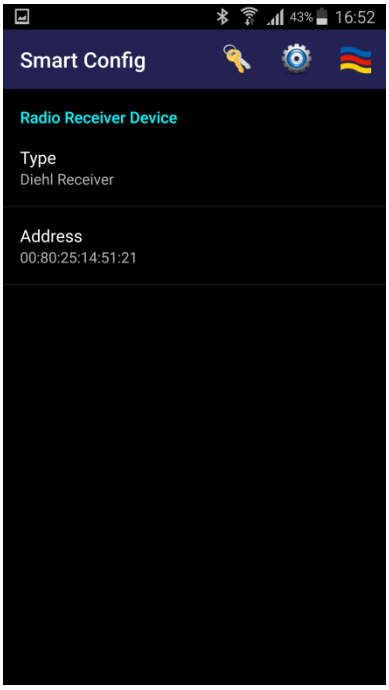

		

Figure 26	Figure 27	Figure 28

➔ Run [Test]	➔Test is running	➔ The connection has been established. The wireless receiver is now configured.

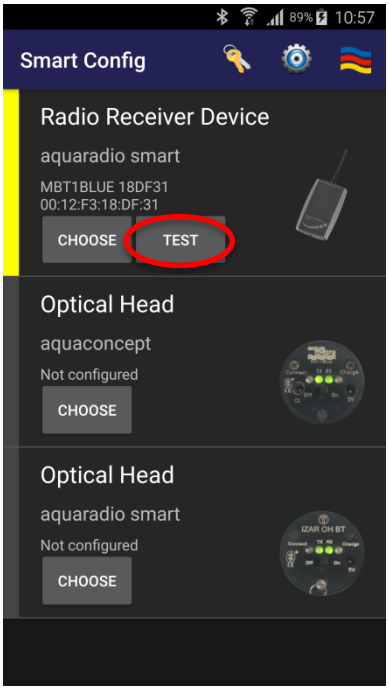
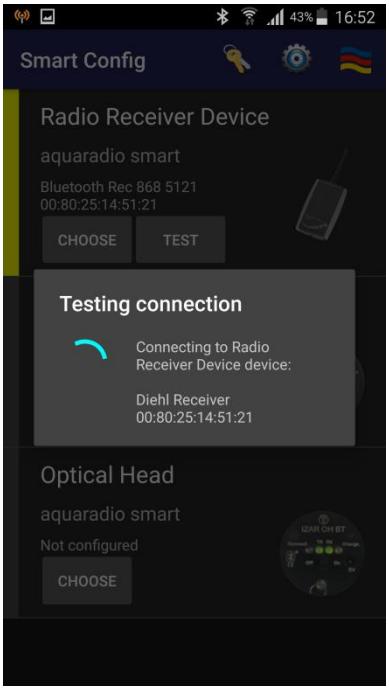
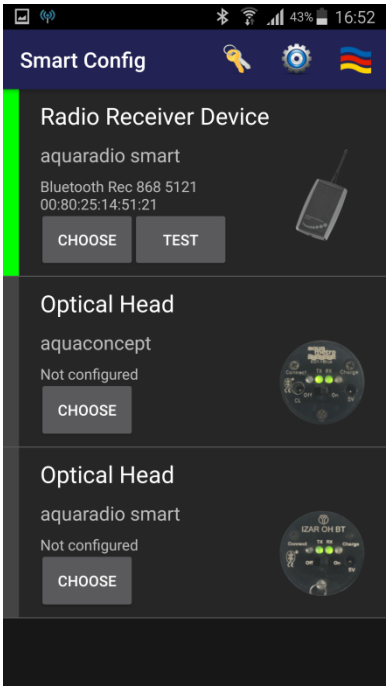
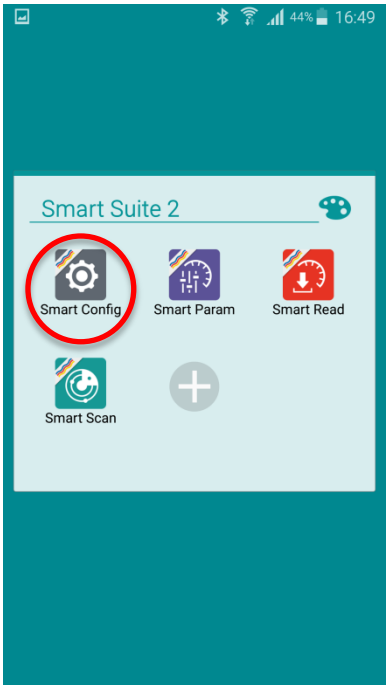
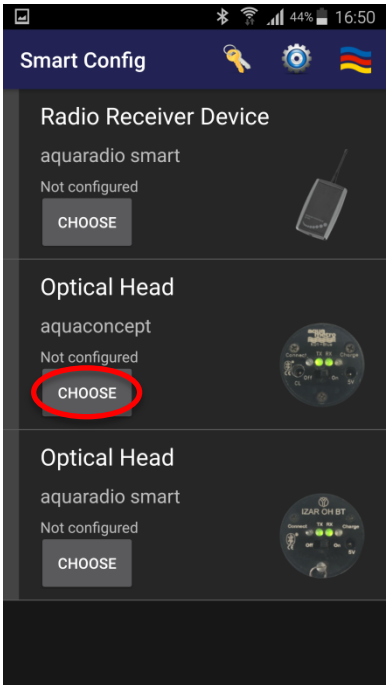

		

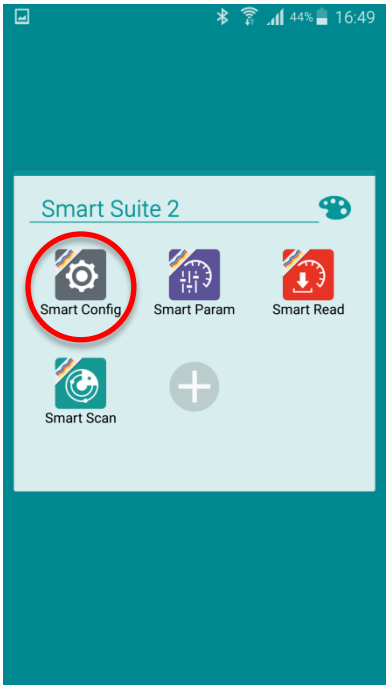
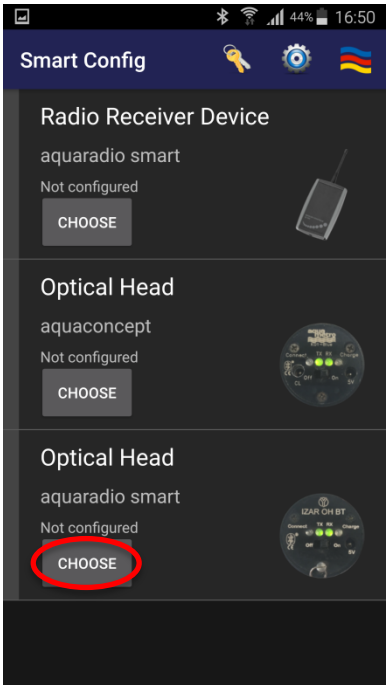
Figure 29	Figure 30	Figure 31

3.2.2. Setting up a Bluetooth reading head of the type "K01-Blue"

➔ Switch on K01-Blue Bluetooth reading head (item No.: 80249)	➔ Open Smart Config	➔ [Choose] aquaconcept optical head.
 Figure 32	 Figure 33	 Figure 34

The further steps for selecting and testing are identical to section 3.2.1 (page 17) and are to be understood correspondingly as shown in Figures 21-31 (pages 17-18).

3.2.3. Setting up a Bluetooth reading head of the type "IZAR OH BT"

➔ Switch on IZAR OH BT Bluetooth reading head (item No.: 80544)	➔ Open Smart Config	➔ [Choose] aquaradio smart optical head.
 Figure 35	 Figure 36	 Figure 37

The further steps for selecting and testing are identical to section 3.2.1 (page 17) and are to be understood correspondingly as shown in Figures 21-31 (pages 17-18).

4 Operation

4.1 AMBILL® smart Param

Is used for parametrising aquaradio® smart radio modules and aquaconcept® system modules, which can be connected to different consumption meters by Aquametro AG.

Screen icons

Reader selection

Switching to expert mode

Checking of the parametrisation by means of wireless communication

Information on the version

4.1.1. Pre-selection of the devices for parametrisation

➔ Open Smart Param	➔ Pre-select parametrisable devices. If only one parametrising head is registered, this screen does not appear.	➔ Check and, if required, select the reading head and options

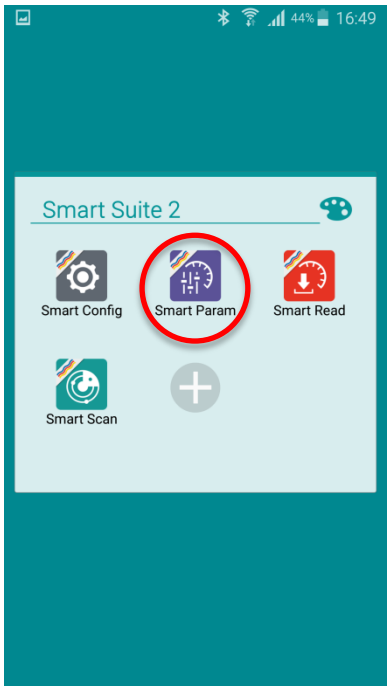
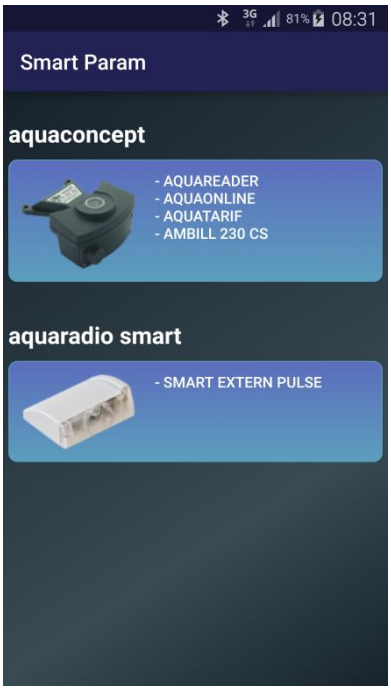
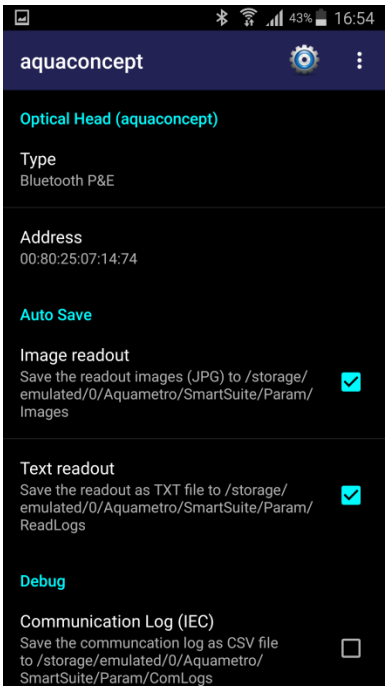

		

Figure 38	Figure 39	Figure 40

4.1.2. Reading & checking of aquaconcept® system module

➔ Select [Verify]	➔ Select [Read]	➔ Receive device data

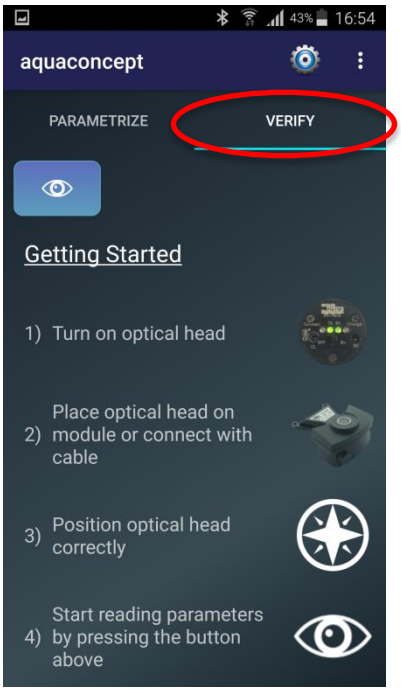
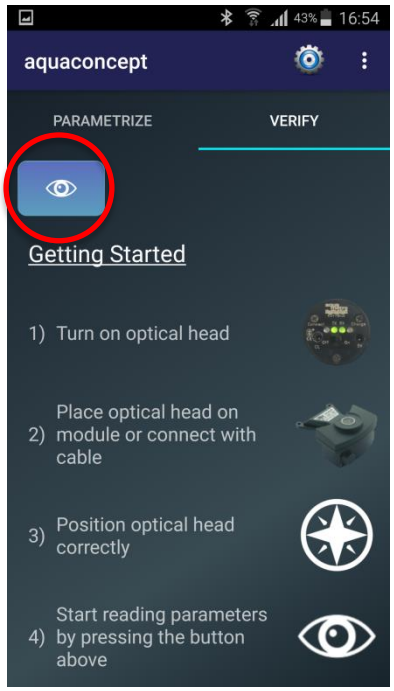
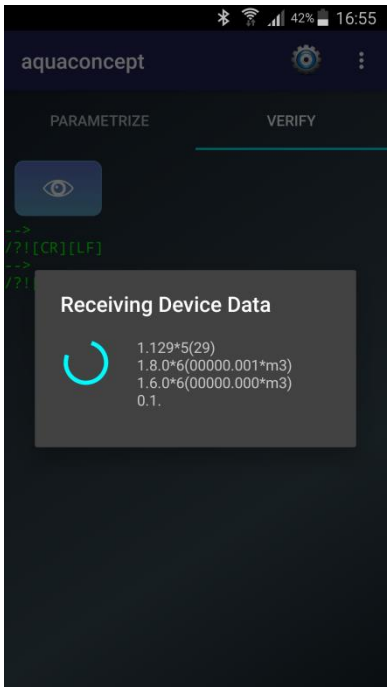

		

Figure 41	Figure 42	Figure 43

Example of module data read by aquatarif	➔ Read [Daily Values] (not all modules)	Example of current values read by aquatarif

