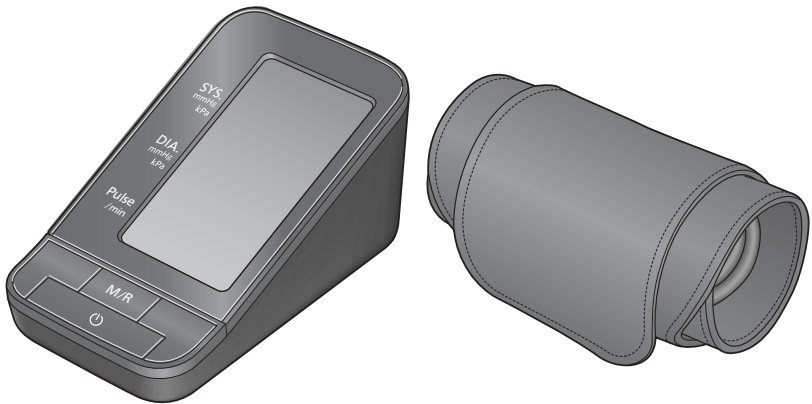


Panasonic®

Operating Instructions Digital Blood Pressure Monitor

Model NO. EW-BU18W011



- Thank you for purchasing our products.
- Please read these instructions carefully before using this product, and save this manual for future use.

Version: NO.01.1
Issued date: March 2023

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Product name: Digital Blood Pressure Monitor

Model: EW-BU18W011

Structure and composition: It is composed of a main unit and a cuff

- Scope of application: This product can measure diastolic blood pressure, systolic blood pressure and pulse rate of human body by oscillometry, and its values are for diagnostic reference.
- The circumference of the upper arm that can be measured by this device is about 20 cm~34 cm.
- Contraindications: None
- Product object: It is suitable for adults with an upper arm circumference of 20 cm~34 cm.

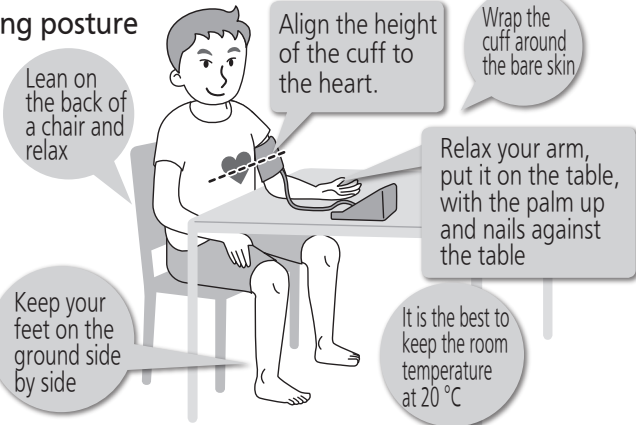
It is not suitable for newborns.

However, users warned or prohibited in the Operating Instructions and prohibited by doctors are excluded.

How to take a proper measurement

Relax for 4-5 minutes before measurement and be sure to take the measurement in a relaxed state.
The posture and physical condition of the user will affect the blood pressure measurement.

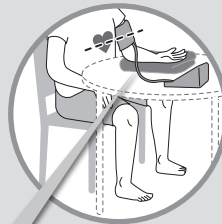
Measuring posture



When the height of the cuff cannot be aligned with your heart



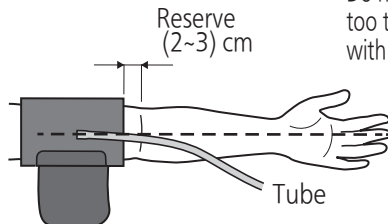
Adjust by a back cushion or a seat cushion on the chair



Adjust the height by cushioning the elbow/wrist with a towel

Wrap the cuff • Wrap position

- Wrap the cuff tightly
Do not wrap it too loose or too tight, and wrap the cuff with a gap of 1 or 2 fingers.



Product functions: Please confirm the function of purchased product

	EW-BU18W011
Hypertension flash	●
Memory number	90 times×1 person
Movement warning	●
Irregular pulse	●
Morning and evening comparison	—
Clock function	—
APP client	—
Voice function	—
Backlight function	—

List of products and accessories:

	EW-BU18W011
Main unit	1 set
Operating Instructions	1 copy
Test-run batteries	4 pcs
Cuff	1 pc




※The accompanying batteries are for test-run.

They are used to confirm the function of the device at the time of purchase and their service life will be shorten.





Safety precautions




- ※Before use, please read these [Safety Precautions] carefully for proper use.
- ※To prevent users from suffering harm or loss due to improper use, please refer to the [Safety Precautions] and use this device correctly.

