

INSTRUCTION MANUAL

Automatic Digital Blood Pressure Monitor

Model 04-206-001

Please read this instruction manual
completely before operating this unit.



**DETAILED
INSTRUCTIONS**

English • French • Portuguese • Spanish

Lifetime Limited Warranty

This MABIS Blood Pressure Monitor is guaranteed to be free from manufacturing defects for the life of the original registered purchaser under normal use. This limited warranty does not apply to use in any clinical or commercial applications. If the unit fails to operate during the lifetime of the original registered purchaser, return it postage prepaid along with \$5.00 for return shipping and insurance to: MABIS Healthcare, Attn: Repair Department, 1931 Norman Drive South, Waukegan, IL 60085. If MABIS determines that the unit failed to operate due to a manufacturing defect, the unit will be repaired or replaced at the option of MABIS. Repair or replacement of the unit is the sole remedy under this limited warranty. This warranty gives you specific legal rights which vary from state to state. As a condition of this warranty, the enclosed warranty registration card must be completed and sent to us within 10 days of the purchase date.

This Limited Warranty constitutes MABIS' only responsibility and obligation to repair and/or replace materials or components. We make no other express or implied warranties, arising by operation of law or otherwise, or any warranty of merchant ability or fitness for a particular use or purpose whether or not the use or purpose has been disclosed to MABIS in specifications, drawings or otherwise, and whether or not MABIS' products are specifically designed and/or manufactured by MABIS for the buyer's use or purposes, except for the limited warranty stated above. 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.



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Index

Introduction	2
Product Identification & Caution	3
General Blood Pressure Information	4-6
Important Information Before Use	7
Battery Installation/Replacement	8
AC Adapter Installation (Optional)	9
Setting the Optimum Inflation Level	10-11
Applying Your Blood Pressure Cuff	12-13
Taking Your Blood Pressure Reading	14-15
Error Display Symbols	16
Memory Features	16
Care and Maintenance	17
Troubleshooting	18
Product Specifications	19
Sample Blood Pressure Log	20

Introduction

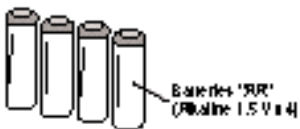
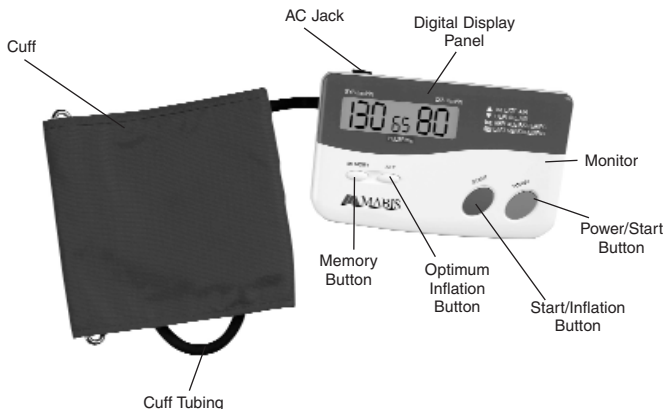
To achieve the maximum benefit from your blood pressure monitor, we recommend that you first consult with your physician or trained health care professional.

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.

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

You can stop the inflation or deflation process of the cuff at any time by pressing the power button causing the cuff to immediately deflate.

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 above.

Both pressure readings, the SYSTOLIC and the 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 decreases blood pressure, while anxiety or exercise increases blood pressure.

Why Monitor Your Blood Pressure at Home?

A visit to a physician's office can be a stressful situation for a patient. And, anxiety is a known factor in raising blood pressure. This temporary occurrence of elevated blood pressure at the physician's office is commonly referred to as "white coat syndrome".

Whether or not you experience "white coat syndrome", home blood pressure monitoring provides you with the opportunity to supplement your physician's office measurements. These home readings, when taken over a period of time, can show an accurate indication of change. Furthermore, your records can assist your physician in evaluating your health and in making important decisions in the diagnosis and treatment of your condition. Because of this, it is important to take consistent, daily measurements of your blood pressure.

The variations in your individual readings should only be interpreted by your physician or a trained health care professional.

