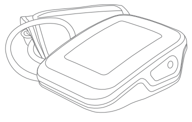
User Manual

Smart Blood Pressure Monitor

ePA-08B4



- Thank you for choosing our Smart Blood Pressure Monitor.
- For the purpose of proper using and maintaining the Smart Blood PressureMonitor, please read this instruction completely before operating.
- Please keep this instruction manual safe for future use.
- Illustrations in this manual are for reference only.

IP22	Degree of protection against harmful ingress of particulate matter and water
	Manufacturer
	Refer to instruction manual/booklet
	Type BF
	Do not dispose of this product in municipal waste. Collection of such waste separately for special treatment Is necessary
SN	Serial number
	Production Date
	The package should be protected from rain
	The package contains fragile products, please handle with care
	Transport package should be upright
	The maximum stacking layer of the same package, 5 means the layer limit

1.Measurement preparation Measurement

1) Wrap the cuff
2) Correct posture
3) Measuring blood pressure
-In order to correct blood pressure management, please measure the blood pressure at the same time every day.
- Propose to measure your blood pressure an hour after getting up ,or before sleeping

2.Safety information

To assure the correct use of the product, basic safety measures should always be followed including the note and cautions listed in this instruction manual.
▲ Contact your physician for specific information about your blood pressure. Self-diagnosis and treatment using measured results may be dangerous. Follow the instructions of your physician or licensed healthcare provider.
▲Severe serious blood circulation obstacle, blood disease patients, please use under the guidance of doctors
▲ This device is intended for use in measuring blood pressure and pulse rate in the adult population. Do not use this device on infants or persons who cannot express their intentions.
▲ Please control the pressure within 300mmHg(40kPa).
-Otherwise the arm may be congestion or numbness
▲ This product is only for human body blood pressure measurement.
▲ Please use the special-purpose cuff.
-Otherwise it can't accurately measure blood pressure
▲ Don't use the mobile phone near the product .
▲ Don't dismantle or repair ,renovation the main body of the blood pressure or cuff.
▲ Use only 1.5V alkaline batteries with this device. Do not use other types of batteries. This may damage the unit.
▲ If battery fluid should get in your eyes, immediately rinse with plenty of clean water. Contact a physician immediately.
▲ If battery fluid should get in your skin or your clothes, immediately rinse with plenty of clean water.
▲ Don't install the wrong battery positive and negative.
▲ When the Low Battery Indicator appears on the display screen turn the monitor off and remove all the batteries. Replace with four new batteries at the same time.
Long time no using(more than 3 months) , please take out the batteries.
▲ Dispose of the battery, components and optional accessories according to applicable local regulations. Unlawful disposal may cause environmental pollution.
▲ Don't mix the new and old battery ,or different type of battery.

3.Know your unit

The product are all packed in the gift box, please open the gift box to confirm whether t he product is complete.
1)Main body
2)Cuff and cuff tube
3)Batteries (4xAA batteries)
4)Instruction Manual

4.Unit Specifications

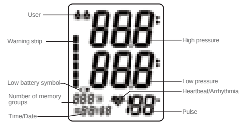
Main Body

• Before use, please insert four AA batteries into the battery compartment.]]]

Cuff

•Applicable arm circumference 22cm～36cm
• In order to accurately measure blood pressure, it is recommended to replace it in time. And your purchased cuff does not include cuff tube, please do not put the cuff tube away when remove it, and insert it on the new cuff for next use.
• If air leaks due to quality problems, you can call the customer service center to replace it.
• Do not bend the cuff and cuff tube.
•Do not apply pressure before the cuff is wrapped around your arm.

Display



5.Battery Installation

1)Turn the main body over.
2)Gently press the central serrated part and push in the direction of the arrow to remove the battery cover.
3) Insert 4 AA batteries as shown in the figure. The positive (+) and negative (-) poles of the battery should be consistent with the positive and negative poles marked in the battery compartment.
4) Replace the battery cover.

icon "flashing": the battery will run out soon
icon "lights up": the battery is exhausted

• Please replace four new batteries at the same time (same type).
•Please turn off the main body power when replacing the battery.
•The stored memory value will not be deleted when the battery is replaced.
•After replacing or removing the battery, the time and date must be reset.
•Please remove the battery if you do not use the product for three months or longer.
•Dispose of the old batteries as per legal regulations.

