

**final version -  
no artwork master**

scaleo-comfort  
Diagnostic scale  
BSC 105/BSC205  
User manual

Issued in 08/2008

Manufactured for:  
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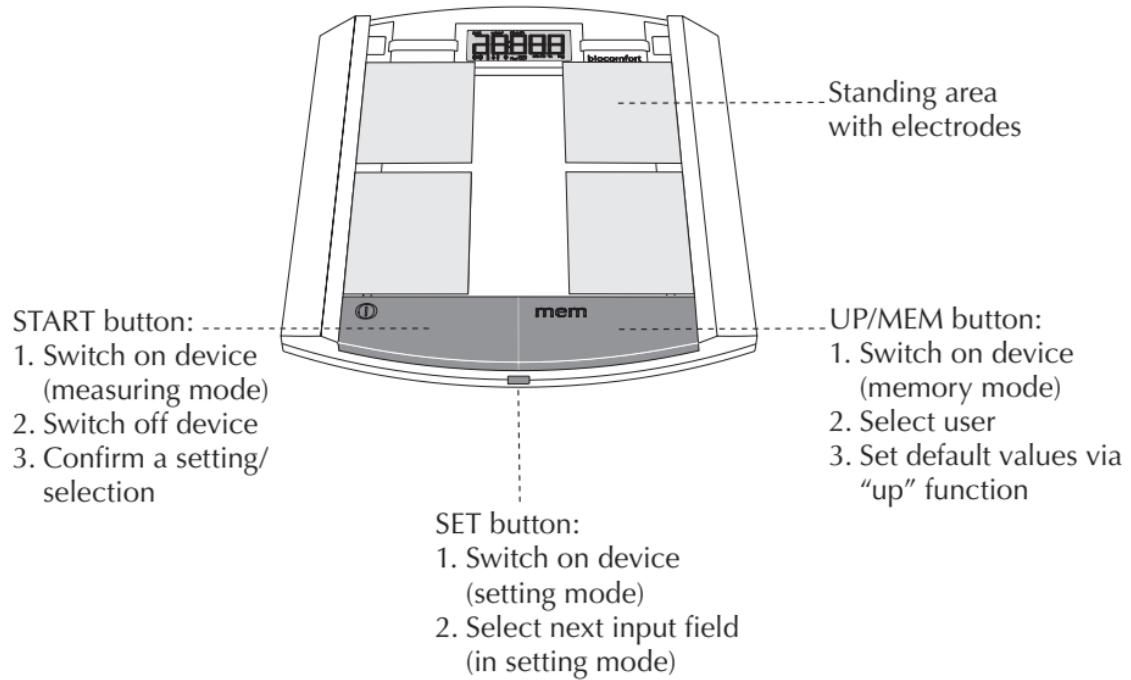
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Limited Product Warranty Information	see Chapter 10
Limitation of Liability and Exclusion of Statutory Remedies	see Chapter 11

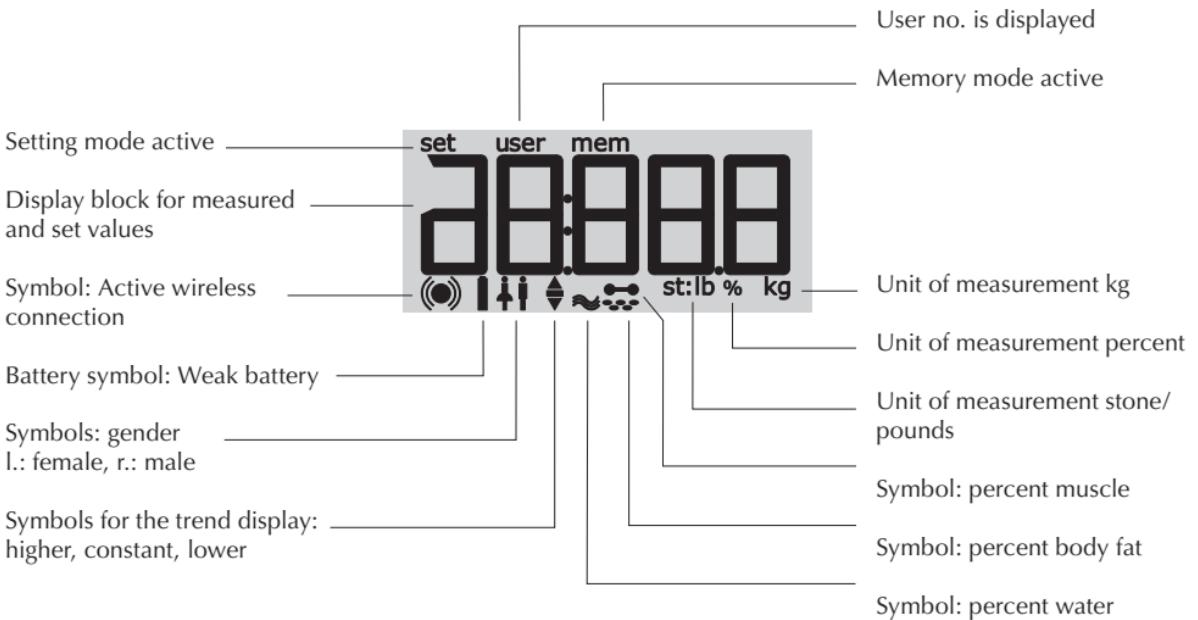
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## Control elements



## Display elements



**Contents of Package:**

- Biocomfort Body Diagnostics Scale *scaleo-comfort* BSC105 or BSC205
- 2 x 1,5 V alkaline batteries (type AAA / LR03)
- User Manual
- Biocomfort One-Year-Limited Warranty

**Infos at [www.biocomfort.de](http://www.biocomfort.de)**

For help getting started or any questions you may have, please do not hesitate to give us a call at 1-866-294-8267 (available from 9 a.m. to 5 p.m. monday through friday EST)

## **1 Introduction and Safety Information**

Dear Customer,

We are pleased that you have decided in favor of the Biocomfort *scaleo-comfort* diagnostic scale.

It will be a reliable aid for you in keeping track of your body values, your weight, as well as your percentage bodyfat, body water and muscle mass. The device is easy to operate and works reliably. The measured values can be transferred to your PC for further processing.

**This operating manual contains important information for you.**

Please read these safety and operating instructions carefully before using the measuring system for the first time. Best would be for you to carry out a practice measurement.

All control elements and displays are exactly explained.

When using this Biocomfort product, these basic safety precautions and warnings must be followed to reduce the risk of injury to your person and health, the risk of damage to the Biocomfort products and the risk of injury or damage to other persons or property.

Keep the operating manual in a safe place for future reference. We recommend that you also instruct other persons in how to operate the measuring system.

### **1.1 Intended Use**

The Biocomfort body diagnostic scale measures body weight and estimates the percentage body water, body fat and muscle mass according to the B.I.A. (bioelectric impedance analysis) principle. It is intended for measurements in healthy subjects.

The model version BSC105 is equipped with a radio module to transmit the measurement data to a PC.

## 1.2 Important Information

Keep these information in a safe place for a later reference!

The symbols below identify and alert the user to the presence of important safety, operating, and service instructions.

**WARNING:** indicates that non-compliance with the safety instructions may lead to health injury or bodily harm of the user or other persons.

**CAUTION:** indicates that non-compliance with the safety instructions may lead to damage to the product and/ or bodily harm of the user or other persons.

