



microlife WS200 BT Bluetooth Diagnostic Scale User Manual

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microlife®

microlife WS200 BT Bluetooth Diagnostic Scale



Easy Short Instructions

1. Download the «Microlife Connected Health+» app.

The app is available on App Store (iOS) and Google Play™ (Android).

2. Activate Bluetooth® on your smartphone.

3. Open the «Microlife Connected Health+» app on your smartphone.

4. Place the scale on a firm level floor and step on the scale bare footed.

The Bluetooth® function of the scale is automatically activated.

5. Stand still while the scale takes weight and body composition measurements.

The scale simultaneously searches for the app / smartphone to establish connection.

The app will display a prompt message upon successful connection.

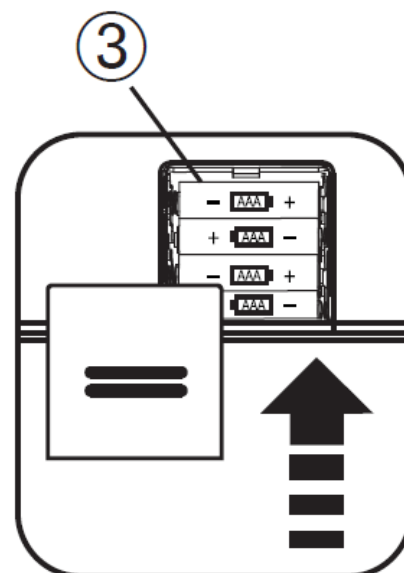
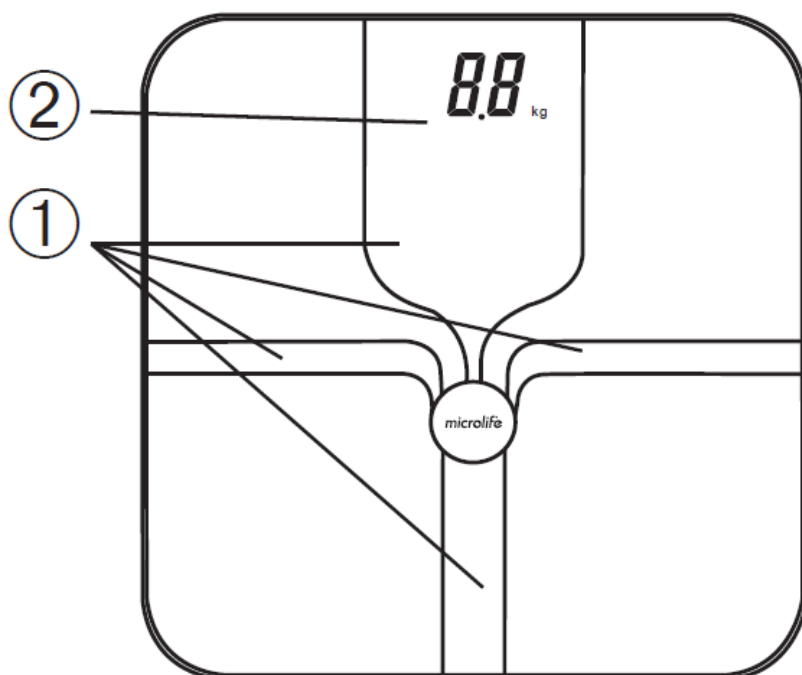
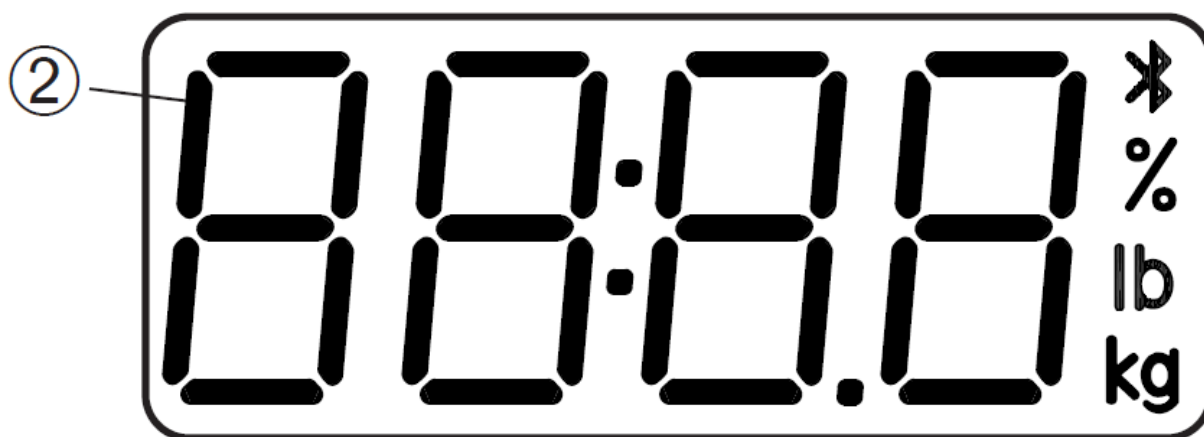