6. Function setting

•After turning on the power, you need to set the date and time
•Please set in the order of user, year, month, date, hour, minute, measurement reminder and unit.
•The blood pressure monitor can automatically store measurement results.
1)Set user [default is user 1]
Press the [SET] button to enter the user selection mode. At this time, the current user number is displayed, press the [MEM] button to switch users and press the [SET] button to set users.

2)Set the year value

Long press the [SET] button when the year value flashes, you can set the year value. Each time you press the [MEM] button, it will increase by one. When you keep pressing the [MEM] button, it will increase quickly. Press the [SET] button to set the year value. The setting range of the year is 2012 to 2099.

3)Set month value
Press the [SET] button, when the month value flashes, you can set the month value. Each time you press the [MEM] button, it will increase by one. When you keep pressing the [MEM] button, it will increase quickly.Press the [SET] button to set the month value.

4)Set the current date
Press the [SET] button, when the date value flashes, you can set the date value. Each time you press the [MEM] button, it will increase by one. When you keep pressing the [MEM] button, it will increase quickly.Press the [SET] button to set the date value.

5)Set hours
Press the [SET] button, when the minute value flashes, you can set the minute value. Each time you press the [MEM] button, it will increase by one. When you keep pressing the [MEM] button, it will increase quickly.

6）Set minutes
Press the [SET] button, when the minute value flashes, you can set the minute value. Each time you press the [MEM] button, it will increase by one. When you keep pressing the [MEM] button, it will increase quickly.
7)Set unit [default unit is mmHg]
Press the [SET] button to display "0 0" or "0.0 0.0". Long press the [MEM] button to switch cyclically. The unit of "0 0" is mmHg, and the unit of "0.0 0.0" is KPa.
Note: The switch here is a long press to prevent the unit from being switched by mistake.

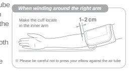
Entry into static mode

Press and hold the [ON/OFF] button to turn on the product, and when it displays "C-0 0", it will automatically return to zero and enter the static mode.
Note: This operation is recommended not to be used by the user, it is only used for product verification and maintenance.

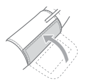
7.Wrap the cuff

•Both left arm and right arm can be measured.
•Take measurements with bare arms or just wearing light clothing.
•Please perform the measurement in a room with a suitable temperature.
•When wearing thick clothes, do not roll up your sleeves for measurement, but take it off before measuring.
•In order to measure accurately, please take care to wrap the cuff correctly.
1) Insert the air plug of the cuff into the air pipe interface of the main body.

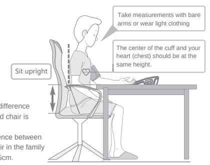
2)Thread the right arm into the cuff.The air tube of the cuff faces the inside of the palm.When the cuff falls off from the metal sleeve, pass the most distal end of the cuff through the D-shapedmetal ring to form a ring. The smooth cloth surface should beinside the cuff ring.
3)Position the cuff while pulling one end of the cuff outward.



4) Fasten the cuff with the cloth buckle

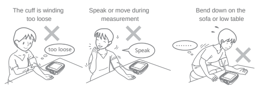


8.Correct measurement posture



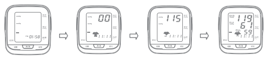
The ideal height difference between table and chair is 25cm-30cm.
The height difference between the table and chair in the family is generally 20-35cm.

The posture and cuff winding method shown in the figure below may not be able to perform correct measurement



9.Measurement of blood pressure

1)Please keep the correct posture during the measurement, do not move your body, and keep quiet.
2)In the power-on state, press the [ON/OFF] button, and the blood pressure monitor starts to inflate automatically. Inflation is stopped, measurement is started and exhausted. As the cuff vents, the heartbeat icon flashes with each heartbeat.
3)When the measurement is completed, the cuff is completely exhausted. The blood pressure monitor displays the measurement result, and the measurement value is automatically stored.



