AUTOMATIC BLOOD PRESSURE MONITOR

(Arm Cuff Type)

INSTRUCTION MANUAL

Model: SPBP-04

English Instruction Guide

Thank you for choosing Advocate® as your monitor of choice. The first, most important part of using your new Advocate® monitor is to register your monitor with us online. When you register your monitor you are assured that:

1. We can notify you about any important updates or changes to your meter.
2. Registering confirms the full warranty period of your Advocate® meter.
3. Registering provides you peace of mind that you are protected.

To register your new Advocate® Monitor:
Go to: www.advocatemeters.com
Click on WARRANTY REGISTRATION in the QUICK LINKS section.
Enter your information and meter serial number. That's it!

Thank you!

Table of Contents

IMPORTANT INFORMATION

- Please read this instruction manual thoroughly so that you completely understand the operations, cautions, performance and limitations with this monitor. After reading this manual, please keep it for future reference.
- You should not use this blood pressure monitor for self-diagnosis, self-treatment or to change medication without consulting your physician or other health care professional. Should you have any doubt or question about your blood pressure measurements, you should consult your physician or other health care professional.
- This device contains high-precision parts; therefore, avoid exposing it to extreme temperature or humidity or to direct sunlight, shock and dust. Advocate guarantees the accuracy of this monitor only when it is stored and used properly.
- Do not attempt to calibrate or repair this monitor. If you have any questions regarding the function or operation of this monitor, please contact our technical support agent so we can provide you with accurate information.
- Should the monitor or cuff need cleaning, use 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 the monitor or cuff.
- Remove and replace the batteries if the monitor is not used for more than 6 months. Alkaline batteries recommended.

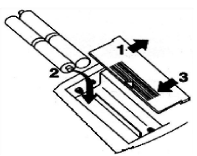
PRECAUTION FOR USE

The Advocate Arm Automatic Blood Pressure Monitor is designed to be operated by anyone who is eighteen years and older or by medical professionals to monitor blood pressure (systolic and diastolic) and pulse rate.

BEFORE YOU START

Please make sure you have installed 4 AA (1.5 volt) batteries *(alkaline batteries are recommended)* or use the optional AC-DC Adapter. Always attach the cuff to the monitor before turning it on. To install batteries or replace them if the "Low Battery" symbol appears on display, proceed as follows:

■ Battery Loading



1. Remove the battery compartment cover by gently pushing down on arrow and sliding cover forward.

2. Place batteries with positive "+" and negative "-" terminals into compartment and make sure they match the indicated terminals in the compartment.

3. Close the battery cover by gently sliding it into the compartment and pressing it into place.

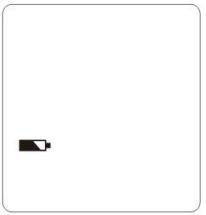
Note:

★When the LCD display shows "Low Battery" signal ,the batteries must be replaced for accurate readings.

★Do not use rechargeable batteries (voltage1.2V). They are not suitable for this product, can damage the monitor and will cause inaccurate readings to be obtained.

★Remove the batteries if the monitor will not be used for six months or longer to avoid damage from the possibility of leaking batteries.

★All the measurements will remain in the memory should the batteries become drained, removed or replaced.



MONITOR COMPONENTS

★"MEMORY" Button /Clock Setting

★" 1 2 " Button /Measured Result Recall/Clock Number Adjusting

★POWER Button

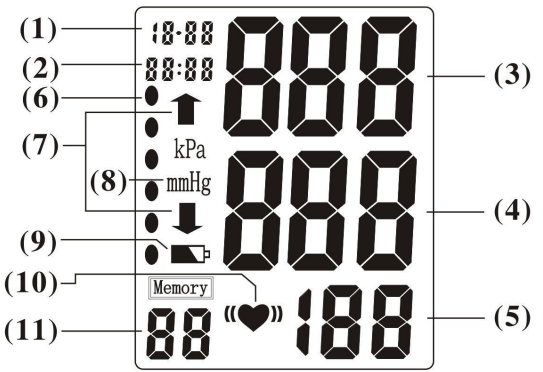
★LCD Display

★Systolic Indicator

★Diastolic Indicator

★Pulse Indicator

LCD DISPLAY



Mode for LCD display:

