



**WEGO 威高**



# Upper Arm Type Electronic Blood Pressure Monitor

User's Manual

**WG-HBP-71 Series**

# Contents

<b>1. Preface .....</b>	<b>01</b>
1.1 Purpose of Use .....	01
1.2 Measurement Items .....	01
1.3 Precautions Before Use .....	01
1.4 About the Manual .....	02
1.5 Symbols and Their Meanings .....	02
1.6 Precautions .....	03
<b>2. Statement .....</b>	<b>05</b>
2.1 Copyright Statement.....	05
2.2 Quality Assurance.....	06
<b>3. Warnings and Precautions.....</b>	<b>06</b>
3.1 Safety Requirements.....	06
3.2 Warnings .....	07
3.3 Precautions .....	09
3.4 General Advice .....	12
Installation .....	12
Maintenance .....	13
Battery .....	13
Measurement .....	13
<b>4. Product Introduction .....</b>	<b>14</b>
4.1 Product Description .....	14

4.2 Product Structure and Composition .....	14
Naming Convention .....	14
Model/Specifications .....	14
Structure and Composition .....	16
4.3 Intended Use .....	16
4.4 Contraindications.....	16
4.5 Software.....	16
4.6 Product Function.....	17
4.7 Product Working Principle .....	18
Reduced Pressure Oscillometric Method.....	18
4.8 Technical Specifications.....	18

<b>5. Use Method .....</b>	<b>20</b>
5.1 Unpacking and Pre-use Inspection.....	20
5.2 Product Part Introduction .....	21
5.3 Product Usage .....	22
Use Adapter.....	22
Select Unit/Personnel/Set Date and Time.....	22
Use Cuff .....	23
Measure Blood Pressure .....	25
5.4 Data Clearing .....	26
5.5 Blood Pressure FAQs.....	27
5.6 Network Security Description .....	28



<b>6. Maintenance .....</b>	<b>29</b>
6.1 Maintenance of the Main Unit .....	29
6.2 Routine Maintenance .....	30
6.3 Prompt for Abnormalities .....	31
6.4 Environmental Conditions .....	32
6.5 Environmental Protection .....	32
<b>7. After-sales Service .....</b>	<b>35</b>
7.1 Scope of Service .....	33
Scope of Free Service .....	33
Scope of Paid Service .....	33
Return .....	33
Costs Incurred from Returns .....	34
7.2 Warranty .....	34
7.3 Periodic Calibration .....	34
7.4 Manufacturer Information .....	34
<b>8. Electromagnetic Compatibility .....</b>	<b>35</b>
<b>9. List of Hazardous Substances .....</b>	<b>38</b>
<b>10. Product Warranty .....</b>	<b>39</b>

# 1. Preface

## 1.1 Purpose of Use

Medical purpose: This product is a medical instrument designed for displaying blood pressure and pulse for adults and children with an arm circumference of 22 to 32 cm.

Target users: Medical staff and family members.

Measurement subject: Adults (not applicable to newborns and children).

Environment: Home, hospital, clinic, and other facilities.

Body part that interacts with the product: Arm.

## 1.2 Measurement Items

Non-invasive measurement of blood pressure and pulse.

## 1.3 Precautions Before Use






- ⚠ Please refer to [3. Warnings and Precautions] for details.  
Caution: It is necessary to ask a professional physician to explain the measured blood pressure values!
- ❗ Accurate measurements can only be obtained with the correct measurement method!
- ⚠ Caution: Pay attention to the following points when measuring blood pressure, otherwise, it may cause inaccurate measurements!
- ❗ Every blood pressure measurement is affected by the subject's posture and physical condition. Before the measurement, please ask the subject to sit still for 10 minutes and adopt the proper posture (to maintain his/her emotions calm and stable)!
- ⊘ Do not take the measurements when the subject's body part is under pressure.
- ⊘ Do not take the measurements after smoking, or drinking alcohol, coffee, or black tea.
- ⊘ Do not take the measurements immediately after the subject has exercised or taken a shower.
- ⊘ Do not allow subjects to speak, move, or shake their bodies during the measurement.
- ⊘ Do not take the measurements in extremely cold or hot environments or when there are drastic changes in conditions.
- ⊘ Do not take the measurements within an hour after meals.







- ⊗ Do not take the measurements in a moving vehicle.
- ⊗ Do not use a mobile phone near this product.
- ⊗ Do not clean this product with chemicals such as thinner, alcohol, or gasoline.
- ⊗ Do not hit the product or drop it from a high place.
- ⊗ Be sure to use the special cuff for this product, otherwise accurate measurements cannot be taken.
- ❗ Please take the measurements again if it is impossible to measure normally due to an incorrect operation!

## 1.4 About the Manual

- This Manual mainly introduces the installation and usage methods and precautions of this product.
- Before using this product, please make sure to read this Manual completely (including "Warnings and Precautions").
- Please carefully read the measurement items related to this product and use it properly.
- Please refer to [5. Use Method] for details of unpacking, installation, and pre-use inspection.
- For standard operating procedures, refer to [5.3.4 Measure Blood Pressure].
- Please refer to [6 Maintenance] for access to help services and frequency of routine maintenance, recalibration, and cleaning.
- The blood pressure values measured by this device are equivalent to the value measured with the auscultatory method, and the error meets the requirements stipulated in YY0667-2008.

## 1.5 Symbols and Their Meanings

	Warning		Type BF applied part
	Class II equipment		Pollution control mark for electronic information products. It indicates that this product has an environmentally friendly lifespan of 10 years, can be recycled and should not be thrown away, excluding dry batteries.
	Please read this manual carefully before using the unit. Please properly keep this manual for future reference. For details regarding the user's own blood pressure, consult the doctor.	<b>IP21</b>	Indicating that this product can prevent solid foreign objects with a diameter of not less than 12.5 mm from entering and prevent vertical dripping

	Caution! Refer to accompanying documents		Non-ionizing electromagnetic radiation
	Fragile, be careful		Keep up
	Keep dry		Indicating that the stacking limit for the same transport package is 5

## 1.6 Precautions

- It is dangerous for patients to self-diagnose and self-treat based on measurement results. Please follow medical advice, as self-diagnosis may worsen the condition.
- Patients with severe blood circulation disorders or blood diseases should use this device under a doctor's guidance. Compression of the arm during measurement may lead to acute internal bleeding.
- Please use the specialized cuff provided. This blood pressure monitor can only use the original factory-provided cuff and should not be replaced with cuffs of other brands, as this may result in inaccurate measurements.
- Do not use the blood pressure monitor in moving vehicles (cars, airplanes), as it may not measure correctly.
- Users should choose the appropriate cuff based on the size of their arm to ensure the measurement accuracy.
- Prolonged over-inflation of the airbag may pose risks, such as numbness and pain in the arm.
- Measurement values may be inaccurate or impossible to obtain if there are common arrhythmias.
- Use four AAA alkaline dry batteries, and do not use other types of batteries to avoid the risk of fire.
- In case the battery electrolyte accidentally gets into the eyes, immediately rinse with plenty of water. There is a risk of injury that could cause blindness; seek immediate treatment at the nearest hospital.
- If battery electrolyte accidentally contacts skin or clothing, rinse immediately with plenty of water to prevent skin damage.
- Dispose of used batteries according to the environmental protection regulations of your local municipality, town, or village. Disposal as combustible material may cause battery explosion and lead to fires, burns, and injuries.
- Use and store this device according to the temperature and humidity standards recorded in this manual, as failure to do so may lead to

inaccurate measurements.

- Do not install batteries with reversed polarities. After using dry batteries, replace all four battery cells at the same time. Remove the dry batteries if not using the device for a long time to prevent leakage, heating, or rupture, which could damage the blood pressure monitor.
- Patients with arrhythmia, diabetes, poor blood circulation, or those who have had a stroke should use this device under medical supervision. Patients with hypertension or other cardiovascular diseases should provide their measurement results to their personal doctor or a healthcare professional familiar with their health status for diagnosis.
- For safety reasons, keep this product out of reach of children.
- When common arrhythmias (such as premature atrial contractions, premature ventricular contractions, atrial fibrillation, etc.) occur, the device may not perform as claimed, and the measurements may be inaccurate or impossible.
- Do not use this device on infants and individuals who cannot express themselves; otherwise, it may lead to accidents or disputes.
- Keep the cuff pressure below 299 mmHg (39.9 kPa) to avoid symptoms such as congestion and numbness in the arm.
- This product is for blood pressure measurement only. Using it for other purposes may lead to accidents.
- Do not use a mobile phone near the device as it may cause malfunction of the device.
- Do not disassemble or modify the main unit or cuff of the blood pressure monitor without authorization, as it may not measure correctly.
- Do not mix old and new batteries or different types of batteries to prevent leakage, heating, or rupture, which could damage the blood pressure monitor.
- Use adapters according to the instructions in this manual, as improper use may lead to fire or electric shock.
- Use a dedicated adapter with AC 220V only. Always use a separate socket to avoid the risk of fire or electric shock.
- Do not plug or unplug the adapter with wet hands to avoid the risk of fire or electric shock.
- Do not forcefully bend the cuff or the air tube.
- When removing the air tube, pull out the air plug at the front of the tube.
- Do not drop or hit the main unit.
- Do not pressurize before wrapping the cuff around the arm.

