

USER MANUAL

Smart Arm Blood Pressure Monitor

Simple Operation

High Measuring Accuracy

Model Name : BP4.0

Brand Name : NantLife

FCC ID: OXJBP40



NantLife

NantLife

Smart Arm Blood Pressure Meter

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1.1 Introduction

Thank you for purchasing the NantLife Smart Blood Pressure Monitor.

Your new digital blood pressure meter uses the oscillometric method of blood pressure measurement. This means the monitor detects your blood's movement through your brachial artery and converts the movements into digital reading.

With its unique wireless integrated technology, the NantLife Smart Blood Pressure meter enables you to perform first-class, comfortable and extremely gentle blood pressure measurements. You have chosen the most up-to-date form of healthcare management. Measured values are transmitted automatically to a secured database via a Bluetooth-enabled mobile phone and/or the HBox® hub.

Choose between 2 basic configurations:

- 1) **Smart Medical Home** with **NantLife HBox®**
- 2) **Mobile Health** with your Bluetooth-enabled smartphone or Bluetooth-enabled tablet

The NantLife Smart Blood Pressure Monitor comes with the following components:

- **Monitor with LCD display**
- **Standard Adult Cuff**
- **User Manual**
- **Quick User Guide**
- **Warranty card**

Thank you for your trust; we are available at any time for service and product questions.

More information at: www.NantLife.com

1.2 Intended Use

- NantLife Smart Blood Pressure Monitor is intended for home monitoring of blood pressure and pulse.
- NantLife Blood Pressure Monitor is not intended to be a diagnostic device.
- Never change your medication on the basis of results you have obtained. The evaluation of the measurements and the treatment based on them may only be carried out by the treating physician.
- This device is intended for use in measuring blood pressure and pulse rate in the adult population. Do not use this device in infants or person who cannot express their intention.

1.3 Safety Information

To assure the correct use of the monitor, basic safety measures should always be followed including the warnings and cautions lifted in this instruction manual.

1.3.1 Operating the device - WARNINGS !

Read all of the information in the instruction manual and any other instruction in the box before operating the unit.

**If you experience discomfort during a measurement:
Press the inside button to deflate the cuff immediately.**

Remove the cuff and stop using the monitor.

Please contact our Customer Service at support@NantCare.com

in addition, please note:

- If you suffer from heartbeat irregularities, you should consult your doctor about whether blood pressure monitoring with the NantLife blood pressure meter is appropriate for you. Self-diagnosis and treatment using measured results may be dangerous. Follow the instructions of your physician or licensed healthcare provider.
- Please also consult your doctor if you are taking anticoagulants (e.g. Marcumar, Coumadin, aspirin)
- To produce precise readings, the device should be placed on a hard and leveled surface. The cuff should be fixed around the bare upper left arm
- The device is suitable by default for standard adult upper arm with a circumference of 25-35 cm [9.84 - 13.77 inches] when using the default cuff, more sizes are available at www.NantLife.com:
 - 33-47 cm [12.99 - 18.5 inches] when using for Large Adult.
- The custom large adult and small adult cuffs can be obtained directly from the NantLife website.
- Do not under any circumstances use the device in the bath or the shower. If, however, liquid gets into the device, you must remove the batteries immediately and refrain from further use. Contact our service department (see page 17).
- The device may not be used near a nuclear magnetic tomographic resonance.
- Using components that are not part of the scope of delivery can produce faulty measurements (Exception: battery replacement).
- DO NOT subject the monitor to strong shocks such as dropping the unit on the floor.
- DO NOT damage the batteries. If battery fluid gets in your eyes, immediately rinse with plenty of clean water and contact a physician immediately.
- Keep away from source of fire and/or heat.
- Store the device in a clean, safe location.
- DO NOT disassemble the blood pressure meter or its accessories.
- DO NOT use the blood pressure meter in the proximity of a MRI or CT.
- DO NOT use the blood pressure meter in the presence of flammable anesthetics.
- Explosion hazard: DO NOT use the blood pressure meter in an explosive atmosphere.
- Chemicals from LCD display panel are toxic if ingested. Use caution if the blood pressure meter display screen is broken.
- The blood pressure meter is intended only as an adjunct in patient assessment. It must be used in conjunction with other methods of assessing clinical signs and symptoms.
- Check the blood pressure meter cuff application site frequently to determine skin sensitivity of the patient.
- Prolonged use or the patient's condition may require changing the site periodically. Change arm and check skin integrity, circulatory status.
- Use only 1.5V AA alkaline batteries with this device. Other type of battery may damage the unit.
- Follow local ordinances and recycling instructions regarding disposal or recycling of the device components, including batteries.
- Only the authorized service personnel can repair this device.

