

OMRON®

Instruction Manual

MANUAL INFLATION BLOOD PRESSURE MONITOR

Model **HEM-431 C**

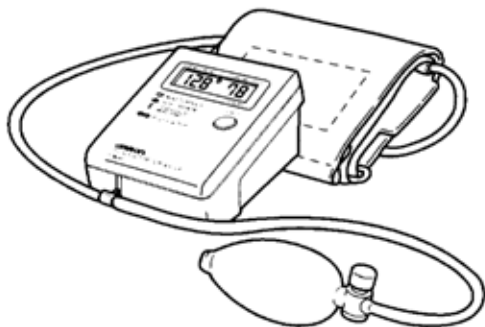


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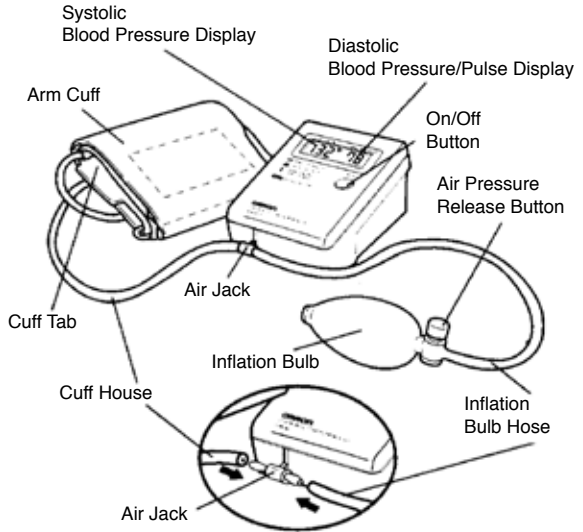
INTRODUCTION

Thank you for purchasing the Omron HEM-431C Manual Inflation Blood Pressure Monitor. This easy-to-use monitor quickly detects your blood pressure and pulse measurements and displays them on a clear digital panel.

Your new HEM-431C features an easy-to-squeeze inflation bulb that allows you to quickly fill the cuff with air. Stop pumping and the cuff deflates automatically. Error indicators alert you to incorrect procedures and an automatic power-off function conserves battery.

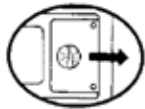
Please read this instruction manual thoroughly before using the Omron HEM-431 C Manual Inflation Blood Pressure Monitor. For specific information on your own blood pressure, CONTACT YOUR PHYSICIAN.

KNOW YOUR UNIT



BATTERY INSTALLATION/REPLACEMENT

1. Slide battery cover off in direction of arrow.
2. Install one 9 volt size battery so + (positive) and -(negative) polarities match the polarities of the battery compartment as indicated.
3. Replace the battery cover.
4. If the Low Battery Indicator appears on the display, replace the battery. A long-life alkaline battery is recommended.
5. Remove the battery if the monitor will not be used for an extended period of time.



Low
Battery
Indicator



A FEW WORDS ABOUT BLOOD PRESSURE

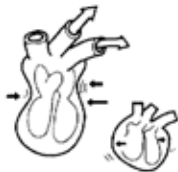
Blood pressure is the force on the walls of your blood vessels as blood flows through them.

Your heart is like a pump. When it contracts, pressure increases (systolic pressure).



When your heart relaxes blood pressure decreases (diastolic pressure).

When a doctor takes your blood pressure, he or she measures both your systolic and diastolic pressures and records them as numbers.



The more difficult it is for your blood to flow through your blood vessels, the higher both numbers will be. When blood pressure is consistently above normal it is called hypertension (high blood pressure).

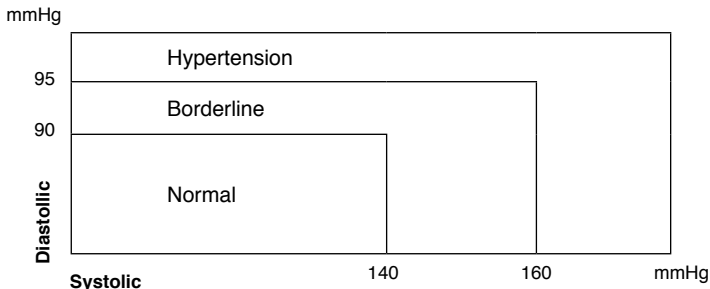
Your blood pressure changes constantly. Blood pressure changes from day to day and minute to minute according to your body's needs.

One or two readings will not determine your normal blood pressure. It is very important to take regular, daily measurements and to keep accurate records. In partnership with your doctor, an accurate record of your blood pressure over a period of time can be a valuable aid in diagnosing and preventing potential health problems.

