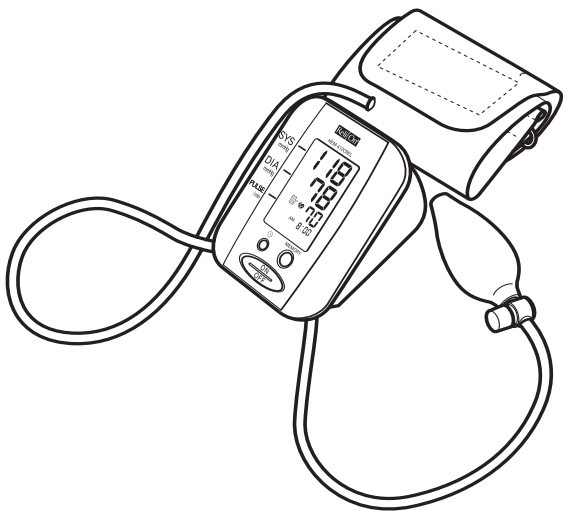


ReliOn®

INSTRUCTION MANUAL

Manual Inflation Blood Pressure Monitor

Model HEM-412CREL



ESPAÑOL

ENGLISH

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INTRODUCTION

Thank you for purchasing ReliOn® HEM-412CREL Manual Inflation Blood Pressure Monitor

Fill in for future reference.

DATE PURCHASED: _____

SERIAL NUMBER: _____

Staple your purchase receipt here

Your new digital blood pressure monitor uses the oscillometric method of blood pressure measurement. This means the monitor detects your blood's 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.

The HEM-412CREL comes with the following components:

- Main Unit
- Arm Cuff
- Inflation Bulb
- Instruction Manual printed in English and Spanish

The HEM-412CREL Manual Inflation Blood Pressure Monitor is intended for home use.

SAVE THESE INSTRUCTIONS

IMPORTANT SAFETY NOTES

To assure the correct use of the product basic safety measures should always be followed including the precautions listed below:

- ☑ Read all information in the instruction book and any other literature included in the box before using the unit.
- ☑ Contact your physician for specific information about your blood pressure. Follow the instructions of your healthcare provider.
- ☑ Operate the unit only as intended. Do not use for any other purpose.
- ☑ The unit is intended for use in measuring blood pressure and pulse rate in adult patient population. Do not use on infants.
- ☑ Do not use a cellular phone near the unit. It may result in operational failure.
- ☑ Changes or modifications not approved by the manufacturer will void the user warranty. Do not disassemble or attempt to repair the unit or components.

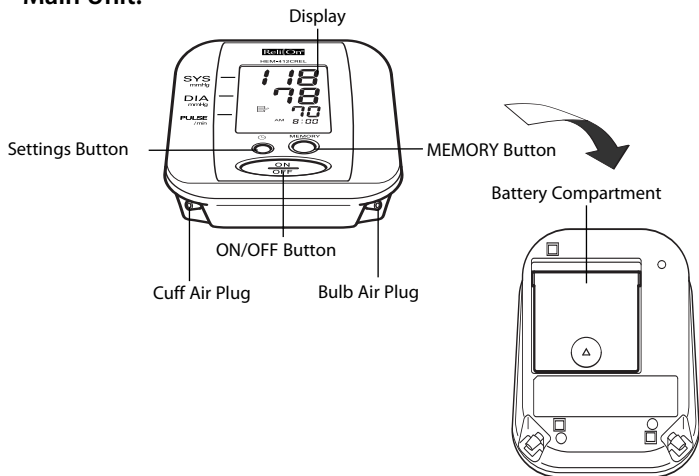
BEFORE TAKING A MEASUREMENT

To ensure a reliable reading follow these recommendations:

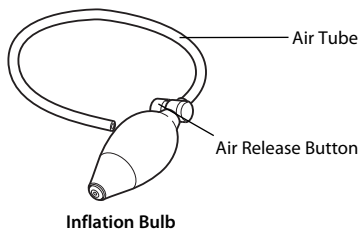
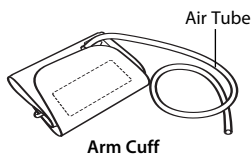
1. Avoid eating, smoking, and exercising for 30 minutes before taking a measurement. Rest for at least 15 minutes before taking the measurement.
2. Stress raises blood pressure. Avoid taking measurements during stressful times.
3. Measurements should be taken in a quiet place.
4. Remove tight-fitting clothing from your left arm.
5. Sit in a chair with your feet flat on the floor. Rest your left arm on a table so that the cuff is at the same level as your heart.
6. 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.
8. Wait 2-3 minutes between measurements. The wait time allows the arteries to return to the condition prior to taking the blood pressure measurement. You may need to increase the wait time depending on your individual physiological characteristics.

