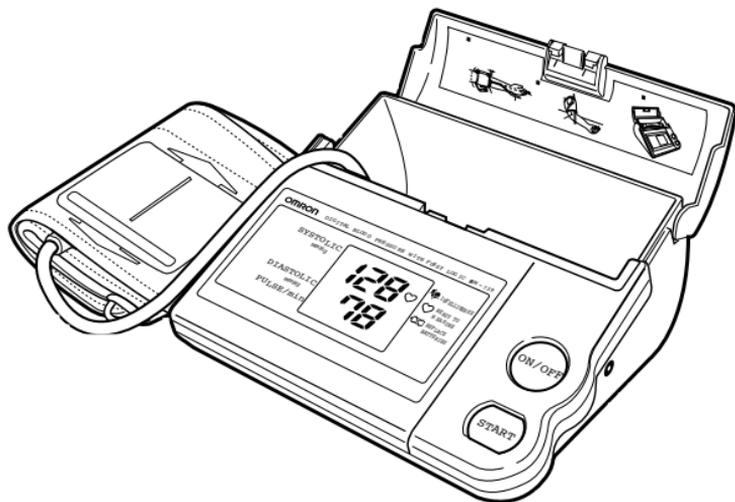


# OMRON®

## INSTRUCTION MANUAL

### Automatic Digital Blood Pressure and Pulse Monitor with INTELLISENSE™

Model **HEM-739**



HEM-739 - 1999 1615040-6A

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# INTRODUCTION

Thank you for purchasing the Omron HEM-739 IntelliSense™ Automatic Blood Pressure Monitor. Although your blood pressure fluctuates throughout the day, no self-adjustment is necessary as the monitor intelligently adjusts to your changing conditions. The IntelliSense™ monitor uses fuzzy logic intelligence to sense both your systolic and diastolic blood pressure values, and the result is personalized inflation with every reading. Arm discomfort and misreading due to improper cuff inflation are virtually eliminated.

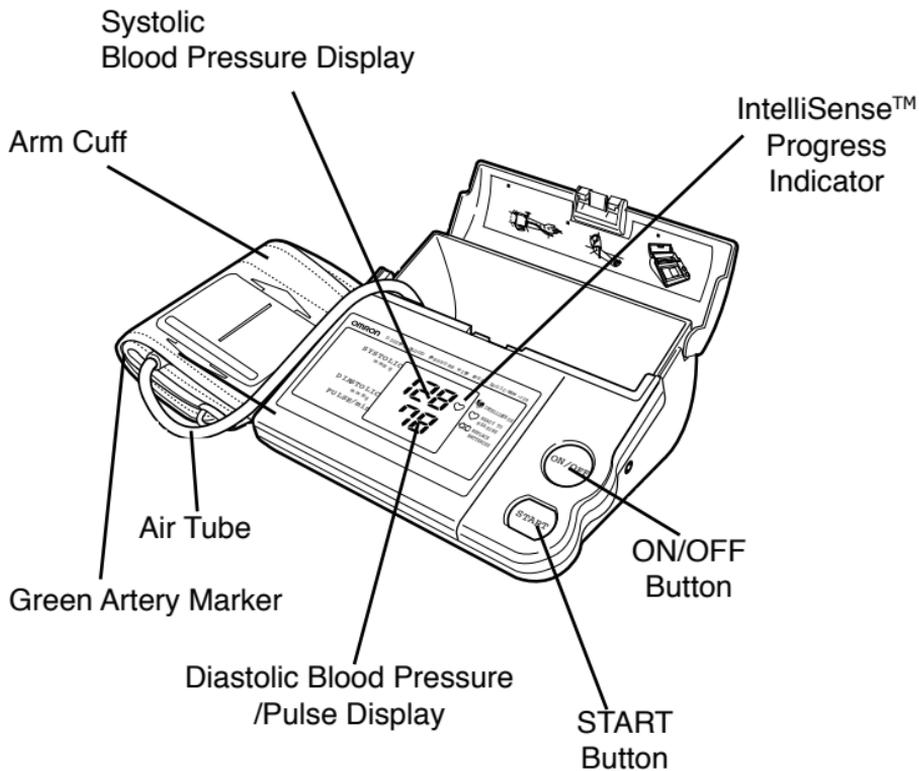
## **What is Fuzzy Logic?**

Fuzzy logic is an exciting new technology that has actually made computers smarter by allowing computers to think and reason more like people. Fuzzy logic computers can process information with unclear boundaries or relative terms rather than a conventional computer that can only process information with rigid boundaries or absolute terms. For example, fuzzy logic computers can think in terms of light gray, lukewarm, and partially true, whereas conventional computers can only recognize black or white, hot or cold, and true or false, but nothing in between. The result is smart, user-friendly products and systems.

