

Wrist Blood Pressure Monitor

Model MIT Precision 5 Instruction Manual



IM-HEM-6150-E-01-05/2014
5344799-0A

Introduction

Thank you for purchasing the OMRON MIT Precision 5 Wrist Blood Pressure Monitor.

The OMRON MIT Precision 5 is a compact and easy to use 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 wrist cuff. It is mainly designed for general household use.

Warning:
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.

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

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

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

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

(General Usage)
• Do not leave the unit unattended with infants or persons who cannot express their consent.
• Do not use the unit for any purpose other than measuring blood pressure.
• Do not 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 wrist cuff.
• Do not operate the unit in a moving vehicle (car, airplane).

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

General Precautions
• Do not apply strong shocks and vibrations to or drop the unit.
• Do not take measurements after bathing, drinking alcohol or caffeine, smoking, exercising or eating.
• Do not inflate the wrist cuff when it is not wrapped around your wrist.
• 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 Know your unit

Main unit:



Components:



2 "AAA" Alkaline Batteries

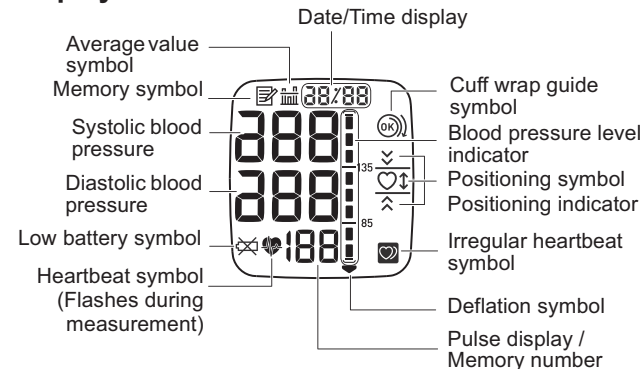


Instruction Manual



Storage Case

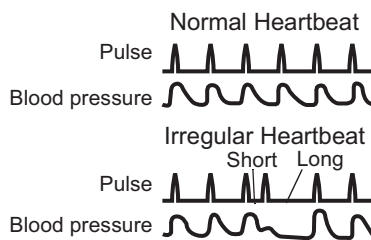
Display:



Display symbols:

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



Average Value Symbol (M)

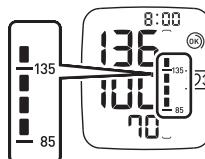
The average value symbol is displayed when you press Memory button. The most recent average value based on the measurements from the last three readings taken within 10 minutes appears on the display screen.

Cuff Wrap Guide Symbol (OK/OK)

If the cuff was wrapped too loosely, it may cause unreliable results. If the wrapping of cuff is too loose, the cuff wrap guide symbol (OK) appears. Otherwise (OK) appears. This is the function which is used as an aid in determining if the cuff is wrapped snugly enough.

Blood Pressure Level Indicator

Blood pressure level indicator will light up between the systolic blood pressure and the diastolic blood pressure.



2013 ESH/ESC Guidelines for the management of arterial hypertension

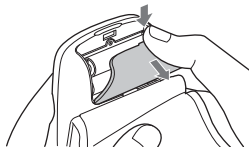
Definitions of hypertension by office and home blood pressure levels

	Office	Home
Systolic Blood Pressure	≥ 140 mmHg	≥ 135 mmHg
Diastolic Blood Pressure	≥ 90 mmHg	≥ 85 mmHg

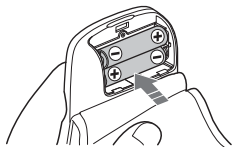
2 Preparation

2.1 Installing/Replacing the Batteries

1. Remove the battery cover.



2. Insert two 1.5V "AAA" batteries as indicated in the battery compartment and then replace the battery cover.



Notes:

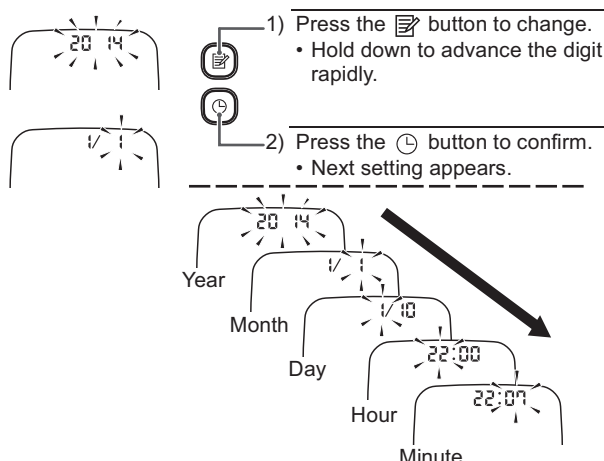
- If the battery low symbol (X) appears on the display, turn off the unit then replace both batteries at the same time.
- The measurement values continue to be stored in memory even after the batteries are replaced.

