

Arm Blood Pressure Monitor User Manual



Model: AOJ-30A

Table of Contents

1. Unpacking Inspection.....	1
2. Packing List.....	1
3. Safety Precautions.....	2
4. Product Composition.....	3
5. Intended Use / Instructions for Use.....	3
6. Contraindication.....	3
7. Classification of BP (Blood Pressure).....	3
8. Product Parts.....	4
9. Preparation.....	5
10. Function Setting.....	6
11. How to Take Proper Measurements.....	9
12. Contraindications, Precautions, Warnings and Prompt Instructions.....	14
13. Common Q & A on Blood Pressure.....	18
14. Abnormal Phenomena and Handling.....	20
15. Cleaning and Disinfection.....	22
16. Upkeep and Maintenance.....	25
17. Specifications.....	25
18. Appendix 1 EMC Information.....	27

Thank you for purchasing this Arm Blood Pressure Monitor. The monitor can be used and store measurement results for two users. It uses the oscillometric method of blood pressure measurement. This means this monitor detects your blood movement through your brachial artery and converts the movements into a digital reading.

The device can be used in homecare environment, and the patient is an intended operator, and all the functions can be safely used.

1. Unpacking Inspection

Before use, please open the package carefully and check whether all the parts are available according to the following packing list and whether the parts are damaged during transportation, and then install and operate in strict accordance with the manual.

2. Packing List

No.	Name	Quantity
1	Arm Blood Pressure Monitor	1
2	Cuff 22-40 cm	1
3	Instruction Manual	1
4	Dry Battery"AAA"(optional)	4
5	Pouch	1
6	Quick start guide	1

3. Safety Precautions

The warnings and illustrations shown in the manual are intended to enable you to use the product safely and correctly, thus preventing harm to you and others, specific meanings of which are shown as follows:

Legend, mark and meaning	
	Warning information, refer to the attached document
	BF-type anti –shock degree for the application part
	Comply with local regulations
	Consult the instructions for use
	Keep dry
	Low voltage prompt
	Keep out of the sun
	Vertical upward
IP21	The device is protected against splashing water. Water splashed against the enclosure from any direction shall have no harmful effects.
RoHS	RoHS mark
CE₀₁₂₃	CE mark

	Manufacturer
	Date of manufacture
	Serial number
	Lot number
	EU authorized representative

4. Product Composition

This product is composed of the main body and cuff.

5. Intended Use / Instructions for Use

The Arm Blood Pressure Monitor is intended to measure the systolic pressure and diastolic pressure, as well as the pulse rate of adult person via non-invasive oscillometric technique at medical facilities or at home.

6. Contraindication

No known contraindication existing.

7. Classification of BP (Blood Pressure)

ACC/AHA 2017 Hypertension guidelines define categories of BP in adults as below.

Categories of BP in Adults*

BP Category	Systolic BP	Diastolic BP
Normal	< 120 mmHg	< 80 mmHg
Elevated	120 - 129 mmHg	< 80 mmHg
Hypertension Stage 1 Stage 2	130-139mmHg or ≥ 140 mmHg	80-89mmHg or ≥ 90 mmHg

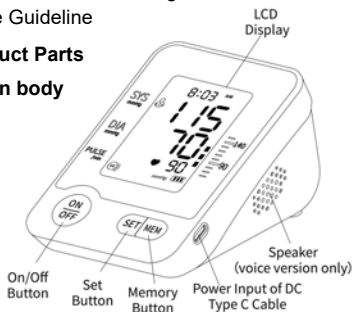
* Individuals with Systolic BP and Diastolic BP in 2

categories should be designated to the higher BP category.
BP indicates blood pressure (based on an average of ≥ 2 careful readings obtained on ≥ 2 occasions).

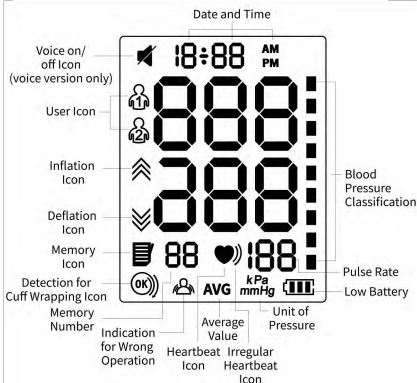
Source: ACC/AHA 2017 High Blood Pressure Clinical Practice Guideline

8. Product Parts

(1) Main body



(2) Display screen



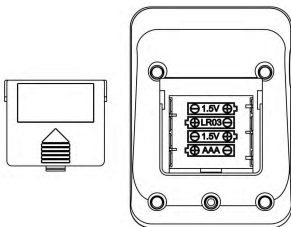
9. Preparation

(1) Install the battery

1) Open the battery cover according to the method shown in the figure.

