

# BPM

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## Owner's Manual

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This device was manufactured by Ya Horng Electronic Co., Ltd.

M/N: BP707

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# Important Safety and Product Information

## WARNING

Read all instructions carefully before installing and using the BPM device.

Failure to heed the following warnings could result in death or serious injury.

## Health Warnings

### WARNING



- Do not use this product if you have a pacemaker or other internal electronic device.
- Do not use this product if you are pregnant, if you think you may be pregnant, or if you are pregnant and experiencing pre-eclampsia or toxemia.
- Always consult your physician before beginning or modifying any exercise program.
- Measurements provided by this device are for reference only. Ya Horng is not responsible for the consequences of erroneous information. This device is not intended to diagnose, treat, cure, or prevent any disease.
- Do not adjust your medication based on measurements provided by this device. Take medication as prescribed by your physician. Only a physician is qualified to diagnose and treat high blood pressure.
- This device is not for use in an oxygen-rich environment.
- This product is not intended to undergo medical device sterilization.
- Do not use this device on the same limb as another health monitoring device.
- If you have had a mastectomy, do not use this device on the arm on the side as your mastectomy.

## Battery Warnings

### WARNING

Replaceable alkaline batteries should be used with this device.

If these guidelines are not followed, batteries may experience a shortened life span or may present a risk of damage to the device, fire, chemical burn, electrolyte leak, and/or injury.

- Do not disassemble, modify, remanufacture, puncture or damage the device or batteries.
- Do not expose the device or batteries to fire, explosion, or other hazard.
- Do not use a sharp object to remove the removable batteries.
-  **KEEP BATTERIES AWAY FROM CHILDREN.**  
 **NEVER PUT BATTERIES IN MOUTH.** Swallowing can lead to chemical burns, perforation of soft tissue, and death. Severe burns can occur within 2 hours of ingestion. Seek medical attention immediately.
- Only replace batteries with correct replacement batteries. Using other batteries presents a risk of fire or explosion.

## NOTICE

Failure to heed the following notices could result in personal or property damage, or negatively impact the device functionality.

## User Restrictions

This product is not intended for use by children under the age of 18.

## Battery Notice

Contact your local waste disposal department to dispose of the device/batteries in accordance with applicable local laws and regulations.

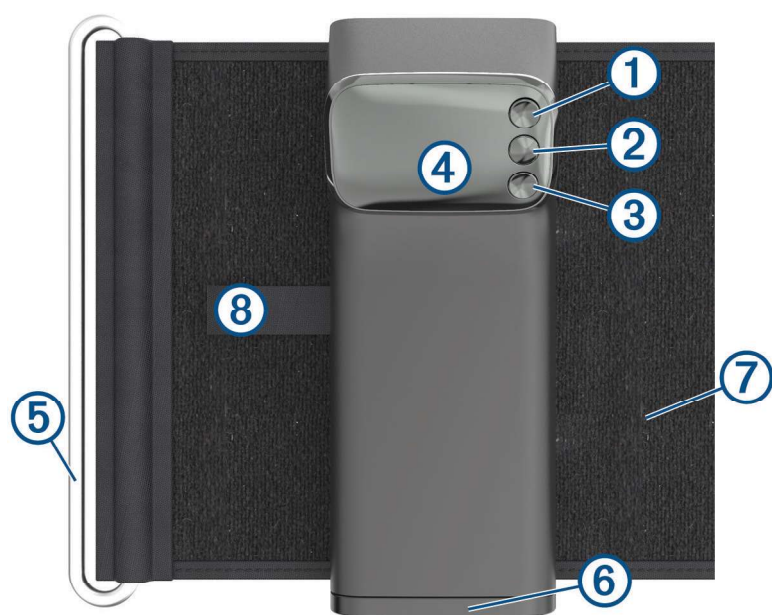
## Intended Use




The BPM device is a tubeless blood pressure monitor. This is a medical device intended to measure systolic and diastolic blood pressure and pulse rate. The device is designed for adults age 18 to 75 with an upper arm circumference of 22 to 42 cm (8.6 to 16.5 in.).

