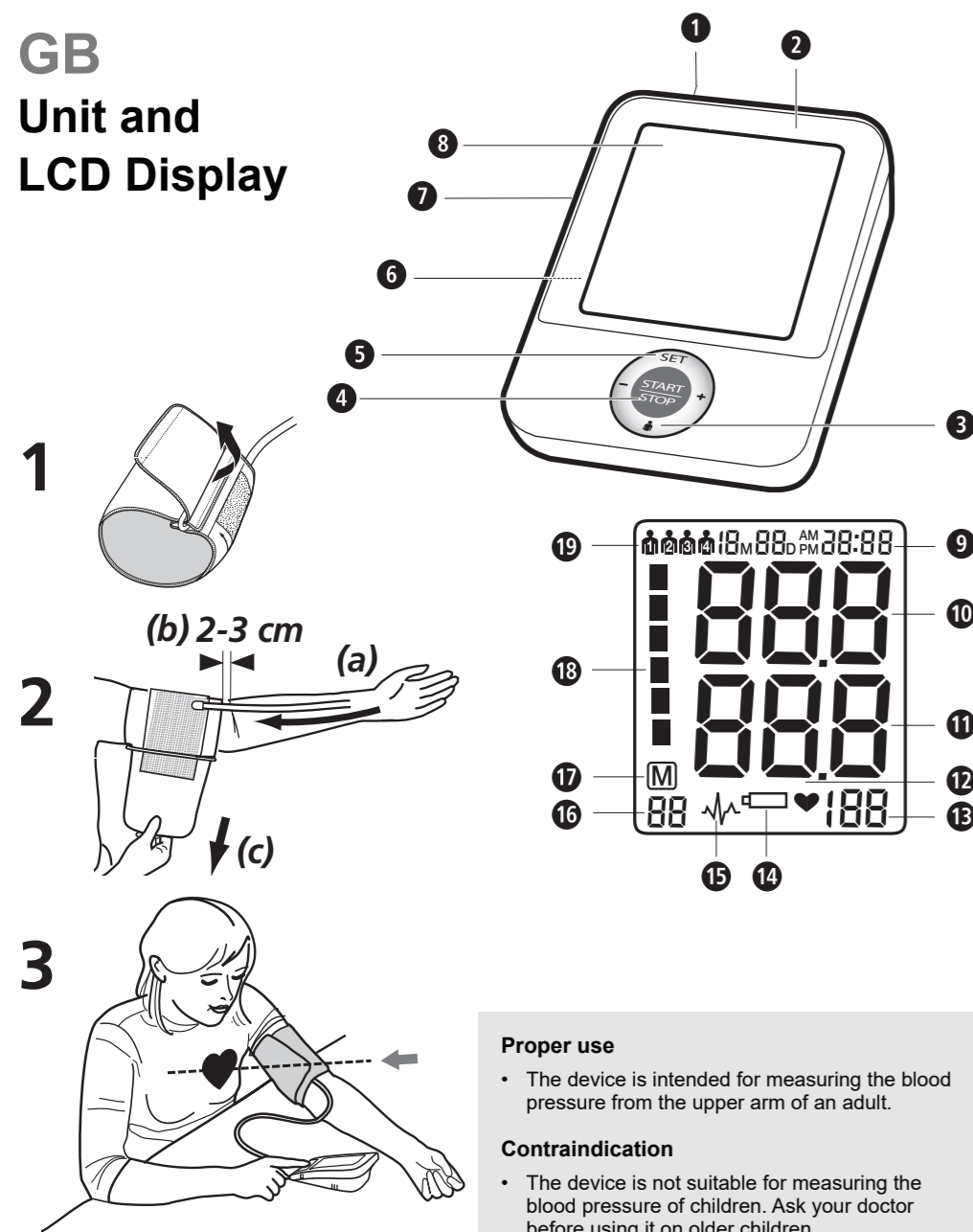


## Blood pressure monitor BU A50



Instruction Manual  
Please read carefully!

### GB Unit and LCD Display



#### Proper use

- The device is intended for measuring the blood pressure from the upper arm of an adult.

#### Contraindication

- The device is not suitable for measuring the blood pressure of children. Ask your doctor before using it on older children.
- Persons who suffer from arrhythmia, diabetes, cardiovascular problems or who have had a stroke should consult their doctor before using the device.

