



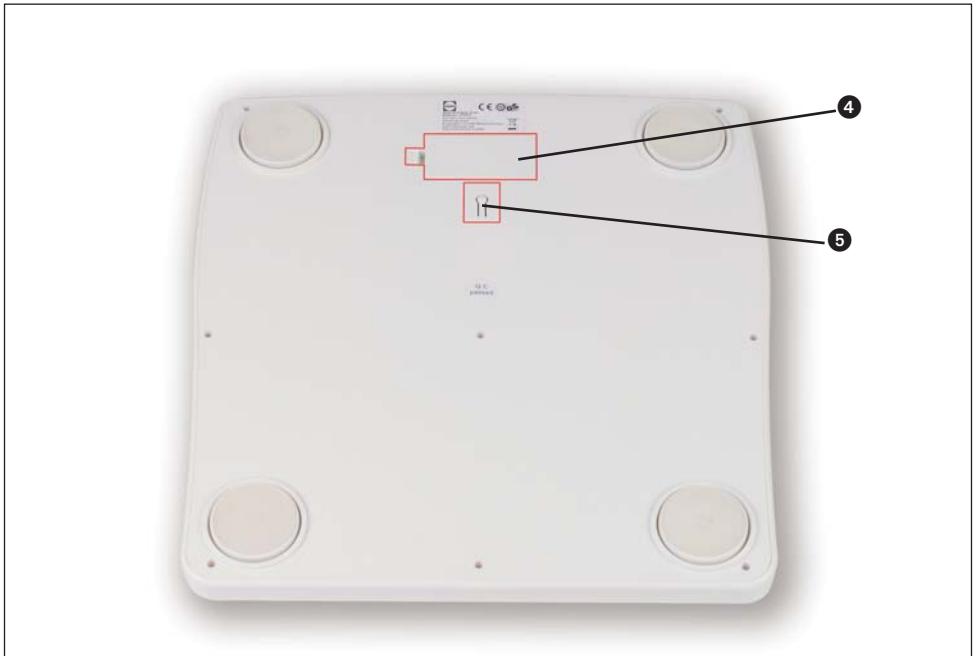
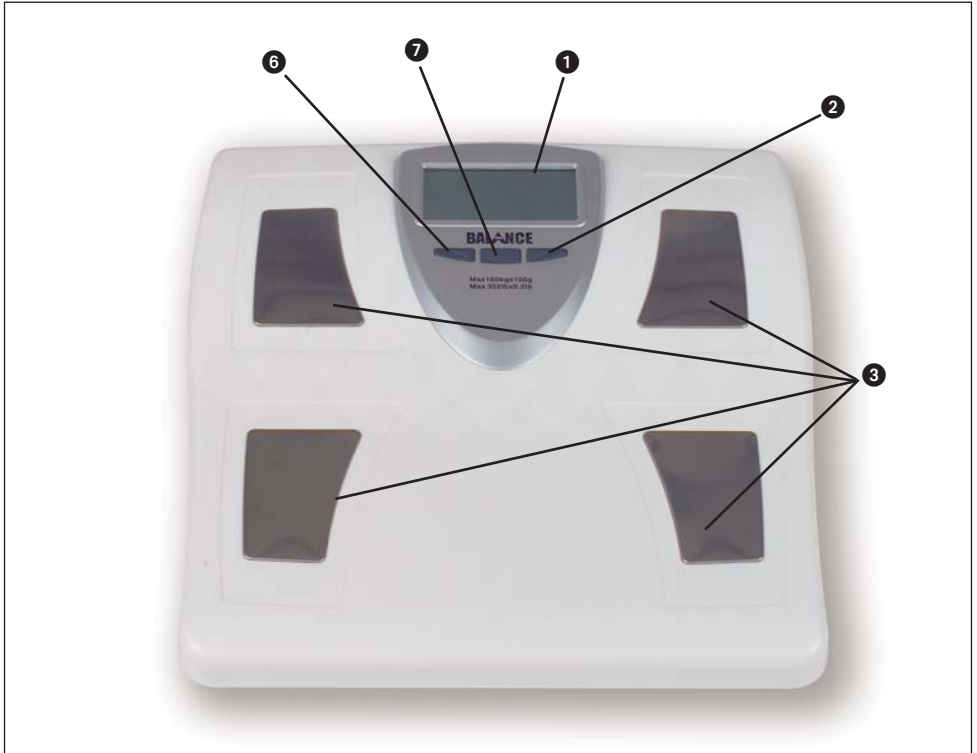
KOMPERNASS GMBH · BURGSTRASSE 21 · D-44867 BOCHUM  
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© **Body Fat & Water Analysis Scale KH 5516**  
Operating Manual