1.3.2 Cautions

- Excessive user movement may cause inaccurate readings
- All NantLife devices are designed to be compliant with rules and regulations in locations they are sold and are labeled as required.
- Any changes or modifications to NantLife equipment, not expressly approved by NantLife void the user's authority to operate the device.
- Autoclaving, ethylene oxide sterilizing, or immersing the blood pressure meter in liquid may cause inaccurate measurements.

1.4 Before taking a Measurement

General information about blood pressure

Your blood pressure fluctuates throughout the day. The American Heart Association (AHA Scientific Statement 2004) recommends the following guideline for upper limit of normal blood pressure readings:

Systolic Blood Pressure 135 mmHg*

Diastolic Blood Pressure 85 mmHg*

* Your doctor should evaluate unusually low and high blood pressure readings.

If you monitor your blood pressure regularly, you will discover more about your body's reactions to external influences (e.g. stress or exercise), and you will be able to consciously develop a healthier lifestyle.

Your healthcare providers want to get an accurate picture of your blood pressure and chart what happens over time. Starting at age 20, the American Heart Association recommends a regular blood pressure screening.

Your doctor will evaluate the data you have stored, once you share it with her/him, and will immediately have a better overview of the course of your blood pressure measurements. You will be controlling and supporting the monitoring of your doctor's treatment.

To ensure a reliable reading follow these recommendations:

- Avoid eating, drinking alcohol, smoking, exercising, and bathing for more than 30 minutes before taking your measurement. Rest for 15 minutes before taking the measurement.
- Do not take measurement during stressful times.
- Remove tight-fitting clothing from the arm.
- Remain still and do not talk during measurement.
- Try to measure your blood pressure at about the same time every day for consistency.
- Wait 3 minutes between measurements to allow the arteries to return to normal condition.

2.1 Know your NantLife Blood Pressure Monitor



Removable Top Cover

Air Jack - Air Plug

Button

LCD display

Note: the battery compartment is located at the bottom of the Blood Pressure Monitor

Caution: Substitution of a component different from that supplied might result in measurement error.

Systolic Blood Pressure Value



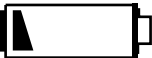

Wireless Signal Indicator

Battery Level Indicator

Pulse Value Display

Diastolic Blood Pressure Value

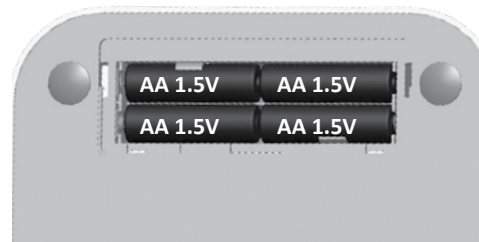
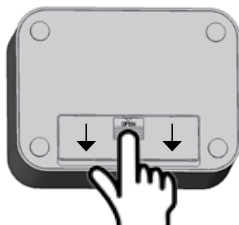
2.3 Display Symbols

Symbols	Operation	Measure/Solution
SYS (mm/Hg)	Displays systolic value	Upper value
DIA (mm/Hg)	Displays diastolic value	Lower value
PULSE (1/min)	Displays pulse	Pulse rate per minute
	Batteries indicator, empty	Replace all the batteries
	Mobile Wireless Data Transmission	See page 10
ER (#)	Error Message	See page 12

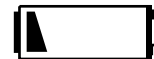
2.4 Batteries Installation

NOTE: Batteries are not included

1. Press down the ▼ indicator on the battery cover and slide the cover off in the direction of the arrow.
2. Install the 4 “AA” batteries so the + (positive) and the – (negative) match the polarities of the compartment.
3. Replace the battery cover



2.5 Batteries Replacement



When the low battery indicator appears on the display screen, turn off the monitor and remove all the batteries. Replace with 4 new “AA” 1.5V alkaline batteries.

WARNING: If battery fluid gets in your eyes, rinse with plenty of clean water and contact a physician immediately.