#### Common factors of wrong measurement

- Please keep quiet for 5-10 minutes and avoid eating, drinking alcohol, smoking, exercising and bathing before taking measurement. All these factors will influence the measurement result.
- Remove any garment that fits closely to your upper arm.
- Always measure on the same arm (normally left). Take measurement regularly at the same time of every day, as blood pressure changes even during the day.
- All efforts by the patient to support their arm can increase blood pressure.
- Make sure you are in a comfortable, relax position and do not activate any of the muscles in the measurement arm during measurement. Use a cushion for support if necessary.
- If the arm artery lies lower or higher than the heart, a false reading will be obtained.
- A loose or open cuff causes false reading.
- With repeated measurements, blood accumulates in the arm which can lead to false reading. Consecutive blood pressure measurements should be repeated after 1 minute pause or after the arm has been held up in order to allow the accumulated blood to flow away.

### 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 use in the home. 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.
- Please consult your doctor prior to using the unit if you suffer from illnesses such as arterial occlusive disease.
- The unit may not be used to check the heart rate of a pacemaker.
- Pregnant women should take the necessary precautions and pay attention to their individual circumstances. Please consult your doctor if necessary.
- If you experience discomfort during a measurement, such as pain in the upper arm or other complaints, press the START button to release the air immediately from the cuff. Loosen the cuff and remove it from your arm.
- Use the right cuff, otherwise it can not work.
- The unit is unsuitable for children.
- Do not allow children to use the unit. Medical products are not toys!
- Please ensure that the unit is kept away from the reach of children.
- The cuff hose around the neck may cause suffocation.
- The swallowing of small part like packaging bag, battery, battery cover and so on may cause the suffocation.
- The user must check that the equipment functions safely and see that it is in proper working condition before being used.
- Only the cuff provided can be used, and cannot be changed to any other branded cuff. It can only be replaced with a cuff of exactly the same type.
- The device may not be operated in rooms with high levels of radiation or in the vicinity of high-radiation devices, such as radio transmitters, mobile telephones or microwaves, as this could cause functional defects or incorrect measurements.
- Do not use the equipment where flammable gas (such as anaesthetic gas, oxygen or hydrogen) or flammable liquid (such as alcohol) are present.
- No modification of this unit/device is allowed.
- Please do not attempt to repair the unit yourself in the event of malfunctions, since this will void all warranty claims. Only have repairs carried out by authorised service centres.
- Protect the unit against moisture. If liquid does manage to penetrate into the unit, remove the batteries immediately and do not continue to use the unit. In this case contact your specialist dealer or notify us directly.
- Please don't use a dilution agent, alcohol or petrol to clean the unit.
- Please don't hit heavily or fall down the product from a high place.
- If the unit is not going to be used for a long period, please remove the batteries.

#### SAFETY NOTES FOR BATTERIES

- Do not disassemble batteries!
- Replace the new batteries if the unit display a low battery symbol.
- Never leave any low battery in the battery compartment since they may leak and cause damage to the unit.
- 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!
- Please take off the battery if you won't use in 3 months.
- 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 LCD display

- Socket for mains adaptor
- Blood Pressure Monitor
- START/STOP button
- SET button
- Battery Compartment (on underside)
- Push-in Connector for air tube
- LCD screen (display)
- Display of Date/Time
- Display of Systolic Pressure
- Display of Diastolic Pressure
- Pulse symbol
- Display of Pulse Rate
- Change Battery symbol
- Irregular heartbeat display
- Memory Location number
- Memory-Symbol
- Blood Pressure Indicator (green - yellow - orange - red)
- User 1/2/3/4

#### Scope of supply

Please check first of all that the unit is complete.

The following parts are included as standard:

- 1 medisana blood pressure monitor BU A50
- 1 cuff with air tube
- 4 batteries (type AA, LR6) 1.5 V
- 1 storage pouch
- 1 instruction manual

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

#### What is blood pressure?

Blood pressure is the pressure created in the blood vessels by each heart beat. When the heart contracts (= systole) and pumps blood into the arteries, it brings about a rise in pressure. The highest value is known as the systolic pressure and is the first value to be measured. When the cardiac muscle relaxes to take in fresh blood, the pressure in the arteries also falls. Once the arteries are relaxed, a second reading is taken – the diastolic pressure.

