

Instructions for use

Dear customers,

Thank you for choosing our products. Our name is synonymous with high quality, thoroughly tested products for use in the areas of energy consumption, body temperature, heart rate, gentle manual therapy, massage and air therapy. Please read this manual carefully and keep it for future reference, make sure it is available to other users and follow the instructions. Sincerely, Your Beurer Team

1. Introduction













Check that the Beurer BM 49 blood pressure monitor is stored in an undamaged packaging and that the contents are complete. Prior to use, make sure that the appliance and its accessories are not visibly damaged and that all packaging has been removed. If in doubt, do not use the appliance and contact your dealer or service center. The addresses of the service centers are given in the manual. The blood pressure meter on the arm is used for non-invasive measurement and control of arterial blood pressure values of adults. With its help you can quickly and easily measure your blood pressure, save the measured values and have the course and average of the measured values displayed.

You will be warned if you have any heart rhythm problems. The determined values are classified and graphically assessed according to WHO guidelines. Keep these operating instructions for future reference and make them available to other users.

2. Important instructions

Explanation of symbols

The following symbols are used in the operating instructions, on the packaging and on the nameplate of the device and accessories:

	Attention		Producer
	Notice Warning of important information	 Storage -20°C 50°C RH ≤85%	Permissible temperature and humidity during storage
	Follow the instructions for use	 Operating 10°C 40°C RH ≤85%	Permissible operating temperature and humidity
	Part for the use of type BF		Protect from moisture
	Direct current Disposal		Serial number
	according to EC directive on old electrical and electronic equipment 2002/96 / EC - WEEE (Waste Electrical and Electronic Equipment).		The CE mark confirms compliance with the essential requirements of Directive 93/42 / EEC for medical devices.

Instructions for use

- Always measure your blood pressure at the same time each day so that the values can be compared correctly.
- Rest for about 5 minutes before each measurement!
- If you want to perform several measurements on one person, then take a 5-minute break between each measurement.
- You should not eat or drink, smoke or exercise for at least 30 minutes before measuring.
- In case of uncertainty for the measured values, repeat the measurement.
- The values measured by you can only serve for your information, they do not replace a medical examination! Discuss the measured values with your doctor, in no case make your own medical decisions (eg medicines and their dosage) from the results!
- Do not use the blood pressure monitor in newborns and patients with preeclampsia. We recommend consulting a doctor before using a blood pressure monitor during pregnancy.
- In the case of cardiovascular disease, incorrect measurements could occur, or to adversely affect the accuracy of the measurement. This also happens with very low blood pressure, diabetes, circulatory and rhythm disorders, as well as chills or chills.
- The blood pressure monitor must not be used in conjunction with a high-frequency surgical device.
- Only use the device with people with an arm circumference suitable for this device.
- Be aware that the function of the limb in question may be adversely affected during inflation.
- Blood circulation must not be suppressed unnecessarily long when measuring blood pressure. In the event of a malfunction of the device, remove the cuff from the arm.
- Avoid mechanical squeezing, compression or kinking of the cuff hose.
- Avoid constant cuff pressure and frequent measurements. The resulting restriction of blood flow can lead to damage.
- Make sure that the cuff is not placed on the arm whose arteries or veins are undergoing treatment, such as intravascular intervention, or intravascular therapy or arteriovenous shunt (AV-).
- Do not attach the cuff to people who have undergone breast amputation.
- Do not apply the cuff to wounds that could cause further injury.
- You can use the blood pressure monitor with batteries or an AC adapter. Note that data transfer and storage is only possible if the blood pressure meter is powered. As soon as the batteries are empty or the mains supply is disconnected from the mains, the blood pressure meter loses the date and time.
- Auto Power Off turns off the blood pressure meter to save battery power if no button is pressed for 1 minute.
- The device may only be used for the purpose stated in these operating instructions. The manufacturer is not liable for damage caused by incorrect or incorrect use.

Storage and care instructions

The blood pressure meter consists of precise and electronic components. The accuracy of the measured values and the service life of the device depend on careful handling:

- Protect the device from shocks, humidity, dirt, strong temperature fluctuations and direct sunlight.
- The device must not fall on you.
- Do not use the device near strong electromagnetic fields, keep it away from radio equipment or mobile phones.
- Use only the supplied or original spare cuffs. Otherwise, incorrect values will be measured.
- Do not press the buttons unless the cuff is attached.
- We recommend that you remove the batteries if you will not be using the device for a long time.

