

MEDISANA®

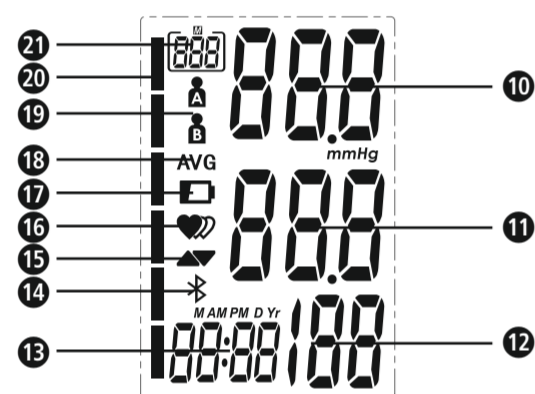
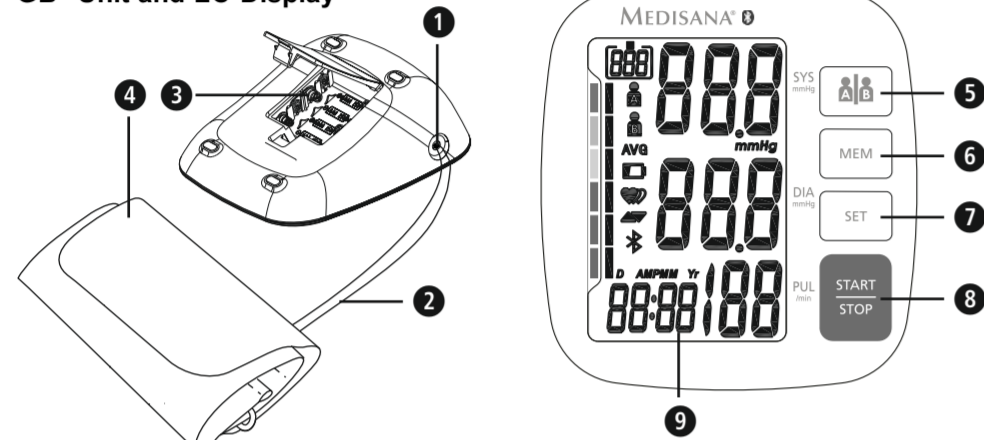
Blood Pressure Monitor BU 540 connect

Instruction Manual

Please read carefully!



GB Unit and LC-Display



Intended use

- This fully automatic electronic blood pressure monitor is intended for measuring the blood pressure at home. It is a non-invasive blood pressure measurement system to measure the diastolic and systolic blood pressure and pulse of an adult using a non-invasive technique by means of a cuff, which needs to be fitted on the upper arm.
- The useable cuff circumference is 22 to 42 cm. It is intended for adult indoor use only.

Contraindications

- The device is not suitable for measuring the blood pressure of children. Ask your doctor before using it on older children.
- The device is not suitable for use on pregnant women and patients with implanted, electrocatal devices (e.g. pacemaker or defibrillator).

Explanation of symbols



IMPORTANT

Follow the instructions for use! Non-observance of these instructions can result in serious injury or damage to the device.



WARNING

These warning notes must be observed to prevent any injury to the user.



CAUTION

These notes must be observed to prevent any damage to the device.



NOTE

These notes give you useful additional information on the installation or operation.



Device classification: type BF applied part



LOT number SN Serial number



Manufacturer



Date of manufacture

CE 0123

GB Safety Instructions



Read the instruction manual carefully before using this device, especially the safety instructions, and keep the instruction manual for future use. Should you give this device to another person, it is vital that you also pass on these instructions for use.



