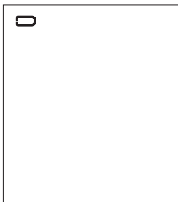


Unit Operation

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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.



Arm Shake Indicator

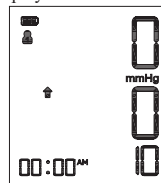
If there is arm movement during the measurement, the " " icon may flash. Indicates that the measurement results may be inaccurate, and the situation will be recorded at the end of the measurement as a reminder.

Unit Operation

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Static Pressure Measurement

In the power down state, press and hold the " " button 3 second, and then install the batteries. until the LCD screen is full, release the " " button. When the LCD screen displays the double zero, the bloodpressure meter is in static state. Software version is displayed 10 is a software version in the figure.



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

Bluetooth connection

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

Unit Operation

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Usage Scenario

The sphygmomanometer itself has a display screen. When the sphygmomanometer completes the blood pressure measurement and displays the measurement results, the sphygmomanometer displays the blood pressure measurement results on the built-in display screen and transmits the measurement results to the mobile phone or other terminal APP through Bluetooth. Data transmission is one-way transmission, data will only be transmitted from the sphygmomanometer device to the terminal APP. The terminal APP is only used as a data collection and record, and the sphygmomanometer device is not controlled and affected by the terminal APP. If the data collected by the terminal APP is lost, the user can also view the results through the display of the blood pressure monitor.

Bluetooth usage method

-Bluetooth Connection

1. Please use your mobile phone or other terminal device to search the keyword "JoyTech" through Google App Store or Apple App Store to download and install the app.
2. Open the application program on your mobile phone or other terminal device. Apps need to be used with Bluetooth enabled, which you can turn on under your smartphone's Settings menu.
3. Create a new user login, or login with your existing user name and password.

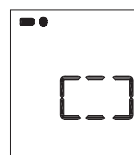
Unit Operation

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4. Click on "Bind Device" on the APP homepage, and a pop-up window will appear. Follow the popup window to operate the blood pressure monitor device (when turned off, long press the "Memory" button to guide the screen to flash) to Bind, and the blood pressure monitor device has entered binding mode.



5. Clicking on the "Scan Devices" on the pop-up window will search for nearby blood pressure monitor devices on the APP. When our device is found, clicking on "Pair this Device" will bind the device, and the blood pressure monitor device screen will display the Bluetooth logo, indicating that the device is successfully bound to the APP.



Unit Operation

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6. Turn off the blood pressure monitor.
7. Keep the mobile phone or other terminal device open the application program, operate the sphygmomanometer device to measure blood pressure, and the sphygmomanometer results will be synchronously displayed on the application through Bluetooth transmission after the measurement is completed.

Notes:

Only devices and applications that BIND to each other can communicate properly.
 If the Bluetooth communication fails or fails for some reason during the use of the device, restart the application or re-bind the device. At the same time, the user can obtain the measurement data through the display of the sphygmomanometer device

Unit Operation

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Troubleshooting

Abnormal phenomenon	Cause analysis	Processing method
Abnormal sphygmomanometer	The armband is tied too tight or too loose, or the arm strap is tied incorrectly.	Roll the armband correctly
	Move the arm during measurement of electronic sphygmomanometer	Stay quiet, keep your arm steady, and do not move the monitor
	Speaking, nervous or emotional during measurement	Instead of talking, take deep breaths to calm your mood and relax your body
	Incorrect measurement posture	Adjust posture, see "Blood pressure gauge Wearing"
	There is interference in charging process or improper operation in measuring process	See operation Instructions.
	If the operator is in a strong electromagnetic interference environment, resulting in the loss or reduction of function performance.	It is recommended that the operator, away from the environment, change an environment with single electromagnetic field, and then re-measure after the display is restored.

The following table shows the error signs that may occur during measurement, possible causes and handling methods. Please measure again using the correct method

Error display	The cause of the problem	The solution
Er1	Can't detect high and low pressure	Please fasten the cuff before measuring
Er2	Cuff too loose or loose	Please fasten the cuff before measuring
Er3	Improper compression caused by arm or body movement	Hold the arm or body still and measure again
Er4	The pressure exceeds 300mmHg	Please fasten the cuff before measuring
Er5	The pressure exceeds 150mmHg for 3 minutes	Check whether the cuff is knotted or the vent valve is blocked. If the problem persists, contact the manufacturer
Er6	Blood pressure measurements were out of range	Please tighten and measure and measure again. If you cannot solve the problem, please contact the manufacturer
	Battery dead	Replace the battery or connect the power adapter (if any).

Note: If you cannot solve the abnormal situation by yourself, you can consult the manufacturer or the manufacturer's designated unit by phone. It is forbidden to disassemble and repair without permission. If necessary, professional maintenance personnel can ask the manufacturer for the list of components and circuit schematic diagram.

Blood Pressure Information

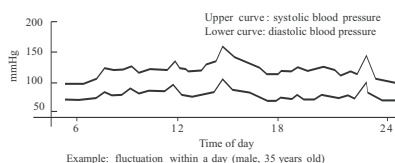
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Blood Pressure

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.