## Disclaimer

This is a not a diagnostic device. You should contact your physician if the device displays hypertensive or high blood pressure values. The BPM device is a standalone device that measures and displays blood pressure and pulse rate. You are not required to connect the device to a smartphone app. The optional smartphone app can only be used to store data for personal record keeping.

## Device Overview



① 	User
② 	Measurement
③ 	Menu
④	Display
⑤	Retaining bar
⑥	Battery cover
⑦	Cuff
⑧	Tab

## Activating the Device

- 1 Remove the pull tab from the battery cover.



- 2 Press any button.

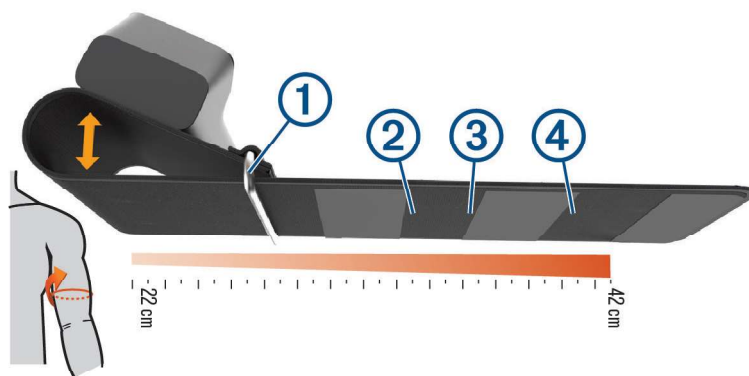
## Tips for Getting a Good Measurement

The BPM device displays your results for few seconds and automatically powers off.

- Read all of the instructions before measuring.
- Avoid eating, smoking, or exercise before measuring.
- Relax for at least 5 minutes before measuring.
- Use the same arm each time you measure.
- Measure at a consistent time of day.
- Avoid tight or bulky clothing that could constrict blood flow.
- Avoid talking during measurements.
- Avoid distractions during measurements.

## Tips for Adjusting the Cuff

The BPM cuff should be snug but comfortable.



- For smaller arms, slide the retaining bar ① to the right of the first section of hook material ②.
- For medium arms, slide the retaining bar between the first and second section of hook material ③.
- For large arms, slide the retaining bar to the left of the second section of hook material ④.

## Measuring Your Blood Pressure and Pulse Rate

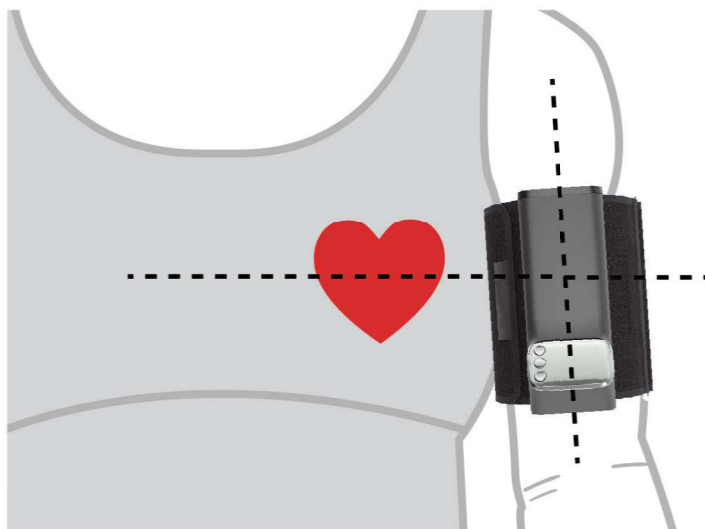
You can take a single measurement (1X), or you can take three consecutive measurements and calculate the average (3X).

- 1 Unfold the cuff strap.
- 2 Grip the retaining bar, and loosen the cuff strap by pulling the cuff strap through the retaining bar until it forms a loop.

