JakobLife

ZK-B872

Brand Owner:Jakob Semiconductor (Nanjing) Co.,Ltd
Address:Room 1608,Building B,Science and Technology Innovation Headquarters Building,Pukou District,Nanjing City,Jiangsu Province,211899,China
Manufacturer:ShenZhen ZhengKang Technology
Address :2&3/F,Building A,No. 3 FuXing Yi Lane,He Hua Community, PingHu Street,LongGang District,ShenZhen,GuangDong, China

---

File No.: ZK-RD-28

PRODUCT USER MANUAL

UPPER ARM
BLOOD PRESSURE MONITOR

- **Thank you for purchasing this product.**
- **Please read this user manual carefully before use and keep the manual appropriately for future reference.**
- **This User Manual is suitable to the following models: ZK-B868, ZK-B869, ZK-B872, and ZK-B876.**

Version: V1.1 Release Date: 2019.09

---

tions equipment)	745 780	-787	13,17	modulation 217 Hz			
	810 870 930	800 -960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation 18 Hz	2	0.3	28
	1720 1845 1970	1 700 – 1 900	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation 217 Hz	2	0.3	28
	2450	2 400 – 2 570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0.3	28
	5240 5500 5785	5 100 – 5 800	WLAN 802.11 a/n	Pulse modulation 217 Hz	0,2	0.3	9

Table of Content

1. Product Overview....3
2. Contraindications....4
3. General Warnings and Precautions....4
4. Before Taking a Measurement....8
5. Preparation....8
5.3 Installation the Battery....10
5.4 Using the Adapter with Micro-USB cable....10
5.5 Preventive inspection....11
5.6 User ID, Date & Time, Diaplay Unit, Voice Settings and Memory Clear Setting....11
5.6.1 Settings....11
5.6.2 Memory clear....12
6. Measurement....12
7. Measure results, memory and query....14
8. Maintenance and storage....15
9. Product disposal....16
10. Showing an error message....16
11. Troubleshooting....17
12. Technical parameters and specification....17
13. EMC statement....18
14. Symbols....19
15. Warranty....19
16. Contact information....20
Attachment I: Model Difference Table....21
Attachment II: Manufacturer's EMC Statement....22

---

1. Product Overview

1.1 Indications for Use

This Upper Arm Blood Pressure Monitor is intended to measure the systolic and diastolic blood pressure as well as the pulse rate of adult person. It can be used at medical facilities or at home.

1.2 Product Description

1.2.1 Product introduction

The Upper Arm Blood Pressure Monitor, including ZK-B868, ZK-B869, ZK-B872 and ZK-B876, can automatically complete the inflation, deflation and measurement, which can measure systolic and diastolic blood pressure as well as the pulse rate of adult person with arm circumference ranging from 22 cm to 32cm by the oscillometric technique. User can select the blood pressure unit mmHg or KPa. The initial inflation pressure of the cuff is zero pressure. When start the device, the cuff will be inflated and deflated.

The device consists of the microprocessor, pressure sensor, operation keys, pump, deflation control valve, LCD, and arm cuff. The ZK-B868 is powered by 4 AA dry batteries (DC 6V), other models are powered by 4 AAA dry batteries (DC 6V).

The device has a memory function that automatically stores some sets data of the latest measurements. It can also display the latest measurement result. Additionally, the device also can read the data through voice broadcast function.

The four models have the same intended use, working principle, measuring range, accuracy, cuff, and conformance standard; only in appearance and supply power have some difference.

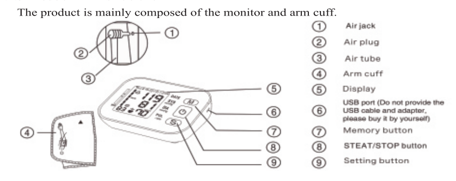
1.2.2 Package content

Upon opening the product package, you will find the following contents inside:

- Monitor
- Arm cuff
- User manual
- Storage bag

1.2.3 Product main structure

The product is mainly composed of the monitor and arm cuff.



Radiated RF IEC 61000-4-3	6Vrms in ISM bans 10V/m 80 MHz to 2.7 GHz	6Vrms in ISM bans 10V/m 80 MHz to 2.7 GHz	$d = 1.2 \times P^{1/2}$ 80 MHz to 800 MHz $d = 2.3 \times P^{1/2}$ 800 MHz to 2.7 GHz where P is the maximum output power rating of the transmitter In watts (W) according to the transmitter manufacturer and d Is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range.[b] Interference may occur In the vicinity of equipment marked with the following symbol: (((•)))
NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies. NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.			
a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Upper Arm Blood Pressure Monitor is used exceeds the applicable RF compliance level above, the Upper Arm Blood Pressure Monitor should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the Upper Arm Blood Pressure Monitor. b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.			

