seca 954

seca
Precision for health

CONTENTS

1. FULL CERTIFICATION

With products from seca you are not only purchasing technology developed over a century, but also quality that has been validated by official bodies, the legal system and relevant institutes. seca products comply with European directives, standards and national laws. With seca you are buying into the future.

Products bearing this symbol fulfill the applicable regulatory requirements of the European Community, especially the following:

- directive 93/42/EEC governing medical devices

seca's professionalism is also recognized by official testing agencies. TÜV Süd Product Service, the agency responsible for medical products, confirms with this certificate that seca adheres consistently to the strict legal requirements as a medical product manufacturer. seca's quality assurance system includes the areas of design, development, production, sales, and service of medical scales and height measurement systems as well as software and measurement systems for the assessment of the state of health and nutrition.

seca contributes to environmental protection. We are anxious to preserve our natural resources. This is why we strive to save packagingmaterial where practical. And what is left over can be conveniently disposed of locally via Germany's Dual System recycling programme.

2. DESCRIPTION OF DEVICE

2.1 Congratulations!

With the **seca 954** electronic scale, you have just purchased a highly precise and simultaneously robust weighing instrument.

seca has put its experience at the service of health care for over 170 years and as a market leader in many countries, is constantly setting new standards with its innovative developments for weighing and measurement.

2.2 Intended use

The **seca 954** electronic scale is mainly used at hospitals, medical practices and inpatient care facilities in accordance with national regulations.

The scale is for conventional determination of weight and establishment of general state of nutrition; it assists the physician supervising treatment in making a diagnosis or deciding on a course of treatment.

To make an accurate diagnosis, however, other specific examinations have to be ordered by the physician and their results taken into account in addition to determining a weight value.

Some versions of these scales allow you to switch the weight display between kilos (kg), pounds (lbs) and stones (sts). The result of weighing is available within a few seconds.

Besides conventional weight measurement the **seca 954** also features a function to calculate the body mass index. The keypad is used to enter the height, and this is followed by automatic calculation of the body mass index from the weighing value. Height measuring instruments from the **seca 360° wireless** system can transmit the body size wirelessly to the **seca 954**.

Via the wireless network, **seca 360° wireless** measuring instruments can be connected wirelessly to a seca wireless printer or to a PC equipped with **seca analytics** PC software and the secaUSB wireless adapter.

The **seca 954** is provided with rollers to allow it to be moved about and thanks to its low power consumption, it will offer hours of battery operation for mobile applications.

The **seca 954** is **not** intended for the transport of people or objects. Use the scale only for the purpose named in this section.

3. SAFETY INFORMATION

3.1 Basic safety precautions

Handling the instrument

- Please take note of the information in this user manual.
- Keep the user manual with the declaration of conformity in a safe place.
- Make sure that the scales are positioned securely on a flat and stable surface.
- Make sure before each use that the wheel brakes are working.
- Secure the scale against unintentional rolling away. Set the wheel brakes.
- Do not transport any people or objects with the scale.
- Move the scale only with released wheel brakes.
- Make sure you do not drop the scales. Protect the scales from violent impacts.
- If you operate the scale with a battery power pack, make sure that when you route the power cable, no one can trip over it.
- If you operate the scale with a battery power pack, make sure that when you route the power cable, it cannot be crushed or come into contact with hot objects.
- Have the scales serviced regularly (see "Maintenance" on page 81).
- 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 just 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 radio transmission.

Use of measured results

- Before you save and re-use values measured with the **seca 954** (e.g. in the **seca analytics 105** PC software or in a hospital information system), make sure that the measured values are plausible and that they correspond to the display on the measuring instrument.

3.2 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 result.

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.

3.3 Handling (rechargeable) batteries

This instrument is delivered with a rechargeable battery block. Heed the following safety instructions.

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.

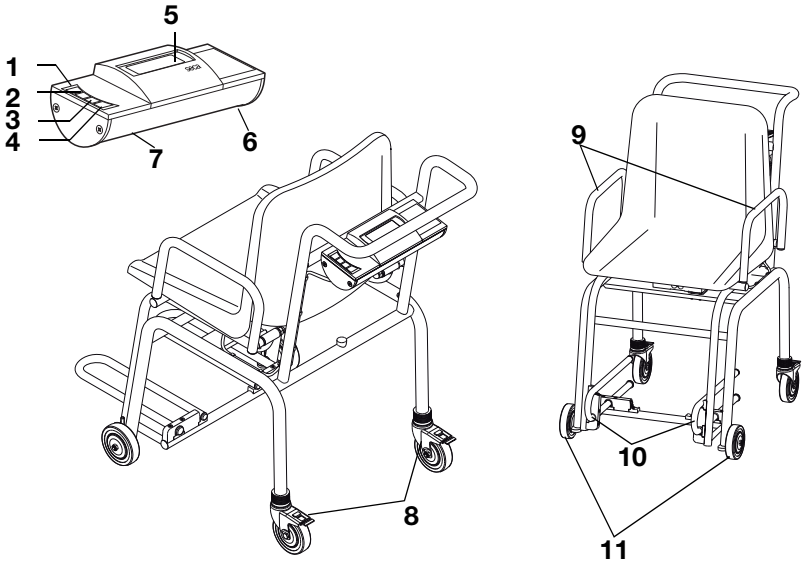
ATTENTION!