Repair and disposal instructions

- Batteries do not belong in the household waste. Please dispose of used batteries at designated collection points.
- Do not open the device. Failure to do so will void the warranty.
- Do not repair or adjust the device yourself. In this case, perfect function is no longer ensured.
- Repairs may only be performed by customer service or authorized dealers. Before each complaint, first check the batteries and replace them if necessary.

- Dispose of the device in accordance with the EU Waste Electrical and Electronic Equipment (WEEE) Directive. In case of feedback, please contact the municipal disposal office.



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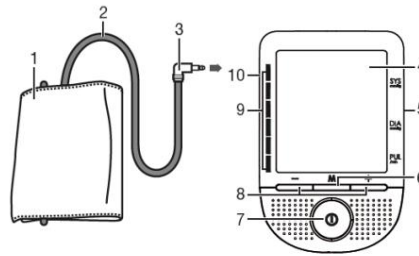
3. Device description

1. Cuff 2. Cuff hose 3.

Cuff plug 4. Display 5.

Adapter connection 6.

Memory button **M**



7. START / STOP button 8. ⓘ

Function buttons - / + 9. WHO

scale 10. Sleeve plug connection

1. Inflation, exhaust air 2. Systolic pressure 3. ∨

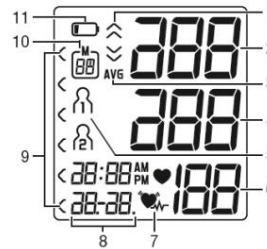
Display of stored data: average value (AVG), morning (AM), evening (PM)

4. Diastolic pressure

5. User memory 6.

Detected pulse value

7. Heart rhythm disorder symbol 8. Time and date 9. WHO classification



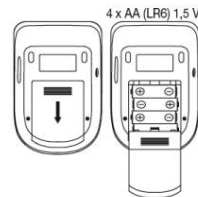
10. Memory location number

11. Battery replacement symbol

4. Preparing for the measurement Inserting the batteries

the batteries • Open the battery compartment cover.

• Insert four 1.5 V AA (alkaline type LR6) batteries. Be sure to insert the batteries with the correct polarity markings. Do not use rechargeable batteries. The message "The device is ready for operation, you can start measuring". • Then carefully close the battery cover. • With the batteries inserted, the device still shows the time and date.



If the battery replacement indicator appears Please and E6 no more measurements can be made. The device reads: "Battery very low."

replace the batteries. Once you remove the batteries from the device, you need to set the date, time and language again.

Discharged batteries do not belong in the household waste. Dispose of them through your electrical dealer or at your local collection point. You are required by law to do so.

Warning: Batteries containing harmful substances have the following marks: Pb: battery contains lead, Cd: battery contains cadmium, Hg: battery contains mercury.



Setting the date, time and language

In this menu you can individually set the following functions: **date** **time** **language** **volume** It is necessary to set the date and the

exact time. Only then can you save the measurement values correctly with the date and exact time and recall them later. The time is displayed in 24-hour format.

In addition, the device offers settings in 3 languages. When shipped, the device is set to Czech.

ⓘ If you keep the function keys pressed, you can set the corresponding values faster.

	<ul style="list-style-type: none"> Insert the batteries and hold down the memory button M for 5 seconds. The year starts flashing on the display. • Set the relevant year with the - / + function keys and confirm with the M key. • Set the month, day, hour and minute and always confirm the entry with the M memory key. 	<p>Voice output</p> <p>The device is ready for operation, you can start measuring.</p>
	<p>The L1 language display flashes on the display . • You can select the following languages with the - / + function keys , confirm your selection with the M key: L1 = Romanian L2 = Polish L3 = Slovak L4 = Hungarian L0 = language is switched off</p> <p> ⓘ L0 = language off means that there is no voice output and thus no acoustic reproduction.</p>	<p>Romania</p> <p>Polish</p> <p>Czech</p> <p>Hungarian</p>
	<p>The Vo1 volume display flashes on the display . • You can adjust the volume of the selected language with the - / + function keys, confirm your selection with the M key: Vo3 = loud Vo2 = medium loud Vo1 = quiet Operation with mains adapter This device can also be used with a mains adapter. In this case, there must be no batteries in the compartment. The power supply is available under order number 071.60 in a specialist shop or at a customer service address. • The blood pressure monitor may only be used</p>	<p>Voice output</p>

with the power supply described here to prevent possible damage to the device. • Plug the power supply into the appropriate socket

on the right side of the blood pressure monitor. The mains adapter may only be connected to the mains voltage specified on the type plate. • Then connect the mains plug to the socket. • After using the blood pressure monitor, first unplug the power supply from the outlet and then from the blood pressure monitor.

