Owner's Manual

Arm-type Fully Automatic
Digital Blood Pressure Monitor
Model  DBP-6277B

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Safety Notice

Thank you for purchasing the DBP-6277B Blood Pressure Monitor. The unit has been constructed using reliable circuitry and durable materials. Used properly, this unit will provide years of satisfactory use.

Measure blood pressure (systolic and diastolic) and pulse rate of adults and adolescents age 12 through 21 years of age. All functions can be used safely and values can be read out in one LCD DISPLAY. Measurement position is on adult upper arm only.

Blood pressure measurement determined with this device are equivalent to those obtained by a trained observer using the cuff/stethoscope auscultation method, within the limits prescribed by the Recognized Consensus Standard (IEC 81060-2-30) for electronic sphygmomanometers.

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 oC, 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 oC, 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.
Safety Notice

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 heart 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 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 ecchymomata 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 blood pressure monitor, children, pets and pets 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.

Safety Notice

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:

   | Electrocautery 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 |

WARNING SIGNS AND SYMBOLS USED

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>![Symbol]</td>
<td>Keep Dry</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Keep off Sunlight</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Type BF Equipment</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Instructions For Use MUST Be Consulted</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>Discard the used product to the recycling collection point according to local regulations</td>
</tr>
</tbody>
</table>

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.
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 blood pressure monitor is not recommended for people with severe arrhythmia.
10. Do not use this 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

1. Install batteries. (See Figure A)
2. Insert cuff air plug into the behind side of monitor unit. (See Figure B)
3. Remove thick clothing from the arm area.
4. Rest for several minutes prior to testing. Sit down in a quiet place comfortably, back and arm support on a desk or table, with your legs uncrossed, your arm resting on a firm and your feet flat on the floor. (See 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 1-2 cm (1/2") above elbow joint. (See Figures D&E)
6. Press "START/STOP" Button to start testing.
## Unit Operation

### System Settings

With power off, press “SET” 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 150 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 “SET” button again to set the Time/Date mode. Set the year first by adjusting the “MEM” button. Press “MEM” button again to confirm current month. Continue setting the date, hour and minute in the same way. Every time the “SET” 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 “MEM” button to choose a group setting. Test results will automatically store in each selected group.

4. **Unit Setting**
   - Press “MEM” button to enter unit setting mode. Set format by pressing the “MEM” button. EU means European Time US means U.S Time.

5. **Voice Setting**
   - Press “MEM” button to enter voice setting mode. Set voice format ON or OFF by pressing the “MEM” button.

6. **Volume Setting**
   - Press “SET” button to enter volume setting mode. Set the voice volume by adjusting the “MEM” button. There are six volume levels.

7. **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.
Testing

1. Power On
Press and hold "START/STOP" button to turn the unit on. The LCD screen will appear for one second as unit performs a quick diagnosis. A voice tone will indicate when unit is ready for testing.

Note: Unit will not function if residual air from previous testing is present in cuff. The LCD will flash " " until pressure is stabilized.

2. Testing
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. A indicator representing the current measurement will appear next to the corresponding WHO Classification.

Irregular Heartbeat Indicator
If the monitor detects an irregular heart rhythm two or more times during the measuring process, the Irregular Heartbeat Symbol " " 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 " " 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. At this time, the LCD will display " Err".

Cuff loose Indicator
When starting the measurement, " " 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.

Note: Refer to Page 23-24 for detail WHO Blood Pressure Classification Information.

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 "SET" button in the off position. (See "Select Memory Group" on Page 11)

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.
Unit Operation

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

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.

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

Static Pressure Measurement
In the power down state, press and hold the "START/STOP" button, and then install the batteries. Until the LCD screen is full, release the "START/STOP" button.

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

Software version is displayed: 10 is a software version in the figure.

Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood pressure results are not</td>
<td>Cuff is too tight or not properly positioned on the arm</td>
<td>Firmly reposition cuff approximately 1-2cm (1/2&quot;) above the elbow joint (See Page 12)</td>
</tr>
<tr>
<td>within typical range</td>
<td>Inaccurate test results due to body movement or monitor movement</td>
<td>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 7)</td>
</tr>
<tr>
<td>&quot;Err&quot; displayed</td>
<td>Cuff fails to inflate properly</td>
<td>Make sure hose is properly fastened to cuff and monitor unit</td>
</tr>
<tr>
<td>Improper operation</td>
<td></td>
<td>Read user manual carefully and re-test properly.</td>
</tr>
<tr>
<td>Connection failure / Data is not</td>
<td>Pressurization is over cuff rated pressure 300mmHg</td>
<td>Read user manual carefully and re-test properly.</td>
</tr>
<tr>
<td>being transmitted</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The blood pressure monitor might not be properly placed within the</td>
<td>If there are no causes of data transmission interference found near the blood pressure monitor, move the blood pressure monitor within 16ft (.5m) of the smart device and try again</td>
</tr>
<tr>
<td></td>
<td>smart device’s transmission range and is too far from the smart</td>
<td></td>
</tr>
<tr>
<td></td>
<td>device</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The blood pressure did not pair successfully to the smart device</td>
<td>Try to pair the devices once again.</td>
</tr>
<tr>
<td></td>
<td>The application on the smart device is not ready.</td>
<td>Check the application then try sending the data again.</td>
</tr>
</tbody>
</table>

- Pairing your monitor with a Smart Device
1. Open the “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.
- Transfer your readings
1. As soon as your measurement is complete, open the app on your smart phone to transfer your readings.

Not: On the paired smartphone, Bluetooth must be enabled.

2. You can view your blood pressure readings on the app.

Bluetooth connection
- Using for the first time
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 tablet.
3. Create a new user login, or login with your existing user name and password.
4. Selection device “Blood pressure monitor”.

- 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, iPad, iPod
- Android Phones and Tablets

- Wireless communication
Frequency range: 2.4 GHz (2400-2483.5 MHz)
Modulation: GFSK
Antenna gain: 0.5dBi

- Troubleshooting

- Pairing
- Bluetooth connection
- Blood pressure monitor - Static Pressure Measurement
- Low Battery Indicator
- Memory Deletion

Note: Only Service personnel permitted to access to this mode, the mode unavailable in normal use.
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 related diseases are much easier to control when diagnosed in their early stages.

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.

**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.

**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 related diseases are much easier to control when diagnosed in their early stages.

**Blood Pressure Information**

Blood pressure 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.

**WHO Blood Pressure Classification Indicator**

The DBP-6277B 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 Q&A**

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.
Specifications

<table>
<thead>
<tr>
<th>Product Description</th>
<th>Arm-type Fully Automatic Blood Pressure Monitor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>DBP-6277B</td>
</tr>
<tr>
<td>Display</td>
<td>LCD Digital Display  Size:83.1mm x 53.1mm (3.27&quot; x 2.09&quot;)</td>
</tr>
<tr>
<td>Measurement Method</td>
<td>Oscillometric Method</td>
</tr>
<tr>
<td></td>
<td>Systolic Pressure: 60mmHg - 260mmHg</td>
</tr>
<tr>
<td></td>
<td>Diastolic Pressure: 30mmHg - 200mmHg</td>
</tr>
<tr>
<td></td>
<td>Pressure: 0mmHg - 299mmHg</td>
</tr>
<tr>
<td></td>
<td>Pressure: ±3mmHg</td>
</tr>
<tr>
<td></td>
<td>Pulse: 30 - 180 Beats/Minute</td>
</tr>
<tr>
<td></td>
<td>Pulse: ±5%</td>
</tr>
<tr>
<td>Pressurization</td>
<td>Automatic Pressurization</td>
</tr>
<tr>
<td>Memory</td>
<td>2x60 Memories in Two Groups with Date and Time</td>
</tr>
<tr>
<td>Function</td>
<td>Irregular Heartbeat Detection</td>
</tr>
<tr>
<td></td>
<td>WHO Classification Indicator</td>
</tr>
<tr>
<td></td>
<td>Last 3 Tests Average</td>
</tr>
<tr>
<td></td>
<td>Low Battery Detection</td>
</tr>
<tr>
<td></td>
<td>Automatic Power-Off</td>
</tr>
<tr>
<td></td>
<td>Voice</td>
</tr>
<tr>
<td></td>
<td>Backlight</td>
</tr>
<tr>
<td></td>
<td>Bluetooth</td>
</tr>
<tr>
<td>Power Source</td>
<td>3AAA batteries or Medical AC Adapter (DC5.0V, 1000mA)</td>
</tr>
<tr>
<td></td>
<td>(recommended, not provided)</td>
</tr>
<tr>
<td>Battery Life</td>
<td>Approximately 2 months at 3 tests per day</td>
</tr>
<tr>
<td>Unit Weight</td>
<td>Approx. 213g (7.51 oz) (excluding battery)</td>
</tr>
<tr>
<td>Unit Dimensions</td>
<td>Approx. 149.8 x 80.4 x 45.7mm (5.90&quot; x 3.17&quot; x 1.80&quot;)</td>
</tr>
<tr>
<td></td>
<td>Approx. 3.13 (W) x 4.85(L) x 3.17(H) mm</td>
</tr>
<tr>
<td>Cuff Circumference</td>
<td>Approx. 133 (W) x 485(L) mm</td>
</tr>
<tr>
<td></td>
<td>(Medium cuff: Fits arm circumference 22-36 cm)</td>
</tr>
</tbody>
</table>

