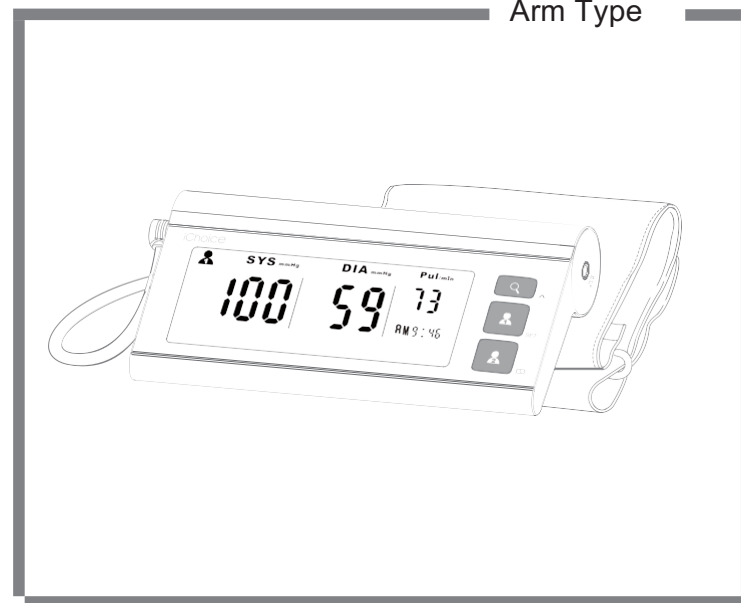


# User's Manual

## Blood Pressure Monitor

Arm Type



Contains FCC ID: OU9AW8001-LS  
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Revised Date: June 18, 2016  
Ver 1.0

- Thank you very much for selecting iChoice Blood Pressure Monitor LS805-B.
- Please do read manual **iChoice** the user carefully and thoroughly so as to ensure the safe usage of this product, and keep the manual well for further reference in case you have problems.

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## ♥ General Description

Thank you for selecting iChoice Wireless blood pressure monitor. The monitor features blood pressure measurement, pulse rate measurement and the result storage. The design provides you with two years of reliable service. Readings taken by the monitor are equivalent to those obtained by a trained observer using the cuff and stethoscope auscultation method. This manual contains important safety and care information, and provides step by step instructions for using the product. Read the manual thoroughly before using the product.

Features:

- 125mm x 47mm Blue LCD display with white backlight
- Up to 60 pieces of record stored for each user
- Measuring during inflation technology

## ♥ Indications for Use

1. The iChoice Wireless Blood Pressure Monitor is digital monitors intended for use in measuring blood pressure and heartbeat rate with arm circumference ranging from 22 cm to 32 cm ( about 8¾"-12½" ) .
2. The monitor detects the appearance of irregular heartbeats during measurement and gives a warning signal with readings.
3. It is intended for adult use in the home/domestic setting only.

## ♥ Contraindications











1. The device is contraindicated for any person who is connected to a wearable or implantable electronic device or instrument such as a pacemaker or defibrillator.
2. The device is not intended to be a diagnostic device. Contract your physician if hypertensive values are indicated.

## ♥ Measurement Principle

This product uses the Oscillometric Measuring method to detect blood pressure. Before every measurement, the unit establishes a “zero pressure” equivalent to the air pressure. Then it starts inflating the arm cuff, meanwhile, the unit detects pressure oscillations generated by beat-to-beat pulsatile, which is used to determine the systolic and diastolic pressure, and also pulse rate. The device also compares the longest and the shortest time intervals of detected pulse waves to mean time interval then calculates standard deviation. The device will display a warning signal with the reading to indicate the detection of irregular heartbeat when the difference of the time intervals over.

## ♥ Safety Information

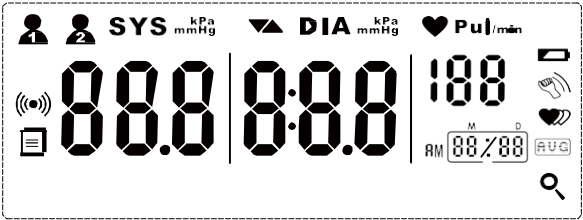
The signs below might be in the user manual, labeling or other component. They are the requirement of standard and using.

