

Wrist Type Blood Pressure Monitor

User Manual

Contents

Overview.....	1
Safety Precautions.....	2
1 Product Introduction.....	4
1.1 Intended use.....	4
1.2 Contraindications.....	4
1.3 Body.....	4
1.4 Display.....	4
1.5 Function description.....	5
2 Battery Installation.....	6
3 Initial Setup.....	7
3.1 User Setup.....	7
3.2 Time Setup.....	7
3.3 Sound Setup.....	8
3.4 Blood Pressure Unit Setting.....	8
4 Usage Methods of Wrist Strap.....	8
5 Blood Pressure Measurement.....	9
5.1 Correct Measurement Methods.....	9
5.2 Operation Steps of Blood Pressure Measurement.....	10
5.3 Answers for Questions.....	11
6 Memory function.....	12
6.1 Memory Recall.....	12
6.1.1 Read Average Value.....	12
6.1.2 Read Memory Record.....	13
6.2 Memory Clear.....	13
7.About Wrist Type Blood Pressure Monitor.....	13
8 Manufacturer’s Declaration of the EUT.....	14
9. Care and Maintenance.....	17
9.1 Care Methods.....	17
9.2 Maintenance Methods.....	18
Appendix.....	19
I . Product Specifications.....	19
II . Blood pressure classification instructions.....	20
III. LCD Error message and the cause of error correspondence table.....	20
After-sale Services.....	21

Overview

Before using this product, please read the user's manual carefully and use it accordingly. Please keep the user's manual properly for reference at any time(The pictures in this manual are for reference only).

Wrist **Type** Blood Pressure Monitor is with LCD digital display, which is used for measuring blood pressure and pulse rate (suitable for crowd above 12 years old, not for neonate). This blood pressure monitor applies to daily health care for home use or outward activities, you can measure your blood pressure duly in order to make blood pressure health management. It is also applied for blood pressure reference of clinical patients, but not as a diagnostic basis.

Features:

- ◆ Small delicate design
- ◆ Clear LCD digital display
- ◆ It can store 99 groups of measuring results of two people and display the average reading of measurement results of the latest three times
- ◆ Automatic compression and decompression
- ◆ Voice broadcast function (Optional)
- ◆ Blood pressure classification function provides convenience for users to judge whether their blood pressure value is normal or not
- ◆ 2 display units: kPa, mmHg
- ◆ The product will automatically power-off in 1 minute after measurement

Pay attention to the following 5 points during measurement:

- 1) Take deep breath for relax before measurement
- 2) Take measurement after urination and defecation
- 3) Take measurement with proper posture
- 4) Take measurement at a fixed time everyday
- 5) Avoid taking measurement in extreme cold or hot room

BP value changes along with various factors

Keep stable mood when you measure at home, your measured value might be lower than that from hospital. In order to take good management of your blood pressure, it is very important to know the average blood pressure value with stability you measured at home.

The following conditions would cause BP value variation even you take measurement at home.

- Within 1 hour after meal
- After having liquor, coffee and black tea
- After smoking, sports and shower
- Talking during measurement
- When you are nervous and under unstable mood
- Take measurement with the posture of abdomen being pressed
- Moving during measurement

- Room temperature changes dramatically
- When measuring places or environment changes frequently
- Take measurement in moving vehicle
- Under continuous measurement for a long time

Don't rely on your own judgment towards measurement result, please follow the guidance of doctor.

Safety Precautions

Warnings and graphic symbols in the user's manual are aimed at enabling users to use the product safely and correctly, so that avoid any damages to users and the others. Specific meanings are as follows:

Symbol Descriptions	
	Warning: to remind you that misuse of the product may cause personnel damage, measurement failure and article damage. (Article damage includes damage to housing, property, pets and livestock.)
	Enforcement: to represent compulsive behavior, namely matters must to be observed when using the product
	Prohibition: to stand for prohibited contents, namely matters not allowed to do when using the product
	Prohibition of Disassembly
	This symbol means BF type equipment
Caution	
	<ul style="list-style-type: none"> ● Diseases such as diabetes, hyperlipidemia, high blood pressure may accelerate atherosclerosis, even can cause obstacle in peripheral circulation. Blood pressure value of wrist and upper arm may have large difference for patients with such diseases and the aged. It is more appropriate for them to use arm-type blood pressure monitor. ● It is very dangerous for patients to make self-judgment and self-treatment according to the measurement results. Please follow the guidance of the doctor. Self-judgment is likely to deteriorate the patient's condition. ● There may be a risk, such as arm numbness or pain, that may be caused by over inflation of the gasbag. ● For the sake of safety, please keep the product in the place where the child is not easy to touch.
	<ul style="list-style-type: none"> ● Infants and children who can not express their thoughts are prohibited to use the product, because they will be the cause of the accident or dispute. ● Do not use the product for not measuring blood pressure, because it will be the cause of the accident or dispute. ● Please do not use chemical reagents such as thinner, alcohol, gasoline to clean

