

iHealth BP3

Fully Automatic Arm Cuff Electronic Blood Pressure Dock

OPERATION GUIDE

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IMPORTANT INFORMATION

NORMAL BLOOD PRESSURE FLUCTUATION

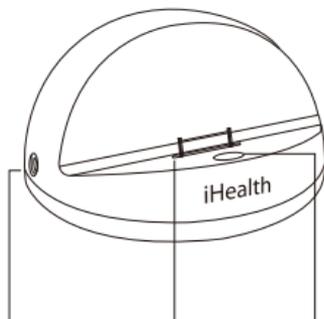
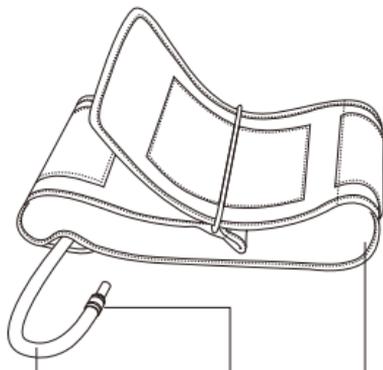
All physical activities, excitement, stress, eating, drinking, smoking and many other factors (including taking a blood pressure measurement) will influence blood pressure value. Because of this, it is very unusual to obtain identical multiple blood pressure readings.

Blood pressure fluctuates continually ---- day and night. The highest value usually appears in the daytime and lowest one usually at midnight. Typically, the value begins to increase at around 3:00 AM, and reaches to highest level in the daytime while most people are awake and active.

Considering the above information, it is recommended that you measure your blood pressure at approximately the same time each day.

Please always relax for a minimum of 3 to 5 minutes between measurements to allow the blood circulation in your arm to be stabilized. It is rare that you obtain identical blood pressure readings each time.

CONTENTS AND DISPLAY INDICATORS



Rubber tube Cuff tubing connector Cuff Air port Connector © Button/LED

INTENDED USE

Fully Automatic Arm Cuff Electronic Blood Pressure Dock (Electronic Sphygmomanometer) is for use by medical professionals or at home and is a non-invasive blood pressure measurement system. It is intended to measure the diastolic and systolic blood pressure and pulse rate of an adult individual by using a non-invasive technique in which an inflatable cuff is wrapped around the upper arm. The cuff circumference is limited to 8.6"-16.5"(22cm-42cm).

The Blood Pressure Dock is for use with iPod touch[®], iPhone[®] or iPad[®].

The iHealth Blood Pressure Dock is made for the following models:

iPod touch 4th generation

iPod touch 3rd generation

iPod touch 2nd generation

iPhone 4S

iPhone 4

iPhone 3GS

iPhone 3G

iPhone

iPad 2

iPad

iHealth is a trademark of iHealth Lab Inc.

“Made for iPod”, “Made for iPhone”, and “Made for iPad” mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with iPod, iPhone, or iPad may affect wireless performance. iPad, iPhone, and iPod Touch are trademarks of Apple Inc., registered in the U.S. and other countries.

CONTRAINDICATION

It is inappropriate for people with serious arrhythmia to use this Electronic Sphygmomanometer.

PRODUCT DESCRIPTION

Based on Oscillometric methodology and silicon integrated pressure sensor, blood pressure and pulse rate can be measured automatically and non-invasively. The measurement results include blood pressure and pulse rate will displayed on iPod touch, iPhone, or iPad and can be stored in the memory with date and time stamp. The Electronic Sphygmomanometer corresponds to the below standards: IEC 60601-1:1988/A1:1991+A2:1995(Medical electrical equipment-Part1:General requirements for safety), IEC 60601-1-2:2007(Medical electrical equipment-Part1:General requirements for safety; Collateral Standard-Electromagnetic compatibility-Requirements and tests), EN 1060-1: 1995 + A1: 2002 + A2: 2009 (Non-invasive sphygmomanometers - Part 1: General requirements), EN 1060-3: 1997 + A1: 2005 + A2: 2009 (Non-invasive sphygmomanometers - Part 3:

Supplementary requirements for electro-mechanical blood pressure measuring systems), ANSI/AAMI SP-10:2002+A1:2003+A2:2006.

