

BPM 1000i

LifeSpan™

Digital Blood Pressure Monitor
With Cuff and USB Drive

Owners Manual

by **PCE**
HEALTH & FITNESS

For safe use and product knowledge, please
completely read this Product OWNERS MANUAL.

LifeSpan

by PCE

Welcome to LifeSpan

Congratulations for taking control of your health and fitness and purchasing a new state-of-the-art LifeSpan blood pressure monitor to regularly monitor your blood pressure! Monitoring your resting heart rate and blood pressure is vital if you are currently challenged with high blood pressure.

Regular measurement is an important step to maintain and improve your cardiovascular health. If you don't currently have high blood pressure, regularly monitoring your blood pressure can reduce your risk of developing heart disease, the number one killer in our society.

The LifeSpan blood pressure monitor is fully integrated with the Interactive Health Partner (IHP) online health management program that supports you in taking a more active role in monitoring and managing your health. Your blood pressure monitor comes with a Membership Kit, which includes a Membership ID. If you are a new member use this membership number and the accompanying instructions to set up your new account. If you are already a member you can use your new Blood Pressure Monitor with your current account.

In this manual we have included information on proper usage and the operation of your blood pressure monitor. Contact your physician or health fitness instructor for specific information about your blood pressure. Self-diagnosis and treatment using the results may be dangerous or life threatening.

For more information about this and other LifeSpan products visit our web site at www.LifeSpanFitness.com where we include additional information and tools to help you maintain your exercise program and achieve your health and fitness goals.

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Neither PCE Health and Fitness nor its representatives can accept responsibility for any damages or injury incurred as a result of information presented in this manual except under the terms of the product warranty.

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Safety Information

To assure the correct and safe use of your blood pressure monitor basic safety measures should be taken. Please read this instruction manual completely before using your new blood pressure monitor and follow the safety instructions provided.

1. This digital blood pressure monitor is designed for use by adults only. Do not use this device on infants or allow use by children who are unsupervised.
2. Before using this device to obtain blood pressure at home, consult your physician to verify your blood pressure range for reference.
3. This device is not suitable for persons who have been diagnosed with an arrhythmia.
4. The pulse display is not suitable for checking the frequency of a pacemaker.
5. If the cuff causes any discomfort during measurement, turn off the unit immediately.
6. If the cuff pressure is over 200mmHg and the device does not deflate automatically, pull off the Velcro strap to detach the cuff immediately.
7. The device can only be used in atmospheric air; DO NOT use in flammable gas such as an anesthetic protection (AP/APG) environment.
8. Blood pressure measurements obtained with this unit are equivalent to those obtained by a trained person using the cuff/stethoscope auscultation method, within the limits prescribed in the ANSI/AAMI SP-10, EN1060-1, EN1060-3 & EN1060-4.
9. The PCB & batteries are considered poisonous. Handle with care and dispose according to applicable regulations. Unlawful disposal may cause environmental pollution.
10. If your systolic blood pressure is known to be higher than 220mmHg, inflating to a higher pressure than necessary may result in bruising where the cuff is applied.

Understanding Blood Pressure

What is blood pressure?

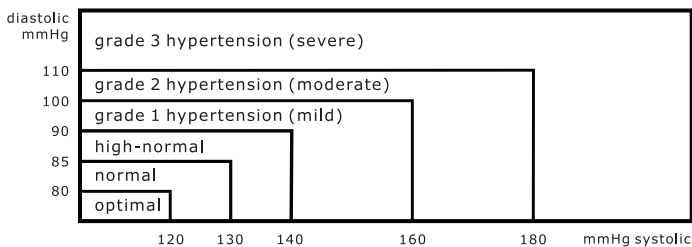
Blood Pressure is the result of two forces; one is created by the heart as it “contracts” to pump blood into the arteries and through the circulatory system, the other is generated by the arteries as they “relax” after the pumping phase has ended.

What is the difference between the systolic and diastolic measurements?

Systolic blood pressure represents the highest pressure at the height of the heart's contraction. Diastolic pressure is the lowest pressure when the heart is resting after the pumping phase.

Is my blood pressure normal?

