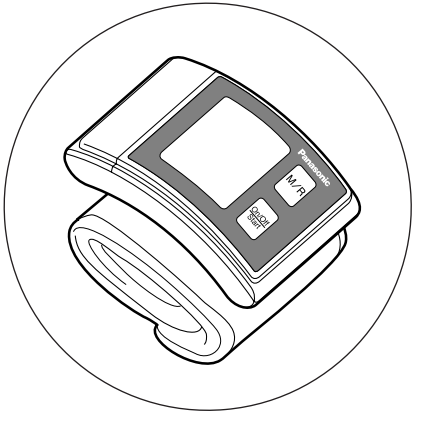
Panasonic

Wrist Blood Pressure Monitor
Monitor de Presión Arterial de Muñeca

Operating Instructions
Instrucciones de funcionamiento

Model No. EW3003
Modelo No. EW3003

For questions or assistance with your blood pressure monitor, call us at 1-800-338-0552.



Panasonic Consumer Electronics Company
Division of Panasonic Corporation of
North America
One Panasonic Way 3D-1
Secaucus, NJ 07094

Before operating this device, please read these instructions completely and save this manual for future use.

Antes de usar este dispositivo, lea completamente estas instrucciones y guarde este manual para utilizarlo como referencia en el futuro.

No.1 EN,SP（アメリカ）

Printed in China

Panasonic Oscillometric Diagnostec™ Wrist Blood Pressure Monitor Model EW3003 is a device intended to measure systolic and diastolic blood pressure and pulse rate of an adult individual by using a pressurized cuff on the left wrist. The device is not intended for use on infants and children. The device is designed for home use only, not for ambulatory measurement.

Specification of this device including pulse rate (30 - 160 pulse/min. +/– 5%) are listed in page 20.

Blood pressure measurements determined with this device are equivalent to those obtained by a trained observer using the cuff/stethoscope auscultation method, within the limits prescribed by the American National Standard, Electronic or automated sphygmomanometers.

If you suffer from disorder of heart rhythm, known as arrhythmia only use this blood pressure monitor in consultation with your doctor. In certain cases oscillometric measurement method can produce incorrect readings.

Flash warning system for hypertensive readings are based on blood pressure values classified in the paper: “JNC 7 Express; The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure; U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES; National Institute of Health; National Heart, Lung, and Blood Institute; National High Blood Pressure Education Program; NIH Publication No. 03-5233; May 2003.” The display values are generally known, but not proven, to be an indicator of your blood pressure.

The EW3003 is not intended to be a diagnostic device. Contact your physician if prehypertensive or hypertensive values are indicated.

Table of Contents

Introduction

Thank you for purchasing the Panasonic Wrist Blood Pressure Monitor EW3003.

Measuring your own blood pressure is an important way of monitoring your health. High blood pressure (hypertension) is a major health problem which can be treated effectively once detected. Measuring your blood pressure between doctor visits on a regular basis in the comfort of your home, and keeping a record of the measurements, will help you monitor any significant changes in your blood pressure. Keeping an accurate record of your blood pressure will help your doctor diagnose and possibly prevent any health problems in the future.

Basics of Blood Pressure

Your heart acts like a pump, sending blood surging through your blood vessels each time it contracts. Blood pressure is the pressure exerted by blood pumped from the heart on the walls of blood vessels. Systolic pressure is the pressure exerted when the heart contracts and pumps blood into the arteries. Diastolic pressure is the pressure exerted when the heart expands, or relaxes. When you or your doctor take your blood pressure, both your systolic and diastolic pressures are measured. If your blood pressure measurement is 120 over 80 (120/80), for example, your systolic pressure is 120 while your diastolic pressure is 80.