**WARNING:** Never allow children to play with the scale which may be a chocking hazard.

**WARNING:** The scale may not be used by persons who have electronic implants (e.g. cardiac pacemakers), artificial limbs, contraceptive devices, metal plates/screws or other internal medical devices. Otherwise, their function may be impaired. When in doubt, contact your physician.

**WARNING:** Careful, do not stand on the scale with wet feet and do not stand on the scale if the surface is wet; you may slip!

**WARNING:** Place the scale on a solid level surface, such as tile, wood or laminate flooring. A hard floor surface is a prerequisite for correct measurement.

**WARNING:** Do not attempt to open or repair the device yourself. This may damage the device or cause personal injury. Opening the scale automatically cancels all warranties. If you have technical or troubleshooting questions, please contact us via web, email or phone

### CAUTION:

- You should keep your scale from being bumped, and away from moisture, dust, chemicals, extreme temperature fluctuations and heat sources (ovens, radiators).
- Before making any complaints, however, first check the batteries and exchange these, if necessary (see 3.1 inserting/ exchanging batteries)
- From time to time, the device should be cleaned with a soft cloth. For further details about Cleaning please see Section 6.3.
- Do not expose the scale to extreme temperatures, humidity, dust, or direct sunlight. Do not drop the device or treat it roughly in any way.

For the diagnostic scale, ages from 10 – 100 and heights from 100-220 cm (3-03"-7-03") can be preset. In the weight measurement, the results are displayed in steps of 100g (0.2 lb, 1/4 St). The results of the percentage body

fat, body water and muscle measurement are displayed in steps of 0.1%.

In the delivered condition, the scale is set to "cm" and "kg". This can be changed to "inches", "pounds" and "stones" (lb,St) via the setting menu (Section 3.5).

### CAUTION:

- The scale needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in Chapter 8.
- Portable and mobile RF communications equipment can affect the scale. Do not use mobile phones, microwave ovens or other instruments that emit an electromagnetic field near this device as they may cause this device to malfunction.

**WARNING:** This product contains one or more chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

## 2 Interesting facts and information

### 2.1 The measuring principle of the diagnostic scale

This scale measures body weight, and estimates the percentage body water, body fat and muscle mass according to the B.I.A. (bio-electric impedance analysis) principle. Here, within seconds, the body composition is measured by means of an unnoticeable, completely harmless current. With this measurement of the electric resistance (impedance) and taking into account the constant factors/individual values (age, height, gender, level of activity), the percentage of fat, water and muscle of the body can be determined. Muscle tissue and water have good electric conductivity and therefore have a lower resistance. Fat tissue, however, has a lower conductivity, since the fat cells hardly conduct current due to the very high resistance.

Transparent electrodes integrated in the standing area:

New innovative technologies are used to manufacture a transparent and, at the same time, conductive glass coating.

This coating is used for 4 fields on this scale, which act as electrodes for the impedance measurement in order to determine the percentage body fat, body water and muscle. The values, displayed in percent, indicate the respective percentage of the total weight. Together with the large-area buttons, which can be pressed with the foot, the advantage of this technology becomes clear, and cleaning is much easier compared to standard electrodes.

### 2.2 Weighing correctly

Try to always weigh yourself at the same time of day (best would be in the morning), after using the bathroom, on an empty stomach and without clothing, in order to get

comparable results. Only the long-term trend counts. Short-term weight deviations within a few days are usually only due to fluid loss: Body water only plays a major role for your feeling of well being, however. The interpretation of the results is oriented toward the changes in:

1. total weight
2. percentage body fat
3. percentage body water
4. percentage muscle mass

as well as toward the period of time in which these changes take place. Fast changes in the day-range are to be distinguished from medium-term changes (week-range) and long-term changes (month-range). A rule of thumb is that short-term weight fluctuations are almost always due to changes in water content, while medium- and long-term changes can also involve body fat and muscle.

- If weight goes down short-term, but the body fat percentage goes up or remains the same, you have only lost water, e.g. after

exercising, going to the sauna or if you've been on a limiting diet for fast weight loss.

- If your weight goes up in the medium term, but the body fat goes down or remains the same, you might have built up valuable muscle mass or you may have an increased accumulation of body water (e.g. as a result of taking medicine or weakening heart function of older people).
- When weight and the body fat percentage go down at the same time, your diet is working – you are losing body fat. Ideally, you should support your diet with physical activity, fitness training or weight lifting. You can increase your percent muscle mass in the medium term this way.

And don't forget: Physical activity is the basis for a healthy body.

### 3 How to start up your scaleo-comfort diagnostic scale

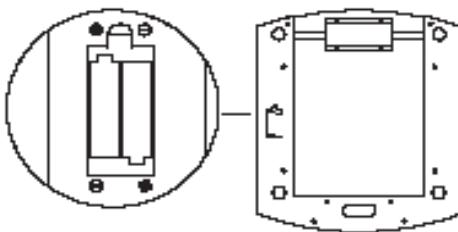
#### 3.1 Inserting / exchanging batteries

The scaleo-comfort diagnostic scale is delivered with two 1.5 V alkaline batteries [type AAA/LR03] which are enclosed separately. They can be found in the bottom part of the outer packaging in the two recesses. Before the first measurement, they must be inserted in the battery compartment on the bottom side of the scale. .

If a battery symbol appears on the display, this is a sign that the battery is weak and must be exchanged. Measurement is no longer possible.

When batteries are exchanged, all settings which have been made on the device are retained, as well as the stored measurements.

Bottom view of scale:



Please follow the following steps for inserting/exchanging batteries:

**Step 1:**  
Please always switch off the device before exchanging the batteries.

**Step 2:**  
Press the fastening device on the battery compartment and remove the cover.

**Step 3:**  
Remove any used batteries and dispose of them properly in accordance with the valid regulations.

**For the sake of environment:**  
Used batteries are hazardous waste and should not be thrown in the household garbage can.

**Step 4:**  
Insert the two 1.5 V alkaline batteries according to the symbols in the battery compartment.

**WARNING:** Ensure that batteries are inserted with the correct polarity. Improper installation is a hazard.

**Step 5:**  
Replace the battery compartment cover and click the fastening device into place.

**Step 6:**  
Afterwards, check whether the battery has been correctly inserted by briefly pressing the START button. If this is the case, all display elements appear for about two seconds as a function test.

**WARNING:** If battery fluid should get in your eye, immediately rinse with clean water and contact your physician!

#### Notes:

- Remove the batteries if you don't use the body scale for some time. Use only AAA 1.5V batteries in this device. Replace batteries periodically.
- Please make sure that you always have a replacement battery on hand
- New batteries (1.5 V alkaline batteries [type AAA/LR03]) have a lifetime of more than 18 months at 5 measurements per day.
- When the batteries are exchanged and when the scale is stored without batteries, the contents of the measured value memory are retained.
- When the batteries are removed, the internal clock of the measuring device doesn't continue to run, so when the device is used again after exchanging the batteries or after storing the device without batteries, the date and time may have to be reset (see Section 3.4)



### 3.2 Switching on

When the scale is in its idle state – the so-called sleep mode – the current time is always displayed (Fig. 3.2), which only has to be set once the first time the scale is put into operation (see 3.4 Configuring the device).



Fig. 3.2

Switch your *scaleo-comfort* diagnostic scale by pressing one of the three buttons: START, UP/MEM or SET, or by heavily tapping on the standing area. Every time you turn it on, all display elements appear for about two seconds as a function test. Please make sure

that the display elements can really be seen completely, as shown in the figure on page 5. If a segment is missing, this could lead to a false display of later measurements.