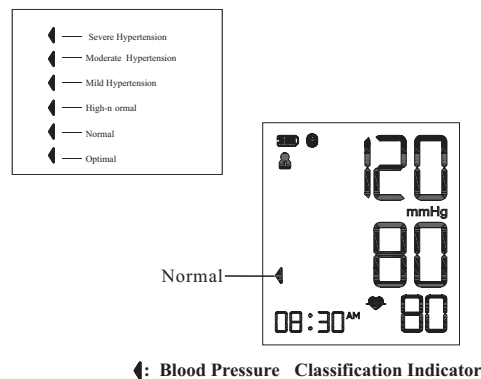
Blood Pressure Information

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WHO Blood Pressure Classification Indicator

The DBP-21E8b 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.

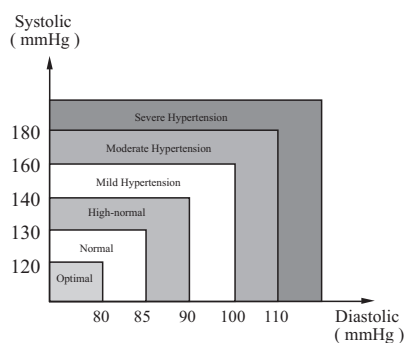


Blood Pressure Information

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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 the early stages.



Blood Pressure Information

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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.

Blood Pressure Q & A

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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.
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.

Blood Pressure Q & A

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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 wrist? What is the difference?

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

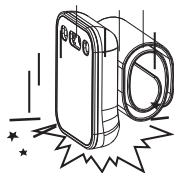
Q: What is the best time of day for testing?

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

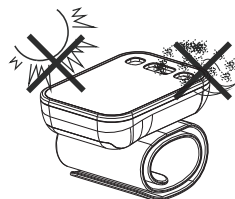
Maintenance

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



2. Avoid extreme temperatures. Do not use outdoors.



Maintenance

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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.



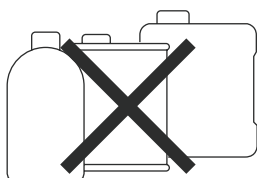
4. Cuff Cleaning: Do not soak cuff in water! Apply a small amount of rubbing alcohol to a soft cloth to clean cuff's surface. Use a damp cloth (water-based) to wipe clean. Allow cuff to dry naturally at room temperature. The cuff must be cleaned and disinfected before use between different users.



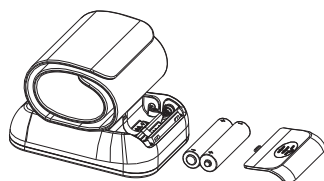
Maintenance

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



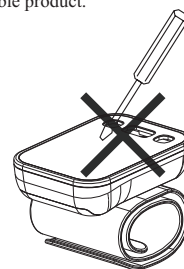
6. Remove batteries when not in operation for an extended period of time.



Maintenance

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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.

Specifications

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Product Description	Wrist-type Fully Automatic Blood Pressure Monitor	
Model	DBP-21E8b	
Display	LCD Digital Display Size: 41mm x 36mm (1.61" x 1.42")	
Measurement Method	Oscillometric Method	
Measurement Range	Systolic Pressure	60mmHg~260mmHg
	Diastolic Pressure	30mmHg~200mmHg
	Pressure	0mmHg~299mmHg
	Pressure	±3mmHg
	Pulse	30~180 Beats/Minute
	Pulse	40~180 Beats/Minute, ±5% 30~39 Beats/Minute, ±5BPM
Pressurization	Automatic Pressurization	
Memory	2X150 Memories in Two Groups with Date and Time	
Function	Irregular Heartbeat Detection	
	WHO Classification Indicator	
	Last 3 Results Average	
	Low Battery Detection	
	Automatic Power-Off	

Specifications

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Function	Voice	
	Backlight	
	Bluetooth	
Power Source	2 Alkaline Batteries Size AAA	
Battery Life	Approximately 2 months at 3 tests per day	
Unit Weight	Approx. 89.2g (3.15 oz) (Excluding Battery)	
Unit Dimensions	Approx. 83mm×64mm×30.7mm(L x W x H) (3.39" x 2.52" x 0.92")	
Cuff Circumference	Fits wrist circumference 13.5-21.5 cm (5.3"-8.5")	
Operating Environment	Temperature	10°C ~ 40°C (50°F ~ 104°F)
	Humidity	15%~93%RH
	Pressure	700hPa~1060hPa
Storage Environment	Temperature	-25°C ~ 70°C (-13°F ~ 158°F)
	Humidity	≤93% RH
Transport Environment	Temperature	-25°C ~ 70°C (-13°F ~ 158°F)
	Humidity	≤93% RH

Specifications

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Continued

Bluetooth	Modulation Type	GFSK
	Version	5.2.0 BT Signal mode
	Operation frequency	2.4GHz(2400~2483.5MHz)
	Operation distance	≤5m
	Transmission power	<20dBm
	Bandwidth	1.0 MHz
Ingress Protection Rating	IP 22	
Classification	Internal Powered Equipment Type BF 	

Specifications are subject to change without notice.

