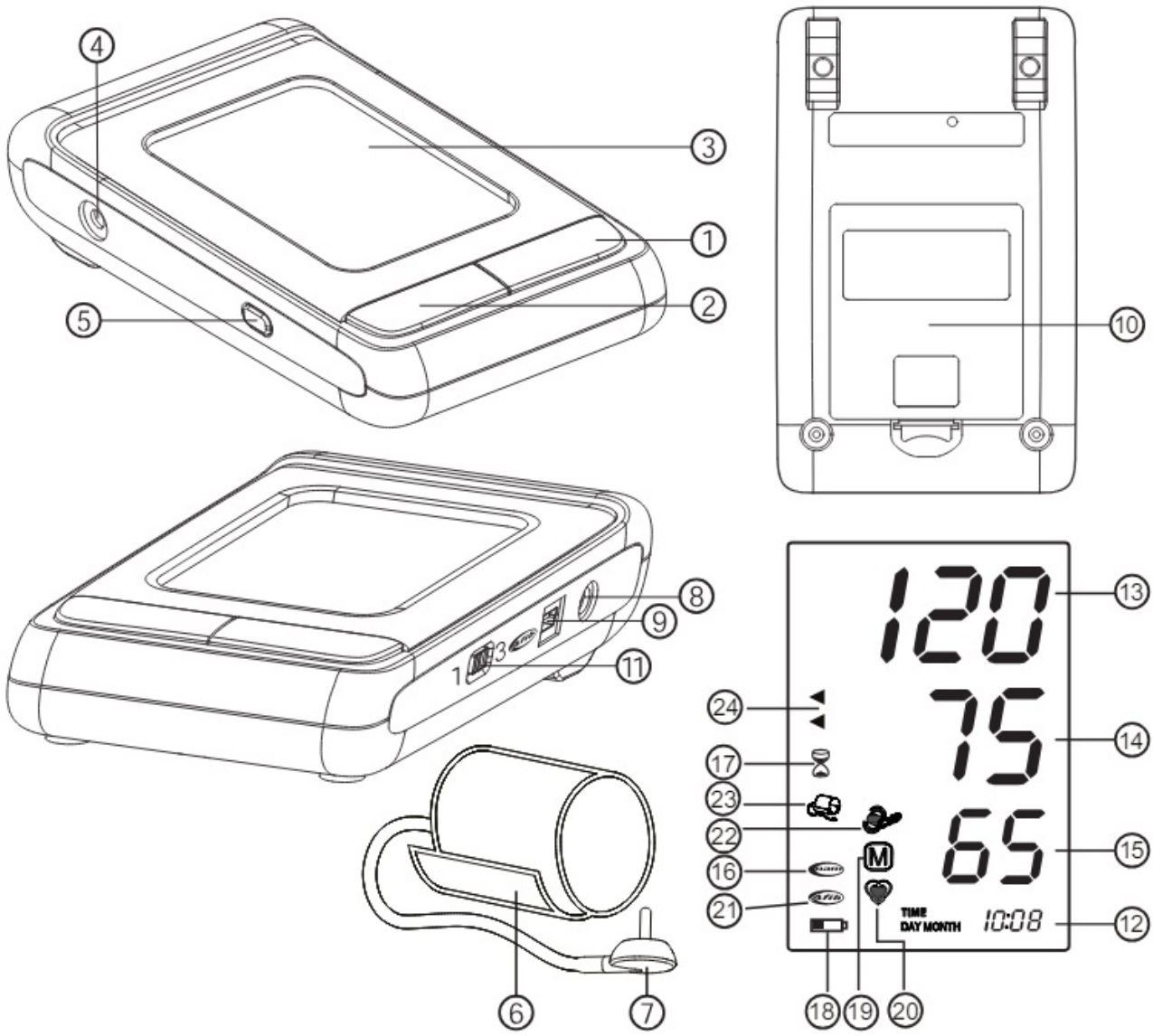
S-V10 Microlife BP A2 Basic Instruction Manual

Contents

Microlife S-V10 BP A2 Basic

Microlife BP A200 AFIB



1. ON/OFF button
2. M-button (memory)
3. Display
4. Cuff socket
5. Time button
6. Cuff
7. Cuff connector
8. Mains Adapter Socket
9. USB Port
10. AT Battery compartment
11. AK AFIB/MAM Switch