For safety reasons, be sure to observe these safety precautions.

	indicates the contents of caution and warning.
	WARNING: WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	CAUTION: CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

	indicates prohibited behaviors		indicates no disassembly
--	--------------------------------	---	--------------------------

 Warning	
 Forbid	<ul style="list-style-type: none"> ● Please do not allow children or people who can't express their self-awareness to use this device. ● While measuring with this device, do not use the unit on an arm where a catheter has been inserted. Otherwise, it may cause an accident.
	<ul style="list-style-type: none"> ● Do not spill water on the main unit. Otherwise, there is a risk of electric shock, short circuit or fire.
 Be sure to observe	<ul style="list-style-type: none"> ● Persons with serious obstructions of blood flow in the arm should consult a doctor before using this instrument. Failure to do so may result in deterioration of physical condition.
	<ul style="list-style-type: none"> ● When you feel any abnormality in use, please stop using it immediately. And please be sure to entrust the service centre designated by the Company for inspection and repair. Otherwise, there is a risk of electric shock, short circuit or fire.
 Do not disassemble	<ul style="list-style-type: none"> ● Please do not disassemble, repair or transform the device without permission. Otherwise, it may cause fire, accident or malfunction.

	 Caution
 Forbid	<ul style="list-style-type: none"> ● Do not judge the measurement results by yourself, and take medicine and other treatments on such basis. It may cause physical discomfort. For the measurement results, please consult a professional doctor to explain the measured blood pressure value. If you are on medication, please follow the doctor's advice.
 Be sure to observe	<ul style="list-style-type: none"> ● Please do not use it for purpose other than blood pressure measurement. Otherwise, it may cause an accident or malfunction. ● If the device needs to be repaired for various reasons, please contact the After-sales Service Office designated by Panasonic Appliances (China) Co., Ltd. to consult the maintenance methods or ask for maintenance information.




Caution:

If the device needs to be repaired for various reasons, please contact the After-sales Service to consult the maintenance methods or ask for maintenance information.

Please note that

- ※ During the measurement process, do not use devices that generate electromagnetic interference near this product, such as mobile phones, as the strong radiation field generated by such devices will interfere with the normal use of the product.
Otherwise, this product may cause mis-operation or inaccurate measurement.
- ※ In the case of common arrhythmia (such as atrial premature beat, ventricular premature beat and atrial fibrillation), the measurement will cause errors.
- ※ The main unit is not likely to cause interference to electronic devices around (such as TV, computer, mobile phone)
- ※ There may be a risk when the air cuff is in the state of persistent hyperinflation. (causing discomfort such as blood stasis or paralysis in the arm.) If such abnormality occurs, please remove the cuff.
- ※ Be sure to use the parts provided by the manufacturer for replacement.
Otherwise, measurement errors may be caused.
Note: If the original parts are replaced by parts not provided by the manufacturer, measurement errors may occur.
- ※ Disposal suggestion: The disposal method of the main unit, cuff and batteries shall be subject to the relevant environmental protection regulations of the city.

Description of markings

	indicates direct current
	Caution! Consult the accompanying documents
	Protection against electric shock Type B applied part (main unit of the device)

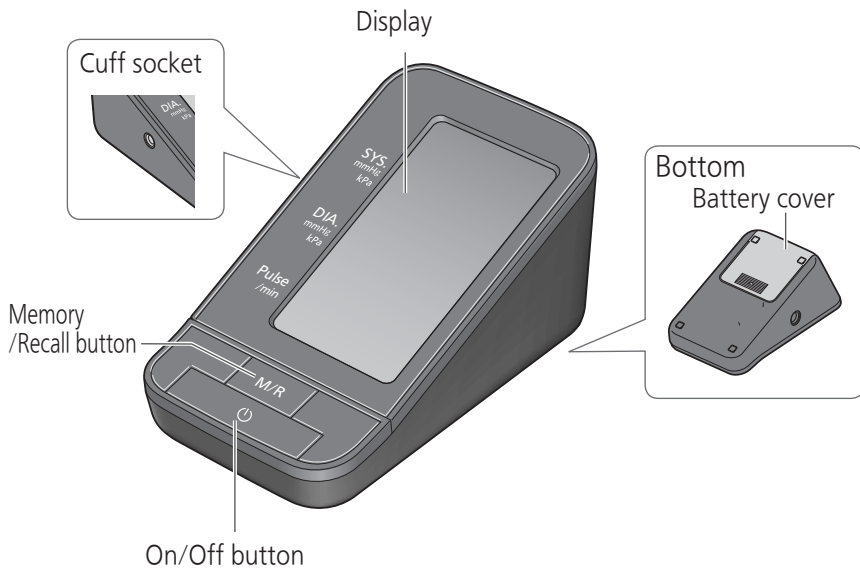
Parts identification

Main unit

Please confirm the product

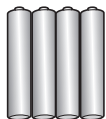
Structure and composition:
The product is composed of a main unit and a cuff.

