



# Instruction Manual

## Model: BP2600 Automatic Upper Arm Blood Pressure Monitor



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### Safety Notice

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Thank you for purchasing the BP-2600 Blood Pressure Monitor. The unit has been constructed using reliable circuitry and durable materials. Used properly, this unit will provide years of satisfactory use.

This device is intended for non-invasive measuring of an adult individuals' systolic, diastolic blood pressure and heart rate using the oscillometric method. The device is not intended for use on infants and children. The device is designed for home or clinical use. All values can be read out in one LCD DISPLAY. Measurement position is on an 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 American National Standard for Electronic or Automated Sphygmomanometer.

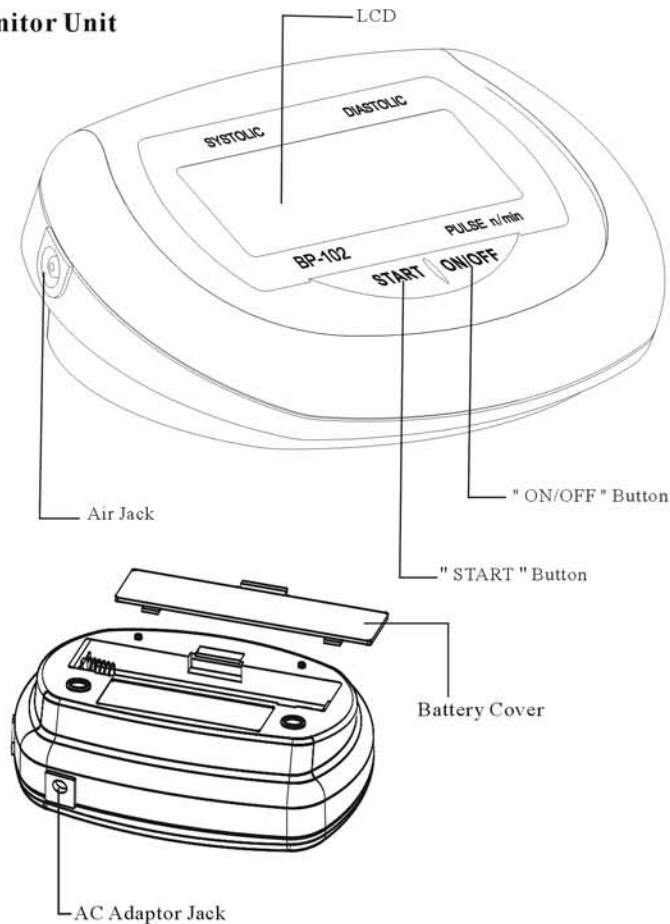
#### Precautions to Ensure Safe, Reliable Operation

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 °C, leave it in a warm place for about 15 minutes before using it. Otherwise, the cuff may not inflate properly.
6. Do not store the unit in direct sunlight, high humidity or dust.

