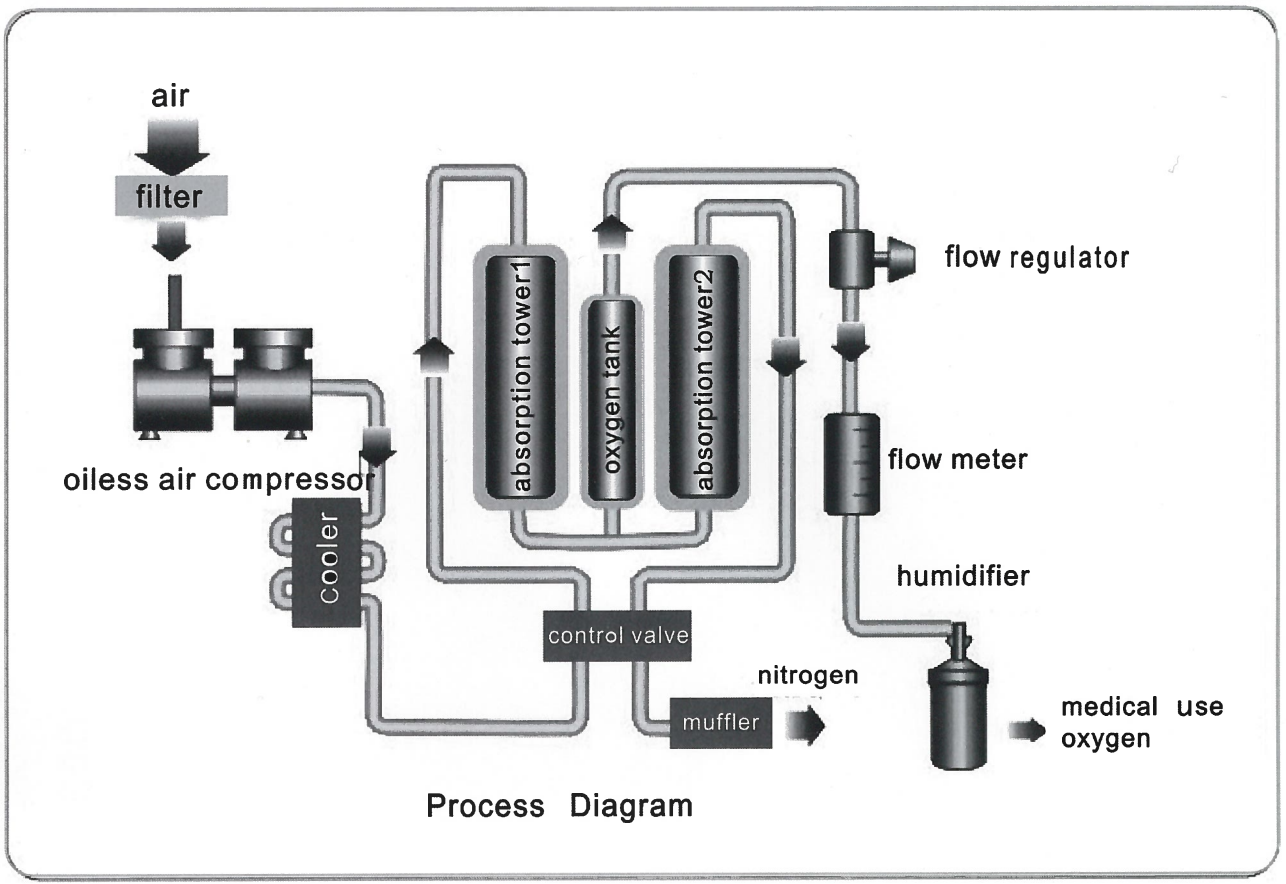
USER'S MANUAL FOR OXYGEN CONCENTRATOR

LONGFIAN SCITECH

CE 0197

LONGFIAN SCITECH CO.,LTD
File Number: JAGZ03-01
Issue Date: 2010-04-20



Process Diagram

Contents

1 Foreword

Thank you for purchasing our products, hoping you will be satisfied with our products.

This operation manual contains function, operation steps, attention, basic trouble solution and so on.

To ensure your efficient use of the machine, please have a close read of this operation manual before operating it.

Maybe, there are some pictures, which are different from what you have seen in the real model in this manual.

2 Safety notice

This product cannot be used for life saving, it is suggested that if any patient who needs oxygen treatment, please follow doctor's advice to choose the right flow and period for oxygen before using the machine.

