

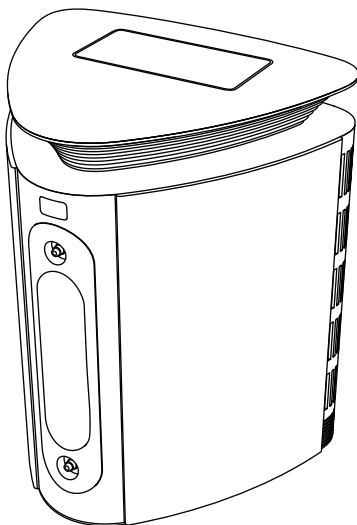


AVICHE[®]
航电中和

A15 Household Healthcare Oxygen Concentrator

User Manual

Version 2.0



Thank you for choosing AVICHE oxygen concentrator. Please read this User Manual carefully before use and maintenance and keep it properly for future reference.

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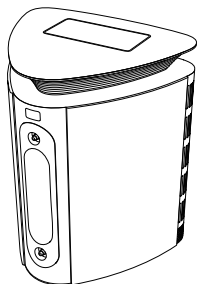
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I . Company Profile

AVICHE Shandong Medical Technology Co., Ltd. (AVICHE) is invested and established by AVIC Avionics Systems. Adhering to the concept of AVIC and making use of its technical strength, AVICHE has composed a strong team of comprehensive innovation, fast productization, and quick response with the expert teams from medical, optical, computer, electronics, machinery, management and other fields. Aiming at “Transforming Aviation Technology, Care for Human Health”, AVICHE has adopted widely advanced management concept at home and abroad, striven hard to enhance its core competitiveness, and vigorously promoted the spirit of “transfer, innovation, quality and service”. Forming the “customer first, quality first and employee-oriented” corporate culture. AVICHE has been making constant efforts to strengthen the national brand and contribute to Human medical and health cause.



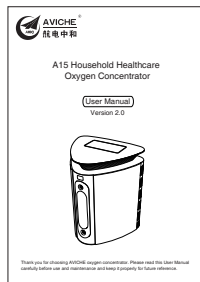
II. Device and Accessories



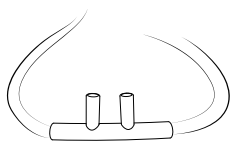
Main Unit x 1



Remote Controller x 1



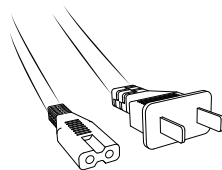
User Manual (including Warranty Card) x 1



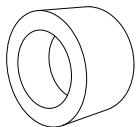
Nasal Cannula x 1



Fuse x 2



Power Cord x 1



Air Inlet Filter x 1



Product Inspection Certificate x 1

Figure 1 Packing List

Please check firstly whether the appearance of product is good and whether the variety and quantity of accessories are consistent with the Packing List before installation and operation. Please contact the supplier or manufacturer in time in case of any defects.

III. Safety Instructions

1. Precautions Before Use

- It is forbidden to dump the product during handling.
- The voltage of product is AC220V±22V and do not use industrial power. When the voltage is unstable, please install the voltage regulator before use.
- Be sure to use qualified socket and wiring boards.
- Non-professionals are not allowed to disassemble.

2. Placement

- The oxygen concentrator should be kept away flammable and explosive materials and facilities.
- Do not place anything on the top of the oxygen concentrator.
- Do not place anything at the bottom of the oxygen concentrator so as to avoid high temperature caused by blockage in the heat outlet.
- Do not place the oxygen concentrator in the environment of heat source, open flame, moisture, smoke, dust, pollution and abnormal temperature.
- The oxygen concentrator should be placed in a well-ventilated area, avoid direct sunlight and be ensured that there is no obstruction within the range of 10 cm.

3. Usage

- Oxygen is a combustion-supporting gas. So this is prohibited from smoking and should be kept away from open flame to avoid cause a fire.
- Please unplug the power and do not use any grease products so as not to pollute the oxygen or cause a fire and do not dump the device as well when cleaning the device.
- Make sure to unplug the power supply while putting water into the humidifier bottle. Please be sure to use purified water or distilled water.
- Do not place the oxygen concentrator in the place which has water stains or can easily become wet by water.