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

2.2 Setting the Date and Time

1. Press and hold the (M) button until the year flashes on the display.

2. Set the monitor to the correct date and time before taking a measurement for the first time.



3. Press the START/STOP button to store the setting.

Notes:

- If the batteries have been removed, the date and time setting will need to be reset.
- If the date and time are not set, "--:" appears during or after measurement.

3 Using the Unit

3.1 Applying the Wrist Cuff

Do not apply over clothing.

1. Place the wrist cuff over your wrist.

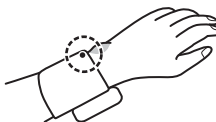


Your palm should face upward.

2. Wrap the wrist cuff around your wrist.



Wrap the wrist cuff securely around the wrist for taking accurate measurements.



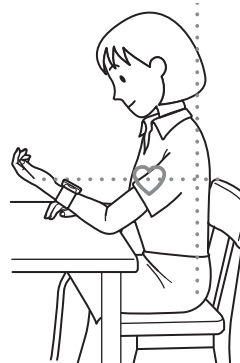
Make sure that the wrist cuff does not cover the protruding part of the wrist bone (ulna) on the outside of the wrist.



Note: You can take a measurement on either your left or right wrist.

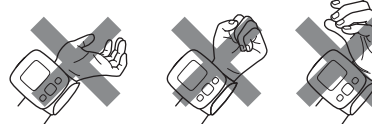
3.2 How to Sit Correctly

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 cuff should be at the same level as your heart.

- Relax your wrist and hand. Do not bend your wrist back, clench your fist, or bend your wrist forward.



3.3 Taking a Reading

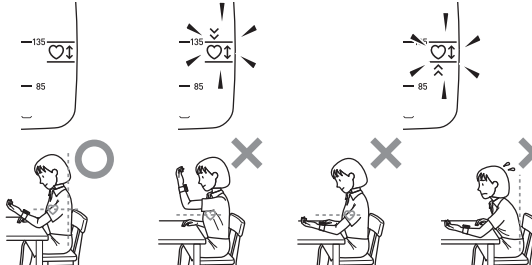
Notes:

- To cancel a measurement, press the START/STOP button at any time during measurement.
- Remain still while taking a measurement.

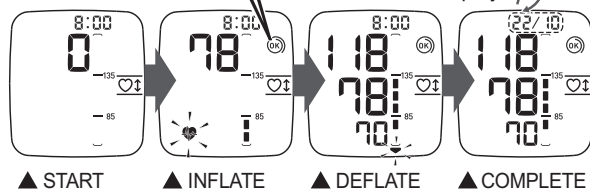
1. Press the START/STOP button.

All the symbols appear on the display. While your position is improper, the Positioning symbol and the Positioning indicator flash, when you are in proper position the Positioning symbol lights on the display.

The monitor is in proper position. The monitor is higher than the heart. The monitor is lower than the heart.



After the Positioning symbol lights for more than 2 seconds, the wrist cuff will start to inflate automatically.



2. Undo the wrist cuff and remove the unit.

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

The monitor automatically stores the measurement in its memory. It will automatically turn off after two minutes.

Notes:

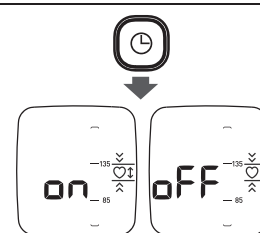
- Wait 2 - 3 minutes before taking another blood pressure measurement. Waiting between readings allows the arteries to return to the condition prior to taking the blood pressure measurement.

- The blood pressure can differ between the right arm and the left arm, and therefore also the measured blood pressure values can be different. OMRON recommends to always use the same arm for measurement. If the values between the two arms differ substantially, please check with your physician which arm to use for your measurement.

3.4 Setting the Positioning Sensor

1. Press and hold the (M) button to set the Positioning Sensor.

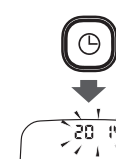
The Positioning Sensor "on" or "oFF" appears on the display.



Press the (M) button to reset the Positioning sensor. The Positioning Sensor is set "on" as default.



Press the (M) button. The year flashes to set the current date and time on the display.



