

RexallTM MC

Wrist Automatic Blood Pressure Monitor

Tensiomètre automatique de Poignet

Model #: RX813
Instruction Manual



Recommended by
Recommandé par
Hypertension Canada
Silver | Argent



Automatic Wrist Blood Pressure Monitor
Instruction Manual
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RX813

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1. Introduction

Thank you for purchasing the Rexall Automatic Wrist Blood Pressure Monitor. Designed for convenient and easy operation, this device provides a simple, yet accurate method to measure your blood pressure.

Your blood pressure is an important parameter that can be used to monitor your health. This device enables you to monitor your blood pressure regularly, and maintain a record of your blood pressure measurements. You can then use this record to assist your physician in diagnosing and maintaining a healthy blood pressure level.

1.1 Features

This device uses oscillometric technology to measure the arterial blood pressure

and pulse rate. The cuff is wrapped around the wrist and is automatically inflated by the air pump. The sensor in the device senses weak fluctuation of the pressure in the cuff produced by extension and contraction of the artery of the wrist in response to each heartbeat. The amplitude of the pressure waves is measured, converted to millimeters of the mercury column, and is shown on the display.

- **Memory Features** 1 user, 90 blood pressure readings with time and date
- **Hypertension Classification Indicator** displays the range between which your blood pressure values lie, according to the WHO (World Health Organization).
- **Averages last 3 readings**
- **Time and date**
- **Detects irregular heartbeat**

Before using this device, read this instruction manual carefully and keep it in a safe place.

1.2 Important Information

Refer to the following sections to learn about important safety instructions and

how to take care of the Rexall Automatic Wrist Blood Pressure Monitor.

1.2A Safety Information

- Self-measurement means control, not diagnosis or treatment. Your values must always be discussed with your doctor or a physician who is familiar with your family history.
- If you are undergoing medical treatment and receiving medication, consult your doctor to determine the most appropriate time to measure your blood pressure. Never alter the dosages of any medication without direction from your doctor.
- Your blood pressure depends on several factors, such as age, gender, weight, and physical condition. It also depends on the environment and your state of mind at the time of measurement. In general, your blood pressure is lower when you are asleep and higher when you are active. Your blood pressure may be higher when recorded at a hospital or a clinic and may be lower when measured in the relaxing comfort of your home. Due to these variations, we recommend that you record your blood pressure regularly at home as well as at your doctor's clinic.

- Try to record your blood pressure regularly at the same time of the day and under the same conditions. This will help your physician detect any extreme variations in your blood pressure and thus treat you accordingly.
- Morning Hypertension (>135/85 mmHg): Recently, several studies have identified elevated cardiovascular risks (heart failure, stroke, angina) associated with “morning hypertension”. There is a typical rise in blood pressure during the physiological changes from sleep to arising for the day.
- The ideal time to measure your blood pressure is in the morning just after you wake up, before breakfast and any physical activity, and in the absence of the urge to urinate. If this is not possible, try to take the measurements later in the morning, before you start any physical activity. Relax for a few minutes before you record your blood pressure.
- Your blood pressure increases or decreases under the following circumstances:
Blood pressure is higher than normal:
 - When you are excited, nervous, or tense
 - While taking a bath
 - During and after exercise or strenuous physical activity

- When it is cold
- Within two hours after meals
- After drinking tea, coffee, or other caffeinated drinks
- After smoking tobacco
- When your bladder is full

Blood pressure is lower than normal:

- After consuming alcohol
 - After taking a bath
- The pulse display is not suitable for checking the frequency of heart pacemakers.
 - If you have been diagnosed with a severe arrhythmia or irregular heartbeat, vascular constriction, liver disorders, or diabetes, have a cardiac pacemaker, or are pregnant, measurements made with this instrument should only be evaluated after consultation with your doctor.
 - Take care while handling the batteries in the device. Incorrect usage may cause battery fluid leakage. To prevent such accidents, refer to the following instructions:
 - Insert batteries with the correct polarity.
 - Turn off power after use. Remove and store the batteries if you are not planning

- to use the device for an extended period of time.
- **Do not** mix different types, brands, or size of batteries. This may cause damage to the product.
 - **Do not** mix old and new batteries.
 - Remove batteries and dispose of them according to the proper regulations in your area.
 - **Do not** disassemble batteries or expose them to heat or fire.
 - **Do not** short-circuit the batteries.
 - **Do not** use rechargeable batteries.