4. Special Warnings

- **This device is only suitable for oxygen supplementation and can not replace life support or life extension equipment.**

IV. Product Introduction

1. Design Features

- All-plastic shell, safe and reliable.
- Large touch control screen is convenient for the elderly.
- Remote controller function, use more comfortable.
- Timing function is helpful to sleep.
- Anion function can improve oxygen inhalation environment and enhance oxygen absorption.
- Hidden screw design show delicate appearance.
- Cozy lamp design creates relaxed oxygen inhalation environment.

2. Oxygen Concentration Principle

This equipment uses AC220V power as the power source, take air as raw material, adopt the Pressure Swing Adsorption (PSA) process to extract high purity oxygen with quality molecular sieve.

3. Technical Specification

Input Power	AC220-240V 50Hz
Wattage	130W
Oxygen Concentration (1L/min)	90%(V/V)
Oxygen Flow	1-3L/min
Noise	<40dB
Remote Control Range	≤6m
Anion	10 million pcs/cm ³
Power Cord Length	1.5m
Material	ABS
Net Weight	9.1kg
Size	302 × 278 × 375mm
Equipment Classification	Class II
Operation Ambient Temperature Range	10°C-40°C
Operation Ambient Humidity Range	30%-75%RH

V. Product Parts Introduction

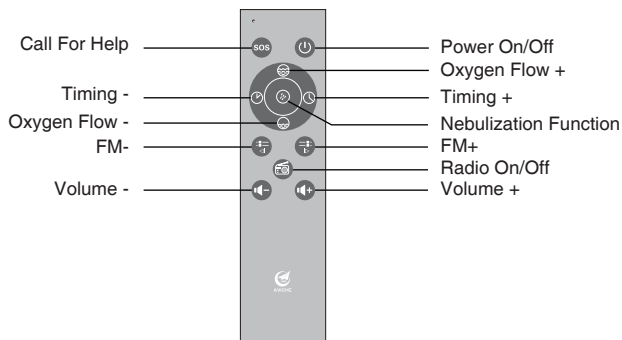
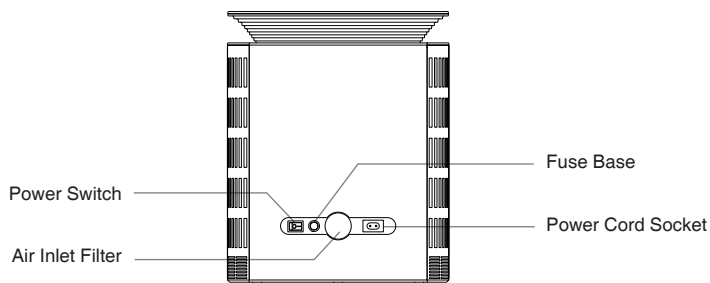
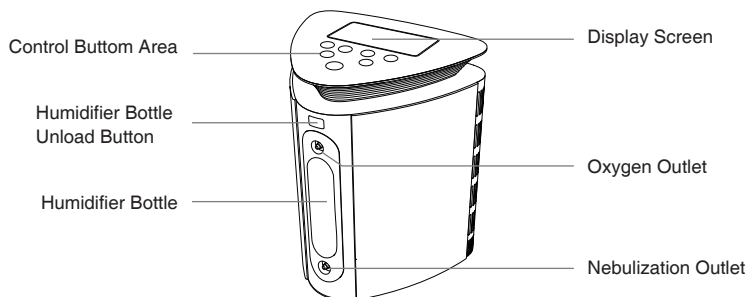


Figure 2 Product Parts Introduction

VI. Operations before Oxygen Inhalation

1. Press the humidifier bottle unload button (Figure 3) and remove the humidifier bottle.
2. Take out the humidifier bottle lid and fill the humidifier bottle with purified water or distilled water of room temperature. The water level can't exceed the maximum marked water level line.

