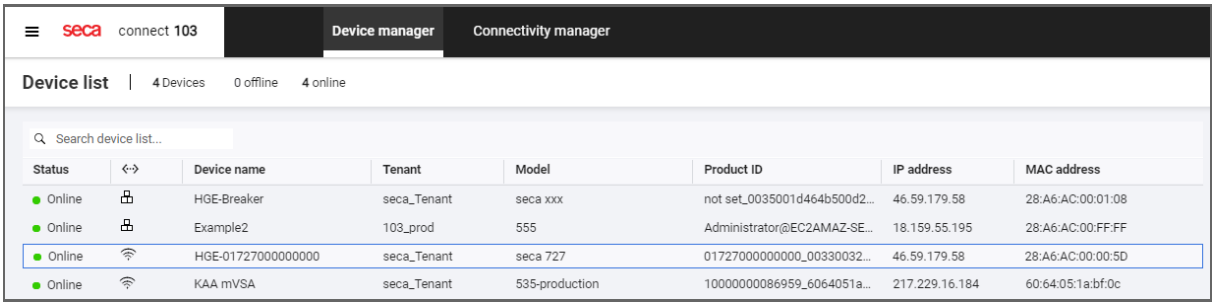
Precision for health

seca 103/452

System Instructions for Use

Software version 3.0

Article number: 17-10-01-266-002f/05-2021B



CONTENTS

17-10-01-266-002f/05-2021B

17-10-01-266-002f/05-2021B

FOR ADMINISTRATORS: SETTING UP AND OPERATING THE SYSTEM

Software version: 3.0
Article number of this document: 17-10-01-266-002f/05-2021B

1. ABOUT THIS DOCUMENT

These instructions for use contain information about the installation and operation of the **seca connect 103** software and about the installation of the seca 452 interface module.

NOTE

- An overview of compatible seca products is available here:
  ➔ Compatible seca products

1.1 Display conventions

Display in the text

Symbol	Description
►	Handling instruction
1. 2.	Handling instructions which have to be performed in the specified sequence
a) b)	Steps of a handling instruction which have to be performed in the specified sequence
• •	First level of a list
– –	Second level of a list
Login	Element of the graphical user interface

17-10-01-266-002f/05-2021B

Display in graphics

Symbol	Description
	Points to an element the user is clicking or has clicked
	Points to relevant locations in graphics
	Indicates directions of movement of the device or device components
	Indicates data transmission routes
	Correct handling method Correct handling result
	Incorrect handling method Incorrect handling result
	End of a procedure, e.g. the installation of a part

1.2 Download/updating

The current instructions for use in each case can be found as a download in the Support area at www.seca.com.

NOTE
The contents of the instructions for use may change (for example as a result of a new software version).

- Check at regular intervals whether a new version of the instructions for use is available.

2. SYSTEM DESCRIPTION

➔ Intended use of the seca connect 103 software

➔ Intended use of the seca 452 interface module

➔ Functional description

➔ User qualification

2.1 Intended use of the seca connect 103 software

The **seca connect 103** software is mainly used in hospitals, medical practices and in-patient care facilities in accordance with national regulations.

The **seca connect 103** software is an accessory product for seca measuring devices. The product is used for automated data transmission (measured results, patient ID, user ID) between seca measuring devices and EMR systems from third parties.

The **seca connect 103** software can be used to set up and adapt interfaces for automated data transmission.

Operation of the product is not necessary when in measuring mode.

17-10-01-266-002f/05-2021B

2.2 Intended use of the seca 452 interface module

The **seca 452** interface module is mainly used in hospitals, medical practices and in-patient care facilities in accordance with national regulations.

The **seca 452** interface module is an accessory product for seca measuring devices. In conjunction with the **seca connect 103** software, the product is used to assign measured results to patient data (patient ID) and to users (user ID) as well as for automated data transmission between seca measuring devices and EMR systems from third parties.

2.3 Functional description

➔ seca connect 103

➔ seca measuring devices with an external seca 452 interface module (not for Version 3.0)

➔ seca measuring devices with an internal interface module

➔ Connection to the seca analytics 125 software

➔ Connecting to EMR systems

➔ Data storage

➔ Compatibility

➔ Technical modifications/new software releases

➔ Access rights

seca connect 103

The **seca connect 103** software is installed on a server or run as a cloud application. Version 3.0 of the **seca connect 103** software is only available as a cloud application. Using the browser-based user interface of the software, seca measuring devices can be connected to the **seca connect 103** software and configured. Connection to the **seca analytics 125** evaluation software or to an external EMR system is likewise set up in the **seca connect 103** software.

seca measuring devices with an external seca 452 interface module (not for Version 3.0)

The **seca 452** interface module is connected by a cable to seca measuring devices which do not have their own (WiFi/LAN) network interface. The **seca 452** interface module transmits the data between the seca measuring device and the **seca connect 103** software. For each seca measuring device, a separate **seca 452** interface module is required.

The data transmission between the **seca 452** interface module and **seca connect 103** takes place via WiFi or LAN. Barcode scanners can be connected to the USB interface of the **seca 452** interface module.

The operating state and the measurement procedure are indicated by visual signals.

Network functions can be configured via the integrated **seca web server** using a mobile terminal (smartphone, tablet).

seca measuring devices with an internal interface module

seca measuring devices with an internal interface module (➔ Compatible seca products) can transmit data directly to the **seca connect 103** software via WiFi or – device-dependent – via a LAN interface. The **seca 452** interface module is not required.

seca measuring devices with an internal interface module are equipped with a USB interface to which a barcode scanner can be connected.

The operating state and the measurement procedure are indicated by visual signals.

17-10-01-266-002f/05-2021B

Network functions can be configured via the integrated **seca web server** using a mobile terminal (smartphone, tablet).

Connection to the seca analytics 125 software

The **seca analytics 125** software is connected in the course of **seca connect 103** installation and configuration by inputting the connection data.

The **seca analytics 125** software receives measurement data and processes them graphically. The software thus assists the user in evaluating measured results.

Measurement data are determined with seca measuring devices and forwarded to the **seca analytics 125** software via the **seca connect 103** software.

Connecting to EMR systems

To connect to EMR systems, integration modules are configured in the user interface of the **seca connect 103** software. Modifications directly to the respective EMR system may be necessary. To ensure a reliable connection, we recommend having the connection implemented exclusively with the support of the manufacturer of your EMR system. Various integration modules are available depending on the operating form of the software (local installation or cloud application).

Data storage

No patient or device data is stored in the **seca connect 103** software. Only the login credentials for the **seca connect 103** software are saved in the software database.

Device data (device identification, connection data, workflow settings) are stored on the seca measuring device (devices with internal interface module) or on the connected **seca 452** interface module. The data are called up and displayed for administration with the **seca connect 103** software.

Patient data and measured results are transmitted to the connected EMR system or the **seca analytics 125** software (cloud application) and stored there.

Compatibility

The system is compatible solely with seca products ➔ Compatible seca products.

Measuring devices from third-party suppliers cannot be connected.

The following EMR systems are currently supported:

- EMR systems from Cerner that have a VitalsLink interface
- EMR systems that use the Health Level 7 standard (HL7) (supported HL7 versions: 2.5, 2.6)

Integration modules for connection to other EMR systems are in development and will be provided in later versions of the software.

Technical modifications/new software releases

Details of technical modifications and new software releases can be found in this section ➔ Technical modifications.

Access rights

The **seca connect 103** software does not manage user accounts. For the software installation, an administrator login can be created and secured with a password. Access to the software is exclusively possible with this administrator login.

External user accounts are administered in the respective EMR system connected. With local installation, the **seca connect 103** software supports the authentication of external user accounts via the Lightweight Directory Access Protocol (LDAP).

Administration of tenants

Tenants can be administered using the **seca connect 103** software. A tenant represents a subunit within an organization, for example a department in a hospital. Each seca measuring device is assigned to a tenant.

17-10-01-266-002f/05-2021B

2.4 User qualification

➔ seca connect 103 software

➔ seca 452 interface module

➔ Connected seca measuring devices

➔ seca analytics 125 software

seca connect 103 software

The **seca connect 103** software may only be installed and administered by experienced administrators or hospital technicians.

seca 452 interface module

The device may only be set up and incorporated in a network by experienced administrators or hospital technicians.

Connected seca measuring devices

Local configuration of the system affects the measurement procedure and operation of the connected measuring devices. Persons who are to operate the connected measuring devices must be informed about these effects.

seca analytics 125 software

The seca analytics 125 software may only be installed and administered by experienced administrators or hospital technicians.

3. SAFETY PRECAUTIONS

➔ Safety precautions in these instructions for use

➔ Basic safety precautions

3.1 Safety precautions in these instructions for use

DANGER!
Used to identify an extremely hazardous situation. If you fail to take note of this information, serious irreversible or fatal injuries will occur.

WARNING!
Used to identify an extremely hazardous situation. If you fail to take note of this information, serious irreversible or fatal injuries may result.

CAUTION!
Used to identify a hazardous situation. If you fail to take note of this information, minor to moderate injuries may result.

NOTICE!
Used to identify possible incorrect usage of the device/software. If you fail to take note of this information, the device/software may be damaged, incorrect measuring results may arise or data may be misused or lost.

NOTE
Contains additional information about how to use the device/software.

17-10-01-266-002f/05-2021B

3.2 Basic safety precautions

Using the software

- Please take note of the information in these instructions for use.
- Keep the instructions for use and the declaration of conformity they include in a safe place. The current version of the instructions for use can be found at www.seca.com. The instructions for use are a component of the software and must be available at all times.
- In the interest of patient safety, you and your patients are obliged to report serious events that occur in connection with this product to the manufacturer and the authority responsible in your country.

CAUTION!
Patient hazard, malfunction

- Only install the **seca connect 103** software on PCs equipped with an antivirus program. Always keep your antivirus program and operating system up to date to protect your computer system from current and future malware. The **seca connect 103** software is protected against manipulation and is checked regularly for malware.
- Use the **seca connect 103** software only for the specified intended use.
- Use only compatible measuring devices from seca in combination with the **seca connect 103** software.
- Keep other electrical medical devices, e.g. high-frequency surgical devices, a minimum distance of approx. 1 meter away to prevent incorrect measurements or wireless transmission interference.
- Keep HF devices such as cell phones and televisions, for example, a minimum distance of approx. 1 meter away to prevent incorrect measurements or wireless transmission interference.
- The actual transmission output of HF equipment may require minimum distances of more than 1 meter. Details can be found at www.seca.com.

NOTICE!
Loss of data, access to data by unauthorized persons

- Never pass on your access data. seca will never ask you for your access data.

Handling the device

- Please take note of the information in these instructions for use.
- Keep the instructions for use in a safe place. The instructions for use are a component of the device and must be available at all times.
- In the interest of patient safety, you and your patients are obliged to report serious events that occur in connection with this product to the manufacturer and the authority responsible in your country.

17-10-01-266-002f/05-2021B

DANGER!
Risk of explosion
Do not use the device in an environment in which one of the following gases has accumulated:
– Oxygen
– Flammable anesthetics
– Other flammable substances/air mixtures

CAUTION!
Patient hazard, damage to device

- Additional devices which are connected to electrical medical devices must provide evidence of compliance with the relevant IEC or ISO standards (e.g. IEC 60950 for data-processing devices). Furthermore, all configurations must comply with the requirements of standards for medical systems (see IEC 60601-1-1 or Section 16 of edition 3.1 of IEC 60601-1 respectively). Anyone connecting additional devices to electrical medical devices is considered a system configurer and is therefore responsible for ensuring that the system complies with the requirements of standards for systems. This also applies to additional devices recommended by seca. Your attention is drawn to the fact that local laws take precedence over the above-mentioned requirements of standards. In the event of any queries, please contact your local specialist dealer or Technical Service.
- Have servicing carried out regularly as described in the relevant section of this document.
- Technical modifications may not be made to the device. The device does not contain any parts for servicing by the user. Only have servicing and repairs performed by an authorized seca Service partner. You can find service partners in your area at www.seca.com or by sending an e-mail to service@seca.com.
- Only use original seca accessories and spare parts, otherwise seca will not grant any warranty.

CAUTION!
Patient hazard, malfunction

- Keep other electrical medical devices, e.g. high-frequency surgical devices, a minimum distance of approx. 1 meter away to prevent incorrect measurements or wireless transmission interference.
- Keep HF devices such as cell phones a minimum distance of approx. 1 meter away to prevent incorrect measurements or wireless transmission interference.
- The actual transmission output of HF equipment may require minimum distances of more than 1 meter. Details can be found at www.seca.com.

17-10-01-266-002f/05-2021B

Preventing electric shock

WARNING!
Electric shock

- Set up devices which can be operated with the electricity supply so that the power supply socket is within easy reach and the power supply can be disconnected quickly.
- Ensure that your local power supply matches the details on the device.
- Connect this device only to a power supply with a protective earth facility.
- Do not connect the device to a power supply network if there is any uncertainty about whether the protective earth is functioning. In this case, use the device exclusively in rechargeable battery mode.
- Do not connect the device to sockets that are switched by an on/off switch or a dimmer.
- Never touch the power supply cable with wet hands.
- Do not use extension cables or power strips.
- Make sure that cables are not pinched or damaged by sharp edges.
- Make sure that cables do not come into contact with hot objects.
- Do not operate the device at an altitude of more than 3000 m above sea level.

Preventing damage to device

NOTICE!
Damage to device

- Ensure that no liquids enter the device. They can damage the electronics.
- Switch off the device (if option is provided) before you take the power supply connector out of the power supply socket.
- If you are not going to use the device for an extended period, disconnect the power supply connector from the power supply socket and remove the rechargeable battery (if present and removable). Only then is the device de-energized.
- Make sure not to drop the device.
- Do not expose the device to any impacts or vibrations.
- Perform function controls regularly as described in the relevant section in this document. Do not operate the device if it is damaged or not working properly.
- Ensure that the air openings of the device (if present) are not covered.
- Ensure that there is no heat source in the immediate vicinity. Do not expose to direct sunlight. The excessive temperature could damage the electronics.
- Avoid rapid temperature fluctuations. When the device is transported so that a temperature difference of more than 20 °C occurs, it must stay turned off for at least 2 hours before it can be turned on again. Otherwise, condensation water will form which can damage the electronics.
- Use the device only in the intended ambient conditions.
- Store the device only in the intended storage conditions.
- Use only disinfectants free of chlorine and alcohol which are explicitly suitable for acrylic sheet and other sensitive surfaces (active ingredient: quaternary ammonium compounds, for example).
- Do not use aggressive or abrasive cleaning agents.
- Do not use organic solvents (e.g. white spirit or petroleum spirit).

17-10-01-266-002f/05-2021B

Handling measured results

CAUTION!
Patient hazard
In order to avoid misinterpretations, measuring results for medical use must be displayed and used in SI units (weight: Kilograms/grams, length: Meters/centimeters) only. Some devices offer the ability to display measuring results in other units. This is only an additional function.

- Use the results exclusively in SI units.
- The use of measuring results in non-SI units is the sole responsibility of the user.

NOTICE!
Inconsistent measuring results

- Before you electronically save measured values determined using this device and use them further (e.g. in seca PC software or in an EMR system), make sure that the measured values are plausible.
- If measured values are transmitted to seca PC software or an EMR system, make sure prior to further use that the measured values are plausible and are assigned to the correct patient.

Handling packaging material

WARNING!
Risk of suffocation
Packaging material made of plastic foil (bags) is a choking hazard.

- Keep packaging material out of reach of children.
- In the event that the original packing material may not be available anymore, only use plastic bags with security holes in order to reduce the risk of suffocation. Use recyclable materials if possible.

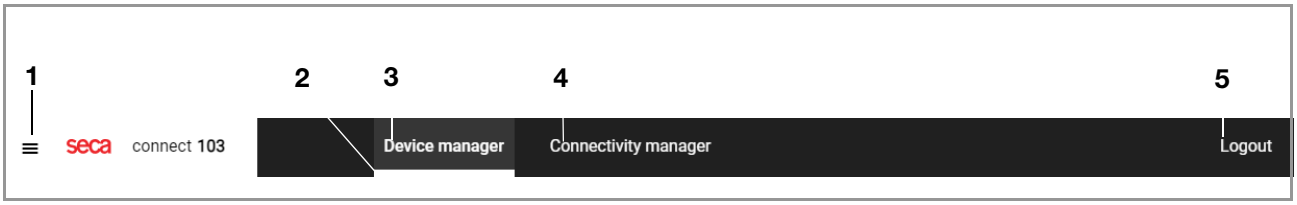
NOTE
Keep the original packing material for future use (e.g. returning for servicing).

17-10-01-266-002f/05-2021B

4. OVERVIEW

4.1 Controls for seca connect 103

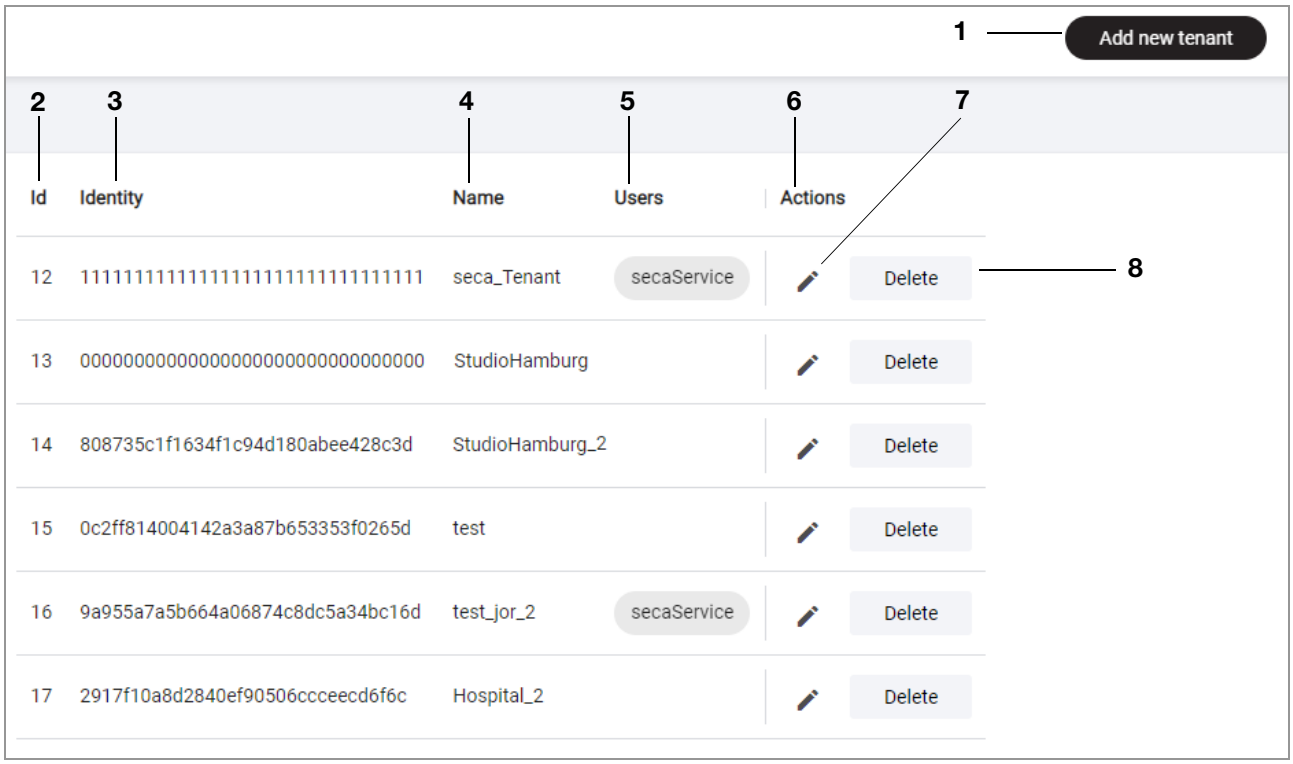
Menu bar



No.	Control	Function
1	Main menu ☰	Open/close main menu
2	Selection bar	Indicates which tab is active
3	**Device manager**	Connect and manage seca measuring devices
4	**Connectivity manager**	Create a connection to the EMR system
5	**Logout** button	Log out user

17-10-01-266-002f/05-2021B

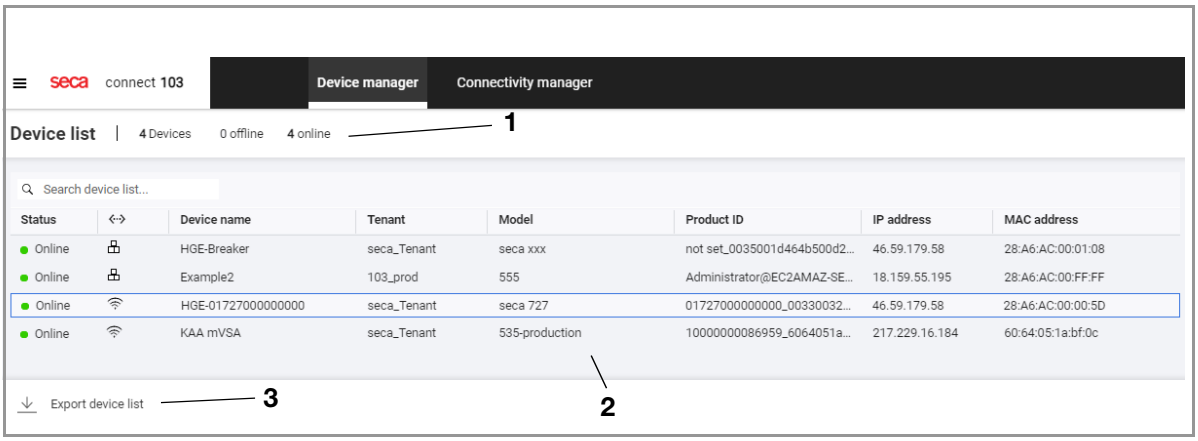
Tenant management



No.	Control	Function
1	**Add new tenant**	Add new tenant
2	**Id**	Displays the Id of the tenant (serial number)
3	**Identity**	Displays the identity of the tenant (a clear value which can be referred to in order to assign measuring devices, for example ➔ Assigning a seca measuring device to a tenant)
4	**Name**	Displays the name of the tenant
5	**Users**	Indicates which users are assigned to the tenant
6	**Actions**	Edit the tenant
7	Edit	Change name or assigned users of the tenant
8	**Delete**	Delete tenant

17-10-01-266-002f/05-2021B

Device manager: Device list

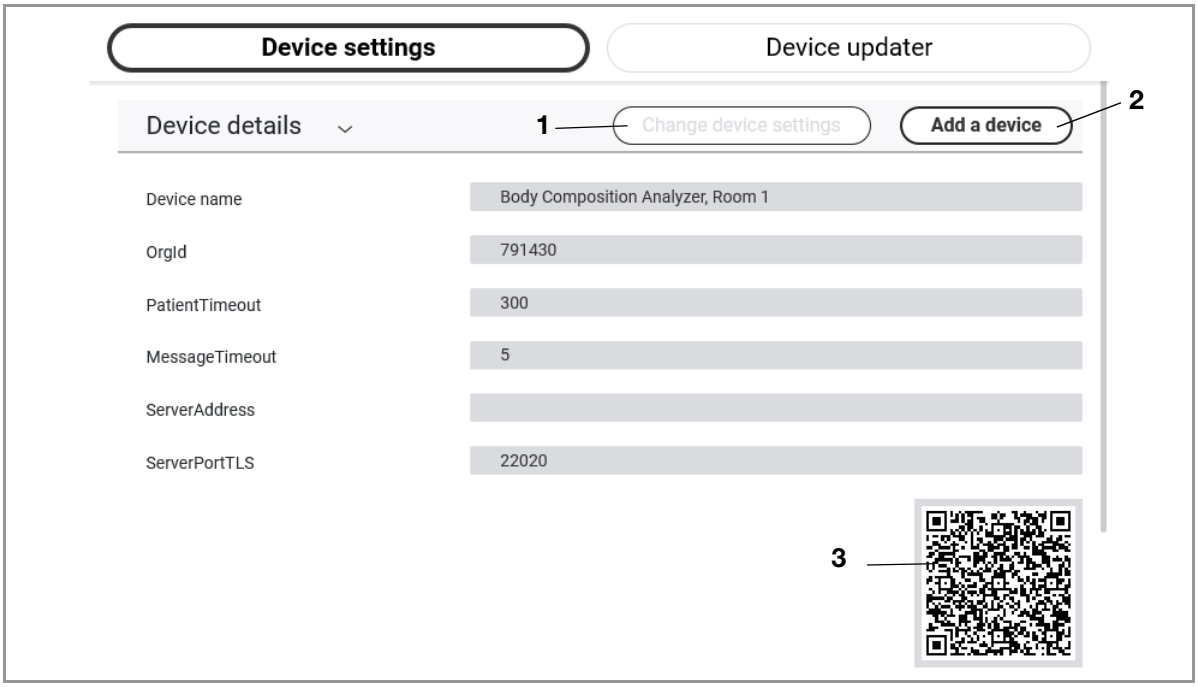


No.	Control	Function
1	Overview: Connected seca measuring devices	• Total number of connected seca measuring devices • Number of seca measuring devices offline • Number of seca measuring devices online
2	Connection data for seca measuring devices	• Status: Operating condition of the seca measuring device • <...> (network connection):  • • Device name: Name of the seca measuring device • Tenant: Name of tenant to which the measuring device is assigned • Model: seca model number • Product ID: Product ID of the seca measuring device • IP address: IP address and GPX listening port of the seca measuring device • MAC address: MAC address of the seca measuring device
3	Export device list	Export device list as .csv file

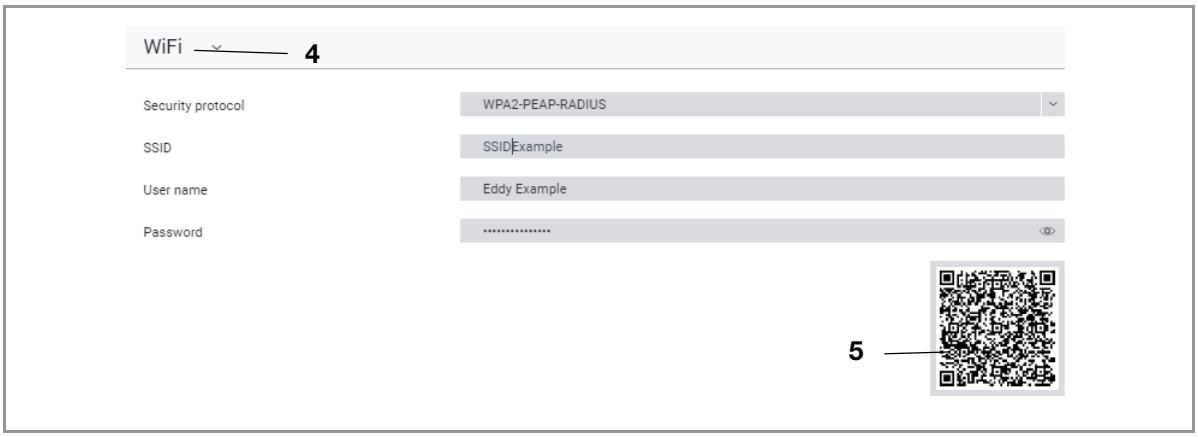
17-10-01-266-002f/05-2021B

Device manager: Device settings

Settings for existing devices can be changed in **Device settings** view (**Change device settings**), or settings specified for new seca measuring devices (**Add a device**).



No.	Control	Function
1	**Change device settings**	Change settings for existing device
2	**Add a device**	Define settings for new seca measuring device
3	QR code device settings (not for Version 3.0)	Scan QR code: Transmit settings to seca measuring device or **seca 452** interface module

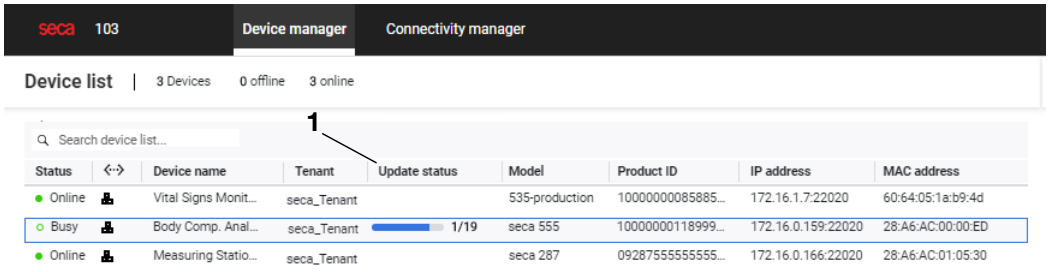


No.	Control	Function
4	**WiFi** settings (not for Version 3.0)	Enter WiFi settings for seca measuring devices
5	WiFi settings QR code (not for Version 3.0)	Scan QR code: Transmit WiFi settings to seca measuring device or **seca 452** interface module

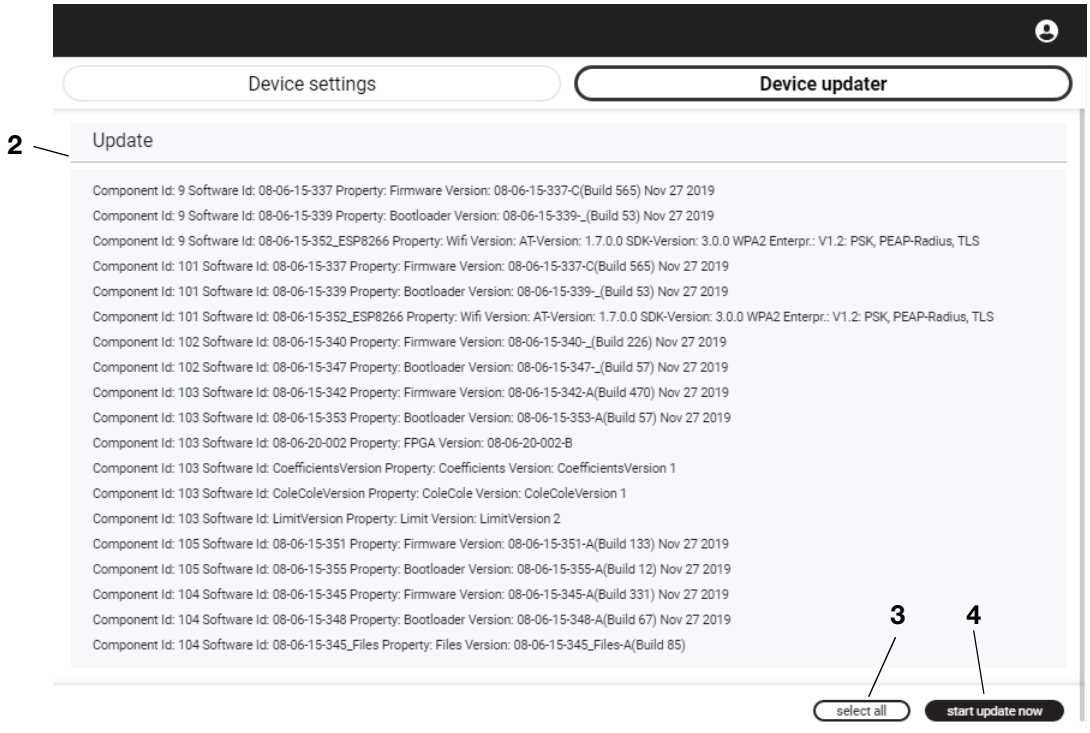
17-10-01-266-002f/05-2021B

Device manager: Device updater

Left-hand side of screen:



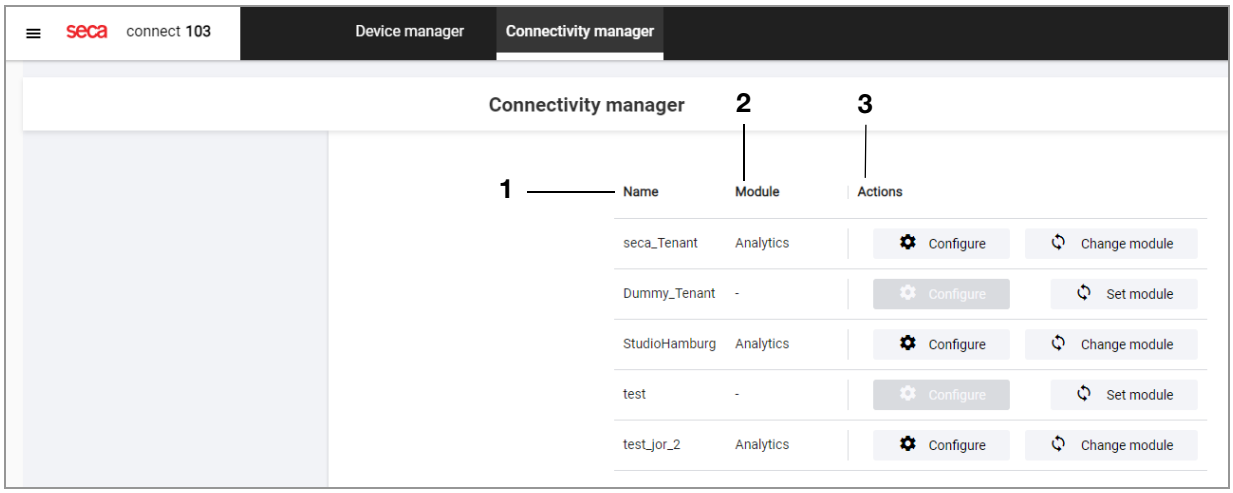
Right-hand side of screen:



No.	Control	Function
1	**Update status**	Column appears when **Device updater** button is clicked Column empty: no update activity Blue progress bar: Update is installing
2	**Update**	Detailed information about the firmware update
3	**select all/deselect all**	Select/deselect all listed devices for firmware update
4	**start update now/ stop update now**	Start/stop firmware update manually

17-10-01-266-002f/05-2021B

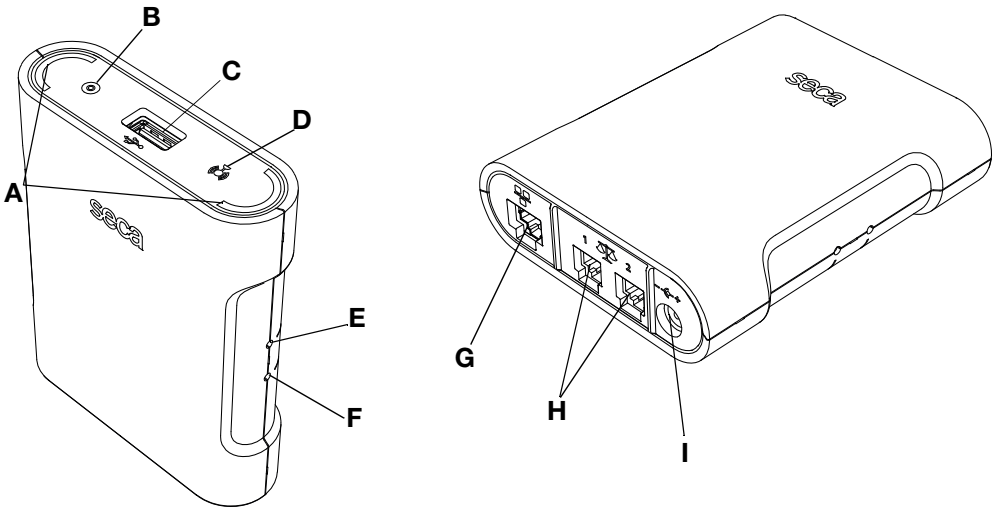
Connectivity manager



No.	Element	Function
1	Name	Displays the name of the tenant
2	Module	Displays the integration module selected for this tenant (empty if no entry yet selected)
3	Actions	**Configure**: • Set up parameters for integrating the EMR system (support from the manufacturer of your EMR system is recommended) • Parameters vary depending on the integration module **Set module** and **Change module**: • Select or change the integration module for communication between the **seca connect 103** and your EMR system • Available modules (depending on the operating form of the software): - **Cerner VitalsLink** - **HL7Module** - **seca TestModule** (for testing only) - **seca analytics 125**

17-10-01-266-002f/05-2021B

4.2 Controls for seca 452 interface module



No.	Symbol	Function
A		Workflow LED • Steady green: Measurement procedure is active • Flashes green: Data being transmitted • Turns green for approx. 5 seconds: Data successfully transmitted • Turns red: Error in data transmission/in measurement procedure
B		Power LED • Steady green: Device is ready for use • Turns red: Device is defective • Flashes green: Device is active as access point
C		USB interface (only for medical devices)
D		Network LED • Flashes green: Network connection is being established • Steady green: Network connection is established • Turns red: Network connection is interrupted
E		WPS button: Establish WiFi connection via WPS
F		Reset button • Press and hold (approx. 8 seconds): Reset settings • Press briefly (approx. 1 second): Activate/deactivate access point function
G		LAN interface
H	1 2	Interface for seca products
I	− +	Power supply connection

4.3 Markings on the type plate (seca 452 interface module)

Symbol	Meaning
ProdID	Product identification number, serial number
Mat. no.	Variant number

17-10-01-266-002f/05-2021B

Symbol	Meaning
SN	Serial number
REF	Article number
	Follow instructions for use
CE	Device complies with EU directives
	Name and address of manufacturer, date of manufacture
FC	Symbol of the US Federal Communications Commission (FCC)
FCC ID	Device license number from the US Federal Communications Commission (FCC)
IC ID	Device license number from Industry Canada
	Do not dispose of with household waste

4.4 Markings on the packaging (seca 452 interface module)

Text/symbol	Meaning
	Protect from moisture
	Arrows indicate top of product Transport and store in an upright position
	Fragile Do not throw or drop
	Permitted min. and max. temperature for transport and storage
	Permitted min. and max. humidity for transport and storage
	Open packaging here
	Packaging material can be disposed of through recycling programs

17-10-01-266-002f/05-2021B

5. SETTING UP SECA CONNECT 103 SYSTEM AS A LOCAL INSTALLATION

➔ Work steps

➔ System structure

➔ System requirements

➔ Installing and configuring seca connect 103

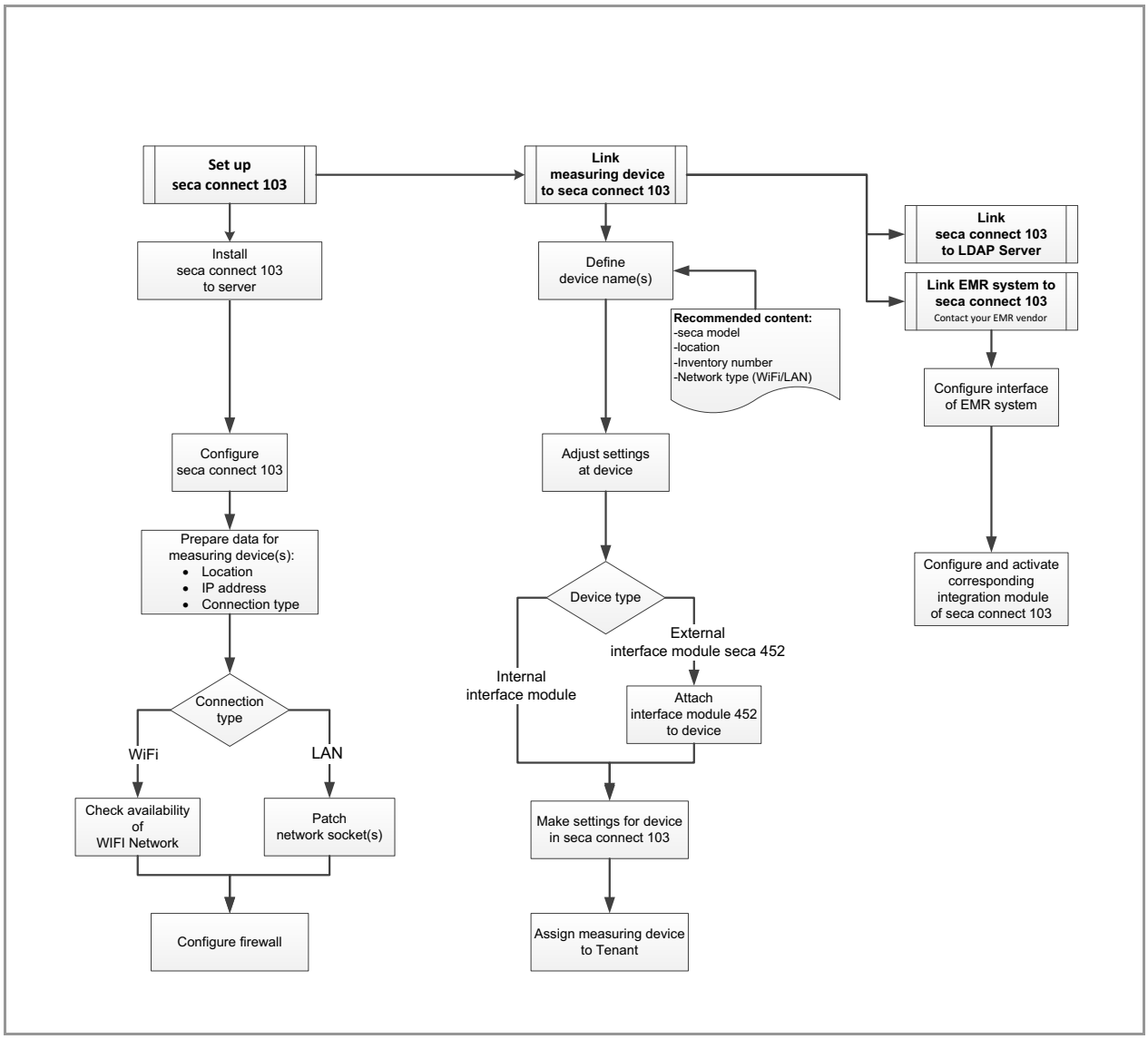
This section describes local installation of the **seca connect 103** software. Information about setup in the form of a cloud application can be found here:
➔ Setting up the seca connect 103 system as a cloud application.

NOTE
Version 3.0 of the **seca connect 103** software is only available as a cloud application.

17-10-01-266-002f/05-2021B

5.1 Work steps

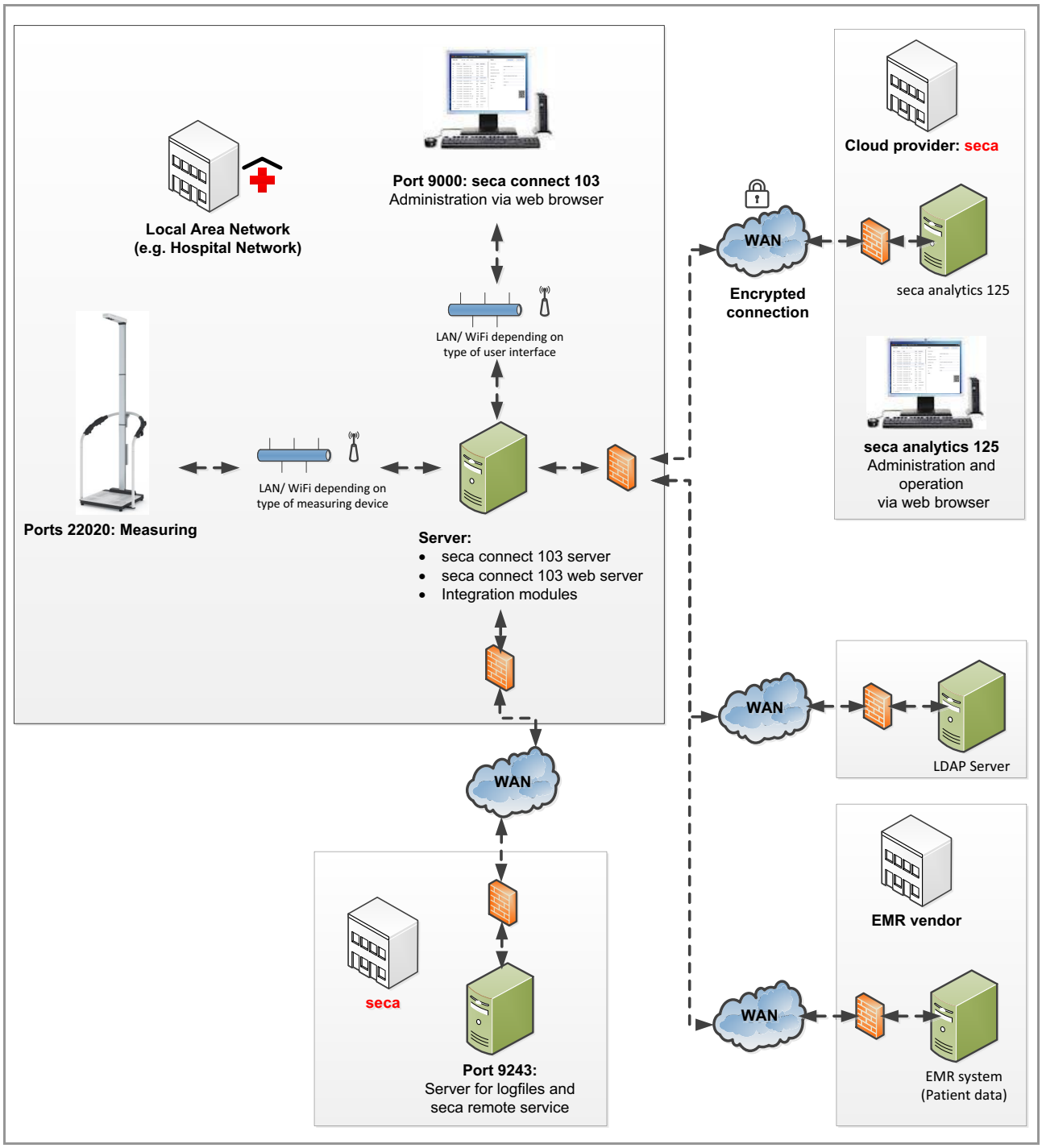
This graphic provides an overview of the steps required to set up an integrated measuring system with the **seca connect 103** software as a local installation. Details can be found on the following pages.



