## iHealth®

# Wireless Blood Pressure Monitor (BP5S) USER GUIDE

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#### INTRODUCTION

Thank you for selecting the iHealth Neo Wireless Blood Pressure Monitor. The iHealth Neo Wireless\_Blood Pressure Monitor is a fully automatic arm cuff blood pressure monitor that uses the oscillometric principle to measure your blood pressure and pulse rate. The monitor works with your mobile devices to track and share vital blood pressure data.

#### **PACKAGE CONTENTS**

- \* 1 iHealth Neo Wireless Blood Pressure Monitor
- \* 1 User Guide
- \* 1 Quick Start Guide
- \* 1 Charging Cable
- \* 1 Travel Bag

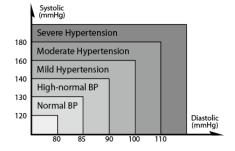
#### **INTENDED USE**

The iHealth Neo Wireless Blood Pressure Monitor (Electronic Sphygmomanometer) is intended for use\_in a professional setting or at home and is a non-invasive blood pressure measurement system. It\_is designed to measure the systolic and diastolic blood pressures and pulse rate of an adult\_individual by using a technique in which an inflatable cuff is wrapped around the arm. The\_measurement range of the standard cuff circumference is 8.6" to 16.5" (22cm-42cm) and 16.5" to 18.9" (42cm – 48cm optional).

#### **BLOOD PRESSURE CLASSIFICATION FOR ADULTS**

The World Health Organization (WHO) has created the following guide for assessing high blood pressure (without regard to age or gender). Please note that other factors (e.g. diabetes, obesity, smoking, etc.) also need to be considered. Consult with your physician for accurate assessment.

#### Classification of blood pressure for adults



BLOOD PRESSURE CLASSIFICATION	SBP mmHg	DBP mmHg
Optimal	<120	<80
Normal	120-129	80-84
High-normal	130-139	85-89
Grade 1 Hypertension	140-159	90-99
Grade 2 Hypertension	160-179	100-109
Grade 3 Hypertension	>=180	>=110

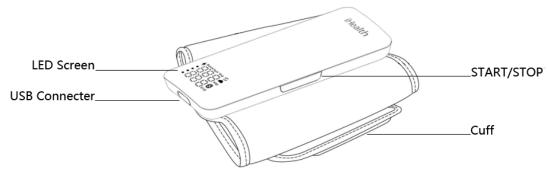
WHO/ISH Definitions and Classification of Blood Pressure Levels

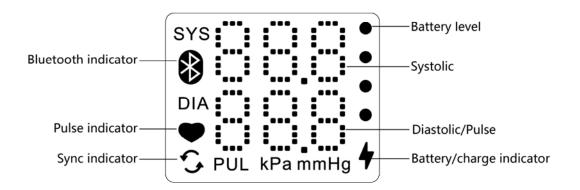
Note: Consult your physician for proper interpretation of blood pressure results.

#### CONTRAINDICATION

Alt is not recommended for people with serious arrhythmia to use this Wireless Blood Pressure Monitor.

#### PARTS AND DISPLAY INDICATORS





#### **SET UP REQUIREMENTS**

The iHealth Neo Wireless Blood Pressure Monitor is designed to be used with the following iPod touch,

iPhone and iPad models:

iPhone4s+

iPad Air+

iPad mini+

iPad 3+

iPod Touch5

Please note that the compatible devices are subject to change. For the latest compatibility list (include Android devices), visitwww.ihealthlabs.com/support

#### **SET UP PROCEDURES**

#### Download the Free iHealth MyVitals App

Prior to first use, download and install "iHealth MyVitals" from the App Store or Google Play Store. Follow the on-screen instructions to register and set up your personal account.

#### Access the iHealth Cloud Account

Your iHealth account also gives you access to the free and secure iHealth cloud service. Go to www.ihealthlabs.com and sign in with the same account.

#### Power on the Monitor

Press "START/STOP" button for at least 3 seconds until the LED screen display all characters to power on the monitor at the first use.

#### **Charge Battery before First Use**

Connect the monitor to a USB port using the charging cable provided until the charging indicator full and steady.



#### **MEASUREMENT PROCEDURES**

Blood pressure can be affected by the position of the cuff and your physiologic condition. It is very important that the cuff should be placed at the same level as your heart.

#### **Body Posture**

#### **Sitting Comfortably During Measurement**

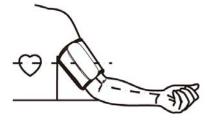
a. Be seated with your feet flat on the floor without crossing your legs.