	Symbol for “THE OPERATION GUIDE MUST BE READ”		Symbol for “TYPE BF APPLIED PARTS”
	Symbol for “MANUFACTURER”		Symbol for “ENVIRONMENT PROTECTION – Electrical waste products should not be disposed of with household waste. Please follow local guidelines.”
	Symbol for “SERIAL NUMBER”		Symbol for “DIRECT CURRENT”
	Symbol for “MANUFACTURE DATE”		Symbol for “Including RF transmitter”
	Caution: These notes must be observed to prevent any damage to the device.	<b>IP22</b>	Ingress of Protection
	Storage & transportation condition		

♥ LCD Display Signal

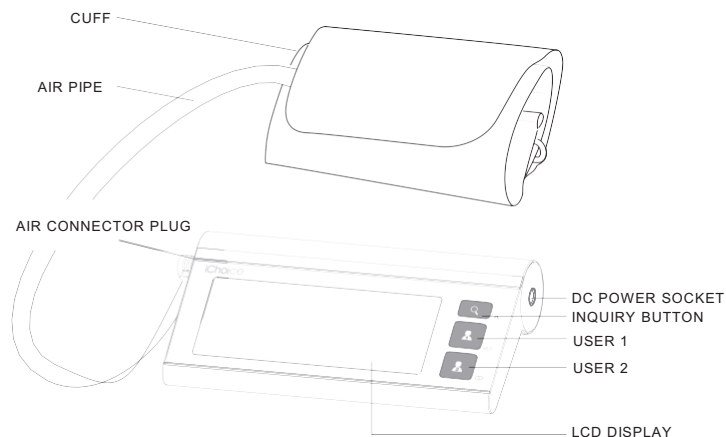
⚠ CAUTION

This device is intended for adult use only.  
This device is intended for no-invasive measuring and monitoring of arterial blood pressure.  
It is not intended for use on extremities other than the arm or for functions other than obtaining a blood pressure measurement.  
Do not confuse self-monitoring with self-diagnosis. This unit allows you to monitor your blood pressure. Do not begin or end medical treatment without asking a physician for treatment advice.  
If you are taking medication, consult your physician to determine the most appropriate time to measure your blood pressure. Never change a prescribed medication without consulting your Physician.  
When the device was used to measure patients who have common arrhythmias such as atrial or ventricular premature beats or atrial fibrillation, the best result may occur with deviation. Please consult your physician about the result.  
If the cuff pressure exceeds 40 kPa (300 mmHg), the unit will automatically deflate. Should the cuff not deflate when pressures exceeds 40 kPa (300 mmHg), detach the cuff from the arm and press the corresponding user button to stop inflation.  
The equipment is not AP/APG equipment and not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide.  
The operator shall not touch output of batteries /adapter and the patient simultaneously.  
To avoid measurement errors, please avoid the condition of strong electromagnetic field radiated interference signal or electrical fast transient/burst signal.  
The user must check that the equipment functions safely and see that it is in proper working condition before being used.  
This device is contraindicated for any female who may be suspected of, or is pregnant. Besides providing inaccurate readings, the effects of this device on the fetus are unknown.  
Manufacturer will make available on request circuit diagrams, component parts list etc.  
This unit is not suitable for continuous monitoring during medical emergencies or operations.  
Otherwise, the patient's arm and fingers will become anaesthetic, swollen and even purple due to a lack of blood.  
Please use the device under the environment which was provided in the user manual. Otherwise, the performance and lifetime of the device will be impacted and reduced.  
During use, the patient will be in contact with the cuff. The materials of the cuff have been tested and found to comply with requirements of ISO 10993-5:2009 and ISO 10993-10:2010. It will not cause any potential sensitization or irritation reaction.  
Please use ACCESSORIES and detachable partes specified/ authorised by MANUFACTURE.  
Otherwise, it may cause damage to the unit or danger to the user/patients.  
The device doesn't need to be calibrated within the two years of reliable service.  
Please dispose of ACCESSORIES, detachable parts, and the ME EQUIPMENT according to the local guidelines.  
If you have any problems with this device, such as setting up, maintaining or using, please contact the SERVICE PERSONNEL of iChoice. Don't open or repair the device by yourself.  
Please report to iChoice if any unexpected operation or events occur.  
Please use the soft cloth to clean the whole unit. Don't use any abrasive or volatile cleaners.