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Read the operating instructions carefully before using the appliance for the first time and preserve this booklet for later reference. Hand over the manual to whomsoever you might pass the appliance on to.

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## Body Fat & Water Analysis Scale KH 5516

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### NOTE:

In these operating instructions, the Bodyfat, Muscle Mass and Body-Water Analysis Scale is referred to as „scales“.

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## 1. Safety instructions

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### Danger!

Under no circumstances should you use the scales if you use a heart pacemaker, a breathing device, an electro-cardiograph or a similar medicinal appliance! The use of the scales could possibly disturb these devices in their functions! This could be fatal! Should you be unsure about whether you can use the appliance: Before using it, consult your doctor!

Under no circumstances should you use the scales if you are pregnant. Should you be unsure about whether you can use the appliance: Before using it, consult your doctor!

If you want to reduce or increase your weight, you should always consult your doctor first. Treatments and diets should only be started after speaking with your doctor. Recommendations for diets or fitness programmes on the basis of the values measured should be obtained from a doctor or other qualified person. Do not attempt to interpret the data yourself.

Ensure that water and/or moisture cannot enter the scales. This could irreparably damage the scales. There is also the risk of an electric shock!

### Warning!

Do not place the scales in the immediate vicinity of sources of heat. Included here are for example stoves, fan heaters and similar devices. This could irreparably damage the scales. The scales may only be operated at temperatures between 10° and 40°C. These temperatures may also not be exceeded if the scales are not in use. Higher or lower temperatures can lead to malfunctions or to permanent damage.

Do not burden the scales with a weight of more than 160 kg! This could irreparably damage the scales!

The scales do not contain user-servicable components. If the scale housing is opened, the guarantee expires! If repairs are needed, contact one of our service partners in your area. The addresses of our service partners can be found on the warranty card. This is delivered with the scales.

**⚠ Caution!**

Battery leaks may occur, particularly with old batteries. Therefore always remove the batteries if the scales are not going to be used for an extended period. You can thus protect your scales from leaking battery acids.

**ⓘ NOTE:**

Avoid the loading and discharging of static electricity. This can cause erroneous measurement displays and/or sudden inactivation of the scales.

For damages resulting from ...

- Opening of the scales housing
- repairs attempted or carried out by non-qualified persons
- improper usage of the scales


no liability or warranty will be accepted!

**2. Utilisation**

The Bodyfat, Muscle Mass and Body-Water Analysis Scale Balance KH 5516 is intended exclusively for ...

- the measurement of bodyweight as well as the amounts of bodyfat, muscle mass and body-water in people aged from 10 years old and a height of at least 100 cm
- to measure the approximate daily calorie requirement
- for non-commercial use in private households.

The Bodyfat, Muscle Mass and Body-Water Analysis Scale Balance KH 5516 is not intended for use by people who are required to use medical devices such as ...

- heart pacemakers 
- breathing appliances or
- electro-cardiographs.

The Bodyfat, Muscle Mass and Body-Water Analysis Scale Balance KH5516 is not intended or suitable for use in professional situations in hospitals or medical facilities.

**ⓘ NOTE:**

Liability and warranty will not be accepted for damage caused by improper use of the scales!