KNOW YOUR UNIT

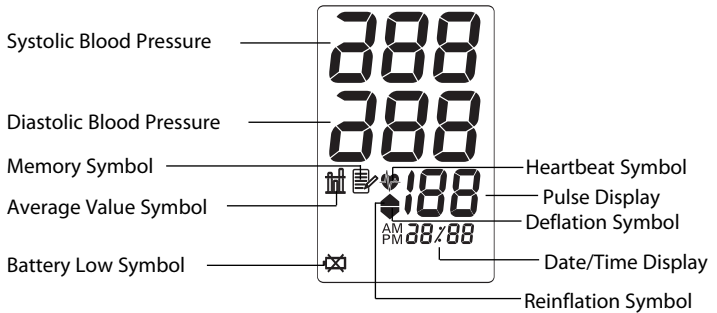
Main Unit:



Components:



UNIT DISPLAY

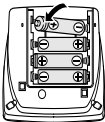


BATTERY INSTALLATION

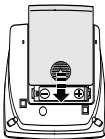
1. Press the ▼ indicator on the battery cover and slide the cover off in the direction of the arrow.



2. Install 4 “AAA” size batteries so the + (positive) and - (negative) polarities match the polarities of the battery compartment as indicated.



3. Replace the battery cover.



BATTERY REPLACEMENT

 Low Battery Indicator



When the Low Battery Indicator appears on the display screen remove all the batteries. Replace with four new batteries at the same time. Long life alkaline batteries are recommended.

NOTE: Measurement values stored in the memory will not be deleted during battery replacement.

After replacing the batteries, reset the date and time.

Refer to page 9, Setting the Date and Time.

SETTING THE DATE AND TIME

Set the monitor to the current date and time before taking a measurement for the first time. If the correct date and time are not set, the measurement values stored in the memory and the value will not be correct.

The Blood Pressure Monitor automatically stores up to 30 measurement values. The monitor also calculates an average reading based on the three most recent measurements taken within 10 minutes of the last reading.

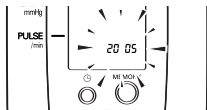
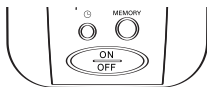
NOTE:

- If only two readings are stored in the memory for the 10-minute period, the average is based on the two readings.
- If one reading is stored in the memory for the 10-minute period, this reading is displayed as the average.

1. TO START THE SETTING PRESS THE ON/OFF BUTTON

Press the Date/Time Setting button to adjust the date and time.

The year flashes on the display.



SETTING THE DATE AND TIME

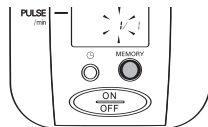
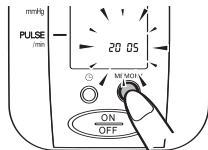
2. SETTING THE YEAR

The year can be set between 2005 and 2030. When the display reaches 2030, it will return to 2005.

Press the MEMORY button to advance by increments of one year.

Press the Date/Time Setting button to set the current year.

The month flashes on the display.



NOTE:

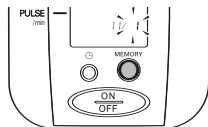
- Press and hold the MEMORY button to advance the date and time values faster.

3. SETTING THE MONTH

Press the MEMORY button to advance by increments of one month.

Press the Date/Time Setting button to set the current month.

The day flashes on the display.

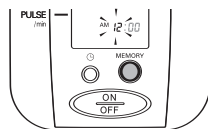


4. SETTING THE DAY

Press the MEMORY button to advance by increments of one day.

Press the Date/Time Setting button to set the current day.

The hour flashes on the display.



