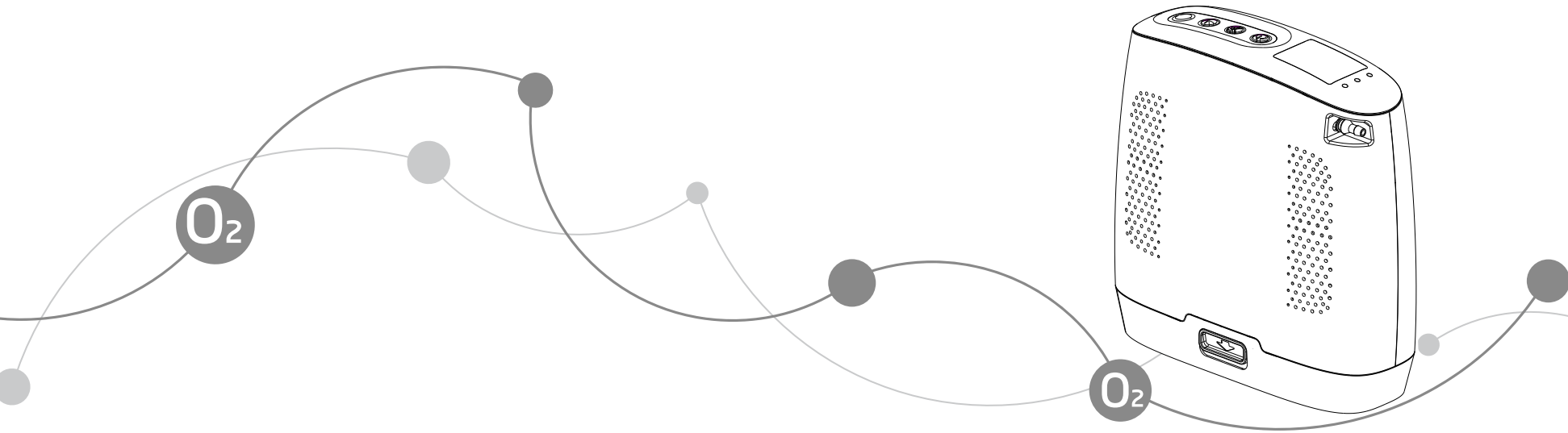


yuwell



Portable Oxygen Concentrator Model : Spirit-3

User Manual

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132603-0A



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

SAFETY NOTES

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WARNING: INDICATION FOR USE: This device designed to extract oxygen from atmospheric air. It will typically be an electrically-powered molecular sieve (artificial zeolite) used to separate nitrogen from room air. The oxygen concentration is variable, depending on the flow setting being utilized.



INTENDED USE: This oxygen concentrator is intended for individual use as an oxygen supplement device in the professional healthcare facility and home healthcare environment. It provides high concentration of oxygen to patients with respiratory disorders e.g. COPD (Chronic Obstructive Pulmonary Disease), LTOT (Long Term Oxygen Therapy) etc.

Users who require continuous oxygenation must plan for alternate reserve sources of power and oxygen in the event of a failure or loss of power and oxygen. This device is to be used as an oxygen supplement and is NOT considered life-supporting or life-sustaining.



WARNING:

CONTRAINDICATION: Oxygen poisoning and oxygen allergy user/patient DO NOT using this oxygen concentrator.

SIDE EFFECT: No side effect.

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.

SAFETY NOTES

Symbol	Description
	The symbol means mandatory (something that must be observed). The specific mandatory content shall be indicated by words or pictures in or near by the symbol. The figure on the left shows "general mandatory"
	The symbol means forbidden (something that is not allowed). The specific prohibited contents shall be indicated by words or pictures in or near the symbols. The figure on the left shows "general prohibition"

I . IMPORTANT MESSAGE

- ① To reduce the risk of electrical shock, DO NOT remove the cabinet. Only the qualified person could provide the services.
- ① Before operating the device, read and understand this manual.
 - The user should ensure the compatibility of the device and all of the parts and accessories used to connect to the patient before use.
 - The user should ensure that the oxygen delivery settings were determined and recorded for the patient individually together with the configuration of the equipment to be used, including accessories.
 - The user should periodically reassess the settings of the therapy for effectiveness.
 - The patient is an intended operator.

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II . BEFORE INSTALLATION

- Please use eligible, safe power set and power strip.
- ⊗ Non-professional people DO NOT open the oxygen concentrator's cabinet.

III . LOCATING

- Place the concentrator on a solid, flat surface that the operator can hear and see the alarms.
- ⊗ It is not allowed to place the oxygen concentrator in the air flow blocking environment.
- Be certain to place the device so all sides are at least 10 cm (4 inches) away from walls, draperies, furniture, or other obstruction. MUST place the oxygen concentrator in a well-ventilated area.
- Always place the device in the expected position that the operator can hear the audio alarming.
- ⊗ Oxygen concentrator MUST locate so as to avoid pollutants or fumes. Oxygen concentrator must avoid heat source, fire source, wetness, exorbitant or over-low extra environment condition.
- ⊗ Sundries and vessel do not be placed on top of the concentrator.
- ⊗ It is forbidden to place any sundries at the bottom of the oxygen concentrator, and it is forbidden to place the device on soft surfaces (such as beds, sofas...etc.) that may cause inclinations or sinks. Prevent the air inlet and exhaust ports from blocking, which may cause shutdown or decrease of oxygen concentration.

