apo norm®
die marke der apotheke

Instructions for use

Upper arm

BASIS CONTROL

The number 1 blood pressure monitor
in German pharmacies*

Arrhythmia detection

Clinically validated

3 year WARRANTY

Also suitable for:

Diabetics

Kidney disease

Pregnant women

12+ Children

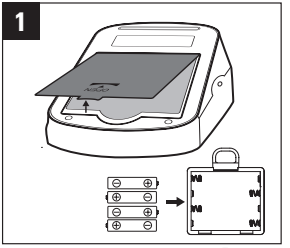
PRÜFSIEGEL Hochdruckliga
Messgenauigkeit klinisch validiert 2014/2016
Deutsches Kompetenzzentrum Bluthochdruck

technology by microlife®

*Top seller in German pharmacies, IMS Health Pharmatrend Database – digital blood pressure monitors, 2015 sales, date: 12/2015

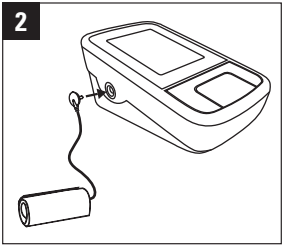
aponorm® Basis Control – Brief instructions

1



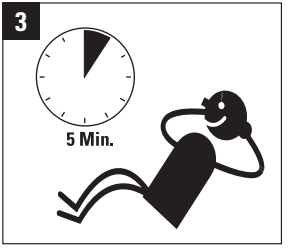
Insert the batteries supplied along with the monitor.

2



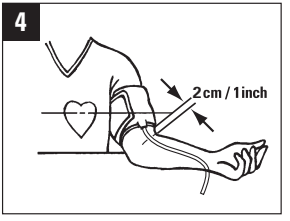
Connect the cuff.

3



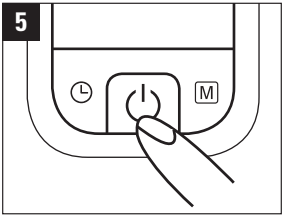
Relax for a few minutes before each measurement.

4



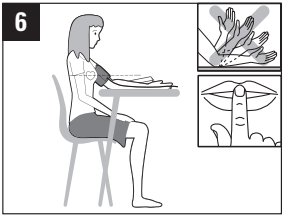
The cuff must come to sit approx. 2 cm above your arm bend. Extend your arm so that the cuff is at the same height as your heart.

5



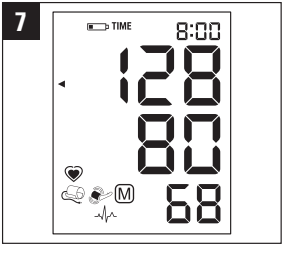
Start the measurement by pressing the Start/Stop button.

6



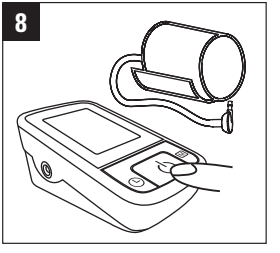
Do not talk, move, eat drink or smoke during the measurement.

