

# LIFE SOURCE<sup>®</sup>

**AUTOMATIC WRIST**

**Blood Pressure Monitor**











**Trilingual Instruction Guide – MODEL UB-328**

English ▪ Français ▪ Español

# IMPORTANT INFORMATION



Please read this important information before using your monitor.

-  Please remember that only a medical practitioner is qualified to interpret your blood pressure measurements. Use of this device should not replace regular medical examinations.
-  Have your physician review your procedure for using this device. He or she will want to verify blood pressure measurements before prescribing or adjusting medications.
-  Consult your physician if you have any doubt about your readings. Should a mechanical problem occur, contact A&D Medical.
-  Make sure to use the correct cuff size when measuring your blood pressure.
-  Do not attempt to service, calibrate, or repair this monitor.
-  Because your UB-328 monitor contains delicate, high-precision parts, avoid exposing it to extremes in temperature or humidity or to direct sunlight, shock and dust. A&D Medical guarantees the accuracy of this monitor only when it is stored and used within the temperature and humidity ranges noted on page E-15.
-  Clean the monitor and cuff with a dry, soft cloth or a cloth dampened with water and a mild detergent. Never use alcohol, benzene, thinner or other harsh chemicals to clean monitor or cuff.
-  Remove and replace batteries if monitor is not used for more than **six months**. Alkaline batteries recommended.

## PRECAUTIONS

The UB-328 is designed to be used at home, by those who are eighteen (18) years and older, to monitor blood pressure (systolic and diastolic) and pulse rate.

# LIFE SOURCE<sup>®</sup>

The logo for LifeSource features the words "LIFE" and "SOURCE" in a blue, serif font, separated by a stylized blue heartbeat line. A horizontal line runs beneath the text, with the heartbeat line extending from the "LIFE" side, crossing the horizontal line, and ending under the "SOURCE" side. A registered trademark symbol (®) is located at the top right of the word "SOURCE".

***Fast. Easy. Accurate.***

*Congratulations on purchasing a state-of-the-art LifeSource<sup>®</sup> blood pressure monitor—one of the most technologically advanced monitors available today. Designed for ease of use and accuracy, this monitor will facilitate your daily blood pressure regimen.*

*Physicians agree that daily self-monitoring of blood pressure is an important step individuals can take to maintain cardiovascular health and prevent the serious consequences associated with undetected and untreated hypertension.*

*A&D Medical has been manufacturing high quality healthcare products for over 20 years. We are committed to providing you and your family with monitoring devices that provide the utmost in accuracy and convenience.*