**TIP:** If necessary, pull the retaining bar away from the device to begin forming the loop.



- 3 Fold the cuff strap over the retaining bar, and fasten the hook and loop strap.
- 4 Place your arm into the cuff loop, and slide the device to your upper arm.



The device should be above your elbow and level with your heart. The display should face you.

**TIP:** You should be able to remove the fastened cuff without adjusting it each time.


- 5 If necessary, remove the cuff from your arm and readjust the cuff.
- 6 Sit down with your feet flat on the floor.
- 7 Place your arm on a table or flat surface.
- 8 Press any button to wake up the device.
- 9 Select an option:
  - For a 1X measurement, press ♥.
  - ♥ appears.
  - For a 3X measurement, hold ♥.
  - ♥♥♥ appears.

**NOTE:** There is a one minute rest period between each measurement. Do not move or talk until the third measurement is complete.

The arm cuff automatically inflates and deflates for each measurement. The results appear on the display.





## Stopping a Measurement

You can stop a measurement at any time.

- 1 Press .
- 2 Slide the fastened cuff off of your upper arm.

## Viewing Your Last Measurement

This feature is only available on guest mode.

- 1 Press  > .  
 appears on the screen.
- 2 Press .

## Blood Pressure Categories

### CAUTION

This chart is not intended to provide medical diagnosis. You must consult your physician to interpret the measurements.






The data in this chart is provided by the American Heart Association®.

Category	Systolic (mmHg)	Diastolic (mmHg)
Normal	< 120	and < 80
Elevated	120 to 129	and < 80
High blood pressure, stage 1	130 to 139	or 80 to 89
High blood pressure, stage 2	≥ 140	or ≥ 90
Hypertensive crisis	>180	and/or > 120

## Device Information

### Resetting the Device

Resetting the device erases all data and connections.

- 1 Press any button to wake up the device.  
The  appears.
- 2 While the  is visible, Hold  and  for 10 seconds.  
 appears, and the device resets.

## Replacing the Batteries

The device operates on four AAA batteries.

- 1 Remove the battery cover.
- 2 Remove the batteries from the device.
- 3 Insert the new batteries, observing polarity.



- 4 Replace the battery cover.

## Device Care

### NOTICE

Avoid extreme shock and harsh treatment, because it can degrade the life of the product.

Do not store the device where prolonged exposure to extreme temperatures can occur, because it can cause permanent damage.

Do not use a sharp or abrasive object to clean the device.

Avoid chemical cleaners, abrasive cleaners, solvents, and insect repellents that can damage plastic components and finishes.

Avoid leaving the device in direct sunlight.

## Cleaning the Device

If necessary, you can clean the surface of the device to remove unwanted residue, lint, and dust.

**NOTE:** You should clean the device at least once a year.

- 1 Clean the surface of the device using a cloth dampened with a mild detergent solution or clean water.
- 2 Wipe the device dry.

## Storing the Device















- Roll the cuff strap until it is against the device, and secure the cuff with the hook and loop tab.
- Store the device in a cool, dry place, away from direct sunlight.

## Specifications

Display	3.3 cm (1.3 in.) OLED
Cuff pressure range	From 0 to 280 mmHg
Measurement range	Systolic blood pressure: from 60 to 250 mmHg Diastolic blood pressure: from 40 to 180 mmHg
Measurement method	Oscillometric
Accuracy	Blood pressure value: $\pm 3$ mmHg or $\pm 2\%$ Pulse: $\pm 5\%$
Power rating	4 x 1.5 V LR03 AAA batteries
Arm circumference	From 22 to 42 cm (from 8.6 to 16.5 in.)
Weight	280 grams (0.62 lb.) without batteries
Dimensions	150 x 60 x 80 mm
Battery life	Up to 6 mo.
Operating temperature range	From 10° to 40°C (from 50° to 104°F) From 15% to 90% relative maximum humidity Maximum altitude: 2,000 m (6561.68 ft)
Storage and transportation temperature range	From -25° to 70°C (from -13° to 158°F) From 10% to 95% relative maximum humidity Maximum altitude: 2,000 m (6561.68 ft.) From 800 to 1,060 hPa
Transmission method	Bluetooth® low emission 5.0
Wireless network capability	IEEE 802.11 b/g/n
Warranty	One yr.
Applied part	Type BF (upper arm cuff)
Content	BP707 4 AAA batteries Cuff (attached) Quick start manual
Expected service life	3 yr.
Power on or wake up time	5 sec.
Measurement cycle time	From 50 to 60 sec., according to pressure value


## Symbol Definitions

These symbols and abbreviations may appear on the device labels.