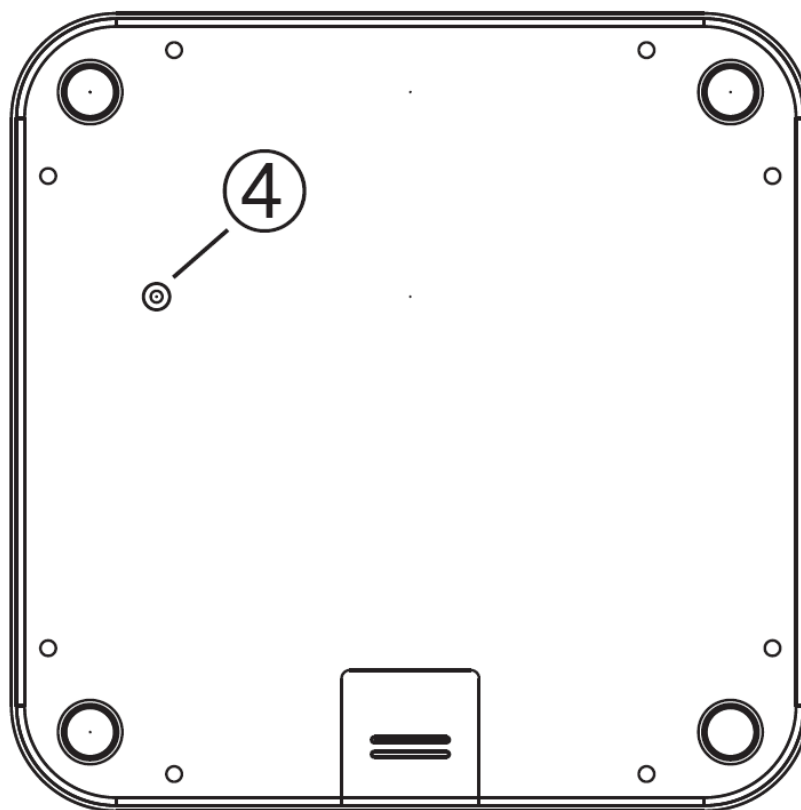
Microlife Connected Health+ App

- Helps to check and analyse your health
- Using Bluetooth® 4.0 for easy data transfer
- Compatibility: Android™ 4.4 or newer / iPhone iOS 8.0 or newer

PARTS LIST

1. Electrodes (conductive ITO coating)
2. Display
3. Battery Compartment
4. KG / LB Switch





Read the instructions carefully before using this device.

Dear Customer,

This new electronic personal scale allows you to evaluate your body composition and to automatically calculate the body fat and water percentage in function of your height, age and sex. The exact knowledge of your body composition (calculation of lean body mass, fat body mass and total body water contents), allows a correct estimate of the excess fat and at the same time determines the advisable weight as a function of your nutritional condition. Furthermore, the knowledge of your body composition allows to combine a correct nutrition and physical activity as essential conditions to improve the quality of life, promote health and prevent pathologies. Please read through these instructions carefully so that you understand all functions and safety information. We want you to be happy with your Microlife product. If you have any questions or problems, please contact Microlife-Customer Service. Your dealer or pharmacy will be able to give you the address of the Microlife dealer in your country. Alternatively, visit the Internet at www.microlife.com where you will find a wealth of invaluable information on our products.

Stay healthy – Microlife AG!

Important Facts about Body Composition

It is important to know the body composition of an individual in order to be able to estimate his/her health condition. It is not enough to know one's weight but it is necessary to define its quality, which means dividing the human body in its two major component masses:

- Lean body mass: bones, muscles, viscera, water, organs, blood
- Fat body mass: adipose cells

Under the same conditions of weight, these two masses have different volumes.