Please note the following special statements,used throughout this manual,and their significance:

Note:Explanatory information.

▲ Damage: Action could result in damage to equipment.

⚠ ATTENTION: Action could result in personal injury.

⚠ WARNING: Action could result in fire and explosion.

ATTENTION: Consult Instructions For Use.

Electrical shock protection category: CLASS II

Electrical shock protection degree: TYPE B

The date of production

The Manufacturer

EC REP AUTHORISED REPRESENTATIVE IN THE EUROPEAN COMMUNITY

Before Installation

▲ Damage:Only use stable and safe electrical power sources.

▲ Damage: If the electrical power source becomes unstable, discontinue use.

Placement

⚠ ATTENTION: The oxygen concentrator should be set to use in an environment without dust, corruption or toxicological harm gas.

⚠ ATTENTION: The oxygen concentrator should be located in well-ventilated space, in case there is polluted air or smog in the oxygen.

⚠ ATTENTION: Do not place items on top of the concentrator.

⚠ ATTENTION: Always place the concentrator on a hard surface. Never place the concentrator on a surface such as bed or couch, where the concentrator may tip or fall.

Fire Warning

⚠ WARNING: For oxygen can be combustion-supporting, keep oxygen concentrator far away from naked light or fire resource, no smoking or naked light around the patient.

⚠ WARNING: Keep the concentrator away from flammable and explosive areas.

⚠ WARNING: Textiles and other materials that normally would not easily burn, can ignite and burn with great intensity in oxygen enriched air.

⚠ WARNING:A spontaneous and violent ignition may occur if oil, grease or greasy substances come in contact with oxygen under pressure. ALWAYS keep these substances away from the oxygen concentrator.

Maintenance

⚠ ATTENTION: Before cleaning the dust on the net of oxygen concentrator, the plug must be pulled out in case of electric attack.

⚠ ATTENTION: The humidifier, filter cotton and filter are the items needed to clean, among which humidifier should be cleaned every 3 days, and external filter cotton should be cleaned every 100 hours, and internal filter should be cleaned every 3000 hours.

Radio Frequency Interference

Most electronic equipment is influenced by Radio Frequency Interference (RFI). When there is strong electromagnetic interference, maybe the LCD will be slightly affected, but the machine is still running. ALWAYS exercise CAUTION with regard to the use of portable communications equipment in the area around such equipment.

Additional Safety Warnings

⚠ WARNING: Do not put nasal tube under bed or cushion, the oxygen caused by machine turning on without breathing may be combustion-supporting.

⚠ WARNING: Do not reach for a concentrator that has fallen into water. UNPLUG IT IMMEDIATELY.

⚠ WARNING: NEVER leave the concentrator unattended when plugged in.

⚠ ATTENTION: ALWAYS supervise closely when this product is used near children or those who require close supervision.

⚠ ATTENTION: If any adverse reaction appeared or revealed during taking oxygen , please contact with equipment supplier or doctor as soon as possible.

⚠ ATTENTION: For serious patients, set an indicating device additional, any adverse reaction appeared, please contact with equipment supplier or doctor as soon as possible.

⚠ ATTENTION: Turn off the switch if no body takes oxygen.

⚠ ATTENTION: In using the machine, do not open the front and back cover at all. In case there are quality problem, do not dismantle it secretly. Any alarm or other abnormal phenomenon has been found, please contact equipment supplier or factory.

⚠ ATTENTION: Ensure the bottom smooth exhaustion during operating, or else the machine will be over-heated.

⚠ ATTENTION: There is intermitted exhaustion sound during operating (13 seconds in intermission).

⚠ ATTENTION: 5 minutes are needed from oxygen concentrator from warming up to reach regular function.

⚠ ATTENTION: The machine is only for oxygen supply, and the oxygen concentration will be up to 90% when air outlet reaches its nominal flow.

⚠ ATTENTION: Humidifier shall adopt distilled water or cold boiled water, added water shall be kept under the scale line.

⚠ ATTENTION: Use the humidifier together with the machine, do not replace it at will, or else it may cause patient uncomfortable or other harms.

⚠ ATTENTION: In case the indicator shows abnormal oxygen, operator should declare to dealer or factory in favor of maintain. (Optional for purity indicators installed machine)

⚠ ATTENTION: Once open the adjust knob for flow in full, but flow meter shows zero, turn off the machine immediately and have a check for trouble.

