JKOM

Physical Wellness Analyzer

Shenzhen Huada JKOM Technology Co., Ltd

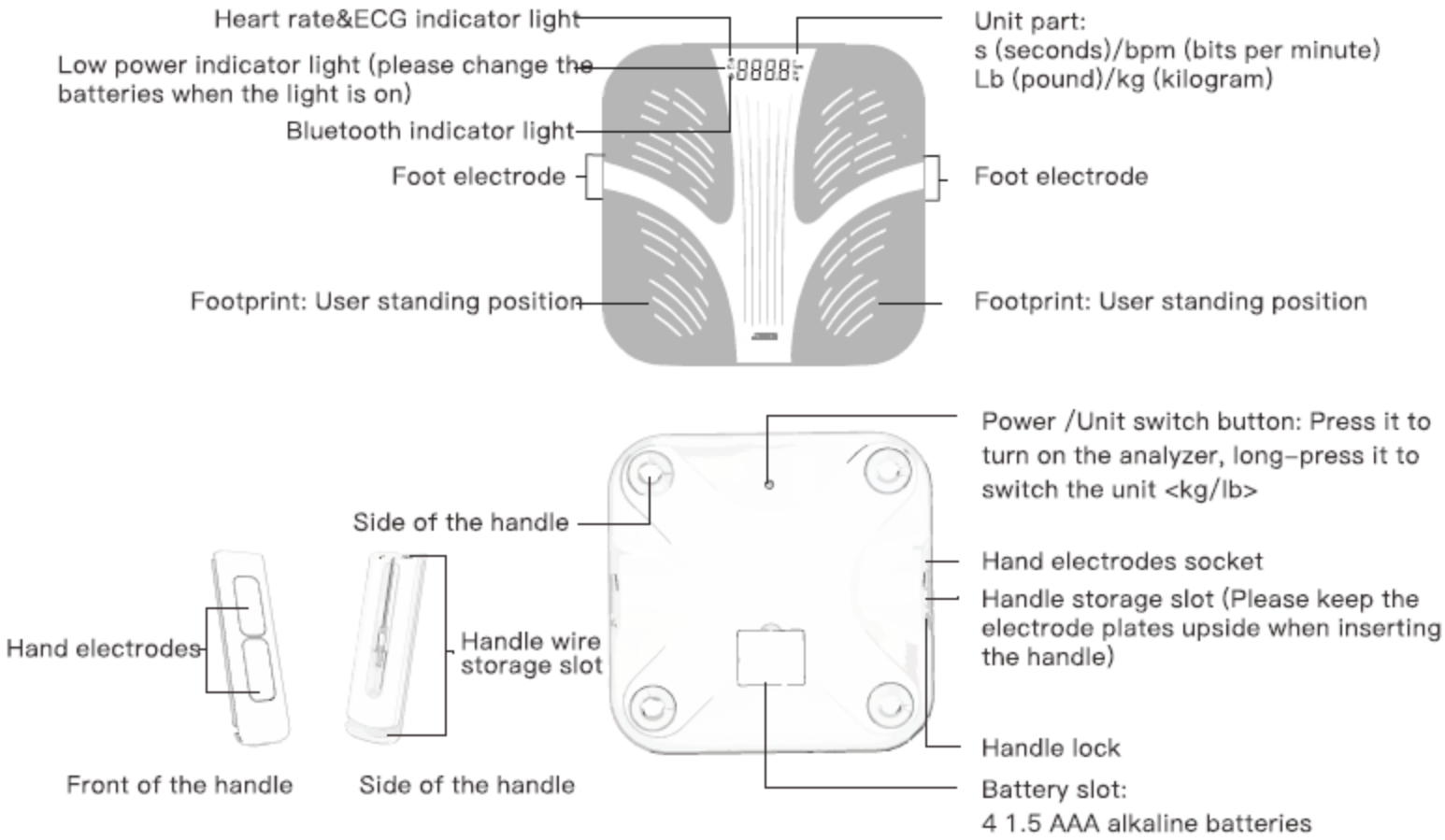
NOTICE

NEVER use the device together with the following electronic medical instruments:

1. Cardiac pacemaker and other implanted medical devices
2. Artificial heart and other medical electronic equipment that used to support life
3. ECG machine and other wearable electronic instruments

Correct standing position

Product Structure



Product Function Introduction

ECG&Heart rate

Real-time ECG, Heart rate abnormality determination, HRV report generation

Stand by single leg and with eyes closed

Measure the strength of your balance

Body composition analysis

Measuring the main composition and related parameters of the body.
Analyzing the segment composition.
Determining the body type, analyzing the edema state.

