JPD-HA120

CE 0482

JUMPER

Electronic Blood Pressure Monitor

User Manual

Version: V1.0

Revision Date: May 2018

Foreword

Dear user:

Thank you for purchasing our Electronic Blood Pressure Monitor. Please read the User Manual carefully and use correctly. Please keep the User Manual properly for checking and reference at any time. The Electronic Blood Pressure Monitor is suitable for adults .

Product Profile:

The product is called Electronic Blood Pressure Monitor, comprised of the host machine and the cuff, suitable for measuring the systolic pressure, diastolic pressure and pulse of human body. The blood pressure value measured by the Electronic Blood Pressure Monitor is equivalent to that measured by UOTT.

By use of the intelligent pressurization method, the Electronic Blood Pressure Monitor can automatically pressurize to a suitable pressure value based on your blood pressure, thus effectively reducing the discomfort caused by incorrect pressurization, shortening the measurement time and prolonging the service life of cuff.

The Electronic Blood Pressure Monitor can provide the memory function of 99 groups of measurement data from each of two users, and can save the data of two users respectively.

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FCC Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Notes:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions,may cause harmful interference to radio communications.However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

■ Reorient or relocate the receiving antenna.

■ Increase the separation between the equipment and receiver.

■ Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

■ Consult the dealer or an experienced radio/TV technician for help.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

1. Open-box Inspection

Before use, please unpack carefully, check whether all the accessories are intact and whether the components are damaged due to transportation against the following packing list, and perform the installation and operation in strict accordance with

the User Manual. In case of any damage or operating problem, please contact our vendor or directly contact our company. At the time of contact, you shall provide the purchased equipment model, serial number, your purchase date as well as your contact information and address.

2. Packing List

No.	Name	Quantity
1	Electronic Blood Pressure Monitor	1
2	Cuff	1
3	Dry battery (AA)	4
4	User Manual	1
5	Jumper Health User manual	1
6	Pouch	1

3. Authorized European Representative:

EC REP

Wellkang Ltd

Suite B, 29 Harley Street , London W1G 9QR,UK

4. Safety Precautions

The warnings and illustrations shown in the User Manual enable you to use the product safely and correctly, thus preventing you and others from being injured, specifically as follows:

Legend, mark and meaning	
	Warning message
	Anti-electric shock degree is Type BF of the application part
	When the product life expires and the end users discard the products, send them to the designated collecting and separating place for disposal according to the requirements from the local environmental protection authority.
	Non-ionizing radiation
	Consult the instructions for use.

	Bluetooth
CE 0482	This product complies with the MDD93/42/EEC requirements.

5. Product Composition

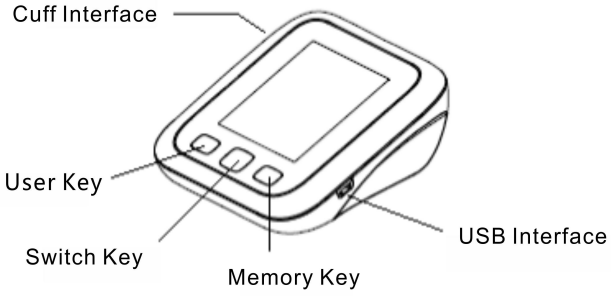
The product is comprised of the host machine and the cuff of Electronic Blood Pressure Monitor.

6. Application Scope

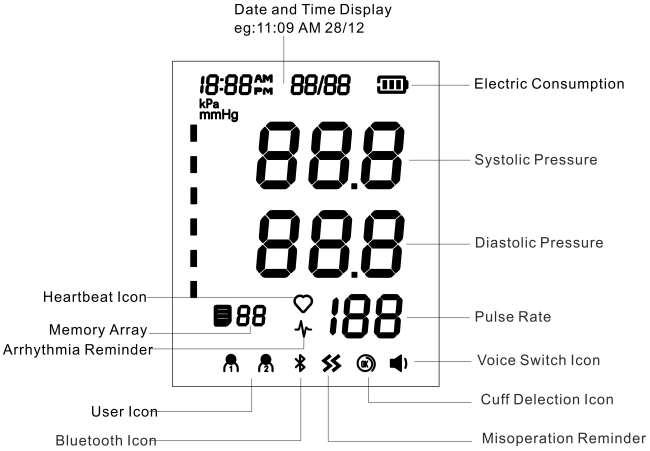
The Electronic Blood Pressure Monitor is used to measure the diastolic pressure, systolic pressure and pulse rate of adults by oscillometric method for diagnostic reference.

7. Product Components

(1) Device Body

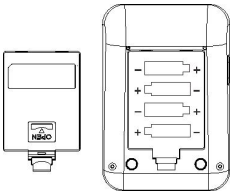

Cuff Interface
User Key
Switch Key
Memory Key
USB Interface

(2) Display Screen



8. Pre-use Installation

(1) Install the battery



Open the battery cover and load the battery into the battery compartment. The battery compartment is located at the bottom of the Electronic Blood Pressure Monitor.

a） Open the battery cover as shown in the figure (as shown in the figure on the top right)

b） Place 4 AA dry batteries. Pay attention to the battery electrode indication.