- b. Place your hand, palm-side up, in front of you on a flat surface such as a desk or a table.
- c. The middle of the cuff should be at the level of the right atrium of your heart.

#### **Lying Down During Measurement**

- a. Lie on your back.
- b. Place your arm straight along your side with your hand palm-side up.
- c. 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 your physiologic condition.





#### Apply the Cuff

- a. Pull the cuff end through the metal loop, positioning it outward (away from your body).
- b. Place a bare arm through the cuff and position the cuff 1/2"(1-2cm) above the elbow joint.
- c. Tighten the cuff by pulling it towards your body, securing it closed with the Velcro fastener.
- d. While seated, place your hand, palm-side up, in front of you on a flat surface such as a desk or table.

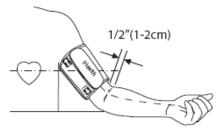
When the left arm is measured, position the monitor in the middle of your arm so that it is aligned with your middle finger.

When the right arm is measured, position the monitor in the middle of your arm so that it is aligned with your middle finger, the "up and down" position is opposite.

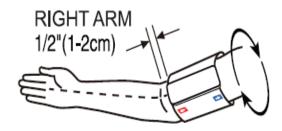
e. The cuff should fit comfortably, yet snugly around your arm. You should be able to insert one finger between your arm and the cuff.

#### Remember to:

- 1. Make sure that the appropriate cuff size is used; refer to the cuff circumference range in the Specifications section of this manual.
- 2. Measure on the same arm each time.
- 3. Stay still during measurement. Do not move your arm, body or the monitor.
- 4. Stay still and calm for one to one and half minutes before taking a blood pressure measurement. Prolonged over-inflation of the bladder may cause ecchymoma of your arm.
- 5. Keep the cuff clean. Cleaning the cuff after every 200 times of usage is recommended. If the cuff becomes dirty, clean it with a moistened cloth. Do not rinse the monitor or cuff with running water.



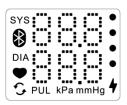
Left arm measurement



Right arm measurement

#### TAKING YOUR BLOOD PRESSURE READING

a. Press the START/STOP button, the monitor will activate and all display characters are shown for self-test. You can check the LED screen display according to the righ picture. Please contact the service center if symbol is missing.



b. Then the cuff will be slowly inflated. The blood pressure and pulse will be measured during inflation. Inflation will stop as soon as the blood pressure and pulse rate have been calculated and displayed on the screen. The result will be automatically stored in the memory, and all results will be uploaded to the App automatically upon the next successful Bluetooth connection.



- c. During measurement, you can press the START/STOP button to turn off the monitor manually.
- d. After measurement, the monitor will turn off automatically after 60 seconds if no operation. Alternatively, you can press the START/STOP button to turn off the monitor manually.



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

#### **BLUETOOTH FUNCTION**

#### Connect to iOS Device via Bluetooth

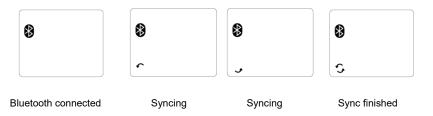
- a. Enable Bluetooth on your iOS device.
- b. Launch the iHealth MyVitals App from your iOS device.
- c. When a successful connection has been established, the Bluetooth indicator light will light up.
- d. When sync is processing, the sync indicator will flash, when sync is finished,

the sync indicator lights up of for 2 seconds and then light off.

#### **Connect to Android Device via Bluetooth**

- a. Enable Bluetooth on your Android device.
- b. Launch the iHealth MyVitals App from your Android device.
- c. When a successful connection has been established, the Bluetooth indicator light will light up.
- d. When sync is processing, the sync indicator will flash, when sync is finished,

the sync indicator lights up of conduction and then light off.



Note: The monitor will turn off Bluetooth function to save power under battery low status (when the monitor can no longer take blood pressure readings), and turn Bluetooth function on when charger is plugged in.