17-10-01-266-002f/05-2021B

5.2 System structure

This graphic provides and overview of the system structure with the **seca connect 103** software as a local installation (here with an externally-hosted EMR system).



17-10-01-266-002f/05-2021B

5.3 System requirements

System component	Requirement
Operating system client:	Windows® 10
Operating system server: • For max. ten devices[a] • For more than ten devices	Windows® 10 Windows® Server 2016 Datacenter 64-bit (32-bit systems not supported)
Server hardware: • RAM • Processor • Free hard disk storage	at least 16 GB Intel Xeon CPU Q 2.30 GHz at least 200 GB
Browser	Google Chrome Release 64 and higher
Data transmission	LAN WiFi: • From V1.2: WPA2 Enterprise PEAP TLS • From V1.1: WPA2 Enterprise PEAP RADIUS • From V1.0: WPA2 with PSK
Ports	Recommended: • 9000: seca 103 web browser • 9243: Logstash server for log files/remote service • 22020: GPX listening port for seca measuring devices
EMR systems: • Supported interfaces • Supported authentication protocols	Cerner VitalsLink Health Level 7 (HL7) (Versions 2.5, 2.6) LDAP
IP addresses for seca measuring devices	Assign IP address via DHCP server

a. Follow Microsoft recommendations for Windows 10

Windows®, Windows® 10 and Windows® Server 2016 are registered trademarks of the Microsoft Corporation.

5.4 Installing and configuring seca connect 103

➔ Preparing setup

➔ Performing setup (Basic)

➔ Performing setup (Expert)

➔ Creating a connection to the seca analytics 125 software

➔ Configuring the firewall

➔ Configuring the security program

➔ Updating seca connect 103

NOTE

Integrating software and devices in a PC network containing other devices may lead to previously unknown risks for patients, operators or third parties. It is the responsibility of the operating company to determine, analyze, evaluate, and control these risks.

17-10-01-266-002f/05-2021B

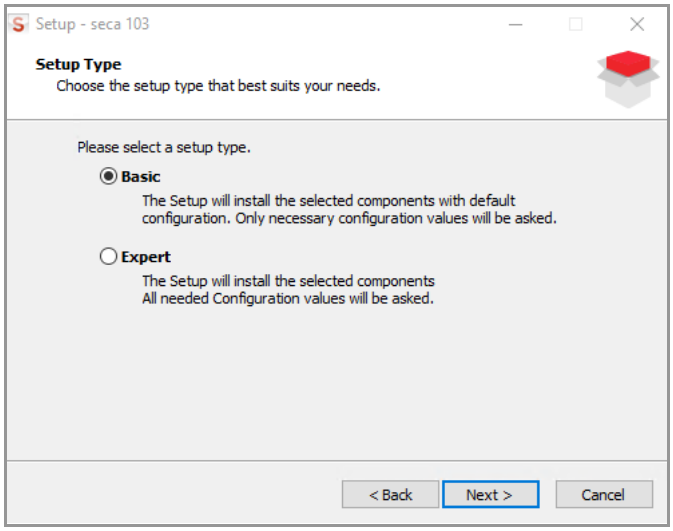
Preparing setup

The **seca connect 103** installation package is exclusively available as a download. The corresponding link will be sent to you in the course of project implementation.

NOTE
If you wish to update an existing **seca connect 103** system (Version 1.x), seca recommends first installing Release 2.0 or higher on a separate server, migrating the connected devices and then decommissioning the old server.

1. Provide a separate server for the **seca connect 103** software.
2. Follow the link sent to you in the course of project implementation to download the installation package.
3. Save the installation package (zip archive) on the server provided for the **seca connect 103** software.
4. Double-click the zip archive to open it.
5. Open the **seca connect 103** Setup Wizard (here: seca 103 2.2.2843.4110) by double-clicking it.

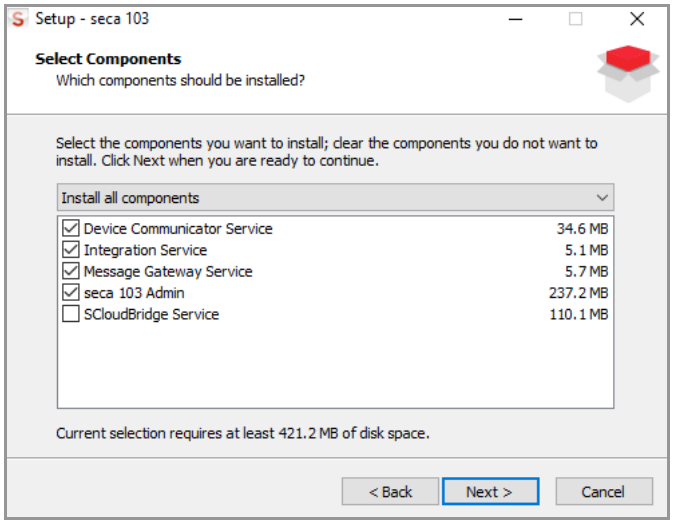
6. Click **Next** to start the **seca connect 103** setup process.
7. Follow the on-screen instructions until the **Setup Type** dialog is displayed.



8. Select the desired setting:
   - **Basic** (recommended): Few settings required
   - **Expert**: provides individual setting options

17-10-01-266-002f/05-2021B

9. Follow the on-screen instructions until the **Select Components** dialog is displayed.



You have the following setting options:

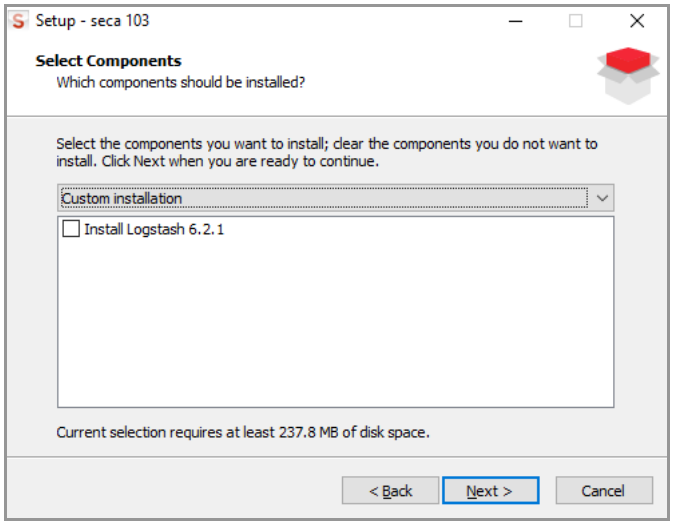
- Accept the default (recommended)
- For connection of **seca analytics 125**: Activate the **SCloud Bridge Service** checkbox
- Deactivate installation of individual services

10. Follow the on-screen instructions. Installation continues in accordance with the selection in step 8. (**Setup Type**):
    - **Basic**: ➔ Performing setup (Basic)
    - **Expert**:➔ Performing setup (Expert)

Performing setup (Basic)

If you have selected **Basic** as the **Setup Type** (➔ Preparing setup), you will be guided through the following setup process:

1. Follow the on-screen instructions until the **Setup seca 103\Select Components** dialog appears:

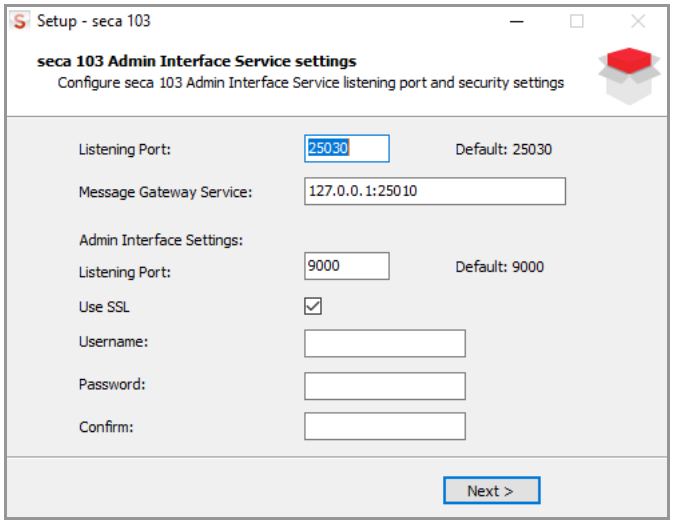


You have the following setting options:

- Leave **Logstash** deactivated (recommended)
- Activate **Logstash** (necessary if data are to be exchanged with seca Service)

17-10-01-266-002f/05-2021B

2. Follow the on-screen instructions until the **Setup seca 103\seca 103 Admin Interface Service settings** dialog appears:



3. Assign **Username** and **Password** for access to the user interface of the **seca connect 103** software.
4. Ensure that the setting for use of an SSL certificate (**Use SSL**) is correct:
   - SSL certificate in use: Ensure that the SSL certificate is incorporated, activate the **Use SSL** checkbox
   - No SSL certificate in use: Leave the **Use SSL** checkbox deactivated

   NOTE
   The software will not start if the **Use SSL** checkbox is activated but no SSL certificate has been incorporated. Information about how to proceed in this case is available here: ➔ Troubleshooting\➔ Errors in the system.
5. Follow the on-screen instructions:
   - Installation of the **SCloud Bridge Service** activated: ➔ Creating a connection to the seca analytics 125 software
   - Installation of the **SCloud Bridge Service** not activated: Continue at step 5.
6. Follow the on-screen instructions until the **Completing the seca 103 Setup Wizard** wizard screen appears:

17-10-01-266-002f/05-2021B

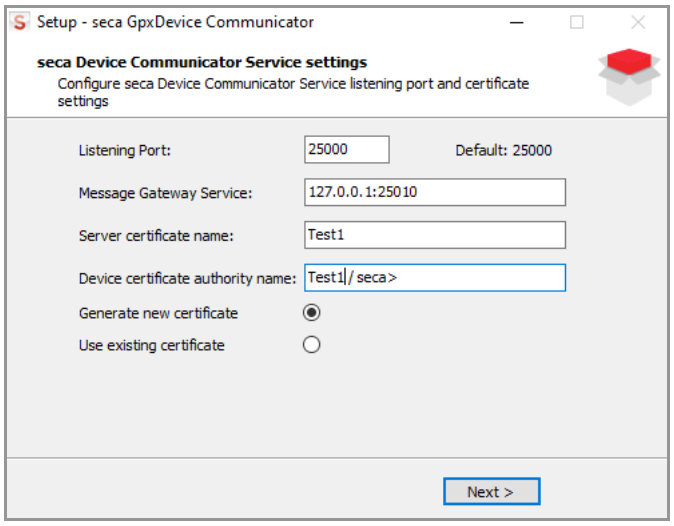
7. Click **Finish**.
   Installation is complete.
   You have the following options for continuing:
   - Restart your computer now (recommended)
   - Restart your computer later

   You have the following options for continuing following installation/restart:
   - ➔ Preparing the data connection (WiFi/LAN) for seca measuring devices
   - ➔ Managing seca measuring devices
   - ➔ Managing integration modules

Performing setup (Expert)

If you have selected **Expert** as the **Setup Type** (➔ Preparing setup), you will be guided through the following setup process:

1. Follow the on-screen instructions until the **seca Device Communicator Service settings** dialog appears:



NOTE

- Do **not** enter the data of the SSL certificate in this dialog window. Information about “SSL” can be found further on in this section.

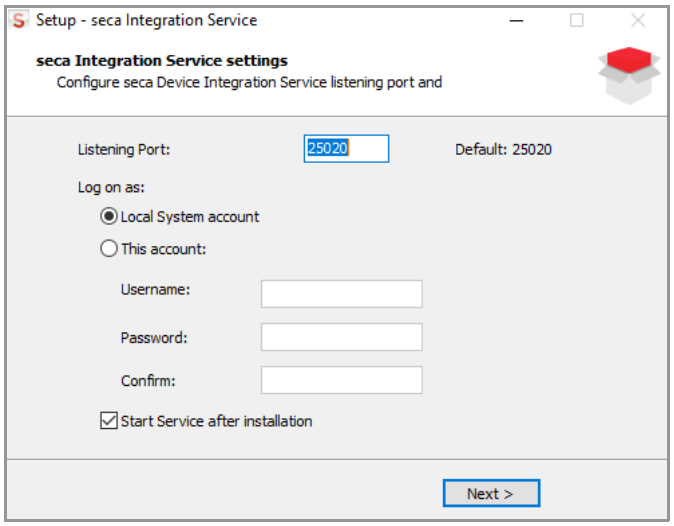
17-10-01-266-002f/05-2021B

- The fields **Server certificate name** and **Device certificate authority name** must not remain empty.

You have the following setting options:

Option	Action
Generate a new certificate	1. Assign a new **Server certificate name** 2. Assign **Device certificate authority name** 3. Click **Generate new certificate**
Use an existing certificate	1. Enter the **Server certificate name** of the existing certificate 2. Enter **Device certificate authority name** 3. Click **Use existing certificate**

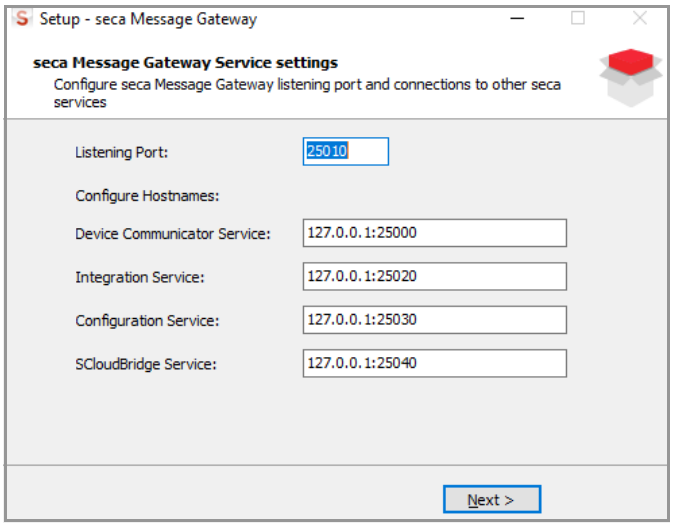
2. Follow the on-screen instructions until the **seca Integration Service settings** dialog appears:



You have the following setting options:

- ► Accept the settings (recommended)
- ► Adjust the settings individually

3. Follow the on-screen instructions until the **Message Gateway Service** dialog appears:

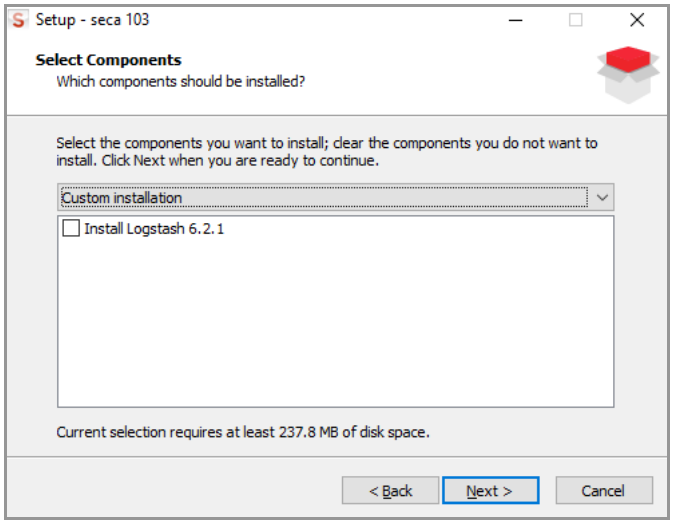


You have the following setting options:

- ► Accept the settings (recommended)
- ► Adjust the settings individually

17-10-01-266-002f/05-2021B

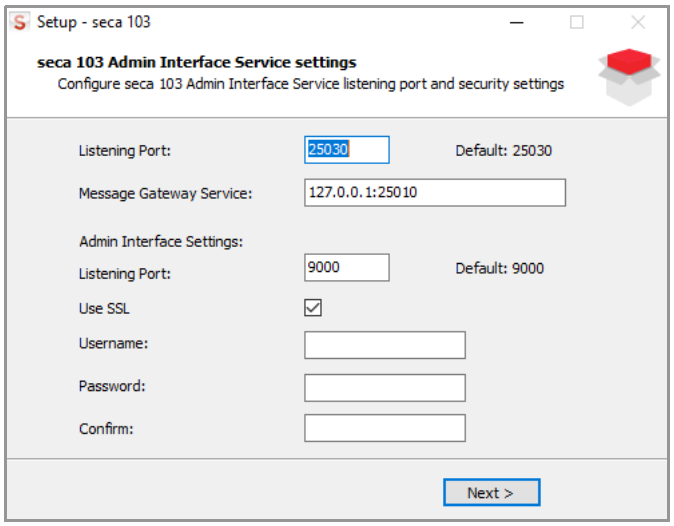
4. Follow the on-screen instructions until the **Setup seca 103\Select Components** dialog appears:



You have the following setting options:

- Leave **Logstash** deactivated (recommended)
- Activate **Logstash** (necessary if data are to be exchanged with seca Service)

5. Follow the on-screen instructions until the **Setup seca 103\seca 103 Admin Interface Service settings** dialog appears:



6. Assign a **Username** and **Password** for the user interface of the **seca connect 103** software.
7. Ensure that the setting for use of an SSL certificate is correct:
   - SSL certificate in use: Ensure that the SSL certificate is incorporated, activate the **Use SSL** checkbox
   - No SSL certificate in use: Leave the **Use SSL** checkbox deactivated

NOTE

The software will not start if the **Use SSL** checkbox is activated but no SSL certificate has been incorporated. Information about how to proceed in this case is available here: ➔ Troubleshooting\➔ Errors in the system.

17-10-01-266-002f/05-2021B

8. Follow the on-screen instructions:
   - Installation of the **SCloud Bridge Service** activated: ➔ Creating a connection to the seca analytics 125 software
   - Installation of the **SCloud Bridge Service** not activated: Continue at step 9.
9. Follow the on-screen instructions until the **Completing the seca 103 Setup Wizard** wizard screen appears:

10. Click **Finish**.
    Installation is complete.
    You have the following options for continuing:
    - Restart your computer now (recommended)
    - Restart your computer later

    You have the following options for continuing following installation/restart:
    - ➔ Preparing the data connection (WiFi/LAN) for seca measuring devices
    - ➔ Managing seca measuring devices
    - ➔ Managing integration modules

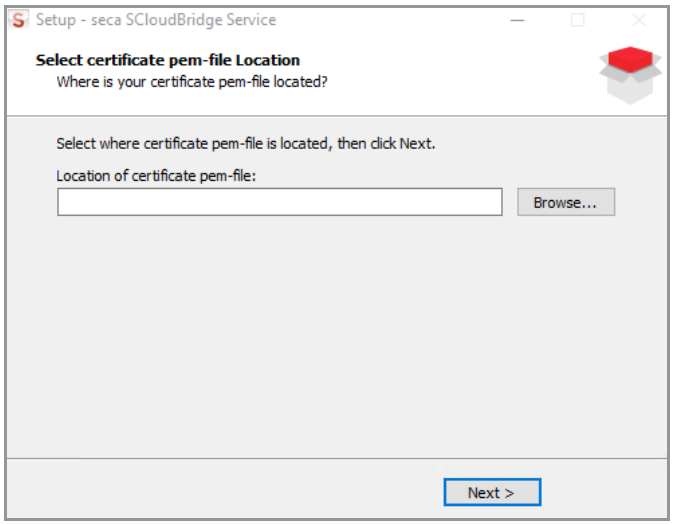
17-10-01-266-002f/05-2021B

Creating a connection to the seca analytics 125 software

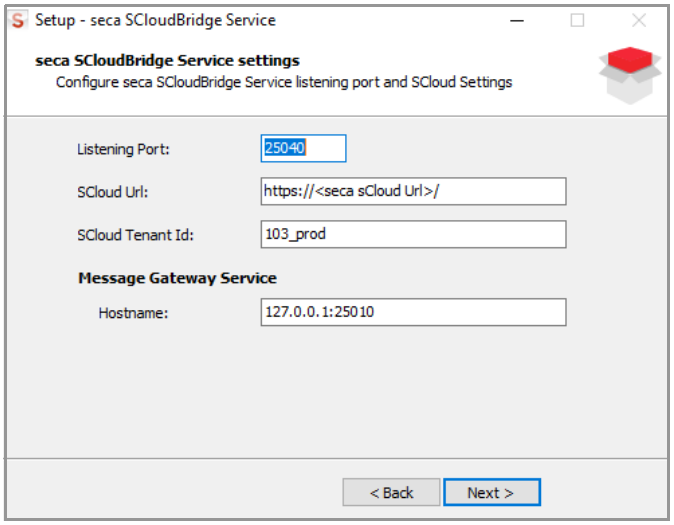
When you have activated installation of the **SCloud Bridge Service** (➔ Preparing setup), the **seca SCloud bridge Service Settings** dialog is added to Setup. This dialog allows you to set up a connection to the **seca analytics 125** software.

1. Have the following connection data to hand:
   - "<Your SCloud Tenant Id>.pem" certificate
   - **SCloud Url**: "https://<secasCloudUrl>/"
   - **SCloud Tenant Id**: "<Your SCloud Tenant Id>"

   NOTE
   The connection data for the **seca analytics 125** software were sent to you in the course of project implementation.
2. Give the storage location of the "<Your SCloud Tenant Id>.pem" certificate:



3. Enter the following data in the next dialog window:
   a) **SCloud Url**: https://<secaSCloudUrl>/".
   b) **SCloud Tenant Id**: <Your SCloud Tenant Id>"



NOTE
The entries for **Listening port** and **Hostname** are assigned automatically.

17-10-01-266-002f/05-2021B

4. Follow the on-screen instructions until the **Completing the seca 103 Setup Wizard** wizard screen appears:

5. Click **Finish**.
6. Restart your computer:

7. Stop and start the **SCloud Bridge Service** manually (in Windows® under "Task Manager\Services") to activate the connection to the **seca analytics 125** software.
   Installation is complete.
   You have the following options for continuing:
   - ➔ Preparing the data connection (WiFi/LAN) for seca measuring devices
   - ➔ Managing seca measuring devices
   - ➔ Managing integration modules

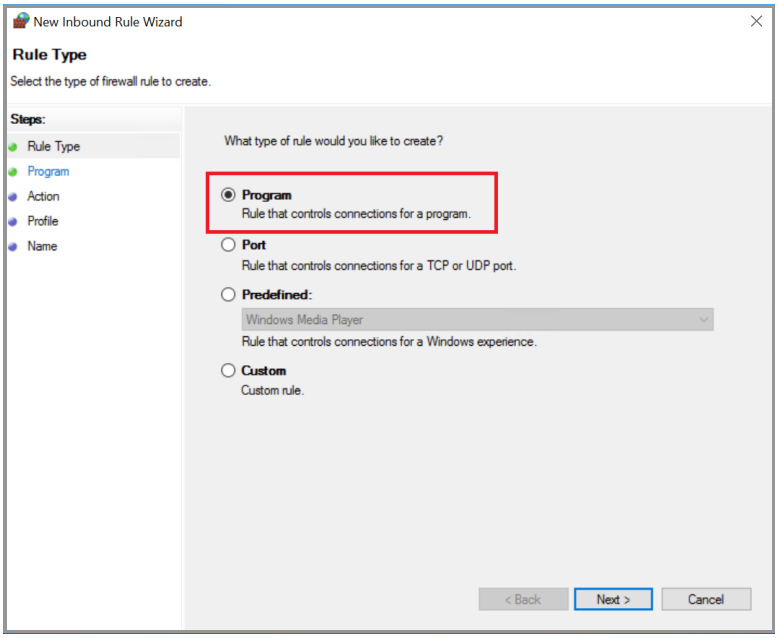
17-10-01-266-002f/05-2021B

Configuring the firewall

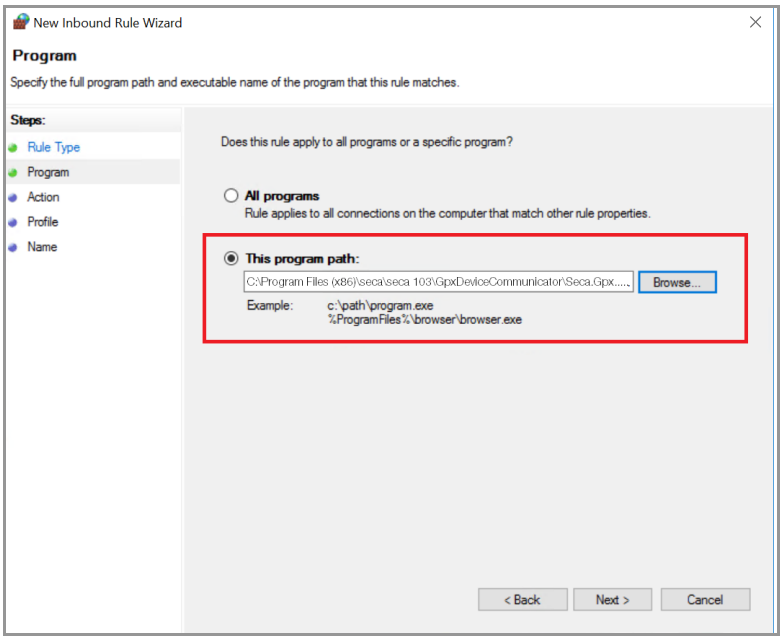
The settings in the Windows® Defender firewall are described in the following text as an example. If you use a different firewall, make the settings accordingly. Work through the individual dialog windows and then click **Next**.

Creating an inbound rule

1. Open the dialog window of the firewall (here: “Windows Administrative Tools\Windows Defender Firewall with Advanced Settings”).
2. Create a new inbound rule:
   a) Click “Inbound Rules”
   b) Click “New Rule”
3. Under “Rule Type”, click “Program”.

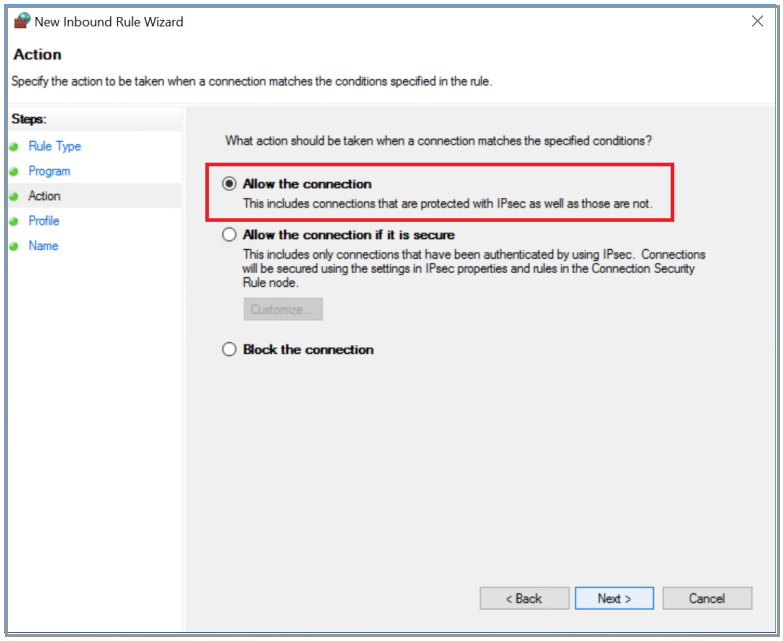


4. Under “Program”, select the setting “This program path:”. Enter the following program path: C:\Program Files (x86)\seca\seca103\GpxDeviceCommunicator\Seca.GpxDeviceCommunicatorService.exe

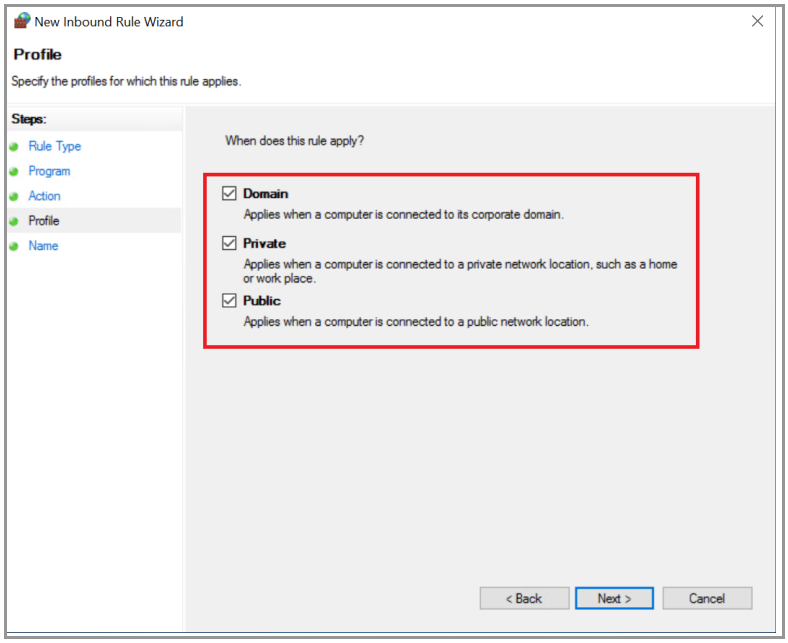


17-10-01-266-002f/05-2021B

5. Under “Action”, select the setting “Allow the connection”.

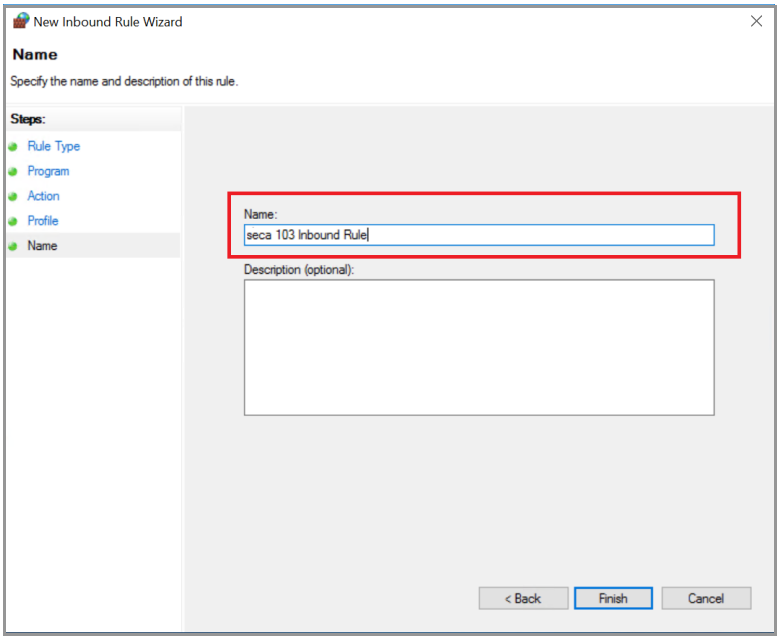


6. Under “Profile”, select the settings to suit your network requirements (here: all options selected).



17-10-01-266-002f/05-2021B

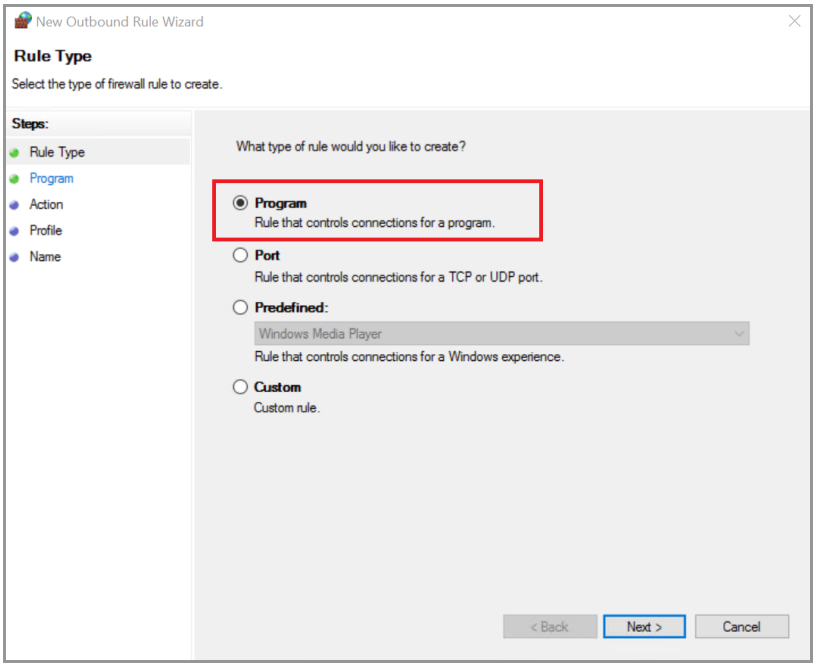
7. Under “Name”, enter a name for the new rule to suit the guidelines of your institution (here: “seca 103 Inbound Rule”).



8. Click **Finish**. The inbound rule has been created.

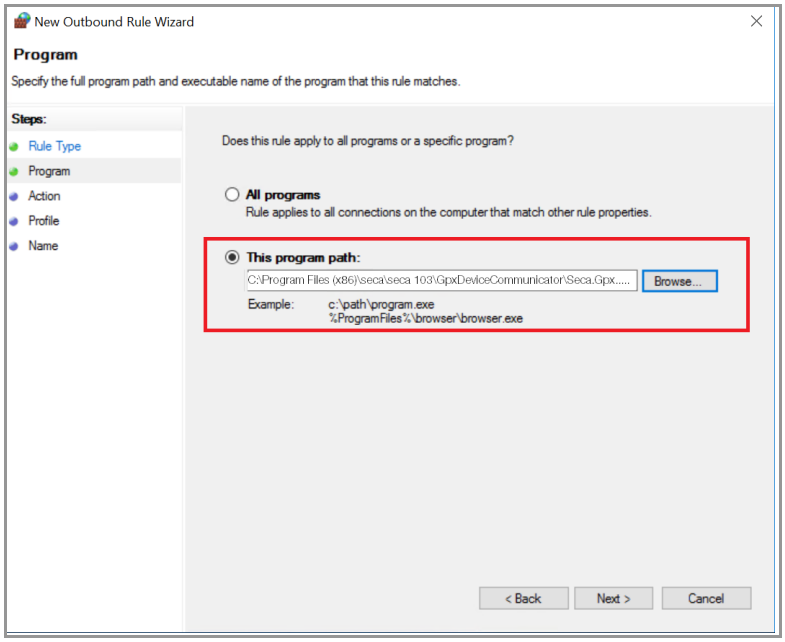
Creating an outbound rule

1. Open the dialog window of the firewall (here: “Windows Administrative Tools\Windows Defender Firewall with Advanced Settings”).
2. Create a new outbound rule:
   a) Click “Outbound Rules”
   b) Click “New Rule”
3. Under “Rule Type”, click “Program”.

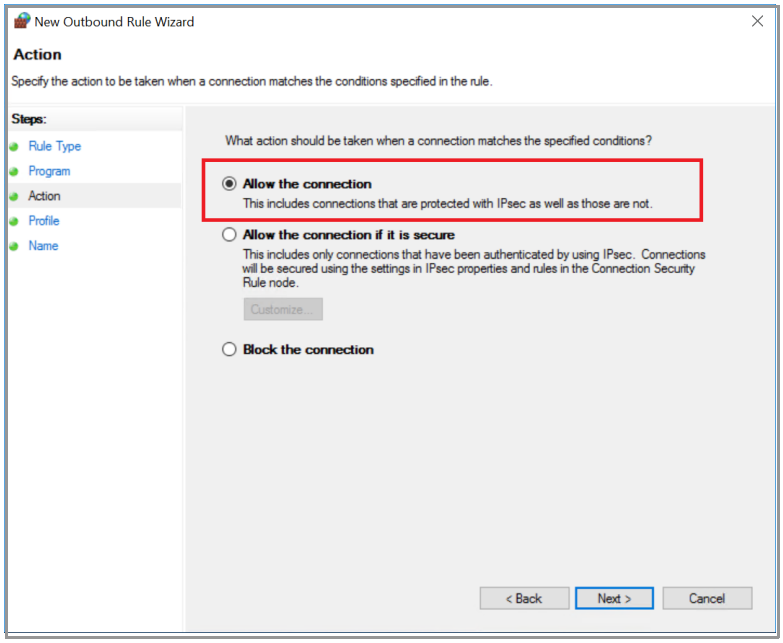


17-10-01-266-002f/05-2021B

4. Under “Program”, select the setting “This program path:”. Enter the following program path: C:\Program Files (x86)\seca\seca 103\GpxDeviceCommunicator\Seca.GpxDeviceCommunicatorService.exe

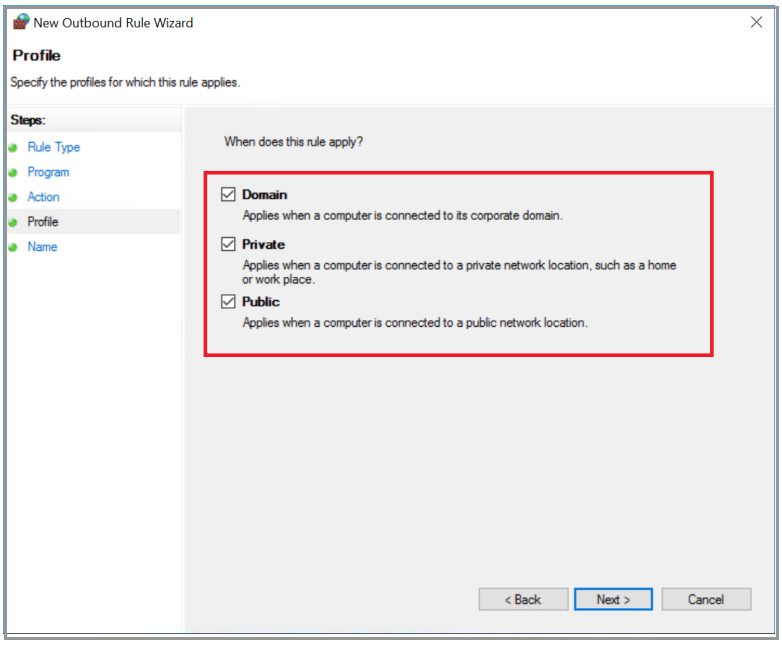


5. Under “Action”, select the setting “Allow the connection”.

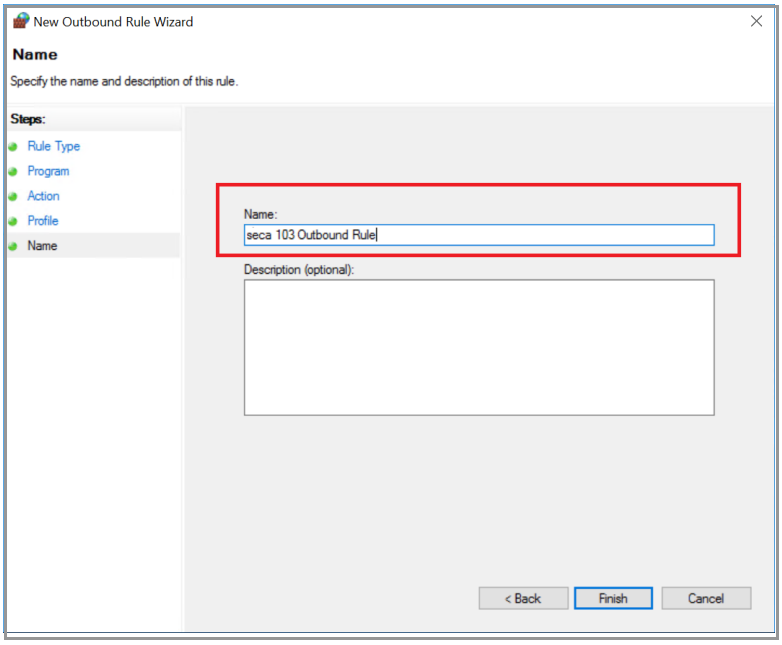


17-10-01-266-002f/05-2021B

6. Under “Profile”, select the settings to suit your network requirements (here: all options selected).



7. Under “Name”, enter a name for the new rule to suit the guidelines of your institution (here: “seca 103 Outbound Rule”).



8. Click **Finish**. The outbound rule has been created.

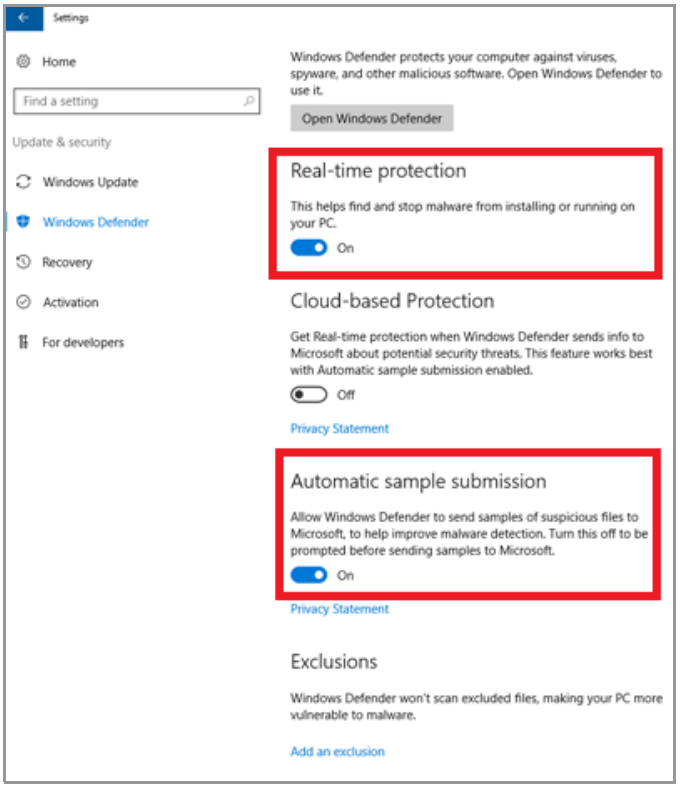
NOTE
If your system is secured by multiple firewalls, make the appropriate settings in **all** firewalls.

17-10-01-266-002f/05-2021B

Configuring the security program

The following procedure describes the settings in Windows® Defender by way of an example. If you use a different security program, make the settings accordingly. Work through the individual dialog windows and then click **Next**.

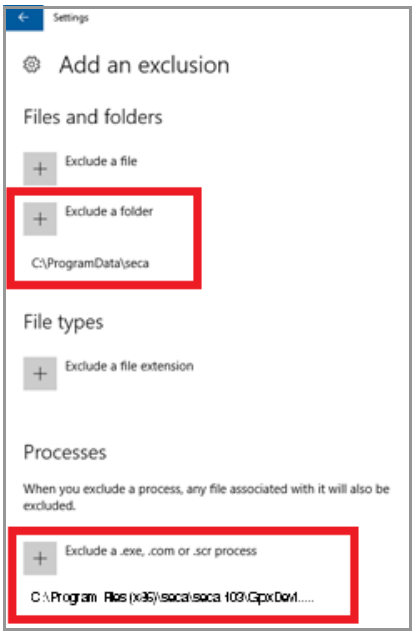
1. Open Windows® Defender (Settings\Update & Security\Windows® Defender).
2. Ensure that the following settings are in place:
   - Realtime protection: on
   - Cloud-based protection: off
   - Automatic sample submission: on



3. Under “Exclusions”, click “Add an exclusion”.

17-10-01-266-002f/05-2021B

4. Enter the following exclusions:
   - Exclude a folder: C:\ProgramData\seca
   - Exclude an .exe, .com or .scr process: Seca.GpxDeviceCommunicatorService.exe



NOTE
If your system is secured by additional security programs, make appropriate settings in **all** the security programs.

