

尺寸: 100*145mm

材质: 封面内页80g书页纸

骑马钉 单黑印刷

PRIVA[®] COMPACT PLUS

Upper Arm Electronic Blood Pressure Monitor

Model: BP102A



Thank you for selecting our Upper Arm Electronic Blood Pressure Monitor. Please read the user manual carefully and thoroughly to ensure the safe use of this product. Keep this manual for further reference in case any issues arise.

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1. Introduction

This digital blood pressure monitor uses the oscillation method to measure blood pressure. This means that the monitor detects the blood flow in the brachial artery and converts the readings into digital values. This monitor automatically detects blood pressure without a stethoscope.

Each measurement result is displayed on the screen and automatically stored. The device is equipped with a blood pressure classification indicator, allowing you to easily check your classification index.

1.1 Measurement Principle:

This product uses the oscillometric method for blood pressure measurement. Before every measurement, the device establishes a “zero pressure” reference point equivalent to the atmospheric pressure. The unit inflates the arm cuff and detects pressure oscillations generated by beat-to-beat pulsation, which are used to determine systolic pressure, diastolic pressure, and pulse rate.

2. Symbol Description

2.1 Warning/precautions symbols

The warning signs and symbols throughout this manual ensure safe and correct use of the device, protecting you and others from harm. Warning marks and graphic symbols are described as follows:



A warning alerts the reader about a situation which, if not avoided, could result in death or serious injury and may also describe potential serious adverse reactions and safety hazards.

 Precautions	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury, property damage, or device malfunction. It also alerts against unsafe practices to ensure safe and effective use.
Contra-indications	Refer to the conditions under which the device should not be used because the risks clearly outweigh any possible benefits. Certain individuals should not use the device due to their health status.
Notes	Indicates the need for attention; neglect may lead to incorrect use of the product or damage to the device.

2.2 Other Symbol Description

	Applied Part: Type BF		Type of Protection Against Electric Shock: Class II
	Refer to Instruction Manual		Manufacturer
	Disposal in Accordance with Directive 2012/19/EU (WEEE)		Medical Device
	Serial Number		Date of Manufacture

	This device has not been tested for use in an MR environment and should not be exposed to MR environments while patients are wearing the device. Keep it outside the MRI scanner room.
IP21	The first number, 2: Protected against solid foreign objects with a diameter of 12.5mm or greater. The second number: 1; Protected against vertically falling water drops The enclosure can withstand vertically falling water drops without harmful effects when the enclosure is tilted up to 15° from its normal position.
	CE Mark: conforms to essential requirements of EU MDR 2017/745

3. Indications for Use/Intended Use

The Upper Arm Electronic Blood Pressure Monitor is intended to measure systolic and diastolic blood pressure, as well as pulse rate, in individuals aged 12 years and older. This device is designed for use in home and clinical/hospital environments.

4. Safety Information

Contraindications

- The device is not suitable for use on women who are or may be pregnant.
- The device is not suitable for use on patients with implanted, electrical devices, such as cardiac pacemakers, defibrillators.



Warning

- DO NOT adjust medication based on readings from this Upper Arm Electronic Blood Pressure Monitor. Take medication as prescribed by your doctor. Only a doctor or healthcare professional is qualified to diagnose and treat High Blood Pressure.
- Consult your doctor before using the device if you have any of the following conditions: frequent arrhythmias such as atrial or ventricular premature beats, atrial fibrillation, arterial sclerosis, poor perfusion, diabetes, pregnancy, pre-eclampsia, or renal diseases.
- NOTE that any of these conditions in addition to patient motion, trembling, or shivering may affect the measurement reading.
- Do not apply the cuff on the arm while on an intravenous drip or blood transfusion.
- Do not use the device with other medical electrical (ME) equipment simultaneously.
- Do not use the device in the area of high frequency (HF) surgical equipment, magnetic resonance imaging (MRI) equipment, computerized tomography (CT) scanner. This may result in incorrect operation of the monitor and/or cause an inaccurate reading.

- **DO NOT** use this device in oxygen rich environments or near flammable gas.
- Please ask your doctor about your normal blood pressure for guidance before taking measurements yourself.
This product is suitable only for individuals aged 12 years and older. Please keep the unit out of reach of infants, toddlers, and young children.
- Do not service or maintain the device while in use.
Do not plug or unplug the AC adapter with wet hands.
- Only the original accessories (including the cuff and battery) or the recommended accessories (power adapter) described in this user manual should be used. Use of other accessories may cause device damage or inaccurate readings.

Precautions

- If the cuff causes discomfort, press the START/STOP button immediately to switch the device off and consult your doctor.
- Do not kink the connection tubing. Continuous cuff pressure may restrict blood flow, potentially causing injury.
- Do not take measurements more often than necessary; restricted blood flow may cause bruising.
- Do not apply the cuff over a wound or skin injury, as this may worsen the condition.
- Consult your doctor before using this monitor on an arm 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 your doctor before using this monitor if you have had a mastectomy or lymph node clearance.

