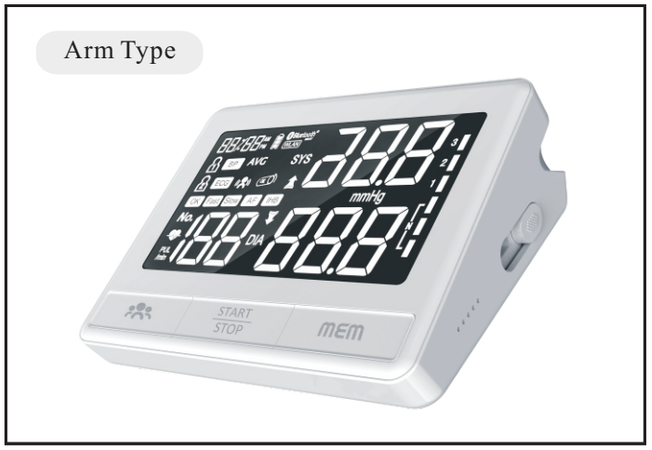
Owner's Manual

ECG Blood Pressure Monitor

Model DBP-6679B



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Contact Information

The lay operator or lay responsible or ganization should contact the manufacturer or the representative of manufacturer.
-for assistance,if needed,in setting up,using or maintaining the product,or
-to report unexpected operation or events.
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Contents 1

Safety Notice 2

Thank you for purchasing the DBP-6673B ECG Blood Pressure Monitor.

Intended Use

ECG Blood Pressure Monitor is intended for non-invasive measuring an adults and adolecents over 12 years of ageindividual's systolic, diastolic blood pressure and heart rate using the oscillometric method. By switching to ECG measurement, ECG blood pressure monitor intend to display average heart rate and real-time heart rate, also can view real-time and historical ECG waveforms in App.

Contraindications

Product is not intended for people under 12 years of age or individuals who cannot express their intentions.

Precautions to Ensure Safe, Reliable Operation

1. Do not drop the unit. Protect it from sudden jars or shocks.
2. Do not insert foreign objects into any openings.
3. Do not attempt to disassemble the unit.
4. Do not crush the pressure cuff.
5. If the unit has been stored at temperatures below 0 ℃, leave it in a warm place for about 15 minutes before using it. Otherwise, the cuff may not inflate properly.
6. If the unit has been stored at temperatures above 40 ℃, leave it in a cool place for about 15 minutes before using it. Otherwise, the cuff may not inflate properly.
7. Do not store the unit in direct sunlight, high humidity or dust.
8. To avoid any possibility of accidental strangulation, keep this unit away from children and do not drape tubing around your neck.
9. Ensure that children do not use the instrument unsupervised; some parts are small enough to be swallowed.
10. Some may get a skin irritation from the cuff taking frequent readings over the course of the day, but this irritation typically goes away on its own after the monitor is removed.
11. Longest expected contact time between patient and cuff： Each blood pressure measurement should not exceed 3 minutes.

Important Instructions Before Use

1. Do not confuse self-monitoring with self-diagnosis. Blood pressure measurements should only be interpreted by a health professional who is familiar with your medical history.
2. Contact your physician if test results regularly indicate abnormal readings.
3. If you are taking medication, consult with your physician to determine the most appropriate time to measure your blood pressure. NEVER change a prescribed medication without first consulting with your physician.
4. Individuals with serious circulation problems may experience discomfort. Consult your physician prior to use.
5. For persons with irregular or unstable circulation resulting from diabetes, liver disease, arteriosclerosis or other medical conditions, there may be variations in blood pressure values measured at the wrist versus at the upper arm. Monitoring the trends in your blood pressure taken at either the arm or the wrist is nevertheless useful and important.
6. People suffering from vascular constriction, liver disorders or diabetes, people with cardiac pacemakers or a weak pulse, and women who are pregnant should consult their physician before measuring their blood pressure themselves. Different values may be obtained due to their condition.
7. People suffering from arrhythmias such as atrial or ventricular premature beats or atrial fibrillation only use this ECG Blood Pressure Monitor in consultation with your doctor. In certain cases oscillometric measurement method can produce incorrect readings.
8. Too frequent measurements can cause injury to the patient due to blood flow interference.
9. The cuff should not be applied over a wound as this can cause further injury.
10. **DO NOT** attach the cuff to a limb being used for IV infusions or any other intravascular access, therapy or an arterio-venous (A-V) shunt. The cuff inflation can temporarily block blood flow, potentially causing harm to the patient.
11. The cuff should not be placed on the arm on the side of a mastectomy. In the case of a double mastectomy use the side of the least dominant arm.
12. Pressurization of the cuff can temporarily cause loss of function of simultaneously used monitoring equipment on the same limb.
13. A compressed or kinked connection hose may cause continuous cuff pressure resulting in blood flow interference and potentially harmful injury to the patient.
14. Check that operation of the unit does not result in prolonged impairment of the circulation of the patient.
15. Product is designed for its intended use only. Do not misuse in any way.
16. Product is not intended for infants or individuals who cannot express their intentions.
17. Prolonged over-inflation of the bladder may cause ecchymoma of your arm.
18. Do not disassemble the unit or arm cuff. Do not attempt to repair.
19. Use only the approved arm cuff for this unit. Use of other arm cuffs may result in incorrect measurement results.
20. The system might produce incorrect readings if stored or used outside the manufacturer's specified temperature and humidity ranges. Make sure to store the ECG Blood Pressure Monitor ,children, pets and pests are outside of accessible range.
21. Do not use the device near strong electrical or electromagnetic fields generated by cell phones or other devices, they may cause incorrect readings and interference or become interference source to the device.
22. Do not mix new and old batteries simultaneously.

23. Replace batteries when Low Battery Indicator "▯" appears on screen. Replace both batteries at the same time.
24. Do not mix battery types. Long-life alkaline batteries are recommended.
25. Remove batteries from device when not in operation for more than 3 months.
26. Dispose batteries properly; observe local laws and regulations.
27. Advising operator that Instruction manual/ Booklet must be consulted.
28. Do not use the device during transport vehicles for influencing measurement accuracy, such as patient transport in an ambulance or helicopter.
29. Contains small parts that may cause a chocking hazard if swallowed by infants.
30. Please align the polarities of each battery with the +ve and -ve signs imprinted on the battery housing when you replace the batteries .
31. 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.
32. 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.
33. Do not touch the electrode of this product to other conductors (including grounding).
34. During ECG measurement, if your skin or hands are too dry, please moisten it with a damp towel. Implement measurement.
35. If the skin or finger is damaged and bleeding during electrocardiogram measurement, please replace the finger for measurement
36. During ECG measurement, please do not use the product in reverse directions with your left and right hands.
37. The performance of automatic ecg sphygmomanometer may be affected by extreme temperature, humidity and altitude.

