Instruction Manual 1

OMRON

Automatic Blood Pressure Monitor

Model **HEM-7156T**

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Symbols Description

Read Instruction manual 1 and 2 before use.

繁體中文 使用前請閱讀使用說明書 1 和 2 。

한국어 사용하기 전에 사용 설명서 1 과 2 를 읽어 주세요.

ပုံတူ အသုံးမပြုမီတွင် လမ်းညွှန်လက်စွဲ 1 နှင့် 2 ကို ဖတ်ရှုပါ။

हिन्दी उपयोग से पहले निर्देश मैनुअल 1 और 2 पढ़ें।

ภาษาไทย **อ่านคู่มือแนะนำการใช้งาน 1 และ 2 ก่อนใช้งานอุปกรณ์**

Bahasa indonesia Baca buku petunjuk 1 dan 2 sebelum penggunaan.

Tiếng Việt Đọc hướng dẫn sử dụng 1 và 2 trước khi sử dụng.

Bahasa Melayu Baca Manual arahan 1 dan 2 sebelum guna.

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All for Healthcare

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1. Introduction

Thank you for purchasing the OMRON Automatic Blood Pressure Monitor. This blood pressure monitor uses the oscillometric method of blood pressure measurement. This means this monitor detects your blood movement through your brachial artery and converts the movements into a digital reading.

1.1 Safety Instructions

This instruction manual provides you with important information about the OMRON Automatic Blood Pressure Monitor. To ensure the safe and proper use of this monitor, READ and UNDERSTAND all of these instructions. **If you do not understand these instructions or have any questions, contact your local OMRON representative before attempting to use this monitor. For specific information about your own blood pressure, consult with your physician.**

1.2 Intended Use

This device is a digital monitor intended for use in measuring blood pressure and pulse rate in the adult patient population. The device detects the appearance of irregular heartbeats during measurement and indicates this via a symbol with measurement result. It is mainly designed for general household use.

1.3 Receiving and Inspection

Remove this monitor from the packaging and inspect for damage. If this monitor is damaged, DO NOT USE and consult with your local OMRON representative.

2. Important Safety Information

Read the Important Safety Information in this instruction manual before using this monitor. Follow this instruction manual thoroughly for your safety.
Keep for future reference. For specific information about your own blood pressure, CONSULT WITH YOUR PHYSICIAN.

⚠ 2.1 Warning

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

- DO NOT use this monitor on infants, toddlers, children or persons who cannot express themselves.
- DO NOT adjust medication based on readings from this blood pressure monitor. Take medication as prescribed by your physician. ONLY a physician is qualified to diagnose and treat high blood pressure.
- DO NOT use this monitor on an injured arm or an arm under medical treatment.
- DO NOT apply the arm cuff on your arm while on an intravenous drip or blood transfusion.
- DO NOT use this monitor in areas containing high frequency (HF) surgical equipment, magnetic resonance imaging (MRI) equipment, computerized tomography (CT) scanners. This may result in incorrect operation of the monitor and/or cause an inaccurate reading.
- DO NOT use this monitor in oxygen rich environments or near flammable gas.
- Consult with your physician before using this monitor if you have common arrhythmias such as atrial or ventricular premature beats or atrial fibrillation; arterial sclerosis; poor perfusion; diabetes; pregnancy; pre-eclampsia or renal disease. NOTE that any of these conditions in addition to patient motion, trembling, or shivering may affect the measurement reading.
- NEVER diagnose or treat yourself based on your readings. ALWAYS consult with your physician.
- To help avoid strangulation, keep the air tube and AC adapter cable away from infants, toddlers and children.
- This product contains small parts that may cause a choking hazard if swallowed by infants, toddlers and children.

Data Transmission

- This product emits radio frequencies (RF) in the 2.4 GHz band. DO NOT use this product in locations where RF is restricted, such as on an aircraft or in hospitals. Turn off the **Bluetooth®** feature in this monitor, remove batteries and/or unplug the AC adapter when in RF restricted areas.

