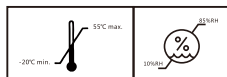


Upper Arm Electronic Blood Pressure Monitor

Upper Arm Electronic Blood Pressure Monitor

Model:U80LH

 **Manufacturer**
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MADE IN CHINA



Rev.00

Instruction manual

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Introduction

▲ Your new digital blood pressure monitor uses the oscillometric method of blood pressure measurement. This means the monitor detects your blood's movement through your brachial artery and converts the movements into a digital reading. An oscillometric monitor does not need a stethoscope, so the monitor is simple to use.

▲ Intelligent inflation will reduce the uncomfortable feeling by incorrect inflation, and shorten the measurement time, prolong the cuff's usage lifetime.

▲ 2x90 sets memory function, each measurement result will be displayed on the screen, and automatically stored. This unit has blood classification index, could easy to check your blood pressure.

Please read the manual carefully before you use the unit, and keep the manual well after using.

INTENDED USE

These automatic blood pressure monitor intended to measurement the systolic pressure, diastolic pressure and pulse rate through upper arm. They are expect used into the home and hospital, intended for over than 12 years old adult using.


Safety Information

■ To assure the correct use of the product, basic safety measures should always be followed including the warning and the caution listed in the instruction manual :

Symbol descriptions

The following symbols may appear in this manual, on the label, on the device, or on it's accessories. Some of the symbols represent standards and compliances associated with the device and its use.


 **WARNING:** This alert identifies hazards that may cause serious personal injury or death.


 **CAUTION:** This alert identifies hazards that may cause minor personal injury, product damage, or property damage.

 Type BF applied part

 Manufacturer SN Specifies serial number

 Authorized Representative in the European Community


 ⁰¹²³ CE Mark: conforms to essential requirements of the Medical Device Directive 93/42/EEC.


 **DISPOSAL:** Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.


 Direct current

 Follow instructions for use


Safety Information


 Those who have arrhythmia, diabetes, blood circulation or apoplexy problem, please use under the physician's instruction.

 Contact your physician for specific information about your blood pressure. Self diagnosis and treatment which use measured results may be dangerous. Follow the instructions of your physician or licensed healthcare provider.


 Please place on a high place where children can't be touched.


 No modification of this equipment is allowed.


 Do not modify this equipment without authorization of the manufacturer.

 If this equipment is modified, appropriate inspection and testing must be conducted to ensure continued safe use of equipment.


 The cuff hose around neck may cause the suffocation.

 The swallowing of small part like packaging bag, battery, battery cover and so on may cause the suffocation.

 Please don't use a dilution agent, alcohol or petrol to clean the unit. Please don't hit heavily or fall down the product from a high place. Use the right cuff, otherwise it can not work.

 Never leave any low battery in the battery compartment since they may leak and cause damage to the unit.

 Please take off the battery if you won't use in 3 months.

 Replace the new batteries if the unit display a low battery symbol.

Safety Information

- ⚠ Do not mix the old and new batteries.
- ⚠ Do not use a cellular phone near the unit. It may result in operational failure.
- ⚠ Please avoid using in high radiant area in order to make your measuring data correctly.
- ⚠ Do not use the equipment where flammable gas (such as anesthetic gas, oxygen or hydrogen) or flammable liquid (such as alcohol) are present.



⚠ WARNING:

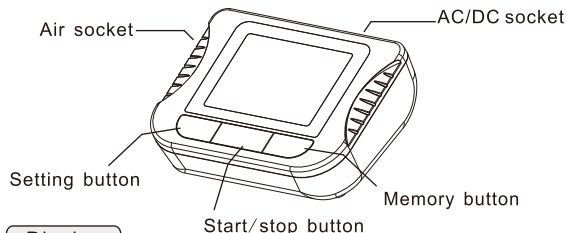
Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

Classification

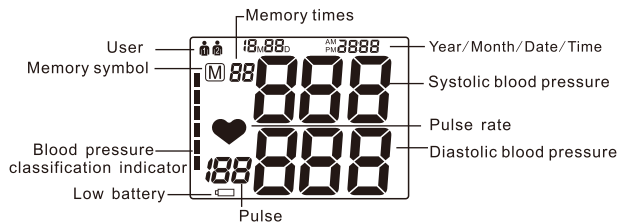
1. Internally powered equipment;
 2. Type BF applied part;
 3. Protection against ingress of water: IP22;
 4. Not category AP / APG equipment;
 5. Mode of operation: Continuous operation;
- ⚠ The user must check that the equipment functions safely and see that it is in proper working condition before being used.

Product structure

Body



Display

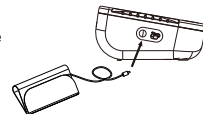


Cuff size and connection

The accessories cuff is M size, for upper-arm circumference 22–32cm use. The cuff is treated as the applied part.