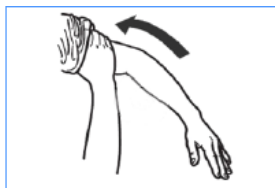
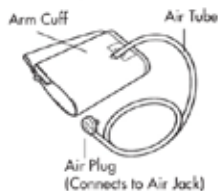
CAUTION: Dispose of the device and empty batteries according to applicable local regulations.

Unlawful disposal may cause environmental pollution.

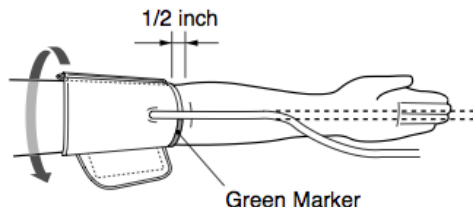
2.6 Applying the Arm Cuff

CAUTION: Read all the information in the instruction manual and any other documents in the box before operating the unit.

1. Open the top cover of the NantLife Blood Pressure Monitor
2. Gently, take the cuff out of the compartment
3. Make sure the air plug is securely inserted into the air jack



4. Remove clothing from your upper (preferably left) arm
5. Apply the cuff to your arm so the arrow is centered on the inside of your arm and aligned with your middle finger. The air tube runs down the inside of your arm. The bottom edge of the cuff is approximately ½" above your elbow joint (2cm)



6. Wrap the cuff firmly in place using the closure strip
7. Keep your arm very still during the measurement

Notes: Be careful not to rest your arm on the air tube. This will restrict the flow of air going to the cuff.

2.7 Taking a Measurement

Sit in a chair with your feet flat on the floor, place your arm with the cuff on a table or on your lap so the cuff is level with your heart. Relax your arm.



1. Start the NantLife Blood Pressure Monitor by pressing the button once. The NantLife logo will appear on the screen and stay for 2 seconds, then 00 values will appear for 10 seconds.
2. Press the button a second time to start the measurement.



3. The cuff starts to inflate automatically. As the cuff inflates, the monitor determines your ideal inflation level. The monitor detects your blood pressure and pulse rate during inflation. The cuff deflates automatically.

4. After a successful measurement, the display will show like the example on the right.



5. The measurement is stored and sent automatically to your virtual Health Diary. You can access your data by login in the Nantlife portal or by using the NantLife Application on your smart mobile devices (Bluetooth enabled phones and tablets only).

6. The monitor will automatically turn off 10 seconds after sending the data through Bluetooth signal, or after 1 minute when it cannot find a Bluetooth connection.

Notes: To STOP the inflation or measurement, press the button. The monitor will stop inflating, start deflating and turn off.

2.8 Bluetooth Activation

First, set up your mobile phone or tablet to receive data by Bluetooth (see your smart mobile phone or tablet user guide). If your phone is already activated, go to 2.9 to pair the device with your phone or tablet.

2.9 Bluetooth Pairing

Before readings can be transmitted via your mobile phone, tablet or via the HBox®, the NantLife Blood Pressure Monitor needs to be paired to your device or to the NantLife HBox® hub. (If NantLife has already prepared the pairing of the device, go directly to 2.10 for “Data Transmission” instructions.

Pairing with SmartPhones and/or Tablets: 3 easy steps

Step 1: Press the button to turn on the Blood Pressure Meter.
The screen turns on. The device is activated.

Step 2: Start the NantLife Application and hit the “Scan” button

Step 3: When the blood pressure icon is highlighted on the smartphone screen, select it to pair.

Caution: Your mobile phone must have wireless Bluetooth Low Energy capability. While performing the measurements you must be close to the monitor (max.10 meters [32 feet] away). You can find more information on pairing at www.nantlife.com

Pairing with HBox®: 3 easy steps

Step 1: Press the button to turn on the Blood Pressure Meter.
The screen turns on. The device is activated.

Step 2: Plug the HBox® in a wall electrical outlet.

The HBox LED green light turns on.

Step 3: Gently tap to pair the activated blood pressure meter to the HBox®. The LED yellow light of the HBox will flash or a music will play to confirm pairing.

2.10 Data Transmission

The measurement results saved in the blood pressure meter are transmitted automatically to the Bluetooth® enabled smartphone and/or the HBox®.

The models of transmission include Realtime Bluetooth® transmission and Non-Realtime Bluetooth® transmission. After each blood pressure measurement, the reading is transmitted automatically. The wireless sign flashes quickly on the blood pressure monitor screen showing good transmission.

