



## **Upper-arm Wireless Blood Pressure Monitor User Manual**

**Type: MUMU-BP2 (Arm-type)**

Thank you for choosing a MUMU product, Just in case that you are facing any problems with your device, please contact us:

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# Content

## Introduction

### 1 Preparation

1.1 Safety precautions.....	4
1.2 Composition of product.....	9
1.3 Name of components.....	10
1.4 Application method of blood pressure monitor.....	13

### 2 Measuring method

2.1 Mobile software installation.....	15
2.2 Blood pressure measuring.....	16
2.3 Historical Data Display.....	19
2.4 Cloud Storage.....	20
2.5 Other Functions of Mobile Software.....	21

### 3 FAQ & Maintenance

3.1 Q&A for blood pressure measurement.....	22
3.2 Troubleshooting.....	26
3.3 Maintenance and storage.....	28
3.4 Specifications.....	29
3.5 Cleaning.....	30
3.6 Statement.....	31
3.7 Warranty Information.....	32
3.8 Symbol.....	37

## Introduction

Thank you for purchasing and using the series products of MUMU-BP blood pressure monitor. In order to ensure safe usage of this product and make it to be your best assistant for daily blood pressure management, we advise you to read this manual carefully before using the monitor. Please take care of the attached warranty card.

### Intended Use

This compact and convenient monitor is an ideal device for people who need to measure their systolic and diastolic blood pressures and pulse rate frequently. It is only designed for adults use, and the range of the cuff circumference is 17cm-42cm(3 cuff sizes available, please refer to the size you chose).

After installation of our mobile software on your iOS or Android smart devices, the monitor will connect to your device via bluetooth and you can measure the blood pressure. Push a button on the device, then the measurement of blood pressure and pulse begins, and the results will be displayed on your device. The results can be stored in your device or uploaded to the cloud for permanent storage and management. No matter at home or in the office, you can easily and quickly measure, browse and share the historical data.

## 1.1 Safety Precautions



To assure the correct use of the product basic safety measures

Indicates a potentially hazardous situation should always be followed

including the precautions listed below:

Since the self-judgment and self-treatment based on the measurement results are dangerous, please follow the doctor's instructions.

- Read all information in the instruction manual and any other literature included in the box before using the unit.
- Self-judgment might possibly lead to exacerbation of diseases.
- Diabetes, hyperlipidemia and high blood pressure, etc. can expedite arteriosclerosis and even lead to peripheral circulation disturbance, etc. Patients with these diseases might have various measuring results of upper-arm blood pressure.
- It is not recommended for people with serious arrhythmia to use this MUMU BPM-2.
- Please do not use the monitor for other purposes except blood pressure measurement.
- Please do not dismantle or repair by yourself, or modify this monitor and cuff.

- The product is made of precise components and parts. It should be avoided from high/low temperature, humidity, direct sunlight, vibration and dusty environment.
- Please use soft dry cloth to clean the product. Do not use diluents, alcohol, gasoline or wet cloth to scrub it.
- Avoid over-folding the armlet and over-twisting the gas tube (for desk-type MUMU-BP1) so as to ensure the service life of the accessories.
- The operator shall not touch the output of battery/ USB port when using
- As the product and armlet are not waterproofing, please avoid rain, sweat or water.
- If the product is used close to TV, microwave oven, X-ray or other devices with strong electromagnetic field, the precision of measurement will possibly be affected.
- The product, its components and parts, and batteries cannot be discarded as normal domestic wastes. The local applicable laws should be followed.
- This product applies only to adults.
- Consult your doctor for any of the following situations:
  1. The application of the cuff over a wound or inflamed area.

2. The application of the cuff on any limb with intravascular access or therapy, or an arterio-venous(A-V) shunt.
3. The application of the cuff on the arm on the side of a mastectomy.
4. Simultaneous use with other medical monitoring equipment on the same limb.
5. The blood circulation of the user needs to be checked.

**Note:**

1. This MUMU-BP2 is designed for adults and should never be used on infants, young children, pregnant or pre-eclamptic patients.
2. Please do not share the cuff with any infectious person to avoid cross-infection.

**Caution: The user is cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.**

NOTE: 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.

#### **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



## EMC Guidance

1. MEDICAL ELECTRICAL EQUIPMENT needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the ACCOMPANYING DOCUMENTS
2. Wireless communications equipment such as wireless home network device, mobile phones, coreless telephones and their base stations, walkie-talkies can affect this equipment and should be kept at least a distance  $d=3,3$  m away from the equipment.

(Note: As indicated in Table 6 of IEC60601-1-2: 2007 for ME EQUIPMENT, a typical cell phone with a maximum output power of 2 W yields  $d=3,3$  m at an IMMUNITY LEVEL of 3V/m)

## 1.2 Composition of product

All products have been packaged. Please open the packing cases and make sure whether they are complete.