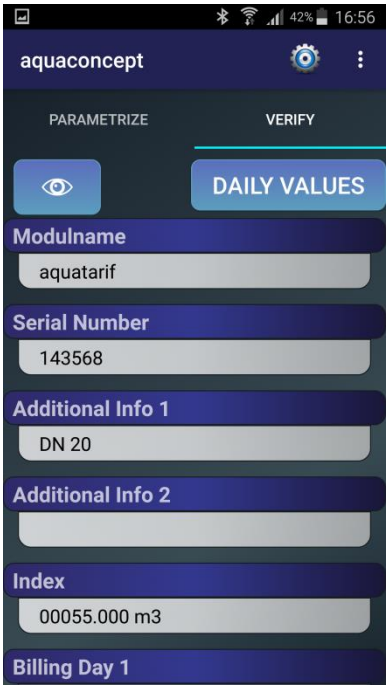
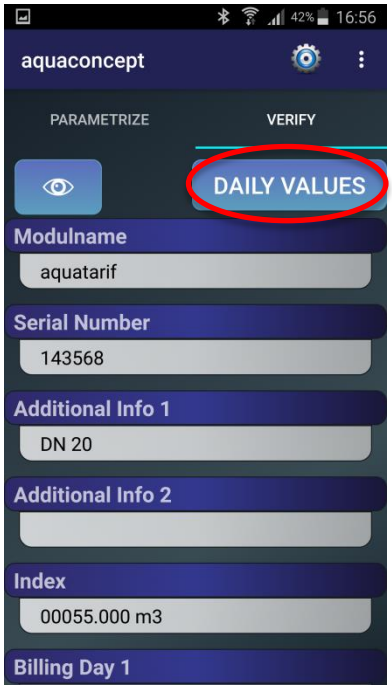
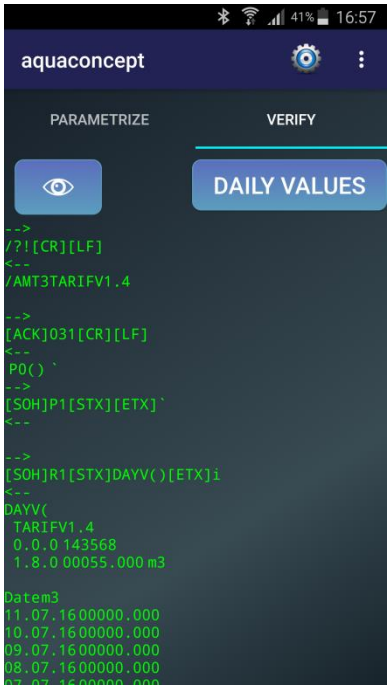

		

Figure 44	Figure 45	Figure 46

4.1.3. Parametrisation of aquaconcept® system module

➔ Select [Parametrize]	➔ Select [Read]	➔ Receive device data

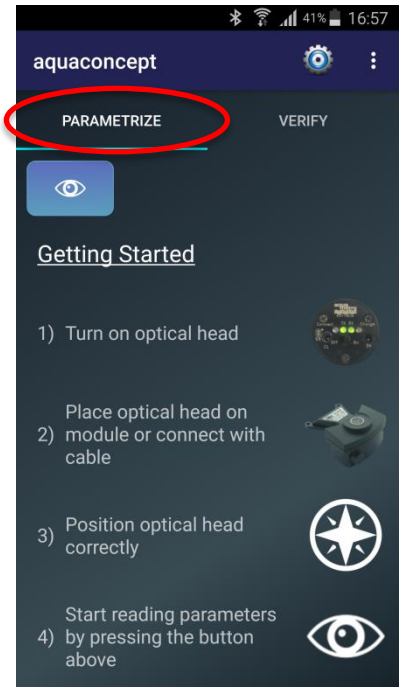
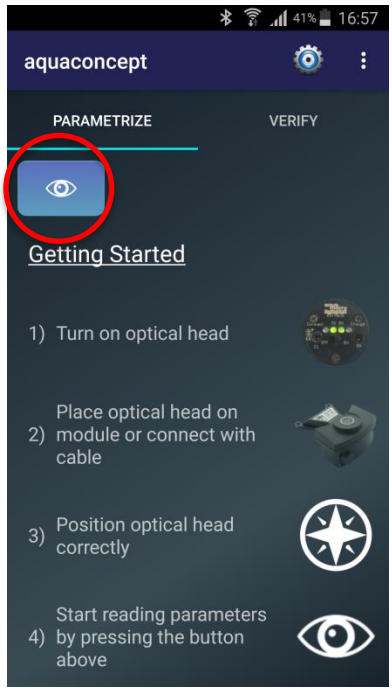
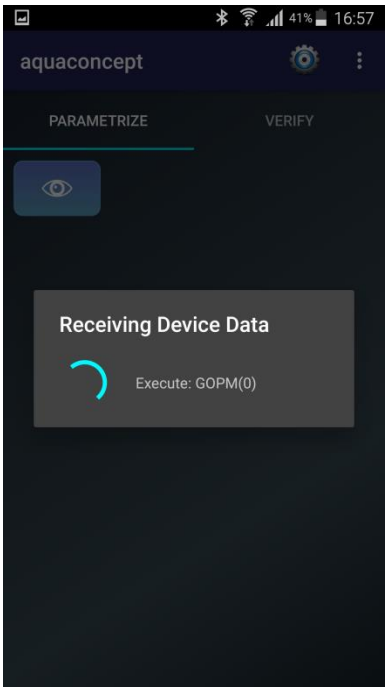

		

Figure 47	Figure 48	Figure 49

Example of read list with device parameters (here: aquatarif)	➔ Select parameters	➔ Change parameter value ➔ Confirm entry with [OK]

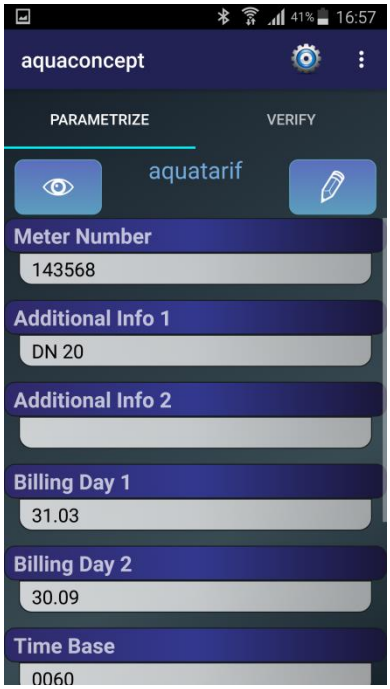
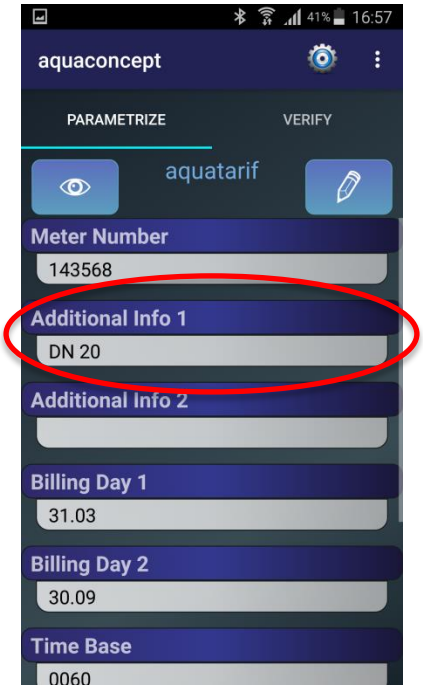
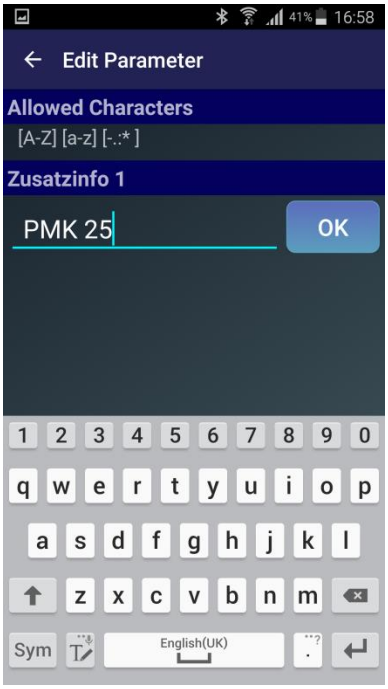
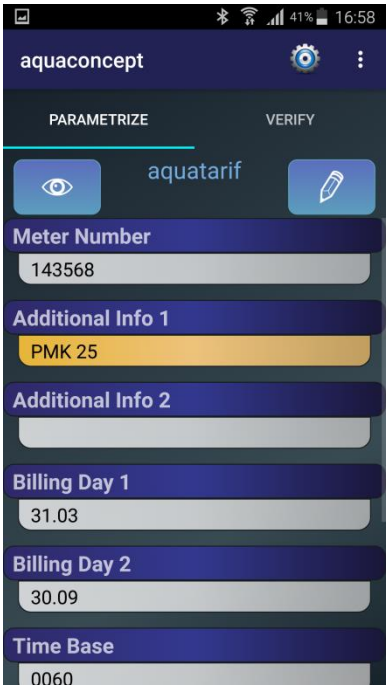
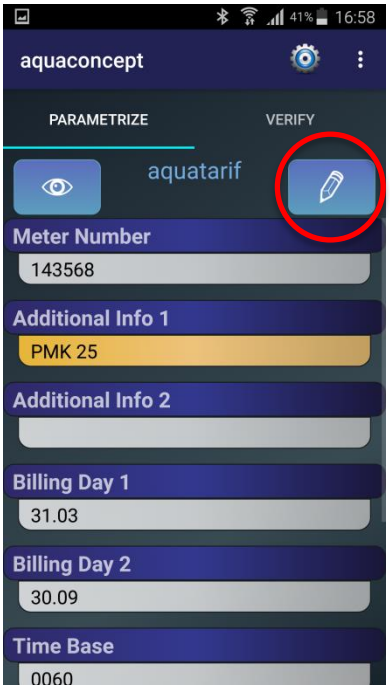
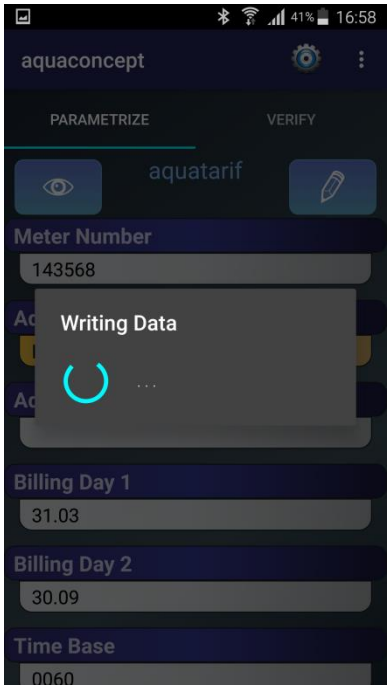
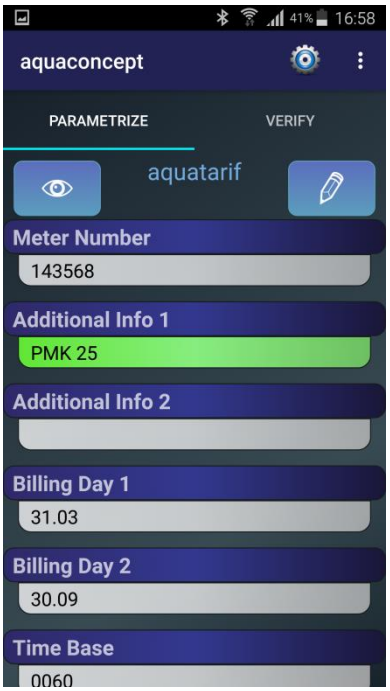
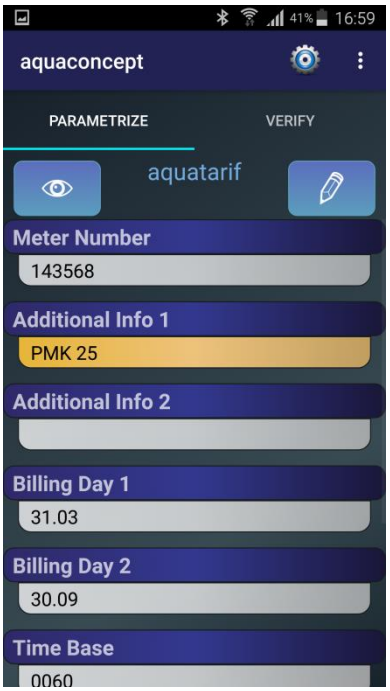

		

Figure 50	Figure 51	Figure 52

➔ The new value appears in orange	➔ [Write]	➔ Changed parameters are written
 Figure 53	 Figure 54	 Figure 55

➔ Data that has been written correctly into the module appears in green after writing.	<u>Notice:</u> If the writing of the parameters was not successful, the parameter appears in orange or red.
 Figure 56	 Figure 57

4.1.4. Parametrisation of the aquaradio® smart radio module

➔ Select [Read]	➔ Receive device data	➔ Example of read data

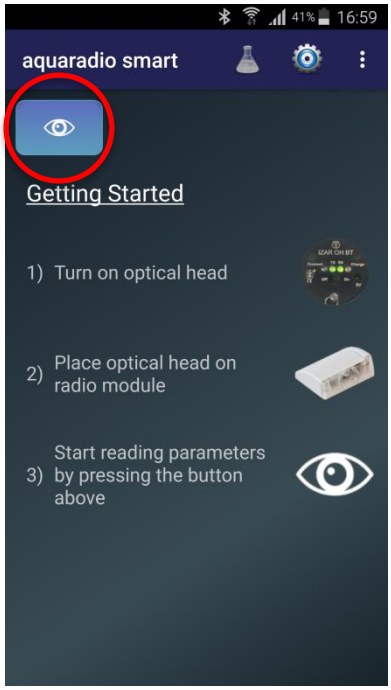
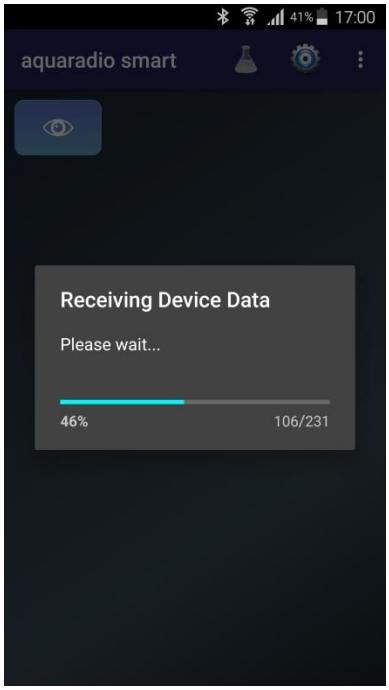
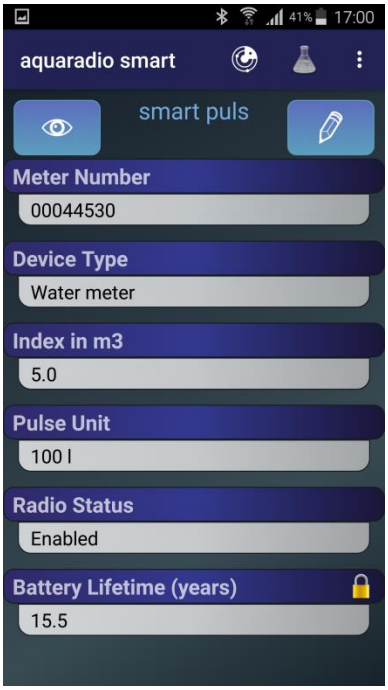

		

Figure 58	Figure 59	Figure 60

➔ Select and change parameter	➔ The new value appears in orange	➔ [Write]