Note: All diagrams in this specification are for EW-BU18W011



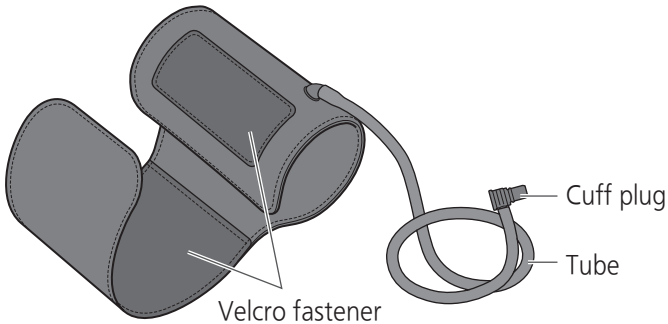
Accessory

Test-run batteries

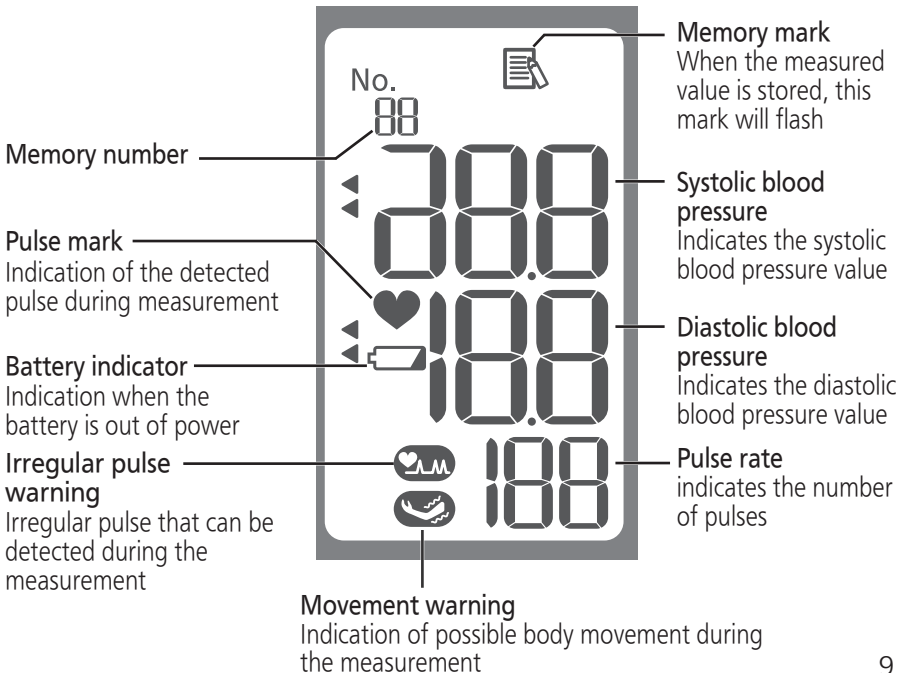


Parts identification

Cuff




Includes

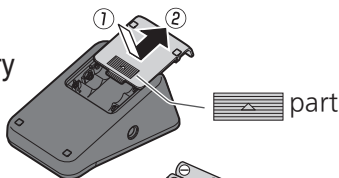


Preparation

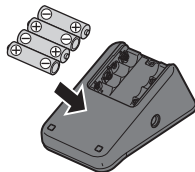
Inserting batteries

※The product can be powered by batteries.

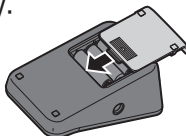
1. Turn the main unit over, gently press the  part of the battery cover and take out the battery cover in the direction indicated by the arrow.



2. Check the \oplus \ominus polarities of the batteries, and install them correctly.



3. Close the battery cover until you hear a click.




Caution



Be sure to observe

- Always follow the cautions printed on the batteries.
- Check the \oplus \ominus polarities of the batteries and install them correctly.
- Take out the batteries with insufficient power immediately.
- When this device is not used for a long time, take out the batteries from the device.
- When replacing batteries, new batteries of the same type must be used and all 4 batteries shall be replaced at the same time.
- Please use the batteries within the expiration date.
Failure to comply with the above matters may result in injury or damage due to battery heating, cracking or liquid leakage.