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IV. FIRE WARNING OR EXPLOSION

- ⚠ **WARNING:** There is a risk of fire associated with oxygen equipment and therapy. Do not use near sparks or open flame.
 - ⚠ **WARNING:** Smoking during oxygen therapy is dangerous and is likely to result in serious injury or death of the patient and others from fire.
 - ⚠ **WARNING:** Use only water based lotions or salves that are oxygen compatible during setup or use during oxygen therapy. Never use petroleum or oil-based lotions or salves to avoid the risk of fire and burns.
 - ⚠ **WARNING:** Do not lubricate replaceable fittings, connections, tubing, or other accessories of the device to avoid the risk of fire and burns.
 - ⚠ **WARNING:** Use only spare parts recommended by the manufacturer to ensure proper function and to avoid the risk of fire and burns.
 - ⚠ **WARNING:** Oxygen makes it easier for a fire to start and spread. Do not leave the nasal cannula on bed coverings or chair cushions, if the device is turned on, but not in use; the oxygen will make the materials flammable. Turn the device off when not in use.
 - ⚠ **WARNING:** Smoking during oxygen therapy is dangerous and is likely to result in facial burns or death. Do not allow smoking or open flames within the same room of the device or any oxygen carrying accessories. If you smoke, you must always turn the device off, remove the cannula and leave the room where either the cannula or the device is located. If unable to leave the room, you must wait 10 minutes after the flow of oxygen has been stopped.
- Oxygen concentrator should be kept away from flammable and explosive places.
 - Oxygen is a combustion supporting gas. Do not smoke when using, and keep away from matches, burned cigarettes and other combustible sources. Textiles and other normally non

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combustible materials are easily ignited and cause severe combustion in oxygen rich air. The neglect of this warning may lead to serious fire, property damage and personal injury or death.

- The use of oxygen therapy requires special care to reduce the risk of fire. Some materials will burn in the air, while others will not burn in the air, but will easily ignite and burn rapidly in oxygen rich environment. From the safety point of view, it is necessary to keep inflammables away from oxygen concentrator.
- Oil, grease or grease like substances contact with oxygen under a certain pressure will produce spontaneous combustion and violent combustion. These substances must be kept away from the oxygen concentrator, tubing, connectors, and all other oxygen devices. Do not use any lubricants other than those recommended by the manufacturer.

V. MAINTENANCE

- Only authorized or factory trained personnel should perform preventive maintenance or performance adjustments on the oxygen concentrator.
- The manufacturer recommends that the oxygen concentrator should be operated for no less than 30 minutes at a time. Do not turn on and off the oxygen concentrator frequently, and turn it on again after 3-5 minutes of shutdown, so as not to affect the service life of the compressor.

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VI. RADIO FREQUENCY INTERFERENCE

- This device is suitable for hospital, family and other buildings directly connected with civil low voltage network power supply.
- The radio frequency energy used by this machine only acts on the internal operation of the machine. Therefore, its radio frequency emission is very low and it is not to affect other electrical equipment nearby.
- As the number of radio frequency transmitting devices or other electrical noise sources increases sharply in medical places, serious interference caused by too close distance or too strong power of the transmitter may cause the machine to stop working.
- In case of such a situation, the use site should be checked to find out the interference source, and the following measures should be taken to eliminate the interference: (1) close the nearby equipment and then turn it on; (2) change the direction or position of the interference equipment; (3) increase the distance between the interference equipment and the device.

VII. 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 oxygen concentrator must be located in another room at least 2.5m from the bath.
- ⊗ Do not place or store the oxygen concentrator in places where water or other liquids are easy to drip.
- If the oxygen concentrator falls into the water, do not touch it. Cut off the power supply immediately and contact a qualified dealer or manufacturer.

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- ⊗ After the oxygen concentrator is connected to the power supply, do not leave the device unattended.
- The operation method of oxygen concentrator is detailed in this manual. If the user feels that there is insufficient oxygen, please contact the supplier or physician immediately and adjust the flow according to the physician's prescription.
- When using, if the device is close to children or people with inconvenient behavior, please supervise it.
- ⊗ Do not use parts, accessories or adapters that are not approved by the manufacturer. The use of accessories not specified by the oxygen concentrator will reduce the performance of the machine.
- ⊗ Do not connect this device in parallel or in series with other oxygen concentrator or oxygen treatment equipment.
- There are certain dangers in oxygen treatment in certain environments. Consult your doctor before recommending this product.
- Avoid any sparks in the vicinity of medical oxygen equipment, including sparks due to friction and static electricity.
- If the power cord or plug of the oxygen concentrator is damaged, if the device could not work properly, if the machine is dropped or damaged, please contact qualified maintenance personnel for inspection and repair.
- ⊗ Keep the power cord away from heated or heated surfaces.
- ⊗ Do not move oxygen concentrator when inserting power supply.
- ⊗ Do not drop or insert any substance into the opening of the device.
- The shelf life of the device is 5 years after manufacturing (includes all components, excepts single use consumable

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materials). And the Service Life is equal to the shelf life.