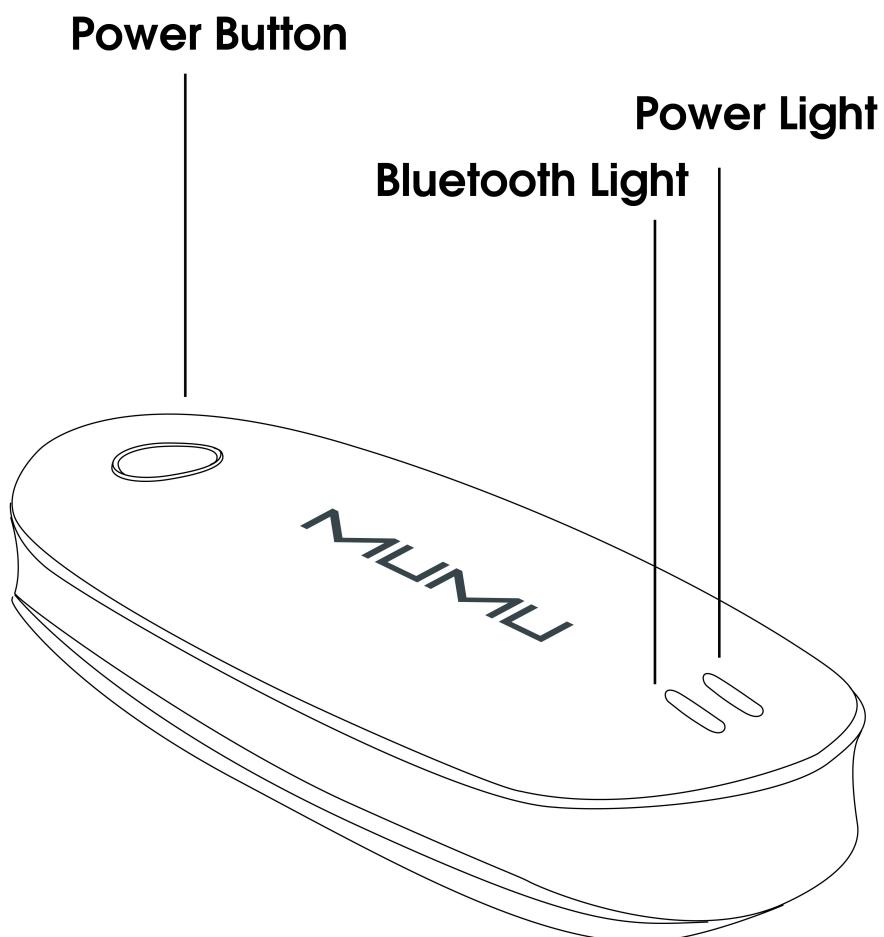
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MUMU-BP2	
USB Cable	
Storage Bag	

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### 1.3 Name of components

#### ● MUMU-BP2



- **Status of indicator light (MUMU-BP1/MUMU-BP2)**

**Status of power light**

	Connection to external power	Non-connection to external power
Low battery voltage (less than 20% of full battery)	Red light flashing	Red light on
Battery voltage between 20% and 100%	Green light flashing	Green light on
Full power (100%)	Green light on	Green light on
Power off	Refer to above status	Off

**Status of Bluetooth indicator light**

	Connection to external power	Non-connection to external power
Power off		off
Waiting to connect to cell phone		Blue light flashing
Connected to cell phone		Blue light on

- **Charging port (MUMU-BP2)**

The monitor has one Micro USB interface for charging. It requires DC5V/1.0A input. Generally, the smart mobile phone charger that has Micro USB port and DC5V/1.0A output can be used to charge this monitor. Please DO NOT use the monitor to measure during charging.

**Note:**

1. Do not change the battery. If the battery can no longer be charged, please contact customer service.
2. Overcharging the battery may reduce its lifetime.

3. Do not replace the battery by inadequately trained personnel which could result in a hazard such as a fire or explosion.
4. If the AC adapter is abnormal, please change the adapter.
5. The monitor, cable, battery and cuff must be disposed of according to local regulations at the end of their usage.

