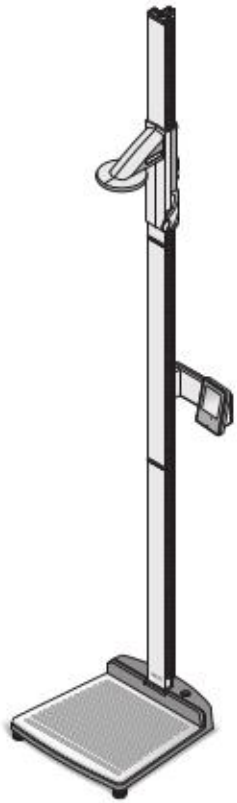
seca 284



seca
Precision for health

CONTENTS

1. DESCRIPTION OF DEVICE

1.1 Congratulations!

By purchasing the **seca 284** measuring station you have acquired an extremely accurate and robust device.

For more than 170 years, seca has devoted its experience to health care and, as the market leader in many countries, is constantly setting new standards with its innovative weighing and measurement developments.

1.2 Intended use

The **seca 284** measuring station is mainly used in hospitals, doctors' surgeries and inpatient care facilities, in accordance with national regulations.

The measuring station is used to determine height and weight. Wireless transmission of the height to the multi-functional display enables automated calculation of the Body Mass Index (BMI) and Body Fat Rate (BFR).

The **seca 360° wireless** network allows the measured results to be transmitted wirelessly to a seca wireless printer or a PC equipped with the **seca analytics 105** software and the PC equipped with the **seca 360° wireless USB adapter 456**.

2. SAFETY INFORMATION

2.1 Basic safety precautions

- Please take note of the information in this user manual.
- Keep the user manual with the declaration of conformity in a safe place.
- Ensure that the device is positioned securely on a flat and stable surface.
- Do not expose the device to any violent impacts.
- Do not place any sharp-edged objects on the glass plate of the base of the device. This could cause scratches, cracks and flaked or chipped off material. Such damage can cause the glass plate to break.

- Regularly check the glass plate of the base of the device for scratches, cracks and chipped areas. If you find such damage, have the glass plate replaced with a new one.
- Lay the mains cable so that there is no risk of tripping.
- Only use the type of battery specified (see “Insert batteries” on page 81).
- Have the scales serviced regularly (see “Maintenance” on page 117).
- Make sure that maintenance and repair are only carried out by an authorised service partner. You can find your local service partner at www.seca.com or send an e-mail to service@seca.com.
- Make sure you only use genuine seca accessories and spare parts. Otherwise the warranty provided by seca will become null and void.
- Make sure RF equipment such as mobile phones is kept at a minimum distance of approx. 1 metre to prevent incorrect measurements or interference with the wireless transmission.

2.2 Safety information in this manual

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.

ATTENTION!
Used to identify possible incorrect usage of device. If you fail to take note of this information, you may damage the device or the measured results may be incorrect.

NOTE
Includes additional information about use of the device.

2.3 Handling (rechargeable) batteries

The device is supplied with 4 batteries, type AA (Mignon). This type of battery is not rechargeable. Please take note of the following safety information.

WARNING!
Personal injury with improper handling.
Batteries contain harmful substances which may explode if not handled properly.

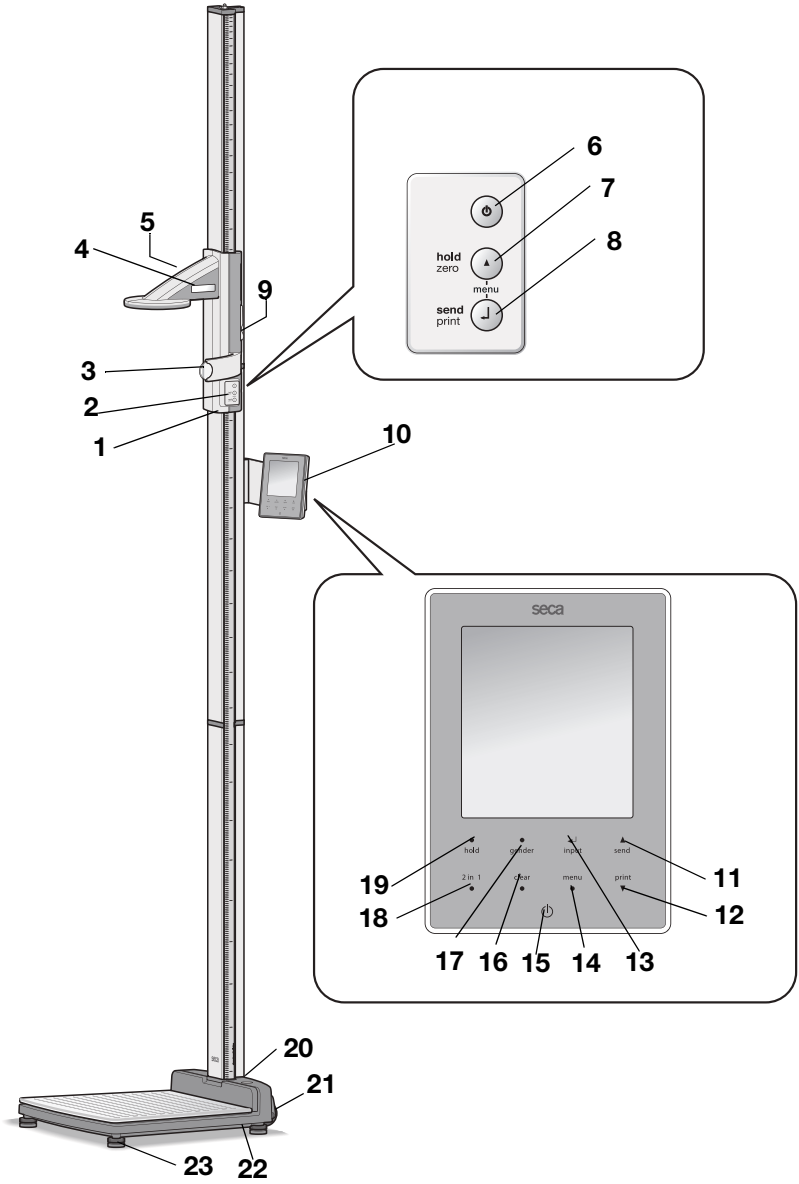
- Do not try to recharge such batteries.
- Do not expose (rechargeable) batteries to heat.
- Do not burn (rechargeable) batteries.
- If acid is leaking out, avoid contact with the skin, eyes and mucous membranes. Rinse affected areas with plenty of clean water and seek medical help at once.

ATTENTION!
Damage to device and malfunctions with improper handling

- Only use the type of (rechargeable) battery specified (see “Insert batteries” on page 81).
- When replacing (rechargeable) batteries, always replace a complete set at a time.
- Do not short-circuit (rechargeable) batteries.
- If you do not use the device for a long period of time, remove the batteries (incl. rechargeable batteries). This prevents acid from leaking into the device.

3. OVERVIEW

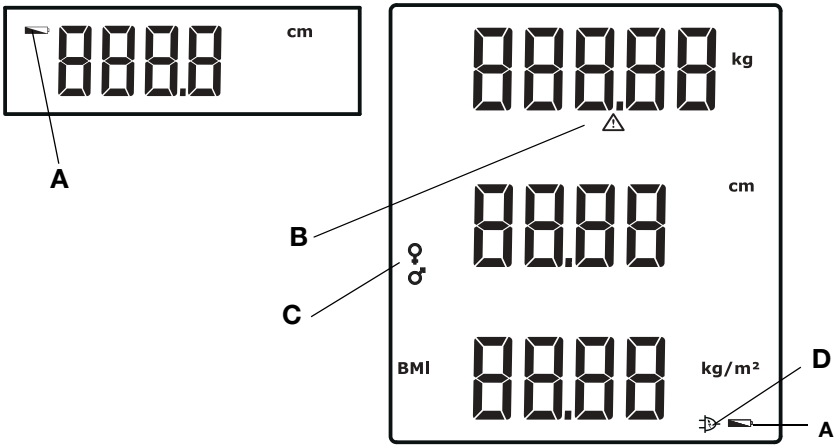
3.1 Controls



No.	Control	Function
1	Head slide	Control for determining height
2	Keypad, head slide	Controls for performing length/height measurements and for configuring the device
3	Frankfurt measure	Pull-out ruler for aligning the head according to the so-called “Frankfurt Horizontal”.
4	Display, head slide	Display element of the head slide for measured results and for configuration
5	Battery compartment, head slide	Designed to take battery pack with 4 type AA batteries (mignon), 1.5 V
6	⏻	Start key, head slide: Switch head slide on and off
7	⊙	Arrow key (**hold/zero**) • During measuring - Press briefly: activate Hold function - Hold down: set zero point • In the menu: - Select submenu, select menu item - Set value (press briefly: value is changed by 1, press for longer time: value is changed until key is released)
8	⊙	Enter key (**send/print**): • During measuring (if wireless network is set up) - Press briefly: Send measured result to ready to receive devices (multifunctional display, wireless printer, PC with USB wireless module) - Hold down: print out measured result (wireless printer) • In the menu: - Confirm selected menu item - Save set value
9	Brake button	• Holds the head slide in position • Pressed to move the head slide
10	Multifunctional display	Central control and display element
11	▲ send	Arrow key **send** • During weighing (if wireless network is set up) - Send measured result to receive-ready devices (wireless printer, PC with USB wireless module) • In the menu: - Select submenu, select menu item - Increase value (press briefly: value is increased by 1, press for longer time: value is increased until key is released)

No.	Control	Function
12	print ▼	Arrow key **print** • During weighing (if wireless network is set up) - print out measured result (wireless printer) • In the menu: - Select submenu, select menu item - Reduce value (press briefly: value is reduced by 1, press for longer time: value is reduced until key is released)
13	↵ input	Enter key (**input**): • During weighing - Enter patient data (age, gender, PAL) • In the menu: - Confirm selected menu item - Save set value
14	menu ●	**menu** key: • During weighing - Call up control panel menu. • In the menu: - Press briefly: go back one menu level - Hold down: exit menu
15	⏻	Start key, multifunctional display: Switch multifunctional display and scales on and off
16	clear ●	**clear** key: Clear manually entered data or data received wirelessly (patient data, length/height, BMI, BFR)
17	● gender	**gender** key: Enter patient's gender
18	2 in 1 ●	**2 in 1** key: Start the **2 in 1** function for weighing babies and toddlers
19	● hold	**hold** key: Activate the **hold** function
20	Spirit level	Indicates whether the device is horizontal
21	Casters	2, for transporting scales over short distances
22	Power connection	For connecting the power supply unit
23	Foot screw	4 screws, for precise alignment of device

