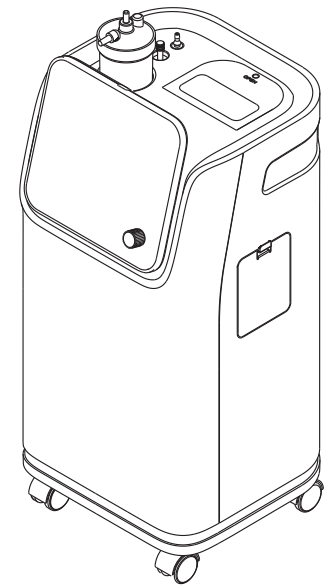


Oxygen Concentrator
Item No : ZY-5AW



Thank you for purchasing and using our oxygen generator

- Please carefully read this manual before use, in order to correctly operate
- Please properly keep this manual so that you can check it at any time
- Please use this oxygen generator under the guidance of medical staff

The pictures are for reference only. Please refer to the real object

1 Security profile

Danger

warn

Smoking is prohibited during using this product.
Please do not place the fire source in the room of the oxygen generator.
Please do not use this product without reading the instructions, you can contact the manufacturer or technical personnel.

Noted: please do arrange another machine to ready if this machine stop or break .

Do not move the machine by pulling the power cord.

Do not drop and plug foreign objects to the exit.

Recommended use of standard nasal tube

When you do not use the machine, please unplug the power supply.

Before use :

Attention for opening the carton:keep the carton,if you do not use the machine right now.

Transportation and storage conditions

Ambient temperature range: -20 °C ~ +55 °C.

Relative humidity range: ≤93 %, with no condensation.

Atmospheric pressure range: 500 h Pa - 1060 h Pa.

Note: The oxygen generator should be stored in a room with no strong sunlight, no corrosive gas and good ventilation. Avoid severe vibration and inverted lying in transportation.

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PREFACE

noted

The nasal oxygen cannula is provided by the customers themselves. Please use the nasal oxygen cannula product with the medical device registration. The warnings and cautions shown here are used for the correct and safe use of the product, in order to prevent harm or damage to the users or others.

Warnings and notes are as follows:

Legends	Contents
Warning	It is possible to cause casualties if the wrong use is indicated.
	It is possible to cause personnel injury or product damage when it is used incorrectly
ⓘ	Signs indicate mandatory (things that must be observed). The specific mandatory content is represented by text or pattern, and the left figure shows "general mandatory".
⊘	Signs indicate forbidden (things that must not do). The specific forbidden content is represented by text or pattern, and the left figure shows general forbidden.

Dangerous

Smoking is prohibited during the using of this product. Please do not place the fire source in the room of the oxygen generator.

Warning

Please do not use this product without reading the instructions, you can contact the manufacturer or technical personnel.

Accessories warn

Please do not use another Accessories,only can use our factory products. Other factory’s products may cause our products damage,do not use.

Noted

Please do arrange another machine to ready ,if this machine stop or break.you can ask your doctors or hospital.

Symbols and meanings related to safety in this machine

Symbols	Implication	Symbols	Implication
~	Alternating current	⚠	Caution!
□	Devices of class		Connection (general supply)
○	Disconnection (general supply)	⦿	Connection (part of the device)
○	Disconnection (part of the device)	↑↑	This side up
🚭	No smoking	☂	Non-rainproof
📦	Stacking limit by number		
🍷	Fragile		

