

#### Europe / Middle-East / Africa

 Microlife AG  
Epenstrasse 139  
9443 Widnau, Switzerland  
Tel. +41 71 727 7000  
Fax. +41 71 727 7011  
Email: [admin@microlife.ch](mailto:admin@microlife.ch)  
[www.microlife.com](http://www.microlife.com)

#### Asia

Microlife Corporation  
9F, 431, RuiGuang Road, NeiHu  
Taipei 11492, Taiwan, R.O.C.  
Tel. +886 2 8797 1288  
Fax +886 2 8797 1283  
Email: [service@microlife.com.tw](mailto:service@microlife.com.tw)  
[www.microlife.com](http://www.microlife.com)

#### North / Central / South America

Microlife USA, Inc.  
1617 Gulf to Bay Blvd  
2nd Floor, Suite A  
Clearwater, FL 33755, USA  
Tel. +1 727 442 5353  
Fax +1 727 442 5377  
Email: [msa@microlifeusa.com](mailto:msa@microlifeusa.com)  
[www.microlife.com](http://www.microlife.com)

# microlife®

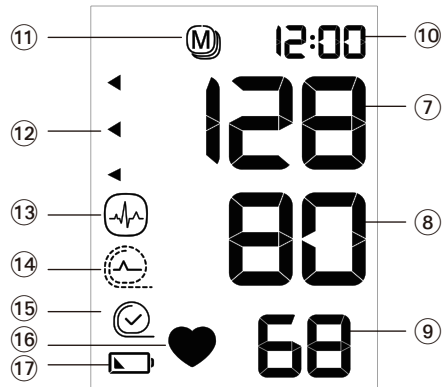
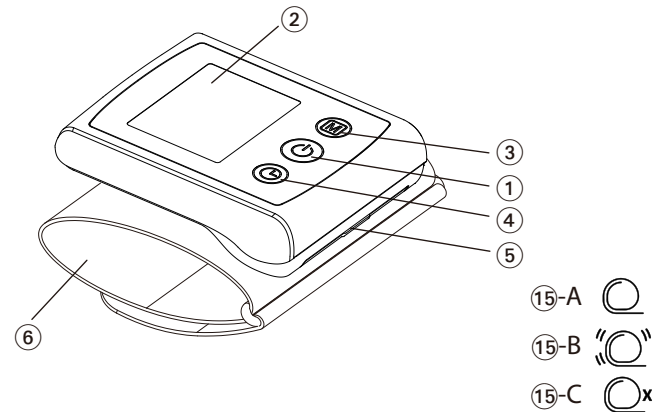
## W3 Comfort



**Microlife BP W3 Comfort**

**CE0044**

IB BP W3 ComfortEN 0220



Name of Purchaser / Nom de l'acheteur / Nome del rivenditore /  
 Name des Käufers / Alıcının adı / Nombre del comprador / Nome do  
 comprador / Naam koper / Ονοματεπώνυμο αγοραστή /  
 نام خریدار / اسم المشتري

Serial Number / Numéro de série / Numero di serie / Serien-Nr. /  
 Seri numarası / Número de serie / Número de série / Seriennummer /  
 Αριθμός σειράς / رقم التسلسل / مدل

Date of Purchase / Date d'achat / Data d'acquisto / Kaufdatum / Satın  
 alma tarihi / Fecha de compra / Data da compra / Datum van aankoop  
 / Ημερομηνία αγοράς / تاريخ الشراء / شماره سریال

Specialist Dealer / Revendeur / Categoria riven-ditore / Fachhändler  
 / Uzman satıcı / Distribuidor especializado / Revendedor autorizado /  
 Specialist Dealer / Εξειδικευμένος αντιπρόσωπος /  
 تاريخ خرید / التاجر المختص

- ① ON/OFF button
- ② Display
- ③ M-button (memory)
- ④ Time Button
- ⑤ Battery Compartment
- ⑥ Cuff

## Display

- ⑦ Systolic Value
- ⑧ Diastolic Value
- ⑨ Pulse Rate
- ⑩ Date/Time
- ⑪ Stored Value
- ⑫ Traffic Light Indicator
- ⑬ Pulse Arrhythmia Indicator (PAD)
- ⑭ Cuff Signal Indicator «**ERR 1**»
- ⑮ Cuff Fit Check
  - A: Suboptimal Cuff Fit
  - B: Arm Movement Indicator «**ERR 2**»
  - C: Cuff Pressure Check «**ERR 3**»

- ⑯ Pulse Indicator
- ⑰ Battery Display



Follow Instructions for Use. This document provides important product operation and safety information regarding this Blood Pressure Monitor. Please read this document thoroughly before using the device and keep for future reference.