WARNING SIGNS AND SYMBOLS USED	
	Keep Dry
	Keep off Sunlight
	Type BF Equipment
	Instructions For Use MUST be Consulted

	Discard the used product to the recycling collection point according to local regulations
Bluetooth SMART	The Bluetooth® Smart word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by JOYTECH Healthcare Co.,Ltd.

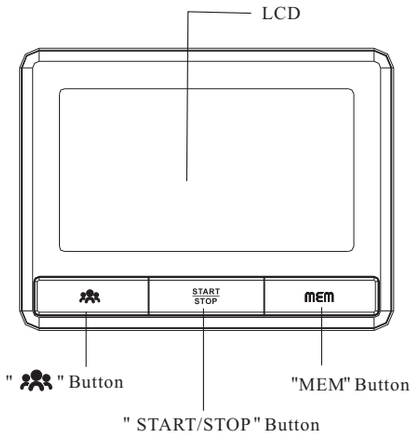
Federla Commulcation Commission (FCC) Interference Statement

1.This device complies with part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.
2.This device is verified to comply with part 15 of the FCC Rules for use with cable television service.
3.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. 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.
4.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.
5.This equipment complies with radio frequency exposure limits set forth by the FCC for an uncontrolled environment.
6. This device must not be co-located or operating in conjunction with any other antenna or transmitter.
7.Essential performance:

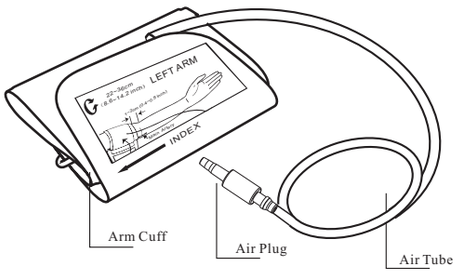
Electrosurgery interference recovery	Refer 202.6.2.101 IEC 80601-2-30
Limits of the error of the manometer	Refer 202.12.1.102 IEC 80601-2-30
Reproducibility of the BLOOD PRESSURE DETERMINATION	Refer 201.12.1.107 IEC 80601-2-30
Reproducibility of the ECG DETERMINATION	Refer 201.12.1.101.3.1 IEC 60601-2-47

Unit Illustration

Monitor Unit



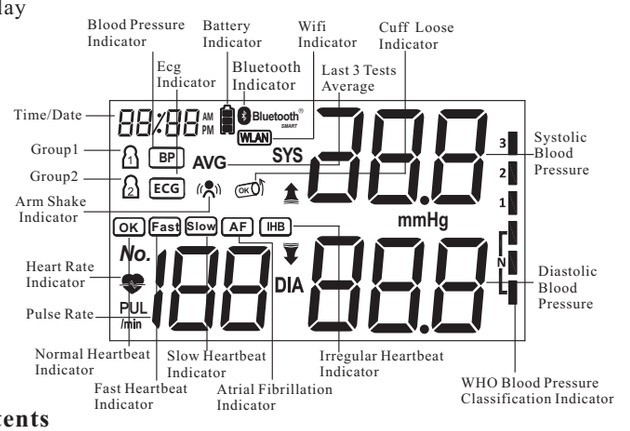
Arm Cuff Medium size cuff (fits arm circumference: 22.0 cm -36.0 cm).



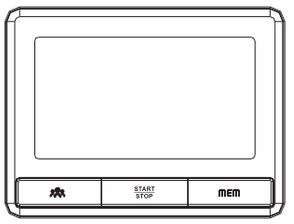
If air is leaking from the arm cuff, replace the arm cuff with a new one. It is generally recomm ended to have the cuff replaced timely to ensure correct functioning and accuracy. Please consult your local authorized Sejoy distributor or dealer.

Unit Illustration

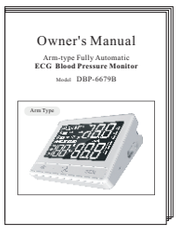
Display



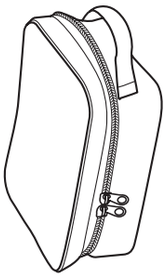
Contents



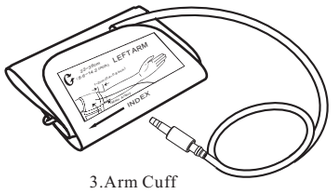
1.Monitor Unit



2.Owner's Manual



4.Storage Bag



3.Arm Cuff

Important Testing Guidelines

1. Avoid eating, exercising, and bathing for 30 minutes prior to testing.
2. Sit in a calm environment for at least 5 minutes prior to testing.
3. Do not stand while testing. Sit in a relaxed position while keeping your arm level with your heart.
4. Avoid speaking or moving body parts while testing.
5. While testing, avoid strong electromagnetic interference such as microwave ovens and cell phones.
6. Wait 3 minutes or longer before re-testing.
7. Try to measure your blood pressure at the same time each day for consistency.
8. Test comparisons should only be made when monitor is used on the same arm, in the same position, and at the same time of day.
9. This ECG Blood Pressure Monitor is not recommended for people with severe arrhythmia.
10. Do not use this ECG Blood Pressure Monitor if the device is damaged.

Any blood pressure recording can be affected by the following factors:

1. The position of the subject, his or her physiologic condition;
2. The performance and accuracy of the device;
3. Cuff size: too small cuff (bladder) will produce a higher blood pressure value than usual, too big cuff (bladder) will produce a lower blood pressure value;
4. Measuring position does not keep level with your heart;
5. Speaking or moving body parts while testing;
6. Not relaxing for about 5 minutes before taking the measurement.