By means of electrodes placed on the platform, the scale sends a weak low intensity electric current that passes through the body mass. The electric current reacts in a different way according to the masses it passes through: the lean body mass opposes a weak resistance, while the fat body mass has a greater resistance. This body resistance, called bioelectrical impedance, varies also in function of sex, age and height.

For a correct control of one's ideal weight, it is important, besides the weight, to compare the body fat percentage calculated by the scale, with the parameters contained in the table and the body water percentage, with the information listed hereinafter.

If the percentages are outside the normal values, we suggest you consult your physician.

In order to better understand the value of your body fat percentage, we suggest you write down this value for a given period of time. In order to obtain a valid comparison, you should weigh yourself always at the same time of the day and under the same conditions.

Body fat mass percentage

The percentage of fat listed in the following table represents the total fat, calculated by summing up the essential fat (or primary fat) and the spare fat (or storage fat). The essential fat is necessary since it is needed for the metabolism.

The percentage of this fat is different between the two sexes: about 4 % for men and about 12 % for women (percentage calculated on the total body weight).

The spare fat, which is theoretically superfluous, is necessary for those who carry out physical activities. Even in this case, the fat percentage is different between the two sexes: 12 % for men, 15 % for women (percentage calculated on the total body weight). Therefore, the normal percentage of fat mass on the body weight is approximately 16 % for men and 27 % for women.

Such percentages differ with the person's age as shown in the table here below.

Women	Excellent	Good	Normal	Over- weight	Obese
Age	Data in %				
£ 19	17.0	17.1-22.0	22.1-27.0	27.1-32.0	> 32.1
20-29	18.0	18.1-23.0	23.1-28.0	28.1-33.0	> 33.1
30-39	19.0	19.1-24.0	24.1-29.0	29.1-34.0	> 34.1
40-49	20.0	20.1-25.0	25.1-30.0	30.1-35.0	> 35.1
³ 50	21.0	21.1-26.0	26.1-31.0	31.1-36.0	> 36.1

Guarantee Card

Name of Purchaser

Serial Number

Date of Purchase

Specialist Dealer

Men	Excellent	Good	Normal	Over- weight	Obese
Age	Data in %				
£ 19	12.0	12.1-17.0	17.1-22.0	22.1-27.0	> 27.1
20-29	13.0	13.1-18.0	18.1-23.0	23.1-28.0	> 28.1
30-39	14.0	14.1-19.0	19.1-24.0	24.1-29.0	> 29.1
40-49	15.0	15.1-20.0	20.1-25.0	25.1-30.0	> 30.1
³ 50	16.0	16.1-21.0	21.1-26.0	26.1-31.0	> 31.1

Water percentage

Body water % is an important indication of the overall «well being» of human being as water is the single most important component of body weight and represents more than half (about 60 %) of the total weight.

Research shows that 57 % body water is optimum, but this depends on the individual and normally there is no problem if the reading is 10 % higher or lower.

The body water % is greater in childhood (at birth it varies from 70-77 %) and it decreases with age (old people might have a body water of 45-55 %). Women (usually having more adipose tissue than men), have a water ratio of about 55-58 % while men have about 60-62 % of it.

With the increase of fat deposits, obese people also have a lower body water % than lean people. In general, body water % is an overall composite number. Below 40 % would normally be seen as too low, and above 70 % as too high.

Human beings excrete a given quantity of water every day. This, however, must be regularly replaced, a water loss of about 10 % of the body weight, may put our health condition at risk.

So giving the body water % as a reading on the body fat scale gives an indication to the user if there are possible problems, in which case they would probably wish to consult their doctor. Body weight variations that take place in a few hours are completely normal and are due to water retention, since the extra-cellular water (which includes interstitial fluid, plasma, lymph and transcellular fluid) is the only compartment subject to such rapid variations.

