

APPROVED By Paul Aylett at 11:53 am, Jun 05, 2012



# Fully Automatic Blood Pressure Monitor

**User Manual** 

**BPM I Series** 

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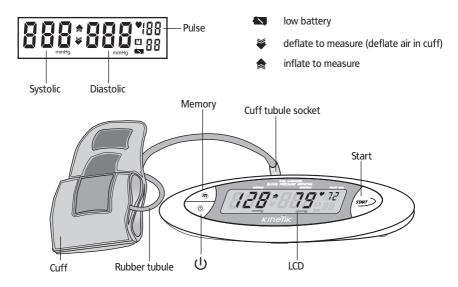
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### Introduction

- $\odot$  Thank you for buying and using the Kinetik Medical Fully Automatic Blood Pressure Monitor.
- $\odot\,$  This monitor is an easy to use and accurate way to measure your blood pressure. Before you start, it is important to read this instruction manual.
- $\odot\,$  Blood pressure testing is easy. To get the most out of this product, please follow our recommendations on the next page.
  - Setting up your Fully Automatic Blood Pressure Monitor
  - Your first test
  - How to test
  - What your results mean

We hope you will be satisfied with your Fully Automatic Blood Pressure Monitor. If you have any questions, please contact your local pharmacist or healthcare professional.

### Parts



## Setting up your Blood Pressure Monitor

#### Loading the Batteries

- a. Open the battery cover at the back of the monitor.
- b. Insert four "AAA" batteries, observing correct polarity.
- c. Close the battery cover.
- $\bigcirc$  Non-rechargeable batteries are not to be recharged.
- $\bigcirc$  Exhausted batteries are to be removed from the monitor.
- $\bigcirc$  The supply terminals are not to be short circuited.
- O Do not mix old and new batteries or different types of batteries. Do not use rechargeable batteries. Only batteries of the same or equivalent type as recommended are to be used. Batteries must be handled with care under adult supervision. If batteries leak and come into contact with the skin or eyes, wash immediately with copious amount of water.
- If using an external power supply, ensure that batteries are removed from battery compartment.
   For external power supply, use a
- 6V600mA DC Adaptor (not included in this pack)

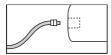


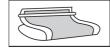
#### Connecting the Cuff

a.Insert the rubber tube plug of the cuff firmly into the cuff socket located on the side of the monitor to ensure there is no air leakage.

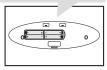
### **Replacing Batteries**

- When the LCD screen displays 'low battery' ▲ , new batteries must be inserted immediately to ensure accurate results.
- $\odot$  Rechargeable batteries with a voltage of 1.2V are not suitable for this product.
- $\bigcirc$  Please dispose of batteries according to battery manufacture's instructions.





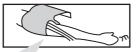
b. The cuff should be ready to use. Ensure that the end is passed through the metal loop and the hook and loop fastening is facing outwards.



## Setting up your Blood Pressure Monitor

### Putting on the Cuff

a. Place the cuff 1~2cm above the elbow joint.

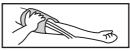


- Ø Measuring can be done on light clothing such as a shirt or blouse. However, if you have a weak pulse, it is recommended you test on a bare arm.
- $\bigcirc$  Remove any tight or restrictive clothing from your arm. For example, restriction caused by rolling up shirt sleeve.
- d. Use your free hand to adjust the tightness of the cuff until it is firm.
  - $\bigcirc$  To get the correct tightness of the cuff, you should be able to fit two fingers under the cuff.
  - Concerned about which arm to use?
    Please refer to 'Your first test' on page 6.

b. Place hand on a flat surface with the palm facing up and with the rubber tube running down the center of the arm.



c. Turn the cuff end outwards and tighten it by pulling it through the metal loop and pressing the hook surface of the cuff on to the loop surface of the cuff.



The cuff can be cleaned by hand with warm, soapy water. Rinse thoroughly with cold water and towel dry. DO NOT IRON.

### Your first test

The British Hypertension Society (BHS) recommends that for your first test, you test both your arms. (Note: Ensure you do not suffer from any medical conditions which will prevent you from having your blood pressure measured in both arms). This will determine which arm should be used for future measurements. Take note of your systolic (high number) reading on both arms. The arm which gives the higher systolic reading should be used in the future for testing.

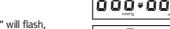
### Example

Left arm:  $132 \\ 86$  (systolic) (diastolic) Right arm:  $128 \\ 84$  (systolic) (diastolic)

 $\bigcirc$  Then use your left arm

### Start

- a. We recommend that you carry out you test whilst sitting at a table (ensuring the cuff is at the same height as your heart). This will place your arm and the monitor in an ideal position for the best results.
- b. Place the cuff on your selected arm (please refer to 'Your first test' on how to select an arm). Ensure the cuff is secure. Do not inflate the cuff when it is not wrapped around the arm.
- c. Once you are in a comfortable position, switch the unit on. The LCD screen will beep.



- d. The LCD screen will display "0mmHg" and the "<sup>\*</sup>/<sub>9</sub>" will flash, indicating that the monitor is ready to use.
- e. Press the "Start" button to begin automatic inflation.



