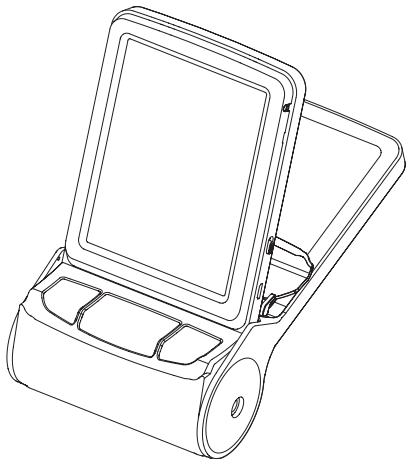


# Blood Pressure Monitor

## Automatic Arm Type



**KP-7590**

**CE** 0197


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## Precautions for Use

### ※ **WARNINGS:**

1. The device is not intended for neonatal use.
2. Consult your physician for health status and blood pressure range before taking measurement at home with this device.
3. Always consult your physician for interpretation of blood pressure measurements and follow their directions.
4. The performance of this device can be influenced as severe arrhythmias such as atrial or ventricular premature beats or atrial fibrillation are presented during measurement.
5. If the cuff causes any discomfort during measurement, press the POWER button to turn off the device immediately.
6. Avoid prolonged over-inflation of the bladder to prevent harmful physical injury.
7. Pull off the Velcro strap to detach the cuff if the cuff pressure exceeds 300mmHg without an automatic rapid exhaust.
8. The system might not meet its performance specifications if stored or used outside the temperature and humidity ranges specified in the product specification sheet.
9. Remove all batteries if the device is not likely to be used for a long period of time.
10. Do not modify this device or cuff without authorization of the manufacturer.
11. Keep blood pressure monitor (including cuff and batteries) away from children to avoid misusing. Children should not use the device without the supervision of an adult.
12. Only use the blood pressure monitor indoors and do not use it near such as microwave ovens. In the case of devices whose maximum power exceeds 2 W, the minimum distance from blood pressure monitor should be 3.3 meters.
13. Discard old battery carefully, out of reach of young children. Swallowing the battery may be fatal. If the battery or other small parts are swallowed, contact a hospital immediately to have it removed.
14. Any known restrictions on use or contra-indication(s): Consult your doctor prior to using in pregnancy or if diagnosed with arrhythmia or arteriosclerosis.

 Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

## Precautions for Use

### ※ CAUTIONS:

1. Read and follow the entire instruction manual before operating blood pressure monitor.
2. Do not press the POWER button if the cuff has not been properly wrapped.
3. Do not press the POWER button on blood pressure monitor if the cuff has not been properly wrapped.
4. The malfunctions of display can be determined by pressing and holding the POWER button under power-off mode.
5. Dispose of the device and batteries according applicable local regulations for environmental protection.
6. The accuracy of the blood pressure monitor is recommended to be verified every two years. Contact authorized agent or laboratory for inspection/calibration service.
7. For Bluetooth / NFC, please make sure Smartphone / Tablet have Bluetooth / NFC function available and enable Bluetooth / NFC before operating from Smartphone / Tablet.

## Device Description and Intended Use

The blood pressure monitor is an electronic device intended to make human blood pressure and pulse rate at upper arm of adult population utilizing non-invasive oscillometric method.

In household environment.

If the device model has connection function with Smartphone / Tablet, User also can upload data to Smartphone/Tablet for reviewing by graph, sharing by E-mail, etc.

## About Blood Pressure

### ● What is blood pressure?

Blood pressure is produced by the force of blood flowing against artery walls after the heart ejects blood into vessel system.

### ● What are systolic and diastolic pressures?

Systolic pressure represents the highest pressure during heart contraction and diastolic pressure is the lowest pressure while heart is resting.

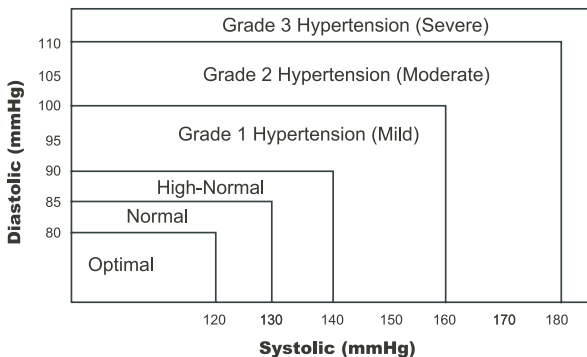
## About Blood Pressure

### ● What is MOMI?

MOMI (Measurement on Multiple Intelligence) is a new blood-pressure-measuring technology. MOMI, unlike the general technology which takes measurement during either cuff inflation or deflation, it takes measurements both during inflation and deflation then output a weighted value.