- The unit is intended only for private use in the home.
- The device should be placed at least 30 minutes before use in the area of use in order to properly adapt to the room temperature. Only use the device under the conditions mentioned in the technical details.
- Consult your doctor prior to using the blood pressure monitor if you are concerned about health matters.
- Only use the unit for its intended purpose in accordance with the instructions for use.
- Warranty claims become void if the unit is misused.
- The unit may not be used to check the heart rate of a pacemaker.
- Irregularity of pulse or arrhythmia can lead to difficulties in recording a correct reading when measurements are taken using oscillometric blood pressure devices. This device is electronically equipped to detect arrhythmia which it indicates with the icon 16. In this case, contact your physician.
- Do not use the unit in case of existing polyester resp. synthetic allergies.
- Like on any other oscillometric blood pressure measurement devices, certain medical conditions can affect the measurement accuracy, among others: cardiac arrhythmias, low blood pressure, circulatory disorders, states of shock, diabetes, pregnancy, pre-eclampsy etc. Always consult a physician before you use the device.
- Never apply the cuff over hurt skin.
- Do not take measurements, if any other equipment is applied to the same limb for monitoring. This could lead to disturbances or failures.
- If you experience discomfort during a measurement, such as pain in the upper arm or other complaints, press the START/ STOP button 8 to release the air immediately from the cuff. Loosen the cuff and remove it from your arm.
- On the rare occasion of a fault causing the cuff to remain fully inflated during measurement, open the cuff immediately. Prolonged high pressure (cuff pressure >300 mmHg or constant pressure >15 mmHg for more than 3 minutes) applied to the arm may lead to an echymosis.
- Too frequent and consecutive measurements could cause disturbances in blood circulation and injuries.
- Pay attention during use and storage, that cable and air hose will not cause strangulation.
- Never bend the air hose during use as this may lead to injuries. Also never squeeze or block the air hose in any way.
- Do not connect the air hose to other medical equipment, as this could cause air to be pumped into intravascular systems or high pressure, what could lead to dangerous injuries.
- This device is not suitable for continuous monitoring during medical emergencies or operations.
- This device is not intended for patient transports outside a healthcare facility.
- This device cannot be used with surgical equipment at the same time.
- Do not take any therapeutic measures on the basis of a self measurement. Never alter the dose of a medicine prescribed by a doctor.
- The unit may not be operated in the vicinity of appliances that emit strong electric radiation such as radio transmitters or mobile phones. This may affect the proper functioning (see "electromagnetic compatibility").
- Do not use the equipment where flammable gas (such as anaesthetic gas, oxygen or hydrogen) are present.
- This device is not designed to be used by persons with limited physical, sensory or mental abilities, or by persons with insufficient experience and/or knowledge, unless under observation by a person responsible for their safety, or unless they have been instructed in the use of the device.
- This device is intended to be used by adults. The unit is unsuitable for children or babies. Contact your doctor, if you want to use this device on young persons.
- Please ensure that the unit is kept away from the reach of children and pets. The swallowing of small part like packaging bag, battery, battery cover and so on may cause suffocation.
- Before use, make sure the device functions safely and is in proper working condition. Do not service or maintain while the device is in use.
- Please do not attempt to repair the unit yourself in the event of malfunctions. Only have repairs carried out by authorised service centres.
- Protect the unit from moisture. Should moisture enter the unit, remove the batteries and stop using it immediately. In this case, please contact either your dealer or us directly. You can find details of how to contact us on the address page.
- Only use original additional or spare parts from the manufacturer. Other parts could damage the device or could lead to personal injury.
- Please report to MEDISANA if any unexpected operation or events occur.
- If the unit is not going to be used for a long period, please remove the batteries.

BATTERY SAFETY INFORMATION

- Do not disassemble batteries!
- Remove discharged batteries from the device immediately!
- Increased risk of leakage, avoid contact with skin, eyes and mucous membranes! If battery acid comes in contact with any of these parts, rinse the affected area with copious amounts of fresh water and seek medical attention immediately!
- If a battery has been swallowed seek medical attention immediately!
- Replace all of the batteries simultaneously!
- Only replace with batteries of the same type, never use different types of batteries together or used batteries with new ones!
- Insert the batteries correctly, observing the polarity!
- Remove the batteries from the device if it is not going to be used for an extended period!
- Keep batteries out of children's reach!
- Do not attempt to recharge these batteries! **There is a danger of explosion!**
- Do not short-circuit! **There is a danger of explosion!**
- Do not throw into a fire! **There is a danger of explosion!**
- Do not throw used batteries into the household refuse; put them in a hazardous waste container or take them to a battery collection point, at the shop where they were purchased!