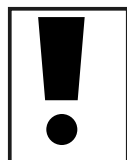
***LifeSource - Designed for Life.***

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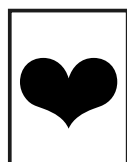
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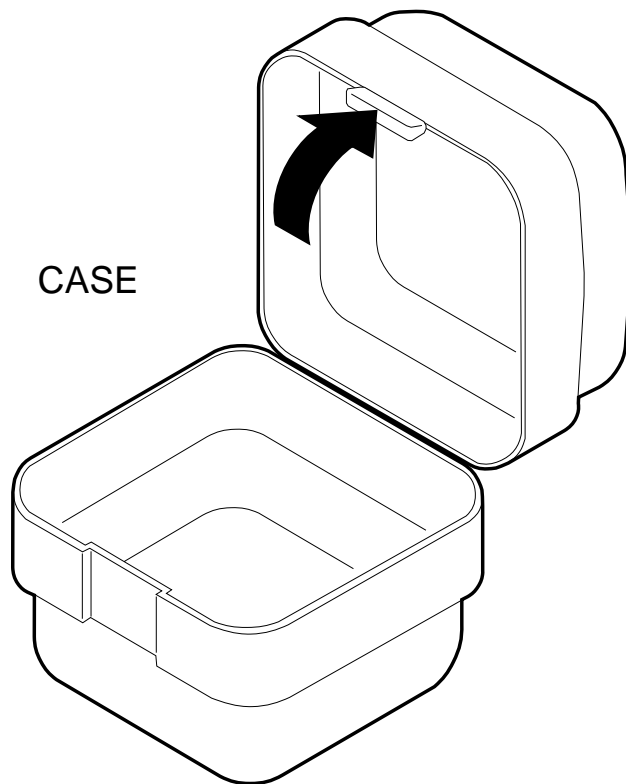
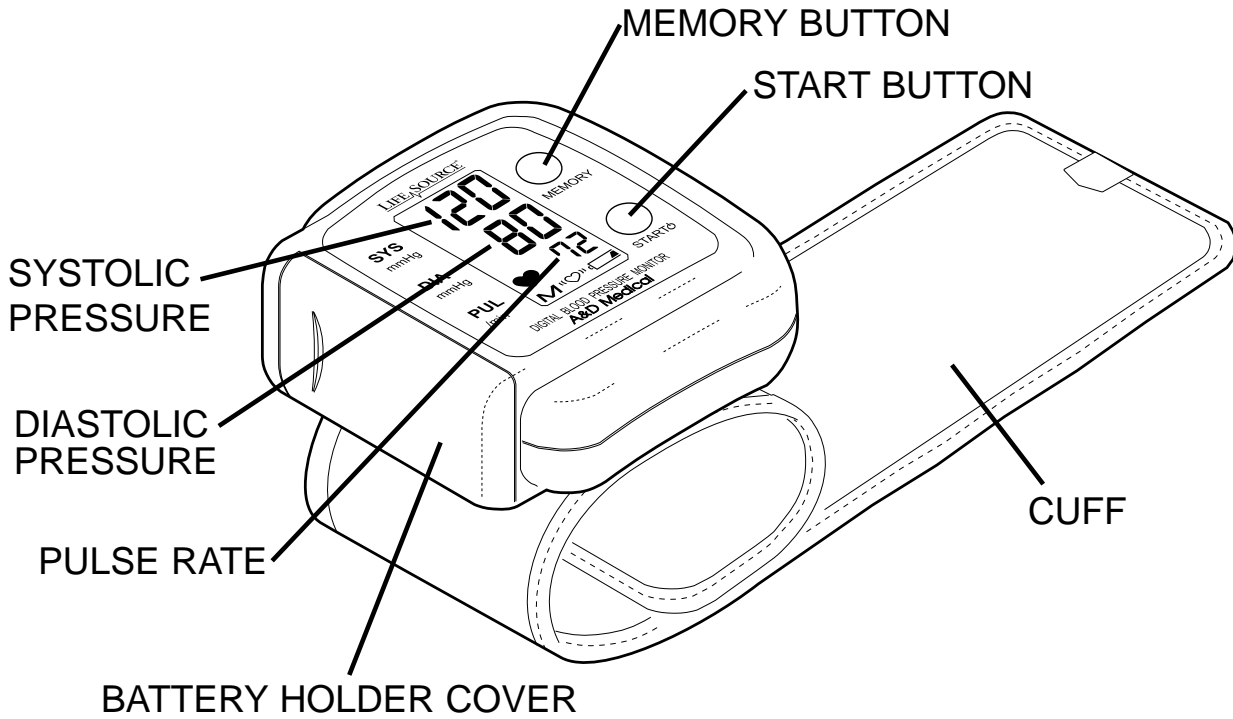
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## WHAT DISPLAY SYMBOLS MEAN

Display Symbol	Condition/Cause	Recommended Action
	The symbol shown while measurement is in progress. It blinks while detecting the pulse.	Measurement is in progress, remain as still as possible.
	An irregular heartbeat or body movement may have occurred. Refer to page E-7 for more information on irregular heartbeats.	Take measurement again and consult with your physician.
<b>M</b>	Previous measurement stored in MEMORY.	
 Battery Low	Appears when battery voltage is insufficient for device to function.	Replace all batteries with new ones. Alkaline batteries recommended.
<b>Err<sub>1</sub></b>	The systolic and diastolic values are within 10 mmHg of each other.	Check cuff to ensure fit and fastening is correct, and measure again.
<b>Err<sub>2</sub></b>	Unstable blood pressure due to excessive body movement.	Try the measurement again. Remain very still during the measurement.
<b>Err<sub>3</sub></b>	The cuff is not fastened correctly.	Fasten the cuff correctly, and try the measurement again.
<b>Err</b> Pulse Display Error	The pulse is not detected correctly.	Refasten the cuff and retake measurement.

