

GURIN

Upper-Arm Blood Pressure Monitor

MODEL : BPM-110



Instructions for use

Please read this instruction manual carefully
before using your blood pressure monitor

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Important Notice

When using this product, it is advisable to follow all recommendations listed below to ensure accuracy and avoid any injuries.

Note 1: Do not disassemble, repair, or remodel the monitor.

Note 2: Do not expose the monitor to extreme temperatures, high humidity, or direct sunlight.

Note 3: Avoid dropping the device and rough handling. If the device damaged after mechanical shock, please return it to the distributor/manufacturer for repair and calibration. Do not continue to use the damaged device.

Note 4: Pressing the START/STOP button during measurement may cause the device to malfunction.

Note 5: It is important to avoid speaking during measurement as speech will affect the accuracy of the reading.

Note 6: Inaccurate readings may occur if the patient moves during measurement.

Note 7: Avoid measuring blood pressure for at least 30 minutes after exercise, bathing, or returning from outdoor.

Note 8: Measured results serve only as reference.

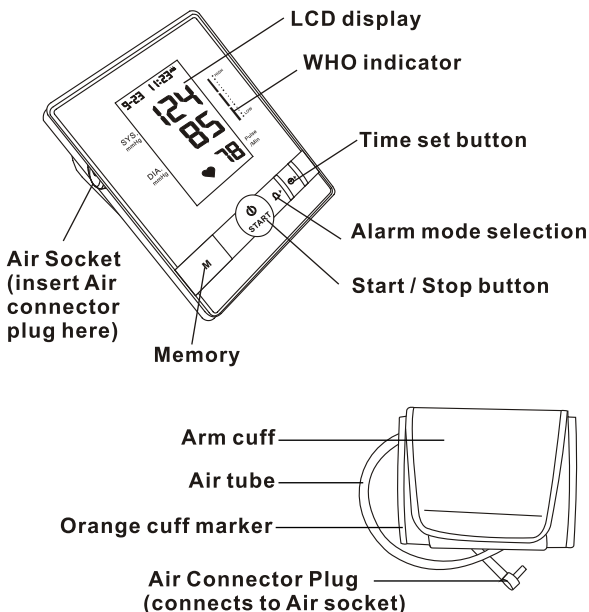
Note 9: Before any further action or intervention please seek the counsel of your doctor or physician.

Note 10: It is recommended that the device should be returned to the distributor/manufacturer for calibration every two years.

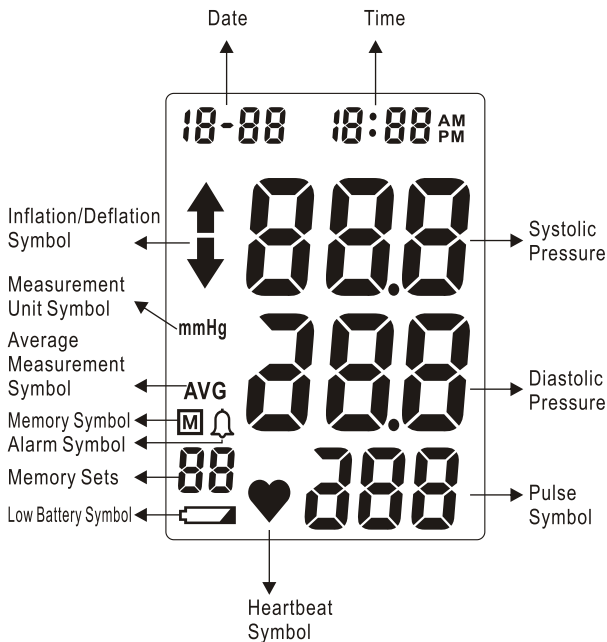
Intended Use

Blood Pressure Monitor applies the Oscillometric method to measure human systolic / diastolic blood pressure and pulse rate. All values are shown on the LCD monitor. This device is designed only for adults.

Device Description



Description of LCD Display



Battery Loading

1. Open the battery cover. (see Figure 1).
 2. Load four 1.5 AA typed alkaline batteries in the compartment and then close the cover.
(see Figure 2).
- ◎ When the "Low Battery Symbol" appears at the left corner on the LCD monitor, please replace all batteries.