(2) Battery power indication and replacement

After the product is turned on, if low power symbol appears on the screen, the measurement cannot be performed, and the battery must be replaced.

⚠ Please use 4 AA alkaline dry batteries.

⚠ Do not use any expired battery.

⚠ If the product is not used for a long time(over 3 months), please take out the batteries.

(3) USB connection for power supply

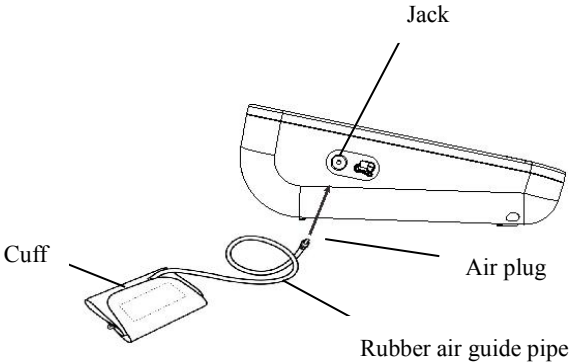
USB can be inserted for power supply of the product without battery.

(4) Cuff

The applicable arm circumference range of the cuff is 22-36cm.

Connection: Insert the air plug on the cuff into the air plug jack on the left side of the Electronic Blood Pressure Monitor. As shown in the following figure:

-The Cuff is the application part.

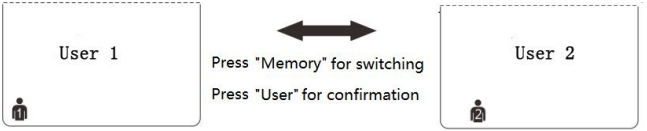


9. Function Setting Mode

(1) User mode

Select "OFF" or upon completion of measurement, short-press the "User" key, and the screen will display "User 1" or "User 2".

Press the "User" key again to switch to another user group.



(2) Year/Month/Date setting

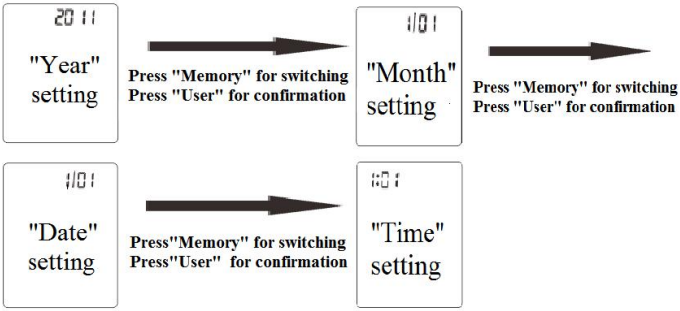
In the "OFF" state, long-press the "User" key for 3~5s to enter the setting mode.

After entering the "Year" setting mode, the screen will display 20XX and keep flashing. Press the "Memory" key, and the value will be incremented. The value can be switched between 2018~2099. Press the "User" key for confirmation and enter the "Month" setting mode.

After entering the "Month" setting mode, the screen will display 1/01 and keep flashing. Press the "Memory" key, and the value will be incremented. The value can be switched between 1~12. Press the "User" key for confirmation and enter the "Date" setting mode.

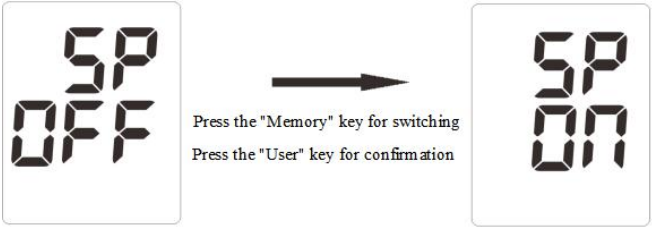
After entering the "Date" setting mode, the screen will display 1/01 and keep flashing. Press the "Memory" key, and the value will be incremented. The value can be switched between 01~31. Press the "User" key for confirmation and enter the "Time" setting mode.

After entering the "Time" setting mode, the screen will display XX: XX and keep flashing. Press the "Memory" key, and the value will be incremented. The value can be switched between 1~12 am/pm. Press the "User" key for confirmation and enter the "Minute" setting mode. Press the "Memory" key, and the value will be incremented. The value can be switched between 00~59. Press the "User" key for confirmation and enter the "Language Broadcast Switch" setting.



