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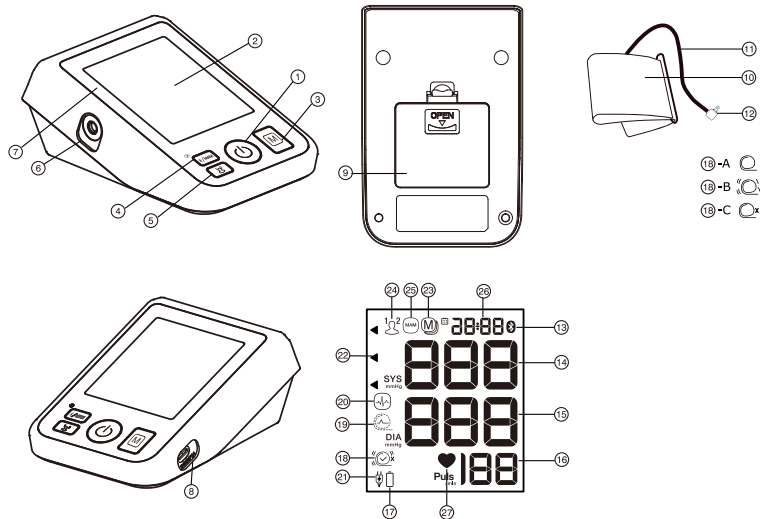
BP_{B4} BT

Bluetooth® Blood Pressure Monitor

EN → 1



Microlife BP B4 BT



microlife

Guarantee Card

Microlife BP B4 BT

Name of Purchaser

Serial Number

Date of Purchase

Specialist Dealer

microlife®

- ① ON/OFF button
- ② Display
- ③ M-button (memory)
- ④ Bluetooth/MAM button
- ⑤ User Button
- ⑥ Cuff socket
- ⑦ Traffic light indicator
- ⑧ USB Type-C Adapter Socket
- ⑨ Battery compartment
- ⑩ Cuff
- ⑪ Cuff tube
- ⑫ Cuff connector

Display

- ⑬ Active Bluetooth®
- ⑭ Systolic value
- ⑮ Diastolic value
- ⑯ Pulse rate
- ⑰ Battery display

- ⑱ Cuff fit check
 - A: Suboptimal cuff fit
 - B: Arm movement indicator «Err 2»
 - C: Cuff pressure check «Err 3»
- ⑲ Cuff signal indicator «Err 1»
- ⑳ Irregular heartbeat (IHB) symbol
- ㉑ External power source indicator
- ㉒ Traffic light display
- ㉓ Stored value
- ㉔ User indicator
- ㉕ MAM Mode
- ㉖ Date/Time
- ㉗ Pulse indicator

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 where you will find a wealth of invaluable information on our products. Stay healthy – Microlife Corporation!

** This device uses the same measuring technology as the award winning «BP 3BTO-A» model tested according to the British and Irish Hypertension Society (BIHS) protocol.*

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1. Introduction

Document scope



Read the instructions carefully before using this device.

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.

Disclaimers

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Microlife Corp. is under license. Other trademarks and trade names are those of their respective owners.

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2. Important information

Device description

A digital home-use blood pressure monitor is a medical device that utilizes the principles of cuff-based oscillometric method and digital signal process to compute and provide a blood pressure measurement.

Intended use

This device is intended to measure brachial blood pressures (systole and diastole) and pulse rate.

Intended user

The device is intended to be operated by adults and adolescents with adequate vision, motor functions, and education, capable of understanding the instructions for use and operating general household electrical appliances.

Intended patient

The intended patients are normotensive and hypertensive adults and adolescents (aged 12 years or older) of the general population.

The intended patients also include those with conditions of diabetes, pregnancy, pre-eclampsia, atherosclerosis.

Intended use environment and conditions

The device is intended for use in a home healthcare environment (e.g. general household without medically trained personnel) by patients (e.g. for self-measurement) or by a care giver.

Indications

This device measures blood pressures for indications of:

- Diagnosis of white-coat hypertension and masked hypertension and identifying white-coat effect and masked uncontrolled hypertension.
- Evaluate blood pressure in response to treatment.
- Confirming the diagnosis of resistant hypertension.
- Detecting morning hypertension.