Unit and LC-display

- 1 Connector for the hose
- 2 Air hose
- 3 Battery compartment (on backside)
- 4 Cuff
- 5 User memory button "MEM" - button (Memory)
- 6 "SET" - button
- 7 START/STOPP - button
- 8 LC - display
- 9 Display of systolic pressure
- 10 Display of diastolic pressure
- 11 Display of pulse rate
- 12 Time/Date
- 13 Bluetooth® - Symbol
- 14 Inflation / Deflation symbol
- 15 Pulse / Arrhythmia display
- 16 Batteries low
- 17 Average value display ("AVG")
- 18 User memory (A/B)
- 19 Blood Pressure Indicator (green - yellow - orange - red)
- 20 Memory display

Items supplied

Please check first of all that the unit is complete.

- The following parts are included as standard:
- 1 MEDISANA blood pressure monitor BU 540 connect
- 1 cuff with air tube
- 4 batteries (type AAA, LR03) 1.5 V
- 1 instruction manual and EMV leaflet

Please contact your supplier if you notice any transport damage on unpacking the unit.



WARNING

Please ensure that the polythene packing is kept away from the reach of children! Risk of suffocation!

How is blood pressure measured?

The MEDISANA upper arm blood pressure monitor BU 540 connect is a blood pressure unit which is used to measure blood pressure at the upper arm. The measurement is carried out by a microprocessor - already during the inflating process of the cuff. The device detects the systole and the measurement is completed earlier than using conventional measurement methods. As a result, an unnecessarily excessive inflation pressure in the cuff is prevented. Additionally, your device is able to recognize irregular heartbeat (so-called arrhythmia), which may affect the measurements. In case an arrhythmia has been detected, the respective symbol will appear in the display of the unit.

Blood pressure classification according to WHO

These values have been specified by the World Health Organisation (WHO) without making any allowance for age.

systolic mmHg	diastolic mmHg		Bloodpressure Indicator 20
≥ 180	≥ 110	serious hypertension	red
160 - 179	100 - 109	medium hypertension	orange
140 - 159	90 - 99	mild hypertension	yellow
130 - 139	85 - 89	high-normal blood pressure	green
120 - 129	80 - 84	normal blood pressure	green
< 120	< 80	optimal blood pressure	green



WARNING

Blood pressure that is too low represents just as great a health risk as blood pressure that is too high! Fits of dizziness may lead to dangerous situations arising (e.g. on stairs or in traffic)!

Influencing and evaluating readings

- Measure your blood pressure several times, then record and compare the results. Do not draw any conclusions from a single reading.
- Your blood pressure readings should always be evaluated by a doctor who is also familiar with your personal medical history. When using the unit regularly and recording the values for your doctor, you should visit the doctor from time to time to keep him updated.
- When taking readings, remember that the daily values are influenced by several factors. Smoking, consumption of alcohol, drugs and physical exertion influence the measured values in various ways.
- Measure your blood pressure before meals.
- Before taking readings, allow yourself at least five minutes rest.
- If the systolic and diastolic readings seem unusual (too high or too low) on several occasions, describe correct use of the unit, please inform your doctor. This also applies to the rare occasions when an irregular or very weak pulse prevents you from taking readings.

Getting started

Inserting/changing batteries

You must insert the batteries provided before you can use your unit. The lid of the battery compartment 3 is located on the underside of the unit. Open it, remove it and insert the 4 x 1.5 V batteries, type AAA/LR03 supplied. Ensure correct polarity when inserting the batteries (as marked inside the battery compartment). Close the battery compartment. Replace the batteries if the change battery symbol 17 appears on the display 9 or if nothing appears on the display after the unit has been switched on.

Settings

1. Date and time:

When unit is switched off, press SET 7. The time will be displayed. Now press and hold the SET button 7 until the year figure starts to flash for setting. Keep pressing the MEM button 6 until the actual year figure appears. Press SET 7 to confirm the year. Afterwards, you can proceed with the month/date setting, followed by the time format setting (12 or 24 hours), as well as hours and minutes. Adjust the corresponding figures accordingly. When finished, "dOne" appears on the display along with the adjusted values. Afterwards, the device will switch off.

2. User memory setting:

The MEDISANA upper arm blood pressure monitor BU 540 connect features 2 separate memories, each with a capacity of 250 memory slots. By pressing the user memory button 5 when the device is switched on, you may choose between user A and user B. The display shows the current selection 18.