3.2 Display elements



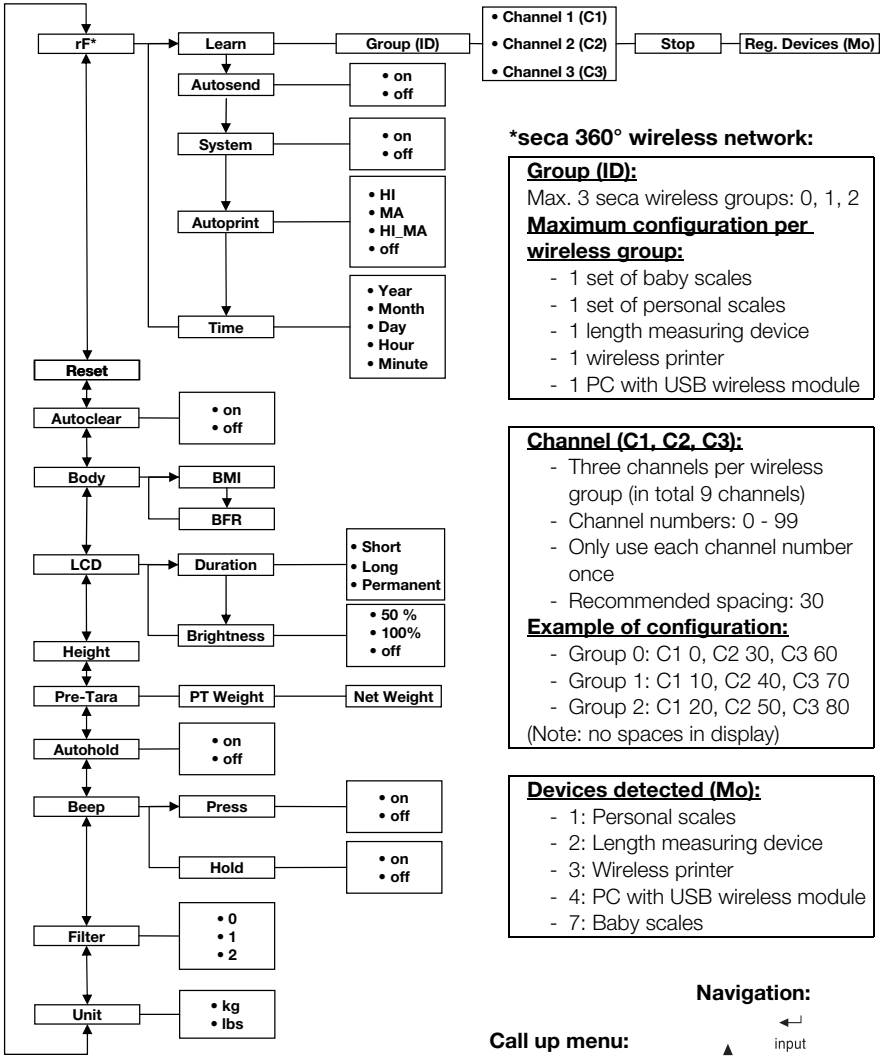
	Symbol	Meaning
A		Battery power low.
B	⚠	Non-calibratable function is active (for technical reasons, the symbol also appears for uncalibrated scales)
C	♀ ♂	Gender of patient
D		Operation with power supply unit.

3.3 Information on rating plate

Text/Symbol	Meaning
Model	Model number
Type	Type designation
Ser.No.	Serial number
	Refer to user manual
	Type B electromedical device
	Class II fully-insulated appliance
FCC ID	For USA: device licensing number issued by the US Federal Communications Commission (FCC)
IC	For Canada: device licensing number issued by the Industry Canada authority
	Device complies with EC standards and directives.
	Symbol of the FCC (USA)
	Operate the device with direct current only, note the polarity of the device plug
	Do not dispose of device in household waste

3.4 Menu structure for multifunctional display

Additional functions are available in the device's menu. This allows you to optimally configure the device to suit your own needs. Details are given from page 93 and from page 109.



***seca 360° wireless network:**

Group (ID):
Max. 3 seca wireless groups: 0, 1, 2

Maximum configuration per wireless group:
- 1 set of baby scales
- 1 set of personal scales
- 1 length measuring device
- 1 wireless printer
- 1 PC with USB wireless module

Channel (C1, C2, C3):
- Three channels per wireless group (in total 9 channels)
- Channel numbers: 0 - 99
- Only use each channel number once
- Recommended spacing: 30

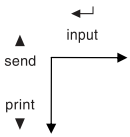
Example of configuration:
- Group 0: C1 0, C2 30, C3 60
- Group 1: C1 10, C2 40, C3 70
- Group 2: C1 20, C2 50, C3 80

(Note: no spaces in display)

Devices detected (Mo):
- 1: Personal scales
- 2: Length measuring device
- 3: Wireless printer
- 4: PC with USB wireless module
- 7: Baby scales

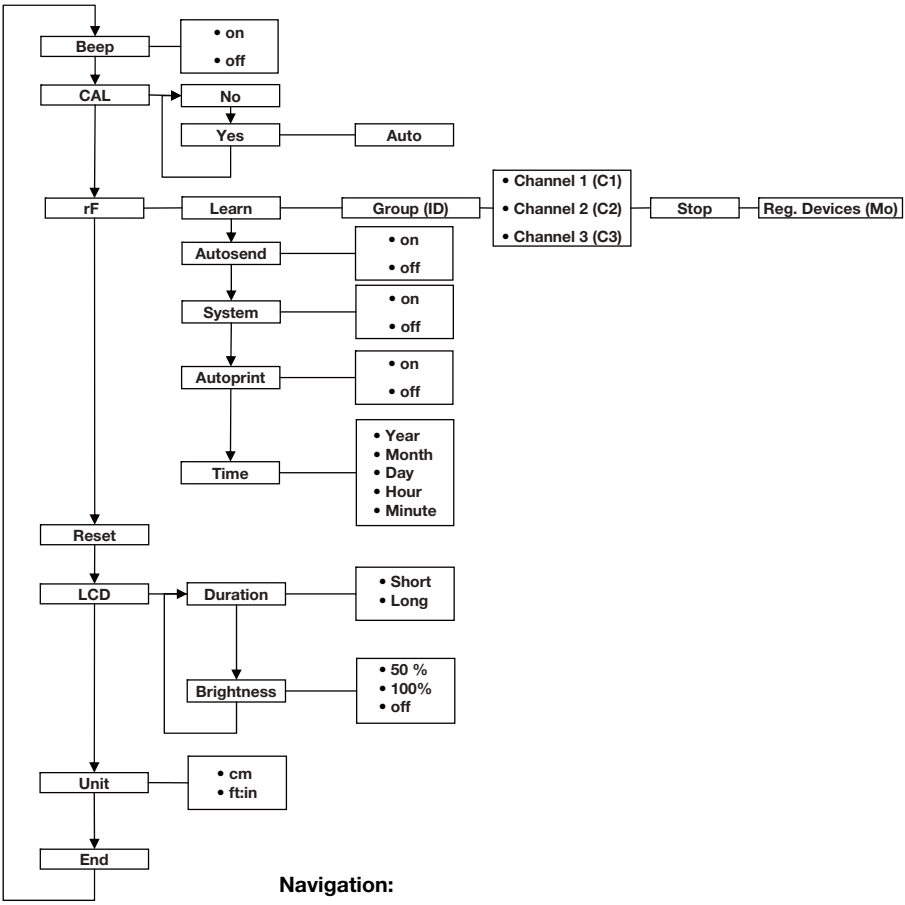
Call up menu:

Navigation:



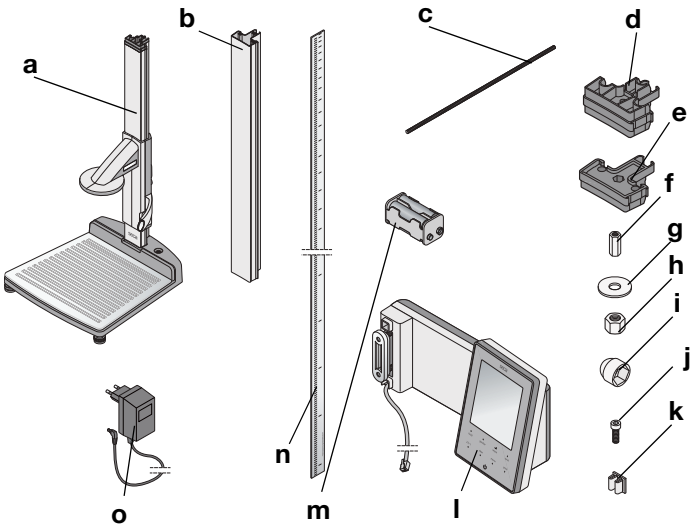
3.5 Menu structure of the head slide

Additional functions are available in the device's menu. This allows you to optimally configure the device to suit your own needs. Details are given from page 103 and from page 109.