- $\odot$  There are 4 pre-programmed pressurisation values which are set at 187mmHg, 225mmHg, 263mmHg and 300mmHg.
- $\odot$  When automatic inflation begins, the unit will inflate to 187mmHg. If a pulse is not detected, the unit will continue to inflate automatically to the next pressurisation level. This will continue to a maximum level of 300mmHg.
- $\odot$  if you feel any discomfort or pain during this time, turn the unit off and remove the cuff immediately. Consult your local pharmacist or healthcare professional for advice.
- $\bigcirc$  Once automatic inflation begins, you can choose to inflate the cuff to the next pressurisation level by press and hold the "Memory" button just before the cuff reaches the pre-set pressurisation level.

#### **Measuring Process**

a. Once the cuff has automatically inflated, the LCD screen will display " • " whilst the pressure is gradually reduced and the monitor takes an automatic measurement.



b. The monitor will beep when the automatic measurement has finished.

 $\odot$  If there is an error or abnormal reading, please refer to the "Abnormality & Troubleshooting" section.

### Memory

The memory can store 60 sets of measurements. The results will be automatically stored. To check the last result, press "Memory" when the monitor is switched on and the most recently stored result will be displayed.

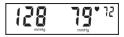
Press "Memory" continuously to display the previously stored measurements one by one. Once the memory has been filled with 60 sets of data, the 61th measurement when taken will be stored as the most recent reading whilst the first reading you took will be automatically deleted.

To delete a stored result, press "Memory" until the desired result is displayed. When desired result is displayed on screen, hold down "Memory" for 3 seconds. The display will now show "dL" until you release the button. Once the button is released, that result will be deleted.



### What the results mean

- a. The LCD screen will automatically display the systolic and diastolic pressure reading in mmHg and the pulse rate in pulse/min after each measurement.
- b. Record date, time, systolic reading, diastolic reading and pulse rate on your record card which you will find in the pack (including anything that may have influenced your blood pressure reading e.g. stress, anxiety). This will help you monitor trends. Please take this record card with you on your visits to your doctor, pharmacist or healthcare professional.



 $\bigcirc$  Measurements should ideally be taken at the same time, under the same conditions and in the same position each time.

Please be aware that blood pressure can fluctuate since it responds to minute changes in the body. It is unusual for it to continuously remain at the same value, hence it is recommended that the blood pressure be determined based on an average of multiple measurements. If you experience a higher than normal reading, do not panic as this can happen. Relax and take a break for at least 10 minutes before measuring your blood pressure again. Low blood pressure (Hypotension) and high blood pressure (Hypertension) can only be diagnosed by a qualified healthcare professional, such as a doctor, pharmacist. If you have any concerns or questions, please contact your pharmacist or healthcare professional.

#### To get an accurate value:

- $\odot$  Measure one hour after eating and avoid measuring immediately after bathing.
- $\bigcirc$  Measure one hour after smoking or drinking alcohol/coffee.
- $\odot$  Relax for 10-20 minutes before taking a measurement and remain relaxed whilst measuring.
- $\odot$  Do not move or talk during measurement, as this will affect the accuracy.
- $\odot$  Do not use this monitor if you suffer from atrial or ventricular premature beats or atrial fibrillation.

#### **Re-measuring**

If you want to measure again, just press the start button.

- $\bigcirc$  Leave at least three minutes between measurements to allow blood circulation to the arm to return to normal.
- $\bigcirc$  Do not measure your blood pressure too many times in one session as it may cause discomfort in the arm.
- $\bigcirc$  If you feel any discomfort or pain, turn the monitor off and remove the cuff immediately.



#### Shut Down

Please turn the unit off after measurement if not re-measuring.

 $\bigcirc$  The unit has an automatic 'switch off' mechanism which means it will turn off after 2 minutes if not being used.

### Interpretation of Blood Pressure (BP) Results

Category of Blood Pressure	Systolic BP (mmHg)	Diastolic BP (mmHg)	Advice on Results	
Hypotension	<100	<60	Practice a healthy lifestyle. Consult your doctor only if suffering symptoms of low BP (eg. fainting)	
Ideal	<120	<80	Practice a healthy lifestyle.	
Normal	120-129	80-84	Practice a healthy lifestyle.	
High Normal	130-139	85-89	Practice a healthy lifestyle.	
Hypertension (mild)*	140-159	90-99	Practice a healthy lifestyle. Re-measure BP monthly over next 3 months. If high levels (≥140/90) persist (eg. 2 high readings on 2 seperate occasions) consult doctor	
Hypertension (moderate)*	160-179	100-109	Practice a healthy lifestyle. Re-measure BP monthly over next 4 months. If high levels (≥140/90) persist (eg. 2 high readings on 2 seperate occasions) consult doctor	
Hypertension (severe)*	180-219	110-119	Re-measure BP in a few days. If BP≥180/110, consult doctor	
Hypertension (very severe)*	≥ 220	≥ 120	We would recommend that you see your pharmacist or healthcare professional.	