Guidance and manufacturer's declaration - electromagnetic Immunity

Radiated RF IEC61000-4-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communica	Test Frequency (MHz)	Band (MHz)	Service	Modulation	Modulation (W)	Distance (m)	IMMUNITY TEST LEVEL(V/m)
	385	380 -390	TETRA 400	Pulse modulation 18Hz	1,8	0.3	27
	450	430 -470	GMRS 460, FRS 460	FM ± 5 kHz deviation 1 kHz sine	2	0.3	28
	710	704	LTE Band	Pulse	0,2	0.3	9

IEC 61000-4-4	±1 kV for Input/output lines		hospital environment.
Surge IEC 61000-4-5	±0.5, ±1 kV line to line ±0.5, ±1 kV, ±2 kV line to earth	±0.5, ±1 kV line to line	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % UT (>95% dip in UT.) for 0.5 cycle <5 % UT (>95% dip in UT.) for 1 cycle 70% UT (30% dip in UT) for 25/30 cycles <5% UT (>95 % dip in UT) for 5/6 sec	<5 % UT (>95% dip in UT.) for 0.5 cycle <5 % UT (>95% dip in UT.) for 1 cycle 70% UT (30% dip in UT) for 25/30 cycles <5% UT (>95 % dip in UT) for 5/6 sec	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Upper Arm Blood Pressure Monitor requires continued operation during power mains interruptions, it is recommended that the Upper Arm Blood Pressure Monitor be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m, 30 A/m	3 A/m, 30 A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE U_T is the a.c. mains voltage prior to application of the test level			

Guidance and manufacturer's declaration – electromagnetic immunity

Upper Arm Blood Pressure Monitor including AC-adapter is intended for use in the electromagnetic environment specified below. The customer or the user of this Upper Arm Blood Pressure Monitor including AC-adapter should assure that it is used in such environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3Vrms 150 kHz to 80 MHz	3Vrms 150 kHz to 80 MHz	Portable and mobile RF communications equipment should be used no closer to any part of the Upper Arm Blood Pressure Monitor including AC-adapter including cables, than the recommended separation distance calculated from the equation appropriate to the frequency of the transmitter. **Recommended separation distance** $d = [3,5/V_1] \times P^{1/2}$

---

2. Contraindications

1) Do not use this product on pregnant women, children, or people with no ability to express their own consciousness.
2) Do not use it on patients with cardiac demand pacemaker, defibrillator or implanted metallic or electronic device.
3) Do not use it on patients with severe arrhythmia.

3. General Warnings and Precautions

⚠**Warning! Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.**

⚠**(General usage)**

1) This product is only used for daily monitoring of blood pressure and is not suitable for the diagnosis of hypertension. DO NOT adjust medication based on measurement results from this blood pressure monitor. Take medication as prescribed by your physician. Only a physician is qualified to diagnose and treat High Blood Pressure.
2) This product is only used for blood pressure measurement. Accidents may occur when used for purposes other than measuring blood pressure.
3) Do not use this device on infants, children or persons who cannot express their intentions.
4) This device is not intended to be a diagnostic device. Always consult your physician. Self-diagnosis of measurement results and self-treatment are dangerous.
5) Do not use the device on the injured arm or the arm under medial treatment.
6) Do not use the device in the case of flammable anesthetic gases mixed with air or flammable anesthetic gases mixed with oxygen or nitrous oxide.
7) Consult your physician before using the device for any of the following conditions:
   - If you have had a mastectomy.
   - Common arrhythmias such as atrial or ventricular premature beats or atrial fibrillation, arterial sclerosis, poor perfusion, diabetes, age, pregnancy, pre-eclampsia, renal diseases.
   - People with severe blood flow problems or blood disorders as cuff inflation can cause bruising. Acute internal bleeding may be caused by compression of the arm during measurement.

   - Do not take measurements more than necessary. It may cause bruising due to blood flow interference.
8) Do not apply the arm cuff on the arm while being on an intravenous drip or blood transfusion.
9) Consult your physician before using the device on the arm with an arteriovenous (A-V) shunt.
10) Do not use the device in the area the HF surgical equipment, MRI, or CT scanner exists, or in the oxygen rich environment.
11) Do not use the device with other medical electrical (ME) equipment simultaneously.
12) The air tube or the Micro-USB cable may cause accidental strangulation in children.
13) Contains small parts that may cause a choking hazard if swallowed by children.