Depending on the way you switch on the scale, one of the operating modes named below will be activated:

	Activating by	operating mode
1	Tapping the standing area or pressing the START button with the user no. selection 0	Weighing in guest mode
2	Tapping the standing area or pressing the START button with the selection of one's own user no. (no. 1...8)	Weighing and determining body data with storage of measured data
3	Pressing the SET button with the selection of user no. 0	Setting mode for making the common settings, such as date, time or unit of measurement
4	Pressing the SET button with the selection of user nos. 1–8	Setting mode for making the personal settings, such as gender, age, height, level of activity
5	Pressing the UP/MEM button	Display of stored measured data of the user

### 3.3 Button functions

#### SET button:

1. When the scale is in sleep mode: Starts the configuration mode both for setting the common as well as personal parameters, whereby the first setting which can be set is the personal user no.

If nothing or the number "0" is selected here, you get into the settings menu for the common parameters (valid for all users); if, however, a user no. other than "0" is selected, you get into the settings menu for the personal parameters which are only valid for the activated user no.

You can tell which parameter can be set at any given time by its blinking.

2. When you press the SET button after selecting a parameter value in one of the configuration menus, this value is accepted and you proceed to the next settable parameter.

#### UP/MEM button:

1. When the scale is in sleep mode:  
Starts memory mode for displaying the stored measurements of a user.
2. Selection or setting of a parameter or function. There are two activation options:
  - Brief pressing, if necessary several consecutive times: Incrementing the parameter value by one or switching to next parameter symbol.
  - Keeping button pressed: Automatic incrementing of a value.

#### START button:

1. When the scale is in sleep mode:  
Starts a measurement without and with input of the user no. if the desired number isn't already displayed.
2. In the input menu: Selected value or parameter is accepted by pressing the UP/MEM button and the scale switches to the next menu item.
3. In the display menu: Switches to next menu item.
4. By pressing the START button for a longer time (at least two sec.): Exits the currently active operating mode with transition into sleep mode.

#### Note:

If no measurement is started or if no key is pressed within one minute, the *scaleo-comfort* diagnostic scale automatically goes into sleep mode, where the current time is displayed.

### 3.4 Configuring the device

Before you use the scale for the first time or if you want to adapt the device to your needs, you must make a few settings in the settings menu. To do this, the scale must be in the so-called configuration mode. To activate this mode and to set the required parameters, press the buttons as described below. You get into the settings menu when you press the SET button with the device switched off. The SET button can be found in the front, underneath the large START and UP/MEM buttons.

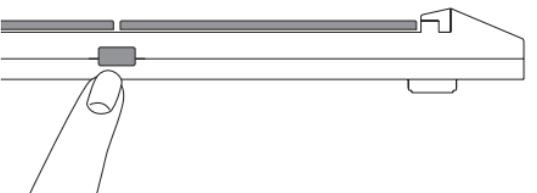


Fig. 3.3: Pressing the SET button

As soon as you have pressed the SET button, first all display elements appear as a self-test (Fig. 3.4).

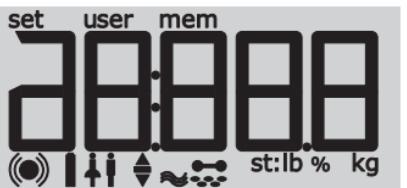


Fig. 3.4

After about two seconds, you get into the first settings menu for setting the personal user no., whereby in the upper left field of the display, the "set" symbol appears, and under the "user" symbol, the user no. 0 appears (Fig. 3.5). The "set" symbol remains on the display as long as the scale is in setting mode.

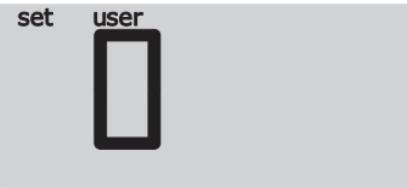


Fig. 3.5

In this settings menu, you have the choice of whether you want to set common parameters for all users (such as date and time) or your personal data required for determining the body fat, body water and muscle percentages. The personal values include gender, age, height and estimated level of fitness.

You enter the menu for setting the common parameters when you press the START button directly after the user no. 0 is displayed. If you select another number with the UP/MEM button, i.e. a number in the range from 1 to 8, you enter the menu for setting your personal data.

#### Attention:

The selected number is your personal user no. which you should memorise since you must select this number at the beginning of every measurement.

#### Notes:

- Before starting up your *scaleo-comfort* diagnostic scale for the first time, you should call up the settings menu of common parameters to be able to correctly set the date and time and the unit of weight, or to be able to make measured values disappear, which you don't want displayed during measurement.
- You can tell which parameter in the menu display can be set at any given time by its blinking. If you press the SET key after selecting the set value, you confirm the set parameter and proceed to the next settable parameter.

- By pressing the START button for a longer time (at least two sec.) you can exit the settings menu. The scale then switches to sleep mode. If the scale was in a settings menu, the last setting isn't accepted here.

### 3.5 Setting the common setting values

For the scale type BSC105 (scale with wireless module), the parameters are set via the Health Manager from the PC or PDA. It is not possible to make settings via the corresponding scale menus, but the values can be viewed to make sure they're correct.

#### 3.5.1 Setting the date and time

##### Note:

The measured body data, the weight, as well as the fat, water and muscle percentages, are stored with the date and time. The correct setting of the date and time makes it easier for you to make a correct time allocation of your measurements. In order to set the correct date and time on your *scaleo-comfort* diagnostic scale, proceed as follows:

##### Step 1:

As already described in Section 3.4, with the device switched off, first press the SET button and when the user no. "0" appears, press the START button. A four-digit year appears, followed by a blinking "Y" (for year) separated by a dot (Fig. 3.6).



Fig. 3.6

##### Step 2:

##### Setting the year

To set the current year, press the UP/MEM button until the correct year is displayed. Press the SET or the START button to permanently store the set value.

Afterwards, a menu image appears for entering the date (Fig. 3.7). First the month begins to blink (digits in the 3rd and 4th places) as well as the character "d" (for date) in the last place, separated by a dot.



Fig. 3.7

##### Step 3:

##### Setting the month

The current month can be selected, again using the UP/MEM button as described before. Press the SET or START button again. Now the display for the day is blinking together with the "d" (for date).

**Step 4:**

Setting the day

The current day can be selected, again using the UP/MEM button. Then press the SET or the START button to store the current value.

Afterwards, a menu image appears for entering the time (Fig. 3.8). First the hour begins to blink (digits in the 1st and 2nd places) as well as the character “t” (for time) in the last place, which is separated by a dot.



Fig. 3.8

**Step 5:**

Setting the hour

The current hour can be selected, again using the UP/MEM button. Then press the SET or the START button to store the current value. The display for the minute now starts blinking, together with the “t” (for time).

**Step 6:**

Setting the minute

The current minute can be selected, again using the UP/MEM button. Then press the SET or the START button again to store the current value. Now the menu image appears for selecting the unit of measurement for weight with “kg” being the setting made in the factory, “lb” for pounds, and “st:lb” for stones (Fig. 3.9). First the unit of measurement set in the factory starts to blink, or that which was previously set.

**Step 7:**

If you do not wish to make any further settings, exit the settings menu by pressing the START button for a longer period of time. Otherwise, continue with the settings as described below.

### 3.5.2 Setting the units of measurement for weight and height

**Notes:**

- The weight measurements can be displayed either in kg, lb (pounds) or in st/lb (stone/pound).
- The unit of measurement for height is set at the same time as that for weight, which is needed for entering the height. If the unit “kg” is set, then the unit of length “cm” is set at the same time. Otherwise, “ft:inch” is set.
- If you would like to set the unit of measurement without changing the

date and time, press the SET button until the menu image for the unit of measurement appears (Fig. 3.9). It can be found in the sequence after the date and time setting.



