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IMPORTANT INFORMATION

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.
Blood pressure fluctuates continually (day and night). The highest value usually appears in the daytime and lowest one usually at midnight. Typically, the value begins to increase at around 3:00AM, and reaches to highest level in the daytime while most people are awake and active.
Considering the above information, it is recommended that you measure your blood pressure at approximately the same time each day.
Please always relax a minimum of 1 to 1.5 minutes between measurements to allow the blood circulation in your arm to recover. It is rare that you obtain identical blood pressure readings each time.
- regarding the effect of blood flow interference and resulting harmful injury to the PATIENT caused by continuous CUFF pressure due to connection tubing kinking;
- too frequent measurements can cause injury to the PATINET due to blood flow interference;
-regarding the application of the CUFF over a wound ,as this can cause further injury;
-regarding 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 to blood flow and could result in injury to the PATIENT;
-regarding the information that pressurization of the CUFF can temporarily cause loss of function of simultaneously used monitoring Me EQUIPMENT on the same limb;
-regarding the need to check (for example, by observation of the limb concerned) that operation of the AUTOMATED blood Pressure monitor does not result in prolonged impairment of the circulation of the blood of the PATIENT.
The blood pressure monitor has different features to meet different users' need.
Please kindly read the instruction manual with the relevant Model Number your purchased and notice the difference between them.
Please read the Instruction Manual thoroughly before using this unit and please consult your physician for the specific information about your blood pressure.
Instruction Manual printed in English.

□Safety Information
To assure the correct use of the product basic safety measures should always be followed including the warnings and cautions listed in this instruction manual.

SAFETY SYMBOLS USED IN THIS INSTRUCTION MANUAL	
⚠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.

OPERATING THE DEVICE
⚠ Contact your physician for specific information about your blood pressure. Self-diagnosis and treatment using measured results may be dangerous. Follow the instructions of your physician or licensed healthcare provider.
⚠ DO NOT adjust medication based on measurement results from this blood pressure monitor. Take medication as prescribed by your physician. Only a physician is qualified to diagnose and treat High Blood Pressure.
⚠ The monitor is not intended to be a diagnostic device.
⚠ If battery fluid should get in your eyes, immediately rinse with plenty of clean water. Contact a physician immediately.
⚠ This device is intended for use in measuring blood pressure and pulse rate in the adult population. Do not use this device on infants or persons who cannot express their intentions.
⚠ Those parts of the me equipment that shall not be serviced or maintained while in use with a patient.
⚠ Read all of the information in the instruction manual and other literature in the box before operating the unit.
⚠ This device is intended for use in measuring blood pressure and pulse rate in the adult population. Do not use this device on infants or persons who cannot express their intentions.
⚠ Operate the device only as intended. Do not use the device for any other purpose.
⚠ Dispose of the device, components optional accessories according to applicable local regulations. Unlawful disposal may cause environmental pollution.
⚠ Do not use a cellular phone near the device. It may result in an operational failure.
⚠ Use only BSX authorized parts and accessories. Parts and accessories not approved for use with the device may damage the unit.
⚠ The effects of degraded sensors and electrodes, or loosened electrodes, that can degrade performance or cause other problems.
⚠ The effects caused by pets, pests or children.
⚠ Use only 1.5V dry batteries with this device.
Do not use other types of batteries. This may damage the unit.

RISK OF ELECTRICAL SHOCK
⚠ Do not plug or unplug the power cord into the electrical outlet with wet hands.
⚠ Do not overload power outlets. Plug the device into the appropriate voltage outlet.

CARE AND MAINTENANCE
⚠ Do not subject the monitor to strong shocks, such as dropping the unit on the floor.
⚠ Do not submerge the device or any of the components in water.
⚠ Store the device and the components in a clean, safe location.
⚠ Changes or modification not approved by BSX Healthcare will void the user warranty. Do not disassemble or attempt to repair the unit or components.
⚠ No modification of this equipment is allowed.
⚠ Do not modify this equipment without authorization of the manufacturer.
⚠ If this equipment is modified, appropriate inspection and testing must be conducted to ensure continued safe use of the equipment.
⚠ Enclosure, screen, button continue contact time is less than 10 min.

