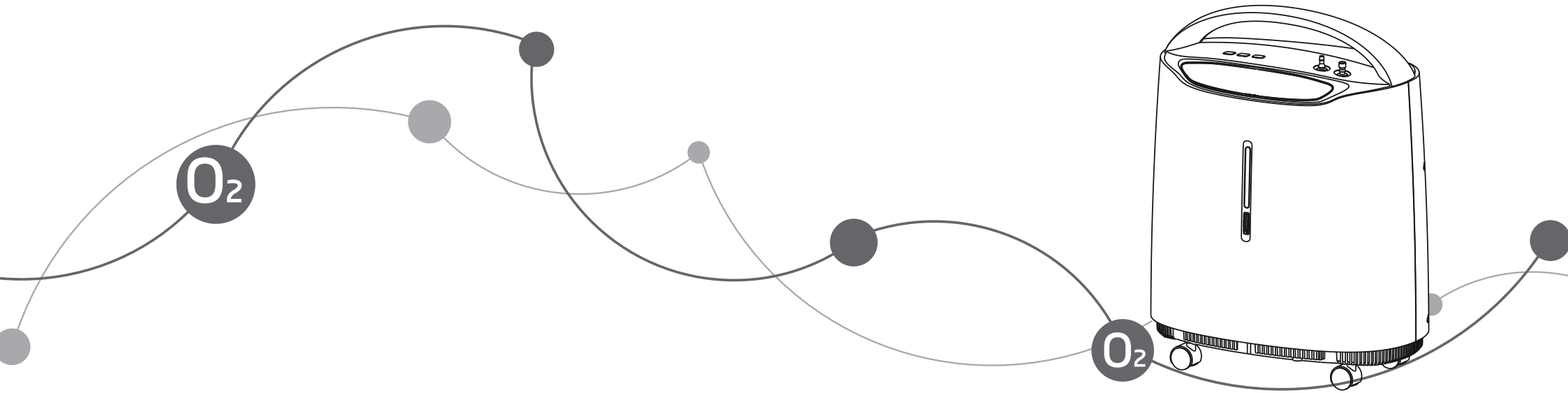




YU8F-5A Oxygen Concentrator

User's Manual



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131039-0A



Do not operate this unit without first
reading and understanding this manual

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WARNING: INDICATION FOR USE

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. It is not intended for life supporting, or life sustaining applications nor does it provide any patient monitoring capabilities.

WARNING: CONTRAINDICATIONS

The oxygen concentrator is not intended for life supporting or life sustaining applications, nor does it provide any patient monitoring capabilities.

Symbol	Description
 WARNING	Describes a hazard or unsafe practice that if not avoided can result in severe bodily injury, death or property damage.
 CAUTION	Describes a hazard or unsafe practice that if not avoided can result in minor bodily injury or property damage.

I. IMPORTANT MESSAGE

- To reduce the risk of electrical shock, **DO NOT** remove the cabinet. Refer service to qualified service personnel.
- Before operating the device, read and understand this manual.

II. BEFORE INSTALLATION

- The concentrator should always be kept upright to prevent cabinet damage while being transported.
- If the power point is unstable, please add the voltage stabiliser. Please use eligible, safe power set and junction box.
- Non-professional users - **DO NOT** open oxygen concentrator's cabinet.

III. LOCATING

- Place the oxygen concentrator where it would be most convenient, the concentrator can also be easily move from one room to other room.
- Place the device at least 10 cm (4 inches) away from walls, draperies, furniture, or other obstruction. **DO NOT** place the unit in a confined area.
- Keep the oxygen concentrator away from heat source, fire source, damp areas, exorbitant or over-low extra ventricular condition.
- Do not be placed objects on top of the concentrator.

SAFETY NOTES

DO NOT block the air openings of the unit or place it on a soft surface, such as a bed or couch, where the air opening may be blocked. Keep the openings free from lint and hair

IV. USING

- Special care should be taken to reduce the risk of fire. Materials that may not normally burn easily, may easily ignited and burned in oxygen enriched air. **DO NOT SMOKE** while using this device. Keep all matches, lighted cigarettes or other sources of ignition away from this product. **NO SMOKING** signs should be prominently displayed. 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. Shorter periods of use 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 device. **DO NOT** use any lubricants unless recommended by manufacturer.

V. MAINTENANCE

Only professionals of the healthcare field, authorised or factory trained personnel should perform preventive maintenance or performance adjustments on the oxygen concentrator.