2) Place 4 AAA dry batteries in the battery compartment, and pay attention to the electrode indication of the batteries.

Install the battery as indicated in the picture right under this sentence.



(2) Battery replacement



If the product is not used for a long time (over 3 months), please take out the batteries.

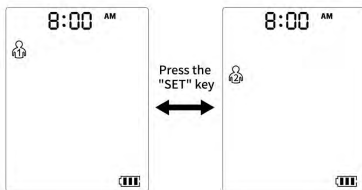
(3) Type C connection for power supply (The cable is optional)

The product power can be supplied by plugging into DC 5V external power supply through a Type C interface.

10. Function Setting

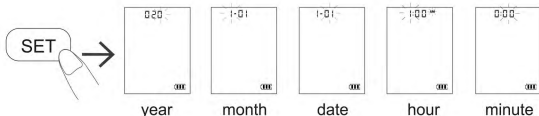
(1) User mode

In standby mode, press the "SET" button to enter the user group selection interface. Then press the "SET" button to switch and select user groups.



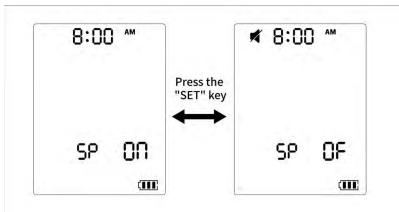
(2) Year/month/Date/setting

In standby mode, press "SET" for about 3 seconds to enter the date setting, and "year" will flash. Press "MEM" to adjust to the desired year, and then press "SET" to confirm the selection. When the "year" is set, it will automatically enter the month setting. At this time, the "month" icon will flash. You can switch to the desired value by pressing the "MEM" button. Follow the same step to set "date", "hour", and "minute".



(3) Voice on/off Setting (for voice version only, optional function)

1) After the time setting is finished, it will automatically enter the voice setting (the screen will display "SP"). Short press "memory" button to switch ON/OFF sound, "ON" means open voice, "OFF" means close voice, short press "set" button to confirm and select;



2) Voice broadcast content:

Attention, please!

Please keep silent and relax.

Keep the cuff at the heart level.

① If your blood pressure is in normal range :

Thank you.

Your blood pressure is:

Systolic pressure xxx millimeter of mercury pillar.

Diastolic pressure xx millimeter of mercury pillar.

Your pulse is xx beats per minute.

Measuring result is normal.

Thank you.

Wish you a good health.

② If your blood pressure is not in normal range:

Measuring result is abnormal.

Your blood pressure is high/low

Could not measure your pulse at this time.

③ Measuring error:

Error,(Mistake),Please measure again

④ Other operation:

Average Blood Pressure

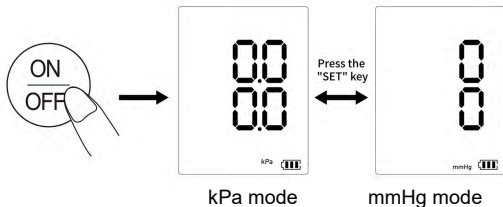
Last time your blood pressure was xxx, your pulse was xx

Low battery, please replace the battery

Low battery, please charge in time

(4) Unit display setting

In standby mode, keep pressing "ON/OFF" button for about 10 seconds to enter the unit selection, and press "MEM" to switch mmHg/kPa. Short press "SET" to confirm the selection;The default is mmHg before delivery.



