

WatchBP[®] home S

WatchBP Home S makes screening for AFIB and hypertension simple and convenient.

[Instruction Manual](#)



EN

microlife[®]

Microlife WatchBP Home S is the world's leading digital blood pressure measurement device for the early detection of atrial fibrillation (AF) and hypertension. These are the two top risk factors of heart disease and stroke which increase the risk of getting a stroke or heart disease in the future. It is important to detect AF and hypertension at an early stage, even though you may not experience any symptoms. Appropriate treatment can reduce your risk of suffering a stroke. For this reason, it is recommended that you visit your doctor when the WatchBP Home S 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 97-100% certainty.^{1,2}

¹ Stergiou GS, Karpettas N, Protogerou A, Nasothimiou EG, & Kyriakidis M. Diagnostic accuracy of a home blood pressure monitor to detect atrial fibrillation. *J Hum Hyperten* 2009; 1-5

² Wiesel J, Fitzig L, Herschman Y, & Messineo FC Detection of Atrial Fibrillation Using a Modified Microlife Blood Pressure Monitor. *Am J Hypertens* 2009; 848-852

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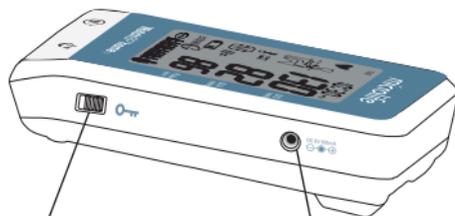
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Before using WatchBP Home S for the first time

Product description

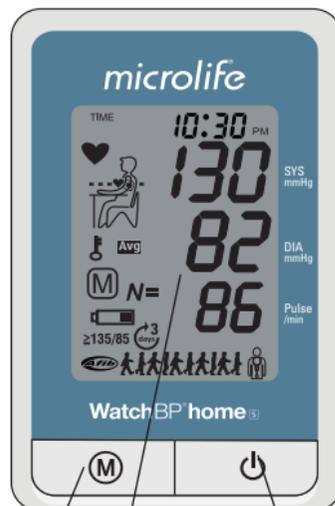


Cuff Socket



button lock switch

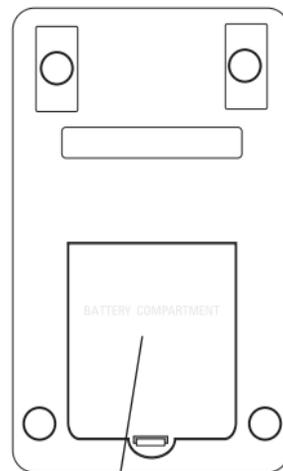
Power Socket



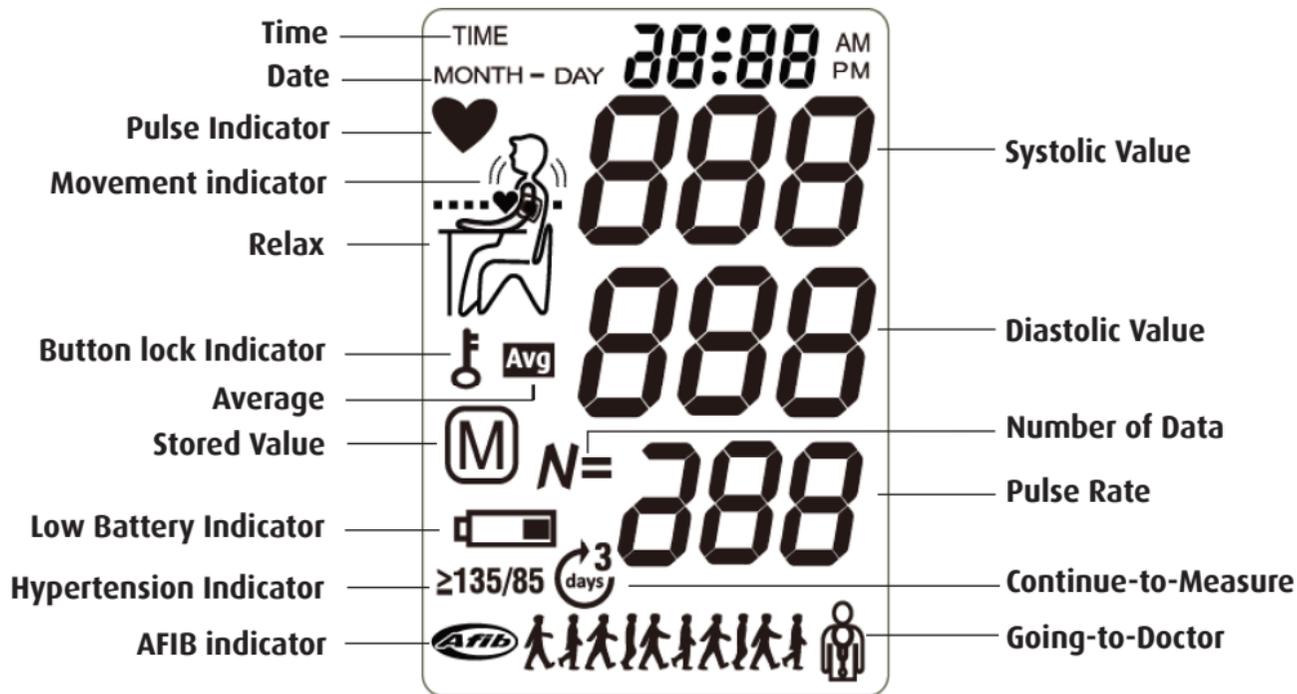
M Button (Memory)