⚠ ATTENTION: Do not turn on or off frequently, to restart the machine after turning off, no less than 5 minutes are necessary (namely, exhaust internal gas of the machine completely, for if air compressor turns on with pressure, its life will be shortened)

⚠ ATTENTION: Turn up the flowmeter switch immediately when power switch is turned on.

⚠ ATTENTION: Refresh the water in the humidifier every 2-3 days, especially in summers. If do not use it in several days, please pour out the water completely, and wipe dry the bottle.

⚠ ATTENTION: Use the oxygen tube and humidifier together with the machine or those of the same model, if change to use other model devices, please ensure close connection with the oxygen concentrator. The absorbing oxygen tube is only for the patient, and do not junk it at will.

⚠ ATTENTION: The oxygen tube, oxygen mask and atomizer that have touched with the patient should keep clean, disinfected and sterilized.

⚠ ATTENTION: The oxygen tube that have touched with the patient after each operation should be disinfected by wiping it with 75% medical use alcohol or other disinfecting methods. To prevent cross infection, do not share oxygen tube.

Requirement of environment protection

The materials used in the system won't create environment hazard. The packing materials of the system are recyclable, and they must be collected and disposed according to the related regulation in the country or region where the package of the system or its accessories is opened. The nasal oxygen tube is made of medical PVC, and if it is thrown away, it could not be bio-degradable, so it will cause the pollution. Any material of the system, that may cause pollution in the environment, must be collected disposed strictly complied with the local rules and requirements.

Notes for atomization operation(Optional)

⚠ ATTENTION: Use the same model atomizer with the machine

⚠ ATTENTION: If there is not atomization treatment, do tight the nut of atomization joint to ensure no gas leaking.

⚠ ATTENTION: Using distilled water to do the atomization for several seconds after each operation may lighten the crystallization caused by medical solution.

⚠ ATTENTION: If atomizing cannot work please open the cover of the bottle and add clean water in small amount. Rotate the bottle with the gas resource connected and select the proper angle to gain a better atomization.

3 Product introduction

JAY Series oxygen concentrator model adopt pressure swing adsorption principle, which can separate oxygen, nitrogen and other gas from the air, at constant temperature, as soon as power is connected, the oxygen that meets medical use standards can be separated from air constantly. Oxygen is

generated by pure physical method. The generator can supply 1-2 patients simultaneously, with steady oxygen flowing out, safe and reliable, low cost, adjustable flow. The key parts of the generator adopt anti-tiring and anti-aging design, and the planned life of the whole generator reaches up to 20,000 hours.There is no influence on indoor oxygen percent during the generator operating.

4 Using condition

1. Ambient temperature: 10℃-40℃
2. Relative humidity: 30%-85%
3. Air pressure: 700 hPa-1060 hPa
4. No corrosive gas and strong magnetic field around.

5 Scope of application:

1. For Medical Use

   Oxygen supplied by the concentrator is beneficial to cure the disease or heart and blood vessel system, chronic pulmonary system, the brain and blood vessel system, chronic pulmonary tuberculosis, and other oxygen lacking symptoms, etc.

2. For Healthcare

   Oxygen can be used for athletics and intellectuals and brainworkers, etc. to eliminate fatigue and also suit for the departments of health care, sanatorium, healthy, plateau military camps and hotels and other places where the oxygen is needed.

3. Atomization application Scope

   The atomization function of the concentrator is applicable to help to cure the sufferers of chronic pulmonary tuberculosis and respiratory system, etc.

⚠ ATTENTION: Atomization treatment must be under advice and suggestion of your physician.

6 Technical Parameter

1) Model description: JAY-5(for example)

   J (company symbol)

   A (company symbol)

   Y (oxygen)

   5 (flow rate is 5 liters per minute of oxygen)

Model	JAY-3	JAY-4	JAY-5		JAY-6	JAY-8	JAY-10
Rated power (W)	420	420	420	500	450	500	550
Operation voltage (V/Hz)	AC 230±10% 50±1						
Oxygen flow (L/min)	0-3	0-4	0-5		0-6	0-8	0-10
Oxygen concentration(%)	93%±3%						
Outlet pressure (Mpa)	0.04—0.07						
Alarm	Power failure; low&high pressure; Optional: temperature; low purity; maintenance reminding after 3000 hours use						