2.11 Using the Portal software and the NantLife Application

NantLife Health Management Software and Application allow you to connect, control and share your blood pressure readings with the persons of your choice on a secured Healthcare dedicated platform. Your Health Diary is accessible through the NantLife portal and through NantLife Applications.

You can access NantLife portal at www.NantLife.com and/or download for free the NantLife application from the Apple store and Android Apps stores.



NantLife application screens examples

2.12 Evaluation by your care provider

Your blood pressure measurements are stored in your NantLife health diary.

You can share them with care providers, family members, etc. For more information on the benefits of sharing, please go www.NantLife.com.



NantLife web based portal example

3 Care and Maintenance

3.1 Cleaning

If required, wipe the plastic casing with a damp cotton cloth only. Do not use abrasive or volatile cleaners.

Important Note: The NantLife blood pressure meter cuff cannot be washed or dry-cleaned.

Contact us at www.NantLife.com for part replacement.



3.2 Maintenance

Store the cuff inside the Smart Blood Pressure compartment when not in use.

Do not forcefully bend the arm cuff and air tube. Do not fold tightly.

Remove the batteries if the unit will not be used for three months or longer.

Use the unit in a manner that is consistent with the user guide manual provided.

4 Troubleshooting

4.1 Error Indicators

Error code	Cause	Solution
Er 1	Movement Impaired reading -	Keep your arm still and repeat the measurement. Do not talk during measurement. Refer to page 9
Er 2	Cuff not applied correctly	Putt on cuff correctly (See page 9) and repeat the measurement
	Air plug disconnected or air leaking.	Insert the air plug securely into the air Jack. (see illustration on section 2.1 page 7)
	Clothing is interfering with the cuff	Remove clothing interfering with the cuff
Er 3	Cuff was inflated at about 295mmHg	Device automatically stop inflating and exhausting. Repeat measurement DOES NOT MAKE SENSE TO ME and Average user

4.2 Troubleshooting tips

Description of the Problem	Solution
During the measurement, pressing the button once does not stop the measurement immediately and the cuff does not immediately deflate	Open the cuff, remove the batteries and DO NOT use the device. Contact the service department
The button is pressed but the measurement does not take place. The pumping does not start or stop prematurely.	Check the batteries and replace them if necessary
No symbols appear on the screen	Check the batteries and replace them if necessary
Battery symbol appears on the screen	Replace the batteries
Battery symbol flashes on the screen	Replace the batteries
Measurement values appear too high or too low	<p>Blood Pressure varies constantly. Factors like stress, time of the day, how you wrap the cuff can affect your blood pressure. Review the section "Before taking a measurement" and "Taking a measurement"</p> <ul style="list-style-type: none"> a. Verify that the cuff is placed correctly. Refer to 4.3 b. Check that you have the correct size for the cuff c. Keep your arm still during the measurement <p>Repeat measurement after corrections above</p>

5 Warranty

1. NantLife guarantees the blood pressure monitor excluding the arm cuff for one year from date of sale. The arm cuffs are warranted to be free from defects in material and workmanship appearing within **one year** from the date of purchase when the monitor is used in accordance with the instructions provided with the monitor. Proof of purchase must be supplied in the form of a correctly completed guarantee card or a receipt. Include a \$5.00 for return shipping and handling. Include a letter with your name, address, phone number, and description of the problem. Pack the product carefully to prevent damages during transportation.
2. Defects due to faulty material or workmanship will be repaired free of charge during the warranty period.
3. The warranty period is not extended as a result of warranty services being provided, either for the devices as a whole or for any components. The warranty excludes:
 - Any damage caused by improper use, e.g. through failure to observe the operating instructions,
 - Damage caused by maintenance or interventions carried out by the purchaser or unauthorized third parties
 - Damage resulting from transport, either from the manufacturer to the consumer, or on the way to the customer services.
 - Component parts subject to normal wear and tear (cuff, batteries etc.)
4. Liability is excluded for direct or indirect damage caused by the device, even if the damage to the device falls within the terms of the warranty
5. The warranty extends only to the original retail purchaser.
6. Unauthorized modification of the warranty card invalidates it
7. NantLife shall not be liable for loss of use or any other incidental, consequential or indirect costs, expenses or damages.
8. To obtain warranty service contact NantLife for the address of the repair location.