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### 3. Technical Data

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- Power supply: 2x 3V CR 2032
- Max. load / Max. measurable weight: 160 kg / 352 lb
- Min. measurable weight: 3 kg / 6,6 lb
- Tolerance < 30 kg: max. 300 g  
Tolerance > 30 kg: 1 % +/- 0,1 kg
- Measuring procedure: Bioelectric impedance analysis over four feet sensors
- Intervals in weight measurement: 0,1 kg / 0,2 lb
- Measurement of bodyfat share: 5–65 %
- Interval of bodyfat measurements: 0,1%
- Measurement of body-water share: 25–80 %
- Interval of body-water measurements: 0,1%
- Measurement of muscle mass share: 20–70 %
- Interval of muscle mass share: 0,1%
- Calorie requirement display: in kcal
- Interval of calorie requirement display: 1 kcal
- Input possibilities for body size: 100–220 cm / 3'03"–7'03" inch
- Input possibilities for age: 10–99 years
- 12 storage positions for personal data
- Functions: Pure weight measurement / Weight, bodyfat, muscle mass and body-water measurements / Measurement of approximate daily calorie requirement
- Programmable measurement units: kg/lb, cm/inch
- Battery status display
- Overburdening display
- Error display

- Automatic scales switch/off: after ca. 7 seconds
- Operating temperature: 10°C–40°C

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### 4. Package contents


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- Bodyfat, Muscle Mass and Body-Water Analysis Scales
- 2 Button batteries Type CR 2032
- Operating Instructions
- Guarantee Card

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### 5. Components and operating elements

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- ① Display
- ② Forward button
- ③ Sensors
- ④ Battery compartment
- ⑤ Measurement unit button (kg/lb)
- ⑥ Backwards button
- ⑦ On/Info button 

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### 6. Taking the scales into use

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#### 6.1. Unpacking the scales

- 1 Carefully remove the scales from the packaging. Do not drop the scales! This could damage them irreparably.

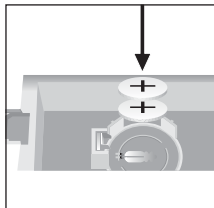
#### 6.2. Power Supply

- 2 Carefully lay the scales upside-down. Use a towel or similar underneath to avoid scratching the scales. The base of the scales with the battery compartment is now uppermost.
- 3 Open the battery compartment and remove the protective strip protruding from under the batteries.
- 4 Turn the scales over, so that the top is again uppermost.



The scales are now ready for use.

- ⓘ Note:** When you change the button batteries, pay attention to the correct polarities.



## 7. Select a suitable installation site

Place the scales only on straight, level, firm and slip-free surfaces.

### **⚠ Danger!**

Ensure that no water or moisture can enter the scales. This could irreparably damage the scales. There is also the risk of an electric shock!

### **⚠ Warning!**

Do not place the scales in the immediate vicinity of sources of heat. Included here are for example stoves, fan heaters and similar devices. This could irreparably damage the scales.

The scales may only be operated at temperatures between 10° and 40°C. These temperatures may also not be exceeded if the scales are not in use. Higher or lower temperatures can lead to malfunctions or to permanent damage.

## 8. Before the first usage

Before you use the scales for the first time you must select the measurement system of choice. You can choose between the metric system with kilogramme / centimeter or the Anglo-American system with pounds / inch:



- 1 Press the button On/Info once **7**.
- 2 Press the button Measurement Unit **5** on the bottom of the scales until the chosen measurement unit appears on the display **1**.

- ⓘ Note:** The metric system is used in the following examples.

To carry out measurements you must enter some personal details. Twelve positions are available for saving data. To save your personal data:

- 1 Press the button On/Info once **7** or tap with your foot on the middle of the scales to switch the scales on. Shown in the display **1** is „0.0 kg“.
- 2 Hold the button On/Info **7** pressed until "1 - 12" is shown in the display **1**. As soon as you release the On/Info button **7** number one of the twelve storage positions flashes in the display **1**.
- 3 By pressing the button Forward **2** or Backward **6** you can select one of the other twelve storage positions..