(3) Language Broadcast Switch setting

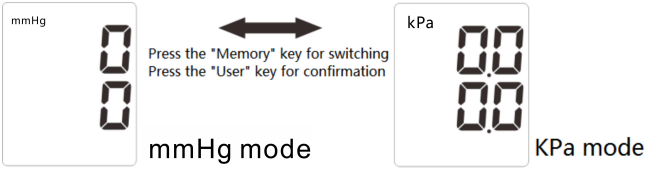
After entering the "Language Broadcast Switch" setting mode, the high-pressure area will display the "SP", and the low-pressure area will display the current voice state "ON"/"OFF" and the voice icon (not shown if turned off). Press the "Memory" key to switch the language state. Press the "User" key for confirmation and saving, and enter the "Unit Display" setting.



(4) Unit display setting

After entering the "Language Broadcast Switch" setting mode, press the "User" key, and the screen will display 0 or 0.0, i.e. enter the setting mode. If display of 0, it indicates that the mmHg unit is selected; if display of 0.0, it indicates that the kPa unit is selected. At this time, when you press the "Memory" key once, the unit will be switched once. After the unit is selected,

press the "User" key again for confirmation and saving.



10. Correct Method of Use

Requirement： Please read the user manuals carefully before use , user must follow user manuals to use.

(1) Measure the blood pressure - preparation before measurement

- Before measurement, avoid eating, smoking or any form of heavy physical labor, as it will affect the measurement result.
- Before measurement, sit on a chair to have a rest for about 10min in a quiet environment.
- Before measurement, remove the clothing fettering the measured arm.
- Measure the same arm (generally the left arm).
- Perform fixed-time measurement daily, because the blood pressure on the same day is also changing.

(2) Measure the blood pressure - common factors resulting in measurement error

- Comparative measurement of blood pressure must be performed under the same condition! Generally perform the measurement in a quiet environment!
- The blood pressure might be increased due to forced support of arm; therefore, please ensure that you are in a comfortable and relaxed state before measurement, and do not move the muscle of the measured arm during measurement. If necessary, you can use a soft cushion to support your arm.
- If the position of cuff is lower or higher than the heart position, you will get the incorrect measurement results.

(3) Measure the blood pressure - attentions

- Please use the original cuff that has passed the clinical trial! Any replacement of original component with the component not provided by the manufacturer might result in measurement error.
- Cuff looseness or air bag exposure might result in measurement error.
- Repeated measurement might result in blood aggregation in the arm, which will affect the measurement result. Therefore

you should have a rest for 3min or lift the arm for a while to make the aggregated blood flow away before repeated measurement.

(4) Measure the blood pressure - how to use the cuff

1. Place the cuff flat on the table, leave the hook & loop downwards, and pass the end of cuff through the metal ring to form a loop. At this time, the hook & loop of cuff will point outwards (if the cuff has formed a loop before, please skip this step).
2. Pull the cuff through the upper arm to be measured, and wear the cuff correctly based on the downward icon "∇ ", leaving the air jet of cuff to point to the lower arm.
3. Hook up the cuff on the upper arm according to the illustration, ensure that the lower edge of cuff is 2~3cm away from the elbow joint, and leave the air jet inside the arm.
4. Tighten the free edge of cuff to stick the hook & loop.
5. The cuff should twine round the upper arm comfortably, where you should be able to put two fingers in between them. Before measurement, you should remove any clothing that might confine the arm (e.g. overpull).
6. Place the lower arm flat on the desktop, leaving the center of

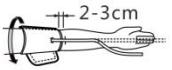
palm naturally upwards, sit straight, feet flat on the ground and leave the center of cuff and the heart at the same height. Note that the rubber catheter on the cuff cannot be folded or bent.

Note: If you cannot use the left arm for measurement, please use the right arm for measurement. But anyway, all the measurements must be performed on the same arm for comparison.

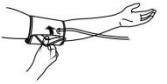
(1)Twine the cuff

(1-1)Twined cuff

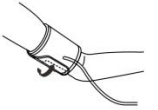
(2)Wear the cuff



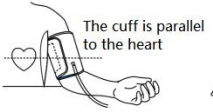
(3)The cuff is 2~3cm away from the elbow joint



(4) Paste magic tape



(5) Adjust the cuff



(6) Measurement posture

(7) Measure with the same arm

(5) Start measurement

Measure the blood pressure -- measurement steps

After you wear the cuff, you can start the measurement:

1. Press the "ON/OFF" key, and the machine will return to zero automatically, the air pump will start to inflate the cuff, and the screen will display the change in the pressure in the cuff.
2. When reaching the stable pressure upon inflation, the air pump will stop the inflation, and the pressure in the cuff will be reduced gradually and displays in the screen. If the inflated pressure is insufficient, the machine will re-inflate automatically to a higher pressure;
3. When pulse is detected, the screen will display the "heart" symbol and start flashing.
4. Upon completion of measurement, the measured values of systolic pressure, diastolic pressure and pulse will be displayed on the screen.
5. The screen will continue to display the measurement results, unless you long-press the "ON/OFF" key to turn off the machine. If there is no operation, the machine will be turned off automatically in 30s.