# MONITOR COMPONENTS





## HOW UB-328 WORKS

LifeSource® blood pressure monitors are easy to use, accurate and digitally display full measurement readouts. Our technology is based on the "oscillometric method" – a noninvasive blood pressure determination. The term "oscillation" refers to any measure of vibrations caused by the arterial pulse. Our monitor examines the pulsatile pressure generated by the arterial wall as it expands and contracts against the cuff with each heartbeat.

The cuff is inflated until the artery is fully blocked. The inflation speed is maximized and the pressure level is optimized by the device. The monitor takes measurements while the cuff is both inflating and deflating. This results in a faster measurement providing greater comfort to the user.



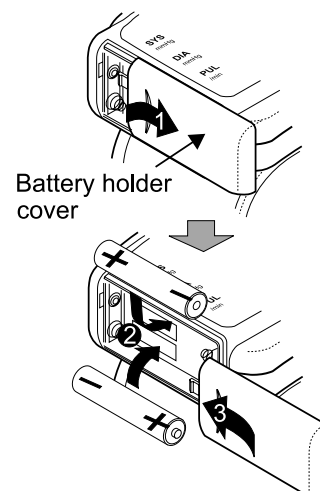
## BEFORE YOU START

The UB-328 provides accurate readings on wrists with a circumference between 5.3 and 7.7" (13.5 and 19.5 cm).

The unit requires two "AAA" (1.5 volt) batteries to operate (alkaline batteries recommended). To install batteries (or to replace when "Low Battery" symbol appears), proceed as follows:

1. Slide the battery cover as shown to remove from the device
2. Insert batteries into designated areas ensuring a correct match with positive (+) and negative (-) terminals.
3. Return battery cover by sliding back on to monitoring device.

**NOTE:** Rechargeable batteries will not work with this monitor.



# TAKING YOUR BLOOD PRESSURE

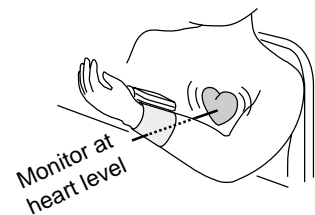
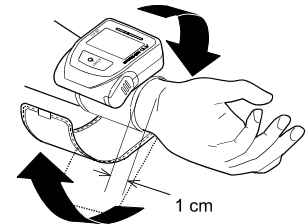


## Tips for Blood Pressure Monitoring:

- ☞ Relax for about 5 minutes before measurement.
- ☞ Do not smoke or ingest caffeine at least 30 minutes prior to measurement.
- ☞ Remove constricting clothing and place cuff on bare wrist.
- ☞ Unless your physician recommends otherwise, use left wrist to measure pressure.
- ☞ Do not talk during measurement.
- ☞ Do not cross legs and keep you feet flat on floor during measurement.

## Now you are ready. Follow these simple steps:

1. Sit comfortably in a chair near a flat surface.
2. With palm facing upward, attach monitor to left wrist and fasten securely. The top edge of the cuff should align with the crease of your wrist.
3. Position your wrist so it is level with your heart, using an arm rest if needed. Positioning of the wrist at heart level is critical for accurate measurement.




- NOTE:** To stop inflation at any time, press START
4. Press START button. All symbols will briefly appear, and the cuff will begin to inflate. It is normal for cuff to feel very tight.
  5. Remain still and refrain from talking or moving during reading.

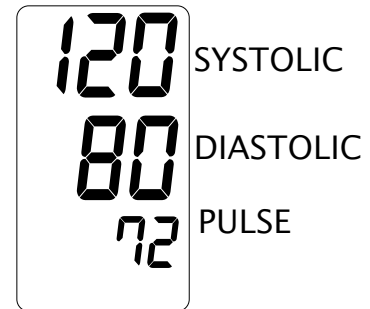
**NOTE:** If a reading is not correctly detected, the device will start to automatically re-inflate.





