

A: Incorrectly positioned armbands can sometimes lead to higher result. When the cuff is in the wrong position, the blood pressure monitor finds it difficult to pick up arterial signals, and the blood pressure readings would be higher than actual. Re-confirm that the cuff wearing position is correct. If the cuff is wrapped too loosely, it can also lead to high measurements. Wrapping the cuff too loosely prevents the pressure from reaching the arteries, so the measured blood pressure may be higher than it actually is. Be careful not to leave an excessive gap between the cuff and the arm when attaching the arm cuff.

A: Incorrect posture during measurement can also lead to a higher measurement result. Measurement postures such as sitting cross-legged, sitting on a couch or at a low desk, or bending forward, can result in higher blood pressure readings because of abdominal pressure or because the armband is lower than the heart.

Q: Why is the blood pressure value measured fluctuate each time?

A:The blood pressure will vary according to the measurement time period. Even in the same day, such a change will occur. In order to manage blood pressure correctly, take measurements at the same time every day.

Q: Why there is pain and numbness when wearing cuff?

A: This is a temporary phenomenon, do not worry. When blood pressure is measured, the cuff needs to be tightened to temporarily stop blood flow in the arteries, so some pain and numbness in the arm may be felt. When the armband cuff is removed, it can be relieved by taking a short rest.

Q: What is the key to blood pressure management?

A: record your medication status and living conditions. Recording daily changes in blood pressure can provide a clearer picture of blood pressure trends, which can be more helpful in personal health management. In addition, this record is very important for the doctor's diagnosis. Therefore, we recommend that you record your blood pressure measurements as well as the relevant measurement environment (such as the use of antihypertensive drugs, life status, etc.).

Q: When is the best time to measure blood pressure?

A: The best time to measure blood pressure is within 1 hour after getting up in the morning, or before going to bed at night. It is also recommended to measure at the same time every day.

13. BLOOD PRESSURE KNOWLEDGE

13.1 High and Low Pressure

The highest blood pressure when the heart contracts and sends blood to the arteries is called "high pressure", and the lowest blood pressure when the heart expands to store the next blood is called "low pressure". They are called systolic blood pressure and diastolic blood pressure.

The following is a standard taxonomy established by the World Health Organisation (WHO) for blood pressure, showed in the below table: Unit (mmHg)

Scope	Systolic (SYS)	Diastolic (DIA)	Corresponding measures
Hypotension	<100	<60	Ask doctor for measurement
Desirable	100~120	60~80	Self-measurement
Normal	120~130	80~85	Self-measurement
Pre hypertension	130~139	85~89	Self-measurement
Stage 1 Hypertension	140~159	90~99	Consult the doctor
Stage 2 Hypertension	160~179	100~109	Consult the doctor ASAP
Hypertensive Crisis	≥180	≥110	Danger! Consult the doctor immediately

At the same time, the United Nations Committee on the Investigation, Evaluation and Treatment of Hypertension in 1988 recommended that whether it is systolic (SYS) or diastolic (DIA), average person must undergo at least three measurements, further diagnosis is needed when blood pressure is found to be higher than the normal level.

13.2 What measure should be taken when blood pressure is too high or low?

Consult doctor. Prolonged ascending blood pressure (different types of SYS) will endanger human health. Deposits on the walls of the blood vessels limit the flow of blood (that can result in arteriosclerosis), which is very dangerous. Because it will cause insufficient blood supply to body's important part (heart, brain, muscles and etc.), even severely destroy the structure of heart. There are many factors that cause high blood pressure.

We could divide them into common hypertension and secondary hypertension. Secondary hypertension will lead to organ disorders. If your blood pressure value continues to rise, ask doctor about possible causes.

Precaution: Consult your doctor before using the device for any of the following conditions: Common irregular pulse such as atrial or ventricular premature beats or atrial fibrillation, arterial sclerosis, poor perfusion, diabetes, old age, pregnancy, pre-eclampsia, renal diseases. Note that PATIENT motion, trembling, shivering may affect the reading.