Quick Start

BP Quick Start

1. Install batteries. (See Figure A)
2. Insert cuff air plug into the behind side of monitor unit. (See Figure B)

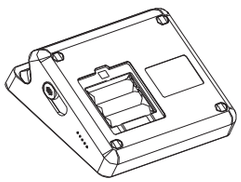


Figure A

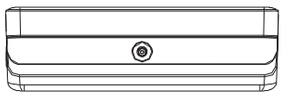


Figure B

3. Remove thick clothing from the arm area.
4. Rest for several minutes prior to testing. Sit down in a quietplace comfortably , back and arm support on a desk or table ,withyour legs uncrossed ,your arm resting on a firm and your feet flat on the floor. (See Figure C)

Figure C

5. Apply cuff to your left arm and middle of the cuff at the level of your heart. Bottom of cuff should be placed approximately 1-2cm (1/2") above elbow joint. (See Figures D&E)

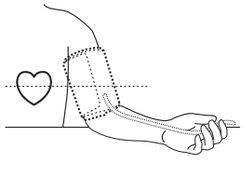


Figure D

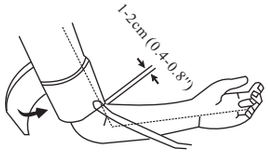


Figure E

6. Press " START/STOP " Button to start testing.

Quick Start

ECG Quick Start

1. Install batteries. (See Figure A)

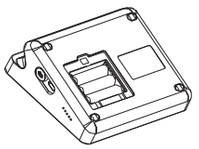


Figure A

2. Before measuring the device, rinse your hands with water or wipe them with a wet towel to keep the contact points moist.(See Figure B)

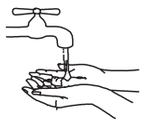


Figure B

3. Rest for several minutes prior to testing. Sit down in a quiet place, preferably at a desk or table, with your arm resting on a firm surface and your feet flat on the floor. (See Figure C)

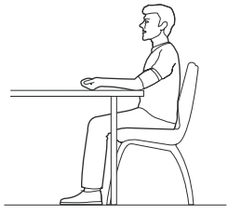


Figure C

4. Hold down the" MEM" to bind the measurement device to the smart device, press " START/STOP " to power off the device, and then press " START/STOP " to start the test.

5.Press the palm of both hands on the electrode with moderate strength, not too tight (note: keep the palm of both hands on the electrode, sit still, relax, do not move or talk during the measurement)(See Figure D)

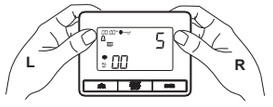


Figure D

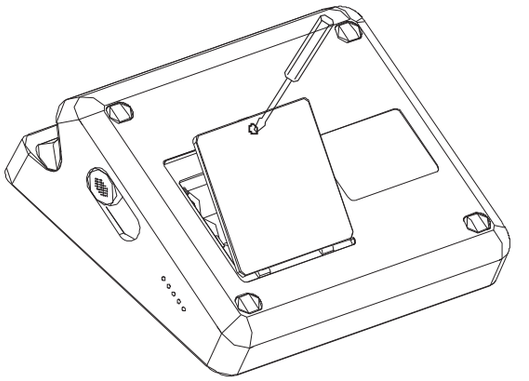
Battery Installation

Battery Installation

Slide battery cover off as indicated by arrow.

Install 3 new AAA alkaline batteries according to polarity.

Close battery cover.



Battery level indicator

When the device is turned on, the icon of the current battery quantity is displayed. When the battery quantity is too low, the device indicates low battery quantity and the screen displays " ".

When the battery is fully charged, the screen displays " ".

System Unit Operation

System Settings

With power off, press " " button to activate System Settings. The Memory Group icon flashes.

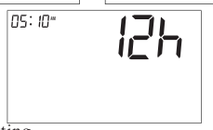
1. Select Memory Group

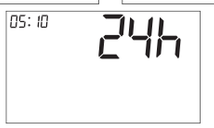
While in the System Setting mode, you may accumulate test results into 2 different groups. This allows multiple users to save individual test results (up to 60 memories per group.) Press " MEM " button to choose a group setting. Test results will automatically store in each selected group.

2. Time/Date setting

Press " " button again to set the Time/Date mode. Set the year first by adjusting the "MEM" button.

Press " " button again to confirm current month. Continue setting the dat, hour and minute in the same way. Every time the " " button is pressed, it will lock in your selection and continue in succession (month,day,hour, minute,12/24 hours)





3. Time Format setting

Press " " button again to set the time fornat setting mode.Set the time format by adjusting the "MEM" button. EU means European Time US means U.S Time

System Unit Operation

4. Voice Setting

Press " " button to enter voice setting mode. Set voice format ON or OFF by pressing the "MEM" button.

5. Volume Setting

Press " " button to enter volume setting mode. Set the voice volume by adjusting the "MEM" button . There are six volume levels.

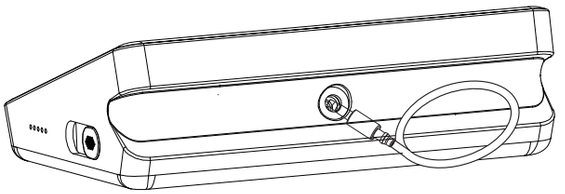
6. Saved Settings

While in any setting mode, press " START/STOP " button to turn the unit off. All information will be saved.

Note: If unit is left on and not in use for 3 minutes, it will automatically save all information and shut off.

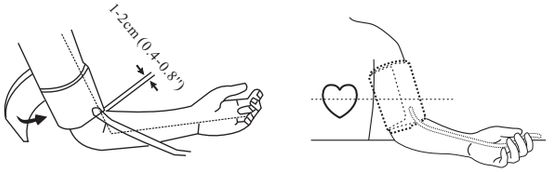
Applying the Arm Cuff

1. Firmly insert air plug into opening located on behind side of monitor unit.



2. With sticky nylon section facing outward, insert end of cuff underneath metal ring of cuff.

3. Fasten cuff about 1-2cm (0.4-0.8") above the elbow joint. For best results apply cuff to bare arm and keep level with heart while testing.

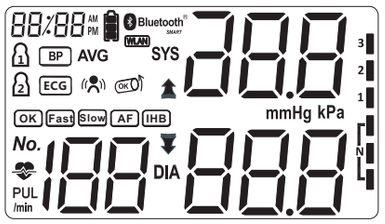


Note: Do not insert air plug into opening located on right side of monitor unit. This opening is designed for an optional power supply only.

Blood pressure test

1. Power On

Press and hold "START/STOP" button to turn the unit on. Press and hold "START/STOP" button to turn the unit on. The LCD screen will display for one second. A voice tone will indicate when unit is ready for testing.