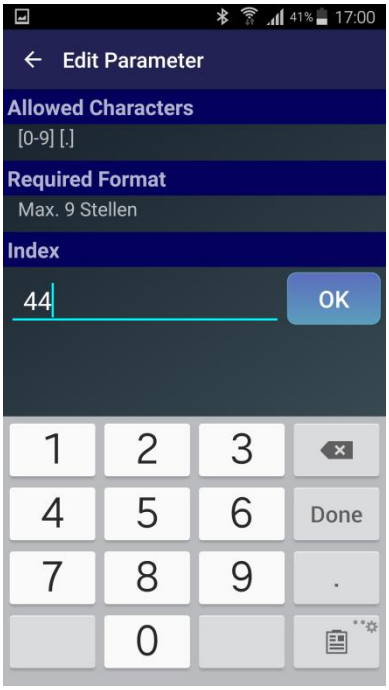
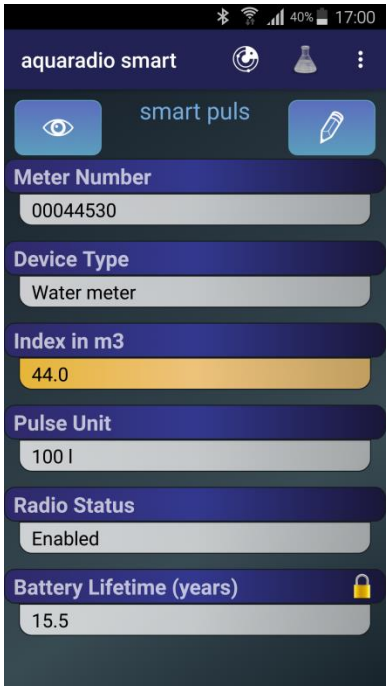
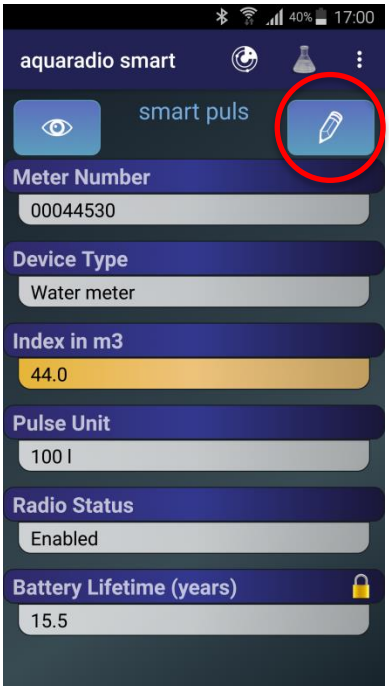
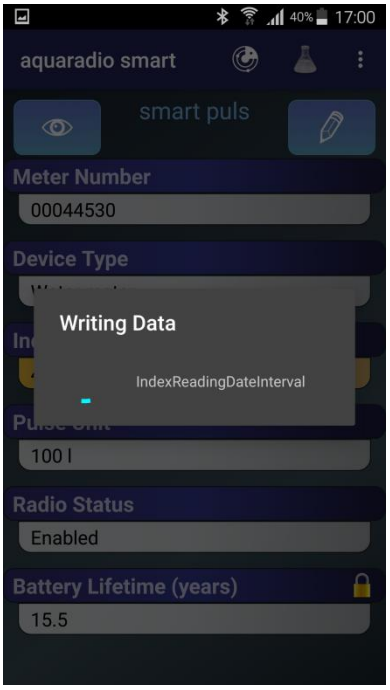
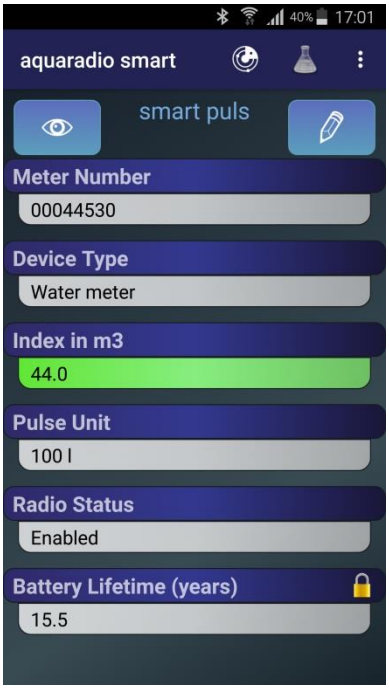
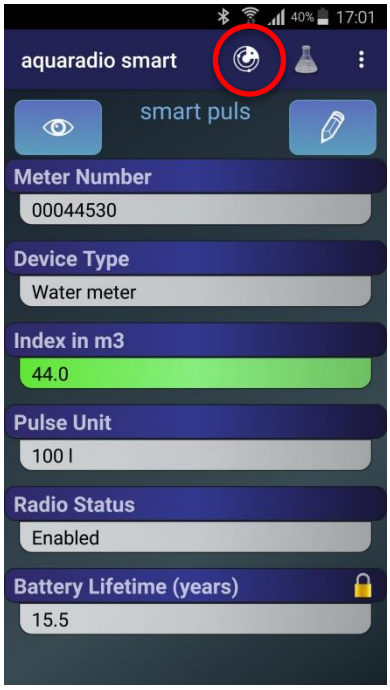

		

Figure 61	Figure 62	Figure 63

➔ Changed parameters are written	➔ Data written correctly into the module appears in green after it has been written. If an error occurred during the writing process, the value is highlighted in orange or red.	➔ To check the result directly, the scanner can be activated with the icon. See section 4.2 on page 28.
 Figure 64	 Figure 65	 Figure 66

4.1.5. Expert mode (only aquaradio® smart)

➔ Activate expert mode	➔ Additional values are shown that can, to some extent, be changed.	➔ Values displayed with a lock cannot be changed.

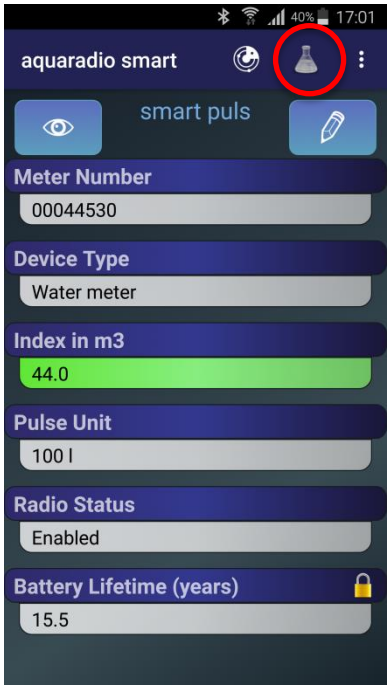
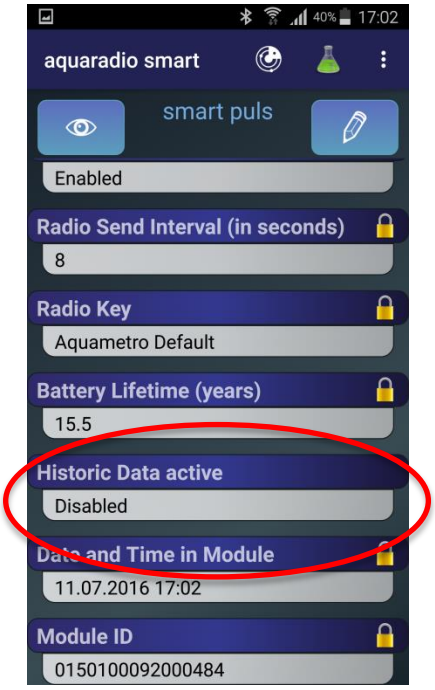
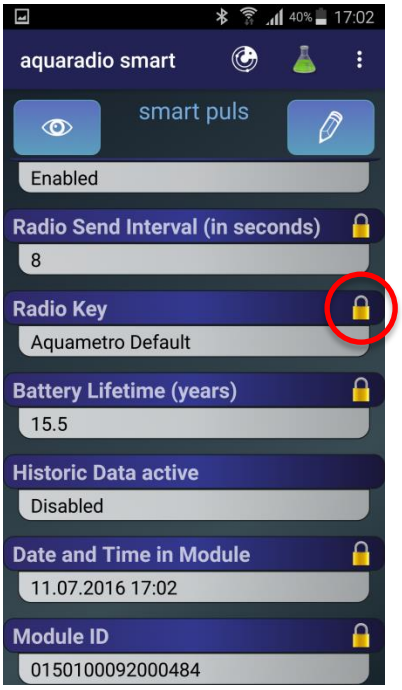

		

Figure 67	Figure 68	Figure 69

NOTICE

In expert mode, values can be changed that may result in changes to the function and/or loss of data later on.
Example: Switching wireless communication on or off.

4.2 AMBILL® smart Scan

Visualising aquaradio® smart and other radio modules during or after the commissioning of meters.

Screen icons


Switch the connection with the wireless receiver on or off


Sorting of received meters

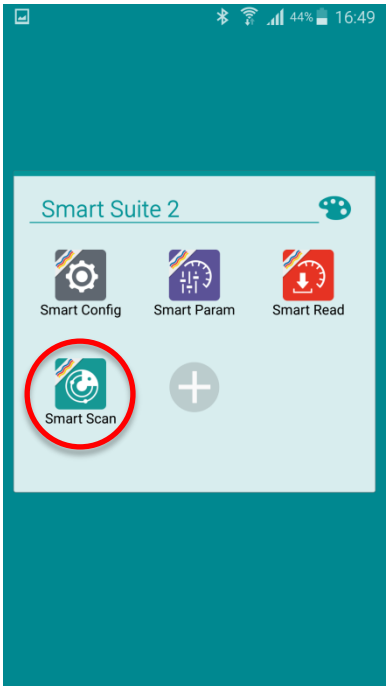
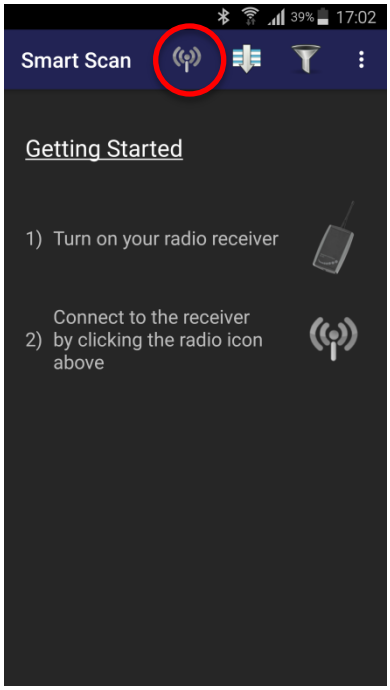

Sorting active


Filter function


Filter function active


Save or send

4.2.1. Receiving meter data

➔ Open Smart Scan	➔ Provide and switch on Bluetooth wireless receiver	➔ Establish connection with the wireless receiver
 Figure 70	 Figure 71	 Figure 72

➔ Wireless communication is activated (blue), meters are searched

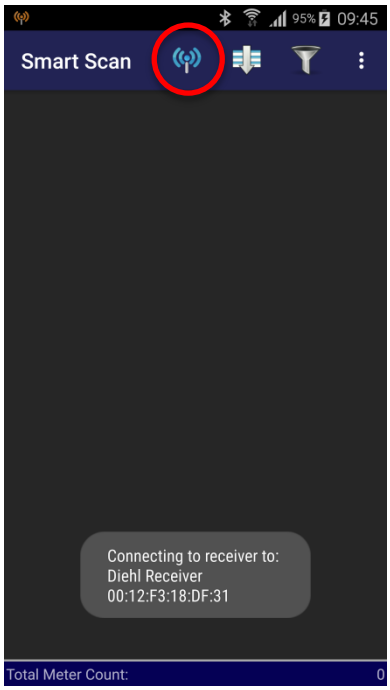


Figure 73

➔ List of the found meters. Select a meter...

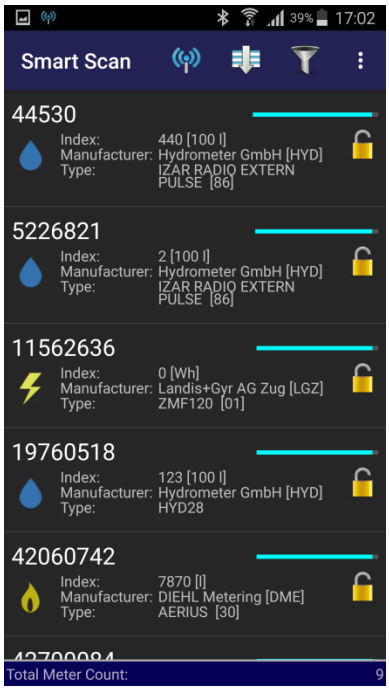


Figure 74

➔ ...to show the details. This data cannot be changed.

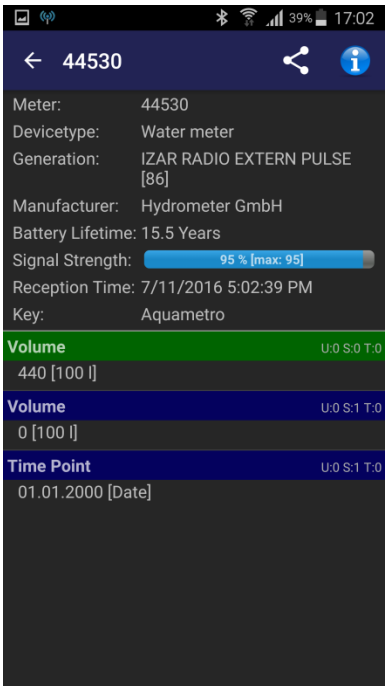


Figure 75

➔ The information icon opens additional data on the meter, if available.

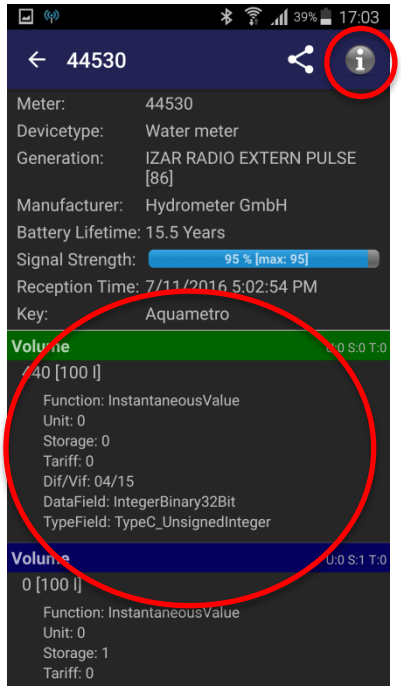


Figure 76

➔ Select the icon [Share]...

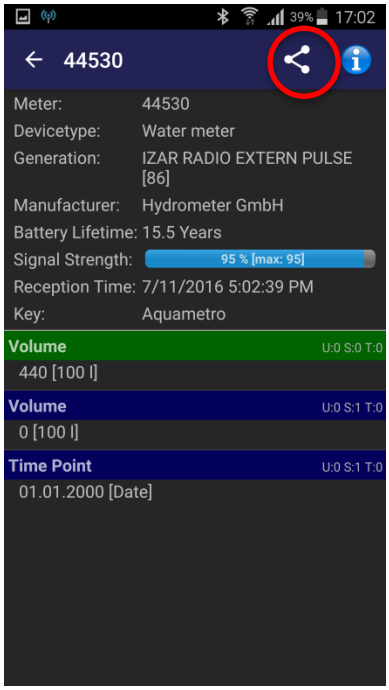


Figure 77

➔ ...to open a list with available services by means of which the data can be saved or sent.

