

Happy to Care  *with Love*

bioland®

**Portable Wrist
Blood Pressure Monitor**

Model: 3006-1

**Portable Wrist
Blood Pressure Monitor**



**OWNER'S
BOOKLET**

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INTRODUCTION

Thank you for purchasing the Portable Wrist Blood Pressure Monitor. This remarkable instrument is ideal for people who frequently monitor their own blood pressure because it's so compact and easy to use. There is no tricky arm cuff, just a small, pre-formed wrist cuff that is easy to apply. With the push of a button the portable wrist monitor measures your blood pressure and pulse and displays the reading on a clear digital panel. Perfect for quick, easy readings at home, at work, almost anywhere!

The Portable Wrist Monitor uses the oscillometric method of blood pressure measurement. This means the monitor detects your blood's movement through the artery in your wrist and converts the movements into a digital reading. An oscillometric monitor does not need a stethoscope so the monitor is simple to use and measurements are easy to obtain.

Clinical research has proven a direct relationship between blood pressure in the wrist and blood pressure in the arm. Changes in wrist blood pressure reflect changes in arm blood pressure because the arteries in the wrist and the arm are connected each other. Frequently measuring the blood pressure in your wrist will provide you and your doctor with an accurate indication of changes in your actual blood pressure.

The product complies with the electromagnetic compatibility requirement of EN60601-1-2 and safety standards of 60601-1 as specified in MDD directive 93/42/EEC.

Please read this instruction manual thoroughly before using the Portable Wrist Blood Pressure Monitor.
For specific information on your own blood pressure, CONTACT YOUR PHYSICIAN.

NOTES ON SAFETY

- * The warning signs and sample icons shown here are listed for your safe and correct use of the unit, so as to prevent injuries or damages to properties.
- * The icons and meanings are as follow.

Examples of signs



The  icon indicates prohibitions (what you should not do). Matters involving actual prohibitions are indicated by text or pictures in or near . The left icon refers to "general prohibition".



The  icon indicates something that is compulsory (What must always be observed). Matters involving actual compulsory actions are indicated by text or pictures in or near . The left icon refers to "general compulsion".



Type BF Applied part



Attention and read before use.



Caution

Self-diagnosis of measured results and treatment Are dangerous. Please follow the instructions of your doctor.

Self-diagnosis may worsen the disease.



Do not use the unit for infants or person who cannot Express one's intention.
May cause accident or trouble.

Do not use the unit for purpose other than Measuring blood pressure.
May cause accident or trouble.



Do not use cellular phone near the unit.
The main unit may operate erroneously.

Do not disassemble, repair, or remodel the main unit or The cuff of the blood pressure monitor.

Will cause the unit to function erroneously.



Requests from Manufacturer

Used batteries may leak and damage the main unit. Please observe the following points.

- * If you are not going to use the unit for a long period of time (approximately three months or more), remove the batteries.
- * Replace worn batteries with their polarities in the correct direction.
- * Do not insert the batteries with their polarities in the wrong direction.

Do not use force to bend or pull the cuff.

Do not knock or drop the main unit.

Do not inflate the wrist cuff when it is not wrapped on the wrist.

Always use the specified accessories in the manual, the use of other parts not approved by the manufacturer may cause hazard.

For service information like circuit diagram, parts list etc., please contact the dealer.

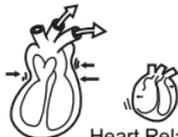
A FEW WORDS ABOUT BLOOD PRESSURE

Blood pressure is the force exerted on the walls of your blood vessels as blood flows through them.



Your heart is like a pump. When it contracts, or beats, it sends a surge of blood through the blood vessels and pressure increases. This is called your systolic pressure.

Heart Contracts
(Pressure Increases)



Heart Relaxes
(Pressure Decreases)

When your heart relaxes between beats, your blood pressure decreases. This is called your diastolic pressure.

When a doctor takes your blood pressure, he or she measures both your systolic and diastolic pressures and records them as numbers. For example, if your blood pressure reading is 126/76 (126 over 76), your systolic is 126 and your diastolic is 76. The numbers are calculated in millimetres of mercury and recorded as 126/76 mm Hg.