Call 1-855-626-8227 or visit our website at www.NantLife.com

For Customer Service

Visit our website at www.NantLife.com

Call toll free at 1-855-NANTCARE - 1-855-626-8227

**Complete your Health Monitoring with
a full range of NantLife Wireless Medical Devices**

Smart Body Scale



**HCube
3 in 1**



**Smart Ear
Thermometer**



**Smart Pulse
Oximeter**



**HPod for
Glucometer**



HBox Hub



6 Specifications

Model	BP 4.0		
Measuring Range	Systole (SYS)	70 to 260 mmHg	
	Diastole (DIA)	30 to 180 mmHg	
	Pulse (PULSE)	40 to 199 (1/min)	
Operating Temperature	+ 10°C to + 40°C		+ 50°F to + 104°F
Operating Humidity	15 to 90% RH		
Storage Temperature	-20°C to 60°C		-4°F to + 140°F
Storage Humidity	15 to 95% RH		
Indicating Range	Pressure : 20 to 280 mmHg Pulse: 40 to 199 beats per minute (1/min)		
Accuracy	Pressure: ± 3 mmHg or 2% of reading Pulse: $\pm 5\%$ of reading		
Measuring Method	Oscillometric method		
Default Cuff Size	Upper arm circumference:	25-35cm	9,5"to12,6"
Cuff Tube Length	35 7/16" (600mm)		
Inflation	Automatic by electric pump		
Deflation	Automatic rapid deflation pressure		
Pressure Detection	Resistive semi-conductor pressure sensor		
Pulse Wave Detection	Resistive semi-conductor pressure sensor		
Air Release	Automatic exhaust valve		
Memory capacity	10 records in EEPROM when data cannot be transmitted		
Display	Liquid crystal display (LCD)		
Operating elements	One button inside the main compartment with square symbol		
Data transmission	Bluetooth Class II – Bluetooth Class 4		

Power supply	4 alkaline 1.5V AAA batteries
Battery Life	Approximately 300 uses starting with new alkaline batteries when inflated to 170mmHg at 73°F (23°C) with standard adult cuff
Unit dimensions	185mm x 138mm x 100mm 7.3" x 5.4" x 4"
Weight	980g (34.5oz) not including batteries

Note: These specifications are subject to change without notice.

7 Manufacturer

Manufactured by NantCare LLC - Made in China
 Distributed by NantCare LLC dba NantLife
 2929 N 44th Street - Phoenix, Arizona 85018
 Toll free phone 1-855-NANTCARE www.NantLife.com

The manufacturer has calibrated the device for a period of two years. Metrological inspection and adjustment must take place of two years. Metrological inspection and adjustment is subject to a fee and can be carried out by NantLife, a responsible authority, or an authorized maintenance service.

NantLife certifies that: (SP10) we need to choose depending on the type of evaluation we did. VI

For devices validated against indirect cuff/stethoscope, trained-observer auscultation, the statement shall be worded in the following or substantially equivalent language: "Blood pressure measurements determined with the NantLife Blood Pressure Monitor are equivalent to those obtained by a trained observer using the cuff/stethoscope auscultation method, within the limits prescribed by the American National Standard, Electronic or automated sphygmomanometers." OR

For devices validated against intra-arterial measurements, the statement shall be worded in the following or substantially equivalent language: "Blood pressure measurements determined with the NantLife Blood Pressure Monitor are equivalent to those obtained by an intra-arterial blood pressure measurement device, within the limits prescribed by the American National Standard, Electronic or automated sphygmomanometers."

OR BOTH For devices validated against both methods, these two statements may be combined.

The NantLife Smart Blood Pressure Monitor meets the relevant provisions of the Council Directive 93/42/EEC of 14 June 1993 concerning medical devices.