- 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. Cuff inflation may temporarily interrupt the function of other medical electrical (ME) equipment monitoring the same limb.
- During measurement, observe the arm to ensure that the monitor is not causing prolonged impairment to blood circulation.
- Consult with your doctor before using this monitor if you have severe blood flow problems or blood disorders as cuff inflation can cause bruising.
- DO NOT use this monitor for any purpose other than measuring blood pressure.
- DO NOT use in a location where there is moisture or a risk of water splashing this monitor. As it may damage it.
- Do not use or store the monitor and cuff in direct sunlight, extreme temperatures, high humidity (see Specifications), or near fire or water. Doing so may result in inaccurate readings or damage to the device.
- DO NOT use this monitor in a moving vehicle such as in a car.
- This device is calibrated during manufacturing and does not require periodic recalibration when used properly. If you frequently experience inaccurate readings, please contact your local distributor.
- Do not disassemble, repair, or remodel the main unit or the cuff of the Upper Arm Electronic Blood Pressure Monitor by yourself. If necessary, contact your local distributor.
- Do not drop the monitor or subject device to strong shocks or vibrations.
- ONLY use this device on persons whose arm circumference is within the specified range of the cuff.

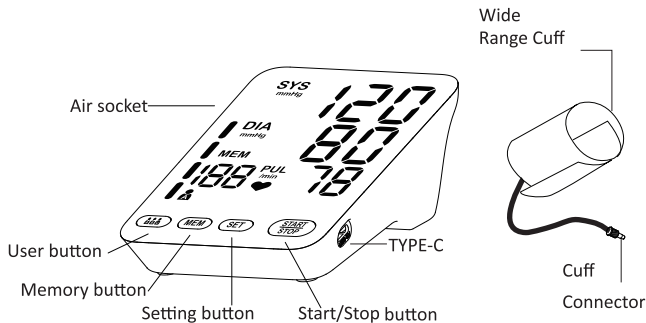
- Dispose of the device, components and optional accessories according to applicable local regulations. Improper disposal may cause environmental pollution.
- Store the unit high up and out of reach of children. Small components, including batteries, battery covers, and plastic bags, pose a risk of asphyxiation or choking.

Remark:

The materials of the cuff have been tested and found to comply with requirements of ISO 10993-5 and ISO 10993-10/-23. It will not cause any potential sensitization or irritation reaction.

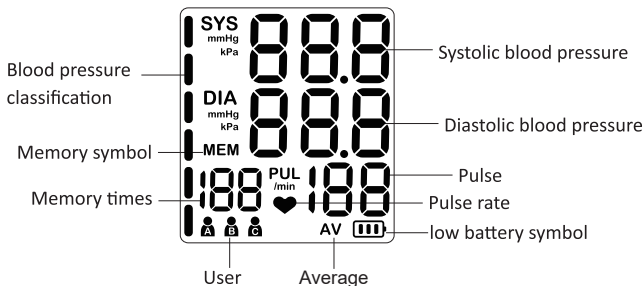
5. Product Description

5.1 Main Unit



Name	Description
SET button (Setting button)	Press the Setting button when powered off to enter the setting mode. In setting mode, press this button to confirm the setting value. Assists in clearing memory.
Start/stop button	Turn on/off the device. Assists in clearing memory.
MEM button (Memory button)	In setting mode, press this button to adjust the setting value;
User button	In the memory query mode, press this button can check the memory.
LED display	Displaying information of measurement, battery power etc.
Type-C hole	Connecting to the output end of USB cable.
Air socket	Connect to the air hose.

5.2 LED display



Description	Explanation
User ID	 appears when the monitor is operated by User 1.  appears when the monitor is operated by User 2.  appears when the monitor is operated by User 3.
Blood pressure classification	Indicates the blood pressure level
Memory symbol & Memory times	Indicates that the device is in memory mode and displays the selected memory group.
Low battery symbol	Indicates low battery power the battery power is low.
Pulse value	Measurement data of Pulse
Diastolic blood pressure (DIA)	The low pressure measured.
Systolic blood pressure (SYS)	The high pressure measured.
Average	Average value for 3 measurements stored in the memory.

5.3 Package List

Parts	Quantity	Part no.:
Upper Arm Electronic Blood Pressure Monitor	1PCS	BP102A
Batteries	4PCS	AAA
Cuff (with air hose)	1PCS	22cm~32cm
User Manual	1PCS	/

6. Operating Instructions

6.1 Selection of Power Supply

This product has two power supply modes:

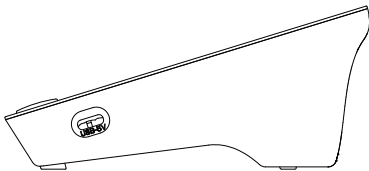
1. Battery power mode: adopt 4×AAA identical 1.5V alkaline batteries.