VI. RADIO FREQUENCY INTERFERENCE

This equipment generates, uses and can radiate radio frequency energy. If this product is not installed according with the instructions, it may cause harmful interference to other devices in the area. If this equipment does cause interference to other devices, the user is can try to stop the interference by:

- Relocate the disrupted device.
- Increase the separation distance between the equipment.
- Connect the product into a different outlet from the other device(s).
- Consult the manufacturer or service technician for help.

VII. TO REDUCE THE RISK OF BURNS, ELECTROCUTION, FIRE OR INJURY TO PERSON

- Avoid using while bathing.
- **DO NOT** come in contact with the concentrator while wet.
- **DO NOT** place or store product where it can fall into water or other liquid.
- **DO NOT** reach for product if it has fallen into water.
UNPLUG IMMEDIATELY.
- **DO NOT** leave this device unattended while plugged in and in use.
- This device is to be used only in accordance with the prescription of a physician and this User's Manual. If at any time the patient or attendant concludes that the patient is receiving an insufficient amount of oxygen, the supplier and/or physician should be contacted immediately. No adjustments should be made to the flowrate unless prescribed by a physician.
- Close supervision is necessary when this product is used near children or physically-challenged individuals.
- Use this product for only intended use as described in this manual.

VII. TO REDUCE THE RISK OF BURNS, ELECTROCUTION, FIRE OR INJURY TO PERSON

- **DO NOT** use parts, accessories or adapters other than those authorised by the manufacturer
- **DO NOT** use the concentrator with other oxygen concentrators or oxygen therapy devices.
- In certain circumstances oxygen therapy can be hazardous. Always seek medical advice before using this product.
- The shelf life of the device is 5 years from first operation.

I. SUMMARY

Oxygen concentrator YU8F-5A is intended for individual use as an oxygen supplement device in the professional healthcare facility and home healthcare environment. It is an electronically operated device that separates oxygen from room air. It provides high concentration of oxygen directly through a nasal cannula. It provides high concentration of oxygen to patients with respiratory disorders e.g. COPD (Chronic Obstructive Pulmonary Disease), LTOT (Long Term Oxygen Therapy) and more.

II. FEATURES

- Complete plastic outer shell, safe and reliable
- Timing function, show total operating hours through the display screen
- Timed turning off function
- Compressor pressure relief valve
- Power interruption alarm function
- Device failure alarm function (including pressure/cycle failure, compressor failure, low oxygen concentration)
- Compressor with over heat protect function
- Nebulising function (Other Model)
- Remote controlled

III. SPECIFICATIONS

1. Maximum Recommend Flow Rate: 5L/min
2. Flow Range: 0~5L/min
3. Change in maximum recommended flow when back pressure of 7kPa is applied: 0.5L/min
4. Oxygen Concentration: 95.5%~87%
5. Output Pressure: 40~70kPa

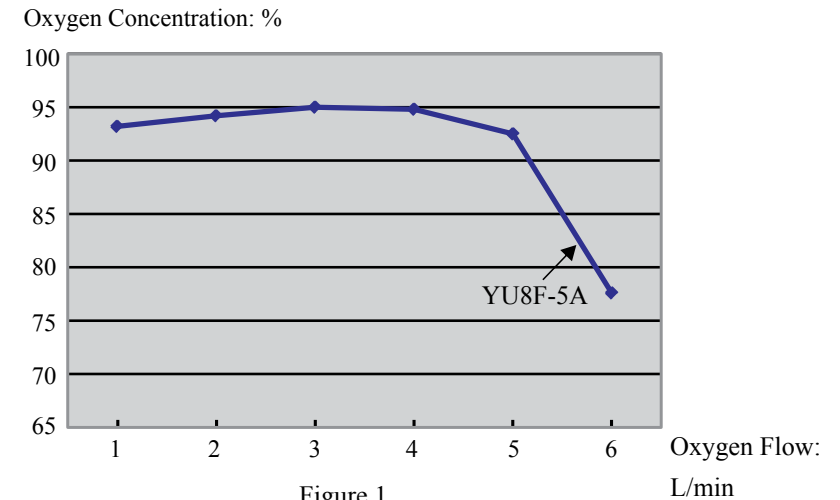


Figure 1

6. Pressure Relief Mechanism Operational at: 250kPa±25kPa (36.25psi±3.63psi)
7. Sound Level:
Average (Front Side): 48dB(A),
Average (Whole Unit): 52dB(A).
8. *Maximum Nebulising Rate: $\geq 0.15\text{mL/min}$
9. Power Supply: AC230V±10%, 50Hz±2%
10. Input Power: 400VA
11. Net Weight: 15.5kg
12. Dimension: W39cm(15.4") X D24.5cm(9.7") X H50cm(19.7")
13. Altitude: Up to 1828 meters (6000 ft) above sea level without degradation of concentration levels. From 1828 meters (6000 ft) to 4000 meters (13129 ft) below 90% efficiency.