About batteries:

- If the low battery mark () appears on the display, please turn off the device and replace all batteries.
- Batteries last for approx. 300 times, which is 3 times/day for 3 months (when using a pack of new Panasonic zinc carbon batteries). (Under the condition that the room temperature is 23 °C, 22.7 kpa (170 mmHg) pressured, and the circumference of upper arm is 30cm.)
- If the ambient temperature is low, the battery life will be shortened.
- The service life of other brands of batteries may be very short, so it is recommended to use Panasonic zinc carbon or alkaline batteries.

1. Power-on prompt



Note: When the product is under standby mode, "0" will be displayed on the monitor. This is a normal condition, not malfunction.

For correct measurement, please read the following key points carefully, and observe the exact environment and posture. Please refer to P3 (How to take a proper measurement).

Measuring time

The blood pressure is constantly changing throughout the day. Therefore, take the period with the least movement after getting up and before sleeping as the measuring time.

Preparation

Before measurement

Within 1 hour
after getting up



It is closest to the blood pressure at night and basically with no influence due to physical activities.

- Before breakfast
- Before taking medicine (in case of antihypertensive drugs, etc.)
- After urination
- Relax for 4~5 mins

Before sleep



The measured value is closest to the average blood pressure in a day

- Relax for 4~5 mins

Prompt of measuring place and measuring time

Blood pressure is affected by climate, emotion, exercise, sleep time, food or other conditions. In addition, blood pressure tends to rise because of blood vessel contraction due to low outdoor temperature in winter.

No measurement
shall be taken in
case of the right
circumstances



- Outdoor and cold places
- After exercise or showering
- Within 1 hour after meals
- After drinking
- Shortly after drinking caffeinated beverages or smoking
- When feeling restless
- When experiencing signs of urination or defecation



- ➔ Measure in a room with stable temperature, and in a non-anxious and calm state, take five deep breaths and relax for 4~5 mins before measurement.
- ➔ As the blood pressure is affected by various conditions, it is difficult to judge whether or not the blood pressure value is true if only one measurement is taken.

It is necessary to measure 2 to 3 times to confirm the change.

Preparation

Before measurement

Posture



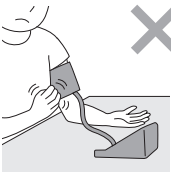
Do not lean forward
When the abdomen is stressed, the blood pressure will rise.



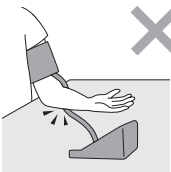
Do not talk
Talking will raise blood pressure.



Keep your hands, fingertips, arms and body still
Subtle changes in blood pressure cannot be detected. So no proper measurement can be taken.



Do not touch the cuff
It will cause confusion of measurement data. So no proper measurement can be taken.



Do not compress the tube
Once the tube is pressed by the arm, it will cause failure to take a proper measurement.



- Any blood pressure measurement will be influenced by the posture of the user and his/her physical condition.

Method of cuff wrapping



Do not wrap the cuff on your clothes
The pressure of the cuff cannot be transmitted to the blood vessels and the blood pressure will rise.

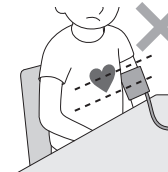


Do not roll up the shirtsleeve
The blood vessels in the arm will be under pressure and no proper measurement can be taken.



Do not wrap the cuff too loose
The pressure of the cuff cannot be transmitted to the blood vessels and no proper measurement can be taken.

Height of cuff to heart



The height of 10 cm will cause an error of 7 mmHg.
• Please refer to P.3 for measurement in correct posture

Preparation

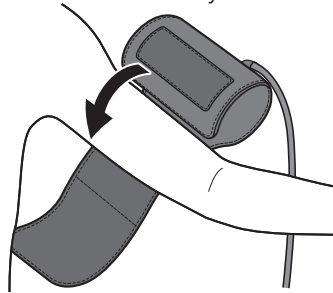
Wrapping the cuff

※Be sure to use a dedicated cuff

It can be wrapped on either left or right arm for measurement.