	<p>this product</p> <ul style="list-style-type: none"> ● Do not beat the product heavily or fall from a height. ● Please be sure to use the special arm wrist cuff of this product, otherwise it can not be accurately measured ● Do not use the mobile phone near the machine. There is a risk of making the machine to malfunction.
	<ul style="list-style-type: none"> ● Do not disassemble, repair or reconstruction of the machine and the arm belt of the blood pressure meter, otherwise it can not be measured correctly.
	<ul style="list-style-type: none"> ● Don't crash and fall off the machine ● Don't bend or stretch wrist strap ● Don't pressure the product before the wrist strap is twined around wrist ● As the dry battery leakage can damage the product, so please pay attention to the following points. ● If you don't use the product for a long time (more than 3 months), please take out the battery. ● After use, replace the battery which is in power shortage with a new one immediately. ● Do not intermix old and new batteries. ● Install the positive and negative battery correctly. ● Do not intermix different types of batteries.

1 Product Introduction

1.1 Intended use

Wrist **Type** Blood Pressure Monitor is with LCD digital display, which is used for measuring blood pressure and pulse rate (suitable for crowd above 12 years old, not for neonate). This blood pressure monitor applies to daily health care for home use or outward activities, you can measure your blood pressure duly in order to make blood pressure health management. It is also applied for blood pressure reference of clinical patients, but not as a diagnostic basis.

1.2 Contraindications

Serious arrhythmia

1.3 Body



1.4 Display

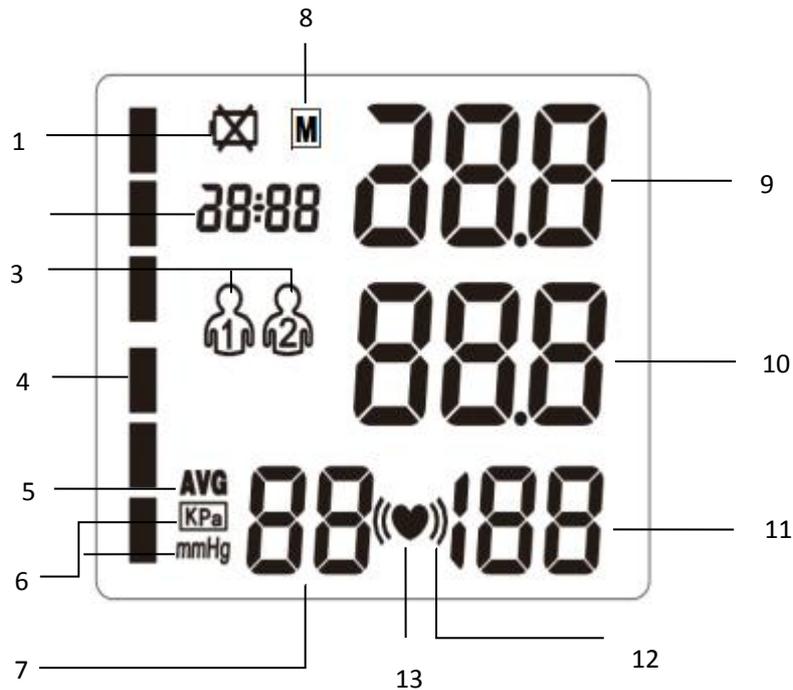


Fig 1 all symbols display screen

1. Low Power Signal
2. Date/Time display
3. User Symbol
4. Blood Pressure Classification Symbol
5. Average Symbol
6. Blood Pressure Unit Symbol
7. Sets of Memory
8. Memory Symbol
9. Systolic Pressure
10. Diastolic Pressure
11. Pulse Rate
12. Arrhythmia symbol
13. HR Symbol

1.5 Function description

- 1) Measurement method: decompression-type measurement
- 2) Result display: SBP/DBP/PR
- 3) Unit switch: Kpa/mmHg switch (default unit is mmHg)
- 4) Sets of memory: Double sets of memory, each set has 99 groups memory recall
- 5) Clock function: set the year, month, date, hour and minute.
- 6) Low power inspection: LCD will display such a signal to indicate low power, please check the low power in any state of work
- 7) Blood pressure classification symbol: Please refer to appendix for detailed information.
- 8) Error indication: Please refer to appendix II for detailed information
- 9) Protective function for excessive pressure: If the air pressure is over 295mmHg

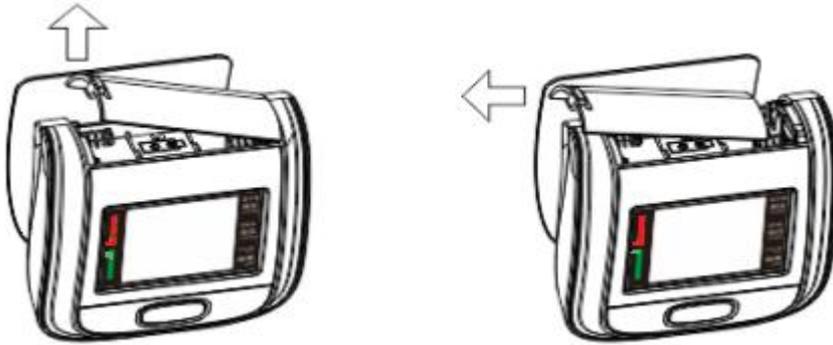
(20ms), the product will exhaust quickly and automatically.