Damage to device and malfunctions with improper handling

- Only use the type of (rechargeable) battery specified see "Insert the rechargeable battery block" on page 61.
- 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. rechargeables). This will prevent acid from leaking into the device.

4. OVERVIEW

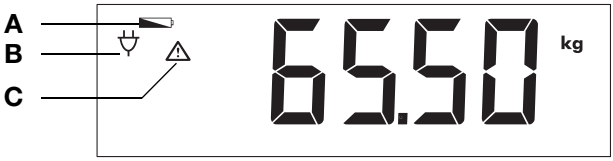
4.1 Controls/Features



No.	Control/Feature	Function
1		To switch scales off and on
2		Arrow key • While weighing: - Short press: Activate hold function - Long press: Activate tare function • On the menu: - Select submenu, select menu element - Increase value
3		Arrow key • During weighing: - Press briefly: Activate BMI function - Hold down: Call up menu • In menu: - Select submenu, select menu item - Reduce value

No.	Control/Feature	Function
4		Enter key While weighing (if wireless network is set up): - Short press: Send measurement result to receive-ready instruments (PC with USB wireless adapter) - Long press: Print out measurement result (wireless printer) • On the menu: - Confirm selected menu element - Save set value
5	Display	Display element for measured results and for device configuration
6	Battery compartment	Accommodation for the rechargeable battery block
7	Power pack connection	Serves to connect the included power pack
8	Transport rollers	• Steerable • Height adjustable • With wheel brakes The scale can be moved on these rollers. The scale can be aligned precisely with these rollers
9	Armrests	Swivel, so that it is easier for the patient to sit down
10	Footrests	• Swivel • Can be pulled out For correct measurement, the patient's feet must be on the footrests
11	Transport rollers	The scales can be moved about with these rollers

4.2 Symbols in display



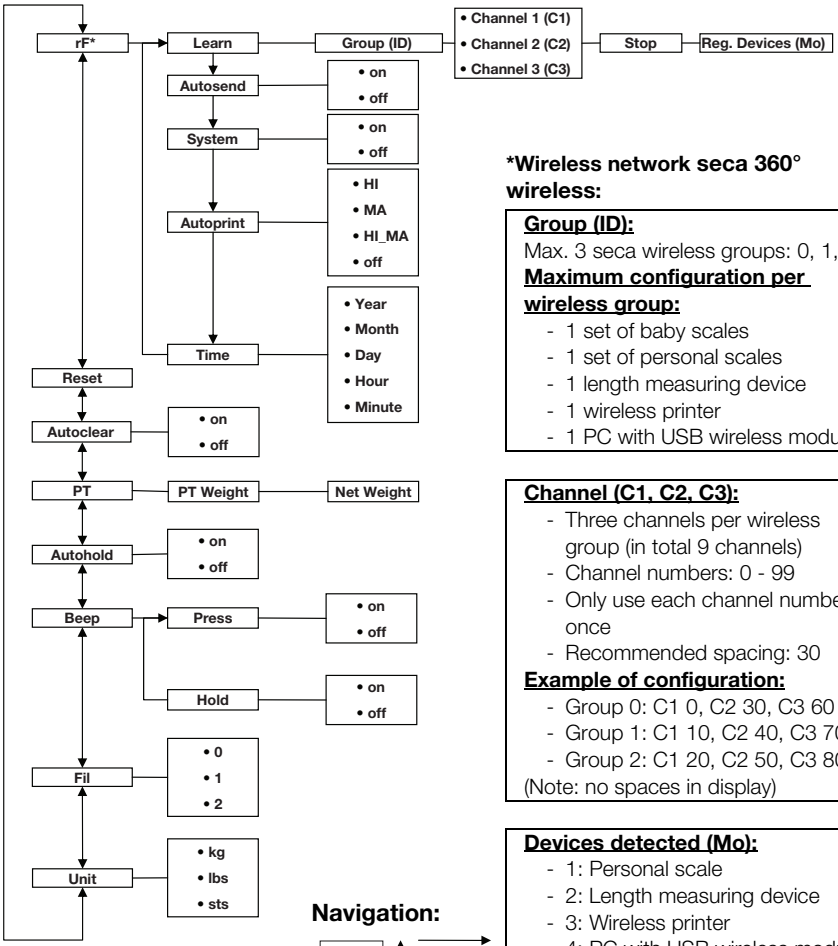
	Symbol	Meaning
A		Rechargeable battery block is weak
B		Operation with power supply unit
C		Non-calibratable function active

4.3 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 totally insulated appliance
FCC ID	For USA: Device licensing number issued by US authority FCC (Federal Communications Commission)
IC	For Canada: Device licensing number issued by authority Industry Canada
	Device complies with EC standards and directives
	Symbol for FCC (USA)
	Only operate device with DC. Note the polarity of the device plug.
	Do not discard with household waste

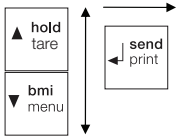
4.4 Menu structure

Other functions are available in the menu of the device. This enables you to configure the device perfectly to suit the conditions in which you use it (details from page 68).



