

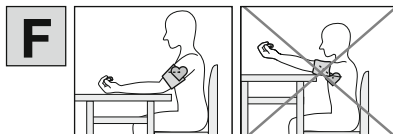
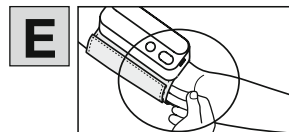
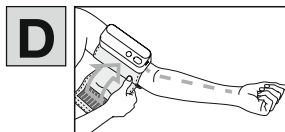
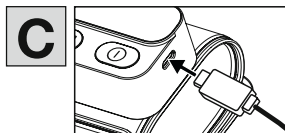
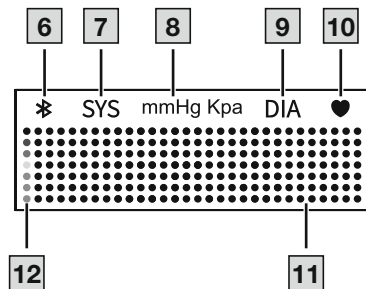
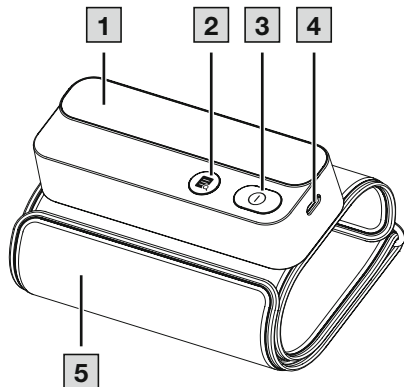
beurer

BM 59



EN Upper arm blood pressure
monitor
Instructions for use

CE 0483





Read these instructions for use carefully. Observe the warnings and safety notes. Keep these instructions for use for future reference. Make the instructions for use accessible to other users. If the device is passed on, provide the instructions for use to the next user as well.

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1. INCLUDED IN DELIVERY

Check that the exterior of the cardboard delivery packaging is intact and make sure that all contents are present. Before use, ensure that there is no visible damage to the device or accessories and that all packaging material has been removed. If you have any doubts, do not use the device and contact your retailer or the specified Customer Services address.

- Upper arm blood pressure monitor
- Upper arm cuff (22–42 cm)
- Battery, see chapter “Technical specifications”
- Quick guide
- Instructions for use
- Blood pressure pass
- USB-C cable

2. SIGNS AND SYMBOLS

The following symbols are used on the device, in these instructions for use, on the packaging and on the type plate for the device:

⚠ WARNING

Indicates a potentially impending danger. If it is not avoided, death or serious injury will occur.

⚠ CAUTION

Indicates a potentially impending danger. If it is not avoided, slight or minor injuries may occur.



Product information

Note on important information



Observe the instructions

Read the instructions before starting work and/or operating devices or machines



The electronic device must not be disposed of with household waste



Do not dispose of batteries containing harmful substances with household waste



Manufacturer



CE labelling

This product satisfies the requirements of the applicable European and national directives.



Marking to identify the packaging material.

A = material abbreviation, B = material number:
1-7 = plastics, 20-22 = paper and cardboard



Separate the product and packaging elements and dispose of them in accordance with local regulations.



Protection class II device



Device protected against foreign objects ≥ 12.5 mm and against water dripping at an angle



Direct current

The device is suitable for use with direct current only



Unique device identifier (UDI)

Identifier for unique product identification



Batch designation



Item number



Serial number



Medical device



Type BF applied part



Temperature range

	Humidity range
	Atmospheric pressure limitation
	Type number
	Date of manufacture
	Importer symbol
	Protect from rain and keep dry

3. INTENDED USE

Intended Purpose

The blood pressure monitor (hereinafter, device) is intended for the fully automatic, non-invasive measurement of arterial blood pressure and pulse values on the upper arm. It is designed for self-measurement by adults in a domestic environment.

Intended Users

The blood pressure measurement is suitable for adult users whose upper arm circumference is within the range printed on the cuff.