- For details about battery installation and replacement, refer to section.

Of this user manual.

2. AC/Type-C adapter power mode: adopt 5V 1.0A AC/Type-C adapter.

- If you choose the power mode using the AC/Type-C adapter powered mode, before measurement, please insert the Type-C output end of adapter to the AC/Type-C socket of main unit; then plug the AC/Type-C adapter to the AC socket.



Unplug the adapter from the AC socket when you finish the measurement.

Remark:

When the main unit is connected to the AC/Type-C adapter, it is AC/Type-C adapter power mode, regardless of whether the main unit is equipped with batteries; when the AC/Type-C adapter is disconnected from main unit, it will automatically switch to battery power mode.

Our products are not packaged with power adapter. Please purchase the power adapter by yourself before use. The purchased adapter must meet the following specifications:

Input voltage: 100~240V, Output: 5V±5% 1.0A



Caution:

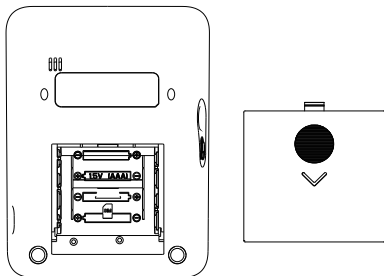
Using an incorrect or low-quality power adapter may compromise device safety, resulting in property damage or personal injury. If purchasing an adapter separately, ensure it is a medical-grade Type-C 5V 1.0A adapter certified to IEC 60601-1 or IEC 62368-1, with 2MOPP isolation between primary and secondary circuits.

6.2 Installing and Replacing the Battery

When using this product for the first time, if you want to use device under battery power mode, please install the battery first. If the low battery symbol  is displayed on the LED, it means the battery is low and the device is unable to measure, Please replace the batteries promptly; otherwise, the device will automatically shut down after 3 minutes.

Please installing or replacing the batteries as follows:

- 1) Remove the battery cover from the battery compartment, following the arrow marked on the battery cover for proper removal.
- 2) Install or replace 4×AAA batteries as indicated in the battery compartment. Make sure the "+" (positive) and "-" (negative) polarities of batteries match the polarities marked on the battery compartment.



- 3) Close the battery cover. Make sure that the battery cover is securely in position.

Note:

- To replace batteries, switch your monitor off and remove old batteries. Then replace with 4 new spacing batteries at the same time.
- ONLY use 1.5V AAA alkaline batteries with this monitor. DO NOT use other types of batteries.
- DO NOT insert battery with their polarities incorrectly aligned.
- Remove batteries if this monitor will not be used for a long period (more than 3 months) of time.
- If battery fluid should get in your eyes, immediately rinse with plenty of clean water. Consult with your doctor immediately;

- If battery fluid should get on your skin, wash your skin immediately with plenty of clean, lukewarm water. If irritation, injury or pain persists, consult your doctor.
- DO NOT use batteries after their expiration date.
- Periodically check batteries to ensure they are in good working condition. If the batteries are bulging or leaking, replace the batteries before use.
- Do not dispose of the battery in a fire. Disposal of used batteries should be carried out in accordance with local regulations.

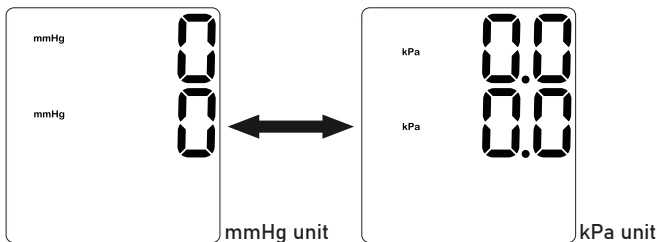
Remark:

- The four batteries supplied with the product can ensure the power consumption for at least 300 times measurements.

6.3 System Setting

1) Unit Setting

When the device is switched off, press the “SET” button to enter the function setting. If “0” or “00” is displayed on the screen (0 corresponds to mmHg, 00 corresponds to kPa), press the “MEM” button to switch units, and press the “Start/Stop” button to confirm and shut down.



2) User Setting

When the device is powered off, press  to access user Settings. Press button , it will be changed between  or  or , and press "START/STOP" when you confirm the user. (Default user )



6.4 Correct Use of the Monitor

6.4.1 Prior to Measurement

1) Check the device before use:

- Check the monitor to ensure that the main unit and cuff are free from damage and cracks.
- Check whether the battery is leakage, If there is leakage, please replace the battery.
- Check whether the display is normal and without E-X(X stands for Arabic numerals) prompt.
- Check whether the battery has enough power. If the battery is low, please replace the battery in time.

2) In order to avoid affecting the accuracy of the monitor, avoid bathing, drinking alcohol or caffeine, smoking, exercising and eating for at least 30 minutes before taking a measurement.

