Clinical Automatic Blood Pressure Monitor
User Manual

Prepared on June 30, 2020
Version A/3

About this Manual

This manual mainly introduces the installation and use method of medical full-automatic upper arm electronic sphygmomanometer. Before using the product, please read this manual completely (including warnings, contraindications and precautions) to avoid unnecessary troubles due to improper use.

Product information

Product name: Medical full-automatic upper arm electronic sphygmomanometer
Specification model: DBP-01H, DBP-01HP, DBP-01, DBP-01P
Product Technical Requirement No.: Y.X.Z.Z. No. 20202071769
Medical Device Registration Certificate No.: Y.X.Z.Z. No. 20202071769
Production License No.: Y.S.Y.J.X.S.C.X. No. 20142561
Production date: seen in label;
Service life: five years, Software Release Version: V1

Product manufacturer

Registrant/manufacturer name: Shenzhen Hingmed Medical instrument Co.,Ltd.
Registrant's address/production address: 4/F, Zhonghang Flying Industrial Park, #371, Guangshen Road, Xixiang, Bao'an Shenzhen
Contact: +86 755 23730600
Postcode: 518102

After-sales Service Unit

Company name: Shenzhen Hingmed Medical instrument Co.,Ltd.
Company address: 4/F, Zhonghang Flying Industrial Park, #371, Guangshen Road, Xixiang, Bao'an Shenzhen
Contact: +86 755 23730600
Postcode: 518102
Version Information
Prepared on June 2020 Version A/3

Table of Contents

1. Generals

1.1 Features

Automatic sphygmomanometers are widely used for blood pressure measurement in various departments of hospitals, medical examinations in community health services, and customer service in pharmacies. The instrument is designed for adult use only.

*The electronic sphygmomanometer can be used for both left and right arms.

*The printer is provided with an automatic paper cutter for automatically cutting printing papers.

*The electronic sphygmomanometer is provided with voice broadcast function

1.2 Application scope

The electronic sphygmomanometer is used to measure the diastolic pressure, systolic pressure and pulse of adults with oscillometry for providing measured values as diagnosis reference.

1.3 Structure & Components:

DBP-01P, DBP-01HP, DBP-01, DBP-01H are composed of host (including wrist pad), cuff and power cable.

1.3.1 Model configuration

Model / Function partition	Color screen	Digital screen	Print function
DBP-01	×	√	×
DBP-01P	×	√	√
DBP-01H	√	×	×
DBP-01HP	√	×	√

1.3.2 Performance

Items	Specification
Measuring Method	Oscillometry
Measuring range	Measuring range: 0mmHg (0kPa) - 289mmHg (38.53kPa); Pulse rate measuring range: 40bpm - 200bpm.
Resolution	Pressure: 1mmHg; Pulse rate reading resolution: 1bpm.
Accuracy	Pressure: ±3mmHg; pulse rate: ±3bpm or ±3%, subject to the greater value.
Power supply	110-240V AC，50/60Hz
Power	65VA
Printer	Thermal printing paper size 58mm
Arm circumference	17cm-42cm
Voice broadcast	Broadcast of measurement results

External dimension	Width: 310mm Length: 476mm, Height: 300mm
Weight	About 6.5kg
Protection against electric shock	Class I
Service life	5 years after installation
Working environment	Temperature: +5℃~+40℃, relative humidity: 10%-95%
Storage environment:	Temperature -20℃~+55℃, relative humidity not more than 95%
Recommendations of calibration	Once a year

****

****The blood pressure values obtained by this instrument are equivalent to that fr om the auscultatory method, with their error consistent with the requirement spe cified in YY0667-2008. ****

****

2. Precautions for safety use

2.1 Contraindications

No

2.2 Warning

*Be sure to use AC for the power supply voltage.
*Please connect to 3P socket, be sure to use by grounding, otherwise it will be easy to get an electric shock.
*Please do not measure the arm that is getting intravenous drip or blood transfusion, otherwise it may cause an accident.

2.3 Precautions

Please use this instrument in the following working environment and storage site, if it is stored or used out of the specified temperature and humidity range (storage environment: temperature -20℃ ～ +55℃, relative humidity not more than 95%; working environment: temperature +5℃~+40℃, relative humidity 10%-95%), the system may not reach the claimed performance specifications.
*Use the instrument in places without water.
*Don't put it in places with high temperature, moisture, direct sunlight and dust, and don't put in places with salt and sulfur.
*Put it in stable places without tilt, vibration, impact (including during transportation)
*Don't put it in places where chemicals are stored, and don't put it in places where gas is easy to generate.
*Patients with anticoagulant disease or blood coagulation disorders may have blood congestion in the place where the cuff is worn even if the cuff is worn in the correct position during blood pressure measurement.
*If the cuff fails to inflate within 2.5 minutes, instruct the patient to remove the cuff manually. Prolonged over-inflation may cause blood blockage and make the patient feel uncomfortable.