SPECIFICATIONS

1. Product name: Blood Pressure Dock
2. Model: BP3
3. Classification: Internally powered, Type B applied part, IPX0, No AP or APG, Continuous operation
4. Machine size: 4.53"×4.53"×2.62"(115mm×115mm×66.5mm)
5. Cuff circumference: 8.6"-11.8"(22cm-30cm), 11.8"-16.5"(30cm-42cm)(Optional)
6. Weight: about 7.6 oz(215g)
7. Measuring method: Oscillometric method, automatic inflation and measurement
8. Power: DC: 5.0V  2.1A, Battery: 3.7V  Li-ion 400mAh
9. Cuff pressure range: 0-295mmHg
10. Range of measurement: 45-250mmHg
11. Pressure accuracy: ±3mmHg
12. Pulse rate range: 40-180beats/min, accuracy: ±5%
13. Environmental temperature for operation: BP3: 5°C~40°C(41°F~104°F)
14. Environmental humidity for operation: ≤90%RH
15. Environmental temperature for storage and transport: -20°C~55°C(-4°F~131°F)
16. Environmental humidity for storage and transport: ≤95%RH
- 17.Environmental pressure: atmosphere pressure
- 18.Battery life: more than 100 measurement for once full charge
- 19.A list of all components belonging to the pressure measuring system, including accessories
 - 1)Pump
 - 2)Valve
 - 3)Cuff
 - 4)Sensor

If you want to change these components, please contact us.

NOTICE

- 1.Stay still, calm and rest for 5 minutes before blood pressure measurement.
- 2.The cuff should be placed at the same level as your heart.
- 3.During measurement, do not speak or move your body and arm.
- 4.Always measure on the same arm each time.
- 5.Please always relax for a minimum of 3 to 5 minutes between measurements to

allow the blood circulation in your arm to be stabilized. Prolonged over inflation of the bladder may cause ecchymoma of your arm.

6. User is not permitted to change the battery. If the battery is out of life, please send to the service center for maintenance.

7. This Electronic Sphygmomanometer is designed for adults and should never be used on infants or young children. Consult your physician or other health care professionals before use on older children.

8. Blood pressure measurements determined by this Dock 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 Sphygmomanometer.

9. Please avoid strong magnetism interference, such as microwave oven, etc.

10. It is recommended to set the iPod touch, iPhone, or iPad in Airplane mode during measuring to avoid strong magnetism interference. If a call comes in during the measurement, the measurement process will be terminated automatically.

11. If Irregular Heartbeat (IHB) brought by common arrhythmias is detected in the procedure of blood pressure measurement, a signal of «♥» will be displayed. Under this condition, the Electronic Sphygmomanometer can keep functioning, but the results may not be accurate, it's suggested that you consult with your physician for accurate assessment.

There are 2 conditions under which the signal of IHB will be displayed:

1) The coefficient of variation (CV) of pulse period >25%.

2) The difference of adjacent pulse period $\geq 0.14s$ and the number of such pulse takes more than 53 percentage of the total number of pulse.

12. Please do not use the cuff other than supplied by the manufacturer, otherwise it may bring biocompatible hazard and might result in measurement error.

13. The Dock might not meet its performance specifications if stored or used outside the specified temperature and humidity ranges in specifications.

14. Please do not share the cuff with other infective person to avoid cross-infection.

15. Medical AC adapter which output is DC 5.0V and complies with IEC 60601-1/UL 60601-1 and IEC 60601-1-2/EN 60601-1-2 is suitable for this Dock, such as ASP12-05021002JU (input: 100-240V, 50/60Hz, 200mA; output: DC 5V, 2.1A). Please note that the Dock jack size: USB Type B.

If the AC adapter is abnormal, please change the adapter.

Note: Do not pull out the adapter when you are using the Dock!

Do not use any other type of AC adapter as it may harm the Dock!

16. 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 received, including interference that

may cause undesired operation.

Changes or modifications not expressly approved by iHealth Lab Inc. would void the user's authority to operate the equipment.

NOTE: 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.

SETUP AND OPERATING PROCEDURES

1. DOWNLOAD THE iHealth BP3 APP

This Dock works with iPod touch, iPhone or iPad. Please confirm your iPod touch, iPhone or iPad model is listed in the compatible models.

Prior to using you must first install the iHealth BP3 App from the App Store. THIS IS A FREE DOWNLOAD. Please confirm the iOS is higher than 3.0. If not, please update your iOS before using this product.