Sound level (dB)	⩽45	⩽45	⩽45	⩽50	⩽45	⩽50	⩽55
LCD display	Accumulating timing; present timing; timing;						
Large LCD display (optional)	Switch times; pressure digital(accuracy:0.001MPa); accumulating timing(range:0-10000hours); present timing(accuracy:1 minute); presetting timing(accuracy:1 minute) Optional: temperature digital(accuracy:0.1); purity digital; maintenance reminding; SPO_2 digital(accuracy:1%);						
Electrical category:	Class II Type B						
Product category:	Class II a						
Net Weight (Kg)	23	22	23	26	23	27	26
Dimension (mm)	365(deep)*375(width)*600(height)						
Atomization particle (optional)	⩽5 μ reaches 90% only for atomization type						
Low purity alarm (optional)	When oxygen purity is⩾85%, the green lamp is on, when oxygen purity is < 85%, red lamp is on, indicating low purity Accuracy: ±3%						
Pulse oximeter (optional)	Pulse oximeter will be installed to oxygen concentrator to monitor SPO_2 on site						
Fuse	T5AL/250V	T5AL/250V	T6.3AL/250V		T5AL/250V	T6.3AL/250V	T6.3AL/250V

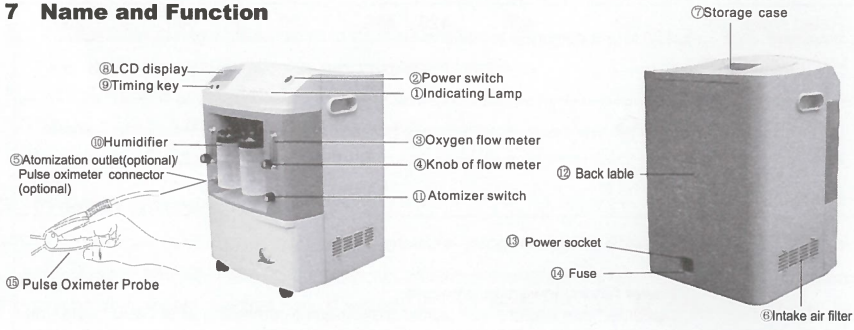
2) Nasal oxygen tube

Nasal oxygen tube is made up of intubatton, oxygen tube, inlet oxygen tube, movable gripper tube and nasal tube. And it is made of medical PVC. There are two tips, over ear style. It must be flexible hose, transparent and clean. There is no impurities and no kink. When inputting the 50Kpa pressure the nasal oxygen tube must be non-disclosure continued 15 seconds. The various components can withstand vertical stress of 20N in 15 seconds without break. With ethylene oxide sterilization, since the date of sterilization, the nasal oxygen tube could be saved for three years.

3) Humidifier

The humidifier must be colorless and transparent or translucent. And it is marked with the maximum and minimum liquid level instruction line. It should not be broken when it withstands the pressure of not less than 0.4Mpa.

7 Name and Function



① Indicating Lamp

The total 8 indicating lamps and their indications for each lamp from right to left are as follows:

—P.O.: power switch (green lamp)

—P.F.: power failure(red lamp)

— H.P.: **a**:Over heated temperature (Both the lamp is on in red and the alarm will be heard continuously, it will be read 50℃ on the LCD display and stop operation)

b:High pressure (Both the lamp is on in red and the alarm will be heard intermittently)

—L.P.: low pressure(yellow lamp)

—H.O2.oxygen purity is≥85%, (green lamp) (Accuracy: ±3%)

—L.O2.: oxygen purity is <85%,(red lamp) (Accuracy: ±3%)

—H.T..: maintenance reminding

—M.O2: useless

② Power switch

③ Oxygen flow meter

The location of float in the oxygen flow meter shows the outlet oxygen flow (L/min.).

④ Knob of flow meter

The other name of knob of oxygen flow meter switch is flow control valve.

It adjusts and controls the outlet oxygen flow.

Do not rotate it over-forced, or else it is easy to damage the valve core. Rotate it counterclockwise to turn on, clockwise to turn off.

⑤ Atomization outlet (optional)/Pulse oximeter connector(optional)

⑥ Intake air filter

Once need to replace, replace it by special filter for the machine.

⑦ Storage case

It is used for storage absorbing tubes and other articles for the machine

⑧ LCD display(Liquid crystal display)

a.It can display the following diagram 1 or 2

b.At the beginning of starting the machine, the LCD screen is bright, after 15 minutes it will return to screen saving mode. But if you press the right key during working, the screen will bright again.