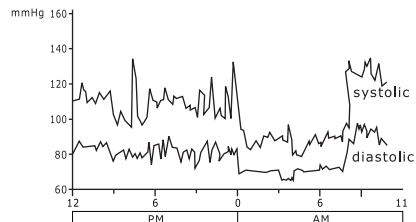
In general, a lower blood pressure reading is better than a higher reading unless it causes some uncomfortable or dangerous symptoms such as fainting. Always talk to your physician about your blood pressure and find out your “normal” blood pressure range. The following blood pressure classification diagram released by the World Health Organization can be a reference for evaluating your blood pressure readings.



Source: World Health Organization - International Society of Hypertension Guidelines for the Management of Hypertension Guidelines Subcommittee. Journal of Hypertension 1999,17:151~183

Fluctuation and Variation in Blood Pressure

The following chart shows possible blood pressure fluctuations during a 24hr period.



Factors that can influence blood pressure include:

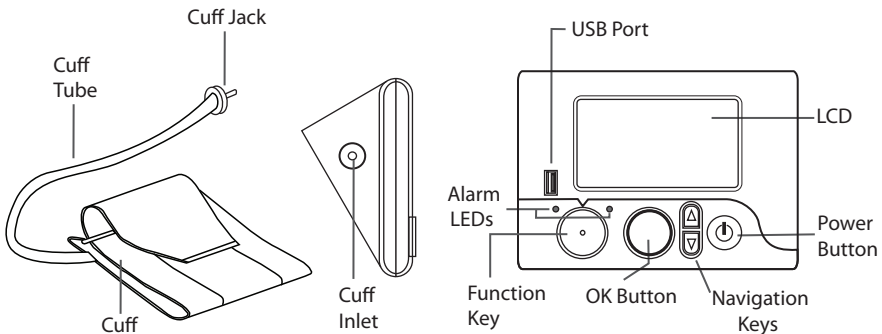
- Bathing
- Breathing
- Conversation
- Alcohol Consumption
- Exercise
- Mental Tension/Stress
- Meals
- Moving
- Temperature Change
- Smoking

Understanding Your Blood Pressure Monitor

Features

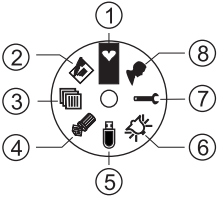
1. Large Dual-screen LCD; measures systolic and diastolic pressures and resting heart rate.
2. USB port; records measurement values to an external USB storage device for easy uploading to your online health fitness account, powered by the Interactive Health Partner (IHP). This feature requires having an active IHP or LifeSpan Fitness Club membership.
3. Rotating function key; provides a simple to use interface.
4. Large built-in memory; provides six user memory banks, each bank stores 30 records.

The Device



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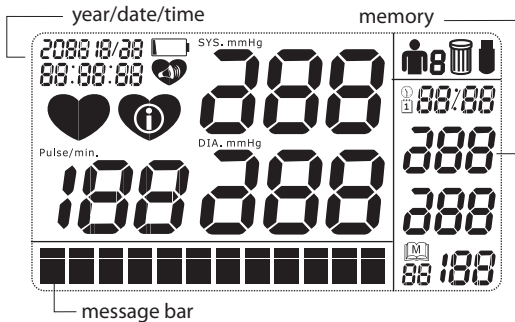
The Function Key



1. Take measurements
2. View records
3. View statistical data
4. Delete memory

5. USB user information
6. View alarm
7. System settings
8. Select target user

The LCD

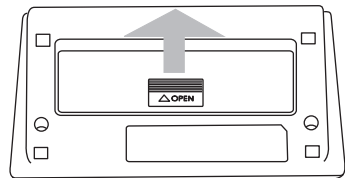


- : low battery indication
- : heart rate sound is On
- : memory bank X
- : USB is connected
- : delete stored readings
- : heart rate indicator

Preparation Before Using The Unit

Installing/Replacing Batteries

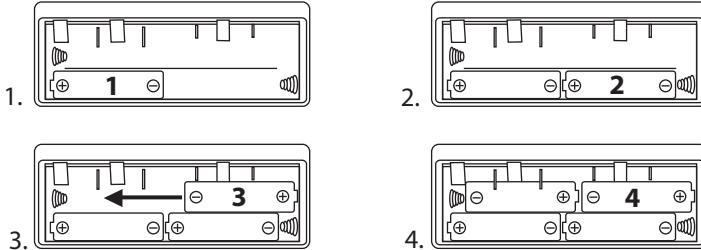
1. Open the battery cover.
2. Put batteries into the compartment matching correct polarities "+" and "-". Please refer to the next section for detailed installation steps.
3. Close the cover.