Notes:

※At the end of measurement, the measurement results and information (high pressure, low pressure, heart rate, measurement completion time, current user group and whether arrhythmia) will be automatically saved to the memory. The number of groups is 01, and the previous memory group number will be extrapolated back in sequence.

※The default measurement result display unit is mmHg.

※In case of error in the measurement result, the high-pressure area will display the "Err", and the low-pressure area will display the value.

※During measurement, if during the voice broadcast, you can press the "Memory" key to skip the voice. If you press the "Memory" key during the inflation/automatic deflation, there will be no reaction.

※At the end of measurement, if during the voice broadcast, you can press the "Memory" key to stop the voice.

※During measurement, if you short-press the "ON/OFF" key, the measurement will be stopped and the Electronic Blood Pressure Monitor will return to the home page; if you long-press the "ON/OFF" key for 3s, the Electronic Blood

Pressure Monitor will be turned off.

※The turn-off time is started from the value display upon completion of measurement (no voice) or from the value display and voice broadcast upon completion of measurement (voice).

※Upon completion of measurement, short-press the "Memory" key to switch to the memory mode, and short-press the "User" key to perform the user group switching.

(6) Use Bluetooth function

See the User manual of Jumper Health.

(7) Use memory function

The Electronic Blood Pressure Monitor can automatically store 99 groups of memory values of the last two persons, and if the 99 groups of memory data are full, they will be replaced automatically. After the Electronic Blood Pressure Monitor is used for several times, in the OFF state, you can press the "Memory" key to display the recent measurement, and press the "Memory" key again to display the another recent measurement again and so on until display the last measurement

(8) Clear all memory

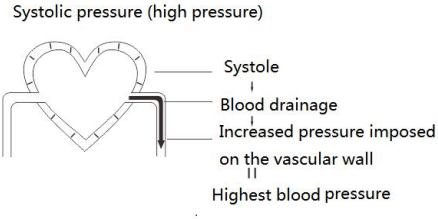
In the memory mode, long-press the "Memory" key for 3s to delete all the measurement data of two user groups.

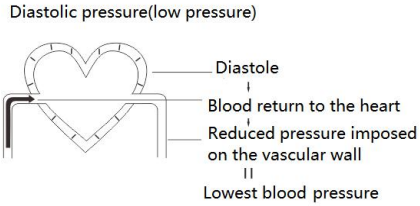
11. General Knowledge of Blood Pressure

(1) General knowledge of blood pressure - definition of blood pressure

Blood pressure is the pressure that the blood is transmitted to the artery through the heart beat (systole and diastole).

When systole, the pressure at which the blood is transmitted to the artery is called systolic pressure, i.e. the high pressure; the blood circulating the whole body will backflow to the heart, and when diastole, the pressure is called diastolic pressure, i.e. the low pressure.

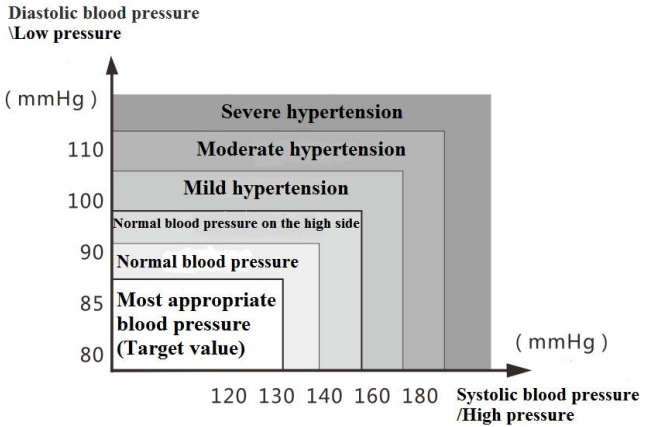




(2) Classification standard for blood pressure condition

The standard blood pressure of WHO is as shown in the figure below.

- There is no definition of hypotension yet. Generally, if the high pressure is less than 100mmHg (13.3kPa), it is hypotension.



12. Contraindications, Precautions, Warnings and Prompt Instructions

(1) Warning:

⚠Do not let a child below 12 years old and the people who

can’t express one’s intention .When it used by the people of 12~18 years old ,it should accompanied by the adult .Pregnant women use under the guidance of a doctor.

⚠Make sure there is no connection tubing kinking before start measuring to avoid can not be measured or other injury.

⚠For any patient, do not measure more than 3 times continuously, it should be at least above 5 minutes of interval rest between any two measurements,otherwise will cause extravasated blood.

⚠Do not apply the cuff over a wound as this can cause further injury.

⚠Do not use cuff in the arm which has invasive treatment device or arteriovenous shunt,otherwise will cause hurt.

⚠When the arm use the cuff.,it will make the monitoring equipment failure.

⚠Pay attention to the widget, do not swallow it.

⚠Please use the cuff follow the use manual,pay attention to

the use of the hose,avoid necking due to excessive length

⚠Do not use the cuff for a long time,avoid allergies.

