RUN STAR

Instruction Manual

Electronic Blood Pressure Monitor

Model: BP-205

Version: 1.0
Revise Date: 2024-11

Made in China

CONTENTS

1. Safety Instructions

Thanks for purchasing our Arm-type Electronic Blood Pressure Monitor.
⚠ Please read this instruction manual carefully before use.
⚠ This device is not a direct diagnostic device. It is only suitable for monitoring the blood pressure and pulse rate of adults. The measurement results cannot be used for self-diagnosis or treatment. Please follow the doctor's advice.

Blood pressure is one of important indicator to reflect human blood circulatory system. The home blood pressure monitor is easy to use frequently. It is very significant to prevent cardiovascular disease, to improve the initiative of hypertension patient for treatment, and to control the high blood pressure.

Blood pressure fluctuates continually (day and night). The highest value usually appears in the daytime and lowest one usually at midnight. It is recommended that you measure your blood pressure at approximately the same time each day.

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

Definition and Classification of Blood Pressure Levels from WHO-ISH

Classification	Systolic Pressure (mmHg)	Diastolic Pressure (mmHg)
Ideal Blood Pressure	<120	<80
Normal Blood Pressure	<130	<85
High Normal	130~139	85~89
Hypertension Grade Ⅰ (Slight)	140~159	90~99
Hypertension Grade Ⅱ (Medium)	160~179	100~109
Hypertension Grade Ⅲ (Serious)	⩾180	⩾110
Isolated Systolic Hypertension	⩾140	<90

The above information is for reference only.

Warning:

The product is only used for daily monitoring of blood pressure, not for the diagnosis of hypertension.
● This product is only used for blood pressure measurement. Accidents may occur when used for purposes other than blood pressure measurement.
● This product is only used for adults. Please do not use the instrument for people who can't express their thoughts correctly, including infants and newborns.
● It is dangerous for patients to judge and treat themselves through blood pressure measurement, which should be explained by professionals. Self-judgment of the blood pressure may lead to deterioration of the condition.
● If you feel uncomfortable when using this product, for example, when the air bag is inflated for a long time, it may cause blood loss. The blood pressure measurement must be terminated at this time, you can press the power button, the device will immediately release the air in the air bag.
● Patients with severe blood pressure and circulation disorders and with blood diseases, please use under the guidance of a doctor. The pulse displayed by this device is not suitable to be used as a fixed frequency device to check the heart rate.
● The blood pressure measured by patients with arrhythmia and arteriosclerosis should be confirmed by professional doctors.
● When there are common arrhythmias (such as atrial premature beats, ventricular premature beats and atrial fibrillation, etc.), the measured values may be inaccurate or blood pressure cannot be measured.
● Please keep away from high voltage equipment and signal transmitting device when using the product to avoid interference and error danger of movement.
● This device has sensitive electronic components, please do not use the device directly in the strong electromagnetic interference environment (e.g. near the mobile power supply, microwave oven, etc.), because it may cause inaccuracy.
● Do not take blood pressure measurements if the appearance of the cuff is damaged.Otherwise, it may be damaged the skin.
● Do not pressurize when the arm strap is not rolled on the arm.
● Do not use volatile solvents to wipe the device.
● Do not drop the main engine on the ground to avoid collision or strong impact, twisting or binding the band ring.
● Do not put the battery into the fire.
● Keep the device out of reach of infants, children or pets, since inhalation or swallowing of small parts (e.g. batteries) can be dangerous or even fatal.
● Do not immerse it in water or other liquids of any kind.
● The user must check if the device can work safely, and see that it is in proper working condition before using.
● The device is not suitable for use in the presence of flammable anesthetic mixtures with air, oxygen or nitrous oxide.
● When the device is in use, there should not be any great power appliances such as high voltage cables, X-ray machine, ultrasound equipment and electrize nearby.
● Don not near active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances is high.
● 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.
● Use of accessories, transducers and cables 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.
● After replacement of parts (such as cuff, battery) and the host monitor reaching the end of the equipment life may cause measurement error and inaccuracy, and may cause pollution to the environment, please follow the local laws and regulations to handle it.
● No modification of this device is allowed.
● This product can only be allowed to replace the battery. If other parts or materials are used, the security will be reduced.