(1) Date: Month - Day
(2) Time: Hour – Minute
(3) Systolic Blood Pressure (unit: mmHg)
(4) Diastolic Blood Pressure (unit: mmHg)
(5) Pulse (unit: beat/minute)
(6) WHO BP Classification Indicator
(7) Inflation / Deflation Indicator
(8) Blood Pressure Measurement Unit
(9) Low Battery Indicator
(10) Irregular Heartbeat Indicator
(11) Memory Record Number

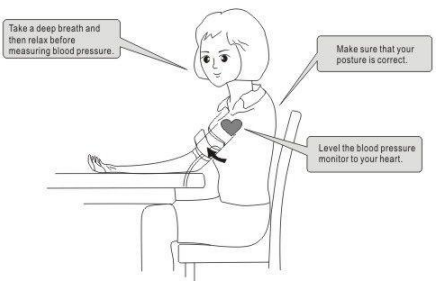
TIPS FOR BLOOD PRESSURE MONITORING

★Relax for about 5 minutes before measurement.
★Do not smoke or ingest caffeine at least 30 minutes prior to measurement.
★Remove any constricting clothing and place the cuff on a bare arm.
★Keep still and do not talk until the measurement is complete.
★The cuff must be neither too tight nor too loose. Using a little force, you should be able to place two fingers between the cuff and your arm.

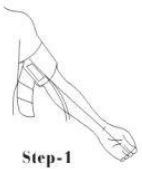
TAKING A MEASUREMENT

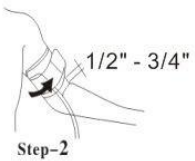
(1) POSTURE FOR TAKING BLOOD PRESSURE

★Make yourself comfortable and sit-up straight
★Place your arm with cuff in front of you on the table with your palm facing up.
★Cuff should be at the same height as your heart.



HOW TO WRAP THE CUFF ON YOUR ARM:





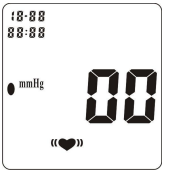
- ★ Place the cuff around a bare arm ½" to ¾"' above the elbow joint. The pressure tube should be oriented to run down the center of the inside of your arm. (Refer to diagram on cuff for proper placement.)
- ★ Keep the cuff at approximately the same level as your heart.
- ★ Unless your physician recommends otherwise, always use the left arm to measure your blood pressure.
- ★ The cuff should be snug but not too tight. You should be able to insert two fingers between the cuff and your arm.

NOTE:

1. **REFER TO THE DIAGRAM PRINTED ON THE CUFF FOR PROPER PLACEMENT.**
2. **FOR ACCURATE READINGS, THE CUFF/PRESSURE MUST BE ORIENTED CORRECTLY AND ALIGNED WITH THE ARTERY.**

STEPS TO TAKE A BLOOD PRESSURE MEASUREMENT

After you are in a comfortable position, press the “ON/OFF” button. The device will verify itself showing all “8s”, then LCD will show “00.” The cuff will inflate, then deflate, the results will then be displayed.



PROGRAMMING DATE AND TIME ★ Press the **“SET”** button for 5 seconds while the device is turned off, the number of the YEAR will begin to blink on the LCD display. Press the **“ 1 ”** button to advance the YEAR displayed. When you have reached the correct year, press the **“SET”** button and release. *(Do not hold the “SET” button down during programming.)* When the **“SET”** button is pressed and released, the YEAR will stop blinking and the MONTH will begin to blink. Press and release the **“ 1 ”** button until the desired month is reached. Repeat this process to set the **DAY, HOUR, MINUTES.**

NOTE: When the number that you wish to set – i.e. YEAR, MONTH, DAY, HOUR, MINUTE - is blinking, each time you press and release the “ 1 ” button, the number will increase by one. Each time you depress the “ 2 “ button, the number will decrease by one. ***Time is displayed using a 24 hour clock. AM/PM are not displayed.