Heart rate&ECG measurement

Measuring method

1. Press the handle lock on both sides of the instrument, take out the handle, open the electrode line, insert the hand electrode plug into the electrode line jack on both sides of the analyzer.

2. Turn on the Bluetooth, open the APP, select a member, gently step the analyzer or press the Power/unit switch button to turn on the analyzer.

3. After Bluetooth connection, the Bluetooth indicator light is on. Click the ECG&heart rate test button and start the test.

4. The tester should remain in a sitting position with the handle attached to your palms, hands detached from your body, your arms can be placed on the support and please keep the breathing stable.

5. After the test start, the real-time ECG will show on the APP in 5 seconds. Note: At this point there is no result during the test. The existing position should be maintained and please continue testing for 2 minutes.

6. The real-time ECG of the tester can be viewed on the APP, and the test report can be viewed after the measurement is completed.

7. When the test fails, it may be that the handle is not properly held or the test position is incorrect. At this point you can exit the test and restart the test until the device is in standby mode.

When the test is completed, please wind the handle line around the handle and insert into the handle storage tank at the two sides of the analyzer.

Measurement result

1. Real-time heart rate test
2. Draw the real-time ECG, as shown below:

3. Through the analysis of ECG, the ECG abnormal report was formed.

Arrhythmia: The frequency and/or rhythm of heart beats are abnormal due to the origin and/or transmission of heart activity. Arrhythmia is an important group of cardiovascular diseases. It can be isolated on its own and can be associated with cardiovascular disease. The symptoms are also associated with breathing exercises, which are common in children, young people and the elderly.

Tachycardia: Heart rate exceeds normal range. Normal strenuous physical exercise, drinking, heavy physical labor, emotional or taking certain drugs may cause physiological tachycardia, and cardiovascular disease, anemia, hypoxia, hyperthyroidism and other diseases can cause pathological tachycardia.

Bradycardia: It is seen in strong young people, athletes, old people or in sleeping, can also be seen in sinus node dysfunction, hypothyroidism, increased intracranial pressure, when taking certain drugs and so on.

Cardiac arrest: It is found in the vagus nerve, elevated tension, carotid sinus sensitivity, acute myocardial infarction, sinoatrial node degeneration and fibrosis, and cerebrovascular accident, also seen in taking certain drugs.

Cardiac leak: It is related to the increase of vagus nerve tension, which can be seen in normal people or athletes. It can also be found in acute myocardial infarction, coronary artery spasm, myocarditis, sinoatrial node degeneration and fibrosis, cerebrovascular accident and so on.

Ventricular premature beat: It is found in healthy people and people with heart disease which manifested as asymptomatic, mild palpitation discomfort, syncope or amaurosis.

4. By analyzing the ECG, a HRV report is formed.

HRV report sample: Your health is not good. Please refer to the following suggestions for a combination of work, proper exercise, scientific diet and adequate sleep to improve your physical fitness. Because your parasympathetic nervous system is too active, you will feel muscle weak, psych asthenia, sedentary, melancholy and lost interest in everything. It is recommended that you exercise more, take part in outdoor activities to improve the motivation and excitability of the body. When you are bored, you can do your breath training to adjust your body and mind.

At present, your mental pressure is low, you can increase sports and recreational activities appropriately. Take some time to practice playing chess and painting, and go outdoors to get in contact with nature and different people. By making life more abundant, you can live better.

Your fatigue index is low. In the present state, you can increase your physical activity or exercise to improve your work schedule, but remember not to overdo it.

Purpose and significance of measurement:

1. Because it can analyze arrhythmia, bradycardia, cardiac arrest, cardiac leak and so on, it can be used for cardiac monitoring. It has positive significance for early detection of heart disease.

2. Generate the HRV report. A comprehensive assessment of the tester's parasympathetic-parasympathetic balance, stress index, fatigue index, body load index, body mass index, and the age of cardiac function was performed. It can keep the tester aware of his mental and physical stress, and provide comprehensive theory and data information to help us develop healthy habits.

Measurement methods and principles:

The action of the heart muscle cell produces a certain electrical signal. And the electrical signal is transmitted to the body surface. This electrical signal can be picked up by electrodes touching the body surface. The waveform of electrocardiogram can be reconstructed by the collection of a large number of electrical signals. And through the analysis of P wave, QRS wave group, T wave and waveform in the electrocardiogram, the conclusion of pathological and psychological problems was obtained.