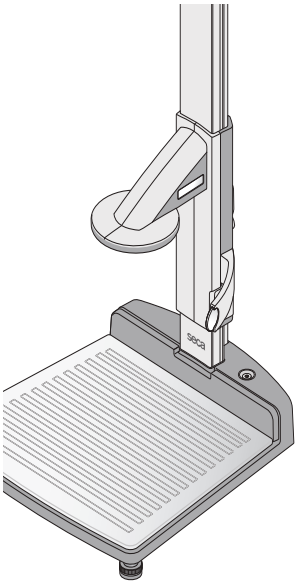
4. BEFORE YOU GET STARTED …

4.1 Scope of supply



No.	Component	Qty.
a	Base, preassembled - First column element - Head slide with Frankfurt measure	1
b	Column element	2
c	Threaded rod	2
d	Upright connector	1
e	End cap	1
f	Elongated nut	1
g	Plain washer	1
h	Nut	1
i	Decorative cap	1
j	Hexagon socket head screws	2
k	Cable clips	2
l	Multifunctional display with connection cable	1
m	Battery holder with 4 batteries, size AA	1
n	Push-in scale	1
o	Power supply unit	1
	Calibration rod, not illustrated	1
	User manual, not illustrated	1
	Cover, Frankfurt measure, not illustrated	1
	Toolkit, not illustrated	1

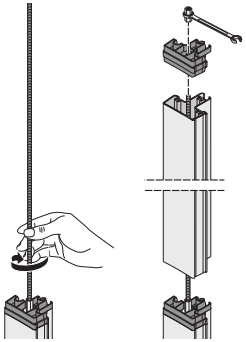
4.2 Assembling the device



The first column element and the head slide are already installed on the base of the device in the factory.

Perform the remaining assembly with the assistance of another person. Due to the large overall height, we recommend placing the components on the floor and not uprighting the device until it is fully assembled. Proceed as follows.

Install second column element



To connect the column elements, proceed as follows:

1. Screw a threaded rod hand-tight into the elongated nut of the first column element.
2. Slide an column element over the threaded rod onto the first column element.

   ATTENTION!

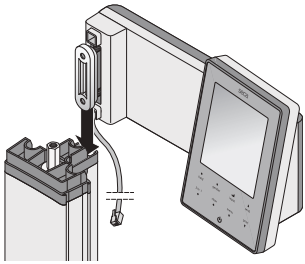
   Damage to device due to assembly errors

   If the upright connector and cover cap are mixed up, the device cannot be assembled as intended.

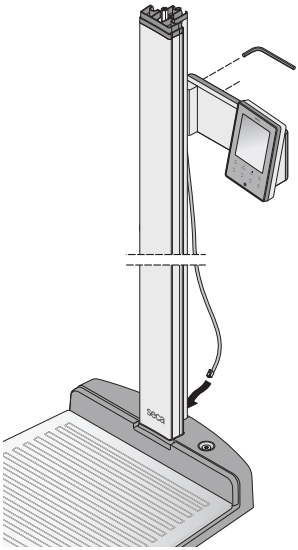
   – When installing the second column element, ensure that you use the upright connector (see “Scope of supply” on page 75).
3. Position the upright connector on the second column element so that the threaded rod protrudes from the hole of the upright connector.
4. Screw an elongated nut onto the threaded rod.
5. Tighten the elongated nut.

Install the multifunctional display

The multifunctional display is hooked into the groove of the column element and fixed with a clamping screw. The installation height is freely selectable.



1. Insert the T-slot nut of the multifunctional display into the groove of the second column element.



2. Tighten the two hexagon socket head screws to fix the multifunctional display in the required position.
3. Guide the connection cable of the multifunctional display into the groove of the column element up to the base of the device.
4. Pull the connection cable through the hole in the base of the device.

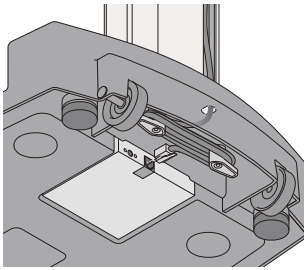
ATTENTION!

Malfunction due to installation errors

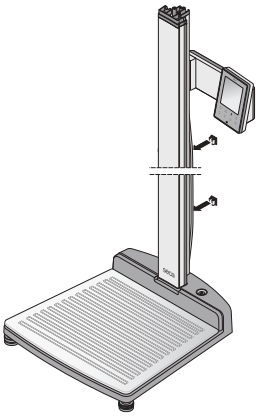
If the cables are installed so that they are subjected to large mechanical stress, faulty displays and failure of the display can result.

– Lay all cables so that they are not bent too tight and the plugs are not kinked.

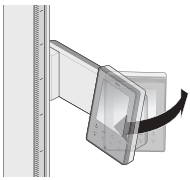
5. Wind the free end of the connection cable onto the cable winding in the base.



6. Plug the connection cable plug into the matching socket of the weighing platform.

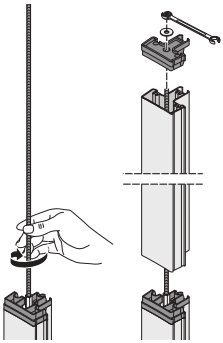


7. Use the two cable clips to fix the connection cable into the groove of the column elements.



8. Swivel the multifunctional display so that you can easily read it.

Install the third column element



To connect the column elements, proceed as follows:

1. Screw a threaded rod hand-tight into the elongated nut of the second column element.
2. Push the column element over the threaded rod onto the upright connector of the second column element.
3. Position the end cap on the second column element so that the threaded rod protrudes from the hole of the end cap.
4. Place the plain washer on the free end of the threaded rod.
5. Place the nut on the free end of the threaded rod.
6. Tighten the nut.
7. Place the decorative cap on the nut.

Installing the push-in scale

ATTENTION!

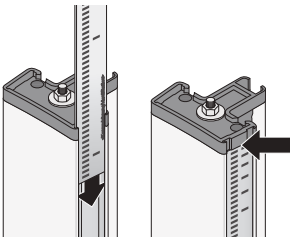
Incorrect measurements due to installation errors

If the push-in scale is installed incorrectly the head slide cannot determine any usable readings.

– Align the push-in scale so that the printing remains visible when the scale is pushed into the groove.

– Align the push-in scale so that the area which shows the product number forms the bottom end.

– Ensure that the push-in scale latches into position under the end cap.



♦ Push the push-on scale into the groove in the side of the column elements until the scale latches into position under the end cap.

4.3 Set up device

ATTENTION!

Incorrect measurement with force shunt

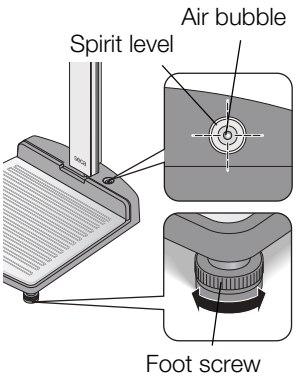
Correct measurements cannot be taken if the patient's weight is not fully positioned on the weighing area.

– Set up the device so that it only makes contact with the ground via the foot screws.

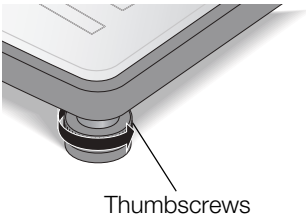
– Set up the device so that the weighing area does not touch any other objects.

– While you are weighing, ensure that the patient does not touch the upright of the device.

1. Place the device on a flat, stable surface.



2. Align the device by turning the foot screws.
   The air bubble in the spirit level must be precisely positioned in the middle of the circle.



3. Tighten the thumbscrews in the direction of the arrow.
   The foot screws are secured against adjustment.

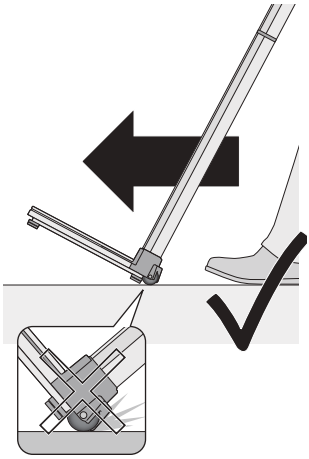
4.4 Transporting the device

The device is equipped with two castors, which enable it to be transported over short distances.

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

- Ensure that there are no other persons in the immediate vicinity.
- Ensure that there are no objects in the immediate vicinity.

1. Unplug the power supply unit from the socket.

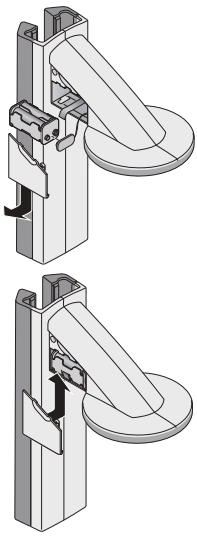


2. Tilt the device backwards until it can freely move on the castors.
3. Transport the device to its new location.
4. Upright the device.
5. Plug the power supply unit into the socket.

4.5 Connecting the power supply

The head slide is supplied with power from batteries. The scales and the multifunctional display are run with a power supply unit.

Insert batteries



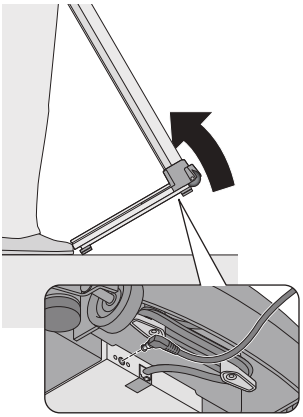
The battery holder supplied already contains 4 mignon batteries, type AA, 1.5 volt. To connect the power supply for the head slide, proceed as follows:

1. Remove the cover of the battery compartment.
2. Remove the connection cable from the battery compartment.
3. Connect the battery holder to the connection cable.
4. Insert the battery holder into the battery compartment.

   ATTENTION!
   Damage to device and malfunction due to clamped or pinched cable
   – Lay the battery cable before closing the battery compartment so that it cannot get clamped between the cover and the battery compartment.
5. Slide the cover onto the battery compartment until it audibly latches into position.

Connect the power supply unit

The connection for the power supply unit is located on the underside of the base of the device. To connect the power supply for the scales and multifunctional display, proceed as follows:



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

- Ensure that there are no other persons in the immediate vicinity.
- Ensure that there are no objects in the immediate vicinity.

1. Tilt the device backwards.

ATTENTION!
Damage to the device due to excessive voltage
Standard power supplier units can supply a higher voltage than is given on them. The scales can overheat, catch fire,
melt or be short-circuited

- Only use genuine seca plug-in power supply units with 9V or a controlled 12 V output voltage.

2. Insert the connector plug of the power supply unit in the connecting socket of the scales.
3. Carefully upright the device.
4. Plug the power supply unit into a mains socket.