Specifications

<table>
<thead>
<tr>
<th>Operating Environment</th>
<th>Temperature</th>
<th>10℃ ~ 40℃ (50℉ ~ 104℉)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Humidity</td>
<td>15% ~ 93% RH</td>
</tr>
<tr>
<td></td>
<td>Pressure</td>
<td>800hPa ~ 1060hPa</td>
</tr>
<tr>
<td>Storage Environment</td>
<td>Temperature</td>
<td>-23℃ ~ -55℃ (-13℉ ~ -131℉)</td>
</tr>
<tr>
<td></td>
<td>Humidity</td>
<td>≤93% RH</td>
</tr>
<tr>
<td>Transport Environment</td>
<td>Temperature</td>
<td>-23℃ ~ -55℃ (-13℉ ~ -131℉)</td>
</tr>
<tr>
<td></td>
<td>Humidity</td>
<td>≤93% RH</td>
</tr>
<tr>
<td>Bluetooth</td>
<td>Modulation Type</td>
<td>GFSK</td>
</tr>
<tr>
<td></td>
<td>Version</td>
<td>5.0.1 BT Signal mode</td>
</tr>
<tr>
<td></td>
<td>Operation frequency</td>
<td>2.4GHz (2400 ~ 2483, 5MHz)</td>
</tr>
<tr>
<td></td>
<td>Antenna gain</td>
<td>0.5 dBi</td>
</tr>
<tr>
<td></td>
<td>Bandwidth</td>
<td>2.0 MHz</td>
</tr>
<tr>
<td>Classification</td>
<td>Internal Powered Equipment, Type BF</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cuff is the Applied Part</td>
<td></td>
</tr>
<tr>
<td>Ingress Protection</td>
<td>IP 20, Indoor Use Only</td>
<td></td>
</tr>
<tr>
<td>Battery Shelf life</td>
<td>60 months</td>
<td></td>
</tr>
<tr>
<td>Battery Storage</td>
<td>-25℃ ~ -55℃ (-13℉ ~ -131℉)</td>
<td></td>
</tr>
</tbody>
</table>

Specifications are subject to change without notice.

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.
4. Cuff Cleaning and Disinfection:
   A) Spread the cuff (skin-contact surface) upwards onto a clean table. Use a damp clean cloth (water-based) to wipe the skin-contact surface with a force.
   B) Soak the cloth clean with drinking water and wring it dry. Repeat A) with the damp cloth (water-based) for 3 times.
   C) Apply 70% - 80% alcohol to a new cloth (or 75% alcohol cotton-ball), use it to wipe the skin-contact surface with a force. Then soak the cloth with the alcohol again (or change a new 75% alcohol cotton-ball), repeat the disinfection procedure for 3 times.
   D) When the disinfection towards the skin-contact surface is finished, wipe the non-skin contact surface with a cloth (alcohol-based) or alcohol cotton-ball thoroughly for 3 times.
   E) Leave the cuff naturally dry, then it is ready for reuse.
   Notice: Do not soak in water or splash water on it.
5. Do not use petrol, thinners or similar solvents.
6. Remove batteries when not in operation for an extended period of time.
7. Do not disassemble product.
8. It is recommended the performance should be checked every 2 years.
9. Expected service life: Approximately three years at 10 tests per day.
10. No service and maintenance while it is in use and maintenance only be performed by service personnel. Service and maintenance require parts, repair, technical support will be provided.

This Blood Pressure Monitor complies with the European regulations and bears the CE mark “CE 0197”. This 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:
Performance standards:
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.
The Blood Pressure Monitor is guaranteed for 2-year from the date of purchase. If the 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 Pressure Monitor due to improper handling. Please contact local retailer for details.