A FEW WORDS ABOUT BLOOD PRESSURE

The World Health Organization (WHO) developed the following Blood Pressure Classification. This classification, however, is only a general guideline because blood pressure varies from person to person according to age, weight, and health status. CONSULT YOUR PHYSICIAN TO DETERMINE YOUR NORMAL BLOOD PRESSURE.

WHO Blood Pressure Classification



NOTE: There is not a universally accepted definition of hypotension (low blood pressure), but a systolic pressure below 99 mm Hg is usually regarded as hypotension.

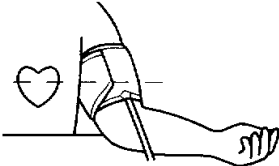
CARE AND MAINTENANCE

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

- Do not subject your monitor to extreme temperatures, humidity, or direct sunlight.
- Do not fold the cuff and tubing tightly.
- Do not inflate the monitor over 280 mm Hg.
- Do not disassemble the monitor.
- Do not subject the monitor to strong shocks.
- Do not clean the monitor with volatile liquids.

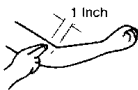
THE MONITOR SHOULD BE CLEANED WITH A SOFT, DRY CLOTH.

A FEW SUGGESTIONS BEFORE BLOOD PRESSURE MEASUREMENT

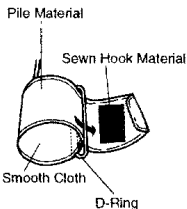
1. Avoid eating, smoking, and exercising for at least 30 minutes before taking a measurement. Also, rest for at least 15 minutes before taking your first reading.
2. Stress raises blood pressure. Avoid taking measurements during stressful times.
3. Remove tight-fitting clothing from your left upper arm.
4. Measurement should be taken in a quiet place and you should be in a relaxed, seated position. Rest your left arm on the arm of a chair or on a table so that the cuff is at the same level as your heart.A line drawing showing a person's left arm resting on a surface. A blood pressure cuff is wrapped around the upper arm. A heart symbol is positioned to the left of the arm, with a vertical line connecting it to the level of the cuff, indicating that the cuff should be at the same height as the heart.
5. Remain still and do not talk during the measurement.
6. Keep a record of your blood pressure and pulse for your doctor. Remember, a single measurement will not determine your true blood pressure. You need to take and record several measurements over a period of time. Try to measure your blood pressure at the same time each day for consistency. Blood pressure measurements vary considerably.
7. Wait 5-10 minutes between measurements. You may need more rest time between readings depending on your individual physical characteristics.

HOW TO APPLY THE CUFF

1. Locate your brachial artery by pressing two fingers approximately one inch above the elbow crease on the inside of the left arm. Determine where your pulse is strongest.

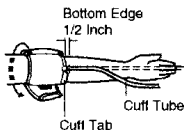


2. The cuff should be assembled correctly when it is removed from the box. If it is not, pass the end of the cuff furthest from the tubing through the metal D-ring to form a loop. The smooth cloth should be on the inside of the cuff loop.



3. If the cuff is assembled correctly, the sewn hook material will be on the outside of the cuff loop and the metal D-ring will not touch your skin.

4. Put your left arm through the cuff loop. The bottom of the cuff should be approximately 1/2 inch above the elbow. The cuff tab should lie over the brachial artery on the inside of the arm.



5. Pull the cuff so that the top and bottom edges are tightened evenly around your arm.
6. When the cuff is positioned correctly, press the sewn hook material FIRMLY against the pile side of the cuff.
7. Make certain the cuff fits snugly around your arm. The cuff should make good contact with your skin.



8. Sit in a chair with your feet flat on the floor and place your arm on a table so that the cuff is at the same level as your heart.



9. Relax your arm and turn your palm upward.
10. Be sure there are no kinks in the air tubing.



HOW TO TAKE A READING

Read "A Few Suggestions Before Blood Pressure Measurement" and "How To Apply The Arm Cuff" before measuring.

1. Press the On/Off button: **a)** All display symbols appear for about 1 sec. This is the initial LCD Test. **b)** The display symbols disappear and the Deflation Indication Symbol (☞) starts to flash. **c)** When the monitor completes necessary preparations before measurement, the Ready To Measure Symbol (♥) appears next to a zero.

Initial LCD Test



Deflation Indication



Ready To Measure



NOTE: Wait for Ready To Measure Symbol (♥) before measuring.

2. Begin inflating cuff by rapidly squeezing the inflation bulb until you have reached approximately 40 mm Hg higher than your normal systolic reading. If your normal systolic blood pressure is unknown, inflate cuff to 180 mm Hg.
3. Stop pumping inflation bulb when you reach your correct inflation level and remain still. The cuff will begin to deflate automatically.

