



## 4. Error Messages and Troubleshooting

### 4.1 Error Messages

Error Display	Cause	Solution
	Irregular heartbeat is detected.	Remove the arm cuff. Wait 2 - 3 minutes and then take another measurement. Repeat the steps in section 3.1. If this error continues to appear, contact your physician.
	Movement during measurement.	Carefully read and repeat the steps in section 3.3.
	Arm cuff is applied too loosely.	Apply the arm cuff tighter. Refer to section 3.1.
	The batteries are low.	Recommend replacement of all 4 batteries with new ones. Refer to section 2.1.
	The batteries are depleted or battery polarities are not properly aligned.	Immediately replace 4 batteries with new ones. Refer to section 2.1. Confirm the batteries are properly inserted with polarities correctly aligned. Refer to section 2.1.
	Connection failure. Data is not being transmitted.	Refer to "Connection failure. Data is not being transmitted." in section 4.2.
	Arm cuff is applied too loosely.	Apply the arm cuff tighter. Refer to section 3.1.
	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 3.3.
	Movement during measurement.	Repeat 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.
	Device error.	Contact your local OMRON representative.

\* : "XX" will change to display an error number, 6 and higher.

### 4.2 Troubleshooting

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

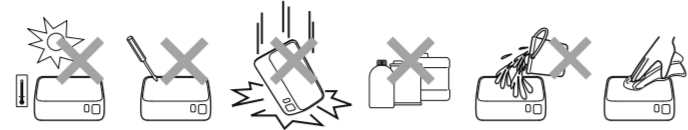
Problem	Cause and Solution
No power. No display appears on the monitor.	Replace all batteries with new ones. Check the battery installation for proper placement of the battery polarities. Refer to section 2.1.
Measurement values appear too high or too low.	Blood pressure varies constantly. Many factors including stress, time of day, and how you apply the arm cuff, may affect your blood pressure. Review the section, 3.2 and 3.3.
Connection failure. / Data is not being transmitted.	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 5 m (16 ft.) 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.
	The <b>Bluetooth</b> ® feature of the blood pressure monitor is turned off. Refer to "To turn "ON" the <b>Bluetooth</b> ®" in "3.4 Turning "OFF" the <b>Bluetooth</b> ®".
	The blood pressure monitor did not pair successfully to the smart device. Try to pair the devices again. Refer to "Pairing Your Monitor with a Smart Device" in section 2.2. For more detail, go to "Help" in the "OMRON connect" app.
	The application on the smart device is not ready. Check the application then try sending the data again. Refer to "Pairing Your Monitor with a Smart Device" in section 2.2. If the "Err" symbol still displays after checking the application, contact your OMRON retail outlet or distributor. Confirm your smart device compatibility with this monitor at <a href="http://omronconnect.com">omronconnect.com</a>

## 5. Maintenance and Storage

### 5.1 Maintenance

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

- Store the device and the components in a clean, safe location.
- Do not use any abrasive or volatile cleaners.
- Do not wash the device and any components or immerse them in water.
- Do not use gasoline, thinners or similar solvents to clean the device.



- 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.
- Changes or modification not approved by the manufacturer will void the user warranty. Do not disassemble or attempt to repair the device or components.

### 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 device inspected every 2 years to ensure correct functioning and accuracy. Please consult your OMRON retail outlet or distributor.

### 5.2 Storage

Do not store the device in the following situations:

- If the device 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. Specifications