BEFORE TAKING A MEASUREMENT
To ensure a reliable reading follow these recommendations:
1.Avoid eating, drinking alcohol, smoking, exercising, and bathing for 30 min prior to taking a measurement. Rest for at least 15 min prior to taking the measurement.
2.Stress raises blood pressure, avoid taking measurements during stressful times.
3.Measurements should be taken in a quiet place.
4.Remove tight-fitting clothing from your arm.
5.Sit on a chair with your feet flat on the floor. Rest your arm on a table so that the cuff is at the same level as your heart.
6.Remain still and do not talk during the measurement.
7.Wait 2-3 minutes between measurements, the wait time allows the arteries to return to the condition prior to taking the blood pressure measurement. You may need to increase the wait time depending on your individual physiological characteristics.

I.PRODUCT INTRODUCTION
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.
The automatic blood pressure monitor can measure the upper and lower pressure value simultaneously by fuzzy logic control. Personalized inflation leads to the result of value every time. It is effective to reduce the discomfort by wrongly inflating the CUFF and also to reduce the wrong measurement value, thus, it improves the accuracy of the measurement.

II.OPERATIONG PRINCIPLE
The blood pressure monitor uses the oscillometric method of blood pressure measurement. This means the monitor detects your blood's movement through your brachial artery and converts the movements into a digital reading.

III.INTENDED USE/INDICATIONS FOR USE
The blood pressure monitor is a non-invasive blood pressure measurement system intended to measure the diastolic and systolic blood pressures and pulse rate of an adult individual by using a non-invasive oscillometric technique in which an inflatable CUFF is wrapped around the arm of which the circumference includes 22 cm~42 cm. It is intended to be used in hospital environment or at home.

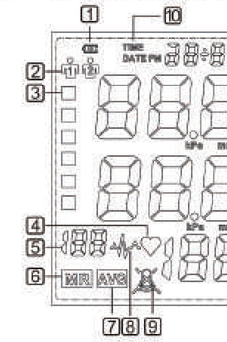
IV.CONTRAINDICATION
It is inappropriate for people with serious arrhythmia to use this Electronic Blood Pressure monitor.
This device is only intended for use in measuring blood pressure and pulse rate in adult population. Do not use this unit for any other purpose.
The monitor is not intended to be a diagnostic device. Self-diagnosis and treatment using measured results may be dangerous. Follow the instructions of your physician.

V.UNIT STRUCTURES&ACCESSORIES
1. Main Unit



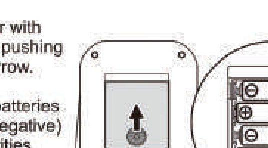
The above picture is only for reference. Please use the material object as standard

2. LCD Display Introductions



1 Battery level indicator
2 User ID symbol
3 Pressure indicator
4 Pulse signal symbol
5 Memory Group Number
6 Memory symbol
7 Average value symbol
8 Irregular heartbeat symbol
9 Alarm symbol
10 Data/time Symbol
11 Date/time display
12 Systolic blood pressure
13 Blood pressure Unit
14 Diastolic bloodpressure
15 Pulse rate display

VI.SETUP AND OPERATING PROCEDURES
1. Battery Installation
1.1 Remove the battery cover with pulling the hook up while pushing it in the direction of the arrow.
1.2 Install 4×1.5V "AA" size batteries so the +(positive) and -(negative) polarities match the polarities match the polarities of the battery compartment as indicated.



1.3 Replace the battery cover.

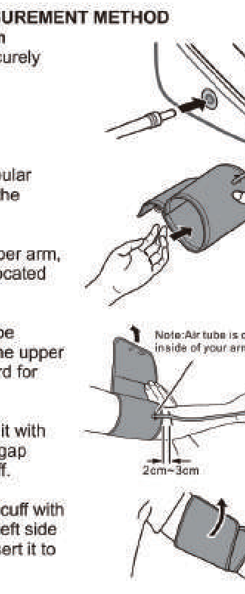
NOTES:
• Turn the unit off before replacing the batteries.
• The supplied batteries may have a shorter life.

