## OMRON





**English** 

Français

**Deutsch** 

Italiano

**Español** 

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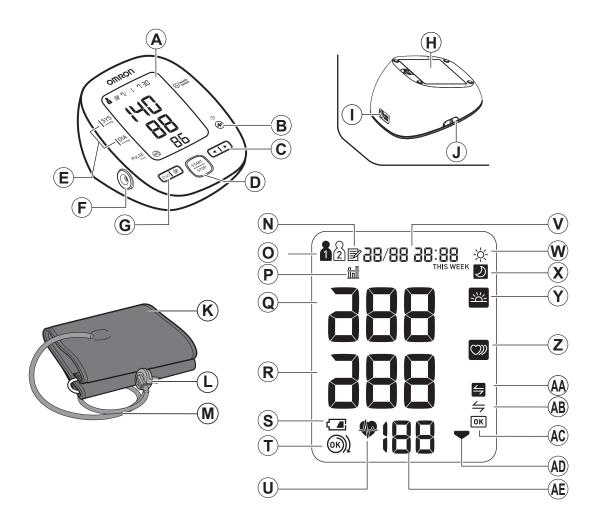
Automatic Upper Arm Blood Pressure Monitor Русский

MIT5s Connect (HEM-7280T-E)

**Instruction Manual** 







## **Contents**

Thank you for purchasing the OMRON MIT5s Connect Automatic Upper Arm 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.

#### Intended Use

This device is a digital monitor intended for use in measuring blood pressure and pulse rate in adult patient population who can understand this instruction manual with the arm circumference range printed on the arm cuff. The device detects the appearance of irregular heartbeats during measurement and gives a warning signal with the measurement result.

lm	porta	nt Safety Information	1
1.	Kno	w Your Device	4
	1.1	Display Symbols	5
		Before Taking a Measurement	
2.	Prep	paration	7
	2.1	Battery Installation	7
	2.2	Using this device with a Smartphone.	8
	2.3	Setting the Date and Time Manually	10
3.	Usir	ng the Device	.12
	3.1	Applying the Arm Cuff	12
	3.2	How to Sit Correctly	13
	3.3	Taking a Measurement	14
	3.4	Using the Memory Function	16
	3.5	Turning "OFF" the Bluetooth®	23

4.		or Messages and Troubleshooting Error Messages	
		Troubleshooting	
5.	Mai	ntenance and Storage	.29
		Maintenance	
	5.2	Storage	. 30
6.	Opt	ional Parts	.31
	6.1	Optional Medical Accessories	. 31
7.	Spe	cifications	.32
		ranty	
<b>9</b> .		ne Useful Information about Blood	26
	rre	ssure	.ახ



Please read this instruction manual thoroughly before using the device. Please keep for future reference. For specific information about your own blood pressure. CONSULT YOUR PHYSICIAN.

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## **Important Safety Information**

▲ 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 physician. Only a physician is qualified to diagnose and treat High Blood Pressure.
- ▲ Consult your physician 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, pregnancy, pre-eclampsia, renal diseases.
  - Note that PATIENT motion, trembling, shivering may affect the measurement reading.
- ▲ 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 on an intravenous drip or blood transfusion.
- A Consult your physician 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 simultaneously.
- ▲ Do not use the device in the area of HF surgical equipment, MRI, or CT scanner, or in an oxygen rich environment.
- ▲The air tube or the AC adapter cable may cause accidental strangulation in infants.
- ▲ Contains small parts that may cause a choking hazard if swallowed.

#### (Data Transmission)

▲ Do not use this product on aircraft or in hospitals and remove the battery and AC adapter from the unit. This product emits radio frequencies (RF) in the 2.4 GHz band, use of this product in locations where RF is restricted is not recommended.

#### (AC Adapter (optional) Usage)

- ▲ Do not use the AC adapter if the device 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 in a multi-outlet plug.
- ▲ Never plug in or unplug the power cord from the electric outlet with wet hands.