## 2. Statement

This Manual is prepared in accordance with the Provisions on the Administration of Instructions and Labels of Medical Devices. Revision date of this Manual: June 3, 2024.

The information provided in this Manual is based on product characteristics, rather than the customer's customization requirements, and does not involve any personal information of the customer.

In addition, some of the contents in the user manual may differ from your unit and are subject to change without further notice.

### 2.1 Copyright Statement

The copyright and final interpretation of this Manual and this statement are reserved by Weihai WEIGAO Health Technology Co., Ltd.

The copyright of this Manual is owned by Weihai WEIGAO Health Technology Co., Ltd. (hereinafter referred to as "WEIGAO Health"). The content in this Manual is protected by copyright law. This Manual may not - in full or in part - be copied, photographed, reproduced, transcribed, backed up, modified, transmitted, translated into another language, or used commercially in any manner or form, by any person without prior written permission of WEIGAO Health. This Manual is prepared based on current information and is subject to change without prior notice. WEIGAO Health has made every effort to ensure the accuracy and reliability of the content when preparing this Manual, but we cannot control any misunderstandings that users may have about this Manual, so WEIGAO Health will not be responsible for any losses or damages caused by omissions, inaccuracies, or errors in this Manual. WEIGAO Health reserves the rights to interpret all contents.

Users must upload their test data themselves after each test, or download, copy, and print electronic files for record-keeping. WEIGAO Health will not be responsible for the loss of or damage to personal measurement data caused by misoperation of software or hardware, device maintenance, battery replacement, or other unexpected situations, nor will it be responsible for any other indirect losses caused thereby. Therefore, WEIGAO Health will not be responsible for any accidental damage that may occur during the use of this Manual, and will not be responsible for any third-party claims arising from the use of the device.

## 2.2 Quality Assurance

Under normal circumstances, the raw materials and production & processing of the product are free from defects, because we strictly follow the ISO13485 quality system certification during the production and waive the cost of materials and manual maintenance in the warranty period. Normal use and maintenance should be carried out in accordance with the instructions and guidance in this Manual. The guarantee is no longer applicable under the following circumstances:

- ✓ Product damage during shipment
- ✓ Using accessories not approved by WEIGAO Health
- ✓ Abuse, misoperation, and rough use without following the instructions or guidance in this Manual
- ✓ Damage caused by uncontrollable factors such as environmental conditions, temperature, humidity, and force majeure (such as lightning and other natural disasters) beyond the control of WEIGAO Health
- ✓ Dismantling of devices by maintenance organizations or individuals without authorization from WEIGAO Health

## 3. Warnings and Precautions

Important safety measures and information on the proper use of the device are provided in this Manual. Please read them carefully before using this upper arm type electronic blood pressure monitor.

Before use, operators should understand the professional skills, operation, and knowledge of the product in this Manual, as well as the restrictions on any place or environment where the product can be used and related warnings and precautions.

When the patient operates and uses the product themselves, the patient is the expected operator and needs to read this Manual before use.

### 3.1 Safety Requirements

Warning	Remind users that incorrect operation of the blood pressure monitor may result in incorrect or unexpected measurement results.
Caution	Remind users to pay attention to the operation of the blood pressure monitor. Incorrect operation of the blood pressure monitor may result in inaccurate measurement results or malfunction of the monitor. Please contact your doctor promptly in case of discomfort.
Note	Provide specific information through suggestions, requests, or supplementary explanations.

## 3.2 Warnings

- Do not use the blood pressure monitor in extremely cold, hot, dusty, or humid environments.
- Do not use the blood pressure monitor in environments with flammable anesthetic gases. Do not bring this product into places where there are highly flammable anesthetics or potentially flammable gases, as well as high-pressure oxygen chambers or oxygen tents, otherwise, it may cause explosions or fires.
- Do not use the blood pressure monitor during nuclear magnetic resonance imaging (MRI) or CT examinations. Do not use this product together with nuclear magnetic resonance imaging diagnostic devices (MRI devices). When performing an MRI examination, please remove the cuff, etc., connected to this product from the patient's body, otherwise, the patient may be burned due to local heating caused by induced electromotive force.
- Do not use the blood pressure monitor in combination with a defibrillator.
- Do not use the blood pressure monitor in combination with electrocardiographic surgical devices.
- Do not use the blood pressure monitor in environments with a strong electromagnetic field.
- In case the electrolyte in the battery accidentally splashes into the eyes, please rinse immediately with plenty of water and seek treatment at the nearest hospital, otherwise, it may cause blindness.
- Please do not hold the cuff, power adapter, etc. to move this product, otherwise, the cable may fall off, causing the product to injure the patient.
- Do not use the dedicated rechargeable batteries for purposes other than supplying power to this product. Do not heat the battery or put it into fire, otherwise, it may cause severe rupture and lead to a fire.
- Do not operate or store this product outside the conditions specified in this Manual, otherwise, it may cause faults or operation failure.
- Do not use this product in environments with extreme temperature, humidity, and height. Please strictly follow the environmental conditions. Correct measurement is available only if the environmental conditions are followed during use.
- Do not impact or drop this product, otherwise, it may cause faults or operation failure.
- Do not plug or unplug the power plug with wet hands, otherwise, it may cause electric shock or burns.
- This product complies with EMC standards. Therefore, it can be used simultaneously with many medical devices. However, when using this product near instruments such as electric surgical scalpels and microwave therapy devices that generate noise, please check the operating status of this product during or after use, otherwise, it may



cause faults or operation failure.

- When measurement mistakes occur or the measured values are questionable, please confirm through auscultation, otherwise the changes in the patient's condition may be impossible to observe, leading to condition aggravation.
- Please plug the power plug into the bottom of the socket, otherwise, it may cause fire and electric shock.
- Please confirm the following before use: whether the power adapter cable is damaged (core wire is exposed, broken, etc.), and whether the connection is loose, otherwise, it may cause faults, operation failures, or fires.
- Please make sure to use standard accessories or products designated by WEIGAO Health for power adapters, consumables, and other products connected to this product, otherwise, it may cause faults, operation failures, or fires.
- Do not use this product when it emits smoke, odors, or abnormal sounds, otherwise, it may cause explosions or fires.
- Do not bring mobile phones, walkie-talkies, or other devices into the room where this product is placed, otherwise, it may cause misoperation.
- Do not connect multiple units of this product to one patient, otherwise, it may endanger the patient's safety.
- Do not connect to socket outlets controlled by wall switches, otherwise, it may cause the power supply to fail to supply this product.
- Please do not place any items on this product. If any liquid spills onto the device or foreign objects enter the interior of the device, it may cause fire, electric shock, or faults.
- Do not use this product in places with high moisture or that may have contact with water, such as bathrooms, otherwise, it may cause fire, electric shock, and faults.

Before measurement, please confirm whether the patient has the following conditions:

- Peripheral circulatory disorders, low blood pressure, or hypothermia (due to limited blood flow at the measurement site)
- Using Extracorporeal Membrane Oxygenation (due to lack of pulsation)
- Wearing SpO<sub>2</sub> sensor and cuff on the same arm
- Arterial aneurysm
- Arrhythmia
- Spasms, venous pulsations, tremors, and other body movements (during cardiac massage, weak continuous vibrations, rheumatism, etc.).

Otherwise, it may not be possible to measure correctly.

- Before use, please confirm whether the appearance of the device has been deformed due to falling off or other reasons, whether there is dirt, or whether it has been soaked, otherwise, it may cause faults or operation failure.