Call up menu:

Navigation:



***Wireless network seca 360° wireless:**

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

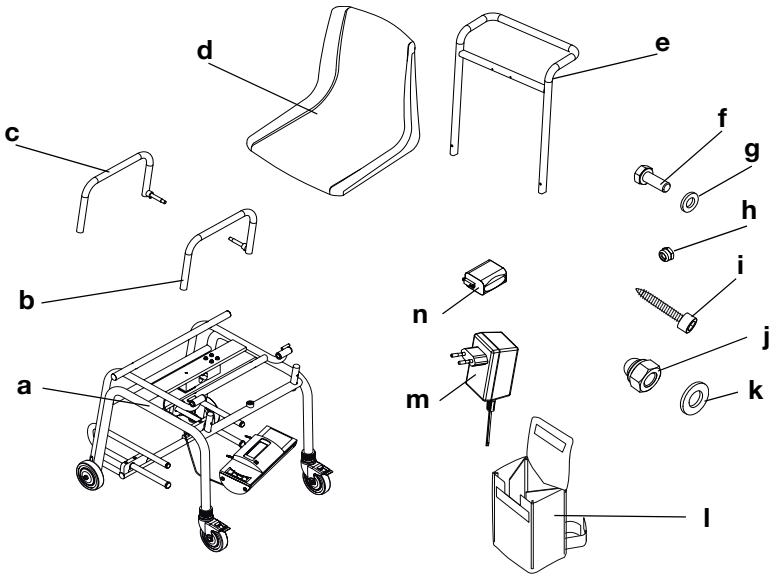
Example of configuration:
- Group 0: C1 0, C2 30, C3 60
- Group 1: C1 10, C2 40, C3 70
- Group 2: C1 20, C2 50, C3 80

(Note: no spaces in display)

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

5. BEFORE YOU GET STARTED …

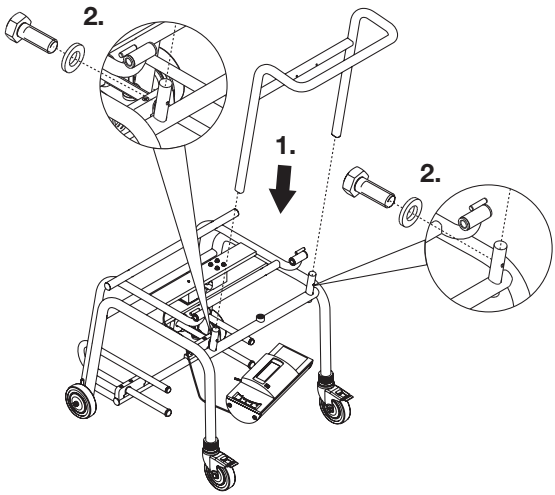
5.1 Scope of delivery



No.	Components	Pcs.
a	Base frame, complete - Seat frame - Display housing wired to weighing cell - Weighing cell cable with cable clips - Footrests	1
b	Armrest, left	1
c	Armrest, right	1
d	Seat	1
e	Push handle	1
f	Hexagon screw M6 x 16	2
g	Washer 6.4 mm	2
h	Hexagon nut M4 self-locking	2
i	Sheet metal screw, hexagon socket, 6.3 x 38	4
j	Box nut, M10	2
k	Washer 10.5 mm	2
l	Power pack carrier pouch **seca 471**	1
m	Power pack	1
n	Rechargeable battery block	1
	Allen wrench, SW5 mm, not shown	1
	Instructions for use, not shown	1

5.2 Assembling the instrument

Assembling the push handle

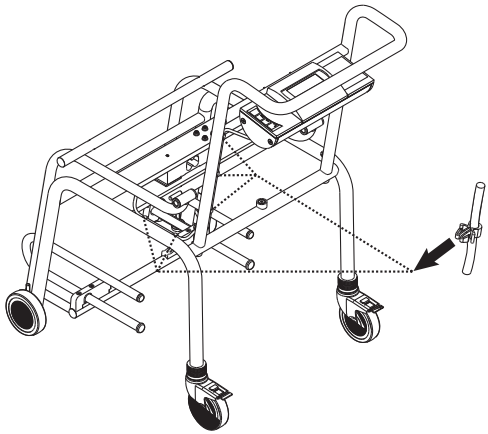


1. Put the push handle on the pins of the lower frame.
2. Screw the handle to the lower frame (2 x hexagon screw M6x16 with washer 6.4 mm).

Assembling the display housing

1. Insert the fastening bolts of the display housing through the holes in the handle.
2. Screw the display housing to the handle (2 x hexagon nut M4, self-locking).

Fastening the weighing cell cable



ATTENTION!

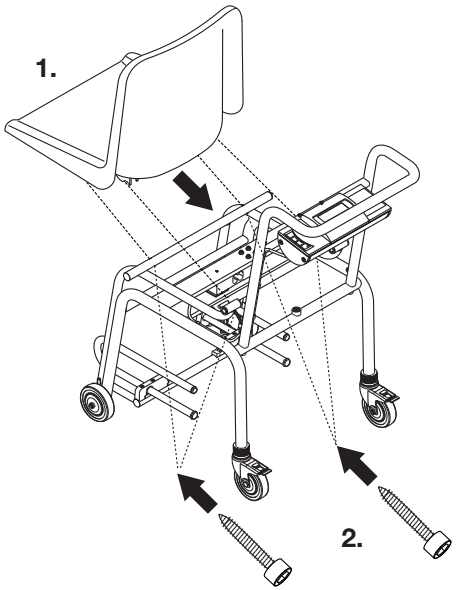
Malfunction due to assembly error

If the cables are assembled so that they are under voltage, e.g. if they are bent sharply or plugs are snapped off, this can cause faulty displays and failure of the display.

- Lay all cables so that they are not too sharply bent and so that plugs are not snapped off.
- Ensure that there is strain relief by laying all cables in the appropriate harnesses.