### Important Safety Information

⚠ 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)

Always consult your physician. Self-diagnosis of measurement results and self-treatment are dangerous.

⚠ Consult your physician before using the device for any of the following conditions:

- If you have had a mastectomy.
- Do not take measurements more than necessary. It may cause bruising due to blood flow interference.
- People with severe blood flow problems or blood disorders as cuff inflation can cause bruising.
- ⚠Remove the arm cuff if it does not start deflating during the measurement.
- ⚠Do not use this device on infants or persons who cannot express their intentions.
- $\triangle$ Do not use the device for any purpose other than measuring blood pressure.
- A 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 except when in use for wireless communications. This may result in incorrect operation of the device.
- ⚠Do not disassemble the monitor or arm cuff. This may cause an inaccurate reading.
- ⚠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.
- ARead "If your systolic pressure is more than 210 mmHg" (page 14) of this instruction manual, if your systolic pressure is known to be more than 210 mmHg. Inflating to a higher pressure than necessary may result in bruising where the cuff is applied.

#### (AC Adapter (optional) Usage)

- **⚠**Fully insert the power plug into the outlet.
- ⚠When disconnecting the power plug from the outlet, do not pull the power cord. Be sure to pull from the power plug safely.
- ⚠When handling the power cord, take care not to do the following:

Do not damage. Do not break it.

Do not tamper with it.

Do not forcibly bend or pull.

Do not bundle during use.

Do not pinch. Do not place under heavy objects.

### Important Safety Information

- $\triangle$ Wipe the dust off from the power plug.
- ⚠Unplug monitor when not in use.
- ⚠ Disconnect the power plug before cleaning.
- ⚠Use only an OMRON AC adapter designed for this device. Use of unsupported adapters may damage and/or may be hazardous to the device.

#### (Battery Usage)

- ⚠Do not insert the batteries with their polarities incorrectly aligned.
- ⚠Use only 4 "AA" alkaline or manganese batteries with this device. Do not use other types of batteries. Do not use new and used batteries together.
- $\triangle$ Remove the batteries if the device will not be used for three months or more.

#### **General Precautions**

- Do not forcibly crease the arm cuff or the air tube excessively.
- Do not press the air tube while taking a measurement.
- To unplug the air plug, pull on the air plug at the connection with the monitor, not the tube itself.
- Do not drop the monitor or subject device to strong shocks or vibrations.
- Do not inflate the arm cuff when it is not wrapped around your arm.
- Do not use the device outside the specified environment. It may cause an inaccurate reading.
- Read and follow the "Important information regarding Electro Magnetic Compatibility (EMC)" in the "7. Specifications".
- Read and follow the "Correct Disposal of This Product" in "7. Specifications" when disposing of the device and any
  used accessories or optional parts.

## 1. Know Your Device

## Open the rear cover page to read the following:

The letter identifiers on the rear cover page correspond to those in the body of this page.

### **Monitor**

- A Display
- **B** Connection button
- © Up/Down buttons
- © START/STOP button
  (Blue lamp lights when be pressed)
- EBlood pressure level indicator
- **F**Àir jack
- © Memory/Weekly average button
- H Battery compartment
- (For optional AC adapter)
- **JUSER ID selection switch**

#### Arm cuff

- **K**Arm cuff (Arm circumference 22-42cm)
- LAir plug
- M Air tube

## **Display**

N Memory symbol

- **OUSER ID symbol**
- PAverage value symbol
- Systolic blood pressure
- R Diastolic blood pressure
- S Battery symbol (low/depleted)
- **T**Cuff wrap guide symbol
- UHeartbeat symbol (Flashes during measurement)
- **V** Date/Time display
- Morning average symbol
- Evening average symbol
- Morning hypertension symbol
- Irregular heartbeat symbol
- MSYNC symbol
- (AB) Connection symbol
- **@**OK symbol
- **(AD)** Deflation symbol
- Pulse display / Memory number

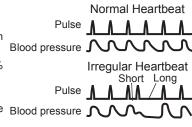
## **1.1** Display Symbols

#### 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 Blood pressure recommend you consult your physician. Follow the directions of your physician.



