OMRON

Automatic Blood Pressure Monitor

Model HEM-8712
Instruction Manual

5342191-6B

Introduction

Thank you for purchasing the OMRON HEM-8712 Automatic Blood Pressure Monitor.

The OMRON HEM-8712 is a compact, 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)
- Do not use the device on the injured arm or the arm under medical treatment.
- Do not wrap the arm cuff on the arm while being on an intravenous drip or blood transfusion.

(AC Adapter (optional) Usage)
- 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.
- Plug the AC adapter into the appropriate voltage outlet. Do not use a multiple-tap.
- Never plug in or unplug the power cord from the electric outlet with wet hands.

⚠**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)
- 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.
- If there are any abnormalities during the measurement, remove the arm cuff.
- Do not use this device on infants or persons who cannot express their intentions.
- Do not inflate the arm cuff more than necessary.
- Do not use the unit for any purpose other than measuring blood pressure.
- Use only the approved arm cuff for this unit. Use of other arm cuffs may result in incorrect measurement results.
- 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 disassemble the unit or arm cuff.

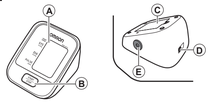
(Battery Usage)
- Do not insert the batteries with their polarities incorrectly aligned.
- Use only four "AA" alkaline or manganese batteries with this unit. Do not use other types of batteries. Do not use new and used batteries together.
- Remove the batteries if the unit will not be used for 3 months or more.

(AC Adapter (optional) Usage)
- Fully insert the power plug.
- When disconnecting the power plug, do not pull the power cord. Be sure to hold the power plug.
- When handling the power cord, observe the following:
  Do not damage. Do not break it.
  Do not tamper with it. Do not forcibly bend or pull.
  Do not twist. Do not bundle during use.
  Do not pinch. Do not place under heavy objects.
- Wipe the dust off from the power plug.
- Disconnect the power plug if the product will not be used for a long period of time.
- Disconnect the power plug before starting maintenance.
- Use only the original AC adapter designed for this unit. Use of unsupported adapters may damage and/or may be hazardous to the unit.

General Precautions
- Do not forcibly bend the arm cuff or bend the air tube excessively.
- To unplug the air plug, pull on the air plug at the connection with the main unit, not the tube itself.
- Do not apply strong shocks and vibrations to or drop the unit and arm cuff.
- Do not inflate the arm cuff when it is not wrapped around your arm.
- Read and follow the "Important information regarding Electro Magnetic Compatibility (EMC)" in the Technical Data Section.
- 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.

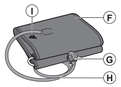
1. Overview

Main unit:



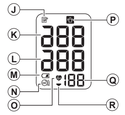
A. Display
B. START/STOP button
C. Battery compartment
D. AC adapter jack (for optional AC adapter)
E. Air jack

Arm cuff:



F. Arm cuff (Arm circumference 22 - 32 cm)
G. Air plug
H. Air tube
I. Marker

Display:



J. Memory symbol
K. Systolic blood pressure
L. Diastolic blood pressure
M. Low battery symbol
N. Cuff wrapping guide
O. Heartbeat symbol
1. Flashes during measurement.
2. If flashing after measurement completed or when viewing results stored in the memory, indicates blood pressure out of recommended range*.

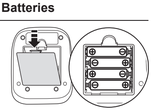
P. Movement error symbol
Q. Pulse display
R. Deflation symbol

* Note: If your systolic or diastolic pressure is outside the standard range (above 135/85 mmHg) the Heartbeat symbol (♥) will blink. Please refer to Section 3.3.

2. Preparation

2.1 Installing/Replacing the Batteries

1. Remove the battery cover.
2. Insert four "AA" batteries as indicated in the battery compartment and then replace the battery cover.



Notes:
- If the low battery symbol ( ) appears on the display, turn the monitor off then replace all batteries at the same time.
- The measurement values continue to be stored in memory even after the batteries are replaced.
- The supplied batteries may have a shorter life.

Disposal of used batteries should be carried out in accordance with the national regulations for the disposal of batteries.

3. Using the Unit

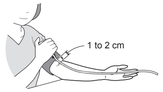
3.1 Applying the Arm Cuff

Remove tight-fitting clothing or tight rolled up sleeve from your upper arm. Do not place the arm cuff over thick clothes.

1. Insert the air plug into the air jack securely.

2. Put your arm through the cuff loop.

The bottom edge of the arm cuff should be 1 to 2 cm above the elbow. Marker (arrow under the air tube) is centred on the middle of your inner arm.



3. Close the fabric fastener FIRMLY.

Notes:
- When you take a measurement on the right arm, the air tube will be at the side of your elbow. Be careful not to rest your arm on the air tube.