#### **SPECIFICATIONS**

- 1. Product name: iHealth Neo Wireless Blood Pressure Monitor
- 2. Model: BP5S
- 3. Classification: Internally powered; Type BF applied part; IP22, No AP or APG; Continuous operation
- 4. Machine size: approx. 5.39"x 2.22"x 0.65" (137mm×56.5mm×16.5mm)
- 5. Cuff circumference: 8.66" to 16.54" (22cm-42cm) and 16.54" to 18.90" (42cm-48cm) (Optional)
- 6. Weight: approx. 8.47 oz\_(240g)\_(including cuff)
- 7. Measuring method: Oscillometric method, automatic inflation and measurement
- 8.Memory volume: 200 times with time and date stamp (off-line measurement only)
- 9. Power: DC:5.0V === 1.0A, Battery: 1\*3.7V === Li-ion 800mAh
- 10. Measurement range:Cuff pressure: 0-300 mmHgSystolic: 60-260 mmHgDiastolic: 40-199 mmHg

Pulse rate: 40-180 beats/minute

11. Accuracy:

Pressure: ±3 mmHg Pulse rate: ±5%

12.Wireless communication:
Bluetooth V4.1 Class 2

Frequency Band: 2.400-2.4835 GHz

- 13. Environmental temperature for operation: 5°C-40°C\_(41°F -104°F)
- 14. Environmental humidity for operation: ≤85%RH
- 15. Environmental temperature for storage and transport:-20°C-55°C\_(-4°F-131°F)
- 16. Environmental humidity for storage and transport: ≤90%RH
- 17. Environmental pressure: 80kPa-105kPa
- 18. Battery life: more than 130 measurements on a full charge
- 19. The blood pressure measurement system includes accessories: pump, valve, cuff, LED screen and sensor.

Note: These specifications are subject to change without notice.

#### **GENERAL SAFETY AND PRECAUTIONS**

- 1. Read all of the information in the User Guide and other provided instructions before operating the unit.
- 2. Consult your physician for any of the following situations:
- a) The application of the cuff over a wound or inflamed area.
- b) The application of the cuff on any limb with intravascular access or therapy, or an arteriovenous(A-V) shunt.
- c) The application of the cuff on the arm on the side of a mastectomy.
- d) Simultaneous use with other medical monitoring equipment on the same limb.
- e) The blood circulation of the user needs to be checked.
- 3. Do not use this product in a moving vehicle as this may result in inaccurate measurements.
- 4. Blood pressure measurements determined by this product are equivalent to those obtained by professional healthcare practitioners using the cuff/stethoscope auscultation method within the limits prescribed by the American National Standard, Electronic or Automated Sphygmomanometer.

5. If an Irregular Heartbeat (IHB) is detected during the measurement procedure, the IHB symbol will be displayed in the "iHealth MyVitals" APP. Under this condition, the Wireless Blood Pressure Monitor can keep functioning, but the results may be inaccurate. Please consult your physician for accurate assessment.

The IHB symbol will be displayed under 2 conditions:

- 1) The coefficient of variation (CV) of pulse period >25%.
- 2) The difference of adjacent pulse period is ≥0.14s and more than 53 percent of the total number of pulses readings falls within this definition.
- 6. Please do not use any cuff other than that supplied by the manufacturer as this may result in inaccurate measurements.
- 7. For information regarding potential electromagnetic or other interference between the blood pressure monitor and other devices together with advice regarding avoidance of such interference, please see ELECTROMAGNETIC COMPATIBILITY INFORMATION. It is suggested that the blood pressure monitor be kept 10 meters away from other wireless devices, such as WLAN unit, cell phone, microwave oven, etc.
- 8. This product should not be used as a USB device.
- 9. If the blood pressure measurement (systolic or diastolic) is outside the rated range specified in part SPECIFICATIONS, the monitor will immediately display a technical alarm on the LED screen. In this case, repeat the measurement ensuring that the proper measurement procedures are followed and/or consult with your medical professional. The technical alarm is preset in the factory and cannot be adjusted or inactivated. This technical alarm is assigned as low priority according to IEC 60601-1-8. The technical alarm does not need to be reset.
- 10. This device requires a medical AC adapter with an output of DC 5.0V that complies with IEC60601-1/UL 60601-1 and IEC 60601-1-2/EN 60601-1-2 such as UE05WCP-050100SPC(input:100-240V, 50/60Hz, 0.18A; output: DC 5V,
- 1.0A). Please note that the monitor jack size is USB microAB. The USB jack should be used for charging only.
- 11.Use of Charging Cable other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
- 12. Measurements are not possible in patients with a high frequency of arrhythmias.
- 13. The device is not intended for use on neonates, children or pregnant women. (Clinical testing has not been conducted on neonates, children or pregnant women.)
- 14. Motion, trembling, shivering may affect the measurement reading.
- 15. The device would not apply to the patients with poor peripheral circulation, noticeably low blood pressure, or low body temperature (there will be low blood flow to the measurement position).
- 16. The device would not apply to the patients who use an artificial heart and lung (there will be no pulse)
- 17. Consult your physician before using the device for any of the following conditions: common arrhythmias such as atrial or ventricular premature beats or atrial fibrillation, arterial sclerosis, poor perfusion, diabetes, pre-eclampsia, enal diseases.
- 18. The patient is an intended operator.
- This Monitor is designed for adults and should never be used on infants, young children, pregnant or pre-eclamptic patients. Consult your physician before use on children.
- This product might not meet its performance specifications if stored or used outside the specified temperature and humidity ranges.
- $\triangle$ Please do not share the cuff with any infectious person to avoid cross-infection.

