

# **INSTRUCTION MANUAL**

# **Evolv® Upper Arm Blood Pressure Monitor**

### **Model BP7000**



# INTRODUCTION

Thank you for purchasing the OMRON BP7000 Blood Pressure Monitor. Your new blood pressure monitor uses the oscillometric method of blood pressure measurement. This means the monitor detects your blood movement through your brachial artery and converts the movements into a digital reading. An oscillometric monitor does not need a stethoscope so the monitor is simple to use.

#### **Symbols Glossary**

For symbol information, visit: OmronHealthcare.com/symbols-glossary

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# **INTENDED USE**

This device is a digital monitor intended for use in measuring blood pressure and pulse rate in adult patient population with arm circumference ranging from 9 inches to 17 inches (22 cm to 42 cm). The device detects the appearance of irregular heartbeats during measurement and gives a warning signal with readings.

### **IMPORTANT SAFETY INFORMATION**

Please read the Important Safety Information in this instruction manual before using the unit.

Please follow this instruction manual thoroughly for your safety.

Please keep for future reference. For specific information about your own blood pressure, CONSULT YOUR PHYSICIAN.

### **Contraindications**

- The device is contraindicated for use in ambulatory environments.
- · The device is contraindicated for use on aircraft.

# **▲** Warning

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

- DO NOT adjust medication based on measurement results 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 wear the arm cuff on your arm while on an intravenous drip or blood transfusion.
- DO NOT apply or inflate the arm cuff around any body parts other than your upper arm.
- DO NOT use this monitor in areas containing high frequency (HF) surgical equipment, magnetic resonance imaging (MRI) equipment, computerized tomography (CT) scanners or in oxygen rich environments.
- DO NOT use this monitor on infants, toddlers, children or persons who cannot express themselves.
- Consult 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.
- Always consult your physician. Self-diagnosis of measurement results and selftreatment are dangerous.
- Contains small parts that may cause a choking hazard if swallowed by children, toddlers or infants.
- Keep the BATTERY out of the reach of children, toddlers and infants.

### IMPORTANT SAFETY INFORMATION

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.
For further information on any potential restrictions refer to documentation on
Bluetooth® usage by the FCC.

# **⚠** 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.

- Stop using this monitor and consult your physician if you experience skin irritation or discomfort.
- Consult your physician before using this monitor on an arm with an arterio-venous (A-V) shunt.
- Consult your physician before using this monitor if you have had a mastectomy.
- Consult your physician before using the 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.
- Remove the arm cuff if it does not start deflating during the measurement.
- Do not use this monitor for any purpose other than measuring blood pressure.
- Do not use a mobile phone or other electrical devices that emit electromagnetic fields near this monitor except when transferring your readings to your smart device. This may result in incorrect operation of this monitor.
- Do not disassemble or attempt to repair the monitor or components. This may cause an inaccurate reading.
- Do not use in a location where there is moisture or a risk of water splashing the monitor. This may damage the monitor.
- Do not use this monitor in a moving vehicle such as in a car.
- 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. See the "8. SPECIFICATIONS" section of the manual.
- Please check, by observation of the arm being used, that the monitor is not causing any impairment of patient blood circulation.
- Do not use this monitor in high-use environments such as medical clinics or physician offices.

### **IMPORTANT SAFETY INFORMATION**

- Avoid bathing, drinking alcohol or caffeine, smoking, exercising and eating for 30
  minutes before taking a measurement.
- · Rest for at least 5 minutes before taking the measurement.
- Remove tight-fitting or thick clothing from your arm while taking a measurement.
- · Remain still and do not talk while taking a measurement.

#### **Data Transmission**

- Do not replace the battery while your reading is being transferred to your smart device. This may result in the incorrect operation of your monitor and failure to transfer your blood pressure data.
- Do not place integrated circuit cards, magnets, metal objects, or other devices that emit electromagnetic fields near this monitor while your reading is being transferred to your smart device. This may result in the incorrect operation of your monitor and failure to transfer your blood pressure data.