Fitting the cuff

- Push the end piece of the air tube 2 into the hole on the left side of the unit prior to use.
- Slide the open end of the cuff through the metal bracket so that the Velcro fastener is on the outside and it becomes a cylindrical form (Fig.1). Slide the cuff over your left upper arm.
- Position the air hose in the middle of your arm in line with your middle finger (Fig.2) (a). The lower edge of the cuff should be 2 - 3 cm above the crease of the elbow. (b). Pull the cuff tight and close the Velcro fastener (c).
- Measure the pulse on your bare arm.
- Only position the cuff on the right arm if it cannot be used on the left arm. Always carry out measurements on the same arm.
- Correct measuring position for sitting (Fig.3).

Taking a blood pressure measurement

After the cuff has been appropriately positioned, the measurement can begin.

- Switch the unit on by pressing the START/STOP button 8.
- All display characters are shown (display test). This test can be used to check that the display is indicating properly and in full. The unit is ready for measurement and "0" appears.
- The device then automatically inflates the cuff slowly in order to measure your blood pressure. The rising pressure in the cuff is shown on the display.
- When the device detects the signal, the heart symbol on the display starts to flash. If a result is determined, the device slowly will release the air from the cuff. The systolic and diastolic blood pressure and the pulse value with the time value appear on the display.
- The blood pressure indicator 20 flashes next to the relevant coloured bar depending on the WHO blood pressure classification.
- If the unit has detected an irregular heartbeat, the arrhythmia display 16 appears additionally.
- The readings are automatically saved in the selected memory (A or B).
- The measurement results will automatically be transferred via Bluetooth® to receiver-ready devices. During this process, the Bluetooth®-symbol 13 will flash. If the transfer was successful, the Bluetooth®-symbol 13 will disappear after approx. 5 seconds. If the transfer was not successful, the symbol will disappear after max. 3 minutes.
- Switch off the device using the START/STOP button 8.

Transfer via Bluetooth®

The MEDISANA Blood Pressure monitor BU 540 connect offers the possibility to transfer your measured values via Bluetooth® to the VitaDock® app. The VitaDock® app allows the evaluation, storage and synchronisation of your data between multiple iOS- and Android-devices to have access to it anytime and anywhere. You may share your results with your friends or your doctor. Therefore you need a free user account, which you can create on the website www.vitadock.com. For Android or iOS mobile devices, you may download the respective apps. You will find a detailed instruction for how to install and use the software on the mentioned website. After each measurement an automatic transfer of the values will take place (provided that Bluetooth® is activated and configured on the receiving device).



WARNING

- Keep the device at least 20 centimeters away from the human body (especially the head) when the Bluetooth® data transmission is proceeding after measurement.
- The distance between the device and the receiver should be between 1 meter to 10 meters to avoid possible disturbances.
- To avoid interference with other electronic devices, these should be kept at least 1 meter away from the monitor.

Displaying stored results

This unit features 2 separate memories, each with a capacity of 250 memory slots. Results are automatically stored in the memory selected by the user. Press the MEM button 6 when power off, to call up the measured values stored. The average values of the last 3 measurements appear on the display (if already 3 measurements have been stored for the respective user). Press the MEM button 6 again to call up the last measurement value. Repeatedly pressing the MEM button 6 displays the respective values measured previously. Memory recall mode can be exited at any time by pressing the START/STOP button 8, which will also switch the unit off. The oldest value is deleted if 250 measured values have been stored in the memory and a new value is saved.

Deleting memory

Press MEM-button 6 to enter the memory recall mode. If you are sure that you want to permanently remove all stored memories, press and hold the SET button 7 for approximately 3 seconds until "dEL.ALL" appears in the display. Then press SET button 7 again to delete all the values. The device then switches off automatically. You may abort the deletion process by pressing the START/STOP button 8 beforehand.

