



INSTRUCTION MANUAL

Wrist Blood Pressure Monitor



ENGLISH

All for Healthcare

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Introduction

Thank you for purchasing the Blood Pressure Monitor. This blood pressure monitor uses the oscillometric method of blood pressure measurement. This means that this monitor detects your blood movement through your brachial artery and then converts the movements into a digital reading.

Safety Instructions

This instruction manual provides you with important information about the Ziqing Blood Pressure Monitor. To ensure the safe and proper use of this READ and UNDERSTAND all of these instructions. **If you do not understand these instructions or have any questions, contact our service first before attempting to use this monitor. For specific information about your own blood pressure, consult with your physician.**

Intended Use

The device is a digital monitor intended for use in measuring blood pressure and pulse rate in adult patient population with wrist circumference ranging from 5.3 inches to 7.6 inches (13.5 cm to 19.5 cm). The device detects the appearance of irregular heartbeats during measurement and gives a warning signal with readings.

Receiving and Inspection

Remove this monitor from the packaging and inspect for damage. If this monitor is damaged, DO NOT USE and contact us first.

Contraindications

- This monitor is contraindicated for use in ambulatory environments.
- This monitor is contraindicated for use on aircraft.

Important Safety Information

Read the Important Safety Information in this instruction manual before using this monitor.

Follow this instruction manual thoroughly for your safety.
Keep for future reference. For specific information about your own blood pressure,
CONSULT WITH YOUR PHYSICIAN.

 **Warning** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

- DO NOT use this monitor on infants, toddlers, children or persons who cannot express themselves.
- DO NOT adjust medication based on readings from this blood pressure monitor. Take medication as prescribed by your physician. ONLY a physician is qualified to diagnose and treat high blood pressure.
- DO NOT use this monitor on an injured wrist or a wrist under medical treatment.
- DO NOT apply the wrist cuff on your wrist while on an intravenous drip or blood transfusion.
- DO NOT use this monitor in areas containing high frequency (HF) surgical equipment, magnetic resonance imaging (MRI) equipment, computerized tomography (CT) scanners. This may result in incorrect operation of the monitor and/or cause an inaccurate reading.
- DO NOT use this monitor in oxygen rich environments or near flammable gas.
- Consult with your physician before using this monitor if you have common arrhythmias such as atrial or ventricular premature beats or atrial fibrillation; arterial sclerosis; poor perfusion; diabetes; pregnancy; preeclampsia or renal disease. NOTE that any of these conditions in addition to patient motion, trembling, or shivering may affect the measurement reading.
- NEVER diagnose or treat yourself based on your readings. ALWAYS consult with your physician.
- This product contains small parts that may cause a choking hazard if swallowed by infants, toddlers and children.

Battery Handling and Usage

- Keep batteries out of the reach of infants, toddlers and children.



Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient, or cause damage to the equipment or other property.

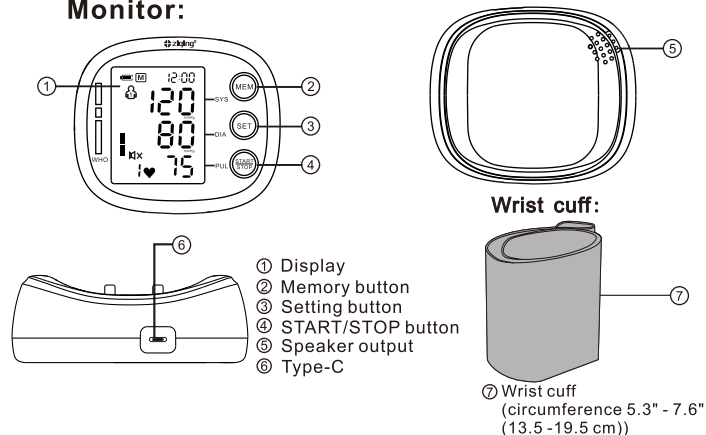
- Stop using this monitor and consult with your physician if you experience skin irritation or discomfort.
- Consult with your physician before using this monitor on a wrist where intravascular access or therapy, or an arterio-venous (A-V) shunt, is present because of temporary interference to blood flow which could result in injury.
- Consult with your physician before using this monitor if you have had a mastectomy.
- Consult with your physician before using this monitor if you have severe blood flow problems or blood disorders as cuff inflation can cause bruising.
- DO NOT take measurements more often than necessary because bruising, due to blood flow interference, may occur.
- ONLY inflate the wrist cuff when it is applied on your wrist.
- Remove the wrist cuff if it does not start deflating during a measurement.
- DO NOT use this monitor for any purpose other than measuring blood pressure.
- During measurement, make sure that no mobile device or any other electrical device that emits electromagnetic fields is within 12 inches (30cm) of this monitor. This may result in incorrect operation of the monitor and/or cause an inaccurate reading.
- DO NOT disassemble or attempt to repair this monitor or other components. This may cause an inaccurate reading.
- DO NOT use in a location where there is moisture or a risk of water splashing this monitor. This may damage this monitor.
- DO NOT use this monitor in a moving vehicle such as in a car.
- DO NOT drop or subject this monitor to strong shocks or vibrations.
- DO NOT use this monitor in places with high or low humidity or high or low temperatures.