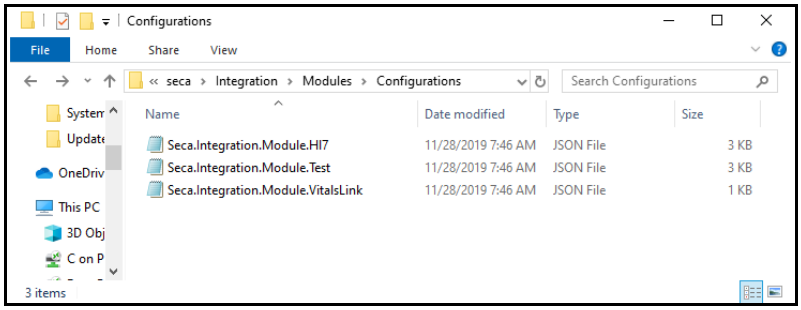
Updating seca connect 103

NOTE
Integrating software and devices in a PC network containing other devices may lead to previously unknown risks for patients, operators or third parties. It is the responsibility of the operating company to determine, analyze, evaluate, and control these risks.

If you wish to update an existing **seca connect 103** system, we recommend first installing Release 2.0 or higher on a separate server, migrating the connected devices and then decommissioning the old server.

The **seca connect 103** update package is exclusively available as a download. You can find the software as a download in the Support area at www.seca.com.

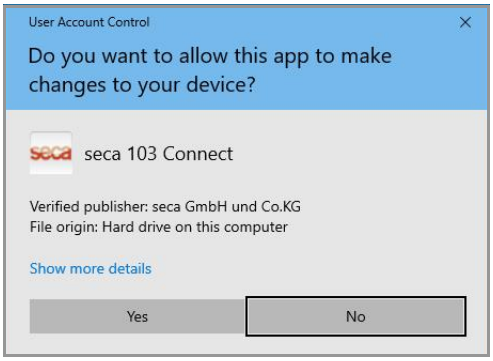
1. Follow the link and download the update package.
2. Save the file to the server provided for the **seca connect 103** software.
3. Back up the configuration files (see screenshot) as arranged in your institution.



4. Double-click the executable program (example): “seca_103Complete_2.2.**.****.exe”.

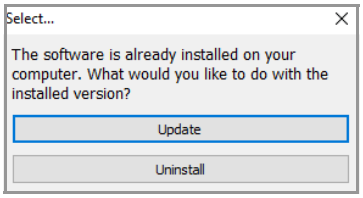
17-10-01-266-002f/05-2021B

5. In the security warning click **Run**.



The Setup Wizard starts automatically:

The services of the software (➔ Preparing setup) are installed one after the other.
If an older version of one of the services is installed, this dialog window appears:



You have the following options for continuing:

- Click **Uninstall** and then continue at this section ➔ Preparing setup
- Click **Update** (recommended): The service is installed.

17-10-01-266-002f/05-2021B

6. SETTING UP THE SECA CONNECT 103 SYSTEM AS A CLOUD APPLICATION

➔ Work steps

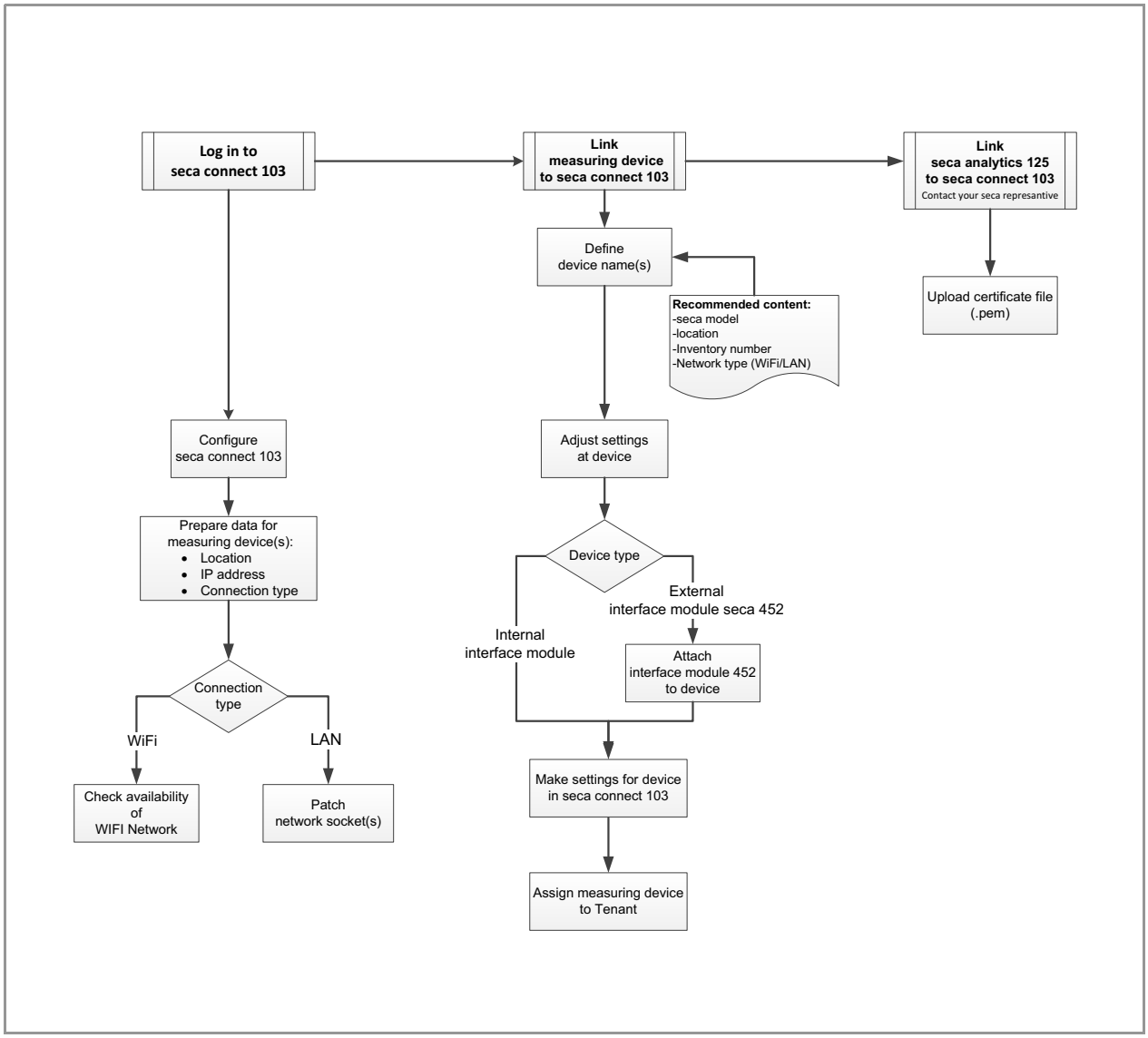
➔ System structure

➔ System requirements

This section describes setting up the **seca connect 103** software as a cloud application. Information about setup in the form of a local installation can be found here: ➔ Setting up seca connect 103 system as a local installation.

6.1 Work steps

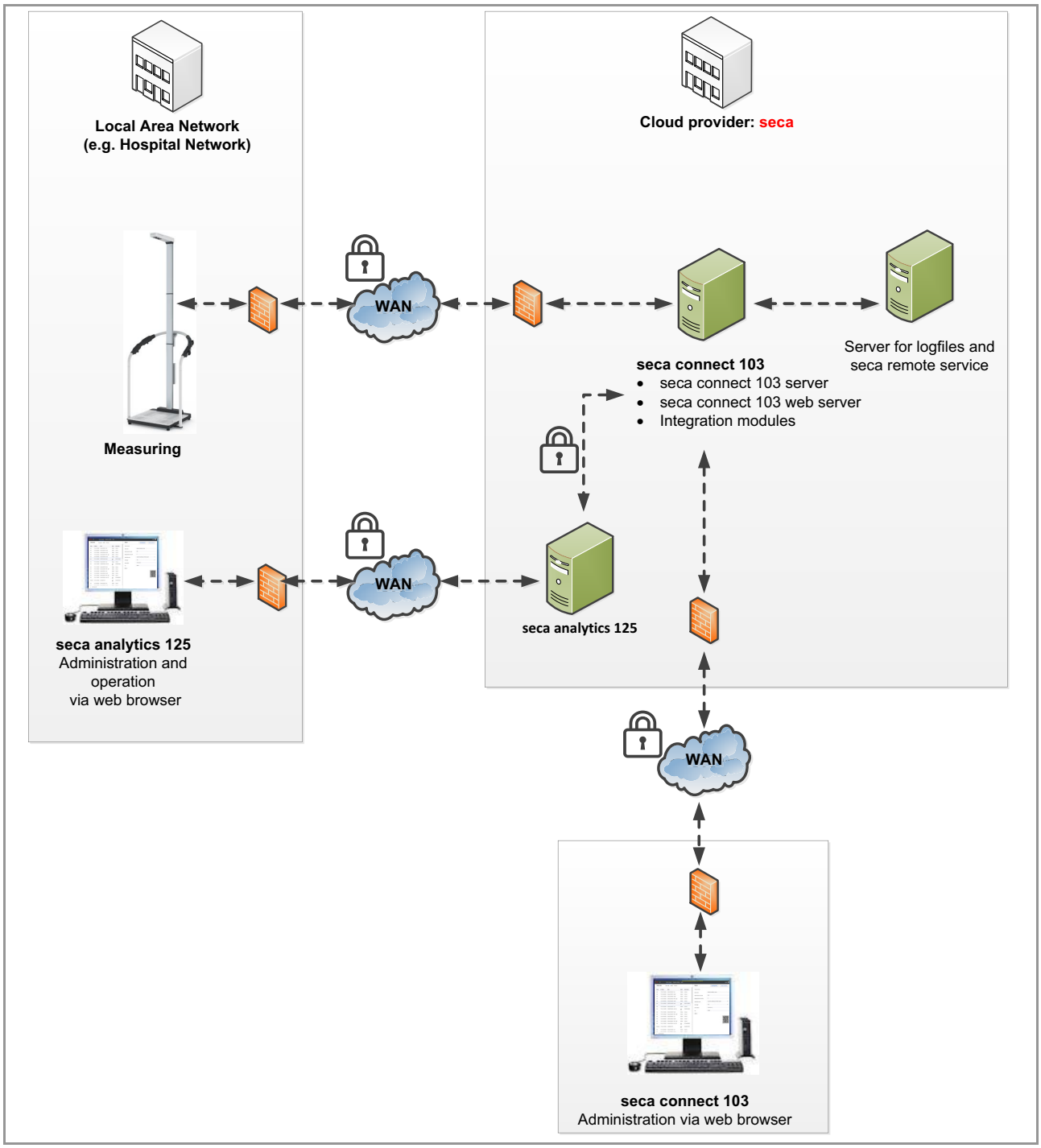
This graphic provides an overview of the steps required to set up an integrated measuring system with the **seca connect 103** software as a cloud application. Details can be found on the following pages.



17-10-01-266-002f/05-2021B

6.2 System structure

This graphic provides an overview of the system structure with the **seca connect 103** software as a cloud application.



17-10-01-266-002f/05-2021B

6.3 System requirements

System component	Requirement
Browser	Google Chrome Release 64 and higher
Data transmission	LAN WiFi: • From V1.2: WPA2 Enterprise PEAP TLS • From V1.1: WPA2 Enterprise PEAP RADIUS • From V1.0: WPA2 with PSK
Ports	22020: GPX listening port for seca measuring devices
EMR systems: • Supported interfaces	**seca analytics 125**
IP addresses for seca measuring devices	Assign IP address via DHCP server

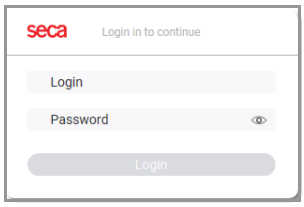
17-10-01-266-002f/05-2021B

7. OPERATING SECA CONNECT 103

7.1 Primary functions

Logging in

1. Open the **seca connect 103** software in your browser:
   - Local installation: Enter the IP address of the **seca connect 103** server (default: 9000/login)
   - Cloud application: Use the link given to you by seca Service in the course of project implementation
2. In the **Login** dialog window, enter the login credentials.



   - Local installation: Use the login credentials you created in ➔ Performing setup (Expert)\Step 5.
   - Cloud application: Use the login credentials given to you by seca Service in the course of project implementation
3. Click **Login**.
   The **seca connect 103** software is opened.

Changing a password

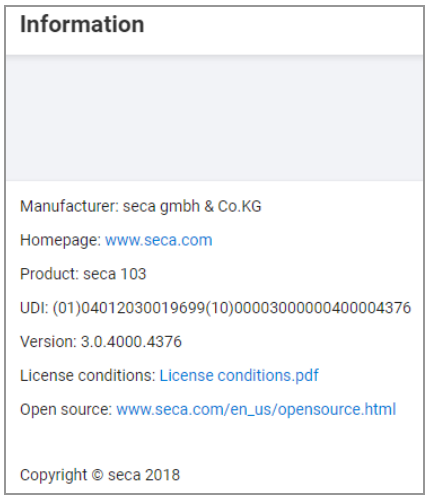
1. Click ☰.
   The main menu opens.
2. Click **Change password**.
3. Enter the old password.
4. Enter the new password.
5. Confirm the new password.
6. Click **Change password**.
   The new password is active.

Querying the version

1. Click ☰.
   The main menu opens.

17-10-01-266-002f/05-2021B

2. Click **About the software**.
   Information about the software version is displayed.



Logging out

1. In the menu bar, click **Logout**.
2. Close the browser.

7.2 Administering tenants

➔ Calling up the tenant list

➔ Editing the tenant's name

➔ Assigning a user to a tenant

➔ Removing an assigned user

➔ Deleting a tenant

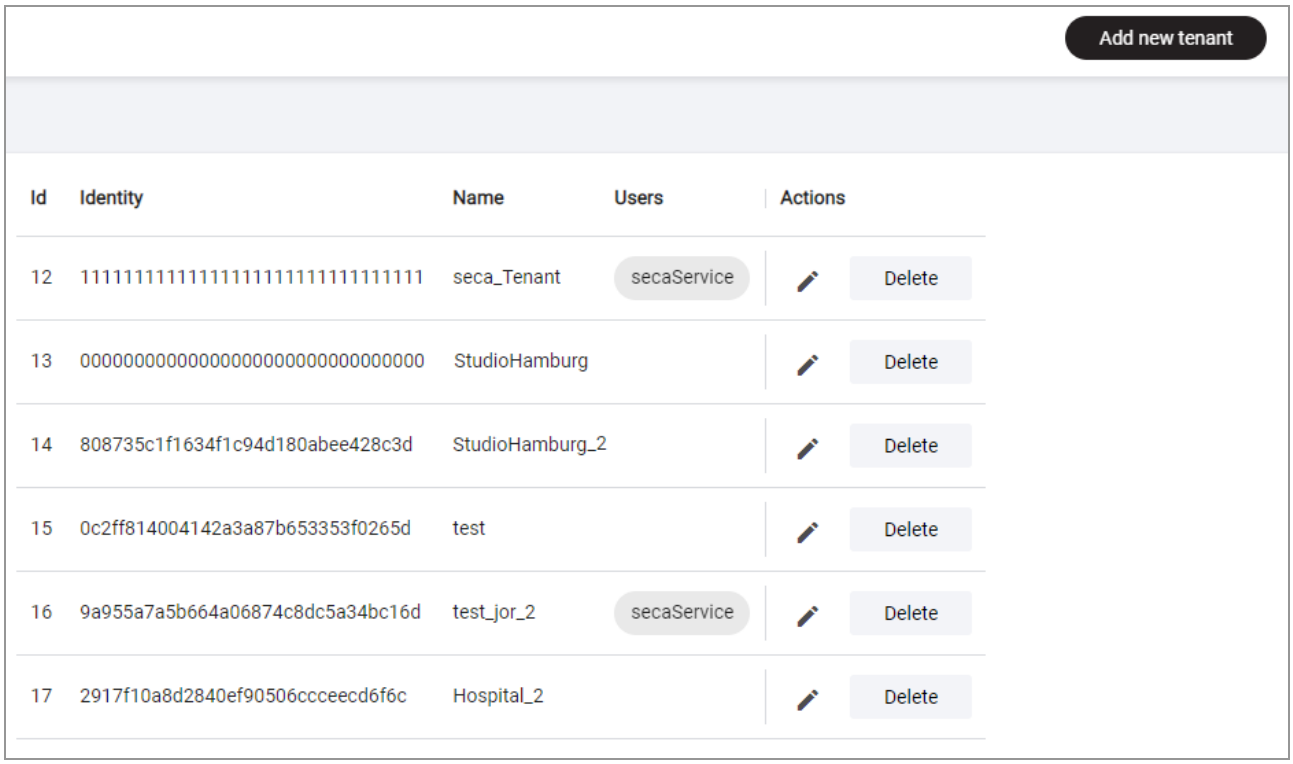
You can administer tenants using the **seca connect 103** software. A tenant can be a department in the hospital, for example. Various users can be assigned to a tenant. This gives a user the right to view all seca measuring devices assigned to this tenant in **Device manager**.

Calling up the tenant list

1. Click ☰.
   The main menu opens.
2. Click **Administration**.
   The submenu opens.

17-10-01-266-002f/05-2021B

3. Click **Tenant Management**.
   The list of tenants is displayed.



Creating a new tenant

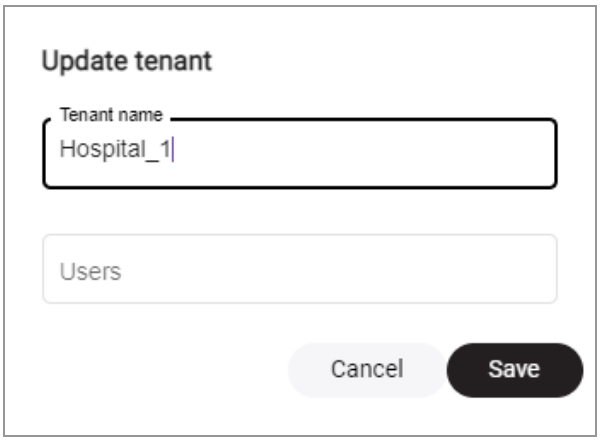
1. ➔ Calling up the tenant list
2. Click **Add new tenant**.
   The **Create tenant** dialog is displayed.

3. Enter the new tenant's name.
4. Click **Save**.
   The newly created tenant is displayed in the list.

17-10-01-266-002f/05-2021B

Editing the tenant's name

1. ➔ Calling up the tenant list
2. In the line for the desired tenant, click .
   The **Update Tenant** dialog is displayed.

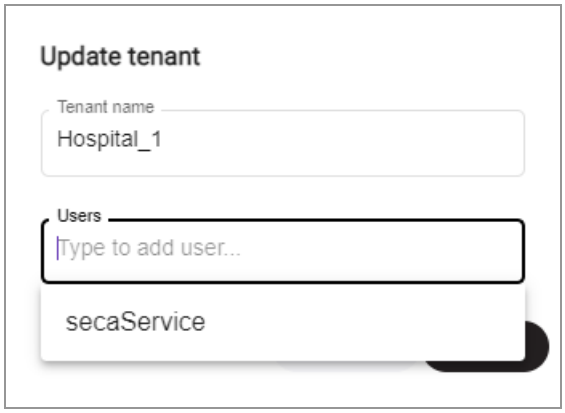


3. Change the tenant's name.
4. Click **Save**.
   The data are saved.

Assigning a user to a tenant

NOTE
In software Version 3.0, only the user "**secaService**" is available. The option of adding further users is intended for future versions of the software.

1. ➔ Calling up the tenant list
2. In the line for the desired tenant, click .
   The **Update Tenant** dialog is displayed.
3. Click the **Users** input field.
   A dropdown list of users already created is displayed.



4. Select the desired user in the dropdown list.
   The selected user is displayed in the input field.

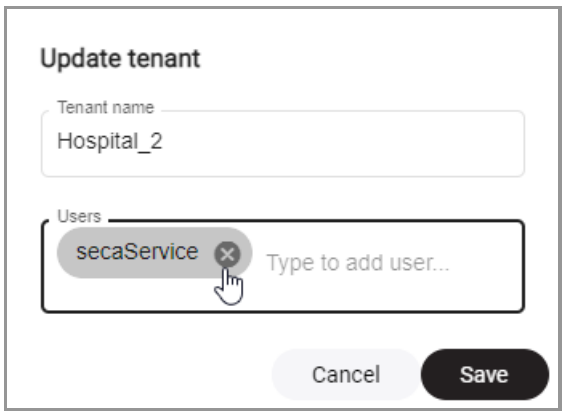
NOTE
If you do not find the user in the list immediately, enter the first few letters of the user name.

5. Select other users (if necessary).
6. Click **Save**.
   The data are saved.

17-10-01-266-002f/05-2021B

Removing an assigned user

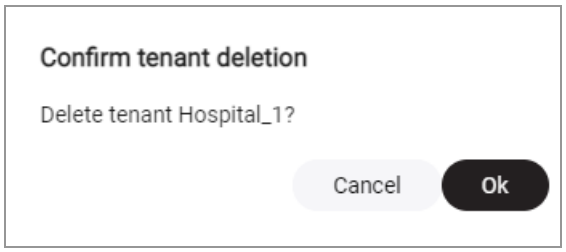
1. ➔ Calling up the tenant list
2. In the line for the desired tenant, click .
   The **Update Tenant** dialog is displayed.
3. Select the user to be removed from the **Users** input field and click .
   The user is removed.



4. Remove other users (if necessary).
5. Click **Save**.
   The data are saved.

Deleting a tenant

1. ➔ Calling up the tenant list
2. In the line for the desired tenant, click **Delete**.
3. The **Confirm tenant deletion** dialog is displayed.



4. Click **Ok**.
   The tenant is deleted.

7.3 Managing seca measuring devices

➔ Preparing the data connection (WiFi/LAN) for seca measuring devices
➔ Preparing a seca measuring device (not for Version 3.0)
➔ Adding a seca measuring device (not for Version 3.0)
➔ Connecting a seca measuring device to the network (not for Version 3.0)
➔ Assigning a seca measuring device to a tenant
➔ Changing the setting for seca measuring device
➔ Exporting device list
➔ Deleting a device

17-10-01-266-002f/05-2021B

NOTE
The procedure described in this section assumes that a compatible barcode scanner (➔ Optional accessories and spare parts) is connected to the seca measuring devices. Information on how to proceed without a barcode scanner can be found here: ➔ Using the web server of the seca 452 interface module.

Preparing the data connection (WiFi/LAN) for seca measuring devices

seca measuring devices can transfer data to the **seca connect 103** software via WiFi or via LAN. The type of data connection can be selected separately for each seca measuring device connected.

When preparing the data connection (WiFi/LAN), the following factors must be taken into account:

- seca measuring devices used ➔ Technical modifications:
  - seca measuring devices with an internal interface module (for example, **seca 336 i**): Exclusively WiFi
  - seca measuring devices with a **seca 452** interface module (for example, **seca 704**): LAN or WiFi
- Technical and structural conditions in your institution:
  - Network structure and capability
  - Length of the data transmission paths
  - Location of the seca measuring device, possible obstacles between transmitter and receiver, for example, other medical devices, furniture
  - Properties of ceilings and walls

Depending on the data connection, the following preparation work is necessary:

► Set the DHCP server so that the same MAC address of a seca measuring device always receives the same IP address

► WiFi: Network definition/new setup

LAN: Patch network sockets at the location of the seca measuring device

Preparing a seca measuring device (not for Version 3.0)

Presets need to be made on the seca measuring device to ensure reliable system function.

NOTICE!
Malfunction and incorrect data assignment
Incorrect or incomplete settings on seca measuring devices can lead to the transmission of invalid measured values, incorrect assignment of measured values, or malfunctions in the system or in individual devices.

► Ensure that all seca measuring devices to be connected are correctly configured.

► Follow the instructions for use for the respective seca measuring device.

1. Make the following settings on the seca measuring device:

Function	Setting	Device type
Autohold	On	All
seca 360° wireless[a]	Off	**seca 360° wireless** measuring devices

a. This function must remain activated for the **seca 285**/**seca 284** measuring stations in order to be able to transmit height values from the head slide to the multifunctional display.

2. Ensure that the seca measuring device is **not** connected to the following devices:
   - Measuring rod: **seca 274**, **seca 264**
   - Wireless printer: **seca 465**, **seca 466**, **seca 467**

17-10-01-266-002f/05-2021B

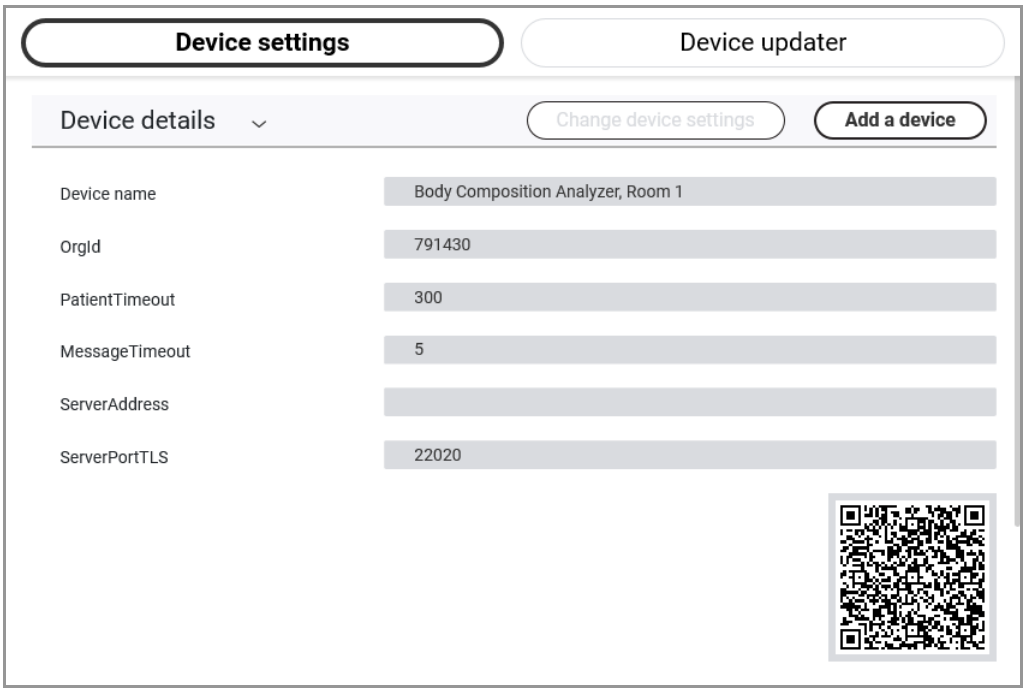
3. Continue, based on the type of seca measuring device (➔ Technical modifications ➔ Compatible seca products):
   - Devices with an internal interface module (e.g. **seca 336 i**): continue at section ➔ Adding a seca measuring device (not for Version 3.0)
   - Device requires **seca 452** interface module: continue at section ➔ Connecting and installing seca 452 interface module

17-10-01-266-002f/05-2021B

Adding a seca measuring device (not for Version 3.0)

NOTE
The seca **seca mVSA 535** does not support the transmission of connection data via QR code. Enter the connection data directly on the device as described in the instructions for use for the device. You can then access the device from the user interface of the **seca connect 103** and perform configuration.

The **Add a device** dialog window is automatically active when you open the software in the browser. Configure the parameters described below to suit your network situation and the requirements of your institution. You can transmit the settings to the device by QR code. QR codes are generated as soon as entries have been made in the dialog field.



1. Enter the following data for the seca measuring device (minimum requirement: **ServerAddress**, **ServerPortTLS**):

Parameter	Description	Values
Device name	Name of the seca measuring device	Recommended naming elements: • seca model number • Setup location • Inventory number • Connection type: WiFi/LAN
OrgID	ID of a ward in your hospital (e.g. Oncology)	Organization IDs are assigned in the integration modules: ➔ Cerner VitalsLink integration module, ➔ Health Level 7 integration module (HL7Module)
PatientTimeout	Once the timeout has expired, temporarily saved patient data are discarded.	• Min: 5 s • Max: 3600 s
MessageTimeout	Once the timeout has expired, the **seca connect 103** software assumes that a transmission error has occurred.	• Min: 5 s • Max: 60 s The **seca connect 103** software tries twice to reach the EMR system. Error messages are issued after twice the amount of time set here.
ServerAddress	Address of the **seca connect 103** server	Enter the IP address of the server on which the **seca connect 103** software is installed.

17-10-01-266-002f/05-2021B

Parameter	Description	Values
ServerPortTLS	GPX listening port via which the seca measuring device is to communicate with the **seca connect 103**	Enter a GPX listening port that was enabled in the **seca connect 103** configurator ➔ Performing setup (Expert)

2. Scan the QR code using the scanner that is connected to the seca measuring device or to the respective **seca 452** interface module.
   The settings are transmitted to the seca measuring device or to the respective **seca 452** interface module.
   You have the following options for continuing:
   - ► To add another seca measuring device, return to step 1.
   - ► To make **WiFi** settings, continue at ➔ Connecting a seca measuring device to the network (not for Version 3.0)

Adding several seca measuring devices in one step

1. Open **Add a device** view.
2. Enter the corresponding data for **ServerAddress**.
3. Enter the corresponding data for **ServerPortTLS**.
4. Scan the QR code using the scanner that is connected to the seca measuring device or to the respective **seca 452** interface module.

   NOTE
   If necessary, print out the QR code to facilitate scanning.

   The settings are transmitted to the seca measuring device or to the respective **seca 452** interface module.
5. Repeat the scan procedure for all the seca measuring devices that you want to add.
   The added devices appear in the **Device list**.
6. Make any further settings required for the devices added ➔ Changing the setting for seca measuring device or ➔ Exporting device list.

Connecting a seca measuring device to the network (not for Version 3.0)

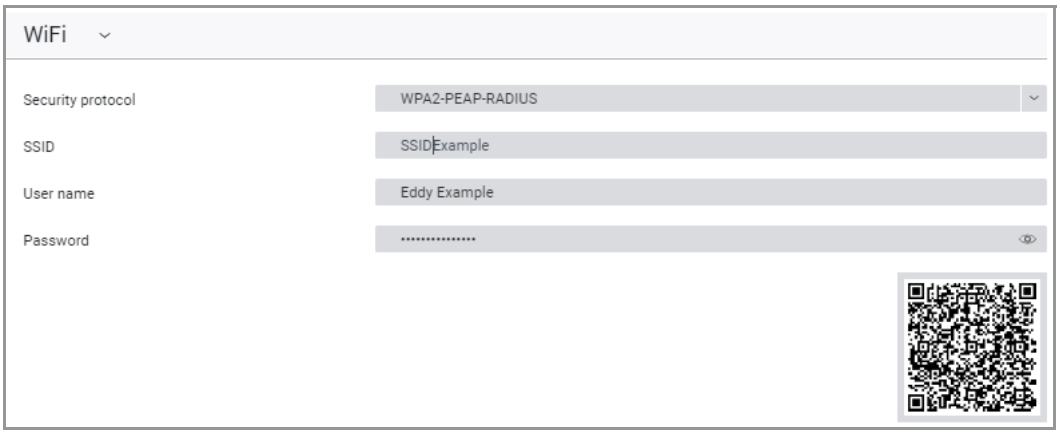
To complete connection of a seca measuring device to the **seca connect 103** software, you must connect it to the network. The network connection is made via the interface module (**seca 452** or internal module) of the device. You have the following options for making the connection:

- ➔ Communication via WiFi
- ➔ Communication via LAN

17-10-01-266-002f/05-2021B

Communication via WiFi

The settings for the WiFi connection are located in the **Add a device** dialog window. The **Add a device** dialog window is automatically active when you open the software in the browser. Configure the parameters described below to suit your network situation and the requirements of your institution. The parameters vary depending on the firmware version of the interface module. The QR code is generated as soon as entries have been made in the dialog field.



1. Enter the parameters of the WiFi network under **WiFi**.
   - Security protocol (options vary depending on the firmware version. If “TLS” is selected ➔ Using the TLS security protocol)
   - SSID
   - User name (display of the parameter varies depending on the firmware version)
   - Password

   The QR code for the **WiFi** settings is generated automatically.
2. Scan the **WiFi** QR code using the scanner that is connected to the seca measuring device or to the respective **seca 452** interface module.
   The settings are transmitted to the seca measuring device or to the respective **seca 452** interface module.
   Connection of the seca measuring device is complete.
3. Repeat the procedure for all seca measuring devices you want to connect to the **seca connect 103**.

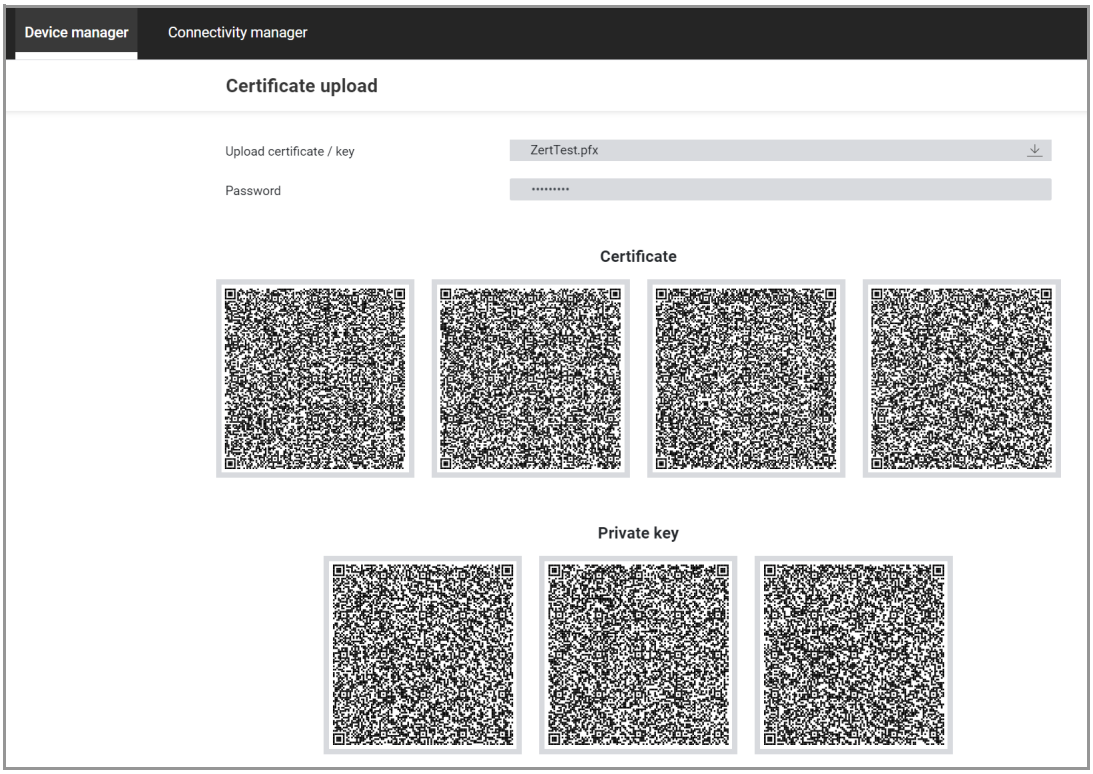
Using the TLS security protocol

If you want to use the TLS security protocol for a WiFi connection, proceed as follows:

1. Have your institution create a certificate for the TLS security protocol (file format: .pfx or .pem).
2. Save the certificate to the server on which the software **seca connect 103** is running.
3. Open the dialog window **Add a device**.
4. In the **WiFi** menu, for the parameter **Security Protocol** select the option **WPA2-TLS**.
5. Enter the SSID.
6. Click **Upload certificate**.
   The **Certificate upload** dialog window opens.)
7. Click  in the upload field to upload the certificate.

17-10-01-266-002f/05-2021B

8. Enter the password for the certificate.
   The certificate is loaded, this can take a few seconds. Then, multiple QR codes are displayed for the certificate and for the private key.



9. Print the QR codes via the print function of the browser.
10. Individually scan the QR codes under **Certificate** using the scanner that is connected to the seca measuring device or to the respective **seca 452** interface module.
    a) Scan from top left to bottom right.

    The Workflow LED of the interface module flashes green while the QR code is being transmitted. Transmission of the QR code is complete when the flashing stops.
    b) Scan the next QR code.

    NOTE
    If necessary, cover the other QR codes to make scanning easier.
    After you have scanned all the QR codes of the certificate, a beep will sound and the measuring device will restart.
11. Individually scan the QR codes under **Private key** using the scanner.
    a) Scan from top left to bottom right.

    The Workflow LED of the interface module flashes green while the QR code is being transmitted. Transmission is complete when the flashing stops. Only then scan the next QR code.
    b) If necessary, cover the other QR codes to make scanning easier.

    After you have scanned all the QR codes of the private key, a beep will sound and the measuring device will restart.
12. In **Certificate upload** view, click ❮ to return to the **Add a device** dialog window.
13. Scan the QR code in the **WiFi** menu to connect the device to the network.
    The Workflow LED remains lit green once the connection is established.
    The measuring device is displayed in **Device list** view as **Online**.

17-10-01-266-002f/05-2021B

Communication via LAN

To establish the network connection via LAN (device-dependent), you must connect the interface module of the measuring device to the network socket via a network cable ➔ Connecting and installing seca 452 interface module.

You have the following options for continuing:

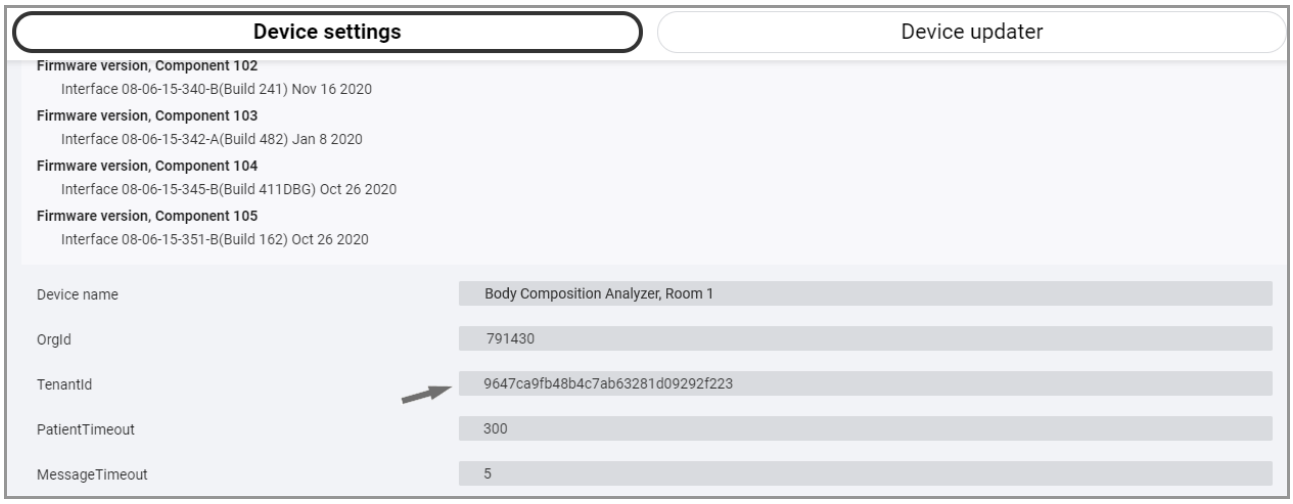
- Connect another seca measuring device ➔ Connecting a seca measuring device to the network (not for Version 3.0)
- ➔ Assigning a seca measuring device to a tenant

Assigning a seca measuring device to a tenant

Each seca measuring device connected can be assigned to a tenant. If you do not assign a measuring device, it is automatically given the tenant **seca_Tenant**.

1. Click ☰.
   The main menu opens.
2. Click **Administration**.
3. Click **Tenant Management**.
   The list of tenants is displayed.
4. Mark the **Identity** value of the desired tenant by double-clicking it.

5. Press the **Ctrl+C** key combination.
   The **Identity** value is stored on the clipboard.
6. In the menu bar, click **Device manager**.
7. In **Device list** view, click the desired device.
   The settings for the desired device are displayed in **Device settings** view.
8. Click the **TenantId** input field.
9. Press the **Ctrl+V** key combination.
   The **Identity** value is displayed in the **TenantId** field.



17-10-01-266-002f/05-2021B

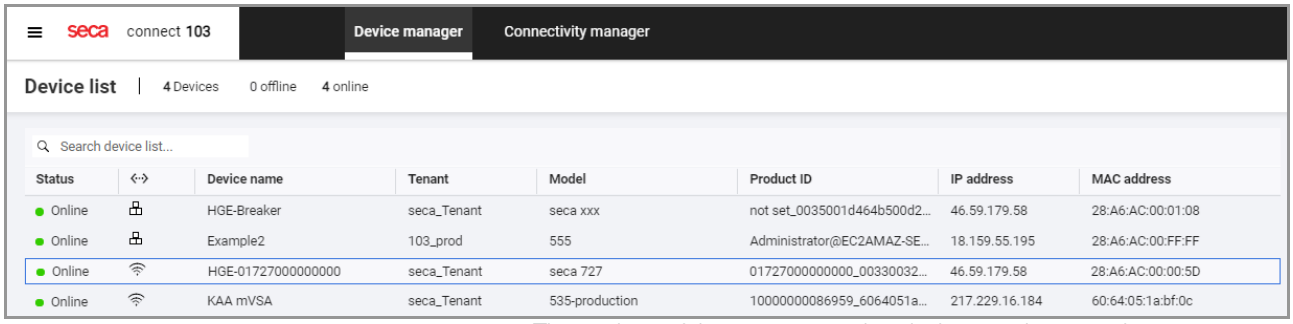
10. Click **Save**.
    The assigned tenant is displayed in **Device list** view.

Changing the setting for seca measuring device

NOTE

- If you click a seca measuring device in the **Device list**, the **Change device settings** dialog window is automatically active. Settings for seca measuring devices which are **Offline cannot** be changed.
- If you wish to change the settings for **seca mVSA 535**, we recommend doing it directly on the device. In the device menu you can find special setting options which cannot be accessed using the **seca connect 103** software. To do so, follow the instructions for use for **seca mVSA 535**.