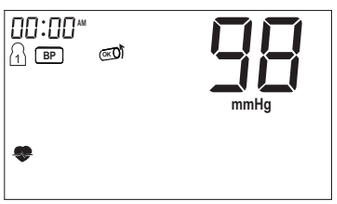
Note: Make sure the switch is in BP mode before the measurement begins

Unit will not function if residual air from previous testing is present in cuff.

The LCD will flash " " until pressure is stabilized.

2. Testing for Blood

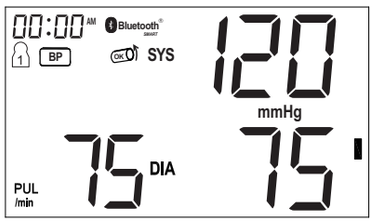
After cuff inflation, air will slowly rise as indicated by the corresponding cuff pressure value. A flashing " " will appear simultaneously on screen signaling heart beat detection.



Note: Keep relaxed during testing. Avoid speaking or moving body parts.

3. Result Display

The screen will display measurements for systolic and diastolic blood pressure with voice broadcast. An indicator representing the current measurement will appear next to the corresponding WHO Classification.



Note: Refer to Page 32~33 for detail WHO Blood Pressure Classification Information.

Irregular Heartbeat Indicator

If the monitor detects an irregular heart rhythm two or more times during the measuring process, the Irregular Heartbeat Symbol "IHB" appears on screen along with measurement results. Irregular heartbeat rhythm is defined as rhythm that is either 25% slower or faster than the average rhythm detected while measuring systolic blood pressure and diastolic blood pressure. Consult your physician if the Irregular Heartbeat Symbol "IHB" frequently appears with your test results.

Power Off

The " START/STOP " button can be pressed to turn off the unit in any mode. The unit can turn off the power itself about 3 minutes no operation in any mode.

Safety Precaution: If pressure in arm cuff becomes too extreme while testing, press the " START/STOP " button to turn power off. The cuff pressure will rapidly dissipate once the unit is off.

Arm Shake Indicator

If there is arm movement during the measurement, " " may be shown. Indicates that it may lead to abnormal accurate measurement results.The measurement result shows " ". When viewing this memory, the memory result shows" ".

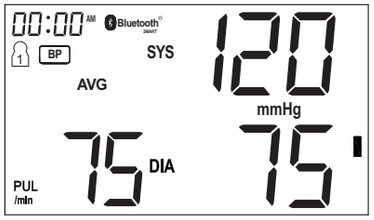
Cuff loose Indicator

When starting the measurement, " OK " will be displayed when the cuff is properly wound. When the cuff is too loose, " " will be displayed. At this time, please wear the cuff correctly and start measuring again.

BP Unit Operation

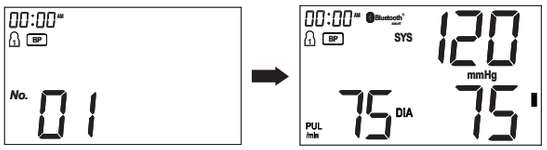
Last 3 Tests Average

With power off， press the "MEM" button to activate screen display. After the unit performs a self-diagnosis ,the screen will display the average test results from the last 3 readings of the last group used. The "AVG" symbol will appear along with the corresponding WHO Blood Pressure Indicator. The Memory Check mode can be accessed by pressing "MEM" button. To check the average results from other groups, select the desired group first prior to activating " " button in the off position.(See "Select Memory Group" on Page 13)



BP Memory Check

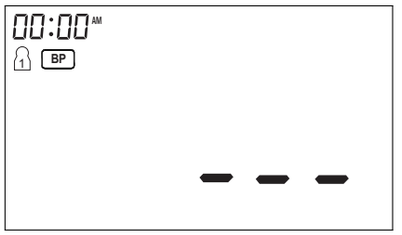
You may check past test results by using the "MEM" button. The most recent test result and oldest test result in memory can be viewed by pressing and holding the "MEM" button. Upon activating test results. you can press the "MEM" button to scroll through all test results stored in memory.



BP Unit Operation

BP Memory Deletion

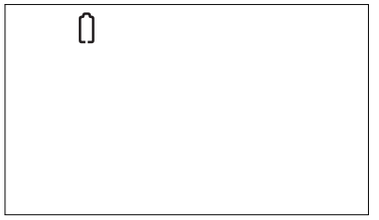
Memory for a selected group may be deleted while in Memory Check mode. Press and hold the " " button for approximately 3 seconds to delete all memory records from the selected groupwith voice broadcast "Memory Clear" and then transfer into testing mode. Press the "START/STOP " button to turn the unit off.



Note: Memory cannot be recovered once it has been deleted.

Low Battery Indicator

The unit will broadcast "Low Battery" when battery life is depleting and unable to inflate cuff for testing. The " " appears simultaneously for approximately 5 seconds prior to shutting off. Replace batteries at this time. No memory loss will occur throughout this process.

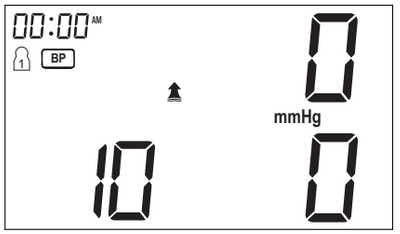


BP Unit Operation

Static Pressure Measurement

In the power down state, press and hold the " START/STOP" button, and theninstall the batteries. Until the LCD screen is full, release the " START/STOP" button.

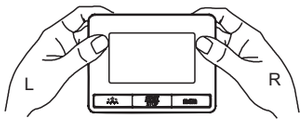
When the LCD screen displays the double zero, the ECG blood pressure meter is in static state.



Note: Only Service personnel permitted to access to this mode, the mode unavailable in normal use.

ECG Unit Operation

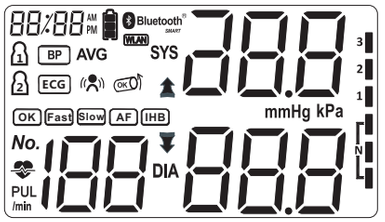
Gestures of ECG measurements



Note:Before starting the measurement, make sure the switch is in ECG mode. Do not let your fingers go until the test results appear.

ECG Test

1. Power On
Press and hold “START/STOP” button to turn the unit on. The LCD screen will display for one second.



Note:Wait for the signal to stabilize,and the 5S countdown starts to count.

ECG Unit Operation

2. Testing for ECG

Wait for the signal to stabilize,and the 5S countdown starts to count.Device side display (See Figure A), APP side page display (See Figure B).