- During measurement, observe the arm to ensure that the monitor is not causing prolonged impairment to blood circulation.
- **DO NOT** use this monitor in high-use environments such as medical clinics or physician offices.
- **DO NOT** use this monitor with other medical electrical (ME) equipment simultaneously. This may result in incorrect operation of the monitor and/or cause an inaccurate reading.
- Avoid bathing, drinking alcohol or caffeine, smoking, exercising and eating for at least 30 minutes before taking a measurement.
- Rest for at least 5 minutes before taking a measurement.
- Remove tight-fitting or thick clothing and any accessories from your wrist while taking a measurement.
- Remain still and **DO NOT** talk while taking a measurement.
- **ONLY** use this monitor on persons whose wrist circumference is within the specified range of the cuff.
- Ensure that this monitor has acclimated to room temperature before taking a measurement. Taking a measurement after an extreme temperature change could lead to an inaccurate reading. We recommend waiting for approximately 2 hours for the monitor to warm up or cool down when the monitor is used in an environment within the temperature specified as operating conditions after it is stored either at the maximum or at the minimum storage temperature.
- **DO NOT** crease the wrist cuff excessively.
- **DO NOT** use this monitor after the durable period has ended.

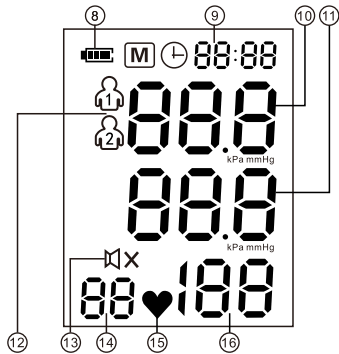
1. Know Your Monitor

Contents:
Monitor, Wrist cuff, instruction manual

Monitor:



1.1 Display and Symbols



- ⑧ Battery capacity indicator
- ⑨ Date/Time
- ⑩ Systolic blood pressure readings
- ⑪ Diastolic blood pressure readings
- ⑫ Users symbol
- ⑬ Speaker Symbol
- ⑭ Memory readings
- ⑮ Heartbeat symbol
- ⑯ Pulse readings

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Classification of blood pressure by World Health Organisation

.The World Health Organisation(WHO) made classificaitons of blood pressure as shown in the following diagram.

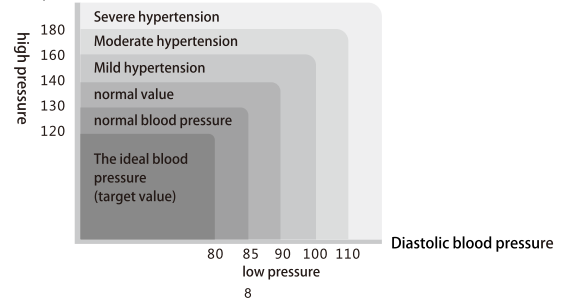
.This table displays blood pressure measurements of different people at different postures in hospital outpatient department as the standard

Notes:

.Low blood pressure has no definition.

.Generally people whose high pressure value is not up to 90mmHg(12kPa) are called hypotensive

Systolic blood pressure



1.2 Blood Pressure Measurement Tips


To help ensure an accurate reading, follow these directions:

- Stress raises blood pressure. Avoid taking measurements during stressful times.
- Measurements should be taken in a quiet place.
- It is important to take measurements at the same times each day. Taking measurements in the morning and in the evening is recommended.
- Remember to have a record of your blood pressure and pulse readings for your physician. A single measurement does not provide an accurate indication of your true blood pressure. You need to take and record several readings over a period of time.

