

# INSTRUCTION MANUAL

*SmartSpeed*<sup>®</sup>  
*Self-Storing Automatic  
Blood Pressure Monitor  
with Memory*

04-330-001 (Adult size cuff)

04-330-006 (Large adult size cuff)

Please read this instruction manual  
completely before operating this unit.



**DETAILED  
GUIDEBOOK**

*English • French • Portuguese • Spanish*

## Limited Lifetime Warranty

MABIS Healthcare Inc. (“MABIS”) guarantees that its MABIS Digital Blood Pressure Monitor will be free from manufacturing defects under normal use for as long as the original purchaser owns the product.

This warranty covers only normal use, and does not apply to use in any clinical or commercial applications. This warranty does not cover batteries or other power sources that may be provided with or used with the MABIS Digital Blood Pressure Monitor. This warranty is voided if the MABIS Digital Blood Pressure Monitor product is misused or abused in any manner.

If the MABIS Digital Blood Pressure Monitor fails to operate during the time the original purchaser owns it, return it postage prepaid to: MABIS Healthcare Inc., Attn: Repair Department, 1931 Norman Drive, Waukegan, IL 60085. MABIS will repair or replace the defective unit at the option of MABIS Healthcare. Repair or replacement of the defective unit, at MABIS’ option, is the sole remedy under this warranty.

ANY IMPLIED WARRANTIES WHICH THE PURCHASER MAY HAVE ARE LIMITED IN DURATION TO THE TIME THAT THE ORIGINAL CONSUMER PURCHASER OWNS THE PRODUCT. Some states do not allow limitations or how long an implied warranty lasts, so the above limitation may not apply to you.

This warranty constitutes MABIS’ only responsibility and obligation to repair and/or replace materials or components, or refund the purchase price. MABIS will not be responsible for any indirect, incidental, special, consequential, or punitive damages or other loss, including, but not limited to, damage to or loss of other property or equipment and personal injuries, whether to purchaser or others. MABIS shall in no event be liable to the purchaser for any amount in excess of the cost of repair and/or replacement of the unit, or the purchase price of the unit. Some states do not allow the exclusive or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

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



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## Introduction

*To achieve the maximum benefit from your blood pressure monitor, we recommend that you first consult with your physician or trained healthcare professional.*

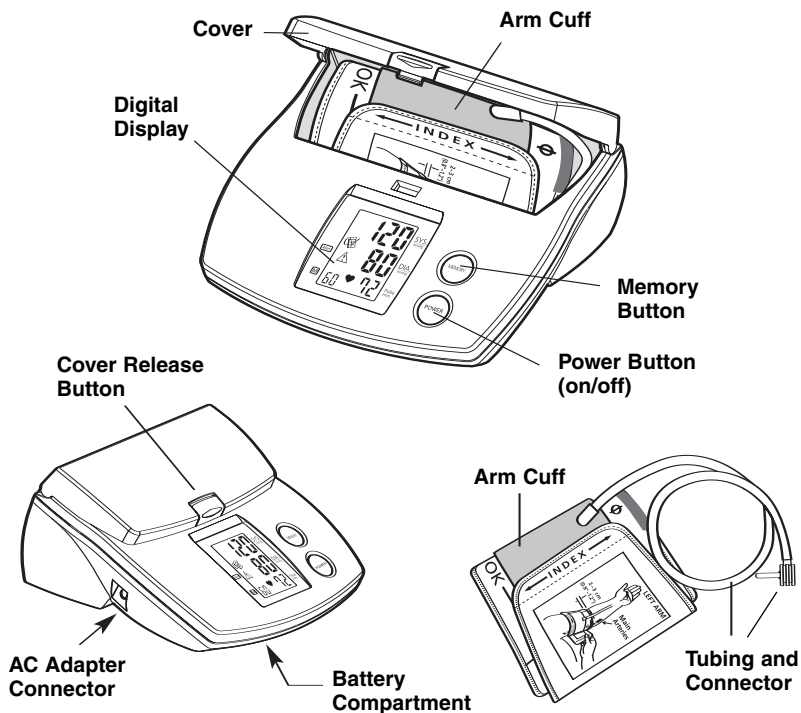
Thank you for purchasing a MABIS Automatic Digital Blood Pressure Monitor. With proper care and use, your monitor will provide you with many years of reliable readings.