Fig. 3.9

When the menu image for selecting the unit of measurement for weight appears, whereby “kg” is the factory setting, “lb” stands for pounds and “st:lb” for stones (Fig. 3.9), the desired unit of measurement can be selected by repeatedly pressing the UP/MEM button. The unit currently activated is blinking here, initially the factory set unit of measurement, or that previously set.

Press the SET or the START button to permanently store the set unit. Afterwards, the menu image for the display selection of the percentage values appears (Fig. 3.10).

### 3.5.3 Selection of percentage values to be displayed after a measurement

Your *scaleo-comfort* diagnostic scale allows the percentages for body fat, body water and muscle mass calculated from the impedance analysis to be displayed after a measurement. With this menu, it can be specified how many or whether any of these percentages should be displayed. There are the following selection options:

1. Display of all three percentages:  
Body fat, body water and muscle mass  
(Fig. 3.10)
2. Display of body fat and body water  
(Fig. 3.11)
3. Display of body fat (no fig.)

#### 4. No display of percentages (no fig.)



Fig. 3.10



Fig. 3.11

The selection is made by repeatedly pressing the UP/MEM button, whereby the respectively selected combination is indicated by the display of the corresponding percentage symbol(s).

By pressing the SET or START button, the selected combination is stored permanently.

#### Note:

After a measurement, all percentages are calculated every time and stored in the measured value memory, even if no percentages were selected for display.

### 3.5.4 Clearing the measured value memory

#### Note:

The function for clearing the measured value memory can be found after the display selection of the percentage values in the settings menu sequence. If you would like to select the function without setting the previous

parameters, keep pressing the SET button in setting mode until the corresponding menu image appears.



Fig. 3.12: Don't clear the measured value memory



Fig. 3.13: Clear the measured value memory

**Step 1:**

When the menu image for clearing the measured value memory appears, where the “mem” symbol is blinking in the top line of the display and in the line for the value display the abbreviation “noCLR” (“no clear”) appears (Fig. 3.12), you can switch the display to “CLR” (“clear”) (Fig. 3.13) with the UP/MEM button, which means that the entire measured value memory is cleared. If you press the UP/MEM several times, you toggle between “noCLR” and “CLR”.

**Step 2:**

In order to really clear the stored measured data in the measured value memory, press the SET or START button when “CLR” appears on the display. If the memory should not be cleared, press one of the buttons when “noCLR” appears on the display.

**Note:**

If you do not press any button for a period of one minute, the scale returns to sleep mode without clearing the measured value memory.

**Step 3:**

If you do not wish to make any further settings, exit the settings menu by pressing the START button for a longer period of time. Otherwise, continue with the settings of the currently displayed menu image. If no button is pushed within a period of two minutes, the scale returns to sleep mode.

### 3.5.5 Resetting the wireless connection (type BSC 105 only)

With this function, you can reset (clear) an allocation existing via a wireless connection to a PC (see the Health Manager software instructions).

**Notes:**

- The scaleo-comfort diagnostic scale with the type designation BSC105 is equipped with a wireless interface, with which you can transfer the measured body values wirelessly to a PC equipped with a Biocomfort wireless module for further processing (e.g. complex statistical analyses) or archiving. The wireless Biocomfort module USB105 and for PCs is available as accessories.
- The wireless connection should only be reset on the device when it is no longer possible to reset it with the Health Manager software.
- Details can be found in the software instructions. The configuration of the wireless interface can be found after the function for clearing the measured value memory in the settings menu sequence. If you would like to select the function without setting the previous

parameters, keep pressing the SET button in setting mode until the corresponding menu image appears (Fig. 3.14).



Fig. 3.14: Wireless allocation is maintained



Fig. 3.15: Wireless allocation is reset

Step 1:  
In the menu image for resetting the wireless connection, the radio symbol on the bottom line is blinking and on the line for the value display, either the abbreviation "on" (Fig. 3.14) or "oFF" (Fig. 3.15) is displayed. If "oFF" appears, this means that no wireless connection could be established to your PC. If "on" appears, there is already a wireless allocation and the wireless connection to your PC is established.  
You can now toggle back and forth between the two by pressing the UP/MEM button. If you switch from "oFF" to "on", this means that a wireless allocation is to be set up to your PC. If you switch from "on" to "oFF", you can release the wireless allocation so that, for example, a wireless connection can be made to another PC. Otherwise, the wireless allocation is maintained.

Step 2:  
If you really would like to reset the wireless connection, select "oFF" by pressing the UP/MEM button and press SET or START. Otherwise, press the SET or START button when "on" appears.

Step 3:  
The menu for resetting the wireless connection is the last setting menu for the common parameters. After confirming the setting, the word "End" appears to let you know this (Fig 3.16). You can now switch the scale to sleep mode by pressing the START button for at least 2 seconds.

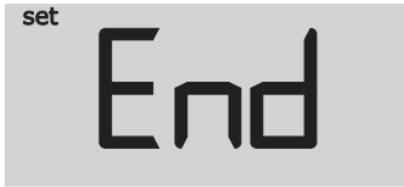


Fig. 3.16: End of the setting menu

### 3.6 Personal settings

Before the first measurement, personal parameters must be stored which are required for determining the percentage body fat, body water and muscle. In addition, the scale has 8 personal basic data memory places, where the user, e.g. each family member, can store and call up his or her data, such as gender, age, height and approximate activity level. Each user can be assigned a personal user no. ranging from 1 to 8. At each later measurement, the user in question first has to input his

user no. for identification before he begins with the measurement. The personal settings can be made in the menu-guided setting mode of the scale.

Step 1:  
To activate the setting mode, first press the SET button when the scale is in sleep mode as described in Section 3.4 – i.e. when the scale is in its idle state – and select your personal user no. (from 1 to 8) with the UP/MEM button after the user no. 0 appears. Afterwards, press the SET or START button to confirm. The menu image then appears on the display for the activation/enabling (Fig. 3.17 / 3.18).

Attention:  
If several people would like to use the scale, make sure that each person is assigned a different user no. No two people should have the same number.

### 3.6.1 Activating/releasing the user no.

#### Note:

The scaleo-comfort diagnostic scale has a battery-fail-safe measured value memory, in which the measured body values for each user can be stored who have valid personal data on the scale.

To do this, the personal user no. must first be activated. It can be released again, however, when the number is no longer needed or when the number is to be assigned to a different person. In this case, the measured data allocated to this number already stored in the measured value memory is cleared. This memory area is then available to another user.

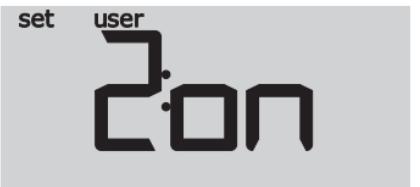


Fig. 3.17: User no. is activated



Fig. 3.18: User no. is released

#### Step 1:

After selecting and confirming the user no., the menu image for activating/releasing this number appears. Hereby, in addition to the user no., "on" (Fig. 3.17) or "oFF" (Fig. 3.18) is displayed, depending on whether the number is already active ("on") or is free ("oFF").

You can now select the desired function with the UP/MEM button. Every time you press it, the display toggles between "on" and "oFF". If you select "on", you can activate the user no. or, if "on" is displayed already, you can make changes to the settings of this user no. This might be necessary, for example, if you would like to adapt the age or fitness level setting. If you select "oFF", you can release the user no. again or, if "oFF" is displayed already, leave it deactivated.