- It is recommended to use the same brand of alkaline batteries to ensure compatibility.
- Replace all batteries if the low battery indicator appears.
- Remove the batteries if the unit will not be used for a long period of time.

Battery Installation

Place the batteries in the monitor in the following order:

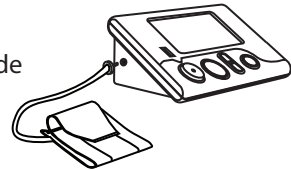


After battery installation, it is required to set the year, date and time first. A correct date and time is very important for tracking your blood pressure recordings. Related setting procedures are provided in the “Setting the Time” section on page 14.



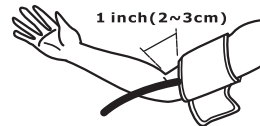
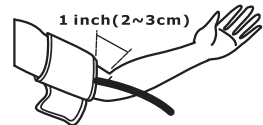
Connecting Cuff to the Unit

Insert the cuff jack into the cuff inlet on the left side of the unit.



Fitting the Cuff

1. Wrap the cuff around a bare-skinned left upper arm. Be sure the air tube points down in the direction of lower arm when it comes out of the cuff.
2. Tighten the cuff, but make sure it is not too tight so that you allow proper inflation. The cuff's lower edge should be about one inch from the elbow.
3. If it is not possible to fit the cuff to the left arm, it can also be wrapped around the right upper arm.

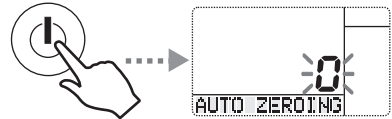


The standard cuff equipped with this device is a Medium size. It is suitable for those with an arm circumference between 22cm to 32cm (8.75 ~ 12.5 inches). Arm sizes out of this range might cause an incorrect measurement.

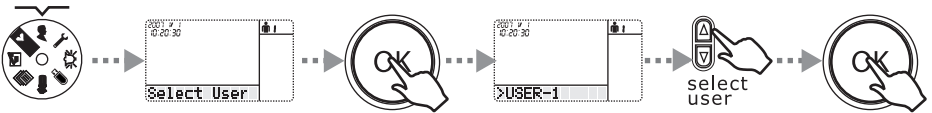
Measuring Your Blood Pressure




Turn on the Unit

Press the POWER button to turn on.
The unit starts an auto-zero calibration with a flashing "0".



Select the Target User or Insert Your IHP Compatible USB Device

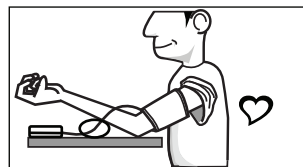


1. Rotate the FUNCTION key to point at the  symbol.
2. The message bar should show "Select User". Press the OK button to enter.
3. There are six users to choose from. Press the navigating  or  keys to select the correct user number. The message bar should display USER-1, USER-2 ... USER-6 in sequence.
4. Confirm the target user by pressing the OK button or by rotating the FUNCTION key to another mode.

If you plug a USB storage device into the USB port, the information on the USB will automatically override the user selected by the FUNCTION key and the LCD shows "USB User "; which means that the data stored in the USB storage device is accessed. This allows the data to be read and stored to the USB storage device.


Proper Posture

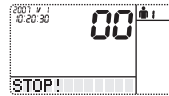
Sit upright and ensure the cuff is at heart level. Relax for a few minutes before taking your measurement, then measure in a natural position.



Begin Measuring



1. Rotate the FUNCTION key to point at the  symbol.
2. The message bar shows a message "READY TO MEASURE...".
3. Press the OK button to start measuring. The cuff will inflate slowly.
4. Results are shown on the large window in the LCD. The right side of the display shows the last measured blood pressure.