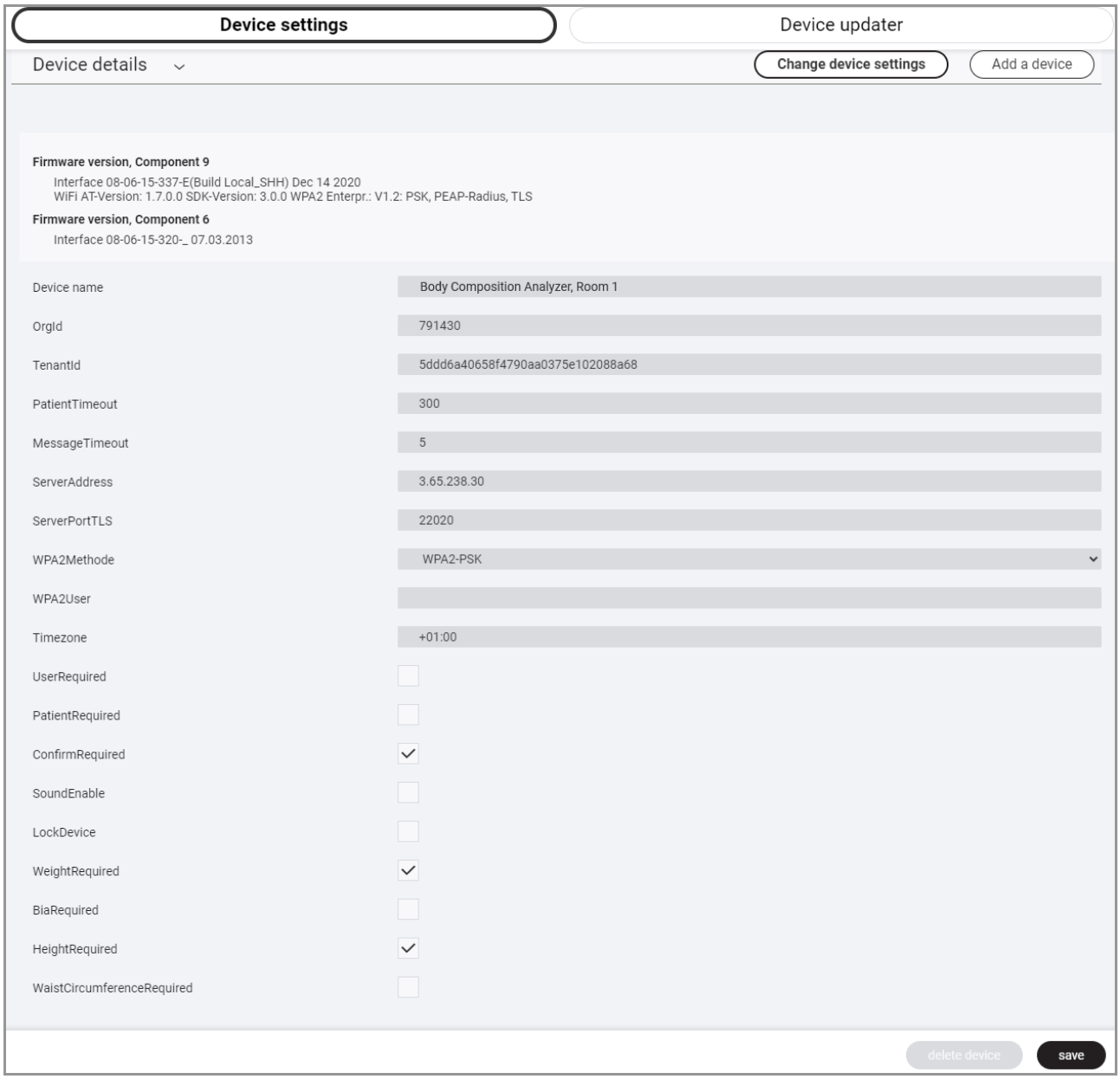
1. In the **Device list**, click the seca measuring device whose setting you would like to change (here seca 727).



The settings of the seca measuring device are shown under **Device settings**:

17-10-01-266-002f/05-2021B

NOTE
The setting options shown in the **Change device settings** dialog window are not part of the **seca connect 103** software, but of the respective seca measuring device. The setting options are sent by the measuring device as soon as it is selected in the device list in the **seca connect 103** software. As a consequence, the actual setting options may deviate from those shown here.



17-10-01-266-002f/05-2021B

2. Change the settings for the seca measuring device (cf. sections ➔ Adding a seca measuring device (not for Version 3.0) and ➔ Assigning a seca measuring device to a tenant).

Parameter	Description	Setting options
Firmware version	Display firmware version of the interface module	To suit the firmware version in question
Workflow settings	Specify settings for measuring mode	• **TenantId**: Assign the measuring device to a tenant (the **TenantId** value is displayed in the **Identity** field in **Tenant Management** view) • **ServerPortTLS**: Port for communication via TLS • **WPA2Method**: Select the WPA2 encryption method • **WPA2User**: Enter WPA2 user name • **Timezone**: Time zone in which the device is set up • **UserRequired** (recommended): Scan user ID • **PatientRequired** (recommended): Scan patient ID • **ConfirmRequired** - Activated (recommended): Measurement must be confirmed using the Confirm key (device-dependent) or the scanner - Not activated: Measurement is automatically sent to the EMR system once there is a stable weight value (Autohold) and the patient then leaves the scale • **SoundEnabled**: Acoustic status message (measurement procedure successful/unsuccessful) • **LockDevice**: To be defined • **WeightRequired** (recommended): Measurement procedure can only be completed when weight has been measured • **BIARequired** (device-dependent): Measurement procedure can only be completed when bioimpedance has been measured • **HeightRequired** (device-dependent): Measurement procedure can only be completed when height has been measured • **WaistCircumferenceRequired**: Measurement procedure can only be completed when waist circumference has been measured

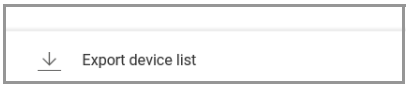
3. Click **Save**.
   The settings are transmitted to the seca measuring device or to the respective **seca 452** interface module.
4. Repeat the procedure for all seca measuring devices whose settings you want to change.

17-10-01-266-002f/05-2021B

Exporting device list

You can export the device list, for example for documentation purposes, as a .csv file.

1. Click **Export device list**.



   The device list is exported.
2. Save the device list as specified in your institution.

> **NOTE**
> Importing device lists is **not** possible.

Deleting a device

You can clean up the **Device list** by deleting seca measuring devices from the list that have the status **Offline**.

seca measuring devices are displayed as **Offline** under the following conditions:

- Switched off/no power supply
- WiFi connection disconnected
- LAN cable removed

Connection data is saved on the seca measuring device or on the respective **seca 452** interface module. For this reason, the seca measuring device automatically reappears in the **Device list** once it is **Online**.

To delete **Offline** devices from the **Device list**, proceed as follows:

1. In the **Device list**, click the **Offline** device.
2. Click **delete device**.
   The seca measuring device is deleted from the **Device list**.
3. Get the **Offline** device ready for operation if required ➔ Troubleshooting.
   The seca measuring device appears in the **Device list** once it is back **Online**.

> **NOTE**
> If a measuring device has received a new IP address, it will be displayed twice in the **Device list**. Both entries will have the same serial number and the same device name, but different IP addresses. One device will be displayed as **Online**, and one device as **Offline**.
>
> ► Delete the device that is displayed as **Offline**.

17-10-01-266-002f/05-2021B

7.4 Interface module: Updating firmware

NOTE
Integrating software and devices in a PC network containing other devices may lead to previously unknown risks for patients, operators or third parties. It is the responsibility of the operating company to determine, analyze, evaluate, and control these risks.

We recommend updating all the interface modules in a network simultaneously. The following module types can be updated:

- **seca 452** external interface module (not for Version 3.0)
- Internal interface module, e.g. for the **seca 336 i** baby scale

Both interface modules use the same firmware. As a result, you can update both module types in the same working step.

Saving key file and update package (local installation only)

The update package for the interface module is available only as a download. The corresponding link will be sent to you in the course of project implementation. Alternatively, the update package can be found as a download in the Support area at www.seca.com.

You must save key file **aes.key** locally before updating the firmware for the first time. You will be sent this separately. The key file is used to decrypt update packages for the firmware. You do not need a new key file for subsequent firmware updates.

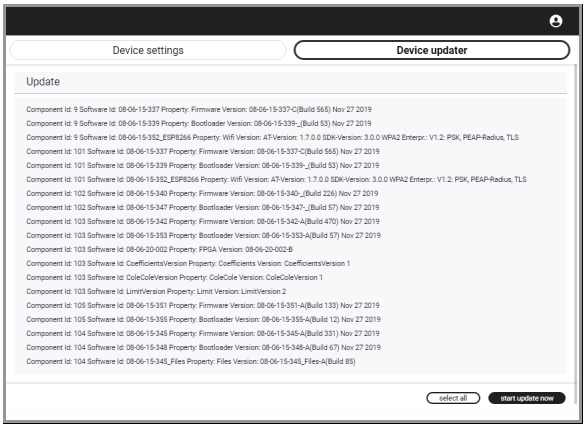
Proceed for the update as follows:

1. Ensure that there are no other update packages in the “C:\ProgramData\seca\seca103\UpdatePackage” folder.
2. Save key file **aes.key** in the “C:\ ProgramData\seca\seca 103” folder.
3. Follow the link you have received and download the update package.
4. Save the update package (zip archive) under C:\ProgramData\seca\seca103\UpdatePackage.

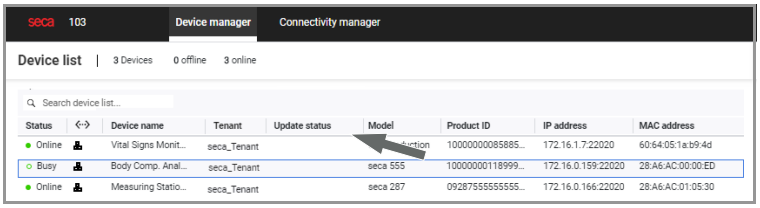
17-10-01-266-002f/05-2021B

Performing firmware update

1. In the **seca connect 103** software, click **Device updater**.
   The **Update** dialog field is displayed.
   The details on the firmware update are displayed in the **Update** dialog field.

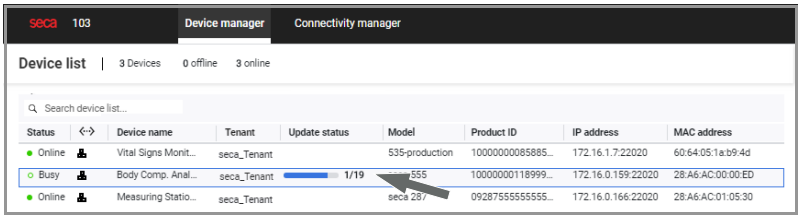


   The **Update status** column appears in the **Device list**.

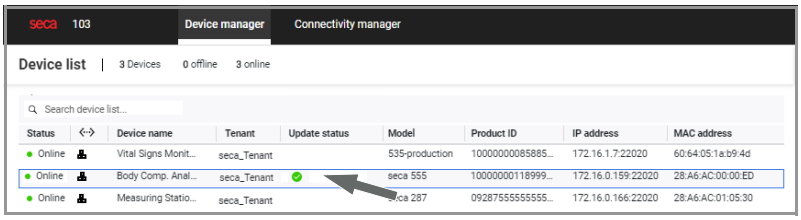


2. In the **Device list**, select devices you would like to update:
   - Individual device: Select device by clicking it
   - Several devices: Select devices with click + Ctrl key
   - Update all devices: Click **select all**
3. Click **start update now**.

   The firmware of all the interface modules selected is updated.



   Updating was successful if the following symbol appears in the **Device list**:



17-10-01-266-002f/05-2021B

7.5 Managing integration modules

➔ Making settings for integration module

➔ Changing integration module

➔ seca TestModule: Barcodes (not for Version 3.0)

➔ QR code for scanner test (character set)

➔ Cerner VitalsLink integration module

➔ Health Level 7 integration module (HL7Module)

➔ seca analytics 125 integration module

To connect seca measuring devices to an EMR system, you have to make settings in the **seca connect 103** software for the integration module which matches the EMR system. You can select one integration module per tenant.

Various integration modules are available depending on the operating form of the **seca connect 103** software.

Integration module	Use	Operating form
seca analytics 125	Connection to the **seca analytics 125** software	Cloud application
Cerner VitalsLink	Connection to Cerner EMR systems with VitalsLink interface	Local installation
HL7Module	Connection to EMR systems with the standard Health Level 7	Local installation
seca TestModule	For test purposes during system set up	Local installation

Making settings for integration module

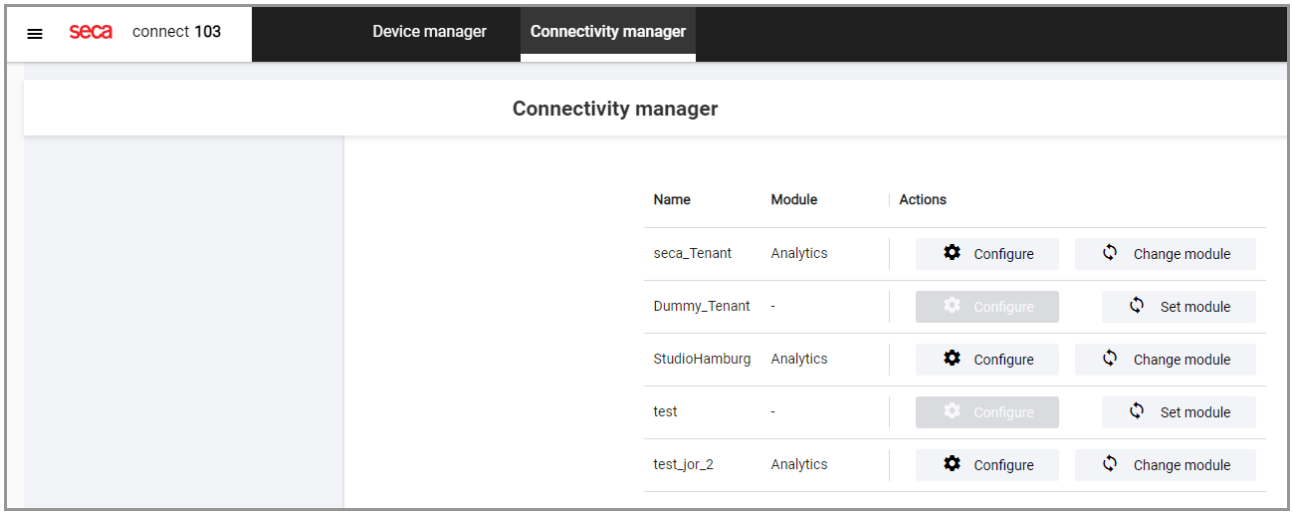
NOTICE!

Malfunction and incorrect data assignment

Incorrect or incomplete settings in the respective EMR system or in the integration modules can lead to malfunction in the overall system or to incorrect assignment of measured results.

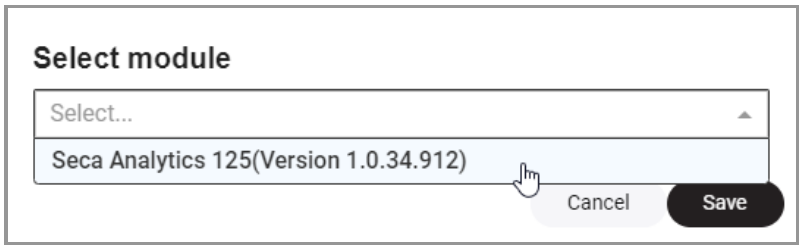
- ► Only make settings for your EMR system in consultation with the manufacturer of your EMR system.

1. If necessary, make the settings directly on your EMR system.
2. In the menu bar, click **Connectivity manager**.
   Connectivity manager view is displayed.



17-10-01-266-002f/05-2021B

3. In the line for the desired tenant, click **Set module**.
   The **Select Module** dialog is displayed.
4. From the dropdown menu, select the desired integration module.



5. Click **Save**.
   The selected integration module is saved.
   The selected integration module is displayed in **Connectivity manager** view.
6. In the line of the tenant you are editing, click **Configure**.
   The **Configure module** dialog is displayed.
7. Make the settings to the parameters of the selected integration module:
   - ➔ Cerner VitalsLink integration module
   - ➔ Health Level 7 integration module (HL7Module)
   - ➔ seca analytics 125 integration module
8. Click **Save**.
   The settings will be saved.
   - The system is ready for operation.

Changing integration module

1. In the menu bar, click **Connectivity manager**.
   Connectivity manager view is displayed.
2. In the line for the desired tenant, click **Change module**.
   The **Select Module** dialog is displayed.
3. From the dropdown menu, select the desired integration module.
4. Click **Save**.
   The settings will be saved.
5. In the line of the tenant you are editing, click **Configure** to configure the new integration module.
   The **Configure module** dialog is displayed.
6. Make the settings to the parameters of the selected integration module:
   - ➔ Cerner VitalsLink integration module
   - ➔ Health Level 7 integration module (HL7Module)
   - ➔ seca analytics 125 integration module
7. Click **Save**.
   The settings will be saved.

seca TestModule: Barcodes (not for Version 3.0)

You can use the following barcodes to perform system tests with the **seca TestModule** integration module. Please contact seca Service if you have any questions on this.

Barcodes for function test with seca TestModule	
Function	**Barcode**
User ID	IESECA

17-10-01-266-002f/05-2021B

Barcodes for function test with seca TestModule	
Function	**Barcode**
Patient ID	FN2222225852
Confirm	secaConfirm

QR code for scanner test (character set)

You can scan the following QR code to test the character set settings of your scanner (for interface modules with firmware from release date 04/10/2019).

QR code for scanner test	
Code	**Description**
	• ASCII codes 33 to 126): !"#$%&'()*+,-./ 0123456789:;<=>?@ABCDEFGHIJKLM-NOPQRSTUVWXYZ[\]^_`abcdefghijklmnopqrstu-vwxyz{|}~ • Correct character set is set on scanner: Workflow LED on device (device-dependent) or on **seca 452** interface module flashes green 5x

Cerner VitalsLink integration module

NOTE

- ► Only make settings in the integration module with support from the manufacturer of your EMR system.
- ► Contact seca Service to make settings to the **Cerner VitalsLink** integration module.

A description of the **Cerner VitalsLink** integration module can be found in the **seca connect 103 Cerner VitalsLink module description** document. Please contact seca Service for this.

Health Level 7 integration module (HL7Module)

NOTE

- ► Only make settings in the integration module with support from the manufacturer of your EMR system.
- ► Contact seca Service to make settings to the Health Level 7 **HL7Module** integration module.

A description of the Health Level 7 integration module can be found in the **seca connect 103 HL7 module description** document. Please contact seca Service for this.

seca analytics 125 integration module

NOTE

- ► Make settings for the integration module only with the support of seca Service.

1. In **Connectivity manager**, click **Configure** in the line for the desired tenant.
   The **Configure module** dialog is displayed.

17-10-01-266-002f/05-2021B

2. Make settings to the parameters:

Topic	Parameter	Description	Setting options
Connection	**Default**	Define settings for the connection	No functionality in Version 3.0 or below
	User		
	Patient		
SCloud API	**Base URL**	URL for the connection to the **seca analytics 125** integration module	• Use outside the USA: https://api.secacloud.com • Use within the USA: https://api.secacloud.com
	Tenant ID	Tenant ID, corresponds to the name on the "<Your seca sCloud Tenant Id>.pem" certificate	Enter the name of the certificate file
	Private key	Upload dialog for "<Your seca sCloud Tenant Id>.pem" certificate file	Upload the certificate file via the upload dialog
Barcode handling	**Optional**		

3. Click **Save**.
   The settings are saved.

17-10-01-266-002f/05-2021B

8. CONNECTING AND INSTALLING seca 452 INTERFACE MODULE

NOTE
Devices not mentioned in this section have an internal interface module or are not compatible ➔ Compatible seca products.

NOTE
seca chair scales and the **seca 703** column scale cannot be retrofitted by the customer. Please contact seca Service to retrofit these models.

8.1 Scope of delivery

The **seca 452** interface module is available in several variants. The complete scope of delivery can be found in the device description included with the **seca 452** variant.

seca 452 product no.	Device type	Models
452 0000 009	Measuring stations	**seca 284**, **seca 285**, **seca 286**, **seca 287**
452 0030 009	Chair scales	**seca 954**, **seca 959**, **seca 963**
452 0040 009	Baby scales	**seca 727**, **seca 757**
452 0050 009	Multifunctional scales	**seca 634**, **seca 635**, **seca 644**, **seca 645**, **seca 656**, **seca 657**, **seca 664**, **seca 665**, **seca 667**, **seca 674**, **seca 675**, **seca 676**, **seca 677**, **seca 684**, **seca 685**
	Column scales	**seca 703**, **seca 704**
452 0060 009	Measuring stations	**seca 787**

17-10-01-266-002f/05-2021B

8.2 Selecting a location

The **seca 452** interface module can be mounted on the wall or placed next to the scale. For column scales and measuring stations, the **seca 452** interface module is installed directly on the measuring device.

► Take the following into account when you select the location for the **seca 452** interface module:
- For wall installation: At the installation point, there must be no cables in the wall that could be drilled into.
- Fluids cannot penetrate into the connections.
- Cables are not kinked and not under mechanical strain.
- Cables are sufficiently long to allow the measuring device to be moved or tilted (for cleaning, for example).
- The scanner cable is long enough to be able to operate the scanner.
- LEDs can be read easily.

NOTICE!

Damage to device due to incorrect device set up

If the original location of the measuring device changes due to retrofitting, the device must be correctly set up at the new location.

► Follow the information in the section “Setting up the device” in the corresponding instructions for use.

17-10-01-266-002f/05-2021B

8.3 Retrofitting 757/727 baby scales

➔ Preparing the scale

➔ Connecting a seca 452 interface module

➔ Mounting the seca 452 interface module on the wall

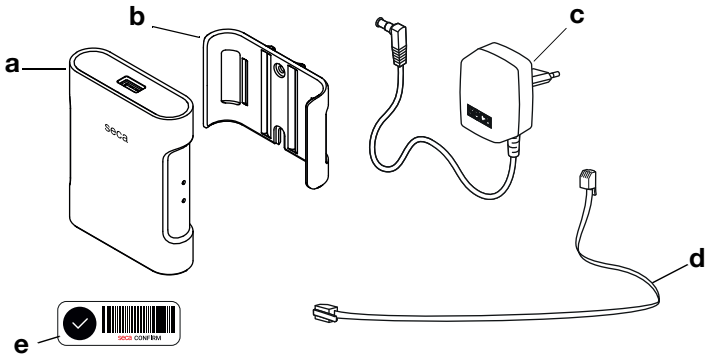
➔ Connecting the seca 454 mobile power supply

➔ Performing final work

NOTE
Retrofitting of **seca 757**/**seca 727** baby scales on **seca 402/403** Baby Scale Carts: ➔ Retrofitting 757/727 baby scales to 402/403 Baby Scale Carts

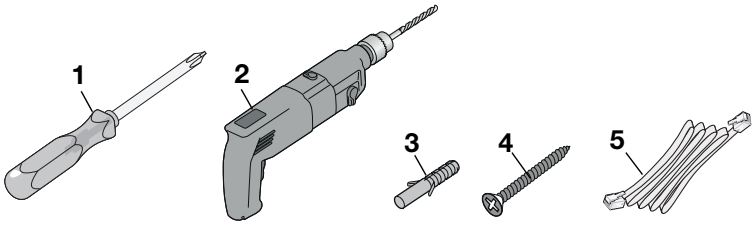
NOTE
When using the **seca 454** mobile power supply: Instructions for fitting the parts for **seca 454** (product no. 454 0000 009) can be found in the device description included with the product.

You need the following parts of **seca 452**, product no. 452 0040 009:



Item	Component	Pcs.
a	**seca 452** interface module	1
b	Bracket (for wall installation)	1
c	Plug-in power supply unit	1
d	Connecting cable	1
e	Label with Confirm barcode	1

Depending on the installation and connection version, you may need the following tools (not included in the scope of delivery):

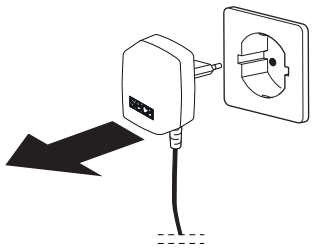


Item	Component	Size	Pcs.
1	Cross-head screwdriver	PH 2	1
2	Drill	Ø 5 mm	1
3	Wall plug	Ø 5 mm	2
4	Cross-head screw	Ø 3.5-4 mm	2
5	LAN cable	n/a	1

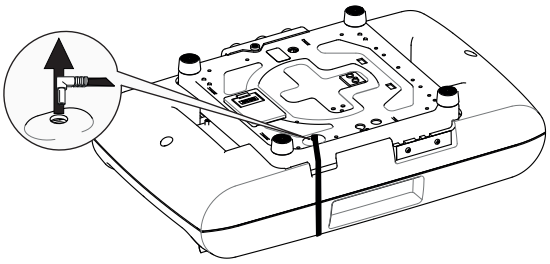
17-10-01-266-002f/05-2021B

Preparing the scale

1. Clean and disinfect the scale as described in the respective instructions for use.
2. Switch off the scale.
3. Disconnect the plug-in power supply unit from the power supply socket.

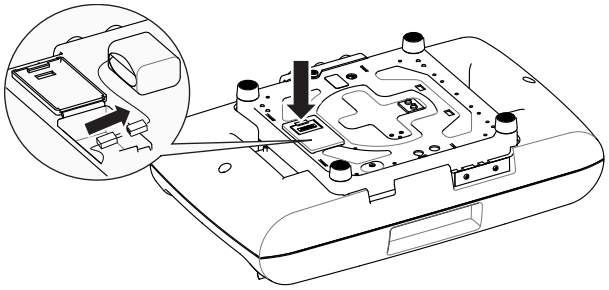


4. Carefully turn the scale over.
5. Pull the power cable out of the scale.



NOTE
After the retrofit, the scale is supplied with power via the **seca 452** interface module.

6. Remove the battery block:
   a) Press the latch of the battery compartment in the direction of the word “Battery” printed on the compartment
   b) Open the lid
   c) Disconnect the battery block from the connector cable
   d) Remove the battery block and close the lid again

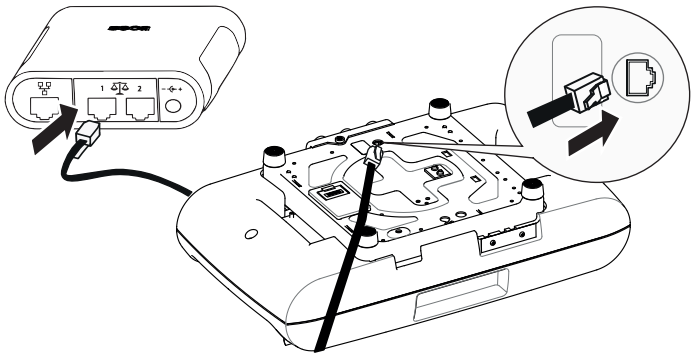


7. Store the plug-in power supply unit and the battery block or dispose of them properly (➔ Disposal).

17-10-01-266-002f/05-2021B

Connecting a seca 452 interface module

1. Connect the scale to the **seca 452** interface module:
   a) Connect the connecting cable to interface 1 of the **seca 452** interface module
   b) Connect the connecting cable to the interface of the scale

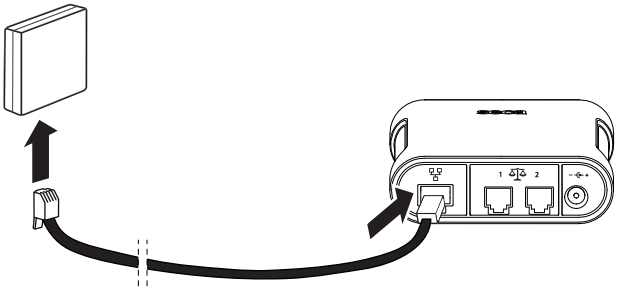


   c) Turn the scale over

   You have the following options for continuing:

   - Communication via LAN (stationary use only): continue at step 2.
   - For communication via WiFi, continue at step 3.

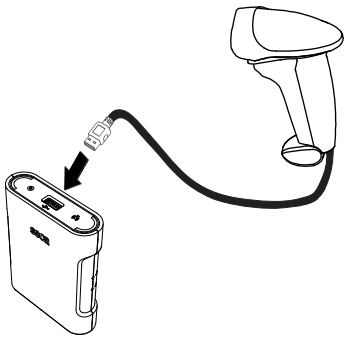
2. Connect a LAN cable to the **seca 452** interface module:
   a) Connect the LAN cable to the LAN interface of the **seca 452** interface module
   b) Connect the LAN cable to the network socket



NOTICE!
Malfunction caused by an incompatible scanner
Incompatible scanners can lead to faulty data transmission or system malfunction.

- Only use scanners that are listed in the section ➔ Optional accessories and spare parts.

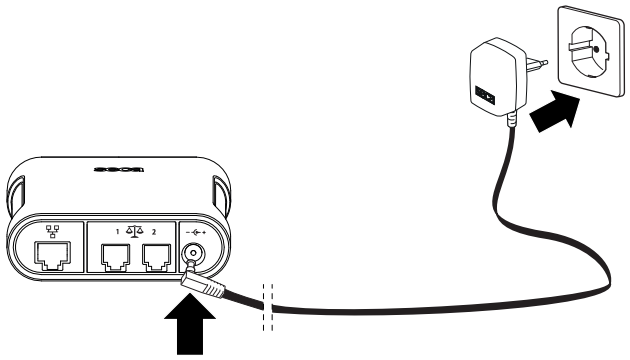
3. Connect a scanner to the **seca 452** interface module:
   a) Connect the scanner cable to the USB interface of the **seca 452** interface module
   b) Attach the scanner to the scanner bracket (if present)



17-10-01-266-002f/05-2021B

4. Apply the label with the Confirm barcode to a place you can reach easily with the scanner.
   You have the following options for continuing:
   - Scale powered by a plug-in power supply unit (stationary use only): continue at step 5.
   - Scale powered by a mobile power supply: continue at ➔ Connecting the seca 454 mobile power supply

   NOTICE!
   Damage to device due to incorrect power supply unit
   The plug-in power supply unit of the scale is not suitable for operation with the **seca 452** interface module.
   - Only use the seca plug-in power supply unit included in the scope of delivery of **seca 452** (product no. 452 0040 009).
5. Connect the plug-in power supply unit to the **seca 452** interface module:
   a) Connect the power cable to the power supply connection of the **seca 452** interface module
   b) Insert the plug-in power supply unit into a power supply socket

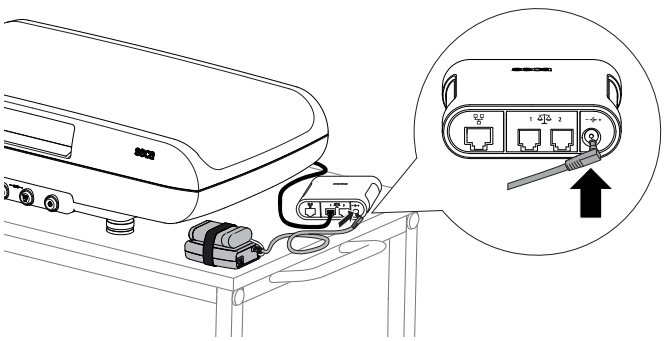


You have the following options for continuing:
- **seca 452** interface module positioned next to the scale: continue at ➔ Performing final work
- Mounting the **seca 452** interface module on the wall: continue at ➔ Mounting the seca 452 interface module on the wall

Connecting the seca 454 mobile power supply

NOTE
Instructions for fitting the parts for **seca 454** (product no. 454 0000 009) can be found in the device description included with the product.

1. Fit and charge the **seca 454** mobile power supply as described in the **seca 454** device description.
2. Connect the power cable to the power supply connection of the **seca 452** interface module.



3. Perform the final work necessary, ➔ Performing final work.

17-10-01-266-002f/05-2021B

8.4 Retrofitting 757/727 baby scales to 402/403 Baby Scale Carts

➔ Fitting the seca 452 interface module

➔ Preparing the scale

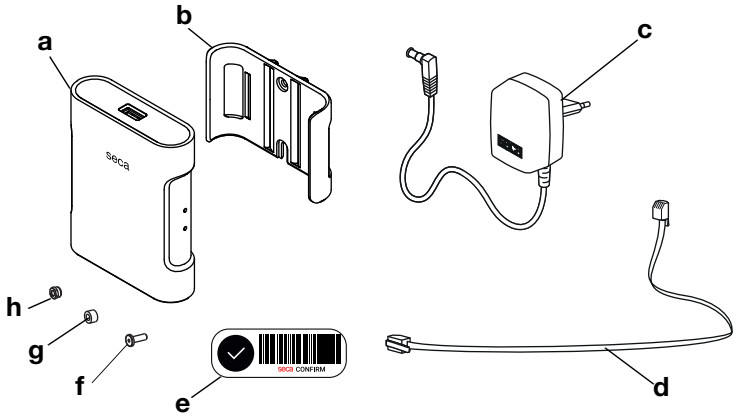
➔ Connecting a seca 452 interface module

➔ Connecting the seca 454 mobile power supply

➔ Performing final work

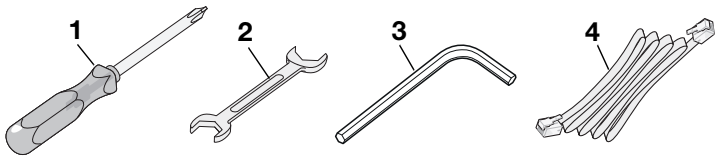
NOTE
This fitting variant is for use with the **seca 454** mobile power supply. Instructions for fitting the parts for **seca 454** (product no. 454 0010 009) can be found in the device description included with the product.

You need the following parts of **seca 452**, product no. 452 0040 009:



Item	Component	Pcs.
a	**seca 452** interface module	1
b	Bracket	1
c	Plug-in power supply unit	1
d	Connecting cable	1
e	Label with Confirm barcode	1
f	Hex head socket screw	2
g	Spacer sleeve	2
h	Nut	2

Depending on the installation and connection version, you may need the following tools (not included in the scope of delivery):

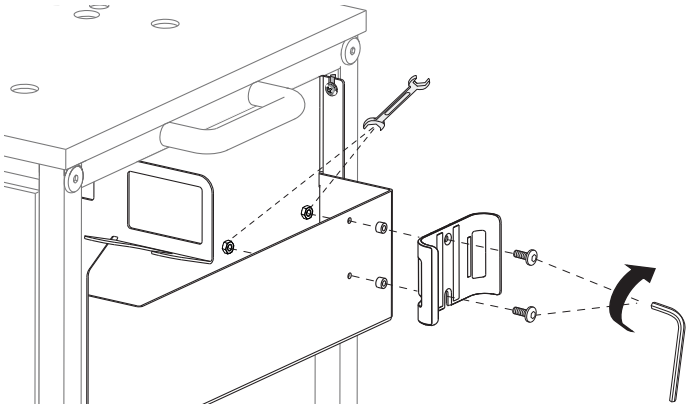


Item	Component	Size
1	Cross-head screwdriver	PH 1
2	Wrench	Size 7
3	Hex socket wrench	Size 2.0
4	LAN cable	n/a

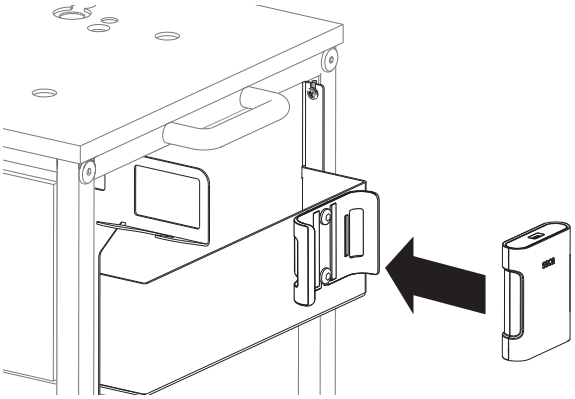
17-10-01-266-002f/05-2021B

Fitting the seca 452 interface module

1. Clean and disinfect the scale and the Baby Scale Cart as described in the respective instructions for use.
2. Screw the bracket to the storage compartment using two hex head socket screws, two spacer sleeves and two nuts.

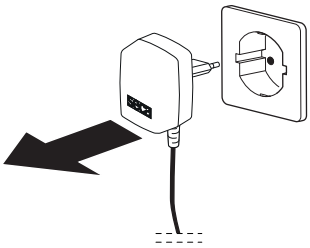


3. Press the **seca 452** interface module into the bracket.

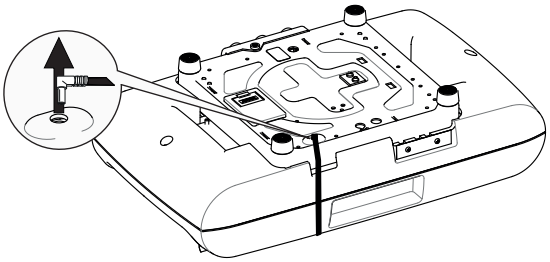


Preparing the scale

1. Switch off the scale.
2. Disconnect the plug-in power supply unit from the power supply socket.



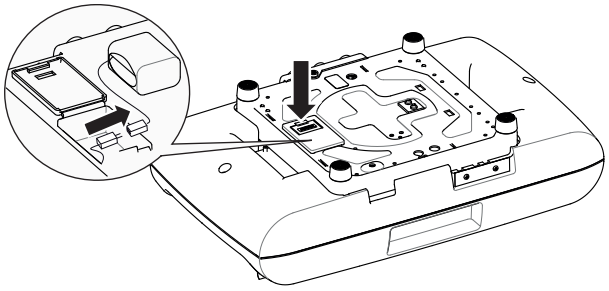
3. Carefully turn the scale over.
4. Pull the power cable out of the scale.



17-10-01-266-002f/05-2021B

NOTE
After the retrofit, the scale is supplied with power via the **seca 452** interface module.

5. Remove the battery block:
   a) Press the latch of the battery compartment in the direction of the word “Battery” printed on the compartment
   b) Open the lid
   c) Disconnect the battery block from the connector cable
   d) Remove the battery block and close the lid again

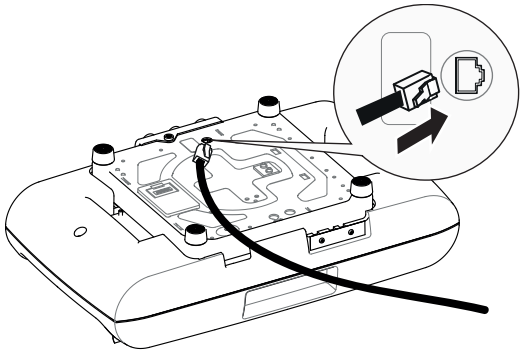


6. Store the plug-in power supply unit and the battery block or dispose of them properly (➔ Disposal).

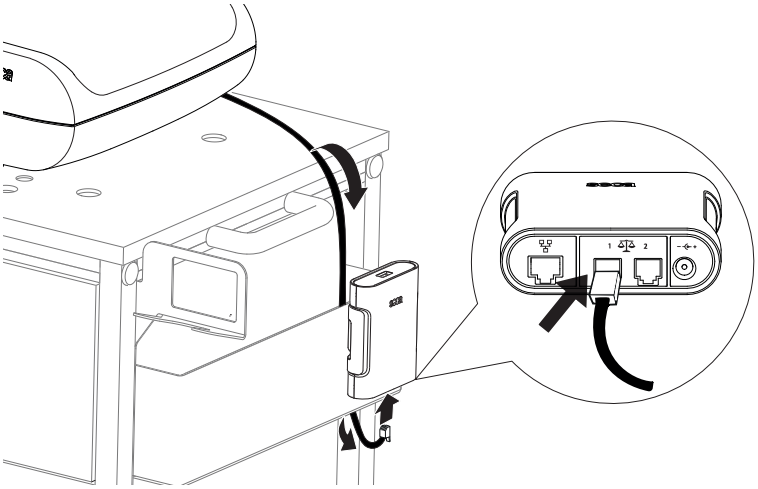
17-10-01-266-002f/05-2021B

Connecting a seca 452 interface module

1. Connect the scale to the **seca 452** interface module:
   a) Connect the connecting cable to the interface of the scale



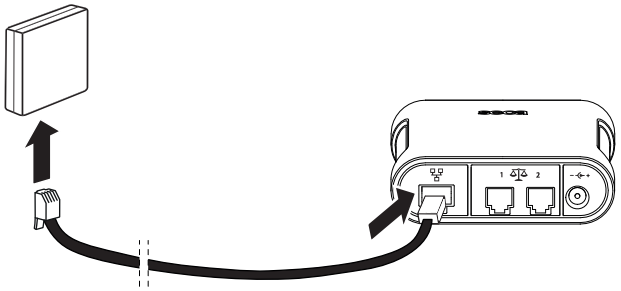
   b) Turn the scale over
   c) Guide the connecting cable through the recess in the storage compartment of the Baby Scale Cart
   d) Connect the connecting cable to interface 1 of the **seca 452** interface module



You have the following options for continuing:

- Communication via LAN (stationary use only): continue at step 2.
- For communication via WiFi, continue at step 3.

2. Connect a LAN cable to the **seca 452** interface module:
   a) Connect the LAN cable to the LAN interface of the **seca 452** interface module
   b) Connect the LAN cable to the network socket



17-10-01-266-002f/05-2021B

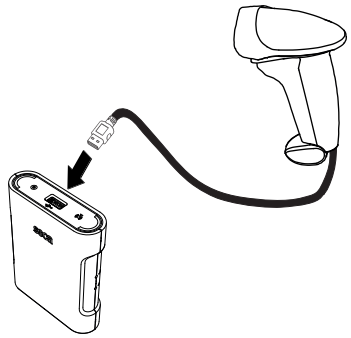
NOTICE!

Malfunction caused by an incompatible scanner

Incompatible scanners can lead to faulty data transmission or system malfunction.

- Only use scanners that are listed in the section ➔ Optional accessories and spare parts.

3. Connect a scanner to the **seca 452** interface module:
   a) Connect the scanner cable to the USB interface of the **seca 452** interface module
   b) Attach the scanner to the scanner bracket



4. Apply the label with the Confirm barcode to a place you can reach easily with the scanner.
   You have the following options for continuing:
   - Scale powered by a plug-in power supply unit (stationary use only): continue at step 5.
   - Scale powered by a mobile power supply: continue at ➔ Connecting the seca 454 mobile power supply

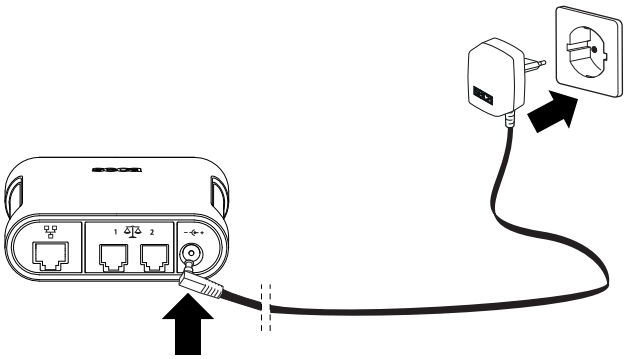
NOTICE!

Damage to device due to incorrect power supply unit

The plug-in power supply unit of the scale is not suitable for operation with the **seca 452** interface module.

- Only use the seca plug-in power supply unit included in the scope of delivery of **seca 452** (product no. 452 0040 009).

5. Connect the plug-in power supply unit to the **seca 452** interface module:
   a) Connect the power cable to the power supply connection of the **seca 452** interface module
   b) Insert the plug-in power supply unit into a power supply socket



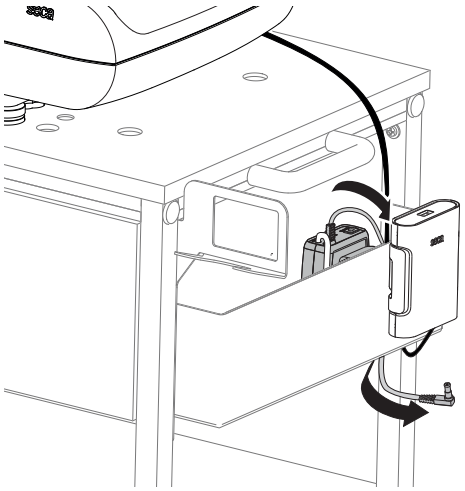
6. Perform the necessary final work, ➔ Performing final work.

17-10-01-266-002f/05-2021B

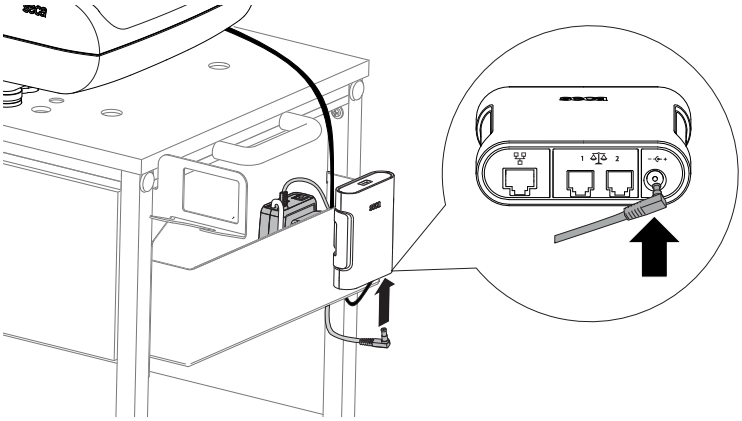
Connecting the seca 454 mobile power supply

NOTE
Instructions for fitting the parts for **seca 454** (product no. 454 0010 009) can be found in the device description included with the product.