3) Please sit quietly for at least 5 minutes before taking the blood pressure measurement.

4) A single measurement does not provide an accurate indication of your true blood pressure. We recommend taking at least two measurements to ensure an accurate reading. Wait at least 1 minute between measurements, to allow your blood circulation to recover.

- 5) Stress raises blood pressure. Avoid taking measurements during stressful times.
- 6) Try to measure your blood pressure regularly at the same time every day, as blood pressure changes with time.
- 7) For a meaningful comparison, try to measure under similar conditions. For example, take daily measurements at approximately the same time, on the same arm, or as directed by a doctor.
- 8) Factors affecting blood pressure measurement
 - a. Tensing or straining your arm during a measurement may increase your blood pressure reading.
 - b. If the cuff around the arm is lower than the height of the heart, the blood pressure may be higher.
 - c. Too loose or too tight cuff may result in an inaccurate reading.
 - d. In different postures, environments and physical conditions, the measured blood pressure values will be different.

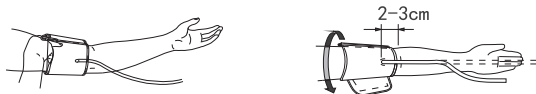
6.4.2 Fitting the Cuff

- 1) Firmly insert the air hose connector of cuff to the air socket of main unit.
- 2) Remove all jewellery, such as watches and bracelets from your left arm.

Remark: if it is not possible to fit the cuff to your left arm, it can also be placed on the right. However, all measurements should be made using the same arm.

Roll or push up your sleeve to expose the skin, or wear thin clothing. Make sure your sleeve is not too tight.

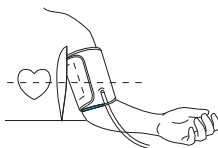
- 3) Hold your arm with your palm facing up, wrap the cuff over the upper arm, then position of tube off-center in line with the ring finger. Make certain that the lower edge of the cuff lies approximately 2 to 3 cm above the elbow and the air hose leaves the cuff on the inner side of the arm.



- 4) Tighten and close the cuff by affixing the velcro. The cuff should not be too tight or too loose.



- 5) Lay your arm on a table (palm upwards) so that the cuff is at the same height as heart. Do not bend the air hose.

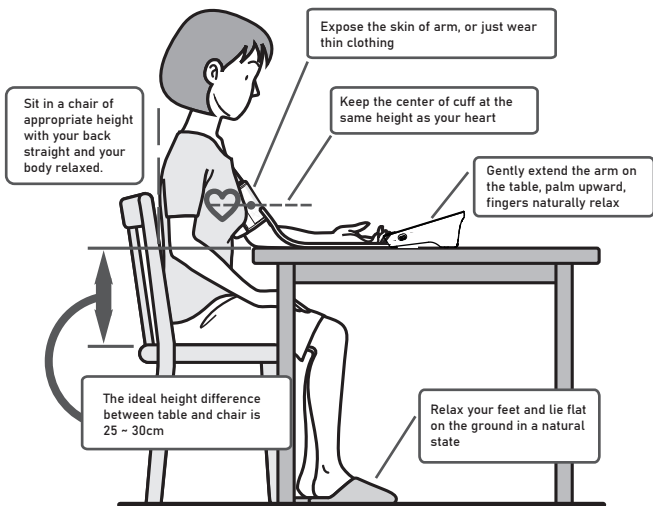


- 6) Place the cuff flat on the table with the velcro side facing down. Pass the end of the cuff through the metal loop so that a circle is formed, velcro closer is now facing outward (ignore this step if the cuff has already been prepared).



6.4.3 Sitting Correctly

- Sit comfortably upright in a chair with your feet flat on the floor.
- Place your elbow on a table so the cuff is at the same level as your heart. Rest your arm on the flat surface, palm facing upwards. Keep your arm and hand relaxed. Do not clench your fist or bend your arm.
- Take 5~6 deep breaths before starting measurement.



6.4.4 Start the Measurement

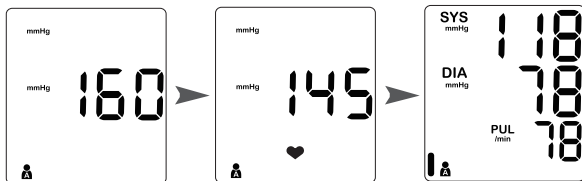
Once the cuff is correctly positioned on your arm, start the measurement as follows:

1) Press the “START/STOP” button. All symbols will appear on the display for 2 seconds, refer to Section “5.2 LED display”. Remain still and do not move or talk until the entire measurement process is complete. The monitor will automatically measure your blood pressure according to the following procedure:

Step 1: After full display, the monitor starts to inflate the cuff. The rising pressure in the cuff will show on the display.

Step 2: Once the target pressure is reached, the pump will stop, and the pressure will gradually fall. If the inflation is insufficient to take a reading, the device will automatically re-inflate to a higher pressure. When the device detects the signal, the heart symbol ♥ on the display starts to flash.