### Average Value Symbol ( "IIIII")

The average value symbol is displayed when you press and hold the Memory button for more than 3 seconds. The most recent average value appears on the display screen.

#### Cuff Wrap Guide Symbol (@/\))

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 (1) appears. Otherwise (3) appears. This is the function which is used as an aid in determining if the cuff is wrapped snugly enough.

#### 1. Know Your Device

#### **Blood Pressure Level Indicator (Colour)**

If your Systolic Blood Pressure is 135 mmHg or above and/or the Diastolic Blood Pressure is 85 mmHg or above, the blood pressure level indicator (colour) will light in "orange" when the measurement result is displayed. If the measurements are within the standard range, no light will appear.



#### 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

## 1.2 Before Taking a Measurement

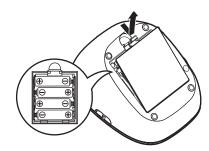
To help ensure an accurate reading, follow these directions:

- Avoid bathing, drinking alcohol or caffeine, smoking, exercising and eating for 30 minutes before taking a
  measurement. Rest for at least 15 minutes before taking the measurement.
- 2. Stress raises blood pressure. Avoid taking measurements during stressful times.
- 3. Measurements should be taken in a quiet place.
- 4. Remove tight-fitting clothing from your arm.
- 5. Sit on a chair with your feet flat on the floor. Rest your arm on a table so that the arm cuff is at the same level as your heart.
- Remain still and do not talk during the measurement.
- 7. 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. Preparation

## 2.1 Battery Installation

- 1. Remove the battery cover.
- 2. Insert 4 "AA" batteries as indicated in the battery compartment.



3. Replace the battery cover.

#### Notes:

- Please keep the batteries in your device all the time when you use an optional AC adapter.
- When the depleted battery symbol ( ) appears on the display, turn the monitor off, then replace all batteries at the same time. Long life alkaline batteries are recommended.
- The measurement values continue to be stored in memory even after the batteries are replaced.
- The supplied batteries may have a shorter life.
- Dispose of the device, components and optional accessories according to applicable local regulations.
   Unlawful disposal may cause environmental pollution.

## 2.2 Using this device with a Smartphone

To begin using the OMRON connect app for the first time, please visit <a href="https://www.omronconnect.com/setup">www.omronconnect.com/setup</a> for the initial set-up instructions.

List of Compatible Smartphones at: www.omronconnect.com/devices For details and more information, visit: www.omronconnect.com

1. Download and install the free "OMRON connect" app on your smartphone.





- 2. Open the App on your smartphone and follow the set-up and pairing instructions.
- **3.** Press and hold the (a) connection button for more than 2 seconds.

The connection symbol  $(\leftrightharpoons)$  and the "P" flashes on the device's display.

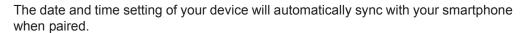


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## 5. Confirm if the device is connected successfully.

When the device is connected successfully to the smartphone, the "OK" symbol and the symbols on the right will flash on the display.

The monitor will automatically turn off without any operations.



When "Err" appears, refer to "Connection failure" in section 4.2 for further details.



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#### Notes:

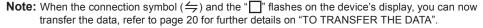
- \* This device can pair to multiple smartphones to support the USER ID function. Section 3.3
- Any readings previously saved in the blood pressure monitor's memory will automatically be transferred to the app after successful completion of the pairing process.

## 2.3 Setting the Date and Time Manually

The date and time will be automatically set when paired with your smartphone. To set manually, follow the instructions below.

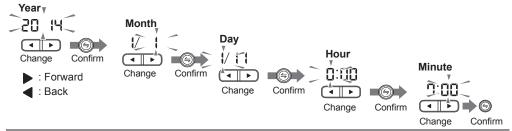
## 1. Press the (5) (4) connection button.