Clinical benefits

The user can record their blood pressure and pulse values quickly and easily using the device. The recorded values are classified according to internationally applicable guidelines and evaluated graphically. Furthermore, the device can detect any irregular heart beats that occur during measurement and inform the user via a symbol in the display. The device saves the recorded measurements and can also output average values of previous measurements. The recorded data can provide healthcare service providers with support during the diagnosis and treatment of blood pressure problems, and therefore it plays a part in the long-term monitoring of the user's health.

Indications

In the event of hypertension or hypotension, the user can independently monitor their blood pressure and pulse values at home. However, the user does not need to be suffering from hypertension or arrhythmia in order to use the device.

Contraindications

WARNING

- Do not use the blood pressure monitor on newborns, children or pets.
- Persons with reduced physical, sensory or mental capabilities should be supervised by a person responsible for their safety and receive instructions from that person on how to use the device.
- Do not use the device if you are using electrical implants (e.g. pacemakers).
- Do not use the device if you have metal implants.
- Do not use the cuff on people who have undergone a mastectomy.

- Do not place the cuff over wounds as this may cause further injury.
- Make sure that the cuff is not placed on an arm whose arteries or veins are undergoing medical treatment, e.g. intravascular access or intravascular therapy, or an arteriovenous (AV) shunt.
- Do not use the device on people with allergies or sensitive skin.

Undesirable side effects

- Skin irritation
- Negative influence on blood circulation

4. WARNINGS AND SAFETY NOTES

General warnings

⚠ WARNING

- The measurements you take are for your information only – they are not a substitute for a medical examination! Discuss your measured values with your doctor and never make your own medical decisions based on them (e.g. regarding medicine doses).
- The device is only intended for the purpose described in these instructions for use. The manufacturer is not liable for damage resulting from improper or incorrect use.
- Using the blood pressure monitor outside your home environment or while on the move (e.g. while travelling in a car, ambulance or helicopter, or while undertaking physical activity such as playing sport) can influence the measurement accuracy and cause incorrect measurements.
- Cardiovascular diseases may lead to incorrect measurements or have a detrimental effect on measurement accuracy.

- If you have any of the following conditions, it is essential you consult your doctor before using the device: Cardiac arrhythmia, circulatory problems, diabetes, pregnancy, pre-eclampsia, hypotension, chills, shaking.
- Do not use the device at the same time as other medical electrical devices (ME equipment). This could cause the measuring device to malfunction and/or an inaccurate measurement.
- Do not use the device outside of the specified storage and operating conditions. This could lead to incorrect measurements.
- Note that when inflating the cuff, the functions of the limb affected may be impaired.
- Do not perform measurements more frequently than necessary. Due to the restriction of blood flow, some bruising may occur.
- Blood circulation must not be stopped for an unnecessarily long time during the blood pressure measurement. If the device malfunctions, remove the cuff from the arm.
- Place the cuff on the upper arm only. Do not place the cuff on other parts of the body.
- Small parts may present a choking hazard for small children if swallowed. They should therefore always be supervised
- Do not drop, step on or shake the device.
- Do not disassemble the device as this may cause damage, faults and malfunctions.
- To rule out a difference between sides, the measurement should initially be taken on both arms.
- Never operate the device during maintenance work. Maintenance work includes maintenance, inspection and repair.

General precautions

⚠ CAUTION

- The blood pressure monitor is made from precision and electronic components. The accuracy of the measurements and service life of the device depend on its careful handling.
- Protect the device and its mains adapter from impacts, humidity, dirt, major temperature fluctuations and direct sunlight.
- Ensure the device is at room temperature before taking a measurement. If the measuring device has been stored close to the maximum or minimum storage and transport temperatures and is placed in an environment with a temperature of 20 °C, it is recommended that you wait approx. 2 hours before using the measuring device.
- Do not use the device in the vicinity of strong electromagnetic fields and keep it away from radio systems or mobile telephones.
- Avoid any mechanical restriction, compression or bending of the cuff line.