- In case of any accident during the use of the device, call the emergency hotline immediately and seek the help of professional medical staff.
- It can take up to 30 minutes to stabilize to deliver the set flowrate and concentration of oxygen to user after turn on the oxygen concentrator. Oxygen flowrate should be set according to the physician prescription.
- Patients with severe pulmonary disease should consult a professional doctor about the amount of oxygen inhalation.
- ⊙ The power cord and oxygen tubing may cause tripping or suffocation. When placing the power cord and oxygen tubing, it is necessary to avoid being trampled by personnel or squeezed or pressed by things.
- ⊙ DO NOT modify the oxygen concentrator in any way. Modifications could result in hazards to the user.
 - For the effectiveness of treatment, the oxygen output setting of the oxygen concentrator needs to be regularly evaluated by physician.
 - This device is not suitable for patients with pneumotomy.
 - This device does not contain latex accessories.
 - This device and accessories do not contain phthalates.
- ⊙ To reduce the risk of infecting another user or operator of reuse the oxygen concentrator, the cabinet should be cleaned by 75% alcohol before reuse. And all external tubing, cannula or other accessory should be replaced.

When not in use, do not leave the oxygen concentrator in
- ⊙ the vehicle to avoid danger caused by too high or too low temperature.

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- ⚠ WARNING: To ensure receiving the therapeutic amount of oxygen delivery according to your medical condition, Yuwell Spirit-3 Portable Oxygen Concentrator must
 - be used only after one or more settings have been individually determined or prescribed for you at your specific activity levels.
 - be used with the specific combination of parts and accessories that are in line with the specification of the device manufacturer and that were used while your settings were determined.
- ⚠ WARNING: The settings of Yuwell Spirit-3 Portable Oxygen Concentrator might not correspond with continuous flow oxygen.
- ⚠ WARNING: Wind or strong draughts can adversely affect accurate delivery of oxygen therapy.
 - using this device beside an open window or in front of a fan can affect the accuracy of delivery of oxygen.
 - using this device in the back seat of an open convertible car can affect the accuracy of delivery of oxygen.
- ⚠ WARNING: If you feel discomfort or are experiencing a medical emergency, seek medical assistance immediately to avoid harm.
- ⚠ WARNING: Geriatric, paediatric or any other patient unable to communicate discomfort can require additional monitoring to avoid harm.
- ⚠ WARNING: Use of this device at an altitude above 2000m or outside temperature of 5°C~40°C or relative humidity above 90% is expected to adversely affect the flowrate and the percentage of oxygen and consequently the quality of the therapy.
- ⚠ WARNING: Open flames during oxygen therapy are dangerous and is likely to result in fire or death. Do not allow open flames within 2 m of the oxygen concentrator or any oxygen carrying accessories.
- ⚠ WARNING: Against servicing and maintenance while the oxygen concentrator is in use.

FEATURES

I . SUMMARY

The oxygen concentrator is intended for individual use 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 to you through a nasal cannula. Clinical studies have documented that oxygen concentrators are therapeutically equivalent to other types of oxygen delivery systems.

This user's manual will tell you about your concentrator and will serve as a reference as you use your concentrator.

II . SCOPE OF APPLICATION

- Produce oxygen for anoxia patient usage.
- CONTRAINDICATIONS: Oxygen poisoning and oxygen allergy user/patient DO NOT using this oxygen concentrator.

III . CHARACTERS

*The product structure is mainly composed of oxygen concentrator, rechargeable lithium-ion battery, power supply (optional), DC power cord (optional), and nasal oxygen tube (optional).

*All plastic shell, safe and reliable.

*With time-consuming function: display the total working time through the display screen.

*Failure alarm function (including pressure failure alarm, compressor failure alarm, over heat alarm) and low oxygen concentration alarm.

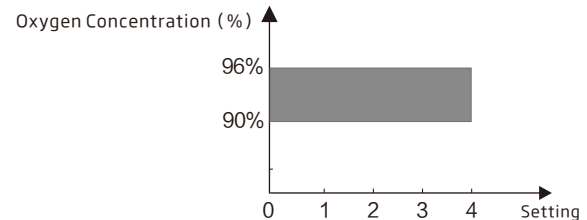
FEATURES

IV . WORKING PRINCIPLE

This device uses AC power supply / DC power supply / lithium-ion battery as power source, air as raw material, adopts high-quality molecular sieve, and through pressure swing adsorption separation (PSA) method at room temperature, to produce high-purity oxygen meeting the medical oxygen standard.

V . SPECIFICATIONS

1. Flowrate : Setting 1 - Setting 4.
2. Oxygen Concentration at Nominal Output (Measured after warm up 30minutes) : $\geq 90\%$
3. Maximum limited pressure: 150kPa
4. Chart of oxygen concentration versus rated flow rate



*at STPD (standard temperature and pressure dry) condition.