- When this product is not used for a long time, please make sure to confirm whether the device can operate properly and safely before use, otherwise, it may cause accidents.
- Do not use this product in places where it is easy to fall off. In addition, if this product falls off, confirm whether it can still operate normally and safely, because falling may affect the accuracy and performance.
- When the airbag is in excessively inflated for a long time, there may be risks.
- Please cut off the power supply and unplug the power adapter from this product during maintenance, otherwise, it may cause electric shock.
- After maintenance, thoroughly dry the device and then plug into a medical power socket outlet, otherwise, it may cause electric shock.
- Do not spray, inject, or leak liquids into the opening of this product, accessories, connectors, buttons, or housing, otherwise, it may cause electric shock.
- To use this product safely and correctly, please conduct the pre-startup inspection and maintenance inspection, otherwise, accidents may occur.
- Do not modify this product at will. Do not disassemble or modify this product and adapter, otherwise, it may cause fire and electric shock.
- Any maintenance of the product is prohibited during its use.
- Prefer to place the product in those places where it is easy to unplug when in use, not in places where it is difficult to unplug.
- Warnings: Do not modify this device.
- When the performance of the device system changes, please stop using it, contact the manufacturer, and do not disassemble the device for maintenance.
- Do not use components other than those specified in this Manual, otherwise, it may affect the accuracy or performance or pose a danger.
- Before each use, the device should be cleaned and disinfected according to the instructions in this Manual.
- Do not expose this device and its accessories to places with high temperatures, high humidity, dust, cotton wool, insects, or direct sunlight.
- Keep this device out of the reach of pets or children, as there may be a risk of damage to the device.
- There may be measurement errors in cases of common arrhythmias such as premature atrial contraction (PAC), premature ventricular contraction (PVC), and atrial fibrillation (AF).
- If the original components are replaced with parts not provided by the manufacturer, it may cause incorrect measurements.
- Remove the battery if the product is not to be used for a period of time; otherwise, it may cause the battery to leak and damage the product.
- Any maintenance or care of the product while the patient is using is prohibited.

### 3.3 Precautions

- This blood pressure monitor is intended for adults and children over 3 years old.
- Do not use this product for infants and pregnant women, otherwise, it may fail to obtain accurate measurement values.
- When this blood pressure monitor is used by multiple persons, please disinfect it with 75% medical alcohol before use to prevent skin cross infection.
- The service life of the lithium battery in this blood pressure monitor may vary depending on the usage conditions and environment.
- In case of discomfort while using this blood pressure monitor, please stop using it immediately and consult a doctor, distributor, or manufacturer.
- If you have any questions during use, please contact the distributor. Do not disassemble this device by yourself, otherwise, you will lose any warranty promised by WEIGAO Health, and be responsible for all problems arising from this.
- The service and maintenance of the device should be carried out by WEIGAO Health or its authorized distributors and agents, and they will not be responsible for any direct, indirect, or ultimate damage or delay caused by other factors.
- This device cannot be operated during transfer. Please do not place this product in the following places:
  - Where there are gases or fireworks
  - Where it may come into contact with water or steam
  - Where chemicals or corrosive gases are stored
  - Where the air contains a large amount of dust, salt, sulfur, etc.
  - Where it will be exposed to direct sunlight for a long time (especially where liquid crystal may deteriorate due to ultraviolet radiation)
  - Where vibrations and impacts may occur
  - Where the temperature and humidity are not within an appropriate range (ambient temperature: -25°C—70°C, humidity: 15%RH—93%RH)

Otherwise, it may cause a fire or result in faults or operation failures.
- Do not use this product near large equipment that requires switch control with conversion relays, otherwise, it may affect the operation of this product.
- Do not connect the positive and negative electrodes of rechargeable batteries with steel wires or other metals to prevent short circuits. If the electrolyte in the battery accidentally sticks to the skin or clothing, please rinse immediately with plenty of water, otherwise, it may damage the skin.
- When using disinfectant for maintenance, please follow the instructions of the product manufacturer, otherwise, it may damage the surface of this product.
- Please maintain the product regularly, otherwise, it may cause faults or operation failures.

- Do not use solvents such as diluents or volatile oils during maintenance, otherwise, they may damage the surface of this product.
- Do not sterilize the device with high-pressure sterilizers, or gases (EOG, formaldehyde, high-concentration ozone, etc.), otherwise, it may cause damage to the device.
- When removing or installing the battery from this product, please be sure to unplug the power adapter from this product before operation, otherwise, it may cause electric shock.
- Do not disassemble or modify the battery, otherwise, it may cause heating, rupture, or fire.
- Do not apply pressure to the battery to prevent deformation. Additionally, please do not throw or strike the battery, or cause it to fall, bend, or be strongly impacted, otherwise, it may expand or explode.
- The orientation of the battery's positive and negative electrodes is specified. If it cannot be smoothly connected to this product, do not forcibly connect, otherwise, it may cause liquid leakage, heating, rupture, and fire.
- Do not connect the positive and negative terminals of the battery with steel wires or other metals. In addition, do not transport or store the battery together with metal necklaces, hair clips, etc., otherwise, the battery may be short-circuited, generate excessive current, and cause liquid leakage, heating, rupture, and fire. In addition, steel wires, necklaces, hair clips, and other metals may also generate heat.
- Do not use other batteries not for this product, otherwise, it may cause liquid leakage, heating, rupture, or fire.
- Please dispose of the cuff used by patients with infectious diseases as medical wastes, or thoroughly disinfect it before reuse, otherwise, it may lead to infection.
- When using the cuff frequently for continuous NIBP measurement, please monitor the patient's circulatory status regularly. In addition, please wear the cuff according to the precautions in this Manual, otherwise, it may cause ischemia, suggillation, and neurological disorders.
- When wrapping a cuff around the arm on the side where the breast has been removed for blood pressure measurement, please confirm with the patient if there are any abnormalities, as the patient may feel pain.
- Do not connect the cuff or cuff connector of NIBP to the Luer taper locking adapter, otherwise, it may cause accidents.
- Especially after changing positions, please be careful not to bend or block the air hose, otherwise, there may be residual air in the cuff, which may block the blood flow in the arm and lead to peripheral circulatory disorders.
- Do not wear the cuff on the following parts:
  - Limbs subject to intravenous infusion and blood transfusion

- Limbs wearing SpO<sub>2</sub> sensors or IBP catheters
  - Limbs wearing shunts for hemodialysis treatment
- Otherwise, it may lead to accidents.
- Please conduct NIBP measurement on the upper arm.
    - Otherwise, it may not be possible to measure correctly.
    - Otherwise, it may affect the measurement accuracy.
  - When measuring NIBP, please ask the patient not to move their body too much and keep their body not shaking as much as possible, otherwise, it may not be possible to measure correctly.
  - For patients diagnosed with bleeding tendency or hypercoagulability, please confirm if there are any abnormalities in the arm after measurement, otherwise, it may cause circulatory disorders due to dot hemorrhages or thrombus.
  - Please use a cuff of the appropriate size to obtain accurate measurement values, otherwise, it may result in inaccurate measurements. If a larger cuff is used, the measured value will be lower than the actual blood pressure value.
  - Before and during the measurement, please confirm whether the patient has the following conditions:
    - Measuring with a cuff of an inappropriate size
    - Different height of the cuff wrapping area from the height of the heart (if there is a height difference of 10 cm, the blood pressure value may sometimes differ by 7 mmHg to 8 mmHg)
    - Moving the body or speaking during the measurement
    - Wearing a cuff on thicker clothing
    - The rolled-up clothes compress the arm
 Otherwise, it may not be possible to measure correctly.
  - For adults, the cuff's tightening force should be enough to insert two fingers between the cuff and the wrapping area, otherwise, it may not be measured correctly.
  - The flickering display of measurement values beyond the measurement range cannot guarantee accuracy. Please take measures after confirming the patient's condition, otherwise, it may lead to condition aggravation.
  - Do not use this product when the cuff is damaged or has holes, otherwise, it may be broken during the measurement.

## 3.4 General Advice

### Installation

- Please carefully read the attached manual before using the products sold separately. This Manual does not record any precautions for products sold separately.

- Like other medical devices, please be careful not to wrap or tie cables to the patient when using them.
- Before or during use, please confirm the followings when the power is turned on:
  - There should be no smoke, odor, or abnormal sounds
  - The time should be set correctly
  - All buttons should function normally
  - The icon light should be on and flash normally
  - This product should be able to measure normally, and the error should be within the standard value
- Do not use this product when the screen cannot be displayed normally.
- Dispose of the main body, accessories, and products sold separately in accordance with the relevant city regulations on environmental protection.

## **Maintenance**

- Maintenance (see "Maintenance" section)

## **Battery**

- Please keep the battery out of reach of children to prevent accidents.
- When the battery is abnormal, please immediately transfer the battery to a safe place and contact the administrator or call the customer service hotline for consultation.
- When the battery voltage is low, the device may fail to operate when powered by the battery.