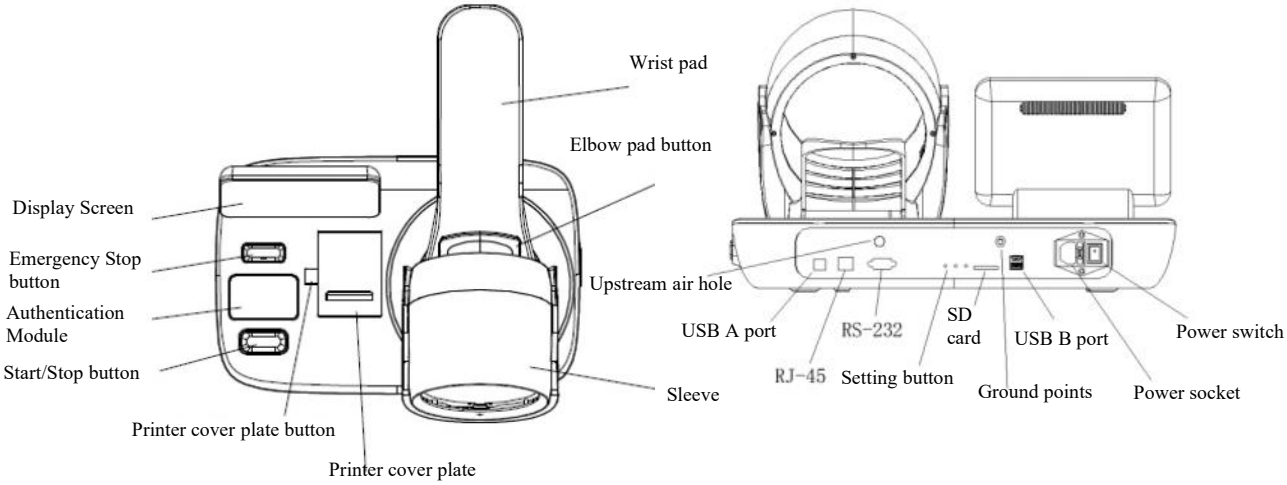
*In case of common arrhythmia, the instrument cannot meet the claimed performance requirements.
*Any blood pressure measurement can be affected by the posture of the patient and his/her physical condition.
*Blood pressure measurement may be affected by motion or speaking, incorrect position of the arm, rough surface on which the instrument is placed or instrument vibration, etc., during measurement.
*For accurate measurement, please keep your back straight and sit in the correct posture. Please relax and keep quiet.
*In case of instrument failure, an error code will be displayed in the format "EC XX". See the "Common Failures" Section for details.
*Note: The measured blood pressure should be interpreted by professionals.
The product is not suitable for newborns.
The blood pressure values obtained by this instrument are equivalent to that from the auscultatory method, with their error consistent with the requirement specified in YY0667-2008.

3. Structure and operating principle

3.1 Product's components

No.	Name	Quantity	Remarks
1	Host of medical full-automatic upper arm electronic sphygmomanometer	1pcs	With wrist pad
2	Power cable	1pcs	
3	Printing paper	1pcs	Options: device with printing function
4	Manual	1pcs	
5	Certificate	1pcs	