⚠**Caution! Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury to the user or patient or damage to the equipment or other property.**

⚠**(General usage)**

1) NOTE THAT PATIENT motion, trembling, shivering may affect the measurement reading.
2) Remove the arm cuff if it does not start deflating during the measurement.
3) Do not use the device for any purpose other than measuring blood pressure.
4) Use only the special arm cuff (cuff circumference: 22cm~32cm) provided by the manufacture for this device. Use of other arm cuffs may result in incorrect measurement results.
5) Do not use in a location with moisture, or a location where water may splash on the device.
6) Do not use the device in a moving vehicle (car, airplane).
7) Precision components were used in the construction of this device. Extremes in temperature, humidity, direct sunlight, shock or dust should be avoided.
8) Avoid folding the cuff tightly or storing the tube tightly twisted for long periods, as such treatment may shorten the life of the components.
9) Measurements may be impaired if the device is used close to televisions, microwave ovens, cellular telephones, X-ray or other devices with strong electrical fields.
10) Used equipment, parts and batteries are not treated as ordinary household waste, and must be disposed of according to the applicable regulations.

Attachment II: Manufacturer's EMC Statement

Guidance and manufacturer's declaration – electromagnetic emissions

The Upper Arm Blood Pressure Monitors are intended for use in the electromagnetic environment specified below. The customer or the user of the Upper Arm Blood Pressure Monitors should assure that it is used in such an environment.

Emissions	Compliance	Electromagnetic environment-- guidance
RF emissions CISPR 11	Group 1	The Upper Arm Blood Pressure Monitor including AC-adapter uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The Upper Arm Blood Pressure Monitor including AC-adapter 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.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic immunity

Upper Arm Blood Pressure Monitor including AC-adapter is intended for use in the electromagnetic environment specified below. The customer or the user of this Upper Arm Blood Pressure Monitor including AC-adapter should assure that it is used in such environment.

Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment --guidance
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst	±2kV for power supply lines	±2kV for power supply lines	Mains power quality should be that of a typical commercial or

---

Attachment I: Model Difference Table

The differences among all applied models are appearance and supply power. Please see the following table for detail.

Model Name	Appearance Picture	Size and Weight*	Power Source	Key Button
ZK-B868		126mm (L) 100mm (W) 53mm (H) About 250g	4 AA Batteries (DC6V)	M: Memory; S: Setting; ⏻: Start/Stop
ZK-B869		115mm (L) 96mm (W) 59mm (H) About 220g	4 AAA Batteries (DC6V)	M: Memory; S: Setting; ⏻: Start/Stop
ZK-B872		140mm (L) 108mm (W) 70mm (H) About 275g	4 AAA Batteries (DC6V)	M: Memory; S: Setting; ⏻: Start/Stop
ZK-B876		130mm (L) 100mm (W) 45mm (H) About 235g	4 AAA Batteries (DC6V)	M: Memory; S: Setting; ⏻: Start/Stop

* The weight does not include batteries.

---

11) Please keep the pressure of the arm cuff under 295mmHg (39.9kPa). Inflating to a higher pressure than necessary may result in bruising and numbness where the arm cuff is applied.
12) Changes or modifications not approved by our company will void the user warranty. Do not disassemble or attempt to repair the unit or components by yourself.
13) If the appearance of the cuff is found to be damaged, do not take blood pressure measurements. It may damage your skin.
14) Do not forcibly crease the arm cuff or the air tube excessively.
15) Do not press the air tube while taking a measurement.
16) Do not drop the device to strong shocks or vibrations.
17) Do not inflate the arm cuff when it is not wrapped around your arm.
18) Do not use the device outside the specified environment. It may cause an inaccurate reading.
19) The accuracy of the product has been tested. It is generally recommended to calibrate the device once every year to ensure that the device is functioning properly and accurately.
20) Do not calibrate the product yourself. If it is necessary to calibrate, please contact the dealer or our after-sales service department.
21) Do not use the device immediately after removing it from an environment below 5 °C. Leave it in at least 1 hour in a warm environment. It may cause an inaccurate reading.
22) Dispose of the device and components according to applicable local regulations. Unlawful disposal may cause environmental pollution.
23) In case of pressure discomfort or pressure not to stop, immediately turn off the unit or pull out the tube plug and quickly exhaust.
24) Avoid eating, drinking tea/caffeine/alcohol, exercising, bathing and smoking for 1 hour before taking a measurement. Rest for at least 10 minutes before taking the measurement. Before performing another blood pressure measurement, please rest quiet for 3 minutes, and the rest time allows the artery to return to the state between blood pressure measurements.
25) Please measure it in the correct position with quiet, stable mood.
26) Please do not speak or move your body during measurement.
27) This product is only applicable to upper arm measurement and is not suitable for measurement

---

of wrist and other parts.

28) This device uses a 63Vdc/1A quick fuse, which will protect the device when the instantaneous current exceeds 1A. At this point the device will not be able to continue working, please contact the after-sales service center.