⚠Safety Instructions

- This operation manual is also a technical instruction manual.
- Make sure the batteries are installed correctly before use.
- It is recommended that you practice many times to familiarize yourself with the measurement method and try not to change the factory settings of the device

-This device contains sensitive electronic components. Please avoid using it in the environment with strong electromagnetic interference (such as near mobile phones and microwave ovens), otherwise the measurement results may not be accurate.

⚠ Any serious incident should be reported to EU represent, manufacturer and competent authority.

Clinical Benefits to be Expected:
Accurate blood pressure measurement.
Residual Risks:
- You may experience the effects of incorrect measurement values, which may be mainly caused by unconscious mis-operation, but the accuracy of product has been verified and validated based non-clinical test and clinical data, so such circumstance rarely occurs.
- You may experience congestion, feel unwell or peripheral vascular block due to the malfunction of cuff, but the cuff has been tested according to IEC 80601-2-30:2018, so its basic safety and performance have been verified, so such circumstance rarely occurs.
- The product may cause skin allergy or irritation due to different constitution of the individual, its biocompatibility has been verified by test according to ISO 10993 series standards, so such circumstance rarely occurs.
- The product may cause cross infection for it is intended to be reused, we have included the current cleaning method in section 11 of this manual, so such circumstance rarely occurs when you strictly follow the instructions.
- The product may cause you injury when its surface is rough or with sharp corner/edges, it has been designed and tested according to EN 60601-1:2006+A1:2013, so its basic safety and essential performance have been verified, so such circumstance rarely occurs.

2. Working Principle

The Electronic Blood Pressure Monitor adopts the principle of oscillometric method, receives the blood pressure signal in the armband (cuff) through the pressure sensor, and measures the systolic blood pressure and diastolic blood pressure of the human body after processing by the chip. During the process of measuring blood pressure, the blood pressure sensor detects the number of pulsations of arterial blood vessels, and then converts them into the number of pulsations within a minute to achieve pulse rate measurement.

3. Intended Use

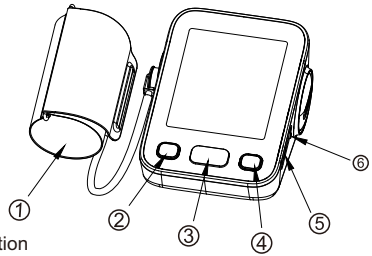
This device is a digital monitor intended for use in measuring blood pressure and pulse rate in adult patient population who can understand this instruction manual with the arm circumference range printed on the arm cuff. Population: Adult (age＞18 year), not including pregnant patients. Contradictions: No known contradictions. Side effects: Not applicable. Note: The lay person with health care knowledge who should have at least a high school degree or above. The intended user of this device is only the patient.

4. Product Introduction

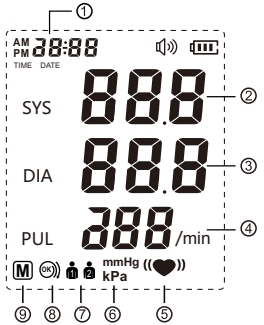
Product Name: Electronic Blood Pressure Monitor
Model: BP-205
This equipment is composed of a main body and a cuff. The main body is composed of a central processing unit, a pressure sensor, an air pump, a solenoid valve, a uniform speed vent valve, a PCB board, and an LCD liquid crystal display.