#### How is blood pressure measured?

The medisana BU A50 is a blood pressure unit which is used to measure blood pressure at the upper arm. The measurement is carried out by a microprocessor, which, via a pressure sensor, measures the vibrations resulting from the inflation and deflation of the cuff over the artery.

#### Blood pressure classification

Blood pressure classification without making any allowance for age.

Classification	systolic (mmHg)	diastolic (mmHg)	Display area
Stage 3 Hypertension (emergency)	≥180	≥ 110	Red
Stage 2 Hypertension (moderate)	160 - 179	100 - 109	Orange
Stage 1 Hypertension (mild)	140 - 159	90 - 99	Yellow
High - Normal	130 - 139	85 - 89	Green
Normal	120 - 129	80 - 84	Green
Optimal	<120	< 80	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 5-10 minutes rest.
- If the systolic and diastolic readings seem unusual (too high or too low) on several occasions, despite 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.

#### Starting up

##### Insert / replace batteries

You must insert the batteries provided before you can use your unit. The lid of the battery compartment is located on the underside of the unit. Open it, remove it and insert the 4 AA LR6 type 1.5 V batteries 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 appears on the display or if nothing appears on the display after the unit has been switched on.

##### Using a Mains Adaptor

Alternatively, you can use the unit with a special mains adaptor (MEDISANA Art.-No. 51125). This connects to the socket provided at the back of the unit. In this case the batteries remain in the unit. Inserting the connector into the back of the blood pressure monitor switches the batteries off mechanically. It is necessary, therefore, to plug the mains adaptor into the mains socket first of all and then to connect it to the blood pressure monitor. If the blood pressure monitor is no longer being used, first remove the connector from the blood pressure monitor and then pull the mains adaptor out of the mains socket. Doing this means that the date and time will not have to be reset each time.

#### Settings

##### 1. User setting:

Press SET button when power off. Continue to above step, the screen will display press + or - button, it will be changed between user and user and . Press SET button when you confirm the user, then it will enter into the year setting mode.

**NOTE: press the button, to quick change the user when power off.**

##### 2. Year setting:

The input for setting the year then starts flashing. Keep pressing the + or - button until the required year appears. Press SET button when you confirm the year, then it will switch to the month and date setting mode.

##### 3. Month and date setting:

The input for setting the month then starts flashing. Keep pressing the + or - button until the required month appears. Press SET button when you confirm the month, then it will set the date.

As with the month setting, keep pressing the + or - button until the required day appears. Press SET button when you confirm the date, then it will switch to the time setting mode.

##### 4. Time setting:

The input for setting the hour then starts flashing. Keep pressing the + or - button until the required hour appears. Press SET button when you confirm the hour. The input for setting the minute then starts flashing. As with the hour setting, keep pressing the + or - button until the required minute appears. Press SET button when you confirm the minute, which will complete the setting mode. CL appears in the display. You can quit set-up mode by pressing SET button. If the batteries are changed the information is lost and the date and time must be set again.

#### Fitting the cuff

- Push the end piece of the air tube 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.
- If the START/STOP button is pressed, two short beeps are heard and 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 the number 0 flashes for 2 seconds. It automatically inflates the cuff slowly in order to measure your blood pressure. The rising pressure in the cuff is shown on the display.
- The unit inflates the cuff until sufficient pressure has built up for a measurement. Then the unit slowly releases air from the cuff and carries out the measurement. When the device detects the signal, the heart symbol on the display starts to flash, you can hear the beep for every heartbeat once the heartbeat signal is detected.
- When the measurement is finished, you can hear a long beep and the cuff is deflated completely. The systolic and diastolic blood pressure and the pulse value with the pulse symbol appear on the display. The blood pressure indicator flashes next to the relevant coloured bar depending on the blood pressure classification. If the unit has detected an irregular heartbeat, the arrhythmia display also flashes.



**WARNING**  
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 readings are automatically saved in the selected memory (Up to 60 measured values with date and time can be stored in each memory. When the memory is full, the oldest reading is always the first to be deleted.
- The measurement readings remain on the display. The unit switches off automatically after approx. 3 minutes if no buttons are pressed. The unit may also be switched off using the START/STOP button.