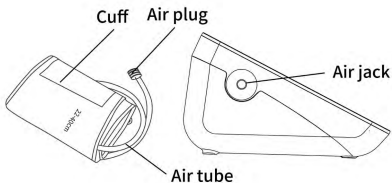
11. How to Take Proper Measurements

(1) Preparation before measurement

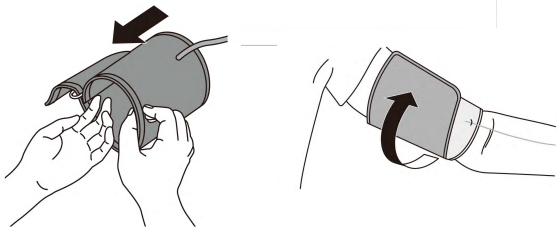
- Remove the clothing on the arm.
- Always measure in the same arm (generally the left arm).
- Remain still and keep quiet during measurement.
- Relax as much as possible and do not talk during measurement.
- Measure your blood pressure at about the same time every day.
- Do not measure right after physical exercise or a bath. Rest for 20 to 30 minutes before taking the measurement.
- Readings under the conditions listed below may affect results:
Within an hour after dinner, after having wine, coffee, tea, sports; talking, being nervous, being in unsteady mood, bending forward, moving, room temperature dramatically changing during measuring; inside a moving vehicle, repeated and continuous measuring.

(2) Applying the arm cuff

1) Connect the arm cuff to your monitor by inserting the air plug into the air jack securely.

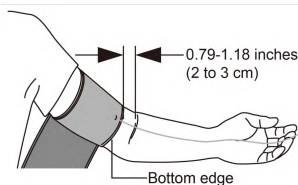


2) Place your hand through the cuff loop. Pull the cuff until it reaches your upper left arm.



Note

- The bottom edge of the arm cuff should be 0.79-1.18 inches (2 to 3 cm) above the inside elbow. The air tube is on the inside of your arm and aligned with your middle finger.



3) Make sure that the air tube is positioned on the inside of your arm and wrap the cuff securely, so it can not move around your arm.

4) To take a measurement on your right arm

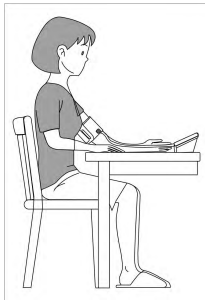
When you take a measurement on your right arm, the air tube should run along the side of your elbow, along the bottom of your arm. Be careful not to rest your arm on the air tube.

Note: Repeated measurement will result in blood congestion in the arm, which will affect the measurement result. How to improve: raise the left hand and hold the fist several times, or take off the cuff and rest for at least 2-3 minutes before taking the measurement.

(3) Sitting correctly

To take a measurement, you need to be relaxed and comfortably seated in a room with a comfortable temperature. Place your arm on the table.

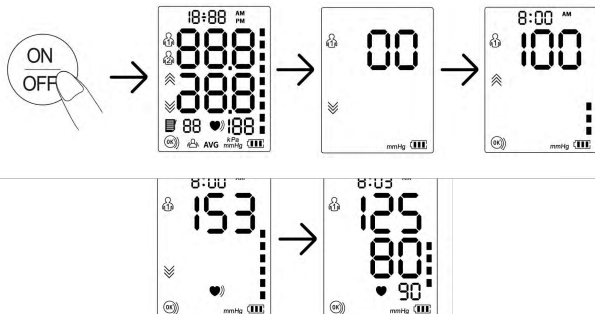
- Sit in a comfortable chair with your back and arm supported.
- Keep your feet flat and your legs uncrossed.
- The arm cuff should be placed on your arm at the same level as your heart, with the arm resting comfortably on a table.



(4) Taking a measurement

Start measurement after wearing the cuff:

Press the "ON/OFF" button and the monitor will begin to inflate. Please do not move or talk during the measurement.



Note: If you feel uncomfortable during the measurement, press the "ON/OFF" button immediately to stop measure. When the air pressure is filled to a certain value, the value on

the display screen will slowly drop at a certain speed, and the heartbeat symbol will flash. After the measurement is completed, the systolic pressure, diastolic pressure, and pulse measurements will be displayed on the screen.

Note: Consult your doctor if unexpected readings are obtained.

(5) Memory function

1) This monitor stores 99 sets of memories of two users. After each measurement, the monitor will automatically store the measurement data. When the memory is full, the old measurement data will be overfilled with the new one.

2) In standby mode, press the MEM button once and the machine will display the average value of the blood pressure measured for the first three times. Press the MEM button again, the first memory will be displayed. Press the MEM button again and the rest memories will be displayed one by one.

(6) Delete memory

Keep pressing the MEM button for 3 seconds to delete measurements stored on the device and the "  " icon will appear on the screen.

(7) Self check for cuff strap

The "  " icon is always displayed on the screen when the cuff is worn correctly. When the cuff is worn too loosely, the "  " icon will always flash to remind you. If the "  " icon

is flashing all the time, please press the "ON/OFF" button to stop the measurement.