2.Battery level Introduction
In shutdown mode, Press the button Start/Stop /Memory /Setting, and enter the measuring pattern/recording pattern/setting pattern respectively. When it displays, system will detect the battery level and will indicate the level on LCD display. Details are as follows:
i.Battery Level Full. Display the battery full icon ( ) or the battery icon ( ), can take measurement and read the memory.
ii.Battery Level Low. Indicate the battery level low symbol ( ), still can take measurement and read the memory. Please timely charge your battery or replace new batteries .
iii. Battery Exhausted. Out of battery symbol ( ). It flashes 5 times and monitor will shut off immediately.

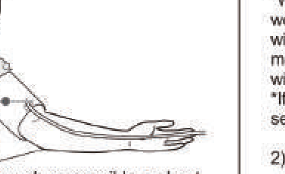
3. Use setup
3.1 User switching
In the shutdown state, short press the "SET" button and enter the time mode. Then the Unit icon, user icon and time icon appeared. Time and date are switched every three seconds. In the time mode, short press the setup button again to switch the user. Long press setup without response. Press "Start" button or shut down automatically after 60 minutes, the settings will be saved.
3.2 Date, time and clock setup
In the shutdown state, long press the "SET" button to enter the date adjustment, press the "MEM" button to enter the year adjustment, then press the "SET" button the month flickers, and then enter the month adjustment state.
Press the "MEM" button to adjust the month, then press the "SET" button the date flickers, and then enter the date setup state.
Press the "MEM" button to adjust the date, then press the "SET" button the time icon flickers, and then enter the hour system setup state.
Press the "MEM" button to adjust the hour system, then press the "SET" button the hour flickers, and then enter the hour setup state. Afternoon displays PM (if set as 24-hour system, then afternoon does not display PM).
Press the "MEM" button to adjust the hour, then press the "SET" button the minute flickers, and then enter the minute setup state.
Press the "MEM" button to adjust the minute, then the minute setup is completed.
Press the "SET" button enter the clock setup state, the screen displays AL and user number, the hour flickers, press the "MEM" button to adjust the hour, press the setup button again, the minute flickers, press the "MEM" button to adjust the minute, press the "SET" button the clock symbol flickers, press the "MEM" button to adjust whether to enable the clock.
Please note that each user can respectively set clock, and the lock at this time will correspond to that of the user selected previously. When the clock sounds, press any button to exit.
Press the setup button again, then shut down and save the setting results. At this time, manual shutdown or automatic shutdown after 60 seconds will save the results.
3. 3 Measurement unit switching
In the shutdown state, long press the "Start" button for 15 seconds. If the original unit is mmHg (millimeter of mercury), after a long press, it will be switched to kPa (kilopascal), and if the high-pressure zone of the screen displays 0.0 kPa, it indicates successful setting. Press the shutdown button to shut down and save the settings.
3. 4 Mute Setting
Under Off state, long press the "SET" button until the Year flashes, press the "SET" button to switch to the SP, press the MEM button to switch to OF, press "Start" button to switch off the monitor, and when switch on again, there will be no voice broadcast.
3.5 Read the Memory
For the first time, press the "MEM" button, AVG and MR icons are lighted, and display the average value of the first 3 times (when the number of

memory is greater than or equal to 3 groups);
For the second time, press the "MEM" button, MR icon is lighted, then the measurement records can be viewed, and long press the "MEM" button can quickly view the memory.
3.6 Memory deletion
In view of the memory, while holding down the "MEM" button, continue to hold down the "Start" button for 2 seconds, and when the screen is fully displayed as --, then the memory is deleted.
Memory deletion is a one-time removal of all measurement data under all users.
3.7 Entering pressure measurement method
a. Short press the "SET" button hold down the "SET" button then hold down the "MEM" button immediately, and after about 1s, the low-pressure display area of the screen shows the figure 0, and enter the static pressure measurement mode after releasing the button.
b. After entering the static pressure measurement mode, short press / long press "Start" button can exit the static pressure measurement mode, and return to the time mode.