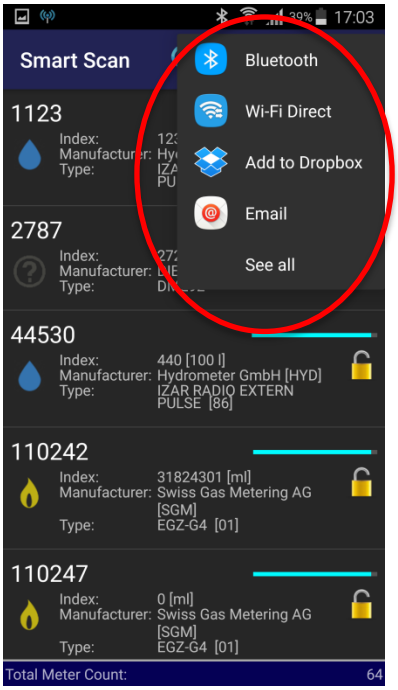


Figure 78

4.2.2. Sorting function

➔ Select the sorting of the data	➔ Select the filter and [Apply]	➔ Example sorted by meter address

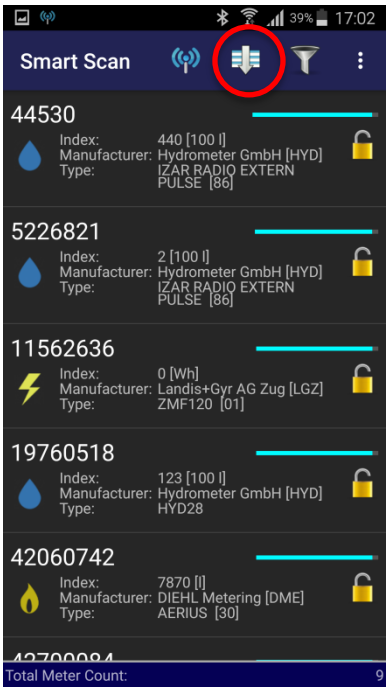
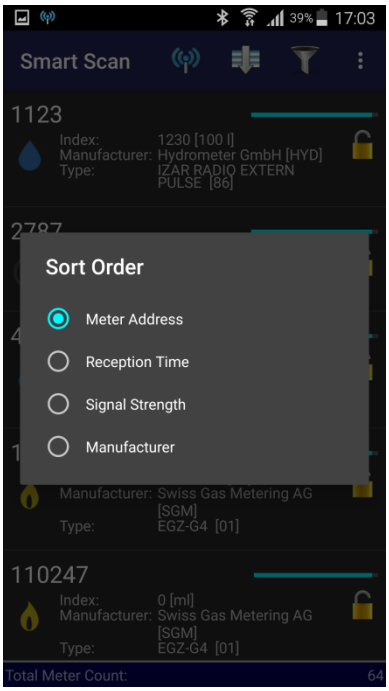
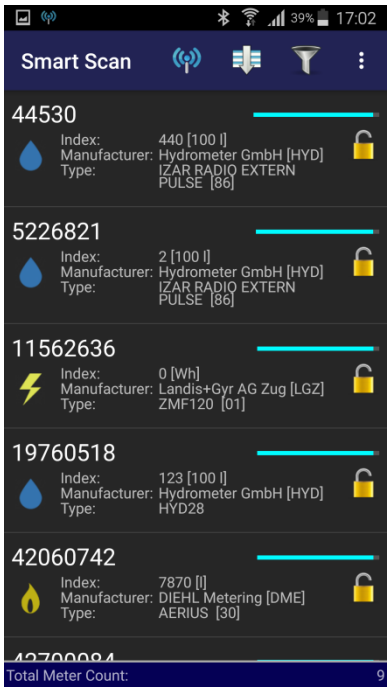

		

Figure 79	Figure 80	Figure 81

4.2.3. Filter function

➔ Select the filtering of the data	➔ Touch [Manufacturer] or [Generation] for longer to show...	➔ ...selection criteria ➔ select, for instance, AMT

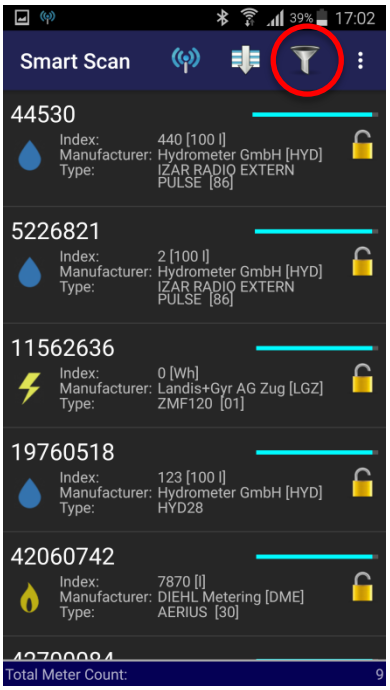
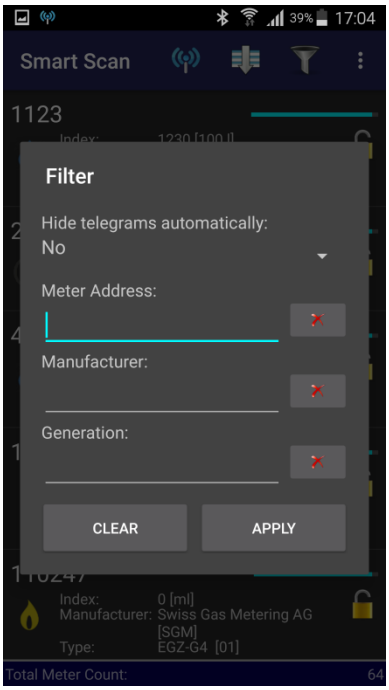
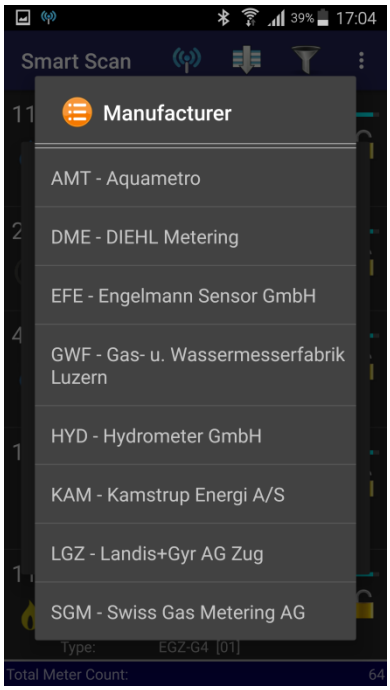
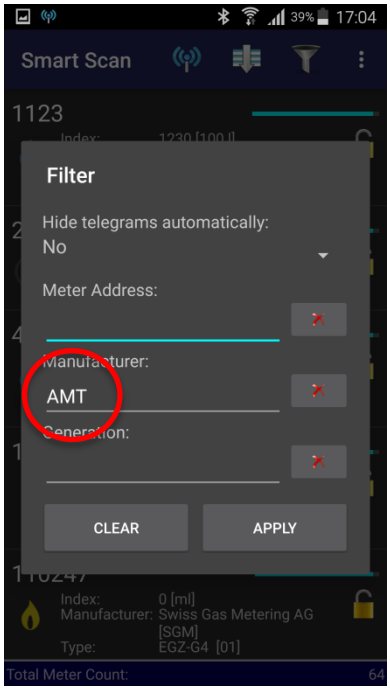
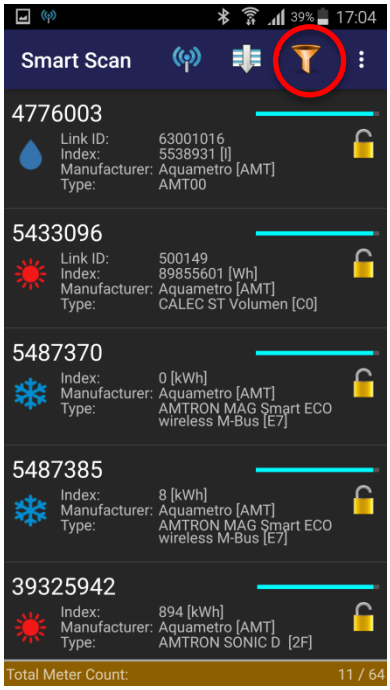
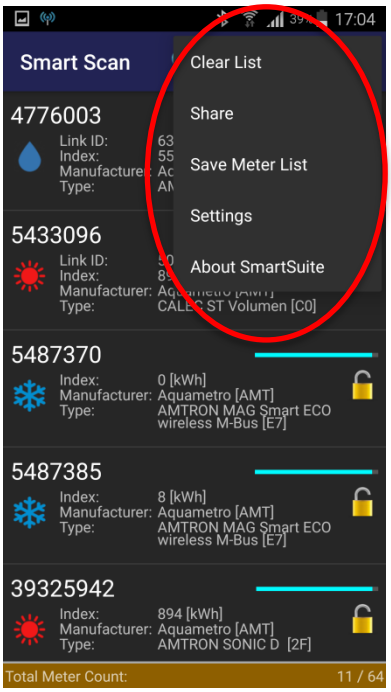
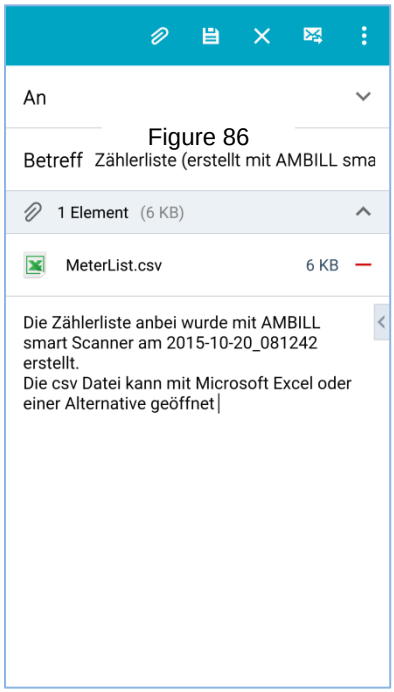
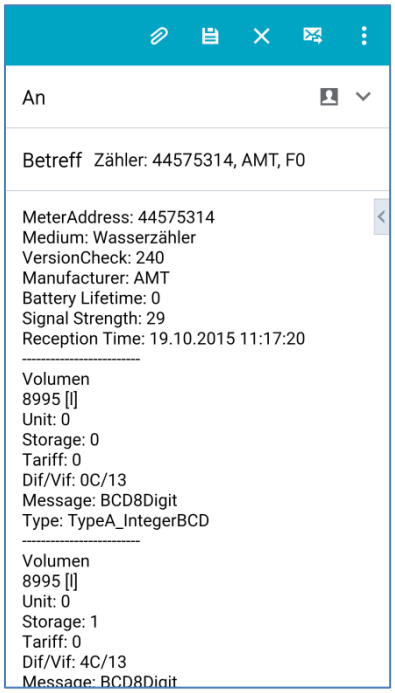

		

Figure 82	Figure 83	Figure 84

➔ Click [Apply] to activate the filter.	➔ List contains only meters by Aquametro. If a filter is active, the symbol appears in orange.	➔ Use the Menu button of the handheld device to open the selection for this list. Now this list can be saved, sent or deleted.
 Figure 85	 Figure 87	 Figure 88

Example: E-mail dispatch	Example: Data view
 Figure 86 Figure 89	 Figure 90

4.3 AMBILL® smart Read (2 parts)

AMBILL® smart Read

For reading aquaradio® smart radio modules and aquaconcept® system modules. Manual entry of meter readings is also possible (manual reading). The values are read and/or synchronised in conjunction with the AMBILL® smart PC program.

AMBILL® smart PC

Saving of the data in list format for further use on a normal computer or laptop with a Microsoft Windows operating system. The values are read and/or synchronised in conjunction with the AMBILL® smart Read program.

Screen icons


Connect with wireless receiver


Start infrared readout


Synchronise


Filter deactivated


Filter shows "completed"


Filter shows "open"


Information on the version

AMBILL® smart Suite 2 has a simple meter administration including an interface with a superordinate system. The interface for the import and export is the same. Data entry and processing with MS Excel or with a text editor, which is able to create files in "txt" format delimited by tabs, can easily be done and is described in more detail in section 4.3.1 "Creating a route" (page 33).

Such files can be transferred to an administration software for further use. If you have any questions regarding this issue, please contact Aquametro AG.

NOTE

In the AMBILL® smart PC program data is only displayed.

4.3.1. Creating a route

Field description of the importfile

The Aquametro tab interface is a simple text file where the different fields are delimited by tabs. The import and export files have the same structure.

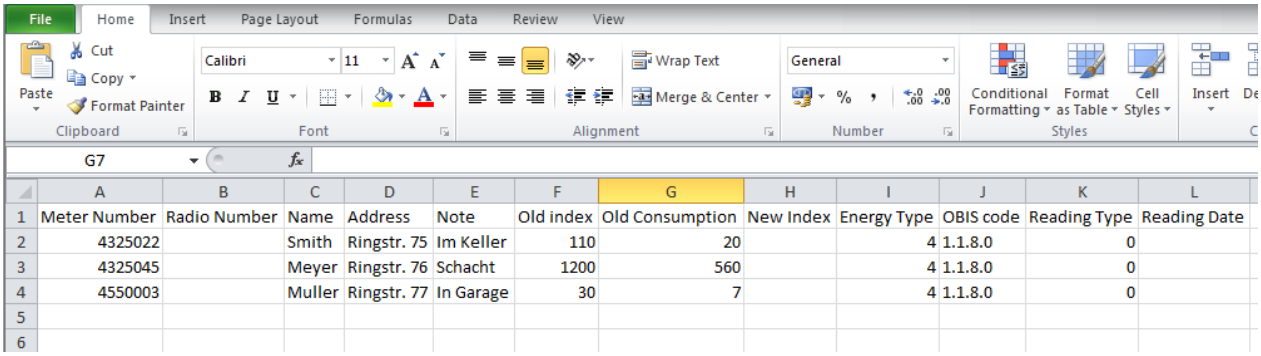
Excel column	Field Description	Field name In the file	Mandatory field	Note
A	Meter number	Meter Number	X	Unique meter number or identifier
B	Radio module number	Radio Number		Only available for compatibility purposes
C	Customer name	Name		
D	House number/street	Address		
E	Comment	Note		Notice regarding the meter
F	Previous reading	Old Index		Can be empty
G	Previous consumption	Old Consumption		Can be empty
H	Current reading	New Index		
I	Energy type of the measurement	Energy Type		Valid values: 1 = Electricity 2 = Gas 3 = Energy 4 = Water 5 = Waste water
J	OBIS code	OBIS code		Valid values: 1.8.0 = Water Further codes depend on the meter
K	ReadoutType	Reading Type		Valid values: Empty = Manual reading, IR/CS 0 = Manual reading, IR/CS 3 = Aquaradio Smart
L	Date of the reading	Readout Date		Export field (YYYYMMDDhhmmss)

X: Mandatory field

For further information, please refer to the Appendix, section 9.2 "Technical specification of the route list (import and export)" on page 49.

4.3.2. Creating an import file

A route list with all measuring points can easily be created and maintained in MS Excel.



	A	B	C	D	E	F	G	H	I	J	K	L
1	Meter Number	Radio Number	Name	Address	Note	Old index	Old Consumption	New Index	Energy Type	OBIS code	Reading Type	Reading Date
2	4325022		Smith	Ringstr. 75	Im Keller	110	20		4	1.1.8.0	0	
3	4325045		Meyer	Ringstr. 76	Schacht	1200	560		4	1.1.8.0	0	
4	4550003		Muller	Ringstr. 77	In Garage	30	7		4	1.1.8.0	0	
5												
6												

Figure 91

Example of a route list with the column designations in the header in MS Excel (for the description of the columns cf. section 4.3.1 "Creating a route", page 33).

To generate an import file from an Excel table, the generated file must be saved in text format.