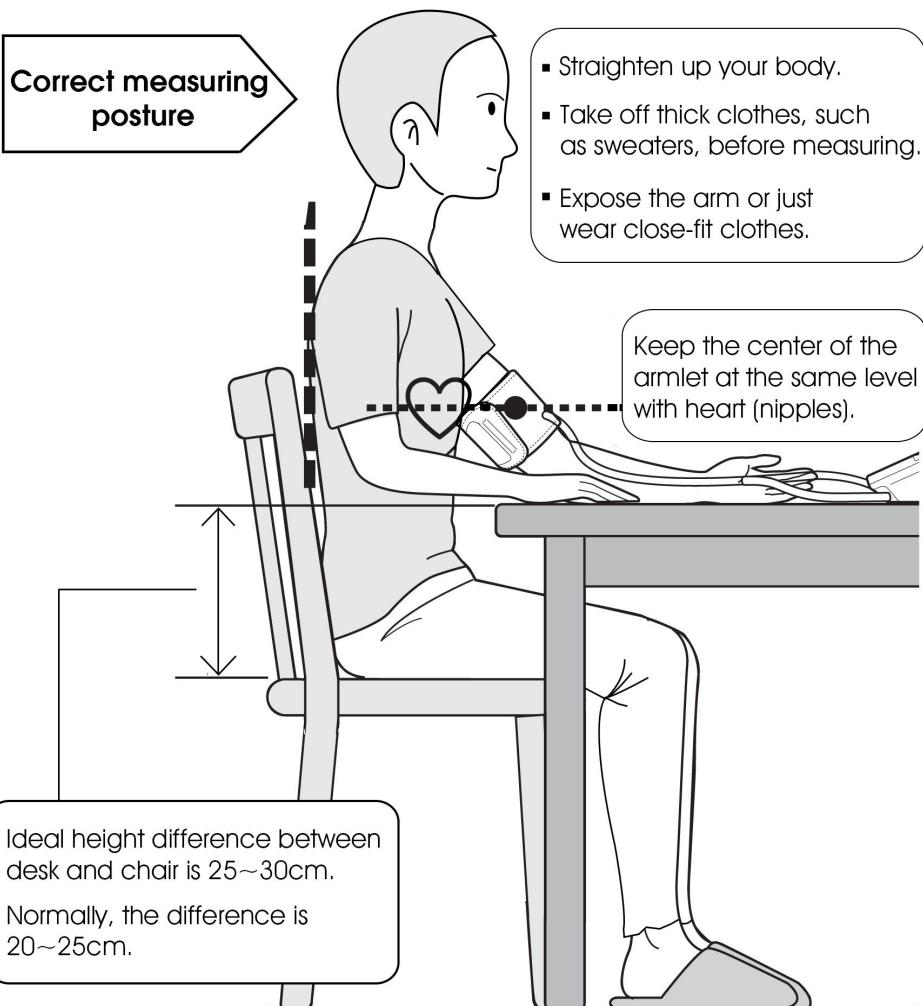
## 1.4 Application method of blood pressure monitor

### Blood pressure measuring:

Left or right arm is OK for measuring.

- ▲ Go to the toilet first.
- ▲ Measure in a room with appropriate temperature.

Range of application: human blood pressure and pulse measuring



### Key points of blood pressure measuring

- Bind the armlet correctly for precise measurement
- Measure at the same time period every day  
( ※It's advised to measure one hour after getting up and before going to sleep )
- Sit straight on the chair in a relaxed way.

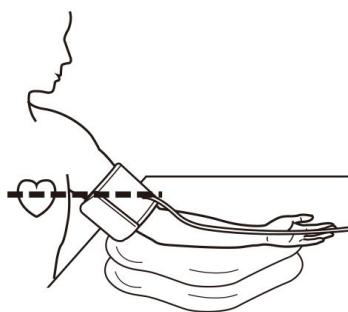
### Incorrect postures

- Bending down (leaning forward)
- Cross the legs
- Sit on the sofa or bend to the low table



Because of the abdominal pressure or the arm position lower than the heart, the blood pressure increases.

※If the armlet center is lower than the heart, adjust the arm position with cushion.



## 2.1 Mobile Software Installation

MUMU software application has versions both for Android and iOS systems.

Users can install via the methods below.

Download: <http://www.mymumu.com/index.php/Download>

Two-dimensional bar code download:



## 2.2 Blood Pressure Measuring

Blood pressure monitor is controlled by the software application in the phone and measurement results are stored in the phone. It's suggested to measure the blood pressure regularly every day, like both in the morning and evening.

### ※ Before measuring blood pressure

1. Avoid eating, drinking alcohol, smoking, exercising and bathing for 30 minutes before taking a measurement.
2. Stress raises blood pressure. Avoid taking measurements during stressful times.
3. The cuff can be applied to your left or right arm. Always measure your blood pressure on the same Arm.
4. Measurements should be taken in a quiet place.
5. Position the unit at heart level throughout the measurement.
6. Remain still and do not talk during the measurement.
7. Keep a record of your blood pressure and pulse readings for your physician. A single measurement does not provide an accurate indication of your true blood pressure. You need to take and record several readings over a period of time. Try to measure your blood pressure at the same time each day for consistency.