AC Adapter (optional accessory) Handling and Usage

- DO NOT use the AC adapter if this monitor or the AC adapter cable is damaged. If this monitor or the cable is damaged, turn off the power and unplug the AC adapter immediately.
- Plug the AC adapter into the appropriate voltage outlet. DO NOT use in a multi-outlet plug.
- NEVER plug in or unplug the AC adapter from the electric outlet with wet hands.
- DO NOT disassemble or attempt to repair the AC adapter.

Battery Handling and Usage

- Keep batteries out of the reach of infants, toddlers and children.

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

- Stop using this monitor and consult with your physician if you experience skin irritation or discomfort.
- Consult with your physician before using this monitor on an arm where intravascular access or therapy, or an arteriovenous (A-V) shunt, is present because of temporary interference to blood flow and could result in injury.
- Consult with your physician before using this monitor if you have had a mastectomy.
- Consult with your physician before using this monitor if you have severe blood flow problems or blood disorders as cuff inflation can cause bruising.
- DO NOT take measurements more often than necessary because bruising, due to blood flow interference, may occur.
- ONLY inflate the arm cuff when it is applied on your upper arm.
- Remove the arm cuff if it does not start deflating during a measurement.
- When the monitor malfunctions, it may get hot. DO NOT touch the monitor if it occurs.
- DO NOT use this monitor for any purpose other than measuring blood pressure.
- During measurement, make sure that no mobile device or any other electrical device that emit electromagnetic fields is within 30 cm of this monitor. This may result in incorrect operation of the monitor and/or cause an inaccurate reading.
- DO NOT disassemble or attempt to repair this monitor or other components. This may cause an inaccurate reading.
- DO NOT use in a location where there is moisture or a risk of water splashing this monitor. This may damage this monitor.
- DO NOT use this monitor in a moving vehicle such as in a car or on an aircraft.
- DO NOT drop or subject this monitor to strong shocks or vibrations.
- DO NOT use this monitor in places with high or low humidity or high or low temperatures. Refer to section 5.
- During measurement, observe the arm to ensure that the monitor is not causing prolonged impairment to blood circulation.
- DO NOT use this monitor in high-use environments such as medical clinics or physician offices.
- DO NOT use this monitor with other medical electrical (ME) equipment simultaneously. This may result in incorrect operation and/or cause an inaccurate reading.
- Avoid bathing, drinking alcohol or caffeine, smoking, exercising and eating for at least 30 minutes before taking a measurement.
- Rest for at least 5 minutes before taking a measurement.
- Remove tight-fitting or thick clothing from your arm while taking a measurement.
- Remain still and DO NOT talk while taking a measurement.
- ONLY use the arm cuff on persons whose arm circumference is within the specified range of the cuff.
- Ensure that this monitor has acclimated to room temperature before taking a measurement. Taking a measurement after an extreme temperature change could lead to an inaccurate reading. OMRON recommends waiting for approximately 2 hours for the monitor to warm up or cool down when the monitor is used in an environment within the temperature specified as operating conditions after it is stored either at the maximum or at the minimum storage temperature. For additional information on operating and storage/transport temperature, refer to section 5.
- DO NOT use this monitor after the durable period has ended. Refer to section 5.
- DO NOT crease the arm cuff or the air tube excessively.

- DO NOT fold or kink the air tube while taking a measurement. This may cause an injury by interrupting blood flow.
- To unplug the air plug, pull on the plastic air plug at the base of the tube, not the tube itself.
- ONLY use the AC adapter, arm cuff, batteries and accessories specified for this monitor. Use of unsupported AC adapters, arm cuffs and batteries may damage and/or may be hazardous to this monitor.
- ONLY use the approved arm cuff for this monitor. Use of other arm cuffs may result in incorrect readings.
- Inflating to a higher pressure than necessary may result in bruising of the arm where the cuff is applied. NOTE: refer to "If your systolic pressure is more than 210 mmHg" in section 9 of instruction manual (2) for additional information.

Data Transmission

- DO NOT replace batteries or unplug the AC adapter while your readings are being transferred to your smart device. This may result in incorrect operation of this monitor and failure to transfer your blood pressure data.