1. Fit and charge the **seca 454** mobile power supply as described in the **seca 454** device description.
2. Guide the power cable of **seca 454** through the recess in the storage compartment of the Baby Scale Cart.



3. Connect the power cable to the power supply connection of the **seca 452** interface module.



4. Perform the necessary final work, ➔ Performing final work.

17-10-01-266-002f/05-2021B

8.5 Retrofitting 635/634, 657/656, 675/674 multifunctional scales (models with cabled remote display)

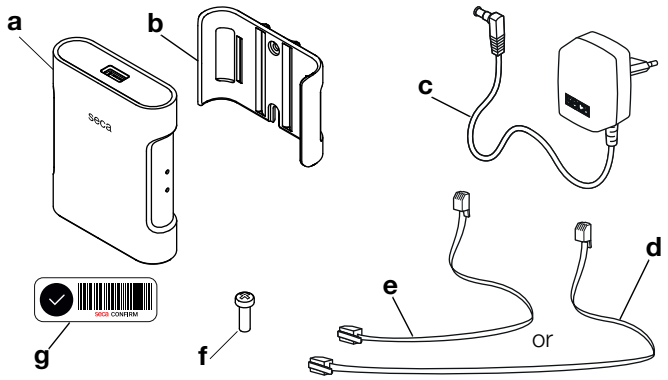
➔ Preparing the scale

➔ Connecting a seca 452 interface module

➔ Mounting the seca 452 interface module on the wall

➔ Performing final work

You need the following parts of **seca 452**, product no. 452 0050 009:

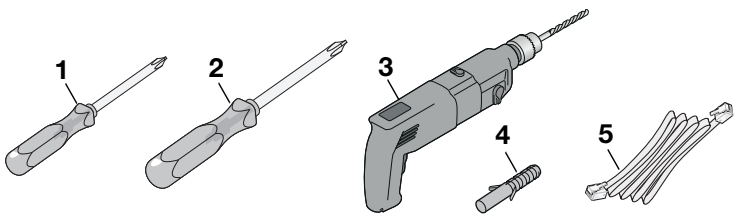


Item	Component	Pcs.
a	**seca 452** interface module	1
b	Bracket (for wall installation)	1
c	Plug-in power supply unit	1
d	Connecting cable, long	1
e	Connecting cable, short	1
f	Cross-head screw (for wall installation)	2
g	Label with Confirm barcode	1

NOTE

- The **seca 452** interface module is connected between the cabled remote display and the scale. Select the short or long connecting cable, depending on the distance of the cabled remote display from the scale.
- The scanner brackets from the scope of delivery of **seca 452** are not intended for wall installation. Use a suitable scanner bracket from the scanner manufacturer. Follow the instructions in the respective installation instructions.

Depending on the installation and connection version, you may need the following tools (not included in the scope of delivery):

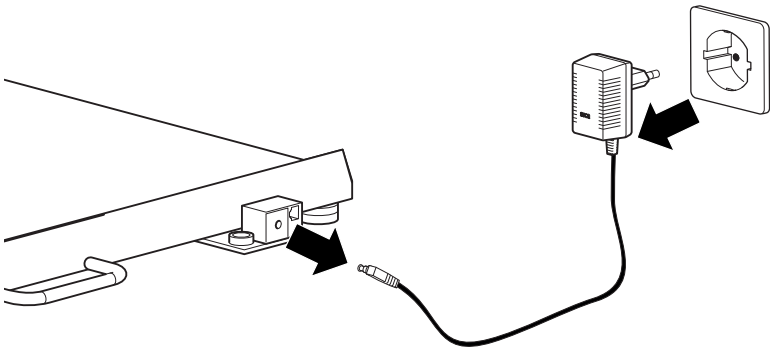


Item	Component	Size	Pcs.
1	Cross-head screwdriver	PH 1	1
2	Cross-head screwdriver	PH 2	1
3	Drill	Ø 5 mm	1
4	Wall plug	Ø 5 mm	2
5	LAN cable	n/a	1

17-10-01-266-002f/05-2021B

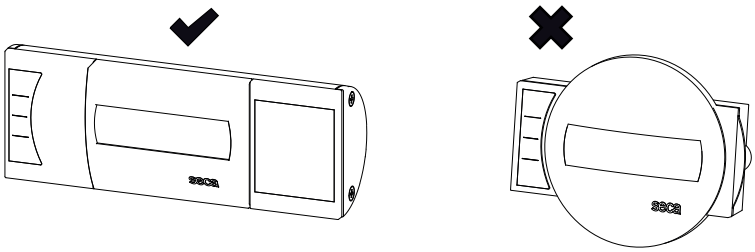
Preparing the scale

1. Clean and disinfect the scale as described in the respective instructions for use.
2. Switch off the scale.
3. Disconnect the plug-in power supply unit from the power supply socket.
4. Pull the power cable out of the scale.

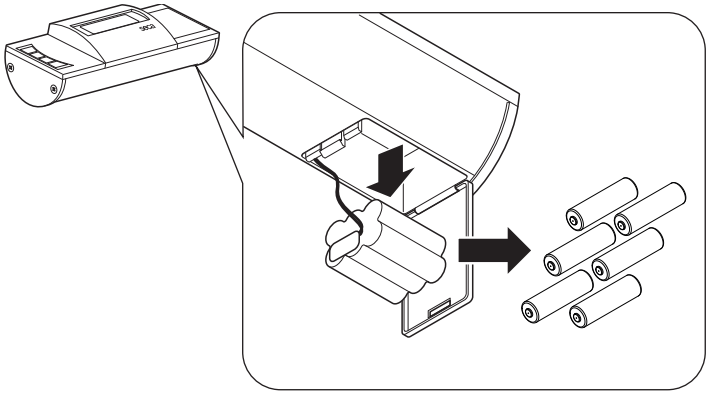


NOTE
After the retrofit, the scale is supplied with power via the **seca 452** interface module.

5. Only for models **seca 635** and **seca 634** (indicated in the following figure by a checkmark): Remove the batteries from the cabled remote display:



a) Press the latch of the battery compartment
b) Open the lid of the battery compartment
c) Remove batteries from the battery holder
d) Put battery holder back and close lid again

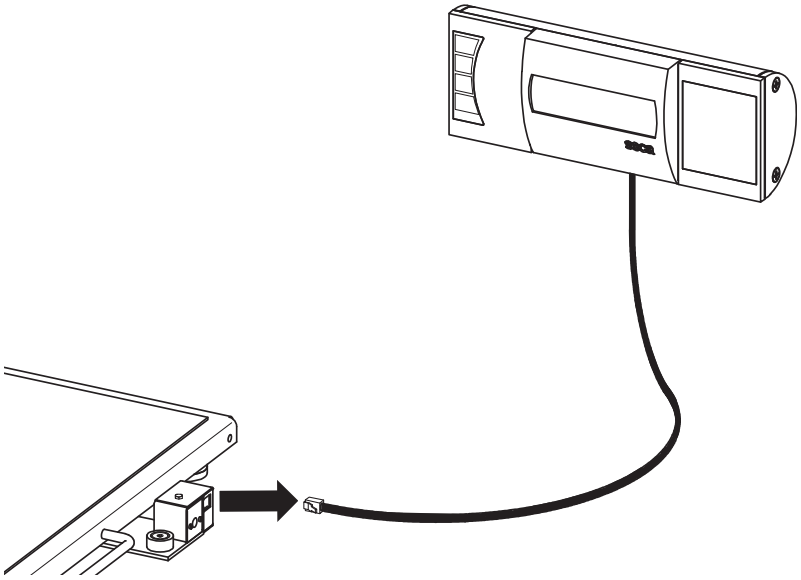


6. Store the plug-in power supply unit and the batteries or dispose of them properly (➔ Disposal).

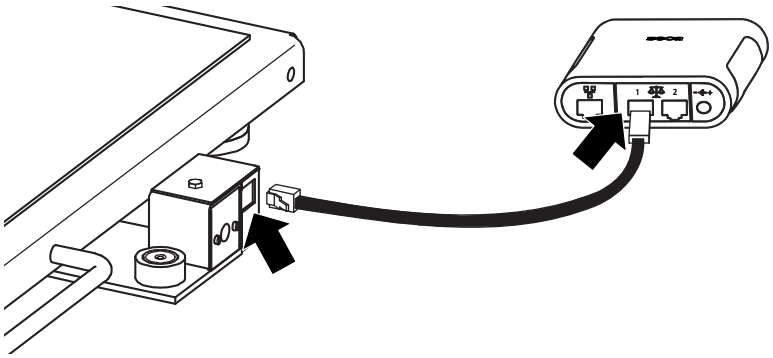
17-10-01-266-002f/05-2021B

Connecting a seca 452 interface module

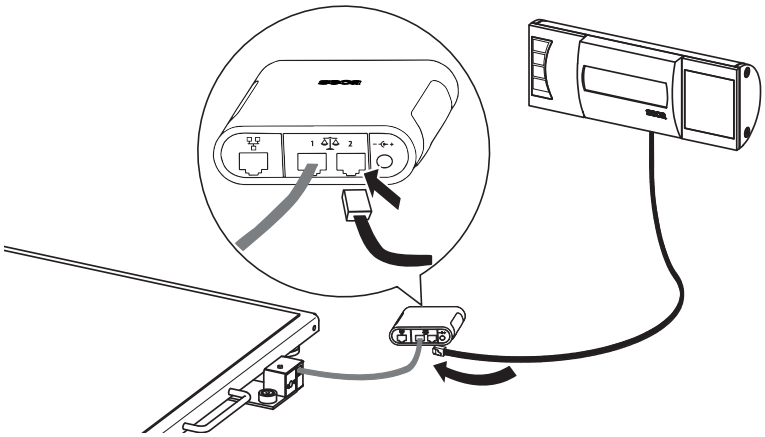
1. Connect the scale to the **seca 452** interface module:
   a) Remove cable of cabled remote display from the scale



   b) Connect the connecting cable to the connection of the electronics box
   c) Connect the connecting cable to interface 1 of the **seca 452** interface module



   d) Connect cable of cabled remote display to interface 2 of the **seca 452** interface module

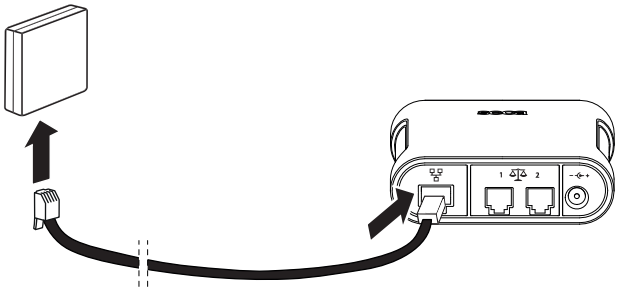


You have the following options for continuing:

- For communication via LAN, continue at step 2.
- For communication via WiFi, continue at step 3.

17-10-01-266-002f/05-2021B

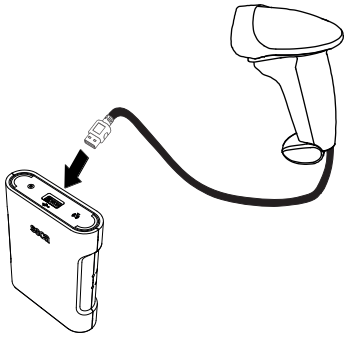
2. Connect a LAN cable to the **seca 452** interface module:
   a) Connect the LAN cable to the LAN interface of the **seca 452** interface module
   b) Connect the LAN cable to the network socket



NOTICE!
Malfunction caused by an incompatible scanner
Incompatible scanners can lead to faulty data transmission or system malfunction.

- Only use scanners that are listed in the section ➔ Optional accessories and spare parts.

3. Connect a scanner to the **seca 452** interface module:
   a) Connect the scanner cable to the USB interface of the **seca 452** interface module
   b) Attach the scanner to the scanner bracket (if present)



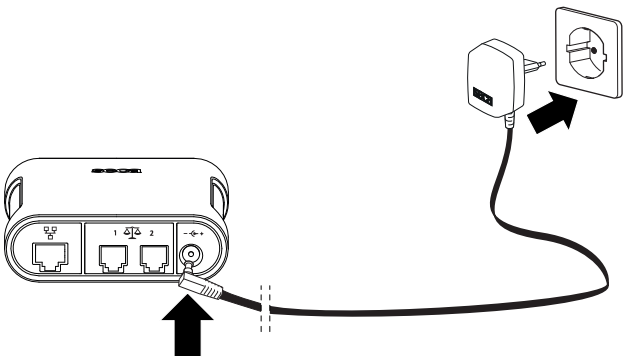
4. Apply the label with the Confirm barcode to a place you can reach easily with the scanner.

NOTICE!
Damage to device due to incorrect power supply unit
The plug-in power supply unit of the scale is not suitable for operation with the **seca 452** interface module.

- Only use the plug-in power supply unit included in the scope of delivery of **seca 452** (product no. 452 0050 009).

17-10-01-266-002f/05-2021B

5. Connect the plug-in power supply unit to the **seca 452** interface module:
   a) Connect the power cable to the power supply connection of the **seca 452** interface module
   b) Insert the plug-in power supply unit into a power supply socket



You have the following options for continuing:

- **seca 452** interface module positioned next to the scale: continue at ➔ Performing final work
- Mounting the **seca 452** interface module on the wall: continue at ➔ Mounting the seca 452 interface module on the wall

17-10-01-266-002f/05-2021B

8.6 Retrofitting 645/644, 665/664, 667, 677/676, 685/684 multifunctional scales (models with fitted display)

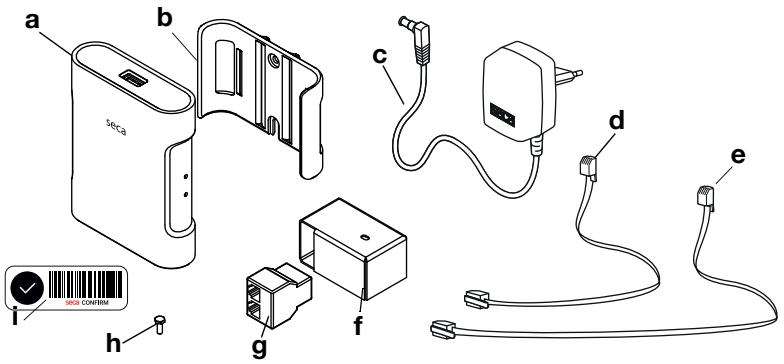
➔ Preparing the scale

➔ Connecting a seca 452 interface module

➔ Mounting the seca 452 interface module on the wall

➔ Performing final work

You need the following parts of **seca 452**, product no. 452 0050 009:

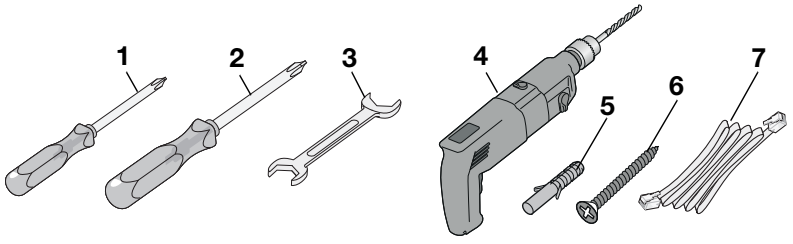


Item	Component	Pcs.
a	**seca 452** interface module	1
b	Bracket (for wall installation)	1
c	Plug-in power supply unit	1
d	Connecting cable, short	1
e	Connecting cable, long	1
f	Adapter housing for Y adapter	1
g	Y adapter	1
h	Hexagon bolt	1
i	Label with Confirm barcode	1

NOTE

The scanner brackets from the scope of delivery of **seca 452** are not intended for wall installation. Use a suitable scanner bracket from the scanner manufacturer. Follow the instructions in the respective installation instructions.

Depending on the installation and connection version, you may need the following tools (not included in the scope of delivery):



Item	Component	Size	Pcs.
1	Cross-head screwdriver	PH 1	1
2	Cross-head screwdriver	PH 2	1
3	Wrench	Size 5.5	1
4	Drill	Ø 5 mm	1

17-10-01-266-002f/05-2021B

Item	Component	Size	Pcs.
5	Cross-head screw	Ø 3.5-4 mm	2
6	Wall plug	Ø 5 mm	2
7	LAN cable	n/a	1

NOTICE!

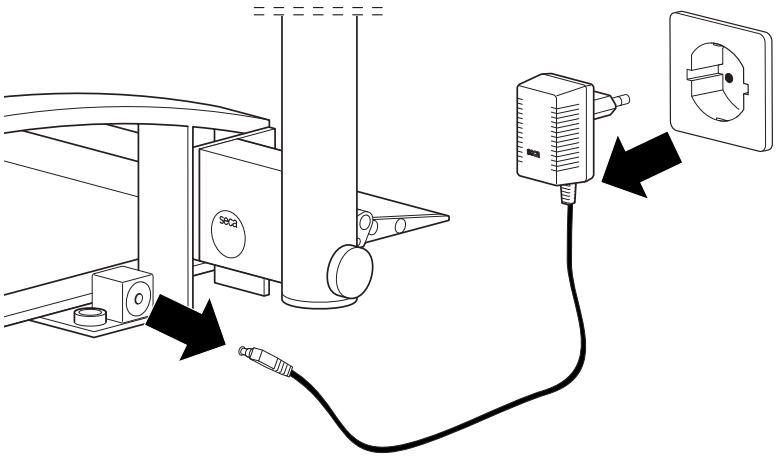
Incorrect measurement as a result of force shunt

If the accessories are fitted directly to the scale, faulty measurements can result.

- ► Do not attach a scanner bracket to the scale.
- ► Do not attach the **seca 452** interface module to the scale.

Preparing the scale

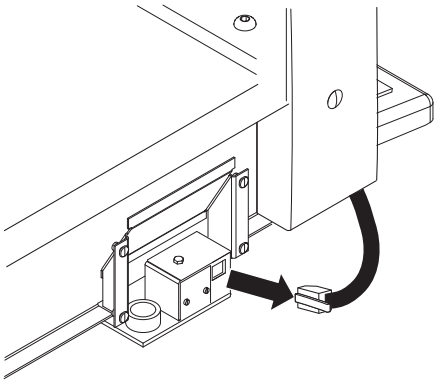
1. Clean and disinfect the scale as described in the respective instructions for use.
2. Switch off the scale.
3. Disconnect the plug-in power supply unit from the power supply socket.
4. Pull the power cable out of the scale.



NOTE

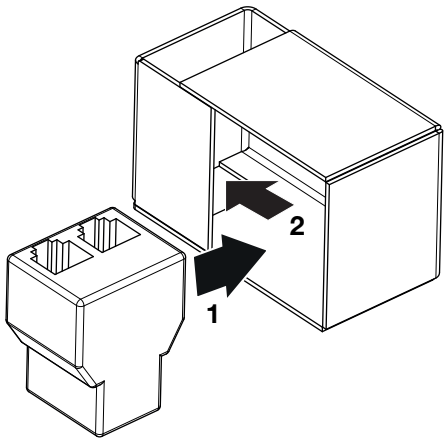
After the retrofit, the scale is supplied with power via the **seca 452** interface module.

5. Only for models **seca 684** and **seca 685**: Pull the display cable out of the scale.

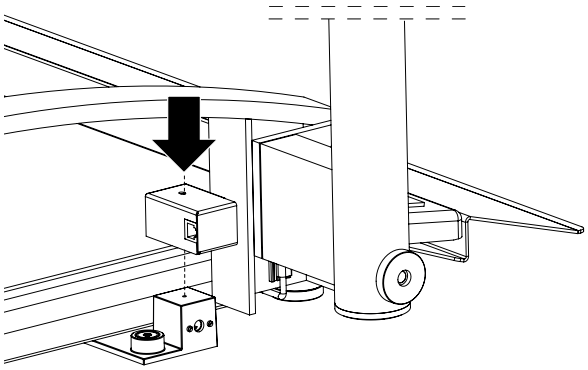


17-10-01-266-002f/05-2021B

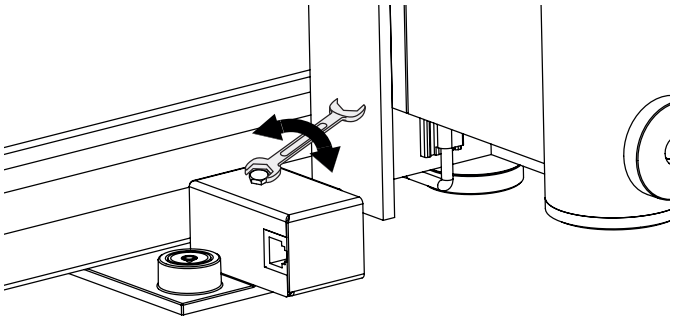
6. Assemble the Y adapter:
   a) Insert Y adapter into the adapter housing (1) and position according to the following figure (2)



   b) Turn adapter housing over and set it on the connection block of the scale



   c) Put hexagon bolt into the adapter housing and tighten with the wrench



17-10-01-266-002f/05-2021B

CAUTION!
Personal injury, damage to device
In the raised position, the scale is not steady.

- ► Use a second person to lift and hold the scale.
- ► If the scale needs to be held in a raised position for an extended period, secure it with suitable means to prevent it from falling over.

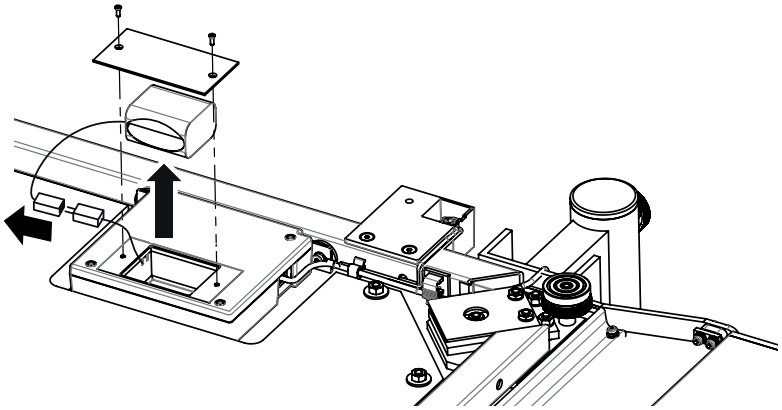
CAUTION!
Personal injury, damage to device
For some models of the scale, a folding seat is installed. Fingers can get trapped or the scale can be damaged if the folding seat is not folded up and secured.

- ► Fold the folding seat up and fold the legs of the seat in completely.
- ► Secure the folding seat with the locking bar.
- ► Follow the information in the instructions for use for the device.

7. Lift the scale carefully so that the underneath of the weighing platform is accessible.

NOTE
For **seca 676**, **seca 677**, **seca 684** and **seca 685**: Skip the following step and continue at step 9.

8. Remove the battery block:
   a) Loosen the screws of the battery compartment
   b) Remove the lid of the battery compartment
   c) Remove battery block from the battery compartment and pull out the connector cable
   d) Screw the lid onto the battery compartment



9. Store the plug-in power supply unit and the battery block (if present) or dispose of them properly (➔ Disposal).

17-10-01-266-002f/05-2021B

Connecting a seca 452 interface module

NOTICE!

Malfunction due to error in installation

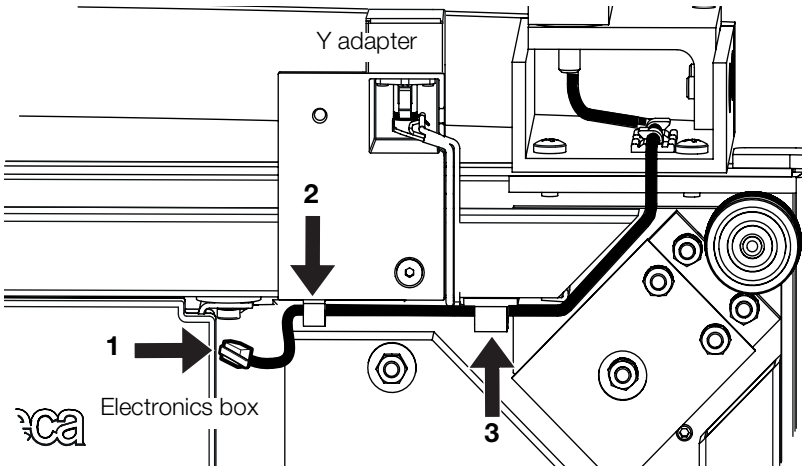
If cables are strained during installation, e. g. with sharp bends or kinked connectors, this may result in faulty displays and failure of the display.

- ► Route all cables to prevent sharp bends and kinked connectors.
- ► Provide strain relief by routing all cables in the relevant holders.

NOTE

The following illustration of the underneath of the scale is an example. The cable routing may differ slightly depending on the model. The principle for the connection is the same for all models. Orient yourself by the cable connected to the electronics box.

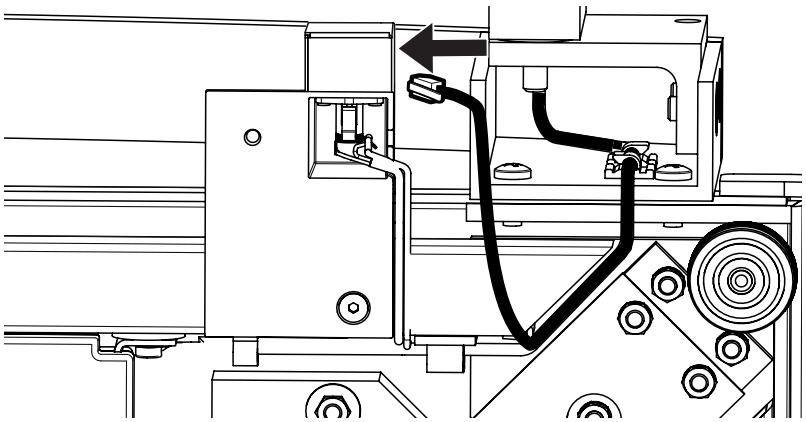
1. Connect the scale to the Y adapter:
   a) Remove the display cable from the electronics box (1) and from the cable clips (2, 3)



NOTE

For the **seca 684** and **seca 685** models: The display cable in the next step is the cable from the display column that you have already removed from the scale in section ➔ Preparing the scale. The cable that you have removed from the electronics box (step 1a) is not connected again.

b) Connect the display cable to the upper connection of the Y adapter

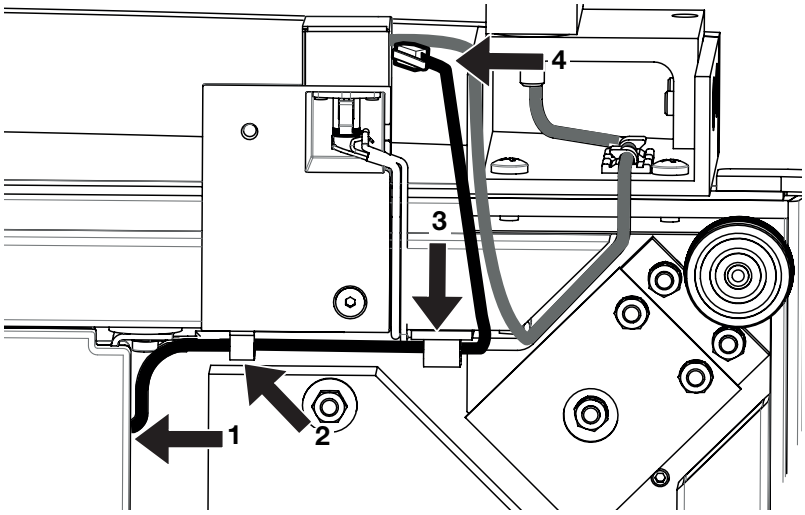


17-10-01-266-002f/05-2021B

c) Connect the short connecting cable to the electronics box (1)

d) Secure the cable in the cable clips (2, 3)

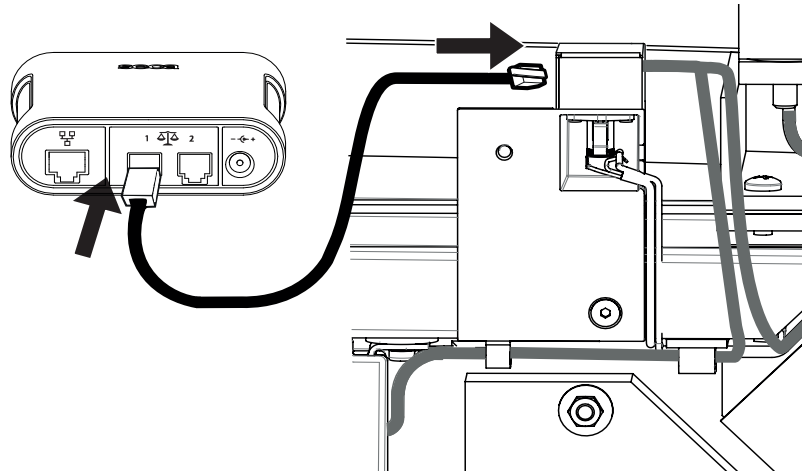
e) Connect the short connecting cable to the lower connection of the Y adapter (4)



2. Place the scale on the ground horizontally.
3. Connect the scale to the **seca 452** interface module:

   a) Connect the long connecting cable to the connection of the Y adapter

   b) Connect the long connecting cable to interface 1 of the **seca 452** interface module

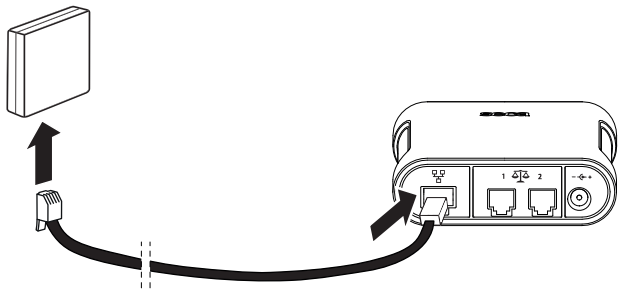


You have the following options for continuing:

- For communication via LAN, continue at step 4.
- For communication via WiFi, continue at step 5.

17-10-01-266-002f/05-2021B

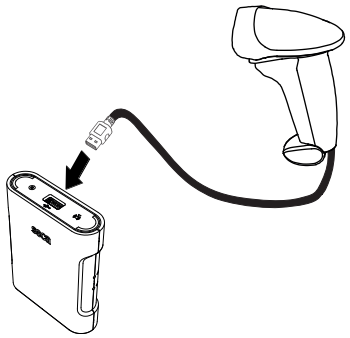
4. Connect a LAN cable to the **seca 452** interface module:
    a) Connect the LAN cable to the LAN interface of the **seca 452** interface module
    b) Connect the LAN cable to the network socket



NOTICE!
Malfunction caused by an incompatible scanner
Incompatible scanners can lead to faulty data transmission or system malfunction.

- Only use scanners that are listed in the section ➔ Optional accessories and spare parts.

5. Connect a scanner to the **seca 452** interface module:
    a) Connect the scanner cable to the USB interface of the **seca 452** interface module
    b) Attach the scanner to the scanner bracket (if present)



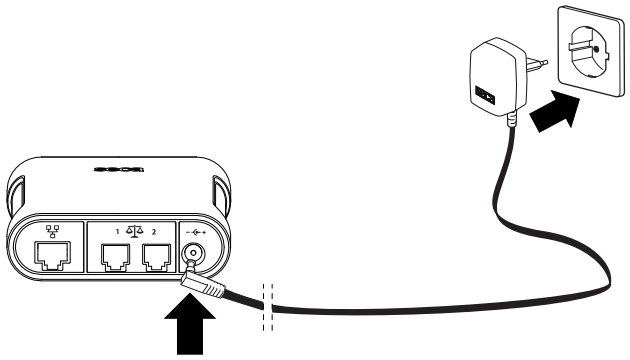
6. Apply the label with the Confirm barcode to a place you can reach easily with the scanner.

NOTICE!
Damage to device due to incorrect power supply unit
The plug-in power supply unit of the scale is not suitable for operation with the **seca 452** interface module.

- Only use the plug-in power supply unit included in the scope of delivery of **seca 452** (product no. 452 0050 009).

17-10-01-266-002f/05-2021B

7. Connect the plug-in power supply unit to the **seca 452** interface module:
   a) Connect the power cable to the power supply connection of the **seca 452** interface module
   b) Insert the plug-in power supply unit into a power supply socket



You have the following options for continuing:

- **seca 452** interface module positioned next to the scale: continue at ➔ Performing final work
- Mounting the **seca 452** interface module on the wall: continue at ➔ Mounting the seca 452 interface module on the wall

NOTICE!
Incorrect measurement as a result of force shunt
If the accessories are fitted directly to the scale, faulty measurements can result.

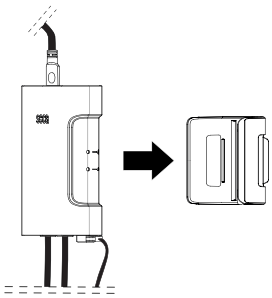
- Do not attach the **seca 452** interface module to the scale.

17-10-01-266-002f/05-2021B

8.7 Mounting the seca 452 interface module on the wall

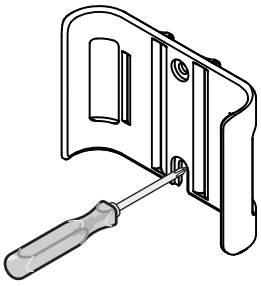
Proceed as follows to mount the **seca 452** interface module on the wall:

1. Press the wired **seca 452** interface module into the bracket.



2. Determine the optimal position on the wall according to the specifications in the section ➔ Selecting a location.
3. Mark the drill holes on the wall:
   a) Tilt the **seca 452** interface module forward and mark the position of the upper hole of the bracket with a screwdriver or marker

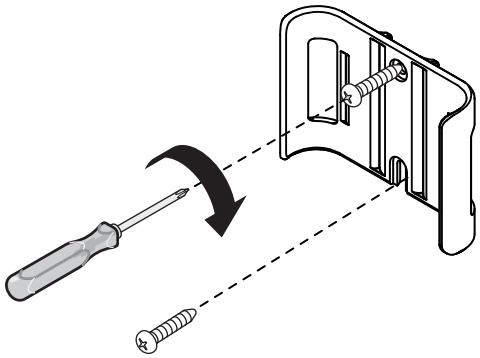
   b) Remove the **seca 452** interface module from the bracket
   c) Place the bracket on the wall so that the marking is located in the middle of the upper hole
   d) Mark the position in the lower hole of the bracket



4. Drill the holes with a drill bit suitable for the wall material.
5. Use wall plugs suitable for the wall material.

17-10-01-266-002f/05-2021B

6. Screw the brackets securely to the wall with two cross-head screws.



7. Press the wired **seca 452** interface module into the bracket.
8. Perform the necessary final work, ➔ Performing final work.

8.8 Retrofitting 704 column scales

➔ Preparing the scale

➔ Fitting the seca 452 interface module

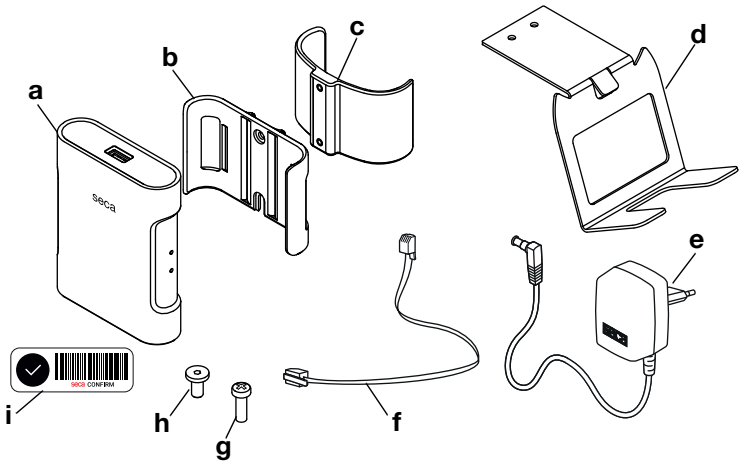
➔ Fitting the scanner bracket

➔ Connecting a seca 452 interface module

➔ Performing final work

NOTE
The **seca 703** column scale cannot be retrofitted by the customer. Please contact seca Service to retrofit the **seca 703**.

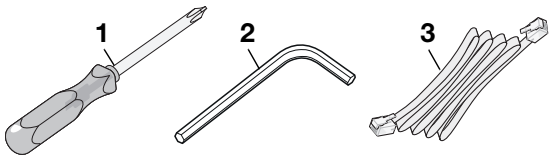
You need the following parts of **seca 452**, product no. 452 0050 009:



Item	Component	Pcs.
a	**seca 452** interface module	1
b	Bracket	1
c	Column bracket	1
d	Scanner bracket	1
e	Plug-in power supply unit	1
f	Connecting cable, short	1
g	Cross-head screw	2
h	Hex head socket screw	2
i	Label with Confirm barcode	1

17-10-01-266-002f/05-2021B

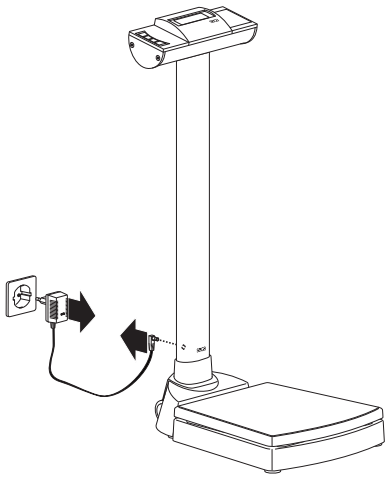
Depending on the installation and connection version, you may need the following tools (not included in the scope of delivery):



Item	Component	Size
1	Cross-head screwdriver	PH 1
2	Hex socket wrench	Size 2.0
3	LAN cable	n/a

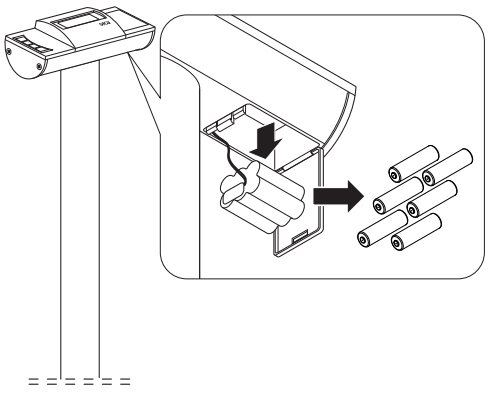
Preparing the scale

1. Clean and disinfect the scale as described in the respective instructions for use.
2. Switch off the scale.
3. Disconnect the plug-in power supply unit from the power supply socket.
4. Pull the power cable out of the scale.



NOTE
After the retrofit, the scale is supplied with power via the **seca 452** interface module.

5. Remove the batteries:
   a) Press the latch of the battery compartment
   b) Open the lid of the battery compartment
   c) Remove batteries from the battery holder
   d) Put battery holder back and close lid again

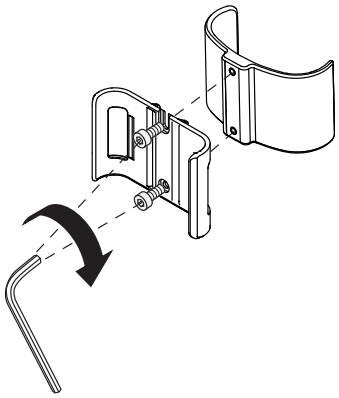


17-10-01-266-002f/05-2021B

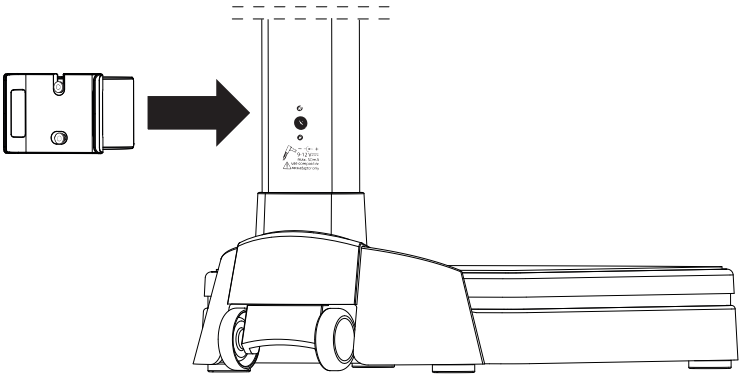
6. Store the plug-in power supply unit and the batteries or dispose of them properly (➔ Disposal).

Fitting the seca 452 interface module

1. Screw the bracket to the column bracket with two hex head socket screws.

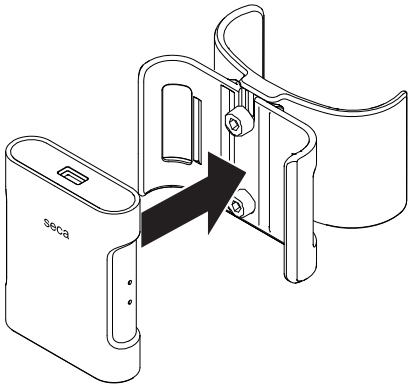


2. Press the column bracket onto the column at the height of the power supply connection.



NOTE
The power supply connection is no longer needed, the column bracket can completely cover the power supply connection.

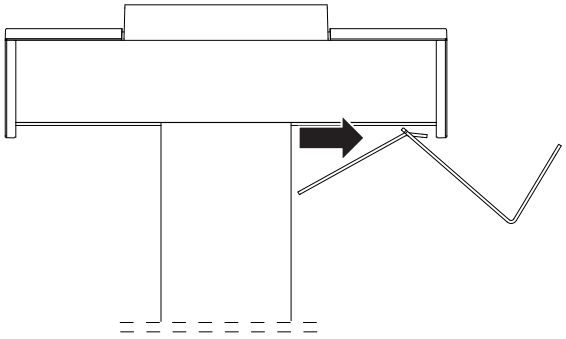
3. Press the **seca 452** interface module into the bracket.



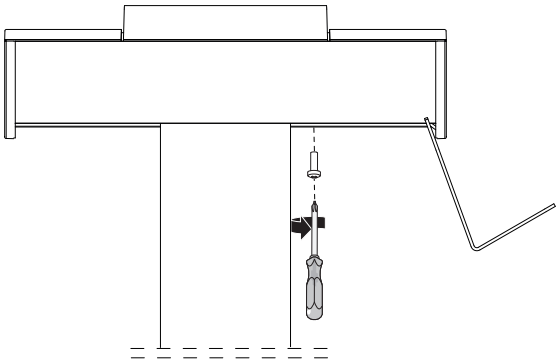
17-10-01-266-002f/05-2021B

Fitting the scanner bracket

1. Hook the scanner bracket to the desired side part of the display housing.



2. Screw the scanner bracket to the bottom of the display housing with two cross-head screws.



Connecting a seca 452 interface module

1. Carefully tilt the scale so that you can easily access the connections on the underneath of the scale.

NOTICE!

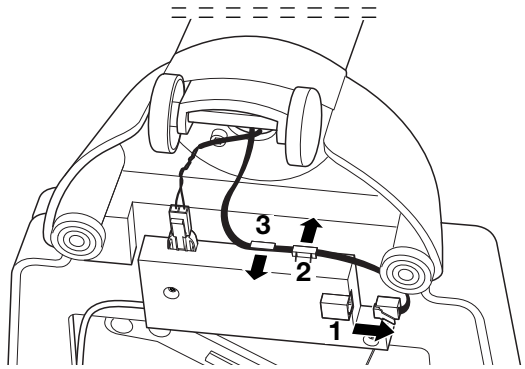
Malfunction due to error in installation

If cables are strained during installation, e. g. with sharp bends or kinked connectors, this may result in faulty displays and failure of the display.

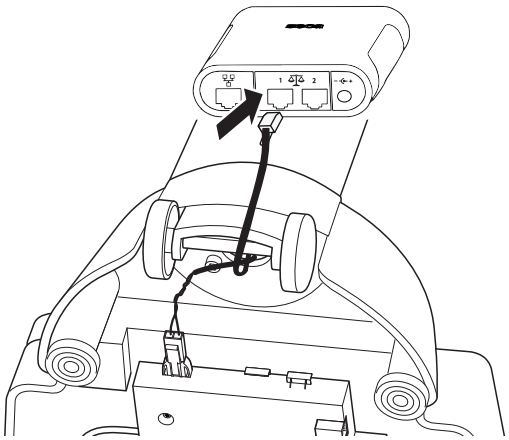
- ► Route all cables to prevent sharp bends and kinked connectors.
- ► Provide strain relief by routing all cables in the relevant holders.