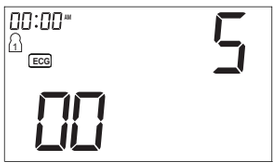


Figure A

Figure B

A flashing " " will appear simultaneously on screen signaling heart beat detection and The buzzer buzzes.Displays heart rate values and saves 30 seconds of ECG data to the device. Device side display (See Figure A), APP side page display (See Figure B).

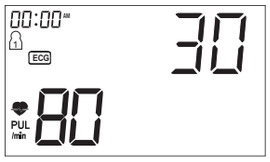


Figure A

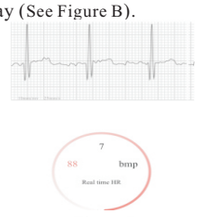


Figure B

Note: Keep your fingers on the device.

3. Result Display

The screen will display measurements for heat rate. Suggest this measurement heart rate is normal or too fast or too slow.Device side display (See Figure A), APP give suggested symptoms of atrial fibrillation and abnormal heart rhythms(See Figure B).

Figure A

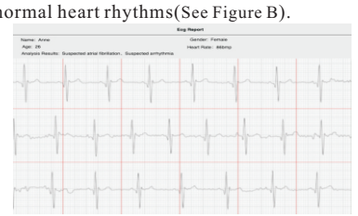


Figure B

ECG Unit Operation

Atrial Fibrillation Indicator

If the ECG sphygmomanometer detects an abnormality in the RR interval during the measurement, it also detects different sizes, shapes, F waves with uneven orientation and spacing. The atrial fibrillation symbol " AF " is displayed on the screen along with the measurement results. If " AF " is a common sign in your test results, consult your doctor.

Heart Rate Indicator

If at the end of the measurement, when the 30s average heart rate is greater than 120beat/min , the tachy symbol and ecg results are displayed on the LCD, when the 30s average heart rate is less than 60beat/min, When the average heart rate is between 60 and 120beat/min for 30s, the normal heart rate symbol and ecg result will be displayed on the LCD screen together" .

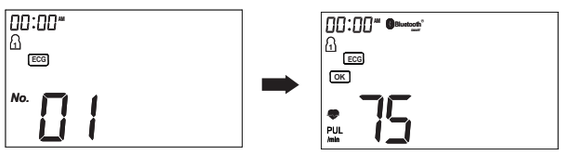
Power Off

The " START/STOP " button can be pressed to turn off the unit in any mode. The unit can turn off the power itself about 3 minutes no operation in any mode.

ECG Unit Operation

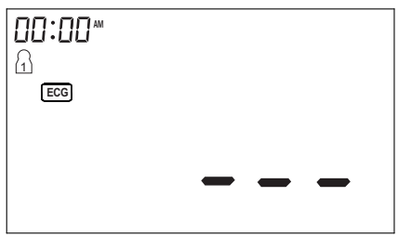
ECG Memory Check

You may check past test results by using the "MEM" button. The most recent test result and oldest test result in memory can be viewed by pressing and holding the "MEM" button. Upon activating test results. you can press the "MEM" button to scroll through all test results stored in memory.



ECG Memory Deletion

Memory for a selected group may be deleted while in Memory Check mode. Press and hold the " " button for approximately 3 seconds to delete all memory records from the selected groupwith voice broadcast "Memory Clear" and then transfer into testing mode. Press the "START/STOP " button to turn the unit off.



Note: Memory cannot be recovered once it has been deleted.

ECG Unit Operation

Use of APP

(1) Search for "BP+ECG" in the Android App Store or Apple App Store to download, register, and log in.

(2) If you want to use Bluetooth connection, please turn on the Bluetooth function of your phone. If you want to use wifi connection, please turn it on Your phone's Bluetooth and wifi capabilities. And your phone needs to be connected to a router

(3)See the App Operation guide for other operations

Wireless Unit Operation

Bluetooth requirements

The monitor requires a device with:
. Bluetooth 4.0 or later
. Android 5.0 or later
. IOS 9.0 or later
And works with:
. iphone , iPod, iPad
. Android Phones and Tablets

Bluetooth connection

-Using for the first time

1.Search for "BP+ECG" in the Android App Store or Apple App Store to download, register, and log in.

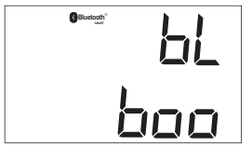
2. Open the App on your phone or tablet. If requested, you should enable Bluetooth on your device. You can enable Bluetooth under the Settings menu on your smart phone or table.

3. Create a new user login, or login with your existing user name and password.

4. Selection device "ECG Blood Pressure Monitor".

-Pairing your monitor with a Smart Device

1. Open the "ECG Blood Pressure Monitor" and follow the pairing instructions shown on your smart phone.The date and time on your monitor will automatically be set when you pair it with your smart device.



2. Confirm that your monitor is connected successfully.When your monitor is connected successfully to your smart phone, it will be display like below.

3. Press the BP [START/STOP] button to turn your monitor off.

Wireless Unit Operation

Wifi requirements

The monitor requires a device with:
. Android 5.0 or later
. IOS 9.0 or later
And works with:
. iphone , iPod, iPad
. Android Phones and Tablets

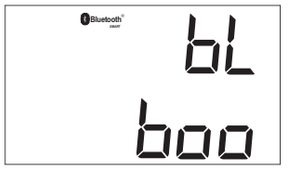
Wifi connection

-Using for the first time

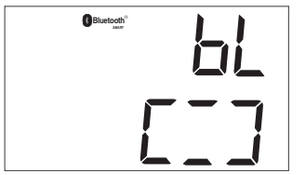
1. Open the App on your phone or tablet. If requested, you should enable Bluetooth and wifi on your device. You can enable Bluetooth and wifi from the Settings menu on your smartphone or desk, and your phone is connected to a router.

-Pairing your monitor with a Smart Device

1. Open the "ECG Blood Pressure Monitor" and follow the pairing instructions shown on your smart phone.The date and time on your monitor will automatically be set when you pair it with your smart device.



2. Confirm that your monitor is connected successfully.When your monitor is connected successfully to your smart phone, it will be display like below.



Wireless Unit Operation

3. Open the App on your phone or tablet, Click the network configuration button and input the router password currently connected to the intelligent device to connect the ECG sphygmomanometer to the router.When your monitor is connected successfully to your router, it will be display like below.

