

Lloydspharmacy 

Blood Pressure Monitor

User Manual



Model LBPK1



British Hypertension Society

This blood pressure monitor has been tested and approved by the British Hypertension Society.

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Introduction

Thank you for purchasing and using the Lloydspharmacy Fully Automatic 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 user manual.

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 Lloydspharmacist or healthcare professional.

Parts



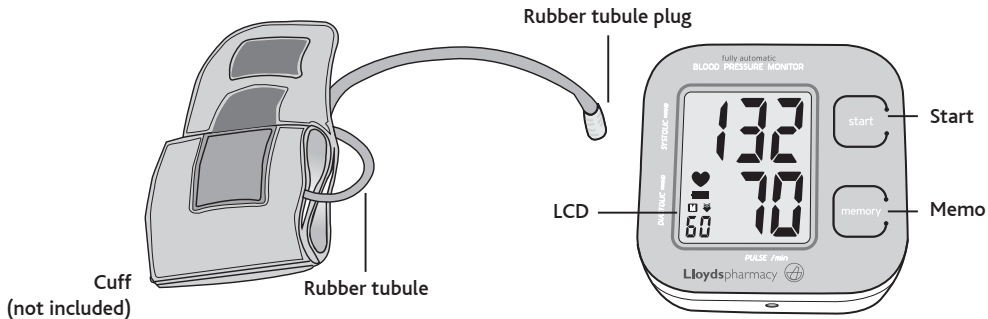
low battery



deflate to measure (deflate air in cuff)



inflate to measure



Setting up your Blood Pressure Monitor

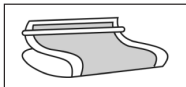
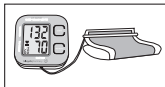
Loading Batteries

- Open the battery cover on the base of the monitor.
- Insert four "AAA" batteries, observing correct polarity.
- Close the battery door.

- Non-rechargeable batteries are not to be recharged.
- Exhausted batteries are to be removed 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.


Connecting the Cuff

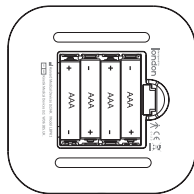
- Insert the plug end of the rubber tubule firmly into the cuff socket located on the front of the monitor to ensure there is no air leakage.



- 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. NOTE: Cuff is supplied separately.

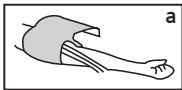
Replacing Batteries

- When the LCD screen displays 'low battery'  new batteries must be inserted immediately to ensure accurate results.
- Please dispose of batteries according to battery manufacturer's instructions.



Setting up your Blood Pressure Monitor

Putting on the Cuff:



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

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. Remove any tight or restrictive clothing from your arm. For example, restriction caused by rolling up shirt sleeve.



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.



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.

d. Use your free hand to adjust the tightness of the cuff until it is firm.

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

Setting up your Blood Pressure Monitor

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 (higher number) reading on both arms. The arm which gives the higher systolic reading should be used in the future for testing.

Example

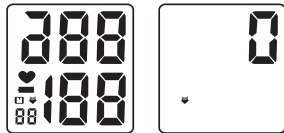
Left arm:	<u>132</u>	(systolic)
	86	(diastolic)
Right arm:	<u>128</u>	(systolic)
	84	(diastolic)

Then use your left arm

Using your Blood Pressure Monitor

Start

- We recommend that you carry out your test whilst sitting at a table with both of your feet flat on the floor (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.
- 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 upper arm.
- Once you are in a comfortable position, press the "memory" button to begin automatic inflation.



- There are 4 pre-programmed pressurisation values which are set at 187mmHg, 225mmHg, 263mmHg and 300mmHg.
- 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 Lloydspharmacist or healthcare professional for advice.

Using your Blood Pressure Monitor

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 "Abnormality & Troubleshooting" section.

Using your Blood Pressure Monitor

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.

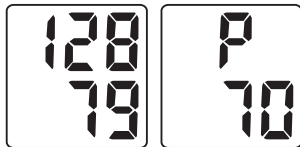
Press "Memory" continuously to display the previously stored measurements one by one. Once the memory has been filled with 60 sets of data, the 61st measurement when taken will be stored as the most recent reading whilst the first reading you took will be automatically deleted.

To delete all stored results, press "Memory" once to memory mode. Press and hold "Memory" for 3 seconds. All results will be deleted.

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 back of the user manual (including anything which 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, Lloydspharmacist 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 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 Lloydspharmacist or healthcare professional.