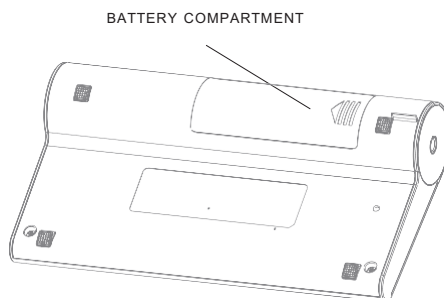
SYMB	DESCRIPTION	EXPLANATION
<b>SYS</b>	Systolic Blood Pressure	High blood pressure
<b>D A</b>	Diastolic Blood Pressure	Low blood pressure
<b>Pul/min</b>	Pulse per minute	Beats per minute, BPM
	User 1	Start measurement save and transmit the measuring result for user 1
	User 2	Start measurement, save and transmit the measuring result for user 2
	Heartbeat	Heartbeat detection during the measurement
	Data Pending to Transmit	Measurement data stored in the
	Data Transmitting	Data is transmitting
	Average Value	Average value of last three measurements
	Shocking reminder	Shocking will result in inaccurate
	Low Battery	Low battery and please replace the batteries
	Unit	Measurement unit of blood pressure (1mmHg=0.133kPa) (1kPa=7.5mmHg)
	Current Time	Month/Day (Hour : Minute)
	Deflating	Exhaust the air in the cuff
	Data Enquiry Mode	Recall the records
	Irregular Heartbeat	Irregular Heartbeat Detection
	Memory	Display the serial number of the measurement

## ♥ Monitor Components



Component list of pressure measuring system

- 1 Cuff
- 2 Air pipe
- 3 PCBA
- 4 Pump
- 5 Valve



## ♥ List

1. Blood Pressure Monitor



3. 4×AAA batteries



2. Cuff (Type BF applied part) (22cm-32cm)

(Please use iChoice authorized cuff. The size of the actual cuff please refer to the label on the attached cuff.)



4. User manual

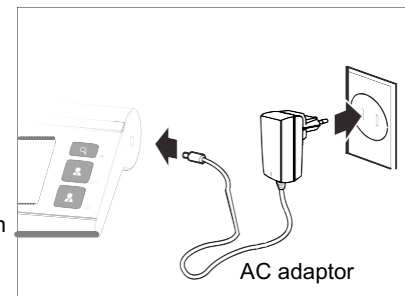
## ♥ The Choice of Power Supply

1. Battery powered mode:  
6V DC 4×AAA batteries
2. AC adaptor powered mode:  
6V = 1A  
(Can be supplied by AC adaptor model UE08WCP-060100SPA !)(Not Included)

Please unplug the adaptor to depart from the using utility power.

Note:

The adaptor interface is located on the right side of the monitor. Place NO obstacles on the right side for easy pull-off adaptor.

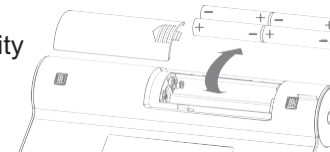


### ⚠ CAUTION

In order to achieve the best performance and protect your monitor, please use the authorized / specified battery and power adaptor.

## ♥ Installing and Replacing the Batteries

1. Open the battery door.
2. Insert the batteries according to the polarity indications.
3. Close the battery door.



Replace the batteries under following circumstances:

- displays on the LCD.
- The LCD display dims.
- When powering on the monitor, the LCD doesn't light up.

### ⚠ CAUTION

- Remove batteries if the device is not likely to be used for some time.
- Worn batteries are harmful to the environment. Do not dispose with daily garbage.
- Remove the old batteries from the device following your local recycling guidelines.
- Do not dispose of batteries in fire. Batteries may explode or leak.

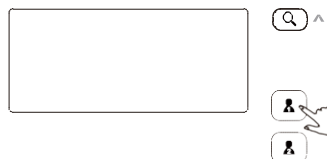
## ♥ Setting Date, Time and Measurement Unit

Please proceed to time setting before your initial use so as to ensure each piece of record is labeled with a time stamp.