4. Press the BP [START/STOP] button to turn your monitor off.

-Using again

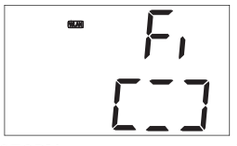
1. Open the App on your phone or tablet. If requested, you should enable wifi on your device, which is connected to a router. You can enable wifi on your smartphone or desktop under the Settings menu

-Pairing your monitor with a Smart Device

1. Open the "ECG Blood Pressure Monitor" and follow the pairing instructions shown on your smart phone.The date and time on your monitor will automatically be set when you pair it with your smart device.

2. Confirm that your monitor is connected successfully.

When your monitor is connected successfully to your smart phone, it will be display like below.



3. Press the BP [START/STOP] button to turn your monitor off.

Troubleshooting

Troubleshooting

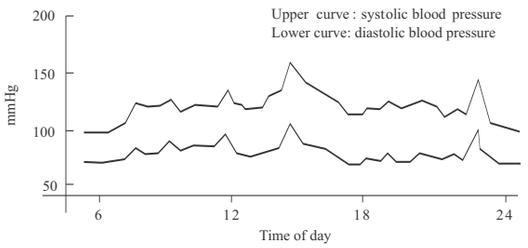
Problem	Possible Cause	Solution
Blood pressure results are not within typical range	Cuff is too tight or not properly positioned on the arm	Firmly reposition cuff approximately1-2cm (1/2") above the elbow joint (See Page 15)
	Inaccurate test results due to body movement or monitor movement	Sit in a relaxed position with arm placed near heart. Avoid speaking or moving body parts while testing. Make sure the monitor unit is placed in a stationary position throughout the testing period. (See Page 10)
Ecg waveform drift or clutter is large	1.Skin too dry or greasy 2.The electrode is not secure in contact with the human body 3.Muscle tension	1.Clean skin with soap or water to make it moist and grease-free 2.Apply pressure to the electrode 3.Relax the hand during measurement
" Er "displayed	Cuff fails to inflate properly	Make sure hose is properly fastened to cuff and monitor unit
	Improper operation	Read user manual carefully and re-test properly.
	Pressurization is over cuff rated pressure 300mmHg	Read user manual carefully and re-test properly.

Blood Pressure

Blood pressure is the force of blood pushing against the walls of arteries. It is typically measured in millimeters of mercury (mmHg.) Systolic blood pressure is the maximum force exerted against blood vessel walls each time the heart beats. Diastolic blood pressure is the force exerted on blood vessels when the heart is resting between beats.

An individual's blood pressure frequently changes throughout the course of a day. Excitement and tension can cause blood pressure to rise, while drinking alcohol and bathing can lower blood pressure. Certain hormones like adrenaline (which your body releases under stress) can cause blood vessels to constrict, leading to a rise in blood pressure.

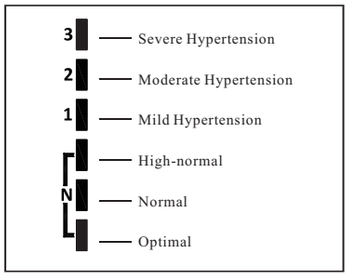
If these measuring numbers become too high, it means the heart is working harder than it should.

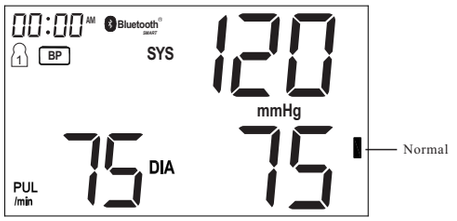


Example: fluctuation within a day (male, 35 years old)

WHO Blood Pressure Classification Indicator

The DBP-6673B is equipped with a classification indicator based on established guidelines from the World Health Organization. The chart below (color coded on monitor unit) indicates test results.

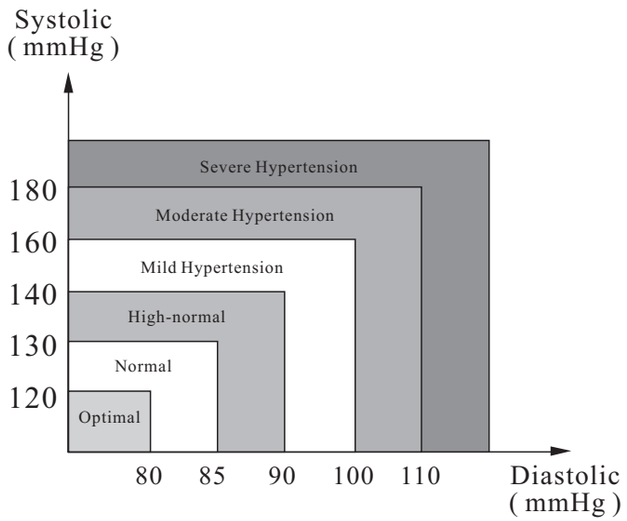




: Blood Pressure Classification Indicator

Health Reminder

Hypertension is a dangerous disease that can affect the quality of life. It can lead to a lot of problems including heart failure, kidney failure, and cerebral hemorrhaging. By maintaining a healthy lifestyle and visiting your physician on a regular basis, hypertension and relative diseases are much easier to control when diagnosed in their early stages.



Note: Do not be alarmed if an abnormal reading occurs. A better indication of an individual's blood pressure occurs after 2-3 readings are taken at the same time each day over an extended period of time. Consult your physician if test results remain abnormal.

Q: What is the difference between measuring blood pressure at home or at a professional healthcare clinic?

A: Blood pressure readings taken at home are now seen to give a more accurate account as they better reflect your daily life. Readings can be elevated when taken in a clinical or medical environment. This is known as White Coat Hypertension and may be caused by feeling anxious or nervous.

Note: Abnormal test results may be caused by:

1. Improper cuff placement
   Make sure cuff is snug-not too tight or too loose.
   Make sure bottom of the cuff is approximately 1-2cm (1/2") above the elbow joint.
2. Improper body position
   Make sure to keep your body in an upright position.
3. Feeling anxious or nervous
   Take 2-3 deep breaths, wait a few minutes and resume testing.

Q: What causes different readings?

A: Blood pressure varies throughout the course of a day. Many factors including diet, stress, cuff placement, etc. may affect an individual's blood pressure.

Q: Should I apply the cuff to the left or right arm? What is the difference?