14. ERROR WARNING/TROUBLESHOOTING

14.1 False Alarm

The LCD will display an error warning If any of the following occurs, as shown in figure marked:

Error code after leaving factory	Description	Reason of error	Solutions
Er01	Error of measurement	Too much noise to detect an effective pulse signal	Rest for 2 minutes, adjust the cuff, keep quiet during measurement, do not move or talk.
	Error of measurement	No pulse was detected	
	Error of measurement	Test results deviate from normal range	
	Static pressure exceeds the set protection point	Pressure exceeds design ceiling protection	Measure blood pressure again
Zero overtime		1. During the process of returning to zero, the air pressure in the cuff continues to fluctuate; 2. The sensor part of the circuit is abnormal; 3. Sensor damage.	1. Keep the cuff intact when returning to zero. 2. Detecting the power supply of the sensor. 3. Contact supplier
Er02	Abnormal cuff wearing	1. No cuff wearing 2. Over loose wearing 3. Over tight wearing 4. Abnormal air pressure.	Adjust the cuff. It is advisable to insert two fingers just after the tightness is tied. The cuff mouth of the cuff is kept 2cm on the elbow socket.
Lo	Not enough power	The power is lower than the minimum operating voltage.	Replace the battery

Other Information

Even a healthy individuals blood pressure is constantly changing (presenting a jagged line), so when you make comparative measurements, you must be in a fixed state (quiet environment). If the difference is greater than 2.0 kPa / 15 mmHg if the above conditions are met, or in some cases, in case of irregular heart beat, consult your doctor.

14.2 Troubleshooting

If any faults (or abnormal conditions) occur during use, you can check and exclude according to the items listed in the following table:

Malfunction	Solution
When the battery is installed and the switch is turned on, shows nothing.	Check whether the product has power.
The air pump has begun to inflate, but there is no rise in Arm cuff pressure.	Check the hose connection for air leakage or whether it is fully inserted into the socket.
Arm Blood Pressure Monitor fails to measure blood pressure frequently, or the blood pressure is abnormally high or low.	1. Re-set the correct cuff. 2. If the left upper arm of the belt is covered with sleeves or other clothing, take off. Re-measure blood pressure.
Self-measured value is different from the measured value of the doctor.	Consult your doctor. Record daily measurements and consult your doctor.
After the device is pressurised, the air pressure of the armband cuff deflates slowly, or even does not deflate at all.	The "plastic ring" in the air hole joint of the cuff hose, has fallen off, put the plastic ring on and measure again.

About any technical problems related to blood pressure monitor, consult experts or medical personnel, do not disassemble or repair without permission. Unauthorised disassembly, will lead to the loss of warranty.

15. REFERENCE STANDARD

We Famidoc Technology Co., Ltd. solemnly declares that the AK-BPA-15 Upper Arm Blood Pressure Monitor we produced and sold meets the following standards:

Performance safety standard: YY 0670/ IEC 60601-2-30

Electromagnetic compatibility: IEC60601-1-2

Safety standard: GB 9706.1/ IEC60601-1

Claim: The blood pressure value tested by this device is equivalent to that measured by auscultation, and the error is in accordance with the requirements of the code IEC/EN 60601-2-30. Read this instruction carefully before use. The product is part of BF application equipment of internal power supply.

16. DISPOSAL

 If this unit is damaged and need to be discarded, dispose of the discarded electronic waste in accordance with the relevant national laws and regulations, dispose of the battery or product should not be directly placed in the garbage can.

17. TECHNICAL SPECIFICATIONS

Model	AK-BPA-15
Display	LCD display
Measuring method	Oscillometric method
Memory	Automatically stores up to 99 measurements for each of 2 users
Resolution	0.1kPa (1mmHg)
Measurement Range	Stress: 0kPa~39.3kPa (0~295mmHg); Pulse: 40 to 199beats/min
Accuracy	Static pressure: ±0.4 kPa (±3 mmHg) Pulse: within ±5% of the reading
Power	DC 5.0V (3*1.5V AAA Batteries)
Static pressure scope	0mmHg~295mmHg (0kPa~39.3kPa)
Special accessory	Cuff, instruction manual, cable
Size	125mm*50 mm*94 mm
Weight	About 210g (including battery)
Withstand pressure for the cuff	360mmHg
Upper arm circumference	220~420mm
Electric shock protection type	Class II device
Shock protection procedure	BF application part
Expected use lifetime	Body in 5 years, Cuff in 2 years
Application component	Cuff
Operating condition	Temperature: 5° C~40° C Humidity: 15% RH~90% RH, No condensation Atmospheric pressure: 70kPa~106kPa
	Temperature: -25° C~55° C Humidity: 15% RH~95% RH, No condensation Atmospheric pressure: 70kPa~106kPa strictly observe the environmental conditions of transportation and storage, otherwise it will affect the accuracy of the equipment.
Transportation and storage condition	