1.2B Care of the Device

For prolonged life of your blood pressure monitor, note the following instructions:

- **Do not** drop or bang the unit. Prevent sudden jerks, jars, or shocks to the device to prevent damage.
- **Do not** insert any foreign objects in any device openings or vents.
- **Do not** disassemble the unit.
- If the unit has been stored at very low or freezing temperatures, allow to reach room temperature before using it.

- **Do not** store the unit in direct sunlight, high humidity, or in places with a lot of dust.
- Clean the device with a soft dry cloth. Do not use gasoline, thinner or similar solvents. Carefully remove spots on the cuff with a damp cloth and soap. Do not wash the cuff.
- **Do not** use the device if you think it is damaged or if anything appears unusual.
- Ensure that children do not use this device unsupervised; some parts are small enough to be swallowed.
- Using the unit in the immediate vicinity of mobile phones, microwave appliances or other devices with strong electromagnetic fields may result in impaired functioning.
- **Do not** use this device close to strong electromagnetic fields, such as mobile telephones or radio installations. Keep a distance from such devices when using this unit.

1.2C Comparing Readings to Other Blood Pressure Devices

Many questions arise when two blood pressure devices are compared in an effort to check accuracy. An accurate comparison requires repeatable measurements under the same conditions, and significant time is required to

reduce naturally occurring blood pressure variability during the test. For proper comparisons, the subject should be seated comfortably with feet flat on the floor, and have rested for 5 minutes before the first reading to allow blood pressure levels to stabilize. The patients back, elbow and forearm should be supported, and the middle of the cuff should be at the level of the right atrium. There should be no talking or moving during the measurement and if comparing to an aneroid gauge or mercury column, observers should avoid parallax and be careful not to round measurements.

The most accurate way to compare devices is to take two readings at the same time. However most people and doctor's offices do not have the equipment necessary to measure blood pressure from two devices simultaneously. To take sequential measurements properly requires a pair of initial measurements to determine the subjects blood pressure level: first with the reference equipment, followed by 60 seconds, then with the monitor-under-test. The actual accuracy test requires three pairs of measurements with 60 seconds between measurements. These measurements are averaged and a comparison can be made. Since most people tend to relax and their blood pressure falls

with subsequent measurements, following this protocol reduces these natural changes in BP levels. The standard technical error of both consumer and professional devices is normally ± 3 mmHg, so a discrepancy of 6 mmHg is acceptable even when the devices are working within their specifications.

Any comparisons without following the procedures described above will not yield reliable results. In addition, to do an accuracy test properly the reference device must also be tested to a known reference to confirm its accuracy, prior to being used as the reference for comparisons.

1.2D Calibration

Digital blood pressure monitors do not require recalibration. If the unit turns on and does not display an error code, the product is working properly. In extremely rare cases, the cuff may have developed a pin-hole leak, or the gasket where the cuff connector enters the monitor may not have a proper seal; both of these leaking air issues will potentially cause errors in accuracy, but otherwise the product will work accurately without drifting out of calibration.

2. About Blood Pressure

Your blood pressure level is determined in the circulatory center of your brain. Your nervous system allows your body to adapt or alter blood pressure in response to different situations. Your body alters your pulse or heart rate and the width of blood vessels through changes in muscles in the walls of blood vessels.

Your blood pressure reading is highest when your heart pumps or ejects blood. This stage is called your **systolic blood pressure**.

Your blood pressure is lowest when the heart rests (in-between beats). This is called your **diastolic blood pressure**.

It is critical to maintain blood pressure values within a “normal” range in order to prevent cardiovascular diseases. Increased blood pressure values (various forms of hypertension) have associated long and medium term health risks. These risks concern the arterial blood vessels of your body, which are endangered due to constriction caused by deposits in the vessel walls (arteriosclerosis). A

deficient supply of blood to important organs (heart, brain, muscles) can be the result. Furthermore, with long-term increased blood pressure values, the heart will become structurally damaged.