Safety Standard(included but not limited):

1. IEC 80601-1-2:30, medical electrical equipment - part 2-30: particular requirements for the basic safety and essential performance of automated noninvasive sphygmomanometers, (Cardiovascular)
2. ISO 81060-2, non-invasive sphygmomanometers - part 2: clinical validation of automated measurement type, (Cardiovascular)
3. AAMI / ANSI ES 60601-1:2005/(R)2012 and C1:2009/(R)2012 and, a2:2010/(r)2012 (consolidated text) medical electrical equipment -- part 1: general requirements for basic safety and essential performance
4. AAMI/ANSI/IEC 60601-1-2, Medical Electrical Equipment -- Part 1-2: General Requirements For Basic Safety And Essential Performance -- Collateral Standard: Electromagnetic Disturbances -- Requirements And Tests (General II (ES/EMC)).
5. IEC 60601-1-11, medical electrical equipment - part 1-11: general requirements for basic safety and essential performance - collateral standard: requirements for medical

Warranty

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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.

Contact Information

JOYTECH Healthcare Co.,Ltd.
No.365, Wuzhou Road, Yuhang Economic Development Zone, Hangzhou City,311100 Zhejiang, China

Please contact us on:

Email: info@sejoy.com

Telephone: +86-571-81957767

Fax: +86-571-81957750

Electromagnetic Compatibility Information

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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. Environments of Intended use : Home healthcare environment and Professional healthcare facility environment.

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
Radiated emission CISPR 11	Group 1, ClassB

Electromagnetic Compatibility Information

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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
Radiated RF EM fields IEC 61000-4-3	3V/m or 10 V/m 80MHz-2.7 Ghz 80%AM at 1kHz (See table 3)	3V/m or 10 V/m 80MHz-2.7 Ghz 80%AM at 1kHz (See table 3)
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30 A/m; 50Hz or 60Hz	30 A/m; 50Hz or 60Hz
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
Proximity magnetic field IEC 61000-4-39	See Table 5	See Table 5

Electromagnetic Compatibility Information

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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 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	GSM 400 FRS 400	Pulse modulation 18Hz	2	0.3	28
710	704-787	LTE Band 13, 17	Pulse modulation 217Hz	0.2	0.3	9
745						
780						
810						
870	800-960	GSM 800/900, TETRA 800, JDEN 820, CDMA 850, LTE B and 5	Pulse modulation 18Hz	2	0.3	28
930						
1720	1700-1900	GSM 1800, CDMA 1800, GSM 1900, DICT, LTE Band 1, 3, 4, 25, UMTS	Pulse modulation 217Hz	2	0.3	28
1845						
1970						
2450	2400-2570	Bluetooth/WLAN, IEEE 802.11 b/g/n/IEEE 802.11 a/n	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						

Electromagnetic Compatibility Information

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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	Separation distance according to frequency of transmitter	
	80 MHz to 800 MHz	800 MHz to 2.7 GHz
W	$d = \left[\frac{3.5}{E_1} \right] \sqrt{P}$	$d = \left[\frac{3.5}{E_1} \right] \sqrt{P}$
	0.01	0.12
	0.1	0.73
	1	2.3
	10	7.3
	100	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.		

Table 5

Test specifications for ENCLOSURE PORT IMMUNITY to proximity magnetic fields

Test frequency	Modulation	IMMUNITY TEST LEVEL(A/m)
30 kHz a)	CW	8
134.2kHz	Pulse Modulation ∞ 2.1kHz	65c)
13.56MHz	Pulse Modulation ∞ 50kHz	7.5 a)

a) This test is applicable only to ME EQUIPMENT and ME SYSTEMS intended for use in the HOME and professional healthcare ENVIRONMENT.
b) The carrier shall be modulated using a 50% duty cycle square wave signal.
c) r.m.s., before modulation is applied.

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 Wrist-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 verification and validation report.

4. verify manometer pressure accuracy:

In the power down state, press and hold the "0" button, and then install the batteries. Until the LCD screen is full, release the "0" button.

When the LCD screen displays the double zero, the blood pressure 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. Contraindications:

Product is not intended for infants or individuals who cannot express their intentions.

6. Intended Use

home use and professional healthcare use

7. 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.

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.

11. The cuff and the case of the 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.

12. Warning:

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

13. Warning:

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

14. Warning:

This device is not used for children and pets

15. Clean:

The equipment can be cleaned by lay operator according to the cleaning procedures in the instructions

16. Warning:

Do not use a damaged cuff for blood pressure measurement.

17. Warning:

When measuring with the cuff, if the tester feels seriously uncomfortable, press the button of the blood pressure monitor to deflate the cuff, or remove the cuff directly from the arm.

18. Warning:

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

19. Warning:

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

20. ME equipment not intended for use in conjunction with flammable agents "ME equipment not intended for use in oxygen rich environment".

21. Warning:

The storage device can be used normally two hours after the storage device changes from the highest temperature or lowest temperature to normal temperature.

22. Warning:

Instructions provided indicating not to position ME EQUIPMENT to make it difficult to operate the disconnection device.



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.