### ● WHO-ISH classification

Your blood pressure measurement can be compared with classification categories defined by 1999 World Health Organization – International Society of Hypertension Guidelines for Management of Hypertension for preliminary evaluation. Please consult your physician for interpretation of blood pressure measurement and follow their directions.



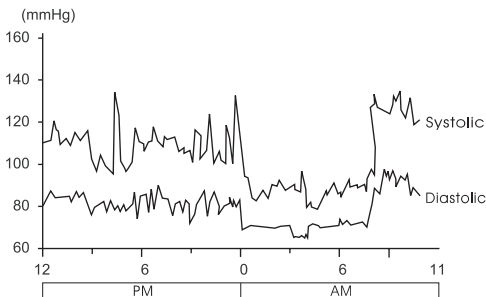
### ● What about low blood pressure?

In general, lower blood pressure reading is better unless it causes some uncomfortable symptoms such as fainting and/or light headedness.

## About Blood Pressure

### • Fluctuation and variation of blood pressure

Human blood pressure has a fluctuated characteristic and will vary 24 hours a day. Blood pressure measurement can be affected by the measurement position, posture, physiologic condition as well as factors such as eating, bathing, exercising, smoking, drinking alcohol, stress, mental tension, breathing, conversation, movement, temperature or humidity change, etc.



### • How to obtain reliable measurements?

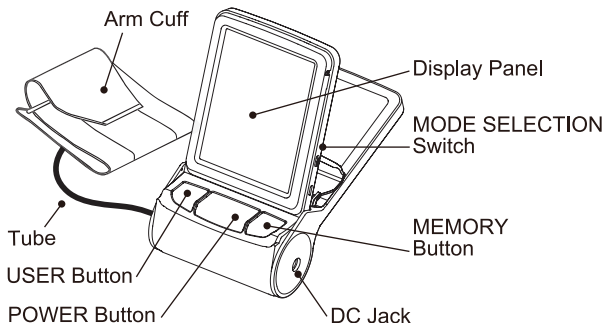
In order to obtain reliable measurements, please follow recommendations below:

1. Keep taking and recording blood pressure measurement at the same time every day for consistency to establish your blood pressure pattern.
2. Avoid eating, bathing, smoking, exercising, or ingest caffeine and alcohol at least 30 minutes prior to take measurement.
3. Remove constricting clothing or ornaments from your arm and make sure that the range of cuff circumference is applicable to you.
4. Be seated and relax for at least 5 minutes in a quiet and comfortable place prior to take measurement

## About Blood Pressure

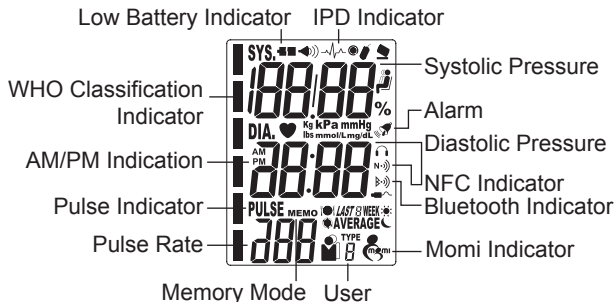
- To make repeated measurements, the rest interval between measurements shall be no less than 30 sec and the rest interval may need to be extended according to individual physiological conditions.

## Device Overview















※ This retail product includes device, cuff, batteries, instruction manual and a storage bag or case.











## Display Overview



## Explanation of Symbols

<b>SYS</b>	Systolic Pressure
<b>DIA</b>	Diastolic Pressure
	Direct Current
	Type BF Applied Part
	Attention, consult accompanying documents
 MMY Y	Lot Number composed by month(M) and year(Y) of manufacture.
	Manufacturer
	Serial Number
 	Authorized Representative in the European Community
	Irregular Pulse Detection
	Keep dry
	Do not dispose the device and batteries with household waste.
	Follow operating instructions
<i>P</i>	Pumping
<i>P Err</i>	Pumping failure
<i>UU Err</i>	Excessive body movement is detected during measurement.
<i>LL Err</i>	No sufficient pulses are detected for measurement.
<i>rr Err</i>	SYS and DIA readings detected are not reasonable.
<i>H1</i>	Cuff pressure is over 300 mmHg.