(8) "Keep Still" indication

The "" icon flashes when the body moves during the measurement, which may cause incorrect measurement results. Please re-measure it.

12. Contraindications, Precautions, Warnings and Prompt Instructions

- No maintenance or servicing the monitor when using.
- The patient is an intended operator, and all the functions can be safely used.
- Do not operate when charging.
- Dispose of the monitor when its service life is reached. Follow local regulations regarding the disposal of such product.
- When the performance changes (such as: inaccurate measurement or abnormal display), please stop using it immediately and contact the after-sales service personnel in time.
- Do not leave the small parts where children can reach them. Children may swallow them. If a child accidentally swallows them, battery cover, please contact a doctor immediately.
- Maintenance should be done by the operator as suggested
- 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 this device, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

- When ambient temperature is less than 5°C or higher than 40°C, The time from minimum storage temperature to use is at least 1 hour; The time from maximum storage temperature is at least 2 hour.
- DO NOT use this monitor on infants, toddlers, children or persons who cannot express themselves.
- DO NOT adjust medication based on readings from this blood pressure monitor. Take medication as prescribed by your physician. ONLY a physician is qualified to diagnose and treat high blood pressure.
- DO NOT use this monitor on an injured arm or an arm under medical treatment.
- DO NOT apply the arm cuff on your arm while on an intravenous drip or blood transfusion.
- DO NOT use this monitor in areas containing high frequency (HF) surgical equipment, magnetic resonance imaging (MRI) equipment, computerized tomography (CT) scanners. This may result in incorrect operation of the monitor and/or cause an inaccurate reading.
- DO NOT use this monitor in oxygen rich environments or

near flammable gas.

- Consult with your physician before using this monitor if you have common arrhythmias such as atrial or ventricular premature beats or atrial fibrillation; arterial sclerosis; poor perfusion; diabetes; pregnancy; pre-eclampsia or renal disease. NOTE that any of these conditions in addition to patient motion, trembling, or shivering may affect the measurement reading.
- NEVER diagnose or treat yourself based on your readings. ALWAYS consult with your physician.
- To help avoid strangulation, keep the air tube and type C cable away from infants, toddlers and children.
- Stop using this monitor and consult with your physician if you experience skin irritation or discomfort.
- Consult with your physician before using this monitor on an arm where intravascular access or therapy, or an arterio-venous (A-V) shunt, is present because of temporary interference to blood flow which could result in injury.
- Consult with your physician before using this monitor if you have had a mastectomy.
- Consult with your physician before using this monitor if you have severe blood flow problems or blood disorders as cuff inflation can cause bruising.
- DO NOT take measurements more often than necessary because bruising, due to blood flow interference, may occur.

- ONLY inflate the arm cuff when it is applied on your upper arm.
- Remove the arm cuff if it does not start deflating during a measurement.
- DO NOT use this monitor for any purpose other than measuring blood pressure.
- DO NOT disassemble or attempt to repair this monitor or other components. This may cause an inaccurate reading.
- DO NOT use in a location where there is moisture or a risk of water splashing this monitor. This may damage this monitor.
- DO NOT use this monitor in a moving vehicle such as in a car.
- DO NOT drop or subject this monitor to strong shocks or vibrations.
- DO NOT use this monitor in places with high or low humidity or high or low temperatures.
- 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 equipment could result in increased electromagnetic

emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

13. Common Q & A on Blood Pressure

Q1. Why is the blood pressure measured at home lower than that measured in hospitals?

1) Blood pressure measured at home is 20 mmHg-30 mmHg (2.7 kPa - 4.0 kPa) lower than that measured in hospitals. It is because people are nervous when measured in hospitals, while they tend to be in a stable mood when measured at home. It is important to understand the normal blood pressure when you are at home.

2) If the cuff is placed in a position above the heart, the measured blood pressure is low, so please measure in the correct posture.

Q2. Why is the blood pressure measured at home higher than that measured in hospitals?

1) The anti-hypertensive drugs lose the efficacy.

→Please accept the doctor's instruction.

2) The cuff is not twined correctly.

If the cuff position is wrong, no arterial signal will be caught, and the measured blood pressure value will be higher.

→Please confirm whether the cuff position is correct.

3) The cuff is rolled too loose.

If the cuff is rolled too loose, the compression force might fail

to be transmitted to the artery, resulting that the measured blood pressure value is higher than the actual value.