⚠If an incorrect reading appears, check the instructions and check for equipment failure

⚠Do not make self-diagnosis according to the measurement results. Please consult your professional doctor with the measurement result record. The treatment based on the self-judgement of measurement results will be very dangerous;

⚠Please give the results of the measurement to the doctor who knows your health and receive the diagnosis;

⚠ If you take some medicine, please follow the doctor's advice;

⚠For those with peripheral circulation disorder caused by certain diseases, there might be significant difference in the blood pressure value measured on the wrist and upper arm;

⚠ Do not make measurements in 1h after meals or immediately after strenuous exercise, shower, smoking, alcohol drinking, coffee drinking or black tea drinking;

⚠Do not use the Electronic Blood Pressure Monitor for the purpose other than blood pressure measurement;

otherwise, it might cause accident or failure;

⚠ Please use the Electronic Blood Pressure Monitor under the guidance of doctor;

⚠ This model of Electronic Blood Pressure Monitor is suitable for the arm circumference range of 22-36cm, and if beyond this range, you might not obtain the correct measured value of blood pressure;

⚠ This model of Electronic Blood Pressure Monitor is not suitable for newborns or young children;

⚠ The blood pressure is constantly changing. You cannot rely on only one blood pressure measurement result to judge the blood pressure condition. The repeated measurement data over a period of time will be more reliable;

⚠ Do not bind too tightly. It will be the most appropriate if you can relax and can put one finger in. If you do not bind correctly or put it in place, you might not obtain the correct measured value of blood pressure;

⚠ Do not measure the non-invasive blood pressure (NIBP) for the patients with sickle cell disease or the patients with skin injury of limb for blood pressure measurement.

⚠Please do not use mobile phone, computer,electric kettle and the other can cause interference device around the device.Please do not use the device around the magnetic field.

⚠Please keep to maintain the device ,during use it.

(2) Precautions:

⚠Do not repair, disassemble or modify the Electronic Blood Pressure Monitor without permission;

⚠Do not collide or fall down the host to avoid collision or strong impact of the machine;

⚠ Do not use the Electronic Blood Pressure Monitor immediately after it is taken out from the place below 0℃ which should be at least placed for more than 1h in the environment at the temperature of 5 ℃ -40 ℃ and the humidity of ≤85%;

⚠When the ambient temperature is 20°C, the time from the highest storage temperature 55°C ， after use to the time about 1 hour or more that the equipment is ready for its intended use.

⚠There is no need to check whether the operation of the

sphygmomanometer will have a lasting effect on the patient's blood circulation,if used according to the instructions

⚠ Do not use the Electronic Blood Pressure Monitor immediately after it is taken out from the place below 0℃, which should be at least placed for more than 1h in the environment at the temperature of 5 ℃ -40 ℃ and the humidity of ≤85%;

⚠ Except the cloth stained with warm water or soapy water for wiping the host shell, do not use other articles for wiping;

⚠ Do not pull the cuff forcefully or use the cuff as a rag;

⚠ Do not be contaminated by the dust or corrosive liquid;

⚠ Do not touch the host when measurement;

⚠ Remove the battery when the product is left unused for a long time;

⚠ Do not store the Electronic Blood Pressure Monitor in a place with high temperature, moisture or direct sunlight;

⚠ Calibrate the Electronic Blood Pressure Monitor periodically.

⚠ Do not combine old and new batteries， different brands

batteries for using.

(3) Indicative description

⚠ The patient is an intended operator.

⚠ Before measurement, calibrate the Electronic Blood Pressure Monitor, check the function of each component, and maintain the good performance of Electronic Blood Pressure Monitor.

⚠ During blood pressure measurement, the measured limb shall be at the same level at the heart.

⚠ Indoor temperature, environment, noise, subject's body position, speech or exercise might have effect on the blood pressure measurement. The cuff wearing, improper sensor position, body movement or presence of electric field might have effect on the measurement.

⚠ We do not recommend that patients with weak pulse, severe upper gastrointestinal bleeding or severe arteriosclerosis or elderly with poor peripheral circulation, particularly patients with peripheral vascular lesion caused by complicated severe diabetes use the product.

⚠ In case of rescue of seriously ill patients, diagnosis of hypertension and direction of hypertensive medication,

use the Electronic Blood Pressure Monitor with caution.

⚠ Keep the power supply enough.

⚠ After product packaging, it is allowed to use common vehicle transportation, but rain, moisture, squeezing or mechanical collision should be avoided.

13. Question and Answer

Q1. Why the blood pressure measured at home is lower than that measured in hospital?

1. The blood pressure measured at home might be 20mmHg-30mmHg (2.7kPa-4.0kPa) lower than that measured in hospital, because you might be nervous when measurement in hospital, and you tend to be in stable mood when measurement at home. It is important to understand the normal value of blood pressure at home when calmness.
2. If the cuff wearing position is higher than the heart, the measured blood pressure value will be lower, so please make measurement in the correct posture.

