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4. Technical Indicators

1. Operating environment (oxygen concentration status indicator)

Ambient temperature: 10°C ~ 40 °C

Relative humidity: 30% ~ 75%

Atmospheric pressure: 860hPa ~ 1060hPa

Power supply: AC 220V±22V 50Hz ±1Hz
AC 110V±11V 60Hz ±1Hz

There shall be no corrosive gas or strong magnetic field in surrounding environment.

2. Air requirements

Impurities in raw material air: $\leq 0.3 \text{ mg} / \text{cm}^3$

Oil content in air: $\leq 0.01 \text{ ppm}$

3. Product functions

Total working time: Show the total working time through display screen.

Timing: Set oxygen absorption time as required.

Automatic shutdown: Automatic shutdown after reaching preset oxygen concentration time.

Power failure alarm function.

Low voltage alarm function

Voice function.

Circulating pressure failure alarm function (Optional function)

Low oxygen concentration alarm function (Optional function)

Atomization treatment function (Optional function)

5. Product Installation

1. Unpacking inspection

Open the carton box from top of the packing box, and then take out the oxygen concentrator. Carefully check whether there is any transport damage to the machine and then check the accessories and relevant documents according to the packing list.

2. Installation precautions



Attention

1. Oxygen concentrator shall be installed in indoor ventilating places without dust, corrosive, toxic or harmful gases or smoke. Avoid direct sunlight, and the distance from walls and other objects shall be greater than 10cm.
2. Oxygen concentrator shall not be installed in places with open flame, fire source, danger of flammability or explosion, humidity, too high or too low temperature. Besides, it shall not be used in a closed room(space).
3. No sundries, water or oil containers shall be placed on top of oxygen concentrator.
4. Oxygen concentrator shall not be placed on soft surfaces (e.g. bed, couch) that may cause tilting or sinking, avoid shutdown or oxygen concentration decrease caused by too high temperature due to blockage of air inlet or outlet.
5. Oxygen concentrator shall be placed smoothly, otherwise it will increase the noise during operation.
6. If grid voltage is instable and exceeds the range of 220V-230V AC or 110V AC, please install voltage stabilizer before use.
7. Please use safe and qualified socket and the wiring board with safe electricity certification.

3. Working mode:

Continuous working mode:

Press the "ON/OFF" button, oxygen concentrator will be started and enters into "Continuous" working state. The LCD displays the total working time.

Timer working mode:

After oxygen concentrator is started, press the "timing", oxygen concentrator will enter into timed working mode, for each press of "timing", preset time will be increased 30 minutes (minimum preset time is 1 hour, maximum preset time is 3 hours); Users can preset the time as required.

4. Function:

Tips:

Press "Tips" button more than 3 seconds, to get instructions with voice.

② Atomize(atomization model only):

Press "Atomize" button, the machine will enter into atomize working state.

③ Automatic shutdown:

After reaching the preset time, oxygen concentrator will automatically shut down.

5. Defaults inspection and alarming signal

The oxygen concentrator will give audible and visual alarms when the alarms happen. Please deal with alarms immediately.

A. When power is lost for less than or equal to 30s, the alarm settings prior to the power loss shall be restored automatically




B. The oxygen concentrator is applied with the following default inspection functions

Pressure, circulation defaults

Compressor defaults.

Low oxygen concentration

(1). The meaning of indicator lights

Symbols	Condition	Indicator lights	Audio indicator	Description
	Good condition: oxygen concentration $\geq 82\%(+3\%)$	Green	None	Normal oxygen output
	$72\%(±3\%) \leq$ oxygen concentration $< 82\%(+3\%)$	Yellow	Intermittent alarming sound	Low oxygen output
	System defaults 1) Oxygen concentration $< 72\%(±3\%)$; 2) Pressure, circulation defaults alarming; 3) Compressor defaults alarming.	Red	Continuous alarming sound	Excessively low oxygen output; Critical fault of device.

(2). Oxygen concentration alarm (Optional function)

When the oxygen concentration $\geq 82\%(3\%)$ --- green light lightens, which means the machine operates smoothly.

② When $72\%(±3\%) \leq$ oxygen concentration $< 82\%(3\%)$ --- yellow light lightens, please contact with the supplier immediately. User can temporarily use the machine, and please ensure there is standby oxygen.

When oxygen concentration $< 72\%(±3\%)$ --- the red light lightens with continuous alarming sound, the machine stops. Please power off the machine immediately and use the standby oxygen, contact with the provider as soon as possible.