10) Power-off function: Automatically power-off if there is no operation within 1 minute.

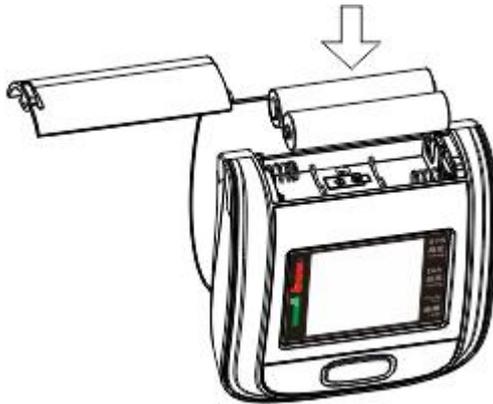
11) Voice broadcast function (Optional)

2 Battery Installation

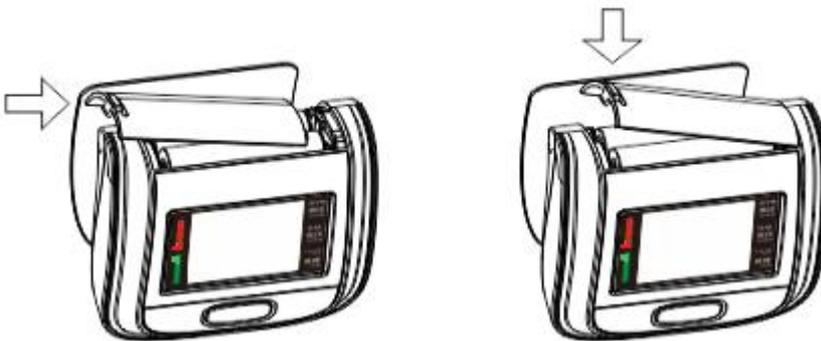
1) Take down the battery cover as the direction of the arrow.



2) Install two No.7 batteries, please pay attention to the positive and negative electrode.



3) Cover the battery



⚠ Attention ⚠

- Signal “”: indicates that the batteries are using up, please change two new batteries in time. (No.7 battery)
- If you take out the batteries when power is on, the timer will be stopped. But the stored

memory will not be removed.

- Please reset the time after changing the batteries. Please refer to Chapter 3.2 Time Setup for detailed information.

Dispose the used batteries according to local regulations about environmental protection.

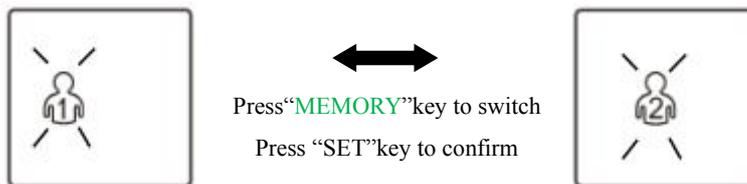
3 Initial Setup

This blood pressure monitor can automatically store 99 groups of measured values and can calculate the average value of recent three groups of measuring results. Set the right user information and time, otherwise, the product cannot store the correct user information and measuring time.

If you want to use the memory and average function, please make the initial setup before the primary measurement. Initial setup includes user, time, sound and blood pressure unit setup.

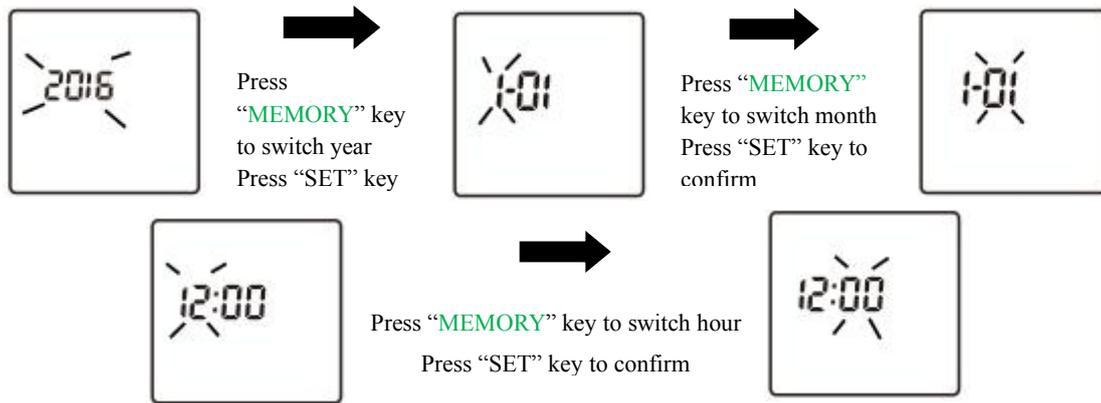
3.1 User Setup

In the shutdown state, long press SET key until the user symbol "  " on screen starts flashing up, press the MEMORY key to switch "  " or "  " for choosing user, then press SET key for confirming and switch to year setting mode at the same time, if not to choose the system defaults user "  ".