The method of measurement that your Automatic Monitor uses is called the oscillometric method. The monitor detects your blood’s movement through the artery in your arm and converts the movements into a digital reading. The oscillometric method does not require a stethoscope, making the monitor easy to use.

Your Automatic Monitor is specially enhanced with SmartSpeed® technology, which calculates both systolic, diastolic and pulse readings while the cuff is inflating. This provides you with shorter measuring time and enhanced comfort. It also features “Alert”, which produces a symbol highlighting measurements that may suggest hypertension.

*Blood pressure readings determined with this device are equivalent to measurements obtained by a trained observer using the cuff/stethoscope auscultation method, within the limits prescribed by the American National Standard for Electronic or Automated Sphygmomanometers.*

## Product Identification & Caution



### Caution:

You can stop the inflation or deflation process anytime by pressing the POWER button.

## Why Monitor Your Blood Pressure at Home?

Many people experience "White Coat Syndrome", which is a temporary elevation of blood pressure during a visit at their physician's office. Although only temporary, it can cause blood pressure to rise and give a false indication of a person's true blood pressure.

Whether or not you experience "White Coat Syndrome", home blood pressure monitoring provides:

- 1) The opportunity to supplement your physician's office measurements.
- 2) An accurate indication of any change.
- 3) A record to assist your physician in evaluating your health and making important decisions.
- 4) Consistent, daily measurements of your blood pressure.

**NOTE:** Variations in your individual readings should only be interpreted by your physician or trained healthcare professional.

## General Blood Pressure Information

### What is Blood Pressure?

Blood pressure is the pressure that is exerted by blood flowing against the walls of the blood vessels throughout your body.

Your heart, which is the center of the circulatory system, provides the force for the blood to flow or circulate. When your heart contracts or beats, the blood is forced through the blood vessels increasing the pressure. This is the highest pressure in the cycle or what is referred to as SYSTOLIC blood pressure. In between beats, your heart relaxes and your blood pressure decreases. This is referred to as DIASTOLIC blood pressure.

This complete series of events, which occurs in a single heartbeat, is known as the CARDIAC CYCLE.

Your MABIS Automatic Monitor will automatically read your blood pressure and display both systolic and diastolic readings on the screen. Your systolic will be positioned as the upper number and the diastolic reading will be the lower number.

(systolic)  
120/80  
(diastolic)

Blood pressure is measured in millimeters (mm) of mercury (Hg) and is generally recorded with the systolic pressure (120) listed first and the diastolic pressure (80) listed second. The numbers are typically separated by a slash mark (/) as shown.

Both pressure readings, the SYSTOLIC and DIASTOLIC, are necessary for a physician to evaluate the status of a patient's blood pressure.

Please contact your physician for specific information regarding your own blood pressure.

### What Influences Blood Pressure?

Many factors such as genetics, age, sex, altitude, physical activity, anxiety, muscular development, certain medications or even the time of day can influence blood pressure.

Influences such as sleep or relaxation decrease blood pressure, while anxiety or exercise increase blood pressure.

### WHO Blood Pressure Classifications

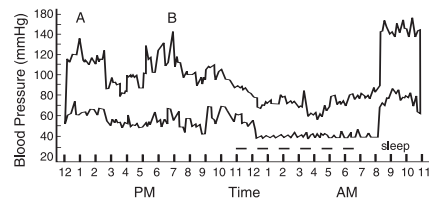
Standards for assessment of high or low blood pressure have been established by the World Health Organization (WHO) as shown on the following chart:

CATEGORY	SYSTOLIC (mmHg)	DIASTOLIC (mmHg)
Optimal	<120	<80
Normal	<130	<85
High - Normal	130-139	85-89
Mild Hypertension	140-159	90-99
Borderline	140-149	90-94
Moderate Hypertension	160-179	100-109
Severe Hypertension	≥180	≥110
Isolated Systolic Hypertension	≥140	<90
Borderline	140-149	<90

This chart is only a general guideline. Contact your physician or trained healthcare professional to determine your NORMAL blood pressure.