Display

12. AL Date/Time
13. AM Systolic value
14. AN Diastolic value
15. AO Pulse rate
16. AP AFIB/MAM Mode
17. AQ MAM Interval time

18. AR Battery display
19. AS Stored value
20. BT Pulse indicator
21. BK Atrial Fibrillation Indicator (AFIB)
22. BL Arm movement indicator
23. BM Cuff check indicator
24. BN Traffic light indicator

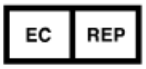
Read the important information in these instructions for use before using this device. Follow the instructions for use for your safety and keep it for future reference.

Type BF applied part

Keep dry

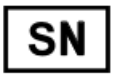
Manufacturer

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



Authorized representative in the European Community

Catalogue number



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

Caution

Humidity limitation for operating **and** storage

Temperature limitation for operating **or** storage

Medical device

Keep away from children of age 0 - 3

CE Marking of Conformity

Intended use

This oscillometric blood pressure monitor is intended for measuring non-invasive blood pressure in people aged

12 years or older. It is clinically validated in patients with hypertension, hypotension, diabetes, pregnancy, pre-eclampsia, atherosclerosis, end-stage renal disease, obesity and the elderly. The device can detect an irregular pulse suggestive of Atrial Fibrillation (AF). Please note that the device is not intended to diagnose AF. A diagnosis of AF can only be confirmed by ECG. The patient is advised to see a physician.

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.

Microlife AFIB detection is the world's leading digital blood pressure measurement technology for the detection of atrial fibrillation (AF) and arterial hypertension. These are the two top risk factors for getting a stroke or heart disease. It is important to detect AF and hypertension at an early stage, even though you may not experience any symptoms. AF screening in general and thus also with the Microlife AFIB algorithm, is recommended for people of 65 years and older. The AFIB algorithm indicates that atrial fibrillation may be present.

For this reason, it is recommended that you visit your doctor when the device gives an AFIB signal during your blood pressure measurement. The AFIB algorithm of Microlife has been clinically investigated by several prominent clinical investigators and showed that the device detects patients with AFIB at a certainty of 9 7-100%. 1,2

If you have any questions, or 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. Kearley K, Selwood M, Van den Bruel A, Thompson M, Mant D, Hobbs FR et al.: Triage tests for identifying atrial fibrillation in primary care: a diagnostic accuracy study comparing single-lead ECG and modified BP monitors. BMJ Open 2014; 4:e004565. Wiesel J, Arbesfeld B, Schechter D: Comparison of the Microlife blood pressure monitor with the Omron blood pressure monitor for detecting atrial fibrillation. Am J Cardiol 2014; 114:1046-1048.

Important facts about blood pressure and self-measurement

- Blood pressure is the pressure of the blood flowing in the arteries generated by the pumping of the heart. Two values, the systolic (upper) value and the diastolic (lower) value, are always measured.
- The device indicates the pulse rate (the number of times the heart beats in a minute).
- Permanently high blood pressure values can damage your health and must be treated by your doctor!
- Always discuss your values with your doctor and tell them if you have noticed anything unusual or feel unsure. Never rely on single blood pressure readings.
- There are several causes of excessively high blood pressure values. Your doctor will explain them in more detail and offer treatment where appropriate.
- Under no circumstances should you alter the dosages of drugs or initiate treatment without consulting your doctor.
- Depending on physical exertion and condition, blood pressure is subject to wide fluctuations as the day progresses. You should therefore take your measurements in the same quiet conditions and when you feel relaxed!
- Take at least two readings every time (in the morning: before taking medications and eating / in the evening: before going to bed, bathing or taking medication) and average the measurements.
- It is quite normal for two measurements taken in quick succession to produce significantly different results.

Therefore we recommend using the MAM technology.

