

# OXYGEN CONCENTRATOR USER'S MANUAL

DO NOT OPERATE THIS UNIT WITHOUT FIRST  
READING AND UNDERSTANDING THIS MANUAL.

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### SAFETY NOTES

**WARNING:** For avoiding power outage or oxygen concentrator operating failure, exigent oxygen user and serious patient must equip with reserve oxygen supply (for example: oxygen cylinder, oxygen bag). This device is to be used as an oxygen supplement and is not considered life supporting or life sustaining.

#### I. Before installation

- The concentrator should always be kept in the upright to prevent cabinet damage while being transported;
- Electrical source, power voltage is instable that beyond normal power voltage range. Please use manostat.

#### II. Position

- Be certain to place the unit so all sides are at least 10cm (4 inches) away from walls, draperies, furniture, or other obstruction.
- Oxygen concentrator must avoid heat source, fire source, wetness exorbitant or over-low extraventricular condition.
- Sundries and vessel do not be placed on top of the concentrator.
- NEVER block the air openings of the unit or place it on a soft surface, such as a bed or couch, where the air opening maybe blocked. Keep the openings free from lint, hair.

#### III. USING

- The use of oxygen therapy requires that special care be taken to reduce the risk of fire. Users MUST NOT

SMOKE while using this device. Keep all matches, lighted cigarettes or other sources of ignition out of the room in which this product is located. NO SMOKING signs should be prominently displayed. Textiles and other materials that normally would not burn are easily ignited and burn with great intensity in oxygen enriched air. Failure to observe this warning can result in severe fire, property damage and cause physical injury or DEATH.

- For optimum performance, do not open or turn off the concentrator frequently, reset after 3~5 minutes. Shorter periods of operation may reduce maximum product life.
- A spontaneous and violent ignition may occur if oil, grease or greasy substances come in contact with oxygen under pressure. These substances MUST be kept away from the oxygen concentrator, tubing and connections, and all other oxygen equipment. DO NOT use any lubricants unless recommended by manufacturer.

#### IV. TO REDUCE THE RISK OF BURNS,

#### ELECTROCUTION FIRE OR INJURY TO PERSONS.

- Avoid using while bathing. If continuous usage is required by the physician's prescription:  
The concentrator must be located in another room at least 2.5 m from the bath.
- DO NOT come in contact with the concentrator while wet.
- DO NOT place or store product where it can drop into water or other liquid.
- DO NOT reach for product that has fallen into water.  
UNPLUG IMMEDIATELY!

- A product should NEVER be left unattended when plugged in.
- Close supervision is necessary when this product is used near children or physically-challenged individuals.
- DO NOT use parts, accessories or adapters other than those authorized by manufacturer.
- Use of some administration accessories or certain humidifiers not specified for use with oxygen concentrator may impair the performance.
- Avoid creation of any spark near medical oxygen equipment. This includes sparks from static electricity created by any type of friction.

## FEATURES

I. Application scope of the product  
To provide medical oxygen.

II. Characters

- ▲ Major Components: oxygen concentrator case, flowmeter, humidify bottle.
- ▲ Complete plastic out shell, safe and reliable.
- ▲ Timing function, users can checking the total using time by screen easily.
- ▲ Timing turns off function using convenience.
- ▲ With high air pressure valve, more reliable.
- ▲ With power off function.
- ▲ Compressor with hot protection which ensure of the compressor and concentrator.
- ▲ With nebulizing function

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## III. SPECIFICATION:

1. Flow range: 0.5~5L/min;
2. Oxygen density: 93%±3%
3. Maximum outlet Pressure: 0.04MPa~0.07MPa
4. Soud level: ≤53dB(A)
5. Maximum nebulizer rate: ≥0.1ml/min
6. Input power: ≤500VA
7. Net weight: 21kgs
8. Product size: 43\*31\*56cm

## IV. ACCESSORIES LIST

1. Nasal oxygen cannula: 1 set
2. Humidifier bottle: 1pc
3. User's manual: 1pc
4. 1-stage filter: 1pc
5. II-stage filter: 1pc
6. Fuse tube: (T5AL250, Φ5x20) 2pcs
7. Fuse tube: (F1AL250, Φ3x10 with pin) 2pcs

## V. Safety system

- ▲ Electric current overload or line loosening, oxygen concentrator will stop working automatically;
- ▲ Compressor over heat, oxygen concentrator will stop working automatically;
- ▲ Pressure, cycle fault, warning and stop working automatically;
- ▲ Compressor fault, warning and stop working automatically.