Your new HEM-739 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-739 is completely automatic. At the push of a button, the monitor fills the cuff with air and displays your systolic, diastolic, and pulse measurements on an extra large LCD panel. You get fast, accurate measurements every time.

**Please read this instruction manual thoroughly before using the Omron HEM-739 IntelliSense™ Automatic Blood Pressure Monitor. For specific information on your own blood pressure, CONTACT YOUR PHYSICIAN.**

# KNOW YOUR UNIT



## QUICK REFERENCE GUIDE

1. Avoid eating, smoking, and exercising for at least 30 minutes before taking a measurement.
2. Put your left arm through the cuff loop making sure that the bottom edge of the cuff is approximately one-half inch above the elbow.
3. Pull the end of the cuff so that the entire cuff is evenly tightened around your arm and press the sewn hook material firmly against the pile side of the cuff. Make sure that your skin will not be pinched in the D-ring once you inflate the cuff bladder. **Immediately deflate the cuff bladder and readjust the cuff if skin becomes pinched.**
4. Sit in a chair with your feet flat on the floor and place your left arm on a table so that the cuff is at the same level as your heart.
5. Press the ON/OFF button.
6. After the Heart Symbol (♥) appears next to a zero on the digital panel, press the START button.
7. Remain still throughout the entire reading.
8. When measurement is complete, the monitor alternately displays your blood pressure and pulse on the digital panel and automatically deflates the cuff.
9. Wait 5-10 minutes before taking another blood pressure measurement. You may require more rest time between readings depending on your individual physiological characteristics.

## A FEW WORDS ABOUT BLOOD PRESSURE

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

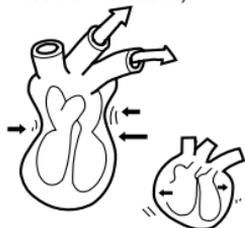
Your heart is like a pump. When it contracts, or beats, it sends a surge of blood through the blood vessels and pressure increases. This is called your **systolic pressure**.

When your heart relaxes between beats, your blood pressure decreases. This is called your **diastolic pressure**.

When a doctor takes your blood pressure, he or she measures both your systolic and diastolic pressures and records them as numbers. For example, if your blood pressure reading is 126/76 (126 over 76), your systolic is 126 and your diastolic is 76. The numbers are calculated in millimeters of mercury and recorded as 126/76 mm Hg.



Heart Contracts  
(Pressure Increases)



Heart Relaxes  
(Pressure Decreases)

Systolic  
(Upper Number)

126

---

Diastolic  
(Lower Number)

76

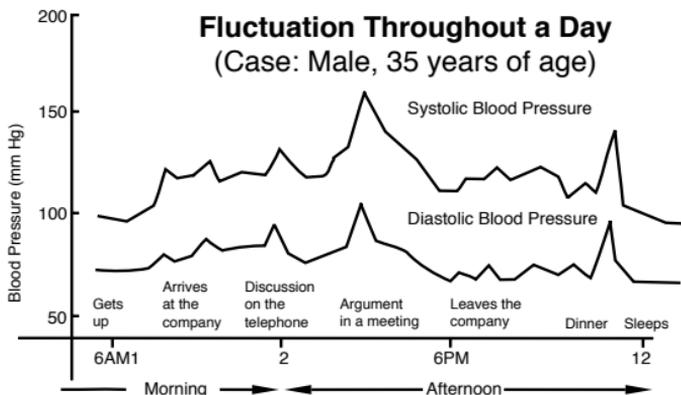
## A FEW WORDS ABOUT BLOOD PRESSURE

These two numbers provide important information about your health. 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 new IntelliSense™ Automatic Blood Pressure Monitor automatically measures your systolic and diastolic blood pressure for you, then displays the results on an easy-to-read digital panel!**

## A FEW WORDS ABOUT BLOOD PRESSURE

Your blood pressure changes constantly. Blood pressure fluctuates from day to day and minute to minute according to your body's needs. For example, when you are exercising or angry your blood pressure increases, but when you are relaxing or sleeping your blood pressure decreases. These fluctuations are completely normal. Your Omron HEM-739 Monitor is especially helpful when tracking changes in blood pressure because it travels anywhere and takes just seconds to use.