Please do not attempt to open or disassemble the product, under inappropriate operation, the device and battery can be damaged and hazardous to the human body and the environment.

#### **BATTERY HANDLING AND USAGE**

The battery charge will be displayed on the LED screen after each measurement. And when the monitor is connected to the "iHealth MyVitals" APP, the battery charge will be displayed in the APP. If the power is less than 25%, please charge the battery.

The monitor will not work until the battery has enough power.

- When the monitor needs charging, please connect the monitor to a power source.
- You should charge the battery when the battery is less than 25% charged. Overcharging the battery may reduce its lifetime.
- When in charging mode, the charging status will be displayed on the LED screen. See the table below for details.

Monitor Status	Status Indicator
Charging	battery level symbol rolling
Fully charged	battery level symbol steady
Battery charge <25%	battery level and charge symbol flashing
Battery low	charge symbol flashing (for a few seconds)

⚠Do not change the battery. If the battery can no longer be charged, please contact Customer Service.

⚠ Overcharging the battery may reduce its lifetime.

⚠Lithium battery replacement by inadequately trained personnel could result in a hazard such as a fire or explosion.

⚠Do not plug or unplug the power cord into the electrical outlet with wet hands. If the AC adapter is abnormal, please change the adapter.

⚠Do not use the monitor while charging.

⚠Do not use any other type of AC adapter as it may harm the monitor.



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

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

#### **TROUBLESHOOTING**

PROBLEM	POSSIBLE CAUSE	SOLUTION
Low Battery	Battery do not have enough p	ower Charge the battery
LED display reads	Pressure system is uns	able Retest, make sure not to move

"Er0"	before measurement	your arm or the monitor
	perore measurement	your arm or the monitor
LED display reads "Er1"	Fail to detect systolic pressure	
LED display reads "Er2"	Fail to detect diastolic pressure	
LED display reads	Pneumatic system blocked or cuff	
"Er3"	is too tight during inflation	Apply the cuff correctly and try
LED display reads	Pneumatic system leakage or cuff	again
"Er4"	is too loose during inflation	
LED display reads "Er5"	Cuff pressure above 300mmHg	
LED display reads	More than 160 seconds with cuff	
"Er6"	pressure above 15 mmHg	Measure again after five
LED display reads "Er7"	memory accessing error	minutes. If the monitor is still abnormal, please contact the
LED display reads "Er8"	Device parameter checking error	local distributor or the factory.
LED display reads "ErA"	Pressure sensor parameter error	
LED display reads " <b>9</b> Er"	Bluetooth communicate error	Reset monitor by pressing the START/STOP button and holding for about 10 seconds, then connect the mobile device correctly and try again, If the monitor is still abnormal, please contact the local distributor or the factory.
LED III	The cuff position was not correct or it was not properly tightened	Review the cuff application instructions and retest
LED display reads	Body posture was not correct	Review body posture
an abnormal	during testing	instructions and retest
result	Speaking, moving arm or body, being angry, excited or nervous during test	Retest when calm; avoid speaking or movement during the test
Bluetooth	Bluetooth connection unsuccessful, monitor is	Reset iOS/Android device. Reset monitor by pressing the START/STOP button and holding for about 10 seconds.
connection	abnormal, or strong	Make sure the monitor and
unstable	electromagnetic interference	iOS/Android device are away
	is present	from other electrical equipment. Please see GENERALSAFETY AND PRECAUTIONS
	0 / 14	

No recognice when	Incorrect operation or strong	Press the START/STOP button
you press button	electromagnetic interference	and hold for about 10 seconds to
you press button	election agrietic interference	reset the device.