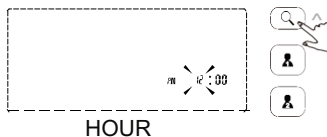
NOTE: The monitor will shut off in 60 seconds after last operation when in Setting Interface.

1. When the monitor is OFF, press and hold "User 1" button to enter

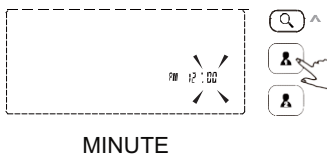
Time Setting Mode.



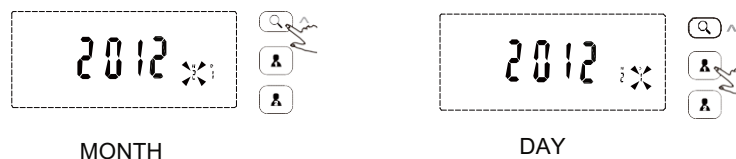
2. As picture on the right, the blinking numeral represents the [HOUR]. Press "Query" button to change the numeral. Each press will increase the numeral by one in a cycling manner.



3. Press "User 1" button to confirm the [HOUR]. Then the monitor diverts to [MINUTE] setting.



4. Repeat steps 2 and 3 to confirm the [MINUTE]. Then the monitor diverts to [MONTH] and [DAY] setting.



5. Repeat steps 2 and 3 to confirm [MONTH] and [DAY]. Then the monitor diverts to [YEAR] setting.



6. Repeat steps 2 and 3 to confirm [YEAR]. Then the monitor diverts to [UNIT] setting.





7. After confirming the measurement unit, the LCD will display "dOnE" and the monitor will shut off.




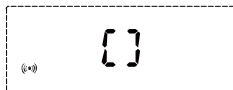
## ♥ Install App and Pair-Up

Before you start pairing, please download the app from APP Store or Google Play in your mobile device which supports Bluetooth 4.0 technology first.

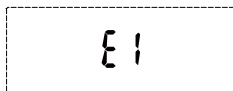
1. Turn on Bluetooth and the App. Make sure both are ON when pair-up is proceeding.
2. When the monitor is off, press and hold "User 2" button to start pair-up. Symbol  and symbol  will be shown on the LCD alternatively, indicating Pair-up is proceeding.



If SUCCEED, symbol  will be shown on the LCD.



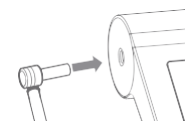
If FAIL, symbol  will shown on the LCD.



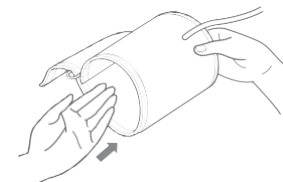
**Bluetooth Module No.:** AW8001  
**RF Frequency Range:** 2402 MHz to 2480 MHz  
**Output Power Range:** 0 dBm  
**Supply Voltage:** 1.8-3.6 V  
**Transmitting Distance:** 10 meters

## ♥ Apply the Cuff

1. Insert the plug of cuff's air pipe into the interface located on the right side of the monitor.

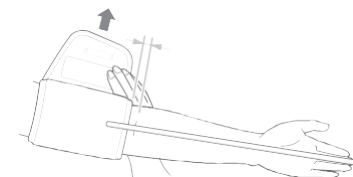


2. As pictured on the right, wear the cuff on your upper arm.



3. Tighten the cuff up. Make sure the cuff is fixed 2 to 3 centimeters above your elbow.

Appropriate to insert one finger when the cuff is tightened around your arm.



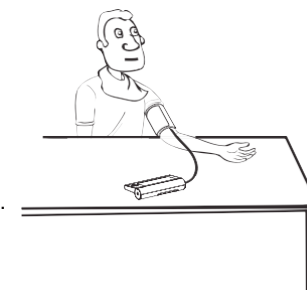
4. Correct Posture:

Bare your arm or wear tights only when starting measurement.

Sit comfortably and relaxed on a proper-size chair.