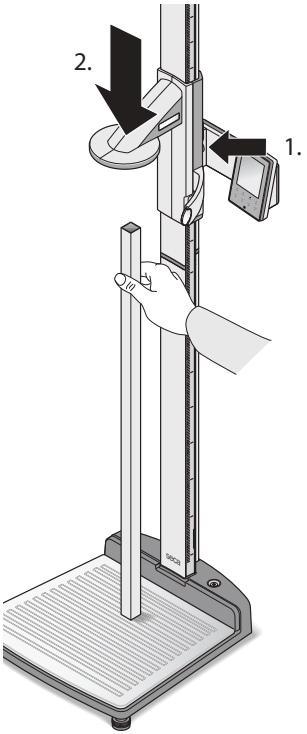
4.6 Calibrate head slide

Before you can measure height using the device for the first time, you have to calibrate it. You do so by “teaching” the device a reference measurement.

Automated calibration

You can perform automated calibration using the calibration rod supplied.

1. Press the Start key ⏻ of the head slide.
   “----” appears in the display.



2. Keep the brake button pressed and move the head slide until a length value appears in the display.

   ATTENTION!
   Incorrect measurement as a result of incomplete calibration.
   The height value displayed does not correspond to the actual position of the head slide.
   – Complete the calibration as described in this section.

3. Position the calibration rod supplied (length 0.8 m) vertically on the base of the device and hold it in this position.
4. Keep the brake button pressed and push the head slide onto the calibration rod.

5. Simultaneously press the Enter key (**send/print**) and the arrow key (**hold/zero**) to open the menu. The last menu item selected is shown in the display (here: “bEEP”).

6. Press the arrow key (**hold/zero**) until "CAL" appears in the display.

7. Confirm your selection with the Enter key (**send/print**).

8. Use the arrow key (**hold/zero**) to select the “Yes" setting.

9. Confirm your selection with the Enter key (**send/print**).
   The display “Auto” appears.

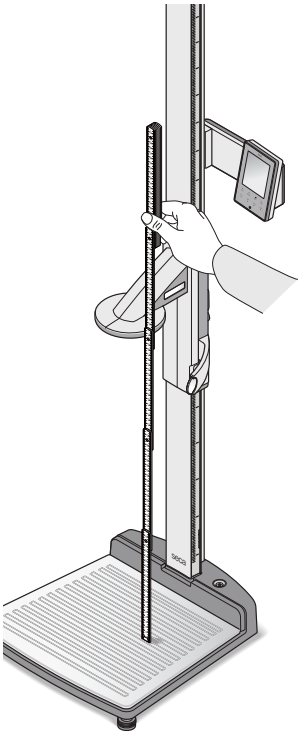
10. Confirm the display using the Enter key (**send/print**).
    The device is calibrated. You can perform height measurements with the device.

Calibrating manually

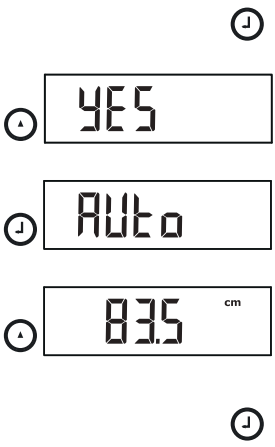
If the calibration rod is not to hand, you can perform the calibration manually using another object of known height.

1. Press the Start key ⏻ of the head slide.
   "----" appears in the display.
2. Keep the brake button pressed and move the head slide until a length value appears in the display.

   ATTENTION!
   Incorrect measurement as a result of incomplete calibration
   The height value displayed does not correspond to the actual position of the head slide.
   – Complete the calibration as described in this section.
3. Position an object with known length vertically on the base of the device and hold it in this position.
4. Push the head slide onto the object.



5. Simultaneously press the Enter key (**send/print**) and the arrow key (**hold/zero**) to open the menu.
   The last menu item selected is shown in the display (here: "bEEP").
6. Press the arrow key (**hold/zero**) until "CAL" appears in the display.



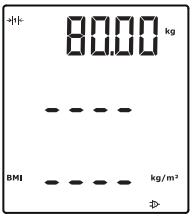
7. Confirm your selection with the Enter key (**send/ print**).
8. Use the arrow key (**hold/zero**) to select the “Yes" setting.
9. Confirm your selection with the Enter key (**send/ print**).
   The display “Auto” appears.
10. Use the arrow key (**hold/zero**) to enter the length of the object.
11. Confirm the set value with the Enter key (**send/ print**).
    The device is calibrated. You can perform height measurements with the device.

5. OPERATE SCALES

5.1 Weigh

Start weighing

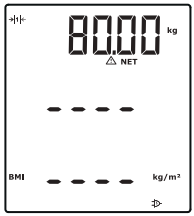
1. Ensure that there is no load on the scales.
2. Press the Start key ⏻ of the multifunctional display.
   SECA appears on the display, and then all the display's elements appear briefly.
   The scales are operational when the display reads 0.00.
3. Ask the patient to step onto the scales.
   The patient's weight is displayed.
4. Read off the measured result.



Weigh babies/toddlers (2 in 1)

You can use the 2 in 1 function to weigh babies and toddlers. Here the child is held by an adult during weighing. Proceed as follows.

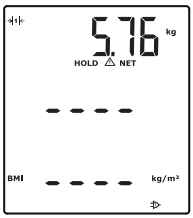
1. Ensure that there is no load on the scales.
2. Press the Start key ⏻ of the multifunctional display.
3. Ask the adult to step onto the scales.
   The adult's weight is displayed.
4. Press the **2 in 1** key.
   The weight is saved.
   0.00, the ⚠ symbol and the NET message appear in the display.



2 in 1 ●

ATTENTION!
Incorrect measurement due to change in initial weight
If the child is weighed with a different initial weight, the child's weight cannot be calculated correctly.
- Ensure that the child is always weighed with the adult used to determine the initial weight.
- Ensure that the weight of this adult does not change, e.g. as a result of taking off a garment.

5. Ask the adult to step onto the scales with the child.
   The child's weight is displayed.
   The ⚠ symbol and the messages "HOLD" and "NET" are displayed.



6. To disable the 2 in 1 function, press the **2 in 1** key or switch off the scales.

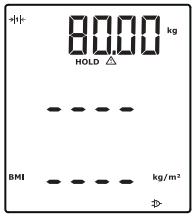
2 in 1 ●

Continuous display of measured result (HOLD)

If you activate the HOLD function, the weight value continues to be displayed after the load has been removed. This allows you to attend to the patient before noting down the weight.

1. Ensure that there is no load on the scales.
2. Press the Start key ⏻ of the multifunctional display.

3. Ask the patient to step onto the scales.
4. Press the **hold** key.
   The display flashes until a stable weight is measured. The weight value is then displayed continuously. The ⚠ symbol and the "HOLD" message are displayed.



● hold

5. To disable the HOLD function, press the **hold** key.
   The ⚠-symbol and the "HOLD" message are no longer displayed.

● hold

NOTE
If the Autohold function is activated, the weight value is automatically displayed continuously as soon as a stable measured result is achieved (see “Activate Autohold function (AHold)” on page 97).

Enter patient data (input)

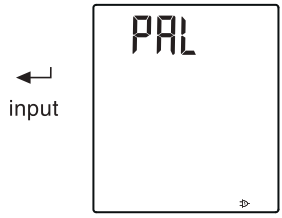
You can enter the patient data age, gender and physical activity level (PAL) directly on the multifunctional display. The patient data is also sent when you transmit the measured results to a wireless printer from the **seca 360° wireless** system.

The wireless printer analyses the measured results on the basis of the patient data. The measured results and analysis are printed out, depending on the configuration of the wireless printer. This makes diagnosis much easier.

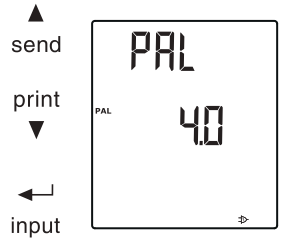
NOTE
Details of the wireless printer's configuration are given in this user manual.

1. Press the Start key ⏻ of the multifunctional display.
2. Press the Enter key (**input**).
   The first time it is called after the device is started, the "PAL" (Physical Activity Level) menu item appears in the display.
   If called again while the device is switched on, the last selected menu item appears in the display.

↵ input



3. Use the arrow keys **send** or **print** to select a menu item:
   - PAL: physical activity level
   - AGE: age
   - GEn: Gender



4. Confirm your selection.
   The value used for the previous measurement is displayed. You can accept the value or use the arrow keys to set another value.

Function	Setting
Physical activity level (PAL)	1.0 to 5.0
AGE:	• up to 3 years in months • up to 18 years in six-month intervals • from 18 years in years
GEn:	• male • female

5. Confirm your selection.
   The **input** function is exited automatically.
6. If you also wish to make settings for the "AGE" and "GEn" settings, repeat this process.

Enter patient's gender

Use the **gender** key to enter the patient's gender directly.

NOTE
This setting overwrites the setting made under “Input/gender”.

- Press the **gender** key to switch between “male” and “female”.
- Press the **clear** key to delete the display of the gender symbols.

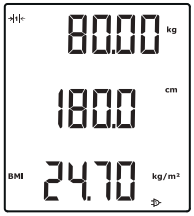
Determine Body Mass Index (BMI)

The Body Mass Index puts height and weight in relation to one another. It includes a tolerance range which is considered ideal in health terms.

1. Press the Start key ⏻ of the multifunctional display and the head slide.
2. Ensure that the calculation method “BMI” is set on the multifunctional display (see “Switch between BMI and BFR (body)” on page 95)
3. Ask the patient to step onto the measuring station.
   The patient's weight is displayed.
4. If the weight is to be continuously displayed, press the **hold** key.
   The patient's weight is displayed continuously.

   ● hold

   NOTE
   If the Autohold function is activated, the weight value is automatically displayed continuously as soon as a stable measured result is achieved . (see “Activate Autohold function (AHold)” on page 97).
5. Measure the height of the patient using the head slide (see “Start measuring height” on page 100).
6. Briefly press the Enter key **send/print** (see “Transmit measured results to wireless receivers” on page 102).
   The height received is displayed on the multifunctional display.
   BMI is calculated and displayed automatically.