Step 3: When the measurement has been completed, the systolic, diastolic and pulse rate will appear on the display.



Discontinuing a Measurement :

If it is necessary to interrupt a blood pressure measurement for any reason (e.g., the patient feels unwell), the “START/STOP” button can be pressed at any time. The device will immediately decrease the pressure in the cuff.

6.4.5 Memory-recall of Measurements

The blood pressure monitor automatically stores 3x199 sets of measurement values. The oldest record will be replaced by the latest measurement value when there are more than 199 sets of memories for each user.

1) Read Memory Record

With the device switched off, press the MEM button. The monitor will display the stored readings for the currently selected user profile. The average of the latest 3 measurements will be displayed.

Press the MEM button again to display the latest measurement taken, press the MEM button repeatedly to view the previous measured values in sequence.



Average value of latest measurement



the latest record 1



the latest record 2



the latest record 3

- If there are two groups only, it will display the average of the latest 2 measurements, if there is one group, the latest measured value is directly displayed.
- If no measurement before, the LED will display user ID, memory icon and "no".

2) Clear memory

Delete all stored memories:

When the device is not powered on, press the "SET" button to switch to the function, press the  to select the user whose measurement data you want to delete, and press the "START/STOP" button until "dEL" is displayed. When the machine displays all users, press the "START/STOP" button until "dEL" appears, indicating that the measurement memory of all users is deleted.

- Removing the batteries will not result in loss of stored readings.
- You cannot delete a group of memories separately, you can only delete them all at once.
- When the memory reaches maximum capacity, new data will overwrite the oldest data.

6.4.6 Blood pressure classification function:

The monitor has the function of blood pressure classification prompt, which can indicate the corresponding blood pressure range through the blood pressure prompt bar :

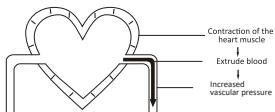
Display of Prompt bar	Blood pressure category	Systolic blood pressure (SYS)	Diastolic blood pressure (DIA)
	NORMAL	<120mmHg (16.0kPa)	<80mmHg(10.7kPa)
	NORMAL	120mmHg(16.0kPa)- 129mmHg(17.2kPa)	80mmHg (10.7 kPa)- 84mmHg(11.2kPa)
	HYPERTENSION STAGE 1	130mmHg(17.3kPa)- 139mmHg(18.5kPa)	85mmHg (11.3 kPa)- 89mmHg(11.9kPa)
	HYPERTENSION STAGE 2	140mmHg(18.7kPa)- 159mmHg(21.2kPa)	90mmHg(12.0kPa)- 99mmHg(13.2kPa)
	CONSULT YOUR DOCTOR IMMEDIATELY	160mmHg(21.3kPa)- 179mmHg(23.9kPa)	100mmHg(13.3kPa)- 109mmHg(14.5kPa)
	CONSULT YOUR DOCTOR IMMEDIATELY	≥180mmHg(24.0kPa)	≥110mmHg(14.7kPa)

7. About Blood Pressure

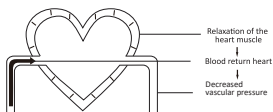
7.1 What are systolic pressure and diastolic pressure?

Blood pressure is the pressure exerted on the arteries. The systolic blood pressure value represents the blood pressure produced by contraction of the heart muscle. The diastolic blood pressure value represents the blood pressure produced by relaxation of the heart muscle.

Systolic blood pressure



Diastolic blood pressure



8. Care and Maintenance

8.1 Cleaning and disinfection

Before performing cleaning and disinfection procedure, wash your hands with hand sanitizer first. Cleaning/disinfecting the accessories at room temperature 5 °C ~ 40 °C as below:

Cleaning method:

- 1) Clean the device with a soft cloth dampened with soapy water until no visible contaminants remain.
- 2) Wipe the cleaning solution off of the device with a soft cloth dampened with tap water until no visible cleaning agent remains.
- 3) Air dry the device thoroughly after cleaning.

Disinfection method:

Clean the cuff according to the above method before disinfection.

- 1) Disinfect the cuff by wiping it for 3 minutes with a soft cloth moistened with 70% isopropyl alcohol.
- 2) Place the cuff at room temperature and allow it to dry for 10 minutes to any residual disinfection solution to evaporate.

Remarks :

- Do not use gasoline, diluent or other harsh chemicals to clean the device, as this may result in malfunction, discolouration, or damage to internal and external components.
- Do not hold the device under running water, do not submerge it in water or other liquids.
- Ensure that no liquid penetrates into the device. If this happens, please use it again after the device is completely dry.
- Be sure that the device is turned off and the AC/Type-c adapter is disconnected from the AC socket when cleaning/disinfecting the device.