SETTING THE DATE AND TIME

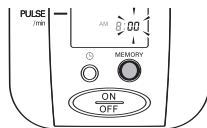
5. SETTING THE HOUR

The time is set using AM or PM.

Press the MEMORY button to advance by increments of one hour.

Press the Date/Time Setting button to set the current hour.

The minutes flash on the display.

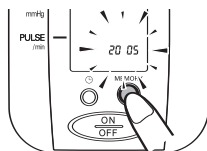


6. SETTING THE MINUTE

Press the MEMORY button to advance by increments of one minute.

Press the Date/Time Setting button to set the current minute.

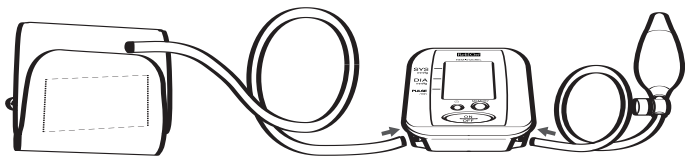
The year flashes on the display.



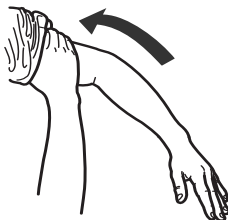
Press the START/STOP button to turn the display off.

APPLYING THE ARM CUFF

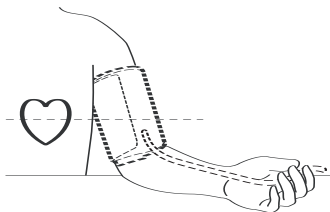
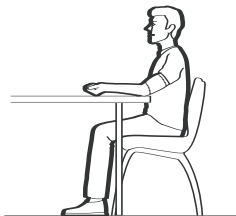
1. Connect the air tube of the arm cuff and the inflation bulb to their air jacks.



2. Remove tight-fitting clothing from your upper arm.

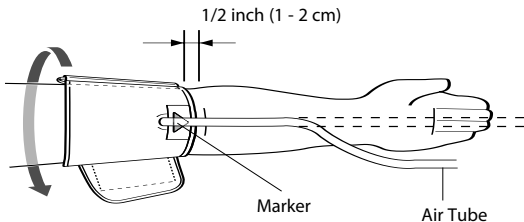


3. Sit in a chair with your feet flat on the floor. Place your arm on a table so the cuff is level with your heart.

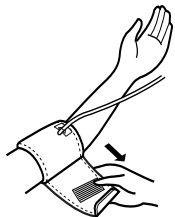


APPLYING THE ARM CUFF

- Apply the cuff to your left upper arm so the blue arrow is centered on the inside of your arm and aligned with your middle finger. The air tube runs down the inside of your arm. The bottom of the cuff should be approximately 1/2" above your elbow.

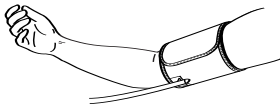


- Wrap the cuff firmly in place around your arm using the closure strip.



APPLYING THE CUFF ON THE RIGHT ARM

When taking a measurement using the right arm use this instruction for Step 4.

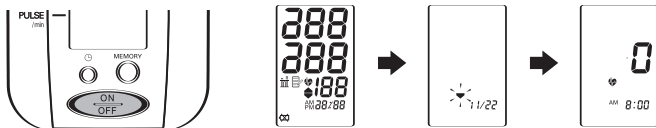


NOTE: Be careful not to rest your arm on the air tube. This will restrict the flow of air to the cuff.

TAKING A MEASUREMENT

1. Press the ON/OFF button

All display symbols appear on the screen.



NOTE: When the monitor completes the necessary preparations before measurement, the Heart Symbol (♥) appears next to the zero. Wait for the Heart Symbol (♥) before taking a measurement.

2. Begin inflating the cuff by rapidly squeezing the inflation bulb until you have reached approximately 30–40 mmHg higher than your normal systolic reading. If your normal systolic blood pressure is unknown, inflate the cuff to 180 mmHg.

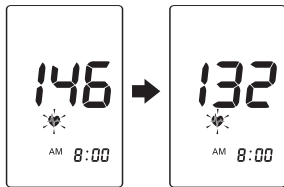
3. When the desired pressure has been achieved, release the inflation bulb.