5. Product Structures

① Cuff
② Set Button
③ ON/OFF Button
④ Memory Button
⑤ Power Port
⑥ Power Switch



LCD Display Explanation



① Date/Time
② Systolic Blood Pressure
③ Diastolic Blood Pressure
④ Pulse Rate
⑤ Arrhythmias Icon
⑥ Blood Pressure Unit
⑦ User Icon
⑧ Cuff Hint
⑨ Memory Icon and Groups

6. Symbol Explaination

Graphic Symbol	Content
	**WARNING** Indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.
	**CAUTION** Indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury to the user or patient or damage to the equipment or other property.
	Please read the instructions before use.
	It belongs to the electric shock protection BF application part.
IP22	Cover Protection Class IP22：2 Protected against solid foreign objects of 12,5 mm 0 and greater; 2 Protected against vertically falling water drops when enclosure tilted up to 15°.
	The WEEE mark for electronic product recovery indicates that when the end user intends to discard the product, it must be taken to the appropriate facility for recovery and recycling.
	Manufacture date
	Manufacturer
	Production batch number
	MR unsafe

7. Product Specification

Item	Specification
Operating Environment	Temperature: 5˚C~40˚C Humidity: 15%~85% RH Atmospheric pressure range: 70kPa~106kPa
Storage and Transportation Environment	Temperature: -20˚C~50˚C Humidity: 15%~85% RH Atmospheric pressure range: 70kPa~106kPa
Measure Method	Electron oscillography, Deflated measurement
Pressure Sensor	Resistance type pressure sensor
Maximum allowed pressure	300mmHg

Cuff deflation pressure	＜10s deflate 260mmHg to less than 15mmHg
Static leakage	⩽±6mmHg for 6min
Manometer test mode	Dynamic pressure mode, Static pressure mode
Display	LCD display
Measuring Range	Blood Pressure/Indication Range: 0-299mmHg (0-39.9kPa)
	Pulse Rate: 40-199 times/minute
Measuring Accuracy	Blood Pressure: ±3mmHg(or±0.4kPa)
	Pulse Rate: ±5 %
Reproducibility of Blood Pressure Determination	±3mmHg
Stability of Blood Pressure Determination	±2mmHg
Resolution	1mmHg/0.1kPa
Power Supply	DC 6V (4*1.5V AA)
Memory Volume	2 users memory, store 99 groups of measurement values for each user.
Measure Time	<60s
Auto off	Auto power off after 60 seconds without any operation
Cuff Specification	CUFF circumference: about(22~42)cm
Dimension	About 106mm*137mm*80.9mm (lenght*width*height)
Weight	About 290g (not including battery and cuff)
Package List	Cuff, battery, USB cable, instruction manual
Lifetime	5 years

Essential Performance

1	Measuring range	Blood Pressure/ Indication range: 0-299mmHg(0-39.9kPa)
		Pulse Rate: 40-199 times/minute
2	Measuring accuracy	Blood Pressure: ±3mmHg (or±0.4kPa)
		Pulse Rate: ±5 %

Clinical Study Summary
The electronic blood pressure monitor has been performed clinical investigation according to ISO 81060-2: 2018 Non-invasive sphygmomanometers - Part 2: Clinical investigation of intermittent automated measurement type. The mean error and the maximum permissible standard deviation met the requirements of ISO 81060-2: 2018.

Statement
-The electronic blood Pressure monitor products manufactured by our company have passed clinical verification, and their safety and effectiveness are in line with the relevant national regulatory requirements.
-The Electronic blood Pressure monitor products manufactured by our company have been conducted contrast test with mercury column blood Pressure monitor, the blood pressure value measured by this equipment is equivalent to the measurement value of the auscultatory method and its error meets the specified requirements of IEC 80601-2-30, which is within the acceptable range.

The Explain of Blood Pressure Indicator

Blood Pressure Value (mmHg)	Blood Pressure Indicator	Classification
Diastolic pressure<60 or Systolic pressure<90	0 grid	Low blood pressure
Diastolic pressure≤80 and Systolic pressure≤120	1 grid	Optimal blood pressure
Diastolic pressure≤85 and Systolic pressure≤130	2 grid	Normal blood pressure
Diastolic pressure≤90 and Systolic pressure≤140	3 grid	Normal hypertension
Diastolic pressure≤100 and Systolic pressure≤160	4 grid	Mild hypertension
Diastolic pressure≤110 and Systolic pressure≤180	5 grid	Moderate hypertension
Diastolic pressure>110 and Systolic pressure>180	6 grid	Severe hypertension

The blood pressure indicator is based on the systolic pressure and diastolic pressure which have the most cells. For example: diastolic pressure is 78mmHg (should show 1 grid), systolic pressure is 132mmHg (should show 3 grid s), So the bar should display 3 bars. Judging from top to bottom, after the conditions are met, it will not continue to make judgments.