4. As the cuff deflates, decreasing numbers appear on the display. The Ready To Measure Symbol (♥) flashes at the onset of oscillation signals.

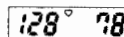


5. When measurement is complete, Ready To Measure Symbol (♥) stops flashing and your blood pressure and pulse display alternately.



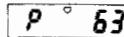
6. When the Deflation Indication Symbol (☞) appears on the display, push the air pressure release button to release any air left in the cuff.

Blood Pressure Reading Display (approx. 3.5 sec.)








NOTE: Wait 5-10 minutes before taking another blood pressure measurement.

Pulse Reading Display (approx. 2 sec.)



REMEMBER TO KEEP A RECORD OF YOUR BLOOD PRESSURE AND PULSE MEASUREMENTS.

ERROR INDICATORS

Error Symbol	Cause	Correction
	Cuff under-inflated.	Wait 10 minutes before taking another measurement. Repeat steps listed under "How To Take A Reading" but manually inflate cuff 40 mmHg higher than the previous inflation value.
	Movement during measurement. No pulse or blood pressure reading due to very weak artery pulse.	
	Residual air pressure in cuff.	Carefully read and repeat steps listed under "How To Take A Reading."
	Cuff over-inflated (over 300 mm Hg).	
	Battery has run down.	Replace 9 volt battery.

If you continue to have difficulty obtaining a reading, call **OMRON HEALTHCARE CUSTOMER SERVICE TOLL FREE 1-800-634-4350**. Please tell the representative you have an Omron Model HEM-431C Manual Inflation Blood Pressure Monitor.

ERROR INDICATORS

CAUTION:

Changes or modifications not expressly approved by Omron Healthcare, Inc. could void the user's authority to operate this product.

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 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," NMB-003 édictée par le ministre des communications.

LICENSED UNDER U.S. PAT.

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4396976, 4371923, 4471385, 4120583, 4435732, 4672457, 4739396

LIMITED ONE YEAR WARRANTY

Your HEM-431C Manual Inflation Blood Pressure Monitor is warranted to be free from manufacturing defects for a period of one year under normal use. This warranty extends only to the original retail purchaser.

Should repair be needed within the warranty period, ship the unit prepaid to **Omron Healthcare, Inc., 300 Lakeview Parkway, Vernon Hills, IL 60061, Attn: Service Dept.**, together with \$5.00 for return shipping and insurance. Be sure to include the model number of your unit and your phone number on any correspondence.

We will either repair or replace (at our option) free of charge any parts necessary to correct defects in the materials or workmanship.

The above warranty is complete and exclusive. The warrantor expressly disclaims liability for incidental, special, or consequential damages of any nature. (Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above warranty may not apply to you.)

Any implied warranties arising by the operation of law shall be limited in duration to the term of this warranty. (Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.)

This warranty gives you specific legal rights and you may have other rights which vary from state to state. As a condition to operation of your warranty, the enclosed registration card must be completed and sent to us within 10 days from the date of purchase.

FOR CUSTOMER SERVICE CALL TOLL FREE:
1-800-634-4350

SPECIFICATIONS

Model:	HEM-431C
Display:	LCD digital display
Measurement Range:	Pressure: 0-280 mm Hg Pulse: 40-200/min.
Accuracy/Calibration:	Pressure: ± 3 mm Hg or 2% of reading Pulse: $\pm 5\%$ of reading
Inflation:	Manual by inflation bulb
Deflation:	Automatic pressure release valve
Rapid Air Release:	Push button valve
Pressure Detection:	Capacitive pressure sensor
Measurement Method:	Oscillometric method
Pulse Wave Detection:	Capacitive pressure sensor
Power Source:	One 9 volt battery (not included)
Battery Life:	Approx. 1 year when used once a day for 2 min.
Operating Temperature/ Humidity:	50°F to 104°F (10°C to 40°C) 30 to 85% RH maximum
Storage Temperature/ Humidity:	-4°F to 140°F (-20°C to 60°C) 10 to 95% RH maximum
Console Weight:	Approx. 6 oz (170g) with battery
Outer Dimensions:	Approx. 3" (w) x 4" (l) x 2 1/3" (h) (76mm x 100mm x 60mm)
Cuff Dimensions:	Approx. 5 1/2" (w) x 18 7/8" (l) (140mm x 480mm)
Arm Circumference Range:	9" to 13" (23cm to 33cm)
UPC Code:	0 73796 00431 6

Measurement accuracy results are available upon request for \$10.00 per copy.

NOTE: These specifications are subject to change without notice.

For Customer Service
Call Toll Free 1-800-634-4350