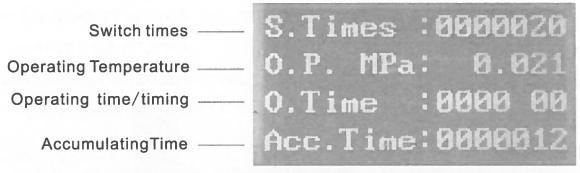


Diagram 1

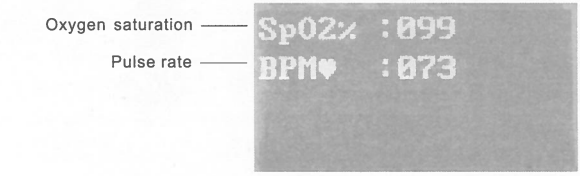


Diagram 2

⑨ Timing Key

The two keys are used for timing adjustment. Press the left key(△) to increase timing by adding 10min and press the right key(▽) to reduce timing to "0". When time is over, the machine will be turned off automatically. (When the right key (▽) reduce time to "0", the machine also stops working; when you press the left key(△), machine will be turned on again.)

⑩ Humidifier

Humidifier is used for humidifying oxygen and preventing throat and nasal mucosa being stimulated by dry oxygen and dry hard sputum difficult to spit out.

⑪ Atomizer switch (optional)

⑫ Back label

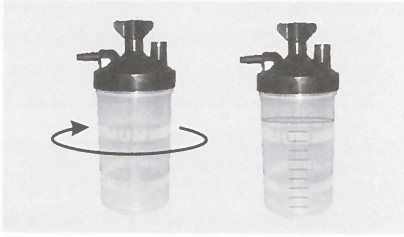
⑬ Power socket

⑭ Fuse

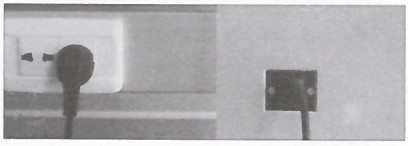
⑮ Pulse oximeter probe

8 Operation steps

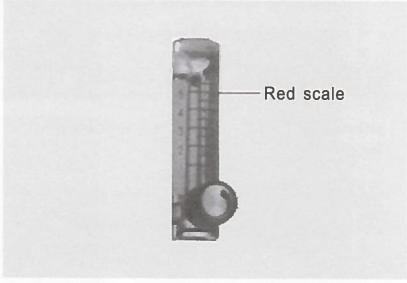
1. Take off the humidifier in clockwise direction. Pour in proper distilled water or cold boiled water within the scale between the top scale line and the lowest one, then screw the bottle tied.



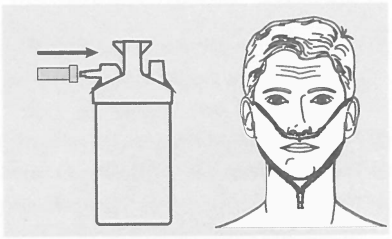
2. Connect the power, put the plug of power line connected with the power socket of the oxygen concentrator, and the other end of the plug connects with indoor power socket, turn on the power switch.



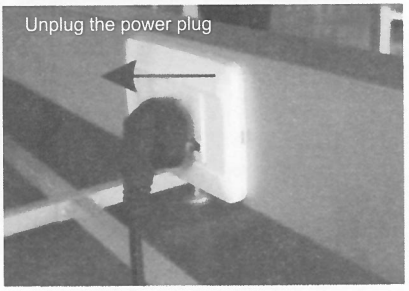
3. Adjust well oxygen output flow according to the request, the red scale of the flow meter is recommended oxygen absorbing flow (counterclockwise—on, clockwise—off, for common single treatment, adjust the flow rate at the red scale of the flow meter; for dual use, adjust the flow rate at the half place of the red scale.



4. Insert the intake end of absorbing oxygen tube onto the outlet of humidifier, then set the absorbing oxygen tube over patient's ears, insert the nasal tube into patient's nostrils to absorb oxygen; the best absorbing time for health care keeps 40-50 minutes per time, absorbing time for medical treatment shall be followed doctor's advice.



5. When finished the absorbing, turn off the power, if there is discontinuous use, please unplug the power plug.



6. If the patient needs timing oxygen absorbing, pls refer to instruction on Page 7 Item ⑨(Timing keys).
7. Oxygen purity alarm (for optional): The oxygen purity will rise to the normal level in five minutes of operation. When oxygen purity is ≥85%, the green lamp is on, when oxygen purity is <85% , red lamp is on, indicating low purity. (Accuracy: ±3%)
8. When oxygen concentrator is connecting with power but the whole machine is still in the status of power off with alarm sound, pls check out the connection part of power whether it is in good connection, or whether there is power off in external power supply.