**STPD is 101.3 kPa at an operating temperature of 20 ° C, dry.

FEATURES

5. The rated range of delivered oxygen setting: Setting 1 to Setting 4.

Breath Rate, Breath/Minute (BPM)	Setting 1	Setting 2	Setting 3	Setting 4
	Pulse Volume (mL)			
15	14.0	28.0	42.0	50.0
20	10.5	21.0	31.5	37.5
25	8.4	16.8	25.2	30.0
30	7.0	14.0	21.0	25.0
35	6.0	12.0	18.0	21.4
40	5.3	10.5	15.8	18.8
Total Volume per Minute (mL/min)	210	420	630	750

+/-15% at STPD*

+/-25% over the rated environmental range

*STPD is 101.3 kPa at an operating temperature of 20 ° C, dry

6. Rated breath rate : 15BPM~40BPM

7. Inspiratory Trigger Sensitivity : $\geq -0.5\text{cmH}_2\text{O}$

8. Sound Pressure Level & Sound Power Level : $\leq 55\text{dB(A)}$ which tested @ Setting 4

9. Audio Alarm: : $\geq 53\text{dB(A)}$ which tested @ Setting 4

10. Input Power : 120W while charging

11. Power Source:

AC Power Supply: Input AC 100V-240V, 50Hz/60Hz

Battery: DC 14.4V

DC Power Supply: DC 12V-24V

12. Battery Charge Time: Maximum recharge time is 5 hours

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from fully discharged to fully charged, depending on the power source and usage.

13. Net weight :1.7kg (without battery); 2.2kg(with battery)

14. Dimensions : 22 × 8 × 22 (cm)

15. Altitude: Up to 5000 meters above sea level without degradation of concentration levels. Beyond 5000 meters below 90% efficiency

⚠ WARNING: Use of this device at an altitude above 1828m or outside a temperature of 5°C ~ 40°C or a relative humidity above 15% ~ 90% is expected to adversely affect the flowrate and the concentration of oxygen and consequently the quality of the therapy.

16. Safety System

* System Over Hot: Alarming and Shut Down

* Pressure Failure: Alarming and Shut Down;

* Compressor Failure: Alarming and Shut Down;

* Battery Over Hot: Alarming and Shut Down

* Low Oxygen Concentration: Alarming;

* No Breath Detected: Alarming;

* No Flow: Alarming;

* Low Battery: Alarming.

17. Minimum Operating Time: 30minutes

18. Electric classification: class II equipment, type BF applied part, IP20

19. Classification : over voltage category: II pollution degree: 2 altitude : $\leq 5000\text{m}$

20. Work system: work continuously.

21. Oxygen Output Temperature: $\leq 46^\circ\text{C}$

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22. Normal Operating Condition (with Oxygen Concentration Status Indicator):

Temperature range: 5°C ~ 40°C

Relative humidity: 15% ~ 90%

Atmosphere pressure: 540hPa ~ 1060hPa

⚠ CAUTION: When the ambient temperature, relative temperature and atmospheric pressure exceed the above normal working range, the performance of the oxygen concentrator may be reduced.

⚠ CAUTION: When the storage and transportation temperature is lower than 5 °C or higher than 40 °C, the equipment should be placed in the normal working temperature environment for more than four hours before use.

23. Storage and Transportation Condition:

Temperature range: -20°C ~ +55°C;

Relative humidity: 10% ~ 93% Non-condensing;

Atmosphere pressure: 540hPa ~ 1060hPa.

⚠ CAUTION: The device should be stored with no strong sunlight, no corrosive gas and well ventilated indoor area. The device must be transported and used in the vertical position only.

⚠ CAUTION: When storage/transportation condition is lower than the minimum temperature or higher than the maximum temperature, please put the device in normal operating condition more than 4 hours before operating.

HANDLING

I . UNPACKING

⚠ CAUTION: Unless use the oxygen concentrator, retain containers and packing materials for storage until use of the concentrator is required

