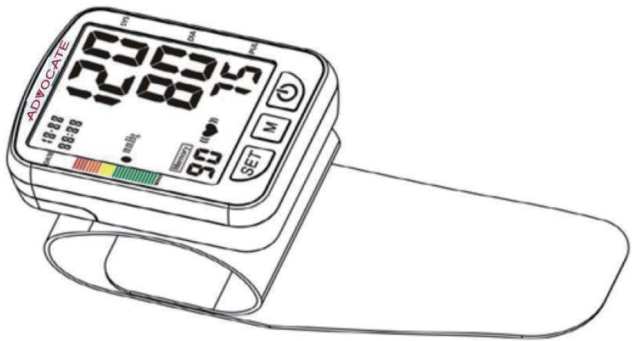# AUTOMATIC BLOOD PRESSURE MONITOR
(Wrist Cuff Type)

INSTRUCTION MANUAL
Model: SPBP-02

INSTRUCTION GUIDE (ENGLISH)

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!

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 professionals. Should you have any doubt or questions about your blood pressure measurements, you should consult your physician or other health care professionals.

➢ This device contains high-precision parts; therefore, avoid exposing it to extreme temperature or humidity or to direct sunlight, shock and dust. Pharma Supply 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 line 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 AAA batteries (2) are recommended.
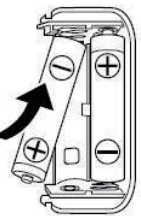
PRECAUTION FOR USE

The Wrist 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 2 - Alkaline (recommended) AAA (3 volt) batteries. To install batteries or replace them if the "Low Battery" symbol appears on display, proceed as follows:
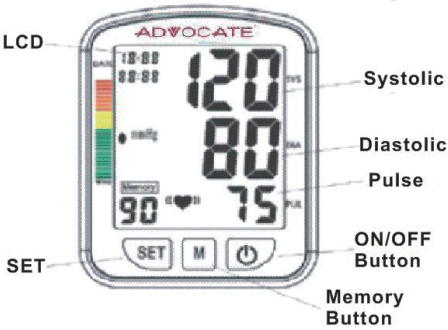
Battery Loading

1. Remove the battery compartment cover by gently pushing down on the arrow and sliding the cover away from the unit.

2. Place batteries with positive "+" and negative "-" terminals into the 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.
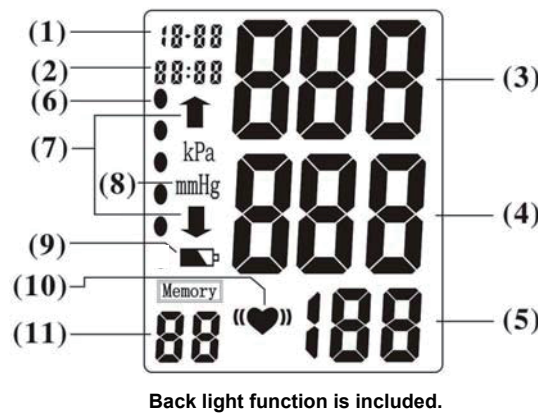
Note:

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

★ Do not use rechargeable batteries (voltage 1.2V). They are not suitable for this product and will damage the monitor and cause inaccurate readings.

★ Remove the batteries if the monitor will not be used for 6 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

LCD
Systolic
Diastolic
Pulse
ON/OFF Button
SET
Memory Button

"SET" Button:
Calendar, Clock Setting
"MEMORY" Button:
Calendar, Clock Adjustments
LCD Display
ON/OFF Button
Systolic Indicator
Diastolic Indicator
Pulse Indicator

LCD DISPLAY

Back light function is included.

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) ACC/AHA BP Classification Indicator*
(7) Inflation / Deflation Indicator
(8) Blood Pressure Measurement Unit
(9) Low Battery Indicator
(10) Irregular Heartbeat Indicator
(11) Memory Record Number

* 2017 American College of Cardiology (ACC)/American Heart Association (AHA)/AAPA/ABC/ACPM/AGS/ APhA/ASH/ASPC/NMA/PCNA Guideline for the Prevention, Detection, Evaluation, and Management of High Blood Pressure in Adults. November 13, 2017.
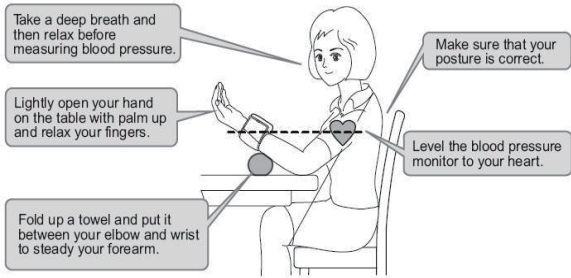
TIPS FOR BLOOD PRESSURE MONITORING

★ 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 wrist.