#### Step 2:

By pressing the SET or START key, you confirm the selected function and proceed to the next setting menu image for setting the gender (Fig. 3.19).

#### Step 3:

If you do not wish to make any further settings, exit the settings menu by pressing the START button for a longer period of time. Otherwise, continue with the settings of the next displayed menu (Fig. 3.19).

#### Notes:

- If personal values have already been set for the selected user no., the current set values are displayed in the following personal setting menu. Otherwise, the factory settings are displayed.
- If the scale is to be used by several persons, it is important that the respective user knows which user no. is reserved for him.

- Before each measurement, make sure that the correct user no. was selected.
- The procedure for clearing the entire measured value memory is described in Section 3.5.4.

### 3.6.2 Setting the gender



Fig. 3.19

The menu image for setting the gender ("female" or "male") follows directly after the setting menu for activating/releasing the user no. (Fig. 3.19). The two symbols for "female" or "male" appear below the user no., whereby the current symbol (previously

set one) is blinking. Select the proper gender by pressing the UP/MEM button and confirm the selection with the SET or START button.

### 3.6.3 Setting the age



Fig. 3.20

The menu image for setting the age follows the gender setting menu. A big blinking "A:" (for age) appears, and after the colon, the preset age in years (Fig. 3.20). Set the desired age by pressing the UP/MEM button and confirm the set age with the SET or START button.

### 3.6.4 Setting the height

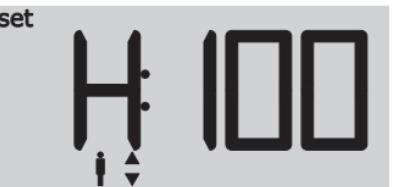


Fig. 3.21

The menu image for setting the height (Fig. 3.21) follows the age setting menu. A big blinking "H:" (for height) appears and, after the colon, the preset height in "cm" (Fig. 3.21). Set the desired height by pressing the UP/MEM button and confirm the set age with the SET or START button.

### Note

If a menu image appears which looks like the display for setting the height in Fig. 3.22, then the unit of measurement is "ft:inch". This unit of length can be switched in the settings menu for the common settings together with the unit of weight. In order to specify the height in centimetres, the unit of measurement "kg" must be set, which also sets the unit of length. The height menu image as shown in Fig. 3.21 is then displayed.

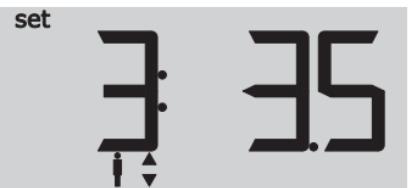


Fig. 3.22

### 3.6.5 Setting the level of fitness



Fig. 3.23

The menu image for setting your individual activity/fitness level follows the setting menu for height (Fig. 3.23). A large blinking "L:" (level) appears, and, after the colon, the preset level of fitness, whereby there are three possible settings:

- Fitness 1: No or little physical activity, possibly overweight
- Fitness 2: Average amount of physical activity
- Fitness 3: Intensive physical activity (athletic)

Set your estimated value by pressing the UP/MEM button and confirm the set value with the SET or START button.

The menu for setting your level of activity is the last setting menu for the personal parameters. After confirming the setting, the word "End" appears to let you know this (Fig. 3.16). You can now switch the scale to sleep mode by pressing the START button for at least 2 seconds.

### Explanation of activity levels:

#### **Fitness 1:**

No or little physical activity, possibly overweight.

This level is also the normal introductory mode which should be initially selected if you would like to start an exercise program or diet.

You should begin with physical exercise which is limited to max. 20 minutes and only done twice a week, e.g. walking, light yard work or aerobic exercises. After about 6 to 10 weeks, you can switch to the next activity level.

#### **Fitness 2:**

Average amount of physical activity.

This can be physical exertion which you do 2 to 5 times a week, 20 minutes each, such as jogging, bike riding or tennis.

This mode should be selected as soon as an improvement in your general feeling of well

being or general fitness can be noticed during exercise/your diet. After 8-12 weeks of continuous exercise/dieting, you can switch to the next level of activity.

#### **Fitness 3:**

Intensive physical activity (athletic).

You should set this mode if you already exercise intensively every day or have physically demanding work, e.g. intensive running, construction work, etc. Overall, you should be very flexible and have long endurance and strength for this mode, and you should maintain this level over a long period of time.

## 4 Carrying out a measurement

### 4.1 Measuring weight only in “guest” mode

This mode can be activated if only the weight is to be measured without storing the measured values or if the scale is used by a person whose data wasn't entered in the parameter memory, such as a guest. The scale is first in its idle state, the so-called sleep mode, where only the current time is displayed (Fig. 3.2).

#### Step 1:

Now tap with your foot briefly and firmly on the standing area of your scale, or press the START button. All display elements (Fig. 3.4) appear until the user no. of the user is displayed who used the scale last. Or “0” appears, which means that the scale is already in guest mode, where the impedance value isn't measured, which also means that there is no analysis of the



other body data, and no measured values are stored. Set the user no. to "0" to put the scale in guestmode. After the user no. "0", the weight display "0.0" appears after about 3 seconds (Fig. 4.2). The time can be reduced by pressing the START button.

If you step onto the scale beforehand, the error "E:1" is displayed. Then you must get off the scale and restart the measurement.

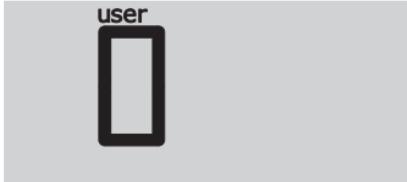


Fig. 4.1: User no. "0" (guest mode)

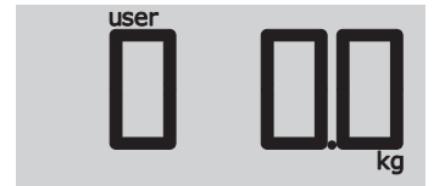


Fig. 4.2: Scale is ready for measurement

Step 2:

The scale is now ready to measure your weight. Stand on the scale. Stand still on the scale with your weight distributed evenly on both legs. The scale immediately begins with the measurement. As long as the measured value is being recorded, two dashes are shown on the display instead of the weight (Fig. 4.3). Afterwards, the result is displayed (Fig. 4.4).

If you step off the standing area, the scale switches off automatically after 30 seconds.

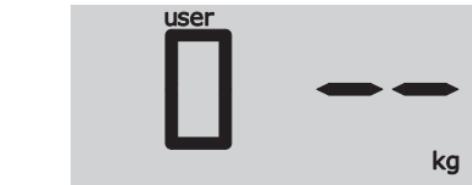
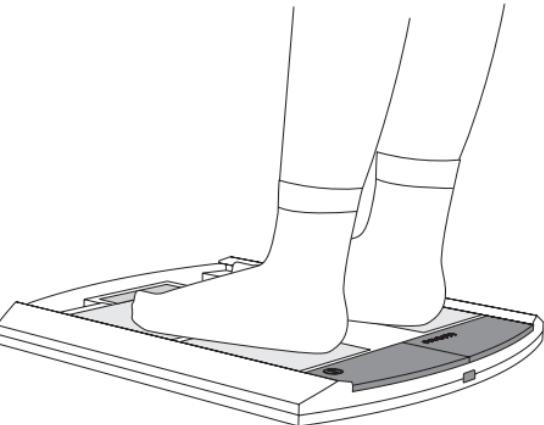


Fig. 4.3: Scale measuring



Fig. 4.4: Display of the weight

**Note:**

If the body fat, body water and muscle percentages should also be measured in addition to the weight, or if the measurement should be stored permanently, the required personal user data must be input before using the scale for the first time via the settings menu of the scale together with the personal user no.