4 Press the button On/Info **7** as soon as the selected storage position appears in the display **1**. Flashing in the display **1** is the symbol for either


- male  or
- female .


5 Press the buttons Forward **2** or Backward **6** to select male or female. Select the symbol appropriate for your gender by pressing the button On/Info **7**.


6 In the display **1** „Age“ is now shown and a figure between 10 and 99 is flashing. By pressing the button Forward **2** or Backward **6** enter the figure corresponding to your age. Confirm the choice with the button On/Info **7**.


7 In the display **1** there now blinks the details of height in centimetres (cm). By pressing the button Forward **2** or Backward **6** enter the details of your height. Press the button On/Info **7** as soon as the correct value is shown.

8 On the left side of the display **1** there now blinks one of the symbols for the typical daily physical exertion level. The symbol ...

-  stands for people who primarily carry out their daily activities seated. This includes people who work sitting in an office or occupational drivers.

-  stands for people who primarily carry out their daily activities standing or walking. This includes groups such as sales people or restaurant personnel.

-  for people exposed to excessive physical strain. This includes many occupations with high physical exertion.

-  for people exposed to extreme physical strain. In addition to serious athletes, this could include other occupations with extreme physical strain such as miners.

9 Briefly press either the forward **2** or backward **6** button to switch between the symbols. Select the symbol corresponding to the category which most accurately fits your everyday physical strain. Press the On/Info button **7** as soon as the appropriate symbol is displayed on the screen **1**.

10 Your data is now programmed. In the display **1** the number of the storage position flashes. The scales automatically return to standard display.

If you wish to enter the details of other people, repeat the steps 1 to 10.

## 9. Using the scales

### 9.1. Measuring bodyweight only

To measure only your current bodyweight:

- 1 Press the button On/Info once **7** or tap with your foot on the middle of the scales to switch the scales on.  
Shown in the display **1** is „0.0 kg“.

#### **⚠ Danger!**

Never burden the scales one-sidedly. Always step onto the scales in the middle and with both feet. Then place the feet, one after the other, onto the left and right sensors. Otherwise, the scales could tip and become irreparably damaged. Additionally, there is the danger of falling!

Ensure that the upper surface of the scales is dry when you step onto it. Otherwise, there is a danger of slipping!

#### **⚠ Warning!**

Do not burden the scales with a weight of more than 160 kg! Through this, the scales could be irreparably damaged!

#### **i Notice**

If possible, weigh yourself unclothed. This provides the most accurate measurements. Step onto the scales without shoes and socks. Wearing these could falsify the measurement results.

- 2 Stand on the scales.

- 3 The weight measurement runs, in the display **1** the bodyweight is shown. The body weight display can fluctuate during the measuring process. You should therefore stand quite still. After a few seconds the weight display flash 2 times which is your current body weight.

- If you remain standing on the scales, the device will automatically shut off after ca. 7 seconds.
- If you step from the scales, „0.0 kg“ will appear again on the display screen **1** after a few seconds. The scales are now ready for further body weight measurement.
- If no new body weight measurement is carried out within ca. 7 seconds, then the scales will turn off automatically after ca. 7 seconds if no buttons are pressed.

### 9.2. Measuring the bodyweight, body-fat, muscle mass and body-water shares and the calorie requirements.

#### 9.2.1. Important notice about measuring

If possible, weigh yourself unclothed. This provides the most accurate measurements. In every case, step onto the scales without shoes and socks. Otherwise, a measurement of bodyweight, bodyfat, muscle mass and body-water shares and the calorie requirements is not possible. Additionally, the bodyweight shown will be higher than your actual bodyweight.

Bodyweight, bodyfat and body-water shares can be subject to considerable fluctuation during the course of a day. Through these natural fluctuations the measurements taken at different times of the day can, in part, differ considerably from each other. Therefore, if possible try to ensure that the measurements are taken...

- under the same conditions, and
- at the same time of day.

Otherwise, the measurement results will not be comparable with each other. Variances in the measurement results are then possibly due not to actual changes but to differences in the measurement conditions.