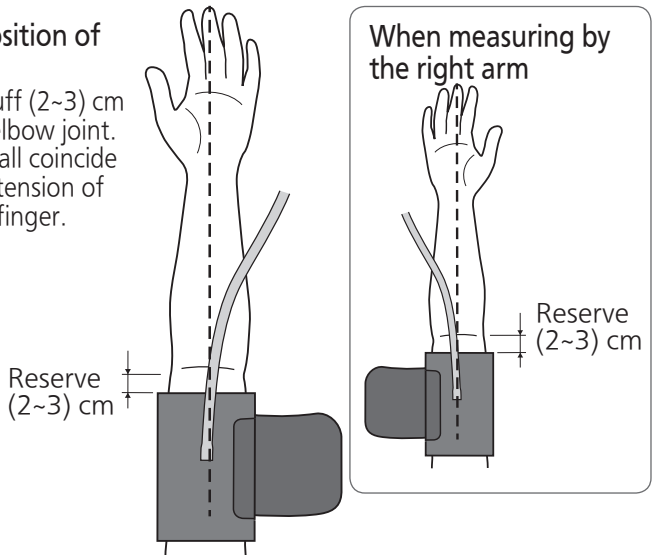
- Take the measurement of left arm as an example.
- The measurement results of the left and right arms may vary to different extent due to different conditions of each user. Therefore, please measure with the same arm every time.

1. Wrap the cuff on your arm



2. Wrapping position of the cuff

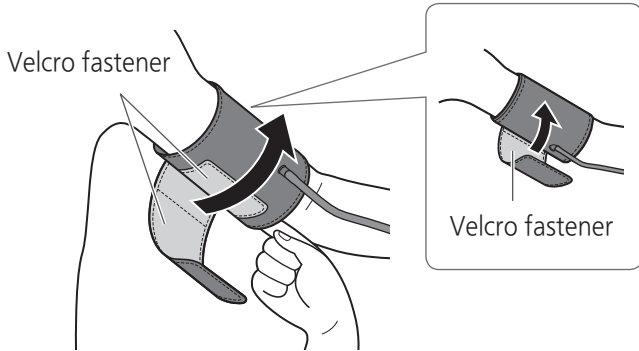
- (1) Wrap the cuff (2~3) cm above the elbow joint.
- (2) The tube shall coincide with the extension of the middle finger.



Preparation

Wrapping the cuff

3. Hold down the hook and loop fastener and wrap the cuff with a gap of 1 or 2 fingers.



- If it is wrapped too loose, the cuff will swell and inflate, and the blood vessel will be locally tightened, which will cause an indication error, and the measured value will tend to rise slightly.



Loose wrapping

- If it is wrapped too tight, before air entering, the blood vessel will be pressed by the cuff, so the measured value will tend to decrease slightly.

Please insert the cuff plug into the cuff socket until a click is heard

- To prevent falling off, it shall be inserted deeply.

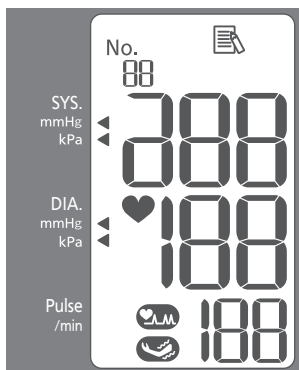


1. With the power off, press the  button.

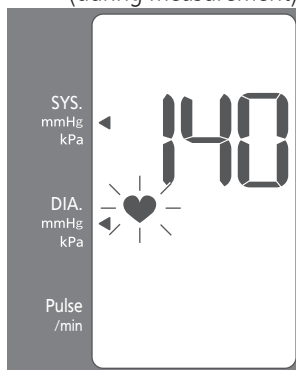
- After the display is fully lit, the cuff will be pressurized and measurement will be taken automatically

Note: When the pressurization value is more than 280 mmHg, the cuff will automatically exhaust.

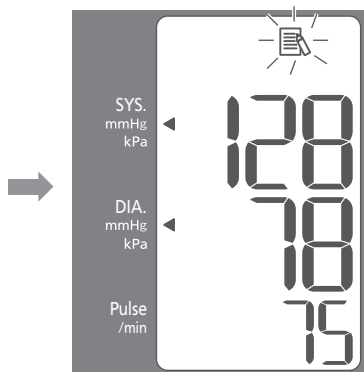
Example: under inflation
(during measurement)






End of measurement



- Pulse is detected, and [] mark flashes

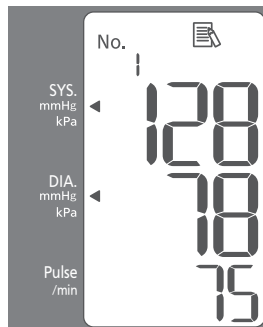


- Display the measured value
-  Flash
- When recording the measured value, please go to step 2 during the flashing process

During or at the end of the measurement, it displays [ ]
⇒ P.20 [About warning]

2. Press the **M/R** button to store the measured value.

3. Press the **⏻** button and take off the cuff.



- Press the **⏻** button for about 5 seconds, to switch measuring methods of mmHg and kPa. It is mmHg by factory setting. (If kPa is selected, it will also be converted into mmHg during voice broadcast. 1 kPa=7.5 mmHg)
- The measured value can be stored up to 90 times. After that, when new data is stored, the measured value that was stored first will be replaced.