Type BF applied part



Keep dry

Intended use:

This oscillometric blood pressure monitor is intended for measuring non-invasive blood pressure in people aged 12 years or older.

Dear Customer,

This device was developed in collaboration with physicians and clinical tests carried out prove its measurement accuracy to be of a very high standard.\* If you have any questions, problems or want to order spare parts please contact your local 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](http://www.microlife.com) where you will find a wealth of invaluable information on our products.

Stay healthy – Microlife AG!

\* This device is tested according to the ESH protocol and ISO81060-2:2013.

## Table of Contents

### 1. Using the Device for the First Time

- Inserting the batteries
- Setting the date and time

### 2. Checklist for Taking a Reliable Measurement

### 3. Taking a Blood Pressure Measurement

- How not to store a reading
- How do I evaluate my blood pressure?
- Appearance of the Pulse Arrhythmia (PAD)

#### F How not to store a reading

#### F How do I evaluate my blood pressure?

#### F Appearance of the Pulse Arrhythmia (PAD)

### 4. Data Memory

- Viewing the stored values
- Memory full
- Clearing all values

### 5. Battery Indicator and Battery change

- Low battery
- Flat battery – replacement
- Which batteries and which procedure?

- Using rechargeable batteries

## 6. Error Messages

## 7. Safety, Care, Accuracy Test and Disposal

- Safety and protection
- Device care
- Cleaning the cuff
- Accuracy test
- Disposal

## 8. Guarantee

## 9. Technical Specifications

### 1. Using the Device for the First Time

---

#### Inserting the batteries

After you have unpacked your device, first insert the batteries. The battery compartment (5) is on the bottom of the device. Insert the batteries (2 x 1.5 V, size AAA), thereby observing the indicated polarity.

#### Setting the date and time

1. After the new batteries are fitted, the year number flashes in the display. You can set the year by pressing the M-button (3). To confirm and then set the month, press the time button (4).
2. Press the M-button to set the month. Press the time button to confirm and then set the day.

3. Follow the instructions above to set the day, hour and minutes.
4. Once you have set the minutes and pressed the time button, the date and time are set and the time is displayed.
5. If you want to change the date and time, press and hold the time button down for approx. 3 seconds until the year number starts to flash. Now you can enter the new values as described above.

## 2. Checklist for Taking a Reliable Measurement

---


1. Avoid activity, eating or smoking immediately before the measurement.
2. Sit down on a back-supported chair and relax for 5 minutes. Keep the feet flat on the floor and do not cross your legs.
3. Always measure in a sitting position and on the same wrist. Use the wrist which usually shows higher blood pressure values.
4. Remove any items of clothing and your watch, for example, so that your wrist is free.
5. Always ensure that the cuff is positioned correctly, as shown in the pictures illustrated on the short instruction card.
6. Fit the cuff comfortably but not too tight. The cuff will cover a wrist circumference of 13.5 - 23 cm (5.25 - 9.05 inches).
7. Support your arm in a relaxed position and ensure that the **device is at the same height as your heart.**

## 3. Taking a Blood Pressure Measurement

---


1. Press the ON/OFF button **①** to start the measurement.

2. The cuff fit check **⑮** on the display indicates that the cuff is perfectly placed. If the icon **⑮-A** appears, the cuff is fitted suboptimally, but it is still ok to measure.
3. The cuff will now pump up automatically. Relax, do not move and do not tense your arm muscles until the measurement result is displayed. Breathe normally and do not talk.
4. The measurement is performed during the inflation. The inflation speed may vary, this is a normal occurrence.
5. During the measurement, the pulse indicator **⑯** flashes in the display.
6. The result, comprising the systolic **⑦** and the diastolic **⑧** blood pressure and the pulse rate **⑨** is displayed. Note also the explanations on further display symbols in this booklet.
7. Remove and switch off the monitor and enter the result in the enclosed blood pressure pass. (The monitor does switch off automatically after approx. 1 min.).

 You can stop the measurement at any time by pressing the ON/OFF button (e.g. if you feel uneasy or an unpleasant pressure sensation).

### How not to store a reading

As soon as the reading is displayed press and hold the ON/OFF button **①** until «M» **⑪** is flashing. Confirm to delete the reading by pressing the time button **⑩**.