2 Product features

Oxygen Concentrator

Item No : ZY-5AW

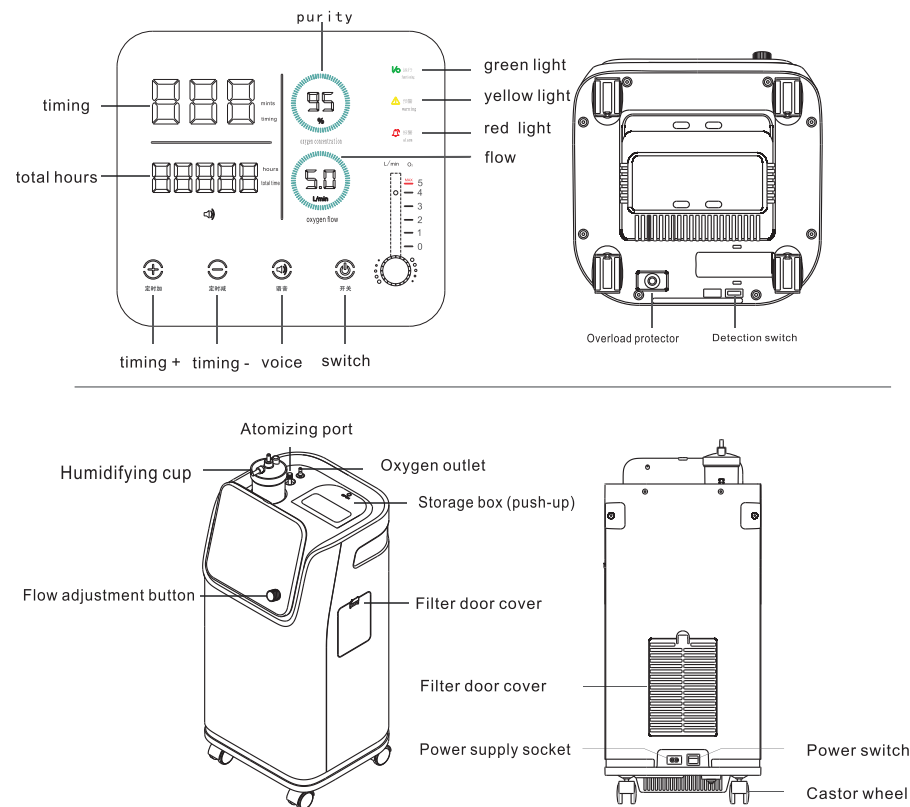
Product technical indicators:

1. The maximum recommended flow: 5 L/min
2. The flow range of nominal pressure of 7 k Pa: 0.5-5L/min
3. The flow rate change under the maximum recommended flow rate with the back pressure of 7 k Pa: <0.5 L/min
4. Oxygen concentration when the nominal pressure of the outlet is zero (the specified concentration level is reached within 30 min after the initial start-up): The oxygen concentration is 93 % $\pm$ 3 % at the oxygen flow rate of 1L/min
5. The output pressure: 30~70k Pa
6. Release pressure of compressor safety valve: 250 k Pa $\pm$ 50 k Pa
7. Machine noise: <60dB(A)
8. Power supply: AC220V/50Hz
9. Input power: 400VA
10. Net weight: about 19 kg
11. Dimensions: 305*308*680 (mm),
12. Altitude: The oxygen concentration does not reduce at 1828 meters above sea level, and the efficiency is less than 90 % from 1828 meters to 4000 meters.
13. Security system:
Current overload or loose connection line, machine halt;
High temperature of compressor, machine halt;
Power off, alarm and machine halt;
14. Minimum working time: no less than 30 minutes;
15. Electrical classification: Class II equipment, Type B application part;
16. Character of service: Continuous operation
17. Normal working environment:
Ambient temperature range: 10 °C - 40 °C;
Relative humidity $\leq$ 80 %;
Atmospheric pressure range: 860 h Pa - 1060 h Pa;
Note: The equipment should be placed in normal working environment for more than four hours before use when the storage temperature is lower than 5 °C.
18. Temperature of oxygen outlet $\leq$ 46 °C;
19. Recommendation: The length of the oxygen tube should not exceed 15.2 meters and cannot be folded;
20. Ingress protection rating: IPX0
21. Device type: Non-AP/APG device (cannot be used in the presence of flammable anesthetic gas mixed with air or flammable anesthetic gas mixed with oxygen or methylene).

3 Product Structure

Product Composition: This product mainly consists of oxygen generator, wetting cup and flowmeter. There should be an atomizing device with atomizing function. Scope of application: Using air as material, using the principle of molecular sieve adsorption to raise oxygen in the air, the oxygen concentration is 93% - 96%. Machines with atomization function can atomize drugs and then be inhaled by patients.