2. After setting the date and time, press the START/STOP button to store the Positioning Sensor setting.

For more information about setting the date and time, please refer to 2.2 Setting the Date and Time.

3.5 Using the Memory Function

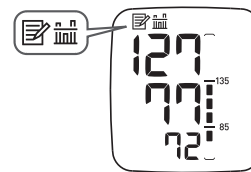
The unit automatically stores up to 90 sets of measurement values (blood pressure and pulse rate). It can also calculate an average reading based on the measurements from the last three readings taken within 10 minutes. If there are only two readings in memory for that period, the average will be based on two readings. If there is one reading in memory for that period, the average will be based on one reading.

Notes:

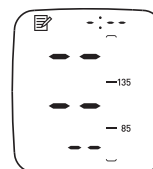
- If the memory is full, the monitor will delete the oldest readings.
- When viewing the reading taken without setting the date and time, "--:" is displayed instead of the date and time.

To View the Average Value

Press the (M) button to display the average reading based on the measurements from the last three readings taken within 10 minutes of the most recent reading. The Average value symbol (M) appears on the display when the average reading is shown



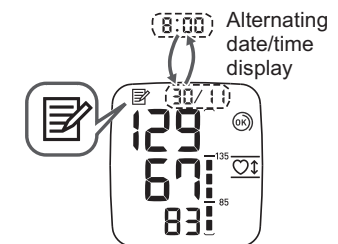
Note: If there are no measurements results stored in the memory, the screen to the right is displayed.



To View the Readings Stored in Memory

1. Press the (M) button, while the average value is displayed.

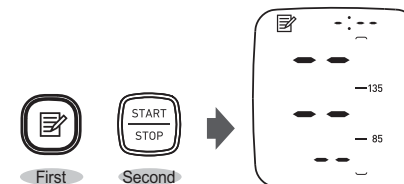
The Memory number appears for a second before the pulse rate is displayed. The newest set is numbered "1".



2. Press the (M) button repeatedly to view the readings stored in memory.

To Delete All the Values Stored in Memory




When the memory symbol (M) appears, first press the (M) button. Then while holding it down, press the START/STOP button simultaneously for about 2 - 3 seconds.




Note: You cannot partially delete the stored readings.

4 Troubleshooting and Maintenance

4.1 The Icons and Error Messages

Error Display	Cause	Remedy
	Irregular heartbeats are detected.	Remove the wrist cuff. Wait 2 - 3 minutes and then take another measurement. Repeat the steps in section 3.3. If this error continues to appear, contact your doctor.
 Blink	The batteries are low.	You should replace them with new ones ahead of time. Refer to section 2.1.
 Lit	The batteries are exhausted.	You should replace them with new ones at once. Refer to section 2.1.
E1	Wrist cuff not applied correctly.	Apply the wrist cuff correctly. Refer to section 3.1.
E3	Movement during measurement.	Repeat Measurement while remaining still and refraining from talking during the measurement. Refer to section 3.3.
E4		
E5	Wrist cuff not applied correctly, or movement during measurement.	Apply the wrist cuff correctly and repeat measurement while remaining still and refraining from talking during the measurement. Refer to section 3.1 and 3.3.
E7	Arm position changed during measurement.	Remain still until the measurement is complete. Refer to section 3.3.
E _r	Device error.	Contact your OMRON retail outlet or distributor.