 **Caution** • Avoid bathing, drinking alcohol or caffeine, smoking, exercising and eating for at least 30 minutes before taking a measurement.
• Rest for at least 5 minutes before taking a measurement.

2. Preparation

2.1 Battery Capacity Checking


1. When the symbol  flashes, please charge the monitor.
 2. The monitor will shut off if the battery is running off.
 3. This monitor has a built-in battery and needs to be charged before use. The charger adapter is not included in the package
- AC: 100-240V 50/60HZ
Output: DC 5V/500mAh
Please choose certified provider to buy one if you need.

3. Settings

3.1 Choose users

Press the [SET] button for 3 seconds until the  flashes, then press [MEM] button to choose  or .

3.2 Time settings

Press the [S] button after chose the user till  flashes, then 'year, month date, hour, minute' will be selected in sequence by press the [S] button. The time will be the system default time if it is not adjusted.

3.3 Voice settings

Press the [S] button to enter speaker setting mode after the time was set. It will display 'SP' on the screen and the ON will flash at the same time, then press [M] to choose ON or OFF. On means turn on the speaker and OFF means turn off the speaker. Press [S] button to enter blood pressure unit mode.

3.4 Blood pressure unit settings

Long press START/STOP button for 15 seconds in sleep mode. If the default setting is mmHg, after long press, it will change into kPa, which displays 0.0kPa, and vice versa. Press START/STOP to save the data.

The default settings are set by manufacturer before shipping out, customers can open to use it without setting.

3.5 Using the Memory Function

The monitor automatically stores the results up to 99*2 sets.

Note: If the memory is full, the monitor will delete the oldest value to store new ones

View and Delete the Measurement Values Stored in Memory

1. Press the [MEM] button in sleep mode, the data displayed for the first is the average data of the last 3 times measurements. The measured datas of each time can be checked by pressing the [MEM] button in sequence.
2. Press the [MEM] button for the 3 seconds in sleep mode, and then press [SET] button, the screen will display $\frac{EE}{EE}$, the memory groups will be all deleted after the [SET] button is released.

- ※ Sleep mode means power on but no indication.
- ※ Memory mode means press [MEM] button in sleep mode, the data will display.

4. Using the Monitor

4.1 Applying the Wrist Cuff

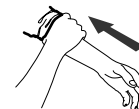
Note

- Following steps are for applying the wrist cuff to your left wrist. When you take a measurement on your right wrist, apply the wrist cuff using the same steps as on your left wrist.
- The blood pressure can differ between the right wrist and the left wrist, and the measured blood pressure values can be different. Ziqing recommends you to always use the same wrist for measurement. If the values between both wrists differ substantially, please check with your physician as to which wrist to use for your measurements.

Caution

- Remove tight-fitting, thick clothing and any accessories from your wrist while taking a measurement.

- ① Apply the wrist cuff to your left wrist.
Roll up sleeve. Make sure your sleeve is not rolled up too tightly on your arm. This may constrict the flow of blood in your arm.



- ② Put your wrist through the cuff loop.
Your palm and monitor display should both face upward.

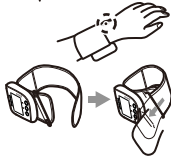


Wrist cuff

- ③ Position the wrist cuff leaving a clearance of 0.5 inch (1 to 2 cm) between the cuff and the bottom of your palm.



- ④ Wrap the wrist cuff firmly around your wrist. Do not apply over clothing. Check to make sure that there is no gap between your wrist and the cuff.



Note

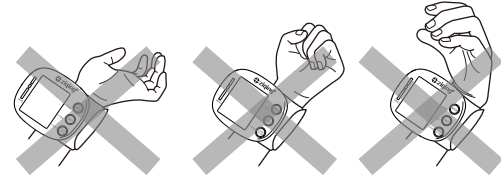
- Make sure the wrist cuff does not cover the protruding part of the wrist bone on the outside of your wrist.
- If the wrist cuff comes out of the metal ring, slide it back through as shown in the figure to the right.

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4.2 How to Sit Correctly

To take a measurement, you need to be relaxed and comfortably seated in a room with a comfortable temperature. Place your elbow on the table to support your arm.