## 4.2 Measuring weight, body fat, body water and muscle percentages

When the scale is used by several persons, the measured value memory can be configured so that the measured data is allocated to up to 8 different users based on the personal user no. (1 to 8).

To do this, before using the scale for the first time, each person must enter the required personal user data via the settings menu of the scale together with a personal user no. (see Section 3.6: "Personal settings").

Before each measurement, the user first enters his personal user no. for identification. The measured data is then saved under this number after the measurement.

At the beginning, the scale is in its idle state, the so-called sleep mode, where only the current time is displayed (Fig. 3.2).

### Step 1:

Tap the START button with your foot. As a self-test, all display elements appear until the user no. of the user is displayed who used the scale last (Fig. 4.5).

Now select, also with your foot, your own user no. where your personal basic data is stored by tapping the UP/MEM button. Every time you tap the UP/MEM button, the activated user numbers are displayed one after the other.

After about three seconds or by tapping the START button, the user no. is confirmed, whereby the weight display "0.0" appears after the user no. (Fig. 4.6 for user 3).

### Attention:

If you step onto the scale beforehand, the error "E:1" is displayed and you have to restart the measurement.



Fig. 4.5: User no. "0" (guest mode)

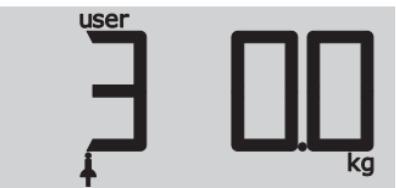
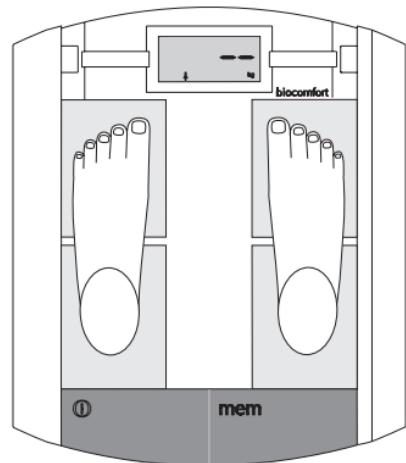


Fig. 4.6: Scale is ready for measurement

### Step 2:

Now step barefoot onto the scale and make sure that you're standing on both electrodes without allowing your feet to touch each other.

Stand still on the scale with your weight distributed evenly on both legs.



The scale immediately begins with the measurement. As long as the measured value is being recorded, two dashes are shown on the display instead of the weight (Fig. 4.7).

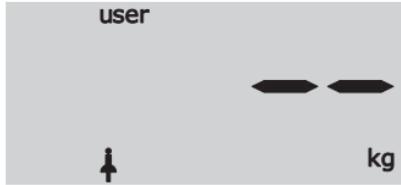


Fig. 4.7: Scale measuring

**Important:**

There must be no contact between your two feet, legs, calves and thighs. Otherwise, the measurement of the percentages cannot be carried out correctly.

Your weight is measured first, and then, based on the impedance measurement,

your other body data, such as body fat, body water and muscle percentages. This may take several seconds. Remain standing still on the scale.

At the end of measurement, first your weight will be displayed (Fig 4.8).



Fig. 4.8: Display of the weight

After about three seconds or when you tap the START button with your foot, the percentage for the measured body fat, as well as the corresponding trend, are displayed.

Here:

- Down arrow = percentage is less than at the last measurement
- Dash = percentage is constant
- Up arrow = percentage is higher

After another three seconds or each time after you tap on the START button, the next percentage value is displayed according to the set selection with the corresponding trend display in the following order: Body fat (Fig. 4.9), body water (Fig. 4.10), muscle percentage (Fig. 4.11).

Only the values which were selected in the settings menu (as described under Section 3.5.3 "Selection of percentage values to be displayed after a measurement") are displayed.

If the START button is pressed when the last selected percentage is being displayed, the measured weight appears again. Every three seconds or every time the START button is pressed, the values are displayed as described before.



Fig. 4.9: Display of body fat percentage

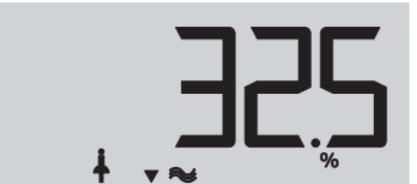


Fig. 4.10: Display of body water percentage



Fig. 4.11: Display of the muscle mass percentage

When you are finished reading your values, you can switch your scale back to sleep mode by pressing the START button for about two seconds. If you step off the standing area, the scale switches off automatically after one minute at most.

**Notes:**

- Always enter only your own assigned user no. so that it can be ensured that the measurements are allocated to the correct measured value memory.
- Stand still on the scale when the body fat and body water analysis are being done. This may take several seconds.
- If the display of the weight doesn't look like Fig. 4.8, but looks like Fig. 4.12 or 4.13, then the unit of measurement was not set as "kg" in the settings menu, but as an English unit of weight. This unit of weight can be changed to "kg" in the settings menu for the common setting values (see Section 3.5.2). The weight is then shown as in Fig. 4.8.



Fig. 4.12: Weight displayed in English stones

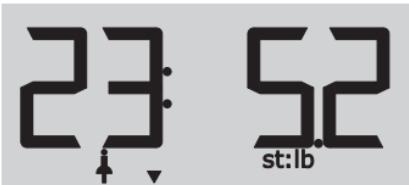


Fig. 4.13: Weight displayed in English pounds

- The measured data is automatically stored in the measured value memory with the date and time under the current user no. In general, all measured data is stored, even if not all data is displayed (due to being configured accordingly in the settings menu for individual measured data) (see Section 3.5.3).
- The device switches off automatically at most one minute after the end of the measurement.

## 5 Measured value memory

### 5.1 Storing the measured values

For every user identity number, the *scaleo-comfort* diagnostic scale automatically stores the body data determined during measurement, i.e. weight, body fat, body water and muscle mass, together with the date and time of measurement. Once the memory is full (after a total of 40 measurements), the oldest result is overwritten by the result of the next measurement. The measured values are retained in the measured value memory even when the battery is removed.

### 5.2 Calling the stored measured values

The stored measured data which is allocated to a user no. can be called in memory mode on the scale in the order from the last measurement to the oldest stored measurement.

To have the memory contents of a user displayed, proceed as follows:

#### Step 1:

You must first activate memory mode to access the measured value memory. To do this, when the scale is in sleep mode, press the UP/MEM button.

First, all display elements are displayed for the self-test, and after about 2 seconds, the selection menu for the user no. appears (Fig. 5.1). To indicate that the scale is now in memory mode, on the top line to the right of the "user" symbol, the symbol "mem" ("memory mode") appears. This symbol remains displayed as long as the scale is in memory mode. In addition, the symbol for the gender of the selected user is displayed on the bottom line.

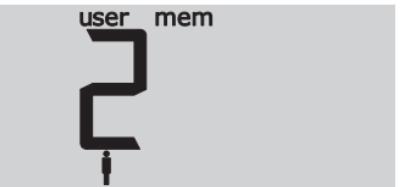


Fig. 5.1

#### Step 2:

The first user to be displayed is the one for which the last measurement was carried out. If you now repeatedly press the UP/MEM button, all user nos. are displayed one after the other which were activated in the settings menu for the personal settings as described in Section 3.6.1 "Activating/releasing the user no.".