#### Discontinuing a measurement

If it is necessary to interrupt a blood pressure measurement for any reason (eg. the patient feels unwell) the START/STOP button can be pressed at any time. The device immediately decrease the cuff pressure automatically.

#### Displays of stored values

This unit features 4 separate memories, each with a capacity of 60 memory slots. Results are automatically stored in the memory selected by the user. Press the + or - button when power off, the latest 3 times average will be shown, press the + button again, the oldest measurement value will be shown, or press the - button again, the latest measurement will be shown, as well as subsequent measurements can be displayed one after the other by pressing the + or - button each time. If you have reached the final entry and do not press a button, the unit automatically switches itself off after approximately 120 seconds in memory recall mode. Memory recall mode can be exited at any time by pressing the START/STOP button, which will also switch the unit off. The oldest value is deleted if 60 measured values have been stored in the memory and a new value is saved.

#### Memory - clear of measurements

If you are sure that you want to permanently remove all stored memories, press the SET button for 6 times until CL appears. Press the START/STOP button, CL will flash for 3 times to clear all the memories. After this press + or - button, M and "no" will be shown on the display which mean that no memory in store.

#### Error messages and error remedying

##### Error indicators

The following symbol will appear on the display when measuring abnormal.

Symbol	Cause	Correction
E-1	Weak signal or pressure change suddenly	Wrap the cuff properly. Remeasure with correct way.
E-2	External strong disturbance	When near cell phone or other high radiant device, the measurement will be failed. Keep quiet and no chatting when measure.
E-3	It appears error during the process of inflating	Wrap the cuff properly. Make sure that he plug is properly inserted in the unit. Remeasure.
E-5	Abnormal blood pressure	Repeat the measurement after relax for 30 mins. If get unusual readings for 3 times, please contact your doctor.
	Low battery	The batteries are too low or empty. Replace all four batteries with new 1.5 V type AA LR6 batteries.

#### Trouble removal

Problem	Check	Cause and solutions
No power	Check the battery power Check the polarity position	Replace new one Installation for proper placement of the batteries polarities
No inflation	Check whether the plug is inserted correctly Check whether the plug is broken or leak	Insert into the air socket tightly Change a new cuff
Err and stop working	Check whether move the arm when inflate Check if chatting when measured	Keep the body peaceful Keep quiet when measure
Cuff leak	Check whether the cuff wrap too loose Check whether the cuff broken	Wrap the cuff tightly Change a new cuff

Please contact the distributor if you can't solve the problem. Do not disassemble the unit by yourself.

#### Cleaning and care

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, naptha, 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 subject the unit to extreme hot or cold temperature. Keep the unit in the storage case when no 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 0297". The blood pressure monitor corresponds to European standards EN 1060-1 and EN 1060-3. 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 EU Guideline 89/336/EEC.

#### Technical specifications

Name and model	: medisana Blood pressure monitor BU A50
Display system	: Digital display
Memory slots	: 4 x 60 measurement values
Measuring method	: Oscillometric
Voltage supply	: 6 V=, 4 x 1.5V battery AA LR6
Measuring range blood pressure	: 0 – 299 mmHg
Measuring range - pulse	: 40 – 199 beats/min.
Maximum measuring deviation of static pressure	: ± 3 mmHg
Maximum measuring deviation of pulse values	: ± 5 % of the value
Pressure generation	: Automatic with pump
Air release	: Automatic
Autom. switch-off	: After 3 min.
Operating conditions	: +5 °C to +40 °C, 15 to 85 % max. relative humidity
Storage conditions	: -20 °C to +55 °C, 10 to 85 % max. relative humidity
Dimensions (L x W x H)	: approx. 139 x 100 x 46 mm
Cuff	: 500 x 150 mm / 22 – 36 cm for adults
Weight (main unit)	: approx. 292 g without batteries
Item number	: 48686
EAN number	: 40 15588 48686 9
Accessories	: - Mains adaptor Art. No. 51125 / EAN 40 15588 51125 7 - Cuff M 22 – 36 cm for adults with average upper arm circumference Art. No. 51168 / EAN 40 15588 51168 4 - Cuff, L 32 - 42 cm for adults with upper arm of large circumference Art. No. 51169 / EAN 40 15588 51169 1

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

#### 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 three 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.

medisana GmbH  
Carl-Schurz-Str. 2, 41460 NEUSS, GERMANY