Systolic
(Upper Number)

126
/ 76

Diastolic
(Lower Number)

These two numbers provide important information about your health. The more difficult it is for your blood to flow through your blood vessels, the higher both numbers will be. When blood pressure is consistently above normal it is called hypertension (High blood pressure).

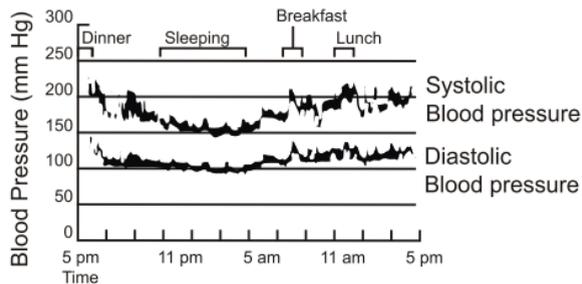
Our new Portable Wrist Blood Pressure Monitor automatically measures your systolic and diastolic blood pressure for you, then displays the results on easy-to-read digital panel!

People with a condition that causes circulatory problems

(diabetes, kidney disease, arteriosclerosis, or poor peripheral circulation) may get lower readings with wrist type monitor than with a blood pressure monitor that is used on the upper arm. Please consult your physician to determine if your wrist blood pressure accurately reflects your actual blood pressure.

Your blood pressure changes constantly. Blood pressure fluctuates from day to day and minute to minute according to your body's needs. For example, when you are exercising or angry your blood pressure increases, but when you are relaxing or sleeping your blood pressure decreases. These fluctuations are completely normal. This portable wrist blood pressure monitor is especially helpful when tracking changes in your blood pressure because it travels anywhere and takes just seconds to use.

Fluctuation Within a Day
(Example: 35-year old male)



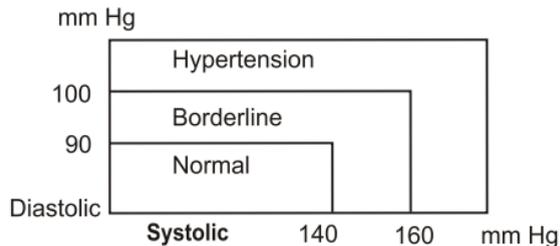
FACTORS THAT MAY CAUSE THE BLOOD PRESSURE TO FLUCTUATE

- * Breathing
- * Exercise
- * Mental stress
- * Worries
- * Environmental and/or temperature change
- * Eating
- * Urination and bowel movement
- * Talking
- * Taking a bath
- * Drinking alcohol
- * Smoking, etc.

Note: One or two readings will not provide a true indication of your normal blood pressure. It is very important to take regular, daily measurements and to keep accurate records. In partnership with your doctor, an accurate record of your blood pressure over a period of time can be a valuable aid in diagnosing and preventing potential health problems.

The World Health Organization (WHO) developed the following Blood Pressure Classification. This classification, however, is only a general guideline because blood pressure varies from person to person according to age, weight, and health status. **CONSULT YOUR PHYSICIAN TO DETERMINE YOUR NORMAL BLOOD PRESSURE.**

WHO Blood Pressure Classification



	Systolic (mmHg)	Diastolic (mmHg)
Normal	less than 139	less than 89
Borderline	140 to 159	90 to 99
Hypertension	more than 160	more than 100

Note: There is not an universally accepted definition of hypotension (low blood pressure), but a systolic pressure below 99 mmHg is usually regarded as hypotension.