8. Settings

8.1. Unit Switching
In the shutdown state, short press the “SET” key, if the unit is mmHg, press “ ” key to swtich kPa. When the 0.0kPa displayed, the setting is success. Press “START” key to shut down and save.

8.2. User Switching
In the shutdown state, short press the “SET” key twice and enter the user symbol. Press the “ ” to switch user “1” and user “2”.

8.3. Date/Time Setting
In the shutdown state, press the “SET” key three times to enter the date adjustment, press the “ ” key to enter the year adjustment, then press the “SET” key, the month flickers, and then enter the month adjustment state.
Press the “ ” key to adjust the month, then press the “SET” key the date flickers, and then enter the date setup state.
Press the “ ” key to adjust the date, then press the “SET” key the time icon flickers, and then enter the hour system setup state.
Press the “ ” key to adjust the hour system, then press the “SET” key the hour flickers, and then enter the hour setup state. Afternoon displays PM.
Press the “ ” key to adjust the hour, then press the “SET” key the minute flickers, and then enter the minute setup state.
Press the “ ” key to adjust the minute, then the minute setup is completed.

8.4. Read the Memory
Short press the “ ” key to read the memory value.
While reading the memory value by press the “ ” key, continue to hold down the “START” key for 2 seconds, and when the screen is fully displayed as --, then the memory is deleted. Memory deletion is to delete all measurement data of all users at once.

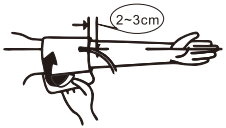
8.5. Voice Switching
Press “SET” key, the high pressure zone display “SP”, enter the speaker switch setting state. Press “ ” key to adjust ON and OFF. The voice setting is completed.

9. Blood Pressure Measurement Method

9.1 Check and Prepare Before Measurement
(1) The subjects should avoid exercise, bathing, drinking stimulating drinks

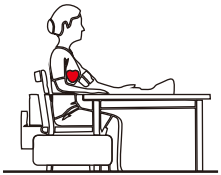
(such as coffee or alcohol), and smoking within 30 minutes before the measurement. Please rest in a comfortable and stable environment 5 minutes before the measurement.
(2) During the measurement, the subjects should take off their coats, sweaters and other thick clothes, and bare their upper arms or wear thin shirts for the measurement.
(3) The subjects should sit in a chair with his feet flat on the floor and his arms on the table.
(4) Check that the battery is properly installed.

9.2. Applying the Cuff on the Arm
(1) Take out the cuff, push open the cuff into a tubular shape, until it is suitable for the arm to get in.
(2) Wrap the cuff around the upper arm, and also make the air duct located on the forearm.
(3) The bottom of the cuff shall be located at the inner side of the upper arm elbow joint, going upward for 2cm~3cm.



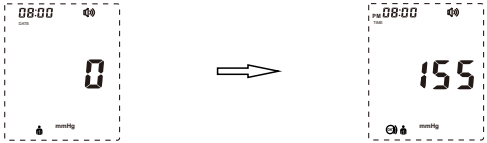
(4) Tightly wrap the cuff, and fix it with cloth buckle. Leave a finger gap between the arm and the cuff.

(5) Align the air duct plug of the cuff with the air duct interface on the left side of the machine body, and insert it to the end.



Correct measurement posture:
Please measure in a quiet, relaxed state
A, Put your elbows on the table
B, Place the cuff in line with heart height
C, Relax your body with your palms up

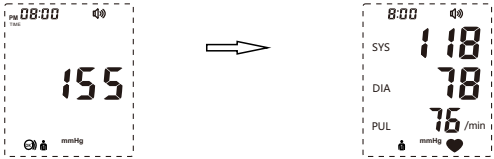
9.3 Blood Pressure Measurement
(1) In the state of shutdown or standby, press the “START” for starting up, it will start measurement automatically, and the CUFF will inflate automatically.