When you disconnect the AC adapter from the blood pressure monitor, the date and time are cleared. However, the stored measurement values are retained.

5. Blood pressure measurement

Allow the device to warm to room temperature before measuring.

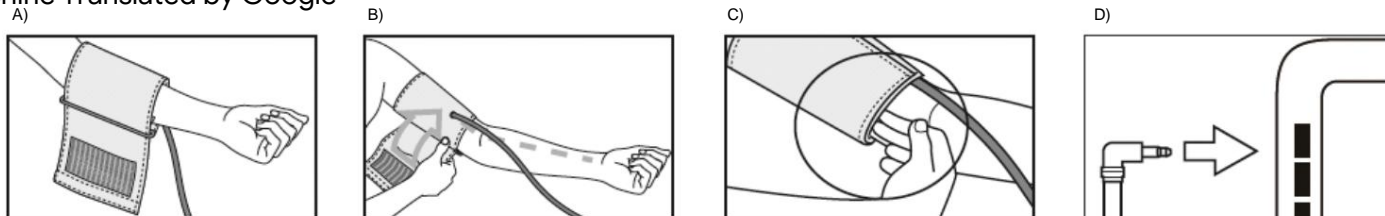
Applying the cuff A)

Place the cuff on the bare left arm. Blood circulation in the arm must not be restricted by narrow pieces of clothing, etc.

B) Place the cuff on the arm so that the lower edge lies 2-3 cm above the bend of the elbow and artery. The tube points to the center of the palm.

C) Now wrap the free end of the cuff around the arm, but not too tightly, and close the Velcro. The cuff should be attached so tightly that you can still push two fingers under the cuff.

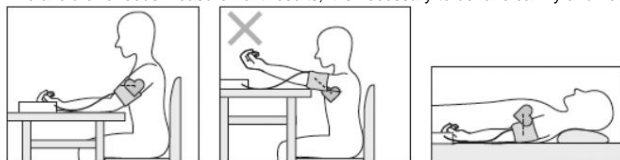
D) Now insert the sleeve hose into the sleeve plug connection.



Caution: You can only use the device with the original cuff. The cuff is suitable for an arm circumference of 22 to 36 cm. Under order number 163.387, a larger cuff for an arm circumference of 35 - 44 cm can be ordered in a specialist shop or at a service address.

Correct body posture

- Rest for about 5 minutes before each measurement! Otherwise, measurement inaccuracies may occur.
- You can measure either sitting or lying down. In any case, make sure that the cuff is at heart level.
- Sit comfortably when measuring blood pressure. Rest your back and arms. Do not cross your legs while sitting. The feet must touch the floor.
- To avoid erroneous measurement results, it is necessary to behave calmly and not talk during the measurement.



Memory selection

<ul style="list-style-type: none"> • Switch on the blood pressure monitor with the on / off switch. ⓘ • ⓘ The time and date are displayed even when the device is turned off. • Select the desired user memory by pressing the - / + function key. • ⓘ ⓘ The device has 2 memories, each with 60 memory locations for separate saving the measurement results of 2 different people. 	<p>Voice output when the voice guidance function is on</p> <p>The device is ready for operation, you can start measuring.</p> <p>User memory 1 User memory 2</p>
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Blood pressure measurement