AC Adapter (optional accessory) Handling and Usage

- Fully insert the AC adapter into the outlet.
- When unplugging the AC adapter from the outlet, be sure to safely pull from the AC adapter. DO NOT pull from the AC adapter cable.
- When handling the AC adapter cable:
  DO NOT damage it. / DO NOT break it. / DO NOT tamper with it.
  DO NOT pinch it. / DO NOT forcibly bend or pull it. / DO NOT twist it.
  DO NOT use it if it is gathered in a bundle.
  DO NOT place it under heavy objects.
- Wipe any dust off of the AC adapter.
- Unplug the AC adapter when not in use.
- Unplug the AC adapter before cleaning this monitor.

Battery Handling and Usage

- DO NOT insert batteries with their polarities incorrectly aligned.
- ONLY use 4 "AA" alkaline or manganese batteries with this monitor. DO NOT use other types of batteries. DO NOT use new and used batteries together. DO NOT use different brands of batteries together.
- Remove batteries if this monitor will not be used for a long period of time.
- If battery fluid should get in your eyes, immediately rinse with plenty of clean water. Consult with your physician immediately.
- If battery fluid should get on your skin, wash your skin immediately with plenty of clean, lukewarm water. If irritation, injury or pain persists, consult with your physician.
- DO NOT use batteries after their expiration date.
- Periodically check batteries to ensure they are in good working condition.

2.3 General Precautions

- When you take a measurement on the right arm, we recommend that the air tube should be at the side of your elbow. Be careful not to rest your arm on the air tube.



- Blood pressure may differ between the right and left arm, and may result in a different measurement value. Always use the same arm for measurements. If the values between both arms differ substantially, check with your physician on which arm to use for your measurements.
- When using an optional AC adapter, make sure not to place your monitor in a location where it is difficult to plug and unplug the AC adapter.
- To stop a measurement, press the [START/STOP] button while taking a measurement.

Battery Handling and Usage

- Disposal of used batteries should be carried out in accordance with local regulations.
- The supplied batteries may have a shorter life span than new batteries.

3. Error Messages and Troubleshooting

If any of the below problems occur during measurement, check to make sure that no other electrical device is within 30 cm. If the problem persists, please refer to the table below.

Display/Problem	Possible Cause	Solution
E1 appears or the arm cuff does not inflate.	The [START/STOP] button was pressed while the arm cuff is not applied.	Press the [START/STOP] button again to turn the monitor off. After inserting the air plug securely and applying the arm cuff correctly, press the [START/STOP] button.
	Air plug is not completely plugged into the monitor.	Insert the air plug securely.
	The arm cuff is not applied correctly.	Apply the arm cuff correctly, then take another measurement. Refer to section 7 of instruction manual (2).
	Air is leaking from the arm cuff.	Replace the arm cuff to the new one. Refer to section 13 of instruction manual (2).
E2 appears or a measurement cannot be completed after the arm cuff inflates.	You move or talk during a measurement and the arm cuff does not inflate sufficiently.	Remain still and do not talk during a measurement. If "E2" appears repeatedly, inflate the arm cuff manually until the systolic pressure is 30 to 40 mmHg above your previous readings. Refer to section 9 of instruction manual (2).
	Due to the systolic pressure is above 210 mmHg, a measurement cannot be taken.	
E3 appears	The arm cuff is inflated exceeding the maximum allowable pressure.	Do not touch the arm cuff and/or bend the air tube while taking a measurement. If inflating the arm cuff manually, refer to section 9 of instruction manual (2).
E4 appears	You move or talk during a measurement. Vibrations disrupt a measurement.	Remain still and do not talk during a measurement.
E5 appears	The pulse rate is not detected correctly.	Apply the arm cuff correctly, then take another measurement. Refer to section 7 of instruction manual (2). Remain still and sit correctly during a measurement.
appears		If the " " symbol continues to appear, we recommend you to consult with your physician.
does not flash during a measurement		