3.2 Name and description of components

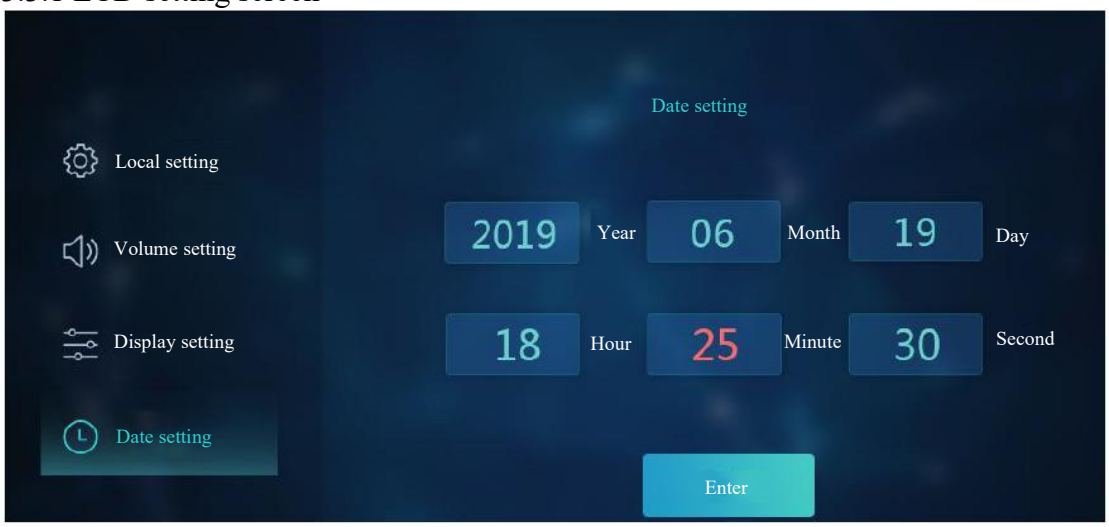


Name	Description
Wrist pad	Used to place the arm during measurement
Elbow pad button	Press your elbows against it during measurement to prevent measurement failure
Display Screen	Display measurements
RS-232	Used to connect to a computer port when the

	instrument is verified
Power supply terminal	Connect power cable
[Start/Stop] button	In the standby mode, press the button to start measurement; In the measurement state, press the button to stop the measurement.
[Emergency Stop] button	When an abnormality occurs, press the button to restart the power supply and stop measurement
Sleeve	Used to fix the arm during measurement
Printer cover plate button	Open the cover plate of the printer
Power switch	Switch on or off power supply
Setting button-○	Tap and hold on for 5S and then release to enter the setting screen, press to switch setting items
Setting button-△	Ascending
Setting button-▽	Descending

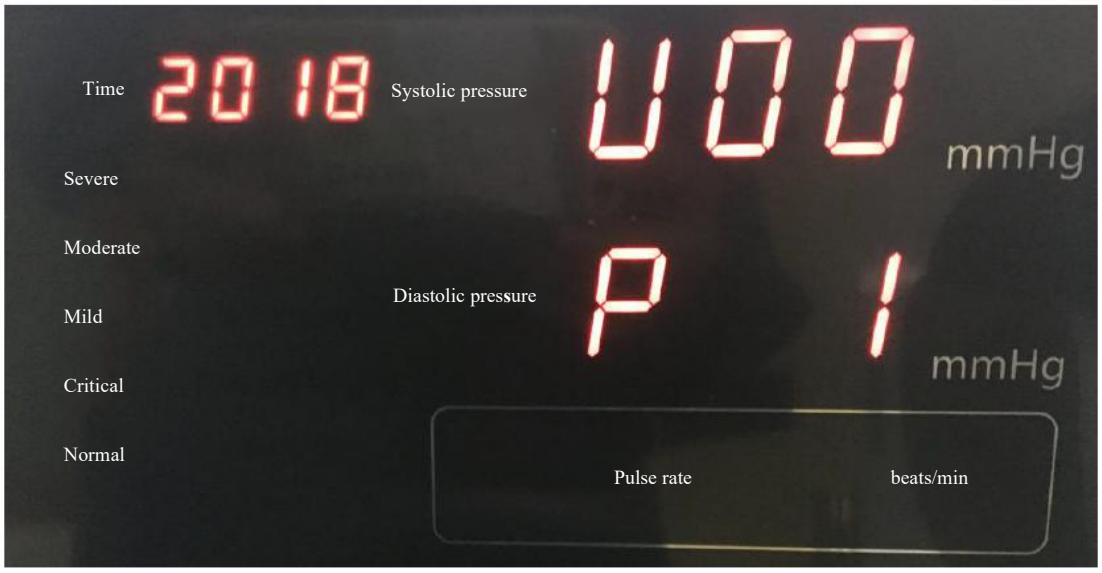
3.3 Explanation of setting screen

3.3.1 LCD setting screen



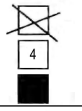
-In the standby screen, tap and hold on the setting button "O" on the back of the instrument for 5S, so as to enter the setting screen as shown in the figure above
-Press button "O" to move the cursor to switch items, press "△" or "▽" to numerical addition and subtraction.
-Tap and hold on "O" again to exit the setting screen.
*In the non-setting screen, tap and hold on the setting button -△ to switch on or off printer. (Applicable to printer function)