Display

ON/OFF Button



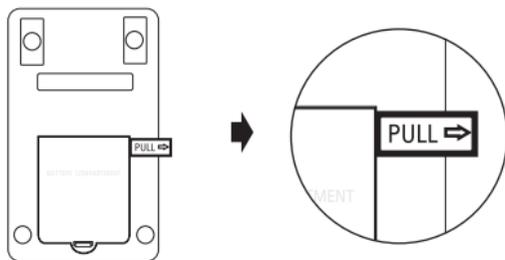
Battery Compartment



Before using WatchBP Home S for the first time

Activating the Device

Pull out the protective strip from the battery compartment.



Setting Up your Meter

1) **Set the year** – Upon removing the protective strip or installing new batteries, the year number flashes in the display. Use the M button to select the year. Press the ON/OFF button to confirm your selection.

*Press ON/OFF button to confirm
Press M button to make selection*



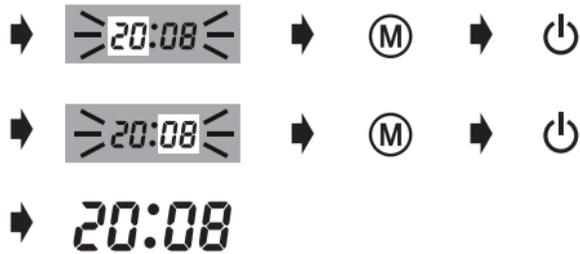
2) **Set the month** – Use the M button to set the month. Press the ON/OFF Button to confirm.



3) **Set the day** – Press the M button to set the day. Press the ON/OFF Button to confirm.



4) **Set the time** – Once you have set the hour and Minutes and pressed the ON/OFF button, the date and time are set, and the current time is displayed.

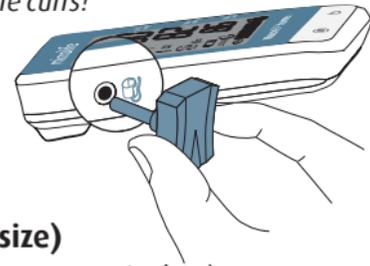


5) If you want to change the date and time, briefly take out and put back one battery from the battery compartment. The year number will flash. Complete the process as described above.

Selecting the correct cuff

The WatchBP Home S device is available with different cuff sizes. If you believe the cuff size provided with your device is incorrect, please contact Microlife.

**please use only Microlife cuffs!*



M (Medium size)

22 - 32 cm (8.75 - 12.5 inches)

M is the correct size for most people.



L (Large size)

32 - 42 cm (12.5 - 16.5 inches)

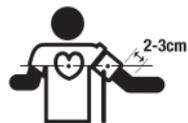
Taking measurements using WatchBP Home S

1) Before the measurement – Avoid taking measurements directly after eating, drinking or smoking. Prepare a chair and table for the measurement. The chair should have a vertical backrest and the table should allow for your upper arm to rest at the same height as your heart. Sit down and relax for at least 5 minutes before the measurement.



2) Applying the cuff – Remove all clothing covering or constricting the arm to be measured. Fit the cuff closely around the arm, but not too tight, and be placed 2~3cm above the elbow with the tube on the inside of the arm.

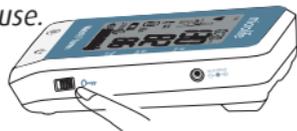
Support the arm at the same height as the heart during measurement.