Notes on handling batteries

⚠ WARNING

- If your skin or eyes come into contact with fluid from a battery cell, wash the affected area with water and seek medical assistance.
- Protect batteries from excessive heat.
- Choking hazard! Small children could swallow and choke on batteries. Therefore, keep batteries out of the reach of small children!
- Seek medical attention immediately if swallowed.
- Risk of explosion! Never throw batteries into a fire.

- If the battery leaks, put on protective gloves and clean the battery compartment with a dry cloth.
- Do not disassemble, split or crush the batteries.
- Observe the plus (+) and minus (-) polarity signs.

⚠ CAUTION

- Batteries must not be short-circuited.
- Only use chargers specified in the instructions for use.
- Batteries must be charged correctly prior to use. The instructions from the manufacturer and the specifications in these instructions for use regarding correct charging must be observed at all times.
- Fully charge the battery at least every 3 months.
- Fully charge the battery prior to initial use.

Notes on electromagnetic compatibility

⚠ CAUTION

- The device is suitable for use in all environments listed in these instructions for use, including domestic environments.
- The device may not be fully usable in the presence of electromagnetic disturbances. This could result in issues such as error messages or the failure of the display/device.
- Avoid using this device directly next to other devices or stacked on top of other devices, as this could lead to faulty operation. If, however, it is necessary to use the device in the manner stated, this device as well as the other devices must be monitored to ensure they are working properly.
- The use of accessories and/or replacement parts other than those specified or provided by the manufacturer of this device could lead to an increase in electromagnetic emissions or a decrease in the device's electromagnetic immunity; this can result in faulty operation.

- Keep portable RF communication devices (including peripheral equipment, such as antenna cables or external antennas) at least 30 cm away from all device parts, including all cables included in delivery.
- Failure to comply with the above can impair the performance of the device.

5. DEVICE DESCRIPTION

The associated drawings are shown on page 2.

- | | |
|--|--|
| 1 LED display | 2 Memory button  |
| 3 START/STOP button  | 4 Type-C charging port |
| 5 Cuff | |

Information on the display

- | | |
|---|---|
| 6 Symbol for <i>Bluetooth</i> ® connection  | 7 Symbol for systolic blood pressure |
| 8 Units of measurement | 9 Symbol for diastolic blood pressure |
| 10 Pulse symbol  | 11 Display of values / Battery level indicator  |
| 12 LED risk indicator |  / Cardiac arrhythmia symbol |

6. USAGE

6.1 Initial use

Charging the blood pressure monitor

If **1**  appears on the display, you must charge the device. We recommend that you fully charge the device before initial use. Connect the device to a USB power supply using the supplied USB-C cable (see Figure **C**). Pressing a button will show you the current charge level on the battery level indicator. While the battery is charging,  will flash; once the battery is fully charged,  will be displayed. The display switches off after a few seconds. To display the charge level again, briefly press the **1**.

 The device cannot be used whilst it is being charged.

 Please connect the device to the “beurer HealthManager Pro” app before taking the first measurement. Follow the instructions in the app on how to integrate it.

6.2 Establishing a *Bluetooth*® connection

- Download the free “beurer HealthManager Pro” app from the Apple App Store or Google Play.

Click here for the
„beurer HealthManager Pro“ app
*



- Activate *Bluetooth*® in your smartphone's settings.
- Start the app.
- Select BM 59 in the app and follow the instructions.



* This product satisfies the requirements of the applicable European directives.

6.3 Connection to the “beurer HealthManager Pro” app

In order to set the correct time on the device, it must regularly connect to the “beurerHealthManager Pro” app:

- Requirement: *Bluetooth*® connection established (see Section 6.2 Establishing a *Bluetooth*® connection).
- No time on the device: “APP” flashes on the display.
- No successful *Bluetooth*® connection: “NO TIME” is shown in the display.
- *Bluetooth*® connection successful: Time is being synchronized.
- If the process was successful, “TIME” is displayed on the screen.

 To skip the time setting, press . “NO TIME” appears on the display. Please note that any subsequent measurements may appear with an incorrect time in the “beurer HealthManager Pro” app.