	Do not use this product if you have an implanted pacemaker.
	Read the instructions before use.
	Electrodes as applied part, type BF.
	Manufacturer
	Class II symbol
	WEEE disposal and recycling symbol. The WEEE symbol is attached to the product in compliance with the EU directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE). It is intended to deter the improper disposal of this product and to promote reuse and recycling.
	Low battery warning. Indicates that the battery is lower than 50%.
	Battery is too low to switch the device on and should be charged immediately.
	Universal recycling symbol.
	FCC certification mark.
	Storage and transportation conditions.
	Storage and transportation conditions
	Green Dot packaging. A financial contribution has been paid to a qualified national packaging recovery organization.
	Bluetooth symbol.
IP22	The device is protected against solid foreign objects greater than 12.5 mm (0.49 in.). The device is protected against water sprayed up to 15° from vertical.
S/N	Serial number.
SYS / DIA	Systolic blood pressure in mmHg/ diastolic blood pressure in mmHg.
BPM	Heart beats per minute during a measurement.

## Error Codes

Error codes may appear on the device screen to indicate a problem with the device (*Tips for Getting a Good Measurement, page 3*). If your BPM device displays an error code, you should remove the device from your arm and turn the device off and on before attempting another measurement.

	The device battery level is low.
E1	The device did not detect a measurement.
E2	The cuff did not inflate properly or has a leak.
E3	The measurement is incorrect.
E4	The device timed out while the cuff was inflating or deflating.
E5	The cuff is partially inflated.
E6	The measurement exceeded the maximum blood pressure value.

## Manufacturer Information

- Ya Horng Electronic Co., Ltd
- [www.yahorng.com](http://www.yahorng.com)
- +886-6593-2201
- [healthcare@yahorng.com](mailto:healthcare@yahorng.com)
- No. 35, Shalun, Anding Dist, Tainan City, TAIWAN

## Radio Frequency Radiation Exposure

This device is a portable transmitter and receiver that uses an internal antenna to send and receive low levels of radio frequency (RF) energy for data communications. The device emits RF energy below the published limits for portable use when operating in its maximum output power mode and when used with Ya Horng authorized accessories. To comply with RF exposure compliance requirements, the device should be used as described in the manual. The device should not be used in other configurations.

## RF Exposure Information (SAR)

This device meets the government's requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. The exposure standard employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the EUT transmitting at the specified power level in different channels. The FCC has granted an Equipment Authorization for this device with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this device is on file with the FCC and can be found under the Display Grant section of [www.fcc.gov](http://www.fcc.gov) after searching on FCC ID: Z50-BP707

## Software License Agreement

BY USING THE DEVICE, YOU AGREE TO BE BOUND BY THE TERMS AND CONDITIONS OF THE FOLLOWING SOFTWARE LICENSE AGREEMENT. PLEASE READ THIS AGREEMENT CAREFULLY.

Ya Horng Electronic Co., Ltd. and its subsidiaries ("Ya Horng") grant you a limited license to use the software embedded in this device (the "Software") in binary executable form in the normal operation of the product. Title, ownership rights, and intellectual property rights in and to the Software remain in Ya Horng and/or its third-party providers.