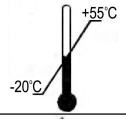
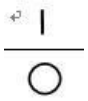
3.3.2 LED setting screen



-In the standby screen, tap and hold on the setting button "O" on the back of the instrument for 5S, so as to enter the setting screen as shown in the figure above
-Press the button "O" to move the cursor to switch items;
If the area corresponding to the time is flickering, the time can be set at present; if the area corresponding to the systolic pressure is flickering, the volume can be set at present, and the volume can be adjusted by △▽;
The area corresponding to the diastolic pressure is flickering, the printer can be set to ON or OFF at present by △▽; (applicable to printer function)

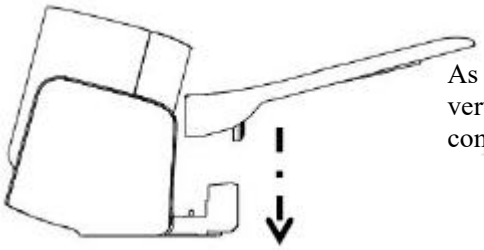
3.4 Contents and meanings of labels

Labels	Description	Labels	Description
	Type B application part	SN	Serial number
	Note to check accompanying documents		Piled layer limit
	Moisture-proof storage and transportation logo		Upward storage and transportation identifier
	Fragile storage and transportation identifier		WEEE compliance

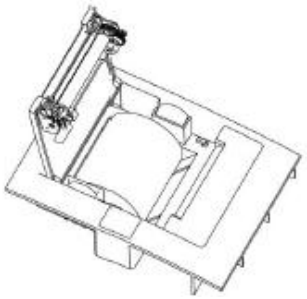
	Temperature limit storage and transportation identifier		Nonionizing radiation
	Equipotential grounding		USB port
	"1" on the power switch of the instrument indicates power-on, while the "0" indicates power-off.		Protective tube

4. Installation of product

4.1 Installation of wrist pad



As shown in the right figure, press the wrist pad down vertically with reference to the arrow direction to complete the installation of the wrist pad.



4.2 Installation of printing paper (model: DBP-01HP, DBP-01P applicable)

(1) Press printer cover plate button down to open the printer cover.
(2) Put the printing paper in the paper slot (as shown on the right figure).
(3) Lift up the edge of the paper, pass it through the paper exit hole, close the printer cover, and make sure that the printing paper is exposed.

5. Measuring blood pressure

****

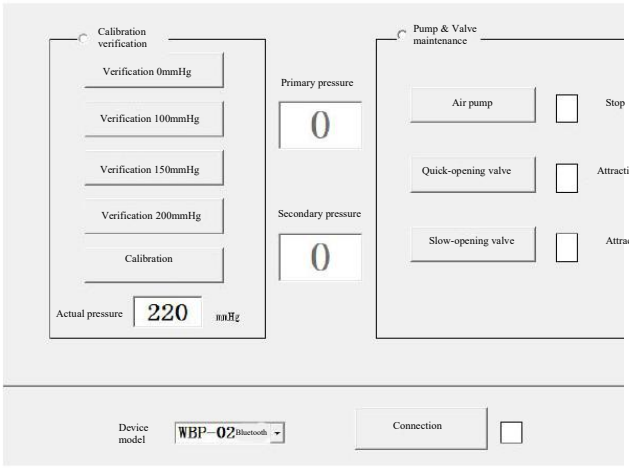
Warning: When you need to stop the measurement, please press the [Start/Stop] button. Exhaust quickly to allow the cuff back to the original state.

****

The left and right arms can be measured by the instrument, preferably right arm.
Please note: There must be 2-3 minutes intervals between two measurements
① Please be shirtless or wear thin clothes, and insert your arm into your shoulder. If the clothing on the arm is too thick, it may cause measurement errors. Please take off your clothes to measure.
② Please press the [Start/Stop] button. Start to measure blood pressure.
③ The instrument will automatically roll up the cuff and pressurize it.
④ After the measurement is over, the instrument will deflate automatically and the cuff will return to its original state.
⑤ The measurement results are reported by voice broadcast.
⑥ The measurement results can also be printed on printing paper.