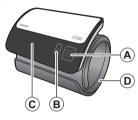
#### **Battery Handling and Usage**

- Do not insert the batteries with their polarities incorrectly aligned.
- Use only 4 "AAA" alkaline batteries with this monitor. Do not use other types of batteries. Do not use new and used batteries together.
- Remove the batteries if the 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 a 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 a physician.
- Do not use batteries after their expiration date.
- Periodically check your batteries to ensure they are in good working condition.
- Only use batteries specified for this monitor. Use of unsupported batteries may damage and/or may be hazardous to the monitor.

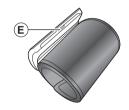
#### Contents:

Monitor, 4 "AAA" batteries, instruction manual, quick start guide

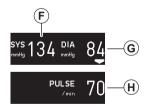
#### Monitor:



- A. START/STOP button
- B. Connection button
- C. Display
- D Arm cuff
- E. Battery compartment



### Display:



- F. Systolic blood pressure
- G. Diastolic blood pressure
- H. Pulse display

$\Leftarrow$	Connection symbol	0))	Irregular heartbeat symbol
<b>⇔</b> off	Connection OFF symbol		Battery symbol (low)
₩ on	Connection ON symbol		Battery symbol (depleted)
<u>~</u>	Movement error symbol		Deflation symbol
<b>4</b>	SYNC symbol		Heartbeat symbol (Flashes during measurement.)

### 1.1 Display symbols

### Connection symbol ( )

Appears when transferring the data or pairing with your smart device.

#### Connection OFF symbol (2)

Appears when Bluetooth is off.

#### Connection ON symbol ( )

Appears when Bluetooth is on.

#### Movement error symbol (M)

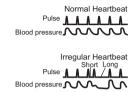
The movement error symbol will display when your body is moving during measurement. If the movement symbol displays, remove the monitor and wait for 2 to 3 minutes. After 2 to 3 minutes, remain still and take another measurement.

#### SYNC symbol (与)

- When the SYNC symbol appears on the display, make sure that your monitor has been pairing with the smart device or transfer the data.
- When the SYNC symbol appears on the display, transfer the data before the measurements are deleted. Maximum internal memory is for 100 measurements. The oldest value will be deleted when this is reached before transferring.

#### Irregular heartbeat symbol ()

When the monitor detects an irregular rhythm two or more times during the measurement, the irregular heartbeat symbol will appear on the display along with the measurement values. An irregular heartbeat rhythm is defined as a rhythm that is 25% less or 25% more than the average rhythm detected while the monitor is measuring the systolic and diastolic blood



if the irregular heartbeat symbol displays with your measurement results, we recommend you consult your physician. Follow the directions of your physician.

#### Battery symbol (low) (2)

Appears when the batteries are low.

### Battery symbol (depleted) (

Appears when the batteries are depleted.

#### Deflation symbol (►)

pressure.

Flashes while arm cuff is deflating.

#### Heartbeat symbol ( )

Flashes while taking a measurement.

#### 1.2 Classification of BP (Blood Pressure)

ACC/AHA 2017 Hypertension guidelines defines categories of BP in adults as below.

#### Categories of BP in Adults\*

<b>g</b>						
BP Category	Systolic BP		Diastolic BP			
Normal	<120 mmHg	and	<80 mmHg			
Elevated	120 - 129 mmHg and		<80 mmHg			
Hypertension						
Stage 1	130 - 139 mmHg	or	80 - 89 mmHg			
Stage 2	≥140 mmHg	or	≥90 mmHg			

<sup>\*</sup> Individuals with Systolic BP and Diastolic BP in 2 categories should be designated to the higher BP category.

BP indicates blood pressure (based on an average of ≥2 careful readings obtained on ≥2 occasions).

Source: ACC/AHA 2017 High Blood Pressure Clinical Practice Guideline

### 1.3 Before Taking a Measurement

To help ensure an accurate reading, follow these directions:

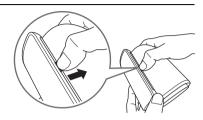
⚠ Avoid bathing, drinking alcohol or caffeine, smoking, exercising and eating for 30 minutes before taking a measurement.