8. Wait 30~60 seconds between measurements. The wait time allows the arteries to return to the condition prior to taking the blood pressure measurement. You may need to increase the wait time depending on your individual physiological characteristics.

### ※ Preparation

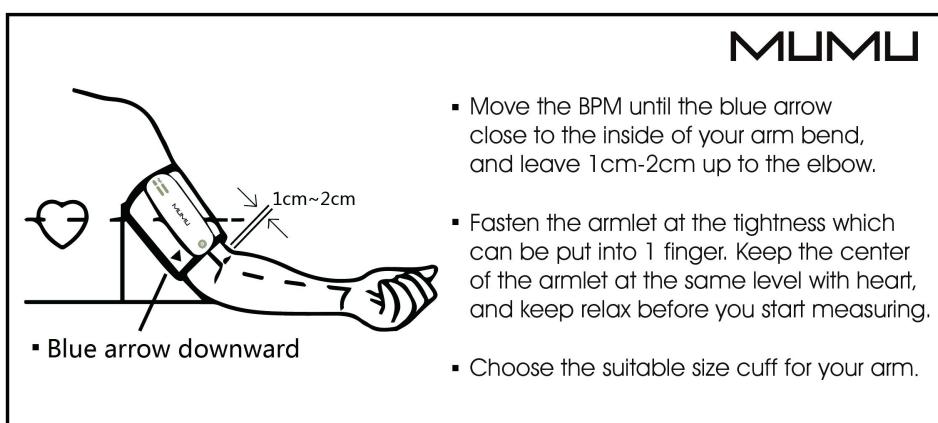
MUMU software application connects to MUMU-BP monitor via Bluetooth. iPhones need to support Bluetooth LE 4.0, and Android phones need to support Bluetooth 2.1.

### ※ Switch on the monitor

Open the MUMU software application in the Android phone or iPhone and enter into the measurement window.

Bind the armlet onto the arm correctly.

Press the monitor button to switch it on with blue light flashing and wait for connecting to software application.



### ※ Start to measure

Press “measure” button in the MUMU software application to start measuring the blood pressure. Measurement can be done repeatedly. If every other measurement interval is over ten minutes, the monitor should be rebooted.

### ※ Turn off the Unit

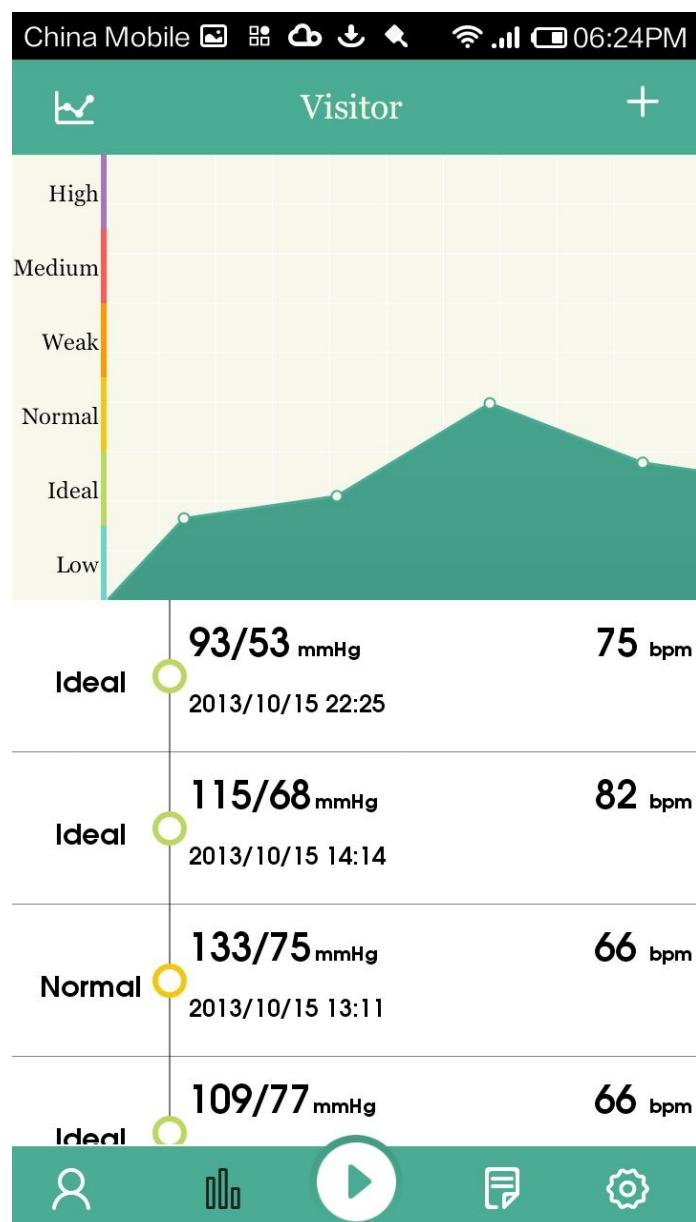
Press the power button  for 3 seconds, it can turn off the unit.