Error messages and error remedying

Display	Cause	Solution
No display	Batteries may be exhausted or inserted incorrectly. Check if the power connection has been established properly.	Insert new batteries. Insert the batteries according to the instructions given.
Lo + Lo	Weak batteries	Batteries are weak or empty. Replace all 4 batteries by new ones (1.5V, type AAA / LR03).
E01	Cuff not properly fitted	Wrap the cuff properly. Remeasure in correct way.
E02	Movement or speaking during measurement	Rest 30 minutes and remeasure in correct way. Do not speak or move during the measurement.
E03	Pulse cannot be detected	Wrap the cuff properly. Loosen the clothing on the arm. Remeasure in correct way.
E04	Measurement failed	Wrap the cuff properly. Remeasure in correct way.
EExx	Calibration error ("xx" can be a figure, e.g. 01, 02 etc.)	Wrap the cuff properly. Remeasure in correct way.
out	Out of measurement range	Relax for a moment. Refasten the cuff and measure again. If the problem persists, contact your physician.

Please contact the service centre if you can't solve the problem.

Do not disassemble the unit by yourself.

Cleaning and maintenance

Remove the batteries before cleaning the unit. Clean the unit using a soft cloth lightly moistened with a mild soapy solution. Never use abrasive cleaning agents, alcohol, naphtha, thinner or gasoline etc.. Never immerse the unit or any component in water. Be cautious not to get any moisture in the main unit. Do not wet the cuff or attempt to clean the cuff with water. Using a dry cloth, gently wipe away any excess moisture that may remain on the cuff. Lay the cuff flat in an unrolled position and allow the cuff to air dry. Do not expose the unit to direct sunlight; protect it against dirt and moisture. Do not expose the unit to extreme hot or cold temperatures. Keep the device in the storage case when not in use. Store the unit in a clean and dry location.

Disposal



This product must not be disposed of together with domestic waste. All users are obliged to hand in all electrical or electronic devices, regardless of whether or not they contain toxic substances, at a municipal or commercial collection point so that they can be disposed of in an environmentally acceptable manner.

Remove the batteries before disposing of the device/unit. Do not dispose of old batteries with your household waste, but at a battery collection station at a recycling site or in a shop. Consult your local authority or your supplier for information about disposal.

Guidelines / Standards

This blood pressure monitor meets the requirements of the EU standard for non-invasive blood pressure monitors. It is certified in accordance with EC Guidelines and carries the CE symbol (conformity symbol) "CE 0123". The blood pressure monitor corresponds to European standards EN 60601-1, EN 60601-1-2, EN 1060-3, EN 81060-1 and EN 81060-2. The specifications of EU Guideline "93/42/EEC of the Council Directive dated 14 June 1993 concerning medical devices" are met and likewise those of the RED 2014/53/EC. You can request the complete Conformity Declaration from Medisana GmbH, Jagenbergstrasse 1, 41468 Neuss, Germany, or you can also download it from the Medisana homepage (www.medisana.de).

Electromagnetic compatibility: (see attached leaflet)

Technical specifications

Name and description : MEDISANA Blood pressure monitor BU 540 connect

Model : TMB-1490-BS

Display system : Digital display

Memory slots : 2 x 250 measurement values

Measuring method : Oscillometric

Power supply : 6 V~, 4 x 1,5 V batteries AAA LR03

Blood pressure measuring range: 0 – 299 mmHg

Pulse measuring range : 40 – 199 beats/min.

Maximum error tolerance for static pressure: ± 3 mmHg

Maximum error tolerance for pulse rate: ± 5 % of the value

Pressure generation : Automatic with pump

Deflation : Automatic

Protection marking against particles and water: IP21

Operating conditions : +5 °C to +40 °C, 15 to 90 % max. relative humidity, 700-1060 hPa atmospheric pressure

Storage conditions : -20 °C to +60 °C, to 93 % max. relative humidity, non-condensing

Dimensions (L x W x H) : approx. 140 x 130 x 60 mm

Cuff : 22 - 42 cm for adults

Weight (main unit) : approx. 250 g without batteries

Item number : 51182

EAN number : 40 15588 51182 0

Accessories : Spare cuff

Art. No. 51299 / EAN 40 15588 51299 5

In accordance with our policy of continual product improvement, we reserve the right to make technical and visual changes without notice.

The current version of this instruction manual can be found under www.medisana.com

Warranty and repair terms

Please contact your supplier or the service centre in case of a claim under the warranty. If you have to return the unit, please enclose a copy of your receipt and state what the defect is.