14. Safety System:

- Over Current or Connection Loosen: Unit Shut Down
- Compressor Over Hot: Unit Shut Down
- Pressure, Cycle Failure: Alarming and Shut Down
- Compressor Failure: Alarming and Shut Down
- Low Oxygen Concentration

15. Minimum Operating Time: 30minutes

16. Electric classification: class II equipment, type BF applied part

17. Work system: work continuously

18. Normal Operating Condition:

- Temperature range: 10°C~40°C (50°F~104°F)
- Relative humidity: 30%~75%
- Atmosphere pressure: 860hPa~1060hPa (12.47psi~15.37psi)

⚠ CAUTION: When storage/transportation condition is lower than 5°, please put the device in normal operating conditions for more than 4 hours prior to operating.

19. Oxygen Output Temperature: ≤46°C

20. Cannula length no more than 15.2m (50ft) and with no twist.

21. Storage and Transportation Condition:

- Temperature range: -20°C~60°C (-4°F~140°F)
- Relative humidity: 10%~93% Non-condensing.
- Atmosphere pressure: 700hPa~1060hPa (10.15psi~15.37psi)

⚠ CAUTION: The device should be stored away from strong sunlight or corrosive gas. Place in a well ventilated indoor area. The device must be transported and used in the vertical position only.

I. UNPACKING

1. Check for any obvious damage to the carton or its contents. If damage is evident, please notify the carrier or local dealer.
2. Remove all loose packing from the carton.
3. Carefully remove all the components from the carton.

II. INSPECTION

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

III. STORAGE

1. Store the oxygen concentrator in a dry area.
2. **DO NOT** place other objects on top of the concentrator.

I. FEATURE VIEW

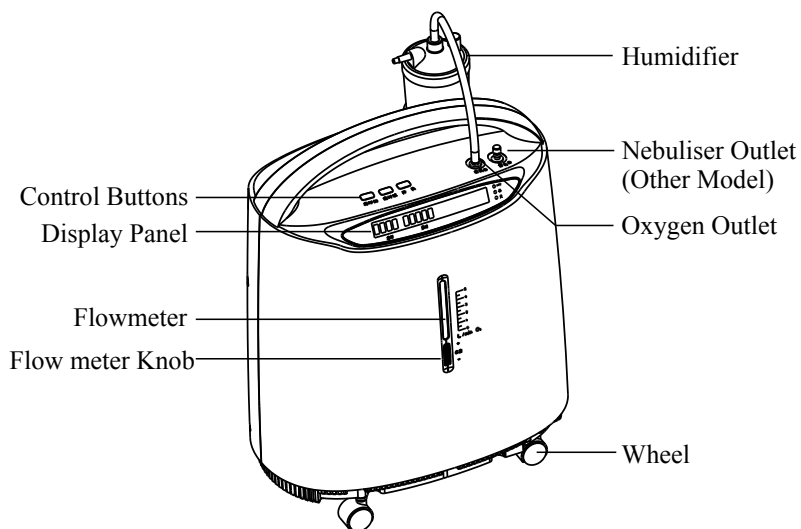


Figure 2: Full view (Front)

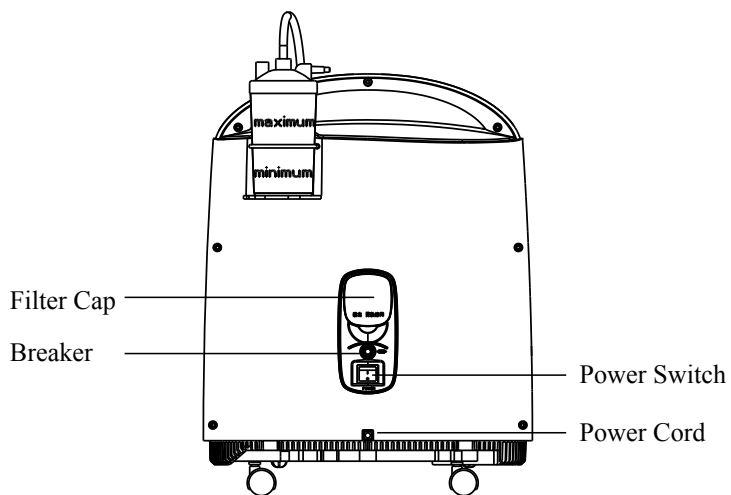


Figure 3: Full view (Back)

