



## Wrist Type Blood Pressure Monitor

### User Manual

BPM3 Series

# Content

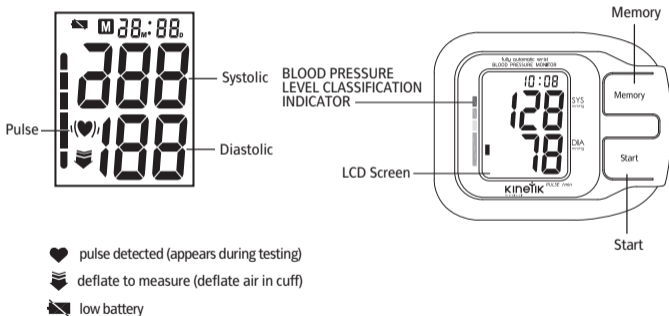
<b>Introduction</b>	<b>2</b>
<b>Parts</b>	<b>3</b>
<b>Setting up your Blood Pressure Monitor</b>	<b>4 - 5</b>
<b>Clock and Data Adjustment</b>	<b>6</b>
<b>Using your Blood Pressure Monitor</b>	<b>7 - 11</b>
<b>Assessing High Blood Pressure for Adults</b>	<b>12</b>
<b>Additional Information on Blood Pressure</b>	<b>13</b>
<b>Specification</b>	<b>14</b>
<b>Interpretation of Blood Pressure (BP) Results</b>	<b>15</b>
<b>Troubleshooting</b>	<b>16 - 17</b>
<b>Maintenance</b>	<b>18</b>
<b>Blood Pressure Record Table</b>	<b>19</b>
<b>Explanation of Symbols on Unit</b>	<b>20</b>

# Introduction

- Thank you for purchasing the Kinetik Medical Wrist Type Blood Pressure Monitor.
- This monitor is an easy to use and accurate way to measure your blood pressure. Before you start, it is important that you read this instruction manual.
- Blood pressure testing is easy. To get the most out of this product, please follow the subsequent recommendations.

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

# Parts




# Setting up your Blood Pressure Monitor

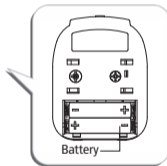
## Loading Batteries

- Open battery cover at the back of the device (cover slides off).
- Insert two "AAA" batteries, observing correct polarity.
- Close the battery door.

- Non-rechargeable batteries are not to be recharged.
- Always remove exhausted batteries from the monitor.
- The supply terminals are not to be short circuited.
- 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 skin or eyes, wash immediately with copious amounts of water.

## Replacing Batteries

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

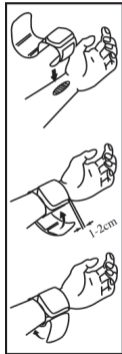


# Setting up your Blood Pressure Monitor

## Putting on the Cuff

- Place the cuff on bare skin onto the left wrist making sure that the meter body is on the palm side, centre of the wrist, as in the picture.
- Place the cuff 1~2cm above the wrist joint.
- Use your free hand to adjust the tightness of the cuff until it is firm.
- To ensure the cuff is the correct tightness, no tension should be felt on the wrist.

- Please put the cuff on the left wrist.
- Do not wrap the cuff too tightly, otherwise results will be inaccurate.
- The cuff can be detached and cleaned by hand with warm, soapy water. Rinse thoroughly with cold water and towel dry.
- To detach the cuff, carefully pull it away from the monitor body. To reattach, push the cuff and monitor body together so that the clips lock in place, ensuring it is the correct way around (the long part of the cuff should be to the left of the LCD screen).
- DO NOT IRON.



## Clock and Data Adjustment

- Once you install the battery or turn off the monitor, it will enter Clock Mode, and LCD will display time and date by turns. See picture 2&2-1.
- While the monitor is in Clock Mode, pressing both the "Start" and "Memory" button simultaneously, a beep is heard and the month will blink at first. See picture 2-2. Press the button "Start" repeatedly, the day, hour and minute will blink in turn. While the number is blinking, press the button "Memory" to increase the number. Hold down the button "Memory", the number will increase fast.
- You can turn off the monitor by pressing "Start" button when the minute is blinking, then the time and date is confirmed.
- The monitor will turn off automatically after 1 minute of no operation, with the time and date unchanged.
- Once you change the batteries, you should re-adjust the time and date.



picture 2



picture 2-1



picture 2-2

# Using your Blood Pressure Monitor

## Getting Started

- a. We recommend that you carry out your test whilst sitting at a table (ensuring the cuff is at the same height as your heart). This will place your wrist and the monitor in an ideal position to obtain the best results.
- b. Place the cuff on your left wrist. Ensure the cuff is secure. Do not inflate the cuff when it is not wrapped around the wrist.