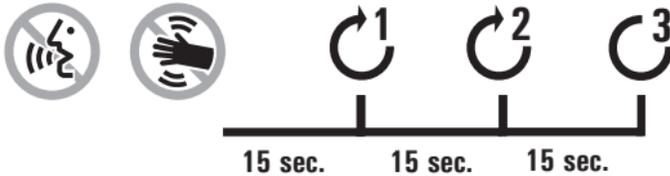
3) Start the measurement – Press the ON/OFF Button to start measurement. The cuff will inflate automatically.



**Prior to pressing the ON/OFF button, ensure that the button lock switch is at unlock. Switch to lock to avoid accidental activation of the buttons after use.*



4) **Automated triple measurement**– The WatchBP Home S automatically takes three consecutive measurements at 15 second intervals. Because blood pressure constantly fluctuates, a result determined in this way is more reliable than one produced by a single measurement. During the measurement do not move, cross your legs, or tense your arm muscles. Breathe normally and do not talk.



* The last three measurements will be saved for future review. Please refer to page 11 “viewing measurements”.

5) **Finishing the measurement**– Once the three readings are complete, the measured data is automatically averaged and displayed.

6) **Storing measurement data**- WatchBP Home S automatically stores the average of the 3 consecutive measurements, along with the date and time. A total of 30 average measurements can be stored. When memory is full, each new measurement will automatically overwrite the earliest measurement.

- * If one of the individual measurements was questionable, a fourth one would automatically be taken.
- * If the start/stop button is pressed during countdown it will start measuring immediately; if the start/stop button is pressed during measurement it will terminate the measurement; the reading or average readings from the measurements are displayed.

Appearance of the AFIB Indicator & Hypertension Indicator

1) AFIB Indicator– This device is able to detect atrial fibrillation (AF). If AFIB is present during blood pressure measurement, the AFIB Indicator  is displayed. It is highly recommended to take an additional measurement an hour later to increase the specificity of the detection. The Going-to-Doctor animation is triggered to remind you to visit your doctor for further examinations.



2) Hypertension Indicator– The Hypertension indicator is displayed if the average of blood pressures (BP) is greater than or equal to the cut-off point 135/85mmHg for systolic and diastolic BP. The indicator is displayed in three different conditions:

- (1) Both of the systolic and diastolic blood pressures are greater than or equal to 135/85mmHg.
- (2) The systolic BP is greater than or equal to 135mmHg.
- (3) The diastolic BP is greater than or equal to 85mmHg.

$\geq 135/85$

**SYS \geq 135 mmHg,
DIA \geq 85 mmHg**

$\geq 135/$

**SYS \geq 135 mmHg,
DIA $<$ 85 mmHg**

\geq /85

**SYS $<$ 135 mmHg,
DIA \geq 85 mmHg**

* Sometimes the device will detect atrial fibrillation even when it is not there. This can happen if the arm moves during the reading or another rhythm problem is present. Keep the arm still during the reading. Visiting your doctor with this device may be necessary to check out any rhythm problems.

* This device may not detect atrial fibrillation in people with pacemakers or defibrillators.

3) Continue-to-measure Indicator –

If the average of blood pressures (BP) is greater than or equal to the cut-off point 135/85mmHg for systolic and diastolic BP, a continue-to-Measure symbol  is displayed together with hypertension indicator to remind you to take another 3 days measurement period to optimally determine the height of your blood pressure. It is highly recommended to take another 3 days measurement period to get the usual level of blood pressure if the Continue-to-Measure Indicator is displayed. Do not share WatchBP Home S with others during the 3-day measurement session.

$$\geq 135/85 \text{ oder } \geq 135/ \text{ oder } \geq \quad /85 \quad \text{days}$$

4) **Going-to-doctor indicator** – If the 3-day average of blood pressure is still more than 135/85mmHg, either systolic BP or diastolic BP, the Going-to-doctor animation is triggered. This happens when the M button is pressed to recall the measurements. It is a reminder for you to visit your doctor.

$$\geq 135/85 \quad \text{Avg} \quad \text{oder} \quad \geq 135/ \quad \text{oder} \quad \geq \quad /85$$

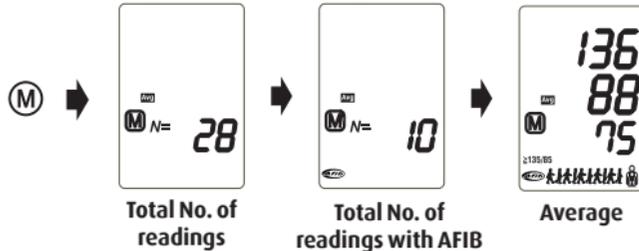

* 3 days don't need to be 3 consecutive days.