## TAKING YOUR BLOOD PRESSURE

6. After the cuff is fully inflated, it will automatically start to deflate and  symbol will appear to indicate that measurement is in progress. Once the pulse is detected, the symbol will flash with each pulse beat.
7. When measurement is complete, the systolic and diastolic pressure and pulse rate readings are displayed. The cuff will automatically deflate completely, expelling all remaining air.
8. Press START button once to turn off power. The device has an automatic power-down feature which turns off power automatically one minute after measurement is obtained.
9. Remove monitor and make a note of your blood pressure and pulse rate on the chart in the back of the manual, indicating date and time of measurement. Additional logbook charts can be downloaded and printed for free at [www.LifeSourceOnline.com](http://www.LifeSourceOnline.com) or in Canada, [www.autocontrol.com](http://www.autocontrol.com).



We advise that you record the date and time after each measurement because an accurate blood pressure history relies not on single or sporadic readings but on a pattern over time.

**NOTE:** Allow at least 5 minutes between measurements on the same person.

**NOTE:** If you have poor blood circulation in winter (especially when your hands and wrists are cold), you may not get a blood pressure measurement.



## WHAT IS AN IRREGULAR HEARTBEAT



The UB-328 Blood Pressure Monitor provides a blood pressure and pulse rate measurement even when an irregular heartbeat occurs. The Irregular Heartbeat symbol ((♥)) will appear in the display window in the event an Irregular Heartbeat has occurred during measurement. An irregular heartbeat is defined as a heartbeat that varies by 25% from the average of all heartbeat intervals during the blood pressure measurement. It is important that you relax, remain still and refrain from talking during measurements.

**NOTE:** We recommend contacting your physician if you see this ((♥)) symbol frequently.

## ABOUT AVERAGE READING



The UB-328 provides an average blood pressure reading based on the total measurements stored in memory. Press and release the Memory button to see the average blood pressure reading. Average pulse rate readings are not provided by this monitor. The average blood pressure reading will appear and the number of measurements stored in memory appear for approximately five seconds.



AVERAGE —  
NUMBER OF MEASUREMENTS STORED  
IN MEMORY



## ABOUT MEMORY

The UB-328 automatically stores up to 30 blood pressure and pulse measurements in its memory. Measurements stored in memory are assigned an index number in the order of the newest to the oldest. The oldest reading displays as "n01". The M symbol in lower left corner of the display screen indicates that you are viewing a previous measurement stored in memory.

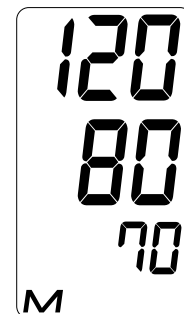
To retrieve readings, follow these simple steps:

1. When the display screen is blank, press and release the Memory button. You will see the average blood pressure reading displayed. Press and release the Memory button again. You will see the index number of the most recent reading followed by the measurement.
2. If you want to retrieve other measurements in memory, press and release the Memory button repeatedly until the desired index number is reached (e.g. n03). The measurement will then be displayed.
3. The display will shut off automatically a few seconds after the readings are displayed.

To clear the measurement history from memory, remove the batteries from the unit and then place the batteries back into the battery holder.

**NOTE:** If there are no measurements stored in memory, you will see 0s displayed vertically followed by a blinking "A00".

**NOTE:** Stored measurements will be lost if batteries become low or are removed.





## ■ What Is Blood Pressure?

Blood pressure is the force exerted by blood against the walls of the arteries. Systolic pressure occurs when the heart contracts; diastolic pressure occurs when the heart expands. Blood pressure is measured in millimeters of mercury (mmHg).