   NOTE
   If the head slide should ever fail, height can also be entered in the multifunctional display manually (see “Enter height manually (HGHt)” on page 96).
7. Transmit the measured results to a receiver from the **seca 360° wireless** system:
   - to PCs with USB wireless adapter: **send** key
   - to seca wireless printers: **print** key

   ▲ send

   print ▼
8. Ask the patient to step off the measuring station.
9. Press the **clear** key.
   Patient data, height and BMI are deleted. This prevents out-of-date data leading to a faulty BMI for the next patient.

   clear ●

NOTE
If the “Autoclear” function is activated, height and BFR are deleted automatically after 5 minutes (see “Delete values automatically (AClr)” on page 94).

Determine Body Fat Rate (BFR)

The Body Fat Rate puts height, weight and gender in relation to one another. It includes a tolerance range which is considered ideal in health terms.

1. Press the Start key ⏻ of the multifunctional display and the head slide.
2. Ensure that the calculation method “BFR” is set on the multifunctional display (see “Switch between BMI and BFR (body)” on page 95)
3. Press the **gender** key to switch between “male” and “female”.

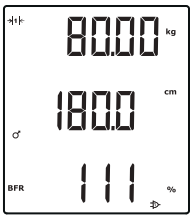
● gender ♀♂

4. Ask the patient to step onto the measuring station.
   The patient's weight is displayed.
5. Press the **hold** key.
   The patient's weight is displayed continuously.

● hold

NOTE
If the Autohold function is activated, the weight value is automatically displayed continuously as soon as a stable measured result is achieved. (see “Activate Autohold function (AHold)” on page 97)

6. Measure the height of the patient using the head slide (see “Start measuring height” on page 100).



7. Briefly press the Enter key **send/print** (see “Transmit measured results to wireless receivers” on page 102).
   The height received is displayed on the multifunctional display.
   BFR is calculated and displayed automatically.

NOTE
If the head slide should ever fail, height can also be entered in the multifunctional display manually (see “Enter height manually (HGHt)” on page 96).

▲
send

8. Transmit the measured results to receivers from the **seca 360° wireless** system:
   – to PCs with USB wireless adapter: **send** key
   – to seca wireless printers: **print** key

print
▼

9. Ask the patient to step off the measuring station.

clear
●

10. Press the **clear** key.
    Patient data, height and BFR are deleted. This prevents out-of-date data leading to a faulty BFR for the next patient.

NOTE
If the “Autoclear” function is activated, height and BFR are deleted automatically after 5 minutes (see “Delete values automatically (AClr)” on page 94).

Transmit measured results to wireless receivers

If the measuring station is integrated in a **seca 360° wireless** network, you can transmit the measured results to ready to receive devices (e.g. PC with USB wireless module) at the touch of a button.

▲
send

♦ Press the arrow key **send**.

Print measured results

If the measuring station is connected to a wireless printer, you can print out the measured results directly.

print
▼

♦ Press the arrow key **print**.

Delete saved values (clear)

Out-of-date measured results and patient data lead to incorrect calculation of BMI/BFR. Use the **clear** key to clear the following measured values and patient data:

- Height
- BMI
- BFR
- Gender
- Physical activity level (PAL)
- age

NOTE

- If you want to enter PAL, age and gender (**input** function) for the next measurement, the values of the last measurement are proposed. (see “Enter patient data (input)” on page 87).
- If the “Autoclear” function is activated, measured values and patient data are automatically deleted after 5 minutes (see “Delete values automatically (AClr)” on page 94).

clear

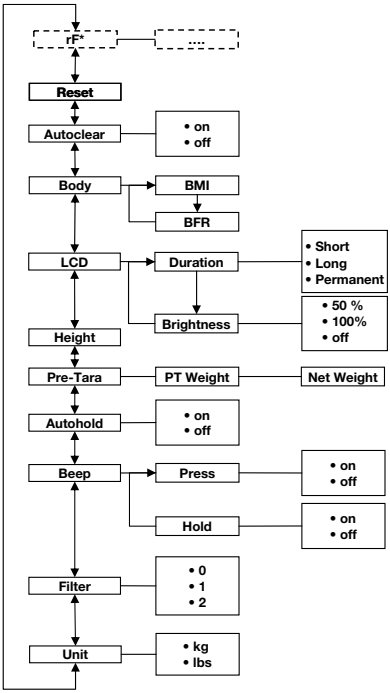
♦ Press the **clear** key.
Patient data, height and BMI/BFR are deleted. “----” is displayed instead.
The gender symbol goes out.

Switch off scales

♦ Press the Start key ⏻ of the multifunctional display.

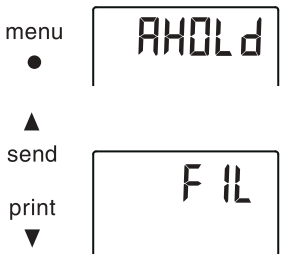
5.2 Additional functions (menu)

Additional functions are available in the device's menu. This allows you to optimally configure the device to suit your own needs.

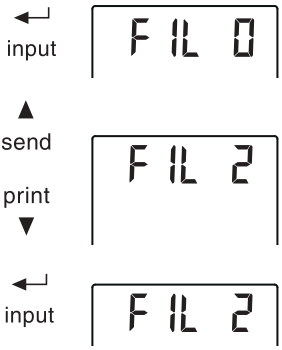


* The menu item "rF" is described in section “Operate measuring station in a wireless group (menu)” on page 108.

Navigate within the menu



1. Press the Start key ⏻ of the multifunctional display.
2. Press the **menu** key.
   The last menu item selected is shown in the display (here: Autohold "Ahold").
3. Keep pressing the arrow key **send** or **print** until the required menu item appears in the display (here: attenuation "Fil").



4. Confirm your selection with the Enter key (**input**). The current setting for the menu item or a submenu is displayed (here level "0").
5. To change the setting or call up another submenu, keep pressing the arrow key **send** or **print** until the required setting (here: level "2") is displayed.
6. Confirm the setting with the Enter key (**input**). You will leave the menu automatically.
7. To make further settings, call up the menu again and repeat the process.

NOTE

- Press the **menu** key briefly to go back one menu level.
- Press and hold the **menu** key to exit the menu at any time.
- If no key is pressed for approx. 24 seconds, the menu is automatically quit.

Delete values automatically (AClr)

Out-of-date measured results and patient data lead to incorrect calculation of BMI/BFR. You can set the device so that the following measured results and patient data are cleared automatically after 5 minutes:

- Gender
- Physical activity level (PAL)
- age
- Height
- BMI
- BFR

NOTE

- If you want to enter PAL, age and gender (**input** function) for the next measurement, the values of the last measurement are proposed. (see “Enter patient data (input)” on page 87).
- With certain models, this function is already activated at the factory. If required, you can disable this function.

1. Select the item "AClr" from the menu.
2. Confirm the selection. The current setting is displayed.

3. Select the setting you require
   - On
   - Off
4. Confirm your selection.
   You will leave the menu automatically.
   5 minutes after every measurement, patient data, height and BMI/BFR are deleted. “----” is displayed instead.
   The gender symbol goes out.

Switch between BMI and BFR (body)

You can select whether the measuring station calculates Body Mass Index (BMI) or Body Fat Rate (BFR). The current setting is permanently displayed in the multifunctional display.

The calculation is performed automatically as soon as a height is transmitted wirelessly by the head slide or entered manually.

1. Select the item "body" from the menu.

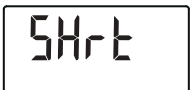
2. Confirm the selection.
   The current setting is displayed.

3. Press arrow key **send** or **print** to switch between BMI and BFR.
4. Confirm your selection.
   You will leave the menu automatically.
   The modified setting is permanently displayed in the multifunctional display.

Set display backlighting (LCd)

You can change the duration and brightness of the display backlighting.

1. Select the item "LCd" from the menu.
2. Confirm the selection.
3. Select a menu item
   - dUr: Duration
   - bri: Brightness



4. Confirm your selection.
   The current setting is displayed.

5. Select the setting you require:

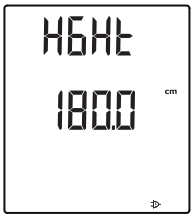
Function	Setting
Duration	• Short (approx. 15 Sek.) • Long (approx. 45 Sek.) • Perm (permanent)
Brightness	• 50% • 100% • OFF

6. Confirm your selection.
   You will leave the menu automatically.
7. If you also wish to make settings for the second function, repeat this process.

Enter height manually (HGHt)

You can enter the patient's height manually - if the head slide ever fails, for example.

1. Select the item "HGHT" (height) from the menu.
2. Confirm the selection.
   The current setting flashes in the display.



3. You can either accept the set value or set a different value using the arrow keys.
4. Confirm the set value.
   The value is saved.
   You will leave the menu automatically.

Permanently save additional weight (Pt)

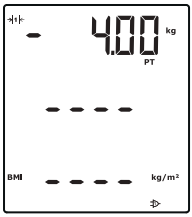
You can use the Pre-Tare function (Pt) to permanently save an additional weight and to automatically deduct it from a reading. You can, for example, save a flat-rate figure as the weight of shoes and clothing and then always deduct it from the measured result when a patient is weighed fully dressed.

1. Select the item "Pt" from the menu.

   The last additional weight to be set flashes in the display.
   “PT” appears in the display.
2. You can either accept the saved value or set a different value using the arrow keys.

NOTE
If you enter the value "0", the function is switched off. The “PT” message is no longer displayed.

3. Confirm your selection.
   The set additional weight is displayed (here 4 kg) with a minus sign in front of it.



4. Ask the patient to step onto the scales.
   The patient's weight is displayed.
   The additional weight saved has been deducted automatically.

5. To disable this function, re-select the “Pt” item from the menu.

6. Confirm your selection.
   The set additional weight is no longer displayed.
   The function is disabled.

Activate Autohold function (AHold)

If you activate the Autohold function, the measured result for each weighing operation continues to be displayed after the load has been removed. This means you no longer have to manually activate the Hold function for every weighing operation.

NOTE
Whatever setting is selected here, in the 2 in 1 function the child's weight is always determined with Autohold.