## **Measurement**

- Please follow the doctor's advice if the part wrapped by the cuff suffers from acute inflammation, purulent disease, trauma, etc.
- NIBP requires compression of the upper arm for measurement. Some people may feel intense pain or experience instantaneous spotting due to subcutaneous bleeding. Although the spot will naturally disappear after a period of time, patients who may have spots should be informed that "spots may appear" and the measurement may need to be temporarily stopped depending on the actual situation.
- Due to lack of clinical trials, please do not use this product for infants and pregnant women.
- Let the patient relax and not speak during the blood pressure measurement to ensure accurate measurement.
- Let the patient rest for 5 minutes before starting the measurement to ensure accurate measurement.

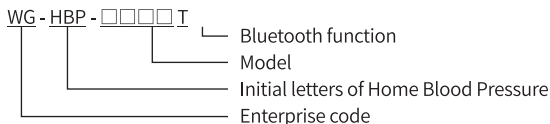
## 4. Product Introduction

### 4.1 Product Description

The upper arm type electronic blood pressure monitor mainly consists of a main unit, cuff, lithium battery or dry battery, power adapter (optional), and charging cable (optional). The main unit structure of the upper arm type electronic blood pressure monitor usually includes an air pump, pressure sensor, deflation valve, power supply circuit, button control circuit, display module, MCU control module, and embedded software. The embedded software is used for in-process control of blood pressure monitoring, signal feature extraction, and blood pressure calculation.

### 4.2 Product Structure and Composition

#### Naming Convention



#### Model/Specifications

The upper arm type electronic blood pressure monitor (hereinafter referred to as the blood pressure monitor) has 15 models, differentiated by various configurations. The specific model/specifications are shown in the table below.

Model Config.	WG-HBP-7160T	WG-HBP-7160	WG-HBP-7161	WG-HBP-7162	WG-HBP-7163
Voice	✓	✓	✓	✓	✓
Backlight	✓	✓	✓	✓	✓
Systolic blood pressure	✓	✓	✓	✓	✓
Diastolic blood pressure	✓	✓	✓	✓	✓
Pulse rate range	40~199	40~199	40~199	40~199	40~199
Blood pressure range	0~299	0~299	0~299	0~299	0~299
Recording function	90	90	60	60	60
Cuff self-check	✓	✓	✓	✓	—
Malfunction alert	✓	✓	✓	—	—
Battery	Dry battery	Dry battery	Dry battery	Dry battery	Dry battery
Bluetooth interface	✓	—	—	—	—
WiFi interface	—	—	—	—	—

Model Config.	WG-HBP-7130T	WG-HBP-7130	WG-HBP-7131	WG-HBP-7132	WG-HBP-7133
Voice	✓	✓	✓	✓	✓
Backlight	—	—	—	—	—
Systolic blood pressure	✓	✓	✓	✓	✓
Diastolic blood pressure	✓	✓	✓	✓	✓
Pulse rate range	40~199	40~199	40~199	40~199	40~199
Blood pressure range	0~299	0~299	0~299	0~299	0~299
Recording function	90	90	60	60	60
Cuff self-check	✓	✓	✓	✓	—
Malfunction alert	✓	✓	✓	—	—
Battery	Dry battery	Dry battery	Dry battery	Dry battery	Dry battery
Bluetooth interface	✓	—	—	—	—
WiFi interface	—	—	—	—	—



Model Config.	WG-HBP-7120T	WG-HBP-7120	WG-HBP-7121	WG-HBP-7122	WG-HBP-7123
Voice	—	—	—	—	—
Backlight	—	—	—	—	—
Systolic blood pressure	✓	✓	✓	✓	✓
Diastolic blood pressure	✓	✓	✓	✓	✓
Pulse rate range	40~199	40~199	40~199	40~199	40~199
Blood pressure range	0~299	0~299	0~299	0~299	0~299
Recording function	90	90	60	60	60
Cuff self-check	✓	✓	✓	✓	—
Malfunction alert	✓	✓	✓	—	—
Battery	Dry battery	Dry battery	Dry battery	Dry battery	Dry battery
Bluetooth interface	✓	—	—	—	—
WiFi interface	—	—	—	—	—

## Structure and Composition

The main components of the upper arm type electronic blood pressure monitor include the main unit, cuff, dry battery, adapter (optional), and charging cable (optional).

## 4.3 Intended Use

To measure the systolic blood pressure, diastolic blood pressure, and pulse rate of adults using the oscillometric method. The measured values are for diagnostic reference.

## 4.4 Contraindications

None

## 4.5 Software

Software name: Upper arm type electronic blood pressure monitor  
Specification/model: See model/specifications  
Software release version: V1

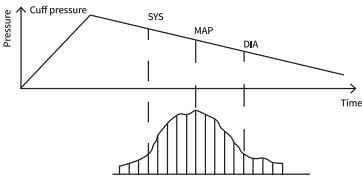
## 4.6 Product Function

Category	Function Description		Notes
Main functions	1	Measurement of high and low blood pressure values	Measures high and low blood pressure values in the upper arm artery
	2	Measurement of pulse rate	Measures the frequency of arterial pulse per minute
	3	Display of average measurement value	Displays the average of the last three measurement results
	4	High-definition large screen display	Clearer readings
	5	Dual-user 90 memory	Displays the average of the last three measurement results
	6	Arrhythmia alert	Provides memory storage for 2 users with 90 measurements per user
Auxiliary functions	1	Blood pressure level bar display	Detects if the heart rate is normal and flashes symbols on the screen with a voice reminder
	2	Full process voice reading of measurement	Voice reading and analysis of the measurement results during the process
	3	Date and time display	Displays year, month, day, hour, and minute
	4	Battery power reminder	Flashing battery symbol on screen reminds to replace battery when power is low
	5	Unit switching	Allows switching between mmHg and kPa measurement units as needed
	6	Automatic delayed shutdown	Shuts down automatically after 3 minutes of inactivity ( $\pm 1$ minute) or manual shutdown

## 4.7 Product Working Principle

### Reduced Pressure Oscillometric Method

The electronic blood pressure monitor uses an air pump to inflate and pressurize the cuff, make the inflated cuff compress the arterial blood vessels and keep them completely blocked, and then open the slow deflation valve to slowly decrease the pressure inside the cuff. As the pressure inside the cuff decreases, the arterial blood vessels undergo a process of complete obstructed, gradually unblocking, and completely free of obstruction. The trend of the magnitude of the arterial pressure amplitude during blood pressure reduction is shown in the figure below:



The pressure sensor captures the changes in pressure amplitude within the cuff, converts them into digital signals, and sends them to the MCU. Embedded software identifies the corresponding pressure points during the arterial flow obstruction process, calculating the systolic and diastolic blood pressures based on the software algorithm.

## 4.8 Technical Parameters

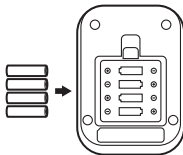
name	Upper Arm Type Electronic Blood Pressure Monitor	
Display method	Digital display	
Measurement method	Oscillometric method	
Measurement location	Upper arm	
Measurement range	Blood pressure	(0-299)mmHg/(0-39.9)kPa
	Pulse rate	(40-199) beats/minute
Static measurement accuracy	Blood pressure	$\pm 3\text{mmHg}(\pm 0.4\text{kPa})$
	Pulse rate	$\pm 5\%$ of the reading
LCD	Pressure	Unit: mmHg/kPa
	Pulse	Pulse rate per minute, displayed in three digits

LCD	Symbol	Memory/average/pulse/low battery
Storage capacity	Up to 90 sets of measurement data for two users, varies by model	
Power supply	4 AAA batteries DC1.5V	
	Adapter (Input: 100-240V~, 50/60Hz, 0.5A; output: 5VDC 1A) When using the adapter for power supply, the adapter is part of the product	
Disconnection from power grid	Plug	
Power off method	Manual off/auto off after 3 minutes of inactivity ( $\pm 1$ minute)	
Weight	Approx. 210g (excluding batteries)	
Dimensions	122.1mm (L) x 95.0mm (W) x 57.7mm (H)	
Cuff	Upper arm cuff (Measurement range: 22-32cm)	
Category by protection against electric shock	Class II, internal power supply unit	
Classification of protection against electric shock	Type BF applied part	
Non-AP/APG equipment type	Not for use in environments with flammable anesthetic gases mixed with air or nitrous oxide	
Operation mode	Continuous operation	
Level of protection against harmful ingress of liquid and particulate matter	IP21	
Disinfection method	Disinfect according to manufacturer's recommended method	
Application part	Cuff	
List of parts	Cuff, User's Manual(including warranty card), Certificate of Conformity, 4 AAA batteries, adapter, charging cable	
Battery life	Approximately 300 uses with high-performance dry batteries under normal conditions	
Operating environment	Temperature	5°C-40°C
	Humidity	15%-80%RH
	Atmospheric pressure	700hPa~1060hPa
Transportation and storage environment	Avoid strong impacts, direct collisions, sun exposure, or rain during transportation. The packaged blood pressure monitor should be stored in conditions of -20°C to 60°C, relative humidity of 10% to 95% RH, and atmospheric pressure of 500hPa to 1060hPa. Store in a well-ventilated indoor environment free from corrosive gases. If stored or used outside the temperature and humidity range specified by the manufacturer, the system may fail to meet the stated performance specifications.	