★ After you have set the **YEAR, MONTH, DAY, HOUR** and **MINUTE** press the **"SET"** button. The monitor will turn off.

2-PERSON MEASUREMENTAND RESULTS STORAGE

This model has a 2-person memory bank with 90 memories storage capacity for each person.

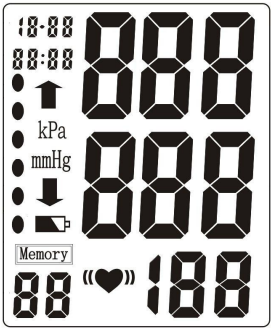
To set the monitor for Person 1: With the monitor off, press and release the "P1" button. "P1" will show in the lower left corner along with the current Average of Person 1's last 3 readings as indicated by "AVG" on the display. If there are no previous readings for Person 1, "NO" will appear in the display. Press the "On/Off" button and the display will go blank. The monitor is now set for Person 1.

To Set the monitor for Person 2: Follow the above steps pressing and releasing the "Person 2" button instead of the "Person 1" button.

IRREGULAR HEARTBEAT INDICATOR

If an irregular heartbeat is detected, the Irregular Heartbeat symbol ((♥)) will appear and blink in the display window.

DISPLAYING AVERAGE OF THREE MOST RECENT RESULTS AND ALL MEMORY RESULTS **(AUg)**



When the monitor is turned off, press and release the **P1** or **P2** button. The "AUG" will show in the upper left corner of the display along with the average of the most recent results. P1 or **P2** will show in the lower left corner, indicating which person the average is for. If **P1** is displayed, pressing **P2** will show the average for person 2, and vice versa.

Pressing **P1** or **P2** again will display the most recent result for that person, accompanied by the date and time the result was obtained. The lower left will display alternately the Person (i.e, **P1**) and which result is displayed (i.e., "01" for the most recent result). Press the Person button again and the 2nd most recent result will show. Press it again and the 3rd most recent result will show, etc.

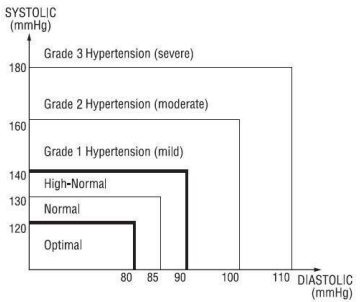
Press the Power button to turn the monitor off

DELETING MEASUREMENTFROM THE MEMORY

Press and hold the **P1** or **P2** BUTTON until a number is displayed in the bottom right hand corner, indicating the previous results have all been deleted.

ASSESSING BLOOD PRESSURE FOR ADULTS

The following standards for assessing high blood pressure (without regard to age or gender) have been established as a guide according to WHO (World Health Organization). Please note that other risk factors (e.g. diabetes, obesity, smoking, etc.) need to be taken into consideration and may affect these figures. Always consult with your physician or other health care professional for accurate assessment.



WHO CLASSIFICATION OF BLOOD PRESSURE

Blood Pressure Classification	SBP (mmHg)	DBP (mmHg)	COLOR INDICATOR
Optimal	<120	<80	GREEN
Normal	120-129	80-84	
High-Normal	130-139	85-89	
Stage 1 Hypertension	140-159	90-99	YELLOW
Stage 2 Hypertension	160-179	100-109	ORANGE
Stage 3 Hypertension	≥180	≥110	RED

SPECIFICATIONS

Model No.:	**SPBP-04**
Type:	Oscillometric; Automatic air inflation by air pump and automatic deflation
Measurement Range:	Pressure: 40~280mmHg Pulse: 30~160 Pulses
Accuracy:	Pressure: within ±5mmHg Pulse: within ±5%
Power Supply:	6V DC (4 "AA" batteries)
Battery Life:	Approx. 250 times (180mmHg, once /day, 71.6°F)
Operation Environment:	Temperature: 41~104°F Humidity: < 85%RH
Storage Environment:	Temperature: -68~140°F Humidity: < 95%RH
Classification:	Class II, type B
Cuff Circumference:	S/M: 8.66" ~ 14.17" (+/- .1875") L: 8.66" ~ 18.9" (+/- .1875") XL: 12.6" ~ 20.5" (+/- .1875")
Memory:	90 x 2 memory banks measurements including date and time
Dimensions:	150.0mm (5.9 inches)------(L) 105.0mm (4.2inches) -----(W) 73.0mm (2.8 inches) -----(H)
Weight:	535g (1.18 LB)