Contra-indications

- The device is not intended for measuring blood pressure in pediatric patients of age younger than 12 years old (children, infant, or neonates).
- The device measures blood pressure using a pressured cuff. If the measuring limb suffers from injuries (for example open wounds) or under conditions or treatments (for example intravenous drip) making it unsuitable for surface contact or pressurization, do not use the device, to avoid worsening of the injuries or conditions.
- Avoid taking measurements of patients with conditions, diseases, and susceptible to environment conditions that lead to uncontrollable motions (e.g. trembling or shivering) and inability to communicate clearly (for example children and unconscious patients).
- The device uses oscillometric method to determine blood pressure and requires the measured limb with

normal perfusion. The device is not intended to be used on a limb with restricted or impaired blood circulation. Consult with your doctor if you have severe perfusion or blood disorders before using the device.

Side effects

In rare cases, slight bruising may result after measurement due to pressurization of the arm.

Warning



NOTE: Warning items indicate potentially hazardous situations, if not avoided, may result in death, critical or serious injury to the user or patient.

- Avoid taking measurement on the arm on the side of a mastectomy or lymph node clearance.
- Avoid taking measurements on the arm with intravascular access or therapy or an arterio-venous (A-V) shunt. Cuff and pressurization may temporarily interfere with blood flow and could result in injury.
- Presence of significant cardiac arrhythmia during measurement may interfere with blood pressure measurement and affect the reliability of blood pressure

readings. Consult with your doctor about whether the device is suitable for use in this case.

- DO NOT use this device in a moving vehicle (for example in a car or on an aircraft).
- DO NOT use this device for purposes beyond described in this Instructions for Use. The manufacturer cannot be held liable for damage caused by incorrect application.
- The measurement result of this device is not a medical diagnosis and not intended to substitute consultation and diagnosis by a qualified professional healthcare provider (e.g., physician, pharmacist, or other licensed health-care professionals).
- DO NOT use this device for self-diagnosis or for self-treatment of a medical condition. Seek advice from a health-care professional immediately if the patient is clearly unwell and/or having physiological or medical symptoms.
- Inspect the device, cuff, and other parts for damage. DO NOT USE the device, cuff or parts if they appear damaged or operating abnormally.
- Blood flow of the arm is temporarily interrupted during measurement from cuff pressurization. Extended periods of cuff pressurization reduces peripheral circula-

tion. Beware of signs (e.g tissue discoloration) of impeded peripheral circulation when taking prolonged or multiple measurements. It is recommended to rest between measurements. Abort measurement, loosen the cuff (or disconnect the cuff and device) and rest to restore perfusion.

- DO NOT use this device in oxygen rich environment or near flammable gas.
- DO NOT use this device with other medical electrical (ME) equipment simultaneously. This may cause device malfunction or measurement inaccuracies.
- Use and store the device, cuff and parts in temperature and humidity conditions specified in the «Technical specifications». Usage and storage of the device, cuff and parts in conditions outside ranges given in the «Specifications and compliance» may results in device malfunction and the safety of usage.
- Keep the device away from children and people incapable of operating the device. Beware of the risks of accidental ingestion of small parts and of strangulation with the cables and tubes of this device and accessories. DO NOT let children operate the device alone.

Caution



NOTE: Caution items indicate potentially hazardous situations, if not avoided, may result in minor or negligible injury to the user or patient, or damage to the property or environment.

- The device is not intended to measure pulse rate to check the frequency of a pacemaker.
- DO NOT disassemble or attempt to service the device, accessory, and parts, during use or in storage. Access to the device internal hardware and software is prohibited. Unauthorized access and servicing of the device, during use or in storage, may compromise the safety and performance of the device.
- The device is intended only for measuring blood pressure on your upper arm. DO NOT measure other sites because the reading does not reflect your blood pressure accurately.
- When measuring patients of arm circumference of 50 cm or above, please ensure the cuff is fitted and secured tightly on the patient's arm. Measurement errors may occur more frequently if the cuff is fitted loosely; it's

recommended to re-fit and tighten the cuff, then re-attempt measurement in such case.