The measuring accuracy meets the requirements of the European Society of Hypertension (ESH) and British Hypertension Society (BHS).
 Stolberg, October 2008

KNOW YOUR MONITOR

INSERT BATTERIES

BOX CONTENTS

1 USER GUIDE

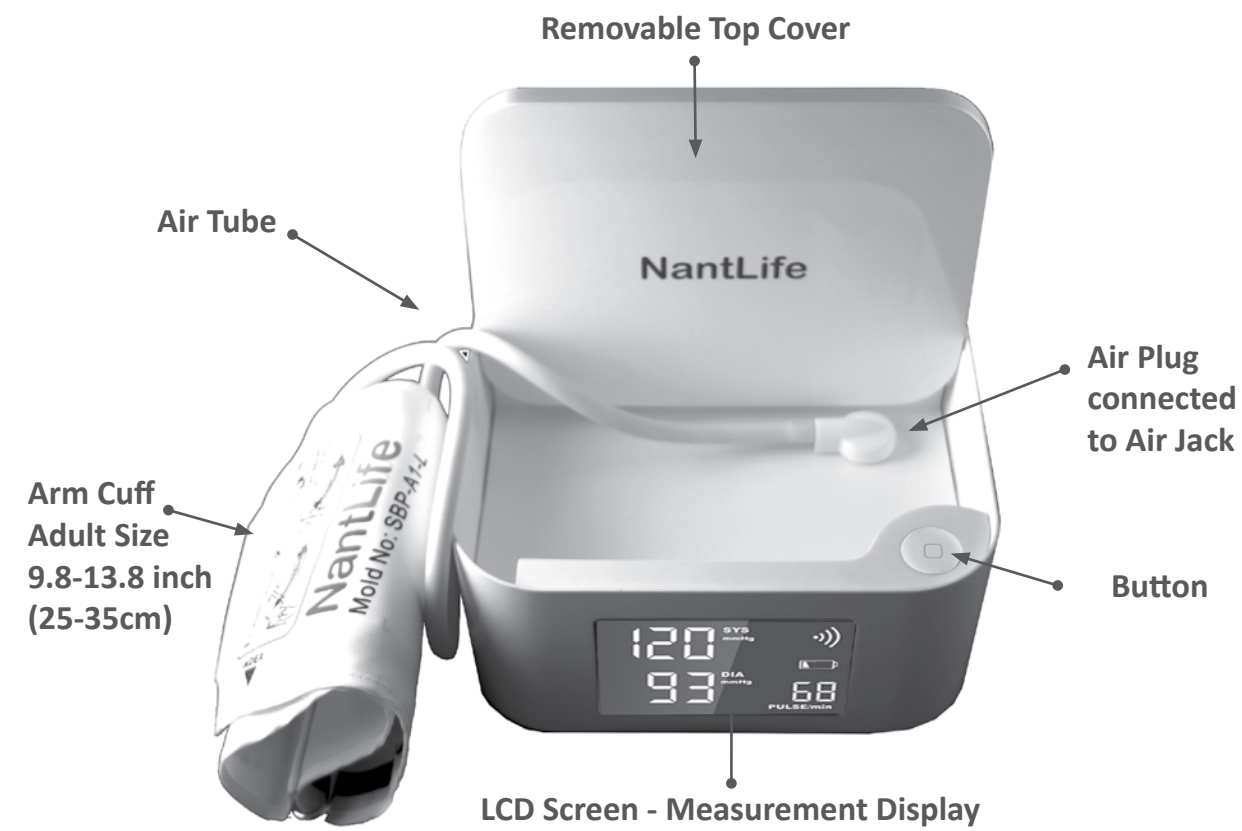
1 USER MANUAL

1 BLOOD PRESSURE MONITOR

1 ARM CUFF WITH TUBE AND AIR PLUG

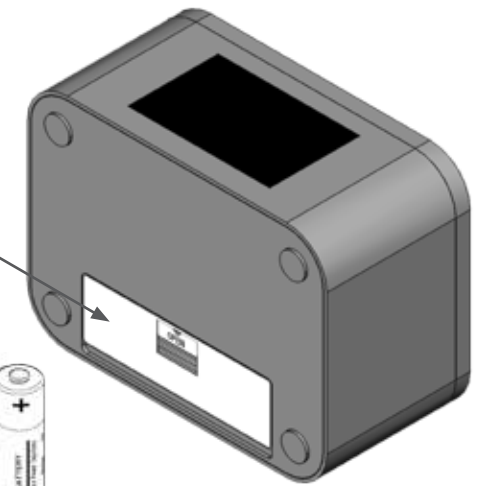
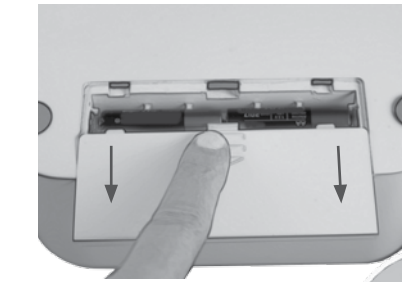


