

BALANCE

KH 8097



GB Operating Manual
Blood pressure meter



CE 0197



- 1 Time / Date Display
- 2 Systolic Blood Pressure
- 3 Diastolic Blood Pressure
- 4 Pulse per Minute
- 5 Start / stop measuring process
- 6 Sequential memory recall
- 7 Time / Date: Adjust the setting;
Select memory block; Enter limit values
- 8 Time / Date: Select position; Confirm entered values
- 9 Number of saved measured values
- 10 Battery compartment

KH 8097

Blood pressure meter

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This manual is a product component. Please keep it in a safe place for later reference and, if the appliance is sold, pass it on to the new owner.

1. Intended Use

With the blood pressure meter KH 8097 you can quickly and easily measure your blood pressure, save the measured values, enter in limit values as well as display the progress and average of the last 3 measurements.

The appliance is intended for...

- checking your own blood pressure
- people over 18 years of age
- private use in the home.

The appliance is not intended for:

- measuring the blood pressure of children,
- for usage in professional or commercial care.

2. Package contents

- Blood pressure meter
- Storage box
- 2 Batteries (1,5 V, Typ AAA)
- Operating manual
- Warranty card

3. Important information for your health and safety:

The information contained in this handbook and that obtained from measurements with the appliance should not encourage you to make any forms of diagnosis, to treat health problems or to make any decisions about medications.

- The measurements taken by yourself can only be used for your information - they cannot be a substitute for examination by a doctor!
- Blood pressure is heavily influenced by time of day, physical exertion and other factors. Do not rely on individual measurements.

Diseases of the cardio-vascular system can result in erroneous measurements, as can very low blood pressure, circulatory disorder, arrhythmia, and other pre-existing conditions (for example, diabetes mellitus).

- Especially in such cases you should not rely on the measurement values determined by yourself!
- Under no circumstances should you abstain from having your blood pressure measured by a doctor in cases of known ailment, although the values shown by this appliance are without defect!

This blood pressure meter contains precision components and electronics. Measurement accuracy and the usable life of the appliance both depend on careful handling:


You must ...

- protect the appliance from knocks and from being dropped.
- use the appliance only in normal interior ambient conditions; protect it from humidity, dirt, exposure to excess heat or cold, and temperature fluctuations.
- keep it well away from electromagnetic fields such as mobile telephones, sound amplification systems or switched-on electrical appliances.

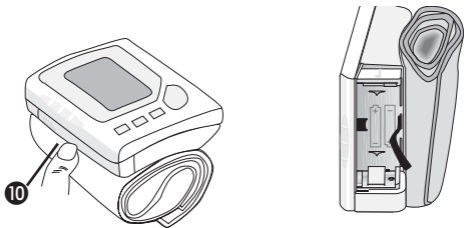
Do not inflate the pressure sleeve..

- if the appliance has not been fitted
- if the sleeve is twisted.

⚠ Important!

Do not press the button , unless the appliance has been fitted. Otherwise, inflation of the pressure sleeve might be set off inadvertently.

4. Insert / exchange batteries



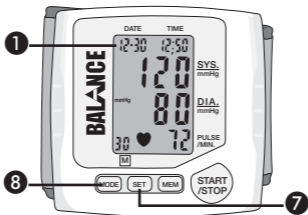
Replace the batteries when the appliance functions become faint, at the latest after 1 year. In this way you will prevent discharged batteries from leaking into the appliance.

- 10** Open the battery compartment, as illustrated.
- Insert the batteries exactly as marked in the battery compartment. Lay the strip underneath the batteries. Battery type: 1.5 V size "AAA".

⚠ Notice: Empty batteries must not be disposed of in the ordinary household garbage (poisonous heavy metals). Dispose of them at a collection point for old batteries or with your dealer.

5. Adjust date / time

- 8 This is necessary should you wish to save and evaluate your measurements. Press the button **(MODE)**.
- 1 The month and day as well as the time appear at the top of the display. You can move from one position to the next by pressing the button again. The currently selected position flashes.
- 7 Press the button **(SET)**, to change the value of the flashing position. In the time display, the second part of the day is indicated by a small letter “P” (for PM) under the colon character.
- 8 Then press the button **(MODE)**, to save the programmed details and change over to programming the systolic and diastolic value limits.