- c. Once you are in a comfortable position, switch the unit on by pressing "Start" button. The device will beep.
- d. After the self-verification which takes about 2 seconds, the LCD screen will show "0" and begin automatic inflation.

# Using your Blood Pressure Monitor

- 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.
- **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.**
- Once automatic inflation begins, you can choose to inflate the cuff to the next pressurisation level by pressing 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.

- If there is an error or abnormal reading, please refer to the "Troubleshooting" section.

# Using your Blood Pressure Monitor

## What the Results Mean

- The LCD screen will automatically display the systolic and diastolic pressure reading in mmHg and the pulse rate in pulse/min after each measurement.
- 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 or anxiety). This will help you monitor trends. Please take this record card with you on your visits to your doctor, pharmacist or healthcare professional.

○ 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 or pharmacist. If you have any concerns or questions, please contact your pharmacist or healthcare professional.

### To get an accurate value:

- Measure 1 hour after eating and avoid measuring immediately after bathing.
- Measure at least 1 hour after smoking or drinking alcohol/coffee.
- Relax for 10-20 minutes before taking a measurement and remain relaxed whilst measuring.
- Do not move or talk during measurement, as this will affect the accuracy.
- Do not use this monitor if you suffer from atrial or ventricular premature beats or atrial fibrillation.

# Using your Blood Pressure Monitor

## Re-measuring

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

- Leave at least 3 minutes between measurements to allow blood circulation to the arm to return to normal.
- Do not measure your blood pressure too many times in 1 session as it may cause discomfort in the arm.
- If you feel any discomfort or pain, turn the monitor off and remove the cuff immediately.

## Reading stored results from the memory

- a. Press button "Memory" when the monitor is off to enter the memory mode. The LCD will show the number of results stored, then the most recent result will be displayed (the "01" in the top left of the LCD is the memory number), as in the picture. Continue pressing the "Memory" button to progress through the stored results (memory number will increase by 1 each time).



## Using your Blood Pressure Monitor

- b. Press “Start” at any time whilst in memory display mode, to switch the device off. In this mode, the device will automatically switch off after 1 minute of inactivity.
- c. If there are no results stored in the memory, the LCD will show dashes, as below picture for both blood pressure readings and for pulse rate. Pressing “Memory” or “Start” button will switch the device off.



### Clearing the memory

Whilst in memory display mode, hold down the “Memory” button for 3 seconds. All stored results will be deleted after 3 “beeps”. The LCD will appear as in above picture.

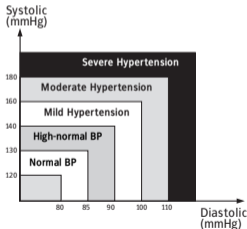
### Shut Down

- The unit has an automatic ‘switch off’ mechanism which means it will turn off after 1 minute if not being used.

# Assessing High Blood Pressure for Adults

The following guidelines for assessing high blood pressure (without regard to age or gender) have been established by the World Health Organization (WHO). Please note that other factors (e.g. diabetes, obesity, smoking, etc.) need to be taken into consideration. Consult your doctor for accurate assessment.

## Classification of Blood Pressure for Adults



BLOOD PRESSURE CLASSIFICATION	SBP mmHg	DBP mmHg	COLOR INDICATOR
Optimal	<120	<80	GREEN
Normal	120-129	80-84	GREEN
High-Normal	130-139	85-89	GREEN
Stage 1 Hypertension	140-159	90-99	YELLOW
Stage 2 Hypertension	160-179	100-109	ORANGE
Stage 3 Hypertension	≥ 180	≥ 110	RED

The blood pressure classification table above is intended only to categorize different levels of blood pressure. If you are concerned by the results that you obtain, consult your doctor.