TROUBLE SHOOTING (1)

Abnormality	Probable Reason	Corrective action
LCD shows Low Batter symbol 	Batteries are low.	Install new batteries.
The unit does not measure. Readings are too high or too low.	Pneumatic system blocked or cuff is too tightly wrapped.	Make certain the cuff is wrapped around your arm correctly and re-measure.
	Pressure system was unstable before measurement.	Measure again. Stay calm. Do not move or speak during measurement.
	The cuff position is not correct.	Sit comfortably and still. Make sure the cuff is at the same level at your heart.
An irregular heartbeat symbol occurs. 	Irregular heartbeat	Relax for about 5 minutes and measure again. If the symbol appears again, consult your physician or other health care professional.
Incorrect operation	Some interference in inflation or wrong operation during measuring	Refer to the inflation step in “Taking blood pressure” and process again.

TROUBLE SHOOTING (2)

Abnormality	Reason	Checkout
LCD shows "Er U"	Insufficient inflation	Wait for 5 minutes and re-measure. If operation is still abnormal, contact manufacturer or agent (see the last page).
LCD shows "Er H"	Inflation over 305 mmHg	
LCD shows "Er 1"	Pulse is undetectable	
LCD shows "Er 2"	Radiation interference	Move away from radiation source.
LCD shows "Er 3"	Measured result appears wrong	Measure again.

LIMITED WARRANTY POLICY

Diabetic Supply of Suncoast, Inc. warrants to the original purchaser that this instrument will be free from defects in materials and workmanship for a period on one (1) year from the date of purchase (except as noted below). The warranty is not transferable.

This warranty is subject to the following exceptions and limitations.

1. This warranty is valid only if the Warranty Registration is completed online within 14 days from the date of purchase of your monitor. You will need to have the date of purchase, model number and serial number of your monitor to complete registration. The model and lot numbers are found on the silver information sticker located on the bottom of your monitor. Refer to the inside front cover of this manual for instructions on how to register your new Advocate online.
2. This warranty is limited to replacement due to defects in parts and workmanship.
3. This warranty does not apply to the performance of this product that has been damaged due to abuse, accident, alteration, misuse, neglect, maintenance by someone other than Diabetic Supply of Suncoast or failure to operate the instrument in accordance with instructions. Further, Diabetic Supply of Suncoast assumes no liability for malfunction or damage caused by the use of reagents other than reagents manufactured or recommended by Diabetic Supply of Suncoast.
4. Diabetic Supply of Suncoast reserves the right to make changes in design of this instrument without obligation to incorporate such changes into previously manufactured instruments.

Manufactured for: Diabetic Supply of Suncoast, Inc., PO Box 2102, Vega Alta, PR 00692
Toll Free: 1-866-373-2824, www.advocatemeters.com
Tech Support: 1-866-373-2824; info@pharmasupply.com; www.advocatemeters.com;
Manual Version V1.0

BLOOD PRESSURE RECORD

Name:_____ Age:_____ Weight:_____

Date:	AM	SYS/DIA	PULSE		PM	SYS/DIA	PULSE

Note: By monitoring and controlling high blood pressure, you can lower your risk of stroke, heart attack, heart failure and kidney disease

STATEMENTS AND DECLARATIONS:

1. Arm Blood Pressure Monitor needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the ACCOMPANYING DOCUMENTS

2. Wireless communications equipment such as wireless home network devices, mobile phones, cordless telephones and their base stations, walkie-talkies can affect this equipment and should be kept at least a distance d = 3,3 m away from the equipment.
(Note. As indicated in Table 6 of IEC 60601-1-2:2007 for ME EQUIPMENT, a typical cell phone with a maximum output power of 2 W yields d = 3,3 m at an IMMUNITY LEVEL of 3 V/m)

3. The manufacturer are available for request of circuit diagrams, component part lists, descriptions ,calibration instructions ,or other information that will assist service personnel to repair those parts of the device

4. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This equipment 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. This equipment 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 this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, 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 equipment and receiver.
-- Connect the equipment 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.