17-10-01-266-002f/05-2021B

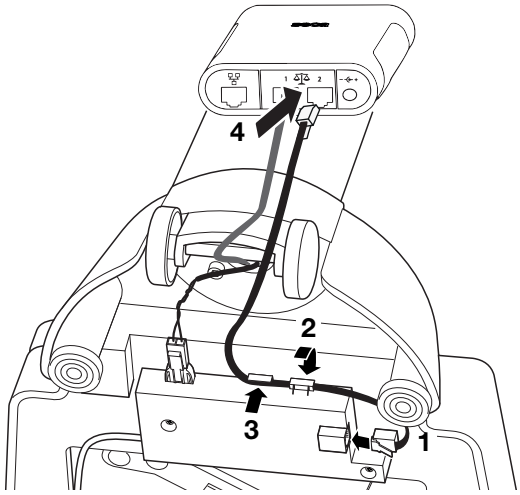
2. Connect the scale to the **seca 452** interface module:
   a) Remove cable of the display electronics from the interface of the electronics box (1) and from the cable clips (2, 3)



   b) Connect cable of the display electronics to interface 1 of the **seca 452** interface module



   c) Connect the short connecting cable to the interface of the electronics box (1) and secure in the cable clips (2, 3)
   d) Connect the short connecting cable to interface 2 of the **seca 452** interface module (4)



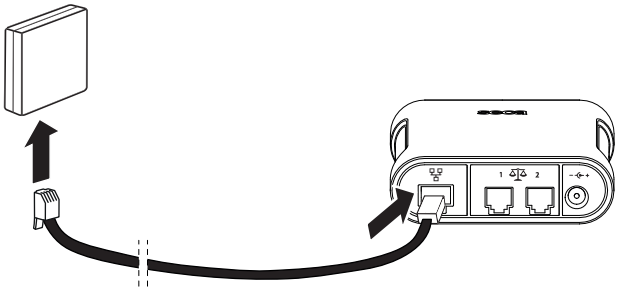
   e) Position the scale upright

You have the following options for continuing:

- For communication via LAN, continue at step 3.
- For communication via WiFi, continue at step 4.

17-10-01-266-002f/05-2021B

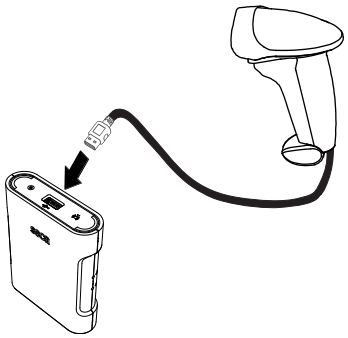
3. Connect a LAN cable to the **seca 452** interface module:
   a) Connect the LAN cable to the LAN interface of the **seca 452** interface module
   b) Connect the LAN cable to the network socket



NOTICE!
Malfunction caused by an incompatible scanner
Incompatible scanners can lead to faulty data transmission or system malfunction.

- Only use scanners that are listed in the section ➔ Optional accessories and spare parts.

4. Connect a scanner to the **seca 452** interface module:
   a) Connect the scanner cable to the USB interface of the **seca 452** interface module
   b) Attach the scanner to the scanner bracket



5. Apply the label with the Confirm barcode to a place you can reach easily with the scanner.

17-10-01-266-002f/05-2021B

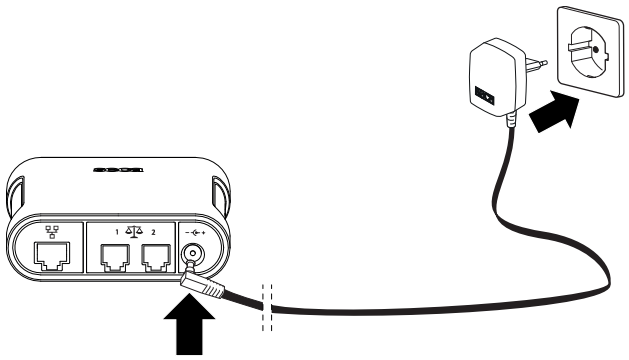
NOTICE!

Damage to device due to incorrect power supply unit

The plug-in power supply unit of the scale is not suitable for operation with the **seca 452** interface module.

- ► Only use the plug-in power supply unit included in the scale of delivery of **seca 452** (product no. 452 0050 009).

6. Connect the plug-in power supply unit to the **seca 452** interface module:
   a) Connect the power cable to the power supply connection of the **seca 452** interface module
   b) Insert the plug-in power supply unit into a power supply socket



7. Perform the necessary final work ➔ Performing final work.

17-10-01-266-002f/05-2021B

8.9 Retrofitting 285/284, 287/286 measuring stations

➔ Preparing the measuring station

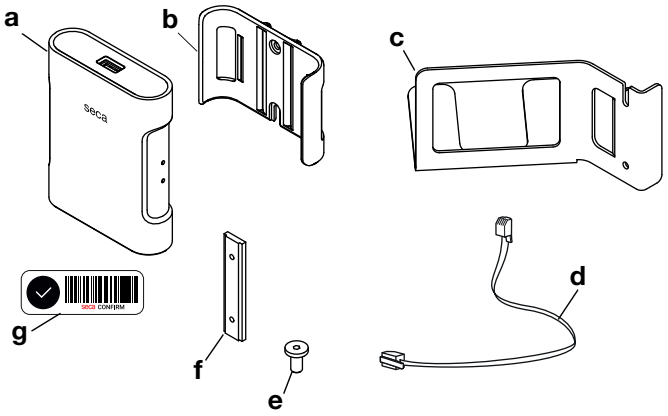
➔ Fitting the seca 452 interface module

➔ Fitting the scanner bracket

➔ Connecting a seca 452 interface module

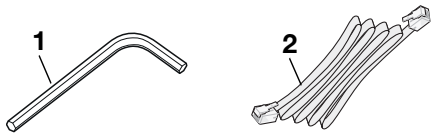
➔ Performing final work

You need the following parts of **seca 452**, product no. 452 0000 009:



Item	Component	Pcs.
a	**seca 452** interface module	1
b	Bracket	1
c	Scanner bracket	1
d	Connecting cable	1
e	Hex head socket screw	4
f	Sliding block	2
g	Label with Confirm barcode	1

Depending on the desired installation and connection version, you may need the following tools (not included in the scope of delivery):

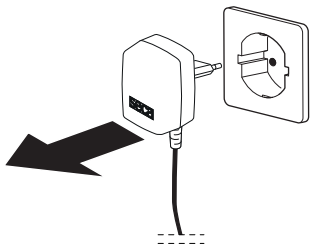


Item	Component	Size
1	Hex socket wrench	Size 2.0
2	LAN cable	n/a

17-10-01-266-002f/05-2021B

Preparing the measuring station

1. Clean and disinfect the measuring station as described in the respective instructions for use.
2. Switch off the measuring station.
3. Disconnect the plug-in power supply unit from the power supply socket.



CAUTION!
Risk of injury and damage to device
The device must be tilted. The great height of the device can result in injuries and damage to the device.

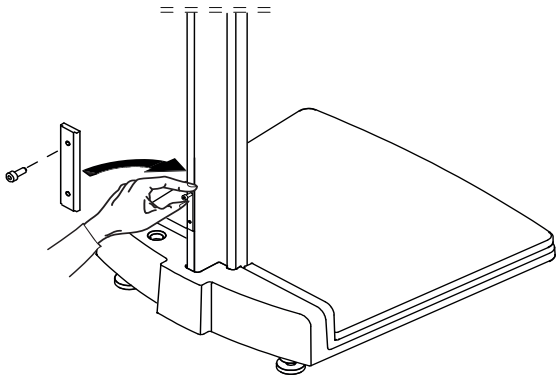
- ► Make sure that there are no other persons in the immediate vicinity.
- ► Make sure that there are no objects in the immediate vicinity.

4. Slightly lift the measuring station at the rear and pull out the power cable.

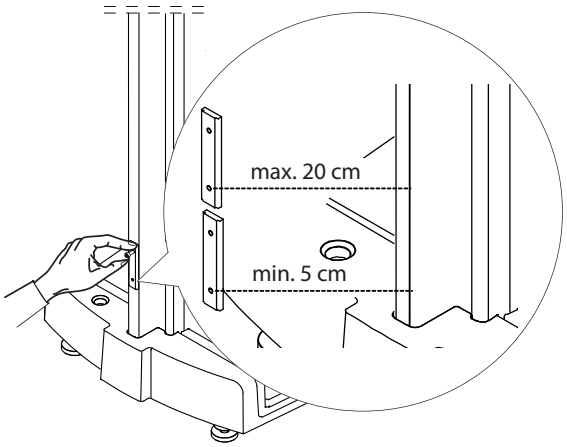
NOTE
After the retrofit, the measuring station is supplied with power via the **seca 452** interface module.

Fitting the seca 452 interface module

1. Put a hex head socket screw into a sliding block and guide the sliding block into the groove of the column.



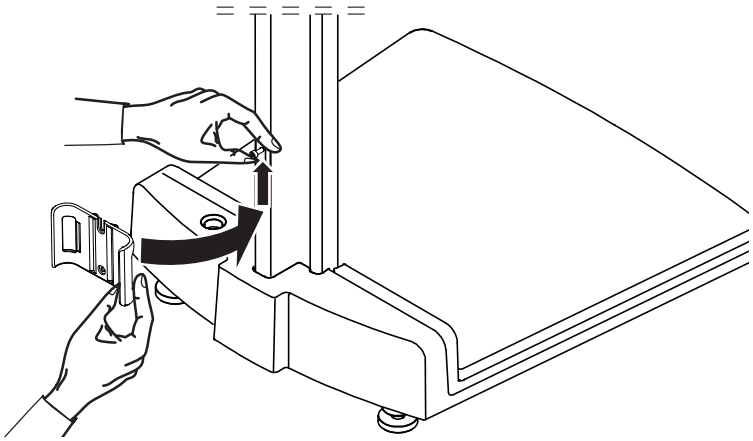
2. Hold the sliding block in position as shown in the following figure.



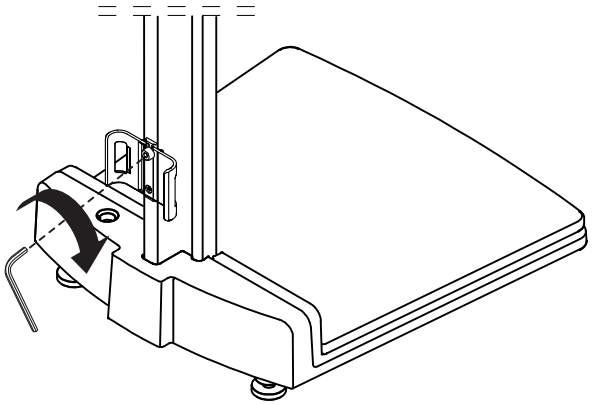
3. Position the bracket on the sliding block.

17-10-01-266-002f/05-2021B

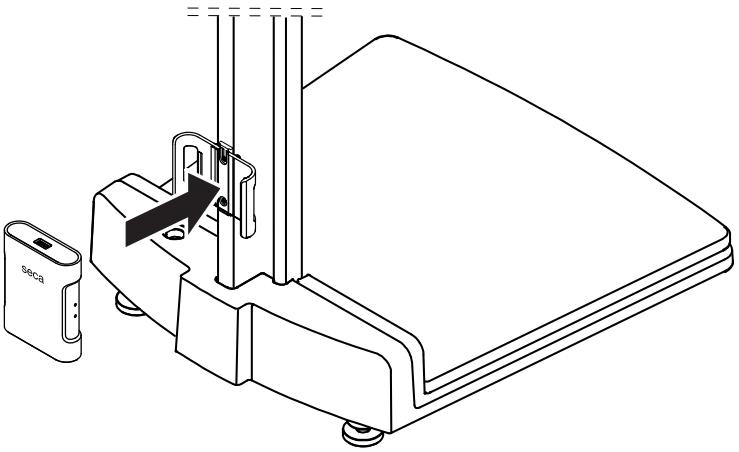
4. Push the bracket with the recess upward under the head of the hex head socket screw.



5. Screw the hex head socket screw tight.



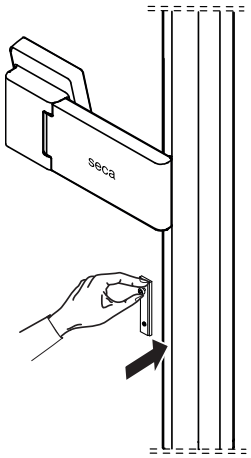
6. Screw the bracket tight with a second hex head socket screw.
7. Press the **seca 452** interface module into the bracket.



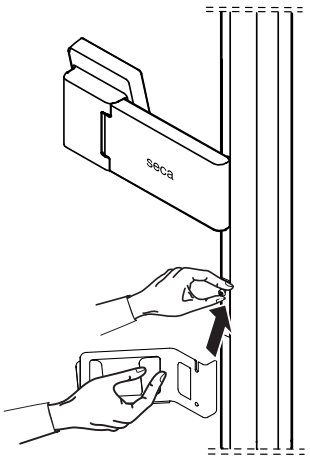
17-10-01-266-002f/05-2021B

Fitting the scanner bracket

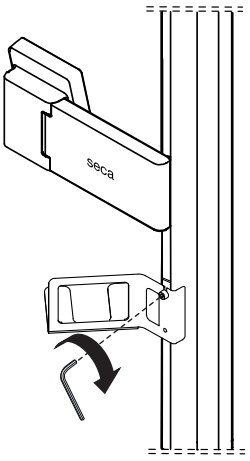
1. Put a hex head socket screw into the sliding block.
2. Thread the sliding block below the multifunctional display into the groove of the column.



3. Hold the sliding block securely.
4. Position the scanner bracket on the sliding block.
5. With the recess upward, push the scanner bracket under the head of the hex head socket screw.



6. Screw the hex head socket screw tight.



7. Screw the scanner bracket tight with a second hex head socket screw.

17-10-01-266-002f/05-2021B

Connecting a seca 452 interface module

NOTICE!

Malfunction as a result of faulty multifunctional display

When the device is laid down, the multifunctional display is directly on the floor and may be damaged.

- ► Lay the device down slowly and carefully on a soft surface, a blanket, for example.

1. Lift the measuring station at the rear and carefully tilt it forward.

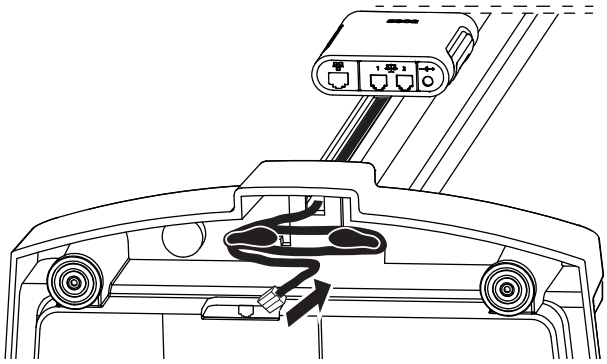
NOTICE!

Malfunction due to error in installation

If cables are strained during installation, e. g. with sharp bends or kinked connectors, this may result in faulty displays and failure of the display.

- ► Route all cables to prevent sharp bends and kinked connectors.
- ► Provide strain relief by routing all cables in the relevant holders.

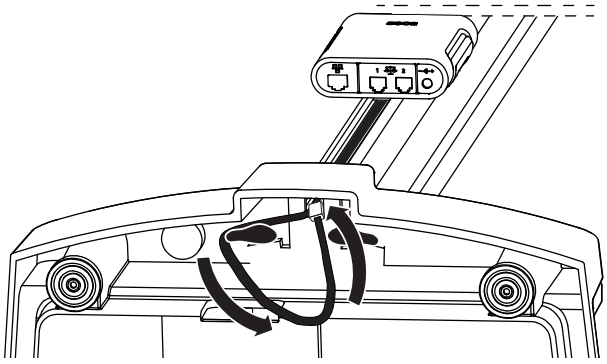
2. Connect the multifunctional display to the **seca 452** interface module:
   a) Remove cable of the multifunctional display from the electronics box



   b) With the cable, make a loop and push the end of the cable upward through the hole

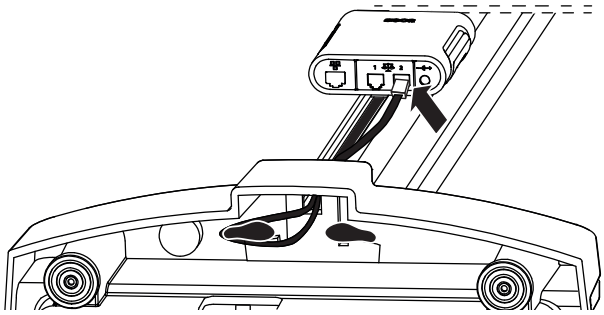
NOTE

Depending on the cable length, you can guide the cable past one or both cable storage posts.

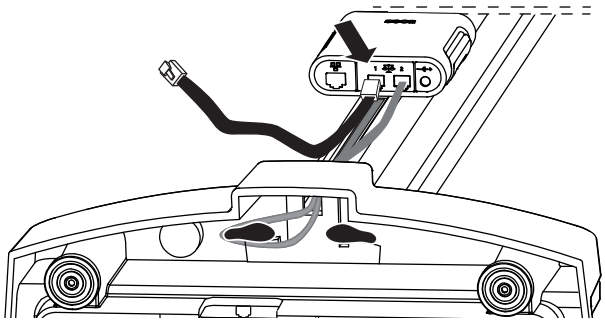


17-10-01-266-002f/05-2021B

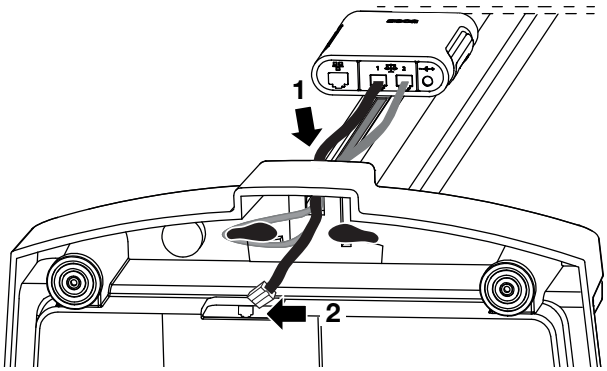
c) Connect cable to interface 2 of the **seca 452** interface module



3. Connect the measuring station to the **seca 452** interface module:
   a) Connect the connecting cable to interface 1 of the **seca 452** interface module



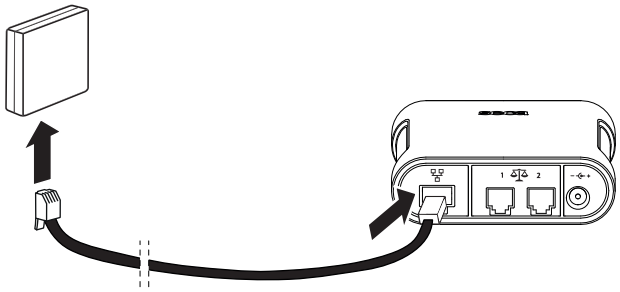
   b) Push the connecting cable down through the hole and connect to the electronics box



4. Carefully place the measuring station onto the ground horizontally.
   You have the following options for continuing:
   - For communication via LAN, continue at step 5.
   - For communication via WiFi, continue at step 6.

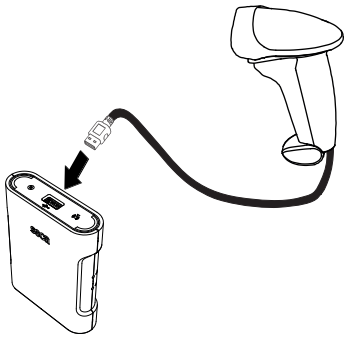
17-10-01-266-002f/05-2021B

5. Connect a LAN cable to the **seca 452** interface module:
   a) Connect the LAN cable to the LAN interface of the **seca 452** interface module
   b) Connect the LAN cable to the network socket

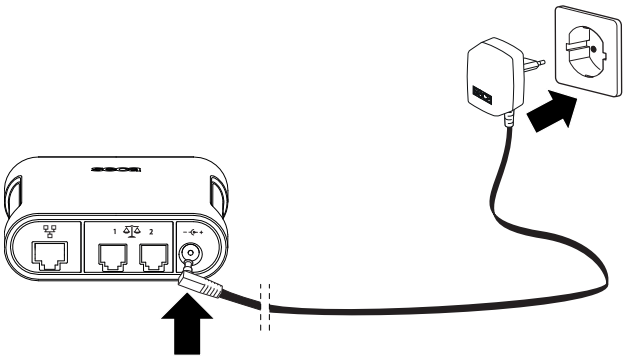


NOTICE!
Malfunction caused by an incompatible scanner
Incompatible scanners can lead to faulty data transmission or system malfunction.
- Only use scanners that are listed in the section ➔ Optional accessories and spare parts.

6. Connect a scanner to the **seca 452** interface module:
   a) Connect the scanner cable to the USB interface of the **seca 452** interface module
   b) Attach the scanner to the scanner bracket



7. Apply the label with the Confirm barcode to a place you can reach easily with the scanner.
8. Connect the plug-in power supply unit to the **seca 452** interface module:
   a) Connect the power cable to the power supply connection of the **seca 452** interface module
   b) Insert the plug-in power supply unit into a power supply socket



9. Perform the necessary final work, ➔ Performing final work.

17-10-01-266-002f/05-2021B

8.10 Retrofitting 787 measuring stations

➜ Preparing the measuring station

➜ Fitting the seca 452 interface module

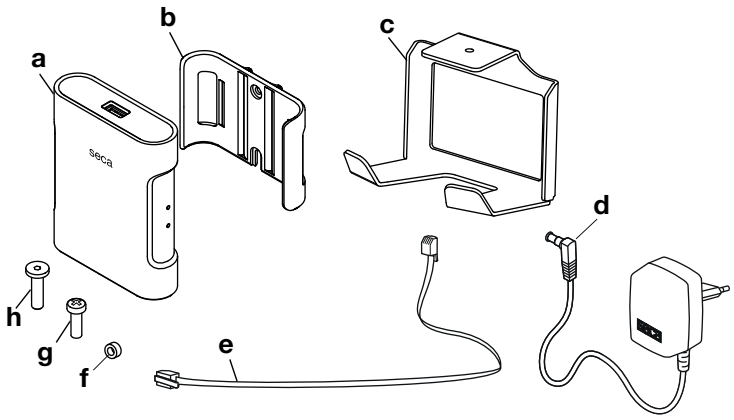
➜ Fitting the scanner bracket

➜ Connecting the connecting cable to the display unit

➜ Connecting the seca 452 interface module

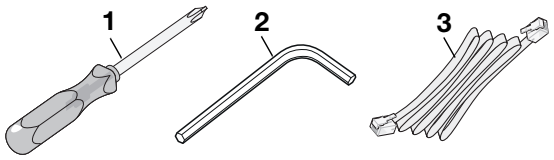
➜ Performing final work

You need the following parts of **seca 452**, product no. 452 0060 009:



Item	Component	Pcs.
a	**seca 452** interface module	1
b	Bracket	1
c	Scanner bracket	1
d	Plug-in power supply unit	1
e	Connecting cable	1
f	Spacer sleeve	2
g	Cross-head screw	1
h	Hex head socket screw	2

Depending on the installation and connection version, you may need the following tools (not included in the scope of delivery):

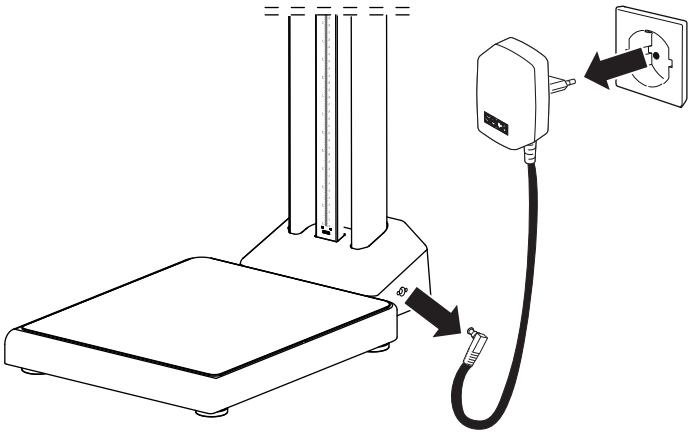


Item	Component	Size
1	Cross-head screwdriver	PH 2
2	Hex socket wrench	Size 2.0
3	LAN cable	n/a

17-10-01-266-002f/05-2021B

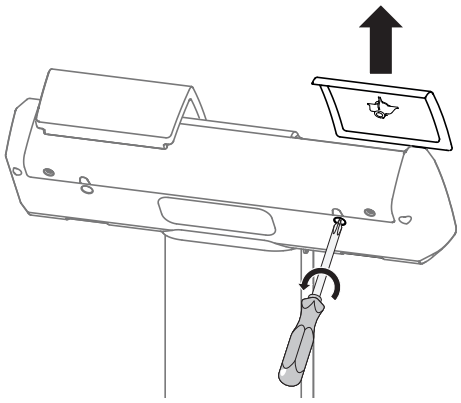
Preparing the measuring station

1. Clean and disinfect the measuring station as described in the respective instructions for use.
2. Switch off the measuring station.
3. Disconnect the plug-in power supply unit from the power supply socket.
4. Pull the power cable out of the scale, if one is present.

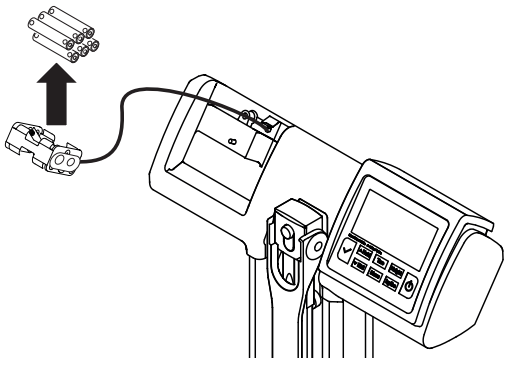


NOTE
After the retrofit, the measuring station is supplied with power via the **seca 452** interface module.

5. Open the battery compartment:
   a) Hold the battery compartment lid steady
   b) Remove the cross-head screw behind the battery compartment lid
   c) Remove the battery compartment lid



6. Take the batteries out of the battery holder.

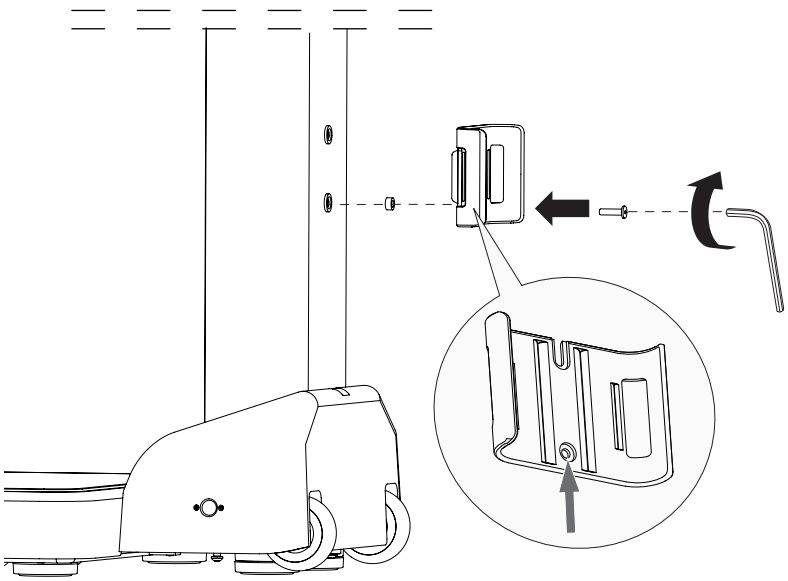


17-10-01-266-002f/05-2021B

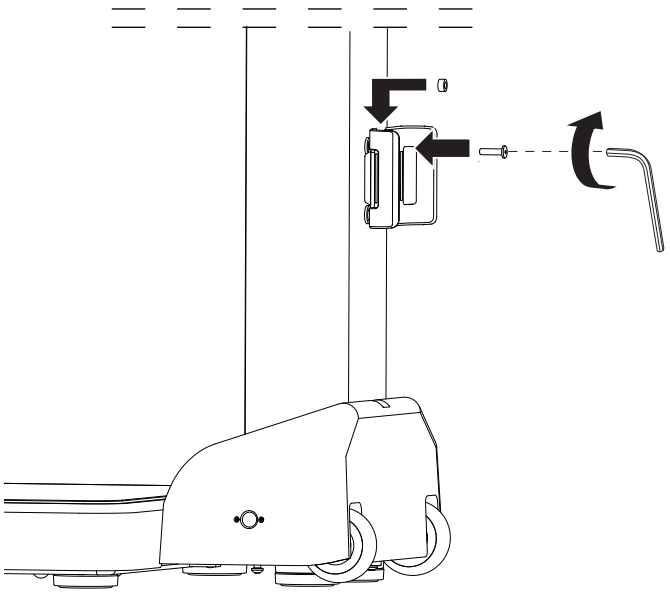
7. Close the battery compartment:
   a) Insert the battery compartment lid
   b) Tighten the cross-head screw behind the battery compartment lid
8. Store the plug-in power supply unit (if present) and the batteries or dispose of them properly (➔ Disposal).

Fitting the seca 452 interface module

1. Fit the bracket on the column:
   a) Insert hex head socket screw into hole of bracket
   b) Place spacer sleeve onto hex head socket screw
   c) Screw bracket onto column

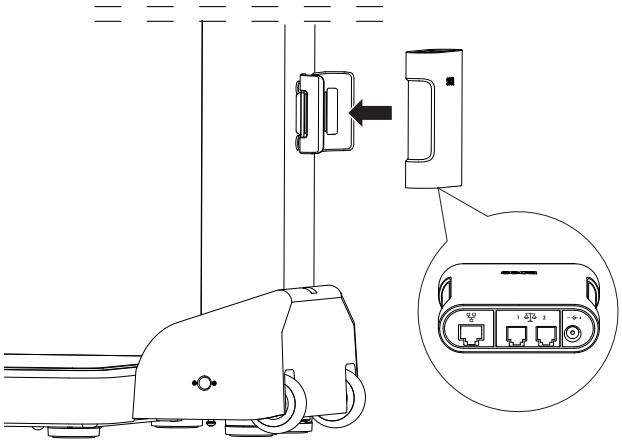


   d) Place spacer sleeve between hole of column and recess of bracket
   e) Insert hex head socket screw into recess of bracket and into the spacer sleeve
   f) Tighten the hex head socket screw



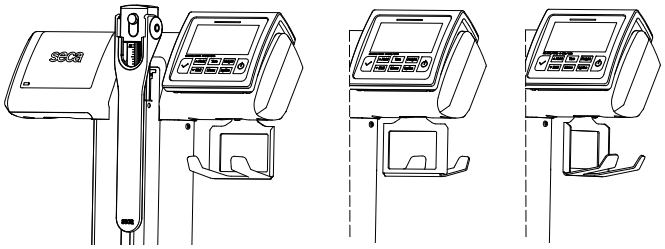
17-10-01-266-002f/05-2021B

2. Press the **seca 452** interface module into the bracket.

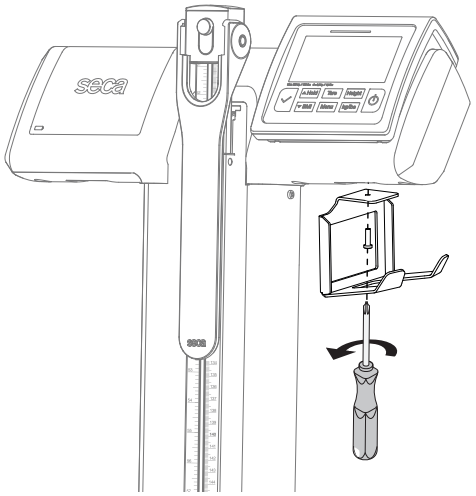


Fitting the scanner bracket

The scanner bracket can be fitted to either side of the display head. It can be fitted offset by 90° to point forwards, sideways or backwards.



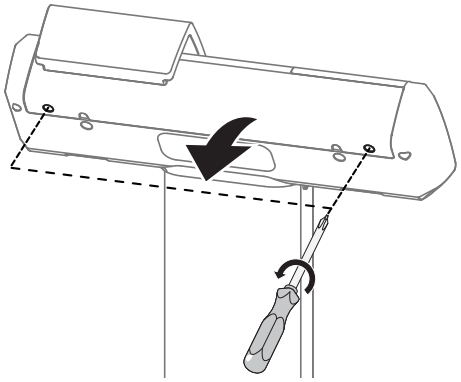
► Fit the scanner bracket to the display head using a cross-head screw.



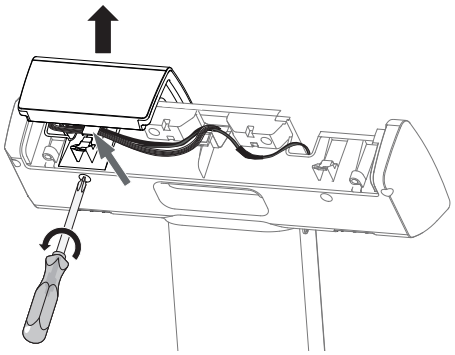
17-10-01-266-002f/05-2021B

Connecting the connecting cable to the display unit

1. Remove the cover panel:
   a) Unscrew two cross-head screws
   b) Remove the cover panel

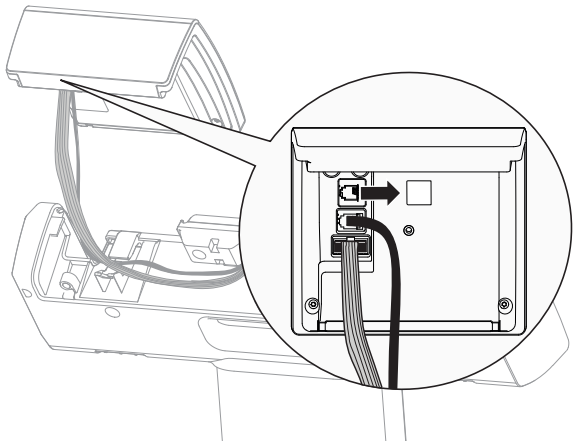


2. Remove the display unit:
   a) Undo the cross-head screw behind the display unit
   b) Remove both cable tie on cable hook and the strain relief, if present
   c) Draw cables out of the cable hook
   d) Lift off display unit

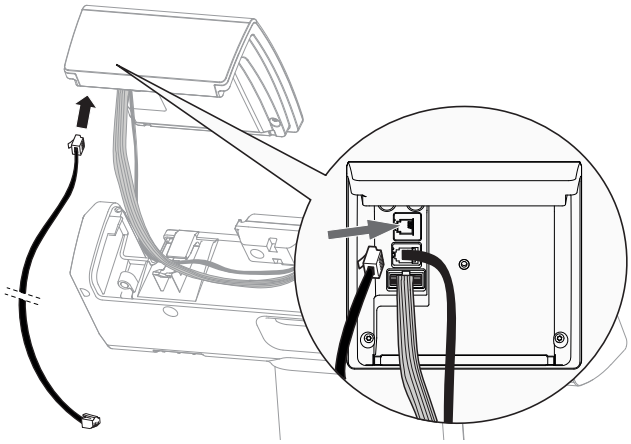


17-10-01-266-002f/05-2021B

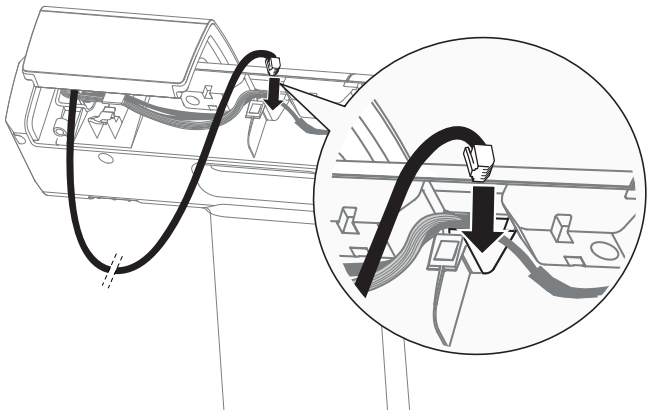
3. Connect the connecting cable to the display unit:
   a) Remove the cap from the socket for the connecting cable



   b) Connect the connecting cable to the socket

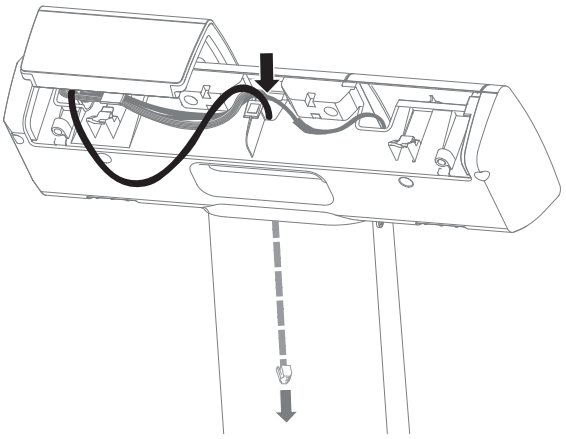


   c) Insert display unit into display head
   d) Thread connecting cable into the column



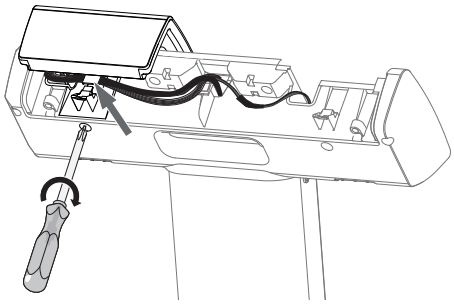
   e) Guide connecting cable through the column up to the lower part of the device

17-10-01-266-002f/05-2021B

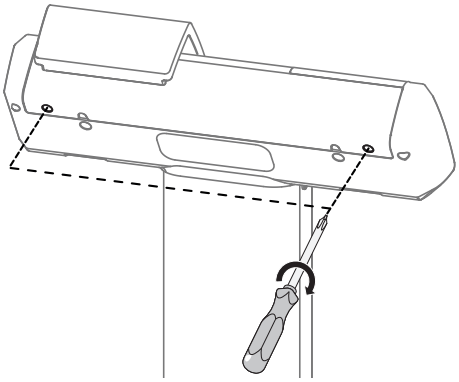


NOTE
The lower end of the connecting cable is connected to the **seca 452** interface module in a subsequent assembly step (➔ Connecting the seca 452 interface module).

4. Fit the display unit:
   a) Gather all the cables into the cable hook and secure them with a cable tie if necessary
   b) Hold the display unit steady
   c) Tighten the cross-head screw behind the display unit



5. Fit the cover panel:
   a) Insert cover panel
   b) Place and tighten two cross-head screws



17-10-01-266-002f/05-2021B

Connecting the seca 452 interface module

NOTICE!

Damage to device

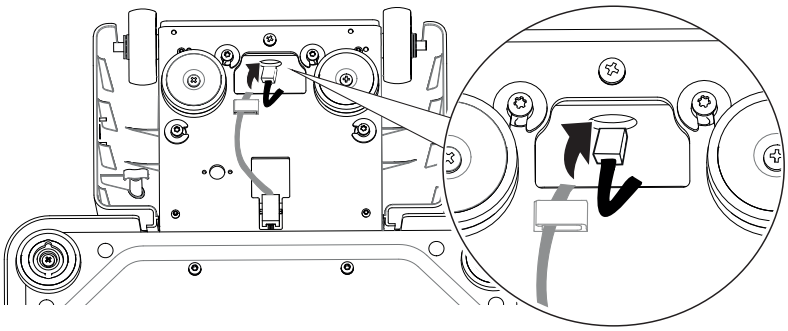
If you place the device on the floor with the measuring rod extended, the rod may get damaged.

► Ensure that the measuring flap is folded down and the upper telescopic element of the measuring rod is in its lowest position.

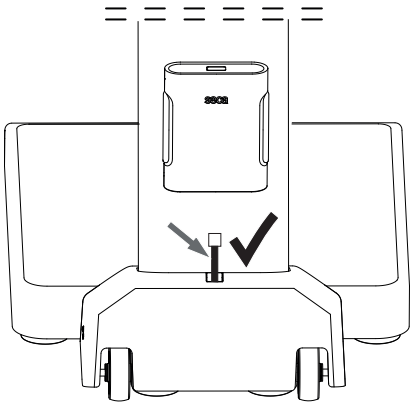
1. Carefully place the measuring station on the floor with the display unit facing downward.

17-10-01-266-002f/05-2021B

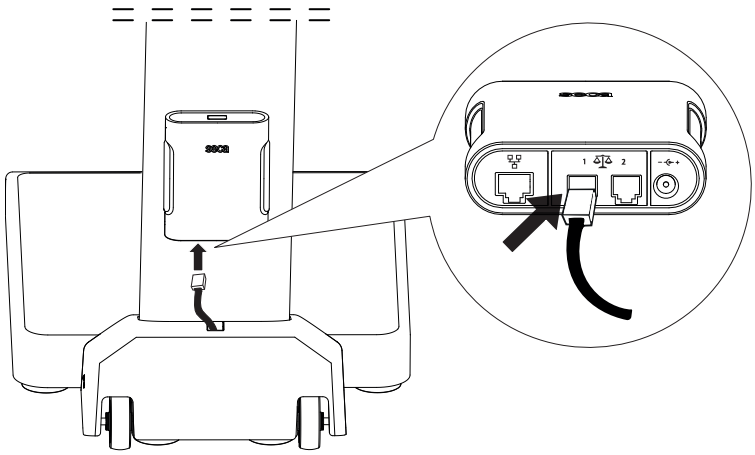
2. Connect the measuring station to the **seca 452** interface module:
   a) Thread the lower end of the connecting cable into the circular opening in the column



   b) Guide the connecting cable until it comes out at the opening in the column holder



   c) Set the measuring station in an upright position
   d) Connect the connecting cable to interface 1 of the **seca 452** interface module

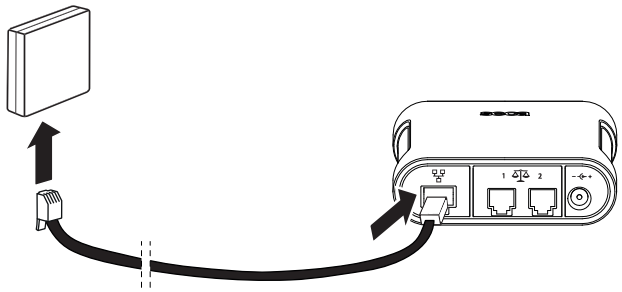


You have the following options for continuing:

- For communication via LAN, continue at step 3.
- For communication via WiFi, continue at step 4.

17-10-01-266-002f/05-2021B

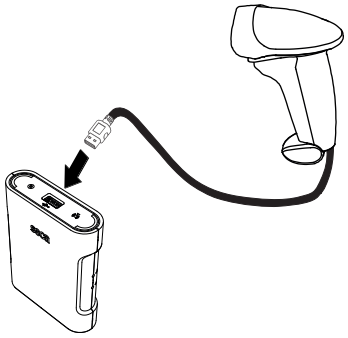
3. Connect a LAN cable to the **seca 452** interface module:
   a) Connect the LAN cable to the LAN interface of the **seca 452** interface module
   b) Connect the LAN cable to the network socket



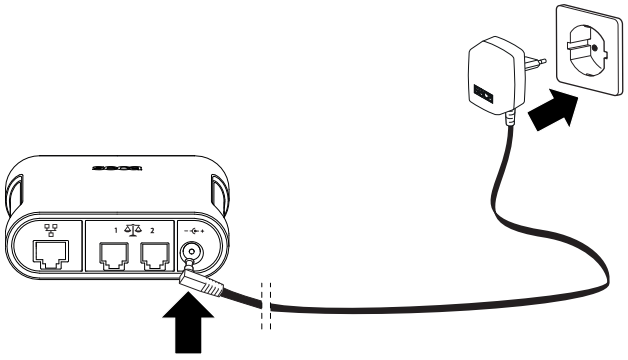
NOTICE!
Malfunction caused by an incompatible scanner
Incompatible scanners can lead to faulty data transmission or system malfunction.

- Only use scanners that are listed in the section ➔ Optional accessories and spare parts.