If you have not installed that, please download the App of BP3 from the App Store following one of following processes. Be sure your web function is enabled:

- 1.Connect your iOS device with BP3. If there is no App available, the system would indicate "Application Not Installed". Please choose "YES" to download the App free.
- 2.Or launch the App Store, and search using key words "iHealth", "BP3" or "Blood Pressure Dock." Choose the App and download.



After downloading, please install the App and the icon should look like this picture.

2.CONNECTION TO iPod touch, iPhone, or iPad

STEP 1: Place your iPod touch, iPhone or iPad onto the iHealth Dock

STEP 2: Select and launch the App

STEP 3: Application should now recognize the iHealth Dock and display the battery capacity

3.CHARGING AND USING THE BATTERY

1) When need charge, please connect to power source for charging the battery. The Dock can work normally when charging.

2) When connect the BP3 with iPod touch, iPhone, or iPad, the battery volume will be displayed on the iPod touch, iPhone, or iPad screen. If it is less than 20%, please charge the battery. The Dock will not work until the battery has enough power.

3) When you charge the Dock, the LED will display with different colors to indicating the charging status. See the table below for details.

4) Please do not overcharge or over discharge the battery, which may reduce its lifetime. It is suggested that you charge the battery once the battery is less than 25%, and when the battery is fully charged, please disconnect the adapter in time.



The Dock, the cable, the battery and the cuff must be disposed of according to local regulations at the end of their usage.

Note: Battery has limited charge cycles and may eventually need to be replaced by iHealth service provider. Battery life and charge cycles vary by use and settings.

LED Status	iPod touch, iPhone, and iPad connected	iPod touch, iPhone, and iPad unconnected
Charging	Green LED twinkling	Yellow LED twinkling
Fully charged	Green LED light on	Green LED "pulsing"
Without external power	Green LED light on	LED extinguished
Low battery indicator (for a few seconds)	Red LED twinkling	
Abnormal state	Red LED light on	

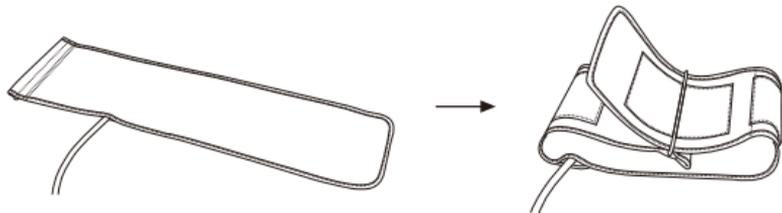
4. CONNECTING THE CUFF TO BP3

Insert the cuff tubing connector into the air port in the left side of the Dock. Make sure that the connector is completely inserted to avoid air leakage during blood pressure measurements.



5. APPLYING THE CUFF

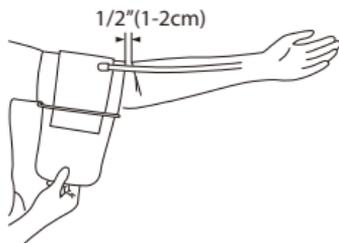
1) Pulling the cuff end through the metal loop (the cuff is packaged like this already), turn it outward (away from your body) and tighten it and close the Velcro fastener.



2) Place the cuff around a bare arm 1/2" (1-2cm) above the elbow joint.

3) While seated, place palm upside in front of you on a flat surface such as a desk or table. Position the air tube in the middle of your arm in line with your middle finger.

4) The cuff should fit comfortably, yet snugly around your arm. You should be able to insert one finger between your arm and the cuff.



Note: 1. Please refer to the cuff circumference range in "SPECIFICATIONS" to make sure that the appropriate cuff is used.

2. Measure on the same arm each time.

3. Do not move your arm, body, or the Dock and do not move the rubber tube during measurement.

4. Stay still, calm for 5 minutes before blood pressure measurement.

5. Please keep the cuff clean. If the cuff becomes dirty, remove it from the Dock and clean it by hand in a mild detergent, then rinse it thoroughly in cold water and air dry. Never dry the cuff in clothes dryer and never iron it. Cleaning the cuff after every 200 times is recommended.

6. BODY POSTURE DURING MEASUREMENT

Sitting Measurement

- 1) Be seated with your feet flat on the floor.
- 2) Place palm upside in front of you on a flat surface such as a desk or table.
- 3) The cuff should be at the same level as your heart.