VII. BLOOD PRESSURE MEASUREMENT METHOD
1. Applying the cuff on the arm
1.1 Make sure the air plug is securely inserted in the main unit.
1.2 Remove tight-fitting clothing from your upper left arm.
1.3 Push open the cuff into a tubular shape, until it is suitable for the arm to get in.
1.4 Wrap the cuff around the upper arm, and also make the air duct located on the forearm.
1.5 The bottom of the cuff shall be located at the inner side of the upper arm elbow joint, going upward for 2cm~3cm.
1.6 Tightly wrap the cuff, and fix it with cloth buckle. Leave a finger gap between the arm and the cuff.
1.7 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.



Note:
A.Please refer to the CUFF circumference range in "SPECIFICATIONS" to make sure that the appropriate CUFF is used.
– Please keep the CUFF clean. If the CUFF becomes dirty, remove it from the monitor and clear it by hand in a mild detergent, then rinse it thoroughly in cold water.
– Never dry the CUFF in clothes dryer or iron it. Clean the CUFF after the usage of every 200 times is recommended.
– Do not place the CUFF around your arm if the arm has any inflammation, acute diseases, infections skin wounds.
B.An explanation of the operating steps needed to obtain accurate routine resting BLOOD PRESSURE measurements for the condition hypertension including:
– PATIENT position in NORMAL USE, including
1) comfortably seated
2) legs uncrossed
3) feet flat on the floor
4) back and arm supported
5) middle of the CUFF at the level of the right atrium of the heart.

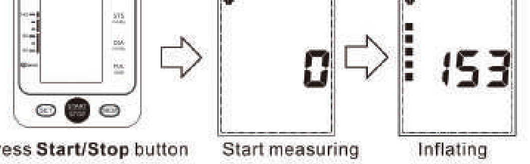


– a recommendation that the PATIENT relax as much as possible and not talk during the measurement PROCEDURE;
– a recommendation that 5 min should elapse before the first reading is taken;
– Measuring on same arm each time.
– OPERATOR position in NORMAL USE;

A.An explanation that 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;
B.Details of the environmental or operational factors which can affect the performance of the AUTOMATED BLOOD PRESSURE reading (e.g. common arrhythmias such as atrial or ventricular premature beats or atrial fibrillation, arterial sclerosis, poor perfusion, diabetes, age, pregnancy, pre-eclampsia, renal diseases, PATIENT motion, trembling, shivering).

⚠ **Warning:**
– Strangulation due to cables and hoses, particularly due to excessive length;
– potential allergic reactions to accessible materials used in the ME EQUIPMENT;
– contact injuries.
Follow the instructions of your physician or licensed healthcare provider.

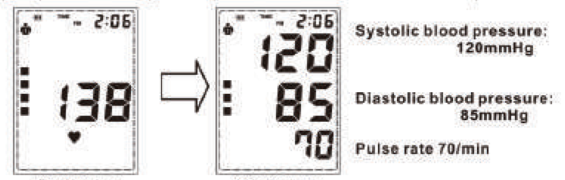
2. Blood pressure measurement
1) In the state of shutdown or standby, press the [Start / Stop] for starting up, it will start measurement automatically, and the CUFF will inflate automatically.



Press **Start/Stop** button　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 any error, please refer to the "Error and fault instructions" in section VIII for troubleshooting.

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



Detecting　Complete

Note: The pictures in the measurement interface are only for reference.
After the measurement is completed, the blood Pressure monitor will display your blood pressure valve and pulse number, and if the arrhythmia is measured, then the arrhythmia symbol will be displayed.
3) If the monitor has stored results, the LCD will momentarily display the most recent one. If no result has been stored, "---" will appear on LCD.
4) After the measurement is completed, take off the CUFF, press the [Start / Stop] button, and shut down manually. If no button is pressed, then the system will be shut down automatically after 60 seconds.
Note: Please consult a health care professional for interpretation of pressure measurements.
Note: The pictures in the measurement interface are only for reference.

VIII.ERROR AND FAULT TROUBLESHOOTING
1.Troubleshooting tips

PROBLEM	CAUSES AND SOLUTINS
No power. No display appears on the unit	Replace all four batteries with new ones. Check the battery installation for proper placement of the battery polarities.
Measurement values appear too high or too low.	Blood pressure varies constantly. Many factors including stress, time of day, and how you wrap the cuff, may affect your blood pressure. Review the sections "BLOOD PRESSURE MEASUREMENT METHOD ".