<ul style="list-style-type: none"> • Attach the cuff as described above and take the position in which you want to measure. • Switch on the device with the on / off switch. ⓘ • The display is checked and all its parts are lit. • The blood pressure monitor turns on with a switch. The corresponding memory location is displayed. • The cuff inflates to 190 mmHg. Air pressure in the cuff slowly declining. With the already recognizable tendency to high pressure, the cuff still it blows once and the pressure increases once more. Once a pulse can be detected, flashing symbol. ♥ • You can end the measurement at any time by pressing the switch. ⓘ • The measurement results for systolic pressure, diastolic pressure and pulse are displayed. <p>During the announcement, you can change the volume using the - / + function buttons.</p> <ul style="list-style-type: none"> • E_ The symbol is displayed if the measurement could not be performed properly. Follow the instructions in the Error Message / Troubleshooting section of this user manual and repeat the measurement. <ul style="list-style-type: none"> • The measurement result is saved automatically. • The unit turns off automatically after 1 minute. <p>Wait at least 5 minutes before measuring again!</p>	<p>Voice output when the voice guidance function is on</p> <p>The device is ready for operation, you can start measuring.</p> <p>Systolic pressure ... mmHg Diastolic pressure ... mmHg Heart rate ... beats per minute</p> <p>According to WHO guidelines, you have</p> <ul style="list-style-type: none"> - optimal blood pressure - normal blood pressure - higher normal blood pressure - mild hypertension - moderate hypertension - severe hypertension
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6. Evaluation of results

Heart rhythm disorders:

This device can identify possible heart rhythm problems during the measurement and the symbol also warns of this after the measurement. When the voice guidance function is on, the device says "A heart rhythm defect has been detected. It may be a sign of an arrhythmia. An arrhythmia is a disease in which the heart rhythm is abnormal due to disorders in the bioelectric system that control the heartbeat. Symptoms (missed or premature heartbeats, slower or too fast heartbeat) can be caused, among other things, by heart disease, old age, physical disposition, excessive food, stress or lack of sleep. An arrhythmia can only be detected by your doctor. Repeat the measurement if the arrhythmia symbol appears on the display after the measurement. Make sure that you rest for 5 minutes before the measurement and do not talk or move during the measurement. If the symbol appears frequently, please contact your doctor. Self-diagnosis and treatment based on measurement results can be dangerous. Be sure to follow your doctor's instructions.

WHO classification:

According to the guidelines / definitions of the World Health Organization (WHO), the measurement results are classified and evaluated as shown in the following table:

Blood pressure range	Systola (v mmHg)	Diastole (in mmHg) Measures	
Grade 3: severe hypertension	>=180 160 -179 140-159	>=110	See a doctor
Grade 2: moderate hypertension	130-139 120-129 <120	100-109	See a doctor
Grade 1: mild hypertension		90-99	Regular check-ups with a doctor
High normal pressure		85-89	Regular check-ups with a doctor
Normal pressure		80-84	Self control
Optimal pressure		<80	Self control



Source: WHO, 1999

The bar graph on the display and the scale on the device show in which range the detected blood pressure is.

If the systole and diastole values are in two different WHO ranges (eg systole in the high normal range and diastole in the normal range), the WHO graphic distribution on the instrument will always show a higher value, in the example described "high normal".

7. Save, recall and delete measurement values

- ⓘ During the announcement, you can change the volume using the - / + function buttons.

	<p>The results are saved together with the date and time after each successful measurement. If there is more than 60 measurement data in the memory, the oldest data is currently deleted.</p> <ul style="list-style-type: none"> • Switch on the device with the on / off switch  • Select the desired user memory  by pressing the function buttons - / +. 	<p>Voice output when the function is on voice guide The device is ready for operation, you can start measuring.</p> <p>User memory 1 User memory 2</p>
	<ul style="list-style-type: none"> • Press the memory button M. First, the average value of all stored measurement values of this AVG user memory is displayed. • After pressing the memory button M again, the average value of the last 7 days of the morning measurement appears (morning: 5.00 - 9.00, AM display). • After pressing the memory button M again, the average value of the last 7 days of the evening measurement will appear (evening: 18.00 - 21.00, PM display). 	<p>Average value: Systolic pressure ... mmHg Diastolic pressure ... mmHg Heart rate ... heart rate behind minute According to WHO guidelines you have ...</p>
	<ul style="list-style-type: none"> • When the memory button M is pressed again, the last values of the individual measurements with the date and time of the measurement always appear. 	<p>A place in memory ... Systolic pressure ... mmHg Diastolic pressure ... mmHg Heart rate ... beats per minute According to WHO guidelines you have ...</p>
	<ul style="list-style-type: none"> • To clear the values from the corresponding memory, switch on the device first. Select the desired user memory. Press the function keys - and + simultaneously on 5 seconds. • The unit immediately enters standby mode (clock mode). 	<p>All values in memory have been cleared.</p>

8. Error messages / troubleshooting

In the event of a fault, the error message E_ appears on the display. Error messages may appear if

1. no pulse can be detected (E1),
2. you moved or talked during the measurement (E2),
3. the cuff is too tight or too loose (E3),
4. errors occur during the measurement (E4),
5. Inflation pressure exceeding 300 mmHg (E5);
6. the batteries are low (E6).