⚠**(Adapter with Micro-USB cable (not provided) Usage)**

1) Do not use the Micro-USB cable and Adapter if the device or the cable is damaged. Turn off the power and unplug the power plug immediately.
2) Plug the Adapter with Micro-USB cable into the appropriate voltage outlet. Do not use in a multi-outlet plug.
3) Never plug in or unplug the device from the electric outlet with wet hands.
4) Fully insert the power plug into the outlet.
5) When disconnecting the power plug from the outlet, do not pull the power cord. Be sure to pull from the power plug safely.
6) Unplug the adapter when not in use.
7) Disconnect the power plug before cleaning.
8) Our company does not provide the AC adapter and Micro-USB cable; the users are required to buy the adapter (DC 5V/500mA) and Micro-USB cable which meet safety requirements of IEC 60601-1 and IEC 60601-1-11. Use of an adapter or Micro-USB cable which does not meet the requirements may damage and/or may be hazardous to the device and users.

⚠**(Battery (not provided) Usage)**

① Do not insert the batteries with their polarities incorrectly aligned.
② Our company does not provide the batteries; the users are required to buy batteries which meet safety standards. The ZK-B868 is powered by 4 AA dry batteries (DC 6V), other models are powered by 4 AAA dry batteries (DC 6V). Do not use other types of batteries. Do not use new and used batteries together.
③ This device does not support the battery charging function. Do not use the rechargeable battery to charge in this device.

---

listed as below:

a) Damages resulting from unauthorized adjustment and repair.
b) Damages resulting from improper repair of unauthorized maintenance/repair shops.
c) Damages resulting from inappropriate maintenance.
d) Damages resulting from misuse by not following guidelines of this manual.

(3) Maintenance services outside the warranty scope will be reasonably charged.
(4) When apply for free repair service, please hold the Warranty card and purchase proof of purchase date, and contact the distributor.
(5) Our company does not responsible for any defects or damage caused by natural disasters, force majeure, non-predictable events and other uncontrollable factors.
(6) If necessary, manufacturer could provide circuit diagrams, component part lists, descriptions, calibration instructions to assist to service personnel in parts repair.
(7) Warranty Card

Warranty Card	
Product model:	Serial No.:
Sealed by distributor:	Purchasing date:
Customer name:	Customer Tel.:
Customer postal code:	Customer E-mail:
Customer address:	
Failure description:	

16.Contact information

Brand Owner:Jakob Semiconductor (Nanjing) Co.,Ltd
Address:Room 1608,Building B,Science and Technology Innovation Headquarters Building,Pukou District,Nanjing City,Jiangsu Province,211899,China
Tel.： 025-58889972 E-mail:info@jakob-techs.com
Manufacturer: ShenZhen ZhengKang Technology Co.,Ltd.
Address: 2&3/F, Building A, No. 3 FuXing Yi Lane, HeHua Community, PingHu Street, LongGang District, ShenZhen, GuangDong, China

---

specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

14. Symbols

Label	Explanation	Label	Explanation
SN	Serial number	⚠	Caution
🏭	Manufacturer	IP22	Protected against solid foreign objects of 12,5 mm ⌀ and greater; Protected against vertically falling water drops when enclosure tilted up to 15°
🍷	Handle with care	☀	Keep away from sunlight
⇈	This way up	☂	Keep dry
🚶	Type BF applied part	🗑	"WEEE (Waste Electrical and Electronic Equipment)". The waste products should be handled legally.
⎓	Direct current	📖	Refer to instruction manual
⧈	Class II equipment	🪫	Low power symbol
1	User 1	2	User 2
♥	Heartbeat symbol		

15. Warranty

(1) The Upper Arm Blood Pressure Monitor is warranted from manufacturing defects for 1 year from date of retail purchase. (Except for consumables, such as cuff, display screen, etc.)
(2) The free repair service does not cover the damages resulting from personal reasons

---

① Remove the batteries if the device will not be used for three months or more.

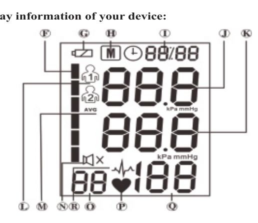
4. Before Taking a Measurement

To help ensure an accurate reading, follow these directions:

- Avoid drinking stimulants such as coffee or alcohol, exercising, bathing and smoking for 1 hour before taking a measurement. Rest for at least 10 minutes before taking the measurement. Before performing another blood pressure measurement, please rest quiet for 3 minutes, and the rest time allows the artery to return to the state between blood pressure measurements.
- Stress raises blood pressure. Avoid taking measurements during stressful times.
- Measurements should be taken in a quiet place.
- Remove tight-fitting clothing from your arm.
- Sit on a chair with your feet flat on the floor. Rest your arm on a table so that the arm cuff is at the same level as your heart.
- Remain still and do not talk during the measurement.
- Keep a record of your blood pressure and pulse readings for your physician.
- Left and right arm can be measured (usually the left arm), left and right arm blood pressure may be different, so the recommended blood pressure values may also be different, it is recommended that you always use the same arm to measure. If the measured values of the two arms vary widely, use it under the guidance of a doctor.
- A single measurement does not provide an accurate indication of your true blood pressure. You need to take and record several readings over a period of time. Try to measure your blood pressure at the same time each day for consistency.