Rest for at least 5 minutes before taking the measurement.

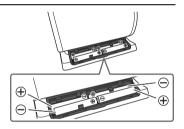
- Stress raises blood pressure. Avoid taking measurements during stressful times.
- · Measurements should be taken in a quiet place.
- Keep a record of your blood pressure and pulse readings for your physician.
   A single measurement does not provide an accurate indication of your true blood pressure. You need to take and record several readings over a period of time. Try to measure your blood pressure at the same time each day for consistency.

### 2.1 Battery Installation

Remove the battery cover.
 Insert your fingernail into the slot of the battery cover, and push downwards to remove the cover.



Insert battery, slide over so it is secured inside the circular battery positioner. Then insert the second battery.



### 3. Replace the battery cover.



When the batteries have been securely placed in this monitor, the message below will appear on the screen:



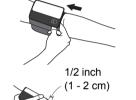
#### Notes:

- When the depleted battery symbol " appears on the display, turn the monitor off and remove all the batteries. Replace with 4 new batteries at the same time. Long life alkaline batteries are recommended.
- The measurement values continue to be stored in the memory even after the batteries are replaced.
- The supplied batteries may have a shorter life than new batteries.
- Disposal of used batteries should be carried out in accordance with the national/local regulations for the disposal of batteries.
- When the batteries are replaced, the words "Please pair this device." or "Pairing not completed. No data transfer." will appear on the display. Press the [←] button to pair with the smart device or transfer the data before taking a measurement.

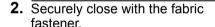
### 2.2 Applying the Arm Cuff

⚠ Remove tight-fitting or thick clothing from your arm while taking a measurement.

**1.** Apply the arm cuff to your left upper arm.



The bottom edge of the arm cuff should be 1/2 inch (1 to 2 cm) above the elbow. The display should be in clear view and easy to read, positioned slightly on the inside of your arm.





#### Notes:

 The blood pressure can differ between the right arm and the left arm, and 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 physician as to which arm to use for your measurements.
- Positioning the monitor with the [START/STOP] button toward the body makes it easier to use the monitor.

### 2.3 How to Sit Correctly

To take a measurement, you need to be relaxed and comfortably seated, at a comfortable room temperature.

- Sit in a chair with your legs uncrossed and your feet flat on the floor.
- · Sit upright with your back straight.
- Sit with your back and arm being supported.
- The arm cuff should be placed on your arm at the same level as your heart.



You can use this blood pressure monitor without pairing to a smart device.

#### 3.1 Taking a Measurement

Notes:

- To stop the measurement, press the [START/STOP] button once to deflate the arm cuff.
- Remain still and do not talk while taking a measurement.
- When using this blood pressure monitor without a smart device, you will not be able to view your prior readings stored in the memory.
- Do not use the monitor with any other electrical device simultaneously. This
  may result in incorrect operation of the monitor.

### Press the [START/STOP] button.

The arm cuff will start to inflate.



#### The following symbols indicate incorrect measurement

 If "Please remeasure" and any of these symbols below are displayed, please take another measurement and try again.

#### Example:







### 2. Remove the arm cuff.

- **3.** Write down your SYS/DIA and Pulse readings, along with the date and time of your measurement on a piece of paper to keep a record of your history.
- ▲ DO NOT adjust medication based on measurement results from this blood pressure monitor. Take medication as prescribed by your physician. Only a physician is qualified to diagnose and treat high blood pressure.
- ▲ Always consult your physician. Self-diagnosis of measurement results and self-treatment are dangerous.

4.1 Pairing Your Monitor with a Smart Device

The date and time on your monitor will automatically be set when you pair it with your smart device.

Review the list of compatible smart devices at: OmronHealthcare.com

- 1. Enable Bluetooth on your smart device.
- Scan the code below with your smart device camera or visit OmronHealthcare.com/app to find the OMRON compatible app for this product.