6. Calibration

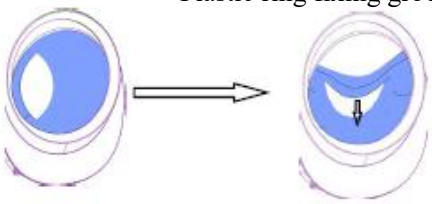
1. Connect the medical full-automatic upper arm electronic sphygmomanometer to a computer equipped with blood pressure calibration software specially produced by the Shenzhen Hingmed Medical instrument Co.,Ltd. through a USB data cable;
2. Put a rigid cylindrical straight tube equivalent to 30cm arm circumference into the cuff as an arm prosthesis;
3. Connect the digital pressure meter within expiry date and the inflatable airbag to the upstream air hole on the back of the instrument;
4. Click to calibration 250mmHg, allow the instrument to automatically enter the static pressure mode for automatic inflation and pressurization;
5. Enter the value from the digital pressure meter into the corresponding text box of "Actual pressure" and click the "Calibration" button.
Note: When entering the calibration mode, you need to connect an inflatable airbag for manual pressurization and a digital pressure meter to the upstream air hole. In manual static pressure calibration mode, the pressure is manually applied up to 290mmHg.



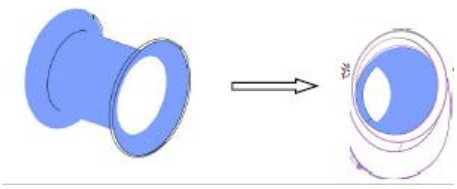
7. Replacement of parts

7.1 Replacement of cuff

Plastic ring fixing groove (inner side of ring)



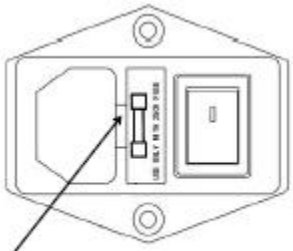
Hold cuff with your hand and pull down in a direction of allow in the figure, take the cuff out of the plastic ring fixing groove.



Shenzhen Hingmed Medical instrument Co.,Ltd.
Pass the new cuff through the arm sleeve and press into the plastic ring fixing groove respectively

Note: If the original parts are replaced with parts not provided by the manufacturer, it may cause measurement errors.

7.2 Replacement of protective tube

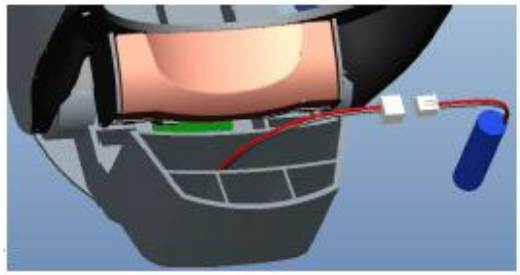


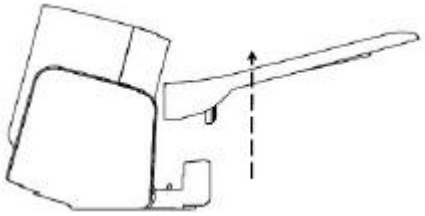
1. Take out with fingers along the direction as indicated by the arrow

Schematic diagram of protective tube groove

2. Take out the protective tube as shown in left figure ②, replace the protective tube (250v 1A) as shown in ①, and reinstall it in the instrument.

7.3 Replacement of lithium battery





1. Take the wrist pad out vertically in the direction of the arrow to expose the lithium battery.
2. Take out the lithium battery and replace the original lithium battery with the backup lithium battery (850mAh, 3.7V). Note to confirm the positive and negative direction of the lithium battery before inserting the battery (the red line is the positive electrode, and the black line is the negative electrode).
3. Note that the disposal of waste lithium batteries should follow local environmental protection regulations to avoid pollution to the environment.
4. The replacement of the lithium battery must be done by professionals from the manufacturer.

8 Common failures

If a malfunction occurs, an error code appears in the display screen:

Error codes	Contents	Troubleshooting procedures	Remarks
EC01	Cuff loose, which may be a result of loose winding of cuff or disconnection of cuff.	Check whether the arm circumference is within the measuring	