Q2. Why the blood pressure measured at home is higher than that measured in hospital?

1. The anti-hypertensive drugs lose the efficacy.

→ Please accept the doctor's instructions.

2. The cuff is not twined correctly.

If the cuff position is wrong, no arterial signal will be caught, and the measured blood pressure value will be higher.

→Please confirm whether the cuff position is correct.

3. The cuff is rolled too loose.

If the cuff is rolled too loose, the compression force might fail to be transmitted to the artery, resulting that the measured blood pressure value is higher than the actual value.

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

4. The posture is incorrect when measurement.

If bending down, sitting cross-legged or bending over the sofa or low table when measurement, the blood pressure might be increased due to the abdominal pressure or due to the arm position lower than the heart.

→ Please make measurement in correct posture.

Q3. Why I feel painful or numb due to tightening of the cuff when measurement?

When blood pressure measurement, the cuff shall be tighten

until the arterial blood flow is stopped temporarily. So you might feel painful or numb for a while, but it is not harmful for your body. Please be assured.

Q4. When will the measurement be better?

Please make measurement in the morning after you get up to urinate or when your body and mood are in stable state. It is better to make measurement at the same time every day.

Q5. Why the blood pressure value measured each time is different?

1. When systole each time, the blood pressure will change to some extent. For example, a person with the pulse of 70 beats per minute will have 100,800 blood pressure changes every day. Because the blood pressure is constantly changing, it is difficult to obtain the correct blood pressure value by measurement only once. Please make measurement for 2~3 times. The first measurement will generally be higher due to nervousness or inadequate preparation, and then when the second measurement, the nervous emotion will be slightly alleviated, so generally, the second measurement will be 5mmHg-10mmHg (0.7kPa-1.3kPa) lower than the first time. This will be more obvious for those

with higher blood pressure.

- When continuous measurement, please note that:
  There might be extravasated blood because the arm is compressed, resulting that the finger tip blood does not flow smoothly, If you continue the measurement in case of extravasated blood, you cannot obtain the correct measured value. Loosen the arm band, raise your hand over the head, and grasp and stretch your left and right palms for 15 times repeatedly. Then the extravasated blood can be dissolved, and you can continue the blood pressure measurement.

2. Cuff position and twining method. The measured value varies with the cuff size. Particularly, if the cuff is twined round the elbow, you cannot obtain the correct measured value.

- Please use the correct cuff twining method for measurement. The arm circumference range of the enclosed cuff is 22~36cm (center of the upper arm).If the model is inconsistent, please purchase separately.

14. Abnormal Phenomena and Handling

* When abnormal measurement, the following symbols will appear. Please use the correct method for measurement.

LCD Display Information	Reason/meaning
SBP Display shows Err, DBP Display shows 1	Sensor exception.
SBP Display shows Err, DBP Display shows 2	No pulse detected
SBP Display shows Err, DBP Display shows 4	Air leakage is detected in the early stage of decompression
SBP Display shows Err, DBP Display shows 5	Trachea is obstructed as detected in the early stage of pressurization
SBP Display shows Err, DBP Display shows 6	There is too much interference as detected when deflation
SBP Display shows Err, DBP Display shows 7	Pressure value exceeds 295mm (40.0 kPa)
The high-pressure display area displays Err and malfunction icon	Arm movement

* Troubleshooting

Anomaly	Inspection Items	Countermeasures
There is no display after the power switch is pressed	Whether the battery power is insufficient	Replace the battery or insert the USB for charging
	Whether positive and negative poles of the battery are installed reversely	Install in the positive and negative pole direction of battery
No pressurizing	Whether the air tube plug is inserted tightly	Insert the air tube plug firmly into the jack
	Whether the air tube is broken or leaked?	Purchase a new cuff
Unable to measure due to display error	Whether the arm is moved when pressurization	Keep your arm and body still static
	Whether you talk during measurement	Keep quiet while measuring the blood pressure
Air leakage of cuff	Whether the cuff is twined too loose	Please tighten the cuff
	Whether the air bag of cuff is ruptured	Replace with new cuff
⚠ If the blood pressure still cannot be measured normally by the above methods, please contact the vendor. Please do not disassemble it by yourself!		

15. Cleaning and Disinfection

(1) Cleaning:

Recommended cleaning agent:

① Medical cleaning agent

② Household neutral cleaning agent

Cleaning steps:

1） Remove the batteries before cleaning.

2） The body of Electronic Blood Pressure Monitor can be cleaned with a clean soft cloth.

3）The body can be wiped with a clean soft cloth stained with a small amount of neutral detergent or water.

⚠ Do not use any corrosive cleaning agent. When cleaning, be careful not to immerse any part of the Electronic Blood Pressure Monitor to avoid liquid flow into the instrument.

⚠ It is suggested to clean once every week. Complete the cleaning in 3min each time. The number of repeated cleaning each time shall not exceed 3 times.