5. Preparation

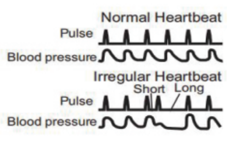
5.1 Know the display information of your device:



F.	**Blood pressure indicator strip**	G.	**Low battery symbol**
H.	**Memory symbol**	I.	**Date/Time symbol**
J.	**Systolic blood pressure**	K.	**Diastolic blood pressure**
L.	**USER ID symbol**	M.	**Average value symbol**
N.	**Voice symbol**	O.	**Memory number**
P.	**Heartbeat symbol**	Q.	**Pulse display**
R.	**Irregular heartbeat symbol**		

5.2 Display symbols:

Irregular heart beat symbol:



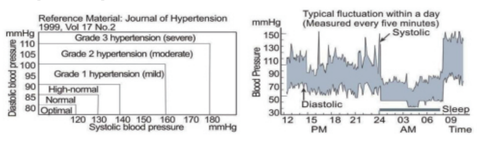
When the unit detects an irregular rhythm during the measurement, the Irregular heartbeat symbol will appear on the display with the measurement values.

An irregular heartbeat rhythm is defined as a rhythm that is 25% less or 25% more than the average rhythm detected while the monitor is measuring the systolic and diastolic blood pressure.

If the irregular heartbeat symbol displays with your measurement results, we recommend you consult your physician. Follow the directions of your physician.

Blood pressure level indicator:

The World Health Organization (WHO), the International Society for High Pressure (ISH) developed a blood pressure classification as shown below:



Please note that other risk factors (e.g. diabetes, obesity, smoking, etc.) need to be taken into consideration and may affect these figures. Consult with your physician for accurate assessment.

Note:

1. The graph is not exact, but may be used as a guide in understanding non-invasive blood pressure measurements. The device is only intended for use with adults.
2. Blood pressure measurements determined with this device are equivalent to those obtained by a trained observer using the cuff/stethoscope auscultatory method, within the

---

transport environment	Humidity: 10%~93%RH Air pressure: 50kPa~106kPa
Cuff circumference	22cm~32cm
Weight (excluding batteries)	ZK-B868: About 250g; ZK-B869: About 220g; ZK-B872: About 275g; ZK-B876: About 235g
Dimensions (L*W*H)	ZK-B868: 126 X 100 X 53mm; ZK-B869: 115 X 96 X 59mm ZK-B872: 140 X 108 X 70mm; ZK-B876: 130 X 100 X 45mm
Memory	2 X 99 sets of memory
Contents	Monitor, arm cuff, user manual, storage bag
Applied part	🚶 Type BF application part
Protection against electric shock	Internally powered ME equipment (When using only the batteries*) ⧈ = Class II ME equipment (Optional adapter* and Micro-USB cable*) *** Do not provide, please buy it by yourself**
Software version	V 1.2

13. EMC statement

- Upper Arm Blood Pressure Monitor meets the requirement of electromagnetic compatibility in IEC60601-1-2.
- The user needs to install and use according to electromagnetism compatibility information which is attached with it.
- Guidance and manufacture's declaration stated in the Attachment II.

⚠Warning: Don't near active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances is high.

⚠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.

⚠Warning: Use of accessories and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

⚠Warning: Portable RF communications equipment should be used no closer than 30 cm (12 inches) to any part of the Upper Arm Blood Pressure Monitor, including cables

---

11. Troubleshooting

Abnormal phenomena	Reasons and Solutions
The systolic pressure value is higher or the diastolic pressure value is lower.	The position of the cuff was wrong. The cuff was not properly attached. Attach the arm cuff correctly to the correct position according to the User Manual. Move or speak while measuring. Do not move or speak during measurement.
The blood pressure value is abnormally high or low.	Whether or not the measurement posture changes each time. Sit correctly according to the User Manual.
Inconsistent with the blood pressure measured by the doctor; The blood pressure values measured each time are inconsistent.	Some people will be involuntarily nervous when they see the doctor, which will raise their blood pressure. Record the trend of changes in daily measurement results and request assistance from doctor. Measure again after rest for 3 minutes.
Press the Start/Stop button, the screen does not display, or the screen suddenly turns off after the screen is displayed.	The batteries are low. You should replace new batteries. Refer to Installation the Battery.
Malfunctions	Do not repair it yourself. Return it to our company for inspection and repair.