- Deviations between measurements taken by your doctor or in the pharmacy and those taken at home are quite normal, as these situations are completely different.
- Several measurements provide much more reliable information about your blood pressure than just one single measurement. Therefore we recommend using the MAM technology.
- Leave a small break of at least 15 seconds between two measurements.
- If you suffer from an irregular heartbeat, measurements taken with this device should be evaluated by your doctor.
- The pulse display is not suitable for checking the frequency of heart pacemakers!
- If you are pregnant, you should monitor your blood pressure regularly as it can change drastically during this time.
- This monitor is specially tested for use in pregnancy and pre-eclampsia. When you detect unusually high readings in pregnancy, you should measure after a short while again (eg. 1 hour). If the reading is still too high, consult your doctor or gynecologist.
- In pregnancy, the AFIB symbol can be ignored

How do I evaluate my blood pressure
Table for classifying home blood pressure values in adults by the international Guidelines (ESH, ESC, JSH).

Range		Systolic	Diastolic	Recommendation
1.	blood pressure normal	**< 120**	**< 74**	Self-check
2.	blood pressure optimum	**120 - 129**	**74 - 79**	Self-check
3.	blood pressure elevated	**130 - 134**	**80 - 84**	Self-check
4.	blood pressure too high	**135 - 159**	**85 - 99**	Seek medical advice
5.	blood pressure dangerously high	**≥ 160**	**≥ 100**	Urgently seek medical advice!

Data in mmHg.
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».

Important Facts about Atrial Fibrillation (AF)

What is Atrial Fibrillation (AF)?
Normally, your heart contracts and relaxes to a regular beat. Certain cells in your heart produce electrical signals that cause the heart to contract and pump blood. Atrial fibrillation occurs when rapid, disorganized electrical signals are present in the heart's two upper chambers, called the atria; causing them to contract irregularly (this is called fibrillation). Atrial fibrillation is the most common form of heart arrhythmia. It often causes no symptoms, yet it significantly increases your risk of stroke. You'll need a doctor to help you control the problem. AF detection is

only activated in AFIB/MAM mode.

Who should be screened for Atrial Fibrillation?
AF screening is recommended for people over 65 years of age since the chance of having a stroke increases with age. AF screening is also recommended for people from the age of 50 years who have high blood pressure (e.g. SYS higher than 159 or DIA higher than 99) as well as those with diabetes, coronary heart failure or for those who have previously had a stroke. In young people or pregnancy, AF screening is not recommended as it could generate false results and unnecessary anxiety. In addition, young individuals with AF have a low risk of getting a stroke as compared to elder people.

For more information visit our website: **www.microlife.com/afib**.
Microlife AFIB detection provides a convenient way to screen for AF (only in AFIB/MAM mode) Knowing your blood pressure and knowing whether you or your family members have AF can help reduce the risk of stroke. Microlife AFIB detection provides a convenient way to screen for AF whilst taking your blood pressure.

Risk factors you can control
Early diagnosis of AF followed by adequate treatment can significantly reduce the risk of getting a stroke. Knowing your blood pressure and whether you have AF is the first step in proactive stroke prevention.

Inserting the batteries
After you have unpacked your device, first insert the batteries. The battery compartment AT is on the bottom of the device. Insert the batteries (4 x 1.5 V, size AA), 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 2. To confirm and then set the month, press the time button 5.
2. Press the M-button to set the month. Press the time button to confirm and then set the day. Follow the instructions above to set the day, hour and minutes.
3. Once you have set the minutes and pressed the time button, the date and time are set and the time is displayed.
4. If you want to change the date and time, press and hold the time button for approximately. 3 seconds until the year number starts to flash. Now you can enter the new values as described above.

Selecting the correct cuff
Microlife offers different cuff sizes. Select the cuff size to match the circumference of your upper arms (measured by close fitting in the centre of the upper arm).

Cuff size	for circumference of upper arm
S	17 - 22 cm
M	22 - 32 cm
M - L	22 - 42 cm
L	32 - 42 cm
L - XL	32 - 52 cm

Only use Microlife cuffs

- Contact your local Microlife Service if the enclosed cuff 6 does not fit.
- Connect the cuff to the device by inserting the cuff connector 7 into the cuff socket 4 as far as it will go.

Selecting standard or AFIB/MAM mode
This device enables you to select either standard (standard single measurement) or AFIB/MAM mode (automatic triple measurement). To select standard mode, slide the AFIB/MAM switch AK on the side of the device downwards to position «1» and select
AFIB/MAM mode, slide this switch upwards to position «3».