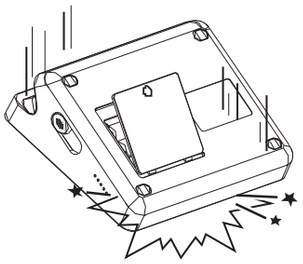
A: Either arm can be used when testing, however, when comparing results, the same arm should be used. Testing on your left arm may provide more accurate results as it is located closer to your heart.

Q: What is the best time of day for testing?

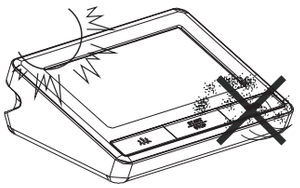
A: Morning time or any time you feel relaxed and stress free.

Maintenance

1. Avoid dropping, slamming, or throwing the unit.

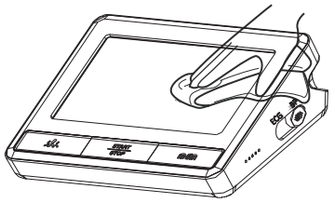


2. Avoid extreme temperatures. Do not expose unit directly under sunshine.



3. When cleaning the unit, use a soft fabric and lightly wipe with mild detergent.

Use a damp cloth to remove dirt and excess detergent.When the electrode surface is dirty, please wipe it with a damp cloth or alcohol cotton, at least once a month.



Specifications

Product Description	Arm-type Fully Automatic ECG Blood Pressure Monitor	
Model	DBP-6679B	
Display	LCD Digital Display Size:95.5mm×54.5mm (3.76" x 2.15")	
BP Measurement Method	Oscillometric Method	
BP Pressurization	Automatic Pressurization	
BP Measurement Range	Systolic Pressure	60mmHg～260mmHg
	Diastolic Pressure	40mmHg～200mmHg
	Pressure	0mmHg～299mmHg
	Pressure	±3mmHg
	Pulse	30～180 Beats/Minute
	Pulse	±5%
ECG Measurement Method	Single-channel ECG	
ECG Measurement Range	bandwidth	0.67~40HZ
	Heart Rate	30～199 Beats/Minute
	Heart Rate	±5%
	Measuring Time	30 Seconds
Memory	2x150 BP Memories in Two Groups with Date and Time	
	2x20 ECG Memories in Two Groups with Date and Time	
BP Function	Irregular Heartbeat Detection	
	WHO Classification Indicator	
	Last 3 Tests Average	
ECG Function	Atrial Fibrillation Indicator	
	Heart Rate Indicator	
Other Function	Automatic Power-Off	
	Low Battery Detection	
	Voice	
	Backlight	
Power Source	3A AA batteries	
Battery Life	Approximately 2 months at 3 tests per day	

Specifications

Unit Weight	Approx.287g (10.1 oz.) (excluding battery)	
Unit Dimensions	Approx.142.5 x 107.2 x 44mm (5.61" x 4.22" x 1.73")(L x W x H)	
Cuff Circumference	Approx.135 (W) x 485(L) mm (Medium cuff: Fits arm circumference 22-36 cm)	
Operating Environment	Temperature	10℃～45℃ (50℉~113℉)
	Humidity	10%～95%RH
	Pressure	800hPa~1060hPa
Storage Environment	Temperature	-20℃~55℃ (-4℉~131℉)
	Humidity	15%～93%RH
Transport Environment	Temperature	-20℃~55℃ (-4℉~131℉)
	Humidity	15%～93%RH
Bluetooth	Frequency	2. 4GHz（2402~2480Mhz）
	Type Of Antenna	Built-in Onboard Antenna
	Version	V5.0
	Speed	1Mbps
	Transmission power	About 3dbm
WIFI	Frequency	2. 4GHz（2412~2462Mhz）
	Communication Standard	802. 11b
	Bandwidth	About 20 MHZ
	Type Of Antenna	Built-in Onboard Antenna
	Antenna gain	About 1.5dBi
	Transmission power	≤15dbm
Classification	Internal Powered Equipment,Type BF  ,Cuff is the Applied Part	
Ingress Protection Rating	Ip21, Indoor Use Only	

Warranty

Specifications are subject to change without notice.

This ECG Blood Pressure Monitor complies with the European regulations and bears the CE mark“CE 0123”.This ECG Blood Pressure Monitor also complies with mainly following standards
(included but not limited):
Safety standard:
EN 60601-1 Medical electrical equipment part 1: General requirements for safety
EMC standard:
EN 60601-1-2 Medical Electrical Equipment -- Part 1-2: General Requirements For Basic Safety And Essential Performance -- Collateral Standard: Electromagnetic Disturbances – Requirements And Tests.
Performance standards:
IEC80601-2-30, Medical electrical equipment – Part 2-30: Particular requirements for the basic safety and essential performance of automated non-invasive sphygmomanometers.
EN 1060-3 Non-invasive sphygmomanometers - Supplementary requirements for electromechanical blood pressure measuring systems.
ISO 81060-2, non-invasive sphygmomanometers - part 2: clinical validation of automated measurement type.

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.
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 contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada’s licence-exempt RSS(s). Operation is subject to the following two conditions:
(1) This device may not cause interference; and
(2) This device must accept any interference, including interference that may cause undesired operation of the device.
L’émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d’Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes :
(1)L’appareil ne doit pas produire de brouillage;
(2)L’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.

The ECG Blood Pressure Monitor is calculated from the date of purchase, and its service life is 2 years. If the ECG Blood Pressure Monitor does not function properly due to defective components or poor workmanship, we will repair or replace it freely. The warranty does not cover damages to your Blood Pressue Monitor due to improper handling. Please contact local retailer for details.

The device satisfies the EMC requirements of the international standard IEC 60601-1-2. The requirements are satisfied under the conditions described in the table below. The device is an electrical medical product and is subject to special precautionary measures with regard to EMC which must be published in the instructions for use. Portable and mobile HF communications equipment can affect the device. Use of the unit in conjunction with non-approved accessories can affect the device negatively and alter the electromagnetic compatibility. The device should not be used directly adjacent to or between other electrical equipment.

Table 1

Guidance and declaration of manufacturer-electromagnetic emissions		
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment -guidance**
Radiated emission CISPR 11	Group 1, class B.	The device uses RF energy only for its internal function. Therefore, its emissions are very low and are not likely to cause any interference in nearby electronic equipment.
Conducted emission CISPR 11	Group 1, class B.	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.