→ Adjust the gap between the arm and the cuff and tighten the cuff.

4) The posture is incorrect when measurement.

If bending down, sitting cross-legged or bending over the sofa or low table when measurement, the blood pressure might be increased due to the abdominal pressure or due to the arm position lower than the heart.

→ Please make measurement in correct posture.

Q3. When will the measurement be better?

Please make measurement in the morning after you get up to urinate or when your body and mood are in stable state. It is better to make measurement at the same time every day.

Q4. Why the blood pressure value measured each time is different?

1) When systole each time, the blood pressure will change to some extent. For example, a person with the pulse of 70 beats per minute will have 100,800 blood pressure changes every day. Because the blood pressure is constantly changing, it is difficult to obtain the correct blood pressure value by measurement only once. Please make measurement for 2~3 times. The first measurement will generally be higher due to nervousness or inadequate preparation, and then when the second measurement, the nervous emotion will be slightly

alleviated, so generally, the second measurement will be 5mmHg-10mmHg (0.7kPa-1.3kPa) lower than the first time. This will be more obvious for those with higher blood pressure.

--When continuous measurement, please note that:

There might be extravasated blood because the arm is compressed, resulting that the finger tip blood does not flow smoothly. If you continue the measurement in case of extravasated blood, you cannot obtain the correct measured value. Loosen the arm band, raise your hand over the head, and grasp and stretch your left and right palms for 15 times repeatedly. Then the extravasated blood can be dissolved, and you can continue the blood pressure measurement.

2) Cuff position and twining method. The measured value varies with the cuff size. Particularly, if the cuff is twined round the elbow, you cannot obtain the correct measured value.

--Please use the correct cuff twining method for measurement. The arm circumference range of the enclosed cuff is 22~40cm (center of the upper arm). If the model is inconsistent, please purchase separately.

14. Abnormal Phenomena and Handling

* When the measurement is abnormal, the following symbols will appear. Please use the correct method for measurement.

LCD display information	Remark
-------------------------	--------

Er U	The inflation can not reach 30 mmHg in 12 seconds.
Er H	The inflation reaches 295mmHg, it deflates automatically after 20ms.
Er 1	The pulse rate is not detected correctly.
Er 2	Too much disturbance (Move, talk, or magnetic disturbance during a measurement.)
Er 3	The test result is abnormal.
ERR23	SYS value reads lower than 57mmHg
ERR24	SYS value reads higher than 255mmHg
ERR25	DIA value reads lower than 25mmHg
ERR26	DIA value reads higher than 195mmHg

***Troubleshooting**

Anomaly	Inspection Items	Countermeasures
There is no display after the power switch is pressed	Whether the battery power is insufficient	Replace the battery or insert the USB for charging
	Whether positive and negative poles of the battery are installed reversely	Install in the positive and negative pole direction of battery

No pressurizing	Whether the air tube plug is inserted tightly	Insert the air tube plug firmly into the jack
	Whether the air tube is broken or leaked?	Purchase a new cuff
Unable to measure due to display error	Whether the arm is moved when pressurization	Keep your arm and body still static
	Whether you talk during measurement	Keep quiet while measuring the blood pressure
Air leakage of cuff	Whether the cuff is twined too loose	Please tighten the cuff
	Whether the air bag of cuff is ruptured	Replace with new cuff
 If the blood pressure still cannot be measured normally by the above methods, please contact the vendor. Please do not disassemble it by yourself!		

15. Cleaning and Disinfection

15.1 Cleaning

- 1) Remove the batteries before cleaning.
- 2) The body of monitor can be cleaned with a clean soft cloth.

3) The body can be wiped with a clean soft cloth stained with a small amount of neutral detergent or water.



Do not use any corrosive cleaning agent. When cleaning, be careful not to immerse any part of the monitor to avoid liquid flow into the instrument.



It is suggested to clean once every week. Complete the cleaning in 3min each time. The number of repeated cleaning each time shall not exceed 3 times.

15.2 Disinfection

Recommended disinfecting agent:

Isopropanol solution with 70% concentration

Disinfection steps:

1) Wipe the machine body with a clean soft cloth stained with a small amount of the above disinfectant, and dry it immediately.

2) The body of the monitor can be wiped with a clean cloth stained with a small amount of 75% medical alcohol for disinfection.