The center of the cuff should be at the same level as your heart.

Legs relaxed with the feet falling outwards. Palms up.



## ♥ Start the Measurement

After correctly positioning the cuff, when the monitor is off, press "User 1" (or "User 2") button to turn on the monitor, and it will complete the measurement process.

1.LCD display



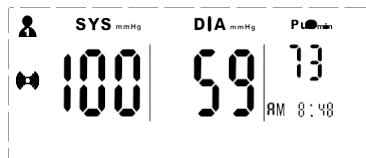
2.Adjust to zero.



3.Inflating and measuring.



4.Display and save the results, and the data will be transmitted.



5. Press "User 1" ("User 2") button to turn off the monitor. Otherwise, the monitor will shut off within 1 minute after last operation.

Tips:

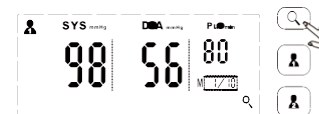
- A.When finishing the whole measurement, press another user button, the blood pressure monitor will begin measuring again.
- B.Maximum 60 records are both for user 1 and user 2.

## ♥ Recall the Records

1.When the monitor is OFF, press "Query" button to retrieve the memory. The monitor will display the average value of latest three measurements.



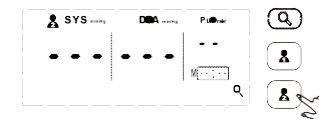
2. Press "Query" button again to rotate the records. Up to 60 records will be stored under each user ID. The order of the record, date and time will be displayed alternatively.



3. Press another user button to switch to display another user's measurement data.



4. When User 2 has no record, the LCD will display just like the picture on the right.



5. Press the corresponding User ID button to turn off the monitor. Otherwise, the monitor will shut off within 1 minute after last operation.

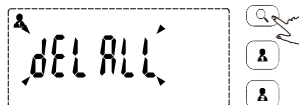
### ⚠ CAUTION

The most recent record (1) is shown first. Each new measurement is assigned to the first (1) record. All other records are pushed back one digit (e.g., 2 becomes 3, and so on), and the last record (60) is dropped from the list.





## ♥ Delete the Records


1. When under data enquiry mode, press and hold "Query" button for 3 seconds to clear memory. The LCD will display the blinking "dEL ALL".
2. Press "Query" button to confirm clearing memory. The LCD will display "dEL dOnE" indicates that the deletion is complete, and then turn off.
3. If you wish to stop clearing the memory, you may press the other button, rather than "Query" button to turn off the monitor, or wait until the monitor shuts off.



## ♥ Data Transmission

1. With successfully pair-up with your mobile device with Bluetooth 4.0 technology, the measurement data will be automatically transmitted to your mobile device via Bluetooth.
2. The symbol  will disappear after successful data transmission, and you may check your personal health data stored in your mobile device.
3. If the data transmission fails, the symbol  will remain. The pending measurement data will be transmitted to your mobile device when next measurement is complete.

### ⚠ CAUTION

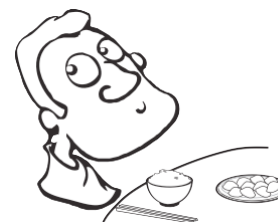
- Interference may occur in the vicinity of equipment marked with the following symbol . And the monitor may interfere vicinity electrical equipment.
- To enable the data transmission function, this product should be paired to a Bluetooth end at 2.4 GHz.

### How to mitigate possible interference?

1. The range between the monitor and the Bluetooth end should be reasonably close, from 1 meter to 10 meters. Please ensure no obstacles between the monitor and the Bluetooth end so as to obtain quality connection.
2. To avoid interference, other electronic devices (particularly those with Bluetooth transmission / Transmitter) should be kept at least 1 meter away from the monitor.

## ♥ Tips for Measurement

Measurements may be inaccurate if taken in the following circumstances.



Within 1 hour  
after dinner or drinking



Immediate measurement  
after tea, coffee,  
smoking



Within 20 minutes  
after taking a bath



When talking or moving your fingers



In a very cold environment



When you want to discharge urine



## ♥ Maintenance

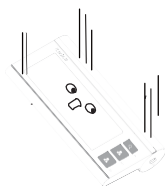
To obtain the best performance, please follow instructions below.