- Download and install the compatible OMRON app onto your smart device.
  - If you already have the compatible OMRON app and have created your account, open the app and add your new monitor.
- **4.** Open the app and follow the pairing instructions shown on your smart device.

**5.** Confirm that your monitor is connected successfully. If the monitor is connected successfully to the smart device, "OK" will appear on the display.



If "Error" appears, refer to section 5.1 for more detail.



For more information, visit OmronHealthcare.com

#### Notes:

- If you do not pair this monitor to set the date and time, any blood pressure readings you take with this monitor will not be transferred.
- The date/time will only be set for future measurements taken after the measurement that was transferred. It will not be saved to the measurement that was just transferred.
- Please be aware that OMRON will not be responsible for the loss of data and/or information.

### 4.2 Taking a Measurement

#### Notes:

- To stop the measurement, press the [START/STOP] button once to deflate the arm cuff
- Remain still and do not talk while taking a measurement.
- This monitor will store 100 measurements. Stored measurements cannot be viewed on the monitor's display. You will need to use the app to view all measurements prior to the most recent reading taken.
- Do not use a mobile phone or other electrical devices that emit electromagnetic fields near this monitor except when transferring your readings to your smart device. This may result in incorrect operation of this monitor.

### 1. Press the [START/STOP] button.

The arm cuff will start to inflate.



#### The following symbols indicate incorrect measurement

 If "Please remeasure" and any of these symbols below are displayed, please take another measurement and try again.

#### Example:







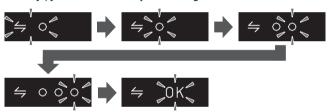
#### 2. Remove the arm cuff.

### 3. Transfer your readings.

Make sure your monitor is within 16 ft. (5 m) of your smart device. As soon as your measurement is complete, open the app on your smart device to transfer your readings.

#### Transferring your readings later

- 1. Open the app on your smart device and then follow the instructions.
- 2. Press [与] button to transfer your readings.



 If your readings are successfully transferred to your smart device, "OK" will flash on the display.

#### If "Error" appears, refer to section 5.1 for more detail.



#### Notes:

- When the SYNC symbol "

  "
  "
  "
  "
  "
  "
  "
  appears on the display, transfer the data immediately before the readings are deleted.
- When the Connection OFF symbol "appears on the display, turn on the **Bluetooth**® feature of your monitor. (Refer to section 4.3)

- Once you send your readings to the app, the data cannot be sent again to the app or smart device.
- **4.** After your readings have been transferred to the app, press the [START/STOP] button to turn the monitor off.

Notes:

- The monitor will automatically turn off after 2 minutes.
- Wait 2-3 minutes before taking another measurement. Waiting between measurements allows the arteries to return to the condition they were prior to taking the measurement.
- Only compatible OMRON apps should be used with this monitor to help ensure correct data transfer.
- ▲ DO NOT adjust medication based on measurement results from this blood pressure monitor. Take medication as prescribed by your physician. Only a physician is qualified to diagnose and treat high blood pressure.
- ▲ Always consult your physician. Self-diagnosis of measurement results and self-treatment are dangerous.

#### Data Transfer With Multiple Smart Devices

Once you transfer your data to a smart device, that data can no longer be transferred again to the same smart device, nor to another smart device.

#### About Multiple Users

To share your blood pressure monitor with other people, please refer to the "Help" section in the app.

# 4.3 Turning "OFF" Bluetooth®

Turn off the **Bluetooth**<sup>®</sup> in your monitor in the following areas where use of wireless equipment is prohibited.

- On aircraft In hospitals While abroad
  Your monitor comes with the **Bluetooth**® already turned on.
- **1.** Turn your monitor power off if it is on by pressing the [START/STOP] button on the monitor.
- 2. Press and hold the [←] button for more than 10 seconds. Release the [←] button when "♠ → ♠" appears on the display. When the "♠" is blinking, you have now turned the Bluetooth® off in your monitor.



3. Press the [START/STOP] button to turn the monitor off.

Note: The monitor will automatically turn off after 2 minutes.