4. Connect a scanner to the **seca 452** interface module:
   a) Connect the scanner cable to the USB interface of the **seca 452** interface module
   b) Attach the scanner to the scanner bracket



5. Connect the plug-in power supply unit to the **seca 452** interface module:
   a) Connect the power cable to the power supply connection of the **seca 452** interface module
   b) Insert the plug-in power supply unit into a power supply socket



6. Perform the necessary final work ➔ Performing final work.

17-10-01-266-002f/05-2021B

8.11 Performing final work

Once you have completed retrofitting of the measuring devices, perform the following steps:

- Ensure that the device is positioned on the ground flat and stable.
- Ensure that no cables or other parts are in contact with the weighing platform.
- Perform a function check of the device as described in the respective instructions for use.
- Remove all tools and materials.
- Clean the floor and other installation areas.
- Clean and disinfect the measuring devices as described in the respective instructions for use.
- Clean and disinfect your hands.
- You have the following options for continuing:
  - Add a seca measuring device in the **seca connect 103** software: ➔ Adding a seca measuring device (not for Version 3.0)
  - Change the configuration of a seca measuring device in the **seca connect 103** software: ➔ Changing the setting for seca measuring device

17-10-01-266-002f/05-2021B

9. USING THE WEB SERVER OF THE seca 452 INTERFACE MODULE

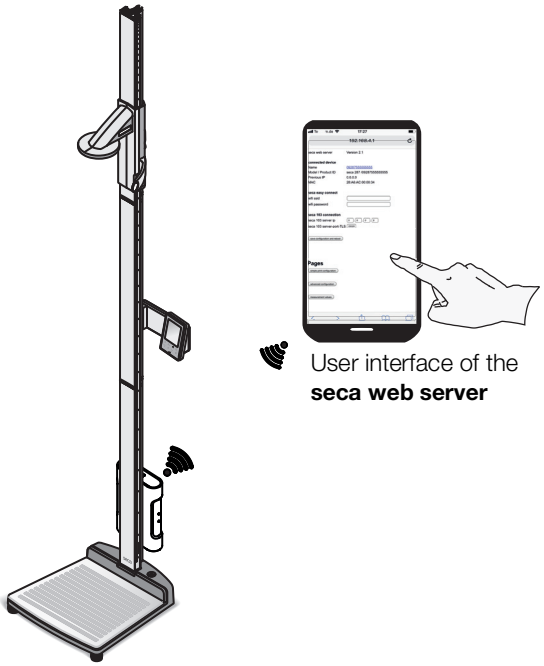
➔ Making a connection between the seca web server and a mobile terminal

➔ Connecting the seca measuring device to the seca connect 103 software

The **seca 452** interface module is equipped with a web interface (**seca web server**). The **seca web server** provides the option of configuring network functions of the **seca 452** interface module with your mobile terminal (smartphone or tablet).

You can use the **seca web server** to connect seca measuring devices to the **seca connect 103** software, for example if no compatible barcode scanner is available.

For seca measuring devices which are not connected to an EMR system via **seca connect 103**, the **seca web server** provides further configuration options such as connection to a network-capable POS printer, for example. For more information, contact seca Service.



User interface of the **seca web server**

Example: **seca 285** measuring station with **seca 452** interface module

NOTE
seca measuring devices with an internal interface module can likewise be configured via the **seca web server**. For these devices, you also proceed as described in this section. Information about which seca measuring devices are equipped with an internal interface module can be found here: ➔ Compatible seca products.

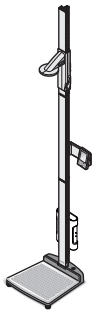
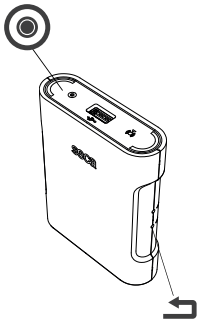
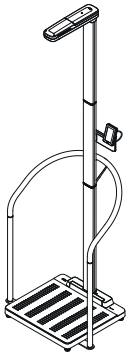
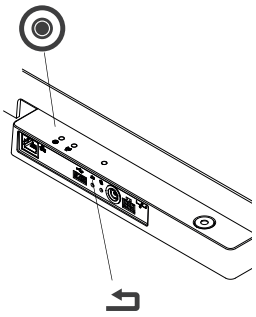
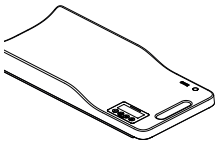
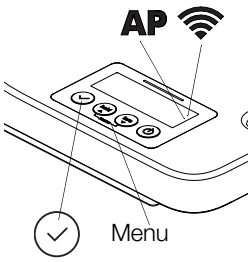
17-10-01-266-002f/05-2021B

9.1 Making a connection between the seca web server and a mobile terminal

➔ Activating the seca web server
➔ Calling up the user interface of the seca web server

Activating the seca web server

► Activate the **seca web server** as shown in the table below:

Example device	Controls	Operating steps
seca 452 interface module		
 seca 285		1. Press and hold button ⮌ until Power LED ◎ goes out 2. Wait until Power LED ◎ comes on permanently 3. Press button ⮌ briefly until Power LED ◎ flashes 4. ➔ Calling up the user interface of the seca web server
Internal interface module: Devices with a touchscreen display		
 seca 655		1. Press and hold button ⮌ until Power LED ◎ goes out 2. Wait until Power LED ◎ comes on permanently 3. Press button ⮌ briefly until Power LED ◎ flashes 4. ➔ Calling up the user interface of the seca web server
Internal interface module: Devices with an LC display		
 seca 336 i		1. Call up the menu of the seca measuring device 2. Select the menu item "rESEt" 3. Press and hold key ✓ until ((·)) symbol in the display flashes 4. Call up the menu of the seca measuring device 5. In submenu “rF”, select the menu item “AP” 6. Switch on the AP function 7. Wait until symbol **AP** appears in the display 8. ➔ Calling up the user interface of the seca web server

NOTE
For details on controls and menu structures, please see the instructions for use for the seca measuring device in question.

17-10-01-266-002f/05-2021B

Calling up the user interface of the seca web server

1. Open the WiFi settings of your mobile terminal.

   The **seca Product ID** of the seca measuring device appears under “Networks”.
2. Select the **[seca Product ID]** network.
3. Enter the following password: **seca1234**.
4. Open a browser on your mobile terminal.
5. Enter the following URL: **192.168.4.1**.
   The user interface for the **seca web server** opens.

6. Connect the seca measuring device to the **seca connect 103** software:
   ➔ Connecting the seca measuring device to the seca connect 103 software

17-10-01-266-002f/05-2021B

9.2 Connecting the seca measuring device to the seca connect 103 software

If you are not using a barcode scanner, you can connect your seca measuring device to the **seca connect 103** software via the **seca web server**.

NOTE
If you are using a barcode scanner, proceed as described in this section: ➔ Managing seca measuring devices

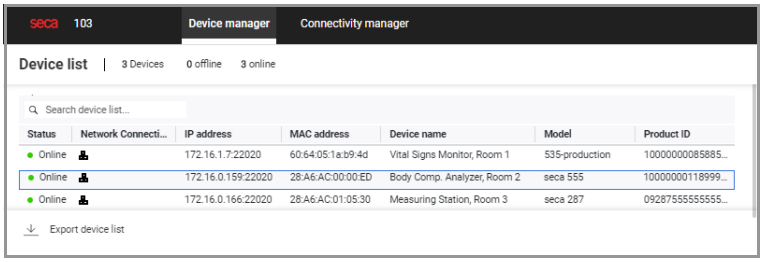
1. Make a connection to the **seca web server** of your seca measuring device: ➔ Making a connection between the seca web server and a mobile terminal.
2. Open the user interface of the **seca web server** (URL: **192.168.4.1**).

3. Enter the SSID for your WiFi network.
4. Enter the password for your WiFi network.
5. Enter the IP address for the **seca connect 103** server.
6. Enter the tenant ID of the desired tenant.

NOTE
The tenant ID matches the **Identity** value of the tenant. You will find the value in ➔ Tenant management view.

7. Press the **save configuration and reboot** key.

   After the restart, the symbol of the seca measuring device will flash until the WiFi connection is established.
   Once the connection has been established successfully, the seca measuring device appears in the device list in the **seca connect 103** software: ➔ Device manager: Device list.



8. Configure the seca measuring device ➔ Changing the setting for seca measuring device.

17-10-01-266-002f/05-2021B

10. OPERATING CONNECTED SECA MEASURING DEVICES

➔ Functional limitations

➔ Workflow for measuring mode

10.1 Functional limitations

If the following seca measuring devices are connected to the **seca connect 103** software, individual functions of the measuring devices cannot be used or only with limitations:

- seca measuring devices with **seca 360° wireless** transmission
  - Baby scales
  - Column scales
  - Measuring stations
  - Multifunctional scales
  - Chair scales
- **seca 333 i**, **seca 336 i** baby scales
- **seca 787**, **seca 797** measuring stations

An overview of all compatible seca measuring devices can be found here: ➔ Compatible seca products.

If functional limitations are not observed, the following malfunctions may occur:

- Malfunction of individual devices
- Transmission of invalid measured values
- Incorrect assignment of measured values to patient files

► Observe the functional limitations in the following table:

Function	Device type	Restriction
hold[a]	All	Do not use
bmi	Column scales Measuring stations Multifunctional scales Chair scales	Do not use
send/print[b]	**seca 360° wireless** devices	Do not use
clear[c]	Measuring stations	Press key **before** each measurement to delete old height value from device memory
tare	Baby scales Multifunctional scales Chair scales	Press the key after every measurement to delete tare value from device memory
BMIF	Baby scales	Deactivate before measurement is confirmed on seca measuring device

a. Can be used for **seca 333 i**, **seca 336 i**, **seca 797** and **seca 360° wireless** devices with NEC II firmware from Build 320c/298n/290m.

b. The send/print key on the head slide of the **seca 285**/**seca 284** can be used as usual. For **seca 360° wireless** devices with NEC II firmware from Build 320c/298n/290m or higher, the send/print key can be used as a confirm key to send measured results to an EMR system.

c. Can be used after measurement for **seca 360° wireless** devices with NEC II firmware from Build 320c/298n/290m to delete the current height value and not to send.

► Observe the instructions for use of the seca measuring devices.

17-10-01-266-002f/05-2021B

- Inform your users about these functional limitations. To do so, use the quick reference “Measurement procedure” ➔ Annex: Quick reference for measurement procedure.

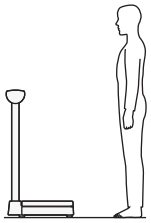
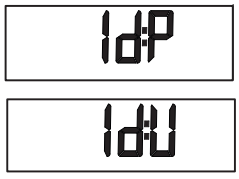
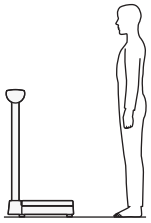
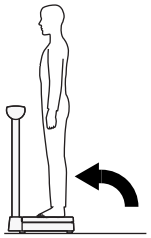
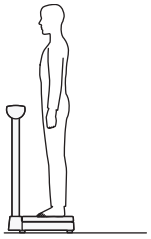
10.2 Workflow for measuring mode

To record measured values with seca measuring devices and to send to an EMR system, the procedure described in this section must be adhered to. Otherwise, the following faults may occur:

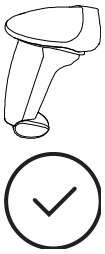
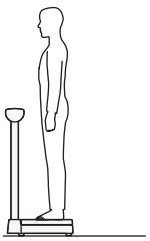
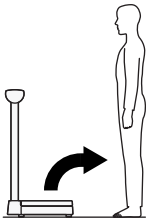
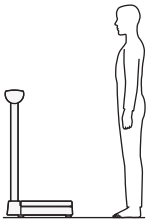
- Malfunction of individual devices
- Transmission of invalid measured values
- Incorrect assignment of measured values to patient files

- Observe the instructions for use of the seca measuring devices.
- Inform your users about this procedure. To do so, use the quick reference “Measurement procedure” ➔ Annex: Quick reference for measurement procedure.

NOTE
If desired in your institution, you can perform steps 2. and 3. in the opposite order.

No.	Workflow LED		Display	Patient	User
	seca 452	seca device[a]	seca device		
1.					• Ensure that the device is switched on • Ensure that Power and Network LEDs are green
2.					Scan patient/user IDs (according to **Device settings**[b])
3.					Ask patient to step onto the scale
4.					Wait until measured value is shown continuously

17-10-01-266-002f/05-2021B

No.	Workflow LED		Display	Patient	User
	seca 452	seca device[a]	seca device		
5.					Scan Confirm barcode or press Confirm key on seca measuring device (if one of these settings was selected in **Device settings**)[c]
6.					• Wait until Workflow LED is green • Ask patient to step off the seca measuring device
7.					• Wait until Workflow LED goes out • Measured value remains shown in display • Device is ready for another measurement

a.When using devices with an internal interface module

b.IdU and IdP display only on devices with an internal interface module, for example **seca 336 i** or **seca 797** and on **seca 360° wireless** devices with NEC II firmware from Build 320c/298n/290m or higher

c.Confirm key only on devices with an internal interface module, for example **seca 336 i**. For **seca 360° wireless** devices with NEC II firmware from Build 320c/298n/290m or higher, use **send/print** key.

17-10-01-266-002f/05-2021B

11. HYGIENIC TREATMENT OF THE seca 452 INTERFACE MODULE

➔ Cleaning
➔ Disinfecting
➔ Sterilizing

WARNING!
Electric shock
The device is not de-energized when the on/off key is pressed and the display goes out. Use of fluids on the device may cause electric shock.

- Ensure that the device is switched off before performing any hygiene treatment.
- Disconnect the power supply connector before performing any hygiene treatment.
- Before each hygiene treatment, take the rechargeable battery out of the device (if present and removable).
- Ensure that no fluids penetrate the device.

NOTICE!
Damage to device
Inappropriate detergents and disinfectants may damage the sensitive surfaces of the device.

- Use only disinfectants free of chlorine and alcohol which are explicitly suitable for acrylic sheet and other sensitive surfaces (active ingredient: quaternary ammonium compounds, for example).
- Do not use caustic or abrasive detergents.
- Do not use organic solvents (e.g. white spirit or petroleum spirit).

11.1 Cleaning

- Use a soft cloth dampened with mild soapsuds to clean the surfaces of the device.

11.2 Disinfecting

1. Check that your disinfectant is suitable for sensitive surfaces and acrylic sheet.
2. Follow the instructions for use for the disinfectant.
3. Disinfect the device by moistening a soft cloth in disinfectant and wiping down the device.

11.3 Sterilizing

This device may not be sterilised.

17-10-01-266-002f/05-2021B

12. FUNCTION CHECK

► Perform a function check prior to each use.

A complete function check includes:

- Visual inspection for mechanical damage
- Checking the alignment of the device
- Visual and function check of the display elements
- Function check of all the controls shown in the section entitled “Overview”
- Function check of optional accessories

If you notice any faults or deviations during the function check, first try to resolve the error with the aid of the section entitled “Troubleshooting” in this document.

CAUTION!
Personal injury
If you notice any faults or deviations during the function check which cannot be resolved with the aid of the section entitled “Troubleshooting” in this document, you may not use the device.

► Have the device repaired by seca Service or by an authorized service partner.

► Follow the section entitled “Servicing” in this document.

13. SERVICING

The measuring technology of this device must be checked every two years. We recommend servicing the whole device as part of this check.

NOTICE!
Incorrect measurements as a result of poor servicing

► Have servicing and repairs carried out exclusively by seca Service or by an authorized service partner.

► You can find service partners in your area at www.seca.com or by sending an e-mail to service@seca.com.

17-10-01-266-002f/05-2021B

14. TROUBLESHOOTING

14.1 Errors in the system

Fault	Cause	Remedy
seca connect 103 cannot be started (local installation only)	Server does not meet system requirements	Comply with system requirements ➔ System requirements
	Operating system does not meet system requirements	
	SSL certificate unavailable	Prepare the SSL certificate and activate use: 1. Provide SSL certificate as specified in your institution 2. Start the Setup Wizard and reinstall **seca 103 Admin Interface Service settings** ➔ Preparing setup 3. Follow the on-screen instructions and activate the **Use SSL** checkbox.
		• Ensure that communication between the server and browser is secured by some other means
seca connect 103 cannot be opened	Port in firewall not enabled (local installation only)	➔ Configuring the firewall Check settings for all firewalls in the system
	Browser does not fulfill the system requirements	Comply with system requirements ➔ System requirements
Workflow settings do not appear in Add a device view	Firmware of interface module not up to date	Update the firmware of the interface module

17-10-01-266-002f/05-2021B

Fault	Cause	Remedy
seca measuring device does not appear in the Device list after the QR code is scanned	seca measuring device switched off	Switch on seca measuring device
	Scanner not correctly configured: incompatible character set active	• Test scanner setting using test QR code ➔ QR code for scanner test (character set) • Correct scanner setting as described in the instructions for use for the scanner
	Scanner not compatible	Use compatible scanner: ➔ Optional accessories and spare parts
	Scanner defective	Replace scanner ➔ Optional accessories and spare parts
	MessageTimeout implausible	Modify settings: ➔ Changing the setting for seca measuring device
	Port in firewall not enabled (local installation only)	• ➔ Configuring the firewall • Check settings for all firewalls in the system
	Settings in security program implausible (local installation only)	• ➔ Configuring the security program • Check settings for all security programs in the system
seca measuring device appears in the Device list as Offline or is not displayed in the Device list	seca measuring device switched off	Switch on seca measuring device
	LAN cable not connected	Connect LAN cable
	Network socket not patched	Patch network socket
	WiFi connection disconnected	• Check availability of WiFi network • Reconnect seca measuring device - Switch off the device - ➔ Deleting a device - ➔ Adding a seca measuring device (not for Version 3.0)
	Port in firewall not (no longer) enabled (local installation only)	• ➔ Configuring the firewall • Check settings for all firewalls in the system
	seca measuring device defective	• Use replacement device • Have device repaired
	MessageTimeout parameter is set to a low value	• Check whether the setting for **Message-Timeout** is plausible and set the value higher if necessary
	“seca 103” service is defective (local installation only)	• Restart the “seca 103” service (in Windows® under “Task Manager\Services”)
seca measuring device appears in the Device list as Offline and Online	seca measuring device has received a new IP address	Delete entry of device shown as **Offline** from the **Device list**

17-10-01-266-002f/05-2021B

Fault	Cause	Remedy
Data is not transmitted or transmission to EMR system is defective	**seca 360° wireless** function activated on seca measuring device	• Deactivate **seca 360° wireless** • Observe instructions for use of seca measuring device
	Ultrasound height measurement (device-dependent) on seca measuring device activated	• Deactivate ultrasound height measurement • Observe instructions for use of seca measuring device
	Autohold deactivated on seca measuring device	• Activate **Autohold** • Observe instructions for use of seca measuring device
	EMR system: Interface settings implausible	• Modify interface settings • Request support from manufacturer of EMR system
	seca connect 103: Settings in integration module implausible	• Modify integration module settings • Request support from manufacturer of EMR system
	seca connect 103: Incorrect integration module selected or none at all	• Select compatible integration module ➔ Managing integration modules
	Port in firewall not enabled (local installation only)	• ➔ Configuring the firewall • Check settings for all firewalls in the system
	Settings in security program implausible (local installation only)	• ➔ Configuring the security program • Check settings for all security programs in the system
	After change to integration module: connected seca measuring devices have not restarted	Restart the “seca 103.dll” service (in Windows® under “Task Manager\Services”)
No acoustic Workflow signals on the device	**seca 360° wireless** device (NEC II electronics) with older firmware status in use	Function only available on **seca 360° wireless** devices (NEC II electronics) with firmware Build 320c/ 298n/290m or higher, existing devices cannot be updated
	Firmware of external **seca 452** interface module out of date	Update the firmware of the external **seca 452** interface module ➔ Interface module: Updating firmware
	Acoustic signals (**SoundEnabled**) deactivated for this device in the **seca connect 103** software	Acoustic signals (activate) ➔ Changing the setting for seca measuring device

17-10-01-266-002f/05-2021B

14.2 Malfunctions during measurement procedure

On seca measuring devices with an internal interface module, you can find further information on visual error messages and display messages in the instructions for use of the seca measuring device.

The messages in the display of the seca measuring device are independent of whether the **seca 452** interface module or an internal interface module is used.

Visual error message		Display	Cause	Remedy
seca 452	seca device[a]	seca device		
		**Measured result**	Measured results ready for data transmission, but cannot be transmitted.	• Ask patient to step off the seca measuring device • Wait until Workflow LED goes out • Repeat measurement procedure
		**Er:8:91**	No connection to **seca connect 103** software	➔ seca measuring device appears in the Device list as Offline or is not displayed in the Device list
		**Er:8:92**	Barcode not detected • Barcode mechanically damaged • ID not present in EMR system • Transmission error	• Create new barcode • Check ID • Check network connection • Check scanner settings ➔ QR code for scanner test (character set) • Check configuration of the integration module
		**Er:8:93**	No connection to EMR system	➔ Data is not transmitted or transmission to EMR system is defective
-	-	**Er:8:94**	An error occurred during the measurement procedure: IDs were scanned at the wrong time	• Cancel current action • Restart measurement procedure and observe proper sequence • If necessary, configure settings for intended procedure
		**Er:8:95**	Hardware error (for example, write error in the memory, hardware defect)	• Cancel current action • Restart measurement procedure • If the problem persists, contact seca Service
		**Er:8:96**	Error in the measurement procedure (for example, barcodes were scanned, although this is not provided by the settings)	• End current action • Restart measurement procedure and observe proper sequence • If necessary, configure settings for intended procedure
		-	No connection to the network (LAN/WiFi)	➔ seca measuring device appears in the Device list as Offline or is not displayed in the Device list

a. Devices with an internal interface module, exception: **seca mVSA 535** shows plain text error messages, no Workflow LED

17-10-01-266-002f/05-2021B

14.3 Problems updating firmware (interface module)

Fault	Cause	Remedy
In Device list: Update status column not present	**Device updater** dialog field not active	Press the **Device updater** button in **Device manager**
In Device list: Update status column contains no entries	No firmware status queried by the connected devices	Click **Get firmware status** in **Device updater**
No information about the imminent firmware update is displayed in the Update dialog field	Update package in incorrect folder (local installation only)	File update package here: C:\ProgramData\seca\seca 103\UpdatePackage
	Key file in incorrect folder (local installation only)	Store key file here: C:\Program Files (x86)\seca\seca 103
Update status: 	No firmware information available, device is switched off (offline)	Switch on the device
Update status: 	Error during update process	• Check device network settings • Check device status at setup location

14.4 Problems when making a connection to the seca analytics 125 software (local installation)

Fault	Cause	Remedy
Installer has no option to enter connection data for seca analytics 125	Installation of the **SCloud Bridge Service** not activated at the beginning of the installation process	• Complete installation • Restart installer and re-install the **SCloud Bridge Service** separately ➔ Preparing setup • Enter connection data ➔ Creating a connection to the seca analytics 125 software
	Out-of-date version of **seca connect 103** in use	Use version 2.2 or higher of **seca connect 103** software
Connection to seca analytics 125 not active	Connection data not entered correctly	• Restart installer and install the **SCloud Bridge Service** separately ➔ Preparing setup • Check connection data and re-enter ➔ Creating a connection to the seca analytics 125 software
	Connection data invalid	Contact seca Service
	SCloud Bridge Service not running	• Start **SCloud Bridge Service** manually (in Windows® under "Task Manager\Services" • Restart **seca connect 103** software
	seca connect 103 R 2.2 or higher: Incorrect path given for "<Your seca scloud Tenant Id>.pem" certificate	Give the correct path ➔ Creating a connection to the seca analytics 125 software
	seca connect 103 R 2.1 or lower: "<Your seca scloud Tenant Id>.pem" certificate is in the incorrect folder	File "<Your seca scloud Tenant Id>.pem" certificate here: C:\Program Files (x86)\seca\seca 103\SCloudBridge
	"<Your seca scloud Tenant Id>.pem" certificate is not available	Contact seca Service

17-10-01-266-002f/05-2021B

14.5 Problems when making a connection to the seca analytics 125 software (cloud application)

Fault	Cause	Remedy
Connection to seca analytics 125 software not active	Connection data not entered correctly	Check connection data and re-enter ➔ seca analytics 125 integration module
	Connection data invalid	Contact seca Service
	Incorrect “<Your seca scloud Tenant Id>.pem” certificate uploaded	Upload correct certificate ➔ seca analytics 125 integration module
	File name of “<Your seca scloud Tenant Id>.pem” certificate changed	Restore the original file name of the certificate
	“<Your seca scloud Tenant Id>.pem” certificate is not available	Contact seca Service

17-10-01-266-002f/05-2021B

15. TECHNICAL DATA

➔ seca 452 interface module

➔ Technical modifications

15.1 seca 452 interface module

seca 452 interface module	
Dimensions • Depth • Width • Height	 91 mm 115 mm 28 mm
Net weight	approx. 150 g
Ambient conditions, operation • Temperature • Air pressure • Humidity	 +10 °C to +40 °C (50 °F to 104 °F) 700 hPa – 1060 hPa 30 % – 80 %, no condensation
Ambient conditions, storage • Temperature • Air pressure • Humidity	 -10 °C to +65 °C (14 °F to 149 °F) 700 hPa – 1060 hPa 15 % – 95 %, no condensation
Ambient conditions, transport • Temperature • Air pressure • Humidity	 -10 °C to +65 °C (14 °F to 149 °F) 700 hPa – 1060 hPa 15 % – 95 %, no condensation
Setup location, maximum altitude above mean sea level	3000 m
Power supply • Type • Supply voltage • Maximum current consumption • Power supply voltage • Power supply frequency	 External power pack 12 V ⎓ 500 mA 100 V ~ – 240 V ~ 50 Hz – 60 Hz
Power consumption	< 6 W
Medical device in accordance with Directive 93/42/EEC	Class I
EN 60601-1: protection class:	II
EN 60601-1: Medical electrical device, Type B	
Type of protection	IP20
Duty cycle	Continuous duty
Storage capacity (number of data records)	at least 10,000
URL **seca web server**	**192.168.4.1**
Interfaces	1 x USB 2.0 (max. 500 mA) LAN (10/100 Base-T) WiFi (2.4 GHz)

17-10-01-266-002f/05-2021B

15.2 Technical modifications

➔ Software/firmware (Release 1.1)

➔ Software/firmware (Release 1.2)

➔ Software/firmware (Release 2.0)

➔ Software/firmware (Release 2.1)

➔ Software/firmware (Release 2.2)

➔ Software/firmware (Release 3.0)

➔ Software/firmware (Release 3.0)

➔ Measuring devices (NEC II firmware from Build 320c/298n/290m)

Software/firmware (Release 1.1)

The package for Release 1.1 contains the following components which come in two separate packages:

Product	Software component
Software: **seca connect 103**	"Build 1951": Software version 1.1.3.1951
Interface module: • External: **seca 452** • Internal: e.g. **seca 336 i**	Release date: March 2019 • Module firmware: 08-06-15-337-A Build 143 (Mar 1 2019) • WiFi firmware: 08-06-15-352_ESP8266 - AT version: 1.7.0.0 - SDK version: 3.0.0 - WPA2 Enterpr.: V1.1: PSK, PEAP Radius

Information on how to install the components can be found here:

- ➔ Updating seca connect 103
- ➔ Interface module: Updating firmware

Features of Release 1.1	
Topic	**Feature**
Data security	• https: SSL protocol is supported • WiFi: Security protocol WPA2-PEAP-RADIUS is supported
Firmware update for interface module	• Query firmware status of the interface module • Display firmware status in the **Device list** • Update individual interface modules or all those connected • Update interface module immediately or specify schedule • Mouseover for update status
Device/workflow settings	• Assign **OrgID** for **Cerner VitalsLink** • **PatientRequired** • **UserRequired** • **ConfirmRequired** • **ID mandatory** • **WeightRequired** • **HeightRequired** • Activate/deactivate acoustic signals of the measuring device (measurement procedure successful/ unsuccessful) • Display device error code in **seca connect 103** as well (previously only on the device) • Check scanner configuration automatically
Cerner VitalsLink module	Set up several **OrgID**s

17-10-01-266-002f/05-2021B

Software/firmware (Release 1.2)

The package for Release 1.2 contains the following components which come in two separate packages:

Product	Software component
Software: **seca connect 103**	"Build 2356": Software version 1.2.21.2356
Interface module: • External: **seca 452** • Internal: e.g. **seca 336 i**	Release date: April 2019 • Module firmware: 08-06-15-337-B Build 20 (Apr 10 2019) • WiFi firmware: - AT version: 1.7.0.0 - SDK version: 3.0.0 - WPA2 Enterpr.: V1.2: PSK, PEAP Radius, TLS

Information on how to install the components can be found here:

- ➔ Updating seca connect 103
- ➔ Interface module: Updating firmware

Features of Release 1.2	
Topic	**Feature**
Data security	• WiFi: Security protocol WPA2-PEAP-TLS is supported
Health Level 7 **HL7Module** integration module	Connection to the Health Level 7 integration module is supported (supported versions: 2.5, 2.6)

Software/firmware (Release 2.0)

The package for Release 2.0 contains the following components:

Product	Software component
Software: **seca connect 103**	Software version 2.0 Release date: November 2019
Interface module: • External: **seca 452** • Internal: e.g. **seca 655**	Release date: November 2019 • Module firmware: 08-06-15-337-C Build 565 • WiFi firmware: - AT version: 1.7.0.0 - SDK version: 3.0.0 - WPA2 Enterpr.: V1.2: PSK, PEAP Radius, TLS

Information on how to install the components can be found here:

- ➔ Updating seca connect 103
- ➔ Interface module: Updating firmware

Features of Release 2.0	
Topic	**Feature**
Installation	Installer revised, sequential installation of following services: • seca_GPX_Device_Communicator • seca_Message_Gateway • seca_Integration_Service • seca_Scloud_Bridge_Service • seca_103_Admin_Interface_Service
Connectivity	New column in the **Device list**: Network Connection Connection types LAN/WiFi are displayed
Firmware updates, interface modules	**Schedule** function no longer applicable
Compatible devices	The following devices are now supported: • seca medical Body Composition Analyzer: **seca mBCA 555**, **seca mBCA 554**, **seca mBCA 552** • seca medical Vital Signs Analyzer: **seca mVSA 535** from firmware Build No.1043 ➔ Compatible seca products

17-10-01-266-002f/05-2021B

Features of Release 2.0	
Topic	**Feature**
Compatible software	**seca analytics 125** is supported ➔ Compatible seca products

Software/firmware (Release 2.1)

The package for Release 2.1 contains the following components:

Product	Software component
Software: **seca connect 103**	Software version 2.1 Release date: June 2020
Interface module: • External: **seca 452** • Internal: e.g. **seca 655**	Release date: November 2019 • Module firmware: 08-06-15-337-C Build 565 • WiFi firmware: - AT version: 1.7.0.0 - SDK version: 3.0.0 - WPA2 Enterpr.: V1.2: PSK, PEAP Radius, TLS

Information on how to install the components can be found here:

- ➔ Updating seca connect 103
- ➔ Interface module: Updating firmware

Features of Release 2.1	
Topic	**Feature**
Installation	WiFi connection: SSIDs containing spaces are supported
Connectivity	HL7 connection: mSQL database available for interrogating patient master data
Firmware updates, interface modules	No changes
Compatible devices	No changes
Compatible software	No changes

Software/firmware (Release 2.2)

The package for Release 2.2 contains the following components:

Product	Software component
Software: **seca connect 103**	Software version 2.2 Release date: September 2020
Interface module: • External: **seca 452** • Internal: e.g. **seca 655**	Release date: September 2020 • Module firmware: 08-06-15-337-D Build 615 • WiFi firmware: - AT version: 1.7.0.0 - SDK version: 3.0.0 - WPA2 Enterpr.: V1.2: PSK, PEAP Radius, TLS

Information on how to install the components can be found here:

- ➔ Updating seca connect 103
- ➔ Interface module: Updating firmware

Features of Release 2.2	
Topic	**Feature**
Installation	Installer revised • **Setup Type** can be selected: **Basic**, **Expert** • **seca SCloud bridge Service Settings**: **Browse** function available for .pem file • Question “Restart computer now or later?” once installation complete

17-10-01-266-002f/05-2021B

Features of Release 2.2	
Topic	**Feature**
Connectivity	User and patient data: • LDAP is supported • Extract user and patient IDs from complex QR/RFID structures • Capsule technologies: - Supported: seca scales, seca measuring rods - Not supported: seca mVSAs, seca mBCAs
Firmware updates, interface modules	Print measured results via P2P (WiFi/LAN) connection
Compatible devices	No changes
Compatible software	No changes

Software/firmware (Release 3.0)

Release 3.0 contains the following components:

Product	Software component
Software: **seca connect 103**	Software version 3.0 Release date: May 2021
Interface module: • External: **seca 452** • Internal: e.g. **seca 655**	Release date: February 2021 • Module firmware: 08-06-337-E Build 10 • WiFi firmware: - AT version: 1.7.0.0 - SDK version: 3.0.0 - WPA2 Enterpr.: V1.2: PSK, PEAP Radius, TLS

Information on how to install the components can be found here:

- **seca connect 103** software: no manual installation required
- ➔ Interface module: Updating firmware

NOTE
In order to be able to use the features of Version 3.0 of the software, you need to update the firmware of the interface module.

Features of Release 3.0	
Topic	**Feature**
Operating form of the software	• Software available as cloud application • Version 3.0 not available as a local installation
Connectivity	Connection to **seca analytics 125** integration module for cloud application
Administration	Tenant management: • Tenants can be created in every instance of the software • Possible to assign the connected measuring devices to a tenant

Measuring devices (NEC II firmware from Build 320c/298n/290m)

Firmware for devices with NEC II electronics (**seca 360° wireless**) has been updated. Device characteristics have been adapted to products with an internal interface module (e.g. **seca 336 i**).

NOTE
- Updated device firmware is only available on new devices. Existing devices **cannot** be updated.
- Requirement for using the new features: **seca connect 103** software and external **seca 452** interface module with release package 1.1 or higher

17-10-01-266-002f/05-2021B

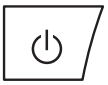
NEC II firmware features from Build 320c/298n/290m	
Topic	**Feature**
Firmware for devices with NEC II electronics (**seca 360° wireless** devices)	• Use the send/print key as a confirm key to send measured results to the EMR system • Automatic activation of the hold function at the start of a measurement procedure • Clear key deletes height value • Device display shows “IdU” or “IdP” following successful scan of user ID or patient ID • Acoustic workflow signals (measurement procedure successful/unsuccessful) can be activated

17-10-01-266-002f/05-2021B

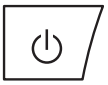
16. COMPATIBLE SECA PRODUCTS

The **seca connect 103**/**seca 452** interface module system currently supports the seca products mentioned in the table. Support of additional seca products is in preparation. Current information can be found at www.seca.com.

The system has limited downward compatibility with older device generations. For a quick check whether your seca measuring device is compatible, compare the keyboard design (for example, the Start key) of your device with the images in the table.

Device	From serial number	Connection to the seca connect 103 software	Quick check ☑	Quick check ☒
Baby scales				
seca 336 i **seca 333 i**	No restriction	Internal interface module		-
seca 757 **seca 727**	**seca 360° wireless**: 10000000034256 10000000034243	**seca 452** interface module		
Measuring stations				
seca 285/**seca 284** **seca 287**/**seca 286**	No restriction	**seca 452** interface module		-
seca 787 **seca 797**	No restriction	**seca 452** interface module Internal interface module		
Body Composition Analyzer/Vital Signs Analyzer				
seca mBCA 555 **seca mBCA 554** **seca mBCA 552**	No restriction	Internal interface module	-	-
seca mVSA 535	From firmware Build No.1043	Internal interface module		-
Multifunctional scales				
seca 651 **seca 650**	No restriction	Internal interface module	-	-
seca 655 **seca 654**	No restriction	Internal interface module	-	-
seca 635 **seca 634**	**seca 360° wireless**: 10000000026211 10000000027487	**seca 452** interface module		
seca 645 **seca 644**	**seca 360° wireless**: 10000000027015 10000000027016			
seca 657 **seca 656**	**seca 360° wireless**: 10000000021683 10000000026289			
seca 665 **seca 664**	**seca 360° wireless**: 10000000022821 10000000027014			
seca 677 **seca 676**	**seca 360° wireless**: 10000000020483 10000000024369			
seca 675 **seca 674**	**seca 360° wireless**: 10000000026776 10000000023806			
seca 685 **seca 684**	**seca 360° wireless**: 10000000017288 10000000017495			

17-10-01-266-002f/05-2021B

Device	From serial number	Connection to the seca connect 103 software	Quick check	
			☑	☒
Column scales				
seca 704 **seca 703**[a]	**seca 360° wireless**: 5704209100721 5703209102764	**seca 452** interface module		
Chair scales[a.]				
seca 954 (1309007) **seca 954** (1309377)	**seca 360° wireless**: 10000000005919 10000000011074	**seca 452** interface module		
seca 959 (7021002) **seca 959** (7021092)	10000000014301 10000000014426			
seca 963	10000000045451			
seca software				
seca analytics 125	No restriction	LAN/WiFi	-	-

a.**seca 452** interface module can only be retrofitted by authorized service technicians

17. OPTIONAL ACCESSORIES AND SPARE PARTS

Optional accessories and spare parts	Article number
Scanner (medical device): • Honeywell Xenon 1900H (2D) • Datalogic Gryphon I (GD4430 HC (2D)	Cannot be ordered through seca
Carts: • **seca 402** Baby Scale Cart • **seca 403** Baby Scale Cart	402 0000 009 403 0000 009
Mobile power supply: • **seca 454** for compatible scales • **seca 454** for compatible baby scales on seca Baby Scale Cart	454 0000 009 454 0010 009

18. DISPOSAL

➔ Devices
➔ Batteries/rechargeable batteries

18.1 Devices

Do not dispose of the device with household waste. The device must be disposed of properly as electronic waste. Comply with the national provisions applicable in your country. For further information contact our service department at:

service@seca.com

18.2 Batteries/rechargeable batteries

Spent (rechargeable) batteries should not be discarded with household waste, regardless of whether they contain harmful substances or not. As a consumer you are obliged by law to dispose of (rechargeable) batteries via the collection points set up by the municipal authorities or the retail sector. Only discard (rechargeable) batteries when fully discharged.

17-10-01-266-002f/05-2021B

19. WARRANTY

➔ Software
➔ Device

19.1 Software

Please note that this software is subject to warranty restrictions which may arise in conjunction with the license, for example. The warranty restrictions can be called up at www.seca.com.

19.2 Device

We offer a two-year warranty from the date of delivery for defects attributable to faulty material or poor workmanship. This excludes all moveable parts such as (rechargeable) batteries, cables, power supply units, etc. Defects which are covered by the warranty shall be rectified free of charge for customers on production of the sales receipt. No further claims can be accepted. The costs of shipment in both directions shall be borne by the customer where the device is not located at the customer's premises. In the event of any damage during shipment warranty claims can only be asserted where the complete original packaging was used for shipment and the device was secured inside in the same manner as in the original packaging. You should therefore keep all packaging.

The warranty shall become null and void where the device is opened by persons not expressly authorised to do so by seca.

In the event of a warranty issue, please contact your local seca office or the dealer from whom you ordered the product.

17-10-01-266-002f/05-2021B

20. DECLARATIONS OF CONFORMITY

➔ For Europe
➔ For USA and Canada

20.1 For Europe

CE

seca gmbh & co. kg hereby declares that the product meets the terms of the applicable European directives. The unabridged declaration of conformity can be found at: www.seca.com.

20.2 For USA and Canada

seca 452

WiFi Module:
FCC ID: 2AC7Z-ESPWROOM02
IC ID: 21098-ESPWROOM02

FC

This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions. (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE
This device complies with Part 15 of the FCC Rules and with RSS-210 of Industry Canada. Operation is subject to the following two conditions:
- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

NOTE
Changes or modifications made to this equipment not expressly approved by seca may void the FCC authorization to operate this equipment.

NOTE
Radiofrequency radiation exposure information:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 1 m between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

17-10-01-266-002f/05-2021B

21. ANNEX: QUICK REFERENCE FOR MEASUREMENT PROCEDURE

21.1 Quick reference for seca devices with external seca 452 interface module

Quick reference: Measurement procedure for network integrated seca devices
Devices using external interface module seca 452

Device identification	
Device name:	
Device type:	
Device location:	
Server address (seca connect 103):	
Port:	

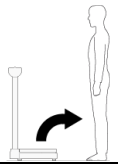
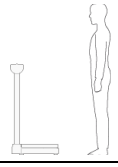
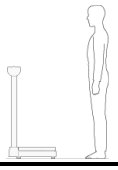
Device settings	
☐	Scan patient ID
☐	Scan User ID
☐	Confirm measurement at device
☐	ID mandatory
☐	Weight required
☐	Height required
☐	Beep signals

Use these features as indicated only:
Notice: Failure to use these features as indicated below will result in invalid values being transferred to the EMR.

Applicable to this device?	Feature		Use this feature?
☐	**hold** key *		Do not use!
☐	**bmi** key		Do not use!
☐	**send/print** **		Do not use!
☐	**tare**		Deactivate feature after each measurement to clear **tare** value from memory
☐	**clear** key ***		Press key **before** each measurement to clear obsolete length value from memory
☐	**BMIF**		Deactivate feature before confirming measurement

* **hold** key can be used for seca 333 i, seca 336 i, seca 797 and seca 360° devices with NEC II firmware from Build 320c/298n/290m.
** Use **send** key on head slide of seca 285/284 as usual. For seca 360° devices with NEC II firmware Build 320c/298n/290m or higher, the **send/print** button can be used as confirm key to send measurement results to an EMR system.
*** **clear** key an be used after the measurement for seca 360° devices with NEC II firmware from Build 320c/298n/290m, to delete the current height value and not to send.

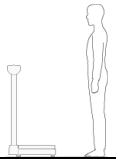
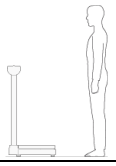
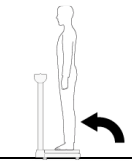
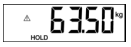
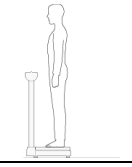
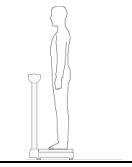
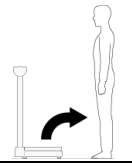
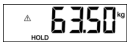
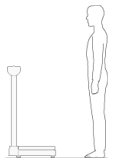
What to do if....

Interface module seca 452	seca Device	Patient	User
 Workflow LEDs solid red			Data transmission error • Ask patient to step off device. • Wait till workflow LEDs go out. • Go through COMPLETE measurement procedure.
 Network LED flashing green			Establishing network connection. • Wait till network LED ist solid green. • Then start measurement procedure.
 Network or Power LED flashing or solid red			Malfunction, contact administrator.

Page 1/2

17-10-01-266-002f/05-2021B

Measurement procedure

Integration module seca 452	seca Device	Patient	User
 Network or Power LED solid green			• Make sure device is switched on. • Make sure power and network LEDs are solid green.
 Workflow LEDs solid green			Enter ID(s) as stated in "Device settings".
 Network or Power LED solid green			Ask patient to step on device.
 Workflow LEDs solid green			Wait till display shows result permanently.
 Workflow LEDs flashing green			Scan Confirm bar code if device is set accordingly (see "Device settings").
 Workflow LEDs solid green for approx. 5 seconds			• Wait till workflow LED is solid green. • Ask patient to step off device.
 Network or Power LED solid green			• Wait till workflow LED goes out. • Measuring result remains in display. • Device is ready for new measurement procedure.
NOTE If result seems implausible go through COMPLETE measurement procedure again.			

21.2 Quick reference for seca devices with internal interface module

Quick reference: Measurement procedure for network integrated seca devices
Devices with internal interface module

Device identification	
Device name:	
Device type:	
Device location:	
Server address (seca connect 103):	
Port:	

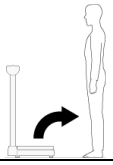
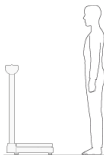
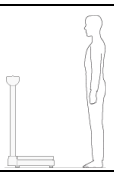
Device settings	
☐	Scan patient ID
☐	Scan User ID
☐	Confirm measurement at device
☐	ID mandatory
☐	Weight required
☐	Height required
☐	Bioimpedance data required
☐	Waist circumference required
☐	Beep signals

Use these features as indicated only:
Notice: Failure to use these features as indicated below will result in invalid values being transferred to the EMR.