2.Error indicators

SYMBOL	CAUSE	CORRECTION
Err1	Sensor abnormality	When measuring,avoid the environment (e.g. to magnetic fields, electromagnetic fields, external electrical influences etc.).
Err2	No pulse or blood pressure reading due to very weak artery pulse.	Remove cuff. Wait 2-3 min and take another measurement. Repeat steps listed under **"BLOOD PRESSURE MEASUREMENT METHOD"** If late the cuff 40mmHg higher than the previous inflation value.
	The cuff is too loose	Apply the cuff correctly,Refer to **"Wearing cuff"**
	Clothing is interfering with the cuff	Remove any closing interfering with the cuff. Refer to **"Wearing cuff"**
Err4	Air plug disconnected	Insert the plug securely. Refer to **"Wearing cuff"**
	Air cuff not applied correctly	Apply the cuff correctly. Refer to **"Wearing cuff"**
	Air is leaking from the cuff	Replace the cuff with the new one.
	Others	Contact Customer Service
Err5	Pipe bend causing air blockage	Apply the cuff correctly. Refer to **"Wearing cuff"**
	Connector blockage	Replace connector
	Others	Contact Customer Service
Err6	The interference is too large when in measurement	Repeat measurement. Remain still and do not talk during measurement. Refer to **"BLOOD PRESSURE MEASUREMENT METHOD ".**
Err7	The cuff was inflated above 300 mmHg when inflating the cuff manually.	Do not inflate the cuff above 300mmHg, Refer to **"BLOOD PRESSURE MEASUREMENT METHOD ".**
(battery symbol)	Batteries are worn	Replace all four new "AA" batteries.

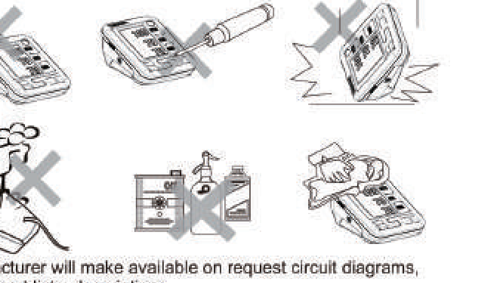
If the problem is still not resolved, please contact with the dealer or our customer service department, so as to obtain further assistance.

IX.NOTICE
1) 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.
2) When in repeated measurement, because the arm blood flow may not be smooth, you may not measure the correct blood pressure. Please conduct measurement after the blood flow is smooth.

3) When the display screen shows "Err", the measurement cannot be conducted correctly, please refer to the error and fault instructions in the next page.
4) When the measured personnel has arrhythmia, the measurement value of blood pressure and pulse rate may not be accurate enough, so for patients with arrhythmia, it is advised to consult a doctor to make a professional diagnosis.
5) When the CUFF is too loose or too tight, it will affect the accuracy of measurement.
6) Measurement posture and physical condition etc., will affect the measurement results. Please understand the knowledge of blood pressure, and eliminate all kinds of interference factors.
7) If the CUFF not provided by the manufacturer is used to replace the original one, it may lead to measurement error. Please do not use the CUFF other than supplied by the manufacturer.
8) Please do not use together with the electrical appliances of emitting electromagnetic interference, it may affect the accuracy.
9) The button component list of the machine includes main control chip, sensor, pump, electromagnetic valve, uniform speed air release valve and CUFF. Parts of the manufacturer's models and specifications specified in the list must be used; otherwise it may lead to problems of safety or accuracy.
10) The CUFF should be placed at the same level as your heart.
11) During measurement, neither speak nor move your body and arm.
12) Use on same arm for each measurement.
13) This Electronic Blood Pressure monitors is designed for adults and should never be used on infants or young children. Consult your physician or other health care professionals before use on older children.
14) 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 part ELECTROMAGNETIC COMPATIBILITY INFORMATION.
15) The monitor might not meet its performance specifications or cause safety hazard if stored or used outside the specified temperature and humidity ranges in specifications.
16) Please do not share the CUFF with other person to avoid cross-infection.
17) Please note that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