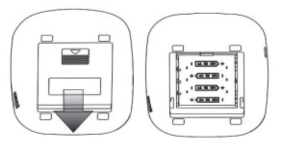
12.Technical parameters and specification

Product name	Upper Arm Blood Pressure Monitor
Models	ZK-B868, ZK-B869, ZK-B872, ZK-B876
Measurement method	Oscillometric method
Measurement range	Pressure: 0-295mmHg (0-39.9kPa) Pulse: 40-195 beats/min
Accuracy	Pressure: ±3mmHg(±0.4kPa) Pulse: ±5%
Power Source	4 AA batteries* DC6V (ZK-B868)/4 AAA batteries* DC6V (Other models) or optional Micro-USB cable* and adapter* (INPUT DC5V/500mA) * Do not provide, please buy it by yourself
Battery Life	Approximately 300 measurements (using 4 new AA alkaline batteries, once a day, no more than 2 minutes each time)
IP classification	IP22
Operating environment	Temperature: 5℃~40℃ Humidity: 15%~80%RH Air pressure: 70kPa~106kPa
Storage and	Temperature: -20℃~55℃

---

limits prescribed by the American National Standard, Manual, electronic, or automated sphygmomanometers.

5.3 Installation the Battery



Remove the battery cover and insert new batteries into the battery compartment as shown, taking care that the polarities (+) and (-) are observed.

Note:

• Insert the batteries as shown in the picture. If not, the device will not work.
• When LOW BATTERY symbol 🪫 appears on the display, turn the unit off, and then replace all batteries with new ones at the same time. Do not mix old and new batteries. It may shorten the battery life, or cause the device to malfunction.
• The measurement values continue to be stored in memory even after the batteries are replaced.
• Remove the batteries if the device is not to be used for a long period of time (more than 3 months). Otherwise, the batteries may leak and cause a malfunction.
• Our company does not provide the batteries; the users are required to buy batteries which meet safety standards. The ZK-B868 is powered by 4 AA dry batteries (DC 6V), other models are powered by 4 AAA dry batteries (DC 6V). Do not use other types of batteries.
• This device does not support the battery charging function. Do not use the rechargeable battery to charge in this device.

5.4 Using the Adapter with Micro-USB cable

① Insert one end of the Micro-USB cable into the micro-USB port of the device, while insert the other end of the Micro-USB cable into the AC adapter plug for receiving DC 5V.
② Plug the Adapter into an electrical outlet.
To disconnect the Adapter, unplug the Adapter from the electrical outlet first, and then remove the Adapter with Micro-USB cable form the monitor.
③ Our company does not provide the adapter and Micro-USB cable; the users are required to buy the adapter (DC 5V/500mA) and Micro-USB cable which meet safety requirements of IEC 60601-1. Use of an adapter or Micro-USB cable which does not meet the requirements may damage and/or may be hazardous to the device and users.

5.5 Preventive inspection

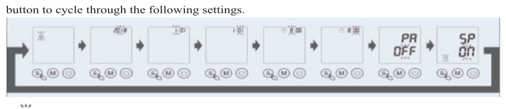
1. Check the device before measuring. Check the function of each component, and maintain the good performance of the device.
2. The recommended inspection period is once a month or less.
3. The device should be periodically tested for safety to ensure leakage current insulation, including leakage current.
4. Check if the appearance is intact, whether the cuff is intact, and whether the device can be turned on normally.

5.6 User ID, Date & Time, Display Unit, Voice Settings and Memory Clear

* This product provides two display units, mmHg and kPa (Pascal). This manual is illustrated in the unit of mmHg. The factory default setting is mmHg.

5.6.1 Settings

In the shutdown state, press and hold Setting button (about 3 seconds). Press the Setting button to cycle through the following settings.



* ⁂ indicates the flashing state.

■ **User Switch Setting:**

In the shutdown state, press and hold Setting button (about 3 seconds), the User ID symbol “①” flashes, and then press Memory button to select the User 1 “①” or User 2 “②”.

■ **Date & Time Setting:**

After the User Switch Setting, press Setting button to enter the Date & Time Setting. The Year/Month/Day/Hour/Minute symbol will flashing, press the Memory button to modify the value. Press the Setting button to save the settings successfully. If the Date & Time is not adjusted, the default is the machine factory time.