Applicable to this device?	Feature		Use this feature?
☐	**hold** key *		Do not use!
☐	**bmi** key		Do not use!
☐	**send/print** **		Do not use!
☐	**tare**		Deactivate feature after each measurement to clear **tare** value from memory
☐	**clear** key ***		Press key **before** each measurement to clear obsolete length value from memory
☐	**BMIF**		Deactivate feature before confirming measurement

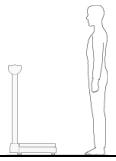
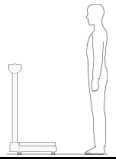
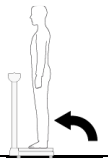
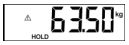
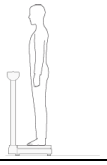
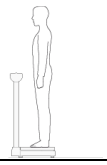
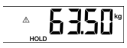
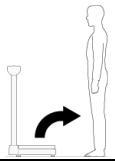
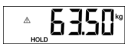
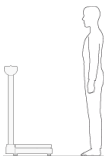
* **hold** key can be used for seca 333 i, seca 336 i, seca 797 and seca 360° devices with NEC II firmware from Build 320c/298n/290m.
** Use **send** key on head slide of seca 285/284 as usual. For seca 360° devices with NEC II firmware Build 320c/298n/290m or higher, the **send/print** button can be used as confirm key to send measurement results to an EMR system.
*** **clear** key an be used after the measurement for seca 360° devices with NEC II firmware from Build 320c/298n/290m, to delete the current height value and not to send.

What to do if….

LED indicators	Display	Patient	User
Workflow LEDs solid red			Data transmission error • Ask patient to step off device. • Wait till workflow LEDs go out. • Go through COMPLETE measurement procedure.
 Network LED flashing green			Establishing network connection. • Wait till network LED ist solid green. • Then start measurement procedure.
 Network or Power LED flashing or solid red			Malfunction, contact administrator.

17-10-01-266-002f/05-2021B

Measurement procedure

LED indicators	seca Device	Patient	User
1.  Network or Power LED solid green			• Make sure device is switched on. • Make sure power and network LEDs are solid green.
2.  Workflow LEDs solid green			Enter ID(s) as stated in "Device settings".
3.  Network or Power LED solid green			Ask patient to step on device.
4.  Workflow LEDs solid green			Wait till display shows result permanently.
5.  Workflow LEDs flashing green			Scan Confirm bar code if device is set accordingly (see "Device settings").
6.  Workflow LEDs solid green for approx. 5 seconds			• Wait till workflow LED is solid green. • Ask patient to step off device.
7.  Network or Power LED solid green			• Wait till workflow LED goes out. • Measuring result remains in display. • Device is ready for new measurement procedure.
NOTE : If result seems implausible go through COMPLETE measurement procedure again.			

FOR SERVICE TECHNICIANS: SERVICING AND REPAIRING THE SYSTEM

➔ Retrofitting 703 column scales

➔ Retrofitting 959/954/963 chair scales

➔ For administrators: Setting up and operating the system

1. ABOUT THIS DOCUMENT

NOTE

- The topics described in this part of the user documentation are exclusively intended for seca trained service technicians.
- Observe the information for administrators ➔ For administrators: Setting up and operating the system.

2. RETROFITTING 703 COLUMN SCALES

➔ Preparing the scale

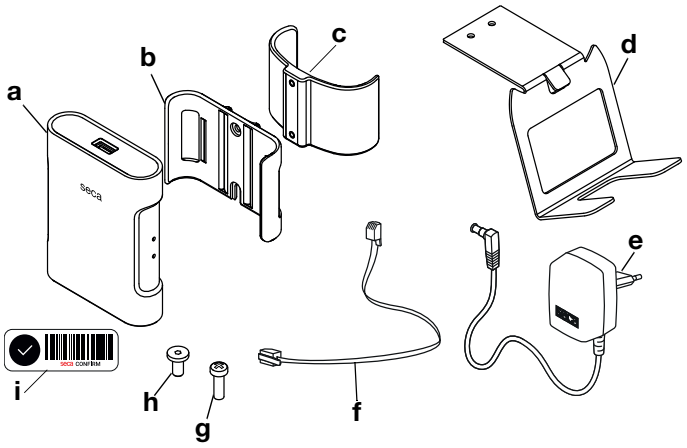
➔ Fitting the seca 452 interface module

➔ Fitting the scanner bracket

➔ Connecting a seca 452 interface module

➔ Performing final work

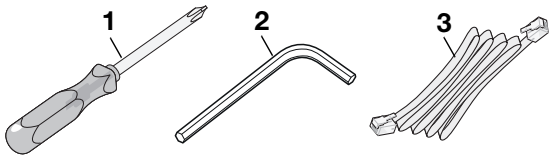
You need the following parts of **seca 452**, product no. 452 0050 009:



Item	Component	Pcs.
a	**seca 452** interface module	1
b	Bracket	1
c	Column bracket	1
d	Scanner bracket	1
e	Plug-in power supply unit	1
f	Connecting cable, long	1
g	Cross-head screw	2
h	Hex head socket screw	2
i	Label with Confirm barcode	1

17-10-01-266-002f/05-2021B

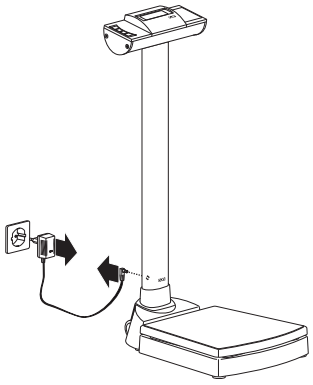
Depending on the installation and connection version, you may need the following tools (not included in the scope of delivery):



Item	Component	Size
1	Cross-head screwdriver	PH 1
2	Hex socket wrench	Size 4.0
3	LAN cable	n/a

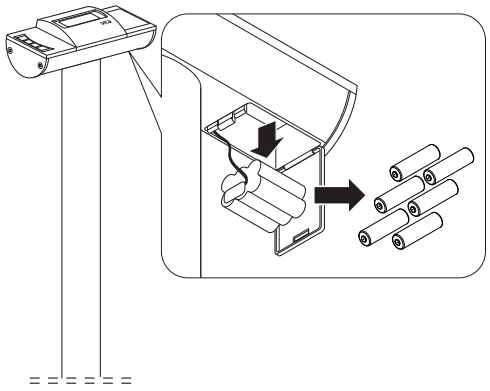
2.1 Preparing the scale

1. Clean and disinfect the scale as described in the respective instructions for use.
2. Switch off the scale.
3. Disconnect the plug-in power supply unit from the power supply socket.
4. Pull the power cable out of the scale.



NOTE
After the retrofit, the scale is supplied with power via the **seca 452** interface module.

5. Remove the batteries:
   a) Press the latch of the battery compartment
   b) Open the lid of the battery compartment
   c) Remove batteries from the battery holder
   d) Put battery holder back and close lid again

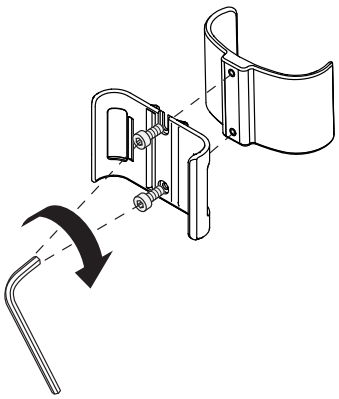


17-10-01-266-002f/05-2021B

6. Store the plug-in power supply unit and the batteries or dispose of them properly (➔ Disposal).

2.2 Fitting the seca 452 interface module

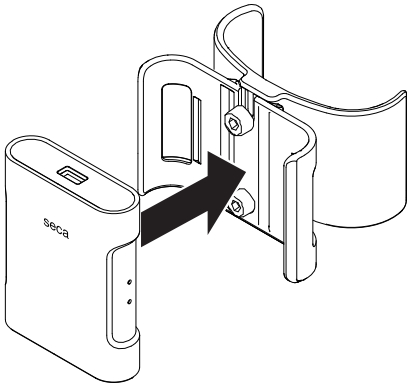
1. Screw the bracket to the column bracket with two hex head socket screws.



2. Press the column bracket onto the column at the height of the power supply connection.

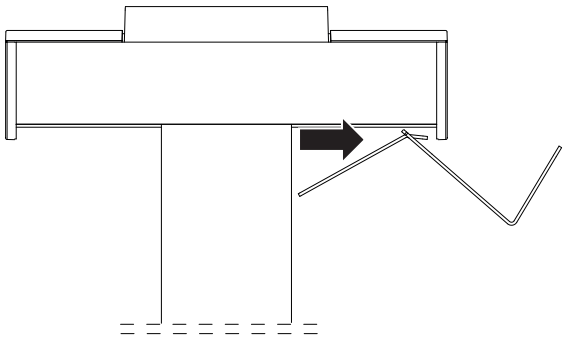
NOTE
The power supply connection is no longer needed, the column bracket can completely cover the power supply connection.

3. Press the **seca 452** interface module into the bracket.



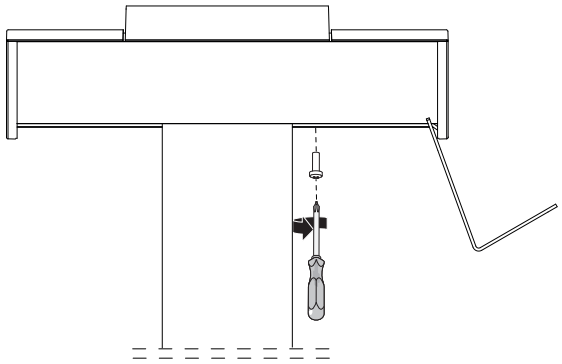
2.3 Fitting the scanner bracket

1. Hook the scanner bracket to the desired side part of the display housing.



17-10-01-266-002f/05-2021B

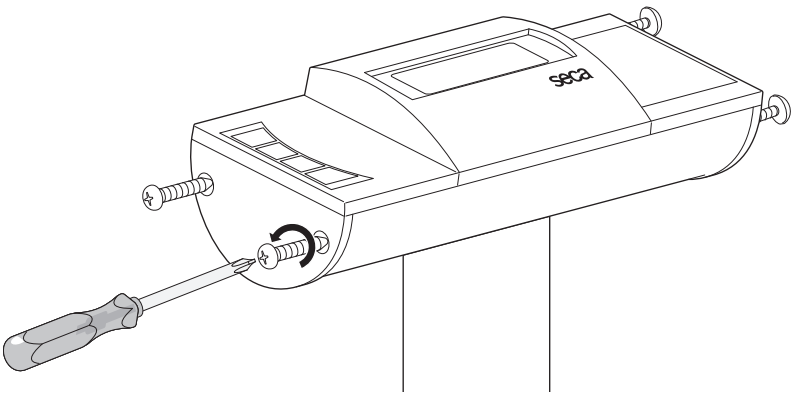
2. Screw the scanner bracket to the bottom of the display housing with two cross-head screws.



2.4 Connecting a seca 452 interface module

1. Remove the display housing of the scale:
   a) Remove seca quality seal on side cap

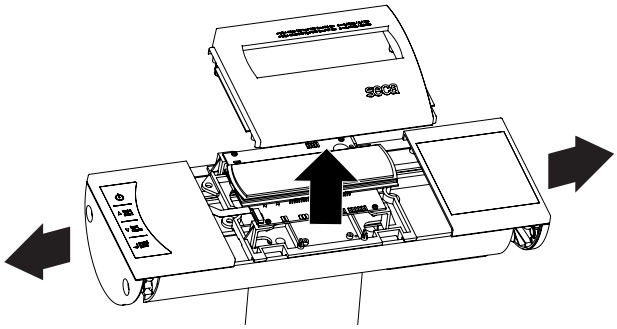
   b) Loosen screws on both side caps



17-10-01-266-002f/05-2021B

c) Push the right and left parts of the housing outward somewhat

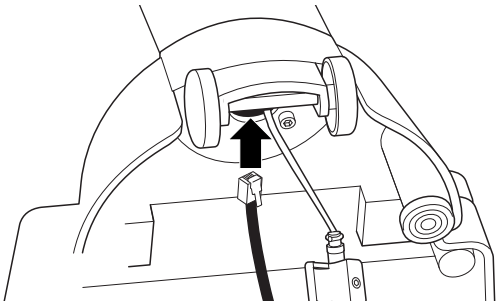
d) Remove display cover



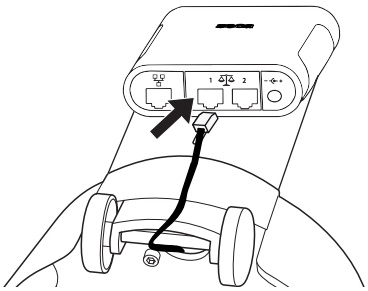
2. Connect the scale to the **seca 452** interface module:

a) Carefully tilt scale so that the underneath of the scale is accessible

b) Thread connecting cable into the column from below and push upward



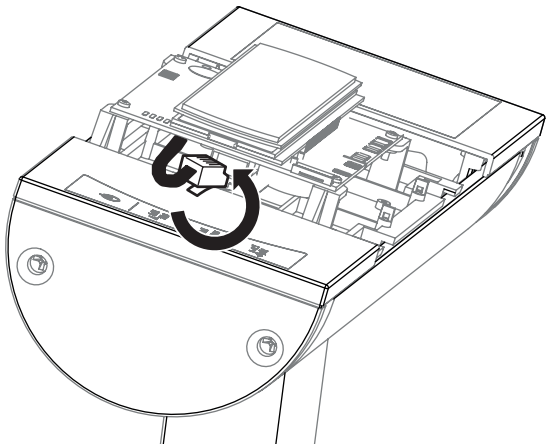
c) Connect the lower end of the connecting cable to interface 1 of the **seca 452** interface module



17-10-01-266-002f/05-2021B

d) Position the scale upright

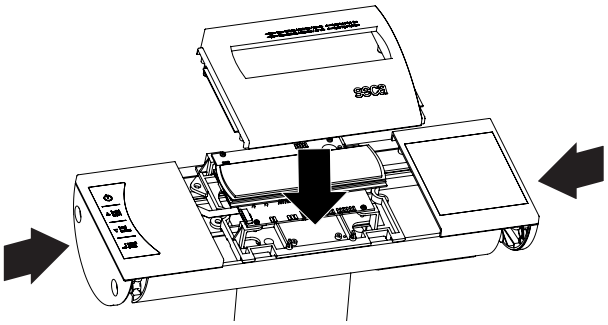
e) Pull the connecting cable out from under the display and connect it to the display electronics



3. Fit the display housing of the scale:

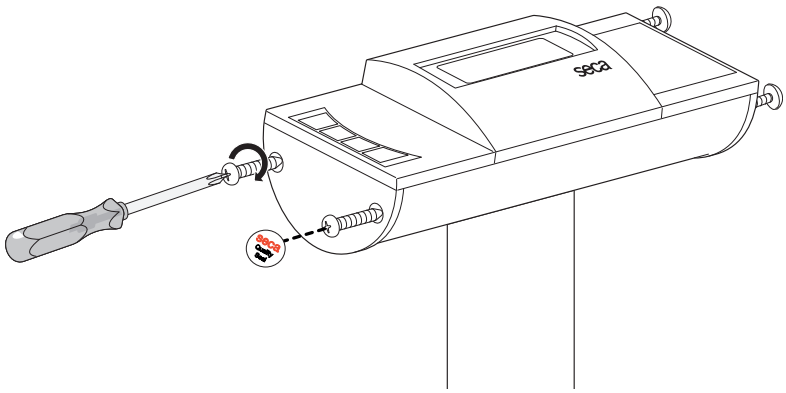
a) Put on display cover

b) Push the right and left parts of the housing inward



c) Tighten screws on side caps

d) Renew seca quality seal

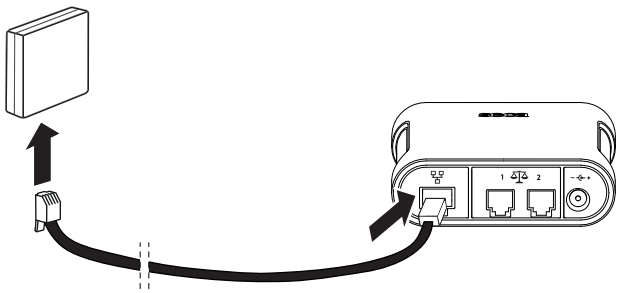


You have the following options for continuing:

- For communication via LAN, continue at step 4.
- For communication via WiFi, continue at step 5.

17-10-01-266-002f/05-2021B

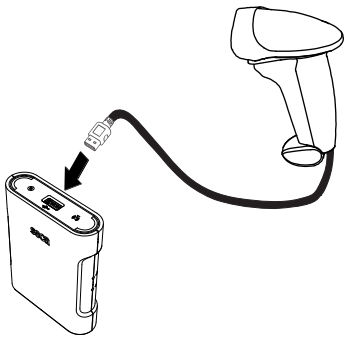
4. Connect a LAN cable to the **seca 452** interface module:
   a) Connect the LAN cable to the LAN interface of the **seca 452** interface module
   b) Connect the LAN cable to the network socket



NOTICE!
Malfunction caused by an incompatible scanner
Incompatible scanners can lead to faulty data transmission or system malfunction.

- Only use scanners that are listed in the section ➔ Optional accessories and spare parts.

5. Connect a scanner to the **seca 452** interface module:
   a) Connect the scanner cable to the USB interface of the **seca 452** interface module
   b) Attach the scanner to the scanner bracket



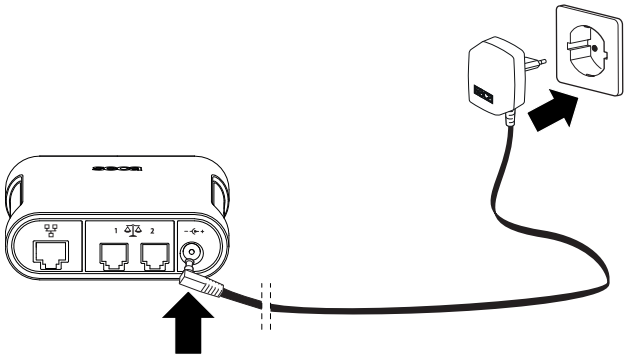
6. Apply the label with the Confirm barcode to a place you can reach easily with the scanner.

NOTICE!
Damage to device due to incorrect power supply unit
The plug-in power supply unit of the scale is not suitable for operation with the **seca 452** interface module.

- Only use the plug-in power supply unit included in the scope of delivery of **seca 452** (product no. 452 0050 009).

17-10-01-266-002f/05-2021B

7. Connect the plug-in power supply unit to the **seca 452** interface module:
   a) Connect the power cable to the power supply connection of the **seca 452** interface module
   b) Insert the plug-in power supply unit into a power supply socket



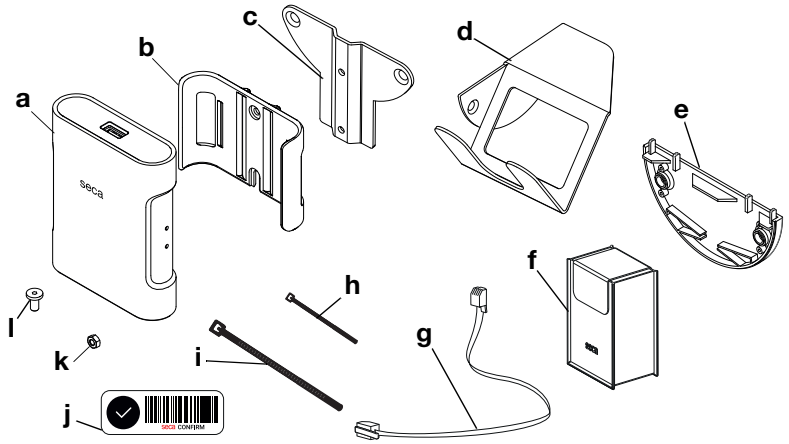
8. Perform the necessary final work ➔ Performing final work.

17-10-01-266-002f/05-2021B

3. RETROFITTING 959/954/963 CHAIR SCALES

NOTE
This fitting variant is for use with the **seca 454** mobile power supply: Instructions for fitting the parts for **seca 454** (product no. 454 0000 009) can be found in the device description included with the product.

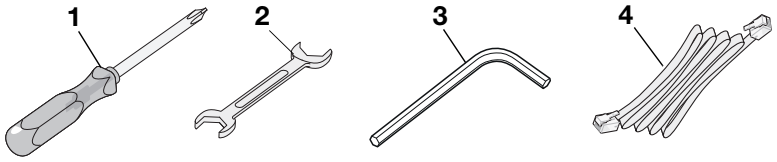
You need the following parts of **seca 452**, product no. 452 0030 009:



Item	Component	Pcs.
a	**seca 452** interface module	1
b	Bracket	1
c	Adapter plate	1
d	Scanner bracket	1
e	Side cap	1
f	**seca 471** bag	2
g	Connecting cable	1
h	Cable tie, small	1
i	Cable tie, large	5
j	Label with Confirm barcode	1
k	Nut	2
l	Hex head socket screw	2

17-10-01-266-002f/05-2021B

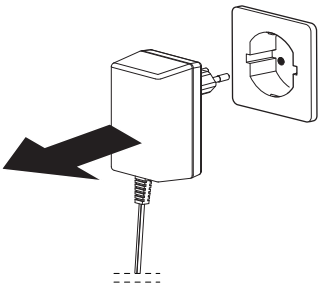
Depending on the installation and connection version, you may need the following tools (not included in the scope of delivery):



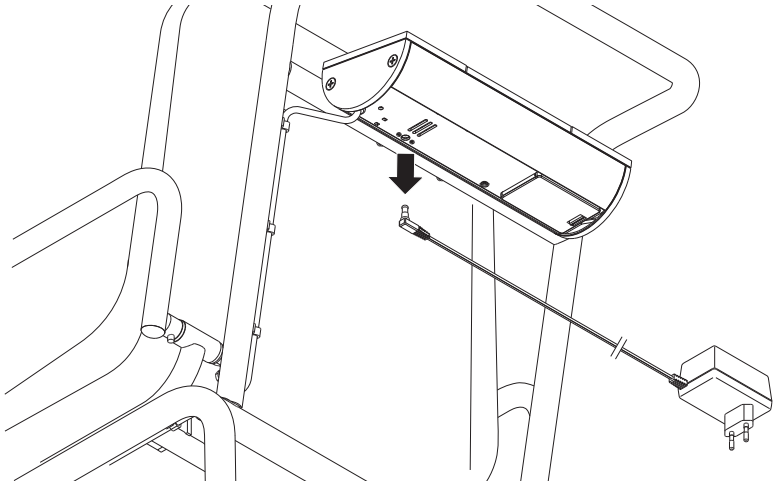
Item	Component	Size
1	Cross-head screwdriver	PH 1
2	Wrench	Size 7
3	Hex socket wrench	Size 2.5
4	LAN cable	n/a

3.1 Preparing the scale

1. Clean and disinfect the scale as described in the respective instructions for use.
2. Switch off the scale.
3. Disconnect the plug-in power supply unit from the power supply socket.



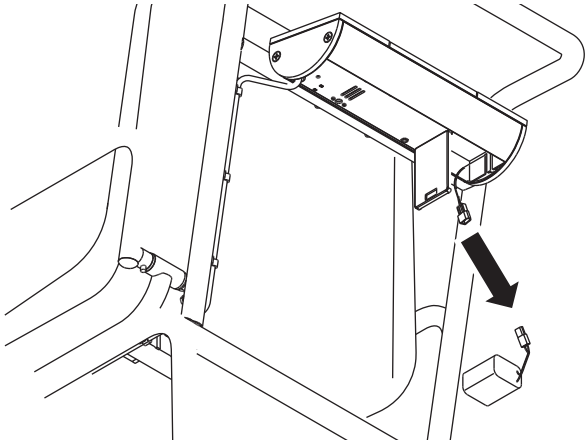
4. Pull the power cable out of the scale.



NOTE
After the retrofit, the scale is supplied with power via the **seca 452** interface module.

17-10-01-266-002f/05-2021B

5. Remove the battery block:
   a) Press the latch of the battery compartment
   b) Open the lid of the battery compartment
   c) Disconnect the battery block from the connector cable
   d) Close the lid



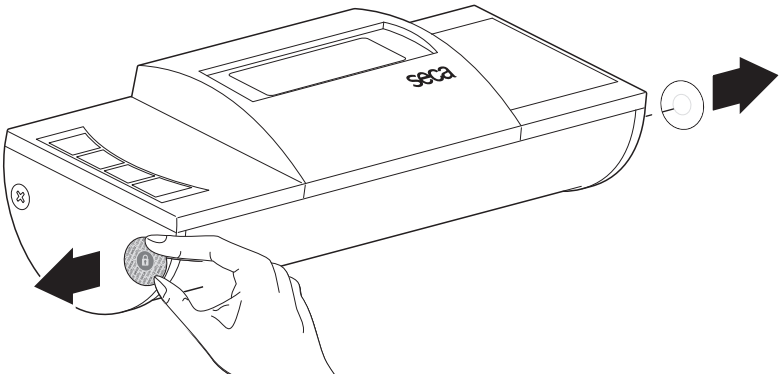
6. Store the battery pack or dispose of it properly (➔ Disposal).

17-10-01-266-002f/05-2021B

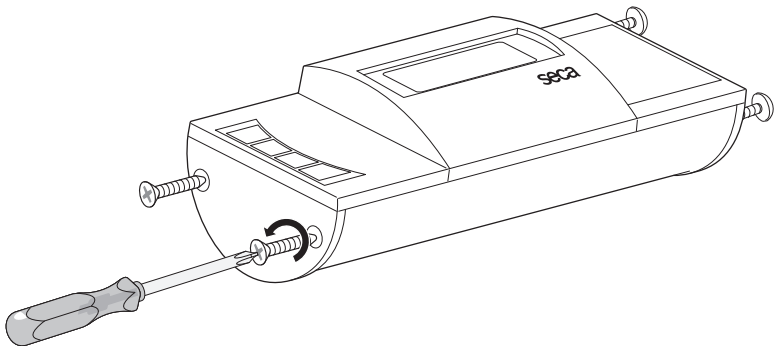
3.2 Connecting the connecting cable to the display unit

1. Open the display housing of the scale:
   a) Remove seca quality seal on both side caps

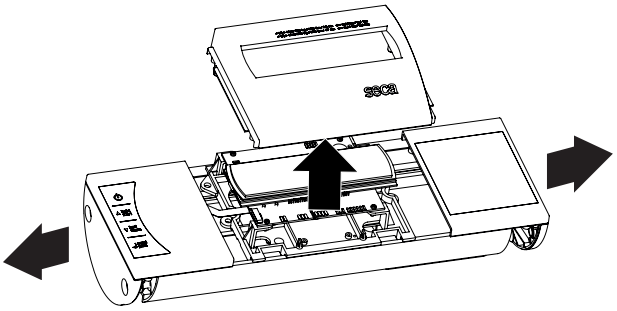
NOTE
If you remove a seca quality seal from verified models, observe the national regulations on verification.



   b) Loosen screws on both side caps



   c) Push the right and left parts of the housing outward somewhat
   d) Remove display cover



NOTICE!
Malfunction due to error in installation
If you remove the left-hand part of the housing with a jerk, you may damage the ribbon cable for the film keypad and thus lead to a functional failure.

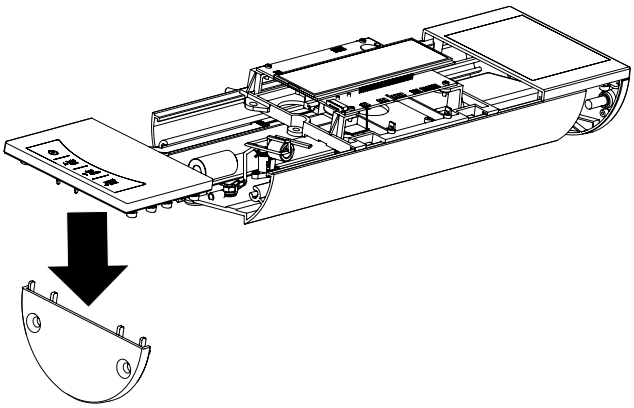
- ► Remove the left-hand part of the housing carefully.
- ► Ensure that the ribbon cable is not kinked when you put down the operating housing.

2. Carefully remove the left-hand part of the housing.

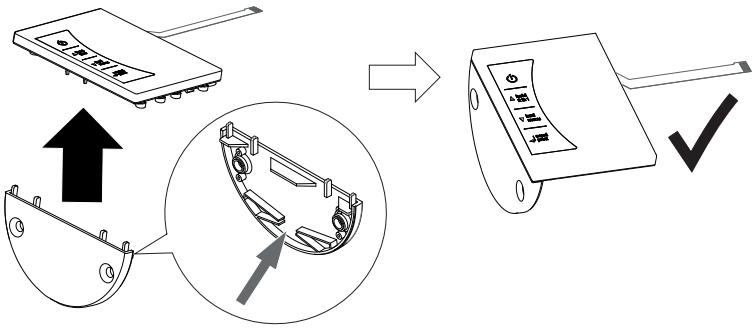
17-10-01-266-002f/05-2021B

3. Replace the side cap on the left-hand part of the housing:
   a) Remove side cap from the cover

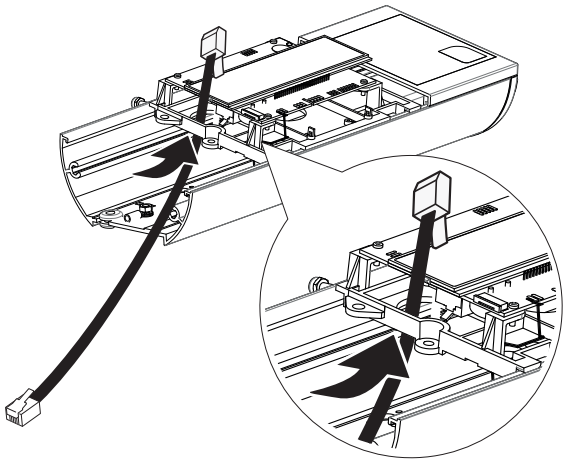
   NOTE
   This side cap is no longer needed.



   b) Insert the side cap included in the scope of delivery onto the cover

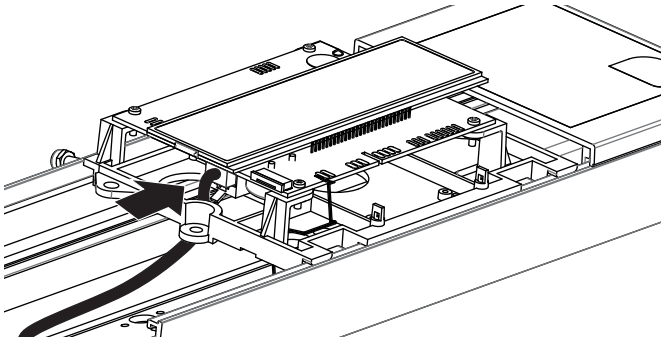


4. Thread in the connecting cable as shown in the figure.

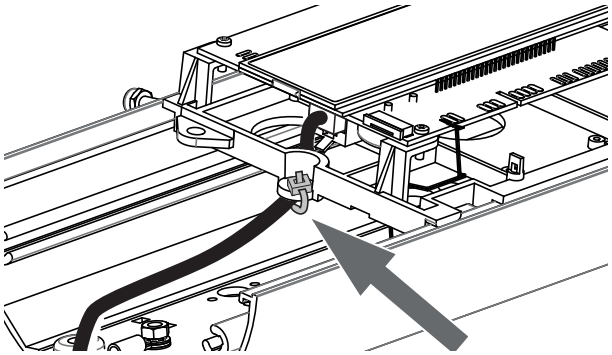


17-10-01-266-002f/05-2021B

5. Connect the connecting cable to the display electronics.



6. Secure the connecting cable to the eye of the frame using the small cable tie.



NOTICE!

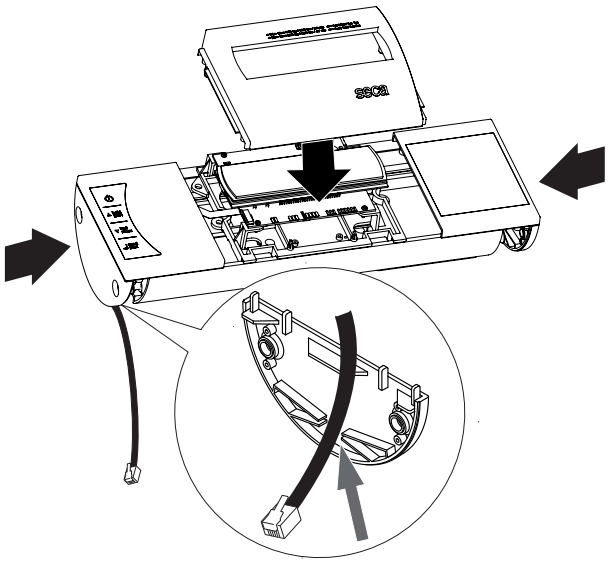
Malfunction due to error in installation

When you insert the left-hand part of the housing, you may damage the ribbon cable for the film keypad and thus lead to a functional failure.

- ► Insert the left-hand part of the housing carefully.
- ► Ensure that the ribbon cable is not twisted or trapped when you insert the housing.

17-10-01-266-002f/05-2021B

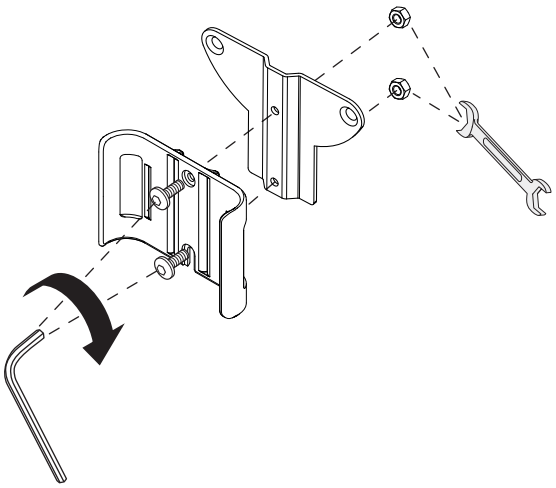
7. Close the display housing of the scale:
   a) Insert the left-hand part of the housing
   b) Put on display cover
   c) Slide the right-hand part of the housing onto the lower part of housing as far as it will go
   d) Position the connecting cable in the left side cap as shown in the figure
   e) Slide the left-hand part of the housing onto the lower part of housing as far as it will go



NOTE
The right-hand and left-hand parts of the housing are screwed down in subsequent assembly steps.

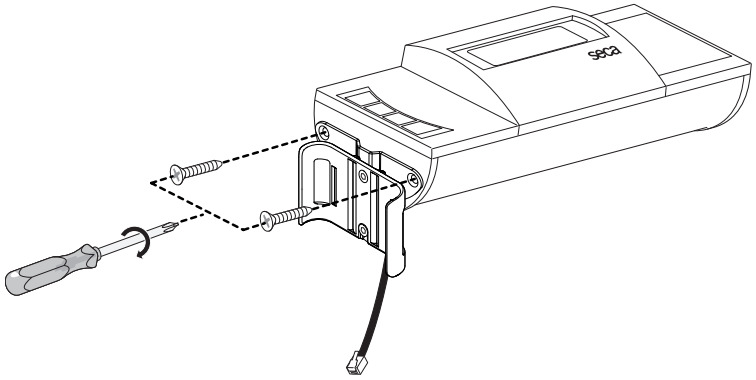
3.3 Fitting the seca 452 interface module

1. Screw the bracket to the adapter plate using two hex head socket screws and two nuts.

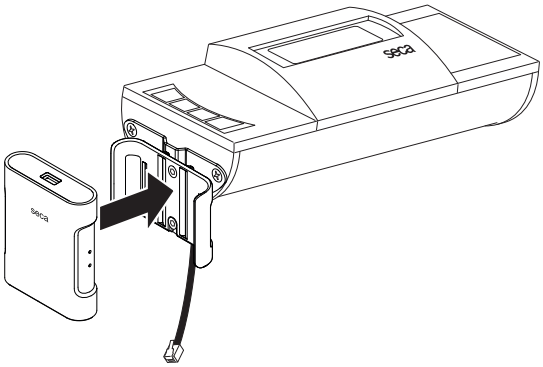


17-10-01-266-002f/05-2021B

2. Screw the adapter plate to the left side cap with two cross-head screws.

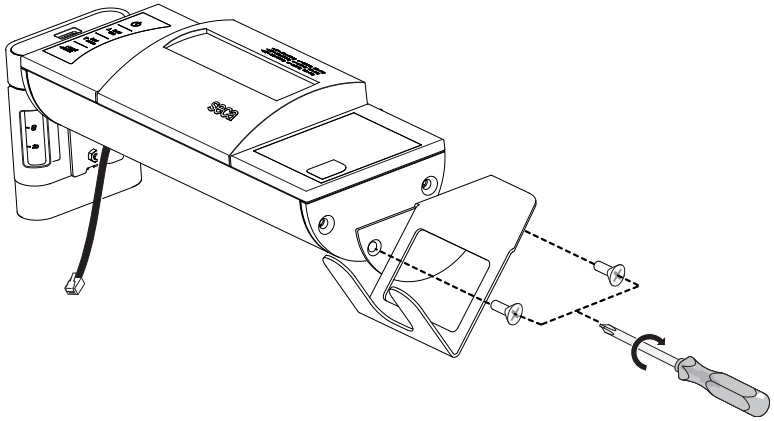


3. Press the **seca 452** interface module into the bracket.



3.4 Fitting the scanner bracket

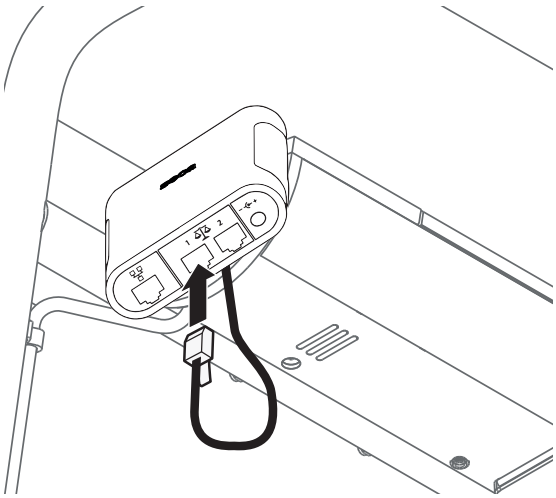
► Screw the scanner bracket to the right side cap using two cross-head screws.



17-10-01-266-002f/05-2021B

3.5 Connecting a seca 452 interface module

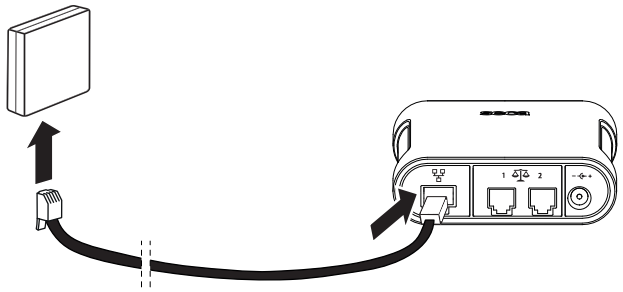
1. Connect the connecting cable to interface 1 of the **seca 452** interface module.



You have the following options for continuing:

- Communication via LAN (stationary use only): continue at step 2.
- For communication via WiFi, continue at step 3.

2. Connect a LAN cable to the **seca 452** interface module:
   a) Connect the LAN cable to the LAN interface of the **seca 452** interface module
   b) Connect the LAN cable to the network socket

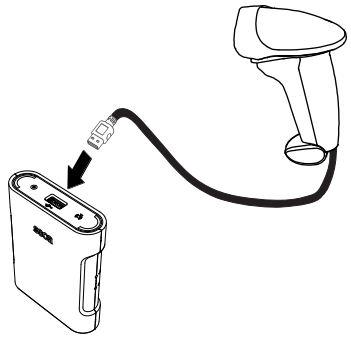


NOTICE!
Malfunction caused by an incompatible scanner
Incompatible scanners can lead to faulty data transmission or system malfunction.

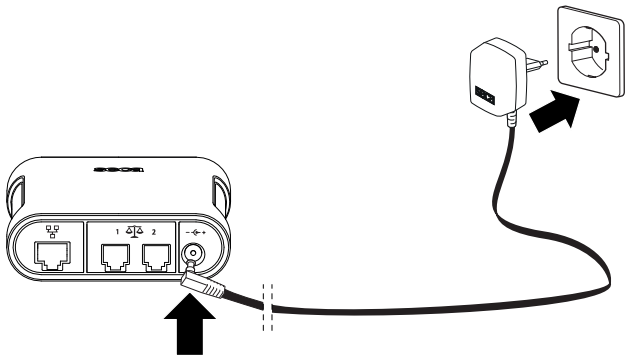
- Only use scanners that are listed in the section ➔ Optional accessories and spare parts.

17-10-01-266-002f/05-2021B

3. Connect a scanner to the **seca 452** interface module:
   a) Connect the scanner cable to the USB interface of the **seca 452** interface module
   b) Attach the scanner to the scanner bracket
   c) If required, attach the scanner cable to a connecting strut of the chair scale using cable ties



4. Apply the label with the Confirm barcode to a place you can reach easily with the scanner.
   You have the following options for continuing:
   - Scale powered by a plug-in power supply unit (stationary use only): continue at step 5.
   - Scale powered by a mobile power supply: continue at ➔ Connecting the seca 454 mobile power supply
5. Connect the plug-in power supply unit of the chair scale to the **seca 452** interface module:
   a) Connect the power cable to the power supply connection of the **seca 452** interface module
   b) Insert the plug-in power supply unit into a power supply socket



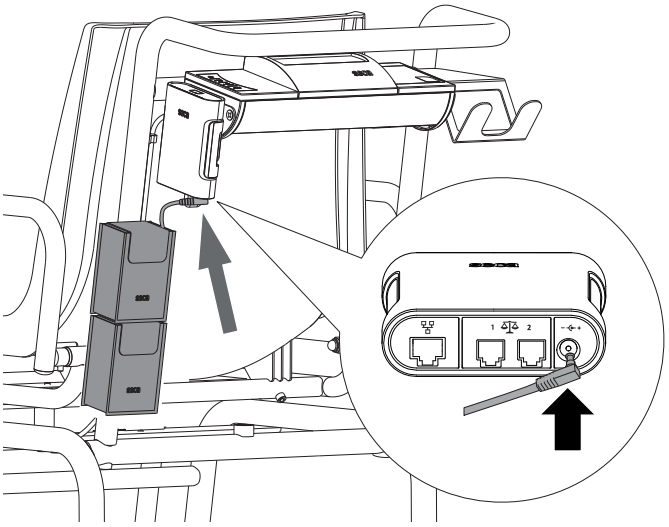
6. Perform the necessary final work, ➔ Performing final work.

17-10-01-266-002f/05-2021B

3.6 Connecting the seca 454 mobile power supply

NOTE
Instructions for fitting the parts for **seca 454** (product no. 454 0000 009) can be found in the device description included with the product.

1. Fit and charge the **seca 454** mobile power supply as described in the **seca 454** device description.
2. Attach the **seca 471** bags one above the other on the chair scale.
3. Store the charger in the lower bag.
4. Store the **seca 454** mobile power supply in the top bag and route the power supply cable outwards.
5. Connect the power cable to the power supply connection of the **seca 452** interface module.



6. Perform the necessary final work, ➔ Performing final work.

17-10-01-266-002f/05-2021B

Medical Measuring Systems and Scales since 1840

seca gmbh & co. kg
Hammer Steindamm 3–25
22089 Hamburg · Germany
T +49 40 20 00 00 0
F +49 40 20 00 00 50
E info@seca.com

seca operates worldwide with headquarters
in Germany and branches in:
seca france
seca united kingdom
seca north america
seca schweiz
seca zhong guo
seca nihon
seca mexico
seca austria
seca polska
seca middle east
seca suomi
seca américa latina
seca asia pacific
seca danmark
seca benelux
seca lietuva
and with exclusive partners in
more than 110 countries.
All contact data at seca.com

17-10-01-266-002f/05-2021B