3.2 Time Setup

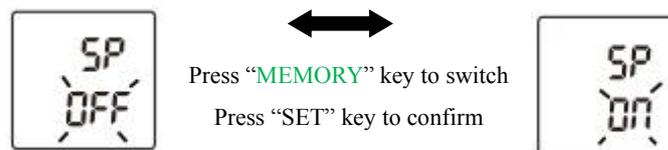
We can get known from 3.1, press SET key under user mode and it switches to year setting mode; the screen displays "2016" and flashes, press MEMORY key, value increment can switch between 2016-2035, when the year to be set appears, press SET key to confirm and it switches to "month", "date" setting mode at the same time, it means the value stands for month is in flashing state, press MEMORY key, value increment can switch between 1-12, when the month to be set appears, press SET key to confirm, the value stands for date is now in flashing state, it is the time to set date, press MEMORY key, value increment can switch between 01-31, press SET key to confirm and it switches to "hour", "minute" setting mode at the same time, value stands for hour is in flashing state now, press SET key, value increment switches between 0 to 23. When the hour to be set appears, press SET key to confirm, the value stands for minute is now in flashing state, it is the time to set minute, press MEMORY key, value increment can switch between 00-59, when minute to be set appears, press SET key to confirm and it switches to "volume" setting mode at the same time, namely "SP" setting mode.



Note: Keep on pressing the MEMORY key, the number will increase fast.

3.3 Sound Setup

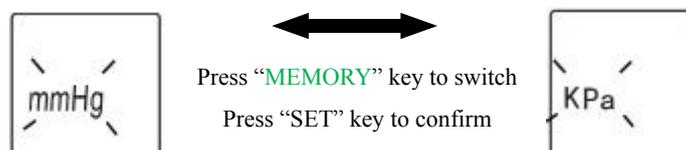
We can get known from 3.2, after setting up time, press SET key to confirm and switch to "SP" mode at the same time, the "ON" or "OFF" is in a flashing state now. Press MEMORY key to choose, when set to "ON", there is a voice prompt when BP monitor is under measurement and viewing memory; when set to "OFF", there is no voice prompt. After choosing it, press SET key for confirming and switch to "BP Unit" mode at the same time. The system defaults "ON" if you didn't choose anything.



Note: If the instrument is optional without voice, no need to set the sound.

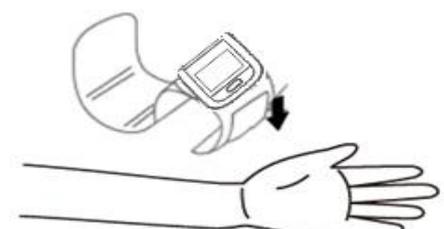
3.4 Blood Pressure Unit Setting

We can get known from 3.3, after setting up volume, press SET key to confirm and switch to "BP Unit" mode at the same time, the "mmHg" or "KPa" is in a flashing state now. the system defaults mmHg as blood pressure unit if there is no switch. After choosing it, press SET key for confirming and it is shutdown at the same time.



4 Usage Methods of Wrist Strap

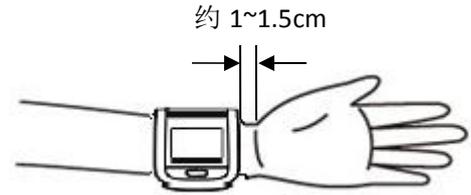
- 1) During measurement, the palm Should face upward.
Roll up sleeve, wrap the cuff directly against Your skin.
Do not apply over clothing.
- 2) Position the cuff leaving a clearance of approximately



1-1.5cm between the cuff and the bottom of your palm.

The measured range of the wrist is 13.5-19.5cm.

3) Grasp the ends of the wrist cuff, pull it and make it close to the wrist, then fold it, make sure the cuff is not too tight or too low with your skin.



4) Fold the remaining part of the wrist cuff back out of the way.

⚠ Attention ⚠

- Before fixing the wrist cuff, don't press the switch button.
- If the wrist cuff can not be used on your left wrist, it can be used on your right wrist.
- If the cloth of the wrist cuff not closed with your skin, during the measurement, it will loose, make sure the wrist cuff is securely fastened.