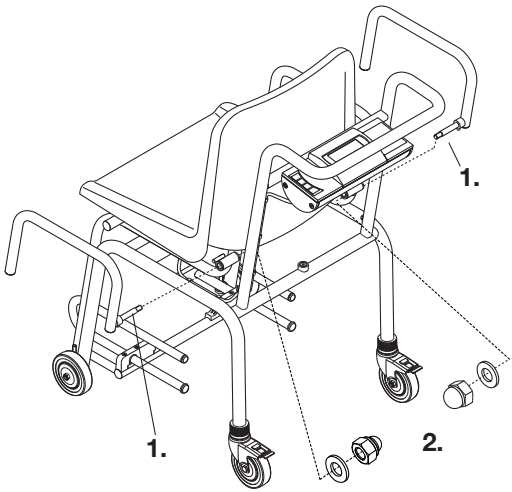
♦ Press the cable clips (fastened at the factory to the weighing cell cable) into the holes on the lower frame and on the handle until they snap in audibly.

Assembling the seat



1. Position the seat on the seat frame.
2. Screw the seat to the seat frame (4x sheet metal screw, hexagon socket, 6.3 x 38).

Assembling the armrests



ATTENTION!

Malfunction due to assembly error

If the armrest is positioned incorrectly before assembly, it cannot be folded down after assembly.

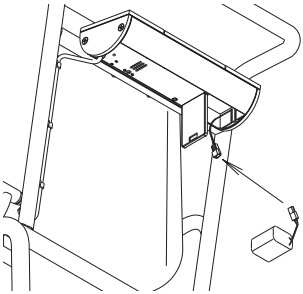
– Position the armrest as depicted in the figure.

1. Insert the bolt for the armrest through the hinge sleeve of the seat frame.
2. Screw the armrest to the seat frame (1x box nut M10 with washer 10.5 mm).
3. Repeat steps 1. and 2. for the second armrest.

5.3 Establishing the power supply

Power is supplied to the scale with a rechargeable battery block or a power pack (both included in the scope of delivery).

Insert the rechargeable battery block



1. Press on latch of battery compartment.
2. Move down lid of battery compartment.
3. Remove the connector cable from the battery compartment.
4. Connect the connector cable to the rechargeable battery block.
5. Insert the rechargeable battery block into the battery compartment.
6. Close the battery compartment.

Connect the power supply unit

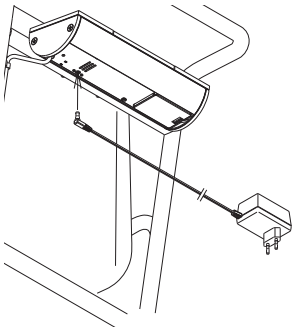
The rechargeable battery compartment is charged with the included power pack.

WARNING!

Personal injury and damage to device if incorrect power supply unit is used

The voltage provided by standard power supply units may be higher than their indicated rating. This may cause the scales to overheat, catch fire, melt or short-circuit.

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



1. Insert the power plug necessary for your power supply in the power supply unit.
2. Insert the connector plug of the power supply unit in the connecting socket of the scales.
3. Plug the power supply unit into a mains socket.
4. Allow the scale to charge on the network for at least 24 hours when it is first charged so that the re-chargeable battery block is completely charged.

6. OPERATION

6.1 Weighing

CAUTION!
Patients can be injured if they fall
People with limited mobility can fall if they try to sit down on the scale.

– Make sure that the scale's wheel brakes are set.
– Assist people with limited mobility when they are sitting down.
– Leave the footrests folded up and pushed in until the patient is sitting on the scale.

CAUTION!
Patients can be injured if their limbs get pinched
The patient's hands and arms can be pinched between the seat and the lower frame or between the seat and the armrests.

– Make sure that the patient's hands and arms are on the armrests or in his lap during the weighing process.

ATTENTION!
Incorrect measurement due to force shunts
If accessories (e.g. the power pack pouch) or articles of clothing get caught between the seat and the frame, the weight will not be measured correctly.
If the patient's feet are not on the footrests, the weight will not be measured correctly.

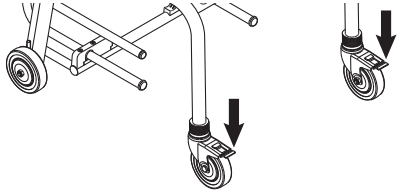
– Make sure that there are no accessories or articles of clothing between the seat and frame.
– Make sure that the armrests are folded down during the weighing process.
– Make sure that the patient's feet are on the footrests during the weighing process.

Switching on the scale

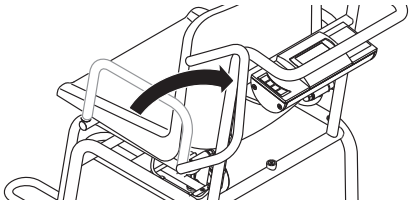
♦ Press the Start key.
The display will read SECA and then quickly run through all elements of the display.
The scales are ready for operation when the display reads 0.00.
If the device is being operated with a power supply unit, the symbol ⏚ will appear in the display.