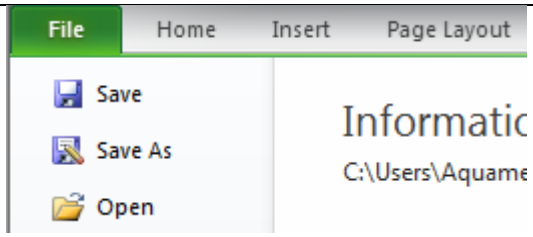


Figure 92

➔ File ➔ Save As (Header can also be saved)

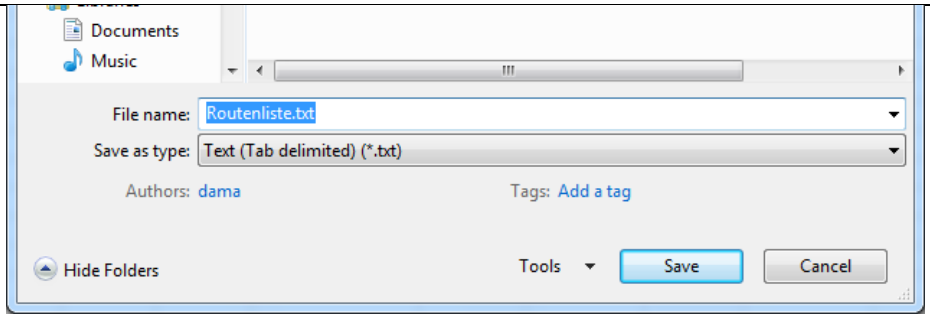


Figure 93

➔ File name: Routelist.txt (example)

➔ Save as type: Text (tab-delimited)

Several route lists can be created. However, for each reading only one defined route can be active. Other routes must then be imported again.

4.3.3. Import to the computer/laptop

In order to be able to import an Aquametro tab import file (section 4.3.1 "Creating a route", page 33) to the Android handheld device, the AMBILL® smart PC program must be installed on a computer or laptop (section 3.1.2 "Installation on desktop computer or laptop", page 10).

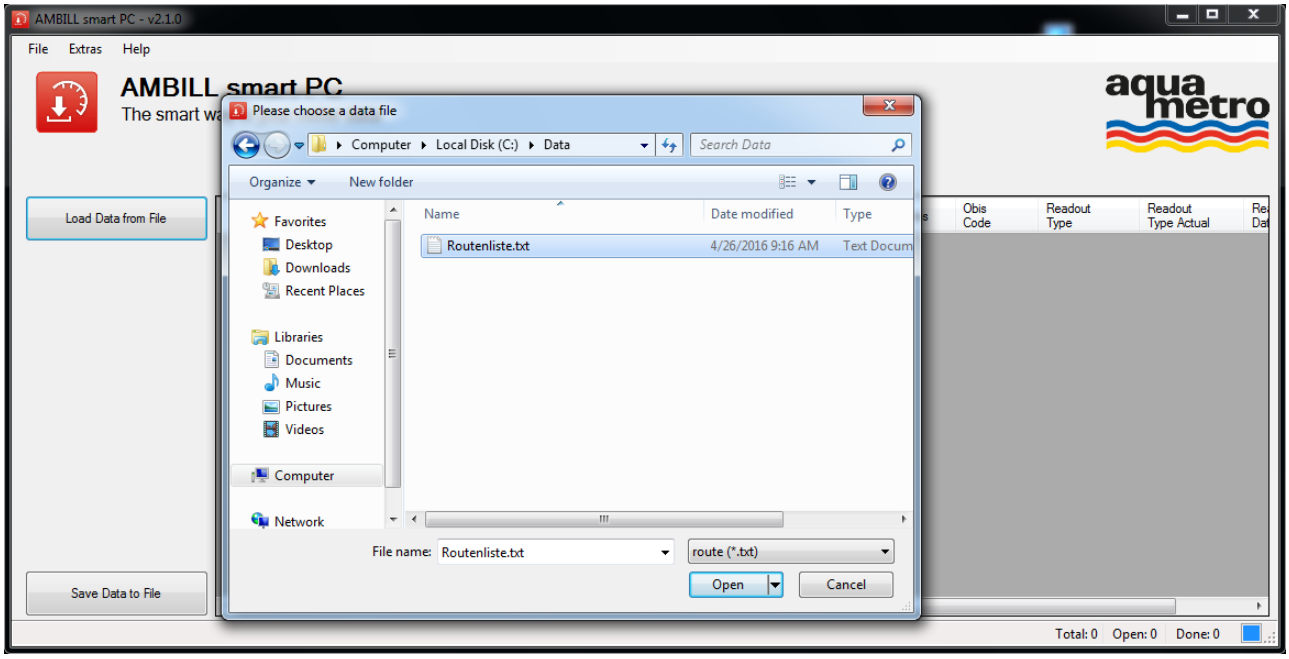


Figure 94

➔ Click the relevant desktop icon to open the program.

➔ Click the [Load data from file] button to select the previously created "Routelist.txt" file

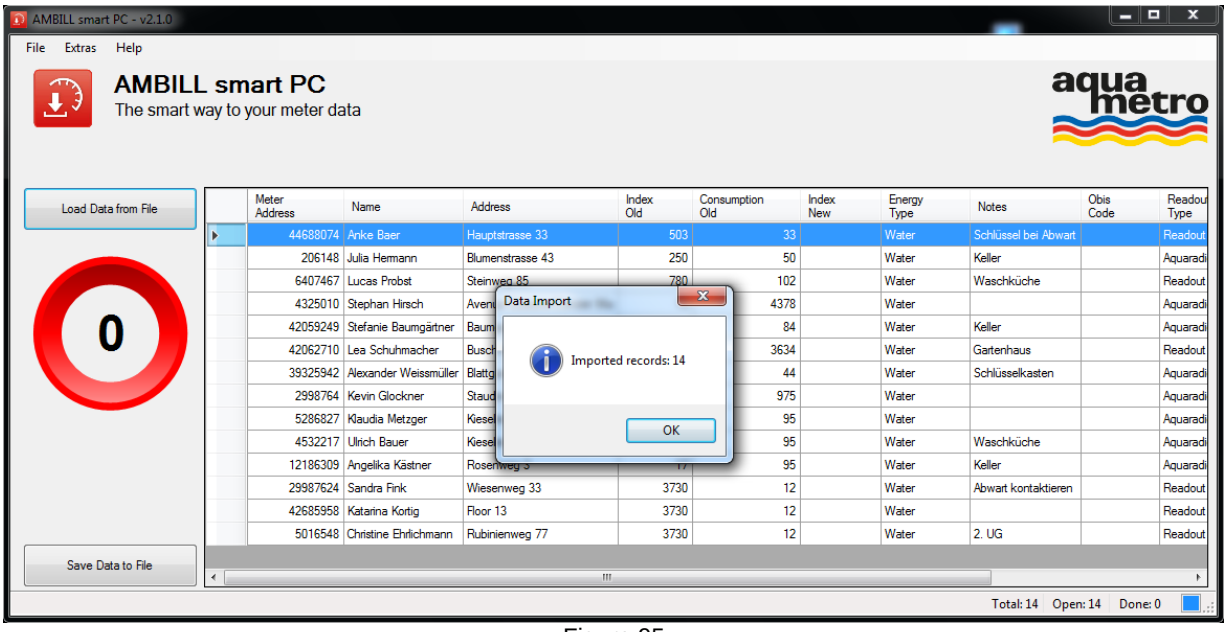


Figure 95

➔ The program reports the number of imported datasets. With this, the data has been imported.

4.3.4. Export from the computer/laptop

The export is carried out the same as the import (section 4.3.3, page 35), but in reverse order.

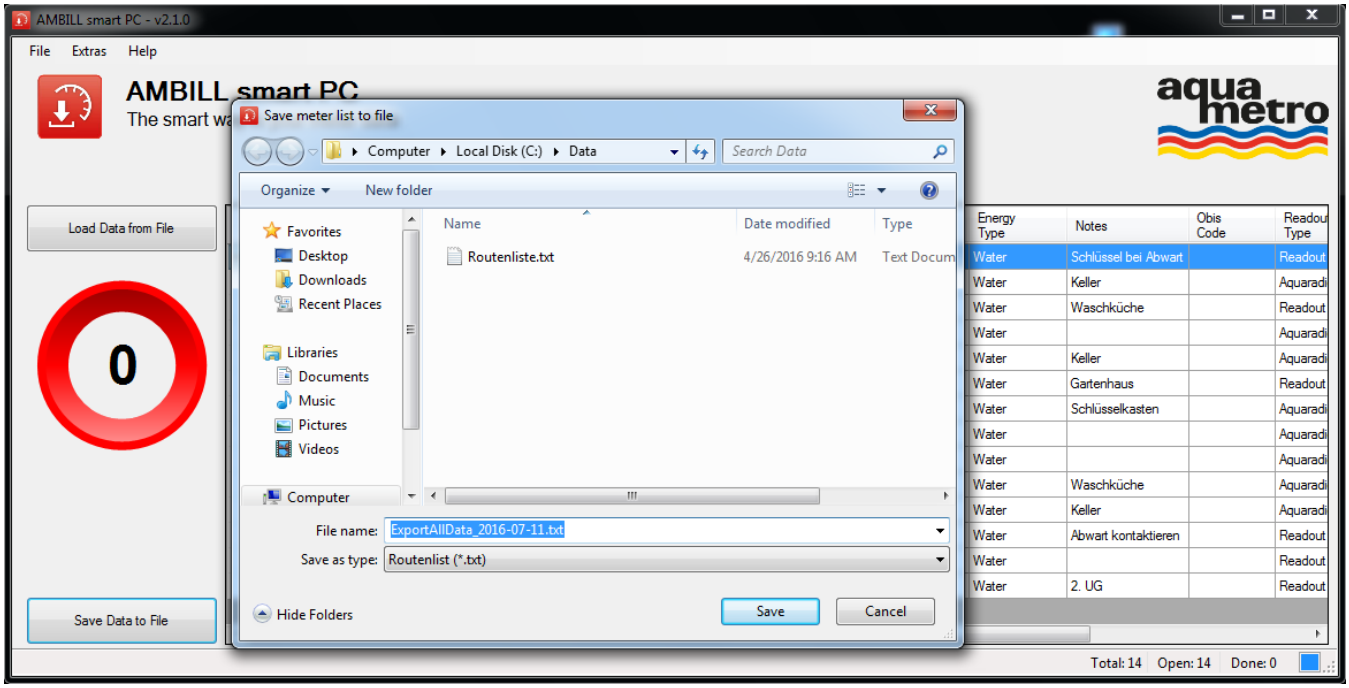


Figure 96

➔ With the [Save] button, the displayed file is saved by the program in text format in a freely chosen location under a specified name and date.

➔ The program reports the completed export

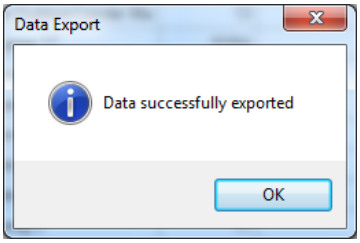


Figure 97

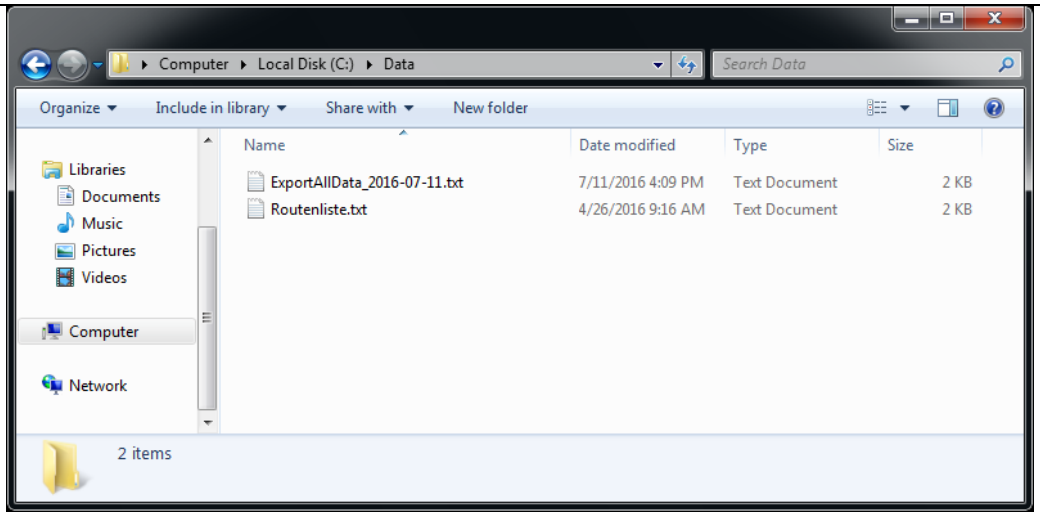
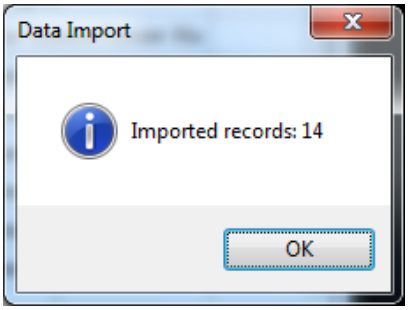
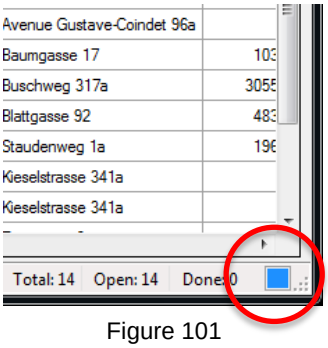
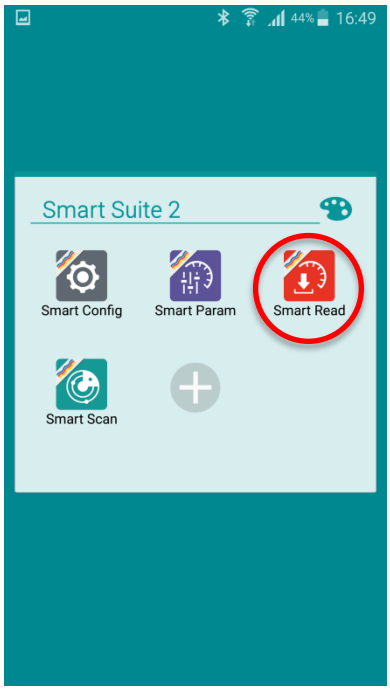
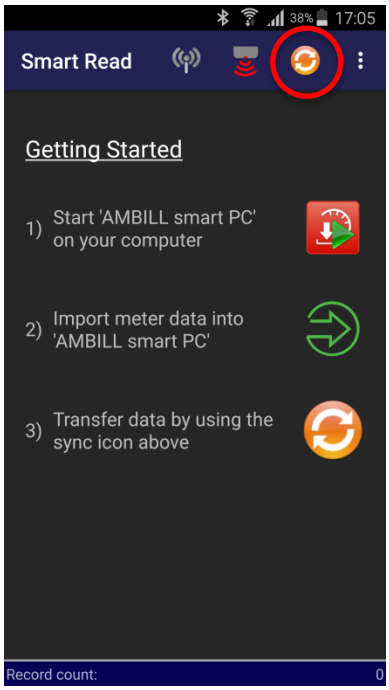
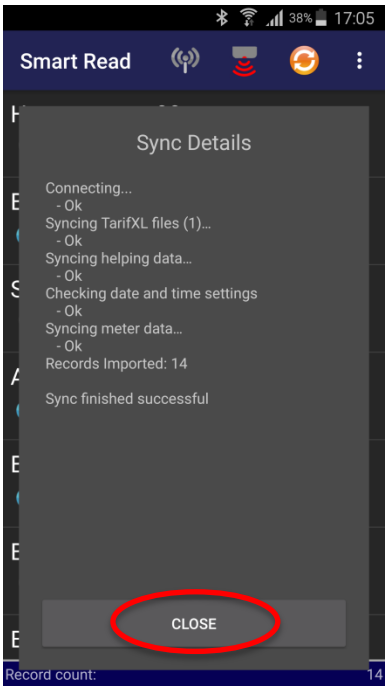


Figure 98

➔ The file that was exported should now be in the previously selected location.