Body composition analysis

Measuring method

1. Press the handle lock on both sides of the instrument, take out the handle, open the electrode line, insert the hand electrode plug into the electrode line jack on both sides of the analyzer.

2. Turn on the Bluetooth, open the APP, select a member, and gently step the analyzer to turn it on.

3. Open the physical examination page, select body composition analysis, click "Start measuring", the Bluetooth indicator light will be on after chosen a device.

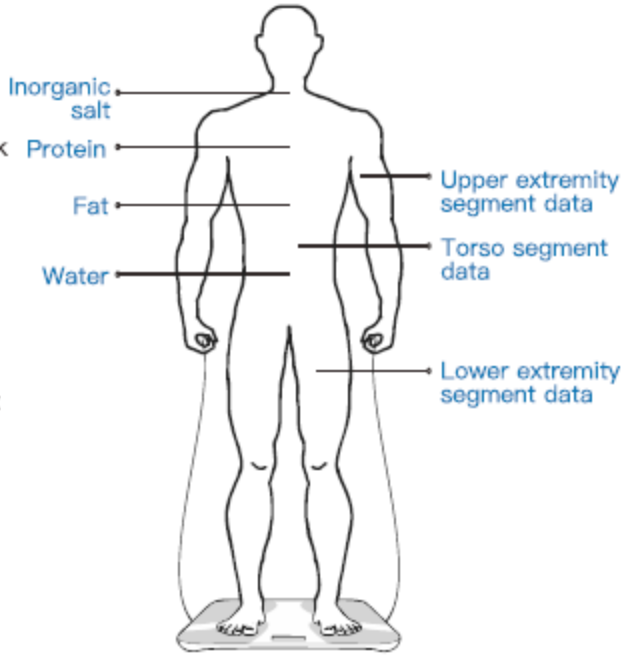
4. The tester stood on the instrument, standing on foot electrodes, hands gripping the handle on the sides of his body, his arms about 20 degrees, and trying to keep his body still.

5. The progress will show on the analyzer display. The tester will enter the test status after the weight displayed. When the screen shows "YES", the test is completed.

6. When the display shows "EEr", the test is not passed. it may be that the handle is not properly held or the bare feet are not on the electrodes. At this point you can exit the test and restart the test until the device is in standby mode.

7. Users can check the measurement result on APP.

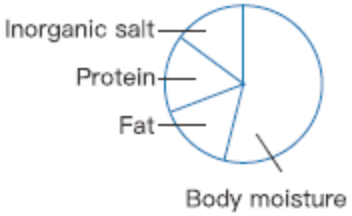
8. When the test is completed, please wind the handle line around the handle and insert into the handle storage tank at the two sides of the analyzer.