- After a measurement is completed, loosen the cuff, and rest the arm to restore limb perfusion, before taking another measurement.
- Avoid kinking, pressing, and moving of the cuff tube during device operation, as this affects reading reliability and may cause injury if the cuff pressurization is prolonged, and deflation interrupted.
- Use this device only with compatible accessories and parts from Microlife, including cuffs, connectors, and AC adapters. Using non-compatible accessories may compromise the safety and performance of the device.
- Protect the device and accessories from the following to avoid damaging the device:
 - water, other liquids, and moisture
 - extreme temperatures
 - impacts and vibrations
 - direct sunlight
 - contamination and dust
- This device is reusable. It is recommended to clean the device and the accessory before and after use if the device is dirty from use or after storage.

- Always use the arm cuff of range appropriate for the mid arm circumference of the patient (upper arm only).
- Stop using this device and cuff and consult with your doctor if you experience skin irritation or discomfort.
- DO NOT use this device, cuff, or parts after the expiration of its stated service life.
- Remove the arm cuff if it does not start deflating during the measurement.
- Do not use this monitor in high-use environments such as medical clinics or physician offices.
- If this monitor is stored at the maximum or minimum storage and transport temperature and is moved to an environment with a temperature of 20 °C, we recommend waiting for approximately 2 hours before using the monitor.

Electromagnetic compatibility

- This device is compliant with electromagnetic disturbances standard.



Further documentation in compliance with EN 60601-1-2 EMC standard is available from Microlife on www.microlife.com/electro-magnetic-compatibility.

- DO NOT use this device in proximity of equipment that may cause electromagnetic disturbance (EMD), such as high frequency (HF) surgical equipment, magnetic resonance imaging (MRI) equipment, and computerized tomography (CT) scanners. This device is not certified for operation near these equipments, which may cause device malfunction and measurement inaccuracies.
- DO NOT use this device close to strong electromagnetic fields and portable radio frequency communication devices (for example microwave oven and mobile devices). Keep a minimum distance of 0.3 m from such devices when using this device.
- This device features Bluetooth® that emits radio frequency (RF) in the 2.4GHz band. Do not use this device in locations where RF is restricted (for example, on an aircraft). Turn off the device and remove the power source if necessary when in RF restricted locations.



Caution: The use of non-Microlife or non-compatible accessories may result in increased emissions or decreased immunity of the equipment or system.

Adverse events and reporting

Please report any serious incident, injury or adverse event that has occurred in relation to the device to the manufac-

turer/ European authorized representative (EC REP), and to the competent authority.

3. Device Information

Package Contents

- 1 x Microlife BP B4 BT
- 1 x Microlife Soft Cuff M-L
- 1 x Instruction manual
- 4 x 1.5 V alkaline batteries; type LR3 (AAA)



CAUTION: Inspect the device, cuff, and other parts for damage. DO NOT USE the device, cuff or parts if they appear damaged or operating abnormally.

Device accessories

Blood pressure cuffs

Microlife offers cuffs, covering a wide range of arm sizes.

Microlife Soft Cuff S	Range 17-22 cm
Microlife Soft Cuff M	Range 22-32 cm
Microlife Soft Cuff M-L	Range 22-42 cm
Microlife Soft Cuff L	Range 32-42 cm
Microlife Soft Cuff L-XL	Range 32-52 cm

Contact your local authorized Microlife distributor if the standard cuff of the device is not the correct size for your arm.

AC adapter

You can operate this device using the Microlife AC adapter model DSA-5PF21-05 (DC 5V, 1.0 A).



Warning: Do not use the AC adapter if the adapter or the cable is damaged. If the device, adapter, or cable is damaged, turn off the power and unplug the AC adapter immediately.



Warning: Only use the AC adapter with outlets of compatible voltage rating.



Warning: Do not plug or unplug the AC adapter from the outlet with wet hands.



Warning: Do not damage the AC Adapter. Handle the AC adapter with care. Avoid pulling, bending, and tempering of the adapter cable.



Warning: Unplug the AC adapter before cleaning this device.



Warning: The mains adapter is not waterproof. DO NOT pour or spray liquid on the mains adapter.



Note: When using the AC adapter, it is recommended to remove the batteries to prevent draining.