8.2 Calibration

The Upper Arm Electronic Blood Pressure Monitor is initially calibrated at the time of manufacturing. If this monitor is used according to the user manual, periodic re-calibration is not required. If at any time you doubt the accuracy of measurement, please contact your local distributor.

The service life (i.e. working life) of the monitor is 5 years. Once the service life of monitor exceeds 5 years, please change a new Upper Arm Electronic Blood Pressure Monitor.

8.3 Storage

Store your monitor in its original packaging when not in use.

- Store your monitor in a clean, safe location.

Do not store your monitor :

- If your monitor is wet.
- In locations exposed to extreme temperatures, humidity, direct sunlight, dust or corrosive vapors such as bleach. Please store the products according to the requirements of "storage condition" in section "Specifications" of this user manual.
- In locations exposed to vibrations or shocks.

9. Exceptional Situations

Error Indicators

The following symbols will appear on the display when there is an exceptional situation.

Symbol	Cause	Correction
E-1	Weak signal or sudden pressure change	1)Wrap the cuff properly. 2)Remeasure.
E-2	Strong external disturbance	1)Keep away from high radiant device. 2)Keep quiet while taking the measurement.
E-3	Error during inflation	1)Wrap the cuff properly. 2)Make sure the air connector is properly inserted into the unit. 3)Remeasure.
E-5	Abnormal blood pressure	Repeat measurement after relaxing for 30 minutes. If three unusual consecutive readings occur, contact your doctor.
	Low battery	Replace with 4 new AAA batteries.

Troubleshooting Solutions

Problem	Check	Solution
No power	Is battery powered?	Change the battery
No inflation	Is plug (air hose connector) inserted?	Reinsert plug securely.
		Replace with new cuff
Cuff leak	Is the cuff loose?	Wrap the cuff tightly.
	Is the cuff broken?	Replace with new cuff.

Note: Please contact the distributor if you can't solve the problem. Do not disassemble the unit by yourself!.

10. Specifications

Measurement method	Oscillometric method
Measurement site	Upper Arm
Pressure display range :	0mmHg ~ 299mmHg
Measurement range :	Pressure Measurement range: SYS: 50mmHg(6.7kPa) ~ 255mmHg(34.0kPa) DIA: 30mmHg(4.0kPa) ~ 200mmHg(26.7kPa) Pulse: 40-199 beats/min
Accuracy :	Pressure: ± 3 mmHg (0.4kPa) Pulse value: $\pm 5\%$ of reading
Measuring resolution :	1 mmHg/0.1kPa
Memories recall	3x199 sets memory of measurement values
Display	LED digital display
Dimensions of main unit	Approx.L133 mm×W99mm×H53mm
Weight of main unit	Approximately.197 g (excluding batteries)
Power supply	4pcs AAA alkaline batteries / Type-c 5V 1.0A
Measurable arm circumference	22 cm to 32 cm
Operating conditions	Temperature range of: $+5^{\circ}\text{C}$ to $+40^{\circ}\text{C}$, Relative humidity range of 15% to 93%RH, Atmospheric pressure range: 86kPa to 106kPa
Storage & transportation conditions	Storage Environment: Temperature: -20°C to $+55^{\circ}\text{C}$, Relative humidity range of 10% to 93%RH, Atmospheric pressure range: 86kPa to 106 kPa
Protection against electric shock	Internally powered ME equipment
Service life (i.e. working life)	5 years
Shelf life	No shelf life requirement
Ingress of waterproof	IP21
Applied part	Type BF (arm cuff)
Software version	GA1.0

11. Summary of Clinical Testing and Baseline Demographic

No sterilisation requirement
Not category AP / APG equipment
Mode of operation: continuous operation

This monitor has been clinically investigated according to the requirements of ISO 81060-2:2018. In the clinical validation study, the cuffs were tested for clinical accuracy with the main unit. Testing was conducted on 90 participants per cuff, including individuals aged 12 years and older, as well as patients with diabetes and hypertension (pregnant women were excluded). The sample group included at least 30% male and 30% female distribution.

The test summary of clinical validation: no safety problems and adverse events were found during the clinical test. The test result show that the Upper Arm Electronic Blood Pressure Monitor meets the requirement of IEC 80601-2-30:2018.

12. Disposal



The device should be disposed of at a public collection point in EU countries according to the 2012/19/EU WEEE Directive. Dispose of your monitor and other components according to local regulations. Improper disposal may cause environmental pollution. Dispose of used batteries in accordance with local regulations.

13. Electromagnetic Compatibility

Statement:

This equipment is intended for use in both home healthcare and professional healthcare environments, maintaining the following essential performance:

Essential Performance:

According to IEC 80601-2-30: 2018, we have conducted EMC testing based on the following essential performance:

Accuracy:	Pressure: within $\pm 3\text{mmHg}$ (0.4kPa) Pulse value: $\pm 5\%$
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If Essential Performance is lost or degraded due to electromagnetic disturbances, this may result in inaccurate measurement and lead to mislead patients. Please read the important information below to avoid any possible electromagnetic disturbances.