NOTE: Do not inflate the arm cuff more than necessary. The current time continues to be displayed while the cuff is being inflated.

TAKING A MEASUREMENT

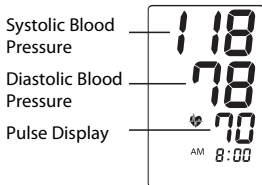
- Inflation stops and the measurement is started.

As the cuff deflates, decreasing numbers appear on the display. The Heart Symbol (♥) flashes at every heartbeat.



- NOTE:** If the re-inflation symbol appears, squeeze the inflation bulb to re-inflate the arm cuff.

- When the Deflation Symbol (♥) appears on the display, press the Air Release Button to release the air left in the cuff.
- The measurement is complete, the Heart Symbol (♥) stops flashing and your blood pressure and pulse rate are displayed.



- Press the ON/OFF button** to turn the monitor off.

NOTE: The monitor will automatically turn off after five minutes.

USING THE MEMORY FUNCTION

Every time you complete a measurement the monitor stores the blood pressure and pulse rate in the memory. The Blood Pressure Monitor automatically stores up to 30 measurement values. When 30 sets of measurement values are stored in the memory, the oldest record is deleted to save the most recent measurement values.

The monitor also calculates an average reading based on the values of the three most recent measurements taken.

NOTE:

- If only two readings are stored in the memory for the 10-minute period, the average is based on the two readings.
- If one reading is stored in the memory for the 10-minute period, this reading is displayed as the average.

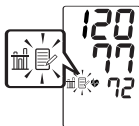
If the date and time is not set, the measurement values will not be stored in the memory correctly.

TO DISPLAY THE AVERAGE VALUE



Average Value Symbol

1. **Press the ON/OFF button** to turn the power on. The average value symbol will display on the screen with the average reading.

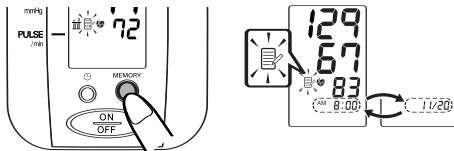


USING THE MEMORY FUNCTION

TO DISPLAY THE MEASUREMENT VALUES

The date and time is alternately displayed with the measurement values.

1. Press the **MEMORY** button while the Heart Symbol (♥) is displayed. The most recent measurement values will be displayed.



NOTES:

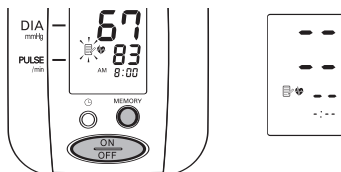
- Press the button repeatedly to display the next values.
- Press and hold the button to display the values faster.

2. Press the ON/OFF button to turn the power off.

TO DELETE ALL VALUES STORED IN THE MEMORY

You cannot partially delete records stored in the memory. All records will be deleted.

1. Press and hold the **MEMORY** button and **ON/OFF** button simultaneously for more than 2 seconds.



CARE AND MAINTENANCE

To keep your digital blood pressure monitor in the best condition and protect the unit from damage follow the directions listed below:

Do not forcefully bend the arm cuff or air tube. Do not fold tightly.

Clean the monitor with a soft dry cloth. Do not use any abrasive or volatile cleaners. Do not attempt to clean the cuff. Never immerse the monitor or any components in water.




Store the monitor in a safe and dry location. Do not subject the monitor to extreme hot or cold temperatures, humidity and direct sunlight.

Avoid subjecting the monitor to strong shocks, such as dropping the unit on the floor.

Remove the batteries if the unit will not be used for three months or longer. Always replace all the batteries with new ones at the same time.

Use the unit consistent with the instruction provided in this manual. Use only authorized parts and accessories.

ERROR INDICATORS

SYMBOL	CAUSE	CORRECTION
	Cuff under-inflated.	Remove the arm cuff. Read, “Taking a Measurement” on page 14. Wait 2-3 minutes. Take another measurement.
	Cuff over-inflated.	
	Batteries are worn.	Replace the four batteries. Refer to page 8 for battery installation.