18. LIST OF ATTACHMENTS

Component	Quantity
Upper Arm Blood Pressure Monitor	1 PCS
Instruction manual	1 PCS
Cuff	1 PCS
AAA battery	3pcs

19. STANDARDISED SYMBOLIC DESCRIPTION

Symbols	Meaning
	Note: Refer to the instruction before using
	Attention: See Instructions for use!
	Type BF applied parts
	Electric shock protection type: Class II equipment
	Disposal in accordance with Directive 2002/96/EC (WEEE)
	Complies with the European Medical Device Directive (93/42/EEC), Notified Body is SGS Belgium NV
	Manufacturer: Famidoc Technology Co., Ltd
	Authorised representative in the European Union
	Serial number
SYS	The value of SYSTOLIC BLOOD PRESSURE
DIA	The value of DIASTOLIC BLOOD PRESSURE
	Temperature limitation
	Humidity limitation
	Atmospheric pressure limitation
IP21	Level of protection for ingress of water or particulate matter into ME EQUIPMENT
	Medical Device
	Date of manufacture
	Unique Device Identifier

20. ELECTROMAGNETIC COMPATIBILITY INFORMATION

Note:

- The Upper Arm Blood Pressure Monitor AK-BPA-15 meets the electromagnetic compatibility requirements of YY0505, YY0670, IEC60601-1-2;
- Users should install and use the electromagnetic compatibility information provided by the random files. Portable and mobile RF communication devices may affect the performance of the Upper Arm Blood Pressure Monitor AK-BPA-15. Avoiding strong electromagnetic interference when used, such as close to mobile phones, microwave ovens, etc.
- The instructions for the guide and the manufacturer are detailed in the attachment.

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.
- Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this the AK-BPA-15 could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.
- 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 the AK-BPA-15, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

Attachment:

Guidance and manufacturer's declaration – electromagnetic emission – for all EQUIPMENT AND SYSTEMS

Guidance and manufacturer's declaration – electromagnetic emission		
The AK-BPA-15 is intended for use in the electromagnetic environment specified below. The customer or the user of AK-BPA-15 should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment-guidance
RF emissions CISPR 11	Group 1	The AK-BPA-15 uses RF energy only for its internal function. There for, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	
Harmonic emissions IEC 61000-3-2	Class A	The AK-BPA-15 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.
Voltage fluctuations flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic immunity – for all EQUIPMENT and SYSTEMS

Guidance and manufacturer's declaration – electromagnetic immunity.			
The AK-BPA-15 is intended for use in the electromagnetic environment specified below. The customer or the user of the AK-BPA-15 should assure that it is used in such an 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%.
Electrostatic transient / burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines	± 2 kV for power supply lines	Mains power quality should be that of a typical commercial or hospital environment.
surge IEC 61000-4-5	±1 kV differential mode ±2 kV common mode	± 1 kV differential mode	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	0 % U _n ; 0,5 cycle UT At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0° 0 % UT; 250/300 cycle	0 % U _n ; 0,5 cycle UT At 0°, 45°, 90°, 135°, 180°, 225°, 270° and 315° 0 % UT; 1 cycle and 70 % UT; 25/30 cycles Single phase: at 0° 0 % UT; 250/300 cycle	Mains power quality should be that of a typical commercial or hospital environment. If the user of the AK-BPA-15 requires continued operation during power mains interruptions, it is recommended that the AK-BPA-15 be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30A/m	30A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Note: UT is the a. c. mains voltage prior to application of the test level.