	Device is connected well with Smartphone/Tablet
	Write-in settings by Smartphone/Tablet
	Interference may occur in the vicinity of equipment
	Temperature Limit
	Humidity Limitation
	Battery recycling symbol
	Restriction of Hazardous Substances
	The CE marking with the Registration Number of the Notified Body. This denotes the compliance of European Medical Directive 93/42/EEC.
	REACH symbol- Registration, Evaluation, Authorisation and Restriction of Chemicals(REACH) is a European Union regulation.
	Power "ON" / "OFF"

## Preparation for Use

### Battery Installation

1. Remove the battery cover and insert batteries into the battery compartment with polarities "+" and "-" are matched with correct polarity indicator. Replace the battery cover.
2. Using only same type of alkaline batteries is recommended to avoid incompatibility.
3. If the low battery indicator appears frequently, replace all batteries at the same time.

## Preparation for Use

4. Built-in clock may need to be reset and reading memories may be erased after battery replacement.
5. Using the AC Adapter (optional): If a DC jack is provided, the device can be powered by an AC adapter with DC 6V/0.8A output.

### Setting the Clock

1. To have correct date and time for memory storage, the built-in clock needs to be set prior to start first measurement.
2. Under power-off mode, press and hold the MEMORY button until the display shows a blinking year and press the POWER button for adjustment. After current year is selected, set the year by pressing the MEMORY button and switch to next adjustment.
3. Repeat previous steps to adjust and set current month, day, hour, and minute one by one while they are blinking.
4. Following the date and time setting, the clock display function can be set while "CL" is blinking. As clock display function is switched on, the time will remain on display during power-off and four alarms can be set while "AL1" ~ "AL4" are blinking accordingly. As any alarm is switched on, the pulse indicator will appear on display during power-off.
5. As last, press MEMORY button again to finish setting.

### Attaching the Cuff and Measuring Posture

1. Make sure the circumference of your upper arm is within applicable cuff range.
2. Plug the tube connector into the cuff socket securely.
3. Put bare-skinned left arm through the cuff with tube located at middle of your inner arm and aligned to your middle finger. Measuring with thin clothing is allowed.

## Preparation for Use

4. Fasten the cuff with its bottom edge should be approximately 2~3 cm above your elbow and make sure it is not wrapped too tight.
5. Sit upright in a chair with your feet flat on the floor and relax in a natural position.
6. Steadily rest your forearm on a table and make sure the cuff is at heart level.
7. Hold still and do not talk during measurement.
8. If it is not possible to take measurement with left arm, use right arm instead.

## Taking a Measurement

1. Press the USER button to choose user number for memory storage.

User selection can also be made by pressing the USER button while readings are displayed after measurement is completed.

2. Select preferred measuring mode MOMI or Fuzzy by using the Mode Switch.



**Fuzzy**



**MOMI**

3. Press the POWER button to start automatic measurement. The measurement can be interrupted anytime by pressing the POWER button again.
4. When the measurement is completed, the systolic pressure, diastolic pressure and pulse rate will be displayed.
5. The display will also indicate which category your blood pressure reading belongs to according to classification defined in 1999 WHO-ISH Guidelines for Management of Hypertension. Optimal and normal categories are indicated with green, high-normal category is indicated with yellow, and grade 1 ~ 3 hypertension categories are indicated with red.

6. IPD (Irregular Pulse Detection): The device can detect irregular pulse which is defined as a pulse interval is longer than  $5/3$  times the average pulse interval during measurement.  
The IPD indicator will appear when more than three irregular pulses were detected during measurement. If the IPD indicator is displayed with measurement readings frequently, please consult a qualified physician for further directions.
7. Press the POWER button to turn off the device or it will turn off automatically after 150 seconds non-operation. Readings will be saved into memory automatically while power-off.

### **Operating with Smartphone/Tablet**

1. Connection by NFC: Hold Smartphone/Tablet to close NFC reaction on blood pressure monitor. The OUcare application software is activated automatically to read back all memories to Smartphone/Tablet and write-in settings to blood pressure monitor.  
Connection by Bluetooth: Active your Bluetooth function on your mobile device and make sure it support BLE 4.0. please hold Smartphone/Tablet near the blood pressure monitor and active Bluetooth function from the Smartphone/Tablet device. Active OUcare application from the device.
2. Follow the instructions on "OUcare™ Application Software Quick Start Guide".

### **Memory Function**

1. Press the USER button to select desired user number for recalling memories.
2. Press the MEMORY button to recall the last reading stored in the memory.
3. Next set of previous readings can be recalled by pressing the MEMORY button repetitively.