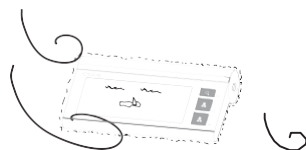
Put in a dry place and avoid the sunshine



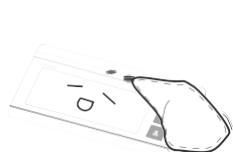
Avoid immersing it in the water. Clean it with a dry cloth in case.



Avoid shaking and collisions



Avoid dusty environment and unstable temperature surrounding.



Use the slightly damp cloth to remove the dirt.

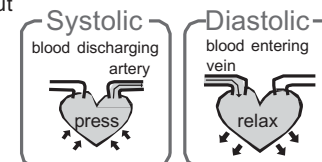


Avoid washing the cuff.



## ♥ What are systolic pressure and diastolic pressure?

When ventricles contract and pump blood out of the heart, the blood pressure reaches its maximum value in the cycle, which is called systolic pressure. When the ventricles relax, the blood pressure reaches its minimum value in the cycle, which is called diastolic pressure.



## ♥ What is the standard blood pressure classification?

The chart on the right illustrates the blood pressure classification mode by American Heart Association (AHA).

The AHA recommends the following guidelines for upper limit of normal blood pressure readings at home.

This chart reflects blood pressure categories defined by American Heart Association.

Blood Pressure Category	Systolic mmHg (upper#)		Diastolic mmHg (lower#)
Normal	less than 120	and	less than 80
Prehypertension	120-139	or	80-89
High Blood Pressure (Hypertension) Stage 1	140-159	or	90-99
High Blood Pressure (Hypertension) Stage 2	160 or higher	or	100 or higher
Hypertensive Crisis (Emergency care needed)	Higher than 180	or	Higher than 110

### AHA Home Guideline for Upper Limit of Normal

Systolic Blood Pressure	135 mm Hg
Diastolic Blood Pressure	85 mm Hg

## ♥ Irregular Heartbeat Detector

An irregular heartbeat is detected when a heartbeat rhythm varies while the unit is measuring the systolic and diastolic blood pressure. During each measurement, this equipment records the heartbeat intervals and works out the standard deviation. If the calculated value is larger than or equal to 15, the irregular heartbeat symbol appears on the symbol when the measurement results are displayed.



### CAUTION

The appearance of the IHB icon indicates that a pulse irregularity consistent with an irregular heartbeat was detected during measurement. Usually this is NOT a cause for concern. However, if the symbol appears often, we recommend you seek medical advice. Please note that the device does not replace a cardiac examination, but serves to detect pulse irregularities at an early stage.

## ♥ Why does my blood pressure fluctuate throughout the day?

1. Individual blood pressure varies multiple times everyday. It is also affected by the way you tie your cuff and your measurement position, so please take the measurement under the same conditions.

2. If the person takes medicine, the pressure will vary more.

3. Wait at least 3 minutes for another measurement.



## ♥ Why do I get a different blood pressure at home compared to the hospital?

The blood pressure is different even throughout the day due to weather, emotion, exercise etc. Also, there is the "white coat" effect, which means blood pressure usually increases in clinical settings.

What you need to pay attention to when you measure your blood pressure at home:

If the cuff is tied properly.  
If the cuff is too tight or too loose.  
If the cuff is tied on the upper arm.  
If you feel anxious.

Taking 2-3 deep breaths before beginning will be better for measuring.


Advice: Relax yourself for 4-5 minutes until you calm down.



## ♥ Is the result the same if measuring on the right arm?

It is ok for both arms, but there will be some different results for different people. We suggest you measure the same arm every time.

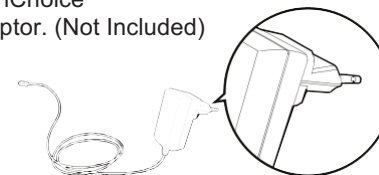
This section includes a list of error messages and frequently asked questions for problems you may encounter with your blood pressure monitor. If the products not operating as you think it should, check here before arranging for servicing.