Insert the connector with cuff tube into the hole which is on the left side of the device as picture.

(Only provided cuff can be used, can not change to any other branded cuff.)

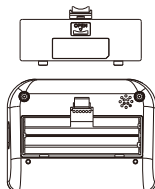


Battery installation


Battery installation

Remove the battery cover from the battery compartment, insert the battery,

- Remove the battery cover as picture showed.
- Insert 4 AA powerful batteries into the compartment and ensure each battery is in the proper direction.



Low battery and replacement

When power on, the low battery symbol  will display once the unit start to work, and you must replace with new batteries, otherwise the unit can't work.

Battery type and replacement

Please use 4pcs AA identical 1.5V batteries.

Do not use the batteries beyond their expiry date.

Please remove the batteries if you do not need to use for long time.

WARNING:

Dispose of the battery in accordance with all federal, state and local laws. To avoid fire and explosion hazard, do not burn or incinerate the battery.

Battery installation

Adapter usage (option)

- When optional AC adapter should comply with the requirement of IEC 60601-1:2005. Furthermore all configurations shall comply with the requirements for medical electrical systems (see IEC 60601-1-1 or clause 16 of the 3Ed. of IEC 60601-1, respectively). Anybody connecting additional equipment to medical electrical equipment configures a medical system and is therefore responsible that the system complies with the requirements for medical electrical systems. Attention is drawn to the fact that local laws take priority over the above mentioned requirements. If in doubt, consult your local representative or the technical service department.
- When using AC power, to avoid possible damage to the monitor, use only the exclusive AC adapter that can be purchased from authorized dealers. Other adapters may vary in output voltage and polarities.
- Insert the adapter plug into the hole on the backside of the unit as picture.
- Insert the other side of the adapter into the outlet with 100-240V.
- To remove the AC adapter, disconnect the adapter plug from the outlet first and then disconnect the cord from the unit's socket.

Adapter technical features:

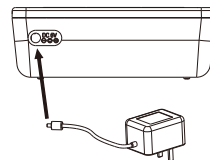
Output voltage: 6V \pm 5%

Max. output current: At least 600 mA

Output plug polarity: <+> inner

External diameter: 5.5mm 0.1mm

Internal diameter: 2.1mm 0.1mm







Setting mode

Note:

- When use AC adapter, the power of battery won't be consumed.
- When suddenly stop during measurement (like the plug off from the outlet by carelessness), it must be reinserted the plug into the unit, and restart the measurement.

How to set

1. User setting:

Press button SET when power off, the screen will display  or , press button MEM, it will be changed between  and , press button SET when you confirm the user, then it will enter into the year setting mode.



2. Year setting:

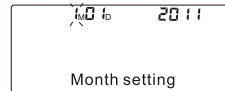
Continue to above step, the screen will display and flash 20XX, the last digit of the year will increase 1 when press button MEM each time, you could choose from 2001 to 2099. Press button SET when you confirm the year, then it will enter into the month and date setting mode.



Setting mode

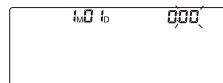
3. Month and date setting

Continue to above step, the screen will display xxMxxD and xxxx, and keep flashing on month, the digit will increase 1 when press button MEM each time, you could choose from 1 to 12. Press button SET when you confirm the month, then it will set the date. Same as the month setting, each time you press button MEM, the digit will keep changing from 01 to 31. Press button SET when you confirm the date, then it will enter into the time setting mode.



4. Time setting:

Continue to above step, the screen will display xxMxxD and xx:xx, and keep flashing on the digits of hour, the digit will increase 1 when press button MEM each time, you could choose from 0 to 23. Press button SET when you confirm the hour, then the digits of minute start to flash, same as the hour setting, each time you press button MEM the digits will keep changing from 00 to 59. Press button SET when you confirm the minute, then the total setting mode is completed.



Measurement

Pre-measurement

Proper use of the unit

- Relax for about five to ten minutes prior to the measurement
Avoid eating, drinking alcohol, smoking, exercising and bathing for 30 minutes before taking a measurement.
All these factors will influence the measurement result.
- Remove any garment that fits closely to your upper arm.
- Always measure on the same arm (normally left).
- Take measurement regularly at the same time of every day, as blood pressure changes even during the day.

Common factors of wrong measurement

- All efforts by the patient to support their arm can increase blood pressure.
- Make sure you are in a comfortable, relax position and do not activate any of the muscles in the measurement arm during measurement. Use a cushion for support if necessary.
- If the arm artery lies lower or higher than the heart, a false reading will be obtained.

Note:

- Only use clinically approved cuffs!
- A loose cuff or an exposed bladder causes false reading.
- With repeated measurements, blood accumulates in the arm which can lead to false reading.
Consecutive blood pressure measurements should be repeated after 1 minute pause or after the arm has been held up in order to allow the accumulated blood to flow away.