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

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

OPERATING & INSTALLATION

I . FEATURE VIEW

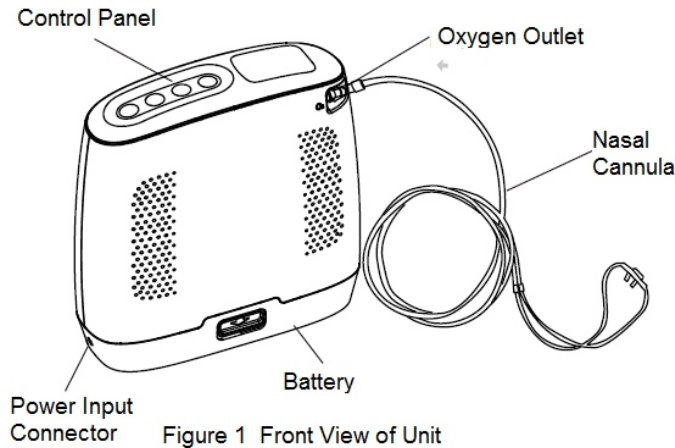


Figure 1 Front View of Unit

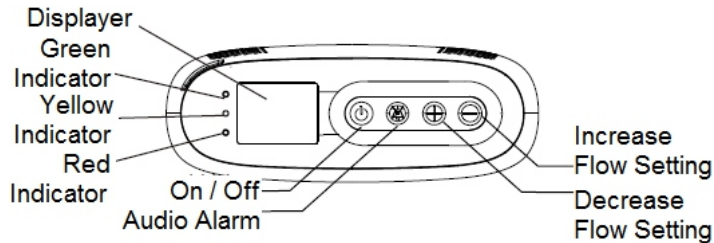


Figure 2 Control Panel



Figure 3 Displayer

OPERATING & INSTALLATION

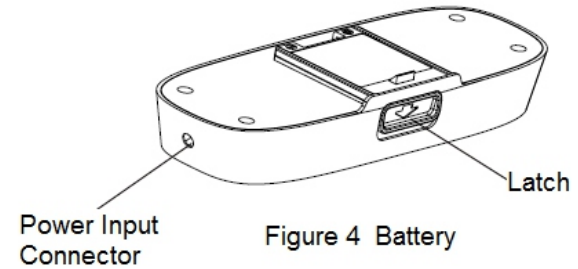


Figure 4 Battery

II . PREPARING

1. Place the oxygen concentrator in a well ventilated place and away from heat sources.
2. Install the battery.
3. Connect the AC power output plug into the battery power input connector. Connect the AC power plug to the power source.

DO NOT use extension power strip.

III . BATTERY OPERATION

Make sure the battery is installed in the correct position and charged. The oxygen concentrator will turn on and start working. The estimated percentage of remaining battery level (%) is shown on the display.

Symbol	Status
	Battery is empty.
	0 < Battery ≤ 25%
	25% < Battery ≤ 50%
	50% < Battery ≤ 75%
	75% < Battery ≤ 100%

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During operating, if the battery level is lower than 10%, the device will send out a yellow indicator and audio alarm. When the battery is low, perform one of the following:

- Use the AC power supply or DC Power cable as power source.
- Turn off the oxygen concentrator and replace a fully charged battery.
- If the battery is empty, charge the battery or remove the battery.

⚠ **CAUTION:** It is the responsibility of the patient to periodically check the battery and replace as necessary. Yuwell assumes no liability for persons choosing not to adhere to manufacturers recommendations.

▶ Battery Charging

To ensure that your battery is properly charged, check that the correct AC power supply or DC power cable is in use and that the plug is properly plugged into the power outlet. Observe the display indicating the state of charge.

Note: The battery should be fully charged before use for the first time.

▶ Battery Inserting

Note: The Spirit-3 is shipped from the factory with the battery removed.

⚠ **CAUTION:** Before operating, make sure that the oxygen concentrator is turned off and the cable on the power input connector has been removed.

Hold the Spirit-3 in one hand, and use the other hand to insert the battery into the bottom of the device by sliding battery into place until the latch returns to the upper position and a "click" sound occurs. As shown in Figure 5.

OPERATING & INSTALLATION

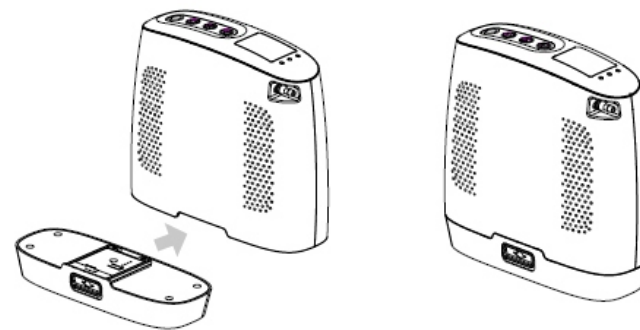


Figure 5

Battery Removing

Place the Spirit-3 on a flat position. Hold the device in one hand, use another hand to push the latch down and pull out the battery from the device. As shown in Figure 6.

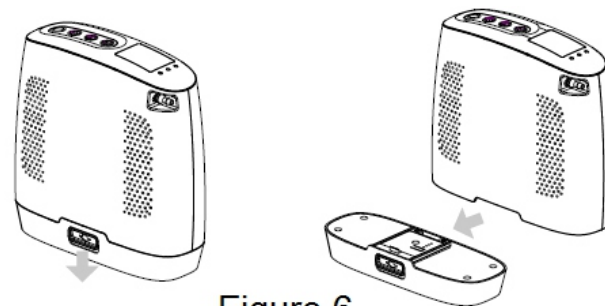


Figure 6

Note: When the battery is not installed, you can check the battery gauge on the battery to determine the amount of charge available.

OPERATING & INSTALLATION

IV. AC POWER SUPPLY

- The AC Power Supply is design for the usage of the Spirit-3 only.
- When operating, connect the power output plug into the Spirit-3 then connect the AC power plug to the power source. As shown in Figure 7.