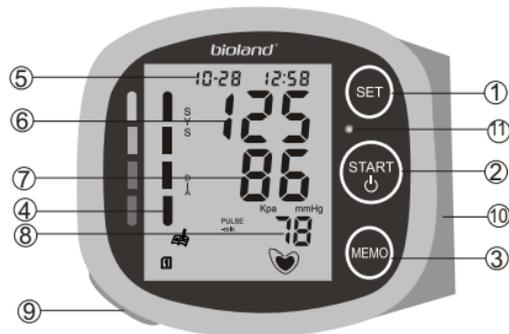
PRECAUTIONS BEFORE USE

1. Do not confuse self-monitoring with self-diagnoses. Blood pressure measurements should only be interpreted by a health professional who is familiar with your medical history.
2. If you are taking medication, consult with your doctor to determine the most appropriate time to measure your blood pressure. NEVER change a prescribed medication without first consulting with your doctor.
3. For people with irregular or unstable peripheral circulation problems due to diabetes, liver disease, hardening of the arteries, etc., there may be fluctuation in blood pressure values measured at the upper arm versus at the wrist.
4. This device is designed for adults to use. If use this device on a child patient, old people or toddlers, consult with your physician or measure with relative aid.
5. Measurements may be impaired if this device is use near televisions, microwave ovens, X-ray mobile phone equipment or other devices with strong electrical fields. To prevent such interference, use the meter at a sufficient distance from such devices or turn them off.
6. This device is not suitable for disease diagnoses, urgent treatment, continuous monitoring during medical emergencies or operations.

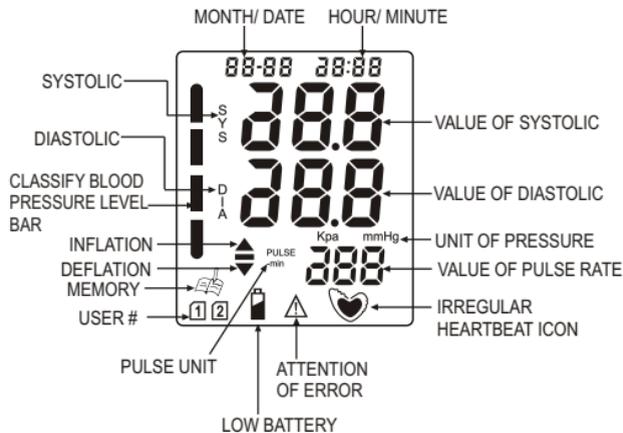
7. Before using, should wash your hand.
8. If there is overmuch pressure or you feel uncomfortable, please press "POWER" button immediately for quick deflation.

MAIN UNIT

- | | |
|---------------------------------------|-----------------------------|
| 1. SET Button | 5. Date and time display |
| 2. Power On/Off and Start Button | 6. Systolic blood pressure |
| 3. Memory button | 7. Diastolic blood pressure |
| 4. Classify Blood Pressure Level bars | 8. Pulse/min. |
| | 9. Battery cover |
| | 10. Wrist cuff |
| | 11. Touch indicator |



SYMBOLS ON DISPLAY



ACCESSORIES PARTS



2 "AAA" alkaline batteries



Store Box

FEATURES OF THE PRODUCT

1. Using the fuzzy-logic measurement.
2. 2-User Memories store up to 100 measurements. (50/person)
3. Measuring of Systolic, Diastolic and Pulse Rate.
4. Large and clear display with Date/Time calendar.
5. Fan-shaped wrist cuff that is easy to wrap.
6. Classify Blood Pressure Level Indicator according to WHO.
7. Irregular Heartbeat Detection (IHD).
8. Blood Pressure Data average for last 3 measurements.
9. Automatically power off (within 2.5 minutes) to save power.

BATTERY INSTALLATION & REPLACEMENT

1. Slide the battery cover off as shown in figure.

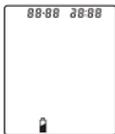


2. Replace the battery cover.



Note:

- * If the Low Battery Indicator appears on the display, replace both batteries. Long-life alkaline batteries are recommended.
- * Remove the batteries if the monitor will not be used for an extended period of time.
- * With the use of two alkaline "AAA" batteries, you can measure approximately 250 times at room temperature of 22°C and inflating to around 170mmHg once a day. But the included batteries only for test purpose, it may not last as specified long period.
- * When the battery icon flashing, the device will turn off automatically. Please replace with new batteries immediately.



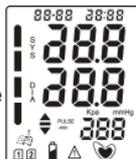
Disposal of empty battery to the authorized collecting party subject to the regulation of each individual territory.

DATE & TIME SETTING and MEMORY DELETION

1. Touch and hold "SET" button until the Year number starting flashes on LCD to release button to enter the setting mode.
2. Touch the "MEMO" button to adjust the Year, with correct year on display to touch "SET" again then Month number is flashing.