- ①If the device has not been paired with a smartphone, the year flashes on the Date/Time display.
- ②If the device has been paired with a smartphone already, the connection symbol (⇐) and the "☐" flash on the device's display. Then press the ⇐) connection button again, and the year flashes on the Date/Time display.



## 2. Push ◀ or ▶ button to change the year.

Push  $\oplus$  button to confirm the year, once confirmed the month starts flashing. Repeat the same steps to change the month, day, hour, and minute.



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

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## 3. Using the Device



Open both the front and rear covers to read the following:

The letter identifiers on the cover pages correspond to those in the body of this page.

## 3.1 Applying the Arm Cuff

Remove tight-fitting clothing or tight rolled up sleeve from your left upper arm. Do not place the arm cuff over thick clothes.

- 1. Insert © the air plug into © the air jack securely.
- 2. Apply the arm cuff to your left upper arm.

The bottom edge of the arm cuff should be a 1 to 2 cm above the elbow.

MAir tube is on the inside of your arm and aligned with your middle finger.

### 3. Secure closed with the fabric fastener.

#### Notes:

- 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 air tube.
- 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 which arm to use for your
  measurements.

## **3.2** How to Sit Correctly

To take a measurement, you need to be relaxed and comfortably seated, under comfortable room temperature. Avoid 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. --- C
- · Sit with your back and arm being supported.
- The arm cuff should be placed on your arm at the same level as your heart. --- d

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## 3.3 Taking a Measurement

Check if the date and time are correct on the display before taking the measurement. If the date and time settings are necessary, refer to "Setting the Date and Time Manually" (page 10).

#### Notes:

- To stop a measurement, press the START/STOP button once to deflate the arm cuff.
- Remain still and quiet while taking a measurement.

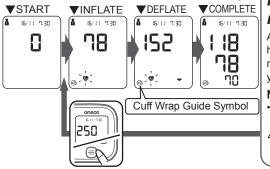
The monitor is designed to take measurements and store the measurement values in the memory for 2 people using USER ID 1 and USER ID 2.

## Select your USER ID (1 or 2). Push the switch up or down to select USER ID.



## 2. Press the START/STOP button.

The arm cuff starts to inflate automatically.



## 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.

#### Notes:

- The monitor will not inflate above 299 mmHg.
- ⚠ Inflating to a higher pressure than necessary may result in bruising where the arm cuff is applied.

## 3. Remove the arm cuff.

## 4. Press the START/STOP button to turn the monitor off.

The monitor automatically stores the measurement result in its memory. It will automatically turn off after 2 minutes without any operations.

**Note:** Wait 2-3 minutes before taking another measurement. Waiting between measurements allows the arteries to return to the condition prior to taking a measurement.

#### Using the Guest Mode

The monitor stores measurement values for 2 users 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 USER ID symbol and 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.

▲ 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.

▲This monitor is not intended to be a diagnostic device.

Always consult your physician. Self-diagnosis of measurement results and self-treatment are dangerous.

ARead "If your systolic pressure is more than 210 mmHg" (page 14) of this instruction manual, if your systolic pressure is known to be more than 210 mmHg. Inflating to a higher pressure than necessary may result in bruising where the cuff is applied.

## **3.4** Using the Memory Function

The monitor automatically stores the results up to 100 sets for each user (1 and 2). It can also calculate an average value based on the last 3 measurement values taken within 10 minutes.