Note: When the AC adapter is detected by the device, the external power source indicator ⑳ will be displayed on the display.

1. Plug the adapter jack into a suitable adapter socket ⑧. Check to ensure the adapter or cable are not damaged.
2. Plug the adapter plug into the mains socket.

Batteries

Use 4 new 1.5 V, size LR3 (AAA) alkaline batteries.



Caution: Do not use expired batteries or mix new and used batteries together.



Caution: Remove batteries if the device is not going to be used for a prolonged period.

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).



Batteries cannot be charged in the blood pressure monitor. Recharge batteries in an external charger and observe the information regarding charging, care and durability.

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 ⑨ at the back of the device.
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 «Setting the date and time».

4. Device installation and setup

Inserting the batteries

After you have unpacked your device, first insert the batteries. The battery compartment ⑨ is on the bottom of the device. Insert the batteries (4 x 1.5 V, size LR3 (AAA)), thereby observing the indicated polarity.



Caution: Inserting the batteries in incorrect polarity orientations may lead to short circuiting and damage the device!

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 Bluetooth/MAM button ④.
2. Press the M-button to set the month. Press the Bluetooth/MAM 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 Bluetooth/MAM 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 Bluetooth/MAM button for approx. 7-8 seconds until the year number starts to flash. Now you can enter the new values as described above.



Caution: Make sure date and time settings are correct on the device. Incorrect settings results in misleading data and time records of the measurements.

Selecting the correct cuff

Check if the cuff size is suitable for the circumference of your upper arms. The upper arm circumference can be measured using a tape measure around the mid-point of the upper arm.

Please see cuff range in chapter «Device accessories».



Caution: Only use compatible Microlife cuffs and connectors with this device.



Caution: Using an undersized or oversized cuff for measurement can result in inaccurate blood pressure values. Use the correctly sized cuff for measurement to ensure the readings are reliable.

Contact your local Microlife Service if the enclosed cuff ⑩ does not fit.



If you buy a spare Microlife cuff, please remove the cuff connector ⑫ from the cuff tube ⑪ from the cuff supplied with the original device and insert this cuff connector into the tube of the spare cuff (valid for all cuff sizes).

Connecting the cuff to the device

Connect the cuff to the device by inserting the cuff connector ⑫ into the cuff socket ⑥ as far as it will go.



Make sure the cuff connector is securely inserted into the cuff socket of your blood pressure monitor. **A distinct «CLICK» must be heard when fully inserted.**



Note: A loose connection will result in inaccurate readings, and an error message («Err 3»).

Selecting the user

This device allows to store the results for 2 individual users.

► Select the intended user (user 1 or user 2 ②④) by pressing the user button ⑤.




Before each measurement, ensure that the correct user is selected.

Selecting standard or MAM mode

Before each measurement, select standard (single measurement) or MAM mode (automatic double measurement). In MAM mode, 2 measurements are automatically taken in succession and the result is then automatically analysed and displayed. Because the blood pressure constantly fluctuates, a result obtained in this way is more reliable than when a single measurement is performed.

- To select MAM mode, press the Bluetooth/MAM button ④ for 3-4 seconds until the MAM symbol ㉔ appears on the display. Press the M-button to switch between ON and OFF, then press the Bluetooth/MAM button to save the setting.
- The bottom, right hand section of the display shows a 1, 2 or 3 to indicate which of the 3 measurements is currently being taken.
- There is a break of 15 seconds between the measurements.
A count down indicates the remaining time.
- The individual results are not displayed. Your blood pressure will only be displayed after all 2 measurements are taken.
- Do not remove the cuff between measurements.
- If one of the individual measurements was questionable, a third time one is automatically taken.

 In MAM mode, if one of the individual measurements was questionable, the device automatically takes an additional measurement.

5. Measurement preparation

Before taking a measurement

- ▶ Avoid heavy activity, eating or smoking immediately before the measurement.
- ▶ Empty your bladder prior to measurement.
- ▶ Sit down on a back-supported chair and relax for 5 minutes. Keep your feet flat on the floor and do not cross your legs.
- ▶ **Always measure on the same arm** (normally left). It is recommended that doctors perform double arm measurements on a patients first visit in order to determine which arm to measure in the future. The arm with the higher blood pressure should be measured.