Warning:

- Using cell phone or microwave oven, HF surgical equipment, magnetic resonance imaging or other radio radiant equipment near this product may cause malfunction or lead to loss of essential performance, which means that the measurement accuracy will be affected.
- Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the monitor. Otherwise, reduced performance of this equipment could occur.
- Use of accessories, transducers other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

Caution:

- Security, antitheft, and radiofrequency identification (RFID) devices, some electromagnetic anti-theft systems and metal detectors such as those used at entrances or exits of department stores, libraries, and other public places, and airport security screening devices may affect the monitor. Additionally, RFID devices, which are often used to read identification badges, as well as some tag deactivation devices, such as those used at payment counters at stores and loan desks at libraries, may also affect the monitor. Please do not use monitor near these places. If you have to go through one of these devices, switch your monitor off. Before each use, check the status of your monitor to ensure it is operating normally.
- Using short-wave diathermy, microwave diathermy, or therapeutic ultrasound diathermy (all now referred to as diathermy) and electrocautery devices near this product may cause malfunction or lead to loss of essential performance. Please do not use monitor near this equipment. Before each use, verify that the device is operating normally.

A list of cables and maximum length of cables is as follows:

Cables name	Cable length	Weather shielding
TYPE-C Cable	1000mm±30mm	No

Guidance and manufacturer's declaration – electromagnetic emission

The Blood pressure monitor is intended for use in the electromagnetic environment specified below. The customer of the user of the Blood pressure monitor should ensure that it is used in such an environment.

Emission test	Compliance	Electromagnetic environment – guidance
Conducted and Radiated RF emissions CISPR 11	Group 1 Class B	The Blood pressure monitor uses RF energy only for its internal functions. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
Conducted RF emissions CISPR 11	Group 1 Class B	The Blood pressure monitor is suitable for use in all establishments, including domestic environments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes, except near active HF surgical equipment and RF shielded rooms for magnetic resonance imaging.
Radiated RF emissions CISPR 11	Group 1 Class B	

Guidance and manufacturer's declaration – electromagnetic immunity

The Blood pressure monitor is intended for use in the electromagnetic environment specified below. The user of the Blood pressure monitor should ensure that it is used in such an environment.

Immunity test	IEC 60601-1-2 test level	Compliance level	Electromagnetic environment guidance
Electrostatic discharge IEC 61000-4-2	±8kV contact; ±2kV, ±4kV, ±8kV, ±15 kV air	±8kV contact; ±2kV, ±4kV, ±8kV, ±15 kV air	Floors should be wood, concrete, or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Radiated RF EM fields IEC 61000-4-3	3V/m 80MHz-2.7GHz 80% AM at 1kHz or 2Hz	10V/m (Home healthcare environment): 80MHz – 2.7GHz 80% AM at 1kHz or 2Hz	Power quality should be that of a HOME HEALTHCARE ENVIRONMENT and a professional healthcare facility environment.
Electrical fast transients/bursts IEC 61000-4-4	±2kV AC power supply lines; ±1kV DC power/Signal lines. 100 kHz repetition frequency	±2kV AC power supply lines;	Power quality should be that of a HOME HEALTHCARE ENVIRONMENT and Professional healthcare facility environment.
Surges IEC 61000-4-5	±0.5kV, ±1kV lines to lines; ±0.5kV, ±1kV, ±2kV lines to earth	±0.5kV, ±1kV lines to lines;	Power quality should be that of a HOME HEALTHCARE ENVIRONMENT and Professional healthcare facility environment.
Conducted disturbances induced by RF fields: IEC 61000-4-6	3V 0.15MHz – 80MHz, 6V in ISM bands between 0.15MHz and 80MHz 80% AM at 1kHz	3V 0.15MHz – 80MHz, 6V in ISM and amateur radio bands between 0.15MHz and 80MHz 80% AM at 1kHz	Power quality should be that of a HOME HEALTHCARE ENVIRONMENT and Professional healthcare facility environment.

Note: Note: The ISM (industrial, scientific, and medical) bands between 0.15 MHz and 80 MHz are 6765 kHz to 6795 kHz; 13553 kHz to 13567 kHz; 26957 kHz to 27283 kHz; and 4066 kHz to 4070 kHz. The amateur radio bands between 0.15 MHz and 80 MHz are 1.8 MHz to 2.0 MHz, 3.5 MHz to 4.0 MHz, 5.3 MHz to 5.4 MHz, 7.0 MHz to 7.3 MHz, 10.1 MHz to 10.15 MHz, 14 MHz to 14.2 MHz, 18.07 MHz to 18.17 MHz, 21.0 MHz to 21.4 MHz, 24.89 MHz to 24.99 MHz, 28.0 MHz to 29.7 MHz, and 50.0 MHz to 54.0 MHz.