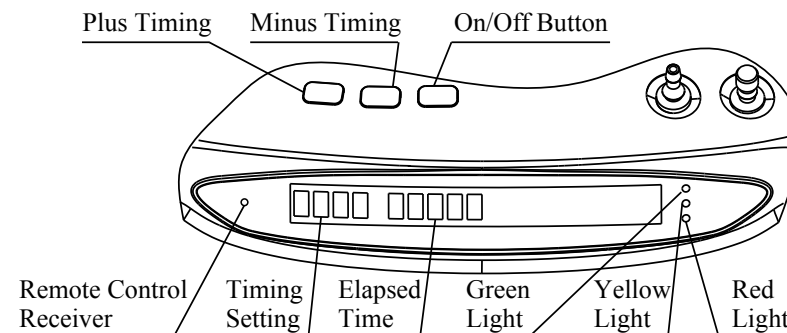


Figure 4: Control Panel

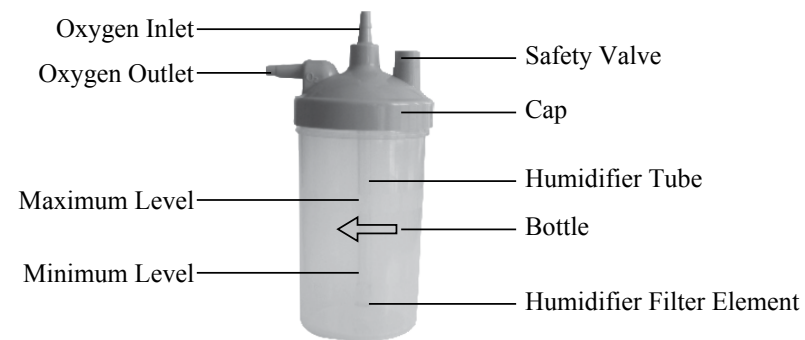


Figure 5: Humidifier Components

II. PREPARE WORK

1. Unscrew the bottle from the humidifier. Fill the bottle with pure water (or distilled water) to the level between MAXIMUM and MINIMUM. **DO NOT** fill humidifier bottle above MAXIMUM level.
2. Securely screw the bottle back.
3. Connect the power supply.

- ⚠ CAUTION:** 1) If the concentrator has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged, or dropped into liquid, call Qualified Service Personnel for examination and repair.
- 2) Keep the cord away from HEATED or HOT surfaces.
- 3) Do not move or relocate concentrator by pulling on the cord.
- 4) Do not use extension cords with this unit.

NOTE: Concentrator may be used during the initial start warm-up time (approximately 30 min) while waiting for the O₂ purity to reach maximum.

III. OXYGEN ABSORBING OPERATION

1. FLOW RATE (Figure 6)

- Turn the flow rate knob to the setting prescribed by your physician or therapist.

NOTE: To properly read the flow rate, locate the prescribed flow rate line on the flow meter.

Next, turn the flow knob until the ball rises to the line.
Now, center the ball on the L/min line prescribed.

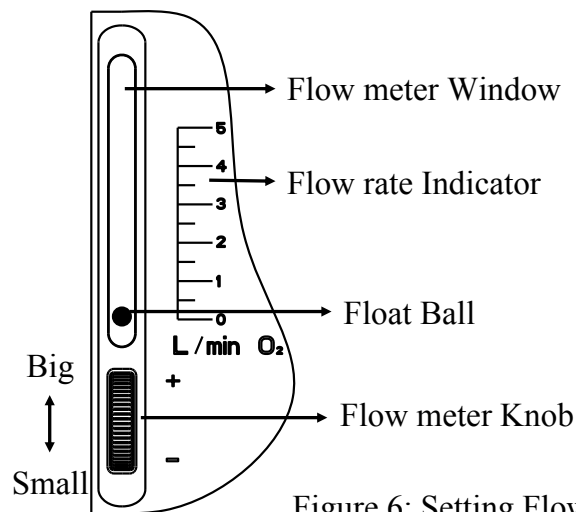


Figure 6: Setting Flow rate

OPERATING & INSTALLATION

- ⚠ CAUTION:** If the flow rate on the flow meter ever falls below 0.5L/min, check tubing or accessories for blocked or kinked tubing or a defective humidifier bottle.