4)After the measurement, if the measurement result shows a heartbeat icon to indicate arrhythmia (such as atrial premature, ventricular premature, and atrial fibrillation, etc.)
5) The measurement results can be uploaded to the terminal installed with the corresponding software through wireless transmission.
Software downloading and installing as below:
• For android: Enter into the "Google Play store" to download "Easy BP"
• For IOS: Enter into the "apple store" to download "Easy BP"
• With software installed, click app entering into "login/registration" page. As is shown in figure 1, if you are a new user, you can click "Join us free" button to register. As is shown in figure 2, set user information ,then click "done" to finish register. If you have already registered, please sign in directly.
• The login page is shown as figure 3.
•After finish measurement, there will save the data automatically

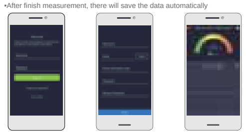


Figure1 Figure 2 Figure3

Notice: As the software version is updating, different versions may varies in operations. But the operating methods is generally the same.
6)Remove the cuff and press the [ON/OFF] button to turn off the blood pressure monitor.
•If the user does not understand the measured blood pressure value, please consult a professional for answers. It is dangerous to make self-judgment and treatment based on the measurement results. Please be sure to accept the guidance of doctors.
•If you want to terminate the measurement, press and hold the [ON/OFF] button, the pressurization stops, and the air in the cuff is discharged. The air bag should not be over-inflated for a long time, otherwise it may cause blood congestion or danger in the arm.
•Please measure at the same time every day (it is recommended to measure within 1 hour after waking up and before going to bed)

10. Use memory and clear memory function

The blood pressure monitor can automatically store measurement results, and can store 2*100 groups of measurement data. If more than 100 sets of measurement data have been stored, the oldest set of measurement results will be deleted and the new measurement results will be recorded.
In the power-on state, press the [MEM] button to query the stored measurement data. The default is to query the memory value of "User 1".
If the setting has been changed to "User 2", press the [MEM] button, and the query is the memory value of "User 2".
In the shutdown state, long press the [MEM] button, when the flashing "M 0", all memories of the current user will be cleared.

11.Maintenance and storage

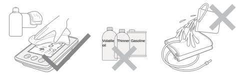
Be sure to observe the items in the manual and other correct usage methods.
If you do not comply, our company will not be responsible for quality.

Maintenance

•Please clean the blood pressure monitor frequently
•If the main body is dirty, please wipe it with a dry soft cloth
•If the main body is extremely dirty, dampen a soft cloth with water or neutral detergent, wring it out thoroughly, and then wipe the main body.

Maintenance recommendations

•Do not wipe with volatile oil, thinner, gasoline, etc.
•Do not wash or wet the cuff.
•Do not get water to enter the main body.



12.Storage method

Do not place the blood pressure monitor in the following places:
•Places exposed to direct sunlight, high temperature, humidity, dust, and corrosive gases.
•Places that are inclined, vibration, or impact.
•Places where chemicals or corrosive gases are stored.
When not in use for a long time (more than 3 months), please remove the battery and store it in the box.

13.Product calibration

This product has been calibrated according to the relevant national measurement requirements when leaving the factory
•It is recommended to check and calibrate the blood pressure monitor once a year and send it to a metrological verification agency or contact the after-sales service unit to ensure that the blood pressure monitor functions normally and the measurement is accurate.
•This product has no user-repairable parts. The company can provide circuit diagrams, component lists, calibration rules, or information necessary for qualified technicians to repair.
•If the original parts are replaced with parts not provided by the manufacturer, it may cause wrong measurement.