### Variations in Blood Pressure

Blood pressure is influenced by many factors and can change from moment to moment. Normally, blood pressure is lowest during sleeping periods and rises during the day. The graph below represents variations in blood pressure shown over a day with measurements taken every 5 minutes.



The dotted line represents the sleep period. The rise in blood pressure at 1 p.m. (A in the graph) corresponds to a stressful occurrence and at 7 p.m. (B in the graph) a period of exercise.

### Important Information Before Use

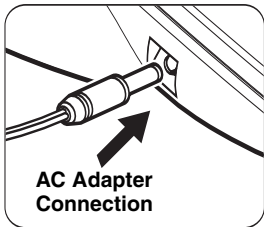
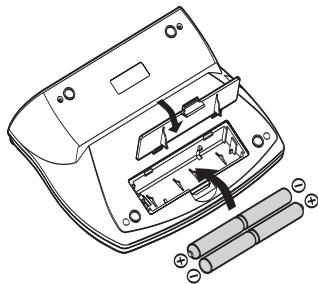
1. Blood pressure readings should be interpreted by a physician or trained healthcare professional, who is familiar with your medical history.
2. Perform your measurement in a quiet place. You should be seated and relaxed.
3. Avoid smoking, eating, taking medication, alcohol consumption or physical activity 30 minutes prior to taking a reading. If you are exhibiting signs of stress, avoid taking your measurement until the feeling subsides.
4. Rest 15 minutes prior to taking a reading.
5. Remove any constrictive clothing or jewelry that may interfere with the cuff placement.
6. Keep the monitor stable during measurements. Remain still; do not talk during measurements.
7. Record your daily readings on a chart.
8. Take your readings at the same time, each day (or as recommended by your physician).
9. Wait a minimum of 15 minutes between readings. The wait time may vary depending on individual physiological characteristics.
10. This device is intended for adult use.
11. The inflation or deflation process can be stopped by pressing the POWER button.

## Battery Installation/Replacement

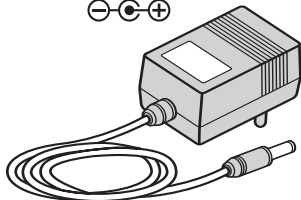
- 1) Press down and lift the cover in the direction of the arrows as shown.
- 2) Insert or replace 4 "AA" batteries into the compartment, matching the indicated polarity symbols.
- 3) To close, match up and connect the bottom hooks of the cover, then push the top end.

**NOTE:** Replace the batteries when the Low Battery symbol appears on the display or when the display remains blank when the POWER button is pressed.

- 4) It is recommended to remove the batteries if the unit will not be used for an extended period of time.



**AC Adapter (Optional)**  
Output: 12V DC 600mA (Ø3.8/Ø1.3)



### AC Power Adapter (Optional)

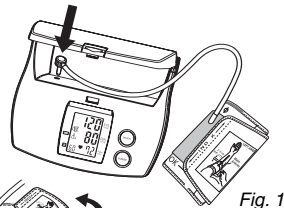
An AC adapter is available separately for battery-free operation. The AC adapter plugs into the side of the unit as shown. Please remember to practice electrical safety precautions while using the adapter.

## Applying Your Blood Pressure Cuff

Avoid smoking, eating, taking medication, alcohol consumption or physical activity 30 minutes prior to taking a reading. If you are exhibiting signs of stress, avoid taking your measurement until the feeling subsides. Rest 15 minutes prior to taking a reading.

**NOTE:** If for any reason you are unable to or should not use your left arm, please modify the following instructions and apply the cuff to your right arm. Your physician can tell you which arm is best for you to use.

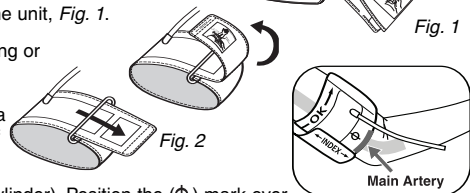
1. Remove any constrictive clothing or jewelry that may interfere with the cuff placement. Be seated with your feet flat on the floor.