NOTE: every time the oxygen concentrator starts, it will be in the most stable condition after about 30 minutes.

(3). Pressure, circulation defaults alarming --- the red light lightens with continuous alarming sound, the machine stops.

Please power off the machine immediately and use the standby oxygen, contact with supplier as soon as possible.

6. How to check oxygen working normally

The operator can check whether the oxygen concentrator is operating normally by the following methods:

(1) After the oxygen concentrator is turned on for 10 minutes, the power indicator and oxygen concentration indicator should be green, and the fault indicator should not be on.

(2) In the state of oxygen generation, block the oxygen outlet of the oxygen concentrator by hand, and the flowmeter should be able to return to the "0" position.

7. Cleaning & Maintenance

Warning : It is important to unplug the device before the cleaning and maintenance of oxygen concentrator.

Caution : Excess moisture may impair the proper operation of the device.

1. Clean of Device

Periodically use a damp cloth to wipe down the exterior case of this device.

2. Clean or replace the filter

The cleaning and changing of filter is very important for protecting compressor and molecular sieve and extending the working time of oxygen concentrator. Please timely clean and replace according to requirements.

WARNING: Oxygen concentrator shall not be started before filter are installed.

Clean of first foam filter.

The first foam filter should be cleaned once a week. During cleaning, draw out foam filter and rinse with clean water, it can be used after natural drying.

Replace of high efficiency filter(Called Hepa filter)(Figure 9).

When the machine total working time reach to 3000 hours. The user has to replace the Hepa filter. Open the filter window, remove the high Hepa filter, and then replace with a new one.

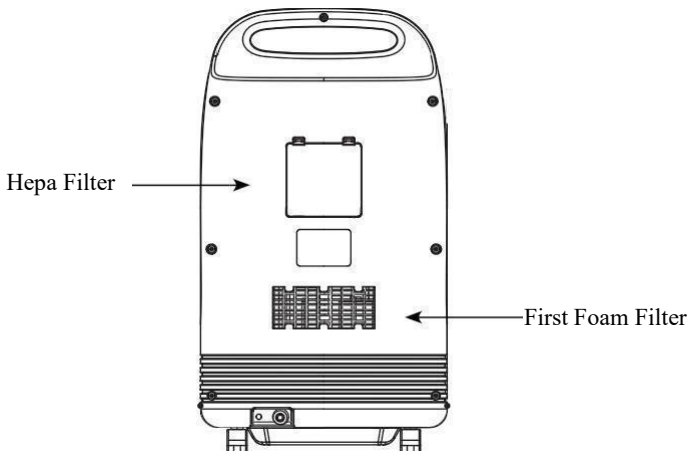


Figure 9

3. Clean of humidifier bottle

Remove humidifier bottle from the machine. Wash and clean it with warm water. In case of any water scale, rinse with clean water after descaling.

After cleaning, mix white vinegar with hot water in ratio of 1:3, soak the humidifier bottle in the mixture for 30 mins for sterilization.

During cleaning, pay attention to cleaning the small air hole at the bottom of the core tube in the bottle, so as to keep oxygen unobstructed.

Service: Do not remove the covers of this device. Only authorized provider or trained personnel of the manufacturer can perform maintenance.

9. Electromagnetic Environment Guidance

This electrical medical equipment needs special precautions regarding EMC and put into service according to the EMC information provided in the user manual; The equipment conforms to this IEC 60601-1-2:2014 standard for both immunity and emissions. Nevertheless, special precautions need to be observed:

➤ The equipment with following ESSENTIAL PERFORMANCE is intended used in Home healthcare environment

Essential Performance:

1. The solenoid valve and each indicator light should work normally five minutes after the medical oxygen concentrator is turned on. Oxygen should be output, and alarm function should be available in case of failure.

a) When the output oxygen concentration is lower than 82% (volume fraction), there should be an audible and visual alarm.

b) When the compressor, solenoid valve or pipeline breaks down in the system, it shall make an audible and visual alarm.

c) When the network power is interrupted and the equipment cannot work normally, it shall make a red-light alarm.

2. Temperature rise of medical oxygen concentrator: Under normal working conditions, the maximum temperature of the plastic housing is $\leq 48^{\circ}\text{C}$, and the gas temperature at the oxygen outlet of the oxygen concentrator is $\leq 41^{\circ}\text{C}$.

➤ WARNING: Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally”.

➤ The use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation.

➤ WARNING: Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the product, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.”

➤ WARNING: If the use location is near (e.g. less than 1.5 km from) AM, FM or TV