6.4 Before the blood pressure measurement

General rules when measuring your own blood pressure

- In order to generate an informative profile of changes in your blood pressure that can be used for comparisons, you should

measure your blood pressure regularly and always at the same time of day.

Measure your blood pressure twice a day: once in the morning after getting up and once in the evening.

- Always perform the measurement when you are sufficiently physically rested. Avoid taking measurements at stressful times.
- Do not take a measurement within 30 minutes of eating, drinking, smoking or exercising.
- Before the initial blood pressure measurement, make sure always to rest for about 5 minutes.
- If you want to take several measurements in succession, always make sure that you leave 5 minutes between each measurement.
- Repeat the measurement if you have doubts about the measured value.

Attaching the cuff

You can measure your blood pressure on either arm. Some deviations between the values in the right and left arm are perfectly normal. Always perform the measurement on the arm with the higher blood pressure values. Consult your doctor about this before starting self-measurement.

- Always measure your blood pressure on the same arm.
- The blood pressure measurement is suitable for adult users whose upper arm circumference is within the range printed on the cuff (22 to 42 cm).
- Before taking the measurement, check the fit using the index mark described below.
- Expose your upper arm. The circulation of the arm must not be hindered by tight clothing or similar.

- The cuff must be placed on the upper arm so that the bottom edge is positioned 2-3 cm above the elbow and over the artery **[D]**.
The cuff should be fastened so that two fingers fit under the cuff when it is closed **[E]**.

Adopting the correct posture

- Sit in a comfortable upright position when taking the blood pressure measurement. Lean back so that your back is supported.
- Place your arm on a surface **[F]**.
- Place your feet flat on the ground next to one another.
- The cuff must be level with your heart.
- Stay as still as possible during the measurement and do not talk.

6.5 Taking a blood pressure measurement

Requirement: cuff attached, user selected.

Measurement

1. Press **[1]**. All display elements are briefly displayed. The cuff inflates itself automatically. The measurement process starts.  is displayed as soon as a pulse is detected.
To cancel the measurement, press **[1]**.
2. Systolic pressure, diastolic pressure **[A]** and pulse **[B]** measurements are displayed alternately.

“Er” is displayed if the measurement could not be performed properly. In this case, please refer to the “Troubleshooting” section.

If necessary, re-attach the cuff after 1 minute.

The device switches off automatically after approx. 30 seconds.

6.6 Evaluating the results

General information about blood pressure

- Blood pressure is the force with which the bloodstream presses against the arterial walls. Arterial blood pressure constantly changes in the course of a cardiac cycle.
- Blood pressure is always stated in the form of two values:
 - The highest pressure is the **systolic blood pressure**. This occurs when the heart muscle contracts and blood is pumped into the blood vessels.
 - The lowest pressure is the **diastolic blood pressure**. This occurs when the heart muscle has completely relaxed again and the heart is filling with blood.
- Fluctuations in blood pressure are normal. Even during repeat measurements, there may be considerable differences between the measured values. One-off or irregular measurements therefore do not provide reliable information about the actual blood pressure. Reliable assessment is only possible when you perform the measurement regularly under comparable conditions.

Cardiac arrhythmia

The device can identify heart rhythm abnormalities during the blood pressure measurement. If  is displayed after the measurement, this indicates that an irregularity has been detected in your pulse.

Repeat the measurement if  is displayed.

When assessing your blood pressure, only use the results that have been recorded without any irregularities in your pulse.

Consult your doctor if  is displayed frequently. Only they can determine, through an examination, whether there is an abnormality.