WHO Blood Pressure Classifications

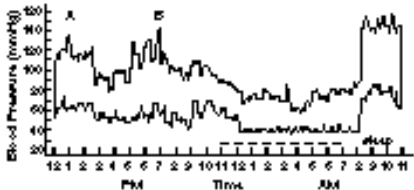
Standards for assessment of high or low blood pressure, regardless of age, have been established by the World Health Organization (WHO) as shown in the following chart.

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. Please contact your physician to determine your **NORMAL BLOOD PRESSURE**.*

Variations in Blood Pressure

Blood pressure can be influenced by many factors. This change can occur from moment to moment. Normally, blood pressure is lowest during the sleeping period and rises during the day. The graph below represents the 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 PM (A in the graph) corresponds to a stressful occurrence and at 7 PM (B in the graph) a period of exercise.

Important Information Before Use

1. Blood pressure measurements should only be interpreted by a physician or a trained health care professional who is familiar with your medical history. Through regular use of this device and recording of your measurements, you can keep your physician informed of the changes in your blood pressure.
2. Perform your measurement in a quiet place. You should be seated in a relaxed position.
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. Apply the cuff to the proper position on the left arm. The monitor should be positioned flat with the digital display panel in view.
7. Keep the monitor stable during measurement to achieve an accurate reading. Remain still; do not talk during the measurement.
8. Record your daily blood pressure and pulse readings on a chart.
9. Take your readings at the same time, each day (or as recommended by your physician) to get an accurate indication of change in your true blood pressure.
10. Wait a minimum of 15 minutes between readings to allow for the blood vessels to return to normal. The wait time may vary depending on your individual physiological characteristics.
11. Although such cases are rare, for those with an extremely weak pulse or irregular pulse, errors may result which prevent proper measurement. If abnormal variations are noticed, consult with your physician or a sales representative from where you purchased this unit.
12. This device is intended for adult use. Please consult your physician should you wish to use the device on children.

While taking a measurement, you can stop the inflation or deflation process of the cuff at any time by pressing the power button.

Battery Installation/Replacement

1. Remove the battery cover as shown in *Fig. 1*.
2. Insert the batteries into the compartment, *Fig. 2*, taking care to observe and match the polarities as indicated on battery compartment.
3. Replace the battery cover, *Fig. 3*.

Note: The batteries in your monitor will need to be replaced when the Low Battery indicator appears on the display, *Fig. 4*. Replace the batteries with four new “AA” alkaline batteries.

4. We recommend that you remove the batteries if the unit will not be used for an extended period of time.

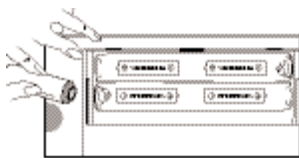


Fig. 1

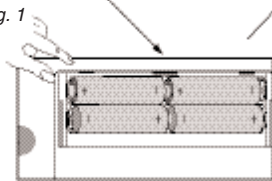


Fig. 2

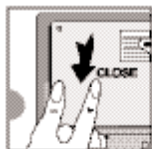


Fig. 3

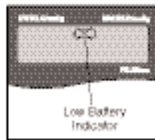


Fig. 4

AC Adapter Installation (Optional)

Your Mabis Blood Pressure monitor will operate on 4 “AA” batteries (included) or a standard 6V/600mA AC adapter fitted with a DIN plug (not included).

To use an AC adapter:

1. Insert the DIN plug into the socket located on the back side of the monitor, *Fig. 1*.
2. Plug the AC adapter into a main outlet according to the adapter’s specifications.
3. Test the connection by pressing the power button.

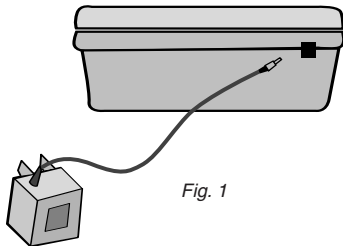


Fig. 1

Note:

- a. Your unit will not draw from the batteries while using an AC adapter.
- b. If the AC is interrupted during use, you will need to reinsert the DIN plug once the power becomes available.

Setting the Optimum Inflation Level

To help you achieve the most accurate blood pressure reading, your Mabis Blood Pressure monitor allows you to preprogram the Optimum Inflation Level (OIL) based on your personal estimated Systolic pressure. You can select from nine preset levels.

Typically the OIL is approximately 30 millimeters of mercury (mmHg) above your Systolic pressure. If you know your estimated Systolic pressure, we recommend that you preset your OIL 30 mmHg higher, ie. 130 (estimated systolic pressure) + 30 (inflation level) = 160 (OIL).