Guidance and manufacturer's declaration – electromagnetic immunity – for EQUIPMENT and SYSTEM

Guidance and manufacturer's declaration – electromagnetic immunity.			
The AK-BPA-15 is intended for use in the electromagnetic environment specified below. The customer or the user of the AK-BPA-15 should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz 6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 10 V/m 80 MHz to 2.7 GHz 385MHz 5785MHz Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014)	3V 150 kHz to 80 MHz 6 V in ISM and amateur radio bands between 0,15 MHz and 80 MHz 10 V/m 80 MHz to 2.7 GHz 385MHz-5785MHz Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communication equipment (Refer to table 9 of IEC 60601-1-2:2014)	Portable and mobile RF communications equipment should be used no closer to any part of the AK-BPA-15, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance d=[$\frac{3 \cdot 3}{E_1}$] $\sqrt{p}$ d=[$\frac{12}{E_1}$] $\sqrt{p}$ d=[$\frac{3 \cdot 3}{E_1}$] $\sqrt{p}$ 80 MHz to 800 MHz d=[$\frac{12}{E_1}$] $\sqrt{p}$ 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 metres (m).b Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,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 ()
Radiated RF IEC 61000-4-3 3 Vrms			
Note: UT is the a. c. mains voltage prior to application of the test level.			

Note 1: At 80 MHz and 800 MHz, the higher frequency range applies.
Note 2: These guidelines may not apply in all situations. Electromagnetic is affected by absorption and reflection from structures, objects and people.

- The ISM (industrial, scientific and medical) bands between 150 kHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283 MHz; and 40,66 MHz to 40,70 MHz. The amateur radio bands between 0,15 MHz and 80 MHz are 1,8 MHz to 2,0 MHz, 3,5 MHz to 4,0 MHz, 5,3 MHz to 5,4 MHz, 7 MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17 MHz, 21,0 MHz to 21,4 MHz, 24,89 MHz to 24,99 MHz, 28,0 MHz to 29,7 MHz and 50,0 MHz to 54,0 MHz.
- 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 AK-BPA-15 is used exceeds the applicable RF compliance level above, the AK-BPA-15 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the AK-BPA-15.
- Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3V/m.

Recommended separation distances between portable and mobile RF communications equipment and the EQUIPMENT or SYSTEM - for EQUIPMENT and SYSTEMS

Recommended separation distances between portable and mobile RF communications equipment and the AK-BPA-15.				
The AK-BPA-15 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the AK-BPA-15 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the AK-BPA-15 as recommended below, according to the maximum output power of the communications equipment.				
Rated maximum output of transmitter W	Separation distance according to frequency of transmitter			
	150 kHz to 80 MHz outside ISM and amateur radio bands d=[$\frac{3 \cdot 3}{E_1}$] $\sqrt{p}$	150 kHz to 80 MHz in ISM and amateur radio bands d=[$\frac{12}{E_1}$] $\sqrt{p}$	80 MHz to 800 MHz d=[$\frac{3 \cdot 3}{E_1}$] $\sqrt{p}$	800 MHz to 2.7 GHz d=[$\frac{12}{E_1}$] $\sqrt{p}$
0.01	0.12	0.20	0.035	0.07
0.1	0.38	0.63	0.11	0.22
1	1.2	2.00	0.35	0.70
10	3.8	6.32	1.10	2.21
100	12	20.00	3.5	7.0
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. Note 1: At 80 MHz and 800 MHz, the separation distance for 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.				

21. MANUFACTURER INFORMATION



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 Name: Shanghai International Holding Corp. GmbH (Europe)
Address: Eiffestrasse 80, 20537 Hamburg, Germany

12 Month Warranty

Thank you for your purchase.

Your new product is warrantied to be free from defects in materials and workmanship for the period stated above, from the date of purchase, provided that the product is used in accordance with accompanying recommendations or instructions where provided. This warranty is in addition to your rights under the Australian Consumer Law.

For New Zealand customers, this warranty is in addition to statutory rights observed under New Zealand legislation.

We will provide you with your choice of a refund, repair (where possible) or exchange (availability dependent) for this product if it becomes defective within the warranty period. The business will bear the reasonable expense of claiming the warranty.

This warranty will no longer apply where the defect is a result of alteration, accident, misuse, abuse or neglect.

Please retain your receipt as proof of purchase and contact our Customer Service Centre as listed below, for the entity you purchased this product from, for any difficulties with your product. Warranty claims and claims for expense incurred in returning this product can be addressed to the respective Customer Service Centre.

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Contact for Kmart purchases
Kmart Australia Ltd. C/- Customer Service Centre L2/1 Middle Road, Chadstone VIC 3148 Customer Service: 1800 124 125 (Australia) or 0800 945 995 (New Zealand) or via Customer Help at kmart.com.au
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