5. During measurement, the device can be interrupted by pressing the OK key.

Wait for a least one minute in a relaxed position before repeating a measurement. Take your blood pressure at the same time everyday establish a blood pressure pattern. Then begin taking blood pressure at different times during the day to be sure that it isn't varying too much or reaching higher levels at different times of the day that you would otherwise be unaware of.

Review Records

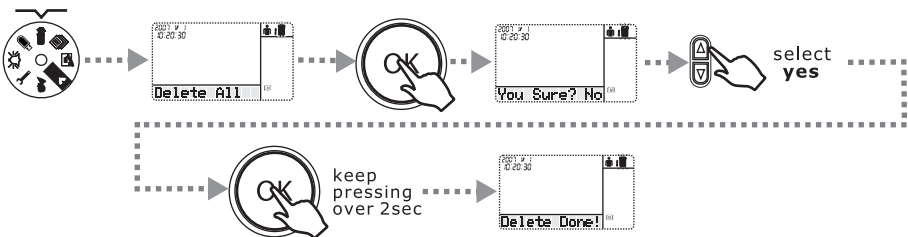
The unit is equipped with six user memory banks, and allows each user profile to store up to 30 readings.



1. To view stored blood pressure readings, rotate the FUNCTION key to the symbol. The message bar shows "View Record". Press the OK button to confirm.
2. Press the ▲ or ▼ keys to view all data.

If you need to view another user's records, select the target user first, then scan through each record.

Delete All Memory Data



1. Rotate the FUNCTION key to the symbol.
The message bar shows "Delete All".
2. Press the OK button to enter. The message bar displays "You Sure? No".
Press the navigating ▲ or ▼ keys to switch to "Yes".
3. To confirm the deletion, press and hold the OK button for at least two seconds.
The message bar then shows "Delete Done!".

This function can only delete the blood pressure records for the selected user. Records associated with other users will remain stored.

When using a USB storage device, the function is disabled, therefore, data in the drive cannot be deleted by the unit.

Review Statistical Data



1. The BPM1000i Blood Pressure Monitor allows you to view statistical data including average, maximum and minimum values of systolic and diastolic pressures.
2. To view the statistical data, rotate the FUNCTION key to the symbol. The message bar shows "Statistics". Press the OK button to select. The message bar will first show the number of records stored in the data bank.
3. Press the navigating or keys to view statistical information for each user.

Note: The statistical values are calculated only on the data stored in the selected user's profile.

Values Include:

AVG_SYS: average value of all memorized systolic pressures

AVG_DIA: average value of all memorized diastolic pressures

MAX_SYS: the maximum value of all systolic pressure in memory

MAX_DIA: the maximum value of all diastolic pressure in memory

For USB users, all records will be stored and retained in the IHP online health management program.

Device Settings



1. The BPM1000i allows you to set/change the operating status including recording mode, date/time, heart beat, sound, etc.
2. To change a setting, rotate the FUNCTION key to the symbol. The message bar displays "Set Mode". Press the or keys to scroll through the options and press the OK button to enter the setting.

Setting the Recording Mode



1. Press the navigating ▲ or ▼ keys to select ">Save Record" displayed on the message bar. There are two modes, Auto or Manual, from which to select.
2. Press the OK button again and the message bar displays ">>Auto Save", which indicates the measurement results will be saved automatically.
3. To change the saving mode to manual, press the navigating ▲ or ▼ keys to switch to ">>Manual Sav" shown on the message bar.
4. Press OK button to confirm your final selection.

It is recommended to select the Auto Saving mode. If you select the Manual mode, however, the message bar will show "Save? Yes" after taking your measurement, and you can press OK button to save data, or press the navigating ▲ or ▼ keys to select "Save? No", then press the OK button to cancel the saving.


Setting the Time



1. To start the Time setting, press the ▲ or ▼ keys to select ">Set Time".
2. Press the OK button and the message bar will flash ">>SET YEAR". Press the ▲ or ▼ key to change the year.
3. Press OK to confirm the year. The device then tabs to the month. Repeat the above steps to set month, date, hour, minute and seconds in sequence.