The following warranty terms apply:

- The warranty period for MEDISANA products is 3 years from date of purchase. In case of a warranty claim, the date of purchase has to be proven by means of the sales receipt or invoice.
- Defects in material or workmanship will be removed free of charge within the warranty period.
- Repairs under warranty do not extend the warranty period either for the unit or for the replacement parts.
- The following is excluded under the warranty:
 - All damage which has arisen due to improper treatment, e.g. nonobservance of the user instructions.
 - All damage which is due to repairs or tampering by the customer or unauthorised third parties.
 - Damage which has arisen during transport from the manufacturer to the consumer or during transport to the service centre.
 - Accessories which are subject to normal wear and tear as batteries, cuff etc..
- Liability for direct or indirect consequential losses caused by the unit are excluded even if the damage to the unit is accepted as a warranty claim.

Guangdong Transtek Medical Electronics Co., Ltd.
Zone A, No.105, Dongli Road, Torch Development District,
Zhongshan, 528437, Guangdong, China

Distributed & imported by:
MEDISANA GmbH, Jagenbergstraße 1, 41468 NEUSS
Germany

EC REP

MDSS - Medical Device Safety Service GmbH
Address: Schiffgraben 41, 30175 Hannover, Germany

The service centre address is shown on the attached leaflet.

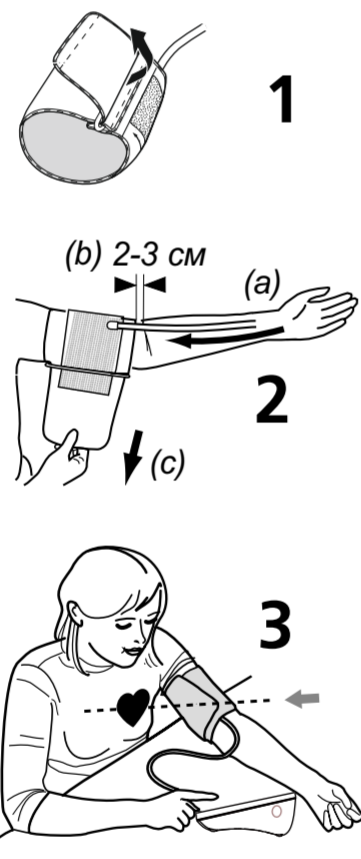
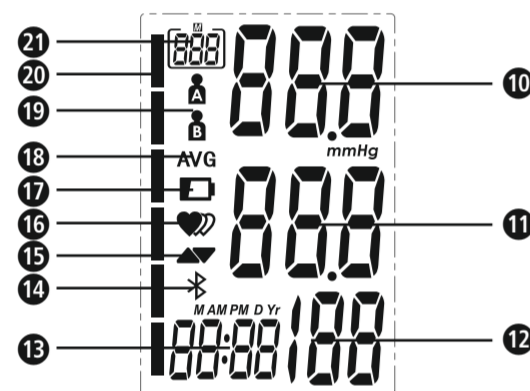
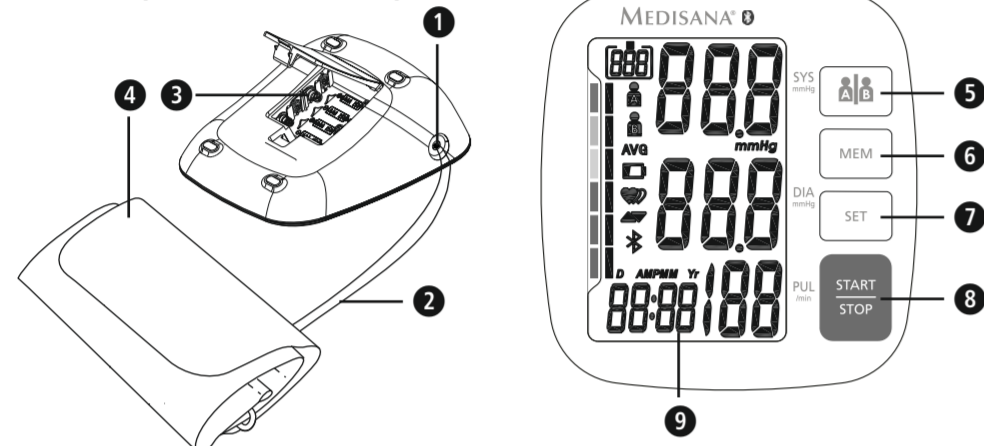
Тонومتر для измерения кровяного давления BU 540 connect



Инструкция по применению
Внимательно ознакомиться!