■ **Display Unit Setting:**

After the Date & Time Setting, press Setting button to enter the Display Unit Setting. The screen will display "PA", while the lower "OFF" will flash. Press the Memory button to switch between "OFF" and "ON". Selecting "OFF" means selecting mmHg as the unit, and selecting "ON" means selecting KPA as the unit. Press the Setting button to save the settings successfully.

■ **Voice On/Off Setting:**

After the Display Unit Setting, press Setting button to enter the Voice On/Off Setting. The

---

① Unplug the air plug from the air jack
② Keep the tube gently in the cuff and be careful not to fold the tube
③ Place the unit and cuff in the storage bag, and store them in a clean and safe location
④ Do not place the unit where it is:

• Easy to splash water
• High temperature, humidity, direct sunlight, dust or near corrosive gas
• Easy to tilt, produce vibration and impact.

9. Product disposal

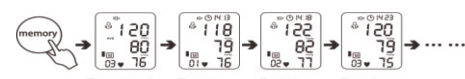
In order to avoid environmental pollution, please dispose this instrument according to local environmental requirements and do not discard casually.

10. Showing an error message

The LCD will display an error message if the following conditions occur, as shown in the following table:

Symbol	Error message	Solution
🪫	The batteries are low	You should replace new batteries. Refer to Installation the Battery.
Er 1	Abnormal sensor signal	1. Do not talk or shake your arms during measurement.
		2. Empty the air pressure inside the cuff before measurement.
Er 2	No blood pressure values can be measured.	Check the attaching position of the arm cuff and measure again according to the User Manual.
Er 3	The measurement result is abnormal.	Check the attaching position of the arm cuff and measure again according to the User Manual.
Er 4	No inflation	Check if the cuff is leaking.
		Check if the cuff is too loose.
Er 5	Inflating too fast	Check if the air tube is blocked
		Check if the cuff is attached too tightly.
Er 6	Excessive pressure interference	Measure according to the User Manual. Do not move during the measurement.
Er 7	Pressure exceeds limit	Measure according to the User Manual. Do not move during the measurement.

External interference is usually caused by a sudden large movement or electromagnetic interference during use, resulting in erroneous measurements.



The average of the previous three measurement results | The 1st measurement result | The 2nd measurement result | The 3rd → ··· ··· measurement result

8. Maintenance and storage

8.1 Cleaning and Maintenance

The expected service life of this Upper Arm Blood Pressure Monitor is 5 years. To protect your device from damage, please observe the following:

① Do not place the blood pressure monitor and cuff in a high temperature, moisture, water vapor, or direct sunlight.
② Do not tighten the cuff or air tube tightly or roll the air tube on the monitor.
③ Do not disassemble or attempt to repair the device or components. Changes or modification not approved by the manufacturer will void the user warranty. Consult Customer Service.
④ Do not let the blood pressure monitor be strongly impacted or shaken (e.g. the blood pressure monitor falls on the ground).
⑤ Do not use any abrasive or volatile cleaners.
⑥ Do not wash the device and any components or immerse them in water.
⑦ Use a soft and dry cloth, or a soft and moistened cloth and neutral soap to clean on the monitor and the arm cuff.
⑧ Do not use gasoline, thinner or similar solvents to clean the cuff.
⑨ Clean the device if necessary. The necessary cleaning of the frequently contacted parts of the device is performed once a week.

8.2 Calibration and repair:

① The accuracy of this device has been rigorously tested and it is generally recommended that the blood pressure monitor be inspected and calibrated at least every year to ensure that the function is normal and accurate. The inspection and calibration should be implemented by a laboratory, manufacturer or the maintenance center authorized by manufacturer.
② Do not attempt to repair the device or components by yourself. Please consult Customer Service.

8.3 Storage

When not in use, please put it in the storage bag

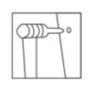
---

screen will display "SP", while the lower "ON" will flash, press the Memory button to switch between "ON" and "OFF". Selecting "ON" means turning on the voice, and selecting "OFF" means turning off the voice. Press the Setting button to save the settings successfully. The factory default setting is Voice ON.

5.6.2 Memory clear

In the shutdown state press and hold the Memory button (about 3 seconds) to turn on, the symbol EE flashes, and then press the Setting button to delete all the measurement results.

6. Measurement

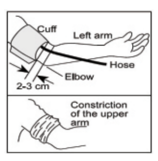


6.1 Get ready with the arm cuff

Cuff tube connection:

Remove tight-fitting clothing or tight rolled up sleeve from your upper arm. Do not place the arm cuff over thick clothes. Insert the air plug into the air jack firmly.