(2) Disinfection:

Recommended disinfecting agent:

① Isopropanol solution with 70% concentration

② Medical alcohol with 75% concentration

③ Sodium hypochlorite solution with 3% concentration

Disinfection steps:

1）Wipe the machine body with a clean soft cloth stained with a small amount of the above disinfectant, and dry it immediately.

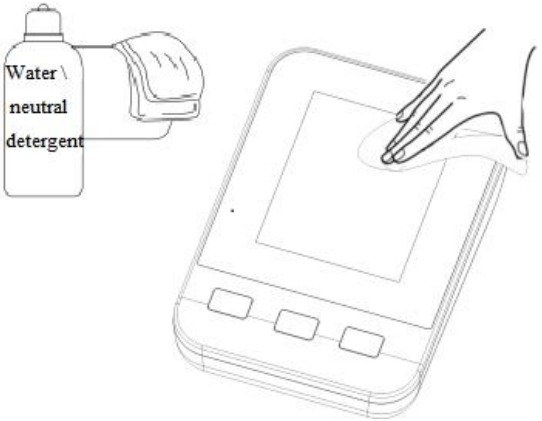
2） The body of the Electronic Blood Pressure Monitor can be wiped with a clean cloth stained with a small amount of 75% medical alcohol for disinfection.

⚠ Do not disinfect by such method as high temperature steam or ultraviolet irradiation, which might damage the instrument or accelerate the aging!

⚠ It is suggested to disinfect the Electronic Blood Pressure Monitor before and after use each time. Each time of disinfection shall be completed within 1min. The number of repeated disinfection each time shall not exceed 2 times.

⚠ Cleaning and disinfection shall be carried out in the following environment: temperature: +5℃~+40℃ (50 ℉-104 ℉), relative humidity: 15%~85%RH, non-condensing, atmospheric pressure: 70kPa~106 kPa.

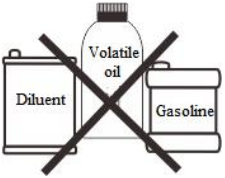
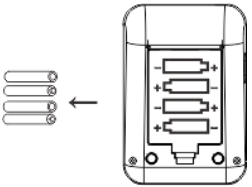
16. Upkeep and Maintenance



- Always keep the surface of Electronic Blood Pressure Monitor clean and tidy, helpful to prolong the service life of Electronic Blood Pressure Monitor.
- If the host is dirty, please wipe with a dry soft cloth. If the dirt cannot be eliminated easily, wipe with a soft cloth stained with water or neutral detergent, and then dry with a dry cloth.
-No maintenance or maintenance required when using the device.

⚠ Do not allow water or other liquids to flow into the host.

17. Precautions for Keeping

- Do not wipe the host and cuff with volatile oil, diluent or gasoline.	- Do not clean or moisten the cuff.
	
-Do not store the product at a place which has direct sunlight, high temperature, humidity, dust or corrosive gas.	- If the Electronic Blood Pressure Monitor is not in use for a long time (over 3 months), take out of the batteries from the host.
	
The Company will not assume any quality responsibility for the machine failure due to your non-compliance with the above considerations for safekeeping or other correct use methods.	

18. Product Specifications

Product Name	Electronic Blood Pressure Monitor	
Model	JPD-HA120	
Display Mode	Digital display mode	
Measuring Mode	Oscillographic method	
Measuring Body Part	Upper arm	
Measuring Range	Blood pressure value	0-295mmHg（0kPa-39.2kPa）
	Pulse Count	40-199 pulse beats/min
Static measurement accuracy	Pressure value	±3mmHg（±0.4kPa）
	Pulse Count	± 5% of read value
LCD display	Pressure	Unit : mmHg/ kPa
	Pulse	Pulse beats per minute, displaying three digits
Storage capacity	It can store 99 groups of measurement data for each of two persons	
Power supply	4 AA dry batteries/DC6V	
Power Off Mode	Manual closing/ 30s delay automatic closing	

<table>
<tr><td>Device weight (without batteries)</td><td colspan="3">About 285g</td></tr>
<tr><td>Monitor Size</td><td colspan="3">138mm (length) *120mm (width) * 59mm (height)</td></tr>
<tr><td>Screen Size</td><td colspan="3">60mm (length) *77mm (width)</td></tr>
<tr><td>Cuff</td><td colspan="3">Upper-arm-type cuff
(measured arm circumference 22-36cm)</td></tr>
<tr><td>Annexure</td><td colspan="3">Cuff, User Manual, Jumper Health User manual, Dry battery,Pouch</td></tr>
<tr><td>Battery Life</td><td colspan="3">High-performance dry battery can be used for about 300 times at normal temperature</td></tr>
<tr><td>Service Life</td><td colspan="3">5 years</td></tr>
<tr><td>Date of Production</td><td colspan="3">See label</td></tr>
<tr><td rowspan="3">Operating environment</td><td>Temperature Condition</td><td>5 ℃-40℃</td><td rowspan="3">If stored or used beyond the designated temperature and humidity range, it will not be used</td></tr>
<tr><td>Humidity Condition</td><td>15%-85% RH</td></tr>
<tr><td>Atmospheric Condition</td><td>70kPa-106 kPa</td></tr>
</table>

			properly
Transportation and Storage Environment	Avoid strong impact, direct impact, exposure or rain during transportation. The packaged Electronic Blood Pressure Monitor shall be stored indoors at the temperature of -20℃~55℃ and the relative humidity of 15%~93% without corrosive gas and with good ventilation.		