6. Enter limit values

- 1 After you have entered in the time and date, the first programmable limit value for systolic blood pressure blinks in the display.
- 7 Press the button **SET**, to raise the value in 5 mmHg steps. The adjustment range for systolic blood pressure lies between 70-250 mmHg.
- 8 Press the button **MODE**, to save this setting and move to programming the diastolic limit values.
- 7 Press the button **SET**, to raise the value in 5 mmHg steps. The adjustment range for diastolic blood pressure lies between 40-245 mmHg.
- 8 Press the button **MODE**, to save the setting. Repeat the last five instructions to enter the value limits for further users (2 + 3).
- 5 Press the button **START / STOP**, to discontinue the programming of limit values.

The programming of limit values into each of the 3 memory slots ("no. 1" to "no. 3") can also be carried out at a later time.

7. Fitting the appliance

Use the appliance only on persons whose wrist 'fits' the pressure sleeve. The sleeve must be attached lightly and closed firmly with the Velcro fastener.



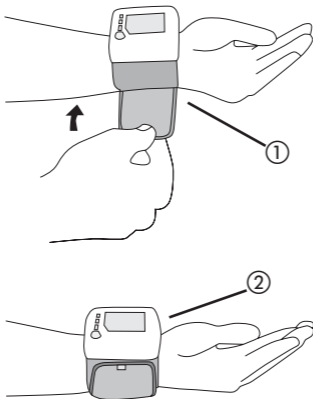
The sleeve is appropriate to a wrist perimeter of 135m-195mm.

If ...

- the wrist is too thin, it may not be possible to pump up the pressure sleeve sufficiently, and in this case an exact measurement is not possible.
- the wrist is too thick, it may not be possible to fasten the pressure sleeve firmly enough and, in this case also, it is not possible to obtain an exact measurement.

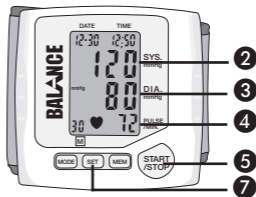
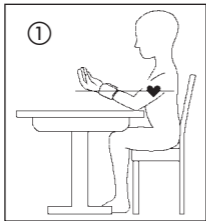
⚠ Caution: Do not use the appliance if you have any injuries or lesions to the wrist. These could be aggravated by pressure when the sleeve is pumped up.

A measurement of blood pressure can only be meaningful if the blood circulation has settled. You should take a seat and relax for 3 - 5 minutes before taking a measurement.



- ① **Notice:** Before taking the first measurement, remove the protective foil from the display.
- ① Place the appliance on the inside of the left wrist, as illustrated.
- ② Close the Velcro fastener firmly - but only sufficiently to ensure the sleeve is lying evenly.

8. Measuring blood pressure



It is important to avoid moving the appliance in any way while a measurement is being taken. The arm should be supported on a firm surface and held still. As far as possible, do not talk!

- ① Position the arm such that the appliance is at the same level as the heart. This is roughly a hand's breadth above the bottom of the rib cage.
- ⑤ Now press the button **START / STOP**.
- ⑦ Press the button **SET**, to programme the desired memory block (no.1 to no.3).
- ⑤ Press the button **START / STOP** again. All elements in the display appear shortly, then the desired memory block.

The measurement process starts with the pumping up of the sleeve.

⑤ To break off the measurement process press the button **START / STOP** again.

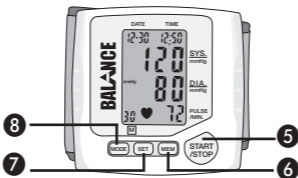
During measurement, air is gradually released from the sleeve. If the measurement fails at this point, the appliance may pump some more air into the sleeve. If a measurement is taken successfully, the remaining air is released and the display shows ...

- ② the „systolic“ blood pressure at the top, in healthy adults it lies between about 105-140 mmHg,
- ③ the “diastolic” blood pressure in the middle, in healthy adults it lies between about 60-90 mmHg,
- ④ the pulse measurement at the bottom.

The measured blood pressure as well as the programmed limit values are displayed alternatively. Should a limit value be exceeded (SYS or DIA) the appropriate value flashes in the display. Press the button **START / STOP** to change over to the Start display and possibly alter the programmed values.

The appliance is equipped with an automatic switch-off. Should a button not be activated within one minute, the appliance switches itself off. Press the button **START / STOP** , to switch the appliance back on.