Attaching the arm cuff:

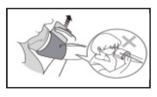


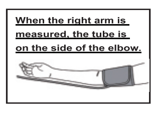
Cuff
Left arm
Hose
Elbow
2-3 cm
Constriction of the upper arm

- Take off the coat, sweater and other thick clothing, place the cuff directly against the skin, as clothing may cause a faint pulse, and result in a measurement error.
- Wrap the arm cuff around your left upper arm, about 2~3cm above the elbow, as shown.
- Palms up, the tube straightened and the middle finger in the same extension line, attach the cuff firmly.

Note:

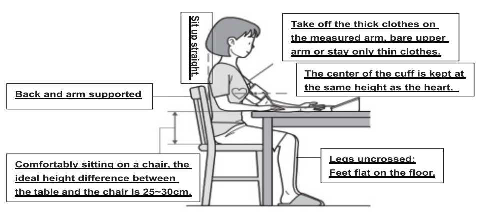
•Constriction of the upper arm, caused by rolling up a shirt sleeve, may prevent accurate readings. Do not roll up the sleeves to measure, and the cuffs are in good contact with the arms.
•Be careful not to rest your arm on the air tube.
• Left and right arm can be measured, left and right arm blood pressure may be different, so the recommended blood pressure values may also be different, it is recommended that you always use the same arm to measure.
• If the measured values of the two arms vary widely, use it under the guidance of a doctor.





When the right arm is measured, the tube is on the side of the elbow.

6.2 Sit Correctly

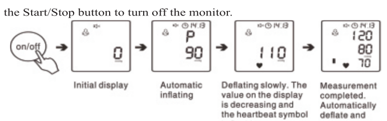


Sit up straight.
Take off the thick clothes on the measured arm, bare upper arm or stay only thin clothes.
The center of the cuff is kept at the same height as the heart.
Back and arm supported
Comfortably sitting on a chair, the ideal height difference between the table and the chair is 25~30cm.
Legs uncrossed; Feet flat on the floor.

6.3 Taking a Measuring

The monitor can store 2 sets of measurement results (User 1 and User 2), each set can store up to 99 measurement results. This manual to explain the measurements of User 1 as an example, User 2 with reference to the measurement of User 1 operation.

1. Press the Start/Stop button, the device starts, the cuff starts to automatically pressurize (inflating). Pressurize to predetermined value, automatic uniform exhaust, detect the blood pressure and pulse rate.
2. Remove the cuff
3. Press the Start/Stop button to turn off the monitor.



Initial display | Automatic inflating | Deflating slowly. The value on the display is decreasing and the heartbeat symbol is flashing. | Measurement completed. Automatically deflate and display results.

Note: Before performing another blood pressure measurement, please rest quiet for 3 minutes, and the rest time allows the artery to return to the state between blood pressure measurements.

6.4 Voice broadcast list

The device has voice broadcast function, below is the description of voice broadcast:

No.	Triggers	Operation	Voice broadcast content
1	START/ STOP button	Press the START/STOP button once in the state of shutdown (standby state).	Attention please. Please keep silent and relax. Keep the cuff at heart level.
		After the measurement is	Thank you.

---

		completed, the measurement result will be broadcast automatically.	Your Blood pressure is : systolic pressure “XXX” millimeter of mercury pillar (or kilopascal); diastolic pressure: “XXX” millimeter of mercury pillar (or kilopascal). Your pulse is “XXX” beats per minute. Thank you. Wish you a good health!
2	Memory button	Press the Memory button in the state of shutdown (standby state).	Average Blood Pressure: Systolic pressure: “XXX” millimeter of mercury pillar (or kilopascal); diastolic pressure: “XXX” millimeter of mercury pillar (or kilopascal). Your pulse is “XXX” beats per minute.
		After broadcasting the average blood pressure, press the “Memory” button or “SET” button again.	Last time, your blood pressure was: Systolic pressure: “XXX” millimeter of mercury pillar (or kilopascal); diastolic pressure: “XXX” millimeter of mercury pillar (or kilopascal). Your pulse is: “XXX” beats per minute.
3	Low battery	When the battery voltage is lower than 4.4V.	Low battery. Please replace the battery.
Note: “XXX” in the table indicates the measured blood pressure and pulse value.			

7. Measure results, memory and query

■ **Measurement results:**

The measurement results will be displayed on the display screen and voiced. Measurement results automatically saved.

When a measurement error occurs (the blood pressure monitor shows the error E as shown in Picture 2), please wait for 3 minutes after quiet rest. Follow the measurement procedure to re-measure.

■ **Memory:**

• The unit can store 2 sets of measurement results; each set can store up to 99 group results. When saving the 100 result, the device will delete the oldest measurement result.

■ **Inquire:**

• After measurement or in the state of shutdown, press the Memory button to view the saved data.
• Press the Memory button or the Setting button to cycle through the read memory data.