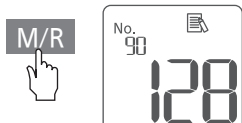
(EW-BU18 90 times×1 person)

Operating instruction

Call-up and deletion of measured values

Call-up of measured values

Call up the recorded measured values for confirmation

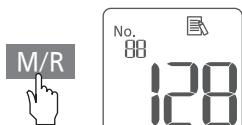


1. When the power is turned off, you can directly press the **M/R** button to call up the latest measured value.



2. Press the **M/R** button again to display the previous measured value.

- Press the **M/R** button every time and after the new measured values are displayed, the measured values will be displayed one by one starting from the latest.

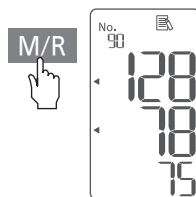


3. Press the **power** button at the end.

Delete all the memorized measured values

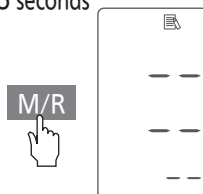
The memorized measured values can all be deleted.
But they cannot be deleted one by one.

1. When the power is turned off, you can directly press the **M/R** button to call up the latest measured value.



2. Press the **M/R** button again for more than 5 seconds until the measured value disappears.

- The [- -] mark is displayed after the data is deleted.



3. Press the **power** button at the end.

As the basis of correct measurement, there are movement warning and irregular pulse warning. After the signal is displayed, the correct measured value may not be obtained.

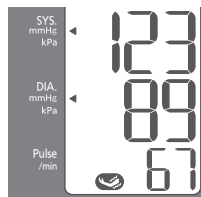
- After the measurement, re-measurement is recommended.
(Please rest for 4-5 mins before re-measurement)
- The measured values of each signal are also recorded together.

Movement warning



(Example)

During the measurement, in case of arm or other movements, when the cuff senses the excess pressure, the device will flash. After measurement, it will flash for about 6 seconds and then light up.




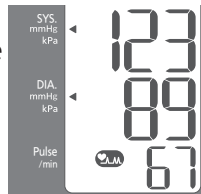
- When a large abnormal movement is detected for the measured value in the measurement, [U12] and  will be displayed and the measurement will be stopped automatically.

Irregular pulse warning




(Example)

During the measurement, when the average value of pulse spacing is $\pm 25\%$, the device will give an irregular pulse warning and the [] mark will flash, and then it will light up after flashing for about 6 seconds.





This mark is not to inform arrhythmia.

- ※ This function is a reference function set to ensure the accuracy of the measured value. Even if the [] mark is not displayed, in order to ensure the accuracy of the measurement, you are recommended to measure for 2-3 times in a relaxed state.
- ※ If the mark appears frequently, you should consult your doctor about your health.

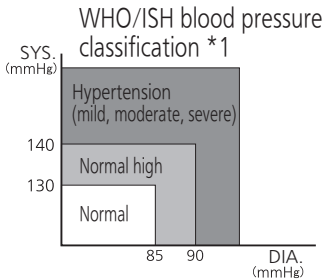
Please do not judge the measurement results by yourself or take any treatment on such basis. Please follow the doctor's advice.



- ※ [] [] and the measured value shall be stored at the same time.
- ※ In order to prevent the confusion between the name of the product auxiliary function and "Arrhythmia," adjust "Arrhythmia warning" to "Irregular pulse warning"

Reading of [Blood Pressure Indication]

For the Systolic • Diastolic Blood Pressure value, the WHO/ISH (World Health Organization/International Society of Hypertension) blood pressure classification table shall be used as a benchmark to judge whether it is within the hypertension range or a normal range. If it is within the hypertension range, the measured value will flash.