The humidifier bottle will have air bubbles around the sieve core.
Oxygen will come out from the oxygen outlet.

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

IV. NEBULISING OPERATION (OTHER MODEL)

- Fill prescribed medicinal liquid in the nebulising cup (always follow the doctor's advice or don't exceed the maximum line of the nebulising cup).
- Pull the nebulising cap upward on the nebulising interface. (Figure 7)

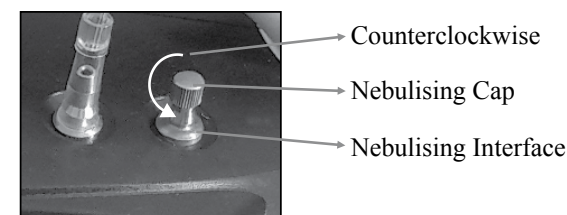


Figure 7: Nebulising

- Connect the air hose to nebulising cup and nebulising interface, then turn on the power of the oxygen concentrator,
- Turn the nebulising cap right when nebulising is finished.
- Pull out the air hose, mouthpiece and nebulising cup cap then empty remaining medicinal liquid in the nebulising cup and wash the air hose, mouthpiece, nebulising cup cap, nebulising baffle, nebulising cup, ripple tube and T-piece, with pure water or immerse them in warm water for about 15 minutes, you may add some vinegar in the water. (NOTE: DO NOT put the accessories in boiling water as the boiling water will shift its shape).

- After finishing cleaning, must dry all the components before storage. (Nebuliser installment is shown in figure 8).

NOTE: The timing for using nebuliser must follow the doctor's advices.

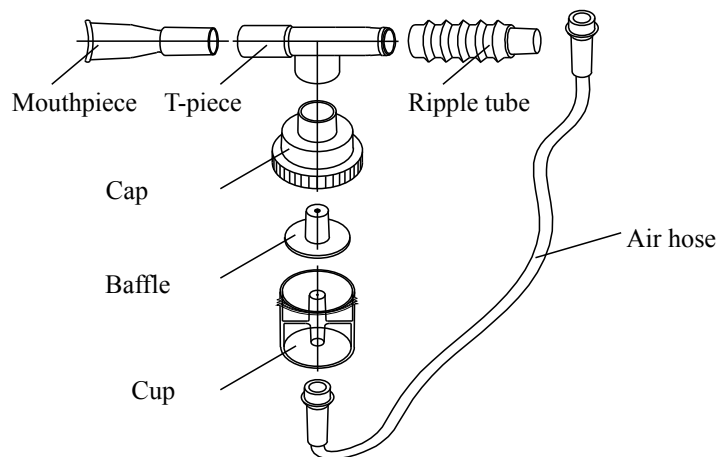


Figure 8: Nebuliser Components

V. ALARM SIGNAL

Concentrator has following failure alarm function:

- 1) Pressure and cycle failure
- 2) Compressor failure
- 3) Low oxygen concentration

Note: All the alarms of the device are low priority.

VI. MAINTENANCE

• Initial startup of the concentrator

When the unit is turned on, the green light will come on (O₂ concentration greater than 82%). After 5 minutes, the oxygen sensor will operate normally and will control the indicator lights depending on oxygen concentration values. The explanation of the indicator light functions are as follows:

Explanation of the indicator light

Symbol	Status	Indicator lights
I/O	SYSTEM OKAY (O ₂ concentration is greater than 82%.)	Green
!	O ₂ concentration is greater than 50% and less than 82%.	Green, Yellow
Bell icon	SYSTEM FAILURE (O ₂ concentration is less than 50%; Or, High/Low cycle pressure failure alarm; Or, Compressor circuit failure alarm)	Red

• Alarm signal register

1. O₂ concentration is greater than 82%. - Green light illuminates, and panel shows “— — — H elapsed time H”. Normal Operation.
2. O₂ concentration is greater than 50% and less than 82%. — — Green and yellow light illuminate, and panel shows “— — — H elapsed time H”. Call Supplier Immediately. You may continue to use the concentrator unless instructed otherwise by your supplier. Be certain that BACKUP OXYGEN is nearby.

NOTE: Concentrator will reach the most stable state after warming up (approximately within 30 minutes).