## 5. Use Method

### 5.1 Unpacking and Pre-use Inspection

- Before using the product, please unpack and confirm whether the accessories are complete and whether there is any damage to the body and accessories. Once the accessories are insufficient or found to be damaged, please contact the distributor from which you purchased the device or call the customer service hotline for consultation. The following operational functions can be safely used by the user.
- Unpacking: Please open the color box packaging along the designated seam to avoid disarranging the contents of the box.
- Inspection after Unpacking: Please note that in addition to the main unit, the product packaging includes a user manual (which contains the warranty card) and a certificate of conformity. Please verify these when purchasing.
- Installing/replacing the batteries: 1) Remove the battery cover. The battery compartment is located at the bottom of the blood pressure monitor. 2) Place 4 AAA batteries as shown in the diagram, then reattach the battery cover.

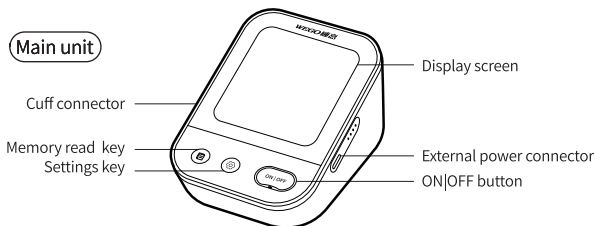


Note:

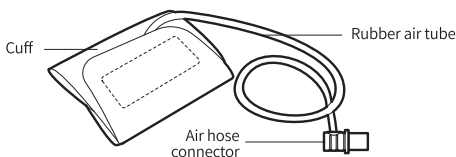
- ✓ Please pay attention to the battery polarity indicators.
  - ✓ After turning on, if the low battery symbol  appears on the screen, measurement cannot be performed and the batteries must be replaced. The battery replacement can be performed by the user.
  - ✓ Please use 4 AAA 1.5V alkaline dry batteries.
  - ✓ Do not use expired batteries.
  - ✓ If the product will not be used for a long time, please remove the batteries.
-  Batteries and electronic devices must be disposed of according to local applicable regulations and should not be thrown into domestic garbage.

## 5.2 Product Part Introduction

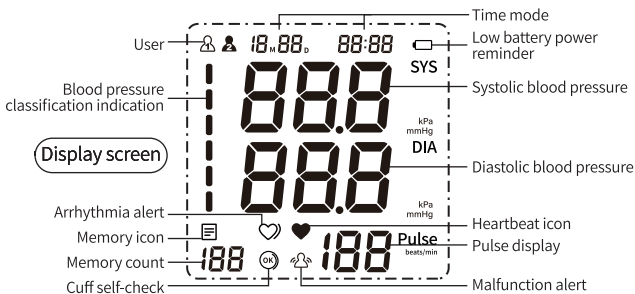
### Main unit



### Cuff



### Display screen



## 5.3 Product Usage

### Use Adapter

Adapter (Input: 100-240V~50/60Hz, 0.5A; output: 5VDC 1A)

Please use an adapter that complies with GB9706.1-2020 standard.

- 1) Insert the adapter plug into the power socket located on the side of the blood pressure monitor;
- 2) Insert the other end of the adapter into a 220V~ power socket.

Caution

- When the adapter is used to power the product, the battery in the blood pressure monitor will not be consumed.
- If the power is interrupted during measurement (e.g., if the adapter is accidentally disconnected from the power socket), the plug must be removed from the power socket on the device, then reinserted and powered on again.
- To disconnect the adapter, first unplug the adapter from the power socket, and then remove the adapter power plug from the blood pressure monitor.
- If the adapter is provided by the user, it must meet the required standards.

### Select Unit/Personnel/Set Date and Time

- In the off state, press the "Settings" button, the screen will light up and enter the setting mode.

- Select unit:

The blood pressure monitor can display measurements in either "mmHg" or "kPa". When the display shows 0, the unit is mmHg; when it shows 0.0, the unit is kPa.

- 1) Press the "Memory read" button to select "mmHg" or "kPa".
- 2) Press the "Settings" button to confirm, and the personnel selection mode will be entered.



mmHg mode

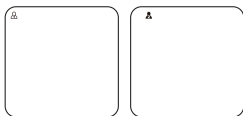


kPa mode

- Select personnel:

After confirming the unit selection, the personnel selection mode will be entered.

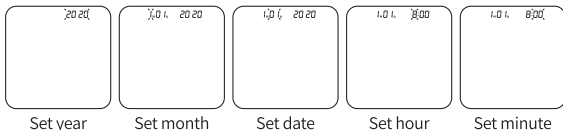
- 1) Press the "Memory read" button to select 1 or 2.
- 2) Press the "Settings" button to confirm, and the year setting mode will be entered.



- Set date/time

Please set the correct date and time before the first measurement.

- 1) Press the "Memory read" button to select.
- 2) Press the "Settings" button to confirm, and the next setting will appear, entering the date and time setting mode.



- Press the "ON/OFF" button to save the settings.

Note: If the batteries have been removed for 30 seconds or longer, the date and time need to be reset.

## Use Cuff

Remove tight clothing or roll up the sleeve of the upper arm, and avoid wrapping the cuff over thick clothing.

- 1) Insert the air tube connector at one end of the cuff into the air outlet on the side of the blood pressure monitor.

Note: The cuff tube should not be bent or twisted.



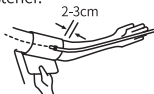
- 2) Wrap the cuff around the upper arm.



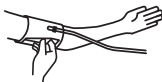
Note:

- ✓ The cuff should be comfortably wrapped around the upper arm, with a tightness such that two fingers can fit between the cuff and the arm.
  - ✓ Ensure that the cuff's hook-and-loop fastener is comfortably secured to avoid it being too tight.
- 3) Lay the cuff flat on the table with the hook-and-loop fastener facing down. Pass the end of the cuff through the metal ring to form a loop, ensuring that the hook-and-loop fastener is facing outward (if the cuff is already in a loop, skip this step).

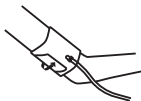
Place the cuff on the arm to be measured with the tube directed toward the forearm. The cuff's edge should be positioned 2-3 cm above the elbow, and the tube should be on the inside of the arm. Tighten the free edge of the cuff and secure it with the hook-and-loop fastener.



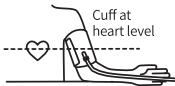
2-3 cm between the cuff tube turret and the elbow joint



Stick hook-and-loop fastener



Adjust cuff



Measurement posture



Measure on the same arm

- 4) Correct measurement posture.

While measuring, sit comfortably and relax, ensuring the room temperature is suitable. Avoid eating, drinking, smoking, exercising, or bathing within 30 minutes before measurement.

When sitting, keep your feet flat on the floor, sit upright, and ensure the cuff is at the same level as the heart.



5) Important notes for correct measurement.

- Avoid eating, smoking, or any form of heavy physical labor before measurement.
- Rest for about 10 minutes in a quiet environment before measurement.
- During measurement, ensure you are comfortable and relaxed, and refrain from moving the arm being measured.
- If needed, use a soft cushion to support your measuring arm.
- Place your forearm flat on a table with the palm facing up, ensuring the cuff is at the same level as the heart.
- If you cannot measure with your left arm, use the right arm instead. However, always measure with the same arm (usually the left) to compare the measurements.
- Note: Using parts not provided by the manufacturer to replace original components may cause measurement errors.
- Note: It is essential to have a professional physician interpret the measured blood pressure values!
- The cuff size range is 22-32 cm.

## Measure Blood Pressure

To cancel measurement, press the "ON/OFF" button, and the device will automatically deflate the cuff, canceling the measurement. Maintain silence during measurement.

The following instructions take mmHg as an example:

1) Press the "ON/OFF" button to begin automatic cuff inflation.



The device will automatically reset to zero, and the pump will start inflating the cuff. The screen will show the changing pressure inside the cuff. Once the cuff reaches a stable pressure, the pump will stop inflating, and the pressure inside the cuff will gradually decrease. If the inflation pressure is insufficient, the device will automatically reinflate the cuff to a higher pressure. After completing the measurement, the systolic blood pressure, diastolic blood pressure, and pulse rate will be displayed on the screen.