<b>Product category</b>	Electronic Sphygmomanometers
<b>Product description</b>	Automatic Upper Arm Blood Pressure Monitor
<b>Model (code)</b>	EVOLV (HEM-7600T-E)
<b>Display</b>	OLED display
<b>Cuff pressure range</b>	Pressure: 0 to 299 mmHg
<b>Measurement range</b>	Pressure: 40 to 260 mmHg Pulse: 40 to 180 beats / min.
<b>Accuracy</b>	Pressure: ±3 mmHg Pulse: ±5% of display reading
<b>Inflation</b>	Fuzzy-logic controlled by electric pump
<b>Deflation</b>	Automatic rapid deflation
<b>Measurement method</b>	Oscillometric method
<b>Transmission method</b>	<b>Bluetooth</b> ® low energy technology
<b>Wireless communication</b>	Frequency range: 2.4 GHz (2400 - 2483.5 MHz) Modulation: GFSK Effective radiated power: <20 dBm
<b>IP classification</b>	IP 22
<b>Power source</b>	4*AAA* batteries 1.5V
<b>Battery life</b>	Approximately 300 measurements (using new alkaline batteries)
<b>Rating</b>	DC6V 4W
<b>Durable period (Service life)</b>	Monitor: 5 years
<b>Operating conditions</b>	10°C to 40°C / 15 to 90% RH (non-condensing) / 800 to 1060 hPa -20°C to 60°C / 10 to 90% RH (non-condensing)
<b>Storage / Transport conditions</b>	
<b>Weight</b>	Monitor: Approximately 240 g (not including batteries)
<b>Dimensions</b>	Monitor: Approximately 85 mm × 120 mm × 20 mm (not including the arm cuff)
<b>Arm circumference</b>	22 to 42 cm
<b>Contents</b>	Monitor, battery set, instruction manual, setup instructions, storage case
<b>Applied part</b>	Type BF (Cuff)
<b>Protection against electric shock</b>	Internally powered ME equipment

### 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 device is clinically investigated according to the requirements of ISO 81060-2:2013 (excluding pregnant and pre-eclampsia patients).
- This device has been validated for use on pregnant and pre-eclampsia patients according to the Modified European Society of Hypertension Protocol\*.
- IP classification is degrees of protection provided by enclosures in accordance with IEC 60529. This device is protected against solid foreign objects of 12.5 mm diameter and greater such as a finger, and against oblique falling water drops which may cause issues during a normal operation.
- This device can be used for continuous operation.

CE 0197

\* Prof. Roland Asmar et al. publication pending

- 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.
- Hereby, OMRON HEALTHCARE Co., Ltd., declares that the radio equipment type EVOLV (HEM-7600T-E) is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: [www.omron-healthcare.com](http://www.omron-healthcare.com)
- 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.

Symbols description	
	Applied part - Type BF
	Degree of protection against electric shock (leakage current)
	Class II equipment. Protection against electric shock
	Ingress protection degree provided by IEC 60529
	CE Marking
	GOST-R symbol
	Metrology symbol
	Symbol of Eurasian Conformity
	Serial number
	LOT number
	Temperature limitation
	Humidity limitation
	Atmospheric pressure limitation
	Indication of connector polarity
	For indoor use only
	OMRON's trademarked technology for blood pressure measurement
	Identifier of cuffs compatible for the device
	Cuff positioning indicator for the left arm
	Marker on the cuff to be positioned above the artery
	Range pointer and brachial artery alignment position
	Manufacturer's quality control mark
	Not made with natural rubber latex
	Range indicator of arm circumferences to help selection of the correct cuff size.
	Need for the user to consult this instruction manual.
	Need for the user to follow this instruction manual thoroughly for your safety.
	Direct current
	Alternating current
	Date of manufacture
	Technology and Quality, JAPAN
	Technology and Design, JAPAN
	To indicate generally elevated, potentially hazardous, levels of non-ionizing radiation, or to indicate equipment or systems e.g. in the medical electrical area that include RF transmitters or that intentionally apply RF electromagnetic energy for diagnosis or treatment.
	Arm circumference
	Wrist circumference
	OMRON connect - App for uploading measurement data to smart device.

Product production date is integrated in the Serial number, which placed on the product and/or sales package: the first 4 digits mean year of production, the next 2 digits mean month of production.