Setting the Heart Beat Sound



1. This setting turns on a corresponding sound beep each time the BPM1000i detects a pulse. The default setting is "OFF".
2. To trigger the heart beat sound, press the navigating ▲ or ▼ keys until ">Heart B. Snd" displays on the message bar.
3. Press OK to enter the setting. The message bar displays ">>Sound OFF".
4. To change the sound mode, press the navigating ▲ or ▼ keys to switch to ">>Sound ON" and the LCD will display the .
5. Press the OK button to confirm your final selection.

Setting the Operating Beep Sound

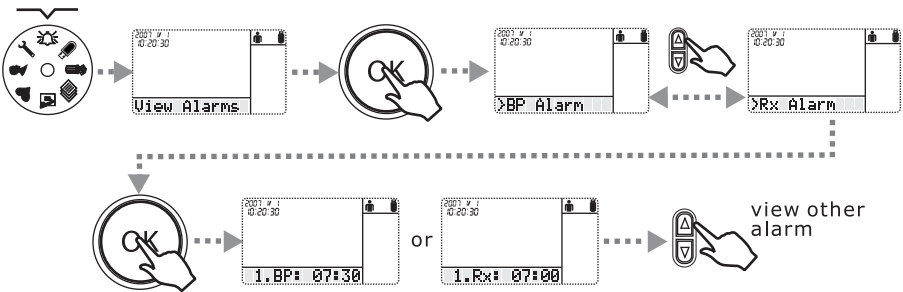


BPM 1000i

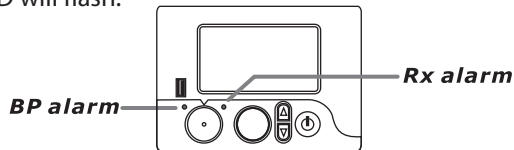
Blood Pressure Monitor

1. The operating beeping sound indicates that a button has been pressed.
2. To terminate the beep (not including the alarm), press the navigating ▲ or ▼ keys until "> Beep Sound" is displayed on the message bar.
3. Press the OK button to select the setting. The message bar first displays ">>Sound ON". Press the ▲ or ▼ keys to switch to ">>Sound OFF" and press the OK button to confirm.

Setting Alarms



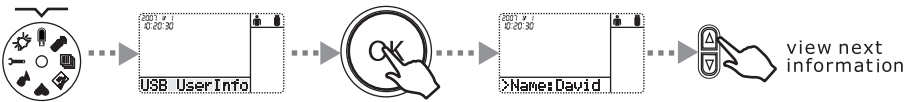
1. The unit has an alarm function to remind you to check your blood pressure.
2. Once the clock reaches the alarm time, the unit makes a beeping sound and the BP alarm LED will flash.




3. To view the alarm time, rotate the FUNCTION key to the symbol. The message bar shows "View Alarms"; Press OK.
4. Press ▲ or ▼ to select viewing times for taking your blood pressure measurement (the message bar shows ">BP Alarms") or taking medicine (the message bar displays ">Rx Alarms"). Then, press OK to enter and press the ▲ or ▼ keys to view the details.
5. If you would like to turn off the alarm function, press the ▲ or ▼ keys to select ">Alarm On/Off" and press OK to enter the setting. The default setting is ">>Alarm On". To turn off the alarm, press ▲ or ▼ to select ">>Alarms Off" and press OK button to confirm.

The alarm will sound for approximately 5 minutes before stopping.
It can be terminated at any time by pressing any key

View User Information on USB Storage Device



1. The BPM1000i provides the ability to verify the user's information on the USB drive.
2. To view the information, rotate the FUNCTION key to the  symbol. The message bar shows "USB User Info". Press OK to enter the function. If there is no USB storage device inserted in the USB port, the message bar will show "No USB Drv".
3. Press the ▲ or ▼ keys to check all related USB information including name, sex and birth date.



Care and Maintenance

Avoid high impacts or dropping.



The cuff is sensitive and must be handled carefully. Do not bend or twist the arm cuff.



Do not pump up the unit if the cuff is not well fitted.



Use a cloth moistened with water or neutral detergent to clean the body, & wipe it dry. Avoid thinner, benzene, & other harsh cleaners.



Remove the batteries, if the unit will be not used for a long period.



Do not modify or disassemble the unit and arm cuff. Never open this unit.



Keep the unit in a safe place. Avoid extreme temperature, direct sunlight, high moisture, and dust.