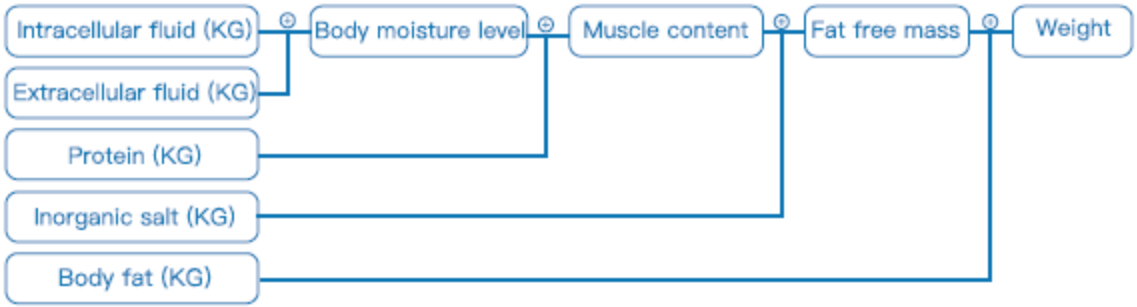


Measurement result

1. Weight
2. Lean body mass
3. Lean body mass lower limit value
4. Lean body mass upper limit value
5. Muscle
6. Muscle lower limit value
7. Muscle upper limit value
8. Protein
9. Protein lower limit value
10. Protein upper limit value
11. Bone
12. Bone lower limit
13. Bone upper limit
14. Total body moisture
15. Total body moisture lower limit value
16. Total body moisture upper limit value
17. Skeletal muscle
18. Skeletal muscle lower limit value
19. Skeletal muscle upper limit value
20. Fat
21. Fat lower limit
22. Fat upper limit
23. Percentage of body fat
24. Percentage of body fat lower limit value
25. Percentage of body fat upper limit value
26. Body mass index (BMI)
27. Body mass index (BMI) lower limit value
28. Body mass index (BMI) upper limit value
29. Visceral fat index (VFI)
30. Basal metabolic rate (BMR)
31. Standard weight
32. Standard weight lower limit
33. Standard weight upper limit
34. Weight control
35. Fat control
26. Physical age
37. Fat content of right upper extremity
38. Muscle content of right upper extremity
39. Bone weight of right upper extremity
40. Fat content of left upper extremity
41. Muscle content of left upper extremity
42. Bone weight of left upper extremity
43. Fat content of torso
44. Muscle content of torso
45. Bone weight of torso
46. Fat content of right lower extremity
47. Muscle content of right lower extremity
48. Bone weight of right lower extremity
49. Fat content of left lower extremity
50. Muscle content of left lower extremity
51. Bone weight of left lower extremity
52. Edema coefficient
54. Waist–hip ratio
54. Body type determine
55. Health score

Body composition





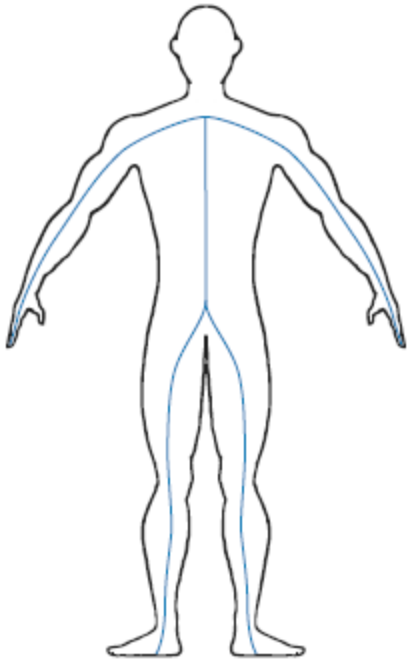
Purpose and significance of measurement:

1. Because the segmental components can be measured, the user can not only understand the changes in the body composition, but also detect the changes in the composition of the various segments.

2. Using different frequencies of excitation signals can not only measure the total body water, but also measure the extracellular fluid. Therefore, the edema coefficient of the tester can be obtained. By the coefficient of edema, we can see that water participates in the metabolic process.

3. By measuring the protein, the tester can keep abreast of his nutritional status.

4. By measuring bone, the user can always know if there is a risk of osteoporosis. Due to its rich data, it can be widely used in physical examination, physical fitness, nutrition, rehabilitation, beauty, sports medicine, scientific research and other fields.



Voltage output and current input diagram

Principle of measurement:

The measurement method used in this product is bio-electrical impedance analysis (BIA). The principle is to load alternating current signals of different frequencies as excitation signal to the measuring position. This excitation signal will generate corresponding electrical impedance in the measured part. By measuring the electrical impedance, the main composition of the measured part are calculated. The frequency of the excitation signal used in this product is 50khz and 150khz. Through 8 electrodes and multi-channel switches, the electrical impedance of multiple parts of the body can be measured. This method can not only accurately and reliably analyze the main composition of the body, but also can realize the precise quantitative analysis of the segment composition.

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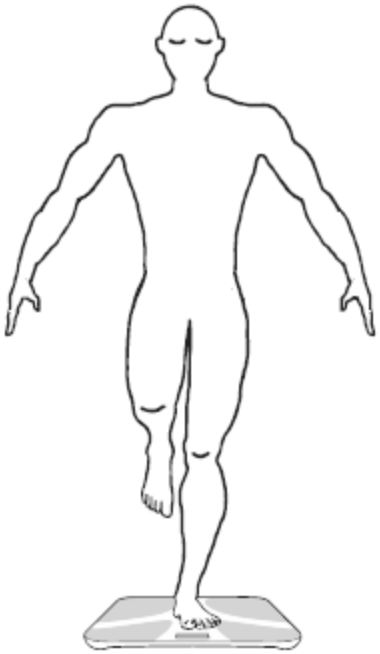
Stand on single foot with eyes closed

NOTICE:

This project is not recommended for people over 59 years old.



Measuring method

1. Turn on the Bluetooth, open the APP, select a member, and gently step the analyzer to turn it on.

2. Click stand on single foot with eyes closed test item to start the test. The Bluetooth indicator light will be on after chosen a device.