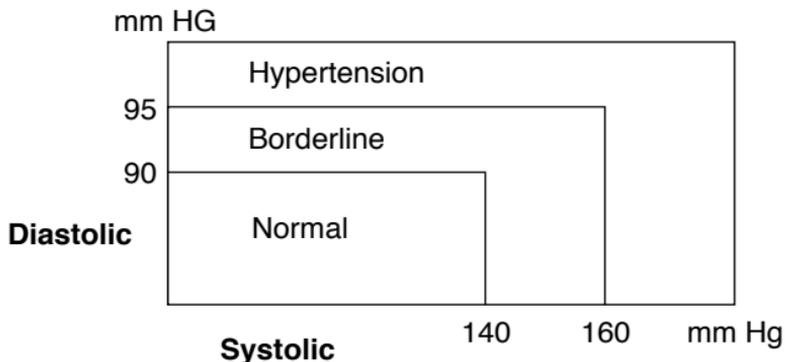


**Note:** One or two readings will not provide a true indication of your normal blood pressure. It is very important to take regular, daily measurements and to keep accurate records. In partnership with your doctor, an accurate record of your blood pressure over a period of time can be a valuable aid 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



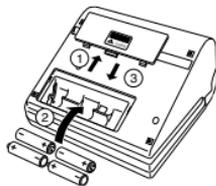
	<b>Systolic (mm Hg)</b>	<b>Diastolic (mm Hg)</b>
Normal	less than 139	less than 89
Borderline	140 to 159	90 to 94
Hypertension	more than 160	more than 95

**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.

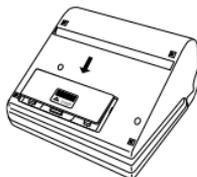
# BATTERY INSTALLATION/REPLACEMENT

1. Slide the battery cover off in the direction of the arrow.

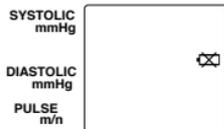
2. Install or replace 4 “AA”size batteries so + (positive) and – (negative) polarities match the polarities of the battery compartment as indicated.



3. Replace the battery cover.



4. If the Low Battery Indicator (⊗) appears on the display, replace all four batteries. Long-life alkaline batteries are recommended.

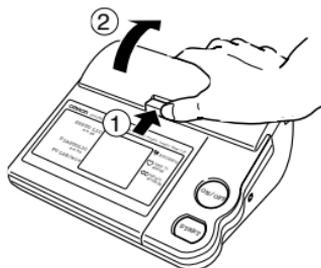


Low Battery Indication

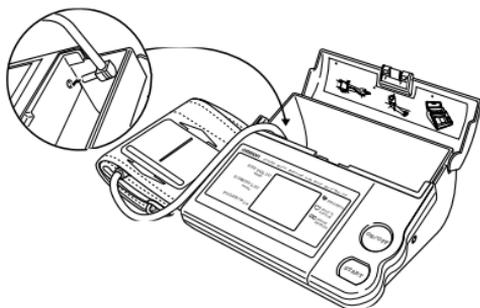
5. Remove the batteries if the monitor will not be used for an extended period of time.

# PREPARING TO USE THE UNIT

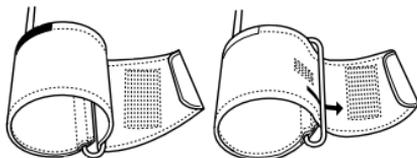
1. Open cuff compartment and remove the cuff.



2. Plug the connector into the unit.



3. Pass the end of the cuff furthest from the tubing...



## HOW TO USE THE OPTIONAL AC ADAPTER (ACCESSORY ITEM SOLD SEPARATELY)

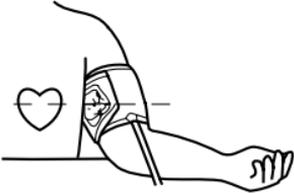
1. When using AC power, use only the exclusive AC adapter (Model HEM-ADPT1 or 707-ADPT) which can be purchased from:

Omron Healthcare, Inc.  
300 Lakeview Parkway  
Vernon Hills, IL 60061  
Toll Free Phone #: 1-800-634-4350
2. Insert the AC adapter cord into the jack on the side of the monitor.
3. Insert the AC adapter plug into a 120V AC outlet (50 - 60 cycles).
4. To remove the AC adapter, disconnect the adapter plug from the AC outlet first and then disconnect the cord from the monitor's jack. To avoid possible damage to the monitor, use only the exclusive AC adapter (Model HEM-ADPT1 or 707-ADPT) available from Omron Healthcare, Inc. Other adapters may vary in output voltage and polarities.