## Important Instructions Before Use

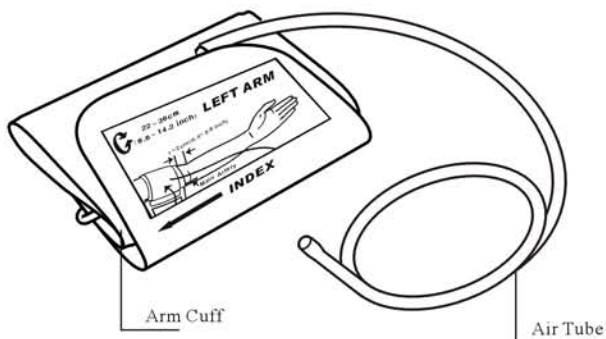
1. Do not confuse self-monitoring with self-diagnosis. Blood pressure measurements should only be interpreted by a health professional who is familiar with your medical history.
2. Contact your physician if test results regularly indicate abnormal readings.
3. If you are taking medication, consult with 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 blood pressure monitor in consultation with your doctor. In certain cases oscillometric measurement method can produce incorrect readings.
8. Product is designed for its intended use only. Do not misuse in any way.
9. Product is not intended for infants or individuals who cannot express their intentions.
10. Any hazards associated with prolonged overinflation of the bladder.
11. Do not disassemble the unit or arm cuff. Do not attempt to repair.
12. Use only the approved arm cuff for this unit. Use of other arm cuffs may result in incorrect measurement results.
13. The system might produce incorrect readings if stored or used outside the manufacturer's specified temperature and humidity ranges.
14. Do not use cell phones and other devices, which generate strong electrical or electromagnetic fields, near the device, as they may cause incorrect readings and interference or become interference source to the device.
15. Do not mix new and old batteries simultaneously
16. Replace batteries when Low Battery Indicator "X" appears on screen. Replace both batteries at the same time.
17. Do not mix battery types. Long-life alkaline batteries are recommended.
18. Remove batteries from device when not in operation for more than 3 months.
19. Do not insert the batteries with their polarities incorrectly aligned.
20. Dispose batteries properly; observe local laws and regulations.
21. Only use a recommended AC adaptor complying with EN 60601-1 and EN 60601-1-2. An unauthorized adaptor may cause fire and electric shock.

## Monitor Unit



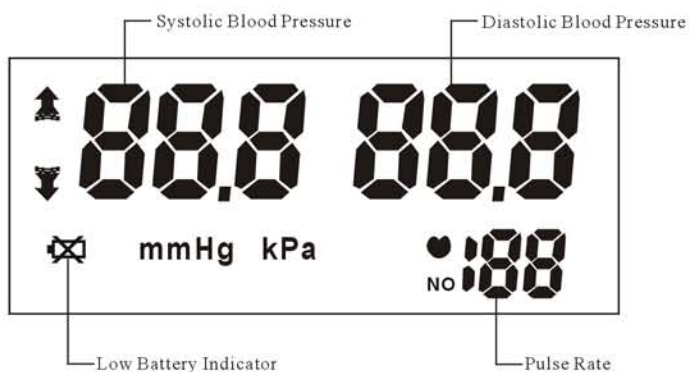
# Unit Illustration

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



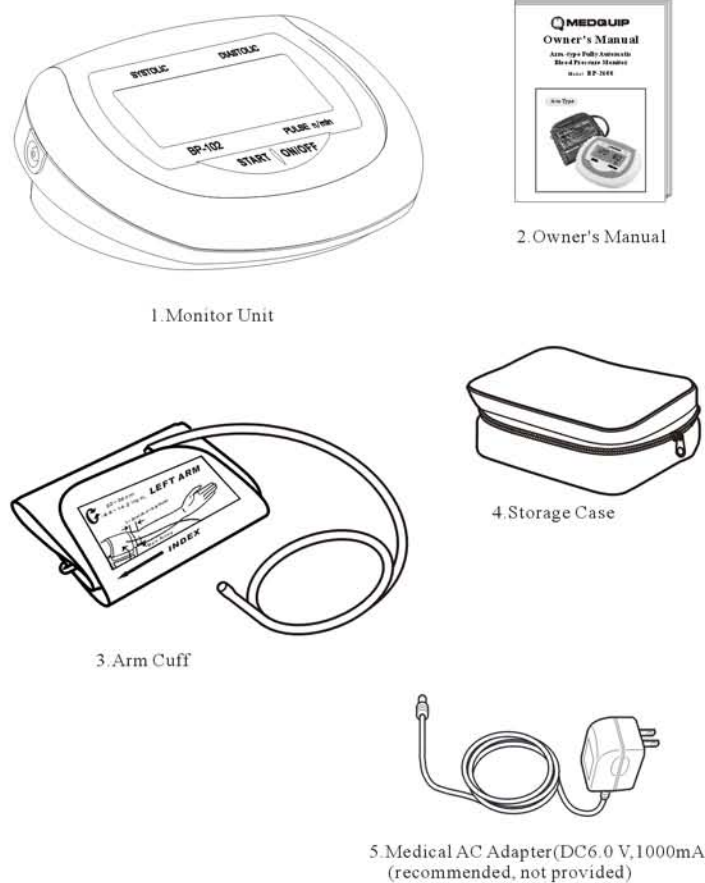
Expected service life of cuffs: Approximately three years at 2 tests per day. If air is leaking from the arm cuff, replace the arm cuff with a new one. It is generally recommended to have the cuff replaced timely to ensure correct functioning and accuracy. Please consult your local authorized Medquip distributor or dealer.