- When the measured value is within the hypertension range, the value will flash. (for about 5 times)
- Systolic blood pressure Above 18.7 kPa (140 mmHg)
- Diastolic blood pressure Above 12.0 kPa (90 mmHg)

*1 1999 World Health Organization-International Society of Hypertension Guidelines for the Management of Hypertension

Suggestions

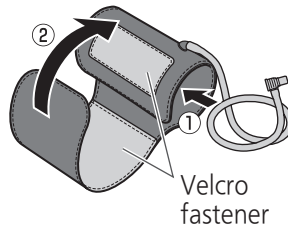
Compared with the first measurement, the second measurement is more stable and the blood pressure will also drop. Especially for people who easily get nervous, the second measurement is more accurate. During the second measurement, the measured value with smaller value is usually recorded. For the second measurement, please relax for 4~5 mins after the first measurement.

1. Pull the cuff plug out of the cuff socket.



2. Store the cuff.

- ① Place the tube into the cuff.
 - Please do not stretch or bend the tube with force and do not roll the tube around the main unit. (Otherwise, it will cause malfunction)



- ② Wrap the cuff.
Fix the velcro fastener.

Cleaning frequency/maintenance cycle

1. Cleaning of main unit

- Visually confirm the appearance of the main unit. If there is dirt, for cleaning, please turn off the power supply and gently wipe it with cloth that is soaked in soapy water or warm water then wrung.



2. Cleaning of cuff

- When there is dirt on the cuff, please gently wipe it with cloth that is soaked in soapy water or warm water then wrung.

3. To prevent infection, the cuff shall be cleaned regularly.







4. Cleaning precautions

- Before cleaning the device, please take the batteries out.
- Do not wash the device or cuff with water;
- Please keep the device away from dust or water vapor;
- Do not try to clean the cuff by washing machine or rubbing;
- Do not use alcohol, gasoline or thinner for cleaning, otherwise it will cause cracking or discoloration.






Product care



- Do not drop the main unit on the ground to avoid collision or strong impact. (Otherwise, it will cause malfunction)
- Avoid storing the device in an environment with high temperature, humidity or direct sunlight. (Otherwise, it will cause malfunction or discoloration)
- Do not allow dust or foreign matter to enter. (Otherwise, it will cause malfunction)
- Do not use it immediately after taking it out from a place below 0°C. Keep it in a warm environment for at least 1 hour. (Otherwise, it will cause inflation failure)

Questions	Answers
Why does the systolic or diastolic blood pressure value fluctuate?	<ul style="list-style-type: none"> • Whether the cuff is properly wrapped. <ul style="list-style-type: none"> → Whether the cuff is too loose or too tight. → Whether the cuff is wrapped to the upper arm. (Refer to P14 for the correct wrapping method) • Please do not talk or move during the measurement.
Why is the blood pressure measured in hospital different from that measured at home?	<p>The blood pressure changes during 24 hours. In addition, due to climate, emotion, exercise or other reasons, sometimes it may be subject to great changes. Especially in hospitals, there is the so-called [white-coat hypertension], which is that the blood pressure measured in the hospital is sometimes higher than that measured at home because of nervousness or uneasiness.</p> <p>When the blood pressure measured at home is higher than that in the hospital, please pay attention to the following items:</p> <p>① Whether the cuff is properly wrapped.</p> <ul style="list-style-type: none"> • Whether the cuff is too loose or too tight. • Whether the cuff is wrapped to the upper arm. (Refer to P14 for the correct wrapping method) <p>② Whether you feel uneasy or anxious.</p> <ul style="list-style-type: none"> • Please take a deep breath for 2~3 times before the measurement, so as to relax your body and stabilize your blood pressure. <p>Suggestion: Please relax for 4~5 mins before measuring.</p>
Why is the blood pressure value measured different every time?	<ol style="list-style-type: none"> (1) The blood pressure is constantly changing even in one day, and it will also vary due to the cuff wrapping method and measuring posture. Therefore, please conduct each measurement under the same conditions. (2) The blood pressure of people on antihypertensive drugs is sometimes subject to great changes due to their drug effects. (3) When 2 consecutive measurements are made, the user must relax for 4~5 mins in between.

Questions	Answers
<p>When the hand or the wrist is moved, but the [] mark is not displayed?</p>	<p>The so-called [] warning means that during the measurement process, the device will give a movement warning when the cuff senses excess pressure due to the movement of the arm, etc. Therefore, the [] warning may not be displayed for movements with no influence on the cuff (such as gently turning the elbow or bending the arm). If you have any doubts about the measurement, please re-measure.</p>
<p>After the warning with the [] mark, the hand or wrist position is corrected, but the measured value is too high?</p>	<p>The [] warning is only a reference prompt for measuring whether the posture is correct or not. After the [] warning mark is displayed, if the measured value is still high or low, please re-measure.</p> <p>In case of the above case, it may be due to the following factors.</p> <ul style="list-style-type: none"> • Did you measure properly? (The method of cuff wrapping and posture, etc.) • Measure immediately after smoking or when you are emotionally unstable; • People with small pulse changes or in a cold environment; • If you have any doubt about the measured value, please relax for 4-5 mins before re-measurement.