14.Product Declaration

•The blood pressure value measured by this product is equivalent to the value measured by the auscultation method, and its error should meet the requirements specified in YY0667-2008. For related information, please call the customer service hotline.
•In order to prevent radio wave interference, this equipment is approved for use in hospitals, clinical and other environmentally qualified institutions. Using this equipment in an inappropriate environment may cause electromagnetic interference to surrounding radio and television equipment. Keep away from strong electric field, strong magnetic field equipment and high voltage equipment; avoid direct sunlight to the display screen.
•In order to ensure that the machine can work normally, the user must use it in an environment with a temperature of +5°C to +40°C and a relative humidity of 15% to 85%, otherwise the claimed performance specifications may not be met.
•After the product's service life is over, please do not dispose of it as daily garbage. It should comply with local environmental protection requirements and do proper disposal. The equipment packaging can be discarded as waste paper for recycling.

15.Blood pressure measurement Q&A

Q Why is the blood pressure measured at home lower than the blood pressure measured at the hospital?
A We often feel nervous when taking measurements in the hospital. Because we are in a stable mood when measuring at our home, sometimes it is 20-30mmHg (2.7-4.0kPa) lower than the blood pressure measured in the hospital. It is important to know your normal blood pressure when you are calm at home.
A When the cuff is higher than the heart during measurement. If the table or platform on which the blood pressure monitor is placed too high, causing the cuff to be higher than the heart, the measured blood pressure value is low.
A Have you taken antihypertensive drugs? People who take antihypertensive drugs will cause high blood pressure when they lose their effectiveness. Please accept the doctor's guidance.
A Is the cuff wrapping position correct? If the cuff position is misplaced, the arterial signal cannot be captured, and the blood pressure measured is too high. Please follow the "wind upper arm" page.
A Is the cuff wrapping too loose? If the cuff is wrapped too loosely, the compression force cannot be transmitted to the artery, so the measured blood pressure value is higher than the actual value. There should be no gap between the arm and the cuff, please wrap the cuff tightly.
A Is the posture correct during measurement? Measuring postures such as bending over, sitting cross-legged, bending down on a sofa or low table, etc. will cause abdominal pressure or the position of the arm lower than the heart and raise blood pressure.
Q Why is the blood pressure value measured every time different?
A Blood pressure fluctuates due to various reasons. Even when measuring at home, the measurement results will change under the following conditions.
•Within 1 hour after meal, after drinking, drinking coffee, black tea.
•After smoking and bathing.
•After exercise.
•Speaking during the measurement when the mood is irritated due to nervousness and anxiety.
•When the room temperature changes suddenly when the measurement site or environment is different from the past.
•After drinking, drinking coffee, black tea.
•After bath.
•After urination.
•When feeling irritable due to nervousness or anxiety.
•When the measurement site or environment is different from the past.
A Will it cause blood stasis during continuous measurement? Blood stasis is caused by pressure on the arm to force the blood to flow through the tip of the finger during measurement. In the event of blood stasis, loosen the cuff, raise your hand over the top of your head, and repeat the clenching and stretching exercises of about 15 times to clear the stasis.
A Throughout the day, even if blood pressure is measured every 10 seconds, there are changes. In order to manage blood pressure correctly, please measure at the same time every day.
Q Why do I feel pain and numbness when the cuff is wrapped around my arm?
A This is a temporary phenomenon, so don't worry. When measuring blood pressure, the cuff needs to be tightened until the blood flow in the arteries is t emporarily stopped, so you may feel some pain and numbness in the arm. After removing the cuff, take a short rest to relieve it.
Q When is the best time to measure blood pressure?
A The best time to measure blood pressure is within 1 hour after getting up in the morning, or before going to bed at night. If you measure in the morning, please take it within 1 hour after waking up, after urination, and before breakfast (if you are taking antihypertensive drugs, then before taking the medicine). If the measurement at night is recommended before going to bed. If it is other time, it is better to measure when the body and mood are in a stable state. In addition, it is recommended to measure at the same time every day.

16. When the screen display error

When measurement cannot be performed normally, the following error display will appear.