Do not disinfect by such method as high temperature steam or ultraviolet irradiation, which might damage the instrument or accelerate the aging!

It is suggested to disinfect the monitor before and after use each time. Each time of disinfection shall be completed within 1min. The number of repeated disinfection each time shall not exceed 2 times.



Cleaning and disinfection shall be carried out in the following environment: temperature: $+5^{\circ}\text{C} \sim +40^{\circ}\text{C}$ ($50^{\circ}\text{F} - 104^{\circ}\text{F}$), relative humidity: 15%~80%RH, non-condensing, atmospheric pressure: 70kPa~106 kPa.

15.3 Disposal

Dispose of your monitor, other components and optional accessories according to applicable local regulations. Unlawful disposal may cause environmental pollution.

Notes

- Do not bend or crease the air tube excessively.
- Do not store your monitor and other components:
- If your monitor and other components are wet.
- In locations exposed to extreme temperatures, humidity, direct sunlight, dust or corrosive vapors such as bleach.

- In locations exposed to vibrations or shocks.

16. Upkeep and Maintenance



water or neutral detergent



- Always keep the surface of monitor clean and tidy, helpful to prolong the service life of Blood Pressure Monitor.
- If the host is dirty, please wipe with a dry soft cloth. If the dirt cannot be eliminated easily, wipe with a soft cloth stained with water or neutral detergent, and then dry with a dry cloth.
- No maintenance or maintenance required when using the device.



Do not allow water or other liquids to flow into the host.

17. Specifications

Display mode	LCD display
Measuring method	Oscillometric Measurement
Measuring part	Upper arm
Pneumatic pressure measuring range	0~295 mmHg

Overpressure protection limit Adult	300 mmHg	
Measuring range	Pressure value	SYS: 57-255 mmHg; DIA: 25-195 mmHg;
	Pulse rate	40-199 bpm
Accuracy	Pressure value	±3 mmHg
	Pulse rate	±5 bpm
Low battery	4.2V±0.1V: low battery; <4.0V±0.1V: item will be turned off	
Anti Electronic Shock Type	Internally Power Supply	
Auto power-off	1 minute without operation	
Power source	4xAAA DC6V or DC5V type C cable	
Anti Electronic Shock Degree	Type BF	
Operation mode	Continuous operation	
Protection against harmful ingress of water or particular matter	IP21	
Item weight	About 262g±5g, (excluding batteries)	
Dimension	127mm(length)*93(width)* 73mm(height)	
Screen size	53mm(length)* 68mm(width) 3.4 inches	
Cuff size	22-40 cm	
Service life	5 years	
Protection against electric shock	Internally powered supply	

Operating environment	Temperature condition	5℃-40℃	If stored or used beyond the designated temperature and humidity range, it will not be used properly
	Humidity condition	15%-90%RH	
	Atmospheric condition	70kPa-106kPa	
Transportation and Storage Environment	Avoid strong impact, direct impact, exposure or rain during transportation. The packaged Blood Pressure Monitor shall be stored indoors at the temperature of -20℃~55℃ and the relative humidity of 10%~93% ,atmospheric Condition: 70kPa-106kPa. without corrosive gas and with good ventilation.		

18. Appendix 1 EMC Information

Guidance and manufacturer's declaration - Electromagnetic emission

Arm Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user of the Model AOJ-30A Arm Blood Pressure Monitor should assure that it is used in such an environment.

Emissions	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11	Group 1	The Arm Blood Pressure Monitor 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 rm Arm Blood Pressure Monitor 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 IEC61000-3-2	N.A.	
Voltage fluctuations/flicker emissions IEC61000-3-3	N.A.	

Guidance and manufacturer's declaration

- Electromagnetic immunity

The Arm Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user of Arm Blood Pressure Monitor 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 %.

Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	30A/m, 50/60Hz	30A/m, 50/60Hz	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			
The Arm Blood Pressure Monitor is intended for use in the electromagnetic environment specified below. The customer or the user of the Arm Blood Pressure Monitor should assure that it is used in such an environment.			
Immunity test	IEC 60601 test level	Compliance level	Electromagnetic environment -guidance
Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHz 6 Vrms 150 kHz to 80 MHz outside ISM bands	N/A	Portable and mobile RF communications equipment should be used no closer to any part of Arm Blood Pressure Monitor, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance $d = \left[\frac{3.5}{V1} \right] \sqrt{P}$