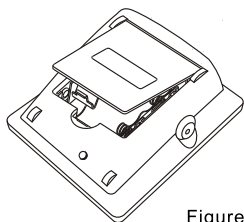


Figure 1

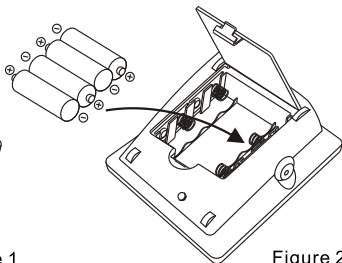
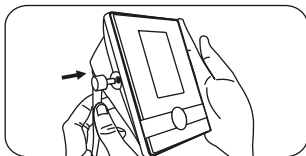


Figure 2

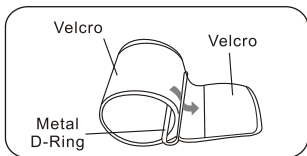
3. If the monitor will not be used for a duration of over one month, it is recommended to remove all four batteries.
4. Batteries must be disposed of in accordance with local environmental and institutional policies.

How to Apply the Arm Cuff

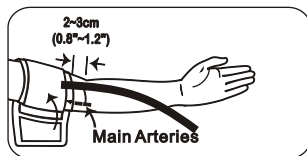
1. Insert the Air Connector Plug of the Arm Cuff into the Air Socket of the device.



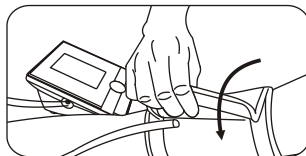
2. Thread the cuff end through the metal loop and slide the cuff onto your arm, making sure that arrow symbol is over the main artery.



3. The lower edge of the cuff should be about 1 inch above your elbow.

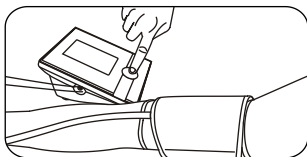


4. Use the velcro wrap to make the cuff snug, but not too tight. Please make sure the end side of cuff (index symbol) is attached within the area of "OK RANGE".

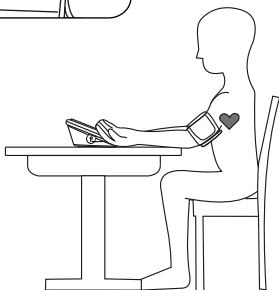


How to Apply the Arm Cuff

5. The cuff should be wrapped so that it fits snugly and stays in place. You should be able to fit one finger between the cuff and your arm.
6. Sit in a chair with your feet flat on the floor and rest your arm on a table so that the cuff is at the same level as your heart.
7. Relax your arm and turn your palm upward.
8. Be sure there are no kinks in the air tubing.

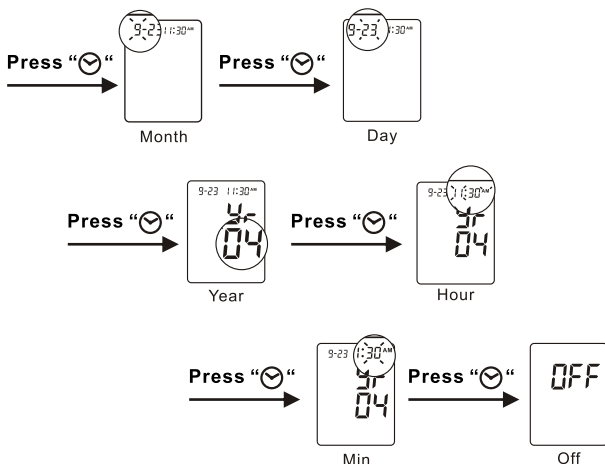


Blood pressure varies in each arm, naturally, so to ensure consistent readings, measure your blood pressure on the same arm always.



Setting the Date and Time

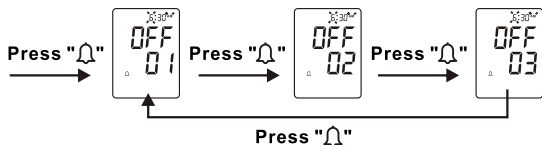
1. After inserting the batteries, this device will enter into the Date and Time settings with the Month value flashing first.
2. To adjust the value of the month, press the "⌚" Time Set Button and the value will increase. Once you reach the month desired, press the "M" Memory Button to confirm the value and move onto the next setting.
3. Follow the steps instructed above to adjust the date and time values accordingly.