Important Instructions Before Use

1. Do not confuse self-monitoring with self-diagnosis. Blood pressure measurements should only be interpreted by a health professional who is familiar with your medical history.
2. If you are taking medication, consult with your physician to determine the most appropriate time to measure your blood pressure. NEVER change a prescribed medication without first consulting with your physician.
3. For persons with irregular or unstable circulation resulting from diabetes, liver disease, arteriosclerosis or other medical conditions, there may be variations in blood pressure values measured at the wrist versus at the upper arm. Monitoring the trends in your blood pressure taken at either the arm or the wrist is nevertheless useful and important.
4. Blood pressure can vary based on many factors, including age, gender, weight and physical condition. In general, a person's blood pressure is lower during sleep and higher when he or she is active. Blood pressure can change easily in response to physiological changes. The setting in which a person's blood pressure is measured can also affect the results. Having one's blood pressure measured by a healthcare professional in a hospital or clinic can cause nervousness and may result in a temporarily elevated reading. Because blood pressure measurements taken in a clinical setting can vary considerably from those taken at home, a person's blood pressure should be measured not only occasionally in the doctor's office, but also on a regular basis at home. Also, if you find that your blood pressure is lower at home, this is not unusual. To accurately compare with your physician's reading, take your Panasonic blood pressure monitor to your doctor's office and compare readings in this setting.
5. People suffering from cardiac arrhythmia, vascular constriction, liver disorders or diabetes, people with cardiac pacemakers or a weak pulse, and women who are pregnant should consult their physician before measuring their blood pressure themselves. Different values may be obtained due to their condition.
6. Try to take your blood pressure measurements at the same time and under the same conditions every day.
   - The ideal time to measure your blood pressure (to obtain your so-called "base blood pressure") is in the morning just after waking up, before having breakfast and before any major activity or exercise. If this is not possible, however, try to take measurements at a specified time prior to breakfast, and before you have become active. You should relax for

about 5 minutes before taking the measurement.

- The following situations may cause substantial variations in blood pressure readings and should therefore be avoided at least 30 minutes prior to taking your blood pressure.

  Blood pressure will be higher than usual:
  - when you are excited or tense
  - when you are taking a bath
  - during exercising or soon after exercising
  - when it is cold
  - within one hour after eating
  - after drinking coffee, tea or other beverages containing caffeine
  - after smoking tobacco
  - when your bladder is full

  Blood pressure will be lower than usual:
  - after taking a bath
  - after drinking alcohol

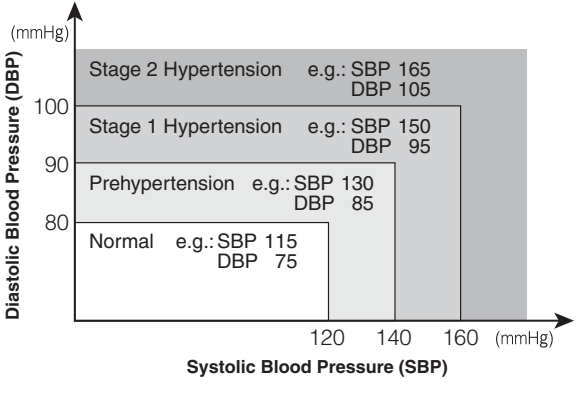
7. Measurements may be impaired if this unit is used near a television, microwave oven, X-ray equipment or other devices with strong electrical fields. To prevent such interference, use the unit at a sufficient distance from such devices or turn the devices off.
8. This unit is designed for use by adults. Consult with your physician before using this unit on a child. Do not use on infants or toddlers.
9. This unit is not suitable for continuous monitoring during medical emergencies or operations.
10. Do not use the unit for any purpose other than measuring blood pressure. Do not use the unit together with other devices.
11. Improper handling of batteries may result in battery rupture or in corrosion from battery leakage. Please observe the following to ensure proper use of batteries.
    a. Be sure to turn off the power after use.
    b. Do not mix different types or sizes of batteries.
    c. Change all batteries at the same time. Do not mix old and new batteries.
    d. Be sure to insert batteries with correct polarity, as instructed.
    e. Remove batteries when they are worn out, and dispose of them properly according to all applicable environmental regulations.
    f. Do not disassemble batteries or throw them into a fire.
    g. Do not short-circuit batteries.
    h. Do not attempt to recharge the batteries included with the unit.

Precautions to Ensure Safe, Reliable Operation

1. Do not drop the unit. Protect it from sudden jars or shocks.
2. Do not insert foreign objects into any openings.
3. Do not attempt to disassemble the unit.
4. Do not crush the pressure cuff.
5. If the unit has been stored at temperatures below 0°C, leave it in a warm place for about 15 minutes before using it. Otherwise, the cuff may not inflate properly.
6. Do not store the unit in direct sunlight, high humidity or dust.

Easily Check Your Blood Pressure Readings Against the JNC 7* Classification

Blood Pressure Categories



If your systolic pressure falls in one category but your diastolic pressure in another, your level is classified in the higher of the two categories.