LED risk indicator

Measured blood pressure value range		Classification	Risk indicator colour
Systolic (in mmHg)	Diastolic (in mmHg)		
≥ 180	≥ 110	Stage 3 high blood pressure (severe) ₁	Red
160 – 179	100 – 109	Stage 2 high blood pressure (moderate) ₁	Orange
140 – 159	90 – 99	Stage 1 high blood pressure (mild) ₁	Yellow
130 – 139	85 – 89	High normal ₁	Green
120 – 129	80 – 84	Normal ₁	Green
< 120	< 80	Optimal ₁	Green
< 90	< 60	Low blood pressure ₂	Orange

₁Source: WHO, 1999 (World Health Organization)

₂Source: National Health Service, 2023

The LED risk indicator **12** indicates which category the recorded blood pressure values fall into. If the measured values are in two different categories (e.g. systolic pressure in the “high normal” range and diastolic pressure in the “normal” range), the LED risk indicator always indicates the higher range – “high normal” in the example described.

 Note that these default values are for general guidance only, as individual blood pressures may vary.

Please note that self-measurement at home usually results in values lower than those recorded at a doctor’s surgery. Consult your doctor at regular intervals. Only they are able to give you personal

target values for controlled blood pressure, particularly if you are receiving medical therapy.

Low blood pressure

⚠ WARNING

Low blood pressure (hypotension) can be a health hazard and cause dizziness or fainting. Blood pressure is considered low if systolic and diastolic pressure are below 90/60 mmHG (source: National Health Service, 2023).

Seek medical attention if you suddenly suffer from low blood pressure.

6.7 Transfer of measured values via *Bluetooth®*

- To establish a *Bluetooth®* connection to the “beurer HealthManager Pro” app, follow the instructions under “Establishing a *Bluetooth®* connection”.
- To transfer the measured values via *Bluetooth®*, the device connects to the “beurer HealthManager Pro” app. ✱ will flash during this process.
- Once the device has successfully connected to the app, ✱ will be shown permanently on the display.
- Measured values are transferred automatically.

6.8 Displaying and deleting measured values

The results of each successful measurement are stored. If there are more than 240 measurements, the oldest measurements are deleted.

With the device switched off, press .

Bluetooth® activated ✱: Measurements are transferred automatically.

Individual measured values

1. Press . All measurements are shown one after the other on the display, starting with the latest measurement. Press  to return to the previous measurement. Press  to display the next measurement.
2. To switch the device off again, press and hold  for 2 seconds.

 The calculation of the average value and the date and time function are only displayed in the app.

Deleting measured values

1. To delete all of the user's saved measured values, press  with the device switched off.
2. Press and hold  for approx. 3 seconds.
"no" appears on the display. All values are deleted.

7. CLEANING AND MAINTENANCE

- Clean the device and cuff carefully using only a slightly damp cloth.
- Do not use any cleaning solutions or solvents.
- Under no circumstances hold the device or cuff under water, as this can cause liquid to enter and damage the device and cuff.
- If you store the device and cuff, do not place heavy objects on the device and cuff.

8. ACCESSORIES AND/OR REPLACEMENT PARTS

Accessories and/or replacement parts are available at www.beurer.de, under "Service". Please state the corresponding order number.

Designation	Item number and/or order number
USB-C cable	110.046
Mains part (EU)	072.78
Mains part (UK)	072.79

9. TROUBLESHOOTING

Error message	Possible cause	Solution
<i>E-1</i>	Unable to record a pulse.	Please wait one minute and repeat the measurement. Ensure that you do not speak or move during the measurement.
<i>E-2</i>	The measured blood pressure is outside the measurement range.	
<i>E-3</i>	There is a pneumatic system error. The cuff is not attached correctly.	Repeat the measurement. Ensure that you do not move or speak.
<i>E-4</i>	An error occurred during the measurement.	Please wait one minute and repeat the measurement. Ensure that you do not speak or move during the measurement.

Error message	Possible cause	Solution
E-5	The inflation pressure is higher than 295 mmHg.	Please take another measurement to check whether the cuff can be correctly inflated.
E-6	There is a system error.	If this error message appears, please contact Customer Services.
E-7	There are problems with the connection between the smartphone/tablet and the app.	Switch off the main unit, close the app and first deactivate <i>Bluetooth®</i> on your smartphone/tablet before reactivating the function. Try to establish the connection again.
	Battery is almost empty.	Charge the battery.

