# OMRON

## **Automatic Blood** Pressure Monitor





#### Introduction

Thank you for purchasing the OMRON JPN600 Automatic Blood Pressure

The OMRON JPN600 is a compact, fully automatic blood pressure monitor. operating on the oscillometric principle. It measures your blood pressure and pulse rate simply and quickly. For comfortable controlled inflation without the need of pressure pre-setting or re-inflation the device uses its advanced "IntelliSense" technology.

This product is designed to measure the blood pressure and pulse rate of people within the range of the designated arm cuff, following the instructions in this instruction manual.

It is mainly designed for general household use. Please read the Important Safety Information in this instruction manual before using the unit.

# Please follow this instruction manual thoroughly. Please keep for future reference.

For specific information about your own blood pressure, CONSULT YOUR DOCTOR.

#### Important Safety Information

Please read this section carefully before using the unit.

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

#### (General Usage) • DO NOT adjust medication based on measurement results from this blood

- pressure monitor. Take medication as prescribed by your doctor. Only a doctor is qualified to diagnose and treat High Blood Pressure. Consult your doctor before using the device for any of the following conditions: common arrhythmias such as atrial or ventricular premature beats or atrial fibrillation, arterial sclerosis, poor perfusion, diabetes, age, pregnancy, pre-eclampsia, renal diseases
- Note that PATIENT motion, trembling, shivering may affect the measurement • Do not use the device on the injured arm or the arm under medical treatment.
- Do not apply the arm cuff on the arm while being on an intravenous drip or blood transfusion • Consult your doctor before using the device on the arm with an arterio-
- venous (A-V) shunt. · Do not use the device with other medical electrical (ME) equipment simulta-
- Do not use the device in the area the HF surgical equipment, MRI, or CT scanner exists, or in the oxygen rich environmen
- The air tube or the AC adapter cable may cause accidental strangulation in
- Contains small parts that may cause a choking hazard if swallowed by
- Stop using the unit and consult your doctor if you experience skin irritation or other troubles

#### (AC Adapter (optional) Usage) • Do not use the AC adapter if the unit or the power cord is damaged. Turn off

- the power and unplug the power cord immediately Plug the AC adapter into the appropriate voltage outlet. Do not use a
- Never plug in or unplug the power cord from the electric outlet with wet

**↑ 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.

## Always consult your doctor. Self-diagnosis of measurement results and

- self-treatment are dangerous Consult your doctor before using the device for any of the following
- If you have had a mastectomy
- People with severe blood flow problems or blood disorders as cuff inflation
- Do not take measurements more than necessary. It may cause bruising due to blood flow interference. If there are any abnormalities during the measurement, remove the arm cuff.

Do not use this device on infants or persons who cannot express their

- Do not inflate the arm cuff more than necessary.
- Do not use the unit for any purpose other than measuring blood pressure. • Use only the approved arm cuff for this device. Use of other arm cuffs may result in incorrect measurement results. • Do not use a mobile phone or other devices that emit electromagnetic fields,
- near the device. This may result in incorrect operation of the device. • Do not disassemble the monitor or arm cuff. This may cause an inaccurate
- Do not use in a location with moisture, or a location where water may splash on the device. This may damage the device. • Do not use the device in a moving vehicle (car, airplane)

#### (Battery Usage) • Do not insert the batteries with their polarities incorrectly aligned.

• Use only four "AA" alkaline or manganese batteries with this unit. Do not use other types of batteries. Do not use new and used batteries together. Remove the batteries if the unit will not be used for 3 months or more.

#### (AC Adapter (optional) Usage) • Fully insert the power plug.

• When disconnecting the power plug, do not pull the power cord. Be sure to hold the power plug.

- · When handling the power cord, observe the following: Do not break it.
- Do not damage. Do not tamper with it. Do not forcibly bend or pull. Do not twist. Do not bundle during use.
- Do not place under heavy objects. Do not pinch. · Wipe the dust off from the power plug.
- Disconnect the power plug if the product will not be used for a long period of
- · Disconnect the power plug before starting maintenance. • Use only the original AC adapter designed for this unit. Use of unsupported

## adapters may damage and/or may be hazardous to the unit.

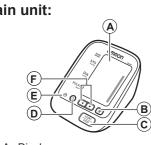
- · Do not forcibly bend the arm cuff or bend the air tube excessively. • To unplug the air plug, pull on the air plug at the connection with the main
- unit, not the tube itself • Do not apply strong shocks and vibrations to or drop the unit and arm cuff.
- Do not inflate the arm cuff when it is not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