		range of the instrument.	
EC02	Air circuit leakage, which may be a result of leakage of valve or air circuit.	Return to the factory	
EC03	Wrong air pressure, which may be a result of normal open failure of valve.	Return to the factory	
EC04	Weak signal, which may be a result of too weak pulse of the measured object or loosen cuff.	Confirm that the measurement part is in good contact with the cuff and whether the arm circumference is within the measuring range	
EC05	Out-of-range, which may be a result of blood pressure of the measured object exceeding measurement range	Remeasurement	
EC06	Excessive motion, which may be a result of motion artifacts or more interferences contained in signals during measurement	Note to avoid speaking and disturbance during the measurement process and measure again	
EC07	Overpressure in measurement, namely cuff pressure in adult mode exceeding 290mmHg		
EC09	Timeout in measurement, namely measurement time in adult mode exceeding 120 seconds	remeasurement	
EC10	Manual stop	1. Touch the start/stop button 2. Detect whether the button is insensitive or stuck	
EC11	System error	remeasurement	
EC16	Overpressure protection, which is caused by cuff pressure exceeding the set maximum value (290)		
EC17	Sleeve failure, motor failure	remeasurement	
EC19	The arm posture is not correct and the elbow switch is not pressed	Adjust the arm posture, make sure the elbow switch is pressed	
EC32	Communication failure, handshake communication failure	remeasurement	
EC35	Failed to start, no response after sending measurement, unable to start measurement	remeasurement	

EC36	No measurements. The instrument cannot get measurement results.	remeasurement	
EC37	180S timeout	remeasurement	
EC64	Out of paper in printer	Follow the manual to replace the printing paper	
EC65	The printer is not closed, and the printer cover is not closed.	Check whether the printer cover is closed.	

9. Maintenance

****

Note: *The sphygmomanometer and accessories do not need to be sterilized, but should be kept clean. If there is contamination, it should be cleaned and disinfected in time. In order to avoid long-term damage to the products, we suggest you sterilize them only if necessary according to regulations of your hospital.

*After use for infected people or people with suspected infection, the contact parts with the patients should be disinfected

*When cleaning and disinfecting, do not soak the product and accessories in liquid. Do not allow liquid to flow into the connection socket or case of the sphygmomanometer to prevent damage to the sphygmomanometer.

****

9.1 Cleaning

(1) Before cleaning the sphygmomanometer, turn off the power supply of the host and disconnect the AC power supply.

(2) Wet the soft and clean lint-free cloth with mild soapy water or non-corrosive diluted detergent.

(3) Wipe the contact surface between the instrument and the patients.

(4) Dry with a clean and dry soft cloth.

(5) Blood pressure cuff: After soaking in soapy water, rinse and dry

9.2 Disinfection

It is recommended that users use 70%~80% (volume ratio) ethanol disinfectant to soak a piece of clean dry gauze, and then wipe the surface of the object to be disinfected with the gauze twice for 3 minutes. Air dry or wipe off the residual disinfectant with a clean and dry cloth.

****

Note: Clean before disinfection. Please keep away from fire during the disinfection process because ethanol is flammable. People who are allergic to alcohol should use ethanol disinfectant with caution.

****

9.3 Maintenance of print head

(1) Turn off power supply of the instrument.

(2) Press the printer cover plate button to open the cover plate.

(3) Use a cotton swab dipped in alcohol or a soft cotton cloth to wipe the print head from the head to the tail in the same direction.

(4) Please wipe off rubbish, dust, paper scraps and other foreign objects in the printing paper storage box.

(5) Please place the printing paper after the alcohol has dried up.
(6) Lift up the edge of the paper, close the printer cover, and make sure that the printing paper is exposed.
Note: When cleaning the print head, static electricity will cause damage to the print head. Please note the static electricity.

9.4 Scheduled maintenance

To use the instrument correctly, perform regular inspection. Regular inspection mainly comprises the following items:

Before power on

Items	Contents
Appearance	Is there any deformation or damage caused by falling, etc.?
	Are parts dirty, rusted or scratched
	Is screen dirty or damaged
	Is it wet?
Operation parts	Are switches and buttons damaged or crashed?
Measurement parts	Is the cuff installed correctly? Is there any damage, obviously dirt or blood stains on the cuff?
Power cable	Is the power cable properly connected or damaged or provided with grounded 3P socket?

After power on

Items	Contents
Appearance	Does the display screen open?
	Is there any smoke or pungent smell or abnormal sound?
Operation parts	Is there any abnormality during "start/stop" operation?
	Press the [Emergency Stop] button to quickly deflate during measurement
Display part	Check whether the blood pressure and pulse rate display are missing
	Display error code
	Confirm whether the measured value is close to the normal value
Printing part	Check whether there is printing paper and whether the paper is placed correctly
	Is printing paper fed correctly?
	Is the printed result clear?

Recommendation: The product should be calibrated once a year by a qualified organization. Please contact the manufacturer for verification/calibration during later use, otherwise accurate measurement may not be possible.