Note:

- ✓ Perform regular measurements every day, as blood pressure fluctuates even throughout the same day.

- ✓ Before conducting another measurement, wait for 3 minutes to allow the arteries to return to their state before the previous measurement.
- ✓ Measurement result prompt: When the pulse is detected, a symbol ♥ will appear on the screen and begin to blink.

If the heart rate deviates from the normal range, the arrhythmia symbol will appear, alerting the user to pay attention to the possible causes of arrhythmia. If there are any doubts about the measurement results, consult a professional for interpretation of the blood pressure values.

2) Remove the cuff

3) Press the "ON/OFF" key button to turn off the device

The screen will continue displaying the measurement results. After 3 minutes of inactivity ( $\pm 1$  minute), the device will automatically turn off.

4) Use the recording function

This blood pressure monitor can automatically store the last 90 sets of measurement results for two users, with storage capacity varying by model.

Note:

- ✓ If 90 sets of measurement results have been saved, the oldest results will be deleted when the 91st set is saved. It is not possible to delete partial saved measurement results. If you want to delete, all saved results will be cleared. The same rule applies for other memory group sizes.

5) View stored measurement values

After using the blood pressure monitor several times, in the off state, press the "Memory read" button to display the average of the last three measurements. Pressing the button again will display the most recent measurement. Pressing the "Memory read" button further will display the most recent 1-90 measurements, and soon.



Average value



Measurement memory



Measurement memory



Measurement memory

## 5.4 Data Clearing

- 1) Switch between two users' memory measurements  
In the off state, press the "Settings" button to enter the setting screen, then press the "Settings" button again to enter the user selection screen; press the "Memory read" button to select a user, then press the "Settings" button to confirm; press the "ON/OFF" button to exit the setting program, and press the "Memory read" button to view the selected user's stored measurement values.
- 2) Clear all memory  
In the off state, press the "Settings" button continuously until "CL" appears on the screen, then press the "ON/OFF" button. The "CL" will blink three times, clearing all memory. After this, pressing the "Memory read" button will display "M" and "no", indicating that there is no stored memory.



## 5.5 Blood Pressure FAQs

**Q1. Why is my blood pressure reading at home lower than the reading at the hospital?**

A:

1. Blood pressure measured at home tends to be 20mmHg-30mmHg (2.7kPa-4.0kPa) lower than the reading at the hospital because people often feel nervous at the hospital, while at home, they tend to feel more relaxed. It is important to know your usual blood pressure when you are calm at home.
2. If the cuff is positioned above the heart, the measured blood pressure will be lower. Please ensure proper positioning of the cuff.

**Q2. Why is my blood pressure reading at home higher than the reading at the hospital?**

A:

1. For people taking antihypertensive medication, blood pressure readings can be higher when the medication effect wears off.  
→ Please follow your doctor's guidance.
2. The cuff may not be positioned correctly.  
If the cuff is improperly placed, it may not detect the arterial signal, leading to a higher reading.  
→ Please make sure the cuff is positioned correctly.

3. The cuff may be too loose.

If the cuff is too loose, it will not exert enough pressure on the artery, causing the blood pressure reading to be higher than actual.

→ Adjust the gap between the arm and the cuff, and tighten it.

4. The posture is incorrect during measurement.

Measuring while slouching, sitting cross-legged, or bending over a low table can increase abdominal pressure or place the arm below the heart, causing a higher reading.

**Q3. Why does the cuff cause pain or numbness during measurement?**

A: During blood pressure measurement, the cuff is tightened to temporarily stop the blood flow in the artery, which can cause discomfort or numbness. However, this is harmless to the body, so please feel comfortable continuing the measurement.

**Q4. When is the best time to measure blood pressure?**

A:

1. Measure blood pressure in the morning after using the restroom, or when your body and mood are stable. It is best to measure at the same time every day.

**Q5. Why do my blood pressure readings vary each time?**

A: Blood pressure changes with each heartbeat. For example, a person with a pulse rate of 70 beats per minute will experience 100,800 blood pressure changes daily. Because blood pressure is always fluctuating, a single measurement is not always accurate. Please take 2-3 measurements: the first one might be higher due to nervousness or insufficient preparation; the second measurement is usually lower, with a decrease of 5mmHg-10mmHg (0.7kPa-1.3kPa) due to relaxation. The higher the blood pressure, the more noticeable the change.

When continuing measurement, please pay attention to:

If you experience blood congestion in your fingertips due to pressure on your arm, you may not get an accurate reading if you continue measurement. To resolve this, loosen the cuff, raise your hand above your head, and perform the hand-clenching and stretching exercise about 15 times to restore blood flow, then continue measuring.

## 5.6 Network Security Description

1) User access control

No user access control.

- 2) Data interface
  - a) The monitor has a Bluetooth interface, which allows wireless data transmission via Bluetooth BLE 4.2 and above, as specified in the 1.1.2 Model/Specifications.
  - b) Hardware configuration: Bluetooth BLE 4.2 or above, frequency band: 2.4GHz and above, maximum transmission power: 2.5dBm.

## 6. Maintenance

### 6.1 Maintenance of the Main Unit

To protect the unit from damage and ensure accurate measurements, observe the following:

Store the device and accessories properly after use to avoid damage from impacts or vibrations.

Do not expose the device and accessories to high temperature, high humidity, dust, or direct sunlight. Do not disassemble or repair the device without authorization.

Avoid replacing internal parts without authorization.

If the device becomes dirty, clean and disinfect it using a soft and dry cloth dampened with about 75% medical alcohol. Do not wipe power sockets with a wet cloth. Prevent liquids from entering the device. Always clean and disinfect the device before use.

Note:

- 1) Do not use high-pressure sterilizers, or sterilize with gases (formaldehyde, ozone, etc.) equipment, otherwise, it may cause damage to the device.
- 2) Do not use diluent, volatile oil, or other solutions to wipe this device, otherwise, it may damage the outer surface of the device.
- 3) When using disinfectant for maintenance, please follow the manufacturer's instructions to prevent the liquid from entering the device, otherwise, it may cause damage to the device.
- 4) The adapter, lithium battery, and internal components are not within the scope of routine maintenance. Do not replace or maintain them by yourself, otherwise it may cause electric shock. The product needs to be returned to the factory for calibration and maintenance every year. Please return the pressure sensor to the factory for calibration of its accuracy at the specified intervals.






## 6.2 Routine Maintenance

- 1) If the device is not in use for a long time, fully charge the battery and place the device in a dry and ventilated environment to extend the service life of the battery and device.
- 2) Maintenance: Wipe with a soft dry cloth or a damp cloth dipped in neutral detergent (rather than gasoline, diluents, or other corrosive chemicals).
- 3) Cleaning and disinfection frequency and procedures: The blood pressure monitor needs to be cleaned and disinfected before each use. The surface of the blood pressure monitor main unit can be dried naturally, disinfected with 75 % alcohol, or cleaned with a clean and dry cloth.
- 4) Keep the operating environment clean, quiet, non-corrosive, and free of flammable substances. Do not use the device in environments with high or low temperatures and humidity.
- 5) If the blood pressure monitor is splashed or has water condensation, please stop operating.
- 6) When the blood pressure monitor is moved from a cold environment to a warm and humid place, do not use it immediately.
- 7) Keep the device away from sharp objects.
- 8) Do not immerse the blood pressure monitor in liquid or wipe its surface with organic solution, and do not spill liquid on it.
- 9) The main unit of the blood pressure monitor has a service life of 5 years, and the cuff has a service life of 1 year. To ensure the normal use of the device within its expiration period, please pay attention to maintenance. Repeated cleaning/disinfection will not result in the loss of basic safety of the blood pressure monitor.
- 10) Manufacturers may provide circuit diagrams, lists of components, drawing annotations, calibration rules, or other information that can assist maintenance personnel in repairing device components that can be repaired by the manufacturer's designated maintenance personnel as required. If necessary, please contact the manufacturer.
- 11) If necessary, inexperienced operators or responsible parties should directly contact the manufacturer to obtain information about the installation, use, or maintenance of the device, as well as report abnormal operations or events.

Note: The above terms can ensure the safe operation of patients.