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Display/Problem	Possible Cause	Solution
 appears	The monitor has malfunctioned.	Press the [START/STOP] button again. If “Er” still appears, contact your local OMRON representative.
 appears	The monitor cannot connect to a smart device or transmit data correctly.	Follow the instructions shown in the “OMRON connect” app. If the “Err” symbol still appears after checking the app, contact your local OMRON representative.
 flashes	The monitor is waiting for pairing with the smart device.	Refer to section 5 of instruction manual (2) for pairing your monitor with your smart device, or press [START/STOP] button to cancel pairing and turn your monitor off.
 flashes	The monitor is ready to transfer your readings to the smart device.	Open the “OMRON connect” app to transfer your readings.
 flashes	More than 48 readings are not transferred.	Pair or transfer your readings to the “OMRON connect” app so you can keep them in memory in the app, and this error symbol disappears.
	The date and time is not set.	
 appears	There are 60 readings in memory to be transferred	
 flashes	Batteries are low.	Replacing all 4 batteries with new ones is recommended. Refer to section 4 of instruction manual (2).
 appears or the monitor is turned off unexpectedly during a measurement	Batteries are depleted.	Immediately replace all 4 batteries with new ones. Refer to section 4 of instruction manual (2).
Nothing appears on the display of the monitor.	Battery polarities are not properly aligned.	Check the battery installation for proper placement. Refer to section 4 of instruction manual (2).

Display/Problem	Possible Cause	Solution
Readings appear too high or too low.	Blood pressure varies constantly. Many factors including stress, time of day, and/or how you apply the arm cuff, may affect your blood pressure. Review section 2 of instruction manual (2).	
Any other communication issue occurs.	Follow the instructions shown in the smart device, or visit the "Help" section in the "OMRON connect" app for further help. If the problem still persists, contact your local OMRON representative.	
Any other problem occurs.	Press the [START/STOP] button to turn the monitor off, then press it again to take a measurement. If the problem continues, remove all batteries and wait for 30 seconds. Then re-install batteries. If the problem still persists, contact your local OMRON representative.	

4. Maintenance

4.1 Maintenance

To protect your monitor from damage, follow the directions below: Changes or modifications not approved by the manufacturer will void the user warranty.

⚠Caution

DO NOT disassemble or attempt to repair this monitor or other components. This may cause an inaccurate reading.

4.2 Storage

- Keep your monitor in the storage case when not in use.
  1. Remove the arm cuff from the monitor.

⚠Caution

To unplug the air plug, pull on the plastic air plug at the base of the tube, not the tube itself.

  2. Gently fold the air tube into the arm cuff.
     Note: Do not bend or crease the air tube excessively.
  3. Place your monitor and other components in the storage case.
- Store your monitor and other components in a clean, safe location.
- Do not store your monitor and other components:
  - If your monitor and other components are wet.
  - In locations exposed to extreme temperatures, humidity, direct sunlight, dust or corrosive vapors such as bleach.
  - In locations exposed to vibrations or shocks.

4.3 Cleaning

- Do not use any abrasive or volatile cleaners.
- Use a soft dry cloth or a soft cloth moistened with mild (neutral) detergent to clean your monitor and arm cuff, and then wipe them with a dry cloth.
- Do not wash or immerse your monitor and arm cuff or other components in water.
- Do not use gasoline, thinners or similar solvents to clean your monitor and arm cuff or other components.

4.4 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 authorised OMRON dealer or the OMRON Customer Service at the address given on the packaging or attached literature.