## Display



# Unit Illustration

## Contents





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.

**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.

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

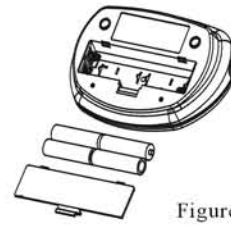


Figure A



Figure B

3. Remove thick clothing from the arm area.
4. Rest for several minutes prior to testing. Sit down in a 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

5. Apply cuff to your left arm and keep level with your heart. Bottom of cuff should be placed approximately 1-2cm (0.4-0.8") above elbow joint. (See Figures D&E)

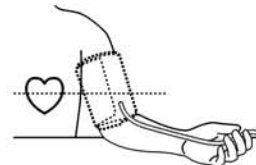


Figure D

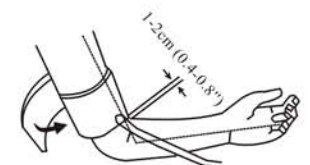
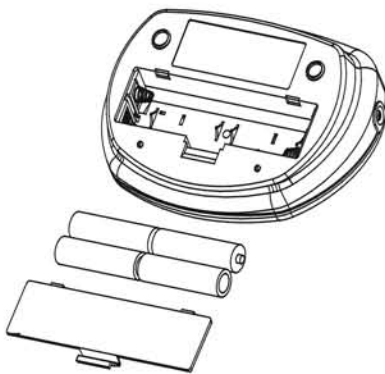


Figure E

6. Press "ON/OFF" Button to start testing.

## Battery Installation

Slide battery cover off on the back side of the unit.  
Install 4 new AA alkaline batteries according to polarity.  
Close battery cover.



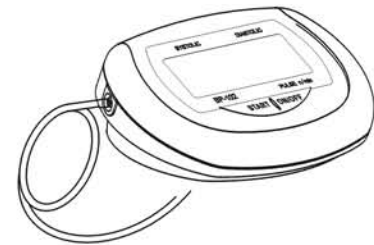
AC Adapter jack is on the front side of the monitor. Medical AC adapter(DC 6.0 V,1000mA) can be used with the device (recommended, not provided). The adapter connect pin should be positive inside and negative outside with a 2.1mm coaxial joint. Do not use anyother type of AC adaptor as it may harm the unit.



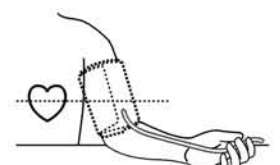
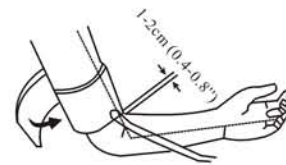
AC Adaptor Jack

## Applying the Arm Cuff

1. Firmly insert air tube into opening located on left 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.

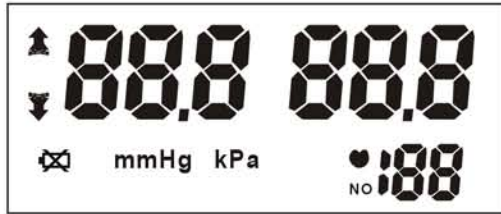


Note: Do not insert air tube into opening located on up side of monitor unit. This opening is designed for an optional power supply only.

## Testing

### 1. Power On

Press and hold "ON/OFF" button until a beep sounds. The LCD screen will appear for one second as unit performs a quick diagnosis. A flashing "↓" indicates device is ready for testing.



### 2. Pressurization

Initial pressure is first pumped to 190 mmHg. If the current user's systolic blood pressure is over 190mmHg, the unit will automatically re-inflate to the proper shelf.