10. Disposal

In order to protect environment, please follow the relevant local environmental protection regulations for disposal in term of disposal and reuse of the instrument, so as to avoid environmental pollution.

Oversleeve

Items that may cause infection as medical wastes for disposal.

Internal battery

Please follow local environmental protection regulations for proper disposal.

11. Instructions for replacement of accessories

Be sure to use the accessories provided by our company for replacement, otherwise it may affect the normal operation of the product and may even be dangerous.

No.	Name	Specification
1	Cuff	270*145mm
2	Lithium battery	570mAh，3.7V
3	Protective tube	250V，1A
4	Printing paper	Thermal paper 58mm

12. Warranty card

Warranty card	
Product model and SN code:	Name:
Date of purchase:	Address:
Seller:	Tel:
Address:	Sealed by seller:
Postcode:	

Limited guarantee

Shenzhen Hingmed Medical instrument Co.,Ltd. provides the following limited guarantee to the initial purchaser from the date of invoice.

Host of Hingmed medical full-automatic upper arm electronic sphygmomanometer……24 months

Shenzhen Hingmed Medical instrument Co.,Ltd. is not responsible for defects in materials and workmanship of instruments. The responsibilities under this guarantee cover the service for the instrument upon return from the customer organization that was paid in advance to the desired factory (depending on the location).Shenzhen Hingmed Medical instrument Co.,Ltd. will repair any components or parts that are defective during this limited guarantee period.

Once a defect appears, the initial purchaser should notify Shenzhen Hingmed Medical instrument Co.,Ltd. of the suspected defect. The instrument should be carefully packaged and shipped to:

Shenzhen Hingmed Medical instrument Co.,Ltd. under prepayment.

Address: 4/F, Zhonghang Flying Industrial Park, #371, Guangshen Road, Xixiang, Bao'an Shenzhen

Contact: +86 755 23730600

Postcode: 518102

The instrument should be repaired in the shortest possible time and sent back with the same shipping method as received by the factory under prepayment.

If the instrument is damaged due to accident, misuse, negligence, or repair by anyone not authorized by Shenzhen Hingmed Medical instrument Co.,Ltd., the limited guarantee is invalid.

This limited guarantee includes all the obligations of Shenzhen Hingmed Medical instrument Co.,Ltd., and does not include other expressed, implied or prescribed guarantees. The representatives or employees of Shenzhen Hingmed Medical instrument Co.,Ltd. are not authorized to assume any additional responsibilities or any additional guarantees other than those set here.

Appendix I: Guidelines and Statement of Manufacturer

Guidelines and Statement of Manufacturer -Electromagnetic Emission		
The instrument is expected to be used in following specific electromagnetic environments, and the purchaser or the user should ensure that it is used in these electromagnetic environments.		
Emission tests	Conformance	Electromagnetic Environment - Guidelines
Radio-frequency (RF) emission GB4824	1 group	The instrument use RF energy only for the internal functions. Therefore, it has low RF emission, and low possibility to generate electromagnetic interference with the surrounding electronic products.
Radio-frequency (RF) emission GB4824	Class B	The instrument is suitable for use in all facilities, including domestic use and direct connection to residential public low-voltage power supply network for domestic use.
Harmonic emission GB17625.1	N/A	
Voltage fluctuation/flicker emission GB17625.2	N/A	

Guidelines and Statement of Manufacturer - Electromagnetic Immunity			
The instrument is expected to be used in following specific electromagnetic environments, and the purchaser or the user should ensure that it is used in these electromagnetic environments:			
Immunity test	IEC 60601 Test level	Conforming level	Electromagnetic Environment - Guidelines
Electrostatic discharge GB/T 17626.2	±6kV contact discharge ± 8kV air discharge	±6kV contact discharge ± 8kV air discharge	The floor should be made of wood, concrete, or ceramic tiles. If the floor is covered with synthetic materials, the relative humidity should be at least 30%.
Electrical fast transient GB/T 17626.4	±2kV for power cable ±1kV for input/output cable	±2kV for power cable ±1kV for input/output cable	The facility power supply should meet the quality requirements for typical commercial or hospital environments.
Surge GB/T 17626.5	±1kV wire to wire ±2kV wire to ground	±1kV wire to wire ±2kV wire to ground	The facility power supply should meet the quality requirements for typical commercial or hospital environments.
Voltage sag, short interruption and voltage change on power input line GB/T 17626.11	<5%U_T, lasting for 0.5 periods (>95% sag at U_T) 40%U_T, lasting for 5 periods (60% sag at U_T) 70 % U_T, lasting for 25 periods (30% sag at U_T)	<5%U_T (>95% sag, U_T) 0.5 periods 40% U_T (60% sag, U_T) 5 periods 70%U_T	The facility power supply should meet the quality requirements for typical commercial or hospital environments. If the instrument needs to operate continuously during the interruptions of the power supply,