51182 08/2018 Ver. 1.2

RU Аппарат и ЖК-индикатор



Использование по назначению

- Этот полностью автоматический электронный прибор для измерения кровяного давления предназначен для измерения кровяного давления в домашних условиях. Речь идет о неинвазивной системе измерения кровяного давления для измерения диастолического и систолического кровяного давления и пульса у взрослых с применением осциллометрической техники, с помощью манжеты, накладываемой на плечо. Охват применяемой для данного прибора манжеты ограничен размерами 22 - 42 см.
- Прибор предназначен исключительно для использования взрослыми внутри помещений.

Противопоказания

- Прибор не пригоден для измерения артериального давления у детей. В отношении использования у детей старшего возраста проконсультируйтесь с врачом.
- Прибор нельзя использовать для измерений у беременных и у пациентов с имплантированными электронными устройствами (например, кардиостимуляторами или дефибрилляторами).

Пояснение символов

ВАЖНО
Соблюдайте инструкцию по применению! Несоблюдение инструкции может приводить к тяжелым травмам или повреждению прибора.

ПРЕДУПРЕЖДЕНИЕ
Во избежание возможных травм пользователя необходимо строго соблюдать эти указания.

ВНИМАНИЕ
Во избежание возможных повреждений прибора необходимо строго соблюдать эти указания.

УКАЗАНИЕ
Эти указания содержат полезную дополнительную информацию о монтаже или работе.

Классификация аппарата:
тип BF Class I cat. a

Номер LOT **SN** Серийный номер

Производитель

Дата изготовления

Общие причины ошибочных измерений

- Перед измерением отдохните 5-10 минут и не ешьте, не пейте алкогольные напитки, не курите, не выполняйте физические нагрузки, не занимайтесь спортом и не примайте душ или ванну. Все эти факторы могут повлиять на результат измерения.
- Снимите часы и украшения с запястья, на котором выполняется измерение.
- Всегда выполняйте измерение на одном и том же запястье (обычно левой).
- Выполняйте измерение артериального давления регулярно, ежедневно в одно и то же время, т. к. артериальное давление меняется в течение дня.
- Любые попытки пациента подпереть свою руку могут повысить артериальное давление.
- Обеспечьте удобное и расслабленное положение и не напрягайте во время измерения мышцы руки, на которой выполняется измерение. При необходимости, используйте подушку-опору.
- Если запястье располагается ниже или выше сердца, то это ведет к ошибочному измерению.
- Свободно сидящая или открытая манжета ведет к неверным измерениям.
- Вследствие частых повторных измерений кровь застаивается в руке, что может приводить к неверному результату. Следующие друг за другом измерения кровяного давления следует проводить с 3-минутными паузами или подержав руку поднятой вверх, чтобы произошел отток прилившей крови.

Условия гарантии.

1. Настоящая гарантия действительна только при правильном и четком заполнении гарантийной карты с указанием модели изделия, даты продажи, четкими печатями фирмы-продавца. Фирма оставляет за собой право отказа в гарантийном ремонте, если гарантийная карта не предоставлена или если информация в ней неполная, неразборчивая или содержит исправления.
2. Гарантия включает выполнение ремонтных работ и замену дефектных частей и не распространяется на детали отделки, элементы питания и прочие детали, обладающие ограниченным сроком использования.
3. Доставка изделий в сервисный центр и обратно осуществляется за счет покупателя.
4. Изделие снимается с гарантийного обслуживания, если обнаружены:
 - наличие механических повреждений
 - наличие следов постороннего вмешательства
 - ущерб, причиненный потребителем в результате несоблюдения правил эксплуатации
 - ущерб в результате попадания внутрь посторонних предметов, жидкостей или насекомых
 - следы ремонта в неавторизованном сервисном центре
 - следы внесения изменений в конструкцию прибора
5. Гарантия распространяется только на приборы, приобретенные на территории Российской Федерации.

Адреса авторизованных сервисных центров MEDISANA
117186, г. Москва, ул. Нагорная, д.20, корп. 1
Тел.: (495) 729 -47 - 96