Please confirm before consulting or repairing

Failures	Cause and solution
Even if the  button is pressed, there is no display	<ul style="list-style-type: none"> ● The ⊕ ⊖ polarities of the batteries are installed incorrectly. ⇒ Please refer to P10 ● Battery power is low. ⇒ Please refer to P10 ● The button pressing time is not sufficient. Please press it for more than one second.
The  symbol flashes during the measurement	<ul style="list-style-type: none"> ● Irregular pulse during measurement. (P19) No function of irregular pulse warning.
The  mark flashes during the measurement	<ul style="list-style-type: none"> ● There may be movements in the body. ⇒ After the measurement, when  flashes and a re-measurement is taken. (Please relax for 4~5 mins before measuring) ● Even if the arm and body have no movements during the measurement, the body movement will be detected when the arm is exerting force. Please wait until the arm is relaxed before measuring.
Continuous inflation	<ul style="list-style-type: none"> ● Please stop using it, and entrust a sales store to inspect and repair it.
 is displayed	<ul style="list-style-type: none"> ● Battery power is low. ⇒ Please prepare new batteries (P10)
The display disappears during inflation	<ul style="list-style-type: none"> ● The battery has been used up. ⇒ Please refer to P10
Main unit damage	Please do not repair it yourself, and be sure to entrust the sales outlet for inspection and repair.

Failures	Cause and solution
U01 	<ul style="list-style-type: none"> ● Low battery. ⇒ Please refer to P10
U13	<ul style="list-style-type: none"> ● Pressurization to more than 280 mmHg. ⇒ Is the measurement posture correct? (P3,P13) ● Pressure decreased suddenly. ⇒ Is the measurement method and posture correct? (P3,P13) ⇒ Is the cuff wrapped correctly? (P14) ⇒ Is the cuff plug inserted correctly? (P15) ⇒ Please relax for 4~5 mins. Do not shake your hands, fingers, wrists, etc. and measure again. ● The pulse cannot be detected correctly. (♥The mark flashes several times or does not flash at all.) ● Not inflate or inflate but failed to measure properly. ⇒ Is the cuff wrapped correctly? (P14) ⇒ Is the cuff plug inserted correctly? (P15)
U12 	<ul style="list-style-type: none"> ● During measurement, the measured values vary significantly. (Large range of movement, many times of movements, large arm movements, etc.) ⇒ Please relax for 4~5 mins. Do not shake your hands, fingers, wrists, etc. and measure again. (P12)
F01	<ul style="list-style-type: none"> ● Main unit malfunction. ⇒ Please do not repair it yourself, and be sure to entrust the sales outlet for inspection and repair.

Power supply	6V --- 4 AA zinc carbon or alkaline batteries
Display	Digital LCD
Method of measurement	Oscillographic system
Measurement range	Static pressure measurement range: (0.0~37.3) kPa ((0 ~ 280) mmHg) Pulse measurement range: (30~160) beats/min Blood pressure measurement range: systolic blood pressure shall meet at least (8.0~30.7) kPa ((60 ~ 230) mmHg); Diastolic blood pressure shall be at least (5.3~17.3) kPa ((40~130) mmHg)
Accuracy	Pressure: within ± 0.4 kPa (± 3 mmHg) Pulse rate: within $\pm 5\%$
Normal working environment	Temperature: 5 °C~40 °C Relative humidity: 15%~80%
Storage and transportation environment	Temperature: -20 °C ~ 55 °C Relative humidity: no more than 93%
Atmospheric pressure for operation	80 kPa ~ 105 kPa
Atmospheric pressure for transportation and storage	50 kPa ~ 105 kPa
Measurable circumference of upper arm	Approx. 20 cm ~ 34 cm
Weight of the main unit	Approx. 280 g (excluding batteries)
Dimensions (main unit)	L(146mm) x W(92mm)x H(73mm)
Protection against electric shock	Class II equipment (internal power supply equipment) (Type B applied part)
Safety classification	Equipment inapplicable to usage in flammable anesthetic gas mixed with air or flammable anesthetic gas mixed with oxygen or nitrous oxide
Installation type	Non-permanently installed equipment

【 Production date 】 See the label

※If stored and used outside the specified temperature and humidity range, the specified performance specifications may not be met.

※Product specifications are subject to change without further notice.