If you are unsure of your estimated systolic pressure, we recommend that the OIL is set between 140-180mmHg. Your monitor is preset at 140 mmHg and will inflate to this level if no change is made.

The nine preset levels are 120, 140, 160, 180, 200, 220, 240, 260 and 280 mmHg. If you find that your OIL falls between two of the preset levels, we recommend that you select the higher of the two. ie. If your OIL = 150, choose 160.

Setting the Optimum Inflation Level

To set your OIL (if different than 140 mmHg):



Fig. 1



Fig. 2

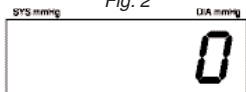


Fig. 3

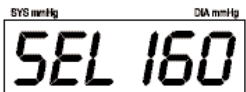


Fig. 4



Fig. 5

- a. Press the POWER button. The unit will run a self-test, Fig. 1.

Note: This display will appear until the button is released.

- b. Upon release, a beep will sound and the display will briefly change to a flashing symbol, Fig. 2.

- c. A beep will sound and the unit is ready for cuff inflation and/or setting the OIL, Fig. 3.

- d. Press the “set” key once and the display will show the preset pressure of 160 mmHg, Fig. 4.

- e. To set your personal OIL, continue pressing “set” until the display shows your selected OIL. Release the key and your OIL is set, Fig. 5.

Note: Preset levels increase by 20 mmHg with every press. When 280 (the highest preset level) is reached, the next press will display 120 and increase by 20 mmHg again.

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.



Fig. 1

1. Remove any constrictive clothing or jewelry that may interfere with the cuff placement.
2. You should be seated with your feet flat on the floor.
3. Position the cuff on a solid surface with the tubing facing UP and AWAY from you, Fig. 1. The metal bar on the cuff should be to the left of the tubing, underneath the cuff.
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.

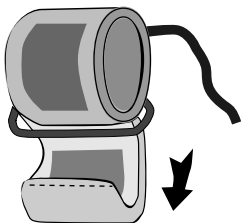


Fig. 2

Applying Your Blood Pressure Cuff

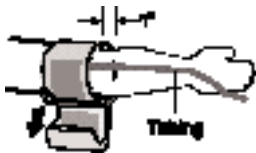


Fig. 3

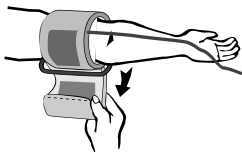


Fig. 4

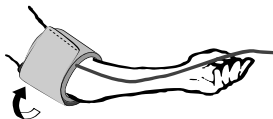


Fig. 5

5. Insert your left arm into the cuff (cylinder). The bottom edge of the cuff should be positioned one inch ABOVE the elbow joint, *Fig. 3*. The tubing should extend towards your hand.
6. With your left arm extended in front of you and palm facing upward, position the tubing down the center of your arm *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. 4*. Wrap and secure the cuff making sure that the tubing position remains as shown, *Fig. 5*.
8. The cuff should fit comfortably, yet snugly around your arm. There should not be any gap between the arm and the cuff.

Taking Your Blood Pressure Reading

Proceed only after reading the previous sections of this manual.

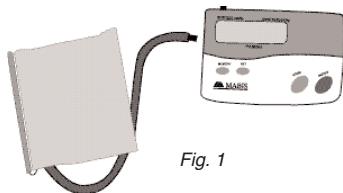


Fig. 1



Fig. 2



Fig. 3

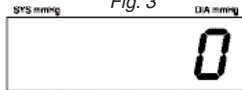


Fig. 4

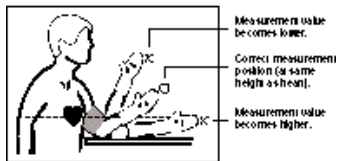
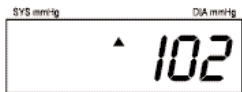


Fig. A

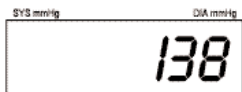
1. Position the monitor on a flat, stable surface with the digital display panel in view.
2. Insert the cuff tubing into the left side of the monitor, *Fig. 1*.
3. Rest your elbow on a table with your palm facing upward. Elevate your hand so that the cuff is at the same level as your heart, *Fig. A*. Relax your left hand.
4. Press the red power button. The unit will run a self-test, *Fig. 2*. **Note:** The display will appear until the button is released.
5. Upon release the display will briefly change to a flashing zero, *Fig. 3*.
6. Three beeps will sound and the unit is ready for cuff inflation, *Fig. 4*.