TROUBLESHOOTING TIPS

PROBLEM	CAUSES AND SOLUTIONS
<p>No power.</p> <p>No display appears on the unit.</p>	<p>Replace worn batteries.</p> <p>Check the battery installation for proper placement of the battery polarities.</p>
<p>Measurement values appear too high or too low.</p>	<p>Blood pressure varies constantly. Many factors including stress, time of day, how you wrap the cuff, may affect your blood pressure. Review the sections “Before Taking a Measurement” and “Taking a Measurement.”</p>

FCC STATEMENT

NOTE:**POTENTIAL FOR RADIO/TELEVISION INTERFERENCE (for U.S.A. only)**

This product has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. The product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the product does cause harmful interference to radio or television reception, which can be determined by turning the product on and off, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the product and the receiver.
- Connect the product into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

POTENTIAL FOR RADIO/TELEVISION INTERFERENCE (for Canada only)

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled “Digital Apparatus”, ICES-003 of the Canadian Department of Communications.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: “Appareils Numériques”, ICES-003 édictée par le ministre des communications.

Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

WARRANTY INFORMATION

LIMITED WARRANTY

Your HEM-412CREL ReliOn® Blood Pressure Monitor, excluding the monitor cuff, is warranted to be free from defects in materials and workmanship appearing within 5 years from the date of purchase, when used in accordance with the instructions provided with the monitor. The monitor cuff is warranted to be free from defects in materials and workmanship appearing within one year from the date of purchase when the monitor is used in accordance with the instructions provided with the monitor. The above warranties extend only to the original retail purchaser.

We will, at our option, repair or replace without charge any monitor or monitor cuff covered by the above warranties. Repair or replacement is our only responsibility and your only remedy under the above warranties.

To obtain warranty service contact Omron Healthcare's Customer Service by calling **1-800-634-4350** for the address of the repair location and the return shipping and handling fee. Information for warranty service is available on our website at www.omronhealthcare.com.

Enclose the Proof of Purchase. Include a letter, with your name, address, phone number, and description of the specific problem. Pack the product carefully to prevent damage in transit. Because of possible loss in transit, we recommend insuring the product with return receipt requested.

ALL IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THE APPLICABLE WRITTEN WARRANTY ABOVE. Some provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

OMRON SHALL NOT BE LIABLE FOR LOSS OF USE OR ANY OTHER INCIDENTAL, CONSEQUENTIAL OR INDIRECT COSTS, EXPENSES OR DAMAGES. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which may vary from state to state.

FOR CUSTOMER SERVICE

Visit our web site at:

www.omronhealthcare.com

Call toll free:

1-800-634-4350

SPECIFICATIONS

Model:	ReliOn® HEM-412CREL
Display:	LCD Digital Display
Measurement Range:	Pressure: 0 to 299 mmHg, Pulse: 40-180/min.
Accuracy/Calibration:	Pressure: ±3mmHg or 2% of reading Pulse: ±5% of reading
Inflation:	Manual by inflation bulb
Deflation:	Automatic pressure release valve
Rapid Air Release:	Manual release valve
Pressure Detection:	Capacitive pressure sensor
Measurement Method:	Oscillometric method
Pulse Wave Detection:	Capacitance type pressure sensor
Power Source:	4 “AAA” batteries
Battery Life:	Approx. 600 uses when used twice a day with new “AAA” standard batteries
Operating Temperature /Humidity:	50°F to 104°F (10°C to 40°C) /30 to 85% RH
Storage Temperature /Humidity:	-4°F to 140°F (-20°C to 60°C) /10 to 95% RH
Main Unit Weight:	Approximately 12 3/4 oz. (360 g) not including batteries
Main Unit Dimensions:	Approx. 4 1/8" (w) x 3 1/8" (h) x 5 3/8" (l) (106 mm x 80 mm x 136 mm)
Cuff Size:	Approximately 5 3/4" (w) x 17 1/2" (l) (146 mm x 446 mm) Cuff tube 23 5/8" (l) (600 mm)
Cuff Circumference:	Fits arm circumferences 8 5/8" to 12 5/8" (220mm to 320mm)
Contents:	Main Unit, Arm Cuff, Inflation Bulb, and Instruction Manual
UPC Code:	681131895361

NOTE: These specifications are subject to change without notice.

NOTES

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www.omronhealthcare.com

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HEM-412RELN2INST Rev