**NOTE:** The monitor is designed not to draw power from the batteries when the AC adapter is in use.

## A FEW SUGGESTIONS BEFORE BLOOD PRESSURE MEASUREMENT

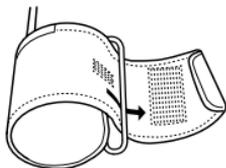
1. Avoid eating, smoking, and exercising for at least 30 minutes before taking a measurement. Also rest for at least 5 minutes before taking a reading.
2. Stress raises blood pressure. Avoid taking measurements during stressful times.
3. Remove tight-fitting clothing from your left upper arm.
4. Measurement 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.
5. Remain still and do not talk during the measurement.
6. Keep a record of your blood pressure and pulse measurements for your doctor. Remember, a single measurement does not provide an accurate indication of 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 fluctuate considerably.
7. Wait 5 - 10 minutes between successive measurements. Waiting allows the engorged blood vessels to return to normal. You may require more rest time between readings depending on your individual physiological characteristics.

## PREPARING TO USE THE UNIT

1. Open cuff compartment and remove the cuff.

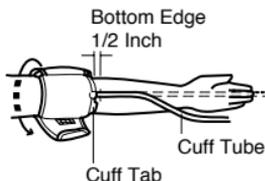


2. The cuff should be assembled correctly when it is removed from the box. If it is not, pass the end of the cuff furthest from the tubing through the metal D-ring to form a loop. The smooth cloth should be on the inside of the cuff loop.



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" above the elbow. The cuff tubing should be positioned along the middle of the inside of your arm as shown.



5. Pull the cuff so that the top and bottom edges are tightened evenly around your arm.

## HOW TO APPLY THE ARM CUFF

- When the cuff is positioned correctly, press the sewn hook material **FIRMLY** against the pile side of the cuff.
- The cuff should be wrapped so that it fits snugly and stays in place. You should be able to fit one finger between the cuff and your arm.
- Sit in a chair with your feet flat on the floor and rest your arm on a table so that the cuff is at the same level as your heart.
- Relax your arm and turn your palm upward.
- Be sure there are no kinks in the air tubing.

(Left arm)



# HOW TO TAKE A READING

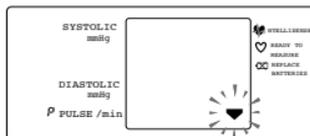
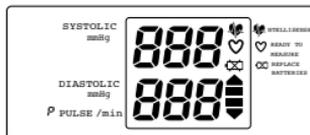
Please read “A Few Suggestions Before Blood Pressure Measurement” and “How To Apply The Arm Cuff” before taking a reading.

1. Press the ON/OFF Button.
  - a) All display symbols appear for approximately one second. This is the initial LCD test.
  - b) The display symbols disappear and the Deflation Indication Symbol (♥) start to flash.
  - c) When the monitor completes the necessary preparations before measurement, the Heart Symbol (♥) appears next to a zero.

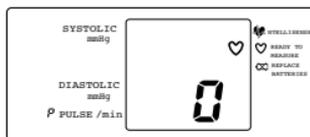
**NOTE: Wait for the Heart Symbol (♥) before taking a measurement.**

2. Press the START button. As the cuff begins to inflate, the IntelliSense™ monitor automatically determines your ideal inflation level. During this process, the IntelliSense™ symbol (👁️) will be flashing on the display. Because this monitor detects the pulse even during inflation, do not move your arm and remain still during the measurement.

Initial LCD Test



Deflation Indication



Ready to Measure

# HOW TO TAKE A READING

3. The IntelliSense™ Progress Indicator (👁️) will flash on the display showing that the monitor's fuzzy logic intelligence is determining your personal measurements.



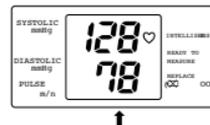
**NOTE: Because blood pressure is being measured even during deflation, it is important to remain still until the reading is fully completed.**



4. When the measurement is complete, a Heart Symbol (♥) flashes and the arm cuff deflates.



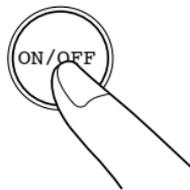
5. At the end of the measurement, our blood pressure and pulse are alternately displayed.