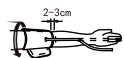
Proper use of the unit

Fitting the cuff

- 1). Put the cuff on a table flatly with the velcro side down. Pass the end of the cuff through the metal loop so that a circle is formed. The velcro closer will now be facing outwards (ignore this step if the cuff has already been prepared).
- 2). Push the cuff over the left upper arm so that the tube points in the direction of the lower arm.
- 3). Wrap the cuff on the arm as illustrated. Make certain that the lower edge of the cuff lies approximately 2 to 3 cm above the elbow and the rubber tube leaves the cuff on the inner side of the arm.
- 4). Tighten the free end of the cuff and close the cuff by affixing the velcro.
- 5). The cuff should be snug on your upper arm so that you can fit 2 fingers between the cuff and your upper arm. Any piece of clothing restricts the arm which must be taken off.
- 6). Secure the cuff with the velcro closer in such a way that it lies comfortably and not too tight. Lay your arm on a table (palm upwards) so that the cuff is at the same height as the heart. Do not bend the tube.

Note:

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



Proper use of the unit

Measuring procedure :

After the cuff has been appropriately positioned, the measurement can begin:

1). Press the START/STOP button, all symbols appear on the display, then the pump begins to inflate the cuff, the rising pressure in the cuff is shown on the display.



2). After the suitable pressure has been reached, the pump stops and the pressure gradually falls. The cuff pressure is displayed. In case that the inflation is not sufficient, the device automatically re-inflates to a higher pressure.

3). When the device detects the signal, the heart symbol ♥ on the display starts to flash.



4). When the measurement has been completed, the systolic, diastolic and pulse rate will appear on the display.



5). The measurement readings remain on the display until you switch off the device. If no button is pressed for a period of 3 minutes, the device switches off itself in order to save the power.

Discontinuing a measurement

If it is necessary to interrupt a blood pressure measurement for any reason (eg. the patient feels unwell) the START/STOP button can be pressed at any time. The device immediately decrease the cuff pressure automatically.

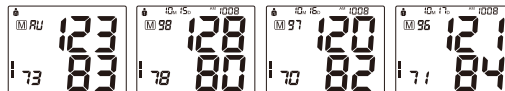
Memory-recall of measurements

This blood pressure monitor automatically stores 2x90 sets measurements value, the oldest record will be replaced by the latest measurement value when more than 90 sets each user.

About blood pressure

Read memory record

Press the button MEM when power off, the latest 3 times average value will be shown, press the button MEM again, the last measurement value will be shown, as well as subsequent measurements can be display one after the other by pressing the button MEM each time.



Memory -clear of measurements

If you are sure that you want to permanently remove all stored memories. Press the button SET for 6 times until CL appears when power off, press the START/STOP button ,CL will flash for 3 times to clear all the memories. After this press button MEM, [M] and "no" will be shown on the display which mean that no memory in store.

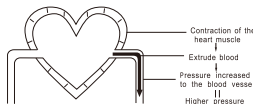
About blood pressure

Blood pressure is the pressure exerted the arteries.

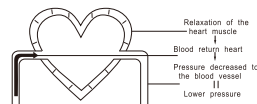
The systolic blood pressure value represents the blood pressure produced by contraction of the heart muscle.

The diastolic blood pressure value represents the blood pressure produced by relaxation of the heart muscle.

Systolic blood pressure

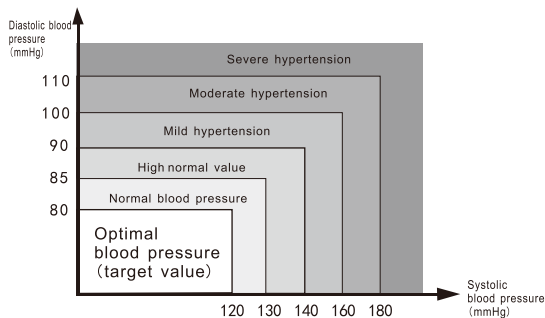


Diastolic blood pressure

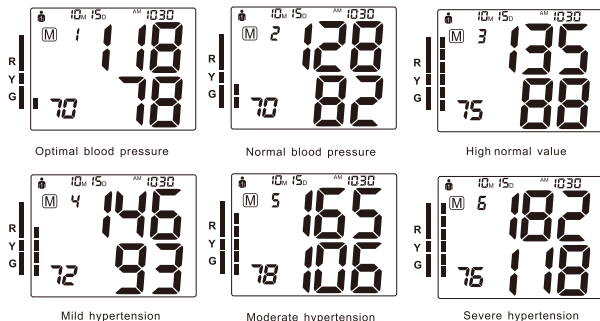


About blood pressure

- According to the blood pressure classification by the WHO/ISH.
- SYS lower than 100mmHg is considered as hypotension.