Taking Your Blood Pressure Reading



PULSE/min

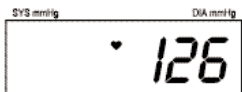
Fig. 5



PULSE/min

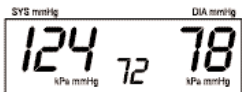
Cuff
Pressure

Fig. 6



PULSE/min

Fig. 7



PULSE/min

Fig. 8

- Using your “right” hand, press the “start” button to begin automatic inflation. The display will show the increasing pressure in the cuff, *Fig. 5*.
- Once the preset optimum inflation level rate is reached, the cuff pressure will be displayed, *Fig. 6*.
- When a pulse is detected, the unit will sound for each beat and the display symbol will flash, *Fig. 7*.
- A long beep will indicate that the measurement process is complete and the cuff will automatically deflate. The unit will display your blood pressure (systolic and diastolic) measurements and pulse rate, *Fig. 8*.
- To conserve energy, press the red button to turn the power off. Otherwise the unit will automatically shut off after approximately 5 minutes.

If you need to take another measurement, wait a minimum of 15 minutes between readings to allow for the blood vessels to return to normal. The wait time may vary depending on your individual physiological characteristics.

Error Display Symbols

Display Symbol	Condition/Cause	Corrective action
Err 1 Measurement error	<ul style="list-style-type: none">• Cuff pressure drops to less than 20 mmHg before achieving reading.• Or no pulse detected.• Or power key was pressed.	Wait a minimum of 15 minutes and remeasure. Loosen cuff to allow circulation of blood.
Err 2 Measurement error	<ul style="list-style-type: none">• Movement is detected during reading or low inflation level.	
Err 3 Measurement error	<ul style="list-style-type: none">• Inflation period is too long due to loose cuff or hose attachment.	Wait 15 minutes, then reapply cuff and reattach hose to monitor.
Err 5 Measurement error	<ul style="list-style-type: none">• The measured readings indicated an unacceptable difference between systolic and diastolic pressures.	Take another reading carefully following directions. Contact your physician if unusual readings continue.

Memory Features

Your MABIS Digital Blood Pressure monitor features last reading memory. To view your previous reading, press the power button to turn the unit on, then press the “memory” button. Your last measured blood pressure reading will display with your last measured pulse rate for one cycle.

Care and Maintenance

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

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.
Cuff pressure does not increase after pressing “start” button.	Check and reconnect cuff attachment and hose.
Measurement incomplete or abnormally low or high values displayed.	Review and follow “Applying Your Blood Pressure Cuff” and “Taking Your Blood Pressure Reading” sections.
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 measurement recordings should be presented to your physician for interpretation.

Product Specifications

Name and model number	Automatic Digital Blood Pressure Monitor, 04-206-001
Display system	Digital display system/LCD
Measuring method	Oscillometric method
Power source	“AA” type alkaline batteries 1.5V x 4
Measuring range	30~280 mmHg (Pressure) 40~200 Pulses/minute (Pulse)
Accuracy	Within ± 3 mmHg or 2% of reading (Pressure) Within $\pm 5\%$ of reading (Pulse)
Pressurization	Capacitive sensor.
Rapid air release	Press power button.
Memory	Built-in memory enabling display of previously measured value.
Automatic Power Off	Automatic shut off after approximately 5 minutes of non-use to conserve energy.
Storage	
Temperature	23°F~122°F
Humidity	15% - 85% RH
Operation	
Temperature	50°F~104°F
Humidity	15% - 85% RH
Dimensions	4-3/16" x 6-3/8" x 2-7/16"
Weight	15.9 oz. (with batteries)
Cuff Dimensions	Suitable for arm circumference 7.8" - 12.6" (30-44 cm)
Accessories	Adult size cuff, bulb release valve, instruction manual, four “AA” batteries.

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	9:50 AM	7:50 AM																	
mmHg	240																			
	220																			
	200																			
	180																			
	160																			
	140	130	135																	
	120			120																
	100																			
	80	84	90																	
	60			78																
Pulse	68	71	66																	
Body Condition	Handshake AM		Food Handshake PM																	