3. The tester stands on one foot on the analyzer, raises the other foot, then closes the eyes, and the analyzer starts timing until the lifting foot falls or standing foot shakes or moves out of the test area.

4. After the test complete, the measuring time, score and result feedback will show on the APP. You can also check National Physique Health System – Stand on Single Foot with Eyes Closed – Standard Time Measurement Table.

Measurement result

Time of standing on single foot with eyes closed.

Purpose and significance of measurement:

When you close your eyes and stand on one foot, the body does not have any visual reference. It relies only on the balance of the brain's vestibular apparatus and the coordinated movements of the whole body muscles to maintain the balance of the body. Therefore, this test can fully reflect the balance ability of the human body and the muscle strength and coordination of the lower extremities, and can be used as a basis for judging the quality of the body.

Measurement methods and principles:

This test can help people know their balance ability by measuring how long a person can keep standing when the human body is in the absence of any visual reference, and can only rely on the brain vestibular organs of balance receptor and coordinated movements of muscles. The shorter the time is , the lower the score, the worse the balance, and the poorer the physical quality is.

Applicable crowd description

The following persons may not be able to have a correct measurement of the body fat rate and other indicators, which is because their body water content and other body composition condition data differs a lot from the average value.

1. Growing children (Under 7 years old)
2. Senior citizens (Over 80 years old)
3. Patients suffering from a fever which was caused by a cold or other etiology
4. Pregnant women
5. Osteoporosis patients with very low bone density
6. Patients with edema disease, dialysis patient, persons who is professional in fitness or sport(or similar persons)

Device maintenance

In order to keep your body composition analyzer in its best condition, please protect the equipment from damage and follow these guidelines:

1. Clean the analyzer with a soft, dry cloth, and do not use abrasive or volatile cleaners.

2. Put the analyzer in a safe and dry place, and dry the water before storing it.

3. Do NOT expose the analyzer to direct sunlight or extreme hot/cold/humid environment.

4. Please do not disassemble or repair the equipment. Any change or repair that has not been approved by the manufacturer will void the warranty.

5. Do not let the analyzer be hit hard, such as dropping it on the floor.

6. Do not overwhelm the equipment or any components in the water.

Measuring time

Try to measure at the same time and under the same conditions every day. This will remove interference and correctly observe the physical changes in body composition.

1 hour after getting up

1 hour before going to bed

1 hour after three meals

*Please try Not to do measuring under the following circumstance (to avoid the impact of measurement data accuracy)

After bath or sauna

In a fever

After over-drinking

After having a lot of water

After the strenuous exercise

After overeating

Safety precautions

1. Please place the analyzer on a steady, hard floor. Do NOT place the analyzer on the surface of the soft mat floor, such as a carpet or mat, or it will affect the accuracy of the measurement.

2. Please do NOT touch the surface of the analyzer with other electrical conductors. And please avoid using it in electromagnetic environment.

3. Please do NOT use it when it's under direct sunlight or high temperature. And please avoid using it in the outdoors.

4. Please do NOT place the sundries on the surface of the analyzer when it's not in use.

5. For the first time or first test after moving the analyzer, will be automatically debugged, the weighing data is biased (will include the weight of the product itself). After the shutdown please weigh again, accurate and consistent data can be obtained.

6. User with disabilities or physical inactivity should be assisted by other people, or by using a walker, handrail, or other support equipment to prevent them from toppling and falling when stepping on/off the analyzer.

7. Do NOT step on the edge or display area of the analyzer, otherwise it may cause the analyzer to rollover or damage to the display unit.

8. Please keep it properly, pay attention to maintenance and avoid contact with fire, etc.

9. After use, please clean the instrument surface a soft wipe to extend the service life.

10. Please do NOT disassemble any part of the device except the battery cover. Please replace all of the 4 batteries together when lack of power. If the device is not used for more than three months, please remove the battery. Do NOT expose the battery to the flame. If the battery fluid leaks and comes into contact with your eyes, skin or clothing, rinse with plenty of water immediately and seek medical attention as soon as necessary.