Muscle percentage

The muscle percentage is normally within the following ranges:

Men			
Age	low	normal	high
10 – 14	< 44%	44 – 57%	> 57%
15 – 19	< 43%	43 – 56%	> 56%
20 – 29	< 42%	42 – 54%	> 54%
30 – 39	< 41%	41 – 52%	> 52%
40 – 49	< 40%	40 – 50%	> 50%
50 – 59	< 39%	39 – 48%	> 48%
60 – 69	< 38%	38 – 47%	> 47%
70 – 100	< 37%	37 – 46%	> 46%

Women			
Age	low	normal	high
10 – 14	< 36%	36 – 43%	> 43%
15 – 19	< 35%	35 – 41%	> 41%
20 – 29	< 34%	34 – 39%	> 39%
30 – 39	< 33%	33 – 38%	> 38%
40 – 49	< 31%	31 – 36%	> 36%
50 – 59	< 29%	29 – 34%	> 34%
60 – 69	< 28%	28 – 33%	> 33%
70 – 100	< 27%	27 – 32%	> 32%

Bone mass

Our bones are subject to the natural development, degeneration and aging processes. Bone mass increases rapidly in childhood and reaches its maximum between 30 and 40 years of age. Bone reduces slightly with increasing age. You can reduce the degeneration with nutrition and regular exercise. You can also strengthen your bone structure with appropriate muscle building. There is no recognized guidelines or recommendations related to bone mass measurement.

Attention: Please do not confuse bone mass with bone density. Bone density can be determined only by means of a medical examination (e.g. computer tomography, ultrasound). It is therefore not possible to draw conclusions concerning changes to the bones and bone hardness (e.g. osteoporosis) using this scale.

BMR

The basal metabolic rate (BMR) is the amount of the energy required by the body at complete rest to maintain its basic functions (e.g. while lying in bed for 24 hours). This value largely depends on weight, height and age. It is displayed on the diagnostic scale in kcal/day units using the scientifically recognized Harris-Benedict formula. Your body requires this amount of energy in any case and it must be reintroduces into your body in the form of nutrition. If you take on less energy over long term, this can be harmful to your health.

Suggestions for Use

- Place the scale on a flat, hard surface. Soft, inaccurate flooring (e.g. rugs, carpets, linoleum) can cause the scale to give uneven reading of your weight.
- Step onto the scale with your feet parallel and weight equally distributed.
- Stand still while the scale measures your weight.
- It is important to weigh yourself with dry, bare feet, correctly positioned on the electrodes. Moreover, for the scale to work properly, avoid your legs touching.
- The scale is safe to use as a simple scale by everyone being powered by 4 x 1.5 V alkaline batteries; size AAA. However, the following people should not perform a body fat or body water measurement:
 - pregnant women
 - people on cardiovascular medication
 - those fitted with a pacemaker or other forms of electronic, medical equipment

- those with a temperature
- children under the age of 10
- those in dialysis, with oedemas on their legs, people with dimorphism or suffering from osteoporosis
- Always weigh yourself on the same scale each day at the same time, preferably undressed and before breakfast. To get the best results from your scale, weigh yourself twice, and if the two weights are different from each other, your weight is between the two readings. Wait for about 15 minutes after getting up, so that the water can distribute itself around your body.
- The surface of the scale can be slippery, if wet.
- If an error occurs during the analysis of your body fat and water percentage, the scale will turn off itself automatically.
- The precision of this fat and water percentage measurement can be altered in the following cases:
 - a high alcohol level
 - a high level of caffeine or drugs
 - after an intense sports activity
 - during an illness
 - during pregnancy
 - after heavy meals
 - in presence of dehydration problems
 - your personal data (height, age, sex) have not been input correctly
 - if you have wet or dirty feet

WARNING:

- The body fat and water percentage is to be considered only as approximate information. For any further information, please consult your physician or dietician.
- The measurement function of body fat and water percentage may be utilized only by people that belong to an age group that goes from 10 to 100 and that are between 100 and 200 cm tall.

Initial use of the scale

Inserting batteries

This scale operates with 4 x 1.5 V alkaline batteries; size AAA. When the batteries are dead the display shows «Lo».

1. Open the battery compartment 3 on the bottom of the device.
2. Replace the batteries – ensure correct polarity as shown by the symbols in the compartment.

Do not discard the batteries together with the normal wastes, discard with special wastes.
Remove the batteries if the scale is not used for long periods of time.

KG / LB Switch

Located at the bottom of the scale, this switch 4 allows you to choose the unit of measurement for weighing: kg or lb.

Select your desired unit of measurement, always when the scale is turned on and «0.0» is displayed (otherwise the unit of measure cannot be changed).