Do not use the device outside the specified environment. It may cause an

inaccurate reading. · Dispose of the device, components and optional accessories according to applicable local regulations. Unlawful disposal may cause environmental

#### 1. Overview

## Main unit:

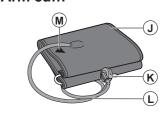


- B. Memory button C. START/STOP button D. Date/Time setting ( ( ) button
- Up/Down (◀ / ▶) buttons B. Battery compartment H. AC adapter jack (for optional

AC adapter)

Air jack

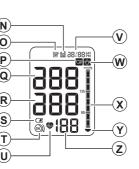
M. Marker



E. Cuff wrapping guide lamp

J. Arm cuff (Arm circumference 22 - 32 cm) K. Air plug . Air tube

#### Display:



N. Average value symbol

T. Cuff wrapping guide

2. Preparation

- O. Memory symbol P. Irregular heartbeat symbol
- Q. Systolic blood pressure R. Diastolic blood pressure

Remove the battery cover.

2. Insert four "AA" batteries

as indicated in the battery

replace the battery cover.

compartment and then

the batteries are replaced.

2.2 Setting the Date and Time

**1.** Press the 🕒 button.

cause environmental pollution.

2.1 Installing/Replacing the Batteries

- · Flashes during measurement. Date/Time display
- /. Movement error symbol . Blood pressure level indicator S. Low battery symbol . Deflation symbol

• If the low battery symbol ( ) appears on the display, turn the

• Dispose of the device, components and optional accessories

according to applicable local regulations. Unlawful disposal may

) Push **◄** or **▶** buttons to

- 2) Push the ( button to confirm.

Next setting appears.

The measurement values continue to be stored in memory even after

monitor off then replace all batteries at the same time.

**2.** Set the monitor to the correct date and time before

taking a measurement for the first time.

The supplied batteries may have a shorter life.

. Pulse display and Memory

J. Heartbeat symbol

- time. Stress raises blood pressure. Sit on 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.

3.2 How to Sit Correctly

To take a measurement, you need to be

relaxed and comfortably seated, under

smoking, exercising or eating 30 minutes

before taking a measurement. Also avoid taking measurements during stressful

comfortable room temperature. Avoid

bathing, drinking alcohol or caffeine,

 The arm cuff should be placed on your arm at the same level as your heart.

### 3.3 Taking a Reading

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

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

need to be reset

3.1 Applying the Arm Cuff

1. Insert the air plug into the air jack

**2.** Put your arm through the cuff

The bottom edge of the arm

cuff should be 1 to 2 cm

above the elbow. Marker

centred on the middle of

**3.** Close the fabric fastener

· When you take a measurement on the right

arm, the air tube will be at the side of your

elbow. Be careful not to rest your arm on

• The blood pressure can differ between the right arm and the left arm,

and therefore also the measured blood pressure values can be

please check with your doctor which arm to use for your

different. OMRON recommends to always use the same arm for

measurement. If the values between both arms differ substantially,

vour inner arm.

FIRMLY.

(arrow under the air tube) is

3. Using the Unit

securely.

• If the batteries have been replaced, the date and time setting will

• If the date and time are not set, "-:--" appears during or after

Remove tight-fitting clothing or tight rolled up sleeve from your

upper arm. Do not place the arm cuff over thick clothes.

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

# Cuff Wrapping Guide Lamp

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

• The monitor will not inflate above 299 mmHg. Do not apply more pressure than necessary

- Note: Wait 2-3 minutes before taking another blood pressure measurement. Waiting between readings allows the arteries to return to the condition prior to taking the blood pressure
- **⚠** Always consult your doctor. Self-diagnosis of measurement results and self-treatment are dangerous.

#### Cuff Wrapping Guide Lamp:

The cuff wrapping guide lamp (iii) lights in green, the cuff is correctly wrapped tightly enough on the arm and the reading is accurate and reliable. If it does not light, the reading is not reliable due to the incorrect wrapping of the cuff. Please wrap the cuff again, taking care to wrap it correctly and take the measurement again.

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

#### Important:

· Recent research suggests that the following values can be used as a guide to high blood pressure for measurements taken at home.



Systolic Blood Pressure	≥ 135 mmHg
Diastolic Blood Pressure	≥ 85 mmHg

This criteria is for home blood pressure measurement.

 Your blood pressure monitor includes an irregular heartbeat feature. Irregular heartbeats can influence the results of the measurement. The irregular heartbeat algorithm automatically determines if the measurement is usable or needs to be repeated. If the measurement

results are affected by irregular heartbeats but the result is valid, the result is shown together with the irregular heartbeat symbol (). If the irregular heartbeats cause the measurement to be invalid, no result is shown. If the irregular heartbeat symbol () is shown after you have taken a measurement, repeat the measurement. If the irregular heartbeat symbol ( ) is shown frequently, please make your doctor aware of it.