Select your personal user no. with the UP/MEM button and press the START button to confirm, which brings you to the date and time display of the last measurement.

#### Step 3:

The display now shows the date of the last stored measurement of the activated user, which is indicated by the identifier "d" (date) in the last place (after the 2nd dot) (Fig. 5.2).



Fig. 5.2

After about 5 seconds, or when you press the START button, the display automatically changes to the next display image and shows the time of the measurement, indicated by a "t" (time) in the last position (after the 2nd dot) (Fig. 5.3). If you don't do anything,

the displays for the date and time switch back and forth every three seconds. In order to display the measurements which are associated with this measuring time, press the START button briefly. Then the weight is displayed (Fig. 5.4).

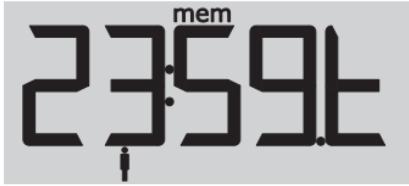


Fig. 5.3

**Step 4:**  
Every time you tap on the START button, the next value associated with the same measurement appears. After the weight, this is the first percentage value (body fat). The percentages are displayed in the order:

body fat (Fig. 5.5), body water (Fig. 5.6), muscle percentage (Fig. 5.7).

If the START button is pressed when the last selected percentage is being displayed, the measured weight appears again. Every time you press the START button, the displays appear as described.



Fig. 5.4: Display of the weight



Fig. 5.5: Display of body fat percentage

Fig. 5.6: Display of body water percentage



**Step 5:**  
To go from this measurement to the display sequence of the next measurement, press the UP/MEM button. The measured values for this measurement, which are identified by their date and time, are called and displayed as described in Steps 3 and 4. Thus, first the date and time of this measurement is displayed.

**Step 6:**  
Each time you press the UP/MEM button, you can look at the data of the next measurement until all stored measurements of the selected user have been called. Afterwards, i.e. when

there is no further stored data, "End" appears after pressing the UP/MEM button (Fig. 5.8).

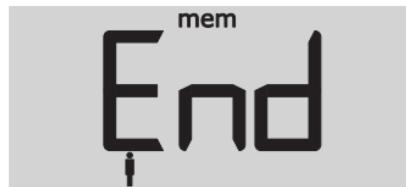


Fig. 5.8: No further data stored

#### Step 7:

When "end" appears (Fig. 5.8), after five seconds – or when you previously press the UP/MEM button – you return to the selection menu for the user no.

The scale then returns to sleep mode where the current time is displayed.

#### Note:

- If you would like to quickly scroll through the results, you can switch to the next measurement with the UP/MEM key as soon as the date is displayed.
- Memory mode can be exited at any time by keeping the START button pressed (for at least two seconds). The scale then returns to sleep mode with the display of the current time.
- If no measurements are yet saved for the activated user, "End" appears immediately.

in their legs relative to their total height (extremely long legs or extremely short legs).

- Persons with fever, who are having dialysis treatment, who have oedema symptoms or osteoporosis.
- Pregnant women, since there can be imprecision due to the amniotic fluid.

## 6.2 Guide values for body fat

The following body fat values can act as a guide (for further information, please consult your doctor!).

Athletes often have a lower value. Depending on the type of sport, training intensity and physical constitution, values can be reached that are even lower than the specified guide values.

## 6.1 Tips for use

Important for determining the body fat / body water / muscle percentage:

- The measurement may only be done barefoot. Completely dry feet can lead to unsatisfactory results since the conductivity is too low.
- Stand still during measurement.
- Wait a few hours after you have had unusual physical exertion or after drinking coffee or alcohol
- Wait about 15 minutes after getting out of bed so that the water in your body can distribute itself.

The measurement does not provide reliable information for:

- Children under about 10 years of age.
- Persons who take certain medications.
- Persons with extreme anatomic deviations

## Tables for the body fat percentage

Female

Age	very good	good	average	poor
<19	<17%	17–22%	22,1–27%	>27,1%
20–29	<18%	18–23%	23,1–28%	>28,1%
30–39	<19%	19–24%	24,1–29%	>29,1%
40–49	<20%	20–25%	25,1–30%	>30,1%
50 <	<21%	21–26%	26,1–31%	>31,1%

based on: "Principles + Labs for Physical Fitness and Wellness. 1st edition by Copyright 1999"

Male

Age	very good	good	average	poor
<19	<12%	12–17%	17,1–22%	>22,1%
20–29	<13%	13–18%	18,1–23%	>23,1%
30–39	<14%	14–19%	19,1–24%	>24,1%
40–49	<15%	15–20%	20,1–25%	>25,1%
50 <	<16%	16–21%	21,1–26%	>26,1%

According to the specifications of the World Health Organization (WHO 2001), the percentage of body water should lie in the following ranges:

Women: 50-55%

Men: 60-65%

Children: 65-75%

For persons who have a high body fat percentage, it is commonly found that the body water percentage lies under the specified guide values.

Since the muscle percentage varies from person to person, there are no generally valid guide values.

### 6.3 Cleaning the scale

If needed, clean the outside of the scale with a soft cloth, if necessary, with a mild cleaning solution. If the scale is contaminated, it is to be disinfected with a suitable disinfectant in accordance with the specifications of the disinfectant manufacturer.

### Caution

Never submerge the scale in any liquid or hold the device under water.

## 7 Error messages/causes of error and measures to take

If the scale detects an error during measurement, "E" and the error number are displayed.

If you stand on the scale, for example, before the value "0.0" is displayed, the scale doesn't work correctly and the error "E 1" is displayed (Fig. 7.1).



Fig. 7.1

Error messages	Causes	Measures
1 error	The scale was not activated or was stepped on too soon	Wait until the scale switches off and switch on again
10 error	The maximum capacity of 150 kg was exceeded	Only weigh permissible weight
12 error	The body fat percentage is out of range (less than 5% or greater 50%)	<ul style="list-style-type: none"> <li>- Repeat the measurement barefoot</li> <li>- Moisten the soles of your feet slightly, if necessary.</li> </ul>
13 error	The body water percentage is out of range (less than 43% or greater 75%)	<ul style="list-style-type: none"> <li>- Repeat the measurement barefoot</li> <li>- Moisten the soles of your feet slightly, if necessary.</li> </ul>
14 error	The muscle percentage is out of range	<ul style="list-style-type: none"> <li>- Repeat the measurement barefoot</li> <li>- Moisten the soles of your feet slightly, if necessary.</li> </ul>

Error messages	Causes	Measures
15 error	The electric resistance between electrodes and the soles of the feet is too high (e.g. when the scale is not stepped on with bare feet or if foot calluses are too thick)	<ul style="list-style-type: none"> <li>- Repeat the measurement barefoot</li> <li>- Moisten the soles of your feet slightly, if necessary.</li> <li>- If necessary, remove any calluses from the soles of your feet</li> </ul>
21 error	No wireless module in the scale or the wireless module is not ready	<p>Only for scale type BSC 105: Switch off the device and restart.</p> <p>If this message appears repeatedly, have the device checked by the manufacturer.</p>
23 error	The wireless connection could not be enabled.	Place the device closer to the PC/PDA and try to enable again.
32 error	The scale function test was not completed successfully	<p>Switch off the device and restart.</p> <p>If this message appears repeatedly, have the device checked by the manufacturer.</p>
"Err" 	Battery symbol is displayed: Battery is almost completely used up.	Exchange the battery and restart the device.