▲ Note:

- a) **Please don't put tap water into the humidifier bottle to avoid impurities clogging the humidifier bottle.**
- b) **If there is no water filled into humidifier bottle, Oxygen concentrator can also release oxygen but the oxygen is very dry and may affect comfort.**

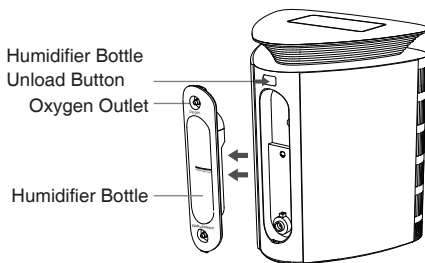


Figure 3 Removal of the Humidifier

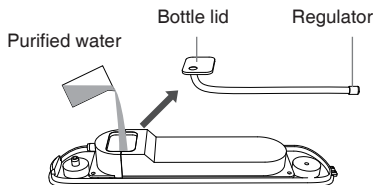



Figure 4 Fill Humidifier Bottle With Water

3. Buckle up the lid after adding water and put the humidifier bottle back to main unit.
4. Connect the power cord. Plug one end of power cord into oxygen concentrator (Figure 2) and the other end into electrical outlet.
5. Press the power switch to “—”, then the start key  on the screen will be lit. Click it to start up the oxygen concentrator, and the screen will be lit and there are bubbles emitting in the humidifier bottle. After the green “Normal” light is lit, the equipment calibration is completed and users can start to operate the equipment. The whole process may take about 1 minute and the “Flow ±” button is not workable. The oxygen concentrator should produce a “hiss—” sound in normal working conditions, which is a normal ventilation sound.

6. Connect oxygen tube. Connect one end of the oxygen tubing to the oxygen outlet of humidifier bottle, and the other end (mask or nasal cannula) is worn by the user to inhale oxygen. (See VIII. Usage of Nasal Cannula for reference)

VII. Screen and Function Keys Operation

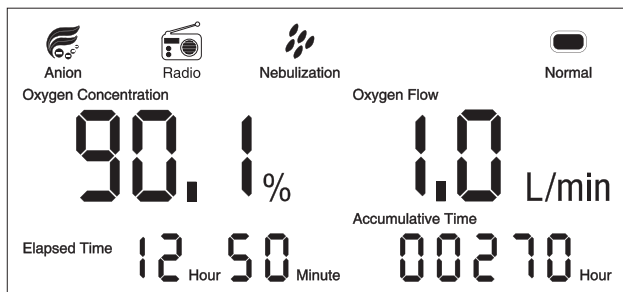


Figure 5 Display Screen

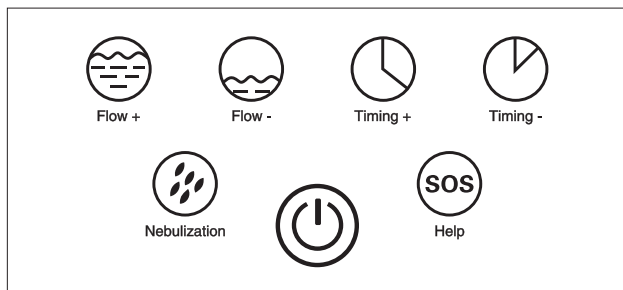



Figure 6 Operation Buttons

1. Power On

The device enters the standby mode after connection to the power supply, and the power on/off key  will be lit. Press the power on/off key on control screen or telecontroller and both operation button and display screen will be lit, The device will enter the calibration status, which will take about 1 minute. After the green “Normal” indicator light is lit, the device calibration is completed, and then users can start to inhale oxygen.

Note: During the calibration period, “Flow ±” can not be operated. But the “Timing ±”, “Nebulization” and “SOS” functions are normal to use.

2. Flow Control

After the device enters normal work state, Users short press of “Flow +” / “Flow -” in the control panel or the telecontroller will make the oxygen flow increase / reduce 1L/min, If long press the keys will make the flow continue to increase or reduce at the speed of 0.1L/min.

3. Timing Function

Short press “Timing +” / “Timing -” in the control panel or the telecontroller to do timing operation. Short press the keys can do the timing at speed of 20min/time. Long press the keys can do the timing at speed of the continuing rate of 20min. The device will turn itself off after the timing time runs out.

4. Nebulization Function

This function needs to connect to the nebulizer mask. Users should connect the nebulizer mask to “nebulization” outlet (as showed Figure 2). Press the nebulization button on control panel or the telecontroller and the nebulization indicator light will be lit, then users can do the nebulization. The noise is becoming larger during the nebulization process, It is the normal voice. After the nebulization, Press the nebulization button again to return back to oxygen production mode.