■ Blood pressure type



Exceptional Situation

Error indicators

- The following symbol will appear on the display when measuring abnormal.

| Symbol | Cause | Correction |
|--------|--|--|
| E-1 | Weak signal or pressure change suddenly | Wrap the cuff properly. Remeasure with correct way. |
| E-2 | External strong disturbance | When near cell phone or other high radiant device, the measurement will be failed. Keep quite and no chatting when measure. |
| E-3 | It appears error during the process of inflating | Wrap the cuff properly. Make sure that the air plug is properly inserted in the unit. Remeasure. |
| E-5 | Abnormal blood pressure | Repeat the measurement after relax for 30 mins, if get unusual readings for 3 times, please contact your doctor. |
| | Low battery | Replace all the worn batteries with new ones. |



Trouble removal

| Problem | Check | Cause and solutions |
|----------------------|-----------------------------------|---|
| No power | Check the battery power | Replace new one |
| | Check the polarity position | Installation for proper placement of the batteries polarities |
| No inflation | Whether the plug insert | Insert into the air socket tightly |
| | Whether the plug broken or leak | Change a new cuff |
| Err and stop working | Whether move the arm when inflate | Keep the body peaceful |
| | Check if chatting when measured | Keep quite when measure |
| Cuff leak | Whether the cuff wrap too loose | Wrap the cuff tightly |
| | Whether the cuff broken | Change a new cuff |




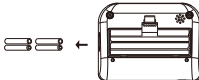
Please contact the distributor if you can't solve the problem. do not disassemble the unit by yourself!

Care and maintenance

Care for the main unit and blood pressure monitor cuff

| | |
|--|---|
| <ul style="list-style-type: none"> ● Keep the unit in the storage case when no use. ● Clean the unit with soft dry cloth. <p>Do not use any abrasive or volatile cleaners.</p> <ul style="list-style-type: none"> ● Never immerse the unit or any component in water. |  |
| <ul style="list-style-type: none"> ● Make sure the monitor is off prior to cleaning. a mixture of distilled water and 10 percent bleach could be used. ● Using a spray bottle, moisten a soft cloth towel with the bleach or detergent mix until it is fully saturated. Squeeze any excess moisture from the cloth to avoid any dripping or potential oversaturation of the cuff. ● Wipe all surfaces of the blood pressure monitor cuff thoroughly, making sure to clean the inside and outside of the cuff. Be cautious not to get any moisture in the main unit. ● Using a dry cloth, gently wipe away any excess moisture that may remain on the blood pressure cuff. Lay the cuff flat in an unrolled position and allow the cuff to air dry. |  |

Maintenance

| | |
|--|--|
| <ul style="list-style-type: none"> ● Do not clean the body and cuff with naphtha, thinner or gasoline etc. | <ul style="list-style-type: none"> ● Do not wet the cuff or attempt to clean the cuff with water. |
|  |  |
| <ul style="list-style-type: none"> ● Store the unit in a clean and dry location . <p>Do not subject the unit to extreme hot cold temperature, humidity and direct sunlight.</p> | <ul style="list-style-type: none"> ● Remove the batteries if the unit will not be used in 3 months or longer. |
|  |  |

✳ We won't be responsible for any quality problem if you don't care and maintain the product as instructed.

Specification

| | | |
|------------------------|--|------------------------------|
| Description | Automatic upper arm blood pressure monitor | |
| Display | LCD digital display | |
| Measuring principle | Oscillometric method | |
| Measuring localization | Upper arm | |
| Measurement range | Pressure | 0~299 mmHg |
| | Pulse | 40~199 pulses/min |
| Accuracy | Pressure | ±3mmHg |
| | Pulse | ±5% of reading |
| LCD indication | Pressure | 3 digits display of mmHg |
| | Pulse | 3 digits display |
| | Symbol | Memory/Heartbeat/Low battery |
| Memory function | 2x90 sets memory of measurement values | |
| Power source | 4pcs AA battery DC. 6V or AC adapter | |
| Automatic power off | In 3 minutes | |
| Main unit weight | Approx. 250g (batteries not included) | |
| Main unit size | L132mm x W100mm x H45mm | |
| Main unit lifetime | 10,000 times under normal use | |
| Battery life | Could be used for 300 times for normal condition | |
| Accessories | Cuff, instruction manual | |
| Operating environment | Temperature | 5~40°C |
| | Humidity | 15%-85%RH |
| | Air pressure | 86kPa~106kPa |
| Storage environment | Temperature -20°C~55°C, Humidity : 10%-85%RH avoid crash, sun burn or rain during transportation. | |