Start Measuring Inflating

*When the CUFF starts to inflate, the blood pressure monitor will start to work automatically. In the process of inflation, the blood Pressure monitor will also detect the pulse, so please do not move your arm in the whole measurement process, and remain static throughout the process. The arm will feel the CUFF extrusion, and this is a normal phenomenon of inflation. If there is an error indication, please refer to the next page“error and fault troubleshooting” to troubleshoot the error.

(2) Stop automatically after full inflation, and start to detect the pulse rate.



After the measurement is completed, the blood pressure monitor will display your blood pressure value and pulse value.

Notes: Please maintain correct posture and keep quiet while measuring. If you wish to terminate the measurement, press the “START” button, the pressure stops and the air from the cuff is expelled.

(3) After the measurement is completed, take off the CUFF, press the “START” key, and shut down manually. If no key is pressed, then the system will be shut down automatically after 60 seconds.

Cautions:

- Any blood pressure reading can be affected by the measurement site, the position of the patient (standing, sitting, lying down), exercise, or the patient’s physiologic condition.
- The operator should check cuff connection status, cuff position or retake measurement if unexpected readings are obtained.
- The performance of the blood pressure monitor can be affected by extremes of temperature, humidity and altitude, and please use the device in the environment described in the Instruction Manual.

- Please avoid compression or restriction of the connection tubing.
- When using this device to measure, do not wrap the cuff around the upper arm, otherwise incorrect measurement will be obtained.
- The measurement results can be influenced by posture and physical condition. Please understand blood pressure knowledge and eliminate all kinds of interference factors.
- When the cuff is too loose or too tight, it will affect the accuracy of measurement.
- Please try to measure with fixed time, fixed body position, fixed body posture, fixed blood pressure monitor.
- Please measure one arm as firmly as possible. If it is the first time, measure both hands.
- During the measurement, the cuff is persistently overinflated, and the pressure may make the subject feel uncomfortable. If the feeling is strong, please press the “ON/OFF” button in time to relieve pressure or pull out the plug of the tracheal pipe and take off the cuff.
- The interval between two measurements shall be at least 2-3 minutes. The waiting between two measurements is mainly to get the artery back to the state before the blood pressure is measured. Too frequent measurements can cause injury to the PATIENT due to blood flow interference.
- If the cuff is placed below or above the heart, the correct measurement will not be obtained. Please maintain correct measurement posture. Do not move, bend over, sit cross-legged, etc..
- The continuous cuff pressure due to connection tubing kinking may cause the blood flow interference and resulting harmful injury to the patient.
- Too frequent measurements can cause injury to the patient due to blood flow interference.
- The application of the cuff and its pressurization on any limb where intravascular access or therapy, or an arterio-venous (A-V) shunt is present because of temporary interference with blood flow and could result in injury to the patient.
- The pressurization of the cuff can temporarily cause loss of function of simultaneously used monitoring device on the same limb.
- The need to check that operation of the blood pressure monitor does not result inprolonged impairment of the circulation of the blood of the patient.
- Do not use the cuff on the wounded or operated arm as further injury may result.
- Please use it under the environmental conditions specified in this manual, otherwise it may affect the measurement results of the device.
- If the display is abnormal at the end of the measurement, the measurement is not carried out correctly. Please see the error and fault instructions on the next page.