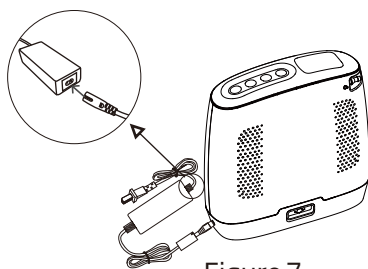


Figure 7

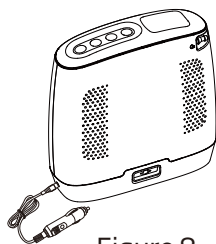


Figure 8

V. DC POWER CABLE

- The DC Power Cable is design for the usage of the Spirit-3 only.
 - When operating, connect cable into the Spirit-3 then connect the DC power plug (Cigarette Lighter Adapter) to the power source. As shown in Figure 8.
- ⚠ CAUTION: When operating in the vehicle, always start the engine is first, then connect DC cable into cigarette lighter adapter.
- ⚠ CAUTION: Operating the Spirit-3 by DC cable without the engine running may drain or damage the vehicle's battery.

OPERATING & INSTALLATION

VI. OXYGEN THERAPY OPERATING

- Press the On/Off Button to turn on the Spirit-3. The panel shows "yuwell" and the green/yellow/red indicators and alarm come on about 1 second then the yellow/red indicators and alarm will come off. After several seconds later, the displayer will show the battery level and unit status. The unit is operating normally.
 - Press the Increase/Decrease Flow Setting Button to adjust the oxygen delivery as required.
 - ⊘ Oxygen therapy operation time and flow setting MUST according to the physician's prescription.
 - ⊘ The oxygen delivery setting has to be determined for each patient individually with the configuration of the device is used, including accessories.
 - Connect the nasal cannula to the oxygen outlet fitting and the other end match the patient. The nasal cannula head should be placed in the nostril to start oxygen inhalation.
- ⚠ WARNING: During operating, if oxygen could not be inhaled, please check whether the tubing is blocked, kinked, damaged or the nasal cannula is not equipped in right place.
- ⚠ WARNING: The proper placement and positioning of the nasal canal in the nose is critical to the consistent operation of this device.
- ⚠ WARNING: Some respiratory efforts of the patient might not trigger the oxygen concentrator.

VII. ALARM SIGNAL

The Spirit-3 has the following failure alarm function:

- 1) Pressure failure
- 2) Compressor failure



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- 3) System over heat
- 4) Battery over heat
- 5) Low oxygen concentration
- 6) No breath detected
- 7) No flow
- 8) Low battery

Note: All the alarms are LOW PRIORITY.

After 5 minutes of power on, the oxygen transducer will work normally, and the indicators will be controlled according to the oxygen concentration value.

› Explanation of the indicators

Symbol	Status	Indicators
OK	1) SYSTEM OKAY: O2 concentration \geq 82% (+3%) 2) Detected breath signal	Green
	1) O2 concentration < 82% (+3%) 2) No breath detected 3) No flow 4) Low battery	Yellow
	1) Pressure failure 2) Compressor failure 3) System over heat 4) battery over heat	Red

Note: It can take up to 30 minutes to stabilize to deliver the set flowrate and concentration of oxygen to user after turn on the oxygen concentrator.

1. Green indicator illuminates, system status is normally; and the indicator also flash when detected the breath.


2. Yellow indicator illuminates, buzzer alarms and system keeps working; Please contact the supplier immediately, users

OPERATING & INSTALLATION





















can continue to use the device, and make sure that there has the alternate oxygen source nearby.

3. Red indicator illuminates, buzzer alarms, system shuts down: Turn off the device immediately. Use the alternate oxygen source and contact the supplier.



VIII.TURN OFF

After oxygen therapy operating, remove the nasal cannula or tubing from oxygen outlet fitting. Press the “” Button to turn off the Spirit-3.

IX.SYMBOLS

Symbol	Description	Symbol	Description
	Alternating current		Consult the manual
	Class II Equipment		Type BF Applied part
	No Smoking		Do Not Disassemble
	Fragile		Keep Up
	No Open Flame: Fire, open ignition source and smoking prohibited		Do Not Dispose of In Unsorted Municipal Waste
	Use No Oil or Grease		Power On/Off
	No open flame		Stacking Limitation
	Increase Flow Setting		Decrease Flow Setting
	External Power is Connected		Audible Alarm Disabled
	Humidity Limitation		Atmospheric Pressure Limitation

OPERATING & INSTALLATION

	Temperature Limitation		Refer to Instruction Manual
IP20	Enclosures Protection Classification The first characteristic number "2": Protected against access to hazardous parts with a finger. The second characteristic number "0": No protection from moisture.		
IP22 (in bag)	Enclosures Protection Classification The first characteristic number "2": Protected against access to hazardous parts with a finger. The second characteristic number "2": Against dripping(15° tilted).		

X. NASAL CANNULA

▸ Using method

Place the nasal aspirator at the nostril of the patient, and the tubing is surrounded by the external ear, and the movable buckle is adjusted to fix it; the horn mouth end is inserted into the oxygen outlet fitting of the oxygen concentrator, and when the oxygen concentrator is turned on, oxygen is input into the nasal cavity through the nasal cannula. (it is recommended to use the Yuwell Nasal Cannula, P/N 10017692)

- ⚠ **WARNING:** The nasal cannula can only be reused by individuals and should not be cross used to avoid cross infection.
- ⚠ **WARNING:** During use and storage, it is necessary to avoid sharp angle bending, external compression and winding.
- ⚠ **WARNING:** DO NOT store in the environment with toxic and corrosive gas, and it should be stored indoors with good ventilation.
- ⚠ **WARNING:** The waste treatment after use of the products shall be treated according to the requirements of the hospital or environmental protection department.