## Memory Function

4. To delete current displayed readings from memory, press and hold the POWER button until the display shows "dEL". Then press the POWER button again, current displayed reading is deleted after three beeps are sound.

**Note: The number displayed in front of "dEL" indicates which memory set of user number for deletion is selected.**

5. To erase all readings in memory, press and hold the POWER button under memory mode until the display shows "dEL" and press the MEMORY button to show "dEL ALL" on the display. Then press the POWER button, all readings in memory are erased after three beeps are sound.


## Care and Maintenance

1. Do not drop the device. It is not shock proof.
2. Do not disassemble or modify the device and cuff.
3. Do not twist the cuff or fully bend the tube.
4. Do not store the device and cuff in environments with direct sunlight, high temperature or moisture, and severe dust.
5. Do not use thinner, benzene, and other harsh cleaners to clean the device.
6. Do not wash or immerse the cuff.
7. Use a cloth moistened with water or neutral detergent to clean the device and then wipe it dry.
8. Remove all batteries if the device is not likely to be used for a long period of time.

## Clean / Disinfection

1. Use a cloth moistened with water or neutral detergent to clean the device and then wipe it dry.
2. Use a soft, moistened cloth and soap to clean the arm cuff.
3. Use 70 to 75% alcohol; Put rubbing alcohol into a spray bottle and spray both sides of the cuff with it, then hang it up to air dry.

## Trouble shooting

<i>PErr</i>	Refasten the cuff. The cuff with its bottom edge should be approximately 2~3cm above your elbow and make sure it is not wrapped too tight.
<i>UUErr</i>	This error is the pressure over 300mmHg. Refasten the cuff and measurement again.
<i>LLErr</i>	This error is the pressure lower than 45mmHg. Refasten the cuff and measurement again.
<i>rrErr</i>	Too much noise. Do not near such as microwave ovens. Refasten the cuff and measurement again.
<i>H1</i>	The pumping pressure over 300mmHg. Check the cuff socket, tube and tube connector are clean and unblocked.
	Replace all batteries.

## Product Specifications

Measuring Range	Pressure: 20~300 mmHg Pulse Rate: 40~200 pulse/min
Accuracy	Pressure: $\pm 3$ mmHg Pulse Rate: $\pm 5$ % of reading
Measuring Method	Oscillometric method
Inflation Method	Electrical rolling pump
Deflation Method	Mechanical release valve
Rapid Exhaust	Electrical solenoid valve
Display	Digital liquid crystal display on blood pressure monitor Display on Smartphone/Tablet
Memory	2x20 sets
Operation Condition	5 ~ 40 °C (41 ~ 104°F), 15 ~ 90 % RH
Storage Condition	-20 ~ 55 °C (-4 ~ 131°F) , < 93 % RH
IP Classification	IP20 (Protection against touching foreign bodies <12.5mm and no water-proof test)
Power Source	LR6 / AM-3 / AA alkaline battery x 4 AC adaptor with DC 6V/0.8A output (Optional)
Battery Life	Around 250 measurements with alkaline batteries
Power Saving	Auto-off after 150 sec non-operation
Size	110.6 x 187.3 x 56.3 mm
Weight:	Approx. 400 g including batteries
Cuff Range	20 ~ 35 cm , 22 ~ 32 cm , 32 ~ 42 cm

1. This blood pressure monitor is designed to comply with requirements of European Standard EN 1060, *Non-invasive sphygmomanometers Part 1: General Requirements and Part 3: Supplementary requirements for electro-mechanical blood pressure measuring systems.*

## Product Specifications

2. Blood pressure measurements determined with this device are equivalent to those obtained by a trained observer using the cuff/stethoscope auscultatory method, within the limits prescribed by the American National Standard ANSI/AAMI SP10, *"Manual, electronic, or automated sphygmomanometers."*

### **FCC Statement:**

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

- (1) This device may not cause harmful interference, and*
- (2) this device must accept any interference received, including interference that may cause undesired operation.*

*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.*

*Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*



## Warranty Information

### **Warranty:**

The device itself (battery and accessories excluded) comes with a year warranty if it is operated under normal circumstances without evidence of tampering. See exclusions below.

### **Warranty exclusions:**

1. If user does not properly operate the device according to the instructions as described in this manual.
2. If the device shows signs of tampering or attempted modification.
3. Improper handling, such as dropping, liquid or cleaner damage.
4. Natural disasters (such as fire, flood, earthquake and thunder strike).
5. If you do not have a receipt or proof of purchase showing date of purchase.