Appendix 1 Guidance and Manufacturer Declaration Tables

Guidance and manufacturer´s declaration – Electromagnetic emission		
The Electronic Blood Pressure Monitor is intended for use in the electromagnetic environment specified below.The customer or the user of the Electronic Blood Pressure Monitor should assure that it is used in such an environment.		
Emissions	**Compliance**	**Electromagnetic environment - guidance**
RF emissions CISPR 11	Group 1	The Electronic Blood Pressure Monitor uses RF energy only for its internal function. Therefore,

		its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The Electronic Blood Pressure Monitor is suitable for use in all establishments,including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC61000-3-2	N.A.	
Voltage fluctuations/flicker emissions IEC61000-3-3	N.A.	

Guidance and manufacturer´s declaration – Electromagnetic immunity			
The Electronic Blood Pressure Monitor is intended for use in the electromagnetic environment specified below.The customer or the user of The Electronic Blood Pressure Monitor should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment-guidance**
Electrostatic discharge (ESD) IEC 61000-4-2	±8kV contact ±2 kV, ±4kV, ±8 kV, ±15KV air	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±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 %.
Power frequency (50/60 Hz) magnetic	30A/m, 50/60Hz	30A/m, 50/60Hz	Power frequency magnetic fields should be at levels

field IEC 61000-4-8			characteristic of a typical location in a typical commercial or hospital environment.
NOTE: UT is the a.c. mains voltage prior to application of the test level			

Guidance and manufacturer´s declaration – Electromagnetic immunity			
The Electronic Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user ofThe Electronic Blood Pressure Monitor should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment -guidance**
Radiated RF IEC 61000-4-3	3 Vrms150 kHz to 80	N/A	Portable and mobile RF communications equipment should be

	MHz 6 Vrms 150 kHz to 80 MHZ outside ISM bandsa		used no closer to any part of the JPD-HA120 Electronic Blood Pressure Monitor ,including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = \left[\frac{3.5}{V1}\right]\sqrt{P}$
Radiated RF IEC 61000-4-3	10 V/m 80 MHz to 2.7 GHz	10 V/m	$d = \left[\frac{3.5}{E1}\right]\sqrt{p}$ 80MHz to 800MHz $d = \left[\frac{7}{E1}\right]\sqrt{P}$ 800MHz to 2.7GHz

			where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres(m). Field strengths from fixed RF transmitters,as determined by an electromagnetic site survey, [a] should be less than the compliance level in each frequency range [b] Interference may occur in the vicinity

			of equipment marked with the following symbol:

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

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

a The ISM (industrial, scientific and medical) bands between 0,15 MHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283MHz; and 40,66 MHz to 40,70 MHz. 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, 7MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17MHZ, 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.

b The compliance levels in the ISM frequency bands between 150 kHz and 80

MHz and in the frequency range 80 MHz to 2,7 GHz are intended

to decrease the likelihood that mobile/portable communications equipment could cause interference if it is inadvertently brought into patient areas. For this reason, an additional factor of 10/3 has been incorporated into the formulae used in calculating the recommended separation distance for transmitters in these frequency ranges.
c Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy.To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Electronic Blood Pressure Monitor is used exceeds the applicable RF compliance level above, the Series Electronic Blood Pressure Monitor should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Electronic Blood Pressure Monitor.

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

Recommended separation distances between portable and mobile RF communications equipment and Electronic Blood Pressure Monitor

The Series Electronic Blood Pressure Monitor is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Series Electronic Blood Pressure Monitor can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Series Electronic Blood Pressure Monitor as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	**Separation distance according to frequency of transmitter m**		
	150 kHz to 80 MHz $d = \left[\frac{3.5}{V1}\right]\sqrt{P}$	**80 MHz to 800 MHz**	**800 MHz to 2.7 GHz** $d = \left[\frac{7}{E1}\right]\sqrt{P}$

		$d = \left[\frac{3.5}{E1}\right]\sqrt{p}$	
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

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

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

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

JUMPER

Shenzhen Jumper Medical Equipment Co., Ltd.
Address: D Building, No. 71, Xintian Road,
Fuyong Street, Baoan, Shenzhen ,Guangdong,
China
Tel: +86-755-26692192, 26696279
Fax: +86-755-26852025
Website:www.jumper-medical.com
Postal Code: 518103