Display symbol	Reason/Meaning	Correct way
E-1	The signal is too weak or the pressure changes suddenly	Please confirm whether the cuff is tied in the correct way, tightened, and tied in the correct position
		Eliminate the incorrect measurement method and re-measure with the correct method
E-2	Too much external interference information	When measuring, keep away from equipment with strong interference sources, such as mobile phones, motors and other strong interference sources, and then measure again
		Whether to move your arm freely or speak during the measurement
E-3	Inflation error	Please confirm whether the trachea is folded, etc., and re-measure after solving
		Please confirm whether the tube, tube joints and the main body are tightly connected, and whether the tube and cuff are broken.
		Then re-measure
E-5	Abnormal blood pressure	Please rest for 30 minutes before re-measure. If it is abnormal three times in a row, please go to the hospital or consult your personal doctor
	Low battery	Please replace 4 new AA batteries at the same time

17. When in doubt

Abnormal situation	Reason	Handling method
The measure value ofblood pressure abnormal low(high)	The cuff is not wrapped properly	Wrap the cuff correctly
	Talk or move arm during measurement	Measure quietly.Please refer to blood pressure measurement Q&A
	The rolled up clothes pressed the arm	Take off the clothes that press the arm and measure
No pressure	The air plug is not correctly inserted into the air pipe interface of the main body	Connect the air interface and cuff correctly
	Leak in cuff	Purchase a new cuff. *The new cuff does not have an air plug. Please do not throw away the air plug, install it on a new cuff and use it
The cuff exhausts in a short time	The cuff is too loose	Please wrap your cuff tightly. *If it is not wound tightly, excess pressure will be added to the cuff and its service life will be shortened.
The blood pressure monitor is working normally, and it is measured according to the correct measurement method, but it is lower (higher) than the blood pressure measured in the hospital, and the value measured each time is different	Taking antihypertensive drugs.Cuff position misalignment	Please refer to the blood pressure measurement Q&A.
Sudden power failure during pressurization to reset the clock	If not used for a long time, the dry battery energy is exhausted due to temperature changes	Replace with new batteries.
After pressing the button, nothing is displayed	Battery energy is completely consumed	Replace with new batteries.
	The +-pole of the battery is reversed	Insert the battery correctly.
Other phenomena	Display screen jitter Can't measure	Please press the [ON/OFF] button and perform the operation again. Please try replacing the battery. Otherwise, it is still unable to measure, please contact after-sales service hotline

18.Specification

Product name	Smart Blood Pressure Monitor
Model No.	ePA-08B4
Measurement methods	Oscillometric method
Measuring range	Pressure: 0-280mmHg (0kPa-37.3kPa) Pulse number: 40 hops/min-199 hops/min
Accuracy	Pressure: within ±3mmHg (±0.4kPa) Pulse number: accuracy is ±5%
Power supply	DC 6V, 4 AA batteries
Operating temperature	+5℃～+40℃，15%RH～85%RH, 80Kpa~105Kpa
Storage temperature	-10℃～+55℃，10%RH～93%RH, 80Kpa~105Kpa
Dimensions	120 mm (W)*158 mm (L)*54 mm (H)
Accessory	Cuff (applicable arm circumference range 22cm～36cm),Instruction manual,Battery (4*AA batteries), Certificate of Qualification

FCC WARNING: This equipment may generate or use radio frequency energy. Changes or modifications to this equipment may cause harmful interference unless the modifications are expressly approved in the instruction manual. The user could lose the authority to operate this equipment if an unauthorized change or modification is made.
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received,including interference that may cause undesired operation.
The device has been evaluated to meet general RF exposure requirement.
The device can be used in portable exposure condition without restriction.
NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.
• The rating information is located at the bottom of the unit.

Shenzhen Belter Health Measurement and Analysis Technology Co., Ltd.
702/704,Block C, Tsinghua Unis Science No.13 Langshan Rd., Hi-Tech Industrial Park(north).
Nanshan District,518057 Shenzhen
PEOPLE'S REPUBLIC OF CHINA

AFTER-SALES SERVICE:
Contact Health Technologies, Inc.
3265 Lawson Blvd.
Oceanside, NY 11572
855-633-5600