7

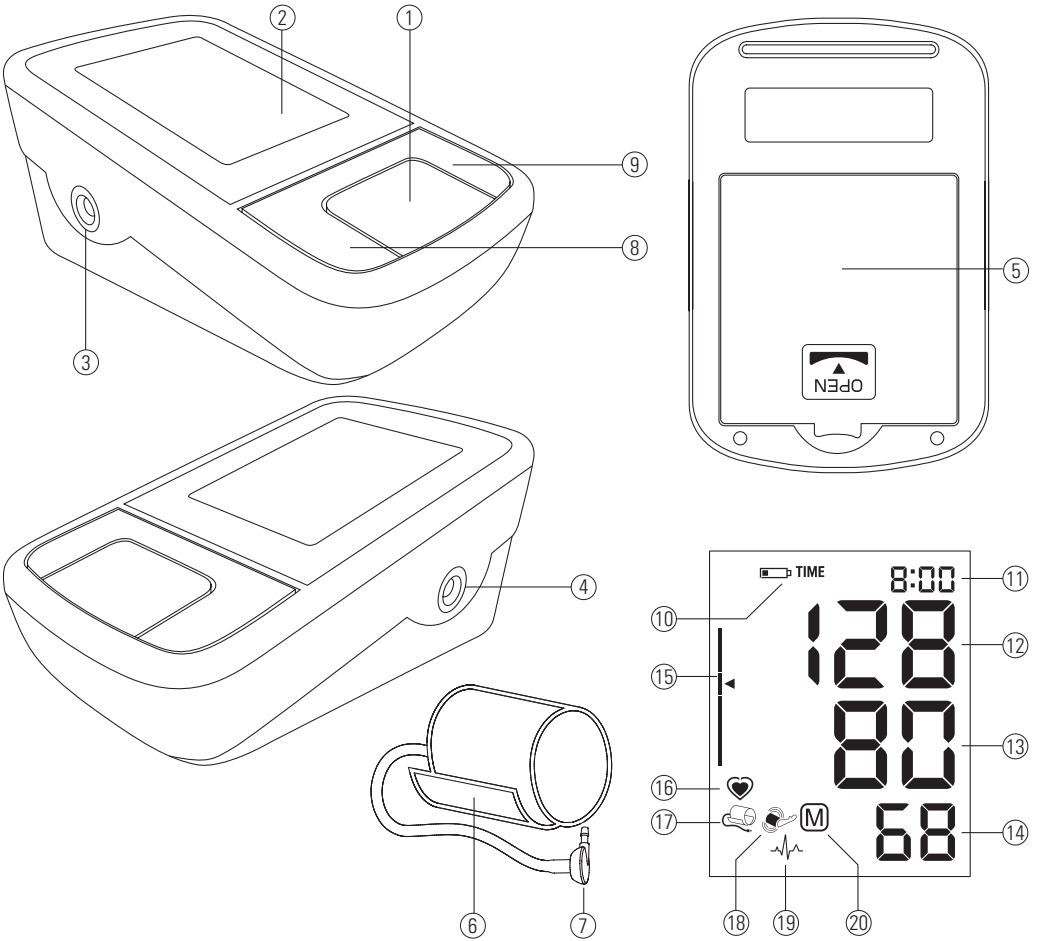


After the measurement the blood pressure values measured appear on the display.

8



Switch the monitor off. The measurements are stored automatically.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Switches, housing and accessories

① On/Off switch
② Display
③ Cuff socket
④ Mains adapter connector
⑤ Battery compartment
⑥ Cuff
⑦ Cuff connector
⑧ Time button
⑨ Memory button (M button)

Display

⑩ Battery indicator
⑪ Date/time
⑫ Systolic value
⑬ Diastolic value
⑭ Pulse rate
⑮ Blood pressure traffic light
⑯ Pulse rate measurement active
⑰ Cuff check indicator
⑱ Motion alarm
⑲ Heart arrythmia warning symbol (PAD)
⑳ Stored value

Important! Please observe the information in this booklet in order to prevent damages to the device and avoid error messages.

Protect from moisture.

Read the instructions carefully before using this monitor.

BF part

Dear Customer,

Your new **aponorm®** by microlife blood pressure monitor is a reliable medical device for taking measurements on the upper arm. It is simple to use, accurate and comes highly recommended for blood pressure monitoring in your home. This device was developed in collaboration with physicians and clinical tests carried out proving its measurement accuracy to be of a very high standard.*

Please read through these instructions carefully so that you understand all functions and safety information. We want you to be happy with your **aponorm®** by microlife product. If you have any questions, problems or want to order spare parts please contact **aponorm®** by microlife Customer Service. Your distributor or pharmacy will be able to give you the address of the **aponorm®** by microlife distributor in your country. Alternatively, visit the internet at www.aponorm.de where you will find a wealth of invaluable information on our products.

Stay healthy – **aponorm®** by microlife!

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

Table of Contents

1. Important Facts about Blood Pressure and Self-Measurement

- **Blood pressure** s 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 him/her if you have noticed anything unusual or feel unsure. **Never rely on blood pressure readings alone.**
- There are several causes of excessively high blood pressure values. Your doctor will explain them in more detail and offer treatment where appropriate. Besides medication, weight loss and exercise can also lower your blood pressure.
- **Under no circumstances should you alter the dosages of any drugs prescribed by 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 and in the evening) and average the measurements.
- It is quite normal for two measurements taken in quick succession to produce significantly different results.
- **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.
- **Leave a small break** of at least 15 seconds between two measurements.
- If you suffer from an **irregular heartbeat** (arrhythmia, see «Section 4.»), measurements taken with this device should be evaluated with 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 very closely as it can change drastically during this time!

☞ This monitor is specially tested for use in pregnancy and preeclampsia. When you detect unusual high readings in pregnancy, you should measure again after 4 hours. If the reading is still too high, consult your doctor or gynaecologist.

How do I evaluate my blood pressure?

Table for classifying home blood pressure values in adults in accordance with the international Guidelines (ESH, AHA, JSH). Data in mmHg.

Range		Systolic	Diastolic	Recommendation
	Blood pressure too low	**↓ 100**	**↓ 60**	Consult your doctor!
1.	Blood pressure optimum	**100 - 130**	**60 - 80**	Self-check
2.	Blood pressure elevated	**130 - 135**	**80 - 85**	Self-check
3.	Blood pressure too high	**135 - 160**	**85 - 100**	Seek medical advice
4.	Blood pressure dangerously high	**160 ↑**	**100 ↑**	Urgently seek medical advice!

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».

2. 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 (4 x size AA 1.5 V), 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 ⑨. To confirm and then set the month, press the time button ⑧.
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.

Selecting the correct cuff

aponorm® by 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 **aponorm®** by microlife cuffs.

- Connect the cuff to the device by inserting the cuff connector ⑦ into the cuff socket ③ as far as it will go.