Guidance and manufacturer's delclaration

Guidance and manufacture's declaration – electromagnetic emission		
The Arm Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer of the user of the Arm Blood Pressure Monitor should assure that it is used in such an environment.		
Emission test	**Compliance**	**Electromagnetic environment – guidance**
RF emissions CISPR 11	Group 1	The Arm Blood Pressure Monitor use RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emission CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Guidance and manufacture's declaration – electromagnetic immunity			
The Arm Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user of Arm Blood Pressure Monitor should assure that it is used in such an environment.			
Immunity test	**IEC 60601 test level**	**Compliance level**	**Electromagnetic environment - guidance**
Electrostatic discharge (ESD) IEC 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floor are covered with synthetic material, the relative humidity should be at least 30%. If ESD interfere with the operation of equipment, counter measurements such as wrist strap, grounding shall be considered.
Electrical fast transient/burst IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1 kV differential mode. ±2 kV common mode	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5% UT (>95% dip in UT) for 0.5 cycle 40% UT (60% dip in UT) for 5 cycles 70% UT(30% dip in UT) for 25 cycles <5% UT (>95% dip in UT) for 5 sec	Not applicable	Mains power quality should be that of a typical commercial or hospital environment. If the user of the TL-100Drequires continued operation during power mains interruptions, it is recommended that the TL-100Dbe powered from an uninterruptible power supply or a battery.

Power frequency (50Hz) magnetic field IEC 61000-4-8	3A/m	3A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE UT is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacture's declaration – electromagnetic immunity

The Arm Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user of Arm Blood Pressure Monitor should assure that it is used in such an environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	Not applicable	Portable and mobile RF communications equipment should be used no closer to any part of the Wrist Blood Pressure Monitor, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = 1.167\sqrt{P}$ $d = 1.167\sqrt{P}$ 80 MHz to 800 MHz $d = 2.333\sqrt{P}$ 800 MHz to 2.5 GHz Where P is the maximum output power ratingof the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2.5 GHz	3 V/m	

			distance in metres(m). Field strengths from fixed RF transmitters, as determined by an electromagnetic sitesurvey,a should be less than the compliance level in each frequency range.b Interference may occur in the vicinity ofequipment marked with the following symbol: 

NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Arm Blood Pressure Monitor is used exceeds the applicable RF compliance level above, the Arm Blood Pressure Monitor should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Arm Blood Pressure Monitor.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the Arm Blood Pressure Monitor.

The Arm Blood Pressure Monitor is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Arm Blood Pressure Monitor can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Arm Blood Pressure Monitor as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter (W)	**Separation distance according to frequency of transmitter (m)**		
	150 KHz to 80 MHz $d = 1.167\sqrt{P}$	**80 MHz to 800 MHz** $d = 1.167\sqrt{P}$	**800 MHz to 2.5 GHz** $d = 2.333\sqrt{P}$
0.01	**0.117**	**0.117**	**0.233**
0.1	**0.369**	**0.369**	**0.738**
1	**1.167**	**1.167**	**2.333**
10	**3.689**	**3.689**	**7.379**
100	**11.667**	**11.667**	**23.333**

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Explanation of Symbols:

LOT — Symbol for batch code

CE 0598 — Symbol for 'CE"

Symbol for manufacturer

IP21 — Symbol for "the IP classification"

Symbol for "ENVIRONMENTAL PROTECTION - Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your local Authority or retailer for recycling advice."

Symbol for "TYPE BF APPLIED PART"

Symbol for "Follow operating instructions"

Customer Care Center

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