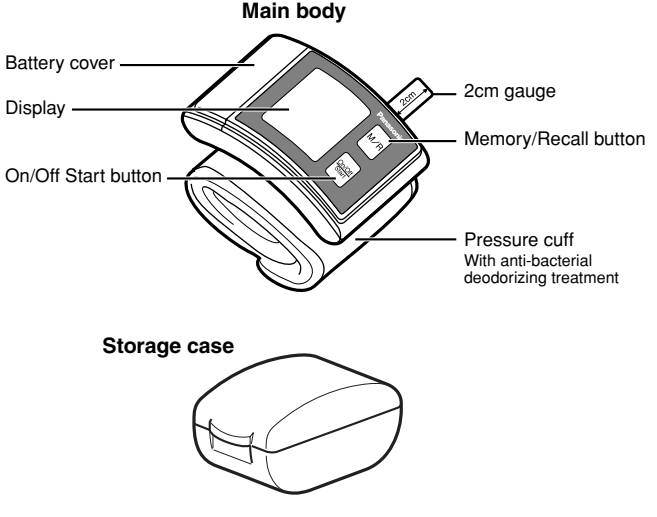
* JNC 7: The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure National Institute of Health (NIH) Publication; No. 03-5233, May 2003

IMPORTANT:

- Do not be alarmed by temporarily high or low readings because fluctuations in a person's blood pressure are not uncommon. If possible, measure and record your blood pressure at the same time every day, and consult your physician if you have questions or concerns.
- If abnormal variations in blood pressure are observed in measurement, please consult your physician.

Name and Function of Each Product Part

Fig. 1



Inserting/Replacing Batteries

Fig. 2-a

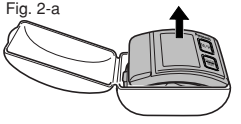


Fig. 2-b

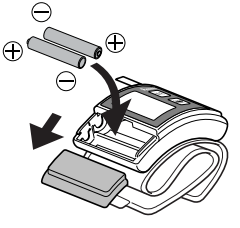
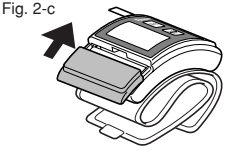


Fig. 2-c



1. Remove the unit from its storage case (Fig. 2-a).
2. Push the battery cover in the direction of the arrow. Insert two 1.5V alkaline batteries (AAA/LR03), ensuring the correct polarity (Fig. 2-b).
3. Slide the battery cover back into place on the main body until it clicks in place (Fig. 2-c).

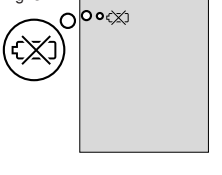
NOTES:
- Batteries are included only for testing purposes and with no guarantee of battery life.
- Do not mix old and new batteries.
- The batteries' power output is impaired at low temperatures.

Caution:
Do not throw batteries into a fire. Doing so may result in an accident or explosion.

When to Change Batteries

Change the batteries when the battery symbol (Fig. 3) appears on the display or when no data is displayed even when the On/Off button is pressed.

Fig. 3



Positioning the Pressure Cuff

CAUTIONS:

- Do not use the unit for any purpose other than measuring blood pressure. Also, do not use the unit in conjunction with other devices. Improper use may cause a malfunction or personal injury.
- Keep the unit out of the reach of children.

1. Remove your watch and any jewelry from your left hand.
2. Wrapping the cuff around the wrist and securing with hook-and-loop fastener.
   Leave main unit at the distance of 2 cm (3/4") from the first wrinkle line of wrist-palm joint, mount the cuff on the wrist in such way as the center of the main unit locates at the center of the wrist (Fig. 4-a).
3. Attach the right thumb on the harder part intensely from the side so that the right side of the cuff is sure to be fixed on the side face of the wrist, secure and attach the hook-and-loop fastener snugly until not feeling it oppressed.
   Confirm the both center of wrist and main unit is still on the same line, and tightness of the fixing (Fig. 4-c).