6. Press the ON/OFF button to turn the monitor off.



**NOTE: If you forget to turn the monitor off, the power will be turned off automatically after five minutes.**



## HOW TO TAKE A READING

### Special instructions regarding the inflation of the IntelliSense™ Monitor:

1. In rare circumstances the user's physiological characteristics may require a higher level of inflation. These circumstances may include weak pulse or an unusually high systolic blood pressure. When this occurs, the monitor may reinflate to a value of about 30 mm Hg higher than the previous inflation value. Reinflation occurs only once.
2. If your systolic pressure is known to be more than 220 mmHg, push and hold the START button until the monitor inflates 30 to 40 mmHg higher than your suspected systolic pressure.

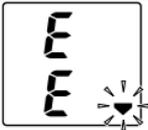
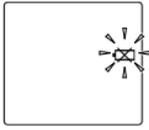


Continue to press button

**NOTE: Do not apply more pressure than necessary.**

3. If you want to stop the measurement, push the ON/OFF button. The monitor will stop inflating and start deflating rapidly, then the monitor will turn off.

## ERROR INDICATORS

Error Indicator	Cause	Correction
	Cuff under-inflated.	Wait 10 minutes before taking another measurement. Repeat steps listed under “How to Take a Reading.” If “EE” is displayed again, take another measurement by pressing and holding the START button as listed in step 2a under “How to Take a Reading.”
	Movement during measurement.	
	Cuff over-inflated (more than 300 mm Hg).	Carefully read and repeat steps listed under “How to Take a Reading.”
	Battery voltage is excessively low.	Replace all four “AA” batteries with new batteries.

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-739.

# CAUTION

## 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.

## LIMITED FIVE YEAR WARRANTY

Your HEM-739 IntelliSense™ Automatic Blood Pressure Monitor is warranted to be free from manufacturing defects for a period of five years under normal use. The five year warranty excludes the monitor cuff. The cuff is warranted for a one year period. 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 the 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

## CARE AND MAINTENANCE

To protect your monitor from damage, please **AVOID** the following:

- Subjecting your monitor to extreme temperatures, humidity, and direct sunlight.
- Folding the cuff and tubing tightly.
- Inflating the monitor over 280 mmHg.
- Disassembling the monitor.
- Subjecting the monitor to strong shocks (for example, dropping the monitor on the floor.)
- Do not clean the monitor with volatile liquids.  
**THE MONITOR SHOULD BE CLEANED WITH A SOFT, DRY CLOTH.**

# SPECIFICATIONS

Model:	HEM-739
Display:	LCD Digital Display
Measurement Range:P	ressure: 0 to 280 mm Hg Pulse: 40 to 180/minute
Accuracy/Calibration:P	ressure: $\pm 3$ mm Hg or 2% of reading Pulse: $\pm 5\%$ of reading
Inflation:	Automatic by electric pump
Deflation:	Automatic deflation system
Rapid Pressure Release:A	ctive electromagnetic control valve
Pressure Detection:	Electrostatic capacity type pressure sensor
Measurement Method:O	scillometric method
Pulse Wave Detection:	Capacitive pressure sensor
Power Source:	4 "AA" batteries or AC adapte (sold separately)
Battery Life:	Approximately 300 uses
Operating Temperature/Humidity:	50°F to 104°F (10°C to 40°C) 30 to 85% RH maximum
Storage Temperature/Humidity:	14°F to 140°F (-10°C to 60°C) 10 to 95% RH maximum
Console Weight:A	pproximately 23 oz (660 g) not including batteries
Outer Dimensions:	Approximately 7 1/8" (l) $\times$ 7 1/2" (w) $\times$ 3 3/4" (h) (180 mm $\times$ 190 mm $\times$ 95 mm)
Cuff Dimensions:A	pproximately 5 1/2" $\times$ 19" (140 mm $\times$ 480 mm)
Accessories:	Instruction manual, AC Adapter

**NOTE:** These specifications are subject to change without notice.





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

Manufactured by OMRON

Distributed by:

**OMRON HEALTHCARE, INC.**

300 Lakeview Parkway

Vernon Hills, Illinois 60061

[www.omron.healthcare.com](http://www.omron.healthcare.com)

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