## 6.3 Prompt for Abnormalities

If you are using this device, please first check the following points:

Display symbol	Cause/meaning	Solution
	Signal too low or pressure sudden change	Ensure the cuff is properly applied, tightened, and positioned correctly. After ruling out incorrect measurement methods, remeasure using the correct technique.
	External interference too strong	Keep away from devices that cause strong interference, such as mobile phones or motors, and remeasure. During measurement, avoid moving your wrist or speaking.
	Inflation error	Check if the air tube has come loose. After fixing it, remeasure. Ensure the connection between the tube, connector, and main unit is secure, and check if the tube or cuff is damaged. Remeasure after addressing the issue.
	Abnormal blood pressure	Rest for 30 minutes and remeasure. If the abnormal readings persist after three consecutive tests, visit a hospital or consult your personal doctor.
	Low battery power	Replace the lithium or dry battery.

### Troubleshooting tips

Exception	Item	Measure
No display after pressing the power button	Is the battery power insufficient?	Replace with a new battery
	Are the battery polarities reversed?	Install the battery with the correct polarity
No inflation	Is the tube plug securely inserted?	Securely insert the tube plug into the socket
	Is the tube cracked or leaking air?	Purchase a new cuff
Error display, unable to measure	Did you move your arm during inflation?	Keep the arm and body still during the measurement
	Did you talk during the measurement?	Remain quiet during the measurement
Air leakage occurred in cuff	Is the cuff wrapped too loosely?	Tighten the cuff
	Is the cuff bladder torn?	Replace with a new cuff
If the blood pressure can't be measured normally after troubleshooting as above, please contact the distributor. Do not attempt to disassemble the device without authorization!		

Caution: Users are not allowed to replace components on their own, and WEIGAO Health will not be responsible for any direct, indirect, or ultimate damage or delay incurred. If the user needs circuit diagrams, lists of components, drawing annotations, and calibration rules, WEIGAO Health can provide relevant information.



## 6.4 Environmental Conditions

Operating conditions	Temperature	5°C~40°C
	Humidity	15%RH~80%RH (non-condensing)
	Atmospheric pressure	700hPa~1060hPa
Transportation and storage environmental conditions	Temperature	-20°C~60°C
	Humidity	10%RH~95%RH (non-condensing)
	Atmospheric pressure	500hPa~1060hPa
<p>This product complies with the GB/T14710 standard for low-temperature storage (-40°C). To ensure the stability of the product performance, it is recommended that the transportation and storage temperature does not fall below -20°C. When the ambient temperature is 20°C, it takes 15 minutes for the device to be ready and achieve its intended use from the lowest or highest storage temperature after use.</p> <p>If stored or used outside the temperature and humidity range specified by the manufacturer, the system may fail to meet the stated performance specifications.</p>		

**Transportation:** During transportation, the blood pressure monitor should be correctly stacked according to the markings on the packaging box, and should be protected from heavy pressure, impact, severe vibration, and direct exposure to rain and snow. Other transportation requirements should be met in accordance with the provisions of the order contract.

**Storage:** The packaged blood pressure monitor should be stored indoors at a temperature of -20°C to 60°C, with relative humidity not exceeding 10%RH to 95%RH, free from corrosive gases and strong mechanical vibrations, and in a clean, hygienic, and well-ventilated environment. Do not place this device in direct sunlight, or store it in environments with high temperature, high humidity, massive dust, and corrosive gases. Please be sure to remove the battery inside this machine to avoid electrolyte leakage and corrosion of the machine.

**Caution:** If the device is stored or used not within the temperature and humidity range specified by the manufacturer, the system may not achieve the claimed performance!

## 6.5 Environmental Protection

If the blood pressure monitor and its accessories are damaged during use or the service life of the blood pressure monitor expires, please contact the manufacturer or the institution designated by the manufacturer in a timely manner for disposal. Do not dispose of them casually to avoid environmental pollution.

Inexperienced responsible parties must contact the corresponding local regulatory authorities to determine the appropriate method for disposing of components and accessories that may pose biological hazards.

## 7. After-sales Service

WEIGAO Health promises that any consumer who uses our products and encounters any product quality issues during use can call WEIGAO Health or visit its website. Our after-sales service personnel will answer your questions and provide after-sales service for you from 9:00 am to 5:00 pm on weekdays.

### 7.1 Scope of Services

#### Scope of Free Service

Devices within the scope of WEIGAO Health's warranty service can enjoy free services.

#### Scope of Paid Service

- 1) WEIGAO Health will provide paid services for devices not falling within the scope of WEIGAO Health's warranty service.
- 2) Even within the warranty period, if the product needs to be maintained due to the following reasons: damages due to human or force majeure.

WEIGAO Health is not responsible for any direct, indirect, or ultimate damages and delays due to the following reasons (including but not limited to):

- a) The components are disassembled, stretched, and re-commissioned.
- b) The parts are replaced without WEIGAO Health's permission, or disassembled or maintained by unauthorized maintenance personnel.

#### Return

If you need to return the product to WEIGAO Health, please follow the following steps:

In principle, the product sold by WEIGAO Health will not be returned except for product quality issues. If normal returns are required, the right to return must be obtained first.

- It is necessary to contact WEIGAO Health's Customer Service Department and inform it of the reason for the return, the return quantity, and the product serial number. If the serial number is not clear and identifiable, the return will not be accepted.

- Please indicate the product model, product serial number, and return quantity in a written return note, briefly describe the reason for the return, and sign and stamp with WEIGAO Health's seal to enter the return process via email or fax.

## **Costs Incurred from Returns**

Products that are recognized and approved for return by WEIGAO Health can be sent to WEIGAO Health by mail, express delivery, or consignment for shipment, and the costs incurred should be borne by the returning party in principle.

## **7.2 Warranty**

The upper arm type electronic blood pressure monitor comes with a three-year warranty from the date of sale, except for consumables such as the cuff (including tube and air connector) and battery; if the blood pressure monitor cannot be used due to missing components or design, WEIGAO Health will provide free repair or replacement with a new one. Warning: WEIGAO Health does not provide a free warranty for device damage caused by improper personal use, human damage, accidental damage (such as falling, disassembly), etc.

## **7.3 Periodic Calibration**

To meet the performance requirements of the product, it is recommended that the entire machine be returned to the factory for calibration every other year, which should be carried out by the national metrology and testing department, the manufacturer, or the maintenance center authorized by the manufacturer. Suggestion for verification method: Please refer to the Non-invasive Automated Sphygmomanometer (JJG692-2010) for verification.

## **7.4 Manufacturer Information**

Medical device manufacturing license No.: LYJXSCX No. 20240028  
Registration certificate No./product technical requirement No.: LXZZ  
20242070594  
Metering device type approval No.:  2025F101-37

Registrant name: Weihai WEIGAO Health Technology Co., Ltd.  
Registrant address: Plot 3, Jinnuo Road East and Binhai Avenue North, Gushan Town, Weihai Economic and Technological Development Zone, Shandong Province (within the campus of Shandong WEIGAO Hongrui Medical Technology Co., Ltd.) (Independent declaration)  
Manufacturer name: Weihai WEIGAO Health Technology Co., Ltd.  
Manufacturer address: Plot 3, Jinnuo Road East and Binhai Avenue North, Gushan Town, Weihai Economic and Technological Development Zone, Shandong Province (within the campus of Shandong WEIGAO Hongrui Medical Technology Co., Ltd.) (Independent declaration)  
After-sales hotline: 400 0616 988  
After-sales service provider: Weihai WEIGAO Health Technology Co., Ltd.

## 8. Electromagnetic Compatibility

The upper arm type electronic blood pressure monitor should comply with the national standard Medical Electrical Equipment — Part 1-2: General Requirements for Basic Safety and Essential Performance — Collateral Standard: Electromagnetic Compatibility — Requirements and Tests (YY9706.102-2021), and the following matters should be followed:

1. For the upper arm type electronic blood pressure monitor, special precautions regarding electromagnetic compatibility (EMC) must be taken, and the device must be used in accordance with the EMC information specified in this Manual.
2. Portable and mobile RF communication devices may affect the use of the upper arm type electronic blood pressure monitor.
3. Except for cables (transducers) sold as spare parts of internal components, the use of accessories and cables (transducers) that are not specified may result in an increase in emission or a decrease in immunity of the upper arm type electronic blood pressure monitor.
4. The upper arm type electronic blood pressure monitor should not be placed close to or stacked with other devices. If it's necessary to do so, it should be observed and verified whether it can operate normally with proper configuration.
5. Requirements for cables and other accessories:  
The upper arm type electronic blood pressure monitor contains data cables, and their use should comply with the requirements of YY9706.102-2021. The manufacturer and model requirements for data cables are as follows:

SN	Name	Cable length	Shielded or not	Remarks
1	Charging cable	1.0m	No	/

## 6. Electromagnetic compatibility declaration

Table 1 Guidelines and the manufacturer's statement – electromagnetic emissions – for all ME equipment and ME systems