The unit also can power off automatically after the Bluetooth has disconnected for 2 min.

## 2.3 Historical Data Display

Save the measurement results after measuring the blood pressure.

You can view the historical data in the data window with a simple and clear graph. Click the button of summary on the left upper corner, and you can view the trend in recent one week, one month, three months or one year.



## 2.4 Cloud Storage

In the settings, you can log on by family account and the measurement data can be uploaded to the cloud and realize data sharing both on computers and cell phones.



## 2.5 Other Functions of Mobile Software

Measurement results are stored in the cell phones. You can view the data in graphs and share the data.

### ※ Accurate measurement

Medical monitor measuring technology is adopted to guarantee accurate measurement.

### ※ Smart reminders

You can set reminders for measurement. Advise to set at 6-9am and 16-18pm.

### ※ Cloud storage

Upload the data via Bluetooth. Permanent storage is in the unlimited cloud.

### ※ Multi-users

Measurement data of family and friends can share with each other.

### ※ Real-time sharing

You can get the system notifications of your family members measuring in another location.

### ※ Health services

Analyze the measurement results free of charge and offer advices on food and health care.

## 3.1 Q&A for Blood Pressure Measurement

**Q: Why the measurement result at home is lower than that in hospital?**

**A People will get nervous when measuring in hospital.**

Because people at home is stable in mood, the measurement of blood pressure is sometimes  $20\text{mmHg} \sim 30\text{mmHg}$  lower than that in the hospital.

It's important to know the normal blood pressure at home.

**A In the case that the armlet is higher than the heart**

If the desk or platform is too high, it will result in the position of armlet higher than heart, and the measurement results will be lower.

**Q: Why the measurement result at home is higher than that in hospital?**

**A Are you taking hypotensor?**

People who take hypotensor will have relatively higher blood pressure when the drug efficacy loses. Please follow the doctor's instructions.

**A Is the position of armlet correct?**

When the location of armlet is wrong, it cannot capture the artery signal and thus the blood pressure measurement is higher. Please confirm the blue triangle location.

**A Is the armlet too loose?**

If the armlet is loose, the pressure cannot be transferred to the artery.

Thus the measurement results are higher than the actual value. There should be no gap between arm and armlet.

**A Is the posture correct?**

Bending, crossing legs, or sitting on sofa or bending down towards the low table will lead to higher measurement results because of the abdominal pressure or armlet location lower than heart.

**Q: Why do I get different results after each measurement?**

**A Do you measure at the same period every day?**

Measurement after even ten seconds will have a different result. In order to manage the blood pressure correctly, please measure at the same period every day.

**A Blood pressure will fluctuate because of various reasons.**

Even at home the following cases will lead to different results.

Within one hour after having dinner; drink alcohol; have coffee or brown tea; after taking a cigarette; after taking a bath;

After exercises; after toilet; talk in the measuring process; anxiety;

Sudden temperature change; different locations from the usual

**Q: Why the arm feels painful and numb when binding the armlet?**

**A It's temporary. Don't worry.**

When measuring blood pressure, it's necessary to bind the armlet tight on

the arm to stop blood flow temporarily. Thus the arm might feel painful or numb. After taking off the armlet it will get better quickly.

**A Do you have blood congestion when measuring constantly?**

The finger tips might have blood congestion due to pressure on the arm. If so, loose the armlet and raise the hands over the head. Clench and stretch the hands repeatedly for 15 times then the blood congestion will be gone.

**Q: When is the best time for measuring blood pressure?**

**A The best time is 6-9am or 16-18pm.**

If measuring in the morning, please measure within one hour after getting up, and after urinating and before the breakfast (if taking hypotensor, before it).

If at other time, it's better to measure when the body and mood are stable.

Moreover, it's advised to measure in the same period every day.

