

BALANCE

KH 8090



GB **Operating Instructions**
Blood pressure meter

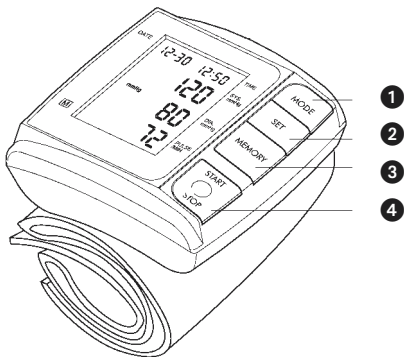


KH 8090

Blood pressure meter

ID No.: KH 8090-0204

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- 1 Time / Date: Select position
- 2 Time / Date: Adjust the setting; Select memory block
- 3 Recall stored values one after the other
- 4 Start / stop the measurement process

These instructions are an integral part of the product. Please keep them in a safe place for later reference and, if selling the appliance, pass them on to the new owner.

1. Intended use

With the KH 8090 blood pressure meter, you can quickly and easily measure your blood pressure, store measurements, and display measurement trends or average values.

The appliance is intended for...

- checking your own blood pressure
- persons over 18 years old
- private use in the home.

The appliance is not intended for:

- measuring the blood pressure of children,
- use within the range of medical devices covered by legislation (i.e. for the treatment, alleviation or prevention of illnesses, injuries, or disabilities),
- use in hospitals, clinics, nursing homes or similar institutions,
- professional or commercial care applications.

2. Be safe!

The information given in these instructions, and the blood pressure meter itself, should not lead you to believe that you can make your own diagnoses, treat possible health problems by yourself, or decide what drugs you should take.

- The measurements taken can be used only for your information - they cannot be a substitute for examination by a doctor!
- Blood pressure depends on 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, dysrhythmia, and other pre-existing conditions (for example, diabetes mellitus).

- In such cases especially, you should not trust to measurements you take by yourself!
- With known diseases, use of this appliance must not, in any circumstances, be a substitute for having your blood pressure taken by a doctor, even if the appliance shows seemingly harmless blood pressure levels.

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

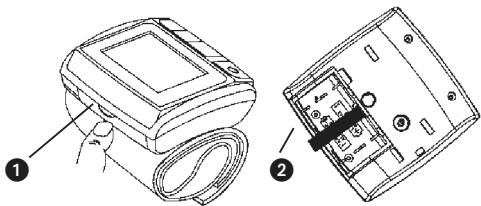
You should ...

- protect the appliance from knocks - do not drop.
- use the appliance only in normal interior ambient conditions; protect it from humidity, dirt, exposure to excess heat or cold, and temperature fluctuations.
- not use the appliance near electromagnetic fields; you should therefore keep it away from radio-frequency equipment (for example, mobile phones) or electrical appliances that are switched on.

Do not inflate the pressure sleeve..

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

Important: Do not press the **(START / STOP)** button until you have attached the appliance. Otherwise, inflation of the pressure sleeve might be set off inadvertently.



3. Inserting / changing the batteries

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

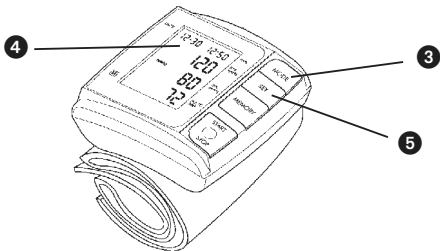
- 1 Open up the battery compartment as shown.
- 2 Place the batteries exactly as indicated in the battery compartment. Battery type: 1.5 V size "AAA".

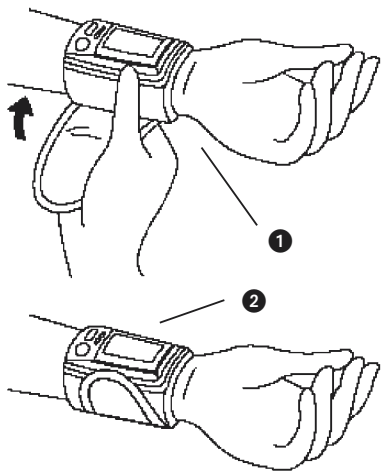
Note: Flat batteries do not belong with the household waste (they contain poisonous heavy metals). They should be disposed of at a collecting point for old batteries, or returned to your dealer.

4. Setting the clock

- 3 This is necessary if you wish to save your measurements and evaluate them. Press the **(MODE)** button .
- 4 The display shows the month, day, and time. You can jump from one position to the next by pressing the button again. The currently selected position flashes.
- 5 Press the **(SET)** button to change the value at the flashing position. For the clock time, the second part of the day is indicated by a small letter “P” (for PM) under the colon character.

The settings are stored when the last position is completed.