■ How to turn "ON" Bluetooth®

Perform the following step when the power has been off.

Press and hold the  $[\Leftarrow]$  button for more than 2 seconds and then release the  $[\Leftarrow]$  button when " $\implies$ " appears on the display.

The " $\blacksquare$ " will blink to show that the  ${\bf Bluetooth}^{\it @}$  in your monitor has been turned on.

- 4.4 Restoring Your Monitor to the Default Settings
  - To delete all the information stored in your monitor, follow the instructions below. Make sure that your monitor is turned off. It will be off when the screen is not showing numbers or symbols.
  - While holding the [←] button down, the Connection symbol "♠" and "P" appear on the display, and then press the [START/STOP] button for more than 5 seconds.



2. When the "Clear" symbol appears on the display, release the [♠] button and [START/STOP] button.

The "Clear" will appear on the display when your monitor settings have reverted back to their original.



- **3.** Press the [START/STOP] button to turn the monitor off.
  - Notes:
  - The monitor will automatically turn off after 2 minutes.
  - Reverting to initial settings of this monitor will not delete the information in the app.
  - When using this monitor again, first delete the registration of monitor in the app and then pair your monitor.

### 5.1 Error Messages

Error Display	Cause	Solution	
Please remeasure	Irregular heartbeat is detected.	Remove the arm cuff. Wait 2 - 3 minutes and then take another measurement. Repeat the steps in section 2.2. If this error continues to appear, contact your physician.	
Please remeasure	Movement during measurement.	Carefully read and repeat the steps in section 3.1 or 4.2.	
	The batteries are low.	Recommend replacement of all 4 batteries with new ones. Refer to section 2.1.	
	The batteries are	Immediately replace 4 batteries with new ones. Refer to section 2.1.	
	depleted or battery polarities are not properly aligned.	Confirm the batteries are properly inserted with polarities correctly aligned. Refer to section 2.1.	
<pre>≒ Error</pre>	Connection failure. Data is not being transmitted.	Refer to Connection failure. / Data is not being transmitted." in section 5.2.	
Error 1 Apply the arm cuff tighter.	Arm cuff is applied too loosely.	Apply the arm cuff tighter. Refer to section 2.2.	

Error Display	Cause	Solution	
Error 3 Do not touch the cuff during measurement.	The arm cuff was inflated exceeding the maximum allowable pressure, and then deflated automatically.	Do not touch the arm cuff while taking a measurement. Refer to section 3.1 or 4.2.	
Error 4 Do not move or talk during measurement.	Movement during measurement.	Repeat measurement. Remain still and do not talk during measurement. Refer to section 3.1 or 4.2.	
	Clothing is interfering with the arm cuff.	Remove any clothing interfering with the arm cuff. Refer to section 2.2.	
Error 5 Remove any clothing interfering with the cuff.	Movement during measurement	Repeat measurement. Remain still and do not talk during measurement. Refer to section 3.1 or 4.2.	
	Arm cuff is not applied correctly.	Apply the arm cuff correctly. Refer to section 2.2.	
* : "XX" will change to display an error number, 6 and higher.	Device error.	Please contact customer service.	

### 5.2 Troubleshooting

Problem	Cause and Solution
No power. No display appears on the monitor.	Replace all batteries with new ones. Check the battery installation for proper placement of the battery polarities. Refer to section 2.1.
Measurement values appear too high or too low.	Blood pressure varies constantly. Many factors including stress, time of day, and how you apply the arm cuff, may affect your blood pressure. Review the section 1.3, 2.3 and 4.2.