### Electromagnetic Compatibility Information

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

<table>
<thead>
<tr>
<th>Emissions test</th>
<th>Compliance</th>
<th>Electromagnetic environment guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiated emission CISPR 11</td>
<td>Group 1, class B.</td>
<td>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.</td>
</tr>
<tr>
<td>Conducted emission CISPR 11</td>
<td>Group 1, class B.</td>
<td>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.</td>
</tr>
<tr>
<td>Voltage Fluctuations/</td>
<td>Complies</td>
<td></td>
</tr>
<tr>
<td>flicker emissions CISPR 11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IEC 61000-3-3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Table 2**

Guidance and declaration of manufacturer-electromagnetic immunity

<table>
<thead>
<tr>
<th>IMMUNITY test</th>
<th>IEC 60601 test level</th>
<th>Compliance</th>
<th>Electromagnetic environment guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrostatic discharge (ESD)</td>
<td>IEC 61000-4-2</td>
<td>±8 kV</td>
<td>- guidance</td>
</tr>
<tr>
<td></td>
<td>contact</td>
<td>±2 kV, ±4 kV, ±8 kV, ±15 kV air</td>
<td></td>
</tr>
<tr>
<td>Electrostatic transient/burst</td>
<td>IEC 61000-4-4</td>
<td>±2 kV, 100kHz, AC power port</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>Surf</td>
<td>IEC 61000-4-5</td>
<td>±0.5 kV, ±1 kV (differential mode)</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td>Voltage dips, short interruptions and voltage variations on power supply input lines</td>
<td>IEC 61000-4-11</td>
<td>0.5% UT; 0.5 cycle; 0% UT; 0.5 cycle</td>
<td>Mains power quality should be that of a typical commercial or hospital environment.</td>
</tr>
<tr>
<td></td>
<td>At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315°</td>
<td>0% UT; 1 cycle and 70% UT; 25/30 cycles</td>
<td>0% UT; 1 cycle and 70% UT; 25/30 cycles</td>
</tr>
<tr>
<td></td>
<td>Single phase: at 0°</td>
<td>0% UT; 250/300 cycle</td>
<td>0% UT; 250/300 cycle</td>
</tr>
<tr>
<td>Power frequency (50/60 Hz)</td>
<td>IEC 61000-4-8</td>
<td>30 A/m; 50Hz or 60Hz</td>
<td>Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.</td>
</tr>
</tbody>
</table>

---

**Table 2 (continued)**

<table>
<thead>
<tr>
<th>IMMUNITY test</th>
<th>IEC 60601 test level</th>
<th>Compliance</th>
<th>Electromagnetic environment guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiated RF EM fields</td>
<td>IEC 61000-4-3</td>
<td>3 V/m or 10 V/m 80 MHz-2.7 GHz 80% AM at 1kHz</td>
<td>The device is suitable for use in all electromagnetic sites as follows: 3V/m or 10 V/m for frequencies between 80 MHz to 800 MHz.</td>
</tr>
<tr>
<td>Conducted disturbances induced by RF fields</td>
<td>IEC 61000-4-6</td>
<td>3 V in 0.15 MHz-80 MHz and/or amateur radio bands between 0.15 MHz and 80 MHz</td>
<td>The device is suitable for use in all electromagnetic sites as follows: 3 V in 0.15 MHz-80 MHz and/or amateur radio bands between 0.15 MHz and 80 MHz.</td>
</tr>
</tbody>
</table>

---

**Table 3**

Guidance and declaration of manufacturer-electromagnetic immunity

<table>
<thead>
<tr>
<th>IMMUNITY test</th>
<th>IEC 60601 test level</th>
<th>Compliance</th>
<th>Electromagnetic environment guidance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiated RF EM fields</td>
<td>IEC 61000-4-3</td>
<td>3 V/m or 10 V/m 80 MHz-2.7 GHz 80% AM at 1kHz</td>
<td>The device is suitable for use in all electromagnetic sites as follows: 3V/m or 10 V/m for frequencies between 80 MHz to 800 MHz.</td>
</tr>
<tr>
<td>Conducted disturbances induced by RF fields</td>
<td>IEC 61000-4-6</td>
<td>3 V in 0.15 MHz-80 MHz and/or amateur radio bands between 0.15 MHz and 80 MHz</td>
<td>The device is suitable for use in all electromagnetic sites as follows: 3 V in 0.15 MHz-80 MHz and/or amateur radio bands between 0.15 MHz and 80 MHz.</td>
</tr>
</tbody>
</table>
Electromagnetic Compatibility Information

Table 3

Guidance and declaration of manufacturer-electromagnetic immunity

Nowadays, many RF wireless equipments have been 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 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.