There are many different causes of the appearance of high blood pressure. We differentiate between common primary (essential) hypertension, and secondary hypertension. The latter group can be ascribed to specific organic malfunctions. Please consult your doctor for information about the possible origins of your own increased blood pressure values.

2.1 Normal Blood Pressure Values

Blood pressure is too high when measuring at home and you have rested, the diastolic pressure is above 85 mmHg or the systolic blood pressure is over 135 mmHg. If you obtain readings in this range, consult your doctor immediately. High blood pressure values over time can damage blood vessels, vital organs such as the kidney, and your heart.

With blood pressure values that are too low (i.e., systolic values under 105 mmHg or diastolic values under 60 mmHg), consult with your doctor.

Systolic	Diastolic	Comment
Below 120	Less than 80	This range is considered "Normal" and ideal
120 - 139	80 – 89	This range is considered " Pre-hypertension ": Discuss with your health care professional. Lifestyle modifications maybe required to avoid advancing into Hypertension.
140 – 159	90 - 99	This is in the hypertension range. Discuss with your health care professional. Medication(s) and lifestyle modifications are typical treatments.

160 and higher	100 +	Discuss with your medical professional, medication(s) and lifestyle modifications are necessary to control your hypertension
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Adopted From: Understanding and Managing your blood pressure; Hypertension Canada.

Note: A diagnosis of high blood pressure must be confirmed with a medical professional. A doctor should evaluate any unusual blood pressure readings. Additionally, lower targets may be appropriate for some populations such as African-Americans, the elderly, or patients with underlying issues such as diabetes mellitus or chronic kidney disease.

Important for Canadians:

*** Hypertension measured at home \geq 135/85**

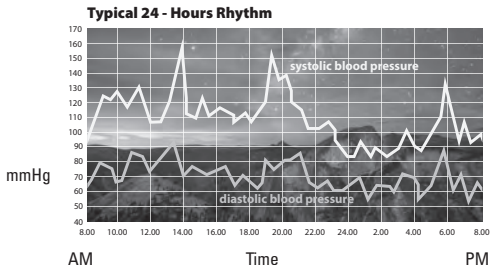
*** Hypertension measured at a physician's office \geq 140/90**

*** Hypertension measured at a physician's office for a diabetic patient \geq 130/80**

2.2 Common Blood Pressure Questions and Answers

a) Why is my blood pressure reading always different?

Your blood pressure changes constantly. It is quite normal for blood pressure to fluctuate significantly (50 mmHg to 60 mmHg) throughout the day. Blood pressure is normally lowest at night, but increases during waking hours when the stress and activities of everyday life are highest.



b) Why is the doctor's reading different from the reading taken at home?

Your blood pressure can vary due to the environment (temperature, nervous condition). When measuring blood pressure at the doctor's office, it is possible for blood pressure to increase due to anxiety and tension, this is known as "White Coat Hypertension".

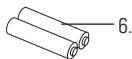
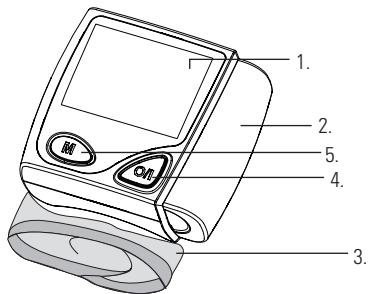
c) Why should I monitor blood pressure at home?

One or two readings will not provide a true indication of your normal blood pressure. It is important to take regular, daily measurements and to keep records over a period of time. This information can be used to assist your physician in diagnosing and preventing potential health problems.

3. Getting Started

3.1 About the Device

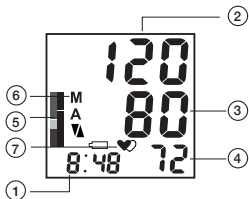
- 1 - LCD
- 2 - Battery compartment
- 3 - Wrist cuff
- 4 - On/Off button
- 5 - Memory button
- 6 - Batteries
- 7 - Case



3.2 About the LCD Screen

The LCD screen displays the systolic and diastolic blood pressure measurements along with your heart rate. It also displays previously recorded measurements and the date and time, when the appropriate button is pressed.