In these cases, repeat the measurement. Be careful not to move or talk. If necessary, reinsert or replace the batteries.

9. Cleaning and storing the device



- Carefully clean the blood pressure monitor only with a slightly damp cloth.
- Do not use any cleaning agents or solvents.
- Never wash the appliance under water, as it could get inside and damage it.
- Do not place any heavy objects on the device after storing it. Remove the batteries. The cuff hose must not be broken.

10. Technical parameters

Model no.	BM 49
Measurement method	oscillometric, non-invasive blood pressure measurement on the arm
Measurement range	Cuff pressure 0 - 300 mmHg, systolic 50 - 250 mmHg, diastolic 30 - 200 mmHg, Pulse 30 - 180 beats / minute
Display accuracy	systolic ± 3 mmHg, diastolic ± 3 mmHg, pulse $\pm 5\%$ of displayed value
Measurement uncertainty	max. permissible standard deviation according to the clinical trial: systolic pressure 8 mmHg / diastolic 8 mmHg
Memory Dimensions	2 x 60 memory locations
Weight Cuff size	d 145 mm x δ 96 mm x v 60 mm
Permissible operating	Approx. 264 g (without batteries) 22 to 36 cm
Permissible storage conditions	conditions +10 ° C to +40 ° C, $\dot{\gamma}$ 85% relative humidity (non-condensing)
Power supply	Permissible storage conditions -20 ° C to +50 ° C, $\dot{\gamma}$ 85% relative humidity, external pressure 800 -1050 hPa
Battery life	Power supply 4 x 1.5 V AA batteries (alkaline type LR6)
Accessories	Battery life for about 250 measurements, depending on blood pressure, or inflation pressure
Internal power supply classification	Instructions for use, 4 x 1.5 V AA batteries, storage case
Specifications are subject to change without notice due to updating.	IPX0, without AP or APG, continuous operation, application part type BF

- This device complies with the European standard EN60601-1-2 and is subject to special precautions regarding electromagnetic compatibility. Please note that portable and mobile high-frequency communication devices may affect this device. You can request more detailed information at the customer service address provided or read at the end of the operating instructions.
- The device complies with the EU Medical Products Directive 93/42 / EC, the Medical Products Act and the standards EN1060-1 (Non-invasive blood pressure monitors, part 1: General requirements), EN1060-3 (Non-invasive blood pressure monitors, part 3: Additional requirements for electromechanical blood pressure measuring systems) and IEC80601-2-30 (Medical electrical equipment, Part 2-30: Special safety provisions including main performance attributes of automatic non-invasive blood pressure monitors).
- The accuracy of this blood pressure monitor has been carefully checked and developed with a long, usable lifespan. When using the device in healthcare, carry out technical measurements by appropriate means. You can find out the exact details for checking accuracy service address.

11. Adapter

Model	No. FW 7575M / EU / 6/06
Input	100-240 V, 50-60 Hz
Output	6 V DC, 600 mA, only in combination with Beurer blood pressure monitors. Friwo equipment construction GmbH
Manufacturer Protection	The device has double protective insulation and is equipped with a primary thermal fuse that disconnects the device from the mains in the event of a fault.
	Before using the adapter, make sure that the batteries have been removed from the battery compartment. DC connection polarity
	Protective insulation / protection class 2

Housing and protective covers The housing of the adapter protects against contact with parts that are, resp. They could be, under current (fingers, needles, test hooks). The user must not touch the patient and the output plug of the AC adapter at the same time.

CONTACT TO THE SERVICE CENTER:

Exclusive importer and distributor for the Czech Republic and Slovakia:

BORGY CZ, a.s.

Complaints / service

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