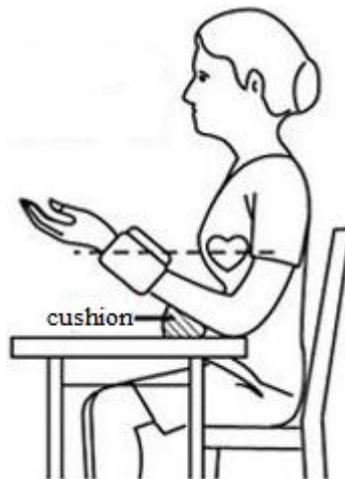
5 Blood Pressure Measurement

5.1 Correct Measurement Methods

1) Sit in a chair as shown in pic 1, don't lean forward or bend your body.

2) Before measurement, take a deep breath three or four times, recover to the normal breath, relax your shoulders and arms. Make sure your body relaxed.

3) During measurement, the middle of the wrist cuff should be the same height with the heart. The body and your wrist can not move. We recommend that you put a soft cushion under the elbow. As shown in pic 1.



Pic 1 measuring posture

⚠ Attention ⚠

- During measurement, make sure your finger in the natural extensions, otherwise the measured value will be high although the position of the wrist cuff is right.
- Do not hold the wrist cuff by the other hand, otherwise it will cause the error measurement.
- Don't press your arm during measurement, otherwise the value will be increased. Before measurement, keep yourself in a relax, comfortable mood. During

measurement, don't move the muscle on this arm, if you need, you can put one soft cushion under your arm.

- In every measurement, you should use same posture and wrist.
- If the position of the wrist cuff is lower or higher than heart, the reading will be higher or lower.
- ⚠ make sure the wrist cuff has worn well and with the same height of the heart.
- ⊘ During measurement, don't talk. Please relax your hand and arm.
- ⊘ During measurement, don't walk , don't move your shoulder and arm, don't bend your finger.

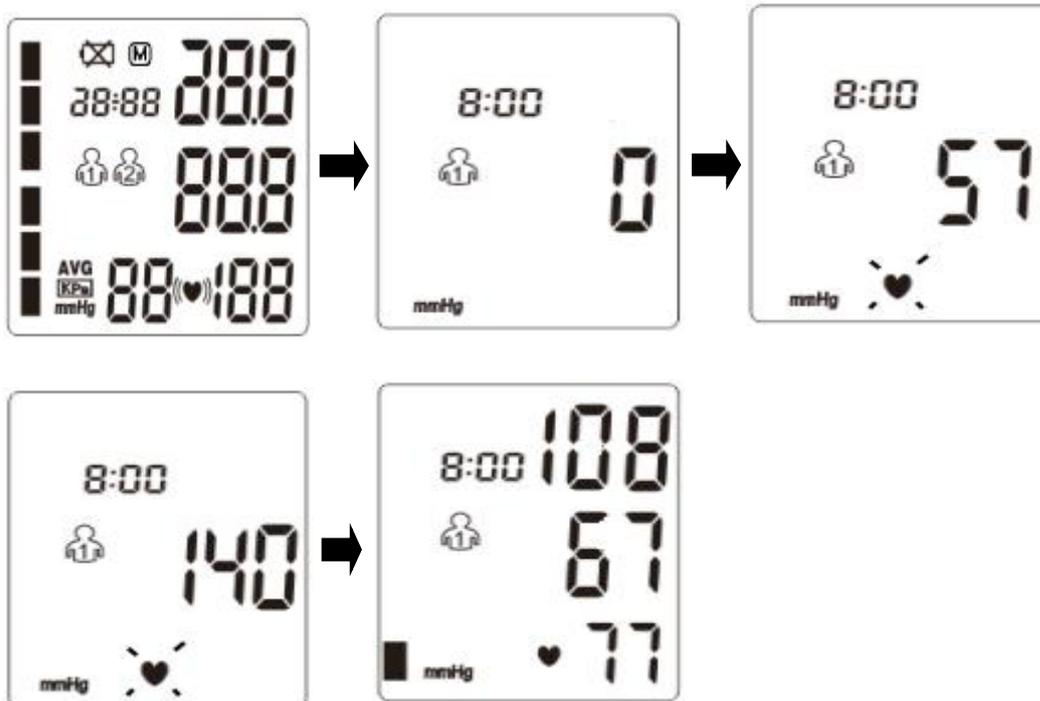
5.2 Operation Steps of Blood Pressure Measurement

The machine has 2 kinds of BP units, which is mmHg and KPa, please refer to 3.4 part for the specific method of setting.

Take the mmHg value as an example in the following explanation.

- 1) Press the "ON/OFF" key, the machine will automatically return to zero, arm with automatic start filling with air, the pump started to inflate the wristband,
- 2) In the process of inflation, the screen will display the pressure changes in the wristband. When the machine detects the pulse, the heart icon will flash.
- 3) After measurement, the machine will simultaneously exhaust and displays your blood pressure value and pulse number.