* In the monitoring of hypertension, the Going-to-doctor animation is triggered only if 3-day measurement session is complete.

Viewing and deleting measurements

Viewing measurements

1) When the M button is pressed, it displays the total number of measurements stored, e.g. N=28, followed immediately by the total number of measurements with AFIB and then the average of all the measurements. Every average reading can be viewed by pressing the M button repeatedly.

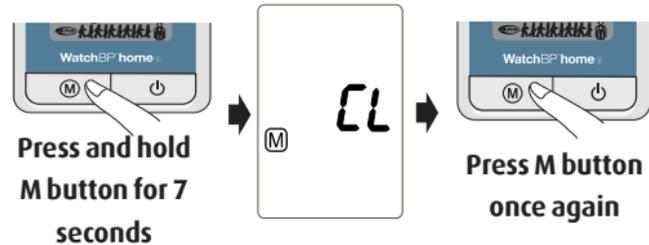


2) The last three individual measurements can be viewed by pressing and holding the M button until a "1" is displayed on the screen. The values will be displayed sequentially.

Deleting measurements

❖ Before deleting data, be sure that the measurement data is not required. When your BP values are too high or when your values show AFIB it is recommended to show your BP values to your doctor.

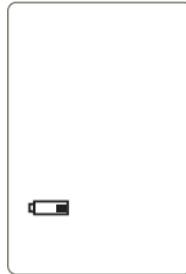
- 1) Press the M button and hold it for 7 seconds until the clear symbol **CL** shows up.
- 2) Release the M button and press it once more. This will delete all the measurements.



Batteries and power adaptor

Battery indicator

When the batteries have ¼ power supply left, the Battery Symbol will flash each time the device is switched on. Replace with new batteries when battery indicator appears.



Replacing new batteries

When the batteries need to be replaced, the Battery Symbol will flash each time the device is switched on.

- 1) Open the battery compartment at the back of the device.
- 2) Replace the batteries – ensure correct polarity as shown by the symbols in the compartment.

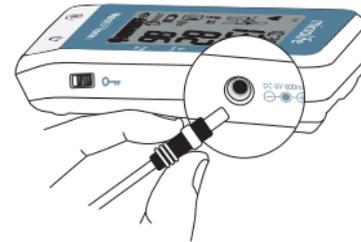
- ❖ Use 4 new, long-life 1.5V, size AA batteries.
- ❖ Do not use batteries beyond their date of expiry.
- ❖ Remove batteries, if the device will not be used for a prolonged period.

Using a power adaptor

The WatchBP Home S device can also be operated using a Microlife power adaptor (DC 6V, 600mA).

❖ Only use Microlife branded power adaptors.

- 1) Plug the adaptor cable into the Power Plug in the WatchBP Home S device.
- 2) Plug the adaptor plug into the wall socket. When the power adaptor is connected, no battery power is consumed.



Safety, care, accuracy test and disposal

Safety and protection

This device may be used only for the purpose described in this booklet. The device comprises of sensitive components and must be treated with caution. The manufacturer cannot be held liable for damage caused by incorrect application.



- Ensure that children do not use the device unsupervised; some parts are small enough to be swallowed.
- Only activate the pump when cuff is installed.
- Do not use the device if you think it is damaged or if anything appears unusual.
- Read the further safety instructions in the individual sections of the instruction manual.

Observe the storage and operating conditions described in the “Technical specifications” section of this manual.



Protect the device from water and moisture



Protect the device from direct sunlight



Protect the device from extreme heat and cold



Avoid proximity to electromagnetic fields, such as those produced by mobile phones



Never open device



Protect device from impact and drops

Device care

Clean the device with a soft, dry cloth.



Accuracy test

We recommend the WatchBP Home S device be tested for accuracy every 2 years or after mechanical impact (e.g. being dropped). Please contact Microlife to arrange for an accuracy test.

Cuff care

DO NOT wash the cuff. DO NOT iron the cuff cover.



Do not wash the cuff!



Do not iron the cuff!

Disposal



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

Error messages

If an error occurs during measurement, the measurement is interrupted and an error message «Err» is displayed.



- *Please contact your local Microlife service center, if this or any other problem occurs repeatedly.*
- *If you think the results are unusual, please read through the information in this instruction manual 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»	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»	No pressure in the cuff	An adequate pressure cannot be generated in the cuff. A leak may have occurred. 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 performing reliable measurements and then repeat the measurement.