- 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 both arms differ substantially, please check with your doctor which arm to use for your measurement.

3.2 How to Sit Correctly

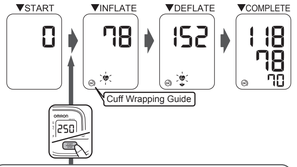
To take a measurement, you need to be relaxed and comfortably seated, under comfortable room temperature. No bathing, drinking alcohol or caffeine, smoking, exercising or eating 30 minutes before taking a measurement.

- Sit on a chair with your feet flat on the floor.
- Sit upright with your back straight.
- The arm cuff should be at the same level as your heart.

3.3 Taking a Reading

Notes:
- To cancel a measurement, press the START/STOP button to release the air in the arm cuff.
- Remain still while taking a measurement.

1. Press the START/STOP button.
The arm cuff will start to inflate automatically.



If your systolic pressure is more than 210 mmHg
After the arm cuff starts to inflate, press and hold the START/STOP button until the monitor inflates 30 to 40 mmHg higher than your expected systolic pressure.

Notes:
- The monitor will not inflate above 299 mmHg.
- Do not apply more pressure than necessary.

Note: Wait 2-3 minutes before taking another blood pressure measurement. Waiting between readings allows the arteries to return to the condition prior to taking the blood pressure measurement.

⚠ **Always consult your doctor. Self-diagnosis of measurement results and self-treatment are dangerous.**

Cuff Wrapping Guide:
The Cuff Wrapping Guide is a unique feature that indicates if the cuff is not wrapped tightly enough around the arm. Even when the ( ) appears on the display, a blood pressure reading will be taken.

Note: This reading is **NOT** reliable due to the incorrect wrapping of the cuff. Please wrap the cuff again, taking care to wrap it correctly and take the measurement again. When the (⊘) is displayed, the cuff is correctly wrapped tightly enough on the arm and the reading is accurate and reliable.

2. Remove the arm cuff.

3. Press the START/STOP button to turn the monitor off.
The monitor automatically stores the measurement in its memory.
It will automatically turn off after 2 minutes.

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.

- If you move during measurement, the movement error symbol ( ) will appear on the display. Keep still and repeat the measurement.

3.4 Using the Memory Function

The monitor automatically stores the last measurement values (blood pressure and pulse rate).

To View the Readings Stored in Memory

1. Press and hold the START/STOP button for more than 5 seconds.
The last measurement value is displayed along with the memory symbol.

Notes:
- If your systolic or diastolic pressure is outside the standard range, the heartbeat symbol will blink when the measurement result is displayed.
- The cuff wrapping guide result appears on the display with the measurement values.
- If there are no measurements results stored in the memory, the screen to the right is displayed.

2. Press the START/STOP button to turn the monitor off.
It will automatically turn off after 2 minutes.

To Delete the Values Stored in Memory

Press and hold the START/STOP button for more than 15 seconds.

4. Troubleshooting and Maintenance

4.1 The Icons and Error Messages

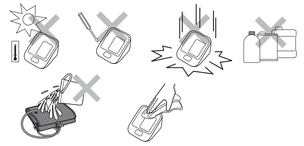
Error Display	Cause	Remedy
	Movement during measurement.	Carefully read and repeat the steps in section 3.3.
	Cuff is not applied correctly.	Apply the arm cuff correctly. Refer to section 3.1.
	The batteries are low.	You should replace them with new ones ahead of time. Refer to section 2.1.
	The batteries are exhausted.	You should replace them with new ones at once. Refer to section 2.1.
E1	Air plug disconnected.	Insert the plug securely. Refer to section 3.1.
	Arm cuff not applied correctly.	Apply the arm cuff correctly. Refer to section 3.1.
	Air is leaking from the arm cuff.	Replace the cuff with the new one. Refer to Chapter 5.
E2	Movement during measurement and the arm cuff has not been inflated sufficiently.	Repeat measurement. Remain still and do not talk during measurement. Refer to section 3.3.
		If "E2" appears repeatedly, inflate the cuff manually until it is 30 to 40 mmHg above your previous measurement result. Refer to section 3.3.
E3	The arm cuff was inflated above 299 mmHg when inflating the cuff manually.	Do not inflate the cuff above 299 mmHg. Refer to section 3.3.
E4	Movement during measurement.	Repeat measurement. Remain still and do not talk during measurement. Refer to section 3.3.
E5	Clothing is interfering with the arm cuff.	Remove any clothing interfering with the arm cuff. Refer to section 3.1.
Er	Device error.	Contact your local OMRON representative.