Table 2

Guidance and declaration of manufacturer-electromagnetic immunity			
The device is intended for use in the electromagnetic environment specified below. The customer or the user of the device 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	± 8 kV contact ±2 kV,±4 kV, ±8 kV, ±15 kV air	± 8 kV contact ±2 kV,±4 kV, ±8 kV, ±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 %.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m; 50Hz or 60Hz	30 A/m; 50Hz or 60Hz	Power frequency magnetic fields should be at levels charactertic of a typical location in a typical commercial or hospital environment.
Radiated RF EM fields IEC 61000-4-3	3V/m or 10 V/m 80MHz-2.7 Ghz 80%AM at 1kHz	3V/m or 10 V/m 80MHz-2.7 Ghz 80%AM at 1kHz	Portable and mobile RF communications equipment should be used no closer to any part of the device, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended seperation distance 80 MHz to 800 MHz 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 metres (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. Interference may occur in the vicinity of equipment marked with the following symbol:

Table 3

Guidance and declaration of manufacturer-electromagnetic immunity						
Nowadays, many RF wireless equipments have being used in various healthcare locations where medical equipment and/or systems are used. When they are used in close proximity to medical equipment and/or systems, the medical equipment and/or systems' basic safety and essential performance may be affected. Arm-type Fully Automatic Digital ECG Blood Pressure Monitor has been tested with the immunity test level in the below table and meet the related requirements of IEC 60601-1-2:2014. The customer and/or user should help keep a minimum distance between RF wireless communications equipment and this medical equipment and/or systems as recommended below.						
Test frequency (MHz)	Band (MHz)	Service	Modulation	Maximum power (W)	Distance (m)	Immunity test level (V/m)
385	380-390	TETRA 400	Pulse modulation 18Hz	1.8	0.3	27
450	430-470	GMRS 460 FRS 460	FM ± 5 kHz deviation 1 kHz sine	2	0.3	28
710	704-787	LTE Band 13, 17	Pulse modulation 217Hz	0.2	0.3	9
745						
780						
810	800-960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18Hz	2	0.3	28
870						
930						
1720	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation 217Hz	2	0.3	28
1845						
1970						
2450	2400-2570	Bluetooth,WLAN, 802.11 b/g/n,RFID 2450,LTE Band 7	Pulse modulation 217Hz	2	0.3	28
5240	5100-5800	WLAN 802.11 a/n	Pulse modulation 217Hz	0.2	0.3	9
5500						
5785						

Table 4

Recommended separation distances between portable and mobile RF communications equipment and the device		
The device is intended for use in an electromagnetic environment in which radiated therefore disturbances are controlled. The customer or the user of the device can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the device 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	
	80 MHz to 800 MHz $d=\left[\frac{3.5}{E_1}\right]\sqrt{P}$	800 MHz to 2.7 GHz $d=\left[\frac{7}{E_1}\right]\sqrt{P}$
0.01	0.12	0.23
0.1	0.38	0.73
1	1.2	2.3
10	3.8	7.3
100	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (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.

Important Instructions Before Use

1. WARNING: 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.

2.WARNING: 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 Arm-type Fully Automatic Digital ECG Blood Pressure Monitor , including cables specified by the MANUFACTURER. Otherwise, degradation of the performance of this equipment could result.

3.The software identifier refer to the software evaluation report , and the file code is **JDBP-7904- 154.**

4.**verify manometer pressure accuracy:**

In the power down state, press and hold the " START/STOP" button, and theninstall the batteries. Until the LCD screen is full, release the " START/STOP" button.

When the LCD screen displays the double zero, the bloodpressure meter is in static state.

At this point, 500ml gas capacity, calibrated standard pressure gauge and manual pressure device can be connected to the sphygmomanometer through the sleeve interface of the sphygmomanometer, and manual pressure can be applied to the effective display range of the sphygmomanometer, and then the difference between the reading of the sphygmomanometer and that of the standard pressure gauge can be compared.This mode can be used to verify manometer pressure accuracy.

5.The patient is the operator:

the PATIENT is an intended OPERATOR.

the PATIENT Do not carry out other maintenance operations except to replace the battery.

6.WARNING:

Do not modify this equipment without authorization of the manufacturer.

7. ESSENTIAL PERFORMANCE Maintenance advice:

Pressure calibration will be carried out when this product leaves the factory. Patients can use the method described in the section "Verify Manometer Pressure Accuracy" to verify the accuracy. If the accuracy deviation is large, please contact the manufacturer to recalibration.

8.Mechanical strength and resistance to heatThe resistance to heat will be retained by device during the EXPECTED SERVICE LIFE of the ME EQUIPMENT.

9.Do not place the ECG Blood Pressure Monitor and cuff at will. It will cause asphyxiation if the child swallows or twine around his neck.

10.The cuff and the case of the ECG Blood Pressure Monitor have been tested for biocompatibility and do not contain allergenic or harmful materials.Please stop using it if allergy occurs during use.

11.Warning:

Non-professionals do not modify the equipment, otherwise it will make the equipment measurement is not accurate.

12.Warning:

Do not expose the equipment for a long time, otherwise it will reduce the performance of the equipment.

13.Warning:

This device is not used for children and pets

14.Clean:

The equipment can be cleaned by lay operator according to rule 3 of maintenance in the instructions

15.Warning:

Do not use a damaged cuff for blood pressure measurement.

16.Warning:

When measuring with the cuff, if the tester feels seriously uncomfortable, press the button of the ECG Blood Pressure Monitor to deflate the cuff, or remove the cuff directly from the arm.

17.Warning:

If an unexpected reading occurs, the operator can take several more measurements and consult a doctor.

18.Warning:

This equipment is used outside the specified environment, may damage the equipment, and may be inaccurate measurement.

19.ME equipment not intended for use in conjunction with flammable agents “ME equipment not intended for use in oxygen rich environment”

Correct Disposal of This Product
(Waste Electrical & Electronic Equipment)

This marking shown on the product indicates that it should not be disposed with other household waste at the end of its life. To prevent potential harm to the environment or to human health, please separate this product from other types of wastes and recycle it responsibly. When disposing this type of product, contact the retailer where product was purchased or contact your local government office for details regarding how this item can be disposed in an environmentally safe recycling center.

Business users should contact their supplier and check the terms and conditions of the purchasing agreement. This product should not be mixed with other commercial wastes for disposal. This product is free of hazardous materials.