Guidelines and the manufacturer's statement – electromagnetic emissions		
The upper arm type electronic blood pressure monitor is intended for use in the electromagnetic environment as specified below. The customer or the user of the device should ensure that it is used in such an electromagnetic environment.		
Emission test	Compliance	Electromagnetic environment - Guidelines
RF emission GB4824	Group 1	The upper arm type electronic blood pressure monitor only uses RF energy for its internal functions. Therefore, its RF emissions are very low, and the chances of causing interference to nearby electronic devices are minimal.
RF emission GB4824	Class B	The upper arm type electronic blood pressure monitor is suitable for use in all facilities, including homes and those directly connected to the public low-voltage power supply network that supplies buildings for household purposes.
Harmonic emission GB17625.1	Class A	
Voltage fluctuations/flicker emission GB17625.2	Complied	

Table 2 Guidelines and manufacturer's statement - Electromagnetic immunity - for all ME equipment and ME systems

Guidelines and manufacturer's statement- Electromagnetic immunity			
The upper arm type electronic blood pressure monitor is intended for use in the electromagnetic environment as specified below. The customer or the user of the device should ensure that it is used in such an electromagnetic environment.			
Immunity test	IEC60601 test level	Compliant level	Electromagnetic environment - Guidelines
Electrostatic discharge GB/T 17626.2	±6 kV contact discharge ±8 kV air discharge	±6 kV contact discharge ±8 kV air discharge	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%
Electrical fast transient/burst GB/T 17626.4	±2 kV to power cord ±1 kV to input/output line	±2 kV to power cord	The grid power should have the quality typical of commercial or hospital environments.
Surge GB/T 17626.5	±1 kV differential mode voltage ±2 kV common mode voltage	Not applicable	Not applicable
Voltage dips, short interruptions and voltage variations on power supply input lines GB/T 17626.11	<5%U <sub>r</sub> , for 0.5 cycle (>95% dip on U <sub>r</sub> ) 40%U <sub>r</sub> , for 5 cycles (>60% dip on U <sub>r</sub> ) 70%U <sub>r</sub> , for 25 cycles (30% dip on U <sub>r</sub> ) <5%U <sub>r</sub> , for 5s (>95% dip on U <sub>r</sub> )	Not applicable	Not applicable
Power frequency magnetic field (50/60Hz) GB/T 17626.8	3A/m	3A/m, 50/60Hz	The power frequency magnetic field should be at the level characteristic of a typical location in a typical commercial or hospital environment.
Note: U <sub>r</sub> refers to the AC grid voltage before the test voltage is applied.			

Table 3 Guidelines and manufacturer's statement - Electromagnetic immunity - for non-life support ME equipment and ME systems

Guidelines and manufacturer's statement- Electromagnetic immunity			
The upper arm type electronic blood pressure monitor is intended for use in the electromagnetic environment as specified below. The customer or the user of the device should ensure that it is used in such an electromagnetic environment.			
Immunity test	IEC60601 test level	Compliant level	Electromagnetic environment - Guidelines
RF conduction GB/T 17625.6	3Vrms 150 kHz~80 MHz	3Vrms	Portable and mobile RF communication devices should be used no closer to any part of the upper arm type electronic blood pressure monitor, including cables, than the recommended isolation distance calculated from the equation applicable to the frequency of the transmitter. $d = 1.2 \sqrt{P}$ $d = 1.2 \sqrt{P}$ 80MHz~800MHz $d = 2.3 \sqrt{P}$ 800MHz~2.5GHz Where: P--maximum rated output power of the transmitter provided by the transmitter manufacturer, in watts (W); d--recommended isolation distance, in meters (m).The field strength of a fixed RF transmitter is determined by surveying the electromagnetic field, and in each frequency range, it should be lower than the corresponding level. Interference may occur in the vicinity of devices marked with the following symbol.
RF radiation GB/T 17626.3	3V/m 80MHz~2.5GHz	3V/m	
Note 1: For the frequency points at 80 MHz and 800 MHz, the formula for the higher frequency range should be used. Note 2: These guidelines might not be applicable in all situations. Electromagnetic propagation is affected by absorption and reflection from buildings, objects, and human.			
a) For fixed transmitters, such as radio (cellular/cordless) phones, base stations for ground mobile radios, amateur radios, AM and FM radio broadcasting, and television broadcasting, their field strengths cannot be predicted with precision theoretically. To assess the electromagnetic environment of fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location where the upper arm type electronic blood pressure monitor is used exceeds the applicable RF compliant level, the upper arm electronic blood pressure monitor should be observed to verify its normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the upper arm type electronic blood pressure monitor. b) Within the entire frequency range from 150 kHz to 80 MHz, the field strength should be less than 3 V/m.			

This product operates on a 2.4 GHz frequency band. Using this product near devices that operate on the same frequency, such as wireless routers, microwave devices, and wireless instruments, may cause interference between the products. If interference occurs, please turn off the unused devices or move this product to a location free from interference.



Transmitting frequency: 2.4GHz  
Frequency range: 2403-2480MHz

Modulation mode: FSK/GFSK  
Transmitting power: ≤20dBm

Table 4 Recommended isolation distances between portable and mobile RF communication devices and the ME equipment or ME systems – for non-life support ME equipment and ME systems

Recommended isolation distances between portable and mobile RF communication devices and the upper arm type electronic blood pressure monitor			
The upper arm type electronic blood pressure monitor is intended for use in an electromagnetic environment where RF radiation disturbances are controlled. Based on the maximum rated output power of the communication device, purchasers or users can maintain the following recommended minimum distances between portable and mobile radio frequency communication devices (transmitters) and the upper arm type electronic blood pressure monitor to prevent electromagnetic interference.			
Rated maximum output power of transmitter (W)	Isolation distance according to frequency of transmitter (m)		
	150kHz~80MHz $d=1.2 \sqrt{P}$	80MHz~800MHz $d=1.2 \sqrt{P}$	800MHz~2.5GHz $d=2.3 \sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23
<p>For transmitters rated at a maximum output power not listed above, the recommended isolation distance d, in meters (m), can be determined using the equation applicable to the frequency of the transmitter, where P is the maximum rated output power of the transmitter provided by the transmitter manufacturer, in watts (W).</p> <p>Note 1: For the frequency points at 80 MHz and 800 MHz, the formula for the higher frequency range should be used.</p> <p>Note 2: These guidelines may not be applicable in all scenarios as electromagnetic propagation is influenced by the absorption and reflection properties of buildings, objects, and the human body.</p>			

## 9. List of Hazardous Substances

Name and content of hazardous substances in the product						
Component Name	Hazardous Substance					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers (PBDE)
PCB component	X	O	O	X	O	O
Battery (bundled)	O	O	O	O	O	O
Casing material	O	O	O	O	O	O
Cuff	O	O	O	O	O	O
Packaging material	O	O	O	O	O	O
<p>This table is compiled according to the requirements of SJ/T 11364.</p> <p><b>O</b> : Indicates that the content of this hazardous substance in all homogeneous materials of this component is below the limit set by GB/T 26572.</p> <p><b>X</b> : Indicates that the content of this hazardous substance in at least one homogeneous material of this component exceeds the limit set by GB/T 26572.</p> <p>Note: The label on this product (as shown on the right) complies with the requirements of SJ/T 11364 in China, and indicates the environmental use period. The environmental use period refers to the time period under normal usage conditions.</p>						



## 10. Product Warranty

- Within one week from the date of sale, if there are any quality issues caused by non-human factors with this product, WEIGAO Health is responsible for returns, exchanges, and warranties; under normal use and storage conditions, if there is a quality issue with this product within three years, the user can receive free maintenance with the purchase invoice and warranty card, except for consumables such as cuffs (including tube and air connectors) and batteries. The maintenance required after three years will incur reasonable charges.
- No free maintenance service will be provided for the following faults or damages caused by personal reasons of users:
  - 1) Unauthorized disassembly, repair, or modification of the product.
  - 2) Failures due to incorrect operation.
  - 3) Damages due to accidental drops.
  - 4) Failures due to improper maintenance.
  - 5) Corrosion damage due to battery leakage.
  - 6) Failures due to improper maintenance by those not authorized by WEIGAO Health.
- During warranty service, if there's a need for circuit diagrams or necessary materials, or you have difficulties in the maintenance of electrical circuits, please contact the manufacturer.

**WEIGAO Health reserves the right to change this product.  
Please note that we may make changes without prior notice!**

Warranty Card			
Machine model		Machine No.	
Purchase date		Invoice No.	
Address			
Sales store stamp			
Maintenance records	Item	Maintained by	
Remarks	Please present this card when claiming warranty services.		