OMRON

Automatic Blood Pressure Monitor

Model JPN2
Instruction Manual

8500188-9A

Introduction

Thank you for purchasing the OMRON JPN2 Automatic Blood Pressure Monitor.

The JPN2 is a fully automatic blood pressure monitor, operating on the oscillometric principle. It measures your blood pressure and pulse rate simply and quickly. For comfortable controlled inflation without the need of pressure pre-setting or re-inflation the device uses its advanced "IntelliSense" technology.

Intended Use
This product is designed to measure the blood pressure and pulse rate of people within the range of the designated arm cuff, following the instructions in this instruction manual.
It is mainly designed for general household use. Please read the Important Safety Information in this instruction manual before using the unit.

Please read this instruction manual thoroughly before using the unit. Please keep for future reference. For specific information about your own blood pressure, CONSULT YOUR DOCTOR.

Important Safety Information

Consult your doctor prior to using in pregnancy or if diagnosed with arrhythmia or arteriosclerosis.
Please read this section carefully before using the unit.

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

(General Usage)
- Always consult your doctor. Self-diagnosis of measurement results and self-treatment are dangerous.
- People with severe blood flow problems, or blood disorders, should consult a doctor before using the unit, as cuff inflation can cause internal bleeding.

(AC Adapter (Optional) Usage)
- Never plug in or unplug the power cord from the electric outlet with wet hands.

(Battery Usage)
- If battery fluid should get in your eyes, immediately rinse with plenty of clean water. Consult a doctor immediately.

⚠**Caution:** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the equipment or other property.

(General Usage)
- Do not leave the unit unattended with infants or persons who cannot express their consent.
- Do not use the unit for any purpose other than measuring blood pressure.
- Do not disassemble the unit or arm cuff.
- Use only the approved arm cuff for this unit. Use of other arm cuffs may result in incorrect measurement results.
- Make sure that the air tube is not wrapped around other parts of your body when taking measurements at night. This could result in injury when the air pressure in the air tube is increased.
- Do not leave the cuff wrapped on the arm if taking measurements during the night. This could result in injury.
- Do not inflate the arm cuff over 299 mmHg.
- Do not use a mobile phone or other devices that emit electromagnetic fields, near the unit. This may result in incorrect operation of the unit.
- Do not operate the unit in a moving vehicle (car, airplane).
- To inflate the cuff manually, refer to Chapter 3.3. If the cuff is over inflated, it can cause internal bleeding.

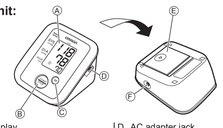
(AC Adapter (Optional) Usage)
- Use only the original AC adapter (optional) designed for this unit. Use of unsupported adapters may damage and/or may be hazardous to the unit.
- Plug the AC adapter into the appropriate voltage outlet.
- Do not use the AC adapter if the unit or the power cord is damaged. Turn off the power and unplug the power cord immediately.

(Battery Usage)
- If battery fluid should get on your skin or clothing, immediately rinse with plenty of clean water.
- Use only four "AAA" alkaline batteries with this unit. Do not use other types of batteries.
- Do not insert the batteries with their polarities incorrectly aligned.
- Replace old batteries with new ones immediately. Replace all four batteries at the same time.
- Remove the batteries if the unit will not be used for three months or more.
- Do not use new and used batteries together.

General Precautions
- Do not apply strong shocks and vibrations to or drop the unit and arm cuff.
- Do not take measurements after bathing, drinking alcohol, smoking, exercising or eating.
- Do not forcibly bend the arm cuff or bend the air tube excessively.
- When removing the air tube, pull on the air plug at the connection with the main unit not the tube itself.
- Do not inflate the arm cuff when it is not wrapped around your arm.
- Do not wash the arm cuff or immerse it in water.
- Read and follow the "Important information regarding Electro Magnetic Compatibility (EMC)" in the EMC information provided with this unit.
- Read and follow the "Correct Disposal of This Product" in the Technical Data Section when disposing of the device and any used accessories or optional parts.