- 1 - Time/Date
- 2 - Systolic Blood Pressure (mmHg)
- 3 - Diastolic Blood Pressure (mmHg)
- 4 - Pulse Rate (beats/min)
- 5 - Hypertension Classification Indicator
- 6 - Memory
- 7 - Irregular Heartbeat Icon




3.3 Inserting the Batteries

Follow these steps to insert the two “AAA” batteries in the device.

1. Open the battery compartment cover in the direction shown.
2. Insert the two “AAA” batteries with the correct polarity as indicated.
3. Replace the battery compartment cover.



NOTE: Replace the batteries whenever the weak battery icon shows “”, the display is dim, or the display does not illuminate when the power is on. Replace all the batteries at the same time - it is dangerous to mix old and new batteries.

- If the blood pressure monitor is left unused for long periods, please remove the batteries from the device.
- Do not mix old and new batteries. Do not mix alkaline, standard (carbon-zinc) or rechargeable batteries.

4. Using the Device

This section describes how to get the maximum benefit from your wrist blood pressure monitor. Follow the instructions carefully to get an accurate measurement of your blood pressure and pulse rate.

4.1 Setting Date and Time

1. When the device is turned on for the first time, the display will show as Fig. 1.



Fig. 1

2. Press and hold the **M** button, then press the **O/I** button, the year number flashes as Fig.2.
3. Press the **M** button again to change the number, and press the **O/I** button to confirm.
4. When the year setup is finished, the month number will flash automatically. Follow the same instruction as above to set month, date and time.
5. Press the **O/I** button to finish setup as Fig.3. If the date and time needs to be changed again, repeat steps 2-5.



Fig. 2



Fig. 3

4.2 Obtaining Accurate Measurements

Your blood pressure can vary based on numerous factors, physiological conditions, and your surroundings. Follow these guidelines to obtain accurate and error-free measurements of your blood pressure and pulse rate.

4.2A Tips On Taking Accurate Measurements



In the morning before breakfast, 2 hours after dinner, before taking medication



Empty bladder (if necessary).



Avoid coffee and smoking
Within the hour, and no exercise 30 minutes before measuring.



Rest quietly for 5 minutes. Remain calm and quiet while the measurement is in process.



Do not speak while taking the measurement.



Take measurements on the non dominant arm.



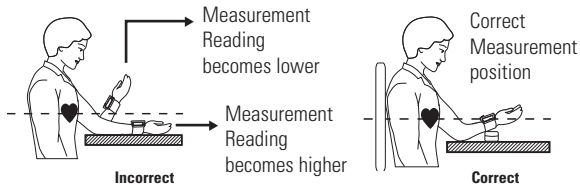
Sit with legs uncrossed so as not to restrict blood flow.



Sit with back supported and measurement arm resting on a table. Sit with feet flat on the floor.

4.2B Fitting the Wrist

- a) Remove all accessories (watch, bracelet, etc.) from your left wrist. If your physician has diagnosed you with poor circulation in your left arm, use your right wrist.
- b) Roll or push up your sleeve to expose the skin.
- c) Apply the cuff to your left wrist with your palm facing up and the LCD display facing you.
- d) Position the edge of the cuff about 1-2cm from the bottom of your palm.
- e) Fasten the wrist cuff around your wrist, leaving no extra room between the cuff and your skin. If the cuff is too loose, the measurement will not be accurate.
- f) **IMPORTANT:** Support your arm in a relaxed position and ensure that the instrument is at the same height as your heart. You can use a rolled up hand towel or the storage case.



4.3 Measuring Your Blood Pressure

After following the guidelines described in the previous section and placing the cuff around your wrist, you are now ready to measure your blood pressure. Follow these steps to record your measurement.