4.3.5. Synchronising data between the Android handheld device and the computer

➔ Start AMBILL® smart PC on the computer	➔ Unless this has already been done, import the meter data (see section 4.3.3, page 35)	➔ Verify that the connection is OK: The square in the bottom right corner appears in blue.
 Figure 99	 Figure 100	 Figure 101

➔ Start AMBILL® smart Read on the handheld device	➔ Click [Synchronise] to confirm	➔ Data is now synchronised between the computer and the handheld device. ➔ Click [Close] to return to the meter list.
 Figure 102	 Figure 103	 Figure 104

4.3.6. Manual reading and correction of a meter reading

➔ Open Smart Read	➔ Synchronise data as described in section 4.3.5 (page 37).	➔ Meter list appears ➔ Select meter

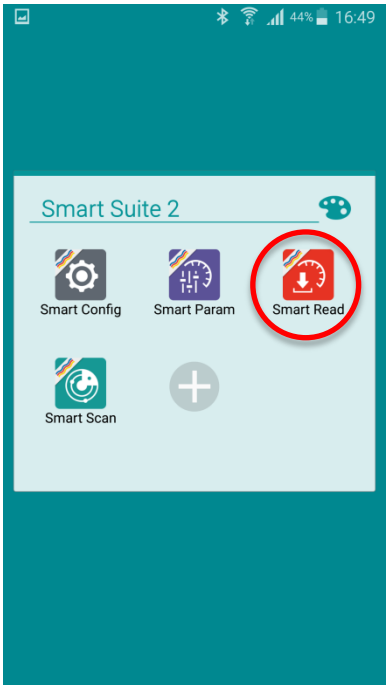
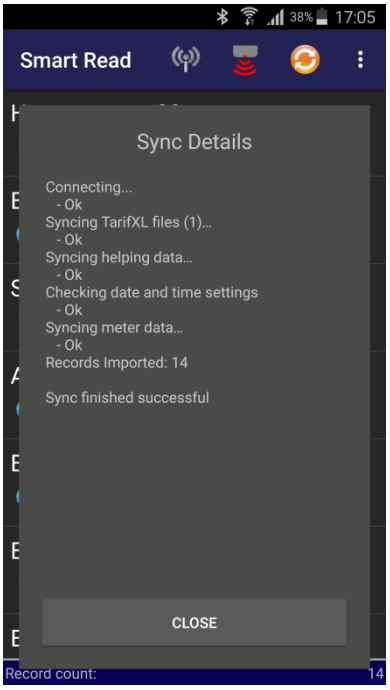
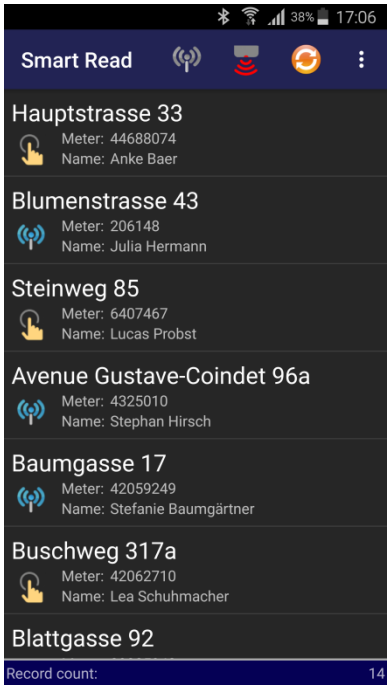

		

Figure 105	Figure 106	Figure 107

➔ Select the [New Reading] field	➔ Enter value...	➔ and [Save]

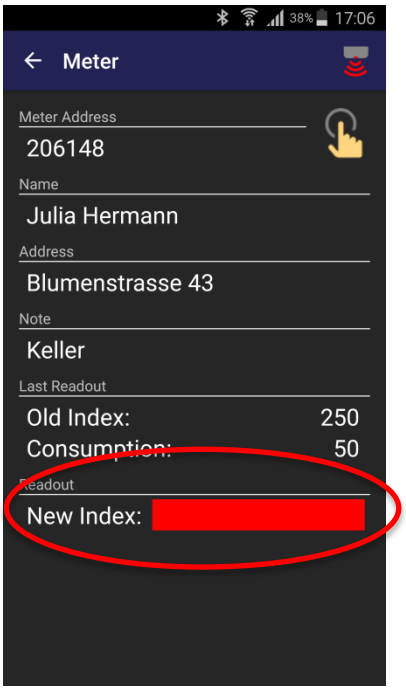
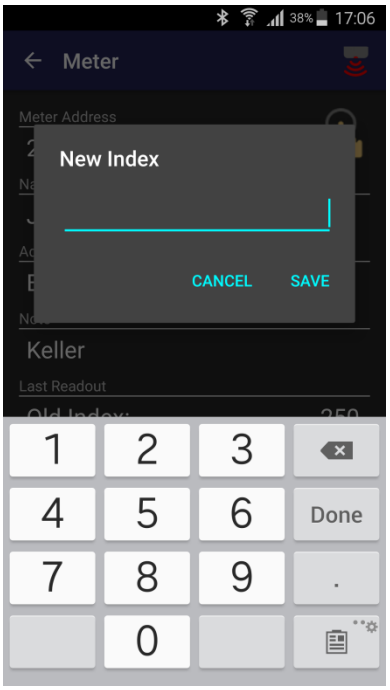
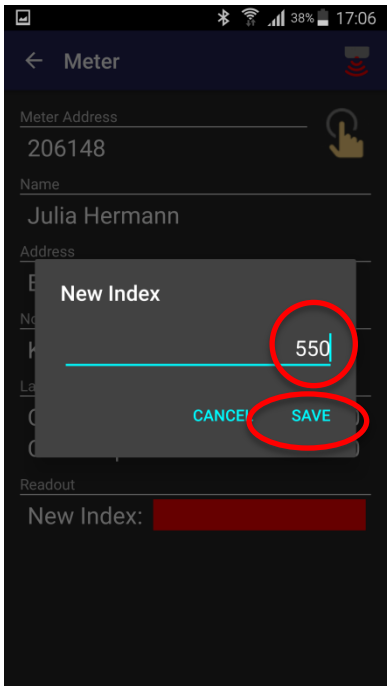

		

Figure 108	Figure 109	Figure 110

➔ New value is displayed in green, [Return]	➔ View of the read meters on the list	➔ Synchronise data as described in section 4.3.5 (page 37).

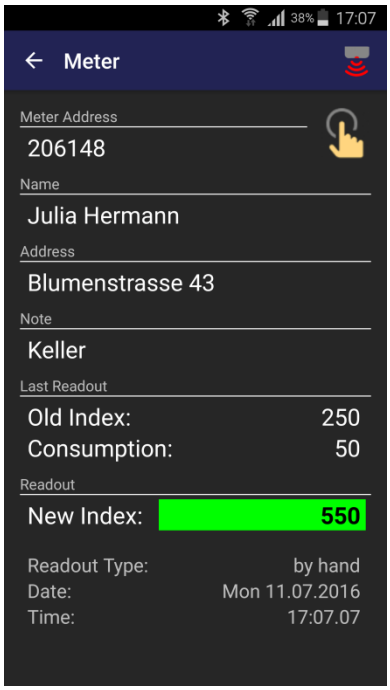
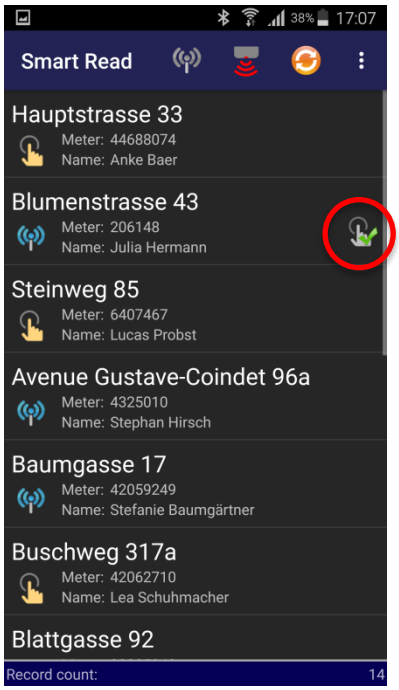
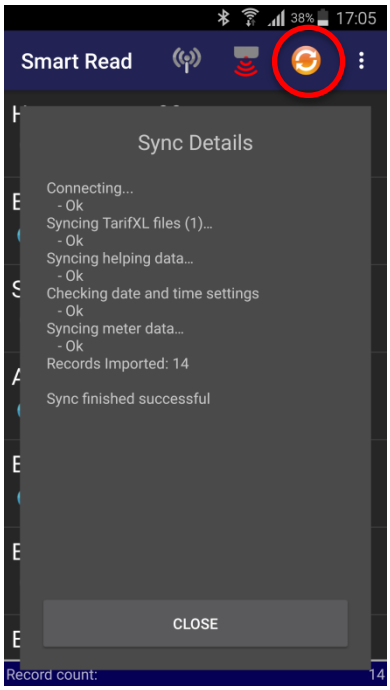
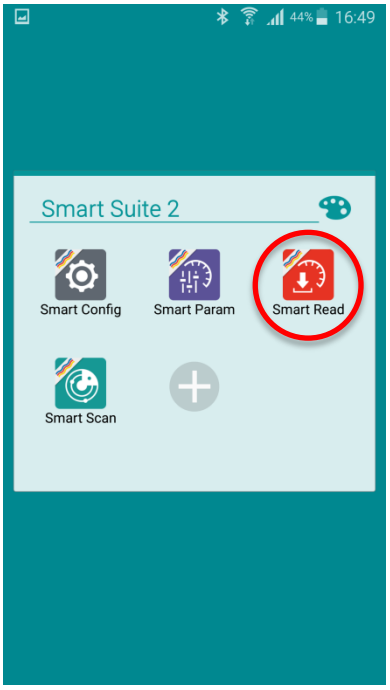
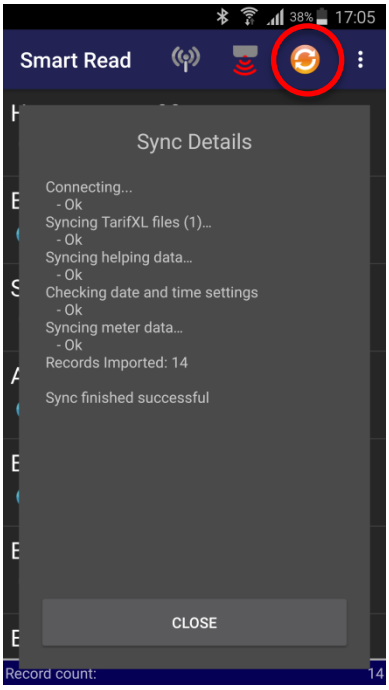
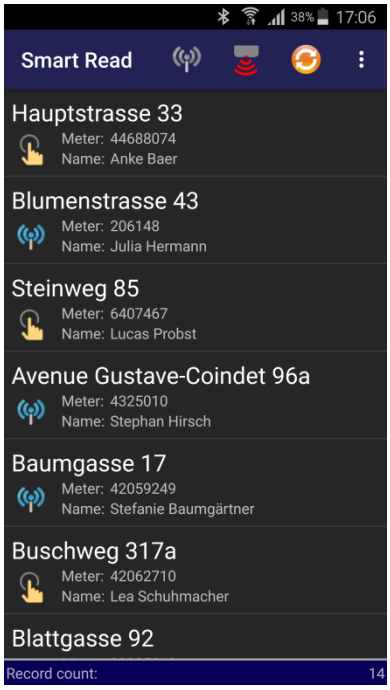
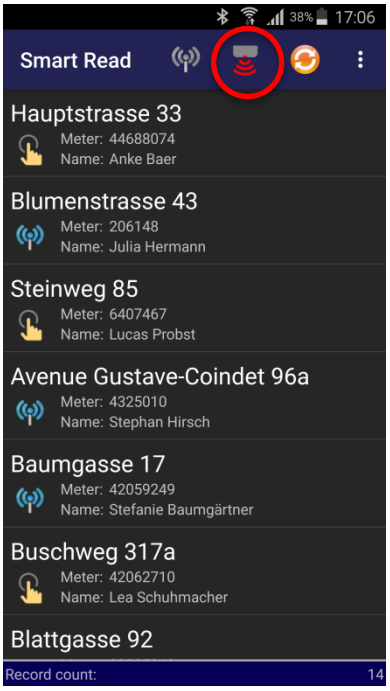
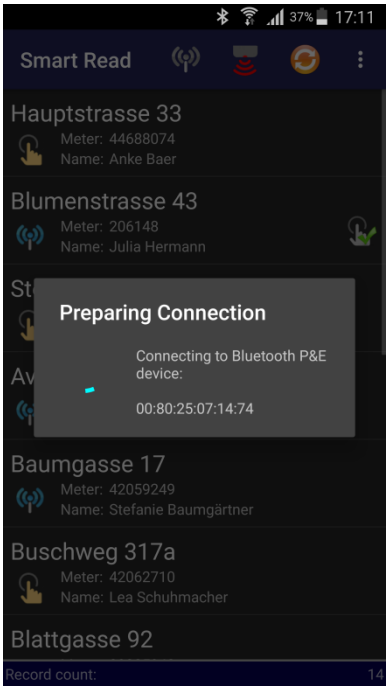
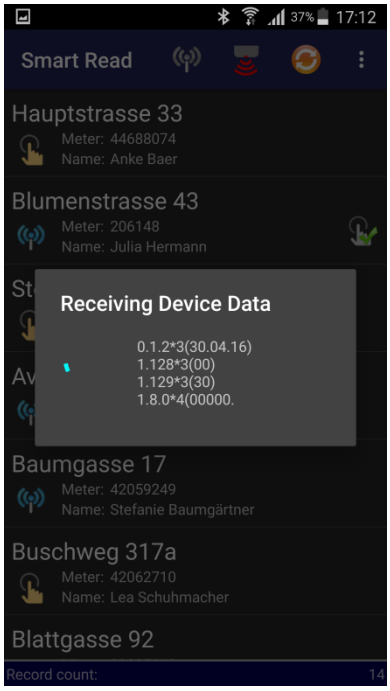
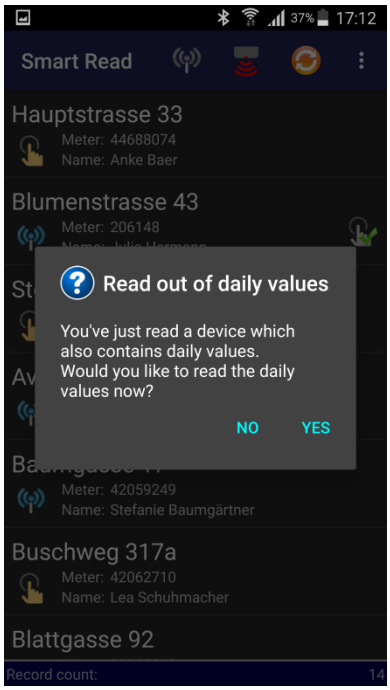
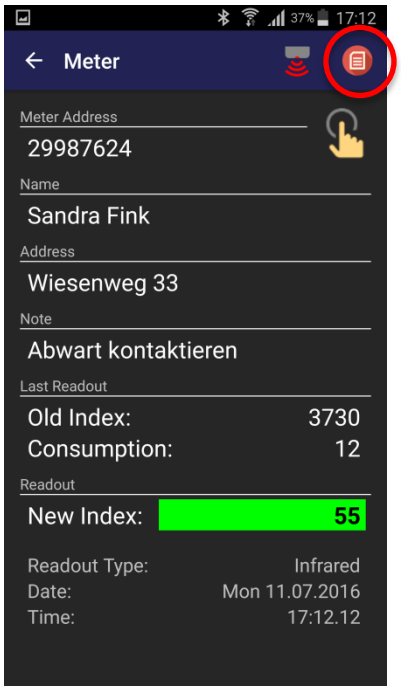