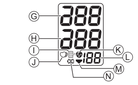
1. Overview

Main unit:



A. Display
B. START/STOP button
C. M (Memory) button
D. AC adapter jack (for optional AC adapter)
E. Battery compartment
F. Air jack

Display:

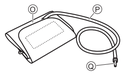


G. Systolic blood pressure
H. Diastolic blood pressure
I. Memory symbol (Displayed when viewing values stored in memory)
J. Irregular heartbeat symbol
K. Heartbeat symbol
1. Flashes during measurement
2. If flashing after measurement complete indicates blood pressure out of recommended range

L. Pulse display
M. Deflation symbol
N. Battery low symbol

Note: If your systolic or diastolic pressure is outside the standard range (above 135/85 mmHg), the Heartbeat symbol ( ) will blink. Refer to "3.2 Taking a Reading".

Arm cuff:



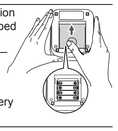
If air starts to leak from the arm cuff, please replace with a new one. Refer to "6. Optional Parts".

O. Arm cuff (Medium cuff: arm circumference 22-32 cm)
P. Air tube
Q. Air plug

2. Preparation

2.1 Installing/Replacing the Batteries

1. Turn the main unit upside down.
2. Slide the battery cover in the direction of the arrow while pressing the ribbed part of the cover.
3. Install or replace four "AAA" size batteries so that the + (positive) and - (negative) polarities match the polarities indicated on the battery compartment.
4. Put the battery cover back in place. Slide the battery cover as indicated, until it clicks into place.



Note: The measurement values continue to be stored in memory even after the batteries are replaced.

2.2 Battery Life & Replacement

If the battery low symbol ( ) appears on the display, replace all four batteries at the same time.
- When the battery low symbol ( ) starts to blink, you will still be able to use the unit for a short while. You should replace the batteries with new ones as soon as possible.
- When the symbol ( ) remains lit, the batteries are exhausted. You should replace the batteries with new ones at once. Turn the unit off before replacing the batteries.

- Remove the batteries if the unit will not be used for three months or more.
- Dispose of batteries according to applicable local regulations.

Four new "AAA" alkaline batteries will last for approximately 300 measurements, when used to take two measurements a day.
Since the supplied batteries are for monitoring use only, they may have a shorter life and do not last for 300 measurements.

3. Using the Unit

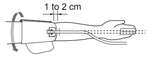
3.1 Applying the Arm Cuff

Be sure to wrap the arm cuff correctly so that you get accurate results. Measurements can be taken in light clothing. However, please remove thick clothes, such as sweaters, before taking a reading.

Note: You can take a measurement on either your left or right arm. The blood pressure can differ between the right arm and the left arm and therefore also the measured blood pressure values can be different. Omron recommends to always use the same arm for measurement. If the values between the two arms differ substantially, please check with your doctor which arm to use for your measurement.

1. Insert the air plug into the air jack on the left side of the main unit.

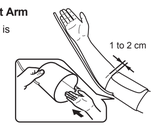
2. Apply the arm cuff to your upper arm. The air tube should be centred on the inside of your arm and point down the inside of your forearm and is in line with your middle finger.



3. When the cuff is positioned correctly, close the fabric fastener firmly.

Taking a Reading on the Right Arm

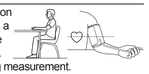
Apply the cuff so that the air tube is at the side of your elbow.



Notes:
- Be careful not to rest your arm on the air tube, or otherwise restrict the flow of air to the cuff.
- The cuff should be 1 to 2 cm above the elbow.

3.2 Taking a Reading

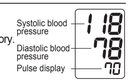
1. Sit on a chair with your feet flat on the floor and place your arm on a table so that the arm cuff will be at the same level as your heart. Keep still and do not talk during measurement.



2. Press the START/STOP button to turn the unit on.

Note: To cancel a measurement, press the START/STOP button to turn the unit off and to release the air in the arm cuff.

3. Check the measurement results. The unit automatically stores blood pressure and pulse rate into its memory. Refer to "3.4 Using the Memory Function".



Notes:
- Self-diagnosis of measured results and treatment are dangerous. Please follow the instructions of your doctor.
- Wait 2-3 minutes before taking another blood pressure reading. Waiting between readings allows the arteries to return to the condition prior to taking the blood pressure measurement.