Rated power frequency magnetic fields IEC 61000-4-8	30A/m 50Hz or 60Hz	30A/m 50Hz	Power frequency magnetic fields should be at levels characteristic of a HOME HEALTHCARE ENVIRONMENT and Professional healthcare facility environment.
Voltage dips IEC 61000-4-11	0% UT, 0.5 cycle At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°; 0% UT, 1 cycle and 70% UT, 25/30 cycle Single phase: at 0°	Applicable	Power quality should be that of a HOME HEALTHCARE ENVIRONMENT and Professional healthcare facility environment.
Voltage interruptions IEC 61000-4-11	0% UT, 250/300 cycle	Applicable	
NOTE: UT is the a.c. mains voltage prior to application of the test level. E.g.: 25/30 means 25 periods at 50 Hz or 30 periods at 60 Hz.			

Guidance and manufacturer' s declaration – electromagnetic immunity			
The Blood pressure monitor is intended for use in the electromagnetic environment specified below. The user of the Blood pressure monitor should ensure that it is used in such an environment.			
Immunity test	IEC 60601-1-2 test level	Compliance level	Electromagnetic environment guidance
Proximity fields from RF wireless communications equipment IEC 61000-4-3	See the following table	Complies	
Proximity magnetic fields IEC 61000-4-39	See the following table	Complies	

Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment

Test frequency (MHz)	Band ^{a)} (MHz)	Service ^{a)}	Modulation	Immunity Test Level(V/m)
385	380 – 390	TETRA 400	Pulse modulation ^{b)} 18 Hz	27
450	430 – 470	GMRS 460, FRS 460	FM ^{c)} $\pm$ 5 kHz deviation 1 kHz sine	28
710	704 – 787	LTE Band 13, 17	Pulse modulation ^{b)} 217 Hz	9
745				
780				
810	800 – 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation ^{b)} 18 Hz	28
870				
930				
1 720	1700 – 1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation ^{b)} 217 Hz	28
1 845				
1 970				
2 450	2400 – 2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 24 50, LTE Band 7	Pulse modulation ^{b)} 217 Hz	28
5 240	5100 – 5800	WLAN 802.11 a/n	Pulse modulation ^{b)} 217 Hz	9
5 500				
5 785				

NOTE If necessary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the ME EQUIPMENT or ME SYSTEM may be reduced to 1 m. The 1 m test distance is permitted by IEC 61000-4-3.

a) For some services, only the uplink frequencies are included.

b) The carrier shall be modulated using a 50 % duty cycle square wave signal.

c) As an alternative to FM modulation, the carrier may be pulse modulated using a 50% duty cycle square wave signal at 18 Hz. While it does not represent actual modulation, it would be worst case.

Test specifications for enclosure port immunity to proximity magnetic files

Test frequency	Modulation	Immunity test level (A/M)
30 kHza)	CW	8
134.2 kHz	Pulse modulationb) 2.1 kHz	65c)
13.56 MHz	Pulse modulationb) 50 kHz	7.5c)

a) This test is applicable only to ME EQUIPMENT and ME SYSTEMS intended for use in the home healthcare environment.

b) The carrier shall be modulated using a 50% duty cycle square wave signal.

c) r.m.s, before modulation is applied

14. Travel or International Use Statement

Since the accuracy of the Blood Pressure Monitor will be affected by the external environment, in view of the uncertainty and instability of the travel environment, please do not use the Electronic Blood Pressure Monitor during travel or on the aircraft.

The Blood Pressure Monitor can be used internationally, but it must be used and stored in the environment specified in this user manual. Since the power supply mode of the AC/DC adapter of the monitor may be incompatible with foreign power supply systems, please do not use AC/DC power supply mode in foreign countries, only use the device under the battery power supply mode. To ensure that the Electronic Blood Pressure Monitor is not affected during carrying, please check the following items before use to ensure it can operate normally :

- Check the monitor to ensure that the main unit and cuff are free from damage and cracks.
- Check whether the battery is leaking. If there is leakage, please replace the battery.
- Check whether the display is normal and without E-X(X stands for Arabic numerals) prompt.

If you notice any abnormalities, stop using the device immediately.

15. Warranty

- The unit is guaranteed to be free of defects in workmanship and materials under normal use for a period of One Year from the date listed on the purchase record. The expected lifespan of the unit is Five Years.
- Claims for repair under this warranty must be reported to your local distributor within the active warranty period. Coverage is strictly limited to parts and labour under standard operating conditions. Any defect resulting from natural causes (e.g., flood, hurricane, etc.) is excluded from this warranty.
- This warranty does not cover damage incurred by use of the unit contrary to the user instructions, accidental damage, or being tampered with or serviced by unauthorized service agents.
- Monitor subjected to misuse, abuse, and neglect of this manual's content, non-instructional purposes, unauthorized repair or modifications will be excluded from this warranty.

16. Manufacturer Information:



Manufacturer:

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For self-testing.