Problem	Cause and Solution	
	The blood pressure monitor might not be properly placed within the smart device's transmission range and is too far from the smart device. If there are no causes of data transmission interference found near the blood pressure monitor, move the blood pressure monitor within 16 ft. (5 m) of the smart device and try again.	
	The <b>Bluetooth</b> ® feature of the smart device is turned off. Turn on the <b>Bluetooth</b> ® feature of the smart device and your monitor, and try sending the data again.	
Connection failure. / Data is not being transmitted.	The <b>Bluetooth</b> ® feature of the blood pressure monitor is turned off.  Refer to "To turn "ON" the <b>Bluetooth</b> ®" in "4.3 Turning "OFF" Bluetooth®".	
	The blood pressure monitor did not pair successfully to the smart device. Try to pair the devices again.  Refer to "Pair Your Monitor with a Smart Device" in section 4.1. Confirm your smart device compatibility with this monitor at OmronHealthcare.com	
	The app on the smart device is not ready. Check the app then try sending the data again. Refer to "Pair Your Monitor with a Smart Device" in section 4.1. If the "Error" symbol still displays after checking the app, contact customer service.	

# 6. MAINTENANCE, STORAGE AND CLEANING

#### 6.1 Maintenance

To protect your monitor from damage, please follow the directions below:

- Store the monitor and the components in a clean, safe location.
- Do not wash the monitor and any components or immerse them in water.
- Do not use gasoline, thinners or similar solvents to clean the monitor.
- Changes or modification not approved by the manufacturer will void the user warranty.

♠Do not disassemble or attempt to repair the monitor or components.

#### 6.2 Storage

Do not store the monitor in the following situations:

- · If the monitor is wet.
- Locations exposed to extreme temperatures, humidity, direct sunlight, dust or corrosive vapors such as bleach.
- · Locations exposed to vibrations, shocks or where it will be at an angle.

### 6.3 Cleaning

- · Do not use any abrasive or volatile cleaners.
- Use a soft dry cloth, or a soft cloth moistened with neutral soap to clean on the monitor and the arm cuff, and then wipe it with a dry cloth.

# 7. DISPOSAL

Dispose of the monitor and components according to applicable local regulations. Unlawful disposal may cause environmental pollution.

### 8. SPECIFICATIONS

Model BP7000 REF HEM-7600T-Z

**Display** OLED display

Cuff pressure range Pressure: 0 to 299 mmHg

Measurement range Pressure: 40 to 260 mmHg

Pulse: 40 to 180 heats / min

Accuracy Pressure: ±3 mmHg

Pulse: ±5% of display reading

**Inflation** Fuzzy-logic controlled by electric pump

**Deflation** Automatic rapid deflation

Measurement method Oscillometric method

Transmission method Bluetooth® low energy technology

Wireless communication Frequency range: 2.4 GHz (2400 - 2483.5 MHz)

Modulation : GFSK

Effective radiated power : <20 dBm

IP classification IP 22
Power source 4 "AAA" batteries 1.5V

Battery life Approximately 300 measurements

(using new alkaline batteries)

Durable period (Service life) Monitor: 5 years

Operating conditions 50°F to 104°F (10°C to 40°C) /

15 to 90% RH (non-condensing) / 800 to 1060 hPa

Storage / Transport
conditions

-4°F to 140°F (-20°C to 60°C) /
10 to 90% RH (non-condensing)

Weight

Monitor: Approximately 8 1/2 oz. (240 g)

not including batteries

**Dimensions** Monitor: Approximately  $3 \frac{1}{2}$ " (w)  $\times 4 \frac{5}{8}$ " (h)  $\times 1$ " (l)

(85 mm  $\times$  120 mm  $\times$  20 mm) (not including the arm cuff)

Arm circumference 9" to 17" (22 to 42 cm)

Contents Monitor, 4 "AAA" batteries, instruction manual, quick start

guide

Applied part Type BF

Protection against electric Internally powered ME equipment

shock

### 8. SPECIFICATIONS

#### Notes:

- · These specifications are subject to change without notice.
- In the clinical validation study, K5 was used on 85 subjects for determination of diastolic blood pressure.
- This monitor is clinically investigated according to the requirements of ISO 81060-2:2013.
- This monitor has not been validated for use on pregnant patients.
- IP classification is degrees of protection provided by enclosures in accordance with IEC 60529. This device is protected against solid foreign objects of 12 mm diameter and greater such as a finger, and against oblique falling water drops which may cause issues during a normal operation.