3. O₂ concentration is less than 50%. — — Red light illuminates, continuous audible alarm sounds, panel shows word “LO” and the unit shutdown. Switch immediately to backup oxygen supply. Call supplier immediately.
4. Low/High pressure, cycle failure alarm — — Red light illuminates, continuous audible alarm sounds, and panel shows word “E1” or “E2”. Total unit shutdown. Switch immediately to backup oxygen supply. Call supplier immediately.
5. Compressor failure alarm — — Red light illuminates, continuous audible alarm sounds, and panel shows word “E3” or “E4”. Total unit shutdown. Switch immediately to backup oxygen supply. Call supplier immediately.

VII. SETTING TIMING UP

- User can press the timing button to set the operating time within 2 hours. When it starts working, the display shows “— — — H elapsed time H”, it means that timing function is closed. It will work continually until power supply cuts off.
- Press the “+” button once, operation time increases 1 minute, holding the button more than 1.5 seconds it will increase continually.
- Press the “-” button once, operation time decrease 1 minute, holding the button more than 1.5 seconds it will decrease continually.
- The device will auto turn off and the display will show “00:00H” when the timer has finished. Reset timing function.

VIII. TURNING OFF

- During using the device, user can press down the on/off button, mounted in control panel, to stop/start oxygen supply.

IX. SYMBOLS

Symbol	Description	Symbol	Description
~	Alternating current	⚠	Consult the manual
□	Class II Equipment	⚡	Type BF Applied par
○	OFF (power disconnection from the mains)		ON (power connection to the mains)
⏏	Breaker	↑↑	Keep Up
🚭	No Smoking	🚫	Fragile
☂	Keep Dry	📦	Stacking Limitation

X. Remote Control

Use infrared remote controller to operate the device. (Figure 9)

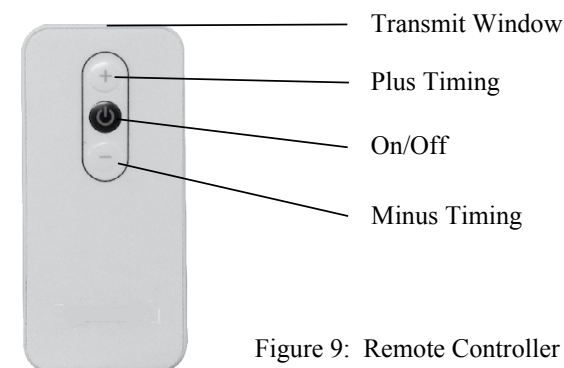


Figure 9: Remote Controller

Note: During remote control operating, the remote controller must be toward the receiver which is located in the control panel.

NOTE: Power should be disconnected before beginning preventive maintenance on the concentrator. The concentrator is specifically designed to minimise 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.

I. CLEAN CABINET

⚠ WARNING: CUT OFF the power supply first to avoid electrical shock. **DO NOT** remove device cabinet.

Clean the cabinet with a mild household cleaner and non-abrasive cloth or sponge at least once a month. Do not drop any liquid into the device while cleaning.

II. CLEAN OR REPLACE FILTER

Please clean or replace the filters in time, it's very important to protect compressor and to extend the device life.

• Disassembly Filter

Remove the filter cover and take out the filter.

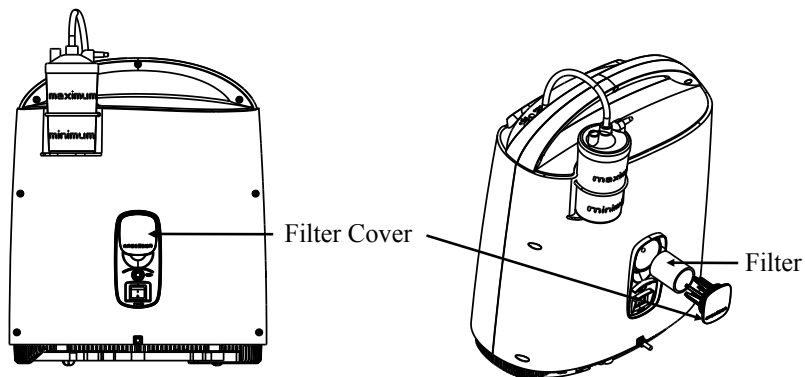


Figure 10: Remove Filter

• Clean Filter

- 1) Clean the filter with a soft cleaner or wash in warm soapy water and rinse thoroughly.
- 2) DRY the filter thoroughly before reinstallation.
- 3) The filter must clean or replace.

⚠ CAUTION: DO NOT operate the concentrator without installing filter or while filter is wet. This could permanently damage the concentrator.

• Clean Humidifier

- 1) Remove the humidifier bottle from the humidifier cap then clean the bottle.
- 2) Remove the humidifier tube and diffuser then clean them.