Use as simple scale

1. In order to get accurate measurements, place the scale on a firm level floor.
2. Step onto the scale and wait without moving; after a few seconds, the display screen will show your weight. Do not lean on anything while being weighed as this could alter the reading.
3. Step off the scale, the display screen will continue to show your weight for a few seconds then it will turn off automatically.
4. If the «Err» symbol is displayed, it means that an error has taken place during the measurement. Start the entire procedure again from the very beginning.

Initial use with the app

1. Download the «Microlife Connected Health+» app. The app is available on App Store (iOS) and Google Play™ (Android).
2. Activate Bluetooth® on your smartphone.
3. Open the «Microlife Connected Health+» app on your smart-phone.
4. Place the scale on a firm level floor and step on the scale bare footed. The Bluetooth® function of the scale is activated automatically.
5. Stand still while the scale takes weight and body composition measurements. The scale simultaneously searches for the app/smart phone to establish connection.
6. Once the measurement is completed, the data is automatically uploaded onto the app.

Calculation of Weight, Body Fat and Water Percentage

1. Step on the scale with bare feet and ensure that you are standing still with equal weight distribution and with both feet on the ITO electrodes.
2. The scale weighs immediately. The weight is displayed first.
3. Weight, BMI, body fat, water, muscle, bone, BMR and visceral fat will be shown in the «Microlife Connected Health+» app as following:
 - Weight in kg
 - Body mass index (BMI)
 - Body fat in %
 - Body water in %
 - Bone mass in kg
 - Muscle percentage in %
 - Basal metabolic rate in kcal (BMR)
 - Visceral fat

There must be no contact between your left and right feet, legs, calves of thighs; otherwise the measurement cannot be performed correctly.

The measurement result will be incorrect if the user measures with socks on.

Safety, Care and Disposal

Safety and protection

- This device may only be used for the purposes described in these instructions. The manufacturer cannot be held liable for damage caused by incorrect application.
- This device comprises sensitive components and must be treated with caution. Observe the storage and operating conditions described in the «Technical Specifications» section.
- Protect it from:

- water and moisture
- extreme temperatures
- impact and dropping
- contamination and dust
- direct sunlight
- heat and cold
- Do not use this device if you think it is damaged or notice anything unusual.
- Never open this device.
- If the device is not going to be used for a prolonged period the batteries should be removed.
- Read the additional safety information provided within the individual sections of this instruction manual.

Ensure that children do not use this device unsupervised; some parts are small enough to be swallowed. Be aware of the risk of strangulation in case this device is supplied with cables or tubes.

Cleaning

Clean the device only with a soft, dry cloth.



Disposal

Batteries and electronic devices must be disposed of in accordance with the locally applicable regulations, not with domestic waste.

Guarantee

This device is covered by a 3 year guarantee from the date of purchase. During this guarantee period, at our discretion, Microlife will repair or replace the defective product free of charge. Opening or altering the device invalidates the guarantee.

The following items are excluded from the guarantee:

- Transport costs and risks of transport.
- Damage caused by incorrect application or non-compliance with the instructions for use.
- Damage caused by leaking batteries.
- Damage caused by accident or misuse.
- Packaging/storage material and instructions for use.
- Regular checks and maintenance (calibration).
- Accessories and wearing parts: Batteries.

Should guarantee service be required, please contact the dealer from where the product was purchased, or your local Microlife service. You may contact your local Microlife service through our website:

www.microlife.com/support

Compensation is limited to the value of the product. The guarantee will be granted if the complete product is returned with the original invoice. Repair or replacement within guarantee does not prolong or renew the guarantee period. The legal claims and rights of consumers are not limited by this guarantee.

Technical Specifications

- Capacity: 180 kg / 396 lb
- Resolution: 0.1 kg / 0.2 lb

- Weight: 1.92 kg
- Dimensions: 305 (L) x 305 (W) x 24 (H) mm
- Communication: Bluetooth® Low Energy 4.0
- Compatibility: iOS: iOS 8.0 or newer Android: Android 4.4 or newer
- Voltage source: 4 x 1.5 V alkaline batteries; size AAA
- Expected service life: 20.000 measurements
- Battery lifetime: 8 months (when used 3 times/day)

Technical alterations reserved.

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Documents / Resources



[microlife WS200 BT Bluetooth Diagnostic Scale](#) [pdf] User Manual
WS200 BT, Bluetooth Diagnostic Scale