## 8 Technical data

Device type: scaleo-comfort diagnostic scale

Model: BSC105/BSC205

Serial no.: Specified on the type plate (bottom of measuring device)

Measuring method, weight: Electronic weight measurement via four measuring cells integrated in the support points

Measuring method, body data: Determination of the body fat, body water and muscle percentages according to the B.I.A. principle (bioelectric impedance analysis) by means of four transpar-

ent electrodes integrated in the standing area as a glass coating.

Measuring period: circa 30 seconds

Measured value memory: Max. 40 measurements per user. All values are stored with time and date. Stored data is retained during a battery change.

Measuring range, weight: 22.5 – 330.7 lb

Resolution/precision, weight: 3.53 oz / ±1% + 3.53 oz

Settable units of weight: kg  
lb (pounds)  
st/lb (stones and pounds)

Resolution/precision

Body fat: 0,1% / ±1%  
Body water: 0,1% / ±1%  
Muscle: 0,1% / ±1%

User management: 1 to 8 users

Size: 13.98 x 16.34 x 1.38  
(W x L x H) [inch]

Weight: circa 5.29 lb

Colours: Model BSC105: Housing is grey aluminium, buttons and battery compartment cover are black

Model BSC205: Housing is slate grey, buttons and battery compartment cover are light blue

Display: Large, easily legible LC display with trend display

Automatic switch-off function:

automatic after max. one minute

Power supply: 2 x 1.5 V alkaline batteries (AAA/LR03/Micro)

Battery lifetime: more than 18 months at 5 measurements per day

Wireless technology (BSC105 only): IEEE 802.15.4, 2.4 GHz ISM band

Automatic function test: yes (battery charging status, functionality)

Transportation and storage conditions:  
-4°F to 140°F at a relative humidity of 10% to 95%

Operating conditions:  
50°F to 140°F at a relative humidity of 10% to 95%

Type BF: Device is not protected against the effects of defibrillators

Classification: USA: Device class 2

This device is developed and manufactured according to the regulations of the 21CFR 820, DIN EN ISO 9001 and DIN EN ISO 13485.

The requirements of the following standards are met:

- IEC 60601-1 Medical electrical devices – General safety regulations

- IEC 60601-1-2 General safety regulations – Standard supplement: Electromagnetic compatibility – Requirements and tests

The wireless module integrated in this device (BPM105 only) fulfills the regulations of EC directive 1999/5/EC (Radio and telecommunication terminal equipment, R&TTE).

The requirements of the following standards are met:

- ETSI EN 301 489-17 Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Electromagnetic Compatibility (EMC) Standard for Radio Equipment and Services; Part 17: Specific Conditions for 2,4 GHz Wideband Transmission Systems
- EN 300328-2 V1.2.1 Electromagnetic compatibility and radio spectrum
- FCC Class B Part 15

#### **EMC Information (Electromagnetic Compatibility)**

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the manufacturer' instructions, may cause interference harmful to radio communications. There is no

guarantee, however, that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.

Not authorized changes or modifications could void authority to use this equipment.

<b>Guidance and manufacturer's declaration – electromagnetic emissions</b>		
The BSC105/BSC205 is intended for use in the electromagnetic environment specified below. The customer or the user of the BSC105/BSC205 should assure that it is used in such an environment.		
<b>Emissions test</b>	<b>Compliance</b>	<b>Electromagnetic environment – guidance</b>
RF emissions CISPR 11	Group 2	The BSC105/BSC205 must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.
RF emissions CISPR 11	Class B	The BSC105/BSC205 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

For Details of essential performance: please refer to section 1.1 Intended Use

<b>Guidance and manufacturer's declaration – electromagnetic immunity</b>			
The BSC105/BSC205 is intended for use in the electromagnetic environment specified below. The customer or the user of the BSC105/BSC205 should assure that it is used in such an environment.			
<b>Immunity test</b>	<b>IEC 60601 test level</b>	<b>Compliance level</b>	<b>Electromagnetic environment – guidance</b>
Electrostatic discharge (ESD) IEC 61000-4-2	6 kV contact 8 kV air	6 kV contact 8 kV air	Floors should be wood, oncrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	Not applicable	Not applicable	-
Surge IEC 61000-4-5	Not applicable	Not applicable	-
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	Not applicable	Not applicable	-
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

<b>Guidance and manufacturer's declaration – electromagnetic immunity</b>			
<p>The BSC105/BSC205 is intended for use in the electromagnetic environment specified below. The customer or the user of the BSC105/BSC205 should assure that it is used in such an environment.</p>			
<b>Electromagnetic environment – guidance</b>			
Immunity test	IEC 60601 test level	Compliance level	Recommended separation distance:
Conducted RF IEC 61000-4-6	Not applicable	Not applicable	-
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2,5 GHz	3 V/m	$d = 1,2 \sqrt{P}$ 80 MHz to 800 MHz $d = 2,3 \sqrt{P}$ 800 MHz to 2,5 GHz

where  $P$  is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and  $d$  is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,<sup>a</sup> should be less than the compliance level in each frequency range.<sup>b</sup> Interference may occur in the vicinity of equipment marked with the following symbol:



NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

<sup>a</sup> Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. <sup>64</sup> measured field strength in the location in which the BSC105/BSC205 is used except where the applicable RF compliance level above, the BSC105/BSC205 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the BSC105/BSC205.

<sup>b</sup> Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

### Recommended separation distances between portable and mobile RF communications equipment and the BSC105/BSC205

The BSC105/BSC205 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the BSC105/BSC205 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the BSC105/BSC205 as recommended below, according to the maximum output power of the communicationsequipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter M		
	150 kHz to 80 MHz $d = 1,2 \sqrt{P}$	80 MHz to 800 MHz $d = 1,2 \sqrt{P}$	800 MHz to 2,5 GHz $d = 2,3 \sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance  $d$  in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where  $P$  is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

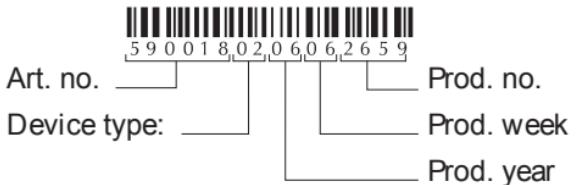
NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

## 9 Symbols and abbreviation

On the device, packaging material and in the operating manual you will find the symbols shown below with the following meanings:

The serial number of the device is composed as follows and can be found under the barcode.



The device contains an HF transmitter (radio transmitter).  
(BPM105 only)



Symbol for separate collection of electric and electronic devices



The identification number 0197 behind the CE marking identifies the notified body who is responsible for monitoring the manufacturer.

Art. no.

Device type:

Prod. no.

Prod. week

Prod. year

SN

Serial number



Please follow the operating manual.

REF

Article or order number

## 10 Limited Product Warranty Information

This product is subject to the Biocomfort One-Year Limited Warranty separately included in this box and also available from Biocomfort or any authorized Biocomfort dealer or from Biocomfort's website at <http://www.biocomfort.com/support>.

If you do not agree with, and do not want to be bound by, the terms of the Biocomfort one-year limited warranty, return the box and its contents, including the hardware and accessories unused, to Biocomfort, or to the authorized Biocomfort dealer where you purchased the product, within fourteen (14) days of purchase, together with proof of purchase, and your full purchase price will be refunded. By using this product or letting the 14-day period lapse, you agree to the terms of the Biocomfort one-year limited warranty.

## 11 Limitation of Liability and Exclusion of Statutory Remedies

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