#### **CARE AND MAINTENANCE**

- 1. If this monitor is stored near freezing temperatures, allow it to return to room temperature before use.
- 2. If the monitor is not used for a long time, please be sure to fully charge it every month.
- 3. No monitor component needs to be maintained by the user. 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 can be supplied.
- 4. Clean the monitor with a dry, soft cloth or a moistened and well wrung soft cloth using water, diluted disinfectant alcohol, or diluted detergent.
- 5. The monitor can maintain the safety and performance characteristics for a minimum of 10,000measurements or three years of usage, and the cuff integrity is maintained after 1,000 open-close cycles.
- 6. The battery can maintain the performance characteristics for a minimum of 300 charge cycles.
- 7. It is recommended that if the cuff is used in a hospital or a clinic, it be disinfected twice a week. Wipe the inner side (the side that contacts skin) of the cuff with a soft cloth lightly moistened with Ethyl alcohol (75-90%). Then <u>air-</u>dry the cuff
- 8.It is recommended that product performance be checked every 2 years or after each repair. Please contact the customer service.

⚠Do not drop this monitor or subject it to strong impact.

Avoid high temperature and direct sunlight. Do not immerse the monitor in water as this will result in damage to the monitor.

⚠Do not attempt to disassemble this monitor.

ABattery replacement should only be performed by a qualified iHealth technician. To do otherwise will void your warranty and possibly damage your unit.

⚠Cuff replacement should only be performed by a qualified iHealth technician. To do otherwise will possibly damage your unit.

#### **WARRANTY INFORMATION**

The iHealth Neo Wireless Blood Pressure Monitor is warranted to be free from defects in materials and workmanship within one year from the date of purchase when used in accordance with the provided instructions. The warranty extends only to the end user. We will, at our option, repair or replace without charge the iHealth Neo Wireless Blood Pressure Monitor covered by the warranty. Repair or replacement is our only responsibility and your only remedy under the warranty.

#### **EXPLANATION OF SYMBOLS**



Symbol for "TYPE BF APPLIED PARTS" (cuff only)

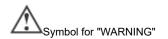


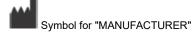
Symbol for "THE OPERATION GUIDE MUST BE READ"

The sign background color: blue The sign graphical symbol: white



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".







CE 0197 Symbol for "COMPILES WITH MDD93/42/EEC REQUIREMENTS"

iHealth is a trademark of iHealth Lab Inc.

iPad, iPhone, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries.

Manufactured for iHealth Lab Inc.

120 San Lucar Ct., Sunnyvale, CA 94086, USA

Tel:+1-855-816-7705 www.ihealthlabs.com



iHealthLabs Europe SARL

3 Rue Tronchet,75008,Paris,France

support@ihealthlabs.eu www.ihealthlabs.eu



ANDON HEALTH CO., LTD.

No. 3 Jinping Street, YaAn Road, Nankai District, Tianjin 300190, China.

Tel: 86-22-60526161

#### IMPORTANT INFORMATION REQUIRED BY THE FCC

This device complies with Part 15 of the FCC Rules. Its 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 undersired operation.

The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

**Note:** This product 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 product 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 product 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.

This product complies with Industry Canada. IC: RSS-210

IC NOTICE

This device complies with industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

(1) This device may not cause harmful interference

(2) This device must accept any interference received, including interference that may cause undesired operation of the device.

This device complies with RSS-247 of industry Canada. Operation is subject to the condition that this device does not cause harmful interference.

This Class B digital apparatus complies with Canadian ICES-003(Cet appareil numérique de classe B est conforme à la norme NMB-003 du Canada).

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 5mm between the radiator and your body. This transmittermust not be co-located or operating in conjunction with any other antenna or transmitter.

Cet appareil est conforme à la norme (s) RSS exempte de licence d'Industrie Canada. Le fonctionnement est soumis aux deux conditions suivantes:

- (1) Cet appareil ne doit pas causer d'interférences nuisibles
- (2) Cet appareil doit accepter toute interférence reçue, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

Cet équipement est conforme aux limites d'exposition au rayonnement du CI établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé à une distance minimale de 5mm entre le radiateur et votre corps. Cet émetteur ne doit pas être co-situé ou fonctionner conjointement avec une autre antenne ou émetteur.

#### **CE Statement**

The CE Mark applies to products regulated by certain European health, safety and environmental protection legislation. The CE Mark is obligatory for products it applies to: the manufacturer affixes the marking in order to be allowed to sell his product in the European market.

Hereby, [ANDON HEALTH CO., LTD.] declares that the equipment is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: www.ihealthlabs.eu

The product is manufactured by [ANDON HEALTH CO., LTD.], the address is: No. 3 Jinping Street, YaAn Road,

Nankai District, Tianjin 300190, China.