#### Notes:

- If there are only 2 measurement values in the memory for that period, the average will be based on these 2 values.
- If there is 1 measurement value in the memory for that period, this is displayed as the average.
- If the memory is full, the monitor will delete the oldest value.
- When the SYNC symbol appears on the display, transfer the data before the measurement values are
  deleted. Refer to "Using this device with a Smartphone" (page 8).
   Flashing: 80 sets of measurement results for either user have been stored.
- Lit: 100 sets of measurement results for either user have been stored.
- When viewing the measurement value taken without setting the date and time, "-/ -:--" is displayed instead of the date and time

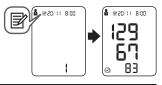
### To View the Measurement Values Stored in Memory

## 1. Select your USER ID (1 or 2).

## 

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

**Note:** The cuff wrap guide result appears on the display with the measurement values.



# 3. Press the ◀ or ▶ button to view the values stored in the memory.

- : To view the older values
- >: To view the more recent values

### To View the Average Value

- 1. Select your USER ID (1 or 2).
- 2. Press and hold the button for more than 3 seconds.



#### Notes:

- If the previous measurement was taken without setting the date and time, the average value is not calculated.
- If there are no measurement values stored in the memory, the screen to the right is displayed.



## To View the Weekly Average Value

The monitor calculates and displays weekly averages for the measurements taken in the morning and evening within 8 weeks for each user.

Note: The week begins Sunday at 2:00.

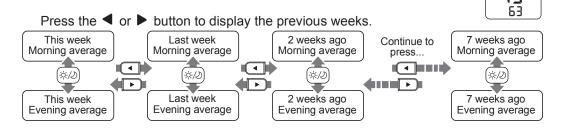
1. Select your USER ID (1 or 2).

### 3. Using the Device

## 2. Press the 🌣/🔊 button.

The morning average for "THIS WEEK" appears on the display.

**Note:** The morning hypertension symbol ( ) appears if the morning weekly average is 135/85 mmHg or above.



**Note:** If there are no measurement values stored in the memory, the screen to the right is displayed.



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86

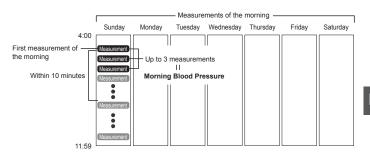
#### 3. Using the Device

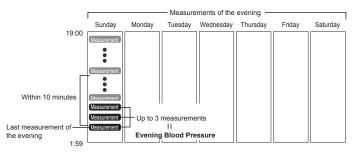
#### **Morning Weekly Average**

This is the average for the measurements taken during the morning (4:00 - 11:59) between Sunday and Saturday. An average for each day is calculated for up to three measurements taken within 10 minutes of the first measurement of the morning.

#### **Evening Weekly Average**

This is the average for the measurements taken during the evening (19:00 - 1:59) between Sunday and Saturday. An average for each day is calculated for up to three measurements taken within 10 minutes of the last measurement of the evening.





#### TO TRANSFER THE DATA

After the measurement is complete, you can transfer the data (measurement results of blood pressure and pulse rate).

#### Notes:

- · The stored data can be transferred all at once.
- The date and time settings of your smartphone will sync with the device when transferred.
   \*Sync occurs if the time between smartphone and device differs more than 10 minutes.
- 1. Open the OMRON connect app on your smartphone.
- 2. Pull down to refresh the screen of the OMRON connect app and the data transfer starts.
  - \* If the data transfer is not starting, refer to "Connection failure. Data cannot be sent." in section 4, "Error Messages and Troubleshooting".
- 3. Confirm with your device if the measurement data is transferred successfully.

If the display on the right is shown, the data is transferred successfully.

When "Err" appears, refer to "Data cannot be sent." in section 4.2 for more detail.

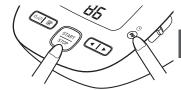




#### TO DELETE ALL RESULTS AND SETTINGS

To delete all the information stored in your monitor, follow the instructions below. Make sure that the monitor's power has been off.

1. While holding the 
button down, press the START/STOP button for more than 5 seconds.



2. Release the 
button and START/STOP button when "CLr" appears on the display.

The "CLr" will appear on the display when your monitor has been initial setting.



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

#### Note:

- Initial setting of the monitor will not delete the information in the app.
- The monitor will automatically turn off after 2 minutes.