Fig. 4-a

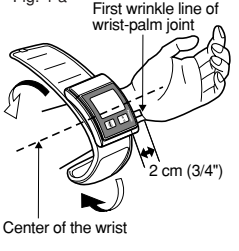
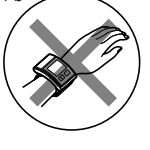
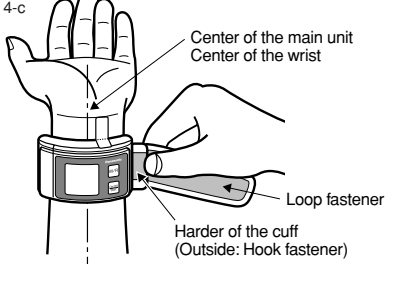


Fig. 4-b



- Pull up on the fastener, without twisting it, to remove the unit from your wrist.

Fig. 4-c

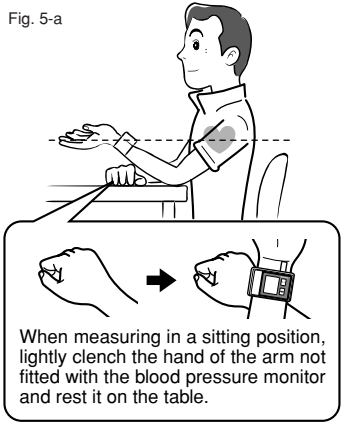


Correct Position for Blood Pressure Measurement

When measuring your blood pressure at your wrist, the pressure cuff must be at heart level to ensure consistent, accurate readings.
Always rest for about four to five minutes before taking measurements.
Press the On/Off and Start button to start a measurement. The cuff will automatically inflate and then deflate when the measurement is complete.

Taking measurements while sitting down

Fig. 5-a



1. Rest your elbows on a table or other level surface.
2. Hold the arm so that the cuff is at heart level.
3. With the palm of the hand facing up, release any tenseness in your muscles.
   - Slightly extend your fingers.
   - Slightly bend your wrist.

Fig. 5-b

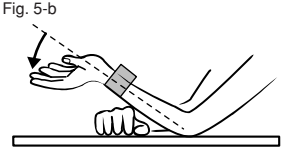
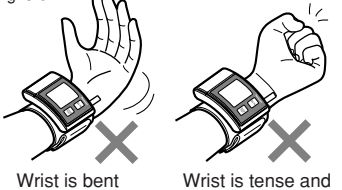


Fig. 5-c



If measurements are taken with the wrist or hand in the following positions, accurate measurements may not be possible.

If the blood pressure monitor is positioned lower than the heart, the measured blood pressure value may be high.

If the blood pressure monitor is positioned higher than the heart, the measured blood pressure value may be low.

If the posture applies pressure to the stomach (leaning forward), accurate measurements may not be possible.

Do not touch the blood pressure monitor while taking measurements.

Do not move your body, your arm, or your fingers while taking measurements.

Do not talk while taking measurements.

Do not use close to cellular phones or other devices which emit electromagnetic waves. Doing so may result in malfunction.

IMPORTANT:

- Measure your blood pressure at the same time and under the same conditions every day if possible. The ideal time to measure your blood pressure is in the morning immediately after waking up, while you are still relatively calm. If this is not possible, try to take your blood pressure prior to breakfast, before you become active.
- Relax and take measurements in a comfortable position.
- Rest for at least 5 minutes before taking a measurement.
- Keep still and do not speak during measurement. Blood pressure can fluctuate with the slightest change, such as tensing your muscles or changing your posture.

Measuring Your Blood Pressure

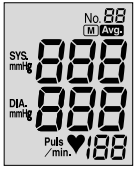
Fig. 6-a

Relax during measurements.

1. Press the On/Off and Start button (Fig. 6-a).
   - All displays on the unit will light up for approx. 2 seconds (Fig. 6-b).
   - The cuff will begin to inflate automatically.

   Changing inflation speeds and operating sounds occur during inflation and are a normal part of the measurements that are being performed at this time.

Fig. 6-b

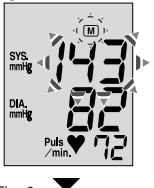


2. With fingers lightly clenched to form a fist, position your free hand beneath the arm of the wrist being measured.
   - Once your pulse rate is detected, the ♥ mark will flash on the display (Fig. 6-c).

Fig. 6-c

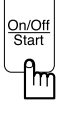
3. Blood pressure values together with pulse rate are displayed when the measurement is complete (Fig. 6-d).
   - The air in the pressure cuff is released automatically.
   - Displayed readings will flash (for approx. 6 seconds) when in the high blood pressure range.
   - The M mark will flash on the screen to indicate that readings may be recorded.
     (See page 15 for information on how to record blood pressure readings.)
   - The displayed pulse rate indicates the number of heartbeats per minute as calculated from the number of heartbeats recorded during the measurement.