 «CL» is displayed when the reading is deleted from the memory successfully.

## How do I evaluate my blood pressure?

The triangle on the left-hand edge of the display ⑫ points at the range within which the measured blood pressure value lies. The value is either within the optimum (white), elevated (hatched gray) or high (black) range. The classification corresponds to the following ranges defined by international guidelines (ESH, ESC, JSH). Data in mmHg.

Range	Systolic	Diastolic	Recommendation
1. blood pressure too high	≥135	≥85	Seek medical advice
2. blood pressure elevated	130 - 134	80 - 84	Self-check
3. blood pressure normal	<130	<80	Self-check

The higher value is the one that determines the evaluation. Example: a blood pressure value of **140/80** mmHg or a value of **130/90** mmHg indicates «blood pressure too high».

## Appearance of the Pulse Arrhythmia (PAD)

This symbol ⑬ indicates that certain pulse irregularities were detected during the measurement. In this case, the result may deviate from your normal blood pressure – repeat the measurement. In most cases, this is no cause for concern. However, if the symbol appears on a regular basis (e.g. several times a week with measurements taken daily) we advise you to tell your doctor. Please show your doctor the following explanation:

## Information for the doctor on frequent appearance of the Arrhythmia indicator

This device is an oscillometric blood pressure monitor that also analyses pulse irregularity during measurement. The device is clinically tested.

The arrhythmia symbol is displayed after the measurement, if pulse irregularities occur during measurement. If the symbol appears more frequently (e.g. several times per week on measurements performed daily) we recommend the patient to seek medical advice.

This device does not replace a cardiac examination, but serves to detect pulse irregularities at an early stage.


## 4. Data Memory

This device automatically stores the last 30 measurement values.


### Viewing the stored values

Press the M-button ③ briefly, when the device is switched off. The display first shows «**M**» ⑪ and «**A**», which stands for the average of all stored values.

Pressing the M-button again displays the previous value. Pressing the M-button repeatedly enables you to move from one stored value to another.


 Blood pressure readings with suboptimal cuff fit ⑮-A are not considered in the average value.

## Memory full

-  Pay attention that the maximum memory capacity of 30 memories is not exceeded. **When the 30 memory is full, the oldest value is automatically overwritten with the 31st value.** Values should be evaluated by a doctor before the memory capacity is reached – otherwise data will be lost.

## Clearing all values

If you are sure that you want to permanently remove all stored values, hold down the M-button (the device must have been switched off beforehand) until «CL ALL» appears and then release the button. To permanently clear the memory, press the time button while «CL ALL» is flashing. Individual values cannot be cleared.

-  **Cancel deletion:** press ON/OFF button ① while «CL ALL» is flashing.

## 5. Battery Indicator and Battery change

---


### Low battery

When the batteries are approximately  $\frac{3}{4}$  empty the battery symbol ⑰ will flash as soon as the device is switched on (partly filled battery displayed). Although the device will continue to measure reliably, you should obtain replacement batteries.




### Flat battery – replacement

When the batteries are flat, the battery symbol ⑰ will flash as soon as the device is switched on (flat battery displayed). You cannot take any further measurements and must replace the batteries.

1. Open the battery compartment ⑤ by pulling off the cap.
2. Replace the batteries – ensure correct polarity as shown by the symbols in the compartment.
3. To set date and time, follow the procedure described in «Section 1.».



-  The memory retains all values although date and time must be reset – the year number therefore flashes automatically after the batteries are replaced.



### Which batteries and which procedure?

-  Use 2 new, long-life 1.5 V, size AAA alkaline batteries.
-  Do not use batteries beyond their date of expiry.
-  Remove batteries if the device is not going to be used for a prolonged period.

### Using rechargeable batteries

You can also operate this device using rechargeable batteries.

-  Only use «NiMH» type reusable batteries.
-  Batteries must be removed and recharged when the flat battery symbol appears. They should not remain inside the device as they may become damaged (total discharge as a result of low use of the device, even when switched off).

-  Always remove the rechargeable batteries if you do not intend to use the device for a week or more.
-  Batteries cannot be charged in the blood pressure monitor. Recharge batteries in an external charger and observe the information regarding charging, care and durability.


## 6. Error Messages

If an error occurs during the measurement, the measurement is interrupted and an error message, e.g. «ERR 3», is displayed.