To get an accurate value:

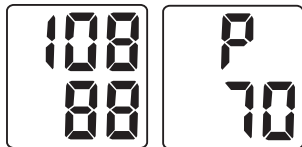
- Measure one hour after eating and avoid measuring immediately after bathing.
- Measure one hour after smoking or drinking alcohol/coffee.
- Relax for 10-20 minutes before taking a measurement and remain relaxed whilst measuring.
- Do not move or talk during measurement, as this will affect the accuracy.
- 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, press "start" button to switch off and press "start" button again.

- Leave at least three minutes between measurements to allow blood circulation to the arm to return to normal.
- Do not measure your blood pressure too many times in one 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.



Shut Down

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

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

Interpretation of Blood Pressure (BP) Results

Category of Blood Pressure	Systolic BP (mmHg)	Diastolic BP (mmHg)	Advice on Results
Hypotension	<90	<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 weeks. If high levels ($\geq 140/90$) persist (eg. 2 high readings on 2 separate occasions) consult your Lloydspharmacist or doctor.
Hypertension (moderate)*	160-179	100-109	Practice a healthy lifestyle. Re-measure BP weekly over next 4 weeks. If high levels ($\geq 140/90$) persist (eg. 2 high readings on 2 separate occasions) consult your Lloydspharmacist or doctor.
Hypertension (severe)*	180-219	110-119	Re-measure BP in a few days. If BP $\geq 180/110$, consult your Lloydspharmacist or doctor.
Hypertension (very severe)*	≥ 220	≥ 120	We would recommend that you see your doctor urgently.

* Your BP should be re-assessed professionally at least once a year - speak to your Lloydspharmacist 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

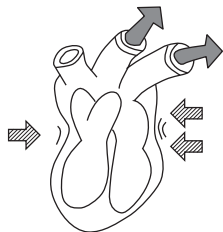
Your heart is just like a pump which works all the time to make the blood flow through all blood vessels. Blood pressure measures the force on the wall of the blood vessels caused by the pressure of the blood. The output of blood from the heart when it pushes blood around the body is called systolic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

Blood pressure is normally written as, for example:

120 (systolic)
80 (diastolic)

Fluctuation of Blood Pressure

Blood pressure fluctuates constantly during the day. Its value in the day time 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: LBPk1
- (2) Digital display system
- (3) Measuring method: Oscillometric method
- (4) Measuring Accuracy: Within ± 3 mmHg
- (5) Blood pressure Measuring range:
0mmHg~300mmHg
- (6) Pulse rate range: 40~180/min
- (7) Pulse rate accuracy: Within $\pm 5\%$
- (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 1 minute of non 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:
-20~65 °C
- (16) Environmental humidity for using: <85%
- (17) Environmental humidity for storage: <90%
- (18) Transport condition:

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 shows low pressure during inflation	Pressure loss due to air leakage in socket or cuff.	Check the connection between the socket and monitor.
	Socket is not connected properly.	Reconnect the socket 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 page 6.
	Some interference during inflation or incorrect operation during measurement.	Refer to the section 'Using your Blood Pressure Monitor'.
No response when buttons pressed	Incorrect operation.	Take out the batteries for a few minutes, then re-insert them, following directions in section 'Loading the Batteries'.
LCD shows "Er 0"	Pressure system is unstable before measurement.	Don't move and try again.
LCD shows "Er 1"	Systolic pressure detect fail.	
LCD shows "Er 2"	Diastolic pressure detect fail.	

Abnormality & Troubleshooting


LCD shows "Er 3"	Pneumatic system blocked or cuff is too tight during inflation.	Position the cuff correctly and try again.
LCD shows "Er 4"	Pneumatic system leakage or cuff is too loose during inflation.	
LCD shows "Er 5"	Inflation above 300mmHg.	
LCD shows "Er 6"	Over 3 minutes while pressure above 15 mmHg.	Measure again after 5 minutes. If the monitor is still abnormal, please contact your local Lloydspharmacy.
LCD shows "Er 7"	EEPROM accessing error.	
LCD shows "Er 8"	Device parameter check error.	
LCD shows "Er A"	Span error.	

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.



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Warranty

This product is guaranteed for a period of one year from the date of purchase against mechanical and electrical manufacturing defects. There are no user serviceable parts inside the instrument. Any attempted repair by unauthorized persons invalidates the warranty. This does not affect your statutory rights.

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