X. MAINTENANCE · REPAIR AND CALIBRATION
1) When not in use, please keep the blood Pressure monitor and its accessories in the packing box. If you do not use the monitor for a long time, please remove the batteries.
2) In order to prevent the blood Pressure monitor from damage, please comply with the following items, and improper use will result in the loss of warranty services:

• Please do not place the blood Pressure monitor and the CUFF in an environment of high temperature, damp, full of water vapor or direct sunlight. Please refer to the specification table for details. If stored and used outside the specified range of temperature and humidity, the system may not be able to achieve the claimed specifications.
• Please do not firmly fold the CUFF or the air duct.
• Please do not disassemble the blood Pressure monitor.
• Please do not allow the blood pressure meter to be subjected to strong impact or vibration (for example, drop the blood Pressure monitor on the ground).
• Please do not use volatile liquid to clean the blood Pressure monitor. Please use soft and dry cloth to clean the outer shell and battery.
• Clean the monitor with a soft dry cloth. Do not use any abrasive or volatile. Do not attempt to clean the cuff.
• Please do not use water to clean or moisten the CUFF, and when necessary, absorbent cotton dipped with 75% medical alcohol can be used to wipe it gently, so as to conduct disinfection.
• Drop, collision and bending etc. may reduce the performance of the battery; if the battery is found abnormal, such as packaging damage and battery pack deformation etc, do not use these batteries.



• The manufacturer will make available on request circuit diagrams, component part lists, descriptions.
• The patient can perform changing batteries.
3) Calibration instructions, or other information that will assist service personnel to repair those parts of me equipment that are designated by the manufacturer as repairable by service personnel.
4) The monitor can maintain the safety and performance characteristics for a minimum of 10,000 measurements.
5) For customer service: Shenzhen BSX Technology Electronics Co., Ltd. Warranty service, please contact BSX or European Representative listed on instructions
6) Calibration
It is recommended the performance should be checked every 1 years or after repair. Please contact the service center.

XI.CLEANING AND DISINFECTION
(1) Cleaning:
Recommended cleaning agent: Household neutral cleaning agent.
Cleaning steps:
1) Remove the batteries before cleaning.
2) The body of Blood Pressure Monitor can be cleaned with a clean soft cloth.
3) The body can be wiped with a clean soft cloth stained with a small amount of neutral detergent or water.
⚠ Do not use any corrosive cleaning agent. When cleaning, be careful not to immerse any part of the Electronic Blood Pressure Monitor to avoid liquid flow into the instrument.
⚠ It is suggested to clean once every week. Complete the cleaning in 3min each time. The number of repeated cleaning each time shall not exceed 3 times.

(2) Disinfection:
Recommended disinfecting agent: Isopropanol solution with 70% concentration
Disinfection steps:
1) Wipe the machine body with a clean soft cloth stained with a small amount of the above disinfectant, and dry it immediately.
2) The body of the Electronic Blood Pressure Monitor can be wiped with a clean cloth stained with a small amount of 75% medical alcohol for disinfection.
⚠ Do not disinfect by such method as high temperature steam or ultraviolet irradiation, which might damage the instrument or accelerate the aging!
⚠ It is suggested to disinfect the Electronic Blood Pressure Monitor before and after use each time. Each time of disinfection shall be completed within 1min. The number of repeated disinfection each time shall not exceed 2 times.

XII.STATEMENT
1) 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.
2) The arm-type 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.

XIII.DISPOSAL TREATMENT STATEMENT
The product manufacturing date can be seen in the qualification certificate, and the product estimated life is 5 years.

If electronic products and batteries are directly thrown into the trash can, they can cause harm.
CAUTIOND:ispose of the device, components and optional accessories according to applicable local regulations. Illegal disposal may cause environmental pollution.
If electronic products and batteries are directly thrown into the trash can, they can cause harm to the environment. At the end of the blood pressure monitor, please do not throw it to the trash can, and please dispose of it according to the local law.