The cuff is intended for use by a single user. To clean the cuff, you can use a light bristle brush, warm water (do not exceed 125°F), and mild detergent to remove debris, stains and other material from the outer fabric and Velcro. Removal of blood and other body fluid requires use of enzymatic detergent. Do not allow water or other chemicals to enter the cuff. Air-dry the cuff completely prior to storing. To avoid cross infection, it is strongly suggested to use an exclusive cuff for each user.



Error Messages

- ERR 1: Cuff tube kink, blocked or inflation is too slow (<2 mmHg/sec).
 ERR 2: Cuff leakage or inflation is too fast (>10 mmHg/sec).
 ERR 3: Detected arm movement.
 ERR 4: No pulse is detected.
 ERR 5: Cannot figure out diastolic or systolic pressure or it is out of legal range.
 ERR 6: Cuff pressure is too high (>300mmHg).
 ERR 7: The cuff pressure cannot return to 0 mmHg when valve is open.

Product Specifications

Display System	Liquid Crystal Display
Measuring Method	Oscillometric method
Power Source	6VDC; four "AA" type batteries (1.5V)
Measuring Range	40 ~ 250mmHg 40 ~ 200 pulse/minute
Accuracy	±3mmHg ±5% pulse rate
Inflation	Electrical micro-rolling pump
Pressure Exhaust	solenoid valve
Memory	1. 6 Users with 30 records per user. 2. External USB flash drive.
Display	year/date/time/pressure/pulse/memory
Low Voltage Indication	Yes
Auto Power off	150s without any operation
Battery Life	around 1000 operations (new alkaline batteries)
Operation Environment	+10°C ~ +40°C (+50°F ~ +104°F); RH ≤ 90%
Storage/Transportation Environment	-20°C ~ +50°C (-4°F ~ +122°F); RH ≤ 95%
Device lifetime	three years with 25 measurements per day
Dimension	around 162 (W) x 120 (D) x 62 (H) mm
Weight	around 400g (including batteries)

Warranty

This device is covered by a two year guarantee from the date of purchase. The guarantee is valid only on presentation of the original sales receipt. The warranty covers both the instrument and the cuff (batteries are not included). Abnormal use or any customer disassembly of the unit will void the warranty.

LifeSpan Fitness Club

The LifeSpan BPM1000i comes with a membership to the LifeSpan Fitness Club. The LifeSpan Fitness Club is an online Health and Fitness solution created to support you in your Health and Fitness goals. Simply plug the USB storage device into your computer and follow the easy software installation instructions. This will allow you to create and access a personal account to help track and record your Blood Pressure readings. In addition to storing your vital stats information, you will be able to track and log all of your exercise history.

Take control of your Health and Fitness:

The LifeSpan Fitness Club is designed to empower it's members to take control of their lives by raising their health and fitness IQ, increasing physical activity and improving daily decisions that impact their health.

Transferring a history of your blood pressure readings is as simple as logging into your online account and plugging your USB storage device into the computer. Information is automatically transferred from the USB storage device to your personal and secure account. The automatic transfer of data eliminate human errors in recording and ensures accuracy of the readings. People commonly mis-read their blood pressure and causing their physician to possibly mis-diagnose their health condition. Using the USB storage device and the automatic download of your readings will ensure accurate information for your physician. This history of your blood pressure readings will be permanently stored and can be easily viewed or printed. This will allow you and your physicians to make educated decisions concerning your health and fitness goals.

Monitoring your heart rate and blood pressure is just the first step in maintaining good health. Proper diet and exercise can greatly change your health condition. LifeSpan Fitness offers a complete line of USB integrated (*i-series*) products that can be used to track and record your progress toward achieving your health and fitness goals. Please consult your physician and get involved in improving your health and fitness today. Please visit LifeSpanFitness.com to view all products.

For any questions concerning the use of this or any LifeSpan products visit:
www.LifeSpanFitness.com/Customerservice.asp

BPM 1000i

Blood Pressure Monitor

LifeSpan[®] by PCE

BPM 1000i
Blood Pressure Monitor

MODEL NUMBER: *BPM 1000i*

SERIAL NUMBER: **W09A00001**

MADE IN TAIWAN