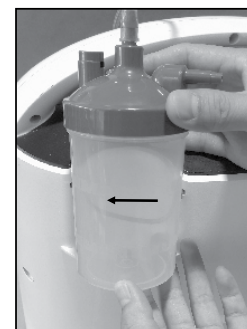


Figure 11

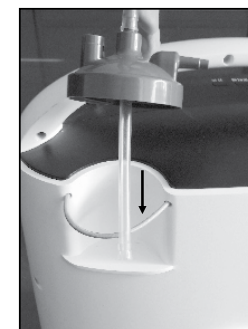


Figure 12

• Clean Nebuliser

Note: Must clean the nebuliser after using.

- 1) After nebulising, remove the nebuliser from oxygen concentrator. Turn off the oxygen concentrator, disconnect the hose, remove the cap, disassembly the nebuliser as shown in Figure 8.
- 2) Put all the nebuliser components to warm water for 15 min. (Add some vinegar to the warm water, if necessary.)

DO NOT use boiling water to clean the nebuliser components.

- 3) DRY all the components thoroughly before storage.

TROUBLESHOOTING GUIDE

Problem	Probable cause	Solution
Power Interruption Alarm: Turn on the control panel, buzzer alarm, display not lit and device is not working.	1) Power cord and wall outlet have poor contact.	1) Re-insert the power cord into wall outlet securely.
	2) Wall outlet has no power output.	2) Change to another wall outlet.
	3) Low power from wall outlet.	3) Change to another wall outlet. Do not use an extension cord.
	4) Breaker reset button raised.	4) Press the breaker reset button.
	5) If the device is still not working, please contact the supplier.	
Concentrator is working, the operating sound is normal, the flowmeter knob can be adjusted but no oxygen output or weak output.	1) Leakage between humidifier bottle and cap.	1) Re-insert the power cord into wall outlet securely.
	2) The safety valve of humidifier is opened.	2) Change to another wall outlet.
	3) The connection between oxygen output and humidifier is leaking.	3) Re-install the humidifier tubing.
	4) The accessory (nasal cannula, mask, humidifier, tubing, ..., etc.) is leaking.	4) Replace the leaked accessory.
	5) If the issue persists, please contact the supplier.	

Symptom	Probable cause	Solution
Concentrator is working, but green light, yellow light are on at the same time.	1) 50% ≤ Oxygen Concentration ≤ 82%.	1) Clean or replace the filter.
	2) Oxygen flow rate over the maximum recommend flow rate: 5L/min	2) Adjust the flow rate only under the advice of a physician.
	3) If the issue persists, please contact the supplier.	
Concentrator is not working, the red light illuminate, buzzer alarm, the display shows "LO".	1) Oxygen Concentration ≤ 50%.	1) Clean or replace the filter.
	2) Oxygen flow rate over the maximum recommend flow rate: 5L/min	2) Turn off and turn on the device. Adjust the flow rate only under the advice of a physician.
	3) If the issue persists, stop using the device and contact the supplier immediately.	
Concentrator is not working, the red light illuminate, buzzer alarm, the display shows "E1".	1) System cycle pressure is too low.	1) Clean or replace the filter.
	2) If the issue persists, stop using the device and contact the supplier immediately.	
Concentrator is not working, the red light illuminate, buzzer alarm, the display shows "E2".	1) System cycle pressure is too high.	1) Stop using the device, contact the supplier immediately.
Concentrator is not working, the red light illuminate, buzzer alarm, the display shows "E3".	1) Compressor circuit is opened.	1) Stop using the device, contact the supplier immediately.