Lying Down Measurement

- 1) Lie on your back.
- 2) Place your arm straight along your side with your palm upside.
- 3) The cuff should be placed at the same level as your heart.

Note: Blood pressure can be affected by the position of the cuff and physiologic condition.



7. OPERATION INSTRUCTIONS

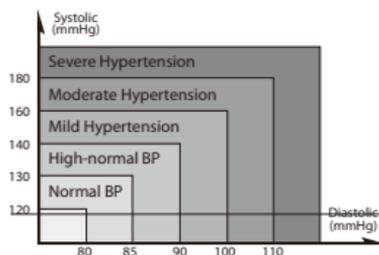
For detailed operating instructions, please visiting : <http://www.ihealth99.com>

Note: Please consult a health care professional for interpretation of blood pressure measurements.

8. ASSESSING HIGH BLOOD PRESSURE FOR ADULTS

The following guidelines for assessing high blood pressure (without regard to age or gender) have been established by the World Health Organization (WHO). Please note that other factors (e.g. diabetes, obesity, smoking, etc.) need to be taken into consideration. Consult with your physician for accurate assessment, and never change your treatment by yourself.

Classification of blood pressure for adults



BLOOD PRESSURE CLASSIFICATION	SBP mmHg	DBP mmHg	COLOR INDICATOR
Optimal	<120	<80	GREEN
Normal	120-129	80-84	GREEN
High-normal	130-139	85-89	GREEN
Grade 1 Hypertension	140-159	90-99	YELLOW
Grade 2 Hypertension	160-179	100-109	ORANGE
Grade 3 Hypertension	≥180	≥100	RED

WHO/ISH Definitions and Classification of Blood Pressure Levels

Note: It is not intended to provide a basis of any type of rush toward emergency conditions/diagnosis based on the color scheme and that the color scheme is meant only to discriminate between the different levels of blood pressure.

9. TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Low Battery	Battery is lower than 20%	Charging the battery
	Arm or Dock was moved during testing	Re-test, make sure not to move your arm or the Dock
Display reads "ERROR"	The cuff does not inflate properly or pressure falls quickly during testing	Make sure the rubber tube is fully inserted into the Dock
	Irregular heartbeat (arrhythmia)	It is inappropriate for people with serious arrhythmia to use this Dock
	The cuff was not properly applied or the rubber tube was bent or pressed	Review the cuff applying and testing sections of the instructions and re-test
Display reads an abnormal result	The cuff position was not correct or it was not properly tightened	Apply the cuff correctly and try again
	Body posture was not correct during testing	Review the body posture and testing sections of the instructions and re-test
	Speaking, arm or body movement, angry, excited or nervous during testing	Re-test when calm and no speaking or moving during the test
No response	Incorrect operation, or strong electromagnetic interference	Pressing the @ button to reset the device, restart the software and reconnect the iOS device with the Dock

MAINTENANCE

1. Do not drop this Dock or subject it to strong impact.
2. Avoid high temperature and solarization. Do not immerse the Dock in water as this will result in damage to the Dock.
3. If this Dock is stored near freezing, allow it to acclimate to room temperature before use.
4. Do not attempt to disassemble this Dock.
5. If the Dock is not used for a long time, please sure to fully charge it every month.
6. It is recommended the performance should be checked every 2 years or after each

repair. Please contact the service center.

7. If the Dock becomes dirty, please clear it with a soft dry cloth. Do not use any abrasive or volatile cleaners.

8. No component needs to be maintained by user in the Dock. The circuit diagrams, component part lists, descriptions, calibration instructions, or other information which will assist the user's appropriately qualified technical personnel to repair those parts of the equipment which are designated for repair ably can be supplied by us.

9. The Dock can maintain the safety and performance characteristics for a minimum of 10,000 measurements or three years usage.

10. Battery replacement should only be performed by one of our qualified technicians. To do otherwise will void your warranty and possibly damage your unit.

EXPLANATION OF SYMBOLS ON UNIT



Symbol for "CONSULT INSTRUCTIONS FOR USE"



Symbol for "TYPE B APPLIED PARTS"



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".



Symbol for "MANUFACTURER"



Symbol for "DATE OF MANUFACTURE"

SN Symbol for "SERIAL NUMBER"



Symbol for "COMPLES WITH
MDD93/42/EEC REQUIREMENTS"

WARRANTY INFORMATION

Only charge the cost of components and shipping/handling.

SERVICE CENTER

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