	< 5 % U_T, lasting for 5s (>95% sag at U_T)	(30% sag, U_T) 25 periods ＜5%UT (>95% sag, U_T) 5S	we recommend to use UPS or battery for power supply.
Power frequency magnetic field (PFMF)（50Hz/60Hz)GB/T 17626.8	3A/m	3A/m	PFMF should possess the horizontal characteristics of power frequency magnetic fields in typical places in typical commercial or hospital environments.
Note: UT means AC network voltage before applying test voltage.			

Guidelines and Statement of Manufacturer - Electromagnetic Immunity			
The instrument is expected to be used in following specific electromagnetic environments, and the purchaser or the user should ensure that it is used in these electromagnetic environments:			
Immunity test	IEC 60601 Test level	Conforming level	Electromagnetic Environment - Guidelines
Conducted RF GB/T 17626.6	3V (effective value) 150kHz~80MHz	3V	The distance between portable or mobile RF communication device and any used part (including cable) of DBP-01H should not less than the recommended isolation distance. The distance should be calculated by the formula corresponding to the transmitter frequency. Recommended isolation distance
RF radiation GB/T 17626.3	3V/m 80MHz~2.5GHz	3V/m	d = 1.2 $\sqrt{P}$ d = 1.2 $\sqrt{P}$ 80MHz~800MHZ d =2.3 $\sqrt{P}$ 800MHz~2.5GHZ Where, P - the maximum rated output power of transmitter provided by the transmitter manufacturer, in watt (W); d - the recommended isolation distance in meters (m) The field intensity of stationary RF transmitter is determined by the electromagnetic field survey a, which should be lower than the conforming level at each frequency

			range b. Interference may occur near the devices marked with the following symbols. 

Note 1: The formula for higher frequency should be used for frequencies between 80MHz and 800MHz.
Note 2: The guidelines may not be suitable for all cases and electromagnetic transmission is affected by absorption and reflection of buildings, objects and human bodies.

a Field intensity of stationary transmitter cannot be foreseen theoretically, such as: base station of radio telephone (cellular/wireless) and ground mobile radio, amateur radio, amplitude-modulation and frequency-modulation radio broadcast, etc. To estimate the electromagnetic environment of stationary RF transmitters, it is required to conduct the survey of electromagnetic field. If measured field intensity of site where the instrument is placed is higher than the above applicable RF conforming level, the instrument should be observed to verify that it can be operated normally. If abnormal performance is found, supplemental measures may be necessary, for example, orientation or position of the instrument should be re-adjusted.
b The field intensity should be less than 3 V/m in frequency range of 150kHz~80MHz.

Recommended isolation distance between portable and mobile RF communication device and the instrument.

The instrument is intended to use in an electromagnetic environment where the radiation RF disturbance is controlled. According to maximum rated output power of communication device, the purchaser and the user can prevent electromagnetic interference through the following recommended minimum distance between portable and mobile RF communication device (transmitter) and the instrument.

Maximum rated output power W of transmitter	Isolation distance/m corresponding to transmitter in different frequency		
	150kHz~80MHz $d=1.2\sqrt{P}$	80MHz~800MHz $d=1.2\sqrt{P}$	800MHz~2.5GHz $d=2.3\sqrt{P}$
0.01	**0.12**	**0.12**	**0.23**
0.1	**0.38**	**0.38**	**0.73**
1	**1.2**	**1.2**	**2.3**
10	**3.8**	**3.8**	**7.3**
100	**12**	**12**	**23**

For the maximum rated output power of transmitters not listed in the above table, the recommended isolated distance d in meter (m) can be determined by the formula in the column of corresponding transmitter frequency. Wherein, P refers to the maximum rated output power of transmitters provided by the transmitter manufacturer in watt (W).
Note 1: Formula for higher frequency should be used on frequency between 80MHz and 800MHz.
Note 2: The guidelines may not be suitable for all cases and electromagnetic transmission is affected by absorption and reflection of buildings, objects and human bodies.