## ■ What Affects Blood Pressure?

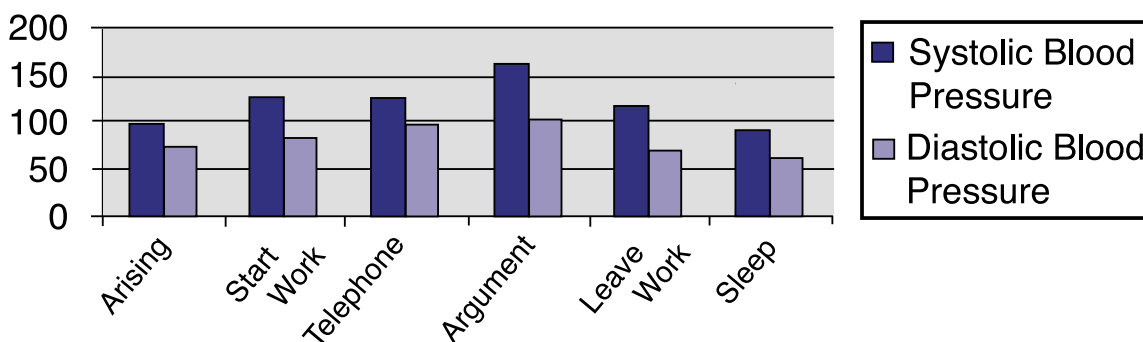
Blood pressure is affected by many factors: age, weight, time of day, activity level, climate, altitude and season. Certain activities can significantly alter one's blood pressure. Walking can raise systolic pressure by 12 mmHg and diastolic pressure by 5.5 mmHg. Sleeping can decrease systolic blood pressure by as much as 10 mmHg. Taking your blood pressure repeatedly without waiting an interval of 5 minutes between readings, or without raising your arm to allow blood to flow back to the heart, can also affect it.

In addition to these factors, beverages containing caffeine or alcohol, certain medications, emotional stress and even tight-fitting clothes can make a difference in the readings.

## ■ What Causes Variations In Blood Pressure?

An individual's blood pressure varies greatly from day to day and season to season. For hypersensitive individuals, these variations are even more pronounced. Normally, blood pressure rises during work or play and falls to its lowest levels during sleep.

### Fluctuation within a day (case: 35 year old male)





## ABOUT BLOOD PRESSURE

### ■ Assessing High Blood Pressure for Adults

The following standards for assessing high blood pressure (without regard to age or gender) have been established as a guideline. Please note that other risk factors (e.g. diabetes, obesity, smoking, etc.) need to be taken into consideration and may affect these figures. Consult with your physician for an accurate assessment.

#### JNC7 Classification Table – for adults within the U.S

BP Classification	Systolic (mmHg)	Diastolic (mmHg)
Normal	less than 120	and less than 80
Prehypertension	120-139	or 80-89
Stage 1 Hypertension	140-159	or 90-99
Stage 2 Hypertension	greater than or equal to 160	or greater than or equal to 100

**SOURCE:** The Seventh Report of the Joint National Committee on Prevention, Evaluation and Treatment of High Blood Pressure for Adults. National Heart, Lung and Blood Institute - May 2003.

#### WHO Classification Table – for adults outside of the U.S. (e.g. Canada, Mexico)

BP Classification	Systolic (mmHg)	Diastolic (mmHg)
Optimal	less than 120	and less than 80
Normal	less than 130	or less than 85
High-Normal	130-139	or 85-89
Stage 1 Hypertension	140-159	or 90-99
Stage 2 Hypertension	160-179	or 100-109
Stage 3 Hypertension	greater than or equal to 180	or greater than or equal to 110

**SOURCE:** Standards to assess high blood pressure, without regard to age or gender, have been established by the World Health Organization (WHO).



## ■ What Is Hypertension?

Hypertension (high blood pressure) is the diagnosis given when readings consistently rise above normal. It is well known that hypertension can lead to stroke, heart attack or other illness if left untreated. Referred to as a “silent killer” because it does not always produce symptoms that alert you to the problem, hypertension is treatable when diagnosed early.

## ■ Can Hypertension Be Controlled?

In many individuals, hypertension can be controlled by altering lifestyle and minimizing stress, and by appropriate medication prescribed and monitored by your doctor. The American Heart Association recommends the following lifestyle suggestions to prevent or control hypertension:

- **Don't smoke.**
- **Reduce salt and fat intake.**
- **Maintain proper weight.**
- **Exercise routinely.**
- **Have regular physical checkups.**
- **Monitor your blood pressure at periodic intervals.**

## ■ Why Measure Blood Pressure at Home?

It is now well known that, for many individuals, blood pressure readings taken in a doctor's office or hospital setting might be elevated as a result of apprehension and anxiety. This response is commonly called “white coat hypertension.”