### 3. Using the Device

### To Delete All the Values Stored in Memory

The values stored in the memory are deleted by USER ID.

- 1. Select your USER ID (1 or 2).
- 2. Press the Memory button, while the memory symbol (**B**) appears.

3. While holding the 

button down, press the START/STOP button for more than 3 seconds.

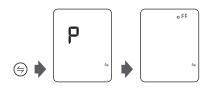
**Note:** You cannot partially delete the values stored in the memory. All values for the user you select will be deleted.



Turn off the *Bluetooth*® of the monitor in the following areas where use of wireless equipment is prohibited.

- On aircraft
   In hospitals
   While abroad
   Make sure that the power has been off before starting the instructions below.
- 1. Press and hold the connection 

  button for more than 10 seconds.
- 2. Release the ⊜ button when "OFF" appears on the display.



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

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

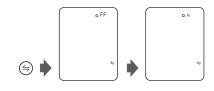
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### 3. Using the Device

#### To turn "ON" the Bluetooth®

Make sure that the power has been off before starting the instructions below.

- 1. Press and hold the connection ⊜ button for more than 10 seconds.
- 2. Release the 
  button when "ON" appears on the display.



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

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

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## 4. Error Messages and Troubleshooting

## **4.1** Error Messages

Display	Cause	Solution
	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 physician.
(a)	Arm cuff is applied too loosely.	Apply the arm cuff tighter. Refer to section 3.1.
	The batteries are low.	You should replace the batteries with new ones ahead of time.  Refer to section 2.1.
	The batteries are exhausted.	You should replace the batteries with new ones at once. Refer to section 2.1.
Err	Communication failed.	Refer to "Data cannot be sent." in section 4.2.

## 4. Error Messages and Troubleshooting

Display	Cause	Solution	
	Air plug is disconnected.	Insert the air plug securely. Refer to section 3.1.	
Εŀ	Arm cuff is applied too loosely.	Apply the arm cuff tighter. Refer to section 3.1.	
	Air is leaking from the arm cuff.	Replace the arm cuff with a new one. Refer to section 6.1.	
	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.	
E5		If "E2" appears repeatedly, inflate the arm cuff manually until it is 30 to 40 mmHg above your previous measurement result.  Refer to section 3.3.	
The arm cuff was inflated exceeding the maximum allowable pressure, and then deflated automatically when inflating the arm cuff manually.		Do not touch the arm cuff and/or bend the air tube while taking a measurement. Do not inflate the arm cuff more than necessary. 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 OMRON retail outlet or distributor.	

## 4.2 Troubleshooting

Problem	Cause	Solution
	Arm cuff is applied too loosely.	Apply the arm cuff tighter. Refer to section 3.1.
The measurement result is extremely high (or low).	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 connector is not securely connected into the air jack.	Make sure that the air tube is connected securely. Refer to section 3.1.
Aim cuit pressure does not rise.	Air is leaking from the arm cuff.	Replace the arm cuff with a new one. Refer to section 6.1.
Arm cuff deflates too soon.	The arm cuff is loose.	Apply the arm cuff correctly so that it is firmly wrapped around the arm. Refer to section 3.1.
Cannot measure or the results are too low or too high.	The arm cuff has not been inflated sufficiently.	Inflate the arm cuff so that it is 30 to 40 mmHg above your previous measurement result.  Refer to section 3.3.