★ 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 wrist.

TAKING A MEASUREMENT

Correct Posture For Taking Blood Pressure Measurement

★ Make yourself comfortable and sit-up straight.

★ Rest the wrist with the cuff in front of you on the table with your palm facing up. Do not bend your wrist or curl your fingers.

★ Cuff should be at approximately the same height as your heart. Fold up a towel and place it between your elbow and wrist to steady your forearm.
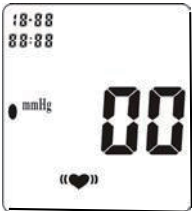

How To Place/wrap The Cuff On Your Wrist?

★ Place the cuff around your bare wrist ½" - ¾" above the wrist joint on the opened-hand (inside) side of the wrist.

★ Keep the cuff at approximately the same level as your heart.

★ Unless your physician recommends otherwise, use the left wrist to measure pressure.

★ The cuff should be snug but not too tight. You should be able to insert two fingers between the cuff and your wrist
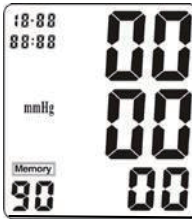

Step-1   Step-2   Step-3   Step-4

TAKING YOUR BLOOD PRESSURE

Once you are in a comfortable position, press the "ON/OFF" button. The device will perform a self verification check. During this verification/check the LCD will display all "8's". At the conclusion of the verification/check the LCD will display "00". The cuff will then inflate, measure your blood pressure and then deflate. The results will then be displayed.

PROGRAMMING DATE, CLOCK AND LANGUAGE

★ While the monitor is turned off, press the "**SET**" button for about 5 seconds, the numbers of the **YEAR** will begin to blink on the LCD display. Press the "**M**" (for memory) button to change the **YEAR**. Each time you press the "**M**" button, it will change one **YEAR** forward.

★ Once the **YEAR** is set up, press and release the "**SET**" button once, the **MONTH** signal will begin to blink. Press the "**M**" button once to change the **MONTH** . Each time you press the "**M**" button, it will change one **MONTH** forward.

★ Once the **MONTH** is set up, press and release the "**SET**" button once. The **DAY** signal will begin to blink. Press the "**M**" button to change the **DAY**. Each time you press the "**M**" button, it will change one **DAY** forward.

★ **REPEAT THIS PROCESS FOR SETTING THE TIME.** Use the "**SET**" button to change (Hours/Minutes) and the "**M**" button will change the numbers forward.

★ After you have set the **YEAR**, **MONTH**, **DAY**, **HOUR**, and **MINUTE** press the "**SET**" button. The "**SP**" in the Lower left corner of the LCD display will begin to blink. This will allow you to set up your preferable language by choosing "01" for ENGLISH, "02" for SPANISH, or "OF" for silent mode.

★ When everything is completely set-up, the monitor will automatically turn off. When you press "on/off" button again, the monitor will activate.
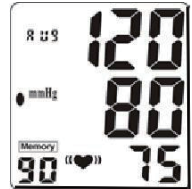
Note: When batteries are replaced, the time and date must be reset.

Note: Time is maintained using a 24 HOUR clock. AM/PM is not displayed.

IRREGULAR HEARTBEAT INDICATOR

If an irregular heartbeat is detected, the **IRREGULAR HEARTBEAT** symbol (♥) will appear and blink in the display screen.

DISPLAYING AVERAGE MEASUREMENT (AUG) AND MEMORY RESULTS

★ Each time you press and release the "**M**" button while the monitor is turned off, the LCD will display the symbol "**AUg**" on the left upper corner of the LCD screen to show the average of the last three measurements recorded; the voice processor will be verbally announced at the same time.

★ To review other results stored in the memory – Press the "**M**" button to scroll through previous measurements. Each time you press and release the "**M**" button the most current result will be displayed. If the "**TALKING**" function is turned **ON**, each result will be verbally announced.

★ **DELETING A MEASUREMENT FROM THE MEMORY**

Press and hold the "**M**" button until all the numbers change to 'ZERO'. All results stored in memory are now deleted.

Note: Date and time settings are not changed by using the memory delete function.

ASSESSING BLOOD PRESSURE FOR ADULTS

The American Stroke Association is a national voluntary health agency to help reduce disability and death from cardiovascular diseases and stroke.

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 healthcare professional for accurate assessment.