Fig. 6-d



4. Press the On/Off and Start button to switch off the unit (Fig. 6-e).
   - If you wish to make another measurement, switch off and wait for 4 to 5 minutes before performing another one.
   - If you forget to switch the unit off, it will do so automatically after approx. 5 minutes.

Fig. 6-e

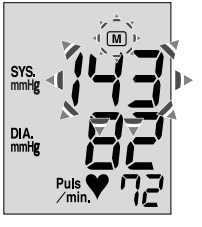


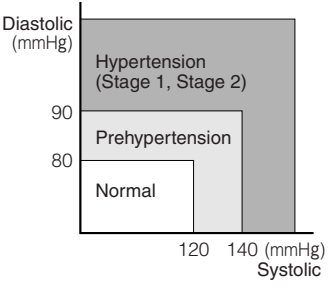
Flash warning system for hypertensive readings

If the measured values fall within the hypertension range, the reading displayed on screen flashes on and off to alert user.

According to JNC 7 Classification, values consistently in excess of 140 mmHg (Sys.) and/or 90 mmHg (Dia.) are considered to constitute high blood pressure.

Fig. 7

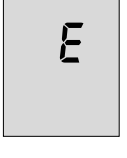




- Blood pressure readings will flash for approx. 6 seconds when in the high blood pressure range (Fig. 7).
  Systolic blood pressure: 140 mmHg and over
  Diastolic blood pressure: 90 mmHg and over
  (Only when measurement is complete)

When an Error Occurs During Measurement

Fig. 8



An E will appear on the display to indicate that measurement was unsuccessful and should be performed again (Fig. 8).
Before performing another measurement, always press the On/Off and Start button to turn off the unit and make sure to allow a rest period of 4 to 5 minutes before starting again.

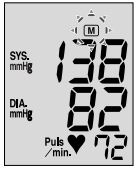
Please consult your doctor without delay if the blood pressure indicator repeatedly draws attention to elevated blood pressure values.

CAUTION:

- For persons with poor circulation resulting from diabetes, liver disease, arteriosclerosis, high blood pressure or other conditions, there may be significant differences in blood pressure values measured at the wrist versus at the upper arm.
- Do not confuse self-monitoring with self-diagnosis.
- NEVER change a prescribed medication without first consulting with your physician.

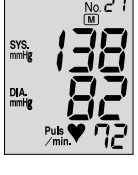
Storing blood pressure readings

Fig. 9-a



(After approx. one second.)

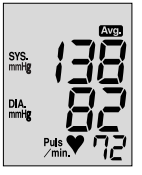
Fig. 9-b



1. The M mark will flash after a measurement has been completed (Fig. 9-a).
   Press the Memory/Recall button.
2. Memory storage is completed.
   - Readings of up to 21 measurements can be stored in memory (Fig. 9-b). Readings over the memory capacity will be recorded over the oldest measurement in memory.
   - Readings cannot be saved when a measurement has been unsuccessful (display of the error mark E for blood pressure readings). Readings can be saved, however, when the E mark is displayed for the pulse rate.

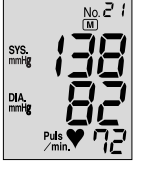
Calling up readings from memory

Fig. 10-a



(After approx. one second.)

Fig. 10-b



Readings can be recalled after being saved without having to switch the unit on.

1. Press the Memory/Recall button.
   - The average readings of all recorded measurements are displayed.
   - The Avg. mark will be displayed (Fig. 10-a).
   - When, for example, readings from 21 measurements have been saved the average of the readings from 21 measurements will be displayed.
2. Press the Memory/Recall button to display readings starting with from the most recent measurement.
   - Each time the Memory/Recall button is pressed readings are displayed in order of the most recent measurement (Fig. 10-b).
   - No readings will be displayed when there are none in the memory.
3. Press the On/Off and Start button to switch off the unit.
   If you forget to switch off the unit it will do so automatically after approx. 30 seconds.

Deleting all data stored in memory

(1) Recall stored data using the Memory/Recall button.
(2) Press the Memory/Recall button again and hold it (for approx. 3 seconds) until all readings are deleted.
NOTE: Readings from individual measurements cannot be deleted.
(3) When data has been deleted the M mark and No. 00 will be displayed on the screen.