Important:
- If your systolic or diastolic pressure is outside the standard range, the heartbeat symbol will blink when the measurement result is displayed. Recent research suggests that the following values can be used as a guide to high blood pressure for measurements taken at home.

Systolic Blood Pressure	Above 135 mmHg
Diastolic Blood Pressure	Above 85 mmHg

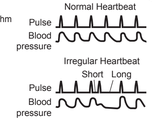
This criteria is for home blood pressure measurement.

- Your blood pressure monitor includes an irregular heartbeat feature. Irregular heartbeats can influence the results of the measurement. The irregular heartbeat algorithm automatically determines if the measurement is usable or needs to be repeated. If the measurement results are affected by irregular heartbeats but the result is valid, the result is shown together with the irregular heartbeat symbol ( ). If the irregular heartbeats cause the measurement to be invalid, no result is shown. If the Irregular heartbeat symbol ( ) is shown after you have taken a measurement, repeat the measurement. If the Irregular heartbeat symbol ( ) is shown frequently, please make your doctor aware of it.

4. Remove the arm cuff.
5. Press the START/STOP button to turn the unit off.

Note: If you forget to turn the unit off, it will automatically shut itself off after five minutes.

What is Irregular Heartbeat?
An irregular heartbeat is a heartbeat rhythm that varies by more than 25% from the average heartbeat rhythm detected while the unit is measuring the systolic and diastolic blood pressure.
If such an irregular rhythm is detected more than twice during measurement, the irregular heartbeat symbol ( ) appears on the symbol when the measurement results are displayed.

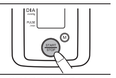


What is Arrhythmia?
A heartbeat is stimulated by electrical signals that cause the heart to contract. Arrhythmia is a condition where the heartbeat rhythm is abnormal due to flaws in the bio-electrical system that drives the heartbeat. Typical symptoms are skipped heartbeats, premature contraction, an abnormally rapid (tachycardia) or slow (bradycardia) pulse. This can be caused by heart disease, aging, physical predisposition, stress, lack of sleep, fatigue etc. Arrhythmia can only be diagnosed by a doctor through a special examination.
Whether the appearance of the irregular heartbeat symbol ( ) in the results indicates arrhythmia or not can only be determined by an examination and diagnosis by your doctor.
⚠**Warning:**
If the irregular heartbeat symbol ( ) is shown frequently, please make your doctor aware of it. Conducting self-diagnosis and treatment based on measurement results is dangerous. Be sure to follow the instructions of your doctor.

3.3 Instructions for Special Conditions

If your systolic pressure is known to be more than 220 mmHg, press and hold the START/STOP button until the arm cuff inflates 30 to 40 mmHg higher than your suspected systolic pressure.

1. Press the START/STOP button to turn the unit on. Measurement starts.



2. When the cuff starts to inflate, press the START/STOP button and keep it pressed until the pressure is 30 to 40 mmHg higher than your suspected systolic pressure.

Note: You cannot inflate the cuff above 299 mmHg. (An error will be displayed if you try to inflate the cuff above 300 mmHg.)

3. Release the START/STOP button when the cuff has been inflated to the desired pressure. The cuff starts to deflate and measurement starts.
4. The rest of the procedure is the same as for normal measurement. Refer to "3.2 Taking a Reading", steps 3 to 5.

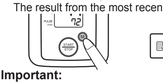
Note: Do not apply more pressure than necessary.

3.4 Using the Memory Function

This unit has a memory capable of storing 30 sets of readings. Every time you complete the measurement, the unit automatically stores the blood pressure and pulse rate.

Note: When 30 sets of readings are stored in memory, the oldest set will be deleted to store a new set.

1. Press the Memory (M) button. The result from the most recent measurement is displayed.



Important:
If your systolic or diastolic pressure is outside the standard range, the heartbeat symbol will blink when the measurement result is displayed.
Refer to "3.2 Taking a Reading".

Note: If there are no measurements results stored in memory, the screen to the right is displayed.