XIV. ELETROMAGNETIC COMPATIBILITY WARNING AND STATEMENT
Notes:
The equipment complies with the relevant electromagnetic compatibility requirements of EN 60601-1-2;
Users shall conduct installation and use according to the electromagnetic compatibility information provided by random files;
Portable and mobile RF communication equipment may affect the performance of the device, so strong electromagnetic interference shall be avoided when in use, such as close to mobile phone and microwave oven etc.

⚠ **Warning:**
The equipment shall not be close to or stacked with other equipment when in use, and if it is necessary to close to or stack with other equipment when in use, it shall be observed and verified that whether it can run normally under its configuration;
Except for the cable sold by the equipment manufacturer as the spare parts of internal components, the use of unspecified accessories and cables may lead to emission increase or anti-interference reduction of the equipment.
– potential allergic reactions to accessible materials used in the me equipment.

Guidance and manufacturer's declaration - electromagnetic emissions

The model BSX516 is intended for use in the electromagnetic environment specified below. The customer or the user of the model BSX516 should assure that it is used in such an environment.

Emissionstest	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The model BSX516 use 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.
RF emissions CISPR11	Class B	The model BSX516 is suitable for used in domestic establishment and in establishment directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Not applicable	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Not applicable	

Guidance & Declaration — electromagnetic immunity

The model BSX516 is intended for use in the electromagnetic environment specified below. The customer or the user of the model BSX516 should assure that they are used in such anenvironment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4 kV, ±8kV, ±15 kV air	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	±2kV for power supply lines ±1 kV for Input/output lines	Not applicable	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±0.5 kV, ±1 kV line to line ±0.5 kV, ±1 kV, ±2 kV line to ground	Not applicable	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.	<5 % U_T (>95% dip in U_T) for 0.5 cycle <5 %U_T (>95% dip in U_T) for 1 cycle 70% U_T (30% dip in U_T) for 25/30 cycles <5% U_T (>95 % dip in U_T) for 5/6 sec	Not applicable	Mains power quality should be that of a typical commercial or hospital environment. If the user of the model BSX516 requires continued operation during power mains interruptions, it is recommended that the model BSX516 be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m, 30 A/m	3 A/m, 30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

NOTE:U_T is the a.c. mains voltage prior to application of the test level.

Guidance & Declaration - Electromagnetic immunity

The model BSX516 is intended for use in the electromagnetic environment specified below. The customer or the user of the model BSX516 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 bands	Not applicable Not applicable	Portable and mobile RF communications equipment should be used no closer to any part of the model BSX516, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $d=[3.5/V_1]\times P^{1/2}$
Radiated RF IEC 61000-4-3	10 V/m 80 MHz to 2.7 Ghz **385MHz-5785MHz Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014)**	10 V/m 80 MHz to 2.7GHz **385MHz-5785MHz Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014)**	$d=1.2\times P^{1/2}$ 80 MHz to 800 MHZ $d=2.3\times P^{1/2}$ 800 MHz to 2.7 Ghz 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 transmitters, as determined by an electromagnetic site survey,a should be less than the compliance level in each frequency range.b Interference may occur in the vicinity of equipment marked with the following symbol:

NOTE 1 At 80 MHz and 800 MHz. the higher frequency range applies.
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

ᵃ Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the model BSX516 is used exceeds the applicable RF compliance level above, the model BSX516 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the model BSX516.
ᵇ Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.

Test Frequency (MHz)	Band a) (MHz)	Service a)	Modulation b)	Maximum power (W)	Distance	IMMUNITY TEST LEVEL(V/m)
385	380-390	TETRA 400	Pulse modulation b) 18 Hz	1.8	0.3	27
450	430-470	GMRS 460,FRS 460	FM c)	2	0.3	28
710 745 780	704-787	LTE Band 13,17	Pulse modulation b) 217 Hz	0.2	0.3	9
810 870 930	800-960	GSM 800/900,TETRA 800,iDEN 820,CDMA 850,LTE Band 5	Pulse modulation b) 18 Hz	2	0.3	28
1720 1845 1970	1700-1990	GSM 1800;CDMA 1900; GSM 1900;DECT; 820, LTE Band 1,3,4,25;UMTS	Pulse modulation b) 217 Hz	2	0.3	28
2450	2400-2570	Bluetooth,WLAN,802.11 b/g/n,RFID 2450, LTE Band 7	Pulse modulation b) 217 Hz	2	0.3	28
5240 5500 5785	5100-5800	WLAN 802.11a/n	Pulse modulation b) 217 Hz	0.2	0.3	9