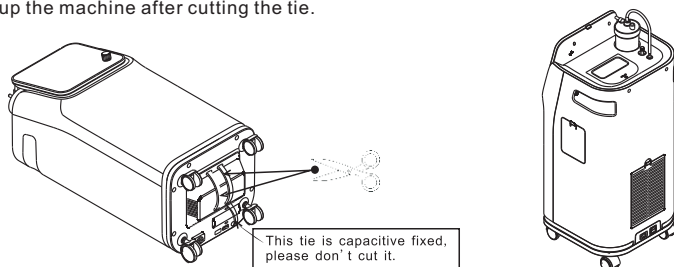
⚠ The product is not suitable for surgery, first aid and serious patients.



4 Installation & Operation

1 preparing work

1. Take out the oxygen generator from the box and remove all packaging.
2. Place the machine on a flat surface with the screen facing up and use scissors to remove the tie at the bottom (this tie is for a fixed compressor).
3. Set up the machine after cutting the tie.



4. Remove the wetting bottle, turn off the cap counterclockwise and add cold pure water. The water level is between the "Min" and "Max" scales on the wetting bottle.

Note: The optimum installation position of humidifying bottle in oxygen generator is shown .

5. Gently tighten the cap of the wetting bottle clockwise and place the wetting bottle in the installation tank of the main oxygen generator.
6. Insert one end of the connecting pipe with the oxygen outlet of the main engine and the other end with the air inlet of the humidifying cylinder, as shown.
7. Connect the power cord: First make sure that the power switch of the oxygen generator is off. Connect one end of the power cord to the power socket of the oxygen generator and the other end to the safe grounding socket with the output of electricity.

2 Oxygen inhalation operation

Put the switch "I" and turn on the switch when the label is bright on the screen , and the machine are working . After 7 seconds , the machine has the voice of gas. (it can be at good working condition 30 mints after turn on) According to the flow buttons on the screen . you can adjust the required flow rate.

Adjust the flow control knob to rotate counterclockwise to increase the flow, and clockwise to decrease the flow.

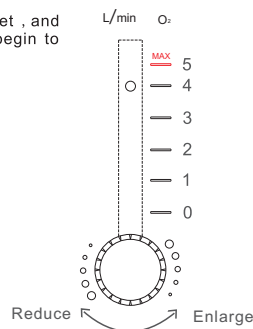
*Connect one end of the oxygen suction tube to the oxygen outlet , and the other end is worn well with the oxygen absorber and u can begin to absorb oxygen

*Adjusted the time and flow by demand .

*Close the oxygen machine when it is over . and remove oxygen terminal .

If the humidifying bottle emits a continuous exhaust sound, it is the sound of the safety valve opening in the humidifying bottle, and the surface oxygen suction pipe is blocked, please dredge the pipeline.

Warning: If the flow range on the flowmeter is less than 0.5 L/min, please check whether the pipeline or accessories are blocked, kinked or the wetting bottle is defective.



4 Installation & Operation

3 Atomization operation

Add appropriate amount of liquid medicine to the atomizing cup (please follow doctor's advice) The maximum calibration line of the atomizing cup shall not be exceeded.

Before starting, unscrew the fastening nut at the end of the atomizing port of the main engine counterclockwise

Before starting, the two ends of the air duct are respectively connected with the atomizing cup and the atomizing port of the main engine.

Turn on the power switch and start atomization therapy (please follow the doctor's advice for atomization time) . After the atomization of liquid medicine, the air duct at the atomization port is pulled out and the oxygen generator is closed.

After shutdown, please turn the fastening nut at the end of the atomizing port clockwise into the atomizing port and tighten it. If oxygen needs to continue to be absorbed, reopen the oxygen generator.