Note: the machine will automatically save the blood pressure and the pulse number.



⚠ Attention ⚠

- During measurement, keep quite until the measurement is finished.
- Make sure the machine and the heart at the same height until the measurement is finished.

- If the buckle is off during measurement, please re-wrap the wrist cuff and fix it tightly and measure it again.
- Do not repeatedly measured within a short time, it may result in wrist gore, so that the measurement value is not correct. In order to make the arterial blood pressure returned to its previous state, relax your wrist for 2 or 3 minutes before the next measurement.
- If Irregular Heartbeat(IHB) brought by common arrhythmias is detected in the procedure of blood pressure measurement, a signal of “(♥)” will be displayed. Under this condition, the blood pressure monitor can keep function, but the results may not be accurate, it's suggested that you consult with your physician for accurate assessment.

Interrupt measurement:

If you need to interrupt the measurement for some reason (for example, you feel not good), at any time. Press “on/off” button. The machine will automatically reduce the air pressure of the wrist cuff, and interrupt the measurement. If the switch button can not be used, please remove the wrist cuff and stop the measurement.

5.3 Answers for Questions

Anomalies	Cause	Correction
No display after press the start button	Whether the power exhausted	Change a new battery
	Whether the polarity position anti-access	Install the battery in proper placement
Measurement failure occurs frequently or measured blood pressure value goes extremely high or low.	Wristband does not hold with the heart position relative level	Measuring with correct posture
	Wristbands don't roll up	Roll your wristbands correctly
	Whether speak or move the arm when Measure	Keep quiet, relax body, re-measure
	Whether Clothes rolled oppression arm	Take off clothes that Oppression arm, re-measure
Pump work, but the pressure does not rise	Whether Wrist strap is poor connections, there is leakage	Ask for repair
	Whether Wristbands damaged due to long years	Please buy a new one
Wrist Cuff leak in a short time	Whether the cuff wrap too loose	Please wrap the cuff correctly
Even if you press the ON / OFF button, can not enter the measurement		Please re-power, measured again
During measurement suddenly power off	When not use for a long time, the temperature variation may make the battery power exhausted	Change a new battery

The machine is in good working condition, but the results of each measurement is different	Mental state and the measured time will cause measurement values changes in blood pressure	Before measurement ,Please take a deep breath and keep in a quiet state Note: Blood pressure is dynamic, so must be some difference between the measured value every time
The measured values of arm and wrist is different	Please refer to the "relevant Wrist Blood Pressure Monitor"	
The measured values of blood pressure is different with doctors measured, even serious small	Record results of your daily blood pressure test, using which to consult with a doctor PS: Frequent consultation with a doctor may cause Psychological stress, which will let your blood pressure test value higher than value under a relax state	
Other anomalies		Please press the start button and check again or change a new battery, if still can't measure please connect us.

6 Memory function

6.1 Memory Recall

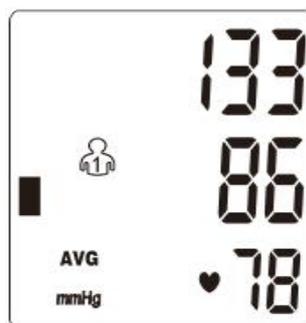
This blood pressure storing 2×99 set memory value, each measurement it will automatically stored. When it stored 2×99 set memory value, the old value will be covered by the new one. It can show the latest 3 times average value.

⚠ Attention ⚠

- In order to make a note of measurement correctly, before measurement, please make sure set the right user and time. Under one user, it has stored 99 set data, when you save the 100th set date, the earliest one date will be deleted.

6.1.1 Read Average Value

Short press the MEMORY key it will show the latest 3 times average value. It will appear "AVG" in the lower-left corner;



⚠ Attention ⚠

- When the number of memory value less than 3 sets, such as there are 2 sets of memory value , after pressing the memory button it will show the average value of these 2 sets. If there is only 1 set memory value, after pressing the memory button it will show the average value of this 1 set , that is the only 1 set measure value.

6.1.2 Read Memory Record

Press the MEMORY key in average mode, you can read the latest 1 time measurement value,repeat press the MEMORY key to cyclic switch in the previous measurements.



6.2 Memory Clear

Long press the MEMORY key in the memory mode,all memory values will be deleted.



Warning



- This operation deletes all memory values, users need to operate carefully.

7.About Wrist Type Blood Pressure Monitor

Blood pressure wrist and upper arm blood pressure value when disease

Diabetes and high cholesterol and high blood pressure will accelerate atherosclerosis.It can cause dangerous diseases such as stroke or myocardial infarction, or arterial stenosis or peripheral circulatory disorders when this symptom turns serious. Wrist blood pressure values in these patients with upper measure blood pressure may have a greater difference. [Even healthy people due to inappropriate test conditions, there may be a difference about 20mmHg (2.6kPa), so do not be self-judgment, be sure to accept the doctor's guidance.] In addition, the difference between the wrist and upper arm measured blood pressure values, will much affected due to the physiological state, but the changes of the wrist and upper arm measured blood pressure values are the same.Therefore examining trends of change in blood pressure can be based on the measurement of wrist blood pressure .