PROBLEM	SYMPTOM	CHECK THIS	REMEDY
No power	Display will not light up.	Batteries are exhausted.	Replace with new batteries
		Batteries are inserted incorrectly.	Insert the batteries correctly
		AC adaptor is inserted incorrectly.	Insert the AC adaptor tightly
Low batteries	Display is dim or shows 	Batteries are low.	Replace with new batteries
Error message	E 1 shows	Communication error	Check if the APP is on, operate and send the data again.
	E 3 shows	The cuff is not secure.	Readjust the cuff and relax for a moment and then measure again.
	E10 or E11 shows	The monitor detected motion while measuring.	Movement can affect the measurement. Relax for a moment and then measure again.
	E20 shows	The measurement process does not detect the pulse signal.	Loosen the clothing on the arm and then measure again
	E21 shows	The treatment of the measurement failed.	Relax for a moment and then measure again.
	EExx, shows on the display.	A calibration error occurred.	Retake the measurement. If the problem persists, contact the retailer or our customer service department for further assistance. Refer to the warranty for contact information and return instructions.

<b>Power supply</b>	Battery Powered Mode: 6V (4 x AAA-size batteries) AC Adaptor Powered Mode: 6V $\overline{\text{---}}$ 1A (Can be supplied by AC adaptor model UE08WCP-060100SPA!)(Not Included)
<b>Display mode</b>	Blue LCD with White Backlight V.A. = 125mm(L) x 47mm(W)
<b>Measurement mode</b>	Oscillographic testing mode
<b>Measurement range</b>	Pressure: 0mmHg~300mmHg(0kPa-40kPa) Pulse value:(40-199)times/minute
<b>Accuracy</b>	Pressure: 5°C-40°C within $\pm 3$ mmHg (0.4 kPa) Pulse Value: $\pm 5\%$
<b>Working condition</b>	Temperature:5°C-40°C Relative Humidity: $\leq 85\%$ RH Atmospheric Pressure: 86kPa-106 kPa
<b>Storage &amp; transportation condition</b>	Temperature:-20 °C -60 °C Relative Humidity: 10%RH-93%RH Atmospheric Pressure: 50kPa-106 kPa
<b>Measurement perimeter of the upper arm</b>	About 22cm-32cm
<b>External dimensions</b>	Approx.182.5mm×100mm×39mm
<b>Weight</b>	Approx.388g(Excluding the dry cells)
<b>Attachment</b>	4×AAA batteries, user manual
<b>Mode of operation</b>	Continuous operation
<b>Degree of protection</b>	Type BF applied part
<b>Device Classification</b>	Battery Powered Mode: Internally Powered ME Equipment
<b>IP Classification</b>	IP22
<b>Software Version</b>	V01

## ♥ Authorized Component

1. Please use the iChoice authorized adaptor. (Not Included)



### Adaptor

Type: UE08WCP-060100SPA  
Input: 100-240V, 50-60Hz, 400mA  
Output: 6V  $\overline{\text{---}}$  1A  
(Conforms to UL Certification)

## ♥ Contact Information

For more information about our products, please visit [www.i choicelife.com](http://www.i choicelife.com). you can get customer service, usual problems and customer download, iChoice will serve you anytime.

### Distributed by:

Beijing Choice Electronic Technology Co.,Ltd.  
Address: Room 4104, No.A12 Yuquan Road Haidian District  
100143 Beijing P.R.China

## ♥ Complied Standards List

<b>Risk Management</b>	ISO 14971:2007
<b>Labeling</b>	EN 980:2008
<b>User Manual</b>	EN 1041:2008
<b>General Requirements for Safety</b>	IEC 60601-1:2005/A1:2012
<b>Performance and Clinical Requirements</b>	ANSI/AAMI/IEC 80601-2-30:2009 ANSI/AAMI/ISO 81060-2:2009
<b>Electromagnetic Compatibility</b>	IEC 60601-1-2:2007

WARNING: No modification of this equipment is allowed.

## ♥ FCC Statement

Note:

POTENTIAL FOR RADIO/TELEVISION INTERFERENCE (for U.S.A. only)

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

The product 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 the product does cause harmful interference to radio or television reception, which can be determined by turning the product on / off, 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 product and the receiver.
- Connect the product into an outlet on a circuit which is different from what the receiver is connected to.
- Consult the dealer or an experienced radio / TV technician for help.