Type description with atomizer:

1. Only (ZY-SAW) model has atomization function, with atomization mouth.
2. 5 ml medical atomizer is recommended for atomizer.
3. For the use of disposable atomizer, please refer to the instructions for the use of disposable atomizer.
4. When the atomization function is used, the oxygen concentration will be reduced. When the machine alarms and stops using the atomization function, the machine alarms will be lifted and the non-machine fault will occur. (When using the atomization function, please turn the machine's "detection switch" off)

4 timing

Timing plus: every time you press the "Timing plus" key, the timing value increases by 10 minutes, indicating that the operation time increases by 10 minutes, holding down for more than 1.5 seconds, the timing value will continue to increase until it is released, the highest timing: 8 hours. Timing subtraction: every pressing of the "Timing subtraction" key reduces the timed value by 10 minutes, indicating that the running time is reduced by 10 minutes, holding down for more than 1.5 seconds, and the timed value will be continuously reduced until it is released, and the oxygen generator will automatically shut down after the set time.

5 voice

This machine with voice function , can be turn on/off with the function by voice switch.

6 Shutdown

1. Can be turn off by power switch when u are using the machine .
2. First u need Pull out oxygen tube with humidifying , and Turn off the power switch and unplug the power plug.

7 Fault Detection and Alarm Signal

Detection Switch Fault Monitoring

The Instructions of Detection Switch:

1. The detection switch is located at the edge of the rear shell at the bottom of the machine. When the detection switch is located at "0" , the detection function is in a stop state, and there is no detection function.
2. When the detection switch is located in "1", the detection function is open and has the detection function. it can be check :
1, pressure failure;
2. Compressor failure;
3, low oxygen concentration;

5 Alarm signal

1. Initial start of oxygen generator, green light on, the Oxygen concentration sensor is working after 5 mints .
2. the explain of light :

Symbol	state	Indicator light
I/O	The system is in good condition; the oxygen concentration $\geq 82\% \pm 3\%$	green light
⚠	$50\% \pm 3\% < \text{the oxygen concentration} < 82\% \pm 3\%$	yellow light
🔔	1. oxygen concentration $< 50\%$ 2. communication alarm 3. Compressor fault alarm 4. power failure alarm 5. low flow alarm.	red light

3. Power off alarm: red light on, continuous "drip" sound, alarm sound, no display screen, the whole machine stopped running. Close After the power switch, the alarm sound is eliminated and the power supply is restored to normal operation.

Compressor fault alarm: red light on, continuous "drip" sound, alarm sound, display screen display "E1", the whole machine stopped Function.

Low flow alarm: When the outlet flow is less than 0.5L/min, the machine red light flickers, and the display screen shows "E2", approximately. Shut down after 5 seconds.

Low oxygen concentration alarm: oxygen generator with oxygen concentration less than 50% (+3%) stopped working, red light flashed and accompanied by continuous failure

The alarm sound and the display screen are displayed as "E3", and the whole machine stops running. When oxygen concentration is more than 82%, I/O indicator lamp (green)

The light is on and the machine is working properly. When 50% (+3%) is less than 82% of oxygen concentration, the yellow light of "indicator" is on.

Communication alarm: sensor communication failure, display display "E4" fault lights 🔔 flashing,

and there is an alarm sound, the whole machine shut down. Note: 30 minutes is the best and most

stable state for each start-up of the oxygen generator.

6 Maintenance

Warning: For the maintenance of oxygen generator, first cut off the power supply.

1. Oxygen generator should be prevented from being in a cool, ventilated place. The oxygen outlet and exhaust outlet of oxygen generator should be kept unblocked.

2. Oxygen inhalation tools (nasal oxygen tubes) should be used by specialists to maintain hygienic use.

1. Cleaning the whole machine The machine shell is cleaned once a month.

First, the power is disconnected and wiped with clean and soft cotton cloth or sponge.

The liquid can not be flowed into the machine.

2. Cleaning filter screen and filter felt

The cleaning of filter screen and filter felt is very important for protecting compressor and molecular sieve and prolonging the life of machine. Please change or clean in time.

When the filter felt or filter screen is not installed or wet, the oxygen generator cannot be operated, otherwise the machine will be harmed.

3. Filter screen, filter felt and filter sponge are usually cleaned or replaced once in 100 hours.

1. Disassembly of Class 1 Filter:

Located in the back shell of the machine, the filter door cover plate is buckled down, then pulled out, the filter door cover is taken out, and the level 1 filter screen is removed. The filter screen should be cleaned according to the actual use time and environment. If there is obvious dust, it should be cleaned or replaced immediately.