Correct cuff fitting and posture for taking a measurement

- ▶ Always ensure that the correct cuff size is used (marking on the cuff).
- ▶ Remove close-fitting garments from the upper arm. To avoid constriction, shirt sleeves should not be rolled up - they do not interfere with the cuff if they are laid flat.
- ▶ Fit the cuff closely, but not too tight.
- ▶ Make sure that the cuff is positioned 1-2 cm above the elbow.

- ▶ The **artery mark** on the cuff (ca.3 cm long bar) must lie over the artery which runs down the inner side of the arm.
- ▶ Support your arm so it is relaxed.
- ▶ Ensure that the cuff is at the same height as your heart.

6. Measurement operation

Starting measurement

1. Select standard (single measurement) or MAM mode (automatic double measurement): see details in chapter «Device installation and setup»
2. Press the ON/OFF button ① to start the measurement.
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 cuff fit check ⑱ on the display indicates that the cuff is perfectly placed. If the icon ⑱-A appears, the cuff is fitted suboptimally, but it is still ok to measure.
5. When the correct pressure is reached, the pumping stops and the pressure falls gradually. If the required pressure was not reached, the device will automatically pump some more air into the cuff.
6. During the measurement, the pulse indicator ⑳ flashes in the display.

7. The result, comprising the systolic ⑭ and the diastolic ⑮ blood pressure and the pulse rate ⑯ are displayed. Note also the explanations on further display symbols in this booklet.
8. When the device has finished measuring, remove the cuff.
9. Switch off the device. (The monitor does switch off automatically after approx. 1 min.).



Caution: Remain still and do not move or talk during measurement. Motions caused by talking, moving, trembling and other vibrations may interfere with the measurement and affect the measurement accuracy!



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

Manual inflation

In case of high systolic blood pressure, it can be an advantage to set the pressure individually. Press the ON/OFF button after the monitor has been pumped up to a level of approx. 30 mmHg (shown on the display). Keep the button pressed until the pressure is about 40 mmHg above the expected systolic value – then release the button.


7. Measurement interpretation

How do I evaluate my blood pressure

The triangle on the left-hand edge of the display ②② points at the range within which the measured blood pressure value lies. The value is either within the optimum (black), elevated (hatched gray) or high (White) range.

The classification of blood pressure ranges is defined by the European Society of Cardiology (ESH) guideline for home blood pressure monitoring*.

* *European Society of Hypertension practice guidelines for home blood pressure monitoring. J Hum Hypertens. 2010 Dec;24(12):779-85.*

 **NOTE:** The blood pressure classification is a general guideline of blood pressure level at home, but diagnosis of hypertension should be made by a health-care professional based on specific conditions of the patient. Consult with your doctor for questions about the interpretation and classification of your blood pressure values.

Range		Systolic	Diastolic	Classifications
1.	High	≥135	≥85	Hypertensive
2.	Elevated	130 - 134	80 - 84	Elevated

Range		Systolic	Diastolic	Classifications
3.	Optimum	<130	< 80	Normal

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 irregular heartbeat (IHB) symbol

This symbol ②① indicates that an irregular heartbeat was detected. In this case, the measured blood pressure may deviate from your actual blood pressure values. It is recommended to repeat the measurement.

Information for the doctor in case of repeated appearance of the IHB symbol:

This device is an oscillometric blood pressure monitor that also measures the pulse during blood pressure measurement and indicates when the heart rate is irregular.


8. Data memory function

This device automatically stores up to 30 measurement values for each of the 2 users.

Select either user 1 or 2 by pressing the user button ⑤.

Viewing the average of all stored values


Press the M-button ③ briefly, when the device is switched off. The display first shows «M» ②③, and «A» which stands for the average of all stored values.

-  Blood pressure readings with suboptimal cuff fit ⑱-A are not considered in the average value.

Viewing the stored single values

Pressing the M-button again, allows you to see the last performed measurement. The display first shows «M» ②③ and a value, e.g. «M17». This means that there are 17 single values in the memory.


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

-  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 31 value.** Values should be evaluated by a doctor before the memory capacity is reached – otherwise data will be lost.

Clearing all values


Make sure the correct user is activated.