#### OTHER STANDARDS AND COMPLIANCES

The Wireless Blood Pressure Monitor corresponds to the following standards:

IEC 60601-1Edition 3.1 2012-08/EN 60601-1:2006/A1:2013 (Medical electrical equipment

-- Part 1: General requirements for basic safety and essential performance);

IEC 60601-1-2:2014/EN 60601-1-2:2007/AC:2010(Medical electrical equipment -- Part

1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests);

IEC80601-2-30:2009+AMD1: 2013/EN 80601-2-30:2010/A1: 2015(Medical electrical equipment –Part 2-30: Particular requirements for the basic safety and essential performance of automated non-invasive sphygmomanometers);

EN 1060-1: 1995 + A2: 2009 (Non-invasive sphygmomanometers - Part 1: General requirements),;

EN 1060-3: 1997 + A2: 2009 (Non-invasive sphygmomanometers - Part 3: Supplementary requirements for electro-mechanical blood pressure measuring systems);

ISO81060-2 : 2013,(Non-Invasive Sphygmomanometers - Part 2: Clinical Validation Of Automated Measurement Type).

#### **ELECTROMAGNETIC COMPATIBILITY INFORMATION**

This product is applicable to the equipment and system requirements for the purpose of receiving radio frequency energy for the purpose of the work, Bluetooth receive bandwidth 2M. This product can also be used to include RF transmitter equipment and system requirements and emission frequency of 2.4GHz ISM band, Bluetooth modulation types:GFSK, effective max radiated power: <4dBm

**Table 1 - Emission** 

Phenomenon	Compliance	Electromagnetic environment
RF emissions	CISPR 11	Home healthcare environment
	Group 1, Class B	
Harmonic distortion	IEC 61000-3-2	Home healthcare environment
	Class A	
Voltage fluctuations	IEC 61000-3-3	Home healthcare environment
and flicker	Compliance	

**Table 2 - Enclosure Port** 

Phenomenon	Basic EMC standard	Immunity test levels
		Home Healthcare Environment
Electrostatic	IEC 61000-4-2	±8 kV contact
Discharge		$\pm 2kV$ , $\pm 4kV$ , $\pm 8kV$ , $\pm 15kV$ air
Radiated RF EM field	IEC 61000-4-3	10V/m
		80MHz-2.7GHz
		80% AM at 1kHz
Proximity fields from	IEC 61000-4-3	Refer to table 3
RF wireless		
communications		
equipment		
Rated power	IEC 61000-4-8	30A/m
frequency magnetic		50Hz or 60Hz
fields		

**Table 3 – Proximity fields from RF wireless communications** 

## equipment

Test frequency	Band	Immunity test levels
(MHz)	(MHz)	Professional healthcare facility environment
385	380-390	Pulse modulation 18Hz, 27V/m
450	430-470	FM, ±5kHz deviation, 1kHz sine, 28V/m
710	704-787	Pulse modulation 217Hz, 9V/m
745		
780		

810	800-960	Pulse modulation 18Hz, 28V/m
870		
930		
1720	1700-1990	Pulse modulation 217Hz, 28V/m
1845		
1970		
2450	2400-2570	Pulse modulation 217Hz, 28V/m
5240	5100-5800	Pulse modulation 217Hz, 9V/m
5500		
5785		

# **Table 4 – Input a.c. power Port**

Phenomenon	Basic EMC standard	Immunity test levels
		Home Healthcare Environment
Electrical fast	IEC 61000-4-4	±2 kV
transients/burst		100kHz repetition frequency
Surges	IEC 61000-4-5	$\pm 0.5 \text{ kV}, \pm 1 \text{ kV}$
Line-to-line		
Surges	IEC 61000-4-5	$\pm 0.5 \text{ kV}, \pm 1 \text{ kV}, \pm 2 \text{ kV}$
Line-to-ground		
Conducted	IEC 61000-4-6	3V, 0.15MHz-80MHz
disturbances induced		6V in ISM and amateur radio bands between 0.15MHz
by RF fields		and 80MHz
		80%AM at 1kHz
Voltage dips	IEC 61000-4-11	0% U <sub>T</sub> ; 0.5 cycle
		At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°
		0% U <sub>T</sub> ; 1 cycle
		and
		70% U <sub>T</sub> ; 25/30 cycles
		Single phase: at 0°
Voltage interruptions	IEC 61000-4-11	0% U <sub>T:</sub> 250/300 cycles

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