2. Press the cover release button to open the arm cuff compartment. Remove the cuff and tubing.

3. Insert the cuff connector into the unit, Fig. 1.

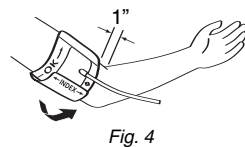
4. Widen or open the cuff by pulling or rolling the bottom of the cuff towards the right, Fig. 2. This should open the cuff, creating a cylinder. Do not extend the cuff beyond the metal bar.



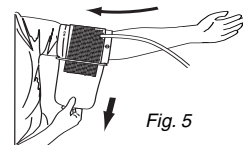
5. Insert your arm into the cuff (cylinder). Position the (Φ) mark over the main artery (on the inside of your arm), Fig. 3.

6. The bottom edge of the cuff should be positioned approximately one inch ABOVE the elbow joint, Fig. 4.

7. Reaching underneath your left arm with your right hand, pull the end of the cuff towards your body to tighten the cuff, Fig. 5. Wrap and secure the cuff making sure that the (Φ) mark remains as shown, Fig. 3.



8. The cuff should fit comfortably, yet snugly around your arm. You should be able to insert two fingers between your arm and the cuff.



**NOTE:** The cuff size is suitable for use when the vertical "Index" mark is within the horizontal "OK" range. A different sized cuff is needed if the "Index" mark is outside of the "OK" range.

## Taking Your Blood Pressure Reading

Proceed only after reading the previous sections of this manual.  
**Remember! Remain still; do not talk during the measurement.**

1. Rest your elbow on a solid surface with your palm facing upward. Elevate your arm so that the cuff is at the same level as your heart, *Fig. 1*. Relax your left hand.
2. Press the POWER button. The unit will run a self-test, *Fig. 2*.



Fig. 1

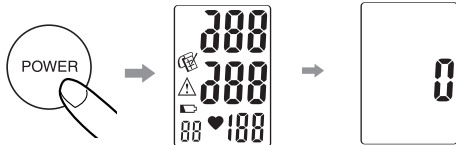


Fig. 2

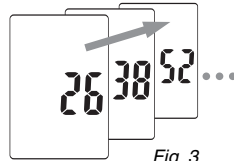


Fig. 3

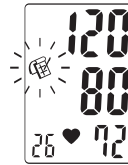


Fig. 4

3. The cuff will automatically begin to inflate, with varying speeds of inflation.
4. The display will show the increasing pressure in the cuff, *Fig. 3*.
5. Once the systolic pressure is reached, the cuff will exhaust all air.
6. Your blood pressure (systolic and diastolic) measurement, pulse rate and time will display, *Fig. 4*. See "Alert Symbol" section if symbol appears.
7. Your reading will be automatically stored in memory.
8. To conserve energy, press the POWER button to turn the power off. Otherwise, the unit will automatically shut off after approximately 1 minute.
9. Disconnect the cuff tubing from the monitor prior to storing.

## Alert Symbol

Your monitor has a built-in Alert feature. If your blood pressure exceeds 160 mmHg (SYS) or 95 mmHg (DIA), the Alert symbol will display, *Fig. 5*.

This feature is an instant reminder to you and your physician of measurements that may suggest hypertension.

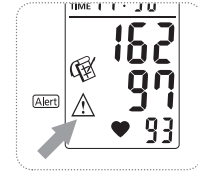


Fig. 5

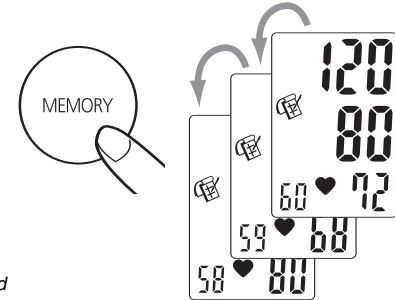
## Recalling Measurements in Memory

You can recall up to 60 measurements in memory to share with your physician or trained healthcare professional.