10. Error and Fault Troubleshooting

Symbol	Cause	Solution
ER1	Abnormal sensor signal	Check whether the cuff is normal and whether it is worn correctly, re-measure.
ER2	No measurement results	Check whether the cuff is normal, whether it is worn correctly, whether the blood pressure monitor communicates with heart. Using correct sitting posture, keep relax and quiet, re-measure.
ER3	Abnormal measurement results	Check whether the cuff is normal, whether it is worn correctly, whether the blood pressure monitor communicates with heart. Using correct sitting posture, keep relax and quiet, re-measure.
ER4	The cuff is too loose or leaks air.	Check whether the cuff is tight enough to fit one or two fingers into your arm; check whether the air tube joint is inserted into the device; check whether there is obvious air leakage between the air tube and the cuff, re-measure.
ER5	The cuff is too tight or the airway is blocked.	Check whether the cuff is tight enough to fit one or two fingers into your arm; check whether the air tube connected to the cuff is bent or pressed by heavy objects, re-measure.
ER6	Severe pressure interference during measurement.	Check whether there are strong interference devices in the measurement environment, such as mobile phones, motors, and microwave ovens. Do not speak during measurement and keep relaxed. Do not use force or move the arm suddenly during measurement, re-measure.
ER7	Pressure exceeds upper limit	Do not speak during measurement and keep relaxed. Do not use force or move the arm suddenly during measurement, re-measure.

11. Maintenance, Cleaning, Repair and Calibration

11.1. Maintenance and Calibration

- There is no need for special maintenance during the use of the equipment. Please contact the seller or manufacturer if there is any fault.
- Please follow the instructions in this manual, use and store in the specified environmental conditions, otherwise the performance accuracy of the equipment will not be guaranteed.
- Do not put the equipment in high temperature, damp, full of water vapor or direct sunlight.
- ⚠Keep the device in a safe place out of the reach of children.
- The cuff contains a airbag with good air tightness. Please do not over fold, pull or twist it.
- The lifespan of the cuff is about 10,000 cycles. If replacement is required, please select the standard cuff provided by the manufacturer, otherwise measurement errors may occur.
- It is recommended to calibrate the device after 6 months of use to ensure the accuracy of measurements. It is recommended to send it back to the manufacturer for calibration, or you can find a third-party testing agency for calibration.

11.2. Cleaning

Cleaning: Use a soft dry cloth or a soft cloth moistened with a little water to clean your device and arm cuff for 2 minutes, and the dosage is about 15ml.
It is recommended to clean the device once a day before use.
Visual inspection at the end of the cleaning step, if there are any residual stains the user should either repeat the relevant previous cleaning steps.
Disinfection: Use a soft dry cloth or a soft cloth moistened with 75% medical alcohol to disinfect your device and arm cuff for 2 minutes after cleaning, and the dosage is about 15ml.
It is recommended to disinfection the device once a day before use. Please put the device in a cool place to dry after disinfection.

⚠
-Do not dip the body or cuff directly into the liquid, which will cause damage to the device.
-Do not use strong volatile or strong corrosive solvents to clean the equipment, so as not to reduce the service life.
-Do not use any abrasive or volatile cleansers.
-Do not use gasoline, thinners or similar solvents to clean the device.

11.3. Repair

⚠ Do not disassemble, repair, replace parts or transform the equipment. If necessary, please contact the seller or manufacturer.

12. Battery Replacement

When the low battery symbol appears on the screen, please replace the battery immediately.
-Open the battery cover and remove the old battery.
-Put in four new (# 5) batteries, pay attention to the positive and negative directions.

⚠ Caution:
- Remove the battery when not in use for a long time to prevent contamination by leakage;
- Please dispose of used batteries in accordance with local regulations and do not throw them into household garbage at will.

13. After-sale Service

- This product provides one year free maintenance service.
- Please keep the proof of purchase for future repairs.

Note: No free service will be provided for any damage caused by personal fault or unauthorized disassembly.
- Please contact Runstar support team via the official website For a brand new replacement if there is problem with the product: www.runstar.store

14. EMC Information and Statement

⚠ Precautions:
- This product conforms to the electromagnetic compatibility requirements of IEC 60601-1-2:2014 standard.
- The user shall use the device according to EMC information provided in this manual.
- Portable and mobile RF communication equipment may affect the performance of the product. Avoid strong electromagnetic interference, such as close to mobile phones and microwave ovens.
- The guidance and manufacturer's statement are detailed in the table below.