NOTE If necessary to achieve the IMMUNITY TEST LEVEL,the distance between the transmitting antenna and the MEEQUIPMENT or ME SYSTEM may be reduced to 1m.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 18Hz may be used because while it dose not represent actual modulation, it would be worst case.

Recommended separation distances between portable and mobile RF communications equipment and the model BSX516.

The model BSX516 is intended for use in electromagnetic environment in which radiated RF disturbances is controlled. The customer or the user of the model BSX516 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the model BSX516 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		
	150kHz to 80MHz $d=1.2\times P^{1/2}$	80MHz to 800MHz $d=1.2\times P^{1/2}$	800MHz to 2,5GHz $d=2.3\times P^{1/2}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	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) accordable to the transmitter manufacturer.
NOTE 1 At 80 MHz and 800 MHz. the separation distance for the higher frequency range applies.
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

XV.DISPLAY SYMBOLS

Icon	Status Description
CE 0197	CE marking
IP20&IP21	Vertically falling water drops shall have no harmful effects
	Manufacturer
EC REP	Authorized representative in the European Community
	Date of manufacture
SN	Serial number
	Type BF applied part
	Waste electrical and electronic product recycling icon
	Indicates a potentially hazardous situation Which, if not avoided, could result in death or serious injury
	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
	Refer to instruction manual/booklet
	Use-by date

XVI. PRODUCT SPECIFICATION

Item	Parameter
Protection against electric shock	Internally powered, Type BF applied part(Cuff) Quasi-application section,LCD,Enclosure
Protection against harmful ingress of water or particulate matter	CE IP20&FDA IP21
Mode of operation	Continuous Operation
CUFF circumference	Approx (220~420)mm
Weight	Approx 300g (containing CUFF)
Physical Dimensions (Length*Width*Height)	Approx (130 × 110 × 58)mm
Measure method	Oscillographic measurement method
Measure Time	<120s
Measuring range	Pressure: 0~290 mmHg (0~38.66 kPa) Pulse number: 40~180 times/minute Systolic pressure: 8.0~34.0 kPa (60~255 mmHg) Diastolic pressure: 4.0~26.0 kPa (30~195 mmHg)
Measurement accuracy	Blood pressure: ±3mmHg (±0.4kPa) Pulse number: Precision is ±5%
Memory volume	99 records with time and date stamp
Normal working environment	Temperature:+5°C~+40°C; Humidity:15%~85%RH,Atmosphere: (80~106)kPa
Storage/transportation environment	Temperature: -20°C~+55°C; Humidity:RH≤93%,Atmosphere: (70~106)kPa
Voice function	Support whole course mandarin voice broadcast
Automatic shutdown	Automatic shutdown after 60 seconds without operation
Pressurization way	Intelligent control of air pump automatic pressurization
Quick exhaust mode	Intelligent control of automatic fast deflation
Pressure detection	Resistive pressure sensor
Pulse detection	Resistive pressure sensor
Battery Life	Approx.300 uses when used 6 times a day with 4 new dry Batteries
Power source	4×1.5V AA dry Battery
Lifetime	5 years

*If there is any performance improvement, the above specifications are subject to change without notice.

Manufacturer:Shenzhen BSX Technology Electronics Co., Ltd.
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Sinocare

Arm-type Electronic
Blood Pressure Monitor
BSX516
Instructions for Use



Authorized European Representative:
Company Name:MedNet EC-REP GmbH
Address:Borkstrasse 10,48163 Müenster,Germany
Phone: +49 251 32266-61　Fax: +49 251 32266-22
Email: ecrep@medneteurope.com

CE 0197

*Please thoroughly read the instruction Manual before using the unit.
*Please save this instruction Manual for further reference

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