## 4. Error Messages and Troubleshooting

Problem	Cause	Solution	
Nothing happens when you press the	The batteries are empty.	Replace the batteries with new ones. Refer to section 2.1.	
buttons.	The batteries have been inserted incorrectly.	Insert the batteries with the correct (+/-) polarity. Refer to section 2.1.	
	The destination device is too far away from the monitor. After checking that there are no sources of interference nearby, move the device to a distance within 16 ft. (5 m) of the monitor.		
	The <b>Bluetooth</b> ® function on the destination device is turned off. Turn on the <b>Bluetooth</b> ® function and try sending the data again.		
	The <i>Bluetooth</i> ® function on the monitor is not turned on. Press the ⑤ button, turn on the <i>Bluetooth</i> ® function and try sending the data again.		
Connection failure. Data cannot be sent.	Pairing (registering) has not been completed. Perform pairing (registration). Refer to "Using this device with a Smartphone" in section 2.2.		
	The blood pressure monitor is not ready, follow the step in section 2.3 "Setting the Date and Time Manually".		
	The application on the destination device is not ready. Check the application then try sending the data again.  Refer to "Using this device with a Smartphone" in section 2.2.  If the Err symbol still lights after checking the application, contact customer service.		
Other problems.	Press the START/STOP button and repeat measurement.     Replace the batteries with new ones.		
Outer problems.	If the problem continues, contact you		

## 5. Maintenance and Storage

## **5.1** Maintenance

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

- 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 petrol, thinners or similar solvents to clean the device.











- Use a soft and dry cloth, or a soft and moistened cloth and neutral soap to clean on the monitor and the arm cuff.
- Changes or modification not approved by the manufacturer will void the user warranty. Do not disassemble or attempt to repair the device or components. Consult your OMRON retail outlet or distributor.

#### Calibration and Service

- The accuracy of this device 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. Maintenance and Storage

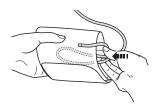
## **5.2** Storage

Keep the device in its storage case when not in use.

## 1. Unplug the air plug from the air jack.

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

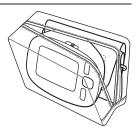
**Note:** Do not bend or crease the air tube excessively.



# 3. Place the monitor and the arm cuff in the storage case.

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 vapours such as bleach.
- · Locations exposed to vibrations, shocks or where it will be at an angle.



## 6. Optional Parts

## **6.1** Optional Medical Accessories

(within the scope of EC Medical Device Directive 93/42/EEC)

# Arm cuff Arm circumference 22-42 cm

Small arm cuff Arm circumference 17-22 cm

AC adapter



HEM-RML31



CS2 Small Cuff (HEM-CS24)

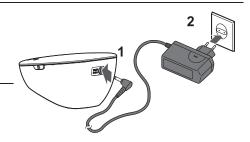


AC ADAPTER-S (60240HW5SW)



Using the Optional AC Adapter

- Insert the AC adapter plug into the AC adapter jack on the rear side of the monitor.
- 2. Plug the AC adapter into an electrical outlet.



To disconnect the AC adapter, unplug the AC adapter from the electrical outlet first, and then remove the AC adapter plug from the monitor.

## 7. Specifications

Electronic Sphygmomanometers Product category Product description Automatic Upper Arm Blood Pressure Monitor Model MIT5s Connect (HEM-7280T-E) Display LCD digital display Oscillometric method Measurement method Measurement range Pressure: 0 to 299 mmHg Pulse: 40 to 180 beats / min. Accuracy Pressure: ±3 mmHa Pulse: ± 5% of display reading Inflation Fuzzy-logic controlled by electric pump Deflation Automatic pressure release valve Memory 100 measurements with date and time for each user (1 and 2) DC6V 4W Rating Power source 4 "AA" batteries 1.5V or AC adapter (AC ADAPTER-S. INPUT AC100-240V 50/60Hz 0.12A AC ADAPTER-UK, INPUT AC100-240V 50/60Hz 15VA) Battery life Approximately 1000 measurements (using new alkaline batteries, operating temperature and humidity 23°C, 65% RH. cuff circumference 25 cm. max pressure 170 mmHg) Applied part = Type BF Protection against electric shock Internally powered ME equipment (When using only the batteries) = Class II ME equipment (Optional AC adapter) Operating temperature / humidity / air +10°C to +40°C / 15% to 85% RH / 700 to 1060 hPa pressure Storage temperature / humidity / air pressure -20°C to +60°C / 10% to 95% RH / 700 to 1060 hPa IP classification IP 20 Weight Monitor: Approximately 364 g without batteries Arm cuff: Approximately 170 g Outer dimensions Monitor: Approximately 114 (w) mm  $\times$  85 (h) mm  $\times$  139 (l) mm Arm cuff: Approximately 145 mm × 594 mm 22 to 42 cm Cuff circumference Cuff / Tube material Nylon, polyester, polyvinyl chloride Monitor, arm cuff, instruction manual, storage case, battery set. Package contents

blood pressure pass

• These specifications are subject to change without notice.