⚠ **Warnings:**
- This product should not be used close to or stacked with other devices. If it must be used close to or stacked with other devices, it should be observed to verify that it can operate normally under the configuration used.

Table 1: Electromagnetic Emissions

Guidance and Declaration - Electromagnetic Emissions	
The product is intended for use in the electromagnetic environment specified below. The customer or the user of the product should assure that it is used in such an environment.	
Emission Test	**Compliance**
RF emissions CISPR 11	Group 1, Group B

Table 2: Electromagnetic Immunity

Guidance and Declaration - Electromagnetic Emissions		
Immunity Test	**Compliance**	
Electrostatic Discharge (ESD) IEC 61000-4-2	±8 kV contact ±15 kV air	
Power Frequency (50/60 Hz) Magnetic Field IEC 61000-4-8	30 A/m	
Radiated RF IEC 61000-4-3	80MHz- 2.7GHz	10 V/m
	380MHz- 390MHz	27 V/m
	430MHz- 470MHz	28 V/m
	704MHz- 787MHz	9 V/m
	800MHz- 960MHz	28 V/m
	1.7GHz- 1.99GHz	28 V/m
	2.4GHz- 2.57GHz	28 V/m
	5.1GHz- 5.8GHz	9 V/m

Table 3: Not Applicable

Harmonic Emissions (IEC 61000-3-2), Voltage Flicker Emissions (IEC 61000-3-3), Electrical Fast Transients (IEC 61000-4-4), Surge (IEC 61000-4-5), Voltage dips (IEC 61000-4-11), Conducted Immunity (IEC 61000-4-6)
Note: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

Table 4 Recommended Separation Distances Between RF WirelessCommunications Equipment

The device is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the device can help prevent electromagnetic interference by maintaining a minimum distance between RF wireless communications equipment and the device as recommended below, according to the maximum output power of the communications equipment.

Immunity test	IEC 60601 Test Level				Compliance level	RF wireless communications equipment should be used no closer to any part of the device, including cables, than the recommended separation distance
	Test frequency	Modulation	Maximum power	Immunity level		
Radiated RF IEC 61000-4-3	385 MHz	**Pulse Modulation: 18Hz	1.8W	27 V/m	27 V/m	calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $E=\frac{6}{d}\sqrt{p}$ 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). Field strengths from fixed RF transmitter, as determined by an electromagnetic site survey, should be less than the compliance level in each frequency range.Interference may occur in the vicinity of equipment marked with the following symbol:
	450 MHz	*FM+ 5Hz deviation: 1kHz sine	2W	28 V/m	28 V/m	
	710 MHz 745 MHz 780 MHz	**Pulse Modulation: 217Hz	0.2W	9 V/m	9 V/m	
	810 MHz 870 MHz 930 MHz	**Pulse Modulation: 18Hz	2W	28 V/m	28 V/m	
	1720 MHz 1845 MHz 1970 MHZ	**Pulse Modulation: 217Hz	2W	28 V/m	28 V/m	
	2450 MHZ	**Pulse Modulation: 217Hz	2W	28 V/m	28 V/m	
	5240 MHz 5500 MHz 5785 MHZ	**Pulse Modulation: 217Hz	2W	9 V/m	9 V/m	

Note* - 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.
Note** - The carrier shall be modulated using a 50 % duty cycle square wave signal.

WARNINGS!

- This device should not be used in the vicinity or on the top of other electronic equipment such as cell phone, transceiver or radio control products. If you have to do so, the device should be observed to verify normal operation.
- The use of accessories and power cord other than those specified, with the exception of cables sold by the manufacturer of the equipment or system as replacement parts for internal components, may result in increased emissions or decreased immunity of the equipment or system.

15. Manufacturer Information

Manufacturer: Shenzhen HBcare Technology Co.,Ltd
Manufacturer Address: 4-5/F, Building 11, Tongfuyu Industrial Park, Lezhujiao, Huangmabu Community, Hangcheng Street, Bao'an District, Shenzhen, China

Runstar Support Team: service@runstar.store