AFIB/MAM mode
In AFIB/MAM mode, 3 measurements are automatically taken in succession and the result is then automatically analysed and displayed. Because blood pressure constantly fluctuates, a result determined in this way is more reliable than one produced by a single
measurement. AF detection is only activated in AFIB/MAM mode.

- After pressing the ON/OFF button 1, the MAM-symbol AP appears in the display.
- 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 countdown indicates the remaining time.
- The individual results are not displayed. Your blood pressure will only be displayed after all 3 measurements are taken.
- Do not remove the cuff between measurements.
- If one of the individual measurements is questionable, a fourth one is automatically taken.
- AF detection is only activated in AFIB/MAM mode.

Taking a blood pressure measurement
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 your feet flat on the floor and do not cross your legs.
3. Always measure on the same arm (normally left). It is recommended that doctors perform double arm measurements on a patient’s first visit to determine which arm to measure in the future.
4. The arm with the higher blood pressure should be measured.
5. 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.
6. Always ensure that the cuff is positioned correctly, as shown in the pictures illustrated on the short instruction card.
7. Fit the cuff comfortably but not too tight. The cuff will cover a wrist circumference according to the information in the «Technical specifications».
8. Support your arm in a relaxed position and ensure that the device is at the same height as your heart.
9. Press the ON/OFF button 1 to start the measurement.
10. 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.
11. When the correct pressure is reached, the pumping stops and the pressure falls gradually. If the required pressure is not reached, the device will automatically pump some more air into the cuff.

12. During the measurement, the heart symbol BT flashes in the display and a beep sounds every time a heartbeat is detected.
13. The result, comprising the systolic AM and the diastolic AN blood pressure and the pulse rate AO is displayed and a long beep is heard. Note also the explanations on further display symbols in this booklet.
14. 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.).

How not to store a reading
As soon as the reading is displayed press and hold the ON/OFF button 1 until «M» AS is flashing. Confirm to delete the reading by pressing the M-button 2. Appearance of the Atrial Fibrillation Indicator for Early Detection (Active only in AFIB/MAM mode) This device can detect atrial fibrillation (AF). This symbol BK indicates that atrial fibrillation was detected during the measurement. Please refer to the next paragraph for information regarding the consultation with your doctor.

- You can stop the measurement at any time by pressing the ON/OFF button or opening the cuff (e.g. if you feel uneasy or have an unpleasant pressure sensation).
- You can stop the measurement at any time by pressing the ON/OFF button (e.g. if you feel uneasy or have an unpleasant pressure sensation).
- If the systolic blood pressure is known to be very high, 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.
- Information for the doctor on the frequent appearance of the atrial fibrillation indicator
- This device is an oscillometric blood pressure monitor that also analyses pulse irregularity during measurement. The device is clinically tested.
- The AFIB symbol is displayed after the measurement if atrial fibrillation occurred during the measuring.
- If the AFIB symbol appears after having performed a full blood pressure measurement episode (triplicate measurements), the patient is advised to perform another measurement episode (triplicate measurements).
- If the AFIB symbol appears again, we recommend the patient seek medical advice.
- If the AFIB symbol appears on the screen of the blood pressure monitor, it indicates the possible presence of atrial fibrillation.
- The atrial fibrillation diagnosis, however, must be made by a cardiologist based on ECG interpretation.
- In the presence of atrial fibrillation, the diastolic blood pressure value may not be accurate.
- In the presence of atrial fibrillation using MAM-mode is recommended for more reliable blood pressure measurement.
- Keep the arm still during measuring to avoid false readings.
- This device may not or wrongly detect atrial fibrillation in people with pacemakers or defibrillators.

The traffic light indicator in the display
The bars on the left-hand edge of the display BN show you the range within which the indicated blood pressure value lies. Depending on the height of the bar, the readout value is either within the optimum (green), elevated (yellow), too high (orange) or dangerously high (red) range. The classification corresponds to the 4 ranges in the table as defined by the international guidelines (ESH, ESC, JSH), as described in «Section 1.».

PC-Link functions
This device can be used in conjunction with a personal computer (PC) running the Microlife Blood Pressure Analyzer+ (BPA+) software. The memory data can be transferred to the PC by connecting the monitor via a cable.