		

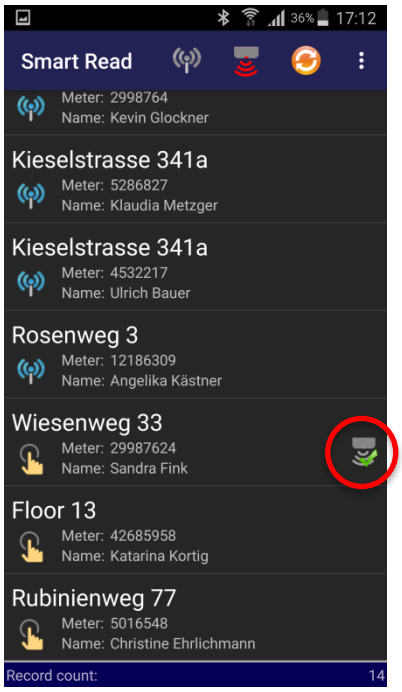
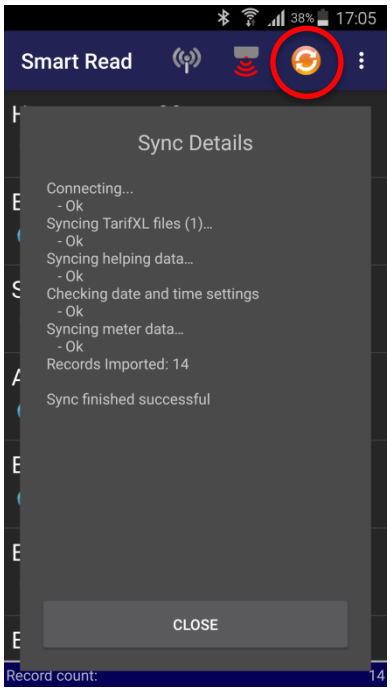
Figure 111	Figure 112	Figure 113

4.3.7. Electronic reading with reading head

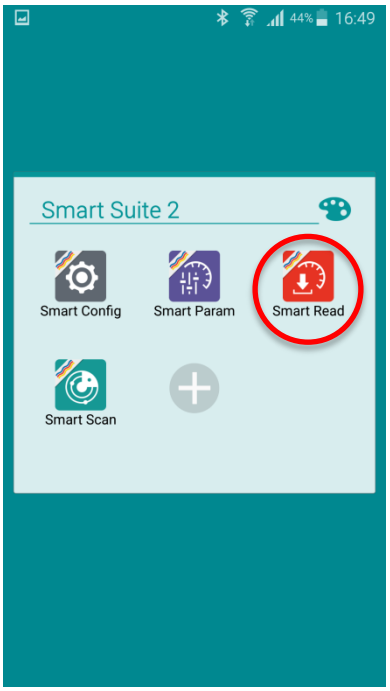
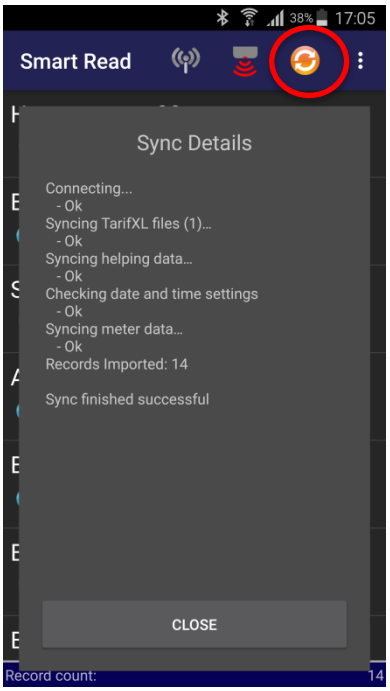
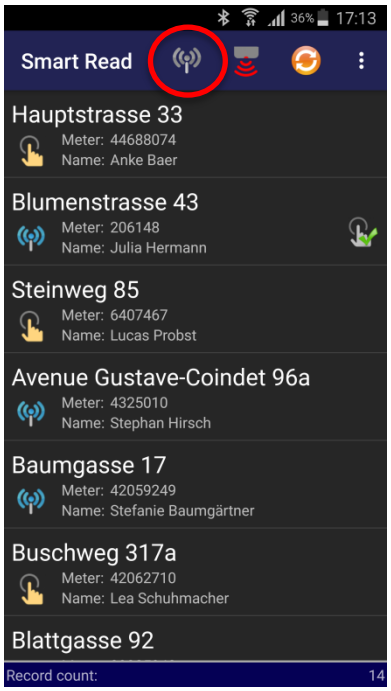
➔ Open Smart Read	➔ Synchronise data as described in section 4.3.5 (page 37).	➔ Meter list appears
 Figure 114	 Figure 115	 Figure 116

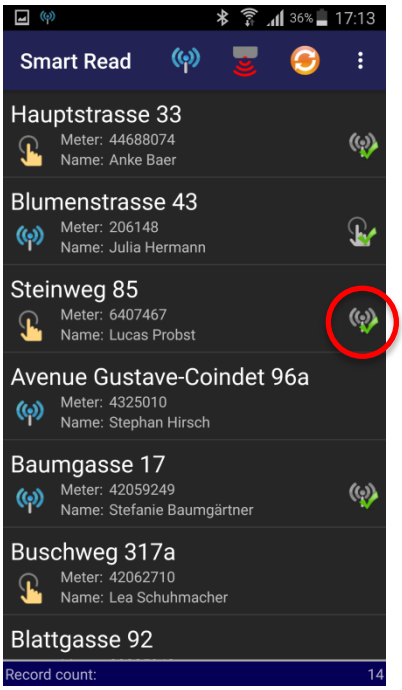
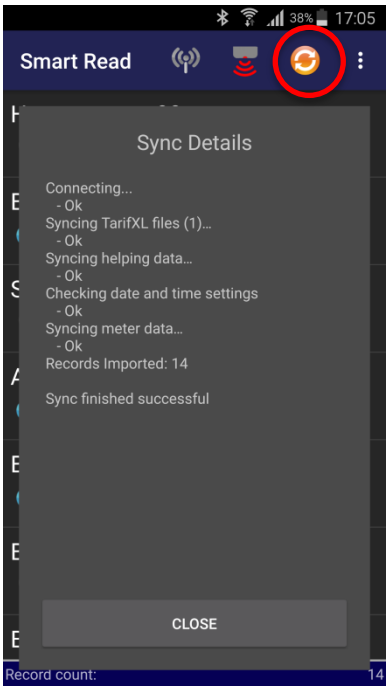
➔ Switch on infrared head ➔ Start connection...	➔ Connection...	➔ Receive data...
 Figure 117	 Figure 118	 Figure 119

➔ If available from and supported by the meter: Read current values.	➔ If required, show raw data.	➔ Raw data view
 Figure 120	 Figure 121	 Figure 122

➔ Icon for meters on the list that have been read with the reading head.	➔ Synchronise data as described in section 4.3.5 (page 37).
 Figure 123	 Figure 124

4.3.8. Wireless reading

➔ Open Smart Read	➔ Synchronise data as described in section 4.3.5 (page 37).	➔ Meter list appears ➔ Start wireless receiver
 Figure 125	 Figure 126	 Figure 127

➔ Icon of the automatically read meters appears on the list	➔ Synchronise data as described in section 4.3.5 (page 37).
 Figure 128	 Figure 129

4.3.9. Filter function

A filter can be used to set which meters the user wants to display.

➔ Open the menu	➔ Select [Filter]	➔ Select desired filter option

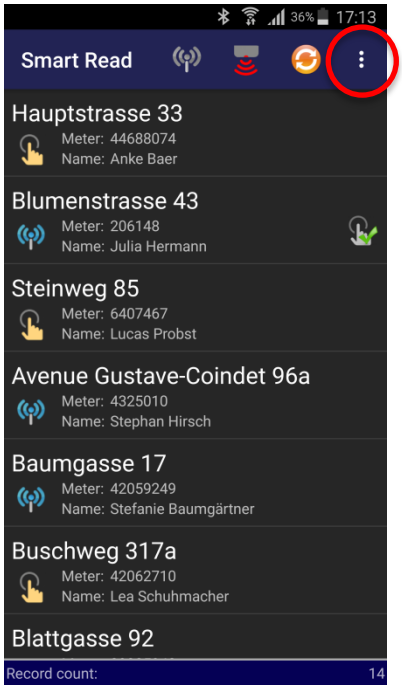
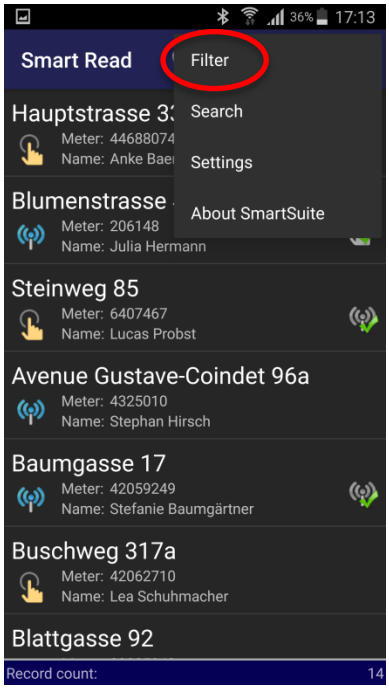
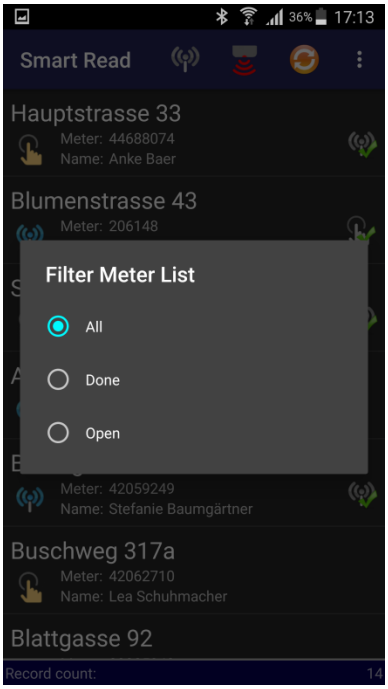

		

Figure 130	Figure 131	Figure 132

➔ Meter list is filtered. Selected filters and details are shown in the footer.

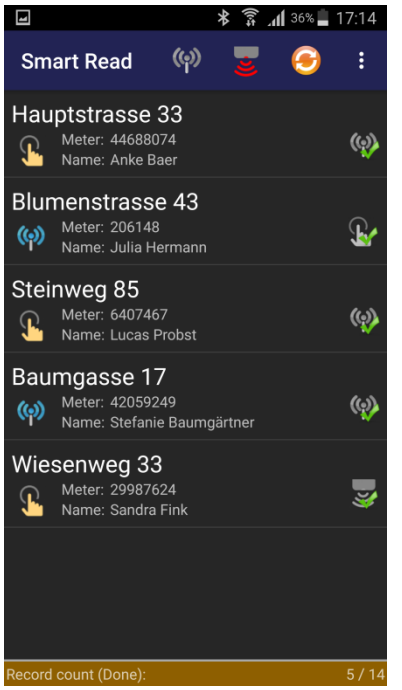


Figure 133

4.3.10. Search function

The search function can be used to find specific meters. A search term checks for matches regarding the address, name or meter number.

➔ Open the menu	➔ Select [Search]	➔ Search bar is displayed

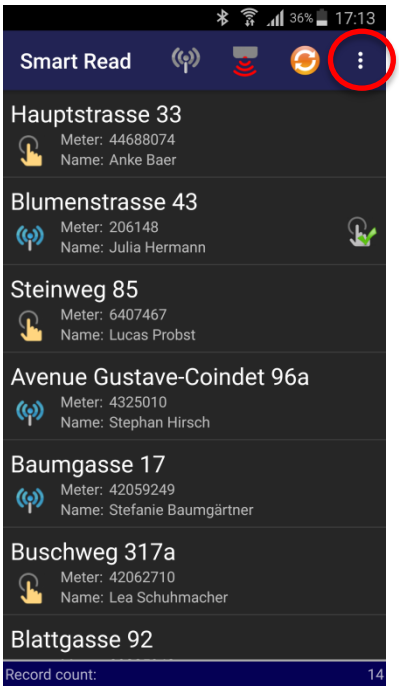
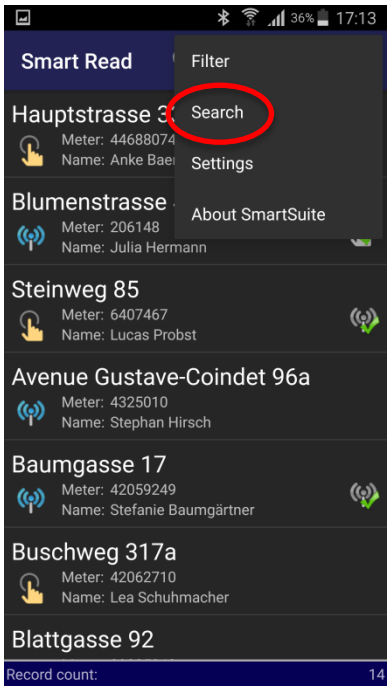
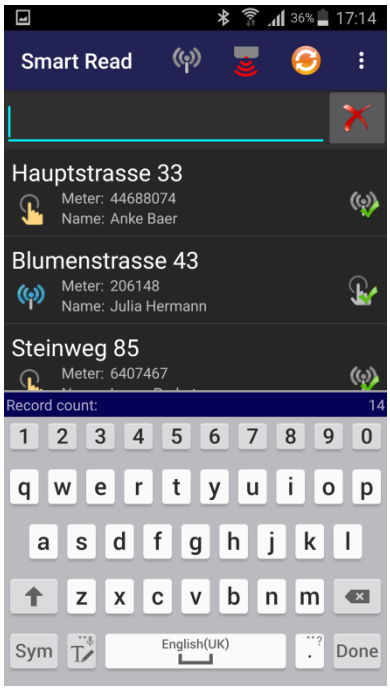

		

Figure 134	Figure 135	Figure 136

➔ Enter search term The list is filtered further with each character entered.	➔ Click [X] to remove the filter

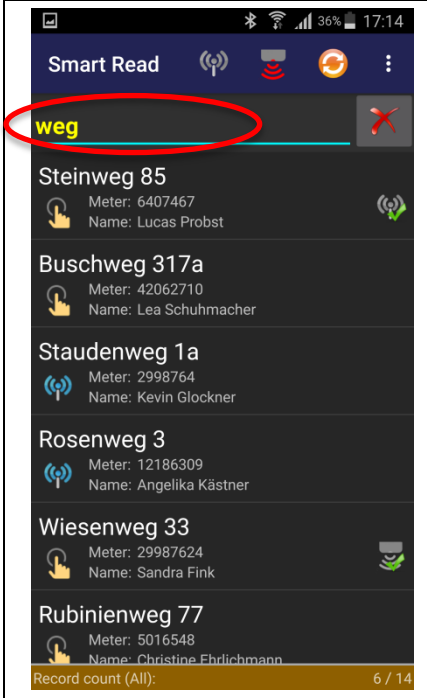
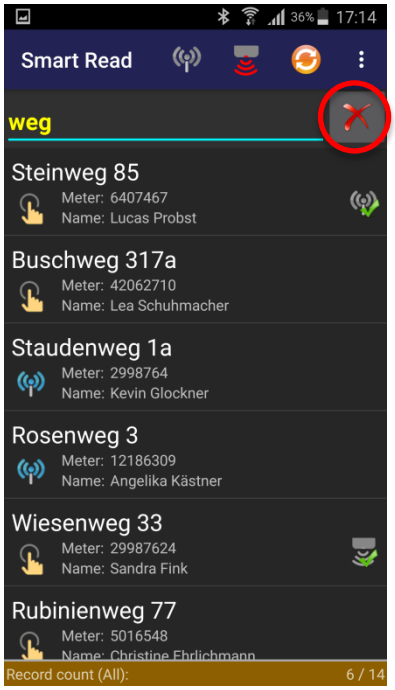

	

Figure 137	Figure 138

5 Maintenance and Repair

5.1 Manual

This manual was created for the software version 2.0 and higher. Deviations may occur in future software versions.