### 3. Testing

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



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

### 4. Result Display

Three short beeps sound when testing is complete. The screen will display measurements for systolic and diastolic blood pressure.

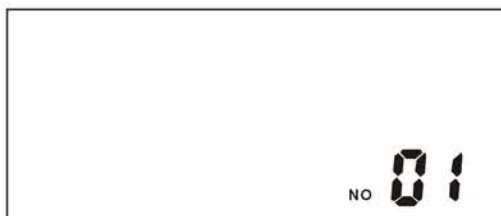


#### Safety Precaution

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

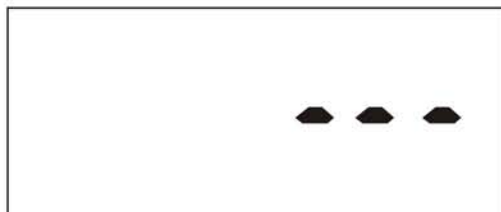
## Memory Check

With power off, press and hold "START" button to turn the unit on. The LCD will display the last measurement memory as the NO. 1 reading. Older test results in memory can be viewed by pressing the "START" button.



## Memory Deletion

While in memory check mode, press "ON/OFF" and hold on for about 3 seconds to delete all history results and the LCD screen displays "..." with beep sounds. Then press "ON/OFF" button to turn off the unit.



## Power Off

The "ON/OFF" 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.

## Low Battery Indicator

4 short warning beeps sound when battery life is depleting and unable to inflate cuff for testing. The "⊗" appears simultaneously for approximately 5 seconds prior to shutting down. Replace batteries at this time.



## Troubleshooting

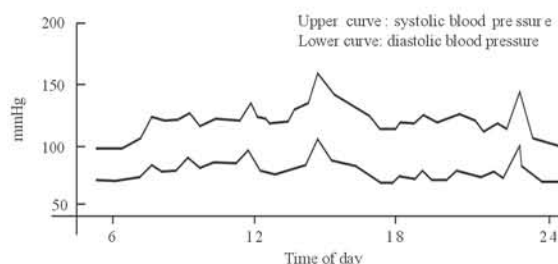
Problem	Possible Cause	Solution
Blood pressure results are not within typical range	Cuff is too tight or not properly positioned on the arm	Firmly reposition cuff approximately 1-2cm (0.4-0.8") above the elbow joint ( See Page 10)
	Inaccurate test results due to body movement or monitor movement	Sit 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 7)
"Err" 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 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.

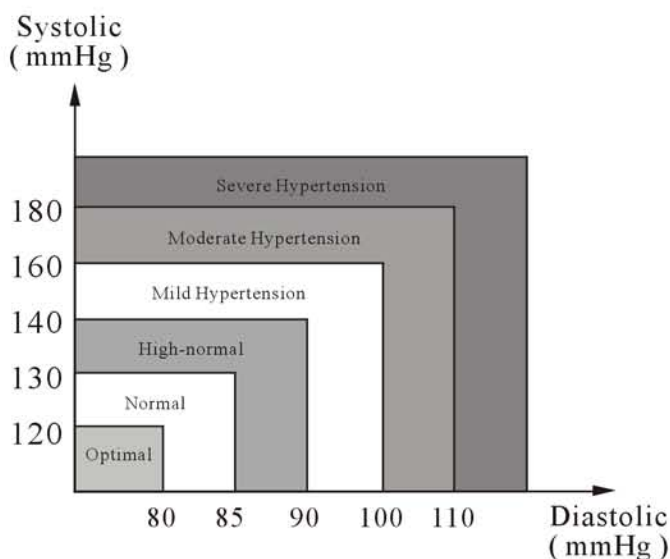
If these measuring numbers become too high, it means the heart is working harder than it should.



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

## Health Reminder

Hypertension is a dangerous disease that can affect the quality of life. It can lead to a host 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.