The most exact and realistic measurements are obtained in the early evening hours. Additionally, the measurements should always be carried out before taking a meal.

Strong variances between the measured values and the actual values can occur with the following groups:

- Women in the menopause
- High performance professional sport players
- People with influenza/fevers
- People with swollen legs
- Osteoporosis patients
- Dialysis patients

With these groups, due to the level of presumed erroneous measurement results, the measurement of bodyfat/ muscle mass/body-water shares and the calorie requirements is not meaningful. There are however no potential dangers to the health by these named groups by using the scales.

To measure ...

- bodyweight,
- the share of bodyfat,
- the share of muscle mass, and
- the share of body-water and also
- your personal calorie requirement for the day

in one procedure:

- 1 Press the button On/Info once **7** or tap with your foot on the middle of the scales to switch the scales on. Shown in the display **1** is „0.0 kg“.
- 2 Press the buttons Forward **2** or Backward **6** until the storage space with your personal data is displayed.
- 3 Confirm your choice by pressing the button On/Info **7**.

**i Note:**

If you want to measure body weight, body fat percentage, muscle mass percentage and body water percentage as well as caloric requirement without storing personal data:

- Press the button On/Info **7** or tap with your foot on the middle of the scale to switch the scale on.
- Press the button Forward **2** or Backward **6** until "GUES" appears in the display **1**.
- Carry out steps 4 to 9 from chapter 8. "Before the first usage".

The personal data will be shown. Should no measurements have been carried out as yet under this storage space, no saved data indication "----" will be shown. Otherwise, the scales will be shown the last measurement results one after the other.

### **Danger!**


Never burden the scales one-sidedly. Always step onto the scales in the middle and with both feet. Then place the feet, one after the other, onto the left and right sensors. Otherwise, the scales could tip and become irreparably damaged. Additionally, there is the danger of falling!



Ensure that the upper surface of the scales is dry when you step onto it. Otherwise, there is a danger of slipping!




### **Warning!**

Do not burden the scales with a weight of more than 160 kg! Through this, the scales could be irreparably damaged!


- 4 Stand on the scales. Ensure that your feet are covering the sensors on the scales. All measuring processes now start to run.




In the display  the bodyweight is shown. The body weight display can fluctuate during the measuring process. You should therefore stand quite still. After a few seconds the weight display stops flashing. The weight now shown is your current body weight. Remain standing still on the scales.


On the left of the display  the current taking of measurements is shown through the fitness-manikin. When the measurements are complete the results are shown one after the other in the display  :

-  „**Fat**“ and the percentual share of bodyfat in your bodyweight.
-  „**Water**“ and the percentual share of body-water in your bodyweight.
-  „**Muscle**“ and the percentual share of muscle mass in your bodyweight.
- **K** and your daily calorie requirement in Kilocalories (kcal).
- „kg“ and your weight.

Display of the five values repeats itself.

During the „**Fat**“ notification, your general physical condition is shown as a graphic symbol in the left of the Display . The fitness condition is determined from your saved personal data as well as the measurements just taken. The following displays are possible:

-  too little bodyfat content
-  healthy bodyfat content
-  bodyfat content too high

-  excessively overweight

The percentual displays of bodyfat, body-water and muscle mass shares must be considered individually. The sum of the measurement results can total more than 100 %, as muscle and fat tissues also contain an element of water.

### **i** NOTE:

If you would like to follow the development of your bodyfat, muscle mass and body-water shares over an extended period: Note the displayed results of every measurement into a graph/table.

For an appraisal of your measurement results we recommend a comparison with the table at the end of this handbook. It shows the average values for the measurements bodyfat, muscle mass and body-water shares, arranged by age and gender.

- 5 If you remain standing on the scales, the device will automatically shut off after ca. 7 seconds. If you step down from the scales, „0.0 kg“ will appear again on the display screen **1** after a few seconds. The scales are now ready for further body weight measurement only.

### **9.3. Recalling the last measurement results**

You can recall the last measurement results.