Setting the Alarm clock

Alarm Clock Set Procedure:

- (1) Press Alarm Mode Button "🔔" to enter Alarm Clock setting procedure.
- (2) You are able to set 3 sets of memory. You can press Alarm Mode Button "🔔" consequently to select the memory number you would like to apply.



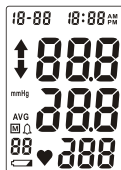
- (3) To set the alarm clock, please press Time Set Button "🕒". Then, you will be able to set your preferred time as the process of Time set procedure on page 8. After finished time setting, please press Time Set Button "🕒" to finalize time setting.
- (4) If you would like to turn off or turn on the alarm clock, you can just press "M" button after setting the preferred time.



Taking Measurements

1. Press the Start / Stop button.

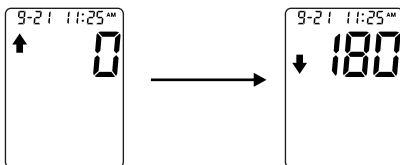
- (1) All display symbols appear for approx. 2 seconds. This is the initial LCD test.



- (2) When the monitor completes the necessary preparations before measurement, the last reading result will be shown on the display for 1 second.



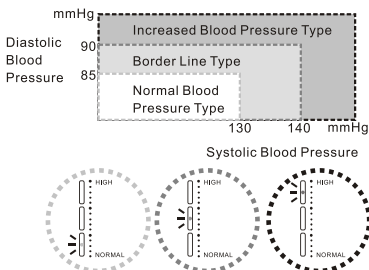
- (3) The Arm Cuff will start inflating and the inflation symbol will display on the LCD. When enough air has been pumped into the cuff, it will stop and begin deflating; the deflation symbol will display on the LCD.



Taking Measurements

2. Measurement Result Display.

- (1) After the measurement is completed, your blood pressure and pulse will be displayed on the LCD automatically.
- (2) The device will auto record the measurement in the first user profile if users do not press any button after measurement.
- (3) To get more information about your blood pressure level, please reference the World Health Organization (WHO) Blood Pressure classifications, as shown in the chart below. It displays the standards for assessing high, low, and normal blood pressures regardless of age.



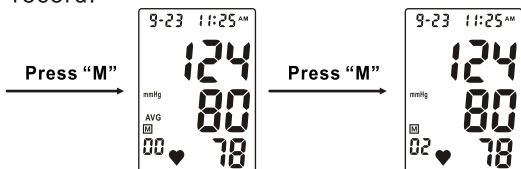
- (4) Press the START/STOP button to turn off the device. After two minutes of inactivity, the device will automatically shut itself off if it is not turned off manually.

Taking Measurements

3. Memory Recall

You can recall up to 60 measurements plus an average of all currently stored measurements in memory to share with your physician or trained healthcare professional.

- (1) Press the “M Button”. The first reading displayed is the average of all measurements stored in memory. The letters “AVG” will appear on the display.
- (2) Continue to press the “M Button” to view the next previously stored measurement.
- (3) Note: The memory bank can store up to 60 readings. When the number of readings exceeds 60, the oldest data will be replaced with the new record.



4. Clearing the memory

- (1) To clear all the memory records, please press “MEM Button” and hold it until the screen shows Clr.
- (2) This function only operates under power off mode.



Cleaning Precautions

1. Clean the device and arm cuff carefully only with a slightly moistened cloth.
2. Do not immerse the device in water. It may cause damage if water enters.
3. Do not use any gas, strong detergent, or solvents to clean the device, including the arm cuff.