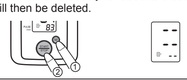
2. Press the Memory (M) button repeatedly to cycle through the previous measurement results.
The Memory number appears for a second before the pulse rate is displayed.
The newest set is numbered "1".
At the end of the measurement, if an irregular heartbeat is detected, the irregular heartbeat symbol will be displayed with the result.

3. Press the START/STOP button to turn the unit off.
If you forget to turn the unit off, it will automatically shut itself off after five minutes.

To Delete All the Values Stored in Memory

You cannot delete individual stored readings, all the readings in the unit will be deleted.

1. To delete stored readings, first press the Memory (M) button. Then while holding it down, press the START/STOP button simultaneously for about 2-3 seconds. All readings will then be deleted.



2. Press the START/STOP button to turn the unit off.
If you forget to turn the unit off, it will automatically shut itself off after five minutes.

4. Handling Errors and Problems

4.1 Error Messages

Error Display	Cause	Remedy
EE	Cuff is under inflated.	Carefully read and repeat the steps listed under section 3.3.
E	Movement during measurement.	Repeat measurement. Remain still and do not talk during measurement.
	Air plug disconnected.	Insert the air plug securely. Refer to section 3.1.
	Arm cuff not applied correctly.	Apply the arm cuff correctly. Refer to section 3.1.
	Clothing is interfering with the arm cuff.	Remove any clothing interfering with the arm cuff.
	Air is leaking from the arm cuff.	Replace cuff with new one.
E	Arm cuff has been inflated above 299 mmHg.	Do not inflate the arm cuff above 299 mmHg. Refer to section 3.3.
Blinks or appears continuously	Battery power is low.	Replace all four "AAA" batteries with new ones. Refer to section 2.1.
Er	Device error.	Contact your local OMRON representative.

Note: The irregular heartbeat symbol ( ) may also be displayed with error messages.

4.2 Troubleshooting

Problem	Cause	Remedy
The reading is extremely low (or high).	Arm cuff not applied correctly.	Apply the arm cuff correctly. Refer to section 3.1.
	Movement or talking during measurement.	Remain still and do not talk during measurement.
	Clothing is interfering with the arm cuff.	Remove any clothing interfering with the arm cuff.
Arm cuff pressure does not rise.	The air plug is not securely inserted into the main unit.	Make sure that the air plug is connected securely. Refer to section 3.1.
	Air is leaking from the arm cuff.	Replace the arm cuff with a new one.
Arm cuff deflates too soon.	The arm cuff is loose.	Apply the cuff correctly so that it is firmly wrapped around the arm. Refer to section 3.1.
Cannot measure or readings are too low or too high.	The arm cuff has not been inflated sufficiently.	Inflate the cuff so that it is 30 to 40 mmHg above your previous measurement result. Refer to section 3.3.
The unit loses power during measurement.	The batteries are empty.	Replace the batteries with new ones.
Nothing happens when you press the buttons.	The batteries are empty.	Replace the batteries with new ones.
	The batteries have been inserted incorrectly.	Insert the batteries with the correct (+/ -) polarity.
Other problems.	Press the START/STOP button and repeat measurement. If the problem continues, try replacing the batteries with new ones. If this still does not solve the problem, contact your local OMRON representative.	

5. Maintenance and Storage

Maintenance

To protect your unit from damage, please observe the following:
- Do not subject the main unit and cuff to extreme temperatures, humidity, moisture or direct sunlight.
- Do not fold the cuff or tubing tightly.
- Do not inflate the arm cuff over 299 mmHg.
- Do not disassemble the unit.
- Do not subject the unit to strong shocks or vibrations (for example, dropping the unit on the floor).
- Do not use volatile liquids to clean the main unit.
- Do not wash the arm cuff or immerse it in water.
- Do not use petrol, thinners or similar solvents to clean the arm cuff.
- Do not carry out repairs of any kind by yourself. If a defect occurs, consult your local OMRON representative.

- The unit should be cleaned with a soft, dry cloth.
- Use a soft, moistened cloth and soap to clean the arm cuff.

Note: Read and follow the "Correct Disposal of This Product" in the Technical Data Section when disposing of the device and any used accessories or optional parts.