To recall the last measurement results:

- 1 Press the button On/Info once **7** or tap with your foot on the middle of the scales to switch the scales on. Shown in the display **1** is „0.0 kg“.
- 2 Press the buttons Forward **2** or Backward **6** until the storage space with your personal data is displayed.
- 3 Press the button On/Info **7**. The scales now show the personal data. Should no measurements have been carried out as yet under this storage space, the no saved data indication "----" will be shown. Otherwise, the scales will be shown the last measurement results one after the other.

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## **10. Maintaining the scales**

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### **10.1. Changing the batteries**

Shown in the display **1** is: „Lo“

The batteries in the scales are almost fully discharged. Always change both button batteries.

The insertion of the batteries is described in chapter 6.2. „Power Supply“.

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## **11. Troubleshooting / Error Messages**

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### **11.1. The scales cannot be switched on**

The scales cannot be switched on by pressing the button On/Info **7** or by tapping on the middle of the scales:

**A** Check to see if the batteries have been correctly inserted into the compartment on the underside of the scales. Take note that the batteries must be inserted in accord with the polarities marked in the compartment.

**B** Check to see if the batteries in the scales are discharged. Before the batteries are completely discharged a warning symbol is shown in the display **!**. This is also explained in chapter 10. „Maintaining the scales“. Exchange both button batteries.

## 11.2. Malfunctions in the display

The scales contain sensitive electronic components. It is thus possible that they may be disturbed by radio transmitter appliances in the immediate vicinity. These could be for example mobile telephones, walkie-talkies, CB radios, radio remote controls/other remote controls and microwave appliances. Should malfunctions appear in the display **!**, remove all such appliances from the vicinity of the scales. Frequently it is also sufficient to simply switch off the particular appliance as soon as the scales are to be taken into use.

### **i** NOTE:

Avoid the loading and discharging of static electricity. This can cause erroneous measurement displays and/or sudden inactivation of the scales.

## 11.3. Error messages shown in the display

### 11.3.1. „0-Ld“

If this error message appears, the weight on the scales exceeds 160 Kg. The scales are not designed for weights above 160 Kg.

### **⚠** Warning!

Do not burden the scales with a weight of more than 160 kg! Through this, the scales could be irreparably damaged!

### 11.3.2. „Err“

If this error message is shown the scales cannot measure the bodyfat, muscle mass and body-water shares.

**A** The measurement does not function if shoes or socks are being worn. Remove your shoes and socks before standing on the scales.

**B** Ensure that you are standing with both feet on the sensors on the upper side of the scales.

**Should the measurements still not be possible:**

**C** Step down from the scales and wait until it automatically switches itself off. Switch the scales back on and start the measurements again.

**Should the measurements still not be possible:**

**D** Fundamentally, you should only measure yourself with clean and dry feet. In rare cases it can happen that your feet may be too dry for a measurement. To eliminate this possibility as the cause for the error message: Moisten your feet with a lightly damp cloth. Subsequently, begin the measurements again.

#### 11.4. Measurement results appear unrealistic

Should you have doubts about the displayed measurement results:

**A** Check to see if you carry out the measurements correctly:

- Do you take the measurements undressed, and especially without shoes and socks?
- Do you stand with both feet on the sensors of the scales when measuring?
- Are your feet clean and dry?
- Do you stand still on the scales until the results are displayed?

**Should the measurements have been correctly carried out:**

**B** Check to see if the stored personal data is correct. Should there have been a mistake made with the input, then the results displayed will be incorrect.

For correction of the data:

1 Press the button On/Info once **7** or tap with your foot on the middle of the scales to switch the scales on.

2 Following this, shortly press either of the buttons Forward **2** or Backward **6**. In the display **1**, 1–12 is displayed. Thereafter, the number for one of the storage spaces for personal data flashes.

3 Press the buttons Forward **2** or Backward **6** until the storage space with your personal data is displayed. Press the button On/Info **7** as soon as the storage space with your personal data is displayed.