<table>
<thead>
<tr>
<th>Test frequency (MHz)</th>
<th>Band (MHz)</th>
<th>Service</th>
<th>Modulation</th>
<th>Maximum power (W)</th>
<th>Distance (m)</th>
<th>Immunity test level (V/m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>385</td>
<td>380-390</td>
<td>TETRA</td>
<td>Pulse modulation</td>
<td>1.8</td>
<td>0.3</td>
<td>27</td>
</tr>
<tr>
<td>450</td>
<td>430-470</td>
<td>GSM 850</td>
<td>Pulse modulation</td>
<td>2</td>
<td>0.3</td>
<td>28</td>
</tr>
<tr>
<td>710</td>
<td>704-787</td>
<td>LTE Band 13, 17</td>
<td>Pulse modulation</td>
<td>0.2</td>
<td>0.3</td>
<td>9</td>
</tr>
<tr>
<td>780</td>
<td>800-960</td>
<td>TETRA 5, GSM 850, CDMA 850, LTE Band 5</td>
<td>Pulse modulation</td>
<td>2</td>
<td>0.3</td>
<td>28</td>
</tr>
<tr>
<td>780</td>
<td>800-960</td>
<td>TETRA 5, GSM 850, CDMA 850, LTE Band 5</td>
<td>Pulse modulation</td>
<td>2</td>
<td>0.3</td>
<td>28</td>
</tr>
<tr>
<td>930</td>
<td>1700-1990</td>
<td>GSM 1800; CDMA 1900; LTE Band 3, 4, 5; UMTS</td>
<td>Pulse modulation</td>
<td>2</td>
<td>0.3</td>
<td>28</td>
</tr>
<tr>
<td>2450</td>
<td>2400-2570</td>
<td>WLAN 802.11 a/n</td>
<td>Pulse modulation</td>
<td>2</td>
<td>0.3</td>
<td>28</td>
</tr>
<tr>
<td>5240</td>
<td>5100-5800</td>
<td>WLAN 802.11 a/n</td>
<td>Pulse modulation</td>
<td>0.2</td>
<td>0.3</td>
<td>9</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Rated maximum output power of transmitter (W)</th>
<th>Separation distance according to frequency of transmitter m</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.01</td>
<td>0.12</td>
</tr>
<tr>
<td>0.1</td>
<td>0.38</td>
</tr>
<tr>
<td>1</td>
<td>1.2</td>
</tr>
<tr>
<td>10</td>
<td>3.8</td>
</tr>
<tr>
<td>100</td>
<td>12</td>
</tr>
</tbody>
</table>

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.

\[
d = \frac{0.38}{P^{0.3}}
\]

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.

Additional Notes

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 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 JYRJ020022002.
4. verify manometer pressure accuracy:
   - In the power down state, press and hold the “START/STOP” button, and then remove the batteries. Until the LCD screen is full, release the “START/STOP” button.
   - When the LCD screen displays the double zero, the blood pressure monitor is in static state.
   - At this point, 500ml gas capacity, calibrated standard pressure gauge and manual 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 manometer and that of the standard pressure gauge can be compared. This mode can be used to verify manometer pressure accuracy.
5. Contraindications:
   - Product is not intended for infants or individuals who cannot express their intentions.
6. Intended Use
   - The digital blood pressure monitor is reusable for clinical and home use and are non-invasive blood pressure measurement systems designed to measure the systolic and diastolic blood pressure and pulse rate. Adults, and children individual by using a non-invasive technique, which is a well-known technique in the market called the “oscillometric method”, it can measure the systolic blood pressure, diastolic blood pressure and pulse rate on up-arm, and the device is reusable for clinical or home use.
7. The patient is the operator:
   - the PATIENT is an intended OPERATOR.
   - Do not carry out other maintenance operations except to replace the battery.
8. WARNING:
   - Do not modify this equipment without authorization of the manufacturer.
9. 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 for recalibration.
10. Mechanical strength and resistance to heat: The resistance to heat will be retained by device during the EXPECTED SERVICE LIFE of the ME EQUIPMENT.

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.