If no download voucher and cable are included download the BPA+ software from www.microlife.com/software and use a USB cable with a Mini-B 5-pin connector During the connection, the device is completely controlled by the computer.

Data memory
This device automatically stores the last 200 measurement values. Viewing the stored values Press the M-button 2 briefly when the device is switched off. The display first shows «M» AS and then a value, e.g. «M 17». This means that there are 17 values in the memory. The device then switches to the last stored result. Pressing the M-button again displays the previous value. Pressing the M-button repeatedly enables you to move from one stored value to another.

Memory full
Pay attention that the maximum memory capacity of 200 memories is not exceeded. When the 200 memory is full, the oldest value is automatically overwritten with the 201 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» appears and then release the button. To permanently clear the memory, press the M-button while «CL» is flashing. Individual values cannot be cleared.

Battery indicator and battery change

Low battery
When the batteries are approximately ¾ empty the battery symbol 18 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 i& 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 ID at the back of the device.
2. Replace the batteries – ensure correct polarity as shown by the symbols in the compartment.
3. To set a date and time, follow the procedure described in Section «Using the device for the first time».
4. The memory retains all values although the date and time must be reset – the year number therefore flashes automatically after the batteries are replaced.
5. Which batteries and which procedure? Use 4 new, long-life 1.5 V, size AA alkaline batteries.
6. 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.

Using a mains adapter
You can operate this device using the Microlife mains adapter (DC 6V, 600mA). < Only use the Microlife mains adapter available as an orig- final accessory appropriate for your supply voltage. Ensure that neither the mains

adapter nor the cable are damaged.

1. Plug the adapter cable into the mains adapter socket 8) in the blood pressure monitor.
2. Plug the adapter plug into the wall socket. When the mains adapter is connected, no battery current is consumed.

Error messages
If an error occurs during the measurement, the measurement is interrupted and an error message. e.a. «ERR 3». is disolaved. 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.

Error	Description	Potential cause and remedy
«ERR 1»	Signal too weak	The pulse signals on the cuff are too weak. Re-position the cuff and repeat the measurement.*
«ERR 2» ㉒	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» ㉓	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.
«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.*
«ERR 6»	AFIB/MAM Mode	There were too many errors during the measurement in AFIB/MAM mode, making it impossible to obtain a final result. Read through the checklist for taking a reliable measurement 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.*

Safety, care, accuracy test and disposal
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 it 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.
- The cuffs are sensitive and must be handled with care.
- Only pump up the cuff once fitted.
- Do not use this device if you think it is damaged or notice anything unusual.
- Never open this device.
- Read the additional safety information provided within the individual sections of this instruction manual.

- The measurement results given by this device are not a diagnosis. It does not replace the need for the consultation of a physician, especially if not match 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.

Contra-indication
Do not use this device if the patient's condition meets the following contra-indications, to avoid inaccurate measurements or injuries.

- The device is not intended for measuring blood pressure in pediatric patients of age younger than 12 years old (children, infants, or neonates).
- The 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.
- 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.
- Patient motions during measurement may interfere with the measurement process and influence results.
- Avoid taking measurements of patients with conditions, diseases, and susceptible to environmental conditions that lead to incontrollable motions (e.g. trembling or shivering) and inability to communicate clearly (for example children and unconscious patients).
- The device uses an oscillometric method to determine blood pressure. The arm being measured should have normal perfusion. The device is not intended to be used on a limb with restricted or impaired blood circulation. If you suffer from perfusion or
  blood disorders, consult your doctor before using the device. Avoid measuring the arm on the side of a mastectomy or lymph node clearance.
- Do not use this device in a moving vehicle (for example in a car or on an aircraft).
- Indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.
- This device may only be used for the intended uses described in this Instructions for Use. The manufacturer cannot be held liable for damage caused by incorrect application.
- DO NOT change the patient's medication and treatment based on the result of one or multiple measurements. Treatment and medication changes should be prescribed only by a medical professional.
- 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. Extended interruption of blood flow reduces peripheral circulation and may cause tissue injury. Beware of signs (for example tissue discoloration) of impeded peripheral circulation
  if taking measurements continuously or for an extended period.
- Prolonged exposure to cuff pressure will reduce peripheral perfusion and may lead to injury. Avoid situations of extended cuff pressurization beyond normal measurements. In the case of abnormally long pressurization, abort the measurement or lose the cuff to depressurize the cuff.