1. Before the measurement, relax for 5 minutes. Don't talk or move your arm.
2. Press the **0/I** button and all symbols will appear on the display for 2 seconds as Fig.4. Then '0' will appear on the screen. The pump begins to inflate with the display showing the reading of pressure.



Fig. 4

- The pump will stop inflating and the pressure begins to decrease gradually, during which the blood pressure and pulse will be calculated as Fig.6.



Fig. 5

- The air in the wrist cuff will deflate quickly and the blood pressure reading and pulse reading will be displayed on the screen as Fig.7.



Fig. 6

- Press the **O/I** button to return to standby mode. If not being used the device will return to standby mode automatically after 3 minutes.

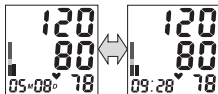


Fig. 7

4.4 Automatic Inflation

There are 4 given levels of inflation pressure for this device: 190 mmHg, 230 mmHg, 270 mmHg and 300 mmHg. When 190 mmHg is not enough or movement of wrist occurs, the device will automatically inflate to a reasonable pressure level to ensure a successful measurement. It is not an error.

4.5 Discontinuing a Measurement

If you do not feel well during the measurement or want to stop the measurement for any reason, press the **O/I** button. The device will quickly release the air in the wrist cuff and the device will return to standby mode.

5. Viewing Previously Recorded Measurements

1. The device can store 90 sets of readings and will automatically calculate the average value of the last 3 readings taken. When the memory is full (90 sets of readings are stored), the oldest reading will be replaced by the new one. Memory will not clear away even if power supply is removed.
2. After a measurement is finished or when the device is in standby mode, press the **M** button to recall memory. The display will show the average value of the last 3 readings taken as Fig. 8.



Fig. 8

3. Press the **M** button again, the display will show '01', which means the last

reading taken, then turns to another screen to show readings as Fig.9.



Fig. 9

4. Press the **M** button again, the display will show '02', which means the second to the last reading taken. Continue to press the **M** button to view all stored measurements.

5.1 Clearing All Values

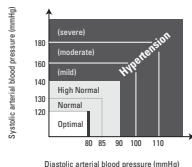
After a measurement is finished or when the device is in standby mode, press and hold down the **M** button for at least 5 seconds. The display will show 'CLR' which means the stored readings have been removed as Fig.10.



Fig. 10

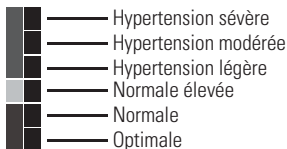
6. Hypertension Classification Indicator

Standards for assessment of high or low blood pressure, regardless of age, have been established by World Health Organization (WHO) as shown in the chart to the right:



Diastolic arterial blood pressure (mmHg)
Arterial blood pressure classification by World Health Organization



The indicator displays a segment, based on the current data, corresponding to the WHO classification. For example, if your blood pressure is 135 mmHg (Systolic Pressure), 78 mmHg (Diastolic Pressure), according to the world health organization standard, your blood pressure level is High Normal.





Note:

1. If the systolic blood pressure and diastolic blood pressure fall into different categories, the higher value should be taken for classification.
2. The WHO blood pressure classification indication in the device is only a reminder, it can not be regarded as the final diagnosis.

7. Irregular Heartbeat Detector

This device provides a blood pressure and pulse rate measurement even when an irregular heartbeat occurs. When the device detects an irregular heartbeat, or any excessive body movement during the measurement, the  icon will appear and flash. It is important that you are relaxed, remain still and do not talk during the measurement. If the  symbol appears frequently (e.g. several times a week), it may be an indication of a more serious heart problem, and you should consult your doctor.