Wrist and upper arm blood pressure

Normally, blood pressure measurement is used to measure the brachial artery blood pressure of the upper arm. Because the brachial artery in the wrist is connected with the upper arm, so the measured blood pressure value is very closed to that one of the upper arm, and it can also reflect changes of the arm blood pressure. There is a large difference of blood pressure value between wrist and upper arm of those patients who have circulatory system diseases. Please consult experts and make health management in accordance with the upper arm blood pressure

value.

Blood pressure difference between wrist and upper arm

Normally, the measured blood pressure value will appear deviation between wrist and upper arm of a healthy person in a quiet state. [The difference is within $\pm 10\text{mmHg}$ ($\pm 1.3\text{kPa}$)]. However, if measured immediately after exercise or bathing, the change of the difference in blood pressure between wrist and upper arm is large due to large changes in blood circulation.

Correct the measurement position

When the height position of the wrist and the heart is not the same, due to the weight of blood, the blood pressure value will change. When the wrist is positioned higher than the heart, the measured blood pressure value is low; when the wrist position is lower than the heart, the measured value will be high [each 10cm height difference, about 8mmHg (1kPa)] . But because blood pressure measuring are closely related to he posture, so it does not necessarily change in accordance with this value. Be sure to consult the correct measurement posture (see section 5.1).

Daily life and wrist blood pressure

Usually around diet, the upper arm and wrist blood pressure does not have a huge difference. When bath in the high temperature water, due to the heated skin caused blood vessels shrinkage, the blood pressure rises. But if bathing in warm water, it will expand peripheral vascular, decreased blood pressure, this time, the wrist blood pressure will decreased bigger than the arm blood pressure.

8 Manufacturer's Declaration of the EUT

Guidance and manufacturer's declaration – electromagnetic emission – for all EQUIPMENT AND SYSTEMS

1	Guidance and manufacturer's declaration – electromagnetic emission		
2	The product is intended for use in the electromagnetic environment specified below. The customer or the user of product should assure that it is used in such an environment.		
3	Emissions test	Compliance	Electromagnetic environment - guidance
4	RF emissions CISPR 11	Group 1	The product uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
5	RF emissions CISPR 11	Class B	The product is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
6	Harmonic emissions IEC 61000-3-2	N/A	
7	Voltage fluctuations / flicker emissions IEC 61000-3-3	N/A	

Guidance and manufacturer's declaration – electromagnetic immunity – for all EQUIPMENT and SYSTEMS

Guidance and manufacturer's declaration – electromagnetic immunity	
The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment.	

Immunity test	EN 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrostatic transient / burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines	N/A	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV differential mode ± 2 kV common mode	N/A	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	< 5 % U_T (>95 % dip in U_T) for 0.5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles < 5 % U_T (>95 % dip in U_T) for 5 sec	N/A	Mains power quality should be that of a typical commercial or hospital environment. If the user of the product requires continued operation during power mains interruptions, it is recommended that the product be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE	U_T is the a. c. mains voltage prior to application of the test level.		

**Guidance and manufacturer's declaration – electromagnetic immunity –
for EQUIPMENT and SYSTEM that are not LIFE-SUPPORTING**

Guidance and manufacturer's declaration – electromagnetic immunity
The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment.

Immunity test	EN 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	N/A	<p>Portable and mobile RF communications equipment should be used no closer to any part of the product including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance</p> $d = \left[\frac{3.5}{V_1} \right] \sqrt{P}$ $d = \left[\frac{3.5}{E_1} \right] \sqrt{P} \quad 80 \text{ MHz to } 800 \text{ MHz}$ $d = \left[\frac{7}{E_1} \right] \sqrt{P} \quad 800 \text{ MHz to } 2.5 \text{ GHz}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	<p>where p is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).^b</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,^a should be less than the compliance level in each frequency range.^b</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic is affected by absorption and reflection from structures, objects and people.

^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the product is used exceeds the applicable RF compliance level above, the product should be observed to verify normal operation. If abnormal

performance is observed, additional measures may be necessary, such as reorienting or relocating the product.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.