Care and Maintenance

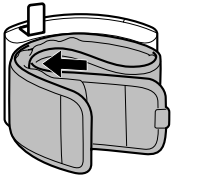
1. Use a dry, soft cloth to clean the device. If desired, use a cloth lightly dampened with tap water and a mild detergent to clean the device. DO NOT use alcohol, benzine, thinner or other harsh chemicals to clean the device or cuff.
2. When the unit will not be used for a long time (30 days or more), be sure to remove the batteries. Otherwise, the batteries may leak and damage the unit.

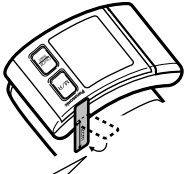
NOTE: When the batteries are removed, the date, time, and measurement record are erased. Set the date and time again the next time you use the unit.

Storing the Monitor

1. Fold the pressure cuff as indicated. (Fig. 11-a)
2. Put the blood pressure monitor in the storage case. (Fig. 11-b)
   • Be sure not to pinch the pressure cuff or 2cm gauge when closing the case.

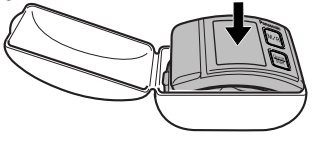
Fig. 11-a



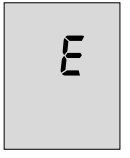


If the 2cm gauge is attached, straighten it out.

Fig. 11-b



Troubleshooting

Display	Status before error	Check points
The E blinks on the display 	Pressurization to above 280 mmHg was performed. (Re-pressurization was performed several times.)	Check whether measurements are being taken correctly and whether you are assuming the correct posture. Make sure the unit is on the palm side of the wrist. (See pages 9-10.)
	Pressure decreased suddenly and E appeared in the display.	
	♥ mark only blinks a few times, or not at all.	Check whether the pressure cuff is attached to your wrist correctly. Make sure the unit is on the palm side of the wrist. (See page 9.)
	Cuff does not inflate.	

Symptom	Possible cause
The systolic pressure value or diastolic pressure value is high.	• The hand with the cuff was held too low and not at heart level. (See page 9) • The cuff was not attached properly. (See page 9.) • You moved your hand or body or you spoke during measurement. (See page 9.)
The systolic pressure value or diastolic pressure value is low.	• The hand with the cuff was held too high and not at heart level. (See page 9.) • You moved your hand or body or you spoke during measurement. (See page 9.)
The measured values differ significantly.	• Your posture was not the same for all measurements, or measurements were taken without sufficient time in between. Always wait approximately 5 minutes before taking another reading, and above all, relax.
The measured value differs from that measured by the doctor. The measured value is different for each measurement.	• Blood pressure varies in response to minute changes in your mental state, such as your reaction to your doctor taking the measurement. One way to check this is to bring the unit to your doctor's office and directly compare the readings taken by your physician. • Relax for at least 5 minutes and then take another measurement.
Varying sounds and pressurization speeds occur during inflation of the cuff.	• Changes in operating sounds and pressurization speeds are normal and occur due to the fact that measurements are being made as the cuff is being inflated.
The measured value obtained is different from that measured at the upper arm.	• For persons with certain circulation problems, there may be substantial differences in blood pressure values measured at the upper arm versus at the wrist.

If the unit still appears to provide unusual or erroneous readings, consult your physician. If the unit does not appear to be functioning properly, contact Panasonic at 1-800-338-0552.

Specifications

Method of measurement:	Oscillometric System
Display:	Digital LCD
Measuring range:	Blood pressure: 0 - 280 mmHg Pulse rate: 30 - 160 pulse/min.
Measurement accuracy:	Pressure: ±3 mmHg Pulse rate: ±5%
Power source:	Two 1.5-volt alkaline (AAA/LR03) batteries
Operating environment:	10°C to 40°C (50°F to 104°F) 30% to 85% RH
Storage environment:	-20°C to 60°C (-4°F to 140°F) 10% to 95% RH
Wrist circumference measurement range:	12.5 to 22.0 cm (5" to 8-3/4")
Dimensions (H × W × D):	58.0 × 89.0 × 33.0 mm (2-5/16" × 3-1/2" × 1-5/16")
Weight:	95 g (3.4 oz.) not including batteries

Specifications are subject to change without notice.