In any case, self-measurement at home supplements your doctor's readings and provides a more accurate, complete blood pressure history. In addition, clinical studies have shown that the detection and treatment of hypertension is improved when patients both consult their physicians and monitor their own blood pressure at home.



## ABOUT BLOOD PRESSURE

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### ■ **Answers to Why Your Readings are Different Between Home and at the Doctor's Office**

#### **Why are my readings different between home and at a doctor's office?**

Your blood pressure readings taken in a doctor's office or hospital setting may be elevated as a result of apprehension and anxiety. This response is known as white coat hypertension.

#### **When I bring my monitor to a doctor's office, why do I get a different measurement from my monitor to that taken by a doctor or nurse?**

The healthcare professional may be using a different sized cuff. The size of the bladder inside the cuff is critical for the accuracy of the measurement. This may give you a different reading. A cuff too large will produce a reading that is lower than the correct blood pressure; a cuff that is too small will produce a reading that is higher than the correct blood pressure. There may also be other factors that can cause the difference in measurements.

### ■ **Keys to Successful Monitoring:**

Blood pressure fluctuates throughout the day. We recommend that you are consistent in your daily measurement routine:

- Measure at the same time every day.
- Sit in the same chair/position.
- Do not cross legs and keep your feet flat on the floor.
- Relax for 5 minutes before measurement.
- Use the correct cuff size to get an accurate reading.
- Sit still during measurement – no talking, eating or sudden movements.
- Record your measurement in a logbook.



## ■ Establishing Baseline Measurements

The most important method to get an accurate blood pressure measurement is consistency. To get the most benefit out of your monitor, it is important to establish a “baseline measurement.” This helps build a foundation of measurements that you can use to compare against future readings. To build this baseline measurement, devote two weeks for consistent blood pressure monitoring. This involves doing everything the same way when you measure (e.g. measuring during the same time of day, in the same location, sitting in the same chair, using the same cuff, etc.). Once you establish your baseline measurement, you can start evaluating if your measurement has been affected based on things lifestyle changes or medication treatment.

## ■ How Do I Record My Blood Pressure?

Blood pressure readings are typically recorded with the systolic pressure written first, followed by a slash mark and the diastolic pressure. For example, 120 mmHg systolic and 80 mmHg diastolic measurements are written as 120/80. Pulse is simply written with the letter “P” followed by the pulse rate—P 72, for example. Please see the back of the manual for the blood pressure tracking record.

## ■ Customer Support Tools Online

Additional tools are available on [www.LifeSourceOnline.com](http://www.LifeSourceOnline.com) (in Canada - [www.autocontrol.com](http://www.autocontrol.com)) to help you get the most out of your blood pressure monitoring. These include:

- Large Print Instruction Manuals
- Animated Operating Instructions for select models
- Additional Logbook Sheets







## TROUBLESHOOTING

<b>Problem</b>	<b>Probable cause</b>	<b>Corrective action</b>
Nothing appears in the display, even when the power is turned on.	Batteries are drained.	Replace all batteries with new ones. Alkaline batteries recommended.
	Battery terminals are not in the correct position.	Reinstall the batteries with negative and positive terminals matching those indicated in the battery compartment.
The cuff does not inflate.	Battery voltage is too low. Low battery symbol blinks. [If the batteries are drained completely, the mark does not appear.]	Replace all batteries with new ones. Alkaline batteries recommended.
The unit does not measure. Readings are too high or too low.	The cuff is not fastened properly.	Fasten the cuff correctly.
	You moved your arm or body during the measurement.	Make sure you remain very still and quiet during the measurement.
	The cuff position is not correct.	Sit comfortably and still. Make sure the cuff is at the same level as your heart.
	Taking too many readings on the same arm in a short period of time.	Relax five minutes before each measurement.
The value is different from that measured at a clinic or doctor's office.	The healthcare professional may be using a different sized cuff.	See Pg. E-12 "Answers to Why Your Readings Are Different Between Home and the Doctor's Office."
	Your measurements may be elevated by white coat hypertension.	See Pg. E-11 "Why Measure Blood Pressure at Home."