Product specifications

Product name	Body composition smart analyzer
Product model number	JKOM DOCTOR
Product function	Body composition analysis + Heart rate&ECG + Stand by single leg and with eyes closed
Product parameters	Display unit: kg, lb, s, bpm Material: Aircraft-grade super white tempered glass Weight measurement range: 3kg~180kg Weight measurement accuracy: 0.5%; Resolution: 0.1kg Impedance measurement range: 100~2000 ohm Impedance measurement accuracy: 2.0% Numbers of electrodes: 8 (Hand electrodes:4, Foot electrodes:4)
Technical parameters	Excitation signal of multiple frequency: Yes (50khz/150khz) Excitation current: 90uA Platform: H1705-BLE LED: 3.21 inch 37 digital tube displays Flash: 256KB Memory: 16KB Bluetooth: BLE4.1 or above version ECG lead number: 2 leads Standby duration: 7200 hours
Operational environment	Temperature +5~+35℃, Relative humidity 30~80%RH
Preserving environment	Temperature -10~+60℃, Relative humidity 10~95%RH Well ventilated, dry room with no corrosive gas in the surrounding air
Power	4pcs 1.5 AAA batteries
APP language	Chinese Simplified, Chinese Traditional, English, Japanese, Korean, French, Italian, Russian, Spanish, Arabic
Size and weight of the machine	324mm×324mm×29mm 2.3kg
Operation system adaptation	Equipped with Bluetooth 4.1 and above module iOS 8.0 and above operating system Android 4.3 and above operating system
Package list	Body composition smart analyzer × 1, User instruction manual × 1 (with warranty card), 1.5V AAA batteries × 4, Non-woven bag × 1

Safety standards

Harmful toxic substances or element names and content indication							
Part name		Harmful toxic substances					
		Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr VI)	Polybrominated diphenyl ether (PBDE)	Polybrominated biphenyls (PBB)
Main machine	Main board	○	○	○	○	○	○
	Chassis	○	○	○	○	○	○
	Hardware	○	○	○	○	○	○
Battery		○	○	○	○	○	○
Instruction manual		○	○	○	○	○	○
Non-woven bag		○	○	○	○	○	○
Package accessories		○	○	○	○	○	○
○: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.							
×: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is over the relevant threshold of the SJ/T11363-2006 standard.							

Environment-friendly use period

This symbol means of the deadline (10 years) that the electronic information products contained in the toxic and hazardous substances or elements under normal conditions of use will not occur outside the leak or conflict, the user will not use the electronic information products on the environment caused serious pollution or serious damage to their personal and property.

After-sale guarantee

During the quality guarantee period (within one year from the date of purchase), if there is a failure happened under proper operation and maintenance, the company is responsible for free maintenance.

Please call the dealer or 86-0755-26977699, fill out the warranty card and send it together.

The user shall be responsible for all the expenses (including transportation, spare parts, maintenance and other cost) incurred in the following situations

1. Failure or damage caused by operation against the instructions.

2. Failure or damage caused by unauthorized alteration or improper repair.

3. Failure or damage caused by man-made fault such as drop the product on the ground.

4. Failure or damage caused by irresistible natural disasters such as fire, flood, earthquake, thunder, etc.

5. Failure or damage caused by an abnormal voltage or current during use

6. Did not fill in purchase date, purchase channels or alter the words on the warranty card.

7. Other abnormal conditions not mentioned in this instruction.

If the product needs to be returned for repairing, the user will pay the return freight and attach the purchase certificate, including warranty card, your name, address, contact number and detail description of the problem. Please pack the item carefully to prevent damage during transportation. Because of the possible loss in the transportation process, we recommend that the products be covered by insurance. Check out service information can also be obtained on our website www.hdjkom.com.

Warranty card

Thank you for choosing Huada JKOM product. Please fill in the following information, we'll provide you the following maintenance support:

Name		Phone number	
E-mail		Purchasing date	
Vendor name		Product model number	

Maintenance record							
First time	Fault phenomenon	Fault cause	Correction content	Second time	Fault phenomenon	Fault cause	Correction content
	Repair date	Maintenance personnel signature			Repair date	Maintenance personnel signature	

Certification

Model number	JKOM DOCTOR
Name	Physical Wellness Analyzer
Inspectors	
Date	

Customer service hotline

0755-26977699

Dr. JKOM APP

Official Accounts

Shenzhen Huada JKOM Technology Co., Ltd

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2502A, Haisong Building A, Tairan 9 road, Chegongmiao, Futian district, Shenzhen

FCC Caution.

FCC Caution.

§ 15.19 Labelling requirements.
This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause
undesired operation.

§ 15.21 Information to user.
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

§ 15.105 Information to the user.
Note: This equipment has been tested and found to comply with the limits for a Class B
digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and
on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between theequipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.
The device has been evaluated to meet general RF exposure requirement.
The device can be used in portable exposure condition without restriction.