2



3

- Install 4 "AA"1.5V batteries in the compartment at the bottom of the monitor
- To open, slide the compartment cover following the arrow



- Follow the polarity signs in the compartment when placing the 4 batteries
- Close the compartment

OPEN THE TOP COVER

APPLY THE CUFF TO YOUR ARM

TURN THE MONITOR ON

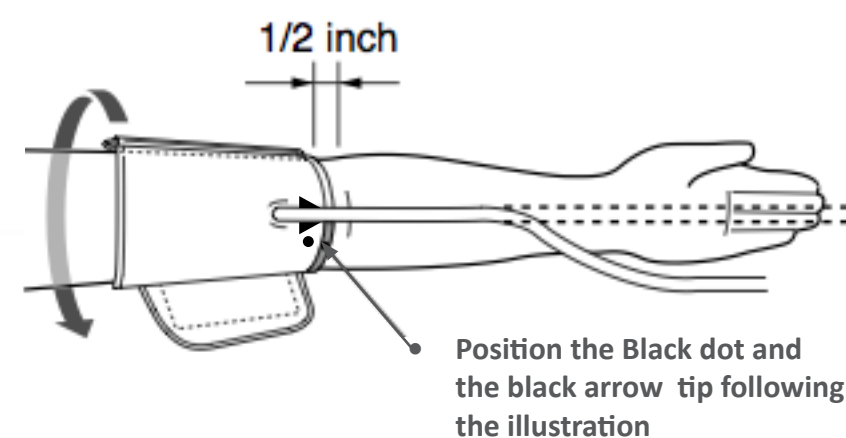
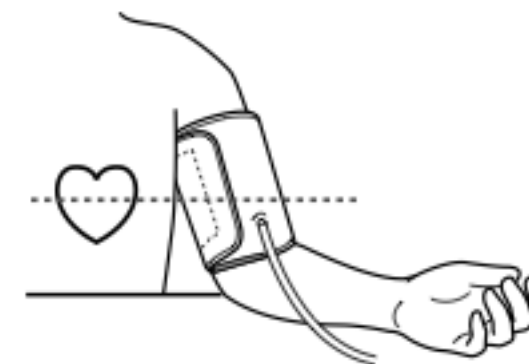
4



- Open the top cover to access the Arm Cuff and the Button
- Make sure the Air Plug is plugged tightly into the Air Jack inside the monitor

5

- Sit in a chair with your feet flat on the floor
- Place your arm with the cuff on a table or on your lap so the cuff is level with your heart
- Relax your arm.



6



- Turn the Blood Pressure Monitor on by pushing the Button once
- The screen turns on
- Then the screen shows zero values as in the illustration above

Note: the monitor will turn off after 20 seconds of inactivity

TAKE YOUR MEASUREMENT

READ YOUR MEASUREMENT

SUPPORT

7

- Push the Button a second time to start your measurement
- Keep your arm still
- The Arm Cuff starts to inflate automatically
- The monitor determines your ideal inflation level and stop automatically when that level is reached



Warning:
If you experience any discomfort:
- Push the button another time to deflate the cuff immediately.
- Remove the cuff from your arm.
- Stop using the device and contact our customer support at support@NantCare.com or call us at 1-855-NANTCARE

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- After a successful measurement, the display shows like the example below:

Systolic Blood Pressure Value



Diastolic Blood Pressure Value

Wireless Signal Indicator

Battery Level Indicator (will only show if batteries are empty)

Pulse Value Display

- The monitor will automatically turn off after 1 minute of inactivity.

Please refer to your user manual for more general information about blood pressure section 1.4 page 6

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Thank you for choosing a NantLife Medical device.

Call Customer Care
Toll Free at 1-855-NANTCARE

www.NantLife.com

NantLife

**Add a Nurse to your wireless monitoring
visit us at www.NantCare.com**



Vital Signs Monitoring, Medication Management, Coaching-Training

IMPORTANT REGULATORY INFORMATION

This device complies with Part 15 of the FCC Rules: Operation is subject to the following two conditions:

1. This device may not cause harmful interference and
2. This device must accept any interference that is received, including any interference that may cause undesired operation.

WARNING:

Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.