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## Limited Warranty

THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER LEGAL RIGHTS, WHICH VARY FROM STATE TO STATE (OR BY COUNTRY OR PROVINCE). YA HORNG DOES NOT EXCLUDE, LIMIT OR SUSPEND OTHER LEGAL RIGHTS YOU MAY HAVE UNDER THE LAWS OF YOUR STATE (OR COUNTRY OR PROVINCE). FOR A FULL UNDERSTANDING OF YOUR RIGHTS YOU SHOULD CONSULT THE LAWS OF YOUR STATE, COUNTRY OR PROVINCE.

Products are warranted to be free from defects in materials or workmanship for one year from the date of purchase. Within this period, Ya Horng will, at its sole option, repair or replace any components that fail in normal use. Such repairs or replacement will be made at no charge to the customer for parts or labor, provided that the customer shall be responsible for any transportation cost. This Limited Warranty does not apply to: (i) cosmetic damage, such as scratches, nicks and dents; (ii) consumable parts, such as batteries, unless product damage has occurred due to a defect in materials or workmanship; (iii) damage caused by accident, abuse, misuse, water, flood, fire, or other acts of nature or external causes; (iv) damage caused by service performed by anyone who is not an authorized service provider of Ya Horng; (v) damage to a product that has been modified or altered without the written permission of Ya Horng, or (vi) damage to a product that has been connected to power and/or data cables that are not supplied by Ya Horng. In addition, Ya Horng reserves the right to refuse warranty claims against products or services that are obtained and/or used in contravention of the laws of any country.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE WARRANTIES AND REMEDIES CONTAINED IN THIS LIMITED WARRANTY ARE EXCLUSIVE AND IN LIEU OF, AND YA HORNG EXPRESSLY DISCLAIMS, ALL OTHER WARRANTIES AND REMEDIES, WHETHER EXPRESS, IMPLIED, STATUTORY, OR OTHERWISE, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, STATUTORY REMEDY OR OTHERWISE. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY HAVE OTHER LEGAL RIGHTS, WHICH VARY FROM STATE TO STATE AND FROM COUNTRY TO COUNTRY. IF IMPLIED WARRANTIES CANNOT BE DISCLAIMED UNDER THE LAWS OF YOUR STATE OR COUNTRY, THEN SUCH WARRANTIES ARE LIMITED IN DURATION TO THE DURATION OF THIS LIMITED WARRANTY. SOME STATES (AND COUNTRIES AND PROVINCES) DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

IN NO EVENT SHALL YA HORNG BE LIABLE IN A CLAIM FOR BREACH OF WARRANTY FOR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM THE USE, MISUSE OR INABILITY TO USE THIS PRODUCT OR FROM DEFECTS IN THE PRODUCT. SOME STATES (AND COUNTRIES AND PROVINCES) DO NOT ALLOW THE EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

If during the warranty period you submit a claim for warranty service in accordance with this Limited Warranty, then Ya Horng will, at its option: (i) repair the device using new parts or previously used parts that satisfy Ya Horng's quality standards, (ii) replace the device with a new device or a refurbished device that meets Ya Horng's quality standards, or (iii) exchange the device for a full refund of your purchase price. SUCH REMEDY SHALL BE YOUR SOLE AND EXCLUSIVE REMEDY FOR ANY BREACH OF WARRANTY. Repaired or replaced devices have a 90 day warranty. If the unit sent in is still under its original warranty, then the new warranty is 90 days or to the end of the original 1 year warranty, whichever is longer.

If you seek warranty service outside of the original country of purchase, Ya Horng cannot guarantee that the parts and products needed to repair or replace your product will be available due to differences in product offerings and applicable standards, laws and regulations. In that case, Ya Horng may, in its sole discretion and subject to applicable laws, repair or replace your product with comparable Ya Horng products and parts, or require you to ship your product to a Ya Horng Authorized service facility in the country of original purchase or to a Ya Horng Authorized service facility in another country that can service your product, in which case you will be responsible for complying with all applicable import and export laws and regulations and for paying all custom duties, V.A.T., shipping fees and other associated taxes and charges. In some cases, Ya Horng and its dealers may be unable to service your product in a country outside of the original country of purchase or return a repaired or replaced product to you in that country due to applicable standards, laws or regulations in that country.