Cleaning and disinfection

Rinse with water, then put into 70-80% medical alcohol, cover and soak for 30 minutes for disinfection.

OPERATING & INSTALLATION

- ⚠ **WARNING:** After cleaning, the cannula should be dried then stored.
- ⚠ **WARNING:** It should be cleaned and disinfected after each use.
- ⚠ **WARNING:** For the first use after purchase or reuse after long-term storage, disinfection should be carried out before use.
- ⚠ **WARNING:** When it is used frequently, it is recommended to replace the cannula every two weeks or as needed.

XI.CARRY BAG

- The Carry Bag provides a protective case with an adjustable shoulder strap to help you to carry the Spirit-3 anywhere. The Spirit-3 can be operated by battery during transport with the Carry Bag.

1.Insert the oxygen concentrator upward into the bag through the zipper opening at the bottom of the bag, install the battery, and close the zipper.

2.The oxygen outlet is located at the top of the bag and exposed for connecting accessories. The displayer can be seen at the top of the bag.

3. Cleaning: clean with a damp cloth and mild detergent then dry.

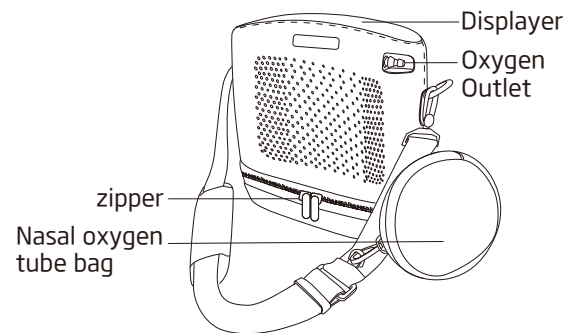


Figure 9 Carry bag

MAINTENANCE

⚠ WARNING: Before maintenance, cut off the power supply and take out the battery. To avoid electric shock, DO NOT remove the cabinet.

Regular Inspection: check at least once a month to check whether the appearance of oxygen concentrator, battery and power adapter is damaged, whether the power cord is in good condition, and whether there is abnormal noise in the operation of the machine. If necessary, please contact the equipment supplier for professional inspection.

▸ Regular Inspection

Check at least once a month to check whether the appearance of oxygen concentrator, battery and power supply is damaged, whether the power cord is in good condition, and whether there is abnormal noise in the operation of the oxygen concentrator. If necessary, please contact the supplier for professional inspection.

▸ Replacement Cycle of Sieve Beds

When the low oxygen concentration alarm occurs and the filter felt is cleaned or replaced, contact the supplier for maintenance or replacement.

I . MAINTENANCE OF BATTERY

- Wipe the battery case with a clean soft cotton cloth or sponge at least once a month.

When not in use for a period of time, remove the battery from the oxygen concentrator and store it separately.

Battery needs to be used and stored carefully to ensure stable performance and long service life. Only use the battery provided by Yuwell for the oxygen concentrator.

▸ Keep Dry

Store the battery in a cool and dry place.

MAINTENANCE

Keep the liquid away from the battery at any times. If the battery is damp, stop using immediately and dispose of the electricity properly.

▸ Temperature Effect of Battery Performance

The battery can supply power for up to 5 hours under most environmental conditions. In order not to affect the operation time of the battery, avoid long-term operation at the temperature lower than 5 °C or higher than 40 °C.

▸ Battery Level

Display the remaining battery level continuously. This value is only an estimate, and the actual remaining level may be different from this value.

II . CABINET CLEANING

- Wipe and clean the outside of the cabinet at least once a month: Cut off the power first, wipe it with clean and soft cotton cloth or sponge, and do not let the liquid seep into the gap of the cabinet.

III . FILTER FELT CLEANING AND REPLACEMENT

- The cleaning and replacement of filter felt is very important to protect compressor and molecular sieve and prolong the life of oxygen concentrator. Please clean and replace it in time.

⚠ WARNING: DO NOT operate the oxygen concentrator when the filter felt is not installed or wet, which will damage the device.

Filter Felt

Clean or replace once per 100 hours generally.

Disassembly

1. Remove the battery.
2. Screw out the screw fixing the filter cover which located at

MAINTENANCE

the bottom of the oxygen concentrator and remove the filter cover .

3. Remove the filter felt

The actual cleaning time of filter felt should be determined according to the actual use time and environmental impact.

If the filter felt is black or dirty, it should be cleaned or replaced immediately no matter how long it is used.