3. Touch the "MEMO" button to adjust the Month with correct month on display to touch "SET" button again then Date number is flashing. Following the same steps to adjust Date/Hour/Minute until "mmHg" or "Kpa" is flashing.
4. Touch "SET" button to select the "mmHg" as the unit of measurement, touch "SET" button again, then display "CLr All" and "no" is flashing.
5. Touch "Memo" button to select "no" (keep the memory) or "yS"(to delete all memory), and touch "SET" button to confirm the selection then meter turned off for completing all setting.



Note:

- a. Select "yS" (yes) will delete all memory in both users. To retain the memory, please select option "no".
- b. Please check and re-set Date/Time after replacing of new batteries.

HOW TO APPLY THE WRIST CUFF

1. Put off your watch and any jewel from your left hand.



2. Hold your left wrist with your palm facing up, apply the cuff so that the display of monitor is in easy to view.
3. The cuff's edge should be approximately 1/2 to 3/4 inch (1~2cm) from your palm.



4. Wrap the cuff snugly around your wrist, the top and bottom edges of the cuff should be tightened evenly around your wrist and lower arm.

5. When the cuff is positioned correctly, secure it in place by pressing the pile material firmly against the sewn hook material.



6. Sit in a chair with your feet flat on the floor and place your left arm on a table with your palm facing upward. The cuff should be at the same level as your heart.



Note: Your heart is located slightly below your armpit.

7. If the cuff is not at the same level as your heart or if you cannot keep your wrist completely still throughout the measuring, use the store box or other soft object to support your wrist.

A FEW SUGGESTIONS BEFORE BLOOD PRESSURE MEASUREMENT

1. Avoid eating, smoking, and exercising for at least 30 minutes before taking a measurement. Also rest for at least 15 minutes before taking a measurement.
2. Stress raises blood pressure. Avoid taking measurements during stressful times.
3. The cuff should be applied on your left wrist.

4. Measurement should be taken in a quiet place and you should be relaxed, seated position. Rest your left arm on a table so that the cuff is at the same height level as your heart.



5. Remain still and do not talk during the measurement.

6. Keep a record of your blood pressure and pulse for your doctor. Remember, a single measurement does not provide an accurate indication of your true blood pressure. You need to take and record several measurements over a period of time. Try to measure your blood pressure at the same time each day for consistency. Blood pressure measurements fluctuate considerably.

7. Wait 5-10 minutes between successive measurements. Waiting allows the engorged blood vessels to return to normal. You may require more rest time depending on your individual physical conditions

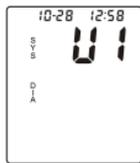
HOW TO TAKE A MEASUREMENT

Please read "A few suggestions before blood pressure measurement" and "How to apply the wrist cuff" before taking a measurement.

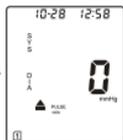
1. Taking measurements while sitting down

- 1) Place your elbow on a table and apply the device to wrist.
- 2) Using the store box or other object as a support Position your wrist at heart level .

- 3) Relax your hand and keep palm facing up.
- 4) Touch the "START" button, all icons appear two seconds on display, then flashing of "U1" or "U2".



- 5) Touch "MEMO" button to select the user of memory location within 3 seconds while it is flashing.



- 6) Device will automatic start measurement within a few seconds. The pressure in the cuff will automatically inflate. When the value on LCD increase to around 150~200mmHg, and start to deflation until measurement completed, and display results on LCD.
- 7) After measurement the screen will display systolic, diastolic, and pulse/min value. Meanwhile, it will auto. Store the measured results into user's memory.

Level indicator-

- One bar for Systolic below 99 mmHg
- Two bars for Systolic between 100 ~ 139 mmHg
- Three Bars for Systolic between 140 ~ 159 mmHg
- Four bars for Systolic above 160 mmHg

Irregular Heartbeat Detection(IHD)-

During measurement, if the sensor detects more than twice of Heartbeat out of 25% tolerance to your average Heart rate, the display will turn on Irregular Heartbeat icon .



- 8) Touch "START" button to turn off the unit.