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



## Using the Guest Mode

he monitor stores measurement values for one user in the memory. The guest mode can be used to take a single measurement for another user. No measurement values are stored in the memory when the guest mode is selected.

1. Press and hold the START/STOP button for more than 3 seconds. The date/time display will disappear.



2. Release the START/STOP button when the date/time display turns off.

The arm cuff will start to inflate automatically.

#### 3.4 Using the Memory Function

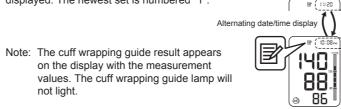
The monitor automatically stores the result up to 90 sets. It can also calculate an average reading based on the measurements from the last three readings taken within 10 minutes. If there are only two readings in memory for that period, the average will be based on two readings. If there is one reading in memory for that period, the average will be based on one reading.

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

#### To View the Readings Stored in Memory

on the display with the measurement

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



(ix): The arm cuff was correctly wrapped tightly enough. : The arm cuff was loose or not wrapped correctly.

2. Press the ◀ or ▶ button to view the readings stored in : To the older readings

To the more recent readings

To View the Average Value

1. Press and hold the 🖹 button for more than 3 seconds.



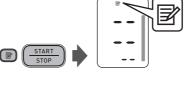
# To Delete All the Values Stored in Memory

 If the previous reading was taken without setting the date and time, the average value is not

• If there are no measurements results stored in

the memory, the screen to the right is displayed

button. Then while holding it down, press the START/STOP button simultaneously for more than 3 seconds.



Remedy

Note: You cannot partially delete the stored readings.

# 4. Troubleshooting and Maintenance

#### 4.1 Error Messages Error Display

calculated.

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

## 4.2 Troubleshooting

		-
The reading is extremely low (or high).	Arm cuff not applied correctly.	Apply the arm cuff correctly. Refer to section 3.1.
	Movement or talking during measurement.	Remain still and do not talk during measurement. Refer to section 3.3.
	Clothing is interfering with the arm cuff.	Remove any clothing interfering with the arm cuff. Refer to section 3.1.
Arm cuff pressure does not rise.	The air tube is not securely connected into the main unit.	Make sure that the air tube is connected securely. Refer to section 3.1.
	Air is leaking from the arm cuff.	Replace the arm cuff with a new one. Refer to Chapter 5.
Arm cuff deflates too soon.	The arm cuff is loose.	Apply the cuff correctly so that it is firmly wrapped around the arm. Refer to section 3.1.

Cause

	Problem	Cause	Remedy
	Cannot measure or readings are too low or too high.	The arm cuff has not been inflated sufficiently.	Inflate the cuff so that it is 30 to 40 mmHg above your previous measurement result. Refer to section 3.3.
	Nothing happens when you press the buttons.	The batteries are empty.	Replace the batteries with new ones. Refer to section 2.1.
		The batteries have been inserted incorrectly.	Insert the batteries with the correct (+/-) polarity. Refer to section 2.1.
	Other problems.	Press the START/STOP button and repeat measurement. If the problem continues, try replacing the batteries with new ones. If this still does not solve the problem, contact your local OMRON representative.	

#### 4.3 Maintenance

To protect your unit from damage, please observe the following:

- · Do not subject the main unit and the cuff to extreme temperatures, humidity, moisture or direct sunlight.
- Do not fold the cuff or tubing tightly. · Do not disassemble the unit
- Do not subject the unit to strong shocks or vibrations (for example, dropping the unit on the floor).
- Do not use volatile liquids to clean the main unit.
- Do not wash the arm cuff or immerse it in water. Do not use petrol, thinners or similar solvents to clean
- Do not carry out repairs of any kind yourself. If a defect occurs, consult your local OMRON representative.



 The unit should be cleaned with a soft, dry cloth. • Use a soft, moistened cloth and neutral soap to clean the arm cuff.

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

### Calibration and Service

- The accuracy of this blood pressure monitor has been carefully tested and is designed for a long service life.
- It is generally recommended to have the unit inspected every two years to ensure correct functioning and accuracy. Please consult your local OMRON representative.

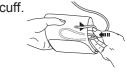
#### 4.4 Storage

- Keep the unit in its storage case when not in use. · Store the device and the components in a clean, safe location.
- **1.** Unplug the air plug from the air jack.

2. Gently fold the air tube into the arm cuff.

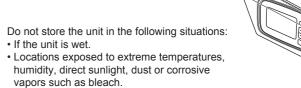
Note: Do not bend the air tube excessively.