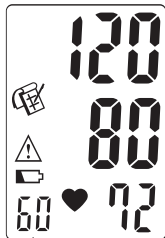
1. Press the MEMORY button. The last stored measurement will display.
2. Continue to press MEMORY to view the next previously stored measurement.

**NOTE:** *The memory bank can store up to 60 readings. When the number of readings exceeds 60, the oldest data will be replaced with the new record.*

All stored measurements will be erased by removing any one of the batteries for approximately 2 minutes.



## Description of Display Symbols



Systolic Pressure

Diastolic Pressure

Pulse Rate

No. of Memory Sequence



Appears when blood pressure reading is higher than 160 mmHg (SYS) or 95 mmHg (DIA).



Appears when batteries should be replaced.



Shows the pulse rate per minute.



Occurs when an error was made during measurement.



Tubing is leaking air.



Unit has malfunctioned. Unit needs to be sent in for repair or replacement.



Appears when measurement value is stored in memory or is recalled from memory.

## Troubleshooting

If any abnormality occurs during use, please check and correct the following:

Condition	Correction
Display is blank when power is on.	Check and correct the polarity of the installed batteries. Reinstall or replace batteries.
Measurement incomplete or abnormally low or high values displayed.	Review and follow "Applying Your Blood Pressure Cuff" and "Taking Your Blood Pressure Reading" sections. Replace the batteries.
EE symbol displays.	Did you talk or move during the measurement? Review "Applying Your Blood Pressure Cuff" section.
Measurements are different from those typically measured by physician or every measurement reading is different.	Remember, blood pressure readings are influenced by physical and mental conditions and/or even the time of day. Daily measurements should be interpreted by your physician.

## Care and Maintenance

1. Disconnect the cuff tubing from the monitor prior to storing.
2. Only use a soft, dry cloth to clean your blood pressure monitor.
3. Avoid using any types of liquids on the monitor or cuff.
4. Do not store the unit where it will be exposed to direct sunlight, dust or humidity.
5. Avoid extreme temperatures.
6. Never disassemble the monitor or cuff.
7. Dropping or subjecting your blood pressure monitor to strong shocks should be avoided.

## Product Specifications

<b>Name and model number</b>	SmartSpeed® Automatic Digital Blood Pressure Monitor with Memory, 04-330-001, 04-330-006
<b>Display system</b>	Digital display/LCD
<b>Measuring method</b>	Oscillometric
<b>Power source</b>	4 AA batteries
<b>Measuring range</b>	Pressure: 20-280 mmHg Pulse: 40-180 beats/minute
<b>Accuracy</b>	Pressure: ±3 mmHg Pulse: ±5% of reading
<b>Inflation</b>	Pump Driven
<b>Deflation</b>	Automatic Pressure Release Valve
<b>Memory</b>	Built-in memory enabling display of up to 60 measurements
<b>Automatic Power Off</b>	Approximately 1 minute after last button operation
<b>Operation Environment</b>	Temperature 50°F – 104°F (10°C – 40°C) Humidity 40 – 85%
<b>Storage Environment</b>	Temperature 23°F – 140°F (-5°C – 60°C) Humidity 10 – 95%
<b>Monitor Dimensions</b>	7-1/2" x 6-1/4" x 3-3/4"
<b>Weight</b>	1.35 lbs. (without batteries)
<b>Arm Circumference Range</b>	Adult size fits arm circumference: 8-5/8"–12-5/8" (22–32 cm) Large adult size fits arm circumference: 12-5/8"–16-1/2" (32–42 cm)
<b>Accessories</b>	Cuff, detailed guidebook, four AA batteries
<b>Options (sold separately)</b>	Adult size cuff, Large adult size cuff, AC Adapter

*Specifications are subject to change without notice*

# Sample Blood Pressure Log

Name:

Age:

Weight:

Date	1/2	1/2	1/3																
Time	7:00 AM	9:30 PM	7:30 AM																
mmHg	240																		
	220																		
	200																		
	180																		
	140																		
	120																		
	100																		
	80																		
	60																		
Pulse	68	71	69																
Body Condition	Headache in AM	—	Tired, Restless Night																