- Sit in a chair with your legs uncrossed and your feet flat on the floor.
- Sit with your back and arm being supported.
- Your monitor must be approximately the same level as your heart. If the monitor is too high above your heart, your blood pressure will be artificially low. If the monitor is too low below your heart, your blood pressure will be artificially high.
- Relax your wrist and hand. Do not bend your wrist back, clench your fist, or bend your wrist forward.



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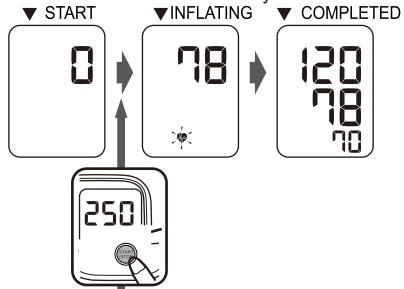
4.3 Taking a Measurement

Notes:

- To stop the measurement, press the START/STOP button once to deflate the wrist cuff.
- Remain still and quiet while taking a measurement.

1. Press the START/STOP button.

The wrist cuff will start to inflate automatically.



2. Remove the wrist cuff

3. Press the START/STOP button to turn the monitor off.

The monitor automatically stores the measurement result in its memory. It will automatically turn off after 60 seconds.

Note: Wait 2-3 minutes before taking another measurement. Waiting between measurements allows the arteries to return to the condition prior to taking a measurement.

5. Error Messages and Troubleshooting

If any of the below problems occur during measurement, check to make sure that no other electrical device is within 12 inches (30 cm). If the problem persists, refer to the table below.

5.1 Error Messages

Symptom	Possible causes
Higher than max-value or lower than min-value	*Too high cuff position *The cuff is not tied properly *Too low cuff position *Move or talk during measurement
Blood pressure extreme high or low	make sure in same position for every measurement
Blood pressure different from the measurement of the doctor's	*subtle change of metal state before doctor reflects on the result *measure again 4-5 minutes later
Readings are different for each time	*measure again 4-5 minutes later
No display after click switch button or display disappears after click the switch button or flashes during measurement	Low power, please charge it asap
Monitor failure	Please send back to us and don't repair it by yourself

6. Maintenance

6.1 Maintenance

To protect your monitor from damage, please follow the directions below:

- Changes or modifications not approved by the manufacturer will void the user warranty.



Caution DO NOT disassemble or attempt to repair this monitor or other components. This may cause an inaccurate reading.

6.2 Storage

1. Please store the monitor in the storage box when not in use.
2. Do not place the monitor where it is prone to splashing water, high temperature, humidity, direct sunlight, dusty or corrosive gas. Also do not use it in the environment above.

6.3 Cleaning

- Do not use any abrasive or volatile cleaners.
- Use a soft dry cloth or a soft cloth moistened with neutral soap to clean your monitor and wrist cuff, and then wipe them with a dry cloth.
- Do not wash or immerse your monitor and wrist cuff or other components in water.
- Do not use gasoline, thinners or similar solvents to clean your monitor and wrist cuff or other components.

6.4 Disposal

- Dispose of your monitor, other components and optional accessories according to applicable local regulations.
- Unlawful disposal may cause environmental pollution.

7. Specifications

Display	LCD Digital Display
Measurement Method	Oscillometric Method
Cuff Range	Approximately 13.5~19.5cm
Pulse Range	40~199 Beats/min
Blood Pressure Measurement Range	(0~295) mmHg (0~39.33) kPa.
Accuracy	Pressure: ± 3 mmHg (0.4kPa) Pulse: $\pm 5\%$ Of Display Reading
Power Source	Built-in Lithium Battery DC 3.7V
Operating Conditions	(5~40) $^{\circ}$ C/(41~104) $^{\circ}$ F/(15~80)%RH (non-condensing)/(80~105)kPa
Storage/Transport Conditions	(-20~55) $^{\circ}$ C/(-4~131) $^{\circ}$ F/ $\leq 93\%$ RH (50~105)kPa
Weight	Monitor: Approximately 4.05oz (115g)
Dimensions	Approximately 80mm(L)x68mm(W)x30mm(H)
Durable Period	Monitor: 5 Years Cuff: 5 Years
Produced Date	Seen On The Monitor
Automatic Shutdown	60s Without Activities
Protection Against Electric Shock	Internally Powered Equipment
Applied Part	Type B (Wrist Cuff)
Waterproof Level	Ordinary Equipment (IPX0 is not waterproof)
Safety In Flammable Anesthetic Environment	Non-AP And Non-APG
Disinfection And Sterilization	Surface
Inflation	Fuzzy-logic Controlled By Electric Pump
Deflation	Automatic Pressure Release Valve