· Locations exposed to vibrations, shocks or



**3.** Place the arm cuff and main unit in the storage case.

where it will be at an angle.



#### 5. Optional Parts Small Cuff

HEM-CS24 17 - 22 cm

HEM-CR24 HEM-RML31 Arm circumference Arm circumference Arm circumference 22 - 32 cm

Medium Cuff

Wide Range Soft Cuff

• Please use Adapter [60110HW5SW] in Taiwan, Adapter [6V06ASW-KA] in Korea

## appropriate optional parts.

• Please check with your local OMRON representatives for the

#### Using the Optional AC Adapter

**1.** Insert the AC adapter plug into the AC adapter jack on the rear side of the main

To disconnect the AC adapter, unplug the AC adapter from the

electrical outlet first and then remove the AC adapter plug from the

2. Plug the AC adapter into ar electrical outlet.

# 6. Technical Data

Display

Product Description Automatic Blood Pressure Monitor LCD Digital Display Measurement Method Oscillometric method

Measurement Range Pressure: 0 to 299 mmHg Pulse: 40 to 180 beats/ min Accuracy Pressure: ±3 mmHq Pulse: ±5% of display reading Fuzzy-logic controlled by electric pump

Deflation Automatic pressure release valve Memory 90 measurements with date and time IP classification DC6V 4W

Power Source 4 "AA" batteries 1.5V or AC adapter (optional, INPUT AC100-240V 50/60Hz 0.12A)

Battery Life Approx. 1000 measurements (using new alkaline batteries) **Durable Period** Main Unit: 5 years Cuff: 1 year (when used 6 times a day)

= Type BF Applied Part Internally powered ME equipment (When using only Protection Against

= Class II ME equipment (Optional AC adapter)

temperature/ Humidity / Air Pressure

the batteries)

Storage temperature/ Humidity/ Air pressure Console Weight

Outer Dimensions Cuff Dimensions Approx. 145 mm × 466 mm

Cuff/ Tube Material Nylon, polyester, polyvinyl chloride Package Contents Main unit, arm cuff, instruction manual, battery set,

# storage case, EMC information

• This blood pressure monitor is designed according to the European Standard EN1060, Non-invasive sphygmomanometers Part 1: General Requirements

 This OMRON product is produced under the strict quality system of OMRON HEALTHCARE Co., Ltd., Japan. The core component for OMRON blood

#### **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.

product, or their local government office, for details of where and how they can return this item for environmentally safe recycling.

of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

	617-0002 JAPAN
EC REP	OMRON HEALTHCARE EUROPE B.V. Scorpius 33, 2132 LR Hoofddorp, THE NETHERLANDS
Asia Pacific HQ	OMRON HEALTHCARE SINGAPORE PTE LTD. 438A Alexandra Road, #05-05/08, Alexandra Technopark, Singapore 119967 www.omronhealthcare-ap.com
Production facility	OMRON HEALTHCARE Co., Ltd. Matsusaka Factory

+10 to +40°C / 30 to 85% RH / 700 to 1060 hPa

Approx. 280g without batteries

Approx. 130a Approx. 107 (w) mm × 79 (h) mm × 141(l) mm

• Subject to technical modification without prior notice.

• IP classification is degrees of protection provided by enclosures in accordance with IEC 60529. This device is protected against solid foreign objects of diameter 12 mm such as a finger and greater.

Household users should contact either the retailer where they purchased this

Business users should contact their supplier and check the terms and conditions

	617-0002 JAPAN
EC REP	OMRON HEALTHCARE EUROPE B.V. Scorpius 33, 2132 LR Hoofddorp, THE NETHERLANDS
Asia Pacific HQ	OMRON HEALTHCARE SINGAPORE PTE LTD. 438A Alexandra Road, #05-05/08, Alexandra Technopark, Singapore 119967 www.omronhealthcare-ap.com
Production facility	OMRON HEALTHCARE Co., Ltd. Matsusaka Factory Mie, JAPAN

Made in Japan

-20 to +60°C / 10 to 95% RH / 700 to 1060 hPa

(Cuff: arm circumference 22 to 32 cm)

• This device is clinically investigated according to the requirements of ISO

Electric Shock

Operating

Cuff Weight

• This device fulfils the provisions of EC directive 93/42/EEC (Medical Device

and Part 3: Supplementary requirements for electromechanical blood pressure measuring systems.

pressure monitors, which is the Pressure Sensor, is produced in Japan.

OMRON HEALTHCARE Co., Ltd. 53. Kunotsubo, Terado-cho, Muko, KYOTO