9. Atomization operation methods (optional)

① Open the cover of medical cup, and add atomization remedy that needed, then close the cover.
② Connect the joint of atomization nozzle (or mask) with the cover of medical cup, and then connect the other end of atomizer connection tube with the atomization outlet and turn on atomizer
③ Turn on the power of oxygen concentrator, and turn the flow meter up to 0.5L/min, then it is ready for atomization treatment.
④ Do clean the atomization devices after treatment finished. Clean atomizer and connection tube with detergent and clean water; as to atomization nozzle and mask use clean water to clean first, then carry on disinfecting and sterilization by dipping them into medical alcohol for five minutes or putting them under ultraviolet lamp, again wash them clean with clean water, and finally put them in the packet after dried up and keep them in storage case.

10.Pulse oximeter operation methods (optional)

① Insert the pulse oximeter probe joint to the pulse oximeter connector on the oxygen concentrator. The LCD display will show no finger (see Diagram 1)

② Put the finger completely into the pulse oximeter

③ The SPO_2(measuring range: 35%~100%; accuracy: 70% to 100% ±2 digits) and Pulse Rate(measuring range: 30bpm~240bpm;accuracy:±2bpm or±2%) reading will display on the screen in few seconds (see Diagram 2)

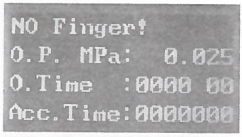
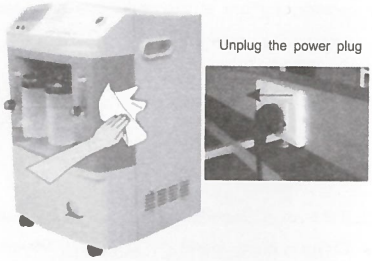


Diagram 1

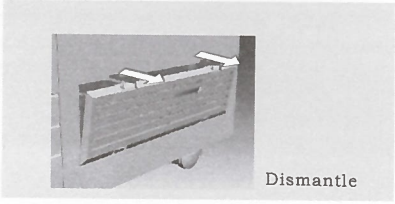
Diagram 2

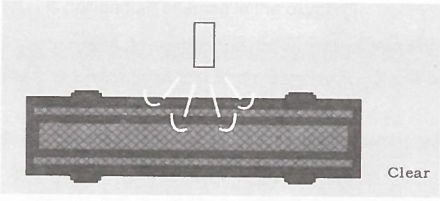
9 Maintenance

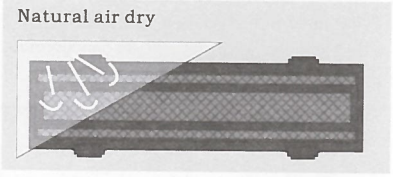
1. In the condition of power off, make a clean for the outside body by soft towel with little detergent, and then wipe it up with dry towel, once or twice per month.



2. It is a critical step for daily maintenance to clean intake air filter, at least twice a month. Detail steps: take off the two intake air filters on both sides of the body, clean them with detergent and clean it out with clean water completely, get ride of extra water and dry up naturally, finally set back after dry up.



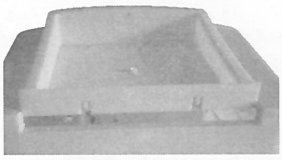


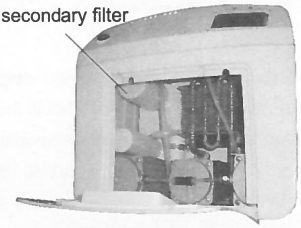


▲ Damage: Do not operate the concentrator without the filters installed, or while filters are wet. These actions could permanently damage the concentrator.

3. Clean secondary filter

Clean secondary filter an interval about 3000 hours, open the top cover and take out storage case. Screw open the pipe body of filter in counterclockwise direction, take off filter cloth, then clean it with detergent, and then clean it out with clean water completely, get rid of the extra water, and dry it naturally, finally set back after dry up.



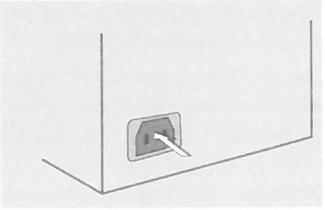


▲ Damage: Do not operate the concentrator without the filters installed, or while filters are wet. These actions could permanently damage the concentrator.

4. Replacement of fuse

Take off the cover of fuse, which is on the power socket, dismantle the fuse tube off by small screwdriver. Close the cover of fuse after fuse tube is replaced.