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## VI. Normal operation conditions

- Temperature range: 5℃~40℃
- Relative humidity: 20%~60%
- Atmosphere pressure: 86kPa~106kPa

## HANDLING

### 1. UNPACKING

- Check for any obvious damage to the carton or its contents. If with evident damage, please notify the carrier or local dealer.
  - Remove all loose packing from the carton.
  - Carefully remove all the components from the carton.
- NOTE: Unless the oxygen concentrator is to be used immediately, retain containers and packing materials for storage until use of the concentrator is required.

### 2. INSPECTION

Examine exterior of the oxygen concentrator for nicks, dents, scratches or other damages. Inspect all components.

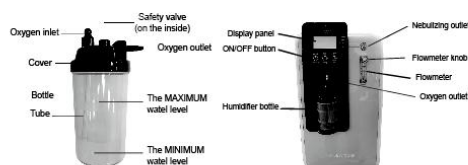
### 3. STORAGE

- Store the repackaged oxygen concentrator in a dry area.
- DO NOT place other objects on the top of the repackaged concentrator.

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## OPERATING & INSTALLATION

### I . FEATURE VIEW



### II . PREPARE WORK

1. Unscrew the bottle from the humidifier counterclockwise. Fill the bottle with pure water (or distilled water) to the level indicated by the manufacturer. (see above picture) DO NOT OVERFILL humidifier bottle.
2. Screw securely the bottle back clockwise.
3. Connect the power supply.
4. Press down the power switch, then press the ON/OFF button on the panel, after a few seconds, the concentrator will work.

### III.OXYGE ABSORBING OPERATION

1. Turn the flowmeter knob to the prescribed by your physician or therapist.
- CAUTION: If the flowrate on the flowmeter ever falls below 0.5L/min, check tubing or accessories for blocked or kinked tubing or a defective humidifier bottle.

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2. Connect nasal oxygen cannula to oxygen outlet, the other end match the patient.

IV. Timming fuction

The oxygen concentrator with timming function, time range 0~99 minutes.

- Turn on the concentrator, the screen timming shows '—', it shows continue work status;
- Timming '+'button: press '+'each time, add one minute; Press on '+'more than 5 seconds, the timming time will add automatically until loosen the button.
- Timming '-'button: press '-'each time, decrease one minute; Press on '-'more than 5 seconds, the timming time will decrease automatically until loosen the button.
- Oxygen concentrator will turn off to the timming time, then the timming time will show '00' on screen.

※ V. NEBULIZING OPERATION (Apply in the oxygen concentrators having the function of nebulizing)

- Fill proper medicinal liquid in the nebulizing cup (Please follow the doctor's advices or dont exceed the maximum scale of the nebulizing cup.)
- Upward pull out the nebulizing cover on the nebulizing interface.
- Connect the air hose to nebulizing cupand nebulizing interface, then turn on the power of the oxygen concentrator, now can begin nebulizing cure immediately.
- When drug nebulization have finished, turn the nebulizing cover right to nebulizing interface for

tightening. If you wont breath oxygen, please turn off the oxygen concentrator.

MAINTENANCE

NOTE: Power should be disconnected before beginning preventive maintenance on the concentrator. The concentrator is specifically designed to minimize routine preventive maintenance at intervals of once per year. In places with high dust or soot levels, maintenance may need to be performed more often. The following must be performed at a minimum of one year in service to assure years of additional reliability.

- Clean the outer case one time each month with a mild cloth or sponge.
- Cleaning or replacing filters  
Please clean and replace the filters in time, it is very important to protect compressor and make the oxygen concentrator can be used longer time.  
CAUTION: DO NOT operate the concentrator without the filters installed.

• Disassembly

- 1) 1-stage air intake cleans once a month.
- 2) II-stage filter mesh in filter cleans once month.
  - ① Open the back air window case
  - ② Unscrew the II-stage filter then pull out directly (reference to below pictures)



II-stage filter mesh cleaning time depends on practically using and condition. If the filter core becomes black, please replace or clean at once, whether the practive time is long or short.

• Cleaning

- 1) Clean the filters with a vacuum cleaner or wash in warm soapy water and rinse thoroughly.
- 2) DRY the filters thoroughly before reinstallation.

• CLEANING HUMIDIFIER

- 1) Change the water in humidifier bottle every day.
- 2) Clean humidifier once a week, rinse thoroughly and refill with pure water (or distilled water) to the level shown on the humidifier.