Error	Description	Potential cause and remedy
«ERR 1» ⑭	Signal too weak	The pulse signals on the cuff are too weak. Reposition the cuff and repeat the measurement.*
«ERR 2» ⑮	Error signal	During the measurement, error signals were detected by the cuff, caused for instance by movement or muscle tension. Repeat the measurement, keeping your arm still.
«ERR 3» ⑮	No pressure in the cuff	An adequate pressure cannot be generated in the cuff. A leak may have occurred. Check that the cuff is correctly connected and is not too loose. Replace the batteries if necessary. Repeat the measurement.

Error	Description	Potential cause and remedy
«ERR 5»	Abnormal result	The measuring signals are inaccurate and no result can therefore be displayed. Read through the checklist for performing reliable measurements and then repeat the measurement.*
«HI»	Pulse or cuff pressure too high	The pressure in the cuff is too high (over 299 mmHg) OR the pulse is too high (over 200 beats per minute). Relax for 5 minutes and repeat the measurement.*
«LO»	Pulse too low	The pulse is too low (less than 40 beats per minute). Repeat the measurement.*

\* Please immediately consult your doctor, if this or any other problem occurs repeatedly.

-  If you think the results are unusual, please read through the information in «Section 1.» carefully.

## 7. Safety, Care, Accuracy Test and Disposal

### Safety and protection

- Follow instructions for use. This document provides important product operation and safety information regarding this device. Please read this document thoroughly before using the device and keep for future reference.



- 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
  - The cuffs are sensitive and must be handled with care.
  - Only pump up the cuff once fitted.
  - Do not use this device close to strong electromagnetic fields such as mobile telephones or radio installations. Keep a minimum distance of 3.3 m from such devices when using this device.
  - 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.
- The measurement results given by this device is not a diagnosis. It is not replacing the need for the consultation of a physician, especially if not matching the patient's symptoms. Do not rely on the measurement result only, always consider other potentially occurring symptoms and the patient's feedback. Calling a doctor or an ambulance is advised if needed.



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.

### Device care

Clean the device only with a soft, dry cloth.

### Cleaning the cuff

Carefully remove any marks on the cuff with a damp cloth and mild detergent.

### Accuracy test

We recommend this device is tested for accuracy every 2 years or after mechanical impact (e.g. being dropped). Please contact your local Microlife-Service to arrange the test (see foreword).

### Disposal



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

## 8. Guarantee

---

This device is covered by a **5 year guarantee** from the date of purchase. The guarantee is valid only on presentation of the guarantee card completed by the dealer (see back) confirming date of purchase or the receipt.

- Batteries, cuff and parts that become worn with use are not included.
- Opening or altering the device invalidates the guarantee.
- The guarantee does not cover damage caused by improper handling, discharged batteries, accidents or non-compliance with the operating instructions.

Please contact your local Microlife-Service (see foreword).

## 9. Technical Specifications

---

<b>Operating conditions:</b>	10 - 40 °C / 50 - 104 °F 15 - 95 % relative maximum humidity
<b>Storage conditions:</b>	-20 - +55 °C / -4 - +131 °F 15 - 95 % relative maximum humidity
<b>Weight:</b>	112 g (including batteries)
<b>Dimensions:</b>	81 x 65 x 21 mm
<b>Cuff size:</b>	13.5 - 23 cm (5.25 - 9.05 inches)
<b>Measuring procedure:</b>	oscillometric, corresponding to Korotkoff method: Phase I systolic, Phase V diastolic

**Measurement range:** 20 - 280 mmHg – blood pressure  
40 - 199 beats per minute – pulse

**Cuff pressure display range:**

0 - 299 mmHg

**Resolution:**

1 mmHg

**Static accuracy:**

pressure within  $\pm 3$  mmHg

**Pulse accuracy:**

$\pm 5$  % of the readout value

**Voltage source:**

2 x 1.5 V alkaline batteries; size AAA

**Battery lifetime:**

approx. 320 measurements  
(using new batteries)

**IP Class:**

IP20: Protected against solid foreign particles with a diameter of more than 12.5 mm, no protection against water .

**Reference to standards:**

EN 1060-1 /-3 /-4; IEC 60601-1;  
IEC 60601-1-2 (EMC); IEC 60601-1-11

**Expected service life:**

Device: 5 years or 10000 measurements  
Cuff: 2 years or 10000 measurements

This device complies with the requirements of the Medical Device Directive 93/42/EEC.

Technical alterations reserved.