«HI»	Pulse or cuff pressure too high	The pressure in the cuff is too high (over 300 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.

Important facts about AFIB and Blood Pressure

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 quickly fast and irregularly (this is called fibrillation). Atrial fibrillation is the most common form of heart arrhythmia or irregular heart beat. You can live with atrial fibrillation, but it can lead to other rhythm problems, chronic fatigue, heart failure and —worst of all — a stroke. You'll need a doctor to help you control the problem.

How does AF impact my family or myself?

One in every six strokes are AF-related. While individuals above the age of 65 are more likely to have AF, individuals as

young as 40 can exhibit AF. Early diagnosis can help reduce the risk of a stroke.

WatchBP Home S provides a convenient way to screen for AF

Knowing your blood pressure and knowing whether or not you or your family members have AF can help reduce the risk of stroke. WatchBP Home S provides a convenient way to screen for AF while taking your blood pressure.

Risk Factors You Can Control

High blood pressure and AF are both considered 'controllable' risk factors for strokes. Knowing your blood pressure and knowing whether or not you have AF is the first step in proactive stroke prevention.

Important facts about AFIB and Blood Pressure

Evaluating blood pressure data

The table on right classifies blood pressure data for adults in accordance to the guidelines of the European Society of Hypertension (ESH) in 2007. Data in mmHg.

The higher value is the one that determines the evaluation. Example: a readout value between **150/85** or **120/98** mmHg indicates «Grade 1 Hypertension».

Category	Systolic	Diastolic
Optimal	< 120	< 80
Normal	120 - 129	80 - 84
High normal	130 - 139	85 - 89
Grade 1 Hypertension	140 - 159	90 - 99
Grade 2 Hypertension	160 - 179	100 - 109
Grade 3 Hypertension	≥ 180	≥ 110
Isolated Systolic Hypertension	≥ 140	< 90

Technical specifications

- Operating temp.:**
- 10 - 40 °C / 50 - 104 °F
 - 15 - 90 % relative maximum humidity
- Storage temp.:**
- -20 °C to 55 °C / -4 °F to 131 °F
 - 15 - 90 % relative maximum humidity
- Weight:**
- 412 g (including batteries)
- Dimensions:**
- 154 x 94 x 40 mm
- Measuring Method:**
- Oscillometric
- Measurement range:**
- 30 - 280 mmHg – blood pressure
 - 40 - 200 beats per minute – pulse
- Cuff pressure display:**
- Range: 0 - 299 mmHg
 - Resolution: 1 mmHg
 - Static accuracy:
pressure within ± 3 mmHg or 2% of the reading above 200 mmHg
 - Pulse accuracy:
 ± 5 % of the readout value
- Voltage source:**
- 4 x 1.5 V alkaline batteries; size AA
 - Mains adapter DC 6V, 600 mA (optional)

Reference to standards:

Device corresponds to the requirements of the standard for non-invasive blood pressure monitor: EN 1060-1, EN 1060-3, EN 1060-4, IEC 60601-1, IEC 60601-1-2, IEC 60601-1-11

Battery lifetime:

approx. 920 measurements

IP20:

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

Expected service life:

5 years

Cuff:

2 years

Electromagnetic compatibility

Device fulfills the stipulations of the standard IEC 60601-1-2

The stipulations of the EU Directive 93/42/EEC for Medical Devices Class IIa have been fulfilled.

CE 0044

Microlife reserves the right to alter technical specifications without prior written notice.



Microlife AG, Espenstrasse 139
9443 Widnau, Switzerland

Guarantee card

This device is covered by a five-year guarantee from the date of purchase. This guarantee is valid only on presentation of the guarantee card completed by the owner confirming date of purchase or purchase receipt. Batteries, cuff and wearing parts are not covered by this guarantee.



Product: WatchBP Home S
Product Number: BP3MX1-5
Date:

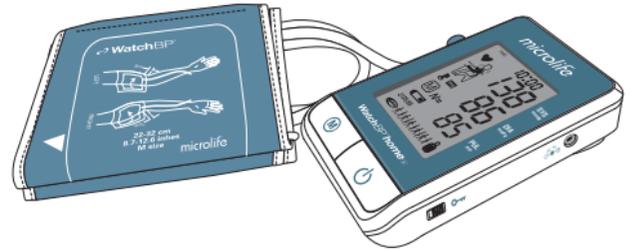
Name: _____

Address: _____

Date: _____

Telephone: _____

Email: _____



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Type BF applied part



Read the instruction manual carefully before using this device, especially the safety instructions, and keep the instruction manual for future use.

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