### Important information regarding Electro Magnetic Compatibility (EMC)

HEM-7600T-E manufactured by OMRON HEALTHCARE Co., Ltd. conforms to EN60601-1-2:2015 Electro Magnetic Compatibility (EMC) standard. Further documentation in accordance with this EMC standard is available at OMRON HEALTHCARE EUROPE at the address mentioned in this instruction manual or at [www.omron-healthcare.com](http://www.omron-healthcare.com). Refer to the EMC information for HEM-7600T-E on the website.

### 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.

Use this monitor only in the member countries of EU or the country you purchased it in. If you use it elsewhere, you may violate the radio laws or regulations of that country.

### 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.

## 7. Trademarks



The **Bluetooth**® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by OMRON HEALTHCARE Co., Ltd. is under license. Other trademarks and trade names are those of their respective owners.

Apple and the Apple logo are trademarks of Apple Inc., registered in the U.S. and other countries. App Store is a service mark of Apple Inc. Android, the Google Play logo are trademarks of Google Inc.

## 8. Limited Warranty

Thank you for buying an OMRON product. This product is constructed of high quality materials and great care has been taken in its manufacturing. It is designed to give you every satisfaction, provided that it is properly operated and maintained as described in the instruction manual.

This product is guaranteed by OMRON for a period of 3 years after the date of purchase. The proper construction, workmanship and materials of this product is guaranteed by OMRON. During this period of guarantee OMRON will, without charge for labour or parts, repair or replace the defect product or any defective parts.

The guarantee does not cover any of the following:

- Transport costs and risks of transport.
- Costs for repairs and / or defects resulting from repairs done by unauthorised persons.
- Periodic check-ups and maintenance.
- Failure or wear of optional parts or other attachments other than the main device itself, unless explicitly guaranteed above.
- Costs arising due to non-acceptance of a claim (those will be charged for).
- Damages of any kind including personal caused accidentally or from misuse.
- Calibration service is not included within the guarantee.

Should guarantee service be required please apply to the dealer whom the product was purchased from or an authorised OMRON distributor. For the address refer to the product packaging / literature or to your specialised retailer.

If you have difficulties in finding OMRON customer services, contact us for information.

[omron-healthcare.com](http://omron-healthcare.com)

Repair or replacement under the guarantee does not give rise to any extension or renewal of the guarantee period.

The guarantee will be granted only if the complete product is returned together with the original invoice / cash ticket issued to the consumer by the retailer.

## 9. Some Useful Information about Blood Pressure

### What is Blood Pressure?

Blood pressure is a measure of the force of blood flowing against the walls of the arteries. Arterial blood pressure is constantly changing during the course of the heart's cycle.

The highest pressure in the cycle is called the Systolic Blood Pressure; the lowest is the Diastolic Blood Pressure. Both pressures, the Systolic and Diastolic, are necessary to enable a physician to evaluate the status of a patient's blood pressure.

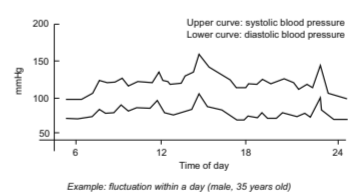
### What is Arrhythmia?

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.

### Why is it a Good Thing to measure Blood Pressure at Home?

Many factors such as physical activity, anxiety, or the time of day, can influence your blood pressure. A single measurement may not be sufficient for an accurate diagnosis.

Thus it is best to try and measure your blood pressure at the same time each day, to get an accurate indication of any changes in blood pressure. Blood pressure is typically low in the morning and increases from afternoon to evening. It is lower in the summer and higher in the winter.



Example: fluctuation within a day (male, 35 years old)

### How is Hypertension related to Stroke?

Hypertension (high blood pressure) is the key risk factor for Stroke. It is estimated that amongst hypertensive patients, effective treatment would prevent 1 in 4 haemorrhagic strokes (bleeding around the brain). Hypertension guidelines have endorsed the use of Home Blood Pressure Monitoring in addition to the measurements in physicians' offices to help manage hypertension effectively.

References to above medical claims are available upon request.

Made in Japan

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