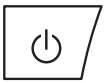
Start weighing

1. Set the wheel brakes of the rear transport rollers.

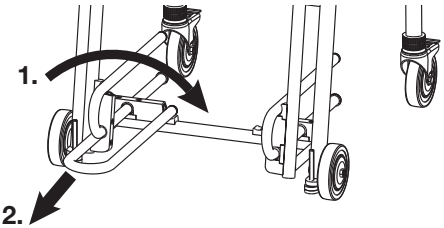


2. Fold the armrest toward the back in order to make it easier for the patient to sit down.





3. Make sure that the scale has no load.
4. Switch the scale on.
5. Ask the patient to sit down on the scale.
6. Fold the footrests down.



7. Pull the footrests down until they stop.
8. Ask the patient to put his feet on the footrests.
9. Fold the armrests down.
10. Read the measurement result.

Tare off additional weight (TARE)

You can use the TARE function to prevent the weighing result from being affected by an additional weight (e.g. a towel or pad on the weighing surface).

ATTENTION!

Incorrect measurement with force shunt

If an additional weight (e.g. large towel) is in contact with the surface on which the scales are standing, the weight will not be measured correctly.

– Make sure that any additional weight is only placed on the weighing surface of the scales.

1. Switch the scale on.
2. Place the additional weight on the scales.

3. Hold down the arrow key (**hold/tare**) until "NET" appears in the display.
4. Wait until the display stops flashing and is replaced by 0.00.
5. Weigh the patient as described in section “Start weighing”.

6. Read off the measured result.
   The additional weight has been automatically deducted.

7. To disable the TARE function, press the arrow key (**hold/tare**) until "NET" no longer appears in the display or switch off the scales.

NOTE:

The maximum weight that can be displayed is reduced by the weight of the objects already placed on the scales.

Continuous display of measured result (HOLD)

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

1. Check that there is no load on the scales.
2. Switch the scale on.
3. Weigh the patient as described in section “Start weighing”.

4. Briefly press the arrow key (**hold/tare**).

The display will flash until a stable weight is measured. The weighing value will then be displayed continuously. The ⚠ symbol (non-calibratable function) and the message "HOLD" will be displayed.

5. To disable the HOLD function, briefly press the arrow key (**hold/tare**).
   The ⚠ symbol and the message "HOLD" will no longer be displayed.

> **NOTE:**
> If the auto hold function is activated, the weight value is displayed permanently automatically until the scale switches itself off or is switched off (see "Activate Autohold function (Ahold)" on page 70).

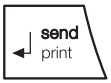
Determine and evaluate body mass index (BMI)

The body mass index compares height and weight, so resulting in more accurate figures than with Broca's formula for ideal weight. It includes a tolerance range which is considered ideal in health terms.

1. Check that there is no load on the scales.
2. Switch the scale on.

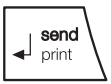
3. Briefly press the arrow key (**bmi/menu**).
   The message "BMI" appears.
   Arrows can be seen flashing in the display.
   The height last entered is displayed.

4. You can either accept this height or select another value using the arrow keys.



5. Confirm your selection with the Enter key (**send/print**).
6. Weigh the patient as described in section “Start weighing”.

7. Read off the BMI and compare it with the categories given below.



8. To disable the BMI function, briefly press the Enter key (**send/print**).

BMI	Evaluation
Under 18.5	The patient is underweight. There might be a tendency to anorexia. It is advisable that the patient puts on weight to improve well-being and performance. If in doubt, a medical specialist should be consulted.
Between 18.5 and 24.9	The patient's weight is normal.
Between 25 and 30 (pre-obesity)	The patient is slightly to moderately overweight and should lose weight if already suffering from disease (e.g. diabetes, high blood pressure, gout, disorders of the fat metabolism).
Over 30	The patient urgently needs to lose weight as this is putting a strain on the metabolism, circulation and skeleton. The recommendation is for careful adherence to a diet, plenty of exercise and behavioural training. If in doubt, a medical specialist should be consulted.

Transmit measured results to a radio receiver

If the scale is integrated into a **seca 360° wireless** wireless network, it can send the measurement results to receive-ready instruments (wireless printers, PC with USB wireless adapter) with the touch of a button.

♦ Press the Enter key (**send/print**).
  – Press key briefly: Send measured results to all receive-ready equipment
  – Hold down: Print out measured result using wireless printer

Calculate and print out BMI automatically

If you use these scales with a wireless printer and a length measuring device from the **seca 360° wireless** system, you can calculate and print out the BMI automatically.

NOTE:
The prerequisite for this function is that the equipment devices are logged into a wireless group (see "seca 360° wireless Network" on page 73).

1. Carry out weighing.
2. Briefly press the Enter key (**send/print**) on the scales.
   The measured value is sent to the wireless printer but not printed out.
3. Measure the height.

4. Hold down the Enter key (**send/print**) on the length measuring device.
   The measured value is sent to the wireless printer.
   The BMI is calculated.
   The height, weight and BMI will be printed out.

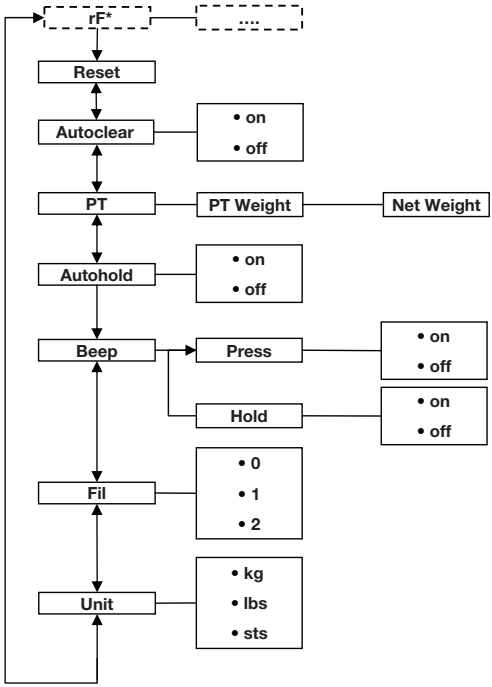
Switch off scales

♦ Press the Start key.