3. Taking a Blood Pressure Measurement using this Device

Checklist for taking a reliable measurement

1. Avoid activity, eating or smoking immediately before the measurement.
2. Sit down for at least 5 minutes before the measurement and relax.
3. **Always measure on the same arm** (normally left). It is recommended that doctors perform double arm measurements on a patient's first visit in order to determine which arm to measure in the future. The arm with the higher blood pressure should be measured.
4. 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.
5. Always ensure that the correct cuff size is used (marking on the cuff).
   - Fit the cuff closely, but not too tight.
   - Make sure that the cuff is positioned 2 cm above the elbow.
   - The **artery mark** located 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. Press the ON/OFF button ① to start the measurement.
7. 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.
8. 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.
9. During the measurement, the pulse indicator ⑯ flashes in the display.
10. The result, comprising the systolic ⑫ and the diastolic ⑬ blood pressure and the pulse rate ⑭ is displayed.
11. When the device has finished measuring, remove the cuff.
12. Switch off the device. (The monitor does switch off automatically after approx. 1 min.).

How not to store a reading

Press the ON/OFF button ① while the reading is being displayed. Keep the button pressed until «**M**» ⑳ is flashing and then release it. Confirm by pressing the M button again.

☞ 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).

4. Appearance of the Pulse Arrhythmia Indicator for early Detection

This symbol ⑲ 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.

5. Traffic Light Indicator in the Display

The bars on the left-hand edge of the traffic light display ⑮show 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, AHA, JSH), as described in «Section 1.».

6. Data Memory

This device automatically stores the last 30 measurement values.

Viewing the stored values

Press the M button ⑨ briefly, when the device is switched off, to show the last stored value. Pressing the M button ⑨ again displays the previous value. Pressing the M button ⑨ repeatedly enables you to move from one stored value to another.

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**» appears and then release the button. To permanently clear the memory, press the M button while «**CL**» is flashing. Individual values cannot be cleared.

7. Battery Indicator and Battery Change

Low battery

When the batteries are approximately ¾ empty the battery symbol ⑩ 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 ⑩ 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 on the bottom 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 2.».

☞ 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 4 new, long-life 1.5V, size AA alkaline batteries. Use only batteries of one brand at a time.

☞ 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.

8. Using a Mains Adapter

You can operate this device using the **aponorm®** by microlife mains adapter (DC 6 V, 600 mA).

☞ Only use the **aponorm®** by microlife mains adapter available as an original accessory appropriate for your supply voltage.

☞ Ensure that neither the mains adapter or the cable are damaged.

1. Plug the adapter cable into the mains adapter socket ④ 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.

9. Error Messages

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

Error	Designation	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" ⑱	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" ⑰	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 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.*

** Please 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.

10. Safety, Care, Accuracy Test and Disposal

⚠ Safety and protection

- This device may only be used for the purposes described in this instruction. 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
  - 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, as they can impair its function. We recommend observing a minimum distance of 1 metre. If you cannot maintain the minimum distance please check the proper function of the device before use.
- 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 in the individual sections of this instructions.

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 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 the **aponorm®** by microlife Customer 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.

11. Warranty

This device is covered by a **3 year warranty** from the date of purchase. The warranty is valid only on presentation of the Warranty Card completed by the distributor (see back) confirming date of purchase or the receipt.

- Batteries and wearing parts are not included.
- Opening or altering the device invalidates the warranty.
- The warranty does not cover damage caused by improper handling, discharged batteries, accidents or non-compliance with the operating instructions.
- The cuff is included for the functional warranty only (tightness) for 2 years.

Please contact **aponorm®** by microlife Customer Service (see foreword).

12. Technical Specifications

Operating conditions:	10 - 40 °C / 50 - 104 °F 15 - 95 % relative maximum humidity
Storage conditions:	-20 - +55 °C / -4 - +131 °F 15 - 95 % relative maximum humidity
Weight:	340 g (including batteries)
Dimensions:	135,5 x 82 x 57 mm
Measuring procedure:	oscillometric, corresponding to Korotkoff method: Phase I systolic, Phase V diastolic
Measurement range:	20 - 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
Pulse accuracy:	± 5 % of the readout value
Voltage source:	• 4 x 1.5 V alkaline batteries, size AA • Mains adapter DC 6 V, 600 mA (optional)
Battery life:	approx. 920 measurements (new batteries)
IP class:	IP 20
Reference to standards:	EN 1060-1 /-3 /-4; IEC 60601-1-2 (EMC); IEC 60601-1-11
Expected service life:	Device: 5 years or 10,000 measurements; Accessories: 2 years

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

Technical alterations reserved.

aponorm® Basis Control – Warranty Card

Customer name _____

Serial number
of monitor (SN) 

Date of purchase _____

Pharmacy stamp and signature _____

Warranty Card

To be on the safe side: our aponorm® by microlife warranty.

Your new blood pressure monitor is a top-class precision medical device.
We warrant this with our name and our

Please refer to page 13 of the instructions for the terms of warranty in detail.

Tip:
In case you lost the instructions for use with the terms of warranty during your period of use of the device, you can at any time download them at **www.aponorm.de**.

aponorm®
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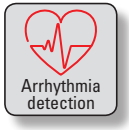
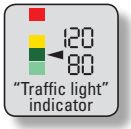
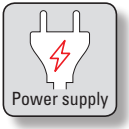
Overview of the device functions:







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