The other fuse tube is located at the intake of internal power line; the method of replacement is the same with that above.



5. The battery of JAY Series oxygen concentrator model adopt NI-MH charge battery (3.6V/40mAh),it is welded on the main board and there is a charge circuitry in the board, so it could be used by a long time. But if you could not use the oxygen concentrator continually, the battery will be at the dormancy state and its life will be shorter. So please charge the battery one time every month if you could not use the oxygen concentrator continually.
6. If the user want the circuit diagram、the list of critical components、the detail of maintenance and repair, we will supply the data about all the repairable parts which we can supply .

10 Troubles and solution

No.	Trouble	Causes	Solution
1	No operation after power connected	1. No connection between circuit of oxygen concentrator and power 2. Circuit of fuse protector broken 3. Capacitor of compressor broken 4. Compressor broken	1. Check out whether switch, plug, power line in good connection. 2. Replace the fuse protector and find the cause 3. Replace start capacitor 4. Have the compressor replaced
2	No oxygen out or tiny outtake flow	1. Folded inside oxygen tube, no smooth outtake 2. Filter clogged, no smooth intake 3. The cover of humidifier leaking	1. Connect the oxygen tube again 2. Clean the filter 3. Take off the cover, screw well the cover, block the outtake by thumb after turning on, and there will some sound from the humidifier after 5 second around (the safety valve of humidifier turns on)

3	No exhaust sound	1. Control Valve cannot work 2. Electrical control board cannot work	1. Have air control valve replaced 2. Have electric control board replaced
4	Too noisy exhaustion	1. The joint of exhaustion muffler fallen off 2. Exhaustion muffler broken	1. Connect the joint well 2. Have the muffler replaced

11 EMC Declaration

The JAY-5 needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the accompanying documents;

Portable and mobile RF communications equipment can affect the JAY-5.

All cables and maximum length of cables, Transducers and other accessories with which the manufacturer of the JAY-5 claims compliance with the requirements, Accessories that do not affect compliance with the requirements of these sub clauses need not be listed. Accessories, transducers and cables may be specified either generically or specifically.

NOTE :

Transducers and cables sold by the manufacturer of the JAY-5 as replacement parts for internal components need not be listed.

The use of accessories, transducers and cables other than those specified, with the exception of transducers and cables sold by the manufacturer of The JAY-5 as replacement parts for internal components, may result in increased emissions or decreased immunity of The JAY-5.

Guidance and manufacturer's declaration – electromagnetic emissions		
The JAY-5 is intended for use in the electromagnetic environment specified below. The customer or the user of the JAY-5 should assure that it is used in such an environment.		
Emissions test	**Compliance**	**Electromagnetic environment – guidance**
RF emissions CISPR 11	Group 1	The JAY-5 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 A	The JAY-5 is suitable for use in all establishments other than domestic, and may be used in domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes, provided the following warning is heeded: Warning: This JAY-5 is intended for use by healthcare professionals only. This equipment/ system may cause radio interference or may disrupt the operation of nearby equipment. It may be necessary to take mitigation measures, such as re-orienting or relocating the JAY-5 or shielding the location.
Harmonic emissions IEC 61000-3-2	Class A	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

Guidance and manufacturer's declaration – electromagnetic immunity			
The JAY-5 is intended for use in the electromagnetic environment specified below. The customer or the user of the JAY-5 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	± 6 kV contact ± 8 kV air	± 6 kV contact ± 8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output Lines	± 2 kV for power supply lines ± 1 kV for input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 s	<5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 s	Mains power quality should be that of a typical commercial or hospital environment. If the user of the JAY-5 requires continued operation during power mains interruptions, it is recommended that the JAY-5 be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m	Not applicable Note: The JAY-5 does not contain components susceptible to magnetic fields, such as Hall elements or magnetic field sensors. Therefore, the EUT is deemed to meet the requirement without actual testing.	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.