- DO NOT use this device in oxygen oxygen-rich environment or near flammable gas.
- The device is not water-resistant or waterproof. Do not spill or immerse the device in water or other liquids.

Do not dissemble or attempt to service the device, accessory and parts, during use or in storage. Access to the device's 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. Keep the device away from children and people incapable of operating the device. Beware of the risks of accidental ingestion of small parts and strangulation with the cables and tubes of this device and accessories.

CAUTION
Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient, or cause damage to the device or other property.

- The device is intended only for measuring blood pressure at the upper arm. Do not measure other sites because the reading does not reflect your blood pressure accurately.
- After a measurement is completed, loosen the cuff and rest for > 5 minutes to restore limb perfusion, before taking another measurement.
- DO NOT use this device with other medical electrical (ME) equipment simultaneously. This may cause device malfunction or measurement inaccuracies.
- Do not use this device in proximity of high-frequency (HF) surgical equipment, magnetic resonance imaging (MRI) equipment, and computerized tomography (CT) scanners.
- This may cause device malfunction and 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 «Technical specifications» may result in device malfunction and the safety of usage.
- 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
- Stop using this device and cuff and consult with your doctor if you experience skin irritation or discomfort.

Electromagnetic Compatibility Information
This device is compliant with EN60601-1-2: 2015 Electromagnetic Disturbances standard. This device is not certified to be used in the vicinity of High Frequency (HF) medical equipment. DO NOT use this device close to strong electromagnetic fields and portable radio frequency communication devices (for example microwave ovens and mobile devices). Keep a minimum distance of 0.3 m from such devices when using this device.

Device care
Clean the device only with a soft, dry cloth.

Cleaning the cuff
Carefully remove spots on the cuff with a damp cloth and soapsuds.
WARNING: Do not wash the cuff in a washing machine or dishwasher!

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 by the locally applicable regulations, not with domestic waste.

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 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/supportCompensation** 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 the guarantee does not prolong or renew the guarantee period. The legal claims and rights of consumers are not limited by this guarantee.

Technical specifications

Operating conditions:	10 - 40 °C / 50 - 104 °F 15 - 90 % relative maximum humidity
Storage conditions:	-20 - +55 °C / -4 - +131 °F 15 - 90 % relative maximum humidity
Weight:	393 g (including batteries)
Dimensions:	152 x 92 x 42 mm
Cuff size:	from 17 - 52 cm according to the cuff sizes (see «Selecting the correct cuff»)
Measuring procedure:	oscillometric, corresponding to Korotkoff method: Phase I systolic, Phase V diastolic
Measurement range:	SYS: 60 - 255 mmHg DIA: 40 - 200mmHg Pulse: 40 - 199 beats per minute
Cuff pressure display range:	0 - 299 mmHg
Resolution:	1 mmHg
Static accuracy:	within ± 3 mmHg
Pulse accuracy:	± 5 % of the readout value
Voltage source:	• 4 x 1.5 V alkaline batteries; size AA • Mains adapter DC 6V, 600mA (optional)
Battery lifetime:	approx. 920 measurements (using new batteries)
IP Class:	IP20
Reference to standards:	IEC 80601-2-30; IEC 60601-1; IEC 60601-1-2 (EMC); IEC 60601-1-11
Expected service life:	Device: 5 years or 10000 measurements, whichever comes first Accessories: 2 years or 5000 measurements, whichever comes first

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

Documents / Resources

	microlife S-V10 Microlife BP A2 Basic [pdf] Instruction Manual S-V10 Microlife BP A2 Basic, S-V10, Microlife BP A2 Basic, BP A2 Basic, A2 Basic, Basic

References

- The Most Iconic Photographs of All Time - LIFE
- Hypertension and Fever Management - Microlife AG
- Hypertension and Fever Management - Microlife AG
- Support - Microlife AG
- Preventief je gezondheid managen - Microlife Nederland - Microlife AG
- Advies of hulp nodig? | Microlife - Microlife AG
- User Manual