1. Select the item "AHold" from the menu.

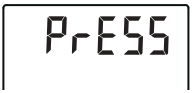
2. Confirm the selection.
   The current setting is displayed.

3. Select the setting you require:
   - On
   - Off
4. Confirm your selection.
   You will leave the menu automatically.

Activate acoustic signals (bEEP)

You can set whether an acoustic signal is to be emitted whenever a key is pressed or a stable weight value has been attained. The latter is relevant for the Hold/ Autohold function.

1. Select the item "bEEP" from the menu.
2. Confirm the selection.
3. Select a menu item
   - Press: acoustic signal whenever a key is pressed
   - Hold: acoustic signal with a stable weight value.



4. Confirm the selection.
   The current setting is displayed.

5. Select the setting you require:
   - On
   - Off
6. Confirm the selection.
   You will leave the menu automatically.
7. If you also wish to activate the acoustic signals for the second function, repeat this process.

Select attenuation (Fil)

You can use attenuation (Fil = filter) to reduce any interference during weighing. The selected setting affects the sensitivity with which the weight display responds to patient movements and the time until the "Hold" function continuously displays a weight value.

1. Select the item "Fil" from the menu.

2. Confirm the selection.
   The current setting is displayed.

3. Select an attenuation level.

Fil	Weight display	Hold
0	Sensitive	Slow
1	Average	Average
2	Sluggish	Fast

NOTE

- With the setting "0", it is possible that despite the "Hold" function being activated, a continuous weight value is not displayed for patients who are not so steady.

- With the setting "2", the greatest difference exists between the displayed and actual weight value.

4. Confirm the selection.
   You will leave the menu automatically.

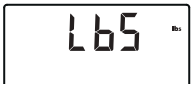
Switch weight unit (Unit)

With uncalibrated scales you can select the unit you wish to use for displaying weight.

NOTE
Note and follow the national regulations regarding units of measurement.

1. Select the item "Unit" from the menu.
2. Confirm the selection.

   The current setting is displayed.
3. Select the unit you wish to use for displaying weight:
   - Kilos (kg)
   - Pounds (lbs)



4. Confirm the selection.
   You will leave the menu automatically.

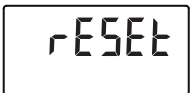
Restore factory settings (rESEt)

You can restore factory settings for the functions below.

Function	Factory setting
Autohold (AHold)	on
Acoustic signal (Press)	on
Acoustic signal (Hold)	on
Attenuation (Fil)	0
Autoclear (Aclr)	on
Pre-Tare (Pt)	0 kg
Length/height for Body Mass Index (BMI)/Body Fat Rate (BFR)	170 cm
Weight unit	kg
50%	50%
Display backlighting duration	Permanent
BMI/BFR	BMI
Physical Activity Level (PAL)	1,0
Age in years	18
Age in months	0
Unit for height	cm

Function	Factory setting
Wireless module (SYS)	off
Autosend (ASend)	off
Autoprint (APrt)	off

NOTE
The wireless module is switched off when factory settings are restored. Information about existing wireless groups is retained. Wireless groups do not have to be set up again.



1. Select the item "rESEt" from the menu.
2. Confirm the selection.
   You will leave the menu automatically.
3. Switch the scales off.
   Factory settings are restored and are available when the scales are next switched on.

6. OPERATE HEAD SLIDE

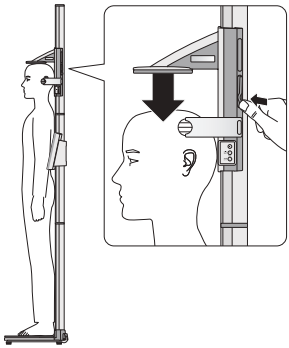
6.1 Measure height

Start measuring height

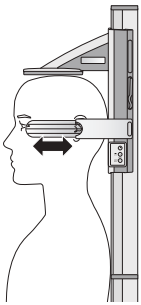
1. Press the Start key ⏻ of the head slide.
   "----" appears in the display.

   NOTE
   - If you want to transmit the measured result to receivers from the **seca 360° wireless** system, ensure that the receivers are switched on.
   - If you want to use the measured result to calculate the BMI or BFR, ensure that the multifunctional display is also switched on.

2. Keep the brake button pressed and move the head slide until a length (height) value appears in the display.
3. Hold down the brake button and push the head slide up far enough so the patient can get under it comfortably.



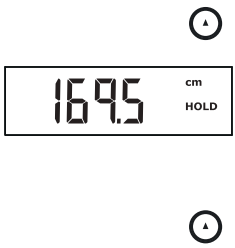
4. Ask the patient to step under the head slide.
   - Back towards the head slide
   - Heels against the heel stop
   - Back and head straight
5. Hold down the brake button and push the head slide down until it is in contact with the patient's head.
6. Pull the Frankfurt measure out of the head slide.



7. Align the patient's Frankfurt horizontal with the matching one of the three Lines of the Frankfurt measure.
8. Keep the brake button pressed and correct the position of the head slide.
9. Read off the height on the head slide display.
10. Press the Enter key (**send/print**) to transmit the height to receivers from the **seca 360° wireless** system.
    - Press key briefly: send measured results to all receive-ready devices
    - Hold down: print measured results

Continuous display of measured result (Hold)

If you activate the HOLD function, the measured value continues to be displayed after the measurement is complete. This allows you to move the head slide before noting down the measured value.



1. Briefly press the arrow key (**hold/zero**), after you have positioned the head slide.

   The message "HOLD" is displayed.
   The head slide can now be moved without the measured value displayed changing.

2. To disable the HOLD function, press the arrow key (**hold/zero**).
   The "HOLD" message is no longer displayed.

Perform relative measurements (zero)

The head slide display can be set to zero at any position. This function allows relative measurements, for example for measuring extremities.

1. Press the Start key ⏻ of the head slide.
   "----" appears in the display.
2. Keep the brake button pressed and move the head slide until a length (height) value appears in the display.
3. Position the head slide at the point you want to set the head slide display to zero.
4. Keep the arrow key (**hold/zero**) pressed until the "ZERO" message is displayed.
   The display is set to zero at the current position of the head slide.

5. Reposition the head slide.
   Length (height) is measured relative to the set zero point.

   If the zero point is undershot, the measured values are shown with a minus sign in front of them.

6. To disable the "ZERO" function, keep the arrow key (**hold/zero**) pressed until the "ZERO" message is no longer displayed.

NOTE
If, for documentation purposes, you send results of relative measurements to devices which automatically calculate the BMI or BFR, no plausible values result for these two parameters.

Transmit measured results to wireless receivers

If the head slide is integrated in a wireless network, you can transmit the measured results to receive-ready devices (scales with BMI function, wireless printer, PC with USB wireless module) at the touch of a button.

- Press the Enter key (**send/print**).
  - Press key briefly: send measured results to all receive-ready devices
  - Hold down: Print measured results

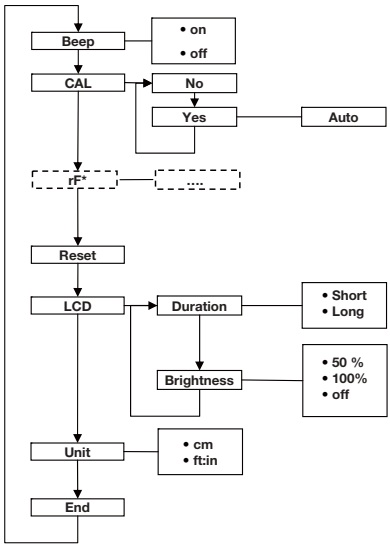
Switch off head slide

- Press the Start key ⏻ of the head slide.

NOTE
The head slide switches off automatically after a short time if it is not moved.

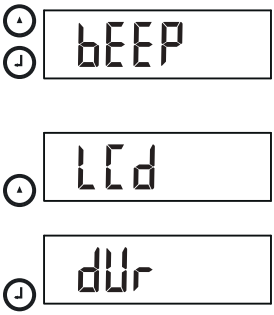
6.2 Additional functions (menu)

Additional functions are available in the device's menu. This allows you to configure the device to suit your own needs perfectly.



* The menu item "rF" is described in section “Operate measuring station in a wireless group (menu)” on page 108.

Navigate within the menu



1. Press the Start key ⏻ of the head slide.
   “----” appears in the display.
2. Hold down the Enter key (**send/print**) and the arrow key (**hold/zero**) simultaneously.
   The last menu item selected is shown in the display (here: “bEEP”).
3. Keep pressing the arrow key (**hold/zero**) until the required menu item appears in the display (here: “LCd” display settings).
4. Confirm your selection with the Enter key(**send/print**).
   The current setting for the menu item or a submenu is displayed (here: duration of display backlighting “dur”).

5. To change the setting or to call up another submenu, keep pressing the arrow key (**hold/zero**) until the required setting (here: display brightness “bri”) is displayed.
6. Confirm your selection with the Enter key (**send/print**).

The current setting for the menu item or a submenu is displayed (here: display brightness 50%”).

7. To change the setting or to call up another submenu, keep pressing the arrow key (**hold/zero**) until the required setting (here: display brightness “100 %”) is displayed.
8. Confirm the setting with the Enter key (**send/print**). You will leave the menu automatically.

9. To make further selections, call up the menu again and proceed as described above.

NOTE
If no key is pressed for approx. 24 seconds, the menu is automatically quit.

Activate acoustic signals (bEEP)

You can set the head slide so that an acoustic signal sounds each time a key is pressed.

1. Select the item "bEEP" from the menu.
2. Confirm the selection.
   The current setting is displayed.

3. Select the setting you require:
   – On
   – Off
4. Confirm your selection.
   You will leave the menu automatically.

Restore factory settings (rSEt)

You can restore factory settings to cancel settings you have made.

Function	Factory setting
Acoustic signal	on
Display backlighting brightness	50%
Display backlighting duration	Short
Wireless module (SYS)	off
Autosend (Asend)	off

Function	Factory setting
Autoprint (APrt)	off
Length unit (Unit)	cm

NOTE
The wireless module is switched off when factory settings are restored. Information about existing wireless groups is retained. Wireless groups do not have to be set up again.