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

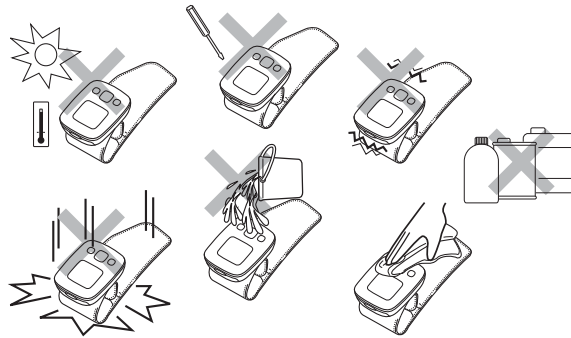
4.2 Troubleshooting

Problem	Cause	Remedy
The reading is extremely low (or high).	The wrist cuff is not at heart level.	Measure while in the correct posture. Refer to section 3.2 and 3.3.
	The cuff is not wrapped snugly around the wrist.	Wrap the cuff correctly. Refer to section 3.1.
	The arms and shoulders are tense.	Relax and try taking the measurement again. Refer to section 3.3.
	Movement or talking during measurement.	Remain still and do not talk during Measurement. Refer to section 3.3.
Wrist cuff pressure does not rise.	Air is leaking from the wrist cuff.	Consult your OMRON retail outlet or distributor.
Wrist cuff deflates too soon.	The wrist cuff is loose.	Apply the cuff correctly so that it is firmly wrapped around the wrist. Refer to section 3.1.
The blood pressure is different each time. The reading is extremely low (or high).		Blood pressure readings constantly vary with time of day and how relaxed you are. Take several deep breaths and try to remain relaxed before taking a measurement.
The unit loses power during measurement.	The batteries are exhausted.	Replace the batteries with new ones. Refer to section 2.1.
Nothing happens when you press the buttons.	The batteries have been inserted incorrectly.	Insert the batteries with the correct (+/-) polarity. Refer to section 2.1.
Other problems.		<ul style="list-style-type: none"> 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 OMRON retail outlet or distributor.

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 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 cuff or immerse it in water.
- Do not use petrol, thinners or similar solvents to clean the cuff.
- Do not carry out repairs of any kind yourself. If a defect occurs, consult your OMRON retail outlet or distributor as mentioned on the packaging.



- The unit should be cleaned with a soft, dry cloth.
- Use a soft, moistened cloth and soap to clean the cuff.
- Keep the unit in its storage case when not in use.
- Fold the cuff into the storage case.


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.

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.

5 Technical Data

Product description	OMRON Wrist Blood Pressure Monitor
Model	MIT Precision 5 (HEM-6150-E)
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	Automatic inflation by pump
Deflation	Automatic rapid deflation
Memory	90 Measurements
Power source	2 "AAA" batteries 1.5V
Battery life	Approx. 300 measurements with new alkaline batteries at a room temperature of 23°C
Applied part	 = Type BF
Protection against electric shock	Internally powered ME equipment
Operating temperature/humidity	+10 to +40°C / Maximum: 15 to 85% RH
Storage temperature/humidity/air pressure	-20 to +60°C / Maximum: 10 to 95% RH / 700 to 1060hPa
Console weight	Approximately 123g without batteries
Outer dimensions	Approximately 86.7 (w) mm x 67 (h) mm x 28 (d) mm (without the wrist cuff)
Measurable circumference	Approximately 13.5 to 21.5 cm
Cuff material	Nylon and polyester
Package content	Main unit, storage case, battery set, instruction manual

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.



6 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 2 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 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.

g. 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.

www.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.

7 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.

How are hypertension and irregular heartbeat linked to stroke?

Hypertension (high blood pressure) and atrial fibrillation are two major risk factors of stroke.

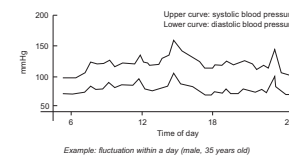
Irregular heartbeat is a potential indicator of atrial fibrillation.

Omron Blood Pressure monitors can help to detect hypertension and irregular heartbeat*.

If either or both are indicated by the device, we recommend to consult your doctor.

NOTE: Diagnosis can only be made by a doctor

* Irregular heartbeat detection is available on most Omron blood pressure monitors.



Example: Fluctuation within a day (male, 30 years old)

Manufacturer 	OMRON HEALTHCARE Co., Ltd. 53, Kunotsubo, Terado-cho, Muko, KYOTO, 617-0002 JAPAN		
EU-representative <table border="1" data-bbox="1820 1065 1939 1118"> <tr> <td>EC</td> <td>REP</td> </tr> </table>	EC	REP	OMRON HEALTHCARE EUROPE B.V. Scorpius 33, 2132 LR Hoofddorp, THE NETHERLANDS www.omron-healthcare.com
EC	REP		
Production facility	OMRON HEALTHCARE MANUFACTURING VIETNAM CO., LTD. No.28 VSIP II, Street 2, Vietnam-Singapore Industrial Park II, Binh Duong Industry-Services-Urban Complex, Hoa Phu Ward, Thu Dau Mot City, Binh Duong Province, Vietnam		
Subsidiaries	OMRON HEALTHCARE UK LTD. Opal Drive, Fox Milne, Milton Keynes, MK15 0DG, UK www.omron-healthcare.co.uk OMRON MEDIZINTECHNIK HANDELSGESELLSCHAFT mbH Gottlieb-Daimler-Strasse 10, 68165 Mannheim, GERMANY www.omron-healthcare.de OMRON SANTÉ FRANCE SAS 14, rue de Lisbonne, 93561 Rosny-sous-Bois Cedex, FRANCE www.omron-healthcare.fr		

Made in Vietnam