Notes:

- These specifications are subject to change without notice.
- This monitor complies with the requirements of ISO 81060-2:2013. In the clinical validation study, K5 was used on 85 subjects for determination of diastolic blood pressure.
- This monitor has not been validated for use on pregnant patients.
- IP classification is degrees of protection provided by enclosures in accordance with IEC 60529. This monitor is protected against solid foreign objects of 12.5 mm diameter and greater such as a finger.

8. Blood Pressure Tips

Important information about blood pressure

What is blood pressure

Blood pressure indicates the pressure borne by arterial vascular walls when the blood flows through the arterial vascular walls. During cardiac cycle, the blood pressure of the arterial vascular walls changes constantly. The highest pressure during cardiac cycle is called high pressure value (systolic pressure), the lowest pressure is called low pressure value (diastolic pressure). The high and low pressure values are a necessary basis for diagnosis of blood pressure conditions of patients by doctors.

What is arrhythmia

Arrhythmia is a result-driven electrical system of the heart as a result of abnormal heart rhythm conditions. The typical symptoms are below.

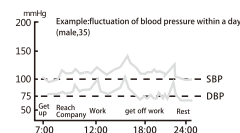
- Palpitations (a feeling of skipped heart beats, fluttering or flip-flop, or feeling that your heart is running away).
- Pounding in your chest.
- Dizziness or feeling light-headed.
- Fainting.
- Shortness of breath.
- Chest discomfort.
- Weakness or fatigue (feeling very tired).

Why it is good to measure blood pressure at home

Your blood pressure will be affected by body movement, anxious motion and different time periods in the day. You should measure at least two times and get an average value measurement for accuracy. Therefore, it is the best to measure blood pressure at the same time of each day to obtain accurate signs of blood pressure change.

Usually blood pressure measured in the morning relatively low, and gradually rises from afternoon to the night. Additionally, blood pressure is relatively low in summer, and relatively high in winter.

At different times of a day, blood pressure change of the same people is also relatively large, only the blood pressure measured at the same time of a day can be compared, and more rational monitored blood pressure value can be obtained.



9. Limited Warranty

This Blood Pressure Monitor, excluding the wrist cuff and batteries is warranted to be free from defects in materials and workmanship appearing within 1 year from the date of purchase, when used in accordance with the instructions provided with the monitor. The wrist cuff is warranted to be free from defects in materials and workmanship appearing within 1 year from the date of purchase when the monitor is used in accordance with the instructions provided with the monitor. The above warranty extends only to the original retail purchaser.

We will, at our option, replace without charge any monitor or wrist cuff covered by the above warranty. Replacement is our only responsibility and your only remedy under the above warranty.

To obtain warranty service contact Customer Service by contacting our customer service for the address of the inspection center and the return shipping and other handling fee that may apply.

Enclose the original printed receipt. Include a letter, with your name, address, cell phone number, and description of the specific problem. Pack the product carefully to prevent damage in transit. Because of possible loss in transit, we recommend insuring the product with return receipt requested.

The foregoing is the sole warranty provided by ZIQING. In connection with this product, and ZIQING hereby disclaims any other warranties, express or implied, including implied warranty of merchantability and fitness for a particular purpose. Implied warranty and other terms that may be imposed by law. If any, are limited in duration to the period of the above express warranty.

ZIQING shall not be liable for loss of use or any other special, incidental, consequential or indirect costs, expenses and damages.

This warranty provides you with specific legal rights, and you may have other rights that vary by jurisdiction. Because of special local requirement, some of the above limitations and exclusions may not apply to you.

10. Guidance and Manufacturer's Declaration

1) Customer Service Information

Shenzhen Ziqing Medical Equipment Co., Ltd
-Customer Service Department

For more details, refer to the warranty information.

2) Calibration

The monitor is a precision measuring device.

It should be calibrated once a year, and it can be returned to the manufacturer or performed at the local measurement agency.