1. Select the item "rSEt" from the menu.
2. Confirm the selection.
   You will leave the menu automatically.
3. Switch off the device.
   The factory settings are restored and are available when the device is switched on again.

Set display backlighting (LCd)

You can change the duration and brightness of the display backlighting.

1. Select the item "LCd" from the menu.
2. Confirm the selection.
3. Select a menu item
   - dUr: Duration
   - bri: Brightness

4. Confirm your selection.
   The current setting is displayed.

5. Select the setting you require.

Function	Setting
Duration	• Short (approx. 15 Sek.) • Long (approx. 45 Sek.)
Brightness	• 50% • 100% • OFF

6. Confirm your selection.
   You will leave the menu automatically.
7. If you also wish to make settings for the second function, repeat this process.

Switch over length unit (Unit)

You can select the unit (Unit) you wish to use for displaying the height.

NOTE

- Note and follow the national regulations regarding units of measurement.
- Heights are transmitted to the control and are displayed in the unit set here.

1. Select the item "Unit" from the menu.
2. Confirm the selection.

   The current setting is displayed.

3. Select the unit you wish to use for displaying length:
   - Centimetre (cm)
   - Feet and inches (ft:in)

4. Confirm the selection.
   You will leave the menu automatically.

7. THE WIRELESS NETWORK SECA 360° WIRELESS

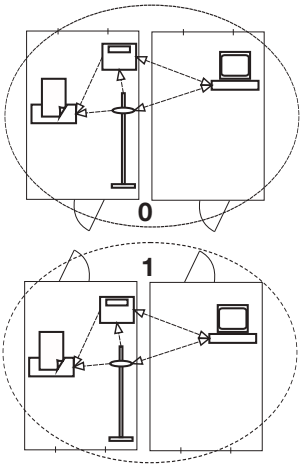
7.1 Introduction

The multifunctional display and the head slide of the device are each equipped with a wireless module. The wireless module allows measured results to be transmitted wirelessly for analysis and documentation. Data can be transmitted to the following devices:

- seca wireless printer
- PC with seca USB wireless module

seca wireless groups

The wireless network **seca 360° wireless** operates with wireless groups. A wireless group is a virtual group of transmitters and receivers. If you wish to operate several transmitters and receivers of the same type, up to 3 wireless groups (0, 1, 2) can be set up with this device.



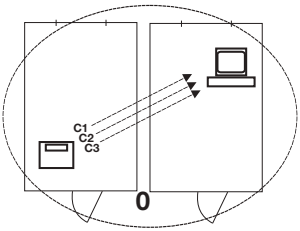
The set-up of several wireless groups ensures the reliable transmission of measured values with the correct address when using more than one examination room, each with similar equipment.

The maximum distance between transmitters and receivers is approx. 10 metres. This range may be reduced under certain local conditions, e.g. thickness and quality of walls.

The following combination of devices is possible for each wireless group:

- 1 set of baby scales
- 1 set of personal scales
- 1 height-measuring rod
- 1 seca wireless printer
- 1 PC with seca USB wireless module

Channels



Within each wireless group, the devices communicate with each other on three channels (C1, C2, C3).

When you set up a wireless group with this device, it suggests three channels guaranteeing optimum data transmission. We recommend accepting the channel numbers suggested.

You can also select the channel numbers (0 - 99) manually - for example if you want to set up more than one wireless group.

The channels must be sufficiently far apart to ensure trouble-free data transmission. We recommend a spacing of at least 30. Each channel number may only be used for one channel.

Example of configuration; channel numbers when setting up 3 wireless groups within one surgery:

- wireless group 0: C1=_0, C2= 30, C3=60
- wireless group 1: C1=10, C2=40, C3=70
- wireless group 2: C1=20, C2=50, C3=60

Detection of devices

If you wish to set up a wireless group with this device, it searches for other active devices from the **seca 360° wireless** system. The devices detected are shown by numbers in the form of modules in the device display (e.g. MO 3). The meaning of the numbers is as follows:

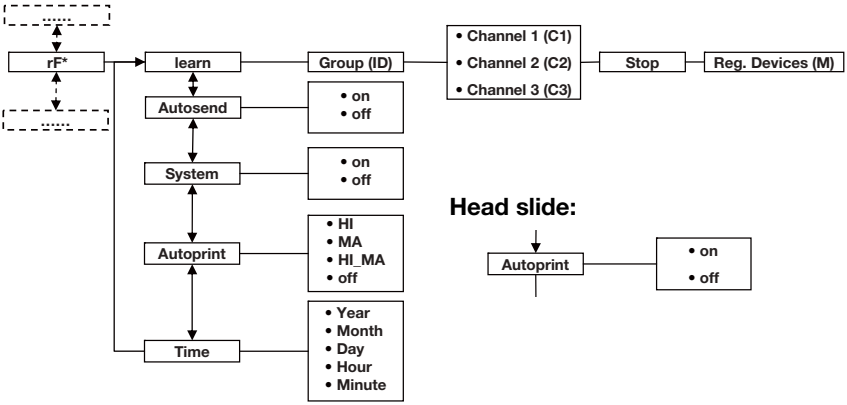
- 1: personal scales
- 2: height-measuring rod
- 3: wireless printer
- 4: PC with seca USB wireless module
- 7: baby scales
- 5, 6 and 8-12: reserved for system expansion

7.2 Operate measuring station in a wireless group (menu)

The head slide and multifunctional display of the measuring station are made to form a wireless group at the factory. Further devices can be integrated in the wireless group using both components as a starting point. The multifunctional display is more convenient for this process.

Under certain local conditions, it may happen that the wireless group set up at the factory does not work perfectly. In this case, set up a wireless group using the multifunctional display as a starting point (see “Set up wireless group (Lrn)” on page 109). If you are requested to switch on devices to be integrated in the wireless group, switch on the head slide as well.

All the functions required to operate the device in a seca wireless group can be found in submenu "rF".



* For information on how to navigate within the menu of the multifunctional display, see page 93.
For information on how to navigate within the menu of the head slide, see page 103.

Set up wireless group (Lrn)

To set up a wireless group proceed as follows.

1. Switch the device on.
2. Call up the menu.
3. Select the "rF" item from the menu.
4. Confirm the selection.

5. Select the “lrn” (learn) menu item.
6. Confirm the selection.

The wireless group currently set (here: wireless group 0 "ID 0") is displayed.

If the wireless group "0" already exists and you wish to set up another wireless group with this device, use the arrow keys to select another ID (here: wireless group 1 "ID 1").

7. Confirm your selection for the wireless group.

The device suggests a channel number for channel 1 (here C1 "0").

You can either accept the channel number suggested or select another channel number using the arrow keys.

8. Confirm your selection for channel 1.

The device suggests a channel number for channel 2 (here C2 "30").

You can either accept the channel number suggested or select another channel number using the arrow keys.

NOTE

Two-digit channel numbers are displayed without a space. The display "C230" means: channel "2", channel number "30".

9. Confirm your selection for channel 2.

The device suggests a channel number for channel 3 (here C3 "60").

You can either accept the channel number suggested or select another channel number using the arrow keys.

10. Confirm your selection for channel 3.

The StOP message appears in the display.

The device is waiting for signals from other devices with wireless transmission capability within range.

NOTE

With certain devices, a special switch-on procedure must be followed if they are to be integrated in a wireless group. Consult the user manual for each device.

11. Switch on the device you wish to integrate in the wireless group, e.g. a wireless printer.

A beep can be heard when the wireless printer is detected.

NOTE

As soon as you have integrated a wireless printer in the wireless group, you must then select a print option (menu\rf\APrt) and set the time (menu\rf\time).

12. Repeat step 11. for all devices you wish to integrate in this wireless group.

ATTENTION!

Loss of the wireless link with the head slide

If the head slide is switched off while the wireless group is being set up, its wireless link with the multifunctional display is lost.

– Switch on the head slide together with all devices you want to integrate in the wireless group.

13. Press the Enter key to end the search.
14. Press an arrow key to see which devices have been detected (here: Mo 3 for a wireless printer).

Once you have integrated several devices in the wireless group, press the arrow key several times to ensure that all devices have been detected by the scales.

15. Press the Enter key to leave the menu or wait until you leave the menu automatically.

Activate automatic transmission (ASend)

You can configure the device so that the measured results are automatically transmitted to all receivers that are ready to receive and logged into the same wireless group (e.g.: wireless printer, PC with USB wireless module).

NOTE

If you are using a wireless printer, ensure that the print option is not switched to "off" (see “Select print option (APrt)” on page 112).

1. Switch the device on.
2. Select the "ASend" menu item from the "rf" submenu and confirm your selection.

3. Select "on" and confirm your selection.
   You will leave the menu automatically.

Activate/Deactivate wireless module (system)

The device is supplied with the wireless module activated. Power consumption is increased with the wireless module activated. You can disable the wireless module if you do not wish to use the wireless data transmission option.

1. Switch the device on.
2. Select the "SYS" menu item from the "rf" submenu.

3. Confirm the selection.
   The current setting is displayed.

4. Select the setting you require
   - On
   - Off
5. Confirm the selection.
   You will leave the menu automatically.

Select print option (APrt)

You can configure the measuring station so that measured results are automatically printed out on a wireless printer logged on to the wireless group.

NOTE
This function is only available if the "learn" function has been used to integrate a seca wireless printer in the wireless group.

1. Switch on the head slide and the multifunctional display.
2. Select the "APrt" menu item from the "rf" submenu and confirm your selection.

3. Depending on the required print result, select the appropriate setting for head slide and multifunctional display.

Print result	APrt head slide	APrt multifunctional display
Height	on	off
Weight	off	MA
Height, weight and BMI/BFR	off	HI_MA
No automatic printing	off	off

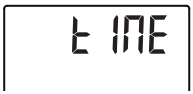
4. Confirm your selection.
   You will leave the menu automatically.

Set time (Time)

You can configure the system so that the wireless printer automatically adds the date and time to your measured results. To do so, you have to set the date and time once on the device and transmit this to the wireless printer's internal clock.

NOTE
This function is only available if the "learn" function has been used to integrate a seca wireless printer in the wireless group.