Note:

- * The value measured will be too low if you hold your hand higher than your heart lever or too high if you hold your hand lower than your heart lever.
- * Do not bend your wrist inward.
- * The unit may store up to 50 measurements per user, if more than 50 records, it will only store latest 50 memories. (Total 100 memories for 2 users)
- * During measurement avoid speaking and body/hand shaking which may affect the accuracy of record.
- * During measurement process, If you want to stop, just press the power button to stop.

RECALLING MEMORY

1. Touch "MEMO" button, display with "U1" or "U2" flashing, touch "Memo" button again while it is flashing to select user U1 or U2 , you are going to review.



- Device display last 3 measurement data average within few seconds and total number of memory inside that user.



- Touch "MEMO" to review the memory. Repeated press "Memo" button to review memory data in ascending order.

Note:

- To delete all memory, please refer to the Page 13/14 point 5 for details.
- If there is no memory, it will display "--" and then turned off automatically.

HOW TO MAINTAIN AND STORE THE UNIT

- Use a dry, soft cloth to clean the unit. If necessary, use a cloth lightly dampened with tap water.



- Do not use alcohol, benzene, thinner or other harsh chemicals to clean the device or cuff.



- Before measuring please wash your hand. Do not wash or wet the wrist cuff.



- Store the unit in places far from direct sunlight, high humidity or dust.



- Fold the pressure cuff and put the unit into the store box.



Note:

When the unit will not be used for a long time, be sure to remove the batteries. Otherwise, the batteries may leak and damage the unit.

HOW TO PREVENT A MALFUNCTION

- Do not drop the device and avoid and avoid sudden jars or shocks.
- Do not insert any objects into any holes.
- Do not attempt to disassemble the unit.
- Do not crush the pressure cuff.
- If the unit has been stored at below 0°C, put it in a warm place for about 30 minutes before using it. Otherwise, may get wrong measurement result.

SPECIFICATIONS

Measuring Method	Oscillometric System
Indication	Digital LCD Display
Measuring Range	Pressure: 0~300 mmHg; Pulse: 40~199 Beat/min.
Accuracy	Pressure: +/- 3 mmHg; Pulse +/- 5 %
Inflation	Electric Pump Inflation
Deflation	Pressure Release Valve
Memory	100 Memories (50/user)
Power Source	1.5V "AAA" x 2 Alkaline Batteries
Battery Life	Approx. 250 Times (Once a Day, Room Temperature 22°C)
Working Temp. & Humidity	41~104°F(5~40°C), 30~85% RH
Storage Temp. & Humidity	-4~140°F (-20~60°C), 10~95% RH
Outside Dimensions	75mm(W) x 68mm(D) x 30mm(H)
Weight	Approx. 129g (Apparatus and Battery)
Accessories	Wrist cuff (Fit size 13.5-19.5cm) Instruction Manual Storage case
Operation Voltage	3V DC

* Specifications may be changed Without notice in the event of Improvement being made.

TROUBLESHOOTING

If you have trouble while using the unit, please check the following points first.

ERROR DISPLAY	POSSIBLE CAUSE	HOW TO CORRECT
Nothing is displayed when you push the POWER button or battery icon flash	No battery installation	Insert batteries
	Battery worn out	Replace new batteries
	The polarities of batteries placed wrongly	Insert battery in the correct polarities
E1: Can't normally increase pressure	Check your cuff if any air leakage	Replace wrist cuff with new one
E0, E2, E7, E8, E9 Measurement failure	Wrist cuff not properly adjust or placement, hand or body shaking.	Renew adjust wrist cuff position and tightness, and keep hand still
E3: Inflate pressure too high		Re-measurement or send back dealer for re-calibrate pressure
E4: Have shaking while measurement	Hand or body shaking while measurement	Keeping static and correct gesture to measure again
E5: Automatically pressure release too fast	Cuff too tight	
E6: Automatically pressure release too slow	Cuff too loose	Readjust cuff and measure again
"  " Battery icon on	Battery low power	Replace battery, and measure again
The systolic pressure value or diastolic pressure value too high	1. The hand with the cuff was held lower than your heart	Keeping correct position and gesture to measure again
	2. The cuff was not attached properly	
	3. You moved your body or spoke during measurement	
The systolic pressure value or diastolic pressure value too low	1. The hand with the cuff was held higher than your heart	
	2. You moved your body or spoke during measurement.	