8. Error and Low Battery Information

Indication	Possible Reason	Correct Method
	<p>The cuff is put on improperly.</p> <p>Movement of arm/hand or talking during measurement.</p> <p>The cuff is not inflated to necessary pressure.</p>	<p>Make sure that cuff is put on correctly and repeat measurement.</p> <p>Repeat the measurement with no movement and follow recommendations in the manual.</p> <p>Repeat the measurement with pumping cuff to higher pressure.</p>
	<p>The batteries are weak.</p>	<p>Replace both batteries with new ones.</p>

9. Care, Storing, Repair and Recycling

1. It is necessary to protect this device against high moisture, direct sunlight, shock, solvent, alcohol and gasoline.
2. Remove the batteries if the device is to be stored for a long time, and keep the batteries away from children.
3. Keep the cuff from sharp objects and don't extend or twist the cuff.
4. Use only soft and dry cloths to clean the device.
5. Since neither the device nor batteries are household waste, follow your local recycling rules and dispose of them at appropriate collection sites.
6. Do not open the device. It has delicate electrical components and an intricate air unit that could be damaged.
7. It is generally recommended to have the monitor inspected every 2 years, to ensure proper functioning and accuracy and safety. Please contact your dealer for maintenance.

WARNING: Do not modify the equipment without authorization of the manufacturer.

10. Troubleshooting

Symptom	Check Point	Remedy
No display when the device is turned on.	The batteries have run down.	Replace all batteries with new ones.
	The polarity of battery is wrong.	Install batteries correctly.
	Proper battery contact is not being made.	Clean the battery terminals with dry cloth.
Inflation stops and re-inflates later.	The automatic inflation for ensuring correct measurement.	See "Automatic Inflation"
	Did you talk or move your arm/hand during measurement?	Keep quiet and still during the measurement

<p>The reading is extremely high or low.</p>	<p>Is the cuff at the same level as the heart?</p> <p>Is the cuff wrapped right?</p> <p>Did you strain your arm/hand during measurement?</p> <p>Did you talk or move your arm/hand during measurement?</p>	<p>Make sure that your posture is correct.</p> <p>Wrap the cuff correctly.</p> <p>Relax during measurement.</p> <p>Keep quiet and still during measurement.</p>
<p>Pulse rate is too low or too high</p>	<p>Did you talk or move your arm/hand during measurement?</p> <p>Did you take a measurement right after exercise?</p>	<p>Keep quiet and still during measurement.</p> <p>Take measurement again after resting for more than 5 minutes.</p>
<p>The batteries run down quickly.</p>	<p>Faulty batteries are used.</p>	<p>Suggest to use alkaline batteries of known manufacturers.</p>

11. Lifetime Guarantee

Rexall™/MC wrist blood pressure monitor has a lifetime warranty to be free of manufacturing defects for the life of the original owner. This warranty does not include the inflation system including the cuff and inflation bladder. The cuff is warranted for two years. The warranty does not cover damage from misuse or tampering.

If you have questions regarding the operation of your monitor call the Blood Pressure Hotline: **1-866-536-2289**

Should repair be necessary, return the unit with all component pieces. Enclose proof of purchase and \$5.00 for return shipping and insurance. Ship the unit prepaid and insured (at owners option) to:

BIOS Medical
Repair Department
16975 Leslie Street
Newmarket, ON L3Y 9A1

Please include your name, return address, phone number, and email address. Thermor will repair or replace (at BIOS Medical's discretion) free of charge any parts necessary to correct the defect in material or workmanship. Please allow 10 days for repair and return shipping.

12. Technical Specifications

Size:	2.75" (H) x 2.3" (W) x 1.2" (D)
Weight:	110g
Storage Temperature:	-20°C to 50°C (-4°F to 122°F)
Storage Humidity:	85% and below
Operation Temperature:	10°C to 40°C (50°F to 104°F)
Display:	LCD (Liquid Crystal Display)
Measuring Method:	Oscillometric
Measuring Range:	
SYS/DIA Pressure:	40 to 260 mmHg
Pulse:	40 to 160 beats/min

Accuracy:

Pressure: +/- 3 mmHg

Pulse: +/- 5%

Memory: Maximum 90

Cuff circumference: 12.5 to 20.5 cm (4.9 to 8 inches)

Power Source: 2 x AAA, 1.5V batteries



Type BF applied part



Batteries and electronic devices must be disposed of in accordance with the locally applicable regulations, not with domestic waste.



Follow Instructions for Use. This document provides important product operation and safety information. Please read this document thoroughly before using the device and keep for future reference.

Quality Assured / Qualité Assurée

Manufactured for / Fabriqué pour :

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