Radiated RF IEC 61000-4-3	10 V/m 80 MHz to 2.7 GHz	10 V/m	$d = \left[\frac{3.5}{E1} \right] \sqrt{P}$ 80MHz to 800MHz $d = \left[\frac{7}{E1} \right] \sqrt{P}$ 800MHz to 2.7GHz 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 is affected by absorption and reflection from structures, objects and people.			
a The ISM (industrial, scientific and medical) bands between 0,15 MHz and 80 MHz are 6,765 MHz to 6,795 MHz; 13,553 MHz to 13,567 MHz; 26,957 MHz to 27,283MHz; 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, 7MHz to 7,3 MHz, 10,1 MHz to 10,15 MHz, 14 MHz to 14,2 MHz, 18,07 MHz to 18,17MHz, 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.			

b The compliance levels in the ISM frequency bands between 150 kHz and 80 MHz and in the frequency range 80 MHz to 2,7 GHz are intended to decrease the likelihood that mobile/portable communications equipment could cause interference if it is inadvertently brought into patient areas. For this reason, an additional factor of 10/3 has been incorporated into the formula used in calculating the recommended separation distance for transmitters in these frequency ranges.

c 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 models Arm Blood Pressure Monitor is used exceeds the applicable RF compliance level above, the 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 Arm Blood Pressure Monitor.

d Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Test Frequency (MHz)	Band ^a (MHz)	Service ^{a)}	Modulation ^{b)}	Max. power (W)	Distance	Immunity Test Level (V/m)
385	380-390	TETRA 400	Pulse modulation ^{b)} 18 Hz	1.8	0.3	27
450	430-470	GMRS 460, FRS 460	FM c)	2	0.3	28
710	704-787	LTE Band 13,17	Pulse modulation ^{b)} 217 Hz	0.2	0.3	9
745						
780						

810	800-960	GSM 800/900, TETRA 800, iDEN 820, CDMA 850, LTE Band 5	Pulse modulation ^{n b)} 18 Hz	2	0.3	28
870						
930						
1720	1700-1990	GSM 1800; CDMA 1900; GSM 1900; DECT; 820, LTE Band 1,3,4,25; UMTS	Pulse modulation ^{n b)} 217 Hz	2	0.3	28
1845						
1970						
2450	2400-2570	Bluetooth, WLAN, 802.11b/g/n, RFID 2450, LTE Band 7	Pulse modulation ^{n b)} 217 Hz	2	0.3	28
5240	5100-5800	WLAN 802.11a/n	Pulse modulation ^{n b)} 217 Hz	0.2	0.3	9
5500						
5785						

NOTE If necessary to achieve the IMMUNITY TEST LEVEL, the distance between the transmitting antenna and the MEEQUIPMENT or ME SYSTEM may be reduced to 1m. The 1 m test distance is permitted by IEC 61000-4-3.

- a) For some services, only the uplink frequencies are included.
- b) The carrier shall be modulated using a 50% duty cycle square wave signal.
- c) As an alternative to FM modulation, 50% pulse modulation at 18Hz may be used because while it does not represent actual modulation, it would be worst case.

Recommended separation distances between portable and mobile RF communications equipment and Arm Blood Pressure Monitor

The Arm Blood Pressure Monitor is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the models Arm Blood Pressure Monitor can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the models Arm Blood Pressure Monitor as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = \left[\frac{3.5}{\sqrt{f}} \right] \sqrt{P}$	80 MHz to 800 MHz $d = \left[\frac{3.5}{\sqrt{f}} \right] \sqrt{P}$	800 MHz to 2.7 GHz $d = \left[\frac{7}{\sqrt{f}} \right] \sqrt{P}$
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 transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (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.



Shenzhen AOJ Medical Technology Co., Ltd

Room 301&4F, Block A, Building A, Jingfa Intelligent Manufacturing
Park, Xiaweyuan, Gushu Community, Xixiang Street, Bao'an District,
518126 Shenzhen, PEOPLE'S REPUBLIC OF CHINA

Email : info@aojmedical.com

Website : <https://www.aojmedical.com>

Tel : 86-755-2778 6026



Share Info Consultant Service LLC Repräsentanzbüro

Address: Heerdter Lohweg 83, 40549 Düsseldorf

Tel:0049 17670057022

E-mail: EU-Rep@share-info.com



Manual version: A0

Software version: V1.0

Revision date: 2021-09

AOJ-WI-30A-0007