5. Attaching the appliance

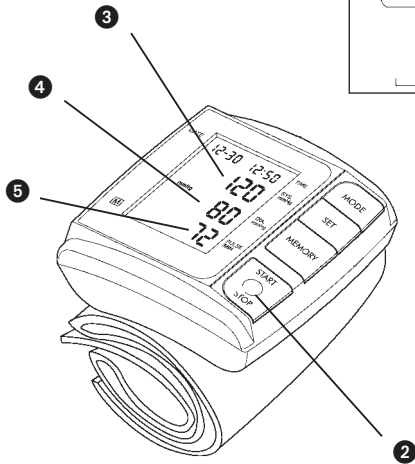
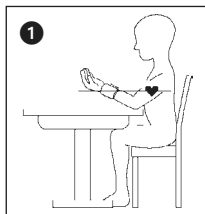
Use the appliance only on persons whose wrist 'fits' the pressure sleeve. The sleeve must be attached lightly and closed firmly with the Velcro fastener. If ...

- 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 too, an exact measurement is possible.

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

A measurement of blood pressure can only be meaningful if the blood circulation has settled. You should therefore be seated calmly, and wait for about 3 to 5 minutes before taking a measurement.

- 1 Attach the appliance to the inside of the wrist, as shown.
- 2 Close the Velcro fastener firmly, but in such a way that the sleeve is applied evenly all round.



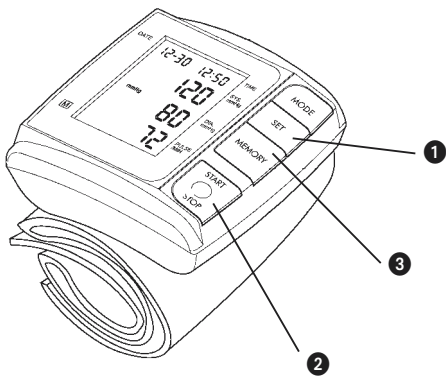
6. Measuring blood pressure

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 Hold the arm so that the appliance is at the same height as your heart. This is roughly a hand's breadth above the bottom of the rib cage.
- 2 Press the **(START / STOP)** button. All the display elements appear briefly, then the pressure sleeve is pumped up and the measurement process begins. To stop the process, press the button 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 ...

- 3 at the top, the "systolic" blood pressure: in healthy adults, this is usually between 105 and 140mmHG,
- 4 in the centre, : the "diastolic" blood pressure: in healthy adults, this is usually between 60 and 90 mmHG,
- 5 at the bottom, the measured pulse rate.



7. Saving your measurements

The appliance has three memory blocks (numbered 1 to 3), each with 30 memory locations. It can therefore store up to 30 measurements for 3 persons, or up to 90 measurements for one person.

a) How to save a measurement

- 1 First select 'your own' memory block. To do this, press the **SET** button as often as necessary until the display shows the number of 'your' memory memory block (one of block numbers 1 to 3).
- 2 If you carry out the measurement process now, as described in Chapters 5 and 6, the result is stored in the selected memory block.

b) Recalling a previous measurement

- 1 First select 'your own' memory block. To do this, press the **SET** button repeatedly until the display shows the number of 'your' memory memory block (one of block numbers 1 to 3).
- 3 Using the **MEMORY** button, you can now leaf through all saved measurements. The date and time of measurement is indicated for each.

c) Erasing stored measurements

Once all the memory locations are occupied, the appliance automatically overwrites the oldest measurement. It is therefore not absolutely necessary to erase memory locations. However, you can erase all the memories completely by ...

- taking out the batteries and inserting them again after a few seconds.

Afterwards, using the **MEMORY** button, check whether any of the memory locations are still occupied, and if so, repeat the process.

8. Care and cleaning

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

9. Storing and disposal

If you are not using the appliance over a long period, take out the batteries, as they may leak. Keep the appliance only in the box supplied. Store it in a dry place where it will not be exposed to temperature fluctuations. If you wish to dispose of the appliance at a later time, take it to a recycling centre for electronic equipment.

Note: Flat batteries do not belong with the household waste (they contain poisonous heavy metals). They should be disposed of at a collecting point for old batteries, or returned to your dealer.





10. If something goes wrong ...

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! If problems occur, please contact our customer service.

- If nothing appears on the display, even though you press and hold one of the buttons: Take out the batteries and insert them again after a few seconds.

- If the pressure sleeve does not stop inflating, stop it by pressing the **(START/STOP)** button. If you cannot stop the inflation process in this way, open up the sleeve immediately and take out the batteries.

What do the symbols on the display mean?

Symbol	Meaning	What to do
 Pulse	Appears as soon as a pulse beat is detected. If it does not appear, or appears irregularly, there is a detection fault.	Hold the arm steady – do not move or talk.
 Battery low	Appears if the battery is almost flat or if batteries have been inserted incorrectly.	Replace the batteries as soon as the symbol appears. (see Chapter 3)
 Measurement error	Appears if the measurement could not be completed successfully.	Check that the pressure sleeve is positioned correctly (see Chapter 5). Hold the arm steady – do not move or talk.
	Measurement being taken	nothing - all ok.

11. Technical data

Measurement range	Pressure 0-300 mmHg Pulse 40-200 Hz
Measurement accuracy.....	Pressure +/- 3 mmHg 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+50°C at 10...95% relative humidity.
Power supply	2 x 1.5 V batteries, size "AAA" for about 250 measurements
Memory	3 blocks with 30 memory cells each
Dimensions	70 x 72 x 29 mm (L x B x H)
Weight	140 g approx.
Delivery contents.....	appliance, storage box, 2 batteries, operating manual

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