**NOTE:** If the actions described above do not solve the problem, call 1-888-726-9966 (In Canada - 1-800-461-0991). Do not attempt to repair the device yourself.

# SPECIFICATIONS



<b>Model</b> .....	UB-328
<b>Type</b> .....	Oscillometric
<b>Display</b> .....	Digital, 10/7-mm character height, Pressure/pulse displayed simultaneously
<b>Memory</b> .....	30 readings
<b>Measurement range</b> .....	Pressure: 20 mmHg to 280 mmHg Pulse: 40 pulses to 200 pulses/minute
<b>Accuracy</b> .....	Pressure: $\pm 3$ mmHg or $\pm 2\%$ , whichever is greater, Pulse: $\pm 5\%$
<b>Pressurization</b> .....	Automatic, using micropump
<b>Depressurization</b> .....	Constant air release-valve system
<b>Power source</b> .....	2 type AAA (1.5 volt) alkaline batteries (not included)
<b>Battery life</b> .....	Approximately 400 measurements
<b>Operating environment</b> .....	50°F to 104°F (10°C to 40°C) Less than 95% relative humidity
<b>Storage environment</b> .....	14°F to 140°F (-10°C to 60°C) Less than 95% relative humidity
<b>Wrist Circumference Range</b> .....	5.3 – 7.7" (13.5 – 19.5 cm),
<b>Dimensions</b> .....	Length: 3.1" (79 mm), Width: 2.9" (73 mm), Height: 2.3" (58 mm),
<b>Dimensions with case</b> .....	Length: 4.0" (102 mm), Width: 3.0" (76 mm), Height: 3.3" (83 mm), approximately
<b>Weight</b> .....	4.2 oz. (120 g) without batteries

**Blood pressure measurements determined by the UB-328 are equivalent to those obtained by a trained observer using the cuff/stethoscope auscultation method within the limits prescribed by the American National Standards Institute for electronic or automated sphygmomanometers.**



## CONTACT INFORMATION

Our products are designed and manufactured using the latest scientific and technological methods, and offer accurate, easy to use, home monitoring and treatment options. Our full product line includes:

- **Digital Blood Pressure Monitors**
- **Manual Blood Pressure Kits**
- **Blood Pressure Cuffs**
- **Stethoscopes**
- **Personal Health Scales**
- **Nebulizers**
- **Digital Thermometers**

**This LifeSource blood pressure product is covered by a Lifetime Warranty. See warranty card for details.**

**Visit our web site at [www.LifeSourceOnline.com](http://www.LifeSourceOnline.com) for warranty registration.**

For more information regarding use, care or servicing of your blood pressure monitor, contact:

**A&D Medical**  
A division of A&D Engineering, Inc.  
1555 McCandless Drive  
Milpitas, CA 95035  
LifeSource Health Line (Toll-Free):  
1-888-726-9966  
[www.LifeSourceOnline.com](http://www.LifeSourceOnline.com)

**For Canadian Residents, please contact:**  
**Auto Control Medical**  
6695 Millcreek Drive, Unit 5  
Mississauga, Ontario  
L5N 5R8 Canada  
Auto Control (Toll-Free): 1-800-461-0991  
[www.autocontrol.com](http://www.autocontrol.com)

# **IMPORTANT!**

**If You Need Assistance with the Set-Up or Operation**

## **We Can Help!**

**Please call us FIRST before contacting your retailer at**

**LifeSource Health Line**

**1-888-726-9966 - Toll Free**

**Auto Control Medical**

**1-800-461-0991 - In Canada**

**A specially trained representative will assist you**



**A division of A&D Engineering, Inc.  
1555 McCandless Drive  
Milpitas, CA 95035  
[www.LifeSourceOnline.com](http://www.LifeSourceOnline.com)**

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Specifications subject to change without notice.

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