**Online Auction Purchases:** Online auction confirmations are not accepted for warranty verification. To obtain warranty service, an original or copy of the sales receipt from the original retailer is required. Ya Horng will not replace missing components from any package purchased through an online auction.

**International Purchases:** A separate warranty may be provided by international distributors for devices purchased outside the United States depending on the country. If applicable, this warranty is provided by the local in-country distributor and this distributor provides local service for your device. Distributor warranties are only valid in the area of intended distribution.

**Australian Purchases:**

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The benefits under our Limited Warranty are in addition to other rights and remedies under applicable law in relation to the products

## Disposal

Actuation of European directives 2011/65/EU , 2012/19/EU and 2015/863/EU, for reduction in use of dangerous substances in the electric and electronic device and for garbage disposal. The symbol applied on the device or its packaging means that at the end of its useful life the product must not be disposed of with domestic waste.

At the end of devices useful life, the user must deliver it to the able collecting centers for electric and electronic garbage or give back to the retailer when purchasing a new device. Disposing of the product separately prevents possible negative consequences for the environment and for health, deriving from inadequate disposal. It also allows the recovery of materials of which it's made up in order to obtain an important saving of energy and resources and to avoid negative effects to the environment and health. In case of abusive disposal of device by the user, will be applied administrative endorsements in compliance with current standard. The device and its parts is marked with regard to disposal, as appropriate, in accordance with national or regional regulations.

## Federal Communications Commission (FCC) Statement

**15.21** You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

**15.105(b)** 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.

**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 of the device.

## RF Statement

Medical Electrical Equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the following.

Interference may occur in the vicinity of equipment marked with

Portable and mobile RF communication equipment (e.g. cell phones) can affect Medical Electrical Equipment.

The device uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment

The device is suitable for use in all establishments, including domestic establishments and those directly connected to the public low voltage power supply network that supplies buildings used for domestic purposes

Portable and mobile RF communications equipment should be used no closer to any part of the device, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter The device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled.


The device should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, which should be observed to verify normal operation in the configuration in which it will be used. Medical Electrical Equipment needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the following. Portable and mobile RF communication equipment (e.g. cell phones) can affect Medical Electrical Equipment.

Guidance and manufacturer's declaration-electromagnetic emissions		
The BPM is intended for use in the electromagnetic environment specified below. The customer or the user of the BPM should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment - guidance
CE emissions CISPR11	Group 2	The BPM uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RE emissions CISPR11	Class B	
Harmonic emissions IEC 61000-3-2	Not applicable	The BPM is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Voltage fluctuations/ Flicker emissions IEC 61000-3-3	Not applicable	

## Declaration – Electromagnetic Emissions and Immunity

For equipment and systems that are not life-supporting and are specified for use only in a shielded location Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally. Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the unit, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

The BPM is intended for use in the electromagnetic environment specified below.			
The customer or the user of the BPM should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	Contact: $\pm 8$ kV Air: $\pm 2$ kV, $\pm 4$ kV, $\pm 8$ kV, $\pm 15$ kV	Contact: $\pm 8$ kV Air: $\pm 2$ kV, $\pm 4$ kV, $\pm 8$ kV, $\pm 15$ kV	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/ burst IEC 61000-4-4	$\pm 2$ kV for power supply lines $\pm 1$ kV for input/output lines	N/A	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	$\pm 0.5$ kV, $\pm 1$ kV line(s) to line(s) $\pm 0.5$ kV, $\pm 1$ kV, $\pm 2$ kV line(s) to earth	N/A	A Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions, and voltage variations on power supply input lines IEC 61000-4-11	Voltage dips: 0 % UT; 0,5 cycle 0 % UT; 1 cycle 70 % UT; 25/30 cycles Voltage interruptions: 0 % UT; 250/300 cycle	Voltage dips: N/A	Mains power quality should be that of a typical commercial or hospital environment. If the user of the BPM requires continued operation during power mains interruptions, it is recommended that the BPM be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m 50 Hz or 60 Hz	30 A/m 50 Hz and 60 Hz	The BPM Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note: NA: not applicable. The BPM is battery-powered, not AC-powered			