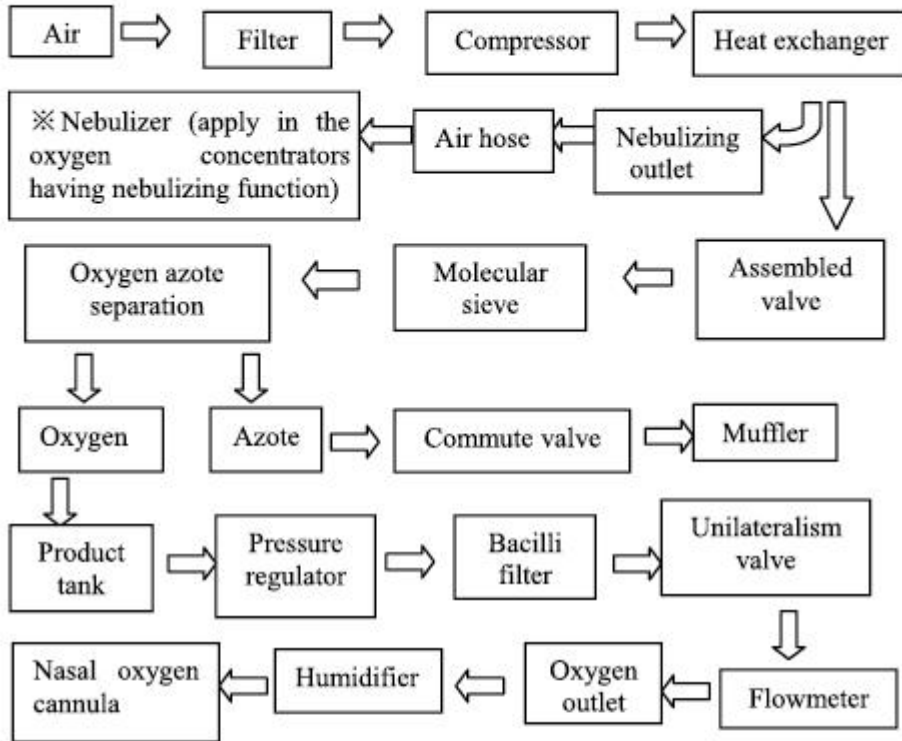
FAILURE CHICKING

| Symptom  | Probable cause                        | Solution   | Remark                          |
|--|---------------------------------------|--|---------------------------------|
| Press the switch, the concentrator is alarm of continuous buzzer but no display and working.   | 1) Power cord NOT plugged in.         | 1) Insert plug into outlet.  |                                 |
|  | 2) No power at outlet.                | 2) Use normal power.   |                                 |
|  | 3) The fuse tube for net power break. | 3) Replace fuse tube.  | Repairs by qualified personnel. |
|  | 4) Tripped circuit breaker.           | 4) Replace it.   |                                 |
| Concentrator is working, the turning sound of assemble valve is weak and the flowmeter can turn down but can't turn up at a certain value. | 1) I-stage filter blocked.            | 1) Clean it.   |                                 |
|  | 2) II-stage filter blocked.           | 2) Clean or replace it.  |                                 |
|  | 3) Insufficient power at outlet.      | 3) Do not use extension cords. Move to another electrical outlet or circuit. |                                 |

| Symptom  | Probable cause                               | Solution  | Remark |
|--|--|---|--------|
| Concentrator is working, but oxygen from outlet is little or no.           | 1) Humidifier leaked.                        | 1) Reinstall and tighten it.  |        |
|  | 2) Safety valve of humidifier opens.         | 2) Safety valve restoration.  |        |
|  | 3) The connection of the tubes loosened.     | 3) Insert tubes.  |        |
|  | 4) The nasal cannula kinked or blocked.      | 4) Replace it.  |        |
| Concentrator is not working, red light on warning, it shows 'LO' on screen | 1) Oxygen density lower than 50%             | Wash or change filter   |        |
|  | 3) Flowmeter over 5L/min                     | Turn off concentrator, turn on and adjust the flowmeter again   |        |
| Concentrator is not work, red light on, warning, it shows 'E1' on screen   | 1) System cyclic pressure lower than normal  | Wash or change filter   |        |
|  |  | If it continues warning after change file, turn off the concentrator and please get contact with seller or distributor immediately. |        |
| Concentrator is not work, red light on, warning, it shows 'E2' on screen   | 1) System cyclic pressure higher than normal | please get contact with seller or distributor immediately.  |        |
| Concentrator is not work, red light on, warning, it shows 'E3' on screen   | Compressor circuit open                      | please get contact with seller or distributor immediately.  |        |
| Concentrator is not work, red light on, warning, it shows 'E4' on screen   | Compressor short circuit                     | please get contact with seller or distributor immediately.  |        |

**OTHER ATTENTION ITEMS**

**GAS PASS OPERATION SKETCH MAP**



**III. ELECTRICAL RATIONALE**