Conducted RF IEC 61000-4-6 Radiated RF IEC 61000-4-3	3 Vrms 150 kHz to 80 MHZ 3 V/m 80 MHz to 2,5 GHz	3 Vrms 150 kHz to 80 MHZ 3 V/m 80 MHz to 2,5 GHz	Portable and mobile RF communications equipment should be used no closer to any part of the JAY-5, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. **Recommended separation distance** $d = 1.17\sqrt{P}$ $d = 1.17\sqrt{P}$ 80 MHz to 800 MHZ $d = 2.33\sqrt{P}$ 800 MHz to 2,5 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). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,a should be less than the compliance level in each frequency range.b Interference may occur in the vicinity of equipment marked with the following symbol: 

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

a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the JAY-5 is used exceeds the applicable RF compliance level above, the JAY-5 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the JAY-5.
b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the JAY-5

The JAY-5 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the JAY-5 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the JAY-5 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 $d=1.17\sqrt{P}$	80 MHz to 800 MHZ $d=1.17\sqrt{P}$	800 MHz to 2,5 GHz $d=1.17\sqrt{P}$
0.01	0.12	0.12	0.07
0.1	0.37	0.37	0.22
1	1.17	1.17	0.70
10	3.69	3.69	2.21
100	11.69	11.67	7.00

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.

12 Condition for transportation and storage

Environment temperature scale: -20-45℃
Comparative humidity scale: ≤95%
Air pressure scale: 500 –1060 hpa

13 Quality Warrant

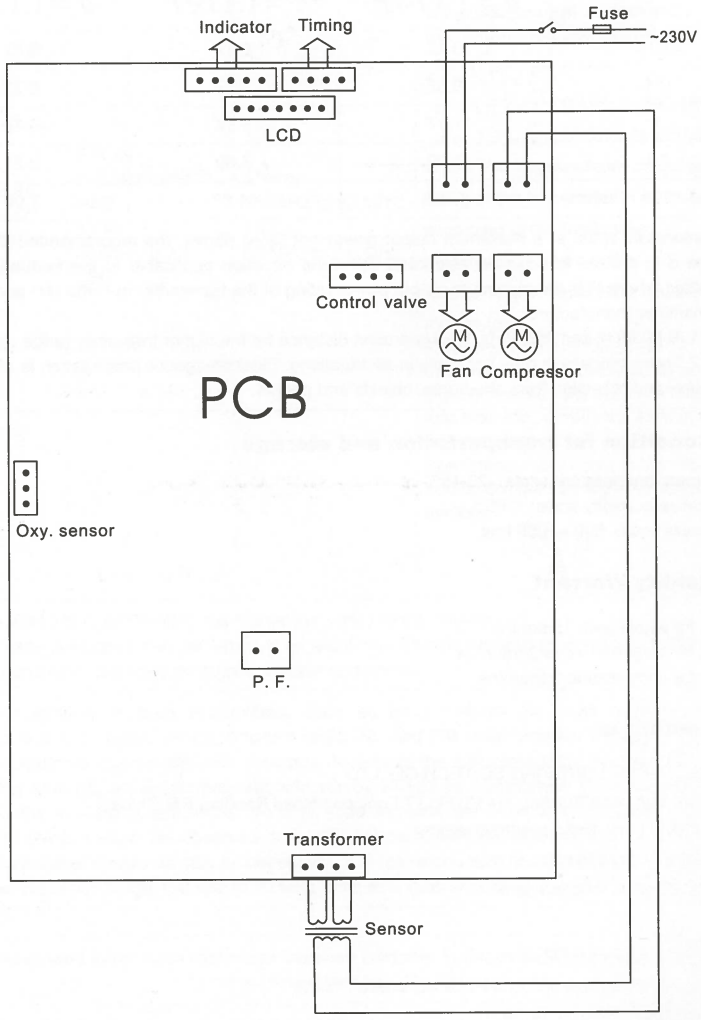
Warrant for whole unit: 15months
Warrant for magnetic valve:24months
Warrant for compressor: 24months

14 Contact us

MANUFACTURER:LONGFIAN SCITECH CO.,LTD
ADDRESS: Longxing Building A(413) No.77 Longxing Road,Baoding,P.R.China
TELEPHONE: 0086-312-3169262/3168872
FAX: 0086-312-3169301
HOMEPAGE: www.longfian.com

EC REP HAPPY PEOPLE
Poludniowa 30/2/4,04-789 warszawa Poland
NIP:593-134-14-09

DISTRIBUTOR:_____
ADDRESS:_____
TELEPHONE:_____
FAX:_____


Indicator
Timing
Fuse
~230V
LCD
Control valve
M
M
Fan
Compressor
PCB
Oxy. sensor
P. F.
Transformer
Sensor

LONGFIAN SCITECH CO.,LTD
No.77 Longxing Road Baoding,071051.China
Tel: 0086-312-3169262/3168872
Fax:0086-312-3169301
E-mail:marina@longfian.com
Website:Http://www.longfian.com