Note: After using nebulization function, Data of timing time and elapsed time on the screen will become zero and the equipment takes 1 minute to do recalibration.

5. SOS Function

When users had sudden diseases and can not call for help, they can press on the “SOS” key in the control panel or the telecontroller for help, and the device will continue to voice out “help me” to seek for help. To turn off the SOS function, just click on any function key on the control panel to close the SOS function.

6. Anion Function

Anion can improve alveolar ventilating function, enhance oxygen absorption rate. This function is always on state.

7. Inner Lamp Function

After turning on the device, the inner lamps of humidifier bottle and the top of device is turned on. Long press the “SOS” button can turn on/off the inner lamp of the top of device.

The inner lamp of humidifier bottle can help users to see the water volume and check if the oxygen flow is normal or not. So it is always lit and users can not close it in process of normal work condition.

8. Radio Function

This Function need to operate by the telecontroller.



8.1 Press radio on/off  to open or close radio function.

8.2 Press volume +/-  /  to adjust the sound volume of radio.

8.3 Press FM-/+  /  to tune the FM of radio.

Note: This function may not be available due to different wave band in different countries.

9. Power Off

Press the key  in the control panel to turn off the device.

▲ Note: The button functions on telecontroller are same with control panel of main unit except the long button function. The remote control range is around 6m, Please operate it facing the front side of equipment.

VIII. Usage of Nasal Cannula

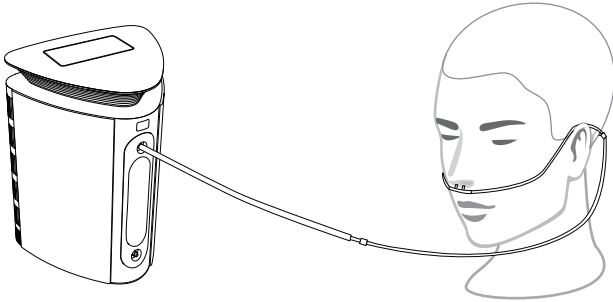













Figure 7 Usage of Nasal Cannula

Put the prongs of nasal cannula  into the nostrils, and hook the tube around the ears with the locking hoop fixing the tube tight (as shown in Figure 7). After the device finishes calibration and enters the normal working condition, connect the other end of the nasal cannula to the upper oxygen outlet of device to inhale oxygen.

IX. Explanations on the Symbols and the Abbreviations of the Labels Used in this Equipment

Symbol	Description	Symbol	Description
	Alternating Current		Warning! Check and read the attached booklet
	Class II		This Side Up
	Connected (to the input power)		Keep Dry
	Disconnected (from the input power)		Temperature Limit
	Fragile		No Smoking

X. Maintenance

▲ **Make sure to turn off the power supply before maintenance of the oxygen concentrator. In order to avoid electric shock, non-professionals are not allowed to disassemble the device.**

1. Clean the Outer Covering

- It is recommended to wipe and clean the outer covering once a month.
- Disconnect the power supply firstly and wipe it with a soft sponge or wet cloth dipped in moderate cleanser. Prevent liquid from infiltrating into the device for causing possible risks.

2. Clean the Humidifier Bottle (check Figure 2 and 3 for the removal of the humidifier bottle)

- The water in the humidifier should be replaced every day, and make sure to use distilled or purified water.
- The inner wall of the humidifier bottle should be cleaned once a week and washed repeatedly with water to ensure hygiene. If there is incrustation or odor inside the humidifier due to no cleaning or no changing of the water for long, please soak with white vinegar for more than half an hour before wash.

3. Wash Oxygen Tube

- The nasal cannula should be washed once every 3 days. The prongs of the cannula should be cleaned each time after use, and are suggested to be soaked with white vinegar for 5 minutes and then rinsed with water or be wiped with medical alcohol.
- It is recommended that the nasal cannula be replaced every 2 months.

Note: The oxygen tubing should be kept dry.

4. Check and Replacement of the Air Inlet Filter

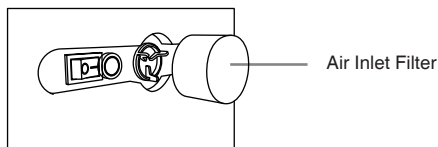


Figure 8 Air Inlet Filter

- Air Inlet Filter can protect compressor and molecular sieve, prolong service life of equipment and reduce noise. Please be sure to replace it in time.
- Replace frequency: Please replace air inlet filter in time when it becomes black after a long-time usage. Recommend to replace it in 6-12 months.
- When replacing the air inlet filter, please firstly pull out the old filter and then plug in a new filter.