Troubleshooting

Problem	Probable Cause	Recommended Action
Nothing appears in the display even when the power is turned on.	Batteries are drained.	Replace all batteries with new ones.
	Battery are not correctly aligned with terminals.	Re-insert batteries in the correct position.
Low Battery Symbol appears.	Batteries are drained.	Replace all batteries with new ones.
	In colder temperatures batteries have weaker electrical charges.	Warm up the batteries, or use the device in a warmer setting.
Device operation time is inconsistent.	Different battery brands have different life spans.	Use Alkaline batteries as much as possible.
No reading after measurement.	Batteries are drained.	Replace all batteries with new ones.
Suspicious blood pressure results the proper position.	Perhaps the cuff was improperly positioned.	Adjust patient and arm cuff to measure.
	Blood pressure naturally varies throughout the day.	Take a rest, relax and measure again.
Suspicious heart rate results.	Bodily movement during device use.	Refrain from moving during measurement.
	Measurement shortly after exercise or exposure to the outdoors.	Do not take measurements after exercise or coming back from the outdoors.
Power switches off automatically.	System design.	Push the Start/Stop button again, and then begin measure again.
During measuring, air re-inflates.	It could be a normal action if the user's blood pressure is higher than the initial pressure value, the device automatically pumps to a higher pressure by 40mmHg each time.	Relax, and try to take a measure again.
	The arm cuff is not fastened properly.	Check that the arm cuff is fastened properly and re-take the measurement.

Error Codes

Err Code	Meaning	Corrective Action
Err 0	No pulse or detect pulses were not enough.	Take off heavy clothes and retry again.
Err 1	Cuff serious leakage or inflation too low.	The arm cuff is not fastened properly. Re-apply the cuff, and take a measurement again.
Err 2	Can't get systolic.	Take a rest, relax and retry again.
Err 3	Cuff pressure is too high.	Take a rest, relax and retry again.
Err 4	Can't figure out diastolic or it outsides the legal range.	Take a rest, relax and retry again.
Err 5	Deflation is too fast.	The arm cuff is not fastened properly. Re-apply the cuff, and take a measurement again.
Err 6	Deflation is too slow.	The arm cuff is not fastened properly. Re-apply the cuff, and take a measurement again.

Applied Standards

This product conforms to the provisions of the EC directive MDD (93/42/EEC). The following standards apply to design and/or manufacture of the products:

- EN 1060-1
Non-invasive sphygmomanometers-
Part1 : General requirements
- EN 1060-3
Non-invasive sphygmomanometers-
Part 3 : Supplementary requirements for electro-
Mechanical blood pressure measuring system
- ANSI/AAMI SP10
Electronic or automated sphygmomanometers
- IEC/EN 60601-1
Medical electrical equipment-
Part 1: General requirement for safety
- IEC/EN 60601-1-2
Medical electrical equipment-
Part 2: Collateral standard:
Electromagnetic compatibility - Requirements and tests
- EN ISO 10993-1
Biological evaluation of medical devices-
Part1: Evaluation and testing
- EN ISO 10993-5
Biological evaluation of medical devices-
Part5: Tests for in vitro cytotoxicity.
- EN ISO 10993-10
Biological evaluation of medical devices-
Part10: Tests for irritation and delayed-type
hypersensitivity.
- EN ISO 14971
Medical devices-Application of risk management to
medical devices.
- Classification according to IEC/ EN 60601-1:
 - Internally powered equipment
 - IPX0
 - Not suitable for use in the presence of a
flammable anaesthetic mixture
 - Continuous operation

Product Specification

- Range of Measurement:
Blood Pressure: 30 - 280mmHg
Pulse Rate: 40 - 199 beats/min
- Accuracy Calibration:
Blood Pressure: ± 3 mmHg
Pulse Rate: $\pm 4\%$
- Operation Environment:
Temperature: 10°C to 40°C 
Humidity: 15% to 85% RH (non-condensing)
- Storage Environment:
Temperature: -20°C to 50°C 
Humidity: 15% to 85% RH (non-condensing)
- Power Supply: 4 x 1.5V AA size alkaline batteries
- Weight: 390g(exclude batteries and cuff)
- Dimensions: Approx. 115mm(W)x135mm(H)x63mm(D)
- Cuff Circumference(M size): Approx. 9"~ 13"
- Memory: 60 sets with WHO indicator
- Classification according to IEC/EN 60601-1:
 - Internally powered equipment
 - IPX0
 - Not suitable for use in the presence of a flammable anesthetic mixture
 - Continuous operation



Caution, consult
accompanying
documents



Type BF
equipment



The device shall
be disposed in
accordance with
national laws after
their useful lives

GURIN

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