#### About a wireless communication interference

This Product operates in the unlicensed ISM band at 2.4GHz. In case this Product is used around the other wireless devices including microwave and wireless LAN, which operate same frequency band of this Product, there is a possibility that interference occurs between this Product and such other devices. If such interference occurs, please stop the operation of other devices or relocate this Product before using this Product or do not use this Product around the other wireless devices.

#### Pictogram on the Product

ART. or O	Types of marks used to indicate the correct positioning of the artery for the upper arm.
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### 9. FCC STATEMENT

#### FCC CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
  Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

### **10. LIMITED WARRANTY**

Your BP7000 Upper Arm Blood Pressure Monitor, excluding batteries, is warranted to be free from defects in materials and workmanship appearing within 5 years from the date of purchase, when used in accordance with the instructions provided with the monitor. The above warranty extends only to the original retail purchaser, and only to products purchased from an Omron authorized seller who is subject to and follows Omron's quality control standards, unless otherwise prohibited by law. We will, at our option, replace without charge any monitor covered by the above warranty. Replacement is our only responsibility and your only remedy under the above warranty.

To obtain warranty service contact Customer Service by calling **1-800-634-4350** for the address of the inspection center and the return shipping and handling fee.

Enclose the original printed receipt. Include a letter, with your name, address, phone number, and description of the specific problem. Pack the product carefully to prevent damage in transit. Because of possible loss in transit, we recommend insuring the product with return receipt requested.

THE FOREGOING IS THE SOLE WARRANTY PROVIDED BY OMRON IN CONNECTION WITH THIS PRODUCT, AND OMRON HEREBY DISCLAIMS ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IMPLIED WARRANTIES AND OTHER TERMS THAT MAY BE IMPOSED BY LAW, IF ANY, ARE LIMITED IN DURATION TO THE PERIOD OF THE ABOVE EXPRESS WARRANTY.

OMRON SHALL NOT BE LIABLE FOR LOSS OF USE OR ANY OTHER SPECIAL, INCIDENTAL, CONSEQUENTIAL OR INDIRECT COSTS, EXPENSES OR DAMAGES.

This warranty provides you with specific legal rights, and you may have other rights that vary by jurisdiction. Because of special local requirements, some of the above limitations and exclusions may not apply to you.

# FOR CUSTOMER SERVICE Visit our web site at: OmronHealthcare.com Call toll free: 1-800-634-4350

OMRON Blood Pressure Monitor (BPM)
Information for accompanying documents in the scope of IEC60601-1-2:2007

#### Important information regarding Electromagnetic Compatibility (EMC)

With the increased number of electronic devices such as PCs 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 (Electromagnetic Compatibility) with the aim to prevent unsafe product situations, the IEC60601-1-2 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.

Medical devices manufactured by OMRON Healthcare conform to this IEC60601-1-2:2007 standard for both immunity and emissions.

Nevertheless, special precautions need to be observed:

- The use of accessories and cables other than those specified by OMRON, with the exception of cables sold by OMRON as replacement parts for internal components, may result in increased emission or decreased immunity of the device
- The medical devices should not be used adjacent to or stacked with other equipment.
  - In case adjacent or stacked use is necessary, the medical device should be observed to verify normal operation in the configuration in which it will be used.
- Refer to further guidance below regarding the EMC environment in which the device should be used
- The MEDICAL ELECTRICAL EQUIPMENT BPM needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this documentations.
- The Essential Performance of the BPM is to measure a blood pressure and a pulse rate and using the memory function.

The BPM may be interfered with by other equipment, even if that other equipment complies with CISPR EMISSION requirements.

#### Guidance and manufacturer's declaration - electromagnetic emissions

OMRON battery-operated BPM is intended for use in the electromagnetic environment specified below. The customer or the user of this OMRON battery-operated BPM should assure that it is used in such environment.

Emissions test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The OMRON battery-operated BPM uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	Not Applicable.	The OMRON battery-operated BPM is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power
Voltage fluctuations/ flicker emissions IEC61000-3-3	Not Applicable.	supply network that supplies buildings used for domestic purposes.