TROUBLESHOOTING

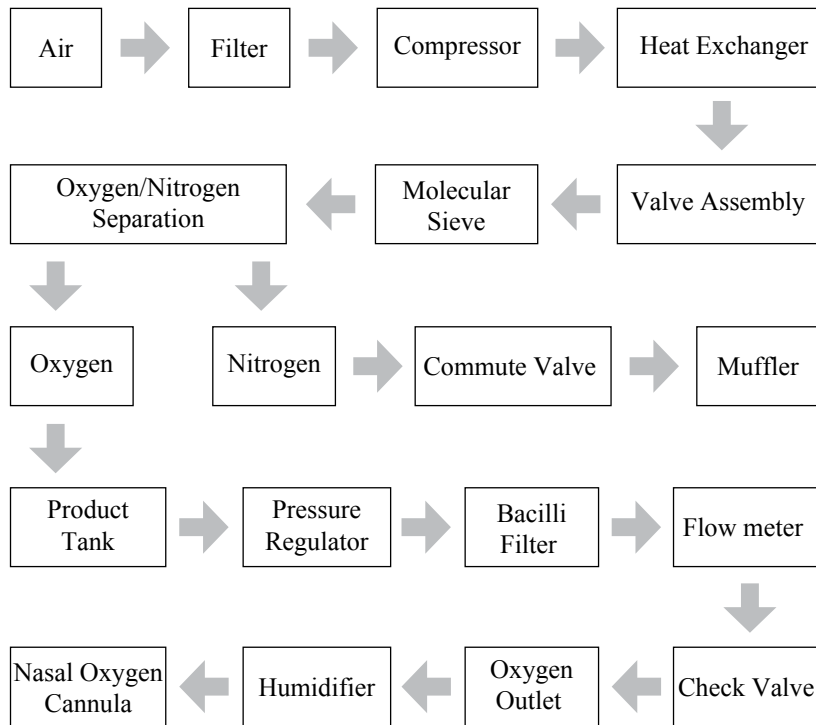
Symptom	Probable cause	Solution
Concentrator is not working, the red light illuminate, buzzer alarm, the display shows "E4".	1) Compressor circuit is closed.	1) Stop using the device, contact the supplier immediately.
The nasal cannula is fogged with vapour or full of liquid drops. (Remove the vapour or liquid drops method: Turn on the device and connect the tubing to the oxygen outlet. Use your finger to block and release the end of the tubing several times to remove the moisture and liquid.)	1) Poor ventilation around the device, operating temperature is too high.	1) Make sure the device is at least 10 cm away from the walls.
	2) The water added to humidifier is too hot.	2) Add cold water to humidifier.
	3) Added too much water into humidifier	3) Water added should between the maximum and minimum levels in humidifier.
	4) The device stops suddenly during operating.	4) Turn off the device immediately. Restart the device to remove the moisture and liquid.
	5) The tubing is kinked and the device stops suddenly.	5) Smooth the nasal cannula and tubing.
	6) Cooling fan inside the device stops running or spins slowly, making the operating temperature too hot.	6) Replace the cooling fan. Note: This should be performed by a qualified personnel only.
	7) If the issue persists, please contact the supplier.	

TROUBLESHOOTING

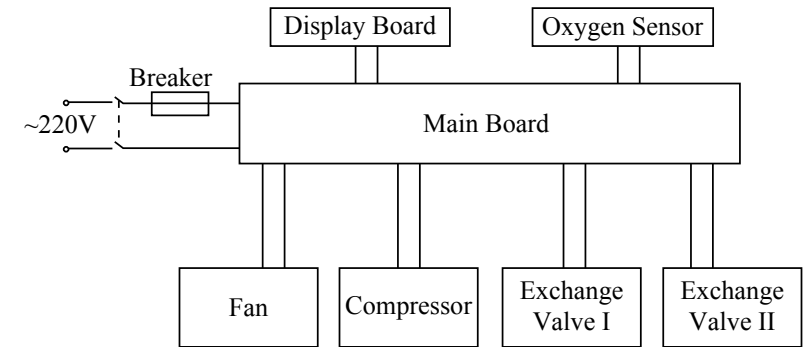
Symptom	Probable cause	Solution
*During nebulising operating, the nebulising rate is too low or not working.	1) Nebuliser components installed incorrect.	1) Install the nebuliser correctly (Figure 8).
	2) Nebuliser deformed due to washing or disinfection.	2) Replace the nebuliser.
	3) Nebuliser output is blocked.	3) Clean or replace the nebuliser.
	4) Added too much medicinal liquid into the nebuliser.	4) Add medicinal liquid into the nebuliser according to physician prescription and not over the maximum level.
	5) If the issue persists, stop using the device and contact the supplier immediately.	
Remote control malfunction.	1) Not using the remote controller in the receiving area.	1) Use the remote controller in front of the device.
	2) Low battery.	2) Replace the battery in the remote controller.

⚠ CAUTION: If you have any other problems, TURN OFF the concentrator first, use your reserve oxygen supply, and contact the supplier immediately.

I. GAS PASS OPERATION SKETCH MAP



II. ELECTRICAL RATIONALE



III. PACKING LIST

1. Oxygen Concentrator: 1 unit
2. User Manual: 1 piece
3. Filter: 1 piece
4. Nebuliser (Other Model): 1 set

IV. DEVICE DISPOSAL

Contact the local city or town offices for proper disposal instructions for oxygen concentrator.