**Q: Are there any tips for managing blood pressure at home?**

**A Apart from recording the blood pressure values, it can also record the medicine taking and living status.**

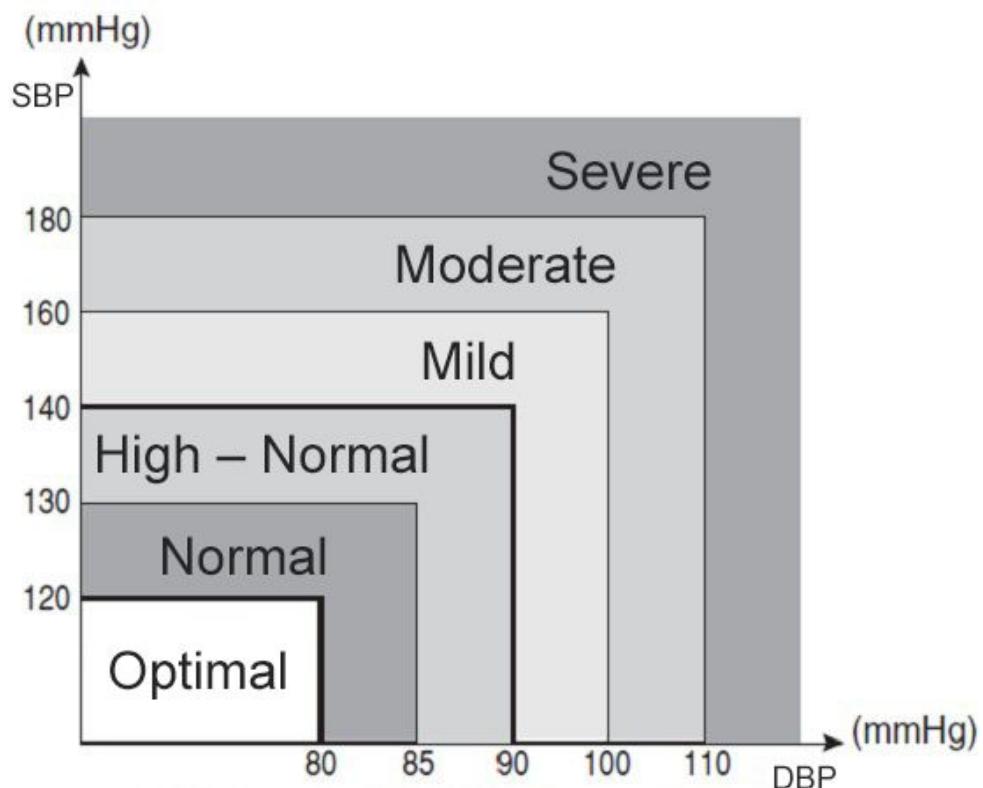
The mobile software can record the results and show them in graph for easier management and diagnosis by the doctor. For the correct judgment, please do not only record the blood pressure, but also the actual

conditions, including taking hypotensor and living status.

### Tips of blood pressure

#### Classification standard of blood pressure

WHO and ISH have formulated the blood pressure classification in the graph below. It's measured in the hospital of the upper-arm and different ages. There's no definition of low blood pressure. But, normally we think people whose high pressure value is not over 100mmHg are low pressure.



※According to WHO/ISH criterion(1990 revised edition)  
International Society of Hypertension

**Note: For detailed tips of blood pressure, please browse the mobile software.**

## 3.2 Troubleshooting

Abnormal situations	Possible Causes	Solution
Indicator light is not on after the button is pressed	Out of battery or no battery	Recharge
Red light flashes after the button is pressed	Low battery voltage	Recharge
Cannot connect to software after pressing the button	Red light flashing, then low battery voltage	Recharge
	Blue light on, other cell phones are connected	Press the button long to switch off the monitor and reboot. Blue light flashing, open the software to connect.
Software error, find no monitor	Monitor might be in sleep or switch off automatically with blue light off	Switch on, blue light flashing and open the software to connect.
	If it is iPhone, the hardware is possible too old.	Support iPhone 4S and later phones and iPads.
Abnormal measurement result of blood pressure (too high or too low)	Cuff is not applied correctly.	Bind the cuff correctly.
	Talking or moving arms during measurement.	Retest, stay quietly and do not move during measurement.
	The rolled-up clothes press on the arm.	Take off the clothes and retest.
No pressurizing of the monitor	Leakage of cuff	Change a new cuff
	Wrong connection of cuff	Connect correctly
Exhaust air too fast	Loose wrapping of the cuff	Wrap the cuff tightly. If not, extra pressure is on the cuff and its service lift will be shorter.
Power off suddenly during pressurizing	The monitor is not used for a long time. Temperature change results to entire consumption of battery.	Recharge

The monitor works well and measure correctly. ·The results are higher or lower than that measured in hospital ·Different results every time	Refer to Q&A
Other cases	Reboot and retest. If it still doesn't work, contact the seller

※Few customers cannot measure normally due to physical changes in the body. In this case please contact the seller.

### 3.3 Maintenance and Storage

Please follow the notices in the manual and other correct using ways. If not, we will not bear the responsibility.