 In the clinical validation study, the 5th phase was used on 85 subjects for determination of diastolic blood pressure.

• This device has not been validated for use on pregnant patients.

• IP classification is degrees of protection provided by IEC 60529.

## **C€0197**

This device fulfils the provisions of EC directive 93/42/EEC (Medical Device Directive).

- This device 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 device is produced under the strict quality system of OMRON HEALTHCARE Co., Ltd., Japan. The core component for OMRON devices, which is the Pressure Sensor, is produced in Japan.



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.



The *Bluetooth*® *Smart* 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 and Google Play are both trademarks of Google Inc.

Hereby, OMRON HEALTHCARE Co., Ltd., declares that this MIT5s Connect is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

ΕN

### 7. Specifications

#### 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 device 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 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 take 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.

## 8. 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 a high level of comfort, 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:

- a. Transport costs and risks of transport.
- b. Costs for repairs and / or defects resulting from repairs done by unauthorised persons.
- c. Periodic check-ups and maintenance.
- d. Failure or wear of optional parts or other attachments other than the main device itself, unless explicitly guaranteed above
- e. Costs arising due to non-acceptance of a claim (those will be charged for).
- f. Damages of any kind including personal caused accidentally or from misuse.
- g. Calibration service is not included within the guarantee.
- h. Optional parts have a one (1) year warranty from date of purchase. Optional parts include, but are not limited to the following items: Cuff and Cuff Tube, AC Adapter.

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.

## 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.

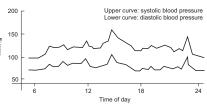
The highest pressure in the cycle is called the *Systolic Blood Pressure*; the lowest is the *Diastolic Blood Pressure*. Both pressures, the *Systolic* and *Diastolic*, are necessary to enable a physician to evaluate the status of a patient's blood pressure.

#### 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)

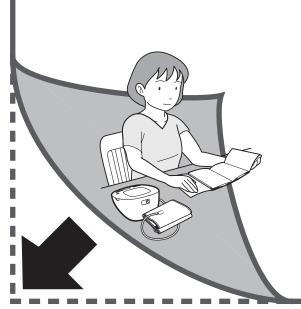
### How is Hypertension related to Stroke?

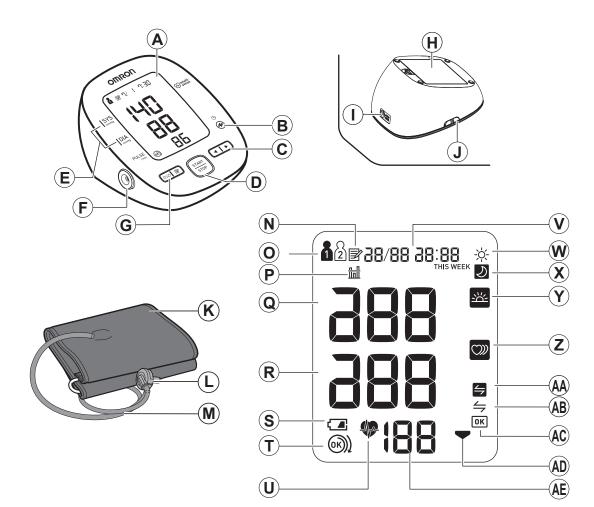
Hypertension (high blood pressure) is the key risk factor for Stroke.

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.





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