10. DISPOSAL

Repairing and disposing of the device

- Do not repair or modify the device yourself. Proper operation can no longer be guaranteed in this case.
- Repairs must only be carried out by Customer Services or authorised retailers. Check the battery first before making a complaint.

- The device must not be disposed of with household waste. Dispose of the device at a suitable local collection or recycling point in your country. Dispose of the device in accordance with EC Directive – WEEE (Waste Electrical and Electronic Equipment). Please contact the local authorities responsible for waste disposal if you have any questions regarding disposal. 

Battery disposal

- The empty, completely discharged batteries must be disposed of in specially designated collection boxes, at recycling points or at electronics retailers. You are legally required to dispose of the batteries.
- The codes below are printed on batteries containing harmful substances:
 - Pb = battery contains lead
 - Cd = battery contains cadmium
 - Hg = battery contains mercury



11. TECHNICAL SPECIFICATIONS

Type	BM 59
Measurement method	Oscillometric, non-invasive blood pressure measurement on the upper arm
Measurement range	Cuff pressure 0–295 mmHg, systolic pressure 57–255 mmHg, diastolic pressure 25–195 mmHg, pulse 40–199 beats/minute
Display accuracy	Systolic pressure ± 3 mmHg, diastolic pressure ± 3 mmHg, pulse $\pm 5\%$ of the displayed value

Measurement uncertainty	Max. permissible standard deviation according to clinical testing: systolic pressure 8 mmHg, diastolic pressure 8 mmHg
Memory	1 x 240 memory spaces
Dimensions	L 125 mm x W 48 mm x H 28 mm
Weight	Approximately 225 g (with battery and cuff)
Cuff size	22 to 42 cm upper arm circumference
Operating conditions	+5 °C to +40 °C, 15% – 90% relative humidity, 700–1060 hPa ambient pressure
Storage and transport conditions	-20 °C to +55 °C, 10% – 93% relative humidity (non-condensing)
Power supply	Charge: 5V  1A Li-ion rechargeable battery, 3.7 V
Battery life	For approx. 60 measurements depending on blood pressure and inflation pressure levels as well as the number of <i>Bluetooth</i> ® connections
Product life cycle to be expected	Information on the life cycle of the product can be found at beurer.com
Classification	Internal power supply, IP22 no AP or APG, continuous operation Blood pressure: Application part, type BF

Data transfer via <i>Bluetooth</i> ® wireless technology	The device uses <i>Bluetooth</i> ®, Frequency band 2400–24835 MHz, max. trans- mission power 8 dBm
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The serial number is located on the device or in the battery compartment.

We reserve the right to make technical changes to improve and develop the product.

- This device conforms with the European standard EN 60601-1-2 (Group 1, Class B, in accordance with CISPR-11, IEC 61000-3-2, IEC 61000-3-3, IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-7, IEC 61000-4-8, IEC 61000-4-11) and is subject to particular precautions with regard to electromagnetic compatibility. Please note that portable and mobile HF communication systems may interfere with this device.
- The device complies with Regulation (EU) 2017/745 of the European Parliament and of the Council for medical devices as well as the respective national regulations and the standard IEC 80601-2-30 (Medical electrical equipment Part 2-30 – Particular requirements for basic safety and essential performance of automated non-invasive sphygmomanometers).
- The accuracy of this blood pressure monitor has been carefully checked and developed with regard to a long useful life. If the device is used for commercial medical purposes, it must be regularly tested for accuracy by appropriate means. Precise instructions for checking accuracy may be requested from the service address.

- We hereby confirm that this product complies with the European RED Directive 2014/53/EU. The CE Declaration of Conformity for this product can be found at:
<https://www.beurer.com/conformity>

12. GUARANTEE/SERVICE

Further information on the guarantee and guarantee conditions can be found in the guarantee leaflet supplied.

Notification of incidents

For users/patients in the European Union and identical regulation systems, the following applies: If during or through use of the product a major incident occurs, notify the manufacturer and/or their representative of this as well as the respective national authority of the member state in which the user/patient is located.

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