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. Refer to section 3.3.
	Clothing is interfering with the arm cuff.	Remove any clothing interfering with the arm cuff. Refer to section 3.1.
Arm cuff pressure does not rise.	The air tube is not securely connected into the main unit.	Make sure that the air tube is connected securely. Refer to section 3.1.
	Air is leaking from the arm cuff.	Replace the arm cuff with a new one. Refer to Chapter 5.
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.
Nothing happens when you press the buttons.	The batteries are empty.	Replace the batteries with new ones. Refer to section 2.1.
	The batteries have been inserted incorrectly.	Insert the batteries with the correct (+/-) polarity. Refer to section 2.1.
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.	

4.3 Maintenance

To protect your unit from damage, please observe the following:
- Do not subject the main unit and the 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 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 neutral soap to clean the arm cuff.

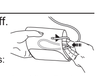
Note: Read and follow the "Correct Disposal of This Product" in the Technical Data Section when disposing of the device and any used accessories or optional parts.

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.

4.4 Storage

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



Notes:
- 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 an angle.

5. Optional Parts

Small Cuff HEM-CS24
Arm circumference 17 - 22 cm

Medium Cuff HEM-CR24
Arm circumference 22 - 32 cm

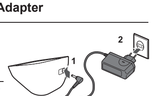
Wide Range Soft Cuff HEM-RML31
Arm circumference 22 - 42 cm

AC Adapter S

Notes:
- Please use Adapter [60110HW5SW] in Taiwan, Adapter [6V06ASW-KA] in Korea.
- Please check with your local OMRON representatives for the appropriate optional parts.

Using the Optional AC Adapter

1. Insert the AC adapter plug into the AC adapter jack on the rear 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.

6. Technical Data

Product Description	Automatic Blood Pressure Monitor
Model	HEM-8712
Display	LCD Digital Display
Measurement Method	Oscillometric method
Measurement Range	Pressure: 0 to 299 mmHg Pulse: 40 to 180 beats/ min.
Accuracy	Pressure: ±3 mmHg Pulse: ±5% of display reading
Inflation	Fuzzy-logic controlled by electric pump
Deflation	Automatic pressure release valve
Memory	Last Measurement
Rating	DC6V 4W
Power Source	4 "AA" batteries 1.5V or AC adapter (optional, INPUT AC100-240V 50/60Hz 0.12A)
Battery Life	Approx. 1000 measurements (using new alkaline batteries)
Applied Part	= Type BF
Protection Against Electric Shock	Internally powered ME equipment (When using only the batteries) = Class II ME equipment (Optional AC adapter)
Operating temperature/ Humidity	+10 to +40°C / 30 to 85% RH
Storage temperature/ Humidity/ Air pressure	-20 to +60°C / 10 to 95% RH/ 700-1060 hPa
Console Weight	Approx. 250g without batteries
Cuff Weight	Approx. 130g
Outer Dimensions	Approx. 103 (w) mm × 80 (h) mm × 129(l) mm
Cuff Dimensions	Approx. 145 mm × 466 mm (Cuff: arm circumference 22 to 32 cm)
Cuff/ Tube Material	Nylon, polyester, polyvinyl chloride
Package Contents	Main unit, arm cuff, instruction manual, 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.

Important information regarding Electro Magnetic Compatibility (EMC)

With the increased number of electronic devices such as PC's and mobile (cellular) telephones, medical devices in use may be susceptible to electromagnetic interference from other devices. Electromagnetic interference may result in incorrect operation of the medical device and create a potentially unsafe situation.
Medical devices should also not interfere with other devices.

In order to regulate the requirements for EMC (Electro Magnetic Compatibility) with the aim to prevent unsafe product situations, the EN60601-1-2:2007 standard has been implemented. This standard defines the levels of immunity to electromagnetic interferences as well as maximum levels of electromagnetic emissions for medical devices.

This medical device manufactured by OMRON HEALTHCARE conforms to this EN60601-1-2:2007 standard for both immunity and emissions.
Nevertheless, special precautions need to be observed:
- Do not use mobile (cellular) telephones and other devices, which generate strong electrical or electromagnetic fields, near the medical device. This may result in incorrect operation of the unit and create a potentially unsafe situation. Recommendation is to keep a minimum distance of 7 m. Verify correct operation of the device in case the distance is shorter.

Further documentation in accordance with EN60601-1-2:2007 is available at OMRON HEALTHCARE EUROPE at the address mentioned in this instruction manual.
Documentation is also available at www.omron-healthcare.com.

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.

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Production facility	**OMRON HEALTHCARE MANUFACTURING VIETNAM CO., LTD.** Binh Duong Province, VIETNAM

Made in Vietnam