#### Maintenance suggestions

- Do not use volatile oil, diluents and gasoline, etc. to scrub the monitor.
- Do not wash or wet the armlet.
- If dirt is found on the monitor, please use dry soft cloth after wringing out the water or neutral solvent as much as possible.

#### Storage suggestions

Do not store the monitor in the places listed below:

- Locations with easy contact to water.
- Locations with direct sunlight, high temperature, humidity, dust, and corrosive gases.
- Slopes, unstable locations and places that might be impacted.
- Locations close to medicines or corrosive gases.
- If the monitor is not used for over six months, please charge the battery to 70% or 80% first and check if it's necessary to recharge every half year.

## 3.4 Specification

Product name	UPPER-ARM WIRELESS BLOOD PRESSURE MONITOR
Product model	MUMU-BP1/MUMU-BP2
Display	iOS/Android smartphone
Measuring method	Oscillometric
Measuring range	Cuff pressure: 0 ~ 299mmHg (0kPa~39.9kPa)
	Pulse rate: 40 ~ 200 beats/min
Accuracy	Pressure: $\pm 3\text{mmHg}$ ( $\pm 0.4\text{kPa}$ )
	Pulse rate: $\pm 5\%$
Inflation type	automatic inflation
Deflation type	Automatic ladder deflation
Measuring time	Up to 120 seconds
Power	3.7V, 760mAh Polymer rechargeable battery
Automatic power-off	Power shutoff automatically after the Bluetooth has disconnected for 2min.
Charging Power	5V/1.0A
Operating condition	5°C to 40°C, 30% to 85%RH, no condensation; Atmospheric Pressure: 700 to 1060hPa Altitude: not exceed 3000m
Storage and transport condition	-20°C to 60°C, 10% to 95%RH, no condensation; Atmospheric Pressure: 700 to 1060hPa
Weight	220g (MUMU-BP2) including the battery
Machine size	approx. 130mm*45mm*30mm (MUMU-BP2)
Cuff circumference	approx. 220mm ~ 320mm Please contact sales staff for special circumference
Accessory	Armlet, usb cable, instructions

**Note: The specification is subject to change without notice.**

## 3.5 Cleaning

### Cleaning

1. When the product covers dust, use a clean duster cloth to gently wipe the dust away.
2. When cleaning the product enclosure and cuff, do not use hard objects or aerosol cleaners, please use the clean cloth to clean.
3. Clean the product and cuff every week or every two weeks based on the operating environment.
4. Do not wet the cuff or attempt to clean the cuff with water.

**Caution: Please turn off the machine and cut off the power before doing the cleaning.**

## 3.6 Statement

- 1** The unit satisfies the requirements of EN60601-1: Medical electrical equipment Part 1: General requirements for basic safety and essential performance; EN60601-1-2: Medical electrical equipment Part 1-2: General requirements for basic safety and essential performance – Collateral standard: Electromagnetic compatibility – Requirements and tests; EN1060-1: Non-invasive sphygmomanometers – Part 1: General requirements; EN1060-3: Non-invasive sphygmomanometers – Part 3: Supplementary requirements for electro-mechanical blood pressure measuring system. EN1060-4: Non-invasive sphygmomanometers – Part 4: Test procedures to determine the overall system accuracy of automated non-invasive sphygmomanometers.
- 2** The Unit complies with IEC 80601-2-30.
- 3** The unit had pass EMC test.
- 4** The risk of patient and user can be lowered to acceptable level.
- 5** Substitution of a cuff different from that supplied might result in measurement error.
- 6** Specifications are subject to change without notice due to improvements in performance.
- 7** The unit might not meet its performance specifications if stored or used outside the following specified temperature and humidity ranges.

## 3.7 Warranty Information

**1 For repair under this warranty.** Our authorized service agent must be advised of the fault within the period of the warranty. This warranty covers parts and labor only under normal operations. A transportation fee or freight fee that may be incurred will be the owner's responsibility. Any defect resulting from natural causes, e.g., flood, hurricane etc., is not within this guarantee. This guarantee does not cover damage incurred by: use of the unit not in accordance with the instructions, accidental damage, or being tampered with or serviced by unauthorized service agents.

**2 Unit subjected to misuse, abuse, and neglect of these manual content, non-instructional purposes; unauthorized repair or modifications will be excluded from this warranty.** This guarantee specifically excludes expendables and consumables, for example batteries. All warranty claims must be directed to the distributor responsible for the sale of the device. The content of this warranty is subject to change without further notice.

**3 Periodical check:**

Sensitive measuring devices must be checked from time to time for accuracy and leakage, we therefore recommend that the performance should be checked every 2 years. Check and maintenance and repair for the unit, please contact the local distributor for details.