NOTE:
In rechargeable battery operation, the scale switches off after a short time if there is no load on it.

6.2 Additional functions (menu)

Additional functions are available in the menu for the scales. This allows you to configure the scales perfectly to your own needs.



* The menu item "rF" is described in section “Operate scales in a wireless group (menu)" on page 75.

Navigate in the menu

1. Switch on the scales.
2. Hold down the arrow key (**bmi/menu**) until the menu is called up.

   The last menu item selected is shown in the display (here: Autohold "Ahold").

3. Keep pressing one of the arrow keys until the required menu item appears in the display (here: attenuation "Fil").

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

   The current selection for the menu item or a submenu is displayed (here level "0").

5. To change your selection or call up another submenu, keep pressing one of the arrow keys until the required selection is displayed (here: level "2").

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

   You will leave the menu automatically.

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

> **NOTE:**
> If no key is pressed for approx. 24 seconds, you will leave the menu automatically.

Clear stored values automatically (AClr)

To avoid storing obsolete measured results in the device memory and so calculating the BMI incorrectly, you can set the scales to ensure measured values are automatically cleared after 5 minutes.

> **NOTE:**
> With certain models this function is already activated at the factory. If required, you can disable this function.

1. Select the item "AClr" in the menu.
2. Confirm the selection.

3. Select the setting you require:
   - On
   - Off
4. Confirm the selection.

   You will leave the menu automatically.

Permanently store additional weight (Pt)

You can use the Pre-Tare function to permanently store an additional weight and automatically deduct it from the measured result. You can for example store 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" in the menu.
   The message "Pt" appears.
2. Confirm your selection.

   Arrows can be seen flashing in the display.
   The additional weight last stored is displayed.
3. You can accept the stored value or adjust it using the arrow keys.

   NOTE:
   If you enter the value "0", the function will be switched off. The message "Pt" will no longer be displayed.
4. Confirm your selection.
5. Ask the patient to sit down on the scale.

   The patient's weight is displayed.
   The additional weight stored has been automatically deducted.
6. To disable this function, select the item "Pt" in the menu again.

7. Confirm your selection.
   The function is disabled.
   You will leave the menu automatically.

   NOTE:
   When you switch the scale off, the function is switched off. The message “Pt” is no longer displayed when you switch the scale on again.

Activate Autohold function (Ahold)

If you activate the Autohold function, the measured result for each weighing operation will continue 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:
With certain models this function is already activated at the factory. If required, you can disable this function.

1. Select the item "Ahold" in the menu.
2. Confirm the selection.
   The current selection 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 select whether an acoustic signal is to be emitted whenever a key is pressed or a stable weighing value has been attained. The latter is relevant for the Hold/Autohold function.

NOTE:
The function "Acoustic signal with stable weighing value" is activated at the factory. If required, you can disable this function.

1. Select the item "BEEP" in 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 weighing value.

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

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

Select attenuation (Fil)

You can use attenuation (Fil = filter) to reduce any interference during weighing (e.g. caused by patient moving).

1. Select the item "Fil" in the menu.
2. Confirm the selection.

   The current selection is displayed.

3. Select an attenuation level.
   - 0: no attenuation
   - 1: moderate attenuation
   - 2: high attenuation
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 the weight.

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

The current selection is displayed.
Select the unit you wish to use for displaying the weight:
- kilos (kg)
- pounds (lbs)
- stones (sts)

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

Restore factory settings (RESET)

You can restore the factory settings for the following functions:

Function	Factory setting
Autohold (Ahold)	depending on model
Acoustic signal (Press)	off
Acoustic signal (Hold)	on
Attenuation (Fil)	0
Autoclear (Aclear)	depending on model
Pre-Tare (Pt)	0 kg
Height for body mass index (BMI)	170 cm
Weight unit	kg
Wireless module (SYS)	off
Autosend (ASend)	off
Autoprint (APrt)	off

NOTE:
The wireless module is switched off when restoring the factory settings. Data for existing wireless groups remains in the memory. These groups do not need to be set up again.

1. Select the item "Reset" in the menu.
2. Confirm the selection.
   You will leave the menu automatically.
3. Switch the scales off.
   The factory settings are restored and will be available when the scales are next switched on.

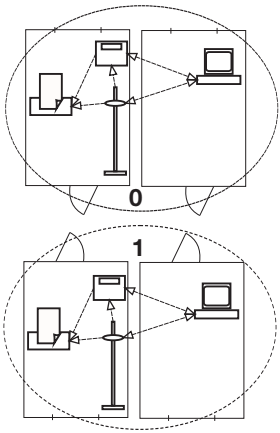
7. SECA 360° WIRELESS NETWORK

7.1 Introduction

This device is 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 equipment devices:

- seca wireless printer
- PC with USB wireless module

seca wireless groups



The **seca 360° wireless** network 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.