1. Switch the device on.
2. Select the "Time" menu item from the "rf" submenu.



3. Confirm the selection.
   The current setting for year (YEA) is displayed.

4. Select the correct year.
5. Confirm the selection.
6. Repeat steps 3. and 4. as appropriate for month (Mon), day (doY), hour (hour) and minute (M in).
7. Confirm your selection each time.
   After confirming your setting for minute, the program automatically exits the menu.
   The settings are automatically transmitted to the wireless printer.
   The wireless printer automatically adds the date and time to every printout.

NOTE
For further operation of the wireless printer, see its user manual.

8. CLEANING

Use a standard household cleaner or disinfectant to clean the surfaces of the device as required. Take note of the instructions provided by the manufacturer.

9. WHAT TO DO IF …?

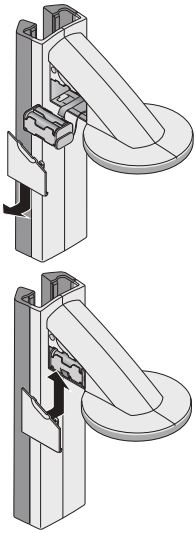
9.1 Faults and their correction

Malfunction	Cause/Remedy
… no weight is displayed during weighing?	The device has no power supply. - Check the scales are switched on - Check whether the batteries are inserted (device with battery operation) - Check whether the mains supply is connected (devices with mains operation)
… 0.00 does not appear before weighing?	A load was placed on the scales before being switched on. - Reduce load - Switch scales off and back on again
… a segment lights up continuously or not at all?	There is a fault at that point. - seca notify the service department.
...the background lighting of the display goes out at the head slide and cannot be switched back on?	Battery voltage is falling off. The background lighting has been automatically switched off to save energy. You can take measurements and transmit data for another approx. 12 h. - Insert new batteries as soon as possible (see “Change the batteries of the head slide” on page 117).
…  **is displayed?**	Battery voltage is falling off. - Insert new batteries as soon as possible (see “Change the batteries of the head slide” on page 117).
… bAtt is displayed?	Batteries are flat. - Insert new batteries (see “Change the batteries of the head slide” on page 117)
… StOP is displayed?	During weighing • The maximum load has been exceeded. - Reduce load While setting up a wireless group: • The setup of the wireless channels is completed - Switch on the devices which are to be integrated in the wireless group (see “Set up wireless group (Lrn)” on page 109).

Malfunction	Cause/Remedy
… tEMP is displayed?	The ambient temperature of the scales is too high or too low. - Set up scales in an ambient temperature between +10 °C and +40 °C - Wait approx. 15 minutes until scales have adjusted to ambient temperature
... the multifunctional display no longer responds to the pressing of keys/buttons?	• The device is in an undefined state following implausible inputs - Unplug the power supply unit from the socket - Wait for approx. 1 minute - Plug the power supply unit into the socket, the scales and multifunctional display automatically switch on
... if, after switching on, measured results are transmitted for the first time and two acoustic signals are heard?	• The device was unable to send measured results to the wireless receiver (seca wireless printer or PC with seca USB wireless module). – Check that the device is integrated in the wireless network – Check that the receiver is switched on. • Nearby RF equipment (e.g. mobile phones) are interfering with reception. - Make sure that RF equipment is kept at least 1 metre away from transmitters and receivers in the seca wireless network. **Note:** If such interference is not eliminated, no further acoustic warnings are given with subsequent attempts at transmission.
...if no beeps can be heard while the wireless group is being set up, although the device to be integrated is switched on?	• The device was not recognised - Switch devices off and back on again (see “Set up wireless group (Lrn)” on page 109)
... only the "SYS" item is visible in the rf menu?	• The wireless module is disabled - Activate wireless module (see “Activate/ Deactivate wireless module (system)” on page 112).
... only the "SYS" and "lrn" items are visible in the rf menu?	• The wireless module is activated but no wireless group set up - Set up wireless group (see “Set up wireless group (Lrn)” on page 109).

Malfunction	Cause/Remedy
... the "APrt" and "Time" menu items are not visible in the rf menu?	• No wireless printer logged on in the wireless group - Use the "lrn" menu item to log the wireless printer into the wireless group (see “Set up wireless group (Lrn)” on page 109).
... the Er:H: 11: display appears?	The scales are too high, or too great a load is applied at one point. - Reduce load on scales or distribute weight more evenly - Restart scales.
... the Er:H: 12: display appears?	The scales have been switched on with too great a load. - Reduce load - Restart scales.
... the Er:H: 16: display appears?	Oscillations have been induced in the scales, preventing determination of the zero point. - Restart scales
... when the Enter key is pressed and the Er:H:711: display appears?	Data transmission not possible, wireless module is disabled. - Activate wireless module (see “Activate/ Deactivate wireless module (system)” on page 112).
... when the Enter key is pressed and the Er:H:712: display appears?	Data transmission is not possible, no wireless group set up. - Set up wireless group (see “Set up wireless group (Lrn)” on page 109).

9.2 Change the batteries of the head slide



You require 4 Mignon batteries, type AA, 1.5 volt. To connect the power supply for the head slide, proceed as follows:

1. Remove the cover of the battery compartment.
2. Remove the battery holder from the battery compartment.
3. Remove the spent batteries from the battery holder.
4. Insert the new batteries in the battery holder.

   NOTE
   Observe correct polarity of batteries (markings on battery holder).
5. Insert the battery holder into the battery compartment.

   ATTENTION!
   Damage to device and malfunction due to clamped or pinched cable
   – Lay the battery cable before closing the battery compartment so that it cannot get clamped between the cover and the battery compartment.
6. Slide the cover onto the battery compartment until it audibly latches into position.

10. MAINTENANCE

Your seca device leaves the factory with an accuracy greater than ± 0.15 %. To preserve this level of accuracy the product must be set up carefully and serviced regularly.
We recommend having it serviced every 3 to 5 years depending on how often the scales are used.

ATTENTION!
Incorrect measurements due to improper servicing
– Make sure that maintenance and repair are only carried out by an authorised service partner.
– You can find your local service partner at www.seca.com or send an e-mail to service@seca.com.

11. TECHNICAL DATA

11.1 General technical data

Technical data	
Dimensions • Depth • Width • Height • Height (short version)	 466 mm 434 mm 2394 mm 2194 mm
• Weight • Weight (short version)	16,5 kg 16,25 kg
Temperature range	+10° C to +40°C
Height of figures • Multifunctional display, three lines • Head slide, one line	 14 mm 12 mm
Power supply - Multifunctional display and scales - Head slide	 Power supply unit Battery
Power consumption of multifunctional display/ scales - with deactivated wireless module and without background lighting - with activated wireless module and permanent background lighting (brightness: 100%)	 35 mA 120 mA
Power consumption of head slide - with deactivated wireless module and without background lighting - with activated wireless module and permanent background lighting (brightness: 100%)	 20 mA 80 mA
Maximum running time of head slide - with deactivated wireless module and without background lighting - with activated wireless module and permanent background lighting (brightness: 100%)	 approx. 3800 min. approx. 2200 min.
Measuring data, length measurement • Measuring range • Measuring range (short version) • Graduation • Accuracy	 3 - 220 cm 3 - 200 cm 1 mm ± 2 mm

Technical data	
Medical device according to Directives 93/42/EEC and 2007/47/EC	Class I with measuring function
Wireless transmission • Frequency band • Transmission power • Fulfilled standards	 2.433 MHz - -2.480 MHz <10 mW EN 300328

11.2 Weighing data

Weighing data	
Maximum load	300 kg
Minimum load	1 kg
Graduations	50 g
Tare range	up to 300 kg
Accuracy: • 0 to 33 kg = 72.75 lbs • 33 kg to 300 kg • 0 to 72.75 lbs • 72.75 lbs to 661.36 lbs	 ± 50 g = 1.76 oz ± 0.15 % ± 1.76 oz ± 0.15 %

12. ACCESSORIES

Wireless network **seca 360° wireless**: • Wireless printer - **seca 360° wireless printer 465** - **seca 360° wireless printer advanced 466** • PC software - **seca analytics 105** • USB wireless module **seca 360° wireless USB adapter 456**	 country-specific variants country-specific variants Application-specific licensed models 456-00-00-009
Power supply: • Plug-in power supply unit, Euro: 230 V~ / 50 Hz, 12 V= / 150 mA • Plug-in power supply unit, Int.: 100-240 V~ / 50-60 Hz, 12 V= / 0.5 A	 68-32-10-252 68-32-10-265

13. DISPOSAL

13.1 Disposal of device

Do not discard 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

13.2 Batteries

Spent (rechargeable) batteries should not be discarded with hosuhold 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.

14. WARRANTY

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 scales were 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.

We ask customers based abroad to contact their local sales agent directly in the case of warranty claims.

CE

Konformitätserklärung
Declaration of conformity
Certificat de conformité
Dichiarazione di conformità
Declaratión de conformidad
Overensstemmelsesattest
Försäkran om överensstämmelse
Konformitetserklæring
Vaatimuksenmukaisuusvakuutus
Verklaring van overeenkomst
Declaração de conformidade
Δήλωση Συμβατότητας
Prohlášení o shodě
Vastavusdeklaratsioon
Megfelelőségi nyilatkozat
Atitikties patvirtinimas
Atbilstības apliecinājums
Deklarajca zgodoności
Izjava o skladnosti
Vyhlásenie o zhode
Onay belgesi

Die Messstation
The measuring station
La station de mesure
La stazione di misura
La estación de medición
Målestation
Mätstationen
Målestasjonen
Mittausasema
Het meetstation
A estação de medição
Ο Σταθμός μέτρησης
Měřicí stanice
Mõõtejaam
A mérőállomás
Matavimo stotis
Mērīšanas stacija
Stacja pomiarowa
Merilna postaja
Meracia stanica
Ölçüm istasyonu

seca 284

…complies with the applicable requirements of the following directives:
93/42/EEC governing medical devices, 2011/65/EU governing the restriction of the use of certain hazardous substances in electrical and electronic equipment, 1999/5/EC governing radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.

Furthermore the following directives are applicable among others: EN 300 328, EN 301 489-1 and -17 governing electromagnetic compatibility and radio spectrum matters.

Hamburg, May 2015

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Precision for health