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 Bluetooth/MAM button while «CL ALL» is flashing. **Individual values cannot be cleared.**

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

How not to store a reading

As soon as the reading is displayed press and hold the ON/OFF button ① until «M» ②③ is flashing. Confirm to delete the reading by pressing the Bluetooth/MAM button ④.

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

9. Bluetooth® function operation

Use the Bluetooth® function to transfer data to «Microlife Connected Health+» App on a smartphone (Android OS or iOS).



Information available on: www.microlife.com/technologies/connect

Bluetooth® operations

- Manually turn on Bluetooth®: Press Bluetooth/MAM button ④ to activate Bluetooth®, Bluetooth® symbol ⑬ on display will blink.
- Automatically turn on Bluetooth®: Bluetooth® will activate automatically after a measurement. Bluetooth® symbol ⑬ on display will blink.
- Manually turn off Bluetooth®: Press ON/OFF button ① to turn off Bluetooth®.
- Automatically turn off Bluetooth®: Bluetooth® will turn off automatically after 2 minutes if a smartphone does not connect to the device.

Bluetooth® pairing & app setup

1. Open «Microlife Connected Health+» App on the smartphone (Make sure the app is running in the foreground, not in the background.)
2. Press Bluetooth/MAM button ④ to connect device to smartphone.
3. When smartphone finds the device, the smartphone will show a message to pair with the device. Confirm on smartphone to complete pairing. Cancel to abort pairing.

4. After pairing, the app will show a message to setup the device user selection (1 or 2) to the app user profile. Confirm to proceed with setup. Cancel to abort setup (if user selection is incorrect).
5. After setup, the device will automatically exchange measurement data and date/time settings with the app. Bluetooth® turns off automatically after data exchange.

Bluetooth® status

- Bluetooth® symbol ⑬ blinking slowly: Bluetooth® is activated and waiting for connection.
- Bluetooth® symbol ⑬ not blinking: Bluetooth® connection established.
- Bluetooth® symbol ⑬ blinking rapidly: Bluetooth® connection error.



In case of Bluetooth® connection error, turn off device Bluetooth®, wait for a minute, then re-try Bluetooth® connection. Refer to chapter «10. Device error and troubleshooting» for details.




Caution: Make sure date and time settings are correct on the device. Incorrect settings results in misleading data and time records of the measurements.


10. Device error and troubleshooting

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» ⑰	Signal too weak	The pulse signals on the cuff are too weak. Re-position the cuff and repeat the measurement.*
«Err 2» ⑱-B	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.

Error	Description	Potential cause and remedy
«Err 3» ⑱-C	Abnormal cuff pressure	<div></div> 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. Make sure the cuff connector is securely inserted into the cuff socket of your blood pressure monitor. A distinct «CLICK» must be heard when fully inserted.
«Err 5»	Abnormal result	The measuring signals are inaccurate and no result can therefore be displayed. Read through the checklist for taking a reliable measurement and then repeat the measurement.*

Error	Description	Potential cause and remedy
«Err 6»	MAM Mode	There were too many errors during the measurement in MAM mode, making it impossible to obtain a final result. Read through the chapter «Measurement preparation» 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 199 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.*

Error	Description	Potential cause and remedy
	Bluetooth® symbol ⁽¹³⁾ blinks rapidly	Bluetooth® connection error. Turn off the device Bluetooth® and close the app on the smartphone. Wait for 1 minute, open the app on the smartphone and manually activate Bluetooth® on the device, to re-try Bluetooth® connection and data transfer.
«Err bt»	Bluetooth® self check error	Bluetooth® is malfunctioning. Contact your local Microlife distributor.

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

11. Device maintenance and disposal

Cleaning the device

The device can be cleaned when necessary (e.g., between uses by different patients).

Use a soft cloth, dry or wet with detergent, to gently wipe the exterior of the device remove dust or stains.

Cleaning the cuff

Use a soft cloth, dry or wet with mild detergent, to carefully wipe the cuff to remove dust or stains.



Caution: Do not wash the cuff in a washing machine or dishwasher!

Cleaning the AC adapter

Clean the AC adapter with a dry cloth.