\* Your BP should be re-assessed professionally at least once a year - speak to your pharmacist or healthcare professional. If systolic BP and diastolic BP fall into different categories, the higher value should be taken for classification.

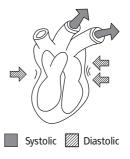
### Additional Information on Blood Pressure

Your heart is just like a pump which works all the time to make the blood flow through all blood vessels. Blood pressure measures the force on the wall of the blood vessels caused by the pressure of the blood. The output of blood from the heart when it pushes blood around the body is called systolic blood pressure. Diastolic blood pressure is the measurement of the blood returning to the heart.

Blood pressure is normally written as, for example:  $\frac{120}{80}$  (systolic) (diastolic)

#### **Fluctuation of Blood Pressure**

Blood pressure fluctuates constantly during the day. Its value in the daytime is higher than in the evening with the lowest level being at midnight. The pressure begins to rise again at 03:00am and reaches its highest level any time during the day – so it is impossible to get a consistent reading. For this reason, please take your measurements at the same time of day.



### **SPECIFICATION**

- (1) Model: BPM I Series
- (2) Digital display system
- (3) Measuring method: Oscillometric method
- (4) Measuring Accuracy: Within±3mmHg
- (5) Blood pressure Measuring range: 0mmHg~300mmHg
- (6) Pulse rate range: 40~180/min
- (7) Pulse rate accuracy: Within±5%
- (8) Power source: DC6V type 4 x AAAsize batteries
- (9) Classification: Internal powered Equipment Type B
- (10) Pressurisation: automatic air inflation by an air pump
- (11) Deflation: Automatic exhaust

- (12) Automatic power off: To be automatically cut off after 2minutes of not being use to save energy.
- (13) Battery life: Approx.2 months with 3 times usage per day
- (14) Environmental temperature for using: 5~40°C
- (15) Environmental temperature for storage: -20~55°C
- (16) Environmental humidity for using: <85%
- (17) Environmental humidity for storage: <90%
- (18) Transport condition:
  - Atmospheric pressure range: 80kPa~105kPa Humidity range: Less than 95% Ambient temperature range: -5~40°C

This is a Class IIa medical device and fulfils the provisions of the medical devices directive 93/42/EEC Blood pressure measurements determined with this device are equivalent to those obtained by a trained observer using the cuff/stethoscope auscultation method, within the limits prescribed by the American National Standard, Electronic or automated sphygmomanometers.

## Abnormality & Troubleshooting

Abnormality	Reason	Action	
The cuff does not inflate or the display	Pressure loss due to air leakage in tube or cuff	Check the connection between the tube and monitor	
shows low pressure during inflation	Rubber tube is not connected properly	Reconnect the rubber tube properly	
LCD screen shows battery symbol	Batteries are low	Change the batteries - refer to the 'Loading the Batteries' section	
LCD screen shows abnormal result	Cuff is not tight or is positioned incorrectly	Tighten the cuff and refer to the section 'Setting up your Blood Pressure Monitor'	
	Subject was excited/nervous or spoke/moved during measurement	Re-test. Do not speak and take 2-3 deep breaths before to relax. Stay calm and remain steady.	
	Wrong position	Adjust your position - refer to part a on page 7	
	Some interference during inflation or incorrect operation during measurement	Refer to the section 'Using your Blood Pressure Monitor'	
	Insufficient inflation	Re-measure	
LCD shows "EE"	Some interference during inflation or incorrect operation during measurement	Re-measure	
No response when buttons pressed	Incorrect operation Take out the batteries for a few minutes then re-insert them, following directions section 'Loading the Batteries'.		

### Maintenance

- 1. Do not drop this blood pressure monitor or subject it to strong impact.
- 2. Avoid exposure to high temperatures, direct sunlight and contact with water.
- 3. If the monitor is stored at temperatures below freezing, do not use immediately. Leave at room temperature for at least one hour before use.
- 4. Do not attempt to disassemble the monitor.
- 5. Do not leave the batteries in the monitor if it is not in use for a long period of time.
- 6. This blood pressure monitor is calibrated at the time of manufacture. If the blood pressure monitor is used according to the instructions, periodic recalibration is not required. If at any time you question the accuracy of the measurement, please contact the retailer immediately.
- 7. Please use only Kinetik branded cuffs and accessories with this product.

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EC REP Kinetik Medical Devices Ltd. Harvard House, The Waterfront, Elstree Road, Elstree, Herts WD6 3BS, UK European Community Design Registration No. 000992490-0003 US Design Patent Application No. 29/319,248 Made in PRC



## Blood Pressure Record Table

Please log the date, time and your SYS (systolic) and DIA (Diastolic) blood pressure levels. We recommend you share this information with your Doctor

Name:					
Date	Time	SYS (Systolic)	DIA (Diastolic)	Pulse Rate	Comments
		1	1	1	

## Explanation of symbols on unit



Read the instructions.



This symbol indicates that this product is a Type BF device.



Symbol for "Environment Protection" – Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local Authority or retailer for recycling advice.



Symbol for "Manufacturer".



This product complies with MDD93/42/EEC requirements.

**EC REP** Symbol for "European Representative".