2. Disassembly method of intake filter cover plate:

Located on the right side of the machine, buckle the filter door cover, pull it out and take out the filter door cover.

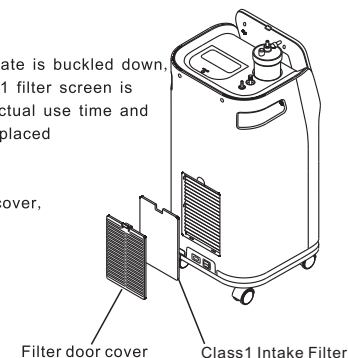
3. Replacement method of secondary filter felt:

After the air inlet filter cover plate is removed, the air inlet cover is rotated counter-clockwise. After the air inlet cover is loosened, the air inlet cover can be removed, and the secondary filter felt can be replaced or cleaned in time.

4. Cleaning methods:

Clean with a light detergent and rinse with clean water.

It must be dry before it can be loaded into the machine.



7 Alarm signal

Wash wetting cup:

The water in the wetting cup should be replaced every day. Wet cup is cleaned once a week, first with detergent, then with clean water to ensure oxygen hygiene. Clean the wetting cup, and also clean the cap of the wetting cup together.

Clean nasal oxygen tube:

Nasal oxygen tube is a disposable product. If it is reused, it should be cleaned after use. It can be soaked in vinegar for 5 minutes and then washed with clean water.

Clean atomizing assembly:

Atomization components are disposable products. If they are reused, they should be cleaned after each use. After the atomization, shut down the oxygen generator, pull out the air duct or the atomization mask, pour out the drug residue inside, soak the atomization device in water for 15 minutes, and then clean.

8 Matters needing attention

Fault phenomenon	fault analysis	processing method
Failure red light flashes. With holding continuous alarm sound. Display screen is shown as "E3", the whole machine stopped running.	Low concentration alarm	1. See if the traffic exceeds the recommended maximum residential traffic. The maximum recommended flow of ZY-5A/ZY-5AW is: 5L/min If the "E3" alarm still exists in the oxygen generator Please contact supplier or distributor in time
Failure lights flicker and have Alarm sound, whole machine shutdown	Sensor communication failure	Please contact the supplier or distributor immediately.

Trouble Shooting

phenomenon of breakdown	Analyses of breakdown	Processing method
The oxygen generator does not work or the indicator light is off after turning on the power switch	1. The power plug is in bad contact with the power socket.	1. Plug the power cord firmly.
	2. The outlet has no power output.	2. Move to a socket with electricity
	3. Main board damage	3. Replaced by professionals
After starting the running sound of the machine is normal the flow is adjusted normally but there is little or no feeding.	1. Is there any defect in the oxygen inhaler	1. Replace of oxygen inhaler
	2. There is a gap between the humidifying cup and the humidifying cup cap, which is not sealed	2. Renighten the lid of the humidifier or replace the humidifying bottle.
	3. The humidifying cup and the machine are not installed in place.	3. Reinstall humidifier bottles, humidifier bottles and machines should be operated horizontally.
	4. The humidifying cup inlet sealing is damaged or missing	4. Reinstall humidifier bottles, humidifier bottles and machines should be operated horizontally.
Turn on for a while. Machine temperature is very high or directly shut down.	1. Obstruction of intake or exhaust	1. The oxygen generator should be placed in the ventilation area, and distance to the concrete walls, and furniture should be at least 10cm.
	2. Inlet filter cotton dirty	2. Check whether the air inlet sponge behind the machine is blocked or dirty and clean up in time.
	3. Machine temperature is too high	When the machine leaves the factory, there is a high temperature protection device. If the machine stops because of high temperature, turn off the switch and check whether the filter sponge is dirty in the inlet and outlet, or whether the air inlet or outlet is blocked. Wait until the machine temperature drops, then restart.
Regular or slight popping exhaust sound	Normal	It is a normal phenomenon that the machine extracts oxygen and excludes other gas, and makes noise.