9. Saving measured values



The appliance has three memory blocks (numbered 1 to 3), each with 30 memory locations. It can therefore save up to 30 measurements for 3 persons, or up to 90 measurements for one person. Additionally, the average of the last three measurements can also be displayed.

a) How to save a measurement

- 7 First of all, select "your" memory block. For this, repeatedly press the button (SET) until "your" memory block, „no.1“ to „no.3“, appears in the display.
- 5 When you now carry out the measurement process, as detailed in chapters 5 & 8, the results are saved into the selected memory block.

b) Recalling a previous measurement

- 7 First of all, select "your" memory block. For this, repeatedly press the button **SET**, until "your" memory block, „no.1“ to „no.3“, appears in the display.
- 6 Press the button **MEM** to call up the indicated memory block. There then appears on the lower display line an \bar{R} (= average) and, in alternating display, the average values of the last three measurements as well as the programmed limit values for the appropriate individual are shown.
- 6 Press the button **MEM** again. In the lower display screen the number of saved measurement values for the individual memory block are shown. Pressing again on the button **MEM** allows you to browse through all saved measurement results. The date and time of measurement for each is indicated.

c) Erasing stored measurements

- ⑦ When all memory spaces are occupied, the appliance automatically overwrites the oldest measurement. Should you however wish to erase all measured values, select first of all „your“ memory block.

For this, repeatedly press the button **SET** until "your" memory block, „no.1“ to „no.3“, appears in the display.

- ⑥ Press the button **MEM** to call up the indicated memory block.
- ⑦+⑧ Now press the buttons **SET** and **MODE** at the same time. *CLR* appears in the display. All measured values in „your“ memory block are now erased.

10. Cleaning and Care

- Carefully clean the equipment and pressure sleeve using a slightly damp cloth only.
- Do not use chemical agents or solvents for cleaning.
- Do not, under any circumstances, immerse the appliance in water, as fluids will penetrate through to the inside. This would cause irreparable damage to the appliance.

11. Storage and Disposal

Should you not use the appliance for a longer period of time remove the batteries to prevent possible damage by battery leakage. Keep the appliance only in the box supplied. Store it at a location that is both dry and protected from large temperature variations.



Do not dispose of the appliance in your normal domestic waste. If you wish to dispose of the appliance at a later time, take it to a recycling centre for electronic equipment.





ⓘ Notice: Empty batteries must not be disposed of in the ordinary household garbage (poisonous heavy metals). Dispose of these at a battery collection point or at your dealer.

12. Troubleshooting

Never open the casing – you will not be able to close it again correctly without a special tool. Do not carry out repairs by yourself! In case of problems, approach the Customer Service department. (see Warranty Card).

- If no display appears, although a button has been pressed: Remove the batteries and insert them again after a few seconds.
- If the sleeve pumps itself up continuously, press the button **START / STOP** to interrupt it. If you cannot stop the inflation process in this way, remove the sleeve immediately and take out the batteries.

What do the symbols on the display mean?

Symbol	Meaning	What is to be done?
	Appears as soon as a pulse is detected. If it does not appear, or unregularly, the identification is disrupted.	Keep the arm still - do not move or speak.
	Appears when the batteries are almost completely flat.	Replace the batteries as soon as the symbol appears. (see Chapter 4)
	Appears if the measurement could not be successfully completed.	Check the correct positioning of the sleeve (Chapter 7). Keep the arm still - do not move or talk.
	Measurement being taken	nothing - all ok.

13. Technical Data

Measurement range:	0-300 mmHg Pressure Pulse 40-200 beats / minute
Measurement accuracy:	+/- 3 mmHg Pressure Pulse +/- 5%
Inflation / deflation:	automatic
Pressure sleeve size:	for wrist circumference 135-195 mm
Operating temperature:	+10...40°C at 30...85% relative humidity
Storage temperature:	-20°C...+50°C at 10...95% relative humidity.
Power supply:	2 x Batteries 1,5 V Typ "AAA" for ca. 250 Measurements (Only Alkali batteries)
Memory:	3 blocks with 30 memory cells each
Dimensions:	70 x 72 x 29 mm (L x B x H)
Weight:	approx. 110 g

The CE trademark of the measuring appliance fulfills the EC Guideline 93/42/EEC. The blood pressure measuring device fulfills the European Regulations EN 1060 Part 1, EN 1060 Part 3 and IEC 60601-1-2.

14. Warranty and service

The warranty conditions and the service address can be found on the warranty card.

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