**Recommended separation distances between portable and mobile
RF communications equipment and the EQUIPMENT or SYSTEM -
for EQUIPMENT and SYSTEMS that are not LIFE-SUPPORTING**

Recommended separation distances between portable and mobile RF communications equipment and the product			
The product is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the product can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the product as recommended below, according to the maximum output power of the communications equipment			
Rated maximum output of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = \left[\frac{3.5}{V_1}\right]\sqrt{P}$	80 MHz to 800 MHz $d = \left[\frac{3.5}{E_1}\right]\sqrt{P}$	800 MHz to 2.5 GHz $d = \left[\frac{7}{E_1}\right]\sqrt{P}$
0.01	/	0.12	0.23
0.1	/	0.38	0.73
1	/	1.2	2.3
10	/	3.8	7.3
100	/	12	23
For transmitters rated at a maximum output power not listed above the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.			
NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.			
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			

9. Care and Maintenance

9.1 Care Methods

- Keep the blood pressure clean frequently
- Using a soft dry cloth towel clean this blood pressure monitor, if it is very filthy you can wet the towel with water or neutral detergent, wring out it and wipe the monitor.
- Don't clean the body with naphtha, thinner or gasoline etc.
- Don't wet the cuff or attempt to clean the cuff with water

 Attention 

Please prevent water or other liquid seep into the blood pressure monitor

9.2 Maintenance Methods

Do not place the unit in the following places:

- Easy splashing
- Direct sunlight, high temperatures, humidity, dust, full of corrosive gas places
- Some slant, vibrative, appulsive place .
- Some place storing chemicals or corrosive gas.

 Attention 

Please Storage after taking out the battery if not use the unit long time.(more than three months)

-  Do not attempt to replace the parts without authorization.
-  Do not disassemble and repair this blood pressure monitor.

❖ If you do not comply with all notes and the proper usage of the monitor, our company does not assume responsibility for the quality.

Appendix

I . Product Specifications

Name	Wrist Type Blood Pressure Monitor		
Display	Segment LCD Display		
Prevent into the liquid level	Can't prevent into the liquid with normal sealing measurement		
Measurement	Wrist-type		
Measurement range	NIBP	20-280mmHg	
	PR	40-199 times/min	
Accuracy	NIBP	$\leq \pm 3\text{mmHg}(\pm 0.4\text{kPa})$	
	PR	$\pm 5\%$	
Electrical parameters	Working Voltage: 3V(AAA×2)		
	Low electrical parameters: 2.4V±0.1V showing low power, <2.2V±0.1V power off		
	Blood pressure test current : < 500mA(without pump and valve working condition)		
	Shutdown current: <100uA		
Power	2 AAA alkaline batteries		
Size	73.6*60*80 mm		
N.W.	115g (with wristband,without battery)		
Working condition	Temperature	+5°C~40 °C	If stored or used outside the specified temperature and humidity range,blood pressure monitor will not work properly.
	Humidity	15%RH~80%RH	
	Atmospheric	86kPa~105kPa	
Transporting and storing condition	Temperature	-20°C~+55°C	Avoiding strong impact,direct impact,exposure or rain when transporting.Packed blood pressure monitor should be stored in the condition met the humidity and
	Humidity	$\leq 95\%RH$	
	Atmospheric	50kPa~105kPa	

			atmospheric requirements, and non-corrosive gases and ventilated room.
Security Type	Internal power supply, BF type application equipment		
Duration of use	5 years		

II. Blood pressure classification instructions

Table 1 Blood pressure classification instructions

LCD	Systolic Pressure	Diastolic Pressure
Serious	≥ 180	≥ 110
Moderate	160~179	100~109
Mild	140~159	90~99
Little higher	130~139	85~89
Normal	120~129	80~84
Most suitable	≤ 119	≤ 79

III. LCD Error message and the cause of error correspondence table

Table 2 LCD Error message and the cause of error correspondence table

LCD Error message	The cause of error
“E0 1”	Due to leaks too fast or pulse signal is too weak, please check wristbands, and after tied please measure again.
“E0 2”	Because there is too much noise, the blood pressure signal can not be measured, please remove the noise source, and then measure again.
“E0 3”	Test results are not normal, please measure again.
“E0 P”	If aerate fails, please check the wristband, re-tied, and then measured again.
“HI”	When the aerate pressure is higher than $307 \pm 8\text{mmHg}(41\text{kPa} \pm 1\text{kPa})$, please measure again.

After-sale Services

One year free warranty period will be provided after sales.

1. Our company cannot provide the free warranty service due to the malfunction caused by personal reason, the details as follow:

- 1) The malfunction caused by disassemble and modify the product.
- 2) The product inner malfunction caused by dropping while picking up or operating.
- 3) The malfunction caused by improper used or lack of reasonable cared.
- 4) The malfunction caused by operating not following the operator's manual.
- 5) The malfunction caused by natural disasters,such as flooding,fire.
- 6) The malfunction caused by improper repaired by repaired shop which isn't our authorized.

2. Please show your valid warranty card and shopping vouchers when you need free service.

3. Please bring the product to repaired shop which is our authorized when you need free repaired.

4. When performing warranty service, if needed, you can provide information on product components to circuit diagrams and repairable identified by our qualified technical personnel.

5. We will collect reasonable charge when we repair some malfunctions which out warranty service.