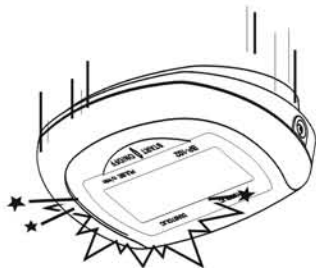
Note: Abnormal test results may be caused by:

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.

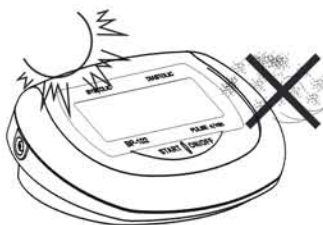
- Q:** What causes different readings?
- A:** Blood pressure varies throughout the course of a day. Many factors including diet, stress, cuff placement, etc. may affect an individual's blood pressure.
- Q:** Should I apply the cuff to the left or right arm? What is the difference?
- A:** Either arm can 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.



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



2. Avoid extreme temperatures. Do not use outdoors.



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.

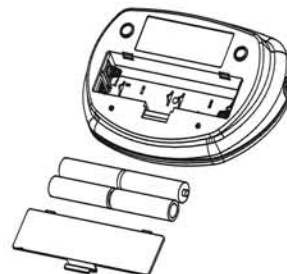


4. Cuff Cleaning: Do not soak cuff in water! Apply a small amount of rubbing alcohol to a soft cloth to clean cuff's surface. Use a damp cloth (water-based) to wipe clean. Allow cuff to dry naturally at room temperature.

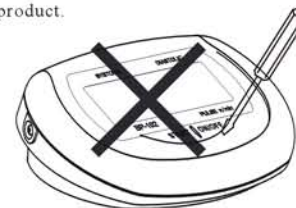
5. Do not use petrol, thinners or similar solvents.



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 30 tests per day.

# Specifications

Product Description	Arm Type Fully Automatic Digital Blood Pressure Monitor	
Model	BP-2600	
Display	LCD Digital Display      Size: 83 mm x 35 mm	
Measurement Method	Oscillometric Method	
Measurement Range	Pressure	0mmHg ~ 300mmHg
	Pulse	30 to 180 Beats/Minute
Measurement Accuracy	Pressure	± 3mmHg
	Pulse	± 5%
Pressurization	Automatic Pressurization	
Memory	120 Memories	
Function	Low Battery Detection	
	Automatic Power-Off	
Power Source	4AA batteries or Medical AC Adapter (DC 6.0V,1000mA) (Recommended, not provided)	
Battery Life	Approximately 2 months at 3 tests per day	
Unit Weight	Approx. 350g (12.36 oz.) (excluding battery)	
Unit Dimensions	Approx. 150 x 112 x 56mm (5.91" x 4.41" x 2.20")(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	5°C ~ 40°C (41°F ~ 104°F)
	Humidity	≤85% RH
	Pressure	Atmospheric Pressure
Storage Environment	Temperature	-10°C ~ -55°C (14°F ~ -131°F)
	Humidity	<95% RH
	Pressure	525mmHg ~ 795mmHg
Classification:	Internal Powered Equipment, Type B <sub>A</sub> , Cuff is the Applied Part	

Specifications are subject to change without notice.

# Specifications

This device complies with the provisions of EC directive 93/42/EEC (Medical Device Directive) 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:

EN 60601-1-2 Medical electrical equipment part 1-2: General requirements for safety- Collateral standard: Electromagnetic compatibility- Requirements and tests Performance standards:

EN 1060-1 Non-invasive sphygmomanometers - General requirements

EN 1060-3 Non-invasive sphygmomanometers - Supplementary requirements for electromechanical blood pressure measuring systems.

EN 1060-4 Non-invasive sphygmomanometers - Test procedures to determine the overall system accuracy of automated non-invasive sphygmomanometers.

**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 and 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.

We warrant this product to be free from manufacturing defects for a period of 2 years from the original date of consumer purchase. We gladly offer a free exchange and lifetime repair due to manufacturing defects. Please contact local retailer for details.