## ♥ EMC guidance

**Table 1 – Guidance and MANUFACTURER'S declaration – ELECTROMAGNETIC EMISSIONS – for all ME EQUIPMENT and ME SYSTEMS**

Guidance and manufacturer's declaration – electromagnetic emissions		
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 2	The device must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.
RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

**Table 2 Guidance and MANUFACTURER'S declaration – electromagnetic IMMUNITY – for all ME EQUIPMENT and ME SYSTEMS**

Guidance and manufacturer's declaration – electromagnetic immunity			
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment			
IMMUNITY test	IEC 60601 test level	Compliance level	Electromagnetic environment -
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
Electrical fast transient/burst IEC	±2 kV for power supply lines ±1 kV for input/output	±2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	±1 kV line(s) to line(s)	Mains power quality should be 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 <sub>T</sub> (>95% dip in U <sub>T</sub> ) for 0.5 cycle 40% U <sub>T</sub> (60% dip in U <sub>T</sub> ) for 5 cycles 70% U <sub>T</sub> (30% dip in U <sub>T</sub> ) for 25 cycles <5% U <sub>T</sub> (>95% dip in U <sub>T</sub> )	<5% U <sub>T</sub> (>95% dip in U <sub>T</sub> ) for 0.5 cycle 40% U <sub>T</sub> (60% dip in U <sub>T</sub> ) for 5 cycles 70% U <sub>T</sub> (30% dip in U <sub>T</sub> ) for 25 cycles <5% U <sub>T</sub>	Mains power quality should be that of a typical commercial or hospital environment. If the user of the device requires continued operation during power mains interruptions, it is recommended that the device be powered from an uninterruptible power supply or a battery.
Power frequency (50/60Hz) magnetic field IEC	3A/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 <sub>T</sub> is the a.c. mains voltage prior to application of the test level.			

Table 4 Guidance and MANUFACTURER's declaration – electromagnetic IMMUNITY – for ME EQUIPMENT and ME SYSTEMS that are not LIFE-SUPPORTING


Guidance and manufacturer's declaration – electromagnetic immunity			
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.			
IMMUNITY test	IEC 60601 TEST LEVEL	Compliance level	Electromagnetic environment - guidance
<p>Conducted RF IEC 61000-4-6</p> <p>Radiated RF IEC 61000-4-3</p>	<p>3 Vrms 150 kHz to 80 MHz</p> <p>3 V/m 80 MHz to 2.5 GHz</p>	<p>3 Vrms</p> <p>3 V/m</p>	<p>Portable and mobile RF communications equipment should be used no closer to any part of the device, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p><b>Recommended separation distance</b></p> $d = 1.167 \sqrt{P}$ <p><math>d = \sqrt{1.167 P}</math> 80 MHz to 800 MHz</p> $d = \sqrt[3]{\frac{P}{533}}$ 800 MHz to 2.5 GHz <p>where <b>P</b> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and <b>d</b> 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.<sup>a</sup></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><sup>a</sup> 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 device is used exceeds the applicable RF compliance level above, the device should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the device.</p> <p><sup>b</sup> Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.</p>			

Table 6 Recommended separation distances between portable and mobile RF communications equipment and the ME EQUIPMENT or ME SYSTEM – for ME EQUIPMENT and ME SYSTEMS that are not LIFE-SUPPORTING

Recommended separation distances between portable and mobile RF communications equipment and the device.			
The device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the device 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 $d = 1.167 \sqrt{P}$	80 MHz to 800 MHz $d = 1.167 \sqrt{P}$	800 MHz to 2.5 GHz $d = 2.333 \sqrt[3]{P}$
0.01	0.117	0.117	0.233
0.1	0.369	0.369	0.738
1	1.167	1.167	2.333
10	3.690	3.690	7.378
100	11.67	11.67	23.33
<p>For transmitters rated at a maximum output power not listed above, the recommended separation distance <b>d</b> in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where <b>P</b> is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.</p> <p>NOTE 1 At 80MHz and 800MHz, 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>			