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5. Specifications

Product description	Automatic Blood Pressure Monitor		
Model	HEM-7156T	Display	LCD digital display
Cuff pressure range	0 to 299 mmHg	Pulse measurement range	40 to 180 beats / min.
Blood pressure measurement range	SYS: 60 to 260 mmHg / DIA: 40 to 215 mmHg		
Accuracy	Pressure: ±3 mmHg / Pulse: ±5% of display reading		
Inflation	Automatic by electric pump	Deflation	Automatic pressure release valve
Measurement method	Oscillometric method	Transmission method	**Bluetooth**® Low Energy
Wireless communication	Frequency range: 2.4 GHz (2400 - 2483.5 MHz) / Modulation: GFSK Effective radiated power: < 20 dBm		
Operating mode	Continuous operation	Applied part	Type BF (arm cuff)
IP classification	Monitor: IP20 / Optional AC adapter: IP22 for HHP-OH01, HHP-BH01 and HHP-BFH01, IP21 for other AC adapters		
Maximum temperature of the applied part	Lower than +43°C	Rating	DC6 V 4 W
Power source	4 "AA" batteries 1.5 V or optional AC adapter (INPUT AC 100 - 240 V 50 - 60 Hz 0.12 - 0.065 A)		
Battery life	Approximately 1000 measurements (using new alkaline batteries)		
Durable period (Service life)	Monitor: 5 years / Cuff: 5 years / Optional AC adapter: 5 years		
Operating conditions	+10 to +40°C / 15 to 90% RH (non-condensing) / 800 to 1060 hPa		
Storage / Transport conditions	-20 to +60°C / 10 to 90% RH (non-condensing)		
Weight (not including batteries)	Monitor: approximately 340 g / Arm cuff: approximately 163 g		
Dimensions (approximately value)	Monitor: 105 mm (W) × 85 mm (H) × 152 mm (L) Arm cuff: 145 mm × 532 mm (air tube: 750 mm)		
Cuff circumference applicable to the monitor	22 to 42 cm		
Memory	Stores up to 60 readings		
Contents	Monitor, arm cuff, 4 "AA" batteries, storage case, Instruction Manual ① and ②, setup instructions, warranty card		

Protection against electric shock	Internally powered ME equipment (when using only batteries) Class II ME equipment (optional AC adapter)

Note

- These specifications are subject to change without notice.
- This monitor is clinically investigated according to the requirements of EN ISO 81060-2:2014 and complies with EN ISO 81060-2:2014 and EN ISO 81060-2:2019+A1:2020. In the clinical validation study, K5 was used on 85 subjects for determination of diastolic blood pressure.
- IP classification is degrees of protection provided by enclosures in accordance with IEC 60529. This monitor and optional AC adapter are protected against solid foreign objects of 12.5 mm diameter and greater such as a finger. The optional AC adapters (except for HHP-OH01, HHP-BH01 and HHP-BFH01) are protected against vertically falling water drops which may cause issues during a normal operation. The optional AC adapter HHP-OH01, HHP-BH01 and HHP-BFH01 are protected against oblique falling water drops which may cause issues during a normal operation.

About a wireless communication interference

This product operates in an unlicensed ISM band at 2.4 GHz. In the event this Product is used near other wireless devices such as microwave and wireless LAN, which operate on the same frequency band as this Product, there is a possibility that interference may occur. If interference occurs, stop the operation of the other devices or relocate this Product away from other wireless devices before attempting to use it.

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6. 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 waste for disposal.
Disposal of used batteries should be carried out in accordance with local regulations.

7. Important Information Regarding Electromagnetic Compatibility (EMC)

HEM-7156T manufactured by OMRON HEALTHCARE Co., Ltd. conforms to IEC 60601-1-2:2014 / EN 60601-1-2:2015 Electromagnetic Compatibility (EMC) standard.
Further documentation in accordance with this EMC standard is available at:
Asia Pacific: https://www.omronhealthcare-ap.com/emc-information
Taiwan: https://www.omronhealthcare.com.tw/EMC
Korea: https://www.omron-healthcare.co.kr/product/HEM-7156T
Refer to the EMC information for HEM-7156T on the website.

8. Guidance and Manufacturer's Declaration

- This blood pressure monitor is designed according to the European Standard EN 1060, Non-invasive sphygmomanometers Part 1: General Requirements and Part 3: Supplementary requirements for electromechanical blood pressure measuring systems.
- Hereby, OMRON HEALTHCARE Co., Ltd., declares that the radio equipment type HEM-7156T is in compliance with Directive 2014/53/EU.
- The full text of the EU declaration of conformity is available at the following internet address: https://www.omronhealthcare-ap.com/ap/support
- 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.
- Please report to the manufacturer and the competent authority of the Member State in which you are established about any serious incident that has occurred in relation to this device.