The BPM is intended for use in the electromagnetic environment specified below.			
The customer or the user of the BPM should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz  6 Vrms: in ISM and amateur radio bands between 0,15 MHz and 80 MHz  80 % AM at 1 kHz	N/A	Portable and mobile RF communications equipment should be used no closer to any part of the BPM including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.
Radiated RF IEC 61000-4-3	10 V/m 80 MHz – 2,7 GHz 80 % AM at 1 kHz	10 V/m 80 MHz–2,7 GHz 80 % AM at 1 kHz	<p>Recommended separation distance:  <math>d = 1,2 \sqrt{P}</math>  <math>d = 1,2 \sqrt{P}</math> 80MHz to 800 MHz  <math>d = 2,3 \sqrt{P}</math> 800MHz to 2,7 GHz</p> <p>Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m).</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p> 
<p>NOTE1 At 80 MHz and 800 MHz, the higher frequency range applies.</p> <p>NOTE2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.</p> <p>Note3: "NA" means not applicable. The EUT is operating by battery, no supply for AC mains.</p>			

Recommended separation distance between portable and mobile RF communications equipment and the BPM			
The BPM is intended for use in an electromagnetic environment (for home healthcare) in which radiated RF disturbances are controlled. The customer or the user of the BPM can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the BPM as recommended below, according to the maximum output power of the communications equipment.			
Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1,2\sqrt{P}$	80 MHz to 800 MHz $d = 1,2\sqrt{P}$	800 MHz to 2,7 GHz $d = 2,3\sqrt{P}$
0,01	N/A	0,12	0,23
0,1	N/A	0,38	0,73
1	N/A	1,2	2,3
10	N/A	3,8	7,3
100	N/A	12	23
For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where p is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.			
NOTE1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.			
NOTE2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
Manufacturer's declaration-electromagnetic immunity Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment			

The BPM is intended for use in the electromagnetic environment (for home healthcare) specified below.

The customer or the user of the BPM should assure that it is used in such an environment.

Test frequency (MHz)	Band <sup>a)</sup> (MHz)	Service <sup>a)</sup>	Modulation <sup>b)</sup>	Maximum power (W)	Distance (m)	IMMUNITY TEST LEVEL (V/m)	Compliance LEVEL (V/m) (for home healthcare)
385	380 – 390	TETRA 400	Pulse modulation b) 18 Hz	1,8	0,3	27	27
450	430 – 470	GMRS 460, FRS 460	FM c) ±5 kHz deviation 1 kHz sine	2	0,3	28	28
710	704 – 787	LTE Band 13,17	Pulse modulation b) 217 Hz	0,2	0,3	9	9
745							
780							
810	800 – 960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation b) 18 Hz	2	0,3	28	28
870							
930							
1 720	1 700 – 1 990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation b) 217 Hz	2	0,3	28	28
1 845							
1 970							
2 450	2 400 – 2 570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation b) 217 Hz	2	0,3	28	28
5 240	5 100 – 5 800	WLAN 802.11 a/n	Pulse modulation b) 217 Hz	0,2	0,3	9	9
5 500							
5 785							

NOTE If necessary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the ME EQUIPMENT or ME SYSTEM may be reduced to 1 m. The 1 m test distance is permitted by IEC 61000-4-3.

a) For some services, only the uplink frequencies are included.

b) The carrier shall be modulated using a 50 % duty cycle square wave signal.

c) As an alternative to FM modulation, 50 % pulse modulation at 18 Hz may be used because while it does not represent actual modulation, it would be worst case.

## Maintenance

- 1 No Firmware update is needed during the service life of this product.
- 2 On very rare occasions, the device might need reinstalling the firmware due to hardware malfunction, in this case, the intended use remains unchanged.
- 3 Any modification or change to the firmware is prohibited. Contact your local dealer for repair service or contact the Ya Horng customer service at support.yahorng.com.

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