Storage

When not in use:

- Disconnect the cuff and parts from the device.
- Keep the device and accessories in a dry, cool place away from sunlight, with ambient conditions within the temperature and humidity ranges described in the «Specifications and compliance» section.
- Remove the batteries from the device if the device will not be used for an extended period.



Warning: Storing the device **unused** for an extended period without removing batteries increases the chance of battery fluid leakage, which may lead to device damage and skin irritation when in contact. If your eye or skin is exposed to battery fluid, wash the exposed part immediately with ample clean water. Consult a doctor if irritation or discomfort persists.

Calibration and support

The device is calibrated during manufacture. In general, it is recommended to have the device verified by your local designated Microlife device distributor every two years, or after mechanical impact, liquid ingress, and/or device malfunctions. For questions related to device measurement accuracy, please contact your local designated Microlife device distributor.



Caution: Do not attempt to service or calibrate the device and accessories yourself.

Disposal



This device is medical electrical equipment. Dispose this device and batteries in accordance with the Waste Electrical and Electronic Equipment (WEEE) directive and applicable local regulations. DO NOT dispose of the device and batteries with domestic or commercial waste.

12. Specifications and compliance

Technical specifications



NOTE: Technical specifications subjected to change without notice.

Device Type:	Digital non-invasive blood pressure monitor
Model number:	BPHJB2-D
Reference number	BP B4 BT
Operating conditions:	10 - 40 °C / 50 - 104 °F 15 - 90 % relative maximum humidity 700 hPa – 1060 hPa

Storage and transport conditions: -20 - +55 °C / -4 - +131 °F
15 - 90 % relative maximum humidity

Weight: 260 g (including batteries)

Dimensions: 141 x 94.5 x 56 mm

Measuring procedure: oscillometric, corresponding to Korotkoff method: Phase I systolic, Phase V diastolic

Pressure resolution: 1 mmHg

Cuff pressure display range: 0 - 299 mmHg


Measurement range: SYS: 60 - 255 mmHg
DIA: 40 - 200mmHg
Pulse: 40 - 199 beats per minute

Static accuracy: ± 3 mmHg

Pulse accuracy: ± 5 % of the readout value

Wireless Communication: Bluetooth® low energy

Power source - internal: 4 x 1.5 V LR3 (AAA) batteries

Power source - external (optional):	AC Adapter model: Microlife DSA-5PF21-05 Input: 100-240 V Output: 5.0 V, 1.0 A, 5 W
Ingress protection (IP) rating:	IP21: Protected against solid objects with a diameter of 12.5 mm. Dripping water (vertically falling drops) shall have no harmful effect.
Applied part type reference:	 Type BF
Service life - device:	5 years or 10000 measurements, whichever comes first
Service life - cuff:	2 years or 5000 measurements, whichever comes first
Battery lifetime:	approx. 400 measurements (1.5 V alkaline batteries; size LR3 (AAA))

Compliance information

This device complies with the requirements of the Medical Device Regulation (EU)2017/745.

Compliant standards:

EN 60601-1
EN 60601-1-2
EN 60601-1-11
EN IEC 80601-2-30
EN ISO 81060-2

13. Supplement information for users and patients

Guarantee

This device is covered by a **5 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 using non-Microlife specified accessories or parts, incorrect application or non-compliance with the instruction 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, power adapter (optional).

The cuff is covered by a functional guarantee (bladder tightness) for 2 years.

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.

Symbols and definitions



Medical device



CE Marking of Conformity



Manufacturer



Country of manufacture

(Date of manufacture if date printed next to symbol)



Model number



Reference number



Serial number

(YYYY-MM-DD-SSSSS;
year-month-day-serial number)



Lot number (YYYY-MM-DD; year-month-day)



Unique Device Identifier



Caution



General warning sign



Type BF applied part



Direct current

IP21

IP21: Protected against solid objects with a diameter of 12.5 mm. Dripping water (vertically falling drops) shall have no harmful effect.



Keep dry



Temperature limitation for operating **or** storage



Humidity limitation for operating **and** storage



Atmospheric pressure limitation



Read instructions for use before operating the device.



Dispose in accordance with waste electrical and electronic equipment (WEEE) directive.



Patient information website



Reminder/Note



Not made with natural rubber latex