AHA Chart:
https://www.heart.org/-/media/files/health-topics/high-blood-pressure/hbp-rainbow-chart-english-pdf-ucm_499220.pdf

SPECIFICATIONS

Model No.:	SPBP-02 (Voice)	**Operation Environment:**	Temperature: 41~104°F Humidity: < 85%RH
Type:	Oscillometric; Automatic air inflation by air pump and automatic deflation	**Storage Environment:**	Temperature: -4~140°F Humidity: < 95%RH
		Classification:	Class II, type B
Measurement Range:	Pressure: 40~280mmHg Pulse: 30~160 Pulses	**Cuff Size:**	290mm (L) x 72mm (W) (+/-5mm)
Accuracy:	Pressure: within ±3mmHg Pulse: within ±5%	**Memory:**	90 measurements including date and time
Power Supply:	3V DC (2 "AAA" batteries)		
Battery Life:	Approx. 250 times (180mmHg, once /day, 71.6°F)	**Dimensions:**	78.0 mm (3.07 inch) (L) 63.6 mm (2.50 inch) (W) 26.9 mm (10.6 inch) (H)
		Weight:	238g (0.52 LB)

TROUBLE SHOOTING 1

Abnormality	Probable Reason	Corrective action
LCD shows Low Battery 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 wrist 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 as 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.
Voice processor	Unclear announcement by voice processor	Batteries may be low. Please install new batteries and then take a measurement again.
Cuff does not inflate	Some interference in inflation or wrong operation during measuring	Refer to the steps in "Taking Your Blood Pressure" and check your pressure 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 manufacture or agent (see the last page).
LCD shows 'Er H'	Inflation over 305 mmHg	
LCD shows "Er 1"	Undetectable pulse	
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 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 serial 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® blood pressure monitor 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; or visit www.AdvocateMeters.com
Tech Support: 1-866-373-2824; info@pharmasupply.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. Wrist Blood Pressure Monitor requires special precautions regarding EMC and should 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 a distance at least d = 10.8 feet (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 = 10.8 feet (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.

— Consult the dealer or an experienced radio/TV technician for help.

GUIDANCE AND MANUFACTURER'S DECLARATION

Guidance and manufacture's declaration – electromagnetic emission

The Wrist Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user should make sure that it is used in the specified environment.

Emission Test	Compliance	Electromagnetic Environment – guidance
RF emissions CISPR 11	Group 1	The Wrist 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 Wrist Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user should make sure that it is used in the specified 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 the floor is covered with synthetic material, the relative humidity should be at least 30%. If ESD interferes with the operation of equipment, counter measurements such as wrist strap, grounding should be considered.
Electrical fast transient/ burst or hospital IEC 61000-4-4	±2 kV for power supply lines ±1 kV for input/output lines	Not applicable	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	Power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC61000-4-11	<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	Power quality should be that of typical commercial or hospital environment. If the user of the TL-100D requires continued operation during power interruptions, it is recommended that the TL-100D be 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. main voltage prior to application of the test level.

Guidance and manufacture's declaration – electromagnetic immunity

The Wrist Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user should make sure that it is used in the specified environment.

Immunity Test	IEC 60601 Test Level	Compliance Level	Electromagnetic Environment – Guidance
Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3Vrms 150 kHz to 80 MHz 3V/m 80 MHz to 2.5 GHz	Not applicable 3V/m	Portable and mobile RF communication 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 rating of the transmitter in watts (W) according to the transmitter manufacturer and is the recommended separation distance in meters (m).
			Field strengths from fixed RF transmitters, are not Applicable. Determined by an electromagnetic site survey, a should be less than the compliance level in each frequency range. b Interference may occur in the vicinity of equipment 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 Wrist Blood Pressure Monitor is used exceeds the applicable RF compliance level above, the Wrist 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 Wrist 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 Wrist Blood Pressure Monitor.

The Wrist 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 Wrist Blood Pressure Monitor can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Wrist Blood Pressure Monitor as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter (WI)	Separation distance according to frequency of transmitter (m)		
	150 KHz to 80 MH $d = 1.167 \sqrt{P}$	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 distanced in meters (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	(person symbol)	Symbol for "TYPE BF APPLIED PART"	(waste bin symbol)	Symbol for "ENVIRONMENT 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"
(factory symbol)	Symbol for Manufacturer	(book symbol)	Symbol for "Follow operating instructions"		
IP22	Symbol for "the IP classification"	(ECG symbol)	**Customer Care Center:** Diabetic Supply of Suncoast, Inc. PO Box 2102, Vega Alta, PR 00692 Toll-free: 1-866-373-2824 www.AdvocateMeters.com		