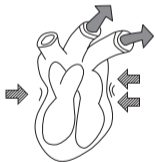
## Additional Information on Blood Pressure

Your heart is just like a pump which works all the time to make the blood flow through all of your body's blood vessels. Blood pressure measures the force exerted on the wall of the blood vessels 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.



■ Systolic    ▨ Diastolic

# Specification

1. Model: BPM 3
2. Measuring method: Oscillometric method, automatic inflation, automatic measurement, 60 memory functions
3. Wrist cuff size: 300mm x 70mm
4. Unit size: 92mm x 65mm x 30mm
5. Measuring accuracy: within  $\pm 3$ mmHg
6. Blood pressure measuring range: 0mmHg~295mmHg
7. Pulse rate range: 40~180/min
8. Pulse rate accuracy: within  $\pm 5\%$
9. Power source: 2 x AAA batteries (included)
10. Classification: Internal powered equipment Type B
11. Pressurisation: automatic air inflation by an air pump
12. Deflation: Automatic exhaust
13. Automatic power off: Device automatically switches off after 1 minute of non-use to save energy.
14. Environmental temperature for using: 5°C~40°C
15. Environmental temperature for storage: -20°C~55°C
16. Environmental humidity for using: <85%
17. Environmental humidity for storage: <95%


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 for electronic or automated sphygmomanometers.

# 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 ( $\geq 140/90$ ) persist (eg, 2 high readings on 2 separate occasions) consult doctor.
Hypertension (moderate)*	160-179	100-109	Practice a healthy lifestyle. Re-measure BP monthly over next 4 months. If high levels ( $\geq 140/90$ ) persist (eg, 2 high readings on 2 separate occasions) consult doctor.
Hypertension (severe)*	180-219	110-119	Re-measure BP in a few days. If BP $\geq 180/110$ , consult doctor.
Hypertension (very severe)*	$\geq 220$	$\geq 120$	Visit your doctor or hospital.

\* 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.

## Troubleshooting

Abnormality	Reason	Checkout
LCD shows low battery symbol 	Low Battery	Change the batteries.
LCD shows "Er 0"	Pressure system is unstable before measurement.	Don't move and try again.
LCD shows "Er1"	Fail to detect Systolic pressure	
LCD shows "Er 2"	Fail to detect Diastolic pressure	
LCD shows "Er 3"	Pneumatic system blocked or cuff is too tight during inflation	Apply the cuff correctly and try again.
LCD shows "Er 4"	Pneumatic system leakage or cuff is too loose during inflation	

## Troubleshooting

Abnormality	Reason	Checkout
LCD shows "Er 5"	Cuff pressure above 300mmHg	Measure again after 5 minutes. If the monitor is still abnormal, please contact the local distributor or the factory.
LCD shows "Er 6"	More than 3 minutes with cuff pressure above 15 mmHg	
LCD shows "Er 7"	EEPROM accessing error.	
LCD shows "Er 8"	Device parameter checking error	
LCD shows "Er A"	Pressure sensor parameter error	
No response when you press button or load battery	Incorrect operation or strong electromagnetic interference	Take out batteries for 5 minutes, and then reinstall all batteries.

# Maintenance

1. Do not drop this blood pressure monitor or subject it to heavy 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 1 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. It is recommended the performance should be checked every 2 years or after repair.
7. If the monitor becomes dirty, please clean it with a soft dry cloth. Do not use any abrasive or volatile cleaners.
8. The supplier will make available on request the circuit diagrams, component part lists, descriptions, calibration instructions, or other information which will assist the USER's appropriately qualified technical personnel to repair those parts of EQUIPMENT which are designated by the manufacturer as repairable.



Harvard Medical Devices Ltd.

Unit 1301-2, 13th Floor, Railway Plaza,  
39 Chatham Road South, Tsimshatsui,  
Kowloon, Hong Kong.



Kinetik Medical Devices Ltd.

Harvard House, The Waterfront, Elstree Road,  
Elstree, Herts WD6 3BS, UK



## 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

## Explanation of Symbols on Unit



This symbol indicates that this product is a Type B 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.



Symbol for "European Representative".