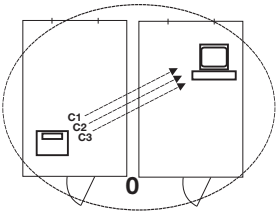
The set-up of several wireless groups ensures the reliable transmission of measured values with the correct address when using more than one examination room each with similar equipment.

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

The following combination of devices is possible per wireless group:

- 1 set of baby scales
- 1 set of personal scales
- 1 length measuring device
- 1 seca wireless printer
- 1 PC with seca USB wireless module

Channels



The devices communicate with each other within each wireless group via three channels (C1, C2, C3). This ensures reliable, troublefree data transmission.

When you set up a wireless group with the scales, the device will suggest 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 troublefree 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=80

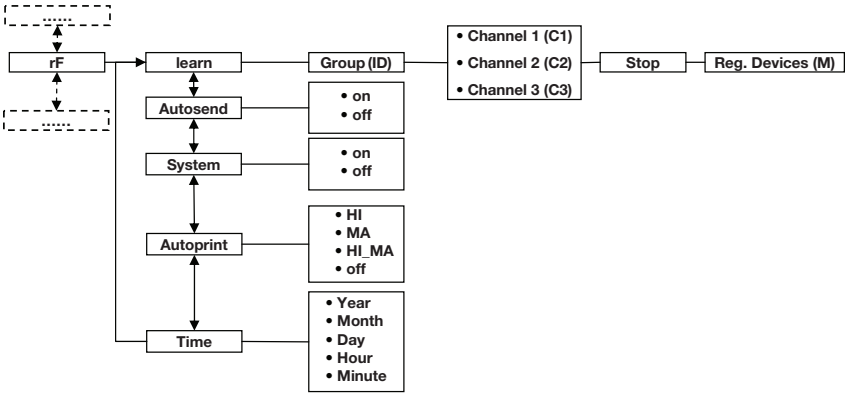
Detection of equipment devices

If you wish to set up a wireless group with the scales, they will search for other active devices from the **seca 360° wireless** system. The devices detected are shown as modules in the display on the scales (e.g. MO 3). The meaning of the numbers is as follows:

- 1: Personal scales
- 2: Length measuring device
- 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 scales in a wireless group (menu)

All functions required to operate the device in a seca wireless group can be found in the submenu "rF". Information how to navigate in the menu can be found onpage 69.



Activate wireless module (SYS)

The device is supplied with the wireless module disabled. It has to be activated before you can set up a wireless group.

NOTE:
When the wireless module is activated, the power consumption of the device will increase. We recommend using a power supply unit when operating the device in a wireless network.

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

3. Confirm the selection.
4. Select "on".

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

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 item "rF" in the menu.
4. Confirm the selection.

5. Select the menu item "lrn" (learn) in the "rf" submenu.
6. Confirm the selection.

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

If the wireless group "0" already exists, use the arrow keys to select another ID (here: wireless group 1 "ID 1").

7. Confirm your selection for the wireless group.

The device will suggest 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 will suggest 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 will suggest 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 message StOP appears in the display.
The device is waiting for signals from other equipment devices with radio transmission capability within its range.

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

11. Switch on the equipment device you wish to integrate in the wireless group, e.g. wireless printer.
    A beep will be heard when the wireless printer is detected.

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

12. Repeat step 11. for all equipment devices you wish to integrate in the wireless group.
13. Press the Enter key to end the search.

14. Press one of the arrow keys 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 keys several times to check that all equipment has 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 scale so that the measurement results are automatically sent to all receive-ready recipients signed into the same wireless group (e.g.: wireless printer, PC with USB wireless module).

NOTE:
If you are using a wireless printer, ensure that “off” is not set as a print option (see "Select print option (APrt)" on page 78).

1. Switch the device on.

2. Select the menu item "ASend" in the "rf" submenu and confirm your selection.

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

Select print option (APrt)

You can configure the device so that measured results are automatically printed out by a wireless printer logged into 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 the device on.
2. Select the menu item "APrt" in the "rf" submenu and confirm your selection.

3. Make the appropriate selection for your combination of devices:
   - HI: Measured results from length measuring devices
   - MA: Measured results from scales
   - HI_MA: Measured results from length measuring devices and scales
   - off: No automatic printout, printout only if Enter key is held down during weighing.

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 the 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 menu item "Time" in the "rf" submenu.

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

4. Select the correct year.
5. Confirm the selection.
6. Repeat steps 3. and as appropriate for the month (Mon), day (dAY), hour (hour) and minute (Min).

7. Confirm your selection each time.
   After confirming your selection for Minute you will leave the menu automatically.
   These selections will be 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

Clean the seat and frame on an as needed basis using a household cleaner or a commercial disinfectant. Follow the manufacturer's instructions.

Do not use scouring or caustic cleaning products, spirit, petrol or similar substances for cleaning under any circumstances. Such products may damage the high-quality finishes.