#### Guidance and manufacturer's declaration - electromagnetic immunity

OMRON battery-operated BPM is intended for use in the electromagnetic environment specified below. The customer or the user of this OMRON battery-operated BPM should assure that it is used in such environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance		
Electrostatic discharge (ESD) IEC 61000-4-2	Contact discharge: ±6 kV Air discharge: ±8 kV	Contact discharge: ±8 kV Air discharge: ±15 kV	The relative humidity should be at least 5 %.		
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	Not Applicable.	Not Applicable.		
Surge IEC 61000-4-5	±1 kV line(s) to line(s) ±2 kV line(s) to earth	Not Applicable.	Not Applicable.		
	<5 % $U_{\rm T}$ (>95 % dip in $U_{\rm T}$ ) for 0.5 cycle	Not Applicable.	Not Applicable.		
Voltage dips, short interruptions and voltage variations	40 % $U_T$ (60 % dip in $U_T$ ) for 5 cycles	Not Applicable.			
on power supply inputlines IEC 61000-4-11	70 % $U_T$ (30 % dip in $U_T$ ) for 25 cycles	Not Applicable.			
	<5 % $U_T$ (>95 % dip in $U_T$ ) for 5 sec.	Not Applicable.			
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	30 A/m	Magnetic fields from common appliances are not expected to affect the device.		
Note: $U_T$ is the A.C. mains voltage prior to application of the test level.					

#### Guidance and manufacturer's declaration - electromagnetic immunity

OMRON battery-operated BPM is intended for use in the electromagnetic environment specified below. The customer or the user of this OMRON battery-operated BPM should assure that it is used in such environment.

IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
		Portable and mobile RF communications equipment should be used no closer to any part of the OMRON battery-operated BPM including cables, than the recommended separation distance calculated from the equation appropriate to the frequency of the transmitter.
		Recommend separation distance
3 V rms 150 kHz to 80 MHz	Not Applicable.	Not Applicable.
3 V/m	10 V/m	$d$ = 0.35 $\sqrt{P}$ 80 MHz to 800 MHz $d$ = 0.70 $\sqrt{P}$ 800 MHz to 2.5 GHz where $P$ is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and $d$ is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters as determined by an electromagnetic site survey, <sup>a</sup> should be less than the compliance level in each frequency range. <sup>b</sup> Interference may occur in the vicinity of equipment marked with the following symbol: $\left(\left(\begin{pmatrix} \bullet \\ \bullet \end{pmatrix}\right)\right)$
	3 V rms 150 kHz to 80 MHz	3 V rms 150 kHz to 80 MHz  Not Applicable.

Note1: At 80 MHz and 800 MHz, the higher frequency range applies.

Note2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

a Field strengths from fixed transmitters, such as base stations for radio (cellular/ cordless) telephones and land mobile radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters. an electromagnetic site survey should be considered. If the measured field strength in the location in which the OMRON battery-operated BPM is used exceeds the applicable RF compliance level above, the OMRON battery-operated BPM should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as regrienting or relocating the OMRON battery-operated BPM.

#### Recommended separation distance between portable and mobile RF communications equipment.

and the OMRON battery-operated BPM

OMRON battery-operated BPM is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of this OMRON battery-operated BPM can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the OMRON battery-operated BPM as recommended below, according to the maximum output power of the communications equipment.

Output Power of Transmitter in	Separation distance according to frequency of transmitter in meter			
Watt	150 kHz to 80 MHz	80 MHz to 800 MHz	800 MHz to 2.5 GHz	
	Not Applicable.	$d = 0.35 \sqrt{P}$	$d = 0.70 \ \sqrt{P}$	
0.01	Not Applicable.	0.035	0.070	
0.1	Not Applicable.	0.11	0.22	
1	Not Applicable.	0.35	0.70	
10	Not Applicable.	1.1	2.2	
100	Not Applicable.	3.5	7.0	

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

Note: At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies. Note: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 6 V/m.

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