5. Replace the Fuse

- Turn off the power firstly, and then screw with a flat-blade screwdriver. The fuse base located at the bottom of the device counterclockwise.
- Fuse Specification: F2AL 250V



Figure 9 Fuse base

XI. Troubleshooting Guide

Trouble	Analysis	Solution
The power is turned on and the display screen is not lit	The voltage is too high to cause the fuse to fail	Replace the Fuse
	No power input	Do not use the power extension cable or move the device to another power connector
Oxygen concentrator is working but the oxygen flow is very small or even little	The oxygen tube is tied or blocked	Re-straighten the pipeline
	The humidifier bottle is not properly installed	Re-install the humidifier bottle
	The regulator of humidifier bottle is clogged	Replace regulator of humidifier bottle
	The air inlet filter is clogged	Replace the air inlet filter
There are odor in the oxygen	In the initial use period, the tube and other plastic material will have some smell	The smell is from the silicone tube and ABS board, which is non-toxic, harmless and will disappear in use
	The humidifier bottle has odor due to no cleaning or no change of water	Please change the water or clean the humidifier
There's water coming out from the gas outlet	The water in the humidifier is above the highest water mark line, and the airflow forces the bubbles into the oxygen tube	Lower the water level in the humidifier to be below the maximum water level
After turning on, the light is normal, but the device is not working properly	The ambient temperature is too high, and the compressor starts self-protection	Turn off the power, wait until the device temperature returns to normal, and then restart
	Compressor failure	Turn off the power, and contact the professional maintenance personnel
	The internal pipes of the device are disengaged or broken	
If the trouble can not be solved, please contact the supplier or distributor, and do not disassemble the device by yourself		

XII. Other Precautions

1. Guidance on Electromagnetic Environment

In order to avoid the equipment being disturbed by the electromagnetic environment or interfering with other electrical products, please use this equipment away from other household appliances at least 30cm.

2. Non-professionals are not allowed to disassembly. If the maintenance personnel needs the electrical schematic of this product, please contact the manufacturer or local after-sales service center.

XII. After-sales Service and Warranty Card (Service Hotline: +86-400-800-9850)

1. Implement the national policy of Three Guarantees.

2. Free maintenance will be provided by AVICHE in case of quality problems within one year from the date of purchase (Three years warranty for compressor). In case of there is any problem within warranty period, User can seek services with commercial invoice and warranty card to the after-sales service departments, branch offices and distributors of AVICHE, where the spare parts for maintenance will be provided with reasonable charges. If the user can not provide invoice, the warranty period will be identified by extension of 13 months from the date of production.

3. The followings are not covered by the warranty:

3.1 Vulnerable Consumables (nasal cannula, fuse, and air filter).

3.2 The liquid leaked by the users enters into the device to cause abnormal operation.

3.3 The trouble caused by unauthorized demolition, repair, or transformation of the device.

3.4 The trouble caused by accidental falling down in use or handling.

3.5 The trouble caused by the failure to operate in accordance with the correct operations in the user manual.

3.6 The damage caused by unpredictable natural disasters (such as fire, earthquakes, floods, etc.).



A15 Household Healthcare Oxygen Concentrator Warranty Card

Model	A15		
Warranty Period	From	Y/ M/ D	to Y/ M/ D
Purchaser	Name		
	Address		
	Phone		
Sales Unit	Name		
	Address		
	Phone		
After-sales Service Instructions	<p>1. Warranty</p> <p>a. Since the date of purchase, the warranty period will last for 1 year, and free maintenance will be provided (except for force majeure and human factors).</p> <p>b. The affiliated gifts will not be covered within the warranty.</p> <p>c. Proof: Purchase records, shopping certificate, and invoice.</p> <p>2. Spare Parts</p> <p>Spare parts will be provided free of charge within the warranty period, and is subject to charges out of warranty period.</p> <p>3. Contact Information for After-sales Service</p> <p>Phone: +86-400-800-9850</p>		



WeChat Official Account
Of AVICHE

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