4 Check to see if the displayed data tallies with your personal data. Should the displayed data contain mistakes, then you must input your data once again. The saving of personal data is explained in chapter 8 „Before the first usage“.

**Should the saved personal data not contain any errors:**

**C** First of all, take further measurements daily for a period of one week. If these show similar measurement results: Compare your measurement results with the average values shown in the table at the end of this handbook. Check to see if these average values indicate an excessive difference to your own personal measurement results. Should this be the case, consult a doctor to have the measurement results examined.

#### 11.5. Other functional disorders

Please approach one of our service partners close to you...



- if the malfunctions described in chapters 11.1. to 11.4. cannot be eliminated in the manner described, or
- if other malfunctions occur when using the scales.

The addresses of our service partners can be found on the warranty card. This is supplied with the scales.

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## 12. Cleaning the scales

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Clean the scales exclusively with a mild detergent and a moist cloth.

If several people use the scales, it should be cleaned on the upper side after each usage. For this a disinfectant with anti-fungal effects should be employed, to hinder the spread of athlete's foot.

Ensure that no water or moisture can enter the scales.

### **Danger!**

Should water or moisture permeate into the scales, then it could be irreparably damaged. There is also the risk of an electric shock!

---

## 13. Storage of the scales

---

Should you not intend to use the scales for an extended period of time:

- 1 Remove the batteries from the battery compartment of the scales.

### **Caution!**

With old batteries in particular, acid leaks may occur. Therefore, remove the batteries if you do not intend to use the scales for a long period. Thus you can protect the scales from damage caused by leaking battery acids.

- 2 Store the scales in a clean, dry location. Ensure that the scales cannot fall down from there. Do not place any heavy or sharp objects on the scales. We recommend the use of the original packaging for storage of the scales.

### **Warning!**

The scales may only be operated at temperatures between 10° and 40°C. These temperatures may also not be exceeded if the scales are not in use. Higher or lower temperatures can lead to malfunctions or to permanent damage.

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## 14. Disposal

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Do not dispose of the device in normal domestic waste.

Dispose of the device over a registered waste disposal firm or through your communal waste disposal facility. Observe the currently valid regulations. In case of doubt, consult your waste disposal facility.

### **Battery disposal!**

Batteries may not be disposed of with normal domestic waste. All consumers are statutorily obliged to dispose of batteries at the collection point in their community/district or with the original supplier.

The purpose of this obligation is to ensure that batteries can be disposed of in an environmentally-friendly manner. Only dispose of batteries when they are fully discharged.



Dispose of the packaging materials in an environmentally responsible manner.

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## **15. Warranty & Service**

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The warranty conditions and the service address can be found in the warranty booklet.

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## **16. Importer**

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KOMPERNASS GMBH  
BURGSTRASSE 21  
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[www.kompernass.com](http://www.kompernass.com)

## 17. Overview of average values

Age in years	Fat share in %				Water share in %	Muscle share in %
	little	Normal	much	very much	Normal	Normal
<b>Men</b>						
10-12	< 8	8-18	18-24	> 24	> 64	< 45
12-18	< 8	8-18	18-24	> 24	> 63,5	< 45
18-30	< 8	8-18	18-24	> 24	> 62,5	< 45
30-40	< 11	11-20	20-26	> 26	> 61	< 43
40-50	< 13	13-22	22-28	> 28	> 60	< 41
50-60	< 15	15-24	24-30	> 30	> 59	< 40
> 60	< 17	17-26	26-34	> 34	> 58	< 40
<b>Women</b>						
10-12	< 12	12-23	23-30	> 30	> 60	< 40
12-18	< 15	15-25	25-33	> 33	> 58,5	< 40
18-30	< 20	20-29	29-36	> 36	> 56	< 40
30-40	< 22	22-31	31-38	> 38	> 53	< 39
40-50	< 24	24-33	33-40	> 40	> 52	< 38
50-60	< 26	26-35	35-42	> 42	> 51	< 36
> 60	< 28	28-37	37-47	> 47	> 50	< 36

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