5.2 Copyright

5.3 Exclusion of liability

Aquametro AG shall not be responsible for any losses, injury or damage of any kind. This applies, among other things, to direct, indirect, special and consequential damage arising from the present manual on the AMBILL® Smart Suite 2 software and from the use thereof, unless Aquametro AG or its vicarious agents had acted with intent or gross negligence. The user shall be responsible for protecting their systems against virus attacks or any other command sequences that are damaging to their systems, by installing respective security programs.

Furthermore, Aquametro AG shall provide no assurances or warranties with respect to the correctness, functionality or performance of any third-party software, which may be impaired in connection with the software packages sold by Aquametro AG.

5.4 Service

Should you have any further questions beyond this manual or require support, please contact our support service. They will be happy to assist you.

5.5 Updates and spare parts

NOTICE

Use of wrong spare parts.

Risk of malfunctions or loss of data!

- Use only original spare parts, supplied by Aquametro AG.

5.5.1. Spare parts

For spare parts (such as wireless receiver, optical head, Android handheld device), please contact your authorised Aquametro AG dealer or local distributor. For contact information, please visit our website at http://www.aquametro.com.

5.5.2. Updates

The AMBILL® smart Suite 2 offers newly available updates when opening the program. It is the sole responsibility of the user to install and use these updates. Apart from that, the exclusion of liability (section 5.3) also applies to any updates of the software package made available.

We recommend that you do not install updates while taking a reading with AMBILL® smart Read, but instead after all the read data has been transferred to the PC.

When AMBILL® smart PC has been updated and started, please start an app on the Android handheld device (e.g. AMBILL® smart Scan) in order to receive a notification of an available update on the handheld device, and subsequently install this update.

6 Troubleshooting

Should unusual error messages or operating conditions occur when using the AMBILL® smart Suite 2, please contact your authorised sales representative, your distributor or Aquametro AG.

6.1 Installation

Error indications	Possible causes	Course of action
Installation program on the Android handheld device reports "Parsing error".	Android version is lower than version 4.1.2 "Jelly Bean"	Update the Android version to version 4.1.2 or higher

6.2 AMBILL® smart Read

Error indications	Possible causes	Course of action
Synchronisation not possible via the Android handheld device.	• No Internet connection with the PC or Android handheld device • No SIM card, SIM card without data plan, no WLAN configured or WLAN not available	Handheld device: • Establish Internet connection by means of WLAN or SIM card Computer: • Start AMBILL® smart PC program • Ensure that there is an Internet connection
AMBILL® smart Read: Synchronisation error: `Destination host 'xxx' currently not connected`	• No connection with AMBILL® smart PC possible	Computer: • Start AMBILL® smart PC program • Ensure that there is an Internet connection

6.3 AMBILL® smart Scan

Error indications	Possible causes	Course of action
No connection with the wireless receiver	Wireless receiver is not switched on	• Ensure that the wireless receiver is switched on • Ensure that the wireless receiver is charged
Connection with the wireless receiver is lost/terminated	• When the wireless receiver is off, the rechargeable battery of the wireless receiver is empty • The wireless receiver is too far away	• Ensure that the wireless receiver is charged • Ensure that the wireless receiver is near the handheld device

6.4 AMBILL® smart Param

Error indications	Possible causes	Course of action
Error message: `Operation failed: The remote device did not respond with a valid IEC Identifier`	Module could not be read	Generally: • Ensure that the optical head was placed on a module Aquaconcept module: • Ensure that the head has been aligned correctly
Error message: `Operation failed: The CommChannel was not open`	Optical head not switched on	• Switch on optical head and ensure that it is charged.

7 Decommissioning

7.1 Uninstallation

Remove the programs from your Android handheld device or PC in accordance with the instructions provided in the manuals of the respective manufacturer.

7.2 Disposal

At the end of the life cycle, products such as Android handheld devices should be disposed of according to local regulations regarding waste recycling or disposal.

Batteries and rechargeable batteries shall be recycled separately.

The separate collection and recycling of used products will help to conserve natural resources, and ensures that they are disposed of in a way that does not cause damage to the environment and nature.

8 Technical Data

See section 2.4 "System requirements" (page 7).

9 Appendix

9.1 Definition of terms

Android	Operating system for smartphones or tablets
Windows®	Operating system of the Microsoft® Company

9.2 Technical specification of the route list (import and export)

The route list must be a CSV text file that uses the tab as a column delimiter.

Column	Field name In the file	Type	Mandatory field	Note
1	Meter Number	Integer	X	Unique meter number or identifier
2	Radio Number	Integer		Only available for compatibility purposes
3	Name	String(100)		
4	Address	String(100)		
5	Note	String(2000)		Notice regarding the meter
6	Old Index	Float		Can be empty Accepts both full stops and commas as decimal separators
7	Old Consumption	Float		Can be empty Accepts both full stops and commas as decimal separators
8	New Index	Float		Export field
9	Energy Type	Integer		Valid values: 1 = Electricity 2 = Gas 3 = Energy 4 = Water 5 = Waste water
10	OBIS code	String(20)		Valid values: 1.8.0 = Water Further codes depend on the meter
11	Reading Type	Integer		Valid values: Empty = Manual reading, IR/CS 0 = Manual reading, IR/CS 3 = Aquaradio Smart
12	Readout Date	String(14)		Export field (YYYYMMDDhhmmss)

9.3 Parameter list for pulse radio module: aquaradio smart

9.3.1. Meter No.

Description	Entry of the serial number of the connected device
Format	########
Allowed characters	[0..9]
Lower limit	00000000
Upper limit	99999999
Example	12345678
Expert Mode	●

9.3.2. Device type

Description	Selection of the medium to be measured
Format	[Selection]
Selection	- Water meter - Oil meter - Electricity meter - Gas meter

9.3.3. Meter reading in [unit]

Description	Entry of the current meter reading
Format	######.##
Allowed characters	[0..9][.]
Lower limit	0
Upper limit	99999999
Example	123.45

9.3.4. Pulse unit

Description	Selection of the unit per pulse signal of the connected device. Meter sends a pulse every 100 l, then the module must be set to 100 l.
Format	[Selection]
Selection	(various units for volume and electricity meters)

9.3.5. Pulse value (break)

Description	Entry of the factor by which every pulse fed into the radio module is multiplied (according to the selected unit)
Format	#.##

9.3.6. Wireless communication status

Description	Activating and deactivating wireless communication. When wireless communication is deactivated, the device remains fully functional.
Format	[Selection]
Selection	- On - Off

9.3.7. Wireless transmission interval (in seconds)

Description	Indicates the interval at which wireless telegrams are sent
Read only	●

9.3.8. Wireless key

Description	Key with which the wireless telegrams are encrypted
Read only	●

9.3.9. Battery life (years)

Description	Indicates the calculated battery life of the module
Read only	●

9.3.10. Historical data activated

Description	To activate a wireless telegram with 3 billing date readings (otherwise only one billing date is sent)
Format	[Selection]
Selection	- On - Off

9.3.11. Date and time in the module

Description	Indicates the current date and time parametrised in the module. During each parametrisation, this date is set automatically by means of the date of the handheld device used.
Read only	●

9.3.12. Module ID

Description	Indicates the internal ID of the module.
Read only	●

9.4 Parameter list for aquaconcept module: aquatarif

9.4.1. Meter No.

Description	Serial number of the water meter
Format	########
Allowed characters	[0..9]
Lower limit	0
Upper limit	9999999
Max. Length	7
Example	1234567
Ident	IDT1

9.4.2. Additional info 1

Description	Free text
Allowed characters	[0..9][a..z][A..Z][-.:*]
Max. Length	0..16
Example	PMK 20
Ident	IDT2

9.4.3. Additional info 2

Description	Free text
Allowed characters	[0..9][a..z][A..Z][-.:*]
Max. Length	0..16
Example	PMK 20
Ident	IDT3

9.4.4. Billing date 1

Description	Date on which the meter reading effective on that date is saved
Format	DD.MM
Allowed characters	[0..9][.]
Lower limit	01.01
Upper limit	31.12
Example	31.03
Ident	FDR1

9.4.5. Billing date 2

Description	Date on which the meter reading effective on that date is saved
Format	DD.MM
Allowed characters	[0..9][.]
Lower limit	01.01
Upper limit	31.12
Example	31.03
Ident	FDR2

9.4.6. Time base

Description	Minutes of the time window for peak values
Format	####
Allowed characters	[0..9]
Lower limit	0001
Upper limit	1440
Max. Length	4
Example	0060
Ident	TBAS

9.4.7. Meter reading

Description	Meter reading of the water meter
Format	#####.###
Allowed characters	[0..9][.]
Lower limit	00000.000
Upper limit	99999.999
Max. Length	9
Example	1234.567
Ident	COUN

9.4.8. Time

Description	Time of the module
Format	SS:MM
Allowed characters	[0..9][:]
Lower limit	00:00
Upper limit	23:59
Max. Length	5
Example	14:33
Ident	TIME

9.4.9. Date

Description	Date of the module
Format	DD.MM.YY
Allowed characters	[0..9][.]
Example	01.09.16
Ident	DATE

9.5 Parameter list for aquaconcept module: aquareader

9.5.1. Meter No.

Description	Serial number of the water meter
Format	#########
Allowed characters	[0..9]
Max. Length	8
Example	12345678
Ident	ZSNR

9.5.2. Meter size in DN

Description	Nominal size of the meter in integers
Format	###
Allowed characters	[0..9]
Max. Length	3
Example	15 / 20 / 25
Ident	ZNGR

9.5.3. Manufacturing date of the meter

Description	Manufacturing date of the meter on which the module is installed.
Format	DD.MM.YY
Allowed characters	[0..9][.]
Lower limit	01.01.2000
Upper limit	01.01.2126
Example	05.11.2016
Ident	ZFDT

9.5.4. Medium

Description	Information on the meter medium (water, hot water)
Format	[Selection]
Selection	-Hot water (30-90°C) -Water
Ident	MEDM

9.5.5. SW version

Description	Firmware version of the module
Read only	●
Ident	MSVS

9.5.6. Error codes

Description	Error code in accordance with separate error code table
Read only	●
Ident	ESTA

9.5.7. Password

Description	Password for access to Access Level 2 (AL2)
Allowed characters	[0..9][a..z][A..Z][-.:*]
Max. Length	16
Ident	UPWD

9.5.8. Calibration status

Description	Query of the calibration status
Read only	●
Ident	CALS

9.6 Parameter list for aquaconcept module: aquaonline

9.6.1. Meter No.

Description	Serial number of the water meter
Format	########
Allowed characters	[0..9]
Max. Length	8
Example	12345678
Ident	IDT1

9.6.2. Additional info 1

Description	Free text
Allowed characters	[0..9][a..z][A..Z][-.:*]
Max. Length	16
Ident	IDT2

9.6.3. Additional info 2

Description	Free text
Allowed characters	[0..9][a..z][A..Z][-.:*]
Max. Length	16
Ident	IDT3

9.7 Parameter list for meter: AMBILL® 230 CS

9.7.1. Meter No.

Description	Serial number of the water meter
Format	#######
Allowed characters	[0..9]
Lower limit	0
Upper limit	9999999
Max. Length	7
Example	0123456
Ident	IDT1

9.7.2. Additional info 1

Description	Free text
Allowed characters	[0..9][a..z][A..Z][-.:*]
Max. Length	0..16
Example	PMK 20
Ident	IDT2

9.7.3. Additional info 2

Description	Free text
Allowed characters	[0..9][a..z][A..Z][-.:*]
Max. Length	0..16
Example	PMK 20
Ident	IDT3

9.7.4. Billing date 1

Description	Date on which the meter reading effective on that date is saved.
Format	DD.MM
Allowed characters	[0..9][.]
Lower limit	01.01
Upper limit	31.12
Max. Length	5
Example	31.03
Ident	FDR1

9.7.5. Billing date 2

Description	Date on which the meter reading effective on that date is saved.
Format	DD.MM
Allowed characters	[0..9][.]
Lower limit	01.01
Upper limit	31.12
Max. Length	5
Example	31.03
Ident	FDR2

9.7.6. Time base

Description	Minutes of the time window for peak values
Format	####
Allowed characters	[0..9]
Lower limit	0001
Upper limit	1440
Max. Length	4
Example	0060
Ident	TBAS

9.7.7. Meter reading

Description	Meter reading of the water meter
Format	#####.###
Allowed characters	[0..9][.]
Lower limit	00000.000
Upper limit	99999.999
Max. Length	9
Example	1234.567
Ident	COUN

9.7.8. Time

Description	Time of the module
Format	SS:MM
Allowed characters	[0..9][:]
Lower limit	00:00
Upper limit	23:59
Max. Length	5
Example	14:33
Ident	TIME

9.7.9. Date

Description	Date of the module
Format	DD.MM.YY
Allowed characters	[0..9][.]
Example	01.09.16
Ident	DATE

9.7.10. Numeric characters

Description	Defines the number of pre-decimal positions used. The decimal places are automatically adjusted accordingly
Format	#
Allowed characters	[0..9]
Selection	5 6
Ident	DECP

INTEGRA METERING

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