9. WHAT TO DO IF ...?

Malfunction	Cause/Remedy
... no weight is displayed during weighing?	The scale has no power supply. - Check whether the scale is switched on - Check whether the rechargeable battery block is inserted
... 0.00 does not appear before weighing?	A load was placed on the scales before being switched on. - Remove load - Switch scales off and back on again
... a segment lights up continuously or not at all?	There is a fault at that point. - Notify maintenance service.
...  **is displayed?**	The voltage of the rechargeable battery block drops. - Charge the rechargeable battery block as soon as possible
... bAtt is displayed?	Rechargeable battery block is empty. - Charge rechargeable battery block
... StOP is displayed?	The maximum load has been exceeded. - Reduce load

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
... if after switch-on, measured results are transmitted for the first time and two acoustic signals are heard?	• The instrument was not able to send any measurement results to the wireless receiver (seca wireless printer or PC with seca USB wireless adapter). – Check that the scales are 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 warning will be given with subsequent attempts at transmission.
... only the item "SYS" is visible in the rf menu?	• The wireless module is disabled. - Activate wireless module (see "Activate wireless module (SYS)" on page 75).
... only the items "SYS" and "lrn" 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 75).
... the items "APrt" and "Time" are not visible in the rf menu?	• No wireless printer is logged into the wireless group. - Use menu item "lrn" to log the wireless printer into the wireless group (see "Set up wireless group (Lrn)" on page 75).
…after calling up the menu, the “rf” element is not displayed.	• The scale’s wireless module is defective. - Inform the maintenance service
… Er:H: 11 is displayed?	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

Malfunction	Cause/Remedy
… Er:H: 12 is displayed?	The scales have been switched on with too great a load. - Reduce load on scales - Restart scales
… Er:H: 16 is displayed?	Oscillation of the scales has occurred, preventing determination of the zero point. - Restart scales
… when the Enter key (send/print) is pressed and Er:H:71 is displayed?	Data transmission not possible, wireless module is disabled. - Activate wireless module (see "Activate wireless module (SYS)" on page 75).
… when the Enter key (send/print) is pressed and Er:H:72 is displayed?	Data transmission not possible, no wireless group set up. - Set up wireless group (see "Set up wireless group (Lrn)" on page 75).

10. MAINTENANCE

Your seca scales leave the factory with an accuracy greater than ±0.3%. 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 measurement due to improper maintenance

– 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 just send an e-mail to service@seca.com.

11. TECHNICAL DATA

Technical data for seca 954	
Dimensions • Depth • Width • Height	 810 mm 565 mm 920 mm
Weight	approx. 25 kg
Temperature range	+10° C to +40° C

Technical data for seca 954	
Height of figures	25 mm
Power supply	Rechargeable battery block Power pack
Power consumption • with wireless module disabled • with wireless module activated	 approx. 32 mA approx. 50 mA
Maximum runtime in rechargeable battery operation • with wireless module disabled • with wireless module activated	 approx. 2.400 minutes Power supply unit recommended
Medical device according to directive 93/42/EEC	Class I with measuring function
EN 60601-1: • Class II totally insulated appliance: • Type B electromedical device:	  
Maximum load • Partial weighing range 1 • Partial weighing range 2	 150 kg / 330 lbs / 24 sts 300 kg / 660 lbs / 47 sts
Minimum load • Partial weighing range 1 • Partial weighing range 2	 1,0 kg 2,0 kg
Graduations • Partial weighing range 1 • Partial weighing range 2	 50 g / 0.1 lbs 100 g / 0.2 lbs
Tare range	300 kg
Accuracy • 0 to 35 kg • 35 kg to maximum load • 0 to 75 lbs • 75 lbs to maximum load • 0 to 5.5 sts • 5.5 sts to maximum load	 ±100 g ±0,3% ±0.2 lbs ±0,3% ±0.2 lbs ±0,3%
Radio transmission • Frequency band • Transmission power • Standards applied	 2,433 GHz - 2,480 GHz < 10 mW EN 300 328 EN 301489-1 EN 301489-17, -177

12. ACCESSORIES

Accessory	Article number
Height measuring rods • **seca 274** • **seca 264**	 country-specific variants country-specific variants
Wireless printer • **seca 360° Wireless Printer 465** • **seca 360° Wireless Printer Advanced 466**	 country-specific variants country-specific variants
PC software • **seca analytics 105**	 application-specific licence packages
seca 360° Wireless USB adapter 456	456-00-00-009

13. SPARE PARTS

Spare parts	Article number
Switch mode power pack: 100-240V~ / 50-60Hz / 12V= / 0.5A	68-32-10-266
Rechargeable battery block	68-22-12-721
Power pack carrier pouch **seca 471**	471-00-00-009

14. DISPOSAL

14.1 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

14.2 Batteries (including rechargeables)

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.

15. 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 direct 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
Oświadczenie o zgodności
Izjava o skladnosti
Vyhlásenie o zhode
Onay belgesi

Die nichtselbsttätige Personenwaage
The non-automatic personal scales
Le pèse-personnes non automatique
La bilancia pesapersone non automatica
La báscula no automática pesapersona
Den ikke-automatiske personvægt
Den icke automatisk personvåg
Den ikke-automatiske personvekten
Ei-automaattinen henkilövaaka
De niet-automatische personenweegschaal
A balança não automática para pessoas
Η μη αυτόματη ζυγαριά ατόμων
Osobní váhy s neautomatickou činností
Tervishoiuteenuse osutamisel kasutatavad mitteautomaatkaalud
A nem automatikus működésű személyi mérleg
Neautomatinòs buitinòs svarstyklòs
Manuālie (neautomātiskie) personālsvari
Nieautomatyczna waga osobowa
Neavtomatska osebna tehtnica
Nesamostatná osobná váha
Otomatik olmayan yetiflkin tartısı

seca 954

…corresponds to the type described in the certificate in respect of type approval permit.
The scales comply with the applicable requirements of the following directives:
93/42/EEC governing medical devices.

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Hamburg: Juli 2011

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