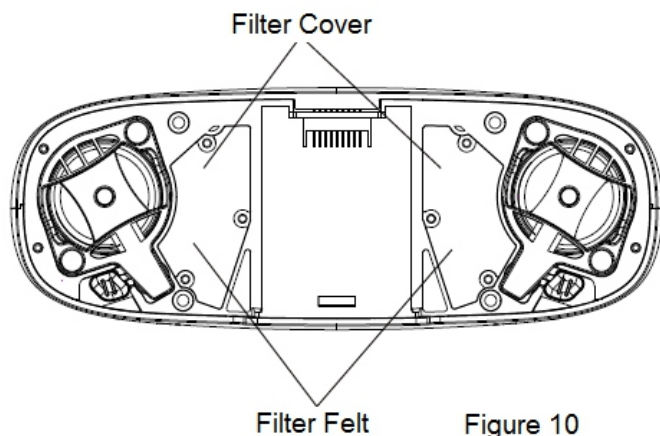


Figure 10

› Cleaning

First clean with light detergent, and rinse with clean water, must be dry, and then installed on the oxygen concentrator.

TROUBLESHOOTING

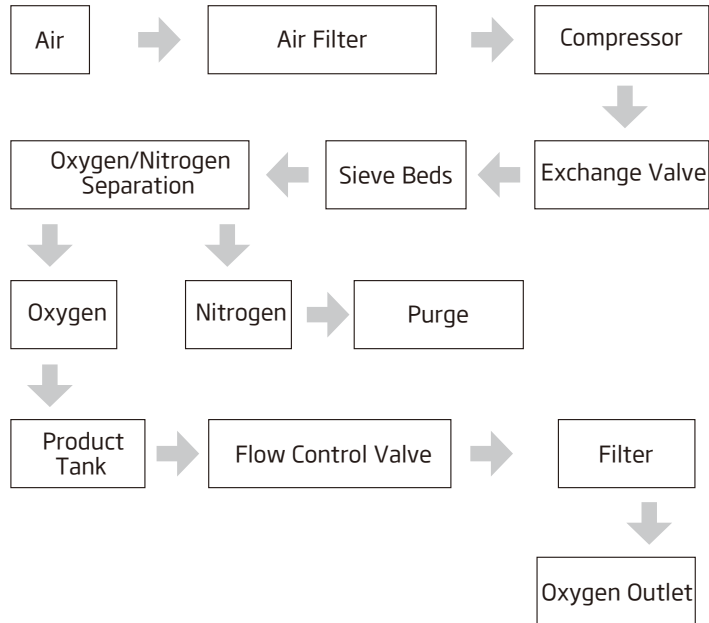
Troubleshooting Guide

Symptom	Probable Cause	Solution
Displayer is no working after installing battery and turning on.	Battery installed not in place.	Re-install the battery
	Battery is empty.	1) Change another battery. 2) Use AC power Supply or DC Power Cable to supply power.
	If the phenomenon persists, please contact the supplier.	
After turning on the device, device is working, but no oxygen output. or less.	Nasal cannula is broken.	Replace the nasal cannula.
	If the phenomenon persists, please contact the supplier.	
Device is working, but yellow indicator illuminates.	Oxygen concentrator < 82%	1) Clean or replace the filter felt. 2) If the phenomenon persists, please use the alternate oxygen source and contact the supplier.
	No flow	1) Check whether the pipeline is blocked. 2) Please use the alternate oxygen source and contact the supplier.
	No breath detected	Connect the nasal cannula to the oxygen outlet, wear it to the face, make sure there is no kink and breathe through the nose.
	Low battery level	1) Change another battery. 2) Use AC power Supply or DC Power Cable to supply power.
Device is not working, and red indicator illuminates.	Low pressure failure	Please use the alternate oxygen source and contact the supplier.
	High pressure failure	Please use the alternate oxygen source and contact the supplier.
	Compressor failure	Please use the alternate oxygen source and contact the supplier.
	Battery over heat	Please use the alternate oxygen source and contact the supplier.
	System over heat	Please use the alternate oxygen source and contact the supplier.

⚠ CAUTION: If there are other faults that cannot be eliminated, please contact the supplier or manufacturer.

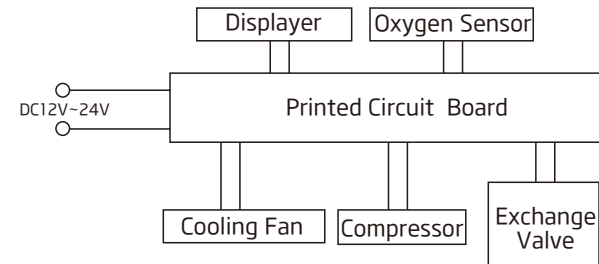
OTHER ATTENTION ITEMS

I .GAS PASS OPERATION SKETCH MAP



OTHER ATTENTION ITEMS

II .ELECTRICAL RATIONALE



III .PACKING LIST

1. Oxygen Concentrator: 1 unit
2. User Manual: 1 piece
3. Rechargeable Lithium-ion Battery: 1 piece
4. AC Power Supply: 1 piece
5. DC Power Cable: 1 piece
6. Filter Felt: 1 set (2 pieces)
7. Nasal Cannula: 1 piece
8. Carry Bag: 1 piece

IV.DEVICE DISPOSAL

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