Calibration and Service

- The accuracy of this blood pressure monitor has been carefully tested and is designed for a long service life.
- It is generally recommended to have the unit inspected every two years to ensure correct functioning and accuracy. Please consult your local OMRON representative.

Storage

1. Unplug the air tube from the air jack. Gently fold the air tube into the arm cuff.

Note: Do not bend the air tube excessively.

Do not store the unit in the following situations:
- If the unit is wet.
- Locations exposed to extreme temperatures, humidity, direct sunlight, dust or corrosive vapours.
- Locations exposed to vibrations, shocks or where it will be at risk of falling.

6. Optional Parts

Arm Cuff

Arm circumference 22 - 32 cm

Medium Arm Cuff
Model: HEM-CR24

Arm circumference 32 - 42 cm

Large Arm Cuff
Model: HEM-CL24

AC Adapter

Adapter S
Model: 60240HW5SW

Using the Optional AC Adapter

1. Insert the AC adapter plug into the AC adapter jack on the side of the main unit.
2. Plug the AC adapter into an electrical outlet.

To disconnect the AC adapter, unplug the AC adapter from the electrical outlet first and then remove the AC adapter plug from the main unit.

7. Technical Data

Product Description	Automatic Blood Pressure Monitor
Model	JPN2
Display	LCD Digital Display
Measurement Method	Oscillometric method
Measurement Range	Pressure: 0 to 299 mmHg Pulse: 40 to 180 beats/min.
Memory	30 Measurements
Accuracy	Pressure: ±3 mmHg Pulse: ±5% of reading
Inflation	Fuzzy-logic controlled by electric pump
Deflation	Automatic pressure release valve
Rating	DC6V 4W
Power Source	4 "AAA" batteries 1.5V or AC adapter (optional, INPUT AC100-240V 50/60Hz 0.12A)
Battery Life	Approx. 300 measurements (using new alkaline batteries)
Applied Part	= Type B
Protection against Electric Shock	Internally powered ME equipment (When using only the batteries) = Class II ME equipment (Optional AC adapter)
Operating Temperature/Humidity	10°C to 40°C/ 30 to 85% RH
Storage Temperature/ Humidity/ Air Pressure	-20°C to 60°C/ 10 to 95% RH/ 700-1060 hPa
Console Weight	Approx. 250g without batteries
Cuff Weight	Approx. 120g
Outer Dimensions	Approx. 104 (w) mm × 84 (h) mm × 129 (l) mm
Cuff Dimensions	Approx. 146 mm × 446 mm (Medium cuff: arm circumference 22 to 32 cm)
Cuff Material	Polyester and nylon
Package Content	Main unit, medium cuff, instruction manual, EMC information, battery set

Note: Subject to technical modification without prior notice.

CE 0197

- This device fulfils the provisions of EC directive 93/42/EEC (Medical Device Directive).
- This blood pressure monitor is designed according to the European Standard EN1060, Non-invasive sphygmomanometers Part 1: General Requirements and Part 3: Supplementary requirements for electromechanical blood pressure measuring systems.
- This OMRON product is produced under the strict quality system of OMRON HEALTHCARE Co., Ltd., Japan. The core component for OMRON blood pressure monitors, which is the Pressure Sensor, is produced in Japan.

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

This marking shown on the product or its literature, indicates that it should not be disposed of, with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this product from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can return this item for environmentally safe recycling.
Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Manufacturer	**OMRON HEALTHCARE Co., Ltd.** 53, Kunotsubo, Terado-cho, Muko, Kyoto 617-0002 JAPAN
EC REP	**OMRON HEALTHCARE EUROPE B.V.** Scorpius 33, 2132 LR Hoofddorp THE NETHERLANDS
Asia Pacific HQ	**OMRON HEALTHCARE SINGAPORE PTE LTD.** 438A Alexandra Road, #05-05/08, Alexandra Technopark Singapore 119967 www.omronhealthcare-ap.com
Production Facility	**OMRON HEALTHCARE Co., Ltd.** **Matsusaka Factory** Mie, JAPAN

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