**4 It can't be used while the wrist (arm) has bleeding or wound to avoid the blood flowing from the wound in pressurizing.**

**5 Applied parts contains cuff.**

**6 Protection Class: Internally powered equipment.**

**7 Moisture Protection: IP21, continue operation.**

**8WARNING: No modification of this equipment is allowed.**

**9Guidance and manufacturer's declaration – electromagnetic emissions**

**Guidance and manufacturer's declaration – electromagnetic emissions**

The BLOOD PRESSURE MONITOR is intended for use in the electromagnetic environment specified below. The customer or the user of the BLOOD PRESSURE MONITOR should assure that it is used in such an environment.

<b>Emissions</b>	<b>Compliance</b>	<b>Electromagnetic environment-- guidance</b>
RF emissions CISPR 11	Group 1	The 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 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 IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

**Guidance and manufacturer's declaration – electromagnetic immunity**

<b>Guidance and manufacturer's declaration – electromagnetic immunity</b>			
<b>Immunity test</b>	<b>IEC 60601 test level</b>	<b>Compliance level</b>	<b>Electromagnetic environment --guidance</b>
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines and patient coupled lines	±2 kV for power supply lines and patient coupled lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge	±1 kV line(s)	±1 kV line(s) and	Mains power quality should be

IEC 61000-4-5	and neutral	neutral	that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % $U_T$ (>95 % dip in $U_T$ ) for 0,5 cycle 40 % $U_T$ (60 % dip in $U_T$ ) for 5 cycles 70 % $U_T$ (30 % dip in $U_T$ ) for 25 cycles <5 % $U_T$ (>95 % dip in $U_T$ ) for 5s	<5 % $U_T$ (>95 % dip in $U_T$ ) for 0,5 cycle 40 % $U_T$ (60 % dip in $U_T$ ) for 5 cycles 70 % $U_T$ (30 % dip in $U_T$ ) for 25 cycles <5 % $U_T$ (>95 % dip in $U_T$ ) for 5s	Mains power quality should be that of a typical commercial or hospital environment. If a dips or an interruption of mains power occurs, the current of the BLOOD PRESSURE MONITOR may be dropped off from normal level, it may be necessary to use uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	3A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE $U_T$ is the a.c. mains voltage prior to application of the test level			

#### Guidance and manufacturer's declaration – electromagnetic immunity

Guidance and manufacturer's declaration – electromagnetic immunity			
The BLOOD PRESSURE MONITOR is intended for use in the electromagnetic environment specified below. The customer or the user of the BLOOD PRESSURE MONITOR should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the BLOOD PRESSURE MONITOR, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = 1,2\sqrt{P}$
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	$d = 1,2\sqrt{P}$ 80 MHz to 800 MHz

			$d = 2,3\sqrt{P} \quad 800 \text{ MHz to } 2,5 \text{ GHz}$ <p>where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation Distance in metres (m).</p> <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,a should be less than the compliance level in each frequency range.b</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
<p>NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>	<p>a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the BLOOD PRESSURE MONITOR is used exceeds the applicable RF compliance level above, the 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 BLOOD PRESSURE MONITOR.</p> <p>b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.</p>		

**Recommended separation distances between  
portable and mobile RF communications equipment and the BLOOD PRESSURE  
MONITOR**

**Recommended separation distances between  
portable and mobile RF communications equipment and the BLOOD PRESSURE  
MONITOR**

The 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 BLOOD PRESSURE MONITOR can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the BLOOD PRESSURE MONITOR as recommended below, according to the maximum

output power of the communications equipment.			
<b>Rated maximum output power of transmitter W</b>	<b>Separation distance according to frequency of transmitter m</b>		
	<b>150 kHz to 80 MHz</b> $d = 1,2\sqrt{P}$	<b>80 MHz to 800 MHz</b> $d = 1,2\sqrt{P}$	<b>800 MHz to 2.5 GHz</b> $d = 2,3\sqrt{P}$
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 separation distance <math>d</math> in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where <math>P</math> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.</p> <p>NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.</p> <p>NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.</p>			

## 3.8 Symbol

SYMBOLS	MEANS
 <b>WARNING</b>	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the equipment or other property.
	Type BF Applied Part
	AUTHORISED REPRESENTATIVE IN THE EUROPEAN COMMUNITY
	MANUFACTURER
	CE Mark
	<p>The marking of electrical and electronics devices according to Directive 2002/96/EC.</p> <p>The device, accessories and the packaging have to be disposed of waste correctly at the end of the usage.</p> <p>Please follow Local Ordinances or Regulations for disposal</p>
	Refer to User Manual.

**CE 0120**